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THE SEISMOLOGICAL BULLETIN

OF

THE JAPAN METEOROLOGICAL AGENCY

FOR

JANUARY 1969

気　象　庁

PUBLISHED BY THE JAPAN METEOROLOGICAL AGENCY

Tokyo

1969

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List 1 JMA stations and their seismographs

Station	Code	CGS Code	λ	φ	Height	Seismographs
					m	
Abashiri	ABASHI	ABJ	E144°17.0′	N44°01.0′	38	S, VI, OP
Aikawa	AIKAWA	AIK	138 14.5	38 01.2	34	S, VI, OP
Ajiro	AJIRO	AJI	139 05.8	35 02.6	59	S, VI, EMT′
Akita	AKITA	AKI	140 06.1	39 43.1	9	S, VI, OP
Anabuki (Tsurugisan)	ANABUK (TURUGI)	TSS	134 05.8	33 51.1	59	S, P
Aomori	AOMORI	AOM	140 47.0	40 49.0	4	S, W
Asahikawa	ASAHIK	ASA	142 22.4	43 46.2	111	S, VI, OP
Ashizuri	ASHIZU	ASZ	133 01.0	32 43.0	30	S, VI
Asosan	ASOSAN	ASJ	131 04.5	32 52.7	1143	S
Chichibu	CHICHI	CHJ	139 04.9	35 59.5	218	S, P
Choshi	CHOSHI	CHO	140 50.6	35 43.5	27	S, W
Fukue	FUKUE	FKJ	128 50.0	32 42.0	26	S, VI
Fukui	FUKUI	FUK	136 13.6	36 03.2	9	S, P(H, V)
Fukuoka	FUKUOK	FKK	130 22.8	33 34.8	2	S, VI, M(H)
Fukushima	FUKUSH	FKS	140 28.5	37 45.4	67	S, VI, OP
Gifu	GIFU	GIF	136 45.9	35 23.9	13	S, W
Hachijojima	HACHIJ	HJJ	139 47.3	33 06.1	80	S, VI
Hachinohe	HACHIN	HAC	141 31.6	40 31.5	27	S, VI, OP
Hakodate	HAKODA	HAK	140 45.5	41 48.8	35	S, VI, OP
Hamada	HAMADA	HMD	132 04.4	34 53.6	18	S, VI, OP
Hamamatsu	HAMAMA	HMM	137 43.4	34 42.5	32	S, VI, OP
Hikone	HIKONE	HIK	136 14.8	35 16.4	87	S, W
Himeji	HIMEJI	HIM	134 42.1	34 50.2	37	S, P(H, V)
Hiroo	HIROO	HOO	143 19.0	42 17.0	32	S, P(H, V)
Hiroshima	HIROSH	HIR	132 26.2	34 21.8	29	S, W
Iida	IIDA	IID	137 50.1	35 30.6	482	S, VI, OP
Irozaki (Nagatsuro)	IROZAK (NAGATS)	NGT	138 50.8	34 36.0	55	S
Ishinomaki	ISHINO	ISN	141 18.2	38 25.5	43	S, VI, OP
Izuhara	IZUHAR	IZU	129 17.7	34 12.2	21	S, P(H, V)
Kagoshima	KAGOSH	KAG	130 33.2	31 34.4	4	S, VI
Kakioka	KAKIOK	KAK	140 11.6	36 13.9	27	S, W
Kanazawa	KANAZA	KAN	136 38.9	36 32.8	27	S, VI, OP
Karuizawa	KARUIZ	KRZ	138 33.1	36 20.4	999	S, P(H, V)
Kawaguchiko (Funatsu)	KAWAGU (FUNATU)	FUN	138 45.8	35 29.9	860	S, P
Kobe	KOBE	KOB	135 10.8	34 41.3	58	S, P(H, V)
Kochi	KOCHI	KOC	133 32.0	33 33.0	40	S, P(H, V)
Kofu	KOFU	KOF	138 33.5	35 39.9	272	S, VI
Kumagaya	KUMAGA	KMG	139 23.1	36 08.8	30	S, VI, EMT
Kumamoto	KUMAMO	KUM	130 42.6	32 48.6	38	S, W
Kushiro	KUSHIR	KUS	144 23.7	42 58.7	33	S, VI
Kyoto	KYOTO	KYO	135 44.1	35 00.7	41	S, VI, OP
Maebashi	MAEBAS	MAE	139 03.9	36 24.1	112	S, W
Maizuru	MAIZUR	MAI	135 23.2	35 28.3	31	S, P(H, V)
Matsue	MATSUE	MTS	133 04.3	35 27.3	17	S, P(H, V)
Matsumoto	MATSUM	MTM	137 58.4	36 14.6	610	S, P(H, V)
Matsushiro	MATSUS	MAT	138 12.5	36 32.3	440	S, L, AW,G,B,V,C
Matsuyama	MATSUY	MTY	132 46.3	33 50.4	32	S, W
Mishima	MISHIM	MIS	138 55.8	35 06.7	20	S, W
Mito	MITO	MIT	140 28.3	36 22.7	30	S, VI, EMT′
Miyako	MIYAKO	MIY	141 58.1	39 38.7	46	S, W
Miyazaki	MIYAZA	MYZ	131 25.6	31 55.0	7	S, VI, OP
Mizusawa	MIZUSA	MIZ	141 08.0	39 08.0	61	P(H, V)
Morioka	MORIOK	MRK	141 10.0	39 41.8	155	S, VI, OP
Muroran	MURORA	MRR	140 59.0	42 19.0	43	S, P(H, V)
Murotomisaki	MUROTO	MRT	134 10.7	33 14.9	185	S, VI, OP
Nagano	NAGANO	NGN	138 11.8	36 39.6	418	S, W
Nagasaki	NAGASA	NGS	129 52.2	32 43.9	27	S, VD, EM
Nagoya	NAGOYA	NAG	136 58.1	35 09.9	52	S, VI, OP
Nara	NARA	NAR	135 50.0	34 41.0	105	S, P(H, V)
Nemuro	NEMURO	NEM	145 35.2	43 19.7	26	S, VI, VD, OP
Niigata	NIIGAT	NII	139 03.1	37 54.6	2	S, P(H, V)
Nobeoka	NOBEOK	NOB	131 41.0	32 35.0	19	S, P(H, V)
Obihiro	OBIHIR	OBI	143 13.3	42 55.2	39	S, P(H, V)
Ofunato	OFUNAT	OFU	141 43.1	39 03.7	38	S, VI
Oita	OITA	OIT	131 37.4	33 14.0	5	S, W
Okayama	OKAYAM	OKA	133 54.9	34 40.9	4	S, VI, OP
Omaezaki	OMAEZA	OMA	138 12.8	34 36.2	45	S, W
Onahama	ONAHAM	ONA	140 54.4	36 56.7	3	S, VI
Osaka	OSAKA	OSA	135 31.3	34 40.7	13	S, VI

Station	Code	CGS Code	λ	φ	Height	Seismographs
					m	
Oshima	OSHIMA	OSH	E139°22.7′	N34°45.7′	191	S, W
Owase	OWASE	OWA	136 11.7	34 04.0	14	S, VI, OP
Rumoi	RUMOI	RMJ	141 38.0	43 57.0	22	S, P(H, V)
Saga	SAGA	SAG	130 18.3	33 14.7	4	S, P(H, V)
Saigo	SAIGO	SAI	133 20.0	36 12.3	26	S, VI, OP
Sakata	SAKATA	SAK	139 50.2	38 54.2	2	S, P(H, V)
Sapporo	SAPPOR	SAP	141 19.9	43 03.5	17	S, VI, OP
Sendai	SENDAI	SEN	140 54.0	38 15.6	38	S, VI, S′
Shimonoseki	SHIMON	SHN	130 56.5	33 57.2	46	S, VI, OP
Shionomisaki	SHIONO	SHJ	135 45.8	33 26.9	74	S, W
Shirakawa	SHIRAK	SHR	140 13.5	37 07.1	354	S, P(H, V)
Shizuoka	SHIZUO	SHZ	138 24.4	34 58.4	14	S, VI
Sumoto	SUMOTO	SUM	134 54.5	34 20.1	109	S, VI, OP
Suttsu	SUTTSU	SUT	140 14.4	42 47.4	16	S, P(H, V)
Takada	TAKADA	TKD	138 15.0	37 06.3	13	S, P(H, V)
Takamatsu	TAKAMA	TKM	134 03.5	34 19.0	10	S, W
Takayasuyama	OSAKA2		135 39.6	34 36.7	472	VD′
Takayama	TAKAYA	TKY	137 15.3	36 09.1	561	S, P(H, V)
Tateyama	TATEYA	TAT	139 52.1	34 59.0	6	S, VI, EMT
Tokushima	TOKUSH	TKS	134 34.6	34 03.9	2	S, P(H, V)
Tokyo	TOKYO	TOK	139 45.5	35 41.2	21	S, VI′, VD′, I′, J
Tottori	TOTTOR	TOT	134 10.7	35 30.7	17	S, P(H, V)
Toyama	TOYAMK	TOY	137 12.5	36 42.4	9	S, VI
Toyooka	TOYOOA	TYK	134 49.5	35 32.0	4	S, W
Tsu	TSU	TSU	136 31.1	34 42.1	3	S, P(H, V)
Tsuruga	TSURUG	TSR	136 03.9	35 39.0	1	S, P(H, V)
Unzendake	UNZEND	UNZ	130 15.2	32 44.1	849	S
Urakawa	URAKAW	URA	142 46.8	42 09.5	34	S, VI, OP
Utsunomiya	UTSUNO	UTS	139 52.3	36 32.6	120	S, EMT
Uwajima	UWAJIM	UWA	132 33.5	33 13.5	43	S, P
Wajima	WAJIMA	WAJ	136 53.9	37 23.4	6	S, VI
Wakayama	WAKAYA	WKY	135 10.0	34 13.6	14	S, W, I
Wakkanai	WAKKAN	WAK	141 40.5	45 25.0	2	S, VI, OP
Yakushima	YAKUSH	YKS	130 29.8	30 27.0	14	S, VI
Yamagata	YAMAGA	YAM	140 21.0	38 15.2	151	S, P(H, V)
Yokohama	YOKOHA	YOK	139 39.3	35 26.2	38	S, EMT
Yonago	YONAGO	YON	133 20.6	35 26.0	7	S, P(H, V)
Ishigakijima	ISHIGA	ISI	124 10	24 20	6	S, VI
Naha	NAHA	NAH	127 41	26 13	11	S, VI
Miyakojima	MIYAKJ	MYK	125 17	24 47	40	S
Yonaguni	YONAGU		123 01	24 28	32	

Notations : —

λ	: Longituds.
φ	: Geographical Latitude.
W	: Wiechert's horizontal and vertical seismographs (masses, H; 200kg, V; 80kg).
P	: Portable seismograph (horizontal).
P(H, V)	: do (mass, 22.5kg).
S	: Strong motion seismograph (magnification; 1).
S′	: do (magnification; 0.4).
M(H)	: Mainka's horizontal seismograph (mass, 450kg).
G	: Galitzin's seismograph.
L	: 1,000kg long-period seismograph, JMA type.
I	: Ishimoto's seismograph.
V	: Short-period vertical seismograph.
AW	: Anderson-Wood's seismograph.
C	: Capacity type seismograph.
EM	: Electromagnetic seismograph.
OP	: JMA 59-type electromagnetic seismograph with optical recorder.
VI	: JMA 59-type electromagnetic seismograph with visible recorder.
VD	: JMA 61-type electromagnetic seismograph with visible recorder.
B	: Benioff's seismograph (short and long period).
J	: Remote recording JMA 63-type seismograph.
VI′,VD′,I′	: Remote recording JMA 63-type seismograph.
EMT	: Electromagnetic seismograph with tape recorder.
EMT′	: Electromagnetic seismograph with tape recorder and transmitting unit.

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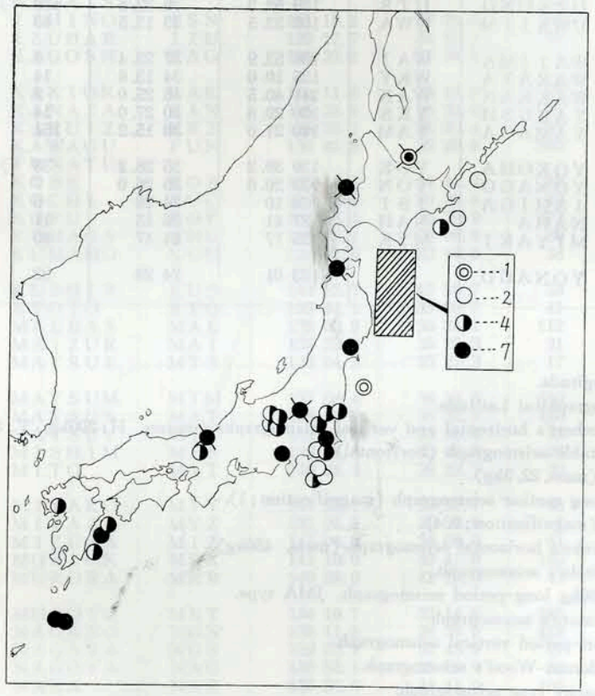
List 2 Number of earthquakes by districts and classes, January, 1969

District \ Class	Number of felt earthquakes					Number of unfelt earthquakes	Total
	Remarkable	Moderate	Small felt area	Local	Total		
Hokkaido	1	0	2	7	10	42	52
Tohoku	0	2	1	11	14	27	41
Kwanto	0	0	3	8	11	25	36
Chubu	0	0	0	58	58	11	69
Kinki	0	0	0	7	7	6	13
Chugoku•Shikoku	0	0	0	3	3	2	5
Kyushu	0	0	0	14	14	26	40
Near Japan*	0	0	1	0	1	8	9
Foreign region	0	0	0	0	0	12	12
Unknown	0	0	0	0	0	5	5
Total	1	2	7	108	118	164	282

* ; Sakhalin, Kurile Is., Korea, Ryukyu Is., Bonin Is., Sikhota Alin.

Epicenters of the major earthquakes



⊙ Remarkable (R) ◎ Moderate (M) ○ Small felt area (S) ◑ Local (L) ● Unfelt (U) × h≧100km.

Special Event

Earthquake-Swarm near Matsushiro, Northern Chubu

In this moth, 44 earthquakes(intensity Ⅱ ; 3, Ⅰ ; 41) were felt at Matsushiro Seismological Observatory.

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List 3

EARTHQUAKES OBSERVED BY SEISMOLOGICAL STATIONS OF JMA C : CLASS

(J.S.T.)

DATE, TIME D H M	C	LOCATION
1 00 32	U	KWANTO
05 50	L	(KYOTO-SHIMOWACHI)
07 52	L	(WAKAYA)
08 30	U	SW PART OF IBARAKI PREF
09 18	U	HYUGANADA
11 18	U	NEAR URAKAWA
12 17	U	(YAKUSH)
16 28	L	NEAR MATSUSHIRO
16 28	L	(MATSUS)
16 34	L	NEAR MATSUSHIRO
16 36	L	(NAGANO-SAKAI)
16 36	L	(NAGANO-SAKAI)
19 30	L	(NAGANO-SAKAI)
20 05	L	NEAR MATSUSHIRO
21 19	U	(YAKUSH)
21 51	U	(MIYAZA)
22 08	U	(YAKUSH)
2 01 06	L	(MATSUS)
01 41	L	(MATSUS)
07 24	U	NEAR CHOSHI
07 29	U	(ONAHAM)
09 34	L	(NAGANO-SAKAI)
15 15	U	NEAR URAKAWA
17 23	U	(YAKUSH)
19 36	U	NEAR HAMAMATSU
21 36	L	MIDDLE OF KYOTO PREF
21 56	L	(UNZEND)
23 39	L	(MATSUS)
3 03 07	S	OFF URAKAWA
04 10	U	NEAR CHOSHI
04 58	U	TOHOKU
06 39	U	(MAIZUR)
10 30	L	(NAGANO-SAKAI)
14 10	U	UK
15 08	L	NEAR MATSUSHIRO
19 36	U	(URAKAW)
4 01 05	U	NEAR HACHIJOJIMA
09 30	U	NEAR TOKYO
11 34	L	E OFF AOMORI PREF
13 38	L	(UWAJIM)
14 31	U	(KUSHIR)
20 11	U	FAR OFF SANRIKU
20 29	U	UK
23 02	S	OFF CHIBA PREF
5 08 04	L	NEAR MATSUSHIRO
08 34	U	(URAKAW)
15 45	U	(URAKAW)
20 11	L	(MATSUS)
20 52	U	OFF URAKAWA
22 34	U	SOLOMOM IS
6 10 01	L	NEAR KUMAMOTO
10 38	U	(KUMAMO)
12 48	L	(KUMAMO)
14 41	L	NEAR KUMAMOTO
16 33	U	(URAKAW)
21 15	U	TOHOKU
22 48	U	NEAR CHOSHI
7 00 47	U	SANTA CRUZ IS REGION
02 29	U	(NEMURO)
02 35	L	(MATSUS)
06 51	U	(ONAHAM)
09 08	L	(UNZEND)
10 01	U	NEAR HACHIJOJIMA
10 18	L	(UNZEND)
7 16 02	U	(NAHA)
17 03	L	(HACHIN)
8 01 15	L	(NAGANO-SAKAI)
02 06	L	(MATSUS)
06 29	L	E OFF AOMORI PREF
10 24	U	OFF URAKAWA
11 29	U	CHUBU
12 28	U	KYUSHU
15 39	U	(URAKAW)
16 26	L	OFF CHIBA PREF
18 36	L	ARIAKEKAI
21 07	U	(URAKAW)
9 03 27	L	SW PART OF IWATE PREF
03 28	L	NEAR MATSUSHIRO
03 45	L	(ASOSAN)
04 55	U	(URAKAW)
05 29	U	NEAR CHOSHI
08 42	U	(YAKUSH)
10 43	U	(NAGANO)
12 28	S	OFF CHIBA PREF
15 30	L	NEAR MATSUSHIRO
20 19	L	E PART OF HOKKAIDO
21 06	L	E COAST OF IBARAKI PREF
10 03 44	U	(YAKUSH)
05 00	L	OFF MIYAGI PREF
05 57	L	(WAKAYA-SHIRAHAMA)
06 33	U	NW OF AOMORI PREF
09 14	U	E OFF AOMORI PREF
09 52	U	NEAR YAKUSHIMA
12 21	U	S OFF YAKUSHIMA
12 24	L	(NIIGAT-SANTO)
13 26	U	(YAKUSH)
15 15	U	E OFF AOMORI PREF
17 49	L	(KAGOSH-NAZE)
20 54	L	NEAR MATSUSHIRO
23 29	U	TOHOKU
11 04 37	U	E OFF AOMORI PREF
06 39	L	(MURORA)
13 12	U	(URAKAW)
17 32	L	NEAR MATSUSHIRO
20 26	L	(KUMAMO)
21 17	L	(MATSUS)
12 01 41	L	OFF URAKAWA
03 10	U	(WAKAYA)
08 49	U	UK
09 48	U	(YAKUSH)
10 14	L	S OFF NEMURO PEN
14 05	U	OFF URAKAWA
20 09	U	(URAKAW)
20 52	L	(MATSUS)
13 00 24	U	(YAKUSH)
09 08	L	(MATSUS)
09 33	U	(KUSHIR)
16 40	L	(UWAJIM)
19 14	L	(MATSUS)
14 03 29	U	(HACHIN)
07 25	U	(MIYAZA)
09 34	U	N PART OF MIYAGI PREF
11 42	L	NEAR MATSUSHIRO
12 34	U	(YAKUSH)
16 58	U	(NAGASA)
15 01 02	M	OFF FUKUSHIMA PREF

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DATE, TIME D	H	M	C	LOCATION
15	03	15	U	(WAKAYA)
	06	01	U	(URAKAW)
	07	32	U	E OFF AOMORI PREF
	12	23	U	(URAKAW)
	20	50	U	NEAR TOKYO
16	01	31	L	NEAR MIYAKO
	02	19	U	(HACHIN)
	04	06	U	MIDDLE OF KWANTO
	07	50	U	(OFUNAT)
	10	05	U	(HACHIN)
	10	59	L	NEAR MATSUSHIRO
	16	25	U	NE PART OF GUNMA PREF
	18	17	U	(HACHIN)
	22	12	U	(WAKAYA)
	23	32	U	KWANTO
17	00	21	U	RYUKYU IS
	00	35	S	OFF IWATE PREF
	02	19	L	(MATSUS)
	04	01	U	(UWAJIM)
	05	32	L	N PART OF IBARAKI PREF
	14	51	U	(OFUNAT)
	16	14	U	N PART OF SHIZUOKA PREF
	21	51	L	(MATSUS)
	23	23	U	UK
18	02	54	U	KYUSHU
19	00	17	L	(MATSUS)
	02	21	U	OFF OMAEZAKI
	04	00	U	(ISHIGA)
	05	37	U	OFF URAKAWA
	14	04	U	E OF KWANTO
	16	02	R	NE OFF HOKKAIDO
20	00	17	U	N PART OF CHIBA PREF
	01	08	U	(URAKAW)
	03	04	M	E OFF AOMORI PREF
	04	00	U	NEW HEBRIDES IS
	04	28	U	(YAKUSH)
	04	30	U	(AKITA)
	06	34	L	(KYOTO-MIYAMA)
	11	19	U	(YAKUSH)
	11	53	U	(AJIRO)
	13	08	U	WAKASA BAY
	13	11	U	(URAKAW)
	19	22	U	E OF KWANTO
	21	33	U	SANTA CRUZ IS
	23	16	L	(MATSUS)
	23	24	U	KOMANDORSKY IS
21	00	45	L	NEAR MATSUSHIRO
	00	51	L	NEAR MATSUSHIRO
	01	39	U	NEAR MITO
	03	01	L	(UNZEND)
	07	32	U	FAR OFF SANRIKU
	07	34	L	SE OF KII PEN
	07	51	L	(MATSUS)
	08	11	U	FAR OFF SANRIKU
	08	44	L	(MATSUS)
	12	09	U	S OFF BOSO PEN
	15	12	U	(UTSUNO)
	16	06	L	(NAGANO-SAKAI)
	17	34	U	(KUSHIR)
22	06	55	L	(UTSUNO-ASHIO)
	07	51	U	(NAGANO)
	08	44	U	(NAGANO)
	08	46	L	NEAR MATSUSHIRO
22	10	05	U	(KUSHIR)
23	02	17	U	KURILE IS
	07	23	U	(KUSHIR)
	10	23	L	NEAR MATSUSHIRO
	10	46	U	NEAR TATEYAMA
	11	02	U	NEAR TATEYAMA
	12	20	U	NEAR HACHINOHE
	17	17	L	NEAR MATSUSHIRO
	21	00	U	(CHOSHI)
	22	35	U	NEAR KUSHIRO
	22	42	L	HYUGANADA
	23	02	L	SW PART OF IBARAKI PREF
	23	52	U	HYUGANADA
24	02	15	U	(CHOSHI)
	02	34	U	(NAGOYA)
	04	14	U	(MIYAZA)
	04	21	U	HYUGANADA
	04	51	U	(URAKAW)
	06	22	L	(MATSUS)
	06	23	L	(MATSUS)
	07	24	U	(WAKAYA)
	09	32	L	MIDDLE OF BOSO PEN
	11	01	U	(KUSHIR)
	11	43	U	FIJI IS REGION
	11	54	U	E OFF HOKKAIDO
	13	00	L	E OFF AOMORI PREF
	13	33	U	(MORIOK)
	15	54	L	(KUSHIR)
	16	35	U	(AKITA)
	17	43	U	(YAKUSH)
25	04	44	U	NEAR AMAMIOSHIMA
	06	22	L	NEAR MATSUSHIRO
	08	02	L	OFF KUSHIRO
	08	17	L	(MATSUS)
	10	17	L	SW OF NAGANO PREF
	12	30	L	(NAGANO-SAKAI)
	14	25	U	MOLUCCA PASSAGE
	19	28	L	MIDDLE OF KYOTO PREF
	21	15	U	OFF URAKAWA
26	03	35	U	OFF URAKAWA
	04	59	L	OFF MIYAGI PREF
	06	03	L	NEAR MATSUSHIRO
	08	39	L	SW OF MIYAZAKI PREF
	10	35	U	KII CHANNEL
	11	26	L	(MATSUS)
	19	09	L	(MATSUS)
	20	17	U	(KUSHIR)
27	00	10	U	UK
	00	40	U	TAIWAN REGION
	05	20	U	NEAR CHOSHI
	09	50	U	NEAR YAKUSHIMA
	14	01	U	(MUROTO)
	19	14	U	(URAKAW)
	22	20	U	WEST CAROLINE IS
28	03	38	U	W OFF HOKKAIDO
	05	25	L	OFF MIYAGI PREF
	14	38	S	NEAR ETOROFU IS
	15	53	U	S OF YAMANASHI PREF
	16	10	L	S OF HIROSHIMA PREF
	16	56	U	NEAR NAGASAKI
	19	06	L	OFF IWATE PREF
	19	40	U	(YONAGU)

DATE, TIME D	H	M	C	LOCATION
28	20	41	U	FAR OFF SANRIKU
	22	16	U	NEAR HACHINOHE
29	01	30	U	(OITA)
	01	48	U	OFF URAKAWA
	02	08	U	(HAKODA)
	02	20	S	MIDDLE OF CHIBA PREF
	02	44	U	(URAKAW)
	13	54	L	S OFF NEMURO PEN
	17	23	U	E OFF AOMORI PREF
	18	11	L	NEAR MATSUSHIRO
	20	23	U	TAIWAN REGION
30	00	01	L	NEAR MATSUSHIRO
	03	24	L	OFF IWATE PREF
	07	15	L	HYUGANADA
	12	51	U	(URAKAW)
	13	49	U	OFF URAKAWA
	14	12	L	(MATSUS)
	14	14	L	(MATSUS)
	17	00	L	(MATSUS)
	19	30	L	(MATSUS)
	19	34	U	TALAUD IS
	20	08	L	SW OF IBARAKI PREF
	23	01	L	(MATSUS)
	23	57	L	NE OF IBARAKI PREF
31	05	54	S	S OFF NEMURO PEN
	09	50	U	NORTH OF HALMAHERA
	10	26	U	(URAKAW)
	14	11	L	(MATSUS)
	15	31	U	(KUSHIR)
	17	37	U	(KUSHIR)
	23	41	U	NEAR MITO

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List 4 EARTHQUAKE ORIGINS

C : CLASS

(J.S.T.)

DATE, TIME D	H	M	C	LOCATION	ORIGIN TIME M	S	+/-S	LONG.	+/-	LAT.	+/-	H KM	M
1	09	18	U	HYUGANADA	18	24.7	1.8	131 55 08		32 17 04		00	3.8
	16	28	L	NEAR MATSUSHIRO	28	30.2	0.4	138 06 02		36 25 01		00	4.2
	16	34	L	NEAR MATSUSHIRO	34	24.3	0.4	138 08 02		36 27 01		00	4.0
2	21	36	L	MIDDLE OF KYOTO PREF	36	50.7	0.4	135 30 02		35 06 02		00	3.7
3	03	07	S	OFF URAKAWA	07	07.6	0.4	142 32 03		41 58 02		50	4.6
4	11	34	L	E OFF AOMORI PREF	34	30.8	0.6	142 10 05		40 46 02		40	4.1
	20	11	U	FAR OFF SANRIKU	11	38.9	2.0	143 03 12		40 35 06		60	4.2
	23	02	S	OFF CHIBA PREF	02	09.0	0.5	140 11 02		34 52 02		80	
5	08	04	L	NEAR MATSUSHIRO	04	25.8	0.0	138 07 00		36 25 00		00	3.0
	20	52	U	OFF URAKAWA	51	52.9	0.3	142 39 03		41 30 02		40	4.1
	22	34	U	SOLOMOM IS	26	39.9		158 54		-08 00		47	7.1
7	00	47	U	SANTA CRUZ IS REGION	39	00.9		164 30		-10 30		32	6.8
8	10	24	U	OFF URAKAWA	24	42.1	0.4	142 51 03		41 40 01		60	4.1
	16	26	L	OFF CHIBA PREF	26	40.0	0.7	139 50 04		34 47 02		60	3.5
	18	36	L	ARIAKEKAI	36	19.2	0.1	130 18 01		32 58 01		20	3.8
9	12	28	S	OFF CHIBA PREF	28	46.8	0.7	140 09 03		34 57 02		60	4.2
	21	06	L	E COAST OF IBARAKI PREF	06	38.6	0.5	140 44 04		36 40 02		90	
10	06	34	U	NW OF AOMORI PREF	33	24.2	0.4	140 25 03		41 14 02		140	
	12	21	U	S OFF YAKUSHIMA	20	54.5	1.4	130 53 07		29 05 05		10	5.2
12	01	41	L	OFF URAKAWA	41	44.0	0.5	142 49 04		41 36 02		20	4.2
	14	05	U	OFF URAKAWA	05	25.7	0.4	142 36 03		41 36 02		00	4.2
14	09	34	U	N PART OF MIYAGI PREF	34	12.3	0.2	141 05 02		38 44 01		00	3.6
15	01	02	M	OFF FUKUSHIMA PREF	01	58.5	0.5	141 40 03		37 27 01		50	4.9
16	10	59	L	NEAR MATSUSHIRO	58	58.4	0.2	138 15 01		36 34 01		10	3.8
	16	25	U	NE PART OF GUNMA PREF	25	09.2	0.3	139 16 03		36 38 02		140	
17	00	35	S	OFF IWATE PREF	35	15.0	0.3	142 27 02		40 07 01		30	4.8
	16	14	U	N PART OF SHIZUOKA PREF	14	31.9	0.3	138 36 02		35 17 01		10	3.1
19	16	02	R	NE OFF HOKKAIDO	02	09.4	0.4	143 29 03		44 33 03		260	
20	00	17	U	N PART OF CHIBA PREF	17	00.0	0.7	140 11 09		35 42 04		80	
	03	04	M	E OFF AOMORI PREF	04	23.7	0.4	142 39 03		41 09 01		40	5.0
	04	00	U	NEW HEBRIDES IS	50	52.1		167 12		-14 54		112	6.2
	13	08	U	WAKASA BAY	07	56.3	0.2	135 37 05		35 30 04		360	
23	22	42	L	HYUGANADA	42	44.0	1.0	131 44 03		31 41 03		10	4.3
	23	02	L	SW PART OF IBARAKI PREF	01	58.0	0.3	139 59 02		36 14 02		60	3.8
24	09	32	L	MIDDLE OF BOSO PEN	31	55.5	0.5	140 05 05		35 14 02		90	
	11	43	U	FIJI IS REGION	33	03.5		-179 36		-21 54		595	5.9
	13	00	L	E OFF AOMORI PREF	00	15.4	0.3	142 01 04		40 45 02		50	3.8
25	04	44	U	NEAR AMAMIOSHIMA	43	56.8	1.4	130 51 07		29 27 06		20	4.7
	08	02	L	OFF KUSHIRO	01	51.3	0.6	144 50 02		42 17 02		20	4.1
	21	15	U	OFF URAKAWA	15	20.9	0.3	142 02 02		41 31 01		20	4.0
28	03	38	U	W OFF HOKKAIDO	37	43.2	0.6	140 52 06		43 40 03		220	
	14	38	S	NEAR ETOROFU IS	38	36.8	1.1	146 19 06		43 43 03		70	
	19	06	L	OFF IWATE PREF	06	37.6	0.8	142 13 05		39 37 02		50	4.2
29	02	20	S	MIDDLE OF CHIBA PREF	20	42.9	0.4	140 07 02		35 31 02		90	
	17	23	U	E OFF AOMORI PREF	23	31.9	0.4	142 33 03		41 13 01		00	4.0
30	07	15	L	HYUGANADA	15	31.4	0.3	132 12 01		32 38 02		00	4.5
	13	49	U	OFF URAKAWA	48	53.5	0.3	142 33 02		41 29 01		10	4.0
	19	34	U	TALAUD IS	29	40.4		127 24		4 48		70	5.9
	23	57	L	NE OF IBARAKI PREF	57	17.6	0.7	140 30 05		36 36 06		60	3.7
31	05	54	S	S OFF NEMURO PEN	54	17.6	1.1	145 40 06		42 41 04		50	4.6

List 5 DATA OF EARTHQUAKES

I : SEISMIC INTENSITY

* : MICRON

OT= 1 9 18 24.7 +/- 1.8 (J.S.T.)
HYUGANADA
LAT= 32 17 +/- 4 LONG= 131 55 +/- 8
H= 0 MAG=3.8 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NOBEOK	0	P	09	18	30.9	S	18	39.6							S	1 E	2 n 4	39.8	08.7
MIYAZA	0	P	09	18	37.8	S	18	49.8	24	0.8	24	1.0	10	0.8				61.6	12.0
OITA	0	EP	09	18	47.2	S	18	58.2	21	0.8								108.8	11.0
KUMAMO	0	EP	09	18	47.3	ES	19	06.2	7	0.8	8	1.2	5	1.1				127.5	18.9

OT= 1 16 28 30.2 +/- 0.4
NEAR MATSUSHIRO
LAT= 36 25 +/- 1 LONG= 138 6 +/- 2
H= 0 MAG=4.2 CLASS=L

MATSUS	2	IP	16	28	34.4	S	28	36							N	E	U	16.6	01.6
MATSUM	1	IP	16	28	36.2	IS	28	40.2							S	1 W	2 U 11	22.3	04.0
NAGANO	2	IP	16	28	37.2	S	28	40.9	155	0.9	160		75				U 8	28.4	03.7
KARUIZ	0	IP	16	28	39.5	S	28	45.0	100	2.0	100	2.0			N	W	3 n 5	41.4	05.5
TAKADA	0	EP	16	28	43.3													77.5	
MAEBAS	0	EP	16	28	46.9	S	29	06.5	31	5.0	21	3.3	23	3.7				86.6	19.6
TOYAMA	0	EP	16	28	48	ES	29	00	17	3.0	20	3.8	19	4.0				86.1	12.0
KOFU	0	EP	16	28	49.8	ES	29	02.2	14	2.0	10	3.8	5	1.0				93.1	12.4
IIDA	0	EP	16	28	50.0	ES	29	04.4	6	1.4	6	1.6	4	1.4				103.4	14.4
CHICHI	0	EP	16	28	50.5	ES	29	01.2										100.1	10.7
KUMAGA	0	EP	16	28	53.0	ES	29	08.6	20	4.6	20	4.6	13	3.8				119.2	15.6
MISHIM	0	EX	16	28	56				9	1.1	12	1.1	2	0.3				163.1	
WAJIMA	0	EX	16	29	00				16	1.2	17	1.2						152.1	
GIFU	0	EP	16	29	00.5	S	29	20.6	6	1.9	9	1.7						165.2	20.1
NAGOYA	0	EP	16	29	01.0	S	29	22.2	10	1.4	9	1.2	4	1.0				172.5	21.2
HAMAMA	0	P	16	29	05.0	ES	29	28	12	1.6	7	2.8	4	1.8			U 1	192.5	23.0
OMAEZA	0	EP	16	29	05.4	ES	29	35.4	13	2.0	10	2.0	8	3.0				201.4	30.0
TOKYO	0	EX	16	29	06				14	1.6	14	1.8						170.0	
TATEYA	0	EP	16	29	12.7				13	3.5	11	2.0	7	3.7				225.6	
ONAHAM	0	EX	16	29	42.0				9	1.0	6	1.2	2	1.3				257.6	

OT= 1 16 34 24.3 +/- 0.4
NEAR MATSUSHIRO
LAT= 36 27 +/- 1 LONG= 138 8 +/- 2
H= 0 MAG=4.0 CLASS=L

MATSUS	2	IP	16	34	26.0	S	34	28							S	W	n	11.9	02.0
MATSUM	1	IP	16	34	31.5	IS	34	35.3							S	1 W	2 U 11	27.1	03.8
NAGANO	2	IP	16	34	32.0	S	34	35.3	100	0.8	131		50				U 2	24.0	03.3
KARUIZ	0	EP	16	34	33.9	S	34	39.8			100	2.0						39.5	05.9
MAEBAS	0	EP	16	34	41.8	X	35	06.0	22	4.4	8	3.4						83.7	
KOFU	0	IP	16	34	42.8	ES	34	53.6	4	0.5	6	0.4	3	0.8			U 1	95.1	10.8
IIDA	0	EP	16	34	44.6	ES	34	58.0	6	2.0	7	1.8	4	1.2				107.7	13.4
CHICHI	0	EP	16	34	46.8	S	34	56.2										99.3	09.4
KUMAGA	0	EP	16	34	47.2	ES	35	04.0	15	1.0	10	1.0	5	1.2				117.3	16.8
GIFU	0	EP	16	34	55.3	ES	35	14.6	8	1.5	6	1.6						169.9	19.3
NAGOYA	0	P	16	34	56.8	S	35	17.4	8	0.8	10	1.0	5	1.0				177.2	20.6
HAMAMA	0	P	16	34	58.5	ES	35	22	7	1.2	6	2.8	3	1.4			n 1	196.7	23.5
OMAEZA	0	EP	16	35	02.8	ES	35	30.0	11	2.8	6	3.2						205.0	27.2
WAJIMA	0	EX	16	35	04				13	1.2	15	1.0						151.6	
TOKYO	0	EX	16	35	07				15	3.0	12	3.0						169.2	

OT= 2 21 36 50.7 +/- 0.4
MIDDLE OF KYOTO PREF
LAT= 35 6 +/- 2 LONG= 135 30 +/- 2
H= 0 MAG=3.7 CLASS=L

KYOTO	1	IP	21	36	56.4	IS	36	58.7	65	0.0	36	0.0	11	0.0	N	4 W	3 n 5	23.6	02.3
MAIZUR	0	IP	21	37	00.2	IS	37	05.2										42.5	05.0
KOBE	0	ES	21	37	11.4													54.2	
TOYOOK	0	ES	21	37	16.1				18	1.2	11	0.6						78.5	
OKAYAM	0	P	21	37	18.2	S	37	37.6	6	0.6	5	0.4	1	0.4		W	U	152.1	19.4
MATSUS	0	P	21	37	40	S	38	12										292.1	32.0

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OT= 3 3 / 7.6 +/- 0.4
OFF URAKAWA
LAT= 41 58 +/- 2 LONG= 142 32 +/- 3
H= 50 MAG=4.6 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
URAKAW	2	IP	03	07	18.5	S	07	26.8	400	1.0	700	0.8	400	1.0	N 1		U 6	29.5	08.3
HIROO	0	IP	03	07	22.4	IS	07	33.1							N 4	E 8	U 12	73.7	10.7
OBIHIR	1	P	03	07	26.1	S	07	40.0									D	120.1	13.9
MURORA	0	IP	03	07	28.6	S	07	44.3							S 1	E 1	D 6	133.9	15.7
HAKODA	0	IP	03	07	30.8	IS	07	48.3	35	1.5	20	0.7	11	0.9	N 2	E 5	D 7	148.3	17.5
SAPPOR	0	IP	03	07	31.4	IS	07	46.7	42	0.8	52	0.6	13	0.9	S 1	E	D 9	156.4	15.3
KUSHIR	0	P	03	07	35.2	S	07	57.4	27	0.3	19	0.4	7	0.2		W	D	189.9	22.2
HACHIN	0	EP	03	07	35.8	S	07	55.7	15	0.4	11	0.3	4	0.8			U	181.1	19.9
ASAHIK	0	P	03	07	38.1	S	08	02.8	14	1.2	9	0.6	8	0.8				200.8	24.7
AOMORI	0	EP	03	07	39.0	IS	08	00.6	36	1.2	37	1.4	16	1.3				194.3	21.6
RUMOI	0	EP	03	07	42	ES	08	08										232.3	26.0
MORIOK	0	P	03	07	47.9	ES	08	14.5	6	0.3	7	0.5	2	0.4	N 0	E 0	U	277.1	26.6
						X	07	52.0											
AKITA	0	EX	03	08	14.2				7	2.2	8	3.2	5	2.4				323.1	
MATSUS	0	P	03	08	42													708.7	

OT= 4 11 34 30.8 +/- 0.6
E OFF AOMORI PREF
LAT= 40 46 +/- 2 LONG= 142 10 +/- 5
H= 40 MAG=4.1 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
HACHIN	2	IP	11	34	43.5	IS	34	52.8	108	0.4	107	0.4	20	0.5	S 2	W 3	U 1	60.6	09.3
MORIOK	0	IP	11	34	54.3	IS	35	12.0	11	0.4	7	0.3	3	0.3	S 1	W 1	U 1	146.1	17.7
HAKODA	0	P	11	34	55.5	S	35	13.9	5	0.4	6	0.4	2	0.6			U	165.6	18.4
URAKAW	0	P	11	34	56.2	ES	35	17	3	0.4	7	0.4	1	0.4				162.9	20.8
OFUNAT	0	IP	11	34	59.6	IS	35	22.1	7	0.2	3	0.2	1	0.2	N 0		D 0	193.2	22.5
AOMORI	0	EX	11	35	05				15	0.5	17	0.7	8	2.0				116.9	
KUSHIR	0	ES	11	35	41				5	0.2	4	0.2	1	0.4				307.5	
MATSUS	0	P	11	35	49													582.1	

OT= 4 20 11 38.9 +/- 2.0
FAR OFF SANRIKU
LAT= 40 35 +/- 6 LONG= 143 3 +/-12
H= 60 MAG=4.2 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
HACHIN	0	EP	20	11	59.0	ES	12	08.0	10	0.3	6	0.4	1	0.6				129.3	09.0
URAKAW	0	P	20	12	05.5	S	12	27.0	3	0.4	6	0.4	1	0.6				176.4	21.5
MORIOK	0	EP	20	12	08.1	S	12	30.6	14	0.4	14	0.4	2	0.4				188.2	22.5
AOMORI	0	EP	20	12	08.7	ES	12	29.7	20	1.2	23	1.0	8	1.3				193.3	21.0
KUSHIR	0	ES	20	12	45				5	0.2	4	0.2	1	0.3				288.6	
MATSUS	0	IP	20	13	02.8	X	14	49									D	616.0	

OT= 4 23 2 9.0 +/- 0.5
OFF CHIBA PREF
LAT= 34 52 +/- 2 LONG= 140 11 +/- 2
H= 80 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TATEYA	1	IP	23	02	22.9	IS	02	32.2	112	0.4	149	0.4	123	0.2	S 7		U 35	31.6	09.3
OSHIMA	0	IP	23	02	25.4	IS	02	36.8	31	0.2	30	0.4	25	0.4				74.5	11.4
YOKOHA	1	IP	23	02	25.8	S	02	37.6										79.5	11.8
TOKYO	0	IP	23	02	27.5	S	02	41.1	110	0.0	68	0.0	7	0.0	N		D	98.7	13.6
AJIRO	X	P	23	02	27.7	IS	02	40.7	31	0.2	43	0.2	7	0.2				101.1	13.0
CHOSHI	0	P	23	02	28.9	S	02	43.7										112.5	14.8
MISHIM	0	IP	23	02	29.5	ES	02	42.9	19	0.8	14	0.7	8	0.5			U 2	117.6	13.4
KAKIOK	0	EP	23	02	31	ES	02	47	11	1.0	8	0.8	6	0.8				151.4	16.0
KUMAGA	0	P	23	02	35.0	S	02	53.0	12	1.0	7	0.8	5	0.6			U 3	159.4	18.0
SHIZUO	0	P	23	02	37.1	ES	02	54.2	7	0.4	5	0.4	2	0.4				162.7	17.1
KOFU	0	EP	23	02	39.0	ES	02	56.2	13	0.4	13	0.4	3	0.8				172.3	14.2
KARUIZ	0	EP	23	02	42.0	ES	03	06.0										220.4	24.0
HACHIJ	0	EP	23	02	43.2	IS	03	05.8			5	0.2						199.1	22.6
MATSUS	0	P	23	02	46	S	03	13										257.5	27.0

OT= 5 8 4 25.8 +/- 0.0
NEAR MATSUSHIRO
LAT= 36 25 +/- 0 LONG= 138 7 +/- 0
H= 0 MAG=3.0 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MATSUS	1	IP	08	04	29.6	S	04	32.0							N	E	U	15.8	02.4
MATSUM	0	IP	08	04	32.0	IS	04	35.8							S	W 1	U 5	23.1	03.8
NAGANO	1	P	08	04	32.5	S	04	36.0	17	1.0	13	0.6	6	0.8			U 5	27.9	03.5
KARUIZ	0	P	08	04	35.1	ES	04	41.0									D	39.9	05.9

OT= 5 20 51 52.9 +/- 0.3
OFF URAKAWA
LAT= 41 30 +/- 2 LONG= 142 39 +/- 3
H= 40 MAG=4.1 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
URAKAW	0	IP	20	52	06.2	S	52	15.0	30	0.4	44	0.4	9	0.8			U 3	73.9	08.8
HIROO	0	P	20	52	09.8	IS	52	22.0										103.1	12.2
HACHIN	0	EP	20	52	16.0	S	52	31.8	17	0.2	16	0.3	2	0.5				143.8	15.8
HAKODA	0	EP	20	52	18	S	52	35.6	4	0.4	5	0.9	2	1.0				161.4	17.6
OBIHIR	0	P	20	52	18.5	S	52	38.6									U	164.7	20.1
SAPPOR	0	EP	20	52	25				7	1.8	7	1.4	4	1.0				204.4	
KUSHIR	0	EP	20	52	26	ES	52	46	7	0.4	5	0.6	1	0.4				218.5	20.0
MORIOK	0	P	20	52	28.5	S	52	56.0	6	0.5	6	0.5	2	0.3				236.3	27.5
AOMORI	0	EX	20	52	30				14	1.0	13	0.7	5	1.1				174.1	
MATSUS	0	P	20	53	25													671.6	

OT= 5 22 26 39.9 USCGS
SOLOMON IS
LAT= -8 0 LONG= 158 54
H= 47 MAG=7.1 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
HACHIJ	0	X	22	34	52.6				19	1.6	17	1.9	20	2.0				4973.0	
TATEYA	0	EP	22	34	58.2				50	3.0	40	2.2	39	4.0				5155.7	
NAHA	0	P	22	34	58.5	ES	41	56	14	11.0	6	7.1	15	6.0				5066.3	417.5
KANAZA	0	EX	22	35					22	5.1	30	4.2	30	4.0				5445.9	
MISHIM	0	EP	22	35	01.3	ES	41	50.2	32	2.7	39	2.3	35	2.3				5207.3	408.9
OSHIMA	0	EP	22	35	03.0	ES	41	47.0	25	2.6	18	2.4	27	1.8				5154.0	404.0
						EX	35	59.4											
SHIONO	0	EX	22	35	05.2				11	24.4	12	3.1	15	1.9				5193.2	
AJIRO	0	EX	22	35	05.8	EX	37	20.6	10	3.8	15	2.0	22	2.4				5193.5	
OMAEZA	0	EP	22	35	06.0	EX	35	30.0	26	3.8	35	3.6	42	3.8				5188.5	
SHIZUO	0	P	22	35	07.6				14	3.6	15	4.4	21	4.0			D 5	5216.1	
HAMAMA	0	EP	22	35	07.8				22	4.0	25	4.0	20	4.0				5220.5	
OWASE	0	IP	22	35	08.0				6	4.5			10	6.2	S	E	D	5230.2	
YAKUSH	0	P	22	35	08.1				8	4.0	6	2.6	14	4.0				5219.5	
TOKYO	0	P	22	35	10.1	EX	42	00	39	4.8	33	4.2	37	3.8				5229.8	
KAWAGU	0	P	22	35	10.3	ES	42	00.0										5252.3	409.7
						L	45	51.1											
MUROTO	0	IP	22	35	10.5	EX	37	17.0	6	27.0	10	3.8	16	5.0	S	0	D 1	5255.6	
						IX	42	20.0											
WAKAYA	0	EX	22	35	11.2				7	1.0	10	1.0						5295.6	
MITO	0	X	22	35	11.6	EX	42	06.0	29	5.4	28	5.4	23	4.4				5271.2	
KOFU	0	EP	22	35	11.6	ES	42	05.0	20	3.0	14	2.4	20	4.2				5277.3	413.4
IIDA	0	EX	22	35	13.0													5293.3	
ASHIZU	0	EP	22	35	13.0	EX	42	03.8	7	2.2	8	2.8						5269.9	
KUMAGA	0	EP	22	35	13.6	EX	41	05.0	23	5.4	39	7.2	43	5.2				5290.7	
NAGOYA	0	P	22	35	13.6	S	42	08.9	26	2.8	29	2.5	28	2.2				5298.6	415.3
						EL	48	30											
TSU	0	EP	22	35	13.8						12	0.0	18	0.9				5275.1	
NARA	0	EP	22	35	13.9													5305.9	
MIYAZA	0	EP	22	35	14.0	S	42	10.0	11	2.0	13	2.6	22	3.6				5289.5	416.0
OSAKA2	0	EP	22	35	14.0													5307.5	
SUMOTO	0	P	22	35	14.2	EX	40	23.3	9	4.0	5	4.0	12	3.9	S	E	D 1	5318.6	
						EL	47	06											
MAEBAS	0	EP	22	35	14.5				21	4.6	19	5.3	18	3.6				5328.9	
OSAKA	0	EP	22	35	15	EL	50		42	3.0	30	3.5	17	8.0				5320.5	
TOKUSH	0	EP	22	35	15.8													5310.2	
KYOTO	0	IP	22	35	16.3	ES	42	31.7	13	2.0	6	1.5	12	2.0			D 0	5341.6	435.4
ONAHAM	0	EP	22	35	16.4	X	42	26.5	14	2.0	11	3.0	21	3.1				5311.9	
HIKONE	0	EP	22	35	16.5	EX	42	10.7	29	1.5	22	2.1	19	1.8				5342.3	
KAGOSH	0	EX	22	35	16.6				19	2.8	38	3.0	14	6.0				5311.7	
KARUIZ	0	EP	22	35	17.1													5343.9	
KOBE	0	EX	22	35	17.5													5338.1	
MATSUS	0	IP	22	35	18.0	S	42	14							S	E	D	5377.7	416.0
TAKAMA	0	P	22	35	18.1	ES	42	12.5	10	1.2	8	1.2	9	3.7				5359.9	414.4

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
OKAYAM	0	P	22 35 20.0	ES	42 16	8 3.5	8 4.8	14 3.6	S	E	D	5400.9	416.0
NAGANO	0	EP	22 35 20.1	ES	42 33.8	22 4.0	28 3.5	20 4.0				5390.1	433.7
				EX	35 45.3								
MATSUY	0	EP	22 35 20.9	ES	42 14.9	9 5.5	7 4.7	13 2.5	S	E	D	5383.8	414.0
GIFU	0	P	22 35 21.1	ES	42 14.0	14 2.3	14 2.4	11 1.8				5330.3	412.9
OITA	0	EP	22 35 21.8			62 2.8	39 4.7					5393.6	
KUMAMO	0	EP	22 35 22.6	ES	42 20.7	16 2.0	15 2.4	5 1.0				5409.0	418.1
SENDAI	0	EP	22 35 23.6	ES	42 28	9 0.7	18 8	16 7				5445.3	424.4
				EX	49 35								
NAGASA	0	IP	22 35 23.6	ES	42 20.5							5450.4	416.9
ISHINO	0	EP	22 35 24.0	EX	42 26.0	12 4.2	11 10.0	19 4.0			D 4	5448.0	
TOYOOK	0	IP	22 35 25.4	S	42 26.4	30 1.1	15 1.1	13 3.7			D 8	5435.1	421.0
HIROSH	0	P	22 35 26.5	EX	41 58.3	7 28.0	9 27.0	5 26.0	N	6 W 5	U 9	5449.4	
FUKUOK	0	EP	22 35 27.0	ES	42 29.5	11 3.6	6 3.6	11 3.5		E 8	D 10	5494.9	422.5
SAGA	0	IP	22 35 27.0								D 10	5470.3	
WAJIMA	0	EX	22 35 28			15 2.0	15 2.2	13 3.0				5516.4	
SHIMON	0	EP	22 35 28.4	EX	42 28.0	6 7.4	7 5.0					5495.4	
AIKAWA	0	EP	22 35 30.0			13 12.0	10 8.0	15 7.0		W	D	5522.0	
HAMADA	0	P	22 35 30.2	S	42 33.4	11 4.4	13 3.9	17 3.2			D 7	5516.6	423.2
				EX	37 43.4								
				EL	49 29.6								
MORIOK	0	EP	22 35 32.0	ES	42 38.0	6 18.0	6 10.6	10 6.9				5582.3	426.0
				EX	35 34.7								
				EL	48 50								
MIYAKO	0	EX	22 35 32	EX	51	6 23.4		11 21.4				5550.6	
FUKUE	0	P	22 35 32.0	ES	42 28.6	5 5.4	6 10.0		N	5 W 4		5511.7	416.6
SAIGO	0	P	22 35 34.5						S	2 E 1		5570.6	
HACHIN	0	P	22 35 36.8	ES	42 58.0	8 8.0	7 9.0	12 4.4			D	5655.3	436.2
OFUNAT	0	IP	22 35 37.0	S	42 47.1	7 4.6	8 10.8	9 4.8	S	1 E 1	D 1	5498.9	430.1
				L	52 21								
ASOSAN	0	EX	22 35 38									5393.7	
AKITA	0	EX	22 35 39.2			22 4.8	20 4.6	32 3.2				5621.3	
AOMORI	0	P	22 35 46.6	S	43 06.3	21 2.4	18 2.6	11 4.4				5709.5	442.7
HAKODA	0	P	22 35 48.0	ES	43 27	11 5.9	10 4.7	16 4.1			D	5812.2	459.0
URAKAW	0	P	22 35 48.6			32 11.6	14 2.8	17 4.0				5785.9	
KUSHIR	0	EP	22 35 50	ES	43 17	16 5.4	10 7.0	16 3.8				5828.0	447.0
NEMURO	0	EP	22 35 50	ES	43 05	7 11.0	6 10.0	14 4.2				5836.0	435.0
OBIHIR	0	EX	22 35 51									5853.0	
SAPPOR	0	EP	22 35 55	ES	43 16	12 2.0	15 2.4	13 3.0				5922.0	441.0
ABASHI	0	EP	22 35 57	EX	43 31	12 6.6	8 8.0	12 4.0				5940.4	
ASAHIK	0	P	22 36 01.5			7 2.2	7 3.2	18 3.0				5965.3	

OT= 7 0 39 0.9 USCGS
SANTA CRUZ IS REGION
LAT=-10 30 LONG= 164 30
H= 32 MAG=6.8 CLASS=U

GIFU	0	P	00 47 34.5	L	55 08.5	13 9.2	9 12.3					5852.1	
HACHIJ	0	IX	00 47 51.8	EX	50 15.6	14 2.0	17 2.2	14 2.0				5485.4	
OSHIMA	0	EP	00 48 01.8	ES	55 14.2	16 16	13 12	5 2.4				5660.8	432.4
TATEYA	0	EX	00 48 02.4			17 8.0	32 12.5	20 3.0				5657.7	
AJIRO	0	EX	00 48 03.2	EX	55 21.8	6 13.0	8 14.0	5 14.0				5700.9	
SHIZUO	0	EP	00 48 03.4	ES	55 30.3	14 14.1	8 11.7	8 4.7				5728.9	446.9
MISHIM	0	EP	00 48 04.6	ES	55 15	13 17.5	12 13.1	8 4.5				5715.5	430.4
TOKYO	0	EP	00 48 05	ES	55 39	21 4.4	16 4.4	17 4.4				5729.1	454.0
NAHA	0	EP	00 48 05.0	ES	55 50	11 14.0	7 10.2	7 6.0				5683.8	465.0
SHIONO	0	EP	00 48 05.6	ES	55 31.4	8 5.4	9 6.5					5731.8	445.8
OMAEZA	0	EP	00 48 06.1			25 15.8	19 15.8					5704.5	
HAMAMA	0	EP	00 48 08.5	ES	55 34	9 4.4	9 4.2	7 4.8				5739.4	445.5
OWASE	0	IP	00 48 08.7			4 3.6		6 4.0				5762.8	
KUMAGA	0	EP	00 48 09.0	ES	55 36.0	11 5.2	12 6.6	15 4.4				5790.4	447.0
YAKUSH	0	EX	00 48 09.0			5 8.4	3 4.4	8 4.2				5803.9	
KOFU	0	EP	00 48 10.0	EX	55 04.6	6 16.0	5 14.0	8 4.4				5785.4	
MITO	0	IX	00 48 10.4			10 4.5	6 4.0	8 4.9				5761.6	
OSAKA2	0	EP	00 48 11.5	EL	04							5840.6	
IIDA	0	EX	00 48 12.2									5807.2	
ONAHAM	0	P	00 48 12.3			9 4.1	7 4.8	9 4.4			D 6	5796.3	
MUROTO	0	IP	00 48 12.4	IS	55 41.4	10 3.2	8 11.0	8 4.1			U 0	5805.2	449.0
				EL	03 38.0								
NAGOYA	0	P	00 48 12.8	S	55 46.8	9 3.4	7 3.0	8 4.0				5820.3	454.0
SHIMON	0	EP	00 48 13.0	EX	55 29.0	5 7.0	5 6.2					6059.4	
SUMOTO	0	P	00 48 13.8	S	55 36.0	6 12.6	8 12.0	6 5.4	N	W	U	5857.9	442.2
				EL	03 17								
ASHIZU	0	EP	00 48 14.2	ES	55 46.2	8 6.6	5 5.6					5829.1	449.0
MAEBAS	0	EP	00 48 14.8			14 4.7	7 4.5	8 4.3				5829.6	
MATSUS	0	IP	00 48 14.9	S	55 46				N	W	U	5883.8	451.1
KYOTO	0	EP	00 48 15.5	ES	55 44.7	7 16.0	6 10.0	5 4.5				5872.2	449.2
TAKAMA	0	EP	00 48 15.8	S	55 45.4	7 17.2	8 13.2					5904.5	449.6
OSAKA	0	EX	00 48 16	EL	04	30 3.5	19 3.8	12 4.2				5854.2	

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MIYAZA	0	EP	00 48 16.4	ES	55 46	7 6.0	7 9.0	9 6.0				5861.5	449.6
HIKONE	0	EP	00 48 17.4	EX	55 45.1	9 14.8	9 11.0	6 22.7				5868.2	
OKAYAM	0	EP	00 48 18			3 5.8	6 7.0	6 4.0				5944.4	
ISHINO	0	EP	00 48 18.3	EX	55 55.8	7 4.6	6 12.8	12 4.6			U 2	5922.3	
MATSUY	0	EP	00 48 18.3	ES	55 06.6	9 8.9	9 8.1	3 2.0				5938.4	408.3
KAGOSH	0	EX	00 48 18.5			11 2.6	18 2.6	7 2.8				5890.0	
NAGANO	0	EX	00 48 18.8			13 4.0	10 4.4	12 4.0				5895.7	
SENDAI	0	EP	00 48 20	ES	55 54	7 8	8 6	6 4				5923.4	454.0
				EL	03 30								
TOYAMA	0	EP	00 48 21	EX	55 22	12 4.8	9 4.6	14 4.4				5948.8	
OFUNAT	0	P	00 48 22.8	ES	55 56.4	6 13.6	7 14.0	5 4.8			U 1	5967.1	450.6
				L	04 22.0								
KUMAMO	0	EP	00 48 24			8 2.2	8 2.7	2 1.4				5980.1	
MORIOK	0	P	00 48 27.0	ES	55 48.0	6 14.8	5 13.0	5 4.6			U	6051.6	441.0
				EX	04 40								
NAGASA	0	EP	00 48 27.0	ES	56 05.0						N W U	6026.2	458.0
HAMADA	0	EP	00 48 27.5	EX	55 26.4	5 15.6	5 10.3	7 4.8				6069.5	
				EX	50 27.5								
				EL	00 24.0								
TOYOOK	0	P	00 48 28.0	X	55 56.7	7 9.6	9 9.6					5968.7	
OITA	0	EX	00 48 31.2			12 3.7	21 4.1					5957.7	
FUKUE	0	P	00 48 32.8	ES	56 09.4	5 7.6	5 6.0				E 3	6092.5	456.6
AKITA	0	EP	00 48 33.6			13 4.6	14 4.0	19 3.8				6098.4	
AOMORI	0	P	00 48 36	S	56 24	10 2.3	11 2.1	8 2.6				6176.5	468.0
NEMURO	0	EP	00 48 40	ES	56 29	4 16.0	6 14.0	5 4.4				6256.2	469.0
HAKODA	0	EP	00 48 40	ES	56 36	7 4.6	6 4.6	11 4.2				6274.8	476.0
KUSHIR	0	EP	00 48 41	ES	56 39	9 12.4	8 16.8	8 4.4				6258.8	478.0
URAKAW	0	P	00 48 43.3			14 12.8	7 3.4	11 3.4				6232.3	
SAPPOR	0	EP	00 48 45	ES	56 09	4 2.0	6 3.4	7 3.6				6375.0	444.0
ABASHI	0	EP	00 48 47	EX	56 52	5 10.4	8 12.8	6 4.2				6367.9	
				EX	04 20								
ASAHIK	0	EP	00 48 52			3 1.8	3 2.4	7 3.6				6407.8	
KANAZA	0	EX	00 49			15 5.1	15 4.9					5962.5	

OT= 8 10 24 42.1 +/- 0.4
OFF URAKAWA
LAT= 41 40 +/- 1 LONG= 142 51 +/- 3
H= 60 MAG=4.1 CLASS=U

URAKAW	0	P	10 24 54.5	S	25 04.1	17 0.6	26 0.4	4 0.6				54.9	09.6
HACHIN	0	EP	10 25 07.9	S	25 26.0	18 0.2	10 0.2	1 0.6				168.7	18.1
HAKODA	0	EP	10 25 09	IS	25 26.3	5 0.4	8 0.7	2 0.7				174.8	17.3
OBIHIR	0	EP	10 25 09									142.6	
MORIOK	0	P	10 25 20.7	IS	25 48.2	6 0.4	5 0.4	2 0.3	S	0		260.9	27.5
AOMORI	0	EX	10 25 27			10 1.0	11 0.7					197.3	
MATSUS	0	IP	10 26 16.1						S		U	696.4	

OT= 8 16 26 40.0 +/- 0.7
OFF CHIBA PREF
LAT= 34 47 +/- 2 LONG= 139 50 +/- 4
H= 60 MAG=3.5 CLASS=L

OSHIMA	0	EP	16 26 51.6	ES	26 59.0	8 0.4	8 0.4	8 0.2				41.7	07.4
AJIRO	0	EP	16 26 55.1	IS	27 03.3	9 0.2	14 0.2	2 0.3				73.2	08.2
TOKYO	0	EP	16 26 57.5	IS	27 09.4	15 0.6	12 0.4					100.2	11.9
MATSUS	0	IP	16 27 15.2	IS	27 41				S		D	244.0	25.8

OT= 8 18 36 19.2 +/- 0.1
ARIAKEKAI
LAT= 32 58 +/- 1 LONG= 130 18 +/- 1
H= 20 MAG=3.8 CLASS=L

SAGA	0	IP	18 36 26.4	IS	36 29.8				N	5	U 5	30.9	03.4
KUMAMO	0	IP	18 36 28.1	IS	36 32.7	23 0.3	29 0.2	32 0.2	S	2 W 3	U 4	42.1	04.6
NAGASA	0	P	18 36 29.0	S	36 34.8						D	49.0	05.8
FUKUOK	1	EP	18 36 31.5	IS	36 39.7	30 0.3	39 0.4	3 0.5	N	2	0 U 9	68.4	08.2

OT= 9 12 28 46.8 +/- 0.7
OFF CHIBA PREF
LAT= 34 57 +/- 2 LONG= 140 9 +/- 3
H= 60 MAG=4.2 CLASS=S

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TATEYA	1	IP	12 28 58.0	IS	29 05.6	94 0.5	169 0.5	128 0.5			U110	26.0	07.6
YOKOHA	2	IP	12 29 00.5	S	29 10.7							70.3	10.2
OSHIMA	2	IP	12 29 01.2	IS	29 11.0	42 0.2	39 0.6	37 0.4				73.6	09.8
TOKYO	X	IP	12 29 02.6	S	29 13.6	220 0.0	91 0.0	18 0.0	S		U	89.0	11.0
AJIRO	1	IP	12 29 02.7	IS	29 14.0	46 0.2	43 0.2	16 0.3			D 2	96.7	11.3
MISHIM	0	EP	12 29 07.6	IS	29 18.6	24 0.7	24 0.9	10 0.3				112.7	11.0
KAKIOK	0	EP	12 29 08	ES	29 22	11 1.0	10 1.0	6 0.7				142.2	14.0
KAWAGU	0	P	12 29 09.2	IS	29 23.8							140.1	14.6
KUMAGA	0	EP	12 29 10.0	ES	29 26.6	11 0.8	7 0.8	4 0.8				149.8	16.6
MITO	0	EX	12 29 12.4	ES	29 29.4	6 0.7	4 0.7	2 0.8				161.1	
SHIZUO	0	EP	12 29 12.7	IS	29 29.9	10 0.4	13 0.4	3 0.2				159.2	17.2
KOFU	0	EP	12 29 13.2	IS	29 28.0	18 0.2	19 0.2	6 0.3				165.0	14.8
CHOSHI	0	S	12 29 16.2									106.6	
KARUIZ	0	EP	12 29 17.1	ES	29 38.0							211.5	20.9
HACHIJ	0	EP	12 29 19.0	IS	29 41.6	11 0.2	10 0.2	7 0.1				207.7	22.6
IIDA	0	EP	12 29 20.0	ES	29 42.4	5 0.8	5 0.6					219.6	22.4
MATSUS	0	IP	12 29 21.4	S	29 48				S	E	D	248.7	26.6

OT= 9 21 6 38.6 +/- 0.5
E COAST OF IBARAKI PREF
LAT= 36 40 +/- 2 LONG= 140 44 +/- 4
H= 90 CLASS=L

MITO	0	IP	21 06 53.7	IS	07 05.0	25 0.4	17 0.3	12 0.2	N	1	E 4 D 12	39.7	11.3
KAKIOK	0	IP	21 06 54.6	IS	07 06.6	13 0.5	23 0.5	12 0.3	N	2	E 5 U 1	68.4	12.0
SHIRAK	0	P	21 06 55.0	IS	07 06.7							67.6	11.7
UTSUNO	1	P	21 06 56.4	S	07 09.7							78.2	13.3
CHOSHI	0	IX	21 07 13.2									104.9	
MATSUS	0	IP	21 07 13.6	S	07 36						U	226.3	22.4

OT= 10 6 33 24.2 +/- 0.4
NW OF AOMORI PREF
LAT= 41 14 +/- 2 LONG= 140 25 +/- 3
H=140 CLASS=U

HAKODA	0	IP	06 33 46.1	IS	34 02.0	7 1.7	13 2.3	2 2.0			D	70.5	15.9
AOMORI	0	X	06 33 48.8			25 1.4	19 2.4	8 2.2				55.6	
HACHIN	0	IP	06 33 50.1	IS	34 08.2	6 1.2	6 0.6		N	2	W 2 U 3	122.1	18.1
URAKAW	0	P	06 34 00.0	S	34 27.9	4 0.4	11 0.6	2 0.6				222.0	27.9
OBIHIR	0	EP	06 34 09	S	34 42.6							298.3	33.6
MATSUS	0	IP	06 34 40.1						N		D	555.2	

OT= 10 12 20 54.5 +/- 1.4
S OFF YAKUSHIMA
LAT= 29 5 +/- 5 LONG= 130 53 +/- 7
H= 10 MAG=5.2 CLASS=U

YAKUSH	0	IP	12 21 20.8	ES	21 40.0	138 0.7	110 0.8	67 2.5	S	3	E D 1	156.0	19.2
KAGOSH	0	EP	12 21 39.6	X	22 21.2	68 2.6	147 3.0	38 2.8				277.7	
MIYAZA	0	IP	12 21 42.0	S	22 20.0	63 3.6	68 2.2	34 5.0	S	2	D 3	318.2	38.0
NAHA	0	X	12 21	X	23 10.0	22 3.1	23 2.0	18 5.6				446.2	
KUMAMO	0	EP	12 21 52.6	ES	22 52.6	31 2.0	40 2.0	9 1.4				413.3	60.0
NAGASA	0	EP	12 21 56.5	S	22 40.0						D	413.9	43.5
SAGA	0	P	12 22 00.5	X	23 32.2							464.5	
OITA	0	EP	12 22 01.4	X	23 10.4	51 2.2	84 3.1	29 2.2				465.3	
FUKUOK	0	EP	12 22 05.0	ES	23 06.0	6 3.8	8 4.4	7 3.2			D 1	500.6	61.0
FUKUE	0	X	12 22 07.0	X	23 01.0	4 3.6	5 3.6					446.1	
SHIMON	0	EP	12 22 10.0			5 3.2	11 3.8					539.7	
HAMADA	0	EP	12 22 27.0	ES	23 34.8	3 3.5	6 3.7	3 3.4				653.7	67.8
SUMOTO	0	P	12 22 29.5	X	24 29.1	5 3.4	3 3.2	3 3.2	N		E U	695.7	
OSAKA	0	EX	12 22 36			20 3.0	15 3.0	3 2.2				759.4	
NAGOYA	0	EP	12 22 53.4	X	25 13.0	5 2.8	3 3.0					884.9	
MATSUS	0	P	12 23 16	S	25 16							1073.1	120.0
KANAZA	0	EX	12 26			6 3.6	10 3.2					987.3	

OT= 12 1 41 44.0 +/- 0.5
OFF URAKAWA
LAT= 41 36 +/- 2 LONG= 142 49 +/- 4
H= 20 MAG=4.2 CLASS=L

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
URAKAW	2	P	01 41 56.2	IS	42 05.2	115 0.2		24 0.4				62.1	09.0
OBIHIR	0	EP	01 42 09	S	42 25.9							150.4	16.9
HACHIN	0	EP	01 42 10.0	IS	42 32.0	15 0.4	13 0.4					161.4	22.0
HAKODA	0	P	01 42 11.6	S	42 31.8	7 0.3	8 0.4	2 0.8			D	173.0	20.2
SAPPOR	0	EP	01 42 16	ES	42 39	5 1.8	6 1.4	2 1.6				203.1	23.0
AOMORI	0	EP	01 42 18	ES	42 39	19 0.7	17 1.2	11 1.9				191.5	21.0
MORIOK	0	P	01 42 23.3	S	42 49.5	4 0.4	6 0.4	2 0.4	N	0	E 0 D 0	253.2	26.2
MATSUS	0	IP	01 43 17.6	X	45 16				S		U	688.8	

OT= 12 14 5 25.7 +/- 0.4
OFF URAKAWA
LAT= 41 36 +/- 2 LONG= 142 36 +/- 3
H= 0 MAG=4.2 CLASS=U

URAKAW	0	IP	14 05 41.0	S	05 50.0	11 0.6	25 0.8	4 0.8			U 2	63.8	09.0
HACHIN	0	EP	14 05 52.5	ES	06 11.8	14 0.3	11 0.3	2 1.0				149.7	19.3
OBIHIR	0	EP	14 05 53	ES	06 11							155.4	18.0
HAKODA	0	P	14 05 53.7	IS	06 12.4	12 0.3	10 0.5	4 0.3			U	155.1	18.7
MORIOK	0	EP	14 06 06.4	ES	06 33.3	14 0.4	14 0.4	3 0.4				243.6	26.9
AOMORI	0	EX	14 06 18			19 0.7	14 0.9					175.5	
MATSUS	0	IP	14 07 02.0	X	08 47						D	678.1	

OT= 14 9 34 12.3 +/- 0.2
N PART OF MIYAGI PREF
LAT= 38 44 +/- 1 LONG= 141 5 +/- 2
H= 0 MAG=3.6 CLASS=U

ISHINO	0	IP	09 34 22.0	IS	34 27.2	16 0.2	13 0.2	5 1.8	N	1	D 1	39.2	05.2
SENDAI	0	EP	09 34 24.4	ES	34 31.7	13 1.0	13 1.0	5 1.5				54.9	07.3
OFUNAT	0	EP	09 34 26.8	IS	34 35.4	15 0.4	10 0.4	5 0.4				66.1	08.6
MORIOK	0	P	09 34 32.9	IS	34 47.0	6 0.4	12 0.4	2 0.4	S	0	D 0	107.2	14.1
AKITA	0	EX	09 34 42	EX	34 55.2	5 1.2	5 1.2	3 1.6				138.4	
MATSUS	0	P	09 35 08	S	35 51							351.7	43.0

OT= 15 1 1 58.5 +/- 0.5
OFF FUKUSHIMA PREF
LAT= 37 27 +/- 1 LONG= 141 40 +/- 3
H= 50 MAG=4.9 CLASS=M

FUKUSH	3	EX	01 02									110.6	
ONAHAM	2	IP	01 02 15.2	IS	02 24.6	100 1.0	100 1.0	50 0.7			U 6	87.7	09.4
ISHINO	1	IP	01 02 17.4	IS	02 28.0	77 1.2	75 1.4	35 1.0	S	17	E 5 D 20	112.8	10.6
SENDAI	1	IP	01 02 17.5	IS	02 28.1	97 1.5	95 0.5	55 1.8	S	14	E 14 D 51	112.4	10.6
SHIRAK	2	IP	01 02 20.6	IS	02 35.0				N	4	E 9 D 45	133.0	14.4
YAMAGA	0	IP	01 02 21.2	ES	02 37.1				S	1	E 2 D 4	146.2	15.9
MITO	1	P	01 02 24.4	IS	02 40.6	67 0.4	90 0.4	19 0.5				159.6	16.2
KAKIOK	0	P	01 02 25.3	S	02 45.5	73 1.3	74 1.0	40 0.8				188.5	20.2
OFUNAT	X	IP	01 02 26.0	IS	02 44.2	14 0.6	25 0.6	9 0.8	S	2	D 1	178.9	18.2
UTSUNO	2	IP	01 02 27.2	S	02 47.6							188.6	20.4
CHOSHI	0	P	01 02 29.9	X	02 53.0							205.1	
SAKATA	0	EP	01 02 33.0									227.4	
NIIGAT	0	EX	01 02 33.9			32 1.5	28 1.4	31 1.5				236.2	
MIYAKO	0	EP	01 02 34.2	ES	03 00.2	8 0.6	16 1.4	7 1.7				245.1	26.0
MORIOK	0	IP	01 02 35.2	S	03 01.6	45 0.4	50 0.3	8 0.6	S	1	D 0	253.1	26.4
				X	03 07.0								
KUMAGA	0	EP	01 02 36.0	ES	03 02.0	28 1.0	27 0.8	9 1.0				249.7	26.0
MAEBAS	0	IP	01 02 37.6	IS	03 04.9	23 1.3	30 0.8	11 0.9	N	1	E 2 D 6	259.3	27.3
TOKYO	0	P	01 02 38.8	S	03 05.6	71 0.4	34 0.6	9 0.9				259.8	24.8
CHICHI	0	EP	01 02 39.0	S	03 06.5							281.9	27.5
AKITA	0	P	01 02 40.0	EX	03 15.8	26 4.0	17 2.6	10 3.0			D 4	286.3	
KARUIZ	0	EP	01 02 42.0	ES	03 17.1							303.7	35.1
MATSUS	0	IP	01 02 45.1	S	03 18				N		E D	324.0	32.9
HACHIN	0	EP	01 02 46.5	ES	03 26.2	8 0.8	6 1.4					341.6	39.7
KOFU	0	EP	01 02 47.2	ES	03 25.2	42 1.4	40 1.6	11 1.6				341.5	38.0
NAGANO	0	EP	01 02 47.3	X	03 31.9	17 2.6	13 3.5	5 3.2				320.8	
TATEYA	0	EP	01 02 47.5			43 2.5	40 1.7	17 2.0				317.8	
TAKADA	0	X	01 02 48.4									305.4	
AJIRO	0	EP	01 02 49.8	ES	03 29.8	5 0.4	5 0.4	3 0.6				353.0	36.0
OSHIMA	0	P	01 02 50.4	S	03 26.8	19 0.8	15 0.8	7 0.4				362.4	36.4
KAWAGU	0	X	01 02 53.3	S	03 32.7							338.4	
MISHIM	0	EP	01 02 53.7	ES	03 26.6	22 0.7	24 0.7	10 0.6				357.4	32.6
IIDA	0	EP	01 02 56.6	ES	03 43.0	9 1.2	8 1.4	6 1.0				405.2	46.4
SHIZUO	0	EP	01 02 57.4	ES	03 39.4	10 1.6	10 1.0	4 1.2				401.7	42.0

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Introductory Note

This is given only in the first bulletin every year.

1. Phase.
   Special symbol A for phases is used as follows: APP and ASS represent *pP* and *sS*, respectively. Others are popular ones.
2. Nature of the motion.
   I : Sudden commencement of a phase.
   E : Gradual or indistinct commencement of a phase.
3. Amplitude.
   Maximum amplitude is the apparent maximum double amplitude on the record of VI, or S seismographs (cf. page 3 and response curves), divided by both 2 and the static magnification. Numeral 99999 is used, when amplitude is too large to measure.
4. Limit of seismometry.
   Excluding Matsushiro, seismogram reading is usually limited to earthquakes whose double trace amplitude is greater than one milimeter on one of WI, W, S, P and VD seismograms from 1965 onward.
   Data obtained by Matsushiro are left out from the statistics of unfelt earthquakes in List 2.
5. Period.
   T : Period, duration of one complete oscillation.
6. JMA seismic intensity scales.
   The intensity of the shock is estimated according to the scales 0–7 as follows:
   0 : No feeling. Shocks to cause human feelings and registered only by a seismograph, but special symbol (X) is used when shocks are felt by some neighbours, but not by observer.
   1 : Slight. Extremely feeble shocks only felt by persons at rest or by those who are observant to an earthquake.
   2 : Weak. Shocks felt by most persons, slight shaking of doors and Japanese latticed sliding doors (*shoji*).
   3 : Rather strong. Slight shaking of houses and buildings, rattling of doors and Japanese latticed sliding doors (*shoji*), swinging of hanging objects like electric lamps, moving of liquids in vessels.
   4 : Strong. Strong shaking of houses and buildings, overturning of unstable objects, spilling of liquids out of vessels.
   5 : Very strong. Cracks in the walls, overturning of gravestones, stone lanterns etc., damage to chimneys and mud-and-plaster warehouses.
   6 : Disastrous. Demolition of houses by less than 30% in total number, landslips in the ground etc.
   7 : Very disastrous. Demolition of houses by more than 30%, intense landslips, large fissures in the ground, faults.
7. The felt earthquakes in Lists 2–5 are classified according to the distances of the furthest meteorological or climatological station of JMA where the shock is felt, as follows :
   Remarkable earthquake (**R**) : Distance of the furthest point where shock is felt, is greater than 300 km.
   Moderate earthquake (**M**) : The distance is shorter than 300 km, but greater than 200 km.
   Earthquake of small felt area (**S**) : The distance is shorter than 200 km, but greater than 100 km.
   Local earthquake (**L**) : The distance is shorter than 100 km.

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STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
AOMORI	0	X	01 02 58	EX	03 35	30 1.2	29 1.4	9 1.1				381.5	
TOYAMA	0	EP	01 03 00	X	04 05	7 3.2	10 2.6	5 3.2				404.8	
YOKOHA	0	S	01 03 05.5									287.1	
HAKODA	0	EP	01 03 07	ES	04 04	7 1.8	7 2.0	4 1.8				490.7	57.0
HAMAMA	0	EP	01 03 07	ES	03 52	5 2.0	7 1.6	3 1.2				467.5	45.0
GIFU	0	X	01 03 09.0			6 1.3	7 1.3					494.9	
OMAEZA	0	X	01 03 09.5			12 2.2	9 2.6					443.3	
HACHIJ	0	EP	01 03 10.4	S	04 01.8	5 0.4	6 0.4					511.6	51.2
URAKAW	0	EP	01 03 11	ES	04 10	6 0.8	14 1.2	3 1.0				531.4	59.0
NAGOYA	0	EP	01 03 11.0	ES	04 03.0	12 1.0	15 1.0	5 1.6				492.1	52.0
HIKONE	0	EX	01 03 16.0			9 1.0	9 1.0	3 0.9				542.9	
OBIHIR	0	EX	01 03 21									621.6	
TOYOOK	0	EP	01 03 26.3			9 1.2	8 1.1					648.9	
KUSHIR	0	EP	01 03 27	ES	04 28	7 0.9	6 0.8	2 0.6				656.2	61.0

OT= 16 10 58 58.4 +/- 0.2
NEAR MATSUSHIRO
LAT= 36 34 +/- 1 LONG= 138 15 +/- 1
H= 10 MAG=3.8 CLASS=L

MATSUS	2	IP	10 59 01.2									S	W	U		4.9	
NAGANO	3	EP	10 59 01.6	IS	59 03.6	240		280		215						11.4	02.0
KARUIZ	0	IP	10 59 06.6	S	59 12.4									D	4	36.9	05.8
MATSUM	0	IP	10 59 07.9	IS	59 14.0									U		43.6	06.1
TAKADA	0	EP	10 59 10.4	S	59 17.8											59.7	07.4
MAEBAS	0	IP	10 59 12.2	S	59 31.2	7	3.4	6	2.6	9	3.6	N	1	W	2 D 9	75.3	19.0
TOYAMA	0	P	10 59 16.8	S	59 36.8	9	3.8	9	3.4	5	3.6				D 1	94.4	20.0
KOFU	0	IP	10 59 18.2	ES	59 29.8	10	0.2	9	0.4	3	1.0				D 1	103.8	11.6
KUMAGA	0	EP	10 59 19.0	ES	59 34.6	8	3.6	7	4.6	7	4.0					112.0	15.6
GIFU	0	X	10 59	S	59 54.5	6	1.7	9	1.8							186.3	
WAJIMA	0	EP	10 59 24	ES	59 40	15	0.8	22	0.8							151.1	16.0
NAGOYA	0	EP	10 59 28.0	S	59 55.6	5	1.4	7	1.2	2	1.0					198.8	27.6
MITO	0	EP	10 59 32.6	S	59 55.6	5	0.6	4	0.5	2	0.6					200.2	23.0

OT= 16 16 25 9.2 +/- 0.3
NE PART OF GUNMA PREF
LAT= 36 38 +/- 2 LONG= 139 14 +/- 3
H=140 CLASS=U

UTSUNO	0	IP	16 25 30.4	S	25 45.9											55.0	15.5
MATSUS	0	IP	16 25 32.7	IS	25 49.6							S	W	U		95.3	16.9
TOKYO	0	EX	16 25 35.5	S	25 56.6	7	0.6									114.1	
KOFU	0	EP	16 25 36.0	ES	25 55.6	7	0.4	7	0.3	2	1.0					124.9	19.6
AJIRO	0	EP	16 25 40.3	ES	26 00.0	4	0.2	5	0.2	1	0.4					177.0	22.7

OT= 17 0 35 15.0 +/- 0.3
OFF IWATE PREF
LAT= 40 7 +/- 1 LONG= 142 27 +/- 2
H= 30 MAG=4.8 CLASS=S

MIYAKO	1	P	00 35 28.1	IS	35 35.7	38	2.5	52	2.1	22	2.2					66.6	07.6
HACHIN	2	IP	00 35 30.5	IS	35 41.4	43	0.6	35	1.0	16	3.6	S	1	E	1 D 1	90.8	10.9
MORIOK	1	IP	00 35 35.1	S	35 50.0	108	0.4	79	0.5	35	0.6	N	0	E	1 D 0	119.1	14.9
OFUNAT	1	IP	00 35 37.2	IS	35 51.7	37	0.8	41	1.0	21	1.2	S	1	W	1 U 1	132.9	14.5
AOMORI	0	P	00 35 40.4	S	35 57.0	110	0.7	97	0.7	29	1.3					161.3	16.6
ISHINO	0	EP	00 35 47.2	IS	36 11.2	16	0.8	18	0.8	12	1.2					212.3	24.0
AKITA	0	EX	00 35 48	ES	36 12.4	34	2.2	23	2.4	18	2.2					205.6	
HAKODA	0	P	00 35 50.9	IS	36 16.6	12	1.3	22	2.6	8	2.4	N	1		U	236.2	25.7
URAKAW	0	EP	00 35 51	ES	36 17	10	0.4	25	0.6	9	3.2					228.4	26.0
SENDAI	0	P	00 35 52.6	ES	36 19.1	22	1.5	47	2.2	8	1.5					245.8	26.5
YAMAGA	0	EP	00 35 56.4	ES	36 26.0											275.1	29.6
SAKATA	0	EP	00 35 56.5													262.0	
KUSHIR	0	EP	00 36 06	ES	36 38	14	0.6	9	0.6	3	0.3					356.9	32.0
SAPPOR	0	EP	00 36 09			7	2.2	8	2.0	3	1.6					339.8	
OBIHIR	0	X	00 36 09													318.0	
SHIRAK	0	EP	00 36 10.0	ES	36 56.6											385.1	43.6
ASAHIK	0	P	00 36 14.0	S	37 01.9	5	1.4	4	2.1	6	2.0				U	405.9	47.9
KAKIOK	0	EP	00 36 17	X	37 26	13	0.6	11	0.8	5	0.7					474.3	
MITO	0	EP	00 36 18.6	ES	37 07.5	12	2.0	7	1.6	5	2.1					449.6	48.9
KUMAGA	0	EP	00 36 28.6	ES	37 29.0	9	1.6	8	1.6	4	1.4					516.0	60.4
MATSUS	0	IP	00 36 29.7	X	37 41										U	543.3	
TOKYO	0	EX	00 36 35	ES	37 31.7	9	1.8	7	1.6							545.8	
ONAHAM	0	EX	00 36 37.3													376.9	

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KOFU	0	EP	00 36 41.0	ES	37 50.8	5 1.2	5 1.2	2 1.4				600.9	69.8
NAGANO	0	X	00 36			8 3.0	5 2.4	4 3.0				534.0	
TATEYA	0	EX	00 37 07.7			7 2.2	5 2.1	4 2.0				613.6	

OT= 17 16 14 31.9 +/- 0.3
N PART OF SHIZUOKA PREF
LAT= 35 17 +/- 1 LONG= 138 36 +/- 2
H= 10 MAG=3.1 CLASS=U

KAWAGU	0	IP	16 14 38.4	IS	14 41.4											28.1	03.0
MISHIM	0	IP	16 14 39.5	IS	14 43.7	9	0.5	12	0.6	8	0.3				N 6	35.6	04.2
KOFU	0	IP	16 14 40.6	IS	14 46.2	5	0.6	7	0.4	2	0.8				N 2	42.5	05.6
MATSUS	0	IP	16 14 57.2	S	15 16							S	E	N		143.6	15.8
OMAEZA	0	X	16 15 03.3			7	1.0	3	1.0							83.3	

OT= 19 16 2 9.4 +/- 0.4
NE OFF HOKKAIDO
LAT= 44 33 +/- 3 LONG= 143 29 +/- 3
H=260 CLASS=R

ABASHI	1	IP	16 02 46.6	IS	03 14.4	1400	4.2	5500	6.4	3200	3.6					87.1	27.8
ASAHIK	1	IP	16 02 47.3	ES	03 22	1500	3.0	2700	4.6	2200	3.6					124.1	34.7
RUMOI	1	IP	16 02 47.9	ES	03 17	1150	3.5	1600	4.9	900	3.1	N	4			162.1	29.1
WAKKAN	0	X	16 02 50	S	03 14.9	3300	3.3	2100	7.6	900	3.3					172.1	
KUSHIR	4	IP	16 02 51.2	IS	03 24.1	1800	0.8	2800	1.1	500	3.1	S	101	E	50 U142	189.5	32.9
OBIHIR	3	IP	16 02 51.9	S	03 26.4	4600	4.7			1800	2.7	S	60		U 49	182.4	34.5
NEMURO	3	IP	16 02 53.2	IS	03 27.6	1400	2.6	2400	5.0	700	4.4	N	47	W	56 D249	216.7	34.4
SAPPOR	1	IP	16 02 55.3	S	03 33	3300	2.0	2400	2.2	1400	2.2	S		W	U	239.7	37.7
				ISCS	16 53.4														
HIROO	3	IP	16 02 55.6	IS	03 30.2	800	4.0	600		700	3.6			E	23	252.2	34.6
URAKAW	3	P	16 02 58.7	S	03 36.2	2300	3.8	3100	4.4			S	300	W	202 U357	271.8	37.5
SUTTSU	0	IP	16 03 00.4	ES	03 39	1900	3.4	1000	3.8	1600	2.8	S	115	W	104 U185	326.6	38.6
MURORA	2	IP	16 03 02.2	S	03 42.8	700	2.0	500	2.6	600	2.8	S		7	W 5 U 20	320.3	40.6
HAKODA	2	IP	16 03 07.5	ES	03 54	600	1.6	700	3.4	500	2.7	S	344	W	317 U377	376.2	46.5
HACHIN	4	IP	16 03 17.0	IS	04 08.8	500	2.4	600	4.9	350	0.6	S		W	U	475.2	51.8
AOMORI	3	IP	16 03 20.9	S	04 14.2	3100	2.0	3900	1.8	1000	1.8	S	483	W	279 U619	470.1	53.3
MIYAKO	2	IP	16 03 26.6	IS	04 26.1	350	2.1	1100	3.2	250	2.1	S	280	W	65 U156	559.1	59.5
MORIOK	3	IP	16 03 28.1	IS	04 28.6	700	2.3	800	4.6	400	3.0	S		1	W 1 U 1	572.1	60.5
AKITA	1	P	16 03 32.6	ES	04 39.3	1050	3.7	1100	4.4	950	4.2	S	172	W	75 U315	605.1	66.7
OFUNAT	3	IP	16 03 34.3	IS	04 39.2	150	2.6	450	3.0	150	1.8	S		4	W 1 U 4	627.0	64.9
ISHINO	1	EP	16 03 42.8	IS	04 56.8	300	4.4	450	2.9	300	2.7	S	160	W	37 U152	704.2	71.0
SAKATA	2	EP	16 03 43.7			2100	4.5	2150	4.1	1000	4.7					696.6	
SENDAI	1	EP	16 03 46.1	IS	05 00.8	505	2.5	550	2.5	340	4.0	S	282	W	74 U122	731.2	74.7
YAMAGA	1	IP	16 03 48.3	IS	05 08.2	550	2.0	750	4.2	500	4.0	S	94	W	26 U102	746.7	79.9
NIIGAT	0	IP	16 03 58.4	S	05 28.8	1400	4.2	1600	5.0	600	4.5				U171	825.5	90.4
AIKAWA	0	IP	16 03 58.8	IS	05 20.6	308	4.6	363	3.0	195	5.0	S	103	W	31 U101	847.4	81.8
FUKUSH	2	EX	16 03			300	4.0	150	4.0							795.5	
SHIRAK	0	IP	16 04 01.7	S	05 29.8	200	3.6	300	3.0	100	2.8	S	30	W	15 U 36	869.7	88.1
ONAHAM	X	IP	16 04 02.6	ES	05 27.6	330	1.2	530	3.4	130	1.5	S	10	W	20 U 36	872.0	85.0
MITO	1	IP	16 04 09.8	ES	05 48.4	350	3.3	400	3.4	250	1.9	S	51	W	25 U 62	942.5	98.6
UTSUNO	1	IP	16 04 09.9	S	05 46.3											939.7	96.4
TAKADA	0	IP	16 04 10.9	S	05 45.6							S	27	W	17 U 41	936.8	94.7
KAKIOK	1	IP	16 04 12.5	S	05 46.3	195	1.3	172	1.5	102	3.2	S	40	W	16 U 43	964.8	93.8
WAJIMA	0	IP	16 04 12.6	ES	05 46	11	3.9	20	3.9	280	3.8	S	70	W	47 U 66	968.6	93.4
MAEBAS	0	IP	16 04 14.2	IS	05 56.2	600	4.4	557	4.6	458	4.2	S	58	W	25 U142	979.0	99.0
MATSUS	0	IP	16 04 15.8	S	05 56							S		W	U	995.1	100.2
NAGANO	0	IP	16 04 16.9	ES	05 46.5	400	3.5	400	3.5	199	2.0	S	76	W	30 U 12	983.3	89.6
CHOSHI	0	P	16 04 17.0	S	05 56.2							S	11		U 13	005.3	99.2
KARUIZ	0	IP	16 04 17.2	S	05 52.0							S	27	W	21 U 28	002.6	94.8
KUMAGA	0	IP	16 04 17.6	S	06 00.0	306	4.8	302	4.4	250	4.0	S	23	W	10 U 90	995.7	102.4
TOYAMA	0	P	16 04 18.6	S	05 58.6	337	4.2	277	4.4	338	3.4	S	28	W	25 U 61	1019.3	100.0
CHICHI	0	IP	16 04 19.8	IS	05 58.2	200	3.3	250	6.6	200	3.3	S		5	W 2	1021.0	98.4
TOKYO	1	IP	16 04 21.0	ES	06 04.5	504	4.8	540	4.8	279	4.2					1034.0	103.5
MATSUM	0	P	16 04 21.4	S	06 05.0	200	4.0	250	4.7	150	4.5	S	24	W	14 U 32	1033.7	103.6
				ESCS	16 59.0														
YOKOHA	0	P	16 04 23.6	S	06 08.6											1063.1	105.0
KOFU	0	IP	16 04 24.6	ES	06 03.2	221	2.6	198	1.7	116	4.0	S	57	W	30 U 66	1071.7	98.6
TAKAYA	0	P	16 04 25.3	S	06 13.6	200	3.9	350	4.1	150	3.0	S	14	W	6 U 15	1071.5	108.3
KANAZA	0	IP	16 04 25.6	S	06 02.0			303	3.6	197	3.6			W	21 U 54	1059.8	96.4
KAWAGU	0	EP	16 04 26.2	ES	06 10.2	450	1.3	300	2.2	150	2.2					1082.3	104.0
TATEYA	0	P	16 04 28.0	S	06 22.1	330	5.6	327	5.5	173	4.9					1106.1	114.1
MISHIM	0	IP	16 04 28.6	ES	06 14.9	207	4.2	235	4.4	106	3.4	S	28	W	19 U 31	1117.6	106.3
AJIRO	0	EP	16 04 28.9	ES	06 20.9	50	3.0	52	2.7	53	3.7					1120.0	112.0
IIDA	0	IP	16 04 29.0	ES	06 20.4	110	4.0	102	4.2	77	4.2	S	45	W	29 U 55	1112.9	111.4
OSHIMA	0	EP	16 04 31.1	IS	06 24.9	111	4.3	174	4.7	68	2.0					1142.0	113.8

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
FUKUI	0	P	16	04	31.2	X	06	37.0	200	3.5	300	4.0	200	3.4	S	18 W	9 U 12	1126.3	
SHIZUO	0	IP	16	04	33.7	S	06	29.2	98	2.0	150	3.6	110	2.2	S	22 W	11 U 35	1148.2	115.5
TSU	0	X	16	04		S	06	54.4	100	0.6	83	0.7	30	0.9				1245.1	
IROZAK	0	EP	16	04	34.8	EX	06	30.0	250	5.5	250	4.3	100	4.5				1173.8	
GIFU	0	IP	16	04	36.7	IS	06	31.9	244	4.5	188	4.1	59	2.3	S	58 W	34 U 30	1166.1	115.2
TSURUG	0	P	16	04	36.8	IS	06	33.5	200	3.0	300	3.5			S	12 W	5 U 11	1172.2	116.7
						SCS	17	00.8											
NAGOYA	0	IP	16	04	37.0	IS	06	34.5	203	3.6	212	3.3	90	3.4	S	44 W	25 U 48	1180.8	117.5
						SCS	17	02.8											
HAMAMA	0	P	16	04	38.3	ES	06	35	142	4.0	155	4.0	71	3.8	S	2 W	2 U 2	1198.6	116.7
OMAEZA	0	IP	16	04	38.4				309	4.0	357	4.4	120	4.0	S	38 W	29 U 69	1192.9	
HIKONE	0	IP	16	04	39.9	IS	06	37.2	196	3.9	174	3.9	118	3.6	S	62 W	38 U 56	1200.4	117.3
MAIZUR	0	EP	16	04	44.2	ES	06	43.4							S	8 W	4 U 6	1220.9	119.2
TOYOOK	0	IP	16	04	44.8	IS	06	46.5	142	3.8	173	4.6	63	6.4	S	21 W	15 U 40	1242.7	121.7
KYOTO	0	P	16	04	45.0	S	06	50.0	70	4.6	74	6.2	42	3.3	S	17 W	13 U 22	1248.5	125.0
SAIGO	0	IP	16	04	46.6	S	06	52.0							S	1 W	1 U 2	1263.7	125.4
NARA	0	P	16	04	47.8				250	3.5	150	2.6	80	2.6	S	5 W	4 U 4	1276.0	
TOTTOR	0	P	16	04	48.6	S	06	52.9	100	3.9	200	3.7	100	2.9				1278.1	124.3
OSAKA	0	IP	16	04	49.2	ES	06	56	300	3.9	310	3.2	117	3.2	S	30 W	14 U 34	1290.3	126.8
KOBE	0	EP	16	04	50.8	ES	06	58.4	100	3.8	150	4.6	100	3.4				1305.0	127.6
OWASE	0	IP	16	04	52.0	IS	07	09.2	47	5.2	65	4.0	35	3.8	S	W	U	1321.4	137.2
HACHIJ	0	IP	16	04	52.2	S	06	57.8	153	1.8	138	2.0	100	2.0	S	40 W	4 U 40	1310.3	125.6
WAKAYA	0	P	16	04	52.3	S	07	04.3	129	3.5	107	3.7			S	24 W	14	1350.0	132.0
YONAGO	0	EP	16	04	53.0	S	07	09.5							S	W	U	1330.0	136.5
HIMEJI	0	P	16	04	54.1	S	07	00.2										1313.7	126.1
SUMOTO	0	IP	16	04	55.6	S	07	04.0	75	4.6	58	4.5	41	3.8	S	13 W	7 U 15	1351.4	128.4
						EX	13	27.6											
						SCS	17	04.3											
MATSUE	0	EP	16	04	56.3	ES	07	06.3										1343.2	130.0
OKAYAM	0	EP	16	04	57.2	ES	07	09.2	89	3.6	110	3.8	48	4.2	S	W	U 1	1367.4	132.0
TAKAMA	0	IP	16	05	00.0	IS	07	14.2	47	4.0	70	4.0	22	6.0	S	9 W	9 U 2	1394.0	134.2
TOKUSH	0	EP	16	05	00.4	ES	07	15.8										1392.7	135.4
SHIONO	0	P	16	05	00.9	X	07	29.9	110	4.1	131	3.1	65	3.4	S	20 W	18 U 15	1400.6	
ANABUK	0	P	16	05	02.1	S	07	18.9										1435.9	136.8
HAMADA	0	P	16	05	06.9	S	07	27.2	163	6.5	217	4.8	85	4.6	S	7 W	6 U 7	1448.6	140.3
MUROTO	0	IP	16	05	10.7	ES	07	47.0	55	6.2	72	4.8	39	6.0	S	1 W	1 U 1	1489.5	156.3
						EX	12	54.0											
HIROSH	0	IP	16	05	10.9	IS	07	34.2	154	6.4	349	4.1	108	3.8	S	23 W	21 U 25	1474.7	143.6
KOCHI	0	EP	16	05	11.1	ES	07	37.9							S	2 W	2 U 4	1491.8	146.8
MATSUY	0	IP	16	05	14.1	IS	07	47.8	439	4.2	500	3.0	138	3.2	S	21 W	14 U 13	1503.4	153.7
IZUHAR	0	EP	16	05	21	ES	08	38	24	3.0	30	2.4	8	1.4				1673.0	197.0
UWAJIM	0	EP	16	05	22	ES	07	54										1571.4	152.0
ASHIZU	0	IP	16	05	23.8	IS	08	06.7	140	4.6	165	4.1	47	3.9	S	12 W	7 U 13	1595.7	162.9
SHIMON	0	P	16	05	25.0	ES	07	58.0	93	3.8	210	8.8	53	4.2	S	4 W	4 U 7	1595.0	153.0
OITA	0	IP	16	05	26.1	IS	07	58.7	350	2.4	600	2.4	350	3.2	S	26 W	20 U 14	1620.2	147.6
FUKUOK	0	EP	16	05	31.1	S	08	11.5	200	2.4	350	3.0	100	2.8	S	6 W	11 U 19	1659.9	160.4
NOBEOK	0	EP	16	05	32.1	ES	08	14.3	300	3.9	200	3.3	350	3.7	S	4 W	3 U 4	1676.1	162.2
ASOSAN	0	EP	16	05	36	EX	08	18	380	4.2	175	4.0	175	3.6				1682.1	
KUMAMO	0	P	16	05	36.5	IS	08	20.8	380	3.6	421	3.2	85	2.4	S	7 W	6 U 5	1708.5	164.3
SAGA	0	IP	16	05	36.9	S	08	31.7							N	3 E	4	1693.2	174.8
MIYAZA	0	P	16	05	41.0	S	08	30.0	190	3.4	220	3.5	136	3.4		W	9 U 16	1750.9	169.0
NAGASA	0	EP	16	05	43.0	IS	08	33.0							N	1 E	1 n	1764.6	170.0
KAGOSH	0	IP	16	05	50.0	ES	08	48.5	230	3.4	246	3.4	56	3.0	S	6 W	7 U 11	1828.7	178.5
YAKUSH	0	IP	16	05	59.6	IS	09	03.6	60	4.4	118	10.0	37	4.0	N	E	n	1935.5	184.0
FUKUE	0	P	16	06	48.6	EX	09	43.4	110	5.8	97	9.0	58	4.2	N	5 E	3 n 6	1826.8	
NAHA	0	P	16	06	50.0	IS	10	36.0	92	3.0	43	5.4	25	3.0				2477.7	226.0
ISHIGA	0	EP	16	07					7	9.1	11	10.4	8	8.8				2843.9	

OT= 20 0 17 0.0 +/- 0.7
N PART OF CHIBA PREF
LAT= 35 42 +/- 4 LONG= 140 11 +/- 9
H= 80 CLASS=U

TOKYO	0	IP	00	17	14.2	S	17	24.0	15	0.4	9	0.4						38.5	09.8
KAKIOK	0	IP	00	17	14.9	S	17	23.5	10	0.3	8	0.3	4	0.3				59.0	08.6
AJIRO	0	EP	00	17	21.7	ES	17	35.0	4	0.2	5	0.2	1	0.3				122.7	13.3
OSHIMA	0	P	00	17	22.2	S	17	37.1	8	0.4	9	0.4	9	0.2				127.3	14.9

OT= 20 3 4 23.7 +/- 0.4
E OFF AOMORI PREF
LAT= 41 9 +/- 1 LONG= 142 39 +/- 3
H= 40 MAG=5.0 CLASS=M

URAKAW	0	IP	03	04	42.7	S	04	56.8	56	3.6	76	2.6	24	3.4	S	6 W	5 n 8	112.5	14.1
HACHIN	1	IP	03	04	42.8	IS	04	54.2	126	0.6	88	0.6	20	3.2	S	2 W	3 U 2	117.6	11.4

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
HIROO	0	EP	03	04	47	S	05	03										137.6	16.0
AOMORI	X	IP	03	04	49.3	S	05	06.7	173	0.9	230	0.7	103	0.8	S	4 W	11 U 12	161.4	17.4
HAKODA	0	IP	03	04	50.2	IS	05	08.6	58	0.8	38	0.7	20	1.2			U	174.3	18.4
MIYAKO	0	EP	03	04	51.1	IS	05	13	12	1.5	18	0						176.9	21.9
MURORA	0	EP	03	04	51.5	ES	05	09.8								W	U	189.8	18.3
OBIHIR	0	EP	03	04	55	S	05	21.9										202.2	26.9
MORIOK	1	IP	03	04	55.1	S	05	17.6	86	0.3	120	0.4	20	0.3	S	0 W	1 U 0	204.6	22.5
SAPPOR	0	P	03	04	58.7	ES	05	23	15	1.8	21	2.8	8	1.2				238.4	24.3
KUSHIR	0	IP	03	04	59.6	IS	05	24.0	18	0.6	15	0.3	6	1.2		E	2 U 3	249.2	24.4
OFUNAT	0	IP	03	05	00.0	IS	05	27.2	20	0.6	20	0.4	10	0.8	N	1	D 2	245.1	27.2
AKITA	0	EP	03	05	04.8	ES	05	34.4	23	1.6	28	1.6	15	1.4				268.4	29.6
ASAHIK	0	P	03	05	07.0	ES	05	39	19	2.1	15	2.0	14	2.4				292.0	32.0
ISHINO	0	EP	03	05	10.0	IS	05	46.0	11	1.2	13	1.2	11	1.2			D 1	323.8	36.0
ABASHI	0	EP	03	05	11	ES	05	52	5	1.4	8	2.4	3	1.8				345.6	41.0
SENDAI	0	EP	03	05	14.9	ES	05	46.2	17	2.0	14	0.8	5	0.8			D 1	354.2	31.3
SAKATA	0	EP	03	05	15.3													346.2	
ONAHAM	0	EX	03	05	29.8													490.6	
SHIRAK	0	EP	03	05	31.5	ES	06	27.7										494.2	56.2
KAKIOK	0	X	03	05		X	07	03	19	0.7	13	1.0	5	0.8				586.2	
MITO	0	EX	03	05	38.5	EX	06	39.4	13	1.4	13	1.5	7	1.6				562.4	
KUMAGA	0	EP	03	05	47.6	ES	07	02.4	13	1.4	8	1.2	6	1.4				623.8	74.8
WAJIMA	0	EX	03	05	50				5	0.5	5	0.5						648.3	
TOKYO	0	EP	03	05	51.5	ES	07	01.5	13	1.6	9	1.0	8	2.8				656.9	70.0
KOFU	0	EP	03	06	01.8	ES	07	19.6	6	1.4	5	2.4	3	1.2				705.7	77.8
TATEYA	0	EX	03	06	03.5				20	2.7	10	1.5	8	1.7				726.5	

OT= 20 4 50 52.1 USCGS
NEW HEBRIDES IS
LAT=-14 54 LONG= 167 12
H=112 MAG=6.2 CLASS=U

HACHIJ	0	X	04	00	09.6				17	1.6	17	2.0	20	1.6				6052.0	
OSHIMA	0	EP	04	00	20.3	EX	07	59.4	14	4.7	12	1.6	10	1.4				6227.0	
TATEYA	0	P	04	00	21.0				34	5.8	58	4.0	24	3.2				6223.5	
NAHA	0	IP	04	00	22.9	EX	04	31.7	7	4.0	5	4.0	10	2.4				6237.8	
AJIRO	0	E	04	00	23.0				5	2.8	6	2.5	9	3.5				6267.2	
MISHIM	0	IP	04	00	24.0	ES	08	03.6	20	4.1	19	4.1	10	3.4			n 10	6281.8	459.6
						ESCS	10	03.5											
OMAEZA	0	EP	04	00	24.1				13	4.4	19	4.4	10	4.2				6271.4	
SHIZUO	0	IP	04	00	25.2	ES	08	07.0	9	4.0	14	4.0	12	5.0	S	3 E	2 n 8	6295.5	461.8
SHIONO	0	P	04	00	25.5	S	08	10.0	10	4.6	16	4.7						6299.3	464.5
HAMAMA	0	P	04	00	25.6	ES	08	00	11	3.8	18	3.8	8	7.0			n 1	6306.4	454.4
TOKYO	0	IP	04	00	26.0				25	6.8	33	4.6	15	4.2				6294.6	
KAWAGU	0	P	04	00	26.6	EX	10	04.1										6326.0	
OWASE	0	IP	04	00	27.6				4				8	3.6	S		n	6330.3	
MITO	0	IX	04	00	28.0				11	4.6	12	4.0	10	6.9				6326.2	
KOFU	0	IP	04	00	28.6	ES	08	14.0	12	4.8	16	4.4	10	5.0	S	4	n 5	6351.7	465.4
KUMAGA	0	X	04	00	30.0				22	7.0	15	6.6	22	4.6				6355.9	
IIDA	0	EX	04	00	30.2													6373.9	
MUROTO	0	IP	04	00	30.6	ES	08	19.0	8	4.0	8	6.0	11	5.9	S	1 E	1 n 1	6372.5	468.4
						EX	01	10.0											
MAEBAS	0	P	04	00	30.9				12	6.1	9	8.0	14	3.7			n 5	6395.2	
NAGOYA	0	IP	04	00	31.0	S	08	20.0	8	2.8	16	3.0	8	1.2	S	3 E	2 n 8	6387.4	469.0
						SCS	10	18.0											
YAKUSH	0	IP	04	00	31.1	S	08	19.8	7	5.8	8	4.4	13	4.4	S	3 E	2 n 7	6367.6	468.7
WAKAYA	0	EX	04	00	32.4													6401.4	
OSAKA2	0	IP	04	00	32.8	IS	08	23.1										6408.1	470.3
						EX	01	12.2											
ASHIZU	0	P	04	00	33.4	S	08	23.4	9	5.8	13	3.0	13	1.6	S	4	n 9	6395.9	470.0
SUMOTO	0	IP	04	00	33.5	IS	08	24.1	10	5.8	6	5.0	9	3.8	S	1 E	2 n 6	6425.4	470.6
						IX	01	12.4											
						IX	10	18.1											
						EX	30	25.4											
OSAKA	0	IP	04	00	33.7	ES	08	26.0	63	4.0	21	4.0	13	10.5				6421.6	472.3
						EX	01	13.7											
MATSUS	0	IP	04	00	34.0	S	08	26							S		n	6449.9	472.0
MIYAZA	0	P	04	00	34.6	S	08	28.0	15	6.6	10	2.4	15	3.2			n 10	6427.1	473.4
KOBE	0	EX	04	00	34.7													6441.4	
KYOTO	0	P	04	00	35.3	ES	08	27.0	7	4.8	5	4.7	6	4.6				6439.6	471.7
KAGOSH	0	IP	04	00	36.4	ES	08	27.7	14	2.6	25	2.6	11	1.6	S	3 E	2 n 8	6454.7	471.3
						IX	08	31.1											
SENDAI	0	P	04	00	37	S	08	30	9	4.5	10	0.5	12	4.0	S	5 E	3 n 10	6486.2	473.0
HIKONE	0	EP	04	00	37.3	ES	08	26.3	11	1.6	9	1.9						6435.4	469.0
ISHINO	0	EP	04	00	38.0	EX	08	31.7	8	4.2	7	5.4	14	4.4	S	7 E	4 n 13	6484.5	
NAGANO	0	P	04	00	38.2	ES	08	31.5	16	4.0	16	4.0	9	1.5				6461.7	473.3
						X	01	32.0											
OKAYAM	0	EP	04	00	38.8	ES	08	34.2	4	4.2	6	5.5	9	5.0	S	E	n 1	6511.9	475.4
TOYAMA	0	P	04	00	39.0	EX	08	34	16	2.0	11	7.0	17	4.0	S	2	n 6	6515.4	

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
OFUNAT	0	IP	04	00	40.2	S	08	36.1	6	6.6	6	6.0	8	4.6	S 4	E 2	n 7	6528.3	475.9
						X	05	11.4											
OITA	0	P	04	00	40.4	ES	08	37.6	16	2.4	27	2.9	18	4.0				6524.1	477.2
KUMAMO	0	EP	04	00	40.8	ES	08	40.3	10	2.0	13	1.8	5	1.3			n 5	6545.8	479.5
TOYOOK	0	P	04	00	41.4	IS	08	38.5	24	1.1	12	1.3	5	1.4	S 6	E 5	n 5	6536.1	477.1
NIIGAT	0	IP	04	00	42.1	X	01	24.0	51	5.2	53	3.9	42	4.0				6537.1	
KANAZA	0	EP	04	00	42.2						15	5.0	11	3.8				6529.4	
AIKAWA	0	EP	04	00	43.8				12	6.0	10	4.8	13	6.0	S	E	n 7	6585.7	
NAGASA	0	P	04	00	44.3	S	08	46.0							S 3	E 3	n 5	6591.3	481.7
WAJIMA	0	IP	04	00	45.0				10	3.2	13	3.0	13	4.0			n 12	6593.5	
MORIOK	0	IP	04	00	45.6	IS	08	45.8	7	3.6	6	5.0	9	4.2	S 1	E 0	n 1	6613.0	480.2
						EX	01	26.2											
						EX	10	30											
FUKUOK	0	P	04	00	46.3	S	08	50.0	5	4.4	6	3.6	6	4.0	S 4	E 4	n 16	6629.7	483.7
SAKATA	0	EX	04	00	46.4													6594.9	
HAMADA	0	P	04	00	46.9	EX	08	48.5	7	4.7	9	5.6	9	3.6				6636.7	
SHIMON	0	P	04	00	47.4				6	4.6	4	6.2	7	5.4	N 2	W 2	n 5	6625.8	
AKITA	0	P	04	00	48.8	IX	08	54.0	20	4.8	24	4.8	27	4.0			n 22	6660.9	
HACHIN	0	IP	04	00	49.3	IS	08	53.5	4	3.8	11	5.4	10	6.4	S 1	E	n 1	6678.4	484.2
SAIGO	0	P	04	00	49.6	EX	09	52.5							S 1	E 0	n 0	6677.1	
AOMORI	0	EX	04	00	55	EX	09	02	18	2.4	17	3.1	12	3.1				6737.3	
URAKAW	0	P	04	00	56.9				10	5.6	11	2.8					n 2	6789.2	
NEMURO	0	EP	04	00	57	ES	09	07	5	6.6	5	5.6	9	4.0				6807.2	490.0
KUSHIR	0	IP	04	00	57.3	ES	09	10	12	2.8	9	3.0	16	1.4	S 3		n 7	6812.3	492.7
HAKODA	0	IP	04	00	59.4	S	09	13.0	11	2.0	18	5.0	16	2.8	S 4	E 3	n 13	6834.7	493.6
SAPPOR	0	EP	04	01	04	ES	09	09	9	2.8	14	3.0	10	3.0				6933.1	485.0
ABASHI	0	P	04	01	04.8	EX	09	21	9	6.2	7	4.4	9	3.0			n 7	6920.5	
ASAHIK	0	P	04	01	08.7				4	1.7	5	2.2	15	3.0		E		6963.6	

OT= 20 13 7 56.3 +/- 0.2
WAKASA BAY
LAT= 35 30 +/- 4 LONG= 135 37 +/- 5
H=360 CLASS=U

HIKONE	0	P	13	08	43.3	S	09	19.1	38	1.2	15	2.0	5	0.9				62.5	35.8
FUKUI	0	P	13	08	43.8	IS	09	20.1										82.5	36.3
TOYOOK	0	IP	13	08	43.9				15	1.1	13	1.4	7	0.6			D 12	72.4	
KYOTO	0	EP	13	08	44.0	IS	09	19.0	15	1.6	8	1.7	2	1.4				55.2	35.0
OSAKA	0	EP	13	08	44.2	IS	09	20.6	18	2.5			3	2.2				91.5	36.4
NARA	0	EP	13	08	44.8	IS	09	20.8										92.7	36.0
GIFU	0	EP	13	08	45.4	S	09	22.4	14	1.9	14	1.8						104.8	37.0
NAGOYA	0	P	13	08	46.0	IS	09	23.6	10	2.2	13	2.4	2	1.0				128.4	37.6
SUMOTO	0	IP	13	08	46.4	ES	09	19.9	5	2.1	8	1.8	3	1.6	N 1	W	D 1	144.5	33.5
						IX	09	23.2											
SHIONO	0	EP	13	08	49.9	ES	09	31.5			6	1.6						227.9	41.6
SAIGO	0	IP	13	08	50.3													220.5	
MATSUS	0	IP	13	08	53.0	ES	09	34							S	W	D	260.4	41.0
WAKAYA	0	EX	13	09	23.6				30	1.3	33	1.3						147.1	

OT= 23 22 42 44.0 +/- 1.0
HYUGANADA
LAT= 31 41 +/- 3 LONG= 131 44 +/- 3
H= 10 MAG=4.3 CLASS=L

MIYAZA	X	IP	22	42	52.0	IS	42	58.0	95	0.4	148	0.6	46	0.4	S 3	E 10	D 18	38.9	06.0
NOBEOK	0	IP	22	42	59.3	IS	43	10.9							N 4	W 2	U 5	99.9	11.6
KAGOSH	0	EP	22	43	04.6	X	43	36.6	25	2.4	39	2.4	11	1.4				112.6	
KUMAMO	0	P	22	43	10.2	IS	43	31.3	59	1.9	94	1.7	39	0.9	N 5	W 5		157.8	21.1
OITA	0	EP	22	43	12.9	S	43	33.0	53	0.6	64	0.9	26	1.2				172.1	20.1
NAGASA	0	EP	22	43	15.5	S	43	46.3								W	U	209.6	30.8
MATSUY	0	X	22	43		ES	43	55.8	6	1.0	6	0.7	2	0.9				258.4	
YAKUSH	0	EX	22	43	19.0				5	0.8	5	1.0	3	1.9				180.5	
SAGA	0	P	22	43	21.1	S	43	45.1										219.0	24.0
ASHIZU	0	X	22	43	21.7	ES	43	34.6	4	2.0	5	1.2	3	1.2				166.6	
FUKUOK	0	EP	22	43	23.3	ES	43	49.5	6	1.0	12	1.2	3	1.4				245.6	26.2
HAMADA	0	EP	22	43	38.0	ES	44	17.6	3	1.8	5	33.4	2	1.6				357.3	39.6
MATSUS	0	X	22	44	48	S	46	12										803.7	
TOYOOK	0	X	22	45	22				12	1.1	11	1.2						514.3	

OT= 23 23 1 58.0 +/- 0.3
SW PART OF IBARAKI PREF
LAT= 36 14 +/- 2 LONG= 139 59 +/- 2
H= 60 MAG=3.8 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KAKIOK	2	IP	23	02	07.6	IS	02	13.8	79	0.9	77	0.9	29	1.3			n 7	18.9	06.2
UTSUNO	2	IP	23	02	09.3	IS	02	16.7										36.2	07.4
MITO	1	IP	23	02	10.5	IS	02	18.3	54	0.4	50	0.4	27	0.3		E	5 n 4	46.7	07.8
TOKYO	0	P	23	02	12.1	S	02	22.0	22	0.6	19	0.0						64.1	09.9
KUMAGA	0	EP	23	02	12.2	S	02	21.0	35	0.8	28	0.8	7	0.2				54.7	08.8
CHOSHI	0	IP	23	02	14.6	IS	02	25.7										95.9	11.1
SHIRAK	0	P	23	02	15.4	IS	02	27.5										100.5	12.1
TATEYA	0	EP	23	02	20.5				7	0.4	7	0.7	5	2.8				139.0	
MATSUS	0	IP	23	02	23.4	S	02	36									n	162.8	12.6
KOFU	0	X	23	02	26.3	ES	02	40.4	6	0.6	6	0.6	2	0.8				143.2	
ONAHAM	0	ES	23	02	32.4													114.3	

OT= 24 9 31 55.5 +/- 0.5
MIDDLE OF BOSO PEN
LAT= 35 14 +/- 2 LONG= 140 5 +/- 5
H= 90 CLASS=L

TATEYA	1	EP	09	32	10.4	IS	32	20.0	33	0.7	28	0.9	13	0.4				34.0	09.6
YOKOHA	1	P	09	32	10.7	S	32	20.3										45.0	09.6
TOKYO	0	IP	09	32	11.8	IS	32	22.3	73	0.0	78	0.0	11	0.0				58.1	10.5
OSHIMA	0	P	09	32	13.6	S	32	24.0	12	0.3	10	0.4	8	0.2				82.9	10.4
AJIRO	0	P	09	32	14.2	S	32	25.6	11	0.2	7	0.2	2	0.3				92.3	11.4
KAKIOK	0	EP	09	32	17	ES	32	30	10	0.5	8	0.5	5	0.4				111.2	13.0
UTSUNO	0	P	09	32	19.9	S	32	35.6										146.9	15.7
MATSUS	0	IP	09	32	29.7	S	32	55								W	U	222.7	25.3

OT= 24 11 33 3.5 USCGS
FIJI IS REGION
LAT=-21 54 LONG=-179 36
H=595 MAG=5.9 CLASS=U

HACHIJ	0	IX	11	43	00.4								26	1.5				7451.6	
KUMAGA	0	EX	11	43	05.0				8	2.4	8	3.6	11	3.2				7731.3	
TATEYA	0	X	11	43	09.2				14	3.5	11	3.4	24	2.5				7604.8	
AJIRO	0	EX	11	43	10.8	EX	51	31.7	6	4.0	9	3.6	9	2.7				7655.8	
MISHIM	0	IP	11	43	12.1	ES	51	27	11	4.4	14	3.6	12	2.5			n 13	7671.5	494.9
SHIZUO	0	P	11	43	13.4	ES	51	36.6	7	4.0	7	4.4	12	3.2	S 3	E 2	n 9	7691.6	503.2
OMAEZA	0	EP	11	43	13.6				9	3.4	8	3.4	17	3.4				7672.8	
HAMAMA	0	IP	11	43	15.4	EX	52	40	9	3.6	13	4.2	12	2.4			n 3	7711.6	
KOFU	0	EP	11	43	15.6	ES	51	41.4	8	3.8	9	3.6	11	3.4				7739.9	505.8
SHIONO	0	EP	11	43	16.0	ES	51	41.1	14	3.1	6	3.8						7733.5	505.1
NAGOYA	0	IP	11	43	19.2	S	51	48.3	7	4.0	11	4.4	10	3.2			n 7	7795.5	509.1
MATSUS	0	IP	11	43	20.5	IS	51	48							S	E	n	7833.4	507.5
SENDAI	0	IP	11	43	20.8	S	51	48.0	10	3.2	10	4.0	10	0.8	S	E	n 10	7825.8	507.2
MUROTO	0	IP	11	43	21.1	IS	51	51.3	6	4.0	8	2.2	12	3.0	S 1	W 1	n 4	7821.7	510.2
OSAKA2	0	IP	11	43	21.4	S	51	51.0										7832.9	509.6
OFUNAT	0	IP	11	43	22.2	IS	51	51.8	5	4.0	7	4.8	10	2.2	S 4	E 3	n 8	7851.3	509.6
						X	52	36.0											
OSAKA	0	IP	11	43	22.4	S	51	54	19	4.5	23	4.2	15	2.5				7847.0	511.6
HIKONE	0	EX	11	43	22.8				9	1.0	9	1.0						7849.1	
KYOTO	0	IP	11	43	23.2	ES	51	55.0	3	5.0	3	5.0	8	3.0		E	2 n 2	7860.2	511.8
YAKUSH	0	P	11	43	23.3				4	5.2	5	2.4	10	3.6				7865.8	
KOBE	0	EX	11	43	23.7													7869.6	
SUMOTO	0	IP	11	43	23.7	S	51	56.0	6	5.4	5	5.6	11	2.9	S 1	E 3	n 9	7859.1	509.3
NAGANO	0	P	11	43	24.1	EX	43	39.4	12	3.4	13	3.0	13	4.0				7844.3	
ASHIZU	0	IP	11	43	24.3	S	51	56.5	8	3.5	4	3.6	13	3.9	S 3		n 6	7858.6	512.2
TOYAMA	0	P	11	43	25.2	EX	51	55	10	4.0	7	3.8	11	3.4			n 8	7907.0	
MIYAZA	0	P	11	43	26.0				9	3.6	7	2.0	15	2.8			n 13	7907.8	
MORIOK	0	IP	11	43	26.5	S	52	00.0	6	3.0	4	5.0	9	3.2	S 1	E 1	n 2	7936.1	513.5
						X	52	36.0											
TOKYO	0	EX	11	43	27.6													7670.5	
OKAYAM	0	IP	11	43	27.7	ES	52	02	4	3.0	3	2.4	10	3.6	S 3	E 4	n 8	7950.7	514.3
TOYOOK	0	P	11	43	28.0	S	52	08.3	11	1.2	10	1.2	11	2.7	S 5	E 6	n 10	7959.9	515.3
KAGOSH	0	IP	11	43	28.2				11	3.2	15	2.4	10	4.0			n 7	7944.0	
MATSUY	0	IP	11	43	28.9	ES	52	04.4	4	2.8	3	4.2	9	3.1	S 4	E 4	n 8	7960.5	515.5
AKITA	0	IX	11	43	30.6				11	2.6	15	3.8	28	2.4				7995.2	
OITA	0	EX	11	43	30.6				24	2.8	19	2.5	26	2.7				7992.7	
KUMAMO	0	EP	11	43	31.3				7	2.1	8	1.9	6	1.8	S 5	E 3	n 6	8024.2	
HAMADA	0	IP	11	43	33.9	ES	52	13.6	3	4.0	4	4.2	8	3.2			n 6	8088.1	519.7
						EX	46	25.6											
NAGASA	0	P	11	43	34.0	S	52	15.2							S 2	E 5	n 7	8076.0	521.2
AOMORI	0	EX	11	43	35				20	2.8	19	2.4						8053.9	
URAKAW	0	X	11	43	35.2				6	2.4	14	2.6	19	3.4				8070.9	
FUKUOK	0	IP	11	43	35.5	ES	52	17.0	4	2.3	5	2.9	8	2.2	S 5	E 9	n 18	8104.1	521.5
SAIGO	0	IP	11	43	35.8										S 2		n 2	8107.1	
OBIHIR	0	IP	11	43	37.3											W	4 n 7	8117.8	

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STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
HAKODA	0	IP	11 43 37.5	ES	52 21	9	2.1	9	3.6	15	2.8	S 4		n 11	8142.1	523.5
ABASHI	0	P	11 43 39.0	S	52 25.0	6	3.0	10	4.0	11	3.6				8167.4	526.0
SAPPOR	0	IP	11 43 42.0	ES	52 36	8	2.4	10	2.8	15	2.8			n 13	8222.3	531.0
ASAHIK	0	P	11 43 44.4			4	2.4	7	2.8	21	3.2	N	E		8234.6	

OT= 24 13 U 15.4 +/- 0.3
E OFF AOMORI PREF
LAT= 40 45 +/- 2 LONG= 142 1 +/- 4
H= 50 MAG=3.8 CLASS=L

HACHIN	1	IP	13 00 27.0	IS	00 34.8	4	0.6			15	0.4	N 1	E 1	n 1	48.5	07.8
MIYAKO	0	EP	13 00 36	ES	00 49	3	0	6	0						122.8	13.0
MORIOK	0	P	13 00 37.2	S	00 52.2	9	0.4	8	0.5	3	0.2				137.5	15.0
URAKAW	0	P	13 00 40.9	S	01 00.5	3	0.4	6	0.4	1	0.4				168.9	19.6

OT= 25 4 43 56.8 +/- 1.4
NEAR AMAMIOSHIMA
LAT= 29 27 +/- 6 LONG= 130 51 +/- 7
H= 20 MAG=4.7 CLASS=U

YAKUSH	0	IP	04 44 15.9	S	44 31.5	78	0.6	112	0.8	29	0.8	N 3		U 1	115.9	15.6
KAGOSH	0	EP	04 44 34.2	ES	44 58.8	11	1.6	16	1.6	8	1.6				237.0	24.6
MIYAZA	0	P	04 44 39.0	S	45 10.0	11	0.6	11	1.0	5	1.4				278.8	31.0
KUMAMO	0	EP	04 44 51.6	ES	45 31.8	8	1.4	7	1.6	3	0.8				372.6	40.2
NAGASA	0	P	04 44 53.3	ES	45 38.8										373.7	40.5
OITA	0	EX	04 45 19.2			9	1.3	9	2.2						425.7	
MATSUS	0	P	04 46 14	X	47 20										1043.3	

OT= 25 8 1 51.3 +/- 0.6
OFF KUSHIRO
LAT= 42 17 +/- 2 LONG= 144 50 +/- 2
H= 20 MAG=4.1 CLASS=L

KUSHIR	1	IP	08 02 06.2	S	02 15.8			124	0.2	75	0.2			n 3	85.2	09.6
NEMURO	0	P	08 02 13.7	S	02 28.6	7	1.0	4	1.0	3	0.2			n	131.5	14.9
HIROO	0	P	08 02 14.4	S	02 29.4										125.1	15.0
OBIHIR	0	P	08 02 16.2	IS	02 34.3										150.0	18.1
URAKAW	0	P	08 02 21.1	S	02 38.2	14	0.8	17	1.0	8	1.0				170.1	17.1
MATSUS	0	P	08 03 44	ES	05 20										855.2	96.0

OT= 25 21 15 20.9 +/- 0.3
OFF URAKAWA
LAT= 41 31 +/- 1 LONG= 142 2 +/- 2
H= 20 MAG=4.0 CLASS=U

URAKAW	0	P	21 15 37.9	S	15 50.5	16	0.4	31	1.2	5	0.6				94.5	12.6
HAKODA	0	IP	21 15 40.5	S	15 54.9	8	0.4	6	0.8	3	1.5		E	n 1	111.2	14.4
HACHIN	0	P	21 15 41.8	IS	15 56.0	11	1.0	10	3.0	4	1.6	S	W	U	118.1	14.2
AOMORI	0	EP	21 15 43	ES	15 58	13	2.6	12	2.9						130.6	15.0
HIROO	0	P	21 15 43.3	S	15 58.9										136.4	15.6
SAPPOR	0	EP	21 15 50			4	2.0	5	1.6	2	1.4				180.8	
OBIHIR	0	EP	21 15 53	S	16 10.7										184.2	17.7
KUSHIR	0	EP	21 15 55	ES	16 23	9	1.2	5	0.3	2	2.2				253.7	28.0
AKITA	0	EX	21 16 20			5	2.0	3	2.0	3	2.0				258.1	

OT= 28 3 37 43.2 +/- 0.6
W OFF HOKKAIDO
LAT= 43 40 +/- 3 LONG= 140 52 +/- 6
H=220 CLASS=U

RUMOI	0	EP	03 38 14	ES	38 37										69.3	23.0
SAPPOR	0	P	03 38 14.7	S	38 37.9	34	1.8	29	1.8	13	2.4				77.4	23.2
SUTTSU	0	EX	03 38 16												109.9	
ASAHIK	0	IP	03 38 16.9	S	38 41.2	22	1.8	14	1.6	9	1.0		W 1		122.0	24.3
HAKODA	0	IP	03 38 23.5	IS	38 54.5	22	1.5	7	2.8	10	0.6	S 4		U 11	206.1	31.0
OBIHIR	0	EP	03 38 24	S	38 53.6										208.4	29.6
URAKAW	0	P	03 38 27.4	S	38 58.2	34	0.4	83	0.6	12	2.0				229.1	30.8
ABASHI	0	P	03 38 29.0	ES	39 03	5	1.6	4	1.6	2	3.4			n	277.6	34.0

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KUSHIR	0	EP	03 38 32	IS	39 04.4	10	0.3	7	0.4	4	0.2				296.3	32.4
AOMORI	0	EP	03 38 34	IS	39 11.2	20	1.6	19	1.6						316.7	37.2
HACHIN	0	IP	03 38 36.2	IS	39 16.0	11	0.4	10	1.0	2	1.2	S 1	E	U 1	353.2	39.8
MORIOK	0	IP	03 38 46.6	S	39 33.9	8	0.4	8	0.4	1	2.0	S 1	E	0 U 1	441.7	47.3
MIYAKO	0	EP	03 38 47	ES	39 33.9	6	1.4	4	1.8						456.0	46.9
AKITA	0	EX	03 38 48			5	0.8	3	1.2	5	2.4				443.2	
MATSUS	0	IP	03 39 30.0	X	40 24							S		U	823.2	
ONAHAM	0	EX	03 40 35.3												746.4	

OT= 28 14 38 36.8 +/- 1.1
NEAR ETOROFU IS
LAT= 43 43 +/- 3 LONG= 146 19 +/- 6
H= 70 CLASS=S

NEMURO	2	IP	14 38 53.1	IS	39 03.0	80	0.2	89	0.2	41	0.2	S	W	U 1	73.1	09.9
ABASHI	0	P	14 39 03.0	S	39 20.6	8	1.4	16	1.4	5	1.4	N 1	W	2 U 2	166.9	17.6
KUSHIR	1	EP	14 39 04	S	39 21.9	86	0.6	71	0.2	32	0.3				176.1	17.9
OBIHIR	0	EP	14 39 17	ES	39 42										266.2	25.0
HIROO	0	EP	14 39 21	ES	39 47										291.9	26.0
ASAHIK	0	P	14 39 23.0	S	39 55.0	4	1.6	7	1.7	3	2.0				317.7	32.0
URAKAW	0	EP	14 39 25.0	S	40 02.0	38	0.8	56	0.4	11	1.0				336.6	37.0
SAPPOR	0	EP	14 39 34	ES	40 12	11	2.2	14	2.4	3	1.2				410.5	38.0
HAKODA	0	EP	14 39 45	ES	40 36	6	3.2	7	1.6	3	2.7				501.6	51.0
MATSUS	0	P	14 40 50	ES	42 44										1053.9	114.0
AOMORI	0	EX	14 40 53			17	1.4	15	1.4						558.6	

OT= 28 19 6 37.6 +/- 0.8
OFF IWATE PREF
LAT= 39 37 +/- 2 LONG= 142 13 +/- 5
H= 50 MAG=4.2 CLASS=L

MIYAKO	2	IP	19 06 47.0	IS	06 52.6					42	0				21.6	05.6
OFUNAT	2	IP	19 06 52.5	IS	07 00.8	64	0.0	25	0.0	26	0.0				75.1	08.3
MORIOK	X	IP	19 06 53.4	S	07 06.4	52	0.4	56	0.4	9	0.3	S 1	E	5 n 3	90.4	10.0
ISHINO	0	EP	19 07 01.3	IS	07 18.2	12	0.2	7	0.4	3	0.8				154.1	16.9
AOMORI	0	EX	19 07 02			13	1.4	13	1.2						180.7	
AKITA	0	EX	19 07 05.4			4	0.8	5	1.4	3	1.2				181.8	
SAKATA	0	EX	19 07 24.8												220.1	
MATSUS	0	P	19 07 44.4	S	08 42										490.2	57.6

OT= 29 2 20 42.9 +/- 0.4
MIDDLE OF CHIBA PREF
LAT= 35 31 +/- 2 LONG= 140 7 +/- 2
H= 90 CLASS=S

TOKYO	1	IP	02 20 57.3	IS	21 06.8	118	0.8	114	0.8	10	1.0				37.5	09.5
KAKIOK	0	IP	02 20 58.4	S	21 09.2	38	1.0	30	0.6	10	0.8	N 6		U 2	79.6	10.8
YOKOHA	0	P	02 20 58.4	S	21 08.3										42.8	09.9
CHOSHI	0	EP	02 20 59.6	S	21 11.0										69.8	11.4
TATEYA	1	EP	02 20 59.7	IS	21 10.6	31	0.3	47	0.2	32	0.4				63.3	10.9
CHICHI	0	EP	02 20	X	21 06.4										107.4	
MITO	0	IP	02 21 01.9	ES	21 18.4	13	1.4	24	1.4	4	1.1			U 3	100.8	16.5
KUMAGA	0	P	02 21 03.0	S	21 18.0	35	1.0	15	0.8	22	1.0			U 2	96.2	15.0
OSHIMA	X	IP	02 21 03.2	IS	21 16.0	46	0.2	46	0.2	40	0.3				107.4	12.8
AJIRO	1	IP	02 21 03.4	IS	21 16.6			32	0.2	7	0.3	N 1	E	2 n 3	106.6	13.2
MISHIM	0	EP	02 21 03.5	ES	21 18.4	15	0.7	16	0.7	10	0.6				116.9	14.9
UTSUNO	0	IP	02 21 03.6	S	21 16.6										116.4	13.0
KAWAGU	1	IP	02 21 05.2	IS	21 19.2										122.8	14.0
MAEBAS	0	EP	02 21 06.5	ES	21 22.0	6	1.3	7	1.0	5	0.8				136.5	15.5
KOFU	0	EP	02 21 07.6	ES	21 23.6	17	0.3	18	0.4	4	0.8				142.2	16.0
KARUIZ	0	P	02 21 11.6	S	21 30.6									U	168.2	19.0
SHIZUO	0	P	02 21 14.2	X	13 12	9	0.8	12	0.6	4	1.0				166.9	
MATSUS	0	IP	02 21 15.2	S	21 35							N	W	n	206.0	19.8
ONAHAM	0	ES	02 21 30.0												173.6	

OT= 29 17 23 31.9 +/- 0.4
E OFF AOMORI PREF
LAT= 41 13 +/- 1 LONG= 142 33 +/- 3
H= 0 MAG=4.0 CLASS=U

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
URAKAW	0	P	17 23 52.0	S	24 06.4	8	0.6	16	0.4	2	0.8				106.3	14.4
HACHIN	0	EP	17 23 54.0	ES	24 09.0	5	0.4	4	0.4						115.6	15.0
HAKODA	0	IP	17 24 01.2	IS	24 21.2	7	0.6	6	0.6	1	0.6			D	163.6	20.0
MORIOK	0	P	17 24 07.2	ES	24 31.0	10	0.4	8	0.4	1	0.4	S	0 W	0 U 0	205.5	23.8
AOMORI	0	X	17 24 18			10	1.4	13	0.7						155.1	
MATSUS	0	P	17 25 04												641.4	

OT= 30 7 15 31.4 +/- 0.3
HYUGANADA
LAT= 32 38 +/- 2 LONG= 132 12 +/- 1
H= 0 MAG=4.5 CLASS=L

NOBEOK	1	IP	07 15 44.7	ES	15 50.5	100	0.4	150	0.6	70	1.5	S	1 W	6 U 9	48.8	05.8
UWAJIM	X	P	07 15 46.6	IS	15 55.4										73.7	08.8
ASHIZU	0	EP	07 15 47.5	IS	15 56.7	32	0.9	48	0.9	59	0.7				77.1	09.2
OITA	0	EP	07 15 49.6	S	16 00.0	130	0.8	160	1.2						85.6	10.4
MIYAZA	0	IP	07 15 52.0	S	16 06.0	30	0.8	28	0.8	16	0.8				107.8	14.0
MATSUY	0	EP	07 15 56.8	ES	16 10.8	14	0.7	17	0.7						144.3	14.0
KUMAMO	0	IP	07 15 57.0	ES	16 16.9	69	0.8	48	1.2	34	0.8	S	2 W	11 U 13	141.0	19.9
KOCHI	0	EP	07 15 59.9	ES	16 20.8										160.7	20.9
SHIMON	0	EP	07 16 03.4			6	2.4	4	2.0	7	2.0	N	1 W	1 U 1	187.5	
SAGA	0	IP	07 16 04.5	S	16 35.3							S	2 E	14 D 2	189.7	30.8
FUKUOK	0	EP	07 16 04.6	ES	16 27.4	28	1.2	31	1.7	36	1.2	N	2 W	4 U 11	199.6	22.8
MUROTO	0	EP	07 16 07.4	ES	16 31.3	5	1.6								197.1	23.9
ASOSAN	X	EX	07 16 09												108.8	
OKAYAM	0	EP	07 16 15			6	0.6	6	0.6	2	2.0				277.2	
TAKAMA	0	EP	07 16 16.6	ES	16 46.0	14	1.2	14	1.2	6	1.2				254.3	29.4
ANABUK	0	X	07 16 17.5												222.4	
TOKUSH	0	EP	07 16 19.7	ES	16 43.9										272.2	24.2
SUMOTO	0	X	07 16 27.7	ES	17 06.0	6	1.8	2	1.8	3	2.2				314.5	
TOYOOK	0	X	07 16 47			31	1.2	23	1.2						402.6	
OSAKA	0	EX	07 17 03			18	4.0	13	2.6	3	3.5				382.4	
MATSUS	0	IP	07 17 05.5	S	18 29									U	700.6	83.5

OT= 30 13 48 53.5 +/- 0.3
OFF URAKAWA
LAT= 41 29 +/- 1 LONG= 142 33 +/- 2
H= 10 MAG=4.0 CLASS=U

URAKAW	0	P	13 49 08.0	S	49 17.8	12	0.4	25	0.8	4	1.0				77.4	09.8
HACHIN	0	EP	13 49 18.3	ES	49 34.6	13	0.4	10	0.3	2	0.4				137.0	16.3
HAKODA	0	EP	13 49 20	IS	49 38.5	4	0.3	5	0.7	1	1.0				153.7	18.5
OBIHIR	0	EP	13 49 20	ES	49 40										169.0	20.0
MORIOK	0	EP	13 49 30.7	S	49 55.6	11	0.4	9	0.4	2	0.3				230.3	24.9
MATSUS	0	P	13 50 27	X	52 18										665.2	

OT= 30 19 29 40.4 USCGS
TALAUD IS
LAT= 4 48 LONG= 127 24
H= 70 MAG=5.9 CLASS=U

YONAGU	0	EP	19 34 22	S	38 08	51	2.4	68	2.9	15	2.1				2223.6	226.0
YAKUSH	0	EP	19 35 06.4					34	8.4	23	9.4				2854.7	
KAGOSH	0	EP	19 35 19.7	ES	40 21.5	47	3.0	65	2.4	27	2.0				2978.9	301.8
				EL	43 30.5											
MIYAZA	0	EP	19 35 21			35	9.8	38	7.6	33	4.2				3027.9	
FUKUE	0	EP	19 35 25.6	ES	39 23.8	21	10.0	22	11.8	21	16.2				3089.1	238.2
NOBEOK	0	EP	19 35 25.7	EX	40 17.8	50	2.1	50	5.8	50	1.9				3104.7	
NAGASA	0	P	19 35 27.0	S	40 39.0							N			3097.8	312.0
KUMAMO	0	EP	19 35 29	ES	40 18	85	2.3	60	1.9	51	1.7				3116.7	289.0
FUKUOK	0	EP	19 35 33.0	ES	41 00.0	26	2.2	17	16.0	24	2.9	N		U	3198.0	327.0
MUROTO	0	IP	19 35 36.8	ES	40 14.8	34	17.0	43	13.0	42	16.4			D 0	3223.8	278.0
				L	43 10.0											
SHIMON	0	EP	19 35 39.0			15	12.0	17	16.0	21	17.0				3245.2	
SHIONO	0	EP	19 35 41.4	ES	41 03.3	47	16.1	40	18.8	9	2.9				3284.8	321.9
MATSUY	0	EP	19 35 41.9	ES	40 15.6	38	18.3	34	20.7	24	20.0				3259.8	273.7
ASHIZU	0	EP	19 35 42.5	ES	40 56.6	30	20.0	31	7.9						3142.1	311.1
TOKUSH	0	EP	19 35 43.5												3320.7	
HIROSH	0	EP	19 35 44.1	S	41 17.1	37	23.3	35	5.9	23	17.8				3311.0	333.0
TAKAMA	0	EP	19 35 45.5	PP	36 56.6	33	21.5	34	24.0	22	20.4				3336.3	
HAMADA	0	EP	19 35 47.4	EX	36 31.0	16	13.0	19	17.5	13	14.0				3363.3	
				EX	42 29.8											
				EL	48 49.2											

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
OKAYAM	0	EP	19 35 47.5	ES	41 08	20	4.0	25	12.5	24	3.2				3372.7	320.5
SUMOTO	0	P	19 35 48.1	ES	40 54.0	31	18.0	22	6.6	39	16.4	S	W	D	3357.4	305.9
				EX	38 15.2											
				L	42 10											
				IL	46 45											
WAKAYA	0	P	19 35 50.0			40	2.0	21	1.8						3352.1	
OWASE	0	EP	19 35 52.0			25	6.0	15	5.2	28	17.6			D	3362.2	
OSAKA	0	EP	19 35 52	EX	37 05.0	230	4.2	102	3.4	41	20.5				3409.2	
OSAKA2	0	EP	19 35 52	EX	37 02										3405.6	
				EX	41 30.6											
				X	37 25.0											
NARA	0	EP	19 35 52.8												3417.7	
TSU	0	EP	19 35 53.4			30	2.4	28	2.4	12	2.0				3438.3	
YONAGO	0	EP	19 35 54.0	ES	41 12.7										3443.1	318.7
KYOTO	0	EP	19 35 54.0	EX	43 26.2	8	18.0	6	6.5	16	17.0				3450.1	
OMAEZA	0	EP	19 35 54.5	EX	43 32.3	93	11.6	73	12.4	35	4.0				3479.9	
MATSUE	0	EP	19 35 55.4												3440.7	
ANABUK	0	P	19 35 55.9												3287.0	
HAMAMA	0	EP	19 35 57	ES	41 00	33	4.0	43	4.2	34	6.0				3475.0	303.0
KOBE	0	EX	19 35 57.5			50	6.0	50	4.0						3401.8	
NAGOYA	0	P	19 35 59.2	S	41 21.4	69	3.2	40	3.4	37	5.0				3499.9	322.2
				IX	37 39.4											
				EL	43 08.8											
TOYOOK	0	EP	19 35 59.3	X	41 37	53	18.2	32	10.3	54	19.0				3484.3	
				X	43 18.0											
GIFU	0	P	19 35 59.8	EL	43 0	31	19.1	21	13.2	19	20.5				3518.7	
AIKAWA	0	EP	19 36			36	2.2	27	18.8	28	4.0				3836.5	
TSURUG	0	EP	19 36 00												3526.5	
SHIZUO	0	EP	19 36 01.6	EX	43 46.0	31	17.3	25	10.8	30	19.2				3524.5	
SAIGO	0	P	19 36 01.6									S	2	D 1	3526.9	
MISHIM	0	EP	19 36 01.8	ES	41 19.3	44	6.2	58	4.4	48	4.5				3556.4	317.5
				EPP	37 17.0											
				EL	43 04.0											
IIDA	0	EP	19 36 02.4	ES	41 52.0	26	4.4	13	11.8	30	6.0				3562.0	349.6
HACHIJ	0	EX	19 36 02.4			46	6.0	55	5.0	29	1.5				3383.6	
HIKONE	0	EP	19 36 02.4	ES	41 12.4	65	3.1	39	2.5	37	3.4				3491.3	310.0
KAWAGU	0	P	19 36 03.9	X	42 45.0										3590.6	
				L	46 11.5											
AJIRO	0	EX	19 36 04.4	EX	37 24.7	19	3.9	21	4.1	25	4.3				3555.1	
OSHIMA	0	EP	19 36 05	EX	43 04.2	46	3.6	34	4.2						3536.3	
				IPP	37 57.5											
KOFU	0	EP	19 36 05.6	EX	44 07.8	45	2.6	36	3.6	33	4.4				3601.0	
MATSUS	0	P	19 36 09.2	S	41 49									U	3680.7	339.8
KARUIZ	0	EP	19 36 09.5	ES	42 05.6										3670.8	356.1
CHICHI	0	EP	19 36 10.1	EX	43 47.0										3652.1	
KUMAGA	0	EP	19 36 10.4			61	5.2	66	4.0	63	4.8				3678.3	
MATSUM	0	EP	19 36 11.4	ES	42 04.2										3642.7	352.8
				EPP	37 34.4											
				EL	44 11.4											
				EL	46 58.6											
KAKIOK	0	EP	19 36 12	ES	41 56	15	21.0	22	17.0	15	20.0				3715.3	341.0
TOKYO	0	P	19 36 12.4	ES	41 35	87	5.2	60	4.2	67	4.2				3644.0	322.6
TOYAMA	0	EP	19 36 14	EX	42 08	58	3.8	52	5.2	51	4.0				3669.1	
TATEYA	0	EP	19 36 14.0			76	6.0	83	12.5	34	5.3				3576.7	
NAGANO	0	EP	19 36 14.5	EX	44 09.0	112	4.0	92	3.4	52	3.0				3693.0	
				EL	47 12.5											
KANAZA	0	EP	19 36 15.2	EX	43 08.5	45	11.0	52	3.6	28	3.1				3637.0	
MAEBAS	0	EP	19 36 17.4			58	4.1	75	4.5	45	3.4				3693.8	
WAJIMA	0	EP	19 36 18	ES	42 10	34	3.0	30	3.4	21	3.8				3732.9	352.0
				EX	44 20											
				EL	47 12											
FUKUI	0	EP	19 36 18.0												3573.6	
NIIGAT	0	EX	19 36 19.0			130	4.3	160	3.8	75	3.9				3849.4	
ONAHAM	0	EX	19 36 22.1												3813.5	
TAKADA	0	EP	19 36 24.0												3741.1	
MITO	0	EX	19 36 25.0	EX	38 16.6	40	4.6	38	4.5	21	4.4				3740.3	
IROZAK	0	EX	19 36 29.2			100	15.0	50	8.0						3501.0	
YAMAGA	0	EP	19 36 31.8	ES	42 35										3927.0	363.2
				EL	47 53											
SENDAI	0	EP	19 36 33.4	S	42 09.6	30	4.4	39	6.0	22	4.4				3946.6	336.2
				L	45 02											
ISHINO	0	EP	19 36 36.0	EX	42 31.4	20	5.8	25	7.6	23	5.4			D 2	3977.6	
SAKATA	0	EP	19 36 42.4			100	3.5	150	4.7						3977.0	
OFUNAT	0	EP	19 36 42.4	S	43 01.8	13	6.6	15	6.0	13	4.0				4056.9	379.4
				L	57 50											
AKITA	0	EP	19 36 42.8	EX	43 04.2	57	4.4	53	5.4	53	3.8				4069.5	
MORIOK	0	IP	19 36 45.0	ES	42 36.0	21	8.0	17	14.8	13	18.4	N	0 E	0 U 0	4102.2	351.0
				EX	43 04.1											
				EX	44 04.1											
OITA	0	EX	19 36 47.0	EX	41 31.7	75	5.1	148	5.1	30	2.8				3175.0	
MIYAKO	0	EP	19 36 50	ES	42 52	17	20.4	14	16.4	14	3.0				4124.8	362.0
HACHIN	0	EP	19 36 52.5	S	43 21.6	22	6.5	25	6.8	26	16.8				4198.7	389.1

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STATION	I	PHASE	TIME H M S	PHASE	TIME H S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
AOMORI	0	EP	19 36 56	ES	43 02		43 2.6	31 20.4				4204.3	366.0
HAKODA	0	P	19 37 01.3	ES	43 15	21 17.1	27 6.6	28 17.2			U 1	4306.3	373.7
SUTTSU	0	EX	19 37 07									4392.3	
URAKAW	0	EP	19 37 09	S	43 25.0	42 4.0	39 3.4	35 4.6				4407.1	376.0
SAPPOR	0	P	19 37 14.0	ES	42 38	24 3.4	34 4.4	27 17.0				4452.3	324.0
				EAPP	37 38								
OBIHIR	0	EP	19 37 17									4499.2	
ASAHIK	0	EP	19 37 19	EX	43 39	14 2.4	21 6.0	16 4.0				4557.6	
KUSHIR	0	P	19 37 21.7	S	43 47.3	21 3.2	34 2.6	25 1.8			n	4546.4	385.6
ABASHI	0	EP	19 37 23	S	44 19.6	18 5.4	21 5.6	17 5.0				4646.0	416.6
				EX	51 49								
NEMURO	0	EP	19 37 24	ES	43 57	14 6.4	23 6.2	23 4.6				4625.3	393.0

OT= 30 23 57 17.6 +/- 0.7
NE OF IBARAKI PREF
LAT= 36 36 +/- 6 LONG= 140 30 +/- 5
H= 60 MAG=3.7 CLASS=L

MITO	1	IP	23 57 27.0	IS	57 36.5	60 0.3	103 0.4	18 0.3	N	1	W	2	U	5	24.7	06.5
KAKIOK	0	IP	23 57 28.5	IS	57 35.7	55 0.2	64 0.2	25 0.3							49.3	07.2
ONAHAM	0	EP	23 57 30.4	IS	57 38.0										52.8	07.6
UTSUNO	1	IP	23 57 30.4	S	57 39.8										56.5	09.4
SHIRAK	0	P	23 57 31.9	IS	57 42.3										62.5	10.4
KUMAGA	0	EP	23 57 38.0	ES	57 51.4	6 0.2	3 0.4	3 0.6							112.0	13.4
TOKYO	0	EX	23 57 42			5 0.0	7 0.0								121.5	
MATSUS	0	IP	23 57 49.4	S	58 03						E				205.2	13.6

OT= 31 5 54 17.6 +/- 1.1
S OFF NEMURO PEN
LAT= 42 41 +/- 4 LONG= 145 40 +/- 6
H= 50 MAG=4.6 CLASS=S

NEMURO	2	IP	05 54 31.7	IS	54 39.0	205 0.2	116 0.2	46 0.2	S	2	E	1	n	4	72.0	07.3
KUSHIR	1	IP	05 54 35.8	IS	54 46.8	60 0.2	50 0.2	17 0.4	S		E	3	n	3	109.0	11.0
ABASHI	0	P	05 54 46.2	S	55 04.4	17 1.8	13 2.0	4 1.6					U		185.8	18.2
OBIHIR	0	EP	05 54 47	S	55 08.6										201.8	21.6
HIROO	0	P	05 54 49.2	IS	55 10.5										198.3	21.3
URAKAW	0	P	05 54 56.0	S	55 22.4	10 1.0	22 1.2	5 1.2							244.7	26.4
MORIOK	0	P	05 55 25.1	S	56 12.3	6 0.6	6 0.4	1 0.6	N	0	E	0	n	0	502.3	47.2
MATSUS	0	IP	05 56 18.5	X	57 49								n		935.0	

List 6 SEISMOLOGICAL DATA OBTAINED BY MATSUSHIRO

DATE		PHASE AND TIME (J.S.T.) H M S		M S	INITIAL MOTION	
1	IP	00 33 09.0	S	33 30.	D	*
1	IP	05 53 16.9			S U	*
1	IP	08 30 18.0	S	30 33.	E U	*
1	EP	14 01 03.				*
1	P	18 13 42.				*
1	EP	21 22 00.				*
1	IP	23 59 12.0	S	59 34.	D	*
2	P	02 54 37.				*
2	IP	07 24 38.8			U	*
2	IP	08 57 40.4			S D	*
2	IP	19 37 24.9	S	37 48.	S D	*
2	P	21 37 40.	S	38 12.		*
2	P	23 12 06.				*
3	EP	00 56 45.				*
3	P	03 08 42.				*
3	IP	04 10 38.1			U	*
3	IP	04 59 10.8	S	59 52.	U	*
3	EP	12 27 01.				*
3	IP	14 10 41.8			U	*
3	IP	18 34 54.0			N W D	*
3	P	21 51 08.				*
3	P	22 19 28.				*
3	P	22 34 51.	S	40 14.		*
3	P	23 52 39.	S	53 27.		*
4	P	01 05 50.	ES	06 37.		*
4	EP	01 56 44.				*
4	P	03 45 37.	S	46 25.		*
4	P	04 19 20.				*
4	IP	09 30 25.7			D	*
4	P	11 35 49.				*
4	EP	18 15 40.				*
4	IP	20 13 02.8	ES	14 49.	D	*
4	P	20 29 16.	S	29 56.		*
4	P	23 02 46.	S	03 13.		*
5	IP	01 33 48.7	S	34 26.	E D	*
5	IP	07 44 44.3			S E D	*
5	EP	10 39 05.				*
5	P	16 35 29.	S	43 18.		*
5	P	20 53 25.				*
5	P	21 35 45.	S	36 42.		*
5	IP	22 35 18.0	S	42 14.	S E D	*
6	P	01 21 37.			D	*
6	P	01 59 16.			N U	*
6	P	13 17 35.	S	18 13.		*
6	IP	13 24 11.2			S W U	*
6	IP	14 55 17.5			D	*
6	IP	15 51 39.8			N U	*
6	IP	21 16 31.6			N D	*
6	IP	21 39 29.8			U	*
6	EP	22 48 38.	S	49 12.		*
7	IP	00 42 14.4			E D	*
7	IP	00 48 14.9	S	55 46.	N W U	*
7	EP	02 15 31.				*
7	EP	02 30 16.				*
7	IP	02 42 55.0			U	*
7	IP	05 38 12.2			U	*
7	P	06 02 02.				*
7	P	10 02 09.	S	02 50.		*
7	IP	10 22 06.5	ES	28 23.	S W D	*
7	P	12 34 33.	S	35 08.		*
7	IP	13 50 18.2			U	*
7	P	13 50 38.	IX	58 28.		*
7	EP	14 39 56.				*
7	EP	16 04 55.	ES	08 40.		*
7	IP	16 30 55.5	S	31 57.	N D	*
8	P	02 56 01.	S	03 40.		*
8	P	06 30 13.				*
8	IP	07 01 52.0			S E U	*
8	IP	10 26 16.1			S U	*
8	IP	11 29 39.0	S	30 11.	U	*
8	IP	16 27 15.2	IS	27 41.	S D	*
8	EP	20 06 13.				*
8	IP	23 04 06.6			D	*

DATE		PHASE AND TIME H M S		M S	INITIAL MOTION	
9	IP	03 28 08.4			S U	*
9	IP	03 28 15.0			S E D	*
9	EP	03 51 06.	ES	51 44.		*
9	P	05 29 38.	S	30 06.		*
9	IP	07 01 09.0	S	05 40.	N W U	*
9	EP	08 44 22.				*
9	IP	09 44 01.4			N W U	*
9	EP	09 54 21.				*
9	IP	10 18 16.0			E D	*
9	IP	10 26 19.5			W U	*
9	IP	12 29 21.4	S	29 48.	S E D	*
9	P	13 12 16.	S	12 33.		*
9	IP	18 28 16.0			U	*
9	IP	21 07 13.6	S	07 36.	U	*
9	IP	21 31 42.2			D	*
9	EP	22 14 32.				*
9	IP	22 51 08.8			U	*
10	P	00 56 02.				*
10	IP	01 41 31.0			N U	*
10	IP	05 00 37.4	S	01 23.	U	*
10	IP	06 34 40.1			N D	*
10	IP	08 16 00.8			U	*
10	P	09 15 18.				*
10	IP	10 40 56.1	ES	42 04.	U	*
10	P	12 23 16.	S	25 16.		*
10	P	15 16 19.				*
10	IP	19 39 37.2			D	*
10	IP	22 10 20.3			D	*
10	IP	22 55 55.4			U	*
10	IP	23 30 36.6			S W U	*
11	IP	04 23 23.5	IS	23 42.4		*
11	P	04 38 37.				*
11	IP	13 38 14.3	S	47 42.	N W U	*
11	EP	13 50 37.	S	51 50.		*
11	IP	13 59 30.8			U	*
11	P	14 14 43.				*
11	IP	15 37 33.0			U	*
11	EP	22 19 00.				*
12	IP	01 43 17.6	ES	45 16.	S U	*
12	IP	08 49 33.1	S	50 48.	N U	*
12	IP	14 07 02.0	ES	08 47.	D	*
12	IP	18 06 42.8	S	06 47.0	N D	*
12	EP	20 11 06.				*
12	IP	23 32 16.8			U	*
13	IP	03 45 33.8	S	45 39.0		*
13	IP	03 45 35.2	S	45 40.5		*
13	IP	04 00 09.9	S	00 29.	U	*
13	IP	07 04 55.7	IS	05 16.5	N W U	*
13	IP	09 58 10.5			N W D	*
13	EP	15 56 57.				*
13	EL	16 47 20.				*
13	IP	18 03 41.5	ES	10 46.	S D	*
13	L	19 19 44.				*
13	EP	21 36 32.				*
14	EP	05 18 13.	ES	18 38.		*
14	IP	05 58 57.8	S	59 17.	D	*
14	P	09 35 08.	S	35 51.		*
14	L	12 00 20.				*
14	IP	12 59 18.2	S	59 57.	W D	*
14	P	21 44 57.	S	52 32.		*
14	EP	23 34 18.				*
15	IP	01 02 45.1	S	03 18.	N E D	*
15	P	06 02 22.				*
15	P	07 33 11.				*
15	IP	08 24 26.4	S	34 36.	U	*
15	P	12 37 33.				*
15	IP	20 51 04.6	S	51 27.	W	*
15	P	22 07 07.	S	16 52.		*
16	IP	01 45 31.5			D	*
16	IP	02 42 08.0			U	*
16	IP	03 13 22.8	S	13 41.6	S U	*
16	IP	04 06 30.5	S	06 51.	U	*

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DATE		PHASE AND TIME H M S		M S	INITIAL MOTION	
16	IP	16 25 32.7	IS	25 49.6	S W U	*
16	EP	16 30 26.				*
16	P	18 34 34.				*
16	P	19 37 09.2				*
16	EX	20 32 20.				*
16	IP	21 32 10.2			D	*
16	IP	23 33 01.2			U	*
16	P	23 58 40.				*
						*
17	EP	00 23 36.				*
17	IP	00 36 29.7	S	37 41.	U	*
17	P	01 29 48.	S	30 03.		*
17	P	02 10 25.	S	13 29.		*
17	IP	05 32 41.2	S	33 05.	E U	*
17	P	08 39 18.	S	40 05.		*
17	IP	16 14 57.2	S	15 13.	S E D	*
17	IP	17 30 41.8			N D	*
17	IP	23 23 04.5	IS	23 16.4	S E D	*
						*
18	IP	05 42 36.3	S	43 03.2	N E U	*
18	EP	06 05 46.				*
18	EP	06 16 29.	S	17 08.		*
18	IP	11 19 44.4			E D	*
18	P	12 22 17.				*
18	P	12 57 55.	S	07 38.		*
18	IP	13 03 42.6			U	*
18	EX	15 14 28.				*
18	EP	17 38 20.				*
						*
19	IP	00 17 29.8	S	17 50.8	E D	*
19	EP	02 20 23.	S	20 51.		*
19	IP	02 21 29.5	S	22 02.4	N U	*
19	IP	02 26 18.0			D	*
19	EL	02 51 00.				*
19	IP	02 59 59.8	S	59 14.4	D	*
19	IP	03 05 50.3	S	06 56.	N E D	*
19	EP	12 27 29.				*
19	IP	14 04 49.7	S	05 13.	E U	*
19	IP	16 04 15.8	S	05 56.	S W U	*
19	IP	16 33 05.4			N U	*
19	P	16 35 32.				*
19	EP	18 22 36.				*
19	IP	21 27 43.6			U	*
						*
20	P	03 21 15.	S	21 50.		*
20	IP	04 00 34.0	S	08 26.	S D	*
20	IP	10 14 34.1			U	*
20	IP	12 13 33.5	IS	13 52.0	S W U	*
20	IP	13 08 53.0	ES	09 34.	S W D	*
20	P	13 55 22.	ES	02 40.		*
20	IP	19 22 45.4	S	23 03.	E D	*
20	P	21 33 52.	S	41 22.		*
20	IP	23 25 48.8	S	30 08.	S W U	*
						*
21	EP	01 30 30.				*
21	IP	01 39 24.9	ES	39 53.	D	*
21	EP	02 42 35.				*
21	PKP	03 56 12.				*
21	P	07 33 18.	ES	34 40.		*
21	IP	08 11 44.5			S E U	*
21	IP	09 13 52.6	S	14 28.	W U	*
21	IP	10 55 34.0	S	01 56.	U	*
21	P	12 10 00.	S	10 22.		*
21	P	13 18 05.				*
21	EL	13 45 26.				*
21	L	18 02 00.				*
21	P	21 50 35.				*
						*
22	EL	00 04 00.				*
22	P	00 23 42.				*
22	IP	02 14 23.7	S	14 52.	W	*
22	P	05 48 42.	S	57 26.		*
22	EP	06 22 40.	S	23 14.		*
22	EP	06 48 32.				*
22	IP	08 17 38.4	S	22 12.	D	*
22	IP	09 47 57.4	S	52 22.	U	*
22	IP	12 23 00.8	ES	27 40.	N	*
22	P	12 59 58.	ES	07 20.		*
22	EL	13 21 38.				*

DATE		PHASE AND TIME H M S		M S	INITIAL MOTION	
23	IP	02 18 49.0	S	22 16.	D	*
23	P	03 07 28.6				*
23	P	10 46 26.	S	46 57.		*
23	IP	11 01 16.2	S	02 23.	S D	*
23	P	13 01 14.	S	01 49.		*
23	P	22 41 41.				*
23	EP	22 44 48.	S	46 12.		*
23	IP	23 02 23.4	S	02 36.	D	*
						*
24	IP	09 32 29.7	S	32 55.	W U	*
24	IP	11 43 20.5	IS	51 48.	S E D	*
24	P	11 56 20.				*
						*
25	P	04 46 14.	ES	47 20.		*
25	P	08 03 44.	ES	05 20.		*
25	IP	10 17 24.4	IS	17 32.5	N E U	*
25	IP	14 26 27.3	S	32 08.	N U	*
25	P	19 09 21.				*
25	P	19 10 50.				*
25	P	19 45 50.				*
25	IP	21 15 40.6	ES	20 24.	U	*
						*
26	EP	02 47 47.				*
26	P	05 00 03.				*
26	IP	08 42 12.5			E U	*
26	EL	09 31 0				*
26	IP	14 07 43.5			U	*
26	P	15 12 21.5	ES	17 16.		*
26	P	18 41 09.				*
26	P	19 07 56.				*
26	IP	21 40 21.9			U	*
						*
27	IP	00 11 02.5	S	15 28.	N D	*
27	P	00 24 13.				*
27	EP	00 43 57.				*
27	P	00 49 54.				*
27	P	00 54 27.				*
27	P	01 31 42.				*
27	P	01 45 46.				*
27	IP	01 50 42.4			D	*
27	P	01 54 21.				*
27	IP	05 21 22.5	ES	21 48.	E	*
27	P	12 06 36.	S	16 38.		*
27	IX	12 31 06.				*
27	EX	16 02 32.				*
27	EP	16 15 02.				*
27	P	19 12 30.				*
27	P	19 39 14.				*
27	P	22 21 12.	S	25 04.		*
27	P	22 24 31.				*
						*
28	P	03 33 52.				*
28	IP	03 39 30.0	ES	40 24.	S U	*
28	IP	05 26 24.4			E U	*
28	P	09 30 26.	ES	34 46.		*
28	P	09 38 35.	S	47 40.		*
28	P	11 24 37.				*
28	EP	12 01 30.				*
28	P	13 07 36.	IS	08 01.5		*
28	EP	14 19 13.				*
28	P	14 40 50.	ES	42 44.		*
28	IP	15 53 45.2	IS	54 01.5	W D	*
28	IP	16 57 03.6	S	58 20.	U	*
28	P	18 56 30.	S	57 43.		*
28	P	19 07 44.4	S	08 42.		*
28	P	20 39 58.				*
28	EP	20 42 16.				*
						*
29	IP	01 36 14.5			W D	*
29	P	01 49 21.				*
29	IP	02 21 15.2	S	21 35.	N W D	*
29	EP	04 39 31.				*
29	EP	06 01 08.				*
29	EP	14 24 25.	ES	30 22.		*
29	IP	16 33 38.8			N D	*
29	P	17 25 04.				*
29	EP	17 29 30.				*
29	EL	17 55 00.				*
29	P	19 38 12.				*
29	EP	20 26 52.				*

DATE		PHASE AND TIME H M S		M S	INITIAL MOTION	
30	EP	02 55 50.	S	05 08.		*
30	P	04 39 40.0			N U	*
30	IP	07 17 05.5	S	18 29.	U	*
30	P	11 04 42.				*
30	P	11 40 11.	ES	45 28.		*
30	P	13 50 27.	S	52 18.		*
30	P	14 36 14.				*
30	P	16 04 20.				*
30	P	19 35 09.2	S	41 49.	U	*
30	P	20 08 03.				*
30	EP	20 19 19.				*
30	P	20 22 27.				*
30	P	21 44 58.				*
30	IP	22 28 55.6	S	29 51.	U	*
30	P	23 30 14.				*
30	IP	23 57 49.4	S	58 03.	E	*
						*
31	P	00 39 32.				*
31	P	02 26 03.	S	31 32.		*
31	P	03 17 28.				*
31	IP	03 42 50.0	S	47 45.	S W U	*
31	IP	05 56 18.5	ES	57 49.	U	*
31	IP	09 50 51.1	S	56 04.	U	*
31	IP	13 15 11.0			S W U	*
31	P	18 03 20.	IS	08 48.		*
31	EP	19 52 19.				*
31	P	20 28 05.	S	33 16.		*
31	IP	22 21 10.4			S W U	*
31	P	22 54 58.	S	00 12.		*
31	P	22 59 29.	S	04 50.		*
31	EP	23 41 30.	ES	41 58.		*

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昭和44年2月

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OF

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Tokyo

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List 1 JMA stations and their seismographs

Station	Code	CGS Code	λ	φ	Height	Seismographs
					m	
Abashiri	ABASHI	ABJ	E144°17.0′	N44°01.0′	38	S, VI, OP
Aikawa	AIKAWA	AIK	138 14.5	38 01.2	34	S, VI, OP
Ajiro	AJIRO	AJI	139 05.8	35 02.6	59	S, VI, EMT′
Akita	AKITA	AKI	140 06.1	39 43.1	9	S, VI, OP
Anabuki (Tsurugisan)	ANABUK (TURUGI)	TSS	134 05.8	33 51.1	59	S, P
Aomori	AOMORI	AOM	140 47.0	40 49.0	4	S, W
Asahikawa	ASAHIK	ASA	142 22.4	43 46.2	111	S, VI, OP
Ashizuri	ASHIZU	ASZ	133 01.0	32 43.0	30	S, VI
Asosan	ASOSAN	ASJ	131 04.5	32 52.7	1143	S
Chichibu	CHICHI	CHJ	139 04.9	35 59.5	218	S, P
Choshi	CHOSHI	CHO	140 50.6	35 43.5	27	S, W
Fukue	FUKUE	FKJ	128 50.0	32 42.0	26	S, VI
Fukui	FUKUI	FUK	136 13.6	36 03.2	9	S, P(H, V)
Fukuoka	FUKUOK	FKK	130 22.8	33 34.8	2	S, VI, M(H)
Fukushima	FUKUSH	FKS	140 28.5	37 45.4	67	S, VI, OP
Gifu	GIFU	GIF	136 45.9	35 23.9	13	S, W
Hachijojima	HACHIJ	HJJ	139 47.3	33 06.1	80	S, VI
Hachinohe	HACHIN	HAC	141 31.6	40 31.5	27	S, VI, OP
Hakodate	HAKODA	HAK	140 45.5	41 48.8	35	S, VI, OP
Hamada	HAMADA	HMD	132 04.4	34 53.6	18	S, VI, OP
Hamamatsu	HAMAMA	HMM	137 43.4	34 42.5	32	S, VI, OP
Hikone	HIKONE	HIK	136 14.8	35 16.4	87	S, W
Himeji	HIMEJI	HIM	134 42.1	34 50.2	37	S, P(H, V)
Hiroo	HIROO	HOO	143 19.0	42 17.0	32	S, P(H, V)
Hiroshima	HIROSH	HIR	132 26.2	34 21.8	29	S, W
Iida	IIDA	IID	137 50.1	35 30.6	482	S, VI, OP
Irozaki (Nagatsuro)	IROZAK (NAGATS)	NGT	138 50.8	34 36.0	55	S
Ishinomaki	ISHINO	ISN	141 18.2	38 25.5	43	S, VI, OP
Izuhara	IZUHAR	IZU	129 17.7	34 12.2	21	S, P(H, V)
Kagoshima	KAGOSH	KAG	130 33.2	31 34.4	4	S, VI
Kakioka	KAKIOK	KAK	140 11.6	36 13.9	27	S, W
Kanazawa	KANAZA	KAN	136 38.9	36 32.8	27	S, VI, OP
Karuizawa	KARUIZ	KRZ	138 33.1	36 20.4	999	S, P(H, V)
Kawaguchiko (Funatsu)	KAWAGU (FUNATU)	FUN	138 45.8	35 29.9	860	S, P
Kobe	KOBE	KOB	135 10.8	34 41.3	58	S, P(H, V)
Kochi	KOCHI	KOC	133 32.0	33 33.0	40	S, P(H, V)
Kofu	KOFU	KOF	138 33.5	35 39.9	272	S, VI
Kumagaya	KUMAGA	KMG	139 23.1	36 08.8	30	S, VI, EMT
Kumamoto	KUMAMO	KUM	130 42.6	32 48.6	38	S, W
Kushiro	KUSHIR	KUS	144 23.7	42 58.7	33	S, VI
Kyoto	KYOTO	KYO	135 44.1	35 00.7	41	S, VI, OP
Maebashi	MAEBAS	MAE	139 03.9	36 24.1	112	S, W
Maizuru	MAIZUR	MAI	135 23.2	35 28.3	31	S, P(H, V)
Matsue	MATSUE	MTS	133 04.3	35 27.3	17	S, P(H, V)
Matsumoto	MATSUM	MTM	137 58.4	36 14.6	610	S, P(H, V)
Matsushiro	MATSUS	MAT	138 12.5	36 32.3	440	S, L, AW,G,B,V,C
Matsuyama	MATSUY	MTY	132 46.8	33 50.4	32	S, W
Mishima	MISHIM	MIS	138 55.8	35 06.7	20	S, W
Mito	MITO	MIT	140 28.3	36 22.7	30	S, VI, EMT′
Miyako	MIYAKO	MIY	141 58.1	39 38.7	46	S, W
Miyazaki	MIYAZA	MYZ	131 25.6	31 55.0	7	S, VI, OP
Mizusawa	MIZUSA	MIZ	141 08.0	39 08.0	61	P(H, V)
Morioka	MORIOK	MRK	141 10.0	39 41.8	155	S, VI, OP
Muroran	MURORA	MRR	140 59.0	42 19.0	43	S, P(H, V)
Murotomisaki	MUROTO	MRT	134 10.7	33 14.9	185	S, VI, OP
Nagano	NAGANO	NGN	138 11.8	36 39.6	418	S, W
Nagasaki	NAGASA	NGS	129 52.2	32 43.9	27	S, VD, EM
Nagoya	NAGOYA	NAG	136 58.1	35 09.9	52	S, VI, OP
Nara	NARA	NAR	135 50.0	34 41.0	105	S, P(H, V)
Nemuro	NEMURO	NEM	145 35.2	43 19.7	26	S, VI, VD, OP
Niigata	NIIGAT	NII	139 03.1	37 54.6	2	S, P(H, V)
Nobeoka	NOBEOK	NOB	131 41.0	32 35.0	19	S, P(H, V)
Obihiro	OBIHIR	OBI	143 13.3	42 55.2	39	S, P(H, V)
Ofunato	OFUNAT	OFU	141 43.1	39 03.7	38	S, VI
Oita	OITA	OIT	131 37.4	33 14.0	5	S, W
Okayama	OKAYAM	OKA	133 54.9	34 40.9	4	S, VI, OP
Omaezaki	OMAEZA	OMA	138 12.8	34 36.2	45	S, W
Onahama	ONAHAM	ONA	140 54.4	36 56.7	3	S, VI
Osaka	OSAKA	OSA	135 31.3	34 40.7	13	S, VI

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Station	Code	CGS Code	λ	φ	Height	Seismographs
					m	
Oshima	OSHIMA	OSH	E139°22.7′	N34°45.7′	191	S, W
Owase	OWASE	OWA	136 11.7	34 04.0	14	S, VI, OP
Rumoi	RUMOI	RMJ	141 38.0	43 57.0	22	S, P(H, V)
Saga	SAGA	SAG	130 18.3	33 14.7	4	S, P(H, V)
Saigo	SAIGO	SAI	133 20.0	36 12.3	26	S, VI, OP
Sakata	SAKATA	SAK	139 50.2	38 54.2	2	S, P(H, V)
Sapporo	SAPPOR	SAP	141 19.9	43 03.5	17	S, VI, OP
Sendai	SENDAI	SEN	140 54.0	38 15.6	38	S, VI, S′
Shimonoseki	SHIMON	SHN	130 56.5	33 57.2	46	S, VI, OP
Shionomisaki	SHIONO	SHJ	135 45.8	33 26.9	74	S, W
Shirakawa	SHIRAK	SHR	140 13.5	37 07.1	354	S, P(H, V)
Shizuoka	SHIZUO	SHZ	138 24.4	34 58.4	14	S, VI
Sumoto	SUMOTO	SUM	134 54.5	34 20.1	109	S, VI, OP
Suttsu	SUTTSU	SUT	140 14.4	42 47.4	16	S, P(H, V)
Takada	TAKADA	TKD	138 15.0	37 06.3	13	S, P(H, V)
Takamatsu	TAKAMA	TKM	134 03.5	34 19.0	10	S, W
Takayasuyama	OSAKA2		135 39.6	34 36.7	472	VD′
Takayama	TAKAYA	TKY	137 15.3	36 09.1	561	S, P(H, V)
Tateyama	TATEYA	TAT	139 52.1	34 59.0	6	S, VI, EMT
Tokushima	TOKUSH	TKS	134 34.6	34 03.9	2	S, P(H, V)
Tokyo	TOKYO	TOK	139 45.5	35 41.2	21	S, VI′, VD′, I′, J
Tottori	TOTTOR	TOT	134 10.7	35 30.7	17	S, P(H, V)
Toyama	TOYAMK	TOY	137 12.5	36 42.4	9	S, VI
Toyooka	TOYOOA	TYK	134 49.5	35 32.0	4	S, W
Tsu	TSU	TSU	136 31.1	34 42.1	3	S, P(H, V)
Tsuruga	TSURUG	TSR	136 03.9	35 39.0	1	S, P(H, V)
Unzendake	UNZEND	UNZ	130 15.2	32 44.1	849	S
Urakawa	URAKAW	URA	142 46.8	42 09.5	34	S, V I, OP
Utsunomiya	UTSUNO	UTS	139 52.3	36 32.6	120	S, EMT
Uwajima	UWAJIM	UWA	132 33.5	33 13.5	43	S, P
Wajima	WAJIMA	WAJ	136 53.9	37 23.4	6	S, VI
Wakayama	WAKAYA	WKY	135 10.0	34 13.6	14	S, W, I
Wakkanai	WAKKAN	WAK	141 40.5	45 25.0	2	S, VI, OP
Yakushima	YAKUSH	YKS	130 29.8	30 27.0	14	S, VI
Yamagata	YAMAGA	YAM	140 21.0	38 15.2	151	S, P(H, V)
Yokohama	YOKOHA	YOK	139 39.3	35 26.2	38	S, EMT
Yonago	YONAGO	YON	133 20.6	35 26.0	7	S, P(H, V)
Ishigakijima	ISHIGA	ISI	124 10	24 20	6	S, VI
Naha	NAHA	NAH	127 41	26 13	11	S, VI
Miyakojima	MIYAKJ	MYK	125 17	24 47	40	S
Yonagunijima	YONAGU		123 01	24 28	32	

Notations : —

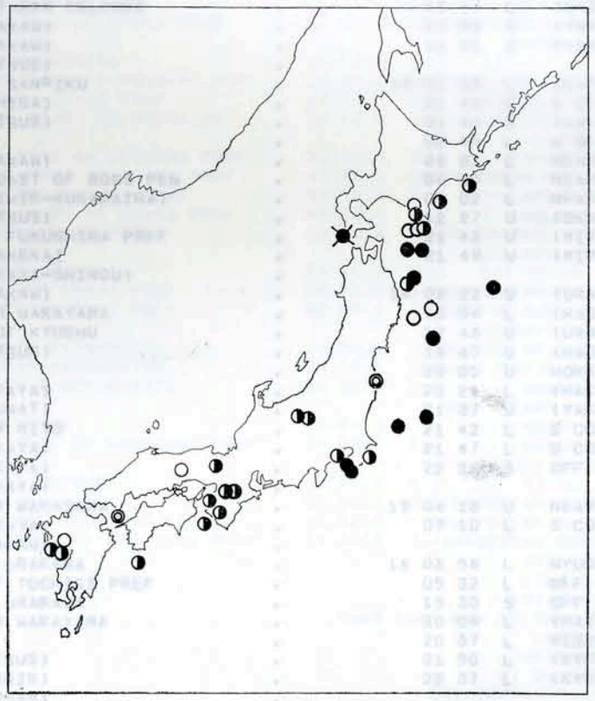
λ	: Longituds.
φ	: Geographical Latitude.
W	: Wiechert's horizontal and vertical seismographs (masses, H; 200kg, V; 80kg).
P	: Portable seismograph (horizontal).
P(H, V)	: do (mass, 22.5kg).
S	: Strong motion seismograph (magnification; 1).
S′	: do (magnification; 0.4).
M(H)	: Mainka's horizontal seismograph (mass, 450kg).
G	: Galitzin's seismograph.
L	: 1,000kg long-period seismograph, JMA type.
I	: Ishimoto's seismograph.
V	: Short-period vertical seismograph.
AW	: Anderson-Wood's seismograph.
C	: Capacity type seismograph.
EM	: Electromagnetic seismograph.
OP	: JMA 59-type electromagnetic seismograph with optical recorder.
VI	: JMA 59-type electromagnetic seismograph with visible recorder.
VD	: JMA 61-type electromagnetic seismograph with visible recorder.
B	: Benioff's seismograph (short and long period).
J	: Remote recording JMA 63-type seismograph.
VI′,VD′,I′	: Remote recording JMA 63-type seismograph.
EMT	: Electromagnetic seismograph with tape recorder.
EMT′	: Electromagnetic seismograph with tape recorder and transmitting unit.

List 2 Number of earthquakes by districts and classes, February, 1969

District \ Class	Number of felt earthquakes					Number of unfelt earthquakes	Total
	Remarkable	Moderate	Small felt area	Local	Total		
Hokkaido	0	0	3	9	12	28	40
Tohoku	0	1	2	6	9	21	30
Kwanto	0	0	0	8	8	16	24
Chubu	0	0	0	29	29	4	33
Kinki	0	0	0	19	19	15	34
Chugoku•Shikoku	0	1	1	3	5	2	7
Kyushu	0	0	1	12	13	16	29
Near Japan*	0	0	0	0	0	3	3
Foreign region	0	0	0	0	0	14	14
Unknown	0	0	0	0	0	1	1
Total	0	2	7	86	95	120	215

* ; Sakhalin, Kurile Is., Korea, Ryukyu Is., Bonin Is., Sikhota Alin.

Epicenters of the major earthquakes



◎ Moderate (M) ○ Small felt area (S) ◑ Local (L) ● Unfelt (U) × h≧100km.

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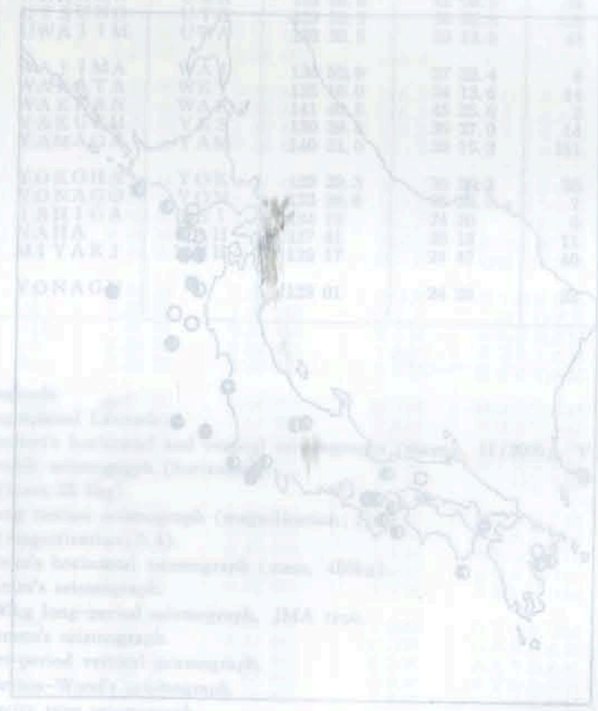
Special Event

Earthquake-Swarm near Matsushiro, Northern Chubu

In this month, 26 earthquakes (intenity II : 2, I : 24) were felt at the Matsushiro Seismological Observatory.



List 3 EARTHQUAKES OBSERVED BY SEISMOLOGICAL STATIONS OF JMA

(J.S.T.) C : CLASS

DATE, D	TIME H	M	C	LOCATION
1	00	39	U	FAR OFF SANRIKU
	01	52	L	OFF HACHINOHE
	13	04	U	(NEMURO)
	17	18	L	NEAR MATSUSHIRO
2	01	16	U	NEAR WAKAYAMA
	03	07	L	(NAGANO-SAKAI)
	10	40	U	NORTH OF HALMAHERA
	14	23	U	(CHOSHI)
	14	24	U	(CHOSHI)
	16	56	U	E OFF AOMORI PREF
	23	16	L	(MATSUS)
	23	41	L	OFF IWATE PREF
3	02	30	U	(KOBE)
	05	01	U	(CHOSHI)
	09	49	U	OFF URAKAWA
	17	31	S	OFF URAKAWA
	21	27	L	(WAKAYA)
4	00	08	L	(USTUNO-ASHIO)
	00	12	L	(USTUNO-ASHIO)
	00	23	L	NEAR MATSUSHIRO
	06	00	U	(KUSHIR)
	06	20	L	OFF TOKACHI
	06	46	U	TALAUD IS
	07	11	L	NEAR NEMURO
	07	29	U	(WAKAYA)
	10	07	U	OFF ONAHAMA
	10	43	U	NORTHERN CELEBES
	11	25	U	(URAKAW)
	15	43	U	(URAKAW)
	16	11	L	(MATSUS)
	17	44	U	OFF SANRIKU
	18	31	U	(ISHIGA)
	22	20	L	(MATSUS)
5	01	58	U	(URAKAW)
	05	34	U	W COAST OF BOSO PEN
	05	35	L	(OBIHIR-NUKADAIRA)
	06	39	L	(MATSUS)
	08	04	U	OFF FUKUSHIMA PREF
	15	09	S	ARIAKEKAI
	18	40	L	(WAKAYA-SHINGU)
	19	05	U	(URAKAW)
	19	25	L	NEAR WAKAYAMA
	20	26	U	SE OF KYUSHU
	22	39	L	(MATSUS)
6	02	46	U	(WAKAYA)
	02	52	U	(OFUNAT)
	03	47	L	NEAR MITO
	08	21	U	(WAKAYA)
	08	22	U	(WAKAYA)
	08	48	L	(WAKAYA)
	08	57	L	NEAR WAKAYAMA
	09	12	L	(WAKAYA)
	09	44	U	(URAKAW)
	13	30	L	OFF URAKAWA
	13	37	L	E OF TOCHIGI PREF
	17	35	S	OFF URAKAWA
	19	24	L	NEAR WAKAYAMA
7	01	32	L	(MATSUS)
	04	28	U	(KUSHIR)
	07	54	L	(ASOSAN)
	22	41	L	NEAR MATSUSHIRO
8	01	12	U	S PART OF BOSO PEN
	05	52	U	(WAKAYA)
8	18	14	L	W COAST OF EHIME PREF
	18	44	L	NEAR MATSUSHIRO
	22	24	U	(KOBE)
9	07	22	L	(MATSUS)
	08	09	U	OFF IBARAKI PREF
	11	43	U	(URAKAW)
	19	13	L	OFF HACHINOHE
10	00	06	U	OFF OMAEZAKI
	00	58	L	NEAR NEMURO
	13	10	U	OFF CHOSHI
	19	05	U	OFF MIYAGI PREF
11	03	39	U	(NAHA)
	06	15	L	OFF ASHIZURI PEN
	06	48	U	E OFF HOKKAIDO
	08	07	U	SOUTH OF FIJI IS
	08	11	U	(NEMURO)
	08	33	U	S OFF KYUSHU
	22	08	U	(MIYAKO)
	23	40	L	W OF NAGANO PREF
12	00	18	U	(HACHIN)
	04	48	U	HOKKAIDO
	05	17	U	(YAKUSH)
	07	17	U	KIRGIZ-SINKIANG BORDER
	07	21	U	BANDA SEA
	07	28	U	UK
	15	47	L	(UNZEND)
	15	55	U	(YAKUSH)
	16	01	U	(YAKUSH)
13	01	33	L	NEAR WAKAYAMA
	01	42	U	S OF KYUSHU
	01	44	U	(WAKAYA)
	02	48	L	W OF NAGANO PREF
	06	01	L	NEAR NEMURO
	06	03	L	NEAR MITO
	09	02	L	NEAR MATSUSHIRO
	12	27	U	(OKAYAM)
	21	42	U	(MIYAZA)
	21	48	U	(MIYAZA)
14	08	22	U	(URAKAW)
	15	54	L	(HACHIN)
	17	46	U	(URAKAW)
	18	47	U	(HACHIN)
	20	01	U	HOKKAIDO
	20	21	L	(HACHIN)
	21	37	U	(YAKUSH)
	21	42	L	S COAST OF NAGASAKI PREF
	21	47	L	S COAST OF NAGASAKI PREF
	22	29	S	OFF IWATE PREF
15	04	13	U	NEAR HACHIJOJIMA
	07	10	L	S COAST OF NAGASAKI PREF
16	03	58	L	HYUGANADA
	05	32	L	OFF URAKAWA
	15	30	S	OFF IWATE PREF
	20	08	L	(MATSUS)
	20	37	L	MIDDLE OF KYOTO PREF
	21	50	L	(KYOTO-SHIMOWACHI)
	22	37	L	(KYOTO-SHIMOWACHI)
17	00	20	U	(MUROTO)
	09	47	U	NORTH OF HALMAHERA
	14	18	L	(MATSUS)
	14	36	L	S OF KYUSHU

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DATE, TIME D H M	C	LOCATION
17 15 24	L	OFF KUSHIRO
16 22	L	E OF HOKKAIDO
16 29	M	COAST OF FUKUSHIMA PREF
17 20	L	(KYOTO-SHIMOWACHI)
17 36	U	OFF URAKAWA
18 22	U	OFF MIYAGI PREF
20 35	L	(KYOTO-MIYAMA)
22 30	U	SW COAST OF HOKKAIDO
18 02 27	U	S OF KWANTO
04 34	L	OFF IWATE PREF
05 33	U	(KOBE)
06 57	S	E PART OF OKAYAMA PREF
09 50	L	SE PART OF OSAKA PREF
13 53	U	E OFF AOMORI PREF
14 50	L	SE PART OF OSAKA PREF
21 18	U	OFF IWATE PREF
19 00 29	U	SE PART OF OSAKA PREF
00 59	L	(UNZEND)
01 00	L	(UNZEND)
01 22	U	HOKKAIDO
17 38	U	TAIWAN REGION
18 57	L	(WAKAYA-SHIRAHAMA)
23 59	U	OFF SANRIKU
20 00 01	U	(URAKAW)
00 37	U	(KUMAMO)
02 28	U	(UTSUNO)
09 03	U	(URAKAW)
10 33	U	KYUSHU
17 17	U	(KOBE)
19 00	U	NORTH OF HALMAHERA
19 36	U	NORTH OF HALMAHERA
23 24	U	(YAKUSH)
21 02 03	U	NORTH OF HALMAHERA
02 14	S	OFF URAKAWA
05 18	U	(WAJIMA)
06 22	L	(KOCHI)
09 04	L	(UNZEND)
12 38	L	E OFF CHIBA PREF
13 06	L	(WAKAYA)
20 27	U	(YAKUSH)
21 36	U	OFF IBARAKI PREF
23 30	U	OFF TOKACHI
22 05 17	L	NEAR MATSUSHIRO
05 37	U	OFF IWATE PREF
11 03	U	OFF SANRIKU
11 36	L	NEAR MATSUSHIRO
12 06	U	FAR E OFF KWANTO
13 10	U	(URAKAW)
13 28	U	OFF IWATE PREF
17 42	U	(YAKUSH)
19 39	U	(URAKAW)
22 25	U	NEAR CHOSHI
23 00 03	L	NEAR MATSUSHIRO
00 11	L	NEAR MATSUSHIRO
01 59	L	NEAR UNZENDAKE
04 17	L	(UNZEND)
09 42	U	CELEBES
10 14	U	(HACHIN)
11 10	L	E PART OF KANAGAWA PREF
17 44	U	(MITO)
18 28	U	(URAKAW)
21 41	U	RYUKYU IS
23 05	L	NEAR MATSUSHIRO

DATE, TIME D H M	C	LOCATION
24 04 49	U	OFF IWATE PREF
06 57	L	NEAR MATSUSHIRO
08 18	L	NEAR MATSUSHIRO
09 15	U	TANIMBAR IS
21 10	U	N OF NOTO PEN
25 00 09	U	(WAKAYA)
03 15	U	(YAKUSH)
04 47	U	OFF IWATE PREF
11 22	L	(MATSUS)
12 20	L	(MATSUS)
17 09	U	NEAR HACHIJOJIMA
19 33	L	NEAR MATSUSHIRO
26 03 40	U	(URAKAW)
05 20	L	(MATSUS)
10 36	U	OFF URAKAWA
19 25	U	NEAR CHOSHI
22 40	U	SW OF SHIZUOKA PREF
27 00 57	L	NEAR MATSUSHIRO
02 47	U	(KOBE)
11 34	L	S OF KWANTO
18 29	U	(MORIOK)
19 01	U	(KUSHIR)
28 00 52	U	(WAKAYA)
05 22	L	KII CHANNEL
06 06	M	IYONADA
11 53	U	NORTH ATLANTIC OCEAN
15 05	L	MIDDLE OF WAKAYAMA PREF
21 25	U	(MIYAZA)

List 4 EARTHQUAKE ORIGINS

(J.S.T.) C : CLASS

DATE, TIME D H M	C	LOCATION	ORIGIN TIME M	S	+/-S	LONG.	+/-	LAT.	+/-	H KM	M
1 00 39	U	FAR OFF SANRIKU	38	27.0	1.9	144 33 11		39 57 05		00	5.0
2 16 56	U	E OFF AOMORI PREF	56	34.9	0.3	142 57 02		41 19 01		10	4.6
23 41	L	OFF IWATE PREF	41	13.1	0.3	142 19 02		40 18 01		40	3.6
3 17 31	S	OFF URAKAWA	31	35.1	0.4	142 34 04		41 29 02		40	4.9
4 06 20	L	OFF TOKACHI	19	57.9	0.3	143 32 02		42 27 02		50	4.3
06 46	U	TALAUD IS	41	41.9		127 24		4 54		33	6.4
5 05 34	U	W COAST OF BOSO PEN	34	36.6	0.8	139 50 05		35 17 03		50	3.5
15 09	S	ARIAKEKAT	09	15.8	0.3	130 14 01		33 00 01		10	4.2
6 08 57	L	NEAR WAKAYAMA	57	33.3	0.2	135 13 01		34 11 01		00	3.5
13 30	L	OFF URAKAWA	30	31.5	0.3	142 31 02		42 11 02		30	4.3
17 35	S	OFF URAKAWA	35	50.0	0.2	142 32 02		42 12 01		30	4.8
8 01 12	U	S PART OF BOSO PEN	12	33.0	0.4	139 56 03		35 03 01		60	3.6
11 06 15	L	OFF ASHIZURI PEN	15	45.4	0.7	132 41 02		32 37 03		00	4.3
08 07	U	SOUTH OF FIJI IS	58	05.8		178 36		-22 42		673	6.0
12 07 21	U	BANDA SEA	16	13.5		126 48		- 6 42		450	6.0
14 21 42	L	S COAST OF NAGASAKI PREF	42	08.4	0.3	130 04 01		32 45 01		00	4.2
21 47	L	S COAST OF NAGASAKI PREF	47	25.4	0.3	130 04 01		32 43 01		00	4.0
22 29	S	OFF IWATE PREF	29	10.0	0.6	143 06 03		39 29 02		30	4.9
16 05 32	L	OFF URAKAWA	32	18.7	0.4	142 55 03		41 40 02		30	4.0
15 30	S	OFF IWATE PREF	29	46.4	0.6	142 34 03		39 02 01		50	4.5
20 37	L	MIDDLE OF KYOTO PREF	37	00.8	0.2	135 17 01		35 13 01		10	3.5
17 15 24	L	OFF KUSHIRO	24	22.9	0.5	144 54 03		42 52 03		50	4.7
16 29	M	COAST OF FUKUSHIMA PREF	29	07.5	0.3	141 02 04		37 27 02		80	
18 22	U	OFF MIYAGI PREF	22	31.0	0.7	143 02 03		38 35 02		10	4.3
22 30	U	SW COAST OF HOKKAIDO	29	52.8	1.1	139 59 12		41 38 05		220	
18 06 57	S	E PART OF OKAYAMA PREF	57	08.9	0.1	134 08 01		34 53 01		00	4.3
09 50	L	SE PART OF OSAKA PREF	49	56.1	0.2	135 36 01		34 26 01		20	4.0
13 53	U	E OFF AOMORI PREF	53	11.6	0.3	142 25 02		41 16 01		20	3.9
14 50	L	SE PART OF OSAKA PREF	49	53.0	0.5	135 37 02		34 26 02		00	3.9
21 18	U	OFF IWATE PREF	18	11.4	0.9	142 32 05		40 17 02		50	4.1
21 02 14	S	OFF URAKAWA	14	21.2	0.3	142 30 02		41 30 01		00	4.5
12 38	L	E OFF CHIBA PREF	38	00.1	0.4	140 38 03		35 23 02		90	
21 36	U	OFF IBARAKI PREF	36	36.1	3.1	141 44 15		36 13 10		60	3.8
22 05 17	L	NEAR MATSUSHIRO	17	55.2	0.7	138 02 03		36 32 02		00	3.6
11 36	L	NEAR MATSUSHIRO	36	38.1	0.2	138 10 01		36 24 00		00	3.4
12 06	U	FAR E OFF KWANTO	06	32.8	1.5	142 32 08		36 29 04		70	
23 09 42	U	CELEBES	36	56.6		118 54		- 3 06		13	6.9
11 10	L	E PART OF KANAGAWA PREF	10	18.2	0.2	139 40 01		35 31 01		30	4.1
28 05 22	L	KII CHANNEL	22	17.0	0.3	135 08 02		33 34 02		60	3.7
06 06	M	IYONADA	05	46.7	0.3	132 05 02		33 38 02		70	
11 53	U	NORTH ATLANTIC OCEAN	40	32.5		- 10 36		36 00		22	8.0
15 05	L	MIDDLE OF WAKAYAMA PREF	04	48.9	0.2	135 29 02		33 58 01		70	

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List 5 DATA OF EARTHQUAKES

I : SEISMIC INTENSITY
* : MICRON

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S S	E-W *	E-W S	U-D *	U-D S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
HACHIN	0	EP	00 39 08.3	ES	39 45.7	10	6.8	6	4.6	9	7.0				265.2	37.4
OFUNAT	0	IP	00 39 08.4	S	39 43.1	24	4.2	10	4.0	11	4.0		W 2	U 2	262.7	34.7
MORIOK	0	IP	00 39 12.6	ES	39 49.0	8	3.0	7	3.0	10	4.0	S 0	W 1	U 0	290.9	36.4
				EX	39 21.3											
				EX	40 44.4											
URAKAW	0	EP	00 39 15	ES	39 41	17	4.0	18	3.6	15	3.6				286.9	26.0
ISHINO	0	EP	00 39 17.4	ES	40 04.0	11	3.8	12	5.2	11	4.0				327.6	46.6
AOMORI	0	EP	00 39 20.1	EX	39 45.6	57	2.2	55	1.7	23	1.3				334.0	
SENDAI	0	P	00 39 22.4	X	39 42.8	35	3.0	26	2.6	11	1			U 2	367.2	
				X	40 17.8											
KUSHIR	0	EX	00 39 27	ES	39 57	8	2.4	10	2.5	5	2.8				336.6	
SAKATA	0	EP	00 39 31.1			100	3.7	100	3.5						422.1	
HAKODA	0	EX	00 39 34	EX	40 03	9	2.6	9	4.2	6	4.1				380.7	
AKITA	0	EX	00 39 34	EX	40 37.2	35	3.0	37	3.4	23	3.0				381.6	
ABASHI	0	EP	00 39 36	ES	40 21	4	2.4	9	2.0	3	2.4				452.3	45.0
SAPPOR	0	X	00 39 38			8	2.6	12	2.6	5	3.0				437.4	
OBIHIR	0	EX	00 39 47												348.1	
MAEBAS	0	EP	00 39 55.6	ES	41 04.9	27	5.5	10	5.0	6	3.9				621.1	69.3
MATSUS	0	IP	00 40 01.4	X	41 28							S		U	671.7	
KUMAGA	0	X	00 40 01.8	X	41 35.0	10	2.6	10	5.2	11	5.0				619.2	
WAJIMA	0	EX	00 40 06			5	1.0	5	1.0						723.7	
KOFU	0	EX	00 40 09.0			8	2.0	5	2.0	3	2.4				710.0	
NAGANO	0	X	00 40 19.0	X	41 49.0	15	4.5	12	4.0	3	3.2				664.7	
TOYAMA	0	EX	00 40 20			7	5.6	8	5.2	5	3.6				735.6	
NIIGAT	0	EX	00 40 23.0			65	4.7	65	5.0	17	4.5				527.7	
MISHIM	0	EX	00 40 46			8	3.4	6	3.4	3	2.2				731.1	
MITO	0	EX	00 41 23.2			14	4.0	20	4.2	8	4.0				533.6	

OT= 1 0 38 27.0 +/- 1.9 (J.S.T.)
FAR OFF SANRIKU
LAT= 39 57 +/- 5 LONG= 144 33 +/-11
H= 0 MAG=5.0 CLASS=U

OT= 2 16 56 34.9 +/- 0.3
E OFF AOMORI PREF
LAT= 41 19 +/- 1 LONG= 142 57 +/- 2
H= 10 MAG=4.6 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S S	E-W *	E-W S	U-D *	U-D S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
URAKAW	0	P	16 56 52.7	S	57 03.6	53	2.0	116	0.2	18	2.6				94.6	10.9
HIROO	0	P	16 56 55.3	S	57 08.7										111.6	13.4
HACHIN	0	EP	16 57 01.1	ES	57 19.8	9	0.3	7	0.3	3	2.4				148.8	18.7
OBIHIR	0	P	16 57 02.8	S	57 21.0										179.5	18.2
AOMORI	0	EP	16 57 06	ES	57 25	47	1.3	56	1.1	19	1.0				190.4	19.0
HAKODA	0	EP	16 57 07	ES	57 28	13	2.0	17	1.2	6	1.4				191.0	21.0
SAPPOR	0	P	16 57 12.6			13	1.8	14	1.8	6	1.0				235.2	
MORIOK	0	IP	16 57 13.4	IS	57 40.6	11	0.4	10	0.4	3	1.2	S	1 W	1 U	1 234.9	27.2
OFUNAT	0	EP	16 57 17.0	ES	57 50.8	5	2.6	8	3.0	4	0.6				271.5	33.8
ISHINO	0	EP	16 57 26.4	ES	58 07.2	4	4.2	5	4.6	3	2.4				350.6	40.8
KUSHIR	0	ES	16 57 30					27	0.8	6	1.6				219.9	
SENDAI	0	EX	16 57 42	ES	58 16	8	4	11	2	3	2				382.1	
AKITA	0	EX	16 57 50			14	3.4	12	3.8	6	2.6				299.6	
MATSUS	0	IP	16 58 07.6	S	59 31									D	670.9	83.4
KUMAGA	0	X	16 58 17.4	ES	59 21.4	5	3.0	6	3.2	2	0.8				652.1	

OT= 2 23 41 13.1 +/- 0.3
OFF IWATE PREF
LAT= 40 18 +/- 1 LONG= 142 19 +/- 2
H= 40 MAG=3.6 CLASS=L

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S S	E-W *	E-W S	U-D *	U-D S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
HACHIN	1	IP	23 41 26.4	IS	41 35.0	20	0.4	14	0.4	2	0.6	S	E 1	D	71.7	08.6
MIYAKO	0	EP	23 41 27.2	IS	41 36.2	3	0	6	0						78.6	09.0
MORIOK	0	IP	23 41 32.7	IS	41 45.0	6	0.4	6	0.5	4	0.3	S	0 W	0 U 0	118.8	12.3
OFUNAT	0	EP	23 41 36.8	IS	41 53.0	7	0.0	3	0.2	1	0.2				146.8	16.2

OT= 3 17 31 35.1 +/- 0.4
OFF URAKAWA
LAT= 41 29 +/- 2 LONG= 142 34 +/- 4
H= 40 MAG=4.9 CLASS=S

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S S	E-W *	E-W S	U-D *	U-D S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
URAKAW	2	IP	17 31 49.0	IS	31 59.2	59	0.8	212	1.0	30	2.8	S 8		D 10	77.0	10.2
HIROO	0	IP	17 31 53.1	S	32 05.5							S 4	W 4	D 5	108.5	12.4
HACHIN	1	IP	17 31 57.4	IS	32 16.0	35	1.4	30	1.8	15	1.2	N 1	E 1	D 1	137.9	18.6
MURORA	0	EP	17 31 58.0	S	32 16.4								W	U	160.7	18.4
HAKODA	0	IP	17 31 59.0	IS	32 15.8	52	2.3	45	0.4	13	2.8		S 1	U 1	155.1	16.8
AOMORI	0	EP	17 31 59.9	IS	32 18.9	93	1.6	101	1.6	46	1.1				167.0	19.0
OBIHIR	0	IP	17 32 01.8	S	32 20.6									D 6	168.5	18.8
SAPPOR	0	P	17 32 05.1	IX	32 16.0	24	1.6	22	2.0	11	1.8				202.5	
				IX	32 26.6											
MIYAKO	0	EP	17 32 06	ES	32 31.2	9	3.1	10	1.6	7	1.7				210.3	25.2
KUSHIR	0	EX	17 32 08					11	0.3	7	1.9				224.4	
MORIOK	0	IP	17 32 10.3	S	32 34.5	23	0.4	28	0.4	6	2.6	N 1	E 1	D 1	231.0	24.2
ASAHIK	0	EP	17 32 15			20	2.0	19	2.2	10	2.0				254.6	
OFUNAT	0	P	17 32 16.8	IS	32 48.2	11	2.0	12	2.0	14	2.0	S 1		U 1	278.4	31.4
ABASHI	0	EP	17 32 19	ES	32 52	6	2.2	7	2.4	3	2.4				314.6	33.0
RUMOI	0	EP	17 32 19	ES	32 52										284.5	33.0
ISHINO	0	EP	17 32 27.5	ES	33 04.0	9	2.4	17	2.2	10	1.6				356.3	36.5
AKITA	0	EX	17 32 29.4	EX	32 51.8	16	2.2	14	2.0	9	2.2				286.3	
SENDAI	0	EP	17 32 32	ES	33 08	16	2.0	21	1.8	5	1.6				385.2	36.0
SAKATA	0	EX	17 32 54.4												368.9	
KAKIOK	0	EP	17 33 03	X	34 26	12	1.0	8	1.0	4	1.0				618.2	
MATSUS	0	P	17 33 06	X	34 43										666.0	
ONAHAM	0	EX	17 33 07.9												523.8	
MITO	0	EX	17 33 10.6	EX	34 05.6	17	3.4	18	2.6						595.0	
KUMAGA	0	X	17 33 14.0	ES	34 19.6	14	2.4	11	2.2	7	3.0				653.5	
KOFU	0	EX	17 33 20.4	EX	34 46.8	6	1.8	7	2.0	2	2.0				734.0	
TATEYA	0	EX	17 34 52.4			13	4.0	13	3.4	5	3.6				759.0	

OT= 4 6 19 57.9 +/- 0.3
OFF TOKACHI
LAT= 42 27 +/- 2 LONG= 143 32 +/- 2
H= 50 MAG=4.3 CLASS=L

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S S	E-W *	E-W S	U-D *	U-D S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
HIROO	1	IP	06 20 06.4	IS	20 13.2										25.7	06.8
OBIHIR	0	P	06 20 09.8	IS	20 19.4									D 2	58.1	09.6
URAKAW	1	P	06 20 12.4	S	20 22.0	212	0.8	101	0.8	17	1.6				70.1	09.6
KUSHIR	0	P	06 20 14.6	IS	20 26.5	54	0.3	57	0.3	30	0.2		W 2	U 2	91.8	11.9
ASAHIK	0	EP	06 20 24			11	1.2	11	1.0	7	1.0				174.4	
NEMURO	0	EP	06 20 26	S	20 48.5	4	0.2	5	0.2	4	0.2				194.1	22.5
SAPPOR	0	EP	06 20 27			6	2.0	4	1.6	3	1.0				192.5	
HAKODA	0	P	06 20 32.5	S	20 59.7	6	1.5	4	0.8	2	2.2			U	240.1	27.2
AOMORI	0	EP	06 20 40	S	21 15	11	1.4	13	1.6						292.3	35.0
MATSUS	0	P	06 21 41												800.0	

OT= 4 6 41 41.9 USCGS
TALAUD IS
LAT= 4 54 LONG= 127 24
H= 33 MAG=6.4 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S S	E-W *	E-W S	U-D *	U-D S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
ISHIGA	0	EP	06 46 11.5	IS	50 02.8	59	5.3	57	6.0	29	3.2				2175.5	231.3
NAHA	0	IP	06 46 29.2	IS	50 31.2	78	3.2	44	4.2	18	6.1				2358.3	242.0
YAKUSH	0	P	06 47 10.1	S	51 40.0	15	3.6	13	4.0	8	6.2				2843.7	269.9
KAGOSH	0	EX	06 47 13.6			26	3.6	32	2.4	12	2.6				2967.9	
MIYAZA	0	P	06 47 25.8	IS	52 08.0	30	2.8	24	3.0	19	3.0			U 6	3017.0	282.2
FUKUE	0	EP	06 47 29.8	EX	50 45.0	9	6.0	6	5.8	10	3.6				3078.1	
NAGASA	0	P	06 47 30.6	S	52 16.5							N 4	E	U	3086.8	285.9
ASHIZU	0	P	06 47 34.6	S	52 24.4	15	4.2	9	4.4	14	4.4	N 3		U 4	3131.2	289.8
KUMAMO	0	EP	06 47 36	ES	52 17.9	66	2.7	35	2.3	30	2.8				3105.8	281.9
FUKUOK	0	EP	06 47 38.5	ES	52 28.5	20	2.8	8	3.0	14	2.8	N 10		U 16	3187.0	290.0
OITA	0	EP	06 47 39.7	ES	52 27.2	33	4.4	67	5.1	15	3.9				3164.0	287.5
MUROTO	0	IP	06 47 40.4	S	52 34.0	12	3.0	9	6.0	17	5.0	N 0	E 0	U 0	3213.0	293.6
				IPP	48 38.9											
				ESCS	58 21.1											
SHIMON	0	EP	06 47 42.8			6	5.0	9	5.2	6	4.8	N 2	E 2	U 4	3234.2	
SAGA	0	P	06 47 43.8	ES	52 23.5										3149.3	279.7
MATSUY	0	EP	06 47 44.4	ES	52 39.9	22	6.0	11	6.1	11	4.1				3248.9	295.5
SHIONO	0	EP	06 47 45.8	ES	52 39.0	21	3.4	9	3.4						3274.1	293.2
HIROSH	0	EP	06 47 47.7	ES	52 42.7	17	6.0	19	8.0	9	4.0				3300.1	295.0
TAKAMA	0	EP	06 47 49.5	ES	52 48.4	8	3.0	8	15.5						3325.5	298.9
HAMADA	0	P	06 47 50.9	ES	52 47.8	9	5.4	6	4.9	5	4.8	N 2		U 2	3352.4	296.9
				EX	48 48.8											
				EL	55 43.5											
OKAYAM	0	EP	06 47 51.5	ES	52 53.5	8	2.8	6	4.0	10	4.5	N		U	3361.9	302.0
SUMOTO	0	IP	06 47 51.5	S	52 44.5	17	3.6	8	5.6	16	3.2	N 3		U 4	3346.7	293.0
				PP	48 51.0											
				SCS	58 29.1											

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STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
OSAKA2	0	P	06 47 54.8	X	48 54.3											
				EX	52 59										3394.9	
OSAKA	0	EP	06 47 55.2	EX	48 58.5	59	4.5	34	3.2	20	3.5	N 0	E 0	U 0	3398.4	
AIKAWA	0	EP	06 48			18	4.0	8	4.6	14	4.0				3825.9	
HAMAMA	0	EP	06 48 00	X	52 38	14	4.0	15	3.4	10	3.0				3464.4	
KYOTO	0	EP	06 48 00.0	EX	54 27.5	7	4.0	4	4.0	6	4.3				3439.4	
TOYOOK	0	EP	06 48 02.0	S	53 09.8	15	4.4	10	1.2	10	3.8				3473.5	307.8
NAGOYA	0	P	06 48 02.8	S	53•13.4	28	2.8	18	3.0	14	3.0			U 5	3489.3	310.6
				ESCS	58 34.0											
GIFU	0	P	06 48 03.6	X	49 11.2	8	3.7	6	2.8	6	3.0				3508.1	
SHIZUO	0	P	06 48 03.6	X	49 17.0	8	4.0	13	3.4	14	4.0				3514.0	
MISHIM	0	EP	06 48 04.1	EX	49 13.1	23	4.4	25	2.6						3545.9	
HIKONE	0	EP	06 48 04.2	S	53 10.0	24	3.0	14	3.1	8	2.8				3480.6	305.8
OMAEZA	0	EP	06 48 04.6			25	14.0	16	4.4						3469.3	
AJIRO	0	EX	06 48 04.8	EX	49 20.0	12	4.0	14	3.8	16	3.3				3544.6	
IIDA	0	EP	06 48 07.0	EX	49 16.2	9	4.0	5	2.8	11	5.0				3551.4	
TOKYO	0	EP	06 48 07	APP	49 26.0	42	5.0	29	4.0	24	4.0				3633.6	
TATEYA	0	EX	06 48 07.0			31	5.7	32	4.6	22	4.3				3566.3	
SAIGO	0	P	06 48 07.8	EX	53 16.3							S 2	W 1	D 2	3516.0	
KAWAGU	0	P	06 48 09.2	EX	49 25.7										3580.0	
KOFU	0	EP	06 48 09.4	EX	49 26.4	20	2.4	13	3.0	14	3.8				3590.5	
MATSUM	0	EP	06 48 12.8	EX	49 26.8										3632.1	
CHICHI	0	EP	06 48 12.9	EX	49 27.3										3641.5	
TOYAMA	0	EP	06 48 13	EX	53 23	25	3.4	22	3.4	21	3.8				3658.4	
KUMAGA	0	EP	06 48 14.0			24	4.4	23	4.4	20	4.4				3667.8	
KARUIZ	0	EP	06 48 14.6	ES	53 34.8										3660.2	320.2
MATSUS	0	IP	06 48 15.1	S	53 26							N	E	U	3670.1	310.9
KANAZA	0	EX	06 48 17			24	5.9	24	6.9	14	3.7				3626.2	
NAGANO	0	P	06 48 17.2	ES	53 14.5	35	3.7	35	4.0	15	3.0				3682.4	297.3
				EX	49 31.9											
WAJIMA	0	EX	06 48 20	X	53 40	13	3.0	13	3.0	13	3.0				3722.2	
TAKADA	0	EP	06 48 20.4												3730.5	
MITO	0	EX	06 48 21.0	EX	49 49.0	16	4.4	12	4.0	13	4.6				3729.8	
MAEBAS	0	EP	06 48 25.4	EX	49 35.2	32	3.7	23	4.6						3683.2	
NIIGAT	0	EX	06 48 29.1			80	5.0	63	4.2	32	5.0				3838.8	
SENDAI	0	P	06 48 37.8	S	54 10.0	15	3.0	14	4.0	12	3.0	N 4	E 2	U 6	3936.1	332.2
				SCS	58 56											
ISHINO	0	EP	06 48 39.5	ES	54 17.2	8	4.0	10	7.0	14	4.0	N 3	E 2	U 4	3967.2	337.7
SAKATA	0	EX	06 48 43.6												3966.4	
OFUNAT	0	P	06 48 46.2	S	54 30.9	5	6.0	6	4.0	7	3.6	N 2		U 2	4046.5	344.7
AKITA	0	EP	06 48 47.6	ES	54 33.2	28	4.4	32	4.6	30	3.2				4059.0	345.6
MORIOK	0	P	06 48 49.2	IS	54 35.1	7	6.7	7	4.9	5	3.0	N 0	E 0	U 0	4091.7	345.9
				X	59 00.0											
HACHIN	0	P	06 48 56.3	ES	54 45.3	9	4.8	7	5.2	11	4.2	N		U	4188.2	349.0
AOMORI	0	P	06 48 57.3	S	55 01.3	20	2.8	8	2.1	8	2.7				4193.7	364.0
HAKODA	0	P	06 49 04.7	S	55 02.5	10	4.6	13	4.2	12	3.2	N 3	E 1	U 7	4295.7	357.8
URAKAW	0	EP	06 49 13	ES	55 10	23	4.0	20	4.0	22	3.2				4396.6	357.0
SAPPOR	0	P	06 49 16.5	ES	54 43	11	2.0	43	3.4	18	3.0				4441.6	326.5
				X	55 26.6											
OSHIMA	0	EX	06 49 16.9			19	3.1	13	3.3						3525.8	
OBIHIR	0	EX	06 49 20												4488.7	
KUSHIR	0	P	06 49 22.9	ES	55 29	11	4.9	10	4.6	13	2.9				4535.9	366.1
ASAHIK	0	EP	06 49 26	ES	55 38	9	3.6	8	3.6	6	3.0				4547.0	372.0
NEMURO	0	EP	06 49 28	ES	55 39	10	4.6	6	4.6	10	3.6				4614.9	371.0
ABASHI	0	EP	06 49 30	ES	55 48	5	2.8	10	6.6	8	3.4				4635.6	378.0

OT= 5 5 34 36.6 +/- 0.8
W COAST OF BOSO PEN
LAT= 35 17 +/- 3 LONG= 139 50 +/- 5
H= 50 MAG=3.5 CLASS=U

YOKOHA	0	EP	05 34 46.1	S	34 55.2	57		25		12					23.5	09.1
TOKYO	0	P	05 34 46.4	S	34 55.9	38	0.6	26	0.6						45.1	09.5
TATEYA	0	EP	05 34 46.4			16	1.0	25	1.7	5	0.7				33.4	
AJIRO	0	IP	05 34 50.4	S	35 02.2	10	0.2	12	0.2	2	0.3			U	72.2	11.8
KOFU	0	EP	05 34 55.8	IS	35 12.0	6	0.5	8	0.4	2	0.4				123.2	16.2
KUMAGA	0	EP	05 34 58.4	ES	35 07.6	3	0.8	5	0.8	2	0.6				104.0	09.2
MATSUS	0	IP	05 35 05.4	S	35 27										202.2	21.6

OT= 5 15 9 15.8 +/- 0.3
ARIAKEKAI
LAT= 33 0 +/- 1 LONG= 130 14 +/- 1
H= 10 MAG=4.2 CLASS=S

SAGA	1	IP	15 09 22.4	S	09 26.3											
KUMAMO	0	IP	15 09 25.9	IS	09 30.9	103	1.4	97	1.6	64	1.1	N 30	E 20	U 24	28.0	03.9
												N 2		U 2	49.3	05.0

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NAGASA	1	IP	15 09 26.0	IS	09 32.0											
FUKUOK	2	IP	15 09 28.8	IS	09 35.7	146	0.4	175	0.4	19	0.6					
SHIMON	0	EP	15 09 40.4			6	1.2	9	1.0							
IZUHAR	1	EP	15 09 42	S	10 01											
ASOSAN	0	EX	15 09 42													
OITA	0	EX	15 09 43.1			15	1.6	11	1.0							
MIYAZA	0	X	15 10 02.6			8	0.8	7	0.6	3	0.6					

OT= 6 8 57 53.3 +/- 0.2
NEAR WAKAYAMA
LAT= 34 11 +/- 1 LONG= 135 13 +/- 1
H= 0 MAG=3.5 CLASS=L

WAKAYA	3	IP	08 57 54.9	IS	57 55.4										6.7	00.5
SUMOTO	0	IP	08 58 01.5	IS	58 06.0	17	0.3	5	0.3	3	0.3	S 2	E 2	D 2	33.0	04.5
NARA	0	EP	08 58 10.4	S	58 19.0										79.3	08.6
OWASE	0	IP	08 58 12.0	ES	58 21.4	5	0.6	4	1.2	4	0.6	N	E	U	91.1	09.4
SHIONO	0	EP	08 58 12.8	ES	58 23.5	7	0.4	8	0.4	5	1.0				95.9	10.7
TAKAMA	0	EP	08 58 14.1	IS	58 29.3	7	1.1	6	1.3	2	1.0				107.7	15.2
OSAKA	0	EX	08 58 17							10	2.7				61.6	
TOYOOK	0	X	08 58 39.0			15	1.1	15	1.0						154.4	
MATSUS	0	EP	08 58 52	ES	59 45										377.0	53.0

OT= 6 13 30 31.5 +/- 0.3
OFF URAKAWA
LAT= 42 11 +/- 2 LONG= 142 31 +/- 2
H= 30 MAG=4.3 CLASS=L

URAKAW	2	IP	13 30 38.8	IS	30 44.6	164	0.4	152	0.2	42	1.0	S 4		U 6	21.9	05.8
HIROO	0	IP	13 30 43.4	IS	30 51.8								W 2	D 4	67.0	08.4
OBIHIR	0	IP	13 30 47.1	IS	31 00.2									D 6	100.3	13.1
MURORA	0	EP	13 30 51.9	S	31 06.1									D	127.4	14.2
SAPPOR	0	EP	13 30 54	ES	31 10	13	0.8	14	0.8	7	0.8				137.5	16.0
HAKODA	0	P	13 30 56.0	S	31 14.1	23	0.6	22	0.7	8	1.0			D	151.4	18.1
ASAHIK	0	EP	13 31 01	S	31 23.8	8	1.2	8	1.2	10	1.8				176.7	22.8
HACHIN	0	P	13 31 02.7	ES	31 27.4	11	0.3	12	0.3	2	0.5			U	202.0	24.7
KUSHIR	0	ES	13 31 16					14	0.2	5	0.3				177.7	
MORIOK	0	P	13 31 16.5	IS	31 51.3	5	0.5	10	0.4	1	0.4	N 0			298.6	34.8
AOMORI	0	EX	13 31 19			20	1.0	16	1.0	11	0.9				209.7	
MATSUS	0	P	13 32 11												728.2	

OT= 6 17 35 50.0 +/- 0.2
OFF URAKAWA
LAT= 42 12 +/- 1 LONG= 142 32 +/- 2
H= 30 MAG=4.8 CLASS=S

URAKAW	2	P	17 35 57.2	IS	36 01.5	600	1.6	400	1.2						20.9	04.3
HIROO	0	IP	17 36 02.4	IS	36 11.0								W 4	D 10	65.3	08.6
OBIHIR	1	IP	17 36 06.1	IS	36 18.4									D 9	98.0	12.3
MURORA	0	P	17 36 10.3	S	36 24.7							N	E 2	D 4	128.6	14.4
SAPPOR	0	P	17 36 11.7	ES	36 28	65	0.8	91	1.2	29	0.8				137.2	16.3
HAKODA	0	IP	17 36 14.7	IS	36 32.7	84	0.9	82	1.2	33	1.0	N 2	E 5	D 6	153.2	18.0
KUSHIR	0	EP	17 36 17	ES	36 37	37	0.4	30	0.3	15	0.3				175.6	20.0
ASAHIK	0	EP	17 36 18	S	36 40.2	45	1.6	43	1.4	67	1.8				174.9	22.2
HACHIN	0	EP	17 36 21.5	S	36 45.0	24	0.4	21	1.0	8	1.4				204.3	23.5
RUMOI	0	EP	17 36 22	ES	36 44										207.8	22.0
SUTTSU	0	EX	17 36 22												199.6	
ABASHI	0	EP	17 36 26	ES	36 52	14	2.0	10	2.0	5	2.2				247.1	26.0
MIYAKO	0	EP	17 36 34	ES	37 04.2	6	1.6	6	2.0	4	1.3				287.7	30.2
MORIOK	0	IP	17 36 34.5	S	37 09.3	13	0.4	15	0.4	3	0.5	N 0	E 0	D 0	300.8	34.8
				IX	36 47.0											
OFUNAT	0	EP	17 36 42.3	ES	37 21.8	5	1.6	5	1.8	4	1.4				355.3	39.5
ISHINO	0	EP	17 36 51.3	ES	37 40.0	5	3.0	9	3.0	4	2.2				402.0	48.7
SENDAI	0	EP	17 36 55.0	ES	37 44.4	7	2	7	2	3	2				459.0	49.4
AOMORI	0	X	17 36	ES	36 37	67	0.9	81	1.4	25	1.1				212.0	
AKITA	0	EX	17 37 18			23	3.2	18	3.6	13	2.0				343.3	
MATSUS	0	IP	17 37 29.5	X	39 10							S	W	U	730.5	
KUMAGA	0	EX	17 37 34.0			7	1.6	3	1.0	2	1.2				724.8	

International Seismological Centre From the ISC collection scanned by SISMOS

OT= 8 1 12 33.0 +/- 0.4
S PART OF BOSO PEN
LAT= 35 3 +/- 1 LONG= 139 56 +/- 3
H= 60 MAG=3.6 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
YOKOHA	0	P	01	12	45.1	S	12	53.1	25		40		9					49.8	08.0
OSHIMA	0	P	01	12	46.8	S	12	55.4	8	0.4	11	0.4	7	0.2				60.0	08.6
TOKYO	0	EP	01	12	47.4	IS	12	56.8	22	0.4	9	0.5						72.2	09.4
AJIRO	0	IP	01	12	47.7	IS	12	57.5	6	0.2	8	0.2	2	0.2		E	U	76.3	09.8
MATSUS	0	IP	01	13	06.2	S	13	30							N	E	U	227.1	23.8

OT= 11 6 15 45.4 +/- 0.7
OFF ASHIZURI PEN
LAT= 32 37 +/- 3 LONG= 132 41 +/- 2
H= 0 MAG=4.3 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
ASHIZU	0	IP	06	15	53.9	IS	15	57.9	83	0.3	72	0.3	46	0.3	N 4	E 8	U 17	33.2	04.0
UWAJIM	0	P	06	15	59.9	IS	16	09.7										68.4	09.8
OITA	0	P	06	16	08.4	IS	16	24.9	54	1.0	42	0.9						120.4	16.5
MATSUY	0	EP	06	16	09.5	IS	16	26.7	19	0.6	29	0.6	7	0.6				135.9	17.2
MIYAZA	0	P	06	16	09.6	S	16	36.0	15	1.0	17	1.0	4	0.6				141.5	26.4
KUMAMO	0	EP	06	16	15.5	ES	16	44.0	12	1.2	11	1.0	9	1.0				186.2	28.5
FUKUOK	0	EP	06	16	23.5	ES	16	59.0	6	1.0	4	0.8	2	1.0				240.0	35.5
SAGA	0	EP	06	16	27.7	S	16	59.7										233.0	32.0
OKAYAM	0	EP	06	16	28.3	S	16	59.6	6	0.5	5	0.6	1	0.4	N	W	D	255.9	31.3
SAIGO	0	EP	06	16	51.8	IS	17	42.5	5	1.6	4	1.6	4	1.5				402.4	50.7
MATSUS	0	P	06	17	15													667.6	

OT= 11 8 58 5.8 USCGS
SOUTH OF FIJI IS
LAT=-22 42 LONG= 178 36
H=673 MAG=6.0 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
HACHIJ	0	EP	08	07	55.0	IS	16	04.6	49	3.0	37	3.0	31	1.3				7415.4	489.6
TATEYA	0	EP	08	08	01.6				52	5.6	74	7.0	33	2.7				7573.4	
OSHIMA	0	EP	08	08	04.9	ES	16	15.6	27	5.7	23	6.1	22	2.1				7582.3	490.7
AJIRO	0	EX	08	08	05.2	EX	16	22.2	20	5.0	14	4.2	15	2.3				7622.7	
MISHIM	0	P	08	08	06.2	IS	16	25.6	29	4.9	25	6.3	19	2.5			D	7638.2	499.4
OMAEZA	0	EP	08	08	07.8	ES	16	27.6	39	6.0	39	7.4	27	3.0				7636.5	499.8
HAMAMA	0	EP	08	08	09	EX	16	30	31	5.2	24	5.2	18	2.2				7674.4	
MITO	0	IX	08	08	09.2	IX	16	28.6	22	7.5	30	7.0	16	2.5				7661.5	
TOKYO	0	IP	08	08	09.3	IS	16	28.0	38	5.8	31	7.8	16	4.2			D	7640.6	498.7
KAKIOK	0	EX	08	08	10				8	1.0	6	1.0	9	1.0				7664.0	
SHIONO	0	EP	08	08	10.5	S	16	31.7	38	2.8	42	5.5	18	1.7				7688.7	501.2
KUMAGA	0	P	08	08	11.0	S	16	32.8	30	8.0	27	9.0	17	5.2			D 3	7701.6	501.8
CHICHI	0	EP	08	08	11.6	ES	16	32.7										7705.3	501.1
KOFU	0	EP	08	08	12.0	ES	16	31.0	20	6.8	16	6.8	10	2.5				7707.1	499.0
OWASE	0	IP	08	08	12.0	ES	16	34.0	17	6.0	28	8.0	12	2.6	S	E	D	7712.9	502.0
IIDA	0	EP	08	08	12.2	ES	16	34.2	12	6.0	9	9.0	11	2.2				7735.7	502.0
NAHA	0	P	08	08	12.4				42	7.2	17	6.0	11	2.0	N 7	E 2	D 4	7698.6	
MAEBAS	0	EP	08	08	12.5	EX	16	34.2	23	8.7	27	8.0	9	7.0			D 9	7741.7	
NAGOYA	0	P	08	08	13.6	IS	16	39.0	18	6.5	24	7.8	13	3.0	S 21	W 6	D 21	7757.7	505.4
						SCS	17	44.3										7765.4	
KARUIZ	0	EP	08	08	14.8													7772.7	503.7
MUROTO	0	IP	08	08	14.9	IS	16	38.6	17	9.0	31	7.0	14	2.0	S 0	E 0	D 1	7790.8	506.0
OSAKA2	0	P	08	08	15.2	IS	16	41.2									U 0	7798.3	504.5
ISHINO	0	EP	08	08	15.5	ES	16	40.0	13	7.4	12	8.6	15	2.8			D 2	7801.9	506.5
MATSUS	0	IP	08	08	15.5	S	16	42							S	E	D	7790.1	505.6
MATSUM	0	EP	08	08	15.6	ES	16	41.2										7801.6	505.3
YAKUSH	0	P	08	08	15.7	S	16	41.0	18	7.6	17	6.8	8	2.4				7804.7	507.0
SENDAI	0	EP	08	08	16.0	ES	16	43	12	8	14	7	9	3	N	E	D	7786.1	
NARA	0	EP	08	08	16.2												U 0	7804.8	506.9
OSAKA	0	P	08	08	16.7	IS	16	43.6	46	5.6	50	6.7	13	6.3				7789.4	
GIFU	0	P	08	08	17.0	EL	16	39.7	9	7.4	14	6.6	9	2.2				7809.9	507.1
HIKONE	0	EP	08	08	17.0	ES	16	44.1	18	2.5	20	1.9	22	1.9				7789.7	502.9
WAKAYA	0	P	08	08	17.0	S	16	39.9	15	2.2	15	1.3						7819.2	507.0
KYOTO	0	EP	08	08	17.2	ES	16	44.2	8	7.0	12	7.5	12	2.1				7814.6	503.3
SUMOTO	0	P	08	08	17.5	IS	16	40.8	16	8.0	27	6.6	14	2.5	S 1	E 1	D 1		
						EX	13	10.5											
						SCS	17	16.6											
						EX	36	08.2											
OFUNAT	0	P	08	08	17.6	S	16	44.0	10	5.6	10	7.6	12	2.0			D 1	7833.9	506.4
ASHIZU	0	P	08	08	18.0	IS	16	44.2	18	6.6	23	7.1	13	2.8			D 2	7805.7	506.2
NAGANO	0	EP	08	08	18.1	S	16	46.6	25	6.0	22	8.3	14	2.4				7813.0	508.5
TAKADA	0	P	08	08	18.1													7848.1	

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KOBE	0	EP	08	08	19.4	ES	16	45.2										7826.6	505.8
ISHIGA	0	EP	08	08	19.5	ES	16	42.6	6	6.3	6	6.0	5	3.0				7844.2	503.1
TOYAMA	0	EP	08	08	20	EX	16	44	31	6.6	25	7.2	21	5.8				7873.6	
MIYAZA	0	P	08	08	20.0	S	16	49.0	20	3.0	21	6.0	15	2.2			D 3	7849.4	509.0
KAGOSH	0	EP	08	08	21.0	IS	16	50.3	12	2.4	26	2.2	10	2.0				7882.9	509.3
OKAYAM	0	P	08	08	21.2	ES	16	51.8	7	5.5	13	6.0	10	2.4	S	E	D	7904.9	510.6
NIIGAT	0	P	08	08	21.7				49	8.3	58	6.2	20	5.5				7873.1	
MORIOK	0	IP	08	08	22.2	IS	16	52.3	6	6.0	8	9.2	7	2.1	S 0		D 0	7918.8	510.1
TOTTOR	0	EP	08	08	23.7	EX	16	56.7										7955.6	
MATSUY	0	EP	08	08	24.0	IS	16	54.0	21	6.1	16	4.6	13	2.5				7910.1	510.0
KANAZA	0	IP	08	08	24.2	EX	15	22	44	6.8	34	8.0	22	2.5			U 2	7892.6	
AIKAWA	0	EP	08	08	24.3				8	10.0	9	8.0	7	2.4	S	W	D	7927.2	
SAKATA	0	EX	08	08	24.4													7917.6	
TOYOOK	0	P	08	08	24.7	IS	16	54.0	18	8.9	23	7.3						7918.2	509.3
HACHIN	0	IP	08	08	24.9	S	16	58.1	8	7.6	9	8.8	11	6.0			D	7975.2	513.2
HIROSH	0	EP	08	08	25.2	ES	16	57.7	14	9.8	14	6.6	11	2.8	S 1	E 1	D 1	7973.6	512.5
						SCS	17	39											
OITA	0	P	08	08	25.2	S	16	56.3	40	7.1	75	6.3	31	2.1				7938.3	511.1
TAKAMA	0	EP	08	08	25.3	IS	16	52.3	12	8.4	17	8.4						7866.4	507.0
KUMAMO	0	EP	08	08	26.0	ES	16	57.0	14	2.0	12	5.1	15	2.1				7966.7	511.0
AKITA	0	EP	08	08	27.2	ES	17	01.8	24	6.6	25	6.8	25	2.4			D 11	7975.5	514.6
NAGASA	0	EP	08	08	27.8	IS	17	03.8										8016.5	516.0
AOMORI	0	EP	08	08	28.2	ES	17	04.2	24	2.4	24	2.2	27	2.7				8038.3	516.0
HAMADA	0	EP	08	08	28.2	S	17	04.2	12	7.2	9	5.8	8	2.4				8038.9	516.0
						EX	17	43.2											
NEMURO	0	IP	08	08	28.8	ES	17	06	8	5.4	11	8.4	34	2.4			D 1	8045.8	517.2
SAGA	0	P	08	08	29.4													8027.4	
SAIGO	0	P	08	08	29.8	EX	17	07.4	12	4.8	9	4.5	6	7.5	N 1	W 1	U 1	8063.9	
KUSHIR	0	IP	08	08	30.0	S	17	10.6	13	3.6	17	4.5	44	1.8			D 4	8064.9	520.6
SHIMON	0	EP	08	08	30.2	EX	17	05.2	8	6.0	10	2.6	9	2.4				8039.3	
FUKUOK	0	P	08	08	30.3	IS	17	06.3	8	5.8	10	3.7	8	2.2	S 1	E 1	D 4	8048.0	516.0
OBIHIR	0	EX	08	08	31													8112.4	
URAKAW	0	P	08	08	31.2	ES	17	11	11	5.8	25	2.2	22	2.2				8062.9	519.8
FUKUE	0	P	08	08	31.4	S	17	09.4	13	6.6	10	6.0	7	2.4	S 1	E 1	D 1	8086.7	518.0
HAKODA	0	IP	08	08	32.9	ES	17	12	17	5.9	18	7.8	21	2.6			D	8128.7	519.1
ABASHI	0	EP	08	08	35	ES	17	21	11	6.0	24	8.0	19	2.8				8166.7	526.0
SAPPOR	0	P	08	08	37.6	ES	17	25	13	2.2	16	2.2	24	2.8				8213.0	527.4
SUTTSU	0	EX	08	08	38													8241.4	
ASAHIK	0	P	08	08	39.7	EX	17	29	12	1.6	8	2.0	30	2.6				8229.2	

OT= 12 7 16 13.5 USCGS
BANDA SEA
LAT= -6 42 LONG= 126 48
H=450 MAG=6.0 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
ISHIGA	0	IP	07	21	55.3	EX	23	27.7	11	8.4	13	6.4	18	5.2	S 5		D 16	3440.5	
NAHA	0	IP	07	22	11.6				43	4.4	18	5.2	43	2.0	S 17	E 1	D 32	3640.2	
YAKUSH	0	EP	07	22	45.1	ES	28	03.2	47	7.4	23	5.2	35	2.4				4124.8	318.1
IZUHAR	0	EP	07	22	48	X	24	34										4529.6	
KAGOSH	0	P	07	22	58.0	ES	28	03.4	60	2.2	60	2.0	40	1.8				4249.2	305.4
						EX	31	30.9											
MIYAZA	0	P	07	23	02.1	S	28	27.7	89	2.8	43	2.6	90	1.8	S 19	W 13		4296.6	325.6
FUKUE	0	EP	07	23	03.6	S	28	26.6	22	4.4	13	6.6	36	6.0				4360.6	323.0
NOBEOK	0	EP	07	23	04.4	EX	28	08.2	50	5.0	50	5.8	50	2.1	S		D	4373.1	
NAGASA	0	EP	07	23	04.5	X	31	53.2							S		D	4369.1	
OWASE	0	IP	07	23	07.8	ES	29	02.0	16	1.6	11	5.4	26	1.4	S	W	D	4614.2	354.2
ASHIZU	0	P	07	23	08.0	EX	31	33.0	28	2.6	14	5.5	37	3.0			D 2	4406.6	
KUMAMO	0	EP	07	23	08.1	ES	28	39.1	42	1.8	50	2.0	25	2.1				4387.1	331.0
SAGA	0	IP	07	23	11.0	S	29	26.2							S 6		D 20	4431.2	375.2
ASOSAN	0	EX	07	23	11													4398.4	
MUROTO	0	IP	07	23	12.4	IS	28	52.8	24	6.0	35	2.2	40	3.2	S 0	E 0	D 0	4484.4	340.4
						IX	25	30.0											
OITA	0	P	07	23	13.0	EX	28	47.4	78	3.1	91	5.1						4443.8	
KOCHI	0	EX	07	23	13.7													4505.9	
FUKUOK	0	P	07	23	14.2	ES	28	42	34	4.3	19	3.5	39	4.5	S 53	W 2	D 88	4468.9	327.8
SHIMON	0	EP	07	23	18.6				18	4.4	14	6.6	32	2.4				4515.4	
MATSUY	0	IP	07	23	19.6	IS	28	57.4	71	8.3	21	5.8	48	2.1	S 27	W 4	D 35	4525.8	337.8
TAKAMA	0	EP	07	23	20.1	ES	29	04.4	27	1.9	15	1.3	49	2.0				4598.4	344.3
HIROSH	0	IP	07	23	21.1	S	29	02.3	29	9.0	22	6.0	45	3.3	S 20	W 4	D 35	4578.3	341.2
						SCS	32	34.6											
HACHIJ	0	EX	07	23	21.2				54	4.0	25	2.0	28	1.3				4609.0	
ANABUK	0	P	07	23	21.2	S	29	04.3										4548.5	343.1
TOKUSH	0	EP	07	23	21.4	ES	29	04.9										4580.5	343.5
HAMADA	0	EP	07	23	22.1	EX	25	12.6	17	3.8	11	3.6	32	5.9				4631.7	
						EX	29	03.4											
						EX	31	34.2											
SUMOTO	0	IP	07	23	22.5	S	29	05.1	25	2.8	14	8.0	52	3.0	S		D	4616.1	342.6
						IX	25	10.2											
						IX	28	21.1											
						SCS	32	34.2											

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STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
OKAYAM	0	P	07 23 22.6	ES	29 10.2	24	2.0	12	5.6	42	2.0	S		D	4635.7	347.6
WAKAYA	0	P	07 23 24.5	ES	29 05.0	45	2.2	21	1.5			S 39	W 10		4609.5	340.5
HIMEJI	0	EP	07 23 26.7												4666.6	
NARA	0	EP	07 23 27.0			150	2.0	100	2.0	100	2.0				4672.6	
KOBE	0	EX	07 23 27.7												4659.7	
MATSUE	0	EP	07 23 28.2													
YONAGO	0	EP	07 23 28.2	ES	29 19.2										4706.9	
KYOTO	0	EP	07 23 28.2	ES	29 20.0	19	2.0	13	2.2	27	3.0	S 6	W 2	U 2	4708.6	351.0
OSAKA2	0	IP	07 23 28.2	X	25 14										4706.0	351.8
				X	29 11							N 25	E 10	U 56	4661.2	
OSAKA	0	IP	07 23 28.7	EX	23 41	88	4.6	70	3.5	59	2.1	N 25	E 10	U 56	4665.6	
TOTTOR	0	EP	07 23 28.8	ES	29 22.4										4730.6	353.6
				X	23 32.0											
TSU	0	EP	07 23 29.0			70	2.0	80	2.0	92	2.0				4689.8	
HAMAMA	0	P	07 23 29.8			51	3.6	28	2.2	59	2.0			U 1	4719.6	
HIKONE	0	EX	07 23 30.5	X	29 24.7	92	2.0	67	2.0	61	2.5				4745.2	
NAGOYA	0	EP	07 23 31.6	IS	29 26.6	64	3.4	38	2.4	57	3.6				4749.9	355.0
				ESCS	32 48.4											
AJIRO	0	EX	07 23 32.2	EX	26 24.9	11	2.4	12	2.4	22	2.5				4792.1	
OMAEZA	0	EP	07 23 32.6			45	3.4	32	4.0	54	4.0				4721.3	
OSHIMA	0	EP	07 23 33.2	EX	28 23.6	24	6.3	17	2.8	18	1.8				4770.5	
GIFU	0	P	07 23 33.4	ES	29 25.8	29	3.6	17	2.1	33	2.8				4770.2	352.4
TSURUG	0	EP	07 23 34	ES	29 28.3										4781.8	354.3
				SCS	32 47.8											
MISHIM	0	IP	07 23 34.1	EX	26 11.5	21	2.6	26	2.2	44	2.5	S 15	W 4	D 33	4794.6	
				SCS	33 12.3											
SAIGO	0	P	07 23 34.5	S	29 31.0	44	2.1	18	2.0	40	2.5	N 1		U 0	4792.8	356.5
				X	25 25.6											
TOYOOK	0	IP	07 23 34.7	ES	29 25.5	58	1.2	48	1.4			S 31	W 8		4744.8	350.8
IIDA	0	EP	07 23 34 8	ES	29 34.0	19	2.2	24	2.0	36	3.2				4807.9	359.2
TATEYA	0	EP	07 23 36 0			34	7.5	25	8.0	34	10.0				4808.2	
KOFU	0	EP	07 23 36.8	ES	29 36.0	50	2.0	36	2.0	41	2.4				4843.1	359.2
KAWAGU	0	EP	07 23 39.2	ES	29 15,5										4830.9	336.3
TOKYO	0	IP	07 23 40.4	EX	29 12	39	2.6	36	5.6	32	4.0				4878.6	
FUKUI	0	X	07 23 40.8												4828.7	
TAKAYA	0	EP	07 23 40.8	ES	29 42.3										4862.3	361.5
TOYAMA	0	EX	07 23 41	EX	29 41	57	2.4	52	2.8	67	3.2				4920.7	
MATSUM	0	EP	07 23 41.3												4889.5	
KARUIZ	0	EP	07 23 42.5	EX	28 29.2										4914.5	
CHICHI	0	EP	07 23 42.9												4891.8	
MATSUS	0	IP	07 23 43.0	S	29 47							S	W	D	4926.8	364.0
CHOSHI	0	EX	07 23 43.3	EX	29 47.4											
KAKIOK	0	EP	07 23 44	EX	25 56	11	1.3	25	2.5	20	1.7				4915.5	
KUMAGA	0	P	07 23 44.6			27	8.0	28	6.0	33	4.0				4948.7	
KANAZA	0	IP	07 23 45.0	EX	28 12.0	46	6.9	39	3.2	56	3.0			D 24	4916.5	
MAEBAS	0	P	07 23 45.6			26	5.4	23	3.1	24	5.0	S 13	W 11	D 42	4891.0	
														D 21	4904.7	
UTSUNO	0	P	07 23 46.3													
TAKADA	0	P	07 23 47.8												4972.4	
NAGANO	0	P	07 23 47.9	ES	29 49.9	59	3.4	60	4.0	47	3.5				4988.2	
WAJIMA	0	EP	07 23 48	ES	29 50	45	3.2	43	3.0	58	3.2				4939.5	362.0
				EX	28 32										4967.2	362.0
SHIRAK	0	EP	07 23 51.9	ES	30 03.3											
ONAHAM	0	IP	07 23 54.6	S	30 04.8										5042.6	371.4
NIIGAT	0	IP	07 23 55.7			109	2.0	160	2.4	135	2.0		E 4	D 10	5044.6	370.2
AIKAWA	0	EP	07 23 57.1			30	2.0	17	4.0	31	2.0				5094.1	
YAMAGA	0	P	07 24 00.6	S	30 20.3							S		D	5085.6	
														D 1	5165.4	379.7
SENDAI	0	EP	07 24 01.0	S	30 19.0	63	4.0	63	2.4	42	2.2					
	0			IX	24 04.4										5181.8	378.0
ISHINO	0	EP	07 24 03.6	ES	30 27.0	30	3.2	18	2.4	50	3.4	S 1		D 2	5211.0	383.4
SAKATA	0	EX	07 24 08.5			100	2.6	100	2.4						5219.9	
OFUNAT	0	P	07 24 08.8	S	30 35.2	33	4.8	15	4.2	81	3.6					
				X	26 29.0									D 1	5289.7	386.4
AKITA	0	EP	07 24 11.3	ES	30 40.4	77	4.6	59	5.0	105	2.8				5313.0	389.1
MORIOK	0	IP	07 24 12 1	IS	30 42.6	23	2.7	10	2.6	31	2.7	S 0		D 0	5340.0	390.5
				IX	28 46.8											
				IX	33 19.2											
MIYAKO	0	EP	07 24 15	ES	30 44	33	3.6	15	2.4	42	2.5				5357.9	389.0
HACHIN	0	P	07 24 18.3	S	30 52.0	28	4.6	20	4.1	36	3.6				5436.8	393.7
AOMORI	0	P	07 24 23	S	30 57	84	2.4	84	2.6	58	3.9				5447.0	394.0
HAKODA	0	P	07 24 26.0	ES	31 08	42	3.4	16	4.2	42	3.4			D	5551.4	402.0
SUTTSU	0	EX	07 24 33												5641.6	
URAKAW	0	P	07 24 33.4	ES	31 21	32	4.6	40	4.4	49	2.6				5643.3	407.6
SAPPOR	0	EP	07 24 36	ES	31 22	34	2.0	43	2.2	61	2.2				5697.5	406.0
OBIHIR	0	EX	07 24 38												5735.3	
KUSHIR	0	EP	07 24 41	IS	31 36.2	34	3.0	19	2.4	48	0.8				5776.8	415.2
ASAHIK	0	EP	07 24 43			16	2.2	12	2.2	28	2.4				5799.9	
RUMOI	0	EX	07 24 44												5799.2	
NEMURO	0	P	07 24 45.1	ES	31 43	17	5.2	8	6.2	40	4.2					
ABASHI	0	EP	07 24 48	EX	26 30	13	5.8	13	2.4	28	2.6			D	5850.5	417.9
				ES	31 45										5880.2	

OT= 14 21 42 8.4 +/- 0.3
S COAST OF NAGASAKI PREF
LAT= 32 45 +/- 1 LONG= 130 4 +/- 1
H= 0 MAG=4.2 CLASS=L

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
UNZEND	3	IP	21 42 13.2	ES	42 16.0	112	0.5				0.5	S 4	W 5	D 10	17.6	02.8
NAGASA	1	IP	21 42 13.8	IS	42 16.0								W 2	U 1	18.8	02.2
KUMAMO	0	IP	21 42 20.9	S	42 31.1	37	0.8	25	0.5	26	0.4	S 1	W 1	U 2	60.6	10.2
SAGA	0	IP	21 42 22.2	IS	42 30.3							N 2			59.2	08.1
FUKUOK	0	EP	21 42 27.0	IS	42 39.2	49	0.4	44	0.4	7	0.5			U 3	96.5	12.2
KAGOSH	0	EP	21 42 34.4	S	42 50.0	31	2.8	29	2.0	11	1.2				108.3	15.6
SHIMON	0	EP	21 42 38.0			5	1.2	4	3.8	7	1.4				126.3	
OITA	0	EX	21 42 44.1			9	3.1	29	4.1						135.0	

OT= 14 21 47 25.4 +/- 0.3
S COAST OF NAGASAKI PREF
LAT= 32 48 +/- 1 LONG= 130 4 +/- 1
H= 0 MAG=4.0 CLASS=L

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
UNZEND	2	IP	21 47 30.0	ES	47 33.0	72	0.5				0.5	S 3	W 4	D 7	17.6	03.0
NAGASA	X	IP	21 47 30.7	IS	47 33.0								W 2		18.4	02.3
KUMAMO	0	P	21 47 37.8	S	47 48.3	12	0.3	14	0.3	16	0.2	N 1	E 1	U 5	61.1	10.5
SAGA	0	P	21 47 39.1	IS	47 47.2										62.7	08.1
FUKUOK	0	EP	21 47 45.6	IS	47 56.8	26	0.4	37	0.4	3	0.5			U 3	100.1	11.2
KAGOSH	0	X	21 48 03.8	EX	48 23.8	14	3.0	10	1.8	5	1.4				134.8	

OT= 14 22 29 10.0 +/- 0.6
OFF IWATE PREF
LAT= 39 29 +/- 2 LONG= 143 6 +/- 3
H= 30 MAG=4.9 CLASS=S

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MIYAKO	2	IP	22 29 27.4	IS	29 37.6	34	1.0	30	1.0				E 9		98.9	10.2
OFUNAT	1	P	22 29 31.2	IS	29 44.8	50	0.6	22	0.0	16	0.8		W 1	U 0	128.1	13.6
MORIOK	1	IP	22 29 37.2	IS	29 55.2	100	0.4	86	0.4	13	0.4	S 1	E 2	D 1	167.6	18.0
HACHIN	X	IP	22 29 37.7	S	29 57.8	27	0.2	22	0.2	6	0.6	S 1	E 1	D 1	177.4	20.1
ISHINO	0	EP	22 29 40.8	IS	30 02.2	28	2.0	24	0.6	20	1.2	N 1	E 1	D 1	195.1	21.4
SENDAI	0	P	22 29 46.4	S	30 10.6	44	2.0	49	1.8	13	1.2				234.3	24.2
AOMORI	0	EP	22 29 49	S	30 15	69	1.4	79	1.4	27	0.9				246.7	26.0
AKITA	0	EP	22 29 50.4	S	30 19.6	49	2.0	38	1.4	18	2.4			U 6	258.8	29.2
YAMAGA	0	EP	22 29 51.3	ES	30 20.1										274.9	28.8
URAKAW	0	EP	22 29 56	ES	30 26	8	0.6	21	3.0	5	2.8				298.3	30.0
SAKATA	0	EP	22 29 57.1	ES	30 30.3										289.2	33.2
HAKODA	0	IP	22 29 59.1	S	30 32.0	11	1.4	13	0.8	3	1.1			U 1	325.8	32.9
SHIRAK	0	EP	22 30 03.8	ES	30 42.7										366.5	38.9
KUSHIR	0	EP	22 30 06	ES	30 46	9	0.2	9	0.2	3	0.2				403.1	40.0
MITO	0	EX	22 30 11.4	ES	30 54.4	13	2.0	17	3.4						414.8	
ONAHAM	0	EX	22 30 13.2												340.9	
KAKIOK	0	EP	22 30 14	X	31 21	17	0.8	13	1.0	5	1.0				442.3	
OBIHIR	0	EX	22 30 15												381.8	
SAPPOR	0	X	22 30 18	EX	30 55	5	2.6	10	1.8	4	1.6				423.8	
ASAHIK	0	X	22 30 23			6	1.6	5	1.6	6	2.0				460.0	
KUMAGA	0	EX	22 30 23.6			12	1.2	7	0.8	3	0.8				494.0	
MATSUS	0	IP	22 30 25.6	ES	31 16							S	W	U	569.6	50.4
KAWAGU	0	P	22 30 28.9	X	31 48.7										585.2	
KOFU	0	EP	22 30 31.0	X	31 46.2	7	2.0	7	1.4	3	1.2				583.3	

OT= 16 5 32 18.7 +/- 0.4
OFF URAKAWA
LAT= 41 40 +/- 2 LONG= 142 55 +/- 5
H= 30 MAG=4.0 CLASS=L

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
URAKAW	1	IP	05 32 29.4	S	32 36.6	.21	0.4	50	0.2	6	0.4	S 8			55.8	07.2
HIROO	0	P	05 32 32.5	IS	32 42.0										76.1	09.5
OBIHIR	0	EP	05 32 41	S	32 57.9										141.5	16.9
HACHIN	0	IP	05 32 46.2	ES	33 06.4	5	0.3	4	0.3	1	0.4	N	E	D	172.5	20.2
SAPPOR	0	P	05 32 47.5			4	1.8	6	1.8	3	1.0				202.4	
AOMORI	0	EX	05 33 11.1			10	1.2	9	1.4						202.2	
MATSUS	0	IP	05 33 52.4											U	699.7	

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OT= 16 15 29 46.4 +/- 0.6
OFF IWATE PREF
LAT= 39 2 +/- 1 LONG= 142 34 +/- 3
H= 50 MAG=4.5 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
OFUNAT	1	IP	15	30	00.4	IS	30	08.8	58	0.0	106	0.2	32	0.4		W 4	U 4	73.5	08.4
MIYAKO	2	IP	15	30	02.0	IS	30	11.3	33	0	41	0	21	0	S 8	E 2	D 9	85.3	09.3
ISHINO	1	IP	15	30	07.6	IS	30	20.6	29	0.2	17	0.4	11	1.0				128.9	13.0
MORIOK	1	IP	15	30	09.0	IS	30	23.0	40	0.3	55	0.4	12	0.5	S 3	E 4	D 2	141.2	14.0
SENDAI	0	P	15	30	12.8	S	30	30.4	17	1.0	14	1.4	4	2			D 1	168.6	17.6
HACHIN	0	IP	15	30	14.6	ES	30	36.2	11	0.3	6	0.2	1	0.7	S 1	E 1	D 1	188.1	21.6
AKITA	0	EX	15	30	20.1	EX	30	50.6	13	1.0	18	1.0	5	1.2				225.6	
SAKATA	0	EP	15	30	23.2													237.0	
AOMORI	0	X	15	30	33	ES	30	56	14	1.4	13	1.4						249.9	
MATSUS	0	IP	15	30	52.6										S	W	U	473.2	
KUSHIR	0	ES	15	31	32				6	0.3	5	0.2	2	0.3				464.3	

OT= 16 20 37 0.8 +/- 0.2
MIDDLE OF KYOTO PREF
LAT= 35 13 +/- 1 LONG= 135 17 +/- 1
H= 10 MAG=3.5 CLASS=L

MAIZUR	2	IP	20	37	06.4	IS	37	09.6										29.8	03.2
KYOTO	1	EP	20	37	10.6	IS	37	16.5	10	0.0	20	0.0	4	0.0				47.0	05.9
TOYOOK	0	P	20	37	11.9	S	37	19.2	13	1.2	9	1.4			E		D	55.1	07.3
NARA	0	EP	20	37	16.3	IS	37	25.7										77.6	09.4
HIKONE	0	EP	20	37	16.6	S	37	27.0	12	0.4	5	0.5	3	0.5				87.9	10.4
OKAYAM	0	P	20	37	25.3	IS	37	42.1	4	0.5	5	0.2	1	0.2				108.3	16.8
MATSUS	0	P	20	37	48	S	38	27										302.0	39.0

OT= 17 15 24 22.9 +/- 0.5
OFF KUSHIRO
LAT= 42 52 +/- 3 LONG= 144 54 +/- 3
H= 50 MAG=4.7 CLASS=L

KUSHIR	2	IP	15	24	33.2	IS	24	40.0	500	0.3	600	0.4	400	0.3	N 6	W 5	U 16	48.1	06.8
NEMURO	1	IP	15	24	37.0	S	24	47.6	21	0.2	21	0.2	13	0.2		E	U	75.9	10.6
ABASHI	0	EP	15	24	45	S	25	01.0	9	1.4	18	2.0	4	2.0				107.2	16.0
OBIHIR	0	EP	15	24	45	S	25	00.0										107.2	15.0
HIROO	0	P	15	24	47.0	IS	25	03.4										145.3	16.4
URAKAW	0	P	15	24	51.1	S	25	12.3	25	0.6	37	1.8	7	1.6				191.2	21.2
SAPPOR	0	P	15	25	04.0	ES	25	30	11	2.0	9	1.8	4	1.0				292.0	26.0
AOMORI	0	Ex	15	25	41				11	0.9	10	1.1						410.8	
MATSUS	0	X	15	26		S	27	54							S		U	906.6	

OT= 17 16 29 7.5 +/- 0.3
COAST OF FUKUSHIMA PREF
LAT= 37 27 +/- 2 LONG= 141 2 +/- 4
H= 80 CLASS=M

ONAHAM	2	IP	16	29	24.9	IS	29	35.3	200	0.8	150	1.0	30	0.5			U 12	57.2	10.4
SENDAI	2	IP	16	29	25.4	IS	29	37.2	128	0.3	250	1.4	73	1.0	N 9	E 1	U 21	90.7	11.8
SHIRAK	1	IP	16	29	26.6	IS	29	37.7							S	W	U 9	80.6	11.1
YAMAGA	1	IP	16	29	26.7	IS	29	40.7	50	1.0					N 8	W 6	U 25	107.5	14.0
ISHINO	2	IP	16	29	28.0	IS	29	41.2	169	1.2	239	0.4	55	1.2	S 4		D 5	110.8	13.2
MITO	1	IP	16	29	30.6	IS	29	46.4	39	0.7	62	1.1	44	1.4			D 5	129.0	15.8
UTSUNO	2	IP	16	29	31.4	S	29	48.2										144.0	16.8
KAKIOK	2	IP	16	29	32.8	IS	29	50.0	95	0.5	81	0.5	49	0.5	N 3	E 2	D 2	154.5	17.2
NIIGAT	0	IP	16	29	36.0	IS	29	56.0	122	1.7	236	2.1	50	4.5			U 24	182.1	20.0
OFUNAT	2	IP	16	29	37.0	IS	29	56.8	60	0.4	58	0.4	49	0.4	S 8	W 2	D 7	188.7	19.8
SAKATA	0	EP	16	29	37.3	ES	29	59.4	100	3.1	50							192.4	22.1
TOKYO	0	EP	16	29	39.5	S	30	06.5	30	0.3	28	0.4	12	1.7				226.6	27.0
KUMAGA	0	P	16	29	39.6	S	30	01.6	63	1.2	35	0.8	20	1.2			D 8	206.3	22.0
CHICHI	0	IP	16	29	40.5	IS	30	06.4							N 5	E 8		237.8	25.9
TAKADA	0	IP	16	29	43.1	IS	30	10.1									D 11	249.8	27.0
AIKAWA	0	IP	16	29	43.3	ES	30	09.0	30	0.8			8	1.6	N		D	254.0	25.7
MIYAKO	1	EP	16	29	43.8	ES	30	06	20	1.0	18	1.4	21	1.0				256.9	22.2
MORIOK	1	P	16	29	44.1	S	30	07.7	45	0.3	60	0.3	16	0.4	S 1		D 0	249.7	23.6
AKITA	0	P	16	29	46.0	S	30	14.8	30	1.2	27	1.2	17	1.2			U 3	264.5	28.8
MATSUS	0	IP	16	29	46.6	S	30	08							N	E	D	271.0	21.4
NAGANO	0	P	16	29	47.0	ES	30	15.5	24	1.6	16	2.2	14	1.0				267.1	28.5
TATEYA	0	EP	16	29	49.5				27	0.5	31	2.5	10	1.7				293.0	

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KOFU	0	IP	16	29	50.1	ES	30	20.8	25	1.6	21	0.6	11	1.4	N 1	E 2	D 4	297.1	30.7
KAWAGU	0	P	16	29	50.3	S	30	21.0										297.1	30.7
YOKOHA	0	X	16	29	51.7	S	30	16.3										255.3	
AJIRO	0	EP	16	29	52.3	ES	30	25.3	5	0.5	5	0.4	4	0.6				318.7	33.0
OSHIMA	0	IP	16	29	53.9	S	30	26.3	12	0.5	11	0.5	6	0.4			U 2	333.4	32.4
MISHIM	0	EP	16	29	54.7				18	0.9	20	0.9	4	2.3				320.9	
HACHIN	0	EP	16	29	54.8	ES	30	34.0	17	2.0	14	2.0	9	2.0				344.0	39.2
TOYAMA	0	P	16	29	55.8	ES	30	29	11	2.8	12	2.4	9	3.0			D 4	349.9	33.2
WAJIMA	0	EP	16	29	56	ES	30	32	38	1.2	32	1.0	11	1.2				366.0	36.0
IIDA	0	EP	16	29	57.6	ES	30	34.4	8	1.4	4	1.4	5	2.4				358.4	36.8
CHOSHI	0	S	16	29	58.5													192.1	
FUKUSH	2	Ex	16	29														59.9	
HAMAMA	0	EP	16	30	02				8	1.8	6	1.8	4	1.4				425.8	
GIFU	0	EP	16	30	05.8	ES	30	52.8	8	1.7	7	2.2						445.2	47.0
NAGOYA	0	EP	16	30	09.0	ES	30	54.0	23	2.4	13	2.0	6	1.6				444.3	45.0
OMAEZA	0	X	16	30	12.7	ES	30	47.7	9	2.2	12	2.6						405.3	
HIKONE	0	EP	16	30	14.1				9	1.6	7	2.0	3	1.8				492.7	
HACHIJ	0	EP	16	30	14.2	IS	31	02.8	9	0.3	10	0.3						495.4	48.6
AOMORI	0	X	16	30	15	X	30	57	27	1.6	30	1.2	9	1.4				374.4	
HAKODA	0	Ex	16	30	17	EX	31	20	4	1.2	5	1.8	3	2.4				485.0	
URAKAW	0	P	16	30	19.0	S	31	13.5	8	0.2	16	0.4	1	0.6				543.7	54.5
OBIHIR	0	EP	16	30	32	ES	31	31										635.3	59.0
KUSHIR	0	EP	16	30	34	X	31	36	21	0.4	17	0.4	6	0.3				677.2	
OSAKA	0	EX	16	30	37				16	2.9	6	2.8	4	2.0				583.8	
KANAZA	0	EX	16	30					6	2.4	6	2.3						402.9	

OT= 17 18 22 31.0 +/- 0.7
OFF MIYAGI PREF
LAT= 38 35 +/- 2 LONG= 143 2 +/- 3
H= 10 MAG=4.3 CLASS=U

ISHINO	0	EP	18	22	57.6	IS	23	15.2	11	0.4	10	0.4	6	0.6	N 2	W 2	U 2	151.9	17.6
SENDAI	0	EP	18	23	03	ES	23	25.6	7	1.0	5	1.0	2	1				189.7	22.6
MORIOK	0	P	18	23	04.1	IS	23	30.0	15	0.4	10	0.4	2	0.4	N 0	W 0	U 0	203.2	25.9
AKITA	0	EX	18	23	22				5	2.0	6	1.4	2	1.8				283.0	
MATSUS	0	P	18	23	41	ES	24	34										482.8	53.0
AOMORI	0	EX	18	24	00				9	1.4	9	1.4	4	0.9				314.2	

OT= 17 22 29 52.8 +/- 1.1
SW COAST OF HOKKAIDO
LAT= 41 38 +/- 5 LONG= 139 59 +/-12
H=220 CLASS=U

HAKODA	0	IP	22	30	22.0	IS	30	42.3	6	1.0	3	0.9	2	1.2		W 2	D 4	67.5	20.3
AOMORI	0	EP	22	30	26	X	31	09	9	2.2	8	2.4	4	1.6				112.8	
HACHIN	0	P	22	30	30.6	ES	30	57.4	7	0.2	4	0.2						178.7	26.8
SAPPOR	0	IP	22	30	31.6	S	30	59.5	5	2.2	7	1.8	4	1.2			D 4	193.4	27.9
URAKAW	0	P	22	30	37.3	S	31	09.0	15	0.4	36	0.4	5	0.4				239.3	31.7
OBIHIR	0	P	22	30	43.9	S	31	19.6									U 2	303.0	35.7
KUSHIR	0	EP	22	30	53	S	31	33.4	19	0.3	21	0.2	8	0.2				393.2	40.4
AKITA	0	X	22	31	04.0				5	1.2	5	1.2						212.9	
MATSUS	0	IP	22	31	14.5										N	E	D	586.0	

OT= 18 6 57 8.9 +/- 0.1
E PART OF OKAYAMA PREF
LAT= 34 53 +/- 1 LONG= 134 8 +/- 1
H= 0 MAG=4.3 CLASS=S

OKAYAM	2	IP	06	57	18.5	IS	57	22.0	330	0.5	400	0.5	90	0.3	N 63	E 55	D 35	30.0	03.5
HIMEJI	0	IP	06	57	20.8	IS	57	26.3										52.2	05.5
TAKAMA	1	IP	06	57	23.0	IS	57	31.1	87	0.8	89	0.8	66	0.8				63.2	08.1
TOTTOR	1	IP	06	57	24.5	S	57	32.6							N 10	E 2	U 13	69.8	08.1
YONAGO	0	EP	06	57	27.7	IS	57	39.2							S	E	D 2	94.3	11.5
KOBE	0	P	06	57	28.4	S	57	40.0									D 7	98.2	11.6
TOYOOK	0	P	06	57	28.9	IS	57	40.2	139	1.0	97	1.1	25	0.6				95.7	11.3
TOKUSH	0	EP	06	57	29.9	IS	57	41.2										99.5	11.3
WAKAYA	0	EP	06	57	29.9	IS	57	45.7	60	0.3	37	0.7						119.6	15.8
MATSUE	0	EP	06	57	30.9	IS	57	45.3										115.6	14.4
OSAKA	0	P	06	57	33.3	S	57	49.2	25	0.8	19	1.0	5	1.0			D 3	129.1	15.9
						IX	57	34.4											
KYOTO	0	EP	06	57	35.1	ES	57	52.8	6	0.8	7	0.5	4	0.8		W 1	D 1	147.0	17.7
NARA	0	EP	06	57	37.3	ES	57	55.5										157.1	18.2
KOCHI	0	EP	06	57	37.3	ES	57	55.3										157.8	18.0

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
SAIGO	0	P	06 57 37.8	ES	57 55.2	7	1.0	11	0.9	8	0.6	N 1	W 1	U 1	163.6	17.4
HIROSH	0	P	06 57 38.6	S	57 58.3	7	1.4	5	0.7	5	1.4	N 1	E 4	D 3	165.9	19.7
MATSUY	0	EP	06 57 39.6	ES	57 59.6	31	0.7	23	0.6	10	0.7	S	W	U	169.9	20.0
MUROTO	0	EP	06 57 40.3	ES	58 05.5	6	1.4	6	1.4						181.3	25.2
HAMADA	0	EP	06 57 42.0	S	58 04.7	5	1.4	6	0.8	4	1.2				188.3	22.7
TSURUG	0	EP	06 57 43	EX	57 59.6										195.2	
SHIONO	0	EP	06 57 44.3	ES	58 12.8	5	0.7	6	0.7	5	0.7				218.8	28.5
GIFU	0	EP	06 57 50.1	ES	58 20.8	6	1.3	6	1.4						246.5	30.7
FUKUI	0	P	06 57 50.5	IS	58 17.4										250.0	26.9
ASHIZU	0	X	06 57 58.4	ES	58 29.8	5	0.7	5	0.8	3	0.8				261.5	
HIKONE	0	X	06 57	X	57 54.1	16	1.0	16	1.3	5	0.8				197.5	
OITA	0	EX	06 58 07.6	ES	58 38.2	14	0.8	10	1.4						295.2	
MATSUS	0	IP	06 58 10.0	S	59 06.3									U	411.8	56.3
KANAZA	0	EX	06 58			5	1.8	6	2.0						292.9	

OT= 18 9 49 56.1 +/- 0.2
SE PART OF OSAKA PREF
LAT= 34 26 +/- 1 LONG= 135 36 +/- 1
H= 20 MAG=4.0 CLASS=L

OSAKA	0	P	09 50 01.8	S	50 06.0	124	2.6	142	2.2	48	1.8			D 2	28.1	04.2
NARA	0	EP	09 50 03.4	S	50 11.0	100	2.0	100	2.0	50	1.8				35.0	07.6
KOBE	0	EP	09 50 05.2	ES	50 11.4										47.8	06.2
WAKAYA	0	EP	09 50 05.9	IS	50 10.9	103	0.7	38	0.7						46.0	05.0
KYOTO	0	EP	09 50 08.0	ES	50 17.3	7	1.2	5	1.2	3	1.2				65.3	09.3
TSU	0	EP	09 50 08.7			32	2.0	42	1.2	14	1.6				89.3	
SHIONO	0	EP	09 50 15.1	ES	50 29.2	5	1.6	8	3.2						110.3	14.1
HIKONE	0	EP	09 50 15.2	S	50 27.7	24	0.8	23	1.5	7	0.8				110.3	12.5
TOKUSH	0	EP	09 50 15.7	ES	50 28.5										102.7	12.8
TSURUG	0	P	09 50 20.3	EX	50 37.3										141.5	
GIFU	0	EP	09 50 20.9	S	50 43.5	9	0.7	6	1.1	4	0.9				150.9	22.6
OKAYAM	0	P	09 50 21.5	S	50 40.4	6	0.6	4	0.6	2	1.0				157.0	18.9
NAGOYA	0	P	09 50 22.6	S	50 40.0	8	2.6	3	1.4	12	2.4				149.2	17.4
TOYOOK	0	IS	09 50 38.0			18	1.0	18	1.0	8	0.6				141.6	
MATSUS	0	IP	09 50 45.3	S	51 30									U	382.4	44.7
OWASE	0	X	09 50	IS	50 16.4	12	1.0	14	2.4	8	2.4				68.2	

OT= 18 13 53 11.6 +/- 0.3
E OFF AOMORI PREF
LAT= 41 16 +/- 1 LONG= 142 25 +/- 2
H= 20 MAG=3.9 CLASS=U

URAKAW	0	IP	13 53 29.5	S	53 42.5	9	0.6	14	0.4	1	0.6			D 1	103.6	13.0
HACHIN	0	EP	13 53 31.6	ES	53 44.8	6	0.3	6	0.3						111.5	13.2
HAKODA	0	EP	13 53 37	IS	53 53.6	36	0.4	19	0.4	6	0.4				131.1	16.6
MORIOK	0	EP	13 53 44.1	IS	54 08.0	5	0.6	6	0.4	1	0.4				204.0	23.9
MATSUS	0	P	13 54 41												689.2	

OT= 18 14 49 53.0 +/- 0.5
SE PART OF OSAKA PREF
LAT= 34 26 +/- 2 LONG= 135 37 +/- 2
H= 0 MAG=3.9 CLASS=L

OSAKA	X	EP	14 50 00.8	IS	50 05.0	80	2.5	89	2.5	25	2.1				28.5	04.2
NARA	0	EP	14 50 01.7	IS	50 06.7	100	2.0	100	2.0						34.1	05.0
KOBE	0	IP	14 50 04.0	ES	50 10.6										49.0	06.6
WAKAYA	0	EP	14 50 05.0	ES	50 09.9	58	0.7	37	0.3						47.3	04.9
KYOTO	0	EP	14 50 06.5	IS	50 15.3	5	0.0	3	0.0	2	0.0				65.0	08.8
OWASE	0	EP	14 50 07.0	IS	50 15.0	10	1.0	10		4	1.0			D	67.0	08.0
TOKUSH	0	EP	14 50 15.2	ES	50 28.1										104.1	12.9
TSU	0	EP	14 50 16.1			20	1.5	21	0.9	8	1.2				87.9	
GIFU	0	EP	14 50 17.0	ES	50 41.0	6	0.8	6	1.1	3	0.8				149.9	24.0
HIKONE	0	EP	14 50 17.1	S	50 27.3	15	1.0	16	1.0	6	0.5				109.5	10.2
OKAYAM	0	P	14 50 20.8	S	50 39.2	5	0.3	5	0.4	1	0.6				138.5	18.4
NAGOYA	0	EP	14 50 22 0	S	50 39.8	4	2.8	7	2.4						147.9	17.8
TOYOOK	0	IS	14 50 36.6			14	0.8	11	1.2	5	0.5				142.3	
MATSUS	0	P	14 50 44	S	51 23										381.3	39.0

OT= 18 21 18 11.4 +/- 0.9
OFF IWATE PREF
LAT= 40 17 +/- 2 LONG= 142 32 +/- 5
H= 50 MAG=4.1 CLASS=U

HACHIN	0	IP	21 18 27.0	S	18 37.6	10	0.3	8	0.3	1	0.8	S	1 E	2 D	1	89.7	10.6
MORIOK	0	IP	21 18 33.2	IS	18 47.8	13	0.4	10	0.6	3	0.4	N	1 E	1 D	1	133.5	14.6
AOMORI	0	EP	21 18 37	S	18 52.4	21	0.7	17	0.7	8	0.9					159.6	15.4
MATSUS	0	IP	21 19 28.8	ES	20 27							N	E	D		561.5	58.2

OT= 21 2 14 21.2 +/- 0.3
OFF URAKAWA
LAT= 41 30 +/- 1 LONG= 142 30 +/- 2
H= 0 MAG=4.5 CLASS=S

URAKAW	0	IP	02 14 38.8	IS	14 48.8	61	0.4	114	1.6	17	0.8			D 2	76.7	10.0
HIROO	0	P	02 14 43.0	ES	14 56.0										110.3	13.0
HACHIN	1	IP	02 14 46.3	IS	15 03.9	37	0.6	22	0.4	7	0.8	N	E 1	D 1	135.8	17.6
HAKODA	0	P	02 14 48.3	IS	15 05.4	23	0.6	42	0.4	7	0.4		S	U	149.2	17.1
MURORA	0	P	02 14 48.4	S	15 05.6							N	W	U 2	155.1	17.2
OBIHIR	0	P	02 14 50.3	S	15 11.3									D 2	168.6	21.0
AOMORI	0	P	02 14 51.5	S	15 10.4	33	1.4	31	1.0	19	0.7				162.9	18.9
SAPPOR	0	IP	02 14 54.3			10	1.4	7	0.8	5	1.2			U	198.1	
KUSHIR	0	EP	02 14 57	ES	15 20	9	0.4	8	0.4	2	2.0				226.8	23.0
MORIOK	0	P	02 14 59.3	ES	15 24.4	15	0.4	19	0.4	5	0.4	N	0 E	0 D	0	229.8	25.1
OFUNAT	0	EP	02 15 07.0	ES	15 37.6	6	0.4	4	0.8	4	1.6					278.8	30.6
SENDAI	0	EX	02 15 29	ES	16 03	3	1	6	2	1	1					384.9	
MATSUS	0	IP	02 15 55.0	X	17 22									U		664.3	

OT= 21 12 38 0.1 +/- 0.4
E OFF CHIBA PREF
LAT= 35 26 +/- 2 LONG= 140 38 +/- 3
H= 40 CLASS=L

CHOSHI	0	EP	12 38 15.0	ES	38 25.0										42.4	10.0
TATEYA	0	EP	12 38 19.5	S	38 32.6	16	1.0	28	0.5	13	0.5				82.6	13.1
KAKIOK	0	P	12 38 19.8	S	38 33.2	14	1.0	14	1.0	6	0.8				102.2	13.4
TOKYO	0	EX	12 38 19.8	S	38 33.5	9	0.5	10	0.0						86.1	
YOKOHA	0	IP	12 38 20.1	S	38 35.4										89.0	15.3
MITO	0	P	12 38 21.1	S	38 35.0	5	0.4	5	0.5	3	0.2				111.3	13.9
OSHIMA	0	P	12 38 23.3	S	38 38.9	11	0.4	10	0.4	11	0.2				133.6	15.6
AJIRO	0	EP	12 38 24.6	ES	38 40.8	6	0.2	9	0.2	3	0.3				144.9	16.2
MATSUS	0	IP	12 38 37.9	IS	39 04.8							N	W	U	253.5	26.9

OT= 21 21 36 36.1 +/- 3.1
OFF IBARAKI PREF
LAT= 36 13 +/-10 LONG= 141 44 +/-15
H= 60 MAG=3.8 CLASS=U

CHOSHI	0	EP	21 36 53.6	ES	37 06.4										97.0	12.8
MITO	0	EP	21 36 56.2	ES	37 10.6	9	1.4	5	0.6	2	0.8				114.7	14.4
KAKIOK	0	EP	21 36 58	S	37 08	8	0.8	5	1.0	2	0.5				138.4	10.0
MATSUS	0	P	21 37 22	ES	38 00										318.2	38.0

OT= 22 5 17 55.2 +/- 0.7
NEAR MATSUSHIRO
LAT= 36 32 +/- 2 LONG= 138 2 +/- 3
H= 0 MAG=3.6 CLASS=L

MATSUS	2	IP	05 17 58.8									N	E	U	15.7	
NAGANO	1	IP	05 18 02.0	ES	18 04.7	82	1.0	60		39		N 9		U 54	20.3	02.7
MATSUM	0	IP	05 18 04.0	S	18 09.0							S 3	W 3	U 32	32.6	05.0
KARUIZ	0	IP	05 18 05.5	S	18 19.0									D 8	51.2	13.5
TAKADA	0	EP	05 18 09.4	S	18 18.0										66.3	08.6
KOFU	0	EP	05 18 16.4	IS	18 26.8	7	0.3	9	0.3	3	0.3				107.3	10.4
KUMAGA	0	EP	05 18 19.6	ES	18 35.8	3	3.2	5	3.4	3	3.0				128.7	16.2

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OT= 22 11 36 38.1 +/- 0.2
NEAR MATSUSHIRO
LAT= 36 24 +/- 0 LONG= 138 10 +/- 1
H= 0 MAG=3.4 CLASS=L

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * * S	E-W A/T * * S	U-D A/T * * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MATSUS	1	IP	11 36 41.9	IS	36 44.1				N	E	U	15.8	02.2
MATSUM	0	IP	11 36 44.6	S	36 48.5				S	W 3	U 8	24.6	03.9
NAGANO	1	IP	11 36 45.4	S	36 48.9	42	30	27			U 9	29.0	03.5
KARUIZ	0	IP	11 36 46.0	S	36 52.5				N		D 2	35.2	06.5

OT= 22 12 6 32.8 +/- 1.5
FAR E OFF KWANTO
LAT= 36 29 +/- 4 LONG= 142 32 +/- 8
H= 70 CLASS=U

ONAHAM	0	EX	12 06 58.1									/154.1	
MITO	0	P	12 07 02.4	IS	07 19.5	9 1.4	8 1.2	3 2.0				185.2	17.1
KAKIOK	0	EP	12 07 04	X	07 15	9 1.0	10 1.0	4 0.8				211.8	
SENDAI	0	EP	12 07 08.6	ES	07 30.8	5 1.2	5 0.8	3 1.6				244.5	22.2
MATSUS	0	P	12 07 28	S	08 07							387.4	39.0

OT= 23 9 36 56.6 USCGS
CELEBES
LAT= -3 6 LONG= 118 54
H= 13 MAG=6.9 CLASS=U

ISHIGA	0	P	09 42 49.6	ES	47 32.6	20 7.1	22 11.7	9 5.3				3084.2	285.0
NAHA	0	IP	09 43 12.7	S	48 20.9	16 7.1	10 5.4	19 18.6	N 5		U 7	3376.4	308.2
YAKUSH	0	EX	09 43 53.0			6 7.6	6 5.6	8 4.6				3907.6	
KAGOSH	0	EX	09 43 58.0			11 3.0	11 3.0					4026.3	
AIKAWA	0	EP	09 44			10 15.0	10 12.0					4965.3	
MIYAZA	0	P	09 44 08.0			8 8.0	9 7.0	10 4.6			U	4091.0	
FUKUE	0	P	09 44 08.2	S	49 28.0	8 9.4	9 10.6	12 9.6	N 3		U 6	4093.9	319.8
NAGASA	0	P	09 44 10.8	ES	49 34.0				N 4 E	2 U		4124.7	323.2
KUMAMO	0	EP	09 44 14	ES	49 54	10 2.5	9 9.6	8 2.8				4160.3	340.0
FUKUOK	0	EP	09 44 19.0	ES	49 45.0	8 4.5	6 9.5	9 4.2	N 2 E	1 U 4		4230.8	326.0
ASHIZU	0	P	09 44 19.8	EX	53 06.0	7 19.9	4 3.4	13 4.5	N 3		U 5	4229.8	
OITA	0	EX	09 44 23.8	EX	50 41.9	18 3.2	31 5.1	11 3.0				4283.9	
SHIMON	0	EP	09 44 24.0			10 8.2	71 11.6	13 4.6				4287.0	
MUROTO	0	IP	09 44 24.9	ES	49 49.1	7 20.2	10 7.0	10 5.0	N 0 E	0 U 0		4327.8	324.2
				EPP	46 04.1								
				EX	55 46.2								
MATSUY	0	EP	09 44 27.3	ES	50 29.6	14 8.8	15 9.3	8 5.1	N	E	U	4336.0	362.3
HIROSH	0	IP	09 44 28.6	S	50 29.3	8 18.0	12 14.8	9 4.0	N 3 E	2 U 4		4378.0	360.7
HAMADA	0	P	09 44 31.0	ES	50 42.8	5 5.6	6 8.8	5 4.4	N 2 E	1 U 3		4420.7	371.8
				EX	53 43.6								
				EL	56 21.0								
SHIONO	0	EP	09 44 32.1	ES	50 13.4	11 11.3	14 21.4					4412.1	341.3
TAKAMA	0	EP	09 44 33.1	ES	50 38.3	8 16.7	14 18.8					4431.1	365.2
OKAYAM	0	P	09 44 34.7			5 5.1	10 9.0	13 6.0	N 1 E	1 U 5		4462.8	
OWASE	0	EP	09 44 37.8	ES	50 50.0	5	5	5	N	E	U	4491.3	372.2
OSAKA2	0	P	09 44 39.5	ES	50 49				N 3 E	2 U 7		4523.2	369.5
OSAKA	0	P	09 44 39.8	EX	46 23	31 4.5	18 4.5	12 5.2			U 6	4524.2	
KOBE	0	EX	09 44 40.0									4511.6	
KYOTO	0	P	09 44 43.4	EX	53 50.0	4 5.2	7 10.5	7 5.3			U 0	4566.0	
HAMAMA	0	EP	09 44 44			9 3.6	7 3.4	10 4.0				4620.4	
SAIGO	0	P	09 44 45.0	EX	53 18	7 2.8	13 9.8	10 4.4	N 0		U 0	4597.9	
TOYOOK	0	EP	09 44 45.1	ES	51 00.7	13 19.7	25 15.9	11 5.5	N 4 E	3 U 6		4583.0	375.6
				EX	45 28.2								
				EX	54 13.0								
HIKONE	0	EP	09 44 46.4	EX	51 02.5	11 2.8	12 9.1	9 3.0				4612.7	
NAGOYA	0	P	09 44 47.5	EL	55 10	6 8.0	8 9.0	7 11.0				4632.1	
MISHIM	0	EP	09 44 48.0			7 14.8	13 22.4	10 2.5				4713.9	
OMAEZA	0	EP	09 44 48.9			21 12.0	26 13.0					4652.3	
GIFU	0	EP	09 44 50.0	EL	54	6 17.5	8 17.5					4646.5	
IIDA	0	E	09 44 52.4									4708.1	
AJIRO	0	EX	09 44 52.4	EX	54 38.2	8 10.8	13 10.2	8 10.0				4715.1	
KAWAGU	0	P	09 44 54.8	ES	51 02.2							4743.3	367.4
				L	54 32.3								
KOFU	0	EP	09 44 56.0	EX	50 47.0	9 11.4	10 11.4					4750.1	
TOYAMA	0	EP	09 44 59	EX	54 38	25 9.0	19 5.2	16 5.0				4793.8	
MATSUS	0	P	09 44 59	S	51 10							4819.3	371.0
TATEYA	0	EX	09 45			14 7.0	22 8.7	18 10.0				4746.0	
KANAZA	0	EX	09 45			13 6.9	21 9.2	9 4.2				4755.2	
KUMAGA	0	EP	09 45 01.4	ES	51 23.4	15 9.2	16 9.4	13 5.8				4838.8	382.0

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TOKYO	0	P	09 45 02.8			22 8.2	15 9.0	16 3.8				4807.1	
WAJIMA	0	P	09 45 03.4	EX	54 52	11 8.0	15 8.0	15 6.0			U 6	4848.9	
NAGANO	0	EP	09 45 06.9	ES	51 40.0	17 4.4	14 5.5					4830.7	393.1
				EL	55 01.5								
MITO	0	EX	09 45 07.6			15 9.0	8 5.0	8 6.0				4906.3	
AKITA	0	EX	09 45 16			19 8.8	23 8.0					5208.4	
SENDAI	0	P	09 45 21.8	ES	52 03.4	10 7.6	9 9.2	10 6.0			U 4	5104.0	401.6
ISHINO	0	EP	09 45 24.3	ES	52 12.2	6 10.8	7 9.6	10 5.8	N 3 E	3 U 5		5138.1	407.9
OFUNAT	0	IP	09 45 30.0	ES	52 21.7	6 9.6	5 7.0	7 3.4	N 2	U 3		5217.2	411.7
MORIOK	0	P	09 45 31.5	ES	52 25.0	8 10.6	7 10.0	7 9.0	N 0 E	0 U 0		5252.5	413.5
				EX	55 46.0								
AOMORI	0	EP	09 45 36	ES	52 32	13 2.8	18 2.6					5343.0	416.0
MIYAKO	0	EP	09 45 36.4	ES	52 28.6	6 10	4 20					5283.5	412.2
HACHIN	0	P	09 45 38.5	ES	52 34.0	8 9.6	7 17.6	11 6.2			U	5347.0	415.5
HAKODA	0	EP	09 45 44	EX	52 52	5 3.0	7 7.4	9 18.9				5438.0	
URAKAW	0	EP	09 45 54	ES	53 08	12 9.6	16 7.2	14 3.2				5526.6	434.0
SAPPOR	0	EP	09 45 55	ES	52 31	6 2.6	6 4.6	8 7.2				5581.6	396.0
ASAHIK	0	EP	09 46 03			5 2.8	4 3.0	25 4.2				5692.4	
KUSHIR	0	EP	09 46 04	ES	53 24	8 5.2	7 6.6	8 3.0				5704.8	440.0
NEMURO	0	EP	09 46 08	ES	53 32	4 10.0	5 9.6	7 6.0				5791.3	444.0
ABASHI	0	EP	09 46 10	EX	53 27	4 3.6	3 3.2	6 4.4				5796.5	
OSHIMA	0	EX	09 54 30.3			14 9.0	25 8.3					4701.6	

OT= 28 11 10 18.2 +/- 0.2
E PART OF KANAGAWA PREF
LAT= 35 31 +/- 1 LONG= 139 40 +/- 1
H= 30 MAG=4.1 CLASS=L

YOKOHA	2	IP	11 10 23.8	S	10 28.6							8.9	04.8
TOKYO	1	IP	11 10 25.0	IS	10 30.1	187 0.1	146 0.1	17 0.8				20.4	05.1
TATEYA	0	EP	11 10 30.6	S	10 41.3	78 0.7	71 0.5	27 0.7				61.9	10.7
AJIRO	1	IP	11 10 31.1	IS	10 40.8	53 0.3	64 0.3	14 0.3			U 3	73.8	09.7
KUMAGA	0	EP	11 10 31.4	S	10 40.8	19 1.2	17 1.2	7 1.4				74.4	09.4
CHICHI	0	EP	11 10 32.1	S	10 40.5							74.7	08.4
KAWAGU	1	IP	11 10 32.3	IS	10 42.5							82.0	10.2
MISHIM	0	IP	11 10 32.4	IS	10 42.8	52 0.8	32 0.8	17 0.7			D 7	80.6	10.4
KAKIOK	0	IP	11 10 33.4	S	10 43.1	24 1.0	25 1.0	14 1.0	S 2 W	2 D 1		92.5	09.7
OSHIMA	0	P	11 10 33.5	S	10 43.8	25 1.2	31 0.4	13 0.2				87.8	10.3
KOFU	0	IP	11 10 35.0	IS	10 47.0	56 0.6	52 0.6	55 1.4	S 1 E	2 D 1		101.8	12.0
CHOSHI	0	EP	11 10 36.3	EX	10 52.1							109.1	
UTSUNO	0	IP	11 10 36.9	S	10 49.3							115.7	12.4
MITO	0	IP	11 10 38.4	S	10 52.4	10 1.2	16 1.0	4 1.4		E 1 U 2		120.0	14.0
KARUIZ	0	EP	11 10 41.0	S	10 57.0							135.9	16.0
IIDA	0	EP	11 10 45.0	ES	11 03.2	5 1.0	2 0.4	3 1.0				166.1	18.2
MATSUS	0	IP	11 10 45.2	IS	11 05.9				N	W	U	173.5	20.7
OMAEZA	0	EP	11 10 45.6	ES	11 08.2	12 2.4	9 3.6					166.8	22.6
NAGANO	0	EP	11 10 50.0	ES	11 11.4	7 1.1	7 1.2	4 1.3				183.3	21.4
ONAHAM	0	EX	11 10 52.6	ES	11 15.4							193.7	
NAGOYA	0	EP	11 10 57.5	S	11 26.6	6 1.0	7 1.2	3 1.2				248.3	29.1

OT= 28 5 22 17.0 +/- 0.3
KII CHANNEL
LAT= 33 34 +/- 2 LONG= 135 8 +/- 2
H= 60 MAG=3.7 CLASS=L

SHIONO	0	EP	05 22 30.7	IS	22 37.2	8 0.4	6 0.2					60.0	06.5
WAKAYA	0	P	05 22 31.2	IS	22 49.8							73.2	18.6
TOKUSH	0	EP	05 22 32.7	IS	22 41.6							75.5	08.9
MUROTO	0	IP	05 22 34.1	IS	22 45.1	8 0.5	14 0.4		S 0 W	1 U 1		95.6	11.0
KOBE	0	EP	05 22 37.2	ES	22 51.4							124.5	14.2
NARA	0	X	05 22 45.9	S	22 54.7							139.6	
OSAKA	0	Ex	05 22 53			7 2.4	7 1.5					128.4	
TOYOOK	0	Ix	05 23 12.7			6 1.2	4 1.2					220.4	
MATSUS	0	P	05 23 17	S	24 10							482.7	53.0

OT= 28 6 5 46.7 +/- 0.3
IYONADA
LAT= 33 38 +/- 2 LONG= 132 5 +/- 2
H= 70 CLASS=M

UWAJIM	3	IP	06 06 00.0	IS	06 09.4	100	100		S 16 E	20 U 40		63.2	09.4
OITA	1	EP	06 06 01.6	S	06 10.3	124 0.6	127 0.6					61.6	08.7
MATSUY	1	IP	06 06 03.3	IS	06 12.5	207 0.6	142 0.7	92 0.4	N 17 E	59 U 55		68.5	09.2

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
HIROSH	2	IP	06 06 04.4	S	06 15.9	97 0.3	89 0.3	91 4.0	S 4	W 2	D 5	87.3	11.5
NOBEOK	0	EP	06 06 06.8	ES	06 20.6				N	E	D	122.2	13.8
SHIMON	0	EP	06 06 07.4	ES	06 20.0	50 0.8	97 2.0	83 1.0				111.5	12.6
HAMADA	0	IP	06 06 09.1	S	06 23.3	14 0.9	26 1.1	13 1.2	S 6		D 2	139.7	14.2
ASHIZU	0	P	06 06 09.9	IS	06 23.9	25 0.3	30 0.3	24 0.4			D 1	133.8	14.0
KUMAMO	0	IP	06 06 10.8	IS	06 29.2	53 1.2	109 1.0	36 0.9	S 7	W 6	U 10	157.2	18.4
FUKUOK	0	IP	06 06 11.2	S	06 27.5	23 1.5	27 0.9	16 1.7		W 2	U 7	158.1	16.3
SAGA	0	IP	06 06 14.5	S	06 33.1				S 4	W 24	U 12	170.8	18.6
MUROTO	0	IP	06 06 16.2	IS	06 36.7	10 2.6	10 2.6	5 2.9		E 0	U 0	199.4	20.5
TAKAMA	0	P	06 06 16.6	IS	06 37.7	26 0.9	27 0.7	18 0.6				197.6	21.1
OKAYAM	1	IP	06 06 17.7	IS	06 39.7	89 0.6	57 0.5	9 0.5	N 2	E 3	U 2	205.0	22.0
MIYAZA	0	P	06 06 18.1	S	06 40.1	39 0.8	29 0.7	14 0.6				200.0	22.0
NAGASA	0	P	06 06 19.7	S	06 42.0				S	W	U	200.1	22.3
ASOSAN	0	EX	06 06 21									125.8	
MATSUE	0	EP	06 06 21.8	S	06 44.6						U 6	221.4	22.8
YONAGO	0	P	06 06 21.9	IS	06 46.9				N 2	E 2		230.7	25.0
IZUHAR	0	EP	06 06 22.6	ES	06 51.2							265.4	28.6
TOKUSH	0	EP	06 06 22.6	ES	06 47.0							235.6	24.4
KOCHI	0	X	06 06 27.6	X	06 43.1					E 5	U 4	184.9	
TOTTOR	0	P	06 06 28.5	S	06 58.4	0						283.4	29.9
				IX	07 12.6								
WAKAYA	0	EX	06 06 29.0			26 0.7	15 0.7					292.5	
SAIGO	0	IP	06 06 30.2	S	07 09.0	14 1.1	12 1.4	5 1.3	S 0	W	D 0	307.2	38.8
KOBE	0	EP	06 06 31.1	ES	07 01.9							308.5	30.8
OSAKA	0	EX	06 06 32			7 3.5	8 2.0					337.5	
TOYOOK	0	EP	06 06 33.3			51 1.1	90 1.1	15 0.4				327.9	
KAGOSH	0	X	06 06 39.0	X	07 06.2	10 2.0	14 2.0	5 1.4				269.7	
TSU	0	P	06 06 45.2	X	06 54.9	10 1.0	8 0.9	4 1.1				425.6	
HIKONE	0	EP	06 06 45.6	ES	07 27.7	13 0.6	11 1.0	3 0.5				423.5	42.1
TSURUG	0	EP	06 06 46	ES	07 26.1							428.0	40.1
FUKUI	0	P	06 06 51.1	ES	07 39.5							464.2	48.4
NAGOYA	0	P	06 06 53.8	S	07 43.3	4 0.8	6 1.0					480.0	49.5
MATSUS	0	IP	06 07 13.5	ES	08 24				N	E	U	644.5	70.5
YAKUSH	0	EX	06 07 19.8			5 0.8	4 0.8	1 0.8				388.3	

OT= 28 11 40 32.5 USCGS
NORTH ATLANTIC OCEAN
LAT= 36 0 LONG= -10 36
H= 22 MAG=8.0 CLASS=U

ABASHI	0	EP	11 53 48	EX	57 28	51 16.0	37 21.0	18 15.4				10828.1	
				EX	03 56								
				EL	31 38								
TATEYA	0	EX	11 54			98 15.5	119 19.0	44 18.5				11611.8	
SAPPOR	0	EP	11 54 02	ES	04 07	13 3.0	34 18.0	21 19.0				10839.9	605.0
				EPP	58 00								
ASAHIK	0	EP	11 54 07			5 3.4	4 3.6	42 5.4				10798.6	
KUSHIR	0	EP	11 54 07	ESS	17 20	56 8.4	45 11.6	23 2.6				10939.5	
NEMURO	0	EP	11 54 07	X	58 05.6	90 17.4	87 18.4	70 17.8				10985.7	
OBIHIR	0	EX	11 54 08									10911.7	
URAKAW	0	EP	11 54 08	EX	58 15	42 15.0	79 16.2	44 5.0				10977.2	
HAKODA	0	P	11 54 08.0	PP	58 10.0	33 4.9	35 16.3	59 5.3			U	10949.0	
HACHIN	0	EP	11 54 14.7	ES	04 54.6	38 18.0	25 16.0	50 19.0			U	11105.8	639.9
AOMORI	0	EP	11 54 16	EX	58 18	34 16.8	31 16.8	32 15.6				11051.6	
AKITA	0	EP	11 54 17.2	EX	58 22.4	49 16.8	61 5.2	58 4.8				11140.4	
MORIOK	0	EX	11 54 18.0	EX	57 40	18 16.2	21 16.4	31 14.5			U 0	11178.9	
				EX	58 25								
				EX	07 30								
				EL	28 10								
				EL	36 10								
MIYAKO	0	EP	11 54 20	EX	58 35	39 18.0	30 27.6	28 16.6				11210.6	
HAMADA	0	EP	11 54 20.4	IX	58 34.6	28 17.4	33 19.5	23 14.0				11294.8	
				IX	00 34.8								
				EX	07 22.6								
				EX	12 31.2								
				EX	25 34.6								
				EX	30 21.9								
				EL	35 05.6								
OFUNAT	0	EX	11 54 21.6	X	58 32.0	26 16.4	19 15.8	31 5.2				11262.2	
				EX	05 13.1								
				EX	08 40.0								
				EX	13 00.0								
				ELQ	30 32								
				ELR	38 52								
SAIGO	0	EP	11 54 21.7	EX	33 13	23 13.5	33 17.9	32 15.1				11224.7	
SENDAI	0	EP	11 54 23.6	EX	57 52	23 20	24 18	28 5.4			U 2	11316.4	
				X	58 29.4								
				EL	16 59								
ISHINO	0	EP	11 54 23.8	PP	58 37.2	19 19.8	22 16.6	35 5.7			U 2	11313.4	

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TOTTOR	0	EX	11 54 24									11328.8	
FUKUOK	0	EP	11 54 25.0	X	58 40.0	24 20.0	25 17.0	33 16.0		E	U 13	11340.1	
SHIMON	0	EP	11 54 25.2			42 8.4	53 18.6	90 15.0				11351.7	
OKAYAM	0	EP	11 54 26.0			13 16.0	21 21.0	31 19.0			U	11398.1	
MATSUS	0	P	11 54 26								U	11392.2	
TOYOOK	0	IX	11 54 26.2	EX	58 32.0	50 15.9	56 18.0	45 16.3				11354.0	
				EX	17 08.8								
				EX	22 53.5								
NAGASA	0	EP	11 54 27.0	IX	58 44.0							11396.8	
				EX	08 05.8								
TOYAMA	0	EP	11 54 28	EX	58 24	43 6.4	40 5.2	62 4.8				11386.4	
TAKADA	0	EP	11 54 28.0									11387.0	
FUKUE	0	P	11 54 28.4	X	58 38.6	45 15.8	37 20.2	75 15.6			D 13	11346.4	
KUMAMO	0	EP	11 54 29	ES	05 08	65 20.3	63 12.8	25 18.4				11429.0	639.0
KOFU	0	EP	11 54 30.0	EX	58 44.2	15 16.0	19 15.0	31 5.6				11493.2	
IIDA	0	EP	11 54 30.6	EX	58 42.8	9 6.4	10 6.6	28 6.0				11480.5	
NAGANO	0	EP	11 54 30.9	EX	58 40.6	32 5.1	35 4.8	35 5.4				11379.6	
				EL	37 55.1								
HIKONE	0	EX	11 54 31.0	X	58 45.3	29 14.3	33 21.0	31 16.0				11439.8	
MITO	0	EX	11 54 31.5	IX	58 47.2	22 4.8	25 16.0	33 5.4				11492.8	
KAKIOK	0	EP	11 54 32	EX	58 48	18 22.6	38 17.8	22 14.2				11497.5	
MIYAZA	0	EP	11 54 32			40 17.0	35 22.0	51 18.0				11548.7	
TAKAMA	0	P	11 54 32.0	EX	58 39.8	44 18.3	39 17.3	32 16.3				11439.9	
NOBEOK	0	EP	11 54 32.5	EX	58 49.6	150 18.9	200 19.3	50 17.3			D	11497.5	
KYOTO	0	EP	11 54 32.8	EX	07 35.0	24 17.0	17 17.9	23 17.6				11444.2	
MATSUY	0	EP	11 54 32.9	EX	58 44.2	61 17.9	65 18.6	37 14.3				11428.4	
KUMAGA	0	EP	11 54 33.0			46 16.8	40 14.8	43 6.6				11476.2	
OSAKA	0	EX	11 54 33	X	58 47.4	32 17.0	20 17.0	37 15.5				11468.0	
NAGOYA	0	EP	11 54 33.1	X	58 45.8	27 15.0	23 15.0	26 14.6				11480.1	
CHICHI	0	EP	11 54 33.1									11480.4	
ASHIZU	0	P	11 54 33.3	X	58 53.0	29 20.3	58 18.9	17 18.5			U 1	11547.5	
AJIRO	0	EX	11 54 33.8			15 15.9	24 16.1	28 6.0				11576.4	
OSAKA2	0	EX	11 54 34	X	58 47							11480.4	
OSHIMA	0	EP	11 54 35.6	PP	58 53.3	41 18	34 18	23 2.4				11615.6	
MUROTO	0	P	11 54 35.8	IX	58 51.0	42 14.6	26 18.0	43 16.0				11549.1	
MISHIM	0	EP	11 54 36.0	EX	58 48.5	36 22.6	30 23.2	35 1.6				11563.1	
TOKYO	0	P	11 54 36.0	PP	58 52.0	41 16.4	39 17.0	42 5.4				11536.8	
YAKUSH	0	EX	11 54 36.2			34 18.4	44 22.0	28 15.6				11641.5	
SHIONO	0	EP	11 54 36.8			46 20.0	44 18.1	8 14.3				11599.2	
OMAEZA	0	EP	11 54 37			140 16.4	152 17.8	24 15.8				11586.0	
HIROSH	0	P	11 54 37.5	X	05 20.4	40 25.8	50 28.0	35 22.3	N 2		U 4	11362.3	
HAMAMA	0	EP	11 54 38	EX	58 50	24 4.6	16 16.0	25 5.6				11556.0	
GIFU	0	EP	11 54 39.8	EL	17	31 20.1	23 20.8	18 18.6				11448.7	
ISHIGA	0	EP	11 54 48.8			18 18.6	33 18.0	40 17.2				11848.1	
AIKAWA	0	EX	11 57				45 14.4	27 5.0				11244.9	
KANAZA	0	EX	11 58			30 16.8	25 19.0	40 4.5				11330.1	
KAGOSH	0	EX	11 58 04.7	EX	33 09.0	12 2.8	20 15.0	71 16.2				11538.3	
SAGA	0	EP	11 58 18.2									11368.2	
FUKUI	0	X	11 58 38.9									11361.9	
SAKATA	0	EX	11 58 41.7			150	100					11213.9	
OITA	0	EX	11 58 44.7	EX	30 27.5	85 20.0	147 18.2					11432.7	
KAWAGU	0	X	11 58 45.7	S	05 17.3							11517.9	
				L	28 42.9								
HACHIJ	0	X	11 59 10.0			25 2.5	21 2.0	35 2.5				11798.7	
ANABUK	0	X	12 27 14.0									11486.8	
WAKAYA	0	EX	12 28 26.7			45 19.5	43 17.5					11497.1	
RUMOI	0	EX	12 29 35									10757.7	
UWAJIM	0	EX	12 30									11477.4	
ASOSAN	0	EX	12 31 25									11440.2	
KOBE	0	EX	12 37 40.0			100 19.0	50 20.0	50 20.0				11452.4	
NAHA	0	EX	12 54 48			56 1.7	50 1.7	86 1.4				11883.0	

OT= 28 15 4 48.9 +/- 0.2
MIDDLE OF WAKAYAMA PREF
LAT= 33 58 +/- 1 LONG= 135 29 +/- 2
H= 70 CLASS=L

SHIONO	1	EP	15 05 03.0	IS	05 12.8	49 0.2	30 0.2	12 0.2				63.1	09.8
OWASE	1	IP	15 05 04.0	IS	05 13.8	41	39	15				66.6	09.8
TOKUSH	0	EP	15 05 05.9	IS	05 16.3							84.4	10.4
WAKAYA	1	IP	15 05 06.8			71 0.1	110 0.1					41.0	
NARA	0	EP	15 05 07.1	IS	05 16.0							85.7	08.9
KYOTO	0	EP	15 05 08.8	IS	05 22.0	7 0.4	8 0.8	2 0.5				118.2	13.2
TSU	0	X	15 05 24.8	S	05 32.9	15 1.0	10 0.8	4 0.9				125.3	
TOYOOK	0	IX	15 05 36.2			24 1.1	17 0.8	7 0.8				184.4	
MATSUS	0	IP	15 05 40.5	ES	06 11					E	U	377.9	30.5
NAGOYA	0	X	15 05	ES	05 37.6	5 0.4	4 0.6	2 0.2				190.3	

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List 6 SEISMOLOGICAL DATA OBTAINED BY MATSUSHIRO

(J. S. T.)

