東京帝國大學地震研究所

地震觀測報告

昭和10年 第1冊

SEISMOMETRICAL REPORT

OF THE

EARTHQUAKE RESEARCH INSTITUTE

TOKYO IMPERIAL UNIVERSITY

1935

Part 1

(January 1~March 31, 1935)

Published by the Institute
Tôkyô 1935

Seismometrical Report.

(Earthquake Research Institute, Tôkyô, Japan.)

(Part 1, 1935.)

(January 1~March 31.)

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(1) *Seismological stations in the Kwantô districts.*

List I.

Station	Coordinates						Approximate distance from Tôkyô (Hongô)
	Longitude (E)			Latitude (N)			
							km.
Tôkyô (Hongô)	139°	45′	59″	35°	42′	40″	0
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
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, 1935.*

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				Initial motion			Epicentre		Depth	Intensity
				Prel. tr.	Total	N.S.		E.W.		N(+) S(−)	E(+) W(−)	U(+) D(−1)	λ (E)	φ (N)		
						2A	T	2A	T							
			h m s	s	m	μ	s	μ	s	μ	μ	μ	°	°	km	
1	Tôkyô	Jan. 1	1 58 41·6	10·0	4	174	0·32	200	0·32	+ 2	− 2		139·87	35·55	60	I
	Komaba		1 58 43·8	9·8	4	124	0·24	190	0·24	+ 4	− 4					I
	Mitaka		1 58 44·2	10·1	4·5	**181	0·44	*125	0·38							
	Tukuba		1 58 45·9	10·5	1·6	16	0·25	18	0·32							I
	Kamakura		1 58 44·5	10·3	3	90	0·42	46	0·42	− 4	− 4	+ 40				I
	Misaki			11·2	4	54	0·54	62	0·54	− 0·8	− 1·7					
	Kiyosumi			10·8	3	38	0·47	60	0·47							I
	Titibu			11·4	2	60	0·48	36	0·48							
	Tôgane			10·4	3	86	0·78	170	0·78							
	Sakura			10·8	2	120	0·72	110	0·41							
	Koyama			13·9	2	124	0·68	232	0·77							
	Yosiwara			17·6	2	268	0·59	180	0·59							
	Susaki		1 58 51·9	17·2	1·5	5	0·3	9	0·3							
2	Tôkyô	1	22 05 53·2	12·0	5	80	1·49	87	1·49				139·27	34·97	20	I
	Komaba		22 05 54·2	11·2	10											
	Mitaka		22 05 55·7	10·8	6	**219	0·72	*138	0·72	+ 2	± 0					
	Tukuba		22 06 00·6	21·5	1·5											
	Kamakura		22 05 48·1	6·3	6	822	0·70	86	0·52	+ 5	± 0	+ 40				II
	Misaki			4·2	10	312	2·77	570	2·17	+28	+ 7					II
	Kiyosumi			9·3	5	190	2·53	356	2·53							I
	Titibu			14·7	5	29	1·36	116	1·55							
	Koyama			12·1	5	280	1·82	200	1·90							
	Yosiwara			8·9	3	120	0·78	208	0·78							
	Susaki		22 05 50·2	7·5	6	74	0·83	122	0·73	− 5	− 8					I

(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	Initial motion N(+) S(−)	Initial motion E(+) W(−)	Initial motion U(+) D(−1)	Epicentre λ (E)	Epicentre φ (N)	Depth	Intensity
			h m s	s	m	μ	s	μ	s	μ	μ		°	°	km	
3	Tôkyô	Jan. 3	23 55 05·3	7·1	10	2080	0·40	1909	0·50	− 6	+14		139·89	35·63	60	III
	Komaba		23 55 05·5	7·2	2+	1380	0·64	1380	0·48	−14	+36					II
	Mitaka		23 55 07·0	8·3	6	**824	0·54	*825	0·54	− 2	+14					II
	Tukuba		23 55 08·4	8·7	2+					+13	+ 2					II
	Kamakura		23 55 07·5	8·7	6·5	200	0·52	780	0·96	−slight	− 2	− 50				II
	Misaki			9·3	2+	567	0·74	920	0·74	+ 1·7	+1·3					II
	Kiyosumi			9·2	2+	154	0·67	190	0·67	−56	+16	+322				II
	Titibu				6	260	1·04	156	1·04							
	Tôgane			7·8	9	1210	1·16	1410	0·92	− 8	+16					III
	Sakura			6·9	9											
	Koyama			10·9	4	448	0·97	480	0·97	+12	+28					I
	Susaki		23 55 17·9	14·8	5	40	0·65	50	0·65	+ 0·6	+ 1·4					I
4	Tôkyô	3	23 57 04·0		1	100	0·40	100	0·40				After shock of No. 3			I
	Komaba		23 57 08·7	7·2	9	90	0·64	100	0·32							I
	Mitaka		23 57 04·7	8·4	1	** 63	0·21	* 82	0·21							
	Tukuba		23 57 06·0	8·4	1·3	80	0·24	9	0·19							I
	Kamakura		23 57 07·4		1	40	0·43	40	0·43							
	Misaki				1	79	0·59	117	0·59							
	Kiyosumi				1	14	0·40	12	0·40							
	Titibu				1	20	0·47	10	0·47							
	Tôgane				1	100	1·02	92	1·25							
	Sakura				1	56		70								
	Koyama				1	72	0·59	72	0·59							
5	Tôkyô	4	0 09 53·0	7·4	2	95	0·31	60	0·31				139·96	35·62	60	I
	Komaba		0 09 51·7	7·6	2	60	0·48	104	0·32							I
	Mitaka		0 09 53·5	8·2	2·5	** 45	0·33	* 51	0·33	± 0	+ 2					
	Tukuba		0 09 54·7	8·5	1·2	78	0·25	8	0·21							I
	Kamakura		0 09 58·0	5·0	1·5	18	0·21	18	0·21							
	Misaki			9·4	2·5	42	0·53	57	0·53							
	Kiyosumi			10·1	2	8	0·53	16	0·66							
	Titibu			13·8	2	16	0·52	8	0·52							
	Tôgane			7·5	2	60	0·47	48	0·47							
	Sakura			6·9	2	64	0·33	80	0·33							
	Koyama			12·9	2	48	0·59	44	0·59							
6	Tôkyô	19	7 43 42·4	5·5	6	965	1·66	1060	1·66				139·66	35·57	30	II
	Komaba		7 43 30·1	4·8	15	740	0·24	1870	0·24							II
	Mitaka		7 43 42·2	4·8	5	**582	0·70	*950	0·70	− 1	+ 1					II
	Tukuba															
	Kamakura		7 43 44·3	5·3	9	2300	0·52	1500	0·52	+66	+26	−250				III
	Misaki			7·8	13	950	0·92	785	1·40	+12	+ 0·8					
	Kiyosumi		7 43 48·4	9·2	6	490	1·64	780	1·64	+ 4	− 3	− 24				
	Titibu			9·8	7	160	0·72	232	0·79							
	Koyama			9·8	6	1440	1·16	1412	1·12	+ 8	+ 6					
	Yosiwara			11·4	5	136	0·78	320	0·78							I
	Susaki		7 43 53·6	13·2	5	880	0·65	840	0·49	+ 2·4	+ 1·8					
7	Tôkyô	19	16 58 27·8	7·0	2	130	0·32	155	0·32				139·66	35·66	40	I
	Komaba		16 58 26·8	4·9	2	270	0·24	316	0·24							I
	Mitaka		16 58 29·1	4·6	3	**140	0·31	*234	0·31							

(*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	Initial motion N(+) S(−)	Initial motion E(+) W(−)	Initial motion U(+) D(−)	Epicentre λ (E)	Epicentre φ (N)	Depth	Intensity
			h m s	s	m	μ	s	μ	s	μ	μ	μ	°	°	km	
7	Tukuba	Jan.19	16 58 37·3	9·8	1	30		40	0·25							
	Kamakura		16 58 31·8	5·1	1·5	36	0·20	35	0·20							
	Misaki			7·6	2	14	0·68	27	0·51							
	Kiyosumi			9·8	1·5	8	0·58	12	0·58							
	Titibu			8·9	1	12	0·58	12	0·58							
	Sakura			7·9	1·5	26	0·45	18	0·45							
	Koyama			10·0	2	52	0·35	60	0·35							
	Yosiwara			13·3	2	32	0·50	28	0·65							
8	Tôkyô	20	4 11 19·6	13·9	3	158	0·48	60	0·48				140·20	36·27	50	I
	Komaba		4 11 25·7	13·3	3	54	0·56	54	0·56							I
	Mitaka		4 11 22·0	14·3	3	** 34	0·44	* 24	0·34							
	Tukuba		4 11 11·8	7·8	1·8					−slight	− 3	+slight				III
	Kamakura		4 11 28·9	18·8	2	25	0·33	14	0·33							
	Misaki			20·7	3	8	0·79	8	0·79							
	Kiyosumi															
	Titibu			15·0	1·5	16	0·81	22	0·81							
	Sakura			10·7	2	28	0·43	56	0·43							
	Koyama			19·1	2	28	0·63	20	0·73							
9	Tôkyô	27	17 39 13·3	5·4	1	36	0·24	24	0·24				139·52	35·61	36	I
	Komaba		17 39 12·8	4·4	2	80	0·32	60	0·24							
	Mitaka		17 39 12·3	4·6	2	** 56	0·42	* 64	0·42							
	Tukuba		17 39 20·6	10·2	1											
	Kamakura		17 39 14·0	5·5	1·5	15	0·40	28	0·25							
	Titibu			8·6	1	4	0·33	4	0·33							
	Sakura			8·7	1	4	0·60	8	0·60							
	Koyama			9·5	1	24	0·32	24	0·43							
10	Tôkyô	31	13 55 01·8	8·7	3	68	0·25	54	0·25				140·00	36·14	40	I
	Komaba		13 55 03·7	8·1	3	50	0·16	74	0·32							I
	Mitaka		13 55 01·4	9·5	3	60	0·33	* 20	0·33							
	Tukuba		13 55 01·2	5·3	1·5			18	0·07	+slight	+siight	+slight				II
	Kamakura		13 55 05·0	10·8	2·5	20	0·59	26	0·59							
	Misaki			18·8	2	12	0·80	18	0·60							
	Kiyosumi		13 55 10·6	15·0	2	8	0·47	4	0·47	+ 1	− 0·5	− 5				
	Titibu			7·1	2	6	0·83	4	0·83							
	Koyama			13·3	2	52	0·95	64	0·95							
11	Tôkyô	Feb. 3	20 19 16·2	21·2	7	140	0·48	120	0·49				139·84	34·18		I
	Komaba		20 19 11·8	20·2	5	76	0·48	90	0·40							
	Mitaka		20 19 16·6	20·1	7	**118	0·77	* 56	0·51							
	Tukuba		20 19 22·1	24·6	2·3	44	0·32	45	0·24							
	Kamakura		20 19 13·1	16·4	5	138	0·47	51	0·47	+ 2	−slight					I
	Misaki			15·0	6	37	0·39	50	0·40	+ 1·7	− 0·8					
	Kiyosumi		20 19 04·1	15·3	3·5	48	0·54	58	0·54	+ 1	+ 1	+ 1·7				
	Titibu			23·0	3	17	0·64	18	0·64							
	Koyama			18·9	5	120	0·29	128	0·57							
	Yosiwara			19·2	3	144	0·47	128	0·47							
	Susaki		20 19 11·1	16·2	3	36	1·2	100	2·2	± 0	− 1					
12	Tôkyô	10	14 17 46·6	5·1	1	37	0·37	6	0·37				139·68	35·55	30	I

(*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	Initial motion N(+) S(−)	Initial motion E(+) W(−)	Initial motion U(+) D(−)	Epicentre λ (E)	Epicentre φ (N)	Depth	Intensity
			h m s	s	m	μ	s	μ	s	μ	μ	μ	°	°	km	
12	Komaba	Feb.10	14 17 45·3	5·3	2			26	0·32							
	Mitaka		14 17 45·7	5·0	1·5	** 65	0·21	* 46	0·26	− 1·3	+ 0·4					
	Kamakura		14 17 51·2	5·9	1	14	0·47	6	0·33							
13	Tôkyô	12	2 20 02·3	7·5	3	80	0·44	92	0·44	− 1·7	− 1·7	+ 25	139·73	36·09	40	I
	Komaba		2 20 04·1	8·5	3	90	0·40	100	0·32							
	Mitaka		2 20 03·9	8·8	4	**113	0·63	* 69	0·63							
	Tukuba		2 20 00·6	5·8				98	0·17							II
	Misaki			14·6	3	20	0·60	28	0·60							
	Kiyosumi		2 20 10·6	15·5	3	18	0·49	8	0·49							
	Titibu			9·3	2	48	0·31	38	0·31							
	Sakura			9·4	3	60	0·25	50	0·25							
	Koyama			15·5	3	91	0·73	200	0·82							
14	Tôkyô	18	23 56 21·4	10·6	5	120	0·40	92	0·33				139·00	35·43	25	I
	Komaba		23 56 17·0	9·1	4	120	1·12	50	0·40							
	Mitaka		23 56 17·4	8·1	5	** 76	0·62	* 50	0·62	+ 1·3	+ 2·2					
	Tukuba		23 56 28·7	15·3	2	74	0·40	108	0·37							
	Kamakura		23 56 14·2	7·3	3·5	324	1·67	250	1·33	+ slight	− 6	− 30				I
	Misaki			8·4	4	115	0·55	74	0·55	+ 2·9	− 2·5					
	Kiyosumi		23 56 24·2	12·9	4	16	0·76	14	0·76	+ 1	− 2	− 3·6				
	Titibu			8·1	3·5	74	0·40	80	0·40	− 4	− 2					
	Koyama			2·9	5	4720	0·78	4520	0·78							III
	Yosiwara			5·6	3	656	0·31	620	0·31	− 6·7	− 8·3					I
	Susaki		23 56 21·2	9·3	2	28	0·65	14	0·52	− 5	± 0					
15	Tôkyô	20	5 10 39·3	12·3	30	1688	1·87	4655	2·74	− 3	+150	−738	140·54	35·60	60	II
	Komaba		5 10 42·1	12·2	20					−14	+ 94	−300				II
	Mitaka		5 10 42·0	13·0	14	**550	0·85	*688	1·48	− 0·5	+ 1·3					II
	Tukuba		5 10 37·6	10·0	8					−56	+24					II
	Kamakura		5 10 44·4	16·5	14	3120	2·04	2600	2·04	+ 6	+52	−170				II
	Misaki			13·7	15	585+	3·00	520+	3·02	+ 1·7	+ 2·1					II
	Kiyosumi		5 10 38·4	10·4	15	1870	5·37	1570	4·80	− 1	− 0·5	+ 3·6				II
	Titibu			15·6	12	920	4·73	820	5·70	−10	+94					
	Koyama			19·1	15	1960	3·03	3160	3·47	± 0	+50					I
	Yosiwara			21·7	13	1568	3·47	2080	3·45							
	Susaki		5 10 53·0	24·0	15	380	4·0	440	4·0	+16·8	+19·6					I
16	Tôkyô	26	14 38 43·4	9·0	3	50	0·36	56	0·36				140·36	35·62	40	I
	Komaba		14 38 44·4	9·8	2	64	0·78	70	0·32							
	Mitaka		14 38 44·9	10·0	3	** 40	0·33	* 30	0·33							
	Tukuba		14 38 45·2	9·2	1·4	8	0·22	6	0·20							I
	Kamakura		14 38 45·9	8·8	1·5	32	0·49	20	0·39							
	Misaki			11·8	3	30	0·64	34	0·48							
	Titibu			14·3	2	8	0·41	4	0·41							
	Koyama			14·8	2	28	0·38	30	0·38							
17	Tôkyô	March 2	3 45 17·6	8·9	5	228	0·40	287	0·40				140·03	35·93	60	II
	Komaba		3 45 17·0	9·8	5	366	0·41	186	0·41							I
	Mitaka		3 45 16·8	10·4	5	**159	0·63	*114	0·63	+ 0·9	+ 0·9					
	Tukuba		3 45 13·3	7·5	2·8	60	0·34	85	0·34			+slight				II
	Kamakura		3 45 18·9	13·1	4	65	0·97	10	0·29							

(*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	Initial motion N(+) S(−)	Initial motion E(+) W(−)	Initial motion U(+) D(−)	Epicentre λ (E)	Epicentre φ (N)	Depth	Intensity
			h m s	s	m	μ	s	μ	s	μ	μ	μ	°	°	km	
17	Kiyosumi	March 2	3 45 19·0	13·0	3	24	0·63	15	0·63			+ 4				
	Titibu			13·3	3	36	0·43	34	0·43							
	Koyama			14·4	3·5	72	0·63	92	0·90							
18	Tôkyô	4	13 05 15·8	10·3	4	73	0·39	53	0·39				139·93	36·22	50	I
	Komaba		13 05 17·4	8·2	6	70	0·41	70	0·97							
	Mitaka		13 05 16·2	10·7	5	** 58	0·63	* 35	0·53							
	Tukuba		13 05 11·8	6·5	1·8			46	0·13							III
	Kamakura		13 05 22·6	12·9	3	56	0·36	29	0·36							I
	Kiyosumi		13 05 23·0	16·6	3	10	0·45	6	0·55							
	Titibu			12·1	3	34	0·32	32	0·32							
	Koyama			15·6	3·5	96	0·45	136	0·45							
19	Tôkyô	7	17 53 36·3	11·2	3	154	0·46	364	0·48				139·64	35·13	40	I
	Komaba		17 53 34·1	10·4	5	160	0·25	116	0·25							I
	Mitaka		17 53 36·2	10·7	4	**148	0·54	* 76	0·43	− 3	+ 0·4					
	Tukuba		17 53 43·5	15·6	2	17	0·44	14	0·40							I
	Kamakura		17 53 31·3	7·5	5	112	0·28	76	0·28							I
	Misaki			6·1	5	150	0·31	115	0·31	− 5·4	− 2·1					I
	Kiyosumi		17 53 32·6	7·1	3	36	0·43			+ 3		+ 21				I
	Titibu			14·7	2	12	0·50	12	0·50							
	Koyama			10·0	3·5	260	0·30	328	0·30							
20	Tôkyô	8	2 32 05·1	21·3	15	220	1·77	316	1·75				139·65	37·37	35	I
	Komaba		2 32 07·5	21·9	15											I
	Mitaka		2 32 04·8	21·8	13	**194	0·79	*119	0·90							
	Tukuba		2 31 56·7	14·8	3											I
	Kamakura		2 32 12·6	26·7	8	210	1·86	88	1·86	+ 6	+ 8	+ 20				I
	Misaki			29·0	10	114	1·64	89	1·64							
	Kiyosumi		2 32 16·0	31·0	10	46	1·82	30	1·82	− 3	+ 1	+ 4				
	Titibu			21·0	8	142	0·88	44	0·88	− 8	−10					
	Koyama			32·0	6	300	1·45	340	1·74							
21	Tôkyô	9	1 08 39·4	19·2	12	59	0·44	53	0·44				141·06	36·53	40	I
	Komaba		1 08 41·3	19·3	11	56	0·32	74	0·32							
	Mitaka		1 08 41·3	21·5	6	** 71	0·56	* 30	0·45							
	Tukuba			12·6	3·7	36										II
	Kamakura		1 08 43·9	26·5	5	40	0·68	70	1·14							
	Misaki			25·3	8			46	0·86							
	Kiyosumi		1 08 42·3	24·3	5	34	1·00	40	1·00			+ 1·7				
	Titibu			25·2	5	50	0·73	50	0·73							
	Koyama			29·5	5	92	1·00	100	1·00							
22	Tôkyô	14	23 16 10·5	17·9	8	167	0·50	115	0·43				139·18	35·24	120	I
	Komaba		23 16 18·8	16·1	5	130	0·62	90	0·77							
	Mitaka		23 16 10·4	17·1	5	**156	0·69	* 78	0·69							
	Tukuba		23 16 14·1	19·3	2·7	8	0·44	8	0·45							I
	Kamakura		23 16 10·5	15·0	3	158	0·66	46	0·55							
	Misaki			17·3	5	117	1·26	63	1·15	+ 0·3	− 0·8					
	Kiyosumi		23 16 10·4	18·1	4	80	1·01	32	1·01							
	Titibu				4	24	0·94	20	0·94							
	Koyama			15·6	3·5	52	0·63	80	0·45							

(*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	Initial motion N(+) S(−)	Initial motion E(+) W(−)	Initial motion U(+) D(−)	Epicentre λ (E)	Epicentre φ (N)	Depth	Intensity
			h m s	s	m	μ	s	μ	s	μ	μ	μ	°	°	km	
22	Yosiwara	March 14		15·7	2	48	1·61	58	1·61							
23	Tôkyô	26	18 02 53·8	4·7	2	182	0·41	224	0·41				139·90	35·65	35	I
	Komaba		18 02 52·8	4·9	3	96	0·32	110	0·55							I
	Mitaka		18 02 54·6	6·2	3	** 59	0·75	* 45	0·64							
	Tukuba			8·2	1											
	Kamakura		18 02 58·8	9·0	2	25	0·30	32	0·39							
	Misaki			10·0	2	31	0·67	8	0·67							
	Kiyosumi		18 03 01·2	8·9	2	9	0·56	6	0·83							
	Titibu			8·1	2	10	0·40	4	0·47							
	Koyama			11·4	2	16	0·57	24	0·57							
	Yosiwara			12·2	1·5	10	0·70	40	0·70							
24	Tôkyô	31	6 20 17·3	27·2	40	800	1·36	600	1·48				141·80	37·23		II
	Komaba		6 20 17·8	24·2	18											II
	Mitaka		6 20 18·5	28·7	21	**1063	1·50	*988	1·50	+ 0·4	+ 0·4					
	Tukuba		6 20	21·8	9											III
	Kamakura		6 20 28·5	28·9	15	850	1·58	2050	4·30							I
	Misaki			32·3	20	675	2·43	665	2·43	+ 2·5	+ 3·3					
	Kiyosumi		6 20 17·7	31·0	15	1080	2·81	1544	3·73							
	Titibu			31·2	16	1410	3·80	1320	3·83							
	Koyama			34·0	10	740	1·31	*820	1·31							I
	Yosiwara			41·3	15	100	1·26	130	1·58							
	Susaki		6 20 37·6	39·3	25	420	13·00	148	10·00	+ slight	− slight					