DATE		PHASE AND TIME H M S			PHASE AND TIME M S	INITIAL MOTION	
1	IP	00 10 07.0				W D	*
1	IP	00 40 01.4	S		41 28.	S U	*
1	EP	05 44 27.	S		50 06.		*
1	P	07 26 48.	S		28 31.		*
1	P	08 42 35.					*
1	P	12 39 39.					*
1	EP	13 29 00.					*
1	EP	16 31 06.	ES		38 40.		*
1	P	18 01 07.	ES		01 45.		*
							*
2	P	01 25 53.	S		31 12.		*
2	IP	01 32 41.5				E D	*
2	IP	08 22 31.6	ES		31 30.	W D	*
2	P	09 24 07.	ES		31 20.		*
2	IP	10 45 25.0	S		50 28.	U	*
2	P	11 13 40.					*
2	P	11 40 50.					*
2	EP	12 15 39.					*
2	P	14 28 05.	S		33 12.		*
2	IP	16 58 07.6	S		59 31.	D	*
							*
3	P	01 27 55.	S		33 16.		*
3	P	01 55 25.					*
3	P	04 08 47.3	ES		09 24.		*
3	EP	05 06 33.					*
3	EP	05 56 56.					*
3	IP	09 51 09.7				S U	*
3	P	12 47 04.					*
3	P	13 07 01.	ES		12 32.		*
3	IP	17 01 51.4				W U	*
3	IP	17 03 56.8	S		10 28.	U	*
3	P	17 24 11.					*
3	IP	17 28 39.4				S E D	*
3	P	17 33 06.	ES		34 43.		*
3	EP	17 51 26.					*
3	IP	18 01 14.8	S		04 40.	U	*
3	P	18 50 51.	S		54 52.		*
3	EP	19 58 07.					*
							*
4	P	00 20 14.					*
4	EP	02 18 28.					*
4	IP	04 08 06.3	S		13 12.	U	*
4	EP	04 37 41.					*
4	IP	05 27 06.0	ES		28 24.	N U	*
4	P	06 21 41.					*
4	IP	06 48 15.1	S		53 26.	N E U	*
4	P	06 54 42.					*
4	P	07 12 58.					*
4	P	10 07 50.	S		08 28.		*
4	P	10 45 58.	S		52 08.		*
4	P	13 02 28.	ES		03 08.		*
4	P	13 29 18.					*
4	EP	16 21 41.	ES		22 20.		*
4	IP	17 45 06.0	ES		46 35.	W U	*
4	IP	18 27 10.2	S		27 28.	N E D	*
4	P	20 38 52.					*
							*
5	EP	02 04 28.	ES		09 04.		*
5	IP	05 35 05.4	S		35 27.		*
5	P	08 05 13.	S		05 52.		*
5	EP	19 43 05.	ES		50 20.		*
							*
6	IP	03 48 20.0	S		48 34.	E D	*
6	EP	08 58 52.	ES		59 45.		*
6	EP	09 49 59.					*
6	P	13 32 11.					*
6	IP	13 37 13.5	S		37 25.	E D	*
6	IP	14 27 15.7	S		28 26.	S W D	*
6	P	16 36 43.	ES		39 31.		*
6	IP	17 37 29.5	ES		39 10.	S W U	*
6	IP	18 40 39.0				U	*
6	P	23 50 15.					*
							*
7	EP	01 20 42.					*
7	EP	02 50 18.	ES		50 52.		*
7	IP	04 12 11.0				D	*
7	P	14 01 20.					*
7	EP	14 29 58.	S		30 19.		*
7	P	15 22 59.					*
7	EP	22 46 44.					*
7	P	22 48 01.					*
7	IP	23 58 43.0	ES		59 58.	D	*
							*
8	IP	01 13 06.2	S		13 30.	N E U	*
							*
9	P	04 21 52.					*
9	IP	08 10 11.1	S		10 45.	S U	*
9	EP	12 50 59.					*
9	P	13 18 41.	S		26 12.		*
9	P	17 20 42.	S		20 48.		*
9	P	19 14 47.					*
9	P	23 33 37.					*
							*
10	IP	00 06 37.0	S		07 09.	S D	*
10	EP	00 41 39.					*
10	EP	01 12 50.					*
10	P	01 14 54.					*
10	IP	13 11 17.6	S		11 56.	D	*
10	P	15 11 56.					*
10	P	16 25 17.					*
10	EP	19 00 52.	S		01 21.		*
10	IP	19 06 07.5				U	*
10	P	23 15 53.	S		23 10.		*
10	IP	23 26 47.5				N U	*
							*
11	P	06 17 15.					*
11	IP	06 50 34.2				N D	*
11	IP	08 08 15.5	S		16 42.	S E D	*
11	IP	08 32 37.8				N U	*
11	EP	08 35 30.					*
11	P	08 38 21.					*
11	P	08 41 02.					*
11	IP	19 31 01.7				S D	*
11	P	20 29 55.					*
11	P	20 37 35.					*
11	P	23 40 48.	S		40 58.		*
							*
12	IP	00 42 14.5	IS		42 44.0	U	*
12	P	04 50 19.	ES		52 15.		*
12	IP	07 17 10.8				U	*
12	IP	07 23 43.0	S		29 47.	S W D	*
12	P	07 28 31.					*
12	EP	07 54 04.					*
12	IP	13 08 49.5	S		08 59.	N U	*
12	P	18 47 15.	S		48 25.		*
							*
13	IP	00 36 22.8				N W D	*
13	P	00 45 20.0	S		49 58.	S U	*
13	P	01 17 22.					*
13	P	01 30 28.					*
13	P	01 34 14.	ES		34 46.		*
13	P	01 44 15.					*
13	IP	02 48 51.0	S		49 01.	N E U	*
13	P	04 15 58.					*
13	P	06 04 16.	S		04 42.		*
13	P	07 43 33.					*
13	IP	10 28 20.5	S		28 41.	N D	*
13	P	10 43 21.					*
13	IP	11 51 33.5				U	*
13	P	14 16 09.	S		16 33.		*
13	P	15 40 43.					*
13	P	19 14 54.					*
13	EP	19 29 04.	S		34 24.		*
13	EP	20 22 11.					*
							*
14	P	08 38 22.	S		39 58.		*
14	EL	10 43 36.					*
14	EL	12 36 28.					*
14	IP	20 02 27.2				S U	*
14	P	21 52 38.6	S		52 54.	D	*
14	IP	22 30 25.6	ES		31 16.	S W U	*
14	EP	23 09 53.	ES		10 09.		*
							*
15	IP	01 07 36.0	S		07 55.	N U	*
15	IP	02 33 32.4	ES		34 07.	D	*
15	IP	04 13 44.6	S		14 29.	D	*
15	EP	06 22 55.					*
15	IP	14 45 51.0	S		46 15.	S U	*
15	IP	16 10 49.6				U	*
15	IP	17 54 04.2				N D	*
15	IP	22 58 38.8	S		06 06.	N U	*
15	P	23 17 24.					*
							*
16	EP	04 04 12.					*
16	IP	05 33 52.4				U	*
16	EP	15 00 08.					*
16	IP	15 30 52.6				S W U	*
16	P	15 59 45.					*
16	P	20 12 03.					*
16	P	20 37 48.	S		38 27.		*
							*
17	EP	00 29 40.					*
17	IP	09 49 40.0	S		55 00.	S D	*
17	P	09 56 08.					*
17	EP	09 58 55.					*
17	EP	10 00 30.					*
17	P	10 10 17.					*
17	IP	10 22 28.0	ES		27 52.	N U	*
17	EP	10 32 44.					*
17	P	10 43 08.					*
17	P	10 45 15.					*
17	P	11 04 36.	ES		05 00.		*
17	P	11 07 09.					*
17	EP	11 15 36.					*
17	P	11 41 51.					*
17	P	12 10 48.	ES		17 40.		*
17	P	13 25 53.					*
17	IP	15 26 18.0	S		27 54.	S U	*
17	P	15 33 53.					*
17	P	16 02 12.					*
17	IP	16 29 46.6	S		30 08.	N E D	*
17	P	18 23 41.	ES		24 34.		*
17	IP	20 43 47.0				U	*
17	IP	22 21 25.3				N E D	*
17	IP	22 31 14.5				N E D	*
							*
18	P	01 13 39.					*
18	IP	02 27 57.0	IS		28 19.5	S E D	*
18	P	05 20 27.	ES		25 32.	N D	*
18	IP	06 58 10.0	S		59 06.3	U	*
18	IP	07 47 56.0	S		48 16.	E D	*
18	IP	09 50 45.3	S		51 30.	U	*
18	IP	10 47 08.0	ES		48 35.	U	*
18	P	10 54 42.					*
18	P	11 35 28.					*
18	P	13 54 41.					*
18	P	14 26 20.					*
18	P	14 50 44.	S		51 23.		*
18	P	17 51 43.					*
18	IP	21 19 28.8	ES		20 27.	N E D	*
							*
19	P	00 30 43.	S		31 24.		*
19	EP	01 23 50.					*
19	IP	03 14 41.5	S		15 10.	N U	*
19	EX	05 19 32.					*
19	IP	05 53 16.8				S D	*
19	P	06 10 46.					*
19	EP	10 43 48.	ES		44 07.		*
19	EP	17 42 45.					*
							*
20	P	00 00 44.	ES		02 06.		*
20	IP	06 10 35.2	IS		10 40.6	N E U	*
20	P	12 10 38.	S		19 54.		*
20	IP	19 02 15.4	S		07 44.	U	*
20	EP	19 13 04.					*
20	P	19 35 35.					*
20	IP	19 36 59.0	S		42 32.	S W D	*
20	EP	20 00 04.					*
20	P	20 10 52.					*
20	P	20 13 33.					*
20	P	20 26 54.					*
20	P	21 37 24.					*
20	P	22 02 08.	ES		07 36.		*
20	IP	22 12 18.8				D	*
20	P	22 34 59.					*
							*
21	P	00 11 16.					*
21	P	00 17 18.					*
21	P	00 44 43.	S		50 08.		*
21	P	02 04 54.	S		10 00.		*
21	IP	02 15 55.0	ES		17 22.	U	*
21	P	04 16 54.	S		24 16.		*
21	EP	04 33 38.					*
21	IP	12 38 37.9	IS		39 04.8	N W U	*
21	IP	15 40 36.5				E D	*
21	IP	15 43 12.5	ES		43 50.	D	*
21	IP	15 46 34.0				U	*
21	EP	15 52 14.					*
21	EP	16 16 52.					*
21	P	16 31 13.					*
21	EP	17 27 14.					*
21	IP	19 11 55.6				U	*
21	P	21 37 22.	ES		38 00.		*
21	P	23 59 19.	ES		59 58.		*
							*
22	EP	01 41 07.					*
22	P	03 53 26.					*
22	P	05 57 36.					*
22	P	11 03 49.8	ES		04 56.		*
22	P	12 07 28.	S		08 07.		*
22	P	12 21 00.					*
22	P	13 29 32.					*
22	EP	16 48 45.					*
22	P	17 01 53.					*
22	EP	17 17 40.					*
22	IP	22 25 26.8				D	*
							*
23	EP	03 00 23.	ES		05 50.		*
23	P	03 22 21.					*
23	IP	08 06 12.6	S		12 06.	S W D	*
23	P	09 44 59.	S		51 10.		*
23	P	10 21 16.					*
23	IP	11 10 45.2	IS		11 05.9	N W U	*
23	P	11 25 00.					*
23	EP	11 58 58.					*
23	EP	15 11 53.	ES		18 12.		*
23	IP	15 30 57.5	IS		31 08.0	N E U	*
23	IP	18 13 14.1	ES		14 31.		*
23	IP	19 31 14.5	IS		31 22.8	E U	*
23	P	21 44 01.					*
							*
24	P	04 50 13.					*
24	IP	09 16 42.6	S		22 52.	D	*
24	P	10 08 15.4				U	*
24	EP	10 21 25.	ES		21 54.		*
24	EX	13 26 01.	ES		32 30.		*
24	EX	14 49 52.					*
24	P	16 33 46.	S		34 10.		*
24	P	18 54 08.	ES		54 53.		*
24	P	21 10 56.	S		11 10.		*
							*
25	EP	00 31 47.					*
25	IP	01 44 54.1	ES		45 14.	U	*
25	EP	01 48 27.	ES		52 44.		*
25	P	05 55 27.					*
25	EP	10 41 34.					*
25	P	13 03 14.					*
25	P	17 10 20.	ES		11 02.		*
25	P	19 47 04.					*
25	IP	21 01 29.7	IS		01 38.5	N E U	*
25	EP	23 25 41.					*
25	IP	23 52 12.3				N U	*
							*
26	IP	01 37 31.5				U	*
26	IP	01 40 38.0	IS		40 53.6	S E D	*
26	IP	02 39 05.0	S		39 27.	N U	*
26	P	10 37 23.					*
26	P	17 26 49.	ES		32 20.		*
26	P	19 25 36.					*
26	P	22 41 01.	S		41 28.		*
							*
27	EP	07 54 33.	ES		02 40.		*
27	P	11 34 49.	S		35 18.		*
27	P	12 18 59.	ES		19 42.		*
27	P	14 28 49.					*
							*
28	P	05 26 17.	S		24 10.		*
28	IP	06 07 13.5	ES		08 24.	N E U	*
28	P	07 42 22.					*
28	P	11 54 26.				U	*

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DATE		PHASE AND TIME H M S		M S	INITIAL MOTION	
28	EP	13 39 31.				*
28	EX	13 43 24.				*
28	IP	15 05 40.5	ES	06 11.	E	U *
28	IP	17 29 31.5	S	29 51.		U *
28	EP	22 26 07.	S	32 36.		*
28	IP	22 51 49.0			S	U *

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11 FEB 1970

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昭和44年3月

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OF

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MARCH 1969

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Tokyo

1969

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List 1 JMA stations and their seismographs

Station	Code	CGS Code	λ	φ	Height	Seismographs
					m	
Abashiri	ABASHI	ABJ	E144°17.0′	N44°01.0′	38	S, VI, OP
Aikawa	AIKAWA	AIK	138 14.5	38 01.2	34	S, VI, OP
Ajiro	AJIRO	AJI	139 05.8	35 02.6	59	S, VI, EMT′
Akita	AKITA	AKI	140 06.1	39 43.1	9	S, VI, OP
Anabuki (Tsurugisan)	ANABUK (TURUGI)	TSS	134 05.8	33 51.1	59	S, P
Aomori	AOMORI	AOM	140 47.0	40 49.0	4	S, W
Asahikawa	ASAHIK	ASA	142 22.4	43 46.2	111	S, VI, OP
Ashizuri	ASHIZU	ASZ	133 01.0	32 43.0	30	S, VI
Asosan	ASOSAN	ASJ	131 04.5	32 52.7	1143	S
Chichibu	CHICHI	CHJ	139 04.9	35 59.5	218	S, P
Choshi	CHOSHI	CHO	140 50.6	35 43.5	27	S, W
Fukue	FUKUE	FKJ	128 50.0	32 42.0	26	S, VI
Fukui	FUKUI	FUK	136 13.6	36 03.2	9	S, P(H, V)
Fukuoka	FUKUOK	FKK	130 22.8	33 34.8	2	S, VI, M(H)
Fukushima	FUKUSH	FKS	140 28.5	37 45.4	67	S, VI, OP
Gifu	GIFU	GIF	136 45.9	35 23.9	13	S, W
Hachijojima	HACHIJ	HJJ	139 47.3	33 06.1	80	S, VI
Hachinohe	HACHIN	HAC	141 31.6	40 31.5	27	S, VI, OP
Hakodate	HAKODA	HAK	140 45.5	41 48.8	35	S, VI, OP
Hamada	HAMADA	HMD	132 04.4	34 53.6	18	S, VI, OP
Hamamatsu	HAMAMA	HMM	137 43.4	34 42.5	32	S, VI, OP
Hikone	HIKONE	HIK	136 14.8	35 16.4	87	S, W
Himeji	HIMEJI	HIM	134 42.1	34 50.2	37	S, P(H, V)
Hiroo	HIROO	HOO	143 19.0	42 17.0	32	S, P(H, V)
Hiroshima	HIROSH	HIR	132 26.2	34 21.8	29	S, W
Iida	IIDA	IID	137 50.1	35 30.6	482	S, VI, OP
Irozaki (Nagatsuro)	IROZAK (NAGATS)	NGT	138 50.8	34 36.0	55	S
Ishinomaki	ISHINO	ISN	141 18.2	38 25.5	43	S, VI, OP
Izuhara	IZUHAR	IZU	129 17.7	34 12.2	21	S, P(H, V)
Kagoshima	KAGOSH	KAG	130 33.2	31 34.4	4	S, VI
Kakioka	KAKIOK	KAK	140 11.6	36 13.9	27	S, W
Kanazawa	KANAZA	KAN	136 38.9	36 32.8	27	S, VI, OP
Karuizawa	KARUIZ	KRZ	138 33.1	36 20.4	999	S, P(H, V)
Kawaguchiko (Funatsu)	KAWAGU (FUNATU)	FUN	138 45.8	35 29.9	860	S, P
Kobe	KOBE	KOB	135 10.8	34 41.3	58	S, P(H, V)
Kochi	KOCHI	KOC	133 32.0	33 33.0	40	S, P(H, V)
Kofu	KOFU	KOF	138 33.5	35 39.9	272	S, VI
Kumagaya	KUMAGA	KMG	139 23.1	36 08.8	30	S, VI, EMT
Kumamoto	KUMAMO	KUM	130 42.6	32 48.6	38	S, W
Kushiro	KUSHIR	KUS	144 23.7	42 58.7	33	S, VI
Kyoto	KYOTO	KYO	135 44.1	35 00.7	41	S, VI, OP
Maebashi	MAEBAS	MAE	139 03.9	36 24.1	112	S, W
Maizuru	MAIZUR	MAI	135 23.2	35 28.3	31	S, P(H, V)
Matsue	MATSUE	MTS	133 04.3	35 27.3	17	S, P(H, V)
Matsumoto	MATSUM	MTM	137 58.4	36 14.6	610	S, P(H, V)
Matsushiro	MATSUS	MAT	138 12.5	36 32.3	440	S, L, AW,G,B,V,C
Matsuyama	MATSUY	MTY	132 46.8	33 50.4	32	S, W
Mishima	MISHIM	MIS	138 55.8	35 06.7	20	S, W
Mito	MITO	MIT	140 28.3	36 22.7	30	S, VI, EMT′
Miyako	MIYAKO	MIY	141 58.1	39 38.7	46	S, W
Miyazaki	MIYAZA	MYZ	131 25.6	31 55.0	7	S, VI, OP
Mizusawa	MIZUSA	MIZ	141 08.0	39 08.0	61	P(H, V)
Morioka	MORIOK	MRK	141 10.0	39 41.8	155	S, VI, OP
Muroran	MURORA	MRR	140 59.0	42 19.0	43	S, P(H, V)
Murotomisaki	MUROTO	MRT	134 10.7	33 14.9	185	S, VI, OP
Nagano	NAGANO	NGN	138 11.8	36 39.6	418	S, W
Nagasaki	NAGASA	NGS	129 52.2	32 43.9	27	S, VD, EM
Nagoya	NAGOYA	NAG	136 58.1	35 09.9	52	S, VI, OP
Nara	NARA	NAR	135 50.0	34 41.0	105	S, P(H, V)
Nemuro	NEMURO	NEM	145 35.2	43 19.7	26	S, VI, VD, OP
Niigata	NIIGAT	NII	139 03.1	37 54.6	2	S, P(H, V)
Nobeoka	NOBEOK	NOB	131 41.0	32 35.0	19	S, P(H, V)
Obihiro	OBIHIR	OBI	143 13.3	42 55.2	39	S, P(H, V)
Ofunato	OFUNAT	OFU	141 43.1	39 03.7	38	S, VI
Oita	OITA	OIT	131 37.4	33 14.0	5	S, W
Okayama	OKAYAM	OKA	133 54.9	34 40.9	4	S, VI, OP
Omaezaki	OMAEZA	OMA	138 12.8	34 36.2	45	S, W
Onahama	ONAHAM	ONA	140 54.4	36 56.7	3	S, VI
Osaka	OSAKA	OSA	135 31.3	34 40.7	13	S, VI

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Station	Code	CGS Code	λ	φ	Height	Seismographs
					m	
Oshima	OSHIMA	OSH	E139°22.7′	N34°45.7′	191	S, W
Owase	OWASE	OWA	136 11.7	34 04.0	14	S, VI, OP
Rumoi	RUMOI	RMJ	141 38.0	43 57.0	22	S, P(H, V)
Saga	SAGA	SAG	130 18.3	33 14.7	4	S, P(H, V)
Saigo	SAIGO	SAI	133 20.0	36 12.3	26	S, VI, OP
Sakata	SAKATA	SAK	139 50.2	38 54.2	2	S, P(H, V)
Sapporo	SAPPOR	SAP	141 19.9	43 03.5	17	S, VI, OP
Sendai	SENDAI	SEN	140 54.0	38 15.6	38	S, VI, S′
Shimonoseki	SHIMON	SHN	130 56.5	33 57.2	46	S, VI, OP
Shionomisaki	SHIONO	SHJ	135 45.8	33 26.9	74	S, W
Shirakawa	SHIRAK	SHR	140 13.5	37 07.1	354	S, P(H, V)
Shizuoka	SHIZUO	SHZ	138 24.4	34 58.4	14	S, VI
Sumoto	SUMOTO	SUM	134 54.5	34 20.1	109	S, VI, OP
Suttsu	SUTTSU	SUT	140 14.4	42 47.4	16	S, P(H, V)
Takada	TAKADA	TKD	138 15.0	37 06.3	13	S, P(H, V)
Takamatsu	TAKAMA	TKM	134 03.5	34 19.0	10	S, W
Takayasuyama	OSAKA2		135 39.6	34 36.7	472	VD′
Takayama	TAKAYA	TKY	137 15.3	36 09.1	561	S, P(H, V)
Tateyama	TATEYA	TAT	139 52.1	34 59.0	6	S, VI, EMT
Tokushima	TOKUSH	TKS	134 34.6	34 03.9	2	S, P(H, V)
Tokyo	TOKYO	TOK	139 45.5	35 41.2	21	S, VI′, VD′, I′, J
Tottori	TOTTOR	TOT	134 10.7	35 30.7	17	S, P(H, V)
Toyama	TOYAMK	TOY	137 12.5	36 42.4	9	S, VI
Toyooka	TOYOOA	TYK	134 49.5	35 32.0	4	S, W
Tsu	TSU	TSU	136 31.1	34 42.1	3	S, P(H, V)
Tsuruga	TSURUG	TSR	136 03.9	35 39.0	1	S, P(H, V)
Unzendake	UNZEND	UNZ	130 15.2	32 44.1	849	S
Urakawa	URAKAW	URA	142 46.8	42 09.5	34	S, VI, OP
Utsunomiya	UTSUNO	UTS	139 52.3	36 32.6	120	S, EMT
Uwajima	UWAJIM	UWA	132 33.5	33 13.5	43	S, P
Wajima	WAJIMA	WAJ	136 53.9	37 23.4	6	S, VI
Wakayama	WAKAYA	WKY	135 10.0	34 13.6	14	S, W, I
Wakkanai	WAKKAN	WAK	141 40.5	45 25.0	2	S, VI, OP
Yakushima	YAKUSH	YKS	130 29.8	30 27.0	14	S, VI
Yamagata	YAMAGA	YAM	140 21.0	38 15.2	151	S, P(H, V)
Yokohama	YOKOHA	YOK	139 39.3	35 26.2	38	S, EMT
Yonago	YONAGO	YON	133 20.6	35 26.0	7	S, P(H, V)
Ishigakijima	ISHIGA	ISI	124 10	24 20	6	S, VI
Naha	NAHA	NAH	127 41	26 13	11	S, VI
Miyakojima	MIYAKJ	MYK	125 17	24 47	40	S
Yonagunijima	YONAGU		123 01	24 28	32	

Notations : —

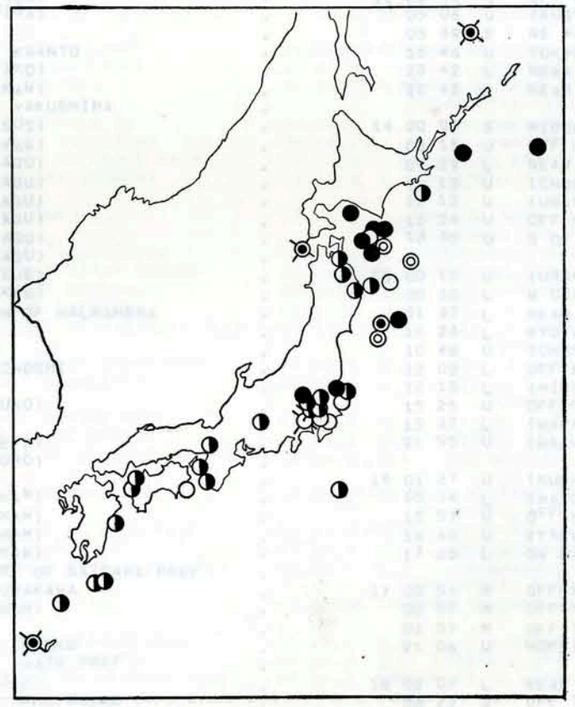
λ	: Longituds.
φ	: Geographical Latitude.
W	: Wiechert's horizontal and vertical seismographs (masses, H ; 200kg, V ; 80kg).
P	: Portable seismograph (horizontal).
P(H, V)	: do (mass, 22.5kg).
S	: Strong motion seismograph (magnification ; 1).
S′	: do (magnification ; 0.4).
M(H)	: Mainka's horizontal seismograph (mass, 450kg).
G	: Galitzin's seismograph.
L	: 1,000kg long-period seismograph, JMA type.
I	: Ishimoto's seismograph.
V	: Short-period vertical seismograph.
AW	: Anderson-Wood's seismograph.
C	: Capacity type seismograph.
EM	: Electromagnetic seismograph.
OP	: JMA 59-type electromagnetic seismograph with optical recorder.
VI	: JMA 59-type electromagnetic seismograph with visible recorder.
VD	: JMA 61-type electromagnetic seismograph with visible recorder.
B	: Benioff's seismograph (short and long period).
J	: Remote recording JMA 63-type seismograph.
VI′,VD′,I′	: Remote recording JMA 63-type seismograph.
EMT	: Electromagnetic seismograph with tape recorder.
EMT′	: Electromagnetic seismograph with tape recorder and transmitting unit.

List 2 Number of earthquakes by districts and classes, March, 1969

District \ Class	Number of felt earthquakes					Number of unfelt earthquakes	Total
	Remarkable	Moderate	Small felt area	Local	Total		
Hokkaido	0	1	0	4	5	39	44
Tohoku	2	2	2	7	13	20	33
Kwanto	0	0	4	7	11	11	22
Chubu	0	0	0	23	23	4	27
Kinki	0	0	0	9	9	3	12
Chugoku•Shikoku	0	0	1	5	6	2	8
Kyushu	1	0	0	8	9	21	30
Near Japan*	1	0	0	2	3	18	21
Foreign region	0	0	0	0	0	10	10
Unknown	0	0	0	0	0	5	5
Total	4	3	7	65	79	133	212

* ; Sakhalin, Kurile Is., Korea, Ryukyu Is., Bonin Is., Sikhota Alin.

Epicenters of the major earthquakes



⊙ Remarkable (R) ◎ Moderate (M) ○ Small felt area (S) ◑ Local (L) ● Unfelt (U) × h≧100km.

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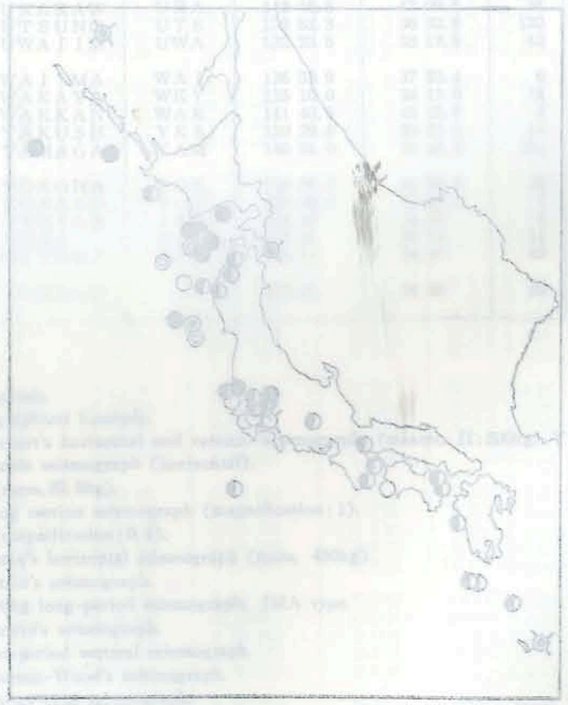
Special Event

Earthquake-Swarm near Matsushiro, Northern Chubu

In this month, 20 earthquakes (intensity I : 20) were felt at the Matsushiro Seismological Observatory.



List 3 EARTHQUAKES OBSERVED BY SEISMOLOGICAL STATIONS OF JMA

(J. S. T.)

DATE, TIME D H M	C	LOCATION	C CLASS
1 00 42	L	E PART OF AOMORI PREF	
03 35	U	(URAKAW)	
04 51	L	OFF IBARAKI PREF	
05 02	L	(NAGANO)	
10 42	L	(MATSUS)	
10 48	L	NEAR MATSUSHIRO	
11 02	S	OFF IWATE PREF	
14 10	L	NEAR MATSUSHIRO	
16 12	L	(UNZEND)	
21 32	U	(YAKUSH)	
23 02	L	W COAST OF EHIME PREF	
2 01 00	U	(MIYAZA)	
04 22	L	NEAR WAKAYAMA	
08 11	L	(WAKAYA)	
11 58	U	(ASHIZU)	
14 40	S	W PART OF TOKYO PREF	
19 45	U	(URAKAW)	
21 55	U	(URAKAW)	
22 26	U	(KOBE)	
3 00 00	L	(WAKAYA-KIBI)	
06 53	L	W OF NAGANO PREF	
19 21	L	SE OF WAKAYAMA PREF	
19 43	U	SE OF NAGANO PREF	
23 53	U	OFF E COAST OF KAMCHATKA	
4 10 33	U	(YONAGU)	
10 35	U	(YONAGU)	
17 02	L	(MATSUS)	
23 25	L	(ISHIGA)	
5 02 49	U	S OF KWANTO	
04 02	U	(MIYAKO)	
07 15	U	(URAKAW)	
08 28	L	NEAR YAKUSHIMA	
08 36	L	(MATSUS)	
12 48	U	(URAKAW)	
13 14	U	(YONAGU)	
13 36	U	(YONAGU)	
14 28	U	(YONAGU)	
14 34	U	(YONAGU)	
14 39	U	(YONAGU)	
15 07	U	(YONAGU)	
15 48	L	(MATSUS)	
21 58	U	(URAKAW)	
22 57	U	NORTH OF HALMAHERA	
6 01 17	U	UK	
02 24	U	OFF CHOSHI	
04 41	U	UK	
08 19	U	(UTSUNO)	
10 27	U	UK	
14 24	U	(TATEYA)	
15 10	L	(NEMURO)	
7 02 18	U	(URAKAW)	
02 26	U	(URAKAW)	
13 51	U	(ONAHAM)	
14 45	U	(URAKAW)	
15 43	L	E PART OF SAITAMA PREF	
17 49	U	OFF URAKAWA	
19 39	U	(YAKUSH)	
8 08 23	U	W OF TOHOKU	
08 44	L	E OF IWATE PREF	
09 10	U	(ISHINO)	
13 04	L	NEAR MATSUSHIRO	
16 51	L	IYONADA	
19 20	R	W OFF AOMORI PREF	
9 14 56	L	(MIYAKO)	
19 00	L	(MATSUS)	
20 36	R	NW OF KURILE IS	
22 55	U	WEST NEW GUINEA REGION	
23 27	U	S OFF HONSHU	
10 14 35	U	TAIWAN REGION	
16 01	U	EAST NEW GUINEA REGION	
17 13	U	(YAKUSH)	
11 00 52	S	OFF IBARAKI PREF	
08 21	L	(HACHIN)	
13 35	U	(OFUNAT)	
14 40	L	(MATSUS)	
19 12	U	OFF KII PEN	
19 21	U	NEAR SAGA	
21 32	U	FAR OFF SANRIKU	
12 00 34	U	NORTHEAST OF TAIWAN	
00 40	U	OFF FUKUSHIMA PREF	
04 06	U	(SAPPOR)	
04 37	U	E OF KWANTO	
05 45	U	(YONAGU)	
09 58	U	(URAKAW)	
10 55	U	(MIYAZA)	
15 47	U	TOHOKU	
20 39	U	(NAGASA)	
13 02 44	U	OFF URAKAWA	
05 06	U	(KUSHIR)	
05 39	S	NE PART OF TOKYO BAY	
16 46	U	TOKYO BAY	
23 42	L	NEAR MATSUSHIRO	
23 43	L	NEAR MATSUSHIRO	
14 00 05	S	MIDDLE OF CHIBA PREF	
08 15	U	OFF URAKAWA	
09 29	L	NEAR HIROO	
11 15	U	(CHOSHI)	
12 12	U	(URAKAW)	
13 24	U	OFF URAKAWA	
13 35	U	S OF HOKKAIDO	
15 00 19	U	(URAKAW)	
00 30	L	W COAST OF WAKAYAMA PREF	
01 37	L	NEAR MATSUSHIRO	
10 23	L	KYOTO-OSAKA BORDER	
10 48	U	(CHOSHI)	
12 02	L	OFF KUSHIRO	
12 13	L	(HIROSH-SHOBARA)	
15 25	U	OFF MIYAGI PREF	
15 37	L	(WAKAYA)	
21 55	U	(HACHIN)	
16 01 37	U	(KUMAMO)	
05 14	L	(MATSUS)	
15 57	U	OFF MIYAGI PREF	
16 49	U	(YAKUSH)	
17 35	L	SW PART OF IBARAKI PREF	
17 00 54	R	OFF MIYAGI PREF	
00 57	M	OFF MIYAGI PREF	
01 57	M	OFF TOKACHI	
21 06	U	HOKKAIDO	
18 02 07	L	NEAR OKAYAMA	
03 22	U	OFF TOKACHI	
04 07	U	(HACHIN)	
10 43	U	(YAKUSH)	

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DATE, TIME D H M	C	LOCATION
18 11 26	U	OFF SANRIKU
19 29	U	RYUKYU IS
20 31	U	(URAKAW)
20 33	U	(URAKAW)
23 54	L	(MATSUS)
19 00 08	U	(YAKUSH)
01 17	U	S OF KURILE IS
04 12	L	HIROSHIMA PREF
07 53	L	SW OFF YAKUSHIMA
12 14	L	N PART OF IWATE PREF
15 51	L	(MATSUS)
21 10	L	(HACHIN)
21 32	U	HYUGANADA
23 00	R	NEAR AMAMIOSHIMA
23 53	U	NEAR URAKAWA
20 03 20	U	NEAR URAKAWA
03 34	U	(URAKAW)
06 34	U	(HACHIN)
10 07	U	OFF URAKAWA
10 30	L	NEAR MATSUSHIRO
22 32	U	S OFF HONSHU
21 01 23	U	PHILIPPINE IS REGION
01 40	L	E OFF TANEGASHIMA
03 43	L	TOKYO-SAITAMA BORDER
07 10	U	(YAKUSH)
07 31	U	(YAKUSH)
10 03	L	NEAR MATSUSHIRO
12 05	M	FAR OFF SANRIKU
15 42	L	S OFF NEMURO PEN
16 40	S	SE OFF SHIKOKU
22 29	L	W COAST OF WAKAYAMA PREF
22 00 51	L	W COAST OF WAKAYAMA PREF
07 40	U	(URAKAW)
10 58	U	SE PART OF GUNMA PREF
12 16	L	NEAR MATSUSHIRO
17 02	U	(URAKAW)
20 57	U	(URAKAW)
22 13	U	N PART OF KYUSHU
22 36	U	E OFF HOKKAIDO
23 00 18	U	SE PART OF CHUBU
02 47	S	E OFF AOMORI PREF
14.13	L	OFF IWATE PREF
17 04	U	COAST OF IBARAKI PREF
22 51	U	(YONAGU)
24 18 14	U	KINKI
18 54	U	(MUROTO)
22 58	U	(NAHA)
25 00 00	U	(YONAGU)
11 26	U	UK
16 07	U	E OFF AOMORI PREF
17 50	L	(UNZEND)
26 00 09	L	SE PART OF GIFU PREF
01 35	L	NEAR UNZENDAKE
03 58	L	N PART OF HYUGANADA
04 52	U	NEAR CHOSHI
05 24	L	HYUGANADA
11 23	L	NEAR MATSUSHIRO
12 02	L	SW PART OF IBARAKI PREF
27 12 51	L	(NAHA)
13 05	U	NEAR NAGASAKI
13 51	U	NORTH OF HALMAHERA

DATE, TIME D H M	C	LOCATION
27 15 11	U	S OFF HONSHU
21 46	U	TALAUD IS
22 09	U	(URAKAW)
22 45	U	(NAGANO)
22 46	U	(URAKAW)
28 04 44	U	(KUSHIR)
06 00	U	OFF IWATE PREF
06 08	U	OFF IWATE PREF
10 02	U	(KUSHIR)
11 00	U	TURKEY
11 52	U	(YAKUSH)
12 07	L	ENE OFF HACHIJOJIMA
15 24	U	E OFF AOMORI PREF
16 28	L	SW PART OF IBARAKI PREF
18 58	U	(MIYAZA)
19 41	U	(YONAGU)
29 01 25	U	(KUMAMO)
05 31	U	(URAKAW)
20 44	U	E OFF AOMORI PREF
23 38	U	OFF URAKAWA
30 06 53	L	(MATSUS)
13 28	U	(KUSHIR)
15 10	U	(URAKAW)
16 59	U	(NAGASA)
31 09 54	U	(NAGANO)
14 47	U	(HACHIN)
16 28	U	UK
16 47	U	(YAKUSH)

List 4 EARTHQUAKE ORIGINS

(J. S. T.)

DATE, TIME D H M	C	LOCATION	ORIGIN TIME M S	+/-S	LONG.	+/-	LAT.	+/-	H KM	C CLASS M
1 00 42	L	E PART OF AOMORI PREF	42 42.1	0.4	141 16 05		40 47 02		90	
04 51	L	OFF IBARAKI PREF	51 39.7	0.7	141 00 04		36 35 02		40	3.6
11 02	S	OFF IWATE PREF	02 29.7	0.8	143 15 04		39 51 02		40	4.3
23 02	L	W COAST OF EHIME PREF	02 11.1	0.3	132 23 02		33 24 01		20	3.7
2 14 40	S	W PART OF TOKYO PREF	40 06.8	0.5	139 12 05		35 46 04		130	
5 08 28	L	NEAR YAKUSHIMA	28 06.6	2.0	131 06 07		30 28 07		00	4.2
7 15 43	L	E PART OF SAITAMA PREF	43 32.9	0.2	139 40 02		36 01 02		50	3.4
17 49	U	OFF URAKAWA	48 48.6	0.3	142 38 02		41 31 01		30	4.2
8 08 44	L	E OF IWATE PREF	43 59.3	0.2	141 50 02		39 45 01		50	3.8
16 51	L	IYONADA	51 11.3	0.3	132 27 03		33 50 01		40	3.8
19 20	R	W OFF AOMORI PREF	20 08.7	0.6	139 53 06		41 17 02		190	
9 20 36	R	NW OF KURILE IS	35 32.0	1.1	148 34 12		47 34 07		360	
11 00 52	S	OFF IBARAKI PREF	52 44.4	0.3	140 43 02		36 25 01		60	4.3
21 32	U	FAR OFF SANRIKU	31 37.2	1.4	143 30 07		38 24 03		70	
13 05 39	S	NE PART OF TOKYO BAY	39 17.4	0.3	140 06 02		35 37 02		80	
14 00 05	S	MIDDLE OF CHIBA PREF	05 07.0	0.4	140 12 03		35 37 02		70	
13 24	U	OFF URAKAWA	24 42.4	0.2	141 53 01		42 11 01		00	4.3
15 00 30	L	W COAST OF WAKAYAMA PREF	30 10.1	0.1	135 07 01		34 04 01		10	4.0
10 23	L	KYOTO-OSAKA BORDER	23 09.8	0.3	135 34 01		34 56 01		10	3.9
12 02	L	OFF KUSHIRO	02 02.0	0.4	145 06 03		42 41 02		90	
16 17 35	L	SW PART OF IBARAKI PREF	35 22.9	0.6	139 59 02		35 56 04		50	3.2
17 00 54	R	OFF MIYAGI PREF	54 14.3	0.5	142 59 03		38 32 01		70	
00 57	M	OFF MIYAGI PREF	57 37.5	1.0	142 52 05		38 26 02		50	5.2
01 57	M	OFF TOKACHI	57 04.0	0.4	143 04 02		41 01 01		10	4.9
19 01 17	U	S OF KURILE IS	16 42.9	2.0	150 18 10		43 28 09		50	5.2
07 53	L	SW OFF YAKUSHIMA	53 12.7	1.1	129 56 07		29 46 04		70	
12 14	L	N PART OF IWATE PREF	14 04.5	0.2	141 13 01		40 07 01		10	3.9
23 00	R	NEAR AMAMIOSHIMA	59 22.7	0.5	128 44 08		28 21 05		180	
20 10 07	U	OFF URAKAWA	07 31.5	0.2	142 46 05		41 30 01		10	4.1
21 01 40	L	E OFF TANEGASHIMA	39 49.1	1.4	131 15 05		30 27 04		00	5.0
03 43	L	TOKYO-SAITAMA BORDER	43 06.0	0.4	139 35 03		35 50 04		140	
12 05	M	FAR OFF SANRIKU	05 06.9	0.7	144 05 04		40 20 02		30	5.6
16 40	S	SE OFF SHIKOKU	40 11.8	0.3	134 28 01		33 27 02		50	4.5
22 29	L	W COAST OF WAKAYAMA PREF	28 54.7	0.4	135 16 02		33 43 02		30	4.2
22 10 58	U	SE PART OF GUNMA PREF	58 40.9	0.5	139 17 03		36 20 04		40	3.1
22 36	U	E OFF HOKKAIDO	36 06.6	1.1	147 10 06		43 40 06		10	4.9
23 02 47	S	E OFF AOMORI PREF	47 38.8	0.4	142 35 03		41 29 02		50	4.3
14 13	L	OFF IWATE PREF	12 51.9	0.6	142 14 04		39 38 01		30	3.8
17 04	U	COAST OF IBARAKI PREF	04 15.7	0.8	140 41 04		36 36 04		80	
25 16 07	U	E OFF AOMORI PREF	06 56.6	0.7	142 29 05		41 29 03		00	4.0
26 00 09	L	SE PART OF GIFU PREF	09 42.5	0.6	137 25 04		35 21 07		70	
05 24	L	HYUGANADA	24 45.9	0.4	131 49 02		32 12 02		00	4.5
12 02	L	SW PART OF IBARAKI PREF	02 20.4	0.1	139 57 01		36 07 01		50	3.7
27 21 46	U	TALAUD IS	41 35.9		127 30		4 48		32	6.7
28 12 07	L	ENE OFF HACHIJOJIMA	07 08.6	0.8	140 31 05		33 17 02		80	
15 24	U	E OFF AOMORI PREF	24 08.6	0.3	142 55 02		41 02 01		10	4.2
16 28	L	SW PART OF IBARAKI PREF	27 54.4	0.5	139 54 01		36 04 03		50	3.1

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List 5 DATA OF EARTHQUAKES

OT= 1 0 42 42.1 +/- 0.4 (J.S.T.)
E PART OF AOMORI PREF
LAT= 40 47 +/- 2 LONG= 141 16 +/- 5
H= 90 CLASS=L

I SEISMIC INTENSITY
* MICRON

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
HACHIN	X	IP	00 42 56.3	IS	43 05.8	26 0.2	35 0.2	3 0.2	S	E	U	36.1	09.5
AOMORI	0	EP	00 42 57	S	43 07	8 0.5	9 0.5					41.0	10.0
MORIOK	0	IP	00 43 04.3	IS	43 20.4	7 0.4	7 0.4	2 0.3	S	1 E	0 U 1	121.0	16.1
URAKAW	0	P	00 43 12.5	S	43 36.5	4 0.4	6 0.2	1 0.2				198.3	24.0

OT= 1 4 51 39.7 +/- 0.7
OFF IBARAKI PREF
LAT= 36 35 +/- 2 LONG= 141 0 +/- 4
H= 40 MAG=3.6 CLASS=L

												41.0	06.1
ONAHAM	X	EP	04 51 49.4	IS	51 55.5							52.5	07.8
MITO	0	P	04 51 52.2	IS	52 00.0	13 0.3	30 0.3	6 0.2				82.2	10.0
KAKIOK	0	EP	04 51 54	ES	52 04	8 0.5	8 0.5	6 0.3				91.1	10.5
SHIRAK	0	P	04 51 55.7	IS	52 06.2							101.1	11.1
UTSUNO	0	IP	04 51 56.0	S	52 07.1								
										E		249.9	28.5
MATSUS	0	IP	04 52 16.5	S	52 45								

OT= 1 11 2 29.7 +/- 0.8
OFF IWATE PREF
LAT= 39 51 +/- 2 LONG= 143 15 +/- 4
H= 40 MAG=4.3 CLASS=S

												112.2	13.4
MIYAKO	1	P	11 02 48.6	S	03 02.0	11 0.6	23 2.0	8 1.0				164.9	16.5
HACHIN	0	IP	11 02 54.8	ES	03 11.3	9 0.6	6 0.4	3 4.0	N	W	U 1	158.2	17.8
OFUNAT	0	IP	11 02 55.4	IS	03 13.2	11 0.4	11 0.2	9 0.8	S	1 W	1 U 1	179.2	20.0
MORIOK	0	EP	11 02 57.0	ES	03 17.0	16 0.4	14 0.5	4 0.5				235.5	30.0
AOMORI	0	EP	11 03 03	S	03 33	32 0.9	33 0.9	16 0.9					
												231.0	26.8
ISHINO	0	P	11 03 03.6	IS	03 30.4	5 1.0	6 0.8	3 0.8				269.3	32.6
SENDAI	0	EP	11 03 07	ES	03 39.6	8 1.0	8 0.9	3 0.8					
				EX	03 37.0							259.4	28.6
URAKAW	0	EP	11 03 09	S	03 37.6	4 0.4	8 0.4	1 0.4				302.8	32.4
HAKODA	0	EP	11 03 15	S	03 47.4	5 1.9	8 0.8	2 1.4					
						15 3.2	11 2.8	7 2.8				270.1	
AKITA	0	EX	11 03 37.8						S	W	U	574.4	
MATSUS	0	IP	11 03 48.5	X	05 16							360.4	
KUSHIR	0	ES	11 03 55			6 0.3	7 0.2	2 0.3				312.3	
SAKATA	0	EX	11 03 55.0										

OT= 1 23 2 11.1 +/- 0.3
W COAST OF EHIME PREF
LAT= 33 24 +/- 1 LONG= 132 23 +/- 2
H= 20 MAG=3.7 CLASS=L

						100		100			W 2	25.3	05.4
UWAJIM	2	IP	23 02 17.3	IS	02 22.7							61.1	08.2
MATSUY	0	EP	23 02 22.7	IS	02 30.9	17 0.6	18 0.7	5 0.5				73.1	05.4
OITA	0	EP	23 02 27.2	S	02 32.6	25 0.6	18 0.6					96.1	12.2
ASHIZU	0	EP	23 02 27.9	ES	02 40.1	9 0.4	9 0.4	4 0.4				106.9	11.8
HIROSH	0	EP	23 02 29.4	S	02 41.2	5 0.1	4 0.1	4 0.1					
												200.5	23.1
OKAYAM	0	P	23 02 42.7	S	03 05.8	4 0.3	6 0.3	1 0.3					

OT= 2 14 40 6.8 +/- 0.5
W PART OF TOKYO PREF
LAT= 35 46 +/- 4 LONG= 139 12 +/- 5
H=130 CLASS=S

KOFU	0	IP	14 40 27.1	IS	40 41.4	7 0.5	9 0.5	3 0.8			D 2	59.1	14.3
AJIRO	0	EP	14 40 28.1	ES	40 43.7	5 0.2	5 0.2	1 0.3				80.8	15.6
UTSUNO	1	IP	14 40 28.2	S	40 43.4							105.5	15.2
KUMAGA	0	EP	14 40 28.4	S	40 43.2	8 0.2	6 0.2	2 0.6				45.3	14.8
CHICHI	0	EP	14 40 29.8	S	40 40.4							27.1	10.6
												103.3	16.0
KAKIOK	0	EP	14 40 32	ES	40 48	12 0.8	10 1.0	5 0.8				123.6	17.3
MATSUS	0	IP	14 40 32.7	S	40 50				S	E	D		

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TATEYA	0	EP	14 40 34.0			7 0.5	9 0.5	3 0.5				106.0	
MITO	0	EP	14 40 35.5	IS	40 54.5	7 0.4	9 0.5	2 0.7				133.1	19.0
TOKYO	0	S	14 40 43.0			11 0.4	11 0.8					51.3	
YOKOHA	1	S	14 40 43.4									55.1	

OT= 5 8 28 6.6 +/- 2.0
NEAR YAKUSHIMA
LAT= 30 28 +/- 7 LONG= 131 6 +/- 7
H= 0 MAG=4.2 CLASS=L

YAKUSH	X	IP	08 28 20.1	IS	28 27.1	55 0.8	43 0.7	28 0.5	N	10 E	17 D 9	57.9	07.0
KAGOSH	0	EP	08 28 30.2	ES	28 46.9	10 1.2	29 2.0	11 1.4				133.3	16.7
MIYAZA	0	P	08 28 35.0	S	28 59.2	14 0.8	14 0.8	5 1.0				163.7	24.2
KUMAMO	0	X	08 28 57.5	ES	29 27.1	6 1.2	6 1.7	5 0.7				262.3	

OT= 7 15 43 32.9 +/- 0.2
E PART OF SAITAMA PREF
LAT= 36 1 +/- 2 LONG= 139 40 +/- 2
H= 50 MAG=3.4 CLASS=L

KUMAGA	0	P	15 43 42.0	S	43 49.0	18 0.6	14 0.4	7 0.2			U 5	29.2	07.0
TOKYO	X	IP	15 43 43.3	S	43 51.6	32 0.8	13 0.0					37.7	08.3
KAKIOK	0	P	15 43 44.6	S	43 51.7	9 0.3	10 0.3	4 0.3				53.1	07.1
UTSUNO	1	P	15 43 45.3	S	43 54.5							61.6	09.2
KOFU	0	EP	15 43 50.8	ES	44 03.8	6 0.4	7 0.5	2 1.0				107.4	13.0
MATSUS	0	IP	15 43 55.4	S	44 13						N E D	143.2	17.6
TATEYA	0	X	15 44 02.8			6 0.7	5 0.5	3 1.0				116.1	

OT= 7 17 48 48.6 +/- 0.3
OFF URAKAWA
LAT= 41 31 +/- 1 LONG= 142 38 +/- 2
H= 30 MAG=4.2 CLASS=U

URAKAW	0	IP	17 49 01.7	S	49 10.5	29 0.4	49 0.4	6 0.4			D	72.3	08.8
HIROO	0	P	17 49 05.3	S	49 17.0							102.3	11.7
HACHIN	0	P	17 49 12.0	IS	49 30.7	17 0.2	16 0.3	2 0.2			D	144.3	18.7
HAKODA	0	IP	17 49 14.2	IS	49 30.9	9 0.4	10 0.4	2 0.4			U	159.6	16.7
OBIHIR	0	EP	17 49 15	S	49 32.7							163.3	17.7
MORIOK	0	P	17 49 24.9	IS	49 52.5	8 0.5	17 0.5	3 0.3				237.1	27.6
				X	49 26.3								
KUSHIR	0	EX	17 49 28			5 0.2	3 0.2	2 0.4				218.0	

OT= 8 8 43 59.3 +/- 0.2
E OF IWATE PREF
LAT= 39 45 +/- 1 LONG= 141 50 +/- 2
H= 50 MAG=3.8 CLASS=L

MIYAKO	1	IP	08 44 08.3	IS	44 14.2	11 0	19 0	7 0				16.4	05.9
MORIOK	0	IP	08 44 11.4	IS	44 20.0	24 0.4	20 0.4	10 0.3			E 2 D 2	57.3	08.6
OFUNAT	0	IP	08 44 13.6	IS	44 23.6	21 0.4	9 0.4	6 0.2	S	1	U 2	77.1	10.0
HACHIN	0	IP	08 44 14.9	IS	44 25.8	10 0.7	9 0.3	3 1.0	S	1 E	D 1	90.0	10.9
AOMORI	0	EX	08 44 34			8 1.7	8 1.4					148.3	
MATSUS	0	P	08 45 06									477.4	

OT= 8 16 51 11.3 +/- 0.3
IYONADA
LAT= 33 50 +/- 1 LONG= 132 27 +/- 3
H= 40 MAG=3.8 CLASS=L

MATSUY	1	IP	16 51 19.5	IS	51 25.8	50 0.6	57 0.7	25 0.4	N	3 E	13 U 19	30.5	06.3
HIROSH	1	P	16 51 23.0	S	51 31.8	17 0.5	18 0.2	15 0.5	S	1	D 1	58.8	08.8
UWAJIM	2	P	16 51 23.8	S	51 32.2							68.2	08.4
KOCHI	0	EX	16 51 28.0	ES	51 39.2							105.2	
ASHIZU	0	EP	16 51 33.7	ES	51 49.2	6 0.4	8 0.4	3 0.3				134.6	15.5
OKAYAM	0	EP	16 51 36.6	S	51 55.8	10 0.5	9 0.5	1 0.5				164.5	19.2
OITA	0	EX	16 51 40.9			14 0.8	9 1.1					101.6	
ASOSAN	0	EX	16 51 44									166.1	

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OT= 8 19 20 8.7 +/- 0.6
W OFF AOMORI PREF
LAT= 41 17 +/- 2 LONG= 139 53 +/- 6
H=190 CLASS=R

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
AOMORI	1	IP	19	20	37.1	S	20	57.1					172	1.1	N 45	W 92	D 94	91.7	20.0
HAKODA	0	IP	19	20	37.2	IS	20	57.5	174	2.9	179	3.4	100	3.0	S 16	W 17	D 37	93.8	20.3
MURORA	0	P	19	20	39.9	S	21	01.6							S 10	W 8	D 14	146.7	21.7
HACHIN	1	IP	19	20	42.4	IS	21	06.6	83	2.3	98	2.2	65	2.2	N 9	W 10	D	162.0	24.2
SUTTSU	0	EP	19	20	43	ES	21	09										170.0	26.0
AKITA	0	IP	19	20	44.8	S	21	10.2	256	2.2	442	2.6	175	2.8	N 3	W	D 20	174.8	25.4
MORIOK	0	IP	19	20	47.0	IS	21	14.6	66	2.4	69	3.0	24	2.0	N 22	W 10	D 23	207.2	27.6
SAPPOR	0	IP	19	20	49.2	IS	21	17.8	75	1.6	167	2.0	41	1.8	S 11		D 38	230.7	28.6
MIYAKO	0	EP	19	20	51	IS	21	20.6	60	2.0	44	3.0	24	2.4				253.7	29.6
URAKAW	0	IP	19	20	52.8	S	21	24.8	138	2.0	218	1.4	43	2.0	S 3	W 11	D 29	259.9	32.0
SAKATA	0	EP	19	20	54.4	ES	21	28.9	200	2.7	300	3.3						264.3	34.5
OFUNAT	2	IP	19	20	54.8	IS	21	28.6	66	1.2	80	0.6	19	0.8	N 8	W 4	D 9	290.0	33.8
HIROO	1	IP	19	20	58.2	IS	21	30.9							S 6	W 12	D 26	306.3	32.7
RUMOI	0	IP	19	20	59.3	IS	21	35.5									D 6	329.2	36.2
ISHINO	0	EP	19	20	59.7	IS	21	37.4	76	2.8	42	1.0	25	1.8				339.8	37.7
OBIHIR	0	EP	19	21	00	IS	21	37.1										330.6	37.1
YAMAGA	0	IP	19	21	00.9	IS	21	39.1							N 3		D 5	338.8	38.2
ASAHIK	0	EP	19	21	01	S	21	38.4	58	1.4	52	2.0	31	0.8				343.8	37.4
SENDAI	0	P	19	21	01.0	S	21	39.8	70	2.8	110	2.4	15	3.0	N 4		D 5	346.8	38.8
NIIGAT	0	EP	19	21	03.7	ES	21	42.7	85	4.0	75	3.1	33	3.2				381.3	39.0
AIKAWA	0	IP	19	21	06.8	IS	21	49.0	32	3.0	28	2.0	25	3.0				388.7	42.2
KUSHIR	1	IP	19	21	08.2	S	21	50.0			101	0.3	35	0.6		W 8	D 14	417.8	41.8
SHIRAK	0	P	19	21	14.2	ES	22	01.4										463.3	47.2
ABASHI	0	EP	19	21	15	S	22	02.0	25	2.8	23	1.6						471.5	47.0
ONAHAM	0	EP	19	21	16.2	ES	22	07.0										489.7	50.8
TAKADA	0	EP	19	21	18.9	ES	22	07.7										484.8	48.8
NEMURO	0	P	19	21	19.6	S	22	10.0	28	2.4	11	0.8	9	0.4	S 1	W 2	D 3	522.2	50.4
WAJIMA	0	EP	19	21	20	ES	22	12	40	2.0	50	2.0	28	2.0				503.0	52.0
KUMAGA	0	EP	19	21	22.0	ES	22	28.6	13	3.0	16	3.4	10	3.2				571.8	66.6
KAKIOK	0	EP	19	21	23	S	22	19.4	29	1.0	24	1.0	10	1.3				561.4	56.4
MITO	0	EX	19	21	23.4	S	22	17.8	25	3.0	26	4.4	18	3.7				546.9	
MATSUS	0	IP	19	21	25.0	S	22	13							N	E	D	546.4	48.0
TOYAMA	0	EP	19	21	26	ES	22	23	12	3.8	13	3.8	13	3.8				558.3	57.0
NAGANO	0	EP	19	21	26.7	X	21	59.1	21	4.3	15	2.2	8	2.7				533.6	
KOFU	0	EP	19	21	34.8	ES	22	41.6	7	1.6	6	1.6	3	2.0				634.2	66.8
IIDA	0	EX	19	21	39.0													665.3	
KANAZA	0	X	19	21	42.9	ES	22	27.6			15	4.0	10	3.0				595.9	
TOKYO	0	EX	19	21	44	ES	22	25.2	17	4.0	12	3.4	21	4.0				621.5	
KAWAGU	0	X	19	21	44.9	X	23	00.0										649.5	
TATEYA	0	EP	19	21	45.1				17	5.2	17	5.0	8	3.0				699.2	
NAGOYA	0	P	19	21	46.0	ES	22	57.3	6	2.4	7	2.4	2	1.2				725.3	71.3
MISHIM	0	X	19	21	47				11	2.4	7	2.2	3	2.3				690.1	
TOYOOK	0	P	19	21	53.2	S	23	10.9	13	1.3	11	1.1			N 4	E 2		775.8	77.7
SAIGO	0	EP	19	21	54.5	ES	23	14.8	11	3.3	8	3.8	9	3.7	N 0	E 0	D 0	800.8	80.3
OSAKA	0	EX	19	21	57				10	3.1	10	3.0	3	2.4				826.9	
HAMAMA	0	X	19	22	03				5	3.2	5	3.8	2	3.2				753.9	
OITA	0	EX	19	22	38.9				8	3.9	11	4.3						1154.1	

OT= 9 20 35 32.0 +/- 1.1
NW OF KURILE IS
LAT= 47 34 +/- 7 LONG= 148 34 +/-12
H=360 CLASS=R

NEMURO	0	IP	20	36	49.8	ES	37	53	8	0.6	8	0.6	3	0.8			U 1	525.7	63.2
KUSHIR	0	EP	20	36	59	IS	38	06.8	22	0.6	24	0.3	8	0.4				606.0	67.8
ASAHIK	0	EP	20	37	05				7	1.4	8	2.2	7	1.8				641.0	
OBIHIR	0	EP	20	37	06	S	38	19.0										665.3	73.0
HIROO	0	EP	20	37	09	IS	38	25										718.6	76.0
URAKAW	0	EP	20	37	13	S	38	30.3	27	0.4	26	0.4	6	1.0				755.0	77.3
SAPPOR	0	P	20	37	14.9	S	38	36.2	6	1.6	7	2.0	4	1.0				756.6	81.3
HAKODA	0	P	20	37	27.1	ES	38	55	11	0.7	10	1.2	5	0.6			D	889.3	87.9
HACHIN	X	EP	20	37	34.1	IS	39	09.7	13	0.3	23	1.2	5	0.8				964.1	95.6
MORIOK	0	EP	20	37	45.0	IS	39	28.6	11	0.3	15	0.4	3	1.0				1058.0	103.6
OFUNAT	0	EP	20	37	51.0	ES	39	39.2	5	0.4	5	0.6	4	0.8				1095.3	108.2
ISHINO	0	EP	20	37	58.0	ES	39	54.8	6	1.0	6	1.0	5	1.6				1174.7	116.8
SENDAI	0	EP	20	38	03	ES	40	01.0	5	0.8	7	1.0	2	1.2				1207.5	118.0
MATSUS	0	IP	20	38	31.0	S	40	56							N	E	D	1492.6	145.0
KOFU	0	EP	20	38	38.4	IS	41	14.0	4	2.2	7	1.6	2	2.0				1560.3	155.6
AOMORI	0	IS	20	39	11.7				35	1.6	53	1.8	20	0.9				973.8	
AKITA	0	EX	20	39	34				7	1.8	8	2.4						1106.5	

OT= 11 0 52 44.4 +/- 0.3
OFF IBARAKI PREF
LAT= 36 25 +/- 1 LONG= 140 43 +/- 2
H= 60 MAG=4.3 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MITO	3	IP	00	52	54.8	S	53	01.3	125	0.4	345	0.6	167	0.5	N 4	W 16	U 56	22.4	06.5
KAKIOK	2	P	00	52	56.2	IS	53	03.1	300	0.9	300	0.5	100	0.9			D 7	51.3	06.9
ONAHAM	1	IP	00	52	57.7	IS	53	06.6									U 12	61.0	08.9
UTSUNO	2	IP	00	52	58.8	IS	53	08.3										77.1	09.5
CHOSHI	1	IP	00	52	59.6	IS	53	00.0										77.6	00.4
SHIRAK	X	P	00	53	00.8	IS	53	11.6										89.4	10.8
TOKYO	X	IP	00	53	05.1	IS	53	18.7	15	0.4	26	0.0	5	0.0				118.5	13.6
KUMAGA	1	P	00	53	05.4	S	53	19.6	31	0.4	21	0.4	11	0.2			D 5	123.3	14.2
CHICHI	0	EP	00	53	07.9	S	53	23.9										154.4	16.0
KARUIZ	0	EP	00	53	13.6	ES	53	28.7										194.4	15.1
SENDAI	0	EP	00	53	15	ES	53	36	12	1.0	11	0.8	4					205.2	21.0
						X	53	29.4											
KAWAGU	0	P	00	53	15.8	S	53	41.1										203.5	25.3
KOFU	0	EP	00	53	17.0	ES	53	38.4	14	0.8	14	0.8	4	0.8				211.6	21.4
MATSUS	0	P	00	53	17	S	53	33										225.2	16.0
AJIRO	0	EP	00	53	17.3	ES	53	31.1	5	0.2	5	0.2	1	0.4				211.4	13.8
TATEYA	0	X	00	53	18.7				13	0.6	10	2.0	7	1.8				176.6	
IIDA	0	EX	00	53	25.6													278.7	
MISHIM	0	EX	00	53	34				6	0.7	9	0.7						216.9	

OT= 11 21 31 37.2 +/- 1.4
FAR OFF SANRIKU
LAT= 38 24 +/- 3 LONG= 143 30 +/- 7
H= 70 CLASS=U

OFUNAT	0	IP	21	32	03.6	ES	32	20.9	5	1.0	6	0.8	6	1.4	N 1	W 1	U 1	171.4	17.3
						X	32	10.6											
MIYAKO	0	EP	21	32	06	ES	32	29	6	2.0	6	2.0						191.6	23.0
ISHINO	0	EP	21	32	06.6	ES	32	24.2	17	0.6	9	0.8	14	1.0		W 3	U 2	191.9	17.6
SENDAI	0	EP	21	32	11.4	ES	32	35.5	16	1.3	13	1.2	6	1.0		W 3	U 2	227.8	24.1
MORIOK	0	IP	21	32	13.7	X	32	23.5	7	0.3	7	0.3	3	0.8	N 0	W 0	U 0	247.9	
						EX	32	45.8											
SHIRAK	0	P	21	32	24.2	ES	32	55.1										321.7	30.9
AKITA	0	EX	21	32	27.2	EX	33	07.2	13	2.6	14	2.2	7	2.4				328.5	
MITO	0	EX	21	32	29.0	ES	33	03.0	11	2.2	10	2.6	4	1.8				349.6	
KAKIOK	0	EP	21	32	31	S	33	01.3	11	1.3	10	1.3	4	1.3				379.1	30.3
SAKATA	0	EX	21	32	31.0													323.7	
ONAHAM	0	EX	21	32	32.4													280.0	
AOMORI	0	X	21	32	38	X	33	14	16	2.3	18	2.3						355.5	
KUMAGA	0	EP	21	32	42.0	X	33	46.6	4	1.2	5	1.0	3	3.0				442.3	
MATSUS	0	IP	21	32	48.7	S	33	40							N	W	U	511.5	51.3
KOFU	0	EP	21	32	53.6	X	33	57.2	6	1.6	5	1.6	3	1.0				534.1	
TATEYA	0	X	21	33	11.4				7	2.2	7	3.0	4	2.3				498.9	

OT= 13 5 39 17.4 +/- 0.3
NE PART OF TOKYO BAY
LAT= 35 37 +/- 2 LONG= 140 6 +/- 2
H= 80 CLASS=S

TOKYO	0	IP	05	39	31.3	IS	39	40.3	34	0.0	43	0.0	10	0.0				31.8	09.0
YOKOHA	1	IP	05	39	31.4	S	39	41.7										45.0	10.3
KAKIOK	0	IP	05	39	32.5	IS	39	42.1	27	1.0	27	1.5	16	0.8				68.7	09.6
MITO	0	EX	05	39	33.2	S	39	48.0	11	0.5	13	0.4	4	0.7				90.9	
TATEYA	0	EP	05	39	33.3				44	0.5	59	0.6	25	0.5				73.3	
CHOSHI	0	EP	05	39	33.4	S	39	45.0										68.3	11.6
UTSUNO	0	P	05	39	37.0	S	39	49.3										105.2	12.3
KUMAGA	0	EP	05	39	37.0	ES	39	48.0	14	0.8	10	0.8	13	1.0				87.3	11.0
AJIRO	1	IP	05	39	37.0	IS	39	50.2	19	0.2	24	0.2	4	0.3			D 3	111.2	13.2
OSHIMA	0	P	05	39	37.2	IS	39	49.8	38	0.8	22	0.4	13	0.4				115.4	12.6
MISHIM	0	EP	05	39	38.7				13	0.5	12	0.5	5	0.5				120.2	
KOFU	0	IP	05	39	40.8	ES	39	56.6	19	0.5	11	0.4	4	0.8			D 1	139.7	15.8
KARUIZ	0	EP	05	39	44.9	S	40	03.0										161.0	18.1
MATSUS	0	IP	05	39	48.4										S	E	D	198.7	

OT= 14 0 5 7.0 +/- 0.4
MIDDLE OF CHIBA PREF
LAT= 35 37 +/- 2 LONG= 140 12 +/- 3
H= 70 CLASS=S

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A	/T	E-W A	/T	U-D A	/T	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
TOKYO	X	P	00	05	20.2	IS	05	29.2										40.7	09.0
YOKOHA	0	P	00	05	20.9	S	05	30.7										53.3	09.8
KAKIOK	0	IP	00	05	21.1	IS	05	30.9	18	1.0	21	1.0	10	1.0	N	E	U 1	68.2	09.8
CHOSHI	0	EP	00	05	22.9													59.5	
TATEYA	0	EP	00	05	23.2	S	05	34.7	20	0.7	15	0.7	9	0.8				76.4	11.5
																		88.0	11.4
MITO	0	EP	00	05	24.4	S	05	35.8	6	0.6	10	1.0	2	0.7				107.3	12.8
UTSUNO	1	IP	00	05	25.8	IS	05	38.6										94.2	12.0
KUMAGA	0	EP	00	05	26.0	ES	05	38.0	10	0.8	9	0.6	5	1.0				118.8	12.8
AJIRO	X	P	00	05	26.4	IS	05	39.2	19	0.2	17	0.2	5	0.3				120.8	12.5
OSHIMA	0	IP	00	05	26.9	S	05	39.4	13	0.2	12	0.4	11	0.2					
																	D 1	148.8	16.6
KOFU	0	IP	00	05	30.4	ES	05	47.0	9	0.4	9	0.4	2	0.6					
MATSUS	0	IP	00	05	38.5										S	E	D	206.5	

OT= 14 13 24 42.4 +/- 0.2
OFF URAKAWA
LAT= 42 11 +/- 1 LONG= 141 53 +/- 1
H= 0 MAG=4.3 CLASS=U

URAKAW	0	P	13	24	57.8	S	25	08.4	91	1.4	107	3.4	45	3.6	N	2 W	3 D	3	74.2	10.6
SAPPOR	0	IP	13	25	02.4				19	2.0	20	2.2	9	1.6				U 3	107.2	
HAKODA	0	IP	13	25	03.1	S	25	17.0	27	1.4	39	0.6	12	0.3				D 1	101.9	13.9
OBIHIR	0	EP	13	25	06	S	25	24.1											137.1	18.1
ASAHIK	0	P	13	25	13.7	S	25	36.1	31	1.6	20	2.0	25	2.2					180.8	22.4
HACHIN	0	IP	13	25	14.6	S	25	36.9	5	1.2	5	1.2	3	2.8	S	1 W	U 1		186.6	22.3
AOMORI	0	EP	13	25	15	S	25	36	19	2.0	17	1.6	9	1.1					177.4	21.0
ABASHI	0	EP	13	25	29	ES	26	03	7	2.4	7	3.0	3	2.0					282.3	34.0
KUSHIR	0	ES	13	25	52				7	0.4	6	0.6	4	3.4					224.3	
MATSUS	0	P	13	26	21														702.0	

OT= 15 0 30 10.1 +/- 0.1
W COAST OF WAKAYAMA PREF
LAT= 34 4 +/- 1 LONG= 135 7 +/- 1
H= 10 MAG=4.0 CLASS=L

																		49.8	06.1
TOKUSH	0	EP	00	30	20.8	IS	30	26.9									U 2	69.2	08.6
KOBE	0	P	00	30	23.5	ES	30	32.1										91.0	11.4
SHIONO	0	EP	00	30	27.0	IS	30	38.4	10	0.2	6	0.2	6	0.2				77.4	
OSAKA	0	EX	00	30	27.4	S	30	35.8	17	3.7	24	3.4	3	1.8				95.0	12.8
NARA	0	EP	00	30	27.8	ES	30	40.6											
																		101.4	09.8
TAKAMA	0	EP	00	30	30.5	ES	30	40.3	14	1.1	10	1.1	8	0.6				125.7	14.6
MUROTO	0	P	00	30	33.0	IS	30	47.6	6	0.5	5	0.6						129.8	16.0
OKAYAM	0	EP	00	30	33.1	S	30	49.1	16	0.5	20	0.6	3	0.5				165.3	20.0
TOYOOK	0	P	00	30	38.9	S	30	58.9	9	1.2	9	1.2	3	0.6				146.9	
TSU	0	P	00	30	40.2	X	31	05.6	21	0.6	11	0.8	9	0.9					
																		169.2	18.7
HIKONE	0	EP	00	30	41.3	ES	31	00.0	12	1.4	12	0.6	5	0.9				18.3	
WAKAYA	1	P	00	30														392.6	
MATSUS	0	EP	00	31	08	X	32	04											

OT= 15 10 23 9.8 +/- 0.3
KYOTO-OSAKA BORDER
LAT= 34 56 +/- 1 LONG= 135 34 +/- 1
H= 10 MAG=3.9 CLASS=L

KYOTO	3	IP	10	23	14.8	IS	23	17.0	123	0.6	115	0.6	60	0.4	N	9 W	13 D	34	17.7	02.2
NARA	1	IP	10	23	18.0	IS	23	23.6									D	4	36.9	05.6
KOBE	0	EP	10	23	19.5	IS	23	25.5											44.6	06.0
OSAKA	0	IS	10	23	22.2				14	3.0	15	2.0	4	1.3					28.6	
HIKONE	0	IP	10	23	23.1	S	23	31.7			20	0.6	7	0.5		W 7	D	9	72.6	08.6
							23	36.3											91.5	10.3
TSURUG	0	P	10	23	26.0	S	23	37.2	31	1.1	25	1.1	11	0.6	S	2 E	2		95.4	10.6
TOYOOK	0	P	10	23	26.6	IS													61.9	
MAIZUR	0	IP	10	23	26.7				13		9		3				U		112.1	14.9
OWASE	0	EP	10	23	29.5	IS	23	44.4	20	0.6	46	0.8	10	0.4					90.8	09.6
TSU	0	P	10	23	29.6	S	23	39.2											120.7	15.7
							23	46.1	10	0.5	10	0.7							137.9	17.6
GIFU	0	P	10	23	30.4	S	23	48.8											130.4	14.8
FUKUI	0	EP	10	23	31.2	IS	23	47.6	9	0.3	10	0.3	6	0.2					153.6	18.9
NAGOYA	0	P	10	23	32.8	IS	23	53.3	6	0.5	6	0.5	1	0.4					297.9	38.2
OKAYAM	0	EP	10	23	34.4	S	24	34												
MATSUS	0	IP	10	23	55.8	S														

OT= 15 12 2 2.0 +/- 0.4
OFF KUSHIRO
LAT= 42 41 +/- 2 LONG= 145 6 +/- 3
H= 90 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A	/T	E-W A	/T	U-D A	/T	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
KUSHIR	2	IP	12	02	18.5	IS	02	28.8	140	0.3			66	0.3	S	20 E	14 D	55	66.3	10.3
NEMURO	2	IP	12	02	20.1	IS	02	31.1	82	0.2	56	0.2	27	0.2	S	1 W	2 D	3	81.9	11.0
OBIHIR	0	EP	12	02	28	IS	02	46.0											155.9	18.0
HIROO	0	IP	12	02	28.3	IS	02	45.9									D	2	153.2	17.6
ABASHI	0	P	12	02	28.8	S	02	47.0	15	0.8	7	0.6	4	0.8			U		162.3	18.2
URAKAW	0	P	12	02	33.6	S	02	55.6	7	0.4	14	0.4	3	1.0					199.7	22.0
MORIOK	0	EP	12	03	05.5	S	03	49.6	5	0.4	6	0.4	1	0.4					467.7	44.1
MATSUS	0	P	12	03	59														902.5	

OT= 16 17 35 22.9 +/- 0.6
SW PART OF IBARAKI PREF
LAT= 35 56 +/- 4 LONG= 139 59 +/- 2
H= 50 MAG=3.2 CLASS=L

KAKIOK	0	P	17	35	33.2	IS	35	39.1	15	0.5	21	0.2	5	0.2					38.1	05.9
KUMAGA	0	EP	17	35	35.6	S	35	43.8	6	0.2	2	0.2	1	0.2					58.9	08.2
UTSUNO	1	IP	17	35	36.8	IS	35	44.2											68.8	07.4
MATSUS	0	IP	17	35	49.2	S	36	08									D		173.1	18.8

OT= 17 0 54 14.3 +/- 0.5
OFF MIYAGI PREF
LAT= 38 32 +/- 1 LONG= 142 59 +/- 3
H= 70 CLASS=R

OFUNAT	3	IP	00	54	35.2	IS	54	47.6	450	2.9	400	2.7	250	2.0	S	3 E	5 D	4	124.6	12.4
ISHINO	3	IP	00	54	37.6	IS	54	52.0	500	1.4	350	0.8	950	1.6	S	12 W	30 U	23	147.1	14.4
MIYAKO	3	IP	00	54	39.0	IS	54	55.0	250	2.1	450	4.2	150	3.2	S	33 E	25 D	25	151.5	16.0
SENDAI	3	IP	00	54	43.2	IS	55	02.0	660	2.0	500	2.0	410	3.0	S	9 W	14 U	19	184.5	18.8
MORIOK	2	IP	00	54	45.5	S	55	06.6	1000	2.2	700	0.8	400	3.4	S	1 E	1 D	1	203.3	21.1
YAMAGA	1	IP	00	54	49.3	ES	55	12.1	750	2.8	350	3.4	250	2.0	S	2 W	3 U	5	232.1	22.8
HACHIN	2	P	00	54	51.6	IS	55	17.5	111	4.2	146	4.4	86	3.2	S	1 E	1 D	1	254.2	25.9
ONAHAM	1	IP	00	54	52.4	IS	55	16.8	900	2.0	1050	2.4	230	2.1			D	12	254.1	24.4
AKITA	X	IP	00	54	55.2	S	55	25.0	481	3.6	418	4.0	326	3.2	N	W 3	U	9	281.8	29.8
SAKATA	1	EP	00	54	55.8	ES	55	25.1	900	3.0	1250	3.0	350	3.0			U	8	276.7	29.3
SHIRAK	2	IP	00	54	56.7	IS	55	24.8	500	1.6	400	2.0	300	2.0	N	3 E	5 D	11	289.2	28.1
AOMORI	1	EP	00	54	59	S	55	31.2	500	1.8	400	1.6	75	1.1					316.0	32.2
FUKUSH	2	EX	00	54					600	2.1	500	2.5							236.1	
MITO	2	IP	00	55	00.8	IS	55	33.6	263	3.0	287	3.4	204	2.6			D	5	326.4	32.8
KAKIOK	2	P	00	55	03.2	X	55	24	268	0.8	194	1.3	123	1.3	N	5 E	8 D	4	355.3	
UTSUNO	1	P	00	55	03.9	S	55	34.6											352.4	30.7
NIIGAT	1	EP	00	55	04.3	S	55	41.6	400	3.3	385	4.1	285	4.5					351.1	37.3
CHOSHI	0	P	00	55	05.5	IS	55	41.4											365.0	35.9
HAKODA	0	P	00	55	10.5	S	55	51.6	78	2.9	104	4.4	68	4.4	S	3 E	3 D	3	410.5	41.1
URAKAW	0	P	00	55	11.4	S	55	51.8	175	4.4	219	4.0	96	4.6	S	4	D	4	402.9	40.4
AIKAWA	0	EP	00	55	12.7	X	56	04.6	149	3.0	98	1.5	93	2.0	S	W	U		418.7	
KUMAGA	1	P	00	55	13.0	S	55	54.0	196	4.0	193	2.8	152	4.0	N	2 E	5 D	4	414.4	41.0
TOKYO	X	IP	00	55	14.2	ES	55	56.6	260	3.9	250	5.2	180	4.0					426.6	42.4
HIROO	0	IP	00	55	14.7	X	56	17.2											417.4	
MURORA	0	EP	00	55	15	ES	55	58			100	2.0			S	E	D		453.1	43.0
CHICHI	1	EP	00	55	15.2	IS	55	59.5	150	2.2	150	2.0	150	2.0					446.4	44.3
TAKADA	0	EP	00	55	16.5	S	56	07.5											445.8	51.0
OBIHIR	0	EP	00	55	17														487.6	
KARUIZ	0	EP	00	55	18.6	ES	56	05.2	200	3.0	200	3.0	100	2.0					461.5	46.6
TATEYA	0	EP	00	55	20.0				318	3.7	312	2.7	139	3.2					482.1	
MATSUS	0	IP	00	55	21.0	S	56	06							N	E	D		476.4	45.0
NAGANO	0	EP	00	55	21.7	ES	56	08.7	173	3.4	192	3.8	81	3.5					470.9	47.0
KUSHIR	1	IP	00	55	22.0	S	56	11.7	60	0.3	56	0.3	35	3.6	S	5 W	3 D	11	507.8	49.7
MISHIM	0	IP	00	55	23.3	ES	56	14.0	129	3.7	167	2.2	48	3.4			D	3	524.2	50.7
KAWAGU	0	P	00	55	24.3	S	56	14.8	350	02.4	150	01.8	50	01.8					504.3	50.5
AJIRO	X	EP	00	55	24.4	ES	56	14.1	42	3.4	55	3.0	42	3.5					519.8	49.7
KOFU	0	EP	00	55	24.8	ES	56	18.8	189	2.0	148	1.6	64	3.2					505.8	54.0
SAPPOR	0	EP	00	55	25	ES	56	19	65	2.4	72	2.4	32	3.2					521.5	54.0
OSHIMA	X	P	00	55	25.4	IX	56	15.6	100	3.6	126	3.8	48	0.4					528.1	
						IX	56	48.7												
MATSUM	0	EP	00	55	25.8	ES	56	16.3											511.1	50.5
SUTTSU	0	EX	00	55	26														526.5	
WAJIMA	0	EP	00	55	28	ES	56	20	95	2.0	75	2.2	50	4.0					549.4	52.0
TOYAMA	0	P	00	55	30.0	S	56	28.8	121	4.4	139	3.8	134	3.6			U	4	548.5	58.8
NEMURO	0	IP	00	55	31.0	IS	56	26.9	17	0.6	30	1.6	22	1.4	S	2 W	1 D	4	575.8	55.9
IIDA	0	EP	00	55	32.8	IS	56	29.8	113	2.6	60	2.2	47	3.8					567.6	57.0

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
ASAHIK	0	IP	00 55 33.5	X	56 46.4	52 2.8	68 2.8	48 3.0	S		D	583.9	
TAKAYA	0	P	00 55 34.2	X	56 18.1							572.1	
KANAZA	0	EP	00 55 35	ES	56 37.2	50 3.9	55 3.0	36 3.3				601.5	62.2
ABASHI	0	P	00 55 36.8	S	56 36.2	31 4.0	32 3.4	18 6.0				618.7	59.4
RUMOI	0	EX	00 55 37									612.2	
OMAEZA	0	EP	00 55 38.9	X	56 28.4	151 4.0	182 4.0	69 3.0				610.0	
HAMAMA	0	P	00 55 40.1	ES	56 50	73 3.4	80 3.2	35 3.0			U 1	633.4	69.9
HACHIJ	0	EP	00 55 42.2	S	56 45.2	55 1.4	46 0.3	35 1.5				668.0	63.0
NAGOYA	0	EP	00 55 44.0	ES	56 53.4	179 2.6	144 2.6	69 3.2				653.5	69.4
GIFU	0	P	00 55 44.1	X	56 38.4	51 2.9	31 2.4	20 3.1				653.6	
FUKUI	0	P	00 55 45.8	ES	56 54.5				S	2 W	2 U 3	659.0	68.7
TSURUG	0	EP	00 55 50	S	57 00							693.0	70.0
HIKONE	0	EP	00 55 50.2	ES	57 02.7	68 2.9	51 1.9	25 2.5				700.6	72.5
KYOTO	0	P	00 55 55.8	ES	57 15.8	16 6.0	11 3.7	15 5.0	N	0 E	0 D 0	755.5	80.0
NARA	0	EP	00 55 59.8			50 2.2	50 2.4					768.7	
TSU	0	X	00 56 00.3	X	57 15.3	48 3.1	40 2.0	21 1.9				717.4	
OWASE	0	EP	00 56 02.0	ES	57 15.4	16 3.6	20 3.9	18 4.3				785.2	73.4
TOYOOK	0	P	00 56 02.6	S	57 21.9	38 6.7	29 4.6	17 1.7				798.3	79.3
KOBE	0	EX	00 56 06									817.6	
SHIONO	0	EP	00 56 07.9	ES	57 44.4	16 3.5	23 3.5	4 1.9				860.8	96.5
TOKUSH	0	EP	00 56 13.7	ES	57 48.0							902.6	94.3
MAIZUR	0	X	00 56 15.7	X	57 34.7				N	20 E	38 D 38	756.3	
OKAYAM	0	EP	00 56 15.7			11 3.6	10 4.6	17 3.6	N	2 E	2 D 1	916.3	
TAKAMA	0	EP	00 56 16.6	ES	58 01.3	13 3.4	11 4.0	2 2.0				926.3	104.7
ANABUK	0	X	00 56 21.0									952.4	
OSAKA	0	EX	00 56 22	ES	57 31	105 4.0	93 4.0	48 2.3				792.3	
MUROTO	0	EP	00 56 24.9	EX	58 28.0	18 5.0	15 5.0	8 4.4				986.9	
MATSUY	0	EP	00 56 30.6	ES	58 16.4	12 5.5	7 5.2	5 3.5				1054.1	105.8
HAMADA	0	EP	00 56 34.2	ES	58 25.2	13 3.8	6 3.3	7 3.3				1054.1	111.0
HIROSH	0	X	00 56 37.3	ES	58 30.9	12 7.0	7 5.1	7 3.8				1051.6	
ASHIZU	0	EP	00 56 40.5	X	58 49.8	10 3.4	7 3.5	5 3.4				1108.5	
OITA	0	EX	00 56 53.5	X	59 46.0	62 3.9	91 4.3					1180.8	
FUKUOK	0	EP	00 56 57.5	X	59 20.0	16 3.8	5 4.2	5 3.0				1259.8	
MAEBAS	1	X	00 56			400 4.1	300 1.8	200 3.7				419.6	
YOKOHA	0	X	00 56									453.6	
KUMAMO	0	EP	00 57 02	X	59 54		9 2.9	3 3.1				1277.9	
SAGA	0	EP	00 57 02.2	X	59 23.2							1284.5	
MIYAZA	0	P	00 57 03.6			7 4.6	5 4.6	5 4.4				1280.9	
NAGASA	0	EP	00 57 11.0	ES	59 36.0							1349.8	145.0
KAGOSH	0	EX	00 57 18.4			9 3.0	16 3.6	5 2.6				1369.5	
ASOSAN	0	EX	00 57 26									1245.2	

OT= 17 0 57 37.5 +/- 1.0
OFF MIYAGI PREF
LAT= 38 26 +/- 2 LONG= 142 52 +/- 5
H= 50 MAG=5.2 CLASS=M

OFUNAT	2	IP	00 57 56.8	IS	58 09.2	129 0.8	92 1.0	86 0.8			D 4	121.8	12.4
ISHINO	1	IP	00 57 59.4	IS	58 13.6	188 0.4	155 0.6	209 1.4				136.5	14.2
MIYAKO	0	EP	00 58 02	IS	58 17	35 2.0	91 2.0	29 2.4				155.4	15.0
SENDAI	1	P	00 58 05	S	58 23.8	146 2.0	76 2.0	63 1.8				173.0	18.8
MORIOK	1	P	00 58 08.0	S	58 27.8	76 0.6	62 0.5	29 0.6	N	5 W	8 U 5	203.2	19.8
HACHIN	1	EP	00 58 15.2	S	58 40.7	30 4.0	36 4.0	19 5.2				259.3	25.5
SHIRAK	x	EP	00 58 18.8	IS	58 46.9							274.7	28.1
KAKIOK	0	EP	00 58 23	ES	58 56	68 1.3	59 0.8	25 1.3				340.3	33.0
MITO	0	EX	00 58 24.0									311.4	
UTSUNO	0	P	00 58 26.8									337.6	
YAMAGA	0	EX	00 58 30.3									220.9	
ONAHAM	x	EX	00 58 34.6									239.1	
TOKYO	0	EX	00 58 36.8									411.5	
KUMAGA	0	X	00 58 41.2									399.5	
KARUIZ	0	EP	00 58 41.8	EX	59 25.0							447.1	
MATSUS	0	P	00 58 44	S	59 29							462.4	45.0
KOFU	0	EP	00 58 50.8	ES	59 39.6	39 1.8	30 1.5	15 2.2				491.0	48.8
AKITA	0	EX	00 58									278.5	
SAKATA	0	EX	00 58									268.8	
NAGANO	0	EX	00 58	X	59 41.7	52 3.7	47 3.6	19 2.5				457.1	
HACHIJ	0	EP	00 59 05.8	ES	00 09.0	10 0.3	12 0.4					653.5	63.2
SHIMON	0	X	01 00			10 6.8	6 5.0	11 6.2				1180.7	

OT= 17 1 57 4.0 +/- 0.4
OFF TOKACHI
LAT= 41 1 +/- 1 LONG= 143 4 +/- 2
H= 10 MAG=4.9 CLASS=M

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
URAKAW	1	P	01 57 27.4	IS	57 43.4	84 0.2	152 0.2	18 0.4				129.0	16.0
HACHIN	X	IP	01 57 29.0	IS	57 46.6	43 2.0	28 1.2	8 2.8		E	D	141.2	17.6
HIROO	0	P	01 57 30.4	S	57 45.8							142.2	15.4
MIYAKO	0	EP	01 57 34.3	ES	57 57	8 2.0	6 0.0	7 2.0	N	2		178.6	22.7
AOMORI	1	EP	01 57 36.7	S	57 57.9	157 1.6	110 1.4	71 1.2				193.6	21.2
HAKODA	0	IP	01 57 38.2	IS	58 02.8	59 0.7	87 0.6	16 0.8		W	1 U 2	212.3	24.6
MORIOK	1	P	01 57 39.7	S	58 05.2	62 0.4	60 0.5	11 0.5	N	0 E	0 D 0	217.9	25.5
KUSHIR	0	EP	01 57 40	S	58 04.2	29 3.3	13 0.5	8 3.0				244.1	24.2
MURORA	0	P	01 57 40.0	S	58 05.2				N	W	U	225.7	25.2
OBIHIR	0	EP	01 57 40	S	58 05.1							211.8	25.1
OFUNAT	0	IP	01 57 43.3	IS	58 12.6	9 0.8	11 1.2	8 1.2	N	2 E	2 D 2	245.7	29.3
SAPPOR	0	EP	01 57 46	ES	58 16	15 1.8	21 1.6	7 1.0				268.5	30.0
AKITA	0	EP	01 57 51.3	EX	58 26.0	34 2.0	29 1.8	17 1.8				290.2	
ASAHIK	0	EP	01 57 53	ES	58 28	8 1.6	9 1.8	8 1.5				311.2	35.0
ISHINO	0	EP	01 57 53.0	IS	58 34.0	8 1.2	8 2.2	8 2.8	N	2 E	1 D 2	325.0	41.0
SENDAI	0	EP	01 57 57.2	S	58 42.8	11 3	19 1.8	5 1.5			D 1	358.1	45.6
SAKATA	0	EX	01 58 02.1									362.2	
MITO	0	EX	01 58 21.5			8 1.8	7 2.0	3 2.4				562.1	
KAKIOK	0	EP	01 58 24	X	59 46	8 0.8	5 1.0	2 1.3				587.0	
KUMAGA	0	EP	01 58 31.2	ES	59 46.4	7 2.8	6 1.6	4 2.2				628.4	75.2
MATSUS	0	IP	01 58 34.8						N	E	D	652.0	
TOKYO	0	EX	01 58 35.6			6 3.6	4 2.4	5 3.4				658.5	
NIIGAT	0	EX	01 58 41.5			15 4.0	11 3.2	6 3.3				488.1	

OT= 19 1 16 42.9 +/- 2.0
S OF KURILE IS
LAT= 43 28 +/- 9 LONG= 150 18 +/-10
H= 50 MAG=5.2 CLASS=U

NEMURO	0	EP	01 17 36	ES	18 20	6 0.4	5 0.6	7 4.4				382.2	44.0
ABASHI	0	EP	01 17 49			6 2.6	6 3.0	4 4.4				488.5	
KUSHIR	0	EP	01 17 50	ES	18 43	17 0.2	12 0.2	8 0.2				482.8	53.0
URAKAW	0	P	01 18 09.5	S	19 19.5	14 1.0	28 0.8	5 2.8				631.9	70.0
SAPPOR	0	P	01 18 21.2			5 2.6	7 2.2	4 3.6				729.4	
AOMORI	0	EP	01 18 36	ES	19 59	13 1.7	17 1.5	8 2.0				839.5	83.0
MORIOK	0	P	01 18 38.5	S	20 06.7	5 0.5	6 0.5	2 3.0	S	0 W	0 U 0	868.4	88.2
SENDAI	0	P	01 18 52	ES	20 37.0	5 1.2	6 1.2	2 1.5				980.1	105.0
MATSUS	0	IP	01 19 30.0	X	22 10							1285.4	
AKITA	0	EX	01 20 29.4			7 3.0	6 2.8	4 3.0				946.0	

OT= 19 7 53 12.7 +/- 1.1
SW OFF YAKUSHIMA
LAT= 29 46 +/- 4 LONG= 129 56 +/- 7
H= 70 CLASS=L

YAKUSH	1	IP	07 53 30.5	S	53 40.6	109 0.7	133 0.8	54 0.8	N	15 W	29 U 14	93.1	10.1
KAGOSH	0	EP	07 53 44.3	ES	54 04.8	18 2.2	27 2.0	15 1.4				208.8	20.5
MIYAZA	0	P	07 53 52.0	S	54 21.0	20 1.4	19 1.0	7 1.0				277.7	29.0
KUMAMO	0	EP	07 54 00	ES	54 35	10 1.5	15 1.5	5 0.9				345.3	35.0
OITA	0	EX	07 54 18.1			12 1.7	9 1.3					416.3	
MATSUS	0	X	07 55								U	1075.8	

OT= 19 12 14 4.5 +/- 0.2
N PART OF IWATE PREF
LAT= 40 7 +/- 1 LONG= 141 13 +/- 1
H= 10 MAG=3.9 CLASS=L

MORIOK	1	IP	12 14 14.4	S	14 20.1	23 0.4	18 0.5	8 0.4	S	2	U 1	46.8	05.7
HACHIN	1	IP	12 14 14.7	IS	14 20.5	23 0.6	29 0.6	10 1.0	N	E	U 2	52.4	05.8
MIYAKO	1	EP	12 14 20.1	IS	14 30.7	15 0	21 0	8 0				82.9	10.6
AOMORI	0	EP	12 14 23	ES	14 32	19 1.1	19 1.6	6 1.1				86.0	09.0
AKITA	0	IP	12 14 23.4	IS	14 36.6	13 1.2	11 0.8	5 1.4			D 4	105.1	13.2
OFUNAT	0	EP	12 14 27.2	IS	14 42.8	16 0.0	12 0.2	6 0.2				124.8	15.6
ISHINO	0	EP	12 14 36.8	ES	14 58.8	5 1.2	5 1.4	2 2.2			D 1	188.0	22.0
MATSUS	0	P	12 15 13									476.3	

OT= 19 22 59 22.7 +/- 0.5
NEAR AMAMIOSHIMA
LAT= 28 21 +/- 5 LONG= 128 44 +/- 8
H=180 CLASS=R

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A	/T *	S	E-W A	/T *	S	U-D A	/T *	S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
NAHA	1	IP	23	00	06.6	IS	00	35.4	162	1.0		168	2.0		162	2.0		N 42	E 20	D168	256.4	28.8
YAKUSH	1	EP	23	00	07.4	S	00	39.1	98	0.8		114	0.8		33	1.0					288.7	31.7
KAGOSH	2	IP	23	00	19.2	ES	01	01.8	190	2.2		252	2.4		199	2.2				D 19	397.9	42.6
FUKUE	0	IP	23	00	28.0	IS	01	15.6	36	3.0		38	2.6		53	3.4		S 35	W 10	D 40	482.1	47.6
MIYAZA	0	P	23	00	28.4	S	01	17.8	168	2.8		93	1.4		50	1.6					472.6	49.4
NAGASA	0	IP	23	00	31.0	S	01	20.0										S 33	W 8	D 28	495.8	49.0
KUMAMO	0	IP	23	00	35.3	IS	01	29.7	203	1.5		545	1.3		66	2.1		S 36	W 21	D 30	529.2	54.4
NOBEOK	0	EP	23	00	36.7	ES	01	29.9										S	W	D	547.8	53.2
SAGA	0	IP	23	00	40.4	ES	01	35.4													562.8	55.0
FUKUOK	0	EP	23	00	44.0	ES	01	44.5	48	3.9		49	3.8		40	4.0					600.5	60.5
ISHIGA	0	P	23	00	46.0	ES	01	48.5	6	4.1		6	2.8		6	2.5				D 3	636.5	62.5
OITA	0	EP	23	00	47.9	S	01	46.9	158	2.3		165	3.1		87	1.8					607.6	59.0
UWAJIM	0	EP	23	00	48	ES	01	49												D 10	652.3	61.0
IZUHAR	0	P	23	00	48.5	X	01	41.3													650.9	
ASHIZU	0	EP	23	00	49.7	ES	01	48.3	19	2.7		14	2.9		19	3.1					634.6	58.6
SHIMON	0	P	23	00	52.0	ES	01	56.0	23	1.8		34	5.0		16	3.6		S 12	W 6	D 13	655.6	64.0
MATSUY	0	EP	23	00	57.4	ES	02	04.2	26	1.4		17	1.4		7	1.1					720.3	66.8
KOCHI	0	EX	23	00	59.5	ES	02	08.9													736.1	
MUROTO	0	EP	23	01	01.0	IS	02	12.3	9	1.8		15	2.4		5	3.0					752.0	71.3
HAMADA	0	P	23	01	07.8	ES	02	19.2	11	5.0		13	5.2		7	4.4					791.2	71.4
TOKUSH	0	EP	23	01	08.3	ES	02	33.3													842.8	85.0
TAKAMA	0	EP	23	01	09.5	ES	02	30.1	24	1.2		18	1.2		10	1.2					832.6	80.6
ANABUK	0	X	23	01	10.0																795.5	
OKAYAM	0	EP	23	01	11.4	ES	02	30.8	9	0.8		9	0.7		7	3.2		S 1	W 1	D 1	856.7	79.4
HIROSH	0	X	23	01	11.6	ES	02	14.0	7	3.8		9	5.5		9	3.5					753.6	
SHIONO	0	EP	23	01	17.1	ES	02	40.5	6	1.5		13	3.0		4	1.0					877.3	83.4
						X	01	23.2														
OWASE	0	IP	23	01	25.7	ES	02	56.2	7	4.3		5	3.5		8	4.7					951.5	90.5
TOYOOK	0	EP	23	01	26.4	ES	03	01.9	47	1.0		29	1.0								982.0	95.5
						IX	14	34.2														
NARA	0	EP	23	01	28.3																972.6	
OSAKA	0	EP	23	01	29	ES	02	56	42	3.6		40	3.3		16	2.4					952.0	87.0
						EX	14	33													992.1	93.5
KYOTO	0	EP	23	01	31.5	IS	03	05.0	7	1.9		2	1.4		5	2.8					549.6	
ASOSAN	0	EX	23	01	34																1045.4	103.3
HIKONE	0	EP	23	01	35.7	ES	03	19.0	26	2.1		20	1.7		9	1.7		S 1	W 0		972.1	
SAIGO	0	X	23	01	38.9	X	03	23.2	11	4.0		9	2.9		7	4.0					1088.8	104.4
GIFU	0	P	23	01	42.4	ES	03	26.8	16	1.8		12	1.3		4	1.1					1084.8	106.3
NAGOYA	0	EP	23	01	43.7	IS	03	30.0	24	2.2		26	2.7		14	2.6						
						SCS	14	36.0													1105.9	
HAMAMA	0	EP	23	01	44	EX	03	34	10	3.0		10	3.6		5	4.0					1107.2	108.2
FUKUI	0	EP	23	01	44.9	S	03	33.1													1135.3	
OMAEZA	0	EP	23	01	48.0				15	4.4		12	4.4		5	3.2					1020.0	
TSU	0	EX	23	01	51.1				17	2.0		10	1.2		7	0.7					1169.4	
IIDA	0	EX	23	01	51.4																	
MISHIM	0	EP	23	01	53	X	04	09.1	32	4.1		34	4.1		4	3.4					1221.3	
TOYAMA	0	EP	23	01	56	ES	04	06	24	3.6		23	3.0		15	3.2					1220.1	130.0
MATSUM	0	EP	23	01	58.1	ES	03	55.9													1232.6	117.8
TOTTOR	0	X	23	01		IS	02	52.9													945.6	
KAWAGU	0	P	23	02	00.3	ES	04	06.7													1234.3	126.4
AJIRO	0	EX	23	02	01.0	EX	04	10.0	21	4.0		13	3.8		7	3.2					1229.5	
KOFU	0	EP	23	02	01.6	ES	04	07.6	21	3.8		15	4.0		8	3.8					1231.0	126.0
MATSUS	0	P	23	02	03	S	04	10													1270.3	127.0
KANAZA	0	X	23	02	05	ES	03	47.5	8	5.2		13	3.3		7	3.2					1173.3	
KARUIZ	0	EP	23	02	05.0	X	04	29.0													1278.4	
OSHIMA	0	X	23	02	05.0				53	4.0		22	2.4		10	3.6					1233.9	
CHICHI	0	EP	23	02	06.4	EX	04	31.7													1290.5	
TAKADA	0	EP	23	02	09.1	X	04	40.2													1316.5	
TATEYA	0	X	23	02	11.3				27	3.6		25	3.5		15	3.3					1284.9	
WAJIMA	0	X	23	02	12	S	04	07.0	18	2.0		18	2.0		5	2.4					1258.9	
TOKYO	0	EP	23	02	12.4	X	04	33.2	60	4.2		21	3.4		30	4.0					1319.4	
KUMAGA	0	X	23	02	14.4	ES	04	26.6	28	3.6		26	3.2		45	4.0					1322.7	
NAGANO	0	X	23	02	14.8	X	04	36.3	40	3.5		15	3.6		12	2.5					1278.7	
AIKAWA	0	EP	23	02	17.3				6	5.0		3	4.0		3	5.0					1389.4	
NIIGAT	0	EX	23	02	23.7				30	3.6		26	3.5		16	4.2					1429.7	
ONAHAM	0	EP	23	02	30.4	X	05	07.2													1484.7	
SENDAI	0	P	23	02	40	ES	05	16.0	13	3.5		9	3		4	4					1575.2	156.0
						SCS	14	40													1614.0	157.4
ISHINO	0	EP	23	02	44.0	ES	05	21.4	7	4.2		4	3.8		4	3.8					897.7	
YONAGO	0	S	23	02	45.2																1637.4	
AKITA	0	EX	23	02	47.0	EX	05	27	15	3.8		13	5.0		8	3.0						
						SCS	14	26													931.2	
KOBE	0	EX	23	02	51				5	5.2		5	3.2		2	3.2		N 1	E 2	U 3	1687.3	164.8
OFUNAT	0	IP	23	02	51.6	S	05	36.4	9	2.5		9	3.2								1766.3	179.0
AOMORI	0	EP	23	03	00	S	05	59													1985.3	208.0
SAPPOR	0	EP	23	03	21	S	06	49	6	2.6		6	2.6		3	3.0					1989.1	187.4
URAKAW	0	P	23	03	21.6	ES	06	29	8	2.6		8	2.2		2	2.6					2222.8	210.0
ABASHI	0	EP	23	03	45	ES	07	15	4	5.0		5	4.6		2	4.0					2244.7	214.0
NEMURO	0	EP	23	03	46	ES	07	20	5	5.4		5	6.0		3	4.4						

OT= 20 10 7 31.5 +/- 0.2
OFF URAKAWA
LAT= 41 30 +/- 1 LONG= 142 46 +/- 3
H= 10 MAG=4.1 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A	/T *	S	E-W A	/T *	S	U-D A	/T *	S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
URAKAW	0	P	10	07	45.6	IS	07	54.8	15	0.2		28	0.4		2	0.2					73.1	09.2
HIROO	0	EP	10	07	50	IS	08	01													98.3	11.0
HACHIN	0	EP	10	07	57.5	ES	08	16.8	8	0.3		6	0.3								150.5	19.3
MORIOK	0	EP	10	08	10.5	ES	08	38.0	9	0.4		6	0.4		1	0.4					241.7	27.5
MATSUS	0	EP	10	09	07																677.4	

OT= 21 1 39 49.1 +/- 1.4
E OFF TANEGASHIMA
LAT= 30 27 +/- 4 LONG= 131 15 +/- 5
H= 0 MAG=5.0 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A	/T *	S	E-W A	/T *	S	U-D A	/T *	S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
YAKUSH	X	IP	01	40	05.0	IS	40	14.2	304	0.8		200	0.8		63	0.6		N 5	W 41	U 17	72.3	09.2
KAGOSH	0	P	01	40	15.5	ES	40	30.9	37	1.2		67	1.2		29	1.6				D 2	141.1	15.4
MIYAZA	0	IP	01	40	17.6	S	40	40.4	58	1.0		66	1.0		19	3.0				D 2	163.4	22.8
KUMAMO	0	EP	01	40	31.0	ES	41	08.4	34	1.5		33	1.7		11	0.7					266.5	37.4
OITA	0	EX	01	40	46.0	EX	41	22.1	31	1.4		32	2.1								310.5	
MATSUS	0	IP	01	41	53.6													S	W	U	934.1	

OT= 21 3 43 6.0 +/- 0.4
TOKYO-SAITAMA BORDER
LAT= 35 50 +/- 4 LONG= 139 35 +/- 3
H=140 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A	/T *	S	E-W A	/T *	S	U-D A	/T *	S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
TOKYO	0	EX	03	43	27.5	ES	43	41.8	5	0.0		3	0.0								22.8	
KUMAGA	0	P	03	43	27.6	S	43	42.0	5	0.2		4	0.2		4	0.2				D 3	39.1	14.4
KAKIOK	0	EP	03	43	28	S	43	41.9	11	0.5		11	0.5		4	0.3					70.5	13.9
UTSUNO	1	IP	03	43	29.2	S	43	45.0													83.3	15.8
KOFU	0	EP	03	43	29.4	IS	43	45.8	5	0.4		8	0.4		2	0.4					94.6	16.4
MATSUS	0	IP	03	43	34.4	S	43	54										S	E	D	146.3	19.6

OT= 21 12 5 6.9 +/- 0.7
FAR OFF SANRIKU
LAT= 40 20 +/- 2 LONG= 144 5 +/- 4
H= 30 MAG=5.6 CLASS=M

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A	/T *	S	E-W A	/T *	S	U-D A	/T *	S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
MIYAKO	0	P	12	05	37.7	S	05	56.7	64	4.9		49	2.4		39	3.8		S 6	W 12	U 13	196.1	19.0
HACHIN	0	IP	12	05	39.5	ES	06	10.8	43	3.6		54	8.0		53	7.4				U 1	218.1	31.3
HIROO	0	EP	12	05	42	ES	06	06													225.9	24.0
URAKAW	0	P	12	05	42.8	S	06	06.2	128	2.2		165	2.6		92	2.8				U 7	230.3	23.4
OFUNAT	0	IP	12	05	45.1	ES	06	10.0	44	10.2		50	10.2		35	10.0		S 5	W 8	U 8	247.1	24.9
MORIOK	0	IP	12	05	46.4	IS	06	12.0	40	1.4		26	0.4		28	2.6		S 2	W 6	U 3	258.7	25.6
						X	07	34.0														
AOMORI	0	IP	12	05	48.7	ES	06	18	254	1.3		236	1.2		97	2.3			W 19	U 17	284.5	29.3
KUSHIR	0	EP	12	05	51	S	06	20.4	36	0.3		44	0.3		19	1.4					294.9	29.4
OBIHIR	1	EP	12	05	51																296.2	
HAKODA	0	IP	12	05	53.7	X	06	19	44	1.8		44	3.4		21	2.8		N 2	W 4	U 12	324.2	
ISHINO	0	EP	12	05	54.0	ES	06	31.4										S	W	U	319.8	37.4
MURORA	0	EP	12	05	55													N 2	W 2	U 2	340.4	
AKITA	0	EP	12	05	58.0	S	06	43.8	161	2.8		107	3.2		87	2.4				U 14	346.7	45.8
NEMURO	0	P	12	05	58.5	ES	06	34	15	1.4		29	1.8		13	3.0		N	E	U	355.4	35.5
SENDAI	0	IP	12	05	59.0	X	06	46.6	80	2.2		81	1.6		31	2				U	358.3	
RUMOI	0	EX	12	06	00																449.9	
SAPPOR	0	EP	12	06	01				75	3.0		99	3.0		41	2.6					379.6	
YAMAGA	0	IP	12	06	04.6	ES	06	43.4										S 2	W 2	U 3	396.2	38.8
ABASHI	0	EP	12	06	05	S	06	43.4	19	2.8		34	2.4		13	3.4					409.5	38.4
ASAHIK	0	EP	12	06	06	ES	06	48	47	2.6		65	2.6		49	2.6					407.2	42.0
SUTTSU	0	EX	12	06	06																421.0	
SHIRAK	0	EP	12	06	14.9	ES	07	08.5													489.7	53.6
SAKATA	0	X	12	06	20.5	X	07	05.0	300	2.2		300	2.0		150	1.8					397.7	
MITO	0	EP	12	06	21.6	X	06	45.5	43	4.3		47	1.8		24	3.1					540.6	
WAJIMA	0	EX	12	06	22				11	1.2		12	1.0								703.7	
AIKAWA	0	EP	12	06	23.6				16	5.6		16	4.4		6	4.0					566.2	
ONAHAM	0	EX	12	06	24.0	X	07	00.0													466.8	
KAKIOK	0	EP	12	06	25	X	07	18.9	24	0.9		27	0.8		7	1.0					568.3	
CHOSHI	0	EP	12	06	25.9	EX	07	24.0													585.1	
KUMAGA	0	P	12	06	32.4	ES	07	32.0	33	3.0		26	2.6		20	3.6					620.4	59.6

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
TAKADA	0	EP	12	06	32.5													620.9	
TOKYO	0	EP	12	06	34	ES	07	51	43	5.0	35	6.0	27	4.0				640.4	77.0
CHICHI	0	EP	12	06	35.7	S	07	38.4										651.2	62.7
KARUIZ	0	EP	12	06	37.4	ES	07	47.5										655.7	70.1
MATSUS	0	IP	12	06	38.0	S	07	46							S	W	U	663.4	68.0
NAGANO	0	EP	12	06	38.4	ES	07	54.9	32	3.4	27	3.4	23	3.0				655.4	76.5
NIIGAT	0	EX	12	06	42.0	ES	07	18.4	165	3.3	210	3.4	70	5.0				511.4	
KOFU	0	EP	12	06	42.6	ES	08	11.0	28	1.6	30	1.8	9	4.0				709.6	88.4
TATEYA	0	EX	12	06	44.5				62	2.7	49	2.7	26	2.7				700.4	
TOYAMA	0	P	12	06	44.6	ES	08	03	22	3.4	29	4.8	15	4.0			U	3	721.8	78.4
KAWAGU	0	X	12	06	49.5	S	07	58.4											711.6	
IIDA	0	EX	12	06	50.0														766.6	
MISHIM	0	X	12	06	53	X	08	37.2	22	2.5	25	2.8	9	2.3					736.0	
NAGOYA	0	EP	12	07	03.0	ES	08	35.2	23	2.8	14	2.6	7	1.8					849.2	92.2
GIFU	0	EP	12	07	03.9	X	08	43.6	8	2.0	7	2.9							844.8	
HIKONE	0	EP	12	07	07.2				12	3.1	13	3.1	8	2.2					889.1	
HAMAMA	0	X	12	07	09	EX	09	22	20	2.6	15	3.8	6	2.2					839.6	
OMAEZA	0	X	12	07	15.0				26	3.2	21	5.0	3	1.8					820.5	
TOYOOK	0	EP	12	07	16.6				10	1.2	9	1.2							972.0	
KANAZA	0	X	12	07	21	X	08	40	13	4.2	16	5.4	6	3.0					772.8	
OSAKA	0	EX	12	07	23				18	4.5	13	2.9	6	2.3					982.4	

OT= 21 16 40 11.8 +/- 0.3
SE OFF SHIKOKU
LAT= 33 27 +/- 2 LONG= 134 28 +/- 1
H= 50 MAG=4.5 CLASS=S

MUROTO	2	IP	16	40	21.9	IS	40	28.0	160	0.4	230	0.5	69	0.4	S	28	W	40	U 80	34.9	06.1
TOKUSH	3	EP	16	40	26.4	IS	40	33.7	450	0.1	495	0.1	118	0.1	N	2	W	1	U 4	68.9	07.3
KOCHI	1	IP	16	40	28.5	IS	40	38.0							S	2	W	9	U 6	87.4	09.5
TAKAMA	0	IP	16	40	29.3	IS	40	40.2	37	1.0	54	1.0			S	18	E	12	D 20	103.3	10.9
SHIONO	1	P	16	40	30.9	IS	40	43.9	54	0.2	44	0.2	15	0.2						120.5	13.0
OKAYAM	1	IP	16	40	33.6	IS	40	49.4	35	0.5	34	0.5	7	0.2	S	6	E	3	D 4	145.8	15.8
KOBE	0	P	16	40	35.1	ES	40	51.2											U 2	152 3	16.1
MATSUY	0	EP	16	40	37.3	ES	40	52.6	30	0.7	20	0.7	7	0.6						162,3	15.3
OWASE	0	IP	16	40	38.0	IS	40	55.8	13		8		4							174.1	17.8
NARA	0	EP	16	40	39.4															186.0	
KYOTO	0	EP	16	40	42.5	ES	41	04.5	13	1.7	6	1.4	3	0.5						208.9	22.0
HIROSH	0	EP	16	40	43.5	S	41	05.0	6	1.6	4	1.7	4	1.4	S	1	E	1	D 3	213.3	21.5
OSAKA	0	X	16	40	43.8				24	2.1	20	1.8	9	2.2						167.4	
ASHIZU	0	X	16	40	44.7	X	41	07.4	6	1.0	4	0.8	2	0.8						157.9	
TOTTOR	0	P	16	40	45.8	IS	41	08.4												230.2	22.6
YONAGO	0	IP	16	40	46.6	ES	41	14.0											D 2	242.9	27.4
TSU	0	P	16	40	48.3	S	41	04.5	28	0.9	29	1.0	9	1.0						234.7	16.2
TSURUG	0	P	16	40	51.7	S	41	20.6												284.7	28.9
HIKONE	0	EP	16	40	54.1	IS	41	15.7	34	1.5	36	0.9	9	1.0						260.1	21.6
GIFU	0	P	16	40	54.6	X	41	05.5	9	0.4	12	1.1	4	0.3						302.1	
NAGOYA	0	EP	16	40	55.5	ES	41	30.4	7	0.8	13	0.8	6	0.8						298.6	34.9
HAMAMA	0	EP	16	41	02				5	1.8	5	2.4	3	2.4						331.3	
KUMAMO	0	EP	16	41	03	ES	41	44	8	1.3	7	1.3	5	0.8						357.5	41.0
FUKUOK	0	EP	16	41	05.5	X	42	04.5	6	2.0	2	2.5	0							379.8	
OITA	0	EX	16	41	07.2				15	0.8	9	1.1								265.7	
TOYOOK	0	X	16	41	09.8				56	1.2	51	1.3	9	0.7						233.7	
FUKUI	0	X	16	41	11.4	ES	41	31.4							N		E		U	330.6	
MATSUS	0	IP	16	41	17.4	S	42	17												483.6	59.6
KANAZA	0	EX	16	41	46				6	3.5	6	2.9								397.0	

OT= 21 22 28 54.7 +/- 0.4
W COAST OF WAKAYAMA PREF
LAT= 33 43 +/- 2 LONG= 135 16 +/- 2
H= 30 MAG=4.2 CLASS=L

SHIONO	0	EP	22	29	04.9	S	29	14.3	25	0.2	33	0.2	16	0.7					54.9	09.4
TOKUSH	0	EP	22	29	08.4	IS	29	15.6											74,6	07.2
OWASE	0	IP	22	29	10.1	IS	29	20.8	23		13		5						94,2	10.7
KOBE	0	P	22	29	12.0	ES	29	25.3											108.0	13.3
OSAKA	0	EP	22	29	12.2	IS	29	24.2	22	1.8	21	2.7	9	1.8					109.2	12.0
NARA	0	EP	22	29	14.3	ES	29	28.3											119.2	14.0
TAKAMA	0	EP	22	29	15.9	ES	29	30.2	22	1.2	18	1.0	11	0.8					129,9	14.3
KYOTO	0	EP	22	29	19.0	ES	29	35.2	5	0.7	4	1.0	3	0.8					149.9	16.2
OKAYAM	0	EP	22	29	21.8	S	29	39.0	16	0.5	17	0.5	3	0.5					164.2	17.2
TSU	0	P	22	29	22.6	S	29	38.9	50	0.8	61	1.4	20	0.8					158.8	16.3
TOYOOK	0	X	22	29	26.9				16	1.1	19	1.1							205.9	
HIKONE	0	EP	22	29	27.1	ES	29	47.0	24	1.0	18	0.8	8	0.8					194.7	19.9
TSURUG	0	EP	22	29	28														226,5	
NAGOYA	0	EP	22	29	32.8	IS	29	56.4	10	1.2	7	0.8	3	1.0					224.1	23.6

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
GIFU	0	X	22	29	37.3	S	29	59.4	9	0.8	10	1.0						231.7	
MATSUS	0	P	22	29	58	S	30	48										412.0	50.0

OT= 22 10 58 40.9 +/- 0.5
SE PART OF GUNMA PREF
LAT= 36 20 +/- 4 LONG= 139 17 +/- 3
H= 40 MAG=3.1 CLASS=U

KUMAGA	0	EP	10	58	48.4	S	58	55.2	10	0.2	8	0.2	5	0.2				22.6	06.8
UTSUNO	0	P	10	58	52.8													57,8	
CHICHI	0	EP	10	58	54.3	IS	58	55.7										42.0	01.4
KAKIOK	0	EP	10	58	55	S	59	04.5	8	0.3	10	0.3						82,5	09.5
MATSUS	0	IP	10	58	56.8	S	59	11									D	99,0	14.2

OT= 22 22 36 6.6 +/- 1.1
E OFF HOKKAIDO
LAT= 43 40 +/- 6 LONG= 147 10 +/- 6
H= 10 MAG=4.9 CLASS=U

NEMURO	0	P	22	36	29.6	ES	36	47	21	1.6	15	1.0	17	3.0		E	D	133,2	17.4
ABASHI	0	EP	22	36	45	ES	37	11	8	2.0	10	2.6	4	1.6				235.2	26.0
KUSHIR	0	EP	22	36	45	ES	37	12	23	0.3	18	0.5	10	0.3				237,5	27.0
HIROO	0	EP	22	37	00	ES	37	41										349.7	41.0
OBIHIR	0	X	22	37	04													330,8	
URAKAW	0	EP	22	37	06	S	37	50.0	21	2.0	25	1.6	8	1.6				395,5	44.0
SAPPOR	0	EP	22	37	18				8	2.0	8	1.6	3	1.4				477,8	
HAKODA	0	P	22	37	25.2	EX	38	24	6	1.7	6	1.2	3	2.2			D	563,6	
AOMORI	0	EX	22	38	33				13	1.9	13	2.1						614.5	
MATSUS	0	X	22	38		X	40	48							N	E	D	1098,7	
SENDAI	0	EX	22	39	07.4				3	0.8	5	1.2	2	1				798,8	

OT= 23 2 47 38.8 +/- 0.4
E OFF AOMORI PREF
LAT= 41 29 +/- 2 LONG= 142 35 +/- 3
H= 50 MAG=4.3 CLASS=S

URAKAW	0	P	02	47	52.8	S	48	03.4	22	0.4	44	0.4	7	0.4	N	7	U	6	76.7	10.6
HIROO	0	EP	02	47	57	IS	48	11											107,7	14.0
HACHIN	1	EP	02	48	00.4	ES	48	17.0	33	0.2	24	0.2	4	0.3					138.8	16.6
HAKODA	0	IP	02	48	03.5	IS	48	21.1	11	0.6	18	0.6	5	0.6			U		156,4	17.6
OBIHIR	0	P	02	48	05.6	S	48	26.3									U		168,1	20.7
SAPPOR	0	P	02	48	09.2	S	48	27.9	4	0.6	7	1.6	3	1.0					203,2	18.7
KUSHIR	0	EP	02	48	11	ES	48	36	5	0.3	5	0.2	2	0.2					223.5	25.0
AOMORI	0	EX	02	48	11				19	0.7	21	0.9							168.3	
MORIOK	0	IP	02	48	14.5	S	48	39.0	12	0.3	14	0.5	3	0.3	S	0	W	0	U 0	231.8	24.5
MATSUS	0	P	02	49	09	X	50	50												666,8	

OT= 23 14 12 51.9 +/- 0.6
OFF IWATE PREF
LAT= 39 38 +/- 1 LONG= 142 14 +/- 4
H= 30 MAG=3.8 CLASS=L

MIYAKO	1	EP	14	13	00.5	ES	13	04	31	0	13	0	14	0				22,8	03.5
OFUNAT	1	EP	14	13	06.2	IS	13	14.7	17	0.0	8	0.0	3	0.2				77,5	08.5
MORIOK	0	IP	14	13	08.0	IS	13	17.7	19	0.3	13	0.2	5	0.3		E	2 D	1	91,7	09.7
HACHIN	0	IP	14	13	11.1	IS	13	24.0	10	0.3	7	0.3			S	E	D		116.0	12.9
MATSUS	0	IP	14	14	00	X	15	07									U		492.5	

OT= 23 17 4 15.7 +/- 0.8
COAST OF IBARAKI PREF
LAT= 36 36 +/- 4 LONG= 140 41 +/- 4
H= 80 CLASS=U

MITO	0	P	17	04	28.3	IS	04	38.7	19	0.3	18	0.3	7	0.2				31,1	10.4
KAKIOK	0	EP	17	04	31	S	04	41.2	14	0.8	19	0.3	6	0.5				60,0	10.2
UTSUNO	0	P	17	04	32.1	S	04	44.5										72,9	12.4
MATSUS	0	IP	17	04	49.3	S	05	10								E	U	221.6	20.7

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OT= 25 16 6 56.6 +/- 0.7
E OFF AOMORI PREF
LAT= 41 29 +/- 3 LONG= 142 29 +/- 5
H= 0 MAG=4.0 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
URAKAW	0	IP	16 07 13.0	IS	07 22.8	16 0.2	36 1.2	6 0.4	S 2	W 1	D 2	78.9	09.8
HACHIN	0	EP	16 07 20.6	ES	07 40.4	7 0.6	10 0.3					133.5	19.8
HAKODA	0	EP	16 07 24	IS	07 40.4	7 0.7	7 0.4	1 0.3				148,3	16.4
AOMORI	0	EP	16 07 28	ES	07 45	13 1.1	12 0.9					160.8	17.0
MATSUS	0	P	16 08 29									661,9	

OT= 26 0 9 42.5 +/- 0.6
SE PART OF GIFU PREF
LAT= 35 21 +/- 7 LONG= 137 25 +/- 4
H= 70 CLASS=L

IIDA	0	EP	00 09 54.0	IS	10 02.2	5 0.4	9 0.4	4 1.0				41,9	08.2
NAGOYA	0	P	00 09 55.2	S	10 02.8	7 0.2	8 0.3	5 0.2				45.7	07.6
GIFU	0	EP	00 10 01.0	ES	10 08.6	7 0.3	4 0.4					59.4	07.6
HIKONE	0	EP	00 10 01.4	S	10 14.7	9 0.5	10 0.5	5 0.3				106,7	13.3
KOFU	0	EP	00 10 02.4	ES	10 17.7	5 0.3	8 0.3	2 0.4				109.3	15.3
MATSUS	0	IP	00 10 05.4	S	10 23				N	E	U	149,9	17.6

OT= 26 5 24 45.9 +/- 0.4
HYUGANADA
LAT= 32 12 +/- 2 LONG= 131 49 +/- 2
H= 0 MAG=4.5 CLASS=L

NOBEOK	1	IP	05 24 54.7	IS	25 02.2				S 7	E 4	D 9	44,3	07.5
MIYAZA	1	IP	05 24 57.0	S	25 04.4	125 0.6	170 0.8	58 0.6	N 9	E 6	D 20	48,4	07.4
UWAJIM	0	EP	05 25 08									133,2	
OITA	0	EP	05 25 08.1	S	25 23.6	100 1.9	84 1.9	56 1.4				116,0	15.5
KUMAMO	0	P	05 25 09.3	IS	25 26.7	80 1.4	85 1.4	56 1.2	N 7	W 7	U 10	124,0	17.4
ASHIZU	0	EP	05 25 09.8	ES	25 26.0	13 1.2	10 1.0	8 1.3				126,5	16.2
KAGOSH	0	P	05 25 11.1	ES	25 30.5	28 2.2	42 2.4	15 1.4			D 5	138,2	19.4
SAGA	0	IP	05 25 17.8	S	25 42.8				S 2	E 8	D 4	183,0	25.0
NAGASA	0	EP	05 25 17.8	S	25 45.0					W	U	191,7	27.2
FUKUOK	0	EP	05 25 18.5	ES	25 45.6	10 1.8	9 1.2	9 1.8	N		U	203,6	27.1
MATSUY	0	EP	05 25 21.3	ES	25 42.3	9 0.8	12 0.8	4 0.8				202,9	21.0
YAKUSH	0	EX	05 25 27.9			11 0.7	12 0.7	3 1.1				231,0	
FUKUE	0	EP	05 25 28.4	S	26 13.4	5 2.0	5 1.8	5 2.6				285,8	45.0
OKAYAM	0	EP	05 25 38.8	ES	26 16.6	5 2.0	5 2.4	1 1.9				337,2	37.8
TAKAMA	0	EP	05 25 39.2	ES	26 11.1	11 1.0	8 1.2	2 1.0				314,1	31.9
SAIGO	0	X	05 26 03.3	S	26 50.8	4 2.0	7 1.9	3 1.9				465,6	
OSAKA	0	EX	05 26 53			8 3.2	4 2.4					440,5	
TOYOOK	0	X	05 26 57.6			19 1.0	13 1.0					462,6	
MATSUS	0	X	05 26	X	28 23						U	759,2	

OT= 26 12 2 20.4 +/- 0.1
SW PART OF IBARAKI PREF
LAT= 36 7 +/- 1 LONG= 139 57 +/- 1
H= 50 MAG=3.7 CLASS=L

KAKIOK	2	IP	12 02 29.2	S	02 34.9	112 0.5	124 0.5	62 0.3	N 8	W 8	U 14	25,3	05.7
UTSUNO	1	IP	12 02 31.6	IS	02 39.5						D	48,2	07.9
TOKYO	0	P	12 02 31.9	S	02 40.2	20 0.0	10 0.0	3 0.0				50,9	08.3
KUMAGA	0	P	12 02 32.0	S	02 39.4	23 0.4	10 0.2	3 0.4			D 2	51,0	07.4
MITO	1	IP	12 02 32.5	IS	02 40.5	23 0.4	34 0.3	15 0.2			U 2	55,1	08.0
CHOSHI	0	EX	12 02 36.2									91,6	
TATEYA	0	EP	12 02 39.1			7 1.5	7 1.3	3 1.5				125,9	
MATSUS	0	IP	12 02 45.4	S	03 05				S	E	D	163,2	19.6

OT= 27 21 41 35.9 USCGS
TALAUD IS
LAT= 4 48 LONG= 127 30
H= 32 MAG=6.7 CLASS=U

NAHA	0	EP	21 46 23.0			27 6.4	19 4.0	17 8.6				2369,2	
YAKUSH	0	EX	21 47 05.8			10 5.8	7 6.0	10 4.2				2853,5	
KAGOSH	0	EP	21 47 21.4	EX	51 32.4	13 3.0	20 3.6	9 2.8				2977,8	

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KAGOSH			21 47 21.4	EL	54 44							2977.8	
MIYAZA	0	EP	21 47 21.6	S	52 26.4	11 4.6	20 4.6	7 4.6				3026,5	304.8
FUKUE	0	EX	21 47 25.4	ES	51 27.8	8 6.0	5 5.4	5 5.2				3088.6	
NAGASA	0	P	21 47 25.8	S	52 36.0				N		U	3097.0	310.2
ASHIZU	0	EP	21 47 28.4	EX	52 40.3	6 5.3	7 4.6	9 5.9				3140.1	
KUMAMO	0	EP	21 47 33	ES	52 41	15 1.7	12 1.9	7 1.0				3115,6	308.0
SAGA	0	EP	21 47 33.8									3159,4	
FUKUOK	0	EP	21 47 34.0	ES	52 33.0	8 2.8	5 4.1	5 3.0				3197,0	299.0
MUROTO	0	P	21 47 35.5	EX	51 03.0	10 14.0	10 12.0	8 16.0				3221.6	
				EL	55 10.0								
OMAEZA	0	EP	21 47 38.2			28 21.0	25 8.8	2 3.6				3476.6	
OITA	0	EP	21 47 38.9	ES	52 45.5	15 3.2	40 4.4	12 3.5				3173,6	306.6
SHIONO	0	EP	21 47 40.8			11 21.2	9 4.2					3282.1	
MATSUY	0	EP	21 47 40.8	ES	52 55.6	10 28.0	11 5.1	8 18.3				3258,0	314.8
SHIMON	0	EP	21 47 41			5 6.2	7 4.6	5 3.6				3244.0	
HIROSH	0	EP	21 47 41.4	ES	52 37.4	7 5.7	14 3.8	5 4.2				3309,4	296.0
OKAYAM	0	EP	21 47 47.0			6 3.0	5 5.5	9 3.6				3370.7	
HAMADA	0	EP	21 47 48.2	ES	52 57.2	5 6.0	4 6.4	4 7.4				3361,8	309.0
				EL	56 16.8								
HACHIJ	0	EX	21 47 48.4			17 2.0	18 1.6	16 1.7				3379,7	
OSAKA2	0	EP	21 47 50	EX	53 17							3403.1	
OSAKA	0	EP	21 47 51	EL	56 30	70 4.3	22 3.7	12 6.0				3406,7	
GIFU	0	EP	21 47 52.7	X	48 58.9	8 4.0	4 1.9	4 4.6				3515,9	
KYOTO	0	EP	21 47 53.5	EX	51 08.8	5 5.5	2 6.0	5 3.5				3447.6	
KOBE	0	EX	21 47 54.0									3399,4	
TAKAMA	0	EP	21 47 55.0	ES	52 44.8	8 13.0	6 13.0					3334,2	289.8
HAMAMA	0	EP	21 47 56			14 4.0	15 4.4	6 3.2				3471.8	
NAGOYA	0	EP	21 47 57.6	ES	53 22.0	15 3.0	12 3.0	11 4.0				3497.1	324.4
				EL	56 46								
MISHIM	0	EP	21 47 57.8	EX	49 10.8	18 3.8	14 2.7	9 2.8				3553.0	
TOYOOK	0	X	21 47 59.3	X	53 10.0	9 23.9	8 4.9					3482.1	
				X	56 35.9								
KANAZA	0	EX	21 48			16 5.2	15 7.5	13 4.0				3634.3	
AJIRO	0	EX	21 48 00.1	EX	55 51.1	7 7.8	8 8.0	8 4.6				3551.7	
HIKONE	0	EP	21 48 00.8	ES	53 28.9	16 3.1	10 2.9	8 2.8				3488.6	328.1
SAIGO	0	IP	21 48 02.0	EX	49 09.4	9 5.1	5 4.8	12 6.9			U 1	3525.1	
				EX	53 33								
IIDA	0	EX	21 48 02.6									3558.9	
KOFU	0	EP	21 48 04.2	EX	55 45.4	11 3.8	7 2.4	10 4.4				3597.8	
KAWAGU	0	P	21 48 08.0	ES	53 42.1							3587.2	334.1
				L	57 04.5								
TOYAMA	0	EX	21 48 09			17 4.0	18 4.6	27 4.0				3666,3	
MATSUS	0	IP	21 48 10.0	S	53 30				N	E	U	3677,6	320.0
KUMAGA	0	EP	21 48 12.0	EX	56 15.4	16 4.6	21 6.6	17 4.6				3674,9	
NAGANO	0	EP	21 48 13.1	EX	49 30.6	30 3.8	25 5.0	17 4.0				3690.0	
TOKYO	0	P	21 48 14.8	EX	49 37	27 4.6	13 9.0					3640.5	
WAJIMA	0	EX	21 48 16			11 2.6	9 2.6	11 3.2				3730.3	
NIIGAT	0	EX	21 48 17.3			50 6.1	47 6.1	23 5.0				3846,3	
MITO	0	EX	21 48 18.0			16 5.4	10 4.3	8 2.0				3736,6	
TATEYA	0	EX	21 48 20.5			22 12.0	18 7.8	19 4.2				3573.0	
AIKAWA	0	EP	21 48 25.0			8 4.0	5 5.0	6 4.4	N	E		3833,6	
SENDAI	0	EP	21 48 32.1	ES	54 02.0	13 2.8	18 6.4	10 4.6				3943,1	329.9
				EX	58 45								
ISHINO	0	EP	21 48 36.5	ES	54 34.0	8 4.2	9 8.0	10 6.4			D 4	3974,1	357.5
OFUNAT	0	EP	21 48 41.7	X	54 49.0	4 5.0	6 5.0	5 4.6				4053.3	
				EL	05 54								
MORIOK	0	EP	21 48 44.0	ES	54 30.0	5 5.0	5 5.0	5 5.0	N	0		4098.8	346.0
				EL	58 16								
				EL	59 44								
AKITA	0	EP	21 48 46.6	EX	54 08	27 4.0	29 4.0	24 4.2				4066,4	
SAKATA	0	EX	21 48 47.0									3973.8	
AOMORI	0	EP	21 48 52			23 2.0		11 27.5				4201,2	
HAKODA	0	EP	21 49 00	EX	55 22	8 2.0	10 5.4	9 20.7				4303,2	
URAKAW	0	P	21 49 09.2	ES	55 12	16 4.6	35 5.8	13 5.2				4403,7	362.8
SAPPOR	0	EP	21 49 12	ES	54 54	9 3.0	22 4.6	10 4.0				4449.2	342.0
OBIHIR	0	EX	21 49 15									4495,8	
ASAHIK	0	EP	21 49 20			5 2.6	5 2.3	9 4.4				4554,5	
KUSHIR	0	EP	21 49 20	S	55 57.0	9 3.0	15 2.4	9 2.0				4542,8	397.0
NEMURO	0	EP	21 49 25	EX	56 05	4 5.4	11 6.0	6 3.8				4621.5	
ABASHI	0	EP	21 49 26	ES	55 21	5 4.0	8 4.8	7 5.0				4642,6	355.0
				EX	02 51								

OT= 28 12 7 8.6 +/- 0.8
ENE OFF HACHIJOJIMA
LAT= 33 17 +/- 2 LONG= 140 31 +/- 5
H= 80 CLASS=L

HACHIJ	2	IP	12 07 25.2	IS	07 35.4	313 0.5	190 0.3	74 0.4	S 6	W 16	U 32	70,8	10.2

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
OSHIMA	0	P	12 07 37.6	IS	07 58.2	101	0.8	64	0.7	26	0.6				194.7	20.6
TATEYA	0	IP	12 07 38.8	ES	07 59.7	93	0.8	124	1.5	43	0.5				197.8	20.9
AJIRO	0	IP	12 07 43.8	ES	08 07.7	12	1.2	17	1.4	8	0.7	S	3 E	6 D 7	235.0	23.9
MISHIM	0	IP	12 07 45.3	IS	08 10.4	36	1.1	44	1.4	19	1.4	S	6 E	6 D 17	249.9	25.1
TOKYO	0	P	12 07 48.7	S	08 17.7	28	0.8	35	1.0	17	3.8				275.3	29.0
OMAEZA	0	EP	12 07 50.4	ES	08 14.4	22	2.0	25	1.6	7	1.6				258.3	24.0
CHOSHI	0	EP	12 07 50.8	EX	08 16.1										272.4	
KAWAGU	0	P	12 07 51.0	S	08 21.2										293.8	30.2
HAMAMA	0	P	12 07 51.9	EX	09 18	6	2.4	8	2.6	4	1.2	N	1 E	1 D 4	302.5	
KOFU	0	IP	12 07 54.0	ES	08 27.2	26	1.8	28	2.0	14	1.0	S	6 E	5 D 5	319.5	33.2
KUMAGA	0	EP	12 07 54.8	ES	08 28.4	16	2.0	17	2.0	8	1.6				334.0	33.6
KAKIOK	0	EP	12 07 55	ES	08 26	14	0.8	17	1.0	5	0.6				328.3	31.0
IIDA	0	EP	12 07 59.4	ES	08 37.0	6	0.8	7	1.0	6	2.4				348.9	37.6
KARUIZ	0	EP	12 08 02.5	ES	08 38.5										383.7	36.0
NAGOYA	0	IP	12 08 03.0	ES	08 33.6	8	2.2	7	1.0	10	0.8		W 2	D 6	387.7	30.6
MATSUS	0	IP	12 08 05.8	S	08 50							S	E	D	418.1	44.2
GIFU	0	P	12 08 06.1	X	08 18.1	6	1.1	8	0.9	8	0.8	S	3 E	6 D 6	417.2	
NAGANO	0	EP	12 08 10.6	ES	08 58.6	11	3.3	8	3.6	3	2.6				430.2	48.0
YOKOHA	0	ES	12 08 14.3												251.6	
TOYAMA	0	EP	12 08 16	ES	09 07	8	2.8	8	3.2	5	3.4				485.0	51.0
SENDAI	0	EP	12 08 21	EX	09 13.2	4	2	5	2	2					553.1	
TOYOOK	0	EP	12 08 27.9			10	1.1	11	1.1						580.0	
MITO	0	ES	12 08 32.0			10	1.9	9	2.2	5	2.6				343.3	

OT= 28 15 24 8.6 +/- 0.3
E OFF AOMORI PREF
LAT= 41 2 +/- 1 LONG= 142 55 +/- 2
H= 10 MAG=4.2 CLASS=U

URAKAW	0	EP	15 24 31	S	24 46.8	8	0.4	13	0.2						125.5	15.8
HACHIN	0	EP	15 24 32.0	ES	24 48.4	8	0.3	4	0.3						130.3	16.4
HAKODA	0	P	15 24 41.7	S	25 05.0	10	0.6	12	0.5	2	0.8			U	200.2	23.3
MORIOK	0	P	15 24 43.0	ES	25 08.1	7	0.4	6	0.4	2	0.5				210.0	25.1
AOMORI	0	S	15 25 02			17	0.5	16	0.7	7	0.9				181.3	
KUSHIR	0	ES	15 25 08			9	0.3	10	0.4	3	0.3				248.4	
MATSUS	0	P	15 25 37												645.0	

OT= 28 16 27 54.4 +/- 0.5
SW PART OF IBARAKI PREF
LAT= 36 4 +/- 3 LONG= 139 54 +/- 1
H= 50 MAG=3.1 CLASS=L

KAKIOK	0	P	16 28 03.5	IS	28 09.9	17	0.8	14	0.3	7	0.3	N	2 E	2 D 1	32.1	06.4
UTSUNO	1	IP	16 28 05.9	IS	28 14.1									D	53.3	08.2
KUMAGA	0	P	16 28 06.0	S	28 13.6	9	0.4	5	0.2	2	0.2			U 2	47.2	07.6
MITO	0	EP	16 28 07.5	IS	28 16.4	6	0.4	6	0.4						61.9	08.9
MATSUS	0	P	16 28 19	S	28 37										160.7	18.0

List 6 SEISMOLOGICAL DATA OBTAINED BY MATSUSHIRO

DATE		PHASE AND TIME (J.S.T.) H M S		M S	INITIAL MOTION	
1	P	01 58 56.				*
1	IP	04 52 16.5	S	52 45.	E	*
1	IP	11 03 48.5	S	05 16.	S W U	*
1	EP	15 56 04.				*
1	P	19 41 37.				*
1	EP	19 52 43.				*
1	IP	23 16 45.6	IS	16 52.0	N E D	*
2	EP	04 22 39.	EX	23 24.		*
2	IP	06 27 30.6	ES	28 02.	W U	*
2	P	12 15 44.				*
2	IP	13 54 26.8	S	02 40.	U	*
2	IP	14 40 32.7	S	40 50.	S E D	*
2	EX	21 41 11.				*
2	EP	23 05 26.	S	11 38.		*
3	P	06 25 05.				*
3	IP	06 53 41.9	ES	53 51.	N E U	*
3	EP	07 29 02.	S	33 26.		*
3	P	09 56 25.	S	56 45.		*
3	P	10 11 26.	EX	42		*
3	EP	17 59 33.				*
3	P	19 23 24.	S	24 13.		*
3	IP	19 43 46.4	ES	43 57.	N W U	*
3	IP	22 23 17.2			N U	*
3	IP	23 54 16.6	S	58 09.	S W U	*
4	EP	01 41 26.	S	50 40.		*
4	IP	01 50 51.4	IS	51 18.0	U	*
4	P	02 03 48.				*
4	P	05 28 44.	IX	34 03.		*
4	P	15 33 50.				*
4	IP	18 26 22.7			U	*
5	P	00 49 11.				*
5	IP	02 49 25.6	IX	49 51.	D	*
5	P	22 58 40.	S	04 00.		*
6	P	01 17 48.	S	23 06.		*
6	P	02 25 10.				*
6	IP	04 42 20.3	EL	49 20.	S E U	*
6	P	10 04 23.				*
6	P	10 12 40.				*
6	P	10 27 24.	EX	28 44.		*
6	EP	10 53 09.				*
6	P	12 32 31.	S	39 52.		*
6	IP	16 09 12.4			U	*
6	P	16 46 57.				*
6	IP	18 54 13.8			U	*
7	P	10 55 09.				*
7	IP	15 43 55.4	S	44 13.	N E D	*
7	P	17 35 12.				*
7	IP	19 34 14.6			U	*
7	P	20 03 53.				*
8	EP	02 07 13.				*
8	P	08 01 59.	EX	09 07.		*
8	P	08 23 38.				*
8	P	08 45 06.				*
8	IP	13 25 25.0			D	*
8	IP	19 21 25.0	S	22 13.	N E D	*
8	P	20 36 52.				*
8	P	20 56 24.				*
9	IP	00 36 18.5	IS	36 41.5	N D	*
9	EX	03 28 47.				*
9	P	06 13 12.	EX	21 23.		*
9	IP	20 38 31.0	S	40 56.	N E D	*
9	P	20 46 19.				*
9	P	22 13 29.	S	19 04.		*
9	P	22 55 38.	S	01 47.		*
9	IP	23 27 48.9	ES	29 20.	N W U	*
9	IP	23 42 02.9	S	43 14.	N W U	*
9	P	23 46 40.	L	56 18.		*
10	P	01 01 32.				*
10	P	01 07 51.				*
10	EP	14 39 38.	S	43 44.		*
10	IP	16 01 55.6	IS	07 55.	N U	*

DATE		PHASE AND TIME H M S		M S	INITIAL MOTION	
11	P	00 53 17.	S	53 33.		
11	IP	12 30 33.4	IS	30 54.5		
11	IP	18 33 37.4	ES	34 32.	N W U	
11	P	18 42 03.	S	43 11.		
11	IP	18 45 47.0	ES	46 51.	E U	
11	P	19 01 04.	S	02 11.		
11	P	19 13 08.	ES	14 00.		
11	P	19 38 53.				
11	IP	21 32 48.7	S	33 40.	N W U	
12	P	00 12 29.				
12	P	00 37 33.				
12	P	00 41 15.	S	41 52.		
12	P	02 13 04.				
12	P	03 10 16.	S	11 26.		
12	P	04 37 30.	S	37 53.		
12	P	04 41 31.	S	41 53.		
12	IP	07 01 13.6	ES	01 35.	U	
12	IP	15 48 38.7	S	49 52.	N E U	
12	P	15 53 11.	S	54 20.		
12	P	18 20 47.	ES	21 23.		
12	IP	19 46 10.0	S	47 19.	N E D	
12	P	19 51 06.				
12	X	20 58 49.				
12	P	22 48 49.	S	49 58.		
13	IP	00 24 40.4	ES	25 45.		
13	IP	02 45 29.0				
13	IP	05 25 29.4	S	26 35.	N W U	
13	IP	05 39 48.4			S E D	
13	IP	08 19 22.0	S	20 40.	S U	
13	IP	12 24 41.5			N D	
13	P	16 46 34.	S	46 56.		
14	IP	00 05 38.5			S E D	
14	EP	01 14 08.				
14	P	03 53 49.				
14	IP	04 57 10.4	S	57 35.	U	
14	IP	05 48 15.8			D	
14	P	06 04 08.				
14	P	07 38 46.				
14	P	13 26 21.				
14	P	14 46 13.				
14	X	18 16 00.				
14	IP	20 32 54.6	S	34 04.	N U	
14	P	21 56 34.				
15	EP	00 31 08.	S	32 04.		
15	P	02 19 29.				
15	IP	04 30 21.8	S	30 31.	N E U	
15	P	07 10 55.				
15	P	07 57 00.	S	00 59.		
15	IP	10 11 23.0			N E D	
15	IP	10 23 55.8	S	24 34.		
15	P	12 03 59.				
15	P	13 24 52.				
15	P	15 25 50.	S	26 32.		
15	P	20 52 19.	S	58 26.		
15	P	22 42 14.	S	47 35.		
16	P	08 05 19.				
16	IP	09 48 01.9			S D	
16	P	12 33 44.				
16	P	15 58 16.				
16	IP	17 35 49.2	S	36 08.	D	
16	P	22 16 01.				
17	IP	00 55 21.0	S	56 06.	N E D	
17	P	00 58 44.	S	59 29.		
17	IP	01 58 34.8			N E D	
17	IP	05 16 44.4	S	17 10.	W D	
17	IP	08 04 17.3			E U	
17	P	10 06 00.				
17	P	10 40 00.				
17	EP	18 16 04.				
18	IP	02 09 13.6			D	
18	P	02 44 15.				
18	P	03 24 17.				

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DATE		PHASE AND TIME H M S		M S	INITIAL MOTION			
18	P	12 43 31.	S	52 14.				*
18	P	13 44 10.						*
18	P	14 12 49.						*
18	IP	17 36 31.1			S	U		*
18	P	18 12 49.	S	13 11.				*
18	P	18 21 21.	S	21 25.				*
18	P	22 42 42.	S	43 00.				*
								*
19	IP	01 19 30.0	ES	22 10.				*
19	P	02 41 10.						*
19	IP	04 23 17.0	S	23 33.				*
19	X	05 50 35.						*
19	P	06 35 58.	S	36 24.				*
19	P	07 47 01.						*
19	IP	07 55 22.8				U		*
19	P	08 35 05.						*
19	P	12 15 13.						*
19	P	12 44 24.						*
19	P	15 15 55.						*
19	EP	19 06 27.						*
19	P	23 02 03.	S	04 10.				*
19	P	23 54 28.						*
								*
20	P	00 43 16.	S	44 44.				*
20	P	00 47 34.	S	49 06.				*
20	IP	03 21 50.3	S	24 51.	N	E	D	*
20	EP	10 09 07.						*
20	P	11 13 59.	S	14 21.				*
20	P	17 30 13.	S	40 40.				*
20	P	18 11 24.						*
20	IP	22 32 49.0	S	34 10.	N	E	U	*
20	IP	22 38 28.7	IS	38 40.2				*
								*
21	P	01 24 56.	S	29 28.				*
21	IP	01 41 53.6			S	W	U	*
21	IP	03 23 05.1					U	*
21	IP	03 43 34.4	S	43 54.	S	E	D	*
21	P	06 38 28.	X	40 06.				*
21	X	08 49 30.	L	52 30.				*
21	EP	11 47 07.						*
21	IP	12 06 38.0	S	07 46.	S	W	U	*
21	IP	13 06 11.6	L	32 00.			D	*
21	P	14 08 51.	EX	19 25.				*
21	P	15 44 28.						*
21	P	15 46 57.	EX	57 33.				*
21	P	16 33 39.	EX	42 46.				*
21	IP	16 41 17.4	S	42 17.	N	E	U	*
21	IP	18 55 06.2					U	*
21	P	19 22 44.	X	34 16.				*
21	P	21 09 25.	X	12 52.				*
21	P	22 29 58.	S	30 48.				*
21	IP	23 33 23.9					D	*
21	P	23 54 14.2					D	*
								*
22	EP	00 51 46.	S	52 44.				*
22	L	02 07						*
22	L	03 39						*
22	IP	03 40 28.6	S	40 52.	N		U	*
22	P	04 53 10.	S	53 43.				*
22	IP	10 58 56.8	S	59 11.			D	*
22	EP	14 01 41.						*
22	EP	14 54 49.	S	03 54.				*
22	P	16 38 07.						*
22	P	16 57 34.	L	04 30.				*
22	IP	22 38 28.4	S	40 48.	N	E	D	*
22	L	22 58 28.						*
								*
23	IP	00 18 31.1	S	18 45.	S		U	*
23	L	00 54 58.						*
23	P	02 38 38.	S	44 36.				*
23	P	02 49 09.	ES	50 50.				*
23	P	11 18 25.					D	*
23	L	13 52 40.						*
23	IP	14 14 00.	S	15 07.			U	*
23	IP	16 57 34.7	S	57 47.	S	E	D	*
23	IP	17 04 49.3	S	05 10.		E	U	*
23	L	21 40 54.						*
23	L	22 03 50.						*
23	P	23 11 39.6	S	12 10.		E	D	*

DATE		PHASE AND TIME H M S		M S	INITIAL MOTION			
24	P	00 47 24.						*
24	P	06 20 57.	S	31 06.			U	*
24	IP	08 06 03.5	S	06 23.6				*
24	IP	10 05 12.5					D	*
24	P	11 11 46.						*
24	L	11 42 20.						*
24	P	18 15 01.	S	15 44.5				*
24	P	19 28 50.						*
24	IP	19 37 49.0	S	38 14.			U	*
24	P	21 06 47.						*
24	P	22 30 05.						*
								*
25	IP	00 46 54.3	S	46 16.	S		D	*
25	P	07 55 05.						*
25	P	09 53 08.						*
25	S	10 13 15.						*
25	IP	11 26 32.1	S	27 45.	N	W	U	*
25	IP	11 30 54.5	S	31 33.	N	W	U	*
25	P	16 08 29.						*
25	IP	16 13 59.8				E	D	*
25	P	19 01 28.	S	01 53.				*
25	P	22 23 59.	X	25 06.				*
25	P	22 33 23.	S	43 16.				*
25	IP	23 31 05.						*
25	IP	23 52 44.6			S	E	D	*
								*
26	IP	00 10 05.4	S	10 23.	N	E	U	*
26	IP	04 52 55.0	S	53 33.			U	*
26	IP	05 26 25.7	S	28 23.			U	*
26	IP	06 28 20.5	S	28 28.				*
26	IP	12 02 45.4	S	03 05.	S	E	D	*
26	IP	16 41 13.7	X	41 58.5			D	*
26	P	18 35 55.	S	45 40.				*
								*
27	IP	00 04 50.3	S	05 30.			D	*
27	EP	00 32 59.	S	37 16.				*
27	P	00 53 12.6	S	53 28.			D	*
27	L	04 34 50.						*
27	IP	10 48 41.5	S	49 11.			U	*
27	P	12 34 43.	S	40 20.				*
27	IP	13 41 44.9	S	42 31.		E	U	*
27	P	13 53 04.	S	58 32.				*
27	P	15 12 24.	S	13 30.				*
27	IP	17 26 58.2			S		D	*
27	EP	17 29 32.						*
27	IP	21 01 46.6			N	W	U	*
27	IP	21 48 10.0	S	53 30.	N	E	U	*
27	IP	22 05 05.2	S	06 19.			D	*
								*
28	IP	04 02 04.2	S	02 21.7	S		D	*
28	P	05 52 09.						*
28	P	06 01 04.9	ES	02 29.	N	E	U	*
28	IP	06 09 27.4					D	*
28	IP	11 00 47.8	S	10 58.	S	W	D	*
28	IP	12 08 05.8	S	08 50.	S	E	D	*
28	X	14 39 40.						*
28	P	15 25 37.						*
28	P	16 28 19.	S	28 37.				*
28	P	18 27 34.	S	30 09.				*
28	P	20 31 09.	L	45 56.				*
								*
29	EP	00 32 12.	S	42 46.				*
29	L	07 41 44.						*
29	IP	08 50 24.0	S	51 00.	N	W	U	*
29	P	15 16 57.	ES	23 10.				*
29	P	16 06 32.	S	10 24.				*
29	P	18 28 46.	S	39 16.				*
29	P	20 20 22.	S	28 16.				*
29	IP	20 45 24.5					D	*
29	P	21 08 52.						*
29	IP	23 00 48.1					U	*
29	P	23 54 17.	S	54 50.				*
								*
30	EP	05 57 08.	ES	57 48.				*
30	P	16 17 36.	X	18 54.				*
30	P	17 01 42.	S	06 36.				*
30	IP	17 52 49.7					U	*
								*
31	P	06 03 31.	L	11 00.				*
31	P	06 49 11.5	S	49 28.			U	*
31	P	16 28 22.	S	38 44.				*
31	P	17 03 52.						*
31	P	21 01 50.	S	02 33.				*

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昭和44年4月

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APRIL 1969

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Tokyo

1969

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List 1 JMA stations and their seismographs

Station	Code	CGS Code	λ	φ	Height	Seismographs
					m	
Abashiri	ABASHI	ABJ	E144°17.0′	N44°01.0′	38	S, VI, OP
Aikawa	AIKAWA	AIK	138 14.5	38 01.2	34	S, VI, OP
Ajiro	AJIRO	AJI	139 05.8	35 02.6	59	S, VI, EMT′
Akita	AKITA	AKI	140 06.1	39 43.1	9	S, VI, OP
Anabuki (Tsurugisan)	ANABUK (TURUGI)	TSS	134 05.8	33 51.1	59	S, P
Aomori	AOMORI	AOM	140 47.0	40 49.0	4	S, W
Asahikawa	ASAHIK	ASA	142 22.4	43 46.2	111	S, VI, OP
Ashizuri	ASHIZU	ASZ	133 01.0	32 43.0	30	S, VI
Asosan	ASOSAN	ASJ	131 04.5	32 52.7	1143	S
Chichibu	CHICHI	CHJ	139 04.9	35 59.5	218	S, P
Choshi	CHOSHI	CHO	140 50.6	35 43.5	27	S, W
Fukue	FUKUE	FKJ	128 50.0	32 42.0	26	S, VI
Fukui	FUKUI	FUK	136 13.6	36 03.2	9	S, P(H, V)
Fukuoka	FUKUOK	FKK	130 22.8	33 34.8	2	S, VI, M(H)
Fukushima	FUKUSH	FKS	140 28.5	37 45.4	67	S, VI, OP
Gifu	GIFU	GIF	136 45.9	35 23.9	13	S, W
Hachijojima	HACHIJ	HJJ	139 47.3	33 06.1	80	S, VI
Hachinohe	HACHIN	HAC	141 31.6	40 31.5	27	S, VI, OP
Hakodate	HAKODA	HAK	140 45.5	41 48.8	35	S, VI, OP
Hamada	HAMADA	HMD	132 04.4	34 53.6	18	S, VI, OP
Hamamatsu	HAMAMA	HMM	137 43.4	34 42.5	32	S, VI, OP
Hikone	HIKONE	HIK	136 14.8	35 16.4	87	S, W
Himeji	HIMEJI	HIM	134 42.1	34 50.2	37	S, P(H, V)
Hiroo	HIROO	HOO	143 19.0	42 17.0	32	S, P(H, V)
Hiroshima	HIROSH	HIR	132 26.2	34 21.8	29	S, W
Iida	IIDA	IID	137 50.1	35 30.6	482	S, VI, OP
Irozaki (Nagatsuro)	IROZAK (NAGATS)	NGT	138 50.8	34 36.0	55	S
Ishinomaki	ISHINO	ISN	141 18.2	38 25.5	43	S, VI, OP
Izuhara	IZUHAR	IZU	129 17.7	34 12.2	21	S, P(H, V)
Kagoshima	KAGOSH	KAG	130 33.2	31 34.4	4	S, VI
Kakioka	KAKIOK	KAK	140 11.6	36 13.9	27	S, W
Kanazawa	KANAZA	KAN	136 38.9	36 32.8	27	S, VI, OP
Karuizawa	KARUIZ	KRZ	138 33.1	36 20.4	999	S, P(H, V)
Kawaguchiko (Funatsu)	KAWAGU (FUNATU)	FUN	138 45.8	35 29.9	860	S, P
Kobe	KOBE	KOB	135 10.8	34 41.3	58	S, P(H, V)
Kochi	KOCHI	KOC	133 32.0	33 33.0	40	S, P(H, V)
Kofu	KOFU	KOF	138 33.5	35 39.9	272	S, VI
Kumagaya	KUMAGA	KMG	139 23.1	36 08.8	30	S, VI, EMT
Kumamoto	KUMAMO	KUM	130 42.6	32 48.6	38	S, W
Kushiro	KUSHIR	KUS	144 23.7	42 58.7	33	S, VI
Kyoto	KYOTO	KYO	135 44.1	35 00.7	41	S, VI, OP
Maebashi	MAEBAS	MAE	139 03.9	36 24.1	112	S, W
Maizuru	MAIZUR	MAI	135 23.2	35 28.3	31	S, P(H, V)
Matsue	MATSUE	MTS	133 04.3	35 27.3	17	S, P(H, V)
Matsumoto	MATSUM	MTM	137 58.4	36 14.6	610	S, P(H, V)
Matsushiro	MATSUS	MAT	138 12.5	36 32.3	440	S, L, AW,G,B,V,C
Matsuyama	MATSUY	MTY	132 46.8	33 50.4	32	S, W
Mishima	MISHIM	MIS	138 55.8	35 06.7	20	S, W
Mito	MITO	MIT	140 28.3	36 22.7	30	S, VI, EMT′
Miyako	MIYAKO	MIY	141 58.1	39 38.7	46	S, W
Miyazaki	MIYAZA	MYZ	131 25.6	31 55.0	7	S, VI, OP
Mizusawa	MIZUSA	MIZ	141 08.0	39 08.0	61	P(H, V)
Morioka	MORIOK	MRK	141 10.0	39 41.8	155	S, VI, OP
Muroran	MURORA	MRR	140 59.0	42 19.0	43	S, P(H, V)
Murotomisaki	MUROTO	MRT	134 10.7	33 14.9	185	S, VI, OP
Nagano	NAGANO	NGN	138 11.8	36 39.6	418	S, W
Nagasaki	NAGASA	NGS	129 52.2	32 43.9	27	S, VD, EM
Nagoya	NAGOYA	NAG	136 58.1	35 09.9	52	S, VI, OP
Nara	NARA	NAR	135 50.0	34 41.0	105	S, P(H, V)
Nemuro	NEMURO	NEM	145 35.2	43 19.7	26	S, VI, VD, OP
Niigata	NIIGAT	NII	139 03.1	37 54.6	2	S, P(H, V)
Nobeoka	NOBEOK	NOB	131 41.0	32 35.0	19	S, P(H, V)
Obihiro	OBIHIR	OBI	143 13.3	42 55.2	39	S, P(H, V)
Ofunato	OFUNAT	OFU	141 43.1	39 03.7	38	S, VI
Oita	OITA	OIT	131 37.4	33 14.0	5	S, W
Okayama	OKAYAM	OKA	133 54.9	34 40.9	4	S, VI, OP
Omaezaki	OMAEZA	OMA	138 12.8	34 36.2	45	S, W
Onahama	ONAHAM	ONA	140 54.4	36 56.7	3	S, VI
Osaka	OSAKA	OSA	135 31.3	34 40.7	13	S, VI

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Station	Code	CGS Code	λ	φ	Height	Seismographs
					m	
Oshima	OSHIMA	OSH	E139°22.7′	N34°45.7′	191	S, W
Owase	OWASE	OWA	136 11.7	34 04.0	14	S, VI, OP
Rumoi	RUMOI	RMJ	141 38.0	43 57.0	22	S, P(H, V)
Saga	SAGA	SAG	130 18.3	33 14.7	4	S, P(H, V)
Saigo	SAIGO	SAI	133 20.0	36 12.3	26	S, VI, OP
Sakata	SAKATA	SAK	139 50.2	38 54.2	2	S, P(H, V)
Sapporo	SAPPOR	SAP	141 19.9	43 03.5	17	S, VI, OP
Sendai	SENDAI	SEN	140 54.0	38 15.6	38	S, VI, S′
Shimonoseki	SHIMON	SHN	130 56.5	33 57.2	46	S, VI, OP
Shionomisaki	SHIONO	SHJ	135 45.8	33 26.9	74	S, W
Shirakawa	SHIRAK	SHR	140 13.5	37 07.1	354	S, P(H, V)
Shizuoka	SHIZUO	SHZ	138 24.4	34 58.4	14	S, VI
Sumoto	SUMOTO	SUM	134 54.5	34 20.1	109	S, VI, OP
Suttsu	SUTTSU	SUT	140 14.4	42 47.4	16	S, P(H, V)
Takada	TAKADA	TKD	138 15.0	37 06.3	13	S, P(H, V)
Takamatsu	TAKAMA	TKM	134 03.5	34 19.0	10	S, W
Takayasuyama	OSAKA2		135 39.6	34 36.7	472	VD′
Takayama	TAKAYA	TKY	137 15.3	36 09.1	561	S, P(H, V)
Tateyama	TATEYA	TAT	139 52.1	34 59.0	6	S, VI, EMT
Tokushima	TOKUSH	TKS	134 34.6	34 03.9	2	S, P(H, V)
Tokyo	TOKYO	TOK	139 45.5	35 41.2	21	S, VI′, VD′, I′, J
Tottori	TOTTOR	TOT	134 10.7	35 30.7	17	S, P(H, V)
Toyama	TOYAMK	TOY	137 12.5	36 42.4	9	S, VI
Toyooka	TOYOOA	TYK	134 49.5	35 32.0	4	S, W
Tsu	TSU	TSU	136 31.1	34 42.1	3	S, P(H, V)
Tsuruga	TSURUG	TSR	136 03.9	35 39.0	1	S, P(H, V)
Unzendake	UNZEND	UNZ	130 15.2	32 44.1	849	S
Urakawa	URAKAW	URA	142 46.8	42 09.5	34	S, VI, OP
Utsunomiya	UTSUNO	UTS	139 52.3	36 32.6	120	S, EMT
Uwajima	UWAJIM	UWA	132 33.5	33 13.5	43	S, P
Wajima	WAJIMA	WAJ	136 53.9	37 23.4	6	S, VI
Wakayama	WAKAYA	WKY	135 10.0	34 13.6	14	S, W, I
Wakkanai	WAKKAN	WAK	141 40.4	45 25.0	9	S, VI, OP
Yakushima	YAKUSH	YKS	130 29.8	30 27.0	14	S, VI
Yamagata	YAMAGA	YAM	140 21.0	38 15.2	151	S, P(H, V)
Yokohama	YOKOHA	YOK	139 39.3	35 26.2	38	S, EMT
Yonago	YONAGO	YON	133 20.6	35 26.0	7	S, P(H, V)
Ishigakijima	ISHIGA	ISI	124 10	24 20	6	S, VI
Naha	NAHA	NAH	127 41	26 13	11	S, VI
Miyakojima	MIYAKJ	MYK	125 17	24 47	40	S
Yonagunijima	YONAGU		123 01	24 28	32	

Notations : —

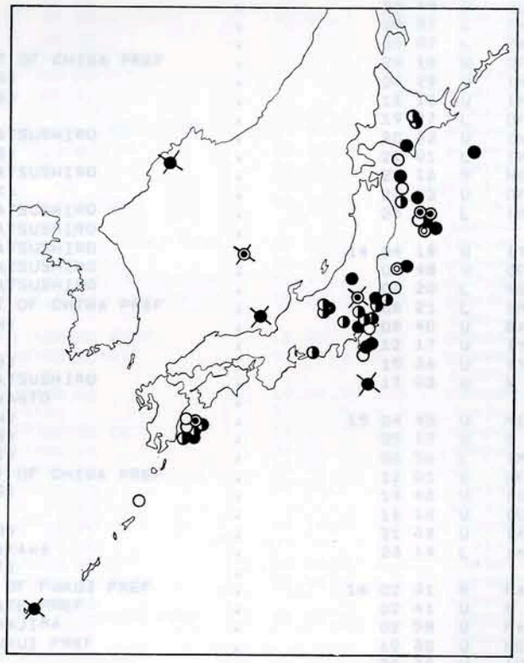
λ	: Longituds.
φ	: Geographical Latitude.
W	: Wiechert's horizontal and vertical seismographs (masses, H; 200kg, V; 80kg).
P	: Portable seismograph (horizontal).
P(H, V)	: do (mass, 22.5kg).
S	: Strong motion seismograph (magnification; 1).
S′	: do (magnification; 0.4).
M(H)	: Mainka's horizontal seismograph (mass, 450kg).
G	: Galitzin's seismograph.
L	: 1,000kg long-period seismograph, JMA type.
I	: Ishimoto's seismograph.
V	: Short-period vertical seismograph.
AW	: Anderson-Wood's seismograph.
C	: Capacity type seismograph.
EM	: Electromagnetic seismograph.
OP	: JMA 59-type electromagnetic seismograph with optical recorder.
VI	: JMA 59-type electromagnetic seismograph with visible recorder.
VD	: JMA 61-type electromagnetic seismograph with visible recorder.
B	: Benioff's seismograph (short and long period).
J	: Remote recording JMA 63-type seismograph.
VI′,VD′,I′	: Remote recording JMA 63-type seismograph.
EMT	: Electromagnetic seismograph with tape recorder.
EMT′	: Electromagnetic seismograph with tape recorder and transmitting unit.

List 2 Number of earthquakes by districts and classes, April, 1969

District \ Class	Number of felt earthquakes					Number of unfelt earthquakes	Total
	Remarkable	Moderate	Small felt area	Local	Total		
Hokkaido	0	0	1	3	4	41	45
Tohoku	2	2	3	3	10	24	34
Kwanto	1	0	2	10	13	21	34
Chubu	0	0	0	51	51	2	53
Kinki	0	0	0	5	5	11	16
Chugoku·Shikoku	0	0	0	0	0	6	6
Kyushu	1	0	1	7	9	31	40
Near Japan*	1	0	1	1	3	11	14
Foreign region	0	0	0	0	0	2	2
Unknown	0	0	0	0	0	4	4
Total	5	2	8	80	95	153	248

* ; Sakhalin, Kurile Is., Korea, Ryukyu Is., Bonin Is., Sikhota Alin.

Epicenters of the major earthquakes



⊙ Remarkable (R) ◎ Moderate (M) ○ Small felt area (S) ◑ Local (L) ● Unfelt (U) × h≧100km.

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Special Events

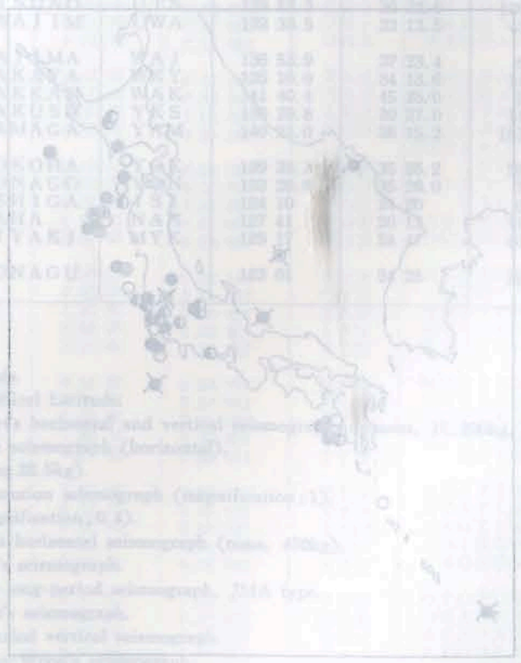
Earthquake of Middle of the Japan Sea, 04h 26m, 1st.

According to USCGS, two shocks apparently occurred within extremely small intervals of time and space. The smaller event of magnitude 4.2 (Mb) occurred about 3.5 sec. before the larger earthquake of magnitude 5.9(Mb).

The hypocenter given by the Agency was determined by the data from the earlier shock.

Earthquake-Swarm near Matsushiro, Northern Chubu

In this month, 46 earthquakes (intensity III : 2, II : 3, I : 41) were felt at the Matsushiro Seismological Observatory.



List 3 EARTHQUAKES OBSERVED BY SEISMOLOGICAL STATIONS OF JMA

J.S.T. DATE, TIME D H M	C	LOCATION	C CLASS
1 04 26	R	MIDDLE OF JAPAN SEA	
05 26	U	S OFF HONSHU	
14 02	S	OFF FUKUSHIMA PREF	
21 02	L	(WAKAYA)	
22 16	L	N OF KWANTO	
2 03 51	U	(URAKAW)	
3 00 24	U	S COAST OF CHIBA PREF	
03 44	U	(WAKAYA)	
09 28	U	N OF HACHIJOJIMA	
13 28	L	(OFUNAT)	
14 30	U	(TATEYA)	
14 56	U	NEAR URAKAWA	
16 10	L	NEAR TSURUGA	
18 36	U	(YAKUSH)	
20 28	L	NEAR MATSUSHIRO	
23 19	U	S COAST OF CHIBA PREF	
4 00 55	L	MIDDLE OF HOKKAIDO	
01 02	U	(KUSHIR)	
01 33	U	HOKKAIDO	
02 41	L	MIDDLE OF HOKKAIDO	
02 58	U	S OF IBARAKI PREF	
03 40	U	NEAR CHOSHI	
07 49	U	(HACHIN)	
08 25	L	(KYOTO-SHIMOWACHI)	
11 45	U	NEAR CHOSHI	
12 47	U	OFF TOKACHI	
16 02	U	S COAST OF CHIBA PREF	
17 50	U	UK	
22 56	U	UK	
5 02 22	U	S COAST OF CHIBA PREF	
10 49	L	(MATSUS)	
16 08	L	(MATSUS)	
6 01 36	L	NEAR MATSUSHIRO	
01 37	L	(MATSUS)	
01 43	L	NEAR MATSUSHIRO	
01 45	U	(MORIOK)	
01 46	L	NEAR MATSUSHIRO	
01 48	L	NEAR MATSUSHIRO	
02 33	L	NEAR MATSUSHIRO	
02 54	L	NEAR MATSUSHIRO	
03 57	L	NEAR MATSUSHIRO	
09 47	S	S COAST OF CHIBA PREF	
18 22	U	(URAKAW)	
7 00 31	L	(MATSUS)	
01 55	L	NEAR MATSUSHIRO	
02 46	U	S OF KWANTO	
03 07	U	(URAKAW)	
09 53	L	(MATSUS)	
17 56	L	(MATSUS)	
20 33	U	S COAST OF CHIBA PREF	
22 42	L	(MATSUS)	
8 00 50	U	(NEMURO)	
03 40	S	OFF URAKAWA	
13 54	U	(OFUNAT)	
15 38	L	MIDDLE OF FUKUI PREF	
19 20	U	OFF IWATE PREF	
19 28	U	NEAR UWAJIMA	
20 58	L	S OF FUKUI PREF	
9 01 20	U	E OFF AOMORI PREF	
02 17	U	NEAR NEMURO	
04 01	U	E OFF HOKKAIDO	
07 38	U	(URAKAW)	
9 07 56	L	SW OF SHIZUOKA PREF	
14 42	L	NEAR MATSUSHIRO	
14 42	U	(NAGANO)	
21 57	R	MIDDLE OF TOCHIGI PREF	
23 43	U	E OF HOKKAIDO	
10 04 33	L	NEAR MATSUSHIRO	
07 20	L	(WAKAYA-KIYOKAWA)	
07 24	L	(MATSUS)	
08 40	L	(MAEBAS-MIHARA)	
19 19	U	E OFF AOMORI PREF	
20 51	L	NEAR MATSUSHIRO	
20 52	L	(MATSUS)	
21 01	L	(MATSUS)	
23 16	U	OFF KYOTO PREF	
23 55	U	W OF JAPAN SEA	
11 00 04	U	(KUMAMO)	
06 58	U	NE OF MIYAKOJIMA	
09 25	L	(NAGANO-SAKAI)	
19 26	L	(MATSUS)	
20 18	U	(URAKAW)	
23 56	L	(MATSUS)	
12 15 52	L	OFF IBARAKI PREF	
16 52	L	(MATSUS)	
18 29	U	S OF KWANTO	
13 00 03	L	NEAR MATSUSHIRO	
03 02	U	(KUSHIR)	
04 49	U	(URAKAW)	
05 37	L	(MATSUS)	
05 37	L	(MATSUS)	
09 18	U	OFF FUKUSHIMA PREF	
09 29	U	(NAHA)	
11 16	U	(KYOTO)	
19 27	L	OFF IWATE PREF	
20 32	U	(NEMURO)	
22 01	L	(MATSUS)	
22 13	S	NE OF OKINAWA	
23 02	U	OFF KII PEN	
23 26	L	(MATSUS)	
14 04 19	U	(YONAGU)	
04 48	U	OFF URAKAWA	
06 20	L	NEAR MATSUSHIRO	
06 21	L	(MATSUS)	
08 40	U	BANDA SEA	
12 17	U	(YAKUSH)	
15 36	U	(YAKUSH)	
17 03	U	W OF SETONAIKAI	
15 04 45	U	NEAR NAGOYA	
05 17	U	S PART OF HOKKAIDO	
06 56	L	(MATSUS)	
11 01	U	OFF SANRIKU	
14 43	U	(URAKAW)	
16 13	U	(URAKAW)	
21 32	U	(KOBE)	
23 19	L	(MATSUS)	
16 02 31	R	FAR OFF SANRIKU	
02 41	U	N OF TOHOKU	
02 58	U	FAR OFF SANRIKU	
10 30	U	NEW IRELAND REGION	
21 38	U	(URAKAW)	
21 58	U	NEAR OFUNATO	
17 00 13	U	OFF HACHINOHE	
00 57	L	(MAEBAS-TAKASAKI)	

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DATE, D	TIME H	M	C	LOCATION
17	04	59	L	NEAR CHICHIBU
	06	03	U	(KUMAMO)
	06	32	U	NEAR TATEYAMA
	07	41	U	UK
	12	59	U	NW PART OF CHIBA PREF
	13	56	M	FAR OFF SANRIKU
	19	19	L	HYUGANADA
18	06	45	U	N OF KINKI
	07	18	U	NEAR TOKYO
	11	58	U	(URAKAW)
	14	29	L	(WAKAYA-KIBI)
	15	33	L	(MATSUS)
	16	59	U	FAR OFF SANRIKU
	21	58	L	(KUMAMO)
	23	33	L	NEAR MATSUSHIRO
19	04	35	U	NEAR KAKIOKA
	09	13	L	SW PART OF IBARAKI PREF
	09	48	U	(YONAGU)
	10	23	M	OFF MIYAGI PREF
	13	27	U	W PART OF FUKUSHIMA PREF
	14	12	L	NEAR MATSUSHIRO
	16	20	L	SW PART OF IBARAKI PREF
	16	56	U	(NAGASA)
	19	59	U	(YONAGU)
	21	18	U	(KAGOSH)
20	00	18	S	E OFF AOMORI PREF
	04	17	U	(URAKAW)
	06	04	U	(WAKAYA)
	07	07	U	NEAR YONAGUNIJIMA
	07	31	U	(SAPPOR)
	12	55	U	OFF MIYAGI PREF
	15	13	U	(URAKAW)
	18	59	U	(KYOTO)
21	07	35	U	(URAKAW)
	12	10	L	(HAKODA-KIKONAI)
	16	19	R	HYUGANADA
	16	37	U	HYUGANADA
	16	39	U	HYUGANADA
	16	57	U	(MIYAZA)
	16	59	L	KASHIMANADA
	17	02	U	(MIYAZA)
	17	05	U	HYUGANADA
	17	12	U	(MIYAZA)
	18	30	U	HYUGANADA
	18	45	L	(MATSUS)
	19	01	U	HYUGANADA
	19	09	U	HYUGANADA
	19	26	L	HYUGANADA
	19	28	L	HYUGANADA
	19	59	S	HYUGANADA
	20	01	U	(NOBEOK)
	20	06	U	(MIYAZA)
	20	08	U	HYUGANADA
	23	09	U	(MIYAZA)
22	00	09	U	(MIYAZA)
	01	22	U	HYUGANADA
	01	25	U	(ASHIZU)
	04	08	U	(MIYAZA)
	04	56	U	(MIYAZA)
	05	47	U	(AOMORI)
	07	15	U	HYUGANADA
	07	18	U	(NEMURO)
	08	19	U	HYUGANADA
	08	35	L	HYUGANADA
	14	51	U	(YONAGU)

DATE, D	TIME H	M	C	LOCATION
22	17	11	R	FAR OFF SANRIKU
	17	13	L	(MORIOK)
	18	06	U	(KOBE)
23	01	29	U	(KUMAMO)
	02	16	U	NEAR URAKAWA
	10	25	U	(YONAGU)
	11	20	U	NEAR HACHINOHE
	12	14	U	NEAR HAKODATE
	16	57	U	(NAGASA)
	19	02	U	(HIROSH)
	21	45	U	NEAR TOKYO
	23	03	L	(MAEBAS-TATEBAYASHI)
24	07	05	U	(NEMURO)
	07	34	U	NEAR HIKONE
	07	44	L	HYUGANADA
	08	20	U	(URAKAW)
	09	22	U	(YAKUSH)
	11	14	U	E OFF AOMORI PREF
	12	33	U	UK
	12	39	U	(HACHIN)
	13	24	U	(ONAHAM)
	19	23	U	(KAGOSH)
25	01	25	U	OFF MIYAGI PREF
	12	29	S	NW PART OF CHIBA PREF
	15	21	L	(MATSUS)
	23	40	U	(AOMORI)
	23	41	L	(MATSUS)
26	01	44	U	(HACHIN)
	02	02	U	(URAKAW)
	03	46	L	(MATSUS)
	03	49	L	NEAR MATSUSHIRO
	03	52	L	NEAR MATSUSHIRO
	04	54	L	NEAR MATSUSHIRO
	06	35	S	OFF IWATE PREF
	12	30	U	(HACHIJ)
27	04	08	U	NEAR YAKUSHIMA
	18	22	U	(KOBE)
	22	02	U	(URAKAW)
28	09	20	U	(URAKAW)
	10	30	U	(NAHA)
	11	16	U	(WAKAYA)
	14	05	L	S PART OF IBARAKI PREF
	16	16	U	COAST OF IBARAKI PREF
	20	58	U	(URAKAW)
29	05	56	L	(UNZEND)
	10	27	U	(HACHIJ)
	21	40	U	(URAKAW)
	23	36	L	(WAKAYA-SHIRAHAMA)
30	00	28	L	NEAR MATSUSHIRO
	01	09	U	TOHOKU
	01	17	U	(ASHIZU)
	02	12	U	(URAKAW)
	04	26	U	(URAKAW)
	04	31	U	OFF URAKAWA
	05	10	U	OFF URAKAWA
	05	41	L	(NAHA)
	06	19	U	KURILE IS
	06	59	L	(MATSUS)
	12	34	U	NEAR URAKAWA

List 4 EARTHQUAKE ORIGINS

J.S.T. DATE, D	TIME H	M	C	LOCATION	ORIGIN TIME M	S	+/-S	LONG.	+/-	LAT.	+/-	H KM	M CLASS
1	04	26	R	MIDDLE OF JAPAN SEA	25	25.3	0.3	134 34 02		38 34 02		420	
	14	02	S	OFF FUKUSHIMA PREF	02	33.5	0.8	141 40 05		37 05 02		40	4.1
3	00	24	U	S COAST OF CHIBA PREF	23	57.2	0.5	140 03 03		34 49 02		80	
	09	28	U	N OF HACHIJOJIMA	28	36.6	0.6	140 01 10		33 32 02		130	
4	00	55	L	MIDDLE OF HOKKAIDO	55	03.3	0.2	143 23 01		43 24 01		00	4.2
	02	41	L	MIDDLE OF HOKKAIDO	41	24.4	0.1	143 24 01		43 24 01		00	4.0
	16	02	U	S COAST OF CHIBA PREF	02	10.8	0.6	140 02 03		34 49 02		70	
6	01	36	L	NEAR MATSUSHIRO	36	15.8	0.3	138 15 01		36 31 01		00	4.5
	09	47	S	S COAST OF CHIBA PREF	47	08.0	0.6	140 00 04		34 45 03		80	
8	03	40	S	OFF URAKAWA	40	21.6	0.2	142 28 02		41 59 02		80	
	19	20	U	OFF IWATE PREF	19	50.8	0.5	143 13 03		40 22 01		20	4.5
9	04	01	U	E OFF HOKKAIDO	01	15.0	1.2	146 10 07		41 55 03		70	
	07	56	L	SW OF SHIZUOKA PREF	56	29.4	0.3	137 38 01		34 49 01		20	4.1
	21	57	R	MIDDLE OF TOCHIGI PREF	57	25.2	0.1	139 46 01		36 47 01		100	
10	20	51	L	NEAR MATSUSHIRO	51	13.9	0.2	138 08 01		36 30 01		10	4.2
	23	16	U	OFF KYOTO PREF	15	22.9	0.6	135 19 08		36 04 06		340	
	23	55	U	W OF JAPAN SEA	54	03.9		130 54		42 00		555	5.6
11	06	58	U	NE OF MIYAKOJIMA	57	34.5	1.4	125 49 05		24 51 09		100	
12	15	52	L	OFF IBARAKI PREF	52	29.3	0.4	140 58 03		36 43 02		60	3.9
13	19	27	L	OFF IWATE PREF	27	38.3	0.3	142 10 02		40 23 01		40	4.0
	22	13	S	NE OF OKINAWA	12	32.6	1.0	129 57 13		29 05 05		00	5.1
15	05	17	U	S PART OF HOKKAIDO	17	20.0	0.2	143 01 03		42 14 02		60	3.4
16	02	31	R	FAR OFF SANRIKU	30	51.3	0.5	143 52 03		39 50 02		20	5.9
	02	58	U	FAR OFF SANRIKU	57	35.2	0.9	143 47 05		39 46 04		10	4.3
17	04	59	L	NEAR CHICHIBU	59	43.9	0.2	139 05 01		35 59 01		20	3.1
	12	59	U	NW PART OF CHIBA PREF	59	42.7	0.3	139 59 02		35 43 01		40	3.7
	13	56	M	FAR OFF SANRIKU	56	12.8	0.6	143 47 04		39 34 02		70	
	19	19	L	HYUGANADA	18	50.1	0.6	131 56 02		31 35 02		30	4.3
18	16	59	U	FAR OFF SANRIKU	59	12.5	1.2	143 57 06		39 42 03		00	4.6
19	09	13	L	SW PART OF IBARAKI PREF	12	52.1	0.2	139 59 02		36 02 02		60	3.9
	10	23	M	OFF MIYAGI PREF	23	19.5	0.5	141 59 03		37 55 01		40	4.8
	13	27	U	W PART OF FUKUSHIMA PREF	26	49.2	0.3	139 34 02		37 25 02		00	4.2
	16	20	L	SW PART OF IBARAKI PREF	20	25.0	0.5	140 00 02		36 00 02		40	4.3
20	00	18	S	E OFF AOMORI PREF	18	08.0	0.3	142 19 03		40 44 01		40	4.8
	12	55	U	OFF MIYAGI PREF	54	45.0	0.8	142 05 04		37 53 02		40	4.1
21	16	19	R	HYUGANADA	19	24.5	0.5	132 07 02		32 09 02		10	6.5
	16	37	U	HYUGANADA	37	14.5	1.7	132 11 05		31 44 05		10	4.2
	16	59	L	KASHIMANADA	59	05.1	0.2	140 41 02		36 20 01		80	
	19	26	L	HYUGANADA	26	07.7	1.2	132 10 04		31 58 04		20	4.5
	19	28	L	HYUGANADA	28	25.8	1.2	132 09 05		32 00 04		10	4.6
	19	59	S	HYUGANADA	59	26.1	0.5	132 05 02		32 07 02		10	4.7
22	17	11	R	FAR OFF SANRIKU	11	18.4	0.5	143 25 03		39 50 02		60	5.9
24	07	44	L	HYUGANADA	44	34.8	1.4	131 59 06		32 09 03		00	4.1
	11	14	U	E OFF AOMORI PREF	13	42.9	0.3	142 31 02		41 19 01		00	4.4
25	12	29	S	NW PART OF CHIBA PREF	29	27.5	0.2	140 06 01		35 40 01		50	4.5
26	03	49	L	NEAR MATSUSHIRO	49	11.5	0.2	138 07 01		36 26 01		10	4.0
	06	35	S	OFF IWATE PREF	35	19.6	0.5	143 14 03		39 52 02		20	4.8
28	14	05	L	S PART OF IBARAKI PREF	05	24.8	0.4	140 16 03		35 59 02		70	
	16	16	U	COAST OF IBARAKI PREF	15	58.5	1.4	140 45 07		36 45 07		90	

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List 5 DATA OF EARTHQUAKES

OT= 1 4 25 25.3 +/- 0.3 J.S.T.
MIDDLE OF JAPAN SEA
LAT= 38 34 +/- 2 LONG= 134 34 +/- 2
H=420 CLASS=R

I SEISMIC INTENSITY
* MICRON

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
WAJIMA	0	EP	04	26	24				395		362		185				D	242.9	
SAIGO	0	EP	04	26	27.1	IS	27	17.7	196	3.4	147	3.6	111	3.7	S 1	W	U 1	283.9	50.6
						SCS	39	37.1											
KANAZA	0	EP	04	26	28.6	ES	27	14.3	288	3.9	276	4.0	280	3.6				289.9	45.7
TOYAMA	0	P	04	26	29.0	S	27	23.4			326	4.0	318	3.0			D 5	311.4	54.4
FUKUI	0	EP	04	26	29.0	IS	27	22.8	400	3.8	300	1.5	100	4.0				315.3	53.8
TOYOOK	0	P	04	26	30.3	IS	27	25.4	482	5.2	284	4.2	109	4.8			U	337.0	55.1
						SCS	39	37.1											
AIKAWA	0	IP	04	26	31.0	IS	27	25.6	244	4.0	227	4.0	46	2.2	N 8	W 10	D 7	327.1	54.6
TOTTOR	0	EP	04	26	31.0	ES	27	21.1	200	2.8	100	4.0	100	4.0				340.7	50.1
						X	26	36.1											
TSURUG	0	EP	04	26	32	S	27	26.4	300	4.2	200	1.8						349.9	54.4
						SCS	39	37											
YONAGO	0	EP	04	26	32.5	ES	27	29.5										364.3	57.0
TAKADA	0	EP	04	26	32.5	S	27	21.3										362.5	48.8
MATSUE	0	EP	04	26	33.8	S	27	30.4										370.0	56.6
MAIZUR	0	IP	04	26	34.4	ES	27	26.3	450	0.5	250	0.5	300	0.8				351.1	51.9
MATSUS	0	IP	04	26	34.5	S	27	30							N	W	D	392.6	55.5
TAKAYA	0	P	04	26	35.2	S	27	30.0	250		300		150	0.5				358.5	54.8
MATSUM	0	EP	04	26	35.2	IS	27	34.2	600	3.8	200	4.9	200	4.1				396.7	59.0
						ESCS	39	37.8											
NAGANO	0	EP	04	26	35.7	IS	27	31.9	450	2.7	500	2.7	250	2.7	N 4		D 0	384.0	56.2
KYOTO	0	IP	04	26	36.0	IS	27	32.6	140	3.0	79	1.5	45	3.5				408.0	56.6
NIIGAT	0	IP	04	26	36.8	IS	27	30.0	410	2.6	380	3.2	378	3.2	N 5	W 7	D 32	399.3	53.2
NAGOYA	0	EP	04	26	37.1	ES	27	37.6	206	2.8	182	2.8	73	1.4	N 13		D 16	433.9	60.5
						SCS	39	38.0											
KARUIZ	0	EP	04	26	37.1	IS	27	39.0	1000	3.3	1000	2.9	800	3.3			D	430.5	61.9
						SCS	39	37.9											
HIMEJI	0	EP	04	26	37.2	ES	27	32.8										414.0	55.6
OKAYAM	0	IP	04	26	37.4	S	27	36.0	82	4.6	57	4.5	69	4.4	S		U	435.0	58.6
						ESCS	39	36.0											
OSAKA	0	P	04	26	37.8	ES	27	37.7	800	4.0	650	4.5	200	2.0			U 3	439.8	59.9
HIKONE	0	EP	04	26	37.8	IS	27	34.2	502	2.5	241	2.0						394.9	56.4
KOBE	0	P	04	26	38.3	ES	27	39.7	400	4.5	200	4.2	200	4.5				433.8	61.4
IIDA	0	IP	04	26	39.2	IS	27	36.8	213	3.0	216	3.4	118	3.2	N 29	W 60	D 76	446.7	57.6
HAMADA	0	P	04	26	39.6	S	27	41.0	143	4.4	109	4.8	71	4.2	S 0		U 0	464.4	61.4
GIFU	0	P	04	26	40.2	S	27	29.4	151	3.9	90	3.4	49	4.1	N 15	W 9	D 17	402.3	49.2
TAKAMA	0	EP	04	26	40.4	IS	27	45.5	66	4.5	78	4.5	59	3.0				478.7	65.1
SAKATA	0	IP	04	26	42.7	S	27	36.1	750	2.7	800	2.7	300	2.5				459.7	53.4
KOFU	1	IP	04	26	42.8	ES	27	42.8	700		355	2.2	180	3.2			D	479.0	60.0
						ESCS	39	37.4											
HIROSH	0	P	04	26	43.5	S	27	46.8	94	3.1	82	3.8	68	2.4	S 1		U 3	503.9	63.3
WAKAYA	0	P	04	26	43.5	IS	27	47.1	148	4.5								484.5	63.6
TSU	0	P	04	26	43.7	S	27	43.9	274	4.0	255	3.7	136	1.9				462.9	60.2
KUMAGA	1	EP	04	26	44.0	ES	27	46.0	255	3.6	255	3.8	220	3.8				504.2	62.0
HAMAMA	0	P	04	26	44.5	S	27	47.2	1750	3.4	950	3.6	850	2.9				512.7	62.7
TOKUSH	0	EP	04	26	44.6	IS	27	50.8										499.4	66.2
AKITA	0	P	04	26	44.7	EX	27	11.4	253	2.4	233	3.4	338	3.0			D 34	495.2	
UTSUNO	2	P	04	26	45.0	IS	27	50.6										519.4	65.6
CHICHI	1	IP	04	26	45.0	IS	27	44.5	350	2.6	400	2.0	200	2.0	N 13	W 18		491.8	59.5
OWASE	0	IP	04	26	45.6	IS	27	47.4	191	4.0	224	4.2	141	4.1	N 6	W 4	D 9	520.2	61.8
KAWAGU	1	P	04	26	46.8	S	27	46.1	650	3.0	400	2.2	150	3.0				505.2	59.3
KAKIOK	2	P	04	26	47.4	IS	27	53.1	800	1.0	800	0.9	300	0.8		W 1	D 2	561.4	65.7
MATSUY	0	EP	04	26	47.5	ES	27	55.2	201	3.3	145	3.3	86	2.1	S	W	U	548.4	65.7
SHIRAK	X	P	04	26	47.6	IS	27	50.5	700	2.8	400	2.0	300	2.2				523.2	62.9
SUMOTO	0	EX	04	26	48.7	EX	27	45.5	100	4.5	100	4.5						470.5	
SENDAI	1	IP	04	26	48.8	IS	27	53.4	600	3.2	300	2	200	2		0 W 12	D 16	554.0	64.6
						SCS	39	37.6											
KOCHI	0	IP	04	26	49.2	IS	27	56.2	300	4.8	100	4.3	50	2.7	S 1		U 1	564.2	67.0
MITO	2	IP	04	26	49.5	IS	27	57.6	450	2.1	500	1.3	350	2.3			D 7	575.8	68.1
NARA	0	X	04	26	49.5				350	2.2	350	2.0	150	2.0				445.5	
AJIRO	X	EP	04	26	49.6	S	27	55.6	313	3.2	350	2.9	185	3.2				562.2	66.0
SHIONO	0	P	04	26	49.9	IS	27	59.3	456	3.5	131	3.8	57	3.6				577.9	69.4
TOKYO	3	P	04	26	50.0	IS	27	56.2	660	1.6	480	1.8	258	3.4				561.1	66.2
ANABUK	0	P	04	26	50.0	X	28	01.5										524.8	
MISHIM	2	IP	04	26	50.6	IS	27	48.9	1100	4.0	700	3.4	400	2.0	N 26	W 15	D 43	546.1	58.3
ONAHAM	3	IP	04	26	51.0	IS	27	59.0	1500	1.9	1800	1.9	400	0.8	N 1	W 1	D 2	586.8	68.0
MUROTO	0	IP	04	26	51.2	IS	28	06.3	159	5.0	89	5.2	77	5.0	S 0	E 0	U 1	591.0	75.1
						IX	09	38.7											
ISHINO	2	EP	04	26	51.4	IS	28	01.2	258	2.5	254	2.0	257	2.2		W 13	D 18	587.7	69.8
						SCS	39	38.0											
MORIOK	1	IP	04	26	52.2	S	27	59.4	85	0.4	100	3.0	86	3.2	S 1	W 1	D 1	584.3	67.2

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MORIOK			04	26	52.2	ISCS	39	37.9										584.3	
AOMORI	1	IP	04	26	53.5	ES	28	01	450	2.3	500	2.3	200	1.6	S 5	W 23		588.7	67.5
						ESCS	39	38											
YOKOHA	1	EP	04	26	53.6	ES	28	00										570.5	66.4
TATEYA	2	EP	04	26	53.8	IS	28	05.7	419	3.6	422	1.6	283	3.0				617.9	71.9
OSHIMA	X	P	04	26	54.0	IS	28	01.0	400	1.6	400	1.8	200	1.6				602.5	67.0
SHIMON	0	EP	04	26	54.4	S	28	08.4	82	4.0	194	4.0	41	3.9	N	E	D	606.5	74.0
OFUNAT	2	IP	04	26	55.0	IS	28	04.8	98	1.6	141	2.4	113	2.6		W 7	D 11	623.4	69.8
						SCS	39	38.4											
CHOSHI	2	EP	04	26	55.5	IS	28	07.7			500		600					640.3	72.2
HACHIN	1	IP	04	26	56.4	IS	28	08.0	84	5.2	101	2.9	105	2.7	S 1	W 1	D 1	636.2	71.6
						SCS	39	38.5											
MIYAKO	1	P	04	26	57.8	IS	28	08.8	142	2.0	165	2.0				W 7		651.1	71.0
IROZAK	0	EX	04	26	58.0	EX	27	58.0	700	3.2	400	2.6	100	2.0				583.3	
UWAJIM	0	EP	04	26	58	ES	28	05										619.6	67.0
HAKODA	0	IP	04	26	58.2	S	28	09.0	136	2.6	201	5.0	168	2.5	S 5	W 7	D 13	638.5	70.8
FUKUSH	1	EX	04	26					600	3.0	200	2.0	100	2.0				525.4	
OMAEZA	0	X	04	26		X	27	21.6	513	3.6	358	3.4	234	3.6				547.5	
IZUHAR	0	EP	04	27	00	S	28	19										676.5	79.0
FUKUOK	0	EP	04	27	01.0	ES	28	15.5	105	4.5	214	3.2	129	4.0	N	E	D	669.3	74.5
ASHIZU	0	EP	04	27	01.3	S	28	15.3	117	4.8	47	4.9	59	4.8				663.9	74.0
SUTTSU	0	EP	04	27	02	ES	28	17										670.6	75.0
MURORA	0	P	04	27	02.8	S	28	14.0	100	5.5	100	6.4	100	4.5				685.1	71.2
						SCS	39	39.1											
NOBEOK	0	EP	04	27	04.1	ES	28	26.5	220	4.6	150	4.8	150	4.2	S 1		U 1	713.2	82.4
OITA	0	X	04	27	04.9	S	28	11.6	267	4.4	572	4.4						648.4	
KUMAMO	0	IP	04	27	05.7	IS	28	24.5	112	3.8	339	2.4	101	3.0			U 2	727.5	78.8
SAGA	0	IP	04	27	08.2	X	28	31.2										704.4	
HACHIJ	0	EP	04	27	08.4	IS	28	31.2	160	1.2	171	1.4	94	1.5				767.8	82.8
SAPPOR	0	IP	04	27	09.6	S	28	31.0	190	2.0	200	2.4	87	2.6			D	757.6	81.4
						SCS	39	40.8											
MIYAZA	0	P	04	27	11.0	S	28	38.6	270	5.0	272	5.0	210	5.0				790.9	87.6
NAGASA	0	P	04	27	11.0	S	28	31.8							S	W	U	775.7	80.8
ASOSAN	0	EX	04	27	11	EX	28	24										705.5	
URAKAW	1	P	04	27	13.6	S	28	36.0	400	2.4	500	0.6						803.1	82.4
HIROO	1	P	04	27	17.7	S	28	44.9			400	1.6						849.0	87.2
RUMOI	0	P	04	27	19.4	IS	28	44.5	200	1.8	200	2.5	100	2.0	S 7	W 7	D 2	841.0	85.1
FUKUE	0	I	04	27	19.8	S	28	49.8	119	4.0	81	3.4	61	4.8	N 11	E 16	D 20	832.1	90.0
ASAHIK	0	EP	04	27	21	IS	28	50.2	239	1.4	118	1.6	128	1.6				872.9	89.2
OBIHIR	2	P	04	27	21.6	S	28	52.4									D 3	875.8	90.8
KAGOSH	1	EP	04	27	22.7	S	28	52.2	146	3.0	192	3.8	40	2.4				857.4	89.5
YAKUSH	0	EP	04	27	28.5	EX	29	12.6	12	0.7	18	0.7	3	0.6				974.3	
KUSHIR	2	IP	04	27	30.4	IS	29	03.6	400	0.6	400	0.5	100	0.7	S 7	W 13	D 33	962.7	93.2
ABASHI	0	EP	04	27	35	S	29	15.4	162	2.6	56	1.8	54	4.4				1013.3	100.4
NEMURO	1	P	04	27	38.3	S	29	22.7	124	5.6	57	3.4	65	5.8			D	1066.8	104.4
YAMAGA	0	X	04	27														506.2	
MAEBAS	0	X	04	27					300	3.5	200	3.5	300	3.2				464.6	
NAHA	0	P	04	28	25	IS	30	46.2	84	3.2	23	3.4	20	3.0				1511.4	141.2
						SCS	39	54											

OT= 1 14 2 33.5 +/- 0.8
OFF FUKUSHIMA PREF
LAT= 37 5 +/- 2 LONG= 141 40 +/- 5
H= 40 MAG=4.1 CLASS=S

ONAHAM	X	IP	14	02	46.7	IS	02	53.4									D 4	69.3	06.7
MITO	0	EP	14	02	55.2	IS	03	08.4	10	0.4	13	0.3	3	0.3				132.3	13.2
SHIRAK	0	IP	14	02	55.3	IS	03	07.5							S 0	E 2	D 11	128.2	12.2
SENDAI	0	IP	14	02	57.0	IS	03	11.2	10	0.5	9		4				D 2	147.1	14.2
ISHINO	0	EP	14	02	58.0	ES	03	12.8	6	0.4	6	0.2	2	0.6			D 1	152.3	14.8
KAKIOK	0	EP	14	02	58	ES	03	20	15	0.9	16	1.0	7	0.8				162.1	22.0
UTSUNO	1	X	14	02	59													170.8	
MATSUS	0	IP	14	03	18.2	S	03	50									D	314.4	31.8
CHOSHI	0	X	14	03	20.1													167.8	
TOKYO	0	ES	14	03	30.0				4	0.6	5	1.0						231.0	

OT= 3 0 23 57.2 +/- 0.5
S COAST OF CHIBA PREF
LAT= 34 49 +/- 2 LONG= 140 3 +/- 3
H= 80 CLASS=U

TATEYA	0	IP	00	24	10.1	IS	24	18.0	59	0.6	31	0.4	15	0.4			U 6	24.8	07.9
OSHIMA	0	IP	00	24	12.7	IS	24	21.8	29	0.4	13	0.4					U 2	61.8	09.1
YOKOHA	0	P	00	24	13.8	IS	24	24.6										77.6	10.8
AJIRO	0	EP	00	24	14.9	S	24	28.9	7	0.3	8	0.3	5	0.5				90.6	14.0
TOKYO	0	P	00	24	16.1	IS	24	28.5	32	0.3	38	0.0	4	0.4				99.9	12.4

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
MATSUS	0	IP	00	24	34.8	S	25	00							S	E	D	253.5	25.2
OT= 3 9 28 36.6 +/- 0.6																			
N OF HACHIJOJIMA																			
LAT= 33 32 +/- 2 LONG= 140 1 +/-10																			
H=130 CLASS=U																			
HACHIJ	0	IP	09	28	56.6	IS	29	11.0	24	0.2	22	0.2	9	0.1			D 2	52.4	14.4
OSHIMA	0	P	09	29	04.6	S	29	22.5	14	0.8	15	0.9	5					148.4	17.9
TATEYA	0	EP	09	29	05.7	ES	29	27.5	18	0.7	25	0.6	13	0.4				161.4	21.8
TOKYO	0	P	09	29	10.7	S	29	41.8	11	0.6	15	0.6	3	0.8				239.8	31.1
KOFU	0	EP	09	29	17.6	ES	29	48.4	8	1.7	9	2.0	2	1.2				271.6	30.8
KAKIOK	0	EP	09	29	22	ES	29	52	8	0.9	6	0.7	4	0.6				299.7	30.0
MITO	0	EX	09	29	25.0	ES	29	58.3	4	1.2	6	1.0	2	1.0				318.3	
MATSUS	0	IP	09	29	29.8	S	30	09									U	371.9	39.2
OT= 4 0 55 3.3 +/- 0.2																			
MIDDLE OF HOKKAIDO																			
LAT= 43 24 +/- 1 LONG= 143 23 +/- 1																			
H= 0 MAG=4.2 CLASS=L																			
OBIHIR	0	IP	00	55	16.3	ES	55	25									U 19	54.9	08.7
ASAHIK	0	EP	00	55	22				27	2.2	20	1.2	23	3.2				91.4	
KUSHIR	1	P	00	55	22.3	IS	55	35.7	188	2.2	211	5.4	37	0.8	N	W	D 2	94.7	13.4
ABASHI	0	EP	00	55	23	ES	55	36	14	4.4	12	3.6	7	3.8				99.8	13.0
HIROO	0	IP	00	55	26.5	S	55	41.9									U 2	124.2	15.4
URAKAW	0	EP	00	55	29	S	55	49.1	13	4.0	19	1.4	8	4.2				146.5	20.1
SAPPOR	0	IP	00	55	34.4	ES	55	53	12	2.0	18	2.2	5	1.2			U 1	171.0	18.6
WAKKAN	0	EX	00	55	59				5	3.5	5	3.5	5	3.0				262.2	
AOMORI	0	EX	00	56	03				7	1.6								358.6	
MATSUS	0	EP	00	57	04													880.4	
OT= 4 2 41 24.4 +/- 0.1																			
MIDDLE OF HOKKAIDO																			
LAT= 43 24 +/- 1 LONG= 143 24 +/- 1																			
H= 0 MAG=4.0 CLASS=L																			
OBIHIR	0	IP	02	41	37.3	ES	41	46									U 7	55.3	08.7
ASAHIK	0	EP	02	41	43				16	2.2	11	2.0	8	1.0				92.6	
KUSHIR	0	P	02	41	43.2	IS	41	56.2	61	0.6	51	0.5	19	0.5	N	W	5 D 2	93.5	13.0
ABASHI	0	EP	02	41	44	ES	41	56	8	4.0	7	3.4	3	3.4				98.8	12.0
URAKAW	0	EP	02	41	51	S	42	09.2	8	1.6	10	1.4	6	1.2				147.0	18.2
SAPPOR	0	P	02	41	55.1	IS	42	16.4	5	0.8	8	2.0	2	1.2				172.3	21.3
MATSUS	0	EP	02	43	26													881.2	
OT= 4 16 2 10.8 +/- 0.6																			
S COAST OF CHIBA PREF																			
LAT= 34 49 +/- 2 LONG= 140 2 +/- 3																			
H= 70 CLASS=U																			
TATEYA	0	P	16	02	22.5	IS	02	30.9	112	0.7	51	0.6	14	0.5				23.9	08.4
OSHIMA	0	P	16	02	25.4	S	02	34.4	16	0.4	11	0.4	7				U 5	60.2	09.0
YOKOHA	0	P	16	02	26.0	S	02	36.4										76.9	10.4
AJIRO	0	EP	16	02	27.4	S	02	37.7	12	0.3	9	0.3	5	0.5				89.2	10.3
TOKYO	0	EP	16	02	28.6	IS	02	40.9	73	0.4	75	0.4						99.5	12.3
KUMAGA	0	EP	16	02	36.4	ES	02	53.6	6	1.2	3	0.8	3	0.6				158.8	17.2
KOFU	0	EP	16	02	37.7	ES	02	53.0	5	0.4	6	0.6	2	1.0				163.9	15.3
MATSUS	0	IP	16	02	47.7	S	03	14									D	252.5	26.3
OT= 6 1 36 15.8 +/- 0.3																			
NEAR MATSUSHIRO																			
LAT= 36 31 +/- 1 LONG= 138 15 +/- 1																			
H= 0 MAG=4.5 CLASS=L																			
MATSUS	3	IP	01	36	19.0										S	W	U	4.4	
NAGANO	4	IP	01	36	20.1	IS	36	22.3	1200		1200		400		N	65 E	12 U 280	16.6	02.2
KARUIZ	X	IP	01	36	24.8	IS	36	30.6								E	4 U 6	33.4	05.8

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
MATSUM	X	IP	01	36	25.4	IS	36	31.4							S	W	U 2	39.2	06.0
TAKADA	0	P	01	36	31.7	S	36	35.9							N	4 W	9 U 20	65.3	04.2
TOYAMA	0	IP	01	36	34.2	S	36	49.8	30	0.9	21	1.0	16	0.8			D 9	95.5	15.6
CHICHI	0	EP	01	36	34.7	S	36	46.7										94.7	12.0
KOFU	0	IP	01	36	35.0	ES	36	49.4	23	0.8	22	0.8	10	0.8	S	3 E	2 U 10	98.5	14.4
TAKAYA	0	P	01	36	35.8	S	36	47.2										98.1	11.4
IIDA	0	IP	01	36	38.8	IS	36	53.4	18	0.4	16	1.2	8	0.6	S	3 E	4 U 7	117.8	14.6
KAWAGU	0	IP	01	36	39.2	IS	36	55.7										122.1	16.5
KUMAGA	0	EP	01	36	39.4	ES	36	53.0	29	4.4	23	3.8	23	4.4				109.8	13.6
UTSUNO	0	P	01	36	41.6	S	36	59.2										145.2	17.6
WAJIMA	0	EP	01	36	42	S	36	59.6	82	1.0	86	1.0	15	0.6				154.5	17.6
AIKAWA	0	IP	01	36	42.5	IS	36	58.6	6	0.7	5	1.0			N	E	U 1	166.8	16.1
KANAZA	0	EP	01	36	43.0	ES	37	02.0	13	2.5	15	2.0	7	2.0				143.5	19.0
KAKIOK	0	EP	01	36	45	S	37	05.4	17	1.1	11	0.5	10	1.0				177.2	20.4
NIIGAT	0	EX	01	36	45.4	S	37	07.2	42	0.8	50	1.0	21	1.8				170.2	
MISHIM	0	EP	01	36	46.0				20	1.0	19	1.0	7	1.0				167.5	
AJIRO	0	EP	01	36	47.9	ES	37	10.3	4	1.2	6	1.2	2	1.2				180.5	22.4
TOKYO	0	P	01	36	48.8	S	37	11.5	24	4.8	17	4.2	24	5.0				164.2	22.7
GIFU	0	EP	01	36	49.4	S	37	12.0	28	1.5	30	1.4	9	1.1				182.6	22.6
NAGOYA	0	P	01	36	49.6	IS	37	12.9	41	1.2	32	1.0	13	1.1				189.4	23.3
FUKUI	0	IP	01	36	50.0	ES	37	18.5							S	4 W	4 U 4	188.9	28.5
MITO	0	EP	01	36	50.6	IS	37	14.4	21	0.9	27	0.4	8	1.5				199.7	23.8
HAMAMA	0	P	01	36	52.4	ES	37	17	18	1.6	19	2.4	9	1.6	N	8 E	1 D 8	206.2	24.6
TATEYA	0	EP	01	36	53.6				26	4.0	19	2.3	8	2.3				224.4	
TSURUG	0	EP	01	36	54	S	37	23.1										219.0	29.1
OSAKA	0	EX	01	37	13				11	4.0	9	2.8	6	1.8				320.4	
TOYOOK	0	X	01	37	13.6	ES	37	54.5	16	1.2	13	1.1						327.6	
HIKONE	0	IS	01	37	18.7				22	1.5	26	1.1						227.4	
OT= 6 9 47 8.0 +/- 0.6																			
S COAST OF CHIBA PREF																			
LAT= 34 45 +/- 3 LONG= 140 0 +/- 4																			
H= 80 CLASS=S																			
TATEYA	1	P	09	47	21.1	IS	47	29.0	48	0.6	45	0.6	32	0.3				28.5	07.9
AJIRO	0	EP	09	47	25.9	S	47	37.2	12	0.2	8	0.2	3	0.4				88.7	11.3
YOKOHA	0	P	09	47	26.4	S	47	37.6										82.4	11.2
TOKYO	X	EP	09	47	27	IS	47	39.5	52	0.4	54	0.3	6	0.4				106.0	12.5
OSHIMA	0	IS	09	47	33.0				12	0.3	12	0.3	13	0.3				56.9	
KUMAGA	0	EP	09	47	35.0	ES	47	52.4	7	0.8	5	0.8	2	0.6				164.7	17.4
MATSUS	0	IP	09	47	46.0	S	48	11							S	E	D	256.3	25.0
OT= 8 3 40 21.6 +/- 0.2																			
OFF URAKAWA																			
LAT= 41 59 +/- 2 LONG= 142 28 +/- 2																			
H= 80 CLASS=S																			
URAKAW	1	IP	03	40	34.1	IS	40	42.8	214	0.8			48	1.2	N	11 E	1 U 37	32.4	08.7
HIROO	0	P	03	40	38	IS	40	48.4										77.8	10.4
MURORA	0	P	03	40	43.3	S	40	57.8							S	2 E	6 D 10	128.1	14.5
OBIHIR	0	P	03	40	44.0	IS	40	59.6									U 2	121.2	15.6
HAKODA	0	IP	03	40	45.6	IS	41	03.1	51	1.2	29	0.5	12	0.6	N	3 E	5 D 9	143.0	17.5
SAPPOR	1	IP	03	40	46.5	IS	41	04.0	42	0.8	25	0.4	15	0.8	S	1 E	D 12	151.5	17.5
HACHIN	X	EP	03	40	50.7	IS	41	10.0	16	0.2	17	0.2	4	1.2				180.2	19.3
KUSHIR	0	EP	03	40	51	ES	41	13	11	0.4	17	0.2	4	0.2				193.3	22.0
AOMORI	0	EP	03	40	54	S	41	15	36	0.7	41	1.4	15	1.1				191.3	21.0
ASAHIK	0	EP	03	40	56	ES	41	19	10	0.6	11	0.4	9	0.8				198.7	23.0
RUMOI	0	P	03	40	57.0	IS	41	22.1										228.9	25.1
MORIOK	0	P	03	41	03.0	IS	41	33.8	8	0.3	9	0.3	2	0.4			D 0	276.5	30.8
AKITA	0	EX	03	41	14				8	2.2	6	2.0	3	2.0				321.0	
MATSUS	0	IP	03	41	58.4	X	43	23							N		D	707.2	
OT= 8 19 19 50.8 +/- 0.5																			
OFF IWATE PREF																			
LAT= 40 22 +/- 1 LONG= 143 13 +/- 3																			
H= 20 MAG=4.5 CLASS=U																			
MIYAKO	0	EP	19	20	13	ES	20	29.0	10	0	11	0	5	0				133.4	16.0
HACHIN	0	IP	19	20	15.5	S	20	28.6	13	0.2	14	0.2	3	1.1			D 1	144.6	13.1
MORIOK	0	P	19	20	22.0	S	20	45.0	34		41		6					190.0	23.0
OFUNAT	0	EP	19	20	22.6	ES	20	44.3	6	0.4	12	0.4	7	0.8				193.6	21.7
URAKAW	0	EP	19	20	23	ES	20	46	11	2.0	18	1.2	5	1.2				202.3	23.0
AOMORI	0	EP	19	20	26	ES	20	51	58	1.2	49	1.2	18	0.9				212.0	25.0

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
HAKODA	0	IP	19 20 30.3	ES	21 00	15	1.0	14	0.8	5	0.9			U	261.7	29.7
ISHINO	0	EP	19 20 31.2	ES	21 02.8	8	0.8	7	2.6	6	2.2				271.3	31.6
OBIHIR	0	EP	19 20 32	S	21 16.6										283.6	44.6
AKITA	0	EX	19 20 32			12	2.4	10	2.4	7	2.2				275.4	
KUSHIR	0	EP	19 20 34	ES	21 06			8	0.4	4	1.4				306.2	32.0
SENDAI	0	EP	19 20 37.1	ES	21 13.0	15	2.0	16	1.2	6	1.5				307.6	35.9
SAKATA	0	EX	19 20 42.3												332.5	
SAPPOR	0	EP	19 20 43			6	1.2	7	2.0	3	1.0				337.6	
MATSUS	0	IP	19 21 15.4	S	22 24							N	E	D	609.4	68.6

OT= 9 4 1 15.0 +/- 1.2
E OFF HOKKAIDO
LAT= 41 55 +/- 3 LONG= 146 10 +/- 7
H= 70 CLASS=U

NEMURO	0	IP	04 01 40.8	S	01 57.3	6	0.4	4	0.4	3	0.6	N 1		U 1	163.9	16.5
KUSHIR	0	P	04 01 43.6	IS	02 01.6	50	0.6	50	0.7	18	0.2		E	U 3	187.5	18.0
ABASHI	0	P	04 01 55.4	S	02 26.2	4	0.6	5	0.8	2	0.8				279.4	27.8
URAKAW	0	P	04 01 58.0	S	02 26.0	5	1.4	8	0.4	2	0.6				281.7	28.0
MORIOK	0	P	04 02 21.7	S	03 07.8	6		6		2				U 0	488.4	46.1
AOMORI	0	ES	04 03 05			12	0.9	8	1.2						466.6	
MATSUS	0	IP	04 03 14.4	X	04 30							S	W	U	909.6	

OT= 9 7 56 29.4 +/- 0.3
SW OF SHIZUOKA PREF
LAT= 34 49 +/- 1 LONG= 137 38 +/- 1
H= 20 MAG=4.1 CLASS=L

HAMAMA	0	IP	07 56 34.3	IS	56 38.4	70	0.4	69	0.4	15	0.2			U 7	14.6	04.1
OMAEZA	0	EP	07 56 40.6	ES	56 49.2	34	1.4	31	1.2	17	1.0				58.1	08.6
NAGOYA	1	P	07 56 43.0	IS	56 53.1	44	0.4	28	0.4	27	0.3				72.0	10.1
IIDA	0	EP	07 56 43.4	IS	56 54.0	14	0.8	13	0.6	12	1.0				79.1	10.6
GIFU	0	P	07 56 47.1	S	56 59.4	18	0.6	21	1.3	14	0.4				102.1	12.3
TSU	0	P	07 56 48.4	S	56 58.9	16	0.4	12	0.3	3	0.3				102.9	10.5
KOFU	0	EP	07 56 51.0	S	57 07.0	30	0.5	23	0.5	6	0.8				126.2	16.0
HIKONE	0	EP	07 56 52.6	S	57 08.5	55	1.0	24	0.6						136.2	15.9
AJIRO	0	P	07 56 55.0	ES	57 06.4	14	0.2	13	0.2	3	0.3				136.0	11.4
TSURUG	0	P	07 56 57.9	S	57 16.7										170.0	18.8
KARUIZ	0	EP	07 56 59.4	S	57 24.6										188.4	25.2
MATSUS	0	IP	07 57 00.0	S	57 26							N	E		197.9	26.0
MISHIM	0	EX	07 57 02			9	0.9	13	1.1	6	0.5				122.8	
KUMAGA	0	EP	07 57 07.0	ES	57 34.4	5	1.2	4	0.8	2	0.6				216.8	27.4
FUKUI	0	X	07 57 20.8												187.4	
TOKYO	0	S	07 57 32.3			9	1.2	7	1.0	6	1.4				216.0	

OT= 9 21 57 25.2 +/- 0.1
MIDDLE OF TOCHIGI PREF
LAT= 36 47 +/- 1 LONG= 139 46 +/- 1
H=100 CLASS=R

UTSUNO	3	P	21 57 40.8	S	57 52.0										27.9	11.2
KAKIOK	3	IP	21 57 42.9	S	57 55.7					511	1.2	S	8 W 13 D255		72.2	12.8
SHIRAK	2	IP	21 57 43.0	IS	57 55.6	400	1.8	700	2.0	200	1.6	N	8 E 25 U109		55.2	12.6
MITO	3	IP	21 57 44.3	S	57 59.3	1600	0.8	1550	0.8	400	0.6	N	30 W 33 D215		77.5	15.0
KUMAGA	3	IP	21 57 45.6	S	57 58.0	2800	1.2	1100	1.2	600	2.0	N	5 E 4 D 56		78.5	12.4
ONAHAM	2	IP	21 57 46.4	IS	58 00.9	400	1.1	400	0.8	100	0.8	S	1 W 5 D 27		103.2	14.5
CHICHI	2	IP	21 57 46.9	IS	57 59.1	600	1.8	450	1.8	350	2.0	N	5 E 13		107.2	12.2
KARUIZ	X	IP	21 57 47.8	IS	58 05.6	500	2.0	600	1.6	200	1.7	S	7 W 14 U 37		119.4	17.8
TOKYO	3	IP	21 57 48.6	ES	58 04	760	0.6	1060	0.6	280	1.6				121.9	15.4
TAKADA	0	IP	21 57 50.3	IS	58 08.5							N	4 W 19 U 50		139.7	18.2
CHOSHI	1	IP	21 57 50.3	EX	57 53.3	200		300		300		N	38 E 37 D106		152.1	
				ES	58 06.8											
MATSUS	0	IP	21 57 50.5	IS	58 08.1							S	W	U	141.9	17.6
NIIGAT	0	IP	21 57 51.0	IS	58 10.0	410	3.0	385	3.0	288	3.6			U 62	140.2	19.0
NAGANO	0	IP	21 57 51.0	IS	58 10.2	174	1.9	220	1.9	140	1.4	N	15 W 43 U105		140.9	19.2
YOKOHA	1	P	21 57 51.6	ES	58 11.8										149.7	20.2
KAWAGU	2	EP	21 57 52.3	S	58 12.7	1300	2.5	630	1.3	350	1.5	N	30 E 12		168.7	20.4
YAMAGA	1	IP	21 57 52.5	S	58 13.7	300	3.0	150	2.8	100	2.2	S	9 W 1 D 34		171.1	21.2
KOFU	2	IP	21 57 53.1	IS	58 13.4	1000	1.6	900	1.0	500	1.0	N	9 E 24 D 42		164.9	20.3
MATSUM	0	IP	21 57 53.2	IS	58 15.2	300	1.9	200	2.3	150	1.9	S	W 6 U 7		171.4	22.0
AIKAWA	0	IP	21 57 55.0	IS	58 16.8			49	2.4	70	3.2	N	E 10 U 26		192.5	21.8
SENDAI	1	IP	21 57 55.1	S	58 16.3	230	3.0	190	2.8	133	2.8	S	21 W 14 D 30		192.1	21.2
AJIRO	1	IP	21 57 55.7	IS	58 19.2	124	0.5	181	0.5	96	0.6	N	10 E 4 D 33		202.3	23.5

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MISHIM	3	IP	21 57 56.0	S	58 14.6	600	1.0	500	1.0	200	1.2	N 14	E 13	D 24	200.2	18.6
TATEYA	2	IP	21 57 56.2	X	58 08.2	600	1.4	500	1.3	300	2.0			D 47	199.9	
OSHIMA	2	IP	21 57 58.5			354	0.8	269	0.8	125	1.6	N 19	E 7	D 34	227.0	
ISHINO	1	IP	21 57 59.2	IS	58 22.6	149	3.8	105	3.6	74	3.0	S 32	W 26	D 53	227.1	23.4
FUKUSH	2	EX	21 57			700	1.4	500	1.4						124.9	
IIDA	0	IP	21 58 00.0	IS	58 23.6	140	2.0	118	1.4	98	1.4	N 4	E 9	D 37	224.0	23.6
TOYAMA	0	EP	21 58 00	IS	58 27.8	181	3.0	178	4.0	137	3.6				228.6	27.8
IROZAK	0	EX	21 58 00.6	EX	58 31.6	350	1.6	100	1.4	100	1.2				256.1	
TAKAYA	0	P	21 58 01.2	S	58 29.0							S 4	W 8	U 14	235.7	27.8
SAKATA	0	IP	21 58 02.4	S	58 30.5	400	2.8	650	2.3	350	3.4			D 77	235.4	28.1
WAJIMA	0	IP	21 58 03.6	ES	58 30	135	1.0	90	1.0	44	1.0			U 39	263.7	26.4
OMAEZA	0	P	21 58 06.2	X	58 48.6	261	2.8	162	2.4	77	3.2				279.7	
KANAZA	0	IP	21 58 06.8	ES	58 37.0	123	4.2	110	3.9	110	3.0			U 7	280.0	30.2
HAMAMA	0	P	21 58 07.6	X	58 50	162	4.0	130	4.0	50	2.0		E 1	D 4	295.2	
OFUNAT	2	IP	21 58 08.0	IS	58 38.4	100	2.4	108	3.0	44	3.0	S 17	W 7	D 17	305.6	30.4
				IX	58 34.0											
NAGOYA	0	IP	21 58 09.2	IS	58 44.0	237	1.2	206	1.2	85	1.2	N 2	E 2	D 4	309.7	34.8
GIFU	0	P	21 58 10.1	S	58 39.0	125	1.7	108	1.7	34	2.1	N 4	E 5	D 6	310.9	28.9
AKITA	0	IP	21 58 12.3	S	58 42.3	113	2.6	106	2.6	87	2.0	S 22	W 20	D 79	327.1	30.0
MORIOK	0	IP	21 58 12.9	ES	58 47.5	45	0.4	45	0.4	24	4.0	S 21	W 5	D 10	345.8	34.6
FUKUI	0	P	21 58 12.9	IS	58 51.0	100	1.6	100	1.6			S 4	W 6	U 4	327.6	38.1
MIYAKO	0	P	21 58 15.1	IS	58 52.6	30	1.4	56	2.0	21	2.7	S 6	W 4	D 7	371.5	37.5
TSURUG	0	P	21 58 15.8	S	58 55.1	100	1.2	100	1.6						355.7	39.3
HIKONE	0	EP	21 58 15.8	S	58 52.3	151	1.4	100	1.4						358.7	36.5
TSU	0	P	21 58 16.6	S	58 46.1	73	2.0	82	1.9	39	1.9				373.6	29.5
HACHIJ	0	P	21 58 20.0	S	59 02.6	73	0.5	80	0.3	48	0.4	N 2	E 8	D 5	408.3	42.6
KYOTO	0	IP	21 58 22.0	S	59 05.5	27	2.1	16	2.0	12	2.0	N 0	E 0	D 1	413.5	43.5
HACHIN	X	IP	21 58 23.6	S	59 06.8	21	1.5	22	1.8	19	4.2	S 4		D 5	442.6	43.2
OWASE	0	IP	21 58 23.6	X	58 58.0	17	3.4	20	3.4	24	4.0	N	E	D	442.6	
OSAKA	0	EP	21 58 26.5	ES	59 12	133	2.5	95	2.2	88	2.0				449.3	45.5
				X	59 26											
AOMORI	0	IP	21 58 27.6	ES	59 12.6	68	2.6	63	2.1	21	1.3				456.3	45.0
TOYOOK	0	P	21 58 29.2	S	59 18.1	129	1.0	68	1.0	15	1.0	N	E	D 5	466.0	48.9
KOBE	0	EP	21 58 29.4												475.4	
WAKAYA	0	EX	21 58 32.7			11	1.1	2	0.7	10	3.5				504.4	
SHIONO	0	EP	21 58 33.4	ES	59 28.1	13	1.7	23	2.2	13	1.7				519.5	54.7
HAKODA	0	IP	21 58 38.5	ES	59 34	11	5.0	10	2.5	10	3.9	S		D	564.9	55.5
OKAYAM	0	IP	21 58 41.3	EX	59 20.9	10	3.0	6	4.0	8	2.2	N		D 1	578.2	
TOKUSH	0	EP	21 58 41.7	ES	59 38.7										559.3	57.0
SAIGO	0	IP	21 58 42.4	S	59 43.0	8	2.0	13	2.1	12	3.3		W 1	U 3	579.8	60.6
TAKAMA	0	EP	21 58 42.6	ES	59 43.4	10	1.4	11	1.4	4	1.2				585.2	60.8
URAKAW	0	P	21 58 47.6	X	59 45	15	0.4	20	0.6	7	1.0			D 1	650.5	
MUROTO	0	P	21 58 49.5	IX	00 10.0	12	5.0	12	4.6	8	5.0				643.0	
NARA	0	X	21 58 51.4			100	2.0	100	2.0	50	2.0				425.2	
HIROO	0	P	21 58 51.5	S	59 57.9										682.5	66.4
SAPPOR	0	P	21 58 55.5	ES	00 07	9	2.0	10	1.8	6	2.0				709.4	71.5
				X	59 11.6											
MATSUY	0	EP	21 58 58.7	ES	00 13.2	9	2.1	5	3.1	4	2.8				713.9	74.5
MAEBAS	2	X	21 58			900		600							75.7	
OBIHIR	0	X	21 58	ES	00 09										742.6	
HIROSH	0	EP	21 59 00.4	ES	00 10.2	6	3.6	4	4.0	4	3.5				716.2	69.8
HAMADA	0	EP	21 59 01.0	ES	00 16.0	7	4.8	3	2.6	5	3.4				725.6	75.0
ASHIZU	0	EP	21 59 06.4	ES	00 28.4	6	3.0	4	3.2	4	3.8				764.6	82.0
SHIMON	0	EP	21 59 22.0			9	3.4	3	3.6	5	3.2				860.6	
OITA	0	EX	21 59 23.2	EX	01 11.4	19	3.2	39	4.3	10	3.1				840.6	
FUKUOK	0	EP	21 59 26.0	ES	01 06.7	9	2.8	6	2.0	3	3.0				925.1	100.7
KUMAMO	0	IP	21 59 27.0	ES	01 10.9	10	2.6	9	2.0	2	0.8			D 2	937.9	103.9
SAGA	0	EP	21 59 29.8	X	00 32.2										947.8	
KAGOSH	0	EP	21 59 37.5			3	2.8	6	3.0	2	2.4				1026.2	
KUSHIR	0	X	21 59	X	00 17.1	42	0.3	60	0.2	17	0.2				793.3	
ASAHIK	0	X	21 59			6	1.0	6	1.4	6	1.4				806.8	
NEMURO	0	X	21 59	X	00 35.3	7	0.6	6	1.4	3	0.6				879.7	
ABASHI	0	X	21 59	X	00 41	5	1.0	3	1.6	2	1.0				889.7	

OT= 10 20 51 13.9 +/- 0.2
NEAR MATSUSHIRO
LAT= 36 30 +/- 1 LONG= 138 8 +/- 1
H= 10 MAG=4.2 CLASS=L

MATSUS	3	IP	20 51 16.8									N	E	U	7.9	
NAGANO	3	IP	20 51 18.3	S	51 21.2	154		202		130		N 24	E 31	U151	18.6	02.9
MATSUM	1	IP	20 51 21.1	IS	51 25.8							S 6	W 10	U 20	31.9	04.7
KARUIZ	0	IP	20 51 22.5	S	51 29.0							N 4	W 4	D 24	41.5	06.5
TAKADA	0	EP	20 51 26.5	S	51 35.5										67.9	09.0
TOYAMA	0	IP	20 51 30.0	X	51 52	19	2.6	24	2.4	13	2.8			D 4	85.9	
KOFU	0	EP	20 51 31.9	IS	51 43.6	16	0.5	28	0.4	9	1.0				100.2	11.7
IIDA	0	IP	20 51 34.4	IS	51 48.4	11	0.8	12	0.6	7	0.4	S 1	W 1	U 7	113.1	14.0
KUMAGA	0	EP	20 51 36.0	ES	51 51.6	8	1.0	10	0.8	8	3.2				119.0	15.6
KAWAGU	0	P	20 51 36.4	IS	51 50.8										124.8	14.4

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STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
WAJIMA	0	EX	20	51	38				15	1.0	25	0.8						147.8	
KANAZA	0	EP	20	51	38.9	ES	51	56.0	20	2.0	15	2.0	6	2.0				133.1	17.1
KAKIOK	0	EP	20	51	44	ES	52	09	8	0.8	10	1.0	4	0.7				187.2	25.0
GIFU	0	P	20	51	44.1	S	52	06.0	11	1.4	9	1.9	4	1.1				173.7	21.9
NAGOYA	0	IP	20	51	45.0	IS	52	07.3	13	0.9	8	0.8	4	1.0	S	2 W	2 U	1	181.7	22.3
TOKYO	0	EP	20	51	45	ES	52	07.5	11	3.4	10	1.4	13	3.8					172.0	22.5
FUKUI	0	P	20	51	47.1	S	52	13.1											178.3	26.0
MISHIM	0	EP	20	51	47.2	ES	52	04.4	14	0.8	15	0.8	5	0.8					170.0	16.2
HAMAMA	0	P	20	51	48.6	ES	52	13	10	0.8	8	1.8	4	1.6			D	4	202.2	24.4
TSURUG	0	EP	20	51	50	ES	52	15.7											208.8	25.7
MITO	0	EP	20	51	50.5	IS	52	14.5	9	1.2	5	0.5	2	0.6					210.1	24.0
NIIGAT	0	EX	20	51	50.5	IS	52	06.7	40	0.8	20	1.6	8	2.1					176.4	
TATEYA	0	EP	20	51	54.5				9	0.8	11	1.7	4	1.3					230.0	
OSAKA	0	EX	20	52	11				5	2.2	4	2.2	2	1.7					311.2	
HIKONE	0	ES	20	52	17.2				13	1.0	11	1.0							218.0	

OT= 10 23 15 22.9 +/- 0.6
OFF KYOTO PREF
LAT= 36 4 +/- 6 LONG= 135 19 +/- 8
H=340 CLASS=U

TSURUG	0	EP	23	16	08	ES	16	44.6											
FUKUI	0	P	23	16	09.2	S	16	45.0										81.9	36.6
KYOTO	0	EP	23	16	09.5	IS	16	45.4	7	1.7	6	2.0	2	1.5				82.0	35.8
OSAKA	0	EP	23	16	11.0	IS	16	48.3	13	4.2	19	2.0	6	1.9				123.0	35.9
NAGOYA	0	IP	23	16	13.9	IS	16	50.5	19	2.8	14	2.6	7	1.6				155.1	37.3
HAMAMA	0	EP	23	16	16	ES	16	57	10	3.0	4	3.0	3	1.8			D	2	180.0	36.6
WAJIMA	0	EX	23	16	16				10	1.0	9	1.0							265.5	41.0
MATSUS	0	IP	23	16	18.0														203.7	
KAKIOK	0	EP	23	16	29	ES	17	21	10	0.8	8	0.8	2	0.8		W	D		264.9	
SENDAI	0	EP	23	16	42	ES	17	43	3		5	2.0	1						439.1	52.0
HIKONE	0	S	23	16	44.6														552.2	61.0
TOYOOK	0	IS	23	16	45.8				13	2.2	28	1.6							121.8	
URAKAW	0	EP	23	17	25	ES	18	54	15	1.3	12	1.1							74.0	
OBIHIR	0	X	23	19	02	X	20	13	7	0.4	8	0.4	1	0.4					934.1	89.0
KUSHIR	0	EX	23	19	24				14	0.3	14	0.2	5	0.2					1019.5	
																			1093.4	

OT= 10 23 54 3.9 USCGS
W OF JAPAN SEA
LAT= 42 0 LONG= 130 54
H=555 MAG=5.6 CLASS=U

SAIGO	0	IP	23	55	45.2	IS	57	07.3	22	3.5	20	1.9	13	3.6	S	0 W	1 U	1	676.8	82.1
SUTTSU	0	EX	23	55	51														773.8	
AIKAWA	0	EP	23	55	51.2						4	4.0	15	1.0	N	4 W	4 D	10	766.5	
MATSUE	0	EP	23	55	52.9	S	57	19.3											750.6	86.4
HAKODA	0	IP	23	55	53.5	S	57	21.7	16	2.1	18	1.9	18	3.1		W	3 D	5	817.9	88.2
TOTTOR	0	P	23	55	53.7	S	57	21.9											774.4	88.2
KANAZA	0	IP	23	55	53.9	ES	57	14.0	29	5.0	24	5.0	11	4.0					782.3	80.1
AOMORI	0	X	23	55	54				36	1.4	45	1.6	23	2.0					836.4	
TOYAMA	0	IP	23	55	54.2	ES	57	23	36	4.0	26	4.6	19	4.0	N	3 W	2 D	13	800.2	88.8
FUKUI	0	P	23	55	55.4	X	57	25.9											804.9	
HAMADA	0	IP	23	55	55.6	IS	57	25.6	10	2.6	24	4.0	7	1.8	S	3 E	2 U	7	795.4	90.0
TOYOOK	0	P	23	55	55.7	S	57	23.2	38	2.9	21	1.3	8	3.0	N		D		794.0	87.5
						X	07	45.9												
NIIGAT	0	IX	23	55	56.0				45	2.3	37	4.5	40	1.9					831.0	
SAKATA	0	EX	23	55	56.7														831.9	
TAKADA	0	EP	23	55	56.7	ES	57	28.3											832.8	91.6
TSURUG	0	P	23	55	57.8	S	57	29.0											835.1	91.2
SAPPOR	0	IP	23	55	58.1	ES	57	30	15	1.8	10	1.8	15	1.8		W	D	12	864.7	91.9
MATSUS	0	IP	23	55	59.6	S	57	33							N	W	D		874.2	93.4
ASAHIK	0	X	23	55					10	1.4	9	1.0	14	0.6					957.1	
WAJIMA	0	X	23	55		ES	57	14	35	1.0	43	1.0	15	1.4					725.4	
OKAYAM	0	P	23	56	00.0	ES	57	31.7	11	3.4	9	4.8	5	4.5	N		U		853.8	91.7
HACHIN	0	P	23	56	00.3	IS	57	33.2	4	2.0	3	2.2	6	3.0		W	D	1	904.8	92.9
NAGANO	0	EP	23	56	00.6	S	57	32.7	26	3.9	22	2.7	10	3.4					863.8	92.1
HIROSH	0	P	23	56	00.7	ES	57	33.1	7	2.8	9	2.9	4	1.4	S	2	U	3	858.2	92.4
MORIOK	0	IP	23	56	01.0	ES	57	32.0	7	1.6	3	0.8	6	1.4		W	2 D	2	902.3	91.0
HIKONE	0	EP	23	56	01.9	S	57	35.4	22	1.2	42	1.0							879.4	93.5
KYOTO	0	P	23	56	02.2	IS	57	36.3	6	1.9	3	2.5	4	3.1	S	0 E	1 D	0	882.5	94.1
GIFU	0	P	23	56	02.5	S	57	35.4	17	1.9	9	2.4	3	1.1					892.4	92.9
KARUIZ	0	EP	23	56	02.6	E	57	40.0											911.5	
TAKAMA	0	EP	23	56	03.9	IS	57	37.5	10	1.2	6	1.6							896.4	93.6
SENDAI	0	IP	23	56	04.5	ES	57	41	10		10	2.0	6		N	2 W	4 D	6	947.3	96.5
OSAKA	0	IP	23	56	04.6	IS	57	41.0	19	2.0	19	2.6	6	2.3			D	2	907.2	96.4

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NAGOYA	0	P	23	56	05.0	S	57	40.2	12	2.4	20	2.4	7	1.2				924.2	95.2
						SCS	07	47.5											
IIDA	0	IP	23	56	05.8	IS	57	41.2	39	2.8	23	2.4	8	1.4	N	3 W	3 D	8	938.7	95.4
ISHINO	0	EP	23	56	06.0	ES	57	43.2	7	4.0	8	1.2	7	2.4	N	2 W	3 D	5	969.7	97.2
MATSUY	0	EP	23	56	06.1	ES	57	42.1	7	2.1	5	2.0	3	3.1					920.5	96.0
OFUNAT	0	IP	23	56	06.2	S	57	41.2	4	0.8	6	1.3	5	1.2	N	1 W	2 D	3	972.2	95.0
SHIMON	0	P	23	56	06.2				9	4.6	10	3.8	5	2.8			U	2	893.1	
KOFU	0	IP	23	56	07.5	ES	57	46.1	29	1.6	21	1.6	12	1.4	N	2 W	4 D	10	967.0	98.6
						ESCS	07	48.0												
WAKKAN	0	IP	23	56	07.6	IS	57	45.4	9	2.5	5	4.8	12	2.7			D	13	947.0	97.8
KUMAGA	0	EP	23	56	07.6	ES	57	46.4	16	0.8	13	4.4	9	4.0					979.6	98.8
SHIRAK	0	IP	23	56	07.7	ES	57	48.0							N	2 W	2 D	6	966.6	100.3
UTSUNO	0	P	23	56	08.0	S	57	49.4											981.9	101.4
TSU	0	P	23	56	08.1	S	57	44.2	21	1.1	13	2.3	4	1.6					946.8	96.1
URAKAW	0	P	23	56	08.6	S	57	47.0	21	1.2	40	1.2	8	0.8					982.6	98.4
FUKUOK	0	IP	23	56	09.0	S	57	51.5	25	3.3	12	4.7	14	2.7	S	2	U	8	935.6	102.5
KAWAGU	0	P	23	56	09.6	S	57	53.1											993.2	103.5
OBIHIR	0	P	23	56	11.0	ES	57	53									D		1017.9	102.0
OWASE	0	EP	23	56	11.2	ES	57	52.0	4	2.6	7	3.4	3	2.0			D		995.1	100.8
HAMAMA	0	P	23	56	11.4	S	57	54.4	35	3.6	25	3.2	25	2.6			D	4	1004.6	103.0
OITA	0	EP	23	56	12.0	ES	57	54.2	16	3.2	33	3.6							975.0	102.2
ONAHAM	0	IP	23	56	12.5	IS	57	52.9	100	0.9	100	1.1			N		D	2	1026.7	100.4
MISHIM	0	IP	23	56	13.9	IS	57	58.2	60	2.2	42	1.6	21	2.5	N	9	D	15	1035.6	104.3
SAGA	0	P	23	56	14.2	S	57	57.8							S	8 E	4		973.0	103.6
MUROTO	0	IP	23	56	14.6	S	57	58.6	4	4.2	5	5.0			S	0	U	1	1013.2	104.0
AJIRO	0	EP	23	56	14.9	ES	57	59.5	18	1.6	20	1.6	10	1.4					1051.2	104.6
TOKYO	0	EP	23	56	15.2	ES	58	00	26	1.0	26	0.8	13	3.0					1039.5	104.8
SHIONO	0	EP	23	56	15.3	S	57	59.8	6	2.3	6	2.3							1040.9	104.5
KUMAMO	0	IP	23	56	16.5	IS	58	03.8	16	2.8	25	2.6	15	1.2	S	6 E	6 U	11	1020.0	107.3
NAGASA	0	P	23	56	18.0	ES	58	03.6							S	3 W	1 U	2	1034.4	105.6
FUKUE	0	P	23	56	18.4	S	58	09.0	10	4.8	5	3.4	4	2.6	S	2	U	4	1048.0	110.6
ASHIZU	0	EP	23	56	18.4	ES	58	04.9	5	2.6	5	3.2	3	3.3					1047.0	106.5
KUSHIR	0	EP	23	56	20	S	58	06.0	11	0.3	13	0.3	5	0.6					1113.8	106.0
CHOSHI	0	P	23	56	20.0	S	58	08.1											1107.7	108.1
ABASHI	0	P	23	56	21.0	S	58	08.2	9	2.4	11	3.2	6	1.6			D	4	1112.8	107.2
MIYAZA	0	P	23	56	25.0	S	58	17.2	7	1.6	11	2.2							1119.8	112.2
KAGOSH	0	EP	23	56	28.7	ES	58	25.3	5	2.8	12	4.4	2	2.0					1157.3	116.6
HACHIJ	0	EP	23	56	35.4	IS	58	36.4	11	0.6	13	0.5							1260.2	121.0
KAKIOK	0	X	23	56		S	57	53.9	38	0.8	39	1.2	9	1.0	N	2 W	2 D	4	1026.6	
MITO	0	X	23	56		S	57	55.6	17	0.6	17	0.8	8	1.4			D	6	1034.9	
TATEYA	0	X	23	56		IS	58	04.6	44	0.6	42	0.6	13	0.8					1102.7	
NEMURO	0	X	23	56		X	58	21	7	2.0	7	2.4					W	2 D	3	1211.7
HIROO	0	X	23	56		EX	58	13											1026.2	
OSHIMA	0	X	23	56					16	1.0	13	1.0	13	1.6					1091.7	
OMAEZA	0	X	23	57	30.4	ES	58	00.0	11	2.6	13	2.4							1039.9	
YOKOHA	0	ES	23	58	00														1052.7	

OT= 11 6 57 34.5 +/- 1.4
NE OF MIYAKOJIMA
LAT= 24 51 +/- 9 LONG= 125 49 +/- 5
H=100 CLASS=U

YONAGU	0	IP	06	58	16	ES	58	43	131	2.3	75	1.9	144	0.8	S	12 W	46 U	81	286.4	27.0
NAHA	0	X	06	58	22.8				211	2.8	172	3.0	173	3.9	N	5 E	8 U	33	242.1	
YAKUSH	0	EP	06	59	16.3				6	0.8	4	0.7	4	1.9					772.8	
KAGOSH	0	EP	06	59	29.0	EX	01	17.8	9	2.2	16	2.2	5	1.8					877.5	
FUKUE	0	IP	06	59	33.6	S	01	04.0	10	3.0	8	2.6	11	2.6	N	9 E	7 U	11	917.8	90.4
MIYAZA	0	P	06	59	37.0				5	4.2	7	3.4							955.9	
NAGASA	0	P	06	59	39.5	X	01	45.2							N	6 E	2 U		956.5	
KUMAMO	0	EP	06	59	44.0				15	2.3	11	1.8	7	2.1	N	4	U	3	1002.2	
FUKUOK	0	P	06	59	51.5	ES	01	38.5	7	2.7	4	3.8	4	2.0	N	3 E	2 U	3	1063.5	107.0
SAGA	0	P	06	59	51.6														1027.1	
SHIMON	0	P	07	00	00.1				5	2.0	3	2.0	6	2.2					1123.9	
OITA	0	EX	07	00	00.3				13	3.2	16	3.2							1086.6	
OSAKA	0	EX	07	00	44				6	3.5	7	3.5							1465.6	
NAGOYA	0	EP	07	00	51.0				4	2.6	6	2.6							1566.9	
KAWAGU	0	P	07	01	09.7	ES	04	11.5											1713.1	181.8
MATSUS	0	P	07	01	10.4	S	04	17									U		1753.3	186.6
TATEYA	0	EP	07	01	13.5				11	2.2	12	2.1	23	2.1					1757.2	
OSHIMA	0	IX	07	01	16.0				7	1.1	7		11	1.7					1706.6	
URAKAW	0	EP	07	32	23	EX	36	20	3	3.4	7	3.2							2473.1	

OT= 12 15 52 29.3 +/- 0.4
OFF IBARAKI PREF
LAT= 36 43 +/- 2 LONG= 140 58 +/- 3
H= 60 MAG=3.9 CLASS=L

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
ONAHAM	0	IP	15	52	39.8	IS	52	46.8									U 1	25.9	07.0
MITO	0	P	15	52	42.4	IS	52	51.8	31	0.3	24	0.4	5	0.2				58.1	09.4
SHIRAK	0	P	15	52	44.7	S	52	55.3										79.7	10.6
KAKIOK	1	P	15	52	46.0	S	52	56.4	22	0.4	16	0.4	9	0.5				87.7	10.4
UTSUNO	1	P	15	52	46.4	IS	52	58.4										99.7	12.0
MATSUS	0	IP	15	53	06.1	IS	53	33.6								E	D	247.5	27.5

OT= 13 19 27 38.3 +/- 0.3
OFF IWATE PREF
LAT= 40 23 +/- 1 LONG= 142 10 +/- 2
H= 40 MAG=4.0 CLASS=L

HACHIN	1	IP	19	27	49.8	IS	27	58.2	33	0.2	25	0.2	9	0.6	S 1 E 4 D 3			56.7	08.4
MIYAKO	0	EP	19	27	52.9	ES	28	01.9	6	0	7	0						83.7	09.0
MORIOK	0	IP	19	27	57.3	IS	28	10.6	25	0.6	30	0.5	6	0.4	N 1 E 1 D 1			114.3	13.3
AOMORI	0	EP	19	27	58	ES	28	14	33	0.7	39	0.5	16	0.7				126.6	16.0
OFUNAT	0	EP	19	28	02.6	IS	28	19.5	7	0.0	4	0.4	2	0.8				151.7	16.9
URAKAW	0	P	19	28	09.4	ES	28	31	5	0.4	8	0.4	2	0.6				203.7	21.6
AKITA	0	EX	19	28	15.8				4	1.4	5	2.0	3	2.2				191.1	
MATSUS	0	IP	19	28	54.0	X	30	07							N		D	548.9	

OT= 13 22 12 32.6 +/- 1.0
NE OF OKINAWA
LAT= 29 5 +/- 5 LONG= 129 57 +/-13
H= 0 MAG=5.1 CLASS=S

YAKUSH	1	P	22	13	01.0	IS	13	20.2	263	0.7	243	0.8	80	0.7				160.4	19.2
KAGOSH	0	EP	22	13	15.4	ES	13	49.5	23	1.0	39	2.0	18	1.4				281.9	34.1
MIYAZA	0	P	22	13	25.8	S	14	03.0	34	0.8	26	0.8	14	0.8				344.4	37.2
NAHA	0	EP	22	13	31	X	14	30	13	2.5	12	1.9	10	1.5				386.7	
NAGASA	0	EP	22	13	34.4	S	14	21.0										402.5	46.6
KUMAMO	0	EP	22	13	36.1	IS	14	23.6	20	1.9	23	3.1	7	0.8	S 1			419.3	47.5
FUKUOK	0	EP	22	13	43.5	ES	14	39.2	4	2.5	5	3.2	4	9.0				500.0	55.7
OITA	0	EX	22	13	45.9				21	1.3	20	2.1	10	2.1				486.7	
SAGA	0	X	22	13	52.8	X	14	46.2										462.4	
OSAKA	0	EX	22	15	03				7	4.0	3	3.8						813.4	
MATSUS	0	P	22	15	04	ES	17	00										1130.7	116.0

OT= 15 5 17 20.0 +/- 0.2
S PART OF HOKKAIDO
LAT= 42 14 +/- 2 LONG= 143 1 +/- 3
H= 60 MAG=3.4 CLASS=U

HIROO	0	P	05	17	30.1	IS	17	37.7										25.4	07.6
URAKAW	0	IP	05	17	30.4	S	17	36.9	25	0.4	28	0.2	9	0.2			U 1	21.3	06.5
OBIHIR	0	EP	05	17	35	S	17	45.3										78.1	10.3
KUSHIR	0	EP	05	17	42	ES	17	58	5	0.2	4	0.4	2	0.3				140.2	16.0

OT= 16 2 30 51.3 +/- 0.5
FAR OFF SANRIKU
LAT= 39 50 +/- 2 LONG= 143 52 +/- 3
H= 20 MAG=5.9 CLASS=R

MIYAKO	1	IP	02	31	18.7	IS	31	34.7	150	2.2	400	2.2	350	2.2	S 11 W 65 U			164.1	16.0
OFUNAT	0	IP	02	31	24.5	S	31	48.2	229	3.2	70	3.6	177	1.0	S 12 W 26 U 23			203.8	23.7
HACHIN	X	IP	02	31	25.4	S	31	48.2	115	3.0	116	4.5	119	4.9	N 1 W 3 U 4			213.7	22.8
MORIOK	1	P	02	31	29.0	S	31	54.4	210	2.0	153	2.4	158	3.0	S 1 W 14 U 7			231.7	25.4
						X	31	37.3											
ISHINO	0	EP	02	31	32.6	ES	32	01.8	149	4.0	144	3.4	198	3.4	S 11 W 16 U 22			271.2	29.2
AOMORI	1	IP	02	31	33.1	S	32	08	1000	1.8	900	1.3	350	1.6	N 14 W 31 U 25			283.9	34.9
HIROO	0	P	02	31	34.0	S	32	04.5										276.0	30.5
URAKAW	0	P	02	31	34.2	ES	32	04	121	3.6	199	5.2	102	4.0				273.9	29.8
SENDAI	0	IP	02	31	37.8	IS	32	10.8	226	2.8	278	2.4	135	1.4	S 16 W 18 U 16			310.6	33.0
AKITA	X	IP	02	31	39.9	ES	32	14.8	386	3.0	397	2.8	86	3.0	W 10 U 20			322.8	34.9
HAKODA	0	IP	02	31	41.9	IS	32	27.9	166	1.3	174	1.0	78	5.6	S 6 W 10 U 11			342.2	46.0
YAMAGA	0	P	02	31	42.8	S	32	26.3	200	1.5	150	2.2			S 4 W 4 U 6			351.3	43.5
OBIHIR	0	EP	02	31	43	ES	32	27										347.1	44.0
MURORA	0	EP	02	31	44	S	32	31.1							N 2 W 2 U 2			367.1	47.1
KUSHIR	1	EP	02	31	44	IS	32	22.1	39	0.2	51	0.4	27	3.2				352.1	38.1
SAKATA	0	P	02	31	45.8	ES	32	28.6	1100	2.2	1600	2.4	550	2.4				362.3	42.8

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
ONAHAM	0	IP	02	31	50.2	ES	32	45.6	200	1.2	100	1.2					D 2	411.8	55.4
SAPPOR	0	P	02	31	51.0				88	2.2	102	3.2	39	3.2				416.1	
NEMURO	0	EP	02	31	51	S	32	31.8	16	1.8	28	2.0	18	7.8				413.8	40.8
ASAHIK	0	EP	02	31	52				42	2.6	52	2.8	60	3.0				454.6	
SHIRAK	0	P	02	31	53.0	ES	32	42.8										437.9	49.8
SUTTSU	0	EX	02	31	55													447.2	
ABASHI	0	EP	02	31	59	IS	32	49.0	31	3.6	51	2.6						466.0	50.0
FUKUSH	1	EX	02	31					150	1.2	150	1.2	100	1.2				474.1	
RUMOI	0	EP	02	32	00	ES	32	50										493.4	50.0
NIIGAT	0	P	02	32	00.0	X	33	03.2	375	3.2	385	3.0	184	3.7				469.1	
MITO	0	EP	02	32	00.4	ES	32	56.0	152	2.4	162	3.1	102	3.0				485.4	55.6
KAKIOK	0	EP	02	32	02	S	33	05.9	133	1.0	82	1.0	35	1.0				513.5	63.9
CHOSHI	0	EP	02	32	05.1	EX	32	56.5										527.9	
AIKAWA	0	EP	02	32	06.0	X	33	17.0	68	3.8	45	4.2	56	3.2	S 11 W 3 U 4			527.5	
TSU	0	EX	02	32	06.6				14	2.0	19	2.0	8	2.0				864.9	
TOKYO	0	EP	02	32	10	ES	33	11	130	3.0	130	3.8	97	4.0				585.5	61.0
KUMAGA	0	P	02	32	10.6	ES	33	08.6	122	2.2	99	2.0	87	3.2				567.6	58.0
CHICHI	0	EP	02	32	13.6	S	33	12.6									U 6	598.8	59.0
TAKADA	0	P	02	32	13.9	ES	33	16.7										576.0	62.8
NAGANO	0	EP	02	32	15.1	ES	33	30.6	130	3.5	63	3.1	50	2.9			U 5	608.4	75.5
KARUIZ	0	EP	02	32	15.5	ES	33	27.2	100	2.0	100	2.0						606.2	71.7
MATSUS	0	IP	02	32	17.2	S	33	29										615.8	71.8
TATEYA	0	EP	02	32	20.0				137	3.0	149	3.3	114	3.0	S	W	U	644.0	
KOFU	0	IP	02	32	21.8	ES	33	40.0	105	2.2	88	1.6	37	1.8				657.6	78.2
AJIRO	0	EP	02	32	22.7	ES	33	41.7	25	2.6	23	2.6	12	2.4		W 2 U 3		678.5	79.0
TOYAMA	0	EP	02	32	23	ES	33	34	65	3.2	50	3.2	39	3.6				677.9	71.0
WAJIMA	0	IP	02	32	23.4	ES	33	40	50	2.0	70	2.4	30	2.0	N 12 W 7 U 8			664.5	76.6
OSHIMA	0	EX	02	32	27				38	3.0	38	3.0	19	1.8				689.0	
IIDA	0	EP	02	32	28.8	X	34	06.4	45	2.0	26	4.6	17	4.0				716.1	
WAKKAN	0	EX	02	32	30				24	4.1	34	5.1	34	6.2				645.8	
SHIZUO	0	EP	02	32	30.5	S	33	44.7	39	2.7	45	2.8	22	2.8				723.9	74.2
MATSUM	0	X	02	32	31.7	ES	33	41.8										652.7	
KANAZA	0	EP	02	32	31.8	ES	33	49.0	39	4.4	42	4.0	31	3.3				729.7	77.2
HAMAMA	0	EP	02	32	37	X	34	28.4	54	3.0	46	3.4	11	2.4				787.2	
GIFU	0	P	02	32	38.9	S	34	16.2	32	3.0	19	1.9	6	2.6				796.6	97.3
FUKUI	0	X	02	32	40.1													791.3	
NAGOYA	0	EP	02	32	41.2	S	34	07.7	80	3.0	61	3.0	31	2.3				799.8	86.5
TSURUG	0	EP	02	32	43	EX	33	59										829.1	
HACHIJ	0	EP	02	32	43.6	X	34	04.4	21	1.2	18	1.0						831.2	
UTSUNO	0	EX	02	32	44													505.4	
KYOTO	0	IP	02	32	51.2	ES	34	36.2	10	2.2	12	2.5	6	4.0	N 0 E 0 D 0			896.2	105.0
HIKONE	0	X	02	32	55.2	S	34	25.0	39	2.7	35	2.5						841.7	
OWASE	0	EP	02	32	56.0	X	35	00.0	6	4.0	5	5.0	6	4.0				935.4	
OSAKA	0	EP	02	32	57				73	2.7	48	3.3	16	2.8				934.8	
TOYOOK	0	EP	02	32	57.7				22	1.2	16	1.2	15	13.2	S	W	U	928.8	
MISHIM	0	X	02	32		ES	33	43.5	71	2.8	89	2.2	29	2.2				681.8	
KAWAGU	0	X	02	32		X	33	19.9										658.7	
SHIONO	0	EP	02	33	05.5				7	3.4	9	2.3						1012.5	
SAIGO	0	EP	02	33	05.6	ES	34	51.5	6	3.4	6	1.7	8	4.5	S 1 W 1 U 3			1007.9	105.9
OKAYAM	0	EP	02	33	10.6	ES	35	13	7	2.6	6	4.2	5	3.5		E	D 1	1050.6	122.4
KOBE	0	EX	02	33	14.9													958.2	
MATSUY	0	EP	02	33	26.4	X	35	48.2	7	13.0	5	13.8						1190.2	
HIROSH	0	EP	02	33	30.4	ES	35	35.4	8	4.6	5	13.2	4	13.8	N 2 E 2 D 3			1182.0	125.0
ASHIZU	0	EP	02	33	34.4	EX	36	37.2	6	4.7	4	4.5	4	4.5				1252.7	
MUROTO	0	X	02	33	38.6	IX	35	48.1	10	3.8	10	8.2	6	6.0				1132.8	
OMAEZA	0	X	02	33	45.2	X	35	23.6	101	3.8	51	2.4						766.8	
OITA	0	EX	02	33	46.2				13	5.6	19	6.3						1316.4	
FUKUOK	0	EP	02	33	52.5	ES	36	11	6	3.2	4	4.5	3	4.0				1388.1	138.5
KUMAMO	0	IP	02	33	55.1	ES	36	26.7	8	2.7	7	14.4	2	1.6		E 2 D 2		1412.7	151.6
MIYAZA	0	P	02	33	56.0				5	4.0	5	5.0	4	2.2				1423.4	
SHIMON	0	X	02	33		EX	35	43.7	6	3.4	4	4.4	5	5.8				1321.9	
KAGOSH	0	EP	02	34	06.4				4	2.6	8	3.4	2	1.6				1510.6	
NAGASA	0	X	02	34	16.0	X	37	22.0									D	1482.1	

OT= 16 2 57 35.2 +/- 0.9
FAR OFF SANRIKU
LAT= 39 46 +/- 4 LONG= 143 47 +/- 5
H= 10 MAG=4.3 CLASS=U

MIYAKO	0	EP	02	58	01.8	ES	38	21.2	7	1.4	6	1.6						156.2	19.4
OFUNAT	0	EP	02	58	07.6	ES	38	32.2	6	1.6	4	1.0	4	1.2				194.3	24.6
MORIOK	0	IP	02	58	12.0	S	38	39.0	4	0.4	5	0.4	2	1.7		W 1 U 1		224.3	27.0
						IX	38	21.9											
SENDAI	0	EX	02	58	20	ES	38	52	9	2.8	9	1.6	3	0.8				300.5	
AOMORI	0	EX	02	58	28				19	1.7	16	1.4	6	1.2				280.5	
KUSHIR	0	EP	02	58	30	ES	39	06	5	0.3	6	0.2	3	0.2				360.4	36.0
AKITA	0	EX	02	58	45	EX	39	16	9	2.0	9	3.2	5	2.0				315.6	
MATSUS	0	IP	02	59	00.3	ES	00	05							S		U	605.7	64.7
SAKATA	0	EX	02	59	16.2													353.5	

Read to here.