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

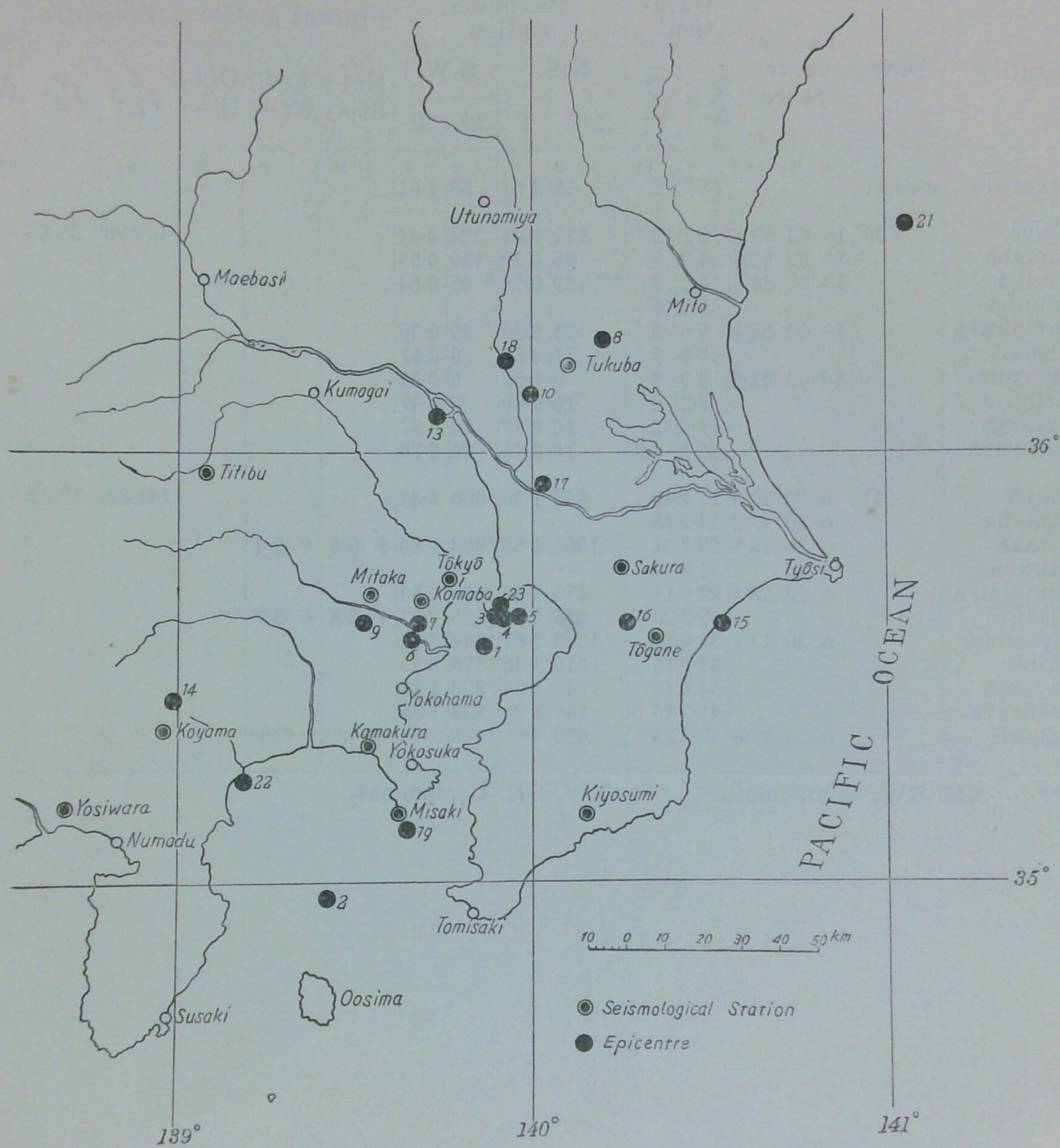

Fig. 1. Distribution of the epicentres of the sensible earthquakes in Tôkyô for the period January 1~March 31, 1935. (Figures attached to each dot are the earthquake number in List II.)

東京帝國大學地震研究所

地震觀測報告

昭和10年 第2冊

SEISMOMETRICAL REPORT

OF THE

EARTHQUAKE RESEARCH INSTITUTE

TOKYO IMPERIAL UNIVERSITY

1935

Part 2

(April 1~June 30, 1935)

Published by the Institute
Tôkyô 1935

Seismometrial Report.

(Earthquake Research Institute, Tôkyô, Japan.)

(Part 2, 1935.)

(April 1~June 30, 1935.)

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(1) *Sensible earthquakes in Tôkyô for the period April 1~June 30, 1935.*

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 =Rang 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				Initial motion			Epicentre		Depth	Intensity
				Prel. tr.	Total	N.S.		E.W.		N(+) S(−)	E(+) W(−)	U(+) D(−)	λ (E)	φ (N)		
						2A	T	2A	T							
			h m s	s	m	μ	s	μ	s	μ	μ	μ	°	°	km	
25	Tôkyô	April 4	22 22 19·6	27·3	20	190	0·83	116	0·58				141·70	37·26		I
	Komaba		22 22 15·6	26·3	10	98	0·65	200	0·81							I
	Mitaka		22 22 24·5	27·7	10	*30	1·10	* 23	1·10							
	Tukuba		22 22 12·3	21·6	5·5											
	Kamakura		22 22 30·6	31·6	8	22	0·29	184	1·05							
	Misaki			32·7	10	104	1·00	150	1·88	+ 0·8	+ 0·8					
	Kiyosumi		22 22 25·3	31·7	5	40	1·54	70	1·54	+ 1						
	Titibu			30·7	7	76	1·04	110	0·78							
	Koyama			30·7	7	590	2·29	340	2·29	+ 8	+16					
	Yosiwara			33·8	6	120	1·07	120	1·07							

(*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	Initial motion N(+) S(−)	Initial motion E(+) W(−)	Initial motion U(+) D(−)	Epicentre λ (E)	Epicentre φ (N)	Depth	Intensity
			h m s	s	m	μ	s	μ	s	μ	μ	μ	°	°	km	
26	Tôkyô	April 9	9 22 14·6	8·5	2	116	0·33	156	0·33				139·90	35·62	60	I
	Komaba		9 22 14·9	8·1	3	120	0·32	122	0·41							I
	Mitaka		9 22 15·4	9·4	3	141	0·77	56	0·55							
	Tukuba		9 22 15·6	9·3	2	16	0·22	12	0·26							
	Kamakura		9 22 17·3	9·4	2	14	0·21	23	0·21							
	Misaki			10·2	3	20	0·42	37	0·56	− 0·4	− 0·4					
	Kiyosumi		9 22 26·4	9·6	2	22	0·45	20	0·45							
	Titibu			12·9	2	20	0·43	20	0·43							
	Koyama			13·9	2	52	0·45	64	0·36							
	Yosiwara			17·2	2	28	0·38	40	0·38							
27	Tôkyô	9	17 19 17·2	26·3	11	400	1·98	510	1·98				138·00	34·95	30	I
	Komaba		17 19 15·7	22·8	10	380	2·4	274	1·2							I
	Mitaka		17 19 14·2	23·1	8	731	1·37	325	1·37							
	Kamakura		17 19 11·6	19·4	8	590	0·64	248	0·64	+ 4	+ 6	+ 45				I
	Misaki			20·9	9	322	2·47	175	2·27							
	Kiyosumi		17 19 18·2	31·8	9	60	2·35	86	2·51							
	Titibu			19·7	10	330	1·60	550	1·38	− 4	− 4					
	Koyama			14·2	7	1240	0·59	1220	0·59	+ 8	+40					II
	Yosiwara			10·6	10	3550	0·63	2400	0·63							III
	Susaki		17 19 03·0	10·5	6	230	1·5	180	1·5	− 8	+34					I
28	Tôkyô	12	0 25 22·9	18·5	15	543	0·82	500	0·88				140·67	36·90	40	II
	Komaba		0 25 28·4	18·8	14	380	0·8	210	0·96							II
	Mitaka		0 25 29·5	19·2	10	375	0·85	166	1·04							
	Tukuba		0 25 19·7	12·2	6											III
	Kamakura		0 25 34·9	22·3	10	160	1·4	232	1·4							I
	Misaki			21·7	12	253	2·27	162	2·27							
	Kiyosumi		0 25 34·6	23·1	13	90	1·88	164	2·03							I
	Titibu			19·3	8	316	1·69	215	1·46	− 3	− 8					
	Koyama			26·7	6	860	2·38	1460	2·38							I
	Susaki		0 25 44·1	24·2	7	16	1·0	28	1·0							
29	Tôkyô	15	20 15 53·8	34·5	10	80	0·41	94	0·41				137·18	36·29		I
	Komaba		20 15 56·4	29·0	6	70	0·45	80	0·73							
	Mitaka		20 15 50·3	33·8	9	162	1·11	83	1·11							
	Tukuba		20 15 52·2	33·6	5											II
	Kamakura		20 15 52·5	33·8	8	124	0·74	124	0·74							
	Misaki			36·2	7	50	1·69	73	1·68							
	Kiyosumi		20 15 56·9	40·5	9	48	1·33	72	1·66							
	Titibu			29·8	8	190	1·48	116	1·12	− 2	+ 1					
	Koyama			32·7	8	1984	2·65	1528	2·65	+20	−20					
	Yosiwara			31·1	7	760	1·80	224	1·80							
	Susaki		20 15 53·9	34·7	8	210	3·0	250	2·6							
30	Tôkyô	19	1 30 50·1	7·4	10	196	0·55	110	0·55				139·93	36·10	40	II
	Komaba		1 30 51·7	8·3	7	150	0·55	290	0·39							II
	Mitaka		1 30 51·2	8·5	6	531	0·89	204	0·89							
	Tukuba		1 30 48·3	5·5	3·5											II
	Kamakura		1 30 56·0	12·2	6	160	0·54	124	0·63							
	Misaki			13·3	5	60	0·73	96	0·60							
	Kiyosumi		1 30 56·3	13·3	7	56	0·90	30	0·90	+ 4	− 2	− 18				
	Titibu			9·3	5	80	0·49	76	0·39							
	Koyama			14·7	5	500	0·79	380	0·63							

(*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	Initial motion N(+) S(−)	Initial motion E(+) W(−)	Initial motion U(+) D(−)	Epicentre λ (E)	Epicentre φ (N)	Depth	Intensity
			h m s	s	m	μ	s	μ	s	μ	μ	μ	°	°	km	
30	Susaki	April 19	1 31 04·3	19·0	2	5	0·42	10	0·4							
31	Tôkyô	21	12 23 36·3	19·5	9	156	0·49	180	0·57	+19	− 9		139·00	36·47		I
	Komaba		12 23 36·0	18·4	6	150	0·40	270	0·48							I
	Mitaka		12 23 35·7	18·0	7	*188	1·06	*150	0·83							
	Tukuba		12 23 34·6	17·4	4											II
	Kamakura		12 23 38·7	20·4	7	230	0·52	134	0·52							I
	Misaki			21·1	7	75	0·88	46	0·82							
	Kiyosumi		12 23 43·7	23·0	7	60	0·72	50	0·67	+ 1	− 1	− 7				
	Titibu			15·3	5	116	0·69	125	0·46							
	Koyama			20·4	6	360	0·47	340	0·47	+ 8	+ 8					
	Yosiwara			21·3	10	280	0·53	160	0·53							
	Susaki		12 23 44·8	24·6	4	28	0·62	32	0·70	+ 6	− 2					
32	Tôkyô	27	11 27 10·9	9·2	10	252	0·46	284	0·46		− 4	− 80	139·36	35·86	40	II
	Komaba		11 27 10·8	8·5	5	200	0·40	226	0·32		−16	−160				I
	Mitaka		11 27 09·8	7·9	7	*460	0·80	*202	0·70	+ 1	− 1					
	Tukuba		11 27 13·5	9·6	2·3											I
	Kamakura		11 27 13·0	10·0	4	22	0·32	102	0·65	+ 4	−30					
	Misaki			11 7	4	25	0·40	25	0·40	+ 0·8	− 0·8					
	Kiyosumi		11 27 16·8	13·1	4	18	0·36	17	0·73	+ 1	− 0·6	− 4				
	Titibu			7·7	5	104	0·39	86	0·39	+ 8	−10					I
	Koyama			9·9	2+	600	0·34	620	0·34	+16	+14					I
	Yosiwara			13·1	4	100	0·75	88	0·75							
	Susaki		11 27 19·9	15·6	2·5	13	0·4	18	0·7							
33	Tôkyô	May 1	1 13 24·4	9·0	8	343	0·86	335	0·86	− 1·2	+ 2·5	− 20	140·07	35·62	60	II
	Komaba		1 13 25·3	9·2	10	490	0·72	210	0·40							II
	Mitaka															
	Tukuba		1 13 26·2	9·4	3											I
	Kamakura		1 13 25·7	9·4	5	186	0·60	156	0·40	+ 4	+ 4					II
	Misaki			10·4	5	148	0·65	125	0·65	+ 1·2	+ 0·8					
	Kiyosumi		1 13 24·6	8·5	5	76	0·72	96	0·72	− 1	+ 0·5	+ 11				I
	Titibu			14·3	3	46	0·77	34	0·96							
	Koyama			12·8	3	120	0·69	120	0·69							
	Yosiwara			13·1	3	110	0·57	120	0·57							
	Susaki		1 13 35·5	15·7	2	8	0·49	12	0·66							
34	Tôkyô	23	20 39 07·7	12·2	5	70	0·58	30	0·74			− 20	140·61	35·65	45	I
	Komaba		20 39 09·8	11·2	5	40	0·40	40	0·32							
	Mitaka		20 39 10·3	1·43	4	*25	0·65	*24	0·76							
	Tukuba		20 39 06·4	9·2	1·5											I
	Kamakura		20 39 12·7	16·4	4	22	0·53	40	0·53							
	Misaki			15·1	3	29	1·41	25	0·94							
	Kiyosumi		20 39 06·7	11·1	4	47	0·53	24	0·53							
	Titibu			17·8	3	6	0·75	8	0·65							
	Koyama				4	40	0·90	32	0·90							
	Yosiwara			23·3	3	24	1·03	24	0·90							
35	Tôkyô	31	2 54 00·5	8·6	2	34	0·54	25	0·48				139·99	35·75	60	I
	Komaba		2 54 02·5	8·2	3	40	0·23	70	0·23							
	Mitaka		2 54 01·4	10·5	2	*36	0·35	*25	0·23							
	Tukuba		2 54	9·1	1											
	Kamakura		2 54 04·2	9·3	1	7	0·33	10	0·33							