International Seismological Centre From the ISC collection scanned by SISMOS

OT= 17 4 59 43.9 +/- 0.2
NEAR CHICHIBU
LAT= 35 59 +/- 1 LONG= 139 5 +/- 1
H= 20 MAG=3.1 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
CHICHI	2	IP	04	59	47.0	IS	59	50.1	225	0.6	150	0.2	50	0.4	S	3 W	4	0.9	03.1
KUMAGA	0	P	04	59	51.0	S	59	55.4	10	0.8	11	0.8	3	1.0			D 4	32.7	04.4
KOFU	0	IP	04	59	55.6	IS	00	03.2	8	0.3	10	0.3			S	2 W	2	59.1	07.6
TOKYO	0	EX	05	00	00	S	00	05.5	15	0.0	16	0.0						69.4	
MATSUS	0	IP	05	00	02.0	S	00	13							S	W	D	99.9	11.0

OT= 17 12 59 42.7 +/- 0.3
NW PART OF CHIBA PREF
LAT= 35 43 +/- 1 LONG= 139 59 +/- 2
H= 40 MAG=3.7 CLASS=U

TOKYO	0	P	12	59	52.6	S	00	00.0	45	0.0	30	0.0						20.7	07.4
KAKIOK	0	P	12	59	54.5	IS	00	02.5	14	0.8	15	0.8	8	1.0				60.2	08.0
MITO	0	EP	12	59	57.6	IS	00	08.0	9	0.4	8	0.3						85.6	10.4
KUMAGA	0	EX	12	59	57.6				6	0.6								72.0	
UTSUNO	0	P	12	59	58.2	S	00	08.8										92.6	10.6
AJIRO	0	P	13	00	00.9	IS	00	14.1	17	0.2	17	0.2	5	0.3				109.8	13.2
MATSUS	0	IP	13	00	10.6	S	00	32								E	U	183.9	21.4

OT= 17 13 56 12.8 +/- 0.6
FAR OFF SANRIKU
LAT= 39 34 +/- 2 LONG= 143 47 +/- 4
H= 70 CLASS=M

MIYAKO	X	P	13	56	37.1	S	56	53.5	111	4.0	68	4.0	111	2.2		W 24	U 17	156.1	16.4
OFUNAT	0	IP	13	56	41.1	S	57	01.2	126	3.4	59	2.2	61	2.6	S	2 W 14	U 10	186.7	20.1
HACHIN	0	P	13	56	44.6	ES	57	08.2	50	3.3	46	5.5	46	4.2				220.1	23.6
MORIOK	0	EP	13	56	46.2	ES	57	08.4	95	3.7	40	3.2	60	3.7		W	4 U 2	225.0	22.2
ISHINO	0	EP	13	56	49.2	IS	57	17.6	86	2.8	62	2.6	66	3.2	S	8 W 10	U 9	249.4	28.4
AOMORI	0	EP	13	56	54	S	57	25	271	1.4	232	1.8	113	2.0				290.7	31.0
SENDAI	X	IP	13	56	54.5	IS	57	22.1	211	2.4	158	2.0	45	3.6	S	5 W 11	U 8	289.1	27.6
URAKAW	0	P	13	56	56.1	ES	57	26	61	3.2	92	3.6	66	3.6				300.0	29.9
HIROO	0	EP	13	56	57	ES	57	29										304.3	32.0
AKITA	0	EP	13	56	58.6	X	57	37.4	248	2.4	180	3.2	128	2.8			U 7	316.5	
YAMAGA	0	P	13	56	59.7	ES	57	36.7	100	2.2							U 3	331.5	37.0
HAKODA	0	EP	13	57	02	X	57	51	38	2.2	57	1.4						357.2	
SAKATA	0	EP	13	57	03.5	ES	57	42.6	500	2.7	600	2.9	200	2.0				348.6	39.1
OBIHIR	0	EP	13	57	06	ES	57	45										375.4	39.0
MURORA	0	EP	13	57	06													385.8	
KUSHIR	0	EP	13	57	07	ES	57	44	24	2.6	22	1.8	15	3.2				382.4	37.0
SHIRAK	0	EP	13	57	10.2	ES	57	56.1										413.0	45.9
ONAHAM	0	EP	13	57	10.6	S	57	54.4										384.7	43.8
NEMURO	0	EP	13	57	13	ES	57	58	13	1.8	15	2.0	11	1.8				444.1	45.0
MITO	0	EP	13	57	13.2	ES	58	09.4	71	2.8	77	3.4						458.0	56.2
SAPPOR	0	P	13	57	13.7				40	2.6	46	3.2	23	3.0				438.8	
SUTTSU	0	EX	13	57	16													465.3	
KAKIOK	0	P	13	57	18.5	ES	58	08	40	0.9	37	0.8	12	0.9				486.4	49.5
ASAHIK	0	EP	13	57	19				22	2.8	38	2.8	22	2.6				481.4	
ABASHI	0	EP	13	57	19	S	58	10.0	14	3.2	28	2.8	9	3.4				496.1	51.0
AIKAWA	0	EP	13	57	22.0				30	3.4	15	4.2	16	2.0	N	E	U	511.0	
CHOSHI	0	EP	13	57	22.4	EX	58	07.3										499.0	
						X	58	40.5											
NIIGAT	0	X	13	57	24.2	X	58	15.0	220	3.1	180	4.0	85	4.5			U 6	450.5	
TOKYO	0	EX	13	57	28				50	3.8	70	4.2	28	2.0				558.2	
KUMAGA	0	EP	13	57	28.4	X	57	54.8	45	3.4								541.9	
TAKADA	0	EP	13	57	29.5													555.4	
CHICHI	0	EP	13	57	31.4	S	58	27.4										573.4	56.0
KARUIZ	0	EP	13	57	32.0	ES	58	31.6										582.6	59.6
MATSUS	0	IP	13	57	33.3	S	58	32									U	593.4	58.7
NAGANO	0	EP	13	57	35.5	X	58	53.5	40	3.6	33	3.4	25	3.5				586.4	
MATSUM	0	EP	13	57	36.5	X	58	55.3										629.9	
KAWAGU	0	P	13	57	36.6	ES	58	40.6										632.8	64.0
WAJIMA	0	EP	13	57	38				20	2.0	15	2.2	10	2.6				647.3	
TATEYA	0	EP	13	57	39.5				105	2.5	74	3.3	37	3.0				615.6	
KOFU	0	EP	13	57	39.8	ES	58	42.0	39	1.7	40	2.2	14	4.0				632.4	62.2
TOYAMA	0	EP	13	57	41	ES	58	57	50	4.4	20	3.0						657.8	76.0
MISHIM	0	EP	13	57	41.7	X	59	10.1	26	2.2	38	2.2	14	2.5				655.0	
IIDA	0	EP	13	57	45.6	X	59	17.2	17	2.0	14	2.2	8	3.0				691.8	
SHIZUO	0	EP	13	57	50.0	ES	58	52.2	12	2.4	15	3.0	9	9.0				697.7	62.2

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
WAKKAN	0	EX	13	57	50				17	4.4	19	4.8	17	5.2				672.6	
HAMAMA	0	EP	13	57	54	EX	59	40	20	2.6	24	3.2	7	2.4				761.5	
OMAEZA	0	EP	13	57	56.4				28	3.8	28	2.8	8	2.4				740.3	
GIFU	0	P	13	57	57.9	X	59	50.1	13	2.8	6	1.7						773.7	
AJIRO	0	X	13	57	58.0	X	59	07.5	12	2.8	12	2.8	3	2.4				651.4	
FUKUSH	0	EX	13	57					100	1.2	100	1.2						351.1	
KANAZA	0	EX	13	57					12	3.3	17	4.0	11	3.9				709.9	
NAGOYA	0	X	13	58	03.6	X	59	28.6	37	2.2	33	2.4	9	2.6				776.1	
KYOTO	0	EP	13	58	07.5	X	59	54.3	7	2.0	7	5.5	3	2.5				873.9	
OSHIMA	0	EX	13	58	15				26	3.7	14	2.4						661.1	
TOYOOK	0	X	13	58	21.8				8	1.9	10	3.1						908.9	
OSAKA	0	EX	13	58	53				27	3.9	23	2.5	10	2.5				912.1	
NAGASA	0	X	13	59	38.1	X	03	21.0										1462.1	
HIKONE	0	X	13	59	42.6				14	2.9	17	2.5						819.2	

OT= 17 19 18 50.1 +/- 0.6
HYUGANADA
LAT= 31 35 +/- 2 LONG= 131 56 +/- 2
H= 30 MAG=4.3 CLASS=L

MIYAZA	X	IP	19	19	01.6	IS	19	09.4	138	0.7	103	0.8	42	0.6			U 26	60.6	07.8
YAKUSH	0	EX	19	19	07.7				7	0.7	4	0.7	2	0.5				185.9	
NOBEOK	0	IP	19	19	08.8	ES	19	21.8							N	4 W	1 U 6	113.3	13.0
KAGOSH	0	EP	19	19	12.5	S	19	25.1	7	0.8	17	0.8	7	1.2				130.9	12.6
KUMAMO	0	IP	19	19	18.1	IS	19	37.6	25	1.6	29	1.6	16	0.9	S	5 E	5 n 5	178.3	19.5
OITA	0	EX	19	19	20.4	S	19	39.9	34	1.4	26	1.4						185.2	
ASHIZU	0	EX	19	19	31.5				6	0.8	4	0.8	3	0.8				161.9	

OT= 18 16 59 12.5 +/- 1.2
FAR OFF SANRIKU
LAT= 39 42 +/- 3 LONG= 143 57 +/- 6
H= 0 MAG=4.6 CLASS=U

OFUNAT	0	IP	16	59	47.0	S	00	13.8	9	3.0	7	2.2	7	2.8		W 1	U 2	204.9	26.8
MORIOK	0	IP	16	59	52.0	ES	00	18.7	8	0.5	9	0.4	6	2.4	N	0 W 2	U 1	236.6	26.7
ISHINO	0	EP	16	59	55.2	ES	00	29.4	9	2.6	7	1.6	6	3.0			U 2	269.2	34.2
URAKAW	0	P	16	59	59.8	S	00	30.5	5	2.0	9	2.6	4	2.2				290.3	30.7
SENDAI	0	P	17	00	00.0	X	00	21.8	15	2.0	12	1.4	5	1.6				308.8	
HAKODA	0	EP	17	00	07	EX	00	43	6	1.2	6	1.0	3	1.1				357.4	
SAKATA	0	EX	17	00	08.1													365.6	
AKITA	0	EX	17	00	12	EX	00	41.2	22	2.6	23	3.6	13	1.8				330.0	
SAPPOR	0	EX	17	00	20				4	2.0	5	2.0	2	1.0				432.5	
AOMORI	0	ES	17	00	30				44	1.8	34	1.0	15	1.0				296.5	
KUMAGA	0	EX	17	00	32.4				5	1.6	5	1.6						562.5	
MATSUS	0	IP	17	00	39.7	X	01	34							S	W	n	615.5	

OT= 19 9 12 52.1 +/- 0.2
SW PART OF IBARAKI PREF
LAT= 36 2 +/- 2 LONG= 139 59 +/- 2
H= 60 MAG=3.9 CLASS=L

KAKIOK	2	IP	09	13	01.6	S	13	07.9	167	0.5	84	0.8	44	0.2			U 16	29.0	06.3
TOKYO	0	P	09	13	04.0	S	13	11.8	36	0.2	49	0.1	6	0.6				43.7	07.8
KUMAGA	0	P	09	13	04.4	S	13	12.4	17	0.4	9	0.2	3	0.2			n 4	55.3	08.0
MITO	1	P	09	13	05.2	IS	13	14.0	57	0.6	42	0.3	9	0.4				56.2	08.8
UTSUNO	1	IP	09	13	05.4	IS	13	12.4									n	57.8	07.0
CHOSHI	0	IP	09	13	08.3	S	13	19.0										84.8	10.7
TATEYA	0	EP	09	13	12.2				15	2.0	20	0.8	8	1.8				116.9	
AJIRO	0	EP	09	13	15.1	ES	13	28.2	6	0.2	5	0.2	1	0.3				136.1	13.1
OSHIMA	0	P	09	13	15.1	S	13	31.7	14	0.4	12	0.3	8					151.4	16.6
ONAHAM	0	EP	09	13	17.0	S	13	26.5										130.7	09.5
MISHIM	0	EP	09	13	17	S	13	35.1	8	0.7	10	0.7	4	1.1				139.9	18.1
YOKOHA	0	S	09	13	17.7													72.5	
KOFU	0	EP	09	13	17.8	ES	13	31.3	8	0.8	7	0.8	3	1.0				135.0	13.5
MATSUS	0	IP	09	13	18.0	S	13	43							S	E	n	169.0	25.0

OT= 19 10 26 19.5 +/- 0.5
OFF MIYAGI PREF
LAT= 37 55 +/- 1 LONG= 141 59 +/- 3
H= 40 MAG=4.8 CLASS=M

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
ISHINO	1	IP	10 23 34.6	IS	23 43.6	80 1.4	80 1.2	48 0.8	S 42	E 25	n 44	82.1	09.0
SENDAI	X	IP	10 23 37.4	IS	23 47.6	38 2.0	54 2	31 1.2	S 9	E 22	n 36	102.4	10.2
OFUNAT	1	IP	10 23 40.4	IS	23 54.0	25 0.0	20 1.0	15 1.0	S 2	E 1	n 3	129.2	13.6
ONAHAM	0	IP	10 23 41.7	S	23 56.3						U 1	143.9	14.6
YAMAGA	0	IP	10 23 42.4	ES	23 58.7					E 2	n 3	148.1	16.3
SHIRAK	0	P	10 23 47.0	IS	24 05.8							178.9	18.8
MIYAKO	1	EP	10 23 48	ES	24 10	6 1.0	9 1.0	8 0.7				191.9	22.0
MORIOK	0	IP	10 23 51.0	ES	24 13.2	24 0.4	21 0.3	6 1.6	S 1	E 0	n 1	209.9	22.2
MITO	0	EP	10 23 51.4	S	24 12.6	23 1.0	20 1.6	12 1.4				217.2	21.2
KAKIOK	0	P	10 23 52.5	IS	24 19.1	56 1.0	44 0.9	15 1.1				245.5	26.6
SAKATA	0	EX	10 23 56.0									217.1	
AKITA	0	EP	10 23 58.2			27 2.6	28 2.4	12 1.8				258.3	
FUKUSH	1	EX	10 23			250 1.0	250 1.0					133.9	
HACHIN	0	EP	10 24 01.9	IS	24 36.6	6 0.8	7 1.0	5 1.9				292.3	31.7
KUMAGA	0	EP	10 24 06.0	ES	24 41.4	13 1.0	10 1.2	5 1.2				306.3	35.4
CHOSHI	0	X	10 24 09.2	EX	24 26.5							263.6	
KARUIZ	0	EP	10 24 10.8									351.5	
MATSUS	0	IP	10 24 11.4	S	24 55					E	n	368.2	43.6
TOKYO	0	EX	10 24 16			11 1.0	10 1.2					317.4	
KOFU	0	EP	10 24 17.2	ES	25 02.6	18 1.8	12 1.8	6 1.1				394.7	45.4
NAGANO	0	X	10 24 20.5	ES	25 00.5	8 1.0	6 1.0	3				363.5	
UTSUNO	1	S	10 24 20.8									241.3	
AOMORI	0	EX	10 24 24			26 1.1	26 1.4					338.1	
TATEYA	0	X	10 24 27.5			18 2.0	14 2.5	8 1.5				376.6	
URAKAW	0	EP	10 24 29	S	25 15.5	4 1.0	8 1.4	2 1.2				475.9	46.5
KAWAGU	0	X	10 24 34.8	X	25 12.0							393.3	
MISHIM	0	X	10 24 43.0	ES	25 04.3	13 2.2	13 1.0	3 1.3				414.2	
OBIHIR	0	EX	10 24 49									565.4	
KUSHIR	0	EX	10 25 37			6 0.2	7 0.2	2 0.2				598.1	

OT= 19 13 26 49.2 +/- 0.3
W PART OF FUKUSHIMA PREF
LAT= 37 25 +/- 2 LONG= 139 34 +/- 2
H= 0 MAG=4.2 CLASS=U

SHIRAK	0	P	13 27 03.3	IS	27 11.3							67.1	08.0
NIIGAT	0	P	13 27 04.7	IS	27 16.0	42 2.5	63 1.2	20 3.0			U 11	71.1	11.3
UTSUNO	0	IP	13 27 09.2	IS	27 20.8				S 3	E 5	U 6	100.3	11.6
TAKADA	0	EP	13 27 12.1	S	27 28.3							121.8	16.2
AIKAWA	0	EP	13 27 13.5	IS	27 31.4	64 0.4	19 0.4	9 0.4				134.6	17.9
ONAHAM	0	IP	13 27 14.4	IS	27 29.7						D 1	130.0	15.3
KAKIOK	0	IP	13 27 14.7	X	27 22.5	10 1.2	13 0.9	5 0.5	S 6	E 2	U 1	142.9	
MITO	0	P	13 27 14.9	S	27 33.2	11 0.6	14 0.8	5 1.2				140.6	18.3
KUMAGA	0	EP	13 27 17.0	ES	27 39.0	8 3.4	7 2.8	8 3.2				141.8	22.0
MATSUS	0	P	13 27 17	S	27 36							155.3	19.0
KARUIZ	0	EP	13 27 17.4	IS	27 35.7							149.9	18.3
SAKATA	0	EX	13 27 20.1									166.7	
NAGANO	0	EP	13 27 20.6	ES	27 36.4	16 0.5	7 0.7	3 0.5				148.0	15.8

OT= 19 16 20 25.0 +/- 0.5
SW PART OF IBARAKI PREF
LAT= 36 0 +/- 2 LONG= 140 0 +/- 2
H= 40 MAG=4.3 CLASS=L

KAKIOK	2	IP	16 20 33.6	S	20 39.4	179 0.5		89 0.5			U 9	31.0	05.8
TOKYO	0	P	16 20 35.4	IS	20 43.9	61 0.6	62 0.8	28 1.4				41.2	08.5
UTSUNO	1	IP	16 20 36.8	S	20 44.4				S 2		n 3	61.7	07.6
KUMAGA	1	P	16 20 37.0	IS	20 45.0	53 1.0	30 0.8	10 1.2			n 13	57.7	08.0
MITO	1	IP	16 20 37.9	IS	20 46.0	55 1.4	30 0.4	13 0.4			U 3	59.7	08.1
CHICHI	1	EP	16 20 39.2	IS	20 48.5							82.8	09.3
CHOSHI	0	EP	16 20 40.2	S	20 49.4							82.0	09.2
AJIRO	0	EP	16 20 45.9	S	21 00.7	19 0.2	14 0.2	3 0.3				134.1	14.8
ONAHAM	0	EX	16 20 46.0	ES	20 58.2							132.6	
KARUIZ	0	EP	16 20 46.2	S	21 02.6							135.6	16.4
KOFU	0	IP	16 20 46.6	ES	21 05.8	45 0.5	46 0.5	10 1.2			n 1	135.4	19.2
OSHIMA	0	P	16 20 47.4	IS	21 03.0	23 0.6	19 0.5	17				148.5	15.6
MISHIM	0	EP	16 20 50.2	ES	21 06.8	21 2.2	20 0.7	6 1.8				138.3	16.6
YOKOHA	0	ES	16 20 50.8									69.8	
SHIZUO	0	EP	16 20 51.0	ES	21 14.2	7 1.0	7 0.8	3 1.3				184.0	23.2
MATSUS	0	IP	16 20 51.0	S	21 08				S	E	n	171.7	17.0
NAGANO	0	EP	16 20 53.3	X	21 24.8	5 0.7	4 1.0					177.7	
SHIRAK	0	X	16 20 54.8	X	21 09.1							125.7	
IIDA	0	EP	16 20 57.4	ES	21 23.4	4 1.6	8 1.2	4 1.2				203.2	26.0
KAWAGU	0	X	16 20 58.5	X	21 11.1							124.9	
TATEYA	0	X	16 20			35 2.0	34 0.7	17 1.4				113.4	
SENDAI	0	P	16 21 06	S	21 30	5 0.9	7 1.2	2 2				263.2	24.0

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NAGOYA	0	EP	16 21 07.0	ES	21 36.6	7 1.4	8 1.2	4 1.2				289.9	29.6
HAMAMA	0	X	16 21 11			6 2.0	6 2.2	2 2.0				251.6	
OSAKA	0	EX	16 21 49			8 2.4	4 2.0	3 1.5				432.6	

OT= 20 0 18 8.0 +/- 0.3
E OFF AOMORI PREF
LAT= 40 44 +/- 1 LONG= 142 19 +/- 3
H= 40 MAG=4.8 CLASS=S

HACHIN	3	IP	00 18 21.7	IS	18 30.2	144 0.4	134 0.4	66 0.8	N 2	E	n 11	70.9	08.5
MIYAKO	1	EP	00 18 27.4	ES	18 40.4	23 1.0	32 2.0	20 1.5				124.4	13.0
AOMORI	0	IP	00 18 29.1	ES	18 47.9	106 0.7	101 0.9	37 0.9		E 17	n 17	129.8	18.8
MORIOK	1	IP	00 18 31.8	IS	18 49.3	73 0.4	72 0.4	18 0.4	N 2	E 1	n 1	151.0	17.5
HAKODA	0	IP	00 18 34.5	S	18 53.8	33 1.1	28 1.0	10 1.0	S 3	E 4	n 7	177.3	19.3
URAKAW	0	P	00 18 36.1	S	18 54.7	40 0.6	72 0.4	12 1.2				162.9	18.6
HIROO	0	EP	00 18 38	IS	18 59.0							191.3	21.0
MURORA	0	P	00 18 38.2	S	18 59.8							208.1	21.6
OFUNAT	1	IP	00 18 38.4	IS	18 58.0	27 0.0	19 0.4	17 0.8	S	E	n	192.5	19.6
AKITA	0	P	00 18 41.2	ES	19 07.6	23 1.2	35 2.0	18 1.8	N 3	E 1	n 2	219.6	26.4
ISHINO	0	EP	00 18 47.6	IS	19 17.6	12 1.4	11 1.2	9 2.6			U	270.7	30.0
SAPPOR	0	P	00 18 47.7	ES	19 15	7 0.6	11 1.4	6 0.8				270.9	27.3
OBIHIR	0	EP	00 18 49	S	19 14.7							254.3	25.7
KUSHIR	0	EP	00 18 50	S	19 21.4	28 0.3	27 0.2	9 0.3				303.3	31.4
SENDAI	0	P	00 18 51	S	19 26	18 1.2	33 1.5	9 1.2				300.4	35.0
ASAHIK	0	EP	00 18 57			9 1.0	10 1.2	7 1.6				337.4	
SAKATA	0	EX	00 19 02.3									293.9	
ABASHI	0	EP	00 19 03	ES	19 43	5 2.4	4 2.8	2 2.2				399.1	40.0
SHIRAK	0	EP	00 19 08.2	ES	19 58.8							440.3	50.6
MITO	0	EX	00 19 26.4	ES	20 11.4	15 2.1	10 1.8	5 2.4				509.4	
MATSUS	0	IP	00 19 27.8	X	20 51				S		U	587.0	
KAKIOK	0	X	00 19 29	S	20 26.0	14 1.0	16 1.3	5 0.8				532.9	
KUMAGA	0	EP	00 19 30.0	ES	20 30.0	9 2.2	11 2.8	3 2.0				569.7	60.0
ONAHAM	0	EX	00 19 31.1	ES	19 57.6							438.0	
TATEYA	0	EX	00 20 43.0			10 3.0	9 2.3	5 3.0				673.4	

OT= 20 12 54 45.0 +/- 0.8
OFF MIYAGI PREF
LAT= 37 53 +/- 2 LONG= 142 5 +/- 4
H= 40 MAG=4.1 CLASS=U

ISHINO	0	IP	12 55 01.2	IS	55 10.2	23 0.6	25 1.2	11 1.4				91.0	09.0
SENDAI	0	IP	12 55 03.4	IS	55 15.0	11 0.2	10 1.7	8 0.2	S	E	n 10	111.9	11.6
OFUNAT	0	IP	12 55 07.0	IS	55 20.4	13 0.0	9 0.2	5 0.6				134.6	13.4
MORIOK	0	P	12 55 17.8	S	55 40.3	8 0.4	11 0.5	1 0.4			U 0	216.4	22.5
HACHIN	0	EP	12 55 25.6	ES	56 01.4	5 0.2	2 0.6					297.2	35.8
MATSUS	0	IP	12 55 38.1	S	56 19						U	374.9	40.9

OT= 21 16 19 24.5 +/- 0.5
HYUGANADA
LAT= 32 9 +/- 2 LONG= 132 7 +/- 2
H= 10 MAG=6.5 CLASS=R

NOBEOK	4	IP	16 19 34.7	IS	19 43.2	600 1.1	500 0.9	700 1.3	S 1	E 1	n 2	63.0	08.5
MIYAZA	4	IP	16 19 38.5	S	19 48.1	4500 0.8	4850 0.8	2500 0.8	N 4	E 3	n 7	70.1	09.6
ASHIZU	1	IP	16 19 44.7	IS	19 54.0	2150 5.1	1600 5.9	1050 3.3	S 36	W 34	n 33	105.4	09.3
KUMAMO	3	IP	16 19 46.5	IS	20 07.0	4250 4.3	4900 3.9	2900 3.7	S 3	E 9	n 3	151.1	20.5
UWAJIM	3	IP	16 19 47.2	IS	20 02.3	1200 3	3500 5	1700 3	N 8	E 8	U 4	126.2	15.1
ASOSAN	2	EP	16 19 47.5	ES	20 03.6	3450 6.2	3350 4.0	4750 4.2	S	E	n	126.8	16.1
OITA	3	IP	16 19 50.3	S	20 06.1	1025 2.4	725 2.4	475 3.4	N 77	W 37		128.7	15.8
KAGOSH	3	P	16 19 52.4	S	20 10.4	7850 2.6	6900 2.2	2100 1.4	S 14	E 49	U 73	161.1	21.0
UNZEND	3	IP	16 19 55.0	ES	20 23.0	1500 1.5	2200 1.5	1200 1.5	N	0 W 20		186.8	28.0
MATSUY	2	IP	16 19 57.5	IS	20 18.5	900 1.7	1600 2.0	700 2.0	N 33	E 12		197.3	21.0
SAGA	3	IP	16 19 57.7	S	20 25.1	4800 3.3	5000 3.8	1600 2.4	N 30	W 90	U 52	208.7	27.4
KOCHI	2	EP	16 19 59.7	ES	20 25.2	800 3.3	1200 4.8	500 2.9				204.1	25.5
NAGASA	X	IP	16 19 59.8	IS	20 28.0	600	1000 5.0	700 5.0	N 40	W100	U 70	220.3	28.2
YAKUSH	1	P	16 20 01.0	EX	20 45.3	255 3.2	309 4.0	222 4.8				243.4	
FUKUOK	1	IP	16 20 01.2	IS	20 31.6	700 3.3	1800 3.7	1200 1.6	N 52	W 43	U 67	227.0	30.4
SHIMON	0	IP	16 20 02.4			8000 9.3		6000 8.9	N 69	W 27	U 60	226.0	
HIROSH	X	P	16 20 02.6	IS	20 28.5	520 7.2	715 2.3	589 3.0	N 38	E 2	U 24	247.2	25.9
TAKAMA	1	EP	16 20 09.5	IS	20 50.5	700 1.0	1000 1.6	350 1.2				300.7	41.0
HAMADA	1	IP	16 20 10.8	ES	20 48.4	1000 1.5	1100 2.8	1400 3.5	N 2		U 1	304.2	37.6
FUKUE	0	P	16 20 10.8	S	20 54.0	278 2.6	325 3.1	328 4.0	N 7	W 40	U 28	314.6	43.2

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
OKAYAM	1	EP	16	20	11.8	IX	20	57.5	300	4.0	500	4.0	300	2.0	N	E	U	326.7	
ANABUK	0	X	16	20	12.7	S	20	46.1			503	3.2						264.2	
IZUHAR	0	P	16	20	13.7	S	20	58.7	400	0.4	500	0.4	1000	0.4				347.9	40.0
SHIONO	0	EP	16	20	15.9	IS	20	57.7	117	6.0	204	5.5	67	1.9	S	5	W	8	370.5	41.8
TOKUSH	1	EP	16	20	16.5	X	21	03.4	845	0.2	915	0.1	203	0.2					312.6	
WAKAYA	0	P	16	20	16.9	EX	20	43.0	89	5.5	48	1.1	140	6.5					365.8	
YONAGO	1	EP	16	20	19.6	IS	21	13.9	300	1.4	400	1.4	700	1.4	N	4	E	2	U 2	381.3	54.3
MATSUE	1	EP	16	20	20.4	S	21	11.2												377.0	50.8
TOTTOR	X	EP	16	20	23.4	ES	21	11.6	500	7.8	700	7.4	300	8.2						418.7	48.2
OWASE	0	IP	16	20	24.1	X	21	06.6	110	7.1	85	6.3	103	6.0	S		W		D	435.8	
OSAKA	0	EX	16	20	30	ES	21	08	1100	3.1	1000	3.0	300	3.4						422.8	
KYOTO	0	EP	16	20	31.0	ES	21	19.0			125	3.9	73	8.9						461.9	48.0
TOYOOK	1	EP	16	20	31.4	X	21	23.8	1900	1.2	1300	1.2	300	2.3						451.1	
HIMEJI	0	X	16	20	32.3	ES	21	15.9												382.6	
SAIGO	X	P	16	20	34.7	S	21	27.4	400	4.6	650	4.6	350	3.7						463.4	52.7
HIKONE	0	EP	16	20	35.1	S	21	44.3	382	2.4	366	2.4								516.0	69.2
NARA	0	X	16	20	35.3				350	2.0	300	2.0	100	1.8						445.3	
KOBE	0	X	16	20	39.0	X	21	23.0	450	5.0	300	5.0	250	6.0						400.4	
NAGOYA	0	EP	16	20	41.4	S	21	45.0	219	2.8	254	2.8	92	2.4	S	2	W	3	D 3	560.3	63.6
TSURUG	0	EP	16	20	42	EX	21	44	500	6.7	400	5.6	200							532.7	
						IX	22	00.1													
GIFU	0	P	16	20	42.2	X	22	19.1	204	5.2	144	4.9	104	4.2	S	3	W	3	D 2	561.1	
TSU	0	X	16	20	43.4	X	21	46.9	310	2.0	330	2.1	140	2.0						497.4	
HAMAMA	0	EP	16	20	47	X	22	22	150	3.4	130	4.0	75	3.6						598.3	
OHAEZA	0	EP	16	20	48.8	X	22	34.6	321	9.6	215	4.6								628.8	
IIDA	0	EP	16	20	53.0	X	22	40.4	128	4.0	125	1.6								647.0	
SHIZUO	0	P	16	20	53.0	ES	22	10.5	100	6.6	68	7.5	77	4.0						662.3	77.5
FUKUI	0	X	16	20	54.3	X	22	12.2	700	1.6	400	1.5	300	3.6						575.3	
KANAZA	0	EP	16	20	55.3	ES	22	09.0	238	5.5	275	4.6	186	4.0						641.3	73.7
TAKAYA	0	EP	16	20	57.6	X	22	37.3												648.9	
SUMOTO	0	X	16	20					700	5.0	600	5.0	250	3.6						355.4	
MISHIM	0	X	16	20		ES	22	14.6	128	4.4	147	4.4	45	4.5						711.9	
TOYAMA	0	EP	16	21	00	ES	22	18	330	4.6			302	4.4						688.4	78.0
MATSUM	0	EP	16	21	00.8	ES	22	27.9	250	3.4	160	3.0	150	3.3						704.9	87.1
AJIRO	0	EP	16	21	01.5	ES	22	28.1	35	4.2	43	4.4	35	4.6						722.5	81.6
HACHIJ	0	EP	16	21	01.8	ES	22	20.6	62	6.0	47	5.0	25	5.0						727.2	78.8
KOFU	0	EP	16	21	02.0	ES	22	26.6	186	2.6	77	2.4	63	3.2						711.5	84.6
OSHIMA	0	EP	16	21	02.6								17	2.0						734.1	
WAJIMA	0	EP	16	21	04	X	22	40	178	2.4	200	2.0	88	2.0						727.2	
MATSUS	0	IP	16	21	04.5	S	22	24							S		W		D	741.6	79.5
CHICHI	0	EP	16	21	06.6	X	22	51.3	150	3.2	100	4.0	100	3.8						770.7	
KARUIZ	0	EP	16	21	07.7	S	22	30.2												752.7	82.5
TATEYA	0	EX	16	21	09.5				134	8.3	136	10.5	66	5.3						784.8	
TOKYO	0	P	16	21	12.1	S	22	44.9	228	7.2	290	8.6	173	3.4						807.5	92.8
KUMAGA	0	EP	16	21	14.0	ES	22	48.0	153	7.2	150	6.8	83	4.0						806.0	94.0
NAHA	0	EP	16	21	14	X	22	54	32	9.8	35	7.3	36	9.8						784.2	
NAGANO	0	X	16	21	15.4	X	23	06.3	400	3.8	500	3.8	250	3.8						749.7	
KAKIOK	0	EP	16	21	20	ES	22	57	51	17.2	39	11.5	18	15.3						870.6	97.0
AIKAWA	0	EP	16	21	20.5	ES	23	0	47	2.4	34	3.0	32	2.4	N		E		U	857.3	
TAKADA	0	X	16	21	22.0	X	23	17.9												765.8	
NIIGAT	0	IP	16	21	27.4	X	23	23.8	315	7.2	390	8.8	143	6.8				U	6	808.6	
SHIRAK	0	EP	16	21	30.6	X	23	58.8												924.6	
MITO	0	EP	16	21	30.6	X	23	29.6	84	3.8	75	3.5	65	3.4						900.4	
ONAHAM	0	EX	16	21	36.8	X	23	14.2												965.4	
YAMAGA	0	EP	16	21	41.6	EX	24	24.2												1009.2	
ISHINO	0	EP	16	21	45.4	ES	23	41.2	43	9.6	46	9.6	25	9.0				D	2	1086.4	115.8
SENDAI	0	EP	16	21	47.0	ES	23	34	75	8	50	9	22	13						1047.3	107.0
SAKATA	0	X	16	21	48.0	ES	23	40.1	150	7.1	300	6.3								1024.5	
AKITA	0	EP	16	21	53.4	ES	23	53.2	80	11.2	96	10.0	62	4.6						1105.3	119.8
OFUNAT	0	P	16	21	58.4	S	23	58.0	28	14.8	41	13.2	19	12.2	N	3	E	3	U 4	1158.2	119.6
MAEBAS	0	X	16	21					300		200		200							794.3	
MORIOK	0	P	16	22	02.0	S	24	00.0	19	17.3	14	18.0	18	10.8						1168.3	118.0
						X	22	10.0													
						EL	25	00													
MIYAKO	0	EP	16	22	06	ES	24	26	47	16.2	38	9.9	24	12.2						1215.9	140.0
HACHIN	0	P	16	22	11.8	X	24	10.1	21	16.8	26	12.8						U		1254.1	
KAWAGU	0	X	16	22	13.9	X	22	59.5	250	2.8	100	1.8	50	1.7						718.2	
AOMORI	0	X	16	22	16	ES	24	25	51	12.4	46	11.4	21	11.4						1234.5	
HAKODA	0	P	16	22	17.5	X	24	28	21	12.4	28	12.7	30	12.8				U		1318.1	
SAPPOR	0	P	16	22	36.4	ES	25	03	8	2.0	18	11.0	17	11.6						1456.5	146.6
URAKAW	0	X	16	22	41	ES	25	14	39	17.2	52	10.0	20	11.2						1457.1	
ASAHIK	0	EP	16	22	50				6	3.0	6	2.2	6	3.0						1570.6	
KUSHIR	0	EP	16	22	52	ES	25	46	19	16.4	16	17.0	4	9.8						1615.3	174.0
ABASHI	0	EP	16	22	58	ES	25	44	12	11.4	16	14.4	3	5.2						1691.3	166.0
						EL	27	55													
WAKKAN	0	EX	16	23	04				23	12.6	20	12.5								1687.8	
NEMURO	0	EP	16	23	05	ES	26	09	12	14.0	13	17.0	4	13.0						1712.7	184.0

OT= 21 16 37 14.5 +/- 1.7
HYUGANADA
LAT= 31 44 +/- 5 LONG= 132 11 +/- 5
H= 10 MAG=4.2 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MIYAZA	0	P	16	37	28.1	S	37	43.9	81	0.7	72	0.7	42	0.8				74.4	15.8
NOBEOK	0	P	16	37	32.8	IS	37	41.5							S	2	E	2 D 4		105.4	08.7
KAGOSH	0	EP	16	37	40.3				7	2.4	16	2.0	5	1.4				155.5	
UWAJIM	0	EP	16	37	45	ES	38	00										169.1	15.0
ASHIZU	0	X	16	37	45.5	ES	37	54.8	7	0.6	10	0.6	4	0.5				134.3	
KUMAMO	0	IP	16	37	47.0	IS	38	09.3					25	1.0			U 6	183.0	22.3
OITA	0	EX	16	37														174.4	
SAGA	0	X	16	38	02.0	S	38	25.2										243.3	
FUKUOK	0	X	16	38	02.5	ES	38	28.8	3	0.9	6	0.9	2	1.7				265.5	

OT= 21 16 59 5.1 +/- 0.2
KASHIMANADA
LAT= 36 20 +/- 1 LONG= 140 41 +/- 2
H= 80 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MITO	1	IP	16	59	18.1	IS	59	27.4	45	0.5	42	0.4	22	0.2			D 5	19.6	09.3
KAKIOK	1	IP	16	59	18.5	IS	59	28.2	46	0.4	35	0.4	21	0.3				45.4	09.7
CHOSHI	0	EP	16	59	21.0	S	59	32.8										69.0	11.8
ONAHAM	0	IP	16	59	21.2	IS	59	32.7										70.7	11.5
UTSUNO	1	IP	16	59	21.6	IS	59	33.2							S	E	D	76.5	11.6
SHIRAK	0	P	16	59	23.0	S	59	36.4										96.2	13.4
MATSUS	0	IP	16	59	39.3	S	00	02.5							N	W	U	223.0	23.2
TOKYO	0	EX	16	59	42				5	0.0	8	0.0						110.1	

OT= 21 19 26 7.7 +/- 1.2
HYUGANADA
LAT= 31 58 +/- 4 LONG= 132 10 +/- 4
H= 20 MAG=4.5 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MIYAZA	1	IP	19	26	20.5	S	26	30.1	145	0.8	133	0.8	39	0.8	S	2	W	7 U 16	70.2	09.6
NOBEOK	0	IP	19	26	22.0	IS	26	32.7	50	0.4	80	0.4	50	0.4	N	2	W	2 U 4	82.1	10.7
UWAJIM	0	EP	19	26	32	ES	26	46.9										144.2	14.9
KUMAMO	0	IP	19	26	32.3	S	26	54.9	44	1.7	55	1.4	38	1.4	N	7	W	7 U 8	165.9	22.6
OITA	0	EP	19	26	33.9	S	26	52.4	83	1.0	95	0.8	41	1.0				149.4	18.5
ASHIZU	0	X	19	26	36.1	S	26	47.4	24	0.6	14	0.6	10	0.6				115.4	
KAGOSH	0	EP	19	26	36.5	ES	26	55.5	18	2.2	31	2.0	14	1.4				158.9	19.0
MATSUY	0	EP	19	26	44.8	ES	27	08.0	16	0.7	18	0.7	7	1.0				215.4	23.2
FUKUOK	0	EP	19	26	45.0	ES	27	16.5	11	1.4	8	1.3	4	1.2				244.9	31.5
SAGA	0	P	19	26	45.1	S	27	09.6										224.9	24.5
NAGASA	0	P	19	26	46.0	S	27	18.0										281.5	32.0
KOCHI	0	EX	19	26	52.3													217.2	
YAKUSH	0	EX	19	26	56.0				5	0.8	6	0.8	2	0.9				281.4	
OKAYAM	0	EP	19	27	01	ES	27	44.4	5	0.6	4	0.6	2	2.0				342.2	43.4
TAKAMA	0	X	19	27	02.6	ES	27	39.9	9	0.8	7	1.0	2	0.8				314.6	
TOYOOK	0	X	19	27	25				19	1.0	16	1.0						465.9	
SAIGO	0	X	19	27	35.1	X	28	27.3	4	1.8	5	1.9	4	2.1				482.1	
MATSUS	0	P	19	27	48	X	29	52										752.4	

OT= 21 19 28 25.8 +/- 1.2
HYUGANADA
LAT= 32 0 +/- 4 LONG= 132 9 +/- 5
H= 10 MAG=4.6 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MIYAZA	1	IP	19	28	38.7	S	28	47.7	173	0.7	168	0.6	51	0.7			U 11	69.0	09.0
NOBEOK	0	P	19	28	40.4	IS	28	50.4	50	0.6	100	0.5	70	1.0	N	2	W	1 U 2	78.2	10.0
UWAJIM	0	EP	19	28	49	ES	29	04.7										141.1	15.7
KUMAMO	0	EP	19	28	52.0	IS	29	12.6	53	2.0	77	1.6	48	1.0	N	8	W	6 U 8	162.5	20.6
OITA	0	EX	19	28	52.1	S	29	09.6	99	1.0	67	0.8	51	1.0				145.4	
KAGOSH	0	EP	19	28	54.7	S	29	15.1	23	1.6	51	2.0	16	1.6				158.4	20.4
ASHIZU	0	X	19	28	55.8	S	29	05.0	20	1.0	10	0.9	9	1.2				118.8	
NAGASA	0	P	19	29	01.0	S	29	28.8									U	228.7	27.8
FUKUOK	0	EP	19	29	03.2	ES	29	38.5	13	1.2	9	1.4	7	1.0				241.1	30.3
MATSUY	0	EP	19	29	05.0	ES	29	30.5	13	1.0	16	0.7	6	2.1				212.3	25.5
SAGA	0	EP	19	29	05.4	ES	29	33.0										221.4	27.6
YAKUSH	0	EX	19	29	09.4				4	0.9	7	0.8	2	0.8				238.0	
TAKAMA	0	X	19	29	22.0	ES	29	56.1	9	1.2	9	1.0	2	1.0				312.4	
TOYOOK	0	X	19	30	40				25	1.0	24	1.2						468.5	
SAIGO	0	X	19	30	42.5				8	2.0	5	1.9	4	2.0				478.9	

International Seismological Centre From the ISC collection scanned by SISMOS

OT= 21 19 59 26.1 +/- 0.5
HYUGANADA
LAT= 32 7 +/- 2 LONG= 132 5 +/- 2
H= 10 MAG=4.7 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NOBEOK	1	IP	19 59 38.1			IS	59	47.5	180	0.6	100	0.2	100	0.6	S 4	E 11	D 6	64.0	09.4
MIYAZA	2	IP	19 59 38.7			S	59	47.5	288	0.6	257	0.7	168	0.6				65.9	08.8
ASHIZU	0	EP	19 59 46.5			ES	59	56.5	31	0.6	29	0.7	22	0.6				110.1	10.0
UWAJIM	2	EP	19 59 48			S	00	04.3										130.7	16.3
OITA	1	P	19 59 49.4			S	00	05.4	127	0.8	127	1.0	78	1.0				131.1	16.0
KUMAMO	0	IP	19 59 51.2			IS	00	11.3	158	2.0	142	1.6	115	1.1	N 11	W 15	U 16	150.2	20.1
KAGOSH	0	EP	19 59 53.3			S	00	14.6	43	2.0	72	2.6	28	1.8				156.8	21.3
ASOSAN	0	EX	19 59 58															126.9	
SAGA	0	EP	19 59 59.4			S	00	22.5										208.4	23.1
MATSUY	0	EP	20 00 01.3			ES	00	26.5	22	0.8	24	0.7	11	1.3				201.8	25.2
FUKUOK	0	EP	20 00 01.5			ES	00	31.5	21	2.4	29	0.9	18	2.4				227.4	30.0
SHIMON	0	EP	20 00 02.6			ES	00	23.4	5	1.6	6	0.8	7	1.8				229.8	20.8
KOCHI	0	EP	20 00 03.2			ES	00	28.1										209.0	24.9
HIROSH	0	EP	20 00 05.0			ES	00	30.0	4	2.4	7	3.0	5	2.2				251.2	25.0
YAKUSH	0	EX	20 00 06.9						10	0.9	13	0.8	5	2.7				238.6	
TOKUSH	0	EP	20 00 12.4			ES	00	58.6										317.5	46.2
HAMADA	0	EP	20 00 15.5			ES	00	54.0	8	1.6	7	1.8						307.9	38.5
TAKAMA	0	EP	20 00 15.6			ES	00	54.9	11	1.0	13	1.0	6	1.0				305.5	39.3
FUKUE	0	P	20 00 17.4			ES	00	52.4	6	1.6	10	2.4	8	3.2	E 4	D 4		312.4	35.0
OKAYAM	0	EP	20 00 18.0			EX	00	50	12	0.5	7	0.5	3	2.0				331.5	
SAIGO	0	X	20 00 39.0			ES	01	31.8	6	1.9	9	2.0	4	1.9				467.8	
TOYOOK	0	X	20 00 47.4			X	01	39.6	25	1.1	26	1.2	4	1.5				456.0	
MATSUS	0	P	20 01 04			ES	02	39										746.7	95.0
OSAKA	0	EX	20 01 33						10	3.2	6	2.0						427.6	

OT= 22 17 11 18.4 +/- 0.5
FAR OFF SANRIKU
LAT= 39 50 +/- 2 LONG= 143 25 +/- 3
H= 60 MAG=5.9 CLASS=R

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MIYAKO	3	IP	17 11 39.9			IS	11	53.9	250	2.2	1100	2.2	750	4.4	N 25	E 50	D 43	125.9	14.0
HACHIN	2	IP	17 11 45.0			IS	12	01.5	159	4.0	188	3.2	260	2.8	S 3	E	D 3	178.5	16.5
OFUNAT	2	IP	17 11 45.2			IS	12	00.2	350	2.3	350	2.0	450	2.0	N 4	E 5	D 5	169.4	15.0
MORIOK	3	IP	17 11 47.9			IS	12	08.0	500	0.9	800	1.0	500	2.7	N 2	E 20	D 10	193.2	20.1
						X	11	56.9											
ISHINO	2	IP	17 11 54.3			IS	12	19.4	199	3.4	194	3.4	228	1.4	S 8	W 10	U 17	240.5	25.1
AOMORI	2	IP	17 11 55.8			IS	12	19.4	1400	1.6	1000	1.3	400	1.3	N 27	W 44	U 55	249.0	23.6
URAKAW	0	P	17 11 58.5			S	12	25.5	187	2.2			155	4.0	N 3		U 5	263.7	27.0
SENDAI	1	IP	17 11 58.6			S	12	26.8	430	1.0	390	1	200	1.0	S	W	U 12	279.2	28.2
HIROO	0	P	17 11 59.5			S	12	28.3										272.2	28.8
AKITA	1	IP	17 12 00.2			S	12	32.0	506	2.6	503	3.2	412	2.8		W 11	U 23	284.3	31.8
HAKODA	1	IP	17 12 03.2			IS	12	37.4	163	1.0	186	0.9	122	2.8	N 11	W 13	U 12	314.1	34.2
YAMAGA	1	IP	17 12 04.5			S	12	43.7	300	2.5	250	2.6	150	2.0	S 4	W 3	U 6	318.2	39.2
MURORA	0	P	17 12 06.3			S	12	45.5	100	4.0	100	0.6	100	2.0	N 2	W	U 2	343.3	39.2
SAKATA	2	IP	17 12 06.4			IS	12	41	1800	2.4	2600	2.4	850	2.6				325.3	34.6
OBIHIR	1	EP	17 12 08			ES	12	43	450	2.3	400	2.9						343.2	35.0
KUSHIR	0	EP	17 12 10			IS	12	47.3	78	3.4	71	0.4	43	2.0				358.8	37.3
ONAHAM	0	IP	17 12 12.8			ES	12	54.8	300	1.5	250	0.9	50	1.4			D 2	388.4	42.0
SAPPOR	0	P	17 12 14.0			ES	12	56	101	2.2	136	2.0	53	2.6			U 4	398.3	42.0
SHIRAK	0	EP	17 12 14.6			ES	12	58.5										410.3	43.9
SUTTSU	0	EP	17 12 16			ES	12	54										422.6	38.0
NEMURO	0	P	17 12 19.0			ES	13	00	34	1.2	42	1.4	14	2.0	N 1	E 1		428.3	41.0
NIIGAT	0	P	17 12 19.9			S	13	06.0	500	3.4	650	2.7	213	3.0				434.7	46.1
MITO	0	IP	17 12 21.5			S	13	06.0	163	3.5	164	2.8	121	2.5			U 2	462.3	44.5
ASAHIK	0	EP	17 12 22			EX	13	20	85	2.2	90	1.8	66	2.0				445.8	
KAKIOK	0	P	17 12 23.5			S	13	17.8	160	0.8	115	0.8	48	1.0				489.7	54.3
ABASHI	0	P	17 12 23.6			S	13	12.0	43	3.8	41	2.4	22	3.6				470.2	48.4
AIKAWA	0	IP	17 12 25.7			X	13	28.0	118	3.0	50	2.8	133	4.2	N	W	U	491.7	
CHOSHI	0	EP	17 12 27.9			EX	13	29.7										509.1	
KUMAGA	0	P	17 12 32.4			ES	13	21.6	128	1.6	103	4.0	60	4.0			U 4	541.0	49.2
TAKADA	0	EP	17 12 33.9			ES	13	35.3										543.0	61.4
TOKYO	0	P	17 12 35.2			S	13	31.2	150	2.0	165	1.7	83	1.0				561.9	56.0
CHICHI	0	EP	17 12 35.3			S	13	32.7	100	1.9	100	1.7	100	2.3				571.7	57.4
KARUIZ	0	EP	17 12 37.8			ES	13	28.4	200	3.0	200	2.0						576.4	50.6
NAGANO	0	EP	17 12 37.9			X	13	49.3	137	3.4	134	3.6	106	2.9				576.7	
MATSUS	0	IP	17 12 38.8			ES	13	44							S	W	U	584.6	65.2
UTSUNO	0	EX	17 12 42															479.0	
TATEYA	0	EP	17 12 42.2						210	3.6	202	3.0	113	2.7				623.0	
MATSUM	0	EP	17 12 43.1			X	13	37.6										621.9	
WAJIMA	0	IP	17 12 43.6			X	14	00	93	2.4	109	2.6	57	2.6		E 15	U 10	628.9	
KOFU	0	IP	17 12 43.8			S	13	51.2	131	1.8	125	1.4	28	1.2		W 2		630.1	67.4
AJIRO	0	EP	17 12 44.7			ES	13	51.8	33	1.6	28	1.5	17	1.6				654.5	67.1
TOYAMA	0	P	17 12 45.6			X	14	05	79	4.8	110	2.8	58	3.8			U 5	644.4	

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MISHIM	0	EP	17 12 46.1			ES	14	02.6	91	2.2	96	2.2	28	2.0				657.1	76.5
OSHIMA	0	EP	17 12 48.0						42	4.1	39	4.5	27	1.8				666.8	
IIDA	0	EP	17 12 50.2			ES	14	12.4	42	2.0	41	1.8	25	2.8				687.2	82.2
KANAZA	0	EP	17 12 52.0			ES	14	09.3	40	4.4	46	4.0	42	4.0				695.8	77.3
SHIZUO	0	EP	17 12 57.0			S	14	08.5	49	3.0	34	3.5	32	3.3				698.0	71.5
HAMAMA	0	EP	17 12 59			ES	14	26	65	2.6	73	3.0	30	1.8				760.1	87.0
RUMOI	0	X	17 12			X	12	58										480.6	
KAWAGU	0	X	17 12			S	13	48.1										632.2	
FUKUI	0	EP	17 13 00.7			X	14	33.9							S 1	W 4	U 2	758.1	
GIFU	0	EP	17 13 01.0			EX	14	31.3	42	2.1	27	1.5	8	1.6				765.8	
NAGOYA	0	EP	17 13 02.0			S	14	27.4	94	2.6	76	2.6	28	2.6				770.0	85.4
WAKKAN	0	EX	17 13 03						60	4.2	40	4.1						636.5	
OMAEZA	0	X	17 13 04.4			X	14	34.2	111	4.8	73	3.6	26	2.4				741.3	
TSURUG	0	P	17 13 04.9			ES	14	31.2										796.6	
HACHIJ	0	EP	17 13 07.0			X	14	20.4	25	1.0	17	0.8	13	1.4				814.4	
HIKONE	0	EP	17 13 08.1			ES	14	32.6	38	2.9	40	3.5						810.3	84.5
KYOTO	0	EP	17 13 13.0			ES	14	44.4	16	1.7	14	3.0	7	4.7				864.6	91.4
OWASE	0	EP	17 13 16.0			X	15	06.0	10	4.0	18	3.0	8	3.2				906.6	
TOYOOK	0	P	17 13 17.8			ES	14	56.0	30	1.2	31	1.2	11	3.4	S 6	W 4	U 5	895.0	98.2
OSAKA	0	EP	17 13 17.9						59	3.0	54	2.5	28	2.1				903.6	
WAKAYA	0	EX	17 13 23.5															961.4	
SAIGO	0	IP	17 13 25.8			ES	15	16.7	9	3.5	7	4.4	7	4.7	S 0	W 0	U 1	971.9	110.9
KOBE	0	EX	17 13 26.2															926.5	
OKAYAM	0	EP	17 13 31.2			ES	15	1	10	3.0	9	2.5	7	5.0				1017.5	
TAKAMA	0	EP	17 13 32.5			ES	15	29.6	6	17.7	7	17.7					U	1032.0	117.1
YOKOHA	0	EX	17 13 46															590.0	
HAMADA	0	P	17 13 47.4			ES	15	44.2	4	3.6	6	4.0	7	4.0				1143.3	116.8
HIROSH	0	EP	17 13 52.0			S	15	54.3	6	3.7	5	2.3	4	2.5		W 1	U 1	1148.0	122.3
SHIONO	0	X	17 13 52.4			X	15	39.5	10	3.3	10	2.4						984.2	
OITA	0	EX	17 13 57.9			EX	17	02.0	33	3.5	50	4.7	11	3.5				1283.2	
ASHIZU	0	X	17 14 02.2			EX	16	14.8	6	5.2	6	4.2	4	5.0				1221.7	
SHIMON	0	EP	17 14 04.8			ES	16	26.0	6	5.0	5	3.4	6	4.8				1287.3	138.2
FUKUOK	0	EP	17 14 12.7			ES	16	35.0	6	2.8	4	3.1	3	4.8				1353.6	142.3
KUMAMO	0	EP	17 14 16.7			ES	16	45.5	8	5.0			3	1.3				1379.3	148.8
NAGASA	0	EP	17 14 22.5			X	16	28.8										1448.2	
KAGOSH	0	EP	17 14 27.5						5	2.4	7	2.6	3	1.6				1478.6	
MIYAZA	0	X	17 14 31.1						8	6.0	6	5.0	4	3.0				1391.7	
NARA	0	X	17 15 15.0						100	2.0								882.0	

OT= 24 7 44 34.8 +/- 1.4
HYUGANADA
LAT= 32 9 +/- 3 LONG= 131 59 +/- 6
H= 0 MAG=4.1 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NOBEOK	1	IP	07 44 45.7			IS	44	55.2									S 3 E 2 D 4	55.7	09.5
MIYAZA	0	IP	07 44 47.4			S	44	56.4	58	0.6	63	0.6	35	0.8			U 4	58.6	09.0
KUMAMO	0	IP	07 45 00.9			S	45	28.1	17	1.2	17	1.2	13	1.3	S 7	E 6	D 9	140.2	22.2
OITA	0	EX	07 45 03.5						27	1.0	27	1.0						124.7	
ASHIZU	0	X	07 45 05.6			ES	45	14.1	9	1.0	6	1.0	5	1.0				115.7	
KAGOSH	0	X	07 45 08.2						5	1.8	9	2.4	4	1.0				149.6	

OT= 24 11 16 42.9 +/- 0.3
E OFF AOMORI PREF
LAT= 41 19 +/- 1 LONG= 142 31 +/- 2
H= 0 MAG=4.4 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
URAKAW	0	P	11 14 02.4			S	14	15.6	23	0.4	36	0.4	7	0.8				96.0	13.2
HIROO	0	P	11 14 05.6			S	14	23.6										126.3	18.0
HACHIN	0	IP	11 14 06.5			S	14	20.8	13	0.6	8	0.5	4	1.5			U 1	121.3	14.3
AOMORI	0	EP	11 14 11			ES	14	31	41	1.2	31	1.8	16	1.2				155.9	20.0
HAKODA	0	IP	11 14 11.9			IS	14	30.6	51	0.5	45	0.4	12	0.4			D	156.7	18.7
OBIHIR	0	EP	11 14 15															187.4	
SAPPOR	0	EP	11 14 19			S	14	43.0	6	2.0	8	2.4	5	1.0				216.8	24.0
MORIOK	0	IP	11 14 19.0			S	14	43.6	11	0.4	11	0.4	3	0.4	N 0		D 0	218.1	24.6
AKITA	0	EX	11 14 27.8			EX	15	01.2	4	1.2	5	1.2	2	1.2				270.9	
MATSUS	0	P	11 15 16			ES	16	26										648.6	70.0

OT= 25 12 29 27.5 +/- 0.2
NW PART OF CHIBA PREF
LAT= 35 40 +/- 1 LONG= 140 6 +/- 1
H= 50 MAG=4.5 CLASS=S

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STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TOKYO	2	IP	12	29	37.9	S	29	45.9	181	0.4	238	0.4	54	0.9				81.0	08.0
KAKIOK	2	P	12	29	39.0	S	29	45.6	100	1.0	87	0.8	81	1.0	S 2	E 2	D 1	68.2	06.6
YOKOHA	0	IP	12	29	39.4	S	29	47.8							N 3	W 5	D 5	47.7	08.4
CHOSHI	1	P	12	29	41.2	S	29	51.5										67.6	10.3
KUMAGA	1	P	12	29	42.4	S	29	54.0	61	1.2	38	1.4	35	1.2			U 6	83.7	11.6
TATEYA	1	P	12	29	42.6	IS	29	53.5	109	0.6	102	0.6	40	0.4			U 4	78.7	10.9
MITO	1	IP	12	29	42.8	IS	29	53.0	55	1.2	58	1.2	20	1.2			U 5	85.8	10.2
UTSUNO	1	P	12	29	43.6	ES	29	55.6										99.8	12.0
CHICHI	1	EP	12	29	44.4	S	29	56.8										98.8	12.4
AJIRO	1	IP	12	29	45.9	IS	29	59.2	52	0.3	44	0.3	16	0.4			D 3	114.4	13.3
OSHIMA	0	P	12	29	46.8	IS	29	59.0	106	0.4	52		61					120.0	12.2
MISHIM	0	P	12	29	47.2	ES	30	01.3	27	0.7	35	0.7	10	0.5			D	122.8	14.1
KOFU	1	EP	12	29	50.2	ES	30	04.8	34	0.6	37	0.4	12	0.7				139.6	14.6
SHIRAK	0	P	12	29	52.0	IS	30	09.7										161.4	17.7
KARUIZ	0	P	12	29	52.0	S	30	06.5									U	158.3	14.5
KAWAGU	0	IP	12	29	52.3	IS	30	00.1										122.6	07.8
SHIZUO	0	P	12	29	53.8	IS	30	13.9	23	1.1	16	0.5	3	1.2		E 2	D 1	172.1	20.1
ONAHAM	0	IP	12	29	54.1	IS	30	09.8									D 3	159.2	15.7
OMAEZA	0	EP	12	29	56.4	ES	30	20.7	7	1.6	8	1.8	2	0.4				208.5	24.3
MATSUS	0	IP	12	29	56.8	S	30	18							N	W	U	195.8	21.2
NAGANO	0	EP	12	29	58.0	ES	30	20.8	13	1.2	6	1.7	6	2.4				203.6	22.8
MATSUM	0	EP	12	29	58.2	ES	30	21.7										202.2	23.5
IIDA	0	EP	12	29	58.6	ES	30	22.0	11	1.2	9	1.4	4	1.0				206.0	23.4
HAMAMA	0	EP	12	30	00				6	1.8	9	2.6	4	2.4				241.1	
TOYAMA	0	EP	12	30	08	ES	30	35	8	2.4	8	2.0	5	2.2				284.5	27.0
SENDAI	0	EP	12	30	10	ES	30	46	17	2	10	1.4	4	1				296.4	36.0
ISHINO	0	EP	12	30	14.0	ES	30	46.0	6	1.0	11	1.6	4	1.8				324.2	32.0
NAGOYA	0	EP	12	30	14.6	S	30	32.0	11	1.6	10	1.4	4	1.5				289.7	17.4
NIIGAT	0	EX	12	30	20.0				15	3.2	16	4.0						265.9	
HIKONE	0	EP	12	30	22.9	X	31	07.2	10	1.1	8	1.1						352.4	
KANAZA	0	X	12	30	24.4	X	31	03.0	5	2.0	6	2.1	5	3.0				325.7	
AKITA	0	EX	12	30	35.7				4	2.4	5	3.0	3	2.6				449.6	
TOYOOK	0	X	12	30	43				13	1.1	13	1.0						478.5	

OT= 26 3 49 11.5 +/- 0.2
NEAR MATSUSHIRO
LAT= 36 26 +/- 1 LONG= 138 7 +/- 1
H= 10 MAG=4.0 CLASS=L

MATSUS	2	IP	03	49	15.2	S	49	17							N	E	U	14.3	01.8
NAGANO	2	IP	03	49	16.7	ES	49	19.5	148		127		70		N 12	E 7	U 74	26.1	02.8
MATSUM	1	IP	03	49	17.3	IS	49	21.1							S 5	W 10	U 68	24.7	03.8
KARUIZ	0	IP	03	49	20.4	S	49	25.5							N 4	W 2	D 10	40.4	05.1
TAKADA	0	P	03	49	25.2	X	49	55.5										75.5	
TOYAMA	0	P	03	49	28.0	ES	49	41	9	1.6	9	2.4	7	4.0			D 3	86.8	13.0
KOFU	0	IP	03	49	28.6	S	49	40.0	8	1.0	9	0.9	3	1.2			U 1	94.1	11.4
CHICHI	0	EP	03	49	29.5	S	49	41.0										99.6	11.5
IIDA	0	IP	03	49	30.2	ES	49	43.0	6	1.6	3	1.4	6	0.4				105.5	12.8
KUMAGA	0	EP	03	49	34.0	ES	49	49.0	12	0.8	8	1.0	6	1.2				118.3	15.0
KANAZA	0	EP	03	49	35.8	ES	49	51.3	5	2.2	10	2.9	6	1.2				132.1	15.5
WAJIMA	0	EX	03	49	40				13	1.0	20	1.0						151.8	
NAGOYA	0	EP	03	49	41.5	S	50	02.8	8	0.9	10	1.0	5	1.0				174.8	21.3
HAMAMA	0	EP	03	49	44				8	2.6	5	2.0	4	1.8				194.6	
MISHIM	0	EP	03	49	44	ES	50	00.6	8	1.3	6	1.1						164.0	16.6
TOKYO	0	EX	03	49	45				11	3.0	16	2.8						169.6	
OMAEZA	0	EP	03	49	49.1						7	1.4						203.2	
HIKONE	0	X	03	49	52.0	ES	50	13.6	14	1.0	11	1.0						212.3	
TOYOOK	0	ES	03	50	44.3				11	1.2	7	1.2						313.4	

OT= 26 6 35 19.6 +/- 0.5
OFF IWATE PREF
LAT= 39 52 +/- 2 LONG= 143 14 +/- 3
H= 20 MAG=4.8 CLASS=S

MIYAKO	0	P	06	35	39.2	IS	35	52.0	22	1.4	63	2.0	40	1.7	N	2 E	6 D 4	111.2	12.8
HACHIN	0	P	06	35	45.8	S	36	03.6	23	0.7	18	0.7	14	2.1	S	E	1 D	162.8	17.8
OFUNAT	0	IP	06	35	46.5	S	36	04.0	28	0.8	28	0.8	25	0.8				158.1	17.5
MORIOK	1	IP	06	35	49.1	S	36	08.6	44	0.3	45	0.4	14	2.8	S	0 E	0 D 0	177.9	19.5
ISHINO	0	EP	06	35	55.0	ES	36	19.2	13	2.6	13	1.6	13	1.6				231.2	24.2
AOMORI	0	IP	06	35	57.0	IS	36	26.0	138	0.7	162	0.9	55	0.7	N	4 W	4 U 5	238.4	26.0
URAKAW	0	EP	06	36	01	S	36	28.0	18	2.0	21	2.6	8	2.2				257.4	27.0
SENDAI	0	EP	06	36	01	ES	36	26	27	2	29	1.2	10	0.8				269.4	25.0
AKITA	0	EP	06	36	01.4	S	36	32.8	31	2.6	38	3.0	20	2.8				268.7	31.4
YAMAGA	0	EP	06	36	05.7	ES	36	44.9										307.1	39.2
HAKODA	0	EP	06	36	06	S	36	39.4	15	0.9	23	0.8	7	1.2				300.5	33.4
KUSHIR	0	EP	06	36	12	ES	36	48	19	0.2	27	0.4	6	0.3				359.0	36.0

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
OBIHIR	0	EP	06	36	12													339.1	
SAKATA	0	X	06	36	14.9	X	36	55.0										311.5	
ONAHAM	0	EX	06	36	15.6													382.7	
SAPPOR	0	P	06	36	19.5				9	2.0	14	2.0	5	1.0				388.5	
ASAHIK	0	EP	06	36	20				8	1.8	5	2.0	5	2.0				439.4	
NEMURO	0	EP	06	36	20	ES	37	02	5	1.0	6	1.2						431.6	42.0
KAKIOK	0	EX	06	36	28				11	0.9	10	1.0	4	0.9				483.6	
MATSUS	0	IP	06	36	39.9	X	37	56							S	W	U	574.4	
KOFU	0	EP	06	36	46.0	X	38	08.0	6	1.0	7	1.2	2	1.2				622.0	
NIIGAT	0	EX	06	36	49.2				30	2.8	27	3.2	12	3.0				422.8	
KAWAGU	0	X	06	37	16.1	ES	37	57.5										624.7	
NAGANO	0	EX	06	37		X	38	18.7	7	2.7	5	2.5	5	2.8				566.4	

OT= 28 14 5 24.8 +/- 0.4
S PART OF IBARAKI PREF
LAT= 35 59 +/- 2 LONG= 140 16 +/- 3
H= 70 CLASS=L

KAKIOK	2	P	14	05	35.5	IS	05	42.9	44	1.0	66	1.0	18	1.0	S	2	U 4	28.3	07.4
MITO	0	IP	14	05	38.6	IS	05	47.5	9	0.4	16	0.6	4	0.3		W	1 U 2	47.5	08.9
TOKYO	0	P	14	05	39.5	S	05	50.4	12	0.2	12	1.0						56.6	10.9
UTSUNO	0	P	14	05	39.6	S	05	49.4										71.9	09.8
KUMAGA	0	P	14	05	41.0	S	05	51.6	11	0.8	7	0.6	3	0.6			D 3	81.5	10.6
AJIRO	0	P	14	05	48.3	S	06	04.2	7	0.2	7	0.2	2	0.4				148.8	15.9
KOFU	0	IP	14	05	49.9	S	06	07.0	6	0.8	5	0.5	2	0.8			D 1	158.3	17.1
MATSUS	0	IP	14	05	55.0	S	06	15							S	E	D	194.9	20.0

OT= 28 16 15 58.5 +/- 1.4
COAST OF IBARAKI PREF
LAT= 36 45 +/- 7 LONG= 140 45 +/- 7
H= 90 CLASS=U

MITO	0	IP	16	16	13.6	IS	16	25.2	17	0.3	13	0.3	4	0.3	S	1 W	1 D 2	48.2	11.6
UTSUNO	0	P	16	16	16.0	S	16	29.6										81.7	13.6
KAKIOK	0	P	16	16	16.1	S	16	28.8	11	0.5	11	0.5	5	0.5	N	2 E	2 D 2	76.1	12.7
MATSUS	0	P	16	16	35	S	16	54										228.5	19.0

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List 6 SEISMOLOGICAL DATA OBTAINED BY MATSUSHIRO

DATE		PHASE AND TIME H M S	J.S.T.	M S	INITIAL MOTION	
1	IP	04 26 34.5	S	27 30.	N W D	*
1	P	05 23 41.				*
1	EP	05 26 00.				*
1	P	05 27 06.	S	28 19.		*
1	IP	11 05 58.6	S	06 20.4	D	*
1	IP	14 06 18.2	S	03 50.	D	*
1	P	22 16 46.0	IS	17 08.4	D	*
1	EP	22 35 31.				*
						*
2	EP	02 33 48.				*
2	EP	05 15 10.	ES	15 39.		*
2	P	05 38 51.				*
2	EP	05 54 30.				*
2	P	06 41 16.				*
2	EP	11 56 06.	ES	57 22.		*
2	EP	16 30 01.	S	34 17.		*
2	EL	22 02 00.				*
						*
3	IP	00 24 34.8	S	25 00.	S E D	*
3	IP	02 32 51.1	ES	33 48.	D	*
3	EP	04 36 19.	ES	41 06.		*
3	IP	06 31 26.6	IS	31 43.2	S D	*
3	IP	09 29 29.8	S	30 09.	U	*
3	EP	11 34 57.				*
3	P	13 16 26.				*
3	P	16 10 39.	S	11 06.		*
3	P	20 17 59.	ES	18 35.		*
3	P	21 21 48.				*
3	IP	23 20 09.1	S	20 34.6	D	*
						*
4	IP	00 10 35.6	ES	16 50.	U	*
4	EP	00 57 04.				*
4	IP	01 34 14.2			U	*
4	EP	02 43 26.				*
4	IP	02 58 31.4	IS	58 51.7	D	*
4	EP	03 41 17.	ES	41 46.		*
4	EP	04 13 01.				*
4	EP	04 27 20.	ES	32 48.		*
4	P	07 24 54.	S	35 08.		*
4	EP	11 45 52.	ES	46 23.		*
4	EP	11 50 43.	ES	51 09.		*
4	P	12 49 07.				*
4	IP	16 02 47.7	S	03 14.	D	*
4	IP	17 51 18.8	S	56 08.	S U	*
4	IP	18 54 17.6	IS	54 43.7	D	*
4	IP	19 41 02.3	IS	41 23.9	D	*
4	EP	23 00 42.				*
						*
5	P	01 29 25.				*
5	IP	02 26 23.8	S	23 50.0	D	*
5	IP	08 03 07.8			S W U	*
5	P	11 41 56.				*
5	P	12 51 14.	S	56 32.		*
5	EP	13 10 50.				*
5	EP	16 06 33.				*
						*
6	IP	01 46 38.2			U	*
6	X	08 47 00.				*
6	IP	09 08 03.2	ES	08 36.	U	*
6	L	09 17 00.				*
6	IP	09 47 46.0	S	48 11.	S E D	*
6	IP	13 01 55.7	ES	12 12.	D	*
6	EP	18 56 09.	ES	00 32.		*
						*
7	EX	02 15 12.				*
7	IP	02 46 20.8	S	46 46.	W D	*
7	EP	05 20 13.	S	20 51.		*
7	P	12 46 20.	S	47 05.		*
7	EP	14 21 12.				*
7	P	18 46 38.				*
7	IP	19 55 35.6	S	55 49.	S E D	*
7	IP	20 34 10.0	S	34 36.	D	*
						*
8	IP	03 41 58.4	S	43 23.	N D	*
8	P	05 34 05.	S	40 12.		*
8	EP	15 38 13.	ES	38 58.		*
8	P	18 35 18.	S	36 02.		*
8	IP	19 21 15.4	S	22 24.	N E D	*
8	IP	19 28 53.0	S	34 44.	N U	*
9	IP	04 03 14.4	S	04 30.	S W U	*

DATE		PHASE AND TIME H M S		M S	INITIAL MOTION	
9	IP	07 57 00.0	S	57 26.	N E	*
9	IP	21 57 50.5	IS	58 08.1	S W U	*
9	IP	23 44 00.6	ES	45 23.	S E U	*
						*
10	P	01 36 45.	S	37 28.		*
10	IP	20 22 57.0			D	*
10	IP	23 16 18.0			W D	*
10	IP	23 55 59.6	S	57 33.	N W D	*
						*
11	P	07 01 10.4	S	04 17.	U	*
11	P	08 59 24.				*
11	EP	13 20 45.				*
11	EL	15 33 08.				*
11	P	18 56 29.				*
11	P	22 13 23.				*
11	EP	23 08 28.				*
						*
12	IP	02 24 18.4	S	24 40.	N E D	*
12	P	03 34 12.	ES	34 31.		*
12	P	04 38 43.				*
12	P	04 47 51.	S	48 32.		*
12	ES	06 11 28.				*
12	P	08 52 10.				*
12	IP	09 18 46.0	S	19 23.	E D	*
12	IP	15 53 06.1	IS	53 33.6	E D	*
12	EP	18 13 39.				*
12	IP	18 30 13.2	S	30 35.	N U	*
12	P	18 55 35.	S	56 31.		*
12	P	19 51 12.	ES	55 44.		*
						*
13	EP	14 47 27.	ES	51 30.		*
13	IP	19 28 54.0	ES	30 07.	N D	*
13	P	22 15 04.	ES	17 00.		*
13	IP	22 46 56.6	S	47 14.	S E D	*
13	P	23 02 27.0	IS	23 28.4	U	*
13	P	23 59 22.	S	00 05.		*
						*
14	P	00 34 16.	S	41 50.		*
14	P	02 13 02.	S	13 43.		*
14	P	02 33 02.				*
14	EP	03 34 13.				*
14	IP	08 41 01.6	S	47 13.0	N W U	*
14	EP	12 05 34.	IX	06 09.		*
14	P	16 09 04.				*
14	P	16 14 03.				*
14	IP	18 33 49.0	S	34 05.2	S W D	*
14	P	22 24 26.				*
						*
15	P	03 06 56.				*
15	IP	03 10 00.6	S	10 11.0	U	*
15	P	04 45 42.	S	46 05.4		*
15	P	05 01 46.				*
15	IP	06 27 56.8	S	28 14.0	S U	*
15	IP	11 02 46.6	ES	03 52.	U	*
						*
16	P	02 17 24.	ES	18 30.		*
16	IP	02 32 17.2	S	33 29.	S W U	*
16	IP	02 41 55.0	ES	43 24.	U	*
16	IP	02 59 00.3	ES	00 05.	S U	*
16	P	07 23 00.	S	29 16.		*
16	EP	10 24 49.				*
16	P	10 30 30.	S	36 48.		*
16	P	16 58 02.	IS	58 27.5		*
16	IP	17 32 55.2	S	33 12.	U	*
16	EX	18 09 40.				*
16	P	18 47 12.				*
16	IP	21 29 09.8	S	36 40.	N W U	*
16	P	21 59 29.	S	00 15.		*
						*
17	P	00 14 51.	ES	16 17.		*
17	IP	05 00 02.0	S	00 13.	S W D	*
17	IP	06 33 18.8	S	33 45.	N W D	*
17	IP	07 43 09.6			U	*
17	EP	08 33 31.				*
17	IP	13 00 10.6	S	00 32.	E U	*
17	IP	13 57 33.3	S	57 32.	U	*
17	IP	21 54 23.0			S U	*
17	P	23 58 31.	ES	59 26.		*
						*
18	P	01 45 19.	ES	46 15.		*

DATE		PHASE AND TIME H M S		M S	INITIAL MOTION	
18	IP	06 45 31.6	S	46 14.	E D	*
18	IP	07 18 35.6	ES	19 01.	S E D	*
18	IP	13 40 44.6	ES	42 11.	D	*
18	EP	16 02 13.	ES	03 10.		*
18	IP	17 00 39.7	ES	01 34.	S W U	*
18	P	21 39 45.	ES	45 56.		*
						*
19	EP	00 30 27.				*
19	P	01 45 18.				*
19	EP	02 57 00.				*
19	P	04 35 58.0			U	*
19	P	08 34 51.	S	35 08.		*
19	IP	09 13 18.0	S	13 43.	S E D	*
19	IP	10 24 11.4	S	24 55.	E D	*
19	IP	11 39 00.7	IS	39 21.0	S D	*
19	IP	12 27 12.4	ES	28 19.	U	*
19	P	13 27 17.	S	27 36.		*
19	P	14 10 46.	S	11 04.		*
19	IP	16 20 51.0	S	21 08.	S E D	*
19	IP	17 54 31.5	S	01 54.	D	*
						*
20	IP	00 19 27.8	S	20 51.	S U	*
20	IP	04 35 27.8	ES	42 50.	U	*
20	EP	07 11 45.	ES	15 10.		*
20	P	07 26 23.	S	26 43.		*
20	IP	07 34 17.8			D	*
20	IP	12 20 40.2	ES	21 08.	E D	*
20	IP	12 55 38.1	S	56 19.	U	*
20	EP	13 50 14.				*
20	P	13 57 13.	S	57 41.		*
20	P	19 41 07.				*
20	P	19 52 46.	ES	53 16.		*
						*
21	EP	11 37 34.	ES	45 48.		*
21	IP	16 21 04.5	S	22 24.	S W D	*
21	IP	16 59 39.3	S	00 02.5	N W U	*
21	P	19 27 48.	S	29 52.		*
21	P	20 01 04.	ES	02 39.		*
						*
22	EP	01 13 51.				*
22	IP	02 22 51.6	IS	23 09.8	S W U	*
22	EP	04 06 02.	S	06 42.		*
22	EP	07 38 36.				*
22	P	09 49 50.				*
22	EP	14 08 24.				*
22	EP	14 29 47.				*
22	EP	16 00 00.				*
22	EP	16 49 15.				*
22	IP	17 12 38.8	ES	13 44.	S W U	*
22	P	18 14 42.				*
						*
23	EP	00 49 36.				*
23	EP	04 29 58.	ES	31 38.		*
23	EP	04 43 59.				*
23	P	07 46 14.	ES	55 48.		*
23	P	11 11 03.				*
23	EX	12 16 05.				*
23	P	20 06 39.	S	07 01.		*
23	IP	21 00 40.6	IS	01 03.8		*
23	P	21 46 05.	S	46 27.	D	*
23	EP	22 08 44.	ES	09 08.		*
23	EP	22 49 53.				*
						*
24	IP	02 55 33.0			S E D	*
24	EP	06 00 19.				*
24	IP	07 34 27.3	IS	34 50.6	N W U	*
24	P	09 25 19.				*
24	EP	09 54 20.	S	54 36.		*
24	P	11 15 16.	ES	16 26.		*
24	P	11 25 49.				*
24	IP	12 34 12.6	EX	35 16.	U	*
24	P	16 37 14.8			D	*
24	EP	19 59 21.	ES	03 14.		*
24	EP	20 49 58.				*
24	EP	21 39 04.	ES	39 15.		*
						*
25	IP	01 34 27.0			D	*
25	EX	03 33 15.				*
25	EP	03 43 00.	ES	43 31.		*
25	P	07 06 52.				*

DATE		PHASE AND TIME H M S		M S	INITIAL MOTION	
25	EP	07 45 49.	EX	55 10.		*
25	EX	08 10 52.				*
25	EX	08 28 24.				*
25	EX	09 10 50.				*
25	IP	10 42 46.1			S W D	*
25	IP	10 45 11.4	IS	45 24.6	N D	*
25	P	12 05 27.	S	06 14.		*
25	IP	12 29 56.8	S	30 18.	N W U	*
25	EX	13 04 46.				*
25	EP	16 54 36.				*
25	EP	17 55 40.				*
25	P	18 22 07.	S	25 22.		*
25	IP	19 24 26.0	IS	24 39.0	S E D	*
25	EL	22 02 26.				*
25	P	22 27 40.				*
25	P	22 32 07.				*
						*
26	IP	00 14 56.8	S	15 09.	S E U	*
26	EP	06 27 46.	ES	33 38.		*
26	IP	06 36 39.9	S	37 56.	S W U	*
26	P	14 22 26.	ES	26 05.		*
26	P	15 18 40.	ES	26 26.		*
26	EP	15 22 36.				*
26	P	16 20 33.				*
26	P	19 22 59.	S	23 57.		*
26	EX	20 25 22.				*
						*
27	L	01 11 05.				*
27	EX	03 06 38.				*
27	EP	04 10 35.				*
27	IP	04 49 02.0	S	49 08.	S W D	*
27	IP	04 51 21.6	S	51 41.	N E D	*
27	EP	05 26 05.				*
27	P	07 00 19.				*
27	EP	07 18 36.				*
27	IP	08 00 44.7	S	01 05.	E U	*
27	IP	10 44 45.0	S	50 28.	D	*
27	EX	18 04 10.				*
27	IP	18 48 06.8	S	48 40.	E D	*
27	EX	19 40 22.				*
27	P	20 10 49.				*
27	EX	20 20 36.				*
27	P	22 19 06.	EX	42 37.		*
						*
28	IP	00 19 48.0			S W D	*
28	IP	00 20 26.6	EX	21 14.		*
28	P	02 00 43.				*
28	EX	05 54 48.				*
28	EP	08 26 34.				*
28	P	09 51 35.	ES	55 48.		*
28	P	10 33 33.	S	34 02.		*
28	IP	14 05 55.0	S	06 15.	S E D	*
28	P	16 16 35.	S	16 54.		*
28	P	16 36 22.	S	45 20.		*
28	IP	21 57 28.3			U	*
28	P	22 03 23.				*
						*
29	EP	03 09 47.				*
29	P	04 47 39.	IX	48 18.		*
29	EP	08 28 44.				*
29	P	08 33 01.	S	43 16.		*
29	IP	09 33 37.0	S	34 22.	N D	*
29	P	10 27 56.	S	28 43.		*
29	IP	13 48 54.0			W D	*
29	IP	14 08 55.5			U	*
29	P	14 38 53.				*
						*
30	IP	01 10 17.0			S W U	*
30	IP	01 46 32.5	S	46 53.	E D	*
30	IP	02 12 31.6	IS	12 37.6	N W D	*
30	P	02 33 13.	IX	33 20.		*
30	P	04 32 18.	IX	32 29.		*
30	IP	05 12 20.2			U	*
30	EP	05 45 03.	IX	45 13.		*
30	P	06 21 34.	S	24 25.		*
30	P	10 17 32.				*
30	EP	11 26 15.	S	27 33.		*
30	IP	13 15 31.0	IS	15 51.4	D	*
30	IP	17 22 18.4	S	22 43.	W D	*
30	EP	18 50 43.				*

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11 MAR 1970

地　震　月　報

昭和44年5月

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OF

THE JAPAN METEOROLOGICAL AGENCY

FOR

MAY 1969

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PUBLISHED BY THE JAPAN METEOROLOGICAL AGENCY

Tokyo

1969

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List 1 JMA stations and their seismographs

Station	Code	CGS Code	λ	φ	Height	Seismographs
					m	
Abashiri	ABASHI	ABJ	E144°17.0′	N44°01.0′	38	S, VI, OP
Aikawa	AIKAWA	AIK	138 14.5	38 01.2	34	S, VI, OP
Ajiro	AJIRO	AJI	139 05.8	35 02.6	59	S, VI, EMT′
Akita	AKITA	AKI	140 06.1	39 43.1	9	S, VI, OP
Anabuki (Tsurugisan)	ANABUK (TURUGI)	TSS	134 05.8	33 51.1	59	S, P
Aomori	AOMORI	AOM	140 47.0	40 49.0	4	S, W
Asahikawa	ASAHIK	ASA	142 22.4	43 46.2	111	S, VI, OP
Ashizuri	ASHIZU	ASZ	133 01.0	32 43.0	30	S, VI
Asosan	ASOSAN	ASJ	131 04.5	32 52.7	1143	S
Chichibu	CHICHI	CHJ	139 04.9	35 59.5	218	S, P
Choshi	CHOSHI	CHO	140 50.6	35 43.5	27	S, W
Fukue	FUKUE	FKJ	128 50.0	32 42.0	26	S, VI
Fukui	FUKUI	FUK	136 13.6	36 03.2	9	S, P(H, V)
Fukuoka	FUKUOK	FKK	130 22.8	33 34.8	2	S, VI, M(H)
Fukushima	FUKUSH	FKS	140 28.5	37 45.4	67	S, VI, OP
Gifu	GIFU	GIF	136 45.9	35 23.9	13	S, W
Hachijojima	HACHIJ	HJJ	139 47.3	33 06.1	80	S, VI
Hachinohe	HACHIN	HAC	141 31.6	40 31.5	27	S, VI, OP
Hakodate	HAKODA	HAK	140 45.5	41 48.8	35	S, VI, OP
Hamada	HAMADA	HMD	132 04.4	34 53.6	18	S, VI, OP
Hamamatsu	HAMAMA	HMM	137 43.4	34 42.5	32	S, VI, OP
Hikone	HIKONE	HIK	136 14.8	35 16.4	87	S, W
Himeji	HIMEJI	HIM	134 42.1	34 50.2	37	S, P(H, V)
Hiroo	HIROO	HOO	143 19.0	42 17.0	32	S, P(H, V)
Hiroshima	HIROSH	HIR	132 26.2	34 21.8	29	S, W
Iida	IIDA	IID	137 50.1	35 30.6	482	S, VI, OP
Irozaki (Nagatsuro)	IROZAK (NAGATS)	NGT	138 50.8	34 36.0	55	S
Ishinomaki	ISHINO	ISN	141 18.2	38 25.5	43	S, VI, OP
Izuhara	IZUHAR	IZU	129 17.7	34 12.2	21	S, P(H, V)
Kagoshima	KAGOSH	KAG	130 33.2	31 34.4	4	S, VI
Kakioka	KAKIOK	KAK	140 11.6	36 13.9	27	S, W
Kanazawa	KANAZA	KAN	136 38.9	36 32.8	27	S, VI, OP
Karuizawa	KARUIZ	KRZ	138 33.1	36 20.4	999	S, P(H, V)
Kawaguchiko (Funatsu)	KAWAGU (FUNATU)	FUN	138 45.8	35 29.9	860	S, P
Kobe	KOBE	KOB	135 10.8	34 41.3	58	S, P(H, V)
Kochi	KOCHI	KOC	133 32.0	33 33.0	40	S, P(H, V)
Kofu	KOFU	KOF	138 33.5	35 39.9	272	S, VI
Kumagaya	KUMAGA	KMG	139 23.1	36 08.8	30	S, VI, EMT
Kumamoto	KUMAMO	KUM	130 42.6	32 48.6	38	S, W
Kushiro	KUSHIR	KUS	144 23.7	42 58.7	33	S, VI
Kyoto	KYOTO	KYO	135 44.1	35 00.7	41	S, VI, OP
Maebashi	MAEBAS	MAE	139 03.9	36 24.1	112	S, W
Maizuru	MAIZUR	MAI	135 23.2	35 28.3	31	S, P(H, V)
Matsue	MATSUE	MTS	133 04.3	35 27.3	17	S, P(H, V)
Matsumoto	MATSUM	MTM	137 58.4	36 14.6	610	S, P(H, V)
Matsushiro	MATSUS	MAT	138 12.5	36 32.3	440	S, L, AW,G,B,V,C
Matsuyama	MATSUY	MTY	132 46.8	33 50.4	32	S, W
Mishima	MISHIM	MIS	138 55.8	35 06.7	20	S, W
Mito	MITO	MIT	140 28.3	36 22.7	30	S, VI, EMT′
Miyako	MIYAKO	MIY	141 58.1	39 38.7	46	S, W
Miyazaki	MIYAZA	MYZ	131 25.6	31 55.0	7	S, VI, OP
Mizusawa	MIZUSA	MIZ	141 08.0	39 08.0	61	P(H, V)
Morioka	MORIOK	MRK	141 10.0	39 41.8	155	S, VI, OP
Muroran	MURORA	MRR	140 59.0	42 19.0	43	S, P(H, V)
Murotomisaki	MUROTO	MRT	134 10.7	33 14.9	185	S, VI, OP
Nagano	NAGANO	NGN	138 11.8	36 39.6	418	S, W
Nagasaki	NAGASA	NGS	129 52.2	32 43.9	27	S, VD, EM
Nagoya	NAGOYA	NAG	136 58.1	35 09.9	52	S, VI, OP
Nara	NARA	NAR	135 50.0	34 41.0	105	S, P(H, V)
Nemuro	NEMURO	NEM	145 35.2	43 19.7	26	S, VI, VD, OP
Niigata	NIIGAT	NII	139 03.1	37 54.6	2	S, P(H, V)
Nobeoka	NOBEOK	NOB	131 41.0	32 35.0	19	S, P(H, V)
Obihiro	OBIHIR	OBI	143 13.3	42 55.2	39	S, P(H, V)
Ofunato	OFUNAT	OFU	141 43.1	39 03.7	38	S, VI
Oita	OITA	OIT	131 37.4	33 14.0	5	S, W
Okayama	OKAYAM	OKA	133 54.9	34 40.9	4	S, VI, OP
Omaezaki	OMAEZA	OMA	138 12.8	34 36.2	45	S, W
Onahama	ONAHAM	ONA	140 54.4	36 56.7	3	S, VI
Osaka	OSAKA	OSA	135 31.3	34 40.7	13	S, VI

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Station	Code	CGS Code	λ	φ	Height	Seismographs
					m	
Oshima	OSHIMA	OSH	E139°22.7′	N34°45.7′	191	S, W
Owase	OWASE	OWA	136 11.7	34 04.0	14	S, VI, OP
Rumoi	RUMOI	RMJ	141 38.0	43 57.0	22	S, P(H, V)
Saga	SAGA	SAG	130 18.3	33 14.7	4	S, P(H, V)
Saigo	SAIGO	SAI	133 20.0	36 12.3	26	S, VI, OP
Sakata	SAKATA	SAK	139 50.2	38 54.2	2	S, P(H, V)
Sapporo	SAPPOR	SAP	141 19.9	43 03.5	17	S, VI, OP
Sendai	SENDAI	SEN	140 54.0	38 15.6	38	S, VI, S′
Shimonoseki	SHIMON	SHN	130 56.5	33 57.2	46	S, VI, OP
Shionomisaki	SHIONO	SHJ	135 45.8	33 26.9	74	S, W
Shirakawa	SHIRAK	SHR	140 13.5	37 07.1	354	S, P(H, V)
Shizuoka	SHIZUO	SHZ	138 24.4	34 58.4	14	S, VI
Sumoto	SUMOTO	SUM	134 54.5	34 20.1	109	S, VI, OP
Suttsu	SUTTSU	SUT	140 14.4	42 47.4	16	S, P(H, V)
Takada	TAKADA	TKD	138 15.0	37 06.3	13	S, P(H, V)
Takamatsu	TAKAMA	TKM	134 03.5	34 19.0	10	S, W
Takayasuyama	OSAKA2		135 39.6	34 36.7	472	VD′
Takayama	TAKAYA	TKY	137 15.3	36 09.1	561	S, P(H, V)
Tateyama	TATEYA	TAT	139 52.1	34 59.0	6	S, VI, EMT
Tokushima	TOKUSH	TKS	134 34.6	34 03.9	2	S, P(H, V)
Tokyo	TOKYO	TOK	139 45.5	35 41.2	21	S, VI′, VD′, I′, J
Tottori	TOTTOR	TOT	134 10.7	35 30.7	17	S, P(H, V)
Toyama	TOYAMK	TOY	137 12.5	36 42.4	9	S, VI
Toyooka	TOYOOA	TYK	134 49.5	35 32.0	4	S, W
Tsu	TSU	TSU	136 31.1	34 42.1	3	S, P(H, V)
Tsuruga	TSURUG	TSR	136 03.9	35 39.0	1	S, P(H, V)
Unzendake	UNZEND	UNZ	130 15.2	32 44.1	849	S
Urakawa	URAKAW	URA	142 46.8	42 09.5	34	S, V I, OP
Utsunomiya	UTSUNO	UTS	139 52.3	36 32.6	120	S, EMT
Uwajima	UWAJIM	UWA	132 33.5	33 13.5	43	S, P
Wajima	WAJIMA	WAJ	136 53.9	37 23.4	6	S, VI
Wakayama	WAKAYA	WKY	135 10.0	34 13.6	14	S, W, I
Wakkanai	WAKKAN	WAK	141 40.4	45 25.0	9	S, VI, OP
Yakushima	YAKUSH	YKS	130 29.8	30 27.0	14	S, VI
Yamagata	YAMAGA	YAM	140 21.0	38 15.2	151	S, P(H, V)
Yokohama	YOKOHA	YOK	139 39 3	35 26.2	38	S, EMT
Yonago	YONAGO	YON	133 20.6	35 26.0	7	S, P(H, V)
Ishigakijima	ISHIGA	ISI	124 10	24 20	6	S, VI
Naha	NAHA	NAH	127 41	26 13	11	S, VI
Miyakojima	MIYAKJ	MYK	125 17	24 47	40	S
Yonagunijima	YONAGU		123 01	24 28	32	

Notations : —

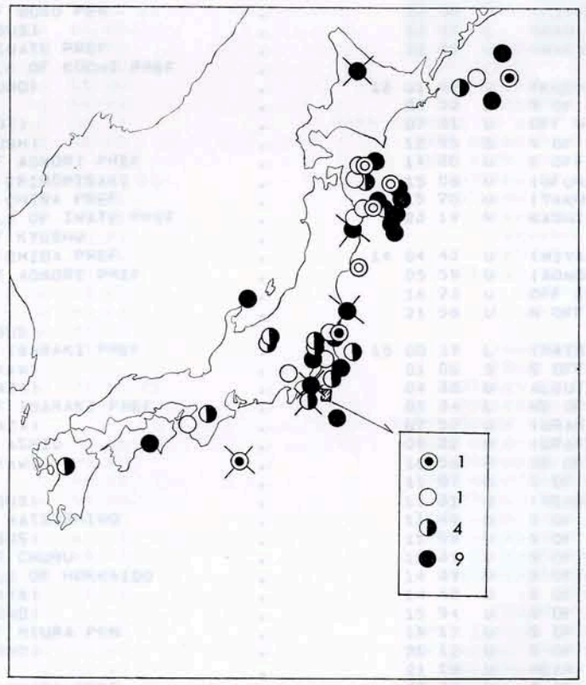
λ	: Longituds.
φ	: Geographical Latitude.
W	: Wiechert's horizontal and vertical seismographs (masses, H ; 200kg, V ; 80kg).
P	: Portable seismograph (horizontal).
P(H, V)	: do (mass, 22.5kg).
S	: Strong motion seismograph (magnification ; 1).
S′	: do (magnification ; 0.4).
M(H)	: Mainka's horizontal seismograph (mass, 450kg).
G	: Galitzin's seismograph.
L	: 1,000kg long-period seismograph, JMA type.
I	: Ishimoto's seismograph.
V	: Short-period vertical seismograph.
AW	: Anderson-Wood's seismograph.
C	: Capacity type seismograph.
EM	: Electromagnetic seismograph.
OP	: JMA 59-type electromagnetic seismograph with optical recorder.
VI	: JMA 59-type electromagnetic seismograph with visible recorder.
VD	: JMA 61-type electromagnetic seismograph with visible recorder.
B	: Benioff's seismograph (short and long period).
J	: Remote recording JMA 63-type seismograph.
VI′,VD′,I′	: Remote recording JMA 63-type seismograph.
EMT	: Electromagnetic seismograph with tape recorder.
EMT′	: Electromagnetic seismograph with tape recorder and transmitting unit.

List 2 Number of earthquakes by districts and classes, May, 1969

District \ Class	Number of felt earthquakes					Number of unfelt earthquakes	Total
	Remarkable	Moderate	Small felt area	Local	Total		
Hokkaido	1	0	1	3	5	31	36
Tohoku	0	4	4	6	14	33	47
Kwanto	2	0	3	13	18	73	91
Chubu	0	0	1	27	28	6	34
Kinki	1	0	1	3	5	13	18
Chugoku•Shikoku	0	0	0	0	0	7	7
Kyushu	0	0	0	12	12	16	28
Near Japan*	0	0	0	0	0	9	9
Foreign region	0	0	0	0	0	1	1
Unknown	0	0	0	0	0	6	6
Total	4	4	10	64	82	195	277

★ ; Sakhalin, Kurile Is., Korea, Ryukyu Is., Bonin Is., Sikhota Alin.

Epicenters of the major earthquakes



⊙ Remarkable (R) ◎ Moderate (M) ○ Small felt area (S) ◑ Local (L) ● Unfelt (U) × h≧100km.

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Special Events

Earthquake-Swarm near Matsushiro, Northern Chubu

In this month, 27 earthquakes (intensity II : 1, I : 26) were felt at the Matsushiro Seismological Observatory.

List 3 EARTHQUAKES OBSERVED BY SEISMOLOGICAL STATIONS OF JMA C CLASS

(J. S. T.)

DATE, TIME D H M	C	LOCATION
1 06 30	U	(URAKAW)
09 06	U	(WAKAYA)
10 09	U	(WAKAYA)
14 43	U	MIYAGI PREF
14 48	U	(WAKAYA)
18 30	U	(KOBE)
22 27	U	S OF HOKKAIDO
23 50	U	(YAKUSH)
2 02 01	L	N OF KUMAMOTO PREF
02 48	U	(URAKAW)
04 16	U	UK
04 25	U	(HACHIN)
05 57	U	(UWAJIM)
06 33	L	(MATSUS)
14 52	U	(YONAGU)
17 43	U	E OFF AOMORI PREF
3 03 38	U	(HACHIN)
05 40	M	OFF SANRIKU
07 45	M	OFF IWATE PREF
13 45	U	(MIYAKO)
17 27	L	(MATSUS)
21 33	U	NEAR CHOSHI
4 00 29	U	(MIYAZA)
00 46	S	E OF YAMANASHI PREF
03 36	U	NEAR CHOSHI
04 09	L	NE OFF CHOSHI
11 37	U	S OFF BOSO PEN
12 45	L	(MATSUS)
15 39	U	OFF IWATE PREF
18 25	U	MIDDLE OF KOCHI PREF
20 35	U	(NEMURO)
5 05 41	U	(RUMOI)
06 07	U	(YAKUSH)
11 47	U	E OFF AOMORI PREF
12 15	L	NEAR ERIMOMISAKI
13 08	U	S OF CHIBA PREF
16 32	U	MIDDLE OF IWATE PREF
18 50	U	S OFF KYUSHU
21 15	U	S OF CHIBA PREF
23 59	L	E OFF AOMORI PREF
6 00 11	L	(MATSUS)
11 19	U	S OF IBARAKI PREF
12 50	U	(URAKAW)
15 51	U	(MIYAZA)
15 54	L	SW OF IBARAKI PREF
19 35	U	(MIYAZA)
20 25	L	NEAR ASHIO
23 28	U	(URAKAW)
7 01 16	L	(MATSUS)
07 14	L	NEAR MATSUSHIRO
08 51	L	(MATSUS)
13 05	U	SW OF CHUBU
13 10	U	MIDDLE OF HOKKAIDO
14 46	U	(WAKAYA)
19 16	L	(UNZEND)
19 35	U	S OFF MIURA PEN
23 24	L	(KUMAMO)
8 02 29	U	S OF CHIBA PREF
02 29	U	(TATEYA)
07 47	L	(UNZEND)
09 17	U	(WAKAYA)
10 01	U	(SHIZUO)
8 11 48	L	E OF CHIBA PREF
19 29	L	(MATSUS)
20 59	U	(MATSUY)
23 57	U	(URAKAW)
9 01 54	U	N OF TOHOKU
03 37	U	OFF SANRIKU
05 52	U	S OF KURILE IS
09 36	L	NEAR MITO
15 55	U	S OF CHUBU
17 54	L	(ASOSAN)
22 34	U	S OF IBARAKI PREF
23 52	L	(KAGOSH-NAZE)
10 02 38	U	(URAKAW)
10 16	L	(KUMAMO)
14 48	U	(MUROTO)
19 59	U	(ONAHAM)
11 05 20	U	S OF KURILE
08 16	L	N OF AOMORI PREF
10 22	U	OFF IWATE PREF
19 43	R	S OFF KURILE IS
12 01 04	L	OFF IWATE PREF
03 46	U	(URAKAW)
08 12	U	(YAKUSH)
17 39	U	E OFF AOMORI PREF
22 02	L	NEAR MATSUSHIRO
23 00	U	(MIYAZA)
23 17	L	NEAR MATSUSHIRO
23 45	U	(WAKAYA)
13 01 02	U	(KUSHIR)
03 53	L	S OF CHIBA PREF
07 31	U	OFF URAKAWA
12 55	S	N OF CHIBA PREF
14 30	U	E OFF IBARAKI PREF
15 08	U	(OFUNAT)
15 20	U	(YAKUSH)
23 19	R	KASHIMANADA
14 04 43	U	(MIYAKO)
05 59	U	(AOMORI)
16 23	U	OFF IWATE PREF
21 58	U	N OFF NOTO PEN
15 00 19	L	(MATSUS)
01 06	S	S OFF BOSO PEN
04 38	U	ALEUTIAN IS
05 34	L	NE OFF NEMURO PEN
07 57	U	(URAKAW)
08 32	U	(URAKAW)
10 56	R	SE OFF CHIBA PREF
11 07	U	S OF KWANTO
11 31	U	(NEMURO)
11 49	U	S OF CHIBA PREF
11 59	U	S OF CHIBA PREF
12 31	U	S OF KWANTO
14 39	U	S OF CHIBA PREF
14 43	U	S OF KWANTO
15 54	U	S OF KWANTO
19 17	U	S OF KWANTO
20 12	U	S OF CHIBA PREF
21 08	U	NEAR TSURUGA
23 34	U	S OF KWANTO
23 49	U	S OF CHIBA PREF
16 00 07	U	NEAR URAKAWA
01 05	U	S OF CHIBA PREF

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DATE, D	TIME H	M	C	LOCATION
16	02	29	U	E OF HOKKAIDO
	02	33	L	S OF CHIBA PREF
	03	19	U	S OF CHIBA PREF
	03	33	U	S OF CHIBA PREF
	03	34	U	(MIYAZA)
	11	04	U	E OFF AOMORI PREF
	11	14	S	E OF IWATE PREF
	12	44	U	(YAKUSH)
	15	57	R	SE OFF KII PEN
	20	13	U	S OF KWANTO
	20	45	U	S OF CHIBA PREF
	23	15	U	S OF CHIBA PREF
	23	50	U	S OF KWANTO
	23	52	U	S OF KWANTO
17	05	16	U	OFF IWATE PREF
	05	36	U	S OF CHIBA PREF
	07	41	U	(URAKAW)
	08	40	U	NEAR HACHIJOJIMA
	09	05	L	NEAR MATSUSHIRO
	11	06	U	(KUSHIR)
	13	47	U	(TATEYA)
	17	07	U	(TATEYA)
	17	22	U	S OF KWANTO
	18	06	U	E OFF AOMORI PREF
	19	29	U	S OFF CHOSHI
	19	43	L	NEAR MATSUSHIRO
	19	55	U	(YONAGU)
	20	09	U	(NAHA)
	20	15	U	OFF IWATE PREF
	20	15	U	OFF IWATE PREF
	20	40	U	S OF CHIBA PREF
	23	05	U	UK
18	02	34	U	(YONAGU)
	03	31	U	S OF CHIBA PREF
	06	37	L	(UNZEND)
	06	40	U	(KUSHIR)
	07	20	U	MIDDLE OF IBARAKI PREF
	08	19	U	S OF CHIBA PREF
	08	37	U	S OF CHIBA PREF
	10	00	U	N OF KWANTO
	10	02	U	N OF KWANTO
	10	14	L	(WAKAYA)
	15	33	U	(URAKAW)
	15	43	U	(HACHIN)
	17	37	U	S OF KWANTO
	18	37	U	(KOBE)
	22	12	U	(WAKAYA)
19	00	10	U	(UTSUNO)
	02	36	L	(MATSUS)
	03	02	U	S OF KWANTO
	03	03	U	S OF KWANTO
	05	56	M	E OFF AOMORI PREF
	07	01	L	S OF CHIBA PREF
	11	34	U	S OF KWANTO
	12	55	L	S OF CHIBA PREF
	13	08	U	S OF KWANTO
	13	17	U	S OF CHIBA PREF
	16	48	U	S OF CHIBA PREF
	22	13	U	NEAR KYOTO
	22	55	U	S OF KWANTO
20	05	44	U	(AOMORI)
	15	36	M	OFF MIYAGI PREF
	16	12	U	E OFF CHIBA PREF
	19	06	U	NEAR URAKAWA
	23	22	S	E OFF AOMORI PREF

DATE, D	TIME H	M	C	LOCATION
21	00	00	S	E OFF NEMURO PEN
	00	06	L	NEAR OSHIMA
	02	56	U	(MISHIM)
	07	12	L	NEAR URAKAWA
	07	15	U	S OFF KWANTO
	07	19	L	NEAR MATSUSHIRO
	09	16	L	(MATSUS)
	12	00	U	S OF KWANTO
	12	01	U	UK
	13	26	U	S OF KWANTO
	13	33	U	OFF IWATE PREF
	16	27	U	(HIROSH)
	17	43	S	E OFF AOMORI PREF
	18	08	U	S OF KWANTO
	23	55	U	(HACHIN)
22	00	46	L	MIDDLE OF NARA PREF
	00	52	U	(HIROSH)
	02	55	L	NEAR MATSUSHIRO
	02	56	L	(MATSUS)
	03	12	L	NEAR MATSUSHIRO
	07	51	L	NEAR MATSUSHIRO
	08	02	U	S OF KWANTO
	10	54	L	NEAR MATSUSHIRO
	13	07	U	NEAR CHOSHI
	13	56	U	S OF CHIBA PREF
	14	23	L	(FUKUSH-WAKAMATSU)
	14	32	U	UK
	18	37	U	OFF SANRIKU
	20	40	S	E OF IBARAKI PREF
	22	48	U	NEAR UWAJIMA
23	02	56	U	(WAKAYA)
	04	18	U	OFF URAKAWA
	04	56	U	S OF KWANTO
	06	37	U	S OF CHIBA PREF
	09	23	L	(WAKAYA)
	11	43	L	(MATSUS)
	17	43	U	(URAKAW)
	23	32	U	S OF KWANTO
24	00	23	L	NEAR UNZENDAKE
	00	26	U	S OF KWANTO
	01	34	L	(UTSUNO-ASHIO)
	03	36	L	NEAR UTSUNOMIYA
	06	33	U	NEAR CHOSHI
	08	04	L	SW OF IBARAKI PREF
	18	56	U	(YAKUSH)
	19	34	U	(WAKAYA)
	21	08	U	(HACHIN)
	21	38	U	(YONAGU)
25	09	46	U	OFF SANRIKU
	16	07	L	(MATSUS)
26	02	20	U	(URAKAW)
	04	09	U	(URAKAW)
	05	56	U	(WAKAYA)
	06	52	U	(URAKAW)
	08	59	L	(HACHIN)
	15	36	L	(UNZEND)
	17	36	U	(YAKUSH)
	19	38	U	(YAKUSH)
	22	32	U	S OF CHIBA PREF
27	00	12	U	(NAGASA)
	00	14	U	S OF HOKKAIDO
	04	37	L	OFF IWATE PREF
	05	58	U	N OF KWANTO
	06	48	U	(KAGOSH)

DATE, D	TIME H	M	C	LOCATION
27	15	06	U	S OF CHIBA PREF
	21	44	U	NEAR CHOSHI
28	00	31	L	(MATSUS)
	03	42	L	NEAR MATSUSHIRO
	04	44	L	NEAR MATSUSHIRO
	05	53	U	S OF KURILE
	06	37	U	(URAKAW)
	10	16	L	(UNZEND)
	10	51	L	(MATSUS)
29	02	13	U	S OF KURILE
	04	53	U	UK
	07	25	S	OFF IWATE PREF
	08	44	U	UK
	16	53	U	(TATEYA)
	22	16	U	OFF IWATE PREF
	22	18	U	OFF SANRIKU
	22	46	U	OFF IWATE PREF
30	04	04	U	(FUKUI)
	09	56	U	S OF KWANTO
	20	55	U	OFF FUKUSHIMA PREF
	21	54	U	(YAKUSH)
31	17	14	L	(KAGOSH-MAKURAZAKI)
	19	44	S	NEAR WAKAYAMA
	23	12	U	N OF CHIBA PREF

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List 4 EARTHQUAKE ORIGINS

(J.S.T.)

DATE, TIME D H M	C	LOCATION	ORIGIN TIME M S	+/-S	LONG.	+/-	LAT.	+/-	C CLASS H KM	M
2 02 01	L	N OF KUMAMOTO PREF	01 06.4	0.3	130 47 03		32 55 01		10	3.5
3 05 40	M	OFF SANRIKU	40 08.7	0.4	143 14 03		40 55 01		40	5.2
07 45	M	OFF IWATE PREF	45 41.8	0.3	142 32 02		40 08 01		30	5.1
4 00 46	S	E OF YAMANASHI PREF	46 24.5	0.1	138 58 01		35 29 01		20	3.9
04 09	L	NE OFF CHOSHI	09 39.4	0.9	141 06 06		35 54 03		80	
11 37	U	S OFF BOSO PEN	36 48.3	0.3	140 50 03		34 02 01		80	
15 39	U	OFF IWATE PREF	39 24.0	0.2	142 40 01		40 22 01		30	4.3
18 25	U	MIDDLE OF KOCHI PREF	25 24.9	0.1	133 48 01		33 33 01		10	3.5
5 16 32	U	MIDDLE OF IWATE PREF	32 35.3	0.3	141 46 04		39 40 02		100	
23 59	L	E OFF AOMORI PREF	59 37.7	0.3	141 55 03		40 55 01		60	4.3
6 15 54	L	SW OF IBARAKI PREF	54 14.9	0.4	139 57 03		36 04 03		70	
7 13 10	U	MIDDLE OF HOKKAIDO	09 28.9	0.6	142 49 04		44 03 04		220	
19 35	U	S OFF MIURA PEN	35 01.8	0.3	139 38 03		35 10 02		120	
8 11 48	L	E OF CHIBA PREF	47 58.5	0.7	140 29 03		35 14 2		40	4.4
9 03 37	U	OFF SANRIKU	36 57.3	0.6	143 19 04		40 58 02		40	4.3
05 52	U	S OF KURILE IS	52 09.9	1.3	148 43 07		44 04 13		40	5.0
11 19 43	R	S OFF KURILE IS	42 46.4	1.1	148 49 06		43 38 05		50	5.2
12 01 04	L	OFF IWATE PREF	04 31.0	0.8	142 32 04		40 09 01		40	3.9
13 03 53	L	S OF CHIBA PREF	53 00.4	0.2	139 47 01		34 56 01		40	4.3
07 31	U	OFF URAKAWA	30 55.1	0.3	142 40 02		41 34 01		40	4.3
12 55	S	N OF CHIBA PREF	54 51.3	0.2	140 07 01		35 44 01		80	
23 19	R	KASHIMANADA	19 43.2	0.2	140 40 02		36 28 01		50	5.2
14 21 58	U	N OFF NOTO PEN	58 02.6	1.1	137 37 05		37 52 04		00	4.1
15 01 06	S	S OFF BOSO PEN	05 50.9	0.5	139 58 04		34 20 01		30	4.2
04 38	U	ALEUTIAN IS	32 54.2		-179 54		51 18		21	6.2
05 34	L	NE OFF NEMURO PEN	34 10.8	1.3	146 43 07		43 20 04		40	4.9
10 56	R	SE OFF CHIBA PREF	56 08.0	0.3	140 06 02		34 54 01		70	
11 49	U	S OF CHIBA PREF	49 37.8	0.7	140 02 04		34 49 04		70	
14 39	U	S OF CHIBA PREF	39 35.0	0.4	140 01 03		34 51 02		70	
23 49	U	S OF CHIBA PREF	49 43.8	2.2	140 19 12		34 46 08		70	
16 01 05	U	S OF CHIBA PREF	05 08.6	0.5	140 00 04		34 47 03		70	
02 33	L	S OF CHIBA PREF	33 43.2	0.3	140 01 02		34 50 01		70	
03 19	U	S OF CHIBA PREF	19 40.4	0.5	140 01 03		34 50 02		70	
11 14	S	E OF IWATE PREF	14 14.7	0.4	141 51 03		39 45 01		80	
15 57	R	SE OFF KII PEN	56 39.6	0.3	136 52 02		32 58 03		400	
17 05 36	U	S OF CHIBA PREF	36 28.4	0.6	139 57 04		34 51 02		70	
09 05	L	NEAR MATSUSHIRO	04 57.9	0.3	138 04 01		36 27 01		10	3.3
19 29	U	S OFF CHOSHI	29 50.2	0.9	140 51 05		35 31 02		30	3.9
18 03 31	U	S OF CHIBA PREF	30 57.1	1.6	140 20 09		34 51 05		70	
07 20	U	MIDDLE OF IBARAKI PREF	19 51.6	0.6	140 28 04		36 29 05		70	
19 05 56	M	E OFF AOMORI PREF	56 22.9	0.3	142 30 03		41 22 01		40	4.8
07 01	L	S OF CHIBA PREF	01 46.0	0.5	139 55 03		34 50 02		70	
12 55	L	S OF CHIBA PREF	54 57.6	0.4	140 04 03		34 54 02		70	
13 17	U	S OF CHIBA PREF	17 28.1	0.4	140 03 03		34 55 02		70	
16 48	U	S OF CHIBA PREF	48 23.5	0.2	139 57 01		34 47 01		70	
20 15 36	M	OFF MIYAGI PREF	35 58.8	0.3	141 50 03		38 21 01		60	4.8
16 12	U	E OFF CHIBA PREF	12 41.7	1.1	140 51 05		35 30 05		50	3.8
23 22	S	E OFF AOMORI PREF	21 49.7	0.3	141 55 03		40 55 01		50	4.4
21 00 00	S	E OFF NEMURO PEN	59 40.3	2.6	147 20 13		43 34 13		00	4.9
00 06	L	NEAR OSHIMA	05 54.7	0.5	139 27 06		34 47 04		100	
17 43	S	E OFF AOMORI PREF	43 36.5	0.3	142 04 03		41 26 02		20	4.2

DATE, TIME D H M	C	LOCATION	ORIGIN TIME M S	+/-S	LONG.	+/-	LAT.	+/-	H KM	M
22 00 46	L	MIDDLE OF NARA PREF	45 50.7	0.3	135 53 02		34 22 02		40	3.9
02 55	L	NEAR MATSUSHIRO	55 43.4	0.2	138 06 01		36 25 01		00	4.4
18 37	U	OFF SANRIKU	36 34.6	1.4	143 35 07		38 14 03		00	4.9
20 40	S	E OF IBARAKI PREF	40 49.4	0.3	140 54 02		36 29 01		50	4.4
24 08 04	L	SW OF IBARAKI PREF	04 03.8	0.2	139 55 01		36 08 01		60	4.0
29 02 13	U	S OF KURILE	13 13.3	1.1	147 40 07		44 56 05		90	
07 25	S	OFF IWATE PREF	25 37.3	0.4	142 08 03		40 04 01		40	4.4
22 16	U	OFF IWATE PREF	16 17.5	0.7	143 19 04		39 49 02		10	4.5
22 18	U	OFF SANRIKU	17 50.4	0.8	143 25 04		39 53 02		30	4.3
22 46	U	OFF IWATE PREF	46 01.4	0.7	143 28 03		39 48 02		30	4.5
30 20 55	U	OFF FUKUSHIMA PREF	55 16.2	0.6	141 06 07		37 15 02		100	
31 19 44	S	NEAR WAKAYAMA	44 38.6	0.1	135 07 01		34 01 01		10	4.4
23 12	U	N OF CHIBA PREF	12 42.7	0.4	139 45 04		35 54 02		70	

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List 5 DATA OF EARTHQUAKES

OT= 2 2 1 6.4 +/- 0.3 (J.S.T.)
N OF KUMAMOTO PREF
LAT= 32 55 +/- 1 LONG= 130 47 +/- 3
H= 10 MAG=3.5 CLASS=L

I SEISMIC INTENSITY
* MICRON

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KUMAMO	2	IP	02	01	10.3	IS	01	12.7	142		121	0.8			N	3 E	6 D	18	13.7	02.4
SAGA	0	EP	02	01	18.8	IS	01	24.8											57.6	06.0
FUKUOK	0	EP	02	01	21.5	IS	01	31.8	5	0.4	3	0.4	1	2.6					82.6	10.3
OITA	0	EX	02	01	26.6				6	0.9	4	0.9							85.9	
MIYAZA	0	IP	02	01	29.7	S	01	43.6	7	0.7	8	0.8	3	0.6					126.3	13.9

OT= 3 5 40 8.7 +/- 0.4
OFF SANRIKU
LAT= 40 55 +/- 1 LONG= 143 14 +/- 3
H= 40 MAG=5.2 CLASS=M

HACHIN	X	IP	05	40	32.0	S	40	47.6	47	0.4	37	0.3	24	3.2	N	E	1 D	1	150.8	15.6
URAKAW	0	P	05	40	32.2	S	40	50.0	95	0.6	135	0.6	44	2.4					143.0	17.8
HIROO	0	EP	05	40	33.0	S	40	50.2											152.0	17.2
MIYAKO	0	EP	05	40	36.9	S	40	55.9	18	2.9	13	2.0	17	2.6					177.5	19.0
AOMORI	1	IP	05	40	39.3	S	41	00.6	89	0.4	101	0.6	49	1.5		W	8 U	3	206.9	21.3
HAKODA	0	IP	05	40	42.5	S	41	07.4	51	0.9	64	0.9	18	2.9	N	2 W	7 U	12	229.8	24.9
MORIOK	1	IP	05	40	42.5	S	41	06.3	97	0.4	60	0.3	15	2.0	S	0 W	1 U	0	221.7	23.8
MURORA	0	EP	05	40	44	S	41	08.9							N	W	U		243.6	24.9
KUSHIR	1	EP	05	40	45	IS	41	10.4	75	0.7	83	0.6	17	0.4					248.5	25.4
OBIHIR	0	EP	05	40	45	ES	41	13											222.5	28.0
OFUNAT	0	IP	05	40	45.4	ES	41	12.0	20	1.0	21	1.0	16	0.8	S	1 W	1 U	1	243.2	26.6
SAPPOR	0	P	05	40	51.0	ES	41	18	28	2.0	42	3.0	15	3.0					285.4	27.0
AKITA	0	EP	05	40	52.7	S	41	26.6	50	2.8	32	2.0	27	2.4			U		297.6	33.9
NEMURO	0	P	05	40	54.0	ES	41	27	5	2.8	5	2.8	3	2.4		W	D		331.1	33.0
ISHINO	0	EP	05	40	54.8	S	41	27.0	15	1.6	20	2.6	15	2.6			U	1	322.4	32.2
ASAHIK	0	EP	05	40	57				17	2.2	20	2.4	12	2.2					324.8	
ABASHI	0	EP	05	40	58	ES	41	34	10	3.0	10	2.6	4	3.0					355.1	36.0
SENDAI	0	EP	05	41	00	ES	41	42	27	2.6	36	2.4	12	1.5					356.6	42.0
						EX	41	30											385.7	44.0
YAMAGA	0	EP	05	41	04.2	ES	41	48.2											366.5	
SAKATA	0	EX	05	41	06.1				100	2.0	100	2.8							423.8	51.0
FUKUSH	0	EP	05	41	08.6	ES	41	59.6	21	0.9	22	0.9	6	1.1					484.8	
ONAHAM	0	EX	05	41	10.0	X	42	02.4	18	1.0	17	1.3	6	1.0					495.6	52.2
SHIRAK	0	EP	05	41	17.0	ES	42	09.2											721.7	
TATEYA	0	EX	05	41	17.0				13	2.1	15	2.2	9	2.0					558.1	58.1
MITO	0	EP	05	41	23.5	ES	42	21.6	18	2.8	16	1.4	10	2.9					583.5	61.0
KAKIOK	0	EP	05	41	27	ES	42	28	13	0.8	13	0.8	4	0.7					626.7	72.6
KUMAGA	0	EP	05	41	36.4	ES	42	49.0	18	2.0	13	3.0	6	3.2					653.3	
MATSUS	0	IP	05	41	36.6	X	43	03							S	W	U		651.1	
KARUIZ	0	EP	05	41	37.2	X	43	02.8												
WAJIMA	0	EX	05	41	40								5	0.8					672.9	
WAKKAN	0	EX	05	41	42				6	4.0	6	3.8	6	3.1					515.8	
NAGANO	0	EX	05	41	42.0	X	43	10.2	20	4.1	7	4.5	10	2.9					643.8	
TOYAMA	0	EX	05	41	43				8	3.6	6	3.6	5	4.0					701.3	
KOFU	0	EP	05	41	49.5	X	43	13.1	8	1.4	10	1.8	4	1.8					711.8	
MISHIM	0	X	05	42	00	ES	43	19.9	11	3.2	11	2.2							746.7	
NAGOYA	0	X	05	42	13.4	ES	43	42.8	6	2.6	6	2.6	2	1.4					842.1	
NIIGAT	0	EX	05	42	21.2	X	43	23.4	52	3.1	34	3.0	16	2.8					490.9	
TOKYO	0	EX	05	42	43	X	43	00	15	3.6	16	2.2	15	3.6					655.3	
KAWAGU	0	X	05	42	47.3	X	43	14.9											717.3	
OSAKA	0	EX	05	42	54				6	3.0	4	3.0	2	2.6					969.0	
KANAZA	0	EX	05	42							6	3.9	5	4.0					750.0	
HAMAMA	0	X	05	43	30				6	3.0	8	3.0	3	3.0					842.2	

OT= 3 7 45 41.8 +/- 0.3
OFF IWATE PREF
LAT= 40 8 +/- 1 LONG= 142 32 +/- 2
H= 30 MAG=5.1 CLASS=M

MIYAKO	2	IP	07	45	54.8	IS	46	04.1	64	2.0	65	3.0	48	1.1	N	7 E	3 D	12	72.6	08.3
HACHIN	3	IP	07	45	58.5	IS	46	09.0	138	0.6	122	0.6	37	2.0	S	25 E	33 D	30	96.1	10.5
WAJIMA	0	EX	07	46	02				6	1.0	10	1.0							576.5	
MORIOK	3	IP	07	46	03.2	IS	46	16.6	250	0.3	183	0.3	61	0.4	N	8 E	15 D	7	126.4	13.4
OFUNAT	1	IP	07	46	04.6	IS	46	19.7	80	0.0	76	1.6	41	0.8	N	2 E	1 D	2	138.0	15.1
AOMORI	2	IP	07	46	07.5	S	46	26.3	197	1.5	311	1.3	166	0.7				D 41	166.7	18.8
AKITA	0	EP	07	46	15.1	S	46	40.6	53	1.8	39	2.4	27	2.2					212.9	25.5

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
ISHINO	1	EP	07	46	15.5	IS	46	38.6	34	0.8	34	1.0	29	1.4			U	1	217.3	23.1
URAKAW	0	EP	07	46	17	S	46	44.2	35	2.8	55	0.4	14	2.2					225.9	27.2
HAKODA	0	IP	07	46	17.1	IS	46	41.8	30	1.2	40	1.3	15	2.6	S	2 E	2 D	3	239.0	24.7
HIROO	0	EP	07	46	20.0	S	46	49.5											247.7	29.5
SENDAI	0	EP	07	46	20.4	IS	46	47.2	60	3.0	36	1.0	16	1.5					251.3	26.8
MURORA	0	EP	07	46	21	S	46	49.7							N	W	U		275.1	28.7
SAKATA	0	EX	07	46	23.0				100	2.0	100	2.2	50	2.0					269.1	
YAMAGA	0	P	07	46	24.6	ES	46	54.5									U		281.3	29.9
FUKUSH	0	EP	07	46	28.9	ES	47	01.7	56	1.0	63	1.0	15	0.6					318.5	32.8
OBIHIR	0	EP	07	46	30	S	47	06.1											314.8	36.1
SAPPOR	0	P	07	46	30.7	ES	47	07	14	2.0	11	1.0	6	1.0					340.0	36.3
KUSHIR	0	EP	07	46	31	ES	47	04	28	0.8	27	0.4	7	0.4					352.1	33.0
ONAHAM	0	EP	07	46	37.3	ES	47	15.9	24	0.9	34	1.2	10	0.5					381.2	38.6
SHIRAK	0	EP	07	46	37.8	ES	47	22.3											390.4	44.5
NIIGAT	0	EP	07	46	39.0	ES	47	31.3	29	3.1	23	3.1	10	2.0					389.6	52.3
ASAHIK	0	EP	07	46	40				10	1.2	11	1.2	10	1.6					404.2	
NEMURO	0	P	07	46	40.6	X	47	22	7	1.4	4	1.2	2	0.8	N	E	U		436.4	
MITO	0	EP	07	46	46.4	ES	47	33.4	22	2.0	19	0.9	11	2.0					454.1	47.0
ABASHI	0	EP	07	46	48	ES	47	29	5	2.0	3	2.0	2	2.0					455.0	41.0
KAKIOK	0	EP	07	46	48	ES	47	40	27	0.8	18	0.8	7	0.8					479.1	52.0
KUMAGA	0	EP	07	46	55.6	ES	47	55.0	13	1.4	13	1.2	5	1.4					521.4	59.4
KARUIZ	0	EP	07	46	57.8	ES	48	06.1											546.5	68.3
MATSUS	0	IP	07	46	57.9	S	47	54							S	W	U		549.6	56.1
NAGANO	0	E	07	47	01.0	X	48	16.1	13	2.9	5	2.8	7	3.0					540.4	
TOKYO	0	EX	07	47	11	X	48	15.4	8	1.4	13	2.0	7	3.0					550.6	
KOFU	0	X	07	47	11.2	ES	48	20.2	7	1.0	9	1.4	3	1.4					606.6	
TATEYA	0	EX	07	47	12.0				11	2.0	12	2.5	6	1.3					618.0	
MISHIM	0	X	07	47	16				10	2.2	6	1.3							641.5	
NAGOYA	0	EP	07	47	24.8	ES	48	44.6	3	2.0	5	2.2	2	1.4					738.0	79.8
KAWAGU	0	X	07	47	51.8	ES	48	18.6											612.0	
TAKADA	0	X	07	48	05.6														502.0	
HAMAMA	0	X	07	48	30				4	3.0	5	3.0	2	3.0					737.1	

OT= 4 0 46 24.5 +/- 0.1
E OF YAMANASHI PREF
LAT= 35 29 +/- 1 LONG= 138 58 +/- 1
H= 20 MAG=3.9 CLASS=S

KAWAGU	2	IP	00	46	30.3	IS	46	38.8	50	0.0	0	0.0	0	0.0					18.5	03.5
KOFU	0	IP	00	46	33.2	IS	46	39.0	39	0.7	31	0.9	10	0.8	S	5 E	5 D	8	42.1	05.8
AJIRO	X	IP	00	46	34.0	S	46	40.4	15	0.3	16	0.3	8	0.5			D	2	50.2	06.4
MISHIM	0	IP	00	46	34.1	IS	46	40.4	47	0.7	91	0.7	27	0.5			U	7	41.4	06.3
CHICHI	0	EP	00	46	35.2	IS	46	43.2											57.3	08.0
YOKOHA	0	IP	00	46	36.8	S	46	46.4											62.7	09.6
SHIZUO	0	EP	00	46	38.9	S	46	48.9	15	0.5	9	0.5	2	1.7					76.1	10.0
TOKYO	X	IP	00	46	39.0	S	46	49.4	35	0.4	40	0.0	10	1.8					75.1	10.4
OSHIMA	0	P	00	46	39.6	IS	46	50.3	45	0.3	26	0.3	17	0.3			D	7	88.4	10.7
KUMAGA	0	P	00	46	40.4	S	46	50.6	28	1.0	21	0.8	3	1.0			U	3	82.7	10.2
TATEYA	0	IP	00	46	41.5				29	0.5	25	0.8	10	0.5						
KARUIZ	0	EP	00	46	42.5	ES	46	54.0									D	5	99.0	
IIDA	0	EP	00	46	42.6	ES	46	55.4	7	1.4	2	1.0	1	0.6					102.1	11.5
KAKIOK	0	P	00	46	46.7	S	47	03.4	16	0.8	11	0.8	6	0.8	N	E	2		102.7	12.8
MATSUS	0	IP	00	46	47.8	S	47	03							S	E	D		138.4	16.7
NAGANO	0	EP	00	46	48.1	IS	47	07.5	5		3		1						135.5	15.2
HAMAMA	0	P	00	46	49.0	S	47	07.0	7	0.4	5	0.4	4	0.6	S	1 W	1 U	1	147.8	19.4
MITO	1	EP	00	46	51.4	S	47	12.0	5	1.1	7	0.9	2	0.9					142.2	18.0
NAGOYA	0	EP	00	46	55.4	ES	47	20.4	7	1.4	7	1.0	3	1.2					168.2	20.6
CHOSHI	0	EP	00	46	57.0	EX	47	14.1											185.1	25.0
ONAHAM	0	X	00	47	07.2	ES	47	28.9	6	1.9	5	0.9	1	0.4					172.1	
																			238.1	

OT= 4 4 9 39.4 +/- 0.9
NE OFF CHOSHI
LAT= 35 54 +/- 3 LONG= 141 6 +/- 6
H= 80 CLASS=L

CHOSHI	0	IP	04	09	52.8	S	10	02.0											30.2	09.2
MITO	1	IP	04	09	56.8	IS	10	07.6	60	0.4	24	0.4	12	0.3			D	2	77.5	10.8
KAKIOK	0	P	04	09	56.9	S	10	08.3	32	1.2	27	1.1	12	0.8		E	D		89.6	11.4
UTSUNO	0	P	04	10	01.3	S	10	15.6											131.7	14.3
TOKYO	0	P	04	10	03.4	S	10	18.4	10	0.0	9	0.0							123.6	15.0
TATEYA	0	P	04	10	04.5				8	0.7	9	0.6	5	0.3					151.1	
KUMAGA	0	EP	04	10	05.6	ES	10	23.6	8	0.6	5	0.4	1	0.6					157.0	18.0
ONAHAM	0	X	04	10	06.3	IS	10	15.2	5	0.4	6	0.3	1	0.4					117.2	
AJIRO	0	P	04	10	09.4	S	10	30.2	11	0.3	10	0.3	2	0.4					205.1	20.8
KOFU	0	EP	04	10	16.6	ES	10	36.5	6	0.5	8	0.4	3	0.5					231.2	19.9

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MATSUS	0	IP	04	10	18.6	S	10	47							N	S	U	269.4	28.4
FUKUSH	0	X	04	10	34.9				7	0.9	6	0.8	3	0.7				213.4	
OT= 4 11 36 48.3 +/- 0.3 S OFF BOSO PEN LAT= 34 2 +/- 1 LONG= 140 30 +/- 3 H= 80 CLASS=U																			
TATEYA	0	EP	11	37	09.5	S	37	24.3	17	0.5	44	0.5	19	0.5				120.3	14.8
HACHIJ	0	EP	11	37	10.2	IS	37	23.8	23	0.2	22	0.2	8	0.2				122.6	13.6
AJIRO	0	EP	11	37	15.6	S	37	33.5	6	0.2	5	0.2	3	0.4				170.7	17.9
MISHIM	0	P	11	37	17.9	ES	37	36.9	7	0.9	12	0.7	5	0.7			D 2	187.2	19.0
TOKYO	0	EX	11	37	35	S	37	41.5	11	0.4	15	0.4						195.3	
MATSUS	0	IP	11	37	39.2	S	38	15							N		U	347.3	35.8
OT= 4 15 39 24.0 +/- 0.2 OFF IWATE PREF LAT= 40 22 +/- 1 LONG= 142 40 +/- 1 H= 30 MAG=4.3 CLASS=U																			
MIYAKO	0	EP	15	39	41	ES	39	52.8	7	0	7	0	4	0				99.9	11.8
HACHIN	0	IP	15	39	41.4	IS	39	52.3	22	0.6	20	0.5	10	2.4	S	W 1	U	98.4	10.9
MORIOK	0	IP	15	39	48.5	S	40	04.4	29	0.3	21	0.4	11	0.4	S 1	W 2	U 1	148.0	15.9
AOMORI	0	P	15	39	50.6	IS	40	09.0	110	1.1	124	1.1	50	0.7				167.1	18.4
OFUNAT	0	EP	15	39	50.9	ES	40	09.2	9	0.0	9	1.0	3	0.6				166.2	18.3
URAKAW	0	EP	15	39	55	ES	40	18	5	3.0	8	0.4	2	1.2				199.2	23.0
HAKODA	0	IP	15	39	57.9	IS	40	22.6	6	0.7	7	0.9	3	1.0	S 1	E 1	D 2	227.0	24.7
AKITA	0	EX	15	40	01.8	ES	40	17.0	8	1.4	9	0.8	6	1.8				230.4	
SENDAI	0	EP	15	40	05	ES	40	34	3	0.8	6	2	2	1				279.1	29.0
FUKUSH	0	EX	15	40	13.8				6	1.0	6	0.8	2	0.6				346.3	
KUSHIR	0	ES	15	40	41				15	0.2	13	0.2	5	0.3				323.8	
MATSUS	0	IP	15	40	43.1	X	42	10							N	S	U	576.0	
OT= 4 18 25 24.9 +/- 0.1 MIDDLE OF KOCHI PREF LAT= 33 33 +/- 1 LONG= 133 48 +/- 1 H= 10 MAG=3.5 CLASS=U																			
KOCHI	0	IP	18	25	30.9	IS	25	32.9								E 7	D 5	24.8	02.0
MUROTO	0	P	18	25	34.9	IS	25	40.2	8	0.5	5	0.4						48.5	05.3
TAKAMA	0	EP	18	25	41.6	IS	25	51.7	8	1.0	8	1.0	3	0.4				88.3	10.1
MATSUY	0	EP	18	25	44.2	ES	25	55.9	6	0.7	9	0.6	6	0.6				99.9	11.7
OKAYAM	0	EP	18	25	47.3	IS	26	02.8	5	0.3	10	0.3	1	0.5				125.9	15.5
MATSUS	0	X	18	26	55													521.0	
OT= 5 16 32 35.3 +/- 0.3 MIDDLE OF IWATE PREF LAT= 39 40 +/- 2 LONG= 141 46 +/- 4 H=100 CLASS=U																			
MIYAKO	0	EP	16	32	51	IS	33	00.4	9	0	10	3.8	9	0				17.5	09.4
MORIOK	0	IP	16	32	52.1	IS	33	04.0	11	0.4	11	0.4	4	0.3	N 1	E 2	D 2	51.4	11.9
OFUNAT	0	IP	16	32	52.8	IS	33	04.6	21	0.0	10	0.2	5	0.0			D 1	67.3	11.8
HACHIN	0	IP	16	32	55.0	IS	33	09.2	9	0.3	7	0.2	2	0.4			D 1	97.5	14.2
MATSUS	0	P	16	33	39													466.8	
OT= 5 23 59 37.7 +/- 0.3 E OFF AOMORI PREF LAT= 40 55 +/- 1 LONG= 141 55 +/- 3 H= 60 MAG=4.3 CLASS=L																			

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
HACHIN	3	IP	23	59	50.1	IS	59	58.8	156	0.6	165	0.6	75	0.5	N 1	E 1	D 1	54.7	08.7
AOMORI	0	IP	23	59	55.5	ES	00	07.5	50	1.0	68	2.5	26	1.5		E 8	D 7	96.2	12.0
HAKODA	0	IP	23	59	59.0	IS	00	14.7	14	0.5	22	0.8	9	0.6	S 2	E 3	D 9	189.0	15.7
MIYAKO	0	EP	23	59	59.7	ES	00	14	6	0	9	0						141.3	14.3
AKITA	0	EX	00	00	13				5	1.4	6	1.2	4	1.4				203.7	
KUSHIR	0	X	00	00	48				4	0.3	5	0.2	2	0.3				307.7	
FUKUSH	0	EX	00	00	48.9				5	1.0	6	0.9						372.2	
MORIOK	0	IP	00	00	01.9	IS	00	18.4	29	0.4	28	0.4	7	0.3	N 1	E 0	D 0	149.7	16.5
URAKAW	0	P	00	00	02.8	ES	00	18	7	0.6	12	0.4	3	1.4				155.6	15.2
OFUNAT	0	EP	00	00	09.2	ES	00	30.6	10	0.4	7	0.2	4	0.4				206.7	21.4
OBIHIR	0	EP	00	00	15	ES	00	40										247.5	35.
MATSUS	0	P	00	00	57													583.1	
OT= 6 15 54 14.9 +/- 0.4 SW OF IBARAKI PREF LAT= 36 4 +/- 3 LONG= 139 57 +/- 3 H= 70 CLASS=L																			
KAKIOK	1	IP	15	54	26.2	IS	54	32.4	116	0.8	73	0.8	41	0.8			U 6	28.5	06.2
UTSUNO	1	IP	15	54	28	IS	54	36										53.7	08.0
KUMAGA	1	P	15	54	28.4	S	54	36.4	45	0.8	33	0.8	6	1.2			D 3	51.6	08.0
TOKYO	0	IP	15	54	29.1	ES	54	37.7	18	0.8	25	1.0	8	1.2				45.7	08.6
MITO	1	IP	15	54	29.6	IS	54	38.4	47	1.0	34	0.4	12	1.5			U 2	58.3	08.8
TATEYA	0	EP	15	54	31.8				17	2.0	12	0.9	10	2.0				120.4	
CHOSHI	0	EP	15	54	32.8	IS	54	43.4										89.1	10.6
YOKOHA	0	EP	15	54	32.8	S	54	44.0										74.8	11.2
ONAHAM	0	EP	15	54	37.7	IS	54	49.6	22	1.1	16	1.0	8	0.4				129.8	11.9
MATSUS	0	P	15	54	41	S	54	55										164.9	14.0
KOFU	0	EP	15	54	41.4	ES	54	54.8	9	1.2	9	0.9	3	0.8				133.3	13.4
KAWAGU	0	X	15	54	42.1	S	54	52.7										124.4	
FUKUSH	0	EX	15	54	52.5				8	1.0	7	1.0	2	0.8				193.3	
MISHIM	0	EX	15	54	53				7	2.2	8	1.8						140.6	
OT= 7 13 9 28.9 +/- 0.6 MIDDLE OF HOKKAIDO LAT= 44 3 +/- 4 LONG= 142 49 +/- 4 H=220 CLASS=U																			
SAPPOR	0	P	13	10	05.1	S	10	33.0	4	2.0	6	2.0	1	1.0				162.9	27.9
URAKAW	0	P	13	10	10.4	ES	10	41	6	0.4	13	0.2	1	0.4				210.2	30.6
NEMURO	0	EP	13	10	11	S	10	42.5										237.3	31.5
OBIHIR	0	EX	13	10	20													129.8	
HACHIN	0	EP	13	10	27.8	IS	11	12.1	16	0.2	14	0.3						405.8	44.3
KUSHIR	0	S	13	10	35.2				18	0.3	13	0.3	4	0.4				174.6	
MORIOK	0	EP	13	10	39.1	S	11	32.4	6	0.4	6	0.5	2	0.6				502.6	53.3
AOMORI	0	EX	13	11	12				10	0.4	11	0.4						396.3	
MATSUS	0	P	13	11	26	S	13	00										921.2	94.0
OT= 7 19 35 1.8 +/- 0.3 S OFF MIURA PEN LAT= 35 10 +/- 2 LONG= 139 38 +/- 3 H=120 CLASS=U																			
TATEYA	0	IP	19	35	19.3	S	35	33.5	17	0.5	12	0.6	7	0.4			U 4	29.5	14.2
AJIRO	0	EP	19	35	20.1	S	35	34.2	13	0.2	12	0.2	3	0.3				50.8	14.1
TOKYO	0	EP	19	35	22	S	35	36.5	34	3.0	42	2.0						58.6	14.5
KUMAGA	0	EP	19	35	25.6	ES	35	43.0	6	0.8	8	0.8	3	0.8				111.0	17.4
KAKIOK	0	EP	19	35	26	ES	35	43	8	0.6	8	0.7	4	0.6				128.5	17.0
KOFU	0	EP	19	35	26.8	IS	35	42.5	8	0.6	6	0.5	2	0.4				112.2	15.7
MATSUS	0	IP	19	35	34.0	S	35	57							S	E	D	199.3	23.0
OT= 8 11 47 58.5 +/- 0.7 E OF CHIBA PREF LAT= 35 14 +/- 2 LONG= 140 29 +/- 3 H= 40 MAG=4.4 CLASS=L																			
CHOSHI	0	IP	11	48	11.3	X	48	19.1								E 6	D 6	63.6	
TATEYA	1	P	11	48	12.2	ES	48	21.6	120	0.6	110	1.5	52	0.7				62.5	09.4
YOKOHA	1	EP	11	48	12.6	ES	48	20.6										78.6	08.0

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STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TOKYO	1	IP	11 48 12.7	S	48 22.3	80	0.0	138	0.0	18	0.6				82.7	09.6
KAKIOK	0	IP	11 48 16.4	S	48 29.4	67	1.0	50	0.8	25	1.1	S	6 W	3 D 4	113.8	13.0
AJIRO	0	EP	11 48 18.8	ES	48 33.3	14	0.2	11	0.2	3	0.4				128.1	14.5
MITO	0	P	11 48 19.2	S	48 32.6	31	1.4	23	2.1	13	1.8				127.0	13.4
KUMAGA	0	EP	11 48 21.6	X	48 54.8	21	1.0	25	1.2	9	0.8				141.9	
CHICHI	0	EP	11 48 22.0	ES	48 41.3										152.3	19.3
KAWAGU	0	P	11 48 24.7	S	48 42.1										159.0	17.4
KOFU	0	EP	11 48 25.2	ES	48 44.0	21	1.2	14	0.9	9	1.3				181.2	18.8
MISHIM	0	EP	11 48 25.8	ES	48 35.5	19	0.7	19	0.7	8	0.8				142.1	09.7
ONAHAM	0	EX	11 48 28.6	X	48 52.5	14	0.9	16	1.2	6	0.8				193.7	
SHIRAK	0	EP	11 48 30.5	S	48 58.6										210.4	28.1
SHIZUO	0	EP	11 48 30.6	S	48 48.7	6	0.5	13	0.7	2					191.5	18.1
KARUIZ	0	P	11 48 31.1	S	48 51.0										213.4	19.9
MATSUS	0	IP	11 48 34.8	S	49 02								W	U	251.3	27.2
HACHIJ	0	P	11 48 35.0	IS	49 01.4	6	0.2	9	0.2					D 1	244.9	26.4
NAGANO	0	X	11 48 44.2	IS	49 14.3	8	1.6	5	1.8	5	2.0				260.0	
FUKUSH	0	X	11 48 45.2	ES	49 18.6	9	0.8	7	0.8	2	0.8				280.0	
SENDAI	0	EP	11 48 48	X	49 36	4	1	5	1	3	1				337.9	
NAGOYA	0	EP	11 48 48.0	ES	49 20.6	6	1.2	5	1.0	2	1.2				320.1	32.6
HAMAMA	0	X	11 48 50			6	2.6	5	2.6	1	2.0				258.6	
TOYAMA	0	EX	11 48 51			7	2.8	7	2.2	4	2.4				337.5	
OMAEZA	0	X	11 48			9	1.4	7	1.2	2	1.4				218.8	
KANAZA	0	X	11 49 19.0	X	49 47.9	6	2.6	7	2.6	5	3.7				375.6	

OT= 9 3 36 57.3 +/- 0.6
OFF SANRIKU
LAT= 40 53 +/- 2 LONG= 143 19 +/- 4
H= 40 MAG=4.3 CLASS=U

URAKAW	0	P	03 37 20.8	S	37 37.8	8	0.4	13	0.4						148.5	17.0
AOMORI	0	EX	03 37 31			12	0.6	13	1.1						213.8	
HAKODA	0	IP	03 37 31.7	S	37 56.6	7	0.4	5	0.8	2	0.6	N	W	U 1	237.7	24.9
MORIOK	0	EP	03 37 32.1	S	37 56.2	7	0.4	5	0.4	2	0.4	N	0	D 0	225.2	24.1
KUSHIR	0	EP	03 37 34	IS	37 58.8	10	0.2	8	0.2	2	0.2				249.3	24.8
MATSUS	0	IP	03 38 26.4									N	E	D	655.5	

OT= 9 5 52 9.9 +/- 1.3
S OF KURILE IS
LAT= 44 4 +/-13 LONG= 148 43 +/- 7
H= 40 MAG=5.0 CLASS=U

NEMURO	0	EP	05 52 46	ES	53 14	7	0.6	5	0.6	4	0.8				265.4	28.0
KUSHIR	0	EP	05 53 02	ES	53 39	11	0.7	10	0.6	4	0.8				369.8	37.0
URAKAW	0	P	05 53 21.7	ES	54 18.0	28	1.2	37	1.2						527.6	56.3
SAPPOR	0	P	05 53 30.9	ES	54 39	8	2.0	6	2.0	2	3.0				607.0	68.1
OBIHIR	0	EX	05 53 43												462.4	
MATSUS	0	X	05 54	X	56 42									U	1221.7	
AOMORI	0	EX	05 55 03			10	1.3	10	2.						745.6	

OT= 11 19 42 46.4 +/- 1.1
S OFF KURILE IS
LAT= 43 38 +/- 5 LONG= 148 49 +/- 6
H= 50 MAG=5.2 CLASS=R

NEMURO	1	EP	19 43 25	IS	43 54.4	23	0.4	20	0.4	12	0.4				263.6	29.4
KUSHIR	2	EP	19 43 38	S	44 18.0	57	0.3	69	0.2	18	0.4				366.1	40.0
OBIHIR	0	EX	19 43 51												461.0	
HIROO	0	EP	19 43 52	ES	44 44										473.2	52.0
URAKAW	0	EP	19 43 58	X	45 06.4	38	0.8	39	0.8						519.5	
SAPPOR	0	EP	19 44 09	ES	45 13	8	2.0	8	2.0	3	1.4				610.2	64.0
HACHIN	0	EP	19 44 19.5	S	45 31.1	5	0.2	3	0.2						694.9	71.6
MORIOK	0	P	19 44 30.0	S	45 51.0	7	0.4	6	0.4	1	0.4				772.2	81.0
MATSUS	0	IP	19 45 23.5	S	47 31							N	E	D	1197.9	127.5
AOMORI	0	EX	19 45 40			12	1.1	12	1.3						733.0	

OT= 12 1 4 31.0 +/- 0.8
OFF IWATE PREF
LAT= 40 9 +/- 1 LONG= 142 32 +/- 4
H= 40 MAG=3.9 CLASS=L

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MIYAKO	1	EP	01 04 45	S	04 53.4	4	0.4	5	0	3	0				74.0	08.4
HACHIN	0	IP	01 04 46.6	IS	04 56.8	18	0.2	13	0.2	1	0.6	S	1 E	1 D 1	95.3	10.2
MORIOK	0	IP	01 04 52.0	IS	05 05.8	15	0.4	10	0.4	3	0.3	N	0 E	1 D 0	127.1	13.8
OFUNAT	0	EP	01 04 53.4	ES	05 08.6	6	0.0	3	0.6	2	0.8				139.6	15.2
AOMORI	0	EP	01 04 58	S	05 14.7	16	0.8	20	1.1						165.8	16.7
MATSUS	0	IP	01 05 47.0	X	07 04								N	D	550.9	

OT= 13 3 53 0.4 +/- 0.2
S OF CHIBA PREF
LAT= 34 56 +/- 1 LONG= 139 47 +/- 1
H= 40 MAG=4.3 CLASS=L

TATEYA	3	IP	03 53 08.0	IS	53 13.3	187	1.5	261	1.0	140	1.2	N	8 E	8 U 99	9.5	05.3
OSHIMA	2	IP	03 53 10.2	IS	53 16.8	107	0.6			75	0.6		W	2 U 8	41.6	06.6
YOKOHA	1	IP	03 53 12.4	S	53 20.6							N	11 E	5 D 8	57.0	08.2
AJIRO	1	IP	03 53 12.8	IS	53 21.2	119	0.3	98	0.3	28	0.4		E	2 D 13	63.9	08.4
MISHIM	0	IP	03 53 15.0	IS	53 24.5	33	0.7	25	0.7	16	0.7	S	E	6 D 5	80.3	09.5
TOKYO	1	P	03 53 15.5	S	53 26.6	160	0.3	170	0.4	70	0.4				83.4	11.1
KAWAGU	0	IP	03 53 18.8	IS	53 30.2										112.0	11.4
CHICHI	0	EP	03 53 21.3	S	53 35.8										133.5	14.5
SHIZUO	0	EP	03 53 21.5	S	53 36.3	8	0.5	10	1.0						125.8	14.8
KOFU	0	IP	03 53 21.7	ES	53 37.0	23	0.6	18	0.6	9	1.0	S	2 E	1 D 2	137.8	15.3
KUMAGA	0	P	03 53 22.4	S	53 38.6	14	0.8	16	0.8	3	1.0			D 3	139.3	16.2
KAKIOK	0	P	03 53 23.5	S	53 38.5	20	0.8	52	0.8	9	1.1	N	2		148.7	15.0
MITO	0	EX	03 53 27.6	ES	53 46.6	18	2.0	15	1.8	6	2.0				172.0	
IIDA	0	IP	03 53 29.6	IS	53 51.6	18	1.6	13	0.8	15	1.4	N	1 E	2 D 3	188.5	22.0
KARUIZ	0	EP	03 53 30.0	IS	53 51.2										191.8	21.2
HAMAMA	0	EP	03 53 30	ES	53 50	5	1.8	5	2.0	2	1.6				190.1	20.0
HACHIJ	0	IP	03 53 31.0	IS	53 52.6	8	0.3	11	0.3					U 2	203.1	21.6
MATSUS	0	IP	03 53 34.2	S	53 59							S	E	D	228.0	24.8
NAGANO	0	EP	03 53 38.3	IS	54 03.5	6	1.0	4	1.8	2	1.8				239.3	25.2
OMAEZA	0	X	03 53 42.6	X	54 05.6	13	0.8	12	0.8	5	0.8				148.3	
NAGOYA	0	X	03 53 44.5	ES	54 07.0	5	1.0	5	0.7	2	1.2				258.0	
ONAHAM	0	EX	03 53 49.2			6	0.8	9	1.6	2	1.1				245.1	
SENDAI	0	EX	03 54 04	EX	54 32	5	2.0	5	1.8	2	1.0				382.4	

OT= 13 7 30 55.1 +/- 0.3
OFF URAKAWA
LAT= 41 34 +/- 1 LONG= 142 40 +/- 2
H= 40 MAG=4.3 CLASS=U

URAKAW	0	P	07 31 07.5	IS	31 16.9	38	0.4	55	0.6	8	0.6				66.4	09.4
HIROO	0	IP	07 31 11.3	IS	31 22.6							S	2 W	2 D 3	96.2	11.3
HACHIN	0	IP	07 31 18.5	S	31 38.2	18	0.2	16	0.2	2	0.1	N	1 E	1 D	150.3	19.7
OBIHIR	0	EP	07 31 19	S	31 38.0										157.2	19.0
HAKODA	0	P	07 31 20.2	IS	31 38.7	17	0.3	16	0.6	8	0.4			U	161.2	18.5
AOMORI	0	EP	07 31 23	ES	31 43	25	0.4	27	1.2	8	1.1				178.6	20.0
SAPPOR	0	P	07 31 24.8	ES	31 47	5	1.8	6	1.8	3	1.0				198.9	22.2
MORIOK	0	P	07 31 31.7	S	31 58.5	12	0.3	17	0.4	2	0.3	N	0 E	0 D 0	243.3	26.8
KUSHIR	0	EX	07 31 44			6	0.3	5	0.3	1	0.4				212.0	
MATSUS	0	IP	07 32 26.5											U	678.4	

OT= 13 12 54 51.3 +/- 0.2
N OF CHIBA PREF
LAT= 35 44 +/- 1 LONG= 140 7 +/- 1
H= 80 CLASS=S

KAKIOK	0	IP	12 55 05.1	S	55 13.5	81	1.1	73	1.1	24	1.0	N	8	U 8	55.7	08.4
TOKYO	1	IP	12 55 05.3	S	55 14.6	88	0.6	161	1.4	19	1.0				32.9	09.3
YOKOHA	1	P	12 55 06.0	IS	55 16.4										53.2	10.4
CHOSHI	0	P	12 55 06.9	ES	55 18.9										65.7	12.0
				X	55 20.6											
MITO	1	IP	12 55 07.6	IS	55 19.0	35	0.6	27	1.3	10	1.0			U 3	78.4	11.4
UTSUNO	1	P	12 55 09.2	S	55 19.6									U 4	92.9	10.4
KUMAGA	0	P	12 55 09.2	S	55 21.2	22	0.8	19	1.0	9	1.8			D 5	80.4	12.0
TATEYA	1	EP	12 55 09.5	IS	55 21.8	57	1.0	50	1.1	29	0.5				86.2	12.3
CHICHI	0	EP	12 55 10.3	ES	55 23.0										97.8	12.7
AJIRO	1	IP	12 55 12.4	IS	55 26.2	45	0.3	38	0.3	12	0.4	N	2	D 4	120.2	13.8
MISHIM	0	IP	12 55 13.2	ES	55 27.9	17	1.0	19	0.9	9	1.6			D 2	127.9	14.7
OSHIMA	2	P	12 55 13.3	IS	55 26.5	58	0.5	73		39	0.2				127.0	13.2
KOFU	0	IP	12 55 15.2	IS	55 31.6	20	0.5	25	0.5	6	0.8	S	2 E	1 D 5	141.2	16.4
ONAHAM	0	EP	12 55 16.4	ES	55 34.2	11	1.0	18	1.1	4	0.5				152.0	17.8
KARUIZ	0	EP	12 55 17.4	E	55 27.1										156.2	

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STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
SHIRAK	0	EP	12	55	18.2	S	55	31.1										154.0	12.9
SHIZUO	X	EP	12	55	20.0	ES	55	40.0	12		18	0.5	2	1.0			U 1	176.8	20.0
MATSUS	0	IP	12	55	21.8	ES	55	42							S	E	D	193.6	20.2
FUKUSH	0	EX	12	55	26.6				7	0.8	8	0.8	4	0.7				226.8	
NAGOYA	0	X	12	55	45.3	X	56	15.0	6	2.0	3	1.4	2	1.4				292.6	

OT= 13 23 19 43.2 +/- 0.2
KASHIMANADA
LAT= 36 28 +/- 1 LONG= 140 40 +/- 2
H= 50 MAG=5.2 CLASS=R

MITO	2	IP	23	19	53.2	S	19	59.7	600	0.6	2100	0.8	350	0.4	N 1 W 17		U115	20.0	06.5
KAKIOK	3	P	23	19	55	S	20	02	1200	0.9	1300	0.5	400	0.2	N 20 E 33		D 31	49.8	07.0
ONAHAM	3	IP	23	19	56.4	IS	20	03.6	550	1.6	450	0.8	150	1.4	N 1 E 1		U 9	57.2	07.2
UTSUNO	2	IP	23	19	56.8	S	20	06.0							S 2 E 8		D 8	71.8	09.2
CHOSHI	3	IP	23	19	57.8	IS	20	08.3									U 10	83.8	10.5
SHIRAK	2	IP	23	19	59.0	IS	20	08.8	400	1.6	400	1.6	200	1.8	S 17 E 9		D 40	82.3	09.8
TOKYO	1	IP	23	20	03.5	S	20	16.8	123	0.6	229	1.2	78	3.4				119.2	13.3
KUMAGA	2	IP	23	20	03.6	S	20	17.2	209	1.4	204	1.0	83	1.2	N 5 E 14		D 48	120.4	13.6
FUKUSH	2	P	23	20	06.4	S	20	20.6	141	0.9	131	0.9	43	1.0	S 9		D 5	144.2	14.2
CHICHI	2	IP	23	20	06.7	IS	20	22.7	100	1.2	200	1.6	100	1.4	N 8 E 20			151.9	16.0
YOKOHA	0	P	23	20	07.2	IS	20	24.0										146.2	16.8
TATEYA	0	EP	23	20	10.5				175	1.7	190	2.0	71	2.3				179.7	
KARUIZ	X	P	23	20	10.9	S	20	27.5	100	2.0	200	1.0					D	190.2	16.6
SENDAI	0	EP	23	20	13.2	ES	20	32.5	55	1.8	76	1.5	25	1.5				200.1	19.3
YAMAGA	0	P	23	20	13.3	S	20	35.4									D 3	200.2	22.1
						X	20	28.4											
KAWAGU	1	P	23	20	13.7	S	20	32.9	150	1.9	200	2.5	50	1.7				202.5	19.2
KOFU	1	IP	23	20	14.4	IS	20	44.0	179	1.2	213	1.4	63	1.4		E 3	D 3	209.7	29.6
AJIRO	X	EP	23	20	14.8	ES	20	38.6	39	0.4	41	0.4	13	0.6				212.3	23.8
MATSUS	0	IP	23	20	15.5	X	20	18							N	E	D	220.3	
MISHIM	0	EP	23	20	15.6	S	20	41.3	96	1.1	79	2.6	36	1.4			D	217.3	25.7
ISHINO	1	EP	23	20	15.7	ES	20	38.8	28	1.0	28	1.2	15	1.2			U 1	224.5	23.1
NIIGAT	0	IP	23	20	15.8	S	20	42.7	80	3.8	129	2.6	62	3.3			D 10	215.0	26.9
OSHIMA	0	P	23	20	16.9	S	20	37.8	59	0.8	49	1.4	27	1.5				222.2	20.9
NAGANO	0	IP	23	20	17.0	IS	20	42.8	74	2.0	55	2.1	43	1.9	S 4 E 4		D 19	222.1	25.8
TAKADA	0	IP	23	20	17.3	X	20	54.5									D 11	227.0	
MATSUM	0	IP	23	20	19.1	IS	20	45.3									D 1	243.0	26.2
SHIZUO	0	EP	23	20	22.0	S	20	52.2	69	0.7	51	1.0	20	1.0				263.1	30.2
AIKAWA	0	IP	23	20	22.5				16	1.2	5	1.0	6	2.0	N E 1		D 1	275.7	
IIDA	0	IP	23	20	24.0	ES	20	52.6	89	1.4	82	1.4	67	2.0	N 2 E 7		D 8	276.5	28.6
SAKATA	0	EX	23	20	24.5													280.1	
OMAEZA	0	EP	23	20	26.6	ES	20	52.2	53	2.8	67	2.8	23	2.8				303.6	25.6
TAKAYA	0	EP	23	20	27.2	X	20	45.0										308.3	
OFUNAT	X	EP	23	20	27.7	ES	20	55.6	13	0.0	14	1.4	16	1.2				302.5	27.9
TOYAMA	0	IP	23	20	27.8	S	21	03.4								E 2	D 7	310.6	35.6
HAMAMA	0	EP	23	20	31	ES	21	06	29	1.6	50	2.0	16	2.0				330.4	35.0
WAJIMA	0	IP	23	20	32.0				35	1.2	50	1.0	15	1.2			D 6	351.0	
MORIOK	0	EP	23	20	33.2	S	21	11.9	18	0.4	21	0.4	4	0.4				361.2	38.7
KANAZA	0	EP	23	20	34.8	ES	21	15.0	11	2.8	20	3.3	10	3.0				360.0	40.2
MIYAKO	0	EP	23	20	35.1				6	2	7	2	9	1.1				370.8	
HACHIJ	0	EP	23	20	35.8	ES	21	16.6	13	1.0	13	0.7						381.7	37.8
GIFU	0	P	23	20	35.9	X	20	52.7	85	1.5	32	1.6	21	1.1				371.4	
NAGOYA	0	EP	23	20	36.2	X	20	12.6	86	1.1	60	1.6	36	1.4				364.0	
AKITA	0	EX	23	20	37				23	3.0	30	3.4	15	3.4				364.3	
FUKUI	0	P	23	20	42.0													401.5	
TSURUG	0	P	23	20	42.0	S	21	25.4										424.3	43.4
HACHIN	0	EP	23	20	45.3	ES	21	42.4	7	1.2	9	3.6			S		D	456.6	57.1
TSU	0	P	23	20	46.5	S	21	32.3	30	1.6	27	2.0	10	1.5				423.8	45.8
KYOTO	0	EP	23	20	48.0	ES	21	48.8	14	1.7	6	1.3	6	2.3				474.3	60.8
OWASE	0	IP	23	20	48.5	ES	21	45.6	7	2.0	5	2.0	4	1.9	S W		U	486.1	57.1
AOMORI	0	EP	23	20	51	ES	21	46	28	1.4	36	2.4	11	1.1				483.0	55.0
SHIONO	0	EX	23	20	56.6				4	1.3	7	2.1						558.9	
TOYOOK	0	EP	23	20	57.1	ES	21	56.2	50	1.2	45	1.1	8	1.1				537.0	59.1
HIKONE	0	X	23	20		ES	21	21.3	82	1.2	55	1.5						420.4	
KOBE	0	EX	23	21	02													534.8	
OSAKA	0	EX	23	21	02				34	2.4	33	2.1	30	2.0				506.6	
HAKODA	0	EP	23	21	04	ES	22	10	5	1.2	6	2.4	4	2.2				593.6	66.0
WAKAYA	0	EX	23	21	05.5				10	1.0	5	1.0	2	1.1				558.1	
URAKAW	0	P	23	21	09.1	ES	22	17.0	10	1.6	16	2.2	6	2.2				657.6	67.9
OBIHIR	0	EX	23	21	26													749.2	
SAPPOR	0	X	23	21	28				3	1.6	5	1.6	2	1.0				734.1	
KUSHIR	0	EX	23	22	40				7	3.0	7	2.0	2	2.0				790.3	

OT= 14 21 58 2.6 +/- 1.1
N OFF NOTO PEN
LAT= 37 52 +/- 4 LONG= 137 37 +/- 5
H= 0 MAG=4.1 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
AIKAWA	0	IP	21	58	15.3				12	0.6					S	W	D	57.5	
WAJIMA	0	EP	21	58	18				55	0.8	60	0.8	14	0.6				82.6	
NIIGAT	0	EX	21	58	18.7				20	1.4	12	2.7						126.3	
TAKADA	0	EP	21	58	23.0	S	58	37.2										101.4	14.2
TOYAMA	0	EP	21	58	27	ES	58	42										133.7	15.0
MATSUS	0	IP	21	58	29.5	S	58	49									D	156.5	19.5
NAGANO	0	EP	21	58	32.9	ES	58	48.3	7	2.0	5	2.2	4	2.4				143.4	15.4
KANAZA	0	EP	21	58	34.8	S	58	55.3	8	1.7	5	1.1						169.8	20.5

OT= 15 1 5 50.9 +/- 0.5
S OFF BOSO PEN
LAT= 34 20 +/- 1 LONG= 139 58 +/- 4
H= 30 MAG=4.2 CLASS=S

TATEYA	0	IP	01	06	03.8	IS	06	13.5	100	0.8	80	0.3	58	0.3			U 12	72.6	09.7
OSHIMA	0	IP	01	06	04.2	S	06	13.3	7	0.5	6	0.4	15	0.3			U 5	71.9	09.1
AJIRO	X	EP	01	06	09.5	S	06	21.7	16	0.2	13	0.2	3	0.3				112.0	12.2
HACHIJ	0	P	01	06	13.6	IS	06	29.2	11	0.2	13	0.3					D 1	137.6	15.6
MISHIM	0	EP	01	06	14	IS	06	26.1	7	0.6	12	0.8	5	0.4				128.3	12.1
TOKYO	0	EP	01	06	18	S	06	30.7	15	0.3	22	0.4						151.1	12.7
MATSUS	0	IP	01	06	32.2	S	07	03							S		D	292.0	30.8

OT= 15 1 32 54.2 USCGS
ALEUTIAN IS
LAT= 51 18 LONG=-179 54
H= 21 MAG=6.2 CLASS=U

NEMURO	0	EP	04	38	14	ES	42	36	13	8.0	12	6.8	21	5.2				2727.8	262.0
ABASHI	0	EP	04	38	19	ES	42	45	24	15.2	13	7.0	11	3.8				2779.9	266.0
KUSHIR	0	P	04	38	22.2	ES	42	52	26	14.4	16	6.2	7	2.4			U 4	2830.8	269.8
WAKKAN	0	EX	04	38	30						18	7.3	16	7.4				2888.1	
OBIHIR	0	EX	04	38	30													2915.9	
ASAHIK	0	EP	04	38	32				5	2.4	7	2.8	11	2.4				2926.7	
URAKAW	0	P	04	38	36.8	ES	43	18	24	13.6	22	5.8	12	5.4			U 1	2991.6	281.2
SAPPOR	0	IP	04	38	40.2	ES	43	23	7	2.6	10	6.0	10	17.0	S 2		U 1	3039.6	282.8
HAKODA	0	P	04	38	48.9	ES	43	32	8	8.7	11	16.1	12	20.1	S 2	W 3	U 5	3153.1	283.1
HACHIN	0	P	04	38	51.5	ES	43	41.8	8	11.4	12	17.4	11	20.8	S	W	U 1	3180.1	290.3
AOMORI	0	EP	04	38	54	ES	43	46	13	2.6	10	2.8						3213.0	292.0
MORIOK	0	P	04	38	58.0	ES	43	52.8	4	8.8	5	8.4	5	4.2	S 0	W 0	U 0	3258.5	294.8
OFUNAT	0	EP	04	38	59.0	S	43	55.8	7	14.0	6	16.0	5	14.0				3262.8	296.8
						EL	46	34.7											
ISHINO	0	EP	04	39	04.0	ES	44	04.0	9	14.6	6	18.0	5	23.2	S 1	W 2	U 3	3334.6	300.0
AKITA	0	EP	04	39	04.7				13	10.8	16	7.0	12	3.8			U 6	3330.9	
SENDAI	0	EP	04	39	07	S	44	04	15	1.5	10	1.5	5	4.0				3373.6	297.0
						L	46	20											
FUKUSH	0	EX	04	39	12.6				10	15.0	6	16.0	6	16.8				3437.6	
NIIGAT	0	EX	04	39	20.0				44	13.0	30	11.6	16	7.4				3524.9	
ONAHAM	0	EP	04	39	20.7	ES	44	25.6	15	14.8	12	13.0	10	12.4				3465.2	304.9
MITO	0	IX	04	39	20.8				12	15.0	12	14.8	7	5.0				3535.5	
KAKIOK	0	EX	04	39	23				11	16.5	6	16.5	5	16.5				3565.1	
KUMAGA	0	EP	04	39	27.6	ES	44	46.0	18	12.0	17	10.8	8	4.6				3626.4	318.4
TOKYO	0	P	04	39	30	S	44	48	10	7	16	7	10	7				3634.4	318.0
TATEYA	0	EX	04	39	30.0				51	12.2	30	14.7	16	7.5				3678.7	
MATSUS	0	IP	04	39	31.4	S	44	50							S	W	U	3679.0	318.6
NAGANO	0	EP	04	39	31.5	ES	44	51.7	10	4.0	5	4.8	6	5.0			U 3	3671.2	320.2
WAJIMA	0	IP	04	39	34.0	EX	44	56										3709.6	
MISHIM	0	EP	04	39	34.1				6	15.6	9	14.2	3	2.7				3732.9	
KOFU	0	EP	04	39	34.6				8	13.5	8	15.0	6	16.0				3717.8	
TOYAMA	0	EX	04	39	35													3736.0	
OMAEZA	0	EP	04	39	35.1				20	19.0	16	13.8	10	17.4				3819.3	
OSHIMA	0	P	04	39	35.1	ES	44	58.8	18	14	7	18	7	20				3728.4	323.7
AJIRO	0	EX	04	39	35.3	EX	44	54.0	7	13.0	8	14.0	7	15.0				3726.6	
IIDA	0	EX	04	39	39.0													3778.6	
SHIZUO	0	EP	04	39	40.0													3778.8	
KANAZA	0	EX	04	39	41				8	13.5	9	11.5	8	9.0				3785.9	
HAMAMA	0	P	04	39	45	ES	45	10	10	9.0	9	7.0	5	4.3				3845.0	325.0
NAGOYA	0	EP	04	39	45.6	ES	45	17.0	9	13.0	8	4.0	5	7.0				3863.1	331.4
KYOTO	0	EP	04	39	54.0	EX	47	58.0	6	12.0	3	18.0	4	20.0				3959.0	
KOBE	0	EX	04	39	55.5				5	16.5	4	15.7	4	17.0				4020.8	
TOYOOK	0	P	04	39	55.7	ES	45	32.5	13	16.1	8	16.1			S	W		3984.1	336.8

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
OSAKA2	0	IP	04	39	56.8	IS	45	39.3							S 2	W 2	U 6	3993.4	342.5
OSAKA	0	IP	04	39	57.3	S	45	41.0	15	4.0	14	5.0	8	3.2	S 0	W 0	U 6	3998.0	343.7
						EL	50	0											
SAIGO	0	P	04	39	59.5	EX	45	44.5	4	5.0	4	6.5	5	5.3	S	W	U 0	4039.5	
WAKAYA	0	P	04	40	01.0	S	45	42.5	8	6.5								4055.7	341.5
SHIONO	0	EP	04	40	03.0	ES	45	49.6	6	3.0	7	5.0						4072.8	346.6
OKAYAM	0	EP	04	40	04.4	ES	45	53.0	2	20.5	4	14.5	6	14.5	S	W	U	4108.5	348.6
TAKAMA	0	EP	04	40	06.7	ES	45	53.4	7	19.7	6	21.0						4125.3	346.7
MUROTO	0	IP	04	40	11.5	X	46	08.5	6	10.0	5	9.0	6	8.0			U 1	4196.4	
HAMADA	0	IP	04	40	13.6	S	46	05.0	4	8.0	2	7.0	6	4.4	S 1	W 1	U 4	4220.6	351.4
						EL	51	35.6											
HIROSH	0	EP	04	40	14.0	ES	46	11.0	9	17.3	6	18.3	5	19.6	S 1	W 1	U 2	4233.9	357.0
MATSUY	0	EP	04	40	16.3	ES	46	08.8	10	18.4	11	19.3						4248.6	352.5
ASHIZU	0	EP	04	40	22.3	EX	46	22.4	4	7.0	3	7.3	6	7.1				4316.1	
SHIMON	0	P	04	40	25.6	EX	46	30.8	7	7.0	7	4.8	9	4.8	S 2	W 3	U 6	4367.4	
OITA	0	EX	04	40	29.0				9	4.1	16	6.2						4373.4	
FUKUOK	0	EP	04	40	30.0	ES	46	32.0	4	4.5	6	7.4	5	4.8	S 1	W 1	U 3	4433.8	362.0
MIYAZA	0	P	04	40	34.4	S	46	48.0	8	10.0	8	20.0	5	20.0				4486.0	373.6
NAGASA	0	P	04	40	37.9	S	46	54.2							S 3	W 3	U 3	4533.4	376.3
KAGOSH	0	EP	04	40	39.6	ES	46	50	5	2.6	6	2.8	4	1.8				4572.3	370.4
FUKUE	0	EP	04	40	43.0	ES	47	02.2	6	8.4	4	6.0	5	6.0				4606.3	379.2

OT= 15 5 34 10.8 +/- 1.3
NE OFF NEMURO PEN
LAT= 43 20 +/- 4 LONG= 146 43 +/- 7
H= 40 MAG=4.9 CLASS=L

NEMURO	X	IP	05	34	26.8	S	34	37.2	55	1.6	78	3.2	62	3.2	E 7	D 11		91.7	10.4
KUSHIR	0	P	05	34	39.9	ES	35	00	52	2.0	35	0.2	21	2.6		U 4		192.9	20.1
ABASHI	0	P	05	34	43.2	ES	35	04	14	2.6	28	3.0	11	2.6				210.4	20.8
OBIHIR	0	EP	05	34	51													288.1	
HIROO	0	P	05	34	54.5	IS	35	19.3										301.6	24.8
URAKAW	0	EP	05	35	01	S	35	44.3	60	2.2	51	2.4	17	3.0				347.8	43.3
ASAHIK	0	EP	05	35	03				7	1.4	9	1.6	7	1.8				354.4	
SAPPOR	0	IP	05	35	12.6	ES	36	00	14	2.4	14	2.0	5	1.0			U 1	438.8	47.4
HAKODA	0	P	05	35	20.8	ES	36	17	8	1.8	6	1.6	5	2.4			U	517.5	56.2
WAKKAN	0	EX	05	35	24						7	4.0	4	3.5				463.7	
AOMORI	0	EP	05	35	29	ES	36	36	20	1.8	19	2.2	7	1.8				564.9	67.0
MORIOK	0	P	05	35	30.5	X	36	29.0	6	0.4	6	0.4	2	8.8		W 0	U 0	614.4	
AKITA	0	EX	05	35	57				7	3.6	16	8.0	3	6.2				682.4	
MATSUS	0	X	05	36											N	W	U	1046.8	

OT= 15 10 56 8.0 +/- 0.3
SE OFF CHIBA PREF
LAT= 34 54 +/- 1 LONG= 140 6 +/- 2
H= 70 CLASS=R

TATEYA	3	P	10	56	19.6	S	56	27.6	600	0.8	500	0.8	300				U 7	23.1	08.0
OSHIMA	3	IP	10	56	23.0	IS	56	31.5	600	0.8	500		200				U 10	67.8	08.5
YOKOHA	2	P	10	56	23.4	S	56	33.4										72.0	10.0
AJIRO	2	IP	10	56	24.4	IS	56	35.9	152	0.4	153	0.4	44	0.5			D 4	93.0	11.5
TOKYO	2	P	10	56	25.7	S	56	37.5	440	0.4	330	0.4						92.4	11.8
MISHIM	0	P	10	56	26.1	IS	56	39.8	116	1.3	88	1.0	42	2.0		E 11	D 6	109.3	13.7
CHOSHI	0	EP	10	56	27.9	X	56	43.7										113.8	
KAWAGU	2	IP	10	56	29.4	IS	56	46.5	70	1.7	50	0.2	0					138.6	17.1
KAKIOK	1	P	10	56	31.1	S	56	43.0	73	1.1	62	1.1	31	0.5				148.0	11.9
CHICHI	0	EP	10	56	31.5	IS	56	48.7										152.3	17.2
KUMAGA	0	P	10	56	32.4	ES	56	50.0	82	1.4	93	1.2	41	4.0			D 5	152.7	17.6
KOFU	1	IP	10	56	33.0	ES	56	52.4	44	0.6	45	0.5	20	1.0	S 2	E 4	D 2	163.9	19.4
SHIZUO	0	EP	10	56	33.1	S	56	49.9	54	4.7	33	3.7	16	3.8				154.9	16.8
MITO	0	EP	10	56	35.0	ES	56	54.4	63	5.0	75	5.0	40	4.0				167.4	19.4
UTSUNO	0	P	10	56	35.2	S	56	54.4										183.8	19.2
HACHIJ	2	IP	10	56	39.8	IS	57	00.4	245	0.5	250	0.6	104	1.0			D 2	201.5	20.6
HAMAMA	0	EP	10	56	40	S	57	04.0	30	4.0	24	3.0	10	2.2				218.5	24.0
KARUIZ	0	EP	10	56	40.3	S	57	04.6										212.6	24.3
IIDA	0	IP	10	56	40.8	IS	57	04.6	38	3.6	17	1.2	20	1.6	S 1	E 4	D 5	217.0	23.8
ONAHAM	0	EP	10	56	41.6	ES	57	08.4	55	2.5	49	1.0	12	1.3				238.2	26.8
SHIRAK	0	EP	10	56	43.2	ES	57	07.9										246.3	24.7
MATSUM	0	EP	10	56	44.1	ES	57	10.6										243.6	26.5
MATSUS	0	IP	10	56	44.2	S	57	11							S	W	D	249.6	26.8
NAGANO	0	EP	10	56	45.8	ES	57	09.9	25	3.1	11	3.8	17	3.8				260.2	24.1
NAGOYA	0	P	10	56	50.0	IS	57	19.6	29	2.0	31	2.2	14	2.2				287.2	29.6
FUKUSH	1	EP	10	56	54.2	S	57	28.2	26	1.2	26	1.1	8	1.2				318.7	34.0
TOYAMA	0	EP	10	56	55	X	57	40										329.3	
HIKONE	0	EP	10	56	59.6	ES	57	34.6	32	4.8	19	2.5						353.7	35.0
OMAEZA	0	X	10	56		ES	56	53.2	68	4.0	68	3.6	23	3.0				175.8	
SENDAI	0	EP	10	57	00.7	ES	57	41.2	15	2.0	25	5.0	7	1.5				379.6	40.5

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
FUKUI	0	P	10	57	00.7													374.0	
TSURUG	0	EP	10	57	01	ES	57	40.9										376.3	39.9
OWASE	0	EP	10	57	01.0	IS	57	36.4	5	2.5	3	1.6	3	1.6	N	E	D	370.3	35.4
WAJIMA	0	EX	10	57	02				10	1.0	9	1.0						399.1	
KANAZA	0	EP	10	57	03.8	ES	57	39.0	11	4.0	15	4.0	6	3.2				361.7	35.2
ISHINO	0	EP	10	57	04.0	ES	57	45.6	8	3.6	13	5.2	8	5.8				405.6	41.6
KYOTO	0	EP	10	57	04.2	ES	57	43.2	9	7.3	2	1.4	6	3.8				398.7	39.0
OSAKA	0	EX	10	57	11	S	57	48.0	27	3.3	16	3.0	7	2.5				419.6	
WAKAYA	0	EX	10	57	12.0				4	0.9	3	1.0	2	2.1				458.7	
SAKATA	0	EX	10	57	12.7													444.8	
OFUNAT	0	EP	10	57	12.8	ES	58	00.6	3	4.4	6	4.0	3	3.0				483.7	47.8
NIIGAT	0	EX	10	57	16.3	S	57	40.2	51	4.0	42	4.5	38	4.7				346.9	
MORIOK	0	P	10	57	20.2	S	58	15.0	2	4.4	5	5.2	2	5.0	S 0		D 0	540.6	54.8
AKITA	0	EX	10	57	22				17	5.8	19	4.4	8	5.8				534.7	
HACHIN	0	EP	10	57	30.5	ES	58	34.0	3	5.4	4	6.0	3	3.2				636.7	63.5
KOBE	0	EX	10	57	54.6													450.7	
URAKAW	0	EP	10	57	55	S	59	21.5	2	1.6	5	4.8	3	3.6				838.7	86.5
HAKODA	0	X	10	57	58	ES	59	20	3	6.0	7	6.0	4	6.2				769.5	
TOYOOK	0	X	10	57		X	58	08.3	11	1.0	11	1.0						485.7	
HAMADA	0	X	10	57		ES	59	07.6	5	4.6	2	4.6	2	4.0				733.3	
AOMORI	0	EX	10	58	30				9	2.1	9	1.7						659.4	
OITA	0	EX	10	59	29.9				9	3.2	12	3.6						803.5	

OT= 15 11 49 37.8 +/- 0.7
S OF CHIBA PREF
LAT= 34 49 +/- 4 LONG= 140 2 +/- 4
H= 70 CLASS=U

TATEYA	0	EP	11	49	49.0	IS	49	57.8	30	0.6	15	0.5	8	0.7				23.9	08.8
OSHIMA	0	P	11	49	52.2	IS	50	01.0	13	0.4	8	0.4	6	0.2				60.2	08.8
AJIRO	0	EP	11	49	55.8	ES	50	05.4	5	0.3	6	0.3	2	0.6				89.2	09.6
TOKYO	0	IS	11	50	07.8				13	0.4	14	0.5						99.5	
MATSUS	0	IP	11	50	14.0	S	50	41.8							S	E	D	252.5	27.8

OT= 15 14 39 35.0 +/- 0.4
S OF CHIBA PREF
LAT= 34 51 +/- 2 LONG= 140 1 +/- 3
H= 70 CLASS=U

TATEYA	0	EP	14	39	46.0	IS	39	54.5	30	0.5	21	0.5	19	0.3				20.1	08.5
OSHIMA	0	P	14	39	50.0	IS	39	57.7	7	0.6	6	0.4	4					59,2	07.7
AJIRO	0	EP	14	39	51.7	ES	40	02.9	7	0.2	6	0.2	2	0.5				86.7	11.2
TOKYO	0	P	14	39	52.8	IS	40	05.2	31	0.5	49	0.2	5					95.5	12.4
MATSUS	0	IP	14	40	11.5	S	40	37							S	E	D	248.7	25.5

OT= 15 23 49 43.8 +/- 2.2
S OF CHIBA PREF
LAT= 34 46 +/- 8 LONG= 140 19 +/-12
H= 70 CLASS=U

TATEYA	0	EP	23	49	55.4	IS	50	07.5	27	0.6	11	0.5	11	0.3				47.5	12.1
TOKYO	0	IX	23	49	58	IS	50	17.5	26	0.4	32	0.4						113.8	
OSHIMA	0	P	23	50	02.2	IS	50	11.1	15	0.8	6	0.4	8					85.9	08.9
AJIRO	0	EP	23	50	02.8	ES	50	15.2	8	0.2	6	0.2	3	0.5				115.6	12.4
MISHIM	0	EP	23	50	10.3	S	50	20.5	10	0.8	7	0.8						132.3	10.2
MATSUS	0	IP	23	50	24.0	S	50	50							S	E	D	274.0	26.0

OT= 16 1 5 8.6 +/- 0.5
S OF CHIBA PREF
LAT= 34 47 +/- 3 LONG= 140 0 +/- 4
H= 70 CLASS=U

TATEYA	0	EP	01	05	20.0	IS	05	28.3	19	0.6	15	0.5	5	0.3				25.2	08.3
OSHIMA	0	P	01	05	22.4	IS	05	31.8	11	0.5	5	0.5	8	0.2				56.9	09.4
AJIRO	0	EP	01	05	26.4	ES	05	36.0	5	0.2	4	0.2	2	0.5				87.4	09.6
TOKYO	0	IS	01	05	38.5				7	0.4	16	0.2						102.4	
MATSUS	0	IP	01	05	45.0	S	06	11							S	E	D	253.4	26.0

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OT= 16 2 33 43.2 +/- 0.3
S OF CHIBA PREF
LAT= 34 50 +/- 1 LONG= 140 1 +/- 2
H= 70 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TATEYA	0	P	02	33	54.5	IS	34	02.9	34	0.6	25	0.3	24	0.4				21.5	08.4
OSHIMA	0	P	02	33	57.4	IS	34	06.6	6	0.4	6	0.4	8					58.9	09.2
AJIRO	0	EP	02	34	00.6	ES	34	10.7	8	0.2	6	0.2	2	0.6				87.2	10.1
TOKYO	1	EP	02	34	01	IS	34	13.6	35	0.4	64	0.2						97.3	12.6
MATSUS	0	IP	02	34	19.6	S	34	45							S	E	D	250.1	25.4

OT= 16 3 19 40.4 +/- 0.5
S OF CHIBA PREF
LAT= 34 50 +/- 2 LONG= 140 1 +/- 3
H= 70 CLASS=U

TATEYA	0	P	03	19	51.8													21.5	
OSHIMA	0	P	03	19	54.8	IS	20	03.6	8	0.6	7	0.4	5					58.9	08.8
AJIRO	0	EP	03	19	57.2	ES	20	08.2	6	0.2	6	0.2	2	0.5				87.2	11.0
TOKYO	0	EP	03	19	58	IS	20	10.8	38	0.4	70	0.2						97.3	12.8
MATSUS	0	IP	03	20	16.8	S	20	44							S	E	D	250.1	27.2

OT= 16 11 14 14.7 +/- 0.4
E OF IWATE PREF
LAT= 39 45 +/- 1 LONG= 141 51 +/- 3
H= 80 CLASS=S

MIYAKO	2	IP	11	14	28.7	S	14	35.5					19	0				15.5	06.8
MORIOK	2	IP	11	14	29.6	IS	14	39.8	52	0.3	53	0.3	19	0.3	S	1 W	9 U	2 58.7	10.2
OFUNAT	2	IP	11	14	32.4	IS	14	43.5	118	0.0	94	0.0	30	0.0				77.3	11.1
HACHIN	2	IP	11	14	32.6	IS	14	44.9	31	0.2	27	0.2	4	0.2			D 1	90.4	12.3
AKITA	0	EP	11	14	39.1	S	14	56.4	8	1.8	10	2.0	7	1.2				149.9	17.3
AOMORI	0	P	11	14	39.6	IS	14	56.8	23	1.1	40	1.1	11	0.7				149.2	17.2
ISHINO	1	IP	11	14	40.0	IS	14	56.6	40	0.2	25	0.4	9	0.8				154.5	16.6
SENDAI	0	IP	11	14	43.2	ES	15	03.2	6	1.0	14	0.5	5	0.5	S	1	U 5	184.7	20.0
SAKATA	0	IP	11	14	45.4	IS	15	08.7										197.4	23.3
FUKUSH	0	EP	11	14		ES	15	17.0	6	1.0	6	1.0	3	0.6				251.5	
MATSUS	0	P	11	15	19	X	15	46										478.4	

OT= 16 15 56 39.6 +/- 0.3
SE OFF KII PEN
LAT= 32 58 +/- 3 LONG= 136 52 +/- 2
H=400 CLASS=R

SHIONO	0	P	15	57	32.1	IS	58	13.1	18	1.9	22	1.9						115.9	41.0
OWASE	0	IP	15	57	33.6	IS	58	14.6	15		8		5	1.4	N	W	U	137.0	41.0
WAKAYA	0	P	15	57	35.0	S	58	19.6	15	1.0	10	1.1						210.7	44.6
TSU	0	P	15	57	35.7	S	58	19.9	28	2.0	19	2.0	8	1.9				195.1	44.2
HAMAMA	0	P	15	57	37.0	S	58	22.6	30	2.4	29	2.2	5	2.0	N	1		208.8	45.6
OSAKA	0	IP	15	57	37.4	IS	58	22.9	30	3.2	21	2.2	7	1.8			U 9	227.0	45.5
KOBE	0	P	15	57	37.9	ES	58	23.0							N	6		246.6	45.1
MUROTO	0	IP	15	57	38.2	IS	58	24.2	8	3.0	6	2.0			S	0	U 1	252.8	46.0
OMAEZA	0	EP	15	57	38.2				21	3.6	40	2.8						220.2	
TOKUSH	0	IP	15	57	38.3	IS	58	23.2										245.1	44.9
NAGOYA	0	IP	15	57	38.8	IS	58	25.2	22	2.4	28	2.6	11	1.4			U 7	243.9	46.4
KYOTO	0	IP	15	57	38.8	S	58	24.2	14	2.0	3	2.0	7	1.8			U 8	249.7	45.4
GIFU	0	P	15	57	39.2	S	58	26.0	40	2.2	23	2.0	4	1.6				269.8	46.8
SHIZUO	0	P	15	57	39.6	S	58	27.7	14	2.0	27	3.0	9	2.5				264.1	48.1
HIKONE	0	P	15	57	39.6	S	58	26.6	42	3.4	25	2.8						262.1	47.0
HACHIJ	0	X	15	57	40.6													273.2	
IIDA	0	IP	15	57	41.2	IS	58	31.0	12	2.0	12	3.0	4	3.0			U 2	295.8	49.8
OSHIMA	0	IP	15	57	42.3	IS	58	33.5	18	1.2	21	1.8	10	1.5			D 10	305.9	51.2
MISHIM	0	P	15	57	42.5	S	58	32.5	31	2.2	31	2.0	7	2.2			D 2	304.7	50.0
AJIRO	0	EP	15	57	42.9	ES	58	32.3	14	1.6	19	1.8	7	1.8				308.9	49.4
OKAYAM	0	EP	15	57	43.1	ES	58	33.6	8	1.8	4	2.1	5	1.0	N	1 W	1 U 2	332.8	50.5
KOFU	0	EP	15	57	44.4	ES	58	35.8	16	1.8	27	2.0	8	2.0				337.3	51.4
FUKUI	0	IP	15	57	45.0	S	58	38.0							N	6 W	2 U 8	347.3	53.0
TATEYA	0	P	15	57	45.3	S	58	37.3	36	1.3	34	0.7	17	0.7				356.2	52.0
TOYOOK	0	IP	15	57	45.7				26	1.2	13	1.3	8	1.8	N	6 W	5	341.6	
KANAZA	0	EP	15	57	49.3	ES	58	45.6	5	3.0	11	3.1	5	4.0				397.5	56.3
KARUIZ	0	EP	15	57	49.3	IS	58	46.2										404.7	56.9
CHICHI	0	EP	15	57	49.7	ES	58	42.3										392.3	52.6
TOKYO	1	IP	15	57	50.0	S	58	42.1	49		65		14	3.0				402.0	52.1

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MATSUS	0	IP	15	57	50.0	S	58	46										414.7	56.0
TOYAMA	0	IP	15	57	50.4	S	58	48.2									U 3	416.0	57.8
KUMAGA	0	EP	15	57	51.0	ES	58	45.0	16	0.8	13	1.0	8	1.2				421.6	54.0
NAGANO	0	EP	15	57	51.9	IS	58	47.6	16	3.9	10	3.2	8	3.3				427.3	55.7
KAKIOK	0	P	15	57	54.2	X	58	43.2	57	0.7	44	1.0	34	0.5				473.4	
SAIGO	0	IP	15	57	55.1	IS	58	56.1	3	2.0	6	1.7	2	1.8	N	0 W	0 U 1	483.7	61.0
TAKADA	0	P	15	57	55.8	S	58	57.5									U 5	476.0	61.7
MITO	0	P	15	57	56.5	IS	58	55.4	43	1.0	38	1.3	13	1.2				502.2	58.9
WAJIMA	0	IP	15	57	56.6	EX	59	02	10	1.0	13	1.0	9	1.4			U 5	490.6	
KAWAGU	0	X	15	58	00.8	S	58	33.4										330.6	
SHIRAK	0	EP	15	58	01.4	S	59	03.2										553.0	61.8
ONAHAM	0	IP	15	58	04.5	S	59	06.8	63	1.0	53	1.5	20	0.6			D 1	575.0	62.3
FUKUOK	0	EP	15	58	04.5	ES	59	16.3	2	2.3	8	3.3	2	2.5				607.8	71.8
NIIGAT	0	IP	15	58	05.0	S	59	10.7	39	2.3	38	2.4	15	2.7			D 2	583.0	65.7
FUKUSH	0	EP	15	58	08.8	S	59	16.0	30	1.0	29	1.0	9	0.6				624.2	67.2
KUMAMO	0	EP	15	58	09.0	IS	59	11.2	9	2.0	7	1.8	2	1.9				576.1	62.2
NAGASA	0	P	15	58	12.3	S	59	24.7								E	D	655.3	72.4
SENDAI	0	P	15	58	14	S	59	26.0	29	2.3	17	2.0	11	2.0				691.4	72.0
ISHINO	0	EP	15	58	16.6	ES	59	32.4	11	2.0	9	0.8	7	2.8			D 1	726.3	75.8
SAKATA	0	EX	15	58	18.2													710.9	
OFUNAT	0	IP	15	58	25.6	S	59	47.0	8	0.8	11	1.0	4	1.2	N	1 E	0 U 1	804.9	81.4
AKITA	0	EP	15	58	26.6	ES	59	49.6	18	2.6	9	2.8	6	2.6			U 3	803.2	83.0
MORIOK	0	P	15	58	29.2	S	59	55.0	7	0.4	7	0.4	2	3.0	N	0	U 0	840.3	85.8
YOKOHA	0	S	15	58	38.0													375.5	
ASHIZU	0	EX	15	58	39.3				6	2.4	3	2.0	2	3.1				361.3	
AOMORI	0	EP	15	58	40	ES	00	11	10	1.1	9	1.1						938.1	91.0
UTSUNO	1	S	15	58	52.4													482.9	
CHOSHI	0	IX	15	58	53.7													476.7	
OITA	0	EX	15	58	57.1				18	3.0	21	3.0						490.1	
URAKAW	0	EP	15	59	01	S	00	54.0	4	1.4	8	2.6	1	1.2				1145.3	113.0
MIYAZA	0	X	15	59	03.6				5	1.0	11	1.0	3	2.6				524.4	
OBIHIR	0	EX	15	59	11													1236.9	
KAGOSH	0	EX	15	59	20.0				4	2.8	5	2.4	2	2.0				614.2	
KUSHIR	0	EX	16	01	20				9	0.2	9	0.5	2	0.4				1291.8	

OT= 17 5 36 28.4 +/- 0.6
S OF CHIBA PREF
LAT= 34 51 +/- 2 LONG= 139 57 +/- 4
H= 70 CLASS=U

TATEYA	0	P	05	36	39.9	IS	36	47.8	25	0.5	33	0.5	25	0.3				16.6	07.9
OSHIMA	0	P	05	36	42.3	IS	36	50.5	11	0.4	8	0.3	10	0.2				53.2	08.2
AJIRO	0	EP	05	36	44.2	ES	36	55.4	10	0.2	6	0.2	2	0.5				80.8	11.2
YOKOHA	0	P	05	36	45.6	S	36	55.2										70.4	09.6
TOKYO	0	EX	05	36	48	IS	36	59.2	28		30							94.2	
UTSUNO	0	P	05	36	56.3	S	37	15.6										188.3	19.3
MATSUS	0	IP	05	37	04.6	S	37	30							S	E	D	244.8	25.4

OT= 17 9 4 57.9 +/- 0.3
NEAR MATSUSHIRO
LAT= 36 27 +/- 1 LONG= 138 4 +/- 1
H= 10 MAG=3.3 CLASS=L

MATSUS	2	IP	09	05	02.0	S	05	03.2										16.0	01.2
NAGANO	1	EP	09	05	03.7	IS	05	06.8	45	0.7	29	0.6	22	0.9				26.0	03.1
MATSUM	0	IP	09	05	04.1	IS	05	07.7							S	2 W	2 U 12	24.4	03.6
KARUIZ	0	IP	09	05	07.0	IS	05	12.6									D 6	45.2	05.6
UTSUNO	0	EP	09	05	25.4	ES	05	46.4										162.0	21.0

OT= 17 19 29 50.2 +/- 0.9
S OFF CHOSHI
LAT= 35 31 +/- 2 LONG= 140 51 +/- 5
H= 30 MAG=3.9 CLASS=U

CHOSHI	0	P	19	29	55.9	IS	30	03.5										23.1	07.6
KAKIOK	0	EP	19	30	08	S	30	16.2	11	1.0	6	1.0	4	1.0				99.0	08.2
TATEYA	0	EP	19	30	09.0	S	30	19.3	15	1.0	15	0.7	11	0.4				107.1	10.3
UTSUNO	0	EP	19	30	15.2	ES	30	29.0										144.3	13.8
OSHIMA	0	IS	19	30	26.8				6	0.2	7	0.3	3	0.3				158.1	
MATSUS	0	P	19	30	29													263.6	

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OT= 18 3 30 57.1 +/- 1.6
S OF CHIBA PREF
LAT= 34 51 +/- 5 LONG= 140 20 +/- 9
H= 70 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TATEYA	0	EP	03 31 11.9	S	31 20.0	14	0.3	6	0.4	6	0.4				45.0	08.1
OSHIMA	0	P	03 31 14.1	IS	31 23.0	16	0.5	10	0.4	8	0.2				87.9	08.9
AJIRO	0	EP	03 31 18.0	ES	31 27.7	8	0.2	5	0.2	2	0.5				115.0	09.7
UTSUNO	0	P	03 31 25.6	S	31 46.8										192.8	21.2
TOKYO	0	IS	03 31 31.2			14	0.3	15							106.4	
MATSUS	0	IP	03 31 36.7	IS	32 02.8							S	E	D	268.4	26.1

OT= 18 7 19 51.6 +/- 0.6
MIDDLE OF IBARAKI PREF
LAT= 36 29 +/- 5 LONG= 140 28 +/- 4
H= 70 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MITO	0	IP	07 20 02.6	IS	20 09.3	42	0.3	72	0.4	25	0.2	S 1		U 8	11.7	06.7
KAKIOK	0	IP	07 20 03.8	S	20 11.1	29	1.0	23	0.2	14	0.2		W 2	U 1	37.2	07.3
UTSUNO	0	IP	07 20 06.0	S	20 14.8								E 2	D 4	53.7	08.8
ONAHAM	0	EP	07 20 06.1	IS	20 14.0	14	0.3	17	0.4	6	0.5				64.6	07.9
MATSUS	0	IP	07 20 25.0	S	20 39									D	202.4	14.0

OT= 19 5 56 22.9 +/- 0.3
E OFF AOMORI PREF
LAT= 41 22 +/- 1 LONG= 142 30 +/- 3
H= 40 MAG=4.8 CLASS=M

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
URAKAW	1	P	05 56 38.4	IS	56 50.8	58	0.4	154	2.6	36	3.0				91.0	12.4
HACHIN	1	IP	05 56 42.5	IS	56 57.6	76	2.0	82	2.0	10	1.8			D 1	124.4	15.1
HIROO	0	P	05 56 43.1	S	56 57.6										122.4	14.5
HAKODA	0	IP	05 56 47.0	X	57 05.7	57	0.7	44	0.9	17	1.4	S 2	E 7	D 7	153.5	
MURORA	0	IP	05 56 47.8	S	57 07.2							S 4	E 4	D 8	164.3	19.4
AOMORI	1	EP	05 56 48	ES	57 08	100	1.4	115	1.4	48	1.1				156.6	20.0
OBIHIR	0	EP	05 56 52	S	57 11.5										182.6	19.5
MIYAKO	0	EP	05 56 53	ES	57 11	5	3	8	2.8	3	2.5				196.4	18.0
SAPPOR	0	IP	05 56 54.2	S	57 16.6	34	2.2	39	2.0	17	2.2			D 1	211.3	22.4
MORIOK	1	P	05 56 55.7	S	57 20.0	29	0.4	26	0.4	7	0.3	N 0	E 0	D 0	217.1	24.3
				X	56 56.5											
KUSHIR	0	EP	05 56 56	ES	57 18	18	0.3	13	1.0	5	0.2				237.9	22.0
OFUNAT	0	EP	05 57 02.4	ES	57 32.2	7	0.2	10	2.0	4	1.6				264.5	29.8
				X	57 28.8											
ASAHIK	0	EP	05 57 04	ES	57 40	25	1.8	17	2.0	15	2.0				267.2	36.0
RUMOI	0	EX	05 57 04	ES	57 39										295.7	
AKITA	0	EX	05 57 10	S	57 35.7	25	2.6	15	2.4	10	2.2				273.5	
ISHINO	0	EP	05 57 16.2	ES	57 47.8	6	2.4	5	2.2	3	2.4				342.3	31.6
FUKUSH	0	X	05 57 31.8			7	0.9	8	2.0	7	2.6				436.9	
UTSUNO	0	P	05 57 40.8	S	58 40.1										581.5	59.3
SENDAI	0	X	05 57 42	ES	58 05.5	12	2.5	12	2.5	4	2.3				371.1	
MATSUS	0	IP	05 57 50.0	S	59 10									U	652.2	80.0
ABASHI	0	X	05 57	ES	57 40	5	2.2	5	3.0	3	2.6				328.7	
SAKATA	0	EX	05 58 11.0												355.4	
MITO	0	EX	05 58 54.2			9	2.3	7	2.4	5	2.5				581.0	

OT= 19 7 1 46.0 +/- 0.5
S OF CHIBA PREF
LAT= 34 50 +/- 2 LONG= 139 55 +/- 3
H= 70 CLASS=L

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TATEYA	0	EP	07 01 57.3	IS	02 05.2	55	1.0	20	0.7	13	0.5				17.2	07.9
YOKOHA	0	P	07 02 00.8	S	02 12.0										71.0	11.2
AJIRO	0	EP	07 02 01.8	ES	02 13.0	9	0.2	6	0.2	3	0.5				78.4	11.2
TOKYO	X	P	07 02 03.5	IS	02 15.8	53	0.6	68	0.4						95.6	12.3
KUMAGA	0	EP	07 02 10.6	ES	02 28.0	12	1.0	5	0.8	3	0.6				153.5	17.4
KAKIOK	0	EP	07 02 12	S	02 25.1	11	1.0	9	1.0	4	0.7				157.1	13.1
KOFU	0	EP	07 02 12.2	ES	02 27.4	6	0.9	7	0.4	3	0.9				154.2	15.2
UTSUNO	0	P	07 02 13.2	S	02 35.2										190.1	22.0
MISHIM	0	S	07 02 16.6			12	0.9	9	0.9	3	1.1				95.2	
MATSUS	0	IP	07 02 21.6	S	02 48							S	E	D	244.3	26.4
MITO	0	ES	07 02 32.2			5	1.0	5	1.4	2	1.0				178.6	

OT= 19 12 54 57.6 +/- 0.4
S OF CHIBA PREF
LAT= 34 54 +/- 2 LONG= 140 4 +/- 3
H= 70 CLASS=L

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TATEYA	1	IP	12 55 08.9	IS	55 17.0	120	1.0	145	0.7	90	0.3			U 8	20.3	08.1
OSHIMA	1	P	12 55 11.8	IS	55 20.2	25	0.4	13	0.4	27	0.4				64.8	08.4
YOKOHA	0	EP	12 55 12.8	S	55 23.2										70.3	10.4
AJIRO	1	P	12 55 14.1	IS	55 25.1	40	0.2	24	0.2	6	0.4				90.0	11.0
TOKYO	1	P	12 55 15.1	S	55 26.5	155	0.5	205	0.4	200	0.4				91.5	11.4
CHOSHI	0	EP	12 55 17.2	ES	55 31.3										115.6	14.1
KAWAGU	0	P	12 55 18.8	S	55 36.8										136.0	18.0
KAKIOK	0	EP	12 55 21	S	55 36.3	16	1.1	14	1.0	8	0.9				148.2	15.3
KUMAGA	0	EP	12 55 22.4	S	55 39.0	19	1.2	16	1.0	3	1.0				151.5	16.6
KOFU	0	EP	12 55 23.4	ES	55 39.6	8	0.5	10	0.5	3	1.2				161.3	16.2
UTSUNO	0	IP	12 55 24.8	S	55 44.0									U 2	183.5	19.2
MISHIM	0	IS	12 55 29.1			14	0.9	12	0.9	8	1.1				106.4	
KARUIZ	0	EP	12 55 30.2	S	55 53.0										210.6	22.8
HACHIJ	0	EP	12 55 30.6	S	55 50.4			8	0.4						201.1	19.8
MATSUS	0	IP	12 55 33.6	S	55 59											
												S	E	D	247.6	25.4
ONAHAM	0	EX	12 55 43.3			4	0.9	5	0.9						239.2	
MITO	0	ES	12 55 44.0			9	2.3	7	1.6	6	2.4				168.0	

OT= 19 13 17 28.1 +/- 0.4
S OF CHIBA PREF
LAT= 34 55 +/- 2 LONG= 140 3 +/- 3
H= 70 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TATEYA	0	EP	13 17 39.7	IS	17 47.8	24	0.6	18	0.7	17	0.3				18.2	08.1
TOKYO	0	P	13 17 45.2	S	17 57.5	25	0.5	46	0.5						89.3	12.3
AJIRO	0	EP	13 17 45.4	ES	17 55.8	5	0.2	4	0.2	1	0.5				88.2	12.4
UTSUNO	0	EP	13 17 55.6	S	18 15.2										181.5	19.6
MATSUS	0	IP	13 18 04.3	IS	18 29.7											
												S	E	D	245.2	25.4

OT= 19 16 48 23.5 +/- 0.2
S OF CHIBA PREF
LAT= 34 47 +/- 1 LONG= 139 57 +/- 1
H= 70 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TATEYA	0	EP	16 48 34.8	S	48 42.8	12	0.5	8	0.4	5	0.3				23.4	08.0
OSHIMA	0	P	16 48 37.0	IS	48 46.2	14	0.4	15		8					52.4	09.2
AJIRO	0	EP	16 48 40.0	ES	48 50.5	7	0.2	6	0.2	2	0.5				83.1	10.5
TOKYO	0	S	16 48 53.8			7	0.4	11	0.4						101.5	
MATSUS	0	IP	16 48 59.9	IS	49 25.6											
												S	E	D	250.5	25.7

OT= 20 15 35 58.8 +/- 0.3
OFF MIYAGI PREF
LAT= 38 21 +/- 1 LONG= 141 50 +/- 3
H= 60 MAG=4.8 CLASS=M

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
ISHINO	3	IP	15 36 10.8	IS	36 17.8	244	0.6	217	1.0	93	1.4		W 45	U 85	47.0	07.0
OFUNAT	2	IP	15 36 14.5	IS	36 24.1	130	0.0	192	0.0	55	0.0	N 5	E 1	U 5	79.6	09.6
SENDAI	1	IP	15 36 15.9	IS	36 25.6	41	0.4	67	0.4	54	0.3	S 0	W 3	U 13	82.2	09.7
FUKUSH	2	IP	15 36 20.4	IS	36 34.8	94	0.4	85	0.4	55	0.3		W 19	U 24	136.2	14.4
MIYAKO	1	P	15 36 21.8	ES	36 36.9					14	0				144.2	15.1
YAMAGA	0	EP	15 36 23	S	36 34										130.2	11.0
MORIOK	2	IP	15 36 23.5	S	36 40.2	53	0.4	76	0.4	16	0.3	N 1	W 0	U 1	160.2	16.7
ONAHAM	0	IP	15 36 26.1	S	36 45.5	28	1.0	35	1.0	15	0.4	N 1		D 1	176.1	19.4
SAKATA	0	EP	15 36 27.9	ES	36 47.7										184.4	19.8
SHIRAK	0	EP	15 36 28.5	ES	36 47.6										196.9	19.1
HACHIN	0	EP	15 36 34.0	S	37 01.5	16	0.2	14	0.3	5	1.2				242.9	27.5
MITO	1	P	15 36 35.1	S	37 01.6	23	0.4	28	0.4	12	0.5				249.8	26.5
AKITA	0	EX	15 36 35.4	Ex	36 53.8	22	2.8	25	2.4	16	2.4				213.4	
UTSUNO	1	P	15 36 36.4	S	37 05.6										264.9	29.2
KAKIOK	0	EP	15 36 38	S	37 05.4	24	0.6	20	0.5	13	0.5				276.4	27.4
KUMAGA	0	EP	15 36 46.4	ES	37 27.4	12	0.8	12	0.8	3	1.0				327.0	41.0
MATSUS	0	IP	15 36 51.8	S	37 32							S	W	U	378.5	40.2
AOMORI	0	EX	15 36 52			25	1.4	20	1.4	12	1.3				288.3	
CHOSHI	0	X	15 36 52.6	X	37 25.6										304.3	
KOFU	0	EP	15 36 54.0	ES	37 40.0	12	1.2	17	1.8	8	1.0				416.7	46.0
KAWAGU	0	P	15 36 56.3	S	37 43.2										418.2	46.9

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
URAKAW	0	EP	15 36 57.4	S	37 44.1	6	1.0	6	0.4	4	3.2				430.5	46.7
TOKYO	0	EX	15 37 02	S	37 23.5	10	0.6	18	0.6						348.6	
MISHIM	0	X	15 37 07	ES	37 50.5	6	2.2	10	1.6						443.0	
TATEYA	0	EX	15 37 13.5			11	1.0	17	2.1	7	2.7				412.7	
NAGOYA	0	X	15 37 23.4	ES	38 15.0	6	2.6	6	2.8	2	2.0				559.8	
OBIHIR	0	EX	15 37 34												520.9	
KUSHIR	0	ES	15 38 06					13	0.3	4	0.3				557.7	

OT= 20 16 12 41.7 +/- 1.1
E OFF CHIBA PREF
LAT= 35 30 +/- 5 LONG= 140 51 +/- 5
H= 50 MAG=3.8 CLASS=U

CHOSHI	0	IP	16 12 51.6	IS	12 56.8										25.0	05.2
KAKIOK	0	EP	16 12 58	S	13 08.0	13	1.0	13	1.0	6	0.8				100.5	10.0
TOKYO	0	P	16 12 59.2					10	1.2						101.0	
MITO	0	P	16 12 59.3	S	13 12.2	10	0.5	8	0.6	4	1.0				103.2	12.9
UTSUNO	0	EP	16 13 04.0	ES	13 21.6										145.8	17.6
TATEYA	0	EX	16 13 04.6			7	0.6	7	0.5	3	1.0				106.1	
MATSUS	0	IP	16 13 20.5	S	13 54									D	264.5	33.5

OT= 20 23 21 49.7 +/- 0.3
E OFF AOMORI PREF
LAT= 40 55 +/- 1 LONG= 141 55 +/- 3
H= 50 MAG=4.4 CLASS=S

HACHIN	3	IP	23 22 02.4	IS	22 11.0	184	0.2	139	0.2	56	0.3	N 1 E		D 1	54.7	08.6
AOMORI	1	IP	23 22 06.3	IS	22 18.3	66	0.7	115	0.7	30	0.7			D 13	96.2	12.0
MIYAKO	0	EP	23 22 10.9	ES	22 26	8	0	8	0	5	0				141.3	15.1
HAKODA	0	IP	23 22 11.1	IS	22 27.1	20	0.7	33	0.7	11	0.6	S 3 E	5	D 11	139.0	16.0
MORIOK	1	P	23 22 14.1	S	22 31.1	22	0.4	33	0.4	5	0.4	N 1 E	0	D 0	149.7	17.0
URAKAW	0	P	23 22 14.8	ES	22 32	12	0.4	25	0.4	3	0.6				155.6	17.2
OFUNAT	0	EP	23 22 20.4	S	22 43.2	10	0.2	7	0.6	4	0.4				206.7	22.8
SAPPOR	0	P	23 22 23.3	ES	22 49	3	0.4	5	1.4	2	1.0				242.8	25.7
OBIHIR	0	EP	23 22 26	ES	22 56										247.5	30.0
KUSHIR	0	EX	23 22 30	X	53 00	9	0.3	11	0.2	4	0.2				307.7	
ISHINO	0	P	23 22 30.8	IS	23 01.4	6	0.8	3	1.0	4	0.8				281.6	30.6
AKITA	0	EX	23 22 37.6			8	1.8	10	1.4	6	2.2				203.7	
FUKUSH	0	EX	23 22 43.0			6	1.0	7	1.0	2	0.6				372.2	
SENDAI	0	X	23 22	X	22 55	4	1.5	6	1.5	2	1.5				307.6	
MATSUS	0	IP	23 23 09.5	X	24 42							N		D	583.1	
UTSUNO	0	EX	23 24 04.7												516.6	
ONAHAM	0	EX	23 25 29.2			5	0.9	5	0.9						449.5	

OT= 20 23 59 40.3 +/- 2.6
E OFF NEMURO PEN
LAT= 43 34 +/-13 LONG= 147 20 +/-13
H= 0 MAG=4.9 CLASS=S

NEMURO	1	EP	00 00 06	IS	00 25.9	23	2.0	25	1.6	20	1.0				143.9	19.9
ABASHI	0	EP	00 00 21	ES	00 53	16	1.8	19	2.2	7	1.8				250.6	32.0
KUSHIR	0	EP	00 00 22	S	00 46.1	20	1.0	21	0.9	11	2.7				247.4	24.1
HIROO	0	EP	00 00 34	ES	01 13										357.6	39.0
OBIHIR	0	X	00 00 40												341.6	
ASAHIK	0	EP	00 00 41			8	2.6	6	2.2	4	1.4				400.7	
URAKAW	0	P	00 00 45.4	ES	01 27	34	1.2	30	2.6	10	1.8				403.7	41.6
SAPPOR	0	EP	00 00 56			6	2.0	7	1.6	3	1.0				490.2	
HAKODA	0	EP	00 01 00	ES	02 00	6	1.7	5	1.2	3	2.3				572.9	60.0
FUKUSH	0	EX	00 01 37.4			8	0.9	4	0.9	2	0.9				867.0	
AOMORI	0	EX	00 02 11			9	1.5	10	1.3	6	1.3				621.1	
MATSUS	0	X	00 02	X	03 55									U	1101.1	

OT= 21 0 5 54.7 +/- 0.5
NEAR OSHIMA
LAT= 34 47 +/- 4 LONG= 139 27 +/- 6
H=100 CLASS=L

OSHIMA	X	IP	00 06 09.7	IS	06 20.7	33	0.3	23	0.5	14	0.2				7.0	11.0
TATEYA	1	EP	00 06 10.4	IS	06 21.1	33	0.4	45	0.7	26	0.4				44.2	10.7
KOFU	0	IP	00 06 17.4	IS	06 33.9	7	0.4	7	0.6	3	0.8	N 2		U 2	127.1	16.5

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
TOKYO	0	EP	00 06 18	IS	06 30.2	18	0.4	15	0.8						103.9	12.2
MATSUS	0	IP	00 06 28.2	S	06 52.5							S	E	D	224.8	24.3

OT= 21 17 43 36.5 +/- 0.3
E OFF AOMORI PREF
LAT= 41 26 +/- 2 LONG= 142 4 +/- 3
H= 20 MAG=4.2 CLASS=S

AOMORI	0	EX	17 43 49	X	44 00	21	2.2	22	2.2						127.7	
URAKAW	0	P	17 43 54.7	S	44 07.7	27	0.6	39	0.4						100.0	13.0
HAKODA	0	IP	17 43 56.4	IS	44 10.8	7	0.4	9	1.6	4	1.7	N	E	3 D 4	116.9	14.4
HACHIN	X	IP	17 43 56.8	IS	44 09.4	29	0.2	22	0.2	5	2.0	N	E	D 1	110.7	12.6
HIROO	0	P	17 43 59.2	ES	44 13										140.3	13.8
OBIHIR	0	EP	17 44 08	S	44 29.7										190.7	21.7
MORIOK	0	EP	17 44 09.0	S	44 34.5	6	0.4	5	0.4	1	0.4				207.3	25.5
SAPPOR	0	EX	17 44 10			5	1.4	5	1.6	3	1.2				190.4	
KUSHIR	0	EX	17 44 22			13	0.2	7	0.8	3	0.3				257.8	
AKITA	0	EX	17 44 24			5	2.0	6	1.8	4	2.0				252.9	
FUKUSH	0	EX	17 44 56.6			4	1.0	7	1.3	2	0.9				430.5	
MATSUS	0	P	17 45 04												637.8	

OT= 22 0 45 50.7 +/- 0.3
MIDDLE OF NARA PREF
LAT= 34 22 +/- 2 LONG= 135 53 +/- 2
H= 40 MAG=3.9 CLASS=L

OWASE	1	IP	00 46 01.5	IS	46 09.2	24		30		5					43.9	07.7
TSU	0	IP	00 46 02.1	S	46 12.6	23	0.3	38	0.8	9	0.6	S 2	E	2 D 4	69.1	10.5
NARA	1	EP	00 46 02.2					50	2.0						35.4	
KYOTO	0	EP	00 46 03.5	ES	46 06.5	12	1.2	4	0.4	4	0.6				72.8	03.0
WAKAYA	0	P	00 46 03.9	S	46 13.1	15	1.1	13	1.0	2	0.8				67.8	09.2
SHIONO	0	EP	00 46 06.9	ES	46 21.0	11	0.2	8	0.2	4	0.2				102.4	14.1
HIKONE	0	EP	00 46 07.3	IS	46 19.2	60	0.8	25	0.8						105.9	11.9
OSAKA	0	IS	00 46 09.4			17	1.0	7	0.5						47.9	
TOKUSH	0	EP	00 46 11.2	IS	46 24.9										124.9	13.7
NAGOYA	0	P	00 46 11.7	IS	46 29.1	20	0.4	24	0.6	7	0.4				133.0	17.4
TSURUG	0	IP	00 46 11.7	IS	46 27.6							N	2	U 2	143.3	15.9
GIFU	0	EP	00 46 13.6	S	46 28.2	19	0.7	18	0.5						139.9	14.6
FUKUI	0	P	00 46 17.2	S	46 40.4										189.7	23.2
MATSUS	0	IP	00 46 33.7	S	47 08							S	W	D	320.2	34.3

OT= 22 2 55 43.4 +/- 0.2
NEAR MATSUSHIRO
LAT= 36 25 +/- 1 LONG= 138 6 +/- 1
H= 0 MAG=4.4 CLASS=L

MATSUS	2	P	02 55 48.6	S	55 50.4							S	W	D	16.6	01.8
NAGANO	2	EP	02 55 50.0	IS	55 53.8	190		209		169					28.4	03.8
MATSUM	2	IP	02 55 50.4	IS	55 54.3							S	5 W	4 U 7	22.3	03.9
KARUIZ	0	IP	02 55 54.7	S	55 59.9	200	2.6	200	2.1			N		D 4	41.4	05.2
TAKADA	0	EP	02 55 58.6	X	56 24.8										77.5	
TOYAMA	0	EP	02 56 01	ES	56 16	30	2.0	27	3.6	33	3.8				86.1	15.0
KOFU	0	IP	02 56 01.8	ES	56 14.0	17	2.0	20	5.0	8	3.0	S	2 E	1 U 3	93.1	12.2
CHICHI	0	EP	02 56 03.5	IS	56 15.3										100.1	11.8
IIDA	0	IP	02 56 03.8	IS	56 17.2	20	0.6	19	0.4	12	1.0	S	4 E	3 U 6	103.4	13.4
KAWAGU	0	P	02 56 05.5	IS	56 21.0										118.1	15.5
KUMAGA	0	EP	02 56 07.4	ES	56 22.0	24	4.6	23	4.4	17	4.0				119.2	14.6
KANAZA	0	EP	02 56 09.4	ES	56 26.0	8	2.2	14	3.0	5	1.0			D 6	130.9	16.6
WAJIMA	0	EP	02 56 10	ES	56 28	38	1.2	43	1.0						152.1	18.0
GIFU	0	P	02 56 12.2	S	56 34.3	30	0.9	21	0.9						165.2	22.1
SHIZUO	0	EP	02 56 14.0	S	56 36.4	8	1.5	11	1.6	5	2.5				162.5	22.4
FUKUI	0	EP	02 56 14.7	S	56 39.9							N	1 W	2 U 0	173.1	25.2
NAGOYA	0	EP	02 56 15.2	IS	56 35.4	21	1.2	25	0.8	9	1.0				172.5	20.2
NIIGAT	0	IP	02 56 15.9	IS	56 39.6	25	4.7	38	5.5	11	3.6				186.0	23.7
TOKYO	0	EP	02 56 16	ES	56 38	23	5.6	31	4.0	23	4.0				170.0	22.0
AJIRO	0	EP	02 56 16.6	ES	56 37.2	4	1.6	5	1.5	2	1.6				177.0	20.6
KAKIOK	0	EP	02 56 17	S	56 39.6	16	1.0	8	1.0	4	1.3				189.0	22.6
HAMAMA	0	P	02 56 18.0	ES	56 41	15	2.0	13	1.6	8	2.0			U 1	192.5	23.0
TSURUG	0	EP	02 56 19	ES	56 44.0										202.1	25.0
HIKONE	0	EP	02 56 20.6	IS	56 45.8	32	1.0	22	1.2						210.0	25.2
MITO	0	EP	02 56 21.0	S	56 48.3	11	1.5	9	3.1	5	4.2				212.8	27.3
TATEYA	0	EP	02 56 24.7			11	3.0	14	2.3	7	1.6				225.6	
OSAKA	0	EX	02 56 36			14	2.6	9	2.9						303.0	

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STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TOYOOK	0	X	02	56	38.3	ES	57	16.2	19	1.0	11	1.0						311.4	
OT= 22 18 36 34.6 +/- 1.4																			
OFF SANRIKU																			
LAT= 38 14 +/- 3 LONG= 143 35 +/- 7																			
H= 0 MAG=4.9 CLASS=U																			
OFUNAT	0	IP	18	37	06.6	ES	37	29.4	9	0.8	9	0.8	8	0.8	N 1	W 2	U 2	186.6	22.8
ISHINO	0	EP	18	37	08.4	ES	37	30.6	19	2.4	15	1.2	17	2.0	S 1	W 4	U 4	200.5	22.2
MIYAKO	0	EP	18	37	09.3				7	1	8	2.0	7	1.2				210.1	
SENDAI	0	P	18	37	12.9	X	37	37.0	33	1.2	26	1.0	18	1.6			U 5	234.9	
MORIOK	0	IP	18	37	17.1	ES	37	45.7	24	0.4	19	0.4	3	2.1	N 0	W 0	U 0	264.9	28.6
						IX	37	20.6											
						IX	37	26.9											
ONAHAM	0	EX	18	37	18.4	X	37	57.7	32	1.0	41	1.0	10	1.2				276.2	
FUKUSH	0	P	18	37	19.0	S	37	54.2	43	0.9	96	2.1	13	1.0	S 2	W 3	U 4	278.1	35.2
SHIRAK	0	P	18	37	24.1	ES	38	06.8										321.0	42.7
HACHIN	0	EP	18	37	25.8	ES	38	02.1	6	2.0	7	1.8	2	1.8			U	310.1	36.3
MITO	0	EP	18	37	27.0	ES	38	16.8	21	1.8	14	2.0	10	2.2				344.1	49.6
KAKIOK	0	EP	18	37	30	ES	38	22	20	1.0	16	1.0	5	0.8				373.9	52.0
UTSUNO	0	EP	18	37	32.4	S	38	19.6										378.2	47.2
AKITA	0	EX	18	37	35.4				15	2.0	18	2.2	12	2.8				343.8	
AOMORI	0	X	18	37	37	X	38	26	25	1.4	30	1.4	8	1.6				374.4	
NIIGAT	0	EX	18	37	37.3				22	5.0	20	4.0	10	4.2				399.2	
KUMAGA	0	EP	18	37	40.4	ES	38	40.4	7	4.0	8	3.2	6	3.0				438.7	60.0
URAKAW	0	EP	18	37	41	S	38	27.3	4	2.2	8	0.4						441.2	46.3
MATSUS	0	IP	18	37	48.9	ES	38	58								W	U	511.7	69.1
NAGANO	0	EP	18	37	50.5	X	39	12.8	6	4.2	3	2.4	5	2.2				507.5	
KOFU	0	EP	18	37	51.0	X	39	06.1	8	1.9	11	1.7	5	1.6				530.4	
TATEYA	0	EX	18	37	53.3				13	3.9	12	2.3	5	3.0				490.3	
MISHIM	0	X	18	38	04				6	0.7	6	0.7						541.1	
NAGOYA	0	X	18	38	17.0	ES	39	34.8	6	2.2	6	2.4	2	1.4				681.8	
TOKYO	0	EX	18	38	38	IX	40	45	6	2.0	11	4.0						442.6	
KUSHIR	0	X	18	38	42				10	0.3	9	0.3	3	0.4				531.4	
KAWAGU	0	X	18	38	46.9	X	39	07.5										526.0	
OT= 22 20 40 49.4 +/- 0.3																			
E OF IBARAKI PREF																			
LAT= 36 29 +/- 1 LONG= 140 34 +/- 2																			
H= 50 MAG=4.4 CLASS=S																			
MITO	2	IP	20	40	58.9	S	41	05.5	191	0.3	200	0.5	121	0.3	N 5		U121	14.4	06.6
KAKIOK	2	IP	20	41	01	IS	41	09	300	0.5	400	0.9	200	0.5	N 3	W 3	U 6	43.6	08.0
ONAHAM	1	IP	20	41	01.6	IS	41	10.0	111	1.2	123	0.7	54	0.9			U 3	59.6	08.4
UTSUNO	2	IP	20	41	02.2	S	41	02.2							S 3	E 11	D 9	62.6	
SHIRAK	1	IP	20	41	04.1	IS	41	14.4	0		0		0				D 18	76.8	10.3
CHOSHI	1	IP	20	41	04.4	IS	41	15.0										87.7	10.6
TOKYO	1	EP	20	41	08	S	41	23	47	0.6	58	0.5	8	0.4				114.6	15.0
KUMAGA	1	IP	20	41	08.6	S	41	22.6	40	0.4	25	0.8	13	0.8		E 2	D 10	112.5	14.0
CHICHI	1	EP	20	41	11.9	S	41	27.8										144.2	15.9
FUKUSH	0	EP	20	41	12.0	ES	41	27.4	21	0.8	28	0.8	11	0.8				141.5	15.4
YOKOHA	0	EP	20	41	12.8	ES	41	29.6										142.3	16.8
KARUIZ	0	EP	20	41	16.0	S	41	31.5										181.4	15.5
YAMAGA	0	EP	20	41	18.8	X	41	33.6										197.3	
KOFU	0	EP	20	41	19.4	ES	41	45.4	17	1.4	20	0.8	7	1.0				202.4	26.0
KAWAGU	0	P	20	41	19.7	S	41	35.3										195.9	15.6
SENDAI	0	EX	20	41	20	ES	41	40	8	0.8	10	0.8	4	0.8				199.4	
MATSUS	0	IP	20	41	20.5	ES	41	45								E	D	211.3	24.5
AJIRO	0	EP	20	41	21.1	S	41	44.2	11	0.3	9	0.3	3	0.4				207.8	23.1
NAGANO	0	EP	20	41	22.0	ES	41	36.8	7	1.2	5	1.2	4	1.0				213.0	14.8
ISHINO	0	P	20	41	22.3	ES	41	45.4	6	1.2	5	0.8	3	1.4				225.1	23.1
TATEYA	0	X	20	41	22.7				17	1.8	15	1.5	6	1.5				178.0	
MISHIM	0	EP	20	41	26	ES	41	45	12	0.7	14	0.7	3	0.7				212.2	19.0
IIDA	0	EP	20	41	29.2	ES	42	02.2	5	1.8	5	1.4	4	1.8				268.9	33.0
SAKATA	0	EX	20	41	33.2													276.2	
MORIOK	0	P	20	41	39.4	IS	42	17.7	5	0.4	6	0.4	1	0.5	N 0			360.5	38.3
SHIZUO	0	X	20	41	42.6	ES	41	57.5	5	0.8	6	0.8	3					257.3	
NAGOYA	0	EP	20	41	44.0	ES	42	22.8	6	1.4	5	1.2	3	1.1				356.4	38.8
OT= 24 8 4 3.8 +/- 0.2																			
SW OF IBARAKI PREF																			
LAT= 36 8 +/- 1 LONG= 139 55 +/- 1																			
H= 60 MAG=4.0 CLASS=L																			

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KAKIOK	2	IP	08	04	14.1	IS	04	20.4	81	0.5	64	0.5			S 5	W 3		27.2	06.3
UTSUNO	0	IP	08	04	15.4	IS	04	22.6							S 2	E 2	D 6	46.0	07.2
KUMAGA	2	IP	08	04	15.8	S	04	23.6	116	0.4	73	0.6	30	0.2		W 2	U 12	47.9	07.8
TOKYO	0	P	08	04	17	ES	04	26	18	0.8	4	0.8						51.7	09.0
MITO	1	IP	08	04	17.3	IS	04	26.1	54	0.4	73	0.4	14	0.3		W 3	U 5	56.8	08.8
CHOSHI	0	EP	08	04	19.0	S	04	32.7										95.1	13.7
CHICHI	1	EP	08	04	19.1	IS	04	28.1										76.8	09.0
YOKOHA	0	P	08	04	20.4	S	04	29.2										80.8	08.8
TATEYA	0	EP	08	04	25.0				13	0.5	9	1.0	4	1.1				127.6	
ONAHAM	0	EP	08	04	26.0	IS	04	39.2	15	1.3	11	1.0	5	0.4				126.4	13.2
KOFU	0	EP	08	04	26.2	ES	04	40.4	10	0.5	17	0.4	3	0.6				133.2	14.2
AJIRO	0	EP	08	04	26.3	S	04	42.5	10	0.2	9	0.2	2	0.4				141.9	16.2
MATSUS	0	IP	08	04	28.2	S	04	44							S	E	D	159.8	15.8
FUKUSH	0	EX	08	04	32.8				6	0.9	4	0.8	2	0.7				186.9	
OT= 29 2 13 13.3 +/- 1.1																			
S OF KURILE																			
LAT= 44 56 +/- 5 LONG= 147 40 +/- 7																			
H= 90 CLASS=U																			
NEMURO	0	P	02	13	50.5	ES	14	13	7	0.2	7	0.2	4	0.2			D	244.0	22.5
ABASHI	0	EP	02	13	55	S	14	24.4	4	3.0	6	2.0	3	2.0				287.9	29.4
KUSHIR	0	EP	02	14	02	S	14	33.6	36	0.2	23	0.2	10	0.3				340.8	31.6
URAKAW	0	P	02	14	20.9	S	15	11.8	13	1.0	12	0.8	5	1.2				501.0	50.9
HACHIN	0	EP	02	14	42.6	X	15	44.6	7	0.2	4	0.2						701.7	
MORIOK	0	IP	02	14	54.2	X	16	03.9	7	0.4	6	0.4	1	0.3	N 0	E 0		790.4	
MATSUS	0	IP	02	15	46.6	X	17	42							S	W	U	1226.1	
OT= 29 7 25 37.3 +/- 0.4																			
OFF IWATE PREF																			
LAT= 40 4 +/- 1 LONG= 142 8 +/- 3																			
H= 40 MAG=4.4 CLASS=S																			
MIYAKO	1	IP	07	25	48.0	IS	25	55.4	36	1	74	0.7	22	0.7	S 8	W 2	U 11	48.9	07.4
HACHIN	3	IP	07	25	50.8	IS	26	00.0	144	0.2	153	0.2	59	0.2			D	72.6	09.2
MORIOK	2	IP	07	25	53.6	IS	26	04.0	94	0.4	99	0.4	18	0.4	N 13	E 22	D 13	92.2	10.4
OFUNAT	X	EP	07	25	56.4	IS	26	08.8	27	0.0	14	0.4	10	0.4				117.1	12.4
AOMORI	0	EP	07	25	59	ES	26	16	41	0.9	35	1.3	17	1.4				141.6	17.0
AKITA	0	EP	07	26	05.1				13	2.2	8	1.8	8	1.8				178.0	
ISHINO	0	EP	07	26	08.0	IS	26	27.2	9	0.4	7	0.4	4	0.6				195.8	19.2
HAKODA	0	P	07	26	09.7	S	26	34.1	5	0.8	6	0.6	2	1.6			D	225.9	24.4
SENDAI	0	P	07	26	11	X	26	21	10	1.0	10	1.2	5	0.4				227.1	
URAKAW	0	EP	07	26	13	ES	26	42	6	0.6	11	0.6	2	0.4				238.6	29.0
SAKATA	0	EX	07	26	22.5													236.0	
FUKUSH	0	EX	07	26	23.4				11	0.5	7	0.5	3	0.5				294.0	
OBIHIR	0	EX	07	26	27													329.7	
KAKIOK	0	EP	07	26	45	ES	27	41	8	0.7	6	1.0	3	0.8				458.3	56.0
MATSUS	0	IP	07	26	48.0	X	28	03									U	520.7	
OT= 29 22 16 17.5 +/- 0.7																			
OFF IWATE PREF																			
LAT= 39 49 +/- 2 LONG= 143 19 +/- 4																			
H= 10 MAG=4.5 CLASS=U																			
MIYAKO	0	P	22	16	39.4	IS	16	53.7	21	1.7	25	2.3	17	2.2	S 1	W 5	U 3	117.2	14.3
OFUNAT	0	IP	22	16	45.2	ES	17	05.4	12	0.8	10	0.4	11	0.8	S 1	W 2	U 2	161.1	20.2
						EX	16	52.4											
HACHIN	0	IP	22	16	45.8	ES	17	05.8	8	0.3	7	0.3	5	3.1	N 1	W 1	U 1	171.7	20.0
MORIOK	0	IP	22	16	49.3	S	17	10.5	22	0.4	16	0.4	6	1.4	S 0	W 2	U 1	184.6	21.2
ISHINO	0	EP	22	16	54.0	ES	17	17.0	7	2.4	6	1.4	5	1.6				232.8	23.0
AOMORI	0	EP	22	16	56	ES	17	24	53	1.5	43	1.5	17	1.3				242.3	28.0
URAKAW	0	EP	22	16	59	ES	17	31	10	3.6	10	2.4	6	3.2				264.0	32.0
SENDAI	0	EX	22	16	59				13	1.2	17	1.0	8	1.3				271.3	
AKITA	0	EX	22	17	02				17	2.6	15	2.0	11	2.0				275.7	
HAKODA	0	EP	22	17	04	ES	17	43	5	1.8	5	1.0	3	0.9				309.4	39.0
FUKUSH	0	EX	22	17	09.0				12	0.7	11	0.8	5	0.5				336.5	
SAKATA	0	EX	22	17	13.1													316.6	
SAPPOR	0	X	22	17	24	ES	18	07	5	2.4	6	2.2	2	1.0				396.4	
OBIHIR	0	EX	22	17	25													344.8	
MITO	0	EX	22	17	26.0	ES	18	12.6	8	2.3	6	1.6	4	2.0				455.9	
KAKIOK	0	EP	22	17	28	ES	18	24	8	0.7	5	1.0	3	0.8				483.1	56.0
MATSUS	0	IP	22	17	38.5	X	18	55							S	W	U	576.6	
ONAHAM	0	EX	22	17	42.8				11	1.5	8	0.9	2	0.5				382.0	

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STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KUSHIR	0	S	22 17 45.0			6 0.3	11 0.2	2 0.2				362.6	
NIIGAT	0	EX	22 18 01.3			15 4.2	19 2.3					426.3	
OT= 29 22 17 50.4 +/- 0.8 OFF SANRIKU LAT= 39 53 +/- 2 LONG= 143 25 +/- 4 H= 30 MAG=4.3 CLASS=U													
MIYAKO	0	EP	22 18 11.4	S	18 25.2	12 1.2	14 2.2	10 0.9			U 3	126.9	13.8
HACHIN	0	IP	22 18 17.9	ES	18 38.6	11 0.2	10 0.2	2 3.2	N 1	W 2	U 1	176.1	20.7
OFUNAT	0	EP	22 18 18.4	ES	18 37.4	9 0.6	8 0.4	6 0.6				172.3	19.0
MORIOK	0	EP	22 18 21.6	ES	18 42.5	25 0.4	20 0.4	5 0.4				193.7	20.9
ISHINO	0	EP	22 18 26.4	ES	18 52.6	6 3.2	3 2.4	2 1.4				244.1	26.2
AOMORI	0	S	22 18 57			38 1.3	45 1.1	13 1.3				246.6	
HAKODA	0	ES	22 19 13			6 1.0	7 0.7	2 0.9				310.1	
KUSHIR	0	S	22 19 16.7			11 0.3	12 0.2	4 0.3				353.4	
OT= 29 22 46 1.4 +/- 0.7 OFF IWATE PREF LAT= 39 48 +/- 2 LONG= 143 28 +/- 3 H= 30 MAG=4.5 CLASS=U													
MIYAKO	0	EP	22 46 23.2	IS	46 36.6	15 1.1	21 2.1	10 1.3	N 1	W 1	U 0	129.6	13.4
OFUNAT	0	IP	22 46 29.0	ES	46 47.8	11 0.8	6 0.4	7 0.8	S 0	W 2	U 2	171.4	18.8
HACHIN	0	IP	22 46 29.5	ES	46 53.0	10 0.3	8 0.3	2 3.3	N 1	W 1	U 1	184.0	23.5
MORIOK	0	IP	22 46 33.0	ES	46 53.5	22 0.4	16 0.4	5 0.8	S 0	W 1	U 1	197.3	20.5
ISHINO	0	EP	22 46 37.4	ES	47 06.2	5 1.0	4 1.2	3 1.0				241.5	28.8
SENDAI	0	EX	22 46 40			9 0.8	8 0.4	4 1.4				280.4	
AOMORI	0	EP	22 46 41	ES	47 08	43 0.4	49 0.7	16 0.9				254.5	27.0
URAKAW	0	P	22 46 41.6	S	47 13.2	7 0.8	9 0.8	4 3.6				268.2	31.6
AKITA	0	EX	22 46 41.8			12 2.6	12 1.2	8 1.8				288.5	
FUKUSH	0	EX	22 46 45.0			8 1.0	9 0.7	3 0.5				345.0	
HAKODA	0	EP	22 46 47	ES	47 24	6 1.0	8 0.6	3 1.4				319.7	37.0
SAKATA	0	EX	22 46 59.2									328.3	
NIIGAT	0	EX	22 47 21.3			12 2.7	13 2.6					436.8	
MATSUS	0	IP	22 47 22.4	X	48 48				S	W	U	585.8	
KUSHIR	0	S	22 47 28.6			8 0.2	12 0.2	2 0.3				361.5	
ONAHAM	0	EX	22 47 39.0			5 0.7	7 1.2	2 0.5				387.8	
OT= 30 20 55 16.2 +/- 0.6 OFF FUKUSHIMA PREF LAT= 37 15 +/- 2 LONG= 141 6 +/- 7 H=100 CLASS=U													
ONAHAM	0	IP	20 55 32.5	IS	55 42.0	17 0.4	10 0.7	3 0.3			D 1	38.0	09.5
SHIRAK	0	P	20 55 35.8	IS	55 47.7							79.0	11.9
SENDAI	0	EP	20 55 38.0	ES	55 52.0	16 0.3	8 0.2	5 0				113.5	14.0
MITO	0	EP	20 55 39.4	IS	55 54.0	13 0.5	18 0.4	5 0.2				111.8	14.6
KAKIOK	0	EP	20 55 40	IS	55 57.9	14 0.5	9 0.5	6 0.5				139.0	17.9
UTSUNO	0	P	20 55 40.8	S	55 57.5							134.4	16.7
FUKUSH	0	EX	20 55 46.4			13 0.6	10 0.2	3 0.8				78.8	
MATSUS	0	IP	20 55 58.4	ES	56 20						D	269.5	21.6
TOKYO	0	EX	20 56 13.5			4 0.5	5 0.8					211.2	
OT= 31 19 44 38.6 +/- 0.1 NEAR WAKAYAMA LAT= 34 1 +/- 1 LONG= 135 7 +/- 1 H= 10 MAG=4.4 CLASS=S													
WAKAYA	2	IP	19 44 44.3	IS	44 47.1	95 0.4	103 0.3	45 0.3	N 67	E 30	U 38	23.7	02.8
TOKUSH	0	IP	19 44 49.1	IS	44 55.9							50.1	06.8
KOBE	0	IP	19 44 52.7	ES	45 02.1						U 8	74.7	09.4
OSAKA	0	EP	19 44 54.0	S	45 04.1	35 3.8	54 4.0	14 1.9				82.3	10.1
SHIONO	0	EP	19 44 55.1	IS	45 06.7	39 0.5	36 0.2	19 0.7				86.9	11.6
OWASE	0	IP	19 44 56.9	ES	45 09.4	18 0.6	9 0.4	10 0.8		W	D	99.7	12.5
MUROTO	0	IP	19 45 00.6	IS	45 15.2	44 0.4	28 0.5	9 0.4	S 0	W 0	U 0	121.8	14.6
KYOTO	0	EP	19 45 01.0	ES	45 15.7	8 1.2	5 1.4	3 0.7				124.1	14.7
OKAYAM	1	IP	19 45 01.3	S	45 17.5	50 0.6	69 0.6	9 1.8	S 1	E 1	D 1	132.9	16.2
NARA	0	EX	19 45 01.9			50 2.0	50 2.0					99.0	
KOCHI	0	IP	19 45 07.0	IS	45 23.9				N 5	E 9	D 2	155.5	16.9

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TOYOOK	0	P	19 45 08.3	IS	45 27.7	71 0.9	55 1.0	9 0.9				170.7	19.4
TSURUG	0	EP	19 45 13	ES	45 37.0							200.8	24.0
MATSUY	0	EP	19 45 16.0	ES	45 40.5	10 0.7	11 0.6					216.9	24.5
GIFU	0	EP	19 45 16.0	S	45 45.4	14 1.4	9 1.4					215.1	29.4
NAGOYA	0	EP	19 45 17.0	S	45 40.0	9 0.6	13 0.8	3 0.9				212.3	23.0
HIKONE	0	ES	19 45 20.6			30 1.7	21 1.3					173.6	
HAMAMA	0	P	19 45 23.4	ES	45 44	8 1.8	7 2.2	3 1.6		W 1	D 1	251.7	20.6
SAIGO	0	EP	19 45 28.8	ES	46 02.8	4 0.9	6 1.0	2 1.2				292.1	34.0
MATSUS	0	IP	19 45 36.5	X	46 34					W	D	396.6	
KUMAMO	0	EP	19 45 37.3			8 2.1	5 1.9	2 1.1				431.0	
KOFU	0	X	19 45 38.6	ES	46 23.8	6 2.0	7 1.6	2 1.2				363.9	
TOYAMA	0	EX	19 45 42			6 2.4	5 2.0	4 2.0				353.7	
NAGANO	0	EX	19 45	X	46 44.1	5 3.0	3 2.8	1 3.0				405.3	
OT= 31 23 12 42.7 +/- 0.4 N OF CHIBA PREF LAT= 35 54 +/- 2 LONG= 139 45 +/- 4 H= 70 CLASS=U													
TOKYO	0	IP	23 12 54.5	S	13 02.5	8	1					23.9	08.0
KUMAGA	0	EP	23 12 55.4	ES	13 02.6	6 0.2	3 0.2	2 0.2				42.8	07.2
UTSUNO	0	IP	23 12 57.9	S	13 08.0							72.6	10.1
AJIRO	0	EP	23 13 04.2	S	13 13.0	9 0.2	8 0.2	2 0.2				112.0	08.8
MATSUS	0	IP	23 13 07.3	S	13 26							155.6	18.7

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List 6 SEISMOLOGICAL DATA OBTAINED BY MATSUSHIRO

DATE		PHASE AND TIME (J.S.T.) H M S			INITIAL MOTION	
1	IP	04 26 34.5	S	27 30.	N W D	*
1	P	05 23 41.				*
1	EP	05 26 00.				*
1	P	05 27 06.	S	28 19.		*
1	IP	11 05 58.6	S	06 20.4	D	*
1	IP	14 03 18.2	S	03 50.	D	*
1	P	22 16 46.0	IS	17 08.4	D	*
1	EP	22 35 31.				*
						*
2	EP	02 33 48.				*
2	EP	05 15 10.	ES	15 39.		*
2	P	05 38 51.				*
2	EP	05 54 30.				*
2	P	06 41 16.				*
2	EP	11 56 03.	ES	57 22.		*
2	EP	16 30 01.	S	34 17.		*
2	EL	22 02 00.				*
						*
3	IP	00 24 34.8	S	25 00.	S E D	*
3	IP	02 32 51.1	ES	33 48.	D	*
3	EP	04 36 19.	ES	41 06.		*
3	IP	06 31 26.6	S	31 43.2	S D	*
3	IP	09 29 29.8	S	30 09.	U	*
3	EP	11 34 57.				*
3	P	13 16 26.				*
3	P	16 10 39.	S	11 06.		*
3	P	20 17 59.	ES	18 35.		*
3	P	21 21 48.				*
3	IP	23 20 09.1	S	20 34.6	D	*
						*
4	IP	00 10 35.6	ES	16 50.	U	*
4	EP	00 57 04.				*
4	IP	01 34 14.2			U	*
4	EP	02 43 26.				*
4	IP	02 58 31.4	IS	58 51.7	D	*
4	EP	03 41 17.	ES	41 46.		*
4	EP	04 13 01.				*
4	EP	04 27 20.	ES	32 48.		*
4	P	07 24 54.	S	35 08.		*
4	EP	11 45 52.	ES	46 23.		*
4	EP	11 50 43.	ES	51 09.		*
4	P	12 49 07.				*
4	IP	16 02 47.7	S	03 14.	D	*
4	IP	17 51 18.8	S	56 08.	S U	*
4	IP	18 54 17.6	IS	54 43.7	D	*
4	IP	19 41 02.3	IS	41 23.9	D	*
4	EP	23 00 42.				*
						*
5	P	01 29 25.				*
5	IP	02 23 23.8	S	23 50.0	D	*
5	IP	08 03 07.8			S W U	*
5	P	11 41 56.				*
5	P	12 51 14.	S	56 32.		*
5	EP	13 10 50.				*
5	EP	16 06 33.				*
						*
6	IP	01 46 38.2			U	*
6	X	08 47 00.				*
6	IP	09 08 03.2	ES	08 36.	U	*
6	L	09 17 00.				*
6	IP	09 47 46.0	S	48 11.	S E D	*
6	IP	13 01 55.7	ES	12 12.	D	*
6	EP	18 56 09.	ES	00 32.		*
						*
7	EX	02 15 12.				*
7	IP	02 46 20.8	S	46 46.	W D	*
7	EP	05 20 13.	S	20 51.		*
7	P	12 46 20.	S	47 05.		*
7	EP	14 21 12.				*
7	P	18 46 38.				*
7	IP	19 55 35.6	S	55 49.	S E D	*
7	IP	20 34 10.0	S	34 36.	D	*
						*
8	IP	03 41 58.4	S	43 23.	N D	*
8	P	05 34 05.	S	40 12.		*
8	EP	15 38 13.	ES	38 58.		*
8	P	18 35 18.	S	36 02.		*
8	IP	19 21 15.4	S	22 24.	N E D	*
8	IP	19 28 53.0	S	34 44.	N U	*
9	IP	04 03 14.4	S	04 30.	S W U	*
9	IP	07 57 00.0	S	57 26.	N E	*
9	IP	21 57 50.5	IS	58 08.1	S W U	*
9	IP	23 44 00.6	ES	45 23.	S E U	*
						*
10	P	01 36 45.	S	37 28.		*
10	IP	20 22 57.0			D	*
10	IP	23 16 18.0			W D	*
10	IP	23 55 59.6	S	57 33.	N W D	*
						*
11	P	07 01 10.4	S	04 17.	U	*
11	P	08 59 24.				*
11	EP	13 20 45.				*
11	EL	15 33 08.				*
11	P	18 56 29.				*
11	P	22 13 23.				*
11	EP	23 08 28.				*
						*
12	IP	02 24 18.4	S	24 40.	N E D	*
12	P	03 34 12.	ES	34 31.		*
12	P	04 38 43.				*
12	P	04 47 51.	S	48 32.		*
12	ES	06 11 28.				*
12	P	08 52 10.				*
12	IP	09 18 46.0	S	19 23.	E D	*
12	IP	15 53 06.1	IS	53 33.6	E D	*
12	EP	18 13 39.				*
12	IP	18 30 13.2	S	30 35.	N U	*
12	P	18 55 35.	S	56 31.		*
12	P	19 51 12.	ES	55 44.		*
						*
13	EP	14 47 27.	ES	51 30.		*
13	IP	19 28 54.0	ES	30 07.	N D	*
13	P	22 15 04.	ES	17 00.		*
13	IP	22 46 56.6	S	47 14.	S E D	*
13	P	23 02 27.0	IS	23 28.4	U	*
13	P	23 59 22.	S	00 05.		*
						*
14	P	00 34 16.	S	41 50.		*
14	P	02 13 02.	S	13 43.		*
14	P	02 33 02.				*
14	EP	03 34 13.				*
14	IP	08 41 01.6	S	47 13.0	N W U	*
14	EP	12 05 34.	IX	06 09.		*
14	P	16 09 04.				*
14	P	16 14 03.				*
14	IP	18 33 49.0	S	34 05.2	S W D	*
14	P	22 24 26.				*
						*
15	P	03 06 56.				*
15	IP	03 10 00.6	S	10 11.0	U	*
15	P	04 45 42.	S	46 05.4		*
15	P	05 01 46.				*
15	IP	06 27 56.8	S	28 14.0	S U	*
15	IP	11 02 46.6	ES	03 52.	U	*
						*
16	P	02 17 24.	ES	18 30.		*
16	IP	02 32 17.2	S	33 29.	S W U	*
16	IP	02 41 55.0	ES	43 24.	U	*
16	IP	02 59 00.3	ES	00 05.	S U	*
16	P	07 23 00.	S	29 16.		*
16	EP	10 24 49.				*
16	P	10 30 30.	S	36 48.		*
16	P	16 58 02.	IS	58 27.5		*
16	IP	17 32 55.2	S	33 12.	U	*
16	EX	18 09 40.				*
16	P	18 47 12.				*
16	IP	21 29 09.8	S	36 40.	N W U	*
16	P	21 59 29.	S	00 15.		*
						*
17	P	00 14 51.		16 17.		*
17	IP	05 00 02.0	S	00 13.	S W D	*
17	IP	06 33 18.8	S	33 45.	N W D	*
17	IP	07 43 09.6			U	*
17	EP	08 33 31.				*
17	IP	13 00 10.6	S	00 32.	E U	*
17	IP	13 57 33.3	S	57 32.	U	*
17	IP	21 54 23.0			S U	*
17	P	23 58 31.	ES	59 26.		*
						*
18	P	01 45 19.	ES	46 15.		*
18	IP	06 45 31.6	S	46 14.	E D	*
18	IP	07 18 35.6	ES	19 01.	S E D	*
18	IP	13 40 44.6	ES	42 11.	D	*
18	EP	16 02 13.	ES	03 10.		*
18	IP	17 00 39.7	ES	01 34.	S W U	*
18	P	21 39 45.	ES	45 56.		*
						*
19	EP	00 30 27.				*
19	P	01 45 18.				*
19	EP	02 57 00.				*
19	P	04 35 58.0			U	*
19	P	08 34 51.	S	35 08.		*
19	IP	09 13 18.0	S	13 43.	S E D	*
19	IP	10 24 11.4	S	24 55.	E D	*
19	IP	11 39 00.7	IS	39 21.0	S D	*
19	IP	12 27 12.4	ES	28 19.	U	*
19	P	13 27 17.	S	27 36.		*
19	P	14 10 46.	S	11 04.		*
19	IP	16 20 51.0	S	21 08.	S E D	*
19	IP	17 54 31.5	S	01 54.	D	*
						*
20	IP	00 19 27.8	S	20 51.	S U	*
20	IP	04 35 27.8	ES	42 50.	U	*
20	EP	07 11 45.	ES	15 10.		*
20	P	07 26 23.	S	26 43.		*
20	IP	07 34 17.8			D	*
20	IP	12 20 40.2	ES	21 08.	E D	*
20	IP	12 55 38.1	S	56 19.	U	*
20	EP	13 50 14.				*
20	P	13 57 13.	S	57 41.		*
20	P	19 41 07.				*
20	P	19 52 46.	ES	53 16.		*
						*
21	EP	11 37 34.	ES	45 48.		*
21	IP	16 21 04.5	S	22 24.	S W D	*
21	IP	16 59 39.3	S	00 02.5	N W U	*
21	P	19 27 48.	S	29 52.		*
21	P	20 01 04.	ES	02 39.		*
						*
22	EP	01 13 51.				*
22	IP	02 22 51.6	IS	23 09.8	S W U	*
22	EP	04 06 02.	S	06 42.		*
22	EP	07 38 36.				*
22	P	09 49 50.				*
22	EP	14 08 24.				*
22	EP	14 29 47.				*
22	EP	16 00 00.				*
22	EP	16 49 15.				*
22	IP	17 12 38.8	ES	13 44.	S W U	*
22	P	18 14 42.				*
						*
23	EP	00 49 36.				*
23	EP	04 29 58.	ES	31 38.		*
23	EP	04 43 59.				*
23	P	07 46 14.	ES	55 48.		*
23	P	11 11 03.				*
23	EX	12 16 05.				*
23	P	20 06 39.	S	07 01.		*
23	IP	21 00 40.6	IS	01 03.8		*
23	P	21 46 05.	S	46 27.	D	*
23	EP	22 08 44.	ES	09 08.		*
23	EP	22 49 53.				*
						*
24	IP	02 55 33.0			S E D	*
24	EP	06 00 19.				*
24	IP	07 34 27.3	IS	34 50.6	N W U	*
24	P	09 25 19.				*
24	EP	09 54 20.	S	54 36.		*
24	P	11 15 16.	ES	16 26.		*
24	P	11 25 49.				*
24	IP	12 34 12.6	EX	35 16.	U	*
24	P	16 37 14.8			D	*
24	EP	19 59 21.	ES	03 14.		*
24	EP	20 49 58.				*
24	EP	21 39 04.	ES	39 15.		*
						*
25	IP	01 34 27.0			D	*
25	EX	03 33 15.				*
25	EP	03 43 00.	ES	43 31.		*
25	P	07 06 52.				*
25	EP	07 45 49.	EX	55 10.		*
25	EX	08 10 52.				*
25	EX	08 28 24.				*
25	EX	09 10 50.				*
25	IP	10 42 46.1			S W D	*
25	IP	10 45 11.4	IS	45 24.6	N D	*
25	P	12 05 27.	S	06 14.		*
25	EP	12 29 56.8	S	30 18.	N W U	*
25	EX	13 04 46.				*
25	EP	16 54 36.				*
25	EP	17 55 40.				*
25	P	18 22 07.	S	25 22.		*
25	IP	19 24 26.0	IS	24 39.0	S E D	*
25	EL	22 02 26.				*
25	P	22 27 40.				*
25	P	22 32 07.				*
						*
26	IP	00 14 56.8	S	15 09.	S E U	*
26	EP	06 27 46.	ES	33 38.		*
26	IP	06 36 39.9	S	37 56.	S W U	*
26	P	14 22 26.	ES	26 05.		*
26	P	15 18 40.	ES	26 26.		*
26	EP	15 22 36.				*
26	P	16 20 33.				*
26	P	19 22 59.	S	23 57.		*
26	EX	20 25 22.				*
						*
27	L	01 11 05.				*
27	EX	03 06 38.				*
27	EP	04 10 35.				*
27	IP	04 49 02.0	S	49 08.	S W D	*
27	IP	04 51 21.6	S	51 41.	N E D	*
27	EP	05 26 05.				*
27	P	07 00 19.				*
27	EP	07 18 36.				*
27	IP	08 00 44.7	S	01 05.	E U	*
27	IP	10 44 45.0	S	50 28.	D	*
27	EX	18 04 10.				*
27	IP	18 48 06.8	S	48 40.	E D	*
27	EX	19 40 22.				*
27	P	20 10 49.				*
27	EX	20 20 36.				*
27	P	22 19 06.	EX	42 37.		*
						*
28	IP	00 19 48.0			S W D	*
28	IP	00 20 26.6	EX	21 14.		*
28	P	02 00 43.				*
28	EX	05 54 48.				*
28	EP	08 26 34.				*
28	P	09 51 35.	ES	55 48.		*
28	P	10 33 33.	S	34 02.		*
28	IP	14 05 55.0	S	06 15.	S E D	*
28	P	16 16 35.	S	16 54.		*
28	P	16 36 22.	S	45 20.		*
28	IP	21 57 28.3			U	*
28	P	22 03 23.				*
						*
29	EP	03 09 47.				*
29	P	04 47 39.	IX	48 18.		*
29	EP	08 28 44.				*
29	P	08 33 01.	S	43 16.		*
29	IP	09 33 37.0	S	34 22.	N D	*
29	P	10 27 56.	S	28 43.		*
29	IP	13 48 54.0			W D	*
29	IP	14 08 55.5			U	*
29	P	14 38 53.				*
						*
30	IP	01 10 17.0			S W U	*
30	IP	01 46 32.5	S	46 53.	E D	*
30	IP	02 12 31.6	IS	12 37.6	N W D	*
30	P	02 33 13.	IX	33 20.		*
30	P	04 32 18.	IX	32 29.		*
30	IP	05 12 20.2			U	*
30	EP	05 45 03.	IX	45 13.		*
30	P	06 21 34.	S	24 25.		*
30	P	10 17 32.				*
30	EP	11 26 15.	S	27 33.		*
30	IP	13 15 31.0	IS	15 51.4	D	*
30	IP	17 22 18.4	S	22 43.	W D	*
30	EP	18 50 43.				*

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List 1 JMA stations and their seismographs

Station	Code	CGS Code	λ	φ	Height	Seismographs
					m	
Abashiri	ABASHI	ABJ	E144°17.0′	N44°01.0′	38	S, VI, OP
Aikawa	AIKAWA	AIK	138 14.5	38 01.2	34	S, VI, OP
Ajiro	AJIRO	AJI	139 05.8	35 02.6	59	S, VI, EMT′
Akita	AKITA	AKI	140 06.1	39 43.1	9	S, VI, OP
Anabuki (Tsurugisan)	ANABUK (TURUGI)	TSS	134 05.8	33 51.1	59	S, P
Aomori	AOMORI	AOM	140 47.0	40 49.0	4	S, W
Asahikawa	ASAHIK	ASA	142 22.4	43 46.2	111	S, VI, OP
Ashizuri	ASHIZU	ASZ	133 01.0	32 43.0	30	S, VI
Asosan	ASOSAN	ASJ	131 04.5	32 52.7	1143	S
Chichibu	CHICHI	CHJ	139 04.9	35 59.5	218	S, P
Choshi	CHOSHI	CHO	140 50.6	35 43.5	27	S, W
Fukue	FUKUE	FKJ	128 50.0	32 42.0	26	S, VI
Fukui	FUKUI	FUK	136 13.6	36 03.2	9	S, P(H, V)
Fukuoka	FUKUOK	FKK	130 22.8	33 34.8	2	S, VI, M(H)
Fukushima	FUKUSH	FKS	140 28.5	37 45.4	67	S, VI, OP
Gifu	GIFU	GIF	136 45.9	35 23.9	13	S, W
Hachijojima	HACHIJ	HJJ	139 47.3	33 06.1	80	S, VI
Hachinohe	HACHIN	HAC	141 31.6	40 31.5	27	S, VI, OP
Hakodate	HAKODA	HAK	140 45.5	41 48.8	35	S, VI, OP
Hamada	HAMADA	HMD	132 04.4	34 53.6	18	S, VI, OP
Hamamatsu	HAMAMA	HMM	137 43.4	34 42.5	32	S, VI, OP
Hikone	HIKONE	HIK	136 14.8	35 16.4	87	S, W
Himeji	HIMEJI	HIM	134 42.1	34 50.2	37	S, P(H, V)
Hiroo	HIROO	HOO	143 19.0	42 17.0	32	S, P(H, V)
Hiroshima	HIROSH	HIR	132 26.2	34 21.8	29	S, W
Iida	IIDA	IID	137 50.1	35 30.6	482	S, VI, OP
Irozaki (Nagatsuro)	IROZAK (NAGATS)	NGT	138 50.8	34 36.0	55	S
Ishinomaki	ISHINO	ISN	141 18.2	38 25.5	43	S, VI, OP
Izuhara	IZUHAR	IZU	129 17.7	34 12.2	21	S, P(H, V)
Kagoshima	KAGOSH	KAG	130 33.2	31 34.4	4	S, VI
Kakioka	KAKIOK	KAK	140 11.6	36 13.9	27	S, W
Kanazawa	KANAZA	KAN	136 38.9	36 32.8	27	S, VI, OP
Karuizawa	KARUIZ	KRZ	138 33.1	36 20.4	999	S, P(H, V)
Kawaguchiko (Funatsu)	KAWAGU (FUNATU)	FUN	138 45.8	35 29.9	860	S, P
Kobe	KOBE	KOB	135 10.8	34 41.3	58	S, P(H, V)
Kochi	KOCHI	KOC	133 32.0	33 33.0	40	S, P(H, V)
Kofu	KOFU	KOF	138 33.5	35 39.9	272	S, VI
Kumagaya	KUMAGA	KMG	139 23.1	36 08.8	30	S, VI, EMT
Kumamoto	KUMAMO	KUM	130 42.6	32 48.6	38	S, W
Kushiro	KUSHIR	KUS	144 23.7	42 58.7	33	S, VI
Kyoto	KYOTO	KYO	135 44.1	35 00.7	41	S, VI, OP
Maebashi	MAEBAS	MAE	139 03.9	36 24.1	112	S, W
Maizuru	MAIZUR	MAI	135 23.2	35 28.3	31	S, P(H, V)
Matsue	MATSUE	MTS	133 04.3	35 27.3	17	S, P(H, V)
Matsumoto	MATSUM	MTM	137 58.4	36 14.6	610	S, P(H, V)
Matsushiro	MATSUS	MAT	138 12.5	36 32.3	440	S, L, AW,G,B,V,C
Matsuyama	MATSUY	MTY	132 46.8	33 50.4	32	S, W
Mishima	MISHIM	MIS	138 55.8	35 06.7	20	S, W
Mito	MITO	MIT	140 28.3	36 22.7	30	S, VI, EMT′
Miyako	MIYAKO	MIY	141 58.1	39 38.7	46	S, W
Miyazaki	MIYAZA	MYZ	131 25.6	31 55.0	7	S, VI, OP
Mizusawa	MIZUSA	MIZ	141 08.0	39 08.0	61	P(H, V)
Morioka	MORIOK	MRK	141 10.0	39 41.8	155	S, VI, OP
Muroran	MURORA	MRR	140 59.0	42 19.0	43	S, P(H, V)
Murotomisaki	MUROTO	MRT	134 10.7	33 14.9	185	S, VI, OP
Nagano	NAGANO	NGN	138 11.8	36 39.6	418	S, W
Nagasaki	NAGASA	NGS	129 52.2	32 43.9	27	S, VD, EM
Nagoya	NAGOYA	NAG	136 58.1	35 09.9	52	S, VI, OP
Nara	NARA	NAR	135 50.0	34 41.0	105	S, P(H, V)
Nemuro	NEMURO	NEM	145 35.2	43 19.7	26	S, VI, VD, OP
Niigata	NIIGAT	NII	139 03.1	37 54.6	2	S, P(H, V)
Nobeoka	NOBEOK	NOB	131 41.0	32 35.0	19	S, P(H, V)
Obihiro	OBIHIR	OBI	143 13.3	42 55.2	39	S, P(H, V)
Ofunato	OFUNAT	OFU	141 43.1	39 03.7	38	S, VI
Oita	OITA	OIT	131 37.4	33 14.0	5	S, W
Okayama	OKAYAM	OKA	133 54.9	34 40.9	4	S, VI, OP
Omaezaki	OMAEZA	OMA	138 12.8	34 36.2	45	S, W
Onahama	ONAHAM	ONA	140 54.4	36 56.7	3	S, VI
Osaka	OSAKA	OSA	135 31.3	34 40.7	13	S, VI

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Station	Code	CGS Code	λ	φ	Height	Seismographs
					m	
Oshima	OSHIMA	OSH	E139°22.7′	N34°45.7′	191	S, W
Owase	OWASE	OWA	136 11.7	34 04.0	14	S, VI, OP
Rumoi	RUMOI	RMJ	141 38.0	43 57.0	22	S, P(H, V)
Saga	SAGA	SAG	130 18.3	33 14.7	4	S, P(H, V)
Saigo	SAIGO	SAI	133 20.0	36 12.3	26	S, VI, OP
Sakata	SAKATA	SAK	139 50.2	38 54.2	2	S, P(H, V)
Sapporo	SAPPOR	SAP	141 19.9	43 03.5	17	S, VI, OP
Sendai	SENDAI	SEN	140 54.0	38 15.6	38	S, VI, S′
Shimonoseki	SHIMON	SHN	130 56.5	33 57.2	46	S, VI, OP
Shionomisaki	SHIONO	SHJ	135 45.8	33 26.9	74	S, W
Shirakawa	SHIRAK	SHR	140 13.5	37 07.1	354	S, P(H, V)
Shizuoka	SHIZUO	SHZ	138 24.4	34 58.4	14	S, VI
Sumoto	SUMOTO	SUM	134 54.5	34 20.1	109	S, VI, OP
Suttsu	SUTTSU	SUT	140 14.4	42 47.4	16	S, P(H, V)
Takada	TAKADA	TKD	138 15.0	37 06.3	13	S, P(H, V)
Takamatsu	TAKAMA	TKM	134 03.5	34 19.0	10	S, W
Takayasuyama	OSAKA2		135 39.6	34 36.7	472	VD′
Takayama	TAKAYA	TKY	137 15.3	36 09.1	561	S, P(H, V)
Tateyama	TATEYA	TAT	139 52.1	34 59.0	6	S, VI, EMT
Tokushima	TOKUSH	TKS	134 34.6	34 03.9	2	S, P(H, V)
Tokyo	TOKYO	TOK	139 45.5	35 41.2	21	S, VI′, VD′, I′, J
Tottori	TOTTOR	TOT	134 10.7	35 30.7	17	S, P(H, V)
Toyama	TOYAMK	TOY	137 12.5	36 42.4	9	S, VI
Toyooka	TOYOOA	TYK	134 49.5	35 32.0	4	S, W
Tsu	TSU	TSU	136 31.1	34 42.1	3	S, P(H, V)
Tsuruga	TSURUG	TSR	136 03.9	35 39.0	1	S, P(H, V)
Unzendake	UNZEND	UNZ	130 15.2	32 44.1	849	S
Urakawa	URAKAW	URA	142 46.8	42 09.5	34	S, VI, OP
Utsunomiya	UTSUNO	UTS	139 52.3	36 32.6	120	S, EMT
Uwajima	UWAJIM	UWA	132 33.5	33 13.5	43	S, P
Wajima	WAJIMA	WAJ	136 53.9	37 23.4	6	S, VI
Wakayama	WAKAYA	WKY	135 10.0	34 13.6	14	S, W, I
Wakkanai	WAKKAN	WAK	141 40.4	45 25.0	9	S, VI, OP
Yakushima	YAKUSH	YKS	130 29.8	30 27.0	14	S, VI
Yamagata	YAMAGA	YAM	140 21.0	38 15.2	151	S, P(H, V)
Yokohama	YOKOHA	YOK	139 39.3	35 26.2	38	S, EMT
Yonago	YONAGO	YON	133 20.6	35 26.0	7	S, P(H, V)
Ishigakijima	ISHIGA	ISI	124 10	24 20	6	S, VI
Naha	NAHA	NAH	127 41	26 13	11	S, VI
Miyakojima	MIYAKJ	MYK	125 17	24 47	40	S
Yonagunijima	YONAGU		123 01	24 28	32	

Notations : —

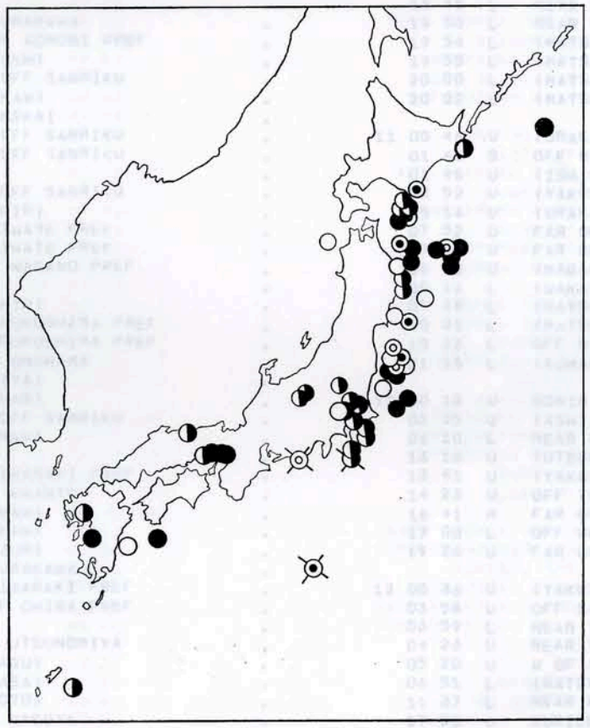
λ	: Longituds.
φ	: Geographical Latitude.
W	: Wiechert's horizontal and vertical seismographs (masses, H ; 200kg, V ; 80kg).
P	: Portable seismograph (horizontal).
P(H, V)	: do (mass, 22.5kg).
S	: Strong motion seismograph (magnification ; 1).
S′	: do (magnification ; 0.4).
M(H)	: Mainka's horizontal seismograph (mass, 450kg).
G	: Galitzin's seismograph.
L	: 1,000kg long-period seismograph, JMA type.
I	: Ishimoto's seismograph.
V	: Short-period vertical seismograph.
AW	: Anderson-Wood's seismograph.
C	: Capacity type seismograph.
EM	: Electromagnetic seismograph.
OP	: JMA 59-type electromagnetic seismograph with optical recorder.
VI	: JMA 59-type electromagnetic seismograph with visible recorder.
VD	: JMA 61-type electromagnetic seismograph with visible recorder.
B	: Benioff's seismograph (short and long period).
J	: Remote recording JMA 63-type seismograph.
VI′,VD′,I′	: Remote recording JMA 63 type seismograph.
EMT	: Electromagnetic seismograph with tape recorder.
EMT′	: Electromagnetic seismograph with tape recorder and transmitting unit.

List 2 Number of earthquakes by districts and classes, June, 1969

District \ Class	Number of felt earthquakes					Number of unfelt earthquakes	Total
	Remarkable	Moderate	Small felt area	Local	Total		
Hokkaido	1	0	0	7	8	31	39
Tohoku	3	3	6	3	15	29	44
Kwanto	1	0	3	12	16	31	47
Chubu	0	1	0	43	44	5	49
Kinki	0	0	0	8	8	12	20
Chugoku•Shikoku	0	0	0	2	2	6	8
Kyushu	0	0	1	13	14	16	30
Near Japan*	0	0	0	1	1	10	11
Foreign region	0	0	0	0	0	4	4
Unknown	0	0	0	0	0	6	6
Total	5	4	10	89	108	150	258

* ; Sakhalin, Kurile Is., Korea, Ryukyu Is., Bonin Is., Sikhota Alin.

Epicenters of the major earthquakes



⊙ Remarkable (R) ◎ Moderate (M) ○ Small felt area (S) ◑ Local (L) ● Unfelt (U) × h≧100km.

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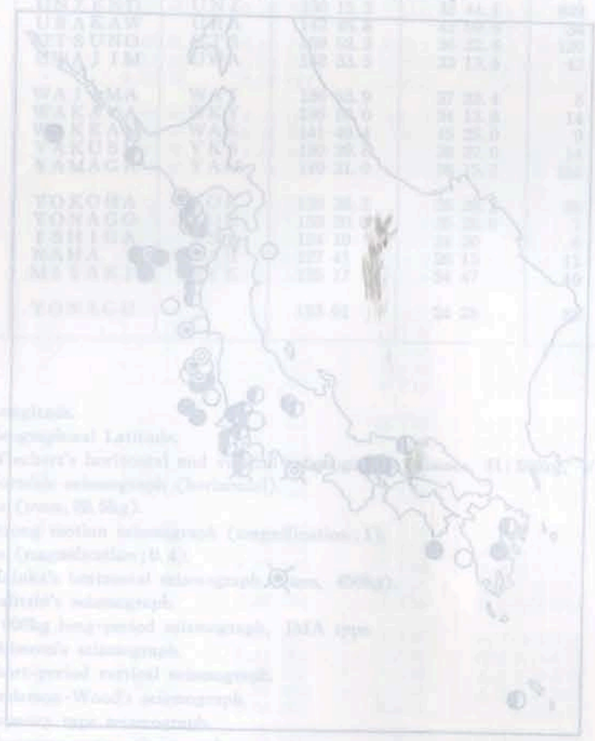
Special Event

Earthquake-Swarm near Matsushiro, Northern Chubu

In this month, 41 earthquakes (intensity Ⅲ : 2, Ⅱ : 4, Ⅰ : 35) were felt at the Matsushiro Seismological Observatory.



List 3 EARTHQUAKES OBSERVED BY SEISMOLOGICAL STATIONS OF JMA

(J. S. T.) C : Class

DATE, D	TIME H	M	C	LOCATION
1	00	41	U	(MAIZUR)
	03	36	U	NEAR URAKAWA
	05	33	L	NEAR MATSUSHIRO
	11	00	U	UK
	11	02	L	(MATSUS)
	16	33	L	NEAR MATSUSHIRO
	16	38	U	(AOMORI)
	19	04	U	(ASHIZU)
	19	45	U	(SAIGO)
	21	23	L	NEAR MATSUSHIRO
	23	54	L	NEAR MATSUSHIRO
	23	58	L	NEAR MATSUSHIRO
2	01	50	L	NEAR MATSUSHIRO
	01	51	L	(MATSUS)
	02	18	L	NEAR MATSUSHIRO
	10	49	U	OFF URAKAWA
	12	42	U	SE OF FUKUSHIMA PREF
	13	41	L	(MATSUS)
	23	35	U	S OF KWANTO
3	00	03	U	(URAKAW)
	00	54	U	OFF IBARAKI PREF
	03	56	L	NEAR MATSUSHIRO
	03	56	L	(MATSUS)
	06	57	U	OFF IBARAKI PREF
	09	26	L	NEAR NEMURO
	11	05	U	OFF CHOSHI
4	01	22	L	OFF URAKAWA
	02	11	U	E OFF AOMORI PREF
	06	35	U	(KAGOSH)
	06	53	U	FAR OFF SANRIKU
	11	01	U	(URAKAW)
	17	37	L	ARIAKEKAI
	22	54	U	FAR OFF SANRIKU
	23	14	U	FAR OFF SANRIKU
5	05	48	U	FAR OFF SANRIKU
	15	40	U	(KUSHIR)
	18	39	L	OFF IWATE PREF
	20	16	S	OFF IWATE PREF
	21	50	L	W OF NAGANO PREF
6	01	56	U	(KUSHIR)
	03	42	M	OFF FUKUSHIMA PREF
	07	18	U	OFF FUKUSHIMA PREF
	07	22	U	NEAR ONAHAMA
	13	01	U	(WAKAYA)
	13	43	U	(MAEBAS)
	16	01	U	FAR OFF SANRIKU
	16	15	U	(URAKAW)
7	00	48	S	OFF IBARAKI PREF
	11	39	L	S OF KWANTO
	14	58	U	(URAKAW)
	15	59	U	(URAKAW)
	16	53	U	(MAIZUR)
	16	56	U	OFF URAKAWA
	21	04	U	OFF IBARAKI PREF
	22	28	S	NW OF CHIBA PREF
8	00	17	U	NEAR UTSUNOMIYA
	00	23	U	(YONAGU)
	03	54	U	(NAGASA)
	05	54	U	(MUROTO)
	10	50	U	NEAR NAGOYA
	11	21	U	(URAKAW)
	12	53	U	NEAR YAKUSHIMA
	13	05	U	(YAKUSH)
8	21	05	U	S OF KWANTO
	21	37	U	OFF IBARAKI PREF
9	03	05	U	(TATEYA)
	03	25	U	E OFF AOMORI PREF
	11	15	U	S OFF HONSHU
	11	22	U	S OFF HONSHU
	11	55	U	(YONAGU)
	12	36	U	OFF TOKACHI
	13	12	U	(URAKAW)
	16	00	L	W OF TOCHIGI PREF
	16	03	L	W OF TOCHIGI PREF
	16	20	L	(UTSUNO-ASHIO)
	16	21	L	(UTSUNO-ASHIO)
	20	54	U	(MIYAZA)
10	08	02	L	NEAR WAKAYAMA
	08	10	U	E OFF HOKKAIDO
	09	03	L	(MATSUS)
	09	24	L	NEAR MATSUSHIRO
	09	26	L	NEAR MATSUSHIRO
	09	32	L	(MATSUS)
	09	41	L	(MATSUS)
	09	51	L	(KAGOSH-NAZE)
	10	22	L	(MATSUS)
	14	46	U	(KUSHIR)
	17	38	U	S OF KWANTO
	17	45	U	(UTSUNO)
	18	45	L	NEAR NEMURO
	19	53	L	NEAR MATSUSHIRO
	19	54	L	(MATSUS)
	19	55	L	(MATSUS)
	20	00	L	(MATSUS)
	20	02	L	(MATSUS)
11	00	46	U	(URAKAW)
	01	41	S	OFF MIYAGI PREF
	01	48	U	(ISHIGA)
	03	52	U	(YAKUSH)
	05	14	U	(URAKAW)
	07	52	U	FAR OFF SANRIKU
	07	54	U	FAR OFF SANRIKU
	08	38	U	(NAGANO)
	09	11	L	(WAKAYA)
	09	38	L	(MATSUS)
	10	01	L	(MATSUS)
	15	23	L	OFF MIYAGI PREF
	21	16	L	(KUMAMO)
12	00	13	U	BONIN IS
	01	15	U	(ASHIZU)
	06	10	L	NEAR FUKUI
	13	18	U	(UTSUNO)
	13	41	U	(YAKUSH)
	14	23	U	OFF IBARAKI PREF
	16	41	M	FAR OFF SANRIKU
	17	03	L	OFF URAKAWA
	19	26	U	FAR OFF SANRIKU
13	00	36	U	(YAKUSH)
	03	58	U	OFF SANRIKU
	03	59	L	NEAR YONAGUNIJIMA
	04	23	U	NEAR YONAGUNIJIMA
	05	20	U	W OF AICHI PREF
	06	51	L	(MATSUS)
	11	37	L	NEAR WAKAYAMA
	17	50	U	KURILE IS
	23	22	L	NEAR MATSUSHIRO
	23	28	U	(NEMURO)

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DATE, D	TIME H	M	C	LOCATION
14	00	24	U	(KUSHIR)
	01	03	U	NEAR HIMEJI
	04	22	L	(MATSUS)
	08	59	U	(HACHIN)
	11	35	U	(URAKAW)
	11	50	U	(HACHIN)
	12	03	L	(MATSUS)
	12	26	U	(URAKAW)
	12	31	U	UK
	12	46	U	(KAGOSH)
	17	12	L	E COAST OF BOSO PEN
	17	38	U	S OF KWANTO
	18	04	U	(KAGOSH)
15	06	35	U	N OF TOHOKU.
	06	55	U	(FUKUSH)
	06	56	U	(FUKUSH)
	21	35	U	(UTSUNO)
16	09	17	U	(TOTTOR)
	09	46	U	(CHOSHI)
	10	32	U	(YAKUSH)
	17	45	L	SW OF IBARAKI PREF
	18	53	L	NEAR HIMEJI
17	00	46	L	(MATSUS)
	01	45	L	MIDDLE OF TOTTORI PREF
	02	06	L	(TOTTOR)
	12	55	L	(MATSUS)
18	04	29	U	MARIANA
	09	11	U	UK
	09	31	S	W OFF AOMORI PREF
	17	22	M	ENSHUNADA
	20	07	L	NEAR WAKAYAMA
	21	32	U	OFF IWATE PREF
	22	57	L	NEAR MATSUSHIRO
19	07	32	L	BAY OF ISE
	08	51	U	ALEUTIAN IS
	14	15	U	NEAR HACHIJOJIMA
	14	17	U	(YONAGU)
	16	03	L	NEAR AMAMIOSHIMA
	18	05	U	(HIMEJI)
	21	28	L	(KAGOSH-NAZE)
	22	33	U	NEAR CHOSHI
20	03	32	U	E OFF AOMORI PREF
	03	51	U	E OFF AOMORI PREF
	04	53	U	(URAKAW)
	04	59	U	OFF HACHINOHE
	06	41	U	(KOBE)
	12	09	S	HYUGANADA
	15	33	U	S OF HYOGO PREF
	15	41	R	OFF MIYAGI PREF
	16	07	U	S OF HYOGO PREF
	20	37	L	(MATSUS)
	22	26	U	(YONAGU)
21	00	38	R	E OFF AOMORI PREF
	06	19	S	OFF FUKUSHIMA PREF
	08	03	U	OFF URAKAWA
	13	19	L	NEAR MATSUSHIRO
	17	30	S	OFF FUKUSHIMA PREF
	18	24	L	S OF KUMAMOTO PREF
22	04	47	U	UK
	10	46	U	(URAKAW)
	11	37	U	KURILE IS

DATE, D	TIME H	M	C	LOCATION
23	08	11	U	(URAKAW)
	14	57	R	OFF FUKUSHIMA PREF
	19	07	L	(KAGOSH-NAZE)
	20	17	L	(KAGOSH-NAZE)
24	02	56	U	OFF IBARAKI PREF
	10	20	S	OFF IWATE PREF
	10	22	R	S OFF HONSHU
	12	37	U	UK
	19	21	U	(NAHA)
	20	02	U	PHILIPPINE IS
	20	25	U	E OF SAITAMA PREF
25	02	00	U	OFF URAKAWA
	02	13	L	(UNZEND)
	03	53	U	NEAR WAKAYAMA
	03	57	L	(UNZEND)
	04	18	L	NEAR NEMURO
	07	00	L	NEAR MATSUSHIRO
	08	00	U	IBARAKI PREF
	10	39	U	(MAIZUR)
	13	00	L	OFF URAKAWA
	15	54	L	(WAKAYA)
	18	47	U	(YAKUSH)
26	02	08	U	(YAKUSH)
	05	51	L	E COAST OF CHIBA PREF
	06	18	L	E COAST OF CHIBA PREF
	07	53	U	(SHIZUO)
	09	26	U	(URAKAW)
	10	55	L	(KAGOSH-NAZE)
	12	00	U	(HACHIN)
	13	41	L	(MATSUS)
	13	45	L	(MATSUS)
	14	19	U	OFF MIYAGI PREF
	18	40	U	(UTSUNO)
	19	03	U	NW OF CHIBA PREF
	20	25	U	(YAKUSH)
	23	23	U	OFF TOKACHI
27	05	14	L	(UNZEND)
	07	15	L	(WAKAYA)
	08	36	U	S OF KWANTO
	11	15	R	S OF HOKKAIDO
	12	19	L	OFF IWATE PREF
	14	30	U	(TATEYA)
	16	18	L	(UNZEND)
	17	15	U	(AOMORI)
	17	35	U	(AOMORI)
	20	48	L	S OF CHIBA PREF
	20	56	U	(ONAHAM)
	23	42	S	E OF SAITAMA PREF
28	03	31	U	ARIAKEKAI
	06	29	M	OFF FUKUSHIMA PREF
	07	40	U	(NAHA)
	11	14	L	SW OF IBARAKI PREF
29	01	00	L	S OF CHIBA PREF
	02	43	U	NEAR AMAMIOSHIMA
	02	54	U	(URAKAW)
	07	51	U	TOCHIGI PREF
	09	15	U	(WAKAYA)
	09	34	L	NEAR MATSUSHIRO
	09	34	U	(NAGANO)
	11	25	U	KII PEN
	11	51	U	KII PEN
	18	40	L	(URAKAW)
	19	01	U	(TOKYO)
	20	58	L	NEAR MATSUSHIRO

DATE, D	TIME H	M	C	LOCATION
30	04	31	U	OFF URAKAWA
	09	12	U	OFF ASHIZURI PEN
	18	40	U	UK
	19	57	U	S OF KWANTO
	22	39	L	(MATSUS)

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List 4 EARTHQUAKE ORIGINS

(J. S. T.)

DATE, TIME D	H	M	C	LOCATION	ORIGIN TIME M	S	+/-S	LONG.	+/-	LAT.	+/-	C CLASS H KM	M
2	10	49	U	OFF URAKAWA	49	00.2	0.4	142 41	02	41 26	01	10	4.0
3	06	57	U	OFF IBARAKI PREF	56	53.2	1.0	141 55	05	36 07	03	60	4.6
	09	26	L	NEAR NEMURO	25	52.5	0.3	145 13	02	43 09	02	00	4.3
4	01	22	L	OFF URAKAWA	22	18.0	0.5	142 42	03	41 36	03	40	4.2
	02	11	U	E OFF AOMORI PREF	11	35.1	0.9	142 39	04	40 33	02	00	4.1
	06	53	U	FAR OFF SANRIKU	52	57.8	0.9	144 12	05	40 13	03	00	5.0
	17	37	L	ARIAKEKAI	37	12.9	0.1	130 20	01	33 00	01	20	3.4
	23	14	U	FAR OFF SANRIKU	13	47.8	1.4	143 43	07	40 20	03	20	4.4
5	18	39	L	OFF IWATE PREF	39	37.3	0.3	142 09	03	39 19	01	50	4.0
	20	16	S	OFF IWATE PREF	16	26.7	0.2	142 03	02	39 59	01	50	4.0
6	03	42	M	OFF FUKUSHIMA PREF	42	00.9	0.5	141 41	03	37 36	01	60	4.3
	07	18	U	OFF FUKUSHIMA PREF	18	36.5	0.5	141 44	02	36 56	01	40	4.3
7	00	48	S	OFF IBARAKI PREF	48	07.4	0.7	141 15	04	36 35	01	50	4.3
	22	28	S	NW OF CHIBA PREF	28	44.2	0.2	139 56	02	35 42	02	70	
9	03	25	U	E OFF AOMORI PREF	25	11.5	1.6	142 07	04	41 24	08	40	4.1
	16	03	L	W OF TOCHIGI PREF	03	04.0	1.0	139 30	03	36 39	06	30	3.7
10	08	10	U	E OFF HOKKAIDO	09	47.8	2.6	148 39	15	43 29	03	50	5.0
	09	26	L	NEAR MATSUSHIRO	26	30.0	0.2	138 08	01	36 31	00	10	3.8
	19	53	L	NEAR MATSUSHIRO	53	33.9	0.2	138 06	01	36 26	01	10	4.5
11	01	41	S	OFF MIYAGI PREF	41	38.2	0.6	141 52	05	38 35	02	60	4.5
	07	52	U	FAR OFF SANRIKU	51	42.9	1.1	144 26	07	40 23	03	00	5.0
12	14	23	U	OFF IBARAKI PREF	22	56.4	1.6	141 34	08	36 50	04	50	4.0
	16	41	M	FAR OFF SANRIKU	41	21.4	0.8	144 02	05	40 20	02	40	5.6
	17	03	L	OFF URAKAWA	03	23.5	0.4	142 38	03	41 37	02	30	4.3
	19	26	U	FAR OFF SANRIKU	25	42.6	2.1	144 12	12	40 04	05	50	4.6
13	17	50	U	KURILE IS	48	29.5		155 30		49 24		64	5.9
14	01	03	U	NEAR HIMEJI	03	14.2	0.3	134 44	01	34 47	01	10	3.5
	17	12	L	E COAST OF BOSO PEN	12	21.4	0.5	140 19	02	35 22	02	0	4.4
16	17	45	L	SW OF IBARAKI PREF	45	41.9	0.6	139 54	03	36 15	11	50	3.1
	18	53	L	NEAR HIMEJI	53	48.5	0.3	134 41	01	34 47	01	10	3.3
17	01	45	L	MIDDLE OF TOTTORI PREF	45	19.9	0.2	133 58	01	35 23	01	10	3.9
18	04	29	U	MARIANA	26	28.9		145 30		19 00		206	5.8
	09	31	S	W OFF AOMORI PREF	30	38.8	0.6	139 23	03	40 50	02	10	4.6
	17	22	M	ENSHUNADA	22	11.0	0.8	137 58	07	34 33	08	280	
	21	32	U	OFF IWATE PREF	32	05.0	1.0	142 36	06	40 09	02	50	4.0
19	16	03	L	NEAR AMAMIOSHIMA	03	02.4	1.7	130 09	16	27 55	08	90	
20	12	09	S	HYUGANADA	09	32.2	0.6	131 51	02	32 06	02	00	4.1
	15	33	U	S OF HYOGO PREF	33	36.3	0.7	135 02	03	34 52	04	00	3.5
	15	41	R	OFF MIYAGI PREF	41	04.5	0.3	142 12	02	38 25	01	70	
	16	07	U	S OF HYOGO PREF	07	47.8	0.2	135 05	01	34 56	01	10	3.5
21	00	38	R	E OFF AOMORI PREF	37	47.9	0.3	142 22	02	40 42	01	40	5.6
	06	19	S	OFF FUKUSHIMA PREF	19	21.6	0.5	141 42	02	37 00	01	40	4.3
	17	30	S	OFF FUKUSHIMA PREF	30	31.5	0.3	141 33	02	37 21	01	50	4.4
	18	24	L	S OF KUMAMOTO PREF	24	38.8	0.2	130 34	01	32 17	01	10	4.0
23	14	57	R	OFF FUKUSHIMA PREF	57	07.1	0.3	141 40	02	37 18	01	50	5.2
24	02	56	U	OFF IBARAKI PREF	56	24.6	0.8	141 36	04	35 52	02	50	4.2
	10	20	S	OFF IWATE PREF	20	04.4	0.6	143 05	03	39 06	01	20	4.7
	10	22	R	S OFF HONSHU	21	12.1		138 18		31 18		387	
	20	25	U	E OF SAITAMA PREF	25	29.2	0.2	139 32	02	35 56	02	70	
25	13	00	L	OFF URAKAWA	00	04.4	0.3	142 32	02	41 52	03	80	

DATE, TIME D	H	M	C	LOCATION	ORIGIN TIME M	S	+/-S	LONG.	+/-	LAT.	+/-	H KM	M
26	05	51	L	E COAST OF CHIBA PREF	51	22.0	0.8	140 26	03	35 16	02	0	3.8
27	11	15	R	S OF HOKKAIDO	15	48.9	0.2	143 09	01	42 11	01	60	5.4
	12	19	L	OFF IWATE PREF	18	57.3	0.6	142 11	04	39 39	01	40	3.8
	20	48	L	S OF CHIBA PREF	48	10.3	0.7	139 53	03	34 47	04	50	3.5
	23	42	S	E OF SAITAMA PREF	42	42.1	0.1	139 31	01	35 56	01	90	
28	06	29	M	OFF FUKUSHIMA PREF	29	25.0	0.3	141 56	02	37 02	01	50	4.5
	11	14	L	SW OF IBARAKI PREF	14	24.4	0.2	140 05	01	36 18	01	40	3.8
29	01	00	L	S OF CHIBA PREF	00	10.7	0.5	139 44	03	34 40	03	140	
30	09	12	U	OFF ASHIZURI PEN	12	24.2	1.1	132 56	04	32 23	04	30	4.3

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List 5 DATA OF EARTHQUAKES

I SEISMIC INTENSITY
* MICRON

OT= 2 10 49 0.2 +/- 0.4 (J.S.T.)
OFF URAKAWA
LAT= 41 26 +/- 1 LONG= 142 41 +/- 2
H= 10 MAG=4.0 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
URAKAW	0	P	10 49 15.6	S	49 26.4	21 0.6	35 0.4	6 1.0				80.9	10.8
HACHIN	0	EP	10 49 25.2	ES	49 41.5	5 0.2	2 0.2					140.3	16.3
HAKODA	0	EP	10 49 28	IS	49 48.7	11 0.4	9 0.7	2 0.4				165.9	20.7
OBIHIR	0	EP	10 49 29	ES	49 48							171.0	19.0
AOMORI	0	EX	10 49 49			13 0.7	14 0.9					173.6	
MATSUS	0	P	10 50 31									667.3	

OT= 3 6 56 53.2 +/- 1.0
OFF IBARAKI PREF
LAT= 36 7 +/- 3 LONG= 141 55 +/- 5
H= 60 MAG=4.6 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
CHOSHI	0	IP	06 57 11.9	S	57 24.6				S	1 W	1 D 5	106.2	12.7
ONAHAM	0	EP	06 57 14.5	ES	57 28.1	56 2.1	33 1.1	11 0.7				128.9	13.6
MITO	0	EP	06 57 14.5	IS	57 29.5	34 2.5	39 2.9	18 2.4				133.1	15.0
KAKIOK	0	EP	06 57 17	ES	57 31	21 1.0	22 0.8	11 2.6				155.5	14.0
UTSUNO	0	EP	06 57 20.8	S	57 39.4							189.7	18.6
SHIRAK	0	EP	06 57 22.1	ES	57 40.5							187.7	18.4
FUKUSH	0	EP	06 57 27.0	ES	57 50.2	22 0.9	17 0.8	5 0.9				222.7	23.2
TOKYO	0	EX	06 57 28	ES	57 49	13 2.4	14 2.8	11 2.4				200.6	
MAEBAS	0	EP	06 57 28.4	EX	58 00.0							258.2	
TATEYA	0	X	06 57 33.7			14 2.2	13 2.3	6 1.6				224.2	
SENDAI	0	EX	06 57 33.8									254.4	
MATSUS	0	IP	06 57 41.6	X	58 31	10 1.8	11 1.3	6 1.1				336.2	
KOFU	0	X	06 57 42.0	X	58 26.8	7 1.5	5 1.7	2 1.8			U	307.3	
NAGANO	0	EP	06 57 43.8	X	58 36.4	8 3.2	6 3.0	4 3.4				339.1	
NIIGAT	0	EX	06 58 02.7			15 2.5	13 2.4	6 3.0				323.4	
SAKATA	0	EX	06 58 19.1									359.8	
AKITA	0	EX	06 58 25			8 2.6	6 2.4	3 2.6				430.4	

OT= 3 9 25 52.5 +/- 0.3
NEAR NEMURO
LAT= 43 9 +/- 2 LONG= 145 13 +/- 2
H= 0 MAG=4.3 CLASS=L

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	2	EP	09 26 01	IS	26 06.6	126 0.2	125 0.2	75 0.2				36.0	05.6
KUSHIR	1	IP	09 26 08.0	IS	26 19.4	88 0.6	55 0.6	18 0.6			D 7	69.6	11.4
ABASHI	0	IP	09 26 15.4	S	26 32.2	11 0.8	10 0.8	12 0.6	S	4 W	1 D 15	122.3	16.8
OBIHIR	0	EP	09 26 22									164.6	
HIROO	0	P	09 26 24.2	S	26 48.0							183.0	23.8
URAKAW	0	EP	09 26 29	ES	27 00	45 1.2	48 1.0	14 1.2				228.2	31.0
SAPPOR	0	IP	09 26 40.7	ES	27 17	4 2.0	6 2.0	2 1.2			U	316.5	36.3
AOMORI	0	X	09 27 30	X	29 55	9 1.0	8 1.5					449.6	

OT= 4 1 22 18.0 +/- 0.5
OFF URAKAWA
LAT= 41 36 +/- 3 LONG= 142 42 +/- 3
H= 40 MAG=4.2 CLASS=L

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
URAKAW	1	P	01 22 29.8	IS	22 38.5	44 0.4	77 0.4	18 3.4				62.4	08.7
HIROO	0	P	01 22 34.9	S	22 45.5							91.5	10.6
HACHIN	0	EP	01 22 42.2	IS	23 01.9	12 0.2	11 0.2	2 0.4			D	155.0	19.7
OBIHIR	0	EP	01 22 43	S	23 00.1							152.8	17.1
HAKODA	0	P	01 22 44.2	IS	23 01.4	8 1.2	7 0.9	2 1.0			U	163.4	17.2
SAPPOR	0	P	01 22 46.5			5 1.8	6 1.6	2 1.0				197.4	
KUSHIR	0	EP	01 22 48	ES	23 12	6 0.6	6 0.2	3 2.0				207.3	24.0
AOMORI	0	EP	01 22 49	IS	23 08	14 1.5	15 1.3					182.8	19.0
MORIOK	0	P	01 22 55.5	IS	23 24.0	7 0.5	7 0.4	2 0.3	N	0 E	0 D 0	247.9	28.5
				IX	22 56.3								
MATSUS	0	P	01 23 51									683.0	

OT= 4 2 11 35.1 +/- 0.9
E OFF AOMORI PREF
LAT= 40 33 +/- 2 LONG= 142 39 +/- 4
H= 0 MAG=4.1 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
HACHIN	0	EP	02 11 54.6	ES	12 07.1	13 0.2	11 0.2	1 0.2				95.4	12.5
MORIOK	0	IP	02 12 03.0	S	12 24.0	8 0.4	8 0.4	2 0.3	S	0 W	0 U 0	157.9	21.0
AOMORI	0	EP	02 12 05	S	12 24	16 0.4	19 0.4	6 0.9				160.6	19.0
HAKODA	0	P	02 12 10.7	IS	12 34.9	7 0.4	5 0.7	2 0.4			U	211.9	24.2
MATSUS	0	IP	02 12 59.2								D	589.9	

OT= 4 6 52 57.8 +/- 0.9
FAR OFF SANRIKU
LAT= 40 13 +/- 3 LONG= 144 12 +/- 5
H= 0 MAG=5.0 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MIYAKO	0	EP	06 53 32.0	ES	53 59.4	15 2.0	18 1.8	12 1.7	S	1 W	2 U 1	201.0	27.4
HACHIN	0	P	06 53 34.7	ES	54 05.6	16 3.0	12 6.8	15 7.6		W	1 U 1	229.8	30.9
OFUNAT	0	IP	06 53 38.8	S	54 12.2	15 2.0	14 1.6	14 2.2	S	2 W	2 U 3	248.6	33.4
URAKAW	0	EP	06 53 39	ES	54 06	27 2.4	39 3.4	19 1.4				246.4	27.0
MORIOK	0	IP	06 53 40.6	ES	54 14.9	11 1.7	10 2.0	8 3.5	S	0 W	2 U 1	265.4	34.3
				EX	54 05.4								
AOMORI	0	IP	06 53 44.2	ES	54 24	83 1.7	76 1.7	26 1.4			U 7	297.1	39.8
ISHINO	0	EP	06 53 47.4	ES	54 18.8	10 1.8	11 1.6	8 2.4			U 2	319.3	31.4
HAKODA	0	IP	06 53 49.4	ES	54 26	15 2.1	16 2.2	6 6.6	N	1 W	2 U 3	339.5	36.6
SENDAI	0	P	06 53 52.8			31 1.9	31 1.6	10 1.8			U 2	358.2	
NEMURO	0	P	06 53 55.3	ES	54 32	5 0.6	7 0.8	3 1.0	S	W	D 1	364.4	36.7
OBIHIR	0	EX	06 53 57	ES	54 33							311.2	
YAMAGA	0	EP	06 53 57.3	ES	54 49.3							397.4	52.0
SAPPOR	0	P	06 53 57.5			17 2.2	20 2.4	9 2.2				395.9	
FUKUSH	0	EP	06 54 00.0	ES	54 47.8	11 0.9	11 1.1	6 2.2				422.7	47.8
ASAHIK	0	EP	06 54 02			11 1.5	13 2.4	7 1.9				422.7	
AKITA	0	X	06 54 02.8	EX	54 50.2	39 2.8	32 3.6	23 2.8				354.5	
ABASHI	0	EP	06 54 03	S	54 43.6	5 1.8	10 1.4	4 1.6				422.2	40.6
SAKATA	0	EX	06 54 07.4			150	100					402.3	
MITO	0	EP	06 54 15.0	ES	55 08.5	14 2.6	19 3.7	7 3.2				536.4	53.5
KUSHIR	0	ES	06 54 19			16 0.4	15 0.6	5 1.6				307.2	
KUMAGA	0	EP	06 54 27.6	X	55 56.0	8 4.0	4 1.8	6 3.2				617.9	
MATSUS	0	IP	06 54 31.5	X	55 34				S	W	U	663.6	
TATEYA	0	EX	06 54 35.0			13 5.5	12 3.3	8 2.5				695.2	
KOFU	0	EP	06 54 38.0	X	56 08.6	9 2.2	9 1.8	4 1.2				707.6	
ONAHAM	0	EX	06 54 41.3			15 1.6	15 1.6	6 1.6				462.8	
KAWAGU	0	X	06 54 44.3	S	55 59.0							709.0	
TOKYO	0	EX	06 54 48			10 3.8	13 4.0					636.5	
NAGANO	0	X	06 54 48.1	ES	55 48.8	11 4.0	7 3.0	6 3.0				655.9	
NIIGAT	0	EX	06 55 05.0			47 5.3	38 4.7	25 3.2				513.8	
NAGOYA	0	X	06 55 13.2	ES	56 38.0	6 2.4	6 2.4	2 2.0				848.6	

OT= 4 17 37 12.9 +/- 0.1
ARIAKEKAI
LAT= 33 0 +/- 1 LONG= 130 20 +/- 1
H= 20 MAG=3.4 CLASS=L

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
SAGA	0	IP	17 37 18.7	S	37 22.7				S	4		27.3	04.0
UNZEND	2	IP	17 37 20.0	ES	37 24.8							30.3	04.8
KUMAMO	1	EP	17 37 21.7	IS	37 25.5	26 0.7	29 1.0	18 0.8				41.0	03.8
NAGASA	0	P	17 37 23.7	IS	37 30.6				N	E	D	53.6	06.9
FUKUOK	0	EP	17 37 24.7	IS	37 32.4	9 0.4	6 0.4	2 0.7	N	1	U 6	64.4	07.7

OT= 4 23 13 47.8 +/- 1.4
FAR OFF SANRIKU
LAT= 40 20 +/- 3 LONG= 143 43 +/- 7
H= 20 MAG=4.4 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MIYAKO	0	EP	23 14 15	X	14 46.1	6 2.3	5 2.3	2 1.7				167.7	
HACHIN	0	EP	23 14 18.0	IS	14 41.4	5 0.4	5 1.0	5 6.6		W	U	187.2	23.4
URAKAW	0	P	23 14 23.1	ES	14 41	11 2.4	18 3.2	8 1.8				217.4	17.9
MORIOK	0	P	23 14 24.7	ES	14 50.0	5 0.4	7 0.4	2 0.6		W	0	228.8	25.3
AOMORI	0	EP	23 14 27	S	14 55	35 1.3	31 1.1	15 0.9				254.1	28.0
HAKODA	0	P	23 14 33.2	ES	15 04	5 1.2	5 1.0	2 1.2				298.0	30.8
SENDAI	0	X	23 14 37			7 2.2	6 2.5	3 1.5				334.7	
OBIHIR	0	X	23 14 47	X	15 25							290.3	

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STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
SAPPOR	0	X	23 14 58	X	15 33.5	6 2.8	7 2.2	3 1.4				362.0	
SAKATA	0	EX	23 15 01.6									369.0	
KUSHIR	0	ES	23 15 02			10 0.2	9 0.2	3 0.2				299.2	
AKITA	0	EX	23 15 13.0			11 2.0	8 2.6	8 1.8				316.0	
MATSUS	0	IP	23 15 15.8								U	639.1	

OT= 5 18 39 37.3 +/- 0.3
OFF IWATE PREF
LAT= 39 19 +/- 1 LONG= 142 9 +/- 3
H= 50 MAG=4.0 CLASS=L

MIYAKO	1	IP	18 39 47.8	IS	39 53.8	12 0.2	13 0.2	7 0.4							39.7	06.0
OFUNAT	2	IP	18 39 48.7	IS	39 55.4	100 0.0	44 0.0	29 0.0		W	1				46.8	06.7
MORIOK	0	IP	18 39 54.0	IS	40 04.3	14 0.4	18 0.3	3 0.4	S	2 E	4	D	2		94.4	10.3
ISHINO	0	P	18 39 57.5	IS	40 10.8	11 0.2	4 0.4	2 0.6							123.3	13.3
MATSUS	0	P	18 40 43												463.8	

OT= 5 20 16 26.7 +/- 0.2
OFF IWATE PREF
LAT= 39 59 +/- 1 LONG= 142 3 +/- 2
H= 50 MAG=4.0 CLASS=S

MIYAKO	1	IP	20 16 37.2	IS	16 43.7	34 0	29 0.4	19 0.2							38.2	06.5
HACHIN	2	IP	20 16 40.8	IS	16 49.6	77 0.2	38 0.2	11 0.2	S	2 E	2	D	2		74.9	08.8
MORIOK	1	IP	20 16 42.1	IS	16 51.2	26 0.4	19 0.4	10 0.2	S	1 W	2	U	2		81.9	09.1
OFUNAT	1	IP	20 16 44.5	IS	16 56.6	18 0.0	8 0.0	3 0.0							106.2	12.1
ISHINO	0	P	20 16 55.2	IS	17 13.4	7 0.2	4 0.6	1 0.4							184.6	18.2
AOMORI	0	EX	20 17 05												141.9	
MATSUS	0	EP	20 17 38			7 0.4	9 0.4								509.0	

OT= 6 3 42 0.9 +/- 0.5
OFF FUKUSHIMA PREF
LAT= 37 36 +/- 1 LONG= 141 41 +/- 3
H= 60 MAG=4.3 CLASS=M

ISHINO	0	IP	03 42 18.3	IS	42 30.6	17 0.4	22 0.4	5 0.4	N	3			U	3	97.5	12.3
SENDAI	1	IP	03 42 18.5	IS	42 30.8	31 0.5	30 0.4	15 0.4					U	3	100.5	12.3
ONAHAM	1	IP	03 42 19.0	IS	42 31.8	43 0.4	34 0.4	10 0.4	N	1 E	0	D	4		100.1	12.8
FUKUSH	1	EP	03 42 19.2	IS	42 31.6	40 0.8	46 0.8	15 0.6							108.0	12.4
SHIRAK	0	P	03 42 26.0	S	42 38.4										139.8	12.4
OFUNAT	0	IP	03 42 26.2	IS	42 43.8	9 0.0	7 0.4	3 0.4	N	1			U	1	162.3	17.6
MITO	0	EP	03 42 27.4	S	42 46.1	10 0.3	12 0.3	4 0.4							173.2	18.7
KAKIOK	0	EP	03 42 30	ES	42 51	13 0.8	8 0.5	6 0.3							201.7	21.0
UTSUNO	1	P	03 42 30.8	S	42 50.4										199.0	19.6
MORIOK	0	IP	03 42 34.5	IS	42 59.5	7 0.4	10 0.4	2 0.2	N	1 W	1	U	0		237.0	25.0
CHOSHI	0	ES	03 43 04.8												221.2	
TOKYO	0	ES	03 43 07.4												273.4	

OT= 6 7 18 36.5 +/- 0.5
OFF FUKUSHIMA PREF
LAT= 36 56 +/- 1 LONG= 141 44 +/- 2
H= 40 MAG=4.3 CLASS=U

ONAHAM	0	IP	07 18 50.1	ES	18 59.0	35 1.1	31 1.0	11 0.5					D	1	73.6	08.9
MITO	0	EP	07 18 57.4	ES	19 11.6	14 1.1	13 1.0	5 1.0							128.5	14.2
SHIRAK	0	P	07 18 58.1	S	19 13.4										135.8	15.3
FUKUSH	0	EP	07 19 00.2	ES	19 14.6	28 0.8	40 1.0	16 0.8							144.1	14.4
SENDAI	0	P	07 19 01.6	IS	19 19.2	24 0.8	15 0.6	8 1.0							164.6	17.6
				EX	19 14.4											
ISHINO	0	P	07 19 02.8	IS	19 22.0	12 1.0	9 1.0	4 0.6					D	1	169.8	19.2
UTSUNO	0	EP	07 19 04.0	S	19 21.2										171.7	17.2
KAKIOK	0	EP	07 19 04	ES	19 17	16 0.8	11 0.8								158.3	13.0
TOKYO	0	EX	07 19 16												225.0	
KUMAGA	0	X	07 19 16.4	ES	19 36.0	6 0.8	3 0.8	2 1.2							227.6	
CHOSHI	0	ES	07 19 21.8												156.1	
MATSUS	0	IP	07 19 22.7												317.8	
KOFU	0	EP	07 19 27.6	ES	20 02.2	6 1.2	9 1.6	3 1.2					U		317.9	34.6
TATEYA	0	EX	07 19 35.3			5 1.5	5 2.0	3 2.5							274.0	
AKITA	0	EX	07 19 52			6 1.6	6 1.4	3 1.2							340.4	

OT= 7 0 48 7.4 +/- 0.7
OFF IBARAKI PREF
LAT= 36 35 +/- 1 LONG= 141 15 +/- 4
H= 50 MAG=4.3 CLASS=S

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
ONAHAM	2	IP	00 48 19.0	IS	48 26.0	64 0.8	70 1.1	25 0.7	S	0	D	10	50.5	07.0
MITO	1	IP	00 48 21.6	IS	48 30.6	79 1.4	67 0.6	16 0.3	N	3 E	3 D	15	73.4	09.0
CHOSHI	0	IP	00 48 25.0	S	48 40.8						U	3	102.0	15.8
KAKIOK	0	P	00 48 25.1	IS	48 36.3	84 0.8	58 0.8			E	2		102.5	11.2
SHIRAK	0	IP	00 48 25.8	IS	48 37.8						D	5	109.0	12.0
UTSUNO	1	IP	00 48 27.2	S	48 40.8					E	1	D 3	123.4	13.6
FUKUSH	0	EP	00 48 31.3	ES	48 47.0	34 1.0	43 0.9	15 0.7					147.3	15.7
TOKYO	0	EP	00 48 32	S	48 52.5	12 0.3	10 0.4						167.2	20.5
KUMAGA	0	EP	00 48 34.6	S	48 54.0	10 1.0	4 0.6	2 0.6					174.2	19.4
SENDAI	0	P	00 48 36.6	S	48 56.4	10 0.8	8 1.0	6 1.4					188.6	19.8
MAEBAS	0	P	00 48 37.6	S	48 57.0								196.8	19.4
ISHINO	0	EP	00 48 38.6	ES	48 59.8	5 0.8	3 0.8	3 1.0			U		204.4	21.2
KOFU	0	EP	00 48 45.8	ES	49 15.2	6 1.2	7 1.0	3 1.6					262.8	29.4
MATSUS	0	IP	00 48 47.7							E	D		272.3	
TATEYA	0	EX	00 48 53.2			12 1.9	11 2.5	5 1.2					217.0	
KAWAGU	0	X	00 48	S	49 12.4								254.3	

OT= 7 22 28 44.2 +/- 0.2
NW OF CHIBA PREF
LAT= 35 42 +/- 2 LONG= 139 56 +/- 2
H= 70 CLASS=S

TOKYO	0	P	22 28 56.2	IS	29 04.2	40 0.4	43 0.2								15.9	08.0
YOKOHA	0	EP	22 28 56.4	S	29 05.7										38.6	09.3
KAKIOK	0	EP	22 28 58	ES	29 07	11 0.5	16 0.5	6 0.3							63.5	09.0
KUMAGA	0	EP	22 28 58.6	ES	29 10.2	6 0.8	6 0.6	3 0.6							70.0	11.6
CHOSHI	0	EP	22 29 00.8	S	29 11.9										82.4	11.1
UTSUNO	0	P	22 29 01.2	S	29 12.7										94.1	11.5
MITO	0	EP	22 29 01.2	S	29 12.5	7 0.4	7 0.5	4 0.7							89.5	11.3
AJIRO	1	P	22 29 02.7	IS	29 15.0	27 0.2	31 0.2	7 0.3							105.3	12.3
OSHIMA	X	P	22 29 03.2	S	29 16.6	16 0.3	24 0.3	15 0.3							115.7	13.4
KOFU	0	EP	22 29 06.0	ES	29 20.6	9 0.6	14 0.4	3 0.4							124.5	14.6
MATSUS	0	IP	22 29 13.0	IX	29 32						D		181.0			
TATEYA	0	EX	22 29	S	29 11.5	15 0.5	15 0.6	13 0.4					79.7			

OT= 9 3 25 11.5 +/- 1.6
E OFF AOMORI PREF
LAT= 41 24 +/- 8 LONG= 142 7 +/- 4
H= 40 MAG=4.1 CLASS=U

URAKAW	0	IP	03 25 28.7	S	25 37.6	18 0.6	32 0.4	5 0.4				U			100.7	08.9
HAKODA	0	IP	03 25 31.4	IS	25 44.9	5 0.4	6 0.8	3 1.0			E	2	D	4	122.2	13.5
HACHIN	0	IP	03 25 32.5	IS	25 46.4	17 0.2	12 0.2	3 1.4							109.2	13.9
OBIHIR	0	EP	03 25 43	S	26 01.5										192.0	18.5
KUSHIR	0	EP	03 25 48	ES	26 13	6 0.3	8 0.3	2 0.4							257.2	25.0
AOMORI	0	EX	03 25 49			14 1.3	12 1.1								129.4	
MATSUS	0	EP	03 26 40												637.0	

OT= 9 16 3 4.0 +/- 1.0
W OF TOCHIGI PREF
LAT= 36 39 +/- 6 LONG= 139 30 +/- 3
H= 30 MAG=3.7 CLASS=L

UTSUNO	0	IP	16 03 12.0	S	03 16.8				S	1	W	1	D	5	35.2	04.8
KUMAGA	0	EP	16 03 15.6	S	03 23.4	5 0.4	8 0.4	2 0.6							56.8	07.8
KAKIOK	0	EP	16 03 18	ES	03 20	7 0.3	9 0.3	4 0.3							77.6	02.0
MITO	0	P	16 03 21.4	IS	03 33.0	9 0.3	13 0.3	2 0.2							92.1	11.6
MATSUS	0	IP	16 03 23.6	S	03 36				N		W		U		116.2	12.4
TOKYO	0	EX	16 03 24	S	03 38.5	13 0.2	11 0.4								109.5	
ONAHAM	0	EX	16 03 36.1	IS	03 43.3	9 0.8	8 0.9	3 0.5							129.7	

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OT= 10 8 9 47.8 +/- 2.6
E OFF HOKKAIDO
LAT= 43 29 +/- 3 LONG= 148 39 +/-15
H= 50 MAG=5.0 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	0	EP	08 10 24	ES	10 52	7	1.0	5	1.4	5	2.4				248.8	28.0
ABASHI	0	EP	08 10 37	ES	11 07	6	2.4	6	4.0	3	4.2				356.7	30.0
URAKAW	0	EP	08 10 59	S	11 55.0	15	1.2	20	1.4	8	1.8				502.1	56.0
OBIHIR	0	EX	08 11 02												445.6	
SAPPOR	0	EP	08 11 10	ES	12 22	6	2.8	6	2.8	3	1.2				595.9	72.0
KUSHIR	0	ES	08 11 16			14	0.4	15	0.3	5	1.8				350.2	
HAKODA	0	EP	08 11 18	ES	12 28	5	2.9	6	1.8	5	2.2				673.0	70.0
MORIOK	0	P	08 11 29.9	S	12 44.7	6	0.4	4	0.4	1	0.3	E	0		752.0	74.8
MATSUS	0	IP	08 12 21.4	ES	14 24									U	1177.1	122.6
AOMORI	0	ES	08 12 38			12	1.0	14	1.4	5	1.1				714.2	

OT= 10 9 26 30.0 +/- 0.2
NEAR MATSUSHIRO
LAT= 36 31 +/- 0 LONG= 138 8 +/- 1
H= 10 MAG=3.8 CLASS=L

MATSUS	3	IP	09 26 32.3											W	7.1	
NAGANO	2	EP	09 26 34.2	IS	26 36.8	107		101		73					16.9	02.6
MATSUM	0	P	09 26 37.6	IS	26 42.6									U	33.6	05.0
KARUIZ	0	P	09 26 39.0	IS	26 44.6									D	42.3	05.6
TAKADA	0	EP	09 26 43.0	ES	26 52.0										66.1	09.0
TOYAMA	0	EX	09 26 48			7	3.4	6	3.6	4	3.6				85.4	
KOFU	0	EP	09 26 49.0	ES	27 02.0	4	0.9	6	0.6	3	0.8				101.9	13.0
MISHIM	0	EP	09 27 03	ES	27 19	6	0.9	6	0.7	2	0.9				171.7	16.0
NAGOYA	0	EP	09 27 03.4	S	27 24.0	3	1.2	5	1.0	2	1.2				188.2	20.6
TATEYA	0	EX	09 27 19.9			4	0.7	3	2.1	2	1.8				231.4	
TOKYO	0	EX	09 27 20			7	3.6	6	2.6	5	4.8				173.0	
GIFU	0	X	09 27 22.6			9	1.8	6	1.9						175.0	

OT= 10 19 56 33.9 +/- 0.2
NEAR MATSUSHIRO
LAT= 36 26 +/- 1 LONG= 138 6 +/- 1
H= 10 MAG=4.5 CLASS=L

MATSUS	3	IP	19 53 37.7									S	W		15.2	
NAGANO	2	IP	19 53 39.9	IS	53 42.6	350		500		330		N	10 E 10 U 59		26.6	02.7
MATSUM	1	IP	19 53 39.9	IS	53 43.5							S	7 W 9 U 24		23.9	03.6
KARUIZ	2	IP	19 53 43.0	IS	53 48.0	300	1.8	200	2.0	100	1.0	N	10 W 4 D 24		41.8	05.0
TAKADA	0	EP	19 53 48.6	ES	53 58.1										75.7	09.5
TAKAYA	0	P	19 53 49.8	S	54 00.6										82.1	10.8
TOYAMA	0	IP	19 53 50.2	ES	54 02	34	4.0	36	3.4	50	3.8	S	3 E 2 D 8		85.4	11.8
KOFU	0	IP	19 53 51.2	ES	54 02.6	29	1.3	31	1.0	17	0.5	S	4 E 3 U 1		94.7	11.4
CHICHI	0	EP	19 53 52.5	IS	54 04.2										100.9	11.7
IIDA	0	IP	19 53 53.2	IS	54 06.4	23	1.8	24	0.6	17	1.0	S	7 W 4 U 15		105.2	13.2
KUMAGA	0	P	19 53 56.4	S	54 11.4	43	1.0	24	0.8	17	3.4			U 4	119.7	15.0
KAWAGU	0	P	19 53 57.4	IS	54 11.3										119.7	13.9
KANAZA	0	IP	19 53 58.6	ES	54 14.0	26	2.0	12	2.5	12	1.0		E 5 D 11		130.7	15.4
OMAEZA	0	X	19 53	X	54 12.8	51	2.8	32	1.2	15	4.0				203.2	
WAJIMA	0	EP	19 54 00	ES	54 18	70	1.0	70	1.0	13	0.8				150.8	18.0
UTSUNO	0	IP	19 54 01.6	S	54 20.4								W 1 U 4		159.2	18.8
AIKAWA	0	IP	19 54 02.4	ES	54 26.6	4	0.6	8	0.6			S	1 W U 1		176.5	21.2
MISHIM	0	EP	19 54 02.8	ES	54 28.8	25	0.7	32	1.0	9	1.0				164.7	21.0
SHIZUO	0	IP	19 54 03.0	S	54 24.9	15	0.8	18	0.8	6	1.7	S	2 E 1 U 1		164.3	21.9
TOKYO	0	EP	19 54 03.2	ES	54 25.0	36	2.2	34	1.2	33	4.0				170.9	21.8
FUKUI	0	EP	19 54 03.7	S	54 29.8							N	2 W 2 U 1		173.6	26.1
GIFU	0	P	19 54 03.8	S	54 24.3	26	1.8	32	1.9	9	1.1	N	5 W 4 U 4		166.4	20.5
NAGOYA	0	P	19 54 04.0	IS	54 25.0	35	1.4	49	1.2	17	1.2				173.9	21.0
AJIRO	0	EP	19 54 04.6	ES	54 26.4	7	1.2	9	1.4	4	1.0				178.6	21.8
KAKIOK	0	EP	19 54 05	S	54 27.9	21	0.8	19	0.8	6	0.8				189.2	22.9
NIIGAT	0	IP	19 54 05.0	IS	54 29.0	49	2.0	93	1.2	13	1.0			U 9	184.4	24.0
HAMAMA	0	P	19 54 06.9	ES	54 30	24	1.4	25	1.4	11	1.4	S	1 E 1 U 1		194.4	23.1
TSURUG	0	EP	19 54 09	S	54 33.6										202.9	24.6
HIKONE	0	P	19 54 09.3	S	54 35.2										211.1	25.9
MITO	0	EP	19 54 10.4	S	54 33.6	15	2.2	11	1.2	6	2.0				212.8	23.2
OSHIMA	0	P	19 54 11.3	S	54 36.6	10	0.3	17	0.4	4	0.2				218.6	25.3
ONAHAM	0	IP	19 54 15.4	S	54 47.4	21	1.2	18	1.2	6	1.1		E 0 U 2		257.1	32.0
TATEYA	0	X	19 54 16.1			21	2.2	25	1.4	12	1.3				226.9	
KYOTO	0	EP	19 54 20.5	ES	54 51.3	6	1.6	7	1.0	4	1.4				265.8	30.8
NARA	0	X	19 54 23.0	S	54 49.7										282.6	

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
OSAKA	0	EX	19 54 25			11	4.5	9	2.5	5	2.5				304.2	
TOYOOK	0	X	19 54 28.3	ES	55 05.9	33	1.1	25	1.1			N	E		312.0	
YOKOHA	0	S	19 54 31.6												178.6	
CHOSHI	0	ES	19 54 47.3												259.2	
KOBE	0	EX	19 55 08.4												327.9	
TSU	0	X	19 56 17.0	X	56 42.6	15	1.7	14	1.9	7	1.6				239.7	

OT= 11 1 41 38.2 +/- 0.6
OFF MIYAGI PREF
LAT= 38 35 +/- 2 LONG= 141 52 +/- 5
H= 60 MAG=4.5 CLASS=S

ISHINO	2	IP	01 41 51.9	IS	41 59.8	144	0.6	82	0.2	41	0.8	N	6 E 3 D 18		52.2	07.9
OFUNAT	2	IP	01 41 53.0	IS	42 01.6	68	0.0	82	0.0	29	0.0	N	15 E 6 U 25		54.6	08.6
SENDAI	1	IP	01 41 54.8	IS	42 05.2	26	0.4	51	0.4	31	0.0	N	2 D 29		91.7	10.4
MIYAKO	2	IP	01 41 58.5	IS	42 12.2	15	0	17	0	16	0	N	1 E 1 U 1		118.2	13.7
YAMAGA	0	IP	01 41 59.3	S	42 13.4							N	5 E 3 D 13		137.4	14.1
MORIOK	1	IP	01 41 59.6	IS	42 13.0	53	0.4	33	0.4	21	0.4	N	13 W 1 U 5		137.6	13.4
FUKUSH	0	P	01 42 02.4	S	42 19.0	28	1.0	19	1.0	11	0.5	N	7 E 2 D 4		152.6	16.6
SAKATA	0	EP	01 42 04.4	IS	42 24.1										180.0	19.7
AKITA	0	EP	01 42 06.0	X	42 25.2	8	1.0	7	0.6	3	1.2				197.9	
ONAHAM	0	IP	01 42 08.3	ES	42 29.2	12	0.9	12	0.8	6	0.4		D 1		200.5	20.9
HACHIN	0	IP	01 42 09.4	S	42 31.8	17	0.2	22	0.2	2	0.2	N	U		217.6	22.4
AOMORI	0	EP	01 42 16	ES	42 49	10	1.0	8	1.0	3	0.9				264.8	33.0
MITO	0	EP	01 42 19.2	ES	42 47.4	9	0.4	10	0.4	3	0.6				274.0	28.2
KAKIOK	0	EP	01 42 21	ES	42 59	13	1.0	13	1.0	5	0.6				300.1	38.0
KUMAGA	0	EP	01 42 29.0	ES	43 07.6	5	1.0	3	0.8	2	0.2				348.4	38.6
MATSUS	0	IP	01 42 33.0	X	43 24							N	E D		394.9	
TOKYO	0	EP	01 42 34.7	ES	43 12	8	1.4	8	2.0						372.2	37.3
KOFU	0	EP	01 42 39.0	ES	43 26.2	5	0.9	5	0.6	2	1.4				437.3	47.2
TATEYA	0	EX	01 42 46.6			8	1.4	5	1.5	4	2.5				437.4	

OT= 11 7 51 42.9 +/- 1.1
FAR OFF SANRIKU
LAT= 40 23 +/- 3 LONG= 144 26 +/- 7
H= 0 MAG=5.0 CLASS=U

MIYAKO	0	EP	07 52 19.4	X	53 03	7	2.1	14	2.1	10	1.3		W 2 U 1		225.9	
HACHIN	0	EP	07 52 21.8	X	53 12.0	10	4.0	14	8.2	21	7.2		W 1 U		247.2	
URAKAW	0	P	07 52 23.7	S	52 49.7	21	3.6	33	4.2	18	4.2				241.0	26.0
MORIOK	0	IP	07 52 28.5	ES	53 05.1	10	6.0	7	3.0	6	3.6	S	1 W 1 U 1		288.9	36.6
				X	53 54.4											
KUSHIR	0	EP	07 52 30	ES	53 01	10	2.5	8	2.0	5	1.8				288.3	31.0
AOMORI	0	EP	07 52 32	ES	53 10	51	2.0	49	3.1	16	1.6				312.7	38.0
ISHINO	0	EP	07 52 35.0	ES	53 26.4	8	5.6	8	4.4	7	3.4	S	1 W 1 U 2		346.3	51.4
HAKODA	0	EX	07 52 36	EX	53 15	11	3.6	10	2.9	7	4.4				347.2	
AKITA	0	EX	07 52 38.8			30	2.6	28	3.4	17	3.6				376.9	
SENDAI	0	EP	07 52 40.9			15	2.8	14	2.6	11	1.8				385.2	
SAPPOR	0	EP	07 52 41			15	2.4	22	2.2	8	3.8				393.5	
ABASHI	0	EP	07 52 44	ES	53 26	5	3.2	7	2.2	3	3.8				403.8	42.0
ASAHIK	0	EP	07 52 46			6	2.6	8	1.9	7	2.2				413.0	
SAKATA	0	EX	07 52 47.0												427.3	
FUKUSH	0	EX	07 52 48.2			8	1.0	6	1.0						449.8	
MITO	0	EX	07 53 02.6	EX	53 55.6	14	3.6	12	3.6	7	3.0				563.3	
NIIGAT	0	X	07 53 07.3	ES	54 07.0	50	4.6	31	4.2	20	4.9				540.1	
MATSUS	0	IP	07 53 19.3	X	54 25							S	W U		690.6	
NAGANO	0	EP	07 53 20.3	ES	54 46.4	9	4.0	10	4.0	5	3.5				682.8	83.1
TOYAMA	0	EX	07 53 23												750.1	
KOFU	0	EP	07 53 25.0	X	54 35.2	5	2.0	4	1.8	2	1.6				734.7	
ONAHAM	0	EX	07 53 45.8			11	2.2	8	1.7	5	2.0				489.7	
TATEYA	0	EX	07 53 56.1			10	4.0	10	4.2	6	4.0				721.7	
OFUNAT	0	X	07 53			8	3.2	6	2.2	9	2.2				275.2	
HAMAMA	0	X	07 54 12			5	3.6	5	3.6	1	2.0				864.4	
TOKYO	0	EX	07 54 18			11	4.4	10	4.0	10	3.4				663.3	

OT= 12 14 22 56.4 +/- 1.6
OFF IBARAKI PREF
LAT= 36 50 +/- 4 LONG= 141 34 +/- 8
H= 50 MAG=4.0 CLASS=U

ONAHAM	0	IP	14 23 11.1	IS	23 16.9	64	0.4	31	0.4	12	0.5		D 0		60.1	05.8
SHIRAK	0	P	14 23 16.5	IS	23 28.2										123.6	11.7
KAKIOK	0	EP	14 23 17	S	23 34.5	7	0.3	9	0.3	4	0.3				139.9	17.5

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
FUKUSH	0	EP	14	23	19.6	ES	23	31.0	6	1.0	11	0.9	3	0.9				140.9	11.4
MITO	0	X	14	23	22.4	S	23	29.7	8	0.4	13	0.4	4	0.3				110.2	
SENDAI	0	IP	14	23	23.0	S	23	37.1	4	0.0	6	0.8	2	0.0					
UTSUNO	0	EP	14	23	23.6	S	23	37.7									D 2	168.9	14.1
MATSUS	0	P	14	23	41	S	24	14										154.8	14.1
																		301.9	33.0

OT= 12 16 41 21.4 +/- 0.8
FAR OFF SANRIKU
LAT= 40 20 +/- 2 LONG= 144 2 +/- 5
H= 40 MAG=5.6 CLASS=M

MIYAKO	0	P	16	41	50.3	IS	42	20.9	112	4.8	54	2.4	56	2.8	N	6	W 12	U	4	192.2	30.6
HACHIN	1	EP	16	41	52.6	ES	42	24.6	70	5.3	101	7.7	139	7.8				U		213.9	32.0
HIROO	0	P	16	41	55.4	ES	42	17												224.7	21.6
URAKAW	1	P	16	41	56.9	ES	42	18	141	1.2	220	1.0	123	6.2				U	8	228.3	21.1
OFUNAT	0	IP	16	41	57.6	ES	42	25.8	79	3.4	66	4.0	54	4.0	S	4	W 7	U	6	243.6	28.2
						X	42	08.0													
MORIOK	0	IP	16	41	59.0	S	42	26.4	59	0.4	60	0.4	40	2.4	S	1	W 5	U	3	254.6	27.4
						X	42	26.6													
AOMORI	1	IP	16	42	02.2	ES	42	31.8	298	1.5	409	1.7	180	1.4	N	7	W 32	U	21	280.4	29.6
OBIHIR	1	EP	16	42	05	ES	42	38	450	2.6	350	2.4								295.2	33.0
KUSHIR	0	EP	16	42	06	S	42	36.4	52	0.5	65	1.4	29	1.4						295.3	30.4
ISHINO	0	EP	16	42	06.5	ES	42	49.3	56	6.0	72	4.0	48	4.0	S	3	W 3	U	4	316.5	42.8
HAKODA	0	IP	16	42	07.4	S	42	44.2	76	1.6	73	0.9	52	3.6	N	6	W 13	U	12	320.6	36.8
MURORA	0	P	16	42	08.9	ES	42	52							N	2	W 2	U	2	337.2	43.1
AKITA	0	IP	16	42	10.8	X	42	54.2	166	2.8	124	3.6	101	4.8				U	10	342.5	
SENDAI	0	P	16	42	11.6	S	42	54.5	98	4.8	127	5.8	69	5.9	S	4	W 4	U	6	355.0	42.9
NEMURO	0	EP	16	42	13	S	42	48.6	14	2.4	18	2.8	12	5.2						356.8	35.6
SAPPOR	0	EP	16	42	14	S	42	51.8	117	2.4	158	2.2	39	2.6						377.1	37.8
SAKATA	0	IP	16	42	17.0	ES	43	06.6	400	3.2	350	2.4						U	6	393.7	49.6
						EX	43	19.4	400	3.2	350	2.4						U	6		
YAMAGA	0	EP	16	42	17.5	ES	43	02.3	100	4.0	100	3.0								392.7	44.8
SUTTSU	0	EX	16	42	17.8															417.8	
ABASHI	0	EP	16	42	19	S	43	01.2	33	3.0	37	2.2	11	3.6						409.7	42.2
ASAHIK	0	EP	16	42	19	EX	43	19	53	2.0	55	2.2	48	2.0						405.7	
FUKUSH	0	EP	16	42	20.0				87	1.0	49	1.2	29	3.2						420.3	
ONAHAM	0	EP	16	42	25.2	ES	43	19.4	77	3.0	66	1.9	27	3.1						464.2	54.2
SHIRAK	0	EP	16	42	28.9	ES	43	18.9												486.8	50.0
MITO	0	EP	16	42	32.0	X	43	45.0	73	4.0	81	5.6	30	3.0						538.0	
NIIGAT	0	EP	16	42	32.2	S	43	34.0	255	6.3	232	5.6	85	4.2						507.8	61.8
KAKIOK	0	EP	16	42	38	S	43	34.0	31	1.1	31	1.0	11	3.5						565.7	56.0
UTSUNO	0	EP	16	42	38.2	ES	43	32.8												555.4	54.6
AIKAWA	0	IP	16	42	38.4	X	43	54.5	20	3.2	18	6.0	16	5.4	N		W	U		562.3	
WAKKAN	0	EX	16	42	42				19	4.6	24	6.0	23	5.5						596.2	
KUMAGA	0	EP	16	42	45.0	X	44	05.4	60	6.0	32	3.4	34	4.0						617.5	
CHICHI	0	EP	16	42	47.6	ES	44	10.7												648.2	83.1
KARUIZ	0	EP	16	42	50.0	X	44	12.8												652.5	
MATSUS	0	IP	16	42	50.7	S	43	56							S		W	U		660.1	62.3
NAGANO	0	EP	16	42	51.7	X	44	27.2	75	5.0	82	5.1	37	2.8						652.0	
WAJIMA	0	EX	16	42	54				23	1.4	18	1.8	10	2.2						699.9	
KOFU	0	EP	16	42	55.2	X	44	27.2	31	2.0	31	3.2	17	3.2						706.6	
KAWAGU	0	P	16	42	55.9	ES	44	10.6												708.7	74.7
TOYAMA	0	EP	16	42	58	X	44	47												718.2	
OWASE	0	X	16	42		X	45	45.0	7	3.5	3	3.0	5	3.0						982.9	
MATSUM	0	EP	16	43	00.3	ES	44	15.1												697.6	74.8
AJIRO	0	EP	16	43	02.6	X	44	33.0	10	3.0	15	3.0	10	3.4						730.6	
OSHIMA	0	EX	16	43	02.8	X	44	58.8	17	3.4	18	4.8	6	2.0						742.4	
TATEYA	0	X	16	43	03.0				73	4.6	97	4.3	49	3.5						698.0	
MISHIM	0	EP	16	43	03.1	ES	44	19.0	31	4.0	30	4.0	12	2.7						733.3	75.9
IIDA	0	EX	16	43	04.0															763.5	
TOKYO	0	EX	16	43	08	ES	43	50	59	3.0	85	5.0	58	4.8						637.8	
GIFU	0	EP	16	43	15.1	X	45	05.7	10	4.1	11	4.3	4	3.1						841.4	
KANAZA	0	EX	16	43	17				19	5.0	21	5.2	10	3.6						769.2	
SHIZUO	0	X	16	43	17.6	X	44	42.0	16	4.7	15	5.5	12	4.0						774.4	
HAMAMA	0	X	16	43	20	X	45	04	21	3.4	28	4.2	9	4.4						836.6	
OMAEZA	0	X	16	43	24.6	X	45	13.8	64	4.0	39	4.6	14	4.0						817.7	
NAGOYA	0	X	16	43	26.2	X	45	04.4	24	3.2	28	3.0	10	3.0						846.0	
TOYOOK	0	P	16	43	29.1				11	1.1	11	1.0	4	5.7						968.3	
OSAKA	0	EX	16	43	39				39	3.8	20	3.5	7	3.5						979.0	
WAKAYA	0	EX	16	43	52.1				7	6.5	6	6.8	4	6.0						1037.0	
KUMAMO	0	EP	16	44	30.4	X	47	12.3	4	2.5	10	4.6								1452.9	
NAGASA	0	EP	16	44	35.0	ES	47	22.5												1521.1	167.5
HACHIJ	0	EX	16	44	39.6						7	1.5								887.2	
OITA	0	EX	16	44	40.4				16	5.6	30	5.6								1357.0	

OT= 12 17 3 23.5 +/- 0.4
OFF URAKAWA
LAT= 41 37 +/- 2 LONG= 142 38 +/- 3
H= 30 MAG=4.3 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
URAKAW	1	IP	17	03	35.2	IS	03	44.1	38	0.4	60	0.6	8	0.4				61.4	08.9
HIROO	0	P	17	03	38.7	IS	03	49.3										93.3	10.6
HACHIN	0	EP	17	03	47.8	S	04	08.0	16	0.2	15	0.2	4	0.2			D	152.9	20.2
OBIHIR	0	EP	17	03	48	S	04	05.4										152.7	17.4
HAKODA	0	P	17	03	48.7	IS	04	06.9	12	0.4	15	0.5	4	0.4			U	157.6	18.2
AOMORI	0	EX	17	03	52				18	0.6	15	1.3	6	1.4				178.8	
SAPPOR	0	P	17	03	54.2	ES	04	12	4	1.0	6	1.6	3	1.0				192.8	17.8
MORIOK	0	P	17	04	01.2	S	04	30.8	15	0.4	9	0.4	2	0.3	N	0	E 0	D	0	246.6	29.6
						X	04	29.0											
MATSUS	0	IP	17	04	56.0												U	681.3	

OT= 12 19 25 42.6 +/- 2.1
FAR OFF SANRIKU
LAT= 40 4 +/- 5 LONG= 144 12 +/-12
H= 50 MAG=4.6 CLASS=U

HACHIN	0	EP	19	26	14.7	X	56	45.9	3	3.0	4	2.8	5	7.0			U	233.1			
URAKAW	0	EP	19	26	20	ES	26	44	11	2.8	14	1.6	6	2.4				261.1	24.0		
MORIOK	0	IP	19	26	21.3	ES	26	49.4	6	0.4	5	0.4	3	2.4	S	0	W 1	U	0	262.6	28.1
AOMORI	0	EP	19	26	24	ES	26	58	22	1.3	26	1.3	11	1.6				301.6	34.0		
AKITA	0	EX	19	26	32.6				12	2.8	9	2.4	6	3.2				352.6			
SENDAI	0	X	19	26	35				6	2.4	6	2.5	3	1.5				348.6			
OBIHIR	0	X	19	26	39													327.3			
FUKUSH	0	EX	19	26	45.0				6	1.0	4	1.0	2	0.5				412.4			
SAPPOR	0	X	19	26	54	S	27	27.5	6	2.0	7	2.0	3	2.8				409.4			
KUSHIR	0	EX	19	27	00				6	0.2	5	0.2	2	0.2				323.8			
SAKATA	0	EX	19	27	02.4													396.9			
MATSUS	0	IP	19	27	12.5	S	28	17									U	654.0	64.5		

OT= 13 17 48 29.5 USCGS
KURILE IS
LAT= 49 24 LONG= 155 30
H= 64 MAG=5.9 CLASS=U

NEMURO	0	EP	17	50	37	ES	52	08	13	6.0	15	4.0	18	4.0				1017.5	91.0		
ABASHI	0	EP	17	50	44	EX	51	06	16	4.0	17	4.4	11	4.4				1044.6			
KUSHIR	0	EP	17	50	51	EX	53	15	21	4.2	16	3.4	15	4.0				1114.0			
RUMOI	0	EX	17	51	01													1219.6			
WAKKAN	0	P	17	51	01.5	X	51	39.0	19	5.4	33	5.0	36	4.5			D 7	1131.5			
OBIHIR	0	EP	17	51	03													1188.9			
ASAHIK	0	EP	17	51	04				11	2.0	13	1.8	15	1.6				1182.9			
URAKAW	0	EP	17	51	11	S	53	18.6	32	3.0	33	3.4	17	3.2				1272.9	127.6		
FUKUSH	0	P	17	51	14.2	ES	54	02.4	7	2.0	9	0.8	5	1.6	S	3	W 3	U	4	1767.8	168.2
SAPPOR	0	EP	17	51	16				13	3.6	21	4.2	10	4.6				1297.9			
AOMORI	0	EP	17	51	18	X	54	19	14	2.7	15	1.9	5	2.5				1496.3			
HAKODA	0	P	17	51	26.5	EX	54	27	9	4.7	13	4.7	9	4.2			D	1422.4			
AKITA	0	EX	17	51	50.3				11	4.0	12	3.4	8	3.4				1624.0			
ISHINO	0	EP	17	51	55.1	EX	54	31.2	4	4.0	3	4.0	5	4.0				1664.5			
SENDAI	0	X	17	52	01	EX	52	07.6	8	3.0	7	4.5	7	2.4				1700.8			
						X	54	45													
SAKATA	0	EX	17	52	02.2													1706.1			
NIIGAT	0	EX	17	52	16.6				42	5.0	35	4.0	22	3.5				1834.2			
ONAHAM	0	EP	17	52	18.8	X	55	24.2	11	2.6	7	1.6	5	3.1				1816.7			
MITO	0	EX	17	52	22.5	EX	55	27.0	17	4.0	17	4.4	14	3.6				1890.4			
TATEYA	0	EX	17	52	32.8				29	3.8	27	3.8	20	3.5				2048.8			
KUMAGA	0	EP	17	52	33.6	ES	56	20.6	13	3.6	7	4.4	12	3.6				1968.6	227.0		
MATSUS	0	P	17	52	34	S	55	56										1999.0	202.0		
NAGANO	0	EP	17	52	36.4	ES	56	21.4	14	3.5	15	4.0	12	3.7				1989.2	225.0		
TOKYO	0	P	17	52	39.2	ES	56	10	15	3.4	14	4.0	18	4.2				1990.4	210.8		
TOYAMA	0	EP	17	52	41	ES	55	55										2041.9	194.0		
KOFU	0	EP	17	52	41.0	ES	56	15.0	9	3.2	10	4.2	9	3.4				2056.1	214.0		
MISHIM	0	EP	17	52	46.0				14	3.7	13	3.7	4	4.5				2085.7			
KANAZA	0	EP	17	52	46.2				8	37	10	37	6	35				2088.1			
IIDA	0	EX	17	52	47.2													2109.4			
OSHIMA	0	P	17	52	49.9				12	4.0	6	3.4						2094.3			
SHIZUO	0	P	17	52	50.0	S	56	40.5	9	3.8	8	4.0	10	4.2				2126.0	230.5		
OMAEZA	0	EP	17	52	54.8				25	7.8	14	4.4	11	4.2				2169.7			
GIFU	0	X	17	52	55.1				6	4.6	6	4.6	4	4.6				2179.2			
NAGOYA	0	EP	17	52	55.3	S	56	49.2	8	3.2	9	3.2	5	1.2				2188.0	233.9		
HAMAMA	0	P	17	52	56.6	ES	56	34	10	4.0	10	4.0	6	4.4		W	2	2186.6	217.4		

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
HACHIJ	0	X	17	53	00.4				14	2.8	15	2.2	13	2.2				2228.9	
TOYOOK	0	EP	17	53	05.0	ES	56	54.8	13	1.1	13	1.2						2280.8	229.8
OSAKA2	0	P	17	53	07.3	S	56	55										2310.3	227.7
						EL	00	20											
OSAKA	0	P	17	53	07.5	ES	57	00	29	3.5	21	3.8	8	3.7				2312.5	232.5
SAIGO	0	P	17	53	07.7	EX	53	41.5	5	3.5	6	3.5	5	3.5	S	0 W	0 U	0	2316.8	
						EX	56	56.2											
WAKAYA	0	EX	17	53	13.3				6	1.1	3	1.0	4	1.5				2372.0	
SHIONO	0	EP	17	53	16.6	ES	57	23.9	6	4.1	6	3.9	6	1.2				2406.5	247.3
HAMADA	0	IP	17	53	25.8	S	57	32.0	2	3.6	1	3.6	5	4.0	S	0 W	0 U	2	2501.1	246.2
						X	05	05.0											
ASHIZU	0	P	17	53	38.5	EX	57	50.8	8	3.7			9	4.1			U	5	2627.4	
SHIMON	0	EP	17	53	39.4				4	3.6	5	3.6	8	3.4	S	2 W	2 U	4	2648.2	
OITA	0	IX	17	53	43.5				23	3.2	20	5.0							2666.2	
FUKUOK	0	IP	17	53	45.2	ES	57	55.0	7	2.3	6	3.2	9	3.3	S	3 W	3 U	6	2713.8	249.8
SAGA	0	EP	17	53	49.3														2746.1	
KUMAMO	0	EP	17	53	50.2	ES	58	18.1	12	0.9	14	2.7	5	0.3					2757.4	262.9
MIYAZA	0	P	17	53	51.0				6	3.8	5	5.0	7	3.2					2790.2	
NAGASA	0	P	17	53	54.5	ES	58	20.0							S	W	U		2817.0	265.5
KAGOSH	0	EP	17	54	03.9				5	2.8	5	2.4							2871.9	

OT= 14 1 3 14.2 +/- 0.3
NEAR HIMEJI
LAT= 34 47 +/- 1 LONG= 134 44 +/- 1
H= 10 MAG=3.5 CLASS=U

HIMEJI	0	IP	01	03	17.9	IS	03	19.5										6.6	01.6
KOBE	0	IP	01	03	22.7	IS	03	27.8									D	I	42.2	05.1
TAKAMA	0	EP	01	03	29.5	IS	03	39.2	5	0.8	8	0.6	4	0.6					80.7	09.7
TOTTOR	0	IP	01	03	31.2	S	03	44.3											95.3	13.1

OT= 14 17 12 21.4 +/- 0.5
E COAST OF BOSO PEN
LAT= 35 22 +/- 2 LONG= 140 19 +/- 2
H= 0 MAG=4.4 CLASS=L

YOKOHA	0	EP	17	12	34.6	S	12	45.1										60.6	10.5
CHOSHI	0	EP	17	12	35.2	S	12	46.0										62.1	10.8
TATEYA	0	P	17	12	35.5	IS	12	44.9	139	1.4	128	1.8	50	1.5			D	5	58.9	09.4
TOKYO	0	P	17	12	36.0	IS	12	45.5	70	0.8	90	0.6	23	0.0					61.7	09.5
KAKIOK	0	IP	17	12	39.8	S	12	50.6	51	0.8	48	0.8	20	1.0	S	4	D	1	96.6	10.8
OSHIMA	0	IP	17	12	41.8	IS	12	52.4	16	0.8	17	0.8							108.7	10.6
NIIGAT	0	EX	17	12	42.5				11	3.6	13	4.0	6	2.2					304.0	
MITO	0	P	17	12	42.6	S	12	55.6	33	1.5	27	2.6	14	2.6					113.1	13.0
AJIRO	0	EP	17	12	44.1	ES	12	55.3	6	0.3	5	0.3	2	0.5					116.7	11.2
KUMAGA	0	EP	17	12	44.8	ES	13	01.0	26	1.2	14	1.0	13	3.2					120.8	16.2
MISHIM	0	EP	17	12	45.4	ES	12	58.3	19	0.9	19	0.9	10	1.0					129.3	12.9
UTSUNO	0	P	17	12	46.4	ES	13	06.9											136.9	20.5
CHICHI	0	EP	17	12	46.7														131.5	
KAWAGU	0	P	17	12	46.9	S	13	05.0											141.8	18.1
KOFU	0	EP	17	12	48.2	ES	13	11.4	18	2.0	18	1.2	9	1.2					162.9	23.2
ONAHAM	0	EX	17	12	51.1	X	13	13.7	14	0.9	24	1.1	5	0.8					183.0	
KARUIZ	0	EP	17	12	53.7	ES	13	20.6											192.5	26.9
SHIRAK	0	EP	17	12	54.0	S	13	22.0											194.5	28.0
OMAEZA	0	EP	17	12	55.0				11	1.4	9	1.6							209.8	
MATSUS	0	IP	17	12	58.0	X	13	41							N	W	U		230.3	
HACHIJ	0	EP	17	12	58.8	S	13	24.4					6	0.3					255.8	25.6
NAGANO	0	EP	17	13	03.6	X	14	04.9	10	1.4	17	4.2	9	1.8					238.9	
FUKUSH	0	EX	17	13	04.2				8	0.5	7	0.7	2	0.3					265.5	
NAGOYA	0	EP	17	13	09.2	ES	13	46.0	6	1.6	8	1.4	3	1.2					305.4	36.8
HAMAMA	0	X	17	13	10				8	2.8	6	2.6	3	1.8					247.6	
TOYAMA	0	EP	17	13	12	ES	13	56											317.1	44.0
SHIZUO	0	S	17	13	12.6				6	1.5	8	1.4	3	2.5					179.3	
SENDAI	0	X	17	13	13				5	1.0	6	2.0	4	1.2					325.2	
FUKUI	0	X	17	13	40.9	X	14	28.1											377.8	
OSAKA	0	EX	17	14	08				6	2.8	5	2.0							444.1	
TOYOOK	0	X	17	14	56.2				10	1.4	7	1.1							499.2	
KANAZA	0	EX	17	14					8	2.2	8	2.0							355.8	

OT= 16 17 45 41.9 +/- 0.6
SW OF IBARAKI PREF
LAT= 36 15 +/-11 LONG= 139 54 +/- 3
H= 50 MAG=3.1 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KAKIOK	1	P	17	45	49.7	IS	45	55.3	18	0.4	28	0.3	7	0.2				26.4	05.6
UTSUNO	1	IP	17	45	52.9	IS	46	00.8										33.0	07.9
KUMAGA	0	EP	17	45	54.0	S	46	01.2	6	0.2	6	0.2	2	0.2				47.7	07.2
MITO	0	P	17	45	54.4	IS	46	02.5	6	0.4	9	0.2						53.3	08.1
TOKYO	0	EX	17	46	02													64.0	
MATSUS	0	IP	17	46	06.5	S	46	20									E	D	155.1	13.5

OT= 16 18 53 48.5 +/- 0.3
NEAR HIMEJI
LAT= 34 47 +/- 1 LONG= 134 41 +/- 1
H= 10 MAG=3.3 CLASS=L

HIMEJI	1	IP	18	53	52.6	IS	53	54.2											
KOBE	0	EP	18	53	57.5	ES	54	03.1										6.1	01.6
TAKAMA	0	EP	18	54	03.1	ES	54	14.1	4	0.8	6	0.4	3	0.4				46.7	05.6
TOTTOR	0	P	18	54	05.9	S	54	17.1										77.2	11.0
																	D	93.0	11.2

OT= 17 1 45 19.9 +/- 0.2
MIDDLE OF TOTTORI PREF
LAT= 35 23 +/- 1 LONG= 133 58 +/- 1
H= 10 MAG=3.9 CLASS=L

TOTTOR	2	IP	01	45	25.3	IS	45	28.3										23.9	03.0
YONAGO	0	P	01	45	30.7	IS	45	38.1										56.9	07.4
OKAYAM	0	P	01	45	35.1	S	45	44.2	13	0.5	17	0.6	2	0.2				78.0	09.1
TOYOOK	0	EP	01	45	35.2	ES	45	44.3	30	1.0	23	1.2						79.3	09.1
MATSUE	0	EP	01	45	36.5	S	45	46.5										81.7	10.0
TAKAMA	0	EP	01	45	40.7	IS	45	55.2	17	0.6	14	0.4	9	0.7				118.6	14.5
KOBE	0	EP	01	45	43.9	IS	46	00.4										134.9	16.5
KYOTO	0	EP	01	45	52.0	IS	46	07.5	5	1.3	4	1.0	2	0.7				166.2	15.5
MATSUS	0	EP	01	46	18	X	47	17										403.4	

OT= 18 4 26 28.9 USCGS
MARIANA
LAT= 19 0 LONG= 145 30
H=206 MAG=5.8 CLASS=U

HACHIJ	0	EP	04	29	53.6	S	32	37.6	88	1.8	43	1.5	21	3.0				1661.5	164.0
TATEYA	0	EP	04	30	12.0	S	33	10.3	164	4.5	172	3.6	85	4.8				1854.9	178.3
OSHIMA	0	IP	04	30	12.2	S	33	12.7	55	1.8	118	3.4	39	2.4				1846.9	180.5
OMAEZA	0	EP	04	30	14.8				45	6.4	46	2.8	22	7.2				1871.7	
AJIRO	0	EP	04	30	16.4	ES	33	16.6	37	2.6	85	3.2	34	3.2				1885.3	180.2
HAMAMA	0	P	04	30	17.0	ES	33	19	29	3.2	23	3.6	9	5.0		W	1		1901.3	182.0
SHIZUO	0	P	04	30	18.5	S	33	25.0	15	3.9	29	4.9	19	4.0	N	3 W	1 U	7	1902.0	186.5
MISHIM	0	IP	04	30	19.0	IS	33	20.4	123	2.8	165	4.1			N	12 W	1		1897.9	181.4
CHOSHI	0	EP	04	30	20.9	ES	33	25.0											1907.7	184.1
SHIONO	0	EP	04	30	20.9	S	33	25.1	23	3.8	39	3.1	5	1.7					1869.5	182.2
MUROTO	0	IP	04	30	22.2	IS	33	29.9	26	5.0	35	5.4	11	5.0	S	0	D	1	1938.2	187.7
TOKYO	0	P	04	30	22.4	S	33	31.0	107	2.8	99	3.6	52	4.0					1931.8	188.6
KAWAGU	0	P	04	30	22.6	ES	33	32.6											1943.4	190.0
ISHIGA	0	EP	04	30	22.7	S	34	06.3	20	7.2	41	6.2	13	7.3		E	D		2280.8	223.6
KOFU	0	IP	04	30	23.4	ES	33	32.0	110	2.4	68	2.2	40	3.0	S	3 E	1 D	4	1967.4	188.6
YAKUSH	0	EP	04	30	23.8	EX	33	42.6	7	7.2	10	6.2	8	5.2					1972.8	
IIDA	0	IP	04	30	25.0	IS	33	38.6	29	3.6	16	3.0	15	4.0	N	4 W	2 U	6	1977.5	193.6
OSAKA2	0	P	04	30	25.0	S	33	35.0							S	0 E	0 D	2	1983.2	190.0
NAGOYA	0	EP	04	30	25.1	IS	33	36.0	35	2.6	38	2.8	8	2.6					1977.5	190.9
						SCS	41	43.4											
ASHIZU	0	P	04	30	25.7	S	33	37.6	30	4.2	19	4.2	11	3.1	S	2 E	2 D	4	1963.5	191.9
KAKIOK	0	EP	04	30	26	S	33	39.8	38	1.0	42	7.5							1977.8	193.8
CHICHI	0	EP	04	30	26.3	ES	33	34.8											1984.2	188.5
OSAKA	0	EP	04	30	26.8	S	33	41.3	57	3.7	39	3.7	20	3.2			D	0	1996.2	194.5
KUMAGA	0	P	04	30	27.4	S	33	41.6	142	2.8	49	3.4	58	3.4			D	3	1991.2	194.2
MITO	0	IP	04	30	27.6	IS	33	36.8	57	3.6	107	3.6	30	3.5	N	5 W	2 U	10	1986.5	189.2
KOBE	0	EP	04	30	27.9	ES	33	42.8											2014.0	194.9
KYOTO	0	IP	04	30	28.4	ES	33	45.5	9	3.3	22	4.0	2	2.5		W	0 U	0	2017.5	197.1
NAHA	0	IP	04	30	28.7	S	33	43	27	4.8	21	4.6	15	1.4					1994.8	194.3
MIYAZA	0	EP	04	30	29.0	S	33	45.0	18	5.4	14	2.0	8	3.0					2007.2	196.0
GIFU	0	P	04	30	29.5	S	33	42.0	12	1.8	14	1.5							2009.0	192.5
UTSUNO	0	P	04	30	30.7	IS	33	45.4											2019.7	194.7
KARUIZ	0	EP	04	30	30.8	S	33	48.4											2037.2	197.6
TAKAMA	0	EP	04	30	30.8	IS	33	45.3	9	2.9	16	4.0	2	1.8					2039.0	194.5
KAGOSH	0	EP	04	30	32.2	EX	33	55.5			14	2.8	6	2.6					2045.1	
ONAHAM	0	P	04	30	32.6	S	33	48.4	42	1.6	61	3.4	20	2.8			U	7	2037.3	195.8

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STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MATSUM	0	IP	04 30 32.6	S	33 47.2				N 3	W 2	U 8	2046.9	194.6
MATSUS	0	IP	04 30 32.7	S	33 48				S	E	D	2069.1	195.3
OKAYAM	0	EP	04 30 34.2	ES	33 53.4	11 3.1	11 3.5	9 3.5	S 1	E 1	D 2	2079.3	199.2
MATSUY	0	EP	04 30 34.8	ES	33 53.5	33 4.8	21 4.9					2071.4	198.7
SHIRAK	0	P	04 30 35.5	ES	33 54.5							2071.5	199.0
NAGANO	0	EP	04 30 36.0	IS	33 54.4	103 4.0	92 4.5	34 3.6				2082.0	198.4
TOYAMA	0	EP	04 30 37	ES	34 03							2121.7	206.0
FUKUI	0	P	04 30 37.0	ES	33 57.1				S 3			2096.0	200.1
TOYOOK	0	P	04 30 37.1	S	33 59.8	20 6.7	16 4.7	4 5.1	N	W	U	2110.8	202.7
				X	41 50.4								
HIROSH	0	EP	04 30 38.6	S	34 02.7	11 4.4	12 2.5	8 3.2	S 1	E 1	D 1	2136.0	204.1
KANAZA	0	EP	04 30 39.2	ES	34 04.0	40 5.7	27 5.5	19 4.8				2127.3	204.8
OITA	0	EP	04 30 39.4	IS	34 01.4	94 5.3	133 5.1					2094.7	202.0
KUMAMO	0	IP	04 30 40.5	IS	34 04.0	15 5.5	21 4.2	4 3.2	N 8	W 7	U 6	2123.7	203.5
TAKADA	0	P	04 30 40.8	S	34 01.9							2126.1	201.1
FUKUSH	0	X	04 30 41.0	X	34 06.6	34 1.6	36 1.4	25 2.2				2134.1	
NAGASA	0	EP	04 30 43.7	ES	34 12.2				S	E	D	2175.7	208.5
SENDAI	0	EP	04 30 44.8	S	34 14.8	36 2.7	49 2.8	19 3.3			D 2	2179.4	210.0
HAMADA	0	P	04 30 44.9	S	34 16.2	21 5.0	6 5.0	10 3.6	S 0	E 0	D 0	2202.4	211.3
				X	31 20.0								
SHIMON	0	EP	04 30 45.2	ES	34 14.8	29 4.2	17 5.2	14 3.8	S 1	E 1	D 3	2196.0	209.6
				X	31 22.8								
ISHINO	0	EP	04 30 45.4	ES	34 18.2	24 3.6	25 6.4	13 4.8	S 1		D 1	2189.7	212.8
FUKUOK	0	EP	04 30 45.6	ES	34 14.5	14 5.3	12 4.1	13 4.0	S	E	D 1	2204.3	208.9
WAJIMA	0	IP	04 30 46.0	EX	34 12	40 2.4	20 2.0	20 2.4		W 3	U 6	2202.1	
YAMAGA	0	EP	04 30 46.5	ES	34 17.3						D 1	2190.2	210.8
SAGA	0	EP	04 30 47.2	IS	34 24.4							2184.1	217.2
NIIGAT	0	IP	04 30 47.5	IS	34 20.0	155 3.4	180 3.0				U 7	2186.0	212.5
SAIGO	0	P	04 30 49.0	ES	34 14.0	6 4.0	8 3.5	5 3.0	N 0		U 0	2247.3	205.0
				ESCS	41 50.8								
FUKUE	0	EP	04 30 50.8	ES	34 25.0	11 6.6	6 4.2	12 4.2				2249.7	214.2
OFUNAT	0	P	04 30 51.6	S	34 28.7	10 2.8	18 5.2	11 5.6	S 1		D 1	2252.1	217.1
SAKATA	0	EP	04 30 56.8	ES	34 38.1	250 5.6	300 2.4	100 5.6				2271.5	221.3
MIYAKO	0	EP	04 30 57	ES	34 37.6	4 2.6	23 3.0					2312.1	220.6
MORIOK	0	P	04 30 59.0	S	34 41.1	8 5.6	14 5.8	7 4.1	S 0		D 0	2330.3	222.1
				EX	34 26.5								
				X	35 00.0								
				SCS	41 51.0								
AKITA	0	P	04 31 01.8	S	34 44.8	86 4.4	72 4.2	51 4.4			D 5	2353.0	223.0
HACHIN	0	EP	04 31 05.8	IS	34 51.6	10 3.6	14 5.9	10 5.6	S		D	2414.9	225.8
AOMORI	0	EP	04 31 13	ES	34 59	34 4.4	31 4.4	13 4.3				2458.7	226.0
HAKODA	0	P	04 31 19.0	S	35 13.1	9 5.7	12 4.8	9 4.4			D 1	2567.5	234.1
URAKAW	0	EP	04 31 23	S	35 17.1	13 6.0	22 6.0	11 5.0				2579.1	234.1
OBIHIR	0	EX	04 31 29									2659.5	
KUSHIR	0	EP	04 31 29	ES	35 27	11 7.8	7 4.4	7 4.0				2659.4	238.0
NEMURO	0	EP	04 31 29	EX	35 29	5 3.0	3 4.0	8 5.0				2696.3	
SAPPOR	0	EP	04 31 30	ES	35 32	7 3.0	10 4.0	7 3.6				2694.8	242.0
ABASHI	0	EP	04 31 36	S	35 45.0	15 5.0	10 4.8	15 4.8				2775.1	249.0
				EX	42 11								
ASAHIK	0	EP	04 31 42			6 4.0	5 2.8	11 5.4				2760.8	
WAKKAN	0	EX	04 32 00			8 7.0	13 7.0	18 4.8				2949.1	
OWASE	0	EP	04 33 20.0			12 2.4	9 3.0	5 3.5				1905.9	
AIKAWA	0	EP	04 34 48	EX	34 20.8	16 2.4	20 2.2	15 3.0	S 0	E 0	D 0	2221.2	
ANABUK	0	X	04 36 15.4									1995.6	

OT= 18 9 30 38.8 +/- 0.6
W OFF AOMORI PREF
LAT= 40 50 +/- 2 LONG= 139 23 +/- 3
H= 10 MAG=4.6 CLASS=S

AOMORI	0	EP	09 31 01	IS	31 12.0	116 1.1	104 1.1	53 1.1				118.1	11.0
AKITA	0	P	09 31 03.0	S	31 20.4	28 0.8	35 0.6	13 0.6				138.1	17.4
HAKODA	0	P	09 31 05.5	IS	31 24.7	18 1.0	18 1.1	7 0.6			U	158.4	19.2
HACHIN	0	EP	09 31 09.7	IS	31 32.7	5 0.2	5 0.2	3 3.0				184.3	23.0
SAKATA	0	EX	09 31 37.0									217.8	
MATSUS	0	IP	09 31 48.5	ES	32 48						U	487.6	59.5

OT= 18 17 22 11.0 +/- 0.8
ENSHUNADA
LAT= 34 33 +/- 8 LONG= 137 58 +/- 7
H=280 CLASS=M

OMAEZA	0	EP	17 22 48.2			8 2.4						23.4	
NAGOYA	0	IP	17 22 50.3	IS	23 21.6	5 2.4	3 2.2	2 2.2			U 2	113.9	31.3
KOFU	0	EP	17 22 52.2	IS	23 24.6	10 1.4	10 1.6	3 1.2				134.9	32.4
TATEYA	0	EP	17 22 54.5			15 0.5	10 1.3	7 0.3				180.6	
MATSUS	0	IP	17 22 57.8	IS	23 34				N	E	U	221.6	36.2

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KAKIOK	0	EP	17 23 00	ES	23 38	20 0.8	23 1.3	11 0.5				275.1	38.0
UTSUNO	1	EP	17 23 02.2	S	23 40.0							280.8	37.8
MITO	0	EP	17 23 06.0	S	23 44.4	13 1.1	13 0.4	4 0.6				304.6	38.4
TOKYO	0	X	17 23 08	S	23 32.7	13 0.4	23 0.7					206.2	
FUKUSH	0	EP	17 23 16.0	S	24 04.0	7 1.0	7 1.0	3 1.0				421.2	48.0
ISHINO	0	EP	17 23 24.8	ES	24 21.0	5 0.8	2 0.6	1 0.6				523.5	56.2
KUMAGA	0	X	17 23 26.4	ES	23 33.0	6 0.6	3 0.4	2 0.6				219.0	
OSAKA	0	EX	17 23 31			6 4.0	3 3.5					224.6	
OFUNAT	0	EP	17 23 33.5	IS	24 36.0	3 0.4	6 0.4	1 0.4				602.1	62.5
CHOSHI	0	X	17 23 37.4	S	23 42.9							292.7	
ONAHAM	0	EX	17 23 52.4	IS	23 57.0	14 0.9	16 1.1	7 0.6				375.8	

OT= 18 21 32 5.0 +/- 1.0
OFF IWATE PREF
LAT= 40 9 +/- 2 LONG= 142 36 +/- 6
H= 50 MAG=4.0 CLASS=U

MIYAKO	0	IP	21 32 19.6	IS	32 29	7 0	20 0	6 0				77.9	09.4
HACHIN	0	IP	21 32 22.1	IS	32 31.9	10 0.2	9 0.2	1 3.2	S	E 1	D	100.4	09.8
MORIOK	0	P	21 32 26.8	S	32 40.0	19 0.4	10 0.4	4 0.2		W 0	U 0	132.3	13.2
OFUNAT	0	EP	21 32 28.5	IS	32 43.7	6 0.0	4 0.2	2 0.2				142.6	15.2
AOMORI	0	EP	21 32 33	IS	32 49.9	23 0.9	17 0.6					170.9	16.9
MATSUS	0	P	21 33 19									554.9	

OT= 19 16 3 2.4 +/- 1.7
NEAR AMAMIOSHIMA
LAT= 27 55 +/- 8 LONG= 130 9 +/-16
H= 90 CLASS=L

YAKUSH	0	IP	16 03 42.4	ES	04 09.4	63 0.8	71 0.7	27 0.5	S 4	W 1	D 2	282.6	27.0
NAHA	0	IP	16 03 46.3	IS	04 18.8	72 0.7	71 1.4	39 2.1				307.4	32.5
KAGOSH	0	EP	16 04 02.9	ES	04 38.8	11 2.0	28 2.2	16 1.0				407.0	35.9
MIYAZA	0	P	16 04 04.6	S	04 49.4	20 0.8	24 0.6	6 0.6				460.0	44.8
NAGASA	0	EP	16 04 13.0	ES	05 04.0							532.3	51.0
KUMAMO	0	IP	16 04 15.8	IS	05 12.6	18 0.9	19 0.9	8 0.3	N 7		U 4	544.8	56.8
SAGA	0	EP	16 04 23.2	X	06 03.5							590.6	
OITA	0	EX	16 04 41.1			15 2.3	18 2.9	9 2.7				605.8	
TOYOOK	0	EP	16 05 07.3			12 1.0	8 1.2					953.1	
OSAKA	0	EX	16 05 09			6 3.0	4 3.0					906.7	
MATSUS	0	IP	16 05 39.6	S	07 40					E	U	1219.5	120.4

OT= 20 12 9 32.2 +/- 0.6
HYUGANADA
LAT= 32 6 +/- 2 LONG= 131 51 +/- 2
H= 0 MAG=4.1 CLASS=S

MIYAZA	X	IP	12 09 43.0	S	09 49.2	77 0.8	123 0.8	43 0.6	N 6	E 5	D 20	44.8	06.2
NOBEOK	1	P	12 09 44.7	S	09 52.6				S 6	E 2	D 10	55.8	07.9
OITA	1	EP	12 09 56.8	ES	10 14.8	58 0.6	61 0.8	31 0.8				127.4	18.0
KUMAMO	0	IP	12 09 56.9	IS	10 13.1	41 1.2	71 2.3	27 1.1	N 7	W 9	U 7	132.9	16.2
KAGOSH	0	EP	12 09 57.9	ES	10 16.9	7 1.6	12 1.8	13 1.8				135.9	19.0
ASHIZU	0	EP	12 09 58.5	S	10 09.4	5 0.8	5 0.8	4 0.7				129.3	10.9
NAGASA	0	EP	12 10 04.4	S	10 31.0							198.3	26.6
YAKUSH	0	EX	12 10 06.4			6 0.8	4 0.8	2 0.6		W	U	223.7	
FUKUOK	0	EP	12 10 07.2	ES	10 34.0	5 1.4	9 1.0	3 1.7				214.1	26.8
MATSUY	0	EP	12 10 11.0	ES	10 36.5	5 0.7	7 0.7	2 0.5				211.6	25.5
MATSUS	0	IP	12 11 15.0								U	764.2	

OT= 20 15 33 36.3 +/- 0.7
S OF HYOGO PREF
LAT= 34 52 +/- 4 LONG= 135 2 +/- 3
H= 0 MAG=3.5 CLASS=U

SUMOTO	0	P	15 33 52.0	S	34 00.5							60.1	08.5
OKAYAM	0	EP	15 33 56	ES	34 11.0	3 0.5	5 0.3	1 0.3				104.4	15.0
TOTTOR	0	P	15 33 57.2	S	34 10.0							105.7	12.8
TOYOOK	0	X	15 34 01.2			9 1.2	13 0.6					76.8	
MATSUS	0	X	15 34 35	S	35 13							341.9	

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OT= 20 15 41 4.5 +/- 0.3
OFF MIYAGI PREF
LAT= 38 25 +/- 1 LONG= 142 12 +/- 2
H= 70 CLASS=R

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
ISHINO	3	IP	15	41	21.2	IS	41	30.8	650	1.3	500	1.3	300	1.1	N106	E178	D260	78.3	09.6
OFUNAT	3	IP	15	41	22.0	IS	41	32.9	750	2.0	500	1.0	350	2.0	N 1		U 2	82.9	10.9
SENDAI	3	IP	15	41	24.2	IS	41	37.3	400	2.0	800	1.9	300	1.3	N 35	E 69	D128	115.0	13.1
MIYAKO	3	IP	15	41	27.0	IS	41	42.2	500	2.1	350	1.7	350	1.7	N 31		U 42	137.8	15.2
YAMAGA	2	IP	15	41	29.6	IS	41	47.4	150	1.3	400	2.0	200	2.4	S 3	E 27	D 55	162.7	17.8
MORIOK	3	IP	15	41	30.8	IS	41	48.6	1000	0.4	800	0.4	200	0.6	N 3	W 2	U 2	167.8	17.8
						IX	41	34.6											
FUKUSH	3	IP	15	41	31.4	S	41	48.0	500	1.0	500	1.2			N 28	E 31	D 25	168.1	16.6
ONAHAM	2	IP	15	41	35.4	IS	41	56.0	300	1.5	300	1.6	100	1.9	S 8	W 6	U 28	199.2	20.6
SAKATA	1	IP	15	41	36.6	IS	41	59.0	500	2.0	550	2.4	300	2.0			D 29	212.7	22.4
AKITA	2	IP	15	41	38.5	S	41	59.7	327	3.2	330	3.2	240	3.4	N 4	W 6	U 17	232.1	21.2
SHIRAK	1	P	15	41	38.8	IS	41	58.2	0		0		0					225.9	19.4
HACHIN	2	IP	15	41	39.2	IS	42	03.6	135	0.9	187	0.9	85	2.1	N 2	W 2	U 6	241.2	24.4
MITO	2	IP	15	41	44.4	IS	42	11.0	148	2.0	244	1.8	92	2.4	S 2	W 2	U 24	273.1	26.6
NIIGAT	0	IP	15	41	45.2	IS	42	15.0	205	4.0	153	5.0	86	4.0			D 9	281.6	29.8
AOMORI	1	IP	15	41	45.7	X	42	06	300	1.9	400	1.3	100	1.3	N 43	W 17	U 56	292.9	
UTSUNO	2	P	15	41	45.8	S	42	15.4										292.3	29.6
KAKIOK	2	IP	15	41	47	IS	42	18	179	1.0	139	1.0	68	1.3	S 10	W 11	U 8	300.7	31.0
CHOSHI	1	IP	15	41	49.3	IS	42	21.5										322.1	32.2
AIKAWA	0	IP	15	41	52.2	ES	42	26.0	26	1.6	23	1.6	23	2.0	S 1	E 1	D 0	349.4	30.8
KUMAGA	1	P	15	41	55.0	ES	42	29.0	79	1.2	61	1.2	34	1.4			U 6	354.6	34.0
TOKYO	1	IP	15	41	56.5	S	42	33.5	178	1.0	95	0.8	40	1.6				372.8	37.0
CHICHI	1	EP	15	41	56.7	S	42	33.1	50	1.6	50	1.8	50	2.0				386.0	36.4
TAKADA	0	P	15	41	57.6	S	42	36.0										377.2	38.4
HAKODA	0	IP	15	41	58.3	ES	42	40	41	1.1	54	2.4	25	2.7	N 10	W 5	U 10	396.7	41.7
KARUIZ	0	EP	15	42	00.0	ES	42	42.0										396.8	42.0
MATSUS	0	IP	15	42	01.1	S	42	44							S	W	U	409.9	42.9
NAGANO	0	EP	15	42	01.5	ES	42	42.0	55	2.2	25	2.2	28	2.3				403.9	40.5
URAKAW	1	P	15	42	01.7	ES	42	45	71	0.4	109	0.4	21	1.0				418.4	43.3
HIROO	1	IP	15	42	02.2	IS	42	45.7										439.7	43.5
TATEYA	0	EP	15	42	03.9	S	42	50.1	99	1.8	74	1.1	42	2.0				434.1	46.2
KOFU	0	IP	15	42	05.4	ES	42	50.8	74	2.0	70	1.8	28	2.5			U 2	445.1	45.4
MATSUM	0	EP	15	42	05.5	ES	42	50.7										445.4	45.2
KAWAGU	0	P	15	42	06.8	S	42	50.8										445.5	44.0
MISHIM	0	EP	15	42	07.6	S	42	54.3	51	2.2	54	0.9	18	1.6				468.6	46.7
AJIRO	0	EP	15	42	08.0	S	42	52.6	14	0.3	15	0.3	8	0.5				465.7	44.6
WAJIMA	0	IX	15	42	09.2	EX	42	54	35	1.8	27	1.8	8	1.2				479.9	
TOYAMA	0	EP	15	42	10	ES	42	58									D 4	480.0	48.0
OBIHIR	0	P	15	42	12.3	ES	43	04									U 6	507.5	51.7
SAPPOR	0	P	15	42	13.2				17	1.6	25	1.8	10	1.6				520.7	
IIDA	0	EP	15	42	13.4	X	43	21.4	33	1.4	25	2.0	13	2.0				504.9	
SHIZUO	0	EP	15	42	14.3	IS	43	04.5	20	0.8	18	0.8	9	2.7				510.6	50.2
KUSHIR	1	IP	15	42	14.4	IS	43	07.2	139	0.8	150	2.6	36	0.5				539.4	52.8
TAKAYA	0	P	15	42	14.7													505.3	
KANAZA	0	EP	15	42	17.3	ES	43	16.5	10	2.2	14	3.5	8	2.6				532.9	59.2
HAMAMA	0	EP	15	42	22	ES	43	18	30	2.4	35	2.6	10	2.0				574.2	56.0
ASAHIK	0	EP	15	42	23				19	1.8	21	1.4	14	2.2				594.7	
GIFU	0	EP	15	42	23.1	X	43	40.0	20	1.9	16	1.7	5	1.3				588.6	
NEMURO	0	P	15	42	24.7	S	43	22.6	16	0.6	18	0.6	4	0.8	N	E 1	U 1	615.5	57.9
FUKUI	0	P	15	42	25.4													591.2	
HACHIJ	0	EP	15	42	27.6	IS	43	26.4	27	0.6	32	0.3	11	0.4				628.5	58.8
ABASHI	0	EP	15	42	28	ES	43	30	15	1.4	11	1.6	5	1.4				646.0	62.0
NAGOYA	0	X	15	42	30.5	ES	43	31.3	40	2.5	37	2.6	10	1.6				589.9	
HIKONE	0	P	15	42	30.8													635.0	
KYOTO	0	EP	15	42	35.0	ES	43	46.5	5	1.8	4	1.2	3	1.2				689.8	71.5
YOKOHA	0	S	15	42	41.4													400.9	
OSAKA	0	EX	15	42	43				28	2.8	18	2.2	10	2.4				727.3	
WAKKAN	0	EX	15	42	47				4	3.5	6	3.0	5	4.5				778.4	
TOYOOK	0	X	15	42	47	X	43	59	23	1.2	11	1.2						730.3	
KOBE	0	EX	15	42	47.8													752.0	
WAKAYA	0	EX	15	43	09.2				9	2.2	3	1.9	2	3.5				783.7	
OITA	0	EX	15	43	41.8				9	2.9	12	4.4						1114.1	

OT= 20 16 7 47.8 +/- 0.2
S OF HYOGO PREF
LAT= 34 56 +/- 1 LONG= 135 5 +/- 1
H= 10 MAG=3.5 CLASS=U

KOBE	0	ES	16	07	58.8													28.6	
KYOTO	0	EP	16	08	00.0	ES	08	07.0	8	0.0	9	0.0	2	1.0				60.1	07.0
TOTTOR	0	P	16	08	07.4	S	08	20.2										104.4	12.8
OKAYAM	0	EP	16	08	07.9	ES	08	21.0	3	0.6	5	0.6	1	0.4				110.5	13.1
TOYOOK	0	X	16	08	10.4				23	1.0	16	0.6						71.1	

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TSURUG	0	X	16	08	22	IS	08	24.1										119.5	
MATSUS	0	X	16	08	45	S	09	24										334.0	
HACHIN	4	IP	00	38	01.6	IS	38	10.4	500	0.8	1000	0.8	1000	0.9	N 3	E 7	D 8	73.8	08.8
MIYAKO	3	P	00	38	07.9	IS	38	21.3	64	1.6	132	3.9	60	2.2	S 11	W 4	U 3	122.0	13.4
AOMORI	3	IP	00	38	12.2	ES	38	25	650	1.5	700	1.3	200	1.8		E180	D170	134.3	12.8
MORIOK	2	P	00	38	12.5	S	38	28.3	180	0.4	135	0.4	36	0.3	N 1	E 1	D 1	151.1	15.8
						X	38	25.8											
HAKODA	X	IP	00	38	14.8	IS	38	34.0	151	0.5	178	0.7	75	1.8	S 30	E 35	D 50	182.9	19.2
URAKAW	2	P	00	38	15.9	S	38	35.7	178	1.0	300	1.2	86	0.8				165.6	19.8
OFUNAT	1	P	00	38	17.6	IS	38	36.6	74	3.0	120	2.8	54	1.6	S 2		U 1	190.2	19.0
MURORA	0	P	00	38	18.2	S	38	40.2							S 4	E 2	D 4	213.5	22.0
HIROO	1	IP	00	38	18.8	IS	38	40.2									D 2	192.9	21.4
AKITA	0	IP	00	38	21.4	S	38	47.3	217	3.8	164	2.6	127	2.2	N	E	D 12	221.5	25.9
OBIHIR	0	EP	00	38	27	ES	38	55										256.6	28.0
ISHINO	0	EP	00	38	27.1	ES	38	55.8	50	1.4	56	1.4	42	1.6	N 2	E 1	D 2	268.6	28.7
SAPPOR	0	P	00	38	27.5	S	38	55.4	55	1.0	62	1.4	50	1.0				275.7	27.9
SUTTSU	0	EX	00	38	29.1													291.9	
KUSHIR	0	IP	00	38	30.8	IS	39	01.6	134	1.4	135	0.6	35	0.5		W	D 3	304.0	30.8
SENDAI	0	EP	00	38	31.6	S	39	02	116	2.4	205	1.3	57	1.1				298.8	30.4
SAKATA	0	P	00	38	31.9	ES	39	02.6	250	2.0	300	2.4	150	2.4			D 4	294.5	30.7
YAMAGA	0	EP	00	38	35.0	S	39	08.7										322.3	33.7
ASAHIK	0	EP	00	38	37	S	39	09.0	62	1.8	73	2.0	61	2.0				341.1	32.0
RUMOI	0	EP	00	38	37.6	X	39	00.3										366.1	
FUKUSH	1	P	00	38	39.9	S	39	15.7	116	1.0	92	1.0	37	1.0		W 1		365.3	35.8
NEMURO	0	EP	00	38	42	ES	39	21	10	1.0	11	3.4	8	2.4				395.4	39.0
ABASHI	0	EP	00	38	44	X	39	16	42	2.6	35	2.4	13	3.0				400.9	
SHIRAK	0	EP	00	38	47.7	ES	39	37.6										438.8	49.9
NIIGAT	0	P	00	38	48.2	ES	39	30.0	107	3.2	114	3.8	43	3.2				421.5	41.8
ONAHAM	0	EP	00	38	48.9	ES	39	32.4	94	1.0	96	1.1	34	2.4				435.7	43.5
AIKAWA	0	IP	00	38	52.0				10	1.0	9	1.0	4	1.0	S 0	E 0	D 0	463.5	
MITO	0	EP	00	38	57.5	ES	39	52.1	125	2.1	109	2.9	55	2.4				507.3	54.6
KAKIOK	0	EP	00	39	00	ES	39	57	68	2.8	89	2.2	18	1.9				530.9	57.0
TAKADA	0	EP	00	39	01.5													535.4	
WAKKAN	0	EX	00	39	02				25	4.1	21	3.7	14	3.5				526.7	
KUMAGA	0	EP	00	39	06.6	ES	40	07.0	64	2.6	56	2.8	23	3.0				568.4	60.4
WAJIMA	0	EP	00	39	08	EX	40	06	18	1.0	19	1.0						599.1	
MATSUS	0	IP	00	39	08.4	S	40	13							S	W	U	586.8	64.6
NAGANO	0	EP	00	39	09.1	X	40	25.4	37	3.6	19	4.0	20	2.9				576.7	
KARUIZ	0	EP	00	39	09.6	X	39	50.0										587.1	
TOKYO	0	EP	00	39	11	ES	40	10	48	3.8	48	2.0	35	3.0				601.6	59.0
CHICHI	0	EP	00	39	11.4	ES	40	21.2										596.2	69.8
TOYAMA	0	EP	00	39	13	ES	40	24	15	3.4	11	3.0	9	3.6				630.5	71.0
TATEYA	0	EP	00	39	16.6				58	2.0	50	2.8	28	2.5				671.4	
KOFU	0	EP	00	39	18.6	ES	40	35.0	26	3.2	22	2.0	9	2.6				650.7	76.4
KANAZA	0	EP	00	39	20.4	ES	40	36.5				10	4.2					678.3	76.1
AJIRO	0	EP	00	39	20.7	ES	40	37.1	7	2.0	11	2.2	5	2.4				690.4	76.4
OSHIMA	0	EP	00	39	21.1	S	40	46.8	17	1.6	10	3.2	7	2.6				709.6	85.7
KAWAGU	0	P	00	39	21.8	ES	40	27.3										658.0	65.5
IIDA	0	EP	00	39	22.8	X	40	49.4	8	1.6	8	2.8	5	2.4				699.6	
MISHIM	0	X	00	39	27.6	ES	40	37.6	24	2.4	32	2.4	9	2.3				689.8	
SHIZUO	0	EP	00	39	29.5	S	40	48.8	13	2.2	11	4.2	9	5.0				724.6	79.3
GIFU	0	EP	00	39	30.1	S	40	48.2	10	1.5	6	1.4						766.4	78.1
NAGOYA	0	P	00	39	33.1	X	41	07.6	23	2.4	21	2.8	5	1.6				775.9	
OMAEZA	0	EP	00	39	33.2				31	3.4	35	2.8	10	1.8				769.2	
HAMAMA	0	X	00	39	48	X	40	41	18	3.2	23	2.6	10	3.8				780.6	
OSAKA	0	EP	00	39	50	ES	41	23	18	3.3	16	3.5	6	2.3				900.0	93.0
WAKAYA	0	EX	00	39	55.7				3	3.5	1	3.5	1	3.2				959.3	
SHIONO	0	X	00	40	13.1	ES	41	49.5	4	3.1	7	2.9						995.4	

OT= 21 6 19 21.6 +/- 0.5
OFF FUKUSHIMA PREF
LAT= 37 0 +/- 1 LONG= 141 42 +/- 2
H= 40 MAG=4.3 CLASS=S

ONAHAM	1	IP	06	19	35.4	IS	19	43.0	47	0.7	43	0.7	18	0.6			D 2	70.9	07.6
SHIRAK	0	IP	06	19	43.5	S	19	56.8									D 7	131.8	13.3
MITO	0	EP	06	19	43.5	S	19	56.4	19	1.4	17	1.2	8	1.4				129.6	12.9
FUKUSH	X	IP	06	19	43.8	S	19	58.0	25	1.0	18	0.9	6	0.8	S 2	E 4		137.2	14.2
KAKIOK	0	EP	06	19	46	ES	20	04	17	0.8	17	0.8	5	0.8				159.5	18.0

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
SENDAI	0	IP	06	19	46.5	S	20	02	10	1.4	11	1.0	7	1.0	S 2	E 2	D 3	156.6	15.5
ISHINO	0	EP	06	19	47.0	ES	20	03.4	7	1.2	6	2.4	3	1.4	S 2		D 1	162.0	16.4
MATSUS	0	IP	06	20	07.5	S	20	45								E	D	315.9	37.5
KOFU	0	EP	06	20	10.8	ES	20	49.8	6	1.6	9	1.5	3	1.2				318.5	39.0
NIIGAT	0	EX	06	20	12.7				6	2.0	8	3.2						255.1	
AKITA	0	EX	06	20	17				6	2.6	3	2.2	3	2.6				332.5	
IIDA	0	EX	06	20	17.4													384.6	
TOKYO	0	EX	06	20	18				5	0.8	6	0.8						227.3	
KAWAGU	0	X	06	20	20.9	S	20	50.7										312.1	
TATEYA	0	X	06	20	22.0				8	1.7	7	1.5	6	2.4				278.0	

OT= 21 17 30 31.5 +/- 0.3
OFF FUKUSHIMA PREF
LAT= 37 21 +/- 1 LONG= 141 33 +/- 2
H= 50 MAG=4.4 CLASS=S

ONAHAM	0	IP	17	30	46.1	IS	30	54.8	36	0.7	24	1.2	10	0.6			D 1	72.7	08.7
FUKUSH	1	IP	17	30	49.0	IS	31	00.4	106	0.5	107	0.3	46	0.3	N 2	W 8	U 6	105.2	11.4
SENDAI	1	IP	17	30	50.4	IS	31	00.0	30	0.7	38	0.4	23	0.0	N 2		U 12	116.1	12.6
ISHINO	1	IP	17	30	51.2	IS	31	04.6	34	0.6	23	0.2	9	0.8	N 4	W 1	U 8	121.3	13.4
SHIRAK	0	IP	17	30	51.3	IS	31	04.3										120.3	13.0
MITO	0	EP	17	30	55.4	S	31	10.0	10	0.4	10	0.4	4	0.5				144.5	14.6
KAKIOK	0	EP	17	30	58	ES	31	16	14	0.8	11	0.8	4	0.5				173.4	18.0
UTSUNO	0	EP	17	30	58.8	S	31	17.4										174.0	18.6
OFUNAT	1	EP	17	31	00.0	S	31	20.6	22	0.0	14	0.0	4	0.4				190.5	20.6
MORIOK	0	P	17	31	09.6	S	31	35.8	18	0.4	19	0.3	4	0.3	N 1		U 0	262.6	26.2
KUMAGA	0	X	17	31	12.4	ES	31	35.4	5	0.8	4	0.8	2	0.8				234.9	
TOKYO	0	EX	17	31	13	ES	31	32.0	6	0.6	5	0.5						244.7	
MATSUS	0	IP	17	31	16.5	X	32	04							S	W	U	310.9	
KOFU	0	EP	17	31	23.2	ES	31	58.0	7	1.4	12	1.8	2	1.4				326.7	34.8
CHOSHI	0	IS	17	31	24.9													191.1	
SAKATA	0	EX	17	31	31.6													228.7	
TATEYA	0	X	17	31	40.5				6	1.5	7	2.8	3	2.0				303.0	

OT= 21 18 24 38.8 +/- 0.2
S OF KUMAMOTO PREF
LAT= 32 17 +/- 1 LONG= 130 34 +/- 1
H= 10 MAG=4.0 CLASS=L

KUMAMO	1	IP	18	24	50.1	IS	24	57.8	38	1.6	52	1.8	20	1.0				59.9	07.7
NAGASA	0	P	18	24	54.0	S	25	06.4							N	W	U	81.1	12.4
KAGOSH	0	EP	18	24	54.3	ES	25	02.9	9	2.0	16	1.2	8	1.4				78.7	08.6
MIYAZA	0	IP	18	24	56.0	S	25	07.4	20	0.6	20	0.6	9	0.6			U 2	90.8	11.4
SAGA	0	EP	18	25	00.8	S	25	11.9										109.4	11.1
OITA	0	EX	18	25	04.2				22	0.9	17	0.8						144.5	
FUKUOK	0	EP	18	25	04.4	ES	25	21.3	9	0.4	5	2.5	1	0.9				144.8	16.9

OT= 23 14 57 7.1 +/- 0.3
OFF FUKUSHIMA PREF
LAT= 37 18 +/- 1 LONG= 141 40 +/- 2
H= 50 MAG=5.2 CLASS=R

ONAHAM	2	IP	14	57	21.4	IS	57	31.1	400	0.9	350	1.0	100	0.6	N 4	E 4	D142	78.2	09.7
FUKUSH	2	IP	14	57	26.7	ES	57	39.0	214	0.8	209	1.0	147	0.3	S 6	E100	D128	116.9	12.3
SENDAI	1	IP	14	57	27.8	IS	57	39.5	155	1.0	178	0	104	1.4	S 20	E 19	D 98	126.1	11.7
ISHINO	1	IP	14	57	27.8	IS	57	41.4	93	1.0	111	1.0	44	0.8	S 21	E 8	D 28	128.9	13.6
SENDAI			14	57	27.8	IX	57	41.6										126.1	
SHIRAK	2	IP	14	57	29.1	IS	57	43.4	0		0		0		N 3	E 14	D 42	129.5	14.3
MITO	2	IP	14	57	30.4	IS	57	45.0	104	1.0	123	0.5	59	2.3	N 1	E 2	D 12	147.7	14.6
YAMAGA	0	IP	14	57	31.3	ES	57	49.0								E 3	D 5	157.0	17.7
UTSUNO	1	P	14	57	34.0	IS	57	54.0										180.4	20.0
KAKIOK	2	IP	14	57	34	IS	57	49	170	1.0	159	0.8	53	0.9	N 4	E 8	D 5	177.1	15.0
OFUNAT	1	IP	14	57	36.4	IS	57	56.4	31	0.4	47	1.2	24	1.2	S 2		D 2	195.6	20.0
CHOSHI	0	P	14	57	37.0	ES	57	57.6										189.7	20.6
KUMAGA	0	EP	14	57	42.6	ES	58	08.0	52	1.2	32	1.2	18	2.8				240.6	25.4
SAKATA	0	EP	14	57	42.6	ES	58	10.6										239.6	28.0
NIIGAT	0	IP	14	57	43.1	ES	58	06.4	95	2.0	85	1.5	38	1.7			D 5	240.6	23.3
MIYAKO	1	EP	14	57	44	IS	58	12.2	15	0.4	19	0.9						261.6	28.2
TOKYO	1	P	14	57	44.0	ES	58	11.5	63	0.8	67	0.6	21	0.8				247.6	27.5
MAEBAS	0	IP	14	57	44.7	IS	58	11.3								W 1	U 2	252.5	26.6
CHICHI	0	EP	14	57	45.1	IS	58	10.1										272.9	28.0
MORIOK	2	IP	14	57	45.8	IS	58	14.0	90	0.4	94	0.4	18	1.5	S 1	E 0	D 1	269.6	28.2

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TATEYA	0	EP	14	57	49.2				78	1.5	58	1.8	40	2.0				303.7	
KARUIZ	0	P	14	57	49.5	S	58	28.4									D	297.6	38.9
AKITA	0	P	14	57	50.9				52	2.8	36	0.8	18	1.4			D	301.1	
TAKADA	0	EP	14	57	51.8	X	58	33.2										304.0	
MATSUS	0	IP	14	57	53.0	S	58	24									N E D	319.5	31.0
NAGANO	0	EP	14	57	53.3	X	58	38.5	32	3.8	32	3.3	15	3.0				316.9	
KOFU	0	EP	14	57	53.6	X	58	40.2	77	1.8	73	1.4	22	1.0				332.3	
KAWAGU	0	P	14	57	53.9	S	58	30.8										328.2	36.9
AJIRO	0	EP	14	57	55.4	ES	58	31.8	11	0.8	9	0.6	6	0.6				340.7	36.4
OSHIMA	0	P	14	57	55.8	S	58	32.2	27	1.0	26	0.8	8	0.4				349.0	36.4
MISHIM	0	EP	14	57	56.9	ES	58	35.4	43	1.1	43	2.2	9	1.1				345.6	38.5
HACHIN	X	P	14	57	57.2	ES	58	34.2	15	0.5	19	0.4	12	0.5			D	358.2	37.0
MATSUM	0	EP	14	57	58.2	X	58	45.1										349.9	
AIKAWA	0	EP	14	57					6	1.0	8	0.6	7	1.4				312.5	
TOYAMA	0	EP	14	58	02	ES	58	47	14	3.2	15	3.4	10	3.2				402.2	45.0
SHIZUO	0	EP	14	58	03.0	ES	58	44.5	20	1.3	15	0.6	7	3.0				390.7	41.5
IIDA	0	EP	14	58	03.2	IS	58	46.8	30	1.4	26	1.4	19	2.2				396.9	43.6
AOMORI	0	EP	14	58	03.3	IS	58	44.1	71	1.8	55	1.3	20	0.9				397.8	40.8
WAJIMA	0	EX	14	58	04				19	0.8	20	1.0						422.5	
HAMAMA	0	EP	14	58	09	ES	58	53	13	2.0	11	2.2	6	2.0				457.1	44.0
YOKOHA	0	ES	14	58	09.0													274.4	
OMAEZA	0	EP	14	58	09.4				20	1.2	17	1.8	7	2.0				431.8	
HACHIJ	0	EP	14	58	14.6	ES	59	01.8	10	0.5	11	0.3						496.0	47.2
GIFU	0	EP	14	58	14.7	S	59	07.3	10	1.4	9	1.5	4	1.7				487.8	52.6
NAGOYA	0	EP	14	58	15.8	S	59	08.6	21	1.8	28	2.4	12	1.5				484.1	52.8
HAKODA	0	P	14	58	18.5	ES	59	11	15	2.4	11	1.3	6	2.8			U	507.1	52.5
URAKAW	0	EP	14	58	20	S	59	18.8	11	0.8	17	1.0	5	2.2				547.8	58.8
TOYOOK	0	EP	14	58	37				14	1.1	12	1.0						644.2	
SAPPOR	0	P	14	58	38.8				5	1.8	7	1.8	3	1.0				640.0	
ASAHIK	0	EP	14	58	42				6	2.0	5	1.4	5	1.8				721.0	
OBIHIR	1	EX	14	58	42													637.9	
OSAKA	0	EX	14	58	48				10	2.0	11	3.0	5	2.0				625.5	
KUSHIR	0	X	14	58		X	59	38	13	0.3	13	0.3	3	2.3				671.9	
HIKONE	0	S	14	59	19.5				7	1.1	4	0.8						536.1	
WAKAYA	0	EX	15	00	03.0				3	2.2	1	1.7						679.2	

OT= 24 2 56 24.6 +/- 0.8
OFF IBARAKI PREF
LAT= 35 52 +/- 2 LONG= 141 36 +/- 4
H= 50 MAG=4.2 CLASS=U

CHOSHI	0	P	02	56	38.6	IS	56	46.4										70.2	07.8
TOKYO	0	EX	02	56	40				7	3.4	11	2.8	5	4.0				167.7	
MITO	0	P	02	56	44.1	S	56	56.5	14	1.4	17	1.5	8	1.5				116.3	12.4
KAKIOK	0	EP	02	56	46	ES	56	59	18	1.0	17	0.8	8	0.7				133.0	13.0
ONAHAM	0	EX	02	56	46.9				14	0.9	16	0.9	4	0.8				134.8	
UTSUNO	0	EP	02	56	51.7	ES	57	03.6										172.7	11.9
FUKUSH	0	EX	02	57	00.0				10	1.0	18	1.0	5	1.0				232.5	
KUMAGA	0	X	02	57	00.6	X	57	32.4	5	1.0	3	1.0	2	0.8				202.1	
TATEYA	0	X	02	57	01.6				9	2.0	9	1.5	4	1.4				185.3	
SENDAI	0	X	02	57	02	S	57	32	5	1.6	5	1.6	2	1.4				272.8	
MATSUS	0	IP	02	57	09.9	X	57	54								E	D	313.9	

OT= 24 10 20 4.4 +/- 0.6
OFF IWATE PREF
LAT= 39 6 +/- 1 LONG= 143 5 +/- 3
H= 20 MAG=4.7 CLASS=S

MIYAKO	1	IP	10	20	24.2	IS	20	36.9	21	1.2	12	1.0	12	0.6	S 2	E 3	D 3	113.5	12.7
OFUNAT	0	IP	10	20	25.1	IS	20	38.4	18	0.4	10	0.4	11	0.4		E 4	D 3	118.2	13.3
ISHINO	0	EP	10	20	32.4	ES	20	51.2	8	1.2	7	0.8	7	1.0	N	E 1	D 2	171.9	18.8
MORIOK	0	IP	10	20	33.7	ES	20	54.0	23	0.4	23	0.3	5	0.5	S 0	E 0	D 0	177.8	20.3
						EX	20	38.3											
HACHIN	0	EP	10	20	36.4	IS	21	02.1	7	0.4	8	0.4	3	2.0			D	207.0	25.7
SENDAI	0	EP	10	20	38.3	S	21	01	15	3.2	12	0.7	9	1.4			D 1	211.6	22.7
AKITA	0	EP	10	20	46.4	EX	21	15.4	18	2.0	15	2.8	9	2.4				265.8	
AOMORI	0	EP	10	20	47	ES	21	19	23	1.8	26	1.5	12	1.4				273.8	32.0
FUKUSH	0	EP	10	20	47.2	ES	21	19.8	11	1.0	11	1.0	3	0.8				272.2	32.6
SAKATA	0	EX	10	20	49.1													282.1	
MITO	0	EX	10	20	55.8				7	1.4	5	1.5	3	1.4				379.7	
ONAHAM	0	EX	10	20	58.8				13	1.1	10	0.8	3	0.5				306.1	
MATSUS	0	P	10	21	18	S	22	23										514.7	65.0
KUMAGA	0	X	10	21	21.6	X	23	38.4	5	1.0	3	0.8	2	0.8				462.5	
NIIGAT	0	EX	10	21	48.4				14	4.6	11	2.7	6	3.8				375.6	

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OT= 24 10 21 12.1 USCGS
S OFF HONSHU
LAT= 31 18 LONG= 138 18
H=387 CLASS=R

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
HACHIJ	0	IP	10 22 09.0	IS	22 56.6	9	0.5	10	0.4					D 5	244.0	44.6
OSHIMA	0	P	10 22 23.6	IS	23 14.8	8	1.2			3	0.4				396.7	51.2
TATEYA	0	EP	10 22 26.1	S	23 18.8	23	0.6	24	0.6	12	0.5				433.7	52.7
TOKYO	0	EX	10 22 37	IS	23 30.4	23	0.4	26	0.2						504.7	
KAKIOK	0	EP	10 23 28	X	23 39.1	17	0.8	17	1.0	8	0.5				574.2	
UTSUNO	1	EP	10 23 31.8	X	23 43.5										599.6	
CHOSHI	0	ES	10 23 37.3												544.5	
MITO	0	IS	10 23 44.6			14	0.5	10	1.2	3	0.8				597.8	
MATSUS	0	P	10 23 47												580.9	
ONAHAM	0	EX	10 23 52.8	ES	23 56.8	12	0.9	17	1.0	5	0.6				670.5	
FUKUSH	0	EX	10 24 11.8			10	1.0	9	0.8	3	0.8				743.3	

OT= 24 20 25 29.2 +/- 0.2
E OF SAITAMA PREF
LAT= 35 56 +/- 2 LONG= 139 32 +/- 2
H= 70 CLASS=U

TATEYA	0	EX	20 25 37.7			6	0.5	5	0.6	3	0.5				109.7	
KUMAGA	0	IP	20 25 40.4	S	25 48.0	16	0.6	8	0.2	8	0.2			U 12	27.2	07.6
TOKYO	0	P	20 25 42.7	S	25 52.5	14	0.4	21	0.6						34.2	09.8
KAKIOK	0	P	20 25 43.8	S	25 53.0	8	0.5	8	0.6	5	0.5	N	1 E	2 D 1	68.0	09.2
UTSUNO	0	IP	20 25 44.4	S	25 54.1									D 4	74.5	09.7
AJIRO	0	EP	20 25 47.4	S	26 01.2	8	0.2	6	0.2	2	0.4				106.4	13.8
MITO	0	P	20 25 47.6	S	25 59.7	4	0.3	12	0.3	3	0.2				97.8	12.1
KOFU	0	EP	20 25 48.2	ES	25 58.6	6	0.4	8	0.4	3	1.6				93.0	10.4
MATSUS	0	IP	20 25 52.0	S	26 08								E	D	136.7	16.0
ONAHAM	0	IP	20 25 55.8	IS	26 13.9	8	0.8	8	1.1	2	0.4			D 1	166.6	18.1
SHIZUO	0	S	20 26 12.1			6	0.4	7	0.6						147.6	

OT= 25 13 0 4.4 +/- 0.3
OFF URAKAWA
LAT= 41 52 +/- 3 LONG= 142 32 +/- 2
H= 80 CLASS=L

URAKAW	1	IP	13 00 17.9	IS	00 26.8	56	0.6	87	0.6	23	0.4	N	3	U 22	38.3	08.9
HIROO	0	IP	13 00 21.4	IS	00 31.9										79.7	10.5
OBIHIR	0	EP	13 00 27	S	00 41.3										130.0	14.3
HAKODA	0	IP	13 00 28.8	IS	00 45.6	5	1.2	4	0.4	1	1.0			D 1	147.6	16.8
KUSHIR	0	ES	13 00 56			14	0.3	13	0.3	4	0.3				196.8	

OT= 26 5 51 22.0 +/- 0.8
E COAST OF CHIBA PREF
LAT= 35 16 +/- 2 LONG= 140 23 +/- 3
H= 0 MAG=3.8 CLASS=L

CHOSHI	0	P	05 51 37.9	S	51 48.5										65.8	10.6
TOKYO	0	IP	05 51 38.0	S	51 47.1	19	0.2	22							73.3	09.1
TATEYA	0	EP	05 51 38.5			35	0.6	29	0.5	15	0.3				56.5	
KAKIOK	0	P	05 51 41.7	ES	51 54	14	1.0	13	0.7	8	0.6	S	3	D 1	108.4	12.3
OSHIMA	0	P	05 51 43.2	S	51 56.5	8	0.4	7	0.4	8	0.4				107.5	13.3
MITO	0	EP	05 51 44.5	ES	51 58.5	9	0.6	12	0.6	4	0.6				123.6	14.0
KUMAGA	0	EP	05 51 46.6	ES	52 06.4	6	1.0	3	0.8	3	1.0				133.0	19.8
AJIRO	0	EP	05 51 47.3	ES	51 59.4	5	0.2	6	0.2	2	0.3				119.8	12.1
UTSUNO	0	P	05 51 49.3	ES	52 07.6										149.3	18.3
KOFU	0	EP	05 51 54.2	ES	52 19.0	7	1.8	6	1.0	3	1.6				171.4	24.8
MATSUS	0	P	05 52 00	S	52 32										241.7	32.0

OT= 27 11 15 48.9 +/- 0.2
S OF HOKKAIDO
LAT= 42 11 +/- 1 LONG= 143 9 +/- 1
H= 60 MAG=5.4 CLASS=R

HIROO	3	IP	11 15 58.7	S	16 04.7	750	2.3	800	2.0	600		N	E244	U335	17.7	06.0
URAKAW	3	IP	11 16 00.4	S	16 07.4	600	2.9	4500	3.9	1900	2.9	N	6 W 31	U 9	30.7	07.0

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
OBIHIR	2	EP	11 16 04	S	16 14.7	750	3.7	850	2.9	500	2.3				82.1	10.7
KUSHIR	2	IP	11 16 10.6	ES	16 26	400	0.8	200	0.3	100	0.7			U 5	135.1	15.4
SAPPOR	2	IP	11 16 15.6	IS	16 34.4	197	2.4	213	2.0	83	1.4	S	8	D 20	178.1	18.8
MURORA	X	P	11 16 15.8			100	1.0	200	1.0	100		S	1 E	3 D 4	179.4	
ASAHIK	0	EP	11 16 17.	S	16 37.4	84	1.8	76	2.2	56	0.8				187.3	20.4
HAKODA	X	IP	11 16 19.5	IS	16 40.9	77	1.6	145	1.2	84	2.4	N	E	1 D 2	202.4	21.4
RUMOI	X	P	11 16 22.7	ES	16 46.5										231.9	23.8
ABASHI	0	EP	11 16 23 .	S	16 46	74	3.0	56	2.4	35	3.0				223.6	23.0
HACHIN	2	IP	11 16 23.3	IS	16 47.0	58	2.7	72	2.2	28	2.6	S	1 W	1 U 1	229.0	23.7
NEMURO	1	EP	11 16 24	ES	16 48	43	2.6	35	2.6	20	2.2				236.6	24.0
SUTTSU	0	EP	11 16 24.7	ES	16 49.7										248.6	25.0
AOMORI	1	IP	11 16 25.2	IS	16 53.4	189	1.4	163	1.6	90	1.4	S	8 W	10 U 11	249.2	28.2
MIYAKO	1	EP	11 16 32	IS	17 02	15	2.0	22	4.0	9	2.1				299.0	30.0
MORIOK	1	IP	11 16 35.4	S	17 08.0	23	0.4	38	0.4	15	2.8	N	0 E	0 D 0	322.7	32.6
				EX	17 31											
OFUNAT	0	EP	11 16 40.0	IS	17 18.0	14	0.8	20	3.2	12	1.8				367.2	38.0
AKITA	0	EX	11 16 40			53	3.4	52	3.4	27	3.2				375.2	
WAKKAN	0	EP	11 16 43			31	4.6	48	4.8	25	6.1				377.9	
ISHINO	0	EP	11 16 49.0	EX	17 32.8	17	4.8	19	5.2	11	4.6				445.9	
SENDAI	0	P	11 16 53.6	S	17 40	30	2.2	32	4.0	13	1.6				475.8	46.4
SAKATA	0	EP	11 16 54.2			150	3.8	150	3.8						459.8	
YAMAGA	0	EP	11 16 57.1	ES	17 45.3										497.2	48.2
FUKUSH	0	EP	11 17 02.3	S	17 59.4	23	1.2	26	1.2	10	3.6				542.0	57.1
SHIRAK	0	EP	11 17 11.1	ES	18 12.9										615.7	61.8
ONAHAM	0	EX	11 17 11.1	X	18 14.2	27	1.1	29	1.2	12	1.5				612.6	
MITO	0	EP	11 17 18.6	S	18 27.6	27	2.5	28	4.6	23	2.6				684.5	69.0
UTSUNO	0	P	11 17 19.3	ES	18 26.7										686.5	67.4
KAKIOK	0	EP	11 17 22	ES	18 32	15	1.3	16	4.4	7	2.7				708.2	70.0
NIIGAT	0	EX	11 17 25.3			65	3.5	43	4.2	20	4.0				589.3	
CHOSHI	0	EP	11 17 27.2	S	18 40.0										744.2	72.8
MATSUS	0	IP	11 17 28.8	S	18 42							S	W	U	757.4	73.2
NAGANO	0	EP	11 17 29.5	X	19 07.0	18	4.0	20	3.5	6	2.8				746.7	
WAJIMA	0	EX	11 17 30			9	1.2	10	1.4						754.6	
KUMAGA	0	EP	11 17 31.0	ES	18 42.8	22	3.0	13	4.0	13	3.6				744.8	71.8
TOYAMA	0	P	11 17 34.2	ES	18 57	7	4.4	8	4.2	8	3.6			U 2	794.1	82.8
TOKYO	0	EX	11 17 36	S	18 52	28	3.2	22	4.2	26	4.0				778.8	
KOFU	0	EP	11 17 40.0	ES	19 15.4	9	4.5	11	3.0	5	4.3				825.6	95.4
TATEYA	0	EP	11 17 46.7			24	3.0	29	5.0	14	3.2				848.6	
KAWAGU	0	X	11 17 48.7	S	19 03.3										833.8	
KANAZA	0	EX	11 17					7	3.2	5	3.5				839.4	
NAGOYA	0	X	11 17	X	19 43.7	8	2.8	7	2.8	2	2.7				946.1	
MISHIM	0	X	11 18 03.3			12	2.6	11	2.9						866.4	
OSAKA	0	EX	11 18 31			15	4.0	6	5.0						1065.6	
WAKAYA	0	EX	11 18 46.5												1125.3	
OMAEZA	0	EX	11 18			21	4.8	18	5.4	8	4.6				945.0	
HAMAMA	0	EX	11 19 34			9	4.0	10	4.0	3	3.2				954.9	

OT= 27 12 18 57.3 +/- 0.6
OFF IWATE PREF
LAT= 39 39 +/- 1 LONG= 142 11 +/- 4
H= 40 MAG=3.8 CLASS=L

MIYAKO	2	IP	12 19 06.3	IS	19 08.7	38	0	35	0	35	0				18.5	02.4
OFUNAT	1	EP	12 19 11.6	IS	19 20.0	12	0.0	6	0.0	4	0.4				76.6	08.4
MORIOK	0	IP	12 19 12.5	S	19 22.7	15	0.3	22	0.3	3	0.3	S	0 E	2 D 1	87.2	10.2
HACHIN	0	IP	12 19 15.5	IS	19 28.5	9	0.3	6	0.4	1	0.7	S	1 E	D 1	112.2	13.0
MATSUS	0	P	12 20 05	X	21 10										490.6	

OT= 27 20 48 10.3 +/- 0.7
S OF CHIBA PREF
LAT= 34 47 +/- 4 LONG= 139 53 +/- 3
H= 50 MAG=3.5 CLASS=L

OSHIMA	0	IP	20 48 21.0	IS	48 28.3	16	0.6	13	0.4	11	0.4				46.3	07.3
AJIRO	X	EP	20 48 25.6	IS	48 33.9	14	0.2	12	0.2	2	0.3				77.4	08.3
MATSUS	0	P	20 48 45.6	S	49 10							S	E	D	246.8	24.4
TOKYO	0	IS	20 48 48.7			10	0.4	8							100.7	
TATEYA	0	X	20 48	IS	48 25.1	41	2.7	13	0.5	8	0.5				22.2	

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OT= 27 23 42 42.1 +/- 0.1
E OF SAITAMA PREF
LAT= 35 56 +/- 1 LONG= 139 31 +/- 1
H= 90 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
CHICHI	0	EP	23	42	56.7	IS	43	07.6										39.8	10.9
KUMAGA	1	IP	23	42	57.4	IS	43	07.8	38	0.4	41	0.4	13	0.4			U 24	26.5	10.4
TOKYO	X	P	23	42	57.4	IS	43	08.4	40	0.8	50	0.6	15	4.0				35.2	11.0
KAKIOK	1	P	23	42	58.0	S	43	09.2	35	0.9	39	0.8	14	0.8	N 3	E 3	U 5	69.3	11.2
MAEBAS	0	IP	23	42	58.6	IS	43	10.4									U 2	66.0	11.8
YOKOHA	0	P	23	42	58.6	X	23	09.4										56.5	
UTSUNO	0	IP	23	42	59.2	IS	43	11.2							N 4	W 2	U 7	75.2	12.0
KAWAGU	0	P	23	42	59.9	IS	43	11.9										83.5	12.0
KOFU	1	EP	23	43	00.8	IS	43	13.6	50	0.4	74	0.4	22	0.4				91.6	12.8
MITO	0	IP	23	43	01.5	IS	43	15.2	26	2.4	46	2.5	22	2.8			U 6	99.1	13.7
MISHIM	0	P	23	43	01.7	IS	43	15.9	34	2.0	43	2.0	9	3.6			D 4	105.5	14.2
KARUIZ	0	EP	23	43	02.0	S	43	16.7										97.9	14.7
AJIRO	1	P	23	43	02.2	IS	43	15.6	88	0.3	83	0.3	7	0.3				105.8	13.4
CHOSHI	0	P	23	43	04.1	ES	43	17.6										122.1	13.5
OSHIMA	X	P	23	43	04.2	IS	43	18.2	28	0.6	24	0.6	20	0.6				130.6	14.0
MATSUS	0	IP	23	43	05.5	S	43	22							S	E	D	135.4	16.5
TATEYA	0	EP	23	43	06.0				75	2.6	25	1.5	11	1.7				110.1	
SHIZUO	0	EP	23	43	06.4	ES	43	24.0	9	1.9	15	3.6	5	1.9			D 2	146.6	17.6
MATSUM	0	P	23	43	06.8	IS	43	25.2										143.2	18.4
SHIRAK	0	P	23	43	07.1	ES	43	24.6										146.0	17.5
NAGANO	0	EP	23	43	07.7	ES	43	24.7	17	1.7	24	4.4	8	2.7				148.4	17.0
ONAHAM	0	IP	23	43	08.6	IS	43	28.8	30	1.2	29	1.2	9	0.9			D 1	167.7	20.2
IIDA	0	IP	23	43	09.0	IS	43	28.0	9	1.2	21	1.2	13	1.8	N 1	E 4	D 4	159.2	19.0
TAKADA	0	EP	23	43	10.6	IS	43	31.6										172.5	21.0
OMAEZA	0	EP	23	43	10.8				15	2.0	10	1.6	4	2.8				189.3	
HAMAMA	0	EP	23	43	14.7	S	43	38.3	11	3.4	11	3.0	4	2.6			U 1	212.2	23.6
FUKUSH	0	EP	23	43	16.2	ES	43	41.0	14	0.9	11	0.9	5	2.1				219.6	24.8
TOYAMA	0	P	23	43	16.4	S	43	42.4	11	3.0	8	2.4	7	3.0			D 2	224.3	26.0
NAGOYA	0	IP	23	43	18.2	S	43	44.3	11	1.0	13	2.0	6	1.2			D 1	246.2	26.1
GIFU	0	P	23	43	19.5	S	43	45.8	8	1.6	8	1.7	4	1.1				256.1	26.3
NIIGAT	0	EX	23	43	20.7				17	3.8	20	3.9	6	5.0				223.2	
WAJIMA	0	EX	23	43	24				10	1.0	13	1.0						284.4	
SENDAI	0	EX	23	43	24.3				7	2.0	6	2.6	4	2.8				285.9	
HIKONE	0	P	23	43	26.8	S	43	58.3	6	1.0	4	1.0						305.1	31.5
HACHIJ	0	EP	23	43	27.4	S	44	00.6	8	0.6	8	0.7						315.0	33.2
OSAKA	0	EX	23	43	37				7	2.8	5	2.0	4	2.0				389.0	
KANAZA	0	EX	23	43	37.5				6	2.0	8	4.3						266.6	
TOYOOK	0	EP	23	43	40.5				12	1.0	7	1.0						427.0	
AKITA	0	EX	23	43	42				5	3.6	4	3.6	3	2.8				423.2	

OT= 28 6 29 25.0 +/- 0.3
OFF FUKUSHIMA PREF
LAT= 37 2 +/- 1 LONG= 141 36 +/- 2
H= 50 MAG=4.5 CLASS=M

ONAHAM	2	IP	06	29	37.4	IS	29	45.6	119	0.4	148	0.4	29	0.6			D 5	62.5	08.2
MITO	1	IP	06	29	45.3	S	29	59.0	30	0.4	49	0.3	17	0.3			D 2	124.3	13.7
SHIRAK	2	IP	06	29	45.7	IS	29	57.9	0		0		0		0	E 7	D 24	122.6	12.2
FUKUSH	1	IP	06	29	46.2	ES	30	00.0	40	0.9	38	0.8	19	0.6				127.9	13.8
SENDAI	1	IP	06	29	48.7	S	30	04.8	23	1.0	17	1.0	13	1.1			D 7	149.5	16.1
ISHINO	0	IP	06	29	49.0	IS	30	05.8	16	0.6	15	0.6	6	0.8	S 3		D 3	156.6	16.8
KAKIOK	1	P	06	29	49.2	S	30	04.8	32	0.9	31	0.8	22	1.0		E	U 1	154.1	15.6
UTSUNO	0	P	06	29	50.0	S	30	06.8										163.4	16.8
CHOSHI	0	EP	06	29	51.1	S	30	06.8										160.2	15.7
OFUNAT	0	EP	06	29	58.2	IS	30	20.7	6	0.4	7	0.4	3	0.8				225.4	22.5
KUMAGA	0	EP	06	29	59.6	ES	30	24.4	8	1.0	5	0.8	3	1.0				221.2	24.8
TOKYO	0	EX	06	30	00	ES	30	22.3	11	0.6	10							222.9	
MAEBAS	0	EP	06	30	00.6	ES	30	24.4										237.0	23.8
CHICHI	1	EP	06	30	01.0	ES	30	26.8										253.4	25.8
SAKATA	0	EP	06	30	04.3													259.0	
KARUIZ	0	EP	06	30	06.9													283.0	
NIIGAT	0	X	06	30	07.0	ES	30	26.1	9	1.7	6	4.5	5	2.3				245.5	
MORIOK	0	IP	06	30	07.6	S	30	38.4	11	0.4	16	0.4	2	0.3	S 0		D 0	298.0	30.8
MATSUS	0	IP	06	30	09.8	X	30	52								E	D	307.6	
KOFU	0	EP	06	30	10.4	ES	30	44.0	12	0.8	10	1.2	4	1.1				312.3	33.6
AKITA	0	EX	06	30	13				7	2.6	7	1.8	3	2.8				325.5	
TATEYA	0	X	06	30	24.1						8	1.5	5	2.2				275.8	
NAGOYA	0	X	06	30	39.4	ES	31	22.6	3	1.6	5	2.2	2	1.4				465.6	
KAWAGU	0	X	06	30		X	30	52.3										306.5	
AOMORI	0	EX	06	31	12				7	1.3	9	1.3						425.9	

OT= 28 11 14 24.4 +/- 0.2
SW OF IBARAKI PREF
LAT= 36 18 +/- 1 LONG= 140 5 +/- 1
H= 40 MAG=3.8 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KAKIOK	1	IP	11	14	31.6	IS	14	37.7	62	1.0	70	1.0	33	0.7			U 19	12.5	06.1
UTSUNO	1	IP	11	14	33.4	IS	14	40.6									D 5	33.3	07.2
MITO	0	IP	11	14	33.4	IS	14	40.5	42	1.0	30	0.4	10	0.3				35.9	07.1
KUMAGA	0	P	11	14	36.6	S	14	46.8	23	0.6	19	0.4	7	0.2			D 2	65.0	10.2
TOKYO	0	IP	11	14	37.8	S	14	47.9	11	0.4	13	0.4	4	0.3				74.3	10.1
MAEBAS	0	P	11	14	39.5	IS	14	51.2										92.1	11.7
SHIRAK	0	EP	11	14	40.4	IS	14	51.5										91.7	11.1
ONAHAM	0	IP	11	14	40.9	IS	14	52.8	19	1.0	20	0.9	4	0.5			D 1	102.7	11.9
CHICHI	0	EP	11	14	41.6	S	14	50.8										96.4	09.2
MATSUS	0	IP	11	14	49.6	S	15	11							S	E	D	170.2	21.4
FUKUSH	0	EP	11	14	50.0	S	15	08.6	7	0.7	6	0.7	4	0.5				165.3	18.6
KOFU	0	EP	11	14	51.4	ES	15	07.2	6	0.4	9	0.4	3	1.0				154.5	15.8
TATEYA	0	X	11	14	54.0						9	0.8	4	1.8				147.3	

OT= 29 1 0 10.7 +/- 0.5
S OF CHIBA PREF
LAT= 34 40 +/- 3 LONG= 139 44 +/- 3
H=140 CLASS=L

TATEYA	0	EP	01	00	30.5	IS	00	46.0	35	0.5	36	0.6	20	0.3				37.2	15.5
OSHIMA	0	P	01	00	30.7	S	00	44.1	21	0.6	21	1.0	13	0.8	N	E	U	34.2	13.4
AJIRO	X	EP	01	00	33.0	S	00	48.1	8	0.2	13	0.2	2	0.4				71.6	15.1
YOKOHA	0	P	01	00	34.4	S	00	51.2										85.7	16.8
TOKYO	0	EP	01	00	36	S	00	55.9	21	0.4	26	0.6	4					113.0	19.9
CHOSHI	0	P	01	00	39.7	S	01	01.6										154.9	21.9
HACHIJ	0	EP	01	00	40.0	S	01	01.4										173.6	21.4
KAKIOK	0	EP	01	00	41	ES	01	04	8	0.3	9	0.2						178.5	23.0
MATSUS	0	P	01	00	50.1	S	01	18	7	0.6	6	0.6	4	0.6				249.4	27.9
UTSUNO	0	S	01	01	08.3												U	208.9	

OT= 30 9 12 24.2 +/- 1.1
OFF ASHIZURI PEN
LAT= 32 23 +/- 4 LONG= 132 56 +/- 4
H= 30 MAG=4.3 CLASS=U

ASHIZU	0	P	09	12	34.8	S	12	39.0	50	0.8	34	0.7	42	1.2	N 2	E 3	D 4	37.8	04.2
UWAJIM	0	P	09	12	41.2	S	12	50.6										99.7	09.4
MATSUY	0	EP	09	12	49.7	ES	13	07.7	9	0.7	16	0.6	2	0.7				162.1	18.0
KUMAMO	0	EP	09	12	56.7	ES	13	23.3	7	1.0	7	1.0	4	1.1				213.9	26.6
OITA	0	EX	09	13	06.8	S	13	06.8	30	0.9	30	0.9	13	1.1				154.7	
MIYAZA	0	S	09	13	06.8				11	0.6	11	0.8	2	0.8				151.2	

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List 6 SEISMOLOGICAL DATA OBTAINED BY MATSUSHIRO

DATE		PHASE AND TIME (J.S.T.) H M S		M S	INITIAL MOTION	
1	P	07 08 49.	EX	09 23.		*
1	EP	07 35 46.	ES	44 46.		*
1	P	09 03 56.	S	09 46.		*
1	IP	10 03 09.1	S	04 29.	S U	*
1	P	11 00 13.	S	01 56.		*
1	IP	18 38 08.0	S	38 54.	D	*
1	P	22 35 35.	EX	37 10.		*
1	EP	22 55 54.	S	01 20.		*
						*
2	EX	04 19 25.				*
2	EP	05 05 16.				*
2	P	06 24 15.	S	24 49.		*
2	P	10 50 31.				*
2	P	12 42 16.	S	42 32.		*
2	P	14 44 44.	ES	49 13.		*
2	P	17 15 14.				*
2	EP	18 57 16.	S	04 52.		*
2	P	20 10 55.	S	11 21.		*
2	P	21 10 46.	ES	11 22.		*
2	EP	23 16 43.	S	17 19.		*
2	P	23 35 46.	ES	36 13.		*
						*
3	IP	00 55 10.8	EX	55 39.	D	*
3	P	01 43 59.	S	44 25.		*
3	IP	06 57 41.6	S	58 31.	U	*
3	P	09 07 54.	EX	29 45.		*
3	P	11 05 53.	S	06 24.		*
3	EX	13 22 50.				*
3	EP	19 45 25.				*
3	EX	22 36 41.				*
						*
4	P	01 23 51.				*
4	IP	02 12 59.2			D	*
4	P	03 58 52.				*
4	IP	06 54 31.5	S	55 34.	S W U	*
4	EP	12 50 02.				*
4	EP	13 50 50.	ES	00 47.		*
4	EP	16 06 22.				*
4	P	19 54 24.	EX	55 14.		*
4	EP	20 48 58.				*
4	IP	22 55 35.5	EX	56 42.	S U	*
4	IP	23 15 15.8			U	*
4	EP	23 37 38.				*
						*
5	EX	01 42 00.	EL	50 14.		*
5	P	01 49 15.				*
5	P	04 40 13.	S	41 49.		*
5	P	05 22 53.	EX	27 35.		*
5	P	05 49 44.				*
5	IP	13 51 09.5			U	*
5	P	18 40 43.				*
5	P	19 32 29.	S	32 55.		*
5	EP	19 54 37.				*
5	P	20 07 53.				*
5	EP	20 17 38.				*
5	IP	21 50 50.8	S	51 00.	N E U	*
						*
6	IP	01 32 46.8	S	32 55.	N E U	*
6	IP	02 27 08.4			S D	*
6	IX	02 33 10.	EL	00 0		*
6	IP	02 42 47.0	S	43 06.	S W U	*
6	IP	07 19 22.7			U	*
6	P	07 22 58.	IX	23 24.		*
6	EP	07 28 33.	S	29 10.		*
6	IP	16 02 30.4			S U	*
						*
7	IP	00 48 47.7			E D	*
7	IP	02 39 01.8	S	39 21.	N U	*
7	EP	07 45 20.				*
7	IP	11 40 19.9	S	40 46.	D	*
7	EP	16 57 53.				*
7	IP	21 05 07.7	S	05 39.	E U	*
7	IP	22 29 13.0	IX	29 32.	D	*
						*
8	P	00 17 33.	S	17 48.		*
8	P	07 54 47.	S	00 54.	U	*
8	EP	10 51 12.	ES	51 37.		*
8	P	13 23 47.				*
8	P	15 15 03.				*
8	IP	17 04 42.0	IS	04 59.1	D	*
8	P	18 13 41.				*
8	P	21 05 06.	S	05 31.		*
8	IP	21 38 13.2	ES	38 49.	E D	*
8	P	23 54 27.	S	58 31.	U	*
						*
9	EP	03 26 40.				*
9	P	06 51 02.				*
9	EP	10 59 30.	EL	03 53.		*
9	P	11 16 29.	S	18 08.		*
9	P	11 23 16.	ES	24 20.		*
9	IP	15 05 40.6	S	06 06.	E D	*
9	EP	15 58 50.	S	04 50.		*
9	IP	16 00 30.0	S	00 43.	W U	*
9	IP	16 03 23.6	S	03 36.	N W U	*
9	EP	17 40 38.				*
9	EP	21 07 17.				*
9	P	22 44 11.	S	44 36.		*
9	P	23 22 59.				*
						*
10	P	04 48 33.				*
10	IP	07 04 37.9	ES	12 17.	U	*
10	EP	08 02 59.	ES	03 52.		*
10	IP	08 12 21.4	ES	14 24.	U	*
10	IP	08 39 11.0	ES	39 37.	D	*
10	IP	12 36 25.3	IS	36 32.8	U	*
10	IP	15 19 07.4	IS	19 12.0	E D	*
10	EP	17 38 21.	ES	38 42.		*
						*
11	P	00 33 20.				*
11	IP	01 42 33.0	S	43 24.	N E D	*
11	EP	02 21 14.	S	26 10.		*
11	IP	07 53 19.3	S	54 25.	S W U	*
11	P	08 01 11.				*
11	P	08 39 53.	S	40 40.		*
11	P	10 07 29.	S	15 02.		*
11	P	10 14 19.				*
11	P	13 57 15.				*
11	EP	14 51 38.				*
11	EP	15 15 39.	S	16 03.		*
11	P	15 24 19.				*
11	P	17 09 58.	S	10 15.		*
11	IP	18 31 27.5			W D	*
11	IP	18 44 08.3	S	44 34.	D	*
11	EP	21 23 46.				*
						*
12	IP	00 13 27.3	S	15 15.	N U	*
12	X	00 14 48.				*
12	IP	00 44 02.3	S	45 53.		*
12	P	06 11 46.	S	12 08.		*
12	P	06 34 46.				*
12	IP	08 23 12.0			D	*
12	P	08 56 22.				*
12	P	09 26 41.	S	27 07.		*
12	P	13 17 16.	S	18 30.	D	*
12	P	14 23 41.	S	24 14.		*
12	IP	15 35 07.0	S	35 33.	N E D	*
12	IP	16 42 50.7	S	43 53.	S W U	*
12	P	16 49 48.				*
12	IP	17 04 56.0			U	*
12	IP	18 05 22.9	IS	05 31.3	N E U	*
12	EP	18 12 13.				*
12	IP	19 27 12.5	S	28 17.	U	*
12	P	19 34 00.				*
12	P	21 28 46.				*
12	P	21 57 53.				*
12	EP	23 15 10.				*
12	P	23 54 25.				*
						*
13	P	00 26 10.	S	36 33.		*
13	P	01 18 01.				*
13	P	03 59 40.	S	06 50.		*
13	IP	05 20 31.0	S	20 53.	W U	*
13	PKP	05 48 29.				*
13	P	06 56 56.				*
13	EP	07 04 53.				*
13	EP	10 35 52.				*
13	EP	11 38 03.				*
13	P	17 52 34.	S	55 56.		*
						*
14	P	00 25 03.				*

DATE		PHASE AND TIME H M S		M S	INITIAL MOTION	
14	EP	09 29 47.				*
14	P	12 31 33.	S	38 30.	N D	*
14	EP	12 46 10.				*
14	EP	14 17 04.				*
14	IP	17 12 58.0	S	13 41.	N W U	*
14	EP	17 17 26.				*
14	IP	17 38 45.0			S E D	*
14	P	18 33 55.				*
14	P	23 00 07.				*
						*
15	EL	03 18				*
15	P	06 54 16.				*
15	P	07 41 36.	ES	42 00.		*
15	IP	13 33 30.2			N U	*
						*
16	IP	02 05 46.8			E U	*
16	IP	04 04 11.2	S	04 25.	E D	*
16	IP	17 08 08.3	S	09 34.	U	*
16	IP	17 46 06.5	S	46 20.	E D	*
16	IP	22 23 47.2	IS	24 13.0	D	*
						*
17	P	00 53 49.	S	00 12.		*
17	EP	01 46 18.	S	47 17.		*
17	IP	02 22 28.1			S W D	*
17	P	05 12 53.				*
17	P	06 31 15.				*
17	P	10 06 27.				*
17	P	11 45 40.				*
17	EX	15 05 40.				*
17	P	16 56 45.	ES	57 25.		*
						*
18	P	00 38 19.	ES	38 45.		*
18	IP	04 30 32.7	S	33 48.	S E D	*
18	P	05 05 04.				*
18	EP	05 13 57.				*
18	P	08 35 43.				*
18	P	09 11 09.	S	21 48.		*
18	IP	09 31 48.5	ES	32 48.	U	*
18	P	10 48 01.				*
18	EP	11 25 10.				*
18	P	14 22 19.	ES	22 45.		*
18	P	16 29 38.				*
18	IP	17 22 57.8	IS	23 34.	N E U	*
18	P	21 33 19.				*
18	P	21 50 42.	S	51 02.		*
						*
19	P	05 17 27.				*
19	P	05 50 35.	S	56 13.		*
19	P	07 16 11.	S	16 32.		*
19	P	07 19 03.				*
19	P	07 33 30.				*
19	EP	08 41 15.				*
19	IP	08 51 51.2	S	57 45.	S W U	*
19	P	13 54 09.				*
19	IP	14 15 30.1	S	16 05.	S E D	*
19	EP	14 38 41.	S	43 30.		*
19	IP	15 01 51.9	S	02 16.	U	*
19	IP	16 05 39.6	S	07 40.	E U	*
19	P	18 56 58.				*
19	IP	22 33 47.8			W U	*
19	IP	22 46 52.4			S E D	*
						*
20	IP	00 06 27.1	S	07 01.	U	*
20	IP	00 38 20.6	ES	38 47.	N W U	*
20	IP	03 52 45.3			U	*
20	P	04 01 45.	S	05 48.		*
20	P	05 32 57.				*
20	IP	06 40 56.8			D	*
20	IP	11 45 55.2	S	52 27.	D	*
20	IP	12 11 15.0			U	*
20	P	15 34 35.	S	35 13.		*
20	IP	15 42 01.1	S	42 44.	S W U	*
20	IP	15 50 45.7			U	*
20	P	16 08 45.	S	09 24.		*
20	IP	17 54 15.5	ES	54 21.	N E U	*
20	IP	17 57 18.6	S	57 24.	N E U	*
						*
21	IP	00 39 08.4	S	40 13.	S W U	*
21	IP	06 20 07.5	S	20 45.	E D	*
21	P	08 04 15.				*
21	P	10 30 14.	S	30 22.		*
21	P	13 28 48.	L	38 00.		*
21	P	15 42 24.	ES	45 12.	N U	*
21	EP	16 53 03.	S	57 57.		*
21	IP	17 31 16.5	S	32 04.	S W U	*
						*
22	IP	00 20 09.5	S	26 32.	N E U	*
22	P	01 04 09.	S	04 19.0		*
22	IP	01 45 56.9	S	55 36.	E U	*
22	P	08 29 50.	X	40 40.		*
22	P	10 42 08.	L	57 52.		*
22	P	11 38 17.	S	41 58.		*
22	P	11 42 39.				*
22	P	15 24 28.				*
22	L	15 53 10.				*
22	IP	17 12 04.6				*
22	IP	19 06 26.0			S U	*
22	IP	19 51 56.5	S	57 17.	U	*
22	IP	22 37 48.0	S	38 14.7		*
						*
23	P	01 04 50.				*
23	P	03 44 19.	S	47 40.		*
23	P	09 30 49.	S	41 32.		*
23	IP	12 15 11.1	S	16 27.	U	*
23	IP	14 57 53.0	S	58 24.	N E D	*
23	X	16 32 48.	X	53 44.		*
						*
24	IP	02 57 09.9	S	57 54.	E D	*
24	P	03 35 29.	S	36 07.		*
24	P	10 21 18.	S	22 23.		*
24	P	10 23 47.				*
24	IP	12 37 06.0	S	43 22.	N U	*
24	P	20 03 43.	S	08 28.		*
24	IP	20 25 52.0	S	26 08.	E D	*
24	IP	22 33 17.0	S	33 37.		*
						*
25	IP	00 09 15.2	S	10 00.	D	*
25	IP	07 53 24.4	S	53 46.	U	*
25	P	09 14 44.	S	19 40.		*
25	P	16 33 43.	S	40 52.		*
						*
26	IP	03 26 48.7			N U	*
26	P	05 52 00.	S	52 32.		*
26	P	06 18 44.	S	19 20.		*
26	EX	06 39 50.				*
26	L	07 49 00.				*
26	IP	10 09 00.5	S	19 45.		*
26	L	12 26 50.				*
26	L	17 03 48.				*
26	IP	19 03 46.7	S	04 08.	D	*
26	X	20 46				*
						*
27	IP	00 48 32.5	S	50 09.	D	*
27	IP	08 36 46.6	S	37 16.	D	*
27	IP	11 17 28.8	S	18 42.	S W U	*
27	IP	11 55 37.5				*
27	P	12 20 05.	S	21 10.		*
27	IP	16 51 12.1			U	*
27	P	17 01 19.	L	07 20.		*
27	EP	18 20 18.				*
27	P	20 48 45.6	S	49 10.	S E D	*
27	IP	23 43 05.5	S	43 22.	S E D	*
						*
28	IP	00 41 22.8			S E D	*
28	IP	04 19 17.0	S	19 25.6	U	*
28	IP	06 30 09.8	S	30 52.	E D	*
28	IP	06 50 34.5	S	50 51.		*
28	IP	11 14 49.6	S	15 11.	S E D	*
28	X	13 54 08.	X	00 10.		*
28	X	14 28	X	36 20.		*
28	IP	23 28 25.2	S	33 28.	N E U	*
						*
29	P	01 00 50.1	S	01 18.	U	*
29	EP	02 45 40.	S	46 22.		*
29	P	05 34 13.	S	34 20.		*
29	P	06 35 35.	L	44		*
29	P	07 51 17.	S	51 38.		*
29	X	07 53 10.	L	04		*
29	IP	09 51 16.4	S	51 28.	D	*
29	P	11 26 02.	S	26 55.		*

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DATE		PHASE AND TIME				INITIAL MOTION	
		H	M	S		M S	
29	P	11	52	28.	S	53 28.	*
29	X	16	13				*
29	IP	17	07	12.5		S E D	*
29	P	19	46	02.	S	55 52.	*
29	IP	23	41	04.7	S	41 22. U	*
29	IP	23	45	53.4	S	45 59. N E U	*
30	EP	02	23	04.	X	33 40.	*
30	P	09	05	43.	S	06 00.	*
30	P	16	42	01.	X	45 16.	*
30	IP	17	59	37.1		U	*
30	P	18	42	36.6	L	45 28.	*
30	P	19	57	55.			*
30	L	22	54				*

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昭和44年7月

THE SEISMOLOGICAL BULLETIN

OF

THE JAPAN METEOROLOGICAL AGENCY

FOR

JULY 1969

気　象　庁

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Tokyo

1969

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List 1 JMA stations and their seismographs

Station	Code	CGS Code	λ	φ	Height	Seismographs
					m	
Abashiri	ABASHI	ABJ	E144°17.0′	N44°01.0′	38	S, VI, OP
Aikawa	AIKAWA	AIK	138 14.5	38 01.2	34	S, VI, OP
Ajiro	AJIRO	AJI	139 05.8	35 02.6	59	S, VI, EMT′
Akita	AKITA	AKI	140 06.1	39 43.1	9	S, VI, OP
Anabuki (Tsurugisan)	ANABUK (TURUGI)	TSS	134 05.8	33 51.1	59	S, P
Aomori	AOMORI	AOM	140 47.0	40 49.0	4	S, W
Asahikawa	ASAHIK	ASA	142 22.4	43 46.2	111	S, VI, OP
Ashizuri	ASHIZU	ASZ	133 01.0	32 43.0	30	S, VI
Asosan	ASOSAN	ASJ	131 04.5	32 52.7	1143	S
Chichibu	CHICHI	CHJ	139 04.9	35 59.5	218	S, P
Choshi	CHOSHI	CHO	140 50.6	35 43.5	27	S, W
Fukue	FUKUE	FKJ	128 50.0	32 42.0	26	S, VI
Fukui	FUKUI	FUK	136 13.6	36 03.2	9	S, P(H, V)
Fukuoka	FUKUOK	FKK	130 22.8	33 34.8	2	S, VI, M(H)
Fukushima	FUKUSH	FKS	140 28.5	37 45.4	67	S, VI, OP
Gifu	GIFU	GIF	136 45.9	35 23.9	13	S, W
Hachijojima	HACHIJ	HJJ	139 47.3	33 06.1	80	S, VI
Hachinohe	HACHIN	HAC	141 31.6	40 31.5	27	S, VI, OP
Hakodate	HAKODA	HAK	140 45.5	41 48.8	35	S, VI, OP
Hamada	HAMADA	HMD	132 04.4	34 53.6	18	S, VI, OP
Hamamatsu	HAMAMA	HMM	137 43.4	34 42.5	32	S, VI, OP
Hikone	HIKONE	HIK	136 14.8	35 16.4	87	S, W
Himeji	HIMEJI	HIM	134 42.1	34 50.2	37	S, P(H, V)
Hiroo	HIROO	HOO	143 19.0	42 17.0	32	S, P(H, V)
Hiroshima	HIROSH	HIR	132 26.2	34 21.8	29	S, W
Iida	IIDA	IID	137 50.1	35 30.6	482	S, VI, OP
Irozaki (Nagatsuro)	IROZAK (NAGATS)	NGT	138 50.8	34 36.0	55	S
Ishinomaki	ISHINO	ISN	141 18.2	38 25.5	43	S, VI, OP
Izuhara	IZUHAR	IZU	129 17.7	34 12.2	21	S, P(H, V)
Kagoshima	KAGOSH	KAG	130 33.2	31 34.4	4	S, VI
Kakioka	KAKIOK	KAK	140 11.6	36 13.9	27	S, W
Kanazawa	KANAZA	KAN	136 38.9	36 32.8	27	S, VI, OP
Karuizawa	KARUIZ	KRZ	138 33.1	36 20.4	999	S, P(H, V)
Kawaguchiko (Funatsu)	KAWAGU (FUNATU)	FUN	138 45.8	35 29.9	860	S, P
Kobe	KOBE	KOB	135 10.8	34 41.3	58	S, P(H, V)
Kochi	KOCHI	KOC	133 32.0	33 33.0	40	S, P(H, V)
Kofu	KOFU	KOF	138 33.5	35 39.9	272	S, VI
Kumagaya	KUMAGA	KMG	139 23.1	36 08.8	30	S, VI, EMT
Kumamoto	KUMAMO	KUM	130 42.6	32 48.6	38	S, W
Kushiro	KUSHIR	KUS	144 23.7	42 58.7	33	S, VI
Kyoto	KYOTO	KYO	135 44.1	35 00.7	41	S, VI, OP
Maebashi	MAEBAS	MAE	139 03.9	36 24.1	112	S, W
Maizuru	MAIZUR	MAI	135 23.2	35 28.3	31	S, P(H, V)
Matsue	MATSUE	MTS	133 04.3	35 27.3	17	S, P(H, V)
Matsumoto	MATSUM	MTM	137 58.4	36 14.6	610	S, P(H, V)
Matsushiro	MATSUS	MAT	138 12.5	36 32.3	440	S, L, AW,G,B,V,C
Matsuyama	MATSUY	MTY	132 46.8	33 50.4	32	S, W
Mishima	MISHIM	MIS	138 55.8	35 06.7	20	S, W
Mito	MITO	MIT	140 28.3	36 22.7	30	S, VI, EMT′
Miyako	MIYAKO	MIY	141 58.1	39 38.7	46	S, W
Miyazaki	MIYAZA	MYZ	131 25.6	31 55.0	7	S, VI, OP
Mizusawa	MIZUSA	MIZ	141 08.0	39 08.0	61	P(H, V)
Morioka	MORIOK	MRK	141 10.0	39 41.8	155	S, VI, OP
Muroran	MURORA	MRR	140 59.0	42 19.0	43	S, P(H, V)
Murotomisaki	MUROTO	MRT	134 10.7	33 14.9	185	S, VI, OP
Nagano	NAGANO	NGN	138 11.8	36 39.6	418	S, W
Nagasaki	NAGASA	NGS	129 52.2	32 43.9	27	S, VD, EM
Nagoya	NAGOYA	NAG	136 58.1	35 09.9	52	S, VI, OP
Nara	NARA	NAR	135 50.0	34 41.0	105	S, P(H, V)
Nemuro	NEMURO	NEM	145 35.2	43 19.7	26	S, VI, VD, OP
Niigata	NIIGAT	NII	139 03.1	37 54.6	2	S, P(H, V)
Nobeoka	NOBEOK	NOB	131 41.0	32 35.0	19	S, P(H, V)
Obihiro	OBIHIR	OBI	143 13.3	42 55.2	39	S, P(H, V)
Ofunato	OFUNAT	OFU	141 43.1	39 03.7	38	S, VI
Oita	OITA	OIT	131 37.4	33 14.0	5	S, W
Okayama	OKAYAM	OKA	133 54.9	34 40.9	4	S, VI, OP
Omaezaki	OMAEZA	OMA	138 12.8	34 36.2	45	S, W
Onahama	ONAHAM	ONA	140 54.4	36 56.7	3	S, VI
Osaka	OSAKA	OSA	135 31.3	34 40.7	13	S, VI

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Station	Code	CGS Code	λ	φ	Height	Seismographs
					m	
Oshima	OSHIMA	OSH	E139°22.7′	N34°45.7′	191	S, W
Owase	OWASE	OWA	136 11.7	34 04.0	14	S, VI, OP
Rumoi	RUMOI	RMJ	141 38.0	43 57.0	22	S, P(H, V)
Saga	SAGA	SAG	130 18.3	33 14.7	4	S, P(H, V)
Saigo	SAIGO	SAI	133 20.0	36 12.3	26	S, VI, OP
Sakata	SAKATA	SAK	139 50.2	38 54.2	2	S, P(H, V)
Sapporo	SAPPOR	SAP	141 19.9	43 03.5	17	S, VI, OP
Sendai	SENDAI	SEN	140 54.0	38 15.6	38	S, VI, S′
Shimonoseki	SHIMON	SHN	130 56.5	33 57.2	46	S, VI, OP
Shionomisaki	SHIONO	SHJ	135 45.8	33 26.9	74	S, W
Shirakawa	SHIRAK	SHR	140 13.5	37 07.1	354	S, P(H, V)
Shizuoka	SHIZUO	SHZ	138 24.4	34 58.4	14	S, VI
Sumoto	SUMOTO	SUM	134 54.5	34 20.1	109	S, VI, OP
Suttsu	SUTTSU	SUT	140 14.4	42 47.4	16	S, P(H, V)
Takada	TAKADA	TKD	138 15.0	37 06.3	13	S, P(H, V)
Takamatsu	TAKAMA	TKM	134 03.5	34 19.0	10	S, W
Takayasuyama	OSAKA2		135 39.6	34 36.7	472	VD′
Takayama	TAKAYA	TKY	137 15.3	36 09.1	561	S, P(H, V)
Tateyama	TATEYA	TAT	139 52.1	34 59.0	6	S, VI, EMT
Tokushima	TOKUSH	TKS	134 34.6	34 03.9	2	S, P(H, V)
Tokyo	TOKYO	TOK	139 45.5	35 41.2	21	S, VI′, VD′, I′, J
Tottori	TOTTOR	TOT	134 10.7	35 30.7	17	S, P(H, V)
Toyama	TOYAMK	TOY	137 12.5	36 42.4	9	S, VI
Toyooka	TOYOOA	TYK	134 49.5	35 32.0	4	S, W
Tsu	TSU	TSU	136 31.1	34 42.1	3	S, P(H, V)
Tsuruga	TSURUG	TSR	136 03.9	35 39.0	1	S, P(H, V)
Unzendake	UNZEND	UNZ	130 15.2	32 44.1	849	S
Urakawa	URAKAW	URA	142 46.8	42 09.5	34	S, VI, OP
Utsunomiya	UTSUNO	UTS	139 52.3	36 32.6	120	S, EMT
Uwajima	UWAJIM	UWA	132 33.5	33 13.5	43	S, P
Wajima	WAJIMA	WAJ	136 53.9	37 23.4	6	S, VI
Wakayama	WAKAYA	WKY	135 10.0	34 13.6	14	S, W, I
Wakkanai	WAKKAN	WAK	141 40.4	45 25.0	9	S, VI, OP
Yakushima	YAKUSH	YKS	130 29.8	30 27.0	14	S, VI
Yamagata	YAMAGA	YAM	140 21.0	38 15.2	151	S, P(H, V)
Yokohama	YOKOHA	YOK	139 39.3	35 26.2	38	S, EMT
Yonago	YONAGO	YON	133 [illegible]9.6	35 26.0	7	S, P(H, V)
Ishigakijima	ISHIGA	ISI	124 [illegible]0	24 20	6	S, VI
Naha	NAHA	NAH	127 41	26 13	11	S, VI
Miyakojima	MIYAKJ	MYK	125 17	24 47	40	S
Yonagunijima	YONAGU		123 01	24 28	32	

Notations : —

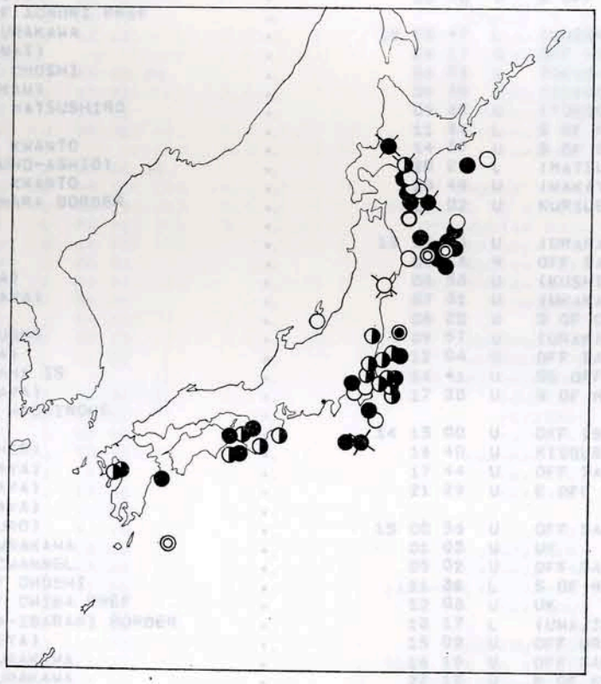
λ	: Longituds.
φ	: Geographical Latitude.
W	: Wiechert's horizontal and vertical seismographs (masses, H; 200kg, V; 80kg).
P	: Portable seismograph (horizontal).
P(H, V)	: do (mass, 22.5kg).
S	: Strong motion seismograph (magnification; 1).
S′	: do (magnification; 0.4).
M(H)	: Mainka's horizontal seismograph (mass, 450kg).
G	: Galitzin's seismograph.
L	: 1,000kg long-period seismograph, JMA type.
I	: Ishimoto's seismograph.
V	: Short-period vertical seismograph.
AW	: Anderson-Wood's seismograph.
C	: Capacity type seismograph.
EM	: Electromagnetic seismograph.
OP	: JMA 59-type electromagnetic seismograph with optical recorder.
VI	: JMA 59-type electromagnetic seismograph with visible recorder.
VD	: JMA 61-type electromagnetic seismograph with visible recorder.
B	: Benioff's seismograph (short and long period).
J	: Remote recording JMA 63-type seismograph.
VI′,VD′,I′	: Remote recording JMA 63-type seismograph.
EMT	: Electromagnetic seismograph with tape recorder.
EMT′	: Electromagnetic seismograph with tape recorder and transmitting unit.

List 2 Number of earthquakes by districts and classes, July, 1969

District \ Class	Number of felt earthquakes					Number of unfelt earthquakes	Total
	Remarkable	Moderate	Small felt area	Local	Total		
Hokkaido	0	0	5	4	9	46	55
Tohoku	1	2	3	4	10	17	27
Kwanto	0	0	3	14	17	33	50
Chubu	0	0	0	31	31	8	39
Kinki	0	0	0	8	8	29	37
Chugoku•Shikoku	0	0	0	2	2	3	5
Kyushu	0	1	0	24	25	18	43
Near Japan*	0	0	0	0	0	8	8
Foreign region	1	0	0	0	1	6	7
Unknown	0	0	0	0	0	14	14
Total	2	3	11	87	103	182	285

* ; Sakhalin, Kurile Is., Korea, Ryukyu Is., Bonin Is., Sikhota Alin.

Epicenters of the major earthquakes



⊙ Remarkable (R) ◎ Moderate (M) ○ Small felt area (S) ◑ Local (L) ● Unfelt (U) × h≧100km.

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Special Event

Earthquake-Swarm near Matsushiro, Northern Chubu

In this month, 25 earthquakes (intensity II : 1, I : 24) were felt at the Matsushiro Seismological Observatory.

List 3 EARTHQUAKES OBSERVED BY SEISMOLOGICAL STATIONS OF JMA C CLASS

(J. S. T.)

DATE, TIME D H M	C	LOCATION
1 05 52	L	(MATSUS)
07 41	L	(MATSUS)
09 21	L	(HACHIN)
10 32	L	NEAR MATSUSHIRO
11 24	L	NEAR MATSUSHIRO
15 58	L	(MATSUS)
18 12	L	(UNZEND)
18 13	L	S OF IBARAKI PREF
18 19	L	(UNZEND)
18 23	L	(UNZEND)
18 43	L	(UNZEND)
19 27	L	(UNZEND)
2 05 28	U	(UTSUNO)
05 43	S	OFF MIYAKO
11 45	U	OFF MIYAZAKI PREF
12 12	U	OFF URAKAWA
19 35	U	UK
21 14	S	SE OFF NEMURO PEN
3 08 23	L	(MATSUS)
08 29	L	(MATSUS)
15 36	U	HOKKAIDO
16 40	U	(KOBE)
4 00 30	U	OFF KUSHIRO
01 22	U	NEAR CHOSHI
02 59	L	OFF IBARAKI PREF
03 11	U	(SUMOTO)
05 25	L	E OFF AOMORI PREF
08 52	U	OFF URAKAWA
13 56	U	(OFUNAT)
17 52	U	NEAR CHOSHI
18 26	U	(URAKAW)
23 23	L	NEAR MATSUSHIRO
5 05 10	U	N OF KWANTO
07 44	L	(UTSUNO-ASHIO)
08 18	U	N OF KWANTO
18 16	U	MIE-NARA BORDER
20 17	U	UK
6 17 33	U	UK
20 36	U	(NAHA)
22 21	U	(WAKAYA)
7 08 29	U	(YAKUSH)
13 37	U	(NAHA)
13 47	U	MARIANA IS
21 23	U	(WAKAYA)
21 28	L	NEAR HACHINOHE
8 00 15	U	(KUSHIR)
00 50	U	(WAKAYA)
00 50	L	(WAKAYA)
00 55	U	(WAKAYA)
03 34	U	(NEMURO)
06 43	S	OFF URAKAWA
07 52	U	KII CHANNEL
09 07	L	SE OF CHOSHI
11 27	L	NW OF CHIBA PREF
11 58	L	CHIBA-IBARAKI BORDER
14 15	U	(TATEYA)
19 17	U	OFF URAKAWA
19 27	S	OFF URAKAWA
19 52	U	(NAGANO)
9 02 10	U	OFF URAKAWA
02 15	L	NEAR MATSUSHIRO
03 48	U	S OFF KYUSHU
9 11 44	L	KUMANONADA
14 30	L	(UNZEND)
14 51	U	(URAKAW)
15 19	U	NE OF HOKKAIDO
17 13	U	KURILE IS
17 38	U	KII CHANNEL
19 21	L	W COAST OF WAKAYAMA PREF
19 51	U	(WAKAYA)
20 48	U	(NAHA)
10 00 01	U	(WAKAYA)
01 18	U	(WAKAYA)
02 05	U	S OF CHIBA PREF
07 41	U	(WAKAYA)
08 36	U	OFF NIIGATA PREF
18 50	U	(URAKAW)
20 47	L	OFF URAKAWA
22 25	U	OFF URAKAWA
11 04 04	L	(WAKAYA)
05 05	U	OFF TOKACHI
06 18	L	(WAKAYA)
12 52	L	(UNZEND)
12 56	L	(UNZEND)
12 56	L	(UNZEND)
17 56	L	S OF HOKKAIDO
18 56	U	(MAIZUR)
19 38	U	OFF IWATE PREF
20 50	U	E OFF AOMORI PREF
12 03 47	L	(UNZEND)
04 17	U	OFF NIIGATA PREF
06 58	U	TOKYO-KANAGAWA BORDER
09 30	U	(TOYOOK)
09 37	U	(TOYOOK)
11 34	L	S OF KII PEN
14 37	U	S OF CHIBA PREF
20 27	L	(MATSUS)
20 49	U	(WAKAYA)
22 02	U	KURILE IS
13 03 53	U	(URAKAW)
04 16	M	OFF SANRIKU
06 53	U	(KUSHIR)
07 31	U	(URAKAW)
08 20	U	S OF CHIBA PREF
09 57	U	(URAKAW)
12 04	U	OFF SANRIKU
14 41	U	SE OFF NEMURO PEN
17 20	U	N OF MIE PREF
14 15 00	U	OFF IBARAKI PREF
16 40	U	MIDDLE OF AICHI PREF
17 44	U	OFF SANRIKU
21 29	U	E OFF AOMORI PREF
15 00 56	U	OFF SANRIKU
01 05	U	UK
05 02	U	OFF SANRIKU
11 36	L	S OF NIIGATA PREF
12 03	U	UK
13 17	L	(UWAJIM)
15 09	U	OFF URAKAWA
16 19	U	OFF SANRIKU
23 13	U	N OF KWANTO
16 03 16	L	NEAR MATSUSHIRO
05 30	U	S OF CHIBA PREF
05 51	L	OFF IBARAKI PREF
06 27	U	OFF IBARAKI PREF

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DATE, D	TIME H	M	C	LOCATION
16	07	48	U	(KOBE)
	08	43	U	N OF TOCHIGI PREF
	12	25	U	S OF CHIBA PREF
	13	29	U	(KAGOSH)
	15	10	S	S OF CHIBA PREF
	17	19	U	KAMCHATKA
	23	01	U	UK
	23	33	U	(KUSHIR)
17	01	46	U	(CHOSHI)
	04	17	U	(CHOSHI)
	09	11	L	NEAR MATSUSHIRO
	11	06	U	MIDDLE OF AICHI PREF
	17	07	U	(KOBE)
18	02	29	U	NEAR URAKAWA
	02	37	U	(URAKAW)
	06	03	U	NEAR URAKAWA
	06	52	L	NEAR MATSUSHIRO
	13	46	L	W OF NAGANO PREF
	14	26	R	NORTHEASTERN CHINA
	14	43	L	W OF NAGANO PREF
	14	58	U	(KUMAMO)
	15	30	U	(KUMAMO)
	16	46	U	NORTHEASTERN CHINA
	20	26	U	(WAKAYA)
	21	46	L	W OF NAGANO PREF
	21	51	L	W OF NAGANO PREF
	22	36	U	NORTHEASTERN CHINA
	23	49	L	W OF NAGANO PREF
19	05	43	L	(MATSUS)
	10	35	U	S OF KWANTO
	10	57	U	(KUMAMO)
	13	24	L	(UNZEND)
	14	14	U	UK
	16	40	U	(YAKUSH)
	18	15	U	OFF SANRIKU
	18	24	U	OFF SANRIKU
	20	01	U	(KUMAMO)
20	03	31	S	E OFF AOMORI PREF
	07	15	S	MIDDLE OF CHIBA PREF
	08	36	L	NEAR MATSUSHIRO
	11	11	U	OFF KUSHIRO
	12	56	L	NEAR MATSUSHIRO
	14	00	L	NEAR MATSUSHIRO
	16	58	U	(KAGOSH)
21	01	07	U	OFF SANRIKU
	01	42	U	OFF SANRIKU
	08	57	U	NORTHEASTERN CHINA
	19	50	L	(MATSUS)
	20	46	U	(WAKAYA)
	20	53	U	(WAKAYA)
	22	49	U	OFF URAKAWA
	22	52	U	(URAKAW)
	22	56	U	(WAKAYA)
22	00	57	U	TOHOKU
	02	56	L	(MAEBAS-NUMATA)
	04	44	M	OFF SANRIKU
	05	43	L	(WAKAYA-SHIRAHAMA)
	05	59	U	(URAKAW)
	07	30	U	UK
	10	06	U	NEAR URAKAWA
	10	42	U	MIDDLE OF MIE PREF
	11	45	U	NEAR HACHIJOJIMA
	15	09	U	NEAR URAKAWA
	16	44	U	MIDDLE OF AICHI PREF
22	17	47	U	NEAR URAKAWA
	21	53	U	UK
23	00	24	U	NE OF HOKKAIDO
	01	13	U	(WAKAYA)
	02	06	U	N OF KWANTO
	03	30	U	(ONAHAM)
	08	48	U	(WAKAYA)
	10	16	U	NEAR HACHIJOJIMA
	13	55	L	NEAR MATSUSHIRO
	15	26	U	(SUMOTO)
	17	28	L	NEAR CHOSHI
	17	30	L	(CHOSHI)
	17	55	U	(CHOSHI)
	17	58	L	NEAR CHOSHI
	18	18	U	(CHOSHI)
	19	23	U	(CHOSHI)
	19	36	U	(CHOSHI)
	20	25	L	NEAR CHOSHI
	22	14	R	OFF FUKUSHIMA PREF
	23	28	L	NEAR CHOSHI
24	00	04	U	S OF KII PEN
	00	44	L	MIDDLE OF SETONAIKAI
	01	28	U	UK
	05	12	S	N OF MIYAGI PREF
	07	51	U	(YAKUSH)
	10	27	U	NEAR URAKAWA
	11	41	U	(URAKAW)
	15	22	U	S OF KWANTO
	15	31	U	OFF MIYAZAKI PREF
	15	38	U	NEAR URAKAWA
	17	30	U	E OF TOKUSHIMA PREF
	23	57	S	OFF URAKAWA
25	01	33	L	NEAR CHOSHI
	08	16	U	(NEMURO)
	10	01	U	UK
	20	48	L	KII CHANNEL
26	02	01	U	NEAR TAKAMATSU
	07	54	U	EASTERN CHINA
	11	13	U	(NAHA)
	14	19	U	(CHOSHI)
	14	42	U	NEAR CHOSHI
	19	35	L	NEAR MATSUSHIRO
	19	48	U	(URAKAW)
	20	03	U	(AKITA)
	20	43	L	(MATSUS)
	23	39	S	E OF KANAGAWA PREF
	23	47	U	NEAR TOKYO
27	00	05	U	(URAKAW)
	03	54	U	S OFF YAKUSHIMA
	04	36	L	NEAR UNZENDAKE
	04	37	L	(UNZEND)
	04	47	L	NEAR UNZENDAKE
	04	53	L	(UNZEND)
	05	02	L	(UNZEND)
	05	13	L	(UNZEND)
	05	23	L	(UNZEND)
	06	06	L	(UNZEND)
	06	08	L	(UNZEND)
	06	18	L	(UNZEND)
	06	29	U	(URAKAW)
	07	01	L	(UNZEND)
	07	41	U	(URAKAW)
	09	56	U	UK
	11	01	U	(NAGASA)
	12	39	U	(NAGASA)
27	13	02	U	(NAHA)
	14	15	U	(URAKAW)
	14	26	U	(KUSHIR)
	18	43	L	SE OFF NEMURO PEN
	19	24	U	(KUSHIR)
	20	02	U	E OFF AOMORI PREF
28	01	43	L	SE OF FUKUSHIMA PREF
	06	24	L	(MATSUS)
	07	28	U	RYUKYU IS
	09	47	U	(URAKAW)
	12	38	L	(UNZEND)
	19	19	U	MIDDLE OF HOKKAIDO
	22	03	M	SE OFF KYUSHU
29	04	19	U	(MIYAZA)
	11	49	U	S OFF KYUSHU
	12	23	U	E OFF MIYAKEJIMA
	13	35	U	(TOKUSH)
	17	18	L	(URAKAW)
	17	39	U	(URAKAW)
	22	15	U	N OF CHIBA PREF
30	04	16	U	OFF NIIGATA PREF
	12	26	U	UK
	13	20	U	UK
	15	19	U	(KYOTO)
	17	01	L	(MATSUS)
	20	52	L	NEAR MATSUSHIRO
	21	16	U	(YAKUSH)
	21	47	S	OFF KUSHIRO
31	03	42	U	SW OFF MIYAKEJIMA
	14	12	L	(MATSUS)
	20	33	L	(NOBEOK)

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List 4 EARTHQUAKE ORIGINS

(J.S.T.)

DATE, TIME D	H	M	C	LOCATION	ORIGIN TIME M	S	+/-S	LONG.	+/-	LAT.	+/-	C CLASS H KM	M
1	18	13	L	S OF IBARAKI PREF	13	02.9	0.3	140 20 02		36 12 02		60	3.9
2	05	43	S	OFF MIYAKO	43	32.5	0.4	142 12 03		39 36 01		50	4.1
	11	45	U	OFF MIYAZAKI PREF	45	26.6	0.4	132 03 02		32 36 02		20	4.1
	21	14	S	SE OFF NEMURO PEN	13	50.8	0.7	146 11 03		42 36 01		0	4.6
4	02	59	L	OFF IBARAKI PREF	59	40.7	0.3	141 04 02		36 43 01		40	4.0
	08	52	U	OFF URAKAWA	52	17.9	0.6	142 32 04		41 30 03		0	4.2
5	18	16	U	MIE-NARA BORDER	15	54.9	0.1	135 44 01		34 13 01		60	3.6
8	06	43	S	OFF URAKAWA	43	19.3	0.3	142 32 02		42 06 02		70	
	07	52	U	KII CHANNEL	52	32.0	0.7	134 44 03		34 00 04		50	3.6
	09	07	L	SE OF CHOSHI	06	56.0	0.9	141 03 05		35 28 02		30	3.9
	11	58	L	CHIBA-IBARAKI BORDER	58	50.6	0.4	140 15 01		35 57 02		40	3.7
	19	27	S	OFF URAKAWA	27	26.2	0.4	142 46 02		41 32 02		30	4.5
9	11	44	L	KUMANONADA	44	30.1	0.4	136 31 02		34 11 01		30	4.1
	17	38	U	KII CHANNEL	38	03.6	0.2	135 00 01		33 43 01		50	3.8
	19	21	L	W COAST OF WAKAYAMA PREF	21	49.7	0.2	135 08 01		34 10 01		10	4.4
10	20	47	L	OFF URAKAWA	47	30.9	0.2	142 32 02		42 04 01		70	
11	05	05	U	OFF TOKACHI	04	53.2	0.5	143 08 03		41 03 02		110	
	17	56	L	S OF HOKKAIDO	56	01.6	0.3	142 19 03		42 37 03		110	
	19	38	U	OFF IWATE PREF	37	46.7	0.7	142 56 03		40 07 03		30	3.8
12	06	58	U	TOKYO-KANAGAWA BORDER	58	27.7	0.2	139 36 02		35 34 01		50	3.6
	11	34	L	S OF KII PEN	34	42.8	0.5	135 43 03		33 35 02		10	3.5
13	04	16	M	OFF SANRIKU	16	24.9	0.8	143 54 04		39 45 02		10	5.6
	12	04	U	OFF SANRIKU	04	18.8	1.1	143 57 06		39 46 03		30	4.7
14	15	00	U	OFF IBARAKI PREF	00	01.6	0.6	141 13 03		36 26 02		50	3.6
15	00	56	U	OFF SANRIKU	55	47.9	0.9	144 02 05		39 50 02		30	4.8
	05	02	U	OFF SANRIKU	01	27.1	1.3	144 12 07		40 18 03		40	4.7
16	05	51	L	OFF IBARAKI PREF	51	09.4	0.4	140 57 02		36 09 01		40	3.5
	12	25	U	S OF CHIBA PREF	25	35.1	0.4	140 04 02		34 49 02		60	4.0
	15	10	S	S OF CHIBA PREF	10	33.6	1.0	140 19 05		34 34 03		60	4.1
	17	19	U	KAMCHATKA	16	53.3		159 00		52 12		69	5.8
18	14	26	R	NORTHEASTERN CHINA	24	48.0		119 24		38 18		33	7.3
19	18	15	U	OFF SANRIKU	15	08.6	0.8	143 42 04		39 28 03		30	4.4
	18	24	U	OFF SANRIKU	24	32.6	1.4	143 38 07		39 30 05		50	4.4
20	03	31	S	E OFF AOMORI PREF	30	44.7	0.3	142 35 02		40 57 01		20	4.3
	07	15	S	MIDDLE OF CHIBA PREF	15	13.1	0.2	140 07 02		35 32 01		80	
	11	11	U	OFF KUSHIRO	10	45.1	0.8	145 02 03		42 22 03		20	4.2
21	01	07	U	OFF SANRIKU	07	18.5	2.4	143 49 13		39 43 10		80	
	22	49	U	OFF URAKAWA	49	43.6	0.4	142 20 08		41 40 05		30	4.1
22	04	44	M	OFF SANRIKU	44	10.5	0.4	143 18 02		39 29 01		30	5.2
23	17	28	L	NEAR CHOSHI	28	06.7	1.6	141 15 08		35 48 04		30	4.2
	20	25	L	NEAR CHOSHI	25	50.7	1.1	140 57 06		35 49 02		20	4.0
	22	14	R	OFF FUKUSHIMA PREF	14	32.0	0.4	141 45 02		37 14 01		40	5.5
	23	28	L	NEAR CHOSHI	28	48.9	0.5	140 42 04		35 45 03		20	3.5
24	05	12	S	N OF MIYAGI PREF	12	09.9	0.2	141 23 03		38 47 01		100	
	23	57	S	OFF URAKAWA	56	56.8	0.2	142 35 02		41 51 01		80	
25	01	33	L	NEAR CHOSHI	33	20.4	0.8	141 00 04		35 48 02		30	4.1
	20	48	L	KII CHANNEL	48	07.3	0.3	134 46 01		33 15 01		60	4.2
26	23	39	S	E OF KANAGAWA PREF	39	12.6	0.2	139 40 01		35 28 01		40	4.2
27	04	36	L	NEAR UNZENDAKE	36	42.2	0.2	130 11 01		32 47 01		10	4.4

DATE, TIME D	H	M	C	LOCATION	ORIGIN TIME M	S	+/-S	LONG.	+/-	LAT.	+/-	H KM	M
27	04	47	L	NEAR UNZENDAKE	47	38.7	0.2	130 16 01		32 49 00		0	3.5
	20	02	U	E OFF AOMORI PREF	02	29.8	0.4	142 32 03		41 10 01		40	4.3
28	01	43	L	SE OF FUKUSHIMA PREF	43	28.7	0.2	140 25 03		37 10 02		90	
	19	19	U	MIDDLE OF HOKKAIDO	19	10.1	0.5	141 55 03		43 15 04		160	
	22	03	M	SE OFF KYUSHU	03	15.9	0.6	132 35 02		30 32 03		80	
29	12	23	U	E OFF MIYAKEJIMA	22	56.4	0.3	139 54 03		34 00 01		110	
30	04	16	U	OFF NIIGATA PREF	16	37.0	0.2	138 22 01		37 37 01		0	4.2
	21	47	S	OFF KUSHIRO	47	26.1	0.6	144 41 03		42 32 03		50	4.4
31	03	42	U	SW OFF MIYAKEJIMA	41	58.2	0.8	139 10 05		33 40 02		0	4.4

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- 9H

List 5 DATA OF EARTHQUAKES

OT= 1 18 13 2.9 +/- 0.3 (J.S.T.)
S OF IBARAKI PREF
LAT= 36 12 +/- 2 LONG= 140 20 +/- 2
H= 60 MAG=3.9 CLASS=L

I SEISMIC INTENSITY

* MICRON

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KAKIOK	0	IP	18 13 12.4	IS	13 20.1	54	0.8	50	0.5	21	0.7	N 4		U 9	13.1	07.7
MITO	0	IP	18 13 13.4	IS	13 21.5	49	0.4	37	0.4	6	0.7		W 2	U 3	23.4	08.1
UTSUNO	0	IP	18 13 15.4	IS	13 25.7	19	0.1	35	0.2	15		N 1	W 2	U 5	56.5	10.3
CHOSHI	0	P	18 13 16.8	S	13 28.2										69.9	11.4
TOKYO	0	EP	18 13 18.5	IS	13 31.0	28	0.4	18	0.4	4	0.0				77.2	12.5
KUMAGA	0	P	18 13 19.0	ES	13 30.0	13	0.8	11	0.6	3	0.4			D 3	85.5	11.0
ONAHAM	0	EP	18 13 19.8	IS	13 32.6	17	0.9	20	0.6	6	0.6				97.3	12.8
AJIRO	0	EP	18 13 28.0	S	13 45.3	7	0.2	8	0.2	1	0.3				170.3	17.3
TATEYA	0	EP	18 13 28.5			8	1.7	5	1.5	4	1.4				141.4	
KOFU	0	EP	18 13 28.6	ES	13 48.4	8	0.4	7	0.4	2	0.7				170.8	19.8
FUKUSH	0	EX	18 13 29.6			6	1.0	7	0.9	2	0.8				173.2	
MATSUS	0	P	18 13 30.8	S	13 51										194.3	20.2

OT= 2 5 43 32.5 +/- 0.4
OFF MIYAKO
LAT= 39 36 +/- 1 LONG= 142 12 +/- 3
H= 50 MAG=4.1 CLASS=S

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MIYAKO	1	IP	05 43 41.1	IS	43 46.3	30	0	68	0				W 2		20.5	05.2
OFUNAT	1	IP	05 43 47.0	IS	43 55.2	73	0.0	26	0.0	21	0.0	N 0			72.8	08.2
MORIOK	X	IP	05 43 48.7	S	43 58.8	38	0.4	25	0.4	13	0.5	S 1	E 2	D 2	89.2	10.1
HACHIN	0	IP	05 43 51.9	IS	44 04.6	10	0.3	8	0.3	1	0.5	S 1	E 1	D 1	117.8	12.7
ISHINO	0	P	05 43 57.0	IS	44 11.8	13	0.2	12	0.2	3	0.2				151.8	14.8
NEMURO	0	X	05 43	X	44 03.4	5	0.2	2	0.2	1	0.2	S	E 1	D 1	501.5	
MATSUS	0	IP	05 44 40.4	X	45 50									U	487.9	

OT= 2 11 45 26.6 +/- 0.4
OFF MIYAZAKI PREF
LAT= 32 36 +/- 2 LONG= 132 3 +/- 2
H= 20 MAG=4.1 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NOBEOK	0	EP	11 45 34.2	IS	45 41.7								E 1	D 2	34.5	07.5
OITA	0	EP	11 45 41.9	S	45 50.6	50	0.7	59	0.7	25	0.6				80.8	08.7
ASHIZU	0	EP	11 45 42.7	S	45 51.6	21	0.5	20	0.5						91.6	08.9
MIYAZA	0	P	11 45 44.1	S	45 58.5	11	0.8	12	0.8	4	0.7				95.8	14.4
KUMAMO	0	IP	11 45 47.0	IS	46 02.9	19	0.8	24	1.3	14	1.0	N 3	W 2	U 3	127.7	15.9
MATSUY	0	EP	11 45 52.0	ES	46 10.5	4	0.7	9	0.8	2	0.6				153.4	18.5
TOYOOK	0	X	11 46 57			10	1.2	6	1.2						413.9	

OT= 2 21 13 50.8 +/- 0.7
SE OFF NEMURO PEN
LAT= 42 36 +/- 1 LONG= 146 11 +/- 3
H= 0 MAG=4.6 CLASS=S

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	1	IP	21 14 09.6	IS	14 22.0	34	0.2	27	0.2	12	0.2	S 1	W	U 3	94.4	12.4
KUSHIR	1	IP	21 14 18.2	IS	14 37.6	93	0.3	115	0.2	27	0.3	S 3		U 3	152.3	19.4
URAKAW	0	P	21 14 36.9	IS	15 10.2	8	0.4	12	0.4	2	0.4				284.6	33.3
MATSUS	0	IP	21 16 02.0	S	17 45									D	959.6	103.0

OT= 4 2 59 40.7 +/- 0.3
OFF IBARAKI PREF
LAT= 36 43 +/- 1 LONG= 141 4 +/- 2
H= 40 MAG=4.0 CLASS=L

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
ONAHAM	1	IP	02 59 49.5	IS	59 54.6	89	0.5	82	0.4	37	0.3	N 1	W 1	U 13	29.1	05.1
MITO	0	IP	02 59 53.4	IS	00 01.9	41	0.3	34	0.3	21	0.2	N 3	E 12	D 18	65.2	08.5
SHIRAK	1	P	02 59 56.7	IS	00 06.9										87.2	10.2
KAKIOK	1	EP	02 59 57	S	00 07.1	18	0.8	23	0.3						95.0	10.1
UTSUNO	0	IP	02 59 58.2	IS	00 11								E 1	D 3	108.5	12.8
CHOSHI	0	EP	03 00 00.0												111.8	
FUKUSH	0	EP	03 00 01.7	IS	00 15.6	22	1.0	20	1.0	6	1.0				126.8	13.9

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TOKYO	0	P	03 00 06.4	ES	00 24	9	0.6	10	0.4	2	0.0				164.1	17.6
SENDAI	0	EP	03 00 06.8	S	00 25.2	6	0.5	3	1	2	1				171.9	18.4
MAEBAS	0	P	03 00 08.9	ES	00 29.2										182.5	20.3
MATSUS	0	IP	03 00 18.6	S	00 48							S	E	D	256.4	29.4

OT= 4 8 52 17.9 +/- 0.6
OFF URAKAWA
LAT= 41 30 +/- 3 LONG= 142 32 +/- 4
H= 0 MAG=4.2 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
URAKAW	0	IP	08 52 35.6	S	52 45.6	11	0.6	37	0.4	6	0.8	S		D	75.9	10.0
HACHIN	0	P	08 52 43.3	ES	53 01.6	15	0.3	10	0.4	4	0.3			D	137.6	18.3
HAKODA	0	P	08 52 45.5	IS	53 02.8	7	0.4	13	0.4	2	1.5			U	151.9	17.3
OBIHIR	0	EP	08 52 46	ES	53 08										167.7	22.0
AOMORI	0	EP	08 52 49.7	IS	53 07.5	19	1.0	22	0.8						165.3	17.8
MORIOK	0	P	08 52 56.7	ES	53 22.2	6	0.3	10	0.4	2	0.6			D 0	231.2	25.5
				EX	53 07.1											
MATSUS	0	P	08 53 52	X	55 52										665.9	

OT= 5 18 15 54.9 +/- 0.1
MIE-NARA BORDER
LAT= 34 13 +/- 1 LONG= 135 44 +/- 1
H= 60 MAG=3.6 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
OWASE	0	IP	18 16 06.9	IS	16 15.0	20		10		8					45.7	08.1
NARA	0	IP	18 16 07.1	IS	16 15.5									U	52.6	08.4
OSAKA	0	IP	18 16 07.6	S	16 15.7	15	1.5	7	1.5	4	1.2			U 2	54.8	08.1
KOBE	0	IP	18 16 09.2	IS	16 19.3									U 2	72.9	10.1
SHIONO	0	EP	18 16 10.6	ES	16 21.8	5	0.2	7	0.2	5	0.2				85.2	11.2
SUMOTO	0	P	18 16 10.7	S	16 21.1										77.1	10.4
KYOTO	0	EP	18 16 11.1	IS	16 22.2	2	0.8	9	0.2	7	0.2				88.2	11.1
TSU	0	P	18 16 11.6	S	16 23.4	25	0.7	10	0.6	8	0.6				90.0	11.8
TOKUSH	0	EP	18 16 13.7	IS	16 26.0										108.0	12.3
HIKONE	0	P	18 16 15.5	S	16 29.6									U	126.3	14.1
WAKAYA	0	EX	18 16 16.1			5	0.1	3	0.1						52.2	
OKAYAM	0	P	18 16 20.9	S	16 39.7	6	0.6	5	0.6	1	0.4				174.8	18.8
TOYOOK	0	X	18 16 39			11	1.2	7	1.2						168.5	
MATSUS	0	X	18 16 50.4											D	341.8	

OT= 8 6 43 19.3 +/- 0.3
OFF URAKAWA
LAT= 42 6 +/- 2 LONG= 142 32 +/- 2
H= 70 CLASS=S

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
URAKAW	2	IP	06 43 30.2	IS	43 38.2	160	0.2					N 9	W 4		21.4	08.0
HIROO	1	IP	06 43 33.0	IS	43 42.9							N 2	E 6	U 10	67.8	09.9
OBIHIR	0	P	06 43 39.1	S	43 53.1										107.2	14.0
SAPPOR	X	IP	06 43 42.5	IS	43 59.0	13	0.6	12	0.6	8	1.0		E 2	D 6	145.2	16.5
HAKODA	0	IP	06 43 43.0	IS	44 00.6	26	0.8	15	0.5	4	0.3		E 1	D 5	150.6	17.6
KUSHIR	0	EP	06 43 47	S	44 09	40	0.6	32	0.3	11	0.3				181.4	22.0
HACHIN	0	EP	06 43 49.5	IS	44 10.4	13	0.2	10	0.2						194.2	20.9
MORIOK	0	P	06 44 01.4	S	44 30.9	6	0.4	5	0.4	1	0.3	S 0			290.6	29.5
AOMORI	0	X	06 44 12			19	0.9	16	1.3						204.2	
MATSUS	0	EP	06 44 55	X	46 23										721.1	

OT= 8 7 52 32.0 +/- 0.7
KII CHANNEL
LAT= 34 0 +/- 4 LONG= 134 44 +/- 3
H= 50 MAG=3.6 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TOKUSH	0	EP	07 52 40.9	IS	52 45.3										16.2	04.4
SUMOTO	0	IP	07 52 43.2	IS	52 50.1							S 20	W	D	40.5	06.9
OKAYAM	0	IP	07 52 49.6	IS	53 01.6	9	0.3	8	0.2	2	0.2				106.7	12.0
WAKAYA	0	IS	07 52 49.6			20	0.1	12	0.1	10	0.1				47.2	
MATSUS	0	IP	07 53 30.0	S	54 12							N		U	423.3	42.0

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OT= 8 9 6 56.0 +/- 0.9
SE OF CHOSHI
LAT= 35 28 +/- 2 LONG= 141 3 +/- 5
H= 30 MAG=3.9 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
CHOSHI	1	P	09	07	03.9	IS	07	08.9										34.2	05.0
KAKIOK	0	EP	09	07	15	S	07	27.1	14	1.2	14	0.8						114.8	12.1
MITO	0	EP	09	07	16.4	ES	07	27.6	6	0.4	8	0.9	4	1.2				113.8	11.2
TATEYA	0	EP	09	07	16.8				11	0.5	11	1.0	5	0.6				120.2	
UTSUNO	0	EP	09	07	21.0	ES	07	39.0	4	0.8	4	0.8	6					160.1	18.0
MATSUS	0	P	09	07	37	X	08	22										282.4	

OT= 8 11 58 50.6 +/- 0.4
CHIBA-IBARAKI BORDER
LAT= 35 57 +/- 2 LONG= 140 15 +/- 1
H= 40 MAG=3.7 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KAKIOK	2	P	11	58	59.4	S	59	04.6	76	0.3			49	0.3				31.7	05.2
MITO	0	IP	11	59	01.5	IS	59	08.6	32	0.5	16	0.5	12	0.3				51.5	07.1
TOKYO	0	P	11	59	03.5	S	59	12.0	10	0.6	10	0.2						53.3	08.5
UTSUNO	0	P	11	59	03.8	S	59	12.6	24	0.1	24	0.1	18					74.4	08.8
MAEBAS	0	EP	11	59	10.3	S	59	23.8										117.8	13.5
TATEYA	0	EX	11	59	15.8				7	0.7	4	1.0	4	2.3				112.7	
KUMAGA	0	X	11	59	16.2	S	59	19.4	10	0.2	3	0.2	1	0.2			D 3	80.9	
MATSUS	0	IP	11	59	20.4	S	59	42									D	194.7	21.6

OT= 8 19 27 26.2 +/- 0.4
OFF URAKAWA
LAT= 41 32 +/- 2 LONG= 142 46 +/- 2
H= 30 MAG=4.5 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
URAKAW	2	IP	19	27	39.0	IS	27	48.0	71	0.2	163	0.2	15	0.4	N 2		U 3	69.4	09.0
HIROO	0	P	19	27	42.0	S	27	53.0										95.0	11.0
HACHIN	1	EP	19	27	50.9	IS	28	11.2	35	0.2	40	0.2	4	0.2			D 1	153.1	20.3
OBIHIR	0	EP	19	27	51	S	28	09.4										158.6	18.4
HAKODA	0	P	19	27	52.9	IS	28	12.0	17	0.4	10	0.6	3	0.4			U	170.1	19.1
KUSHIR	0	EX	19	27	58				6	0.3	7	0.4	2	2.0				209.4	
SAPPOR	0	P	19	27	58.5	ES	28	20	5	0.6	7	0.6	3	1.2				206.7	21.5
AOMORI	0	EP	19	28	00	ES	28	12	31	0.5	31	0.5	12	1.4				184.5	12.0
MORIOK	0	P	19	28	04.4	S	28	32.0	18	0.4	18	0.4	5	0.3	N 0	E 0	D 0	244.7	27.6
MATSUS	0	IP	19	28	59.4										S		U	680.4	

OT= 9 11 44 30.1 +/- 0.4
KUMANONADA
LAT= 34 11 +/- 1 LONG= 136 31 +/- 2
H= 30 MAG=4.1 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
OWASE	1	IP	11	44	38.0	IS	44	43.0	59	0.4	29	0.4	12	0.4				32.4	05.0
TSU	1	P	11	44	41.6	S	44	48.3	58	1.4	82	1.0	20	1.0				57.5	06.7
NARA	0	P	11	44	44.7	S	44	54.4										83.8	09.7
						X	44	51.3											
OSAKA	0	EP	11	44	48.3	IS	45	00.8	17	0.6	9	0.4						106.6	12.5
NAGOYA	0	P	11	44	49.6	S	45	02.8	13	0.7	21	0.8	6	0.8				116.5	13.2
HIKONE	0	P	11	44	50.4	S	45	05.0										123.4	14.6
GIFU	0	P	11	44	52.8	S	45	07.8	24	0.5	19	0.5	8	0.7				136.7	15.0
WAKAYA	0	EX	11	44	58.0				10	0.7	5	0.6	2	0.3				124.5	
FUKUI	0	P	11	45	04.1	S	45	27.9										209.1	23.8
KOBE	0	ES	11	45	07.6													135.0	
MATSUS	0	P	11	45	13	S	45	52										303.1	39.0
TOYOOK	0	X	11	45	14				9	1.0	6	1.0						215.8	
KANAZA	0	EX	11	45	43				5	1.2	5	1.4						262.4	

OT= 9 17 38 3.6 +/- 0.2
KII CHANNEL
LAT= 33 43 +/- 1 LONG= 135 0 +/- 1
H= 50 MAG=3.8 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
WAKAYA	0	P	17	38	15.5	IS	38	22.1	15	0.3	32	0.2	10	0.2				58.6	06.6
TOKUSH	0	EP	17	38	16.0	IS	38	22.7										55.0	06.7

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
SUMOTO	0	P	17	38	17.4	S	38	25.8									D	69.1	08.4
SHIONO	0	EP	17	38	17.6	S	38	28.0	9	0.4	6	0.2	5	0.2				76.8	10.4
MUROTO	0	P	17	38	20.1	IS	38	30.8	14	0.3	10	0.3						92.3	10.7
TAKAMA	0	EP	17	38	21.4	S	38	33.2	9	1.1	11	1.1	7	0.6				109.5	11.8
KOBE	0	IP	17	38	21.7	IS	38	33.9								E 2	D 4	109.0	12.2
OKAYAM	0	EP	17	38	24.3	ES	38	40.1	13	0.2	9	0.1	2	0.3				146.4	15.8
MATSUS	0	P	17	39	02	S	39	57										428.2	55.0

OT= 9 19 21 49.7 +/- 0.2
W COAST OF WAKAYAMA PREF
LAT= 34 10 +/- 1 LONG= 135 8 +/- 1
H= 10 MAG=4.4 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
WAKAYA	3	IP	19	21	52.7	IS	21	53.7	207	0.1	151	0.1	186	0.1	N 40	E 72	U 42	7.3	01.0
SUMOTO	0	IP	19	21	56.8	S	21	59.4							S 4	E 3	D	27.9	02.6
TOKUSH	1	IP	19	22	01.2	IS	22	08.0	55	0.1	66	0.1	32	0.1	N 3	E 6	D 4	52.6	06.8
KOBE	0	IP	19	22	01.4	IS	22	08.5									D 2	58.0	07.1
NARA	0	P	19	22	06.2	S	22	16.1										86.1	09.9
ANABUK	0	X	19	22	06.9													101.9	
TAKAMA	0	EP	19	22	07.8	IS	22	21.7	38	1.3	31	1.3	20	1.3				100.4	13.9
SHIONO	0	EP	19	22	08.2	S	22	20.2	39	1.1	27	0.9	6	1.0				98.7	12.0
OWASE	0	EP	19	22	08.6	ES	22	10.5	18	0.6			13	1.8				98.5	01.9
OKAYAM	0	P	19	22	11.4	IS	22	27.8	14	0.6	17	0.6	7	1.0	S 1	E 2	D 1	125.7	16.4
OSAKA	0	S	19	22	11.8				68	3.7	73	3.5	15	2.4				67.0	
MUROTO	0	EP	19	22	14.0	ES	22	31.0	15	0.6	15	0.6			S 0		U 0	134.9	17.0
TSU	0	EX	19	22	15.6				30	1.4	22	1.8	12	1.3				140.4	
KOCHI	0	EP	19	22	18.6	ES	22	36.4										163.0	17.8
TOYOOK	0	X	19	22	22.7	IS	22	38.5	31	1.2	37	1.2	7	0.6				154.6	
NAGOYA	0	EP	19	22	26.7	ES	22	49.3	6	2.4	8	2.6	2	2.0				201.3	22.6
MATSUY	0	EP	19	22	29.3	IS	22	54.5	12	0.7	11	0.6	5	0.7	N 3	E 5	D 2	220.3	25.2
IIDA	0	EP	19	22	35.0	ES	23	18.4	8	1.6	5	1.2	3	2.2				288.5	43.4
MATSUS	0	IP	19	22	47.3	X	23	42									U	383.7	
OITA	0	EX	19	22	57.1				10	1.5	10	1.5						341.3	
KUMAMO	0	X	19	23	07.1	X	23	58.9	9	2.1	6	1.7	3	1.2				437.6	

OT= 10 20 47 30.9 +/- 0.2
OFF URAKAWA
LAT= 42 4 +/- 1 LONG= 142 32 +/- 2
H= 70 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
URAKAW	2	IP	20	47	41.7	S	47	50.9	113	0.2	230	0.2	32	0.2			U 39	22.8	09.2
HIROO	2	IP	20	47	45.5	IS	47	55.6							N 4	E 8	U 11	69.1	10.1
OBIHIR	0	P	20	47	50.8	IS	48	04.9									U 2	110.4	14.1
SAPPOR	0	IP	20	47	54.5	IS	48	11.8	9	0.8	13	0.6	5	1.0			D 3	147.9	17.3
HAKODA	0	IP	20	47	54.5	IS	48	12.1	12	1.6	6	0.7	4	1.8	N	E	D 1	149.9	17.6
KUSHIR	0	EP	20	47	59	IS	48	19.6	30	0.2	24	0.3	12	0.2				183.5	20.6
HACHIN	0	EP	20	48	00.4	IS	48	20.3	6	0.2	4	2.1						190.9	19.9
ASAHIK	0	EP	20	48	02				16	1.1	22	0.9	18	0.7				189.7	
MORIOK	0	P	20	48	12.6	S	48	43.4	3	0.5	5	0.4	1	0.5	S 0			287.2	30.8
AOMORI	0	EX	20	48	25				13	1.8	17	1.6						201.7	
MATSUS	0	P	20	49	06	X	50	52										718.0	

OT= 11 5 4 53.2 +/- 0.5
OFF TOKACHI
LAT= 41 3 +/- 2 LONG= 143 8 +/- 3
H=110 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
URAKAW	0	P	05	05	16.6	S	05	34.6	8	0.4	13	0.4	2	0.8				126.6	18.0
HAKODA	0	P	05	05	27.3	IS	05	52.0	7	0.9	8	0.7	2	2.0			D	215.9	24.7
MORIOK	0	EP	05	05	28.5	S	05	52.3	6	0.4	10	0.4	2	0.6				224.6	23.8
KUSHIR	0	EP	05	05	31	S	05	54.2	6	0.3	6	0.5	1	0.4				238.3	23.2
AOMORI	0	EX	05	05	43				14	0.9	14	1.5						199.6	

OT= 11 17 56 1.6 +/- 0.3
S OF HOKKAIDO
LAT= 42 37 +/- 3 LONG= 142 19 +/- 3
H=110 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
OBIHIR	0	P	17	56	21.7	IS	56	37.0									D 6	81.4	15.3

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STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
SAPPOR	0	IP	17	56	22.1	IS	56	38.0	20	1.8	16	1.4	10	1.0		W	D	94,3	15.9
HIROO	1	P	17	56	22.1	IS	56	37.7										90,2	15.6
URAKAW	1	IP	17	56	22.3	IS	56	38.9	78	0.2	171	0.4	19	0.4	S	5	U 16	63,6	16.6
MURORA	0	IP	17	56	24.8	S	56	41.6								W	U 4	114,6	16.8
HAKODA	0	IP	17	56	28.5	IS	56	49.6	14	0.6	11	0.5	4	0.4	S	1 W	1 U 5	156,6	21.1
KUSHIR	0	EP	17	56	29	S	56	51.4	27	0.4	26	0.2	10	0.2				174,7	22.4
HACHIN	0	EP	17	56	37.0	IS	57	05.0	13	0.2	16	0.2	1	0.2			U	241,5	28.0
AOMORI	0	EP	17	56	39	ES	57	05	19	1.8	24	1.5	8	1.3				237,2	26.0
MORIOK	0	IP	17	56	49.1	IS	57	25.0	19	0.4	9	0.4	2	0.5	S	1 W	1 U 1	338,3	35,9
OFUNAT	0	IP	17	56	55.4	S	57	35.2	8	0.4	5	0.4	2	0.6	N	4 E	1 D 4	398,0	39.8
SENDAI	0	EX	17	57	07	ES	57	57	2	0	5	1	2	1				498,5	
MATSUS	0	IP	17	57	39.8	S	58	56							S		U	761,3	76,2

OT= 11 19 37 46.7 +/- 0.7
OFF IWATE PREF
LAT= 40 7 +/- 3 LONG= 142 56 +/- 3
H= 30 MAG=3.8 CLASS=U

MIYAKO	0	P	19	38	04.0	IS	38	14.6	4	0	6	0	5	0				97,8	10.6
MORIOK	0	EP	19	38	12.3	S	38	29.8	8	0.4	5	0.4	1	0.4				158,0	17.5
OFUNAT	0	IP	19	38	12.4	IS	38	29.2	5	0.4	5	0.6	3	0.6	S	0 W	1 U 0	156,9	16.8
AOMORI	0	EX	19	38	33				15	1.8	12	1.3	7	0.7				198,2	
MATSUS	0	IP	19	39	05.3	ES	40	13							S		U	572,9	67.7

OT= 12 6 58 27.7 +/- 0.2
TOKYO-KANAGAWA BORDER
LAT= 35 34 +/- 1 LONG= 139 36 +/- 2
H= 50 MAG=3.6 CLASS=U

YOKOHA	0	P	06	58	36.2	S	58	41.0	110	0.4	65	0.6	26					15,3	04.8
TOKYO	0	P	06	58	37.0	S	58	43.2	28	0.3	26	0.2	13					19,4	06,2
KUMAGA	0	P	06	58	39.6	ES	58	51.0	21	1.0	12	0.8	7	0.6			D 4	67,2	11.4
AJIRO	0	EP	06	58	41.8	S	58	51.1	11	0.2	13	0.2	3	0.3				73,9	09.3
TATEYA	0	EP	06	58	41.8				10	1.2	7	0.6	4	0.6				69,2	
KAKIOK	0	IP	06	58	43.1	S	58	53.7	11	1.0	12	1.0	6	0.9	N	1	U 1	91,2	10.6
OSHIMA	0	P	06	58	44.2				10	0.4	7	0.4	5	0.3				91,5	
UTSUNO	0	P	06	58	46.4	S	59	00.0										111,4	13.6
MATSUS	0	IP	06	58	54.2	S	59	14							S	E	D	165,3	19.8
CHOSHI	0	S	06	59	02.4													113,9	

OT= 12 11 34 42.8 +/- 0.5
S OF KII PEN
LAT= 33 35 +/- 2 LONG= 135 43 +/- 3
H= 10 MAG=3.5 CLASS=L

SHIONO	0	EP	11	34	46.5	ES	34	50.4	16	0.2	13	0.2	8	0.1				15,6	03.9
OWASE	X	EP	11	34	55.9	IS	35	05.6	18		10		7					69,5	09.7
WAKAYA	0	X	11	35	08.0	IS	35	08.8	5	0.1	5	0.1						87,6	
MATSUS	0	P	11	35	41	X	36	39										398,8	

OT= 13 4 16 24.9 +/- 0.8
OFF SANRIKU
LAT= 39 45 +/- 2 LONG= 143 54 +/- 4
H= 10 MAG=5.6 CLASS=M

MIYAKO	1	IP	04	16	53.5	IS	17	10.3	136	6.1	180	3.2	100		S	2 W	28	166,1	16,8
						EX	25	57.4											
OFUNAT	0	IP	04	16	58.4	IS	17	26.2	93	4.8	67	6.8	76	6.4	S	4 W	12 U 11	202,8	27.8
HACHIN	X	IP	04	17	00.0	ES	17	30.0	70	2.6	96	5.4	52	6.6	S	1 E	1 D 1	219,9	30.0
MORIOK	1	EP	04	17	02.5	ES	17	31.6	60	0.4	100	0.4	60	0.4		W	0 U 0	234,3	29.1
						EX	18	01.2											
ISHINO	0	EP	04	17	06.3	EX	17	38.6	100	5.4	98	5.4	74	5.8	S	5 W	7 U 7	268,5	
AOMORI	1	IP	04	17	08.5	S	17	43	600	2.0	500	2.0	150	1.6		W	15 U 8	290,3	34.5
URAKAW	0	P	04	17	09.8	S	17	40.4	141	5.6	173	2.2	96	4.2				283,6	30.6
HIROO	0	EP	04	17	10													285,6	
SENDAI	0	P	04	17	11.7	S	17	45	141	2.3	121	1.5	69	7	S	5 W	7 U 9	308,0	33.3
						X	17	53											
AKITA	0	P	04	17	15.6	S	17	55.2	264	3.2	236	3.8	194	3.2		W	U 6	325,6	39.6
HAKODA	0	IP	04	17	17.6	ES	17	57	82	1.8	57	1.6	55	8.6	N	4 W	6 D 6	350,5	39.4
YAMAGA	0	P	04	17	18.0	ES	17	56.4	100	3.0	50	5.0			S	1 W	1 U 1	349,5	38.4

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
OBIHIR	0	EP	04	17	19													356.6	
MURORA	0	EP	04	17	19,5													376.0	
FUKUSH	0	EP	04	17	19,9				96	1.0	78	1.0	33	6.0				370,9	
KUSHIR	0	EP	04	17	21	IS	17	56.2	82	6.4	65	0.3	24	2.8				361.0	35.2
SAKATA	0	EP	04	17	21.6	S	18	07.7	800	4.2	850	3.3						362,7	46.1
ONAHAM	0	EP	04	17	24.4	ES	18	13.5	90	1.1	93	1.6	30	1.6				406.6	49.1
SAPPOR	0	P	04	17	26.0	EX	18	23.6	59	2.6	79	4.2	46	5.0				425.6	
NEMURO	0	EP	04	17	29	S	18	11.2	25	1.4	40	2.0	15	7.0				421.6	42.2
SHIRAK	0	EP	04	17	29.3	ES	18	21.8										433.8	52.5
ABASHI	0	EP	04	17	33	ES	18	18	27	6.0	48	2.6	17	5.0				475.0	45.0
NIIGAT	0	EP	04	17	33.8				3375	5.2	2000	5.0	1400	5.0				467.8	
ASAHIK	0	EP	04	17	34	ES	18	22	26	2.0	35	2.6	36	3.6				464,2	48.0
MITO	0	P	04	17	34,5	ES	18	34.0	113	6.0	93	4.4	50	4.5				480.1	59.5
KAKIOK	0	EP	04	17	36	X	18	24	40	1.0	42	4.0	16	7.5				508.3	
UTSUNO	0	P	04	17	36.7	S	18	28.4										501.0	51.7
RUMOI	0	EX	04	17	39	X	19	00										503.1	
CHOSHI	0	P	04	17	39,3	S	18	29.8										521.6	50.5
KUMAGA	0	EP	04	17	44,6	ES	18	55.0	64	5.2	33	7.2	37	4.0				563,2	70.4
MAEBAS	0	P	04	17	46.8	X	18	38.6	5	0.1	7	0.8	7					563.8	
TOKYO	0	EP	04	17	46.8	ES	18	53.6	77	5.2	95	6.0	62	4.8				580.2	66.8
TAKADA	0	EP	04	17	47.6	X	19	16.6										573.9	
KARUIZ	0	EP	04	17	50.0	E	18	25.0										602.8	
MATSUS	0	IP	04	17	50.8	S	18	55									U	612,9	64.2
NAGANO	0	EP	04	17	52.3	X	19	27.0	82	4.0	60	5.0	24	3.0				605.7	
TATEYA	0	EP	04	17	53.1				100	6.6	90	11.4	50	3.6				638.0	
KOFU	0	EP	04	17	56.6	ES	19	18.0	39	2.0	40	2.0	14	3.0				653.5	81.4
KAWAGU	0	P	04	17	57.0	ES	19	03.8										654.1	66.8
MISHIM	0	EP	04	17	58.8				32	2.9	37	2.9	9	13.5				676.8	
TOYAMA	0	X	04	17		X	19	49	38	5.8	37	7.4	25	5.4				676.0	
WAKKAN	0	EX	04	18	00				30	6.0	53	6.3	25	7.0				654.9	
AJIRO	0	EP	04	18	01.2	ES	19	21.8	8	2.2	9	2.4	6	2.0				673.3	80.6
OSHIMA	0	P	04	18	02.1				24	4.8	24	8.4	7	1.8				683.3	
IIDA	0	EP	04	18	03.4	ES	19	24.4	25	5.4	25	7.2	7	7.2				712.4	81.0
KANAZA	0	EP	04	18	07.0	X	19	46.0			19	6.0	11	4.5				727.9	
HAMAMA		EP	04	18	07	ES	19	40	19	3.6	26	4.6	9	4.6				782.8	93.0
SHIZUO	0	EP	04	18	09.5	X	19	36.3	18	6.7	21	6.5	26	8.0				719.2	
GIFU	0	EP	04	18	14.2	X	20	09.0	22	4.4	9	1.7						793.5	
NAGOYA	0	EP	04	18	15.4	ES	19	45.0	27	3.0	22	2.2	7	1.5				796.4	89.6
HACHIJ	0	EP	04	18	18.4	X	19	36.0	12	1.3	15	3.0						824.3	
OMAEZA	0	X	04	18	20.4	X	19	22.2	58	8.8	39	11.0	15	10.0				762.0	
KYOTO	0	P	04	18	27.1	ES	20	05.8	9	9.0	7	9.5	6	6.0		E	1 D 1	893,4	98.7
TOYOOK	0	EP	04	18	30.6	S	20	04.1	18	16.4	13	15.0	11	12.9				927.0	93.5
SHIONO	0	EP	04	18	38.5	ES	20	29.6	8	15.3	10	6.2	5	2.6				1008.5	111.1
OWASE	0	X	04	18	39.0	X	20	27.0	13	8.0			6	7.0				931.5	
SAIGO	0	IP	04	18	40.9	EX	20	31.0	5	7.2	5	5.5	5	6.0	N	0 E	0 D 0	1007.4	
OSAKA	0	EX	04	18	43				33	7.5	31	8.2	10	5.0				931.8	
OKAYAM	0	EP	04	18	46	ES	20	40	3	12.5	6	14.0	7	10				1048.6	114.0
TAKAMA	0	EP	04	18	47.8	ES	20	44.6	14	16.7	8	16.7						1062.0	116.8
WAKAYA	0	EX	04	18	56.4				10	6.4	5	6.8	5	6.7				989.1	
HAMADA	0	IP	04	19	01.9	S	21	10.0	5	7.0	3	6.0	3	7.0		E	0 D 0	1177.2	128.1
HIROSH	0	EP	04	19	04	EX	21	00	8	14.3	8	16.6	7					1180.4	
MATSUY	0	X	04	19	18.5	X	21	31.2	10	16.0	10	18.8	2	12.6				1188.0	
SHIMON	0	EP	04	19	20.6				5	14.0	4	14.0	8	13.0				1320.5	
OITA	0	EX	04	19	21.0				12	4.8	23	5.7						1314.3	
FUKUOK	0	EP	04	19	23.5	ES	21	49.0	4	15.0	3	13.0	5	13.0				1386.7	145.5
KUMAMO	0	X	04	19	38.4	X	22	12.8	9	14.8	5	14.8						1410.7	
NAGASA	0	EP	04	19	39.7	ES	22	16.0										1480.3	156.3
ASHIZU	0	EX	04	21	42.5				5	5.2	4	6.2	3	5.8				1249.6	

OT= 13 12 4 18.8 +/- 1.1
OFF SANRIKU
LAT= 39 46 +/- 3 LONG= 143 57 +/- 6
H= 30 MAG=4.7 CLASS=U

MIYAKO	0	EP	12	04	45.4	IS	05	01.5	10	1.0	9	1.8	9	0		W	2 U 4	170,5	16.1
OFUNAT	0	IP	12	04	51.2	ES	05	18.4	9	1.0	7	1.2	7	1.0	S	1 W	2 U 2	207,5	27,2
HACHIN	0	IP	12	04	51.5	ES	05	21.0	7	0.3	5	4.0	2	4.0			U 1	223.1	29,5
MORIOK	0	IP	12	04	55.0	S	05	23.2	16	0.4	13	0.4	4	0.6		W	3 U 1	238.6	28.2
ISHINO	0	P	12	04	59.2	ES	05	31.6	7	1.4	6	1.4	5	1.4			U 1	273.1	32.4
URAKAW	0	EP	12	05	01	S	05	30.6	5	1.2	9	3.0	4	3.0				283,3	29.6
AOMORI	0	EP	12	05	04	S	05	39	49	0.9	61	0.9	25	0.9				293.4	35.0
SENDAI	0	EP	12	05	04.7	ES	05	36	14	2	14	2.0	5	2				312.6	31.3
AKITA	0	EX	12	05	06.0				11	2.4	13	2.6	8	2.6				329,9	
HAKODA	0	EP	12	05	08	IS	05	52.3	7	1.2	13	0.9	2	1.0				352.4	44.3
FUKUSH	0	EX	12	05	11.4				13	0.8	13	1.0	4	0.8				375,5	
KUSHIR	0	EP	12	05	12	S	05	46.8	16	0.2	25	0.2	8	0.2				358,7	34.8
SAKATA	0	EX	12	05	12.5													367.3	
SAPPOR	0	EX	12	05	26	S	05	58.5	3	1.8	5	2.0	3	1.0				426.1	
ONAHAM	0	EX	12	05	26.8				8	0.9	11	1.1	3	0.4				410.8	