(*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	Initial motion N(+) S(−)	Initial motion E(+) W(−)	Initial motion U(+) D(−)	Epicentre λ (E)	Epicentre φ (N)	Depth	Intensity
			h m s	s	m	μ	s	μ	s	μ	μ	μ	°	°	km	
35	Misaki	May 31		11·8	2	18	0·54	15	0·50							
	Kiyosumi		2 54 01·6	11·8	2	6	0·51	8	0·51							
36	Tôkyô	June 3	11 35 43·1	6·8	6	516	0·57	284	0·57				140·06	35·91	40	I
	Komaba		11 35 34·2	8·0	5	248	0·77	340	0·62							I
	Mitaka		11 35 47·2	8·8	4	**163	0·82	*194	0·82							
	Tukuba		11 35	6·3	1·5											I
	Kamakura		11 35 48·9	11·7	4	64	0·34	38	0·39							
	Misaki			11·3	4	63	1·05	29	1·05							
	Kiyosumi		11 35 48·6	10·6	4	34	0·51	36	0·41							
	Titibu			13·1	3	36	0·69	16	0·65							
	Koyama			14·9	3	80	0·58	64	0·58							
	Yosiwara			16·7	3	32	0·65	52	0·65							
37	Tôkyô	5	5 33 43·9	7·2	4	110	0·24	94	0·24				139·93	36·08	35	I
	Komaba		5 33 44·0	7·5	5	90	0·40	105	0·24							II
	Mitaka		5 33 45·6	8·5	4	**243	0·98	*166	1·12							
	Kamakura		5 33 51·4	10·6	4	6	0·32	70	0·64							
	Misaki			13·9	4	46	0·84	46	0·90							
	Kiyosumi		5 33 50·0	13·7	4	16	0·83	22	0·95	+ 1	− 0·5	− 7				
	Titibu			10·3	3	44	0·57	30	0·57							
38	Tôkyô	5	9 43 03·6	9·3	2	55	0·31	54	0·31				140·05	36·22	40	I
	Komaba		9 43 05·6	10·0	4	46	0·33	70	0·33							
	Mitaka		9 43 06·6	9·8	3	** 23	0·28	* 30	0·34							
	Tukuba		9 42 59·5	5·4	2											III
	Kamakura		9 43 11·8	13·6	2	10	0·43	24	0·43							
	Misaki			16·6	3											
	Kiyosumi		9 43 10·0	15·8	2	4	0·80	10	1·14							
	Titibu			11·5	2	12	0·37	12	0·37							
	Koyama			16·8	3	232	0·95	172	0·95							
39	Tôkyô	8	13 57 23·0	10·3	10	515	0·66	566	0·66				140·09	36·08	40	II
	Komaba		13 57 23·9	9·7	9	340	0·41	340	0·32	+12	+ 8	−90				II
	Mitaka		13 57 25·2	11·0	7	**381	0·98	*296	0·90	+ 3	+ 3					
	Tukuba		13 57 20·6	7·1	2											II
	Kamakura		13 57 27·5	12·7	7	125	0·65	155	0·65							I
	Misaki			13·0	7	262	0·55	288	0·55	+ 2·9	+ 1·7					
	Kiyosumi		13 57 25·9	13·1	4	60	0·71	74	0·71	+ 1	− 1	− 7				
	Titibu			11·2	4	60	0·56	43	0·79	+ 2	+11					
	Koyama			16·1	4	236	0·62	344	0·58							I
	Susaki		13 57 36·6	17·9	4	18	0·4	14	0·4							
40	Tôkyô	12	11 44 03·1	10·4	4	92	0·24	135	0·24				138·90	35·54	30	I
	Komaba		11 44 02·8	9·9	4	200	0·32	130	0·42							I
	Mitaka		11 43 56·8	9·3	4	**179	0·31	*103	0·26							
	Tukuba															I
	Kamakura		11 44 01·3	8·4	3	222	0·75	190	0·45							I
	Misaki			10·1	4	147	0·61	100	0·61	+ 1·3	− 0·8					
	Kiyosumi		11 44 16·2	15·5	4	6	0·56	6	0·56							
	Titibu			7·7	3	22	0·36	24	0·36							
	Koyama			4·0	3	760	0·32	732	0·32	−38	+12					II
	Yosiwara			7·1	3·5	136	0·37	176	0·37							

(*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	Initial motion N(+) S(−)	Initial motion E(+) W(−)	Initial motion U(+) D(−)	Epicentre λ (E)	Epicentre φ (N)	Depth	Intensity
			h m s	s	m	μ	s	μ	s	μ	μ	μ	°	°	km	
41	Tôkyô	June 15	6 09 48·4	13·8	30	1370	1·36	2200	1·36	+ 1	− 1		140·35	34·86	40	III
	Komaba		6 09 48·9	12·8	17	1820	1·20	1680	1·20							III
	Mitaka		6 09 49·3	14·9	15	**1406	1·09	*1188	1·09							III
	Tukuba		6 09 52·1	19·2	6											I
	Kamakura		6 09 47·4	11·1	10	2230	2·00	500	0·50	−16	+ 25	−150				II
	Misaki			8·9	11	158	1·10									II
	Kiyosumi		6 09 40·4	7·2	22	2500	1·80	3050	1·80	− 7	− 2	−140				III
	Titibu			19·7	11	530	2·06	265	2·06							
	Koyama			16·1	5+	812	0·64	900	0·64	−20	+ 56					I
	Yosiwara			19·7	13	40	0·56	96	0·56							
	Susaki		6 09 50·1	14·8	17	116	1·2	120	1·1	+ 6	+ 26					I
42	Tôkyô	21	4 29 49·8	9·4	15	690	0·64	720	0·64	−13	− 8		140·00	36·18	50	II
	Komaba		4 29 52·8	10·8	12	690	0·40	760	0·40	−10	− 6	+ 40				II
	Mitaka		4 29 51·7	10·4	11	**313	0·42	*556	0·63	− 4	− 0·8					
	Tukuba		4 29 45·2	5·9	6											IV
	Kamakura		4 29 56·7	14·5	7	358	0·43	200	0·52	+ 4		− 20				I
	Misaki			16·4	7	228	0·48	150	0·48	+ 1·7						
	Kiyosumi		4 29 56·6	15·2	5	130	0·98	260	0·98	+ 4	− 2	− 29				II
	Titibu			10·8	10	310	0·47	302	0·47	+ 3	+ 7					
	Koyama			14·5	3+	460	0·62	1200	0·88							I
	Yosiwara			17·6	7	224	0·63	220	0·63							
	Susaki		4 30 06·2	20·7	5	16	0·4	32	0·5							
43	Tôkyô	21	12 16 05·3	9·8	5	75	0·49	30	0·49				139·97	36·17	40	I
	Komaba		12 16 07·2	10·0	4	80	0·32	90	0·32							
	Mitaka		12 16 06·3	11·2	5	** 28	0·34	* 44	0·34							
	Tukuba		12 16 01·4	5·6	2											II
	Kamakura		12 16 13·1	14·1	3	13	0·34	20	0·34							
	Kiyosumi		12 16 11·2	15·3	2	8	0·54	4	0·54							
	Titibu			11·3	2	10	0·40	12	0·40							
	Koyama				2	40	0·64	64	0·64							
44	Tôkyô	29	3 48 39·4	14·4	10+	317	1·05	900	1·26				140·00	34·73	30	II
	Komaba		3 48 40·5	15·4	20	290	0·51	840	1·54							II
	Mitaka		3 48 40·7	14·9	9	**313	0·70	*582	0·92							II
	Tukuba		3 48	17·0	1·5											
	Kamakura		3 48 37·8	10·6	7	170	0·55	748	0·55	− 4	+ 4	− 30				I
	Kiyosumi		3 48 30·0	7·2	10+	300	1·61	636	1·61	+ 4		+ 63				II
	Titibu			20·7	10	125	1·10	136	1·10							
	Koyama			15·5	5	180	0·82	300	0·82							
	Susaki		3 48 41·8	12·9	4	48	1·2	44	1·2							
45	Tôkyô	29	3 58 13·5	14·6	25	1200	1·75	4000	1·82				140·20	34·79	40	III
	Komaba		3 58 12·6	15·4	20	1190	0·68			−18	+ 8	−150				III
	Mitake		3 58 14·5	14·9	23	**1770	1·79	*791	1·68	− 2·2	+ 1·3					III
	Tukuba		3 58	19·8	2											I
	Kamakura		3 58 11·2	10·3	10	1100	0·49	2500	0·82	−58	+ 76	−420				III
	Kiyosumi		3 58 05·4	7·2	20	1600+	2·62	1700+	2·62	+ 1		+ 12				III
	Titibu			20·5	17	920	2·55	780	2·77	−24	+ 20					
	Koyama			16·2	10+	1148	1·56	1100	1·48	−48	+156					II
	Susaki		3 58 15·4	14·6	16	802	2·5	280	2·5	+26	+100					I
46	Tôkyô	30	6 13 08·3	15·9	5	45	0·71	62	0·75				140·25	34·72	40	I

(*to be continued.*)

List I. (*continued.*)

No.	Date	Station	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	Initial motion N(+) S(+)	Initial motion E(+) W(−)	Initial motion U(+) D(−)	Epicentre λ (E)	Epicentre φ (N)	Depth	Intensity
			h m s	s	m	μ	s	μ	s	μ	μ	μ	°	°	km	
46	June 30	Komaba	6 13 09·7	14·0	10	360		90	0·24							
		Mitaka	6 13 10·9	15·3	5	** 98	0·49	* 79	0·49							
		Tukuba	6 13 15·0	17·5	2·5											
		Kamakura		12·8	3	38	0·33	100	0·37							
		Misaki		10·6	5	61	0·47	43	0·47	− 2·5	+ 1·7					
		Kiyosumi	6 13 05·4	8·3	5	28	0·52	40	0·52							I
		Koyama		17·7	4	92	0·22	168	0·22							
		Susaki	6 13 11·1	15·4	1·5	12	0·5	10	0·3							

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

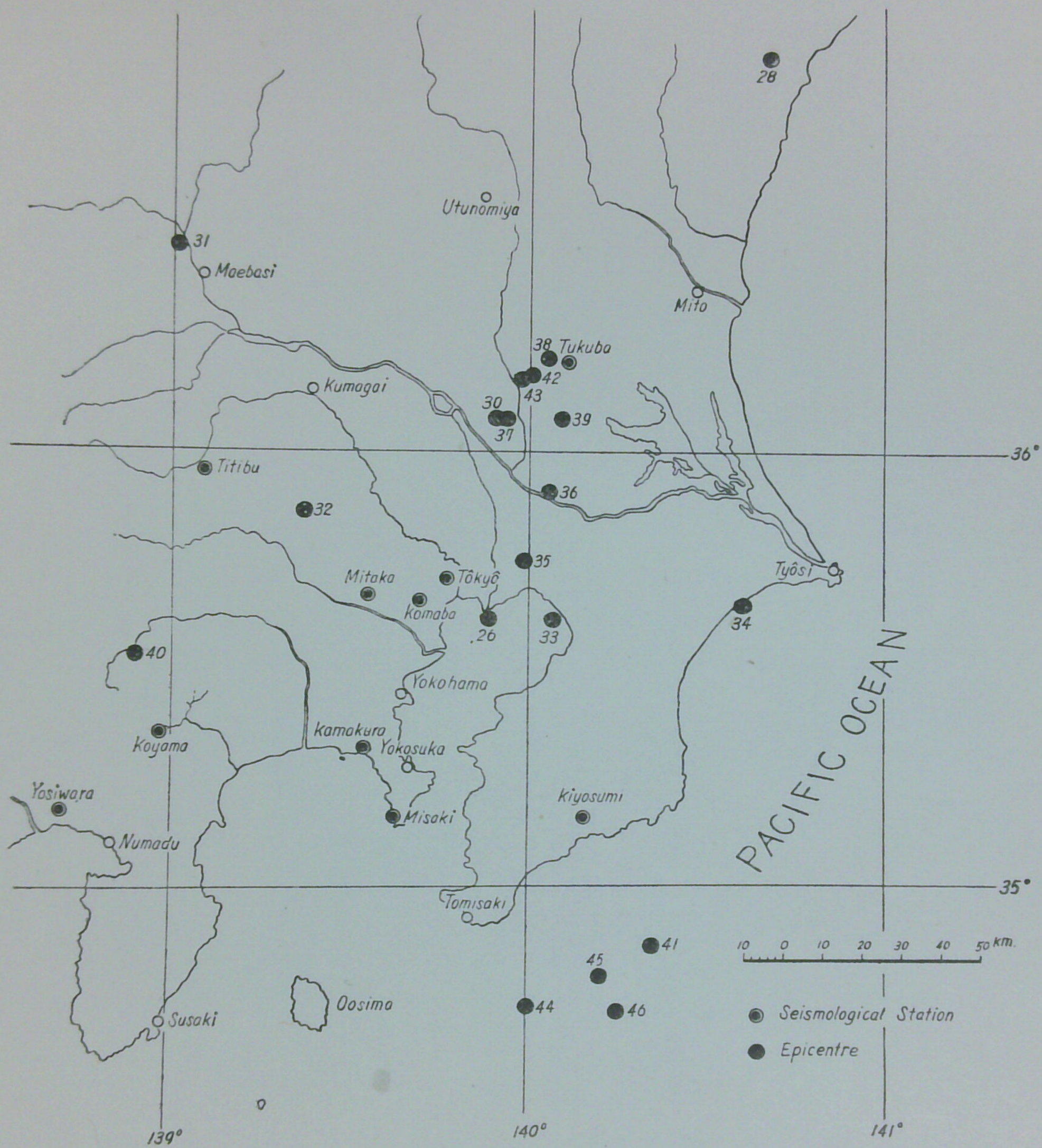

Fig. 1. Distribution of the epicentres of the sensible earthquakes in Tôkyô for the period April 1~June 30, 1935. (Figures attached to each dot are the eathquake number in List I.)

東京帝國大學地震研究所

地震觀測報告

昭和10年 第3冊

SEISMOMETRICAL REPORT

OF THE

EARTHQUAKE RESEARCH INSTITUTE

TOKYO IMPERIAL UNIVERSITY

1935

Part 3

(July 1~September 30, 1935)

Published by the Institute
Tôkyô 1935

Seismometrical Report.

(Earthquake Research Institute, Tôkyô, Japan.)

(Part 3, 1935.)

(July 1~September 30, 1935.)

(*1*) *Sensible earthquakes in Tôkyô for the period July 1~September 30, 1935.*

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				Initial motion			Epicentre		Depth	Intensity
				Prel. tr.	Total	N.S.		E.W.		N(+) S(−)	E(+) W(−)	U(+) D(−)	λ (E)	φ (N)		
						2A	T	2A	T							
			h m s	s	m	μ	s	μ	s	μ	μ	μ	°	°	km	
47	Tôkyô	July 6	16 36 09·2	8·2	6	92	0·32	62	0·32				139·98	36·06	35	I
	Komaba		16 36 10·7	7·7	5	100	0·34	140	0·34							
	Mitaka		16 36 12·6	7·7	5	** 188	0·89	* 210	1·15							
	Tukuba		16 36 07·4	5·7	1·5	51	0·44									II
	Kamakura		16 36 10·6	14·2	5	16	0·29	52	0·38							
	Misaki			13·2	5	44	1·30	42	1·30							
	Kiyosumi		16 36 15·9	13·6	4	20	1·76	20	1·66							
	Titibu			8·7	3	44	0·40	18	0·36							
	Koyama			12·3	3	200	1·40	232	1·07							
	Yosiwara			21·3	3	68	1·57	52	1·05							

(*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	Initial motion N(+) S(−)	Initial motion E(+) W(−)	Initial motion U(+) D(−)	Epicentre λ (E)	Epicentre φ (N)	Depth	Intensity
			h m s	s	m	μ	s	μ	s	μ	μ	μ	°	°	km	
48	Tôkyô	July 7	8 41 42·9	21·5	6	74	0·58	46	0·50				141·56	36·77		I
	Komaba		8 41 45·5	22·5	7	64	0·42	40	0·33							
	Mitaka		8 41 45·3	25·7	6	** 79	0·70	* 56	0·70							
	Tukuba		8 41 33·6	17·0	4	32	0·19	20	0·22							I
	Kamakura		8 41 46·3	28·6	5	38	0·67	14	0·42							
	Misaki			30·3	7	19	0·74	16	0·87							
	Kiyosumi		8 41 44·9	30·0	5	18	0·74	18	0·74							
	Titibu			30·8	3·5	68	0·72	54	0·90							
	Koyama			34·7	4	120	0·89	140	0·89							
49	Tôkyô	9	4 06 41·1	7·2	4·5	29	0·32	50	0·32	− 4	−10	− 4	139·50	35·32	30	I
	Komaba		4 06 46·0	6·8	4	110	0·40	76	0·40							
	Mitaka		4 06 44·7	6·8	4·5	** 48	0·67	* 56	0·67							
	Tukuba		4 06 54·5	13·6	1											
	Kamakura		4 06 40·6	3·1	3·5	550	0·39	372	0·39	− 6	+ 5	+130				III
	Kiyosumi		4 06 47·9	10·1	4	10	0·67	8	0·80							
	Titibu			10·6	2	40	0·72	90	0·72							
	Koyama			7·8	3	104	0·63	112	0·63							
	Yosiwara			10·7	3	24	0·58	28	0·58							
	Susaki		4 06 50·3	10·5	2	2	0·3	8	0·3							
50	Tôkyô	11	17 25 11·6	18·2	40	4200	3·10	2500	2·50	− 13	− 30		138·44	34·99	15	II
	Komaba		17 25 09·9	17·2	13					− 18	− 40	−300				II
	Mitaka		17 25 09·0	16·0	25	4700	4·53	4030	3·33	− 3·5	− 7					II
	Tukuba		17 25 18·3	24·5	13											
	Kamakura		17 25 06·9	13·0	15	1,0000	5·8	1750	1·66	− 24	− 56	−225				III
	Kiyosumi		17 25 13·2	19·4	20	2686	4·13	2440	4·51	− 2	− 11	− 50				
	Titibu			15·6	16	1760	3·07	1740	3·07	−245	−172					II
	Koyama			9·0						−298	−825					III
	Yosiwara			4·5	22	1,3200	1·08	2,9300	1·08	+120	−460					IV
	Asama		17 25 13·0	19·0												
	Susaki		17 25 00·0	8·6	25	3200+		5200+		−541	−534					III
51	Tôkyô	18	2 55 52·4	9·1	10	373	0·78	252	0·78	− 6	− 6		140·05	36·07	50	II
	Komaba		2 55 54·9	10·4	10	250	0·24	316	0·24							I
	Mitaka		2 55 54·6	10·1	9	** 275	0·78	* 418	0·78							I
	Tukuba		2 55 48·4	5·6	5	407		309								III
	Kamakura		2 55 58·8	14·6	8	152	0·88	160	0·73	− 4		+ 25				I
	Misaki			15·8	7	79	0·62	104	0·62	+ 0·8	+ 0·4					
	Kiyosumi		2 55 59·2	15·6	7	144	1·35	182	1·35	+ 2	− 1	− 14				
	Titibu			12·4	7	122	0·67	136	0·67							
	Koyama			16·7	5	408	0·88	628	0·88							I
	Yosiwara			17·6	5	64	0·78	54	0·78							
	Susaki		2 56 07·1	21·6	4	8	0·8	24	1·2							
52	Tôkyô	19	9 50 14·8	16·9	60	6400	2·62	5000	2·62	+ 0·8	+ 5	− 30	141·00	36·73		II
	Komaba		9 50 17·5	25·4	30+					− 2	+ 4	− 15				II
	Mitaka		9 50 18·5	17·6	50	8200	2·40	4270	2·40	+ 5	+ 24					II
	Tukuba		9 50 07·2	10·8	15											III
	Kamakura		9 50 23·4	18·0	20	5600		8600		−slight	− 8	+ 25				II
	Misaki			23·2	30	1280+	1·52	901+	1·98	− 1·7	− 1·7					
	Kiyosumi		9 50 18·9	20·3	30											II
	Titibu			19·7	25			1080	1·28		+ 6					
	Koyama			30·2	20+	336	2·58	432	2·58	− 16	− 40					I