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
OBIHIR	0	EX	12 05 36												355.5	
MATSUS	0	IP	12 05 44.0	S	06 54							S	W	U	617.5	70.0
KOFU	0	EP	12 05 50.8	ES	07 09.0	4	1.4	5	2.2	1	1.0				657.9	78.2
TATEYA	0	X	12 06 04.0			6	3.0	5	2.7	4	2.8				642.0	
NIIGAT	0	EX	12 06 11.0			12	3.2	13	3.0	5	3.2				472.5	

OT= 14 15 0 1.6 +/- 0.6
OFF IBARAKI PREF
LAT= 36 26 +/- 2 LONG= 141 13 +/- 3
H= 50 MAG=3.6 CLASS=U

ONAHAM	0	EP	15 00 14.5	S	00 22.0	6	0.7	10	1.0	4	0.5				63.2	07.5
MITO	0	IP	15 00 15.3	IS	00 23.5	15	0.3	16	0.3	4	0.2		E	2	67.1	08.2
KAKIOK	0	EP	15 00 18	S	00 28.2	10	0.2	12	0.3	5	0.2				94.5	10.2
UTSUNO	0	P	15 00 21.3	S	00 34.8										121.1	13.5
MATSUS	0	IP	15 00 41.0	S	01 11									D	269.8	30.0

OT= 15 0 55 47.9 +/- 0.9
OFF SANRIKU
LAT= 39 50 +/- 2 LONG= 144 2 +/- 5
H= 30 MAG=4.8 CLASS=U

MIYAKO	0	EP	00 56 15.4	IS	56 36.2	14	2.0	19	2.6	17	2.4		W	2 U 2	178.2	20.8
HACHIN	0	IP	00 56 21.5	S	56 50.8	6	3.1	6	2.7	6	3.2	N	W	1 U 1	227.0	29.3
OFUNAT	0	IP	00 56 21.9	ES	56 46.3	13	3.2	14	2.6	9	2.0		W	2 U 1	216.9	24.4
MORIOK	0	IP	00 56 25.0	IS	56 54.4	11	0.4	15	0.4	5	1.4		W	1 U 0	246.0	29.4
ISHINO	0	EP	00 56 30.2	ES	57 03.4	9	2.4	10	3.2	8	3.4			U	283.1	33.2
AOMORI	0	EP	00 56 31.2	S	57 04.2	74	2.2	51	0.9	22	0.9				297.0	33.0
URAKAW	0	P	00 56 31.8	ES	57 00	12	4.8	17	3.4	9	3.4				278.9	28.2
SENDAI	0	P	00 56 35			20	2.1	17	2.0	8	2.0				322.6	
HAKODA	0	EP	00 56 37.7	ES	57 19	7	1.7	9	2.0	5	3.5			U	353.1	41.3
AKITA	0	EX	00 56 43	EX	57 20.2	34	3.0	28	3.2	11	2.6				337.1	
FUKUSH	0	EX	00 56 43.9			8	1.0	8	1.2	4	2.7				385.6	
SAKATA	0	EX	00 56 46.1												376.1	
SAPPOR	0	X	00 56 53			11	2.2	9	2.2	3	1.8				423.4	
ABASHI	0	EP	00 56 56	ES	57 41	3	1.4	8	2.0	2	2.0				465.2	45.0
OBIHIR	0	EX	00 56 56												349.5	
ONAHAM	0	EX	00 57 02.5			11	1.5	12	1.3	5	1.6				421.1	
NIIGAT	0	X	00 57 02.7	X	58 02.0	29	3.8	25	3.6	11	5.0				482.1	
MITO	0	EX	00 57 07.5			11	3.0	9	3.5	6	2.4				494.5	
NAGANO	0	EP	00 57 13.3	X	58 45.6	9	3.8	5	4.2	2	3.0				620.3	
KUSHIR	0	S	00 57 14.5			9	0.6	16	0.8	3	3.6				350.6	
MATSUS	0	IP	00 57 15.0	S	58 14							S	W	U	627.6	59.0
KUMAGA	0	X	00 57 17.6	ES	58 16.6	5	1.8	3	1.8	3	3.2				577.9	
KOFU	0	EP	00 57 20.8	X	58 47.6	5	2.2	5	2.0	2	2.0				668.1	
TATEYA	0	EX	00 57 21.0			13	3.0	8	3.7	9	2.6				652.2	
TOKYO	0	EX	00 58 24			9	4.0	10	4.4						594.7	

OT= 15 5 1 27.1 +/- 1.3
OFF SANRIKU
LAT= 40 18 +/- 3 LONG= 144 12 +/- 7
H= 40 MAG=4.7 CLASS=U

HACHIN	0	IP	05 02 00.0	ES	02 30.2	5	0.6	5	2.0	3	5.0		W	1 U	228.4	30.2
URAKAW	0	P	05 02 04.7	ES	02 29	10	2.0	14	0.8	7	2.0				238.3	24.3
OFUNAT	0	IP	05 02 05.2	ES	02 35.2	7	2.4	6	2.2	5	1.0		W	1 U 1	253.4	30.0
MORIOK	0	P	05 02 06.4	S	02 33.0	6	0.4	5	0.4	3	1.6		W	1 U 0	267.4	26.6
AOMORI	0	P	05 02 08.3	S	02 44.7	36	1.3	46	1.3	22	0.9				295.0	36.4
ISHINO	0	P	05 02 14.0	ES	02 51.6	5	2.4	6	1.4	4	1.2				325.0	37.6
HAKODA	0	P	05 02 14.3	ES	02 51	7	1.4	6	1.2	3	1.5		W	U	334.6	36.7
KUSHIR	0	X	05 02 16	ES	02 44	5	0.2	10	0.3	3	1.6				298.0	
SENDAI	0	P	05 02 19			11	1.8	11	1.3	5	1.4				363.8	
AKITA	0	EX	05 02 21.6			15	2.0	14	2.4	7	2.0				355.8	
OBIHIR	0	X	05 02 23	X	03 09										302.2	
SAPPOR	0	EP	05 02 26			8	2.4	7	1.6	3	1.2				388.5	
FUKUSH	0	EX	05 02 26.7			11	1.0	9	0.9	3	0.8				428.6	
NIIGAT	0	EX	05 02 42.0			15	4.2	12	3.2	8	3.3				518.2	
SAKATA	0	EX	05 02 43.3												405.5	
MATSUS	0	IP	05 02 58.2	X	04 33							S	W	U	669.1	
ONAHAM	0	EX	05 03 03.0			7	0.8	9	1.0	4	1.2				470.0	
TATEYA	0	EX	05 03 21.0			7	2.0	5	2.5	4	2.5				702.8	

OT= 16 5 51 9.4 +/- 0.4
OFF IBARAKI PREF
LAT= 36 9 +/- 1 LONG= 140 57 +/- 2
H= 40 MAG=3.5 CLASS=L

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
CHOSHI	0	P	05 51 20.1	S	51 26.8										48.1	06.7
MITO	1	IP	05 51 20.3	IS	51 27.5	17	0.3	24	0.3	11	0.2				49.9	07.2
KAKIOK	0	P	05 51 22.4	S	51 30.1	7	0.6	7	1.0	4	0.3		E	3 D 4	68.6	07.7
UTSUNO	0	P	05 51 26.9	S	51 39.1										106.3	12.2
MATSUS	0	IP	05 51 46.4	S	52 15									D	249.8	28.6

OT= 16 12 25 35.1 +/- 0.4
S OF CHIBA PREF
LAT= 34 49 +/- 2 LONG= 140 4 +/- 2
H= 60 MAG=4.0 CLASS=U

TATEYA	0	IP	12 25 45.3	IS	25 54.0	27	0.5	18	0.7	18	0.3			U 6	25.9	08.7
OSHIMA	0	IP	12 25 49.1	IS	25 58.2	14	0.6	14	0.8	11	0.4				63.3	09.1
YOKOHA	0	P	12 25 50.2	IS	26 01.2	50	0.4	50	0.6	20					78.3	11.0
AJIRO	0	EP	12 25 51.6	S	26 02.2	15	0.2	13	0.2	3	0.4				92.1	10.6
TOKYO	0	IP	12 25 53.0	S	26 05.6			112		22					100.3	12.6
KOFU	0	EP	12 26 01.2	ES	26 16.6	6	0.3	6	0.3	2	1.0				166.4	15.4
KUMAGA	0	EP	12 26 01.6	S	26 17.0	11	1.2	3	0.8	2	0.6				160.0	15.4
KAKIOK	0	EP	12 26 02	ES	26 14	7	1.0	7	0.9	4	0.3				157.4	12.0
UTSUNO	0	EP	12 26 04.3	S	26 21.7										192.7	17.4
MATSUS	0	IP	12 26 11.4	S	26 37							S	E	D	254.5	25.6

OT= 16 15 10 33.6 +/- 1.0
S OF CHIBA PREF
LAT= 34 34 +/- 3 LONG= 140 19 +/- 5
H= 60 MAG=4.1 CLASS=S

TATEYA	0	IP	15 10 47.2	IS	10 55.3	30	0.7	33	0.4	27	0.4			D 4	61.8	08.1
OSHIMA	2	IP	15 10 50.5	IS	10 59.2	19	0.4	20	0.6	29	0.4				88.7	08.7
AJIRO	X	EP	15 10 54.3	S	11 06.2	18	0.2	18	0.2	4	0.3				123.5	11.9
UTSUNO	0	P	15 11 05.9	S	11 27.4										223.3	21.5
KOFU	0	X	15 11 09.6	IS	11 21.6	9	0.4	9	0.3	2	0.6				201.3	
MATSUS	0	IP	15 11 15.7	S	11 44							S	E	D	290.4	28.3

OT= 16 17 16 53.3 USCGS
KAMCHATKA
LAT= 52 12 LONG= 159 0
H= 69 MAG=5.8 CLASS=U

ABASHI	0	EP	17 19 49			6	4.0	7	3.6	5	3.4				1420.5	
KUSHIR	0	EP	17 19 58	ES	22 52	9	2.4	9	5.4	9	3.2				1498.2	174.0
WAKKAN	0	IP	17 20 02.2			4	3.0	14	4.7	24	4.4			U 0	1474.4	
OBIHIR	0	EP	17 20 09												1567.8	
ASAHIK	0	P	17 20 11.5			5	1.4	6	2.0	5	1.6				1550.0	
URAKAW	0	EP	17 20 15	EX	22 54	11	2.2	12	2.0	7	2.6				1654.6	
SAPPOR	0	EP	17 20 20	ES	23 27	11	2.4	11	3.0	8	2.4				1665.6	187.0
HAKODA	0	EP	17 20 33.0	ES	23 52	6	3.2	7	3.4						1796.8	199.0
AOMORI	0	EX	17 20 46			17	1.3	12	1.8						1876.8	
OFUNAT	0	EP	17 20 53.6	ES	24 16.0	4	5.2	3	1.2	6	1.6				1977.7	202.4
				IX	20 57.6											
AKITA	0	EX	17 20 55.4												2007.1	
ISHINO	0	P	17 21 01.4	ES	24 34.0	8	5.2	8	4.0	8	3.2				2055.9	212.6
SENDAI	0	EP	17 21 06	S	24 38.8	10	4.2	7	4.6	12	4.2	S		U 1	2091.6	212.8
				IX	21 09.2	12	1.0	13	1.4	18	1.6					
SAKATA	0	EX	17 21 10.9												2091.5	
FUKUSH	0	P	17 21 15.7	S	24 51.9	19	0.4	14	0.4	10	1.5	S	7 W	4 U 6	2158.7	216.2
ONAHAM	0	P	17 21 19.7	ES	24 49.8	12	1.2	10	3.0	9	2.8			U 4	2210.4	210.1
NIIGAT	0	IP	17 21 21.9			26	4.0	31	3.9	20	5.2			U 9	2220.5	
MITO	0	IP	17 21 27.4	S	25 14.6	25	5.7	10	3.6	18	2.4	S	3 W	2 U 10	2284.2	227.2
UTSUNO	0	IP	17 21 28.4									S	1	U 2	2299.2	
KAKIOK	0	IX	17 21 30.1			13	0.8	7	1.1	5	1.5	S	3 W	1 U 3	2311.7	
KUMAGA	0	EP	17 21 35.4	ES	25 33.6	11	2.6	4	2.4	9	3.2				2360.5	238.2
NAGANO	0	EP	17 21 36.3	ES	25 33.5	12	1.5	10	3.0	10	2.0				2376.7	237.2
MATSUS	0	IP	17 21 36.4	S	25 30							S	W	U	2386.9	233.6
WAJIMA	0	IP	17 21 37.0	S	25 34	13	1.0	25	1.0	6	1.0			U 4	2384.2	237.0
KARUIZ	0	EP	17 21 37.5	ES	25 33.8										2386.4	236.3

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TOKYO	0	IP	17	21	37.7	S	25	40.4	12	5.8	14	4.8	15	4.6				2383.9	242.7
TOYAMA	0	P	17	21	40.6	ES	25	42	9	2.2	9	4.8	7	4.4	S	1 W	1 U	5	2426.2	241.4
MATSUM	0	P	17	21	41.4														2425.8	
OMAEZA	0	EP	17	21	42	ES	25	37	16	3.6	9	2.6							2561.9	235.0
KOFU	0	IP	17	21	42.2	ES	25	43.0	10	1.8	13	1.5	17	1.5			U	4	2447.0	240.8
TATEYA	0	EX	17	21	43.6				20	4.7	12	2.7	13	2.3					2443.6	
MISHIM	0	EP	17	21	44				13	2.4	11	2.4	6	2.2					2478.6	
KANAZA	0	EP	17	21	45.4	ES	25	46.5			8	5.0	6	2.0					2471.1	241.1
OSHIMA	0	EX	17	21	46.5				9	2.0	5	0.8	5	1.4					2488.5	
IIDA	0	EX	17	21	47.8														2498.9	
SHIZUO	0	P	17	21	50.0	ES	25	55.0	5	4.0	7	1.3	12	3.8	S	W			2518.0	245.0
GIFU	0	X	17	21	53.8				8	1.5	8	1.6	8	1.7					2566.0	
NAGOYA	0	EP	17	21	54.5	ES	26	06.0	8	2.0	9	2.2	7	2.0	S	3 W	2 U	3	2576.0	251.5
HAMAMA		P	17	21	55.0	ES	26	04	11	3.6	10	3.6	10	2.0			U	3	2577.6	249.0
HACHIJ	0	EX	17	21	59.0				7	1.5	8	1.5	6	1.5					2625.4	
TOYOOK	0	P	17	22	01.9	X	26	16.8	10	1.2	9	1.2	4	3.6	S	4 W	4 U	4	2661.1	
KYOTO	0	P	17	22	02.8	ES	26	15.7	3	2.0	3	2.4	5	2.0					2656.4	252.9
SAIGO	0	EP	17	22	03.5	EX	26	21.8			4	2.1	6	2.2	S	0 W	0 U	0	2566.0	
OSAKA2	0	IP	17	22	06.0	ES	26	20							S	5 W	4		2689.3	
OSAKA	0	P	17	22	06.4	ES	26	23	26	3.5	13	3.7	12	3.6			U	6	2696.1	254.0
																			2697.7	256.6
OWASE	0	EP	17	22	06.8	EX	22	24.0	6				6						2716.3	
WAKAYA	0	EX	17	22	10.9				7	1.0	3	1.0	5	3.4					2757.4	
TAKAMA	0	EP	17	22	11.5	ES	26	39.3	6	1.8	6	1.2	2	1.0					2810.6	267.8
OKAYAM	0	EP	17	22	12.3				3	2.0	3	2.0	5	2.0	S	W	1 U	2	2786.7	
OITA	0	EX	17	22	39.2				7	2.8	7	4.2							3043.6	
KAGOSH	0	EX	17	22	51.9				3	1.2	5	1.0	2	1.2					3250.9	
NAHA	0	P	17	23	22.6				3	2.0	3	1.2	5	1.8					3895.1	

OT= 18 14 24 48.0 USCGS
NORTHEASTERN CHINA
LAT= 38 18 LONG= 119 24
H= 33 MAG=7.3 CLASS=R

IZUHAR	0	P	14	26	56.0	EX	28	24.2										997.8	
						EX	29	27.2											
FUKUE	0	EP	14	27	06.4	IX	29	44.4	900	13.0	900	7.0	500	5.2				1056.4	
FUKUOK	0	EP	14	27	10.2	ES	29	11.0	1700	16.0	1700	4.9	700	5.0	N	1 W	2 D	2	1119.3	120.8
SHIMON	0	EP	14	27	13.4	EX	29	58.0	750	12.0	700	7.0			N	W	D		1144.1	
NAGASA	0	EP	14	27	13.9	EX	29	25.8	1700	15.4	1600	14.6	400	5.5	N	W	D		1132.7	
NOBEOK	0	EP	14	27	14.4	EX	30	32.6	1100	5.5	350	3.7	300	3.9	N	W	D		1281.1	
UNZEND	0	EP	14	27	17.0				1800	5.0	1800								1160.6	
HAMADA	0	EP	14	27	17.4	ES	29	21.1	290	5.8	273	4.8	296	5.8		E	0 U	0	1194.0	123.7
SAGA	0	EP	14	27	25.5	EX	28	58.7	1200	6.1	2850	7.1	750	5.0					1133.0	
KUMAMO	0	EP	14	27	25.5	ES	29	23.3	2355		1400		250	1.4	S	3 E	4		1191.1	117.8
SAIGO	0	P	14	27	30.8	ES	29	39.5	700	16.9	650	5.7			N	0 W	0 D	0	1256.4	128.7
MATSUY	0	EP	14	27	33.5	ES	29	38.0	806	6.1	746	5.5	219	4.9	N	W	D		1301.1	124.5
YONAGO	0	EP	14	27	34.9	ES	29	55.7								W	D		1281.8	140.8
OITA	1	EX	14	27	34.9	EX	30	19.8	5500	5.3	3750	5.3	1200	4.1					1238.4	
MATSUE	0	EP	14	27	35.1	EX	30	20.5											1257.6	
KAGOSH	0	EP	14	27	35.7	ES	29	39.3	1750	4.2	1200	4.9	350	3.4					1261.1	123.6
MIYAZA	0	P	14	27	36.3	X	30	31.3	950	4.7	1050	3.8	255	4.2					1303.2	
UWAJIM	0	EP	14	27	37				900	5.1	800	6.7	400	4.7					1314.5	
YAKUSH	0	EP	14	27	39.3	EX	30	43.0	178	12.4	205	17.2	109	4.2					1339.4	
OKAYAM	0	EP	14	27	41.1	IX	31	13.3	900	15.2	400	15.2	200	5.1	N	W	2 D	2	1359.2	
TAKAMA	0	EP	14	27	43.1	ES	30	03.1	800	17.1	500	12.7	200	5.0					1386.6	140.0
KOCHI	0	EP	14	27	44.0	EX	30	56.5	1000	12.1	450	5.4	450	6.3					1378.0	
ASHIZU	0	P	14	27	44.2	ES	30	18.5	316	4.9	253	5.5	258	5.0	N	2	D	1	1379.6	154.3
TOTTOR	0	P	14	27	45.1	X	31	06.7	500	5.5	400	5.9	300	5.9					1351.1	
TOYOOK	0	EP	14	27	45.9	S	30	05.7	431	14.7	287	13.0	158	10.3					1405.8	139.8
OSAKA	0	EP	14	27	48.8				800	6.6	700	4.2	200	5.5		W	D		1497.0	
HIMEJI	0	EP	14	27	50.2	EX	31	25.4											1420.4	
MUROTO	0	IP	14	27	50.8	ES	30	31.2	323	8.4	242	4.0	318	3.6	S	0 E	0 U	0	1446.6	160.4
MAIZUR	0	P	14	27	55	X	32	00.6	500	15	350	18							1457.1	
ANABUK	0	X	14	27	55.0				147		315	4.6							1410.6	
TOKUSH	0	EP	14	27	57.9	ES	30	19.1											1441.5	141.2
KYOTO	0	EP	14	27	59.2	ES	30	49.8	91	7.0	94	13.1	42	6.1		E	1		1503.0	170.6
OSAKA2	0	EP	14	27	59.9	S	30	53.0							N	W	0 D	0	1511.4	173.1
WAKAYA	0	EP	14	28	01.0	EX	30	23.6	320	14.0	136	11.5	172	6.0					1484.7	
FUKUI	0	EP	14	28	01.2														1512.6	
WAJIMA	0	IP	14	28	04.0	ES	30	36	193	13.6	144	13.0	95	11.0	S	5 W	8 D	7	1541.0	152.0
TSURUG	0	EP	14	28	05	EX	30	57	600	10.5	300	10.5	100	11.7					1510.3	
KANAZA	0	P	14	28	05.7	ES	30	47.4			263	5.5	99	15.5		E	10 U	9	1536.7	161.7
HIKONE	0	P	14	28	05.8														1538.2	
SHIONO	0	EP	14	28	05.8	EX	30	10.2					91	4.8					1569.7	
NARA	0	P	14	28	06.0	X	31	41.2	400	6.0	250	6.0	200	6.0					1523.6	
NAHA	0	P	14	28	06.0	S	31	06.0	171	12.0	215	10.8	115	13.0			U	3	1546.7	180.0
GIFU	0	P	14	28	08.2	L	31	01.8	456	13.1	126	17.1	53	13.3					1579.1	
TOYAMA	0	EP	14	28	09	EX	31	55	99999		197	12.0	104	8.8	N	3 W	4 D	6	1581.9	

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NAGOYA	0	EP	14	28	11.2	EX	31	33.8	251	13.4	143	14.2	91	14.0		W	4 D	3	1604.5	
						IX	31	55.4												
OWASE	0	IP	14	28	11.6	IS	31	05.0	295	15.0	118	8.0	116	5.3	S	E	U		1579.2	173.4
TAKAYA	0	EP	14	28	12.5	EX	31	34.8											1599.7	
TSU	0	EP	14	28	14.5	X	32	34.2	117	2.5	95	4.1	40	3.6					1581.9	
TAKADA	0	EP	14	28	17.9	EX	31	38.8											1664.6	
HAMAMA		EP	14	28	18	ES	31	36	210	6.2	175	6.0	105	10.0					1685.9	198.0
IIDA	0	EP	14	28	18.2	EX	32	40.0	129	16.0	80	14.0	69	6.6					1668.7	
MATSUS	0	IP	14	28	19.6	S	31	24							N	W	D		1673.3	184.4
MATSUM	0	EP	14	28	19.9				300	14.8	200	16.3	50	16.8					1660.0	
NAGANO	0	P	14	28	21.1	ES	31	29.6	148	16.3	190	6.9	56	5.8	N	3 W	3 D	3	1669.4	188.5
KARUIZ	0	EP	14	28	24.9	ES	31	46.0	200	15.0	100	7.5							1708.1	201.1
NIIGAT	0	IP	14	28	25.0	ES	31	28.1	4000	13.2	3950	11.1	1380	6.3			D	10	1720.8	183.1
SHIZUO	0	EP	14	28	26.2	ES	31	40.5	99999		180	14.5	120	14.0					1735.9	194.3
KOFU	0	EP	14	28	26.4	EX	32	39.0	178	12.6	86	11.0	75	6.8					1727.1	
ASOSAN	0	EX	14	28	30	ES	30	37.0	1100		650	5.6	350	5.2					1215.5	
MISHIM	0	EP	14	28	31.6	ES	31	45.9	402	15.1	220	11.1	109	18.3	N	W	D		1776.8	194.3
						EL	32	31.9												
OMAEZA	0	EP	14	28	32.1	ES	31	52.3	392	3.5	492	3.5							1732.1	200.2
SAKATA	0	EX	14	28	32.2	EX	33	39.3	1900	10.9	850	11.4							1777.7	
CHICHI	0	EP	14	28	32.3	ES	31	50.4	200	5.2	150	8.9	150	8.2					1763.6	198.1
AKITA	0	P	14	28	32.8	EX	31	40.8	174	12.6	212	11.4	88	14.4		W	4 D	6	1796.0	
KAWAGU	0	P	14	28	32.8	ES	31	54.7											1750.0	201.9
AJIRO	0	EP	14	28	33.4	ES	31	52.0	170	15.0	93	10.6	73	13.0					1793.5	198.6
KUMAGA	0	EP	14	28	33.6	EX	32	05.4	178	9.6	132	5.8	99	7.4					1786.0	
SUTTSU	0	EP	14	28	36.3	EX	32	01.6											1829.2	
YAMAGA	0	P	14	28	37.5	ES	32	03.1	200	13.0	100	12.0				W	1 D	2	1829.1	205.6
						EL	33	01												
SHIRAK	0	EP	14	28	37.9	ES	31	53.9	200	12.4	100	11.4	150	13.0					1837.0	196.0
FUKUSH	0	EX	14	28	38.0	EX	32	00.0	76	13.8			42	11.2					1847.2	
KAKIOK	0	EP	14	28	38	EX	28	54	118	14.7	64	13.3	51	11.8					1854.5	
TOKYO	0	P	14	28	38.8	EX	32	56.0	270	6.4	260	5.4	100	4.4					1831.3	
OSHIMA	0	EP	14	28	39.9	S	31	57.5	291	16.0	146	5.8	57	2.4					1827.6	197.6
IROZAK	0	EX	14	28	40.0	EX	28	42.0	850	16.0	450	14.0							1787.1	
AOMORI	0	EP	14	28	40.1	ES	32	04.9	96	2.6	95	3.9	55	3.4					1854.1	204.8
HAKODA	0	P	14	28	40.2	S	31	57.4	128	12.6	60	6.5	73	12.4		W	5 D	6	1858.6	197.2
UTSUNO	0	P	14	28	41.5														1818.6	
TATEYA	0	P	14	28	41.6	EX	33	53.0	1400	18.0	400	12.0	200	11.5					1862.7	
SENDAI	0	P	14	28	41.8	S	31	56	76	13.4	123	12.7	57	12.2		W	6 D	6	1876.9	194.2
						L	33	00												
MURORA	0	EP	14	28	42	ES	31	52	200	12.9	100	16.4							1882.7	190.0
MITO	0	IP	14	28	42.0	ES	32	04.5	164	10.6	85	8.4	75	7.1		W	3 D	8	1875.1	202.5
MORIOK	0	IP	14	28	43.0	S	32	05.5	46	12.5	57	13.2	35	14.7		W	1 D	0	1887.5	202.5
						X	28	50.7												
						IX	28	55.6												
						EL	33	24												
ONAHAM	0	P	14	28	44.0	ES	31	55.1	142	13.1	92	11.6	64	13.4			D	6	1900.1	191.1
HACHIN	0	IP	14	28	46.4	IS	32	09.8	57	13.3	73	12.7	40	4.0		W	1 D	1	1916.3	203.4
SAPPOR	0	IP	14	28	47.6	ES	32	04	44	2.2	64	12.0	63	4.0			D	7	1921.8	196.4
OFUNAT	0	IP	14	28	48.8	ES	32	07.2	76	13.2	54	11.0	50	13.0		W	3 D	4	1939.0	198.4
						L	33	25												
MIYAKO	0	EP	14	28	49.8	ES	32	09.4	71	11.6	65	11.8	46	13.2		W	2		1956.3	199.6
HACHIJ	0	EP	14	28	50.0	ES	32	23.8	209	7.2	165	6.5	31	2.5					1928.1	213.8
ASAHIK	0	EP	14	28	57				20	2.6	43	3.4	37	3.6					2017.7	
URAKAW	0	P	14	28	57.5	ES	32	30	131	12.6	122	12.4	58	10.4					2028.7	212.5
WAKKAN	0	EP	14	28	58	ES	32	28	190	10.5	285	11.1	142	12.0					2003.7	210.0
OBIHIR	0	EX	14	29															2072.8	
KUSHIR	0	EP	14	29	11	ES	32	48	92	14.4	71	12.4	14	3.2					2168.7	217.0
						EL	35	34												
ABASHI	0	EP	14	29	12	ES	32	56	32	12.0	37	10.8	18	3.0					2173.6	224.0
						EL	37	16												
NEMURO	0	P	14	29	20.0	ES	33	11	23	13.0	25	13.0	14	4.0			D		2268.9	231.0
KOBE		EX	14	31	18.6				800	15.9	400	16.7	100	4.2					1467.2	
SUMOTO	0	S	14	31	30.2				1000	16	300	6	300	5					1458.1	
AIKAWA	0	EP	15	28	16.4	EL	32	08.0	198	12.0			64	10.6					1648.7	

OT= 19 18 15 8.6 +/- 0.8
OFF SANRIKU
LAT= 39 28 +/- 3 LONG= 143 42 +/- 4
H= 30 MAG=4.4 CLASS=U

MIYAKO	0	EP	18	15	32.3	IS	15	49.7	7	1.2	12	2.6	9	1.5		W	1 U	2	150.1	17.4
MORIOK	0	IP	18	15	42.3	S	16	07.8	12	0.4	13	0.4	4	1.4		W	1 U	0	219.0	25.5
ISHINO	0	EP	18	15	45.3	ES	16	09.4	5	2.2	3	1.2	2	1.4			U	1	237.8	24.1
SENDAI	0	X	18	15	50				8	2.4	8	1.2	3	1.3					277.5	
AOMORI	0	EP	18	15	52	ES	16	25	19	1.6	16	1.3	6	1.3					290.2	33.0
URAKAW	0	EP	18	15	54	S	16	24.8	4	3.2	6	3.2	3	3.2					308.8	30.8
AKITA	0	EX	18	15	56				10	2.0	10	1.8	7	1.8					310.3	
SAKATA	0	EX	18	16	06.0														339.6	

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MATSUS	0	IP	18 16 29.6	S	17 30				S	W	U	581.4	60.4
KUSHIR	0	EX	18 16 41			5 0.2	6 0.2	1 0.3				394.4	
OT= 19 18 24 32.6 +/- 1.4 OFF SANRIKU LAT= 39 30 +/- 5 LONG= 143 38 +/- 7 H= 50 MAG=4.4 CLASS=U													
MIYAKO	0	EP	18 24 54.9	IS	25 12.6	6 0.8	8 1.2	5 0.8		W 1		144.0	17.7
MORIOK	0	IP	18 25 05.0	IS	25 24.5	14 0.4	10 0.4	4 0.8		W 1 U 0		212.8	19.5
SENDAI	0	X	18 25 13			6 1.0	6 1.0	3 1.0				274.2	
URAKAW	0	P	18 25 16.3	S	25 47.6	2 1.0	5 0.4	2 1.4				303.9	31.3
SAKATA	0	EX	18 25 16.8									334.5	
AKITA	0	EX	18 25 19.2			6 2.0	7 1.4	5 1.8				304.2	
AOMORI	0	X	18 25 22	ES	25 46	29 0.9	22 0.9	11 1.1				283.4	
MATSUS	0	IP	18 25 52.5								U	578.6	
FUKUSH	0	EX	18 25			6 0.9	5 0.9	2 0.9				336.2	
KUSHIR	0	EX	18 26 04			5 0.2	5 0.2	1 0.3				391.6	
ONAHAM	0	EX	18 26 11.2			5 1.1	6 0.9	3 0.4				370.7	
OT= 20 3 30 44.7 +/- 0.3 E OFF AOMORI PREF LAT= 40 57 +/- 1 LONG= 142 35 +/- 2 H= 20 MAG=4.3 CLASS=S													
HACHIN	1	IP	03 31 03.0	IS	31 16.0	24 0.2	20 0.2	4 0.2		W		101.1	13.0
URAKAW	0	P	03 31 07.4	S	31 24.1	12 0.4	31 0.4	3 0.6				135.2	16.7
HIROO	0	P	03 31 10.8	IS	31 30.0							160.2	19.2
AOMORI	0	EP	03 31 11	ES	31 28	35 0.7	38 0.9	15 1.1				152.4	17.0
HAKODA	0	IP	03 31 13.7	IS	31 33.4	7 0.5	9 0.6	3 0.8	S	E	D	180.3	19.7
MORIOK	X	P	03 31 14.4	IS	31 35.5	21 0.4	15 0.4	6 0.4	S	0 W 0 U	0	183.9	21.1
OFUNAT	0	EP	03 31 20.2	IS	31 43.6	4 0.2	3 0.2	5 1.4				222.3	23.4
KUSHIR	0	P	03 31 23.2	IS	31 51.0	10 0.2	6 0.3	2 0.3	S			270.8	27.8
MATSUS	0	P	03 32 11	X	33 43					W		619.9	
OT= 20 7 15 13.1 +/- 0.2 MIDDLE OF CHIBA PREF LAT= 35 32 +/- 1 LONG= 140 7 +/- 2 H= 80 CLASS=S													
TOKYO	0	P	07 15 27.7	IS	15 37.3	100 0.6	124 0.6	18 0.4				36.6	09.6
YOKOHA	0	P	07 15 28.2	S	15 37.6	70 0.6	95 0.6	23				43.2	09.4
KAKIOK	0	IP	07 15 29.1	IS	15 40.0	37 0.5	40 0.7	18 0.5	S	6	D 4	77.8	10.9
TATEYA	0	IP	07 15 29.1	S	15 40.0	64 0.5	26 0.6	12 0.7			U 4	65.1	10.9
CHOSHI	0	IP	07 15 29.4	S	15 41.5						D 4	69.2	12.1
MITO	0	IP	07 15 31.9	S	15 45.3	19 1.5	23 1.5	11 1.0				99.1	13.4
OSHIMA	X	EP	07 15 32.2	S	15 44.2	19 0.2	17 0.4	11 0.2				108.9	12.0
CHICHI	0	EP	07 15 32.7	ES	15 46.4							106.5	13.7
AJIRO	0	EP	07 15 32.7	S	15 45.9	18 0.2	28 0.2	5 0.3				107.5	13.2
KUMAGA	0	EP	07 15 33.0	ES	15 46.4	25 1.0	18 0.8	13 1.0				94.9	13.4
UTSUNO	1	P	07 15 33.2	S	15 46.2							114.6	13.0
KOFU	0	IP	07 15 37.1	ES	15 53.2	13 0.4	13 0.4	5 0.5			U 2	141.9	16.1
ONAHAM	0	EP	07 15 40.4	ES	15 59.3	14 1.1	9 0.9	3 0.6				172.0	18.9
SHIZUO	0	P	07 15 40.5	S	16 01.3	5 0.6	7 0.6	1 0.7				167.5	20.8
KARUIZ	0	EP	07 15 40.8	S	16 01.0							167.2	20.2
MATSUS	0	IP	07 15 45.3	S	16 08				N	W	U	204.9	22.7
HACHIJ	0	EP	07 15 52.8	ES	16 21.4		5 0.5					271.3	28.6
FUKUSH	0	EX	07 15			7 1.0	5 1.0	3 0.9				248.8	
OT= 20 11 10 45.1 +/- 0.8 OFF KUSHIRO LAT= 42 22 +/- 3 LONG= 145 2 +/- 3 H= 20 MAG=4.2 CLASS=U													
KUSHIR	0	EP	11 11 01	IS	11 10.6	83 0.2	89 0.2	27 0.2				85.8	09.6
NEMURO	0	P	11 11 05.2	S	11 18.2	6 0.6	11 1.0	6 0.8	N	E	U	116.0	13.0
OBIHIR	0	EP	11 11 11	S	11 29.0							160.8	18.0
URAKAW	0	P	11 11 17.3	S	11 38.3	7 1.0	10 0.8	3 1.6				187.4	21.0
MATSUS	0	P	11 12 40									873.3	

OT= 21 1 7 18.5 +/- 2.4
OFF SANRIKU
LAT= 39 43 +/-10 LONG= 143 49 +/-13
H= 80 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MIYAKO	0	EP	01 07 43.8	IS	08 01.1	4 1.9	9 1.2	5 1.9		W 1	U 2	158.8	17.3
OFUNAT	0	IP	01 07 48.8	ES	08 10.1	6 1.0	4 0.6	4 0.8		W 0	U 0	194.8	21.3
MORIOK	0	P	01 07 53.9	S	08 19.3	13 0.3	10 0.3	2 0.6		W 0	U 0	227.1	25.4
AOMORI	0	EX	01 08 00			20 1.3	16 1.0	8 1.0				285.5	
SENDAI	0	X	01 08 00			7 1.3	7 2.0	3 1.2				300.0	
AKITA	0	EX	01 08 05.6			20 2.0	7 2.2	6 2.0				318.5	
FUKUSH	0	EX	01 08 16.8			7 1.0	5 0.8	2 0.7				362.9	
MATSUS	0	IP	01 08 41.4	ES	09 36				S	W	U	605.0	54.6
ONAHAM	0	EX	01 08 56.4			6 0.9	9 1.0	1 0.5				399.2	
SAKATA	0	EX	01 08 59.3									354.9	
NIIGAT	0	EX	01 09 02.0			6 2.8	5 2.7					459.8	
OT= 21 22 49 43.6 +/- 0.4 OFF URAKAWA LAT= 41 40 +/- 5 LONG= 142 20 +/- 8 H= 30 MAG=4.1 CLASS=U													
URAKAW	0	IP	22 49 55.4	IS	50 04.8	15 0.4	34 0.4	4 0.6	N		U	66.0	09.4
HIROO	0	P	22 50 02.0	S	50 10.9							106.5	08.9
HACHIN	0	IP	22 50 07.0	IS	50 25.1	10 0.3	6 0.3					143.8	18.1
AOMORI	0	EP	22 50 12	ES	50 25	10 0.7	10 0.7					160.6	13.0
MORIOK	0	EP	22 50 19.7	IS	50 45.5	6 0.4	6 0.3	2 0.3				239.9	25.8
				X	50 31.5								
MATSUS	0	P	22 51 14	S	52 37							671.7	83.0
OT= 22 4 44 10.5 +/- 0.4 OFF SANRIKU LAT= 39 29 +/- 1 LONG= 143 18 +/- 2 H= 30 MAG=5.2 CLASS=M													
MIYAKO	2	EP	04 44 30.0	IS	44 39.8	56 1.2	67 0.8	49 1.4	N	1 W	5 U 7	115.8	09.8
OFUNAT	0	IP	04 44 34.5	IS	44 50.4	64 2.2	41 1.2	22 1.0		W	0 U 1	144.3	15.9
HACHIN	1	P	04 44 40.2	IS	45 01.3	39 1.5	33 1.6	12 2.7	N	W	U	190.7	21.1
MORIOK	1	IP	04 44 40.3	IS	45 00.7	99 1.8	71 0.3	39 0.8	N	0 W	1 U 1	184.6	20.4
				EX	45 33								
ISHINO	0	EP	04 44 42.6	ES	45 04.6	56 2.8	46 2.2	19 1.2	N	3 E	5 D 5	209.2	22.0
SENDAI	0	IP	04 44 48.4	IS	45 13.9	37 2.6	84 2	32 1.4	N	2 E	4 D 6	248.6	25.5
AOMORI	1	IP	04 44 49.4	S	45 17.4	188 1.3	157 1.5	78 1.4	N	4 W	4 U 2	260.6	28.0
AKITA	0	EP	04 44 52.8	IS	45 24.6	83 2.8	79 2.0	47 2.6			U 3	275.9	31.8
YAMAGA	0	EP	04 44 54.1	S	45 24.0							290.1	29.9
URAKAW	0	P	04 44 55.3	S	45 27.4	23 1.6	38 2.4	15 3.0				300.3	32.1
FUKUSH	0	P	04 44 56.6	S	45 32.8	61 1.0	54 1.0	13 0.8	N	2 E	2 D 1	311.8	36.2
SAKATA	0	EX	04 44 57.5			150 1.9	150 2.1	50 1.9				306.0	
HAKODA	0	P	04 44 58.9	ES	45 40	26 1.2	32 1.1	12 3.0	N	W	U	336.4	41.1
ONAHAM	0	IP	04 45 01.2	S	45 41.4	42 1.2	61 1.6	17 1.6			D 4	351.1	40.2
OBIHIR	0	EP	04 45 06									381.8	
SHIRAK	0	EP	04 45 06.3	ES	45 42.3							375.8	36.0
KUSHIR	0	P	04 45 06.6	ES	45 47	13 0.3	13 0.7	5 2.5			U 2	398.9	40.4
MITO	0	IP	04 45 09.7	S	45 57.8	36 2.6	24 1.4	21 1.4			D 2	424.9	48.1
SAPPOR	0	EP	04 45 11	ES	46 00	17 2.2	21 2.4	7 1.8				429.9	49.0
KAKIOK	0	EP	04 45 13	ES	45 59	31 0.8		13 0.7				452.7	46.0
CHOSHI	0	P	04 45 15.4	EX	46 15							470.1	
AIKAWA	0	EP	04 45 16.5			20 1.8	12 1.4	2 2.0				468.7	
NIIGAT	0	X	04 45 17.6	S	46 04.7	66 3.2	58 4.0	32 3.8				408.7	
ASAHIK	0	EP	04 45 18			14 1.6	14 3.0					482.4	
ABASHI	0	EP	04 45 20	X	46 04	6 2.8	5 2.8	3 3.2				510.2	
KUMAGA	0	EP	04 45 21.6	ES	46 15.4	16 1.4	22 3.0	9 2.0				505.8	53.8
TOKYO	0	EP	04 45 22	ES	46 17	24 2.0	26 3.4	17 3.4				524.8	55.0
KARUIZ	0	EP	04 45 26.1	E	46 46.4							543.9	
MATSUS	0	IP	04 45 28.0	S	46 26				N	E	D	553.7	58.0
NAGANO	0	EP	04 45 28.1	ES	46 30.6	9 2.3	11 2.5	8 2.6				546.4	62.5
TATEYA	0	EP	04 45 29.7			24 3.1	23 2.4	17 2.9				584.7	
KOFU	0	EP	04 45 32.8	ES	46 39.2	16 1.6	18 1.6	5 2.4				595.6	66.4
TOYAMA	0	EP	04 45 36	ES	46 42	6 4.0	7 2.6	6 2.6				616.6	66.0
MISHIM	0	EP	04 45 36			11 3.3	11 2.5	3 2.2				620.6	
KAWAGU	0	X	04 45 39.9	ES	46 47.4							596.9	
IIDA	0	EP	04 45 40.0	X	47 09.0	6 1.4	3 1.8	2 1.8				653.9	
SHIZUO	0	EP	04 45 43.7	S	46 54.4	5 2.6	5 2.6	4 2.7				662.3	70.7
KANAZA	0	EX	04 45 47				5 2.6					668.6	
HAMAMA	0	P	04 45 48.1	ES	47 14	6 2.4	9 2.6	3 3.2	S	1		725.3	85.9

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NAGOYA	0	P	04	45	51.4	ES	47	16.0	10	2.2	7	2.0	3	1.2				737.5	84.6
OMAEZA	0	X	04	46	03.8				12	3.4	12	3.4						705.4	
OSAKA	0	EX	04	46	25				6	2.5	6	2.4	3	2.1				872.6	

OT= 23 17 28 6.7 +/- 1.6
NEAR CHOSHI
LAT= 35 48 +/- 4 LONG= 141 15 +/- 8
H= 30 MAG=4.2 CLASS=L

CHOSHI	3	IP	17	28	15.8	IS	28	19.7	1200		1100		300		N 2	W 2	U 9	37.7	03.9
KAKIOK	0	P	17	28	23.9	S	28	33.7	24	0.8	22	0.6	9	0.5	S 1	E 1	D 1	106.6	09.8
MITO	0	IP	17	28	24.0	S	28	33.5	27	1.1	18	0.9	9	1.0			D 2	95.0	09.5
TATEYA	0	EP	17	28	30.5				14	0.7	12	1.1	5	2.4				154.8	
UTSUNO	0	EP	17	28	30.5	S	28	44.4										149.1	13.9
TOKYO	0	EP	17	28	33				9	1.2	15	1.2	6	1.0				135.5	
ONAHAM	0	EX	17	28	36.6	ES	28	48.1	17	1.4	16	1.2	7	0.6				130.7	
MATSUS	0	IP	17	28	48.2	S	29	24							N	E	D	285.6	35.8
FUKUSH	0	EX	17	29					9	1.0	10	1.0	2	0.6				227.9	

OT= 23 20 25 50.7 +/- 1.1
NEAR CHOSHI
LAT= 35 49 +/- 2 LONG= 140 57 +/- 6
H= 20 MAG=4.0 CLASS=L

CHOSHI	3	IP	20	25	56.5	S	26	00.0	600						N 1	W 2	U 9	14.0	03.5
MITO	0	IP	20	26	04.5	IS	26	14.4	39	0.3	29	0.4	8	0.4			D 2	75.7	09.9
KAKIOK	0	P	20	26	06.0	IS	26	14.0	17	0.3	27	0.3	10	0.6	S 1	W 3	D 1	82.3	08.0
UTSUNO	0	EP	20	26	11.8	S	26	25.0										126.4	13.2
TATEYA	0	EP	20	26	12.6				9	0.9	9	0.9	4	1.2				134.9	
TOKYO	0	P	20	26	13.6	ES	26	24	6	0.6	13	0.8	4	0.8				108.7	10.4
FUKUSH	0	EX	20	26	17.0				7	1.0	7	1.0	2	1.0				219.4	
ONAHAM	0	EX	20	26	17.2	ES	26	28.8	14	0.9	14	1.1	4	0.7				125.2	
MATSUS	0	IP	20	26	28.5	ES	27	05								E	D	259.3	36.5
SENDAI	0	EX	20	26	30	EX	27	04	2	1.6	5	1.6	2	1.2				271.1	

OT= 23 22 14 32.0 +/- 0.4
OFF FUKUSHIMA PREF
LAT= 37 14 +/- 1 LONG= 141 45 +/- 2
H= 40 MAG=5.5 CLASS=R

ONAHAM	3	IP	22	14	48.2	ES	14	57.1	1950	2.0	950	1.8	350	0.8	N 51	E 65	D166	81.5	08.9
FUKUSH	2	IP	22	14	52.4	ES	15	06.6	308	0.8	185	0.8	158	1.0	S 98	E 97	D 12	126.8	14.2
SENDAI	1	IP	22	14	54.3	IS	15	07.0	310	2.4	480	2.4	220	2	S 72	E 43	D108	136.4	12.7
ISHINO	2	EP	22	14	54.4	IS	15	07.6	142	1.4	209	2.6	104	2.6	S 37	E 6	D 32	138.0	13.2
SHIRAK	3	IP	22	14	54.5	IS	15	08.8	600	1.0	300	1.0	250	1.4	N 7	E 46	D 81	136.0	14.3
MITO	1	IP	22	14	56.6	IS	15	11.8	280	2.4	247	1.4	196	3.2	N 2	E 3	D 23	148.4	15.2
KAKIOK	2	IP	22	14	58	IS	15	16	700	0.9	400	1.1	200	0.9	N 8	E 12	D 8	178.0	18.0
YAMAGA	1	IP	22	14	58.7	ES	15	15.6	200	2.5	100	1.5	200	2.0	S 7	E 9	D 15	167.4	16.9
UTSUNO	2	IP	22	15	00.4	S	15	20.1										183.9	19.7
OFUNAT	1	IP	22	15	02.8	S	15	23.2	56	1.6	74	1.4	45	1.6	S 3		D 2	202.9	20.4
CHOSHI	1	P	22	15	03.2	S	15	26.5	200		200							186.0	23.3
KUMAGA	1	IP	22	15	08.6	S	15	35.0	198	1.2	146	1.2	73	3.2	N 1	E 2	D 6	243.3	26.4
SAKATA	0	IP	22	15	09.1	ES	15	37.6	400	2.8	450	3.4	250	1.9			D 13	250.1	28.5
NIIGAT	0	IP	22	15	09.5	IS	15	34.1	260	2.9	300	3.1	126	3.9			D 18	249.9	24.6
TOKYO	1	IP	22	15	09.6	S	15	35.4	20	0.4	25	0.4	13	3.0				247.7	25.8
MIYAKO	2	EP	22	15	10.5	IS	15	35.8	24	2.0	38	2.4	41	1.6	N 2			268.4	25.3
MAEBAS	1	IP	22	15	11.7	IS	15	37.6										256.7	25.9
CHICHI	0	EP	22	15	12.1	IS	15	39.7	200	1.8	200	1.4	150	1.4				275.6	27.6
MORIOK	2	IP	22	15	12.4	S	15	40.0	115	0.3	110	0.3	40	2.1	S 0	E 0	D 1	278.1	27.6
						X	15	26.3											
KARUIZ	X	EP	22	15	15.6	S	15	47.0	200	2.0	200	2.4	100	2.0				302.1	31.4
TAKADA	0	EP	22	15	17.2	X	16	02.6										311.1	
AKITA	0	P	22	15	17.4	EX	15	49.0	158	3.8	119	3.8	71	3.8			D 5	311.1	
AIKAWA	0	IP	22	15	17.5				30	1.4	29	2.6	25	1.2	N	E	D	321.7	
TATEYA	0	EP	22	15	18.5				306	2.5	253	2.8	175	1.8				301.6	
MATSUS	0	IP	22	15	19.0	S	15	55							N	E	D	324.9	36.0
NAGANO	0	EP	22	15	19.8	ES	15	56.0	132	5.0	156	3.0	35	3.0				322.8	36.2
KOFU	1	IP	22	15	20.3	X	16	07.2	323	1.9	278	1.5	150	1.5			D 2	334.8	
AJIRO	0	EP	22	15	21.5	S	15	59.1	42	0.8	33	0.8	22	1.0				340.6	37.6
KAWAGU	0	P	22	15	21.6	S	15	55.6	350	01.8	250	01.7	200	01.7				329.9	34.0
MATSUM	0	EP	22	15	22.7	IS	16	08.2										354.7	45.5
MISHIM	0	EP	22	15	23.6	S	16	01.8	181	2.6	170	2.6	46	2.2				346.0	38.2
OSHIMA	0	IP	22	15	24.1	S	15	56.5	100	1.0	94	1.0						347.7	32.4

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
HACHIN	1	EP	22	15	24.2	ES	16	05.4	25	2.1	37	1.7	19	3.7				365.9	41.2
SHIZUO	0	EP	22	15	28.5	S	16	10.8	79	1.4	56	0.5	33	1.4				391.7	42.3
IIDA	0	IP	22	15	29.0	IS	16	15.2	96	2.0	90	1.8	93	2.2	N 1	E 3	D 3	399.9	46.2
TOYAMA	0	P	22	15	30.0	S	16	13.6	65	5.0	71	3.0	42	3.0		E 1	D 3	408.5	43.6
AOMORI	0	EP	22	15	31	ES	16	12	149	3.2	118	5.6	41	1.8				406.5	41.0
WAJIMA	0	IP	22	15	31.8				70	2.4	55	2.8	50	2.4				430.3	
OMAEZA	0	EP	22	15	36.5	ES	16	22.2	72	3.0	77	3.0	27	3.0			D 3	432.3	45.7
KANAZA	0	EP	22	15	37.0	ES	16	27.0	36	4.0	44	5.0	35	3.0				461.0	50.0
HAMAMA	0	P	22	15	37.3	S	16	21.6	52	1.8	53	2.4	25	2.0			D 1	458.5	44.3
NAGOYA	0	EP	22	15	40.5	IS	16	34.0	90	2.2	85	1.8	42	1.6				487.3	53.5
HACHIJ	0	EP	22	15	40.6	IS	16	28.0	18	0.5	23	0.3						491.8	47.4
GIFU	0	P	22	15	42.5	S	16	35.0	51	1.8	38	1.8	13	2.0				491.6	52.5
YOKOHA	0	S	22	15	42.5													274.0	
HAKODA	0	EP	22	15	43	IS	16	37.5	38	2.6	30	3.2	18	2.7	S		D	515.6	54.5
FUKUI	0	EP	22	15	43.8	ES	16	47.2								W 3	U 2	510.8	63.4
TSURUG	0	EP	22	15	48	S	16	45.8										538.9	57.8
HIKONE	0	EP	22	15	48.1													540.1	
URAKAW	0	EP	22	15	49	S	16	45.4	40	4.4	47	2.6	20	2.2				553.9	56.4
TSU	0	P	22	15	51.9	S	16	43.0	25	2.0	29	2.4	15	1.9				548.9	51.1
KYOTO	0	IP	22	15	53.7	ES	16	55.5	11	1.5	6	1.5	6	2.2		E 0	U 1	594.7	61.8
OWASE	0	EP	22	15	56.0	ES	17	12.0	6	2.0	5	2.0	6	1.6				613.3	76.0
NARA	0	EP	22	15	57.9	S	16	55.2	100	2.0	50	2.0						603.8	57.3
SAPPOR	0	EP	22	15	59	ES	17	07	14	1.8	17	2.0	7	1.6				647.8	68.0
						X	16	05.5											
OSAKA	0	EP	22	15	59.5				47	2.1	53	3.0	28	2.0				629.0	
TOYOOK	0	P	22	16	00.9	ES	17	02.7	48	1.1	43	1.1	10	5.5				649.4	61.8
KUSHIR	0	EP	22	16	02	X	17	03	25	2.6	14	2.8	7	3.0				676.5	
KOBE	0	EX	22	16	03.5													656.2	
SHIONO	0	EP	22	16	05.5	ES	17	15.0	8	1.8	9	1.8	3	1.9				687.0	69.5
WAKAYA	0	EP	22	16	06.6	ES	17	17.4	14	1.6	5	1.9	5	3.0				682.3	70.8
OBIHIR	0	X	22	16	07													643.8	
ASAHIK	0	EP	22	16	08				14	1.8	12	2.2						727.8	
TOKUSH	0	EP	22	16	12.3	ES	17	29.0										738.2	76.7
ABASHI	0	EP	22	16	13	X	17	29	12	2.0	11	2.4	9	2.4				783.1	
OKAYAM	0	EP	22	16	14.0	ES	17	28	5	2.6	4	3.2	4	3.0				760.9	74.0
SAIGO	0	P	22	16	14.8	ES	17	34.5	6	3.4	7	3.2	7	3.5		W 0	U 1	760.2	79.7
TAKAMA	0	EP	22	16	16.1	ES	17	43.7	8	3.2	5	1.3	1	0.6				766.6	87.6
MUROTO	0	IP	22	16	21.5	ES	17	48.0	10	2.0	4	1.8	3	1.8			D 0	818.2	86.5
HIROSH	0	EP	22	16	31.3	S	18	01.8	6	3.8	2	2.5	1	2.0			U 1	899.4	90.5
OITA	0	EX	22	16	50.9				8	1.8	27	2.8						1022.1	
SHIMON	0	EP	22	16	51.0				5	3.0	3	3.0	3	3.8		E	D	1043.9	
KUMAMO	0	X	22	16		X	19	38.5	8	2.8	4	2.8						1119.4	
WAKKAN	0	EX	22	17	00				5	4.6	5	4.3	5	3.6				908.6	
FUKUOK	0	EP	22	17	00.0	ES	19	03.3	5	3.1	2	2.6	1	2.6				1108.3	123.3

OT= 23 23 28 48.9 +/- 0.5
NEAR CHOSHI
LAT= 35 45 +/- 3 LONG= 140 42 +/- 4
H= 20 MAG=3.5 CLASS=L

CHOSHI	3	IP	23	28	53.7	IS	28	57.5	400		400		200				U 4	13.3	03.8
KAKIOK	0	P	23	29	01.8	S	29	11.0	8	0.8	9	0.3	4	0.5	N 1	W 1		70.3	09.2
MITO	0	P	23	29	02.2	IS	29	11.3	8	0.3	7	0.3	3	0.2				72.7	09.1
TOKYO	0	X	23	29	14	X	29	28	5	0.8	7	1.0						85.5	
ONAHAM	0	EX	23	29	26.0				5	0.6	4	1.0	2	0.4				133.9	
MATSUS	0	P	23	29	26	S	29	51										240.7	25.0

OT= 24 5 12 9.9 +/- 0.2
N OF MIYAGI PREF
LAT= 38 47 +/- 1 LONG= 141 23 +/- 3
H=100 CLASS=S

ISHINO	0	P	05	12	26.0	IS	12	37.0	14	0.2	11	0.6	3	0.6				40.4	11.0
OFUNAT	1	IP	05	12	26.1	IS	12	37.3	46	0.0	24	0.4	11	0.0			U 0	42.4	11.2
SENDAI	0	EX	05	12	28.4	IS	12	41.9	7	0.8	4	0.4	1					71.8	
MORIOK	0	P	05	12	30.5	IS	12	46.5	7	0.3	6	0.3	3	0.4				103.1	16.0
MIYAKO	1	IP	05	12	31.2	IS	12	45.1	7	0	9	0	4	0				108.2	13.9
MATSUS	0	P	05	13	012													374.8	

OT= 24 23 56 56.8 +/- 0.2
OFF URAKAWA
LAT= 41 51 +/- 1 LONG= 142 35 +/- 2
H= 80 CLASS=S

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
URAKAW	1	IP	23	57	10.3	IS	57	19.1	159	0.4	233	0.4	57	1.0	S 29	E	D 52	37.9	08.8
HIROO	1	IP	23	57	14.8	IS	57	25.6							N 2	E 2	U 5	77.5	10.8
OBIHIR	1	IP	23	57	18.9	ES	57	36									U 20	130.0	17.1
MURORA	0	EP	23	57	20	S	57	35.9										142.2	15.9
HAKODA	0	IP	23	57	21.2	IS	57	38.9	34	0.8	29	0.8	6	0.8	N		D	151.7	17.7
SAPPOR	0	IP	23	57	24.0	IS	57	42.4	27	1.2	28	1.6	16	1.0			U 4	169.2	18.4
HACHIN	1	IP	23	57	24.4	IS	57	43.4	38	0.6	34	0.9	7	1.2	S 3	W 2		171.9	19.0
KUSHIR	0	EP	23	57	26	ES	57	46	18	0.4	19	0.2	6	0.5				194.8	20.0
RUMOI	0	EX	23	57	26	ES	58	02										245.9	
AOMORI	0	IP	23	57	27.1	S	57	47.6	35	0.7	58	0.7	19	0.9	S 3	W 4	U 5	189.4	20.5
ASAHIK	0	EP	23	57	30				9	1.6	11	1.4						214.0	
MIYAKO	0	EP	23	57	33.3	IS	57	59.1	4	0	6	0.4	5	0.2				250.3	25.8
MORIOK	0	IP	23	57	36.5	IS	58	04.3	14	0.4	15	0.4	4	0.4	S 1	W 1	U 1	267.3	27.8
ABASHI	0	EP	23	57	37	ES	58	11	4	2.4	5	1.6	2	1.2				277.9	34.0
OFUNAT	0	P	23	57	41.8	S	58	14.8	7	0.0	6	0.8	3	1.4	S 0		U 1	318.2	33.0
AKITA	0	EX	23	57	48.6				6	2.4	7	1.8	3	1.8				316.1	
SAKATA	0	EX	23	57	54.8													401.8	
FUKUSH	0	EP	23	58	00.0	ES	58	56.8	7	1.2	4	1.2	2	0.4				489.0	56.8
MATSUS	0	IP	23	58	30.0	X	00	12							S	W	U	700.2	
ONAHAM	0	EX	23	59	10.2				6	1.1	4	0.8	1	0.7				563.4	

OT= 25 1 33 20.4 +/- 0.8
NEAR CHOSHI
LAT= 35 48 +/- 2 LONG= 141 0 +/- 4
H= 30 MAG=4.1 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
CHOSHI	3	IP	01	33	27.0	IS	33	30.8	900		800		400				U 4	16.4	03.8
KAKIOK	0	IP	01	33	34.7	S	33	44.0	18	0.3	24	0.5	10	0.5	S 1	E 1	D 1	87.1	09.3
MITO	0	P	01	33	34.8	S	33	44.4	27	0.4	18	0.3	8	1.0				79.9	09.6
UTSUNO	0	EP	01	33	40.8	S	33	55.3										131.0	14.5
TOKYO	0	EP	01	33	42	ES	33	54.7	5	0.7	18	1.2	3					113.0	12.7
TATEYA	0	EP	01	33	42.5				10	0.6	10	0.5	5	0.8				137.0	
ONAHAM	0	EX	01	33	45.6				11	1.0	12	1.4	5	0.5				127.3	
FUKUSH	0	EP	01	33	55.3	ES	34	21.1	11	0.8	10	1.0	3	0.7				222.1	25.8
MATSUS	0	IP	01	33	58.9	IS	34	26.5							N	E	D	264.1	27.6

OT= 25 20 48 7.3 +/- 0.3
KII CHANNEL
LAT= 33 15 +/- 1 LONG= 134 46 +/- 1
H= 60 MAG=4.2 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
MUROTO	0	P	20	48	19.9	IS	48	27.0	70	0.3	100	0.3	25	0.3				54.8	07.1
SHIONO	0	P	20	48	24.3	S	48	35.6	12	0.1	10	0.1	7	0.1	N 1	E 4	U 9	95.3	11.3
ANABUK	0	P	20	48	25.2	S	48	35.2										91.2	10.0
TOKUSH	0	IP	20	48	25.5	IS	48	34.5										92.1	09.0
WAKAYA	0	P	20	48	26.8	IS	48	38.4	20	0.7	25	0.8	5	0.6				114.5	11.6
KOCHI	0	IP	20	48	28.0	ES	48	41.8									U 4	119.4	13.8
SUMOTO	0	IP	20	48	28.2	S	48	40.9									D	121.0	12.7
TAKAMA	0	EP	20	48	28.8	ES	48	42.3	14	0.7	17	0.4	8	0.6				135.2	13.5
KOBE	0	IP	20	48	32.3	ES	48	49.3									D 2	164.0	17.0
OKAYAM	0	P	20	48	34.2	IS	48	51.0	11	0.3	12	2.2	2	0.2				177.2	16.8
NARA	0	P	20	48	35.5	S	48	54.6										187.0	19.1
OSAKA	0	EX	20	48	40				10	4.8	8	1.8	4	2.0				173.1	
TSURUG	0	EP	20	48	49	ES	49	18.3										291.6	29.3
HIKONE	0	S	20	49	12.0													262.5	
MATSUS	0	P	20	49	13	S	50	12										481.5	59.0
TOYOOK	0	X	20	49					13	0.9	12	1.1						253.6	

OT= 26 23 39 12.6 +/- 0.2
E OF KANAGAWA PREF
LAT= 35 28 +/- 1 LONG= 139 40 +/- 1
H= 40 MAG=4.2 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
YOKOHA	1	IP	23	39	17.6	S	39	22.8									U 9	3.5	05.2
TOKYO	2	P	23	39	19.8	IS	39	25.5	265	0.8	110	0.6	72	0.0				25.6	05.7
TATEYA	0	P	23	39	25.0	IS	39	34.6	65	2.0	62	1.2	32	1.7				56.7	09.6
AJIRO	0	IP	23	39	25.3	S	39	34.9	22	0.2	22	0.2	5	0.3				70.0	09.6
CHICHI	0	EP	23	39	26.0	S	39	34.9										78.7	08.9
MISHIM	0	IP	23	39	26.2	IS	39	36.6	46	0.7	37	0.7	5	0.9		E 1	D 2	77.7	10.4
OSHIMA	0	EP	23	39	26.6	ES	39	37.5	23	1.0	17	0.6	8	0.4				82.5	10.9
KAWAGU	1	IP	23	39	26.9	IS	39	36.7	0	00.0	0	00.0	0	00.0				82.0	09.8
KUMAGA	0	P	23	39	27.0	S	39	36.4	29	1.0	29	0.8	8	1.0			U 2	79.6	09.4
KAKIOK	0	IP	23	39	28.8	ES	39	39	22	0.8	22	1.0	10	0.8	S 1	W 1	D 1	97.3	10.2

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
KOFU	0	IP	23	39	29.6	IS	39	41.0	79	0.3	65	0.6	23	0.8	N 1	W	U 1	102.8	11.4
UTSUNO	0	P	23	39	31.5	S	39	45.4										121.2	13.9
MAEBAS	0	IP	23	39	31.6	IS	39	44.8										117.1	13.2
CHOSHI	0	EP	23	39	31.9	S	39	45.0										110.4	13.1
SHIZUO	0	EP	23	39	33.3	S	39	49.0	12	1.2	18	0.8	3	1.1				127.1	15.7
MITO	0	P	23	39	33.6	ES	39	48.4	16	1.5	18	1.2	7	1.8				124.5	14.8
KARUIZ	0	EP	23	39	35.0	S	39	52.4										139.7	17.4
IIDA	0	EP	23	39	39.4	ES	40	02.0	7	1.6	7	0.4	3	0.4				166.2	22.6
MATSUS	0	IP	23	39	39.8	S	40	00							N	W	U	177.2	20.2
OMAEZA	0	EP	23	39	41.4				5	1.2	6	1.4						163.5	
NAGANO	0	EP	23	39	43.0	X	40	19.5	7	1.0	7	1.2	5	1.2				187.2	
ONAHAM	0	EX	23	39	46.8	S	40	04.9	12	1.0	12	0.9	3	0.8				198.3	
FUKUSH	0	EX	23	39	48.0				6	0.8	5	1.0	2	0.7				264.2	
NAGOYA	0	EP	23	39	51.4	IS	40	21.2	7	1.0	7	1.0	3	1.2				247.6	29.8
TOYAMA	0	EP	23	39	54	ES	40	28	6	4.0	6	4.0	4	3.4				260.6	34.0
HAMAMA	0	X	23	39		S	40	08.0	5	1.2	6	2.4	2	1.2				196.1	
NIIGAT	0	EX	23	40	02.0				10	4.2	8	2.8						276.6	
GIFU	0	X	23	40	02.2				6	1.2	5	1.1						263.5	
SENDAI	0	EX	23	40	06	X	40	49.6	4	1.4	6	0.8	3	1.6				328.9	
KANAZA	0	EX	23	40	06				5	1.5								297.3	
TOYOOK	0	X	23	40	26				11	1.0	6	1.0						439.7	
OSAKA	0	EX	23	40	53				6	2.0	3	1.8						387.9	

OT= 27 4 36 42.2 +/- 0.2
NEAR UNZENDAKE
LAT= 32 47 +/- 1 LONG= 130 11 +/- 1
H= 10 MAG=4.4 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
UNZEND	4	IP	04	36	46.0	ES	36	47.6	850		1200		450				E100 U100	8.5	01.6
NAGASA	2	IP	04	36	49.4	IS	36	53.2							N 2	E 17	D 14	30.3	03.8
KUMAMO	0	IP	04	36	52.0	IS	36	58.7	149	1.7	120	1.7	57	1.0	S 2	E 7	U 7	49.4	06.7
SAGA	0	IP	04	36	52.9	S	36	58.4							N 24	E 2	U 14	52.4	05.5
FUKUOK	0	IP	04	36	59.0	ES	37	09.5	34	0.4	37	0.4	11	4	N 6	E 1	U 9	90.2	10.5
KAGOSH	0	P	04	37	05.8	S	37	22.5	21	1.6	38	1.6	17	1.4	S 3	E 2	U 6	138.6	16.7
FUKUE	0	P	04	37	08.2	S	37	18.4	6	0.8	7	0.9						126.8	10.2
MIYAZA	0	P	04	37	08.2				45	1.0	45	1.4	12	1.0				151.4	
SHIMON	0	P	04	37	08.5				4	1.6	5	0.8	5	1.0	N 1	E 1	U 1	147.7	
OITA	0	EP	04	37	09.3				25	0.9	26	1.4						143.5	
ASHIZU	0	X	04	37	29.3	ES	38	03.4	7	1.6			4	1.6				265.5	
TOYOOK	0	X	04	38	06.4				8	1.2	11	1.2						525.2	
MATSUS	0	P	04	38	36													844.7	
OSAKA	0	EX	04	39	18				7	2.8	6	2.4						537.3	

OT= 27 4 47 38.7 +/- 0.2
NEAR UNZENDAKE
LAT= 32 49 +/- 0 LONG= 130 16 +/- 1
H= 0 MAG=3.5 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
UNZEND	3	IP	04	47	41.6													9.1	
KUMAMO	0	EP	04	47	48.3	ES	47	54.6	14	1.0	11	0.7	6	0.7				41.5	06.3
SAGA	0	IP	04	47	50.2	S	47	55.7										47.6	05.5
FUKUOK	0	IP	04	47	55.8	S	48	06.7	11	0.4	8	0.9	3	0.7		E 1	U 1	85.3	10.9
MIYAZA	0	P	04	48	05.4	S	48	24.8	5	0.7	5	1.0	2	0.8				147.9	19.4

OT= 27 20 2 29.8 +/- 0.4
E OFF AOMORI PREF
LAT= 41 10 +/- 1 LONG= 142 32 +/- 3
H= 40 MAG=4.3 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
HACHIN	0	EP	20	02	48.4	ES	03	01.8	13	0.5	10	0.2						111.0	13.4
URAKAW	0	P	20	02	48.6	S	03	02.4	11	0.4	24	0.6	3	1.0				112.1	13.8
AOMORI	0	IP	20	02	54.2	IS	03	12.4	40	0.9	35	0.7	13	0.6			U 5	152.3	18.2
HAKODA	0	IP	20	02	54.9	IS	03	13.9	13	0.5	23	0.6	6	0.8	N	W	U 2	164.7	19.0
MORIOK	0	P	20	03	00.3	S	03	22.2	8	0.3	10	0.4	2	0.3				200.2	21.9
SAPPOR	0	P	20	03	03.5	ES	03	26.8	6	1.0	5	1.2	4	1.0				232.5	23.3
KUSHIR	0	EX	20	03	06				9	0.4	6	0.3	3	0.3				253.5	
MATSUS	0	P	20	03	56													636.1	

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OT= 28 1 43 28.7 +/- 0.2
SE OF FUKUSHIMA PREF
LAT= 37 10 +/- 2 LONG= 140 25 +/- 3
H= 90 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
SHIRAK	0	IP	01	43	42.5	S	43	52.9									U 4	17.9	10.4
ONAHAM	1	IP	01	43	44.4	IS	43	56.6	50	0.5	81	0.8	25	0.8			D 1	50.0	12.2
FUKUSH	0	EP	01	43	46.0	S	43	57.7	19	0.9	21	1.0	7	0.9				65.7	11.7
UTSUNO	1	IP	01	43	46.9	S	44	00.0							N 1	W 2	U 6	84.2	13.1
MITO	2	P	01	43	47.2	IS	44	01.0	70	0.3	53	0.4	24	0.2				87.6	13.8
KAKIOK	0	P	01	43	48.1	IS	44	01.5	36	0.5	46	0.8	30	1.0			U 1	105.6	13.4
KUMAGA	0	IP	01	43	53.0	S	44	11.0	7	1.0	4	0.6	2	0.6			U 4	146.0	18.0
ISHINO	0	P	01	43	54.4	ES	44	12.6	5	1.0	4	0.8	2	0.6				160.0	18.2
MATSUS	0	IP	01	44	00.5	S	44	25							S	W	U	208.9	24.5
TOKYO	0	EP	01	44	01	S	44	18.0	5		5							174.7	17.0
KOFU	0	EP	01	44	04.8	ES	44	31.0	5	1.6	5	1.6	2	1.2				235.6	26.2
TATEYA	0	X	01	44	11.0				6	0.6	4	0.7	3	0.7				247.2	

OT= 28 19 19 10.1 +/- 0.5
MIDDLE OF HOKKAIDO
LAT= 43 15 +/- 4 LONG= 141 55 +/- 3
H=160 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
SAPPOR	0	IP	19	19	34.0	S	19	50.6	20	1.0	28	1.0	8	0.5	N	W 2	U 9	52.1	16.6
OBIHIR	0	P	19	19	37.2	IS	19	57.4									U 2	112.4	20.2
URAKAW	0	IP	19	19	40.1	S	20	01.8	32	0.6	49	0.6	6	1.4	S 1	E	U 1	140.4	21.7
HAKODA	0	IP	19	19	43.4	S	20	07.0	6	1.8	4	1.6	3	0.6	S 1	W 1	U 2	185.8	23.6
KUSHIR	0	EP	19	19	45	S	20	09.6	26	0.4	22	0.2	10	0.2				204.0	24.6
AOMORI	0	EX	19	19	56				11	0.7	14	0.9	6	1.2				286.1	
MATSUS	0	P	19	20	54	S	22	16										809.7	82.0

OT= 28 22 3 15.9 +/- 0.6
SE OFF KYUSHU
LAT= 30 32 +/- 3 LONG= 132 35 +/- 2
H= 80 CLASS=M

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MIYAZA	1	IP	22	03	44.8	S	04	04.0	215	0.8	236	0.8	54	0.8	N 8	W 4	U 12	188.8	19.2
YAKUSH	0	IP	22	03	46.2	IS	04	07.6	156	0.7	137	0.9	36	1.4	N 1	W 21	U 14	200.4	21.4
KAGOSH	1	IP	22	03	50.0	IS	04	12.5	210	0.8	219	1.0	140	1.4	N 7	W 13	U 29	225.4	22.5
ASHIZU	0	EP	22	03	52.0	S	04	14.7	13	1.6	16	1.8	8	1.5				245.4	22.7
UWAJIM	0	P	22	03	58.7	IS	04	25.7										298.3	27.0
KUMAMO	0	EP	22	04	00.7	IS	04	27.6	108	2.1	111	2.1	40	1.3	S 6	E 4	D 4	308.5	26.9
KOCHI	0	EX	22	04	02.3	ES	04	36.0										346.2	
OITA	0	AP	22	04	02.7	ES	04	34.3	112	2.3	104	2.7	62	2.0				312.7	
MUROTO	0	IP	22	04	02.9	IS	04	34.0	5	1.2	5	1.1			N 0		U 0	336.6	31.1
NAGASA	0	P	22	04	05.7	S	04	32.0							N 2	W 2	U 2	353.1	26.3
MATSUY	0	EP	22	04	07.3	ES	04	40.8	15	0.8	17	0.7	4	0.6	N		U	367.0	33.5
FUKUOK	0	EP	22	04	11.2	S	04	49.7	16	1.9	36	1.9	17	2.0				396.6	38.5
SAGA	0	EP	22	04	12.4	ES	04	42.9										369.8	30.5
SHIMON	0	P	22	04	13.3				6	1.8	6	3.8	7	3.0				409.4	
HIROSH	0	IP	22	04	14.6	ES	04	53.6	7	1.4	10	1.5	12	1.6	S 2			424.8	39.0
TAKAMA	0	P	22	04	16.1	S	04	59.3	15	1.2	16	1.2	10	0.6				441.7	43.2
SHIONO	0	EP	22	04	17.6	ES	04	57.0	6	1.0	5	1.2						441.1	39.4
FUKUE	0	X	22	04	20.6	ES	04	56.6	5	4.4	4	2.0	2	4.2				429.1	
OKAYAM	0	EP	22	04	21.2	S	05	03.8	12	0.6	7	0.6	4	2.0		W 1	U	476.5	42.6
HAMADA	0	IP	22	04	22.5	S	05	06.4	6	1.8	5	2.2	6	2.0	S 0	E 0	D 0	485.7	43.9
ASOSAN	0	EX	22	04	28													296.6	
TOYOOK	0	P	22	04	37.7	ES	05	32	23	1.1	17	1.1						592.6	54.3
OSAKA	0	EX	22	04	38				12	2.0	8	4.5	4	1.8				535.8	
SAIGO	0	EP	22	04	41.0	ES	05	43.0	5	2.4	9	2.0	3	2.2				632.7	62.0
NAGOYA	0	P	22	04	44.6	ES	05	54.0	3	2.0	6	2.4	2	1.4				657.1	69.4
TOKUSH	0	X	22	04		IS	04	57.3										434.1	
MATSUS	0	P	22	05	08	S	06	40										845.8	92.0
ONAHAM	0	EX	22	05	35.6	X	07	28.4	5	3.8	5	1.4	5	2.2				1047.9	
KANAZA	0	EX	23	05	21				6	5.0	7	6.0						765.9	

OT= 29 12 22 56.4 +/- 0.3
E OFF MIYAKEJIMA
LAT= 34 0 +/- 1 LONG= 139 54 +/- 3
H=110 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
HACHIJ	0	IP	12	23	17.6	IS	23	33.8	20	0.3	31	0.3	8	0.2			D 5	100.1	16.2

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
OSHIMA	0	P	12	23	18.8	ES	23	33.8	10	1.0	6	0.4	6	0.2				97.1	15.0
TATEYA	0	EP	12	23	21.0	IS	23	35.4	16	0.6	18	0.5	10	0.4				109.1	14.4
KOFU	0	IP	12	23	30.8	ES	23	56.0	5	2.0	6	1.9	2	1.2			D 1	221.7	25.2
KAKIOK	0	EP	12	23	35	ES	23	58	10	1.0	7	1.0	4	1.0				249.0	23.0
UTSUNO	0	EP	12	23	35.8	S	24	05.3										282.5	29.5
MATSUS	0	IP	12	23	41.8	IS	24	16							S	E	D	320.8	34.2
TOKYO	0	IS	12	23	49.8				6	0.8	14	0.8						187.3	
FUKUSH	0	EX	12	24	05.0				5	0.9	6	0.8						420.0	
ONAHAM	0	EX	12	24	13.6				5	1.0	4	0.4	2	0.5				339.2	

OT= 30 4 16 37.0 +/- 0.2
OFF NIIGATA PREF
LAT= 37 37 +/- 1 LONG= 138 22 +/- 1
H= 0 MAG=4.2 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
AIKAWA	0	EP	04	16	48.0	IS	16	53.8	55	0.4	32	0.4	10	0.4		E		46.1	05.8
NIIGAT	0	EP	04	16	51.2	IS	17	01.3	48	0.7	36	0.6	13	2.9				68.6	10.1
MATSUS	0	IP	04	16	59.8	S	17	14							N		D	120.5	14.2
WAJIMA	0	EP	04	17	02	ES	17	18	35	0.8	43	0.8	6	0.8				132.2	16.0
UTSUNO	0	EX	04	17	09	ES	17	30.1										178.9	
FUKUSH	0	EX	04	17	12.0				12	1.0	8	1.0	3	1.0				186.6	
MITO	0	EP	04	17	16.0	S	17	42.6	5	2.0	9	1.0	3	1.5				232.3	26.6
ONAHAM	0	EX	04	17	20.0				5	1.2	6	1.2	2	0.7				237.2	
SAKATA	0	EX	04	17	42.8													192.2	

OT= 30 21 47 26.1 +/- 0.6
OFF KUSHIRO
LAT= 42 32 +/- 3 LONG= 144 41 +/- 3
H= 50 MAG=4.4 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KUSHIR	2	IP	21	47	38.2	IS	47	45.2	266	0.3	136	0.3	76	0.2	S 22	E 6	D 64	54.8	07.0
NEMURO	0	P	21	47	44.3	ES	48	01	8	0.2	8	0.6	3	0.4		W	D	115.1	16.7
HIROO	2	P	21	47	45.9	IS	47	58.4										115.9	12.5
OBIHIR	0	IP	21	47	46.2	ES	48	00									D 4	127.2	13.8
ABASHI	0	EP	21	47	52	S	48	10.2	8	1.4	6	1.6	2	1.4				168.0	18.2
URAKAW	0	P	21	47	52.0	S	48	08.2	39	1.0	79	0.6	9	0.8				162.3	16.2
HACHIN	0	IS	21	48	48.0				6	0.2	6	0.2						345.3	
MATSUS	0	P	21	49	18													867.1	

OT= 31 3 41 58.2 +/- 0.8
SW OFF MIYAKEJIMA
LAT= 33 40 +/- 2 LONG= 139 10 +/- 5
H= 0 MAG=4.4 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
HACHIJ	0	EP	03	42	15.4	IS	42	28.4	24	0.3	33	0.2	6	0.3				85.2	13.0
TATEYA	0	EP	03	42	26.0	IS	42	47.5	22	0.6	41	0.7	15	0.4				159.6	21.5
TOKYO	0	EP	03	42	36	S	43	03.2	8	0.3	8	0.4	2	0.8				230.3	27.2
MATSUS	0	IP	03	42	50.7	S	43	29								S	D	330.3	38.3

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List 6 SEISMOLOGICAL DATA OBTAINED BY MATSUSHIRO

DATE		PHASE AND TIME (J.S.T.) H M S			M S	INITIAL MOTION		
1	EP	03 30 27.						*
1	P	05 22 55.						*
1	L	06 12 50.						*
1	P	18 13 30.8	S		13 51.			*
2	EP	02 41 56.	ES		42 49.			*
2	P	03 33 27.						*
2	IP	05 44 40.4	S		45 50.		U	*
2	P	10 51 45.					U	*
2	IP	17 05 55.8						*
2	IP	17 29 24.6					U	*
2	P	19 07 00.	S		12 48.			*
2	P	19 35 09.	ES		35 58.			*
2	IP	21 16 02.0	S		17 45.		D	*
3	IP	02 39 11.6	S		49 08.	N	U	*
3	IP	11 39 15.3					U	*
3	IP	15 40 55.5	ES		45 42.		U	*
3	EP	16 17 42.						*
3	P	20 00 01.	S		00 09.			*
3	P	23 14 03.						*
4	EP	01 22 39.						*
4	IP	03 00 18.6	S		00 48.	S	E D	*
4	IP	03 08 07.8	S		13 12.	S	U	*
4	EP	05 26 12.	ES		27 24.			*
4	EL	06 54 00.						*
4	P	08 53 52.	S		55 52.			*
4	P	11 23 00.	S		23 16.			*
4	P	15 59 42.						*
4	P	16 12 31.						*
4	P	17 53 27.	S		54 10.			*
4	X	20 53 00.				N	E D	*
4	IP	23 16 21.3	S		16 29.			*
5	P	00 33 18.	S		33 34.			*
5	P	03 39 33.	S		40 15.			*
5	IP	05 10 25.6	ES		10 47.	W	U	*
5	EP	08 07 28.	S		18 30.			*
5	IP	08 18 24.3	ES		18 42.			*
5	IP	10 43 46.7					D	*
5	P	10 51 37.	S		57 32.			*
5	P	15 19 07.						*
5	P	16 47 54.						*
5	P	18 16 50.4					D	*
5	P	20 17 09.	S		20 50.			*
6	IP	00 27 49.3	ES		31 54.	N	D	*
6	P	06 08 26.	S		08 41.			*
6	IP	17 33 48.0				S	D	*
6	IP	20 01 06.8					D	*
6	EP	20 39 00.	ES		41 36.			*
6	P	23 12 20.	ES		15 58.			*
6	P	23 42 20.	ES		51 24.			*
7	EP	12 01 08.						*
7	IP	12 44 55.0	S		50 40.	N	U	*
7	IP	13 48 03.5	S		52 00.			*
7	IP	15 00 44.2					U	*
7	IP	23 28 33.8	ES		28 57.	S	D	*
8	EP	06 44 55.	ES		46 23.			*
8	IP	07 53 30.0	S		54 12.	N	U	*
8	P	09 07 37.	S		08 22.			*
8	IP	11 28 13.2	S		28 35.		D	*
8	IP	11 59 20.4	S		59 42.		D	*
8	IP	12 23 09.8	S		23 32.		U	*
8	IP	13 13 40.8	S		19 12.	N	U	*
8	IP	14 30 45.2	S		31 11.		D	*
8	P	17 21 59.	S		32 24.			*
8	IP	19 28 59.4				S	U	*
9	EP	02 10 30.						*
9	P	07 53 11.						*
9	IP	11 01 49.2	S		06 44.		D	*
9	P	11 45 13.	S		45 52.			*
9	IP	14 22 48.3				N	U	*
9	P	17 15 09.	S		17 39.			*
9	P	17 39 02.	S		39 57.			*
9	IP	19 22 47.3	S		23 42.		U	*

DATE		PHASE AND TIME H M S			M S	INITIAL MOTION		
9	P	23 32 50.5	S		33 23.			*
10	EP	00 50 32.						*
10	IP	02 06 17.4	S		06 48.	S	W D	*
10	IP	08 00 41.0					D	*
10	IP	08 37 13.5	S		37 41.5	N	D	*
10	IP	08 56 31.2	S		56 58.			*
10	IP	18 02 21.2					D	*
10	P	20 49 06.	ES		50 52.			*
10	EP	22 46 35.	S		46 46.			*
11	P	00 25 50.7						*
11	IP	04 17 28.8	S		20 46.		D	*
11	IP	05 06 22.5	ES		07 47.	N	D	*
11	P	16 10 51.	ES		11 29.			*
11	P	16 45 18.	S		45 55.			*
11	IP	17 57 39.8	S		58 56.	S	U	*
11	IP	19 39 05.3	ES		40 13.	S	U	*
11	IP	20 50 49.9	ES		51 52.		U	*
12	P	06 27 43.						*
12	IP	06 58 54.2	S		59 14.	S	E D	*
12	P	11 35 41.	S		36 39.			*
12	IP	14 37 52.4	S		38 20.	S	W D	*
12	EP	15 00 01.						*
12	P	15 03 13.						*
12	IP	15 08 53.4	S		18 32.		D	*
12	P	20 52 50.						*
12	IP	22 04 07.0	S		06 54.		W U	*
12	P	22 27 24.	ES		29 37.		D	*
13	P	00 14 15.						*
13	IP	04 17 50.8	S		18 55.		U	*
13	IP	04 52 31.6	ES		53 37.		U	*
13	P	05 23 40.	ES		24 51.			*
13	P	08 20 46.	S		21 18.			*
13	IP	09 19 15.0					U	*
13	IP	12 05 44.0	S		06 54.	S	W U	*
13	IP	14 43 47.5	ES		45 36.		U	*
13	IP	15 04 36.6					D	*
13	P	17 20 49.	S		20 15.5			*
13	P	20 39 30.	S		40 00.			*
13	IP	23 07 42.2				S	D	*
14	P	09 14 02.						*
14	IP	15 00 41.0	S		01 11.		D	*
14	P	16 40 47.	IS		41 09.6			*
14	IP	17 45 17.8	ES		46 22.		U	*
14	IP	18 31 56.4					D	*
14	P	21 29 33.	ES		30 36.			*
14	IP	22 57 21.4	IS		57 40.3	W	U	*
14	IP	23 18 24.6	ES		20 48.		U	*
15	IP	00 57 15.0	S		58 14.	S	W U	*
15	IP	01 05 52.0	ES		07 29.		U	*
15	IP	05 02 58.2	S		04 33.	S	W U	*
15	P	10 32 24.						*
15	IP	11 36 46.8	S		36 56.	N	E D	*
15	IP	12 04 17.6	S		05 17.		U	*
15	IP	13 21 55.6					D	*
15	P	16 20 48.8	ES		22 11.			*
15	P	21 20 14.	ES		20 39.			*
15	P	22 44 51.						*
15	IP	23 13 46.2	ES		14 06.	N	E D	*
16	IP	05 30 50.4	S		31 19.4	S	E D	*
16	IP	05 51 46.4	S		52 15.		D	*
16	IP	06 28 11.4	S		28 39.	W	U	*
16	IP	08 43 47.6	S		44 05.	W		*
16	IP	12 26 11.4	S		26 37.	S	E D	*
16	P	13 39 51.	S		40 07.			*
16	EP	13 54 09.	ES		59 36.			*
16	EP	14 34 51.	ES		44 06.			*
16	IP	15 11 15.7	S		11 44.	S	E D	*
16	IP	17 21 36.4	S		25 30.	S	W U	*
16	P	19 31 45.						*
16	P	21 47 20.	S		53 40.			*
16	IP	21 59 24.7					W U	*
16	EP	22 14 39.						*
16	IP	23 01 19.4	S		02 45.		U	*

DATE		PHASE AND TIME H M S			M S	INITIAL MOTION		
17	IP	11 06 40.4	S		06 59.		U	*
17	P	12 00 47.						*
17	P	12 32 05.						*
17	IP	13 10 10.6	ES		15 40.		U	*
17	IP	14 25 23.5	S		25 53.0		U	*
18	IP	01 23 15.0	IS		23 23.4	N	E U	*
18	P	02 31 04.	ES		32 23.			*
18	P	02 41 28.2					U	*
18	P	02 56 49.	ES		56 35.			*
18	IP	04 03 20.6	S		03 29.	N	E U	*
18	IP	04 34 26.8	S		34 35.5	N	E U	*
18	EP	05 33 36.	S		34 54.			*
18	P	06 00 38.						*
18	EP	06 04 05.						*
18	EP	07 12 39.						*
18	P	07 35 22.						*
18	IP	13 16 26.2	S		22 38.		E U	*
18	IP	13 46 51.0	S		46 59.	N	E U	*
18	IP	14 28 19.6	S		31 24.	N	W D	*
18	IP	14 43 10.2	S		43 19.	N	E U	*
18	EP	14 55 38.						*
18	EP	15 04 10.						*
18	EP	15 28 57.						*
18	P	15 43 25.						*
18	EP	16 44 56.						*
18	EP	18 55 24.	ES		56 17.			*
18	EP	19 26 54.						*
18	P	21 10 49.	S		11 14.			*
18	IP	21 46 10.8	IS		46 19.4	N	E U	*
18	IP	21 48 00.6	S		48 12.	N	E U	*
18	IP	21 51 34.6	S		51 43.	N	E U	*
18	P	22 12 11.	IS		12 19.6			*
18	P	22 37 22.	S		40 14.			*
18	P	23 05 12.	IS		05 20.2			*
18	P	23 33 51.						*
18	IP	23 49 50.5	IS		49 58.8	N	E U	*
19	IP	06 00 04.6					D	*
19	EP	08 37 02.						*
19	IP	10 36 00.6	S		36 22.			*
19	P	10 41 33.						*
19	P	10 55 45.	ES		58 40.			*
19	IP	12 20 56.3	S		21 02.5	N	E U	*
19	P	13 19 03.						*
19	P	14 14 30.						*
19	IP	14 21 54.3				N	W U	*
19	P	15 13 38.						*
19	P	17 40 05.						*
19	IP	18 16 29.6	S		17 30.	S	W U	*
19	IP	18 25 52.5					U	*
19	EP	20 00 08.	ES		03 08.			*
19	L	20 35 28.						*
19	IP	20 41 23.	ES		42 39.		E	*
20	P	01 31 13.	S		32 53.			*
20	IP	03 08 12.8	ES		18 00.	N	W U	*
20	P	03 32 11.	S		33 43.		W	*
20	EL	04 29 54.						*
20	IP	07 15 45.3	S		16 08.	N	W U	*
20	IP	09 12 40.0	ES		14 18.		U	*
20	IP	10 07 46.5	S		08 25.		E	*
20	P	11 12 40.						*
20	EP	21 33 36.						*
21	IP	00 57 22.5	IS		57 43.4	S	W U	*
21	IP	01 08 41.4	ES		09 36.	S	W U	*
21	IP	01 42 45.0				N	E D	*
21	IP	01 43 17.6	ES		44 12.	S	W U	*
21	P	02 33 21.	ES		34 40.			*
21	EP	05 00 54.	S		10 10.		D	*
21	IP	05 14 26.3						*
21	P	06 59 03.						*
21	EP	07 33 16.	S		33 53.			*
21	P	08 58 03.						*
21	P	09 13 22.						*
21	EP	11 33 17.						*
21	EP	13 00 43.						*
21	EP	16 12 22.						*
21	P	17 52 44.						*

DATE		PHASE AND TIME H M S			M S	INITIAL MOTION		
21	EP	20 55 10.						*
21	IP	22 47 32.7					U	*
21	P	22 51 14.	S		52 37.			*
22	P	00 58 00.	S		58 45.			*
22	P	04 11 11.	S		11 44.			*
22	IP	04 45 28.0	S		46 26.	N	E D	*
22	EP	06 43 05.						*
22	IP	07 13 35.0	S		18 54.	S	W D	*
22	EP	07 31 05.						*
22	P	10 07 52.						*
22	P	10 42 39.	S		43 16.			*
22	EP	11 46 06.	S		46 48.			*
22	P	15 08 23.						*
22	IP	15 10 49.3						*
22	P	16 44 50.	S		45 14.			*
22	P	17 48 47.						*
22	P	20 02 48.						*
22	P	21 54 05.						*
22	P	22 59 57.	S		09 18.			*
23	P	00 26 14.	S		29 18.			*
23	P	02 07 02.						*
23	IP	02 23 30.4	ES		30 48.	N	W U	*
23	P	04 56 00.	S		56 36.			*
23	EP	05 04 25.	S		04 47.			*
23	P	05 06 59.	ES		14 22.			*
23	P	08 32 35.						*
23	P	09 15 48.						*
23	IP	10 17 39.0	S		18 45.	S	D	*
23	P	10 34 58.						*
23	EP	11 55 11.						*
23	P	15 46 35.						*
23	IP	17 12 16.0				S	D	*
23	IP	17 28 48.2	S		29 24.	N	E D	*
23	P	17 58 35.						*
23	P	19 12 39.	S		13 04.			*
23	IP	20 26 28.5	ES		27 05.		E D	*
23	IP	22 15 19.0	S		15 55.	N	E D	*
23	P	23 29 26.	S		29 51.			*
24	EP	00 05 26.	S		06 10.			*
24	P	01 13 13.	S		13 37.			*
24	IP	01 29 06.4	S		30 22.7	N	U	*
24	P	05 13 02.						*
24	EP	09 27 12.	ES		28 35.			*
24	P	10 29 16.	ES		32 28.			*
24	P	11 02 57.						*
24	P	12 18 49.						*
24	EP	12 42 30.						*
24	IP	14 10 27.4	ES		18 28.	S	D	*
24	IP	15 22 33.2	S		22 59.			*
24	EP	15 39 57.						*
24	EP	22 00 38.	ES		09 20.			*
24	IP	23 58 30.0	ES		00 12.	S	W U	*
25	P	00 18 25.						*
25	P	01 23 17.	S		26 50.			*
25	IP	01 33 58.9	IS		34 26.5	N	E D	*
25	P	08 33 50.						*
25	IP	10 01 48.9	S		03 26.		U	*
25	IP	11 47 05.5	S		47 18.	S	U	*
25	IP	13 44 50.6						*
25	P	15 24 50.						*
25	EP	15 25 34.	IS		35 49.			*
25	P	18 04 24.	ES		09 30.			*
25	P	18 12 13.						*
25	P	19 25 35.						*
25	P	20 49 13.	S		50 12.			*
25	P	22 02 08.	ES		07 38.			*
25	P	22 41 03.	S		46 34.			*
26	P	05 32 07.	S		33 19.			*
26	P	07 55 23.	ES		00 06.			*
26	P	08 04 12.						*
26	IP	09 22 36.8	IS		23 03.4	N	E U	*
26	EP	14 31 59.						*
26	EX	17 56 04.						*
26	IP	23 39 39.8	S		40 00.	N	W U	*
26	P	23 48 16.	S		48 38.			*

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DATE		PHASE AND TIME H M S		M S	INITIAL MOTION	
27	P	00 39 47.				*
27	EP	02 37 16.				*
27	P	03 41 53.				*
27	P	04 38 36.				*
27	P	09 57 29.	ES	59 05.		*
27	P	11 24 47.				*
27	P	17 59 41.				*
27	P	20 03 56.				*
28	IP	01 44 00.5	S	44 25.	S W U	*
28	P	04 35 41.				*
28	P	06 30 53.	S	38 28.		*
28	EP	07 30 54.	S	34 08.		*
28	P	15 38 34.				*
28	P	15 45 57.	ES	46 40.		*
28	P	16 28 04.				*
28	P	19 20 54.	S	22 16.		*
28	IP	20 40 48.9			S D	*
28	P	22 05 08.	S	06 40.		*
29	IP	00 41 00.5	S	43 18.	U	*
29	P	01 27 16.	S	27 26.		*
29	P	06 28 46.	S	29 11.		*
29	IP	07 14 44.2	IS	14 59.2	D	*
29	IP	11 02 59.1	ES	09 00.	U	*
29	IP	12 23 41.8	IS	24 16.	S E D	*
29	IP	15 34 02.9			N U	*
29	IP	22 15 18.0	S	15 39.	D	*
30	P	01 49 06.	ES	51 48.		*
30	IP	04 16 59.8	S	17 14.	N D	*
30	P	07 45 43.	S	46 21.		*
30	EP	12 27 05.	S	29 41.		*
30	IP	13 20 52.8	S	22 30.	N W U	*
30	EX	19 20 30.				*
30	P	21 49 18.				*
31	P	00 13 02.	S	13 19.		*
31	IP	02 15 19.7			D	*
31	IP	03 42 50.7	S	43 29.	S D	*
31	EP	10 07 08.				*
31	IP	11 42 14.4	ES	48 16.	D	*
31	EP	17 53 22.	S	59 28.		*
31	EP	20 30 26.	ES	36 26.		*

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昭和44年 8 月

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1969

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List 1 JMA stations and their seismographs

Station	Code	CGS Code	λ	φ	Height	Seismographs
					m	
Abashiri	ABASHI	ABJ	E144°17.0′	N44°01.0′	38	S, VI, OP
Aikawa	AIKAWA	AIK	138 14.5	38 01.2	34	S, VI, OP
Ajiro	AJIRO	AJI	139 05.8	35 02.6	59	S, VI, EMT′
Akita	AKITA	AKI	140 06.1	39 43.1	9	S, VI, OP
Anabuki (Tsurugisan)	ANABUK (TURUGI)	TSS	134 05.8	33 51.1	59	S, P
Aomori	AOMORI	AOM	140 47.0	40 49.0	4	S, W
Asahikawa	ASAHIK	ASA	142 22.4	43 46.2	111	S, VI, OP
Ashizuri	ASHIZU	ASZ	133 01.0	32 43.0	30	S, VI
Asosan	ASOSAN	ASJ	131 04.5	32 52.7	1143	S
Chichibu	CHICHI	CHJ	139 04.9	35 59.5	218	S, P
Choshi	CHOSHI	CHO	140 50.6	35 43.5	27	S, W
Fukue	FUKUE	FKJ	128 50.0	32 42.0	26	S, VI
Fukui	FUKUI	FUK	136 13.6	36 03.2	9	S, P(H, V)
Fukuoka	FUKUOK	FKK	130 22.8	33 34.8	2	S, VI, M(H)
Fukushima	FUKUSH	FKS	140 28.5	37 45.4	67	S, VI, OP
Gifu	GIFU	GIF	136 45.9	35 23.9	13	S, W
Hachijojima	HACHIJ	HJJ	139 47.3	33 06.1	80	S, VI
Hachinohe	HACHIN	HAC	141 31.6	40 31.5	27	S, VI, OP
Hakodate	HAKODA	HAK	140 45.5	41 48.8	35	S, VI, OP
Hamada	HAMADA	HMD	132 04.4	34 53.6	18	S, VI, OP
Hamamatsu	HAMAMA	HMM	137 43.4	34 42.5	32	S, VI, OP
Hikone	HIKONE	HIK	136 14.8	35 16.4	87	S, W
Himeji	HIMEJI	HIM	134 42.1	34 50.2	37	S, P(H, V)
Hiroo	HIROO	HOO	143 19.0	42 17.0	32	S, P(H, V)
Hiroshima	HIROSH	HIR	132 26.2	34 21.8	29	S, W
Iida	IIDA	IID	137 50.1	35 30.6	482	S, VI, OP
Irozaki (Nagatsuro)	IROZAK (NAGATS)	NGT	138 50.8	34 36.0	55	S
Ishinomaki	ISHINO	ISN	141 18.2	38 25.5	43	S, VI, OP
Izuhara	IZUHAR	IZU	129 17.7	34 12.2	21	S, P(H, V)
Kagoshima	KAGOSH	KAG	130 33.2	31 34.4	4	S, VI
Kakioka	KAKIOK	KAK	140 11.6	36 13.9	27	S, W
Kanazawa	KANAZA	KAN	136 38.9	36 32.8	27	S, VI, OP
Karuizawa	KARUIZ	KRZ	138 33.1	36 20.4	999	S, P(H, V)
Kawaguchiko (Funatsu)	KAWAGU (FUNATU)	FUN	138 45.8	35 29.9	860	S, P
Kobe	KOBE	KOB	135 10.8	34 41.3	58	S, P(H, V)
Kochi	KOCHI	KOC	133 32.0	33 33.0	40	S, P(H, V)
Kofu	KOFU	KOF	138 33.5	35 39.9	272	S, VI
Kumagaya	KUMAGA	KMG	139 23.1	36 08.8	30	S, VI, EMT
Kumamoto	KUMAMO	KUM	130 42.6	32 48.6	38	S, W
Kushiro	KUSHIR	KUS	144 23.7	42 58.7	33	S, VI
Kyoto	KYOTO	KYO	135 44.1	35 00.7	41	S, VI, OP
Maebashi	MAEBAS	MAE	139 03.9	36 24.1	112	S, W
Maizuru	MAIZUR	MAI	135 23.2	35 28.3	31	S, P(H, V)
Matsue	MATSUE	MTS	133 04.3	35 27.3	17	S, P(H, V)
Matsumoto	MATSUM	MTM	137 58.4	36 14.6	610	S, P(H, V)
Matsushiro	MATSUS	MAT	138 12.5	36 32.3	440	S, L, AW,G,B,V,C
Matsuyama	MATSUY	MTY	132 46.8	33 50.4	32	S, W
Mishima	MISHIM	MIS	138 55.8	35 06.7	20	S, W
Mito	MITO	MIT	140 28.3	36 22.7	30	S, VI, EMT′
Miyako	MIYAKO	MIY	141 58.1	39 38.7	46	S, W
Miyazaki	MIYAZA	MYZ	131 25.6	31 55.0	7	S, VI, OP
Mizusawa	MIZUSA	MIZ	141 08.0	39 08.0	61	P(H, V)
Morioka	MORIOK	MRK	141 10.0	39 41.8	155	S, VI, OP
Muroran	MURORA	MRR	140 59.0	42 19.0	43	S, P(H, V)
Murotomisaki	MUROTO	MRT	134 10.7	33 14.9	185	S, VI, OP
Nagano	NAGANO	NGN	138 11.8	36 39.6	418	S, W
Nagasaki	NAGASA	NGS	129 52.2	32 43.9	27	S, VD, EM
Nagoya	NAGOYA	NAG	136 58.1	35 09.9	52	S, VI, OP
Nara	NARA	NAR	135 50.0	34 41.0	105	S, P(H, V)
Nemuro	NEMURO	NEM	145 35.2	43 19.7	26	S, VI, VD, OP
Niigata	NIIGAT	NII	139 03.1	37 54.6	2	S, P(H, V)
Nobeoka	NOBEOK	NOB	131 41.0	32 35.0	19	S, P(H, V)
Obihiro	OBIHIR	OBI	143 13.3	42 55.2	39	S, P(H, V)
Ofunato	OFUNAT	OFU	141 43.1	39 03.7	38	S, VI
Oita	OITA	OIT	131 37.4	33 14.0	5	S, W
Okayama	OKAYAM	OKA	133 54.9	34 40.9	4	S, VI, OP
Omaezaki	OMAEZA	OMA	138 12.8	34 36.2	45	S, W
Onahama	ONAHAM	ONA	140 54.4	36 56.7	3	S, VI
Osaka	OSAKA	OSA	135 31.3	34 40.7	13	S, VI

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Special Events

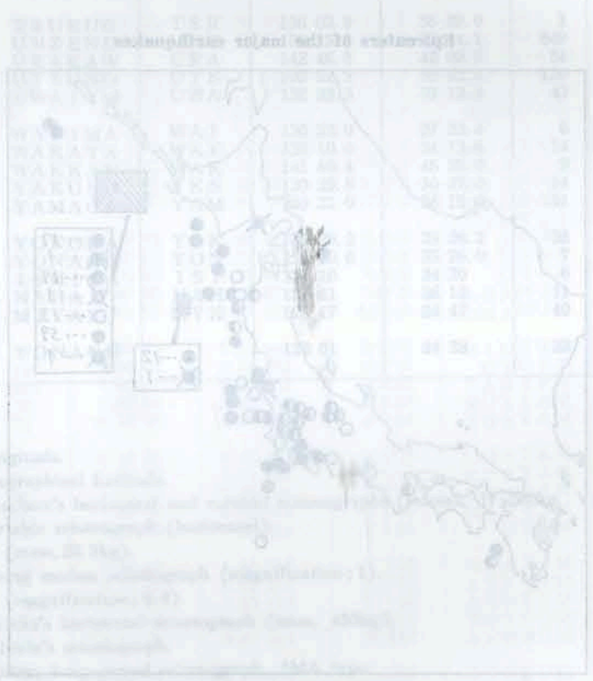
Earthquake of the east off Hokkaido

The earthquake (M=7.8) occurring in the region east off Hokkaido at 06h 28m on 12th, was accompanied by tsunami. The heights (crest to trough) of the tsunami on Hokkaido and northern Honshu are as follows :

Abashiri 37cm, Hanasaki 256cm, Kushiro 93cm, Hakodate 47cm, Wakkanai 22cm, Hachinohe 109cm, Miyako 63cm, Ofunato 64cm, Ayukawa 70cm, Onahama 40cm, Choshi 38cm, Mera 23cm, Omaezaki 26cm, Toba 8cm, Uragami 28cm, Kushimoto 62cm.

Earthquake-Swarm near Matsushiro, Northern Chubu

In this month, 30 earthquakes (intensity II : 3, I : 27) were felt at the Matsushiro Seismological Observatory.



LIST 3 EARTHQUAKES OBSERVED BY SEISMOLOGICAL STATIONS OF JMA

C = CLASS

(JST) DATE,TIME D H M	C	LOCATION	(JST) DATE,TIME D H M	C	LOCATION
1 03 38	U	(YAKUSH)	7 20 52	L	OFF KUSHIRO
03 43	U	S OFF KYUSHU			
03 57	U	S OFF KYUSHU	8 00 32	U	S OF KURILE IS
04 45	U	(YAKUSH)	12 05	L	NEAR MATSUSHIRO
06 15	L	OFF IWATE PREF	12 14	L	(MATSUS)
06 59	U	(URAKAW)	12 38	L	(MATSUS)
10 47	L	(UNZEND)	14 31	U	SE OF NIIGATA PREF
12 54	U	(MAEBAS)	22 25	L	(MATSUS)
16 29	L	(UNZEND)			
19 19	U	OFF MTYAZAKI PREF	9 00 50	U	OFF URAKAWA
20 08	U	S OF KWANTO	01 54	U	(WAKAYA)
21 20	U	(URAKAW)	03 35	U	(URAKAW)
			05 51	U	BANDA SEA
2 00 57	U	(YONAGU)	10 52	U	(AOMORI)
02 21	U	(YONAGU)	19 36	U	E OF CHUGOKU
04 47	U	N OF KWANTO			
05 18	U	S OF KWANTO	10 21 23	U	(URAKAW)
08 07	U	OFF SANRIKU	21 27	U	(KYOTO)
08 44	R	S OF KURILE IS			
09 35	U	S OF KURILE IS	11 06 10	U	E OFF HOKKAIDO
09 53	U	NEAR URAKAWA	06 16	L	NEAR CHOSHI
10 15	U	NEAR URAKAWA	06 56	U	(MATSUY)
11 41	U	NEAR URAKAWA	08 08	U	OFF SANRIKU
13 07	U	(YONAGU)	12 31	S	MIDDLE OF CHIBA PREF
13 45	U	(AKITA)	12 55	L	W OF NAGANO PREF
14 29	U	(OFUNAT)	20 28	L	NEAR MATSUSHIRO
15 05	U	NEAR URAKAWA	20 45	L	(MATSUS)
19 19	U	NEAR URAKAWA	20 45	L	NEAR MATSUSHIRO
19 28	U	S OF KWANTO	23 06	U	(HACHIN)
3 05 07	U	(URAKAW)	12 04 51	U	OFF IWATE PREF
05 09	U	S OF KWANTO	05 22	U	(KUSHIR)
06 42	U	(KAGOSH)	06 03	U	(KUSHIR)
09 31	U	NEAR URAKAWA	06 08	U	E OFF HOKKAIDO
13 19	L	NEAR YONAGUNIJIMA	06 22	U	E OFF HOKKAIDO
16 49	U	S OF KURILE IS	06 27	R	E OFF HOKKAIDO
20 52	U	(URAKAW)	06 28	R	E OFF HOKKAIDO
			06 36	L	E OFF HOKKAIDO
4 01 53	U	(WAKAYA)	06 45	U	E OFF HOKKAIDO
03 17	U	OFF KUSHIRO	06 48	U	E OFF HOKKAIDO
04 26	U	(KUMAMO)	06 54	U	E OFF HOKKAIDO
04 27	L	NEAR MATSUSHIRO	06 56	U	E OFF HOKKAIDO
05 39	L	NEAR MATSUSHIRO	07 01	L	E OFF HOKKAIDO
12 43	L	(MATSUS)	07 10	U	E OFF HOKKAIDO
18 14	U	(KUMAMO)	07 13	U	(NEMURO)
18 54	U	(KUMAMO)	07 16	U	E OFF HOKKAIDO
23 12	S	OFF IWATE PREF	07 17	U	E OFF HOKKAIDO
			07 19	U	(NEMURO)
5 00 58	U	(YONAGU)	07 21	U	(NEMURO)
02 25	U	BANDA SEA	07 26	U	(HACHIN)
02 32	U	NE OF KWANTO	07 27	U	E OFF HOKKAIDO
02 52	L	(MATSUS)	07 35	U	E OFF HOKKAIDO
09 27	U	(KUSHTR)	07 39	U	(NEMURO)
11 18	U	MOLUCCA PASSAGE	07 39	U	E OFF HOKKAIDO
			07 42	S	E OFF HOKKAIDO
6 01 40	U	UK	07 50	U	E OFF HOKKAIDO
03 19	U	S OFF HONSHU	07 54	R	E OFF HOKKAIDO
03 34	M	E OF FUKUSHIMA PREF	07 57	L	E OFF HOKKAIDO
04 33	U	(KUSHTR)	07 59	U	E OFF HOKKAIDO
11 02	U	(YONAGU)	08 03	M	E OFF HOKKAIDO
13 44	U	(HACHIN)	08 12	U	E OFF HOKKAIDO
17 40	S	SE OF HACHIJOJIMA	08 21	U	E OFF HOKKAIDO
17 51	U	SE OF HACHIJOJIMA	08 22	L	E OFF HOKKAIDO
19 21	U	OFF FUKUSHIMA PREF	08 24	U	E OFF HOKKAIDO
20 37	L	(MATSUS)	08 30	U	(KUSHIR)
			08 34	U	E OFF HOKKAIDO
7 03 14	U	(ONAHAM)	08 37	U	E OFF HOKKAIDO
13 50	U	OFF MTYAGI PREF	08 39	M	E OFF HOKKAIDO
15 29	L	(UNZEND)	08 41	U	(NEMURO)
19 22	U	(OFUNAT)	08 43	U	E OFF HOKKAIDO

International Seismological Centre From the ISC collection scanned by SISMOS

(JST) DATE,TIME D H M	C	LOCATION
12 08 49	U	E OFF HOKKAIDO
08 50	U	(KUSHIR)
08 51	U	E OFF HOKKAIDO
08 53	U	E OFF HOKKAIDO
08 54	U	E OFF HOKKAIDO
08 55	U	(NEMURO)
08 57	U	MOLUCCA PASSAGE
09 00	U	E OFF HOKKAIDO
09 01	U	E OFF HOKKAIDO
09 04	U	E OFF HOKKAIDO
09 08	U	E OFF HOKKAIDO
09 12	U	(NEMURO)
09 16	U	E OFF HOKKAIDO
09 19	S	E OFF HOKKAIDO
09 27	U	HOKKAIDO
09 29	U	E OFF HOKKAIDO
09 32	U	E OFF HOKKAIDO
09 41	U	E OFF HOKKAIDO
09 43	U	(NEMURO)
09 47	U	E OFF HOKKAIDO
09 52	U	E OFF HOKKAIDO
09 53	M	E OFF HOKKAIDO
10 03	S	E OFF HOKKAIDO
10 13	U	E OFF HOKKAIDO
10 14	U	E OFF HOKKAIDO
10 19	U	W OF SHIKOKU
10 20	U	E OFF HOKKAIDO
10 28	U	E OFF HOKKAIDO
10 35	U	E OFF HOKKAIDO
10 39	U	(NEMURO)
10 43	U	E OFF HOKKAIDO
10 55	U	E OFF HOKKAIDO
11 02	U	E OFF HOKKAIDO
11 07	U	E OFF HOKKAIDO
11 20	U	E OFF HOKKAIDO
11 33	U	E OFF HOKKAIDO
11 35	U	E OFF HOKKAIDO
11 37	U	E OFF HOKKAIDO
11 45	U	E OFF HOKKAIDO
11 54	U	E OFF HOKKAIDO
12 09	U	E OFF HOKKAIDO
12 19	U	E OFF HOKKAIDO
12 25	U	(URAKAW)
12 34	S	E OFF HOKKAIDO
12 49	U	E OFF HOKKAIDO
12 56	U	E OFF HOKKAIDO
12 59	U	E OFF HOKKAIDO
13 02	U	E OFF HOKKAIDO
13 13	M	E OFF HOKKAIDO
13 27	U	E OFF HOKKAIDO
13 29	U	E OFF HOKKAIDO
13 42	U	(ONAHAM)
13 48	U	E OFF HOKKAIDO
13 50	U	(NEMURO)
13 54	M	E OFF HOKKAIDO
14 02	U	(NEMURO)
14 03	R	E OFF HOKKAIDO
14 09	M	E OFF HOKKAIDO
14 24	U	E OFF HOKKAIDO
14 47	U	E OFF HOKKAIDO
14 54	R	E OFF HOKKAIDO
15 31	L	E OFF HOKKAIDO
15 39	S	E OFF HOKKAIDO
15 43	U	E OFF HOKKAIDO
15 49	S	E OFF HOKKAIDO
15 51	L	(NEMURO)
15 57	U	(NEMURO)
16 03	U	E OFF HOKKAIDO
16 09	U	(URAKAW)
16 11	U	E OFF HOKKAIDO

C = CLASS

(JST) DATE,TIME D H M	C	LOCATION
12 16 38	S	E OFF HOKKAIDO
16 39	L	(MATSUS)
16 41	L	E OFF HOKKAIDO
16 46	U	(NEMURO)
16 55	M	E OFF HOKKAIDO
17 07	U	HOKKAIDO
17 13	U	(NEMURO)
17 43	L	(MATSUS)
17 44	U	HOKKAIDO
18 17	U	NEAR URAKAWA
18 21	U	E OFF HOKKAIDO
18 24	U	(NEMURO)
18 26	M	E OFF HOKKAIDO
18 34	M	E OFF HOKKAIDO
18 55	U	E OFF HOKKAIDO
19 21	U	E OFF HOKKAIDO
20 00	U	(SAGA)
20 12	U	NEAR URAKAWA
20 22	P	E OFF HOKKAIDO
20 33	U	E OFF HOKKAIDO
20 38	U	E OFF HOKKAIDO
20 57	M	E OFF HOKKAIDO
21 03	U	E OFF HOKKAIDO
21 09	U	(KUSHIR)
21 18	U	E OFF HOKKAIDO
21 29	U	E OFF HOKKAIDO
21 32	U	E OFF HOKKAIDO
21 44	U	E OFF HOKKAIDO
22 18	R	E OFF HOKKAIDO
22 24	U	E OFF HOKKAIDO
22 27	U	(KUSHIR)
22 30	U	(NEMURO)
22 38	U	(NEMURO)
22 45	U	E OFF HOKKAIDO
23 10	U	E OFF HOKKAIDO
23 11	U	(NEMURO)
23 28	U	E OFF HOKKAIDO
23 33	U	E OFF HOKKAIDO
23 34	U	E OFF HOKKAIDO
13 00 12	U	E OFF HOKKAIDO
00 26	U	E OFF HOKKAIDO
00 28	U	E OFF HOKKAIDO
00 50	U	E OFF HOKKAIDO
01 30	U	E OFF HOKKAIDO
01 32	U	(KUMAMO)
01 44	U	E OFF HOKKAIDO
02 01	U	HOKKAIDO
02 09	U	E OFF HOKKAIDO
02 35	U	E OFF HOKKAIDO
02 43	U	E OFF HOKKAIDO
02 46	L	MIDDLE OF TOCHIGI PREF
02 52	U	MIDDLE OF TOCHIGI PREF
02 55	L	MIDDLE OF TOCHIGI PREF
03 20	L	MIDDLE OF TOCHIGI PREF
03 23	U	TOHOKU
03 26	L	(UTSUNO-ASHIO)
03 34	U	NEAR URAKAWA
03 44	U	MIDDLE OF TOCHIGI PREF
03 47	U	(NEMURO)
03 50	U	E OFF HOKKAIDO
04 20	U	E OFF HOKKAIDO
04 30	U	E OFF HOKKAIDO
05 37	L	(MATSUS)
05 39	U	E OFF HOKKAIDO
06 03	L	(MATSUS)
06 16	M	E OFF HOKKAIDO
06 55	U	E OFF HOKKAIDO
06 57	U	E OFF HOKKAIDO
06 58	U	E OFF HOKKAIDO

(JST) DATE,TIME D H M	C	LOCATION
13 07 53	U	(URAKAW)
08 06	R	E OFF HOKKAIDO
08 16	U	E OFF HOKKAIDO
08 24	U	(NEMURO)
08 41	U	E OFF HOKKAIDO
08 45	U	(KUSHIR)
08 49	L	E OFF HOKKAIDO
08 53	U	E OFF HOKKAIDO
09 18	U	E OFF HOKKAIDO
10 38	U	E OFF HOKKAIDO
10 59	U	E OFF HOKKAIDO
11 07	U	E OFF HOKKAIDO
11 18	U	(NEMURO)
11 54	U	(NAGANO)
12 03	U	MIDDLE OF TOCHIGI PREF
12 29	S	E OFF HOKKAIDO
12 48	U	E OFF HOKKAIDO
12 51	U	E OFF HOKKAIDO
12 53	U	E OFF HOKKAIDO
13 13	U	E OFF HOKKAIDO
13 28	U	E OFF HOKKAIDO
13 31	U	(NEMURO)
13 38	U	(NEMURO)
14 13	U	E OFF HOKKAIDO
14 25	U	E OFF HOKKAIDO
14 55	U	E OFF HOKKAIDO
15 05	U	E OFF HOKKAIDO
15 10	M	E OFF HOKKAIDO
16 24	U	E OFF HOKKAIDO
17 32	M	E OFF HOKKAIDO
17 36	U	(NEMURO)
18 21	U	NEAR URAKAWA
18 29	U	E OFF HOKKAIDO
18 32	U	(KUMAMO)
19 08	U	(KUSHIR)
19 49	U	(KUSHIR)
20 08	U	(KUSHIR)
21 13	U	E OFF HOKKAIDO
21 28	S	OFF FUKUSHIMA PREF
21 29	L	E OFF HOKKAIDO
21 31	L	E OFF HOKKAIDO
22 37	U	E OFF HOKKAIDO
23 23	U	E OFF HOKKAIDO
23 29	U	E OFF HOKKAIDO
14 00 46	U	E OFF HOKKAIDO
01 12	U	E OFF HOKKAIDO
01 39	L	(MATSUS)
01 43	U	NEAR HIKONE
02 04	L	E OFF HOKKAIDO
02 07	M	E OFF HOKKAIDO
02 16	U	E OFF HOKKAIDO
02 52	U	(NEMURO)
03 09	U	E OFF HOKKAIDO
03 23	U	E OFF HOKKAIDO
03 48	U	E OFF HOKKAIDO
03 56	U	(URAKAW)
04 34	U	E OFF HOKKAIDO
05 09	U	E OFF HOKKAIDO
06 03	U	E OFF HOKKAIDO
06 14	U	E OFF HOKKAIDO
07 08	U	E OFF HOKKAIDO
07 31	U	(NAHA)
07 32	U	(KUSHIR)
07 43	U	E OFF HOKKAIDO
07 57	R	E OFF HOKKAIDO
07 57	U	(YAKUSH)
08 12	U	E OFF HOKKAIDO
08 14	U	E OFF HOKKAIDO
08 38	U	(KUSHIR)

C = CLASS

(JST) DATE,TIME D H M	C	LOCATION
14 08 48	U	(KUSHIR)
09 34	U	(NAHA)
10 10	U	E OF SHIKOKU
10 48	U	E OFF HOKKAIDO
10 50	U	E OFF HOKKAIDO
11 51	U	(NEMURO)
12 07	U	E OFF HOKKAIDO
12 31	U	(NEMURO)
12 38	U	E OFF HOKKAIDO
13 12	U	E OFF HOKKAIDO
13 48	U	E OFF HOKKAIDO
14 42	U	E OFF HOKKAIDO
15 11	U	(UTSUNO)
15 21	U	(NEMURO)
18 00	U	E OFF HOKKAIDO
19 13	U	(NEMURO)
19 14	U	E OFF HOKKAIDO
19 18	U	(KUSHIR)
20 04	U	E OFF HOKKAIDO
20 51	U	E OFF HOKKAIDO
21 03	L	(MATSUS)
21 16	U	E OFF HOKKAIDO
21 40	U	S OFF CHIBA PREF
22 17	U	(NEMURO)
22 32	U	E OFF HOKKAIDO
23 19	R	E OFF HOKKAIDO
23 58	U	E OFF HOKKAIDO
15 00 00	U	(KUSHIR)
00 14	U	E OFF HOKKAIDO
00 19	U	E OFF HOKKAIDO
00 24	U	(KUSHIR)
00 28	U	E OFF HOKKAIDO
00 38	U	E OFF HOKKAIDO
00 41	U	(KUSHIR)
00 44	U	E OFF HOKKAIDO
01 23	U	E OFF HOKKAIDO
01 28	U	E OFF HOKKAIDO
01 48	U	OFF FUKUSHIMA PREF
01 59	U	E OFF HOKKAIDO
02 06	S	E OFF HOKKAIDO
02 13	U	E OFF HOKKAIDO
02 51	U	E OFF HOKKAIDO
03 21	U	E OFF HOKKAIDO
03 40	U	E OFF HOKKAIDO
04 52	U	MIDDLE OF AICHI PREF
05 16	U	E OFF HOKKAIDO
05 51	U	(MIYAKO)
06 00	U	(MIYAKO)
06 11	U	E OFF HOKKAIDO
06 45	U	(KUSHIR)
06 53	U	(KUSHIR)
06 56	S	E OFF AOMORI PREF
07 13	U	E OFF HOKKAIDO
07 36	U	(MIYAKO)
07 57	U	E OFF HOKKAIDO
08 08	U	E OFF HOKKAIDO
09 03	U	(NEMURO)
09 37	L	SE OF SAITAMA PREF
09 38	U	E OFF HOKKAIDO
09 54	U	E OFF HOKKAIDO
10 07	U	E OFF HOKKAIDO
11 24	U	E OFF HOKKAIDO
12 36	U	(KUSHIR)
13 32	R	E OFF HOKKAIDO
15 12	U	(NEMURO)
15 18	U	(TATEYA)
15 19	M	E OFF HOKKAIDO
15 33	U	(HACHIN)
16 22	U	E OFF HOKKAIDO

International Seismological Centre From the ISC collection scanned by SISMOS

(JST) DATE,TIME D H M	C	LOCATION
15 17 44	U	MARIANA IS
18 17	U	E OFF HOKKAIDO
18 48	L	S OF TOCHIGI PREF
18 48	U	E OFF HOKKAIDO
19 02	U	E OFF HOKKAIDO
19 34	U	E OFF HOKKAIDO
19 55	U	E OFF HOKKAIDO
20 30	U	E OFF HOKKAIDO
23 10	U	E OFF HOKKAIDO
16 00 24	U	OFF MIYAGI PREF
01 57	U	E OFF HOKKAIDO
02 01	U	E OFF HOKKAIDO
02 54	U	E OFF HOKKAIDO
05 06	U	E OFF HOKKAIDO
05 48	M	E OFF HOKKAIDO
05 55	U	HOKKAIDO
06 23	U	(URAKAW)
07 44	M	E OFF HOKKAIDO
07 57	U	E OFF HOKKAIDO
08 59	U	(KUSHIR)
10 28	U	E OFF HOKKAIDO
10 48	U	E OFF HOKKAIDO
12 28	U	E OFF HOKKAIDO
12 32	U	OFF MIYAZAKI PREF
12 39	L	S OF IBARAKI PREF
13 54	U	(KUSHIR)
14 35	U	MIDDLE OF TOCHIGI PREF
15 16	U	E OFF HOKKAIDO
15 26	U	HOKKAIDO
17 40	U	NEAR URAKAWA
17 48	M	E OFF HOKKAIDO
18 03	R	E OFF HOKKAIDO
19 03	U	E OFF HOKKAIDO
21 03	U	E OFF HOKKAIDO
21 09	U	E OFF HOKKAIDO
21 44	U	E OFF HOKKAIDO
21 55	U	(KUSHIR)
22 13	U	E OFF HOKKAIDO
22 55	U	(NEMURO)
23 46	L	(MAEBAS-NUMATA)
17 00 11	U	E OFF HOKKAIDO
00 15	R	E OFF HOKKAIDO
01 11	L	E OF GUNMA PREF
01 15	U	(NEMURO)
02 14	M	E OFF HOKKAIDO
03 34	U	SAGAMI BAY
03 51	U	E OFF HOKKAIDO
03 51	U	MIDDLE OF TOCHIGI PREF
03 53	L	OFF IWATE PREF
04 15	U	(ONAHAM)
05 25	U	E OFF HOKKAIDO
06 05	U	E OF KANAGAWA PREF
06 34	U	E OFF HOKKAIDO
08 27	U	NEAR MAIZURU
11 34	L	(UWAJIM)
14 49	U	E OFF HOKKAIDO
14 52	U	E OFF HOKKAIDO
17 05	U	S OFF CHIBA PREF
19 57	U	NEAR UTSUNOMIYA
19 59	U	(NAHA)
20 09	U	E OFF HOKKAIDO
20 37	U	E OFF HOKKAIDO
20 55	R	OFF TOMAKOMAI
18 03 09	U	E OFF HOKKAIDO
04 58	U	(URAKAW)
05 26	U	UK

C = CLASS

(JST) DATE,TIME D H M	C	LOCATION
18 09 09	U	E OFF HOKKAIDO
09 11	U	E OFF HOKKAIDO
11 18	U	(KUSHIR)
14 26	M	OFF BOSO PEN
14 37	U	E OFF HOKKAIDO
15 51	U	E OFF HOKKAIDO
17 33	U	(URAKAW)
18 28	U	OFF TOKACHI
19 13	U	(MIYAZA)
19 50	U	E OFF HOKKAIDO
20 34	U	(KUSHIR)
20 44	U	E OFF HOKKAIDO
20 55	L	(MORIOK-KOMA)
21 06	U	E OFF HOKKAIDO
22 15	U	(MIYAZA)
22 32	L	(HACHIN)
22 47	U	E OFF HOKKAIDO
19 00 17	U	E OF KYOTO PREF
01 30	L	E OFF HOKKAIDO
03 30	U	E OFF HOKKAIDO
03 42	U	E OFF HOKKAIDO
04 50	L	E OFF HOKKAIDO
07 07	U	E OFF HOKKAIDO
08 25	U	NEAR HACHIJOJIMA
08 28	U	E OFF HOKKAIDO
09 29	U	(KUSHIR)
11 19	U	E OFF HOKKAIDO
11 24	L	E OFF HOKKAIDO
11 29	U	(KUSHIR)
12 57	U	E OFF HOKKAIDO
13 01	L	S OF IBARAKI PREF
13 12	U	E OFF HOKKAIDO
14 35	U	(URAKAW)
16 05	U	E OFF HOKKAIDO
16 11	U	E OFF HOKKAIDO
16 18	U	(KUSHIR)
17 14	L	(UNZEND)
17 16	U	E OFF IBARAKI PREF
17 24	L	(UNZEND)
17 50	R	E OFF HOKKAIDO
18 06	U	E OFF HOKKAIDO
18 30	U	E OFF HOKKAIDO
18 44	U	(NEMURO)
19 19	U	E OFF HOKKAIDO
21 07	U	E OFF HOKKAIDO
21 16	U	OFF FUKUSHIMA PREF
22 28	U	E OFF HOKKAIDO
22 58	U	(KUSHIR)
20 00 00	U	E OFF HOKKAIDO
05 31	U	(OFUNAT)
05 41	L	(MATSUS)
06 07	U	NEAR CHOSHI
08 09	U	(TOTTOR)
08 36	U	E OFF HOKKAIDO
09 45	U	(KUSHIR)
10 29	U	E OFF HOKKAIDO
14 34	U	E OFF HOKKAIDO
16 52	L	E OFF HOKKAIDO
17 36	U	E OFF HOKKAIDO
18 26	U	(KUSHIR)
19 12	U	E OFF HOKKAIDO
20 26	U	UK
20 45	U	E OFF HOKKAIDO
22 48	L	NEAR HIROO
23 21	U	E OFF AOMORI PREF
21 01 34	U	OFF SANRIKU
02 23	U	(NAHA)

(JST) DATE,TIME D H M	C	LOCATION
21 02 43	U	(KUSHIR)
03 08	U	(ISHIGA)
03 20	L	OFF IBARAKI PREF
04 23	U	OFF URAKAWA
05 39	L	(UNZEND)
05 48	U	(ISHIGA)
05 50	L	(UNZEND)
05 50	L	(UNZEND)
06 37	L	(UNZEND)
06 40	L	(UNZEND)
06 52	L	(UNZEND)
07 50	U	NEAR HAMAMATSU
09 29	U	E OFF HOKKAIDO
11 44	U	E OFF HOKKAIDO
12 32	R	E OFF HOKKAIDO
13 41	U	(KUSHIR)
13 47	S	E OFF HOKKAIDO
13 50	U	(ONAHAM)
14 10	U	E OFF HOKKAIDO
15 44	U	(URAKAW)
16 38	U	(HIROSH)
16 51	M	E OFF HOKKAIDO
17 59	U	E OFF HOKKAIDO
18 43	L	NEAR KYOTO
18 59	U	(NEMURO)
19 07	U	SW OFF HOKKAIDO
22 22	S	OFF IBARAKI PREF
22 23	U	(MITO)
22 24	U	E OFF HOKKAIDO
22 41	U	OFF IBARAKI PREF
22 00 48	U	E OFF HOKKAIDO
01 28	L	NEAR MATSUSHIRO
02 15	U	E OFF SANRIKU
03 25	U	(KUSHIR)
04 13	L	(MATSUS)
04 29	L	NEAR MATSUSHIRO
06 54	U	E OFF HOKKAIDO
13 07	U	(WAKAYA)
13 40	S	E OFF HOKKAIDO
14 30	U	E OFF HOKKAIDO
16 12	S	E OFF HOKKAIDO
17 41	U	S OF IBARAKI PREF
22 05	U	TOHOKU
23 00 03	U	(YAKUSH)
06 32	U	TOHOKU
08 30	U	E OFF HOKKAIDO
10 52	U	HOKKAIDO
11 02	U	E OFF HOKKAIDO
11 38	U	(KUSHIR)
11 45	U	TOHOKU
11 54	U	OFF SANRIKU
12 08	U	(KUSHIR)
12 49	U	OFF SANRIKU
14 07	U	OFF KUSHIRO
15 39	U	OFF SANRIKU
15 43	U	(URAKAW)
15 48	U	E OFF HOKKAIDO
17 37	U	E OFF HOKKAIDO
18 26	U	OFF SANRIKU
19 09	U	S OF GIFU PREF
22 28	U	E OFF HOKKAIDO
22 34	U	(FUKUY)
22 50	L	(MATSUS)
23 53	U	E OFF HOKKAIDO
24 04 57	U	OFF SANRIKU
05 20	U	NEAR CHOSHI
06 19	U	E OFF HOKKAIDO

C = CLASS

(JST) DATE,TIME D H M	C	LOCATION
24 07 51	L	(MATSUS)
09 09	L	OFF MIYAZAKI PREF
09 27	U	(MIYAZA)
10 50	U	OFF MIYAZAKI PREF
12 34	U	E OFF HOKKAIDO
13 45	U	(KYOTO)
13 50	U	OFF TOKACHI
14 05	U	(KUSHIR)
17 45	U	(KUSHIR)
18 57	U	UK
19 50	U	OFF SANRIKU
21 50	U	E OFF HOKKAIDO
22 10	U	TOHOKU
22 26	S	OFF FUKUSHIMA PREF
23 09	U	E OFF HOKKAIDO
25 03 27	U	TOHOKU
05 20	U	NEAR NIIGATA
05 30	U	(KYOTO)
07 03	U	OFF SANRIKU
08 02	U	OFF SANRIKU
08 04	L	NEAR WAKAYAMA
08 43	U	TOHOKU
09 35	L	SW OF IBARAKI PREF
10 06	U	OFF SANRIKU
10 12	U	OFF SANRIKU
15 55	L	E OFF HOKKAIDO
16 41	L	(MATSUS)
17 35	U	(URAKAW)
18 41	U	E OFF HOKKAIDO
20 46	U	OFF SANRIKU
20 55	U	(WAKAYA)
21 37	U	(KUSHIR)
23 04	U	E OFF HOKKAIDO
23 51	U	E OFF HOKKAIDO
26 00 06	L	(MATSUS)
00 18	U	E OFF HOKKAIDO
01 54	U	OFF URAKAWA
02 13	U	OFF URAKAWA
03 08	U	HOKKAIDO
03 24	U	TOHOKU
03 59	L	(MATSUS)
05 24	U	OFF SANRIKU
05 41	U	OFF SANRIKU
5 44	U	E OFF HOKKAIDO
08 28	L	E OFF HOKKAIDO
11 39	U	(KUSHIR)
15 27	U	E OF SHIZUOKA PREF
20 37	L	(MATSUS)
27 01 24	U	MIDDLE OF TOCHIGI PREF
05 36	S	MIDDLE OF SHIZUOKA PREF
05 43	U	E OFF HOKKAIDO
08 39	U	OFF SANRIKU
09 10	U	E OFF HOKKAIDO
10 10	U	E OFF HOKKAIDO
10 14	U	E OFF HOKKAIDO
10 18	U	E OFF HOKKAIDO
10 28	U	E OFF HOKKAIDO
10 55	L	E OFF HOKKAIDO
11 30	U	E OFF HOKKAIDO
11 31	U	E OFF HOKKAIDO
12 26	U	E OFF HOKKAIDO
12 33	U	E OFF HOKKAIDO
12 44	U	OFF URAKAWA
13 09	U	(KAKIOK)
18 42	U	OFF URAKAWA
19 46	U	E OFF HOKKAIDO

International Seismological Centre From the ISC collection scanned by SISMOS

(JST) DATE, D	TIME H	M	C	LOCATION
28	02	59	L	NEAR WAKAYAMA
	03	01	U	(WAKAYA)
	03	05	U	(WAKAYA)
	03	06	U	E OFF HOKKAIDO
	04	25	U	S OFF HONSHU
	04	51	U	(WAKAYA)
	04	51	U	SE OFF BOSO PEN
	05	03	U	(WAKAYA)
	05	07	U	(WAKAYA)
	05	54	U	(KUSHIR)
	06	04	L	N OF IWATE PREF
	12	50	U	TOHOKU
	16	56	U	(AOMORI)
	17	17	U	(WAKAYA)
	20	02	U	NEAR HIROO
	20	45	U	OFF FUKUSHIMA PREF
	22	06	U	(NAHA)
	23	54	U	E OFF HOKKAIDO
29	01	16	U	E OFF HOKKAIDO
	01	41	U	E OFF HOKKAIDO
	04	07	U	OFF URAKAWA
	05	27	U	(URAKAW)
	05	44	U	(URAKAW)
	06	35	U	E OFF HOKKAIDO
	07	09	U	E OFF HOKKAIDO
	08	14	U	UK
	10	02	U	E OFF HOKKAIDO
	12	09	U	E OFF HOKKAIDO
	13	22	U	OFF IBARAKI PREF
	16	56	U	(ONAHAM)
	19	14	L	OFF IWATE PREF
30	07	26	L	NEAR MATSUSHIRO
	11	57	L	(MATSUS)
	12	50	U	OFF IWATE PREF
	14	49	U	E OFF HOKKAIDO
	15	53	U	E OFF HOKKAIDO
	16	12	R	E OFF HOKKAIDO
	16	23	U	E OFF HOKKAIDO
	16	28	U	E OFF HOKKAIDO
	16	41	U	E OFF HOKKAIDO
	16	54	R	E OFF HOKKAIDO
	17	28	R	E OFF HOKKAIDO
	17	32	U	(KUSHIR)
	17	38	U	E OFF HOKKAIDO
	17	45	U	E OFF HOKKAIDO
	17	48	U	E OFF HOKKAIDO
	19	02	U	E OFF HOKKAIDO
	19	12	U	(KUSHIR)
31	03	41	U	E OFF HOKKAIDO
	08	55	U	(KUSHIR)
	10	00	U	E OFF HOKKAIDO
	11	51	S	E OFF HOKKAIDO
	12	15	L	E OFF HOKKAIDO
	12	29	U	(KUSHIR)
	18	26	U	NEAR YAKUSHIMA
	20	18	S	W OF NAGANO PREF
	20	27	U	E OFF HOKKAIDO
	21	24	U	(KUSHIR)
	22	29	L	W OF NAGANO PREF
	22	42	U	W OF NAGANO PREF

LIST 4 EARTHQUAKE ORIGINS

(JST) DATE, D	TIME H	M	C	LOCATION	ORIGIN TIME M	S	+/-S	LONG.	+/-	LAT.	+/-	C = CLASS H KM	M
1	06	15	L	OFF IWATE PREF	15	31.7	0.2	142	15 01	39	03 00	40	3.8
	19	19	U	OFF MIYAZAKI PREF	19	28.3	1.5	131	53 06	32	13 04	00	4.1
2	08	07	U	OFF SANRIKU	07	04.2	1.9	143	33 10	40	11 06	50	4.3
	08	44	R	S OF KURILE IS	43	45.5	1.7	151	04 10	44	46 08	60	5.8
	09	35	U	S OF KURILE IS	34	21.1	1.7	150	54 10	44	30 11	20	5.3
4	03	17	U	OFF KUSHIRO	17	33.7	0.9	144	01 04	42	26 03	00	4.2
	23	12	S	OFF IWATE PREF	12	42.5	0.8	142	06 06	40	04 02	40	4.0
5	02	25	U	BANDA SEA	19	19.6		125	18	- 5	42	521	6.2
	11	18	U	MOLUCCA PASSAGE	13	09.6		126	12	1	18	34	7.0
6	03	34	M	E OF FUKUSHIMA PREF	34	31.7	0.2	140	49 02	37	22 01	110	
	17	40	S	SE OF HACHIJOJIMA	40	30.5	0.9	140	50 04	32	25 03	70	
	19	21	U	OFF FUKUSHIMA PREF	21	33.7	0.4	141	05 04	37	34 02	80	
9	05	51	U	BANDA SEA	44	21.0		129	42	- 6	06	196	5.9
11	12	31	S	MIDDLE OF CHIBA PREF	31	01.2	0.2	140	12 01	35	34 01	80	
	20	28	L	NEAR MATSUSHIRO	28	53.0	0.2	138	03 01	36	24 01	00	
	20	45	L	NEAR MATSUSHIRO	45	34.3	0.1	138	07 01	36	26 00	00	
12	04	51	U	OFF IWATE PREF	51	08.0	0.8	142	29 04	40	08 01	30	3.7
	06	08	U	E OFF HOKKAIDO	07	56.3	1.1	147	35 05	43	18 06	00	4.7
	06	22	U	E OFF HOKKAIDO	21	42.1	2.6	148	27 14	43	12 10	60	4.6
	06	27	R	E OFF HOKKAIDO	26	32.6	1.2	148	11 07	43	06 05	50	
	06	28	R	E OFF HOKKAIDO	27	39.1	1.8	147	37 09	42	42 07	30	7.8
	07	42	S	E OFF HOKKAIDO	41	57.7	2.2	147	32 12	43	23 16	70	
	07	54	R	E OFF HOKKAIDO	54	02.9	1.8	148	05 09	43	22 08	50	5.6
	08	03	M	E OFF HOKKAIDO	02	55.9	1.8	147	41 10	43	12 07	100	
	08	34	U	E OFF HOKKAIDO	34	06.5	2.2	148	17 12	43	34 14	60	5.3
	08	39	M	E OFF HOKKAIDO	39	25.7	1.4	146	59 07	42	56 05	10	5.3
	08	43	U	E OFF HOKKAIDO	42	03.9	2.0	147	41 12	43	10 14	60	5.2
	09	19	S	E OFF HOKKAIDO	19	04.8	1.4	147	02 08	42	55 07	40	4.8
	09	53	M	E OFF HOKKAIDO	53	34.8	1.8	147	19 10	42	56 06	60	5.3
	10	03	S	E OFF HOKKAIDO	02	59.0	2.9	147	56 15	43	07 14	60	5.3
	11	07	U	E OFF HOKKAIDO	06	42.8	2.2	147	49 12	42	48 06	50	4.8
	11	35	U	E OFF HOKKAIDO	34	43.5	3.1	147	08 18	42	48 06	50	4.8
	12	09	U	E OFF HOKKAIDO	09	17.4	1.9	147	31 11	43	09 05	50	4.8
	12	19	U	E OFF HOKKAIDO	18	42.0	2.8	148	46 15	43	32 18	70	
	12	34	S	E OFF HOKKAIDO	33	36.9	1.7	147	42 10	42	57 05	60	5.5
	13	13	M	E OFF HOKKAIDO	12	49.2	1.5	146	54 08	43	28 07	50	4.9
	13	48	U	E OFF HOKKAIDO	48	25.1	2.1	147	53 13	42	52 06	110	
	13	54	M	E OFF HOKKAIDO	53	35.5	1.5	147	42 08	43	10 05	70	
	14	03	R	E OFF HOKKAIDO	03	26.5	1.9	148	16 10	42	58 05	70	
	14	09	M	E OFF HOKKAIDO	08	58.0	3.6	147	15 18	42	33 12	30	5.2
	14	54	R	E OFF HOKKAIDO	53	33.7	1.8	148	03 10	43	19 06	70	
	15	39	S	E OFF HOKKAIDO	38	53.2	3.7	147	18 20	42	52 16	60	5.0
	15	49	S	E OFF HOKKAIDO	49	28.7	1.4	146	43 07	42	54 03	00	4.9
	16	11	U	E OFF HOKKAIDO	10	45.3	1.3	147	55 07	43	27 05	70	
	16	38	S	E OFF HOKKAIDO	38	12.6	0.9	147	57 05	43	46 05	40	5.1
	16	55	M	E OFF HOKKAIDO	54	44.4	0.9	147	13 05	42	41 03	50	5.4
	18	26	M	E OFF HOKKAIDO	25	40.6	1.1	147	13 06	42	56 03	10	5.5
	18	34	M	E OFF HOKKAIDO	33	43.5	1.4	147	37 07	43	12 04	60	5.3
	20	22	R	E OFF HOKKAIDO	21	21.6	1.4	148	52 08	43	13 05	50	5.9
	20	57	M	E OFF HOKKAIDO	56	59.9	2.0	147	46 11	43	27 09	70	
	21	32	U	E OFF HOKKAIDO	31	42.2	3.0	148	19 17	42	38 08	70	
	21	44	U	E OFF HOKKAIDO	44	34.7	2.5	147	21 12	43	34 12	00	4.5
	22	18	R	E OFF HOKKAIDO	18	06.1	2.5	148	32 13	43	10 09	90	
13	02	46	L	MIDDLE OF TOCHIGI PREF	46	51.8	0.2	139	44 01	36	38 01	10	4.2
	03	20	L	MIDDLE OF TOCHIGI PREF	20	20.8	0.3	139	41 01	36	39 01	00	3.9
	04	20	U	E OFF HOKKAIDO	20	37.0	1.7	147	19 09	43	04 07	60	4.7
	06	16	M	E OFF HOKKAIDO	16	08.0	1.5	147	10 08	42	42 04	60	5.4
	08	06	R	E OFF HOKKAIDO	05	53.6	2.9	148	19 17	43	02 07	80	
	11	07	U	E OFF HOKKAIDO	07	07.8	2.8	148	53 16	43	14 12	70	
	12	29	S	E OFF HOKKAIDO	29	16.6	1.3	147	08 07	43	08 04	20	5.3
	13	28	U	E OFF HOKKAIDO	28	26.9	1.9	147	09 10	43	30 09	10	4.9
	14	55	U	E OFF HOKKAIDO	54	54.2	1.6	147	59 08	43	42 08	50	5.1

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(JST) DATE,TIME D	H	M	C	LOCATION	ORIGIN TIME M	S	+/-S	LONG.	+/-	LAT.	+/-	H KM	C = CLASS M
13	15	10	M	E OFF HOKKAIDO	10	26.8	2.2	147 26 11		43 35 12		20	5.0
	16	24	U	E OFF HOKKAIDO	24	01.0	1.5	147 36 08		43 07 06		60	5.1
	17	32	M	E OFF HOKKAIDO	31	33.2	1.5	147 56 08		43 31 06		50	5.7
	21	28	S	OFF FUKUSHIMA PREF	28	40.3	0.4	141 53 02		37 18 01		50	3.9
14	02	07	M	E OFF HOKKAIDO	07	08.2	3.0	147 22 17		42 47 07		40	5.1
	03	48	U	E OFF HOKKAIDO	48	11.8	2.2	146 38 10		43 13 07		10	4.1
	04	34	U	E OFF HOKKAIDO	33	41.6	2.0	147 14 10		43 21 07		00	5.0
	07	57	R	E OFF HOKKAIDO	57	08.9	1.4	148 23 07		43 38 05		50	5.8
	12	07	U	E OFF HOKKAIDO	07	29.9	1.5	147 42 08		43 10 06		50	4.9
	13	48	U	E OFF HOKKAIDO	47	49.0	1.6	148 08 09		43 07 06		50	5.0
	18	00	U	E OFF HOKKAIDO	59	47.5	1.3	147 51 06		43 05 04		50	4.7
	20	51	U	E OFF HOKKAIDO	51	12.0	2.2	147 36 12		42 58 06		60	4.8
	21	40	U	S OFF CHIBA PREF	40	08.2	0.4	140 03 03		34 50 02		70	
	22	32	U	E OFF HOKKAIDO	31	41.6	1.8	147 28 09		43 07 07		60	4.7
	23	19	R	E OFF HOKKAIDO	19	01.2	1.2	147 15 06		42 54 03		00	6.2
15	00	28	U	E OFF HOKKAIDO	27	44.6	3.1	147 56 17		42 30 08		70	
	00	38	U	E OFF HOKKAIDO	38	19.7	1.1	147 12 06		43 00 04		00	4.9
	01	28	U	E OFF HOKKAIDO	27	41.8	2.4	148 19 13		43 11 08		40	4.9
	01	59	U	E OFF HOKKAIDO	58	45.1	3.2	146 56 17		42 45 08		00	4.8
	02	06	S	E OFF HOKKAIDO	05	54.9	1.5	147 25 08		42 42 05		50	4.9
	05	16	U	E OFF HOKKAIDO	15	40.5	1.9	147 39 10		43 03 06		60	4.8
	06	56	S	E OFF AOMORI PREF	56	35.3	1.1	142 28 07		40 38 02		60	4.3
	07	13	U	E OFF HOKKAIDO	12	23.8	1.9	148 46 10		43 19 08		50	5.1
	09	37	L	SE OF SAITAMA PREF	37	36.2	0.2	139 31 02		35 49 02		90	
	13	32	R	E OFF HOKKAIDO	32	02.8	1.7	147 24 09		42 50 06		10	5.6
	15	19	M	E OFF HOKKAIDO	18	29.8	1.8	148 30 10		43 12 12		60	5.3
	17	44	U	MARIANA IS	41	54.9	0.0	143 00		21 36		319	6.1
	18	48	L	S OF TOCHIGI PREF	47	58.6	0.1	139 32 01		36 18 01		120	
	18	48	U	E OFF HOKKAIDO	47	56.9	1.7	147 15 09		43 02 07		00	4.9
	19	02	U	E OFF HOKKAIDO	02	16.0	2.3	148 11 13		42 45 06		90	
	19	34	U	E OFF HOKKAIDO	34	03.1	2.0	147 11 10		42 53 06		00	4.5
	20	30	U	E OFF HOKKAIDO	29	47.5	2.9	148 25 16		42 53 09		50	4.9
16	00	24	U	OFF MIYAGI PREF	23	59.3	0.8	142 18 05		38 41 01		40	3.6
	05	06	U	E OFF HOKKAIDO	06	17.2	2.3	147 52 13		43 16 11		50	4.8
	05	48	M	E OFF HOKKAIDO	47	44.8	1.8	147 06 09		43 02 06		30	5.1
	07	44	M	E OFF HOKKAIDO	43	47.1	1.3	147 25 07		42 53 04		50	5.2
	12	28	U	E OFF HOKKAIDO	28	03.2	0.7	147 39 04		43 00 04		40	4.8
	12	39	L	S OF IBARAKI PREF	39	37.1	0.3	139 57 02		36 00 02		50	3.6
	17	48	M	E OFF HOKKAIDO	47	47.6	1.5	147 38 08		42 51 05		60	5.0
	18	03	R	E OFF HOKKAIDO	03	14.7	1.5	148 23 09		43 38 06		60	5.2
	22	13	U	E OFF HOKKAIDO	12	38.4	2.6	147 36 13		42 53 09		50	4.4
17	00	15	R	E OFF HOKKAIDO	15	31.1	1.0	147 25 06		42 53 03		60	5.9
	01	11	L	E OF GUNMA PREF	11	26.5	0.2	139 20 01		36 38 01		20	3.5
	02	14	M	E OFF HOKKAIDO	13	41.6	1.1	147 34 06		42 52 03		60	5.5
	03	34	U	SAGAMI BAY	33	48.6	0.2	139 23 02		35 11 01		120	
	03	53	L	OFF IWATE PREF	52	55.3	0.6	142 07 03		40 11 01		30	3.6
	06	05	U	E OF KANAGAWA PREF	05	07.0	0.2	139 38 02		35 27 01		90	
	14	52	U	E OFF HOKKAIDO	52	18.9	1.2	147 17 06		43 07 05		10	4.2
	17	05	U	S OFF CHIBA PREF	05	06.4	1.2	140 11 08		34 46 04		80	
	20	55	R	OFF TOMAKOMAI	54	54.3	0.2	141 31 02		42 35 01		140	
18	03	09	U	E OFF HOKKAIDO	09	08.8	1.9	147 30 10		43 03 05		60	4.8
	14	26	M	OFF BOSO PEN	25	46.9	0.6	140 45 03		34 01 02		60	5.2
	18	28	U	OFF TOKACHI	28	02.8	1.9	144 17 05		41 47 07		00	4.4
	20	44	U	E OFF HOKKAIDO	43	34.7	1.6	148 04 09		43 27 07		60	5.3
	22	47	U	E OFF HOKKAIDO	47	25.9	1.2	146 58 06		42 52 04		00	4.4
19	17	16	U	E OFF IBARAKI PREF	15	58.2	0.8	142 10 04		36 12 04		50	4.1
	17	50	R	E OFF HOKKAIDO	49	53.2	1.4	148 16 08		43 20 06		80	
	18	30	U	E OFF HOKKAIDO	30	14.5	2.3	148 00 12		43 16 08		60	4.6
	21	16	U	OFF FUKUSHIMA PREF	16	09.3	0.8	141 53 03		37 43 02		30	3.8
20	08	36	U	E OFF HOKKAIDO	36	29.3	1.7	147 42 08		42 56 06		60	4.7
	19	12	U	E OFF HOKKAIDO	12	02.3	2.0	147 49 10		43 06 07		50	4.4
	23	21	U	E OFF AOMORI PREF	20	52.0	0.7	143 06 04		40 49 02		00	4.3
21	01	34	U	OFF SANRIKU	33	43.7	2.1	144 21 13		39 33 06		60	4.8

(JST) DATE,TIME D	H	M	C	LOCATION	ORIGIN TIME M	S	+/-S	LONG.	+/-	LAT.	+/-	H KM	C = CLASS M
21	03	20	L	OFF IBARAKI PREF	20	37.6	0.7	141 06 04		36 23 02		40	3.7
	04	23	U	OFF URAKAWA	23	32.6	0.5	143 08 04		41 28 01		80	
	09	29	U	E OFF HOKKAIDO	28	33.1	2.8	148 18 16		43 20 13		60	5.1
	11	44	U	E OFF HOKKAIDO	43	58.8	2.3	147 34 12		42 49 06		60	5.2
	12	32	R	E OFF HOKKAIDO	32	08.5	1.3	147 06 07		42 53 04		10	5.4
	13	47	S	E OFF HOKKAIDO	47	23.8	1.5	147 36 08		42 53 05		60	5.1
	16	51	M	E OFF HOKKAIDO	51	32.0	1.7	147 14 09		43 33 08		50	5.2
	19	07	U	SW OFF HOKKAIDO	06	36.8	2.2	138 57 10		41 34 08		60	4.7
	22	22	S	OFF IBARAKI PREF	21	53.3	0.3	141 07 02		36 23 01		40	4.7
	22	24	U	E OFF HOKKAIDO	24	04.5	1.8	147 44 09		43 05 07		50	5.1
	22	41	U	OFF IBARAKI PREF	41	33.9	0.9	141 03 04		36 24 03		40	3.2
22	01	28	L	NEAR MATSUSHIRO	28	45.2	0.1	138 18 00		36 32 00		10	4.0
	02	15	U	E OFF SANRIKU	14	28.0	0.3	144 32 02		39 36 01		80	
	13	40	S	E OFF HOKKAIDO	40	26.2	1.7	147 30 09		42 53 06		10	4.8
	14	30	U	E OFF HOKKAIDO	30	11.9	2.6	148 09 13		43 16 10		50	4.6
	16	12	S	E OFF HOKKAIDO	12	33.0	1.5	146 17 08		43 36 04		00	4.7
23	11	54	U	OFF SANRIKU	54	19.4	1.1	144 08 06		39 47 03		40	4.8
	12	49	U	OFF SANRIKU	49	26.8	0.6	144 29 04		39 42 02		70	
	15	39	U	OFF SANRIKU	39	21.4	0.5	144 28 03		39 45 02		60	5.3
24	04	57	U	OFF SANRIKU	56	43.9	0.6	144 28 03		39 38 02		70	
	09	09	L	OFF MIYAZAKI PREF	09	21.8	0.6	132 09 02		31 58 02		00	4.7
	19	50	U	OFF SANRIKU	50	17.4	1.9	144 21 11		39 35 05		90	
	22	26	S	OFF FUKUSHIMA PREF	26	43.4	0.6	141 08 04		37 00 02		90	
25	07	03	U	OFF SANRIKU	03	00.4	0.5	144 36 03		39 43 01		80	
	08	04	L	NEAR WAKAYAMA	04	24.7	0.8	135 12 02		34 08 03		20	3.5
	09	35	L	SW OF IBARAKI PREF	35	25.9	0.3	140 06 02		36 21 03		80	
	10	06	U	OFF SANRIKU	06	17.8	0.8	144 30 04		39 42 02		70	
	10	12	U	OFF SANRIKU	12	03.3	0.6	144 27 03		39 44 02		70	
	23	04	U	E OFF HOKKAIDO	04	07.4	1.0	147 03 05		43 11 04		40	4.7
26	05	24	U	OFF SANRIKU	23	43.6	2.9	144 06 14		39 29 06		40	4.5
	05	41	U	OFF SANRIKU	41	19.9	3.2	144 54 14		39 32 10		80	
	15	27	U	E OF SHIZUOKA PREF	26	57.0	0.3	138 56 03		35 11 02		30	3.1
27	05	36	S	MIDDLE OF SHIZUOKA PREF	36	49.2	0.3	138 03 02		35 01 02		40	3.7
	08	39	U	OFF SANRIKU	39	04.6	0.8	144 22 05		39 53 02		100	
	10	10	U	E OFF HOKKAIDO	10	19.4	2.5	148 23 14		42 55 10		60	5.2
	10	28	U	E OFF HOKKAIDO	28	26.3	3.2	148 23 18		42 54 08		60	4.9
	12	26	U	E OFF HOKKAIDO	26	06.7	2.3	148 15 13		42 48 07		50	5.4
	19	46	U	E OFF HOKKAIDO	45	39.8	1.6	147 35 08		43 14 07		10	4.6
28	03	06	U	E OFF HOKKAIDO	05	47.4	2.5	145 53 13		42 43 08		60	4.3
	04	51	U	SE OFF BOSO PEN	50	56.2	0.6	141 31 03		34 42 02		60	4.8
	06	04	L	N OF IWATE PREF	04	08.7	0.2	141 47 02		40 03 01		60	3.6
	20	45	U	OFF FUKUSHIMA PREF	45	08.7	0.5	142 16 02		37 04 01		40	4.6
	23	54	U	E OFF HOKKAIDO	53	42.9	2.9	147 42 15		43 22 11		70	
29	01	16	U	E OFF HOKKAIDO	15	38.5	2.9	148 46 15		43 08 10		60	4.6
	06	35	U	E OFF HOKKAIDO	35	19.1	1.5	147 32 08		42 53 05		00	5.1
	10	02	U	E OFF HOKKAIDO	02	01.5	2.8	147 18 15		42 52 07		00	4.2
	12	09	U	E OFF HOKKAIDO	09	03.4	2.3	148 04 12		42 52 08		50	5.1
	13	22	U	OFF IBARAKI PREF	22	22.4	0.6	142 14 03		36 41 02		40	4.1
	19	14	L	OFF IWATE PREF	13	57.1	0.3	142 08 02		39 43 01		40	3.8
30	15	53	U	E OFF HOKKAIDO	52	30.3	1.9	148 16 10		43 26 10		70	
	16	12	R	E OFF HOKKAIDO	11	33.1	2.9	148 27 17		43 22 10		100	
	16	54	R	E OFF HOKKAIDO	54	28.2	1.1	146 35 06		43 06 03		40	5.4
	17	28	R	E OFF HOKKAIDO	28	01.2	1.5	148 15 08		43 01 05		50	5.5
31	11	51	S	E OFF HOKKAIDO	50	58.4	3.3	145 42 18		42 52 10		60	4.1
	20	18	S	W OF NAGANO PREF	18	19.3	0.2	137 43 01		36 12 01		10	4.7

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LIST 5 DATA OF EARTHQUAKES

I = SEISMIC INTENSITY * = MICRON

OT= 1 6 15 31.7 +/- 0.2 (JST)
OFF IWATE PREF
LAT= 39 3 +/- 0 LONG= 142 15 +/- 1
H= 40 MAG=3.8 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
OFUNAT	1	IP	06	15	42.4	IS	15	48.8	58	0.0	28	0.4	18	0.0	N 1 E	6	D 9	46.0	06.4
MIYAKO	1	IP	06	15	44.6	IS	15	52.6	24	0	17	0	10	0	S 2		D 3	70.4	08.0
ISHINO	0	IP	06	15	49.9	IS	16	01.0	11	0.4	8	0.6	2	0.8			D 1	107.6	11.1
MORIOK	0	IP	06	15	51.2	S	16	04.0	9	0.4	10	0.4	2	0.4	S 1 E	1	D 0	117.6	12.8
SENDAI	0	EP	06	15	55.6	ES	16	10.8	4	0.8	5	1.0	2					146.6	15.2
MATSUS	0	P	06	16	35													452.0	

OT= 1 19 19 28.3 +/- 1.5 (JST)
OFF MIYAZAKI PREF
LAT= 32 13 +/- 4 LONG= 131 56 +/- 6
H= 0 MAG=4.1 CLASS=U

NOBEOK	0	P	19	19	36.0	S	19	47.3							S 2 E	2	D 3	44.8	11.3
MIYAZA	0	IP	19	19	39.8	S	19	49.0	30	1.0	32	0.9	18	0.6				54.4	09.2
OITA	0	EX	19	19	51.6				20	0.7	23	0.9	15	1.1				115.3	
KUMAMO	0	IP	19	19	53.3	IS	20	13.7	17	1.0	20	1.1	10	1.1	S 3 E	5	D 6	128.3	20.4
ASHIZU	0	EP	19	19	55.0	ES	20	05.7	5	0.8			3	0.7				120.1	10.7

OT= 2 8 7 4.2 +/- 1.9 (JST)
OFF SANRIKU
LAT= 40 11 +/- 6 LONG= 143 33 +/-10
H= 50 MAG=4.3 CLASS=U

HACHIN	0	P	08	07	30.4	ES	07	50.0	6	0.2	5	0.2					D	176.2	19.6
MORIOK	0	P	08	07	35.7	S	07	58.3	11	0.4	9	0.4	2	0.3			U 0	210.6	22.6
URAKAW	0	EP	08	07	38	S	07	59.2	3	0.2	5	0.4						228.7	21.2
AOMORI	0	EP	08	07	45	ES	08	02	9	1.6	12	1.1	4	0.9				244.8	17.0
KUSHIR	0	S	08	08	16.0				11	0.2	12	0.3	4	0.3				318.4	
MATSUS	0	IP	08	08	28.2										S		D	617.5	

OT= 2 8 43 45.5 +/- 1.7 (JST)
S OF KURILE IS
LAT= 44 46 +/- 8 LONG= 151 4 +/-10
H= 60 MAG=5.8 CLASS=R

NEMURO	0	EP	08	44	48	ES	45	38	36	3.8	28	2.8	31	3.2				467.4	50.0
ABASHI	0	EP	08	45	00	S	46	00.0	51	3.6	32	3.0	21	3.2				546.9	60.0
KUSHIR	0	EP	08	45	03	ES	46	02	84	0.6	71	1.3	32	4.0				571.8	59.0
OBIHIR	0	EP	08	45	16	ES	46	30										663.3	74.0
HIROO	1	P	08	45	17.8	ES	46	39			200							684.4	81.2
ASAHIK	0	EP	08	45	21				31	2.4	35	2.0						702.7	
URAKAW	0	IP	08	45	22.8	ES	46	39	300	2.4	400	2.8	140	2.8	S	W	U	730.3	76.2
WAKKAN	0	IP	08	45	26.0	S	46	38.0	26	5.3	21	5.2	24	3.1			U 1	742.0	72.0
RUMOI	0	EX	08	45	29													757.3	
SAPPOR	0	P	08	45	32.6	ES	46	55	68	2.4	89	2.4	31	2.8				804.3	82.4
MURORA	0	EP	08	45	38	ES	47	03										858.7	85.0
HAKODA	0	IP	08	45	42.2	ES	47	12	36	3.4	25	2.8	21	3.0		W	U	898.0	89.8
HACHIN	0	IP	08	45	44.2	ES	47	14.8	14	2.7	11	2.8	7	2.8			D	912.7	90.6
AOMORI	0	EP	08	45	50	ES	47	28	120	3.1	100	2.7	30	2.0				948.1	98.0
MORIOK	0	EP	08	45	53.6	X	47	28.6	8	2.7	9	3.0	6	4.1				991.4	
						EL	49	30											
OFUNAT	0	EP	08	45	57.0	S	47	34.6	6	1.0	6	2.2	6	1.2				1000.5	97.6
AKITA	0	EP	08	46	04.6	S	47	56.4	35	3.0	33	4.0	24	3.4			D 4	1063.4	111.8
ISHINO	0	EP	08	46	05.4	ES	47	49.8	9	3.0	9	3.4	8	2.8	N 2 E	1	U 2	1075.2	104.4
SENDAI	0	EP	08	46	10													1113.3	
SAKATA	0	EX	08	46	12.6													1136.1	
									11	0.7	5	0.8	3	3.2					
FUKUSH	0	EX	08	46	19.2													1179.0	
NIIGAT	0	EX	08	46	26.0				34	3.5	36	3.2	14	4.0				1259.4	
MITO	0	EX	08	46	32.4	ES	48	40.0	17	3.6	15	3.0	11	3.1				1291.2	

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KAKIOK	0	EX	08	46	35				8	1.1	7	1.1	3	0.8				1319.8	
ONAHAM	0	EX	08	46	41.1	X	48	25.4	8	1.2	9	1.5	8	1.8				1218.2	
KUMAGA	0	EP	08	46	43.0	ES	49	03.0	11	3.0	8	2.6	7	4.0				1375.1	140.0
MATSUS	0	P	08	46	45	S	49	18										1417.5	153.0
NAGANO	0	EP	08	46	47.0	X	49	41.0	5	3.8	7	3.5	5	2.5				1408.9	
TOKYO	0	EX	08	46	49	ES	49	06	13	3.0	18	4.0	15	3.6				1391.4	
WAJIMA	0	EX	08	46	50				5	1.4	10	1.4						1442.1	
TOYAMA	0	EP	08	46	53	ES	49	33	6	3.8	6	2.4	7	3.2				1470.3	160.0
KOFU	0	EP	08	46	54.0	ES	49	27.0	7	1.8	6	1.6	3	2.8				1464.9	153.0
KANAZA	0	EX	08	47	00						8	3.5	5	3.5				1519.5	
TATEYA	0	EX	08	47	02.5				17	2.1	16	3.5	10	2.9				1445.6	
HAMAMA	0	EP	08	47	12	ES	50	12	9	3.8	7	3.8	3	1.6				1594.6	180.0
NAGOYA	0	EP	08	47	13.6	ES	49	58.4	7	2.8	7	2.8	2	2.0				1604.4	164.8
MIYAZA	0	X	08	47	14.0	X	52	37.0	7	0.8	7	1.0	4	3.0				2221.6	
KAGOSH	0	EX	08	47	23.3				7	2.4	7	2.2	3	2.0				2306.8	
TOYOOK	0	EP	08	47	23.7	X	50	00.4	7	16.3	6	16.3	4	15.7				1717.1	
OSAKA2	0	EP	08	47	26.9	EX	50	43.0										1731.9	
						EL	53	07											
OSAKA	0	EX	08	47	30.0				10	3.5	8	3.0	4	1.8				1735.7	
HAMADA	0	P	08	47	31.1	ES	51	32.8	5	3.8			5	3.8			U 0	1953.3	241.7
						EX	47	50.2											
						EL	54	18.6											
OITA	0	EX	08	47	40.6				26	5.6	24	5.6	11	3.2				2106.4	
KUMAMO	0	EP	08	47	45.1	ES	51	32.9			7	1.8	4	1.8				2200.8	227.8
OMAEZA	0	EP	08	47					8	3.2	11	2.6						1574.0	
FUKUOK	0	EP	08	48	13.0	ES	51	55.0	7	3.8	3	3.0	6	2.3				2166.5	222.0
NAGASA	0	EP	08	48	25.0	ES	52	20.0										2265.8	235.0

OT= 2 9 34 21.1 +/- 1.7 (JST)
S OF KURILE IS
LAT= 44 30 +/-11 LONG= 150 54 +/-10
H= 20 MAG=5.3 CLASS=U

NEMURO	0	P	09	35	23.8	ES	36	15	14	4.0	8	3.4	10	4.4			U	446.2	51.2
ABASHI	0	EP	09	35	35	S	36	35.0	14	4.4	16	4.0	7	4.4				531.1	60.0
KUSHIR	0	EP	09	35	40	X	36	25	18	1.0	19	1.6	12	4.6				550.6	
OBIHIR	0	EP	09	35	50													643.1	
ASAHIK	0	EP	09	35	57				7	1.5	9	1.9						687.0	
URAKAW	0	P	09	35	57.6	S	37	15.4	76	2.2	66	2.4	30	2.2				707.9	77.8
WAKKAN	0	EX	09	36	01				7	5.5	9	4.6	12	4.1				734.1	
SAPPOR	0	EP	09	36	07	ES	37	39	14	2.2	20	2.4	13	4.8				786.5	92.0
HAKODA	0	EP	09	36	17	ES	37	54	13	3.8	7	3.2	9	4.4				876.7	97.0
AKITA	0	EX	09	36	38				6	2.8	8	4.0	6	3.8				1038.0	
AOMORI	0	X	09	36	48				19	2.2	16	1.6	8	2.9				924.2	
MATSUS	0	IP	09	37	21.7	S	39	52							N	E	D	1389.5	150.3
MITO	0	EX	09	37	23.0				5	3.5	5	3.2	3	2.0				1261.5	

OT= 4 3 17 33.7 +/- 0.9 (JST)
OFF KUSHIRO
LAT= 42 26 +/- 3 LONG= 144 1 +/- 4
H= 0 MAG=4.2 CLASS=U

KUSHIR	0	IP	03	17	48.5	IS	17	57.6	63	0.2	54	0.2	26	0.2			D 2	68.0	09.1
HIROO	0	IP	03	17	48.9	IS	17	56.9								W 2	U 2	60.0	08.0
OBIHIR	0	P	03	17	51.0	ES	18	02									D 2	84.7	11.0
URAKAW	0	P	03	17	53.6	S	18	11.0	20	0.6	31	0.4	6	1.2				106.5	17.4

OT= 4 23 12 42.5 +/- 0.8 (JST)
OFF IWATE PREF
LAT= 40 4 +/- 2 LONG= 142 6 +/- 6
H= 40 MAG=4.0 CLASS=S

MIYAKO	1	IP	23	12	52.7	IS	12	57.8	26	0.6	25	0	17	0	S 3	W 2	U 4	48.2	05.1
HACHIN	2	IP	23	12	55.1	IS	13	04.0	40	0.2	60	0.2			S 3	E	D 4	70.6	08.9
MORIOK	1	IP	23	12	58.4	IS	13	09.2	23	0.3	21	0.4	11	0.3	N 2	E 3	D 3	89.7	10.8
OFUNAT	0	EP	23	13	03.4	IS	13	14.5	21	0.0	7	0.0	4	0.4				116.3	11.1
AOMORI	0	EP	23	13	06	ES	13	17	6	1.1	7	1.1						139.3	11.0
ISHINO	0	P	23	13	13.2	IS	13	32.8	7	0.2	3	0.2	1	0.6				194.8	19.6
MATSUS	0	P	23	13	53													518.8	

International Seismological Centre From the ISC collection scanned by SISMOS

OT= 5 2 19 19.6 (JST) USCGS
BANDA SEA
LAT= -5 42 LONG= 125 18
H=521 MAG=6.2 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
YAKUSH	0	IP	02 25 40.8	ES	30 40.4	6	2.8	6	4.2	7	2.6	N 3	E 2	U 5	4033.7	299.6
KAGOSH	0	P	02 25 49.5	EX	30 48.0	10	2.6	11	2.0	10	2.4			U 8	4157.6	
MIYAZA	0	IP	02 25 57.4	S	31 10.6	9	0.8	20	3.2	21	2.4	N 5	E 4	U 15	4208.5	313.2
NAGASA	0	IP	02 25 59.3	S	31 14.0							N		U	4274.0	314.7
KUMAMO	0	IP	02 26 00.1	ES	31 15.4	10	1.7	11	1.8	8	1.7	N 8	E 2	D 7	4295.3	315.3
OITA	0	IX	02 26 03.2	X	30 57.4	16	2.4	11	2.8	16	2.5				4355.4	
ASHIZU	0	IP	02 26 04.4	ES	31 21.9	8	2.6	14	2.6	13	3.0	N 5	E 2	U 11	4324.4	317.5
FUKUOK	0	IP	02 26 06.0	ES	31 24	6	2.6	3	2.2	11	2.6	N 8	E 2	U 13	4375.3	318.0
MUROTO	0	P	02 26 08.4	EX	27 56.2			5	3.4	3	3.0				4406.4	
SHIMON	0	IP	02 26 09.7	EX	35 16.1	6	3.0	8	5.6	11	3.2	N 4	E 2	U 10	4423.9	
MATSUY	0	IP	02 26 11.5	ES	31 37.5	4	1.4	10	2.1	8	2.1	N 6	E 1	U 7	4441.7	326.0
SHIONO	0	EP	02 26 11.7	ES	31 39.9	10	3.1	18	4.4	12	2.4				4466.2	328.2
TATEYA	0	EX	02 26 12.3			11	2.5	9	1.7	8	3.8				4750.2	
HIROSH	0	P	02 26 14.0	ES	31 42.9	8	3.0	11	5.8	18	2.8	N 5	E 2	U 10	4492.3	328.9
				ESCS	35 17.2											
TAKAMA	0	IP	02 26 16.4	IS	31 47.1	8	2.4	11	3.0			N 8	E 4	U 7	4518.9	330.7
TOKUSH	0	EP	02 26 16.6	ES	31 45.9										4503.2	329.3
HAMADA	0	IP	02 26 17.5	S	31 47.4	7	4.4			8	1.8	N 4	E	U 9	4543.9	329.9
				SCS	35 20.0											
WAKAYA	0	P	02 26 18.2	S	31 50.0	11	3.0	18	3.1	11	3.0	N 10	E 2	U 10	4534.4	331.8
OKAYAM	0	IP	02 26 19.2	S	31 51.0	6	2.1	8	4.2	15	2.4	N 9	E 2	U 13	4555.2	331.8
				ESCS	35 21.0											
OSAKA2	0	IP	02 26 21.7	ES	31 53.0							N 5		U 11	4587.6	331.3
OSAKA	0	EP	02 26 22.1	ES	31 53.4	40	4.3	32	4.7	16	3.4				4591.3	331.3
MATSUE	0	EP	02 26 24.0	ES	32 00.0									U 11	4622.5	336.0
KYOTO	0	IP	02 26 25.1	S	32 02.0	8	2.7	11	3.6	13	2.2	N 7		U 12	4632.2	336.9
HIKONE	0	X	02 26 27.0	X	32 07.1										4673.0	
TOYOOK	0	IP	02 26 27.1	IS	32 06.6	28	1.0	27	4.4	16	3.5	N 13	E 3	U 11	4666.9	339.5
NAGOYA	0	IP	02 26 27.6	S	32 04.0	13	2.2	35	3.2	21	1.4			U 22	4680.6	336.4
				SCS	35 29.2											
SHIZUO	0	IP	02 26 29.0	S	32 09.5	9	2.5	8	2.2	19	2.5	N 6		U 15	4702.1	340.5
SAIGO	0	IP	02 26 29.4	S	32 10.8	15	2.4	14	3.5	16	2.7	N 2	E 0	U 3	4708.7	341.4
				X	31 10.1											
				ISCS	35 30.8											
GIFU	0	X	02 26 30.2			10	1.8	11	1.9						4699.8	
IIDA	0	IP	02 26 31.4	ES	32 14.0	10	3.2	8	2.0	11	2.2	N 6		U 11	4741.4	342.6
KOFU	0	IP	02 26 33.7	ES	32 19.4	14	2.3	14	2.2	15	2.6	N 11		U 15	4779.0	345.7
KAWAGU	0	P	02 26 34.5	S	32 07.5										4767.9	333.0
TOKYO	0	P	02 26 36	S	32 24										4818.9	348.0
MATSUM	0	P	02 26 37.4	ES	32 23.7									U	4822.5	346.3
KANAZA	0	IP	02 26 37.6	ES	32 12.2	11	3.2	14	4.3	20	3.0		W 9	U 18	4818.7	334.6
KUMAGA	0	EX	02 26 38.0	ES	32 26.4	9	2.8	9	3.6	6	4.0				4854.8	
KARUIZ	0	IP	02 26 38.5	ES	32 28.0							N 3		U 6	4849.4	349.5
MATSUS	0	IP	02 26 39.5	IS	32 28.0							N	E	U	4860.2	348.5
TOYAMA	0	IP	02 26 39.6	EX	32 28	24	4.0	50	3.6	27	3.6	N 6	W 5	U 13	4850.3	
KAKIOK	0	P	02 26 39.7	S	32 30.8	11	1.5	18	1.4	5	1.3	N 3	E 1	U 3	4889.7	351.1
NAGANO	0	P	02 26 40.7	ES	32 30.9	22	3.1	16		21	3.6	N 5	W 1	U 18	4872.7	350.2
MAEBAS	0	EP	02 26 43.5												4871.4	
MITO	0	IX	02 26 43.6	X	32 31.0	31	2.6	20	2.4	12	2.4				4914.1	
WAJIMA	0	IP	02 26 44.4	IX	32 38.4	25	4.0	19	3.6	25	2.4	N 15		U 24	4914.7	
ONAHAM	0	IP	02 26 49.2	S	32 47.7	63	4.0	39	2.3	39	2.4			U 2	4987.0	358.5
SHIRAK	0	IP	02 26 49.4	S	32 45.9							N 4	E 2	U 13	4982.3	356.5
AIKAWA	0	IP	02 26 51.3	EX	32 50.2	11	1.8	8	2.6	18	1.3	N	E	U	5017.0	
NIIGAT	0	IP	02 26 53.0	IS	32 55.8	55	3.6	65	2.9	43	2.5			U 40	5028.5	362.8
FUKUSH	0	P	02 26 54.2	S	32 57.0	25	3.0	21	3.0	14	3.0	N 12	E 3	U 14	5056.3	362.8
YAMAGA	0	IP	02 26 57.0	S	33 04.8							N 3	E 3	U 14	5103.7	367.8
SENDAI	0	IP	02 26 58.6	S	33 05.2	32	3.9	31	3.2	9	2.8	N 8	E 2	U 19	5122.0	366.6
				EX	27 34.2											
				ESCS	35 54.0											
ISHINO	0	EP	02 27 00.6	EX	33 08.0	19	3.0	15	4.2	18	3.6	N 17	E 13	U 23	5152.2	
SAKATA	0	EP	02 27 01.5												5155.5	
OFUNAT	0	IP	02 27 06.4	IS	33 18.7	10	2.0	9	3.0	12	2.6	N 5		U 12	5231.3	372.3
				SCS	36 00.6											
AKITA	0	IP	02 27 08.2	S	33 23.8	18	4.2	33	4.4	47	2.4	N 3	E	U 36	5248.3	375.6
MORIOK	0	IP	02 27 09.5	S	33 24.2	8	3.0	8	4.8	11	3.0	N 2	E 1	U 3	5278.8	374.7
				IX	27 18.5											
				X	28 28.6											
				X	31 31.2											
				X	36 02.2											
MIYAKO	0	EP	02 27 10.1	ES	33 26.5	4	2.2	8	2.8			N 6	E 1	U 6	5299.4	376.4
HACHIN	0	IP	02 27 15.4	S	33 35.8	6	3.7	11	4.2			N 2	E 1	U 3	5375.5	380.4
				SCS	36 08.1											
AOMORI	0	IP	02 27 17.3	S	33 38.9	28	2.2	30	2.5	29	1.9	N 14	E 0	U 31	5382.9	381.6
HAKODA	0	IP	02 27 22.7	IS	33 50.6	12	2.0	20	3.8	19	2.0	N 7	E 4	U 18	5485.7	387.9
MURORA	0	P	02 27 26.6	EX	33 56.7							N 4	E 2	U 10	5544.6	
SUTTSU	0	EP	02 27 28.6												5573.1	

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
URAKAW	0	P	02 27 30.2	S	34 06.5	11	3.0	17	5.6	21	3.0				5583.2	393.3
SAPPOR	0	IP	02 27 32.5	S	34 06.0	13	2.0	24	3.2	23	2.2			U 17	5631.8	393.5
				EX	36 25											
OBIHIR	0	X	02 27 36.2											U 12	5675.3	
KUSHIR	0	IP	02 27 38.6	IS	34 18.2	5	3.0	13	5.0	18	2.2		E 5	U 15	5720.0	399.6
RUMOI	0	EX	02 27 39												5733.1	
ASAHIK	0	EP	02 27 39	ES	34 20	7	1.7	9	1.9	13	1.6				5736.2	401.0
ABASHI	0	P	02 27 44.8	S	34 30.8	5	2.2	8	2.8	12	2.0				5821.4	406.0
WAKKAN	0	IP	02 27 50.0	EX	34 40	10	4.5	20	4.4	9	3.2			U 2	5886.6	
ISHIGA	0	EX	02 29 01.8			5	2.8	7	4.0						3320.5	
KORE	0	EX	02 31 56.4												4584.1	
UTSUNO	0	EX	02 32 34												4911.8	

OT= 5 11 13 9.6 (JST) USCGS
MOLUCCA PASSAGE
LAT= 1 18 LONG= 126 12
H= 34 MAG=7.0 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
ISHIGA	0	EP	11 18 12.9	S	22 30.0	30	8.6	20	6.2	16	4.8	N	E	D	2554.7	257.1
MUROTO	0	IP	11 18 41.4	X	19 27.6	5	3.0	5	3.0	7	4.0	N 0		U 1	3629.7	
YAKUSH	0	EP	11 19 10.8	EX	24 16.7	9	10.4	10	18.0	7	4.0				3254.4	
KAGOSH	0	EP	11 19 21.2			14	2.8	16	2.0	12	3.2				3378.2	
MIYAZA	0	P	11 19 26.0	S	24 40.8	25	4.8	11	6.6	10	5.0				3429.3	314.8
NAGASA	0	EP	11 19 31.5	X	19 50.0									U	3494.8	
KUMAMO	0	EP	11 19 32.9	ES	24 36.1	13	2.4	12	2.4	6	1.8				3516.0	303.2
ASHIZU	0	P	11 19 36.2	ES	24 51.2	10	5.5	6	5.5	8	4.9	N 2		U 2	3546.3	315.0
FUKUOK	0	P	11 19 38.0	ES	24 51.0	9	5.2	6	5.5	11	2.9	N 2		U 2	3596.1	313.0
SHIMON	0	EP	11 19 42.9			9	8.0	12	4.6	11	6.2			U 2	3644.5	
OITA	0	EX	11 19 44.2			26	3.5	39	5.5	16	4.1				3576.2	
MATSUY	0	EP	11 19 45.0	EX	24 17.2	17	6.1	13	6.1	4	6.1	N	E	U	3663.1	
SAGA	0	EP	11 19 45.7	EX	20 04.9										3558.3	
SHIONO	0	EP	11 19 47.0	ES	25 16.3	14	6.0	16	4.5	7	1.2				3692.3	329.3
HIROSH	0	EP	11 19 47.6	ES	25 16.7	14	5.8	10	4.6	12	3.2	N 1	E	U 3	3713.4	329.1
TAKAMA	0	EP	11 19 50.3	ES	25 13.6	10	25.1	8	16.8	2	0.6				3741.5	323.3
HAMADA	0	P	11 19 50.7	ES	25 22.0	4	5.0			6	4.2			U 2	3764.8	331.3
				X	30 21.0											
OWASE	0	EP	11 19 51.0	EX	21 26.0	9	5.0	8	3.0	6	4.0				3769.8	
WAKAYA	0	EX	11 19 51.5			8	3.2	14	4.0	8	3.6				3758.7	
OKAYAM	0	EP	11 19 52.6	ES	25 24	6	5.4	8	4.5	8	7.2	N 1		U 2	3777.6	331.4
OSAKA2	0	EP	11 19 55.5	ES	25 28.1										3812.6	332.6
				EL	28 06											
OSAKA	0	EP	11 19 55.7	ES	25 28.1	54	4.4	24	4.2	16	4.0				3816.0	332.4
				EL	28 07											
KYOTO	0	EP	11 19 59.0	ES	25 30.5	12	7.0	4	7.5	7	3.8				3857.1	331.5
HAMAMA	0	P	11 20 01.0	IX	25 43.0	29	6.0	16	4.0	14	2.2			U 2	3883.4	
TOYOOK	0	EP	11 20 01.4	ES	25 31.5	20	1.1	21	1.1	13	3.6	N		U	3890.0	330.1
NAGOYA	0	EP	11 20 02.8	ES	25 43.2	19	3.0	22	3.0	13	1.2			U 5	3907.8	340.4
				EX	30 33.2											
OMAEZA	0	EP	11 20 02.8			47	7.6	27	6.8	20	3.6				3888.5	
SHIZUO	0	IP	11 20 04.0	ES	25 43.2	15	8.0	6	3.9	13	3.3	N 1	E 1	U 1	3933.1	339.2
SAIGO	0	EP	11 20 04.0	EX	25 37.0			12	4.9	11	7.5				3930.1	
				EX	30 26.0											
GIFU	0	P	11 20 04.2	X	21 14.3	11	3.6	9	5.4						3926.4	
MISHIM	0	EP	11 20 06.3	EX	21 45.1	16	4.4	11	4.4	15	4.1				3965.1	
IIDA	0	EP	11 20 06.8	ES	25 56.8	13	7.4	6	4.4	8	5.2				3970.3	347.0
KOFU	0	IP	11 20 09.5	ES	25 55.9	14	2.6	11	2.2	16	5.0			U 3	4009.6	346.4
KUMAGA	0	EP	11 20 13.0	EX	22 05.0	16	6.4	13	4.0	18	5.0				4087.0	
KAWAGU	0	P	11 20 14.4	S	25 50.9										3999.2	336.5
MITO	0	EX	11 20 14.5			15	4.5	13	4.0	13	2.8				4149.0	
KARUIZ	0	EP	11 20 14.6	ES	26 05.5										4079.2	350.9
MATSUS	0	IP	11 20 14.9	S	25 58										4089.0	343.1
KANAZA	0	EX	11 20 15	EX	21 52.0	22	6.1	17	5.2	13	7.0	N		U	4044.2	
TOYAMA	0	EP	11 20 15	ES	26 05	27	6.0	23	7.0	20	4.2				4076.7	350.0
TOKYO	0	EX	11 20 16			24	5.4	29	5.2	30	4.4				4052.8	
NAGANO	0	EP	11 20 16.9	ES	26 03.0	36	5.7	22	5.3	21	5.3				4101.3	346.1
TATEYA	0	EX	11 20 18.2			28	5.0	23	8.0	23	4.5				3985.4	
WAJIMA	0	EP	11 20 20	EX	26 08	15	3.0	15	3.2	15	3.0				4140.1	
AIKAWA	0	EP	11 20 27.4			13	17.0	7	9.0	17	5.4				4244.4	
SAKATA	0	EX	11 20 30.3												4385.4	
FUKUSH	0	EP	11 20 32.0	S	26 35.0	21	7.0	11	6.0	17	3.0				4289.3	363.0
SENDAI	0	EP	11 20 37.0	ES	26 41.0	27	11.6	15	4.0	13	7				4355.4	364.0
ISHINO	0	EP	11 20 39.0	EX	26 55.0	20	6.8	11	5.6	14	6.0			U 3	4386.4	
OSHIMA	0	EX	11 20 40			12	10	16	21	8	4				3945.1	
OFUNAT	0	IP	11 20 45.2	ES	26 50.3	12	10.0	7	6.8	9	3.6			U 3	4465.7	365.1
AKITA	0	P	11 20 47.1	EX	27 00.0	30	8.0	27	7.4	24	5.2			U 5	4477.9	
MORIOK	0	P	11 20 48.5	S	27 01.5	14	8.4	6	8.4	8	7.0	N 0		U 0	4510.9	373.0
MIYAKO	0	EP	11 20 50.2	ES	27 04.9	15	7.5	5	4.7			N 1			4533.5	374.7
HACHIN	0	P	11 20 55.3	ES	27 16.8	16	6.0	10	8.4	8	4.2	N 1	W	U 1	4607.4	381.5

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
AOMORI	0	EP	11	20	57	S	27	20	32	1.8	23	2.5						4612,8	383,0
HAKODA	0	IP	11	21	03,7	ES	27	23	13	7.3	10	7.3	12	6.8	N 2	E 1	U 4	4714,5	379,3
URAKAW	0	P	11	21	12,1	S	27	44.9	32	6.6	31	6.2	20	4.2				4815,8	392,8
SAPPOR	0	P	11	21	14,3	ES	27	40	10	2.4	15	3.6	15	2.8				4860,5	385,7
						ESS	30	50											
OBIHIR	0	EX	11	21	18													4907,9	
KUSHIR	0	EP	11	21	21	ES	28	00	15	8.4	12	7.0	10	2.8				4955,1	399,0
ASAHIK	0	EP	11	21	22				7	1.5	6	1.3	10	1.7				4966,0	
NEMURO	0	P	11	21	25,6	ES	28	08	9	6.4	7	10.0	9	5.2			U	5034,0	402,4
ABASHI	0	EP	11	21	28	ES	28	12	8	6.0	9	5.0	7	3.4				5054,8	404,0
						EX	31	33											
WAKKAN	0	EX	11	21	33				29	5.2	16	6.3	15	5.7				5113,7	

OT= 6 3 34 31,7 +/- 0,2 (JST)
E OF FUKUSHIMA PREF
LAT= 37 22 +/- 1 LONG= 140 49 +/- 2
H=110 CLASS=M

FUKUSH	3	IP	03	34	49,3	IS	35	01.6	180	1.0	170	1.5	84	1.2	S 8	E 15	D 57	52,8	12,3
SHIRAK	2	IP	03	34	51,0	IS	35	03,7							N 7	E 2	D 39	59,3	12,7
SENDAI	2	IP	03	34	51,6	IS	35	05.2	200	2	300	1	100	0	N 0		D 12	99,4	13,6
ONAHAM	2	IP	03	34	51,8	IS	35	04.9	300	1.2	450	0.8	100	1.7	N 8		D 21	47,5	13,1
YAMAGA	0	IP	03	34	52,4	IS	35	07.4							S 6	E 4	D 23	106,6	15,0
ISHINO	2	IP	03	34	53,9	IS	35	09.0	139	0.8	157	1.0	39	1.0	N 11	E 7	U 11	125,0	15,1
MITO	2	IP	03	34	56,9	IS	35	14,4	235	1.0	173	0.5	103	0.9	N 3	E 2	D 20	113,9	17,5
UTSUNO	2	IP	03	34	57,4	IS	35	15,3										123,9	17,9
KAKIOK	2	IP	03	34	57,9	IS	35	16.1	168	0.6	112	0.7	84	0.5	N 10	E 6	D 9	137,7	18,2
NIIGAT	0	EP	03	35	00,0	IS	35	20.1	91	3.4	192	2.9	55	3.9				167,0	20,1
SAKATA	0	P	03	35	01,3	S	35	24,0	150	2.7	100							191,0	22,7
OFUNAT	1	IP	03	35	02,0	IS	35	22,9	59	1.4	76	0.8	28	1.4	N 4	E 2	U 5	204,0	20,9
MAEBAS	0	EP	03	35	04,0	IS	35	26,2										189,3	22,2
KUMAGA	1	P	03	35	04,0	S	35	27,4	47	1.2	60	1.4	43	2.6			D 3	186,2	23,4
CHICHI	0	EP	03	35	04,1	S	35	30,3										217,5	26,2
CHOSHI	0	P	03	35	04,4	IS	35	28,4										182,2	24,0
TOKYO	0	P	03	35	07,2	S	35	32,5	47	1.4	45	2.8	39	2.6				209,3	25,3
TAKADA	0	P	03	35	07,5	S	35	34,3									U 4	229,6	26,8
AIKAWA	0	EP	03	35	08	IS	35	32,9	25	1.8	43	1.8	18	4.0		E	D	238,4	24,9
MORIOK	0	IP	03	35	08,2	IS	35	34,5	21	0.4	29	0.4	10	1.0	N 1		U 1	260,4	26,3
						IX	35	13,0											
MIYAKO	2	EP	03	35	08,8	IS	35	32,9	20	1.6	21	1.4	17	1.9	N 1		U 1	272,1	24,1
KARUIZ	0	EP	03	35	08,9	IS	35	36,3										231,9	27,4
AKITA	0	IP	03	35	09,7	IS	35	38,2	26	4.2	31	3.8	13	2.6			D 2	268,4	28,5
NAGANO	0	EP	03	35	10,4	ES	35	39,3	31	2.7	23	2.7	26	3.0				246,0	28,9
MATSUS	0	IP	03	35	10,7	S	35	36							S	W	U	249,8	25,3
KOFU	0	IP	03	35	14,7	ES	35	47,0	43	1.8	50	1.6	17	1.6			U 2	276,7	32,3
MATSUM	0	EP	03	35	14,8	ES	35	46,2										282,6	31,4
KAWAGU	0	P	03	35	15,5	S	35	45,7										277,2	30,2
AJIRO	0	EP	03	35	17,5	ES	35	49,2	11	0.2	10	0.2	4	0.4				300,6	31,7
HACHIN	0	P	03	35	18,5	ES	35	53,5	8	1.6	8	1.8	4	2.2	N	E	U	355,9	35,0
TATEYA	0	EP	03	35	18,5				36	1.5	38	1.7	15	2.5				277,8	
TOYAMA	0	EP	03	35	20	ES	35	55	17	3.6	21	2.4	20	3.0				329,2	35,0
WAJIMA	0	IP	03	35	20,8	S	35	57,0	50	2.0	80	1.8	15	1.8			U 8	347,0	36,2
IIDA	0	EP	03	35	21,0	ES	35	58.2	11	2.2	8	1.4	6	1.6				337,4	37,2
MISHIM	0	X	03	35	22,3	ES	35	48.5	27	1.3	26	1.3	9	1.6				302,2	
AOMORI	0	EP	03	35	24	S	35	56	22	2.2	24	1.3	17	2.0				383,0	32,0
KANAZA	0	P	03	35	26,2	ES	36	10,9	12	3.0	13	4.0	10	2.9				382,1	44,7
GIFU	0	P	03	35	31,4	S	36	16.2	16	1.6	9	1.3						424,0	44,8
NAGOYA	0	P	03	35	31,8	S	36	06.4	13	2.2	13	2.2	7	1.4				423,3	34,6
HAMAMA	0	EP	03	35	32	ES	36	07	10	2.2	15	3.8	5	2.0				405,7	35,0
YOKOHA	0	S	03	35	39,6													238,1	
HACHIJ	0	EP	03	35	39,8	S	36	28.4	7	0.3	8	0.3						482,2	48,6
OMAEZA	0	X	03	35	40,0	X	36	15.8	19	2.8	23	2.8						386,1	
URAKAW	0	P	03	35	42,6	S	36	35.9	6	0.8	9	0.8	2	1.2				557,9	53,3
TOYOOK	0	P	03	35	49,3	X	36	48.8	8	1.1	8	1.1			S	W	U	574,4	
OBIHIR	0	EP	03	35	56	ES	36	56										649,7	60,0
KUSHIR	0	EP	03	36	00	X	37	01	11	0.4	12	0.2	4	0.3				693,5	
SHIZUO	0	S	03	36	00,0				8	1.9	7	2.1	4	1.6				342,7	
OSAKA	0	EX	03	36	49,4				15	3.3	6	2.2	4	2.3				562,6	
HIKONE	0	X	03	56	26,7													471,4	

OT= 6 17 40 30,5 +/- 0,9 (JST)
SE OF HACHIJOJIMA
LAT= 32 25 +/- 3 LONG= 140 50 +/- 4
H= 70 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
HACHIJ	1	IP	17	40	52,0	IS	41	04.8	103	0.4	76	0.2	37	0.4	S 3	E 5	D 5	123,9	12,8
OSHIMA	0	P	17	41	12,0				10	0.5	6	0.5	0					293,0	
TATEYA	0	EP	17	41	12,2				21	1.4	22	1.0	10	0.7				298,3	
TOKYO	0	EP	17	41	24	ES	41	59	7	0.6	8	1.2						375,7	35,0
KOFU	0	EP	17	41	27,9	ES	42	11.1	7	1.7	5	1.6	3	1.0				416,9	43,2
KUMAGA	0	EP	17	41	31,0	ES	42	15,0	6	1.4	7	1.4	3	1.2				434,6	44,0
MATSUS	0	P	17	41	40	S	42	33										516,7	53,0
NAGANO	0	EP	17	41	44,3	X	42	51.2	5	2.3	5	3.7	2	2.2				529,1	

OT= 6 19 21 33,7 +/- 0,4 (JST)
OFF FUKUSHIMA PREF
LAT= 37 34 +/- 2 LONG= 141 5 +/- 4
H= 80 CLASS=U

FUKUSH	0	EX	19	21	48,8				7	0.4	6	0.2	6	0.2				57,7	
ONAHAM	0	EP	19	21	50,2	S	22	01.6	9	0.1	11	0.2	1	0.2				70,7	11,4
SENDAI	0	P	19	21	50,6	IS	22	02,0	11	0	14	0	4	0				78,6	11,4
SHIRAK	0	EP	19	21	51,4	S	22	03,3										90,9	11,9
ISHINO	0	IP	19	21	52,4	IS	22	05,2	14	0.2	18	0.4	4	0.6			D 1	97,2	12,8
KAKIOK	0	EP	19	22	00	S	22	17.8	8	0.3	10	0.3	4	0.3				168,0	17,8
MATSUS	0	IP	19	22	14,4											N	E D	280,0	
UTSUNO	0	S	19	22	16,4													156,3	

OT= 9 5 44 21,0 (JST) USCGS
BANDA SEA
LAT= -6 6 LONG= 129 42
H=196 MAG=5,9 CLASS=U

YAKUSH	0	P	05	51	09,2				14	4.8	5	4.0	8	5.0				4040,6	
KAGOSH	0	EP	05	51	18,7	EX	56	44	12	2.6	11	3.0	8	3.4				4165,2	
MIYAZA	0	IP	05	51	22,6	S	56	59,2	20	5.2	7	4.6	10	3.8			D 6	4206,2	336,6
KUMAMO	0	IP	05	51	27,8	EP	57	02,8	8	3.2	7	2.6	3	1.7	S 3		D 4	4302,6	
NAGASA	0	P	05	51	28,9	S	57	10,0							S 6	E 3	D	4290,8	341,1
ASHIZU	0	P	05	51	30,6	EX	57	12,1	8	5.4	4	5,3	7	4.3			D 5	4305,2	
MUROTO	0	P	05	51	34,1	X	52	41.9	5	5.0	5	3.0	5	5.0				4375,5	
FUKUOK	0	P	05	51	34,7	ES	57	20.0	6	4.3	7	3,7	5	2.5	S 8		D 6	4387,2	345,3
OITA	0	EX	05	51	34,9				10	3.3	21	3.8						4352,9	
SHIONO	0	EP	05	51	36,8	EX	57	24,1	12	5.1	6	5.6	2	1.2				4418,6	
HIROSH	0	EP	05	51	43,4	ES	57	33.6	10	6.0	6	6.6	5	3.2	S 2		D 10	4482,7	350,2
HAMADA	0	P	05	51	45,5	ES	57	38,4	5	8.6	4	6,4	6	4.0	S 1	W 1	D 3	4539,1	352,9
						EL	04	10,0											
OKAYAM	0	P	05	51	45,7	S	57	38,8	4	3.5	5	3.6	7	3.6	S 3		D 5	4530,5	353,1
OSAKA2	0	P	05	51	47,0	S	57	41,7							S 4		D 4	4544,3	354,7
OSAKA	0	P	05	51	47,3	S	57	41,0	40	4.2	14	4.0	9	2.7			D 8	4549,7	353,7
HAMAMA	0	P	05	51	49,8	S	57	46,0	18	6.0	9	3.8	9	2.4				4589,7	356,2
KYOTO	0	IP	05	51	50,5	ES	57	44,0	9	5.0			6	2.9	S 0	W 0	D 1	4589,2	353,5
SHIZUO	0	P	05	51	52,5	S	57	52,0	9	4.5	7	4.2	7	3.0	S 2		D 5	4632,0	359,5
NAGOYA	0	IP	05	51	52,7	S	57	49,2	20	3.5	13	3.2	7	3.0				4625,5	356,5
						EX	01	22,0											
TOYOOK	0	P	05	51	53,3	S	57	48,5	9	4.8	5	7.6	6	3.6	S 5		D 4	4634,7	355,2
						X	59	04,7											
						X	01	07,2											
TATEYA	0	EP	05	51	54,2				13	5.3	16	3.4	13	4.5				4665,7	
GIFU	0	P	05	51	54,7	X	52	53,2	13	4.3	4	3.7	3	4.3				4647,5	
IIDA	0	IP	05	51	56,0	ES	57	58,0	11	5.0	6	3.6	7	3.8	S 3		D 6	4678,8	362,0
SAIGO	0	IP	05	51	56,8	ES	58	01,0	7	6.1	5	4.4	7	2.4	S 1		D 1	4693,1	364,2
						ESCS	01	36,8											
HIKONE	0	P	05	51	57,2										S 2		U	4625,5	
KOFU	0	IP	05	51	57,6	ES	58	02,0	7	3.8	7	3.6	4	4.4	S 4		D 6	4709,9	364,4
OMAEZA	0	EP	05	51		ES	57	48,0	17	5.4	19	5.4						4588,1	348,0
TOKYO	0	EP	05	52	02				16	5.0	19	4.0	14	4.0				4738,3	
KUMAGA	0	EP	05	52	02,6	ES	58	10,6	10	3.4	11	6.6	10	4.0				4779,4	368,0
KANAZA	0	P	05	52	03,0	EX	54	28,0	20	4.8	21	6.0	13	4.0			D 10	4770,9	
KAKIOK	0	EP	05	52	03	ES	58	10	4	1.5	11	2.6	3	1.1				4807,1	367,0
MATSUS	0	IP	05	52	03,6	S	58	10									U	4797,4	366,4
MAEBAS	0	P	05	52	04,0													4800,0	
TOYAMA	0	P	05	52	04,6	EX	58	16	33	5.6	28	5.2	26	5.6	S 2		D 8	4797,6	
NAGANO	0	P	05	52	05,5	ES	58	16,0	16	5.2	14	4.2	10	5.4				4810,4	370,5
WAJIMA	0	IP	05	52	07,0	EX	58	20	10	1.4	12	2.4	10	2.0			D 9	4867,0	
MITO	0	IP	05	52	07,4	IS	58	19,0	61	4.1	49	5.0	18	3.6	N 5		D 13	4829,4	371,6
ONAHAM	0	P	05	52	12,4	S	58	29,6	25	3.8	64	3.6	23	2.9			D 8	4900,6	377,2
SHIRAK	0	IP	05	52	12,7	S	58	30,2									D 6	4902,7	377,5
NIIGAT	0	IP	05	52	17,5	S	58	26,6	55	5.0	55	6.0	30	3.9				4962,4	369,1
FUKUSH	0	EX	05	52	18,3	EX	58	39,2	17	3.8	17	3.8	9	5.0				4976,9	
SENDAI	0	P	05	52	22,2	ES	58	47,2	35	4.4	23	4.2	16	4.0				5040,7	385,0
ISHINO	0	EP	05	52	24,2	EX	58	49,7	19	4.6	15	4.6	13	5.4	S 4	W 2	D 6	5068,0	

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
OFUNAT	0	IP	05	52	24.9	S	59	01.6	11	4.4	4	4.0	8	4.8	S 3		D 5	5146.0	396.7
SAKATA	0	EX	05	52	26.5													5085.8	
AKITA	0	P	05	52	33.2	S	59	07.2	25	4.8	30	4.6	22	2.8			D 14	5179.1	394.0
MORIOK	0	IP	05	52	33.8	IS	59	07.9	5	5.5	4	5.6	6	6.5	S 1	W 0	D 1	5200.5	394.1
						X	02	04.9											
MIYAKO	0	EP	05	52	34.2	ES	59	09.5	6	3.8	3	2.8	1	3.3	S 2		D 3	5214.3	395.3
HACHIN	0	IP	05	52	40.0	S	59	19.5	8	5.4	6	4.6	6	4.7	S 1		D 1	5297.3	399.5
AOMORI	0	IP	05	52	41.4	S	59	22.4	12	2.7	14	2.9	11	3.4	S 8	E 4	D 13	5311.8	401.0
HAKODA	0	P	05	52	48.2	S	59	35.7	8	7.4	10	4.6	8	3.6			U	5418.3	407.5
URAKAW	0	P	05	52	54.9	S	59	46.9	11	6.4	9	5.6	10	3.4			U	5501.2	412.0
SAPPOR	0	P	05	52	58.5	ES	59	50	11	3.6	15	3.0	8	2.4				5564.1	411.5
KUSHIR	0	P	05	53	03.0	S	00	01.4	12	4.0	13	4.4	10	2.4			D	5629.0	418.4
ASAHIK	0	EP	05	53	05				3	1.0	3	0.9	7	1.9				5663.1	
NEMURO	0	EP	05	53	07	EX	00	14	6	5.0	6	5.8	5	3.2				5698.4	
ABASHI	0	EP	05	53	10	ES	00	14	6	4.2	6	4.2	4	3.0				5735.3	424.0
WAKKAN	0	P	05	53	16.5	EX	00	27	8	5.6	9	6.5	8	5.5			D 1	5824.1	

OT= 11 12 31 1.2 +/- 0.2 (JST)
MIDDLE OF CHIBA PREF
LAT= 35 34 +/- 1 LONG= 140 12 +/- 1
H= 80 CLASS=S

TOKYO	1	IP	12	31	15.5	S	31	24.7	88	0.4	105	0.6	28	0.0				42.1	09.2
YOKOHA	1	IP	12	31	16.1	IS	31	26.2										51.5	10.1
CHOSHI	0	IP	12	31	16.6	S	31	27.5									U	60.8	10.9
KAKIOK	0	P	12	31	17	S	31	26	46	0.6	44	0.9	23	0.6	S 3		D 4	73.8	09.0
TATEYA	1	EP	12	31	18.1	S	31	29.0	95	0.7	75	0.7	36	0.5				71.4	10.9
MITO	0	P	12	31	19.4	S	31	30.6	24	0.5	21	1.0	10	0.9				93.3	11.2
KUMAGA	0	P	12	31	20.4	S	31	33.2	32	0.8	23	0.8	9	1.0			D 3	97.8	12.8
UTSUNO	1	EP	12	31	21.0	S	31	33.5										112.7	12.5
OSHIMA	1	IP	12	31	21.0	IS	31	35.4	87	0.6	64	0.4	45	0.2				116.5	14.4
AJIRO	1	IP	12	31	21.8	IS	31	35.8	100	0.2	122	0.2	42	0.3	N 2	E 2	D 6	115.9	14.0
CHICHI	0	EP	12	31	22.1	S	31	35.6										111.5	13.5
MISHIM	0	P	12	31	23.3	S	31	38.7	38	0.5	38	0.7	19	0.5		E	D 4	126.0	15.4
KAWAGU	0	IP	12	31	23.8	IS	31	38.5										130.5	14.7
MAEBAS	0	P	12	31	24.5	ES	31	41.1										138.0	16.6
KOFU	1	IP	12	31	26.0	S	31	43.0	35	0.4	44	0.4	12	0.3	S 2	E 1	D 4	149.1	17.0
ONAHAM	0	EP	12	31	27.8	ES	31	45.8	14	1.1	12	1.3	7	0.7				165.6	18.0
KARUIZ	0	EP	12	31	29.5	S	31	48.6										171.7	19.1
SHIZUO	0	P	12	31	30.1	S	31	50.7	20	0.5	25	0.5	7	0.5	N 1	E 3	D 3	175.9	20.6
MATSUS	0	IP	12	31	33.5	ES	31	55							S	E	D	209.3	21.5
IIDA	0	EX	12	31	35.2													214.5	
FUKUSH	0	EX	12	31	40.4				10	1.0	10	0.9	6	0.5				244.2	
HACHIJ	0	EP	12	31	42.6	ES	32	10.0	7	0.3	8	0.2						276.0	27.4

OT= 11 20 28 53.0 +/- 0.2 (JST)
NEAR MATSUSHIRO
LAT= 36 24 +/- 1 LONG= 138 3 +/- 1
H= 0 CLASS=L

MATSUM	0	IP	20	28	58.1	IS	29	01.9							S 1	W 2	U 10	18.7	03.8
MATSUS	2	IP	20	28	58.5	S	29	00							N	E	U	20.9	01.5
NAGANO	1	P	20	29	00.5	S	29	04.0	18	0.3	18	0.4	24					31.7	03.5
KARUIZ	0	IP	20	29	03.6	S	29	09.9									D 4	45.5	06.3

OT= 11 20 45 34.3 +/- 0.1 (JST)
NEAR MATSUSHIRO
LAT= 36 26 +/- 0 LONG= 138 7 +/- 1
H= 0 CLASS=L

MATSUS	1	IP	20	45	38.2	S	45	41.2							S		D	14.3	03.0
NAGANO	1	EP	20	45	40.6	IS	45	44.0	15	0.6	17	0.6	12	0.3				26.1	03.4
MATSUM	0	IP	20	45	40.8	IS	45	44.3										24.7	03.5
KARUIZ	0	EP	20	45	43.8	IS	45	49.7										40.4	05.9

OT= 12 4 51 8.0 +/- 0.8 (JST)
OFF IWATE PREF
LAT= 40 8 +/- 1 LONG= 142 29 +/- 4
H= 30 MAG=3.7 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MIYAKO	0	IP	04	51	20.8	IS	51	28.7	10	0	8	0	4	0				69.9	07.9
HACHIN	0	IP	04	51	24.1	ES	51	34.4	6	0.4	6	0.4			S 1	E 1	D 1	92.3	10.3
MORIOK	0	IP	04	51	28.5	IS	51	42.8	11	0.4	7	0.4	2	0.4	N 0	E 0	D 0	122.4	14.3
OFUNAT	0	EP	04	51	32.8	IS	51	44.9	7	0.0	3	0.2	1	0.4				135.9	12.1
AOMORI	0	EP	04	51	34	S	51	52	9	0.7	8	0.5	5	0.7				162.9	18.0

OT= 12 6 7 56.3 +/- 1.1 (JST)
E OFF HOKKAIDO
LAT= 43 18 +/- 6 LONG= 147 35 +/- 5
H= 0 MAG=4.7 CLASS=U

NEMURO	0	EP	06	08	25	ES	08	46	18	0.4	15	2.0	10	2.2				162.0	21.0
KUSHIR	0	EP	06	08	38	ES	09	09	18	0.6	15	0.6	5	0.6				261.9	31.0
ABASHI	0	EP	06	08	41	ES	09	13	9	2.0	11	2.4	4	1.8				277.9	32.0
URAKAW	0	EP	06	09	00	S	09	47.4	10	1.4	14	0.8	6	4.6				418.3	47.4
SAPPOR	0	EP	06	09	11				4	2.0	5	2.0	2	1.0				509.0	
AOMORI	0	EX	06	09	46				10	1.1	9	1.4						626.7	
MATSUS	0	IP	06	10	21.5											W	U	1096.9	

OT= 12 6 21 42.1 +/- 2.6 (JST)
E OFF HOKKAIDO
LAT= 43 12 +/-10 LONG= 148 27 +/-14
H= 60 MAG=4.6 CLASS=U

NEMURO	0	P	06	22	15.8	ES	22	37	10	0.4	10	1.0	7	2.0			U	233.0	21.2
ABASHI	0	EP	06	22	31	ES	23	13	5	2.0	6	2.4	2	2.0				348.5	42.0
URAKAW	0	P	06	22	49.9	S	23	37.3	4	0.6	9	0.8	3	1.0				478.9	47.4
MATSUS	0	P	06	24	11	X	25	55										1145.2	

OT= 12 6 26 32.6 +/- 1.2 (JST)
E OFF HOKKAIDO
LAT= 43 6 +/- 5 LONG= 148 11 +/- 7
H= 50 CLASS=R

NEMURO	2	IP	06	27	03.8	ES	27	27	120	2.8	199	3.6	174	3.4	S 1	W 2	U 4	212.6	23.2
KUSHIR	0	IP	06	27	17.0	ES	27	50								W 9	U 8	309.0	33.0
ABASHI	0	P	06	27	19.0	X	27	43.0										331.2	
OBIHIR	0	EP	06	27	29													405.0	
HIROO	0	IP	06	27	31.0												U 7	409.0	
URAKAW	2	IP	06	27	37.2	S	28	20.0							S 2	W 4	U 3	455.4	42.8
ASAHIK	0	EP	06	27	40	S	28	37.2										476.3	57.2
RUMOI	0	EX	06	27	47													537.9	
SAPPOR	0	IP	06	27	49.2												U 8	558.0	
WAKKAN	0	IP	06	27	52.0	IS	28	51.3								W 0	U 1	579.2	59.3
MURORA	0	P	06	27	53.8	X	28	46								W	U	596.2	
HACHIN	0	EP	06	27	56.7										S	W 1	U	622.6	
HAKODA	0	IP	06	27	57.5	ES	28	55							S 2	W 4	U 6	627.1	57.5
AOMORI	0	IP	06	28	01.9	S	29	11.8							S 4	W 7	U 5	663.7	69.9
MORIOK	0	IP	06	28	06.8										S 1	W 0	U 0	697.6	
OFUNAT	0	P	06	28	08.0	X	29	05.4	8	1.4	9	1.6	8	1.6	S 1	W 1	U 1	704.2	
ISHINO	0	EP	06	28	16.0	X	29	26.8							S	W 2	U 2	778.7	
AKITA	0	P	06	28	16.8	ES	29	43.6									U 3	772.7	86.8
SENDAI	0	EX	06	28	21.8													816.8	
SAKATA	0	EP	06	28	27.0	ES	29	58										842.2	91.0
NIIGAT	0	EX	06	28	29.2													964.1	
AIKAWA	0	IP	06	28	46.6	X	29	54.0							S	W		1012.5	
KAKIOK	0	EP	06	28	48	X	31	03										1024.5	
MATSUS	0	IP	06	28	58.8										S	W	U	1121.2	
CHICHI	0	EP	06	28	59.3	X	31	43.8										1110.0	
WAJIMA	0	EX	06	29	02													1149.1	
KARUIZ	0	EP	06	29	02.0	ES	30	58.0										1114.6	116.0
NAGANO	0	EP	06	29	03.5	ES	31	03.5										1112.7	120.0
MATSUM	0	EP	06	29	05.9	X	31	17.9										1159.0	
TOYAMA	0	EP	06	29	06	ES	31	11										1175.1	125.0
AJIRO	0	EP	06	29	08.0	X	32	05.9										1189.4	
IIDA	0	EX	06	29	13.2													1225.7	
TATEYA	0	X	06	29	13.3													1152.0	
KANAZA	0	EX	06	29	22													1224.8	
HAMAMA	0	EP	06	29	26	X	31	54										1298.4	
TSURUG	0	EP	06	29	27	X	31	32.4										1329.7	
						X	33	46											
KYOTO	0	IP	06	29	34.2	ES	32	02.0								E 0	D 0	1399.9	147.8
TOYOOK	0	P	06	29	37.2										S	W	U	1423.0	

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
OSAKA	0	EP	06	29	38.0													1439.6	
SAIGO	0	P	06	29	43.7												D 1	1483.5	
OKAYAM	0	EP	06	29	50.8										S	W	U 1	1547.4	
OWASE	0	X	06	29	51.0	X	32	58.0							N	E	D	1445.1	
MUROTO	0	EP	06	30	09.5	ES	34	10.0							S	0	U 0	1639.5	240.5
ASHIZU	0	EP	06	30	16.5	ES	34	27.2										1757.6	250.7
HIKONE	0	X	06	30	17.0	X	32	45.2										1346.1	
SHIMON	0	EP	06	30	22.6											W 1	U 1	1808.5	
NOBEOK	0	EP	06	30	28.4	EX	31	33.1										1857.2	
OITA	0	EP	06	30	32.6	ES	34	52.2										1812.3	259.6
KUMAMO	0	X	06	30	33.8				5	2.1	6	1.8	3	2.4				1907.2	
KAGOSH	0	EX	06	30	48.8													2011.7	
YAKUSH	0	EX	06	30	56.4													2104.3	

OT= 12 6 27 39.1 +/- 1.8 (JST)
E OFF HOKKAIDO
LAT= 42 42 +/- 7 LONG= 147 37 +/- 9
H= 30 MAG=7.8 CLASS=R

KUSHIR	4	EP	06	28	18	ES	28	48	15000	3.8	10600	4.5	8500	5.6				265.2	30.0
NEMURO	4	ES	06	28	26				30000	6.3	36000	5.9	30000	6.3				179.6	
OBIHIR	3	EP	06	28	30	ES	29	08	13300	4.6	9000	3.9	4800	4.7				360.3	38.0
URAKAW	3	EP	06	28	37	ES	29	22	10000	6.0	15300	6.0	9900	4.6				402.6	45.0
RUMOI	X	EX	06	28	46	ES	29	40	5300	6.8	12300	6.1	3300	6.1				504.8	
SAPPOR	1	EP	06	28	48	X	29	35	8500	14.0	9300	7.0	2600	5.6				515.0	
MURORA	2	P	06	28	55.2	S	29	55.2	3700	5.0	2500	4.0	4400	4.6		W 58	U 52	546.8	60.0
HACHIN	3	EP	06	28	55.4	ES	29	58.4							N 10	E 29	D 18	562.2	63.0
HIROO	4	X	06	28		S	29	12.6	9000	18.0	11700	06.0	5800	16.9				356.5	
WAKKAN	0	X	06	28					6200	10.2	8400	10.4	3200	10.4				562.9	
ABASHI	2	X	06	28					8500	5.8	14800	5.0	6200	5.6				307.3	
ASAHIK	0	X	06	28					11800	7.2	5200	5.2	5100	7.0				442.2	
MIYAKO	2	EP	06	29	01.6	IS	30	02.6	2750	14.8	2600	22.3	2001	80				582.7	61.0
HAKODA	2	EP	06	29	02	ES	30	00	3100	7.7	5000	16.9	3500	18.4				574.4	58.0
SUTTSU	0	EP	06	29	02.9	ES	30	16	2500	4.6	2100	11.2	1300	5.6				604.0	73.1
MIYAKO	3	P	06	29	03	S	30	10	13000	18.4	9000	21.1	3800	17.4				605.4	67.0
MORIOK	3	EP	06	29	04.4	ES	30	10.4	3300	21.0	3200	20.8	2500	15.7	S 4	W 6	U 8	635.3	66.0
						EX	29	13.1											
						EL	30	40											
						EL	31	18											
OFUNAT	2	EP	06	29	06.8	ES	30	22.4	3700	17.9	2950	20.9	1250	22.4				640.4	75.6
AKITA	1	EP	06	29	15.6	EX	30	30.8	5600	21.4	7300	16.1	3650	22.1				711.7	
SENDAI	1	EP	06	29	21	ES	30	39	4500	19	3500	20	1500	16				752.9	78.0
YAMAGA	1	EX	06	29	32	ES	30	48.9			1850	14.0	1000	20.0				789.2	
						EL	31	13											
FUKUSH	2	EP	06	29	32.4	ES	31	02.0	1200	20.4	1700	25.8	3200	20.4				818.5	89.6
ONAHAM	1	EP	06	29	37.2	ES	31	10.4	3850		2600		850					858.7	93.2
NIIGAT	0	P	06	29	38.7	S	31	27.2	10900	12.6	6800	14.6	1300	4.4			U 4	901.0	108.5
CHOSHI	0	EP	06	29	44.5	S	31	37.8										969.7	113.3
UTSUNO	1	P	06	29	44.6	ES	31	28.1										952.6	103.5
MITO	X	EP	06	29	45.0	S	31	25.6	3500	20.1	2800	18.8	850	15.5				931.9	100.6
SHIRAK	1	X	06	29	46.9	ES	31	17.7	3300	17.9	1800	22.6	800	22.6				884.5	
TAKADA	0	EP	06	29	50.0	ES	31	46.0										1012.6	113.0
TOKYO	1	P	06	29	52	S	31	48.2	4000	15.6	3800	20.2	700	4.4				1032.2	116.2
KUMAGA	1	EP	06	29	52.4	ES	31	45.0	2700	14.0	2500	9.4	850	16.0				1014.8	112.6
MAEBAS	0	EP	06	29	58.4	IS	31	47.3										1013.5	108.9
MATSUS	0	X	06	29		S	31	55							S	W	U	1057.4	
ISHINO	2	X	06	29		ES	30	31.0	4400	20.1	3800	19.2	1400	18.6				714.7	
AJIRO	0	X	06	29					288	17.0	358	16.3	300	16.8				1125.3	
AIKAWA	0	X	06	29					900	15.8	1800	28.5	1800	21.2				950.1	
NAGANO	0	X	06	29					3000	10.6	2800	8.9	800	9.5				1049.0	
WAJIMA	0	EP	06	30	00	X	31	48										1087.0	
MISHIM	0	EP	06	30	06.1	ES	32	02.8	2000	21.4	2700	18.4	300	22.4	S 8	W 2	U 6	1128.9	116.7
KOFU	0	EP	06	30	07.7	ES	32	06.3	1100	1.6	1500	2.4	500	2.3				1104.4	115.6
OSHIMA	X	EP	06	30	10.3				1900	20	2800	14	400	11	S 10	W 5	U 5	1134.4	
SHIZUO	0	EP	06	30	11.0	S	32	17.3	2500	18.0	1800	19.0	800	14.0	S 3	W 3	U 7	1171.2	126.3
KAWAGU	0	X	06	30	13.5	S	32	07.7										1105.9	
IIDA	0	EP	06	30	14.0	X	32	35.2										1161.7	
TATEYA	0	X	06	30	14.5	S	32	03.0	3800	22.2	7400	28.8	800	16.0				1088.1	
FUKUI	0	EP	06	30	15.7	X	32	51.6	1700	16.2	1400	19.4	700	23.0				1226.0	
IROZAK	0	EX	06	30	19.8	EX	32	23.7	3100	22.2	2500	20.7	750	16.1				1178.1	
TAKAYA	0	X	06	30	20.2	ES	32	16.2	2300	21.2	2400	20.4	1000	18.6				1149.4	
NAGOYA	0	EP	06	30	23.2	X	32	51.2	2300	23.1	2000	21.0	1700	17.6				1244.0	
						EX	32	31.4											
GIFU	0	EP	06	30	23.6	S	32	32.8	1600	23.6	1600	18.3	1200	17.6				1238.9	129.2
OMAEZA	0	X	06	30	24.0	ES	32	26.8										1214.0	
MAIZUR	0	P	06	30	28.6	X	30	33.5	1900	15.2	1500	15.2	1000	17.6				1325.7	
HACHIJ	0	EP	06	30	30.0	S	32	38.0	407	7.2	378	7.0	137	5.0				1267.0	128.0
KYOTO	0	EP	06	30	30.1	X	33	07.5										1336.4	
TSU	0	P	06	30	31.0	X	33	19.2	246	22.0	196	20.0	143	18.0				1309.5	

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
						X	32	02.0											
TOYOOK	0	EP	06	30	34.3	ES	33	01.0	1400	15.8	1400	15.8	1300	15.8				1360.3	146.7
NARA	0	P	06	30	36.5	X	30	48.6	1000	18.5	1100	20.0	1000	19.5				1355.1	
KOBE	0	EP	06	30	37.9	ES	33	11.8	1700	19.2	1900	16.0	800	17.0				1397.9	153.9
SAIGO	0	P	06	30	41.3	ES	33	10.0	1450	23.4	2100	22.7	1100	23.4	N 1	E 2	D 2	1422.5	148.7
MIYAZA	0	EX	06	30	41.8	S	34	52.6	1400	16.4	1800	14.7	1200	15.6				1862.7	
HIMEJI	0	EP	06	30	43.0	X	33	41.0										1419.1	
SHIONO	0	EP	06	30	44.1				3500	18.7	1300	18.9	1500	17.1				1458.7	
WAKAYA	0	EP	06	30	46.7	X	33	35.5	2000		2400		1300					1434.3	
MATSUE	0	EP	06	30	48.2	ES	33	35.4										1490.4	167.2
TOKUSH	0	EP	06	30	48.2	ES	33	20.6										1485.7	152.4
SUMOTO	0	EP	06	30	50.0				2000	23	1700	15	1500	16				1443.0	
OSAKA	0	X	06	30					2000	9.4	1800	10.0	900	8.0				1376.0	
TOTTOR	0	X	06	30					1750	16.1	1450	17.1	1550	15.9				1407.2	
YONAGO	0	X	06	30		X	33	09.6										1472.2	
KAKIOK	2	X	06	30					2700	18.4	2300	17.1	1000	17.5				960.3	
CHICHI	0	X	06	30					2000	17.7	1150	17.5	1200	11.1				1045.8	
MATSUM	0	X	06	30					2800	19.7	1900	15.5	1300	16.8				1095.2	
KARUIZ	0	X	06	30					3500	18.7	2700	15.4	700	20.6				1050.6	
HAMAMA	0	X	06	30					325	21.0	320	14.0	210	16.0				1234.2	
KANAZA	0	X	06	30					3100	14.3	1850	19.9	950	17.3				1161.9	
TSURUG	0	X	06	30					2000	20.3	2200	19.5	900	20.8				1266.4	
OWASW	0	X	06	30					305	18.4	210	18.4	305	18.0				1381.1	
HIKONE	0	X	06	30					2900	20.8	4300	23.4	2200	15.0				1282.5	
OKAYAM	0	X	06	30					1400	24.4	1900	15.7	1100	16.3				1484.5	
TAKAMA	0	EP	06	31	00.4	S	33	44.4	3500	20.3	4700	15.5	2150	16.8				1501.5	164.0
KOCHI	0	EP	06	31	00.6	ES	33	40.9	2400	19.0	3100	17.7	1000	18.0				1595.0	160.3
HAMADA	0	P	06	31	03.6	ES	33	43.0	1600	19.5	1600	22.1	1000	20.9	N 7	E 8	D 11	1600.5	159.4
						EL	35	42.2											
HIROSH	0	P	06	31	07.8	ES	33	51.0	950	15.3	1450	22.9	1300	14.6	S 19	W 22	U 23	1611.0	163.2
MATSUY	0	EP	06	31	08.9	ES	34	06.2	3100	15.3	2300	22.0	3250	16.0	S	W	U	1624.6	177.3
UWAJIM	0	EP	06	31	13				1900	19.6	2100	19.0	1600	18.2				1685.7	
FUKUOK	0	EP	06	31	25.0	ES	34	30	450	14.5	850	16.0	1100	24.5	S 1	W 1	U 1	1813.1	185.0
IZUHAR	0	EP	06	31	32.8	ES	34	42.8										1850.7	190.0
ASOSAN	0	EP	06	31	33	EX	34	30	2000	21.0	1350	22.8	1250	15.0				1814.0	
KUMAMO	0	EP	06	31	34.5	ES	34	55.0	3500	20.7	2300	24.4	600	16.5				1844.6	200.5
SAGA	0	EP	06	31	38.0	ES	35	13.4										1842.0	215.4
NAGASA	0	P	06	31	42.2	S	35	15.8	900	16.0	900	15.4	700	16.1				1911.0	213.6
KAGOSH	0	EX	06	31	46.2	EX	37	56.2	3350	21.0	3200	16.2	1500	17.4				1948.5	
NAHA	0	X	06	31	48.8	S	37	10.0	238	10.6	218	20.0	234	16.0	S	W	U 4	2573.0	
YOKOHA	0	S	06	31	52.8													1059.6	
YAKUSH	0	EP	06	31	54.2	ES	35	35.0	1200	17.4	1300	17.0	700	16.8				2040.7	220.8
ANABUK	0	P	06	31	58.5	X	33	46.4										1534.1	
ASHIZU	0	X	06	31					4850	18.8	1500	19.8	450	17.2				1694.0	
SHIMON	0	X	06	31					1000	17	950	27	850	27				1746.6	
OITA	0	X	06	31					5900	16.0	5650	22.0	1050	14.6				1749.6	
NOBEOK	0	X	06	31					2100	20.7	2000	21.1	1800	16.6				1794.0	
MUROTO	0	X	06	31					6500	12.0	2000	12.0	1800	10.0				1575.7	
ISHIGA	0	EP	06	33	14.3	IS	38	19.4	277	16.8	99	15.4	192	16.8	N	E	D	2962.4	305.1
YONAGU	0	EP	06	33	25	ES	38	36	106	16.8	61	16.1	62	15.0				3028.5	311.0

OT= 12 7 41 57.7 +/- 2.2 (JST)
E OFF HOKKAIDO
LAT= 43 23 +/-16 LONG= 147 32 +/-12
H= 70 CLASS=S

NEMURO	2	IP	07	42	23.6	IS	42	38.0	134	1.4	224	0.4	232	0.4	S 1	E 5	D 5	158.0	14.4
HIROO	0	EP	07	42	48	ES	43	30										365.8	42.0
URAKAW	0	EP	07	42	55	ES	43	38	27	1.4	46	1.6	45	2.8				412.2	43.0
SAPPOR	0	EP	07	43	08	ES	43	54	20	2.2	22	2.0	8	1.4				505.2	46.0
KUSHIR	0	S	07	43	09.4				71	0.4	95	1.2	61	2.4				259.1	
HAKODA	0	EP	07	43	15	EX	44	22	10	1.4	6	1.4	6	2.6				582.6	
AOMORI	0	X	07	43	29													626.8	
OBIHIR	0	EX	07	43														354.5	

OT= 12 7 54 2.9 +/- 1.8 (JST)
E OFF HOKKAIDO
LAT= 43 22 +/- 8 LONG= 148 5 +/- 9
H= 50 MAG=5.6 CLASS=R

NEMURO	0	EP	07	54	33	ES	54	56	37	0.4	30	0.4	24	1.2				202.5	23.0
KUSHIR	1	EP	07	54	45	IS	55	20.0	106	2.0	66	1.4	34	0.8				303.0	35.0
HIROO	0	EP	07	55	01	ES	55	47										408.0	46.0
URAKAW	0	EP	07	55	08	ES	55	55	119	1.0	173	1.6	33	1.6				454.4	47.0
SAPPOR	0	EP	07	55	17	ES	56	13	49	2.0	35	1.8	13	1.2				549.7	56.0
HAKODA	0	EP	07	55	31	ES	56	31	55	1.6	28	1.6	20	1.8				625.4	60.0

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
MORIOK	0	EP	07 55 37.6	S	56 49.0	29	0.4	37	0.4	4	0.4				706.2	71.4
OFUNAT	0	EP	07 55 38.5	IS	56 50.7	8	0.6	11	0.6	10	1.4				716.3	72.2
OBIHIR	0	EX	07 55												398.6	
AKITA	0	EX	07 56 02.6	EX	57 09.8	13	2.2	6	1.0	6	2.2				779.2	
MURORA	0	X	07 56 22	X	57 23										592.0	
MATSUS	0	EP	07 56 32	ES	58 30										1133.0	118.0
AOMORI	0	EX	07 56 42			58	1.4	45	1.4	17	1.2				666.8	
SENDAI	0	ES	07 57 14			7	1.5	8	1.5	5	2				829.5	

OT= 12 8 2 55.9 +/- 1.8 (JST)
E OFF HOKKAIDO
LAT= 43 12 +/- 7 LONG= 147 41 +/-10
H=100 CLASS=M

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
NEMURO	1	EP	08 03 23	ES	03 42	340	4.0	367	4.6	330	4.0				170.9	19.0
KUSHIR	1	EP	08 03 37	S	04 08.8	500	4.8	400	5.5	300	3.3				268.9	31.8
HIROO	0	EP	08 03 49	ES	04 27										371.8	38.0
URAKAW	0	EP	08 03 56	ES	04 44	100	8.0	200	8.0	199	4.8				418.2	48.0
ABASHI	0	X	08 03	S	04 03.2	172	4.4	205	5.0	92	4.4	N	10 W	16 U 8	289.1	
RUMOI	0	EX	08 04 06												495.8	
SAPPOR	0	EP	08 04 07	ES	04 51	85	2.6	116	5.2	73	5.2				517.1	44.0
WAKKAN	0	EP	08 04 10	EX	05 36	167	6.5	158	9.7	117	11.7				538.2	
MURORA	0	EP	08 04 10	ES	05 07										557.1	57.0
HAKODA	0	P	08 04 14.1	ES	05 20	55	12.0	68	5.1	65	11.3			U	589.6	65.9
HACHIN	0	EP	08 04 14.7	IS	05 13.5	39	2.6	18	2.3	9	4.3				591.2	58.8
SUTTSU	0	EX	08 04 16.0												608.6	
MORIOK	0	EP	08 04 23.3	S	05 29.0	30	0.4	22	0.4	12	2.6				668.9	65.7
OFUNAT	0	EP	08 04 25.2	IS	05 30.0	19	3.0	27	2.8	28	2.0				679.5	64.8
AOMORI	0	X	08 04 29			176	2.5	108	3.4	59	12.0				629.8	
ISHINO	0	P	08 04 34.0	S	05 46.2	43	3.4	29	3.6	16	4.0				755.2	72.2
SENDAI	0	EP	08 04 39.0	ES	05 52.8	42	2.6	45	2.4	23	13.0				792.8	73.8
AKITA	0	EX	08 04 43.0			89	5.0	88	4.8	63	13.8				741.8	
YAMAGA	0	EP	08 04 44.0	S	06 04.5										827.5	80.5
ONAHAM	0	EX	08 04 50.6	X	06 16.8	51	2.0	44	1.3	23	1.8				903.0	
OBIHIR	0	EX	08 04			350	5.2	350	4.1						364.8	
SAKATA	0	EX	08 05 07.7			300	5.0	200	3.7	50	4.1				813.6	
MATSUS	0	EP	08 05 17	ES	07 06										1096.1	109.0
KOFU	0	EP	08 05 19.2	ES	07 14.4	13	3.0	23	11.4	25	11.6				1146.2	115.2
KAWAGU	0	P	08 05 23.8	S	07 18.5										1148.5	114.7
TOYAMA	0	EX	08 05 24			21	10.0	26	6.0	19	6.8				1147.8	
NAGOYA	0	EP	08 05 37.2	ES	07 50.5	16	3.0	11	2.2	5	2.2				1283.6	133.3
MISHIM	0	X	08 05 44	ES	07 16										1172.8	
TOYOOK	0	P	08 05 54.4												1394.6	
FUKUSH	0	EX	08 05	S	06 10.4	67	1.3	27	1.4	10	1.2				859.0	
OSAKA	0	EX	08 06 03.6			21	3.8	24	11.0	20	11.0				1413.8	
SAGA	0	EP	08 06 09.4												1874.3	
HAMADA	0	EP	08 06 21.9	ES	09 28.2	7	6.0	4	4.8	9	4.0				1631.7	186.3
UTSUNO	0	ES	08 06 40												995.3	
KAKIOK	0	EX	08 06 40			19	1.0	14	0.8	6	0.9				1004.6	
FUKUOK	0	EP	08 06 46.0	ES	10 02	6	4.3	7	3.5	7	4.2				1844.7	196.0
KAGOSH	0	EP	08 07 04.2			9	4.8	10	4.0	17	3.4				1984.3	
SHIZUO	0	X	08 07 25.7												1214.2	
MIYAZA	0	S	08 10 18.6												1899.2	

OT= 12 8 34 6.5 +/- 2.2 (JST)
E OFF HOKKAIDO
LAT= 43 34 +/-14 LONG= 148 17 +/-12
H= 60 MAG=5.3 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
NEMURO	0	EP	08 34 40	ES	34 59	56	2.2	56	2.2	35	2.4				219.9	19.0
ABASHI	0	EP	08 34 53			92	4.0	44	2.6	13	2.4				325.9	
KUSHIR	0	X	08 35 00	ES	35 29	52	0.4	54	1.6	27	3.4				322.4	
HIROO	0	P	08 35 06.1												429.8	
URAKAW	0	P	08 35 12.6	S	36 05.0	54	1.2	54	2.4	20	3.6				476.2	52.4
SAPPOR	0	EP	08 35 23			16	2.2	19	2.2	7	1.0				566.8	
MURORA	0	EP	08 35 26												611.7	
HAKODA	0	EP	08 35 31	ES	36 42	16	1.3	17	1.4	7	1.4				646.6	71.0
AOMORI	0	EP	08 35 37			39	2.0	23	2.3	12	1.2				690.5	
OBIHIR	0	EX	08 35												417.4	
SENDAI	0	EP	08 36 01	X	37 14	8	2.0	7	1.4	3	1				856.3	
ONAHAM	0	EX	08 36 46.1			5	0.8	6	1.1	3	0.4				965.9	
FUKUSH	0	EX	08 36			8	1.0	7	0.9	2	1.5				922.4	
AKITA	0	EX	08 37 08			8	1.8	7	1.8	6	2.0				804.1	
SAKATA	0	EX	08 37 27.1												876.7	
HACHIN	0	X	08 38 56.8			5	0.2	4	0.3						653.4	

OT= 12 8 39 25.7 +/- 1.4 (JST)
E OFF HOKKAIDO
LAT= 42 56 +/-.5 LONG= 146 59 +/- 7
H= 10 MAG=5.3 CLASS=M

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
NEMURO	2	EP	08 39 48	ES	40 01	295	0.2	315	0.2	200	0.2				121.8	13.0
KUSHIR	1	EP	08 40 00	ES	40 26	140	0.3	165	0.3	71	3.2				211.3	26.0
HIROO	0	P	08 40 13.9	ES	40 51										309.5	37.1
URAKAW	0	P	08 40 21.2	ES	41 03	44	0.8	67	3.2	43	4.0				355.9	41.8
SAPPOR	0	EX	08 40 22			15	2.8	23	4.4	10	2.2				461.1	
HACHIN	0	IP	08 40 39.2	ES	41 39.2	10	0.2	5	0.2						527.0	60.0
HAKODA	0	EX	08 40 42	ES	41 32	8	1.0	11	1.1	5	1.8				527.6	
AOMORI	0	EX	08 40 46			24	1.6	18	1.4	11	1.4				565.7	
MORIOK	0	EP	08 40 48.8	X	41 46.2	10	0.4	11	0.4	3	0.6				605.0	
OBIHIR	0	EX	08 40												307.1	
SENDAI	0	X	08 42 12			8	2	8	2	4	2				730.7	
AKITA	0	EX	08 42 13			13	3.2	11	4.4	6	3.8				677.5	
FUKUSH	0	EX	08 42 32.2			6	0.9	6	0.9	2	0.7				797.2	

OT= 12 8 42 3.9 +/- 2.0 (JST)
E OFF HOKKAIDO
LAT= 43 10 +/-14 LONG= 147 41 +/-12
H= 60 MAG=5.2 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
NEMURO	0	ES	08 42 50			44	2.6	37	2.8	32	3.0				171.3	
URAKAW	0	EP	08 43 01	ES	43 48										417.3	47.0
KUSHIR	0	ES	08 43 15			55	2.0	56	0.4	20	3.0				268.7	
WAKKAN	0	EX	08 43 19			11	4.0	25	4.4	13	4.4				540.0	
HACHIN	0	EP	08 43 23	IS	44 26.0	6	0.2	7	0.2						589.5	63.0
HAKODA	0	EP	08 43 25	ES	44 25	16	4.6	16	1.7	7	3.4				588.7	60.0
AOMORI	0	EX	08 43 29			32	2.3	28	2.3	11	1.4				628.3	
MORIOK	0	EP	08 43 35.5	S	44 42.8	6	0.4	6	0.4	4	2.2				666.9	67.3
OBIHIR	0	EX	08 43												364.6	
SAPPOR	0	X	08 43			18	2.2	31	2.4	6	2.2				517.1	
ONAHAM	0	EX	08 44 39.5			6	0.4	5	0.8	4	0.5				900.2	
SENDAI	0	ES	08 45 12			9	2.0	11	2.0	5	2				790.4	
FUKUSH	0	EX	08 45 22.0			6	1.1	5	0.7	2	0.6				856.6	
MITO	0	EX	08 45 49.6			10	2.9	5	2.5	4	4.3				973.8	

OT= 12 9 19 4.8 +/- 1.4 (JST)
E OFF HOKKAIDO
LAT= 42 55 +/- 7 LONG= 147 2 +/- 8
H= 40 MAG=4.8 CLASS=S

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
NEMURO	1	P	09 19 25.2	IS	19 39.0	52	0.4	135	0.8	56	1.2	S	4 W	7 U 13	126.3	13.8
KUSHIR	0	EP	09 19 39	ES	19 59	32	2.0	33	2.4	15	2.2				215.5	20.0
ABASHI	0	EP	09 19 43	ES	20 10	10	1.8	12	2.4	5	2.0				253.9	27.0
URAKAW	0	EP	09 19 57	ES	20 44	11	0.6	18	2.0	6	1.6				359.4	47.0
SAPPOR	0	EP	09 20 09			4	1.6	6	2.0	2	1.0				465.3	
OBIHIR	0	EX	09 20												311.3	

OT= 12 9 53 34.8 +/- 1.8 (JST)
E OFF HOKKAIDO
LAT= 42 56 +/- 6 LONG= 147 19 +/-10
H= 60 MAG=5.3 CLASS=M

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
NEMURO	2	P	09 53 58.0	IS	54 12.0	82	0.2	193	0.4	80	2.6	S	1 W	14 U 22	147.5	14.0
KUSHIR	1	IP	09 54 09.6	S	54 36.0	82	1.6	82	1.9	35	2.0		W	U 4	238.5	26.4
ABASHI	0	P	09 54 14.0	S	54 38.2	38	2.4	74	2.4	21	2.2				273.4	24.2
HIROO	0	P	09 54 24.2	ES	54 59										336.1	34.8
URAKAW	0	EP	09 54 31	S	55 12.4	50	2.6	52	1.2	28	3.0				382.5	41.4
ASAHIK	0	EP	09 54 35			21	2.4	16	2.0	13	1.8				411.4	
SAPPOR	0	P	09 54 42.0			17	2.0	30	2.0	7	1.0				488.3	
WAKKAN	0	EX	09 54 48			12	4.5	17	5.1	11	3.2				528.1	
HACHIN	0	EP	09 54 48.4	IS	55 43.9	5	0.2	3	1.0					D	551.0	55.5
HAKODA	0	P	09 54 49.4	ES	55 44	10	1.2	11	1.1	7	3.0			U	554.3	54.6
AOMORI	0	EP	09 54 53	ES	55 54	32	1.6	25	2.1	8	1.4				591.0	61.0
MORIOK	0	P	09 54 58.2	ES	55 56.4	6	0.4	8	0.4	8	1.6			D 1	627.7	58.2
SENDAI	0	EP	09 55 12	X	56 20	6	2	5	2	3	1.5				750.8	
AKITA	0	EX	09 55 16.0			8	3.8	9	3.8	6	4.2				701.4	
ONAHAM	0	EX	09 55 34.3	X	56 48.4	8	1.6	7	1.3	3	1.0				861.0	
MATSUS	0	IP	09 55 50.4											D	1054.2	

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STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
FUKUSH	0	EX	09 55	ES	56 40.0	12 1.0	6 1.1	2 0.7				817.0	
SAKATA	0	EX	09 56 31.8									772.4	

OT= 12 10 2 59.0 +/- 2.9 (JST)
E OFF HOKKAIDO
LAT= 43 7 +/-14 LONG= 147 56 +/-15
H= 60 MAG=5.3 CLASS=S

NEMURO	1	EP	10 03 29	ES	03 46	79 1.4	121 1.6	85 2.6				192.1	17.0
KUSHIR	0	EP	10 03 39	ES	04 14	64 3.4	75 2.2	30 2.8				288.7	35.0
ABASHI	0	EP	10 03 44	ES	04 11	21 2.4	61 2.6	22 2.2				311.4	27.0
OBIHIR	0	EX	10 03									384.7	
HIROO	0	X	10 03	ES	04 42							389.5	
URAKAW	0	EP	10 04 04	ES	04 51	38 2.0	53 2.8	28 3.0				435.9	47.0
ASAHIK	0	EX	10 04 08			14 1.4	15 1.8	13 1.8				455.9	
SAPPOR	0	P	10 04 11.5			13 2.0	22 2.2	6 2.4				537.6	
WAKKAN	0	EX	10 04 18			7 3.5	10 5.0	8 4.4				560.5	
HAKODA	0	P	10 04 18.5	ES	05 22	8 2.4	8 2.5	6 2.7			U	607.5	63.5
AOMORI	0	EP	10 04 23			30 1.8	24 2.1	9 2.3				645.2	
MORIOK	0	EP	10 04 26.0	X	05 27.0	6 0.4	3 0.4	2 1.4				681.1	
FUKUSH	0	EX	10 04 56.0			11 1.0	7 1.1	2 1.1				868.1	
AKITA	0	EX	10 05 16			9 3.8	7 1.8	5 2.0				755.4	
MATSUS	0	P	10 05 19									1106.2	
ONAHAM	0	EX	10 05 32.6			6 0.9	7 2.1	4 1.0				910.0	

OT= 12 11 6 42.8 +/- 2.2 (JST)
E OFF HOKKAIDO
LAT= 42 48 +/- 6 LONG= 147 49 +/-12
H= 50 MAG=4.8 CLASS=U

NEMURO	0	EP	11 07 11	ES	07 30	10 1.0	14 1.4	9 1.4				190.9	19.0
URAKAW	0	EP	11 07 44	ES	08 29	9 1.2	9 0.8	4 3.0				420.2	45.0
KUSHIR	0	ES	11 07 52			10 0.8	8 0.3	3 0.8				280.2	
MORIOK	0	EP	11 08 11.5	ES	09 16.3	4 0.4	5 0.4	1 0.6				655.0	64.8
MATSUS	0	P	11 09 04	X	10 47							1077.2	
AOMORI	0	EX	11 09 05			7 1.4	5 1.4					624.4	
FUKUSH	0	EX	11 09 58.2			9 0.9	4 0.8	1 0.6				838.2	

OT= 12 11 34 43.5 +/- 3.1 (JST)
E OFF HOKKAIDO
LAT= 42 48 +/- 6 LONG= 147 8 +/-18
H= 50 MAG=4.8 CLASS=U

NEMURO	0	EP	11 35 05	ES	35 20	13 0.6	10 1.4	7 1.4				139.0	15.0
KUSHIR	0	EP	11 35 17	ES	35 43	11 0.2	10 0.2	5 0.8				224.6	26.0
ABASHI	0	P	11 35 21.2	S	35 48.6	28 4.2	26 2.4	10 4.2				267.6	27.4
				EX	37 35								
URAKAW	0	P	11 35 38.0	X	36 40	7 1.8	13 1.6	5 1.8				365.0	
SAPPOR	0	EP	11 35 49			14 2.0	16 2.0	7 1.2				474.5	
ASAHIK	0	EX	11 35 50			14 3.4	9 1.8	7 1.6				401.1	
HACHIN	0	IP	11 35 56.9	IS	36 50.9	6 0.2	5 0.2					531.0	54.0
AOMORI	0	EX	11 36 59			7 0.9	7 1.1					571.7	
MATSUS	0	IP	11 36 59.5	S	38 42							1033.2	102.5

OT= 12 12 9 17.4 +/- 1.9 (JST)
E OFF HOKKAIDO
LAT= 43 9 +/- 5 LONG= 147 31 +/-11
H= 50 MAG=4.8 CLASS=U

NEMURO	0	EP	12 09 42	ES	09 57	7 1.4	4 1.8	4 2.0				158.0	15.0
ABASHI	0	EP	12 09 56	ES	10 24	5 2.4	6 2.6	3 3.6				278.4	28.0
URAKAW	0	X	12 10 19			14 1.2	17 1.2	5 1.4				403.7	
SAPPOR	0	EP	12 10 28	ES	11 27	8 2.0	7 1.8	2 1.8				503.6	59.0
KUSHIR	0	X	12 10 35			19 0.3	18 0.2	8 0.4				255.0	
HAKODA	0	EP	12 10 36	EX	11 43	4 1.7	5 2.0	3 2.0				575.1	
AOMORI	0	EX	12 10 51			9 1.6	8 2.1					615.1	
OBIHIR	0	EX	12 10									351.0	
MATSUS	0	P	12 11 39	X	13 12							1082.1	

OT= 12 12 18 42.0 +/- 2.8 (JST)
E OFF HOKKAIDO
LAT= 43 32 +/-18 LONG= 148 46 +/-15
H= 70 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KUSHIR	0	EP	12 19 33	ES	20 11	15 0.4	9 0.5	4 0.8				360.3	38.0
NEMURO	0	ES	12 19 43			8 2.0	7 1.6	6 1.6				258.5	
OBIHIR	0	EX	12 19 46									455.6	
URAKAW	0	P	12 19 54.2	S	20 48.6	14 1.0	17 1.0	6 1.4				512.6	54.4
SAPPOR	0	P	12 20 03.5	ES	21 00	9 2.0	9 2.0	2 1.4				605.6	56.5
HAKODA	0	P	12 20 12.0	ES	21 30	4 1.9	7 1.8	3 2.2			U	683.5	78.0
MATSUS	0	IP	12 21 15.2	S	23 15						U	1188.0	119.8
AOMORI	0	EX	12 21 25			9 1.8	8 1.8	3 1.2				725.1	

OT= 12 12 33 36.9 +/- 1.7 (JST)
E OFF HOKKAIDO
LAT= 42 57 +/- 5 LONG= 147 42 +/-10
H= 60 MAG=5.5 CLASS=S

NEMURO	1	EP	12 34 04	ES	34 19	140 4.0	198 4.8	190 4.8				177.0	15.0
KUSHIR	0	P	12 34 16.6	X	34 54	126 5.2	200 6.0	100 4.8			U	269.7	
ABASHI	0	P	12 34 20.0	S	34 41.0	135 3.4	131 3.6	67 3.4	N	2 W	5 U 4	300.8	21.0
HIROO	0	P	12 34 29.7									367.2	
URAKAW	0	EP	12 34 37	S	35 20.0			100 8.0				413.5	43.0
RUMOI	0	EX	12 34 48									503.5	
SAPPOR	0	P	12 34 48.6			42 3.4	59 4.0	24 4.4				519.4	
WAKKAN	0	P	12 34 53.0			93 5.1	103 5.4	68 6.0			U	553.5	
HACHIN	0	EP	12 34 54.9	X	36 10.4	15 4.9	12 2.9	10 4.8				579.9	
HAKODA	0	EP	12 34 56	ES	36 03	29 5.9	30 5.2	23 4.8				585.4	67.0
MIYAKO	0	EP	12 34 57	ES	35 57	7 4.6	6 4.0	4 3.5				604.1	60.0
AOMORI	0	X	12 34			48 3.2	43 3.9	8 2.8				620.9	
OBIHIR	0	EX	12 34									365.6	
ASAHIK	0	X	12 34			44 3.2	34 3.2	45 6.0				441.3	
MORIOK	0	EP	12 35 04.0	ES	36 12.0	8 4.0	7 5.2	10 11.0	S	W		655.2	68.0
				EX	38 20								
OFUNAT	0	EP	12 35 05.0	ES	36 10.0	8 5.4	6 6.6	7 7.6				662.8	65.0
				L	44 22								
AKITA	0	EX	12 35 12			37 5.2	43 5.4	21 5.0				730.0	
ISHINO	0	P	12 35 13.2	ES	36 28.0	9 10.4	11 5.8	9 8.0				737.8	74.8
SAKATA	0	EX	12 35 24.6									799.9	
ONAHAM	0	EX	12 35 45.6	X	37 10.1	10 2.8	14 3.2	8 8.9				883.5	
KUMAGA	0	EP	12 35 52.6	ES	37 40.6	10 4.0	11 4.6	10 4.6				1038.8	108.0
MATSUS	0	P	12 35 56	X	37 38							1079.8	
NAGANO	0	EP	12 35 58.2	ES	37 53.2	13 4.3	8 4.7	5 3.5				1071.2	115.0
SENDAI	0	X	12 35	X	36 15	11 4.0	14 4.0	10 4.0				775.8	
FUKUSH	0	X	12 35	ES	36 58.2	8 6.0	7 6.0	6 6.0				841.6	
TOYAMA	0	EP	12 36 05	ES	38 08	8 6.0	8 6.0	8 5.2				1133.1	123.0
KANAZA	0	EX	12 36 22			11 15.6	11 14.5	5 15.5				1182.7	
HAMAMA	0	EX	12 36 30	ES	38 38	5 4.0	6 4.4	2 4.0				1258.1	
TOYOOK	0	EP	12 36 34.8			7 15.0	4 15.6	6 14.2				1380.7	
TATEYA	0	EX	12 36 36.9			24 8.7	23 6.2	11 6.0				1113.7	
OSAKA	0	EX	12 37 25.2			9 4.2	7 5.0					1398.0	
MIYAZA	0	EP	12 37 40.2	S	41 01.0	6 9.8	5 5.0	3 3.4				1884.2	200.8
OITA	0	EX	12 37 40.3	EX	40 43.7	13 4.6	18 4.6					1770.1	
OMAEZA	0	X	12 37 45.3				13 7.6					1238.5	
NAGASA	0	EP	12 37 45.3	ES	41 13.0							1930.7	207.7
TOKYO	0	X	12 38 04.5			20 7.0	20 8.6	16 3.8				1057.1	

OT= 12 13 12 49.2 +/- 1.5 (JST)
E OFF HOKKAIDO
LAT= 43 28 +/- 7 LONG= 146 54 +/- 8
H= 50 MAG=4.9 CLASS=M

NEMURO	2	IP	13 13 07.5	IS	13 18.5	70 0.2	96 0.2	23 0.2				107.5	11.0
KUSHIR	1	P	13 13 20.0	IS	13 42.2	41 0.2	52 0.2	15 0.2			D	210.7	22.2
ABASHI	0	IP	13 13 22.0	S	13 45.0	5 1.6	6 1.0	3 0.6	S	W 3 0 2		219.5	23.0
OBIHIR	0	EP	13 13 33	ES	14 13							305.1	40.0
URAKAW	0	P	13 13 44.0	S	14 20.6	9 1.4	16 1.6	6 1.8				367.0	36.6
SAPPOR	0	EP	13 13 52			5 1.6	5 1.6	2 1.0				454.4	
AOMORI	0	EX	13 14 05			10 1.1	9 1.4	3 1.2				584.9	
MATSUS	0	P	13 15 07	S	16 53							1067.8	106.0

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OT= 12 13 48 25.1 +/- 2.1 (JST)
E OFF HOKKAIDO
LAT= 42 52 +/- 6 LONG= 147 53 +/-13
H=110 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	0	X	13	48	06				20	3.0	21	4.0	18	3.2				193,9	
KUSHIR	0	IP	13	49	06.0	S	49	36.0	17	2.8	18	2.6	10	4.0			U 2	285,1	30.0
ABASHI	0	P	13	49	10.2	X	49	20.0	12	3.2	15	3.2	8	2.6				318,3	
URAKAW	0	P	13	49	26.8	S	50	13.0	14	3.0	17	1.8	12	4.8		W	U	426,7	46.2
ASAHIK	0	EP	13	49	29				6	2.0	6	1.8	4	2.2				458,1	
SAPPOR	0	P	13	49	38.2				5	2.4	5	2.0	3	1.2				535,0	
HAKODA	0	EP	13	49	46	ES	50	44	5	1.5	4	1.5	2	1.3				598,6	58.0
MORIOK	0	EP	13	49	52.0	IS	50	58.4	7	0.6	7	0.4	3	1.4				663,4	66.4
AOMORI	0	X	13	49	58	S	50	52	32	1.8	19	1.8	14	1.2				632.0	
OBIHIR	0	EX	13	49														380,9	
SENDAI	0	EP	13	50	08	ES	51	24	4	2	5	1.0	2	2				781,5	76.0
AKITA	0	EX	13	50	21				7	1.6	5	1.6	3	2.0				739,3	
MATSUS	0	P	13	50	45	S	52	29									U	1086,0	104.0
ONAHAM	0	EX	13	50	50.5				7	1.4	6	1.4	3	0.4				887,2	
FUKUSH	0	EP	13	50		ES	51	39.9	9	0.9	5	1.0	2	0.7				847,1	
TOKYO	0	ES	13	52	28.5													1060,6	

OT= 12 13 53 35.5 +/- 1.5 (JST)
E OFF HOKKAIDO
LAT= 43 10 +/- 5 LONG= 147 42 +/- 8
H= 70 CLASS=M

NEMURO	1	EP	13	54	02	ES	54	21	128	1.4	143	2.0	105	1.8				172,6	19,0
KUSHIR	1	IP	13	54	15.2	S	54	42.0	98	2.8	123	3.6	69	4.4			U 9	270,0	26,8
ABASHI	0	P	13	54	18.6	S	54	46.8	61	2.6	61	3.0	42	3.4				291,7	28,2
HIROO	0	IP	13	54	28.6	S	55	05.7									D 2	372,2	37.1
URAKAW	0	P	13	54	35.8	S	55	20.0	77	2.4	157	1.2	49	2.8				418,6	44.2
ASAHIK	0	EP	13	54	38				33	2.4	34	1.8	26	2.0				436,2	
RUMOI	0	EX	13	54	46													497,9	
WAKKAN	0	EP	13	54	47				36	3.7	52	4.8	28	3.5				541,2	
SAPPOR	0	P	13	54	47.4	ES	55	33	53	2.0	42	1.8	15	2.8				518,5	45,6
HACHIN	0	EP	13	54	54.5	ES	55	55.6	5	2.8	5	2.6	3	4.0			D	590,7	61.1
HAKODA	0	IP	13	54	55.4	S	55	53.5	23	1.8	20	2.4	10	3.6	N	3 E	3 D 3	590,1	58.1
AOMORI	0	EP	13	54	59	S	56	01	64	2.7	54	2.7	20	1.9				629,6	62.0
OBIHIR	0	EX	13	54														366.0	
MORIOK	0	P	13	55	04.4	IS	56	10.2	11	0.4	8	0.4	9	1.2	N	0 E	0 D 0	668,0	65,8
OFUNAT	0	P	13	55	05.2	S	56	10.1	6	2.2	6	1.2	7	1.8		E	1 D 1	678,1	64,9
ISHINO	0	P	13	55	13.8	ES	56	26.4	6	1.2	7	2.0	7	1.8		E	D	753,7	72,6
AKITA	0	EX	13	55	15.4				18	3.2	15	4.0	11	4.0				741,2	
FUKUSH	0	EP	13	55	27.3	ES	56	52.7	13	1.2	11	1.0	3	1.0				857,6	85,4
SENDAI	0	X	13	55	29.8	ES	56	35.2	11	3	14	1.6	5	2.0				791,4	
ONAHAM	0	EX	13	55	32.0	X	57	07.4	12	1.0	11	1.2	5	1.9				901,2	
KAKIOK	0	EP	13	55	45	ES	57	22	10	0.8	8	1.0	3	0.9				1002,8	97,0
SAKATA	0	EX	13	55	47.4													812,8	
KUMAGA	0	EP	13	55	53.0	ES	57	41.0	7	1.4	6	1.4	4	3.2				1055,7	108,0
MATSUS	0	P	13	55	56.5	ES	57	53							N	E	D	1094,8	116,5
WAJIMA	0	EX	13	56	00													1119,0	
TATEYA	0	EP	13	56	06.0				12	3.0	6	2.5	5	3.0				1132,2	
KOFU	0	EP	13	56	07.4	ES	57	57.2	4	1.4	6	1.6	2	1.6				1144,6	109,8
TOKYO	0	ES	13	57	38.0				5	5.0	8	4.6	8	3.4				1074,8	

OT= 12 14 3 26.5 +/- 1.9 (JST)
E OFF HOKKAIDO
LAT= 42 58 +/- 5 LONG= 148 16 +/-10
H= 70 CLASS=R

NEMURO	0	P	14	03	58.0	ES	04	16	325	4.8	255	6.0	340	4.8		W 27	U 32	221,7	18,0
KUSHIR	1	IP	14	04	11.8	ES	04	48	400	6.9	500	6.7	400	3.3		W 16	U 10	315,9	36,2
ABASHI	0	IP	14	04	13.4	S	04	45.0	235	5.4	352	5.6	132	5.0	N 14	W 44	U 29	342,7	31,6
HIROO	0	IP	14	04	25.1	S	05	10.2	450	7.4	450	4.1	250	6.2			U 16	413,1	45,1
URAKAW	1	P	14	04	31.4	X	05	05.6	200	9.2	200	8.0	199	4.4				459,4	
ASAHIK	0	EP	14	04	33				138	4.8	108	2.8	95	3.2				485,9	
RUMOI	0	P	14	04	41	X	05	52								E 8		547,8	
SAPPOR	0	IP	14	04	43.0	EX	05	37	109	4.2	203	4.6	35	5.0			U 23	565,4	
WAKKAN	0	IP	14	04	45.8	S	05	55.6	187	8.8	255	7.9	179	5.1		W 15	U 23	592,3	69,8
MURORA	0	P	14	04	48.0	ES	05	46	100	6.8	100	5.1	100	4.1	S	W 8	U 6	601,6	58,0
HACHIN	0	IP	14	04	50.4	IS	05	52.9	68	15.8	89	13.5	46	15.1	S	W 1	U 1	622,7	62,5
HAKODA	0	IP	14	04	51.5	S	05	55.0	113	5.2	86	4.7	92	10.8	S	4 W 10	U 11	631,3	63,5
MIYAKO	0	EP	14	04	53.8	ES	05	53.9	60	13.9	35	12.1	41	13.6	S	2 W 2	U 1	643,4	60,1
SUTTSU	0	EX	14	04	54.0													656,0	

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
AOMORI	0	IP	14	04	55.0	ES	05	59.0	186	3.0	152	2.3	47	18.8	S 10	W 20	U 9	665,2	64.0
OBIHIR	0	EX	14	04					450	4.5	300	4.1						411,8	
MORIOK	0	P	14	05	00.5	IS	06	10.0	30	4.0	27	14.2	65	13.4			U 1	696,1	69,5
						IX	06	14.6											
						X	07	27											
						X	08	06											
OFUNAT	0	P	14	05	01.2	S	06	08.4	26	13.6	23	3.0	26	12.8	S 2	W 2	U 3	700,7	67.2
ISHINO	0	EP	14	05	09.7	ES	06	26.0	36	14.4	30	12.8	42	13.0	S 2	W 2	U 2	774,6	76.3
AKITA	0	P	14	05	10.2	ES	06	30.0	107	10.0	128	6.0	78	14.2			U 10	772,4	79,8
SENDAI	0	EP	14	05	15.0	ES	06	32	55	2.2	43	14	38	13				813,0	77.0
YAMAGA	0	EP	14	05	19.9	ES	06	41.6										849,6	81.7
						EL	09	14											
SAKATA	0	EX	14	05	21.0				450	4.2	300	4.6	50					840,7	
FUKUSH	0	EP	14	05	23.5	ES	06	51.9	32	0.9	23	12.8	19	12.4				878,4	88.4
SHIRAK	0	EP	14	05	31.5	ES	07	04.3										944,0	92.8
NIIGAT	0	EP	14	05	35.9	ES	07	08.1	220	9.0	155	11.5	78	7.2				961,7	92.2
ONAHAM	0	X	14	05	37.0	IS	07	00.8	77	11.4	65	10.6	34	2.5				917,2	
AIKAWA	0	EP	14	05	39.5				24	13.0			27	14.0	N	E		1010,9	
KAKIOK	0	EP	14	05	40	S	07	20.0	22	16.0	23	16.5	24	12.4				1018,8	100.0
KUMAGA	0	EP	14	05	48.6	ES	07	35.0	40	10.0	60	10.0	23	5.4				1074,0	106.4
UTSUNO	0	X	14	05	49	ES	07	19										1011,8	
CHICHI	0	EP	14	05	51.0	ES	07	39.8										1105,1	108,8
NAGANO	0	P	14	05	52.2	X	08	06.2	44	4.2	34	5.0	20	18.0	S		U 2	1109,4	
KARUIZ	0	EP	14	05	52.7	ES	07	44.9										1110,6	112.2
MATSUS	0	IP	14	05	53.3	S	07	42							S	W	U	1117,7	108.7
WAJIMA	0	IX	14	05	57.0				18	2.0	15	2.0	10	2.6		W 7	U 7	1147,8	
TOYAMA	0	EP	14	06	00	ES	08	09	40	13.6	44	12.8	22	11.2				1172,7	129,0
KAWAGU	0	P	14	06	00.4	S	07	59.6										1165,0	119,2
MISHIM	0	EP	14	06	01.3	ES	07	59.2	25	21.4	38	18.1	26	12.4				1187,5	117.9
OSHIMA	0	P	14	06	01.4	X	07	53.4	46	12.2	52	13.4	10	15.0				1192,1	
KOFU	0	EP	14	06	01.8	ES	07	54.8	23	13.4	18	12.0	26	12.2				1163,9	113.0
AJIRO	0	E	14	06	02.3	E	07	55.8	20	11.0	19	11.2	38	12.2				1183,7	
TOKYO	0	EX	14	06	04	ES	07	37.8	53	6.4	73	10.6	45	5.2				1090,5	
TATEYA	0	X	14	06	06.0				89	15.0	107	17.0	60	12.0				1145,5	
SHIZUO	0	EP	14	06	06.2	S	08	09.2	24	12.0	21	15.0	22	12.0				1230,2	123.0
KANAZA	0	EP	14	06	06.4				41	13.5	29	12.3	22	15.3				1222,7	
NAGOYA	0	EP	14	06	15.2	ES	08	26.0	17	2.6	14	2.0	7	2.0				1304,1	130,8
HAMAMA	0	X	14	06	20	X	08	42	20	13.8	16	8.0	10	14.4				1293,5	
KYOTO	0	IP	14	06	27.3	ES	08	57.5	14	15.2	19	15.8	8	16.0			U 0	1396,8	150.2
HACHIJ	0	X	14	06	29.0	ES	08	35.0	36	5.5	46	5.5	8	1.6				1322,3	
TOYOOK	0	P	14	06	30.8	X	09	15.0	35	15.5	79	13.9	31	16.9	S 7	W 6	U 5	1421,1	
OSAKA	0	EX	14	06	32.2				21	3.8	35	14.3	23	15.0				1436,4	
OWASE	0	EP	14	06	33.0	X	09	51.0	10	14.0	8	12.0	11	14.0				1440,9	
OMAEZA	0	X	14	06	34.1	X	07	32.5	67	12.4	81	12.0						1272,8	
SAIGO	0	P	14	06	37.1	ES	09	11.8	16	13.5	19	15.0	10	17.0			U 1	1483,2	154,7
						EL	11	17											
OKAYAM	0	EP	14	06	44.0	ES	09	20	11	14.5	31	14.5	24	16.0	S 1	W 3	U 3	1545,3	156.0
TAKAMA	0	EP	14	06	45.8	ES	09	36.4	29	14.9	28	15.1	4	17.0				1562,2	170.6
WAKAYA	0	X	14	06	51.6	X	09	32.7	12	12.8	30	16.5	28	15.5				1494,6	
SHIONO	0	EX	14	06	52.8						24	13.9						1518,4	
HAMADA	0	EP	14	06	57.7	S	09	59.4	20	15.8	10	17.8	11	14.4				1661,3	181.7
						EL	11	56.4											
MUROTO	0	P	14	06	58.5	EX	07	06.1	5	5.0	5	3.0	4	3.0				1636,0	
MATSUY	0	EP	14	07	00.8	ES	09	58.5	53	15.3	29	14.9	19	16.6				1685,4	177.7
HIROSH	0	P	14	07	06.9	EL	11	09	28	17.6	24	17.5	21	16.4	S 5	W 5	U 6	1671,8	
ASHIZU	0	EP	14	07	10.3	ES	10	27.4	22	14.9	30	14.7	11	15.3				1754,4	197.1
MITO	0	ES	14	07	14.0				63	12.6	47	4.0	39	13.6				990,3	
SHIMON	0	P	14	07	16.5				21	15	14	14	15	14	S 1	W	U 1	1807,5	
MAEBAS	0	X	14	07	17													1073,2	
FUKUOK	0	EP	14	07	23.2	ES	10	41.0	9	4.0	11	14.5	10	14.0	S 2	W 1	U 3	1873,9	197.8
SAGA	0	P	14	07	26.2													1902,9	
OITA	0	EP	14	07	26.5	S	11	39.9	37	13.4	73	14.4						1810,4	253,4
KUMAMO	0	EP	14	07	26.9	ES	10	53.5	25	17.2	37	17.0	8	2.0	N 4	E 5	D 3	1905,4	206.6
MIYAZA	0	P	14	07	29.0	S	10	58.0	23	5.2	25	5.0	17	3.2				1923,3	209.0
NAGASA	0	EP	14	07	35.2	ES	11	05.4							S	W	U	1971,8	210.2
KAGOSH	0	EP	14	07	38.6				13	2.6	18	2.4	10	2.0				2009,2	
YAKUSH	0	EP	14	07	50.2	EX	11	26.1	17	11.8	19	6.0	14	5.6				2101,2	
NAHA	0	P	14	08	42.0	S	13	03.0	14	3.0	15	5.4	15	4.0	S		U	2633,0	261.0