(*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	Initial motion N(+) S(−)	Initial motion E(+) W(−)	Initial motion U(+) D(−)	Epicentre λ (E)	Epicentre φ (N)	Depth	Intensity
		July	h m s	s	m	μ	s	μ	s	μ	μ	μ	°	°	km	
52	Yosiwara	19		38·0	30	2300	4·0	3500	4·0							
	Susaki		9 50 31·4	36·9	60	1090	5·2	1900	5·2							
53	Tôkyô	27	4 04 44·7	10·5	6	108	0·40	92	0·40				140·32	36·00	50	I
	Komaba		4 04 44·7	9·6	5	70	0·40	170	0·40							I
	Mitaka		4 04 46·6	11·1	5	** 99	0·58	* 57	0·58							
	Tukuba		4 04 40·7	6·9	1·5	44	0·26	127	0·20							II
	Kamakura		4 04 50·0	13·7	5	10	0·41	54	0·58							
	Kiyosumi		4 04 50·7	13·9	4	12	0·53	12	0·72							
	Titibu			14·4	3·5	20	0·35	16	0·35							
	Koyama			16·9	3	80	0·29	132	0·49							
	Yosiwara			19·6	3	32	0·39	32	0·58							
54	Tôkyô	28	2 01 39·1	12·8	20	175	1·53	120	0·84				140·18	34·91	30	I
	Komaba		2 01 40·0	11·8	12	280	3·50	280	3·12							I
	Mitaka		2 01 40·2	13·6	10	** 154	0·96	* 407	1·20							
	Tukuba		2 01 46·0	17·1	7											
	Kamakura		2 01 36·1	10·1	12	776	1·10	726	1·84							I
	Kiyosumi		2 01 31·2	5·0	4+	656	4·13	706	4·13							II
	Titibu			19·0	10	18	1·46	18	1·58							
	Koyama			15·2	8	120	2·67	140	1·79							
	Yosiwara			17·4	8	100	1·94	116	1·55							
	Susaki		2 01 40·7	12·8	6	8	1·0	24	0·4							
55	Tôkyô	28	4 25 04·4	12·7	12	150	1·18	200	0·84				140·18	34·89	30	I
	Komaba		4 25 04·2	12·5	12	200	0·31	80	0·31							I
	Mitaka		4 25 05·3	14·1	10	** 268	0·96	* 277	1·20							
	Tukuba		4 25 10·3	16·9	4·5	10	0·82	32	0·84							
	Kamakura		4 25 00·9	8·5	8	658	1·16	474	0·98	+ 10	− 10					II
	Kiyosumi		4 24 55·0	4·8	10	196	2·71	296	3·19							II
	Titibu			19·4	6	24	1·60	30	1·60							
	Koyama			15·5	6	160	1·05	308	0·97							
	Yosiwara			19·5	5	50	1·61	45	1·61							
	Susaki		4 25 04·6	12·7	5	20	1·0	52	1·0							
56	Tôkyô	31	17 12 42·2	9·7	10	776	0·47	770	0·47	− 14	− 8	+188	140·07	36·22	50	III
	Komaba		17 12 42·0	10·4	10	1100	0·40	1520	0·40	− 10	− 8	+ 80				III
	Mitaka		17 12 42·2	10·8	10	478	0·72	748	0·72							II
	Tukuba		17 12 37·7	5·5	5	1243		1583								IV
	Kamakura															
	Kiyosumi		17 12 47·4	15·5	7	156	1·32	200	1·32							I
	Koyama			16·1	4+	430	0·50	980	0·74							I
	Susaki		17 12 59·0	19·9	6	22	0·72	20	0·63							
		Aug.														
57	Tôkyô	12	2 44 55·5	7·6	4	262	0·39	240	0·39		− 1		139·82	35·50	50	II
	Mitaka			8·0	3	417	0·41	292	0·41							
	Tukuba		2 45 00·0	9·7	2	25	0·28	15	0·21							I
	Kamakura		2 44 56·1	8·5	3	162	0·50	102	0·50							I
	Misaki			8·5	4	212	0·57	250	0·57							
	Kiyosumi		2 44 51·9	9·3	3	24	0·41	24	0·41	− 8	+ 3	+ 29				
	Titibu			12·2	2	48	0·54	36	0·54							
	Koyama			11·5	2	80	0·26	60	0·26	+ 4	+ 6					I
	Susaki		2 45 08·5	12·0	1	13	0·3	10	0·3							

(*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	Initial motion N(+) S(−)	Initial motion E(+) W(−)	Initial motion U(+) D(−)	Epicentre λ (E)	Epicentre φ (N)	Depth	Intensity
		Ang.	h m s	s	m	μ	s	μ	s	μ	μ	μ	°	°	km	
58	Tôkyô	19	16 22 08·0	7·5	5	72	0·33	78	0·33				140·02	36·07	40	I
	Komaba		16 22 07·5	8·5	3	84	0·31	50	0·31							
	Mitaka		16 22 10·1	8·5	3	** 86	0·71	* 50	0·71							
	Tukuba		16 22 06·1	5·2	1·5	35	0·20	46	0·32							I
	Kamakura		16 22 12·7	14·1	3	20	0·46	10	0·48							
	Kiyosumi		16 22 12·1	13·8	2	8	0·61	4	0·61							
	Titibu			11·2	2	22	0·26	16	0·26							
	Koyama			13·4	2	36	0·31	48	0·46							
59	Tôkyô	31	22 10 00·6	15·3	7	30	0·39	34	0·39				138·57	35·33	40	I
	Komaba		22 09 55·5	14·4	5	30	0·40	50	0·32							
	Mitaka		22 09 55·3	14·4	4	** 115	0·68	* 135	0·68							
	Tukuba		22 10 05·9	21·0	1·5											
	Kamakura		22 09 54·4	13·2	3	78	0·75	120	0·65							
	Misaki			13·4	4	41	0·94	71	0·99		− 4					
	Koyama			7·9	4	770	0·60	1240	0·60	+ 8	+ 8					
	Yosiwara			4·6	3	1150	0·48	1000	0·48							
	Susaki		22 09 50·0	10·1	2	8	0·6	8	0·6	−4·4	−2·8					
		Sept.														
60	Tôkyô	11	23 06 16·7	90·3	120	410	1·67	330	1·87	+ 5	+3·3		145·1	42·7		I
	Komaba		23 06 12·6	97·8	100	620	1·58	260	1·42							I
	Mitaka		23 06 16·5	97·6	120	** 531	1·14	* 500	1·14							
	Tukuba		23 06 04·6	90·6	30	153	1·37	104	0·87							II
	Kamakura		23 06 20·6	98·7	16	346	3·9	1104	4·53							
	Kiyosumi		23 06 17·8	96·2	80	480	6·79	710	6·80							
	Titibu			100·9	60	360	4·90	330	5·40							
	Koyama			99·0	50	840	2·47	1180	1·97							I
	Yosiwara			107·5	50	448	1·72									
	Susaki		23 06 37·1	102·8	75	500	22·0	700	39·7							
61	Tôkyô	13	18 27 08·4	15·2	7	233	0·65	148	0·65				140·59	36·58	50	I
	Komaba		18 27 07·5	15·2	5	140	0·56	140	0·64							I
	Mitaka		18 27 11·0	15·6	7	** 158	0·71	* 106	0·71							
	Tukuba		18 27 01·1	8·5	3	156	0·48	127	0·52	+ 6	+10					II
	Kamakura		18 27 16·9	17·3	5	52	0·61	64	0·61							
	Misaki			21·7	6	38	0·72	31	0·83							
	Kiyosumi		18 27 14·7	21·2	5	28	1·73	20	1·73							
	Titibu			16·8	5	84	0·78	124	0·78							
	Koyama			22·5	5	80	0·65	112	0·65							
	Susaki		18 27 26·4	27·1	2	7	0·82	8	1·22							
62	Tôkyô	14	23 20 03·8	21·7	20	1080	3·60	450	3·60				141·20	36·69		I
	Komaba		23 20 10·5	23·6	15	940	4·80	480	3·44							I
	Mitaka		23 20 06·5	24·5	20	** 100	0·92	* 250	1·27							
	Tukuba		23 19 55·9	13·4	7	50	0·4	46	0·34							II
	Kamakura		23 20 12·9	26·1	7	630	3·53	354	3·40							
	Misaki			27·3	15	283	2·08	387	1·84							
	Kiyosumi		23 20 07·6	24·8	16	160	3·52	160	3·52							
	Titibu			23·2	10	120	1·36	88	1·36							
	Koyama			25·3	9	860	3·03	488	2·00							
63	Tôkyô	17	5 52 06·0	12·0	20	710	1·15	1100	1·54	+11	+17	−135	140·47	35·94	60	II
	Komaba		5 52 05·6	12·3	15	850	1·81									I
	Mitaka			12·5	15	375	1·92	457	1·68							

(*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	Initial motion N(+) S(−)	Initial motion E(+) W(−)	Initial motion U(+) D(−)	Epicentre λ (E)	Epicentre φ (N)	Depth	Intensity
		Sept.	h m s	s	m	μ	s	μ	s	μ	μ	μ	°	°	km	
63	Tukuba	17	5 52 03·4	8·3	7	192	0·47	642		− 61	+ 38					II
	Kamakura		5 52 10·0	14·7	8	640	0·80	168	0·80							I
	Misaki			16·6	10	297	1·19	267	1·33							
	Kiyosumi		5 52 09·3	13·6	10	336	2·12	510	2·12							I
	Titibu			16·6	10	124	1·24	120	1·24							
	Koyama			19·1	9	580	1·93	720	1·93							
	Susaki		5 52 18·9	23·5	9	32	0·7	46	0·7							
64	Tôkyô	18	17 25 31·3	77·7	26+	750	3·00	600	2·97				142·6	42·0		I
	Komaba		17 25 33·0	79·0	26+	1180	4·00	650	3·35							I
	Mitaka		17 25 37·8	87·0	26+	1060	5·77	687	4·85							
	Tukuba		17 25 24·7	83·3	8											
	Kamakura		17 25 47·4	82·7	13	1100	2·45	800	2·45							
	Kiyosumi		17 25 39·2	94·2	26+	720	6·15	400	5·50							
	Titibu			86·2	26+	280	4·57	420	4·57							
	Koyama			96·7	26+	600	2·73	1460	3·13							I
	Susaki		17 25 51·8	99·7	17	120	3·0	116	3·0							
65	Tôkyô	22	23 40 13·6	15·0	4	302	0·55	296	0·55				139·40	36·16	100	II
	Komaba		23 40 21·1	15·4	5	260	0·55	280	0·23							
	Mitaka		23 40 13·9	14·4	5	** 354	0·46	* 378	0·46							
	Tukuba		23 40 13·4	12·7	4	209	0·37	124	0·26							II
	Kamakura		23 40 20·0	10·2	5	294	0·24	242	0·24							II
	Misaki			16·6	4	100	1·00	94	1·00							
	Kiyosumi		23 40 19·0	17·8	4	56	0·94	84	0·93							I
	Titibu			13·3	4	128	0·54	180	0·54							I
	Koyama			16·1	4	660	0·41	760	0·45							
	Susaki		23 40 22·9	21·0	2	18	0·7	52	1·00							
66	Tôkyô	24	2 32 29·0	13·7	7	166	0·65	386	0·65				140·37	34·93	40	I
	Komaba		2 32 24·2	15·0	7	370	0·39	300	0·47							I
	Mitaka		2 32 30·1	14·9	6	** 541	0·45	* 324	0·45							
	Tukuba		2 32 33·1	9·8	3·5	11	0·35	41	0·95							
	Kamakura		2 32 23·4	13·3	5	400	0·62	538	0·62							I
	Misaki			10·4	7	151	0·88	280	0·88	− 5	+ 1·7					
	Titibu			22·7	5	66	0·65									
	Koyama			17·3	5	284	0·63	248	0·63							
	Susaki		2 32 30·7	13·7	3	20	0·6	48	0·6	− 1·6	+ 4					
67	Tôkyô	30	9 07 07·2	9·6	20	620	0·79	712	0·79				140·07	35·66	50	III
	Komaba		9 07 07·4	10·0	17	1160		1700								II
	Mitaka		9 07 09·4	11·1	20	** 525	0·72	* 1212	0·84							II
	Tukuba		9 07 09·6	9·5	8	165	0·55	232	0·76	+ 27	− 6					II
	Kamakura		9 07 05·9	9·8	8	660	0·73	1128	0·73							II
	Misaki			12·1	15	1050	2·42	617	2·42	− 0·8	− 1·3					I
	Titibu			12·6	15	280	1·28	264	1·33							
	Koyama			15·5	6+	1860	2·12	2240	2·82							I
	Yosiwara			17·8	13	588	1·20	480	1·28							
	Susaki		9 07 19·5	16·1	10	52	0·9	40	0·9	− 2	− 6					
68	Tôkyô	30	22 36 46·9	8·7	7	68	0·81	54	0·81				140·64	35·57	30	I
	Komaba		22 36 44·0	7·9	5	76	0·63	76	0·39							I
	Mitaka		22 36 49·8	12·3	7	** 44	0·80	* 91	1·07							
	Tukuba		22 36 48·9	10·2	3	15	0·17	27	0·20							