OT= 12 14 8 58.0 +/- 3.6 (JST)
E OFF HOKKAIDO
LAT= 42 33 +/-12 LONG= 147 15 +/-18
H= 30 MAG=5.2 CLASS=M

NEMURO	0	X	14	09	24				120	3.2	190	4.6	114	3.0				161,0	
KUSHIR	1	EP	14	09	34	ES	10	00	173	6.0	207	5.0	93	3.6				238,5	26.0
HIROO	0	EP	14	09	45	S	10	27.8										325,1	42.8
KOBE	0	EX	14	10	03						50	18.5						1363,7	
HAKODA	0	P	14	10	12.8	ES	11	08	9	1.8	13	1.2	5	2.2			U 1	542,5	55.2

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
FUKUSH	0	X	14 10 58.1	X	12 20.1	14	0.8	10	0.7	2	0.8				784.7	
MORIOK	0	X	14 10	ES	11 22.1	8	0.4	6	0.4	2	0.4				600.9	
KAKIOK	0	EP	14 11 05	X	12 31	9	0.8	8	0.8	4	0.8				927.5	
MATSUS	0	P	14 11 15												1023.4	
TOKYO	0	EX	14 12 54												999.4	
IIDA	0	X	14 16 06.8	X	18 12.8	13	11.3	23	13.2	12	12.4				1128.0	

OT= 12 14 53 33.7 +/- 1.8 (JST)
E OFF HOKKAIDO
LAT= 43 19 +/- 6 LONG= 148 3 +/-10
H= 70 CLASS=R

NEMURO	0	EP	14 54 03	ES	54 23	125	5.0	145	6.0	104	4.0				199.9	20.0
KUSHIR	1	EP	14 54 18	X	55 00	118	8.6	218	8.2	62	3.2				299.7	
ABASHI	0	P	14 54 18.2	S	54 48.0	138	5.6	120	9.0	64	4.0				313.6	29.8
HIROO	0	P	14 54 30.4	X	55 21	200	8.3	400	6.8						403.9	
OBIHIR	0	EP	14 54 31												395.4	
URAKAW	0	P	14 54 37.8	S	55 21.6	148	12.4	161	11.2	68	8.4				450.3	43.8
ASAHIK	0	EP	14 54 38			44	3.0	40	3.4	53	2.2				461.6	
RUMOI	0	EX	14 54 46												522.6	
SAPPOR	0	P	14 54 48.4			62	2.4	85	8.0	48	9.0				546.9	
WAKKAN	0	EP	14 54 50			84	11.6	103	9.9	99	12.3				558.4	
HAKODA	0	P	14 54 56.3	ES	56 03	43	5.5	43	14.5	40	10.5			D	621.5	66.7
MIYAKO	0	EP	14 55 01.3	ES	56 07.8	19	14.0	16	12.3	15	13.4				651.2	66.5
AOMORI	0	EP	14 55 03	ES	56 18	100	2.3	64	1.4	33	13.5				662.2	75.0
MORIOK	0	EP	14 55 06.5	S	56 19.4	17	14.0	21	16.8	19	11.6				700.9	72.9
				EX	57 10											
OFUNAT	0	EP	14 55 08.5	S	56 20.9	17	12.8	13	13.2	14	14.0				710.6	72.4
				L	59 37											
ISHINO	0	P	14 55 16.5	ES	56 40.0	24	12.6	17	11.2	17	13.2				786.0	83.5
AKITA	0	EX	14 55 23.4			43	7.2	61	10.0	32	16.0				774.1	
SENDAI	0	EP	14 55 24.2	ES	56 48.4	20	2.0	20	2.0	8	1.6				823.8	84.2
SAKATA	0	EX	14 55 25.5												845.7	
FUKUSH	0	EP	14 55 32.3	ES	57 02.9	42	0.8	22	0.8	7	1.0				889.9	90.6
SHIRAK	0	EP	14 55 40.7	ES	57 15.7										957.0	95.0
ONAHAM	0	EX	14 55 44.5	ES	57 08.2	30	10.5	27	9.2	15	10.8				932.7	
KAKIOK	0	EP	14 55 50	S	57 32.0	21	0.9	20	0.8	8	0.9				1034.3	102.0
MATSUS	0	P	14 55 56	X	57 40										1127.4	
HACHIN	0	X	14 55 59.6	S	56 03.9	35	13.7	50	16.9	21	16.5				623.6	
TAKADA	0	X	14 55												1081.2	
KUMAGA	0	X	14 56 01.6	ES	57 48.0	22	10.6	33	10.8	15	12.4				1087.6	
WAJIMA	0	EX	14 56 02			9	1.2	10	1.2	5	1.2				1152.0	
TOYAMA	0	EX	14 56 08	ES	58 02	16	12.0	32	12.8	12	17.2				1179.7	
NAGANO	0	X	14 56 08.4	X	58 16.7	14	4.2	13	3.2	7	3.0				1118.7	
KOFU	0	EP	14 56 09.6	ES	58 11.2	13	12.0	10	13.0	10	12.5				1176.8	121.6
OSHIMA	0	P	14 56 10.4	S	58 11.7	19	13.0	22	14.2	6	12.0				1209.2	121.3
TATEYA	0	EX	14 56 12.6			50	9.8	60	13.5	31	11.8				1163.2	
KANAZA	0	EX	14 56 17			27	15.3	17	16.0	15	15.4				1228.9	
GIFU	0	P	14 56 22.5	S	58 38.5	13	12.5	11	12.5	9	15.5				1308.8	136.0
SHIZUO	0	X	14 56 25.0	S	58 19.5	14	11.5	18	12.5	15	12.0				1244.4	
NAGOYA	0	EP	14 56 26.8	ES	58 39.3	8	3.2	7	2.8	2	1.5				1314.7	132.5
KYOTO	0	IP	14 56 32.0	ES	59 03.5	11	13.7	10	14.4	5	12.5			U 0	1405.4	151.5
TOYOOK	0	P	14 56 39.4			17	14.5	39	18.3	17	16.6				1426.7	
SAIGO	0	EP	14 56 44.2	X	59 02.9			9	15.5	6	13.5	N	1 E	1 D 0	1484.6	
				EL	01 25											
OKAYAM	0	EP	14 56 53.0			4	13.8	15	14.2	16	14.0				1551.4	
TAKAMA	0	EP	14 56 53.4	ES	59 55.0	17	15.1	11	14.5						1569.4	181.6
OSAKA	0	EX	14 56 54.0			15	3.5	16	13.0	12	11.0				1445.3	
MISHIM	0	X	14 56												1202.7	
HAMAMA	0	X	14 56			11	5.5	11	12.0	20	14.0				1306.8	
SHIONO	0	EX	14 57 02.8					11	13.5						1530.4	
HAMADA	0	EP	14 57 07.4	S	00 14.8	10	14.9	5	14.2	7	3.4				1664.0	187.4
				EL	02 04.4											
HIROSH	0	EP	14 57 15	EL	01 40	15	16.8	11	17.1	9	16.9				1676.2	
MATSUY	0	EP	14 57 17.4	ES	00 07.6	28	14.9	12	18.0	9	14.5				1691.5	170.2
ASHIZU	0	EP	14 57 23.4	ES	00 32.8	17	14.4	14	14.8	9	14.5				1763.1	189.4
SHIMON	0	EP	14 57 24			10	15	7	5	7	15	N	2 E	2 D 2	1810.6	
FUKUOK	0	EP	14 57 30.5	ES	00 56	6	5.3	5	15.0	5	4.5				1877.0	202.5
KUMAMO	0	EP	14 57 34.7	ES	01 02.1	9	2.3	20	17.0	4	2.6				1910.5	207.4
OITA	0	EP	14 57 36.6	ES	00 41.0	28	4.9	62	5.3						1816.0	184.4
MIYAZA	0	P	14 57 39.8	S	01 06.6	14	6.2	14	5.0	7	2.8				1931.0	206.8
TOKYO	0	ES	14 57 45.0			25	8.4	40	10.2	23	3.8				1106.3	
KAGOSH	0	EP	14 57 48.6			9	2.6	11	2.6	5	2.8				2016.2	
YAKUSH	0	EP	14 57 57.8	EX	01 36.1	7	17.0	6	14.6	7	15.4				2109.9	
NAHA	0	EP	14 58 46.0	ES	03 06.8	10	4.4	5	6.0	5	4.0	N			2643.6	260.8

OT= 12 15 38 53.2 +/- 3.7 (JST)
E OFF HOKKAIDO
LAT= 42 52 +/-16 LONG= 147 18 +/-20
H= 60 MAG=5.0 CLASS=S

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KUSHIR	0	EP	15 39 27	S	39 54.3	27	3.0	29	3.0	19	3.6				237.5	27.3
ABASHI	0	P	15 39 31.0	S	40 02.0	25	3.4	31	2.4	8	2.8	S	E 2	D 1	275.7	31.0
				Ex	39 49											
NEMURO	1	ES	15 39 33			25	1.6	34	1.6	22	2.0				148.6	
OBIHIR	0	EP	15 39 39												333.2	
URAKAW	0	P	15 39 48.3	S	40 32.3	20	3.0	26	2.2	11	3.6				379.7	44.0
ASAHIK	0	EP	15 39 51			9	1.0	8	1.6	5	2.2				412.1	
SAPPOR	0	EP	15 39 59			9	2.0	10	1.8	3	1.4				487.4	
SENDAI	0	EP	15 40 37.0	ES	41 45.2	4	2	6	1.6	3	1				744.9	68.2
FUKUSH	0	EP	15 40 39.8	ES	42 03.2	10	1.0	5	0.9	2	0.8				811.0	83.4
MATSUS	0	IP	15 41 09.0	S	42 57							S	W		1048.5	108.0
AOMORI	0	EX	15 41 12			19	1.4	16	0.9						587.1	

OT= 12 15 49 28.7 +/- 1.4 (JST)
E OFF HOKKAIDO
LAT= 42 54 +/- 3 LONG= 146 43 +/- 7
H= 0 MAG=4.9 CLASS=S

NEMURO	2	P	15 49 49.4	IS	50 02.2	98	0.4	153	1.0	80	1.0			U 1	103.6	12.8
KUSHIR	1	P	15 50 01.0	ES	50 24	51	0.8	52	1.4	27	1.4			U	189.7	23.0
ABASHI	0	EP	15 50 07	S	50 30.8	13	2.0	20	2.4	7	2.2				232.8	23.8
HIROO	0	EP	15 50 15	S	50 51.5										287.4	36.5
OBIHIR	0	X	15 50 21												285.5	
URAKAW	0	P	15 50 23.1	S	51 02.9	18	2.8	22	1.6	10	2.2				333.8	39.8
ASAHIK	0	EP	15 50 25			5	1.6	8	3.0	7	2.6				365.3	
SAPPOR	0	P	15 50 34.1			7	2.0	11	1.8	3	1.0				439.6	
MORIOK	0	EP	15 50 50.7	X	51 49.0	4	0.4	6	0.4	1	1.0				585.1	
AOMORI	0	EX	15 51 03			14	2.3	10	2.3						544.2	
MATSUS	0	P	15 51 43	X	53 25										1014.4	

OT= 12 16 10 45.3 +/- 1.3 (JST)
E OFF HOKKAIDO
LAT= 43 27 +/- 5 LONG= 147 55 +/- 7
H= 70 CLASS=U

NEMURO	0	EP	16 11 14	ES	11 35	23	2.4	20	1.8	15	2.6				189.3	21.0
KUSHIR	0	EP	16 11 27	ES	11 58	41	0.6	30	0.6	15	3.6				291.0	31.0
ABASHI	0	EP	16 11 28	ES	12 02	10	3.2	13	2.0	4	1.8				299.5	34.0
HIROO	0	IP	16 11 41.3	ES	12 28									U 6	397.6	46.7
URAKAW	0	P	16 11 49.1	S	12 32.1	54	1.4	40	1.6	20	2.2				444.0	43.0
SAPPOR	0	P	16 11 59.0	ES	12 53	15	2.0	12	1.8	6	0.8				536.5	54.0
OBIHIR	0	EX	16 11												386.2	
WAKKAN	0	EX	16 12 01			3	4.0	5	4.5	5	3.9				542.1	
HAKODA	0	IP	16 12 07.5	ES	13 12	15	1.1	9	1.2	5	2.4			D	614.6	64.5
AOMORI	0	EP	16 12 13	ES	13 20	22	1.6	22	1.6						658.1	67.0
FUKUSH	0	EP	16 12 42.0	ES	14 17.0	6	0.9	4	0.9	2	0.7				891.8	95.0
MATSUS	0	IP	16 13 10.3	S	15 06							N	E	D	1128.4	115.7
ONAHAM	0	EX	16 14 20.0			5	0.9	6	0.9	2	0.4				936.3	

OT= 12 16 38 12.6 +/- 0.9 (JST)
E OFF HOKKAIDO
LAT= 43 46 +/- 5 LONG= 147 57 +/- 5
H= 40 MAG=5.1 CLASS=S

NEMURO	1	EP	16 38 42	ES	39 02	11	0.4	10	0.4	5	0.4				197.1	20.0
ABASHI	0	EP	16 38 55	ES	39 26	5	1.8	6	1.6	3	1.6				296.0	31.0
KUSHIR	0	EP	16 38 56	S	39 26.4	35	0.3	28	0.2	10	0.7				301.2	30.4
OBIHIR	0	X	16 39 16												394.8	
URAKAW	0	P	16 39 18.3	S	40 08.3	31	1.0	43	1.0	8	1.0				458.1	50.0
SAPPOR	0	EP	16 39 27			5	2.0	7	1.6	3	1.0				541.8	
HAKODA	0	EP	16 39 37	ES	40 51	11	1.1	7	1.0	5	1.0				627.0	74.0
MATSUS	0	P	16 40 40	X	42 25										1153.1	
AOMORI	0	EX	16 40 52			15	1.4	13	1.4						675.6	

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OT= 12 16 54 44.4 +/- 0.9 (JST)
E OFF HOKKAIDO
LAT= 42 41 +/- 3 LONG= 147 13 +/- 5
H= 50 MAG=5.4 CLASS=M

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	2	P	16 55 08.0	S	55 23.6	145	2.4	330	2.0	136	2.0	N 2	W 9	U 12	151.0	15.6
KUSHIR	1	IP	16 55 19.0	S	55 44.3	103	1.8	216	1.4	96	1.8		W 3	U 3	233.1	25.3
ABASHI	0	P	16 55 25.4	S	55 53.8	53	3.4	57	4.6	26	2.6				280.2	28.4
HIROO	0	EP	16 55 30	IS	56 11.9										323.8	41.9
OBIHIR	0	EP	16 55 32												327.9	
URAKAW	0	P	16 55 39.1	S	56 16.5	83	3.2	99	3.2	46	3.4				369.8	37.4
ASAHIK	0	EP	16 55 42			30	1.8	33	2.0	25	2.8				411.6	
SAPPOR	0	P	16 55 51.0	ES	56 40	29	2.0	39	2.4	16	2.6				482.7	49.0
RUMOI	0	EX	16 55 51												474.3	
MURORA	0	EP	16 55 53												514.0	
HACHIN	0	IP	16 55 57.1	S	56 47.1	5	5.1	4	4.0	3	1.5		E	D	531.5	50.0
HAKODA	0	P	16 55 58.1	ES	56 57	18	2.4	12	2.6	10	3.5		W 1	U 1	541.6	58.9
AOMORI	0	EP	16 56 03	ES	57 00	44	2.1	33	2.3						573.7	57.0
WAKKAN	0	EX	16 56 06			21	4.4	22	3.8	13	3.3				537.2	
OFUNAT	0	EP	16 56 07.6	ES	57 04.8	4	1.4	4	2.2	6	1.2				613.5	57.2
AKITA	0	EX	16 56 24			12	3.2	13	2.8	8	3.2				681.4	
SENDAI	0	X	16 56 36	X	57 28	8	2.4	8	2.0	4	2.0				726.4	
MATSUS	0	P	16 56 59												1030.4	
FUKUSH	0	X	16 56	ES	57 51.2	9	6.0	6	1.3	2	0.9				792.4	
SAKATA	0	EX	16 57 40.7												750.7	
TOKYO	0	EX	16 58 24			5	3.8	8	3.2	6	3.4				1008.5	
TATEYA	0	EX	16 58 45.0			5	3.3	5	3.5	3	3.5				1065.7	

OT= 12 18 25 40.6 +/- 1.1 (JST)
E OFF HOKKAIDO
LAT= 42 56 +/- 3 LONG= 147 13 +/- 6
H= 10 MAG=5.5 CLASS=M

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	1	P	18 26 05.0	ES	26 22	132	4.0	162	4.6	198	4.2		E 10	U 14	139.7	17.0
KUSHIR	1	IP	18 26 17.4	S	26 46.6	90	2.6	100	3.0	63	4.0		W 6	U 7	230.3	29.2
ABASHI	0	P	18 26 21.8	S	26 53.2	115	2.8	196	2.6	68	4.2	N 6	W 13	U 10	266.2	31.4
HIROO	0	IP	18 26 31.6	IS	27 11.2									U 4	328.1	39.6
URAKAW	0	P	18 26 38.3	S	27 23.1	70	2.6	93	3.0	44	3.8				374.5	44.8
ASAHIK	0	EP	18 26 41			40	2.8	29	2.2	34	2.8				403.6	
RUMOI	0	EX	18 26 49												465.9	
SAPPOR	0	P	18 26 50.0	ES	27 41	43	2.2	42	2.4	19	3.4	S 4			480.1	51.0
WAKKAN	0	P	18 26 54.0	EX	28 10	32	4.7	53	6.0	38	9.5			U	521.3	
HACHIN	0	EP	18 26 56.8	ES	27 53.4	9	2.5	10	16.0	7	4.3		W	U	543.8	56.6
HAKODA	0	IP	18 26 57.8	ES	27 58	19	4.2	16	4.0	13	3.8	S 1	W 4	U 4	546.2	60.2
MIYAKO	0	EP	18 26 59.5	ES	27 59.0	8	1.8	4	2.4	4	1.0				571.4	59.5
OBIHIR	0	EX	18 26												326.2	
AOMORI	0	EP	18 27 02	ES	28 09	67	1.6	49	2.2	16	0.7				583.4	67.0
MORIOK	0	EP	18 27 06.5	IS	28 10.6	7	0.4	5	0.4	6	2.0			U 0	620.9	64.1
				EX	30 15											
OFUNAT	0	P	18 27 07.6	S	28 12.4	10	2.0	8	2.0	11	1.8	S 1		U 1	631.4	64.8
AKITA	0	EX	18 27 14			20	2.6	16	5.8	10	5.4				694.2	
ISHINO	0	P	18 27 15.7	X	28 27.2	16	2.0	9	2.6	6	2.0				707.2	
SENDAI	0	EP	18 27 22	X	28 36	21	2.2	20	2.4	5	1.5				744.7	
ONAHAM	0	EX	18 27 44.4	X	29 01.2	15	1.8	13	1.2	14	2.1				855.6	
SAKATA	0	EX	18 27 45.4												765.6	
KAKIOK	0	EP	18 27 50	X	29 23	7	0.9	8	1.0	3	0.9				957.2	
MATSUS	0	P	18 27 58	S	29 57							S	W	D	1047.9	119.0
FUKUSH	0	X	18 27	X	28 51.4	36	1.0	13	1.0	4	1.0				811.0	
KUMAGA	0	X	18 28 04.0	ES	29 43.0	7	1.8	7	1.4	3	3.4				1009.5	
KOFU	0	X	18 28 20.0	X	29 56.0	5	1.4	6	1.8	2	1.2				1098.3	
TATEYA	0	X	18 28 20.2			13	3.5	8	3.1	5	2.5				1087.4	
TOKYO	0	EX	18 29 42			11	6.2	13	6.0	10	3.4				1029.3	
NAGASA	0	X	18 34 00.0												1895.8	

OT= 12 18 33 43.5 +/- 1.4 (JST)
E OFF HOKKAIDO
LAT= 43 12 +/- 4 LONG= 147 37 +/- 7
H= 60 MAG=5.3 CLASS=M

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	1	EP	18 34 09	ES	34 25	59	1.8	94	2.0	46	2.8				165.5	16.0
KUSHIR	1	EP	18 34 23	ES	34 52	75	0.2	70	0.2	43	4.0				263.5	29.0
ABASHI	0	EP	18 34 24	S	34 50	44	2.4	50	2.2	17	2.0				284.0	26.0
HIROO	0	P	18 34 35.6	IS	35 14.7										366.5	39.1
URAKAW	0	P	18 34 43.3	S	35 27.9	82	2.0	108	2.0	44	1.6				413.0	44.6

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
ASAHIK	0	EP	18 34 44			20	2.4	16	2.2	16	2.2				428.9	
SAPPOR	0	P	18 34 53.5	ES	35 49	26	2.0	34	3.6	11	3.6				511.6	55.5
WAKKAN	0	EP	18 34 56			17	5.0	25	4.6	15	4.2				533.5	
MURORA	0	P	18 34 58.8	ES	35 54								W	U	551.8	55.2
HACHIN	0	P	18 35 01.8	IS	36 00.2	11	0.4	6	0.8	2	1.1		W 1	U 1	586.5	58.4
AKITA	0	EX	18 35 05.6			16	2.8	12	5.0	8	3.2				737.0	
MORIOK	0	P	18 35 12.0	IS	36 18.0	13	0.4	15	0.6	5	0.7	S 0		U 0	664.4	66.0
OFUNAT	0	EP	18 35 13.0	IS	36 18.4	7	1.0	6	1.2	7	1.0				675.4	65.4
ISHINO	0	P	18 35 21.7	ES	36 34.0	7	1.8	5	0.8	4	2.6				751.2	72.3
AOMORI	0	X	18 35 23	S	36 09	74	2.0	34	2.2	16	1.3				624.8	
SENDAI	0	EP	18 35 30	ES	36 42	10	1.8	20	2.0	4	2				788.8	72.0
FUKUSH	0	EP	18 35 35.4	ES	37 01.4	14	1.0	11	0.9	4	0.9				855.0	86.0
ONAHAM	0	EX	18 35 49.7	X	37 07.5	9	0.9	10	1.0	4	2.0				899.4	
KAKIOK	0	EP	18 35 58	S	37 30.3	7	0.8	8	0.8	3	0.8				1001.0	92.3
MATSUS	0	IP	18 36 04.6	X	37 48							N		D	1091.9	
SAKATA	0	EX	18 36 42.0												809.1	
TATEYA	0	EX	18 36			10	12.2	12	11.0	4	3.3				1130.9	
TOKYO	0	EX	18 37 45			5	7.0	8	4.4	4	4.8				1073.1	

OT= 12 20 21 21.6 +/- 1.4 (JST)
E OFF HOKKAIDO
LAT= 43 13 +/- 5 LONG= 148 52 +/- 8
H= 50 MAG=5.9 CLASS=R

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	1	EP	20 22 01	ES	22 27	172	2.4	142	3.0	190	3.2				266.6	26.0
KUSHIR	1	IP	20 22 13.8	ES	22 56	146	4.2	150	2.8	113	3.6		W 8	U 6	365.0	42.2
ABASHI	0	P	20 22 14.6	X	22 44.2	111	4.0	126	4.2	72	3.2	S	W 18	U 7	380.5	
OBIHIR	0	EP	20 22 26												461.0	
HIROO	0	P	20 22 27.2	IS	23 16.0										466.1	48.8
ASAHIK	0	EP	20 22 33			59	3.6	76	2.4	51	3.0				528.8	
URAKAW	0	P	20 22 33.9	S	23 28.3	170	4.2	188	2.8	132	3.2				512.5	54.4
RUMOI	0	EX	20 22 42												589.8	
SAPPOR	0	P	20 22 44.2	ES	23 53	90	3.0	106	2.4	55	4.0				613.2	68.8
WAKKAN	0	IP	20 22 45.6	X	23 52.0	81	4.0	151	3.6	71	3.8		W 5	U 14	622.8	
MURORA	0	P	20 22 50.4	ES	23 54							S	W 4	U 6	652.8	63.6
HAKODA	0	IP	20 22 52.3	ES	24 06	70	1.8	78	1.8	55	3.8			D	684.2	73.7
HACHIN	0	IP	20 22 53.8	S	24 01.0	35	18.0	51	16.0	19	16.8	S 1	W 1	U 1	678.6	67.2
SUTTSU	0	EX	20 22 56.7												704.8	
MIYAKO	0	EP	20 22 56.8	ES	24 06.8	29	14.1	14	2.4	12	14.6				699.6	70.0
				EX	27 02											
AOMORI	0	IP	20 22 59.3	ES	24 14	221	2.2	129	1.5	41	15.4		W 8		720.4	74.7
MISHIM	0	X	20 22	X	24 07.0	8	19.1	17	15.0	6	20.4				1242.1	
MORIOK	0	P	20 23 03.8	S	24 17.7	21	1.5	17	18.0	27	1.6	S 0	W 1	U 1	752.3	73.9
				X	23 15.4											
				L	26 00											
				EL	26 30											
OFUNAT	0	P	20 23 04.4	IS	24 18.7	14	1.8	15	14.0	19	2.4	S 1	W 1	U 1	756.6	74.3
ISHINO	0	EP	20 23 11.0	ES	24 32.8	18	13.4	15	1.8	11	2.0			U	830.3	81.8
AKITA	0	EP	20 23 14.0	ES	24 37.8	67	4.2	51	5.4	30	5.2				828.4	83.8
SENDAI	0	EP	20 23 19	ES	24 43.0	29	1.8	30	2.0	15	14				868.7	84.0
YAMAGA	0	EP	20 23 22.6	ES	24 52.1										905.6	89.5
SAKATA	0	EX	20 23 24.7			150		100	2.1						896.9	
FUKUSH	0	EP	20 23 25.2	ES	25 01.8	18	0.9	24	2.4						934.0	96.6
ONAHAM	0	EP	20 23 32.4	S	25 08.0	31	1.8	30	2.0	15	1.9				971.7	95.6
SHIRAK	0	EP	20 23 37.2	ES	25 13.4										999.2	96.2
NIIGAT	0	EX	20 23 42.4			88	11.2	68	9.3	17	7.1				1017.9	
KAKIOK	0	EP	20 23 43	S	25 31.6	15	1.0	16	1.0	6	1.6				1073.3	108.6
UTSUNO	0	P	20 23 46	ES	25 30										1066.8	104.0
KUMAGA	0	EP	20 23 51.0	ES	25 43.2	21	1.4	21	9.4	11	4.0				1129.0	112.2
TAKADA	0	EP	20 23 52.3												1129.3	
MATSUS	0	IP	20 23 55.0	S	25 55							S	W	U	1173.6	120.0
KARUIZ	0	EP	20 23 55.8	ES	25 54.5										1166.3	118.7
NAGANO	0	EP	20 23 57.0	X	26 09.0	17	3.5			10	3.0				1165.3	
WAJIMA	0	EP	20 24 00	ES	25 56	15	1.8	20	1.8	8	1.8				1204.0	116.0
KOFU	0	EP	20 24 03.4	ES	26 03.2	11	2.0	11	1.6	10	12.0				1219.1	119.8
KAWAGU	0	P	20 24 03.6	S	26 06.9										1220.0	123.3
TATEYA	0	EX	20 24 03.9			38	11.0	51	12.0	27	11.2				1199.0	
AJIRO	0	E	20 24 04.3	E	26 02.5	8	12.0	12	13.0	9	13.0				1238.0	
OSHIMA	0	P	20 24 08.8	S	26 06.3	15	16.8	18	15.0	6	16.0				1246.0	117.5
IIDA	0	EP	20 24 09.8	ES	26 16.8	4	1.4	7	16.0	6	12.0				1277.0	127.0
KANAZA	0	EP	20 24 11.0	ES	26 17.2	18	15.0	15	14.5	14	15.5				1278.8	126.2
TOKYO	0	EX	20 24 12	ES	25 42.0	20	5.8	27	6.8	23	3.6				1144.8	
GIFU	0	P	20 24 19.4	S	26 33.1	13	14.7	13	19.6						1355.0	133.7
HAMAMA	0	EP	20 24 20			10	14.0	9	14.0	5	12.0				1348.6	
SHIZUO	0	X	20 24 22.0	S	26 17.9	11	17.0	11	14.5	11	13.0				1285.0	
NAGOYA	0	X	20 24 24.4	ES	26 40.2	8	2.6	7	2.4	3	1.4				1359.8	
KYOTO	0	EP	20 24 30.5	ES	27 02.3	8	13.2	10	18.7	4	16.0				1452.8	151.8
HACHIJ	0	X	20 24 32.4	ES	26 33.8	9	1.3	9	1.0						1374.1	
SAIGO	0	P	20 24 40.0	ES	27 12.1	9	16.0	11	15.0	9	17.0			U 0	1539.2	152.1

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STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
						EL	29	21											
OSAKA	0	EX	20	24	45.3				18	4.5	15	14.0	8	13.0				1492.3	
TOYOOK	0	X	20	24	46.1	ES	26	57.4	17	16.1	43	17.7	21	16.7	S	4 W	6 U	3	1477.3	
OKAYAM	0	EP	20	24	47.9				6	15.0	13	17.6	11	15.0	S	W	1 U	1	1601.5	
WAKAYA	0	P	20	24	52.9	S	27	40.5	7	12.5	13	18.0	7	14.0					1550.5	167.6
OMAEZA	0	X	20	24	53.4	X	27	39.7	27	17.6	35	12.6							1327.5	
SHIONO	0	EX	20	24	56.2				10	15.8	9	16.1	3	1.7					1573.7	
HAMADA	0	P	20	25	01.6	S	28	13.6	9	16.7	5	16.2	8	2.6	S	1 W	1 U	1	1717.5	192.0
						EL	30	09.4												
MUROTO	0	P	20	25	05.0	EX	25	12.0	5	3.0	5	3.0							1691.9	
HIROSH	0	EP	20	25	10.2	EL	29	20	17	16.5	14	17.9	13	16.8	S	2 W	3 U	2	1728.0	
MATSUY	0	EP	20	25	11.0	ES	28	06.5	26	14.9	17	19.0	10	18.0					1741.6	175.5
ASHIZU	0	EP	20	25	13.6	S	28	34.9	12	17.9	13	17.3	7	15.3					1810.4	201.3
MITO	0	EX	20	25	16				32	2.3	28	3.2	17	1.6					1044.6	
SHIMON	0	EP	20	25	19.0				8	14.0	5	5.0	6	5.4	S	1 W	1 U	2	1863.6	
FUKUOK	0	EP	20	25	26.0	ES	28	46	5	2.3	5	3.5	6	4.5					1930.1	200.0
OITA	0	EP	20	25	27.6	ES	28	46.3	24	4.4	40	5.1							1866.6	198.7
KUMAMO	0	EP	20	25	30.0	ES	28	59.6	18	16.9	12	2.4	6	2.3					1961.7	209.6
MIYAZA	0	EP	20	25	36.8	S	29	07.0	11	5.0	15	4.6	12	2.0					1979.4	210.2
NAGASA	0	P	20	25	42.0	S	29	12.0							N	6 E	6 D	4	2028.0	210.0
KAGOSH	0	EP	20	25	45.8				10	2.0	14	2.0	7	2.0					2065.3	
YAKUSH	0	P	20	25	53.3	EX	29	37.5	8	17.6	9	16.0	8	16.2					2157.1	
NAHA	0	EP	20	26	41	ES	31	04	16	4.0	7	6.0	4	1.6					2688.7	263.0

OT= 12 20 56 59.9 +/- 2.0 (JST)
E OFF HOKKAIDO
LAT= 43 27 +/- 9 LONG= 147 46 +/-11
H= 70 CLASS=M

NEMURO	2	EP	20	57	27	ES	57	44	35	0.4	28	0.4	12	0.4				177.2	17.0
ABASHI	0	EP	20	57	38	ES	58	07	8	1.2	15	1.8	5	1.6				287.7	29.0
KUSHIR	1	EP	20	57	40	S	58	10.0	114	0.2	76	0.3	26	0.2				279.0	30.0
HIROO	0	P	20	57	56.1													386.1	
OBIHIR	0	EP	20	57	57	ES	58	36										374.2	39.0
URAKAW	0	P	20	58	02.5	S	58	51.3	59	1.2	66	1.0	15	1.6				432.4	48.8
SAPPOR	0	EP	20	58	12	ES	59	06	10	2.0	12	1.8	5	1.0				524.3	54.0
HAKODA	0	IP	20	58	20.5	ES	59	25	20	1.2	12	1.1	6	2.4			D	602.8	64.5
HACHIN	0	EP	20	58	21.3	ES	59	21.0	7	0.4	6	0.4						610.6	59.7
MORIOK	0	P	20	58	32.6	ES	59	40.0	7	0.3	10	0.4	2	0.5	E	D		690.1	67.4
MATSUS	0	IP	20	59	24.3	S	01	16							S		U	1119.0	111.7
AOMORI	0	S	20	59	32				37	2.0	22	2.0						647.0	

OT= 12 21 31 42.2 +/- 3.0 (JST)
E OFF HOKKAIDO
LAT= 42 38 +/- 8 LONG= 148 19 +/-17
H= 70 CLASS=U

NEMURO	0	EP	21	32	15	ES	32	36	24	2.6	39	4.4	31	3.0				235.7	21.0
KUSHIR	0	EP	21	32	29	ES	32	59	24	1.4	23	2.4	15	1.6				323.1	30.0
ABASHI	0	EP	21	32	32	EX	32	46	23	2.2	41	2.2	13	2.2				361.5	
						S	33	18.8											
URAKAW	0	P	21	32	48.4	S	33	34.8	18	2.4	29	2.8	12	2.6				458.9	46.4
OBIHIR	0	EX	21	32	50													418.2	
ASAHIK	0	EP	21	32	52				8	1.8	7	2.4	7	2.6				499.3	
SAPPOR	0	EP	21	32	59				8	2.4	10	2.4	4	3.0				572.9	
WAKKAN	0	EP	21	33	05				6	4.2	9	4.5	5	4.9				614.9	
HAKODA	0	P	21	33	07.7	EX	34	10	5	3.6	5	3.8	4	4.2			U	630.5	
SENDAI	0	EP	21	33	23.0	ES	34	47	3	2.0	5	2.0	2	2				794.3	84.0
AOMORI	0	EX	21	33	25				18	1.8	11	2.3						658.3	
MATSUS	0	EP	21	34	02	S	35	51										1099.6	109.0
AKITA	0	EX	21	34	12				8	3.8	7	3.6	5	4.0				761.2	

OT= 12 21 44 34.7 +/- 2.5 (JST)
E OFF HOKKAIDO
LAT= 43 34 +/-12 LONG= 147 21 +/-12
H= 0 MAG=4.5 CLASS=U

NEMURO	0	EP	21	44	59	ES	45	18	9	0.2	7	0.2	4	0.4				145.2	19.0
KUSHIR	0	EP	21	45	16	ES	45	42	15	0.3	15	0.3	5	0.3				248.7	26.0
URAKAW	0	P	21	45	37.2	S	46	20.1	7	1.6	9	1.6	4	2.4				404.9	42.9
MATSUS	0	IP	21	46	59.5	X	48	41							S	W	U	1102.1	

OT= 12 22 18 6.1 +/- 2.5 (JST)
E OFF HOKKAIDO
LAT= 43 10 +/- 9 LONG= 148 32 +/-13
H= 90 CLASS=R

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
ASAHIK	0	EX	22	17	54				36	2.0	37	2.4	22	2.2				503.0	
NEMURO	1	EP	22	18	42	ES	19	00	78	2.4	51	2.4	63	2.2				240.0	18.0
ABASHI	0	P	22	18	53.6	S	19	25.0	41	3.6	63	4.0	20	3.4				356.0	31.4
KUSHIR	1	EP	22	18	56	ES	19	23	77	0.8	61	0.4	38	1.6				337.7	27.0
HIROO	0	P	22	19	07.7	ES	19	53										438.4	45.3
URAKAW	0	P	22	19	13.5	S	19	59.5	72	1.8	81	1.4	58	4.4				484.8	46.0
RUMOI	0	EX	22	19	21													564.2	
MORIOK			22	19	23.5	X	19	43.3										725.9	
SAPPOR	0	P	22	19	24.6	ES	20	28	34	2.0	40	2.0	12	3.0				586.2	63.4
WAKKAN	0	P	22	19	25.2	EX	20	40	30	4.5	43	4.1	24	3.6			U 1	600.9	
MURORA	0	P	22	19	28.8	ES	20	30								W	U	625.3	61.2
HAKODA	0	P	22	19	33.0	X	20	29	36	1.4	27	2.4	16	1.2			U	656.5	
OFUNAT	0	EP	22	19	43.7	S	20	52.0	4	2.0	4	1.2	9	2.2				731.4	68.3
AKITA	0	EX	22	19	54				20	3.8	18	4.6	10	3.0				801.5	
MORIOK	0	X	22	19		S	20	49.9	5	0.3	5	0.4	6	0.4			D 0	725.9	
OBIHIR	0	EX	22	19														433.7	
HACHIN	0	X	22	19		ES	20	31.6	9	2.4	9	2.4	6	5.0			U 1	651.6	
AOMORI	0	X	22	19					73	1.4	55	2.1	22	1.6				693.0	
ISHINO	0	X	22	19		ES	21	08.0	8	2.8	4	3.8	4	2.6				805.5	
SENDAI	0	X	22	19		ES	21	17	12	2.0	10	2.0	4	2.0				843.8	
FUKUSH	0	EP	22	20	05.8	ES	21	40.4	8	1.0	7	1.0						909.2	94.6
ONAHAM	0	EX	22	20	10.7	X	21	43.4	10	1.7	10	1.5	6	2.2				948.3	
KUMAGA	0	EP	22	20	31.0	ES	22	16.0	6	1.6	6	5.2	4	3.6				1105.0	105.0
MATSUS	0	IP	22	20	35.6	S	22	28							S	W	U	1148.4	112.4
TATEYA	0	EX	22	20	46.2				7	3.1	6	3.0	4	2.5				1176.5	
SAKATA	0	EX	22	21	30.5													870.6	
OITA	0	EX	22	22	12.8	EX	25	18.3	10	3.2	15	4.5						1840.5	
MIYAZA	0	P	22	22	18.0	S	25	40.2	3	5.0	7	4.0	3	1.8				1953.8	202.2
TOKYO	0	EX	22	22	21				6	5.4	7	3.6	6	3.4				1121.6	
NIIGAT	0	EX	22	22	21.6				27	4.8	18	2.9	12	3.1				992.0	

OT= 13 2 46 51.8 +/- 0.2 (JST)
MIDDLE OF TOCHIGI PREF
LAT= 36 38 +/- 1 LONG= 139 44 +/- 1
H= 10 MAG=4.2 CLASS=L

UTSUNO	2	P	02	46	56.0	S	46	58.9										15.7	02.9
KAKIOK	0	P	02	47	03.6	S	47	11.1	30	0.7	20	0.7	14	2.5				60.7	07.5
MABBAS	0	P	02	47	04.0	S	47	12.3										65.1	08.3
KUMAGA	0	P	02	47	04.6	ES	47	12.4	25	2.6	33	3.0	33	2.6			U 2	62.4	07.8
SHIRAK	0	P	02	47	04.7	S	47	13.2										69.4	08.5
MITO	0	P	02	47	05.8	IS	47	15.6	26	0.4	29	1.3	19	2.0				71.9	09.8
KARUIZ	0	EP	02	47	11.8	S	47	24.8										110.8	13.0
ONAHAM	0	P	02	47	11.9	IS	47	26.0	50	0.8	48	0.7	17	0.5			D 2	110.3	14.1
TOKYO	0	P	02	47	13.1	ES	47	27.2	15	3.0	23	2.8	18	4.0				105.2	14.1
TAKADA	0	EP	02	47	13.3	S	47	34.0										142.2	20.7
MATSUS	0	IP	02	47	15.0	S	47	30							S	E	D	136.9	15.0
CHOSHI	0	P	02	47	16.3	IS	47	33.5										141.8	17.2
NAGANO	0	EP	02	47	17.0	ES	47	36.0	5	2.5			5	2.2				137.4	19.0
KOFU	0	EP	02	47	18.8	ES	47	35.5	21	1.2	15	0.8	7	1.4				150.7	16.7
NIIGAT	0	IP	02	47	19.3	IS	47	39.5	28	2.1	30	2.3	15	2.2			D 10	154.0	20.2
TATEYA	0	EP	02	47	21.6				11	2.6	9	1.1	5	1.0				183.4	
SENDAI	0	EP	02	47	26	ES	47	50.4	5	1.0	5	0.8	5	1.5				207.9	24.4
IIDA	0	EP	02	47	27.4	ES	47	52.8	5	1.4	4	1.4	2	1.0				211.6	25.4
SHIZUO	0	EP	02	47	30.0	ES	47	55.3	3	1.3	7	2.5	2	2.0				219.7	25.3
HAMAMA	0	P	02	47	38.2	ES	48	10	7	1.8	7	2.2	2	2.0			U 12	280.5	31.8
NAGOYA	0	EP	02	47	40.0	S	48	15.3	7	2.4	5	1.2	2	1.0				298.0	35.3
FUKUSH	0	EX	02	47		S	47	32.4	10	0.9	12	0.9						141.0	
OMAEZA	0	X	02	47					6	2.2	7	2.2						263.9	
KANAZA	0	EX	02	48	11						5	3.0						276.2	

OT= 13 3 20 20.8 +/- 0.3 (JST)
MIDDLE OF TOCHIGI PREF
LAT= 36 39 +/- 1 LONG= 139 41 +/- 1
H= 0 MAG=3.9 CLASS=L

UTSUNO	1	IP	03	20	27.1	IS	20	29.8										20.4	02.7
MABBAS	0	EP	03	20	34.8	S	20	43.0										61.8	09.0
KAKIOK	0	P	03	20	35.0	S	20	42.3	19	0.7	17	0.8	15	0.4	N	W	D	65.1	07.3
KUMAGA	0	EP	03	20	36.0	ES	20	43.4	11	1.4	13	2.4	14	2.8				61.9	07.4

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STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S * A/T S	E-W * A/T S	U-D * A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TOKYO	0	EP	03 20 41.5	ES	20 56.5	8 3.5	18 2.6	9 3.4				107.3	15.0
ONAHAM	0	IP	03 20 42.6	S	20 57.5	23 1.0	21 1.2	8 0.5			D 0	114.0	14.9
MATSUS	0	IP	03 20 45.6	S	21 01				S	E	D	132.5	15.4
MITO	0	S	03 20 46.5			18 0.4	17 0.5	7 2.0				76.8	
CHOSHI	0	EP	03 20 47	IS	21 04.4							146.3	17.4
KOFU	0	EP	03 20 49.7	ES	21 05.9	10 1.1	10 1.0	3 1.3				148.9	16.2
TATEYA	0	EP	03 20 55.0			5 1.0	5 1.2	3 1.4				185.6	

OT= 13 4 20 37.0 +/- 1.7 (JST)
E OFF HOKKAIDO
LAT= 43 4 +/- 7 LONG= 147 19 +/- 9
H= 60 MAG=4.7 CLASS=U

NEMURO	0	P	04 20 59.4	S	21 14.0	54 1.4	60 1.4	30 1.4		W 2	U 3	143.6	14.6
KUSHIR	0	IP	04 21 13.4	IS	21 34.2	17 0.8	23 1.0	10 2.2			U 1	238.4	20.8
ABASHI	0	EP	04 21 16	ES	21 43	5 1.8	6 2.0	2 2.0				267.0	27.0
URAKAW	0	P	04 21 32.0	S	22 10.1	8 1.0	10 1.4	3 2.6				385.7	38.1
AOMORI	0	EX	04 22 37			5 1.4	8 0.9					596.5	
MATSUS	0	P	04 22 52									1063.6	

OT= 13 6 16 8.0 +/- 1.5 (JST)
E OFF HOKKAIDO
LAT= 42 42 +/- 4 LONG= 147 10 +/- 8
H= 60 MAG=5.4 CLASS=M

NEMURO	2	IP	06 16 30.4	IS	16 43.4	300 0.8	1500 1.4	400 0.8	N 5	W 30	U 60	146.5	13.0
KUSHIR	2	IP	06 16 41.4	IS	17 06.0	207 0.6	219 0.7	135 1.0		W 11	U 13	228.7	24.6
ABASHI	0	IP	06 16 47.0	IS	17 14.0	85 1.8	167 1.8	49 2.4	N 7	W 16	U 14	275.8	27.0
OBIHIR	0	P	06 16 53.8	ES	17 30						U 2	323.6	36.2
HIROO	0	IP	06 16 55.4	IS	17 31.9						U 5	319.9	36.5
URAKAW	0	P	06 17 00.3	S	17 39.1	113 1.0	216 2.4	53 4.0				366.0	38.8
ASAHIK	0	EP	06 17 06			41 1.8	43 1.8	40 2.0				407.1	
SAPPOR	0	IP	06 17 14.0	S	17 59.6	76 2.0	75 2.0	21 2.0			U 4	478.4	45.6
RUMOI	0	EX	06 17 14									469.8	
MURORA	0	P	06 17 18.1	ES	18 12							510.0	53.9
HACHIN	0	P	06 17 20.0	S	18 09.6	9 4.8	9 3.0	4 4.0	S	W	U	528.6	49.6
WAKKAN	0	P	06 17 20.5	ES	18 24	19 4.3	25 4.2	18 4.0			U	532.8	63.5
HAKODA	0	IP	06 17 21.4	ES	18 16	29 1.7	24 1.5	17 2.2	S 1	W 3	U 4	537.8	54.6
AOMORI	0	EP	06 17 25	ES	18 17	73 2.0	57 1.6	20 1.8				570.5	52.0
MORIOK	0	IP	06 17 30.2	IS	18 27.0	12 0.4	11 0.3	6 0.4	S 1	W 1	U 1	603.5	56.8
OFUNAT	0	IP	06 17 31.2	S	18 29.7	6 0.8	8 1.0	8 0.8	S 1	W 1	U 1	611.5	58.5
ISHINO	0	EP	06 17 40.0	ES	18 44.4	8 1.8	6 1.0	4 4.0	S		U 1	686.7	64.4
SENDAI	0	EP	06 17 45.2	ES	18 56.0	12 2.0	14 1.4	6 2.0				724.5	70.8
AKITA	0	EX	06 17 50	EX	19 10	17 4.8	14 4.0	11 2.8				678.5	
FUKUSH	0	EP	06 17 54.0	ES	19 07.2	12 1.0	10 1.0					790.5	73.2
ONAHAM	0	EX	06 17 58.1	X	19 19.5	14 1.0	12 1.2	4 2.2				833.5	
SAKATA	0	EX	06 18 01.3									748.2	
KAKIOK	0	EP	06 18 11	ES	19 40	9 1.0	6 1.0	3 0.9				935.1	89.0
KUMAGA	0	EP	06 18 21.0	ES	19 53.6	6 2.0	5 1.4	3 3.4				988.2	92.6
MATSUS	0	IP	06 18 23.3	S	20 06				S	W	U	1028.3	102.7
TATEYA	0	X	06 18 39.4			7 3.0	5 2.6	4 2.7				1064.5	
TOKYO	0	ES	06 19 58.6			8 3.2	8 3.6	7 3.6				1007.1	
NIIGAT	0	EX	06 20 24.2			16 3.2	16 4.0	7 3.1				870.5	

OT= 13 8 5 53.6 +/- 2.9 (JST)
E OFF HOKKAIDO
LAT= 43 2 +/- 7 LONG= 148 19 +/-17
H= 80 CLASS=R

NEMURO	0	X	08 06 32			45 3.4	42 2.8	40 3.0				224.4	
KUSHIR	1	EP	08 06 39	ES	07 15	41 3.2	33 2.8	25 4.0				319.8	36.0
ABASHI	0	P	08 06 41.0	X	06 58	25 3.0	45 3.0	16 2.8				343.9	
				EX	07 31								
HIROO	0	EP	08 06 53									418.4	
OBIHIR	0	EP	08 06 53									415.8	
URAKAW	0	P	08 07 00.3	X	07 27.5	34 1.8	40 1.8	22 3.6				464.7	
ASAHIK	0	EP	08 07 02			13 2.4	15 2.6	9 1.8				488.4	
SAPPOR	0	EP	08 07 09	ES	08 15	15 2.2	22 2.0	6 3.4				569.1	66.0
WAKKAN	0	EP	08 07 13			8 4.3	8 5.1	5 4.2				592.3	
HAKODA	0	P	08 07 19.1	ES	08 26	13 1.4	14 1.8	5 2.2			U	636.5	66.9
AOMORI	0	EP	08 07 20	ES	08 33	28 1.3	25 1.3					671.4	73.0
HACHIN	0	P	08 07 21.0	ES	08 17.0	5 2.6	4 3.4	3 4.0	N	E 1	D	629.5	56.0
MORIOK	0	EP	08 07 27.4	IS	08 37.0	6 0.3	9 0.3	3 0.6				703.3	69.6

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S * A/T S	E-W * A/T S	U-D * A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MORIOK			08 07 27.4	EX	07 42.6							703.3	
				EL	10 30								
SENDAI	0	EP	08 07 45	ES	09 02	7 2.0	6 2.4	2 2.0				820.8	77.0
FUKUSH	0	EP	08 07 53.8	ES	09 22.0	13 1.0	6 1.0					886.2	88.2
ONAHAM	0	EX	08 08 12.7	X	09 26.6	10 1.0	9 0.9	5 0.7				925.3	
MITO	0	EX	08 08 14.3	ES	09 42.5	8 2.6	5 2.8	4 2.0				998.4	
KAKIOK	0	X	08 08 19	X	09 41	7 0.9	5 0.9	3 0.9				1026.9	
MATSUS	0	IP	08 08 21.2	S	10 15						N D	1125.4	113.8
AKITA	0	EX	08 08 39			10 3.0	12 2.8	7 3.0				779.2	
TATEYA	0	EX	08 08 54.3			5 1.0	3 1.5	3 2.0				1153.7	
NIIGAT	0	EX	08 10 17.5			10 4.0	10 3.3	6 2.8				969.1	
NAGASA	0	X	08 14 00.0									1979.0	

OT= 13 11 7 7.8 +/- 2.8 (JST)
E OFF HOKKAIDO
LAT= 43 14 +/-12 LONG= 148 53 +/-16
H= 70 CLASS=U

NEMURO	0	EP	11 07 45	ES	08 10	15 2.4	14 2.8	19 4.0				267.8	25.0
KUSHIR	0	EP	11 08 00	IS	08 38.0	17 3.2	16 3.2	16 3.2				366.5	38.0
ABASHI	0	EP	11 08 01	X	08 49	10 3.0	17 3.4	9 3.2				381.4	
OBIHIR	0	EP	11 08 09									462.4	
ASAHIK	0	EP	11 08 20			5 1.8	5 1.8	4 2.0				529.9	
URAKAW	0	IP	11 08 20.7	S	09 14.5	22 4.6	26 0.8	15 4.4	N	E 1	D 1	514.2	53.8
WAKKAN	0	EX	11 08 30			6 4.6	12 4.0	8 4.0				623.2	
SAPPOR	0	EP	11 08 31			10 2.0	10 2.6	5 4.0				614.6	
HAKODA	0	EP	11 08 39	ES	09 49	9 3.4	9 1.6	6 2.0				685.8	70.0
AOMORI	0	X	11 09 04	ES	10 02	15 2.2	11 2.4					722.3	
MATSUS	0	IP	11 09 41.5	ES	11 38						U	1175.8	116.5

OT= 13 12 29 16.6 +/- 1.3 (JST)
E OFF HOKKAIDO
LAT= 43 8 +/- 4 LONG= 147 8 +/- 7
H= 20 MAG=5.3 CLASS=S

NEMURO	1	EP	12 29 38	ES	29 53	67 1.4	99 1.6	60 1.8				127.5	15.0
KUSHIR	0	EP	12 29 53	ES	30 22	65 2.0	67 1.0	41 2.8				223.8	29.0
ABASHI	0	P	12 29 53.6	S	30 22.4	35 2.8	43 2.4	23 3.0				250.3	28.8
OBIHIR	0	EP	12 30 06	ES	30 42							319.7	36.0
HIROO	0	P	12 30 06.4	S	30 45.5							326.7	39.1
ASAHIK	0	EP	12 30 13			16 2.0	25 2.2	15 2.0				391.8	
URAKAW	0	P	12 30 13.8	S	30 56.6	66 1.8	120 1.6	58 2.0				373.1	42.8
SAPPOR	0	P	12 30 24.3	ES	31 15	26 2.2	40 2.2	13 4.0				472.4	50.7
WAKKAN	0	EP	12 30 27			12 3.4	16 4.0	11 4.0				503.5	
HACHIN	0	EP	12 30 32.3	S	31 30.0	9 0.4	6 3.6	3 4.4	S	W 1	U 1	548.5	57.7
HAKODA	0	IP	12 30 32.5	ES	31 32	32 1.6	20 1.6	9 2.4			D	544.3	59.5
AOMORI	0	EP	12 30 39	S	31 39	58 2.2	58 1.6					585.7	60.0
MORIOK	0	EP	12 30 41.4	S	31 45.6	8 0.3	8 0.4	5 0.7		E 0		627.8	64.2
ISHINO	0	EP	12 30 52.0	ES	32 07.2	5 2.2	4 2.6	5 2.4			D	717.7	75.2
SENDAI	0	EX	12 31 00.0	ES	32 14.4	8 2.2	10 2.4	4 2				754.9	
AKITA	0	EX	12 31 04.4			15 2.6	14 3.2	10 2.2				699.2	
FUKUSH	0	EP	12 31 06.7	X	32 28.7	7 1.0	7 0.9					821.4	
MITO	0	EP	12 31 22.0	X	32 53.4	10 2.5	6 2.4	5 2.0				941.9	
ONAHAM	0	EX	12 31 22.2			7 1.2	9 1.1	4 1.0				868.1	
TOKYO	0	EX	12 31 33	X	33 14.8	5 3.4	6 2.4	5 4.2				1041.8	
MATSUS	0	IP	12 31 35.7	ES	33 25						N E D	1057.1	109.3
TATEYA	0	EX	12 31 41.7			6 2.4	5 1.3	3 2.7				1100.8	
SAKATA	0	EX	12 32 11.6									772.5	
NIIGAT	0	EX	12 33 02.7			17 3.8	15 2.8	7 4.0				896.8	

OT= 13 13 28 26.9 +/- 1.9 (JST)
E OFF HOKKAIDO
LAT= 43 30 +/- 9 LONG= 147 9 +/-10
H= 10 MAG=4.9 CLASS=U

NEMURO	0	EP	13 28 49	ES	29 04	22 2.2	15 2.4	14 2.6				128.1	15.0
KUSHIR	0	EP	13 29 04	ES	29 38	20 1.2	22 2.4	8 2.0				231.2	34.0
ABASHI	0	EP	13 29 05	ES	29 31	18 2.8	15 2.2	7 2.0				237.9	26.0
OBIHIR	0	EP	13 29 16									325.7	
ASAHIK	0	EP	13 29 24			7 1.6	5 1.8	5 1.6				386.7	
URAKAW	0	IP	13 29 24.8	S	30 12.6	16 1.2	37 1.6	10 1.6			D	387.2	47.8
SAPPOR	0	EP	13 29 36			7 2.0	10 2.2	3 1.8				474.8	
WAKKAN	0	EX	13 29 37			8 4.5	5 4.2	5 5.0				484.3	

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STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
HAKODA	0	IP	13 29 43.4	ES	30 55	9	1.6	8	1.6	3	1.3			D	556.5	71.6
AOMORI	0	EP	13 29 52	ES	30 56	13	2.4	13	2.0						604.6	64.0
OFUNAT	0	X	13 30 13.8	X	31 28.8	5	1.6	4	2.0	6	1.6				670.6	
MATSUS	0	X	13 30	ES	32 47									U	1085.2	
AKITA	0	EX	13 31 28			6	2.6	6	2.8	5	2.4				721.9	

OT= 13 14 54 54.2 +/- 1.6 (JST)
E OFF HOKKAIDO
LAT= 43 42 +/- 8 LONG= 147 59 +/- 8
H= 50 MAG=5.1 CLASS=U

NEMURO	0	EP	14 55 23	ES	55 43	14	0.2	11	0.2	6	0.2				198.2	20.0
ABASHI	0	EP	14 55 37	ES	56 09	6	1.8	6	1.8	3	2.2				299.6	32.0
KUSHIR	0	IP	14 55 38.0	ES	56 10	48	0.3	35	0.3	11	0.2	E	3	D 1	301.9	32.0
OBIHIR	0	EP	14 55 50												395.9	
URAKAW	0	EP	14 56 00	ES	56 48	27	1.0	38	1.0	7	1.0				458.0	48.0
SAPPOR	0	EP	14 56 10			6	2.0	7	1.6	3	1.0				543.7	
HAKODA	0	EP	14 56 18	ES	57 24	13	1.0	7	0.7	6	2.5				627.4	66.0
MATSUS	0	P	14 57 22	X	59 12										1150.3	

OT= 13 15 10 26.8 +/- 2.2 (JST)
E OFF HOKKAIDO
LAT= 43 35 +/-12 LONG= 147 26 +/-11
H= 20 MAG=5.0 CLASS=M

NEMURO	0	EP	15 10 51	ES	11 10	14	0.2	12	0.2	6	0.2				152.2	19.0
ABASHI	0	EP	15 11 06	ES	11 36	5	1.8	6	1.4	4	1.4				258.1	30.0
KUSHIR	1	EP	15 11 06	IS	11 37.2	35	0.2	38	2.2	13	0.2				255.7	31.2
OBIHIR	0	EP	15 11 16												349.9	
URAKAW	0	IP	15 11 28.8	S	12 15.5	19	1.6	25	1.6	7	2.0	E	1	D 2	411.9	46.7
SAPPOR	0	EP	15 11 38			5	1.6	6	2.0	3	1.0				498.4	
HAKODA	0	P	15 11 46.5	ES	12 53	7	1.2	4	1.4	2	1.2			U	581.1	66.5
AOMORI	0	X	15 12 13	ES	13 01	8	2.4	8	1.3						629.2	
MATSUS	0	P	15 12 51	X	14 40										1108.4	

OT= 13 16 24 1.0 +/- 1.5 (JST)
E OFF HOKKAIDO
LAT= 43 7 +/- 6 LONG= 147 36 +/- 8
H= 60 MAG=5.1 CLASS=U

NEMURO	0	P	16 24 26.6	S	24 42.7	48	3.0	93	2.4	38	2.6	W	3	U 5	165.3	16.1
ABASHI	0	P	16 24 43.0	S	25 09.4	22	2.0	33	2.0	22	2.0				286.0	26.4
HIROO	0	EP	16 24 54												363.0	
URAKAW	0	P	16 25 00.0	S	25 42.0	35	3.0	38	2.4	18	3.0	W	1	U 1	409.4	42.0
OBIHIR	0	EX	16 25 05												357.6	
KUSHIR	0	ES	16 25 08			35	1.8	62	3.2	22	2.3				261.6	
SAPPOR	0	P	16 25 10.0			17	2.2	15	2.2	6	4.0				510.4	
ASAHIK	0	EX	16 25 12			12	2.0	10	2.2	7	2.0				429.3	
HAKODA	0	P	16 25 19.0	S	26 21.4	6	3.6	7	1.6	6	2.4			U	580.9	62.4
WAKKAN	0	EX	16 25 21			4	3.8	6	4.0	4	4.0				536.9	
AOMORI	0	EP	16 25 24	EX	26 42	16	1.3	16	2.2						620.0	
MATSUS	0	P	16 26 20												1085.0	

OT= 13 17 31 33.2 +/- 1.5 (JST)
E OFF HOKKAIDO
LAT= 43 31 +/- 6 LONG= 147 56 +/- 8
H= 50 MAG=5.7 CLASS=M

NEMURO	2	EP	17 32 02	ES	32 22	155	3.2	85	2.4	135	4.2				191.2	20.0
ABASHI	0	P	17 32 15.4	S	32 43.6	80	4.0	76	4.0	73	5.0				299.2	28.2
KUSHIR	2	IP	17 32 16.2	ES	32 50	201	0.3	143	0.2	82	4.0			U 5	293.6	33.8
HIROO	0	P	17 32 28.1	S	33 08.9										401.2	40.8
OBIHIR	0	EP	17 32 29	ES	33 14										388.6	45.0
ASAHIK	0	EP	17 32 36			46	2.8	30	1.6	33	3.4				449.5	
URAKAW	0	P	17 32 39.0	S	33 23.2	134	4.0	202	4.0	100	5.6				447.5	44.2
RUMOI	0	EX	17 32 46												509.8	
SAPPOR	0	EP	17 32 47	ES	33 45	51	4.0	76	6.4	38	4.8				538.2	58.0
WAKKAN	0	IP	17 32 47.1	EX	33 51	30	5.4	54	5.0	33	6.0			U 1	540.1	
MURORA	0	P	17 32 54.2	ES	33 58									D	582.9	63.8
HAKODA	0	IP	17 32 56.8	X	34 58.2	75	1.8	67	4.2	41	4.2			U	617.8	

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
HACHIN	0	EP	17 32 57.6	S	33 57.0	20	5.0	17	4.4	13	5.2			U	626.0	59.4
SUTTSU	0	EP	17 33 00.4	EX	34 12.6										630.9	
MIYAKO	0	EP	17 33 01.2	ES	34 05.3	9	4.0	7	4.6	3	1.2				657.3	64.1
AOMORI	0	EP	17 33 04	S	34 12	106	2.7	78	3.3	30	1.3				662.4	68.0
MORIOK	0	P	17 33 07.6	S	34 18.0	20	0.3	19	0.3	10	0.8			U 0	705.4	70.4
OFUNAT	0	EP	17 33 10.0	ES	34 21.3	12	2.4	13	3.4	9	1.4				717.9	71.3
ISHINO	0	EP	17 33 19.8	X	34 34.8	14	4.8	11	4.6	8	3.0	N	E	D 2	794.0	
AKITA	0	EX	17 33 21.0	EX	34 42.0	42	3.8	38	4.0	25	4.0				776.8	
SENDAI	0	EP	17 33 24	X	34 42.3	22	3.6	21	2.4	10	4				831.4	
SAKATA	0	EX	17 33 30.5					100	2.3						850.1	
FUKUSH	0	EP	17 33 32.9	S	35 03.4	27	0.9	18	1.0	8	0.7				897.8	90.5
ONAHAM	0	EP	17 33 38.6	X	35 07.8	17	1.0	19	0.8	8	1.3				942.7	
SHIRAK	0	EP	17 33 41.8	S	35 16.9										965.6	95.1
MITO	0	EP	17 33 47.0	ES	35 25.5	18	4.0	18	3.1	9	3.4				1016.4	98.5
KAKIOK	0	EP	17 33 49	X	35 26.6	16	1.0	14	1.0	5	1.0				1044.4	
UTSUNO	0	EP	17 33 50.5	ES	35 29.4										1034.6	98.9
MATSUS	0	IP	17 34 01.0	S	35 57									U	1134.1	116.0
KUMAGA	0	EP	17 34 01.6	ES	35 47.8	13	3.2	11	4.4	8	4.0				1096.6	106.2
WAJIMA	0	EX	17 34 02			10	1.2	10	1.2						1155.6	
NAGANO	0	EP	17 34 03.0	X	36 15.5	9	4.3	8	3.0	7	4.0				1125.2	
TOKYO	0	EX	17 34 06	ES	35 48.0	13	4.0	23	4.2	16	3.8				1116.4	
TOYAMA	0	EP	17 34 07	ES	36 08	8	4.0	8	4.6	6	4.0				1184.8	121.0
NIIGAT	0	EX	17 34 08.0			51	4.1	36	5.0	21	3.7				974.2	
KOFU	0	EP	17 34 09.0	ES	36 06.6	7	1.2	6	2.0	4	3.0				1185.3	117.6
TATEYA	0	EP	17 34 09.8			16	4.8	15	4.5	10	3.4				1174.4	
IIDA	0	EX	17 34 15.6												1240.9	
MISHIM	0	EP	17 34 16			6	3.2	6	4.3						1212.4	
OMAEZA	0	X	17 34 28.1			11	6.0	8	4.4						1296.9	
NAGOYA	0	EP	17 34 28.2	X	36 54.0	6	3.6	6	2.0	3	3.0				1321.9	
SHIZUO	0	X	17 34 29.0	ES	36 18.5	5	4.4	5	3.6	2	3.0				1253.6	
HACHIJ	0	X	17 34 34.0	X	36 39.2			5	0.4						1356.3	
SAIGO	0	EX	17 34 47.0			3	4.0	6	3.7						1486.6	
OSAKA	0	EX	17 35 15.2			7	3.3	7	3.4						1451.5	
OITA	0	EP	17 35 31.4	ES	38 41.2	23	5.4	27	5.0						1820.1	189.8
MIYAZA	0	P	17 35 41.9	S	39 05.7	6	4.6	12	4.2	7	3.8				1936.3	203.8
NAGASA	0	EP	17 35 42.0	ES	39 11.5										1979.2	209.5
YAKUSH	0	EP	17 35 56.4	EX	39 34.0	5	4.2	4	6.4	5	4.8				2115.8	
KAGOSH	0	EX	17 36 09.5					11	2.4						2021.1	
NAHA	0	P	17 36 46.4	ES	41 04	4	3.2	3	2.0	5	2.6			U 3	2650.4	257.6

OT= 13 21 28 40.3 +/- 0.4 (JST)
OFF FUKUSHIMA PREF
LAT= 37 18 +/- 1 LONG= 141 53 +/- 2
H= 50 MAG=3.9 CLASS=S

ONAHAM	0	IP	21 28 56.6	IS	29 07.6	10	0.7	17	1.1	4	0.4			U 1	95.3	11.0
ISHINO	0	IP	21 29 01.7	IS	29 15.4	7	0.4	6	0.2	2	0.2			D 2	134.9	13.7
SENDAI	0	IP	21 29 02.4	S	29 16.4	8	0.6	6	0.6	4	1				137.3	14.0
FUKUSH	1	IP	21 29 02.4	S	29 15.9	14	1.0	18	1.0	7	0.8	E	2	D 1	134.4	13.5
UTSUNO	0	EP	21 29 10.7	S	29 29.8										197.7	19.1

OT= 14 2 7 8.2 +/- 3.0 (JST)
E OFF HOKKAIDO
LAT= 42 47 +/- 7 LONG= 147 22 +/-17
H= 40 MAG=5.1 CLASS=M

NEMURO	1	P	02 07 32.8	ES	07 49	67	1.4	102	1.8	61	1.4	W	1	U 3	157.2	16.2
KUSHIR	1	P	02 07 44.0	S	08 14.0	90	2.8	71	1.8	27	3.2			U	243.8	30.0
ABASHI	0	EP	02 07 49	S	08 18.4	21	2.8	29	3.2	17	3.2				284.9	29.4
URAKAW	0	P	02 08 03.3	S	08 39.9	34	4.6	59	4.0	25	5.2				383.6	36.6
ASAHIK	0	EP	02 08 08			12	2.0	13	2.2	11	2.4				419.9	
SAPPOR	0	EP	02 08 16			15	2.2	17	2.0	5	6.0				493.7	
HAKODA	0	P	02 08 22.3	ES	09 22	9	2.8	7	3.4	5	2.8			D	555.4	59.7
AOMORI	0	EP	02 08 31	X	09 20	17	2.0	17	2.0	4	2.0				589.0	
SENDAI	0	EP	02 08 50	X	09 43.0	5	2	5	1.6	3	1.5				743.0	
OBIHIR	0	EX	02 08												339.2	
WAKKAN	0	EX	02 09 00			15	4.2	13	4.0	9	3.5				540.8	
MATSUS	0	P	02 09 23												1046.9	
AKITA	0	EX	02 09 49.2			8	3.4	8	3.0	7	2.6				697.3	
TOKYO	0	EX	02 10 58					5	4.0						1025.0	

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OT= 14 3 48 11.8 +/- 2.2 (JST)
E OFF HOKKAIDO
LAT= 43 13 +/- 7 LONG= 146 38 +/-10
H= 10 MAG=4.1 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	0	EP	03	48	27	ES	48	41	14	2.2	6	1.8	5	1.8				85.9	14.0
KUSHIR	0	EP	03	48	43	ES	49	06	8	0.3	9	0.2	3	0.3				184.2	23.0
ABASHI	0	EP	03	48	50	ES	49	10	5	3.0	4	2.8	2	1.4				209.5	20.0
URAKAW	0	P	03	49	04.0	S	49	40.2	5	2.4	5	3.4	4	4.0				337.0	36.2
MATSUS	0	P	03	50	28	S	52	23										1033.0	115.0

OT= 14 4 33 41.6 +/- 2.0 (JST)
E OFF HOKKAIDO
LAT= 43 21 +/- 7 LONG= 147 14 +/-10
H= 0 MAG=5.0 CLASS=U

NEMURO	0	EP	04	34	06	ES	34	23	14	0.6	14	2.0	10	4.4				133.6	17.0
ABASHI	0	EP	04	34	20	ES	35	01	9	2.0	11	2.2	6	1.8				249.2	41.0
KUSHIR	0	P	04	34	20.8	IS	34	54.0	34	0.2	31	0.3	11	0.6			U	234.5	33.2
OBIHIR	0	EP	04	34	33													329.9	
URAKAW	0	P	04	34	44.6	S	35	21.0	40	1.6	50	1.6	13	3.4				387.9	36.4
SAPPOR	0	P	04	34	53.2				12	2.0	11	1.8	3	1.2				480.7	
HAKODA	0	IP	04	35	01.4	S	36	09.8	14	1.2	11	1.8	5	2.4			U	558.2	68.4
AOMORI	0	EP	04	35	09	ES	36	13	17	1.8	14	2.4	5	1.6				603.2	64.0
MORIOK	0	P	04	35	12.0	IS	36	21.5	7	0.3	7	0.4	1	0.4				648.5	69.5
MATSUS	0	P	04	36	05	ES	37	55										1079.0	110.0

OT= 14 7 57 8.9 +/- 1.4 (JST)
E OFF HOKKAIDO
LAT= 43 38 +/- 5 LONG= 148 23 +/- 7
H= 50 MAG=5.8 CLASS=R

NEMURO	1	EP	07	57	42	ES	58	02	160	2.4	134	2.6	105	3.0				228.8	20.0
ABASHI	0	EP	07	57	55	ES	58	26	93	3.4	104	3.6	70	3.6				332.6	31.0
KUSHIR	2	P	07	57	56.3	IS	58	36.0	227	1.4	199	0.5	130	3.0		W 3	U	331.7	39.7
OBIHIR	0	EP	07	58	09	ES	58	59										426.4	50.0
HIROO	0	P	07	58	11.7	S	58	55.8	100		400	03.2	100					439.8	44.1
ASAHIK	0	EP	07	58	16	S	59	12.4	64	3.2	77	3.0	43	1.4				484.7	56.4
URAKAW	1	P	07	58	18.2	ES	59	10	228	3.0	300	2.6	168	3.0	N	E	D 1	486.1	51.8
RUMOI	0	EX	07	58	23													544.4	
WAKKAN	0	P	07	58	26.5	ES	59	32	38	4.4	46	3.8	33	3.6				568.1	65.5
SAPPOR	0	P	07	58	28.0	ES	59	30	183	2.2	85	2.2	54	3.6				575.3	62.0
MURORA	0	P	07	58	33.0	ES	59	37										621.0	64.0
HAKODA	0	IP	07	58	36.9	S	59	44.1	148	2.3	117	2.0	83	2.4			U	656.3	67.2
HACHIN	0	EP	07	58	38.9	S	59	44.1	20	3.4	22	2.8	11	3.0	S	1 W	1 U	664.1	65.2
SUTTSU	0	EP	07	58	41.4	ES	59	57.1										668.2	75.7
AOMORI	0	EP	07	58	44	ES	59	56	244	2.9	161	2.4	50	1.5				700.9	72.0
MIYAKO	0	EP	07	58	45.3	ES	59	50.2	10	3.2	12	3	7	1.6				693.9	64.9
MORIOK	0	P	07	58	48.8	IS	00	03.0	19	0.4	19	0.4	11	2.0	S	1 W	1 U 0	742.8	74.2
						X	59	08.5											
OFUNAT	0	P	07	58	49.3	IS	00	02.0	10	1.4	13	1.2	20	1.4			D 1	753.9	72.7
ISHINO	0	EP	07	58	57.8	ES	00	19.4	13	2.6	12	3.0	13	3.0	N		D 1	829.6	81.6
AKITA	0	EX	07	59	03.0				56	2.8	57	3.2	34	3.2				814.8	
SENDAI	0	EP	07	59	04	ES	00	28	24	2.4	27	2.0	12	2.0				867.2	84.0
SAKATA	0	EX	07	59	09.4				100	2.5	150	2.5						887.5	
FUKUSH	0	EP	07	59	12.9	S	00	47.0	23	0.9	17	1.0	7	2.9				933.4	94.1
YAMAGA	0	X	07	59	15.3	ES	00	38.1										901.8	
ONAHAM	0	EP	07	59	16.5	X	00	51.6	24	2.0	21	1.4	12	2.1				976.8	
NIIGAT	0	EX	07	59	19.4	X	00	28.2	45	3.5	65	2.9	25	3.5				1011.2	
MITO	0	EP	07	59	28.1	ES	01	10.8	27	2.4	25	2.9	19	2.8				1050.3	102.7
UTSUNO	0	EP	07	59	30	X	01	11										1069.4	
KAKIOK	0	EP	07	59	31	ES	01	15	15	1.0	16	1.0						1078.5	104.0
TAKADA	0	EP	07	59	38.9													1123.8	
KUMAGA	0	EP	07	59	39.6	ES	01	32.6	16	3.2	13	2.8	10	3.0				1131.5	113.0
MATSUS	0	IP	07	59	40.4	S	01	48							S	W	U	1170.5	127.6
WAJIMA	0	EX	07	59	42	EX	01	46	15	1.2	25	1.0	5	1.8				1193.3	
TOKYO	0	EX	07	59	45.2	X	01	30.8	16	3.0	18	3.4	15	3.0				1150.5	
NAGANO	0	EP	07	59	45.5	ES	01	50.2	10	3.0	10	3.0	8	4.2				1161.6	124.7
TOYAMA	0	EP	07	59	47	ES	01	48	8	3.4	8	3.2	8	3.2				1221.9	121.0
KOFU	0	EP	07	59	52.0	ES	01	51.0	8	2.0	11	2.0	4	2.8				1220.5	119.0
TATEYA	0	X	07	59	54.9				22	3.7	16	2.8	9	2.3				1207.5	
IIDA	0	EX	07	59	55.0													1276.6	
OMAEZA	0	EP	07	59	59.8				11	3.2	8	2.6						1331.5	
KANAZA	0	EX	08	00	04				9	3.0	10	3.0	16	2.7				1271.0	

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MISHIM	0	X	08	00	06	ES	01	53	6	3.2	7	2.1						1246.7	
NAGOYA	0	X	08	00	11.0	X	02	36.0	7	2.6	7	2.6	3	2.0				1358.0	
OSHIMA	0	X	08	00	11.5	S	01	54.4	7	1.2	6	20						1253.4	
TOYOOK	0	EP	08	00	17.7				7	1.1	9	1.1						1468.5	
HACHIJ	0	X	08	00	20.0	ES	02	24.0	9	1.2	9	1.5						1387.7	
OSAKA	0	EX	08	00	32.0				9	2.5	10	3.2	4	2.5				1488.2	
HAMADA	0	EP	08	00	46.4	ES	03	46.8	3	3.6	3	3.6	6	3.4				1704.7	180.4
						EL	05	21.0											
KUMAMO	0	EP	08	01	00.5				9	1.6	7	1.9						1952.0	
OITA	0	EX	08	01	11.2				25	3.7	22	3.7						1857.7	
MIYAZA	0	EP	08	01	22.0	S	04	53.0	9	4.0	10	3.6	9	3.0				1973.4	211.0
NAGASA	0	EP	08	01	24.0	ES	04	55.0										2017.0	211.0
KAGOSH	0	EP	08	01	25.4				6	2.8	8	2.6						2058.3	
MAEBAS	0	X	08	01	25.9													1128.9	
YAKUSH	0	EP	08	01	37.9	EX	05	20.1	5	3.2	5	6.0	4	4.8				2152.6	
NAHA	0	P	08	02	22.8	ES	06	51	5	2.8	3	2.8	4	2.4			U	2686.7	268.2

OT= 14 12 7 29.9 +/- 1.5 (JST)
E OFF HOKKAIDO
LAT= 43 10 +/- 6 LONG= 147 42 +/- 8
H= 50 MAG=4.9 CLASS=U

NEMURO	0	P	12	07	55.6	ES	08	13	30	2.0	25	1.8	19	1.6			D 2	172.6	17.4
KUSHIR	0	IP	12	08	08.0	S	08	35.7	20	2.0	21	2.7	15	3.2	N	2	D 2	270.0	27.7
ABASHI	0	P	12	08	12.0	S	08	43.0	18	1.8	29	1.8	10	2.0			D 1	291.7	31.0
OBIHIR	0	EP	12	08	24													366.0	
URAKAW	0	P	12	08	28.6	S	09	14.2	12	1.6	15	5.0	6	1.4				418.6	45.6
ASAHIK	0	EP	12	08	31				11	2.4	6	1.8	7	2.4				436.2	
SAPPOR	0	P	12	08	41.0				6	2.0	8	2.4	3	5.0				518.5	
AOMORI	0	EX	12	08	48				10	1.3	11	1.1						629.6	
FUKUSH	0	EP	12	09	20.0	X	10	44.8	9	1.0	3	1.0						857.6	
MATSUS	0	IP	12	09	49.8	X	11	33									D	1094.8	

OT= 14 13 47 49.0 +/- 1.6 (JST)
E OFF HOKKAIDO
LAT= 43 7 +/- 6 LONG= 148 8 +/- 9
H= 50 MAG=5.0 CLASS=U

NEMURO	0	P	13	48	19.3	ES	48	41	32	1.0	30	1.4	21	2.0			U 1	208.3	21.7
ABASHI	0	EP	13	48	35				12	1.6	15	2.2	8	1.2				326.8	
OBIHIR	0	EP	13	48	46	X	49	43										401.0	
URAKAW	0	P	13	48	54.0	S	49	38.0	17	1.6	25	2.6	8	3.0				451.8	44.0
ASAHIK	0	EP	13	48	55				8	2.6	6	2.0	4	1.6				471.9	
KUSHIR	0	X	13	48		ES	49	04	22	0.3	21	0.4	17	0.7				305.0	
SAPPOR	0	P	13	49	04.5				5	2.0	7	2.2	2	1.2				553.8	
AOMORI	0	EX	13	49	59				13	1.3	12	1.6						660.5	
MATSUS	0	P	13	50	15	S	52	04										1119.1	109.0

OT= 14 17 59 47.5 +/- 1.3 (JST)
E OFF HOKKAIDO
LAT= 43 5 +/- 4 LONG= 147 51 +/- 6
H= 50 MAG=4.7 CLASS=U

NEMURO	0	P	18	00	15.6	ES	00	35	11	2.0	14	2.0	15	3.0			U 2	186.0	19.4
ABASHI	0	P	18	00	31.8	ES	01	04	11	1.4	19	2.2	8	1.4				306.4	32.2
URAKAW	0	P	18	00	49.1	S	01	32.5	9	3.2	10	2.0	5	4.0				428.5	43.4
KUSHIR	0	X	18	01	55.7				12	1.8	12	2.4	8	3.0				281.9	
MATSUS	0	P	18	02	10	ES	04	07										1098.6	117.0
AOMORI	0	EX	18	02	12				8	1.3	5	1.5						637.6	

OT= 14 20 51 12.0 +/- 2.2 (JST)
E OFF HOKKAIDO
LAT= 42 58 +/- 6 LONG= 147 36 +/-12
H= 60 MAG=4.8 CLASS=U

NEMURO	0	EP	20	51	37	ES	51	54	20	1.0	16	0.6	17	2.0			D	168.7	17.0
KUSHIR	0	P	20	51	49.7	ES	52	18	27	0.2	27	0.2	8	0.4				261.5	28.3
ABASHI	0	EP	20	51	53	S	52	21.6	13	2.4	13	1.8	7	1.6				292.6	28.6
OBIHIR	0	EP	20	52	05													357.4	
URAKAW	0	P	20	52	11.3	S	52	54.1	10	2.6	15	3.4	8	4.4				405.9	42.8

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
SAPPOR	0	P	20	52	23.0				5	2.0	5	1.8	2	1.0				511.1	
AOMORI	0	EP	20	52	35	ES	53	34	9	1.3	7	1.1						613.9	59.0
SENDAI	0	EX	20	53	03	ES	54	08.8	5	2.0	4	2.0	3	2.0				770.7	
FUKUSH	0	EP	20	53	06.0	ES	54	27.2	5	0.9	4	0.9	1	0.5				836.7	81.2
MATSUS	0	P	20	53	32	ES	55	19										1074.5	107.0

OT= 14 21 40 8.2 +/- 0.4 (JST)
S OFF CHIBA PREF
LAT= 34 50 +/- 2 LONG= 140 3 +/- 3
H= 70 CLASS=U

TATEYA	0	EP	21	40	19.7	IS	40	27.6	27	0.6	12	0.6	11	0.3				23.5	07.9
OSHIMA	0	IP	21	40	22.6	IS	40	31.7	11	0.2	8	0.4	6	0.4				62.0	09.1
TOKYO	0	EP	21	40	26	IS	40	38.4	11	0.4	16	0.2						98.1	12.4
AJIRO	0	EP	21	40	26.5	ES	40	35.8	8	0.2	9	0.2	2	0.3				90.1	09.3
MATSUS	0	IP	21	40	44.5	S	41	11							S	E	D	252.1	26.5

OT= 14 22 31 41.6 +/- 1.8 (JST)
E OFF HOKKAIDO
LAT= 43 7 +/- 7 LONG= 147 28 +/- 9
H= 60 MAG=4.7 CLASS=U

NEMURO	0	P	22	32	06.0	ES	32	23	35	0.6	60	1.0	39	0.8			W 1 U 3	154.6	17.0
KUSHIR	0	IP	22	32	17.9	ES	32	43	17	1.2	22	1.8	11	2.4			U 2	250.8	25.1
ABASHI	0	P	22	32	23.2	ES	32	46	6	2.0	11	3.4	5	2.8				276.0	22.8
URAKAW	0	P	22	32	38.2	S	33	17.8	7	4.0	8	4.0	3	2.4				398.9	39.6
MATSUS	0	P	22	33	58													1076.6	

OT= 14 23 19 1.2 +/- 1.2 (JST)
E OFF HOKKAIDO
LAT= 42 54 +/- 3 LONG= 147 15 +/- 6
H= 0 MAG=6.2 CLASS=R

NEMURO	3	P	23	19	27.4	ES	19	46	2800	4.9	1500	5.1	1500	4.7	S	4 E 3 D 4		143.5	18.6
KUSHIR	2	IP	23	19	40.0	X	20	19	1100	3.8	1000	5.3	600	1.9	N	2 E 10 D 12		233.2	
ABASHI	1	P	23	19	43.6	IS	20	13.0	1600	5.2	1100	2.8	400	4.4	N	6 W 23 U 8		270.3	29.4
OBIHIR	1	P	23	19	52.7	ES	20	37	1000	4.7	700	4.0	300	4.8		D 2		329.0	44.3
HIROO	2	IP	23	19	53.5	S	20	32.3	500	06.0	600	06.0	250		N	4 E 4 D 15		330.1	38.8
URAKAW	1	P	23	19	59.7	S	20	39.4	500	5.0	500	5.4	500	4.6				376.4	39.7
ASAHIK	0	EP	23	20	03	ES	20	53	316	3.2	221	3.6	223	4.0				407.2	50.0
RUMOI	0	FX	23	20	11													469.6	
SAPPOR	0	IP	23	20	12.4											D 6		483.1	
MURORA	0	P	23	20	16.7	ES	21	13	200	5.0	200	4.3	100	5.0	N	E 4 D 4		518.3	56.3
WAKKAN	0	P	23	20	16.9	X	21	32	309	5.3	266	5.4	241	7.1		W 1 U 2		525.6	
HACHIN	1	P	23	20	18.5	S	21	14.0	98	15.6	110	14.0	70	15.0	N	1 E 1 D 1		544.5	55.5
HAKODA	1	IP	23	20	19.8	S	21	18.4	300	5.7	200	5.3	100	3.8	N	4 E 10 D 11		548.2	58.6
MIYAKO	1	EP	23	20	21.1	IS	21	19.9	70	6.0	48	6.0	46	4.5	N	2 E 2 D 3		571.3	58.8
SUTTSU	0	EX	23	20	22.9													573.1	
AOMORI	1	IP	23	20	23.1	ES	21	30	430	2.7	334	2.4	135	15.2		E 16 D 13		584.6	66.9
MORIOK	1	IP	23	20	28.2	X	21	28.9	81	0.4	66	0.4	62	13.0	N	1 E 2 D 1		621.1	
						EL	23	50											
OFUNAT	0	IP	23	20	29.2	IS	21	33.2	60	2.6	43	2.4	55	2.2	N	3 E 4 D 4		631.0	64.0
ISHINO	0	EP	23	20	37.8	X	21	44.6	73	2.4	65	8.0	44	11.4	N	3 E 3 D 4		706.7	
AKITA	0	EP	23	20	39.8	S	21	53.4	179	6.4	185	9.0	125	14.8		U 14		694.8	73.6
SENDAI	0	P	23	20	42.5	X	21	53.6	55	2.2	97	2.0	47	13.6	N	2 D 4		744.3	
YAMAGA	0	P	23	20	47.3	X	22	05.9	50	2.0	50	3.0	50	3.0	N	1 E 1 D 1		779.0	
						EL	24	10											
SAKATA	0	EP	23	20	48.9	ES	22	07.1	600	5.4	450	6.2	200	6.2				765.9	78.2
FUKUSH	0	P	23	20	51.0	S	22	15.4	175	1.0	74	0.8	26	1.0	N	2 E 2 D 2		810.5	84.4
ONAHAM	0	P	23	20	55.9	X	22	22.4	96	1.8	100	2.7	52	3.1		U 1		854.6	
SHIRAK	0	EP	23	20	59.3	X	22	27.5	0		0		0					878.0	
NIIGAT	0	EP	23	21	01.9	X	23	12.3	342	8.2	290	6.7	143	5.0				888.9	
MITO	0	IP	23	21	05.0	X	22	38.4	93	5.0	93	4.3	62	4.4		D 2		928.2	
KAKIOK	0	EP	23	21	08	X	22	42	54	1.0	55	1.0	24	0.8				956.2	
UTSUNO	0	P	23	21	09.5	X	22	27.4										946.7	
TAKADA	0	EP	23	21	16.4	ES	22	57.4										1001.3	101.0
KUMAGA	0	EP	23	21	16.6	X	22	57.0	66	6.8	67	6.4	42	6.0				1008.8	
TOKYO	0	P	23	21	17.8	X	23	00	85	4.6	107	5.6	77	5.0				1028.3	
MAEBAS	0	P	23	21	18.2	X	22	52.8										1006.0	
CHICHI	0	EP	23	21	19.4	X	23	00.7										1039.5	
KARUIZ	0	EP	23	21	20.4	ES	23	12.6	100	15.0	100	9.0						1042.1	112.2
MATSUS	0	IP	23	21	20.8	S	23	21							N	E D		1047.6	120.2

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
NAGANO	0	EP	23	21	21.0	ES	23	18.4	79	5.0	76	3.2	32	5.4				1038.9	117.4
WAJIMA	0	EX	23	21	24				25	12.0	45	14.0	35	15.0				1072.3	
TATEYA	0	EP	23	21	25.0	X	23	14.8	130	4.8	121	9.4	67	5.9				1086.2	
KOFU	0	EP	23	21	26.8	X	23	17.6	48	2.0	41	1.8	30	10.4				1097.7	
KAWAGU	0	P	23	21	27.5	S	23	19.0										1100.0	111.5
TOYAMA	0	EP	23	21	28	ES	23	29	56	13.0	60	15.0	35	14.2				1099.7	121.0
AJIRO	0	EP	23	21	29.2	X	23	20.2	25	10.5	25	9.0	20	10.0				1121.3	
OSHIMA	0	P	23	21	29.8	S	23	27.0	362	13.6	426	10.4	164	2.0				1131.7	117.2
MATSUM	0	EP	23	21	32.0	ES	23	19.1										1085.8	107.1
IIDA	0	EP	23	21	34.2	ES	23	40.4	17	1.8	17	15.6	13	13.0				1153.7	126.2
KANAZA	0	IP	23	21	35.3	X	23	52.8	85	14.0	38	12.5	44	14.0			U 10	1149.0	
SHIZUO	0	EP	23	21	35.5	X	23	31.1	25	15.0	30	6.8	32	12.0				1165.7	
FUKUI	0	EP	23	21	41.1										N	2 E	D 1	1213.7	
HAMAMA	0	EP	23	21	44.5	ES	24	02	25	4.0	35	5.0	11	14.0				1227.8	137.5
NAGOYA	0	EP	23	21	44.7	ES	23	57.0	29	2.4	32	2.6	15	1.6				1235.1	132.3
GIFU	0	P	23	21	44.8	X	24	12.9	26	15.9	21	13.9	4	17.0				1229.1	
OMAEZA	0	EP	23	21	46.7	X	24	28.1	116	12.4	95	7.6	73	13.4				1209.0	
HACHIJ	0	EP	23	21	48.6	X	23	50.2	40	2.0	54	4.5	14	1.8				1268.4	
HIKONE	0	P	23	21	54.2													1272.0	
KYOTO	0	IP	23	21	54.9	ES	24	26.3	17	13.3	21	14.8	9	13.5		E 0 D 0		1325.5	151.4
TSU	0	EP	23	21	58.9				11	1.8	10	1.9	6	1.0				1300.7	
OWASE	0	EP	23	21	59.0	X	25	09.0	11	7.0	1	58.0	23	13.2			U	1373.0	
TOYOOK	0	P	23	21	59.3	ES	24	28.3	115	14.9	25	14.9	34	17.2	N	5 E 6 D 4		1346.8	149.0
MISHIM	0	X	23	21		X	23	22.1	34	3.0	39	4.7	17	11.0				1124.3	
OSAKA	0	EP	23	22	00	ES	24	24.4	40	5.0	37	11.0	22	12.4				1365.5	144.4
KOBE	0	EP	23	22	03.5													1386.8	
SAIGO	0	P	23	22	05.3	ES	24	31.8	13	4.2	21	5.0			N	E	D 0	1405.5	146.5
						EL	26	57											
SHIONO	0	EX	23	22	09.5				17	11.3	44	15.3	3	1.4				1451.1	
WAKAYA	0	EX	23	22	11.5				18	13.5	20	15.5	24	15.0				1424.1	
OKAYAM	0	EP	23	22	12.4	EX	25	14	9	15.0	18	15.0	19	16.0	N	1 E 2 D 2		1471.5	
TAKAMA	0	P	23	22	14.5	X	24	38.1	24	16.1	29	15.1	12	15.4				1489.4	
MUROTO	0	EP	23	22	23.0	EX	22	34.4	4	3.0	5	2.0	5	2.0			U 0	1565.8	
HAMADA	0	P	23	22	26.6	S	25	12.0	17	6.0	11	4.5	13	4.2	N	1 E 2 D 1		1584.6	165.4
						EL	26	55.0											
HIROSH	0	EP	23	22	27.0	ES	25	21.2	33	14.9	13	15.5	21	13.8		W U		1596.5	174.2
MATSUY	0	EP	23	22	29.0	ES	25	12.5	28	17.3	29	16.3	18	16.3				1611.6	163.5
ASHIZU	0	P	23	22	38.3	ES	25	22.6	20	15.6	18	14.2	8	13.9	N	1 E 1 D 1		1683.3	164.3
SHIMON	0	P	23	22	44.0				15	15	10	14	14	13		E 1 D 2		1731.1	
CHOSHI	0	X	23	22	45													968.8	
OITA	0	P	23	22	45.1	ES	26	04.3	76	5.4	85	5.1	15	5.1				1736.1	199.2
NOBEOK	0	EP	23	22	46.2	EX	26	06.8	50	5.7	50	3.8	50	5.7		E D		1781.7	
FUKUOK	0	EP	23	22	51.0	ES	26	07.0	13	4.9	13	3.7	11	3.8	N	1 E 1 D 2		1797.6	196.0
KUMAMO	0	EP	23	22	55.4	ES	26	22.0	42	2.4	26	2.0	10	14.1				1830.7	206.6
SAGA	0	EP	23	22	55.9	S	26	40.3										1827.0	224.4
MIYAZA	0	P	23	22	58.4	S	26	21.2	34	5.6	26	5.2	17	15.2				1851.1	202.8
NAGASA	0	EP	23	23	03.0	S	26	34.7							N	E		1896.2	211.7
KAGOSH	0	EP	23	23	07.1	ES	26	35.9	23	5.4	28	2.0	20	16.0				1936.3	208.8
YAKUSH	0	EP	23	23	17.6	EX	27	08.0	16	7.0	10	8.2	16	5.4				2030.0	
NAHA	0	IP	23	24	11.4	ES	28	36	23	3.9	18	6.8	21	3.0	N	E	D	2563.9	264.6

OT= 15 0 27 44.6 +/- 3.1 (JST)
E OFF HOKKAIDO
LAT= 42 30 +/- 8 LONG= 147 56 +/-17
H= 70 CLASS=U

NEMURO	0	ES	00	28	28				18	1.2	10	1.2	9	1.4				212.6	
ABASHI	0	P	00	28	30.8	S	29	06.6	9	2.0	11	1.8	6	1.8				341.0	35.8
URAKAW	0	EP	00	28	43	S	29	26.0	6	0.8	9	2.8	2	1.2				426.5	43.0
KUSHIR	0	ES	00	28	52				16	0.4	12	0.2	5	0.7				294.6	
SAPPOR	0	EP	00	29	02	ES	29	56	3	1.8	5	2.0	1	1.0				543.7	54.0
MATSUS	0	P	00	30	04	S	31	51										1065.3	107.0

OT= 15 0 38 19.7 +/- 1.1 (JST)
E OFF HOKKAIDO
LAT= 43 0 +/- 4 LONG= 147 12 +/- 6
H= 0 MAG=4.9 CLASS=U

NEMURO	0	EP	00	38	45	ES	39	02	45	2.2	40	2.4	25	2.4				136.2	17.0
KUSHIR	0	EP	00	38	57	IS	39	25.2	35	2.6	25	2.0	11	2.2				228.8	28.2
ABASHI	0	EP	00	39	01	EX	39	08	22	2.6	26	2.0	13	2.2				261.6	
						X	39	21											
OBIHIR	0	EP	00	39	10													324.8	
HIROO	0	P	00	39	11.0	ES	39	52											
URAKAW	0	EP	00	39	18	S	40	02.0	16	2.6	35	3.0	15	3.8				328.3	41.0
																		374.7	44.0

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
ASAHIK	0	EP	00 39 22			11	2.4	10	2.4	7	2.4				400.4	
SAPPOR	0	EP	00 39 31			8	2.6	11	2.4	4	5.0				478.3	
HAKODA	0	IP	00 39 37.6	S	40 34.7	6	2.6	5	1.9	4	2.8		W	U	546.4	57.1
MORIOK	0	P	00 39 45.7	IS	40 51.4	5	0.4	4	0.4	2	1.5	N 0		D 0	623.8	65.7
AOMORI	0	EX	00 40 05			13	1.8	11	2.2	4	1.1				584.9	
FUKUSH	0	EP	00 40 11.0	S	41 36.6	7	0.9	3	0.8	1	0.9				815.1	85.6
MATSUS	0	IP	00 40 39.0											U	1051.6	

OT= 15 1 27 41.8 +/- 2.4 (JST)
E OFF HOKKAIDO
LAT= 43 11 +/- 8 LONG= 148 19 +/-13
H= 40 MAG=4.9 CLASS=U

NEMURO	0	EP	01 28 15	ES	28 33	7	2.0	5	2.0	5	2.4				222.3	18.0
KUSHIR	0	EP	01 28 28	X	29 15	12	0.2	11	1.4	4	1.8				320.2	
OBIHIR	0	EP	01 28 40												416.2	
URAKAW	0	P	01 28 49.6	S	29 41.6	11	1.8	13	1.2	5	1.4			D 1	467.9	52.0
SAPPOR	0	EP	01 29 00			5	2.2	5	2.2	2	1.2				568.6	
HAKODA	0	EP	01 29 08	ES	30 18	6	1.3	4	1.3	3	2.1				639.5	70.0
AOMORI	0	EX	01 30 04			10	1.4	9	1.3	2	1.4				677.0	
MATSUS	0	IP	01 30 11.8	ES	32 08									D	1135.4	116.2

OT= 15 1 58 45.1 +/- 3.2 (JST)
E OFF HOKKAIDO
LAT= 42 45 +/- 8 LONG= 146 56 +/-17
H= 0 MAG=4.8 CLASS=U

NEMURO	0	EP	01 59 08	ES	59 26	11	1.6	10	1.2	12	1.6				127.2	18.0
ABASHI	0	EP	01 59 30	ES	59 55	11	2.0	11	2.2	4	1.8				256.8	25.0
URAKAW	0	P	01 59 40.7	S	00 23.5	8	1.6	13	1.8	4	1.6				347.9	42.8
KUSHIR	0	IS	01 59 48.0			21	0.2	28	0.2	6	0.2				209.0	
AOMORI	0	EX	02 00 15			6	0.9	7	0.9						554.4	
FUKUSH	0	EX	02 00 35.6			5	0.9	4	0.9	2	0.6				780.2	
MATSUS	0	P	02 01 02	S	02 49										1017.1	107.0

OT= 15 2 5 54.9 +/- 1.5 (JST)
E OFF HOKKAIDO
LAT= 42 42 +/- 5 LONG= 147 25 +/- 8
H= 50 MAG=4.9 CLASS=S

NEMURO	1	EP	02 06 20	ES	06 37	29	2.0	20	1.6	20	2.6				164.7	17.0
KUSHIR	0	EP	02 06 33	IS	06 58.0	27	0.3	25	0.2	9	0.2				249.0	25.0
ABASHI	0	EP	02 06 34	S	07 05.8	17	2.0	16	2.2	8	1.6				293.2	31.8
OBIHIR	0	EP	02 06 44												344.0	
URAKAW	0	P	02 06 51.3	S	07 34.5	12	1.6	23	2.6	7	2.0				386.3	43.2
SAPPOR	0	EP	02 07 04	ES	07 55	7	2.0	7	2.0	2	1.4				498.7	51.0
ASAHIK	0	X	02 07 06			7	1.8	6	2.0	4	2.0				426.6	
HACHIN	0	EP	02 07 08.9	S	08 06.0	13	0.2	5	0.2			S	W	U	547.2	57.1
AOMORI	0	EP	02 07 15	ES	08 15	19	3.0	9	1.4	4	1.4				589.9	60.0
MORIOK	0	P	02 07 18.7	IS	08 22.9	9	0.4	12	0.4	1	0.4	N 0	E 0	D 0	621.1	64.2
				IX	07 20.7											
FUKUSH	0	EX	02 07 43.6			5	1.0	3	1.0	2	0.5				805.9	
MATSUS	0	IP	02 08 11.6	S	09 59							N	E	D	1044.4	107.4

OT= 15 5 15 40.5 +/- 1.9 (JST)
E OFF HOKKAIDO
LAT= 43 3 +/- 6 LONG= 147 39 +/-10
H= 60 MAG=4.8 CLASS=U

NEMURO	0	EP	05 16 06	S	16 24.0	15	2.0	13	1.8	10	1.2				170.6	18.0
KUSHIR	0	EP	05 16 19	IS	16 45.6	18	1.0	28	0.2	8	3.4				265.5	26.6
ABASHI	0	EP	05 16 23	ES	16 43	9	1.8	10	1.6	3	1.4				292.6	20.0
URAKAW	0	P	05 16 39.8	S	17 23.4	7	2.4	8	2.0	3	1.2				411.7	43.6
SAPPOR	0	EP	05 16 51			4	2.0	5	2.0	2	1.0				514.7	
AOMORI	0	EX	05 17 06			9	1.3	5	1.5						621.0	
FUKUSH	0	EP	05 17 33.6	ES	18 53.2	7	0.9	4	0.9	2	0.5				845.9	79.6
MATSUS	0	IP	05 18 01.8	S	19 49							N	E	D	1083.5	107.2

BEGIN HERE

OT= 15 6 56 35.3 +/- 1.1 (JST)
E OFF AOMORI PREF
LAT= 40 38 +/- 2 LONG= 142 28 +/- 7
H= 60 MAG=4.3 CLASS=S

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
HACHIN	1	IP	06 56 52.3	IS	57 02.4	40	0.4	39	0.4	3	0.2	N 3	E 5	D 7	80.6	10.1
MIYAKO	0	IP	06 56 55.7	IS	57 09.5	24	0	9	0						117.7	13.8
AOMORI	0	EP	06 56 58	IS	57 11.9	47	0.5	41	0.5	9	0.5				143.7	13.9
MORIOK	X	IP	06 56 58.5	IS	57 14.1	13	0.4	10	0.4	3	0.4	N 1	E 0	D 0	151.8	15.6
OFUNAT	0	EP	06 57 03.4	IS	57 22.2	19	0.0	8	0.2	3	0.4				185.9	18.8
HAKODA	0	IP	06 57 04.5	IS	57 25.1	6	0.6	8	0.7	2	1.8			U	194.2	20.6
AKITA	0	X	06 57 29.8			4	0.8	7	0.8	2	0.6				225.6	
MATSUS	0	EP	06 57 59												586.6	

OT= 15 7 12 23.8 +/- 1.9 (JST)
E OFF HOKKAIDO
LAT= 43 19 +/- 8 LONG= 148 44 +/-10
H= 50 MAG=5.1 CLASS=U

NEMURO	0	EP	07 13 00	ES	13 30	15	2.4	11	2.8	5	2.0				258.0	30.0
ABASHI	0	EP	07 13 15	ES	13 53	9	2.8	16	3.0	7	4.0				369.9	38.0
KUSHIR	0	EP	07 13 15	ES	13 55	22	1.2	19	1.1	9	2.8				357.6	40.0
HIROO	0	P	07 13 28.5												460.4	
OBIHIR	0	EP	07 13 29												453.4	
ASAHIK	0	EP	07 13 34			6	1.8	6	1.8	5	2.2				519.2	
URAKAW	0	P	07 13 34.6	S	14 29.5	21	2.4	28	2.4	14	4.0				506.8	54.9
SAPPOR	0	EP	07 13 46			10	1.8	11	2.2	4	1.6				605.0	
HAKODA	0	EP	07 13 54	ES	15 07	9	1.2	8	2.0	8	2.4				678.3	73.0
AOMORI	0	EP	07 14 00	ES	15 14	18	1.8	13	1.1	7	1.4				716.4	74.0
MORIOK	0	IP	07 14 04.6	IS	15 19.5	5	0.4	6	0.4	1	0.4	N 0	E 0	D 0	750.7	74.9
MATSUS	0	P	07 14 57	ES	16 56										1173.6	119.0

OT= 15 9 37 36.2 +/- 0.2 (JST)
SE OF SAITAMA PREF
LAT= 35 49 +/- 2 LONG= 139 31 +/- 2
H= 90 CLASS=L

TOKYO	0	EP	09 37 49	S	38 01.7	13	1.0	21	0.7	5	0.8				26.3	12.7
KUMAGA	0	P	09 37 51.0	S	38 01.4	8	0.6	7	0.4	2	0.1			D 2	38.5	10.4
UTSUNO	1	P	09 37 54.6	IS	38 05.7										87.1	11.1
AJIRO	0	EP	09 37 56.0	ES	38 08.2	8	0.2	8	0.2	2	0.3				93.9	12.2
MATSUS	0	IP	09 38 00.6	IS	38 17.4							N	S	U	142.3	16.8

OT= 15 13 32 2.8 +/- 1.7 (JST)
E OFF HOKKAIDO
LAT= 42 50 +/- 6 LONG= 147 24 +/- 9
H= 10 MAG=5.6 CLASS=R

NEMURO	2	IP	13 32 29.6	ES	32 47	110	2.2	143	5.0	100	2.6	S 2	W 12	U 13	157.6	17.4
KUSHIR	1	IP	13 32 42.0	EX	33 03	94	3.6	133	3.6	47	4.2		W 10	U 10	246.0	
ABASHI	0	P	13 32 45.8	S	33 29.8	86	3.4	135	3.0	37	3.0	N 9	W 18	U 15	284.6	44.0
HIROO	0	IP	13 32 54.6	S	33 36.4									U 10	340.9	41.8
OBIHIR	0	EP	13 32 55												341.6	
URAKAW	1	P	13 33 01.3	ES	33 48	88	2.6	160	4.0	49	5.6	S	W 1	U 1	387.1	46.7
ASAHIK	0	EP	13 33 05			33	2.2	40	2.0	28	4.4				421.0	
RUMOI	0	EX	13 33 14												483.4	
SAPPOR	0	P	13 33 14.4	ES	34 07	54	2.0	58	2.0	24	8.4				495.9	52.6
WAKKAN	0	P	13 33 18.2	EX	34 31	39	4.6	47	5.2	40	8.0			U 2	539.9	
MURORA	0	P	13 33 18.4	ES	34 14								W 3	U 2	529.9	55.6
HACHIN	0	IP	13 33 20.7	S	34 18.0	17	4.0	14	14.0	11	12.0		W 1	U 1	552.2	57.3
HAKODA	0	IP	13 33 22.2	ES	34 21	28	4.0	27	4.6	20	4.2	S 2	W 5	U 7	559.0	58.8
MORIOK	0	IP	13 33 30.5	S	34 36.3	12	0.4	15	0.4	10	14.5	S 0	W 1	U 1	627.5	65.8
				X	33 43.7											
				EL	36 30											
OFUNAT	0	IP	13 33 31.5	S	34 38.0	8	1.4	10	2.6	10	1.6	S 1	W 1	U 1	635.6	66.5
AOMORI	0	X	13 33 32.2	ES	34 34	148	2.0	75	2.0	26	1.4		W 8	U 6	593.5	
ISHINO	0	EP	13 33 39.5	ES	34 52.0	15	2.6	10	3.4	8	10.4	S 1	W 1	U 2	710.8	72.5
AKITA	0	EX	13 33 40.6	EX	34 47.2	32	4.6	22	5.0	17	15.2				702.3	
YAMAGA	0	EP	13 33 49.4	ES	35 11.7										784.0	82.3
FUKUSH	0	EP	13 33 54.7	ES	35 19.1	26	1.0	18	1.1	5	1.1				814.6	84.4
ONAHAM	0	EP	13 33 58.4	S	35 25.4	31	1.5	27	1.3	16	1.6				857.3	87.0
MIYAKO	0	X	13 33	ES	34 20.6	10	1.8	8	1.4	4	2.1				576.7	

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A	/T *	S	E-W A	/T *	S	U-D A	/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
SENDAI	0	X	13	33		X	34	59.8	25	2.4		26	1.6		10	1.6					748.7	
SHIRAK	0	EP	13	34	02.6	ES	35	32.6													881.6	90.0
MITO	0	EX	13	34	07.0	X	35	40.8	17	1.5		17	2.0		10	2.0					930.8	
KAKIOK	0	EP	13	34	09	ES	35	48	16	1.3		13	1.0		5	1.0					959.0	99.0
AIKAWA	0	IP	13	34	11.0	ES	35	47.5	14	15.0		15	16.0		14	15.0		S	W		942.4	96.5
SAKATA	0	EX	13	34	11.4							50	2.1								772.2	
KUMAGA	0	EP	13	34	18.6	ES	36	02.0	15	1.8		11	1.4		8	8.0					1012.2	103.4
TAKADA	0	EP	13	34	18.9																1006.8	
NIIGAT	0	X	13	34	22.7	X	36	07.2	52	6.8		37	11.2		18	5.0					894.6	
MATSUS	0	IP	13	34	22.9	S	36	12										S	W	U	1052.5	109.1
NAGANO	0	EP	13	34	23.5	X	36	35.5	8	3.5		9	2.5		5	2.5					1043.9	
KARUIZ	0	EP	13	34	23.6	ES	36	12.9													1046.5	109.3
WAJIMA	0	EX	13	34	26				13	1.0		11	1.0		10	1.4					1079.0	
TOYAMA	0	EP	13	34	29	ES	36	32	6	14.4		10	13.0		6	4.0					1105.6	123.0
KAWAGU	0	P	13	34	29.2	S	36	24.9													1103.4	115.7
KOFU	0	EP	13	34	30.0	ES	36	21.0	8	1.6		12	1.5		3	2.1					1101.4	111.0
KANAZA	0	EX	13	34	33				12	14.5		7	15.5		7	15.0					1155.1	
MISHIM	0	EP	13	34	34	X	36	23.8	6	1.3		6	1.3								1127.3	
TOKYO	0	X	13	34	40				6	1.8		9	1.8		9	2.0					1030.9	
NAGOYA	0	EP	13	34	46.6	S	36	58.0	6	1.6		5	2.0		2	1.4					1239.7	131.4
KYOTO	0	IP	13	34	57.5	ES	37	29.3	2	14.0		5	16.0		1	15.0		N	0 E	1 D 1	1330.8	151.8
TATEYA	0	X	13	34					17	10.0		17	12.0		12	10.2					1088.1	
HAMAMA	0	X	13	34					5	4.0		5	3.0		3	4.0					1231.5	
TOYOOK	0	P	13	35	00.7				8	16.0		7	16.0		7	17.1		S	W	U	1353.1	
OSAKA	0	EX	13	35	16.0				7	3.0		7	3.1		2	1.8					1370.7	
OSHIMA	0	EX	13	35	24				8	12.0		5	16.0								1133.9	
OITA	0	P	13	35	55.0	ES	39	05.2	11	3.6		21	4.5		8	2.1					1742.4	190.2
KUMAMO	0	EP	13	36	01.7	ES	39	24.3	7	1.6		6	1.4		4	3.0					1837.2	202.6
MIYAZA	0	EP	13	36	02.7	S	39	27.5	6	4.8		5	5.0		5	2.0					1856.7	204.8
NAGASA	0	EP	13	36	05.0	S	39	35.4													1903.0	210.4
KAGOSH	0	EP	13	36	13.2				5	2.4		6	2.0		4	2.6					1942.1	

OT= 15 15 18 29.8 +/- 1.8 (JST)
E OFF HOKKAIDO
LAT= 43 12 +/-12 LONG= 148 30 +/-10
H= 60 MAG=5.3 CLASS=M

NEMURO	1	EP	15	19	03	ES	19	21	40	0.8		42	1.4		27	1.8					237.0	18.0
KUSHIR	0	EP	15	19	16	S	19	48.0	44	0.5		62	0.3		15	0.6					335.2	32.0
ABASHI	0	P	15	19	18.4	ES	19	55	22	2.0		22	2.2		10	2.0					352.3	36.6
OBIHIR	0	EP	15	19	27	ES	20	22													431.1	55.0
HIROO	0	EP	15	19	29	ES	20	22													436.5	53.0
URAKAW	0	P	15	19	37.6	S	20	24.1	46	0.8		35	1.2		16	1.6			W	U 1	482.9	46.5
ASAHIK	0	EP	15	19	38				9	2.0		12	1.4		6	1.2					499.7	
SAPPOR	0	P	15	19	49.0	ES	20	49	11	1.8		15	2.6		3	1.0					583.5	60.0
HAKODA	0	EP	15	19	57	ES	21	03	10	1.2		11	1.1		4	1.5					654.5	66.0
AOMORI	0	EP	15	20	04				21	1.3		16	1.3		12	1.2					691.7	
FUKUSH	0	EX	15	20	05.5				6	0.9		6	1.1		2	0.7					909.4	
MATSUS	0	IP	15	20	59.0													N		D	1148.4	

OT= 15 17 41 54.9 (JST) USCGS
MARIANA IS
LAT= 21 36 LONG= 143 0
H=319 MAG=6.1 CLASS=U

TSU	0	P	17	44	05.0				20	3.9		19	1.8		10	4.2					1583.3	
HACHIJ	0	IP	17	44	34.0	S	46	43.4	52	0.5		64	1.0		23	0.8		S	8 E	7 D 15	1312.4	129.4
OSHIMA	0	EP	17	44	53.1	ES	47	15.6	60	1.0		66	2.2		36	1.0					1500.1	142.5
TATEYA	0	IP	17	44	56.3	IS	47	20.7	169	3.7		170	2.5		82	1.5		S	21 E	4 D 65	1513.5	144.4
SHIONO	0	P	17	44	56.8	S	47	24.1	32	1.9		23	1.8		32	1.9		S	13 E	10 D 9	1492.8	147.3
AJIRO	0	EP	17	44	59.1	ES	47	25.6	19	2.0		38	1.8		12	1.6					1536.9	146.5
HAMAMA	0	EP	17	45	00.0	ES	47	28	18	2.6		35	4.0		15	3.0					1540.7	148.0
SHIZUO	0	EP	17	45	00.0	ES	47	28.9	13	4.6		15	3.8		9	4.3					1547.6	148.9
OWASE	0	EP	17	45	00.0	ES	47	29.6	3	5.0			62.6		5	5.0					1533.5	149.6
FUKUI	0	EP	17	45	00.2	IS	48	07.3													1730.6	187.1
MISHIM	0	IP	17	45	00.6	IS	47	30.0	63	3.1		69	1.6		37	2.2		S	10 E	2 D 13	1548.3	149.4
MUROTO	0	IP	17	45	04.5	IS	47	19.9	48	3.0		51	3.0		28	3.0		S	0	D 1	1555.2	135.4
CHOSHI	0	EP	17	45	04.8	IS	47	36.5													1578.5	151.7
TOKYO	0	IP	17	45	06.3	S	47	38	93	5.0		95	2.0		45	6.8					1591.6	151.7
HIKONE	0	P	17	45	07.1	X	45	12.7													1651.3	
						X	47	52.3														
IIDA	0	IP	17	45	07.4	IS	47	41.0	16	1.6		16	2.2		11	2.0		S	4	D 4	1620.6	153.6
KAWAGU	0	P	17	45	07.8	S	47	39.5													1593.7	151.7
KOFU	0	IP	17	45	08.0	ES	47	48.0	80	1.8		98	2.0		15	2.0		S	4	D 4	1616.7	160.0
YAKUSH	0	IP	17	45	08.0	ES	47	44.0	24	3.6		28	6.6		17	4.8		S	4 E	6 D 7	1586.7	156.0
NAGOYA	0	IP	17	45	08.6	IS	47	42.4	37	2.4		27	2.6		13	2.0				D 4	1613.5	153.8
						SCS	56	42.0														

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A	/T *	S	E-W A	/T *	S	U-D A	/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
WAKAYA	0	P	17	45	08.6	S	47	43.8	21	3.2		20	3.5		15	4.2		S	6 E	4 D 5	1595.2	155.2
ASHIZU	0	IP	17	45	08.6	S	47	44.3	30	4.9		36	5.6		18	5.4		S	10 E	5 D 17	1577.0	155.7
OSAKA2	0	P	17	45	09.3	S	47	43.4										S	6 E	4 D 7	1610.0	154.1
CHICHI	0	EP	17	45	09.3																1638.9	
NARA	0	P	17	45	09.4	S	47	45.9	7	1.6		5	1.6								1609.5	156.5
OSAKA	0	EP	17	45	09.8	ES	47	43.3	71	4.0		38	2.8		23	5.2					1622.5	153.5
KAKIOK	0	X	17	45	11	EX	47	46	82	1.0		89	1.0		29	1.0					1643.4	
TOKUSH	0	EP	17	45	11.2	ES	47	48.3													1608.8	157.1
KUMAGA	0	P	17	45	11.4	ES	47	51.6	44	1.2		36	1.8		31	1.2					1649.0	160.2
MIYAZA	0	P	17	45	11.4	S	47	51.2	15	4.6		37	2.0		19	1.8		S		E	1618.9	159.8
KOBE	0	EP	17	45	12.0	ES	47	53.2													1638.8	161.2
SUMOTO	0	P	17	45	12.1	X	47	47.8													1617.8	
MITO	0	IP	17	45	12.4	IS	47	50.5	190	5.4		145	5.0		85	5.2		S	8	D 2	1655.2	158.1
GIFU	0	P	17	45	12.4	S	47	50.5	22	1.9		21	1.9								1644.5	158.1
KYOTO	0	IP	17	45	12.5	IS	47	55.5	14	5.0		14	1.5		7	1.7		N	0 E	0 D 0	1645.9	163.0
NAHA	0	P	17	45	13.0	S	47	55.0	17	2.0		15	2.4		6	1.8					1639.1	162.0
UTSUNO	0	P	17	45	14.0	S	47	52.6													1683.2	158.6
NOBEOK	0	EP	17	45	14.0	ES	47	54.8				50	2.1					N		U	1652.1	160.8
UWAJIM	0	EP	17	45	14.1	ES	47	55.3													1647.7	161.2
MAEBAS	0	P	17	45	14.3	S	47	50.5													1683.3	156.2
TAKAMA	0	IP	17	45	14.6	IS	47	55.7	42	6.2		49	5.1		12	1.7		S	8 E	8 D 8	1658.4	161.1
KAGOSH	0	EP	17	45	14.8	ES	47	56.6	21	2.0		35	2.0		22	1.8					1657.3	161.8
KARUIZ	0	EP	17	45	15.9	S	47	56.0													1688.7	160.1
MATSUS	0	IP	17	45	16.0	S	48	00													1718.5	164.0
TSURUG	0	P	17	45	17.4	IS	48	05.3													1696.1	167.9
						SCS	56	43														
OKAYAM	0	EP	17	45	17.6	ES	48	02.2	20	6.0		30	6.0		20	6.0		N	1 W	U 2	1699.4	164.6
MATSUY	0	EP	17	45	17.8	IS	48	02.1	74	2.7		117	3.3		19	2.4					1686.5	164.3
ONAHAM	0	IP	17	45	18.9	S	48	00.0	95	1.9		119	2.9		35	2.9		S	11	D 19	1711.9	161.1
OITA	0	P	17	45	19.0	S	48	08.0	200	4.1		254	4.5		154	2.2					1707.3	169.0
NAGANO	0	P	17	45	19.8	S	48	03.0	31	3.5		22	2.0		29	2.7					1731.7	163.2
SHIRAK	0	P	17	45	19.9	S	48	03.6													1739.8	163.7
TOYOOK	0	P	17	45	21.3	S	48	06.1	47	5.1		26	4.8		7	5.9		S	E	D	1736.8	164.8
TOYAMA	0	EP	17	45	22	ES	48	20	24	4.8		28	4.8		20	4.4					1764.7	178.0
KUMAMO	0	IP	17	45	22.0	IS	48	12.9	115	4.6		68	4.0		14	2.4					1735.5	170.9
HIROSH	0	P	17	45	22.3	S	48	06.8	83	6.0		98	6.0		22	4.1		N	1 W	1 U 2	1751.5	164.5
TAKADA	0	EP	17	45	23.2	S	48	14.8													1777.7	171.6
MATSUM	0	EP	17	45	23.3	ES	48	04.6													1693.7	161.3
KANAZA	0	IP	17	45	24.3	S	48	10.0	28	5.3		30	5.3		14	2.4				U 7	1766.1	165.7
YONAGO	0	P	17	45	26.7	ES	48	21.9												D 2	1797.6	175.2
NAGASA	0	P	17	45	26.9	S	48	21.3										N	W	U	1787.5	174.4
SAGA	0	IP	17	45	27.4	S	48	23.4										S	2 E	6 D 10	1796.0	176.0
FUKUSH	0	IP	17	45	27.8	IS	48	21.0	112	0.5		100	0.5		33	0.9		N	2	D 2	1806.3	173.2
SHIMON	0	P	17	45	28.0	S	48	24.0	23	3.8		30	7.2		23	4.4		N	1 W	1 U 2	1808.7	176.0
WAJIMA	0	EP	17	45	28	ES	48	26	25	2.0		40	2.0		10	2.6					1845.3	178.0
FUKUOK	0	P	17	45	28.3	IS	48	25.5	39	5.0		38	5.0		16	6.5		N	W	U 2	1816.3	177.2
HAMADA	0	P	17	45	28.4	S	48	24.0	64	5.0		60	5.0		20	4.0		N	1 W	2 U 3	1818.2	175.6
MATSUE	0	EP	17	45	29.8	S	48	27.7													1813.6	177.9
NIIGAT	0	IP	17	45	31.4	ES	50	12.3	135	4.7		115	4.3		70	3.9				U 5	1846.3	280.9
SAIGO	0	EP	17	45	31.8	ES	48	30.0	19	2.2		16	4.2					N	1 W		1869.6	178.2
						EX	56	48.0														
SENDAI	0	EP	17	45	32.0	S	48	48.0	40	4.4		56	7.0		37	6.0					1856.8	196.0
AIKAWA	0	EP	17	45	32.5	ES	48	28.0	23	1.6		30	2.0		14	5.0		S	E		1875.6	175.5
YAMAGA	0	EP	17	45	32.6	S	48	30.8													1862.5	178.2
ISHINO	0	EP	17	45	33.2	ES	48	32.0	48	5.6		49	5.2		37	4.0		S		D	1871.2	178.8
ASOSAN	0	EX	17	45	35																1715.7	
OFUNAT	0	EP	17	45	40.3	S	48	46.2	14	4.6		21	5.4		12	5.6					1938.7	185.9
ISHIGA	0	EP	17	45	42.2	ES	48	48.2											W	1 U 1	1951.7	186.0
SAKATA	0	EP	17	45	42.8	ES	48	48.4	450	3.0		450	3.0		100	4.0					1940.9	185.6
MORIOK	0	IP	17	45	46.3	IS	48	57.5	13	4.4		21	6.3		15	7.0		N	0	U 0	2012.8	191.2
						IX	45	52.5														
MIYAKO	0	EP	17	45	46.6	ES	48	56.0	24	7.2		17	7.2		5	1.5		S	2		2002.0	189.4
AKITA	0	EP	17	45	48.4	S	49	02.0	115	6.2		88	5.4		48	4.8				U	2026.5	193.6
HACHIN	0	EP	17	45	54.5	S	49	13.0	58	5.8		15	6.0		13	5.6				U	2101.9	198.5
AOMORI	0	IP	17	45	57.0	IS	49	20.0	96	7.1		51	4.9		23	6.9				U 5	2139.9	203.0
HAKODA	0	P	17	46	08.2	IS	49	36.6	29	6.9		19	6.6		15	7.6		N	3	U 4	2250.2	208.4
URAKAW	0	P	17	46	12.1	S	49	42.1	30	5.4		34	6.4		9	3.0				U 1	2278.8	210.0
SAPPOR	0	P	17	46	19.4	S	49	54.6	10	4.0		18	4.0		8	6.4					2383.7	215.2
NEMURO	0	EP	17	46	22	Ex	50	00	7	5.0		7	3.6		4	4.0					2420.6	
KUSHIR	0	EX	17	46	28	EX	49	21	6	1.6		4	2.0		5	2.2					2373.4	
ASAHIK	0	EP	17	46	28				15	5.0		13	8.0		6	4.6					2458.5	
ABASHI	0	EP	17	46	30	ES	50	10	14	4.6		10	3.4		5	2.8					2488.0	220.0
WAKKAN	0	EX	17	46	52	ES	51	17	18	4.4		15	4.6		12	5.0					2643.2	
YOKOHA	0	S	17	47	25.3																1566.8	
OBIHIR	0	EX	17	50																	2363.4	

International Seismological Centre From the ISC collection scanned by SISMOS

OT= 15 18 47 58.6 +/- 0.1 (JST)
S OF TOCHIGI PREF
LAT= 36 18 +/- 1 LONG= 139 32 +/- 1
H=120 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
																		40.9	13.0
UTSUNO	1	IP	18	48	16.6	IS	48	29.6									U 3	43.5	13.4
MAEBAS	0	IP	18	48	16.6	IS	48	30.0									U 12	21.6	13.8
KUMAGA	0	IP	18	48	16.6	IS	48	30.4	73	0.8	61	0.6	12	0.6			E 13 U 10	59.8	13.5
KAKIOK	0	IP	18	48	17.7	IS	48	31.2	49	1.0	67	1.0	23	0.7				53.1	13.6
CHICHI	0	EP	18	48	18.0	S	48	31.6											
MITO	1	IP	18	48	19.6	S	48	34.6	35	1.5	43	0.9	20	0.5			U 10	84.7	15.0
KARUIZ	0	EP	18	48	19.9	S	48	35.2										88.2	15.3
TOKYO	0	P	18	48	20.5	S	48	36.2	43		35		11					71.2	15.7
SHIRAK	0	P	18	48	21.2	IS	48	37.1										109.8	15.9
YOKOHA	0	EP	18	48	21.2	S	48	35.7										96.4	14.5
KOFU	0	EP	18	48	22.0	IS	48	38.8	24	0.8	30	0.4	10	0.9				112.7	16.8
MATSUS	0	IP	18	48	22.1	S	48	40										121.7	17.9
TAKADA	0	EP	18	48	23.3	S	48	45.2									D 8	145.3	21.9
NAGANO	0	P	18	48	23.8	S	48	42.2	17	1.3	8	1.3	5	1.5			D 3	126.2	18.4
ONAHAM	0	IP	18	48	24.3	IS	48	42.4	39	0.8	31	0.8	15	0.7			U 1	142.2	18.1
AJIRO	0	P	18	48	24.6	S	48	43.9	26	0.2	36	0.2	5	0.3				144.9	19.3
TATEYA	0	EP	18	48	26.0	IS	48	45.5	35	0.8	28	0.7	12	0.5				149.2	19.5
OSHIMA	0	IP	18	48	27.3	S	48	47.8	24	0.8	16	0.8	16	0.2				171.2	20.5
IIDA	0	EP	18	48	28.4	IS	48	50.0	4	1.2	4	1.4	1	0.6				176.6	21.6
MISHIM	0	EP	18	48	29.2	S	48	43.3	19	0.9	18	0.9	9	0.8				142.7	14.1
WAJIMA	0	IX	18	48	37.6				6	1.0	9	1.0					D 2	264.3	
HACHIJ	0	EP	18	48	48.2	S	49	26.4	8	0.5	7	0.5						355.5	38.2
SHIZUO	0	S	18	48	51.7				8	1.2	9	0.9	3	1.2				179.1	
AKITA	0	EX	18	48	52				4	2.4	5	3.0	3	2.6				382.7	
KAWAGU	0	X	18	49	22.9	X	49	38.6										112.9	

OT= 15 18 47 56.9 +/- 1.7 (JST)
E OFF HOKKAIDO
LAT= 43 2 +/- 7 LONG= 147 15 +/- 9
H= 0 MAG=4.9 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	0	P	18	48	22.4	ES	48	41	38	2.0	42	2.0	33	2.0			U 2	139.2	18.6
KUSHIR	0	EP	18	48	34	ES	49	07	44	2.0	30	2.0	18	3.0				232.9	33.0
ABASHI	0	P	18	48	38.4	ES	49	20	24	1.8	20	2.0	11	2.0				263.6	41.6
HIROO	0	EP	18	48	49													333.1	
OBIHIR	0	EX	18	48	51													328.9	
URAKAW	0	P	18	48	56.8	S	49	38.6	23	1.4	37	1.6	14	1.6	W	U		379.5	41.8
ASAHIK	0	EP	18	48	58				8	1.6	8	1.8	10	1.6				403.5	
SAPPOR	0	EP	18	49	08				12	2.0	15	2.4	3	1.8				482.2	
HAKODA	0	P	18	49	15.7	ES	50	13	5	3.5	6	1.3	3	1.8			U	551.1	57.3
AOMORI	0	X	18	49	39	ES	50	25	13	2.2	11	1.6	5	1.6				590.1	

OT= 15 19 2 16.0 +/- 2.3 (JST)
E OFF HOKKAIDO
LAT= 42 45 +/- 6 LONG= 148 11 +/-13
H= 90 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	0	EP	19	02	49	ES	03	12	61	5.0	65	6.0	55	6.0				221.2	23.0
KUSHIR	0	EP	19	03	01	ES	03	33	55	4.0	45	7.6	13	4.0				310.7	32.0
ABASHI	0	EP	19	03	05	ES	03	40	44	5.0	58	8.0	20	5.4				346.0	35.0
OBIHIR	0	EX	19	03	16													406.1	
URAKAW	0	P	19	03	21.0	S	04	08.2	66	15.0	53	4.6	48	5.0				449.3	47.2
SAPPOR	0	P	19	03	33.7				14	5.0	27	7.0	17	10.0				560.6	
HACHIN	0	EP	19	03	34.0	ES	04	37.0	10	12.0	13	12.4	4	5.0			D	607.2	63.0
HAKODA	0	X	19	03	40.5	EX	04	16	14	5.8	9	6.6	9	9.5				621.1	
AOMORI	0	EP	19	03	42	ES	04	50	26	1.8	20	1.8	10	1.3				651.4	68.0
MORIOK	0	EP	19	03	47.6	S	04	55.4	5	2.8	6	12.3	4	12.6				678.7	67.8
						EL	09	35											
WAKKAN	0	EX	19	03	55				23	8.0	28	9.2	22	9.8				598.8	
ISHINO	0	P	19	03	56.5	ES	05	10.8	6	9.2	5	12.0	5	10.0				754.5	74.3
SENDAI	0	EX	19	04	02	EX	05	17.8	8	2.0	6	2.0	2	2				793.1	
AKITA	0	EX	19	04	12				18	6.6	25	8.6	7	7.6				756.2	
FUKUSH	0	X	19	04	30.2	S	05	33.4	9	0.6	5	0.6	2	0.5				858.2	
NIIGAT	0	EX	19	04	33.4				31	9.5	38	10.2	8	7.0				943.1	
MITO	0	EX	19	04	35.0				11	10.5	7	12.0	7	13.0				968.5	
MATSUS	0	P	19	04	41	S	06	30										1098.1	109.0
ONAHAM	0	EX	19	04	49.2	X	05	21.6	15	10.4	10	4.8	6	10.0				895.6	
KUMAGA	0	EX	19	05	04.6				8	8.8	10	9.0	8	10.0				1052.9	
TATEYA	0	EX	19	05	29.8				22	10.0	15	10.0	8	11.0				1123.1	

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
SAKATA	0	EX	19	05	59.0													823.0	
NAGASA	0	EP	19	06	29.0	ES	09	53.3										1954.2	204.3

OT= 15 19 34 3.1 +/- 2.0 (JST)
E OFF HOKKAIDO
LAT= 42 53 +/- 6 LONG= 147 11 +/-10
H= 0 MAG=4.5 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	0	EP	19	34	28	ES	34	46	9	2.4	6	2.0	5	2.4				139.1	18.0
ABASHI	0	EP	19	34	46	ES	35	22	6	2.4	8	2.0	3	2.4				266.4	36.0
URAKAW	0	EP	19	35	02	S	35	41.4	5	1.4	13	1.8	4	1.6				370.7	39.4
KUSHIR	0	ES	19	35	11				11	1.0	8	1.3	4	1.4				227.9	
ASAHIK	0	X	19	35	28				18	4.0	13	3.6	15	5.2				402.4	
MATSUS	0	P	19	36	22	ES	38	17										1042.3	115.0

OT= 15 20 29 47.5 +/- 2.9 (JST)
E OFF HOKKAIDO
LAT= 42 53 +/- 9 LONG= 148 25 +/-16
H= 50 MAG=4.9 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	0	EP	20	30	22	ES	30	43	14	1.0	19	2.0	13	2.6				235.7	21.0
KUSHIR	0	EP	20	30	35	ES	31	12	18	1.8	20	0.2	6	0.6				328.5	37.0
ABASHI	0	EP	20	30	36	ES	31	22	7	1.8	13	2.0	4	2.0				357.5	46.0
OBIHIR	0	X	20	30	53													424.3	
URAKAW	0	P	20	30	55.4	S	31	40.0	14	2.0	17	2.4	7	1.0			U 1	470.1	44.6
SAPPOR	0	EP	20	31	06				6	2.2	7	2.0	2	1.0				578.3	
HAKODA	0	EP	20	31	14	EX	32	25	6	0.8	5	0.8	2	1.2				642.0	
MATSUS	0	P	20	32	16	S	34	06										1122.2	110.0
AOMORI	0	EX	20	32	29				13	2.0	9	2.0						674.0	

OT= 16 0 23 59.3 +/- 0.8 (JST)
OFF MIYAGI PREF
LAT= 38 41 +/- 1 LONG= 142 18 +/- 5
H= 40 MAG=3.6 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
OFUNAT	0	IP	00	24	12.0	IS	24	20.0	16	0.2	6	0.0	6	0.4	S	1 E	1 D 2	65.7	08.0
ISHINO	0	P	00	24	15.0	IS	24	25.4	8	0.2	6	0.2	2	0.8			D	91.5	10.4
MORIOK	0	P	00	24	23.2	IS	24	38.0	5	0.2	6	0.2	1	0.2	S	0 E	0 D 0	149.0	14.8
MATSUS	0	P	00	25	00	S	25	51										432.5	51.0

OT= 16 5 6 17.2 +/- 2.3 (JST)
E OFF HOKKAIDO
LAT= 43 16 +/-11 LONG= 147 52 +/-13
H= 50 MAG=4.8 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	0	EP	05	06	44	ES	07	04	15	0.6	15	1.6	14	0.8				185.2	20.0
KUSHIR	0	EP	05	06	57	ES	07	26	17	0.4	15	0.3	7	0.8				284.4	29.0
ABASHI	0	EP	05	07	00	ES	07	33	7	1.2	10	2.4						300.9	33.0
URAKAW	0	P	05	07	18.4	S	08	03.2	13	1.4	15	2.4	4	1.2			U 1	434.5	44.8
SAPPOR	0	EP	05	07	34				4	2.0	6	2.0						532.0	
FUKUSH	0	EP	05	08	10.0	X	09	33.5	7	0.5	3	0.5	1	0.3				875.1	
MATSUS	0	P	05	08	39	X	10	28										1112.3	

OT= 16 5 47 44.8 +/- 1.8 (JST)
E OFF HOKKAIDO
LAT= 43 2 +/- 6 LONG= 147 6 +/- 9
H= 30 MAG=5.1 CLASS=M

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	1	P	05	48	06.0	ES	48	18	54	0.2	61	0.2	48	0.2	N	1 E	4 D 6	127.4	12.0
KUSHIR	2	EP	05	48	20	IS	48	44.3	97	0.3	105	0.2	30	0.3				220.7	24.3
ABASHI	0	P	05	48	22.0	ES	48	47	17	2.0	28	2.0						252.6	25.0
OBIHIR	0	EP	05	48	32													316.7	
HIROO	0	EP	05	48	32	IS	49	11.6										321.2	39.6
ASAHIK	0	EP	05	48	41				28	3.0	17	3.0	11	2.2				391.6	
URAKAW	0	P	05	48	41.2	S	49	23.6	50	1.4	127	2.0	33	2.6				367.7	42.4
SAPPOR	0	P	05	48	51.7	ES	49	40	15	2.0	15	1.8	13	2.0				470.0	48.3
WAKKAN	0	EX	05	48	54				4	4.2	3	3.0	5	4.0				507.2	
HACHIN	0	EP	05	48	55.2	ES	49	53.6	5	0.6	4	0.4						540.7	58.4

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STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
HAKODA	0	IP	05 49 00.4	ES	50 00	10	1.1	10	2.6	6	0.8			D	539.2	59.6
MORIOK	0	P	05 49 11.1	S	50 13.0	11	0.2	12	0.3	2	1.2			U 0	619.2	61.9
AKITA	0	EX	05 49 24			7	2.8	6	2.4	3	2.2				691.3	
AOMORI	0	X	05 49 28	ES	50 04	28	0.9	28	1.3	10	1.8				578.8	
SENDAI	0	EX	05 49 34	ES	50 40.8	6	1.6	7	1.4	4	1.6				745.3	
FUKUSH	0	X	05 49 40.0	S	50 54.5	9	0.5	6	0.7	3	0.5				811.7	
ONAHAM	0	EX	05 49 40.0	X	51 05.4	8	0.9	8	1.2	3	1.0				857.8	
MITO	0	EP	05 49 52.6	X	51 20.4	5	1.6	4	1.0	3	1.4				931.6	
MATSUS	0	IP	05 50 04.3	X	51 45									D	1047.8	
SAKATA	0	EX	05 50 45.5												763.9	
NIIGAT	0	EX	05 51 18.4			9	4.3	6	5.4						887.9	
TOKYO	0	EX	05 51 44			3	1.2	4	1.2						1031.5	

OT= 16 7 43 47.1 +/- 1.3 (JST)
E OFF HOKKAIDO
LAT= 42 53 +/- 4 LONG= 147 25 +/- 7
H= 50 MAG=5.2 CLASS=M

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	1	P	07 44 11.0	ES	44 27	90	4.0	72	2.2	42	2.0		E 4	D 2	157.0	16.0
KUSHIR	1	IP	07 44 24.0	IS	44 51.6	62	4.0	87	2.6	47	2.8		E 3	D 4	246.9	27.6
ABASHI	0	P	07 44 28.2	S	44 59.0	38	3.8	43	2.4						283.2	30.8
OBIHIR	0	EP	07 44 36												342.7	
URAKAW	0	P	07 44 44.1	S	45 28.1	48	3.0	73	2.4	30	1.8		W 1	U	389.4	44.0
ASAHIK	0	EP	07 44 46			26	3.2	16	2.8	11	2.4				420.8	
SAPPOR	0	EP	07 44 56	ES	45 44	17	3.6	21	2.4	10	4.0				496.8	48.0
WAKKAN	0	EX	07 45 01			13	3.8	14	4.2	8	4.7				537.9	
HACHIN	0	P	07 45 02.8	ES	45 58.0	9	0.4	5	4.0	3	4.0	S 1	W 1	U 1	555.8	55.2
HAKODA	0	P	07 45 03.6	ES	46 02	12	2.0	8	1.6	5	4.4			D	561.3	58.4
AOMORI	0	EP	07 45 10	X	46 02	25	2.3	20	2.5						596.6	
MORIOK	0	EP	07 45 12.5	S	46 15.3	13	0.2	8	0.3	3	2.3	N 1	E 1	D 0	631.6	62.8
ISHINO	0	EP	07 45 21.6	ES	46 31.0	6	2.2	4	0.8	3	1.0	N 1	E 1	D 1	715.5	69.4
AKITA	0	EX	07 45 23.8			9	3.4	10	2.8	6	2.8				706.0	
ONAHAM	0	EX	07 45 35.2	X	47 04.0	8	1.1	6	0.9	3	0.9				862.3	
FUKUSH	0	EP	07 45 35.4	S	46 56.0	16	0.5	7	0.5	3	0.3				819.3	80.6
MITO	0	EP	07 45 50.4	ES	47 22.0	8	2.0	7	1.5	4	1.0				935.8	91.6
SENDAI	0	X	07 45	ES	46 42.0	9	1.0	10	1.6	4	1.2				753.3	
MATSUS	0	IP	07 46 04.6	S	47 48							N		D	1057.1	103.4
NIIGAT	0	EX	07 46 27.7			15	5.6	11	4.5	7	4.3				898.9	
HIROO	0	X	07 46 37.3	X	47 14.9										343.1	
KAKIOK	0	X	07 47 14	ES	47 30	7	1.0	6	1.0						964.0	
TOKYO	0	S	07 47 44			5	1.2	3	1.2						1036.0	

OT= 16 12 28 3.2 +/- 0.7 (JST)
E OFF HOKKAIDO
LAT= 43 0 +/- 4 LONG= 147 39 +/- 4
H= 40 MAG=4.8 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	0	EP	12 28 30	ES	28 48	15	2.2	19	1.6	15	1.6				171.8	18.0
KUSHIR	0	EP	12 28 42	S	29 12.8	20	0.2	18	0.2	8	2.8				265.5	30.8
ABASHI	0	P	12 28 45.6	ES	29 18	11	2.4	17	2.4	6	2.4	N 1	W 2	U 2	294.8	32.4
OBIHIR	0	X	12 29 04												361.5	
URAKAW	0	P	12 29 04.2	S	29 47.0	9	2.4	12	2.6	4	1.4			U 1	410.6	42.8
SAPPOR	0	X	12 29 23			5	2.0	5	2.0	2	1.0				515.0	
MORIOK	0	EP	12 29 32.4	S	30 35.5	3	0.4	6	0.4	1	0.6				654.6	63.1
FUKUSH	0	X	12 30 04.8	S	31 18.2	8	0.4	4	0.6	1	0.2				842.2	
MATSUS	0	IP	12 30 24.7	ES	32 13										1080.0	108.3
AOMORI	0	X	12 30 29			11	3.3	7	1.8						619.0	

OT= 16 12 39 37.1 +/- 0.3 (JST)
S OF IBARAKI PREF
LAT= 36 0 +/- 2 LONG= 139 57 +/- 2
H= 50 MAG=3.6 CLASS=L

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KAKIOK	0	P	12 39 46.5	S	39 52.5	36	0.8	47	0.6	18	1.0			U	33.8	06.0
UTSUNO	1	P	12 39 49.0	S	39 57.7										61.1	08.7
TOKYO	0	IP	12 39 49.3												39.0	
KUMAGA	0	P	12 39 49.6	S	39 57.4	18	0.2	8	0.4	2	0.2			D 2	53.4	07.8
MITO	0	IP	12 39 50.4	IS	39 58.6	20	0.5	22	0.3	14	0.2	S 2	E 1	U 2	62.9	08.2
MATSUS	0	IP	12 40 02.8	S	40 21							S	E	D	167.5	18.2
ONAHAM	0	EX	12 40 09.2	IS	40 13.4	5	0.6	4	0.9	1	0.4				135.4	

OT= 16 17 47 47.6 +/- 1.5 (JST)
E OFF HOKKAIDO
LAT= 42 51 +/- 5 LONG= 147 38 +/- 8
H= 60 MAG=5.0 CLASS=M

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	1	P	17 48 13.6	ES	48 31	35	2.8	32	2.0	21	2.4				174.9	17.4
KUSHIR	1	P	17 48 25.8	IS	48 53.6	36	0.2	37	2.2	16	3.6		E 2	D 2	264.8	27.8
ABASHI	0	P	17 48 30.0	S	49 00.8	24	2.2	27	2.2	6	2.2				300.7	30.8
OBIHIR	0	EP	17 48 39	ES	49 20										360.5	41.0
URAKAW	0	P	17 48 46.8	S	49 30.4	17	2.4	26	2.4	8	2.0				406.3	43.6
ASAHIK	0	EP	17 48 49			11	3.0	8	3.2						438.8	
SAPPOR	0	P	17 48 59.0	ES	49 49	8	2.0	11	2.0	4	2.0				514.7	50.0
WAKKAN	0	EX	17 49 03			6	4.0	5	4.0	3	3.5				554.8	
HACHIN	0	EP	17 49 04.9	ES	50 02.0	7	0.4	5	0.2						570.2	57.1
HAKODA	0	IP	17 49 06.3	S	50 03.0	5	1.5	5	1.5	3	2.7	N	E	D	578.1	56.7
MORIOK	0	P	17 49 15.0	S	50 17.8	7	0.2	7	0.4	2	2.5	S 0	W 0	U 0	644.8	62.8
ISHINO	0	P	17 49 24.3	ES	50 34.6	5	1.0	3	1.2	2	1.2			D	726.4	70.3
AKITA	0	EX	17 49 26.4			4	1.8	5	1.8	2	1.8				720.1	
SENDAI	0	EP	17 49 30	ES	50 43	5	1	5	2.0	2	1				764.5	73.0
FUKUSH	0	EP	17 49 40.0	ES	51 00.0	17	0.9	5	1.0	2	0.9				830.2	80.0
MATSUS	0	IP	17 50 07.5	ES	51 55							N	E	D	1068.7	107.5
AOMORI	0	ES	17 50 10			22	1.8	10	1.1						612.0	

OT= 16 18 3 14.7 +/- 1.5 (JST)
E OFF HOKKAIDO
LAT= 43 38 +/- 6 LONG= 148 23 +/- 9
H= 60 MAG=5.2 CLASS=R

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	0	EP	18 03 48	ES	04 12	31	2.4	20	2.4	42	4.0				228.8	24.0
ABASHI	0	EP	18 04 00	S	04 36.0	19	4.0	21	3.6	11	3.8				332.6	36.0
KUSHIR	1	IP	18 04 02.0	X	04 48	62	0.2	47	0.2	21	3.0			D 1	331.7	
OBIHIR	0	EP	18 04 15	X	05 10										426.4	
HIROO	0	P	18 04 16.4	S	05 04.5										439.8	48.1
ASAHIK	0	EP	18 04 22			8	2.0	8	3.0						484.7	
URAKAW	0	P	18 04 23.8	S	05 11.6	50	2.2	89	1.6	22	1.4		W 1	U 1	486.1	47.8
WAKKAN	0	P	18 04 32.6			9	4.2	10	4.5	8	4.6			D	568.1	
SAPPOR	0	P	18 04 33.4	ES	05 35	30	2.0	27	2.0	9	1.8				575.3	61.6
MURORA	0	EP	18 04 38	ES	05 43										621.0	65.0
HAKODA	0	P	18 04 41.8	ES	05 48	21	1.3	24	1.8	17	2.2			U	656.3	66.2
AOMORI	0	EP	18 04 50	ES	05 58	48	1.6	27	1.8	9	1.4				700.9	68.0
MORIOK	0	P	18 04 53.0	S	06 07.2	6	0.3	7	0.5	2	2.5		E 0	D 0	742.8	74.2
AKITA	0	EX	18 05 04.4			8	3.0	6	2.6	4	2.4				814.8	
MATSUS	0	P	18 05 45									S	W	U	1170.5	

OT= 16 22 12 38.4 +/- 2.6 (JST)
E OFF HOKKAIDO
LAT= 42 53 +/- 9 LONG= 147 36 +/-13
H= 50 MAG=4.4 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	0	EP	22 13 04	S	13 22.0	9	2.4	7	1.4	7	1.6				171.2	18.0
ABASHI	0	EP	22 13 21	S	13 51.4	5	2.0	7	2.0	2	1.8				296.6	30.4
URAKAW	0	P	22 13 38.1	S	14 20.7	4	2.0	8	2.0	3	2.0			D	404.2	42.6
KUSHIR	0	ES	22 13 44			8	0.2	11	0.2	5	4.0				261.9	
MATSUS	0	P	22 14 58	ES	16 46										1068.8	108.0

OT= 17 0 15 31.1 +/- 1.0 (JST)
E OFF HOKKAIDO
LAT= 42 53 +/- 3 LONG= 147 25 +/- 6
H= 60 MAG=5.9 CLASS=R

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	1	P	00 15 55.0	ES	16 10	228	2.0	275	2.2	187	3.2	N 2	E 17	D 21	157.0	15.0
KUSHIR	2	IP	00 16 07.2	S	16 34.0	200	0.4	229	0.3	149	3.4	N 7	E 17	D 20	246.9	26.8
ABASHI	0	P	00 16 11.6	S	16 41.4	211	1.8	172	3.2	85	3.2	S 6	E 11	D 4	283.2	29.8
HIROO	1	IP	00 16 20.0	IS	16 57.1								E 6	D 20	343.1	37.1
OBIHIR	0	P	00 16 20.4	ES	16 58									D 4	342.7	37.6
URAKAW	1	IP	00 16 27.2	S	17 10.0	127	2.6	163	2.6	102	4.4	N 4	E 7	D 5	389.4	42.8
ASAHIK	0	EP	00 16 30			73	2.0	49	1.6						420.8	
RUMOI	0	EX	00 16 38												483.1	
SAPPOR	0	IP	00 16 40.2	ES	17 23	58	2.0	88	2.0	28	6.0	S	E 6	D 12	496.8	42.8
MURORA	0	P	00 16 44.4	S	17 37.8							N	E 6	D 7	531.7	53.4
WAKKAN	0	P	00 16 45.1	ES	17 39	65	3.8	49	4.9	35	5.2			U	537.9	53.9

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STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	N-S	E-W *	E-W	U-D *	U-D	DELTA KM	S-P S
HACHIN	1	IP	00 16 46.5	IS	17 41.6	40	0.3	33	0.2	10	5.0	N	1	E	1	D	1	555.8	55.1
HAKODA	0	IP	00 16 47.6	S	17 45.2	48	1.5	44	1.5	24	4.0	N	5	E	10	D	16	561.3	57.6
MIYAKO	0	EP	00 16 49.2	IS	17 48.0	38	1.2	20	1.4	17	0.8	N	2	E	2	D	1	581.0	58.8
SUTTSU	0	EX	00 16 50.1															586.8	
AOMORI	0	IP	00 16 51.5	ES	17 51	164	2.2	103	1.6	56	0.9	N	4	E	14	D	11	596.6	59.5
MORIOK	1	IP	00 16 56.4	IS	17 59.4	77	0.4	82	0.4	17	1.7	N	1	E	2	D	1	631.6	63.0
				X	17 06.5														
OFUNAT	1	IP	00 16 57.0	IS	18 00.6	52	0.8	34	0.8	39	0.8	N	3	E	3	D	4	640.2	63.6
ISHINO	0	EP	00 17 05.8	ES	18 15.8	53	1.2	40	1.0	26	1.2	N	3	E	3	D	4	715.5	70.0
AKITA	0	EP	00 17 06.2	EX	18 20.0	39	2.6	45	1.2	25	1.6							706.0	
SENDAI	0	IP	00 17 10.8	ES	18 23.2	80	2.0	93	1.8	32	1.0							753.3	72.4
YAMAGA	0	P	00 17 15.3	S	18 33.0							N	1	W		D	2	788.5	77.7
SAKATA	0	EP	00 17 16.2	ES	18 46.0													776.3	89.8
FUKUSH	0	P	00 17 19.2	S	18 41.4	219	0.8	86	1.0	31	1.0	N	2	E	2	U	1	819.3	82.2
ONAHAM	0	IP	00 17 23.9	IS	18 48.8	77	0.9	78	1.2	36	2.0					U	1	862.3	84.9
SHIRAK	0	EP	00 17 26.3	S	18 55.5													886.4	89.2
MITO	0	EP	00 17 33.4	IS	19 04.6	39	1.6	46	1.2	30	1.4							935.8	91.0
AIKAWA	0	IP	00 17 35.5			5	3.0	8	1.6	4	2.0	N		E		D		946.5	
KAKIOK	0	EP	00 17 36	ES	19 10	51	0.6	84	0.8	23	0.6							964.0	94.0
UTSUNO	0	P	00 17 38.2	X	19 06.7													955.0	
KUMAGA	0	EP	00 17 43.4	ES	19 25.4	35	1.4	28	1.2	8	2.0							1017.1	102.0
TAKADA	0	EP	00 17 43.8															1011.1	
MAEBAS	0	P	00 17 45.4	IS	19 33.1													1014.8	107.7
TOKYO	0	IP	00 17 45.6	S	19 27.7	35	1.2	33	1.0	18	2.8							1036.0	102.1
CHICHI	0	EP	00 17 46.9	IS	19 29.8													1047.9	102.9
KARUIZ	0	EP	00 17 48.0	ES	19 38.8													1051.2	110.8
NAGANO	0	EP	00 17 48.7	ES	19 37.3	10	3.2	15	2.4	9	3.3							1048.4	108.6
MATSUS	0	IP	00 17 48.8	S	19 36							N		E		D		1057.1	107.2
TATEYA	0	EP	00 17 52.2	S	19 42.0	52	0.9	32	1.3	20	0.9							1093.2	109.8
WAJIMA	0	IP	00 17 53.0	ES	19 38	13	1.2	20	1.4	9	1.2			E	5	D	5	1083.0	105.0
KAWAGU	0	P	00 17 54.0	S	19 46.3													1108.3	112.3
KOFU	0	EP	00 17 55.1	ES	19 45.0	22	1.4	30	1.5	9	1.0							1106.2	109.9
TOYAMA	0	P	00 17 56.0	ES	19 58	4	3.8	7	2.8	7	3.2					D	3	1109.8	122.0
AJIRO	0	EP	00 17 57.2	X	19 46.2	11	1.2	9	1.4	5	1.4							1129.0	
MISHIM	0	EP	00 17 58.6	X	19 46.4	19	1.1	24	0.9	7	1.8							1132.2	
NIIGAT	0	X	00 17	X	19 15.5	55	5.0	46	3.7	25	5.5							898.9	
OSHIMA	0	X	00 17	S	19 49.8	21	0.8	14	1.0	8	0.6							1139.0	
HAMAMA	0	X	00 17	ES	20 14	10	1.8	10	2.0	3	2.6							1236.3	
KANAZA	0	EP	00 18 02.6	ES	19 55.9	7	2.0	7	3.0	5	2.6							1159.3	113.3
IIDA	0	EP	00 18 02.8	ES	20 01.2	8	1.4	6	1.2	5	1.0							1162.6	118.4
SHIZUO	0	P	00 18 02.8	X	19 55.8	7	2.0	8	1.5	4	1.0							1173.9	
NAGOYA	0	P	00 18 12.0	ES	20 17.0	13	2.2	8	1.2	7	1.4							1244.3	125.0
GIFU	0	P	00 18 12.4	X	20 47.0	8	1.4	7	1.4									1238.5	
HACHIJ	0	EP	00 18 16.2	X	20 18.2	24	0.5	19	0.5	8	0.6							1274.4	
TOYOOK	0	P	00 18 26.7			13	1.1	18	1.1			N	4	E	4	D	3	1357.2	
OSAKA	0	EX	00 18 27.0			10	2.0	8	2.0	3	1.7							1375.1	
OITA	0	EX	00 19 13.3			9	3.7	14	4.6									1746.6	
CHOSHI	0	IS	00 19 13.5															975.5	
KUMAMO	0	IP	00 19 24.6	ES	22 48.9	10	2.0	8	1.8	3	1.7							1841.3	199.3
MIYAZA	0	P	00 19 26.6	S	22 48.6	4	1.6	7	2.8	5	2.0							1861.0	202.0
NAGASA	0	EP	00 19 30.8	ES	22 54.8													1907.0	204.0
KAGOSH	0	EP	00 19 40.7			5	2.2	10	2.2	4	1.4							1946.4	

OT= 17 1 11 26.5 +/- 0.2 (JST)
E OF GUNMA PREF
LAT= 36 38 +/- 1 LONG= 139 20 +/- 1
H= 20 MAG=3.5 CLASS=L

MAEBAS	0	P	01 11 34.8	S	11 38.6													35.2	03.8
UTSUNO	0	P	01 11 35.8	S	11 41.5													49.1	05.7
KUMAGA	0	P	01 11 37.0	S	11 43.6	6	0.2	7	0.4	2	0.2					D	2	54.2	06.6
KAKIOK	0	EP	01 11 43	ES	11 54	4	0.5	8	0.5									89.1	11.0
MATSUS	0	IP	01 11 44.6	S	11 56							S		E		D		101.2	11.4
MITO	0	P	01 11 45.5	IS	11 57.9	12	0.4	9	0.4	3	0.3							105.8	12.4
TOKYO	0	EX	01 11 48	ES	12 00													111.9	

OT= 17 2 13 41.6 +/- 1.1 (JST)
E OFF HOKKAIDO
LAT= 42 52 +/- 3 LONG= 147 34 +/- 6
H= 60 MAG=5.5 CLASS=M

NEMURO	1	P	02 14 07.5	ES	14 25	63	2.0	105	2.0	60	2.0							169.2	17.5
KUSHIR	1	IP	02 14 18.8	IS	14 46.8	55	0.2	76	0.2	38	3.6			E	5	D	6	259.3	28.0
ABASHI	0	P	02 14 24.0	S	14 49.4	61	3.4	53	2.2	28	3.2							295.0	25.4
HIROO	0	P	02 14 31.4	S	15 10.7													354.9	39.3
OBIHIR	0	EP	02 14 32	ES	15 10													355.0	38.0

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	N-S	E-W *	E-W	U-D *	U-D	DELTA KM	S-P S
URAKAW	0	P	02 14 39.4	S	15 24.0	38	2.0	67	2.6	25	4.0	N		E		D		401.2	44.6
ASAHIK	0	EP	02 14 42			25	1.8	25	2.0	13	2.8							433.1	
SAPPOR	0	IP	02 14 52.2	S	15 44.2	27	2.4	27	2.2	10	5.4					D	2	509.2	52.0
WAKKAN	0	P	02 14 56.5			18	3.9	14	4.4	10	4.0					U		549.2	
HACHIN	0	EP	02 14 58.6	IS	15 54.8	14	0.2	15	0.2	3	5.0	N		E		D		566.1	56.2
HAKODA	0	P	02 14 59.7	S	15 57.2	12	1.5	14	2.6	7	2.8					U		573.1	57.5
MIYAKO	0	EP	02 15 01.5	IS	15 59.4	12	0.8	7	0.8	7	1.0	S	1	W	1	U	1	589.9	57.9
MORIOK	0	IP	02 15 08.4	IS	16 11.0	15	0.4	18	0.4	5	1.2	N	0	E	0	D	0	641.1	62.6
				IX	15 21.4														
OFUNAT	0	IP	02 15 09.2	S	16 12.6	16	0.8	13	0.8	14	1.4	N	1	E	1	D	2	648.6	63.4
AOMORI	0	X	02 15 11	ES	16 02	64	0.9	33	1.3	17	0.9							607.5	
ISHINO	0	EP	02 15 17.8	ES	16 27.4	17	1.0	12	0.8	11	0.8	N	1	E	1	D	2	723.5	69.6
AKITA	0	EP	02 15 18.2			14	2.2	11	2.4	6	2.4							716.1	
SENDAI	0	P	02 15 23.2	S	16 36.0	20	1.6	21	1.6	9	1.0							761.5	72.8
YAMAGA	0	EP	02 15 27.7	S	16 45.5													797.0	77.8
SAKATA	0	EX	02 15 29.1															785.8	
FUKUSH	0	EP	02 15 31.4	S	16 53.2	70	1.0	25	1.0	75	1.0							827.3	81.8
ONAHAM	0	P	02 15 36.0	ES	17 00.0	21	1.3	21	1.0	9	0.8					U	1	869.3	84.0
SHIRAK	0	EP	02 15 38.5	S	17 07.9													894.0	89.4
MITO	0	EX	02 15 43.3	S	17 15.9	16	1.9	16	1.1	9	1.4							942.7	
KAKIOK	0	EP	02 15 49	ES	17 22	16	1.0	23	1.0									970.9	93.0
UTSUNO	0	P	02 15 49.3	X	17 18.4													962.4	
KUMAGA	0	EP	02 15 56.6	ES	17 38.6	9	1.2	8	1.2	3	1.2							1024.6	102.0
TOKYO	0	P	02 15 57.2	IS	17 39.2	8	0.8	7	0.6	7	3.4							1042.9	102.0
MAEBAS	0	EX	02 15 58	IS	17 38.8													1022.6	
MATSUS	0	IP	02 16 01.0	S	17 50							N		E		D		1065.5	109.0
WAJIMA	0	EX	02 16 04			6	1.2	11	0.8									1092.6	
MISHIM	0	EP	02 16 07	X	17 59	6	0.9	7	0.9									1139.3	
NIIGAT	0	EX	02 16 08.8			17	3.8	17	3.0									907.9	
KOFU	0	EP	02 16 08.8	ES	17 56.6	6	1.8	9	1.5	3	1.3							1113.9	107.8
TATEYA	0	X	02 16 13.1			16	0.6	10	1.5	20	1.9							1099.6	
HACHIJ	0	EP	02 16 26.0	X	18 28.8	7	0.5	7	0.4									1279.8	
OSHIMA	0	EX	02 17 00			6	0.8	4	0.8	3	1.6							1145.6	
CHOSHI	0	IS	02 17 25															981.6	

OT= 17 3 33 48.6 +/- 0.2 (JST)
SAGAMI BAY
LAT= 35 11 +/- 1 LONG= 139 23 +/- 2
H=120 CLASS=U

OSHIMA	0	IP	03 34 06.8	S	34 19.2	5	0.8	8	0.8	3	0.2							46.8	12.4
TATEYA	0	IP	03 34 07.0	IS	34 20.0	20	0.5	13	0.7	13	0.3					D	4	49.5	13.0
AJIRO	0	EP	03 34 07.1	S	34 20.3	7	0.2	7	0.2	2	0.3							30.4	13.2
TOKYO	0	P	03 34 08.5	IS	34 22.9	18	0.6	32	0.3	5	0.3							65.2	14.4
KOFU	0	EP	03 34 10.2	ES	34 25.0	4	0.5	6	0.5	1	0.5							92.0	14.8
UTSUNO	0	P	03 34 15.4	S	34 34.8													157.5	19.4
MATSUS	0	IP	03 34 19.2	IS	34 41.3											W	U	184.0	22.1

OT= 17 3 52 55.3 +/- 0.6 (JST)
OFF IWATE PREF
LAT= 40 11 +/- 1 LONG= 142 7 +/- 3
H= 30 MAG=3.6 CLASS=L

MIYAKO	0	IP	03 53 06.8	IS	53 14.9	5	0	6	0	4	0							61.1	08.1
HACHIN	1	IP	03 53 07.0	IS	53 15.2	16	0.2	10	0.2	1	0.2	S	2	E	5	D	3	63.0	08.2
MORIOK	0	P	03 53 11.8	IS	53 23.5	7	0.4	10	0.4	2	0.2			E	0			97.4	11.7
OFUNAT	0	EP	03 53 17.6	ES	53 30.7	9	0.0	4	0.0	1	0.0							129.1	13.1
MATSUS	0	X	03 53															529.4	

OT= 17 6 5 7.0 +/- 0.2 (JST)
E OF KANAGAWA PREF
LAT= 35 27 +/- 1 LONG= 139 38 +/- 2
H= 90 CLASS=U

YOKOHA	0	P	06 05 20.8	IS	05 31.2													2.5	10.4
TOKYO	0	P	06 05 21.9	IS	05 32.8	35	0.6	28	0.4	7	0.3							28.4	10.9
TATEYA	0	EP	06 05 22.3	S	05 34.1	10	0.5	8	0.5	4	0.4							56.0	11.8
AJIRO	0	EP	06 05 23.5	S	05 35.4	7	0.2	8	0.2	2	0.3							66.5	11.9
KUMAGA	0	EP	06 05 25.4	ES	05 38.6	3	0.8	4	0.8	2	0.8							80.5	13.2
KOFU	0	EP	06 05 26.9	IS	05 41.1	6	0.4	5	0.4	1	0.8							100.3	14.2
OSHIMA	0	P	06 05 27.5	S	05 35.8	6	0.2	6	0.2	8	0.2							79.8	08.3
UTSUNO	0	P	06 05 28.0	S	05 43.0													123.5	15.0
MATSUS	0	IP	06 05 35.2	S	05 55											W	U	176.3	19.8

International Seismological Centre From the ISC collection scanned by SISMOS

OT= 17 14 52 18.9 +/- 1.2 (JST)
E OFF HOKKAIDO
LAT= 43 7 +/- 5 LONG= 147 17 +/- 6
H= 10 MAG=4.2 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	0	EP	14	52	43	ES	53	00	7	1.2	9	1.2	6	1.4				139.9	17.0
KUSHIR	0	EP	14	52	56	IS	53	22.7	7	1.2	7	0.2	4	1.2				235.9	26.7
ABASHI	0	EP	14	53	00	ES	53	30	3	1.4	6	1.2	2	1.8				262.2	30.0
URAKAW	0	IP	14	53	17.6	S	54	00.1	3	1.0	6	1.2	2	1.4			D	384.4	42.5
MATSUS	0	P	14	54	38	X	56	21										1065.1	
FUKUSH	0	EP	14	54		X	55	30.6	7	0.8	3	0.8	2	0.8				828.9	

OT= 17 17 5 6.4 +/- 1.2 (JST)
S OFF CHIBA PREF
LAT= 34 46 +/- 4 LONG= 140 11 +/- 8
H= 80 CLASS=U

TATEYA	0	EP	17	05	18.3	IS	05	29.3	32	0.7	25	0.5	25	0.4				37.5	11.0
OSHIMA	0	IP	17	05	23.7	IS	05	32.6	16	0.6	12	0.4	14	0.2				73.7	08.9
AJIRO	0	EP	17	05	27.7	ES	05	37.4	10	0.2	9	0.2	3	0.3				103.9	09.7
TOKYO	0	P	17	05	28.3	S	05	40.6	47	0.4	76	0.4	15	0.3				109.0	12.3
MATSUS	0	IP	17	05	45.9	S	06	12							S	E	D	265.7	26.1
UTSUNO	0	S	17	05	56.6													199.5	

OT= 17 20 54 54.3 +/- 0.2 (JST)
OFF TOMAKOMAI
LAT= 42 35 +/- 1 LONG= 141 31 +/- 2
H=140 CLASS=R

SAPPOR	1	IP	20	55	15.0	IS	55	29.0	800	2.5	1100	2.5	400	2.0	S 65	E 40	D999	54.9	14.0
MURORA	1	IP	20	55	16.0	IP	55	29.8	900	3.5	600	2.0	200	1.1	S 8	W 10	U100	52.9	
SUTTSU	0	IP	20	55	19.0	S	55	35.0							S 7	E 69	D139	107.1	17.0
HAKODA	0	IP	20	55	19.4	IS	55	37.1	400	2.1	300	1.1	200	0.9	S133	W 75	U293	106.0	17.7
URAKAW	3	IP	20	55	21.0	IS	55	39.8	400	2.0	500	1.2	181	3.2	S 14	E 15	U 42	114.3	18.8
RUMOI	0	IP	20	55	22.2	IS	55	42.3								E 28		152.2	20.1
ASAHIK	0	EP	20	55	23				29	1.0	38	1.8	21	2.6				149.1	
OBIHIR	1	P	20	55	23.2	IS	55	44.2									D 2	144.5	21.0
HIROO	2	IP	20	55	23.8	IS	55	43.1	250	1.0	250	1.6	100		N 2	W 2	D 5	151.8	19.8
AOMORI	2	IP	20	55	29.2	S	55	54	550	1.4	550	0.9	250	0.5	S250	W 27	U260	205.5	24.8
HACHIN	3	IP	20	55	31.2	IS	55	57.2	124	0.2	140	0.2	20	1.9	S 8	W 1	U 7	228.6	26.0
KUSHIR	3	IP	20	55	31.4	IS	55	58.0	277	0.4	223	0.3	62	0.2		W 3	D 8	239.6	26.6
ABASHI	0	P	20	55	37.0	S	56	05.2	118	2.4	91	2.2	31	4.2	N 3	E 8	U 15	275.3	28.2
MIYAKO	2	IP	20	55	41.1	IS	56	14.0	82	1.0	90	1.8	60	1.2	S 24	W 1	U 24	328.5	32.5
WAKKAN	0	IP	20	55	41.8	IS	56	16.8	163	3.6	131	3.9	75	3.0	S 6		U 38	314.8	35.0
MORIOK	1	IP	20	55	42.2	IS	56	16.7	93	0.8	82	0.4	62	1.7	S 70	W 8	U 54	321.9	34.2
NEMURO	2	P	20	55	42.7	S	56	17.1	16	1.0	25	1.0	20	1.4		W 1	D 1	342.3	34.6
AKITA	0	IP	20	55	45.6	S	56	23.8	129	4.0	101	3.2	87	4.0	S 21	W 10	U 73	339.6	38.2
OFUNAT	1	IP	20	55	49.6	IS	56	29.2	52	0.8	74	2.0	49	1.0	S 21		U 21	391.5	39.2
SAKATA	0	IP	20	55	56.3	ES	56	43.2	150	2.5	150	2.9					U 38	432.6	46.2
ISHINO	0	EP	20	55	57.2	IS	56	43.4	49	2.2	51	1.8	44	2.0	S 11	W 3	U 11	462.1	46.2
SENDAI	0	IP	20	56	01	IS	56	50.0	56	2.0	79	2.0	51	2.0				482.9	49.6
YAMAGA	0	P	20	56	02.4	S	56	51.4							S 8	W 2	U 9	490.9	49.8
FUKUSH	1	IP	20	56	08.3	S	57	04.7	73	1.0	60	1.0	16	1.1	S 7	W 3	U 4	543.2	56.2
NIIGAT	0	IP	20	56	11.9	S	57	06.7	85	2.2	63	4.0	25	4.0			U 25	559.7	54.6
AIKAWA	0	IP	20	56	13.5	IS	57	13.0	18	2.8	28	2.4	24	2.4	S 16	W 3	U 18	578.1	59.2
SHIRAK	0	IP	20	56	16.6	ES	57	19.6							S 2	W 0	U 4	616.8	63.2
ONAHAM	0	P	20	56	16.8	ES	57	19.3	76	1.2	98	1.1	30	2.2			U 2	628.2	62.2
TAKADA	0	IP	20	56	23.8	S	57	35.4									U 9	669.3	71.2
UTSUNO	1	P	20	56	24.3	S	57	32.8										684.9	68.2
MITO	0	IP	20	56	24.4	S	57	33.0	67	2.5	48	2.2	53	2.3			U 4	694.7	68.6
KAKIOK	0	EP	20	56	26	ES	57	36	69	1.0	59	0.8						714.3	70.6
WAJIMA	0	IP	20	56	28.0	ES	57	40	53	1.4	48	2.0	18	1.8	S 5	W 8	U 15	698.4	72.2
MAEBAS	0	P	20	56	30.0	S	57	44.2										717.9	74.2
NAGANO	0	P	20	56	30.7	X	57	50.5	11	2.4	21	2.6	12	2.8			U 4	716.6	
MATSUS	0	IP	20	56	30.9	S	57	45							S	W	U	728.7	74.2
KARUIZ	0	EP	20	56	32.6	E	57	46.4										738.5	
KUMAGA	0	EP	20	56	32.6	ES	57	46.2	30	2.4	28	2.4						737.8	73.2
CHICHI	0	EP	20	56	32.6	ES	57	49.6										761.3	77.2
CHOSHI	0	EP	20	56	32.7	IS	57	46.3										763.6	73.2
TOYAMA	0	IP	20	56	34.2	ES	57	51	18	3.0	22	3.2	29	3.0	S 2	W 2	U 13	749.7	76.2
TOKYO	0	EP	20	56	36.5	ES	57	53.2	33	4.4	31	3.6	33	4.0				780.7	76.2
KOFU	0	IP	20	56	39.6	ES	58	02.4	21	1.0	20	1.8	13	1.4	S 1	W 1	U 3	809.4	82.2
KANAZA	0	IP	20	56	40.0	S	57	54.8	24	2.3	29	2.8	20	2.8	S 3		U 11	789.7	74.2
KAWAGU	0	P	20	56	41.4	S	58	04.2										821.7	82.2

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TATEYA	0	EP	20	56	42.6	S	58	08.6	40	1.2	33	1.0	14	3.5				855.7	86.0
IIDA	0	IP	20	56	44.6	ES	58	10.6	10	1.4	8	1.8	5	2.4	S	1 W	1 U	1 847.2	86.0
AJIRO	0	EP	20	56	44.7	ES	58	08.0	5	0.5	8	0.6	3	0.6				862.9	83.3
MISHIM	0	EP	20	56	46.6	X	57	55.8	25	1.1	27	2.1	9	1.3				859.1	
FUKUI	0	IP	20	56	47.6										S	4	U 4	856.1	
OSHIMA	0	P	20	56	47.8	S	58	10.2	24	0.8	15	1.0	7	1.4				887.9	82.4
SHIZUO	0	EP	20	56	48.5	S	58	17.5	8	2.6	9	2.8	6	3.0				886.7	89.0
OITA	0	EX	20	56	49.2				9	2.6	13	3.3						1352.1	
GIFU	0	P	20	56	51.7	S	58	23.2	10	1.7	8	1.5	3	1.1				897.2	91.5
NAGOYA	0	P	20	56	53.2	ES	58	23.2	16	2.8	18	2.6	7	1.4			U 4	912.8	90.0
HAMAMA	0	P	20	56	55.1	ES	58	28	10	3.2	14	2.2	5	2.4			D 13	934.2	92.9
OMAEZA	0	EP	20	56	56.5	ES	58	26.4	14	2.8	17	3.9						931.1	89.9
HIKONE	0	P	20	56	56.5	S	58	33.2										930.8	96.7
YOKOHA	0	EX	20	57	00													809.5	
KYOTO	0	IP	20	57	01.0	IS	58	38.0	4	1.5	5	1.5	3	1.5	S	0 W	0 U 1	978.5	97.0
TOYOOK	0	P	20	57	02.6				21	1.1	17	0.7	6	1.9	S	8 W	6 U 4	972.9	
SAIGO	0	P	20	57	04.4	ES	58	42.8	8	2.3	6	2.1			S	0 W	0 U 1	998.3	98.4
OSAKA	0	EP	20	57	06.1				16	3.5	13	2.5	7	2.2				1020.3	
HACHIJ	0	EP	20	57	08.2	S	58	47.6	28	0.5	26	0.5	10	0.5				1063.2	99.4
KOBE	0	EX	20	57	08.8													1034.8	
TOKUSH	0	EP	20	57	16.4													1122.5	
KUMAMO	0	EP	20	57	57.0	ES	00	17.8	9	1.8	8	1.6	4	2.3				1441.3	140.8
KAGOSH	0	EP	20	58	09.0				3	2.0	5	2.0	2	1.4				1560.0	

OT= 18 3 9 8.8 +/- 1.9 (JST)
E OFF HOKKAIDO
LAT= 43 3 +/- 5 LONG= 147 30 +/-10
H= 60 MAG=4.8 CLASS=U

NEMURO	0	EP	03	09	33	ES	09	49	12	1.2	11	1.6	7	1.2				158.6	16.0
KUSHIR	0	EP	03	09	47	IS	10	12.8	16	0.3	18	0.2	5	0.3				253.3	25.8
ABASHI	0	P	03	09	48.2	S	10	17.2	7	1.0	12	1.0	3	1.0				281.4	29.0
URAKAW	0	P	03	10	07.0	S	10	49.2	5	0.4	7	0.4	2	1.4				399.8	42.2
AOMORI	0	EP	03	10	32	ES	11	32	8	0.4	7	0.4						609.7	60.0
MORIOK	0	P	03	10	35.3	IS	11	38.8	10	0.4	7	0.4	2	0.4				647.3	63.5
MATSUS	0	IP	03	11	28.5												U	1074.0	

OT= 18 14 25 46.9 +/- 0.6 (JST)
OFF BOSO PEN
LAT= 34 1 +/- 2 LONG= 140 45 +/- 3
H= 60 MAG=5.2 CLASS=M

TATEYA	1	EP	14	26	07.6	IS	26	23.1	284	3.0	237	1.3	118	2.0				134.3	15.5
OSHIMA	1	IP	14	26	10.1	IS	26	26.4	125	1.4	81	1.0	66	1.4			U 5	150.8	16.3
HACHIJ	2	IP	14	26	11.6	IS	26	25.0	105	0.2	123	0.3	52	1.2	S	1	U 3	135.1	13.4
AJIRO	1	P	14	26	15.6	S	26	34.7	62	0.4	47	0.4	19	0.7				189.7	19.1
CHOSHI	0	EP	14	26	15.8	ES	26	36.2										189.7	20.4
YOKOHA	0	EP	14	26	16.0	S	26	35.9										186.7	19.9
MISHIM	0	IP	14	26	17.5	S	26	35.9	80	1.6	96	0.7	48	2.0			D 4	206.5	18.4
TOKYO	1	EP	14	26	18	S	26	38	90	2.0	125	2.0	25	1.2				206.0	20.0
KAKIOK	0	EP	14	26	23	ES	26	49	78	0.8	67	1.0	33	3.3				250.9	26.0
SHIZUO	0	P	14	26	23.5	S	26	49.0	20	1.8	15	1.5	11	5.4	S	1 E	2 D 3	239.9	25.5
KAWAGU	0	IP	14	26	23.8	IS	26	48.2										245.1	24.4
MITO	0	IP	14	26	25.0	S	26	52.4	89	3.6	96	2.8	64	3.6			U 3	263.2	27.4
KOFU	0	EP	14	26	26.4	ES	26	53.0	67	1.7	83	2.0	30	1.5				271.2	26.6
KUMAGA	0	EP	14	26	26.6	ES	26	54.4	63	2.2	57	2.4						267.0	27.8
UTSUNO	0	P	14	26	28.5	S	26	57.8										291.8	29.3
HAMAMA	0	EP	14	26	29	X	27	10	16	1.6	19	2.4	6	1.8				288.7	
MAEBAS	0	EP	14	26	30.0	ES	27	01.2										305.8	31.2
ONAHAM	0	IP	14	26	32.8	ES	27	03.8	35	2.2	62	2.7	20	2.3			U 1	325.1	31.0
IIDA	0	IP	14	26	32.8	IS	27	06.8	46	1.4	44	1.2	44	1.0	S	1 W	2 D 2	314.0	34.0
KARUIZ	0	EP	14	26	34.0	IS	27	07.2										326.3	33.2
SHIRAK	0	EP	14	26	34.4	ES	27	09.4										347.3	35.0
MATSUM	0	P	14	26	36.9	IS	27	13.3										353.5	36.4
MATSUS	0	P	14	26	37.2	S	27	16										362.8	38.8
NAGANO	0	EP	14	26	42.0	ES	27	20.7	21	2.0	31	3.3	12	1.8				373.9	38.7
NAGOYA	0	EP	14	26	42.0	ES	27	17.6	21	2.0	25	2.4	13	1.6				369.4	35.6
GIFU	0	EP	14	26	44.2	S	27	31.2	18	1.6	23	1.6	6	1.4				395.8	47.0
TAKADA	0	EP	14	26	45.3	X	27	40.7										410.7	
FUKUSH	0	EP	14	26	47.0	ES	27	24.6	34	1.0	28	0.9	10	0.5				415.6	37.6
TOYAMA	0	EP	14	26	47	ES	27	33	15	1.6	33	4.0	17	4.2				438.8	46.0
HIKONE	0	P	14	26	49.5	X	27	33.8										435.6	
SENDAI	0	P	14	26	49.6	S	27	35.6	24	2.0	19	2.0	10	1.6	N	2	U 2	470.9	46.0
NIIGAT	0	P	14	26	50.3	ES	27	40.2	50	3.2	61	3.2	30	3.8				458.2	49.9
ISHINO	0	EP	14	26	51.0	ES	27	38.2	13	1.2	10	4.6	7	2.6	N	3	U 3	491.6	47.2
TSURUG	0	EP	14	26	53	S	27	36.5										465.1	43.5

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KYOTO	0	IP	14	26	53.5	ES	27	41.5	5	1.5	4	1.5	3	1.5			U 0	473.4	48.0
FUKUI	0	P	14	26	53.6	IS	27	49.4										470.4	55.8
OSAKA	0	EX	14	26	58.4				18	2.0	11	1.5	9	1.7				486.4	
OMAEZA	0	X	14	26		ES	26	43.5	52	2.4	48	3.2						242.3	
AIKAWA	0	X	14	26		X	27	22.4	7	4.0	7	2.2	5	3.0	N		D	498.3	
WAJIMA	0	EX	14	27	00				15	1.0	15	1.6	5	1.6				511.2	
OFUNAT	0	EP	14	27	00.8	ES	27	54.0	4	0.0	6	1.0	4	2.8				566.4	53.2
WAKAYA	0	EX	14	27	01.0				3	1.6	3	1.4	1	1.9				515.4	
KANAZA	0	X	14	27	01.6	X	27	52.6	15	2.5	26	2.8	12	2.4				466.7	
SAKATA	0	EP	14	27	02.1	ES	27	58.4										548.3	56.3
TOYOOK	0	EP	14	27	08				20	1.1	16	1.1						568.1	
MORIOK	0	IP	14	27	08.6	X	28	08.5	4	0.4	6	0.5	4	2.2			U 0	631.3	
AKITA	0	EP	14	27	11.3	ES	28	19.4	24	4.2	20	2.8	12	3.2				635.3	68.1
AOMORI	0	EP	14	27	25	S	28	45	15	1.8	15	1.8						754.6	80.0
URAKAW	0	P	14	27	44.3	X	29	12.5	7	4.0	6	4.0	3	4.0				920.9	
KUSHIR	0	X	14	29	34.2				9	0.2	7	0.2	2	0.3				1044.0	

OT= 18 18 28 2.8 +/- 1.9 (JST)
E OFF TOKACHI
LAT= 41 47 +/- 7 LONG= 144 17 +/- 5
H= 0 MAG=4.4 CLASS=U

HIROO	0	IP	18	28	20.9	IS	28	35.2							N 2		U 3	97.4	14.3
KUSHIR	0	IP	18	28	27.4	ES	28	47	33	0.4	39	0.2	15	0.2			D 3	133.1	19.6
URAKAW	0	P	18	28	27.6	S	28	42.7	24	2.0	33	2.8	23	2.8		W	U 1	131.4	15.1
OBIHIR	0	EP	18	28	30	ES	28	52										153.6	22.0
NEMURO	0	EP	18	28	38	ES	28	56	8	1.0	6	2.0	3	1.0				202.3	18.0
ASAHIK	0	EP	18	28	45				7	1.8	10	2.0	6	2.8				270.5	
SAPPOR	0	EP	18	28	46				6	2.0	6	2.6	2	2.0				281.2	
AOMORI	0	X	18	29	00				7	2.0	7	1.6						312.2	
ABASHI	0	X	18	29	41	X	30	10	5	1.8	5	1.6	4	2.0				248.2	
MATSUS	0	EP	18	29	47													783.6	

OT= 18 20 43 34.7 +/- 1.6 (JST)
E OFF HOKKAIDO
LAT= 43 27 +/- 7 LONG= 148 4 +/- 9
H= 60 MAG=5.3 CLASS=U

NEMURO	0	EP	20	44	05	ES	44	24	19	2.4	24	3.2	25	3.4				201.4	19.0
ABASHI	0	EP	20	44	19	ES	44	49	29	3.6	26	2.4	20	2.6				311.3	30.0
KUSHIR	0	EP	20	44	20	ES	44	56	26	1.2	28	2.0	23	2.0				303.0	36.0
OBIHIR	0	EP	20	44	28													398.3	
URAKAW	0	P	20	44	39.1	S	45	32.0	35	4.0	38	4.0	22	4.0				455.6	52.9
WAKKAN	0	EP	20	44	49				15	4.0	16	5.0	7	2.5				553.1	
SAPPOR	0	EP	20	44	51	ES	45	50	15	2.4	23	2.2	7	4.2				548.6	59.0
HAKODA	0	P	20	44	58.7	ES	46	04	13	3.9	10	3.6	7	3.2			D	626.3	65.3
AOMORI	0	X	20	45	12	ES	46	13	19	1.8	20	1.1						669.2	
SENDAI	0	EP	20	45	23	X	46	43.5	5	2.0	5	2.0	2	2.0				834.5	
AKITA	0	EX	20	45	36.8				20	3.0	20	4.4	5	2.6				782.5	
MATSUS	0	IP	20	46	00.9	S	47	58							S	W	U	1137.7	117.1
NIIGAT	0	EX	20	46	27.7				11	6.0	9	4.0	5	5.4				978.5	
ONAHAM	0	EX	20	47	10.7				6	1.4	6	1.1	2	2.0				944.5	

OT= 18 22 47 25.9 +/- 1.2 (JST)
E OFF HOKKAIDO
LAT= 42 52 +/- 4 LONG= 146 58 +/- 6
H= 0 MAG=4.4 CLASS=U

NEMURO	0	EP	22	47	49	ES	48	06	11	1.0	16	0.4	7	1.0				123.5	17.0
KUSHIR	0	EP	22	48	01	IS	48	26.3	15	0.4	12	0.6	5	0.4				210.4	25.3
URAKAW	0	P	22	48	21.6	S	49	02.0	7	2.0	8	2.0	3	1.2		W	U	353.0	40.4
MATSUS	0	P	22	49	43	ES	51	37										1027.5	114.0

OT= 19 17 15 58.2 +/- 0.8 (JST)
E OFF IBARAKI PREF
LAT= 36 12 +/- 4 LONG= 142 10 +/- 4
H= 50 MAG=4.1 CLASS=U

ONAHAM	0	EP	17	16	21.0	ES	16	34.0	8	0.7	6	0.8	4	0.6				139.8	13.0
MITO	0	EP	17	16	22.4	ES	16	39.8	8	1.4	9	2.4	3	0.9				153.5	17.4

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
FUKUSH	0	EX	17	16	32.8				12	0.9	8	0.9	2	0.9				229.2	
MATSUS	0	IP	17	16	48.8	S	17	25							S	W	U	357.1	36.2
KAKIOK	0	X	17	16		ES	16	47	7	1.0	6	1.0	4	0.7				177.4	

OT= 19 17 49 53.2 +/- 1.4 (JST)
E OFF HOKKAIDO
LAT= 43 20 +/- 6 LONG= 148 16 +/- 8
H= 80 CLASS=R

NEMURO	2	P	17	50	24.8	ES	50	48	365	3.6	327	4.0	331	4.8		E 3	D 3	217.4	23.2
KUSHIR	2	IP	17	50	39.4	IS	51	11.2	270	3.2	238	6.6	195	7.4		W 12	U 9	317.4	31.8
ABASHI	0	P	17	50	39.6	S	51	06.8	324	3.8	254	3.6	168	3.8	S 1	E 6	D 4	330.1	27.2
OBIHIR	1	EP	17	50	52	ES	51	34										413.1	42.0
HIROO	0	IP	17	50	53.2	IS	51	35.4									D 4	421.4	42.2
URAKAW	1	P	17	50	59.6	S	51	44.1	300	1.6	400	1.4	224	3.6				467.8	44.5
ASAHIK	0	EP	17	51	00				19	4.0	9	3.0	11	4.4				478.7	
RUMOI	0	EX	17	51	07													539.6	
SAPPOR	0	P	17	51	09.2	ES	52	06	172	2.8	147	2.2	76	3.0		W 3	D 3	564.5	56.8
WAKKAN	0	EP	17	51	11	EX	52	26	172	4.5	173	4.5	138	4.8				573.3	
MURORA	0	P	17	51	16.4	S	52	15.6	100	5.0						W 1	U 1	606.1	59.2
HAKODA	0	P	17	51	18.8	S	52	22.8	167	4.9	148	3.9	72	3.8			D	639.0	64.0
HACHIN	2	EP	17	51	19.2	IS	52	20.6	49	5.3	29	2.0	23	4.3				640.1	61.4
MIYAKO	0	EP	17	51	21.1	IS	52	26.5	34	3.1	18	2.5	16	1.9				666.4	65.4
SUTTSU	0	EP	17	51	23.0	ES	52	36.6										656.5	73.6
AOMORI	0	EP	17	51	26	S	52	31	198	1.5	225	2.6	63	1.3				679.2	65.0
MORIOK	0	P	17	51	28.2	IS	52	38.5	39	2.0	36	0.5	26	2.4		W 0	U 0	716.8	70.3
						EL	54	30											
OFUNAT	0	P	17	51	29.5	IS	52	40.0	27	2.4	36	1.6	36	1.6			U 1	725.5	70.5
ISHINO	0	EP	17	51	37.8	ES	52	55.6	35	2.4	28	2.0	22	2.2				800.5	77.8
AKITA	0	EP	17	51	38.8	ES	53	00.6	88	4.4	104	4.4	38	4.0				790.5	81.8
SENDAI	0	EP	17	51	43.0	S	53	05.4	85	2.0	56	1.6	30	1.4				838.4	82.4
YAMAGA	0	EP	17	51	48.3	S	53	13.6	50	2.5	50	3.0						873.8	85.3
SAKATA	0	X	17	51	52.3	ES	53	16.5	250	2.6	250	3.6	150	2.0				861.5	
FUKUSH	0	EP	17	51	52.6	ES	53	20.6	90	0.9	53	1.3	13	2.0				904.4	88.0
ONAHAM	0	EP	17	51	57.6	S	53	26.4	74	1.6	72	1.4	37	1.6				946.1	88.8
SHIRAK	0	EP	17	52	00.8	ES	53	34.7										971.1	93.9
MITO	0	EP	17	52	07.3	S	53	44.3	53	3.5	60	3.6	33	3.4				1019.5	97.0
AIKAWA	0	EP	17	52	07.6	X	53	44.0	10	1.3	22	7.5	13	7.4	N	E	D	1031.6	
KAKIOK	0	EP	17	52	10	ES	53	49	34	1.0	34	1.0	11	0.7				1047.8	99.0
NIIGAT	0	X	17	52	12.2	S	53	53.4	138	4.5	120	4.6	47	4.5				984.3	
TAKADA	0	EP	17	52	15.8	X	54	20.8										1096.5	
KUMAGA	0	EP	17	52	17.0	ES	54	05.2	30	2.0	29	4.0	23	3.4				1101.6	108.2
MATSUS	0	IP	17	52	20.5	S	54	14									U	1142.3	113.5
KARUIZ	0	EP	17	52	21.0	ES	54	15.1										1136.3	114.1
TATEYA	0	EP	17	52	23.7	S	54	22.5	51	3.0	32	2.7	25	2.5				1176.0	118.8
WAJIMA	0	IP	17	52	25.2	ES	54	16	18	2.4	29	3.0	10	2.6			D 16	1168.0	110.8
TOYAMA	0	EP	17	52	27	X	54	13	18	4.0	21	4.0	25	3.6				1195.2	
AJIRO	0	EP	17	52	27.9	ES	54	25.4	7	1.5	8	1.5	3	1.4				1212.8	117.5
KOFU	0	EP	17	52	29.0	ES	54	24.4	20	1.8	20	1.8	9	3.4				1190.9	115.4
NAGANO	0	X	17	52	29.3	X	54	28.3	16	3.4			12	2.9				1133.7	
MAEBAS	0	EX	17	52	30	IS	54	06.7										1099.7	
KAWAGU	0	P	17	52	30.2	S	54	27.7										1192.8	117.5
MISHIM	0	EP	17	52	30.2	ES	54	26.0	19	2.2	18	2.4	7	1.8				1216.2	115.8
TOKYO	0	EX	17	52	31				37	3.6	48	4.4	31	3.6				1119.7	
OSHIMA	0	EP	17	52	34.0	S	54	29.4	13	0.8	14	3.2	7	2.6				1222.2	115.4
IIDA	0	EP	17	52	35.0	ES	54	37.4	9	1.8	6	2.2	4	3.2				1247.6	122.4
KANAZA	0	EP	17	52	35.5	ES	54	51.0	14	4.5	20	3.0	11	2.8				1244.6	135.5
HAMAMA	0	EP	17	52	40				12	2.4	8	3.4	6	2.6				1320.9	
GIFU	0	EP	17	52	43.4	S	54	54.9	8	3.0	7	2.1						1323.8	131.5
SHIZUO	0	X	17	52	44.5	ES	54	38.0	8	2.5	7	1.8	8	4.5				1258.2	
NAGOYA	0	EP	17	52	45.8	ES	54	53.8	18	2.0	16	2.4	5	2.2				1329.5	128.0
OMAEZA	0	X	17	52	50.4	X	54	31.6	21	5.6	19	4.0	8	4.0				1301.2	
HACHIJ	0	X	17	52	52.2	S	54	56.2	15	1.2	15	1.5	9	1.5				1355.1	
SAGA	0	X	17	52	55.3													1922.7	
KYOTO	0	IP	17	52	55.5	X	55	32.0	5	16.0	5	16.0	2	12.0	N	0 E	0 D	0 1420.6	
TOYOOK	0	P	17	52	59.2	ES	55	25.3	11	17.7	11	14.3	4	17.2				1442.5	146.1
OITA	0	EX	17	53	01.1	S	57	04.8	12	2.8	78	4.6						1831.8	
SAIGO	0	IP	17	53	06.0	S	55	31.3	6	3.2	4	3.5			S	1 W	1 U	1 1501.1	145.3
OSAKA	0	EX	17	53	11.3	EX	55	36.4	20	3.3	11	3.3	7	2.3				1460.5	
OKAYAM	0	EP	17	53	12.4	EX	56	56	3	3.0	5	14.0	4	14.0				1567.1	
WAKAYA	0	EX	17	53	18.2				5	4.8	5	4.3	3	4.0				1519.0	
SHIONO	0	EX	17	53	20.1						7	14.6						1544.9	
MUROTO	0	P	17	53	22.5	ES	53	35.0	3	2.0	5	3.0	2	2.0				1660.6	12.5
HAMADA	0	P	17	53	27.5	ES	56	21.8	5	4.6	7	5.0	5	3.8	S	0 W	1 U	1 1680.4	174.3
HIROSH	0	EP	17	53	36.3	ES	56	16.5	3	4.9	6	3.0	2	2.8	S	2 W	1 U	2 1692.3	160.2
MATSUY	0	EP	17	53	37.9	ES	56	29.9	6	14.6	9	15.6	2	15.2				1707.2	172.0
ASHIZU	0	EP	17	53	39.8	ES	56	56.2	5	13.6	8	16.0	3	13.0				1778.3	196.4
SHIMCN	0	EP	17	53	44				3	4	5	4	4	4			D	1826.8	
FUKUOK	0	EP	17	53	51.7	ES	57	06	5	3.5	7	3.5	5	2.5				1893.3	194.3

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KUMAMO	0	IP	17 53 55.8	IS	57 24.0	8	1.8	9	1.8	4	2.5				1926.4	208.2
NAGASA	0	EP	17 54 03.6	ES	57 33.0							N	E	D	1992.0	209.4
MIYAZA	0	P	17 54 04.0	S	57 26.0	18	5.0	19	4.0	10	3.4				1946.4	202.0
KAGOSH	0	EP	17 54 14.0	ES	57 37.4	8	4.0	11	3.8	6	4.0				2031.7	203.4
YAKUSH	0	EP	17 54 19.6	EX	57 57.6	6	6.8	10	7.6	6	4.2				2125.1	

OT= 19 18 30 14.5 +/- 2.3 (JST)
E OFF HOKKAIDO
LAT= 43 16 +/- 8 LONG= 148 0 +/-12
H= 60 MAG=4.6 CLASS=U

NEMURO	0	EP	18 30 44	ES	31 02	9	1.6	8	2.0	7	2.4				196.0	18.0
ABASHI	0	EP	18 30 58	ES	31 33	7	3.0	8	2.0	3	3.0				311.3	35.0
URAKAW	0	EP	18 31 18	ES	32 06	7	2.0	13	1.6	4	1.6				445.0	48.0
KUSHIR	0	EX	18 31 25			11	0.2	12	0.2	5	1.6				295.2	
SAPPOR	0	EP	18 31 29	X	32 15	5	2.0	6	1.8	2	3.0				542.8	
MATSUS	0	IP	18 32 40.0	S	34 34							N		D	1120.8	114.0

OT= 19 21 16 9.3 +/- 0.8 (JST)
OFF FUKUSHIMA PREF
LAT= 37 43 +/- 2 LONG= 141 53 +/- 3
H= 30 MAG=3.8 CLASS=U

ISHINO	0	IP	21 16 25.8	IS	16 35.8	21	0.2	16	0.2	4	0.2	E	2	D 3	93.6	10.0
SENDAI	0	IP	21 16 27.4	IS	16 38.2	5	0.5	5	0.2	5	0.0				105.3	10.6
FUKUSH	0	IP	21 16 30.0	IS	16 43.2	16	0.9	9	0.8	7	0.6	E	5	D 4	124.2	13.2
ONAHAM	0	EX	21 16 30.6			5	0.4	4	0.9	3	0.5				121.7	
OFUNAT	0	EP	21 16 33.6	IS	16 48.4	7	0.0	5	0.2	2	0.4				150.0	14.8
MATSUS	0	IP	21 16 59.3	S	17 45									D	351.7	45.7

OT= 20 8 36 29.3 +/- 1.7 (JST)
E OFF HOKKAIDO
LAT= 42 56 +/- 6 LONG= 147 42 +/- 8
H= 60 MAG=4.7 CLASS=U

NEMURO	0	EP	08 36 56	ES	37 14	16	0.4	13	1.2	10	2.0				177.5	18.0
KUSHIR	0	EP	08 37 07	ES	37 33	15	0.6	17	0.5	7	2.9				269.8	26.0
ABASHI	0	EP	08 37 13	ES	37 42	5	2.2	6	2.0	3	2.4				301.6	29.0
URAKAW	0	P	08 37 28.4	S	38 11.8	10	2.6	14	1.6	6	1.6	W	U	1	413.2	43.4
AOMORI	0	X	08 38 08	ES	38 56	8	1.3	7	1.1						620.3	
MATSUS	0	P	08 38 48	S	40 35										1078.6	107.0

OT= 20 19 12 2.3 +/- 2.0 (JST)
E OFF HOKKAIDO
LAT= 43 6 +/- 7 LONG= 147 49 +/-10
H= 50 MAG=4.4 CLASS=U

NEMURO	0	EP	19 12 30	ES	12 48	6	1.4	8	1.8	7	1.8				183.0	18.0
ABASHI	0	EP	19 12 45	ES	13 19	5	2.6	9	2.4	4	2.0				303.2	34.0
URAKAW	0	P	19 13 03.8	S	13 50.1	5	2.0	8	1.8	3	1.8				426.2	46.2
KUSHIR	0	ES	19 13 14			8	0.5	9	0.2	4	2.0				279.2	
MATSUS	0	IP	19 14 25.4	S	16 18										1097.6	112.6

OT= 20 23 20 52.0 +/- 0.7 (JST)
E OFF AOMORI PREF
LAT= 40 49 +/- 2 LONG= 143 6 +/- 4
H= 0 MAG=4.3 CLASS=U

HACHIN	0	IP	23 21 17.5	ES	21 35.4	8	0.3	6	0.2			W		J	137.1	17.7
URAKAW	0	P	23 21 18.4	S	21 40.5	10	1.6	12	0.6	5	1.0				151.4	22.1
AOMORI	0	EP	23 21 26	ES	21 51	24	0.9	28	0.7	9	0.9				195.5	25.6
MORIOK	0	EP	23 21 26.6	ES	21 51.7	16	0.4	20	0.4	3	0.3			U 0	206.1	25.3
HAKODA	0	IP	23 21 28.8	S	21 55.0	7	0.6	8	0.6	3	1.6			U	225.2	26.2
OFUNAT	0	EP	23 21 32.0	IS	21 58.8	6	0.6	6	0.6	4	0.6				227.9	26.6
AKITA	0	EX	23 21 38.8			7	2.2	6	3.0	4	2.0				282.7	
SAPPOR	0	EP	23 21 40	ES	22 10	5	2.0	7	2.0	2	1.0				289.0	30.0

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MATSUS	0	IP	23 22 21.0	X	23 20											
												N	E	D	637.5	

OT= 21 1 33 43.7 +/- 2.1 (JST)
OFF SANRIKU
LAT= 39 33 +/- 6 LONG= 144 21 +/-13
H= 60 MAG=4.8 CLASS=U

URAKAW	0	P	01 34 27.0	S	34 58.0	5	3.0	8	0.6	3	2.6				318.5	31.0
SENDAI	0	EP	01 34 30.6	ES	35 04.0	7	2	8	1	3	1				331.7	33.4
AOMORI	0	EP	01 34 32	ES	35 11	27	1.7	15	1.7	5	1.4				334.7	39.0
AKITA	0	EX	01 34 35			15	2.8	9	3.2	8	2.6				365.2	
FUKUSH	0	EX	01 34 38.4			6	0.9	7	0.9	3	1.0				391.6	
KUSHIR	0	EP	01 34 40	IS	35 10.7	9	0.3	9	0.2	3	0.3				380.8	30.7
SAKATA	0	EX	01 34 44.5												396.2	
MATSUS	0	IP	01 35 09.4	S	36 14									U	634.1	64.6
NIIGAT	0	EX	01 35 11.8			12	4.0	13	2.9	5	6.0				495.3	

OT= 21 3 20 37.6 +/- 0.7 (JST)
OFF IBARAKI PREF
LAT= 36 23 +/- 2 LONG= 141 6 +/- 4
H= 40 MAG=3.7 CLASS=L

MITO	1	IP	03 20 49.4	IS	20 57.0	16	0.3	16	0.3	7	0.2	W	1	D 7	56.4	07.6
ONAHAM	0	IP	03 20 50.0	IS	20 57.1	12	0.4	10	1.0	4	0.4			D 5	64.7	07.1
KAKIOK	0	EP	03 20 52	ES	21 02	9	0.5	14	1.0	5	0.5				83.1	10.0
FUKUSH	0	X	03 20	X	20 20.0	7	0.9	5	0.9	1	0.6				162.2	
MATSUS	0	IP	03 21 16.0	S	21 44								E	D	259.7	28.0

OT= 21 4 23 32.6 +/- 0.5 (JST)
OFF URAKAWA
LAT= 41 28 +/- 1 LONG= 143 8 +/- 4
H= 80 CLASS=U

URAKAW	0	P	04 23 50.0	S	24 01.0	18	0.4	40	0.4	4	0.8	S	1	E D 1	82.3	11.0
HACHIN	0	EP	04 24 00.3	ES	24 17.8	5	0.2	3	0.2						171.0	17.5
HAKODA	0	EP	04 24 03	S	24 25.0	6	0.5	7	0.6	2	1.0				201.6	22.0
MORIOK	0	EP	04 24 10.5	IS	24 38.0	6	0.4	5	0.4	1	0.4				257.5	27.5
AOMORI	0	X	04 24 12	S	24 26.4	13	0.9	13	0.9	6	1.1				210.1	
MATSUS	0	P	04 25 05												693.5	

OT= 21 9 28 33.1 +/- 2.8 (JST)
E OFF HOKKAIDO
LAT= 43 20 +/-13 LONG= 148 18 +/-16
H= 60 MAG=5.1 CLASS=U

NEMURO	0	P	09 29 05.3	ES	29 22	26	2.8	26	2.8	22	3.2		W	2 U 2	220.1	16.7
AKITA	0	EX	09 29			7	2.8	7	2.8	5	2.0				792.9	
KUSHIR	0	EP	09 29 18	ES	29 57	28	2.5	24	8.0	13	3.4				320.1	39.0
ABASHI	0	P	09 29 20.6	ES	29 50	16	3.0	26	2.8	12	2.6	N	W	3 U 1	332.7	29.4
				EX	29 30											
WAKKAN	0	EX	09 29 25			4	4.5	10	4.0	6	4.5				575.7	
OBIHIR	0	EX	09 29 31												415.8	
URAKAW	0	P	09 29 38.0	S	30 33.1	23	2.6	27	3.0	15	3.0		W		470.4	55.1
ASAHIK	0	EP	09 29 40			10	2.0	11	2.4	7	3.2				481.4	
SAPPOR	0	EP	09 29 50			13	2.0	14	2.4	5	4.6				567.2	
HAKODA	0	EP	09 29 58	EX	31 10	7	3.0	5	1.6	4	2.6				641.7	
AOMORI	0	X	09 30 17	ES	31 11	18	1.6	16	1.3					U	681.7	
SENDAI	0	EX	09 30 22	X	31 38.0	6	2.6	5	1.6	3	1.6				840.5	
FUKUSH	0	EX	09 30 43.2			5	1.0	4	1.0						906.4	
MATSUS	0	P	09 30 59	X	32 47										1144.5	
ONAHAM	0	EX	09 31 02.8			8	1.2	4	0.7	4	0.4				948.0	
NIIGAT	0	EX	09 31 47.3			11	4.0	7	4.0						986.5	

OT= 21 11 43 58.8 +/- 2.3 (JST)
E OFF HOKKAIDO
LAT= 42 49 +/- 6 LONG= 147 34 +/-12
H= 60 MAG=5.2 CLASS=U

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
OBIHIR	0	EX	11	44	22	X	45	07										355,3	
NEMURO	0	P	11	44	24.3	ES	44	41	50	1.6	91	2.2	59	2.0		W 2	U 2	171,0	16.7
KUSHIR	0	P	11	44	36.1	ES	45	11	44	2.4	58	2.2	26	4.0			U 4	259,7	34.9
ABASHI	0	P	11	44	40.8	S	45	08.8	28	2.4	42	2.2	18	1.8	N	2 W 4	U 3	297,5	28.0
HIROO	0	EP	11	44	50	ES	45	27										354,1	37.0
URAKAW	0	P	11	44	57.4	S	45	40.0	32	2.6	55	1.6	19	3.0				400,3	42.6
SAPPOR	0	P	11	45	08.6				13	2.0	22	2.0	5	1.2				509,6	
WAKKAN	0	EX	11	45	09				6	3.8	8	3.9	7	3.2				552,3	
HAKODA	0	P	11	45	16.2	ES	46	10	6	2.5	7	1.5	5	2.2			U	572,2	53.8
AOMORI	0	EP	11	45	21	ES	46	21	19	1.3	25	2.2						605,7	60.0
SENDAI	0	EX	11	45	39	ES	46	52.9	5	1.2	4	2	2					757,9	
AKITA	0	EX	11	45	46.2				6	2.6	6	3.0	4	2.8				713,6	
FUKUSH	0	EX	11	45	50.0				13	0.9	6	0.9						823,7	
ONAHAM	0	EX	11	45	57.5				5	0.8	5	0.9	3	0.8				865,2	
MATSUS	0	IP	11	46	17.0	ES	48	00							S	W	U	1062,1	103.0

OT= 21 12 32 8.5 +/- 1.3 (JST)
E OFF HOKKAIDO
LAT= 42 53 +/- 4 LONG= 147 6 +/- 7
H= 10 MAG=5.4 CLASS=R

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	1	P	12	32	32.1	ES	32	48	300	0.8	700	1.0	200	0.8			U 3	132,8	15.9
KUSHIR	1	IP	12	32	44.0	S	33	10.8	218	1.2	220	1.9	163	2.6		W 4	U 4	221,1	26.8
ABASHI	0	P	12	32	49.2	S	33	19.4	74	2.4	148	2.6	50	2.6	N	2 W 5	U 3	260,5	30.2
OBIHIR	1	EP	12	32	58	ES	33	40										316,8	42.0
HIROO	0	EP	12	32	58	IS	33	43.7										317,7	45.7
URAKAW	0	P	12	33	05.0	ES	33	48	139	3.0	165	3.0	60	5.0				364,0	43.0
ASAHIK	0	P	12	33	07.9				32	2.8	37	1.8	27	2.8				395,9	
RUMOI	0	EX	12	33	16	ES	34	14										458,3	
SAPPOR	0	P	12	33	17.0	ES	34	02	36	2.0	48	2.4	24	2.0				471,0	45.0
MURORA	0	EP	12	33	20	ES	34	12										505,9	52.0
HACHIN	0	EP	12	33	22.9	IS	34	18.1	6	1.8	6	2.4	3	4.0				532,8	55.2
HAKODA	0	P	12	33	24	ES	34	18	26	1.4	20	1.8	18	2.5			U	535,8	54.0
WAKKAN	0	EX	12	33	24				34	4.7	40	4.8	24	3.1				516,5	
AOMORI	0	EP	12	33	29	X	34	19	58	1.6	53	1.3	20	1.6				572,5	
MORIOK	0	EP	12	33	32.4	X	34	32.3	6	0.4	7	0.4	5	1.0	S	0 W 0	U 0	609,8	
						X	33	42.7											
						EL	36	40											
OFUNAT	0	EP	12	33	34.2	X	34	35.6	6	1.0	7	1.4	8	1.0				620,5	
ISHINO	0	EP	12	33	42.4	X	34	50.8	6	2.4	4	3.4	4	1.2				696,4	
AKITA	0	EX	12	33	44				16	4.4	14	3.2	12	4.2				683,2	
SENDAI	0	EX	12	33	48	X	34	58.8	6	2.8	13	1.8	5	1.2				734,0	
FUKUSH	0	EX	12	34	08.8				16	0.9	14	0.9	3	1.0				800,2	
MITO	0	EX	12	34	09.6	X	35	38.5	10	3.7	10	1.6	4	2.7				918,8	
KAKIOK	0	EP	12	34	18	ES	35	52	9	0.8	8	0.8	4	0.7				946,8	94.0
ONAHAM	0	EX	12	34	21.7				11	1.3	10	0.8	5	0.9				845,2	
NIIGAT	0	EX	12	34	24.2				24	5.0	16	4.2	10	4.8				877,9	
MATSUS	0	P	12	34	25													1037,0	
KUMAGA	0	EP	12	34	27.6	X	35	40.4	6	2.8	6	3.4	6	4.0				998,9	
SAKATA	0	EX	12	34	51.2													754,6	
KANAZA	0	EX	12	35	02				5	13.0								1137,9	
TATEYA	0	EX	12	35	19.5				10	3.5	9	3.5	5	3.6				1077,1	
TOKYO	0	EX	12	36	04				4	0.8								1018,9	

OT= 21 13 47 23.8 +/- 1.5 (JST)
E OFF HOKKAIDO
LAT= 42 53 +/- 5 LONG= 147 36 +/- 8
H= 60 MAG=5.1 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	1	IP	13	47	49.5	ES	48	08	55	1.0	172	0.8	43	1.0		W 2	U 2	171,2	18.5
KUSHIR	0	IP	13	48	01.4	S	48	27.2	51	1.6	80	1.2	25	1.1			U	261,9	25.8
ABASHI	0	P	13	48	06.0	S	48	27.6	15	1.4	33	2.4	10	2.2	N	1 W 2	U 2	296,6	21.6
HIROO	0	P	13	48	14.9	S	49	00.7										357,9	45.8
URAKAW	0	P	13	48	22.2	X	49	14.0	34	2.4	39	1.6	10	2.0		W 1	U 1	404,2	
OBIHIR	0	EX	13	48	24													357,6	
ASAHIK	0	P	13	48	25.1				7	1.4	11	1.6	6	1.6				435,2	
SAPPOR	0	EP	13	48	34				8	2.2	12	2.0	4	1.6				511,7	
HAKODA	0	P	13	48	41.6	ES	49	43	6	1.0	5	1.4	4	1.8			U	576,1	61.4
AOMORI	0	X	13	48	53	ES	49	47	15	0.9	6	1.8						610,7	
FUKUSH	0	EX	13	49	21.2				6	0.9	5	0.8						830,6	
MATSUS	0	P	13	49	42	ES	51	28										1068,8	106.0

OT= 21 16 51 32.0 +/- 1.7 (JST)
E OFF HOKKAIDO
LAT= 43 33 +/- 8 LONG= 147 14 +/- 9
H= 50 MAG=5.2 CLASS=M

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	1	IP	16	51	53.0	IS	52	08.6	25	0.2	25	0.2	13	0.2	N	E 1	D 1	135,6	15.6
KUSHIR	1	IP	16	52	07.0	S	52	32.8	60	0.2	47	0.2	20	0.5			D 1	239,1	25.8
ABASHI	0	P	16	52	07.2	ES	52	34	6	1.2	8	1.6	3	1.2				243,1	26.8
OBIHIR	0	EP	16	52	23	ES	52	56										333,3	33.0
HIROO	0	EP	16	52	23	ES	52	56										349,4	30.0
URAKAW	0	P	16	52	30.1	S	53	14.0	26	1.6	44	1.4	10	1.6	S	W	U 1	395,5	43.9
SAPPOR	0	P	16	52	39.0	ES	53	29	7	2.0	10	1.6	4	1.0				482,0	50.0
HAKODA	0	EP	16	52	48	ES	53	48	12	1.7	10	1.8	4	2.4				564,6	60.0
AOMORI	0	EP	16	52	56	ES	53	57	13	1.1	13	1.1						613,1	61.0
MATSUS	0	IP	16	53	52.6										S	W	U	1093,9	

OT= 21 19 6 36.8 +/- 2.2 (JST)
SW OFF HOKKAIDO
LAT= 41 34 +/- 8 LONG= 138 57 +/-10
H= 60 MAG=4.7 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
AOMORI	0	P	19	07	06	IS	07	22.5	47	1.8	31	1.8						174,9	16.5
HACHIN	0	IP	19	07	10.0	IS	07	30.9	9	0.2	7	1.3			N	1 W	1 U 2	245,5	20.9
AKITA	0	P	19	07	11.6	IS	07	34.2	11	2.0	25	2.0	6	2.0			D 3	227,2	22.6
SAKATA	0	EX	19	07	21.2													305,2	
URAKAW	0	P	19	07	23.6	S	07	54.4	7	0.6	9	0.6	2	1.0				324,7	30.8
MATSUS	0	IP	19	07	52.8										N	E	D	561,9	
KUSHIR	0	IS	19	08	41.2				8	0.2	13	0.2	4	0.2				475,7	

OT= 21 22 21 53.3 +/- 0.3 (JST)
OFF IBARAKI PREF
LAT= 36 23 +/- 1 LONG= 141 7 +/- 2
H= 40 MAG=4.7 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MITO	2	IP	22	22	05.6	IS	22	13.4	187	2.0	157	1.6	125	2.0	S	9 E	2 D 57	57,9	07.8
ONAHAM	1	IP	22	22	06.4	IS	22	14.4	157	1.4	300	1.2	62	0.8	S	15	D 23	65,1	08.0
CHOSHI	1	P	22	22	07.6	S	22	17.0										77,1	09.4
KAKIOK	2	IP	22	22	08	IS	22	17	69	0.8	83	0.5	32	0.5	N	1 E	16 D 5	84,6	09.0
UTSUNO	1	P	22	22	11.5	S	22	23.8										113,0	12.3
SHIRAK	1	P	22	22	12.6	IS	22	25.2										114,0	12.6
TOKYO	0	P	22	22	16.8	S	22	33.0	42	2.0	38	3.0	23	3.2				144,9	16.2
KUMAGA	0	P	22	22	17.6	ES	22	35.6	21	1.0	22	2.0	15	2.2			D 3	157,8	18.0
FUKUSH	1	P	22	22	19.4	S	22	37.0	91	1.0	69	1.6	26	0.8	S	10 E	4	162,7	17.6
MAEBAS	0	P	22	22	21.4													184,0	
SENDAI	0	P	22	22	24.6	S	22	45.2	50	2.0	68	2.2	25	1.8	S	3	D 3	209,1	20.6
YAMAGA	0	EP	22	22	26.0	ES	22	50.4										218,3	24.4
ISHINO	0	EP	22	22	26.8	ES	22	49.6	18	1.4	17	3.2	8	2.6	N	2	U 2	227,2	22.8
KARUIZ	0	EP	22	22	27.3	S	22	57.8										230,2	30.5
KOFU	0	EP	22	22	29.0	ES	23	04.6	24	2.6	21	1.8	13	3.0				243,9	35.6
MISHIM	0	EP	22	22	30.4				19	2.6	24	2.6	9	2.2				242,9	
MATSUS	0	IP	22	22	31.1	X	23	40										261,2	
NAGANO	0	EP	22	22	32.9	ES	23	02.1	9	2.8	11	3.0	5	2.5			E D	263,3	29.2
TAKADA	0	EP	22	22	33.7	X	23	20.7										268,2	
OSHIMA	0	X	22	22	34.7	S	23	00.0	13	0.8	11	3.0	7	2.0				239,1	
NIIGAT	0	P	22	22	35.0	X	23	10.0	43	4.2	48	2.0	22	3.2				249,7	
OFUNAT	0	EP	22	22	37.0	ES	23	12.8	7	0.0	7	1.4	6	1.6				301,9	35.8
SHIZUO	0	EP	22	22	37.0	S	23	09.2	6	2.3	7	3.3	6	2.8				290,9	32.2
IIDA	0	EP	22	22	39.0	IS	23	18.6	12	2.0	8	1.8	11	2.8				311,5	39.6
TOYAMA	0	EP	22	22	44	ES	23	15	6	3.8	10	3.2	7	3.2				351,7	31.0
SAKATA	0	EX	22	22	44.5													301,6	
MORIOK	0	P	22	22	45.0	S	23	23.3	8	0.4	13	0.4	3	2.0	N	0	U 0	367,8	38.3
MIYAKO	0	EP	22	22	47.5	ES	23	22.6	3	0.8	5	1.5	4	1.6				369,6	35.1
AKITA	0	EX	22	22	48.6				19	3.2	22	4.0	12	3.2				380,7	
HACHIJ	0	EP	22	22	50.0	S	23	27.0	5	0.2	6	0.3						383,7	37.0
GIFU	0	EP	22	22	51.2	S	23	39.4	8	1.6	7	1.6						407,7	48.2
NAGOYA	0	EP	22	22	51.6	ES	23	25.4	19	2.6	13	3.0	6	2.4				398,6	33.8
HAMAMA	0	X	22	22	52	S	23	24.6	6	3.8	10	2.6	4	2.8				359,4	
OMAEZA	0	X	22	22	54.9	X	23	30.5	17	3.4	15	3.4						329,1	
CHICHI	1	X	22	22														188,1	
KAWAGU	0	X	22	22		S	22	56.7										233,9	
AOMORI	0	EP	22	23	03	ES	24	01	16	1.8	18	1.8						493,0	58.0
HAKODA	0	EP	22	23	14	ES	24	20	5	1.7	5	2.4	4	2.6				603,6	66.0
TOYOOK	0	EP	22	23	15.9	X	24	29.7	7	1.2	5	1.1						575,5	
URAKAW	0	EP	22	23	21	ES	24	29	2	0.4	5	0.4						657,0	68.0

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STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
OBIHIR	0	EX	22 23 39									747.8	
WAJIMA	0	EX	22 23 48			5 1.6	7 1.4					392.2	
KANAZA	0	EX	22 23			8 3.4	8 4.7	8 3.2				400.8	
OSAKA	0	X	22 24 08.2			26 3.2	8 2.2	5 2.7				541.3	
OT= 21 22 24 4.5 +/- 1.8 (JST)													
E OFF HOKKAIDO													
LAT= 43 5 +/- 7 LONG= 147 44 +/- 9													
H= 50 MAG=5.1 CLASS=U													
NEMURO	0	EP	22 24 31	ES	24 50	45 3.4	27 3.2	25 3.4				176.6	19.
KUSHIR	0	P	22 24 44.8	S	25 17.7	30 3.0	34 2.0	20 3.8	W	U	3	272.4	32.
ABASHI	0	P	22 24 46.0	IS	25 19.4	30 3.8	32 3.0	15 3.6	E 1	D	1	297.5	33.
URAKAW	0	P	22 25 06.0	S	25 49.0	32 4.4	36 4.2	23 4.1				419.2	43.
ASAHIK	0	X	22 25 06.0			14 3.0	10 2.0	9 1.6				440.7	
SAPPOR	0	EP	22 25 13			14 2.0	15 3.0	5 4.8				521.4	
WAKKAN	0	EX	22 25 17			12 5.3	9 5.0	8 4.0				548.2	
HAKODA	0	EP	22 25 24	ES	26 26	8 4.2	7 4.0	7 3.4				590.8	62.
HACHIN	0	X	22 25 33	IS	26 20.5	5 0.4	6 0.4	3 2.4				588.9	
MORIOK	0	P	22 25 34.5	IS	26 43.3	10 0.3	7 0.4	3 1.0		D	0	665.3	68.
MATSUS	0	EP	22 26 27	S	28 20							1091.1	113.
AOMORI	0	EX	22 26 35			21 1.1	20 1.1					628.7	
SENDAI	0	ES	22 27 07			6 2.4	6 2	3 1.4				787.4	
FUKUSH	0	EX	22 27 24.0			16 1.0	8 1.0					853.4	
ONAHAM	0	EX	22 27 31.0			7 0.8	7 0.9	3 2.1				896.2	
TOKYO	0	EX	22 28 12									1069.8	
OT= 21 22 41 33.9 +/- 0.9 (JST)													
OFF IBARAKI PREF													
LAT= 36 24 +/- 3 LONG= 141 3 +/- 4													
H= 40 MAG=3.2 CLASS=U													
MITO	0	IP	22 41 45.4	IS	41 53.0	8 0.3	10 0.3	5 0.2		E	2	D 5	51.9	07.
ONAHAM	0	EP	22 41 45.8	ES	41 54.2	4 0.3	5 0.8	1 0.3					61.8	08.
UTSUNO	0	EP	22 41 51.3	ES	42 03.4								106.8	12.
MATSUS	0	P	22 42 11.4	S	42 42				N	E		D	255.1	30.
OT= 22 1 28 45.2 +/- 0.1 (JST)														
NEAR MATSUSHIRO														
LAT= 36 32 +/- 0 LONG= 138 18 +/- 0														
H= 10 MAG=4.0 CLASS=L														
MATSUS	2	IP	01 28 48.0						N	E		D	8.2	
NAGANO	3	P	01 28 49.9	IS	28 52.0	193	217	116			U	3	16.8	02.
KARUIZ	0	EP	01 28 52.6	S	28 58.0								31.1	05.
MATSUM	X	IP	01 28 54.7	IS	29 00.6					W	U	2	43.5	05.
TAKADA	0	P	01 28 57.4	S	29 06.0						U	7	63.6	08.
MAEBAS	0	P	01 28 58.8	S	29 07.0								70.1	08.
KOFU	0	IP	01 29 03.6	ES	29 15.6	11 1.0	13 0.4	4 1.2			U	3	99.1	12.
TOYAMA	0	P	01 29 04.0	ES	29 16	4 2.8	7 3.0	5 3.0	S 1	E	1 D	2	99.5	12.
KUMAGA	0	EP	01 29 04.8	ES	29 18.0	8 3.2	7 2.8	6 3.6					106.4	13.
IIDA	0	EP	01 29 07.2	IS	29 22.6	8 0.2	6 0.4	4 1.0					121.0	15.
UTSUNO	0	P	01 29 10.0	ES	29 26.0								140.7	16.
WAJIMA	0	EP	01 29 10	S	29 30.0	19 1.0	25 1.0						156.9	20.
KANAZA	0	EX	01 29 11			5 5.0	5 4.2						147.9	
NIIGAT	0	IP	01 29 13.4	ES	29 35.8	8 4.0	7 5.0						166.7	22.
MITO	0	EP	01 29 17.6	S	29 41.4	13 0.4	8 0.4	3 0.6					195.4	23.
NAGOYA	0	EP	01 29 18.4	S	29 41.4	6 1.0	7 1.0	3 1.2					193.7	23.
TOKYO	0	X	01 29 20			7 3.8	9 4.2						161.5	
HAMAMA	0	P	01 29 21.0	ES	29 47	7 2.0	5 2.0	2 1.2			U	1	209.1	26.
GIFU	0	EP	01 29 21.2	S	29 41.1	8 1.5	14 1.6						187.1	19.
ONAHAM	0	EX	01 29 24.0			4 1.1	5 1.2	2 0.4					237.2	
OT= 22 2 14 28.0 +/- 0.3 (JST)														
E OFF SANRIKU														
LAT= 39 36 +/- 1 LONG= 144 32 +/- 2														
H= 80 CLASS=U														
URAKAW	0	P	02 15 13.2	S	15 45.0	3 0.8	8 0.6	2 2.2					320.3	31.
SENDAI	0	P	02 15 16.9	S	15 50.0	7 1.2	7 1.2	3 1.6					348.4	33.

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
AOMORI	0	EP	02 15 17	S	15 49	16 1.3	14 1.8					346.6	32.0
KUSHIR	0	EP	02 15 20	S	15 56.4	6 0.2	7 0.2	2 0.4				375.4	36.4
AKITA	0	EX	02 15 22.0			8 2.8	6 3.4	7 2.6				380.5	
FUKUSH	0	EX	02 15 24.8			5 1.0	6 1.1					408.1	
SAKATA	0	EX	02 15 53.5									412.7	
MATSUS	0	IP	02 15 55.2	S	17 02				S	W	U	650.5	66.8
NIIGAT	0	EX	02 16 06.3			10 4.0	9 3.8					512.0	
OT= 22 13 40 26.2 +/- 1.7 (JST)													
E OFF HOKKAIDO													
LAT= 42 53 +/- 6 LONG= 147 30 +/- 9													
H= 10 MAG=4.8 CLASS=S													
NEMURO	1	P	13 40 53.5	ES	41 13	16 3.8	21 4.0	21 4.8		W	U		163.4	19.5
KUSHIR	0	P	13 41 06.5	S	41 37.9	21 4.9	21 5.4	10 5.0			U	1	253.7	31.4
ABASHI	0	P	13 41 10.2	ES	41 48	15 4.4	19 4.0	10 4.4		W	2 U	2	289.3	37.8
URAKAW	0	P	13 41 27.2	S	42 16.2	23 5.6	20 3.6	13 5.6		W	1 U	1	396.1	49.0
ASAHIK	0	EP	13 41 29			7 3.2	4 2.0	5 2.4					427.3	
OBIHIR	0	EX	13 41 31										349.5	
SAPPOR	0	P	13 41 39.0	EX	42 37	5 4.0	8 3.0	4 5.2					503.6	
WAKKAN	0	EX	13 41 43			10 6.0	12 4.8	8 6.5					543.6	
HAKODA	0	P	13 41 46.3	ES	42 48	5 5.4	5 5.6	4 5.0			U		568.0	61.7
AOMORI	0	EX	13 41 51			10 2.2	10 2.0						603.0	
AKITA	0	EX	13 42 05			7 5.8	5 4.6	3 4.2					712.1	
MATSUS	0	P	13 42 47	ES	44 38								1062.4	111.0
NIIGAT	0	EX	13 43 43.4			25 9.5	10 10.0						904.5	
OT= 22 14 30 11.9 +/- 2.6 (JST)														
E OFF HOKKAIDO														
LAT= 43 16 +/-10 LONG= 148 9 +/-13														
H= 50 MAG=4.6 CLASS=U														
NEMURO	0	EP	14 30 42	ES	31 01	12 2.0	15 2.2	9 2.2					208.2	19.0
KUSHIR	0	EP	14 30 57	ES	31 32	11 3.0	11 2.0	9 2.7					307.3	35.0
ABASHI	0	EP	14 30 58	S	31 30.2	8 1.8	9 2.2	3 1.4					323.0	32.2
URAKAW	0	P	14 31 16.5	X	32 16.0	7 1.0	5 1.2	5 2.8				U	456.8	
OBIHIR	0	EX	14 31 30										403.1	
MATSUS	0	IP	14 32 38.2	ES	34 36							U	1130.3	117.8
OT= 22 16 12 33.0 +/- 1.5 (JST)														
E OFF HOKKAIDO														
LAT= 43 36 +/- 4 LONG= 146 17 +/- 8														
H= 0 MAG=4.7 CLASS=S														
NEMURO	1	IP	16 12 47.4	S	12 55.6	15 0.2	23 0.2	11 0.2	S	W	1 U	1	64.0	08.2
KUSHIR	1	EP	16 13 02	IS	13 24.3	54 0.2	55 0.2	18 0.3					168.1	22.3
ABASHI	0	P	16 13 02.4	X	13 14.6	11 1.8	10 2.0	4 1.2					167.5	
				S	13 27.8									
OBIHIR	0	EP	16 13 16	ES	13 51								259.9	35.0
URAKAW	0	P	16 13 24.2	S	14 04.0	14 1.4	24 1.8	7 1.4		W	U		328.0	39.8
SAPPOR	0	EP	16 13 34	ES	14 20	5 2.2	4 1.4	2 1.0					406.1	46.0
HAKODA	0	EP	16 13 49	ES	14 44	5 1.6	4 1.6	2 0.8					494.2	55.0
AOMORI	0	EX	16 14 02			7 1.1	7 1.1						549.3	
MATSUS	0	X	16 14	S	16 44						N	D	1042.7	
OT= 23 11 54 19.4 +/- 1.1 (JST)														
OFF SANRIKU														
LAT= 39 47 +/- 3 LONG= 144 8 +/- 6														
H= 40 MAG=4.8 CLASS=U														
MIYAKO	0	EP	11 54 49.0	IS	55 10.3	8 2.4	13 3.0	6 0.8		W	4 U	1	186.3	21.3
OFUNAT	0	IP	11 54 53.0	IS	55 17.4	10 1.6	7 2.6	8 2.4	S 1	W	4 U	4	222.8	24.4
HACHIN	0	IP	11 54 55.2	ES	55 20.6	5 2.0	6 1.5	4 2.1			U	1	237.0	25.4
MORIOK	0	IP	11 54 57.5	IS	55 26.0	8 2.5	7 2.6	8 3.0		W	3 U	1	254.3	28.5
AOMORI	0	X	11 54	S	55 36	48 1.5	36 1.3	16 0.9					307.0	
ISHINO	0	EP	11 55 00.0	ES	55 29.8	10 2.8	7 3.0	7 2.0					287.5	29.8
URAKAW	0	EP	11 55 03	S	55 30.3	12 2.0	22 0.6	10 3.4					287.3	27.3
SENDAI	0	IP	11 55 05.6	IS	55 39.6	18 1.6	15 1.4	7 1.0	S 2	W	3 U	7	327.1	34.0
HAKODA	0	P	11 55 11.1	S	55 49.1	8 1.0	8 1.8	5 1.3			U		363.2	38.0
AKITA	0	EX	11 55 12			25 2.4	25 3.6	16 3.2					345.6	

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STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A	T	E-W A	T	U-D A	T	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
KUSHIR	0	EP	11	55	13	S	55	41.2	11	0.3	14	0.6	3	0.3				355.6	28.2
FUKUSH	0	P	11	55	13.4	ES	55	52.0	12	1.0	12	1.0	4	0.8	S 2	W 2	U 2	389.4	38.6
SAKATA	0	EP	11	55	15.1													383.0	
SAPPOR	0	EP	11	55	17	ES	56	03	8	2.2	8	3.0	3	1.4				432.6	46.0
OBIHIR	0	EX	11	55	20													356.6	
ABASHI	0	EP	11	55	21	S	56	08.0	5	2.2	9	2.4	3	2.0				470.4	47.0
MITO	0	P	11	55	25.4	ES	56	14.6	13	3.0	11	4.4	5	4.3				495.9	49.2
KAKIOK	0	EP	11	55	28	X	56	15	12	0.9	8	0.9	4	1.1				524.4	
ONAHAM	0	EX	11	55	30.1				14	1.2	10	1.3	5	1.4				422.7	
KUMAGA	0	EP	11	55	38.6	ES	56	40.0	8	4.6	8	4.8	5	4.4				580.3	61.4
NIIGAT	0	EX	11	55	43.6				25	3.1	29	5.0	15	5.6				487.6	
NAGANO	0	EP	11	55	44.3	X	57	22.2	4	4.0	5	4.0	3	3.3				624.6	
MATSUS	0	IP	11	55	44.4	X	56	38							S	W	U	631.7	
ASAHIK	0	X	11	56	00				4	2.0	6	2.8	6	2.0				466.4	

OT= 23 12 49 26.8 +/- 0.6 (JST)
OFF SANRIKU
LAT= 39 42 +/- 2 LONG= 144 29 +/- 4
H= 70 CLASS=U

MIYAKO	0	EP	12	49	59.0	ES	50	22.2	3	2.5	6	2.5	1	2.8		W 2	U 1	215.9	23.8
HACHIN	0	IP	12	50	04.6	ES	50	31.6	4	3.0	3	2.0	3	2.0				268.3	27.6
MORIOK	0	P	12	50	08.0	ES	50	33.4	4	2.8	5	3.4	4	3.0		W 1	U 0	284.3	25.2
URAKAW	0	EP	12	50	11	ES	50	42	9	0.4	22	0.6	5	3.6				308.4	31.1
SENDAI	0	P	12	50	16.0	S	50	49.2	7	2.4	8	2.8	3	0.8			U 2	349.2	33.8
KUSHIR	0	EP	12	50	18	ES	50	52	17	0.3	18	0.3	9	0.3				364.2	34.2
AKITA	0	EX	12	50	20				12	2.8	16	3.0	8	2.6				375.7	
HAKODA	0	P	12	50	21.6	ES	51	00	5	1.1	5	1.8	2	1.4			D	392.4	38.8
FUKUSH	0	EX	12	50	24.6				4	1.0	5	1.0	2	0.8				409.8	
SAKATA	0	EP	12	50	25.5													410.4	
SAPPOR	0	EP	12	50	29	S	51	13.0	5	2.2	5	2.0	3	1.6				456.7	44.4
OBIHIR	0	EX	12	50	41													372.9	
AOMORI	0	X	12	50	48				23	1.5	16	1.1						338.3	
MATSUS	0	IP	12	50	54.6										S	W	U	652.3	
NIIGAT	0	EX	12	51	09.0				16	4.6	15	5.1	8	5.0				511.8	

OT= 23 15 39 21.4 +/- 0.5 (JST)
OFF SANRIKU
LAT= 39 45 +/- 2 LONG= 144 28 +/- 3
H= 60 MAG=5.3 CLASS=U

MIYAKO	0	EP	15	39	53.6	IS	40	15.4	18	3.3	25	2.8	22	4.3	N 1	E 3	D 3	214.6	21.8
OFUNAT	0	IP	15	39	58.2	IS	40	23.6	16	0.8	15	2.4	20	2.4	N 2	E 5	D 5	248.7	25.2
WAJIMA	0	X	15	39					10	0.8	10	1.0					D 2	709.4	
HACHIN	0	IP	15	40	00.3	ES	40	26.6	19	2.1	16	4.0	7	4.2	N 1	E 2	D 1	265.1	26.4
MORIOK	0	P	15	40	03.2	S	40	30.7	18	0.3	20	4.2	19	3.6		E 0	D 0	282.8	27.2
						X	40	09.8											
ISHINO	0	EP	15	40	05.4	ES	40	36.0	27	3.0	19	3.0	25	2.0	N 3	E 5	D 6	310.7	30.0
URAKAW	0	EP	15	40	06	X	40	24	26	6.0	33	1.2	24	3.6				302.8	
AOMORI	0	EP	15	40	07	S	40	41	79	1.3	66	2.2	47	0.9				334.9	34.4
SENDAI	0	IP	15	40	11.2	IS	40	46.2	48	1	61	1.2	24	2	N 4	E 4	D 9	350.4	35.2
KUSHIR	0	P	15	40	12.2	IS	40	47.6	20	1.0	35	1.2	8	0.5			U	358.6	35.2
NIIGAT	0	EX	15	40	13.3				50	5.0	70	4.2	36	4.0				512.5	
OBIHIR	0	EP	15	40	14													367.2	
AKITA	0	EX	15	40	15.4				46	2.8	47	3.0	38	2.8				374.2	
HAKODA	0	P	15	40	15.6	ES	40	54	14	3.0	19	2.6	12	3.6			D 1	387.9	38.0
YAMAGA	0	P	15	40	16.7	IS	40	56.2								E 1	D 2	393.3	39.0
NEMURO	0	EP	15	40	17	X	40	49	5	2.4	5	1.8	5	2.4				408.3	
FUKUSH	0	P	15	40	18.8	S	40	59.4	32	1.0	33	1.0	12	0.7	N 3	E 5	D 3	411.5	40.4
SAKATA	0	EP	15	40	21.0				100	2.5	150	2.7	50					410.1	
SAPPOR	0	EP	15	40	24				23	2.6	19	2.4	7	3.6				451.3	
ABASHI	0	EP	15	40	26	S	41	13.4	16	2.0	31	3.0	8	3.0				474.2	47.2
SHIRAK	0	P	15	40	27.0	S	41	12.3										471.6	45.4
ASAHIK	0	EP	15	40	29				7	2.6	11	3.0	8	2.8				479.2	
MITO	0	P	15	40	31.0	ES	41	16.4	39	3.0	31	4.0	20	3.3				512.6	45.2
KAKIOK	0	EP	15	40	33	ES	41	25	27	1.0	20	1.0	9	0.9				541.5	52.2
UTSUNO	0	P	15	40	33.2	ES	41	23.6										537.1	50.2
AIKAWA	0	IP	15	40	39.9				5	2.4	5	5.0	8	3.8	N	E	D	573.1	
KUMAGA	0	EP	15	40	41.4	ES	41	44.0	16	4.2	15	4.4	12	3.4				599.3	62.4
MAEBAS	0	P	15	40	43.8	S	41	43.2										602.0	59.1
MISHIM	0	EX	15	40	46				10	2.2	12	3.5	5	2.9				710.3	
KARUIZ	0	EP	15	40	47.6	X	41	54.2										642.2	
NAGANO	0	EP	15	40	49.0	X	42	35.2	9	3.6	11	3.4	6	4.2				647.2	
MATSUS	0	IP	15	40	49.8	X	42	30							N	E	D	654.0	
KAWAGU	0	P	15	40	53.5	S	42	04.7										689.7	71.6
KOFU	0	EP	15	40	53.6	ES	42	02.4	10	2.2	13	1.6	6	2.4				690.3	68.4

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A	T	E-W A	T	U-D A	T	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
TOYAMA	0	EP	15	40	56	ES	42	21	9	3.8	10	5.4	7	3.8				719.4	85.0
WAKKAN	0	EX	15	41	00				5	4.4	5	5.0	5	5.5				669.3	
IIDA	0	E	15	41	01.0													750.6	
SHIZUO	0	X	15	41	09.4	ES	42	12.9	5	2.7	6	3.7	5	3.5				754.0	
TATEYA	0	X	15	41	11.3				34	3.5	29	4.0	14	3.6				667.4	
NAGOYA	0	EP	15	41	15.8	X	43	00.0	9	2.4	9	2.4	4	2.4				835.5	
OSAKA	0	EX	15	41	52.8				10	3.0	9	3.2	3	2.7				972.3	

OT= 24 4 56 43.9 +/- 0.6 (JST)
OFF SANRIKU
LAT= 39 38 +/- 2 LONG= 144 28 +/- 3
H= 70 CLASS=U

MIYAKO	0	EP	04	57	15.3	ES	57	37.2	6	0.8	6	0.8	4	0.8				214.5	21.9
OFUNAT	0	IP	04	57	20.7	IS	57	44.9	8	0.6	8	0.6	6	0.8		E 1		245.3	24.2
HACHIN	0	IP	04	57	22.6	ES	57	47.0	6	0.6	5	0.4					D	269.7	24.4
MORIOK	0	P	04	57	25.3	S	57	53.7	12	0.3	10	0.2	3	0.3		E 1	D 0	283.1	28.4
ISHINO	0	EP	04	57	27.4	IS	57	58.0	7	2.4	5	4.4	6	1.0		E 2		305.0	30.6
ONAHAM	0	EX	04	57	30.2	ES	58	25.4	10	0.9	9	0.8	4	1.8				431.2	
URAKAW	0	EP	04	57	31	ES	58	02	17	0.6	34	0.6	3	0.8				314.4	31.0
SENDAI	0	P	04	57	32.8	S	58	06.0	12	1.2	18	0.8	7	1.0			D 2	344.7	33.2
KUSHIR	0	EP	04	57	36	S	58	11.1	27	0.3	34	0.3	13	0.4				371.6	35.1
HAKODA	0	P	04	57	39.0	ES	58	18	5	1.8	4	2.6	4	4.0			U	395.9	39.0
FUKUSH	0	EP	04	57	40.1	ES	58	24.4	14	0.4	12	0.6	5	0.5				404.9	44.3
OBIHIR	0	EP	04	57	41													379.6	
SAPPOR	0	EP	04	57	48	ES	58	32	4	1.0	5	3.2	3	0.8				462.1	44.0
SHIRAK	0	EP	04	57	48.0	S	58	34.2										463.9	46.2
ABASHI	0	EP	04	57	49	ES	58	37	5	1.6	9	3.0	2	1.4				487.2	48.0
KAKIOK	0	EP	04	57	55	ES	58	46	12	1.0	6	1.0	4	0.7				532.4	51.0
MITO	0	EP	04	57	55.4	ES	58	41.0	9	2.8	6	1.6	4	2.6				503.5	45.6
UTSUNO	0	EP	04	57	56	S	58	47.5										528.8	51.5
AKITA	0	EX	04	58	03.0				15	2.8	16	3.6	11	4.6				374.6	
AOMORI	0	IX	04	58	08.3				36	1.8	41	2.2	11	1.8				339.9	
MATSUS	0	IP	04	58	11.5	S	59	22											
TOKYO	0	X	04	58	12	S	59	09							N	E	D	647.4	70.5
TATEYA	0	X	04	58	25.3				7	4.5	8	3.0	4	3.5				603.6	
SAKATA	0	EX	04	58	26.1													657.4	
																		407.6	

OT= 24 9 9 21.8 +/- 0.6 (JST)
OFF MIYAZAKI PREF
LAT= 31 58 +/- 2 LONG= 132 9 +/- 2
H= 0 MAG=4.7 CLASS=L

MIYAZA	0	IP	09	09	36.6	IS	09	45.6	160	0.8	114	0.8	51	0.8				68.6	09.0
NOBEOK	X	EP	09	09	38.8	S	09	48.4								S	E D	81.3	09.6
ASHIZU	0	EP	09	09	47.3	S	09	58.2	28	0.9	18	0.9	11	1.2				116.5	10.9
UWAJIM	0	EP	09	09	47.4													144.7	
KAGOSH	0	P	09	09	49.4	ES	10	12.2	42	2.6	85	2.2	27	2.0			U 2	157.3	22.8
OITA	0	P	09	09	49.8	S	10	07.9	93	1.1	111	1.1	72	1.3				148.9	18.1
KUMAMO	0	IP	09	09	50.6	IS	10	12.5	93	1.6	102	1.4	54	1.2	N 12	W 11	U 14	164.6	21.9
ASOSAN	0	EX	09	09	56													142.9	
NAGASA	0	EP	09	09	58.8	S	10	30.3								W	U	230.0	31.5
SAGA	0	P	09	09	59.3	S	10	29.7										223.7	30.4
FUKUOK	0	EP	09	10	00.7	ES	10	31.7	14	1.5	20	1.6	16	1.8				243.8	31.0
MATSUY	0	X	09	10	03.1	ES	10	29.3	10	0.8	15	1.0	7	2.0			U	215.9	
SHIMON	0	P	09	10	03.5				4	2.0	5	2.0	4	2.0	N 1	W	U 1	247.5	
YAKUSH	0	EX	09	10	04.6				10	0.7	11	0.9	5	2.8				230.3	
HAMADA	0	EP	09	10	11.1	S	10	55.4	4	2.0	5	2.4	6	3.0				324.6	44.3
KOCHI	0	EX	09	10	12.5	EX	10	27.0										218.2	
FUKUE	0	EP	09	10	16.8	ES	10	57.4										322.5	40.6
TAKAMA	0	EP	09	10	16.8	ES	10	55.8			5	3.4	5	3.6				315.5	39.0
OKAYAM	0	X	09	10	20	ES	11	00.3	10	1.0	9	1.0	3	1.0				342.9	
TOKUSH	0	X	09	10	25.5	X	11	02.5	6	0.6	4	0.6	3	2.0				324.8	
SAIGO	0	X	09	10	41.1	X	11	40.8	9	2.1	9	2.2						482.5	
MATSUS	0	P	09	11	06													753.5	
TOYOOK	0	X	09	11	16				16	1.1	18	1.1						466.7	
OSAKA	0	EX	09	11	34.0				6	2.8	6	2.3	3	1.8				434.5	
FUKUI	0	X	09	11	41.6													589.0	

OT= 24 19 50 17.4 +/- 1.9 (JST)
OFF SANRIKU
LAT= 39 35 +/- 5 LONG= 144 21 +/-11
H= 90 CLASS=U

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S * S	N-S A/T * S	E-W * S	E-W A/T * S	U-D * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MORIOK	0	P	19 50 56.3	S	51 24.8	5	0.3	6	0.4	3	1.0		E 1	D 0	273.4	28.5
URAKAW	0	EP	19 51 03	ES	51 29	2	0.6	6	0.6						315.1	26.0
SENDAI	0	P	19 51 04.1	S	51 38.8	12	1.0	11	0.8	6	1.4				333.3	34.7
AOMORI	0	EP	19 51 07	ES	51 35	18	1.6	17	0.9	10	0.9				333.1	28.0
FUKUSH	0	EX	19 51 12.2			10	1.0	7	1.0	5	0.7				393.4	
ONAHAM	0	EX	19 51 27.3			5	1.2	5	1.1	2	0.6				420.1	
KUSHIR	0	IS	19 51 41.8			8	0.6	8	0.7	2	0.6				377.1	
MATSUS	0	IP	19 51 42.5	S	52 49							N	E	D	635.9	66.5
AKITA	0	EX	19 51 47.4			8	2.0	7	2.8	6	2.4				364.9	
SAKATA	0	EX	19 51 59.4												396.8	

OT= 24 22 26 43.4 +/- 0.6 (JST)
OFF FUKUSHIMA PREF
LAT= 37 0 +/- 2 LONG= 141 8 +/- 4
H= 90 CLASS=S

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	N-S * S	N-S A/T * S	E-W * S	E-W A/T * S	U-D * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
ONAHAM	1	IP	22 26 57.5	IS	27 05.8	23	0.5	21	0.4	8	0.2		W 0	D 6	21.1	08.3
SHIRAK	0	P	22 27 02.3	IS	27 14.9										81.8	12.6
MITO	0	IP	22 27 02.6	IS	27 16.5	13	0.3	14	0.3	6	0.2			D 2	90.8	13.9
FUKUSH	0	EP	22 27 02.8	ES	27 17.2	13	0.2	10	0.2	4	0.5				102.2	14.4
KAKIOK	0	IP	22 27 05.3	S	27 20.4	10	0.3	19	0.3	5	0.2			D	119.7	15.1
UTSUNO	0	P	22 27 05.8	S	27 21.1										123.3	15.3
MATSUS	0	IP	22 27 23.6	ES	27 44								W	U	266.1	20.4

OT= 25 7 3 0.4 +/- 0.5 (JST)
OFF SANRIKU
LAT= 39 43 +/- 1 LONG= 144 36 +/- 3
H= 80 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	N-S * S	N-S A/T * S	E-W * S	E-W A/T * S	U-D * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MIYAKO	0	EP	07 03 34.0	IS	03 53.7	33	4.8	37	2.4	16	1.4				225.9	19.7
OFUNAT	0	IP	07 03 38.5	S	04 02.7	22	2.8	19	2.8	29	2.8	N	1 E	3 D 2	258.7	24.2
HACHIN	0	IP	07 03 39.5	ES	04 06.2	19	5.8	21	5.0	12	5.6	N	1 E	1 D 1	277.1	26.7
MORIOK	0	P	07 03 43.0	S	04 11.3	23	3.6	21	2.4	19	3.5	N	0 E	2 D 1	294.3	28.3
ISHINO	0	EP	07 03 45.7	IS	04 16.6	27	3.4	23	3.0	26	2.6	N	2 E	4 D 4	319.3	30.9
URAKAW	0	EP	07 03 46	ES	04 12	33	4.6	42	4.0	27	4.0				311.5	26.0
KUSHIR	0	P	07 03 50.8	IS	04 27.6	28	0.7	37	2.0	11	0.3	N		D	362.7	36.8
AOMORI	0	IP	07 03 50.8	S	04 24.2	107	2.1	107	1.9	58	0.9	N	6 W	19	346.8	33.4
OBIHIR	0	EP	07 03 51	ES	04 31										374.0	40.0
SENDAI	0	IP	07 03 51.9	IS	04 26.4	58	2.6	51	1.8	25	2.0	N	2 E	4 D 6	359.0	35.2
HAKODA	0	P	07 03 55.0	S	04 33.9	21	2.2	21	3.0	13	4.0		E	D	399.2	38.9
NEMURO	0	EP	07 03 56	ES	04 28	5	2.2	7	2.4	5	2.6				409.5	32.0
AKITA	0	EX	07 03 56.2			90	2.6	63	2.8	60	2.6				385.7	
YAMAGA	0	EP	07 03 56.7	S	04 36.4										402.4	39.7
FUKUSH	0	EP	07 03 58.8	S	04 40.6	26	0.8	28	0.8	13	2.5				419.4	41.8
SAKATA	0	EP	07 04 00.6			150	2.4	300	3.0	100					420.6	
ONAHAM	0	P	07 04 00.8	ES	04 43.7	37	2.4	46	2.4	24	2.5			U 1	445.9	42.9
SAPPOR	0	P	07 04 04.0			21	2.6	23	3.4	9	2.8				460.9	
ABASHI	0	P	07 04 06.0	S	04 52.2	20	2.6	44	3.0	10	3.0				478.4	46.2
SHIRAK	0	P	07 04 06.6	S	04 52.1										478.6	45.5
ASAHIK	0	EP	07 04 07			9	2.4	15	2.6	12	2.6				486.8	
MITO	0	EP	07 04 10.4	S	05 02.1	59	3.5	42	3.6	23	3.0				518.1	51.7
KAKIOK	0	EP	07 04 14	ES	05 06	28	0.8	17	1.0	9	1.0				547.1	52.0
UTSUNO	0	P	07 04 14.3	S	05 06.8										543.6	52.5
AIKAWA	0	IP	07 04 20.5			5	2.8	5	5.0	8	4.0	S	W	U	582.9	
KUMAGA	0	EP	07 04 22.8	ES	05 22.6	17	4.2	19	2.8	16	4.6				605.7	59.8
TAKADA	0	EP	07 04 26.0												625.6	
KARUIZ	0	EP	07 04 27.6	X	05 41.5										649.7	
NAGANO	0	EP	07 04 29.9	X	06 07.4	14	3.5	14	2.5	9	3.0				655.3	
MATSUS	0	IP	07 04 30.0	ES	05 37							N	E	D	661.9	67.0
KAWAGU	0	P	07 04 33.4	X	05 32.3										695.9	
TATEYA	0	EP	07 04 34.5			34	2.8	34	4.6	17	3.2				671.8	
KOFU	0	EP	07 04 34.6	ES	05 45.5	13	1.8	12	1.9	7	3.0				696.9	70.9
MISHIM	0	EP	07 04 35.8			13	2.8	15	2.6	9	2.4				716.0	
WAJIMA	0	EX	07 04 36			10	2.0	10	1.6						719.0	
TOYAMA	0	EP	07 04 39	ES	05 58	8	3.4	8	3.6	8	3.6				728.1	79.0
SHIZUO	0	EP	07 04 40.8	ES	05 54.5	6	3.3	7	4.0	5	4.5				760.0	73.7
IIDA	0	EX	07 04 41.2												757.6	
WAKKAN	0	EX	07 04 43			9	4.6	7	3.8	9	4.5				676.6	
NIIGAT	0	EX	07 04 43.7	X	05 25.0	98	4.4	87	3.0	47	3.7				521.8	
HAMAMA	0	EP	07 04 50	ES	06 10	14	3.6	10	3.0	5	3.0				825.0	80.0
TOKYO	0	X	07 04	X	04 16.2										618.2	
OSAKA	0	EX	07 05 09.5			11	3.0	7	3.2	4	3.0				980.0	
OMAEZA	0	X	07 05 37.2	ES	06 13.4	17	5.4	13	5.0	7	5.4				801.9	
OSHIMA	0	EX	07 05 45.8			11	3.0	7	3.4	4	2.0				718.7	
KANAZA	0	EX	07 05 49			10	5.0	8	5.0	8	3.0				780.5	

OT= 25 8 4 24.7 +/- 0.8 (JST)
NEAR WAKAYAMA
LAT= 34 8 +/- 3 LONG= 135 12 +/- 2
H= 20 MAG=3.5 CLASS=L

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S * S	N-S A/T * S	E-W * S	E-W A/T * S	U-D * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
WAKAYA	2	IP	08 04 28.7	IS	04 29.5	190	0.2	75	0.2	85	0.2	S 16	E 24	U 40	10.8	00.8
SUMOTO	0	IP	08 04 33.1	S	04 36.8										35.0	03.7
KOBE	0	IP	08 04 36.4	IS	04 43.2								W 2	D 4	61.6	06.8
TAKAMA	0	P	08 04 43.8	ES	04 55.6	6	1.0	4	1.2	2	0.6				107.1	11.8
OSAKA	0	EX	08 04 45.9			7	2.1	9	3.0	2	2.0				67.3	
NAGOYA	0	EP	08 04 54.6	ES	05 18.4	16	2.6	12	2.6	4	2.6				198.4	23.8
TOYOOK	0	X	08 05 09.9			16	0.9	17	0.9						159.5	
MATSUS	0	EP	08 05 21	X	06 19									D	382.0	

OT= 25 9 35 25.9 +/- 0.3 (JST)
SW OF IBARAKI PREF
LAT= 36 21 +/- 3 LONG= 140 6 +/- 2
H= 80 CLASS=L

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	N-S * S	N-S A/T * S	E-W * S	E-W A/T * S	U-D * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KAKIOK	1	IP	09 35 38.5	IS	35 46.4	7	0.5	20	0.2	6	0.2				15.6	07.9
UTSUNO	0	P	09 35 39.2	S	35 47.4										29.9	08.2
KUMAGA	0	P	09 35 42.0	S	35 53.0	6	0.8	11	0.6	1	0.4			D 2	68.1	11.0
MATSUS	0	IP	09 35 53.1	S	36 12							N	E	D	170.9	18.9

OT= 25 10 6 17.8 +/- 0.8 (JST)
OFF SANRIKU
LAT= 39 42 +/- 2 LONG= 144 30 +/- 4
H= 70 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	N-S * S	N-S A/T * S	E-W * S	E-W A/T * S	U-D * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MIYAKO	0	EP	10 06 50.0	IS	07 11.8	7	2.2	7	2.0	4	2.4		W 2	U 1	217.3	21.8
OFUNAT	0	IP	10 06 54.6	IS	07 19.0	6	2.0	5	1.8	5	2.4		W 3	U 2	249.9	24.4
HACHIN	0	IP	10 06 55.7	ES	07 23.7	5	2.2	8	2.2	4	2.8			U 1	269.7	28.0
MORIOK	0	IP	10 06 59.3	S	07 28.5	6	0.4	8	2.8	7	3.0		W 2	U 1	285.7	29.2
ISHINO	0	EP	10 07 02.0	ES	07 32.2	7	3.6	5	3.2	4	3.2	S 2	W 2	U 2	310.7	30.2
URAKAW	0	EP	10 07 05	ES	07 33	10	3.0	18	1.2	7	3.0				309.1	28.0
AOMORI	0	EP	10 07 06	ES	07 47	29	1.9	34	2.1	13	1.6				339.6	41.0
KUSHIR	0	EP	10 07 07	IS	07 43.2	10	0.5	15	1.0	3	0.9				364.2	36.2
OBIHIR	0	EP	10 07 07												373.3	
SENDAI	0	P	10 07 07.6	S	07 40.0	10	2.4	10	2.4	5	1.0			U 4	350.5	32.4
HAKODA	0	EP	10 07 12	S	07 50.9	7	2.0	6	1.7	3	3.8				393.5	38.9
FUKUSH	0	EX	10 07 15.2			6	1.0	5	1.0						411.1	
ONAHAM	0	EX	10 07 18.5			8	1.1	8	1.1	3	1.6				438.4	
MITO	0	EX	10 07 27.3			13	3.0	7	2.6	10	2.5				510.7	
SAPPOR	0	X	10 07 28	S	08 04.0	6	2.0	7	3.0	3	1.2				457.5	
ABASHI	0	X	10 07 33	ES	08 08	6	1.8	10	2.6	2	1.6				479.9	
AKITA	0	EX	10 07 36			15	3.0	18	3.0	12	3.6				377.2	
MATSUS	0	IP	10 07 46.0	S	08 52							S	W	U	653.6	66.0
SAKATA	0	EX	10 07 59.7												411.8	
NIIGAT	0	EX	10 08 02.6			30	3.5	27	4.7	10	4.3				513.2	
TATEYA	0	X	10 08 05.0			8	3.1	7	3.0	5	4.4				664.9	

OT= 25 10 12 3.3 +/- 0.6 (JST)
OFF SANRIKU
LAT= 39 44 +/- 2 LONG= 144 27 +/- 3
H= 70 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	N-S * S	N-S A/T * S	E-W * S	E-W A/T * S	U-D * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MIYAKO	0	EP	10 12 35.2	ES	12 56.4	8	2.8	10	2.4	4	2.5		W 1	U 1	213.1	21.2
HACHIN	0	EP	10 12 40.8	ES	13 08.5	7	3.0	7	2.5	4	3.6				264.3	27.7
OFUNAT	0	EP	10 12 40.9	ES	13 04.4	6	2.6	5	4.2	6	3.6				246.8	23.5
MORIOK	0	P	10 12 44.0	S	13 12.0	8	2.0	8	3.0	8	4.0		W 0	U 0	281.4	28.0
URAKAW	0	P	10 12 46.6	S	13 17.8	4	0.4	10	0.4						303.8	31.2
ISHINO	0	P	10 12 47.8	ES	13 17.4	8	5.0	6	3.4	6	4.0				308.6	29.6
SENDAI	0	EP	10 12 52.4	S	13 26.0	14	2.8	10	2.6	5	2				348.3	33.6
HAKODA	0	P	10 12 57.0	ES	13 35	6	2.0	6	2.9	5	4.6				387.9	38.0
FUKUSH	0	EX	10 13 01.5			6	1.0	6	1.0	2	2.8				409.3	
AOMORI	0	EX	10 13 07	X	13 35	34	2.4	29	2.6	10	0.9				334.2	
AKITA	0	EX	10 13 10			25	2.6	19	3.0	18	3.2				372.8	
ABASHI	0	EP	10 13 12	ES	13 54	4	2.6	8	2.8	2	2.8				476.0	42.0
SAPPOR	0	EX	10 13 14	EX	13 50	7	2.4	9	2.6	4	2.4				452.1	
MITO	0	EX	10 13 14.0			11	4.0	20	3.0	7	3.0				510.3	
ONAHAM	0	EX	10 13 16.2			6	2.4	11	3.0	4	2.7				437.8	
MATSUS	0	IP	10 13 31.2	X	14 14								W	U	651.8	

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STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
SAKATA	0	EX	10 13 52.7												408.3	
OBIHIR	0	EX	10 13												368.6	
TATEYA	0	EX	10 14 36.6			8	3.7	11	5.5	6	4.0				665.0	
OT= 25 23 4 7.4 +/- 1.0 (JST)																
E OFF HOKKAIDO																
LAT= 43 11 +/- 4 LONG= 147 3 +/- 5																
H= 40 MAG=4.7 CLASS=U																
NEMURO	0	P	23 04 27.1	ES	04 40	25	0.8	30	0.8	15	1.2		E 1	D 1	119.9	12.9
KUSHIR	0	IP	23 04 40.3	IS	05 03.6	24	2.0	30	2.8	10	4.0	N	W 1	U 2	217.4	23.3
ABASHI	0	P	23 04 43.8	S	05 09.8	10	2.0	10	2.0	4	2.0		E	D	241.9	26.0
OBIHIR	0	EP	23 04 55	X	05 37										313.3	
HIROO	0	P	23 04 58.8	S	05 32.8										321.7	34.0
URAKAW	0	EP	23 05 01	S	05 41.8	13	1.4	20	1.0	6	1.8				368.1	40.8
SAPPOR	0	EP	23 05 11	ES	06 02	5	1.8	6	2.0	2	1.2				465.6	51.0
AOMORI	0	EP	23 05 28	ES	06 28	9	1.3	7	2.2						581.8	60.0
MATSUS	0	IP	23 06 23.3	X	08 06							S	W	U	1055.6	
OT= 26 5 23 43.6 +/- 2.9 (JST)																
OFF SANRIKU																
LAT= 39 29 +/- 6 LONG= 144 6 +/-14																
H= 40 MAG=4.5 CLASS=U																
MORIOK	0	IP	05 24 22.1	IS	24 49.5	4	0.4	6	0.4	1	1.1		E 0	D 0	252.9	27.4
SENDAI	0	P	05 24 25.8	ES	25 02.2	6	1.2	8	1.0	3	1.0			D 2	309.1	36.4
AOMORI	0	EP	05 24 29	ES	25 03	12	1.6	11	1.1						319.0	34.0
FUKUSH	0	EX	05 24 37.6			6	0.9	5	1.0	2	0.6				369.3	
AKITA	0	EX	05 25 08			5	3.0	5	3.6	5	3.0				344.4	
KUSHIR	0	X	05 25 08.4			5	0.4	7	0.8	1	0.3				389.0	
MATSUS	0	IP	05 25 08.6	ES	26 15							N	E	D	611.8	66.4
OT= 26 5 41 19.9 +/- 3.2 (JST)																
OFF SANRIKU																
LAT= 39 32 +/-10 LONG= 144 54 +/-14																
H= 80 CLASS=U																
MIYAKO	0	EP	05 41 57.2	IS	42 18.8	4	2.7	5	1.5	9	2.7				252.1	21.6
HACHIN	0	EP	05 42 03.0	S	42 29.9	5	0.2	3	0.2						308.4	26.9
MORIOK	0	IP	05 42 07.0	IS	42 33.9	9	0.4	9	0.4	2	0.8			U 0	320.9	26.9
KUSHIR	0	EP	05 42 09	ES	42 53	9	0.3	11	0.3	2	0.6				385.0	44.0
URAKAW	0	EP	05 42 11.8	ES	42 41	2	0.4	7	0.6	2	2.0				342.0	29.2
SENDAI	0	EP	05 42 15.0	ES	42 48.4	9	1.0	11	1.6	4	1.6				374.6	33.4
AOMORI	0	EP	05 42 17	ES	42 47	22	1.1	28	1.6	9	0.9				378.5	30.0
AKITA	0	EX	05 42 20			10	2.8	11	2.8	6	2.4				412.4	
FUKUSH	0	EX	05 42 22.1			6	0.9	8	1.0	2	0.9				432.7	
ABASHI	0	EP	05 42 30	ES	43 17	4	2.6	7	3.0	2					500.6	47.0
MITO	0	EX	05 42 33.5	EX	43 22.5	5	2.5	4	2.6	3	2.4				523.4	
ONAHAM	0	EX	05 42 40.9			5	0.8	4	1.5	3	1.8				452.4	
MATSUS	0	X	05 42												674.7	
OT= 26 15 26 57.0 +/- 0.3 (JST)																
E OF SHIZUOKA PREF																
LAT= 35 11 +/- 2 LONG= 138 56 +/- 3																
H= 30 MAG=3.1 CLASS=U																
AJIRO	0	IP	15 27 03.1	S	27 07.2	8	0.2	8	0.2	3	0.3			U 3	21.5	04.1
MISHIM	0	EP	15 27 03.3	IS	27 07.1	13	0.9	18	0.9	5	0.4				8.0	03.8
OSHIMA	0	P	15 27 08.9	S	27 16.5	10	0.4	10	0.5	4	0.2				61.9	07.6
KOFU	0	EP	15 27 10.5	IS	27 16.0	6	0.5	6	0.5	2	0.8				63.4	05.5
TATEYA	0	EP	15 27 11.8	IS	27 24.0	10	0.5	10	0.5	5	0.5				88.1	12.2
MATSUS	0	IP	15 27 22.9	IS	27 41.4							W	U		163.9	18.5
OT= 27 5 36 49.2 +/- 0.3 (JST)																
MIDDLE OF SHIZUOKA PREF																
LAT= 35 1 +/- 2 LONG= 138 3 +/- 2																
H= 40 MAG=3.7 CLASS=S																

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
SHIZUO	X	IP	05 36 57.4	IS	37 03.6	40	0.6	20	0.5	20	0.5		E 8	U 15	32.9	06.2
HAMAMA	0	IP	05 36 59.0	S	37 06.4	14	0.2	8	0.2	8	0.2		D		45.4	07.4
IIDA	0	EP	05 37 00.0	IS	37 07.4	16	0.4	7	0.4	5	0.6				58.1	07.4
OMAEZA	0	EP	05 37 00.7	ES	37 09.4	32	0.4	32	0.4	17	0.4				48.2	08.7
KOFU	0	IP	05 37 03.9	ES	37 15.0	7	0.4	8	0.4	3	0.4	S	2 W	1 D 3	85.5	11.1
MISHIM	X	P	05 37 04.1	IS	37 14.1	25	0.7	13	1.4	9	0.4				80.9	10.0
AJIRO	1	P	05 37 05.5	IS	37 17.3	113	0.2	66	0.2	22	0.2				95.5	11.8
NAGOYA	X	P	05 37 06.2	IS	37 18.2	7	0.4	9	0.4	3	0.5				100.0	12.0
TATEYA	0	EP	05 37 11.3	IS	37 37.7	24	0.6	9	0.5	5	0.5				166.0	26.4
MATSUS	0	IP	05 37 15.4	S	37 35							S		D	169.4	19.6
HIKONE	0	P	05 37 15.5	S	37 35.2										166.7	19.7
TOKYO	0	X	05 37 21.2	IS	37 40.3	12	0.8	8	0.4						172.0	
OT= 27 8 39 4.6 +/- 0.8 (JST)																
OFF SANRIKU																
LAT= 39 53 +/- 2 LONG= 144 22 +/- 5																
H=100 CLASS=U																
MIYAKO	0	EP	08 39 36.1	ES	39 57.8	6	2.4	7	2.4	7	2.0		W 3		207.2	21.7
OFUNAT	0	IP	08 39 41.6	IS	40 06.3	6	1.6	4	3.0	5	2.4	S	1 W	3 U 3	245.5	24.7
HACHIN	0	IP	08 39 42.4	ES	40 08.6	5	0.2	5	1.8	2	2.0		W	1 U 1	252.2	26.2
MORIOK	0	IP	08 39 46.1	IS	40 14.1	9	0.3	10	0.3	5	2.0	S	0 W	0 U 2	274.7	28.0
URAKAW	0	P	08 39 46.9	S	40 12.9	12	0.8	40	0.6	6	1.0				285.7	26.0
ISHINO	0	EP	08 39 49.1	ES	40 19.8	5	2.8	5	3.2	5	2.6	S	2 W	2 U 3	310.3	30.7
AOMORI	0	EP	08 39 52	ES	40 26	42	1.1	37	1.1						321.6	34.0
KUSHIR	0	EP	08 39 53	IS	40 28.0	18	0.3	16	0.3	7	0.2				343.8	35.0
SENDAI	0	IP	08 39 54.7	S	40 29.4	11	2.4	11	1.4	6	0.8			U 5	349.9	34.7
OBIHIR	0	EP	08 39 55	ES	40 32										350.6	37.0
AKITA	0	EX	08 39 57.8			12	3.4	16	3.0	12	2.6				365.7	
SAPPOR	0	X	08 39	ES	40 43	6	2.0	7	2.6	3	1.4				434.3	
FUKUSH	0	EX	08 40 02.9			7	1.0	7	0.9						412.2	
SAKATA	0	EP	08 40 03.8	ES	40 47.1										405.1	43.3
ONAHAM	0	EX	08 40 04.6			6	0.6	7	1.2	3	1.4				444.5	
HAKODA	0	X	08 40 06.6	S	40 35.1	7	1.0	9	0.7	4	1.0			U	372.2	
ABASHI	0	EP	08 40 08	ES	40 52	3	1.2	7	2.4	2	2.2				459.2	44.0
MITO	0	EX	08 40 14.4	ES	41 05.1	6	2.5	5	3.0	4	2.4				517.5	
MATSUS	0	IP	08 40 33.5	S	41 40							S	W	U	654.5	66.5
TATEYA	0	EX	08 40 47.7			8	4.7	5	3.5	5	3.5				673.7	
NIIGAT	0	EX	08 41 05.8			17	4.0	17	3.8	6	4.0				510.4	
OT= 27 10 10 19.4 +/- 2.5 (JST)																
E OFF HOKKAIDO																
LAT= 42 55 +/-10 LONG= 148 23 +/-14																
H= 60 MAG=5.2 CLASS=U																
NEMURO	0	P	10 10 52.2	ES	11 14	43	2.2	48	1.8	45	2.0		W 1	U 1	232.2	21.8
WAKKAN	0	EX	10 11 00			7	4.7	9	4.0	6	4.0				603.3	
KUSHIR	0	P	10 11 05.2	ES	11 42	37	3.1	33	4.0	19	4.0			U 2	325.6	36.8
ABASHI	0	P	10 11 08.6	EX	11 19	22	4.0	21	3.2	13	3.2	N	2 W	4 U 3	353.6	
				S	11 52.4											
HIROO	0	P	10 11 18.1	S	12 06.3										421.7	48.2
URAKAW	0	P	10 11 26.8	S	12 08.9	32	1.4	35	1.2	20	3.8				468.0	42.1
ASAHIK	0	EP	10 11 28			11	3.0	11	3.4	10	3.2				496.5	
SAPPOR	0	P	10 11 37.6			13	2.0	15	3.0	8	3.4				575.3	
AOMORI	0	EP	10 11 52	ES	12 52	21	2.0	20	1.8						672.5	60.0
MORIOK	0	P	10 11 55.0	IS	13 00.0	4	0.4	6	0.3	2	2.0	N	0 E	1 D 0	701.8	65.0
OBIHIR	0	EX	10 11												421.5	
SENDAI	0	EX	10 12 09	ES	13 25.2	9	2.4	6	2	4	1				817.2	
AKITA	0	EX	10 12 19.2			8	4.2	7	4.8	5	3.0				778.7	
FUKUSH	0	EX	10 12 21.0			12	1.0	5	0.9	2	0.8				882.4	
MATSUS	0	P	10 12 47	S	14 37										1122.2	110.0
ONAHAM	0	EX	10 13 37.3			6	1.4	6	0.9	3	0.5				920.2	
NIIGAT	0	EX	10 14 28.0			10	5.0	10	5.0	6	5.0				966.8	
OT= 27 10 28 26.3 +/- 3.2 (JST)																
E OFF HOKKAIDO																
LAT= 42 54 +/- 8 LONG= 148 23 +/-18																
H= 60 MAG=4.9 CLASS=U																
NEMURO	0	P	10 28 59.1	ES	29 20	16	1.4	15	1.8	14	2.2		W	U	232.6	20.9
KUSHIR	0	EP	10 29 12	IS	29 48.8	16	1.3	13	0.8	5	1.8				325.7	36.8
ABASHI	0	P	10 29 15.0	ES	29 54	10	2.4	8	2.2	6	3.0			U 1	354.3	39.0
OBIHIR	0	EP	10 29 25												421.5	

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STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
URAKAW	0	P	10	29	33.4	S	30	17.8	11	1.2	16	1.0	5	2.0				467.7	44.4
ASAHIK	0	EP	10	29	34				5	2.2	4	2.0	3	2.6				496.9	
SAPPOR	0	EX	10	29	39				4	1.8	6	2.0	2	1.2				575.4	
FUKUSH	0	EX	10	30	24.0				8	1.0	3	1.0	1	0.8				881.3	
MATSUS	0	IP	10	30	53.6	ES	32	42									U	1121.1	108.4
AOMORI	0	EX	10	31	03				6	1.6	7	1.4						671.9	

OT= 27 12 26 6.7 +/- 2.3 (JST)
E OFF HOKKAIDO
LAT= 42 48 +/- 7 LONG= 148 15 +/-13
H= 50 MAG=5.4 CLASS=U

NEMURO	0	P	12	26	38.5	ES	27	00	115	2.0	75	2.4	58	2.6	S	W 1	U 1	224.8	21.5
KUSHIR	0	IP	12	26	51.7	ES	27	30	54	2.3	47	1.9	29	3.2		W 2	U 3	315.6	38.3
ABASHI	0	P	12	26	55.4	S	27	37.8	51	2.8	57	2.6	31	3.0				348.6	42.4
HIROO	0	X	12	27	04.4	ES	27	44										409.3	
						X	33	04											
OBIHIR	0	EP	12	27	05	X	28	07										411.2	
AKITA	0	EX	12	27	09.2				10	3.0	8	3.2	7	3.2				763.5	
URAKAW	0	P	12	27	11.4	S	27	53.6	46	3.4	49	1.4	28	2.8				455.4	42.2
ASAHIK	0	EP	12	27	14				16	2.2	20	2.4	13	2.4				489.0	
RUMOI	0	EX	12	27	20													551.2	
SAPPOR	0	EP	12	27	24				19	2.2	25	2.4	9	3.0				565.5	
WAKKAN	0	EX	12	27	28				13	3.7	12	4.2	11	4.3				600.5	
HACHIN	0	EP	12	27	30.4	S	28	29.2	5	0.2	4	2.9	3	4.9				614.3	58.8
HAKODA	0	P	12	27	32.3	ES	28	44	13	2.4	8	4.2	5	4.4			U	627.2	71.7
MIYAKO	0	EP	12	27	34	ES	28	34.1	6	1.2	2	1.6	2	1.2				632.4	60.1
MORIOK	0	P	12	27	40.5	S	28	46.0	5	0.4	5	0.5	2	1.4			U 0	686.1	65.5
OFUNAT	0	EP	12	27	42.0	S	28	47.2	5	1.2	5	1.6	6	2.0				688.9	65.2
ISHINO	0	EP	12	27	50.6	ES	29	02.4	9	2.4	7	2.2	3	1.0			D	762.2	71.8
SENDAI	0	EP	12	27	55.2	X	29	05.8	15	1.6	16	1.6	5	1.2				800.8	
FUKUSH	0	EP	12	28	04.0	ES	29	27.6	30	1.0	11	1.2	3	1.2				865.9	83.6
KAKIOK	0	EP	12	28	20	ES	29	56	10	0.8	6	1.0	4	0.7				1004.9	96.0
MITO	0	EP	12	28	20.4	S	29	51.4	8	1.7	8	1.4	5	1.5				976.3	91.0
ONAHAM	0	EX	12	28	20.7	ES	29	35.2	12	1.2	12	1.4	4	0.8				903.4	
MATSUS	0	IP	12	28	33.5	ES	30	26							S		U	1105.8	109.5
KUMAGA	0	X	12	28	34.0	ES	30	12.0	6	1.2	5	1.2	2	1.0				1060.7	
SAKATA	0	EX	12	28	51.9													830.5	
AOMORI	0	EX	12	28	52				28	1.8	25	1.4						658.2	
NIIGAT	0	EX	12	29	01.1				15	3.2	13	2.8	6	4.0				950.7	
TATEYA	0	EX	12	29	08.6				7	3.2	5	3.0	5	2.5				1130.9	
TOKYO	0	EX	12	30	15				6	0.4	4	0.8						1076.5	

OT= 27 19 45 39.8 +/- 1.6 (JST)
E OFF HOKKAIDO
LAT= 43 14 +/- 7 LONG= 147 35 +/- 8
H= 10 MAG=4.6 CLASS=U

NEMURO	0	EP	19	46	07	ES	46	27	6	1.4	9	1.2	5	1.2				162.4	20.0
KUSHIR	0	X	19	46	30	S	46	51.3	10	0.2	7	0.3	3	1.1				261.1	
URAKAW	0	P	19	46	41.2	S	47	26.2	6	1.2	7	1.0	1	1.2				411.3	45.0
MATSUS	0	IP	19	48	03.0	X	49	52									U	1092.2	
FUKUSH	0	EX	19	48	56.2				6	0.9	3	0.8	1	0.6				855.6	

OT= 28 3 5 47.4 +/- 2.5 (JST)
E OFF HOKKAIDO
LAT= 42 43 +/- 8 LONG= 145 53 +/-13
H= 60 MAG=4.3 CLASS=U

NEMURO	0	IP	03	06	01.9	IS	06	11.1	38	0.6	21	1.4	16	2.2	N 1	W	U 2	72.1	09.2
KUSHIR	0	IP	03	06	06.6	IS	06	19.0	47	0.3	63	0.3	26	0.3	S 1	E 2	D 5	125.1	12.4
ABASHI	0	EP	03	06	19	ES	06	37	7	1.0	6	1.4	4	2.0				194.1	18.0
OBIHIR	0	X	03	06	25	X	06	52										218.9	
URAKAW	0	P	03	06	27.3	S	06	55.3	6	2.2	10	2.0	8	2.4				262.8	28.0
MATSUS	0	P	03	07	50													950.4	

OT= 28 4 50 56.2 +/- 0.6 (JST)
SE OFF BOSO PEN
LAT= 34 42 +/- 2 LONG= 141 31 +/- 3
H= 60 MAG=4.8 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
CHOSHI	0	P	04	51	17.2	S	51	30.0										129.2	12.8
TATEYA	0	P	04	51	20.4	IS	51	36.5	80	1.8	78	1.0	38	1.0				154.0	16.1
YOKOHA	0	P	04	51	25.2	S	51	42.8										188.4	17.6
OSHIMA	0	P	04	51	25.2	S	51	44.0	28	1.0	20	0.6	10	0.4				195.9	18.8
KAKIOK	0	P	04	51	27	ES	51	39	58	0.8	47	1.0	15	1.0	N 1		U 1	208.0	12.0
MITO	0	IP	04	51	28.4	IS	51	50.2	54	2.4	30	2.6	19	2.8				208.9	21.8
TOKYO	0	P	04	51	28.7	S	51	47	40	3	16	2	13	4				193.8	18.3
AJIRO	0	EP	04	51	28.9	ES	51	49.7	18	0.6	19	0.6	10	0.7				224.5	20.8
MISHIM	0	EP	04	51	31.1	S	51	54.2	27	0.9	24	0.9	9	0.9				240.7	23.1
ONAHAM	0	IP	04	51	32.0	IS	51	57.4	38	0.9	42	0.9	16	0.6			D 6	255.1	25.4
HACHIJ	0	EP	04	51	32.2	S	51	56.0	18	0.5	18	0.4						238.6	23.8
UTSUNO	0	P	04	51	33.0	ES	51	58.4										253.3	25.4
KUMAGA	0	EP	04	51	35.2	ES	51	59.6	18	1.4	19	1.2	10	3.0				251.4	24.4
KOFU	0	EP	04	51	37.8	ES	52	07.0	15	1.5	13	0.5	5	1.2				289.9	29.2
SHIRAK	0	P	04	51	38.3	S	52	07.7										292.5	29.4
MAEBAS	0	EP	04	51	40													291.6	
KARUIZ	0	EP	04	51	43.8	ES	52	15.6										324.6	31.8
FUKUSH	0	P	04	51	45.5	S	52	19.5	47	0.8	29	0.8	15	0.8				351.8	34.0
OMAEZA	0	X	04	51	46.2	X	52	20.8	9	3.1	7	2.4						302.9	
MATSUS	0	P	04	51	47.1	S	52	24										362.4	36.9
IIDA	0	EP	04	51	48.5	ES	52	21.6	8	1.4	5	1.4	4	1.2				347.4	33.1
SENDAI	0	EP	04	51	51.6	IS	52	29.9	21	1.6	17	2.4	4	1.4				398.8	38.3
HAMAMA	0	X	04	51	52	ES	52	21	6	2.2	5	2.4	3	2.0				347.4	
ISHINO	0	EP	04	51	52.4	IS	52	33.0	8	1.4	5	1.2	5	2.4	N 2		U 1	413.7	40.6
NAGOYA	0	EP	04	51	54.8	ES	52	35.0	6	1.6	5	2.0	3	1.0				418.6	40.2
NIIGAT	0	EX	04	51	57.3				25	3.0	20	3.2	9	3.5				419.3	
OFUNAT	0	EP	04	52	02.0	ES	52	47.7	4	0.6	8	1.4	3	0.6				484.3	45.7
NAGANO	0	X	04	52	02.9	X	52	40.1	6	2.8	8	2.1	4	1.8				370.9	
SAKATA	0	EP	04	52	03.4													489.9	
TOYAMA	0	X	04	52	04	X	53	08	7	4.4	8	3.8	4	3.4				448.8	
MORIOK	0	IP	04	52	10.5	S	53	03.5	7	0.4	6	0.4	2	1.0	N 0		U 0	555.3	53.0
KANAZA	0	EX	04	52	13				5	2.3	5	2.8						486.1	
AKITA	0	EX	04	52	14				11	2.8	9	3.4	5	2.2				570.8	
AOMORI	0	EX	04	52	28				8	0.9								681.9	
OSAKA	0	EX	04	52	57.8				8	2.8	3	2.8	2	1.8				549.1	

OT= 28 6 4 8.7 +/- 0.2 (JST)
N OF IWATE PREF
LAT= 40 3 +/- 1 LONG= 141 47 +/- 2
H= 60 MAG=3.6 CLASS=L

MIYAKO	2	IP	06	04	20.6	IS	04	27.9	22	0.4	15	0	8	0.2	S 2		U 1	47.7	07.3
HACHIN	X	IP	06	04	21.7	IS	04	30.3	19	0.2	10	0.2	1	0.2	S 1	E 1	D 1	57.1	08.6
MORIOK	X	IP	06	04	22.8	IS	04	31.5	21	0.4	14	0.4	10	0.3	N 1	E 1	D 1	65.6	08.7
OFUNAT	0	IP	06	04	28.0	S	04	40.4	12	0.0	5	0.4	3	1.0	N 1		D 0	109.9	12.4
AOMORI	0	EX	06	04	44				8	0.7								120.2	
MATSUS	0	P	06	05	17													499.6	

OT= 28 20 45 3.7 +/- 0.5 (JST)
OFF FUKUSHIMA PREF
LAT= 37 4 +/- 1 LONG= 142 16 +/- 2
H= 40 MAG=4.6 CLASS=U

ONAHAM	0	EP	20	45	23.2	IS	45	36.8	38	0.8	39	1.0	9	0.7				121.8	13.6
ISHINO	0	EP	20	45	30.0	IS	45	48.6	13	1.2	7	1.0	5	1.4	N 2	W 1	U 2	173.0	18.6
SENDAI	0	EP	20	45	31.0	IS	45	49.8	18	0.6	21	1.4	15	2.0				179.1	18.8
FUKUSH	0	EP	20	45	31.3	S	45	50.4	43	1.0	33	1.0	9	1.0				176.1	19.1
MITO	0	P	20	45	31.5	S	45	50.4	18	1.4	17	1.1	9	2.1				177.6	18.9
SHIRAK	0	P	20	45	32.5	S	45	51.7										181.6	19.2
KAKIOK	0	EP	20	45	35	S	45	56.0	28	0.9	19	0.8	10	0.9				207.2	21.0
UTSUNO	0	P	20	45	36.3	ES	46	00										221.3	23.7
YAMAGA	0	EP	20	45	37.1	ES	45	59.6										214.3	22.5
KUMAGA	0	EP	20	45	45.0	ES	46	14.6	10	1.0	7	1.0	3	2.8				277.2	29.6
MORIOK	0	EP	20	45	48.0	ES	46	21.6	4	0.4	6	0.4	2	1.2			U 0	307.3	33.6
TATEYA	0	X	20	45	55.2				11	2.2	11	2.0	5	2.5				316.4	
KAWAGU	0	P	20	45	55.8	S	46	35.5										359.5	39.7
MATSUS	0	P	20	45	56	ES	46	34										366.8	38.0
KOFU	0	EP	20	45	57.2	ES	46	36.0	10	1.8	10	1.7	5	2.0				367.3	38.8
SAKATA	0	EX	20	45	59.8													295.1	

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STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TOKYO	0	EX	20 45			10	1.8	9	2.4						272.3	
IIDA	0	EP	20 46 06.2	ES	46 50.4	4	1.4	4	1.4	3	1.8				433.8	44.2
AKITA	0	EX	20 46 19			7	2.2	7	2.4	5	2.2				349.8	
NAGOYA	0	EP	20 46 19.2	ES	47 19.8	5	2.0	6	2.6	2	1.5				521.4	60.6
AOMORI	0	EX	20 46 31			7	2.3								435.7	

OT= 28 23 53 42.9 +/- 2.9 (JST)
E OFF HOKKAIDO
LAT= 43 22 +/-11 LONG= 147 42 +/-15
H= 70 CLASS=U

NEMURO	0	EP	23 54 09	ES	54 27	16	0.8	17	0.4	10	1.0				171.4	18.0
KUSHIR	0	EP	23 54 24	ES	54 50	29	0.2	25	0.3	8	0.4				272.2	26.0
ABASHI	0	EP	23 54 25	S	54 55.2	8	1.6	10	1.4	3	1.4				284.8	30.2
URAKAW	0	P	23 54 44.1	S	55 28.9	14	2.0	24	1.0	4	1.4		W	U	424.5	44.8
AOMORI	0	EP	23 55 09	ES	56 10	6	1.1	6	0.4						638.3	61.0
MATSUS	0	IP	23 56 05.5	ES	57 59							S	W	U	1108.9	113.5

OT= 29 1 15 38.5 +/- 2.9 (JST)
E OFF HOKKAIDO
LAT= 43 8 +/-10 LONG= 148 46 +/-15
H= 60 MAG=4.6 CLASS=U

NEMURO	0	EP	01 16 15	ES	16 41	9	1.6	9	1.0	7	1.8				259.3	26.0
ABASHI	0	EP	01 16 30	ES	17 16	4	1.8	8	2.0	3	1.6				375.3	46.0
KUSHIR	0	X	01 16 37	ES	17 02	7	1.1	7	0.3	5	3.0				356.6	
URAKAW	0	P	01 16 49.1	S	17 36.1	5	1.0	6	0.8	3	1.2				502.7	47.0
MATSUS	0	P	01 18 10	X	19 58										1161.6	

OT= 29 6 35 19.1 +/- 1.5 (JST)
E OFF HOKKAIDO
LAT= 42 53 +/- 5 LONG= 147 32 +/- 8
H= 0 MAG=5.1 CLASS=U

NEMURO	0	P	06 35 47.5	ES	36 09	44	2.8	59	3.0	37	4.8		W	U 1	166.0	21.5
KUSHIR	0	EP	06 36 01	S	36 30.7	48	4.2	39	3.3	21	3.5				256.4	29.7
ABASHI	0	P	06 36 03.8	S	36 46.2	23	3.6	39	3.4	12	3.4	N	W	2 U 2	291.7	42.4
HIROO	0	P	06 36 14.3	S	36 54.9										352.5	40.6
OBIHIR	0	EP	06 36 15												352.2	
URAKAW	0	IP	06 36 21.8	S	37 09.0	41	5.0	51	4.4	29	4.8		W	U 1	398.8	47.2
ASAHIK	0	EP	06 36 23			15	2.8	9	2.8	9	1.6				430.0	
SAPPOR	0	EP	06 36 34	EX	37 18	12	2.2	16	4.4	9	5.0				506.3	
WAKKAN	0	EX	06 36 38			14	8.0	14	4.4	12	8.8				545.9	
HACHIN	0	EP	06 36 40.5	IS	37 40.0	6	0.7	5	5.0	3	4.5				564.4	59.5
HAKODA	0	EP	06 36 41	ES	37 49	7	2.8	10	3.4	5	3.6			U	570.7	68.0
AOMORI	0	EP	06 36 47	ES	37 48	21	3.8	21	0.9	10	0.9				605.6	61.0
MORIOK	0	P	06 36 50.0	IS	37 56.0	8	0.4	7	0.4	2	0.8	S	0 W	0 U 0	639.7	66.0
OFUNAT	0	EP	06 36 51.4	S	37 56.4	6	0.8	5	0.6	5	0.8				647.6	65.0
ISHINO	0	P	06 36 59.0	S	38 12.0	6	1.2	4	1.0	4	0.8				722.7	73.0
SENDAI	0	EX	06 37 06	X	38 19.5	8	2.4	6	0.8	3	1.0				760.6	
MITO	0	EX	06 37 10.5	X	39 01.0	8	3.5	6	3.3	4	4.4				942.2	
FUKUSH	0	EP	06 37 14.3	S	38 36.8	8	1.0	6	1.0						826.5	82.5
AKITA	0	EX	06 37 20	EX	38 19.2	10	2.8	11	4.0	6	4.4				714.5	
ONAHAM	0	X	06 37 28.6	ES	38 46.2	6	1.4	6	1.6	3	2.5				868.8	
MATSUS	0	P	06 37 42	S	39 33										1064.5	111.0
KUMAGA	0	X	06 37 50.4	ES	39 20.4	5	4.0	5	4.4	3	4.4				1023.9	
TOKYO	0	EX	06 38 28			9	4.8	6	6.2						1042.4	
NIIGAT	0	EX	06 39 06.6			21	5.1	14	5.3	10	4.2				906.7	
TATEYA	0	EX	06 40 36.8			8	4.0	8	1.8	3	4.5				1099.3	

OT= 29 10 2 1.5 +/- 2.8 (JST)
E OFF HOKKAIDO
LAT= 42 52 +/- 7 LONG= 147 18 +/-15
H= 0 MAG=4.2 CLASS=U

NEMURO	0	EP	10 02 28	ES	02 47	7	2.0	5	1.4	5	1.6				148.6	19.0
ABASHI	0	EP	10 02 45	X	03 32.0	3	1.6	6	1.6	2	1.8				275.7	
URAKAW	0	P	10 03 02.0	S	03 46.1	6	1.8	6	1.8	2	1.8			U	379.7	44.1
MATSUS	0	IP	10 04 23.0	ES	06 11							S		U	1048.5	108.0

OT= 29 12 9 3.4 +/- 2.3 (JST)
E OFF HOKKAIDO
LAT= 42 52 +/- 8 LONG= 148 4 +/-12
H= 50 MAG=5.1 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	0	P	12 09 33.4	ES	09 55	36	1.6	40	1.2	32	1.4		W 1	U 1	208.4	21.6
KUSHIR	0	P	12 09 46.0	S	10 16.0	29	1.8	21	2.0	12	2.3		W	U 2	300.1	30.0
ABASHI	0	P	12 09 49.2	X	10 37	14	1.4	29	2.0	9	1.4	N	W	3 U 3	331.9	
OBIHIR	0	EP	12 10 02	ES	10 45										395.8	43.0
URAKAW	0	P	12 10 07.5	S	10 53.7	25	1.0	25	1.0	14	3.4			U 1	441.5	46.2
ASAHIK	0	EP	12 10 09			10	1.8	7	1.6	6	1.6				472.6	
SAPPOR	0	EP	12 10 19			12	2.0	13	2.0	4	1.6				549.9	
AOMORI	0	X	12 10 42	ES	11 34	15	1.1	16	1.1	9	1.2				646.2	
SENDAI	0	EP	12 10 49.6	ES	12 05.2	7	1.6	7	1.6	3	1.2				793.3	75.6
FUKUSH	0	X	12 10	ES	12 22.1	11	1.0	6	1.0						858.7	
ONAHAM	0	EX	12 11 13.0	X	12 30.5	7	1.2	5	0.9	3	0.9				897.8	
MATSUS	0	P	12 11 27	S	13 17										1098.0	110.0
AKITA	0	EX	12 11 38			5	2.0	5	1.6	3	2.6				752.9	

OT= 29 13 22 22.4 +/- 0.6 (JST)
OFF IBARAKI PREF
LAT= 36 41 +/- 2 LONG= 142 14 +/- 3
H= 40 MAG=4.1 CLASS=U

ONAHAM	0	EP	13 22 43.8	ES	22 54.0	16	0.8	16	1.2	4	0.5				121.9	10.2
MITO	0	EP	13 22 48.0	IS	23 06.6	8	0.5	8	0.6	5	2.0				161.3	18.6
KAKIOK	0	EP	13 22 51	ES	23 12	9	0.9	6	0.8	5	0.9				189.6	21.0
FUKUSH	0	EP	13 22 52.7	S	23 13.5	6	0.9	6	1.0	3	0.5				196.3	20.8
SENDAI	0	EP	13 22 54.3	ES	23 16.5	5	0.8	5	0.6	3	1.6				211.0	22.2
MATSUS	0	P	13 23 14	S	23 54										360.4	40.0
UTSUNO	0	ES	13 23 18												211.8	

OT= 29 19 16 57.1 +/- 0.3 (JST)
OFF IWATE PREF
LAT= 39 43 +/- 1 LONG= 142 8 +/- 2
H= 40 MAG=3.8 CLASS=L

MIYAKO	2	IP	19 14 05.0	IS	14 09.6			20	0.2	15	0.2	N	2 E	3 D 6	16.2	04.6
OFUNAT	1	EP	19 14 11.4	S	14 20.6	23	0.0	11	0.4	8	0.0				81.0	09.2
MORIOK	0	P	19 14 11.7	IS	14 21.5	8	0.4	7	0.4	3	0.4	S	0 E	1 U 0	82.8	09.8
HACHIN	0	IP	19 14 14.2	IS	14 25.8	20	0.2	17	0.2			S	1 E	1 D	103.7	11.6
MATSUS	0	P	19 15 06												492.7	

OT= 30 15 52 30.3 +/- 1.9 (JST)
E OFF HOKKAIDO
LAT= 43 26 +/-10 LONG= 148 16 +/-10
H= 70 CLASS=U

NEMURO	0	EP	15 53 01	ES	53 23	25	0.8	29	1.2	23	1.2				217.5	22.0
KUSHIR	0	EP	15 53 17	ES	53 48	27	0.8	24	0.6	12	0.9				318.7	31.0
ABASHI	0	P	15 53 17.4	S	53 48.0	15	2.2	16	2.0	7	1.6	N	W	3 U 2	327.5	30.6
URAKAW	0	P	15 53 36.5	S	54 21.6	20	2.6	25	1.4	10	1.4				470.7	45.1
OBIHIR	0	X	15 53 38	X	54 23										414.2	
SAPPOR	0	EP	15 53 47			7	2.2	10	3.4	5	4.4				564.7	
WAKKAN	0	EX	15 53 49			5	5.0	7	4.7	4	4.0				568.5	
HAKODA	0	P	15 53 55.4	ES	55 06	9	0.8	9	1.4	3	1.4			U	641.6	70.6
FUKUSH	0	EX	15 54 24.3			9	1.0	3	1.0						911.6	
SENDAI	0	EX	15 54 30	X	55 37.2	5	1.0	5	1.4	3	0.8				845.6	
MATSUS	0	P	15 54 57												1149.2	
AOMORI	0	EX	15 55 03			18	1.5	17	1.5						683.4	
AKITA	0	EX	15 55 22			5	3.8	5	2.0	3	1.8				795.7	
ONAHAM	0	EX	15 55 51.9			7	1.2	4	1.3	2	0.4				954.2	

OT= 30 16 11 33.1 +/- 2.9 (JST)
E OFF HOKKAIDO
LAT= 43 22 +/-10 LONG= 148 27 +/-17
H=100 CLASS=R

NEMURO	1	P	16 12 06.2	ES	12 31	276	4.8	311	4.6	215	3.4		W	U 1	232.2	24.8
KUSHIR	1	IP	16 12 20.6	ES	12 58	161	2.8	128	2.7	109	5.4	S	W	8 U 7	332.6	37.4

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STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A	T	E-W A	T	U-D A	T	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
ABASHI	0	P	16	12	21.8	S	12	46.4	203	4.0	156	2.4	85	4.8	N	2 W	3 U	3	343.6	24.6
						X	13	18.6											436.7	44.7
HIROO	0	EP	16	12	34	IS	13	18.7											428.2	32.0
OBIHIR	1	EP	16	12	34	ES	13	06												
URAKAW	0	IP	16	12	40.9	S	13	29.3	204	4.4	229	3.0	135	4.0		W 4	U 4		483.1	48.4
ASAHIK	0	EP	16	12	43				59	3.6	60	2.6	41	3.0					493.0	
RUMOI	0	EX	16	12	51														553.7	
SAPPOR	0	P	16	12	51.6	X	13	36	75	4.0	130	5.0	60	4.8					579.4	
WAKKAN	0	P	16	12	54.2	EX	13	41	75	4.9	94	5.3	52	11.1			U		585.1	
MURORA	0	P	16	12	57.0	ES	13	57									D		621.4	60.0
AIKAWA	0	X	16	12					6	17.0	18	14.0	11	15.0	S	W	U		1046.2	
HAKODA	0	P	16	13	00.0	ES	14	03	82	5.2	43	3.9	26	10.4			D		654.3	63.0
HACHIN	0	EP	16	13	00.8	ES	14	02.5	19	5.2	19	4.9	15	14.0					655.0	61.7
SUTTSU	0	EX	16	13	04.0														671.5	
MIYAKO	0	EP	16	13	04	ES	14	05.1	13	2.5	7	2.5	11	13.2					680.7	61.1
AOMORI	0	EP	16	13	05	X	14	03	106	2.6	87	2.2	36	2.5					694.4	
MORIOK	0	P	16	13	09.5	S	14	17.3	13	11.0	14	0.4	15	13.2		E 0	D 0		731.4	67.8
						EL	16	30											739.4	68.9
OFUNAT	0	EP	16	13	10.6	IS	14	19.5	17	1.6	14	2.8	21	2.4						
AKITA	0	EP	16	13	20.4	EX	14	39.8	53	4.4	61	3.8	28	4.8			U		805.4	
ISHINO	0	EP	16	13	21.2	X	14	32.6	25	4.2	14	5.2	13	12.4	N	2 E	2 D	3	814.3	
SENDAI	0	EP	16	13	25.6	X	14	41.6	36	2.4	34	3.2	14	1.4					852.3	
YAMAGA	0	EP	16	13	30.1	S	14	53.8											887.9	83.7
FUKUSH	0	EP	16	13	35.7	ES	15	02.5	27	1.0	19	1.0	6	4.5					918.1	86.8
SAKATA	0	X	16	13	44.3														876.1	
NIIGAT	0	EX	16	13	44.3	S	15	20.0	90	6.8	61	6.8	32	5.9					998.6	
MITO	0	EX	16	13	50.5	S	15	23.2	25	4.0	20	3.6	13	2.0					1032.4	
ONAHAM	0	EX	16	13	53.0	S	15	07.6	22	2.0	24	2.3	15	2.3					959.1	
KAKIOK	0	EP	16	13	53	S	15	31.8	13	0.8	14	0.9	5	1.3					1060.8	98.8
TAKADA	0	EP	16	13	58.0														1110.8	
MATSUS	0	IP	16	14	02.4	S	15	51									D		1156.4	108.6
KUMAGA	0	X	16	14	02.4	ES	15	44.0	18	4.8	18	4.4	13	4.8					1115.0	
NAGANO	0	EP	16	14	04.0	X	16	08.7	10	4.5	12	4.0	5	4.8					1147.8	
WAJIMA	0	EX	16	14	06				10	1.6	13	1.4							1182.7	
UTSUNO	0	EX	16	14	07	ES	15	31											1052.8	
TOYAMA	0	EP	16	14	09	ES	16	10	12	13.0	11	4.6	8	3.6					1209.6	121.0
KOFU	0	EP	16	14	09.0	ES	16	02.4	10	2.0	9	2.0	6	13.0					1204.4	113.4
TOKYO	0	EX	16	14	10	ES	15	46	27	5.2	23	5.0	18	4.2					1132.6	
IIDA	0	E	16	14	16.2														1261.4	
KAWAGU	0	X	16	14	17.2	S	16	04.4											1206.1	
TATEYA	0	X	16	14	24.3				22	5.0	30	11.0	10	4.7					1188.6	
SHIZUO	0	X	16	14	25.0	X	16	15.7	6	5.5	5	15.0	9	15.0					1271.5	
MISHIM	0	X	16	14	27				11	2.1	7	2.1	3	2.7					1229.3	
NAGOYA	0	EP	16	14	27.2	ES	16	37.2	7	2.0	5	2.6	2	1.4					1343.3	130.0
HAMAMA	0	X	16	14	40	ES	16	36	7	4.6	8	5.2	3	4.0					1334.4	
TOYOOK	0	IP	16	14	41.2				7	14.2	14	14.2	6	17.2		W	U		1457.0	
SAIGO	0	IP	16	14	47.5	EL	19	10	4	16.0	5	16.0			N	0 E	1 D	1	1516.1	
OSAKA	0	EX	16	14	48.0				10	4.0	8	4.0	6	14.0					1474.6	
HACHIJ	0	EX	16	14	49.0	X	16	36.8	7	1.5	8	1.5							1366.9	
TAKAMA	0	EP	16	14	54.4	ES	17	51.5	4	17.3	8	16.5							1599.2	177.1
OKAYAM	0	EP	16	14	55.8	ES	17	50.8	1	14.0	7	14.5	4	15.0	N	1 E	2 D	2	1581.6	175.0
OMAEZA	0	X	16	14	59.2	X	17	07.8	20	12.6	19	13.4							1314.4	
KANAZA	0	EX	16	14					9	5.0	9	4.3	6	3.0					1259.1	
GIFU	0	X	16	14		L	18		7	15.0	6	16.1	5	15.0					1337.8	
MATSUY	0	EP	16	15	20.8	ES	18	04.3	11	15.5	7	15.5	4	17.3					1721.7	163.5
OITA-	0	EX	16	15	33.6						36	5.4							1846.4	
KUMAMO	0	EP	16	15	41.1	ES	19	00.8	5	1.8	7	6.1	5	1.7					1941.0	199.7
MIYAZA	0	EP	16	15	46.0	S	19	08.0	15	5.6	9	4.0	8	4.0					1960.7	202.0
KAGOSH	0	EX	16	15	52.6				4	2.4	6	3.0	4	3.6					2046.1	
YAKUSH	0	EP	16	16	03.6	ES	19	39.8	4	6.6	5	6.6	4	5.0					2139.3	216.2
WAKAYA	0	EX	16	17	46.5				5	14.0	6	16.5	6	16.5					1533.1	
SHIMON	0	EP	16	19	48				5	15.6			5	14.4					1841.7	

OT= 30 16 54 28.2 +/- 1.1 (JST)
E OFF HOKKAIDO
LAT= 43 6 +/- 3 LONG= 146 35 +/- 6
H= 40 MAG=5.4 CLASS=R

NEMURO	3	IP	16	54	43.1	S	54	51.7	300	0.6	600	1.5	300	0.8	N	11 E	86 D	140	84.9	08.6
KUSHIR	2	IP	16	54	56.0	ES	55	19	200	2.8	200	1.0	100	1.9	N	4 E	11 D	10	178.9	23.0
ABASHI	0	P	16	55	00.0	S	55	22.0	62	1.6	154	3.0	58	4.4					212.0	22.0
OBIHIR	1	EP	16	55	09	ES	55	41											274.8	32.0
HIROO	1	EP	16	55	10	IS	55	42.5											282.7	32.5
URAKAW	2	EP	16	55	17	S	55	55.5	200	2.2	300	2.4	143	3.0					329.1	38.5
ASAHIK	0	EP	16	55	19				35	1.6	33	2.6	30	3.4					348.9	
SAPPOR	0	P	16	55	28.4	S	56	11.0	76	2.0	86	2.0	24	1.2					427.7	42.6
MURORA	0	EP	16	55	32	ES	56	22											467.0	50.0
WAKKAN	0	IP	16	55	34.2	EX	56	22	22	5.4	27	4.2	22	6.1		E 0	D 1		468.2	

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A	T	E-W A	T	U-D A	T	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
HAKODA	0	P	16	55	38.3	S	56	28.4	65	1.8	43	1.0	26	3.0			D		500.0	50.1
HACHIN	0	IP	16	55	38.6	IS	56	29.4	15	3.5	15	2.0	6	2.7			U		508.3	50.8
SUTTSU	0	EX	16	55	40.2	ES	56	42.5											518.8	
MIYAKO	0	EP	16	55	42	ES	56	34.6	7	2.6	6	2.6	7	1.8					544.2	52.6
AOMORI	0	EP	16	55	47	ES	56	49	98	2.2	100	2.2	38	1.9					543.5	62.0
MORIOK	0	IP	16	55	49.0	IS	56	46.5	22	0.3	25	0.4	11	2.0	S	0 W	0 U	0	589.7	57.5
OFUNAT	0	EP	16	55	50.2	IS	56	49.4	12	1.2	11	1.8	8	1.4					606.7	59.2
ISHINO	0	EP	16	55	59.0	IS	57	06.0	11	1.8	9	2.8	7	2.0					684.1	67.0
SENDAI	0	EX	16	56	06	X	57	13.6	16	2.8	20	2.0	8	1.6					720.6	
AKITA	0	X	16	56	08.0	EX	57	07.4	22	3.4	22	4.6	16	2.2					659.1	
SAKATA	0	EX	16	56	09.6														734.1	
FUKUSH	0	EP	16	56	14.3	ES	57	31.0	19	1.0	12	1.1	3	0.7					787.4	76.7
AIKAWA	0	IP	16	56	28.5						8	16.0	6	14.0	S	W	U		903.3	
MITO	0	EP	16	56	29.4	X	57	56.0	15	3.6	16	3.6	8	3.0					911.2	
NIIGAT	0	EX	16	56	32.0	X	58	09.6	58	6.7	34	5.5	19	5.3					859.4	
KAKIOK	0	EP	16	56	34	X	58	00	9	1.0	8	1.0	4	0.7					938.6	
KUMAGA	0	EP	16	56	41.6	X	58	12.6	8	4.2	8	3.4	5	3.2					988.1	
MATSUS	0	IP	16	56	41.9	ES	58	27							S	W	U		1021.2	105.1
WAJIMA	0	EX	16	56	44														1038.6	
NAGANO	0	X	16	56	51.3	X	58	55.4	5	4.0	7	3.2	3	3.0					1011.9	
KOFU	0	EP	16	56	53.8	ES	58	35.2	5	2.0	5	1.8	2	1.0					1075.7	101.4
KANAZA	0	EX	16	56					5	1.8	5	2.9							1117.9	
NAGOYA	0	X	16	57	22.0	X	57	22.0	4	2.6	6	2.4	2	1.4					1209.6	
TOKYO	0	X	16	58	17				12	3.2	13	4.0							1010.8	
TATEYA	0	EX	16	58	27.2				12	3.5	10	3.3	5	2.2					1071.5	
OMAEZA	0	X	16	58	37.2				7	5.4	7	5.4							1189.2	
HAMAMA	0	X	17	00	52	X	02	45	5	3.0	5	5.0	2	3.0					1206.2	

OT= 30 17 28 1.2 +/- 1.5 (JST)
E OFF HOKKAIDO
LAT= 43 1 +/- 5 LONG= 148 15 +/- 8
H= 50 MAG=5.5 CLASS=R

NEMURO	1	IP	17	28	33.2	ES	28	55	160	4.2	164	3.8	89	3.6		W 1	U 2		219.4	21.8
KUSHIR	1	IP	17	28	45.9	ES	29	23	120	6.0	97	3.2	59	4.7		W 6	U 5		314.4	37.1
ABASHI	0	P	17	28	49.0	X	29	07.0	79	3.0	85	3.6	44	4.0	N	W 11	U 6		339.5	
						X	29	37.0												
OBIHIR	0	EP	17	29	00														410.4	
HIROO	0	P	17	29	00.7	ES	29	44											412.7	43.3
URAKAW	0	EP	17	29	07	X	30	06.1	87	5.0	134	4.0	69	5.0					459.0	
ASAHIK	0	EP	17	29	08				41	4.0	46	2.8	23	3.2					483.4	
RUMOI	0	EX	17	29	17														545.2	
SAPPOR	0	EP	17	29	18				44	4.4	42	4.2	34	5.0					563.8	
WAKKAN	0	EP	17	29	21				40	4.3	50	4.4	26	11.7					588.4	
HACHIN	0	EP	17	29	25.1	IS	30	27.1	9	4.6	10	4.4	5	4.6					623.7	62.0
HAKODA	0	P	17	29	26.9	ES	30	34	42	4.6	22	4.6	14	4.4			U	1	630.8	67.1
MIYAKO	0	EP	17	29	28	ES	30	29.8	7	2.3	5	2.1	2	1.6					645.3	61.8
AOMORI	0	EP	17	29	31								16	16.2					665.7	
MORIOK	0	EP	17	29	35.7	S	30	40.3	8	4.0	7	3.5	10	13.2		W 0	U 0		697.7	64.6
						EL	32	50												
OFUNAT	0	P	17	29	36.5	S	30	43.4	9	2.8	8	2.2	10	2.2			U	1	702.9	66.9
ISHINO	0	EP	17	29	45.4	X	30	56.8	16	2.8	12	3.2	7	11.8			U		777.0	
AKITA	0	EP	17	29	45.8				32	4.6	26	4.6	15	4.4					773.5	
SENDAI	0	EP	17	29	50.0	X	31	03.2	17	2.4	17	2.4	7	12					815.3	
FUKUSH	0	EP	17	30	02.4	ES	31	25.2	20	0.9	12	1.0	4	3.5					880.8	82.8
SAKATA	0	EX	17	30	04.9														842.2	
ONAHAM	0	EX	17	30	17.7	S	31	34.0	18	1.0	16	1.2	13	2.2					920.1	
MITO	0	EX	17	30	18.6	ES	31	49.4	15	4.0	16	3.4	9	3.0					993.2	
TOKYO	0	EX	17	30	22	ES	32	13	16	5.2	13	4.2							1093.5	
KUMAGA	0	EP	17	30	23.6	ES	32	09.0	8	7.6	12	4.6	6	5.4					1076.7	105.4
KAKIOK	0	X	17	30	26	ES	31	55	9	1.0	9	1.1	4	0.8					1021.8	
MATSUS	0	IP	17	30	28.2	X	32	15							S	W	U		1120.0	
NAGANO	0	EP	17	30	29.8	ES	32	32.8	5	4.8	7	3.5	3	2.5					1111.6	123.0
KOFU	0	EP	17	30	34.2	ES	32	28.4	6	1.8	7	1.8	3	3.0					1166.5	114.2
KAWAGU	0	P	17	30	34.6	X	32	23.6											1167.7	
TOYAMA	0	EP	17	30	35	ES	32	29	6	3.4	8	5.0	6	3.6					1174.6	114.0
TATEYA	0	EX	17	30	38.0				14	3.8	17	3.3	6	3.5					1148.7	
SHIZUO	0	X	17	30	50.0	ES	32	44.0	5	5.0	4	4.0	5	12.5					1233.0	
NAGOYA	0	EP	17	30	55.6	ES	33	07.2	5	2.6	3	2.2	2	2.0					1306.4	131.6
KANAZA	0	EX	17	30					5	4.0	6	3.0	6	3.0					1224.4	
MISHIM	0	EX	17	31	00				6	2.4	7	2.8							1190.4	
TOYOOK	0	P	17	31	05.8				5	14.3	14	14.3	4	16.5					1422.8	
HACHIJ	0	EX	17	31	17.0	X	33	02.2	6	1.0	6	1.2							1325.9	
MIYAZA	0	EP	17	32	12.0	S	35	34.0	5	5.0	6	4.0	4	3.4					1925.3	202.0
KAGOSH	0	EX	17	32	17.8				4	4.4	5	2.6	2	2.4					2011.1	
OSAKA	0	EX	17	32	24.6				8	3.4	6	3.4	5	2.2					1438.5	
OMAEZA	0	X	17	33	05.9				12	12.0	13	12.0							1275.7	

International Seismological Centre From the ISC collection scanned by SISMOS

OT= 31 11 50 58.4 +/- 3.3 (JST)
E OFF HOKKAIDO
LAT= 42 52 +/-10 LONG= 145 42 +/-18
H= 60 MAG=4.1 CLASS=S

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	0	IP	11 51 10.7	IS	51 19.5	60	0.6	36	0.6	19	0.6	N 3	W 2	U 4	52.1	08.8
KUSHIR	1	IP	11 51 15.5	IS	51 27.4	171	0.2	160	0.2	71	0.7	S 1	E 6	D 7	107.3	11.9
OBIHIR	0	X	11 51 34	X	52 02										202.6	
URAKAW	0	EP	11 51 37	S	52 04.6	8	3.0	9	3.2	3	1.4				252.6	27.6
ABASHI	0	EX	11 51 46			8	1.2	7	1.6	2	1.2				171.7	
MATSUS	0	X	11 52	S	54 44										951.3	

OT= 31 20 18 19.3 +/- 0.2 (JST)
W OF NAGANO PREF
LAT= 36 12 +/- 1 LONG= 137 43 +/- 1
H= 10 MAG=4.7 CLASS=S

MATSUM	2	IP	20 18 24.8	IS	18 28.4	500	1.4	200	1.2	100	1.9	S	E	U	23.6	03.6
TAKAYA	1	P	20 18 29.1	S	18 33.0										41.9	03.9
MATSUS	1	IP	20 18 30.1	IS	18 36.3							N	E	U	57.9	06.2
NAGANO	0	IP	20 18 32.4	S	18 43.4	97	2.0	133	2.9	45	3.0	N 4	E 2	U 18	66.8	11.0
				EX	18 38.2											
TOYAMA	0	IP	20 18 32.6	IS	18 42.4	73	2.0	130	2.4	58	3.0	S 3	W 3	D 13	72.4	09.8
KARUIZ	0	EP	20 18 33.5	IS	18 42.8	200	1.7	200	1.6	100	2.0				76.6	09.3
IIDA	1	IP	20 18 33.8	IS	18 43.2	93	1.4	80	1.4	53	1.2	S 4	E 1	U 9	77.3	09.4
KOFU	0	IP	20 18 36.6	ES	18 51.8	49	1.5	35	1.4	17	1.8	N 6	W 8	D 8	96.4	15.2
KANAZA	0	P	20 18 38.1	X	19 04.3	40	2.9	39	2.8	36	2.1			D 11	103.3	
TAKADA	0	IP	20 18 40.3	S	18 56.5							N 4	E 2	U 13	111.2	16.2
KAWAGU	1	IP	20 18 40.8	IS	18 57.1	0		0		0		N 15	W 13		122.5	16.3
GIFU	0	IP	20 18 41.8	S	18 57.8	48	2.3	42	1.7	17	0.9	S 9	W 10	U 3	123.7	16.0
NAGOYA	X	IP	20 18 42.7	IS	18 59.7	55	0.6	76	1.0	30	1.0	S 3	W 2	U 19	133.3	17.0
FUKUI	0	IP	20 18 44.7	S	19 04.8							S 3	E 16	D 2	135.1	20.1
WAJIMA	0	P	20 18 45.6	ES	19 06	63	1.0	75	1.0	14	1.2				150.9	20.4
SHIZUO	X	EP	20 18 46.1	IS	19 04.5	57	0.3	65	2.3	24	1.8				149.7	18.4
KUMAGA	0	P	20 18 47.0	S	19 04.4	53	1.0	31	4.4	18	3.4			D 2	150.2	17.4
TSURUG	0	IP	20 18 47.8	IS	19 09.2							S 4	W 6	U 4	161.0	21.4
MISHIM	0	IP	20 18 47.9	S	19 09.7	53	0.6	43	0.7	15	2.2	N		D 4	163.2	21.9
HAMAMA	0	IP	20 18 47.9	S	19 07.4	77	1.0	80	1.8	26	1.8			U 2	165.5	19.5
HIKONE	0	P	20 18 48.4	IX	18 48.9										168.1	
				X	19 09.2											
AJIRO	0	EP	20 18 50.3	ES	19 12.6	14	1.2	13	1.2	11	1.2				179.1	22.3
UTSUNO	0	EP	20 18 52	ES	19 16										197.1	24.0
AIKAWA	0	IP	20 18 52.2					8	0.6			S	E	D	207.3	
OMAEZA	0	EP	20 18 52.5	ES	19 15.0	120	2.6	113	3.4						182.8	22.5
TSU	0	IP	20 18 52.6	S	19 14.8	28	1.6	25	1.2	11	1.4	N 3	E 3	D 6	198.6	22.2
TOKYO	X	IP	20 18 53.5	S	19 20	50	3.0	50	3.0	20	1.8				192.8	26.5
KAKIOK	0	EP	20 18 55	IS	19 21	33	0.9	34	0.9	11	1.2				222.7	26.0
KYOTO	0	EP	20 18 56.0	S	19 26.0	19	1.5	14	1.7	13	2.0				222.7	30.0
NIIGAT	0	IP	20 18 56.1	S	19 23.8	57	1.7	65	1.9	23	5.2			U 3	223.8	27.7
MAIZUR	0	P	20 18 56.5	S	19 23.3										225.4	26.8
NARA	0	P	20 18 58.2	S	19 26.6	8	1.0	9	1.0						239.8	28.4
TATEYA	0	P	20 18 58.7			24	2.5	25	1.9	13	1.7			D 6	237.1	
MITO	0	X	20 18	X	18 28.5	25	3.8	13	1.6	10	2.6				248.2	
OWASE	0	EP	20 19 00.0	ES	19 36.0	6	2.2	4	1.8	3	1.4				274.2	36.0
OSAKA	0	EP	20 19 00	S	19 29.3	38	2.5	22	3.5	14	1.7				261.1	29.3
TOYOOK	0	P	20 19 02.6			35	0.6	25	0.6	6	0.9				271.7	
ONAHAM	0	EX	20 19 06.7	ES	19 39.3	11	2.2	20	1.2	7	2.0				297.2	
FUKUSH	0	EX	20 19 08.0			7	1.6	7	1.2	3	2.0				300.2	
WAKAYA	0	EP	20 19 11.2	S	19 55.0	11	1.0	7	0.8	5	2.7				319.0	43.8
KOBE	0	EX	20 19 11.6												284.8	
SENDAI	0	EX	20 19 18	ES	20 04.4	8	2.4	7	2.4	2					363.3	
SAKATA	0	X	20 19 21.5												353.6	
OKAYAM	0	X	20 19 24.0	ES	20 06.0	5	4.0	4	5.0	6	3.8	N 1			384.0	
TAKAMA	0	X	20 19 25.9	ES	20 11.9	7	1.4	6	1.2	2	1.3				392.9	
ISHINO	0	X	20 19 27.4	ES	20 15.6	5	2.4	4	3.2	2	2.6				402.5	
SHIONO	0	X	20 19	ES	19 47.6	6	1.1	6	1.8	4	1.9				353.6	
OITA	0	EX	20 20 01.0					18	5.2						647.6	
FUKUOK	0	X	20 21 37			5	2.6	1	2.5	1	2.0				730.5	

LIST 6 SEISMOLOGICAL DATA OBTAINED BY MATSUSHIRO

DATE		PHASE	TIME (JST) H M S		M S	INITIAL MOTION		DATE		PHASE	TIME (JST) H M S		M S	INITIAL MOTION
1	P	03 44 34.	ES	46 40.			*	7	IP	20 54 25.5				U
1	P	03 45 14.					*	7	P	23 08 23.				
1	P	03 58 58.					*							
1	IP	05 29 50.8					*	8	P	00 34 41.				
1	P	06 16 35.					*	8	P	02 21 17.				
1	EP	10 49 17.					*	8	EP	11 24 20.	ES	24 51.		
1	P	14 09 32.					*	8	IP	14 31 43.3	S	31 50.		S E U
1	EP	20 08 44.					*	8	P	15 39 55.	S	47 10.		
1	P	21 16 43.					*	8	IP	18 50 06.6				S D
1	P	22 25 39.					*	8	EPKP	20 28 11.				
							*	8	IP	21 53 26.0	S	53 41.		E D
2	P	00 14 08.					*	8	IP	21 58 04.0	S	58 38.		N E U
2	IP	00 27 27.7	S	28 45.		D	*	8	P	23 03 28.				
2	P	00 45 50.	S	46 14.			*							
2	P	02 06 47.					*	9	P	03 36 50.				
2	EP	03 28 32.					*	9	IP	05 52 03.6	S	58 10.		U
2	IP	04 48 22.3	S	48 55.		U	*	9	EP	10 21 20.				
2	IP	05 18 22.0	S	19 02.	S W	D	*	9	IP	14 27 49.8				D
2	IP	08 08 28.2			S	D	*	9	P	19 57 07.6	S	57 38.		
2	P	08 46 45.	S	49 18.			*	9	P	22 51 45.				
2	IP	09 37 21.7	S	39 52.	N E	D	*							
2	EP	09 55 00.					*	10	EP	01 38 03.				
2	EP	10 16 34.					*	10	EP	03 26 44.				
2	P	10 31 02.	S	31 24.			*	10	P	06 57 23.				
2	EP	11 43 08.					*	10	P	11 59 01.				
2	IP	13 38 33.7	S	44 50.			*	10	P	12 03 26.	ES	03 48.		
2	IP	13 52 57.6				U	*							
2	EP	15 07 12.					*	11	P	01 55 34.				
2	P	19 20 56.					*	11	P	01 55 34.				
2	P	19 28 57.	S	29 19.			*	11	P	02 52 05.				
							*	11	P	02 52 05.				
3	IP	02 44 49.4			E	U	*	11	P	06 11 51.				
3	IP	05 10 19.5	S	10 46.		D	*	11	P	06 11 51.				
3	EP	05 20 22.	S	26 20.			*	11	P	06 17 24.				
3	IP	09 30 24.0	S	36 30.		U	*	11	P	06 17 24.				
3	EP	09 32 14.					*	11	EP	06 38 17.				
3	P	10 01 00.					*	11	EP	06 38 17.				
3	EP	13 23 43.	ES	27 00.			*	11	EP	08 08 32.	ES	09 32.		
3	P	16 51 22.	ES	54 10.			*	11	EP	08 08 32.	ES	09 32.		
3	P	20 05 39.					*	11	IP	12 31 33.5	ES	31 55.		S E D
3	IP	20 27 54.0			S W	U	*	11	IP	12 55 50.6	S	55 59.		N E
							*	11	IP	13 25 13.3	S	25 35.		N E D
4	P	08 53 00.					*	11	P	22 03 00.	ES	04 12.		
4	EP	09 12 52.					*							
4	P	09 27 31.					*	12	IP	04 43 21.8				S W U
4	P	19 30 04.	ES	35 28.			*	12	EP	05 42 41.				
4	P	23 13 53.					*	12	IP	05 45 38.8				U
							*	12	P	05 58 06.	S	58 30.		
5	P	00 33 33.	S	33 53.			*	12	IP	06 01 15.5			S	U
5	IP	02 26 19.0	S	26 26.	N W		*	12	P	06 04 37.				
5	IP	02 26 39.5	IS	32 28.0	N E	U	*	12	IP	06 10 21.5				W U
5	P	07 10 00.					*	12	P	06 24 11.	ES	25 55.		
5	IP	09 55 32.6				D	*	12	IP	06 28 58.8			S	W U
5	IP	11 20 14.9	S	25 58.	N	U	*	12	P	06 29 52.	S	31 55.	S	W U
5	EP	11 50 48.					*	12	P	06 40 07.				
5	IP	12 27 57.0				U	*	12	EP	06 43 07.				
5	P	15 58 38.	ES	04 32.			*	12	EP	07 56 32.	ES	58 30.		
5	IP	18 27 25.2				U	*	12	EP	08 05 17.	ES	07 06.		
5	P	22 10 30.	S	16 08.			*	12	P	08 59 59.				
5	IP	22 53 16.0	S	54 14.	S	U	*	12	P	09 05 38.				
							*	12	P	09 54 29.				
6	P	01 40 28.	S	46 50.			*	12	IP	09 55 50.4				D
6	IP	02 54 28.9				U	*	12	P	10 05 19.				
6	P	03 20 01.	S	21 16.			*	12	P	10 14 58.	ES	16 46.		
6	IP	03 35 10.7	S	35 36.	S W	U	*	12	P	10 30 48.	S	32 38.		
6	IP	05 50 13.2			W	D	*	12	P	10 37 22.				
6	P	06 35 41.					*	12	P	10 44 54.	S	46 56.		
6	P	17 41 40.	S	42 33.			*	12	P	11 04 09.				
6	P	17 52 01.	S	52 53.			*	12	P	11 09 04.	ES	10 47.		
6	IP	19 22 14.4			N E	D	*	12	P	11 21 55.				
6	P	20 34 02.	S	34 43.			*	12	IP	11 28 50.0				S W U
6	P	22 02 43.	S	03 16.			*	12	P	11 33 42.				
							*	12	IP	11 35 41.0				D
7	EP	01 01 19.					*	12	IP	11 36 59.5	S	38 42.		
7	IP	01 59 17.9				U	*	12	P	11 39 25.	S	41 10.		
7	P	10 57 31.	S	03 46.			*	12	P	11 47 10.				
7	P	13 32 20.					*	12	IP	11 55 18.5				U
7	P	14 37 37.					*	12	EP	12 01 53.				
7	IP	15 50 52.8	ES	54 50.	S W	U	*	12	P	12 08 00.				
7	P	18 43 20.					*	12	P	12 11 39.	ES	13 12.		

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DATE		PHASE AND TIME (JST) H M S			M S	INITIAL MOTION	
12	P	12 32 51.					*
12	P	12 35 56.	ES		37 38.		*
12	EP	12 51 39.					*
12	EP	12 58 19.					*
12	IP	13 00 50.2	S		02 40.	D	*
12	P	13 15 07.	S		16 58.		*
12	IP	13 29 14.5				S U	*
12	P	13 31 35.					*
12	P	13 50 45.	S		52 29.	U	*
12	P	13 55 56.5	ES		57 53.	N E D	*
12	IP	14 05 53.3	S		07 42.	S W U	*
12	P	14 11 15.					*
12	P	14 49 35.					*
12	P	14 55 56.	ES		57 40.		*
12	P	15 02 37.					*
12	P	15 33 06.					*
12	IP	15 41 09.0	S		42 57.	S W	*
12	IP	15 45 15.3				N D	*
12	P	15 51 43.	S		53 25.		*
12	IP	16 06 08.0	S		07 55.	N U	*
12	IP	16 13 10.3	S		15 06.	N E D	*
12	IP	16 31 15.0				S U	*
12	P	16 40 40.	ES		42 25.		*
12	P	16 56 59.					*
12	P	17 04 26.					*
12	EP	17 05 29.					*
12	P	17 07 31.					*
12	IP	17 44 23.0	S		46 19.	S U	*
12	EP	18 18 12.					*
12	P	18 19 52.					*
12	P	18 23 28.	ES		25 13.		*
12	P	18 27 58.	S		29 57.	S W D	*
12	IP	18 36 04.6	S		37 48.	N D	*
12	P	18 54 04.	ES		55 58.		*
12	P	18 56 54.					*
12	IP	19 14 46.5				U	*
12	P	19 25 01.	ES		26 46.		*
12	P	19 42 11.	ES		44 00.		*
12	EP	19 50 06.					*
12	P	20 13 36.					*
12	IP	20 23 55.0	S		25 55.	S W U	*
12	IP	20 34 47.0	S		36 45.	S W U	*
12	P	20 40 36.					*
12	P	20 51 04.					*
12	P	20 54 37.					*
12	P	20 56 29.					*
12	IP	20 59 24.3	S		01 16.	S U	*
12	P	21 05 30.	S		07 17.		*
12	P	21 09 23.					*
12	IP	21 28 20.7				S W U	*
12	EP	21 34 02.	S		35 51.		*
12	IP	21 46 59.5	S		48 41.	S W U	*
12	IP	22 02 38.5				D	*
12	P	22 04 44.					*
12	P	22 14 52.					*
12	P	22 19 06.					*
12	IP	22 20 35.6	S		22 28.	S W U	*
12	P	22 25 49.					*
12	P	22 27 32.					*
12	IP	22 47 02.9	S		48 50.	U	*
12	IP	22 57 12.7				D	*
12	P	23 12 11.					*
12	P	23 22 19.					*
12	EP	23 30 08.					*
12	P	23 35 34.					*
12	IP	23 41 05.0				S U	*
13	P	00 03 03.					*
13	P	00 14 44.	S		16 21.		*
13	P	00 28 16.					*
13	P	00 30 35.	S		32 34.		*
13	IP	00 52 30.2	S		54 26.	S W U	*
13	P	01 46 06.	S		47 58.		*
13	IP	02 03 00.5				U	*
13	IP	02 07 23.7	ES		08 17.	D	*
13	IP	02 11 06.6	S		12 53.	N D	*
13	IP	02 37 28.0	ES		39 17.	S W U	*
13	IP	02 47 15.0	S		47 30.	S E D	*
13	EP	02 52 37.	S		52 53.		*
13	IP	02 55 48.6	S		56 04.	S E D	*

DATE		PHASE AND TIME (JST) H M S			M S	INITIAL MOTION	
13	IP	03 20 45.6	S		21 01.	S E D	*
13	P	03 24 45.					*
13	P	03 35 53.					*
13	IP	03 45 14.6	IS		45 29.6	U	*
13	P	03 52 07.					*
13	IP	03 58 09.5	IS		58 24.8	E D	*
13	P	04 22 52.					*
13	IP	04 58 50.5				S U	*
13	P	05 21 03.					*
13	IP	06 18 23.3	S		20 06.	S W U	*
13	P	06 58 53.	ES		00 40.		*
13	P	07 27 02.					*
13	IP	08 08 21.2	S		10 15.	N D	*
13	P	08 18 14.	S		20 04.		*
13	P	08 43 00.					*
13	P	08 51 48.	ES		53 43.		*
13	P	08 55 04.	S		56 46.		*
13	P	09 20 48.	ES		22 33.		*
13	IP	10 39 50.4	ES		41 41.	S D	*
13	P	11 00 14.	S		02 06.		*
13	IP	11 09 41.5	ES		11 38.	U	*
13	IP	11 30 40.7				D	*
13	EP	11 34 16.					*
13	IP	12 03 42.0	IS		03 57.5	S E D	*
13	P	12 15 39.					*
13	IP	12 31 35.7	ES		33 25.	N E D	*
13	IP	12 49 49.4	S		51 48.	S W U	*
13	IP	12 53 11.6				U	*
13	P	13 15 03.					*
13	IP	13 30 45.8	ES		32 47.	U	*
13	EP	14 27 54.	ES		29 38.		*
13	P	14 57 22.	S		59 12.		*
13	P	15 07 36.	ES		09 30.		*
13	P	15 12 51.	ES		14 40.		*
13	P	15 39 03.					*
13	IP	16 24 19.6				D	*
13	P	16 26 20.					*
13	IP	17 34 01.0	S		35 57.	U	*
13	P	18 23 09.					*
13	P	18 30 31.					*
13	IP	21 15 32.5	S		17 21.	S	*
13	P	21 29 30.					*
13	P	21 33 11.	S		35 09.		*
13	EP	22 39 35.					*
13	IP	23 31 21.7	S		33 20.	S W U	*
14	P	00 47 48.	ES		49 43.		*
14	P	01 44 01.	IS		44 25.8		*
14	P	02 06 14.					*
14	P	02 09 23.					*
14	P	02 18 34.					*
14	P	03 11 36.	S		13 37.		*
14	P	03 50 28.	S		52 23.		*
14	P	04 36 05.	ES		37 55.		*
14	P	05 11 45.					*
14	IP	06 15 23.0	ES		17 30.	S U	*
14	P	07 21 33.					*
14	P	07 44 45.					*
14	IP	07 59 40.4	S		01 48.	S W U	*
14	IP	08 15 32.5				S W U	*
14	IP	09 14 48.2				N W D	*
14	P	09 20 16.	S		22 51.		*
14	IP	09 36 34.3				U	*
14	EP	10 49 56.	ES		51 52.		*
14	P	11 31 46.					*
14	IP	12 09 49.8	ES		11 33.	D	*
14	EP	12 40 16.					*
14	P	13 50 15.	S		52 04.		*
14	P	14 12 13.					*
14	P	14 44 00.	ES		45 56.		*
14	EP	15 09 15.					*
14	P	18 02 10.	ES		04 07.		*
14	P	20 06 06.	S		12 40.		*
14	P	20 53 32.	ES		55 19.		*
14	EP	21 18 00.	S		20 42.		*
14	IP	21 40 44.5	S		41 11.	S E D	*
14	P	22 33 58.					*
14	IP	23 21 20.8	S		23 21.	N E D	*
14	P	23 40 41.					*
14	EP	23 58 37.					*

DATE		PHASE AND TIME (JST) H M S			M S	INITIAL MOTION	
15	P	00 13 45.					*
15	P	00 16 10.	S		17 59.		*
15	P	00 21 51.					*
15	P	00 30 04.	S		31 51.		*
15	IP	00 40 39.0				U	*
15	P	00 45 34.					*
15	EP	00 46 27.	ES		48 16.		*
15	P	01 21 31.					*
15	P	01 25 07.					*
15	IP	01 30 11.8	ES		32 08.	D	*
15	IP	01 49 30.6	S		50 13.	S W U	*
15	P	02 01 02.	S		02 49.		*
15	IP	02 08 11.6	S		09 59.	N E D	*
15	P	02 15 12.					*
15	P	02 53 39.	S		55 26.		*
15	P	03 23 57.	S		25 43.		*
15	IP	03 41 53.2				D	*
15	P	03 49 02.					*
15	P	03 54 13.	ES		56 03.		*
15	P	04 52 59.	S		53 22.		*
15	IP	05 18 01.8	S		19 49.	N E D	*
15	P	06 13 25.	ES		15 20.		*
15	P	06 15 27.					*
15	EP	06 57 59.					*
15	P	07 14 57.	ES		16 56.		*
15	P	07 59 41.	ES		01 22.		*
15	P	08 53 30.	S		57 42.		*
15	IP	09 38 00.6	IS		38 17.4	N S U	*
15	P	09 40 34.	S		42 19.		*
15	P	09 55 16.					*
15	P	10 03 55.	S		05 06.		*
15	IP	10 09 35.8	ES		11 23.	U	*
15	P	11 59 31.	ES		00 05.		*
15	P	12 45 29.	S		51 32.		*
15	P	13 21 57.	ES		23 55.		*
15	IP	13 34 22.9	S		36 12.	S W U	*
15	EP	13 40 30.	ES		42 15.		*
15	EP	13 42 52.	S		44 34.		*
15	P	14 24 19.					*
15	IP	15 19 21.8	S		19 48.	S E D	*
15	IP	15 20 59.0				N D	*
15	P	16 24 20.	S		26 17.		*
15	IP	17 45 16.0	S		48 00.		*
15	P	18 18 42.	ES		20 22.		*
15	IP	18 48 22.1	S		48 40.		*
15	P	19 04 41.	S		06 30.		*
15	P	19 13 47.	S		15 35.		*
15	P	19 36 22.	ES		38 17.		*
15	P	19 57 20.					*
15	P	20 32 16.	S		34 06.		*
15	EP	20 49 33.					*
15	P	21 44 00.					*
15	P	21 45 44.	ES		47 47.		*
15	P	23 12 16.	S		14 04.		*
16	P	00 25 00.	S		25 51.		*
16	P	01 26 43.	S		27 27.		*
16	P	01 58 41.	S		00 36.		*
16	P	02 03 08.	S		04 22.		*
16	P	02 56 41.					*
16	P	04 10 34.					*
16	IP	04 14 39.0				D	*
16	P	05 08 39.	S		10 28.		*
16	P	05 17 31.	S		17 50.		*
16	IP	05 50 04.3	S		51 45.	D	*
16	EP	05 55 44.					*
16	IP	07 46 04.6	S		47 48.	N D	*
16	P	07 59 34.					*
16	EP	08 15 40.					*
16	P	08 38 13.	ES		40 03.		*
16	IP	10 18 47.0	ES		22 40.	S E D	*
16	EP	10 22 29.					*
16	P	10 29 35.					*
16	P	11 45 32.					*
16	EP	12 17 00.					*
16	IP	12 30 24.7	ES		32 13.		*
16	IP	12 40 02.8	S		40 21.	S E D	*
16	IP	14 35 42.7	IS		35 58.0	E D	*
16	P	15 17 57.					*
16	EP	15 27 43.					*

DATE		PHASE AND TIME (JST) H M S			M S	INITIAL MOTION	
16	P	17 41 37.					*
16	IP	17 50 07.5	ES		51 55.	N E D	*
16	P	18 05 45.				S W U	*
16	IP	19 05 16.2	ES		07 16.		*
16	P	20 51 18.					*
16	P	21 11 16.					*
16	P	21 44 43.					*
16	P	21 46 38.	ES		48 37.		*
16	P	22 14 58.	ES		16 46.		*
17	P	00 13 37.					*
17	IP	00 17 48.8	S		19 36.	N E D	*
17	IP	01 11 44.6	S		11 56.	S E D	*
17	IP	02 16 01.0	S		17 50.	N E D	*
17	IP	03 34 19.2	IS		34 41.3	W U	*
17	P	03 47 41.					*
17	P	03 51 56.	S		52 12.		*
17	P	03 53 20.					*
17	EP	03 54 49.					*
17	P	05 27 12.					*
17	IP	06 05 35.2	S		05 55.	W U	*
17	EP	06 36 42.	ES		38 25.		*
17	P	07 23 14.					*
17	EP	08 27 47.	ES		29 46.		*
17	EP	10 40 26.					*
17	EP	10 43 37.	S		44 21.		*
17	P	14 54 38.	ES		56 21.		*
17	EP	16 40 08.					*
17	IP	17 05 45.9	S		06 12.	S E D	*
17	P	17 33 02.					*
17	P	17 42 49.					*
17	P	17 52 14.					*
17	P	19 09 42.	S		09 58.		*
17	P	19 18 50.					*
17	P	19 58 07.	S		58 23.		*
17	P	20 39 06.	S		40 56.		*
17	IP	20 56 30.9	S		57 45.	S W U	*
17	EP	21 06 31.					*
17	IP	21 38 40.6				U	*
17	IP	23 08 08.3				U	*
17	P	23 32 49.	S		33 15.		*
17	P	23 51 23.					*
18	IP	00 09 55.2				U	*
18	P	02 45 51.					*
18	IP	03 11 28.5				U	*
18	EP	05 26 13.					*
18	P	05 28 06.	S		37 10.		*
18	P	05 40 30.					*
18	P	05 51 41.					*
18	IP	09 11 07.7				S U	*
18	P	10 24 32.	S		33 07.		*
18	P	11 24 35.					*
18	P	12 35 02.					*
18	P	12 50 31.	S		50 41.		*
18	EP	13 08 03.					*
18	P	14 26 37.2	S		27 16.		*
18	P	14 39 06.					*
18	IP	15 34 56.8	S		35 34.	D	*
18	P	15 53 47.	S		55 43.		*
18	IP	16 47 20.4	S		47 53.	U	*
18	EP	18 29 47.					*
18	IP	19 14 09.2	IS		14 26.1	N U	*
18	P	19 52 05.	ES		53 57.		*
18	IP	20 46 00.9	S		47 58.	S W U	*
18	P	21 07 31.	ES		09 36.		*
18	P	22 49 43.	ES		51 37.		*
18	P	23 21 36.					*
19	P	00 07 53.					*
19	P	00 18 07.	S		18 37.		*
19	P	01 32 04.					*
19	P	03 31 55.					*
19	P	03 45 18.	ES		47 05.		*
19	P	05 39 24.					*
19	IP	06 31 29.4	ES		33 32.	N D	*
19	IP	07 08 19.5				U	*
19	EP	08 25 00.	S		25 41.		*
19	IP	08 29 58.8	ES		31 43.	N E D	*
19	IP	10 15 42.5				D	*

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DATE		PHASE AND TIME (JST) H M S		M S	INITIAL MOTION	
19	P	11 12 12.	S	12 37.		*
19	EP	11 21 35.				*
19	P	11 25 54.				*
19	IP	12 46 47.6	IS	46 54.8	E U	*
19	IP	12 54 58.7	ES	55 06.	N E	*
19	EP	12 59 17.				*
19	IP	13 01 40.4	IS	02 00.3	N E D	*
19	P	16 06 10.	ES	06 43.		*
19	P	16 13 08.	ES	14 46.		*
19	IP	17 04 18.8			S E D	*
19	IP	17 16 48.8	S	17 25.	S W U	*
19	P	17 35 39.				*
19	IP	17 52 20.5	S	54 14.	U	*
19	P	18 07 55.	ES	09 49.		*
19	IP	18 32 40.0	S	34 34.	N D	*
19	P	19 21 15.				*
19	IP	21 09 33.0	ES	11 33.	U	*
19	IP	21 16 59.3	S	17 45.	D	*
20	P	00 02 40.				*
20	IP	00 19 27.3	S	19 58.	S E D	*
20	EP	00 59 45.				*
20	IP	04 03 11.0	S	03 26.	N D	*
20	P	06 08 14.				*
20	P	08 38 48.	S	40 35.		*
20	P	10 30 23.				*
20	EP	11 33 54.	ES	34 31.		*
20	P	14 36 42.	ES	38 33.		*
20	IP	14 58 36.5	IS	58 51.8	E U	*
20	P	15 41 47.				*
20	P	16 46 59.	S	47 23.		*
20	IP	16 53 48.8	S	56 54.	U	*
20	P	17 18 40.				*
20	P	17 26 18.	S	26 51.		*
20	P	17 38 02.				*
20	P	19 06 26.				*
20	IP	19 14 25.4	S	16 18.		*
20	P	19 25 38.	S	25 55.		*
20	IP	20 23 34.6	ES	23 56.	N E D	*
20	P	20 26 28.	ES	28 43.		*
20	IP	21 54 29.0	ES	54 59.	U	*
20	IP	23 22 21.0	ES	23 20.	N E D	*
21	IP	00 08 55.2	ES	09 48.	N D	*
21	IP	00 48 44.6	S	49 00.	D	*
21	IP	01 12 39.6				*
21	IP	01 35 09.4	S	36 14.	U	*
21	IP	01 57 35.7	S	58 27.	U	*
21	P	02 30 09.	S	36 12.		*
21	P	03 11 47.				*
21	IP	03 21 16.0	S	21 44.	E D	*
21	P	04 25 05.				*
21	P	07 13 04.				*
21	P	07 50 39.				*
21	IP	08 55 08.1			U	*
21	P	09 30 59.	ES	32 47.		*
21	P	09 31 00.				*
21	IP	11 46 17.0	ES	48 00.	S W U	*
21	P	12 34 25.				*
21	P	13 49 42.	ES	51 28.		*
21	IP	14 12 48.6	ES	14 34.	E D	*
21	IP	16 53 52.6			S W U	*
21	EP	18 38 49.				*
21	EP	18 44 30.	ES	45 02.		*
21	IP	19 07 52.8			N E D	*
21	EP	19 23 30.				*
21	IP	22 22 31.1	S	28 40.	E D	*
21	EP	22 26 27.	S	28 20.		*
21	P	22 42 11.4	S	42 42.	N E D	*
21	IP	22 52 39.0			N E D	*
21	P	23 39 01.				*
22	IP	00 18 41.4			N E D	*
22	IP	00 49 54.1	ES	51 36.	N E D	*
22	IP	02 15 55.2	S	17 02.	S W U	*
22	P	02 23 08.	IS	24 52.5		*
22	IP	02 41 17.6			U	*
22	IP	03 00 38.6	ES	01 04.	U	*
22	P	04 32 45.				*
22	IP	05 19 22.0	S	19 59.	D	*
22	P	05 34 24.	ES	40 04.		*
22	P	07 21 00.3	ES	22 05.	N D	*
22	EP	10 30 33.				*
22	P	13 42 47.	ES	44 38.		*
22	IP	14 32 38.2	ES	34 36.	U	*
22	IP	14 36 47.0	IS	37 03.8	N D	*
22	IP	16 14 46.6	S	16 44.	N D	*
22	EP	17 42 05.	ES	42 34.		*
22	EP	19 17 47.				*
22	IP	22 05 48.7			N E D	*
23	IP	00 09 37.2			S W U	*
23	P	00 53 28.	ES	00 28.		*
23	IP	05 00 36.4	S	01 18.	N U	*
23	IP	06 32 12.5	S	33 20.	N E U	*
23	IP	06 57 28.5			U	*
23	P	07 30 24.				*
23	P	08 32 04.	ES	33 47.		*
23	IP	10 53 34.8			S W U	*
23	P	11 04 22.				*
23	P	11 17 13.				*
23	P	11 44 58.				*
23	IP	11 46 07.2			N E D	*
23	IP	11 55 44.4	ES	56 38.	S W U	*
23	P	12 03 41.				*
23	IP	12 50 54.6			S W U	*
23	IP	12 58 55.1			S W U	*
23	IP	13 00 38.0			S W U	*
23	IP	13 06 21.3			D	*
23	IP	14 08 28.7			S W U	*
23	IP	15 40 49.8	S	42 30.	N E D	*
23	P	15 50 17.	ES	52 11.		*
23	IP	16 00 46.5			E D	*
23	IP	16 11 09.6			S W U	*
23	P	16 22 43.				*
23	P	17 02 53.				*
23	IP	17 37 47.6	ES	38 54.	N E D	*
23	IP	17 58 15.4	ES	59 28.	N D	*
23	P	18 10 46.				*
23	IP	18 26 48.0			S W U	*
23	P	19 09 47.	S	10 07.		*
23	P	19 26 21.				*
23	IP	19 26 56.3	ES	28 04.	N E D	*
23	IP	22 18 00.8			N E D	*
23	IP	22 30 01.4			U	*
23	P	23 55 22.	ES	57 12.	D	*
24	IP	02 51 28.4				*
24	IP	04 58 11.5	S	59 22.	N E D	*
24	EP	05 20 52.				*
24	EP	06 21 00.				*
24	P	09 11 06.				*
24	IP	11 43 49.7			N E D	*
24	IP	12 36 12.4	ES	37 59.	U	*
24	IP	13 51 36.7			S W U	*
24	IP	14 02 50.4			W U	*
24	IP	14 49 25.0			S W U	*
24	IP	17 40 29.5			S W U	*
24	EP	18 50 17.				*
24	P	18 57 26.				*
24	IP	19 51 42.5	S	52 49.	N E D	*
24	IP	20 12 42.5			W U	*
24	P	21 32 20.				*
24	IP	21 47 39.1	ES	54 48.	N E U	*
24	P	22 10 51.				*
24	IP	22 27 23.6	ES	27 44.	W U	*
24	P	23 10 57.	ES	12 46.		*
25	EP	00 09 09.				*
25	EP	00 31 40.	S	32 19.		*
25	IP	03 27 29.2			N E D	*
25	IP	05 20 20.2	S	20 43.	S E U	*
25	IP	07 04 30.0	ES	05 37.	N E D	*
25	P	07 37 41.				*
25	P	08 02 54.			N E D	*
25	EP	08 05 21.	S	06 19.	D	*
25	IP	08 34 51.5				*
25	IP	08 44 04.4			S W U	*
25	IP	09 35 53.1	S	36 12.	N E D	*
25	IP	10 07 46.0	S	08 52.	S W U	*

DATE		PHASE AND TIME (JST) H M S		M S	INITIAL MOTION	
25	IP	11 30 53.5			N U	*
25	EP	13 05 30.	ES	05 58.		*
25	P	15 57 00.				*
25	IP	17 58 51.6			D	*
25	P	19 00 39.	ES	01 40.		*
25	IP	20 46 51.4	S	48 59.	S W U	*
25	IP	20 50 42.1			N D	*
25	EP	22 47 08.	S	48 06.		*
25	IP	23 06 23.3	ES	08 06.	S W U	*
26	P	00 20 12.				*
26	P	00 29 05.				*
26	EP	01 17 38.				*
26	P	01 26 50.				*
26	P	01 30 52.	IS	30 58.3		*
26	P	01 55 05.				*
26	IP	02 14 33.8			S W U	*
26	P	03 09 58.				*
26	IP	03 24 55.5			S W U	*
26	IP	05 25 08.6	ES	26 15.	N E D	*
26	P	05 42 38.				*
26	P	05 42 52.	S	44 05.		*
26	P	06 28 18.6			N E D	*
26	P	06 32 16.				*
26	P	06 39 20.	ES	45 18.		*
26	IP	08 13 06.2			U	*
26	IP	10 03 36.9			D	*
26	IP	11 28 04.3			U	*
26	IP	12 16 36.6			S W U	*
26	P	12 23 19.				*
26	IP	15 27 22.9	IS	27 41.4	W U	*
26	P	18 37 45.				*
26	P	18 51 04.	S	51 53.		*
27	P	00 14 07.				*
27	P	01 24 56.	S	25 15.		*
27	P	02 06 03.	ES	11 38.		*
27	EP	02 11 37.				*
27	P	04 21 08.	ES	27 34.		*
27	IP	05 37 15.4	S	37 35.	S D	*
27	P	05 45 28.	ES	47 22.		*
27	IP	08 40 33.5	S	41 40.	S W U	*
27	P	09 12 37.	ES	14 27.		*
27	P	10 12 47.	S	14 37.		*
27	P	10 19 32.				*
27	IP	10 30 53.6	ES	32 42.	U	*
27	IP	11 32 12.4				*
27	EP	11 33 38.				*
27	IP	11 39 38.5			S W U	*
27	IP	12 28 33.5	ES	30 23.	S U	*
27	IP	12 34 55.3	S	36 49.	U	*
27	P	12 46 14.				*
27	P	13 43 51.				*
27	EP	14 33 30.	S	34 02.		*
27	P	17 55 02.				*
27	P	18 43 59.				*
27	IP	19 48 03.0	S	49 52.	U	*
27	EP	22 32 02.	ES	39 04.		*
28	IP	01 08 16.4	ES	09 23.	U	*
28	P	01 15 16.				*
28	P	01 29 20.	ES	30 27.		*
28	P	03 07 50.				*
28	IP	04 17 48.1	ES	18 54.	U	*
28	IP	04 25 20.3	S	26 59.	N U	*
28	EX	04 32 35.				*
28	P	04 51 47.1	S	52 24.		*
28	P	06 05 17.				*
28	P	07 45 08.				*
28	P	13 07 11.				*
28	P	13 07 30.				*
28	P	13 15 10.				*
28	P	13 46 56.	ES	48 56.		*
28	P	16 25 19.	S	25 47.		*
28	P	20 45 56.	ES	46 34.		*
28	EP	22 56 58.				*
28	P	23 06 15.	S	16 20.		*
28	IP	23 56 05.5	ES	57 59.	S W U	*
29	P	00 18 23.				*
29	P	00 47 11.				*
29	IP	01 09 27.8			E D	*
29	P	01 18 10.	ES	19 58.		*
29	EP	01 43 50.				*
29	P	02 02 02.				*
29	P	06 37 42.	S	39 33.		*
29	P	07 11 09.	ES	12 58.		*
29	P	08 12 41.	S	15 12.		*
29	IP	10 04 23.0	ES	06 11.	S U	*
29	P	12 11 27.	S	13 17.		*
29	EP	12 36 18.				*
29	P	13 23 14.	S	23 54.		*
29	IP	16 33 56.7			U	*
29	P	19 09 53.				*
29	P	19 15 06.				*
29	EP	20 07 35.				*
29	P	20 41 23.	S	41 55.		*
29	IP	21 22 57.8			U	*
30	P	11 12 42.	S	13 27.		*
30	P	12 51 24.	ES	52 10.		*
30	IP	14 51 46.1			U	*
30	P	15 54 57.				*
30	IP	16 14 02.4	S	15 51.	D	*
30	P	16 24 34.	ES	26 18.		*
30	P	16 30 29.	S	32 28.		*
30	P	16 44 08.	S	46 00.		*
30	IP	16 56 41.9	ES	58 27.	S W U	*
30	IP	17 30 28.2	S	32 15.	S W U	*
30	P	17 39 43.	ES	40 34.		*
30	IP	17 50 28.6	ES	52 20.	D	*
30	IP	18 21 22.7	S	21 54.		*
30	P	19 04 23.	X	04 34.		*
30	P	19 14 03.	S	15 58.		*
30	EP	20 28 34.				*
30	P	20 38 35.	ES	40 33.		*
30	IP	21 59 43.0	ES	05 58.	S E D	*
31	P	03 25 20.				*
31	P	03 43 17.	ES	45 09.		*
31	IP	04 42 29.3	ES	44 01.	S D	*
31	P	10 02 40.				*
31	P	11 52 59.	S	54 44.		*
31	P	12 17 38.				*
31	IP	13 14 57.1			U	*
31	P	13 45 54.				*
31	P	15 23 50.	S	24 07.		*
31	IP	20 02 56.3			N U	*
31	P	20 11 43.	S	12 19.		*
31	IP	20 18 30.1	IS	18 36.3	N E U	*
31	IP	20 23 33.0	IS	23 40.0	N U	*
31	IX	20 23 45.8				*
31	IS	20 23 57.4				*
31	IP	20 25 01.4	IS	25 08.4	N	*
31	P	20 25 09.6	S	25 16.5		*
31	IP	20 29 03.6	IS	29 10.5	N	*
31	IS	20 29 20.6				*
31	IP	20 29 34.1	IS	29 41.0	N	*
31	IS	20 29 45.9				*
31	IP	20 32 06.8	IS	32 13.6	N U	*
31	IP	20 45 10.5	IS	45 17.4	N U	*
31	P	20 45 28.4	S	45 35.5		*
31	IP	21 01 30.7	IS	01 37.6	N E U	*
31	IP	21 33 38.8	IS	33 45.4	E	*
31	IP	22 00 55.6	IS	01 02.5	N E U	*
31	IP	22 29 49.0	IS	29 56.0	N E	*
31	EP	22 30 17.	S	30 25.		*
31	IP	22 33 45.9	S	33 52.8	E U	*
31	IP	22 42 23.5	IS	42 30.5	N E U	*
31	IP	23 11 22.9	IS	11 29.7	N E U	*

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25 MAY

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昭和44年9月

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SEPTEMBER 1969

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Tokyo

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List 1 JMA stations and their seismographs

Station	Code	CGS Code	λ	φ	Height	Seismographs
					m	
Abashiri	ABASHI	ABJ	E144°17.0′	N44°01.0′	38	S, VI, OP
Aikawa	AIKAWA	AIK	138 14.5	38 01.2	34	S, VI, OP
Ajiro	AJIRO	AJI	139 05.8	35 02.6	59	S, VI, EMT′
Akita	AKITA	AKI	140 06.1	39 43.1	9	S, VI, OP
Anabuki (Tsurugisan)	ANABUK (TURUGI)	TSS	134 05.8	33 51.1	59	S, P
Aomori	AOMORI	AOM	140 47.0	40 49.0	4	S, W
Asahikawa	ASAHIK	ASA	142 22.4	43 46.2	111	S, VI, OP
Ashizuri	ASHIZU	ASZ	133 01.0	32 43.0	30	S, VI
Asosan	ASOSAN	ASJ	131 04.5	32 52.7	1143	S
Chichibu	CHICHI	CHJ	139 04.9	35 59.5	218	S, P
Choshi	CHOSHI	CHO	140 50.6	35 43.5	27	S, EMT′
Fukue	FUKUE	FKJ	128 50.0	32 42.0	26	S, VI
Fukui	FUKUI	FUK	136 13.6	36 03.2	9	S, P(H, V)
Fukuoka	FUKUOK	FKK	130 22.8	33 34.8	2	S, VI, M(H)
Fukushima	FUKUSH	FKS	140 28.5	37 45.4	67	S, VI, OP
Gifu	GIFU	GIF	136 45.9	35 23.9	13	S, W
Hachijojima	HACHIJ	HJJ	139 47.3	33 06.1	80	S, VI
Hachinohe	HACHIN	HAC	141 31.6	40 31.5	27	S, VI, OP
Hakodate	HAKODA	HAK	140 45.5	41 48.8	35	S, VI, OP
Hamada	HAMADA	HMD	132 04.4	34 53.6	18	S, VI, OP
Hamamatsu	HAMAMA	HMM	137 43.4	34 42.5	32	S, VI, OP
Hikone	HIKONE	HIK	136 14.8	35 16.4	87	S, EMT
Himeji	HIMEJI	HIM	134 42.1	34 50.2	37	S, P(H, V)
Hiroo	HIROO	HOO	143 19.0	42 17.0	32	S, P(H, V)
Hiroshima	HIROSH	HIR	132 26.2	34 21.8	29	S, W
Iida	IIDA	IID	137 50.1	35 30.6	482	S, VI, OP
Irozaki (Nagatsuro)	IROZAK (NAGATS)	NGT	138 50.8	34 36.0	55	S
Ishinomaki	ISHINO	ISN	141 18.2	38 25.5	43	S, VI, OP
Izuhara	IZUHAR	IZU	129 17.7	34 12.2	21	S, P(H, V)
Kagoshima	KAGOSH	KAG	130 33.2	31 34.4	4	S, VI
Kakioka	KAKIOK	KAK	140 11.6	36 13.9	27	S, W
Kanazawa	KANAZA	KAN	136 38.9	36 32.8	27	S, VI, OP
Karuizawa	KARUIZ	KRZ	138 33.1	36 20.4	999	S, P(H, V)
Kawaguchiko (Funatsu)	KAWAGU (FUNATU)	FUN	138 45.8	35 29.9	860	S, P
Kobe	KOBE	KOB	135 10.8	34 41.3	58	S, P(H, V)
Kochi	KOCHI	KOC	133 32.0	33 33.0	40	S, P(H, V)
Kofu	KOFU	KOF	138 33.5	35 39.9	272	S, VI
Kumagaya	KUMAGA	KMG	139 23.1	36 08.8	30	S, VI, EMT
Kumamoto	KUMAMO	KUM	130 42.6	32 48.6	38	S, W
Kushiro	KUSHIR	KUS	144 23.7	42 58.7	33	S, VI
Kyoto	KYOTO	KYO	135 44.1	35 00.7	41	S, VI, OP
Maebashi	MAEBAS	MAE	139 03.9	36 24.1	112	S, EMT′
Maizuru	MAIZUR	MAI	135 23.2	35 28.3	31	S, EMT′
Matsue	MATSUE	MTS	133 04.3	35 27.3	17	S, P(H, V)
Matsumoto	MATSUM	MTM	137 58.4	36 14.6	610	S, P(H, V)
Matsushiro	MATSUS	MAT	138 12.5	36 32.3	440	S, L, AW,G,B,V,C
Matsuyama	MATSUY	MTY	132 46.8	33 50.4	32	S, W
Mishima	MISHIM	MIS	138 55.8	35 06.7	20	S, W
Mito	MITO	MIT	140 28.3	36 22.7	30	S, VI, EMT′
Miyako	MIYAKO	MIY	141 58.1	39 38.7	46	S, W
Miyazaki	MIYAZA	MYZ	131 25.6	31 55.0	7	S, VI, OP
Mizusawa	MIZUSA	MIZ	141 08.0	39 08.0	61	P(H, V)
Morioka	MORIOK	MRK	141 10.0	39 41.8	155	S, VI, OP
Muroran	MURORA	MRR	140 59.0	42 19.0	43	S, P(H, V)
Murotomisaki	MUROTO	MRT	134 10.7	33 14.9	185	S, VI, OP
Nagano	NAGANO	NGN	138 11.8	36 39.6	418	S, VI
Nagasaki	NAGASA	NGS	129 52.2	32 43.9	27	S, VD, EM
Nagoya	NAGOYA	NAG	136 58.1	35 09.9	52	S, VI, OP
Nara	NARA	NAR	135 50.0	34 41.0	105	S, EMT′
Nemuro	NEMURO	NEM	145 35.2	43 19.7	26	S, VI, VD, OP
Niigata	NIIGAT	NII	139 03.1	37 54.6	2	S, P(H, V)
Nobeoka	NOBEOK	NOB	131 41.0	32 35.0	19	S, P(H, V)
Obihiro	OBIHIR	OBI	143 13.3	42 55.2	39	S, P(H, V)
Ofunato	OFUNAT	OFU	141 43.1	39 03.7	38	S, VI
Oita	OITA	OIT	131 37.4	33 14.0	5	S, W
Okayama	OKAYAM	OKA	133 54.9	34 40.9	4	S, VI, EMT′
Omaezaki	OMAEZA	OMA	138 12.8	34 36.2	45	S, W
Onahama	ONAHAM	ONA	140 54.4	36 56.7	3	S, VI
Osaka	OSAKA	OSA	135 31.3	34 40.7	13	S, VI

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Station	Code	CGS Code	λ	φ	Height	Seismographs
					m	
Oshima	OSHIMA	OSH	E139°22.7′	N34°45.7′	191	S, W
Owase	OWASE	OWA	136 11.7	34 04.0	14	S, VI, OP
Rumoi	RUMOI	RMJ	141 38.0	43 57.0	22	S, P(H, V)
Saga	SAGA	SAG	130 18.3	33 14.7	4	S, P(H, V)
Saigo	SAIGO	SAI	133 20.0	36 12.3	26	S, VI, OP
Sakata	SAKATA	SAK	139 50.2	38 54.2	2	S, P(H, V)
Sapporo	SAPPOR	SAP	141 19.9	43 03.5	17	S, VI, OP
Sendai	SENDAI	SEN	140 54.0	38 15.6	38	S, VI, S′
Shimonoseki	SHIMON	SHN	130 56.5	33 57.2	46	S, VI, OP
Shionomisaki	SHIONO	SHJ	135 45.8	33 26.9	74	S, W
Shirakawa	SHIRAK	SHR	140 13.5	37 07.1	354	S, P(H, V)
Shizuoka	SHIZUO	SHZ	138 24.4	34 58.4	14	S, VI
Sumoto	SUMOTO	SUM	134 54.5	34 20.1	109	S, EMT
Suttsu	SUTTSU	SUT	140 14.4	42 47.4	16	S, P(H, V)
Takada	TAKADA	TKD	138 15.0	37 06.3	13	S, P(H, V)
Takamatsu	TAKAMA	TKM	134 03.5	34 19.0	10	S, W
Takayasuyama	OSAKA2		135 39.6	34 36.7	472	VD′
Takayama	TAKAYA	TKY	137 15.3	36 09.1	561	S, P(H, V)
Tateyama	TATEYA	TAT	139 52.1	34 59.0	6	S, VI, EMT
Tokushima	TOKUSH	TKS	134 34.6	34 03.9	2	S, P(H, V)
Tokyo	TOKYO	TOK	139 45.5	35 41.2	21	S, VI′, VD′, I′, J
Tottori	TOTTOR	TOT	134 10.7	35 30.7	17	S, EMT′
Toyama	TOYAMK	TOY	137 12.5	36 42.4	9	S, VI
Toyooka	TOYOOA	TYK	134 49.5	35 32.0	4	S, W
Tsu	TSU	TSU	136 31.1	34 42.1	3	S, P(H, V)
Tsuruga	TSURUG	TSR	136 03.9	35 39.0	1	S, P(H, V)
Unzendake	UNZEND	UNZ	130 15.2	32 44.1	849	S
Urakawa	URAKAW	URA	142 46.8	42 09.5	34	S, VI, OP
Utsunomiya	UTSUNO	UTS	139 52.3	36 32.6	120	S, EMT
Uwajima	UWAJIM	UWA	132 33.5	33 13.5	43	S, P
Wajima	WAJIMA	WAJ	136 53.9	37 23.4	6	S, VI
Wakayama	WAKAYA	WKY	135 10.0	34 13.6	14	S, VI
Wakkanai	WAKKAN	WAK	141 40.4	45 25.0	9	S, VI, OP
Yakushima	YAKUSH	YKS	130 29.8	30 27.0	14	S, VI
Yamagata	YAMAGA	YAM	140 21.0	38 15.2	151	S, P(H, V)
Yokohama	YOKOHA	YOK	139 39.3	35 26.2	38	S, EMT
Yonago	YONAGO	YON	133 20.6	35 26.0	7	S, P(H, V)
Ishigakijima	ISHIGA	ISI	124 10	24 20	6	S, VI
Naha	NAHA	NAH	127 41	26 13	11	S, VI
Miyakojima	MIYAKJ	MYK	125 17	24 47	40	S
Yonagunijima	YONAGU		123 01	24 28	32	

Notations : —

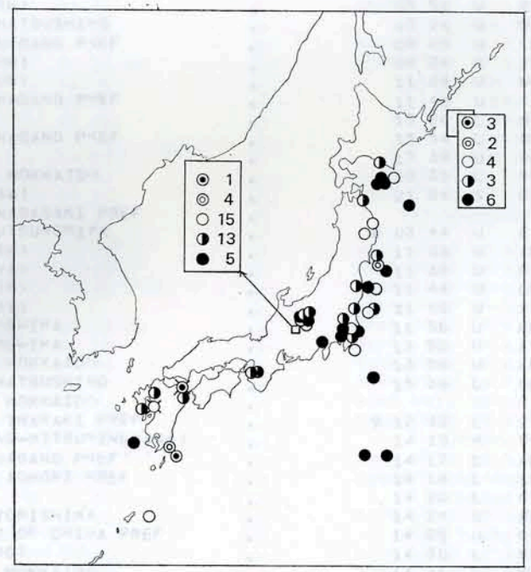
λ	: Longituds.
φ	: Geographical Latitude.
W	: Wiechert's horizontal and vertical seismographs (masses, H ; 200kg, V ; 80kg).
P	: Portable seismograph (horizontal).
P(H, V)	: do (mass, 22.5kg).
S	: Strong motion seismograph (magnification ; 1).
S′	: do (magnification ; 0.4).
M(H)	: Mainka's horizontal seismograph (mass, 450kg).
G	: Galitzin's seismograph.
L	: 1,000kg long-period seismograph, JMA type.
I	: Ishimoto's seismograph.
V	: Short-period vertical seismograph.
AW	: Anderson-Wood's seismograph.
C	: Capacity type seismograph.
EM	: Electromagnetic seismograph.
OP	: JMA 59-type electromagnetic seismograph with optical recorder.
VI	: JMA 59-type electromagnetic seismograph with visible recorder.
VD	: JMA 61-type electromagnetic seismograph with visible recorder.
B	: Benioff's seismograph (short and long period).
J	: Remote recording JMA 63-type seismograph.
VI′,VD′,I′	: Remote recording JMA 63-type seismograph.
EMT	: Electromagnetic seismograph with tape recorder.
EMT′	: Electromagnetic seismograph with tape recorder and transmitting unit.

List 2 Number of earthquakes by districts and classes, September, 1969

District \ Class	Number of felt earthquakes					Number of unfelt earthquakes	Total
	Remarkable	Moderate	Small felt area	Local	Total		
Hokkaido	3	2	5	12	22	82	104
Tohoku	0	1	4	5	10	38	48
Kwanto	0	0	2	7	9	22	31
Chubu	1	5	16	112	134	42	176
Kinki	0	0	0	10	10	15	25
Chugoku•Shikoku	0	0	0	4	4	4	8
Kyushu	2	1	2	13	18	21	39
Near Japan*	0	0	0	2	2	11	13
Foreign region	0	0	0	0	0	4	4
Unknown	0	0	0	0	0	7	7
Total	6	9	29	165	209	246	455

* ; Sakhalin, Kurile Is., Korea, Ryukyu Is., Bonin Is., Sikhota Alin.

Epicenters of the major earthquakes



⊙ Remarkable (R) ◎ Moderate (M) ○ Small felt area (S) ◑ Local (L) ● Unfelt (U) × h≧100km.

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Special Events

Earthquake of Middle of Gifu Prefecture (M : 6.6)

The earthquake, which occurred at $14^h\ 15^m$ on 9th in the middle part of Gifu Prefecture, central Japan, was accompanied by casualties (1 killed, 9 injured) and property damage (houses partially collapsed 135).

Earthqrake-Swarm near Matsushiro, Northern Chubu

In this month, 65 earthquakes (intensity Ⅲ : 1, Ⅱ : 6, Ⅰ : 58) were felt at the Matsushiro Seismological Observatory.

LIST 3 EARTHQUAKES OBSERVED BY SEISMOLOGICAL STATIONS OF JMA

(JST) DATE,TIME D H M	C	LOCATION	(JST) DATE,TIME D H M	C	LOCATION
1 00 11	U	W OF NAGANO PREF	5 08 47	L	E OFF HOKKAIDO
00 14	L	(OWASE)	10 40	U	(YANAGU)
02 40	U	N OF IBARAKI PREF	13 19	U	(KUSHIR)
04 13	S	W OF NAGANO PREF	14 17	U	OFF URAKAWA
04 38	U	W OF NAGANO PREF	20 42	U	TAIWAN REGION
04 40	L	W OF NAGANO PREF	21 07	U	TAIWAN REGION
05 53	U	E OFF HOKKAIDO	21 27	U	NEAR ONAHAMA
07 17	M	E OFF HOKKAIDO	21 45	L	(WAKAYA-SHIRAHAMA)
08 22	U	W OF NAGANO PREF			
09 32	U	E OFF AOMORI PREF	6 00 45	U	S OFF HONSHU
10 06	U	E OFF HOKKAIDO	02 04	U	OFF FUKUSHIMA PREF
10 09	U	E OFF HOKKAIDO	05 12	U	E OFF HOKKAIDO
12 10	U	OFF IWATE PREF	07 06	L	NEAR NAZE
17 52	U	OFF IWATE PREF	11 04	L	NEAR WAKAYAMA
18 17	U	NEAR ONAHAMA	12 42	L	(NAGANO)
18 46	U	OFF SANRIKU	13 19	L	(NAGANO)
18 50	U	E OFF HOKKAIDO	13 22	L	(NAGANO)
21 45	U	NEAR UTSUNOMIYA	13 49	L	(NAGANO)
			15 03	U	(SAPPOR)
2 01 07	U	(KUSHIR)	16 43	R	E OFF HOKKAIDO
03 36	U	E OFF HOKKAIDO	20 44	U	E OFF HOKKAIDO
03 48	U	E OFF AOMORI PREF	22 03	L	(MATSUS)
07 15	L	OFF KUSHIRO	23 58	U	UK
11 37	U	(MIYAKO)			
16 18	S	OFF IBARAKI PREF	7 00 43	U	(HIKONE)
16 23	S	NEAR AMAMIOSHIMA	01 18	U	NEAR TORISHIMA
16 26	U	(YAKUSH)	02 16	U	UK
17 52	U	(YAKUSH)	03 56	U	E OFF HOKKAIDO
20 12	L	NEAR MATSUSHIRO	07 14	U	S OF IBARAKI PREF
21 07	S	W OF NAGANO PREF	08 05	U	(KUSHIR)
21 08	U	(MATSUM)	09 24	R	IYO-NADA
21 09	U	(MATSUM)	11 38	U	N OF KYUSHU
21 25	U	W OF NAGANO PREF	11 40	U	(FUKUOK)
21 38	U	UK	13 26	L	NEAR CHOSHI
21 45	U	W OF NAGANO PREF	15 54	L	OFF MIYAGI PREF
			17 39	U	OFF SANRIKU
3 00 20	U	E OFF HOKKAIDO	20 35	L	NEAR NAZE
02 22	U	(URAKAW)	21 34	S	E OFF HOKKAIDO
04 13	L	S OF NAGASAKI PREF			
04 28	U	NEAR UTSUNOMIYA	8 03 44	U	E OFF HOKKAIDO
04 48	U	(YAKUSH)	11 33	U	(NEMURO)
06 06	L	(WAKAYA)	11 38	U	E OFF HOKKAIDO
06 28	U	(KUSHIR)	11 44	U	OFF URAKAWA
08 41	U	(NAGASA)	11 49	U	(MIYAZA)
11 39	U	NEAR OSHIMA	11 56	U	HOKKAIDO
13 18	U	NEAR OSHIMA	12 53	U	(YAKUSH)
13 19	L	E OFF HOKKAIDO	13 56	U	(KUSHIR)
15 17	L	NEAR MATSUSHIRO	15 38	L	NEAR NAZE
15 57	U	E OFF HOKKAIDO			
16 59	L	SW OF IBARAKI PREF	9 12 33	L	IYO-NADA
19 42	L	(NAGANO-MITSUMINEGAWA)	14 15	R	MIDDLE OF GIFU PREF
21 10	U	W OF NAGANO PREF	14 17	L	(NAGANO-MITAKE)
21 51	U	E OFF AOMORI PREF	14 18	L	(NAGANO-MITAKE)
			14 20	L	MIDDLE OF GIFU PREF
4 01 20	U	NEAR TORISHIMA	14 24	U	MIDDLE OF GIFU PREF
03 37	L	MIDDLE OF CHIBA PREF	14 25	U	MIDDLE OF GIFU PREF
05 46	U	(NEMURO)	14 30	L	MIDDLE OF GIFU PREF
06 35	U	E OFF HOKKAIDO	14 31	L	MIDDLE OF GIFU PREF
07 01	U	E OFF HOKKAIDO	14 36	U	MIDDLE OF GIFU PREF
07 09	S	S OF OITA PREF	14 37	L	MIDDLE OF GIFU PREF
12 10	U	E OFF HOKKAIDO	14 39	L	MIDDLE OF GIFU PREF
12 56	S	SE OFF CHIBA PREF	14 42	L	MIDDLE OF GIFU PREF
13 30	U	E OFF HOKKAIDO	14 47	L	MIDDLE OF GIFU PREF
14 41	U	E OFF HOKKAIDO	14 48	L	MIDDLE OF GIFU PREF
16 40	U	(HACHIN)	15 04	U	MIDDLE OF GIFU PREF
20 34	U	E OFF HOKKAIDO	15 17	U	MIDDLE OF GIFU PREF
22 27	U	NEAR MAIZURU	15 18	U	(GIFU)
			15 32	S	MIDDLE OF GIFU PREF
5 02 11	U	N OF TOHOKU	15 55	S	MIDDLE OF GIFU PREF
06 13	R	E OFF HOKKAIDO	16 04	L	MIDDLE OF GIFU PREF

International Seismological Centre From the ISC collection scanned by SISMOS

(JST) DATE,TIME D H M	C	LOCATION
9 16 25	S	MIDDLE OF GIFU PREF
16 29	U	MIDDLE OF GIFU PREF
16 40	L	MIDDLE OF GIFU PREF
16 46	U	MIDDLE OF GIFU PREF
17 08	U	MIDDLE OF GIFU PREF
17 43	U	MIDDLE OF GIFU PREF
18 20	U	(NEMURO)
18 42	U	(ONAHAM)
19 47	L	MIDDLE OF GIFU PREF
22 44	U	(URAKAW)
10 00 47	U	NEAR YONAGUNIJIMA
02 19	U	MIDDLE OF GIFU PREF
02 53	U	S OF KWANTO
03 13	U	MIDDLE OF GIFU PREF
03 16	U	MIDDLE OF GIFU PREF
03 29	U	W OF TOKYO BAY
03 45	U	MIDDLE OF GIFU PREF
05 14	S	MIDDLE OF GIFU PREF
05 32	M	MIDDLE OF GIFU PREF
05 38	U	(KUSHIR)
05 45	U	(WAKAYA)
05 52	U	MIDDLE OF GIFU PREF
05 57	U	MIDDLE OF GIFU PREF
06 58	L	S OF IWATE PREF
08 52	U	E OFF HOKKAIDO
10 40	S	MIDDLE OF GIFU PREF
10 54	U	MIDDLE OF GIFU PREF
11 56	L	MIDDLE OF GIFU PREF
13 22	U	E OFF HOKKAIDO
13 31	U	MIDDLE OF GIFU PREF
16 05	L	MIDDLE OF GIFU PREF
16 47	U	E OFF HOKKAIDO
16 58	U	(AOMORI)
17 33	U	(KUSHIR)
18 03	U	(URAKAW)
18 42	U	NE OF KWANTO
21 03	L	MIDDLE OF GIFU PREF
21 06	L	MIDDLE OF GIFU PREF
21 09	L	(SHIZUO-SAKUMA)
11 00 20	S	MIDDLE OF GIFU PREF
00 51	L	MIDDLE OF GIFU PREF
01 02	M	MIDDLE OF GIFU PREF
01 47	S	MIDDLE OF GIFU PREF
03 18	M	MIDDLE OF GIFU PREF
03 22	S	MIDDLE OF GIFU PREF
03 29	L	MIDDLE OF GIFU PREF
04 24	L	MIDDLE OF GIFU PREF
05 51	L	MIDDLE OF GIFU PREF
05 52	U	MIDDLE OF GIFU PREF
07 48	U	S OF RYUKYU
11 09	L	MIDDLE OF GIFU PREF
11 19	L	FUKUOKA-SAGA BORDER
12 17	U	NEAR OKINAWA
14 15	U	MIDDLE OF GIFU PREF
15 20	M	OFF MIYAGI PREF
18 08	L	MIDDLE OF GIFU PREF
18 09	L	MIDDLE OF GIFU PREF
22 46	U	(URAKAW)
23 07	L	MIDDLE OF GIFU PREF
12 00 02	L	MIDDLE OF GIFU PREF
00 21	L	MIDDLE OF GIFU PREF
01 21	S	MIDDLE OF GIFU PREF
01 21	L	MIDDLE OF GIFU PREF
02 58	U	MIDDLE OF GIFU PREF
03 38	S	MIDDLE OF GIFU PREF
04 13	M	MIDDLE OF GIFU PREF
04 18	L	(NAGANO-MITAKE)

C = CLASS

(JST) DATE,TIME D H M	C	LOCATION
12 04 22	L	(NAGANO-MITAKE)
06 59	U	UK
07 11	L	MIDDLE OF GIFU PREF
08 31	U	S OF NIIGATA PREF
09 01	L	MIDDLE OF GIFU PREF
09 45	L	(WAKAYA)
10 00	U	(WAKAYA)
10 21	U	UK
11 15	L	E OFF HOKKAIDO
11 36	U	(YAKUSH)
13 14	U	(WAKAYA)
17 09	U	(ONAHAM)
18 02	U	ALASKA
18 54	U	MIDDLE OF GIFU PREF
20 48	U	HOKKAIDO
21 22	U	MIDDLE OF GIFU PREF
22 41	L	MIDDLE OF GIFU PREF
23 16	U	OFF FUKUSHIMA PREF
13 06 10	L	MIDDLE OF GIFU PREF
09 39	U	(ISHIGA)
10 43	U	(URAKAW)
11 57	L	W OF NAGANO PREF
12 47	U	MIDDLE OF GIFU PREF
13 10	L	NEAR WAKAYAMA
13 12	U	(WAKAYA)
16 08	U	(AOMORI)
20 19	U	SE OFF BOSO PEN
20 52	M	E OFF HOKKAIDO
21 18	U	(KUSHIR)
14 01 45	U	(KUSHIR)
02 10	L	(MATSUS)
05 00	S	OFF TOKACHI
08 54	U	HOKKAIDO
11 35	U	(MIYAZA)
11 42	U	(KUSHIR)
15 12	U	E OFF HOKKAIDO
21 49	S	E OFF HOKKAIDO
21 52	U	(URAKAW)
22 45	U	(WAKAYA)
23 14	U	(KOBE)
23 31	M	MIDDLE OF GIFU PREF
23 39	S	MIDDLE OF GIFU PREF
15 02 20	L	SHIMANE-HIROSHIMA BORDER
07 42	L	SHIMANE-HIROSHIMA BORDER
08 04	U	HOKKAIDO
08 49	S	MIDDLE OF GIFU PREF
11 28	U	(KUMAMO)
13 53	U	(OFUNAT)
19 17	L	E OFF HOKKAIDO
22 40	U	(HACHIN)
23 01	U	N OF KWANTO
23 10	S	MIDDLE OF IWATE PREF
23 31	U	HOKKAIDO
16 02 01	U	UK
03 48	U	S OF KURILE IS
05 44	U	(ISHIGA)
07 22	U	MIDDLE OF GIFU PREF
10 18	U	S OF KURILE IS
11 24	U	HOKKAIDO
16 17	L	(MATSUS)
16 25	U	(WAKAYA)
16 38	U	W OF NAGANO PREF
17 00	L	(NAHA)
23 34	U	E OFF AOMORI PREF
23 40	U	MIDDLE OF GIFU PREF
23 42	L	MIDDLE OF GIFU PREF

(JST) DATE,TIME D H M	C	LOCATION
17 02 09	U	E OFF HOKKAIDO
02 39	U	HYUGANADA
04 42	U	AOMORI PREF
05 07	U	MIDDLE OF GIFU PREF
06 28	L	MIDDLE OF GIFU PREF
10 10	U	(OKAYA)
10 38	L	(MATSUS)
12 25	U	S OF RYUKYU
12 47	L	(MATSUS)
16 32	U	S OFF HONSHU
23 03	U	MIDDLE OF GIFU PREF
18 01 05	L	MIDDLE OF GIFU PREF
01 12	L	(SHIZUO-SAKUMA)
02 15	L	NEAR WAKAYAMA
03 41	R	NEAR YAKUSHIMA
03 51	M	NEAR YAKUSHIMA
04 54	U	(NAHA)
10 42	U	UK
15 08	L	AOMORI PREF
16 19	L	(MATSUS)
16 30	U	AOMORI PREF
16 55	U	IBARAKI PREF
20 52	L	E OFF HOKKAIDO
19 03 05	L	(ANABUK)
03 08	L	(ANABUK)
03 55	L	(MATSUS)
03 59	U	(GIFU)
06 41	L	(NEMURO)
07 30	U	(YONAGU)
07 49	U	(URAKAW)
09 52	L	(MATSUS)
10 33	U	MINDANAO
12 55	U	(ANABUK)
18 00	U	NEAR ONAHAMA
21 01	L	E COAST OF AOMORI PREF
21 12	U	E OFF HOKKAIDO
22 32	L	(WAKAYA)
23 56	U	(KUSHIR)
20 00 46	S	OFF FUKUSHIMA PREF
02 00	U	E OFF AOMORI PREF
03 59	L	MIDDLE OF GIFU PREF
04 17	L	(UNZEND)
05 30	U	(HACHIN)
05 43	U	HOKKAIDO
09 32	U	(KUSHIR)
10 01	U	AOMORI PREF
10 04	U	N OF KWANTO
12 20	U	(KUSHIR)
16 04	L	NEAR MATSUSHIRO
18 15	U	E OF SHIZUOKA PREF
19 35	U	E OFF HOKKAIDO
20 25	U	(TOTTOR)
21 02 08	U	N OF KWANTO
02 55	U	NEAR URAKAWA
03 22	U	(YONAGU)
07 29	U	NEAR YAKUSHIMA
08 22	U	NEAR URAKAWA
08 41	S	MIDDLE OF GIFU PREF
09 20	S	E OF IWATE PREF
12 58	U	E OFF AOMORI PREF
14 35	L	NEAR MATSUSHIRO
15 01	U	OFF SANRIKU
15 02	U	HOKKAIDO
21 58	U	(WAKAYA)
22 02 37	U	E OFF HOKKAIDO

C = CLASS

(JST) DATE,TIME D H M	C	LOCATION
22 03 13	U	(KUSHIR)
04 24	U	(URAKAW)
07 22	L	(MATSUS)
08 21	L	NEAR MATSUSHIRO
08 21	L	(MATSUS)
08 22	L	(MATSUS)
08 23	L	(MATSUS)
08 25	L	(MATSUS)
08 25	L	(MATSUS)
08 26	L	(MATSUS)
08 29	L	(MATSUS)
08 35	L	(MATSUS)
08 39	L	(MATSUS)
08 41	L	(MATSUS)
08 44	L	(MATSUS)
08 47	L	(MATSUS)
08 58	L	(MATSUS)
08 58	L	NEAR MATSUSHIRO
09 00	L	(MATSUS)
09 08	L	(MATSUS)
09 11	L	(MATSUS)
09 12	L	(MATSUS)
09 22	L	(MATSUS)
09 35	L	(MATSUS)
09 54	L	(MATSUS)
10 04	L	(MATSUS)
10 16	L	(MATSUS)
10 17	L	(MATSUS)
10 24	L	(MATSUS)
10 36	L	(MATSUS)
10 55	L	(MATSUS)
10 56	L	(MATSUS)
11 04	L	(MATSUS)
11 27	L	(MATSUS)
11 36	S	E OFF HOKKAIDO
11 40	U	E OFF HOKKAIDO
11 41	L	(MATSUS)
12 16	L	NEAR URAKAWA
15 25	L	(MATSUS)
15 25	L	(MATSUS)
16 39	U	(SAPPOR)
17 19	U	MIDDLE OF KWANTO
17 53	U	(GIFU)
20 39	L	S OF IBARAKI PREF
20 49	L	(MATSUS)
22 31	U	NEAR URAKAWA
23 02 22	L	(MATSUS)
10 17	L	(MATSUS)
11 06	L	(MATSUS)
11 06	L	(MATSUS)
11 25	L	(MATSUS)
12 10	U	(WAKAYA)
12 14	U	(WAKAYA)
12 17	L	(MATSUS)
13 06	U	AOMORI PREF
13 44	L	E OFF HOKKAIDO
15 52	S	MIDDLE OF GIFU PREF
15 59	U	(AOMORI)
17 01	L	(MATSUS)
17 17	L	NEAR MATSUSHIRO
17 26	U	E OFF HOKKAIDO
18 53	U	(NEMURO)
20 20	L	(MATSUS)
21 08	L	NEAR MATSUSHIRO
24 00 09	L	S OF NAGASAKI PREF
07 38	U	(UWAJIM)
08 37	U	MIYAZAKI PREF
10 36	L	E OF FUKUSHIMA PREF

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(JST) DATE,TIME D	H	M	C	LOCATION
24	10	48	U	(YAKUSH)
	13	32	L	S OF NAGASAKI PREF
	15	46	U	(WAKAYA)
	18	16	L	(MATSUS)
25	01	03	L	(UNZEND)
	01	05	L	(UNZEND)
	01	18	L	(UNZEND)
	01	42	L	(UNZEND)
	06	18	U	(UTSUNO)
	08	59	U	MIDDLE OF GIFU PREF
	13	26	L	(MATSUS)
	15	00	L	(MATSUS)
	15	33	L	(MATSUS)
	18	14	L	(MATSUS)
	19	42	L	(WAKAYA-SHIRAHAMA)
	20	30	L	(KOGOSH-NAZE)
	21	29	U	(URAKAW)
26	07	14	U	AOMORI PREF
	14	16	L	NEAR MATSUSHIRO
	14	55	U	NEAR WAKAYAMA
	19	17	U	(KUSHIR)
	23	26	U	(URAKAW)
27	03	28	U	E COAST OF CHIBA PREF
	08	44	U	(KUMAMO)
	13	02	S	E OFF HOKKAIDO
	15	52	U	S OF KYUSHU
	22	50	L	NEAR WAKAYAMA
28	06	16	U	(WAKAYA)
	10	04	U	NEAR YAKUSHIMA
	10	05	U	(URAKAW)
	13	44	U	(AOMORI)
	14	58	U	E OFF HOKKAIDO
	15	14	U	(AOMORI)
	15	52	U	(AOMORI)
	16	31	U	(AOMORI)
	16	49	U	HOKKAIDO
	22	08	U	(URAKAW)
	23	31	U	(YAKUSH)
29	01	17	L	E OFF HOKKAIDO
	03	00	U	(AOMORI)
	06	54	L	S OF HOKKAIDO
	10	36	U	(URAKAW)
	23	55	U	W OFF KAGOSHIMA PREF
30	02	59	R	E OFF HOKKAIDO
	03	04	U	E OFF HOKKAIDO
	05	14	U	E OFF HOKKAIDO
	05	42	L	MIDDLE OF SAITAMA PREF
	06	11	L	OFF IBARAKI PREF
	07	11	U	(URAKAW)
	10	09	S	N OF CHIBA PREF
	12	01	U	TOKYO-CHIBA BORDER
	14	46	L	NEAR MATSUSHIRO
	18	10	U	OFF SANRIKU
	19	33	U	(YONAGU)
	21	40	L	E OF IBARAKI PREF
	22	19	L	NEAR MATSUSHIRO
	22	43	U	(URAKAW)

LIST 4 EARTHQUAKE ORIGINS

C = CLASS

(JST) DATE,TIME D	H	M	C	LOCATION	ORIGIN TIME S	+/-S	LONG.	+/-	LAT.	+/-	H KM	M
1	04	13	S	W OF NAGANO PREF	13 20.5	0.2	137 42 01		36 11 01		00	4.4
	07	17	M	E OFF HOKKAIDO	17 02.5	1.6	146 50 08		43 16 05		50	5.0
	18	46	U	OFF SANRIKU	45 55.0	0.5	143 54 03		40 30 02		50	5.1
	18	50	U	E OFF HOKKAIDO	49 50.6	1.8	147 40 09		42 56 06		60	5.2
2	03	48	U	E OFF AOMORI PREF	47 49.4	0.4	142 40 03		41 20 01		20	4.5
	16	18	S	OFF IBARAKI PREF	18 19.0	0.8	141 09 03		36 23 02		30	4.3
	16	23	S	NEAR AMAMIOSHIMA	22 34.3	2.4	131 19 15		29 16 10		00	5.1
	21	07	S	W OF NAGANO PREF	07 13.9	0.2	137 43 01		36 12 01		00	5.0
	21	25	U	W OF NAGANO PREF	25 25.7	0.4	137 44 02		36 11 01		10	3.9
3	00	20	U	E OFF HOKKAIDO	20 06.3	2.5	146 57 13		42 57 10		10	4.2
	16	59	L	SW OF IBARAKI PREF	59 28.6	0.2	139 55 01		36 03 01		40	3.6
	21	10	U	W OF NAGANO PREF	09 54.1	0.2	137 42 01		36 12 01		10	3.4
4	01	20	U	NEAR TORISHIMA	20 12.6	1.2	140 30 05		30 43 04		60	6.2
	03	37	L	MIDDLE OF CHIBA PREF	37 28.9	0.4	140 17 03		35 21 01		80	
	07	01	U	E OFF HOKKAIDO	01 30.7	2.9	147 38 15		42 59 09		50	4.4
	07	09	S	S OF OITA PREF	09 24.5	0.1	131 26 01		32 57 01		110	
	12	56	S	SE OFF CHIBA PREF	56 28.3	0.5	140 19 04		34 54 01		90	
	13	30	U	E OFF HOKKAIDO	30 14.8	2.7	147 17 15		42 43 10		10	4.8
5	06	13	R	E OFF HOKKAIDO	12 38.8	1.3	147 04 07		43 28 06		10	5.6
	08	47	L	E OFF HOKKAIDO	46 45.6	1.4	146 38 07		43 12 04		40	4.9
6	02	04	U	OFF FUKUSHIMA PREF	04 08.0	0.6	142 12 03		37 12 01		10	4.3
	16	43	R	E OFF HOKKAIDO	43 31.8	1.0	147 00 05		43 29 04		00	5.4
7	01	18	U	NEAR TORISHIMA	17 18.5	1.3	141 26 08		30 38 05		50	5.3
	03	58	U	E OFF HOKKAIDO	58 37.9	1.5	147 04 08		43 07 05		50	4.4
	09	24	R	IYO-NADA	23 45.5	0.2	131 48 01		33 37 01		100	
	15	54	L	OFF MIYAGI PREF	54 01.3	0.5	141 57 03		38 36 01		50	3.6
	21	34	S	E OFF HOKKAIDO	33 49.7	1.3	146 53 06		42 57 04		10	4.6
8	11	44	U	OFF URAKAWA	44 08.9	0.3	142 36 03		41 33 01		30	4.1
9	12	33	L	IYO-NADA	33 18.8	0.4	131 52 02		33 20 03		60	4.1
	14	15	R	MIDDLE OF GIFU PREF	15 33.5	0.2	137 04 01		35 47 01		00	6.6
	14	25	U	MIDDLE OF GIFU PREF	25 15.8	0.2	137 03 01		35 51 01		10	4.1
	14	30	L	MIDDLE OF GIFU PREF	29 53.8	1.1	137 06 05		36 06 05		40	4.2
	14	31	L	MIDDLE OF GIFU PREF	31 21.2	0.3	137 08 01		35 42 01		00	3.7
	14	37	L	MIDDLE OF GIFU PREF	37 11.8	0.4	137 03 02		35 51 02		10	3.7
	14	39	L	MIDDLE OF GIFU PREF	39 32.2	0.4	137 10 02		35 43 02		00	3.5
	14	42	L	MIDDLE OF GIFU PREF	42 46.9	0.2	137 07 01		35 45 01		10	4.0
	14	47	L	MIDDLE OF GIFU PREF	46 53.7	0.1	137 06 01		35 45 01		10	3.9
	14	48	L	MIDDLE OF GIFU PREF	48 20.5	0.2	137 06 01		35 43 01		20	4.1
	15	32	S	MIDDLE OF GIFU PREF	32 49.6	0.2	137 08 01		35 46 01		10	4.0
	15	55	S	MIDDLE OF GIFU PREF	55 34.8	0.4	137 06 02		35 49 02		00	3.5
	16	25	S	MIDDLE OF GIFU PREF	25 21.3	0.4	137 05 01		35 45 02		10	3.3
	17	43	U	MIDDLE OF GIFU PREF	43 38.9	0.2	137 07 01		35 44 01		10	3.9
10	03	29	U	W OF TOKYO BAY	29 34.4	0.4	139 47 04		35 33 02		90	
	05	14	S	MIDDLE OF GIFU PREF	14 44.9	0.2	137 02 01		35 49 01		00	4.0
	05	32	M	MIDDLE OF GIFU PREF	31 57.2	0.1	137 05 01		35 45 01		10	4.6
	05	57	U	MIDDLE OF GIFU PREF	57 07.6	0.2	136 58 01		35 51 01		10	3.6
	10	40	S	MIDDLE OF GIFU PREF	40 31.3	0.2	137 06 01		35 44 01		00	3.9
	10	54	U	MIDDLE OF GIFU PREF	54 57.1	0.3	137 08 03		35 41 02		30	3.5
	11	56	L	MIDDLE OF GIFU PREF	56 04.9	0.4	137 00 03		35 49 02		00	3.8
	16	47	U	E OFF HOKKAIDO	46 51.6	2.3	148 27 12		43 37 13		40	5.0
	21	03	L	MIDDLE OF GIFU PREF	03 14.8	0.2	137 01 01		35 50 01		10	4.3
11	00	20	S	MIDDLE OF GIFU PREF	20 47.5	0.2	137 07 01		35 43 01		10	3.8
	01	02	M	MIDDLE OF GIFU PREF	02 47.2	0.1	137 06 01		35 45 01		10	4.9
	01	47	S	MIDDLE OF GIFU PREF	47 11.1	0.1	137 07 01		35 45 01		10	4.4
	03	18	M	MIDDLE OF GIFU PREF	18 39.0	0.1	137 06 01		35 44 00		00	4.8
	03	22	S	MIDDLE OF GIFU PREF	22 49.5	0.2	137 07 01		35 43 01		10	4.2
	04	24	L	MIDDLE OF GIFU PREF	24 32.5	0.2	137 09 01		35 43 01		10	4.1
	11	19	L	FUKUOKA-SAGA BORDER	19 19.0	0.2	130 28 01		33 19 01		10	3.5
	15	20	M	OFF MIYAGI PREF	20 38.2	0.3	141 51 02		38 11 01		80	
	18	09	L	MIDDLE OF GIFU PREF	09 23.7	2.0	136 52 09		35 47 06		00	3.7

International Seismological Centre From the ISC collection scanned by SISMOS

(JST) DATE,TIME D	H	M	C	LOCATION	ORIGIN TIME M	S	+/-S	LONG.	+/-	LAT.	+/-	C = CLASS H KM	M
12	00	02	L	MIDDLE OF GIFU PREF	01	52.8	0.1	137 08 01		35 43 01		10	1.6
	01	21	S	MIDDLE OF GIFU PREF	20	51.4	0.1	137 07 00		35 44 00		10	4.2
	03	38	S	MIDDLE OF GIFU PREF	38	33.1	0.2	136 57 02		35 42 01		50	4.0
	04	13	M	MIDDLE OF GIFU PREF	13	45.3	0.1	137 07 00		35 44 00		10	4.6
	11	15	L	E OFF HOKKAIDO	15	30.1	1.4	146 29 07		43 14 05		30	4.5
	23	16	U	OFF FUKUSHIMA PREF	16	21.0	0.5	142 07 02		37 59 01		40	3.9
13	11	57	L	W OF NAGANO PREF	57	48.1	0.2	137 43 01		36 12 01		00	4.0
	13	10	L	NEAR WAKAYAMA	10	39.7	0.3	135 07 01		34 10 01		10	3.4
	20	19	U	SE OFF BOSO PEN	18	59.9	0.7	141 50 03		33 43 02		70	
	20	52	M	E OFF HOKKAIDO	52	10.6	1.5	147 44 08		43 04 05		70	
14	05	00	S	OFF TOKACHI	00	23.3	0.6	144 02 03		41 31 02		30	4.8
	21	49	S	E OFF HOKKAIDO	49	11.6	1.3	147 31 07		43 08 07		40	5.0
	23	31	M	MIDDLE OF GIFU PREF	31	13.7	0.1	137 05 01		35 46 00		10	4.8
	23	39	S	MIDDLE OF GIFU PREF	38	51.0	0.1	137 06 01		35 44 01		10	4.0
15	08	49	S	MIDDLE OF GIFU PREF	49	44.0	0.1	137 05 01		35 45 01		10	4.2
	23	10	S	MIDDLE OF IWATE PREF	10	23.3	0.2	141 22 02		39 28 01		90	
16	03	48	U	S OF KURILE IS	47	46.9	2.4	150 56 16		45 07 18		30	5.0
	10	18	U	S OF KURILE IS	17	16.9	1.9	151 21 11		44 26 19		50	5.2
	23	34	U	E OFF AOMORI PREF	33	50.4	0.3	142 16 02		41 26 01		00	3.9
17	06	28	L	MIDDLE OF GIFU PREF	28	35.5	0.2	137 08 01		35 43 01		10	3.8
	23	03	U	MIDDLE OF GIFU PREF	02	58.0	0.4	137 12 02		35 40 02		10	3.8
18	02	15	L	NEAR WAKAYAMA	15	23.3	0.2	135 17 01		34 09 01		10	3.8
	03	41	R	NEAR YAKUSHIMA	40	44.8	0.3	131 41 03		30 56 03		00	5.9
	03	51	M	NEAR YAKUSHIMA	51	10.3	0.9	131 08 06		31 12 03		00	5.5
	20	52	L	E OFF HOKKAIDO	52	36.2	0.9	146 33 04		43 16 03		00	4.9
19	21	01	L	E COAST OF AOMORI PREF	01	36.4	0.2	141 30 02		40 51 01		90	
20	00	46	S	OFF FUKUSHIMA PREF	46	47.1	0.4	141 25 02		37 11 01		50	4.3
	03	59	L	MIDDLE OF GIFU PREF	59	39.8	0.1	137 06 01		35 46 01		10	4.0
	18	15	U	E OF SHIZUOKA PREF	15	32.1	0.2	138 42 01		35 18 01		10	3.7
21	08	41	S	MIDDLE OF GIFU PREF	41	29.4	0.1	137 06 01		35 47 00		10	3.9
	09	20	S	E OF IWATE PREF	20	39.2	0.1	141 52 01		39 45 01		60	3.6
22	08	21	L	NEAR MATSUSHIRO	21	09.0	0.2	138 09 01		36 30 01		00	4.5
	11	36	S	E OFF HOKKAIDO	35	41.1	1.7	147 27 09		43 13 08		00	5.1
	12	16	L	NEAR URAKAWA	16	24.0	0.2	142 40 02		42 16 01		50	4.1
23	15	52	S	MIDDLE OF GIFU PREF	52	09.3	0.3	137 10 02		35 44 01		00	3.7
24	00	09	L	S OF NAGASAKI PREF	09	17.2	0.3	129 58 01		32 43 01		10	4.1
	10	36	L	E OF FUKUSHIMA PREF	36	42.5	0.2	140 46 03		37 26 01		80	
27	03	28	U	E COAST OF CHIBA PREF	28	27.7	1.8	140 30 09		35 33 05		70	
	13	02	S	E OFF HOKKAIDO	02	16.9	1.8	147 09 09		43 23 05		50	5.0
29	23	55	U	W OFF KAGOSHIMA PREF	54	47.8	0.5	129 32 02		31 18 01		30	4.2
30	02	59	R	E OFF HOKKAIDO	58	30.8	1.3	146 29 07		42 57 05		40	5.5
	06	11	L	OFF IBARAKI PREF	11	08.7	0.8	141 06 04		36 26 03		50	3.6
	10	09	S	N OF CHIBA PREF	09	44.0	0.4	140 05 03		35 45 02		80	
	12	01	U	TOKYO-CHIBA BORDER	01	17.7	0.4	139 56 04		35 41 03		100	
	21	40	L	E OF IBARAKI PREF	40	16.3	0.3	140 37 02		36 29 02		50	3.8

LIST 5 DATA OF EARTHQUAKES

I = SEISMIC INTENSITY * = MTCHON

OT= 1 4 10 20.5 +/- 0.2 (JST)
W OF NAGANO PREF
LAT= 36 11 +/- 1 LONG= 137 42 +/- 1
H= 0 MAG=4.4 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
MATSUM	1	IP	04	13	28.3	IS	13	31.7										25.5	03.4
TAKAYA	X	P	04	13	30.5	S	13	34.2								E	5 U 9	40.2	03.7
MATSUS	1	IP	04	13	33.3	IS	13	39.5									U	60.3	06.2
NAGANO	0	P	04	13	34.8	IS	13	45.5	26	1.7	37	2.2	22	1.0	N	1 W	1 U 3	69.1	10.7
TOYAMA	0	P	04	13	35.6	IS	13	45.6	25	2.0	42	1.4	26	2.4			D 4	72.9	10.0
IIDA	0	EP	04	13	36.6	IS	13	46.0	58	1.2	30	1.4	21	0.8				75.7	09.4
KARUIZ	0	P	04	13	36.7	S	13	46.4									U	78.5	09.7
KOFU	0	IP	04	13	39.5	ES	13	54.2	22	1.3	16	1.0	14	3.0	N	2 W	3 D 3	96.5	14.7
KANAZA	0	EP	04	13	41.1	ES	13	56.9	15	2.2	11	3.0	15	2.1				102.6	15.8
TAKADA	0	IP	04	13	42.2	S	13	58.0									U 5	113.5	15.8
KAWAGU	0	IP	04	13	44.0	IS	14	00.5										122.5	16.5
WAJIMA	0	EP	04	13	44	ES	14	06	36	0.8	36	0.8	7	0.8				151.8	22.0
GIFU	0	P	04	13	44.1	S	13	59.9	27	0.6	19	0.7	17	0.7	S	3 W	3 U 3	121.3	15.8
NAGOYA	X	IP	04	13	45.3	IS	14	02.2	31	0.6	38	0.7	15	0.6	S	1 W	1 U 4	130.9	16.9
FUKUI	0	IP	04	13	46.0	S	14	04.8										133.4	18.8
KUMAGA	0	EP	04	13	48.8	S	14	09.0	22	0.8	15	0.8	8	3.2				151.6	20.2
SHIZUO	0	EP	04	13	48.8	S	14	07.0	13	1.0	18	1.7	9	1.9				148.7	18.2
TSURUG	0	P	04	13	49.7	S	14	11.8										159.0	22.1
HAMAMA	0	P	04	13	50.6	S	14	11.1	45	0.8	37	1.4	13	1.6			D 8	163.6	20.5
MISHIM	0	P	04	13	50.6	ES	14	11.1	19	1.7	22	0.9	10	1.3			D	162.9	20.5
HIKONE	0	P	04	13	50.6	X	14	16.0										165.7	
TSU	0	P	04	13	54.9				10	2.0	10	1.2	3	0.6				196.2	
UTSUNO	0	EX	04	13	55	ES	14	19										199.0	
OMAEZA	0	EP	04	13	55.3	ES	14	17.5	47	1.8	26	2.0						181.3	22.2
TOKYO	0	IP	04	13	57.0	S	14	23.5	23	1.6	23	2.0	6	1.0				193.8	26.5
KYOTO	0	EP	04	13	58.6	ES	14	28.4	5	1.4	6	1.3	3	1.7				220.4	29.8
OSHIMA	0	P	04	13	58.8	S	14	25.5	9	1.0	7	1.4	6	1.6				219.2	26.7
KAKIOK	0	EP	04	13	59	S	14	23.8	16	0.9	14	1.0	4	1.0				224.2	24.8
NIIGAT	0	EP	04	13	59.5	S	14	28.5	38	1.7	33	1.3	10	4.2			U 6	226.2	29.0
MITO	0	EP	04	14	02.8	ES	14	31.0	17	3.6	7	1.2	6	2.0				249.9	28.2
NARA	0	P	04	14	03.7	X	14	27.6										237.5	
OSAKA	0	EX	04	14	05				16	4.0	10	4.5	6	1.5				258.8	
ONAHAM	0	EX	04	14	09.8				7	1.0	5	1.0	3	2.8				299.2	
WAKAYA	0	EX	04	14	18.0				5	0.2	2	0.2						316.7	
TATEYA	0	EP	04	14					8	1.8	9	1.2	5	1.5				237.3	

OT= 1 7 17 2.5 +/- 1.6 (JST)
E OFF HOKKAIDO
LAT= 43 16 +/- 5 LONG= 146 50 +/- 8
H= 50 MAG=5.0 CLASS=M

NEMURO	1	IP	07	17	19.1	IS	17	29.9	57	0.2	61	0.2	37	0.4	N	1 E	4 D 9	101.4	10.8
KUSHIR	1	IP	07	17	33.4	ES	17	54	71	0.3	94	0.2	27	0.2			D 4	201.0	20.6
ABASHI	0	P	07	17	35.4	ES	17	59	6	1.0	8	1.6	6	1.2		E	6 D 5	222.0	23.6
HIROO	0	P	07	17	50.0	S	18	22.1										307.9	32.1
URAKAW	0	P	07	17	54.7	S	18	33.1	37	1.0	42	1.2	12	1.2				354.2	38.4
SAPPOR	0	EP	07	18	05				5	2.2	6	1.8	3	1.2				448.0	
HAKODA	0	P	07	18	14.3	ES	19	09	6	1.6	6	0.8	2	1.4			U	524.5	54.7
HACHIN	0	P	07	18	15.3	S	19	06.4	5	0.2	2	0.2					U 1	535.4	51.1
MORIOK	0	IP	07	18	24.9	S	19	25.0	7	0.4	7	0.4	1	0.4	S	0	U 0	617.1	60.1
						EX	19	21.7											
FUKUSH	0	EX	07	18	54.9				11	0.6	8	0.8	2	0.6				814.9	
AOMORI	0	EX	07	19	16				11	2.1	13	1.3						570.0	
MATSUS	0	P	07	19	18.0	X	20	53										1048.7	

OT= 1 18 45 55.0 +/- 0.5 (JST)
OFF SANRIKU
LAT= 40 30 +/- 2 LONG= 143 54 +/- 3
H= 50 MAG=5.1 CLASS=U

MIYAKO	0	EP	18	46	22.9	ES	46	41.2	23	3.9	17	1.6	10	2.1				190.2	18.3
HACHIN	0	EP	18	46	24.9	ES	46	45.9	19	3.6	20	2.5	13	5.3		W	U	201.3	21.0
HIROO	0	EP	18	46	25	S	46	46.4										204.0	21.4
URAKAW	0	P	18	46	26.5	S	46	49.9	65	1.2	72	5.4	36	5.0				206.7	23.4
OFUNAT	0	EP	18	46	32.3	IS	46	58.2	13	1.6	19	2.4	14	2.2				245.8	25.9

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A	S	E-W A	S	U-D A	S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
MORIOK	0	P	18	46	32.5	S	46	57.8	19	0.4	22	0.4	11	4.0	S	D W	1 U	U	249.4	25.3
AOMORI	0	P	18	46	33.5	S	47	02.4	89	2.0	99	1.3	29	1.6					265.9	28.9
KUSHIR	0	EP	18	46	36	ES	47	03	16	0.2	20	0.2	8	0.3					278.4	27.0
OBIHIR	0	EP	18	46	36														274.7	
HAKODA	0	P	18	46	38.0	ES	47	10	22	2.6	16	2.2	13	3.2				U	301.4	32.0
ISHINO	0	EP	18	46	41.2	EX	47	12.6	14	3.4	16	3.6	9	2.8					320.9	
NEMURO	0	EP	18	46	42	ES	47	12	4	2.4	6	2.4	4	2.4					343.9	30.0
SAPPOR	0	EP	18	46	42				25	2.6	38	3.0	12	3.0					355.4	
AKITA	0	EX	18	46	43.0				39	2.6	43	5.0	29	3.2					335.3	
SENDAI	0	P	18	46	46.8	EX	47	24	33	2.0	28	2.0	14	5.0					358.6	
YAMAGA	0	EP	18	46	51.5	ES	47	29.9											394.6	38.4
ABASHI	0	EP	18	46	52	ES	47	29	8	3.2	10	2.6	2	2.8					392.0	37.0
FUKUSH	0	EP	18	46	55.1	S	47	43.8	19	1.0	17	1.0	7	1.2					424.7	48.7
ASAHIK	0	X	18	47	02				12	2.0	13	2.8	9	2.0					384.6	
ONAHAM	0	EX	18	47	05.5	ES	47	50.6	18	2.0	16	1.6	13	2.0					472.7	
MITO	0	EP	18	47	09.5	X	48	23.0	19	2.0	16	5.2	10	2.5					546.6	
TOKYO	0	EX	18	47	11	ES	48	27	20	3.8	15	3.0	13	3.8					646.0	
KAKIOK	0	EP	18	47	12	ES	48	09	12	1.3	8	0.8	3	0.9					573.8	57.0
SAKATA	0	EX	18	47	12.8						100	1.6							390.9	
KUMAGA	0	EP	18	47	20.4	ES	48	26.4	11	3.6	11	4.8	6	3.0					623.6	66.0
MATSUS	0	P	18	47	24	X	48	14											662.8	
WAKKAN	0	EX	18	47	26				5	5.0	7	4.0	5	4.0					575.1	
NAGANO	0	EP	18	47	26.0	X	49	03.8	8	3.8	8	3.6	4	3.3					654.4	
KARUIZ	0	EP	18	47	26.5														656.5	
TOYAMA	0	EP	18	47	29	X	49	22	8	4.0	8	3.6	6	3.6					718.7	
KOFU	0	EP	18	47	31.4	X	49	05.0	9	2.3	10	2.3	4	2.0					712.1	
NIIGAT	0	EX	18	47	31.6	X	48	11.0	50	6.0	48	4.3	20	5.4					507.9	
TATEYA	0	EX	18	47	39.5				19	3.5	19	5.1	12	2.8					707.7	
KAWAGU	0	X	18	47	41.6	S	48	46.4											715.0	
AJIRO	0	E	18	47	42.8	E	49	02.7	3	2.4	5	2.0	2	2.4					738.5	
MISHIM	0	X	18	47	51				8	3.3	9	2.2	4	2.2					740.7	
HAMAMA	0	X	18	47	55				5	3.0	6	2.8	2	2.8					842.4	
SHIZUO	0	X	18	48	03.5	ES	49	09.0	6	3.5	5	2.5	3	2.5					781.0	
NAGOYA	0	X	18	48	06.2	X	49	33.4	7	3.2	6	3.2	2	2.8					849.7	
KANAZA	0	EX	18	48	07				5	3.7	5	3.3							769.3	
OMAEZA	0	X	18	48	12.8	X	49	35.0	12	4.1	6	4.1							824.6	
OSAKA	0	EX	18	48	23				8	3.5	5	3.2							981.4	

OT= 1 18 49 50.6 +/- 1.8 (JST)
E OFF HOKKAIDO
LAT= 42 56 +/- 6 LONG= 147 40 +/- 9
H= 60 MAG=5.2 CLASS=U

NEMURO	0	P	18	50	16.9	S	50	34.4	63	2.4	60	2.0	43	2.2		E	D	1	174.9	17.5
KUSHIR	0	EP	18	50	30	S	50	55.4	72	4.2	63	3.2	36	3.0					267.1	25.4
ABASHI	0	EP	18	50	34	S	51	02.4	36	2.8	46	2.0	11	1.6					299.1	28.4
HIROO	0	P	18	50	43.1	S	51	21.1											364.2	38.0
URAKAW	0	P	18	50	49.9	S	51	33.7	28	4.4	46	4.4	24	3.6					410.5	43.8
OBIHIR	0	EX	18	50															362.9	
SAPPOR	0	EX	18	51	05				16	2.0	20	2.6	8	4.0					516.8	
WAKKAN	0	EX	18	51	06				14	4.5	16	5.0	9	4.5					552.1	
HACHIN	0	EP	18	51	07.7	IS	52	04.3	5	0.2	5	0.2							576.6	56.6
MORIOK	0	IP	18	51	17.5	S	52	19.8	12	0.4	8	0.4	2	0.3		E	D		651.9	62.3
AOMORI	0	EX	18	51															617.7	
MATSUS	0	P	18	52	10														1076.5	
ONAHAM	0	EX	18	53	05.2				4	0.9	5	0.5	1	0.4					880.3	

OT= 2 3 47 49.4 +/- 0.4 (JST)
E OFF AOMORI PREF
LAT= 41 20 +/- 1 LONG= 142 40 +/- 3
H= 20 MAG=4.5 CLASS=U

URAKAW	0	P	03	48	05.5	S	48	18.0	29	1.0	46	0.4	15	1.6					92.1	12.5
HIROO	0	P	03	48	09.0	S	48	20.5											118.6	11.5
HACHIN	0	P	03	48	11.9	IS	48	27.4	18	1.1	15	1.1	2	1.1	N	E	1	D	131.6	15.5
AOMORI	0	EP	03	48	15	ES	48	38	46	1.1	55	0.9	20	0.9					168.4	23.0
HAKODA	0	IP	03	48	17.0	S	48	35.9	13	0.6	11	0.6	5	1.6			D		167.9	18.9
SAPPOR	0	P	03	48	24.7	ES	48	49	7	1.6	8	2.4	4	1.2					221.1	24.3
MORIOK	0	P	03	48	25.0	S	48	51.2	16	0.3	19	0.4	5	1.2	S	D W	0 U	0	221.7	26.2
KUSHIR	0	EP	03	48	26	ES	48	49	13	0.2	11	0.3	3	1.0					232.0	23.0
OFUNAT	0	EP	03	48	32.1	ES	49	01.6	6	0.4	6	0.8	6	1.2					264.9	29.5
AKITA	0	EX	03	48	33.2				6	2.6	8	2.6	4	1.8					281.8	
ASAHIK	0	EP	03	48	34				6	1.8	6	2.0	4	2.0					271.8	
ISHINO	0	P	03	48	40.0	ES	49	17.4	3	1.2	6	1.0	4	2.8					343.3	37.4
SENDAI	0	EX	03	48	44				5	1.8	5	2.2	3	1.4					373.3	
FUKUSH	0	EX	03	48	54.2				10	1.0	10	1.0	3	1.0					439.5	

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A	S	E-W A	S	U-D A	S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
OBIHIR	0	X	03	48		X	48	23										182.1	
MITO	0	EX	03	49	07.5	EX	50	09.0	8	2.0	7	2.5	4	2.4				582.0	
ONAHAM	0	EX	03	49	17.4				8	1.3	7	1.0	2	1.6				510.3	
MATSUS	0	IP	03	49	20.9													657.6	
KAKIOK	0	X	03	49	24	ES	50	15	7	1.0	6	1.0	3	0.9				605.6	

OT= 2 16 18 19.0 +/- 0.8 (JST)
OFF IBARAKI PREF
LAT= 36 23 +/- 2 LONG= 141 9 +/- 3
H= 30 MAG=4.3 CLASS=S

MITO	2	IP	16	18	32.3	IS	18	39.0	109	0.4	127	0.4	40	0.2	S	1 W	4 U	19	60.9	06.7
ONAHAM	1	IP	16	18	32.4	IS	18	38.8	42	0.7	75	0.4	24	0.4	S	1	D	16	66.0	06.4
KAKIOK	1	EP	16	18	33	S	18	44.3	28	0.7	25	0.5	14	0.7					87.5	11.3
UTSUNO	1	P	16	18	38.8	S	18	50.5											116.0	11.7
SHIRAK	0	P	16	18	39.1	S	18	49.6											116.1	10.5
FUKUSH	0	EP	16	18	46.2	IS	19	02.9	28	0.5	23	0.6	17	0.4					163.8	16.7
SENDAI	0	IP	16	18	51.4	IS	19	12.2	20	1.0	25	0.8	9	1			D	2	209.4	20.8
KUMAGA	0	X	16	18	51.6	ES	19	05.6	6	1.2	6	1.0	2	0.8					160.7	
ISHINO	0	EP	16	18	52.8	IS	19	15.4	12	0.8	9	0.6	2	1.2			D		227.0	22.6
TOKYO	0	EX	16	18	53	ES	19	02	10		5		0						147.4	
TATEYA	0	X	16	18	58.5				7	1.0	8	1.3	4	1.4					193.8	
MATSUS	0	P	16	18	59	IX	19	36											264.2	
MORIOK	0	EP	16	19	11.0	ES	19	46.6	5	0.4	5	0.4	1	0.4					367.7	35.6
						EX	19	18.3												

OT= 2 16 22 34.8 +/- 2.4 (JST)
NEAR AMAMIOSHIMA
LAT= 29 16 +/-10 LONG= 131 10 +/-15
H= 0 MAG=5.1 CLASS=S

KAGOSH	0	P	16	23	18.2	X	23	38.8	80	1.8	119	2.4	62	1.6			U	2	265.9	
MIYAZA	0	P	16	23	23.0	S	23	57.0	64	0.8	55	0.8							293.8	34.0
KUMAMO	0	EP	16	23	33.3	X	23	49.5	35	1.7	32	1.5	9	1.8					396.9	
NAGASA	0	EP	16	23	36.5	ES	24	24.5											406.3	48.0
FUKUOK	0	EP	16	23	45.5	ES	24	39.5	4	4.0	5	2.5	4	2.3					486.2	54.0
SAGA	0	X	16	23	48.6	ES	24	36.9											451.3	
OITA	0	EX	16	23	55.6						36	2.1							440.6	
YAKUSH	X	EX	16	23															158.2	
MATSUS	0	IP	16	24	56.8										N	E	U		1031.4	
OSAKA	0	EX	16	25	42				5	3.5	5	3.0							719.3	

OT= 2 21 7 13.9 +/- 0.2 (JST)
W OF NAGANO PREF
LAT= 36 12 +/- 1 LONG= 137 40 +/- 1
H= 0 MAG=5.0 CLASS=S

MATSUM	3	IP	21	07	19.7	IS	07	28.3	1400	1.0	700	1.0	350	1.3					28.6	03.6
TAKAYA	1	P	21	07	24.1	S	07	28.1											41.9	04.0
MATSUS	2	IP	21	07	25.8										N	E	U		57.9	
NAGANO	1	IP	21	07	27.9	IS	07	35.9	300	2.2	400	2.2	111	1.0	N	10 E	4 U	40	66.8	08.0
TOYAMA	0	IP	21	07	28.6	IS	07	36.4	141	2.0	310	2.6	105	2.8	N	5 E	4 D	19	72.4	09.8
KARUIZ	X	IP	21	07	29.3	IS	07	38.6							S	2 W	4 D	4	76.6	09.3
IIDA	1	IP	21	07	29.6	IS	07	39.0	154	1.4	134	2.8	65	1.2	S	11 E	2 U	11	77.3	09.4
KOFU	1	IP	21	07	32.6	ES	07	47.8	136	1.4	77	1.6	76	4.8	N	12 W	19 D	19	96.4	15.2
KANAZA	0	P	21	07	33.8	ES	07	51.7	79	2.7	92	4.2	67	2.1	S	2 E	5 D	16	103.3	17.9
TAKADA	0	IP	21	07	35.0	IS	07	51.8							N	7 E	7 U	27	111.2	16.8
KAWAGU	0	P	21	07	36.4	IS	07	52.1							N	18 W	35		122.5	15.7
GIFU	0	IP	21	07	37.0	S	07	57.3	83	2.4	70	1.9	34	3.3	S	15 W	16 U	8	123.7	20.3
MAEBAS	0	P	21	07	38.0	IS	07	52.6											123.1	14.6
NAGOYA	X	IP	21	07	38.6	IS	07	55.6	114	2.4	150	2.4	40	1.4	S	3 W	3 U	22	133.3	17.0
FUKUI	0	IP	21	07	39.6	IS	07	58.6							S	4 W	8 U	6	135.1	19.0
WAJIMA	0	IP	21	07	41.0	ES	07	58	120	1.0	135	1.0	35	1.4			D	5	150.9	17.0
SHIZUO	0	EP	21	07	41.0	S	07	59.5	84	1.3	140	2.2	58	2.0					149.7	18.5
KUMAGA	1	IP	21	07	41.6	S	08	00.0	149	0.8	142	0.6	51	3.4	N	2 W	3 D	6	150.2	18.4
CHICHI	0	X	21	07	42.0				100	2.9	100	3.3	50	3.7					125.1	
HAMAMA	X	P	21	07	43.2	S	08	05.4	108	1.8	114	1.8	42	2.1	S	4 E	1 U	5	165.5	22.2
TSURUG	0	IP	21	07	43.3	S	08	03.3	100	4.2	100	3.9	100	3.7	S	6 W	11 U	9	161.0	20.0
MISHIM	0	IP	21	07	45.0	S	08	08.2	103	0.5	107	1.4	40	1.5					163.2	18.2
AJIRO	0	IP	21	07	45.8	ES	08	09.9	32	1.4	34	1.4	25	1.2			D	6	179.1	24.1
UTSUNO	0	P	21	07	48.1	S	08	11.1											197.1	23.0
AIKAWA	0	IP	21	07	48.5	X	22	18.8	5	1.0	16	0.6	6	2.0	S	1 W			207.3	

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STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
OMAEZA	0	EP	21	07	48.5	ES	08	08.8	180	4.1	192	5.3						182.8	20.3
TSU	0	IP	21	07	48.6	S	08	12.6	35	1.6	42	2.0	12	1.6	N 7	E 3	D 8	198.6	24.0
TOKYO	0	IP	21	07	49.1	IS	08	15.6	120	3.0	125	3.2	96	4.0				192.8	26.5
KAKIOK	0	IP	21	07	50.2	S	08	16.5	97	0.9	67	1.0	32	1.1	S 3	W 3	D 3	222.7	26.3
KYOTO	0	IP	21	07	51.0	IS	08	18.0	29	1.5	17	1.5	13	1.5	S 0	W 1	U 1	222.7	27.0
OSHIMA	0	P	21	07	51.2	S	08	19.4	48	0.8	33	2.0	38	1.4				219.5	28.2
MAIZUR	0	P	21	07	51.9	S	08	18.8										225.4	26.9
NIIGAT	0	IP	21	07	52.2	IS	08	18.1	197	1.7	223	1.6	71	5.0	N 3	E 1	U 6	223.8	25.9
SHIRAK	0	EP	21	07	52.3	ES	08	20.7										246.3	28.4
NARA	0	P	21	07	53.5	S	08	32.8	100	2.0	50	2.0						239.8	39.3
TATEYA	0	IP	21	07	54.3				53	2.3	61	1.8	22	4.0			D 13	237.1	
MITO	0	IP	21	07	54.8	S	08	24.4	115	3.6	44	1.5	31	2.8			D 2	248.2	29.6
OSAKA	0	P	21	07	56.0	ES	08	25.5	85	3.5	49	4.5	27	2.9			U 1	261.1	29.5
TOYOOK	0	P	21	07	57.7	S	08	36.1	40	1.3	29	1.2	10	4.6				271.7	38.4
OWASE	0	EP	21	07	58.0	ES	08	22.0	14	3.0	9	3.8	6	1.6				274.2	24.0
KOBE	0	EP	21	07	59.6													284.8	
ONAHAM	0	P	21	08	02.0	S	08	37.4	56	2.2	36	1.2	19	2.1			D 1	297.2	35.4
FUKUSH	0	EX	21	08	04.0				15	2.0	16	1.7	3	1.4				300.2	
SENDAI	0	EP	21	08	09.0	ES	08	57.0	16	2.4	16	1.0	6	1.0				368.3	48.0
TOKUSH	0	EP	21	08	11.0	ES	08	54.8										371.4	43.8
WAKAYA	0	X	21	08	11.5	ES	08	49.0	13	1.3	9	2.0	9	2.8				319.0	
OKAYAM	0	EP	21	08	12.0	ES	08	58.4	12	4.0	10	5.0	14	3.8				384.0	46.4
ISHINO	0	EP	21	08	14.5	ES	09	03.8	12	3.2	7	3.2	5	3.6				402.5	49.3
SHIONO	0	X	21	08	14.6	ES	08	56.8	9	1.9	14	2.3	10	1.9				358.6	
HACHIJ	0	EP	21	08	17.3	ES	09	04.5	9	1.0	12	0.8						392.5	47.2
SAKATA	0	EX	21	08	18.4													358.6	
AKITA	0	EX	21	08	18.9				10	5.0	11	3.4	5	4.0				448.1	
TAKAMA	0	X	21	08	20.7	ES	09	06.5	7	4.3	10	4.3	2	1.1				392.9	
HAMADA	0	EP	21	08	30.2	S	09	41.6	5	4.6	2	4.8	3	4.6				531.7	71.4
MUROTO	0	X	21	08	36.6	X	09	36.0	5	4.0	8	4.8	4	3.0				460.5	
HIROSH	0	X	21	08	42.6	X	09	40.4	6	2.8	4	4.4	2	2.0				521.6	
MATSUY	0	X	21	08	44.5	ES	09	39.8	12	4.6	9	5.0	3	2.4				520.9	
ASHIZU	0	X	21	08	50.2	EX	10	06.5	5	3.5	4	3.0						579.2	
KUMAMO	0	X	21	08		ES	10	26.9	10	4.0	8	1.8	1	2.7				744.8	
NAGASA	0	EP	21	09	07.0	X	10	58.3										817.5	
SHIMON	0	X	21	09	08				7	2.4	3	4.4	6	4.2				665.9	
OITA	0	EX	21	09	09.2						49	4.7						647.6	
FUKUOK	0	X	21	09	17.0	X	10	39.0	9	2.3	5	4.0	3	2.0				730.5	
SAGA	0	X	21	09	55.4													753.4	

OT= 2 21 25 25.7 +/- 0.4 (JST)
W OF NAGANO PREF
LAT= 36 11 +/- 1 LONG= 137 44 +/- 2
H= 10 MAG=3.9 CLASS=U

MATSUM	0	IP	21	25	28.8	IS	25	32.3								W		22.6	03.5
MATSUS	0	IP	21	25	36.7	S	25	44							N	E	U	58.0	07.3
NAGANO	0	EP	21	25	38.5	IS	25	47.1	15	2.0	20	3.0	5	0.8				67.3	08.6
TOYAMA	0	EP	21	25	40	IS	25	49.8	9	2.8	17	2.6	5	2.4				74.7	09.8
IIDA	0	EP	21	25	40.2	IS	25	49.4	10	1.8	6	1.2	4	1.2				75.3	09.2
KARUIZ	0	EP	21	25	40.4	S	25	49.5										75.6	09.1
KOFU	0	IP	21	25	43.2	ES	25	58.4	7	1.3	5	0.8	3	1.0	N 1	W 1	D 1	94.1	15.2
NAGOYA	0	IP	21	25	49.5	IS	26	07.0	7	2.4	8	2.2	2	1.4			U 2	132.5	17.5
KUMAGA	0	EP	21	25	52.4	S	26	12.0	13	0.8	11	0.8	3	1.0				148.6	19.6
HAMAMA	0	P	21	25	53.5	ES	26	14	6	1.6	6	1.8	3	1.4				163.6	20.5
KAKIOK	0	EP	21	26	02	S	26	27.9	9	0.9	6	0.9	4	0.8				221.2	25.9
TOKYO	0	EX	21	26	02	ES	26	26	5	2.0	5	1.8	6	3.0				190.9	
OMAEZA	0	X	21	26	05.3	ES	26	22.3	13	3.4	10	5.2						180.6	
SHIZUO	0	ES	21	26	14.9				8	0.5	8	0.9	3	1.0				147.4	

OT= 3 0 20 6.3 +/- 2.5 (JST)
E OFF HOKKAIDO
LAT= 42 57 +/-10 LONG= 146 57 +/-13
H= 10 MAG=4.2 CLASS=U

NEMURO	0	EP	00	20	27	ES	20	41	9	1.0	7	1.2	6	1.2				118.6	14.0
KUSHIR	0	EP	00	20	40	S	21	06.6	9	0.9	8	2.8	5	3.2				208.5	26.6
ABASHI	0	EP	00	20	50	ES	21	14	5	1.4	4	1.4	2	2.0				246.2	24.0
URAKAW	0	P	00	21	01.0	S	21	43.9	4	2.2	8	1.6	3	1.6				358.6	42.9
MATSUS	0	P	00	22	20													1032.5	

OT= 3 16 59 28.6 +/- 0.2 (JST)
SW OF IBARAKI PREF
LAT= 36 3 +/- 1 LONG= 139 55 +/- 1
H= 40 MAG=3.6 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KAKIOK	2	P	16	59	36.9	S	59	42.7	43	0.5	34	0.8	23	0.5				32.0	05.8
KUMAGA	0	P	16	59	38.8	S	59	46.6	13	0.4	13	0.2	3	0.2			D 3	49.1	07.8
TOKYO	0	IP	16	59	39.3	S	59	47.1	15	0.6	13	0.4	5					42.9	07.8
UTSUNO	1	IP	16	59	39.7	IS	59	47.7									D 4	55.2	08.0
MITO	0	IP	16	59	40.5	IS	59	49.8	22	0.4	15	0.3	9	0.2		W 1	U 2	61.8	09.3
TATEYA	0	EP	16	59	47.5				7	1.8	10	1.8	5	1.8				118.4	
KOFU	0	EP	16	59	49.9	ES	00	06.0	8	0.5	6	0.7	2	0.5				129.9	16.1
ONAHAM	0	EX	16	59	51.4	IS	00	04.7	8	0.7	6	0.8	4	0.5				133.1	
MATSUS	0	IP	16	59	53.2	S	00	13							S	E	D	162.7	19.8

OT= 3 21 9 54.1 +/- 0.2 (JST)
W OF NAGANO PREF
LAT= 36 12 +/- 1 LONG= 137 42 +/- 1
H= 10 MAG=3.4 CLASS=U

MATSUM	0	IP	21	10	00.1	IS	10	03.6										25.0	03.5
MATSUS	0	IP	21	10	05.4	IS	10	12.2										59.1	06.8
NAGANO	0	EP	21	10	07.5	S	10	17.8	4	2.0	8	2.0			N	E	U	67.7	10.3
TOYAMA	0	EP	21	10	08	ES	10	18	4	2.4	6	2.4	3	2.2				71.4	10.0
KARUIZ	0	EP	21	10	09.1	S	10	18.4										78.1	09.3
IIDA	0	EP	21	10	09.4	ES	10	18.8	6	0.4	4	1.2	3	0.6				77.5	09.4
HAMAMA	0	EP	21	10	19	ES	10	46	4	1.2	5	1.2	2	0.8				165.5	24.0

OT= 4 1 20 12.6 +/- 1.2 (JST)
NEAR TORISHIMA
LAT= 30 43 +/- 4 LONG= 140 30 +/- 5
H= 60 MAG=6.2 CLASS=U

HACHIJ	0	P	01	20	48.9	S	21	15.1	264	3.0	308	3.5	119	4.0			U 2	272.8	26.2
OMAEZA	0	EP	01	20					214		188							481.2	
OSHIMA	0	P	01	21	16.6	X	22	14.6	181	7.6	309	8.8	58	8.2				460.5	
TATEYA	0	EP	01	21	17.5				187	6.7	246	8.6	120	7.1				476.7	
SHIONO	0	EX	01	21	18.4				36	7.8	38	8.3	7	8.5				339.8	
AJIRO	0	EP	01	21	20.2	X	22	31.6	68	8.4	98	8.4	72	8.0				497.3	
MISHIM	0	EP	01	21	21.6	ES	22	13.4	83	8.9	119	7.8	65	9.0	S	E	D	508.8	51.8
HAMAMA	0	EP	01	21	22				46	10.0	54	9.6	16	7.2				513.3	
SHIZUO	0	EP	01	21	24.5	S	22	17.5	46	8.0	42	7.8	55	8.2				510.9	53.0
OWASE	0	EP	01	21	24.5	ES	22	25.0	32	9.0	9	6.4	24	7.2				549.3	60.5
TOKYO	0	P	01	21	28.4	IS	22	25.8	325	8.2	366	9.0	32	5.0				555.1	57.4
KAWAGU	0	P	01	21	29.3	S	22	20.3										554.3	51.0
KOFU	0	EP	01	21	30.0	ES	22	36.8	47	7.8	35	9.0	41	7.0				577.6	66.6
IIDA	0	EP	01	21	31.0	X	23	15.2	19	8.4	25	10.0	15	7.0				586.6	
NAGOYA	0	EP	01	21	33.6	ES	22	40.0	13	6.8	26	7.6	13	7.4				593.3	66.4
TSU	0	EX	01	21	33.9				5	4.4	5	2.8	2	2.3				578.2	
WAKAYA	0	EP	01	21	35.5	X	22	34.5	23	9.0	20	8.0	15	7.5				634.3	
KUMAGA	0	EP	01	21	35.6	ES	22	43.4	72	8.6	44	8.4	47	8.0				610.9	67.8
KAKIOK	0	EP	01	21	36	ES	22	38	21	8.9	28	8.4	14	8.1				612.1	62.0
KYOTO	0	EP	01	21	37.9	ES	22	48.0	15	8.6	7	8.0	8	8.2				652.1	70.1
OSAKA	0	EP	01	21	38				41	9.0	33	8.0	19	7.6				640.6	
GIFU	0	P	01	21	38.3	X	22	25.5	23	8.4	19	7.5	6	6.7				625.1	
MITO	0	EX	01	21	39.0	EX	22	34.5	46	7.8	50	8.4	32	8.3				627.7	
KARUIZ	0	EP	01	21	41.5	ES	22	47.5										649.2	66.0
MUROTO	0	P	01	21	42.9	X	22	38.0	10	8.0	20	7.0	20	7.0				659.7	
MATSUS	0	IP	01	21	43.6	S	22	55										679.5	71.4
ONAHAM	0	EX	01	21	45.9	ES	22	59.3	25	8.1	21	7.4	11	9.6				691.6	
NAGANO	0	EP	01	21	47.0	X	23	12.8	16	5.0	76	5.5	20	5.7				692.6	
TAKADA	0	EP	01	21	52.2													738.2	
TOYOOK	0	P	01	21	52.7	S	23	05.6	25	8.1	14	9.4	14	8.2				752.2	70.9
TOYAMA	0	EP	01	21	53	X	23	29	43	7.6	78	7.4	39	4.6				730.7	
OKAYAM	0	EP	01	21	53.0				6	8.0	15	8.8	13	8.7				757.4	
TAKAMA	0	EP	01	21	53.0	S	23	06.4	23	8.3	11	8.2	2	7.2				724.5	73.4
FUKUSH	0	EP	01	21	57.0				15	8.0	18	9.2	16	9.2				780.7	
MATSUY	0	EP	01	21	59.5	ES	23	26.5	22	8.8	12	7.9	4	7.6				804.9	87.0
NIIGAT	0	EP	01	22	01.3	X	23	40.0	160	7.3	255	7.5	51	6.0				808.7	
KANAZA	0	X	01	22	01.6	X	23	20.6	37	7.8	61	6.5	12	7.5				738.4	
AIKAWA	0	EP	01	22	01.9						18	10.4	10	7.0				836.0	
SENDAI	0	EP	01	22	02	X	23	14	18	8.4	18	9.0	14	8.2				837.3	
WAJIMA	0	EP	01	22	04	ES	23	26	14	8.0	21	9.0	10	6.0				811.0	82.0
ISHINO	0	EP	01	22	04.8	EX	23	26.8	11	7.4	14	9.0	11	9.2			D	858.0	
ASHIZU	0	X	01	22	11.5	EX	24	08.0	17	8.7	13	7.8	8	8.7				742.6	

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
OFUNAT	0	EP	01 22 15.0	ES	23 48.0	8 9.0	9 10.0	8 8.0				932.2	93.0
SAKATA	0	EX	01 22 16.0			200 9.1	250 8.1					910.0	
HAMADA	0	EP	01 22 18.5	EX	23 37.0	9 8.6	6 9.0	7 8.4				914.3	
				EX	24 37.0								
KUMAMO	0	P	01 22 18.8			7 8.5	5 8.8	4 8.8				955.2	
MORIOK	0	EP	01 22 19.0	X	23 51.0	5 8.0	9 8.0	7 9.0				997.9	
				X	22 23.1								
				EX	26 23								
AKITA	0	EX	01 22 19.6			34 8.4	32 7.4	17 8.4				999.1	
MIYAZA	0	X	01 22 27.1			14 7.4	17 7.0	8 8.0				873.2	
OITA	0	EX	01 22 30.3				55 8.5					883.5	
FUKUOK	0	X	01 22 31	X	24 23	7 8.2	5 8.3	5 8.2				1005.2	
NAGASA	0	X	01 22 33.0	X	25 16.0							1030.7	
AOMORI	0	EP	01 22 36	EX	24 32	6 4.9	8 7.1	2 8.1				1120.7	
SHIMON	0	X	01 22 40			10 9.0	9 8.0	13 8.0				967.9	
HAKODA	0	EP	01 22 51			7 8.6	8 9.1	7 8.9				1231.3	
HACHIN	0	X	01 22	ES	24 26.5	3 17.2	7 19.8	3 18.0				1091.9	
SAPPOR	0	EX	01 23 11			2 9.0	5 9.0	3 9.0				1371.4	
CHICHI	0	X	01 23 17.0			50 8.0	100 14.0	50 9.0				599.5	
CHOSHI	0	EX	01 23			200	100					556.2	
WAKKAN	0	EX	01 24 04			5 8.8	4 8.0	4 7.0				1634.4	

OT= 4 3 37 28.9 +/- 0.4 (JST)
MIDDLE OF CHIBA PREF
LAT= 35 21 +/- 1 LONG= 140 17 +/- 3
H= 80 CLASS=L

TATEYA	0	EP	03 37 44.0	S	37 54.0	12 0.7	17 0.7	8 0.5							55.5	10.0
TOKYO	0	P	03 37 44.4	S	37 54.7	9 0.2	9								60.4	10.3
OSHIMA	0	IP	03 37 48.2	S	38 01.4	11 0.2	9 0.2	8 0.2							105.2	13.2
AJIRO	0	EP	03 37 49.5	ES	38 03.3	5 0.2	6 0.2	1 0.3							116.3	13.8
UTSUNO	0	EP	03 37 52	ES	38 07										137.8	15.0
MATSUS	0	IP	03 38 04.0	IX	38 14							D			228.9	

OT= 4 7 1 30.7 +/- 2.9 (JST)
E OFF HOKKAIDO
LAT= 42 59 +/- 9 LONG= 147 3? +/-15
H= 50 MAG=4.4 CLASS=U

NEMURO	0	EP	07 01 57	ES	02 14	5 0.6	6 0.6	4 0.6							170.9	17.0
KUSHIR	0	EP	07 02 09	IS	02 37.6	11 0.7	9 0.4	4 0.8							264.2	28.6
ABASHI	0	EP	07 02 12	ES	02 46	5 2.2	7 1.8								294.3	34.0
URAKAW	0	P	07 02 30.9	S	03 13.6	5 0.4	14 0.4	2 1.4							408.9	42.7
MATSUS	0	IP	07 03 52.5	S	05 40							D			1077.8	107.5

OT= 4 7 9 24.5 +/- 0.1 (JST)
S OF OITA PREF
LAT= 32 57 +/- 1 LONG= 131 26 +/- 1
H=110 CLASS=S

NOBEOK	0	IP	07 09 41.6	IS	09 58.8	60 0.6	50 0.8	100 0.3	S 15 E 9 D 41						46.9	12.2
OITA	1	P	07 09 43.0	IS	09 54.3	161 1.5	133 1.3								36.1	11.3
KUMAMO	0	IP	07 09 43.0	IS	09 55.8	187 2.0	133 2.0	52 1.3							69.4	12.8
UWAJIM	1	IP	07 09 46.3	IS	10 01.3										109.3	15.0
FUKUOK	0	IP	07 09 47.5	IS	10 04.2	30 2.0	21 2.3	15 1.6	S 2 E 4 D 10						120.4	16.7
MIYAZA	0	IP	07 09 47.5	IS	10 03.7	185 0.7	160 0.7	98 0.6	S 10 U 19						114.5	16.2
SHIMON	0	P	07 09 48.5	ES	10 04.1	45 0.8	19 1.2	15 1.8	S 10 E 3 D 17						120.3	15.6
NAGASA	0	P	07 09 50.8	IS	10 10.0				N 1 E 2 D 2						148.6	19.2
ASHIZU	0	EP	07 09 51.4	S	10 09.1	153 0.7	85 0.6	32 0.5							150.4	17.7
MATSUY	0	EP	07 09 52.0	IS	10 10.5	53 0.7	30 0.7	13 0.4							159.4	18.5
KAGOSH	0	P	07 09 53.8	S	10 14.5	18 2.2	28 2.0	18 1.2				U 2			176.6	20.7
HIROSH	0	EP	07 09 54.4	S	10 15.4	9 1.0	10 1.0	4 0.7							182.2	20.8
KOCHI	0	EP	07 09 57.2	IS	10 19.3										206.6	22.1
HAMADA	0	EP	07 09 59.8	S	10 22.6	6 2.8	7 4.2	5 2.6							208.5	22.8
SAGA	0	X	07 10 01.9	X	10 17.1				N 12 E 12 D 10						110.3	
MUROTO	0	P	07 10 02.0	IS	10 29.0	10 1.0	10 0.5	8 1.0							258.3	27.0
YAKUSH	0	EP	07 10 06.0	EX	10 35.6	15 0.8	11 0.8	4 1.2							290.9	
TAKAMA	0	EP	07 10 06.2	ES	10 34.6	17 0.6	16 1.0	10 0.6							286.8	28.4
OKAYAM	0	EP	07 10 08.6	ES	10 33.0	26 0.6	18 0.3	3							299.4	24.4
TOYOOK	0	P	07 10 19.8	S	11 07.2	33 1.0	22 1.0	4 0.6							428.7	47.4
SAIGO	0	EP	07 10 19.8												400.8	
NAGOYA	0	X	07 10 47.0	IS	11 37.2	5 0.8	7 0.8	3 1.0							566.7	
WAKAYA	0	EX	07 10 49.4			8 1.0	8 1.0	4 0.6							374.2	

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
SUMOTO	0	S	07 10 51.1									357.0	
OSAKA	0	EX	07 10 56			7 3.7	8 2.2	3 1.4				424.1	
MATSUS	0	P	07 11 02	S	12 15							736.6	73.0

OT= 4 12 56 28.3 +/- 0.5 (JST)
SE OFF CHIBA PREF
LAT= 34 54 +/- 1 LONG= 140 19 +/- 4
H= 90 CLASS=S

TATEYA	0	IP	12 56 43.3	IS	56 54.8	47 0.5	48 0.6	34 0.4			D 12				42.0	11.5
OSHIMA	0	P	12 56 46.1	S	56 59.8	23 0.4	12 0.2	34 0.2							87.2	13.7
TOKYO	0	EP	12 56 48	S	57 02.5	14	9	6							100.8	14.5
AJIRO	1	EP	12 56 51.2	S	57 04.7	17 0.2	17 0.2	4 0.3							112.5	13.5
HAMAMA	0	X	12 56			5 4.2	5 5.6	2 4.0							238.2	
HACHIJ	0	EP	12 57 00.4	IS	57 22.6	7 0.2	7 0.3								205.3	22.2
MATSUS	0	IP	12 57 07.0								U				263.4	
UTSUNO	0	ES	12 57 17												187.0	

OT= 4 13 30 14.8 +/- 2.7 (JST)
E OFF HOKKAIDO
LAT= 42 43 +/-10 LONG= 147 17 +/-15
H= 10 MAG=4.8 CLASS=U

NEMURO	0	IP	13 30 41.1	ES	30 59	40 1.8	53 2.0	40 2.0			W 1 U 2				154.1	17.9
KUSHIR	0	IP	13 30 52.8	ES	31 24	18 1.6	35 2.0	17 2.8			U 2				237.9	31.2
ABASHI	0	EP	13 30 57	ES	31 39	10 2.4	13 3.6	7 2.0							282.9	42.0
OBIHIR	0	EP	13 31 08												333.0	
URAKAW	0	P	13 31 13.5	S	31 45.7	9 2.8	13 3.6	9 1.3							375.7	32.2
ASAHIK	0	EP	13 31 16			5 2.0	6 2.2	3 1.6							415.6	
SAPPOR	0	EP	13 31 26			4 2.0	6 2.2	2 3.0							487.7	
AOMORI	0	X	13 31 46			7 1.1	8 1.3								580.1	
MATSUS	0	P	13 32 33	X	34 15										1037.0	

OT= 5 6 12 38.8 +/- 1.3 (JST)
E OFF HOKKAIDO
LAT= 43 28 +/- 6 LONG= 147 4 +/- 7
H= 10 MAG=5.6 CLASS=R

NEMURO	2	P	06 13 01.0	IS	13 11.8	120 0.2	135 0.2	95 0.2	N 1 E 2 D 3						120.9	10.8
KUSHIR	2	EP	06 13 15	S	13 44.0	300 0.8	300 0.5	100 1.1							228.8	29.0
ABASHI	0	P	06 13 15.6	S	13 43.4	52 1.8	92 2.6	34 1.4	S 3 E 5 D 4						232.4	27.8
OBIHIR	0	EP	06 13 28	ES	14 10										318.4	42.0
HIROO	1	P	06 13 32.1	S	14 12.5										333.4	40.4
ASAHIK	0	P	06 13 35.5			68 2.6	51 2.0	31 1.2							380.4	
URAKAW	1	P	06 13 36.8	S	14 24.0	300 2.0	400 1.4	108 1.6							379.6	47.2
SAPPOR	0	P	06 13 46.5	ES	14 40	75 2.2	79 2.0	38 1.2							467.9	53.5
WAKKAN	0	P	06 13 47.6	EX	14 41	23 4.3	25 5.4	25 4.0			D 1				480.1	
MURORA	0	EP	06 13 51	ES	14 46										516.0	55.0
HACHIN	0	P	06 13 56.6	IS	14 56.0	20 0.4	18 0.5	6 2.4		W	U				563.4	59.4
HAKODA	0	IP	06 13 56.9	ES	14 58	107 1.0	89 0.8	31 1.7			U 1				548.9	61.1
SUTTSU	0	EP	06 14 00.0	ES	15 09.0										560.5	69.0
AOMORI	0	EP	06 14 03	ES	15 04	107 1.8	149 0.9	51 1.1							596.9	61.0
MORIOK	0	IP	06 14 06.9	IS	15 13.8	27 0.3	32 0.5	8 0.8	S 0 W 0 U 0						645.7	66.9
OFUNAT	0	IP	06 14 08.4	X	15 15.2	11 1.0	10 0.8	8 1.0	S 0 W 0 U 1						663.2	
ISHINO	0	EP	06 14 17.0	X	15 30.6	8 2.4	7 1.0	6 1.2							740.6	
AKITA	0	EP	06 14 18.2	EX	15 34	19 3.6	28 3.6	14 2.4							714.2	
SENDAI	0	EP	06 14 22.0	ES	15 42.0	14 3.0	14 1.0	7 1.0							777.2	80.0
SAKATA	0	EX	06 14 27.3												790.0	
FUKUSH	0	EP	06 14 31.3	X	15 55.1	23 0.8	20 1.2	8 0.7							844.0	
NIIGAT	0	EX	06 14 42.8			22 4.2	18 4.9	8 5.0							915.7	
RUMOI	0	EX	06 14 46												441.2	
MITO	0	EP	06 14 47.0	X	16 20.5	13 3.5	12 2.5	8 2.4							967.4	
UTSUNO	0	EP	06 14 49	X	16 27.3										983.0	
ONAHAM	0	EX	06 14 49.6	X	16 06.6	21 1.3	13 1.0	5 0.5							893.6	
MATSUS	0	IP	06 14 59.8	X	16 41										1077.7	
KAKIOK	0	X	06 14	X	16 21	19 0.8	13 1.0	5 0.9							994.9	
WAJIMA	0	EX	06 15 02			10 1.4	6 1.0								1094.1	
KUMAGA	0	EP	06 15 02.6	X	16 42.0	7 1.4	7 2.0	5 2.6							1044.6	
NAGANO	0	EP	06 15 04.8	ES	17 00.8	4 2.2	5 4.0	3 3.0							1068.4	116.0
TOKYO	0	X	06 15 11	X	16 44	8 2.0	5	3							1067.1	
TATEYA	0	EX	06 15 11.2			9 2.8	8 1.2	5 1.2							1127.4	
KANAZA	0	EX	06 15				5 2.8								1173.9	

International Seismological Centre From the ISC collection scanned by SISMOS

OT= 5 8 46 45.6 +/- 1.4 (JST)
E OFF HOKKAIDO
LAT= 43 12 +/- 4 LONG= 146 38 +/- 7
H= 40 MAG=4.9 CLASS=L

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
NEMURO	2	IP	08 47 00.4	IS	47 10.6	60	0.2	73	0.2	25	0.2	S	E 2 D 4		86.2	10.2
KUSHIR	0	P	08 47 13.7	ES	47 33	33	0.3	41	0.2	14	0.3			U 2	188.9	19.3
ABASHI	0	P	08 47 17.4	ES	47 40	5	1.6	5	1.2	3	0.4	S	E 2 D 2		210.3	22.6
OBIHIR	0	EP	08 47 27	X	48 08										279.7	
HIROO	0	EP	08 47 28	ES	47 59										290.1	31.0
URAKAW	0	P	08 47 36.0	S	48 08.6	17	1.0	31	1.2	7	1.6				336.4	32.6
MATSUS	0	P	08 48 58	X	50 41										1031.8	
AOMORI	0	EX	08 48 59			8	1.3	8	1.3						552.1	

OT= 6 2 4 8.0 +/- 0.6 (JST)
OFF FUKUSHIMA PREF
LAT= 37 12 +/- 1 LONG= 142 12 +/- 3
H= 10 MAG=4.3 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
ONAHAM	0	EP	02 04 28.6	ES	04 43.7	25	0.9	21	0.8	7	0.7				118.4	15.1
ISHINO	0	EP	02 04 34.6	ES	04 52.8	7	1.0	4	1.2	3	0.8			D	157.2	18.2
				EX	04 48.0											
SENDAI	0	IP	02 04 35.8	ES	04 55.6	9	0.8	8	1.0	5	0.8			D 1	164.2	19.8
FUKUSH	0	EP	02 04 36.8	ES	04 56.2	52	0.9	39	1.0	15	0.9				164.6	19.4
SHIRAK	0	EP	02 04 39.1	S	05 00.1										175.6	21.0
KAKIOK	0	EP	02 04 42	S	05 06.8	18	0.8	14	0.9	6	1.0				209.0	24.8
UTSUNO	0	P	02 04 44.2	S	05 07.9										219.9	23.7
TOKYO	0	EP	02 04 51.5	ES	05 26	7	0.6	5	1.4	3	0.4				276.0	34.5
KUMAGA	0	EP	02 04 51.6	ES	05 24.0	6	1.2	4	1.0	2	0.8				277.4	32.4
MITO	0	X	02 04	S	05 00.4	9	0.5	10	0.5	4	0.8			D 3	179.2	
NIIGAT	0	EX	02 05 01.7			7	2.2	6	2.2						289.1	
MATSUS	0	P	02 05 03	S	05 40										363.3	37.0
KOFU	0	EP	02 05 05.2	ES	05 48.2	5	1.0	5	1.2	2	1.0				368.2	43.0
AKITA	0	EX	02 05 06.0			4	2.6	5	2.4	2	2.4				334.2	

OT= 6 16 43 31.8 +/- 1.0 (JST)
E OFF HOKKAIDO
LAT= 43 29 +/- 4 LONG= 147 0 +/- 5
H= 0 MAG=5.4 CLASS=R

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
NEMURO	2	IP	16 43 53.3	S	44 11.3	48	2.0	40	1.4	55	2.4	N	1 F 2 D 2		115.8	18.0
KUSHIR	1	P	16 44 08.3	S	44 37.2	86	0.3	100	0.2	50	3.6			U	219.0	28.9
ABASHI	0	IP	16 44 09.2	S	44 38.2	33	3.6	75	3.8	22	2.6	S	F 7 D 4		226.7	29.0
OBIHIR	0	EP	16 44 22												313.4	
ASAHIK	0	P	16 44 29.6			25	2.8	15	2.6	19	3.0				374.8	
URAKAW	1	P	16 44 31.1	S	45 16.3	58	2.2	114	3.0	48	2.8				375.2	45.2
SAPPOR	0	P	16 44 40.4	ES	45 33	25	2.2	26	2.2	15	4.0				462.6	52.6
WAKKAN	0	P	16 44 41.0	EX	45 39	15	4.5	19	4.8	14	3.9				474.5	
HAKODA	0	IP	16 44 50.2	S	45 52.2	27	1.0	25	3.7	14	4.8			U	544.4	62.0
HACHIN	0	IP	16 44 51.4	IS	45 48.7	12	0.4	11	0.4	5	4.8	S	1 W 2 U 1		560.0	57.3
AOMORI	0	EP	16 44 56	ES	45 59	41	1.1	34	3.0	15	1.2				598.0	63.0
MORIOK	0	P	16 45 00.5	IS	46 07.2	22	0.4	22	0.4	5	1.0	S	0 W 0 U 0		642.7	66.7
OFUNAT	0	EP	16 45 03.5	X	46 09.2	8	0.6	6	0.6	8	0.8				660.8	
ISHINO	0	EP	16 45 11.1	X	46 25.0	9	1.8	5	3.2	3	0.8				738.3	
AKITA	0	EX	16 45 11.4	EX	46 29.0	16	3.4	14	2.6	20	3.4				710.7	
FUKUSH	0	EX	16 45 14.9			15	1.0	12	1.0	3	1.0				841.7	
SENDAI	0	EX	16 45 17	X	46 34	10	2.0	10	3.0	4	2.0				774.6	
MITO	0	EX	16 45 32.0	X	47 14.6	9	1.5	9	3.4	6	2.4				965.6	
KAKIOK	0	EP	16 45 42	X	47 19.6	9	0.9	9	1.0	4	0.9				998.0	
ONAHAM	0	EX	16 45 51.2	X	47 02.5	10	1.1	11	2.8	6	1.8				891.7	
SAKATA	0	EX	16 45 52.0												786.8	
MATSUS	0	P	16 45 54	X	47 34							S	W U		1075.0	
KUMAGA	0	X	16 45 58.0	X	47 34.0	5	1.4	5	3.4	3	3.2				1042.4	
NAGANO	0	X	16 46 01.0	X	48 05.0	5	4.0	5	4.0	2	3.0				1065.6	
NIIGAT	0	EX	16 46 04.5			17	3.7	16	4.2	8	3.9				912.7	
KANAZA	0	EX	16 46 08						5	3.1					1170.7	
TATEYA	0	EX	16 46 20.5			9	4.7	5	3.7	4	3.5				1125.6	
TOKYO	0	X	16 47 38			8	3.6	6	3.6	5	4.2				1065.2	

OT= 7 1 17 18.5 +/- 1.3 (JST)
NEAR TORISHIMA
LAT= 30 38 +/- 5 LONG= 141 26 +/- 8
H= 50 MAG=5.3 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
HACHIJ	0	EP	01 18 03.2	IS	18 36.2	28	0.5	44	0.7	16	0.5				314.7	33.0
TATEYA	0	EP	01 18 27.9	S	19 22.1	45	3.4	44	1.9	19	1.6				504.0	54.2
AJIRO	0	EP	01 18 31.2	X	20 50.7	5	1.5	5	1.6	4	1.6				535.5	
MISHIM	0	EP	01 18 33.9	ES	19 31.3	25	3.2	19	1.9	10	1.8				548.9	57.4
HAMAMA	0	P	01 18 34.3	ES	19 38	8	3.8	7	3.6	3	3.0				570.0	63.7
SHIZUO	0	EP	01 18 34.5	ES	19 40.0	13	3.6	10	4.0	9	4.5				558.3	65.5
KAWAGU	0	P	01 18 39.9	S	19 47.2										594.1	67.3
TOKYO	0	EX	01 18 40	S	19 38.4	25	2.4	25	3.0	13	3.8				581.4	
KOFU	0	EP	01 18 42.4	ES	19 51.4	11	1.6	14	1.8	5	4.4				618.8	69.0
IIDA	0	EP	01 18 44.0	ES	19 56.4	7	2.2	5	2.8	4	2.4				636.4	72.4
NAGOYA	0	EP	01 18 44.8	ES	19 55.0	7	2.8	7	2.6	3	2.0				653.1	70.2
MITO	0	EX	01 18 45.0	ES	19 53.4	40	3.4	20	3.5	20	3.9				643.2	
KAKIOK	0	EP	01 18 46	S	19 49.4	12	0.9	11	0.9	4	0.9				631.3	63.4
KUMAGA	0	EP	01 18 46.4	ES	19 55.0	13	1.2	15	2.6	9	4.0				640.2	66.6
KARUIZ	0	EP	01 18 53.0	ES	20 10.0										686.9	77.0
MATSUS	0	P	01 18 55	S	20 08										719.7	73.0
ONAHAM	0	EX	01 18 57.7	IS	20 03.0	10	1.1	15	3.7	5	2.8				701.5	
NAGANO	0	EP	01 18 57.8	X	20 30.8	9	3.8	19	4.0	5	3.5				732.4	
OMAEZA	0	EP	01 18			23		19							533.7	
TOYAMA	0	EP	01 19 04	X	20 42	11	5.4	17	4.6	10	3.2				778.8	
ISHINO	0	P	01 19 11.7	X	20 35.8	3	2.6	5	3.2	2	3.4				864.2	
FUKUSH	0	X	01 19 12.0	ES	20 23.6	15	0.8	16	0.9	5	0.6				794.8	
OSAKA	0	EX	01 19 17			11	3.5	8	2.5	3	3.5				712.8	
SENDAI	0	EX	01 19 18	ES	20 34	6	2	8	2.4	4	2				847.2	
KUMAMO	0	X	01 19 29.5			3	2.0	7	2.4	3	1.7				1043.6	
AKITA	0	EX	01 19 37			10	3.8	12	3.8	5	3.4				1014.9	
UTSUNO	0	ES	01 19 56.4												671.4	
KANAZA	0	EX	01 19			11	3.0	14	3.0	5	2.3				791.6	
KAGOSH	0	X	01 19			5	2.8	8	2.6	3	2.2				1042.3	
NIIGAT	0	EX	01 20 05.6			26	4.3	28	4.0	13	4.0				836.1	
AOMORI	0	EX	01 20 29			6	2.7	7	2.3						1131.1	
SAKATA	0	EX	01 20 54.8												926.7	

OT= 7 3 58 37.9 +/- 1.5 (JST)
E OFF HOKKAIDO
LAT= 43 7 +/- 5 LONG= 147 4 +/- 8
H= 50 MAG=4.4 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
NEMURO	0	P	03 58 57.2	S	59 10.7	17	0.4	21	0.4	9	0.8			D	122.5	13.5
KUSHIR	0	P	03 59 10.4	S	59 34.0	15	0.3	20	1.1	5	0.4			U	218.3	23.6
ABASHI	0	EP	03 59 15	ES	59 39	4	1.6	6	1.8	3	1.0				246.1	24.0
				EX	59 30											
URAKAW	0	P	03 59 31.3	S	00 05.9	7	1.8	10	1.2	3	2.0				367.4	34.6
MATSUS	0	IP	04 00 53.6	X	02 36									D	1051.8	

OT= 7 9 23 45.5 +/- 0.2 (JST)
IYO-NADA
LAT= 33 37 +/- 1 LONG= 131 48 +/- 1
H=100 CLASS=R

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
OITA	3	IP	09 24 03.0	S	24 13.0	650	1.3	800	1.3	300	1.3			U 29	45.6	10.0
UWAJIM	2	IP	09 24 05.0	IS	24 18.0							S	E 8 U 27		82.8	13.0
SHIMON	1	P	09 24 05.1	ES	24 17.1	56	0.8	61	1.4	55	2.6	S	E D		87.8	12.0
MATSUY	2	IP	09 24 05.9	IS	24 19.9	213	0.5	403	0.7	142	0.5	N	19 E 53 U 48		94.1	14.0
HIROSH	2	IP	09 24 06.0	IS	24 19.4	203	2.7	145	2.3	93	2.3	N	40 E 26 U 70		101.6	13.4
NOBEOK	1	EP	09 24 06.3	ES	24 22.7	70	0.5	50	2.4	50	1.5			U	115.1	16.4
ASOSAN	0	EX	09 24 08												106.1	
FUKUOK	0	IP	09 24 09.2	IS	24 25.5	99	2.1	105	2.7	46	2.0	N	5 E 16 D 38		131.8	16.3
KUMAMO	0	IP	09 24 09.4	IS	24 25.4	224	1.0	255	2.7	112	0.8	N	14 E 14 D 17		135.3	16.0
HAMADA	X	P	09 24 10.6	S	24 27.0	80	3.2	37	4.6	39	3.2	N	5 E 0 U 2		143.8	16.4
ASHIZU	0	IP	09 24 11.8	S	24 29.5	93	0.6	80	0.6	42	0.6	S	4 E 4 U 8		151.1	17.7
SAGA	0	IP	09 24 11.9	ES	24 29.9							N	20 E 44 D 30		145.0	18.0
KOCHI	1	IP	09 24 12.1	IS	24 30.6	200	0.6	150	1.7	75	2.3		E 11 U 9		161.0	18.5
NAGASA	0	P	09 24 18.3	S	24 40.0							N	2 E 2 D		205.9	21.7
MUROTO	0	IP	09 24 18.5	IS	24 44.0	33	2.0	48	2.0	43	2.0	S	1 E 1 U 1		224.8	25.5
MIYAZA	0	P	09 24 18.6	S	24 40.4	78	0.8	77	0.8	28	0.8				191.7	21.8
ANABUK	1	P	09 24 19.2	X	24 21.5										214.4	
TAKAMA	1	IP	09 24 19.7	ES	24 42.3	90	1.6	102	1.4	138	2.0	N	6 E 14 U 13		222.6	22.6
OKAYAM	1	IP	09 24 20.0	ES	24 40.3	270	0.5	206	0.5	60	3.0	N	9 E 18 U 12		228.0	20.3
MATSUE	0	EP	09 24 21.7	S	24 45.0										234.9	23.3

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
YONAGO	0	IP	09	24	22.4	IS	24	47.9	100	0.6			100	1.9	N 2		U 2	246.3	25.5
TOKUSH	0	IP	09	24	25.4	IS	24	51.7										261.7	26.3
TOTTOR	0	P	09	24	25.5	S	25	01.2	100	1.4	100	1.6	100	2.6				302.9	35.7
HIMEJI	0	EP	09	24	28.3	ES	24	58.8										299.5	30.5
FUKUE	0	P	09	24	28.4	ES	24	53.0	6	4.4	6	2.8	9	4.2	N 1 E 2 D 1			294.7	24.6
SUMOTO	1	P	09	24	29.5	S	24	56.8										298.0	27.3
SAIGO	0	IP	09	24	30.1										S 1 W 0 D 0			319.4	
WAKAYA	0	EP	09	24	31.5	ES	25	01.4	61	1.2	33	0.8	25	2.0				318.5	29.9
KAGOSH	0	X	09	24	32.8	EX	24	42.4	25	1.2	39	2.0	15	1.4				254.9	
KOBE	0	EP	09	24	33.1	ES	25	06.3										333.5	33.2
TOYOOK	0	P	09	24	34.3	S	25	11.5	207	1.3	102	1.3	29	0.6				349.4	37.2
SHIONO	0	EP	09	24	35.4	ES	25	10.0	33	1.8	38	2.2	17	1.9				368.5	34.6
OSAKA	0	P	09	24	36.4	S	25	13.0	61	3.5	55	2.5	45	2.2				362.7	36.6
NARA	0	P	09	24	39.9	S	25	18.4	100	1.8	100	2.0	50	1.8				390.2	38.5
MAIZUR	0	P	09	24	40.1	S	25	18.1										388.1	38.0
YAKUSH	0	EX	09	24	40.4	ES	25	17.7	11	0.8	10	0.8	3	0.9				371.9	
KYOTO	0	EP	09	24	40.5	ES	25	19.5	20	1.9	27	1.5	15	1.8				393.7	39.0
OWASE	0	EP	09	24	42.0	ES	25	22.0	13	1.6	20	1.5	11	1.4				409.7	40.0
TSU	0	P	09	24	46.9	S	25	34.2	89	2.0	83	2.0	65	1.9				451.2	47.3
HIKONE	0	P	09	24	47.9	S	25	31.4										447.9	43.5
TSURUG	0	P	09	24	48.6	S	25	33.4										451.3	44.8
GIFU	0	P	09	24	54.2	S	25	43.2	37	1.8	30	1.6	12	1.7				496.7	49.0
NAGOYA	0	P	09	24	54.8	S	25	44.8	38	1.0	45	0.8	18	0.6				505.1	50.0
FUKUI	0	X	09	25	00.6	S	25	34.5										486.6	
HAMAMA	0	P	09	25	00.6	ES	25	57	28	1.8	17	1.4	14	1.8				559.2	56.4
IIDA	0	EP	09	25	04.4	IS	26	03.4	21	2.0	27	1.4	11	2.4				592.0	59.0
TOYAMA	0	EP	09	25	06	ES	26	06	15	3.4	18	3.2	11	3.8				599.9	60.0
MATSUM	0	EP	09	25	11.6	X	26	28.4										634.5	
WAJIMA	0	EP	09	25	12	ES	26	10	15	0.8	15	1.0	8	1.2				623.5	58.0
MATSUS	0	IP	09	25	14.7	S	26	20							S W D			667.9	65.3
AJIRO	0	EP	09	25	16.4	ES	26	26.3	4	2.0	5	2.4	3	2.6				689.5	69.9
NAGANO	0	EP	09	25	17.0	ES	26	27.1	10	3.1	29	4.0	5	4.0				673.3	70.1
KARUIZ	0	EP	09	25	18.0	ES	26	32.8										686.2	74.8
MISHIM	0	X	09	25	21.7	ES	26	21.5	13	3.2	16	2.2	5	2.2				676.2	
KAWAGU	0	X	09	25	22.2	S	26	23.9										671.9	
KUMAGA	0	EP	09	25	26.6	ES	26	43.0	13	3.0	15	2.8	7	3.0				747.6	76.4
MITO	0	EX	09	25	35.4	EX	27	02.6	12	3.0	7	2.9	6	3.4				848.2	
TATEYA	0	EX	09	25	38.0				16	2.3	11	3.0	5	2.4				757.6	
KANAZA	0	X	09	25	54.8	X	26	26.1	11	2.5	17	2.4	15	2.8				548.5	
TOKYO	0	EX	09	25	55	X	26	56	28	2.8	23	3.6	17	3.0				764.3	
OMAEZA	0	EP	09	25					33		42							601.5	
SHIZUO	0	X	09	25		ES	26	06.5	9	3.0	18	3.0	10	3.0				626.3	
KOFU	0	X	09	26	16.2	X	26	35.8	28	2.2	19	2.0	10	2.4				659.6	
OSHIMA	0	EX	09	26	30.0				8	2.0	3	2.0	4	2.0				709.6	
NIIGAT	0	EX	09	27	01.3				13	4.3	13	4.7	6	4.0				809.9	
ONAHAM	0	EX	09	27	21.0				6	2.5	5	3.6	4	2.4				906.3	

OT= 7 15 54 1.3 +/- 0.5 (JST)
OFF MIYAGI PREF
LAT= 38 36 +/- 1 LONG= 141 57 +/- 3
H= 50 MAG=3.6 CLASS=L

OFUNAT	1	EP	15	54	13.4	IS	54	20.8	17	0.0	8	0.0	4	0.0				55.1	07.4
ISHINO	0	IP	15	54	13.7	IS	54	21.4	9	0.4	11	0.4	2	0.6	N E 1 D 2			59.6	07.7
SENDAI	0	P	15	54	18.8	IS	54	30.0	6	0.8	8	1.0	2	1				99.1	11.2
MORIOK	0	IP	15	54	23.7	S	54	38.0	4	0.3	7	0.3	1	0.4	S 1 E 1 D 1			139.2	14.3
MATSUS	0	IP	15	54	59.4	IX	55	21.0							D			401.9	
HIROO	0	X	15	54		X	55	01.4										425.1	

OT= 7 21 33 49.7 +/- 1.3 (JST)
E OFF HOKKAIDO
LAT= 42 57 +/- 4 LONG= 146 53 +/- 6
H= 10 MAG=4.6 CLASS=S

NEMURO	1	IP	21	34	11.0	IS	34	24.9	30	0.2	46	0.4	31	0.4	S W 2 U 3			113.6	13.9
KUSHIR	0	IP	21	34	23.2	S	34	47.0	20	1.1	36	1.4	9	0.5	U 2			203.1	23.6
ABASHI	0	P	21	34	27.2	S	34	54	4	1.6	6	1.4	3	1.4				241.5	26.8
OBIHIR	0	EP	21	34	36													299.0	
URAKAW	0	P	21	34	44.1	S	35	24.5	9	0.8	12	1.2	5	2.4				348.3	40.4
SAPPOR	0	EX	21	34	56				4	2.0	6	2.0	2	1.2				452.8	
MATSUS	0	P	21	36	06	S	37	56										1028.3	110.0

OT= 8 11 44 8.9 +/- 0.3 (JST)
OFF URAKAWA
LAT= 41 33 +/- 1 LONG= 142 36 +/- 3
H= 30 MAG=4.1 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
URAKAW	0	IP	11	44	21.5	S	44	31.1	11	0.6	22	0.4	5	1.0	N U 1			69.2	09.6
HACHIN	0	IP	11	44	33.1	ES	44	49.6	13	0.2	15	0.2						145.4	16.5
HAKODA	0	IP	11	44	33.6	IS	44	52.0	5	0.4	7	0.6	2	1.0				156.1	18.4
OBIHIR	0	EP	11	44	34	ES	44	53										160.6	19.0
SAPPOR	0	P	11	44	40	ES	45	03	4	2.0	5	1.8	2	1.2				197.5	23.0
MORIOK	0	P	11	44	45.0	S	45	09.6	6	0.3	9	0.5	2	0.5	N U			238.8	24.6
AOMORI	0	EX	11	44	57				13	0.9	11	1.0						172.8	
MATSUS	0	P	11	45	41	EX	47	33										673.6	

OT= 9 12 33 18.8 +/- 0.4 (JST)
IYO-NADA
LAT= 33 20 +/- 3 LONG= 131 52 +/- 2
H= 60 MAG=4.1 CLASS=L

OITA	1	EP	12	33	29.2	S	33	37.7	93	0.6	106	0.6						25.2	08.5
UWAJIM	1	P	12	33	32.7	IS	33	42.5										65.5	09.8
NOBEOK	0	EP	12	33	33.9	S	33	44.7							N 1 D 2			84.9	10.8
MATSUY	0	EP	12	33	38.0	IS	33	50.8	23	0.6	26	0.6	6	0.4	S W D			101.7	12.8
KUMAMO	0	EP	12	33	38.4	IS	33	52.5	31	1.5	33	1.0	16	0.8				122.6	14.1
ASHIZU	0	EP	12	33	39.3	ES	33	53.6	8	0.4	5	0.4						127.3	14.3
KOCHI	0	EP	12	33	42.0	ES	33	59.9										156.8	17.9
SAGA	0	P	12	33	44.1	S	33	57.1										145.7	13.0
MIYAZA	0	P	12	33	44.6	S	34	05.0	12	0.6	12	0.6	5	0.6				162.4	20.4
OKAYAM	0	EP	12	33	53.0	ES	34	18.6	5	0.5	4	0.5	1	1.5				241.1	25.6
MATSUS	0	IP	12	34	48.6	S	35	57								W D		679.4	68.4

OT= 9 14 15 33.5 +/- 0.2 (JST)
MIDDLE OF GIFU PREF
LAT= 35 47 +/- 1 LONG= 137 4 +/- 1
H= 0 MAG=6.6 CLASS=R

TAKAYA	3	P	14	15	44.1	ES	15	48.3	5200	2.1	5900	2.5	6500	2.5	N122 E 49 U129			44.2	04.2
GIFU	3	IP	14	15	45.4	S	15	54.3	9100	3.4	6900	1.8	3200	4.5	S244 W186 U 38			50.7	08.9
NAGOYA	4	IP	14	15	47.4	S	15	57.3	7400	2.7	12100	3.2	2800	1.7	S 41 W 14 U 19			69.2	09.9
IIDA	4	IP	14	15	48.6	ES	15	59.0							N 55 W114 D124			75.9	10.4
FUKUI	4	PE	14	15	50.8	S	15	58.8	4500	3.2	4400	3.2	1700	4.0	S 20 E 68 D 30			81.5	
TSURUG	3	IP	14	15	52	S	16	03	10400	5.0	3000	4.8	1200	4.3	N 8 E 31 D 19			91.8	11.0
HIKONE	3	IP	14	15	52.1	S	16	05.9	7800	1.9	4500	1.6	1500			U		93.4	13.8
KANAZA	2	P	14	15	52.9	ES	15	59.9	11200	4.9	17600	5.5	4100	3.4	S 6	U 15		92.7	07.0
MATSUM	2	IP	14	15	53.4	S	16	03.8	11700	3.7	2300	3.7	7550	3.7	N E U			96.3	10.4
TOYAMA	3	IP	14	15	53.8										N 52 E 15			103.2	
HAMAMA	3	IP	14	15	57.0	S	16	16.6	8550	4.6	15800	4.3	1950	3.4	E U 2			133.4	19.6
KOFU	3	IP	14	15	57.6	ES	16	14.1	2950	6.5	2250	4.5	1100	4.5	N 10 W 49 D 45			135.6	16.5
TSU	4	IP	14	15	57.8	S	16	16.7	11300	5.4	6100	4.8	8100	5.2	S 1 W 1 U 1			129.9	18.9
MATSUS	2	IP	14	15	58.0										N E U			132.5	
SHIZUO	2	P	14	15	59.8	S	16	21.9	3300	4.4	2400	6.1	1300	4.8	N W D			151.3	22.1
NAGANO	3	P	14	16	00.0	ES	16	17.8	5000	4.6	10800	6.3	2700	3.4		U 40		140.6	17.8
KARUIZ	2	IP	14	16	00.7	S	16	19.0	5700	6.1	4800	6.0	1700	4.2	W D 4			147.3	18.3
KYOTO	3	IP	14	16	01.1	IS	16	19.2	1000	4.7	4750	3.4	3500	5.9	S 14 W 30 U 25			146.2	18.1
MAIZUR	2	P	14	16	01.9	S	16	20.7	4200	6.1	1500	6.1	500	4.9	N 1 E 3 D			156.0	18.8
KAWAGU	3	IP	14	16	02.0	IS	16	22.4	3870	1.3	2150	0.7	1200	1.3				156.9	20.4
NARA	3	P	14	16	03.0	S	16	27.1	5850	2.2	4400	2.0	2000	1.7		U		165.8	24.1
WAJIMA	3	IP	14	16	04.0	ES	16	26								U 13		178.9	22.0
OMAEZA	2	IP	14	16	04.0	ES	16	27.6	8800	3.4	15300	4.1	4300	2.1	N 8 W 3 D 3			167.4	23.6
OSAKA	4	IP	14	16	06.2	ES	16	29	9100	3.4	10800	5.1	2600	2.9		U 10		186.5	22.8
						IX	16	10.1											
CHICHI	2	EP	14	16	07.0	S	16	31.0	3000	6.1	1300	3.0	1250	4.5				183.4	24.0
MISHIM	3	IP	14	16	07	IS	16	31	3000	1.5	2500	1.3	900	1.2	N 14 W 38 D 60			184.8	24.0
TAKADA	2	IP	14	16	07.1	S	16	35.7	2700	3.8	1900	3.2	1000	3.2	N 5 E 4 U 9			181.0	28.6
OWASE	1	IP	14	16	07.5	IS	16	35.0	540	5.0	360	4.8	365	6.5	S 6 W 3 U 5			206.4	27.5
MAEBAS	2	P	14	16	07.6	S	16	34.2										192.6	26.6
AJIRO	2	IP	14	16	08.0	ES	16	32.4	343	1.2	372	1.0	287	1.2	N 10 W 23 D 32			201.8	24.4
TOYOOK	3	IP	14	16	09.6	ES	16	37.7	5900	1.4	6500	1.0	1300	1.4	N 7 E 26 D 10			205.2	28.1
KOBE	3	P	14	16	10.2	IS	16	36.8	3100	7.9	2900	5.1	2600	2.4		U 7		210.3	26.6
						IX	16	14.8											
KUMAGA	2	IP	14	16	11.0	S	16	41.0	6800	6.6	5000	5.2	1800	3.4	S 3 W 6 D 16			212.9	30.0
IROZAK	2	P	14	16	11.0	S	16	37.0	3000	5.5	2000	4.3	1100	4.7				208.5	26.0
OSHIMA	2	P	14	16	12.2				2800	4.0	2000	3.8	800	3.2	N 2 E 7 D 5			238.9	
WAKAYA	2	P	14	16	13.6	S	16	43.0	410	1.3	345	1.0	345	1.0	S 4 W 4 U 3			244.7	29.4
YOKOHA	2	P	14	16	14.4	S	16	44.2										237.6	29.8

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
SUMOTO	0	P	14	16	15.2	X	16	47.0	2200	8.0	1200	8.5	800	4.0				254.1	
						X	16	55.0											
AIKAWA	0	IP	14	16	15.4	ES	16	47.4	148	5.0	288	5.0	155	3.4	S	W	U	269.4	32.0
TOKYO	3	IP	14	16	16.0	IS	16	47.6	6500	7.0	4700	5.8	1400	3.8				243.7	31.6
TOTTOR	1	P	14	16	16.2	S	16	44.5	3000	6.0	500	4.2	500	8.4				263.2	28.3
						X	16	53.6											
UTSUNO	1	P	14	16	16.6	S	16	49.3										266.2	32.7
TATEYA	2	EP	14	16	17.0				2400	4.3	2100	4.6	900	3.3				269.5	
HIMEJI	0	P	14	16	17.0	S	16	46.5							N	5 E	7 D 11	239.3	29.5
SHIONO	1	EP	14	16	17.1	IS	16	53.4					520	1.7				285.2	36.3
KAKIOK	2	EP	14	16	19	X	16	28.8	700	1.1	700	3.3	400	6.7				286.2	
TOKUSH	1	IP	14	16	20.0	IS	16	54.5	790	0.1	868	0.1	252	0.1				296.7	34.5
NIIGAT	0	IP	14	16	21.7	S	17	00.0	4600	4.4	7400	6.2	1250	5.7				295.0	38.3
OKAYAM	1	EP	14	16	21.8	ES	17	00	2550	6.5	900	6.1	300	3.0				311.7	38.2
MITO	1	P	14	16	22.6	ES	17	01.8	4250	4.2	1100	2.8	550	3.2				316.6	39.2
						IX	16	32.3											
ANABUK	0	P	14	16	24.1	S	17	13.3										345.9	49.2
SAIGO	0	P	14	16	24.4				400	7.1	300	7.6	100	6.3	S	1 E	1 D 1	339.8	
SHIRAK	0	EP	14	16	25.9	ES	17	08.9	1300	7.6	800	8.3	250	4.6				319.5	43.0
YONAGO	X	EP	14	16	26.7	S	17	04.8	1300	2.8			500	1.6	N	E 4	D 2	339.5	38.1
CHOSHI	0	P	14	16	30.1	S	17	14.8	700		700		300					341.5	44.7
MUROTO	0	IP	14	16	30.1	X	17	36.0	330	3.0	345	3.0	320	3.0	S	0 W	0 U 0	386.4	
MATSUE	1	EP	14	16	30.3	ES	17	11.3										363.7	41.0
ONAHAM	2	EP	14	16	31.0	ES	17	14.6	2000	2.4	1250	2.2	250	4.0				367.9	43.6
TAKAMA	2	X	14	16	31.3	IS	17	09.7	1800	6.1	1950	7.1	300	3.1				319.0	
FUKUSH	1	IP	14	16	32.3	S	17	14.8	264	4.1	167	5.0	119	4.0	N	6 E	5 U 5	374.8	42.5
HACHIJ	0	EP	14	16	32.3	S	17	15.9	240	3.8	300	4.0	116	1.6				388.5	43.6
KOCHI	0	EP	14	16	33.1	ES	17	16.9	1200	7.9	1900	7.7	300	6.7				407.6	43.8
YAMAGA	0	EP	14	16	35.0	ES	17	22.0							N	2	U 4	400.5	47.0
SENDAI	0	EP	14	16	40.0	ES	17	34.0	500	9	500	10	100	6	N	5 E	6 U 5	437.9	54.0
						IX	17	49.0											
SAKATA	0	EP	14	16	40.2	ES	17	26.8	1350	4.8	1550	3.6	650	4.8				424.3	46.6
HIROSH	X	EP	14	16	40.3	IS	17	32.5	1400	8.0	650	8.4	400	4.4				450.5	52.2
MATSUY	1	EP	14	16	40.9	ES	17	33.4	3000	6.2	1500	6.2	750	6.9				447.4	52.5
HAMADA	X	P	14	16	42.7	S	17	34.4			234	6.8	166	4.4	N	0 E	0	464.4	51.7
ISHINO	0	EP	14	16	45.3	ES	17	40.4	234	9.0	242	8.4	121	5.0	N	3 E	5 U	477.1	55.1
ASHIZU	0	P	14	16	48.6	S	17	52.5	270	4.4	294	4.0			S	3 W	2	504.6	63.9
AKITA	0	EP	14	16	48.8	ES	17	49.1	318	6.6	294	7.0	176	9.2	N	3 E	2 U 4	512.0	60.3
UWAJIM	0	EP	14	16	49.6	X	17	56.0	800	7.6	1000	7.6	500	3.8				501.7	
OFUNAT	0	P	14	16	53.0	S	17	57.4	88	6.2	142	5.6	66	5.6			U 1	549.3	64.4
MORIOK	0	EP	14	16	55.6	S	18	07.3	63	6.0	55	9.5	58	6.5	N	0 E	0 U 0	564.9	71.7
						IX	16	58.5											
						EX	17	10.0											
NOBEOK	0	EP	14	16	56.1	ES	18	07.2	650	3.8	650	6.3	250	3.1				609.8	71.1
SHIMON	0	EP	14	16	59	ES	18	04	1050	9.3	205	8.0	200	2.9				595.4	65.0
OITA	0	P	14	17	00.7	X	18	18.4										574.1	
MIYAKO	0	EP	14	17	02.3	ES	18	11.6	91	7.5	148	7.5	61	5.4	N	5 E	3 U 3	608.4	69.3
HACHIN	0	EP	14	17	05.8	IS	18	22.7	44	6.1	76	4.1	38	6.0				655.3	76.9
AOMORI	0	EP	14	17	06.0	S	18	16.0	106	3.2	121	4.3						646.2	70.0
FUKUOK	0	EP	14	17	09.0	S	18	21.5	1000	2.3	480	2.5	230	2.2	N	E 3	D 3	659.4	72.5
MIYAZA	0	P	14	17	09.0	S	18	25.0	250	4.9	650	7.2	150	3.7			U 5	675.1	76.0
KUMAMO	0	IP	14	17	09.1	IS	18	26.0	1600	6.5	1450	7.6	450	3.5	S	1 W	5 U 4	671.3	76.9
ASOSAN	0	EX	14	17	10				1050	7.2	500	5.4	300	4.0				638.3	
UNZEND	0	EP	14	17	12.3				550	7.5	600	7.5	100	3.8				712.4	
SAGA	0	EP	14	17	14.4	S	18	32.2										681.3	77.8
IZUHAR	0	EP	14	17	17.1	ES	18	40.6										730.4	83.5
HAKODA	0	P	14	17	18.7	ES	18	38	48	12.0	45	5.3	52	4.4	N	2 E	1 U 2	742.0	79.3
NAGASA	0	EP	14	17	19.8	S	18	32.7	350	3.0	300	3.3	150	2.6			D	744.7	72.9
KAGOSH	0	P	14	17	22.6	X	19	04.4	205	3.0	240	3.0	127	3.8			D 5	762.9	
FUKUE	0	EP	14	17	24.8	X	19	22.0	192	6.0	118	6.5	105	5.4				831.4	
YAKUSH	0	EP	14	17	31.0				44	7.6	56	10.0	47	9.0				851.2	
URAKAW	0	P	14	17	32.8	S	19	04.4	75	9.6	139	9.6	55	5.6				863.2	91.6
SAPPOR	0	P	14	17	38.7	S	19	15.9	45	2.8	49	12.0	50	2.6				886.9	97.2
OBIHIR	0	EX	14	17	45													952.9	
KUSHIR	0	P	14	17	49.3	ES	19	34	40	8.2	50	7.2	21	4.8			U	1017.3	104.7
ASAHIK	0	EP	14	17	52				24	3.0	18	2.8	28	3.2				996.0	
NEMURO	0	EP	14	17	59	X	19	51	10	7.4	11	7.4	8	8.0				1111.4	
MURORA	0	X	14	17		ES	19	01										800.4	
ABASHI	0	EP	14	18	01	ES	19	55	25	6.8	15	6.2	9	5.0				1102.0	114.0
						EX	21	35											
WAKKAN	0	EP	14	18	09	ES	20	13	39	11.0	47	11.4	43	4.4				1138.1	124.0
RUMOI	0	EX	14	18	51													987.0	
NAHA	0	X	14	18		X	21	28	12	8.0	16	10.0	10	10.0				1384.9	

OT= 9 14 25 15.8 +/- 0.2 (JST)
MIDDLE OF GIFU PREF
LAT= 35 51 +/- 1 LONG= 137 3 +/- 1
H= 10 MAG=4.1 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TAKAYA	0	P	14	25	23.2	S	25	27.9										38.2	04.7
GIFU	0	EP	14	25	27.8	S	25	37.1					13	0.8				56.4	09.3
NAGOYA	0	P	14	25	30.2	IS	25	39.0	12	0.6	15	0.6	6	0.6	S	5	U 4	76.3	08.8
IIDA	0	E	14	25	30.4													80.4	
HIKONE	0	P	14	25	33.7	S	25	45.4									D	96.9	11.7
MATSUS	0	P	14	25	39													129.2	
KOFU	0	EP	14	25	40.6	ES	25	56.0	11	0.5	10	0.4	5	0.4				137.9	15.4
KYOTO	0	EP	14	25	42.0	IS	26	00.0	13	0.0	15	0.0	6	0.0				151.3	18.0
MAIZUR	0	P	14	25	43.2	S	26	01.1									U	156.3	17.9
NARA	0	EP	14	25	47.5	S	26	05.2										170.3	17.7
SHIZUO	0	S	14	26	00.7				10	0.5	6	0.5						156.9	
FUKUI	0	X	14	26	57.4	X	27	09.4										77.6	
MISHIM	0	EX	14	26					25	0.9	18	0.9						189.2	

OT= 9 14 29 53.8 +/- 1.1 (JST)
MIDDLE OF GIFU PREF
LAT= 36 6 +/- 5 LONG= 137 6 +/- 5
H= 40 MAG=4.2 CLASS=L

TAKAYA	0	P	14	30	06.2	S	30	11.7										15.1	05.5
GIFU	0	P	14	30	07.5	S	30	16.5					15	0.7			U 9	83.5	09.0
MATSUS	0	P	14	30	09	S	30	21										110.8	12.0
NAGOYA	0	P	14	30	11.0	S	30	19.2	14	0.6	17	0.6	7	0.2			U 5	104.4	08.2
IIDA	0	EP	14	30	11.8	IS	30	20.4	14	0.6	17	0.4	7	0.2				93.2	08.6
HIKONE	0	P	14	30	15.8	S	30	21.0										119.9	05.2
HAMAMA	0	EP	14	30	19.9	S	30	36.2	13	0.2	25	0.6	5	0.6				164.4	16.3
SHIZUO	0	P	14	30	20.7	S	30	40.7	15	0.3	9	0.5	3	0.8				172.2	20.0
NARA	0	P	14	30	20.7	S	30	46.3										194.7	25.6
KOFU	0	EP	14	30	21.4	ES	30	37.4	8	0.4	7	0.4	3	0.6				140.2	16.0
KYOTO	0	EP	14	30	24.0	IS	30	42.2	10	0.5	13	0.0	5	0.5				172.9	18.2
MAIZUR	0	P	14	30	25.4	S	30	44.6										169.8	19.2
AJIRO	0	X	14	30	32.1	ES	30	55.8	7	0.3	5	0.3	2	0.4				215.6	
MISHIM	0	X	14	30	34	S	30	53.0	18	0.9	13	0.9						198.7	
OMAEZA	0	X	14	30	36.8				20	1.2	17	1.2						194.4	
OSAKA	0	EX	14	30	54													213.1	
TSURUG	0	EX	14	30														105.9	
KOBE	0	ES	14	31	00.1													234.4	

OT= 9 14 31 21.2 +/- 0.3 (JST)
MIDDLE OF GIFU PREF
LAT= 35 42 +/- 1 LONG= 137 8 +/- 1
H= 0 MAG=3.7 CLASS=L

GIFU	0	P	14	31	31.8	S	31	39.3					13	0.7			U 9	47.3	07.5
NAGOYA	0	P	14	31	35.6	S	31	43.8	6	0.4	9	0.4	5	0.3	S	7	U 5	61.2	08.2
IIDA	0	IP	14	31	35.8	ES	31	44.6	9	0.2	7	0.2	4	0.4			D 4	67.0	08.8
HAMAMA	0	EP	14	31	44.1	ES	31	59	6	0.6	14	0.8	3	0.6				122.4	14.9
MATSUS	0	P	14	31	45													134.2	
KOFU	0	EP	14	31	46.1	ES	32	00.4	13	0.3	10	0.4	3	0.5				129.0	14.3
KYOTO	0	EP	14	31	48.0	IS	32	06.1	10	0.5	6	0.0	3	0.5				148.2	18.1
FUKUI	0	X	14	31	48.6	IS	31	55.8										90.8	
MAIZUR	0	P	14	31	49.3	S	32	08.1										160.3	18.8
NARA	0	EP	14	31	50.5	S	32	10.3										163.5	19.8
TSURUG	0	EX	14	31														96.9	
KOBE	0	ES	14	32	22.9													210.3	

OT= 9 14 37 11.8 +/- 0.4 (JST)
MIDDLE OF GIFU PREF
LAT= 35 51 +/- 2 LONG= 137 3 +/- 2
H= 10 MAG=3.7 CLASS=L

GIFU	0	P	14	37	23.4	S	37	29.8	22	0.5	14	0.5	5	0.6	S	6 W	4 U 4	56.4	06.4
NAGOYA	0	EP	14	37	27.2	S	37	36.0	6	0.6	6	0.4	4	0.3				76.3	08.8
IIDA	0	EP	14	37	27.2	IS	37	36.4	9	0.4	7	0.2	4	0.2				80.4	09.2
HIKONE	0	P	14	37	31.2	S	37	41.8										96.9	10.6
MATSUS	0	P	14	37	35	S	37	50										129.2	15.0
MAIZUR	0	P	14	37	36.8	S	37	59.2										156.3	22.4
KYOTO	0	EP	14	37	39.0	IS	37	57.0	5	0.0	10	0.0	1	0.5				151.3	18.0
HAMAMA	0	EX	14	37	42	ES	37	56	3	0.6	6	1.0	1	0.4				140.7	
TOYOOK	0	X	14	38	12.3				7	0.9	8	1.2						204.8	

International Seismological Centre From the ISC collection scanned by SISMOS

OT= 9 14 39 32.2 +/- 0.4 (JST)
MIDDLE OF GIFU PREF
LAT= 35 43 +/- 2 LONG= 137 10 +/- 2
H= 0 MAG=3.5 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
GIFU	0	P	14	39	44.0	S	39	50.5	13	0.4	12	0.5	6	0.7				50.7	06.5
NAGOYA	0	P	14	39	46.8	IS	39	54.8	5	0.7	4	0.6	3	0.2				63.8	08.0
IIDA	0	EP	14	39	47.4	ES	39	56.0	5	0.4	3	0.2	3	0.2				64.7	08.6
HIKONE	0	P	14	39	52.0	S	40	02.9										96.9	10.9
KOFU	0	EP	14	39	54.2	ES	40	12.2	6	0.4	5	0.4	2	0.6				126.1	18.0
MATSUS	0	P	14	39	57													130.8	
HAMAMA	0	EX	14	40	00	ES	40	10	4	0.4	6	0.8	2	0.4				122.8	
KYOTO	0	EP	14	40	01.0	IS	40	19.2	3	0.0	7	0.0	1	0.5				151.8	18.2
TOYOOK	0	EP	14	40	11.0	S	40	33.6	8	1.0	11	1.1						213.5	22.6

OT= 9 14 42 46.9 +/- 0.2 (JST)
MIDDLE OF GIFU PREF
LAT= 35 45 +/- 1 LONG= 137 7 +/- 1
H= 10 MAG=4.0 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
GIFU	0	P	14	42	57.3	S	43	04.0	17	0.6	19	0.6	8	0.7	S 10	W 5	U 8	50.4	06.7
TAKAYA	0	X	14	42		ES	42	58.4										46.3	
NAGOYA	0	P	14	43	00.0	IS	43	09.6	12	0.8	19	0.6	9	0.4				66.3	09.6
IIDA	0	IP	14	43	00.8	IS	43	10.4	13	0.2	15	0.2	7	0.2		W 4	D 4	70.3	09.6
HIKONE	0	P	14	43	04.0	S	43	15.8									U	95.0	11.8
FUKUI	0	EP	14	43	06.9	S	43	17.9										87.1	11.0
TSU	0	P	14	43	07.7	S	43	25.9	19	1.4	18	1.7	3	1.3				128.4	18.2
MATSUS	0	IP	14	43	09.8	S	43	25							N	E	U	131.5	15.2
KOFU	0	IP	14	43	10.1	IS	43	26.0	13	0.5	12	0.3	4	0.8			D 1	130.8	15.9
HAMAMA	0	P	14	43	10.5	S	43	26.4	12	0.4	22	1.0	5	0.6				128.1	15.9
NAGANO	0	EP	14	43	11.6	ES	43	30.1	5	0.9	4	0.5	2	0.5				140.1	18.5
KYOTO	0	EP	14	43	12.0	IS	43	30.3	11	1.0	11	1.0	6	0.5				149.9	18.3
MAIZUR	0	P	14	43	13.9	S	43	32.1										159.7	18.2
KANAZA	0	X	14	43	14.0				7	1.3	16	1.8	5	1.1	N 12	E 8		97.9	
NARA	0	P	14	43	15.9	S	43	35.5										166.3	19.6
WAJIMA	0	EP	14	43	18	ES	43	38	23	0.8	24	0.8						183.0	20.0
OSAKA	0	EP	14	43	20	S	43	41.8	11	3.0	10	2.8	4	1.5				187.6	21.8
TOYOOK	0	EP	14	43	20.3	S	43	45.6	24	1.0	46	1.3	6	0.6				209.3	25.3
MISHIM	0	EP	14	43	22	S	43	41.0	14	1.0	13	0.9						179.2	19.0
OMAEZA	0	X	14	43	25.0				13	1.2	13	1.2						161.7	
SHIZUO	0	S	14	43	30.5				6	0.3	6	0.3	1	0.7				145.5	
WAKAYA	0	EX	14	43	31.5				5	0.7	5	0.4						245.4	
KOBE	0	ES	14	43	48.0													212.0	

OT= 9 14 46 53.7 +/- 0.1 (JST)
MIDDLE OF GIFU PREF
LAT= 35 45 +/- 1 LONG= 137 6 +/- 1
H= 10 MAG=3.9 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
GIFU	0	P	14	47	04.1	S	47	10.0	16	0.6	15	0.4	12	0.7	S 8	W 5	U 10	49.4	05.9
NAGOYA	0	EP	14	47	07.2	IS	47	15.0	3	0.6	8	0.6	3	0.6				66.0	07.8
HIKONE	0	P	14	47	11.3	S	47	22.5									U	93.7	11.2
MATSUS	0	P	14	47	17	S	47	32										132.6	15.0
KOFU	0	EP	14	47	17.2	IS	47	32.1	8	0.3	10	0.4	3	0.5				132.3	14.9
HAMAMA	0	P	14	47	17.6	S	47	31.6	5	0.4	8	0.8	1	0.2				128.7	14.0
KYOTO	0	EP	14	47	20.0	ES	47	38.0	5	0.0	11	0.0	1	0.5				148.6	18.0
MAIZUR	0	P	14	47	21.2	S	47	39.9										158.2	18.7
TOYOOK	0	X	14	47		S	47	46.4	8	1.2	9	1.0						207.8	

OT= 9 14 48 20.6 +/- 0.2 (JST)
MIDDLE OF GIFU PREF
LAT= 35 43 +/- 1 LONG= 137 6 +/- 1
H= 20 MAG=4.1 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
GIFU	0	P	14	48	29.9	S	48	36.0	56	0.6	45	0.4	17	0.6	S 9	W 8	U 16	46.6	06.1
NAGOYA	0	IP	14	48	32.5	IS	48	41.3	13	0.6	23	0.8	11	0.4	S 1	W 4	U 12	62.3	08.8
IIDA	0	EP	14	48	33.6	ES	48	42.8	11	0.2	11	0.8	15	0.2				70.4	09.2
FUKUI	0	IP	14	48	34.9	S	48	44.9										87.2	10.0
HIKONE	0	IP	14	48	37.0	S	48	48.4										91.7	11.4
HAMAMA	0	P	14	48	42.3	S	48	58.2	15	0.4	19	0.8	5	0.6				125.4	15.9

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
KANAZA	0	EP	14	48	43	ES	48	52			13	1.7						100.7	09.0
MATSUS	0	IP	14	48	43.0											N	E U	135.1	
KOFU	0	EP	14	48	43.6	ES	48	57.8	21	0.5	23	0.4	8	0.6				132.1	14.2
KYOTO	0	EP	14	48	45.5	IS	49	03.5	12	0.0	20	0.0	5	1.0				146.6	18.0
MAIZUR	0	P	14	48	47.0	S	49	05.6									U	157.6	18.6
NARA	0	P	14	48	47.0	S	49	08.1										162.6	21.1
SHIZUO	0	S	14	49	02.2				6	0.4	4	0.4	2	0.5				144.6	
OSAKA	0	IS	14	49	15.0				8	1.1	5	1.5	4	1.6				184.2	
KOBE	0	ES	14	49	20.9													208.7	
OMAEZA	0	X	14	49	53.6				11	1.2	8	1.2						159.8	
OKAYAM	0	EP	14	49		ES	49	48	5	0.5	4	0.6	1	0.6				311.9	
TOYOOK	0	X	14	50	00				17	1.0	22	1.0						207.5	

OT= 9 15 32 49.6 +/- 0.2 (JST)
MIDDLE OF GIFU PREF
LAT= 35 46 +/- 1 LONG= 137 8 +/- 1
H= 10 MAG=4.0 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
TAKAYA	0	P	15	32	57.4	ES	33	02.2										44.1	04.8
GIFU	0	P	15	32	59.4	S	33	08.5	31	3.6	29	2.5	8	1.3	S 6	W 4	U 4	52.8	09.1
NAGOYA	0	P	15	33	03.2	S	33	11.6	12	2.0	32	2.6	13	1.6	S 3		U 2	68.4	08.4
IIDA	0	IP	15	33	03.6	IS	33	12.6	15	2.4	8	1.6	5	1.2		W 2	D 2	69.6	09.0
TSURUG	0	EP	15	33	07	S	33	17.7										97.5	10.7
HIKONE	0	P	15	33	07.5	S	33	18.8										97.3	11.3
TOYAMA	0	EP	15	33	08	ES	33	18	12	3.2	13	3.0	11	3.4				104.5	10.0
FUKUI	0	EP	15	33	10.9	S	33	18.9										87.8	08.0
TSU	0	P	15	33	12.8	S	33	29.5	19	2.4	13	1.4	4	1.4				130.7	16.7
HAMAMA	0	P	15	33	12.8	S	33	28.8	20	3.6	26	3.6	6	2.4				129.1	16.0
KOFU	0	IP	15	33	13.0	ES	33	29.0	5	0.6	6	0.5	3	1.0		W 1	D 1	129.4	16.0
MATSUS	0	P	15	33	13	S	33	28										129.2	15.0
OMAEZA	0	EP	15	33	14.5				17	1.6	17	1.6						162.2	
KANAZA	0	X	15	33	15	ES	33	24	23	3.6	31	4.0	11	4.6				96.9	
KYOTO	0	EP	15	33	16.5	ES	33	34.5	7	0.7	6	1.0	5	1.0				152.1	18.0
NAGANO	0	EP	15	33	16.8	ES	33	33.8	7	1.3	9	4.3	2	2.4				137.7	17.0
NARA	0	P	15	33	19.1	S	33	38.2										168.6	19.1
WAJIMA	0	EP	15	33	20	ES	33	44	20	1.0	25	1.0						181.3	24.0
MISHIM	0	EP	15	33	23	ES	33	42	9	0.9	9	0.9	2	0.7				176.5	19.0
TOYOOK	0	EP	15	33	25.8	ES	33	49.0	23	1.0	21	1.0						211.0	23.2
OSAKA	0	EX	15	33	26	S	33	44.8	10	1.5	8	1.7	8	1.5				190.0	
SHIZUO	0	ES	15	33	33.0				6	4.0	5	4.0	2	3.0				145.3	
KOBE	0	ES	15	33	51.5													214.3	
WAKAYA	0	EX	15	33	55.2				4	1.2	3	0.9	2	1.0				247.8	

OT= 9 15 55 34.8 +/- 0.4 (JST)
MIDDLE OF GIFU PREF
LAT= 35 49 +/- 2 LONG= 137 6 +/- 2
H= 0 MAG=3.5 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
TAKAYA	0	P	15	55	43.1	S	55	47.9										39.7	04.8
GIFU	0	P	15	55	46.9	S	55	53.8	9	0.7	9	1.1	3	0.5				55.4	06.9
IIDA	0	EP	15	55	51.2	ES	56	00.6	4	0.4	6	0.2	2	0.2				74.7	09.4
HIKONE	0	P	15	55	54.3	S	56	05.7										98.1	11.4
HAMAMA	0	P	15	55	59.2	S	56	16.8	5	0.6	5	0.8	2	1.2				135.4	17.6
MATSUS	0	IP	15	55	59.3	S	56	15									D	127.9	15.7
KYOTO	0	EP	15	56	07.5	ES	56	25.5	4	0.5	5	0.7	2	0.8				152.8	18.0
TOYOOK	0	ES	15	56	36.4				7	1.3	11	1.5						208.7	

OT= 9 16 25 21.3 +/- 0.4 (JST)
MIDDLE OF GIFU PREF
LAT= 35 45 +/- 2 LONG= 137 5 +/- 1
H= 10 MAG=3.3 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
GIFU	0	P	16	25	31.3	S	25	37.7	9	1.7	10	0.5	3	0.9				48.5	06.4
NAGOYA	0	IP	16	25	34.6	IS	25	43.4	7	0.4	7	0.6	3	0.3			U 2	65.7	08.8
IIDA	0	EP	16	25	34.6	ES	25	43.6	4	1.2	4	0.4	1	0.2				73.1	09.0
HIKONE	0	P	16	25	38.6	S	25	49.7										92.5	11.1
HAMAMA	0	EP	16	25	45	ES	26	00	5	1.4	5	1.6	1	1.2				129.4	15.0
MATSUS	0	P	16	25	47	S	26	01										133.8	14.0

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OT= 9 17 43 38.9 +/- 0.2 (JST)
MIDDLE OF GIFU PREF
LAT= 35 44 +/- 1 LONG= 137 7 +/- 1
H= 10 MAG=3.9 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TAKAYA	0	EP	17 43 46.7	S	43 52.3										48.1	05.6
GIFU	0	P	17 43 48.6	S	43 54.7	21	0.3	13	0.2	8	0.8	S 6	W 3	U 5	49.0	06.1
NAGOYA	0	P	17 43 52.0	S	44 01.0	12	0.6	9	0.6	5	0.5				64.5	09.0
IIDA	0	IP	17 43 52.6	ES	44 01.2	7	0.4	6	0.6	4	0.8		W 1	D 2	69.6	08.6
TSURUG	0	EP	17 43 56	IS	44 07.3										95.6	11.3
HIKONE	0	P	17 43 56.6	S	44 07.6										94.0	11.0
TOYAMA	0	P	17 43 59.2	ES	44 12	9	0.6	11	0.6						103.3	12.8
MATSUS	0	IP	17 44 02.0	S	44 17									U	132.8	15.0
KOFU	0	IP	17 44 02.1	ES	44 17.6	13	0.5	13	0.4	4	0.5		W 1	D 1	130.7	15.5
HAMAMA	0	P	17 44 02.4	S	44 19.2	7	1.0	10	0.4	2	0.6				126.4	16.8
KANAZA	0	X	17 44 03	ES	44 12	10	2.0	10	2.5						99.6	
KYOTO	0	EP	17 44 05.0	ES	44 23.0	3	1.5	6	1.0	2	0.5				148.9	18.0
MAIZUR	0	P	17 44 06.4	S	44 25.2										159.4	18.8
TOYOOK	0	EP	17 44 10.7	S	44 38.6	21	1.0	18	1.0						209.1	27.9
MISHIM	0	X	17 44 15.0	ES	44 32.1	8	0.7	13	1.0	2	0.7				178.5	
WAJIMA	0	EX	17 44 30			15	0.8	18	1.0						184.8	
OSAKA	0	ES	17 44 34			5	2.0	5	1.7						186.5	
OMAEZA	0	EP	17 44			7	1.6	9	1.6						160.3	

OT= 10 3 29 34.4 +/- 0.4 (JST)
W OF TOKYO BAY
LAT= 35 33 +/- 2 LONG= 139 47 +/- 4
H= 90 CLASS=U

YOKOHA	0	P	03 29 48.5	S	29 58.2										17.1	09.7
TATEYA	0	EP	03 29 51.0			7	0.5	6	0.5	4	0.7				63.3	
TOKYO	0	EP	03 29 52.2	IS	29 57.4	16	0.8	6		0					15.1	05.2
AJIRO	0	EP	03 29 52.4	ES	30 03.8	5	0.2	6	0.2	1	0.4				84.0	11.4
OSHIMA	0	P	03 29 53.3	S	30 05.8	6	0.6	5	0.6	4	0.2				94.9	12.5
UTSUNO	0	P	03 29 54.5	IS	30 07.5										110.9	13.0
KOFU	0	EP	03 29 56.2	IS	30 08.6	9	0.4	9	0.4	3	0.3				111.7	12.4
MATSUS	0	IP	03 30 03.2	S	30 24									U	179.3	20.8

OT= 10 5 14 44.9 +/- 0.2 (JST)
MIDDLE OF GIFU PREF
LAT= 35 49 +/- 1 LONG= 137 2 +/- 1
H= 0 MAG=4.0 CLASS=S

TAKAYA	0	P	05 14 54.9	S	14 59.7										42.2	04.8
GIFU	0	P	05 14 56.2	S	15 02.8	13	1.3	19	1.2	6	0.8	S 4	W 3	U 3	52.4	06.6
FUKUI	0	EP	05 15 01.0	ES	15 10.0										77.4	09.0
IIDA	0	IP	05 15 01.6	IS	15 11.2	10	0.6	9	0.4	3	0.8			D 1	80.1	09.6
TSURUG	0	EP	05 15 03	S	15 13.8										89.5	10.8
TOYAMA	0	P	05 15 04.4	ES	15 17	7	0.6	10	0.6	4	0.6	N 1		U 2	100.0	12.6
KANAZA	0	EP	05 15 05	ES	15 15	7	1.4	14	2.2	4					88.1	10.0
HIKONE	0	P	05 15 05.0	S	15 15.4										93.4	10.4
MATSUS	0	IP	05 15 09.7	S	15 26							S	W	D	132.6	16.3
KOFU	0	IP	05 15 10.3	ES	15 27.4	4	0.5	5	1.0	2	0.8	N 1	W 1	D 2	138.9	17.1
NAGANO	0	EP	05 15 10.5	S	15 29.2	6	0.6	6	1.2	3	1.2				140.3	18.7
HAMAMA	0	P	05 15 10.7	S	15 27.2	10	0.4	15	0.8	3	0.6				138.0	16.5
TSU	0	P	05 15 11.1	S	15 27.5	11	0.8	18	1.5						132.2	16.4
KYOTO	0	EP	05 15 13.0	ES	15 31.0	9	0.8	11	0.0	8	0.8				147.9	18.0
WAJIMA	0	EX	05 15 16			15	1.0	14	1.0						175.0	
NARA	0	P	05 15 16.4	S	15 35.9										166.5	19.5
OMAEZA	0	X	05 15 21.8			9	1.6	14	1.6						172.2	
TOYOOK	0	P	05 15 21.9	S	15 46.8	19	1.0	22	1.1	4	0.8				202.7	24.9
MISHIM	0	EP	05 15 22	ES	15 41.2	19	0.6	13	0.6	4	0.7				189.0	19.2
SHIZUO	0	S	05 15 31.3			7	0.4	4	1.5	1	0.7				155.9	
OSAKA	0	S	05 15 41.9			10	3.0	8	1.8	4	1.6				186.7	
KOBE	0	ES	05 15 48.3												210.0	

OT= 10 5 31 57.2 +/- 0.1 (JST)
MIDDLE OF GIFU PREF
LAT= 35 45 +/- 1 LONG= 137 5 +/- 1
H= 10 MAG=4.6 CLASS=M

GIFU	2	IP	05 32 06.3	S	32 12.4	188	1.1	253	2.8	60	1.3	S 7	W 4	U 27	48.5	06.1

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TAKAYA	1	P	05 32 06.9	S	32 12.2									N 26	E 4	U 40	47.2	05.3
NIIGAT	0	EX	05 32 09.5			9	4.0	10	5.0								297.1	
NAGOYA	1	IP	05 32 11.3	S	32 19.4	44	1.0	30	1.0	24	1.0	S 2	W 1	U 25			65.7	08.1
FUKUI	1	IP	05 32 12.0	S	32 22.5							S 6	E 10	D 14			84.3	10.5
IIDA	1	IP	05 32 12.0	IS	32 20.6	37	1.2	29	1.0	22	0.6	N 10	W 13	D 22			73.1	08.6
TSURUG	2	IP	05 32 15.1	IS	32 26.1	100	1.4	100	1.2			N 2	E 7	D 7			92.8	11.0
KANAZA	0	P	05 32 15.2	ES	32 27.2	61	0.8	81	1.4	27	2.0			U 6			96.7	12.0
HIKONE	0	P	05 32 15.2	S	32 26.4												92.5	11.2
MATSUM	0	EP	05 32 16.0	ES	32 25.6												97.1	09.6
TOYAMA	0	IP	05 32 16.6	S	32 30.0	49	0.4	41	0.4	19	0.8	N 3	E 1	U 13			106.7	13.4
HAMAMA	0	P	05 32 19.3	S	32 35.8	22	0.6	57	1.2	9	1.2						129.4	16.5
TSU	1	P	05 32 20.6	S	32 36.8	50	2.0	40	2.0	10	1.0						127.1	16.2
KOFU	0	IP	05 32 20.8	ES	32 36.6	19	0.4	23	0.4	10	0.8	N 1	W 3	D 3			133.8	15.8
MATSUS	0	IP	05 32 20.9	S	32 36							S	W	D			133.8	15.1
KARUIZ	0	EP	05 32 22.8	ES	32 40.6												147.6	17.8
SHIZUO	0	EP	05 32 23.0	S	32 40.5	17	1.0	17	2.0	7	0.8						147.9	17.5
NAGANO	0	EP	05 32 23.2	S	32 40.5	20	1.0	19	1.0	8	1.7						142.2	17.3
KYOTO	0	EP	05 32 24.2	IS	32 42.0	43	1.5	72	0.3	19	0.9						147.3	17.8
KAWAGU	0	P	05 32 24.8	S	32 41.9												154.7	17.1
MAIZUR	0	P	05 32 25.1	S	32 43.5									U			156.8	18.4
NARA	0	P	05 32 26.2	S	32 46.5	100	1.7	100	1.7	50	1.5						164.1	20.3
WAJIMA	0	IP	05 32 28.4	S	32 51.0	89	1.0	75	1.0	17	0.8			U 2			182.7	22.6
MISHIM	0	IP	05 32 29.7	IS	32 51.3	52	0.6	32	0.6	17	0.7			D 2			182.0	21.6
OWASE	0	EP	05 32 30.0	ES	32 54.0	6		3		4							203.6	24.0
OMAEZA	0	EP	05 32 30.0			47	1.2	36	1.2								163.6	
TAKADA	0	EP	05 32 31.1	S	32 56.5												183.1	25.4
AJIRO	0	EP	05 32 31.4	X	32 35.0	5	0.6	5	0.6	3	0.8						198.9	
MAEBAS	0	EP	05 32 31.5	ES	32 53.6												192.6	22.1
TOYOOK	1	EP	05 32 31.8	ES	32 56.6	99	1.1	100	1.0	36	0.7						206.3	24.8
OSAKA	X	EX	05 32 33	S	32 52.4	39	1.8	25	1.0	21	1.5						185.3	
KUMAGA	0	EP	05 32 34.0	ES	32 59.0	13	1.2	14	1.2								212.2	25.0
KOBE	0	EP	05 32 35.1	ES	32 59.0												209.5	23.9
OSHIMA	0	P	05 32 38.1	S	33 05.0	13	1.2	9	1.4	4	2.0						235.8	26.9
TOKYO	0	P	05 32 38.8	ES	33 09.7	13	2.0	8	1.2	6	1.8						242.1	30.9
TOTTOR	0	P	05 32 39.1	S	33 11.6												264.4	32.5
WAKAYA	0	P	05 32 40.0	S	33 08.4	19	1.0	7	0.9	3	1.0						243.2	28.4
TOKUSH	0	EP	05 32 40.7	ES	33 15.9												295.6	35.2
UTSUNO	0	P	05 32 41.4	S	33 12.6												266.0	31.2
KAKIOK	0	EP	05 32 42	S	33 17.8	12	0.8	9	0.8	4	0.8						285.4	35.8
SUMOTO	0	P	05 32 42.7	S	33 06.2												253.0	23.5
TATEYA	0	EP	05 32 42.8			10	1.7	14	1.7	5	1.5						266.9	
MITO	0	EX	05 32 47.6	ES	33 25.0	10	2.4	8	2.3	4	1.7						313.0	
OKAYAM	0	X	05 32 50	ES	33 25.6	17	0.6	14	0.6	4	1.4						311.8	
TAKAMA	0	X	05 32 53.2	ES	33 29.0					7	0.8						318.5	
ONAHAM	0	EX	05 33 02.0			8	1.1	7	1.2	2	1.8						367.8	
SHIMON	0	X	05 34 43.5			6	2.2	2	2.0	2	2.8						595.7	
FUKUOK	0	X	05 35 06			6	1.6	2	1.2	2	1.3						659.5	

OT= 10 5 57 7.6 +/- 0.2 (JST)
MIDDLE OF GIFU PREF
LAT= 35 51 +/- 1 LONG= 136 58 +/- 1
H= 10 MAG=3.6 CLASS=U

TAKAYA	0	EP	05 57 15.9	S	57 20.7										42.4	04.8
GIFU	0	P	05 57 18.2	S	57 25.0	8	0.4	8	0.3	4	0.4				53.3	06.8
NAGOYA	0	P	05 57 22.8	IS	57 31.4	13	0.6	11	0.8	5	0.6				76.0	08.6
TOYAMA	0	EP	05 57 26	IS	57 38.4	5	1.4	7	1.4	3	3.0				97.5	12.4
MATSUS	0	IP	05 57 31.5	S	57 47									D	135.3	15.5
HAMAMA	0	EP	05 57 33	ES	57 50	5	0.6	6	0.6	2	1.6				144.1	17.0
TOYOOK	0	EP	05 57 43.8	S	58 07.8	15	1.1	9	1.1						197.3	24.0

OT= 10 10 40 31.3 +/- 0.2 (JST)
MIDDLE OF GIFU PREF
LAT= 35 44 +/- 1 LONG= 137 6 +/- 1
H= 0 MAG=3.9 CLASS=S

GIFU	0	P	10 40 42.4	S	40 48.2	21	0.6	20	0.7	8	0.6	N 5	E 3	D 4	48.0	05.8
NAGOYA	0	P	10 40 47.0	IS	40 55.0	11	1.0	12	0.8	8	1.0	S 3	W	U 3	64.2	08.0
IIDA	0	IP	10 40 47.0	ES	40 55.6	5	0.4	5	0.8	4	0.6		W 1	D 2	71.0	08.6
TSURUG	0	EP	10 40 50	S	41 01.2										94.1	11.2
HIKONE	0	P	10 40 50.4	S	41 01.9										92.7	11.5
TOYAMA	0	EP	10 40 52	S	41 06.0	9	0.6	9	0.6	5	3.8				108.4	14.0
HAMAMA	0	EP	10 40 55	ES	41 11	10	0.2	21	0.4	4	0.6				127.1	16.0
KOFU	0	IP	10 40 56.0	ES	41 11.0	12	0.4	10	0.4	3	0.4		W 1	D 1	132.2	15.0
MATSUS	0	IP	10 40 56.4	S	41 11							N	E	U	133.9	14.6
KYOTO	0	EP	10 40 59.9	ES	41 17.7	9	0.0	13	0.3	4	1.1				147.6	17.8

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STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S S	E-W A/T *	E-W S	U-D A/T *	U-D S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
MAIZUR	0	P	10 41 01.0	S	41 19.2										157.9	18.2
NARA	0	P	10 41 02.3	S	41 21.7										163.9	19.4
MISHIM	0	EP	10 41 02.9	S	41 26.9	9	0.7	6	0.7						179.9	24.0
WAJIMA	0	EP	10 41 06	S	41 26.6	20	0.8	29	1.0						184.7	20.6
OMAEZA	0	X	10 41 08.7			7	1.6	12	1.6						161.2	
OSAKA	0	S	10 41 28.5			8	3.0	9	2.3						185.3	
TOYOOK	0	ES	10 41 32.8			28	1.1	16	0.9	5	0.7				207.6	
KANAZA	0	X	10 44 01.4	X	'44 07.0	9	1.5	14	2.0			N	9 E	5	99.0	

OT= 10 10 54 57.1 +/- 0.3 (JST)
MIDDLE OF GIFU PREF
LAT= 35 41 +/- 2 LONG= 137 8 +/- 3
H= 30 MAG=3.5 CLASS=U

GIFU	0	X	10 54	X	54 48.0	19	0.3	25	0.2	9	0.8				46.0	
NAGOYA	0	EP	10 55 08.6	S	55 16.4	5	0.4	3	0.3	5	0.3				59.4	07.8
MATSUS	0	IP	10 55 19.0	S	55 35							N	E	U	135.5	16.0
KYOTO	0	EP	10 55 21.0	ES	55 39.0	3	0.4	7	0.0	1	0.9				147.3	18.0

OT= 10 11 56 4.9 +/- 0.4 (JST)
MIDDLE OF GIFU PREF
LAT= 35 49 +/- 2 LONG= 137 0 +/- 3
H= 0 MAG=3.8 CLASS=L

TAKAYA	0	P	11 56 14.4	S	56 19.4										43.7	05.0
GIFU	0	P	11 56 14.6	S	56 22.9	8	0.8	13	0.8	5	0.8				51.1	08.3
NAGOYA	0	P	11 56 21.2	S	56 30.0	5	0.4	5	1.0	2	0.6				72.3	08.8
HIKONE	0	P	11 56 24.6	S	56 35.8										91.1	11.2
MATSUS	0	IP	11 56 29.8	S	56 46							S	W	D	135.0	16.2
HAMAMA	0	P	11 56 31.4	S	56 57.4	4	0.4	8	0.8	2	0.4				139.4	26.0
KYOTO	0	EP	11 56 34.0	ES	56 51.4	7	1.3	6	0.9	4	0.8				145.5	17.4
KANAZA	0	X	11 56 34.4					5	2.8						86.9	
MISHIM	0	EP	11 56 42	ES	57 00	7	0.8	6	0.8						191.8	18.0
OMAEZA	0	X	11 56 42.3			7	1.2	6	1.2						174.1	
TOYOOK	0	X	11 57 05.6			11	1.0	11	0.9						199.7	

OT= 10 16 46 51.6 +/- 2.3 (JST)
E OFF HOKKAIDO
LAT= 43 37 +/-13 LONG= 148 27 +/-12
H= 40 MAG=5.0 CLASS=U

NEMURO	0	P	16 47 24.0	X	47 40	18	1.6	10	1.0	10	1.0			D	233.9	
ABASHI	0	EP	16 47 39	ES	48 16	19	2.0	11	1.8	5	2.8				338.2	37.0
KUSHIR	0	EP	16 47 40	S	48 16.2	28	1.2	28	1.9	15	3.8				336.6	36.2
OBIHIR	0	EP	16 47 53	ES	48 49										431.5	56.0
URAKAW	0	P	16 48 00.6	X	48 42.9	13	1.6	16	2.4	8	2.6				490.7	
ASAHIK	0	EP	16 48 01			8	2.0	6	1.6	6	1.4				490.2	
SAPPOR	0	EP	16 48 12			11	2.0	13	2.0	4	2.4				580.5	
WAKKAN	0	EX	16 48 12			11	4.4	5	3.8	4	3.4				573.8	
AOMORI	0	EX	16 48 28			11	0.9	10	1.3	4	1.1				705.0	
FUKUSH	0	EX	16 48 56.0			8	0.9	3	0.9	2	0.8				936.2	
MATSUS	0	P	16 49 24	X	51 58										1173.5	

OT= 10 21 3 14.8 +/- 0.2 (JST)
MIDDLE OF GIFU PREF
LAT= 35 50 +/- 1 LONG= 137 1 +/- 1
H= 10 MAG=4.3 CLASS=L

TAKAYA	1	P	21 03 23.6	S	03 28.2							N	10 E	4 U 12	41.3	04.6
GIFU	0	P	21 03 27.4	S	03 33.7	36	1.0	45	1.1	13	0.9	S	11 W	5 U 8	53.4	06.3
FUKUI	0	IP	21 03 27.9	IS	03 38.0										75.3	10.1
NAGOYA	0	IP	21 03 29.2	IS	03 37.4	26	0.6	23	0.8	11	0.6			U 6	74.3	08.2
IIDA	0	IP	21 03 30.4	IS	03 40.0	18	1.2	18	1.2	12	1.0		W	3 D 3	82.3	09.6
TSURUG	0	EP	21 03 32	S	03 43.1										88.4	11.1
HIKONE	0	P	21 03 32.4	S	03 44.4										93.4	12.0
MATSUM	0	EP	21 03 32.7	ES	03 43.6										97.5	10.9
KANAZA	0	EP	21 03 33	ES	03 43	21	1.8	30	4.5	8	1.5				85.8	10.0
TOYAMA	0	IP	21 03 33.0	S	03 44.8	27	1.6	32	1.4	17	4.0			U 5	98.4	11.8
MATSUS	0	IP	21 03 38.5	S	03 56							S	W	D	132.7	17.5
KOFU	0	IP	21 03 38.8	ES	03 55.2	10	0.9	9	0.8	4	1.0	N	1 W	2 D 4	140.7	16.4

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S S	E-W A/T *	E-W S	U-D A/T *	U-D S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
HAMAMA	0	IP	21 03 40.3	S	03 56.8	21	0.4	45	0.8	8	0.8			D 2	140.4	16.5
NAGANO	0	EP	21 03 40.7	S	03 58.5	16	0.8	9	0.7	7	0.7				140.2	17.8
TSU	0	P	21 03 40.9	S	03 56.2	20	1.0	28	1.3	8	1.4				133.5	15.3
KARUIZ	0	IP	21 03 41.3	S	03 58.5									D 3	149.2	17.2
SHIZUO	0	EP	21 03 41.7	S	04 00.0	13	0.6	10	1.0	5	1.9				158.2	18.3
KYOTO	0	EP	21 03 42.5	ES	04 00.0	25	1.2	27	0.9	18	0.8				147.8	17.5
MAIZUR	0	P	21 03 42.8	S	04 01.2									U	152.9	18.4
KAWAGU	0	IP	21 03 43.6	IS	04 02.8										162.4	19.2
NARA	0	P	21 03 44.7	S	04 05.2										166.9	20.5
WAJIMA	0	EP	21 03 46	ES	04 06	34	0.8	40	1.0	7	0.8				173.0	20.0
TAKADA	0	EP	21 03 46.4	S	04 12.2										179.2	25.8
OMAEZA	0	EP	21 03 48.2			25	1.4	25	1.4						174.6	
MISHIM	0	P	21 03 48.6	S	04 12.1	38	0.7	28	0.7	10	0.9				191.2	23.5
TOYOOK	0	P	21 03 49.7	ES	04 13.5	65	1.2	30	1.2	12	0.7				201.5	23.8
OSAKA	0	EP	21 03 49.8	S	04 10.4	23	2.5	25	2.0	10	2.2				186.8	20.6
AJIRO	0	EP	21 03 50.0	ES	04 15.3	7	0.8	7	0.8	4	0.9				208.2	25.3
KUMAGA	0	EP	21 03 52.6	S	04 20.4	8	1.4	6	1.0	4	4.0				216.3	27.8
TOKYO	0	EP	21 03 58	ES	04 29	8	2.0	4	2.0	0					248.4	31.0
WAKAYA	0	X	21 03 59.0	S	04 27.4	13	1.0	7	0.9	2	0.8				245.4	
OKAYAM	0	X	21 04 09.0	ES	04 43.6	7	0.6	7	0.5	2	1.6				309.7	
TAKAMA	0	X	21 04 11.3	ES	04 47.1	8	1.0	10	1.4	2	0.6				317.9	
KOBE	0	EX	21 04 52.0	ES	04 17.3										209.9	

OT= 11 0 20 47.5 +/- 0.2 (JST)
MIDDLE OF GIFU PREF
LAT= 35 43 +/- 1 LONG= 137 7 +/- 1
H= 10 MAG=3.8 CLASS=S

TAKAYA	0	P	00 20 57.7	S	21 01.5										49.8	03.8
GIFU	0	P	00 20 57.7	S	21 03.8	13	0.4	10	0.3	6	0.8	S	6 W	3 U 5	47.6	06.1
NAGOYA	0	P	00 21 00.3	IS	21 08.8	18	0.6	19	0.6	5	0.6				62.7	08.5
IIDA	0	IP	00 21 01.0	ES	21 10.0	10	0.4	7	1.0	3	1.0			D 1	69.0	09.0
TSURUG	0	EP	00 21 05	IS	21 15.1										95.5	10.1
TOYAMA	0	P	00 21 06.8	IS	21 19.6	13	0.4	22	0.4	5	0.4			U 2	110.1	12.8
KANAZA	0	EP	00 21 10	ES	21 21	8	1.5	7	2.5						101.3	11.0
HAMAMA	0	EP	00 21 10	ES	21 26	6	3.2	5	1.0	2	0.6				124.7	16.0
MATSUS	0	IP	00 21 10.6	S	21 26							N	E	U	134.0	15.4
KOFU	0	IP	00 21 11.6	IS	21 25.9	13	0.4	10	0.3	3	0.6			D 1	130.6	14.3
MAIZUR	0	P	00 21 16.1	S	21 32.5	6	0.2	5	0.2						159.1	16.4
WAJIMA	0	EP	00 21 18	ES	21 40	15	0.8	19	0.8						186.7	22.0
TOYOOK	0	S	00 21 46.5			21	1.2	22	1.2						209.0	

OT= 11 1 2 47.2 +/- 0.1 (JST)
MIDDLE OF GIFU PREF
LAT= 35 45 +/- 1 LONG= 137 6 +/- 1
H= 10 MAG=4.9 CLASS=M

TAKAYA	2	EP	01 02 57.8	ES	03 03.5										46.7	05.7
GIFU	2	IP	01 02 58.2	IS	03 04.7			171	1.1	53	1.1	S	49 W	33 U 40	49.4	06.5
NAGOYA	2	IP	01 03 00.5	IS	03 08.8	97	1.6	108	1.6	50	1.2			U 22	66.0	08.3
IIDA	0	IP	01 03 01.0	IS	03 10.0	63	1.6	18	1.2	40	2.0		W	35 D 26	71.7	09.0
FUKUI	1	P	01 03 02.7	IS	03 12.0							S	4 E	10 D 6	85.7	09.3
TSURUG	1	IP	01 03 05.0	IS	03 16.1	200	1.2	200	1.1				E	8	94.3	11.1
HIKONE	0	IP	01 03 05.0	S	03 16.5	79	0.8	74	1.4					U	93.7	11.5
KANAZA	0	EP	01 03 05.5	ES	03 16.0	168	2.2	200	2.0	50	2.0				97.3	10.5
MATSUM	0	IP	01 03 05.5	S	03 16.9									U 4	95.9	11.4
KOFU	1	IP	01 03 10.2	IS	03 25.8	145	0.4	77	0.4	37	0.9	N	2 W	8 D 8	132.3	15.6
HAMAMA	X	P	01 03 10.5	IS	03 25.2	80	0.4	122	3.8	24	0.4			U	128.7	14.7
TSU	1	IP	01 03 11.1	S	03 26.9	65	1.4	71	1.3	27	1.3	S	2 W	1 U 1	127.8	15.8
MATSUS	0	IP	01 03 11.2	S	03 27							N	E	U	132.6	15.8
SHIZUO	X	EP	01 03 12.2	S	03 29.6	55	1.1	40	1.0	15	3.0	N	2 W	2 D 2	146.7	17.4
NAGANO	0	P	01 03 13.0	IS	03 31.1	39	2.5	61	2.7	36	2.8				141.1	18.1
KARUIZ	0	IP	01 03 13.0	S	03 30.5									D 2	146.2	17.5
KAWAGU	0	IP	01 03 13.7	IS	03 33.1										153.2	19.4
KYOTO	1	IP	01 03 14.0	IS	03 32.0	50	1.2	127	0.8	41	1.2	S	2 W	7 U 10	148.6	18.0
MAIZUR	0	P	01 03 14.0	S	03 34.4	105	0.3	30	0.3						158.2	20.4
NARA	X	P	01 03 16.0	S	03 35.9	150	2.0	100	1.8	100	1.8				165.2	19.9
OMAEZA	0	EP	01 03 17.4	ES	03 36.3	93	2.0	123	2.0						162.6	18.9
OSAKA	X	P	01 03 18.9	S	03 42.0	134	2.5	89	2.0	54	1.8			U 2	186.5	23.1
TAKADA	0	EP	01 03 19.0	X	03 51.3										182.3	
WAJIMA	0	IP	01 03 19.2	IS	03 42.0	160	1.0	225	1.0	55	1.0	N	4	U 5	182.8	22.8
OWASE	0	IP	01 03 19.5	ES	03 45.2	11	1.2	10	1.6	9	2.0				204.2	25.7
MISHIM	0	IP	01 03 19.7	IS	03 41.3	81	1.3	66	1.3	25	1.3	N	3 W	5 D 8	180.6	21.6
AJIRO	0	P	01 03 20.6	S	03 44.7	25	0.2	24	0.2	6	0.4				197.6	24.1
TOYOOK	1	EP	01 03 21.5	IS	03 47.0	371	1.1	354	1.2	66	1.0				207.8	25.5
MAEBAS	0	P	01 03 21.8	IS	03 44.2										191.2	22.4

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KUMAGA	0	P	01	03	24.0	S	03	49.0	39	1.4	30	1.2	21	2.2			D 4	210.8	25.0
KOBE	0	EP	01	03	25.2	ES	03	48.4										210.7	23.2
OSHIMA	0	IP	01	03	26.3	S	03	54.4	32	2.6	25	2.4	16	2.0				234.5	28.1
WAKAYA	0	EP	01	03	27.3	ES	03	58.5	38	1.1	15	1.4	7	1.6				244.3	31.2
SUMOTO	0	P	01	03	28.2	S	03	56.3	7	0.7	4	0.9						254.1	28.1
TOKYO	0	IP	01	03	28.6	S	03	58	80	2.0	45	2.6	18	3.0				240.6	29.4
TOTTOR	0	P	01	03	29.2	S	04	04.1	13	1.6	11	0.3						265.9	34.9
HIMEJI	0	EP	01	03	30.4	ES	03	57.6										240.5	27.2
UTSUNO	0	P	01	03	31.1	S	04	02.8										264.6	31.7
TATEYA	0	EP	01	03	31.5				30	2.3	52	2.2	14	2.4				265.5	
SHIONO	0	EP	01	03	31.6	ES	04	05.5	19	1.4	6	1.2	15	1.7				283.2	33.9
KAKIOK	0	EP	01	03	32	S	03	58.8	30	1.0	23	1.1	9	1.1				283.9	26.8
OKAYAM	0	EP	01	03	35	ES	04	15.0	28	0.3	21	0.3	11	1.8				313.2	40.0
TOKUSH	0	EP	01	03	35.6	ES	04	11.1										296.8	35.5
MITO	0	P	01	03	38.4	IS	04	14.0	37	2.9	16	1.9	15	2.4				311.6	35.6
NIIGAT	0	X	01	03	38.7				25	3.1	27	5.5	13	5.3				296.2	
SAIGO	0	IP	01	03	40.8										W	0		343.4	
TAKAMA	0	X	01	03	41.3	IS	04	19.4			19	1.0	11	1.0				319.8	
MUROTO	0	IP	01	03	42.5	ES	04	45.0	6	1.0	7	0.9	3	1.8			D 0	385.9	
YONAGO	0	X	01	03	44.6	S	04	26.1							W			342.2	
ONAHAM	0	EX	01	03	47.7	X	04	13.2	25	2.1	21	1.5	6	1.5				366.4	
MATSUE	0	X	01	03	53.4	S	04	33.7										366.4	
HAMADA	0	EP	01	03	56.9	ES	04	45.4	6	2.4	3	1.8	7	1.6				466.7	48.5
MATSUY	0	EP	01	03	57.8	X	04	54.3	8	1.3	7	1.0	3	1.5				448.4	
SHIMON	0	X	01	03					17	2.2	3	1.8	7	2.0				597.1	
HIROSH	0	X	01	04	02.5	ES	04	54.6	14	2.2	5	2.1	9	1.9				452.2	
SENDAI	0	X	01	04	07	EX	04	47	5	2.0	5	2.0	2	2				438.0	
NAGASA	0	X	01	04	47.7	X	06	06.3										745.9	
KUMAMO	0	X	01	04	53.5	X	05	59.0	10	2.2	10	1.4	1	1.1				672.3	
SAGA	0	X	01	05	42.2	X	06	01.7										682.7	
FUKUOK	0	X	01	05	54.0				17	2.7	9	1.6	5	1.5				661.0	
MIYAZA	0	X	01	06	13.0				5	1.6	5	2.2	2	2.4				675.3	
KAGOSH	0	EX	01	06	34.7				6	2.6	6	2.2	2	1.4				763.2	