(*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	Initial motion N(+) S(−)	Initial motion E(+) W(−)	Initial motion U(+) D(−)	Epicentre λ (E)	Epicentre φ (N)	Depth	Intensity
		Sept.	h m s	s	m	μ	s	η	s	μ	μ	μ	°	°	km	
68	Kamakura	30	22 36 50·4	10·7	4	80	0·66	44	0·66							
	Misaki			12·9	6	63	1·45	75	1·36							
	Kiyosumi		22 36 43·0	8·0	6	128	0·49	52	0·49	+ 2	+ 1					I
	Titibu			16·0	4	22	1·28	16	1·28							
	Koyama			16·9	4	52	1·44	80	1·44							
	Yosiwara			22·7	3	48	1·12	32	1·86							

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

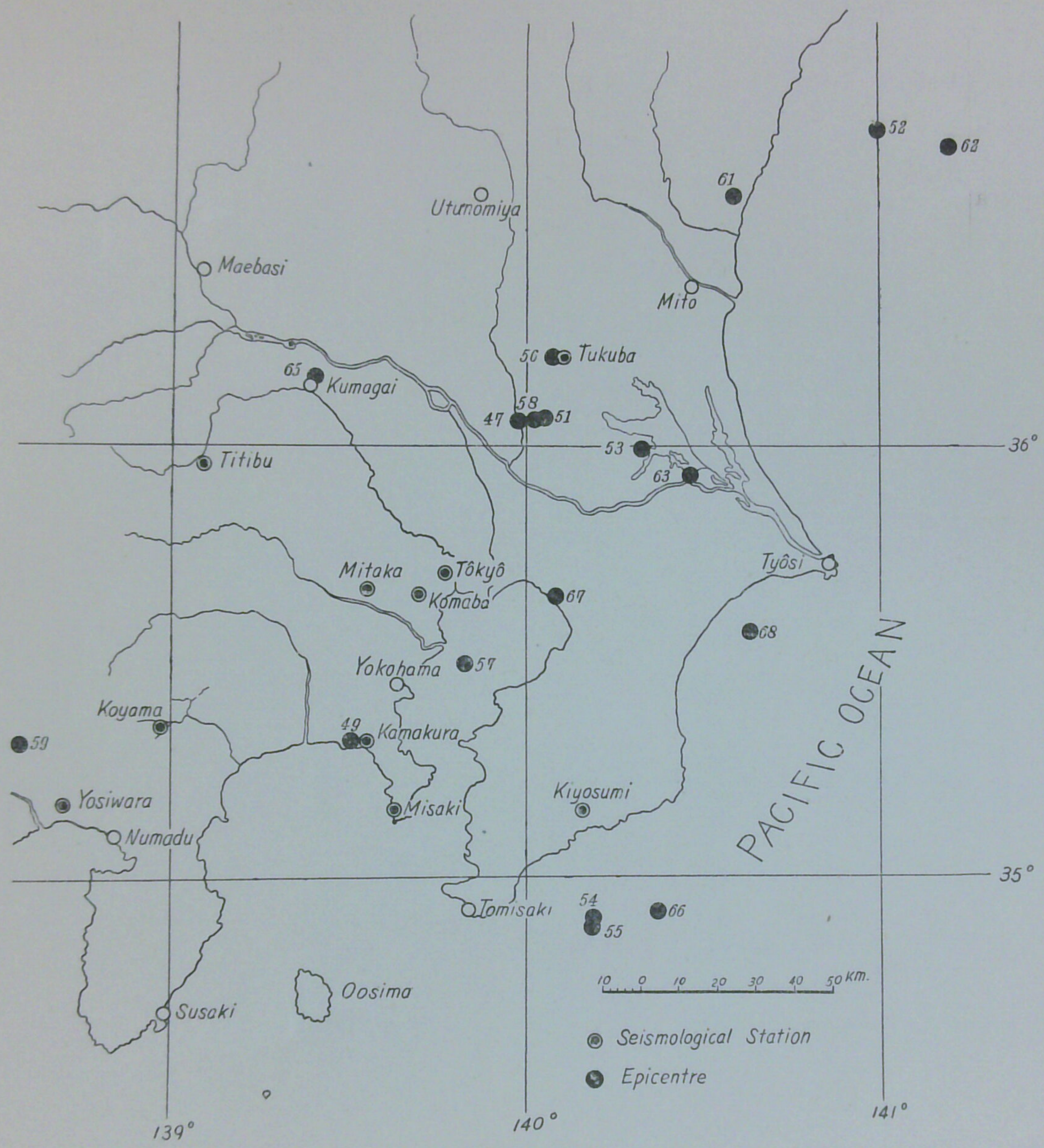

Fig. 1. Distribution of the epicentres of the sensible earthquakes in Tôkyô for the period July 1~September 30, 1935. (Figures attached to each dot are the earthquake numbers in List I.)

東京帝國大學地震研究所

地震觀測報告

昭和10年 第4冊

SEISMOMETRICAL REPORT

OF THE

EARTHQUAKE RESEARCH INSTITUTE

TOKYO IMPERIAL UNIVERSITY

1935

Part 4

(October 1~ December 31, 1935)

Published by the Institute
Tokyo 1935

Seismometrical Report.

(Earthquake Research Institute, Tôkyô, Japan.)

(Part 4, 1935.)

(October 1~December 31, 1935.)

(*1*) *Sensible earthquakes in Tôkyô for the period October 1~December 31, 1935.*

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				Initial motion			Epicentre		Depth	Intensity
				Prel. tr.	Total	N.S.		E.W.		N(+) S(−)	E(+) W(−)	U(+) D(−)	λ (E)	φ (N)		
						2A	T	2A	T							
			h m s	s	m	μ	s	μ	s	μ	μ	μ	°	°	km	
69	Tôkyô	Oct. 2	15 31 02·7	8·8	4	44	0·52	38	0·52				140·34	35·48	40	I
	Komaba		15 31 01·4	8·0	4	60	0·48	38	0·48							0
	Mitaka		15 31 09·5	10·5	4	45	0·57	24	0·57							0
	Tukuba		15 31 —	12·4?	1·5											0
	Kamakura		15 31 10·9	10·3	3	35	0·57	16	0·57							0
	Misaki			10·7	3·5	18	0·74	28	1·11							0
	Kiyosumi		15 31 02·4	7·6	3·5	20	0·49	28	0·49							II
	Koyama			14·1	3	24	0·50	28	0·66							0
70	Tôkyô	2	19 33 00·4	6·7	3	93	0·51	54	0·51				140·02	35·94	40	I

(*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	Initial motion N(+) S(−)	Initial motion E(+) W(−)	Initial motion U(+) D(−)	Epicentre λ (E)	Epicentre φ (N)	Depth	Intensity
			h m s	s	m	μ	s	μ	s	μ	μ	μ	°	°	km	
70	Komaba	Oct. 2	19 33 01·8	8·0	2	80	0·40	60	0·24							0
	Mitaka		19 33 02·4	8·1	3	29	0·68	25	0·68							0
	Kamakura		19 33 02·8	11·2	2	4	0·52	20	0·73							0
	Misaki			11·1	3	10	0·52	13	0·52							0
	Kiyosumi		19 33 05·2	12·1	2	6	0·91	6	0·91							0
	Titibu			11·7	2	10	0·86	8	1·20							0
	Koyama				2	16	0·58	24	0·58							0
	Yosiwara			18·0	3	16	1·33	16	1·16							0
71	Tôkyô	9	19 51 39·9	7·7	6	71	0·78	67	0·58				140·16	35·59	40	I
	Komaba		19 51 42·3	8·6	6	100	0·86	80	0·86							I
	Mitaka		19 51 42·0	11·6	4	91	0·59	119	0·72							
	Tukuba		19 51 44·4	9·4?	1·5											0
	Kamakura		19 51 44·7	9·4	4	25	0·39	69	0·70							I
	Kiyosumi		19 51 41·3	8·0	4	36	0·91	34	0·91							0
	Titibu			13·2	3	12	1·56	12	1·75							0
	Koyama			11·9	3·5	40	0·52	48	0·44							0
	Yosiwara			15·9	3	24	1·18	40	1·18							0
72	Tôkyô	24	3 27 41·9	7·3	4	94	0·31	148	0·31				140·14	35·64	40	I
	Komaba		3 27 42·5	7·9	4	70	0·47	100	0·24							I
	Mitaka		3 27 44·0	8·5	3·5	98	0·69	110	0·69							
	Tukuba		3 27 44·3	9·1	1·7	11	0·20	13	0·21							I
	Kamakura		3 27 42·5	9·5	3	42	0·53	44	0·53							I
	Misaki			9·6	3	73	0·69	67	0·92							
	Titibu			15·9	2	30	0·74	16	1·13							0
	Koyama			14·6	2	48	0·34	32	0·34							0
	Yosiwara			17·2	2	24	0·67	40	0·83							0
	Susaki		3 27 53·3	19·7	1·5	2	0·34	2	0·34							0
73	Tôkyô	Nov. 16	2 06 45·5	11·4	4	137	0·48	75	0·69				140·20	36·07	60	I
	Komaba		2 06 48·0	11·1	4	70	0·96	50	0·24							I
	Mitaka		2 06 48·8	12·9	4	38	0·88	60	0·88							
	Tukuba		2 06 42·0	7·2	3	39	0·25	76	0·30							I
	Kamakura		2 06 50·1	15·4	3·5	34	0·67	9	0·42							0
	Misaki			16·5	4	60	0·46	21	0·46	+ 0·8	+ 0·4					0
	Kiyosumi		2 06 47·0	15·8	2·5			48	1·88							0
	Titibu			14·1	3	16	0·99									0
	Koyama			16·2	3	88	1·35	96	1·35							0
	Yosiwara			18·9	2·5	24	0·69	40	0·69							0
74	Tôkyô	25	13 19 00·0	11·4	5	250	1·63	220	1·63				140·36	35·68	60	I
	Komaba		13 19 01·7	11·8	6	160	3·95	200	3·95							0
	Mitaka		13 19 03·0	12·7	6	100	0·75	312	1·40							0
	Tukuba		13 18 58·6	14·5?	5	13										0
	Kamakura		13 19 02·6	13·9	5			220	1·98							0
	Misaki			14·3	5	100	1·78	100	1·78							0
	Kiyosumi		13 18 54·9	12·0	5	320	1·60	136	1·60	− 2	± 0	+ 3·6				0
	Titibu			17·0	5	26	1·10	26	1·27	+ 2	− 4					0
	Koyama			19·8	5	300	2·15	240	1·90							0
	Yosiwara			23·0	4	64	0·93	80	1·13							0
	Susaki		13 19 09·5	21·8	2	8	0·75	8	0·75							0
75	Tôkyô	Dec. 3	16 05 00·1	5·7	2	28	0·21	38	0·25				139·41	35·66	35	I

(*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	Initial motion N(+) S(−)	Initial motion E(+) W(−)	Initial motion U(+) D(−)	Epicentre λ (E)	Epicentre φ (N)	Depth	Intensity
			h m s	s	m	μ	s	μ	s	μ	μ	μ	°	°	km	
75	Komaba	Dec. 3	16 05 00·7	5·1	2	70	0·31	144	0·23							0
	Mitaka		16 04 59·5	4·3	3·5	** 244	0·43	* 206	0·43							
	Kamakura		16 05 03·8	6·9	2	22	0·35	37	0·48							0
	Misaki			8·8	2	19	0·75	8	0·88							0
	Kiyosumi		16 05 12·0	12·0	2	4	0·75	4	0·75							0
	Koyama			9·4	1·5	40	0·45	54	0·45							0
76	Tôkyô	4	1 17 01·3	9·8	5	470	1·28	420	1·23	+ 1	+ 2		140·09	36·05	50	II
	Komaba		1 16 58·4	12·4	5	340	1·24	300	1·59							I
	Mitaka		1 17 03·4	10·2	5	** 150	1·07	* 219	1·29							
	Tukuba		1 16 58·1	7·2	3	81	0·26	179								II
	Kamakura		1 17 05·6	13·3	5	70	0·48	90	0·48							0
	Misaki			14·0	5	60	0·55	75	0·55							0
	Kiyosumi		1 17 07·7	16·6	4	16	0·55	24	0·68							0
	Titibu			12·0	3	34	0·78	30	0·78	+ 1·5	+ 5					0
	Koyama			15·4	4	140	0·47	160	0·54							0
	Susaki		1 17 11·4	23·4	3	6	0·39	8	0·39							0
77	Tôkyô	5	18 36 30·1	8·5	2	36	0·48	31	0·32				139·91	35·56	60	I
	Komaba		18 36 30·9	8·1	2	50	0·40	38	0·24							0
	Mitaka		18 36 30·3	9·7	2·5	** 44	0·53	* 25	0·53							0
	Tukuba		18 36 31·1	9·0	1·3											0
	Kamakura		18 36 31·9	10·2	2	26	0·32	12	0·40							0
	Misaki			11·1	2	27	0·57	19	0·57							0
	Titibu			11·6	2	4	0·95	4	0·95							0
	Koyama			9·0	1·5	24	0·48	25	0·24							0
78	Tôkyô	12	0 17 39·6	10·4	4	156	0·49	96	0·49				139·78	35·48	60	I
	Komaba		0 17 39·3	9·9	4	90	0·23	120	0·61							0
	Mitaka		0 17 40·8	10·4	5	** 121	0·47	* 90	0·41							
	Tukuba		0 17 41·4	10·9	2	9	0·18	23	0·18							I
	Kamakura		0 17 41·6	10·3	4	29	0·44	10	0·44							0
	Misaki			10·4	4	40	1·43	33	1·43	− 0·4	− 1·2					0
	Kiyosumi		0 17 42·6	11·3	3·5	28	1·55	78	1·55							0
	Titibu			13·2	3	24	0·38	20	0·38							0
	Koyama			13·5	3	88	0·40	89	0·63							0
	Susaki		0 17 49·3	15·8	2	6	0·30	8	0·36							0

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

List II.

Daily frequencies of the earthquakes felt in Tôkyô in 1935.

Date \ Month	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Sum
1	2												2
2			1							2			3
3	3	1				1						1	6
4			1	1								1	3
5						2						1	3
6							1						1
7			1				1						2
8			1			1							2
9			1	2			1			1			5
10		1											1
11					1		1		1				3
12		1		1		1		1				1	5
13									1				1
14			1						1				2
15				1		1							2
16											1		1
17									1				1
18		1					1		1				3
19	2			1			1	1					5
20	1	1											2
21				1		2							3
22									1				1
23					1								1
24									1	1	1		3
25													
26		1	1										2
27	1			1			1						3
28							2						2
29						2							2
30						1			2				3
31	1		1		1		1	1					5
Sum	10	6	8	8	3	11	10	3	9	4	2	4	78

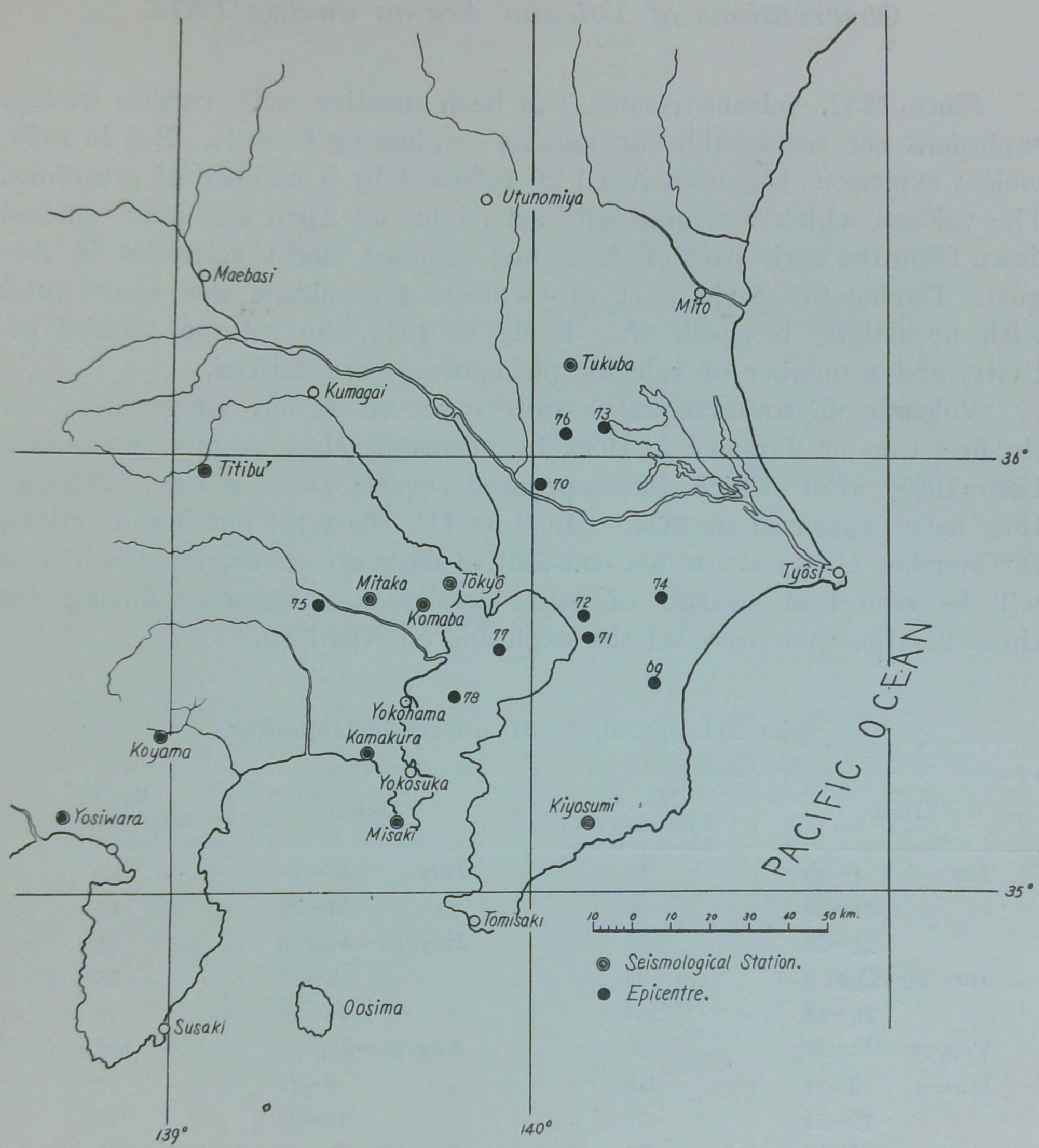

Fig. 1. Distribution of the epicentres of the sensible earthquake in Tôkyô for the period October 1~December 31, 1935. (Figures attached to each dot are the earthquake number in List I.)

Observations of Volcano Asama during 1935.

Since 1932, volcano Asama has been inactive with neither violent explosions nor remarkable earthquakes originating from it. But in 1935, violent explosions began on April 20 followed by a number of eruptions. The volcano which was unusually active during April and May, quieted down from the early part of June, but resumed slight activities in August. During the early part of October, the volcano was again quiet with no activity to speak of. Early in 1935, the volcano showed activity, and a number of volcanic phenomena were noticed.

Volcanic micro-earthquakes were observed at our Observatory for the first time on January 2, 1935, by means of seismographs (magnification=100), after which they appeared several times a day, although they never appeared in 1934. In List III, the total number of micro-earthquakes observed for ten consecutive days are given, from which it will be seen that swarms of micro-earthquakes appeared during the three months that preceded the explosion on April 20.

List III. Numbers of micro-earthquakes.

Date	No. of micro-earthq.	Date	No. of micro-earthq.
Jan. 1~10	24	July 10~19	42
11~20	20	20~29	48
21~30	70	July 30~Aug. 8	30
Jan. 31~Feb. 9	88	9~18	55
10~19	104	19~28	97
Feb. 20~March 1	88	Aug. 29~Sept. 7	202
March 2~11	114	8~17	97
12~21	70	18~27	75
22~31	84	Sept. 28~Oct. 7	130
April 1~10	60	8~17	42
10~20	49	18~27	72
21~30	72	Oct. 28~Nov. 6	170
May 1~10	138	7~16	82
11~20	96	17~26	63
21~30	209	Nov. 27~Dec. 6	51
May 31~June 9	35	7~16	63
10~19	10	17~26	31
20~29	19	27~31	33
June 30~July 9	74		

Regarding the main explosion-earthquakes that occurred in the volcanic activity of 1935, their durations, maximum amplitude, etc., are shown in List IV with date and time of occurrence. The acceleration

List IV. Earthquakes caused by explosion.

Date		Time of occurrence	Total duration	max. motion EW 2A	max. motion EW T	max. motion NS 2A	max. motion NS T
		h m s	m s	mm	s	mm	s
April	20	16 24 05	3 33	0·160	0·81	0·115	0·66
May	5	8 47 05	2 40	0·055	0·87	0·060	0·90
"	11	2 22 15	1 25	0·063	0·90	0·075	0·80
"	11	4 6 54	1 55	0·110	0·87	0·090	0·97
"	11	6 26 12	3 40	0·090	0·75	0·075	0·75
"	16	21 15 50	3 20	0·108	0 93	0·102	0·95
"	20	4 02 08	3 20	0·075	0·80	0·055	0·87
"	28	18 14 49	30 25	0·150	0·87	0·150	0·90
July	2	11 42 54	5 00	0·035		0·045	
Aug.	4	7 29 54	1 30	0·065	0·85	0·070	0·80
"	17	16 50 51	2 10	0·065	0·95	0·045	0·95
"	28	8 10 10	1 20	0·060	0·80	0·040	0·90
Sept.	19			0·115	0·90	0·090	0·95
Nov.	7	12 8	180 00	0·095	0·95	0·105	0·95

of earth-shocks caused by explosions in the present (1935) activity was generally small, most of which were not felt by people at the foot of the volcano. But the air vibrations at the time of explosion were very strong, frequently breaking window-glass in the vicinity of the volcano.

Observations of earth-tilts have been going on since 1933 with a pair of clinographs. In 1934, the range of variations in tilting amounted to only few seconds, whereas from the beginning of March 1935, conspicuous inclinations of the ground began to be observed. Thus, in the middle of May, the tilts reached nearly thirty seconds. In fact, a marked tilting of the ground was observed as early as two months before the explosion.

The 1935 activity was preceded also by marked variations in the earth-current. On April 15, 1935, five days before the violent explosion, a remarkable change in earth-current ($1{\cdot}0 \times 10^{-3}$ volts) was observed, after which swarms of minor eruptions were preceded by changes in earth-currents.

The amount of vapour emitted from the crater-floor changed more frequently compared with that during the inactive period. Generally speaking, most eruptions followed soon after the state of no amount of vapour.