OT= 11 1 47 11.1 +/- 0.1 (JST)
MIDDLE OF GIFU PREF
LAT= 35 45 +/- 1 LONG= 137 7 +/- 1
H= 10 MAG=4.4 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TAKAYA	0	P	01	47	20.3	S	47	26.4										46.3	06.1
GIFU	1	IP	01	47	22.2	S	47	28.4	57	0.7	49	1.1	19	0.6	S 20	W 10	U 10	50.4	06.2
NAGOYA	0	IP	01	47	24.6	IS	47	32.6	20	1.4	32	1.0	13	1.0	S 9	W 2	U 5	66.3	08.0
IIDA	0	IP	01	47	24.8	ES	47	34.0	14	0.6	12	1.0	9	0.8		W 8	D 9	70.3	09.2
FUKUI	0	IP	01	47	26.7	IS	47	35.9										87.1	09.2
HIKONE	0	IP	01	47	28.9	S	47	40.6	34	0.5	28	0.6					U	95.0	11.7
TSURUG	1	P	01	47	29.0	IS	47	40.5										95.8	11.5
MATSUM	0	EP	01	47	29.6	S	47	40.6										94.7	11.0
KANAZA	0	EP	01	47	31	ES	47	42	32	1.8	37	1.8	8	2.0				97.9	11.0
KOFU	0	IP	01	47	34.2	IS	47	49.8	38	0.4	34	0.4	11	0.5		W 1	D 1	130.8	15.6
HAMAMA	0	EP	01	47	34.6	S	47	49.0	23	0.6	46	0.6	8	0.6				128.1	14.4
MATSUS	0	IP	01	47	35.0	S	47	51							N	E	U	131.5	16.0
SHIZUO	0	EP	01	47	35.5	S	47	53.5	11	0.6	6	0.6	3	1.0				145.5	18.0
NAGANO	0	EP	01	47	37.0	ES	47	55.0	5	2.0	9	1.8	4					140.1	18.0
KARUIZ	0	EP	01	47	37.6	S	47	54.6										144.9	17.0
KAWAGU	0	P	01	47	37.6	S	47	56.7										151.7	19.1
KYOTO	0	EP	01	47	38.2	IS	47	56.0	18	0.6	35	0.4	12	0.9				149.9	17.8
MAIZUR	0	P	01	47	39.4	S	47	58.5	46	0.2	24	0.3						159.7	19.1
NARA	0	P	01	47	40.1	S	48	00.0	14	0.7	23	0.6						166.3	19.9
OMAEZA	0	EP	01	47	41.3	ES	48	01.1	19	1.4	23	1.4						161.7	19.8
WAJIMA	0	EP	01	47	42	ES	48	04	45	0.8	63	1.0	15	0.8				183.0	22.0
MISHIM	0	IP	01	47	42.9	S	48	04.8	19	0.9	12	0.9	3	1.3			D 2	179.2	21.9
MAEBAS	0	EP	01	47	45.0	IS	48	08.0										189.8	23.0
OSAKA	0	EP	01	47	45	S	48	06.6	20	2.5	15	2.0	8	1.3				187.6	21.6
KUMAGA	0	EP	01	47	48.0	ES	48	12.8	10	1.4	8	1.0	3	1.0				209.3	24.8
TOYOOK	0	P	01	47	48.7	S	48	11.9	88	1.2	79	1.2	19	0.8				209.3	23.2
TOKYO	0	P	01	47	53	S	48	23	15	1.8	8	1.4	5	1.0				239.1	30.0
WAKAYA	0	EX	01	47	54.0				9	1.0	4	0.8						245.4	
TATEYA	0	EP	01	47	55.0				6	1.0	9	1.4	3	1.5				264.1	
KAKIOK	0	EP	01	47	57	S	48	28.2	9	0.9	8	0.9	4	1.2				282.5	31.2
MITO	0	EX	01	48	04.0	S	48	38.2	8	1.6	5	0.6	3	1.0				310.1	
OKAYAM	0	X	01	48	05.2	ES	48	38	9	0.5	9	0.3	2	1.2				314.6	
TAKAMA	0	X	01	48	05.3	IS	48	44.4	8	1.0	5	1.0	3	0.6				321.1	
KOBE	0	ES	01	48	12.9													212.0	

OT= 11 3 18 39.0 +/- 0.1 (JST)
MIDDLE OF GIFU PREF
LAT= 35 44 +/- 0 LONG= 137 6 +/- 1
H= 0 MAG=4.8 CLASS=M

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TAKAYA	1	P	03	18	49.7	ES	18	55.4							N 16	E 2	U 19	46.5	05.7
GIFU	2	IP	03	18	50.4	IS	18	56.9			203	1.1	73	1.1	S 38	W 25	U 31	48.0	06.5
NAGOYA	2	IP	03	18	53.0	IS	19	01.4	94	1.0	123	1.6	54	1.2	S 5	W 8	U 21	64.2	08.4
IIDA	0	IP	03	18	54.0	IS	19	03.2	66	1.0	55	1.4	36	0.8	N 16	W 30	D 27	71.0	09.2
FUKUI	0	IP	03	18	55.8	IS	19	06.8								E 6	D 4	86.5	11.0
HIKONE	0	P	03	18	58.1	S	19	09.8	71	1.0	58	0.9					U	92.7	11.7
TSURUG	1	P	03	18	58.2	IS	19	09.4	100	1.6	100	2.1						94.1	11.2
MATSUM	0	EP	03	18	58.4	S	19	09.8										97.0	11.4
KANAZA	0	EP	03	19	00	ES	19	12	124	2.1	160	2.4	30	2.0				99.0	12.0
TOYAMA	0	EP	03	19	00	S	19	15.4	46	3.2	58	2.4	36	3.8				108.4	15.4
TSU	1	IP	03	19	02.6	S	19	19.0	62	2.0	71	1.3	25	0.9	S 2	W 1	U 1	126.1	16.4
KOFU	1	IP	03	19	03.4	IS	19	19.1	93	0.4	62	0.4	25	1.1	N 2	W 7	D 6	132.2	15.7
HAMAMA	1	P	03	19	03.5	IS	19	18.1	80	0.6	155	0.6	38	0.6			U	127.1	14.6
MATSUS	0	IP	03	19	04.3	S	19	20							N	E	U	138.9	15.7
SHIZUO	0	EP	03	19	05.2	IS	19	22.5	55	2.0	35	0.5	13	1.2				145.6	17.3
KARUIZ	0	EP	03	19	06.0	S	19	23.5										147.1	17.5
NAGANO	0	EP	03	19	06.1	IS	19	24.0	26	2.6	41	2.9	25	2.9				142.5	17.9
KAWAGU	0	IP	03	19	06.7	IS	19	26.3										152.9	19.6
KYOTO	0	P	03	19	07.1	IS	19	24.7	44	1.1	84	0.5	30	1.0		W 3	U 4	147.6	17.6
MAIZUR	0	P	03	19	08.3	S	19	27.5	71	0.2	18	0.3						157.9	19.2
NARA	0	P	03	19	08.9	S	19	29.2	100	2.0	100	2.0	50	1.8				163.9	20.3
TAKADA	0	EP	03	19	11.5	S	19	35.5										183.8	24.0
OSAKA	X	P	03	19	11.5	S	19	34.7	108	2.6	83	2.8	50	1.7			U 0	185.3	23.2
OMAEZA	0	EP	03	19	11.5	ES	19	28.3	89	2.0	117	2.0						161.2	16.8
MISHIM	0	IP	03	19	12.5	IS	19	33.5	89	0.6	60	0.9	24	0.8	N	W 4	D 10	179.9	21.0
AJIRO	0	P	03	19	13.5	S	19	37.5	16	0.2	10	0.2	6	0.5				196.8	24.0
WAJIMA	0	IP	03	19	14.0	ES	19	34	105	1.4	185	1.6	35	1.2		E 5	U 3	184.7	20.0
MAEBAS	0	EP	03	19	14.3	IS	19	37.0										191.9	22.7
OWASE	0	EP	03	19	15.2	ES	19	38.2	8	1.4	9	0.6	8	1.0				202.5	23.0
TOYOOK	X	EP	03	19	17.1	S	19	40.6	253	1.1	234	1.1	45	1.1				207.6	23.5
KOBE	0	EX	03	19	18.2	ES	19	41.1										209.7	
OSHIMA	0	P	03	19	18.7	S	19	46.7	33	2.6	23	1.2	14	2.0				233.6	28.0
KUMAGA	0	P	03	19	19.0	ES	19	41.4	28	1.4	26	2.0	13	2.2			D 3	211.2	22.4
WAKAYA	0	P	03	19	20.3	S	19	51.5	35	1.1	14	1.0	7	1.8				248.0	31.2
TOTTOR	0	EP	03	19	21.1	S	19	57.8	8	1.2	6	1.0						265.8	36.7
TOKYO	0	IP	03	19	21.5	S	19	51	65	2.0	30	2.0	20	2.0				240.6	29.5
KAKIOK	0	EP	03	19	24	X	19	47.9	25	1.0	19	1.0	8	1.1				284.3	
SHIONO	0	EP	03	19	24.2	ES	19	58.4	18	1.4	6	1.2	13	1.4				281.5	34.2
UTSUNO	0	P	03	19	25.0	S	19	57.0										265.2	32.0
TATEYA	0	EP	03	19	25.2				25	1.8	31	0.8	12	2.4				264.9	
SUMOTO	0	X	03	19	27.1	S	19	52.3	5	0.8	5	0.9						253.0	
TOKUSH	0	EP	03	19	28.3	ES	20	03.7										295.6	35.4
NIIGAT	0	EP	03	19	28.4				25	4.5	22	4.1	8	5.0				297.7	
MITO	0	EP	03	19	31.5	IS	20	07.1	28	3.0	15	1.8	11	2.1				312.0	35.6
OKAYAM	0	EP	03	19	32	ES	20	09.0	14	0.6	12	0.3	7	1.8				312.5	37.0
TAKAMA	0	EP	03	19	32.8	IS	20	12.2	22	1.0	16	1.2	9	1.3				318.9	39.4
ONAHAM	0	EX	03	19	35.9	X	20	19.2	18	1.5	18	1.5	5	1.9				367.1	
MUROTO	0	P	03	19	35.9	EX	20	36.0	5	1.0	6	1.0	3	1.4				384.6	
YONAGO	0	X	03	19	37.6	S	20	19.1									D	342.0	
SAIGO	0	X	03	19	39.0												U 0	343.7	
HAMADA	0	EP	03	19	49.2	ES	20	39.0	6	2.6	2	2.0	4	1.8				466.4	49.8
SENDAI	0	EX	03	19	56	EX	20	41	4	2.0	5	3.0	2	2				439.2	
HIROSH	0	X	03	19	56.9	ES	20	48.8	11	2.2	3	2.2	6	1.1				451.6	
SHIMON	0	X	03	21	24.9				14	2.2	3	2.0	5	2.4				596.6	
SAGA	0	X	03	21	36.0	X	21	54.6										682.0	
FUKUOK	0	X	03	21	48.0				15	2.5	9	1.6	5	1.5				660.3	
KUMAMO	0	X	03	21	49.4				9	2.4	8	1.6	1	1.1				671.5	
NAGASA	0	X	03	22	34.0	X	24	00.0										745.1	

OT= 11 3 22 49.5 +/- 0.2 (JST)
MIDDLE OF GIFU PREF
LAT= 35 43 +/- 1 LONG= 137 7 +/- 1
H= 10 MAG=4.2 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
GIFU	1	IP	03	22	59.3	X	22	05.1	58	0.6	38	0.7	18	0.6	S 13	W 8	U 11	47.6	
NAGOYA	0	IP	03	23	02.0	IS	23	10.1	16	0.4	11	0.6	8	0.4			U 6	62.7	08.1
IIDA	0	IP	03	23	03.0	ES	23	12.0	12	0.4	7	0.2	8	0.2			D 6	69.0	09.0
FUKUI	0	EP	03	23	05.8	ES	23	14.6										88.6	08.8
HIKONE	0	P	03	23	06.8	S	23	18.2	25	0.5	19	0.5					U	93.0	11.4
TSURUG	0	P	03	23	07.1	IS	23	18.3										95.5	11.2
MATSUM	0	EP	03	23	07.7	ES	23	18.5										96.9	10.8
TOYAMA	0	EP	03	23	09	ES	23	23	11	1.0	12	1.0	7	0.6				110.1	14.0
KOFU	0	IP	03	23	12.4	IS	23	27.6	22	0.4	19	0.4	6	0.5		W 2	D 1	130.6	15.2

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STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
HAMAMA	0	P	03 23 12.6	S	23 26.5	17 0.6	30 0.6	7 0.6			U	124.7	13.9
KANAZA	0	EP	03 23 13	ES	23 22	16 1.8	20 1.7	5 1.5				101.3	09.0
KAWAGU	0	IP	03 23 13.1	IS	23 34.1							151.1	21.0
MATSUS	0	IP	03 23 13.2	S	23 28				N	E	U	134.0	14.8
TSU	0	P	03 23 13.2	S	23 28.0	23 0.7	30 0.6	3 0.6				125.1	14.8
KYOTO	0	EP	03 23 16.0	S	23 33.3	23 0.6	29 0.6	8 0.5				147.9	17.3
MAIZUR	0	P	03 23 17.2	S	23 36.3	19 0.2	6 0.3					159.1	19.1
NARA	0	P	03 23 18.3	S	23 37.9	9 0.6	14 0.6					163.7	19.6
WAJIMA	0	EP	03 23 20	ES	23 44	20 1.0	25 1.0					186.7	24.0
OMAEZA	0	EP	03 23 21.1	ES	23 38.7	13 1.2	14 1.6					158.8	17.6
MISHIM	0	P	03 23 21.4	S	23 42.1	12 0.7	7 0.9	2 0.9				177.8	20.7
TOYOOK	0	P	03 23 26.5	S	23 50.1	40 1.0	43 1.0	11 0.7				209.0	23.6
SHIZUO	0	ES	03 23 31.2			9 0.5	6 0.5	2				143.3	
TOKYO	0	X	03 23 33	S	24 02	5 2.0						239.0	
WAKAYA	0	EX	03 23 33.5			7 1.1	3 0.8					242.9	
OKAYAM	0	EP	03 23 42.5	x	23 18	5 0.5	4 0.3	1 1.2				313.3	
OSAKA	0	ES	03 23 45									185.3	
KOBE	0	ES	03 23 50.8									210.0	

OT= 11 4 24 32.5 +/- 0.2 (JST)
MIDDLE OF GIFU PREF
LAT= 35 43 +/- 1 LONG= 137 9 +/- 1
H= 10 MAG=4.1 CLASS=L

TAKAYA	0	P	04 24 42.0	S	24 47.8							49.2	05.8
GIFU	1	IP	04 24 42.7	S	24 48.4	48 0.6	34 0.6	17 0.6	S	6	W 4 U 6	49.6	05.7
NAGOYA	0	IP	04 24 45.7	IS	24 53.3	11 0.6	10 0.6	6 0.6	S	5	W 2 U 3	63.4	07.6
IIDA	0	IP	04 24 46.0	IS	24 54.2	10 1.0	9 0.4	6 0.4			W 4 D 3	66.1	08.2
HIKONE	0	P	04 24 49.8	S	25 01.4	19 0.4	14 0.6					95.6	11.6
TSURUG	0	P	04 24 50.1	S	25 01.4							98.5	11.3
TOYAMA	0	EP	04 24 52	ES	25 06	8 1.0	8 1.0	5 0.8				110.0	14.0
KOFU	0	IP	04 24 54.8	ES	25 10.7	12 0.5	10 0.4	3 0.5			W 1 D 1	127.6	15.9
HAMAMA	0	EP	04 24 55	S	25 09.2	14 0.6	28 0.6	6 0.6				123.4	14.2
TSU	0	P	04 24 55.8	S	25 11.4	16 0.8	22 0.7	6 1.2				126.4	15.6
MATSUS	0	IP	04 24 55.9	S	25 13				N	E	U	131.8	17.1
KANAZA	0	EP	04 24 56	ES	25 06	14 1.8	19 2.0	5 1.0				102.6	10.0
KYOTO	0	EP	04 24 58.6	ES	25 16.2	8 0.7	16 0.8	8 0.9				150.5	17.6
MAIZUR	0	P	04 25 00.4	S	25 18.7	11 0.2	3 0.2					162.1	18.3
NARA	0	P	04 25 01.3	S	25 20.5	7 0.6	11 0.7					165.8	19.2
OMAEZA	0	EP	04 25 02.9	ES	25 24.2	11 1.4	17 1.4					156.9	21.3
MISHIM	0	EP	04 25 03.3	ES	25 25.4	16 0.7	9 0.9	6 0.8				175.0	22.1
WAJIMA	0	EP	04 25 04	ES	25 28	20 1.0	23 1.0					187.0	24.0
TOYOOK	0	P	04 25 08.7	S	25 33.3	33 1.3	39 1.1	6 0.9				212.0	24.6
SHIZUO	0	S	04 25 14.2			8 0.7	6 0.5	1 1.0				140.9	
WAKAYA	0	EX	04 25 19.6			6 1.0	4 0.8					245.1	
OSAKA	0	ES	04 25 27.5			10 2.5	10 2.2	5 1.8				187.7	
KOBE	0	ES	04 25 33.7									212.5	

OT= 11 11 19 19.0 +/- 0.2 (JST)
FUKUOKA-SAGA BORDER
LAT= 33 19 +/- 1 LONG= 130 28 +/- 1
H= 10 MAG=3.5 CLASS=L

SAGA	1	IP	11 19 24.2	IS	19 26.2				S	16	W 10 U 20	17.0	02.0
FUKUOK	0	IP	11 19 25.6	IS	19 29.3	29 1.1	36 0.4	11 0.3	N	11	D U 13	30.3	03.7
KUMAMO	0	IP	11 19 31.3	IS	19 38.9	14 0.4	17 0.6	9 1.5				60.6	07.6
NAGASA	0	P	11 19 35.4	S	19 45.3						U	86.9	09.9

OT= 11 15 20 38.2 +/- 0.3 (JST)
OFF MIYAGI PREF
LAT= 38 11 +/- 1 LONG= 141 51 +/- 2
H= 80 CLASS=M

ISHINO	2	IP	15 20 53.4	IS	21 08.2	150 0.2	92 0.2	61 0.6			E 30 D 74	54.8	09.8
SENDAI	2	IP	15 20 55.6	IS	21 06.6	65 0.3	133 0.4	34 0.6	S	1	E 3 D 27	83.6	11.0
OFUNAT	2	IP	15 20 57.9	IS	21 10.4	99 0.0	119 0.4	69 0.4	S	12	W 1 D 14	98.2	12.6
FUKUSH	1	EP	15 21 00.6	IS	21 15.0	73 1.0	96 1.0	50 0.8				129.8	14.4
YAMAGA	0	IP	15 21 00.9	IS	21 15.1				S	1	E 1 D 5	131.6	14.2
MIYAKO	2	EP	15 21 04.1	IS	21 21.1	31 1.4	17 1.0	31 2.0	N	2		162.6	17.0
ONAHAM	0	IP	15 21 04.4	IS	21 22.2	28 0.8	41 1.3	18 0.4	S	1	U 2	160.7	17.8
MORIOK	2	IP	15 21 05.8	IS	21 24.4	88 0.3	81 0.4	20 0.3	S	0	E 0 D U	178.1	18.6
SHIRAK	0	P	15 21 07.1	S	21 26.5							185.8	19.4
SAKATA	0	EP	15 21 07.8	IS	21 30.1							192.8	22.3

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MITO	1	IP	15 21 13.5	S	21 38.6	19 2.0	21 0.8	12 1.0			U 12	234.6	25.1
NIIGAT	0	EP	15 21 14.5			16 2.7	24 2.5	11 2.6				247.5	
KAKIOK	0	IP	15 21 14.6	ES	21 41	30 0.8	25 0.8	11 0.7	S	3	W 3 U 3	261.8	26.4
HACHIN	X	EP	15 21 16.0	IS	21 42.3	19 0.2	16 0.2	3 0.7				261.5	26.3
UTSUNO	0	EX	15 21 16	S	21 42.0							252.4	
AKITA	0	EX	15 21 16.8	ES	21 35.6	17 2.2	18 2.4	12 2.4				228.0	
KUMAGA	0	EP	15 21 23.6	X	22 07.4	8 1.2	6 1.2	3 2.8				314.6	
MAEBAS	0	P	15 21 24.0	S	21 54.7							316.3	30.7
TOKYO	0	P	15 21 25.5	S	21 59.3	11 2.0	7 1.2	10 3.2				334.0	33.8
MATSUS	0	IP	15 21 30.0						S	W	U	370.6	
KOFU	0	EP	15 21 34.2	ES	22 16.4	6 1.8	6 1.4	4 1.0				405.0	42.2
TATEYA	0	EX	15 21 36.6			5 1.5	7 2.7	4 2.2				396.8	
WAJIMA	0	IX	15 21 37.6								U 2	444.9	
URAKAW	0	P	15 21 38.8	S	22 22.3	6 0.4	13 0.4	1 0.4				448.4	43.5
AOMORI	0	ES	15 21 54			23 1.6	21 1.4	11 1.1				306.4	
KUSHIR	0	S	15 22 46.6			21 0.3	31 0.2	6 0.2				574.4	

OT= 11 18 9 23.7 +/- 2.0 (JST)
MIDDLE OF GIFU PREF
LAT= 35 47 +/- 6 LONG= 136 52 +/- 9
H= 0 MAG=3.7 CLASS=L

GIFU	0	EP	18 09 32.9	S	09 39.3	8 0.5	6 0.4	6 0.4				43.7	06.4
NAGOYA	0	P	18 09 42.0	IS	09 50.8	15 0.6	17 0.6	6 0.6				69.2	08.8
TOYAMA	0	EP	18 09 49	ES	10 04	7 0.6	11 1.4	2 2.4				106.9	15.0
KOFU	0	EP	18 09 51.2	IS	10 07.9	7 0.5	5 0.4	2 0.5				153.6	16.7
TOYOOK	0	EP	18 09 51.2	ES	10 29.5	17 1.1	12 1.0					187.3	38.3
MATSUS	0	IP	18 09 52.3	S	10 08				N	E	U	146.9	15.7
KANAZA	0	EX	18 09 59.2			6 3.2	5 2.1					86.9	
WAJIMA	0	EX	18 10 20			10 0.8	15 1.2					178.3	

OT= 12 0 1 52.8 +/- 0.1 (JST)
MIDDLE OF GIFU PREF
LAT= 35 43 +/- 1 LONG= 137 8 +/- 1
H= 10 MAG=4.6 CLASS=L

GIFU	1	IP	00 02 02.6	S	02 09.5	84 1.1	71 0.7	46 1.0	S	16	W 13 U 10	48.6	06.9
TAKAYA	X	P	00 02 03.0	S	02 08.8				N	10	E 2 U 15	49.5	05.8
NAGOYA	1	IP	00 02 05.3	IS	02 13.5	73 2.4	132 2.6	33 1.2			U 4	63.0	08.2
IIDA	0	IP	00 02 06.0	IS	02 15.2	29 2.0	35 1.4	23 1.2	N	1	W 6 D 6	67.6	09.2
FUKUI	0	IP	00 02 08.2	S	02 19.2						E 4 D 2	90.0	11.0
HIKONE	0	IP	00 02 10.5	IS	02 22.5	39 1.1	28 1.0				U	94.3	12.0
TSURUG	1	P	00 02 10.8	S	02 22.0	100 1.1						97.0	11.2
MATSUM	0	P	00 02 11.2	S	02 22.6						U	95.7	11.4
KANAZA	0	EP	00 02 12.4	ES	02 24.9	84 4.0	90 4.2	39 4.0				101.9	12.5
TOYAMA	0	P	00 02 13.0	S	02 27.2	50 0.8	71 4.0	28 3.4			U 3	110.0	14.2
HAMAMA	0	P	00 02 15.2	IS	02 30.0	48 2.4	90 3.2	15 2.4			U 23	124.1	14.8
TSU	0	P	00 02 15.7	S	02 30.4	42 1.2	66 1.1	19 0.8				125.7	14.7
KOFU	0	IP	00 02 15.8	IS	02 31.1	30 0.6	24 0.6	10 1.4	N	1	W 3 D 4	129.1	15.3
MATSUS	0	IP	00 02 16.5	S	02 31				N		E U	132.9	14.5
KYOTO	0	EP	00 02 19.7	IS	02 37.7	25 0.8	39 0.0	14 1.2				149.2	18.0
NAGANO	0	EP	00 02 19.9	ES	02 40.0	14 3.0	25 3.8	10 2.6				141.8	20.1
KARUIZ	0	IP	00 02 20.0	ES	02 37.6							145.3	17.6
KAWAGU	0	P	00 02 20.5	S	02 38.2					W	D 2	149.6	17.7
MAIZUR	0	P	00 02 21.2	S	02 40.1	27 0.2	16 0.3					160.6	18.9
NARA	0	P	00 02 21.7	S	02 41.9	24 0.8	25 0.8				U	164.8	20.2
MISHIM	0	P	00 02 24.0	S	02 46.0	28 0.8	23 1.7	10 0.6			D	176.4	22.0
TAKADA	0	EP	00 02 24.5	S	02 53.3							183.7	28.8
OSAKA	0	EP	00 02 24.9	S	02 47.7	31 1.4	31 1.6	14 1.7				186.5	22.8
WAJIMA	0	P	00 02 25.2	S	02 49.0	84 1.0	161 1.0	28 1.0				186.8	23.8
OWASE	0	EP	00 02 25.8	ES	02 52.0	6 1.2	6 1.2	4				202.1	26.2
AJIRO	0	EP	00 02 26.2	ES	02 50.6	5 0.2	5 0.2	2 0.4				193.4	24.4
KOBE	0	EP	00 02 27.0	ES	02 54.4							211.3	27.4
MAEBAS	0	P	00 02 27.2	S	02 50.6							189.9	23.4
TOKYO	0	EP	00 02 27.4	ES	03 08.0	26 3.8	21 4.0	11 3.2				237.5	35.6
TOYOOK	0	PE	00 02 29.2	S	02 54.8	23 0.9	23 1.1	7 0.7				210.5	
KUMAGA	0	EP	00 02 29.6	ES	02 54.6	12 1.8	16 1.2	8 1.2				206.7	25.0
OSHIMA	0	P	00 02 31.6			6 1.2	10	5 1.6				230.1	
WAKAYA	0	P	00 02 32.7	S	03 08.2	12 0.9	5 1.0	4 0.9				244.0	30.5
TOTTOR	0	P	00 02 35.1	S	03 10.4	7 0.9	6 0.3					268.6	35.3
TATEYA	0	EP	00 02 36.7	IS	03 10.1	14 2.7	19 1.7	8 1.6				261.5	33.4
SHIONO	0	EP	00 02 37.5	ES	03 07.5	7 1.0	4 1.0	4 1.4				281.2	30.0
UTSUNO	0	EX	00 02 39	S	03 07.7							263.1	
TOKUSH	0	EP	00 02 39.9	ES	03 15.3							296.9	35.4
KAKIOK	0	EP	00 02 40	S	03 11.8	18 1.0	14 0.7	5 1.1				281.8	31.8
OKAYAM	0	EP	00 02 41.4	ES	03 18.2	10 0.5	9 0.3	3 1.3				314.7	36.8

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MITO	0	EP	00 02 43.0	S	03 19.0	25 1.5	8 1.2	8 1.3				309.6	36.0
TAKAMA	0	X	00 02 48.4	ES	03 26.4	13 1.0	11 1.0	4 1.0				320.7	
SAIGO	0	X	00 02 52.9						N	0 W	1 U 1	347.0	
NIIGAT	0	EX	00 03 09.2			11 3.8	10 5.0	7 5.0				297.5	
ONAHAM	0	EX	00 03 22.4			11 2.0	7 0.9	2 1.2				365.1	

OT= 12 1 20 51.4 +/- 0.1 (JST)
MIDDLE OF GIFU PREF
LAT= 35 44 +/- 0 LONG= 137 7 +/- 0
H= 10 MAG=4.2 CLASS=S

TAKAYA	0	P	01 21 01.3	S	21 06.9							48.1	05.6
NAGOYA	1	IP	01 21 05.0	IS	21 12.7	22 0.6	33 0.8	13 1.1	S	1 W	2 U 4	64.5	07.7
IIDA	0	IP	01 21 05.0	IS	21 14.0	17 0.4	15 0.4	11 0.2		W	9 D 7	69.6	09.0
FUKUI	0	IP	01 21 07.1	IS	21 18.5							87.8	11.4
TSURUG	0	EP	01 21 09	S	21 20.5							95.6	11.5
HIKONE	0	IP	01 21 09.4	IS	21 20.8	30 0.5	26 0.5				U	94.0	11.4
MATSUM	0	EP	01 21 09.4	X	11 20.2							95.7	
KANAZA	0	EP	01 21 10.9	ES	21 22.0	24 1.9	27 2.0	7 1.8				99.6	11.1
TOYAMA	0	P	01 21 11.4	S	21 25.0	12 1.0	16 1.0	7 0.8			U 2	108.3	13.6
HAMAMA	0	EP	01 21 14	S	21 29.2	24 0.6	48 0.6	9 0.6				126.4	15.2
KOFU	0	IP	01 21 14.3	IS	21 29.6	39 0.4	37 0.5	10 0.5	N	1	D 2	130.7	15.3
MATSUS	0	IP	01 21 15.0	S	21 31				N	E	U	132.8	16.0
TSU	0	P	01 21 15.3	S	21 31.5	15 0.6	23 0.8	3 0.9				126.7	16.2
SHIZUO	0	EP	01 21 16.2	S	21 33.3	12 0.5	8 0.5	3 1.1				144.4	17.1
NAGANO	0	EP	01 21 17.1	ES	21 35.3	4 1.6	6 1.8	5 2.0				141.4	18.2
KYOTO	0	EP	01 21 18.0	S	21 36.0	15 0.8	32 0.6	10 0.8				148.9	18.0
KARUIZ	0	IP	01 21 18.0	ES	21 35.0						D 3	145.8	17.0
KAWAGU	0	P	01 21 18.0	IS	21 36.8							151.4	18.8
MAIZUR	0	P	01 21 19.5	S	21 38.7	22 0.6	12 0.3					159.4	19.2
NARA	0	P	01 21 19.7	S	21 40.0	18 0.6	20 0.6					165.0	20.3
WAJIMA	0	EP	01 21 22	ES	21 44	38 1.0	50 0.8	13 1.0				184.8	22.0
MISHIM	0	IP	01 21 22.6	IS	21 45.0	20 0.7	12 0.9	6 0.6			D 2	178.5	22.4
MAEBAS	0	P	01 21 25.4	S	21 48.8							190.5	23.4
OSAKA	0	EX	01 21 27	ES	21 46	18 2.4	14 1.9	7 2.6				186.5	
KUMAGA	0	EP	01 21 28.4	ES	21 54.0	8 1.0	7 1.0	3 1.0				209.7	25.6
KOBE	0	EP	01 21 30.8	ES	21 53.4							211.0	22.6
WAKAYA	0	EX	01 21 32.0			9 1.1	3 0.9					244.1	
TOKYO	0	P	01 21 32.7	ES	22 02.4	15 2.0	3 1.0	3 0.8				239.1	29.7
TATEYA	0	EP	01 21 36.0			6 0.7	7 1.5	2 1.5				266.5	
MITO	0	EX	01 21 42.0	S	22 18.5	5 1.4	4 0.5	3 0.9				310.6	
OKAYAM	0	X	01 21 45.2	ES	22 20	7 0.5	7 0.3	2 1.0				318.9	
TAKAMA	0	X	01 21 47.3	ES	22 24.7	6 1.0	5 1.0	2 0.6				320.2	

OT= 12 3 38 33.1 +/- 0.2 (JST)
MIDDLE OF GIFU PREF
LAT= 35 42 +/- 1 LONG= 136 57 +/- 2
H= 50 MAG=4.0 CLASS=S

GIFU	0	P	03 38 43.4	S	38 49.7	17 0.4	7 0.5	6 0.6				37.4	06.3
NAGOYA	0	EP	03 38 45.7	IS	38 54.3	10 0.5	5 0.6	4 0.4				59.4	08.6
TOYAMA	0	EP	03 38 52	S	39 05.4	6 0.6	9 0.6	3 0.6				114.1	13.4
MATSUS	0	IP	03 38 56.0	S	39 10				N	E	U	146.6	14.0
KOFU	0	IP	03 38 56.3	IS	39 11.8	10 0.4	11 0.3	4 0.3			D 1	145.6	15.5
TOYOOK	0	EP	03 39 07.7	S	39 32.5	15 1.0	14 0.6					193.8	24.8
WAJIMA	0	EX	03 39 24			5 0.8	9 0.8					187.6	

OT= 12 4 13 45.3 +/- 0.1 (JST)
MIDDLE OF GIFU PREF
LAT= 35 44 +/- 0 LONG= 137 7 +/- 0
H= 10 MAG=4.6 CLASS=M

TAKAYA	X	P	04 13 55.1	S	14 00.6				N	14 E	2 U 21	48.1	05.5
GIFU	2	IP	04 13 56.0	IS	14 02.3	250 0.7	112 0.6	82 0.5	S	27 W	17 U 26	49.0	06.3
NAGOYA	1	IP	04 13 58.6	IS	14 06.9	51 0.9	68 0.8	32 1.0	S	2 W	5 U 11	64.5	08.3
IIDA	1	IP	04 13 59.2	IS	14 07.8	39 0.4	47 0.4	33 1.2			D 16	69.6	08.6
FUKUI	1	P	04 14 01.0	IS	14 11.8					E	4 D 2	87.8	10.8
TSURUG	1	P	04 14 03.0	IS	14 14.1							95.6	11.1
MATSUM	0	IP	04 14 03.2	S	14 13.9						U	95.7	10.7
HIKONE	X	IP	04 14 03.2	IS	14 14.6	58 0.5	49 0.6				U	94.0	11.4
KANAZA	0	EP	04 14 04.7	ES	14 15.6	47 2.0	49 2.2	15 1.4				99.6	10.9
TOYAMA	0	IP	04 14 04.8	IS	14 19.2	30 1.4	37 1.0	18 3.6			U 5	108.3	14.4

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
HAMAMA	1	EP	04 14 08	IS	14 23.0	53 0.6	105 0.6	21 0.6				126.4	15.0
KOFU	1	IP	04 14 08.2	IS	14 23.4	92 0.3	87 0.4	21 0.5	N	1 W	2 D 4	130.7	15.2
MATSUS	0	IP	04 14 08.9	S	14 23				N	E	U	132.8	14.1
TSU	1	IP	04 14 09.5	S	14 25.4	32 1.9	49 0.9	12 0.8	S	2 W	2 U 1	126.7	15.9
SHIZUO	0	EP	04 14 10.3	S	14 27.3	34 1.0	20 1.0	9 1.3				144.4	17.0
NAGANO	0	EP	04 14 10.6	ES	14 28.9	10 1.6	15 1.5					141.4	18.3
KARUIZ	0	EP	04 14 11.7	ES	14 29.9							145.8	18.2
KYOTO	1	IP	04 14 12.0	IS	14 29.6	30 0.9	87 0.2	24 0.8		W	4 U 5	148.9	17.6
KAWAGU	0	IP	04 14 12.3	IS	14 31.2							151.4	18.9
MAIZUR	0	P	04 14 13.2	S	14 32.6	73 0.3	30 0.4					159.4	19.4
NARA	0	P	04 14 13.7	S	14 34.0	50 2.0	50 2.0				U	165.0	20.3
MISHIM	0	IP	04 14 15.6	IS	14 37.9	55 0.7	29 0.6	20 0.9				178.5	22.3
OMAEZA	0	EP	04 14 16.5	ES	14 33.7	41 1.6	45 1.6	7 1.6				160.3	17.2
WAJIMA	0	IP	04 14 17.0	ES	14 38	83 1.0	95 1.0	30 1.0			U 2	184.8	21.0
OSAKA	0	EP	04 14 17	S	14 40.1	35 2.2	30 1.6	23 1.6				186.5	23.1
OWASE	0	EP	04 14 17.9	ES	14 44.4	7 0.6	8 0.8	5 0.8				203.1	26.5
AJIRO	0	EP	04 14 18.2	ES	14 42.3	8 0.2	11 0.2	4 0.5				195.5	24.1
TAKADA	0	EP	04 14 18.5	S	14 45.3							183.0	26.8
MAEBAS	0	P	04 14 19.0	S	14 43.0							190.5	24.0
KOBE	0	EP	04 14 19.6	ES	14 46.7							211.0	27.1
KUMAGA	0	EP	04 14 21.4	ES	14 46.6	17 1.0	14 1.0	7 1.2				209.7	25.2
TOYOOK	1	P	04 14 22.0	ES	14 45.5	131 1.1	170 1.0	44 0.7				209.1	23.5
OSHIMA	0	P	04 14 23.8	S	14 51.6	12 1.2	9 0.8	5 1.4				232.3	27.8
SUMOTO	0	P	04 14 25.8	S	14 53.9	5 0.9	3 0.6				U	254.2	28.1
				X	14 31.5								
TOKYO	0	IP	04 14 26.0	ES	14 56.8	30 1.6	13 1.6	8 2.6				239.1	30.8
TOTTOR	0	P	04 14 26.9	S	15 02.8	7 0.7	7 0.4					267.3	35.9
TOKUSH	0	EP	04 14 27.0	ES	15 02.3							296.8	35.3
WAKAYA	0	EP	04 14 28.8	ES	14 54.9	20 1.1	9 0.9	4 0.9				244.1	26.1
TATEYA	0	EP	04 14 29.5			15 0.7	19 1.6	5 1.3				263.5	
KAKIOK	0	EP	04 14 30	S	15 05.6	18 1.0	17 0.9	5 0.9				282.9	35.6
SHIONO	0	EP	04 14 30.5	ES	15 01.0	8 0.7	4 1.0	6 1.4				282.2	30.5
OKAYAM	0	EP	04 14 32.8	ES	15 12	13 0.5	15 0.6	4 1.2				310.9	39.2
UTSUNO	0	EX	04 14 33	S	15 00.8							263.8	
MITO	0	EP	04 14 36.0	S	15 11.8	13 1.0	13 1.0	6 2.0				310.6	35.8
TAKAMA	0	EP	04 14 39.8	ES	15 18.4	17 1.0	13 1.0	6 0.8				320.2	38.6
ONAHAM	0	EX	04 14 43.0			8 0.9	6 1.0	2 0.8				365.8	
FUKUOK	0	X	04 14 52.5			5 2.5	4 1.5	3 1.4				661.8	

OT= 12 11 15 30.1 +/- 1.4 (JST)
E OFF HOKKAIDO
LAT= 43 14 +/- 5 LONG= 146 29 +/- 7
H= 30 MAG=4.5 CLASS=L

NEMURO	2	IP	11 15 43.7	IS	15 53.1	50 0.2	52 0.2	33 0.2	N	4 E	8 D 18	73.6	09.4
KUSHIR	0	EP	11 15 57	ES	16 14	32 0.2	38 0.3	16 0.2				172.4	17.0
ABASHI	0	EP	11 16 01	ES	16 23	4 1.2	7 1.4	4 1.0				197.8	22.0
OBIHIR	0	EP	11 16 08	ES	16 46							267.9	38.0
HIROO	0	EP	11 16 13	S	16 43.5							279.9	30.5
URAKAW	0	P	11 16 19.9	S	16 56.6	26 0.8	42 1.0	7 1.4				326.1	36.7
SAPPOR	0	EP	11 16 29	ES	17 15	4 2.0	5 1.6	2 1.2				419.6	46.0
MATSUS	0	IP	11 17 42.7	X	18 27				N		D	1025.4	

OT= 12 23 16 21.0 +/- 0.5 (JST)
OFF FUKUSHIMA PREF
LAT= 37 59 +/- 1 LONG= 142 7 +/- 2
H= 40 MAG=3.9 CLASS=U

ISHINO	0	IP	23 16 36.1	IS	16 46.6	12 0.2	10 0.2	3 0.8		E	1 D 2	86.5	10.5
SENDAI	0	IP	23 16 39.0	IS	16 51.8	8 0.5	7 0.6	3 0			D 1	111.0	12.8
FUKUSH	0	EP	23 16 45.0	ES	16 59.2	21 0.9	11 1.0	5 0.7				146.6	14.2
MORIOK	0	EP	23 16 52.2	S	17 14.1	3 0.4	5 0.4	1 0.4				207.2	21.9
				X	16 53.3								
MATSUS	0	EP	23 17 15	S	17 56							381.9	41.0

OT= 13 11 57 48.1 +/- 0.2 (JST)
W OF NAGANO PREF
LAT= 36 12 +/- 1 LONG= 137 46 +/- 1
H= 0 MAG=4.0 CLASS=L

TAKAYA	0	EP	11 57 57.8	S	58 01.2							41.9	03.4
MATSUS	0	IP	11 58 00.5	S	58 08					N	E	57.9	07.5
NAGANO	0	EP	11 58 02.2	ES	58 21.7	17 1.7	29 1.0	8 0.7				66.8	19.5

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
KARUIZ	0	IP	11	58	03.9	S	58	13.0									D 2	76.6	09.1
TOYAMA	0	EP	11	58	04	S	58	13.4	15	0.8	20	2.6	9	2.4				72.4	09.4
IIDA	0	EP	11	58	04.6	ES	58	14.0	16	1.2	11	1.2	8	0.8				77.3	09.4
KOFU	0	EP	11	58	07.3	ES	58	23.4	9	1.4	6	0.8	3	1.2				96.4	16.1
TAKADA	0	P	11	58	10.2	S	58	25.5										111.2	15.3
GIFU	0	P	11	58	12.2	S	58	28.4	8	1.7	8	1.9						123.7	16.2
NAGOYA	0	IP	11	58	13.2	ES	58	30.6	9	2.4	9	2.0	7	0.8			U 4	133.3	17.4
KUMAGA	0	EP	11	58	13.6	ES	58	36.0	7	4.0	6	5.0	3	3.2				150.2	22.4
KANAZA	0	Ex	11	58	15				6	2.0	7	3.0						103.3	
WAJIMA	0	EX	11	58	16				10	1.0	14	1.0						150.9	
HAMAMA	0	P	11	58	17.5	ES	58	38	14	1.2	10	1.0	5	1.2			D 10	165.5	20.5
SHIZUO	0	EP	11	58	18.3	S	58	33.8	11	0.4	15	0.4	4	0.8				149.7	15.5
MISHIM	0	EP	11	58	18.5	ES	58	40.3	12	0.6	16	0.6	4	0.7				163.2	21.8
OMAEZA	0	EP	11	58	24.3	ES	58	47.9	16	1.2	13	1.2	8	1.4				182.8	23.6
TATEYA	0	EX	11	58	29.1				7	0.6	4	0.6	2	1.7				237.1	
TOKYO	0	EX	11	58	32				7	3.8	7	3.2						192.8	
NIIGAT	0	EX	11	58	45.1	ES	58	56.3	10	1.3	12	1.0						223.8	

OT= 13 13 10 39.7 +/- 0.3 (JST)
NEAR WAKAYAMA
LAT= 34 10 +/- 1 LONG= 135 7 +/- 1
H= 10 MAG=3.4 CLASS=L

WAKAYA	2	IP	13	10	42.7	IS	10	43.6	236	0.2	137	0.2	85	0.2	N 42 E 67 U 50			8.1	00.9
SUMOTO	0	P	13	10	47.3	S	10	51.3	15	0.4	9	0.3					D	26.8	04.0
NARA	0	EP	13	10	57.9	S	11	06.0	6	0.7	4	0.7						87.3	08.1
OWASE	0	EP	13	10	58.0	ES	11	11.0	6	0.6	3	0.5	2					100.1	13.0
TAKAMA	0	EP	13	10	58.0	ES	11	12.1	8	1.0	8	1.0	3	0.6				98.9	14.1
SHIONO	0	EP	13	10	58.8	S	11	10.5	14	0.2	10	0.2	7	0.2				99.6	11.7
TOKUSH	0	X	13	10		ES	10	56.0										51.1	
OSAKA	0	EX	13	11	01				15	3.5	14	3.1	3	3.2				67.9	
OKAYAM	0	EP	13	11	01.2	ES	11	17.0	5	0.5	6	0.5	1	0.8				124.3	15.8
TSU	0	EX	13	11	05.0				15	0.8	10	1.3	5	1.0				141.8	
MATSUS	0	X	13	11	49													384.8	

OT= 13 20 18 59.9 +/- 0.7 (JST)
SE OFF BOSO PEN
LAT= 33 43 +/- 2 LONG= 141 50 +/- 3
H= 70 CLASS=U

HACHIJ	0	EP	20	19	31.4	IS	19	50.0	32	0.5	33	0.5	11	0.7				202.0	18.6
TATEYA	0	EP	20	19	33.5				40	0.8	36	1.2	15	2.3				228.9	
OSHIMA	0	P	20	19	36.4				20	0.8	14	0.8	10	0.2				254.1	
TOKYO	0	P	20	19	42.5	IS	20	14.2	21	0.8	14	0.0	10	4.0				289.4	31.7
MISHIM	0	EP	20	19	42.6	ES	20	11.2	16	0.7	16	3.2	4	1.1				308.4	28.6
KAKIOK	0	X	20	19	44.8				19	1.2	30	1.2	11	0.9	S 1 W 2 D 1			316.6	
MITO	0	EP	20	19	45.8	ES	20	17.2	20	2.4	17	2.8	7	0.9				320.3	31.4
OMAEZA	0	EP	20	19	47.7				7	2.0	6	2.8						347.9	
KAWAGU	0	P	20	19	48.4	S	20	19.7										343.9	31.3
KUMAGA	0	EP	20	19	49.4	ES	20	25.6	18	1.4	7	0.8	6	2.8				350.2	36.2
UTSUNO	0	P	20	19	50.2	S	20	28.0										361.2	37.8
ONAHAM	0	IP	20	19	50.6	S	20	24.9	21	0.9	21	1.1	6	0.6			U 1	367.8	34.3
KOFU	0	EP	20	19	50.6	ES	20	29.6	12	1.2	12	0.4	5	1.3				369.7	39.0
HAMAMA	0	EP	20	19	53	ES	20	35	5	2.8	5	3.2	2	1.8				394.3	42.0
SHIRAK	0	P	20	19	54.8	ES	20	33.6										404.6	38.8
MAEBAS	0	P	20	19	54.8	S	20	33.0										390.4	38.2
KARUIZ	0	EP	20	19	58.5	ES	20	40.6										417.4	42.1
MATSUS	0	IP	20	20	02.0	S	20	46							N W U			455.0	44.0
FUKUSH	0	IP	20	20	03.2	ES	20	47.8	16	1.0	15	0.8	8	0.6	N 4 W 2 U 2			464.7	44.6
NAGANO	0	EP	20	20	05.7	ES	20	52.0	5	3.0	9	3.7	3	3.0				464.9	46.3
SENDAI	0	IP	20	20	08.6	S	20	56.6	9	1	10	0.9	5	1.2	N 1 W U 3			511.0	48.0
YOKOHA	0	S	20	20	08.8													276.2	
NAGOYA	0	X	20	20	10.5	X	21	06.8	5	2.4	4	2.6	2	1.2				474.9	
NIIGAT	0	EX	20	20	12.4				15	3.0	10	5.5	7	3.1				528.7	
AKITA	0	EX	20	20	30.4				5	3.6	5	2.0	3	2.6				683.6	
URAKAW	0	EP	20	21	00	X	22	30.6	3	0.4	6	0.4						940.6	
KANAZA	0	EX	20	21	07						5	2.3						567.1	
KUSHIR	0	X	20	22	51				6	0.2	9	0.2	2	0.3				1051.9	

OT= 13 20 52 10.6 +/- 1.5 (JST)
E OFF HOKKAIDO
LAT= 43 4 +/- 5 LONG= 147 44 +/- 8
H= 70 CLASS=M

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	1	IP	20	52	37.9	S	52	54.8	133	2.0	124	2.0	75	2.4	N 1 E 2 D 3			176.9	16.9
KUSHIR	1	IP	20	52	50.4	IS	53	18.0	94	1.0	107	2.4	51	0.8	N 3 E 8 D 9			272.3	27.6
ABASHI	0	IP	20	52	54.2	IS	53	25.0	154	2.0	95	1.8	49	2.0	S 4 E 6 D 7			298.2	30.8
OBIHIR	0	EP	20	53	00	ES	53	38										368.3	38.0
HIROO	0	IP	20	53	04.9	ES	53	42									D 10	372.4	37.1
ASAHIK	0	EP	20	53	10				36	2.8	29	2.4	19	1.0				441.1	
URAKAW	0	P	20	53	10.3	S	53	54.0	53	3.0	78	3.6	37	3.4				418.8	43.7
RUMOI	0	EX	20	53	21													502.9	
SAPPOR	0	IP	20	53	23.0				24	1.8	29	2.8	11	5.0			D 5	521.5	
WAKKAN	0	EP	20	53	25	ES	54	22	22	3.8	28	3.5	12	5.5				549.1	57.0
HACHIN	0	P	20	53	29.8	S	54	25.4	12	0.2	10	0.2	3	2.9		E	D	588.0	55.6
HAKODA	0	IP	20	53	30.9	S	54	26.1	13	3.8	12	1.9	7	3.4	N 2 E 5 D 7			590.4	57.2
MIYAKO	0	EP	20	53	32	IS	54	31.0	9	1.2	6	1.4	6	1.0				613.9	59.0
AOMORI	0	IP	20	53	35.1	S	54	34.2	36	1.6	41	2.2	13	1.3	N 3 E 4 D 5			628.0	59.1
MORIOK	0	IP	20	53	39.4	IS	54	43.2	19	0.4	15	0.4	5	1.8	N 1 E 1 D 1			664.3	63.8
OFUNAT	0	IP	20	53	39.8	S	54	43.4	16	1.0	10	1.8	11	1.4	N 2 E 2 D 2			673.1	63.6
ISHINO	0	EP	20	53	48.6	IS	54	59.6	19	1.6	13	1.8	7	1.2	N 1 E 1 D 2			748.4	71.0
AKITA	0	EP	20	53	50.2	EX	55	13.0	13	2.2	13	3.2	9	1.8				738.3	
SENDAI	0	P	20	53	53.9	S	55	08.1	27	2.0	30	1.1	10	1.0			D 1	786.2	74.2
YAMAGA	0	EP	20	53	58.5	S	55	17.0									D 2	821.4	78.5
SAKATA	0	EP	20	54	00.3													809.1	
FUKUSH	0	EP	20	54	02.0	ES	55	25.4	53	1.0	24	1.1	8	1.0				852.2	83.4
ONAHAM	0	EP	20	54	06.8	ES	55	32.0	29	1.4	24	1.6	11	2.1				894.8	85.2
SHIRAK	0	EP	20	54	11.3	S	55	40.0										919.2	88.7
NIIGAT	0	EX	20	54	13.5				22	2.9	15	4.3	10	6.0				931.8	
MITO	0	EP	20	54	15.6	X	55	48.4	16	0.8	18	1.2	10	1.4				968.3	
UTSUNO	0	P	20	54	20.0	ES	55	55.6										987.7	95.6
KAKIOK	0	EP	20	54	20	S	55	58	21	1.2	20	1.2	8	0.5				996.5	98.0
KUMAGA	0	EP	20	54	28.0	ES	56	08.6	9	1.4	9	1.0	3	1.8				1049.8	100.6
MAEBAS	0	P	20	54	28.5	ES	56	10.8										1047.6	102.3
NAGANO	0	EP	20	54	32.0	ES	56	28.0	5	3.0	9	3.0	4	3.5				1081.3	116.0
TOKYO	0	EX	20	54	32	S	56	11.5	15	0.8	8	1.0	8	3.4				1068.4	
MATSUS	0	IP	20	54	32.0	S	56	18							N	E	D	1090.0	106.0
WAJIMA	0	IP	20	54	35.8				7	1.0	10	1.0	5	1.2	S 3		D 3	1115.6	
TATEYA	0	EP	20	54	38.4				12	1.7	10	1.3	7	1.2				1125.4	
KOFU	0	EP	20	54	38.8	ES	56	30.2	6	1.3	9	1.3	3	1.2				1139.0	111.4
HACHIJ	0	EX	20	55	12.6	X	56	59.0	8	0.5	7	0.5						1305.8	
MISHIM	0	EX	20	56	27				6	1.1	7	1.3						1164.8	
OSHIMA	0	EX	20	56	31.3				8	0.6	5	0.6	3	0.2				1171.3	

OT= 14 5 0 23.3 +/- 0.6 (JST)
OFF TOKACHI
LAT= 41 31 +/- 2 LONG= 144 2 +/- 3
H= 30 MAG=4.8 CLASS=S

HIROO	1	IP	05	00	41.1	IS	00	51.7							S 15 E 6 D 18			103.9	10.6
URAKAW	2	P	05	00	45.8	S	01	00.1	91	1.2	217	1.8	121	1.6	S E 1 D 1			126.2	14.3
OBIHIR	0	EP	05	00	49	ES	01	11										169.7	22.0
KUSHIR	1	P	05	00	50.1	ES	01	08	54	0.4	68	0.5	19	0.2			U 2	165.1	17.9
HACHIN	0	EP	05	01	00.3	ES	01	26.1	9	0.2	5	0.2	2	1.1				238.0	25.8
NEMURO	0	EP	05	01	01	ES	01	25	5	1.2	5	1.2	5	1.2				238.4	24.0
ABASHI	0	EP	05	01	04	S	01	33.0	9	2.4	9	2.2	5	2.2				278.5	29.0
HAKODA	0	IP	05	01	04.0	S	01	34.5	12	1.3	13	0.8	6	1.6			U	274.8	30.5
ASAHIK	0	EP	05	01	05				13	1.6	17	1.8	15	2.4				285.0	
SAPPOR	0	P	05	01	05.0	ES	01	37	25	2.2	32	2.0	10	2.0				281.0	32.0
AOMORI	0	IP	05	01	05.4	S	01	34.1	49	0.9	45	0.9	20	1.4	S 1 W 1 U 2			283.6	28.7
AKITA	0	EX	05	01	26	EX	02	04.0	7	1.6	8	2.4	4	1.4				388.0	
FUKUSH	0	EX	05	01	36.0				5	1.0	5	1.0	1	0.8				517.2	
SENDAI	0	EX	05	01	43				4	1.8	5	2.1	2	1.3				450.0	
MATSUS	0	P	05	02	05													747.8	
ONAHAM	0	EX	05	02	38.6				6	0.8	4	0.9	1	0.8				574.8	
NIIGAT	0	EX	05	03	35.0				7	3.8	8	4.3						585.3	

OT= 14 21 49 11.6 +/- 1.3 (JST)
E OFF HOKKAIDO
LAT= 43 8 +/- 7 LONG= 147 31 +/- 7
H= 40 MAG=5.0 CLASS=S

NEMURO	X	EP	21	49	36	S	49	54.6	52	2.0	40	1.4	33	2.2				158.3	18.6
KUSHIR	0	EP	21	49	49	S	50	18.0	32	1.4	25	0.8	13	1.0				254.9	29.0
ABASHI	0	P	21	49	51.8	S	50	21.4	43	1.6	36	2.0	11	1.6		W 1 U 2		279.1	29.6
OBIHIR	0	EP	21	50	04	ES	50	39										350.9	35.0
URAKAW	0	P	21	50	08.5	S	50	48.7	17	2.0	33	2.4	16	3.4				403.3	40.2
ASAHIK	0	EP	21	50	12				8	1.6	8	1.2	5	1.8				422.3	
SAPPOR	0	EP	21	50	21				10	2.0	11	1.6	4	1.4				508.6	
AOMORI	0	EX	21	50	26				17	0.9	17	0.9	6	1.4				614.4	

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A	/T	E-W A	/T	U-D A	/T	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
MORIOK	0	P	21	50	36.9	X	51	41.9	4	0.4	6	0.4	3	0.5		E	D	658.5	
AKITA	0	EX	21	50	48.5				5	2.4	4	2.8	3	2.8				726.3	
SENDAI	0	X	21	50	51				4	0.6	5	2.0	3	0.8				777.8	
FUKUSH	0	EX	21	51	02.4				12	1.0	5	0.8	3	0.6				844.0	
MATSUS	0	IP	21	51	30.0	S	53	20							N	E	D	1080.9	110.0
ONAHAM	0	EX	21	52	29.7				7	0.8	5	1.0	2	0.7				888.4	

OT= 14 23 31 13.7 +/- 0.1 (JST)
MIDDLE OF GIFU PREF
LAT= 35 46 +/- 0 LONG= 137 5 +/- 1
H= 10 MAG=4.8 CLASS=M

TAKAYA	2	P	23	31	23.2	S	31	28.8							N 22	E 4	U 31	45.4	05.6
GIFU	1	P	23	31	24.5	IS	31	31.1	101	1.2	87	1.1	66	1.0	S 61	W 40	U 62	50.0	06.6
NAGOYA	2	IP	23	31	27.0	IS	31	35.6	93	1.0	150	1.0	62	1.0	S 4		U 22	67.5	08.6
IIDA	1	IP	23	31	27.8	IS	31	37.0	43	1.0	48	1.4	38	2.8	N 4	W 16	D 20	73.8	09.2
FUKUI	0	IP	23	31	28.8	IS	31	39.8							S 4	E 6	D 6	83.6	11.0
TSURUG	1	P	23	31	30.9	S	31	41.6	200	1.4	100	1.1					U	93.0	10.7
HIKONE	0	IP	23	31	31.2	S	31	42.4	8	1.1	6	0.8					U	93.5	11.2
MATSUM	0	IP	23	31	31.5	S	31	42.8									U 4	96.1	11.3
KANAZA	0	EP	23	31	31.6	ES	31	42.1	98	4.0	91	4.2	23	3.2				95.0	10.5
TOYAMA	1	IP	23	31	32.6	IS	31	46.2	89	0.8	154	1.2	58	3.6			U 6	104.9	13.6
KOFU	1	IP	23	31	36.8	S	31	52.0	75	0.4	54	0.4	21	1.1	N	2 W	7 D 9	133.9	15.2
HAMAMA	X	P	23	31	36.8	IS	31	52.5	68	1.6	128	1.0	24	2.0			D 8	131.0	15.7
MATSUS	0	IP	23	31	37.2	S	31	52							N	E	U	132.6	14.8
NAGANO	0	P	23	31	38.9	S	31	57.3	34	1.2	43	2.0	17	2.5	N	1 E	2 U 3	140.9	18.4
SHIZUO	0	IP	23	31	39.1	S	31	57.0	29	0.8	24	0.8	15	4.0	N	2 W	3 D 2	149.0	17.9
KARUIZ	0	EP	23	31	39.6	S	31	58.1										146.8	18.5
KYOTO	0	IP	23	31	40.4	IS	31	58.3	30	1.4	40	1.1	25	0.8	S	3 W	8 U 11	148.4	17.9
KAWAGU	0	IP	23	31	40.9	IS	31	59.9										155.0	19.0
MAIZUR	0	P	23	31	42.3	S	31	59.5	55	0.4	29	0.2					U	157.1	17.2
NARA	0	P	23	31	42.4	S	32	02.1	100	2.0	100	2.0					U	165.5	19.7
OMAEZA	0	EP	23	31	43.8	ES	32	04.3	88	1.6	83	1.6	15	1.4				165.0	20.5
MISHIM	0	IP	23	31	44.4	IS	32	06.3	54	0.6	44	0.9	12	0.7	S	3 W	3 D 2	182.7	21.9
TAKADA	0	EP	23	31	44.5	S	32	12.9										181.6	28.4
OSAKA	0	P	23	31	45.1	S	32	08.1	90	2.3	55	2.0	33	1.7				186.5	23.0
WAJIMA	0	IP	23	31	45.8	S	32	06.4	125	1.0	205	1.0	55	1.0				180.9	20.6
OWASE	0	EP	23	31	46.5	ES	32	11.0	12		14		6					205.3	24.5
AJIRO	0	IP	23	31	47.1	S	32	11.8	7	0.2	8	0.2	8	0.6				199.7	24.7
MAEBAS	0	P	23	31	47.6	S	32	11.8										191.8	24.2
TOYOOK	X	EP	23	31	48.1	S	32	13.0	290	1.0	167	1.0	94	0.9				206.5	24.9
KOBE	0	EP	23	31	48.5	ES	32	15.2										210.5	26.7
KUMAGA	0	EP	23	31	50.4	ES	32	16.0	28	1.4	22	1.2	13	1.2				211.8	25.6
OSHIMA	0	P	23	31	52.9	S	32	20.4	25	1.0	21	2.0	8	2.4				236.7	27.5
WAKAYA	0	EP	23	31	53.1	S	32	23.9	24	1.2	14	0.9	3	1.0				244.5	30.8
SUMOTO	0	P	23	31	54.3	S	32	21.5	7	0.6	5	0.8					U	254.1	27.2
TOKYO	0	IP	23	31	55.5	S	32	25	45	1.5	20	2.0	10	1.6				242.1	29.5
HIMEJI	0	EP	23	31	55.5	ES	32	23.1										239.9	27.6
TOTTOR	0	P	23	31	55.5	S	32	25.7	10	0.5	10	1.0						264.6	30.2
SHIONO	0	EP	23	31	56.6	S	32	32.8	9	1.4	10	1.4	8	1.7				284.2	36.2
UTSUNO	0	P	23	31	57.8	S	32	28.6										265.4	30.8
TATEYA	0	EP	23	31	58.1				24	1.3	32	1.6	9	3.0				267.5	
KAKIOK	0	EP	23	31	59	S	32	31.8	22	1.0	27	0.8	9	1.0				285.1	32.8
TOKUSH	0	EP	23	31	59.1	ES	32	34.0										296.7	34.9
TSU	1	X	23	31		S	31	43.2	66	1.6	88	1.4	25	1.3	S	1 W	1 U 2	128.8	
OKAYAM	0	EP	23	32	01.4	IX	32	42.6	26	0.5	21	0.5	7	1.5				312.5	
SAIGO	0	EP	23	32	03.6													341.6	
NIIGAT	0	EX	23	32	03.7				17	4.0	17	4.0	8	5.2				295.6	
MITO	0	EP	23	32	04.0	IS	32	41.0	27	2.7	21	1.0	12	1.1				312.6	37.0
TAKAMA	0	EP	23	32	07.4	ES	32	43.7	18	1.0	18	1.0	9	0.8				319.4	36.3
MUROTO	0	P	23	32	09.4	X	33	07.0	5	1.0	5	1.0						386.1	
YONAGO	0	X	23	32	12.9	S	32	52.2										340.8	
ONAHAM	0	EX	23	32	14.3	X	32	52.3	15	1.1	12	1.3	4	1.6				367.1	
MATSUE	0	X	23	32	19.9	X	33	01.9										365.0	
HAMADA	0	EP	23	32	22.9	ES	33	12.4	6	2.0	3	1.8	4	1.4				465.5	49.5
MATSUY	0	X	23	32	29.8	X	33	22.3	8	0.7	9	0.8	4	0.8				447.9	
HIROSH	0	X	23	32	32.0	ES	33	18.1	8	1.4	3	2.2	5	2.1				451.4	
FUKUOK	0	X	23	33	04	X	34	20.0	12	1.9	7	1.8	5	1.5				660.1	
SHIMON	0	X	23	33	28.1				13	1.6	3	1.8	4	2.0				596.3	
KUMAMO	0	X	23	34	23.0				10	2.2	7	1.8	1	1.2				671.8	
SAGA	0	X	23	34	30.4	X	34	51.8										682.0	

OT= 14 23 38 51.0 +/- 0.1 (JST)
MIDDLE OF GIFU PREF
LAT= 35 44 +/- 1 LONG= 137 6 +/- 1
H= 10 MAG=4.0 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A	/T	E-W A	/T	U-D A	/T	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
TAKAYA	0	EP	23	39	00.8	S	39	06.1										48.5	05.3
GIFU	0	P	23	39	01.3	ES	39	07.8	14	0.4	12	1.1	13	0.4	S 14	W 8	U 13	48.0	06.5
NAGOYA	1	IP	23	39	03.7	IS	39	11.7	30	0.4	32	0.4	12	0.5			U 5	64.2	08.0
IIDA	0	IP	23	39	04.8	ES	39	13.8	8	0.6	8	0.6	3	1.4		W 2	D 2	71.0	09.0
FUKUI	0	IP	23	39	07.2	ES	39	18.8										86.5	11.6
TSURUG	0	EP	23	39	08	S	39	18.8										94.1	10.8
HIKONE	0	IP	23	39	08.2	S	39	19.5	15	0.6	14	0.6					U	92.7	11.3
TOYAMA	0	EP	23	39	10	S	39	23.4	15	0.4	16	1.2	9	3.4				108.4	13.4
HAMAMA	0	P	23	39	13.8	S	39	29.3	12	1.0	18	0.8	4	0.6			U 8	127.1	15.5
KOFU	0	IP	23	39	13.9	IS	39	29.6	16	0.5	9	0.6	5	0.5	N 1	W 1	D 1	132.2	15.7
MATSUS	0	IP	23	39	14.0	S	39	29							N	E	U	133.9	15.0
TSU	0	P	23	39	14.8	S	39	31.6	10	0.5	12	1.0	3	0.7				126.1	16.8
NAGANO	0	EP	23	39	16.0	ES	39	34.8	3	1.5	6	2.0	3	1.5				142.5	18.8
KYOTO	0	EP	23	39	17.4	ES	39	34.7	7	1.2	8	0.2	4	0.8				147.6	17.3
MAIZUR	0	P	23	39	18.5	S	39	36.6	8	0.3	6	0.2						157.9	18.1
KANAZA	0	X	23	39	19.4	ES	39	24.8	12	2.0	15	4.0			N 11			99.0	
NARA	0	P	23	39	19.7	S	39	39.5	6	0.9	8	0.5						163.9	19.8
WAJIMA	0	EP	23	39	20	ES	39	42	25	1.0	30	1.0	8	0.6				184.7	22.0
OMAEZA	0	EP	23	39	21.4	ES	39	41.3	8	1.6	8	1.6						161.2	19.9
OSAKA	0	EP	23	39	25	S	39	45.8	10	1.7	6	1.8	3	1.6				185.3	20.8
TOYOOK	0	EP	23	39	26.4	S	39	50.7	47	1.0	21	1.1	11	0.9				207.6	24.3
KUMAGA	0	EP	23	39	28.6	ES	39	54.0	5	1.2	5	1.2	2	1.4				211.2	25.4

OT= 15 8 49 44.0 +/- 0.1 (JST)
MIDDLE OF GIFU PREF
LAT= 35 45 +/- 1 LONG= 137 5 +/- 1
H= 10 MAG=4.2 CLASS=S

TAKAYA	0	EP	08	49	53.8	X	50	59.7										47.2	
GIFU	1	IP	08	49	53.9	S	50	00.3	75	0.6	43	0.6	28	0.6	S 13	W 9	U 11	48.5	06.4
NAGOYA	1	IP	08	49	57.2	IS	50	05.7	27	0.6	32	0.6	12	0.6			U 5	65.7	08.5
IIDA	0	IP	08	49	57.8	IS	50	06.6	20	0.4	16	1.2	8	0.4	N 2	W 5	D 6	73.1	08.8
FUKUI	0	EP	08	49	58.4	ES	50	09.2										84.3	10.8
TSURUG	0	P	08	50	01.5	S	50	12.7										92.8	11.2
HIKONE	0	P	08	50	01.9	S	50	13.1	21	1.1	18	1.0						92.5	11.2
MATSUM	0	EP	08	50	02.4	ES	50	13.0										97.1	10.6
TOYAMA	0	EP	08	50	04	S	50	17.4	10	1.0	13	1.0	8	3.4				106.7	13.4
KOFU	0	IP	08	50	07.2	IS	50	22.6	30	0.4	30	0.4	8	0.4	N 1	W 1	D 2	133.8	15.4
TSU	0	P	08	50	07.3	S	50	23.9	19	0.5	11	0.6	2	0.6				127.1	16.6
HAMAMA	0	P	08	50	07.5	S	50	22.0	20	0.6	46	0.6	10	0.6			U 7	129.4	14.5
MATSUS	0	IP	08	50	07.8	S	50	21								E	U	133.8	13.2
KAWAGU	0	IP	08	50	09.5	IS	50	29.9										154.7	20.4
NAGANO	0	EP	08	50	09.6	S	50	27.8	5	2.0	11	1.5	6	1.8				142.2	18.2
SHIZUO	0	EP	08	50	10.7	S	50	26.5	12	1.0	7	0.4	3	0.6				147.9	15.8
KYOTO	0	EP	08	50	11.0	IS	50	29.0	9	1.1	17	0.8	8	0.9				147.3	18.0
MAIZUR	0	P	08	50	12.1	S	50	30.9	11	0.5	5	0.3						156.8	18.8
NARA	0	P	08	50	13.2	S	50	32.8	13	0.8	13	0.7						164.1	19.6
KANAZA	0	X	08	50	14.0	ES	50	18.3	20	1.9	25	1.9	5	2.0	N 10			96.7	
WAJIMA	0	P	08	50	16.0	ES	50	36	35	1.0	38	1.2	8	0.8				182.7	20.0
MAEBAS	0	EP	08	50	17.2	S	50	41.6										192.6	24.4
OMAEZA	0	X	08	50	17.7	ES	50	34.3	22	1.6	21	1.6	8	1.7				163.6	
KUMAGA	0	EP	08	50	20.8	ES	50	46.0	7	1.2	5	1.0	2	0.8				212.2	25.2
TOYOOK	0	P	08	50	20.9	S	50	43.9	63	1.1	41	1.1	11	0.9				206.3	23.0
OSAKA	0	EX	08	50	21	S	50	38.8	15	2.2	15	2.2	10	1.5				185.3	
TOKYO	0	EP	08	50	25	S	50	56	5	0.9	3	0.0	2	0.0				242.1	31.0
TATEYA	0	EX	08	50	25.2				5	2.2	8	1.4	2	2.0				266.9	
KARUIZ	0	X	08	50	28.9	ES	50	28.9										147.6	
WAKAYA	0	EX	08	50	31.5				9	1.1	4	0.8						248.2	

OT= 15 23 10 23.3 +/- 0.2 (JST)
MIDDLE OF IWATE PREF
LAT= 39 28 +/- 1 LONG= 141 22 +/- 2
H= 90 CLASS=S

MORIOK	X	IP	23	10	37.5	IS	10	47.7	56	0.4	47	0.4	6	0.3	N 2	W 1	U 5	30.7	10.2
MIYAKO	2	IP	23	10	38.8	IS	10	49.5	45	1.0	26	1.0	24	0.6				55.4	10.7
OFUNAT	1	IP	23	10	39.5	IS	10	50.5	22	0.0	55	0.4	11	0.4	N 3	W 2	D 7	54.2	11.0
ISHINO	1	EP	23	10	44.6	IS	10	59.0	20	0.2	11	0.8	4	1.0		E 1	D 1	115.8	14.4
SAKATA	0	EX	23	10	47.3													146.2	
SENDAI	0	P	23	10	47.9	IS	11	04.6	11	0.8	24	0.6	6	1.4			D	139.9	16.7
AKITA	0	EX	23	10	50.8	EX	10	59.2	7	0.6	8	1.0	5	1.8				112.2	
FUKUSH	0	EX	23	10	56.0	S	11	18.8	7	0.9	7	0.7	1	0.7				205.1	
AOMORI	0	IS	23	11	08.7				27	1.1	18	1.1	5	1.1				157.9	
MATSUS	0	IP	23	11	22.5	X	12	31							S	W	U	427.2	
ONAHAM	0	EX	23	11	26.2	X	11	34.1	9	0.9	9	0.9	3	0.6				282.8	

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OT= 16 3 47 46.9 +/- 2.4 (JST)
S OF KURILE IS
LAT= 45 7 +/-18 LONG= 150 56 +/-16
H= 30 MAG=5.0 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	0	EP	03	48	52	ES	49	42	5	4.4	5	2.0	4	4.0				471.2	50.0
ABASHI	0	EP	03	49	02	ES	50	04	4	3.2	5	4.0	3					542.2	62.0
KUSHIR	0	EP	03	49	09	ES	50	13	14	0.8	10	0.5	4	0.5				575.3	64.0
OBIHIR	0	EX	03	49	19													664.6	
URAKAW	0	P	03	49	27.3	S	50	44.0	38	3.0	32	1.6	15	1.6				735.2	76.7
SAPPOR	0	EP	03	49	35	X	51	16	7	2.4	11	2.0	4	4.4				801.9	
MATSUS	0	P	03	50	49	ES	53	26										1432.1	157.0

OT= 16 10 17 16.9 +/- 1.9 (JST)
S OF KURILE IS
LAT= 44 26 +/-19 LONG= 151 21 +/-11
H= 50 MAG=5.2 CLASS=U

NEMURO	0	EP	10	18	22	ES	19	13	7	4.6	4	2.4	4	2.6				479.2	51.0
ABASHI	0	EP	10	18	34	ES	19	37	6	3.2	4	3.2	5	3.0				566.5	63.0
KUSHIR	0	EP	10	18	38	ES	19	44	25	0.9	14	0.8	6	0.8				583.4	66.0
ASAHIK	0	EP	10	18	54				4	2.0	5	2.0	5	1.6				722.4	
OBIHIR	0	EX	10	18	56													676.5	
URAKAW	0	P	10	18	58.0	S	20	12.3	36	2.2	38	2.6	13	2.0				739.7	74.3
SAPPOR	0	EP	10	19	07	X	20	47	8	2.0	10	4.4	4	5.0				821.0	
HAKODA	0	P	10	19	16.0	ES	20	51	6	3.1	4	3.0	4	4.0			U	909.2	95.0
AOMORI	0	EX	10	19	31				18	1.3	15	0.9	3	1.1				954.6	
MATSUS	0	P	10	20	20	ES	22	45										1414.8	145.0

OT= 16 23 33 50.4 +/- 0.3 (JST)
E OFF AOMORI PREF
LAT= 41 26 +/- 1 LONG= 142 16 +/- 2
H= 0 MAG=3.9 CLASS=U

URAKAW	0	P	23	34	08.7	IS	34	20.5	11	0.4	16	0.4	3	0.4			U 1	91.1	11.8
HACHIN	0	IP	23	34	13.8	IS	34	28.1	8	0.2	6	0.2					U	118.6	14.3
HAKODA	0	P	23	34	15.5	IS	34	31.6	6	0.4	9	0.6	2	1.5			D	132.6	16.1
AOMORI	0	EP	23	34	16	S	34	36	8	0.4	7	0.4						142.2	20.0
MATSUS	0	P	23	35	22													647.1	

OT= 17 6 28 35.5 +/- 0.2 (JST)
MIDDLE OF GIFU PREF
LAT= 35 43 +/- 1 LONG= 137 8 +/- 1
H= 10 MAG=3.8 CLASS=L

GIFU	0	P	06	28	45.5	S	28	51.4	10	0.4	16	0.6	7	0.5	S 7 W 4 U 6			48.6	05.9
HIKONE	0	P	06	28	53.0	S	29	04.2	6	0.6	7	0.6						94.3	11.2
HAMAMA	0	EP	06	28	58	S	29	13.0	5	0.6	9	0.8	2	0.6				124.1	15.0
KOFU	0	EP	06	28	58.4	S	29	13.9	8	0.4	6	0.5	2	0.5				129.1	15.5
MATSUS	0	IP	06	28	58.8	S	29	14							N E U			132.9	15.2
KYOTO	0	EP	06	29	02.3	S	29	20.0	3	0.8	8	0.5	3	0.6				149.2	17.7
MAIZUR	0	P	06	29	03.3	S	29	21.6	7	0.2	6	0.3						160.6	18.3
NARA	0	P	06	29	04.7	S	29	26.8	6	0.7	6	0.7						164.8	19.1
KANAZA	0	X	06	29	06.2	ES	29	09.2	7	1.8	9	1.9						101.9	
WAJIMA	0	EP	06	29	08	ES	29	30	5	1.0	10	1.0						186.8	22.0
OMAEZA	0	X	06	29	24.2				7	2.4	6	2.4						157.9	
WAKAYA	0	EX	06	29	46.5				3	1.0	2	0.9						244.0	

OT= 17 23 2 58.0 +/- 0.4 (JST)
MIDDLE OF GIFU PREF
LAT= 35 40 +/- 2 LONG= 137 12 +/- 2
H= 10 MAG=3.8 CLASS=U

GIFU	0	P	23	03	08.0	S	03	14.0	16	0.3	9	0.3	6	0.4	S 5 W 3 U 4			49.4	06.0
HAMAMA	0	Ex	23	03	20	S	03	31.7	5	0.4	7	0.6	1	0.4				116.5	
MATSUS	0	IP	23	03	20.7	S	03	35							N E U			132.6	14.3
KOFU	0	EP	23	03	21.0	IS	03	36.0	5	0.4	6	0.3	2	0.4				126.0	15.0
MAIZUR	0	P	23	03	27.2	S	03	45.3	6	0.3	6	0.3						165.8	18.1
TOYOOK	0	X	23	03	56.4				9	1.1	4	1.1						216.1	

OT= 18 2 15 23.3 +/- 0.2 (JST)
NEAR WAKAYAMA
LAT= 34 9 +/- 1 LONG= 135 17 +/- 1
H= 10 MAG=3.8 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
WAKAYA	2	IP	02	15	27.0				240	0.4	100	0.4	82	0.3				13.7	
SUMOTO	0	IP	02	15	31.9	S	15	36.7	32	0.3	12	0.4					S 2 E 3 D	40.2	04.8
KOBE	0	IP	02	15	35.6	IS	15	41.6									U 11	60.4	06.0
NARA	0	P	02	15	38.1	S	15	47.3	100	2.0	100	2.0	50	2.0				77.8	09.2
OSAKA	0	S	02	15	42.0													62.6	
TAKAMA	0	EP	02	15	44.4	ES	15	58.7	9	1.0	5	1.1						114.3	14.3
OKAYAM	0	EP	02	15	47.2	ES	16	03.0	6	0.6	5	0.5	1	0.5				138.9	15.8
TOTTOR	0	P	02	15	53.6	S	16	14.2	7	0.4	4	0.3						181.7	20.6
TOYOOK	0	X	02	15		IS	16	10.5	13	1.1	11	1.0						159.5	
MATSUS	0	X	02	16	29	S	17	12										375.3	
TSU	0	X	02	16	53.9	X	17	09.9	14	0.6	14	1.2	9	0.6				128.9	

OT= 18 3 40 44.8 +/- 0.8 (JST)
NEAR YAKUSHIMA
LAT= 30 56 +/- 3 LONG= 131 41 +/- 3
H= 0 MAG=5.9 CLASS=R

MIYAZA	4	IP	03	41	07.4	S	41	20.1	4200	0.7	5100	0.9	2250	1.6	N164 E 24 U249			111.7	15.7
KAGOSH	3	IP	03	41	09.0	S	41	23.1	12300	2.3	10000	2.5	5200	2.3	N 20 W 52 U			128.9	14.1
YAKUSH	3	IP	03	41	10.6	IS	41	25.3	885	0.9	1430	0.8	750	2.4	S125 W149 U125			125.5	11.7
NOBEOK	2	EP	03	41	16.4	S	41	41.0	400	2.7	850	3.5	800	1.5	N 12 W U 7			132.7	24.6
KUMAMO	3	IP	03	41	21.1	IS	41	51.2	2100	1.8	2000	2.0	750	1.8	N101 W 32 U 42			227.5	30.1
ASOSAN	X	EP	03	41	22.0				850	3.2	550	2.4	700	2.2				223.1	
ASHIZU	0	IP	03	41	23.4	ES	41	51.9	128	2.4	114	2.5	100	2.5	S 2 W 2 D 2			234.5	28.5
UNZEND	0	EP	03	41	23.7	ES	41	54.5	800	2.3	1000	2.5	300	2.5	N 0			241.2	30.8
NAGASA	0	EP	03	41	26.0	IS	41	58.1	350	3.8	350	4.5	200	3.0	N 65 W 51 U 1			261.6	32.1
OITA	2	X	03	41	32.7	S	42	07.9	925	2.7	1500	2.7	525	2.1				255.0	
FUKUOK	1	P	03	41	32.8	ES	42	16.0	350	6.5	400	3.1	250	2.5	N 21 W 6 U 18			318.0	40.2
UWAJIM	X	X	03	41	34	ES	42	10.3	200	5	200	5	200	4				267.1	
FUKUE	0	IP	03	41	34.2	S	42	09.2	174	3.0	154	6.0	184	6.0	N 15 W 21 U 25			330.3	35.0
SHIMON	0	P	03	41	36.1	X	42	42.9	165	2.8	250	4.2	162	2.8	N 9 W 2 U 8			341.9	
MATSUY	0	EP	03	41	36.2	ES	42	17.2	214	2.1	211	1.7	127	2.1				338.3	41.0
KOCHI	0	EP	03	41	37.3	ES	42	11.1										338.4	33.8
MUROTO	0	IP	03	41	38.3	IS	42	11.2	75	2.0	60	8.0	45	8.0			U U	348.2	32.9
HIROSH	0	P	03	41	41.2	S	42	26.2	109	4.1	196	6.0	131	2.6	N 4 E 1 U 3			386.7	45.0
HAMADA	0	IP	03	41	46.6	IS	42	40.2	79	4.6	105	4.2	101	4.2	N 5 E 1 U 4			440.5	53.6
TAKAMA	0	EP	03	41	49.9	ES	42	49.4	190	3.2	215	3.2	62	3.6				436.2	59.5
TOKUSH	0	EP	03	41	51.5	IS	42	43.8										440.8	52.3
OKAYAM	0	EP	03	41	53.1	S	42	46	87	2.7	95	3.2	65	2.4				465.1	52.9
SHIONO	0	EP	03	41	54.8	ES	42	47.4	45	6.9	54	4.7	16	2.6				474.9	52.6
WAKAYA	0	EP	03	41	55.6	EX	42	53.0	63	2.5	63	3.0	49	3.8				490.0	
IZUHAR	0	X	03	41	56.4	S	42	36.2							N W U			426.2	
SUMOTO	0	P	03	41	57.0	X	43	16.7	1500	3.0	100	4.0	50	3.5				486.4	
ANABUK	0	X	03	41														395.1	
SAGA	0	X	03	41		ES	42	03.0							N 8 W 10 U 10			287.3	
HIMEJI	0	EP	03	42	00.0	X	43	24.3										516.6	
YONAGO	0	EP	03	42	00.2	S	43	10.7	100	2.2			100	2.2				522.3	70.5
KOBE	0	EP	03	42	01.0	X	43	36.4	150	4.1	100	4.3	50	3.1				529.5	
MATSUE	0	EP	03	42	01.2	X	43	11.1										517.7	
OWASE	0	EP	03	42	03.6	ES	43	05.0	30	2.8	14	2.4	25	3.2				547.9	61.4
OSAKA	0	EP	03	42	03.8	X	43	19	241	4.0	275	3.0	160	3.1				549.0	
NARA	0	P	03	42	07.6	X	42	49.1	16	1.3	11	1.5						568.9	
						X	43	41.2											
KYOTO	0	EP	03	42	08.0	ES	43	21.3	40	2.8	26	3.6	27	5.2				589.6	73.3
TOTTOR	0	P	03	42	10.1	S	43	19.3	50	2.3	50	2.9	50	3.9				558.2	69.2
TOYOOK	0	EP	03	42	10.2	ES	43	16.0	224	1.1	394	1.2	164	1.1				588.0	65.8
SAIGO	0	P	03	42	12.1										S 0 W 0 D 0			604.2	
NAHA	0	P	03	42	15.0	X	43	16.4	50	4.8	60	2.8	28	4.0	N D			651.0	
MAIZUR	0	P	03	42	15.1	X	43	36.8	8	2.1	5	1.7						610.0	
						X	43	52.4											
HIKONE	0	EP	03	42	16.0	X	44	23.6	13	1.6	10	1.5						642.3	
TSURUG	0	EP	03	42	18	S	43	35.8	200	4.5	100	6.3						666.1	77.8
NAGOYA	0	EP	03	42	20.0	ES	43	31.4	67	3.0	88	3.6	39	3.8		W 3 D 2		680.6	71.4
GIFU	0	P	03	42	20.3	X	43	28.7	44	3.0	27	2.4	24	3.2				685.0	
HAMAMA	0	P	03	42	24.0	X	44	36	63	4.0	38	3.6	16	3.0				703.2	
FUKUI	0	EP	03	42	25.9	X	44	16.5										707.2	
SHIZUO	0	EP	03	42	31.0	S	44	05.0	21	3.0	22	4.0	34	4.3	S W 1 D 2			771.4	94.0
IIDA	0	EP	03	42	31.4	X	44	46.0	44	3.0	34	3.2	30	3.2				765.2	
KANAZA	0	EP	03	42	33.4	ES	44	02.0	106	3.4	112	5.5	42	3.5				778.6	88.6
OMAEZA	0	X	03	42	34.3	X	44	44.7	60	1.8			32	3.6				734.3	
TAKAYA	0	EP	03	42	36.1													775.8	
MISHIM	0	EP	03	42	37.1	X	44	47.1	25	5.3	39	4.0	18	3.3				819.8	

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KOFU	0	EP	03 42 38.4	X	45 08.8	44 3.2	35 3.4	23 3.6				827.2	
AJIRO	0	E	03 42 38.5	E	44 46.3	18 3.0	12 3.2	10 3.2				828.7	
KAWAGU	0	P	03 42 39.0	X	44 31.0							831.1	
OSHIMA	0	P	03 42 40.2			18 3.0	16 3.4	8 2.6	N 10	E 15	U 10	835.5	
MATSUS	0	IP	03 42 42.7	ES	44 25				S	W	D	866.5	102.3
WAJIMA	0	EP	03 42 44	EX	53 02	35 2.6	45 2.8	35 3.2				862.0	
				EX	55 14								
KARUIZ	0	EP	03 42 45.2	ES	44 23.9							874.2	98.7
NAGANO	0	EP	03 42 45.8	X	45 04.3	117 3.8	158 4.2	39 3.8				875.2	
TATEYA	0	EP	03 42 47.5			44 4.3	48 5.1	20 6.6				886.5	
TOYAMA	0	X	03 42 49	X	44 23	100 5.0	119 6.8	68 3.0				819.0	
TAKADA	0	EP	03 42 49.7									913.8	
MATSUM	0	X	03 42 49.8	X	44 26.1							828.6	
TOKYO	0	P	03 42 52.8	IX	45 48	80 4.8	71 4.2	49 4.0				917.4	
KUMAGA	0	EP	03 42 53.0	ES	44 37.0	63 6.8	67 4.2	38 4.6				918.9	104.0
KAKIOK	0	EP	03 42 58	ES	44 48	21 3.8	6 3.8	3 4.2				983.6	110.0
MITO	0	X	03 43 03.0	EX	46 05.5	79 4.4	30 5.0	30 4.0				1013.4	
ONAHAM	0	P	03 43 12.6	ES	45 05.7	30 3.4	21 3.6	14 3.5			D 4	1081.2	113.1
SAKATA	0	EX	03 43 13.8									1154.8	
FUKUSH	0	EX	03 43 14.0			8 5.0	8 5.0	5 4.0				1106.5	
NIIGAT	0	EX	03 43 16.0	X	45 11.0	140 8.3	100 5.2	48 5.5				1027.4	
SENDAI	0	EX	03 43 21			12 6	13 5	10 14				1171.2	
MIYAKO	0	EX	03 43 22	ES	46 14	8 14.4	7 13.4	6 14.6				1343.0	
ISHINO	0	EP	03 43 25.5	EX	45 30.4	9 11.2	11 5.8	7 6.0		W 1	D 3	1209.9	
TSU	0	X	03 43 25.6	X	44 26.2	125 2.2	150 3.0	38 2.0				615.8	
AKITA	0	EP	03 43 30.8	EX	46 00	18 11.0	33 13.4	18 15.0				1237.7	
OFUNAT	0	P	03 43 36.7	ES	45 46.0	6 7.0	6 5.0	6 14.0	N 3	E 2	U 3	1283.5	129.3
MORIOK	0	P	03 43 38.3	ES	45 50.5	9 16.0	6 15.6	7 14.7				1297.8	132.2
				EX	43 52.3								
				EL	48 50								
HACHIN	0	EP	03 43 47.3			7 3.6	12 14.6	8 4.0				1385.3	
AOMORI	0	X	03 43 53			16 2.2	18 2.7	16 13.8				1368.3	
HAKODA	0	EP	03 43 58	EX	46 44	8 14.8	9 14.6	10 5.0				1454.1	
AIKAWA	0	EX	03 43			10 14.0	15 14.6	16 15.0				989.5	
SAPPOR	0	EP	03 44 11	ES	46 44	7 3.0	9 2.2	2 2.0				1593.6	153.0
URAKAW	0	P	03 44 12.6	S	47 02.4		16 5.6	11 14.8				1590.1	169.8
ASAHIK	0	EP	03 44 25			5 3.0	4 2.8	5 2.6				1707.3	
KUSHIR	0	EP	03 44 28	EX	47 41	7 15.0	6 13.6	3 2.0				1747.3	
WAKKAN	0	EP	03 44 40	ES	47 45	10 5.8	8 11.0	9 2.8				1827.1	185.0

OT= 18 3 51 10.3 +/- 0.9 (JST)
NEAR YAKUSHIMA
LAT= 31 12 +/- 3 LONG= 131 8 +/- 6
H= 0 MAG=5.5 CLASS=M

KAGOSH	2	X	03 51	S	51 41.9	3000 1.6	2100 1.6	1050 1.2			U 27	68.9				
MIYAZA	3	IP	03 51 26.6	S	51 39.8	1700 1.0	2150 1.4	600 1.4	N 31	E 3	U 52	84.2	13.2			
YAKUSH	1	IP	03 51 30.8	IS	51 46.7	202 0.7	196 0.6	68 1.9	S 7	W 8	U 5	103.0	15.9			
KUMAMO	1	IP	03 51 40.5	IS	52 10.3	850 1.6	1100 1.6	450 1.8			U 10	182.9	29.8			
UNZEND	0	EP	03 51 42.2			300 2.4	100 2.5	0				189.4				
NAGASA	0	IP	03 51 45.0	X	52 21.7				N	W	U	206.0				
ASOSAN	0	EX	03 51 45									186.1				
FUKUOK	0	EP	03 51 52.0	ES	52 32.2	108 1.5	114 2.3	113 2.3				273.2	40.2			
ASHIZU	0	EP	03 51 52.2	ES	52 21.2	60 1.7	33 1.6	29 1.6				244.8	29.0			
UWAJIM	0	EP	03 51 53	S	52 27.5							261.6	34.5			
SAGA	0	IP	03 51 54.7	X	52 36.7							239.7				
NOBEOK	X	EX	03 51			150 1.4	100 1.3	250 1.6				161.9				
SHIMON	0	EP	03 52 00.0	ES	52 43.3	34 2.4	81 2.2	53 2.2				305.7	43.3			
KOCHI	0	EX	03 52 02.7	EX	52 29.2							344.7				
MATSUY	0	EP	03 52 04.0	ES	52 43.7	88 2.1	70 2.0	51 2.1				331.0	39.7			
IZUHAR	0	P	03 52 04.4	X	53 07.7							374.9				
HIROSH	0	EP	03 52 08.2	S	52 53.2	32 2.3	38 3.0	49 2.0				371.3	45.0			
HAMADA	0	P	03 52 09.1	S	53 03.8	21 3.4	35 3.0	24 2.8			U 0	418.7	54.7			
TAKAMA	0	EP	03 52 13.6	X	53 18.4	78 2.0	63 2.0	33 2.0				440.9				
TOKUSH	0	EP	03 52 13.7	ES	53 06.0							452.9	52.3			
				X	52 53.4											
KOBE	0	EX	03 52 25.9	X	54 04.0							540.9				
OITA	1	ES	03 52 25.9			300 2.5	425 2.5	275 2.1				230.1				
MATSUE	0	EP	03 52 27.7	X	53 36.8							505.0				
YONAGO	0	X	03 52 30.1	S	53 32.6	50 1.8		50 1.8				512.4				
SAIGO	0	EP	03 52 31.0									591.2				
KYOTO	0	EP	03 52 32.5	ES	53 48.4	10 2.8	6 2.1	8 2.4				602.3	75.9			
TOYOOK	0	EP	03 52 34.7	X	54 05.0	91 1.1	128 1.2	21 2.2				590.5				
MUROTO	0	X	03 52 36.8	X	53 09.0	20 4.0	18 7.6	15 4.0				365.8				
NARA	0	P	03 52 36.8	X	54 18.4	7 1.7	7 1.7					584.8				
				X	53 22.0											
TSURUG	0	EX	03 52 40									673.3				
HIMEJI	0	X	03 52 42.9	X	53 51.0							523.0				

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
WAKAYA	0	X	03 52 49.2	X	53 48.8	20 2.2	20 2.1	12 2.0				505.3	
OSAKA	0	EX	03 52 56	EX	54 09	115 3.2	78 3.0	33 2.8				562.9	
OKAYAM	0	X	03 52			31 2.0	32 2.3	27 2.3				465.3	
SUMOTO	0	X	03 52	X	53 39.9	8 1.7	6 1.5					495.7	
TOTTOR	0	X	03 52	X	53 49.5	10 1.5	11 1.2					555.6	
NAGOYA	0	X	03 52	X	53 54.2	21 2.8	23 2.6	9 2.6				699.1	
FUKUI	0	X	03 52	X	54 49.1							715.8	
IIDA	0	X	03 52	X	55 06.4	14 2.4	13 2.0	9 3.2				785.2	
KOFU	0	EP	03 53 05.4	X	55 34.6	19 2.2	19 2.2	8 2.6				849.0	
MISHIM	0	EP	03 53 09	X	55 21	8 3.6	12 2.3	8 2.2				846.2	
OWASE	0	X	03 53 12.0	X	54 19.6	6 1.8	5 1.8	4 2.0				571.2	
HAMAMA	0	X	03 53 15	X	55 08	18 2.4	13 2.4	6 3.0				728.2	
KAWAGU	0	X	03 53 42.6	X	55 14.4							854.6	
MATSUS	0	X	03 53	X	55 27							881.9	
TSU	0	EX	03 54 38.6			42 2.2	39 2.2	10 2.0				635.5	
NAGANO	0	X	03 55 31.3			19 3.8	20 4.4	14 3.0				889.9	
KUMAGA	0	EX	03 55 32.6			10 3.0	12 3.6	8 3.2				940.7	
MITO	0	EX	03 56 27			14 4.0	7 2.4	8 3.4				1037.0	

OT= 18 20 52 36.2 +/- 0.9 (JST)
E OFF HOKKAIDO
LAT= 43 16 +/- 3 LONG= 146 36 +/- 4
H= 0 MAG=4.9 CLASS=L

NEMURO	1	P	20 52 52.9	S	53 03.2	47 1.4	39 1.4	22 1.2			W 1 U 1	78.5	10.3			
KUSHIR	0	P	20 53 07.0	ES	53 29	39 3.2	27 1.0	13 3.4			E D 3	178.3	22.0			
ABASHI	0	EP	20 53 10	ES	53 36	34 3.2	23 2.4	8 3.8				201.0	26.0			
OBIHIR	0	EP	20 53 22									273.8				
URAKAW	0	P	20 53 29.8	S	54 09.1	21 2.0	40 4.6	26 5.0				332.5	39.3			
SAPPOR	0	P	20 53 39.5			10 2.2	12 2.6	4 4.4				425.0				
HAKODA	0	P	20 53 48.6	ES	54 46	6 3.8	4 4.0	4 3.8			U	502.4	57.4			
AOMORI	0	EP	20 53 56	ES	55 07	13 1.7	15 2.9	4 1.2				549.5	71.0			
AKITA	0	EX	20 54 24.4	EX	55 32.8	8 4.6	7 4.6	3 3.8				667.0				
WAKKAN	0	EX	20 54 50			10 4.0	7 3.6	5 3.6				455.6				
MATSUS	0	X	20 54	X	56 35							1031.9				

OT= 19 21 1 36.4 +/- 0.2 (JST)
E COAST OF AOMORI PREF
LAT= 40 51 +/- 1 LONG= 141 30 +/- 2
H= 90 CLASS=L

HACHIN	1	IP	21 01 51.0	IS	02 01.0	25 0.2	13 0.2	2 0.2	S	E 1	U 2	36.2	10.0			
AOMORI	0	EP	21 01 53	S	02 04	19 0.7	18 0.7					60.6	11.0			
HAKODA	0	P	21 01 58.7	S	02 13.3	5 0.4	5 0.4	1 0.6			U	123.7	14.6			
MORIOK	0	P	21 01 59.8	IS	02 15.8	12 0.4	7 0.4	2 0.4				131.1	16.0			
MIYAKO	0	IP	21 02 00.7	IS	02 17.2	5 0	7 0	3 0				139.6	16.5			
MATSUS	0	P	21 02 51									557.6				

OT= 20 0 46 47.1 +/- 0.4 (JST)
OFF FUKUSHIMA PREF
LAT= 37 11 +/- 1 LONG= 141 25 +/- 2
H= 50 MAG=4.3 CLASS=S

ONAHAM	0	IP	00 46 59.2	IS	47 06.8	63 0.9	110 0.8	23 0.5	S	0	U 3	52.5	07.6			
FUKUSH	0	P	00 47 04.7	IS	47 16.0	49 1.0	64 0.9	21 0.8	N	1 W	3 U 1	104.8	11.3			
SHIRAK	2	P	00 47 04.7	IS	47 16.6							106.1	11.9			
MITO	0	P	00 47 07.7	IS	47 21.4	20 0.3	34 0.4	12 0.6				122.8	13.7			
SENDAI	0	IP	00 47 07.8	IS	47 21.9	15 0.6	8 1	9 1.6			U 2	127.9	14.1			
ISHINO	0	IP	00 47 09.0	IS	47 23.4	9 0.6	5 0.4	3 1.2	N		U 1	138.2	14.4			
UTSUNO	1	P	00 47 10.8	S	47 27.6							154.8	16.8			
KAKIOK	0	EP	00 47 11	S	47 26.5	22 0.5	20 0.3	14 0.2				152.0	15.5			
MAEBAS	0	P	00 47 21.5	S	47 46.8							227.1	25.3			
KUMAGA	0	EP	00 47 21.6	ES	47 41.2	6 1.0	4 1.0	2 0.8				215.0	19.6			
TOKYO	0	EX	00 47 27.4	ES	47 43.6	11 0.5	9 1.0	5 0.6				223.0				
MATSUS	0	IP	00 47 29.0									294.9				
KOFU	0	EP	00 47 33.0	ES	48 09.4	7 1.4	10 2.0	3 1.3		E	D	306.7	36.4			
TATEYA	0	X	00 47 35.0			7 2.3	5 3.0	3 1.8				281.1				

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OT= 20 3 59 39.8 +/- 0.1 (JST)
MIDDLE OF GIFU PREF
LAT= 35 46 +/- 1 LONG= 137 6 +/- 1
H= 10 MAG=4.0 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
IIDA	0	IP	03	59	54.0	ES	00	03.2	8	0.2	6	0.2	4	0.4		W 2	D 1	72.4	09.2
NAGOYA	0	P	03	59	55.0	S	00	00.9	8	0.8	9	1.6	5	1.2			U 2	67.8	05.9
TSURUG	0	P	03	59	57.4	IS	00	07.7										94.5	10.3
HIKONE	0	P	03	59	57.6	S	00	09.1	10	0.7	6	0.5					U	94.8	11.5
TOYAMA	0	P	03	59	58.4	S	00	12.4	9	0.6	7	1.4	5	3.2			U 1	104.7	14.0
FUKUI	0	EP	03	59	58.9	ES	00	05.2										85.0	06.3
HAMAMA	0	EP	04	00	03	IS	00	18.5	9	0.6	19	0.6	5	0.6				130.4	15.5
KOFU	0	IP	04	00	03.2	IS	00	19.0	9	0.3	11	0.3	4	0.3			D 1	132.4	15.8
MATSUS	0	IP	04	00	03.7	S	00	18							N	E	U	131.4	14.3
KYOTO	0	EP	04	00	06.6	IS	00	24.6	8	0.4	12	0.0	4	1.2				149.6	18.0
KANAZA	0	X	04	00	07.4	ES	00	16.4	9	1.5	13	2.0			N 10			95.6	
MAIZUR	0	P	04	00	07.6	S	00	26.1	11	0.2	5	0.3						158.6	18.5
NARA	0	P	04	00	08.6	S	00	29.0	6	0.7	7	0.7						166.5	20.4
TSU	0	X	04	00	09.9	S	00	30.0	8	0.6	9	0.5	1	0.4				129.4	
WAJIMA	0	EP	04	00	10	EX	00	32	15	1.0	18	0.8						181.0	
OMAEZA	0	EP	04	00	12.2				7	3.2	9	3.2						164.1	
TOYOOK	0	P	04	00	15.6	S	00	39.2	48	1.3	39	1.2	7	0.9				208.0	23.6
OSAKA	0	ES	04	00	34				6	2.8	8	2.2	2	1.6				187.6	

OT= 20 18 15 32.1 +/- 0.2 (JST)
E OF SHIZUOKA PREF
LAT= 35 18 +/- 1 LONG= 138 42 +/- 1
H= 10 MAG=3.7 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KAWAGU	0	IP	18	15	38.0	IS	15	40.6										22.7	02.6
MISHIM	0	IP	18	15	39.2	IS	15	44.3	61	0.8	56	0.7	25	0.4	N 10	W 8	D 24	29.6	05.1
KOFU	0	IP	18	15	40.4	IS	15	45.8	29	0.4	25	0.4	10	1.0	S 3	E 3	D 11	42.5	05.4
AJIRO	0	IP	18	15	41.4	IS	15	47.0	21	0.2	14	0.2	4	0.3				46.0	05.6
SHIZUO	0	EP	18	15	41.9	S	15	49.0	24	0.6	23	0.9	9	0.9				45.0	07.1
OSHIMA	0	P	18	15	47.7	IS	15	58.0	13	0.6	6	0.2	4	0.2				86.0	10.3
IIDA	0	EP	18	15	48.4	IS	15	58.6	16	0.6	11	0.4	4	0.6				81.9	10.2
OMAEZA	0	EP	18	15	50.1				53	2.2	30	2.2						89.1	
TOKYO	0	P	18	15	51.7	S	16	05.9	9	0.4	6	0.5	8	0.4				105.1	14.2
TATEYA	0	EP	18	15	52.3	IS	16	07.9	47	0.5	28	0.5	12	0.5				112.1	15.6
HAMAMA	0	P	18	15	52.7	S	16	08.1	10	1.0	4	1.0	2	0.8			U 8	110.7	15.4
MATSUS	0	IP	18	15	56.6	S	16	16							S	E	D	144.4	16.4
UTSUNO	0	EP	18	16	00.2	S	16	21.0										174.1	20.8
YOKOHA	0	ES	18	16	02													88.1	
GIFU	0	EP	18	16	04.7	S	16	26.5	6	1.1	5	1.1	3	0.8				176.2	18.8

OT= 21 8 41 29.4 +/- 0.1 (JST)
MIDDLE OF GIFU PREF
LAT= 35 47 +/- 0 LONG= 137 6 +/- 1
H= 10 MAG=3.9 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TAKAYA	X	P	08	41	38.4	S	41	43.4							N 4	W 2	U 10	43.2	05.0
GIFU	0	P	08	41	40.4	S	41	46.6	24	1.2	26	0.6	9	0.6				52.4	06.2
HIKONE	0	IP	08	41	43.1	S	41	58.6									D	95.9	15.5
IIDA	0	EP	08	41	43.4	IS	41	52.4	10	1.0	11	0.4	5	0.2				73.1	09.0
NAGOYA	0	IP	08	41	43.6	IS	41	52.4	16	0.4	11	0.4	9	0.3			U 8	69.6	08.8
FUKUI	0	EP	08	41	45.1	S	41	54.9										84.3	09.8
TSURUG	0	EX	08	41	47	S	41	57.7										94.8	
TOYAMA	0	P	08	41	48.4	ES	42	03	7	3.4	8	2.8	6	2.4			U 2	102.9	14.6
KANAZA	0	EP	08	41	48.6	ES	41	58.3	10	4.3	12	3.9	5	3.8				93.9	09.7
HAMAMA	0	P	08	41	52.5	IS	42	08.5	9	1.6	12	3.6	4	2.0			D 1	132.0	16.0
MATSUS	0	IP	08	41	52.6	S	42	08							N	E	U	130.2	15.4
KOFU	0	IP	08	41	53.0	IS	42	09.1	7	0.4	7	0.4	3	0.3		W 1	D 1	132.6	16.1
KYOTO	0	IP	08	41	56.2	IS	42	13.8	6	0.2	6	0.0	4	0.8	N 0	E 0	D 0	150.6	17.6
MAIZUR	0	P	08	41	57.1	S	42	16.3										154.0	19.2
NARA	0	P	08	41	57.4	S	42	18.2										167.8	20.8
OMAEZA	0	EP	08	42	01.5				9	1.8	12	1.8						165.5	
TOYOOK	0	P	08	42	06.2	S	42	30.8	9	1.3	11	1.0						208.2	24.6
OSAKA	0	IS	08	42	24.8				10	3.0	7	1.5						188.8	
KOBE	0	ES	08	42	31.6													212.8	

OT= 21 9 20 39.2 +/- 0.1 (JST)
E OF IWATE PREF
LAT= 39 45 +/- 1 LONG= 141 52 +/- 1
H= 60 MAG=3.6 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MIYAKO	1	IP	09	20	49.1	IS	20	55.5	18		11		12		N 1			14.6	06.4
MORIOK	0	P	09	20	52.6	IS	21	01.0	9	0.3	10	0.3	6	0.2	N	U E	1 D 1	60.2	08.4
OFUNAT	X	IP	09	20	54.6	IS	21	04.4	17	0.0	9	0.0	4	0.0	S 1		U 1	77.5	09.8
HACHIN	0	P	09	20	55.8	IS	21	07.0	11	0.2	8	0.2					D	90.8	11.2

OT= 22 8 21 9.0 +/- 0.2 (JST)
NEAR MATSUSHIRO
LAT= 36 30 +/- 1 LONG= 138 9 +/- 1
H= 0 MAG=4.5 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MATSUS	3	IP	08	21	12.3												U	6.7	
NAGANO	3	IP	08	21	14.3	IS	21	17.1	550		300		225		N 10	E 5	U 66	18.2	02.8
MATSUM	1	IP	08	21	17.2	IS	21	22.0							S 8	W 9	U 22	32.6	04.8
KARUIZ	1	IP	08	21	18.8	IS	21	24.0	300	2.5	200	2.1	100	1.4	N 8	W 10	D 13	40.2	05.2
TAKADA	0	IP	08	21	23.8	S	21	32.9									U 4	67.7	09.1
MAEBAS	1	P	08	21	25.8	S	21	36.2										82.7	10.4
TOYAMA	0	P	08	21	27.0	S	21	41.4	38	3.6	40	4.0	27	3.4	S 1	E 3	D 8	87.3	14.4
CHICHI	0	EP	08	21	27.6	S	21	40.5										100.9	12.9
KOFU	0	IP	08	21	28.0	IS	21	40.0	25	1.2	31	0.2	14	1.2			U 2	99.7	12.0
IIDA	0	IP	08	21	30.6	ES	21	46.0	15	2.4	12	1.8	12	0.2	S 6	W 2	U 10	113.4	15.4
KUMAGA	0	EP	08	21	31.6	S	21	49.0	30	5.2	36	3.2	18	3.2				117.6	17.4
WAJIMA	0	EP	08	21	34	ES	21	52	45	1.0	35	1.0	7	0.8				146.9	18.0
KAWAGU	0	P	08	21	35.2	IS	21	47.5										124.1	12.3
KANAZA	0	EP	08	21	35.5	ES	21	53.1	38	2.5	26	2.3	15	2.8				134.6	17.6
UTSUNO	0	P	08	21	36.8	S	21	55.5										154.3	18.7
KAKIOK	0	EP	08	21	40	S	22	03.2	19	0.8	17	0.8	6	0.7				185.7	23.2
SHIZUO	0	EP	08	21	40.2	S	22	02.0	9	0.8	11	1.2	6	5.0				170.9	21.8
GIFU	0	P	08	21	40.9	S	22	02.8	23	2.1	29	1.7	7	1.9				174.8	21.9
NAGOYA	0	IP	08	21	41.2	IS	22	05.6	17	1.2	17	1.4	8	1.2		W 2	U 3	182.6	24.4
AJIRO	0	EP	08	21	41.3	ES	22	03.2	12	1.2	9	1.2	3	1.0				182.8	21.9
TOKYO	0	P	08	21	41.6	S	22	04.1	53	4.0	40	3.8	49	4.0				170.7	21.5
MISHIM	0	IP	08	21	42.2	ES	21	56.3	25	1.7	34	1.7	14	1.1			U 2	169.4	14.1
HAMAMA	0	P	08	21	44.0	ES	22	07.5	15	2.0	24	2.0	7	1.4			U 1	202.5	23.5
MITO	0	P	08	21	44.4	S	22	10.4	23	1.4	17	1.0	10	2.4				208.6	26.0
FUKUI	0	X	08	21	46.8	ES	22	07.6										179.7	
TSURUG	0	EP	08	21	47	S	22	12.9										210.1	25.9
OMAEZA	0	EP	08	21	47.2	ES	22	15.6	23	2.4	39	2.2	13	2.4				210.5	28.4
FUKUSH	0	EX	08	21	49.0				5	1.6	6	1.2	2	0.8				249.2	
OSHIMA	0	EX	08	21	49.9				10	0.8	10	1.2	5	1.4				222.6	
ONAHAM	0	IP	08	21	50.7	S	22	20.4	25	1.1	17	1.2	6	0.5			U 1	251.1	29.7
TATEYA	0	X	08	21	53.5				21	0.9	23	1.8	9	2.0				229.0	
KYOTO	0	EP	08	21	57.0	ES	22	27.0	5	1.5	2	1.5	1	1.5				273.7	30.0
SAKATA	0	EX	08	22	05.0													305.4	
OSAKA	0	EX	08	22	06				16	2.0	11	3.2	5	2.0				312.3	
TOYOOK	0	X	08	22	44.7				13	1.2	10	1.0						318.6	

OT= 22 11 35 41.1 +/- 1.7 (JST)
E OFF HOKKAIDO
LAT= 43 13 +/- 8 LONG= 147 27 +/- 9
H= 0 MAG=5.1 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	X	P	11	36	09.4	S	36	28.0	68	2.4	60	2.0	56	2.0		W 1	U 1	151.8	18.6
ABASHI	0	EP	11	36	22	S	37	06.6	34	1.8	34	2.0	17	1.8				270.7	44.6
KUSHIR	0	EP	11	36	22	ES	36	51	56	2.6	53	1.5	22	2.6				250.2	29.0
HIROO	0	P	11	36	35.6	ES	37	14										354.0	38.4
OBIHIR	0	EP	11	36	37													346.0	
URAKAW	0	P	11	36	42.7	S	37	28.9	39	1.2	60	1.0	25	1.2				400.4	46.2
ASAHIK	0	P	11	36	44.6				12	2.2	14	1.6	6	2.8				415.2	
SAPPOR	0	EP	11	36	52	ES	37	51	8	2.0	21	2.2	6	1.0				498.1	59.0
HAKODA	0	EP	11	37	02	ES	38	00	6	0.8	8	0.9	5	1.2				571.5	58.0
WAKKAN	0	EX	11	37	04				6	4.5	8	4.5	7	3.6				520.8	
MORIOK	0	EP	11	37	10.7	X	38	16.6	5	0.3	5	0.6	3	0.4		W 0	U 0	654.2	
ISHINO	0	P	11	37	21.5	X	38	32.2	5	2.6	3	2.6	2	2.6				742.6	
AKITA	0	EX	11	37	29.2				6	3.0	6	2.8	4	3.0				726.2	
SENDAI	0	EX	11	37	33.0	X	38	41.0	8	2.4	6	1.6	3	1.6				780.0	
FUKUSH	0	EX	11	37	36.0				6	1.0	5	1.2	1	0.6				846.4	
MATSUS	0	EP	11	38	03	ES	40	04										1082.7	121.0
AOMORI	0	X	11	38	07				27	2.3	18	1.6	10	1.4				613.0	
ONAHAM	0	EX	11	39	02.1				5	0.8	6	1.0	3	2.1				891.8	

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OT= 22 12 16 24.0 +/- 0.2 (JST)
NEAR URAKAWA
LAT= 42 16 +/- 1 LONG= 142 40 +/- 2
H= 50 MAG=4.1 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
URAKAW	2	IP	12	16	32.5	IS	16	38.6	80	0.4	131	0.4	18	0.4	N 10		U 5	15.2	06.1
HIROO	1	IP	12	16	35.9	IS	16	44.1								W 2	D 5	53.7	08.2
OBIHIR	0	IP	12	16	39.4	IS	16	50.6										85.7	11.2
SAPPOR	0	EP	12	16	46	S	17	02.4	6	0.6	8	0.6	3	1.0				140.4	16.4
HAKODA	0	P	12	16	49.4	S	17	08.8	7	0.4	5	0.5	2	0.4			D	165.9	19.4
KUSHIR	0	EX	12	16	50	ES	17	04	21	0.2	15	0.2	7	0.3				162.4	
HACHIN	0	P	12	16	56.3	ES	17	19.7	5	0.2	3	0.2	1	1.4			U	215.7	23.4
MATSUS	0	P	12	18	03													742.6	

OT= 23 15 52 9.3 +/- 0.3 (JST)
MIDDLE OF GIFU PREF
LAT= 35 44 +/- 1 LONG= 137 10 +/- 2
H= 0 MAG=3.7 CLASS=S

GIFU	0	P	15	51	20.1	S	51	27.3	26	0.4	19	0.6	9	0.6				52.0	06.3
NAGOYA	0	IP	15	52	23.4	IS	52	31.8	5	0.4	7	0.6	3	0.4			U 2	65.6	08.4
HIKONE	0	P	15	52	27.6	S	52	39.1										97.8	11.5
HAMAMA	0	EP	15	52	32	S	52	48.5	8	0.6	14	0.6	3	0.4				124.5	16.5
KOFU	0	IP	15	52	32.8	IS	52	48.8	4	0.4	6	0.4	2	0.5		W 1	D 1	126.2	16.0
MATSUS	0	IP	15	52	33.4	S	52	48							N	E	U	129.5	14.6
KYOTO	0	IP	15	52	36.8	ES	52	54.5	4	1.0	5	0.5	1	0.5			U 0	152.7	17.7
KANAZA	0	EX	15	52	39				5	1.4	7	1.8						101.6	
OMAEZA	0	X	15	53	00.0				5	1.4	8	1.4						157.5	
OSAKA	0	EX	15	53	06				5	3.6	5	2.0						190.0	

OT= 24 0 9 17.2 +/- 0.3 (JST)
S OF NAGASAKI PREF
LAT= 32 43 +/- 1 LONG= 129 58 +/- 1
H= 10 MAG=4.1 CLASS=L

NAGASA	2	IP	00	09	22.2	IS	09	24.2							S 18	E 38	D 35	9.1	02.0
UNZEND	3	IP	00	09	23.8	ES	09	26.6										26.9	02.8
KUMAMO	0	IP	00	09	30.6	IS	09	38.9	22	3.0	25	0.8	12	1.0		E 1	D 3	70.4	08.3
SAGA	0	IP	00	09	31.7	S	09	38.7							N 4		U 4	66.6	07.0
FUKUOK	0	IP	00	09	35.7	IS	09	48.0	57	0.4	45	0.4	5	0.5				103.2	12.3
FUKUE	0	EP	00	09	37.2	ES	09	49.8	8	0.7	7	1.1						106.2	12.6
KAGOSH	0	EP	00	09	41.8	ES	10	03.8	7	1.2	9	1.2	4	0.8				138.3	22.0
MIYAZA	0	P	00	09	45.2	S	10	04.6	14	0.8	12	0.8	4	0.8				163.6	19.4

OT= 24 10 36 42.5 +/- 0.2 (JST)
E OF FUKUSHIMA PREF
LAT= 37 26 +/- 1 LONG= 140 46 +/- 3
H= 80 CLASS=L

FUKUSH	1	EP	10	36	56.3	S	37	05.7	40	1.0	72	0.7	20	0.8				44.2	09.4
SHIRAK	1	P	10	36	57.7	IS	37	08.1										59.4	10.4
ONAHAM	0	EP	10	36	58.8	S	37	09.0	63	0.8	71	0.8	26	0.9				55.6	10.2
SENDAI	0	IP	10	37	00.8	S	37	13.2	10	2.2	10	0.8	6	0.6				92.5	12.4
ISHINO	0	IP	10	37	03.5	IS	37	18.4	7	1.0	7	0.6	3	0.2	S 1	W 2	D 3	119.7	14.9
MITO	0	EP	10	37	03.5	IS	37	19.5	11	0.4	11	0.3	6	0.5				120.0	16.0
UTSUNO	0	P	10	37	04.2	S	37	19.6										126.6	15.4
KAKIOK	0	IP	10	37	05.9	S	37	22.2	12	0.8	16	0.8	6	0.6	S 3	E 2	U 1	142.8	16.3
KUMAGA	0	EP	10	37	12.6	ES	37	34.0	5	0.6	4	1.0	2	0.8				188.6	21.4
OFUNAT	0	EP	10	37	13.3	IS	37	35.0	10	0.0	6	0.0	2	0.4				199.0	21.7
MATSUS	0	IP	10	37	18.6	X	37	29							S	W	U	248.4	
KOFU	0	EP	10	37	25.0	ES	37	53.4	4	1.5	5	1.5	3	1.0				278.5	28.4

OT= 27 3 28 27.7 +/- 1.8 (JST)
E COAST OF CHIBA PREF
LAT= 35 33 +/- 5 LONG= 140 30 +/- 9
H= 70 CLASS=U

TOKYO	0	P	03	28	40.5	S	28	54.5	20	0.3								68.8	14.0

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KAKIOK	0	EP	03	28	43	S	28	56.1	7	0.8	8	0.8	4	0.7				80.5	13.1
TATEYA	0	EX	03	28	49.4				10	0.8	7	0.7	3	1.0				85.2	
UTSUNO	0	P	03	28	50.3	S	29	03.8										124.2	13.5
AJIRO	0	EP	03	28	52.0	ES	29	05.5	7	0.2	6	0.2	2	0.3				139.4	13.5
KOFU	0	EP	03	28	57.4	ES	29	11.8	5	0.3	9	0.4	2	0.8				176.4	14.4
MATSUS	0	IP	03	29	03.6	S	29	24								W	U	233.8	20.4
SHIZUO	0	X	03	29	19.9				3	0.6	5	0.8	1	1.0				200.9	

OT= 27 13 2 16.9 +/- 1.8 (JST)
E OFF HOKKAIDO
LAT= 43 23 +/- 5 LONG= 147 9 +/- 9
H= 50 MAG=5.0 CLASS=S

NEMURO	1	IP	13	02	37.2	S	02	49.8	35	0.2	35	0.2	19	0.2	N 1	E 1	D 1	126.9	12.6
KUSHIR	0	IP	13	02	51.0	ES	03	15	48	0.4	46	0.3	20	0.9			D 1	228.5	24.0
ABASHI	0	P	13	02	51.2	ES	03	17	19	2.4	22	2.6	9	2.0			D 4	241.6	25.8
OBIHIR	0	EP	13	03	05	ES	03	46										323.7	41.0
HIROO	0	EP	13	03	07	ES	03	43										336.4	36.0
ASAHIK	0	EP	13	03	11				11	2.8	8	1.8	6	1.6				388.3	
URAKAW	0	P	13	03	14.1	S	03	57.8	44	1.2	65	2.0	38	2.0				382.7	43.7
SAPPOR	0	EP	13	03	22				12	2.0	14	2.6	4	2.0				474.1	
HAKODA	0	IP	13	03	32.9	ES	04	32	25	2.2	15	2.4					D	552.7	59.1
HACHIN	0	IP	13	03	33.4	IS	04	29.6	5	0.2	2	0.2					D	564.1	56.2
OFUNAT	0	IP	13	03	46.4	S	04	50.8	5	0.8	4	0.8	4	1.0			D 1	661.4	64.4
AKITA	0	EX	13	04	13				7	2.6	6	2.6	3	2.6				714.9	
SENDAI	0	EX	13	04	16	ES	05	15.6	3	1.6	5	1.6	2	0.6				775.3	
FUKUSH	0	X	13	04	16.0	ES	05	32.9	8	1.0	7	1.0						842.0	
MATSUS	0	X	13	04		S	06	27									D	1076.5	
ONAHAM	0	EX	13	05	40.4				5	0.8	5	1.2	3	0.5				890.5	

OT= 29 23 54 47.8 +/- 0.5 (JST)
W OFF KAGOSHIMA PREF
LAT= 31 18 +/- 1 LONG= 129 32 +/- 2
H= 30 MAG=4.2 CLASS=U

KAGOSH	0	EP	23	55	04.6	ES	55	16.8	25	0.6	61	0.6	31	0.8				101.5	12.2
YAKUSH	0	P	23	55	09.6				6	0.6	8	0.8	3	0.4				131.7	
NAGASA	0	P	23	55	13.5	S	55	30.0								S E	D	160.0	16.5
MIYAZA	0	P	23	55	19.0	S	55	39.8	8	0.8	11	0.8	5	0.6				192.1	20.8
KUMAMO	0	EP	23	55	19.2	ES	55	40.1	12	2.5	13	2.3	5	1.0				200.9	20.9
SAGA	0	X	23	55	33.2													227.5	

OT= 30 2 58 30.8 +/- 1.3 (JST)
E OFF HOKKAIDO
LAT= 42 57 +/- 5 LONG= 148 29 +/- 7
H= 40 MAG=5.5 CLASS=R

NEMURO	X	P	02	59	05.3	S	59	26.6	102	2.0	145	2.4	140	2.0		W 1	U 1	239.4	21.3
KUSHIR	1	IP	02	59	18.1	X	00	05.6	104	2.6	75	2.9	48	2.4		W 4	U 4	333.6	
ABASHI	0	P	02	59	21.6	S	00	05.0	65	2.0	72	2.8	37	3.8	N	W	U 6	359.9	43.4
HIROO	0	P	02	59	31.8	ES	00	20										430.3	48.2
						EX	04	0											
OBIHIR	0	EP	02	59	32													429.5	
URAKAW	0	P	02	59	38.9	S	00	31.9	87	2.4	117	3.2	35	2.8				476.6	53.0
ASAHIK	0	P	02	59	41.5				33	2.4	31	2.4						503.6	
RUMOI	0	EX	02	59	48													565.4	
SAPPOR	0	P	02	59	50.6	ES	00	54	38	2.0	53	2.0	11	3.0				583.2	63.4
WAKKAN	0	P	02	59	54.0	S	01	03.9	21	4.5	19	4.6	16	5.0			D 1	608.6	69.9
MURORA	0	EP	02	59	54	ES	01	00										619.1	66.0
HACHIN	0	P	02	59	57.3	X	00	56.2	7	2.0	5	2.2	5	4.6				638.3	
HAKODA	0	P	02	59	58.7	ES	01	13	19	2.7	19	2.2					U 1	648.5	74.3
MIYAKO	0	EP	03	00	00.1	X	01	00.7	6	1.7	3	1.9	4	2.0				657.4	
MORIOK	0	P	03	00	07.0	X	01	12.4	5	0.4	4	1.8	5	1.8	S 0	W 0	U 0	710.8	
						X	02	29.7											
OFUNAT	0	EP	03	00	08.2	X	01	14.5	6	2.2	7	2.0	10	2.2				714.1	
ISHINO	0	EP	03	00	17.0	X	01	29.2	11	2.4	8	2.8	4	2.4			D	787.5	
SENDAI	0	EP	03	00	24	X	01	38.0	18	2.4	17	2.0						826.0	
FUKUSH	0	EX	03	00	31.1				15	1.0	9	0.9						891.2	
ONAHAM	0	EX	03	00	36.0	X	02	03.7	15	1.7	10	1.3	9	2.0				928.7	
AKITA	0	EX	03	00	36.6	EX	01	27	14	3.0	17	3.8	12	4.2				787.7	
MITO	0	EX	03	00	49.4	X	02	20.4	11	2.5	10	2.8	6	2.5				1001.6	
MATSUS	0	IP	03	01	01.0	X	02	20							N	E	D	1131.0	

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STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KUMAGA	0	X	03 01 10.0	X	02 39.0	6 1.2	7 2.0	5 3.2				1086.0	
NAGANO	0	X	03 01 12.1	X	03 22.6	5 4.0	5 3.4	3 4.0				1122.7	
TATEYA	0	EX	03 01 38.5			11 4.6	7 3.0	6 3.8				1156.1	
NIIGAT	0	EX	03 01 42.0			20 4.0	20 3.1					975.7	
SAKATA	0	EX	03 01 49.3									855.2	
WAJIMA	0	EX	03 02 04			5 1.0	5 2.0					1162.5	
TOKYO	0	X	03 02 51.4			11 3.2	9 4.0	9 4.0				1101.8	

OT= 30 6 11 8.7 +/- 0.8 (JST)
OFF IBARAKI PREF
LAT= 36 26 +/- 3 LONG= 141 6 +/- 4
H= 50 MAG=3.6 CLASS=L

ONAHAM	0	IP	06 11 21.2	IS	11 28.4	8 0.7	9 0.8	3 0.4			U 2	59.3	07.2
MITO	1	IP	06 11 21.3	S	11 28.9	17 0.3	29 0.3	9 0.3			D 3	56.7	07.6
KAKIOK	0	EP	06 11 24	IS	11 33.6	9 0.3	9 0.3	5 0.5				84.4	09.6
UTSUNO	0	P	06 11 26.7	S	11 39.2							110.8	12.5
MATSUS	0	IP	06 11 47.0	S	12 17							259.3	30.0

OT= 30 10 9 44.0 +/- 0.4 (JST)
N OF CHIBA PREF
LAT= 35 45 +/- 2 LONG= 140 5 +/- 3
H= 80 CLASS=S

KAKIOK	0	IP	10 09 57.5	IS	10 06.4	38 0.8	36 0.8	14 0.9	N 1		U 2	54.3	08.9
TOKYO	0	IP	10 09 57.5	IS	10 07.0	95 1.0	70 1.2	25 0.4				30.3	09.5
YOKOHA	1	P	10 09 59.0	S	10 06.0							52.1	07.0
MITO	0	IP	10 10 00.3	S	10 11.3	20 0.6	15 0.9	5 0.9			D 2	78.0	11.0
UTSUNO	1	P	10 10 01.2	S	10 13.0							90.4	11.8
KUMAGA	0	P	10 10 01.4	S	10 13.6	6 0.6	10 0.8	3 1.0			D 3	76.8	12.2
TATEYA	0	Ex	10 10 02.0	IS	10 14.2	25 0.8	30 0.6	15 1.2				87.3	
AJIRO	X	P	10 10 04.6	IS	10 18.7	33 0.2	25 0.2	4 0.3				119.1	14.1
MAEBAS	0	P	10 10 05.4	S	10 19.4							116.8	14.0
OSHIMA	0	IP	10 10 05.5	S	10 18.5	23 0.6	29 0.4	16 0.2				127.0	13.0
MISHIM	0	EP	10 10 07	ES	10 20.7	8 0.7	10 0.7	3 0.7				126.4	13.7
KOFU	0	IP	10 10 07.7	IS	10 24.3	10 0.5	10 0.5	3 0.7			D 2	138.3	16.6
ONAHAM	0	EP	10 10 09.6	ES	10 28.0	8 0.8	13 0.8	3 0.4				151.8	18.4
SHIZUO	0	EP	10 10 12.0	S	10 32.2	4 0.7	7 0.5	1 1.0				175.0	20.2
MATSUS	0	IP	10 10 14.0	S	10 28				S E		D	190.0	14.0
FUKUSH	0	Ex	10 10 25.7			4 0.8	8 0.8					225.4	

OT= 30 12 1 17.7 +/- 0.4 (JST)
TOKYO-CHIBA BORDER
LAT= 35 41 +/- 3 LONG= 139 56 +/- 4
H=100 CLASS=U

KAKIOK	0	EP	12 01 34	IS	01 46.0	18 0.5	18 0.5	9 0.2				65.2	12.0
TOKYO	0	EP	12 01 34	S	01 46	25 1.0	15	5				15.8	12.0
KUMAGA	0	P	12 01 37.0	ES	01 50.4	3 0.2	5 0.8	2 0.4			D 2	71.3	13.4
UTSUNO	0	P	12 01 37.4	S	01 51.3							95.9	13.9
MITO	0	EP	12 01 38.0	S	01 50.5	5 0.4	5 0.3	2 0.2				91.1	12.5
OSHIMA	0	P	12 01 39.2	S	01 54.7	8 0.2	6 0.2	6 0.2				114.0	15.5
KOFU	0	EP	12 01 40.0	ES	01 57.2	6 0.5	7 0.3	1 0.4				124.5	17.2
AJIRO	0	EP	12 01 41.8	ES	01 54.1	13 0.2	8 0.2	2 0.3				104.0	12.3
TATEYA	0	X	12 01 46.5			14 0.5	11 0.7	8 0.5				77.9	
MATSUS	0	IP	12 01 47.1	S	02 09				S E		U	182.0	21.9

OT= 30 21 40 16.3 +/- 0.3 (JST)
E OF IBARAKI PREF
LAT= 36 29 +/- 2 LONG= 140 37 +/- 2
H= 50 MAG=3.8 CLASS=L

MITO	1	IP	21 40 25.5	IS	40 32.0	78 0.5	135 0.5	35 0.3	S 2	W 1	U 11	17.5	06.5
KAKIOK	2	IP	21 40 27.0	IS	40 34.1	60 1.0	79 0.3	28 0.2				47.1	07.1
ONAHAM	X	IP	21 40 28.4	IS	40 36.4	23 0.4	28 0.2	14 0.5			D 1	57.4	08.0
UTSUNO	1	P	21 40 29.0	S	40 38.0							67.1	09.0
SHIRAK	0	P	21 40 30.8	IS	40 41.2							78.6	10.4
KUMAGA	0	P	21 40 36.0	S	40 50.4	7 0.2	6 0.8	3 0.6			D 2	116.7	14.4
TOKYO	0	EP	21 40 36	S	40 50	17 0.6	10					117.5	14.0

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
FUKUSH	0	EX	21 40 43.0			7 0.7	5 0.7	2 0.6				141.9	
MATSUS	0	IP	21 40 48.0	S	41 18				N	E	D	215.8	30.0

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LIST 6 SEISMOLOGICAL DATA OBTAINED BY MATSUSHIRO

DATE		PHASE AND TIME (JST) H M S			INITIAL MOTION	
1	IP	00 12 51.4	IS	12 58.5	E	*
1	IP	00 35 30.0	IS	35 37.3	N E	*
1	IP	02 04 29.6	IS	04 36.6	N E U	*
1	IP	02 11 22.9	IS	11 29.8	N E U	*
1	EP	02 23 17.				*
1	IP	02 40 27.2	ES	40 50.	U	*
1	IP	03 09 17.5	S	10 24.	S W U	*
1	IP	04 13 23.9	IS	13 31.0	N E	*
1	IP	04 13 33.3	IS	13 39.5	U	*
1	IP	04 23 38.9	IS	23 45.6	N E U	*
1	IP	04 26 16.0	IS	26 23.0	N E U	*
1	IP	04 29 46.2	IS	29 53.2	N E U	*
1	IP	04 38 27.6	IS	38 34.7		*
1	IP	04 40 25.0	IS	40 32.1		*
1	IP	04 59 31.9	S	59 54.		*
1	P	05 08 31.				*
1	IP	05 09 08.0	IS	09 14.8	E U	*
1	P	05 16 54.				*
1	IP	05 28 08.5	IS	28 15.3	N E U	*
1	IP	05 58 52.1			U	*
1	IP	06 01 01.4	IS	01 08.3	N E U	*
1	IP	06 16 15.1	IS	16 22.0	N E U	*
1	IP	07 17 25.0	IS	17 32.0	N E U	*
1	P	07 19 18.0	ES	20 53.		*
1	IP	08 22 40.7	IS	22 47.7	N E U	*
1	IP	10 25 27.7	IS	25 34.6	N E U	*
1	IP	11 14 53.5	S	15 00.	N E U	*
1	IP	11 19 39.0	IS	19 46.0	N E U	*
1	P	11 28 10.	S	28 26.		*
1	EP	11 32 14.	IS	32 20.6		*
1	EP	11 34 30.	IS	34 37.1		*
1	P	11 49 53.	S	50 00.		*
1	P	12 11 11.				*
1	IP	12 12 45.0	IS	12 52.0		*
1	EP	12 15 52.	S	15 59.		*
1	IP	12 20 56.0	S	21 04.	N	*
1	P	12 54 39.	S	54 45.		*
1	IP	13 13 34.5	IS	13 41.4	U	*
1	P	13 29 54.	S	30 02.		*
1	P	14 33 50.	EL	52		*
1	P	15 29 16.	S	30 18.		*
1	IP	16 13 58.3	IS	14 05.2	E U	*
1	EP	17 32 06.	S	39 36.		*
1	P	17 53 11.				*
1	P	18 17 38.				*
1	IP	18 32 49.5	S	32 56.	N	*
1	P	18 47 24.	S	48 14.		*
1	P	18 52 10.				*
1	EP	20 21 53.				*
1	IP	21 45 55.5	ES	46 16.	E D	*
2	EP	00 58 02.	S	58 09.		*
2	P	02 32 47.				*
2	P	03 33 44.	S	33 50.		*
2	IP	03 38 07.5	S	38 14.4	N E U	*
2	IP	03 49 20.9				*
2	IP	04 30 48.2	S	30 55.	N E U	*
2	P	05 25 10.	IS	25 17.0		*
2	IP	06 32 32.7	S	32 40.	N E U	*
2	IP	07 06 51.8	S	06 59.	U	*
2	IP	07 55 25.4	IS	55 32.4	U	*
2	IP	09 31 20.5	IS	31 27.7	U	*
2	IP	10 02 23.1	IS	02 30.2	N E U	*
2	IP	10 05 17.5	IS	05 24.6	U	*
2	P	10 28 58.				*
2	IP	11 19 03.5	IS	19 10.3	U	*
2	EP	13 06 45.	SKS	17 28.		*
2	IP	13 13 32.8	IS	13 40.0	N E U	*
2	P	13 57 05.	IS	57 11.4		*
2	IP	14 46 53.8	IS	47 00.8	U	*
2	IP	14 59 19.7	S	59 26.	N E U	*
2	P	16 18 59.	IX	19 36.		*
2	IP	16 24 56.8			N E U	*
2	P	17 13 55.	S	14 02.		*
2	IP	17 45 09.0	IS	45 15.6	N E U	*
2	P	17 57 44.	S	57 51.		*
2	IP	21 07 25.8			N E U	*
2	IP	21 12 42.5	S	12 49.		*
2	IP	21 25 07.8	S	25 15.	N E U	*
2	IP	21 30 17.5	IS	30 24.5	N	*
2	IP	21 31 12.0	IS	31 19.0	U	*
2	IP	21 33 16.5	IS	33 23.8	N E U	*
2	P	21 36 19.	S	36 26.		*
2	IP	21 38 49.5	S	40 09.	D	*
2	IP	21 41 03.2	IS	41 10.0	N E	*
2	IP	21 42 50.4	IS	42 58.0	N E U	*
2	P	21 45 25.	S	50 54.		*
2	IP	21 45 42.8	S	45 49.6	N E U	*
2	P	21 48 44.	S	48 51.		*
2	P	21 49 48.	S	49 55.		*
2	IP	21 50 38.9	S	50 46.	N E U	*
2	P	21 53 26.	S	53 33.		*
2	IP	22 08 11.6	IS	08 18.3	N E U	*
2	P	22 15 44.	S	15 51.		*
2	P	22 18 32.	S	18 39.		*
2	P	22 19 51.	S	19 58.		*
2	IP	22 29 55.7	IS	30 02.8	N E U	*
2	IP	22 32 45.1	IS	32 52.2	E U	*
2	IP	22 35 15.0	IS	35 21.7	U	*
2	IP	22 36 47.6	IS	26 54.4	N E U	*
2	P	22 40 08.	S	40 15.		*
2	IP	22 41 44.5	IS	41 51.9	U	*
2	P	22 45 57.	S	46 04.		*
2	IP	22 50 37.5	IS	50 44.2	N E U	*
2	P	22 51 49.	S	51 58.		*
2	IP	23 03 15.6	IS	03 22.8	N E U	*
2	P	23 03 39.	IS	03 46.0		*
2	IP	23 05 35.5	IS	05 42.4	N E U	*
2	IP	23 27 22.3	IS	27 29.7	N U	*
2	P	23 27 53.	S	28 00.		*
2	EP	23 42 36.	S	42 43.		*
2	IP	23 57 23.5	IS	57 30.7	U	*
3	P	00 00 37.	S	00 44.		*
3	P	00 22 20.				*
3	IP	01 06 18.5	IS	06 25.4		*
3	P	01 48 16.	S	48 23.		*
3	EP	01 55 21.	IX	55 24.4		*
3	P	02 04 12.	S	04 19.		*
3	IP	02 28 21.0	IS	28 28.1	N E U	*
3	IP	02 56 40.6	IS	56 47.4	N U	*
3	IP	03 07 11.9	IS	07 19.0	U	*
3	P	04 01 21.	S	01 28.		*
3	IP	04 09 18.6	IS	09 25.9		*
3	IP	04 15 07.8	IS	15 14.8	N E U	*
3	P	04 28 24.	X	28 38.		*
3	IP	04 46 47.0	IS	46 54.0	N E U	*
3	IP	05 32 03.0	IS	32 10.0	N E U	*
3	P	05 40 19.	IS	40 25.8		*
3	IP	05 43 10.5	IS	43 17.4		*
3	IP	06 55 43.5	IS	55 50.3	N E U	*
3	IP	06 56 27.4	IS	56 34.2	E U	*
3	P	08 38 51.	S	38 58.		*
3	P	09 11 35.	S	11 41.		*
3	P	09 58 48.				*
3	P	09 59 43.	S	00 02.		*
3	P	10 38 33.	S	43 50.		*
3	EP	10 51 05.				*
3	EP	11 08 21.	IS	08 24.		*
3	P	11 12 06.	S	12 13.		*
3	P	11 16 54.	IS	17 01.2		*
3	P	11 39 45.	S	40 11.		*
3	IP	12 04 01.7	S	04 09.		*
3	IP	12 34 32.0	IS	34 39.1	N E U	*
3	IP	13 04 15.2	IS	04 22.0	U	*
3	IP	13 19 20.0	S	19 47.	N W U	*
3	P	13 21 39.				*
3	IP	13 47 32.2	IS	47 39.2	U	*
3	EP	13 54 24.	S	54 31.		*
3	IP	14 02 57.4	S	03 05.		*
3	P	14 05 26.				*
3	IP	14 30 34.5	IS	30 41.1	U	*
3	EP	14 31 40.				*
3	IP	14 54 20.5	IS	54 27.7	U	*
3	EP	15 20 34.				*
3	IP	15 21 41.4	IS	21 48.0		*
3	P	15 58 57.	ES	00 47.		*
3	P	16 33 21.				*
3	IP	16 59 53.2	S	00 13.	S E D	*
3	IP	20 58 59.5	IS	59 06.2	U	*

DATE		PHASE AND TIME (JST) H M S			INITIAL MOTION	
3	EP	21 52 15.				*
4	IP	01 21 43.6	S	22 55.		*
4	EP	01 48 05.				*
4	IP	01 50 18.3	IS	50 25.5	N E U	*
4	IP	03 38 04.0	IX	38 14.	D	*
4	IP	04 18 53.2	IS	19 00.6	N E U	*
4	IP	06 10 38.0	IS	10 45.1	N E U	*
4	EP	06 37 25.				*
4	IP	07 03 52.5	S	05 40.	U	*
4	P	07 11 02.	S	12 15.		*
4	IP	07 30 43.9	S	30 50.7	N E U	*
4	P	07 52 45.				*
4	IP	09 33 37.2	IS	33 44.1	U	*
4	P	12 12 22.	S	15 12.		*
4	IP	12 57 07.0			U	*
4	P	13 32 33.	S	34 15.		*
4	EP	13 38 23.	IX	38 30.		*
4	EP	14 42 01.				*
4	IP	20 27 16.0	IS	27 23.1	N E U	*
4	IP	20 36 14.3			U	*
4	IP	21 08 49.2	IS	08 56.3	N E U	*
4	IP	22 51 10.6	IS	51 17.3	N E U	*
4	IP	23 48 49.4	IS	48 56.6	U	*
5	EP	00 54 48.	S	54 55.		*
5	P	01 36 53.	X	37 28.		*
5	P	02 12 25.				*
5	IP	02 58 03.6	S	58 10.5	U	*
5	IP	04 29 11.2	IS	29 18.0		*
5	IP	06 14 59.8	S	16 41.		*
5	P	07 55 50.	IS	55 56.3		*
5	IP	07 56 13.7	IS	56 20.6	U	*
5	P	07 57 29.	IS	57 35.0		*
5	P	08 48 58.	S	50 41.		*
5	P	09 37 16.				*
5	P	11 56 33.	S	56 40.		*
5	IP	13 08 40.5	IS	08 47.2	N U	*
5	IP	13 19 25.0	IS	19 32.5	N E U	*
5	EP	14 18 30.				*
5	IP	15 18 59.6	IS	19 06.8	U	*
5	EP	16 18 58.	IX	19 05.		*
5	P	19 27 48.	S	27 55.		*
5	P	20 17 37.				*
5	P	20 46 45.	S	50 22.		*
5	EP	21 08 07.				*
5	P	21 27 54.				*
5	P	22 09 09.	IS	09 16.0		*
6	IP	00 46 25.6	S	47 37.	U	*
6	P	01 14 58.				*
6	P	01 30 06.	EX	30 51.		*
6	P	02 05 03.	S	05 40.		*
6	EP	05 05 34.	ES	05 58.		*
6	P	05 14 14.				*
6	IP	05 21 08.0	IS	21 15.0	N E U	*
6	P	07 08 52.			D	*
6	P	07 57 57.				*
6	IP	08 53 25.3	S	53 32.3	N E U	*
6	P	10 12 47.				*
6	IP	12 15 47.0	S	15 54.	N E U	*
6	IP	12 25 59.5	IS	26 06.3	U	*
6	IP	13 40 51.3	IS	40 59.2	U	*
6	P	16 13 41.	IS	13 47.5		*
6	P	16 45 54.	S	47 34.	S W U	*
6	IP	18 30 15.0	IS	30 22.2	U	*
6	P	19 45 19.				*
6	IP	20 45 39.7	S	48 46.	U	*
6	P	23 44 30.				*
6	P	23 48 43.				*
6	IP	23 58 41.8	S	05 45.	U	*
7	P	01 18 55.	S	20 08.		*
7	IP	02 16 49.7	S	23 53.	U	*
7	IP	02 20 41.2	IS	20 48.3	N E U	*
7	IP	04 00 53.6	S	02 36.	D	*
7	IP	04 51 29.0	IS	51 36.0	N E U	*
7	IP	06 45 28.4	IS	45 35.6	N E U	*
7	P	07 15 07.				*
7	IP	07 19 29.6			U	*
7	IP	09 25 14.7	S	26 20.	S W D	*
7	IP	09 48 35.7	IS	48 42.5	U	*
7	IS	09 49 00.0				*
7	IP	10 11 12.6	IS	11 19.4	U	*
7	IP	11 41 07.2	IS	41 14.2	U	*
7	P	12 14 44.	S	21 44.		*
7	EP	13 26 47.				*
7	P	15 36 52.	EX	44 21.		*
7	P	15 43 01.	X	43 13.		*
7	IP	15 54 59.4	IX	55 21.0	D	*
7	IP	17 40 35.0	IX	40 48.	S U	*
7	P	17 48 41.				*
7	P	21 36 06.	S	37 56.		*
7	EP	22 50 00.				*
7	P	23 06 03.	X	07 24.		*
8	P	03 46 05.	S	48 26.		*
8	EP	04 21 21.	S	21 56.		*
8	EP	11 40 15.				*
8	P	11 45 41.	EX	47 33.		*
8	P	14 58 22.	EX	59 34.		*
8	IP	17 01 04.0			U	*
8	P	18 37 30.	IS	37 37.3		*
8	IP	18 39 34.6	IS	39 41.6	U	*
8	IP	21 02 46.2	IS	02 54.0	U	*
8	IP	21 04 12.9	S	04 20.	N E U	*
8	P	21 53 36.	S	00 00.		*
9	P	06 00 12.	EX	01 54.		*
9	P	07 04 23.				*
9	IP	09 59 48.5	X	00 12.	S U	*
9	P	12 28 36.	S	28 43.		*
9	IP	12 34 48.6	S	35 57.	W D	*
9	IP	14 15 58.0			N E U	*
9	EP	14 24 32.				*
9	P	14 25 39.				*
9	P	14 29 23.	S	29 39.		*
9	P	14 30 09.	S	30 21.		*
9	P	14 31 45.				*
9	P	14 36 35.	S	36 50.		*
9	P	14 37 35.	S	37 50.		*
9	P	14 39 57.				*
9	IP	14 43 09.8	S	43 25.	N E U	*
9	P	14 45 32.	S	45 47.		*
9	P	14 47 17.	S	47 32.		*
9	IP	14 48 43.0			N E U	*
9	P	14 52 16.	S	52 32.		*
9	P	14 53 47.	S	54 02.		*
9	P	14 58 27.	S	58 42.		*
9	P	15 03 06.	S	03 21.		*
9	P	15 04 02.	S	04 18.		*
9	P	15 04 35.	S	04 50.		*
9	P	15 07 04.	S	07 18.		*
9	P	15 07 57.	S	08 12.		*
9	P	15 11 20.	S	11 35.		*
9	P	15 12 22.	S	12 37.		*
9	P	15 12 55.	S	13 10.		*
9	IP	15 17 49.7	ES	18 07.	N E U	*
9	P	15 23 11.	S	23 26.		*
9	P	15 33 13.	S	33 28.		*
9	P	15 41 48.	S	42 03.		*
9	IP	15 55 59.3	S	56 15.	D	*
9	P	15 57 26.	S	57 41.		*
9	P	16 04 40.	S	04 55.		*
9	P	16 21 22.	S	21 37.		*
9	P	16 25 47.	S	26 01.		*
9	IP	16 29 37.	S	29 53.	N E U	*
9	P	16 30 46.	S	31 01.		*
9	P	16 33 31.	S	33 46.		*
9	P	16 40 37.	S	40 52.		*
9	P	16 46 50.	S	47 04.		*
9	IP	16 54 19.8	IS	54 35.4	U	*
9	P	17 01 21.	S	01 35.		*
9	P	17 01 56.	S	02 10.		*
9	IP	17 08 40.4	S	08 55.	N E U	*
9	P	17 23 50.	S	24 05.		*
9	IP	17 44 02.0	S	44 17.	U	*
9	P	17 45 45.	S	46 00.		*
9	P	17 55 21.	S	55 37.		*
9	P	18 09 48.	S	10 03.		*

International Seismological Centre From the ISC collection scanned by SISMOS

DATE		PHASE AND TIME (JST) H M S		INITIAL MOTION	PHASE AND TIME (JST) M S	INITIAL MOTION	
9	P	18 16 50.	S		17 05.		*
9	P	18 32 26.	S		32 41.		*
9	P	18 54 39.	S		54 44.		*
9	P	19 10 11.	S		10 27.		*
9	P	19 13 17.	S		13 33.		*
9	P	19 17 10.	S		17 24.		*
9	IP	19 27 04.2	S		27 19.		*
9	P	19 28 45.	S		29 00.		*
9	IP	19 36 05.5	S		36 21.	U	*
9	IP	19 48 04.1	S	N	48 19.	U	*
9	P	19 54 42.	S		54 57.		*
9	IP	20 03 57.0					*
9	EP	20 07 24.					*
9	P	20 08 04.	S		08 19.		*
9	IP	20 29 39.4	S		29 55.	U	*
9	P	21 37 35.	IS		37 49.5		*
9	P	22 09 05.	S		09 19.		*
9	P	22 48 52.	S		49 07.		*
9	P	23 17 18.	S		17 33.		*
9	S	23 17 50.					*
10	IP	00 00 30.2	S		00 45.	U	*
10	IP	00 04 52.0	S		05 08.	U	*
10	X	00 52 08.	L		09 18.		*
10	P	01 25 07.	IS		25 33.8		*
10	IP	02 15 48.9	S		16 04.	D	*
10	IP	02 20 02.0	S		20 17.	D	*
10	IP	02 24 07.4	S	N E	24 14.	U	*
10	IP	02 45 36.8	IS		45 43.5	U	*
10	IP	02 53 37.6	S		53 57.	D	*
10	IP	03 13 40.6	S		13 55.	U	*
10	IP	03 16 31.9	S		16 56.	U	*
10	P	03 20 16.	S		20 32.		*
10	IP	03 30 03.2	S		30 24.	U	*
10	P	03 45 40.	S		45 55.		*
10	IP	05 15 09.7	S	S W	15 26.	U	*
10	IP	05 32 20.9	S	S W	32 36.	D	*
10	P	05 52 44.	S		52 59.		*
10	IP	05 57 31.5	S		57 47.	D	*
10	P	08 41 25.	S		41 40.		*
10	P	09 58 20.					*
10	IP	10 00 32.8	S	N	00 47.	U	*
10	IP	10 18 23.8	IS		18 39.4	U	*
10	IP	10 36 56.6	IS		37 03.7	U	*
10	IP	10 40 56.4	S	N E	41 11.	U	*
10	IP	10 50 20.7	IS	N E	50 35.4	U	*
10	IP	10 55 19.0	S	N E	55 35.	U	*
10	P	11 04 55.	S		05 10.		*
10	P	11 14 58.	S		15 13.		*
10	IP	11 56 29.8	S	S W	56 46.	D	*
10	IP	12 35 23.2	S		35 30.	U	*
10	IP	13 15 02.9	S	N E	15 17.	U	*
10	P	13 23 21.	ES		28 51.		*
10	P	13 31 17.					*
10	P	13 31 44.	S		31 59.		*
10	P	15 54 43.	S		54 58.		*
10	IP	16 05 52.7	S		06 08.	U	*
10	P	16 36 53.	S		37 06.		*
10	P	16 39 31.	S		39 45.		*
10	P	16 49 24.	X		51 58.		*
10	P	18 43 25.					*
10	IP	19 17 37.0	IS		17 50.8	U	*
10	IP	20 43 53.8	S		44 07.	D	*
10	P	20 59 03.	S		59 19.		*
10	IP	21 03 38.5	S	S W	03 56.	D	*
10	P	21 06 19.	S		06 34.		*
10	P	21 25 23.					*
10	P	21 27 54.	S		28 10.		*
10	P	22 35 39.	IS		35 53.5		*
11	IP	00 21 10.6	S	N E	21 26.	U	*
11	IP	00 51 50.9	S	S W	52 06.	D	*
11	IP	01 03 11.2	S	N E	03 27.	U	*
11	IP	01 47 35.0	S	N E	47 51.	U	*
11	IP	03 19 04.3	S	N E	19 20.	U	*
11	IP	03 23 13.2	S	N E	23 28.	U	*
11	P	03 25 26.	S		25 42.		*
11	P	03 29 41.	S		29 55.		*
11	IP	04 01 48.2	S	S W	02 03.	D	*
11	IP	04 24 55.9	S	N E	25 13.	U	*
11	P	04 42 12.	S		42 27.		*
11	IP	05 51 14.5	S		51 29.	U	*
11	P	05 52 40.	S		52 55.		*
11	IP	05 59 25.2	IS		59 40.2	U	*
11	P	06 22 58.	S		23 13.		*
11	IP	09 12 03.4	IS	N E	12 10.2	U	*
11	IP	09 16 01.0	IS		16 15.2	U	*
11	IP	10 02 43.0	IS		02 58.4	W	U
11	IP	10 06 00.2	IS	S	06 14.3	D	*
11	IP	10 09 19.3	IS	N E	09 35.0	U	*
11	IP	10 14 33.4	IS	N E	14 40.4	U	*
11	IP	11 09 28.2	S	S W	09 44.	D	*
11	IP	12 02 52.2	S		03 08.		*
11	P	12 20 08.	S		22 35.		*
11	IP	14 16 00.0	IS	N E	16 15.0	U	*
11	IP	15 21 30.0		S W		U	*
11	IP	16 16 41.6	IS	N E	16 48.3	U	*
11	IP	16 19 53.0	IS	N E	20 05.0	U	*
11	EP	17 39 24.					*
11	IP	18 09 14.8	IS	N E	09 29.2	U	*
11	IP	18 09 52.3	S	N E	10 08.	U	*
11	EP	18 34 15.					*
11	IP	18 36 38.5	IS	N E	36 45.4	U	*
11	P	21 55 26.					*
11	IP	23 07 50.3	IS	S W	08 05.3	D	*
11	IP	23 12 17.6	IS		12 22.7		*
12	IP	00 02 16.5	S	N E	02 31.	U	*
12	IP	00 20 34.7	S		20 49.	U	*
12	P	00 36 29.	S		36 43.		*
12	P	01 09 20.	IS		09 35.0		*
12	IP	01 21 15.0	S	N E	21 31.	U	*
12	P	01 45 51.					*
12	IP	02 11 03.8	S		11 18.	U	*
12	IP	02 11 57.3	S	W	12 12.	U	*
12	IP	02 30 21.0	S		30 36.		*
12	IP	02 58 46.6	IS	N	59 01.6	U	*
12	IP	03 38 56.0	S	N E	39 10.	U	*
12	P	03 47 03.					*
12	IP	04 14 08.9	S	N E	14 23.	U	*
12	P	04 30 06.					*
12	IP	07 11 56.6	S	N E	11 11.	U	*
12	P	08 19 48.	S		20 11.		*
12	IP	08 31 42.2	S	S	31 50.	U	*
12	IP	09 02 12.2	S	S W	02 28.	D	*
12	EP	10 21 21.					*
12	P	10 22 21.	S		23 13.		*
12	IP	10 33 26.2	S	N W	33 33.	D	*
12	IP	11 17 42.7	S	N	17 27.	D	*
12	IP	12 25 46.8		S		D	*
12	P	13 30 00.					*
12	IP	14 44 35.4	IS		44 50.0	U	*
12	P	16 22 26.					*
12	P	16 49 20.					*
12	IP	17 00 19.3	S		00 34.	D	*
12	P	17 06 53.	S		12 10.		*
12	P	17 12 44.					*
12	P	17 16 01.					*
12	IP	18 03 43.8	S	S W	09 06.	U	*
12	IP	18 54 13.0	S	N E	54 28.	U	*
12	IP	20 24 22.0	S	N E	24 37.	U	*
12	P	20 50 03.					*
12	IP	21 22 13.6	S		22 29.	U	*
12	P	22 28 38.					*
12	IP	22 42 01.0	S	N E	42 16.	U	*
12	IP	22 51 02.7	S		51 18.	U	*
12	EP	23 17 15.	S		17 56.		*
13	IP	00 06 55.3	S		12 14.	U	*
13	IP	01 24 10.0	IS	N E	24 25.4	U	*
13	P	03 47 45.					*
13	IP	06 10 35.2	S	N E	10 51.	U	*
13	IP	07 02 41.0	S	N E	02 56.	U	*
13	P	09 45 07.					*
13	P	10 29 06.					*
13	EP	11 12 11.					*
13	IP	11 58 00.5	S	N E	58 08.	U	*
13	IP	12 14 40.8	IS	N E	14 47.5	U	*
13	IP	12 47 57.7	IS	N E	48 12.7	U	*
13	P	13 11 49.					*

DATE		PHASE AND TIME (JST) H M S		INITIAL MOTION	PHASE AND TIME (JST) M S	INITIAL MOTION	
13	IP	17 59 36.0	S		59 55.	U	*
13	P	20 12 38.					*
13	IP	20 20 02.0	S	N W	20 46.	U	*
13	IP	20 54 32.0	S	N E	56 18.	D	*
14	IP	03 56 25.8	S		57 42.	E D	*
14	P	05 02 05.					*
14	P	05 33 20.	S		33 37.		*
14	IP	10 14 08.0	IS	N E	14 15.6	U	*
14	P	10 19 02.					*
14	P	13 33 19.	S		13 39.		*
14	P	15 07 31.	IS	S W	07 48.5	U	*
14	P	15 14 13.	S		16 06.		*
14	P	15 32 44.					*
14	P	16 54 55.	IS		54 19.3		*
14	EP	19 08 46.	S		14 07.		*
14	IP	20 05 10.2	S		05 25.	S U	*
14	IP	21 51 30.0	S		53 20.	N E D	*
14	IP	22 01 21.4	S	N E	01 37.	D	*
14	IP	23 31 37.2	S	N E	31 52.	U	*
14	IP	23 39 14.0	S	N E	39 29.	U	*
14	P	23 55 06.	ES		02 12.		*
15	P	01 24 09.	S		31 18.		*
15	P	03 05 02.					*
15	IP	03 19 10.3	IS		19 20.0	N U	*
15	IP	04 51 40.8	S	S W	51 55.	D	*
15	P	08 05 48.					*
15	IP	08 50 07.8	S		50 21.	E U	*
15	P	13 27 50.					*
15	IP	14 17 44.3	S		17 58.	D	*
15	IP	16 33 58.1				D	*
15	IP	17 31 35.8				D	*
15	IP	23 01 14.3	S		01 33.	W U	*
15	IP	23 11 22.5	S	S W	12 31.	U	*
15	EP	23 32 52.	ES		35 15.		*
15	IP	23 51 51.5					*
16	P	02 01 25.	S		02 45.		*
16	P	03 50 49.	ES		53 26.		*
16	IP	07 23 10.7	S		23 25.8	E U	*
16	P	10 20 20.	ES		22 45.		*
16	P	11 25 45.					*
16	EP	12 30 54.					*
16	P	12 38 10.	S		38 24.		*
16	IP	16 38 17.0		N E		U	*
16	P	17 03 39.					*
16	IP	18 29 22.6	IS		29 37.7	U	*
16	IP	20 13 08.0	S	S E	13 22.	U	*
16	IP	23 32 27.0	S		32 41.	U	*
16	P	23 35 22.					*
16	IP	23 40 11.6	S	S W	40 26.	U	*
16	IP	23 42 07.0	ES	S W	51 57.	U	*
17	IP	02 15 07.2	IS	N E	15 13.8	U	*
17	P	02 35 30.					*
17	IP	05 07 54.7	S	S W	08 11.	D	*
17	IP	06 28 58.8	S	N E	29 14.	U	*
17	IP	11 20 19.2		N E		D	*
17	P	11 30 42.					*
17	EP	16 33 34.					*
17	IP	20 41 13.7	S	N E	41 29.	D	*
17	IP	23 03 20.7	S	N E	03 35.	U	*
18	IP	01 05 33.1	S	N E	05 48.	U	*
18	IP	02 16 29.	S		17 12.		*
18	IP	03 42 42.7	ES	S W	44 25.	D	*
18	IP	03 53 02.2	S		55 27.		*
18	P	10 46 42.					*
18	IP	11 12 41.7	IS		12 56.8	E U	*
18	IP	11 30 14.2	S	N	31 30.	U	*
18	P	14 18 12.					*
18	P	16 31 21.					*
18	P	20 54 50.	ES		56 35.		*
18	P	21 05 01.	S		11 15.		*
19	P	00 15 47.	S		16 17.		*
19	IP	04 09 37.0	S	N E	09 44.	U	*
19	IP	10 36 00.0	S	S	41 06.	D	*
19	X	14 20 37.					*
19	IP	15 00 52.2	S		01 30.	S W U	*
19	P	18 01 29.	S		01 54.		*
19	P	21 02 51.					*
19	P	21 14 04.					*
19	P	22 10 30.	S		10 45.		*
20	IP	00 47 29.0				E D	*
20	IP	04 00 03.7	S		00 18.	N E U	*
20	P	05 44 14.					*
20	P	05 58 43.					*
20	P	08 43 05.					*
20	IP	10 04 05.6	S		04 22.	S E D	*
20	P	10 25 25.					*
20	IP	13 36 49.2					*
20	P	14 21 31.	S		32 04.		*
20	P	18 04 13.					*
20	IP	18 15 56.6	S		16 13.	S E D	*
20	IP	19 15 37.3				N E D	*
20	IP	22 20 32.0	S		20 49.	S E D	*
20	P	23 17 12.					*
21	X	00 46 05.					*
21	IP	02 08 58.8	S		09 24.	D	*
21	EP	02 56 36.					*
21	IP	08 41 52.6	S		42 08.	N E U	*
21	IP	11 20 33.4				U	*
21	IP	12 59 35.4	ES		00 42.	S W U	*
21	EP	14 16 12.					*
21	IP	15 02 13.5	ES		03 28.	S W U	*
21	IP	16 22 40.0	X		26 16.	N W U	*
21	EP	20 47 45.					*
21	IP	21 09 32.3				D	*
22	P	01 15 43.	L		21 00.		*
22	EP	01 28 00.	ES		29 44.		*
22	X	06 23					*
22	P	10 55 16.	S		02 34.	N E U	*
22	EP	11 38 03.	ES		40 04.		*
22	P	12 18 09.					*
22	P	13 01 41.	S		08 25.	E U	*
22	EP	14 30 06.					*
22	IP	17 19 37.0	S		19 55.	N W U	*
22	EP	20 46 04.					*
22	L	23 51					*
23	X	07 43 53.	L		58 32.		*
23	IP	09 42 50.7	S		43 05.	S D	*
23	X	10 50 20.	X		58 35.		*
23	IP	11 06 24.2	S		06 28.	S	*
23	IP	11 26 53.0				U	*
23	IP	13 46 05.5				U	*
23	EP	14 24 39.	S		25 41.		*
23	IP	15 52 33.4	S		52 48.	N E U	*
23	IP	18 57 06.5	IS		57 24.0	W U	*
24	P	04 26 00.	ES		27 05.		*
24	EP	07 51 01.	S		01 24.		*
24	EP	09 32 46.					*
24	IP	10 37 15.6	S		37 29.	S W U	*
24	IP	11 20 28.5	S		21 43.	U	*
24	EP	13 22 23.	L		37 10.		*
25	EP	03 22 24.	S		41 40.		*
25	IP	05 31 25.8				U	*
25	EP	10 46 49.					*
25	P	14 25 29.					*
25	IP	15 13 27.1	S		13 42.	S E U	*
25	IP	15 44 55.2	S		45 01.	N E U	*
26	P	02 21 20.					*
26	P	06 40 50.					*
26	IP	07 15 32.8	S		16 51.	N E U	*
26	EP	14 07 17.					*
26	L	14 36 00.					*
26	P	16 11 00.					*
26	IP	17 33 27.6				N W U	*
26	IP	20 33 54.1				S U	*
27	IP	03 29 03.6	S		29 24.	W U	*
27	P	05 06 24.	S		07 10.		*

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DATE		PHASE AND TIME (JST) H M S			INITIAL MOTION
27	P	09 12 44.	S	12 58.	
27	IP	13 04 07.7	S	06 27.	U
27	IP	17 54 49.4			D
27	EP	18 24 00.	L	49 00.	
27	IP	22 46 24.7	S	46 31.7	
27	IP	23 26 19.5		24 29.	N W D
28	IP	03 47 17.5	L	50 45.	N W U
28	P	04 26 08.			
28	IP	05 56 51.0	S	57 09.	W D
28	EP	11 52 56.			
28	IP	14 39 33.8	S	39 40.6	N E U
28	IP	14 50 48.0	IS	50 55.2	N E U
28	IP	15 24 55.8	IS	25 02.6	N E U
28	P	16 26 24.			S W U
28	IP	16 50 37.2			N D
28	IP	19 28 33.6			
28	EP	21 12 22.			
29	IP	03 05 42.2	S	11 11.	N W U
29	P	04 02 19.			
29	P	04 11 18.	S	11 45.	N E U
29	IP	04 55 23.4			
29	P	06 39 44.			
29	P	06 56 12.			
29	IP	08 06 46.5	S	17 11.	U
29	L	17 59 55.			
29	P	18 42 11.	S	43 27.	
29	L	21 14			
29	IP	22 12 32.9	S	12 40.	N E U
30	IP	01 27 57.4	S	34 20.	N W U
30	IP	03 01 01.0	S	02 20.	N E D
30	IX	03 06 11.			
30	P	03 24 51.			
30	P	05 16 41.	ES	18 34.	
30	EP	05 22 41.			
30	EP	05 24 54.	S	42 00.	
30	IP	06 11 47.0	S	12 17.	
30	IP	10 10 14.0	S	10 25.	S E D
30	IP	12 01 47.1	S	02 09.	S E U
30	P	13 22 24.	X	32 40.	
30	IP	16 22 22.6	L	24 02.	U
30	IP	18 10 41.4	L	12 20.	N E U
30	IP	21 40 48.0	S	41 18.	N E D

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25 MAY

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昭和44年10月

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OCTOBER 1969

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Tokyo

1970

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List 1 JMA stations and their seismographs

Station	Code	CGS Code	λ	φ	Height	Seismographs
					m	
Abashiri	ABASHI	ABJ	E144°17.0′	N44°01.0′	38	S, VI, OP
Aikawa	AIKAWA	AIK	138 14.5	38 01.2	34	S, VI, OP
Ajiro	AJIRO	AJI	139 05.8	35 02.6	59	S, VI, EMT′
Akita	AKITA	AKI	140 06.1	39 43.1	9	S, VI, OP
Anabuki (Tsurugisan)	ANABUK (TURUGI)	TSS	134 05.8	33 51.1	59	S, P
Aomori	AOMORI	AOM	140 47.0	40 49.0	4	S, W
Asahikawa	ASAHIK	ASA	142 22.4	43 46.2	111	S, VI, OP
Ashizuri	ASHIZU	ASZ	133 01.0	32 43.0	30	S, VI
Asosan	ASOSAN	ASJ	131 04.5	32 52.7	1143	S
Chichibu	CHICHI	CHJ	139 04.9	35 59.5	218	S, P
Choshi	CHOSHI	CHO	140 50.6	35 43.5	27	S, EMT′
Fukue	FUKUE	FKJ	128 50.0	32 42.0	26	S, VI
Fukui	FUKUI	FUK	136 13.6	36 03.2	9	S, P(H, V)
Fukuoka	FUKUOK	FKK	130 22.8	33 34.8	2	S, VI, M(H)
Fukushima	FUKUSH	FKS	140 28.5	37 45.4	67	S, VI, OP
Gifu	GIFU	GIF	136 45.9	35 23.9	13	S, W
Hachijojima	HACHIJ	HJJ	139 47.3	33 06.1	80	S, VI
Hachinohe	HACHIN	HAC	141 31.6	40 31.5	27	S, VI, OP
Hakodate	HAKODA	HAK	140 45.5	41 48.8	35	S, VI, OP
Hamada	HAMADA	HMD	132 04.4	34 53.6	18	S, VI, OP
Hamamatsu	HAMAMA	HMM	137 43.4	34 42.5	32	S, VI, OP
Hikone	HIKONE	HIK	136 14.8	35 16.4	87	S, EMT
Himeji	HIMEJI	HIM	134 42.1	34 50.2	37	S, P(H, V)
Hiroo	HIROO	HOO	143 19.0	42 17.0	32	S, P(H, V)
Hiroshima	HIROSH	HIR	132 26.2	34 21.8	29	S, W
Iida	IIDA	IID	137 50.1	35 30.6	482	S, VI, OP
Irozaki (Nagatsuro)	IROZAK (NAGATS)	NGT	138 50.8	34 36.0	55	S
Ishinomaki	ISHINO	ISN	141 18.2	38 25.5	43	S, VI, OP
Izuhara	IZUHAR	IZU	129 17.7	34 12.2	21	S, P(H, V)
Kagoshima	KAGOSH	KAG	130 33.2	31 34.4	4	S, VI
Kakioka	KAKIOK	KAK	140 11.6	36 13.9	27	S, W
Kanazawa	KANAZA	KAN	136 38.9	36 32.8	27	S, VI, OP
Karuizawa	KARUIZ	KRZ	138 33.1	36 20.4	999	S, P(H, V)
Kawaguchiko (Funatsu)	KAWAGU (FUNATU)	FUN	138 45.8	35 29.9	860	S, P
Kobe	KOBE	KOB	135 10.8	34 41.3	58	S, P(H, V)
Kochi	KOCHI	KOC	133 32.0	33 33.0	40	S, P(H, V)
Kofu	KOFU	KOF	138 33.5	35 39.9	272	S, VI
Kumagaya	KUMAGA	KMG	139 23.1	36 08.8	30	S, VI, EMT
Kumamoto	KUMAMO	KUM	130 42.6	32 48.6	38	S, W
Kushiro	KUSHIR	KUS	144 23.7	42 58.7	33	S, VI
Kyoto	KYOTO	KYO	135 44.1	35 00.7	41	S, VI, OP
Maebashi	MAEBAS	MAE	139 03.9	36 24.1	112	S, EMT′
Maizuru	MAIZUR	MAI	135 23.2	35 28.3	31	S, EMT′
Matsue	MATSUE	MTS	133 04.3	35 27.3	17	S, P(H, V)
Matsumoto	MATSUM	MTM	137 58.4	36 14.6	610	S, P(H, V)
Matsushiro	MATSUS	MAT	138 12.5	36 32.3	440	S, L, AW,G,B,V,C
Matsuyama	MATSUY	MTY	132 46.8	33 50.4	32	S, W
Mishima	MISHIM	MIS	138 55.8	35 06.7	20	S, W
Mito	MITO	MIT	140 28.3	36 22.7	30	S, VI, EMT′
Miyako	MIYAKO	MIY	141 58.1	39 38.7	46	S, W
Miyazaki	MIYAZA	MYZ	131 25.6	31 55.0	7	S, VI, OP
Mizusawa	MIZUSA	MIZ	141 08.0	39 08.0	61	P(H, V)
Morioka	MORIOK	MRK	141 10.0	39 41.8	155	S, VI, OP
Muroran	MURORA	MRR	140 59.0	42 19.0	43	S, P(H, V)
Murotomisaki	MUROTO	MRT	134 10.7	33 14.9	185	S, VI, OP
Nagano	NAGANO	NGN	138 11.8	36 39.6	418	S, VI
Nagasaki	NAGASA	NGS	129 52.2	32 43.9	27	S, VD, EM
Nagoya	NAGOYA	NAG	136 58.1	35 09.9	52	S, VI, OP
Nara	NARA	NAR	135 50.0	34 41.0	105	S, EMT′
Nemuro	NEMURO	NEM	145 35.2	43 19.7	26	S, VI, VD, OP
Niigata	NIIGAT	NII	139 03.1	37 54.6	2	S, P(H, V)
Nobeoka	NOBEOK	NOB	131 41.0	32 35.0	19	S, P(H, V)
Obihiro	OBIHIR	OBI	143 13.3	42 55.2	39	S, P(H, V)
Ofunato	OFUNAT	OFU	141 43.1	39 03.7	38	S, VI
Oita	OITA	OIT	131 37.4	33 14.0	5	S, W
Okayama	OKAYAM	OKA	133 54.9	34 40.9	4	S, VI, EMT′
Omaezaki	OMAEZA	OMA	138 12.8	34 36.2	45	S, W
Onahama	ONAHAM	ONA	140 54.4	36 56.7	3	S, VI
Osaka	OSAKA	OSA	135 31.3	34 40.7	13	S, VI

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Station	Code	CGS Code	λ	φ	Height	Seismographs
					m	
Oshima	OSHIMA	OSH	E139°22.7′	N34°45.7′	191	S, W
Owase	OWASE	OWA	136 11.7	34 04.0	14	S, VI, OP
Rumoi	RUMOI	RMJ	141 38.0	43 57.0	22	S, P(H, V)
Saga	SAGA	SAG	130 18.3	33 14.7	4	S, P(H, V)
Saigo	SAIGO	SAI	133 20.0	36 12.3	26	S, VI, OP
Sakata	SAKATA	SAK	139 50.2	38 54.2	2	S, P(H, V)
Sapporo	SAPPOR	SAP	141 19.9	43 03.5	17	S, VI, OP
Sendai	SENDAI	SEN	140 54.0	38 15.6	38	S, VI, S′
Shimonoseki	SHIMON	SHN	130 56.5	33 57.2	46	S, VI, OP
Shionomisaki	SHIONO	SHJ	135 45.8	33 26.9	74	S, W
Shirakawa	SHIRAK	SHR	140 13.5	37 07.1	354	S, P(H, V)
Shizuoka	SHIZUO	SHZ	138 24.4	34 58.4	14	S, VI
Sumoto	SUMOTO	SUM	134 54.5	34 20.1	109	S, EMT
Suttsu	SUTTSU	SUT	140 14.4	42 47.4	16	S, P(H, V)
Takada	TAKADA	TKD	138 15.0	37 06.3	13	S, P(H, V)
Takamatsu	TAKAMA	TKM	134 03.5	34 19.0	10	S, W
Takayasuyama	OSAKA2		135 39.6	34 36.7	472	VD′
Takayama	TAKAYA	TKY	137 15.3	36 09.1	561	S, P(H, V)
Tateyama	TATEYA	TAT	139 52.1	34 59.0	6	S, VI, EMT
Tokushima	TOKUSH	TKS	134 34.6	34 03.9	2	S, P(H, V)
Tokyo	TOKYO	TOK	139 45.5	35 41.2	21	S, VI′, VD′, I′, J
Tottori	TOTTOR	TOT	134 10.7	35 30.7	17	S, EMT′
Toyama	TOYAMK	TOY	137 12.5	36 42.4	9	S, VI
Toyooka	TOYOOA	TYK	134 49.5	35 32.0	4	S, W
Tsu	TSU	TSU	136 31.1	34 42.1	3	S, P(H, V)
Tsuruga	TSURUG	TSR	136 03.9	35 39.0	1	S, P(H, V)
Unzendake	UNZEND	UNZ	130 15.2	32 44.1	849	S
Urakawa	URAKAW	URA	142 46.8	42 09.5	34	S, VI, OP
Utsunomiya	UTSUNO	UTS	139 52.3	36 32.6	120	S, EMT
Uwajima	UWAJIM	UWA	132 33.5	33 13.5	43	S, P
Wajima	WAJIMA	WAJ	136 53.9	37 23.4	6	S, VI
Wakayama	WAKAYA	WKY	135 10.0	34 13.6	14	S, VI
Wakkanai	WAKKAN	WAK	141 40.4	45 25.0	9	S, VI, OP
Yakushima	YAKUSH	YKS	130 29.8	30 27.0	14	S, VI
Yamagata	YAMAGA	YAM	140 21.0	38 15.2	151	S, P(H, V)
Yokohama	YOKOHA	YOK	139 39.3	35 26.2	38	S, EMT
Yonago	YONAGO	YON	133 20.6	35 26.0	7	S, P(H, V)
Ishigakijima	ISHIGA	ISI	124 10	24 20	6	S, VI
Naha	NAHA	NAH	127 41	26 13	11	S, VI
Miyakojima	MIYAKJ	MYK	125 17	24 47	40	S
Yonagunijima	YONAGU		123 01	24 28	32	

Notations : —

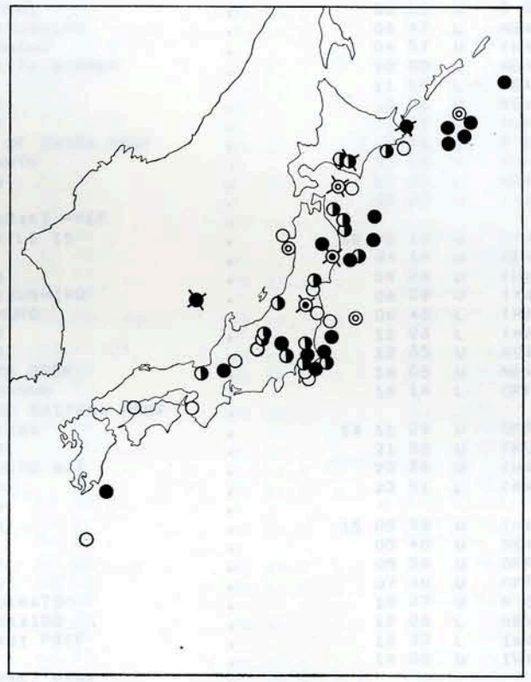
λ	: Longituds.
φ	: Geographical Latitude.
W	: Wiechert's horizontal and vertical seismographs (masses, H ; 200kg, V ; 80kg).
P	: Portable seismograph (horizontal).
P(H, V)	: do (mass, 22.5kg).
S	: Strong motion seismograph (magnification ; 1).
S′	: do (magnification ; 0.4).
M(H)	: Mainka's horizontal seismograph (mass, 450kg).
G	: Galitzin's seismograph.
L	: 1,000kg long-period seismograph, JMA type.
I	: Ishimoto's seismograph.
V	: Short-period vertical seismograph.
AW	: Anderson-Wood's seismograph.
C	: Capacity type seismograph.
EM	: Electromagnetic seismograph.
OP	: JMA 59-type electromagnetic seismograph with optical recorder.
VI	: JMA 59-type electromagnetic seismograph with visible recorder.
VD	: JMA 61-type electromagnetic seismograph with visible recorder.
B	: Benioff's seismograph (short and long period).
J	: Remote recording JMA 63-type seismograph.
VI′,VD′,I′	: Remote recording JMA 63-type seismograph.
EMT	: Electromagnetic seismograph with tape recorder.
EMT′	: Electromagnetic seismograph with tape recorder and transmitting unit.

List 2 Number of earthquakes by districts and classes, October, 1969

District \ Class	Number of felt earthquakes					Number of unfelt earthquakes	Total
	Remarkable	Moderate	Small felt area	Local	Total		
Hokkaido	0	2	2	9	13	57	70
Tohoku	2	2	4	11	19	29	48
Kwanto	0	0	2	9	11	22	33
Chubu	0	0	2	27	29	7	36
Kinki	0	0	1	3	4	10	14
Chugoku•Shikoku	0	0	1	3	4	3	7
Kyushu	0	0	1	2	3	17	20
Near Japan*	0	0	0	0	0	12	12
Foreign region	0	0	0	0	0	3	3
Unknown	0	0	0	0	0	2	2
Total	2	4	13	64	83	162	245

* ; Sakhalin, Kurile Is., Korea, Ryukyu Is., Bonin Is., Sikhota Alin.

Epicenters of the major earthquakes



⊙ Remarkable (R) ◎ Moderate (M) ○ Small felt area (S) ◑ Local (L) ● Unfelt (U) × h≧100km.

International Seismological Centre From the ISC collection scanned by SISMOS

Special Event

Earthquake-Swarm near Matsushiro, Northern Chubu

In this month, 25 earthquakes (intensity II : 2, I : 23) were felt at the Matsushiro Seismological Observatory.

LIST 3 EARTHQUAKES OBSERVED BY SEISMOLOGICAL STATIONS OF JMA

(JST) DATE,TIME D H M	C	LOCATION	(JST) DATE,TIME D H M	C	LOCATION
1 03 26	U	S OFF HONSHU	9 02 33	U	S OF CHUBU
06 29	U	(KUSHIR)	11 01	U	(MIYAKO)
18 57	L	(MATSUS)	21 15	S	OFF AKITA PREF
			22 11	U	(ONAHAM)
2 00 36	L	S OF HOKKAIDO	23 08	U	E OFF HOKKAIDO
04 55	U	(URAKAW)			
12 16	L	E OFF HOKKAIDO	10 02 13	U	E OFF HOKKAIDO
12 44	U	E OFF HOKKAIDO	02 33	S	MIDDLE OF GIFU PREF
13 49	U	YAMANASHI PREF	02 39	U	UK
16 47	U	NEAR WAKAYAMA	03 56	U	MIDDLE OF IWATE PREF
20 24	U	(HACHIN)	04 43	L	NEAR MATSUSHIRO
			05 42	U	S OF NIIGATA PREF
3 00 22	L	(MATSUS)	07 04	L	E OFF AOMORI PREF
01 08	U	(URAKAW)	08 41	U	(ONAHAM)
01 35	U	(KUMAMO)	08 58	U	E OFF HOKKAIDO
03 52	L	NEAR MATSUSHIRO	09 14	U	E OFF HOKKAIDO
05 47	U	(AOMORI)	15 38	S	S OF MIYAGI PREF
10 10	U	GIFU-SHIGA BORDER	15 41	L	MIDDLE OF MIYAGI PREF
11 53	U	(MIYAKO)			
15 40	U	SAITAMA PREF	11 02 10	S	NEAR AMAMIOSHIMA
16 35	U	SE OFF KAGOSHIMA PREF	02 46	U	E OFF HOKKAIDO
21 03	S	MIDDLE OF CHIBA PREF	05 36	U	(YAKUSH)
22 44	U	(NEMURO)	12 22	U	NE OFF CHOSHI
22 51	U	SAITAMA-GUNMA BORDER	12 31	L	(MATSUS)
23 40	L	(MATSUS)	21 42	U	(WAKAYA)
4 01 16	U	NEAR KUMAGAYA	12 04 54	L	MIDDLE OF KYOTO PREF
07 35	U	E OFF HOKKAIDO	05 10	U	(FUKUI)
16 18	L	NEAR CHOSHI	06 11	U	S OF KURILE IS
18 30	L	NEAR MATSUSHIRO	06 47	L	NEAR MATSUSHIRO
19 07	U	S OFF HONSHU	06 57	U	(WAKAYA)
19 31	U	IWATE-AKITA BORDER	10 00	L	NEAR MATSUSHIRO
			11 19	L	NEAR MATSUSHIRO
5 03 37	U	(YAKUSH)	12 36	U	NEAR YAKUSHIMA
07 31	U	(TOTTOR)	13 25	U	(URAKAW)
12 00	U	E COAST OF CHIBA PREF	18 51	U	E OFF HOKKAIDO
12 03	U	N OF KWANTO	22 13	U	(YAKUSH)
12 30	L	(HACHIN)	22 20	L	NEAR MATSUSHIRO
12 55	U	(FUKUI)	23 23	U	(YAKUSH)
15 11	L	S OF IBARAKI PREF			
16 35	U	S OF KURILE IS	13 03 19	U	(YAKUSH)
			04 14	U	NEAR ISHIGAKIJIMA
6 00 58	U	(YONAGU)	04 26	U	(HACHIN)
02 41	L	NEAR MATSUSHIRO	06 09	U	(YAKUSH)
02 50	U	NEAR NEMURO	06 43	L	(MATSUS)
06 33	U	(TATEYA)	11 23	L	(MATSUS)
08 01	U	(KUSHIR)	12 35	U	NEAR URAKAWA
08 03	U	OFF IWATE PREF	16 05	U	NEW HEBRIDES
08 05	U	S OFF HONSHU	16 14	L	OFF IWATE PREF
10 41	L	MIDDLE OF SAITAMA PREF			
12 13	U	OFF URAKAWA	14 11 29	U	OFF SANRIKU
14 59	L	(OFUNAT)	21 53	U	(KUMAMO)
16 33	L	NE OF TOKYO BAY	23 39	U	(HAKODA)
18 19	U	(KUSHIR)	23 51	L	(MATSUS)
23 10	L	(WAKAYA)			
23 53	L	(UNZEND)	15 05 38	U	(HACHIN)
			05 40	U	SEA OF JAPAN
7 01 20	U	(URAKAW)	05 59	U	OFF SANRIKU
01 23	L	(MATSUS)	07 40	U	OFF IWATE PREF
05 21	U	E OFF HOKKAIDO	10 37	U	N OF TOHOKU
22 33	L	S OF HOKKAIDO	12 08	L	NEAR MATSUSHIRO
23 38	L	OFF MIYAGI PREF	13 33	L	IWATE PREF
			19 03	U	IWATE PREF
8 00 16	U	OFF IBARAKI PREF			
12 51	U	E OFF AOMORI PREF	16 05 47	U	(AOMORI)
15 15	S	E OF FUKUSHIMA PREF	13 04	U	(HACHIN)
19 03	U	SE OFF KAGOSHIMA PREF	13 57	U	MIDDLE OF GIFU PREF
22 55	U	(UTSUNO)	13 59	L	S OF CHUBU
23 19	U	OFF URAKAWA	15 38	L	MIDDLE OF NAGANO PREF
			15 46	L	(MATSUS)

C = CLASS

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(JST) DATE,TIME D	H	M	C	LOCATION
16	15	53	L	MIDDLE OF NAGANO PREF
	17	45	U	NEAR MIYAKO
	19	25	U	NEAR CHOSHI
	21	19	U	(HAKODA)
	21	57	U	NEAR KUSHIRO
17	01	05	U	(URAKAW)
	09	10	U	S OF KWANTO
	10	31	U	BURMA-INDIA BORDER
	13	25	U	(WAKAYA)
	19	39	U	S OFF KYUSHU
	21	03	L	N OF KWANTO
	23	00	U	E OFF HOKKAIDO
18	01	48	S	NEAR WAKAYAMA
	04	37	U	OFF IWATE PREF
	05	10	U	N OF KYUSHU
	06	39	U	(MITO)
	07	39	U	(KAKIOK)
	10	14	R	S OF IWATE PREF
	11	42	U	E OFF HOKKAIDO
	17	49	U	S OF KURILE IS
	18	05	U	NEAR WAKAYAMA
	19	14	U	NEAR YONAGUNIJIMA
	21	22	L	(MATSUS)
19	04	22	U	E OFF HOKKAIDO
	08	39	U	N OF KWANTO
	12	47	U	(KUSHIR)
	21	29	M	OFF AKITA PREF
20	00	37	L	(NEMURO)
	01	16	S	MIDDLE OF NAGANO PREF
	05	47	U	(WAKAYA)
	08	43	U	(MIYAKO)
	13	10	L	OFF KUSHIRO
	13	54	U	S OF IBARAKI PREF
	15	21	L	E OFF HOKKAIDO
	21	31	U	(URAKAW)
21	03	21	U	(MIYAZA)
	10	40	S	OFF KUSHIRO
	11	20	L	(HACHIN)
	20	51	U	(KUSHIR)
	22	01	U	E OFF HOKKAIDO
	22	34	L	E OFF HOKKAIDO
22	04	02	U	(URAKAW)
	04	31	U	(URAKAW)
	06	21	L	NEAR TSU
	07	59	U	(HACHIN)
	12	26	L	(OSHIMA)
	13	21	U	(WAKAYA)
	14	26	S	MIDDLE OF CHIBA PREF
	14	56	U	(TOTTOR)
	15	46	U	OFF IWATE PREF
	16	39	L	OFF IWATE PREF
	16	53	U	E OFF HOKKAIDO
	17	12	U	(URAKAW)
23	02	23	L	NEAR MATSUSHIRO
	02	47	U	(KUSHIR)
	11	33	U	(NEMURO)
	13	08	U	NEAR URAKAWA
	13	58	U	(MIYAKO)
	15	14	U	(KUMAMO)
	17	37	U	NEAR SAGA
	20	23	L	NEAR MATSUSHIRO
	20	25	L	NEAR MATSUSHIRO
	20	42	L	(MATSUS)

C = CLASS

(JST) DATE,TIME D	H	M	C	LOCATION
24	01	50	U	OFF IWATE PREF
	20	28	L	(UWAJIM)
	23	27	S	MIDDLE OF SETONAIKAI
25	02	22	U	(KUSHIR)
	05	18	U	E OFF HOKKAIDO
	05	45	U	E OFF HOKKAIDO
	07	07	L	S OF HOKKAIDO
	07	28	U	E OFF HOKKAIDO
	13	29	L	N OF TOHOKU
	21	04	M	E OFF HOKKAIDO
	23	42	U	OFF IWATE PREF
	23	43	U	NEAR ASHIZURIMISAKI
26	06	53	U	E OFF HOKKAIDO
	08	58	U	(HACHIN)
	15	19	U	N OF TOHOKU
	20	29	L	OFF IWATE PREF
	21	50	U	OFF URAKAWA
	22	19	U	(URAKAW)
	22	34	U	OFF URAKAWA
	23	31	U	(UTSUNO)
27	04	16	U	E OFF HOKKAIDO
	09	13	U	(UTSUNO)
	14	06	U	NEAR YAKUSHIMA
	17	56	U	UK
	20	41	U	NEAR HACHIJOJIMA
	22	42	L	(KAGOSH-NAZE)
28	03	15	U	(KUSHIR)
	03	48	L	NEAR NIIGATA
	11	53	L	N OF IBARAKI PREF
29	01	31	U	(URAKAW)
	04	24	U	E OFF HOKKAIDO
	07	17	U	(NEMURO)
	08	18	U	(KUSHIR)
	13	37	L	E OFF HOKKAIDO
	17	31	U	(KUSHIR)
	20	03	U	N OF KYUSHU
	20	56	U	(YAKUSH)
	22	09	S	OFF URAKAWA
	23	03	L	(HIROSH-KAKE)
	23	31	U	E OFF HOKKAIDO
30	04	05	L	SW OF IBARAKI PREF
	07	34	U	(YAKUSH)
	09	06	R	MIDDLE OF FUKUSHIMA PREF
	09	48	U	NEAR YONAGUNIJIMA
	16	52	M	OFF URAKAWA
	22	20	L	N OF IBARAKI PREF
	22	22	S	OFF FUKUSHIMA PREF
31	09	55	U	(WAKAYA)
	12	40	U	(KAKIOK)
	15	44	U	S OF KURILE IS
	16	00	M	OFF FUKUSHIMA PREF
	16	50	U	(NAGANO)
	17	30	U	(YAKUSH)
	20	38	U	ALEUTIAN IS
	21	29	U	E OFF HOKKAIDO
	22	17	L	(UWAJIM)
	22	47	U	OFF KUSHIRO

LIST 4 EARTHQUAKE ORIGINS

(JST) DATE,TIME D	H	M	C	LOCATION	ORIGIN TIME M	S	+/-S	LONG.	+/-	LAT.	+/-	C = CLASS H KM	M
2	00	36	L	S OF HOKKAIDO	36	48.6	0.3	143 19 04		42 38 02		60	4.3
3	10	10	U	GIFU-SHIGA BORDER	10	03.3	0.1	136 24 01		35 27 01		20	3.7
	16	35	U	SE OFF KAGOSHIMA PREF	35	41.7	1.4	131 37 08		31 01 04		60	4.7
	21	03	S	MIDDLE OF CHIBA PREF	03	18.6	0.3	140 03 01		35 18 01		40	4.5
	22	51	U	SAITAMA-GUNMA BORDER	51	02.5	0.2	139 03 01		36 15 02		90	
4	16	18	L	NEAR CHOSHI	18	06.3	0.9	141 00 04		35 41 02		40	4.5
5	12	00	U	E COAST OF CHIBA PREF	00	25.6	0.8	140 31 05		35 21 04		60	3.6
6	02	50	U	NEAR NEMURO	50	29.1	0.5	145 43 04		43 29 03		120	
	10	41	L	MIDDLE OF SAITAMA PREF	41	09.5	0.5	139 15 02		35 52 03		30	3.8
	16	33	L	NE OF TOKYO BAY	32	47.7	0.2	140 02 02		35 31 01		70	
7	22	33	L	S OF HOKKAIDO	33	28.3	0.3	143 24 02		42 34 02		110	
8	00	16	U	OFF IBARAKI PREF	16	41.9	1.1	141 06 05		36 26 04		50	3.5
	15	15	S	E OF FUKUSHIMA PREF	15	35.4	0.2	140 49 02		37 13 01		90	
9	21	15	S	OFF AKITA PREF	14	58.3	1.1	139 26 04		40 01 03		00	4.2
	23	08	U	E OFF HOKKAIDO	07	35.1	1.6	147 45 08		43 12 09		00	4.9
10	02	33	S	MIDDLE OF GIFU PREF	33	25.1	0.2	137 04 01		35 44 01		10	4.5
	03	56	U	MIDDLE OF IWATE PREF	56	38.9	0.1	141 13 02		39 41 01		80	
	07	04	L	E OFF AOMORI PREF	04	19.6	0.3	141 55 03		40 52 01		90	
	09	14	U	E OFF HOKKAIDO	13	41.6	1.6	148 48 08		43 28 07		20	5.0
	15	38	S	S OF MIYAGI PREF	38	18.1	0.2	140 44 01		38 07 01		10	4.6
	15	41	L	MIDDLE OF MIYAGI PREF	41	15.2	0.4	140 41 01		38 20 02		00	3.3
11	02	10	S	NEAR AMAMIOSHIMA	09	57.7	1.7	130 53 12		29 14 07		00	5.0
	02	46	U	E OFF HOKKAIDO	45	42.3	1.8	147 42 10		42 58 06		60	4.7
	12	22	U	NE OFF CHOSHI	21	56.3	1.1	141 05 06		35 49 03		50	3.8
12	04	54	L	MIDDLE OF KYOTO PREF	54	34.5	0.1	135 20 01		35 15 01		10	3.8
13	16	14	L	OFF IWATE PREF	14	23.7	0.7	142 21 04		40 08 01		10	3.6
14	11	29	U	OFF SANRIKU	29	19.5	1.0	143 39 06		40 29 02		00	4.7
15	05	40	U	SEA OF JAPAN	39	12.7	0.4	135 14 02		37 55 03		360	
	05	59	U	OFF SANRIKU	58	37.2	1.1	143 39 05		39 42 03		40	4.1
16	15	38	L	MIDDLE OF NAGANO PREF	38	16.7	0.7	138 12 05		36 23 04		30	3.4
18	01	48	S	NEAR WAKAYAMA	48	19.3	0.1	135 05 01		34 03 01		00	4.5
	10	14	R	S OF IWATE PREF	13	59.2	0.2	141 39 03		39 13 01		130	
19	21	29	M	OFF AKITA PREF	29	23.9	0.5	139 38 03		39 34 01		00	5.0
20	01	16	S	MIDDLE OF NAGANO PREF	16	16.9	0.2	138 02 01		36 11 01		10	4.0
	13	10	L	OFF KUSHIRO	10	23.5	0.5	145 35 03		42 56 02		90	
	13	54	U	S OF IBARAKI PREF	53	51.1	0.6	140 15 04		35 56 03		80	
21	10	40	S	OFF KUSHIRO	40	14.6	0.8	145 37 04		42 57 03		40	4.3
22	14	26	S	MIDDLE OF CHIBA PREF	25	48.7	0.3	140 12 02		35 32 01		80	
	16	39	L	OFF IWATE PREF	38	42.5	0.6	142 44 03		39 06 01		00	4.3
23	20	23	L	NEAR MATSUSHIRO	23	21.0	0.2	138 13 01		36 34 01		10	
24	01	50	U	OFF IWATE PREF	50	40.1	1.1	142 34 06		39 07 02		10	3.9
	23	27	S	MIDDLE OF SETONAIKAI	27	16.7	0.5	132 39 03		34 05 02		30	4.2
25	21	04	M	E OFF HOKKAIDO	03	43.3	1.5	148 19 08		43 45 07		60	5.3
26	20	29	L	OFF IWATE PREF	29	11.4	0.5	142 21 03		40 19 01		40	3.9
27	04	16	U	E OFF HOKKAIDO	15	49.1	1.8	148 21 10		42 59 05		70	
28	03	48	L	NEAR NIIGATA	48	28.5	2.4	139 05 09		37 52 12		10	3.8

International Seismological Centre From the ISC collection scanned by SISMOS

(JST) DATE, D	TIME H	M	C	LOCATION	ORIGIN TIME M	S	+/-S	LONG.	+/-	LAT.	+/-	C = CLASS H KM	M
29	22	09	S	OFF URAKAWA	09	36.9	0.4	142 54 02		41 28 02		30	4.4
30	04	05	L	SW OF IBARAKI PREF	05	09.1	0.2	140 03 01		36 06 03		70	
	09	06	R	MIDDLE OF FUKUSHIMA PREF	05	38.6	0.1	140 11 02		37 30 01		160	
	16	52	M	OFF URAKAWA	51	48.7	0.2	142 09 02		41 43 01		100	
	22	22	S	OFF FUKUSHIMA PREF	22	20.6	0.4	141 15 02		36 55 01		50	4.0
31	15	44	U	S OF KURILE IS	43	29.9	1.3	150 49 07		44 20 07		60	5.1
	16	00	M	OFF FUKUSHIMA PREF	00	09.0	0.6	142 31 03		37 00 02		60	5.5

LIST 5 DATA OF EARTHQUAKES

I = SEISMIC INTENSITY * = MICRON

OT= 2 0 36 48.6 +/- 0.3 (JST)
S OF HOKKAIDO
LAT= 42 38 +/- 2 LONG= 143 19 +/- 4
H= 60 MAG=4.3 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
OBIHIR	0	P	00	36	58.6	S	37	07.7									D 8	32.8	09.1
HIROO	1	P	00	36	59.2	IS	37	07.1										38.9	07.9
URAKAW	0	P	00	37	03.5	S	37	14.6	26	0.2	56	0.4	5	0.4			U	68.8	11.1
KUSHIR	0	EP	00	37	06	IS	37	17.7	57	0.3	55	0.3	28	0.2				96.2	11.7

OT= 3 10 10 3.3 +/- 0.1 (JST)
GIFU-SHIGA BORDER
LAT= 35 27 +/- 1 LONG= 136 24 +/- 1
H= 20 MAG=3.7 CLASS=U

GIFU	0	P	10	10	09.8	S	10	14.1	33	0.6	18	0.4	8	0.5				33.6	04.3
HIKONE	0	P	10	10	09.9	S	10	13.1										24.0	03.2
TSURUG	0	IP	10	10	11.2	IS	10	15.8									U 4	37.6	04.6
NAGOYA	0	P	10	10	15.1	IS	10	21.8	17	0.2	11	0.2	7	0.2				60.6	06.7
MAIZUR	0	P	10	10	19.8	S	10	30.9										92.0	11.1
						X	10	20.6											
IIDA	0	EP	10	10	25.8	IS	10	41.0	10	0.4	8	1.4	4	0.2				130.4	15.2
MATSUS	0	P	10	10	36													202.9	
TOYOOK	0	IX	10	10	45.8				10	1.0	12	0.6	8	0.6				143.7	

OT= 3 16 35 41.7 +/- 1.4 (JST)
SE OFF KAGOSHIMA PREF
LAT= 31 1 +/- 4 LONG= 131 37 +/- 8
H= 60 MAG=4.7 CLASS=U

MIYAZA	0	IP	16	35	58.8	S	36	11.2	82	0.8	93	0.8	19	0.5	N 4		U 8	101.4	12.4
KAGOSH	0	EP	16	36	01.8	S	36	13.7	47	1.2	79	0.8	35	1.4				118.5	11.9
YAKUSH	0	P	16	36	03.0	EX	36	18.0	32	0.8	29	0.9						124.2	
KUMAMO	0	IP	16	36	15.3	IS	36	38.5	33	1.5	41	1.7	18	1.3				216.5	23.2
NAGASA	0	EP	16	36	17.3	ES	36	36.7										250.4	19.4
SAGA	0	X	16	36	37.5	X	37	13.6										276.2	
MATSUS	0	EP	16	37	35	X	39	32										864.0	

OT= 3 21 3 18.6 +/- 0.3 (JST)
MIDDLE OF CHIBA PREF
LAT= 35 18 +/- 1 LONG= 140 3 +/- 1
H= 40 MAG=4.5 CLASS=S

YOKOHA	2	P	21	03	28.5	IS	03	32.3	650	0.5	1000	0.6	54					39.0	03.8
TATEYA	3	IP	21	03	29.5	IS	03	36.9	235	0.7	259	0.7	118	0.5			D 13	38.8	07.4
TOKYO	2	IP	21	03	30.2	IS	03	38.5	1100	0.5	1600	0.5	1000	0.7				50.2	08.3
OSHIMA	2	IP	21	03	33.9	IS	03	43.2	51	0.2	25	0.3	32	0.2	N 6	E 8	D 21	85.6	09.3
AJIRO	2	IP	21	03	34.3	IS	03	44.8	119	0.2	78	0.2	19	0.2	N 1	E 2	D 4	91.4	10.5
CHOSHI	0	IP	21	03	34.5	S	03	43.5	15	0.6	28	0.5	16					86.0	09.0
KAKIOK	2	P	21	03	36	S	03	48	134	0.8	147	1.0	52	1.1	N		U	104.2	12.0
CHICHI	1	EP	21	03	36.5	IS	03	51.6									U 5	116.5	15.1
MISHIM	0	IP	21	03	36.6	IS	03	48.1	57	0.9	42	0.9	20	0.9	N 5	E 4	D 10	104.1	11.5
KAWAGU	1	IP	21	03	37.8	IS	03	50.7										118.9	12.9
KUMAGA	1	P	21	03	38.4	ES	03	53.4	24	0.8	23	1.0	12	1.2	N 3	W 2	U 10	111.5	15.0
MITO	0	IP	21	03	39.0	IS	03	53.4	36	0.9	31	0.6	29	2.5			D 2	125.5	14.4
UTSUNO	1	IP	21	03	40.0	S	03	55.7	50	0.0	50	0.0	20				D 2	139.2	15.7
KOFU	1	IP	21	03	40.2	IS	03	54.9	39	0.5	32	0.6	13	0.9	N 1	W 1	U 1	141.3	14.7
MAEBAS	0	IP	21	03	42.1	S	03	59.2	12	0.5	16	1.0	15			E 2	U 4	151.2	17.1
SHIZUO	0	P	21	03	42.8	IS	04	01.8	18	0.7	21	0.5	4	2.0		E 3	D 3	154.1	19.0
KARUIZ	0	IP	21	03	46.0	S	04	08.5									U 4	177.9	22.5
OMAEZA	0	EP	21	03	47.2				17	1.8	14	3.6	5	1.8				184.7	
SHIRAK	0	P	21	03	48.6	ES	04	09.3										202.3	20.7
ONAHAM	0	EP	21	03	48.8	ES	04	09.4	24	0.9	41	1.1	9	0.8				198.1	20.6
IIDA	0	EP	21	03	50.0	ES	04	12.0	11	2.0	8	1.8	5	1.2				202.5	22.0
MATSUS	0	IP	21	03	50.3	S	04	14							N	W	U	215.6	23.7
MATSUM	0	P	21	03	52.7	S	04	15.6										214.9	22.9
HAMAMA	0	EP	21	03	53	ES	04	18.1	6	1.4	9	3.0	5	1.6				222.2	25.1
NAGANO	0	EP	21	03	53.7	ES	04	22.2	7	1.3	8	1.6	5	2.2				225.1	28.5

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
HACHIJ	0	EP	21 03 54.6	IS	04 19.8	10	0.2	12	0.2	6	0.2				245.0	25.2
WAJIMA	0	EX	21 04 00			5	1.0	9	1.2						365.7	
FUKUSH	0	EP	21 04 00.4	ES	04 33.4	12	0.9	19	0.9	5	0.6				275.2	33.0
GIFU	0	P	21 04 06.0	S	04 38.4	9	1.4	8	1.2	4	1.2				298.7	32.4
NAGOYA	0	X	21 04 07.2	S	04 35.2	9	1.0	12	1.0	7	1.2				280.8	
TOYAMA	0	X	21 04 08	ES	04 44	8	2.4	8	4.4	5	3.0				299.9	
ISHINO	0	EP	21 04 11.5	ES	04 55.6	5	1.2	4	2.0	2	1.4				364.3	44.1
SENDAI	0	X	21 04 13	S	04 53.6	9	2.0	10	2.0	4	1.0				337.1	
KANAZA	0	EX	21 04 30			6	2.0	6	3.0	5	2.5				336.6	
FUKUI	0	X	21 04 31.3												356.0	
OSAKA	0	EX	21 05 12			5	3.0	5	1.8	4	2.2				419.0	
AKITA	0	EX	21 05 23.7			5	2.2	6	4.0	3	1.8				490.3	
TOYOOK	0	X	21 05 29.6			15	1.1	14	1.0						475.6	

OT= 3 22 51 2.5 +/- 0.2 (JST)
NEAR SAITAMA-GUNMA BORDER
LAT= 36 15 +/- 2 LONG= 139 3 +/- 1
H= 90 CLASS=U

KUMAGA	0	EP	22 51 18.0	S	51 28.0	10	0.2	7	0.8	2	0.2				32.2	10.0
UTSUNO	0	IP	22 51 20.2	S	51 32.4	20	0.0	22	0.0	13				U 2	80.7	12.2
KOFU	0	EP	22 51 20.4	IS	51 31.8	5	0.3	6	0.3	2	0.3				78.6	11.4
MATSUS	0	IP	22 51 20.7	IS	51 31.5							N	W	U	82.0	10.8
KAKIOK	0	P	22 51 22.2	S	51 35.3	7	0.7	8	1.0	2	0.6				102.8	13.1
MITO	0	P	22 51 25.0	S	51 41.0	4	0.4	7	0.3	2	0.2				128.4	16.0

OT= 4 16 18 6.3 +/- 0.9 (JST)
NEAR CHOSHI
LAT= 35 41 +/- 2 LONG= 141 0 +/- 4
H= 40 MAG=4.5 CLASS=L

CHOSHI	3	IP	16 18 13.5	S	18 17.0	200	0.8	200	0.8	35				U 6	14.9	03.5
KAKIOK	0	IP	16 18 22.0	S	18 30.1	53	1.0	62	0.9	23	0.5	S	E	D	94.8	08.1
MITO	0	P	16 18 22.5	S	18 31.0	54	1.6	44	2.4	15	1.6				90.6	08.5
TOKYO	0	IP	16 18 26.1	ES	18 38.1	68	2.0	41	2.0	20	0.8				112.4	12.0
UTSUNO	0	P	16 18 27.6	S	18 40.4	24	0.0	18	0.0	13					139.6	12.8
TATEYA	0	EP	16 18 28.0			55	3.2	94	1.3	27	2.8				128.9	
ONAHAM	0	EP	16 18 32.2	ES	18 43.6	24	1.0	35	1.0	8	1.6				140.2	11.4
MISHIM	0	EP	16 18 33.2	ES	18 59.2	24	2.7	22	2.3	9	2.2				198.4	26.0
SHIRAK	0	EP	16 18 33.5	ES	18 49.9										173.7	16.4
OSHIMA	0	P	16 18 33.6	S	18 56.0	13	0.6	10	0.6	4	0.2				179.5	22.4
KUMAGA	0	EP	16 18 34.0	ES	18 47.0	18	1.2	19	1.2	10	2.6				154.5	13.0
CHICHI	0	EP	16 18 34.0	ES	18 58.0										176.6	24.0
AJIRO	0	EP	16 18 34.8	X	19 11.7	12	2.4	12	2.0	3	1.5				186.9	
MAEBAS	0	P	16 18 35.3	ES	18 55.8	7	0.8	7	0.9	7					191.7	20.5
KARUIZ	0	EP	16 18 40.3	S	19 09.9										232.4	29.6
KOFU	0	EP	16 18 40.9	ES	19 09.9	16	1.7	14	1.4	7	2.2				221.0	29.0
FUKUSH	0	EP	16 18 42.7	ES	19 08.8	12	0.8	14	1.0	3	1.2				234.8	26.1
SHIZUO	0	P	16 18 44.1	S	19 12.4	7	3.0	6	2.7	5	2.4			D 3	248.5	28.3
MATSUS	0	IP	16 18 45.0	S	19 13								W	D	268.6	28.0
NAGANO	0	EP	16 18 47.9	.	19 28.6	6	2.3	6	2.5	6	2.5				274.4	
SENDAI	0	EP	16 18 49.0	X	19 30	6	2.0	10	2	5	1.5				286.0	
IIDA	0	EP	16 18 49.2	X	19 30.8	7	2.0	5	1.8	3	1.2				287.4	
OMAEZA	0	EP	16 18 50.2			8	4.4	10	3.4	3	1.8				280.7	
MATSUM	0	X	16 18 53.9	ES	19 23.0										279.9	
HAMAMA	0	EX	16 18 55			6	3.6	8	2.8	3	2.4				317.3	
YOKOHA	0	P	16 18			45	0.5	70	0.8	24					124.9	
KAWAGU	0	X	16 18	S	19 01.8										203.7	
NAGOYA	0	X	16 19 09.4	ES	19 32.0	10	2.4	9	2.4	3	1.8				370.5	
TOYAMA	0	X	16 19 12	X	19 58	6	3.4	7	2.4	6	3.4				359.3	
GIFU	0	X	16 19 14.1	X	20 00.9	9	1.6	7	1.6	3	1.5				385.2	
AKITA	0	EX	16 19 19.2			6	2.0	6	3.8	3	2.6				454.7	
SAKATA	0	EX	16 19 42.0												371.9	
KANAZA	0	EX	16 19 51			8	5.5	10	3.0	5	1.5				403.2	
OSAKA	0	EX	16 20 12			10	2.6	6	2.8	5	2.0				511.1	
TOYOOK	0	X	16 20 53.8			8	1.3	6	1.3						560.0	

OT= 5 12 0 25.6 +/- 0.8 (JST)
E COAST OF CHIBA PREF
LAT= 35 21 +/- 4 LONG= 140 31 +/- 5
H= 60 MAG=3.6 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
CHOSHI	0	P	12 00 37.6	S	00 46.2	6	0.5	8	0.6	11					51.1	08.6
TOKYO	0	EP	12 00 41.5	ES	00 51.9	6	0.8	5	0.6						78.2	10.4
TATEYA	0	EP	12 00 43.8	IS	00 51.6	17	0.8	14	0.5	11	0.5				71.7	07.8
KAKIOK	0	P	12 00 45.4	S	00 52.5	10	0.8	8	0.9	4	1.0				102.1	07.1
OSHIMA	0	P	12 00 45.4	S	00 56.6	11	0.4	12	0.4	7	0.2				122.6	11.2
MATSUS	0	P	12 01 01												246.4	

OT= 6 2 50 29.1 +/- 0.5 (JST)
NEAR NEMURO
LAT= 43 29 +/- 3 LONG= 145 43 +/- 4
H=120 CLASS=U

NEMURO	0	IP	02 50 46.5	IS	50 58.8	44	0.2	26	0.2	11	0.2	S	2 W	U 18	20.2	12.3
ABASHI	0	P	02 50 54.0	S	51 11.6	6	2.0	6	2.0	2	2.0		E 2	D 3	129.8	17.6
KUSHIR	0	IP	02 50 54.0	IS	51 11.4	248	0.4	177	0.2	60	0.4	N	1 W	2 U 10	121.2	17.4
OBIHIR	0	EP	02 51 03	S	51 28.7										212.3	25.7
HIROO	0	P	02 51 05.0	S	51 31.1										237.1	26.1
URAKAW	0	P	02 51 12.7	S	51 37.3	9	0.6	19	0.4	3	0.6				281.7	24.6
AOMORI	0	EX	02 52 28			9	0.7	13	0.7						503.9	
MATSUS	0	P	02 52 37	S	54 17									U	1001.9	100.0

OT= 6 10 41 9.5 +/- 0.5 (JST)
MIDDLE OF SAITAMA PREF
LAT= 35 52 +/- 3 LONG= 139 15 +/- 2
H= 30 MAG=3.8 CLASS=L

CHICHI	1	EP	10 41 16.2	IS	41 19.2										20.6	03.0
KUMAGA	1	P	10 41 17.8	S	41 21.6	18	0.8	33	0.8	8	1.0			D 6	33.4	03.8
KAKIOK	0	P	10 41 25.5	IS	41 36.0	9	0.3	12	0.3	4	0.5				94.1	10.5
UTSUNO	1	P	10 41 25.7	S	41 35.0	28	0.0	30	0.0	14				D 2	93.9	09.3
MATSUS	0	IP	10 41 30.7	S	41 45							N	W	U	119.7	14.3
MITO	0	X	10 41 45.0			12	0.4	9	0.4	3	0.3				123.7	

OT= 6 16 32 47.7 +/- 0.2 (JST)
NE OF TOKYO BAY
LAT= 35 31 +/- 1 LONG= 140 2 +/- 2
H= 70 CLASS=L

TOKYO	1	P	16 33 00.1	S	33 07.8	85	0.4	57	0.8	37	0.0				31.1	07.7
YOKOHA	1	IP	16 33 00.5	S	33 08.4	150	0.2	150	0.2	30				D 5	35.5	07.9
KAKIOK	1	P	16 33 03.1	IS	33 12.0	28	0.3	33	0.4	15	0.9				80.6	08.9
CHOSHI	0	IP	16 33 04.9	S	33 16.2	7	0.9	10	0.8	10				D 2	76.9	11.3
OSHIMA	0	P	16 33 05.9	ES	33 18.1	32	0.6	25	0.4	23	0.4				102.8	12.2
KUMAGA	0	P	16 33 06.4	ES	33 19.0	28	1.2	14	0.8	11	1.0			D 3	91.2	12.6
MITO	0	IP	16 33 06.5	IS	33 18.0	32	0.4	10	0.8	7	0.4			U 2	103.4	11.5
AJIRO	0	IP	16 33 06.6	IS	33 18.3	28	0.2	29	0.2	8	0.3	N	1 E	2 D 1	100.1	11.7
CHICHI	0	EP	16 33 06.7	S	33 17.5										100.9	10.8
UTSUNO	0	P	16 33 06.9	S	33 18.8	33	0.0	33	0.0	16					115.2	11.9
MISHIM	0	EP	16 33 07.2	S	33 19.8	7	0.7	13	0.7	6	0.6				109.9	12.6
MAEBAS	0	EP	16 33 10.0	S	33 20.8										131.4	13.8
KOFU	0	IP	16 33 10.2	ES	33 24.4	21	0.4	22	0.4	5	0.5	S	1 E	2 D 2	134.7	14.2
KARUIZ	0	EP	16 33 14.3	S	33 32.5										161.9	18.2
SHIZUO	0	EP	16 33 14.5	S	33 33.2	9	0.4	6	0.6	1					159.8	18.7
ONAHAM	0	IP	16 33 15.4	ES	33 33.4	8	0.7	7	0.7	3	0.4			D 1	176.8	18.0
MATSUS	0	IP	16 33 18.2	S	33 39								W	U	199.7	20.8

OT= 7 22 33 28.3 +/- 0.3 (JST)
S OF HOKKAIDO
LAT= 42 34 +/- 2 LONG= 143 24 +/- 2
H=110 CLASS=L

HIROO	2	P	22 33 45.6	IS	33 55.6										32.2	10.0
OBIHIR	2	IP	22 33 45.8	IS	33 58.1									D 30	41.9	12.3
URAKAW	1	IP	22 33 48.3	IS	34 01.0	75	0.6	122	0.4	28	0.8	S	W	U 5	68.3	12.7
KUSHIR	2	IP	22 33 49.6	IS	34 03.7	119	0.3	115	0.3	38	0.2	S	7 W	11 D 26	93.4	14.1
ASAHIK	0	EP	22 33 55			8	1.0	6	1.0	7	1.0				157.6	
SAPPOR	0	P	22 33 58.0	S	34 18.5	6	1.6	6	1.0						177.8	20.5
NEMURO	0	P	22 33 59.5	ES	34 21	3	0.2	5	0.4	2	0.2			D	197.5	21.5
HACHIN	0	IP	22 34 07.6	IS	34 35.6	15	0.2	10	0.2	3	0.6	S	W	U 1	275.5	28.0
RUMOI	0	EX	22 34 08	ES	34 26										210.3	

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STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
AOMORI	0	EP	22 34 11	ES	34 39	11 0.5	12 0.9	4 0.9				292.0	28.0
MORIOK	0	IP	22 34 19.4	S	34 55.1	10 0.3	10 0.4	2 0.4	S 1	W 1	U 1	369.7	35.7
MATSUS	0	IP	22 35 12.8	S	36 32				S		U	804.0	79.2

OT= 8 0 16 41.9 +/- 1.1 (JST)
OFF IBARAKI PREF
LAT= 36 26 +/- 4 LONG= 141 6 +/- 5
H= 50 MAG=3.5 CLASS=U

MITO	0	IP	00 16 54.0	IS	17 02.4	19 0.4	19 0.3	4 0.2	S 2	W 2	U 4	56.7	08.4
ONAHAM	0	IP	00 16 54.2	IS	17 02.0	3 0.7	5 1.2	1 0.4			D 1	59.3	07.8
UTSUNO	0	P	00 17 00.8	S	17 13.5	5 0.0	10 0.0	7				110.8	12.7
MATSUS	0	IP	00 17 20.3	S	17 42					E	D	259.3	21.7

OT= 8 15 15 35.4 +/- 0.2 (JST)
E OF FUKUSHIMA PREF
LAT= 37 13 +/- 1 LONG= 140 4o +/- 2
H= 90 CLASS=S

ONAHAM	0	IP	15 15 50.0	ES	16 01.0	8 1.1	9 1.0	2 0.5			D 1	31.2	11.0
SHIRAK	0	P	15 15 51.0	IS	16 02.9							53.7	11.9
FUKUSH	0	EP	15 15 52.5	IS	16 04.1	8 0.5	8 0.4	2 0.5				67.1	11.6
MITO	0	IP	15 15 55.4	IS	16 09.4	24 0.3	19 0.3	5 0.3			D 3	98.0	14.0
UTSUNO	1	IP	15 15 56.4	S	16 11.1					E 1	D 4	112.3	14.7
KAKIOK	0	IP	15 15 57.0	IS	16 12.6	13 0.8	20 0.8	9 0.6	N	E	D 2	122.7	15.6
ISHINO	0	P	15 15 58.9	IS	16 15.4	6 0.2	5 0.2	2 0.2	S	W	U	140.8	16.5
MATSUS	0	IP	15 16 12.0	S	16 38							244.4	26.0
TOKYO	0	ES	15 16 28.8			5 0.4						194.6	

OT= 9 21 14 58.3 +/- 1.1 (JST)
OFF AKITA PREF
LAT= 40 1 +/- 3 LONG= 139 26 +/- 4
H= 0 MAG=4.2 CLASS=S

AKITA	0	P	21 15 13.2	IS	15 22.0	36 0.4	41 0.4	15 0.6			D 7	66.1	08.8
SAKATA	0	EP	21 15 22.5	ES	15 40.4							128.4	17.9
MORIOK	0	IP	21 15 25.2	IS	15 43.3	14 0.4	6 0.4	10 1.4		E 1	U 0	152.7	18.1
AOMORI	0	EP	21 15 27.2	ES	15 42.1	24 1.9	25 0.7	11 1.3				145.0	14.9
SENDAI	0	EX	21 15 40			3 2	5 2	1 2				232.6	
MATSUS	0	IP	21 15 57.0	S	16 51				S		U	400.7	54.0

OT= 9 23 7 35.1 +/- 1.6 (JST)
E OFF HOKKAIDO
LAT= 43 12 +/- 9 LONG= 147 45 +/- 8
H= 0 MAG=4.9 CLASS=U

NEMURO	0	P	23 08 05.7	S	08 28.6	38 2.6	28 2.0	24 2.0		W	U	176.3	22.9
ABASHI	0	EP	23 08 22	ES	08 55	20 2.0	20 1.8	7 1.8				294.3	33.0
KUSHIR	0	EX	23 08 27			21 2.8	17 2.6	13 3.4				274.3	
OBIHIR	0	EX	23 08 33									370.2	
URAKAW	0	P	23 08 40.4	S	09 28.5	19 1.4	27 1.6	9 1.8				423.5	48.1
ASAHIK	0	EP	23 08 42			7 2.2	5 2.6	7 3.0				439.6	
SAPPOR	0	EP	23 08 49	ES	09 51	13 2.0	10 2.1	3 2.4				522.5	62.0
HAKODA	0	EP	23 08 58	EX	10 12	5 4.0	3 2.2	3 2.3				594.8	
MATSUS	0	P	23 10 01									1100.3	
AOMORI	0	EX	23 10 13.0			8 2.1	8 2.1					634.8	

OT= 10 2 33 25.1 +/- 0.2 (JST)
MIDDLE OF GIFU PREF
LAT= 35 44 +/- 1 LONG= 137 4 +/- 1
H= 10 MAG=4.5 CLASS=S

GIFU	0	IP	02 33 34.9	IS	33 41.1	85 0.5	72 0.8	30 0.8	S 23	W 16	U 22	46.1	06.2
NAGOYA	1	IP	02 33 38.0	IS	33 46.6	29 0.4	43 0.6	20 0.6			U 12	63.7	08.6
IIDA	0	IP	02 33 38.6	IS	33 47.2	29 0.4	26 0.4	14 0.4		W 16	D 13	73.9	08.6
FUKUI	0	IP	02 33 40.6	IS	33 51.8					E 4		83.7	11.2
KANAZA	0	EP	02 33 41	ES	33 55	25 2.6	40 2.9	8 1.3				97.8	14.0

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S A/T * S	E-W A/T * S	U-D A/T * S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TSURUG	1	P	02 33 42.4	S	33 53.2							91.1	10.8
HIKONE	0	P	02 33 42.4	S	33 54.0							90.2	11.6
MATSUM	0	EP	02 33 43.7	S	33 53.9							99.4	10.2
TOYAMA	0	IP	02 33 44.2	S	33 58.0	21 1.0	22 0.8	14 3.2	N 3	E 3	U 4	108.7	13.8
HAMAMA	1	P	02 33 47.5	IS	34 02.6	37 0.6	75 0.6	18 0.6			U 1	128.4	15.1
MATSUS	0	IP	02 33 48.5	S	34 03				N	E	U	136.1	14.5
SHIZUO	0	EP	02 33 50.0	S	34 07.0	22 0.5	19 0.5	5 0.6				148.1	17.0
KARUIZ	0	EP	02 33 50.5	ES	34 07.9							149.8	17.4
NAGANO	0	EP	02 33 50.9	S	34 07.8	12 1.3	15 1.3	7 1.2				144.5	16.9
KYOTO	0	EP	02 33 51.6	IS	34 09.4	25 0.8	51 0.6	20 0.7				145.1	17.8
KAWAGU	1	IP	02 33 52.3	IS	34 10.5							155.9	18.2
MAIZUR	0	P	02 33 52.7	S	34 11.4							154.9	18.7
NARA	0	P	02 33 53.4	S	34 13.1	50 2.0	50 2.0					161.8	19.7
WAJIMA	0	P	02 33 55.6	S	34 20.6	54 1.0	87 1.0	20 1.0				184.4	25.0
CHICHI	0	EP	02 33 56.0	S	34 16.9							184.2	20.9
MISHIM	0	IP	02 33 56.3	IS	34 17.9	48 0.8	13 0.8	16 0.7			D 2	182.7	21.6
TAKADA	0	EP	02 33 57.4	S	34 24.5							185.5	27.1
MAEBAS	0	P	02 33 58.6	S	34 21.0	8 0.8	9 0.8	5				194.7	22.4
OSAKA	0	EP	02 33 59	S	34 19.4	35 2.5	29 1.9	15 1.5				183.0	20.4
TAKAYA	X		02 33									49.4	
TOYOOK	0	P	02 34 01.0	S	34 25.2	100 1.0	91 1.2	20 0.6				204.6	24.2
KUMAGA	0	EP	02 34 01.4	ES	34 27.0	10 1.0	10 1.2	4 0.8				214.1	25.6
OSHIMA	0	P	02 34 03.6	S	34 32.0	9 0.8	6 0.8	5 0.8				236.3	28.4
YOKOHA	0	P	02 34 05.6	S	34 29.5	13 0.8	25 0.5	11				236.8	23.9
TOKYO	0	P	02 34 06	ES	34 36	4 1.0	10 1.0					243.6	30.0
TOTTOR	0	EP	02 34 06.6	S	34 39.1							262.7	32.5
				X	34 12.0								
UTSUNO	0	P	02 34 08.9	S	34 40.0	6 1.3	5 1.2	7				268.0	31.1
TATEYA	0	EP	02 34 09.0			16 4.1	16 3.7	8 3.5				267.8	
WAKAYA	0	EX	02 34 09.3			17 1.2	8 0.9	3 0.8				240.8	
KAKIOK	0	EP	02 34 10	ES	34 42	13 1.0	8 1.0	4 1.0				287.3	32.0
MITO	0	EP	02 34 16.0	IS	34 51.4	9 1.8	7 2.5	3 1.0				315.0	35.4
OKAYAM	0	EP	02 34 16	IS	34 54.0	9 0.6	10 0.5	2 1.0				309.7	38.0
TAKAMA	0	X	02 34 21.3	IS	34 57.6	11 0.8	8 0.8	4 1.0				316.2	
ONAHAM	0	EX	02 34 50.6			6 1.3	6 0.8	2 1.0				369.9	
TSU	0	X	02 35 19.4	X	35 34.0	56 0.7	61 1.0	12 0.6				124.8	

OT= 10 3 56 38.9 +/- 0.1 (JST)
MIDDLE OF IWATE PREF
LAT= 39 41 +/- 1 LONG= 141 13 +/- 2
H= 80 CLASS=U

MORIOK	0	IP	03 56 51.0	IS	57 00.6	7 0.4	6 0.3	2 0.2			U 1	4.4	09.6
MIYAKO	0	P	03 56 54.1	IS	57 05.1	5 0	5 0	3 0				64.6	11.0
OFUNAT	0	IP	03 56 56.0	IS	57 08.0	8 0.2	9 0.2	2 0.2			U 1	81.4	12.0
HACHIN	0	IP	03 56 57.3	IS	57 10.9	6 0.2	5 0.2		S 1	W	D 1	97.1	13.6

OT= 10 7 4 19.6 +/- 0.3 (JST)
E OFF AOMORI PREF
LAT= 40 52 +/- 1 LONG= 141 55 +/- 3
H= 90 CLASS=L

HACHIN	1	IP	07 04 34.6	IS	04 44.2	23 0.2	20 0.2	4 0.2	S 1	E 1	U 1	50.4	09.6
HAKODA	0	IP	07 04 44.1	S	05 01.2	7 0.5	7 0.9	1 1.0			U 1	143.0	17.1
MORIOK	0	IP	07 04 44.8	S	05 02.0	7 0.4	7 0.4	1 0.2	S 0		U 0	144.7	17.2
URAKAW	0	P	07 04 45.9	S	05 04.7	4 0.4	6 0.6					160.6	18.8
AOMORI	0	EX	07 04 52			11 0.5	6 0.5					95.8	
KUSHIR	0	ES	07 05 31			5 0.4	5 0.4	1 0.4				311.9	

OT= 10 9 13 41.6 +/- 1.6 (JST)
E OFF HOKKAIDO
LAT= 43 28 +/- 7 LONG= 148 48 +/- 8
H= 20 MAG=5.0 CLASS=U

NEMURO	0	EP	09 14 21	ES	14 50	12 2.6	11 3.6	16 3.4				260.8	29.0
ABASHI	0	EP	09 14 34	ES	15 18	8 3.2	13 3.2	8 4.0				369.0	44.0
KUSHIR	0	EP	09 14 34	S	15 16.0	11 1.6	12 4.0	9 2.7				362.0	42.0
ASAHIK	0	EP	09 14 56			3 3.0	6 2.0	3 2.8				519.8	
URAKAW	0	P	09 14 56.1	S	15 51.8	12 2.2	29 2.2	11 3.8				513.3	55.7
OBIHIR	0	EX	09 15 04									457.5	
SAPPOR	0	EP	09 15 07	ES	16 18	22 2.4	11 2.3	3 3.4				608.0	71.0
HAKODA	0	EP	09 15 15	EX	16 40	6 2.6	6 1.8	5 2.2				684.5	
MATSUS	0	IP	09 16 17.4	S	18 23				S		U	1185.7	125.6

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
AOMORI	0	EX	09 16 53			11	1.8	12	2.2						724.9	

OT= 10 15 38 18.1 +/- 0.2 (JST)
S OF MIYAGI PREF
LAT= 38 7 +/- 1 LONG= 140 44 +/- 1
H= 10 MAG=4.6 CLASS=S

SENDAI	2	IP	15 38 23.8	IS	38 26.8	231	2.0	241	0.8	104	2.0			D 42	21.6	03.0
YAMAGA	1	IP	15 38 25.7	IS	38 29.5	50	2.0	100	3.0	100	1.0	S 8	E 20	D 22	36.8	03.8
FUKUSH	2	IP	15 38 27.6	IS	38 32.6	114	0.6	118	0.5	56	0.3	S 10	W 3	U 3	46.0	05.0
ISHINO	1	IP	15 38 30.2	IS	38 37.6	68	1.2	47	3.4	32	3.6	S 4	W 4	D 5	60.5	07.4
SAKATA	0	EP	15 38 36.8	ES	38 56.3	50		100							117.2	19.5
SHIRAK	1	EP	15 38 39.6	IS	38 53.7										119.5	14.1
ONAHAM	1	IP	15 38 41.2	IS	38 56.5	111	0.9	132	1.1	26	1.4			D 1	130.9	15.3
OFUNAT	1	IP	15 38 42.0	IS	38 57.6	21	0.6	25	0.4	13	0.4	N 1	E 1	U 1	135.5	15.6
MORIOK	0	IP	15 38 47.5	IS	39 08.5	10	0.4	28	0.4	8	0.8	N 0		U 0	179.4	21.0
				EX	39 26											
UTSUNO	1	EP	15 38 49.0	S	39 12.6	35	0.0	23	0.0	18					190.2	23.6
AKITA	0	P	15 38 49.8	S	39 13.0	32	2.2	25	2.6	13	2.2			U 9	186.0	23.2
MIYAKO	0	P	15 38 50.6	ES	39 13.5	12	1.2	16	1.2	20	1.4				200.7	22.9
MITO	1	P	15 38 51.8	IS	39 15.0	57	3.6	45	1.4	44	2.5				194.3	23.2
KAKIOK	0	P	15 38 54.3	IS	39 18.5	52	0.8	46	1.1	21	1.5	S 1			214.6	24.2
TAKADA	0	EP	15 38 58.4												246.3	
HACHIN	0	EP	15 39 01.0	ES	39 32.2	5	0.2	6	1.2	4	5.0				275.9	31.2
KUMAGA	0	EP	15 39 01.4	ES	39 29.6	13	1.4	19	1.2	5	1.8				249.3	28.2
AOMORI	0	EP	15 39 02	S	39 45	15	1.8	17	1.6						299.8	43.0
MATSUS	0	IP	15 39 02.2	S	39 34									U	284.1	31.8
NAGANO	0	X	15 39 08.3	X	40 01.6	7	2.5	5	2.5	3	2.8				276.7	
KOFU	0	EP	15 39 13.6	ES	39 49.4	5	1.8	6	1.2	3	1.0				334.0	35.8
TATEYA	0	EX	15 39 31.8			24	2.8	18	1.7	9	1.5				356.2	
YOKOHA	0	S	15 39 50.5			17	0.8	15	0.6	9					312.5	

OT= 10 15 41 15.2 +/- 0.4 (JST)
MIDDLE OF MIYAGI PREF
LAT= 38 20 +/- 2 LONG= 140 41 +/- 1
H= 0 MAG=3.3 CLASS=L

SENDAI	X	IP	15 41 21.0	IS	41 24.0	34	0.4	30	0.2	13	0.2			D 10	20.6	03.0
YAMAGA	0	EP	15 41 22.7	IS	41 26.9										30.5	04.2
ISHINO	0	P	15 41 27.3	IS	41 34.6	6	0.4	5	0.4	2	0.6				55.1	07.3
FUKUSH	0	X	15 41 29.8			10	1.0	15	0.8	5	0.6				66.6	
ONAHAM	0	EX	15 41 39.0	IS	41 53.4	10	0.9	11	1.1	2	0.4				155.3	
UTSUNO	0	X	15 41 58.6	S	42 09.9	5	0.0	4	0.5	6					210.9	

OT= 11 2 9 57.7 +/- 1.7 (JST)
NEAR AMAMIOSHIMA
LAT= 29 14 +/- 7 LONG= 130 53 +/-12
H= 0 MAG=5.0 CLASS=S

YAKUSH	X	EP	02 10 22.5	ES	10 41.6	158	0.7	194	0.8	53	1.0				139.9	19.1
KAGOSH	0	EP	02 10 40.5	EX	11 07.0	22	1.4	36	2.4	16	1.2				261.2	
MIYAZA	0	P	02 10 45.4	S	11 20.0	18	2.2	23	1.4	14	2.8				301.9	34.6
KUMAMO	0	P	02 10 57.6	S	11 38.5	19	2.2	22	1.8	4	1.5				396.7	40.9
NAGASA	0	EP	02 10 58.0	ES	11 48.0										397.8	50.0
SAGA	0	X	02 11 12.5	X	12 27.5										448.0	
NAHA	0	X	02 11 13	ES	11 50	6	3.0	6	2.2	4	2.8				458.0	
MATSUS	0	IP	02 12 21.0	X	12 39									U	1060.0	

OT= 11 2 45 42.3 +/- 1.8 (JST)
E OFF HOKKAIDO
LAT= 42 58 +/- 6 LONG= 147 42 +/-10
H= 60 MAG=4.7 CLASS=U

NEMURO	0	EP	02 46 09	ES	46 28	19	0.4	35	1.2	16	2.2				176.6	19.0
KUSHIR	0	EP	02 46 22	X	56 48.4	18	1.0	22	2.8	7	2.4				269.7	
ABASHI	0	EP	02 46 24	ES	46 54	5	2.4	10	2.4						300.0	30.0
OBIHIR	0	EX	02 46 41												365.6	
URAKAW	0	P	02 46 42.5	S	47 18.1	11	2.0	11	2.2	5	2.4				413.9	35.6
SAPPOR	0	EP	02 46 53	ES	47 47	6	2.0	3	1.8	2	1.2				519.3	54.0
MATSUS	0	EP	02 48 03	X	49 41										1080.9	

OT= 11 12 21 56.3 +/- 1.1 (JST)
NE OFF CHOSHI
LAT= 35 49 +/- 3 LONG= 141 5 +/- 6
H= 50 MAG=3.8 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
CHOSHI	0	P	12 22 06.3	S	22 11.8	13	0.6	20	0.8	13					24.0	05.5
KAKIOK	0	EP	12 22 12	ES	22 22	12	0.7	12	0.8	6	0.5				92.5	10.0
TOKYO	0	EP	12 22 15.5	ES	22 30.4	8		5		3					120.7	14.9
TATEYA	0	EP	12 22 18.4			9	1.6	10	2.0	4	0.7				143.9	
UTSUNO	0	EP	12 22 20	ES	22 32.4	5	0.8	7	0.0	7					135.8	12.4
YOKOHA	0	P	12 22 21.5	S	22 33.8	17	0.7	28	0.5	10					136.1	12.3
MATSUS	0	IP	12 22 35.1	S	23 02								W	U	270.7	26.9

OT= 12 4 54 34.5 +/- 0.1 (JST)
MIDDLE OF KYOTO PREF
LAT= 35 15 +/- 1 LONG= 135 20 +/- 1
H= 10 MAG=3.8 CLASS=L

MAIZUR	0	IP	04 54 40.3	S	54 43.5									U	25.1	03.2
KYOTO	1	IP	04 54 43.9	IS	54 48.9	21	0.0	85	0.0	10	0.0	N 0	W 1	D 2	45.1	05.0
TOYOOK	0	EP	04 54 46.3	IS	54 53.1	25	1.0	20	1.0	8	0.7				56.4	06.8
NARA	0	P	04 54 49.3	S	54 58.9	7	0.5	5	0.7						77.7	09.6
TSURUG	0	EP	04 54 50	IS	54 58.0										79.9	08.0
TOTTOR	0	IP	04 54 54.3	S	55 07.6										108.9	13.3
SUMOTO	0	P	04 54 55.6	S	55 08.6										108.7	13.0
OKAYAM	0	P	04 55 00.1	ES	55 15.8	9	0.6	7	0.3	2	0.3				144.0	15.7
MATSUS	0	IP	04 55 25.1	IS	55 59.7								S	U	296.2	34.6

OT= 13 16 14 23.7 +/- 0.7 (JST)
OFF IWATE PREF
LAT= 40 8 +/- 1 LONG= 142 21 +/- 4
H= 10 MAG=3.6 CLASS=L

MIYAKO	1	IP	16 14 36.3	IS	14 45.2	6	0	6	0	3	0				63.3	08.9
HACHIN	0	IP	16 14 39.4	IS	14 49.7	10	0.2	13	0.2	6	5.4		E 1	D 1	82.5	10.3
MORIOK	0	IP	16 14 44.2	IS	14 58.0	7	0.4	7	0.4	2	0.4	N 0	E 0	D 0	112.1	13.8
OFUNAT	0	EP	16 14 47.6	IS	15 01.4	8	0.0	5	0.0	2	0.2				130.8	13.8

OT= 14 11 29 19.5 +/- 1.0 (JST)
OFF SANRIKU
LAT= 40 29 +/- 2 LONG= 143 39 +/- 6
H= 0 MAG=4.7 CLASS=U

HACHIN	0	P	11 29 49.9	S	30 15.3	14	0.2	10	0.2	9	1.6			U	180.2	25.4
MIYAKO	0	EP	11 29 50	S	30 14.2	7	2.3	8	2.0	5	1.2				171.0	24.2
URAKAW	0	P	11 29 53.8	S	30 14.9	28	1.4	37	1.0	12	1.6			U	199.8	21.1
MORIOK	0	IP	11 29 57.0	S	30 26.0	25	0.4	27	0.4	6	2.0	S 0	W 0	U 0	229.0	29.0
				X	30 03.9											
OFUNAT	0	IP	11 29 57.2	ES	30 27.4	6	1.4	8	1.0	6	1.2	S 1	W 1	U 1	228.7	30.2
AOMORI	0	EP	11 29 59	IS	30 26.7	66	1.4	90	1.1	31	1.1				245.3	27.7
HAKODA	0	P	11 30 03.9	S	30 38.8	14	1.4	15	0.9	5	2.8	N 1	W 2	U 2	284.2	34.9
ISHINO	0	EP	11 30 06.6	ES	30 46.2	6	2.8	7	3.6	4	1.0			D 1	305.0	39.6
AKITA	0	EX	11 30 08.8			14	2.0	18	3.0	11	2.2				314.2	
OBIHIR	0	X	11 30 11	X	30 47										273.0	
SENDAI	0	EX	11 30 11.2			12	3.1	17	2.0	4	1.5				342.1	
SAPPOR	0	EP	11 30 14			10	2.6	11	2.0	7	1.2				344.9	
ASAHIK	0	EP	11 30 20			7	1.2	6	1.8	5	1.6				380.1	
FUKUSH	0	EX	11 30 20.3			9	1.0	9	1.0	3	0.6				408.6	
SAKATA	0	EX	11 30 31.0												371.1	
KUSHIR	0	S	11 30 33.2			11	0.3	9	0.3	4	2.2				284.0	
MITO	0	EX	11 30 35.6			8	1.6	5	1.6	4	1.6				533.4	
ONAHAM	0	EX	11 30 45.6			11	1.3	7	1.3	2	0.4				459.5	
MATSUS	0	IP	11 30 49.8	ES	31 58								S	U	645.5	68.2
KUMAGA	0	X	11 31 02.6	X	32 15.4	3	1.4	6	2.8	2	2.0				608.8	
NIIGAT	0	EX	11 31 27.6			13	4.0	14	3.8	6	4.0				489.2	

OT= 15 5 39 12.7 +/- 0.4 (JST)
SEA OF JAPAN
LAT= 37 55 +/- 3 LONG= 135 14 +/- 2
H=360 CLASS=U

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
WAJIMA	0	IX	05	40	03.4				10	0.8	10	0.8	7	0.8			D 7	158.1	
SAIGO	0	IP	05	40	07.2	IS	40	50.0	2	1.5	11	2.2	2	1.5			U 1	254.2	42.8
TOYAMA	0	IP	05	40	07.2	X	40	25	5	1.4	4	1.8	10	2.2	N 2	W 2	D 10	220.6	
TOYOOK	0	EP	05	40	08.6	X	40	52.5	9	1.1	12	1.1						266.6	
MATSUS	0	IP	05	40	12.0	ES	41	00							N	W	D	305.1	48.0
OSAKA	0	P	05	40	16.1	IS	41	06.8	8	3.0	11	2.3	4	2.5				360.2	50.7
OKAYAM	0	EP	05	40	17.3	IS	41	08.4	2	1.2	5	2.0	1	2.0	S			377.9	51.1
TAKAMA	0	EP	05	40	17.5	ES	41	14.3	3	1.2	9	1.2						413.1	56.8
UTSUNO	0	IP	05	40	22.3	IS	41	18.4	8	0.1	9	0.1	10		S 1	E 1	U 2	438.7	56.1
KAKIOK	0	EP	05	40	25	ES	41	21	10	1.1	11	0.8	6	1.0				478.9	56.0
MITO	0	P	05	40	28.6	IS	41	26.6	14	0.3	11	0.6	4	0.8				495.5	58.0
SENDAI	0	EX	05	40	29.0	S	41	26.6	9	2.2	8	2.0	1	1.1				498.5	
ONAHAM	0	IP	05	40	29.1	IS	41	28.3	23	0.7	33	1.0	7	0.8			U 2	513.4	59.2
ISHINO	0	EP	05	40	31.9	ES	41	32.0	5	1.2	6	1.4	2	1.4	N 2		D	534.8	60.1
CHOSHI	0	P	05	40	33.6	S	41	38.6	3	0.8	5	0.7	6					556.3	65.0
MORIOK	0	IP	05	40	34.0	IS	41	36.5	4	0.3	5	0.3	1	0.9		E 0	U 0	551.9	62.5
TATEYA	0	EX	05	40	35.2				7	0.6	5	0.5	3	0.6				527.6	
OFUNAT	0	IP	05	40	36.0	IS	41	39.0	8	0.6	8	0.4	2	0.4			U 2	579.7	63.0
HACHIN	0	EP	05	40	39.8	ES	41	47.5	5	2.4	6	2.2						615.5	67.7
URAKAW	0	P	05	40	58.3	S	42	17.3	10	1.0	14	1.2	2	1.2				797.4	79.0
WAKAYA	0	EX	05	41	12.4				5	1.3	4	0.7	2	1.0				409.4	
AKITA	0	EX	05	41	13	IX	41	27.2	20	1.2	5	1.0	4	2.6				467.6	
TOKYO	0	ES	05	41	26.5				5	1.0	3	1.0						473.6	
MIYAKO	0	EX	05	41	36	IS	41	45.5	9	0.8	10	1.6	5	2.1				615.7	
AOMORI	0	EX	05	41	46				8	2.3	10	2.3						576.4	
OBIHIR	0	EX	05	42	34													875.9	
KUSHIR	0	S	05	42	48.0				11	0.3	11	0.3	3	0.4				958.3	

OT= 15 5 58 37.2 +/- 1.1 (JST)
OFF SANRIKU
LAT= 39 42 +/- 3 LONG= 143 39 +/- 5
H= 40 MAG=4.1 CLASS=U

MIYAKO	0	P	05	59	00.0	IS	59	15.6	6	0.6	5	0.6	3	0.6		W 1	U 2	144.4	15.6
OFUNAT	0	IP	05	59	05.6	IS	59	25.4	6	0.6	4	0.2	6	0.8			U 1	180.9	19.8
HACHIN	0	P	05	59	07.3	ES	59	31.5	6	0.2	3	0.2					U	203.0	24.2
MORIOK	0	IP	05	59	10.0	ES	59	32.0	8	0.4	11	0.4	2	0.8	N 0	W 1	U 1	212.8	22.0
AOMORI	0	EP	05	59	20	ES	59	45	21	0.7	17	0.7						273.6	25.0
SENDAI	0	EX	05	59	24				3	1	6	1.8	1	1				286.9	
AKITA	0	EX	05	59	27				5	3.8	4	2.2	3	1.4				304.3	
MATSUS	0	IP	05	59	58.6	X	01	27									U	592.1	

OT= 16 15 38 16.7 +/- 0.7 (JST)
MIDDLE OF NAGANO PREF
LAT= 36 23 +/- 4 LONG= 138 12 +/- 5
H= 30 MAG=3.4 CLASS=L

MATSUS	1	IP	15	38	22.0	IS	38	25.0							N	E		17.2	02.5
MATSUM	X	IP	15	38	23.3	IS	38	26.6							S 3	W 2	U 22	25.6	03.3
NAGANO	1	IP	15	38	24.1	IS	38	28.3	51	0.5	42	0.5	27				U 12	30.7	04.2
KARUIZ	0	IP	15	38	27.9	IS	38	33.5									D 8	31.9	05.6
KOFU	0	EP	15	38	30.0	ES	38	47.2	4	0.7	8	0.4	2	1.2				86.0	17.2
TOYAMA	0	EP	15	38	34	ES	38	49	5	4.0	4	2.6	6	4.8				95.8	15.0
MAEBAS	0	EX	15	38	48				5	0.7	2	0.9	4					77.6	

OT= 18 1 48 19.3 +/- 0.1 (JST)
NEAR WAKAYAMA
LAT= 34 3 +/- 1 LONG= 135 5 +/- 1
H= 0 MAG=4.5 CLASS=S

WAKAYA	2	IP	01	48	25.7	IS	48	28.0	198	0.2	155	0.2	135	0.2	N 83	E 60	U 74	21.0	02.3
SUMOTO	0	IP	01	48	29.0	S	48	33.1										35.5	04.1
TOKUSH	0	IP	01	48	30.3	IS	48	36.8										46.8	06.5
KOBE	0	IP	01	48	34.4	IS	48	42.6								W 2	U 6	71.3	08.2
OSAKA	0	EP	01	48	35.5	S	48	45.5	55	3.5	89	3.6	19	2.8				80.5	10.0
ANABUK	0	X	01	48	35.7													93.8	
SHIONO	0	EP	01	48	37.9	S	48	49.7	74	0.7	45	0.4	48	0.5				91.7	11.8
TAKAMA	0	EP	01	48	38.1	IS	48	52.8	39	1.0	51	1.0	20	0.6	N 2	E 4	D 1	99.0	14.7
NARA	0	IP	01	48	38.6	ES	48	50.9	50	1.8	50	1.8					D	98.4	12.3
OWASE	X	IP	01	48	40.1	IS	48	52.0	21	1.0	27	1.0	15	1.2				102.6	11.9
KYOTO	0	IP	01	48	42.3	IS	49	00.0	11	1.1	9	1.0	5	0.7				122.3	17.7
MUROTO	0	IP	01	48	42.6	IS	48	59.0	17	0.8	22	1.0	8	1.2			U 1	122.2	16.4
HIMEJI	0	P	01	48	42.7	S	48	53.7										94.0	11.0

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
OKAYAM	0	IP	01	48	42.9	S	48	57.8	29	0.5	32	0.5	5	4.0	S 1	E 2	D	128.3	14.9
KOCHI	0	EP	01	48	48.1	ES	49	05.9										153.8	17.8
MAIZUR	0	P	01	48	48.3	S	49	06.8										160.1	18.5
HIKONE	0	P	01	48	49.6	S	49	09.9										172.5	20.3
TOYOOK	0	EP	01	48	49.6	IS	49	08.6	109	1.1	89	1.1	20	0.9				166.6	19.0
TOTTOR	0	P	01	48	51.2	S	49	12.4										182.0	21.2
TSURUG	0	EP	01	48	55	S	49	17.8										198.9	22.8
NAGOYA	0	P	01	48	57.6	S	49	21.8	17	1.0	21	0.8	8	0.8				212.5	24.2
MATSUY	0	EP	01	48	57.8	ES	49	23.3	11	0.7	9	0.6	4	0.6				214.1	25.5
GIFU	0	EP	01	49	00.4	S	49	22.5	9	1.4	10	1.4	4	1.1				214.6	22.1
MATSUE	0	EP	01	49	00.5	ES	49	29.4										241.2	28.9
FUKUI	0	P	01	49	00.8	S	49	30.6										245.4	29.8
HAMAMA	0	P	01	49	05.0	ES	49	37	13	2.0	10	1.4	3	1.4		E 1	D 1	253.5	32.0
SAIGO	0	EP	01	49	08.6	ES	49	37.2	4	1.5	7	1.3	3	1.6				287.3	28.6
IIDA	0	X	01	49	12.8	ES	49	48.4	13	1.4	16	1.4	7	1.2				299.3	
OMAEZA	0	X	01	49	13.2				11	2.2	7	2.2	8	2.2				294.4	
MATSUS	0	IP	01	49	17.8	S	50	14									U	396.1	56.2
TOYAMA	0	X	01	49	23	X	50	08	6	3.0	9	3.0	7	1.6				352.3	
KOFU	0	X	01	49	23.2	ES	50	05.6	8	2.0	8	1.8	3	1.2				364.7	
KANAZA	0	EX	01	49	25				5	1.2	9	2.2	5	1.2				311.3	
NAGANO	0	X	01	49	36.2	X	50	35.0	5	2.0	2		3	2.0				404.7	
KUMAMO	0	X	01	49	36.3	ES	50	20.1	11	2.0	10	1.7	2	1.1				429.1	
KAWAGU	0	X	01	49	37.8	S	50	02.7										373.1	

OT= 18 10 13 59.2 +/- 0.2 (JST)
S OF IWATE PREF
LAT= 39 13 +/- 1 LONG= 141 39 +/- 3
H=130 CLASS=R

OFUNAT	3	IP	10	14	18.6	IS	14	30.4	700	1.6	900	2.0			N 8	W 6	D 50	18.2	11.8
MORIOK	4	IP	10	14	19.5	IS	14	33.7	2600		2200		300		S 0	E 0	D 1	67.5	14.2
MIYAKO	3	IP	10	14	21.4				500	2.0	850	0	200	0.4	S 23	W 19	D 35	54.9	
ISHINO	3	IP	10	14	22.1	IS	14	37.6	330	3.0	382	3.2	322	2.0	N 26	E 7	D 20	92.9	15.5
SENDAI	3	IP	10	14	25.3	IS	14	42.7	2120	1.0	1100	1.4	410	1.2	N 10		D108	124.6	17.4
						IX	14	41.0											
HACHIN	3	P	10	14	26.0	IS	14	44.2	500	0.9	500	0.7	100	0.9	N 37	W 7	U 54	145.7	18.2
AKITA	1	IP	10	14	27.0	IS	14	46.0	375	2.6	340	3.0	226	2.4	S 21	E 47	D216	144.4	19.0
YAMAGA	1	IP	10	14	27.8	IS	14	47.5	500	2.8	500	1.8	300	1.4	N 10	E 4	D 14	155.6	19.7
SAKATA	3	P	10	14	29.4	IS	14	49	2650	1.8	2400	1.8	500	2.0				160.8	19.6
FUKUSH	3	IP	10	14	31.8	IS	14	54.0	650	0.5	750	0.5	250	0.4	N 9	E 7	D 11	191.8	22.2
AOMORI	2	P	10	14	32.0	IS	14	54.0	1500	1.4	1600	1.1	300	0.9				192.4	22.0
ONAHAM	2	IP	10	14	38.4	ES	15	06.0	246	1.0	235	1.1	99	2.1			D 2	260.4	27.6
SHIRAK	2	IP	10	14	39.8	IS	15	07.8	180	2.0	250	2.6	100	1.8	N 2	E	D 10	264.2	28.0
NIIGAT	0	IP	10	14	40.9	IS	15	11.0	385	4.0	375	3.0	180	4.4			D 3	268.9	30.1
HAKODA	1	P	10	14	42.9	S	15	08.9	141	0.6	140	0.8	117	2.4			D 1	298.1	26.0
AIKAWA	0	IP	10	14	46.5	ES	15	20.0	60	1.5	88	1.5	15	1.5				325.2	33.5
MITO	2	IP	10	14	47.4	IS	15	21.4	251	1.4	197	1.4	142	1.9			D 3	331.6	34.0
UTSUNO	2	IP	10	14	47.5	S	15	22.5	350	0.6	250	0.6	45				D 3	335.1	35.0
URAKAW	2	P	10	14	49.0	S	15	26.8	118	0.8	191	0.8	74	1.4				340.4	37.8
KAKIOK	2	IP	10	14	50	S	15	28	191	1.0	205	0.8	91	1.0	S 20	W 9	U 16	355.3	38.0
HIROO	2	P	10	14	51.3	IS	15	29.0										368.5	37.7
MURORA	0	P	10	14	51.4	IS	15	26.8	100	1.3	100	1.7			N 18	W 6	U 26	348.8	35.4
CHOSHI	1	P	10	14	53.8	S	15	34.8	40	0.8	49	0.7	19					394.0	41.0
TAKADA	0	IP	10	14	54.1	IS	15	34.9									D 27	379.0	40.8
MAEBAS	1	IP	10	14	54.7	S	15	36.3	45	0.8	25	1.0	17				U 3	386.5	41.6
KUMAGA	1	P	10	14	55.4	S	15	36.4			200	1.0	39	1.0			U 4	394.9	41.0
SUTTSU	0	EP	10	14	56.4	ES	15	36.5										414.2	40.1
SAPPOR	1	IP	10	14	58.0	S	15	41.2	69	2.0	77	2.0	35	1.4	N 15		U 15	427.5	43.2
						X	15	31.4											
TOKYO	2	P	10	14	58.6	IS	15	42.8	117	3.6	89	3.2	70	3.4				426.1	44.2
MATSUS	0	IP	10	14	58.8	S	15	42											
NAGANO	0	P	10	14	58.8	S	15	40.8	101	2.9	80	3.2	36	2.6	N	E	D	424.2	43.2
KARUIZ	0	IP	10	14	58.8	S	15	45.0	100	1.4	100	1.6					U 6	415.5	42.0
CHICHI	0	EP	10	14	59.8	ES	15	36.1									U 5	420.0	46.2
OBIHIR	2	P	10	15	00.0	S	15	44.5										423.6	36.3
																		432.0	44.5
WAJIMA	0	EP	10	15	02	ES	15	50	170	1.0	150	1.0	50	1.4				462.3	48.0
YOKOHA	1	EP	10	15	02.8	S	15	47.0	90	0.9	150	0.6	30					455.2	44.2
KUSHIR	2	IP	10	15	04.0	IS	15	50.7	190	0.3	225	0.3	80	0.2	N 7	E 15	U 34	477.2	46.7
MATSUM	0	P	10	15	04.0	S	15	51.3										462.4	47.3
KOFU	1	IP	10	15	05.4	ES	15	54.6	66	0.6	76	0.8	23	3.2	S 3	W 4	U 5	479.7	49.2
TOYAMA	0	P	10	15	05.8	ES	15	50	53	3.0	39	3.0	42	3.0			U 5	479.4	44.2
TATEYA	0	EP	10	15	06.4	S	15	57.3	127	1.5	123	2.0	63	1.7				495.7	50.9
ASAHIK	0	EP	10	15	08	S	15	58.4	57	1.6	42	1.0						509.4	50.4
KAWAGU	1	P	10	15	08.4	X	15	37.7										485.4	
RUMOI	0	EP	10	15	09	ES	16	04										525.8	55.0
AJIRO	0	EP	10	15	09.0	S	15	59.5	43	0.3	40	0.3	12	0.4			D 4	515.6	50.5
MISHIM	0	IP	10	15	10.3	ES	16	00.4	56	0.9	69	0.9	19	0.9				515.5	50.1
OSHIMA	X	EP	10	15	10.4	S	16	00.8	124	0.6	101	0.6	35	0.4	S 5	W 3		534.0	50.4
IIDA	0	IP	10	15	11.6	ES	16	06.0	25	1.4	22	2.0	10	0.8		W 1	U 2	532.2	54.4

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A	/T S	E-W A	/T S	U-D A	/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
KANAZA	0	EP	10	15	13.0	ES	16 08.0		38	3.8	33	3.1	20	3.0				530.3	55.0
NEMURO	0	P	10	15	14.2	ES	16 08		27	0.8	25	0.8	15	1.0	N 1	E 1	U 2	563.2	53.8
SHIZUO	0	EP	10	15	15.3	S	16 09.5		20	2.5	33	3.2	11	4.0				552.0	54.2
ABASHI	0	P	10	15	16.6	S	16 12.6		27	1.2	20	1.6	14	2.0	N 6	E 1	U 6	576.5	56.0
FUKUI	0	P	10	15	20.5	ES	16 23.1								S 2	W 6	U	593.4	62.6
GIFU	0	P	10	15	20.6	S	16 20.0		17	3.1	15	1.9						605.6	59.4
NAGOYA	0	EP	10	15	20.6	ES	16 27.6		48	2.8	37	2.6	14	2.0				612.1	67.0
HAMAMA	0	P	10	15	20.9	ES	16 20		24	2.8	30	2.8	7	2.6		W 1		610.2	59.1
OMAEZA	0	EP	10	15	21.8				47	3.4	62	3.4						596.4	
TSURUG	0	EP	10	15	26	S	16 30.0											633.0	64.0
HIKONE	0	P	10	15	26.0	S	16 30.6										D	648.8	64.6
TSU	0	EP	10	15	26.9				13	1.6	16	1.8	7	1.7				677.8	
HACHIJ	0	P	10	15	30.0	IS	16 37.6		37	0.3	35	0.3	14	0.3			D 3	698.7	67.6
WAKKAN	0	IP	10	15	31.3	EX	16 41		10	3.0	11	3.4	20	2.5			D 2	688.4	
KYOTO	0	EP	10	15	32.3	ES	16 40.3		5	2.0	6	1.5	4	0.5				702.6	68.0
OWASE	0	EP	10	15	36.5	X	17 21.6		5	2.8	4	2.8	4	3.2				750.9	
OSAKA	0	EP	10	15	37				35	3.0	24	4.8	7	2.4				742.3	
TOYOOK	0	P	10	15	37.1				15	1.1	21	1.1						729.5	
WAKAYA	0	EX	10	15	43.9				5	4.0	4	4.5	4	4.0				800.8	
SAIGO	0	IP	10	15	44.9	ES	17 07.9		4	2.5	5	2.5	5	5.0		E 0	D 1	805.4	83.0
MUROTO	0	P	10	16	01.1	X	18 11.0		5	3.0	6	3.8	5	3.0				942.4	
KAGOSH	0	EP	10	16	46.7				2	2.2	5	2.0	2	1.6				1315.2	

OT= 19 21 29 23.9 +/- 0.5 (JST)
OFF AKITA PREF
LAT= 39 34 +/- 1 LONG= 139 38 +/- 3
H= 0 MAG=5.0 CLASS=M

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A	/T S	E-W A	/T S	U-D A	/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
AKITA	2	IP	21	29	35.4	IS	29 42.4		197	1.6	311	1.2	172	2.6		W 4	D 31	43.6	07.0
SAKATA	3	IP	21	29	40.6	IS	29 52.6		550	0.8	900	0.6	200	2.0			D 15	75.7	12.0
MORIOK	1	IP	21	29	48.1	IS	30 04.0		80	0.4	50	0.4	18	0.8	S 2	W 8	D 4	132.6	15.9
YAMAGA	0	IP	21	29	52.2	IS	30 12.0		50	2.5	100	1.5	50	1.8	N 3	W 2	D 5	158.5	19.8
AOMORI	X	IP	21	29	54.8	S	30 14.4		122	1.1	134	0.9	53	1.1				169.9	19.6
SENDAI	0	IP	21	29	55.0	IS	30 18.0		219	2.1	172	2.0	57	1.6	N 4	W 4	D 7	182.0	23.0
OFUNAT	1	IP	21	29	55.4	IS	30 17.6		23	0.2	25	0.6	25	2.8		W 2	D 2	188.3	22.2
ISHINO	0	EP	21	29	56.0	ES	30 18.0		35	2.2	36	4.0	38	2.6	N 2	W 2	D 2	192.3	22.0
HACHIN	X	P	21	29	56.1	IS	30 20.4		36	4.0	19	3.8	11	3.3	S	W	D	193.3	24.3
AIKAWA	1	IP	21	29	57.5	ES	30 16.4		36	0.6	39	1.0	46	1.2				210.0	18.9
MIYAKO	0	EP	21	29	57.7	IS	30 22.4		22	1.0	13	1.0	23	2.2			D 2	200.7	24.7
FUKUSH	0	EP	21	30	00.0	ES	30 25.8		58	0.8	62	0.8	16	0.8				213.8	25.8
NIIGAT	0	X	21	30	02.4	IS	30 28.5		143	3.0	148	3.0	34	4.3				190.7	
HAKODA	0	EP	21	30	06	ES	30 40		8	0.8	9	1.8	5	2.4				267.0	34.0
SHIRAK	0	EP	21	30	09.3	S	30 44.6											276.6	35.3
ONAHAM	0	EP	21	30	14.3	S	30 55.9		78	1.3	54	1.6	18	1.2				311.6	41.6
WAJIMA	0	P	21	30	14.6	ES	30 50		35	1.0	60	1.0	15	1.4				339.6	35.4
NAGANO	0	EP	21	30	15.9	S	31 02.9		29	2.4	11	2.7	10	2.1				346.3	47.0
MATSUS	0	IP	21	30	16.8	S	30 54								S	W	U	358.6	37.2
TOYAMA	0	EP	21	30	17	ES	31 09		14	3.0	13	2.6	9	3.0				382.0	52.0
UTSUNO	0	P	21	30	17.3	IS	31 01.0		13	1.2	15	0.8	11					335.8	43.7
TAKADA	0	X	21	30	18.0	ES	30 49.6											298.8	
KARUIZ	0	EP	21	30	20.5	ES	31 11.7											370.5	51.2
MITO	0	EP	21	30	21.6	IS	31 08.0		69	2.8	62	2.5	38	3.0				361.4	46.4
KAKIOK	0	EP	21	30	23	ES	31 12		12	0.8	14	1.2	5	2.3				373.4	49.0
URAKAW	0	EP	21	30	26	ES	31 17		8	4.8	6	4.2						391.4	51.0
KANAZA	0	EX	21	30	28				11	7.0	8	4.2	6	3.7				425.3	
MAEBAS	0	X	21	30	28.0	S	31 04.8		4	0.7	5	1.0	5					354.8	
KOFU	0	EP	21	30	30.4	ES	31 17.8		7	1.6	8	1.8	4	1.8				443.3	47.4
KUMAGA	0	X	21	30	31.0	S	31 16.0		14	1.4	26	1.8	9	2.8				380.2	
SAPPOR	0	EX	21	30	36				5	1.8	5	2.8	4	4.4				413.1	
KAWAGU	0	X	21	30	38.6	S	31 34.4											458.0	
NAGOYA	0	EP	21	30	43.2	ES	31 40.8		10	2.8	8	2.6	2	2.0				542.4	57.6
TATEYA	0	EX	21	30	48.5				32	3.6	31	3.3	11	4.1				509.0	
MISHIM	0	X	21	30	49				12	2.4	6	2.2						498.3	
OSAKA	0	EX	21	31	19				8	3.8	7	2.6						653.8	
HAMAMA	0	EX	21	31	20				6	2.6	6	3.0	2	2.0				565.1	
TOKYO	0	ES	21	31	28.5				25	3.0	23	3.0	20	3.0				430.9	
YOKOHA	0	ES	21	31	30				6	1.0	7	1.0	7					458.3	

OT= 20 1 16 16.9 +/- 0.2 (JST)
MIDDLE OF NAGANO PREF
LAT= 36 11 +/- 1 LONG= 138 2 +/- 1
H= 10 MAG=4.0 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A	/T S	E-W A	/T S	U-D A	/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
MATSUM	1	IP	01	16	20.4	IS	16 22.2		250	0.9	100	0.9	350	0.9	N 5	W 12	U 17	8.6	01.8
MATSUS	1	IP	01	16	25.0	IS	16 30.0								N	E	U	42.4	05.0
KARUIZ	X	P	01	16	27.3	IS	16 32.8											49.7	05.5

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A	/T S	E-W A	/T S	U-D A	/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
NAGANO	1	IP	01	16	27.6	IS	16 34.4		88	0.6	38	0.7	51				U 14	54.9	06.8
KOFU	0	IP	01	16	31.0	S	16 40.0		11	0.6	15	0.4	3	0.8	N 1		D 3	74.5	09.0
IIDA	0	IP	01	16	31.6	IS	16 41.2		9	1.8	10	1.2	5	0.8			U 5	76.8	09.6
CHICHI	0	EP	01	16	34.4	S	16 46.2											96.8	11.8
TOYAMA	0	EP	01	16	35	S	16 48.6		6	2.0	8	2.0	4	1.6				94.0	13.6
MAEBAS	0	P	01	16	35.0	S	16 46.5		15	0.4	17	0.5	16					95.8	11.5
KUMAGA	0	P	01	16	39.4	S	16 54.0		18	0.2	33	0.8	7	0.2			U 3	121.7	14.6
KANAZA	0	EX	01	16	42				6	1.6	7	2.2	5	1.6				130.7	
TAKADA	0	X	01	16	42.8	ES	16 49.6											104.1	
NAGOYA	0	P	01	16	42.8	S	17 01.2		8	1.2	8	1.0	3	1.0				148.5	18.4
UTSUNO	0	P	01	16	46.3	S	17 04.5		13	0.0	10	0.0	10					169.8	18.2
TOKYO	0	EP	01	16	48	S	17 08.5		7	0.6	8	3.2						165.2	20.5
OMAEZA	0	EP	01	16	48.8				7	2.2	7	2.2	3	2.2				176.0	
KAKIOK	0	P	01	16	49.1	S	17 11.8		12	0.8	8	1.0	6	0.7		E 5		194.3	22.7
MITO	0	EP	01	16	53.6	S	17 18.4		8	0.6	7	0.6	3	0.8				220.1	24.8
HIKONE	0	S	01	17	11.8													190.5	
TOYOOK	0	X	01	17	12	ES	17 43.6		12	1.1	9	1.1						298.9	

OT= 20 13 10 23.5 +/- 0.5 (JST)
OFF KUSHIRO
LAT= 42 56 +/- 2 LONG= 145 35 +/- 3
H= 90 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A	/T S	E-W A	/T S	U-D A	/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
NEMURO	1	IP	13	10	38.7	IS	10 47.8		25	0.2	33	0.2	14	0.2	S 1	W 2	D 2	43.9	09.1
KUSHIR	1	IP	13	10	42.6	IS	10 55.8		100	0.2	94	0.2	42	0.2	S 2	E 6	D 14	97.1	13.2
ABASHI	0	EP	13	10	50	IS	11 08.0		11	1.0	4	0.4	3	2.0				159.9	18.0
OBIHIR	0	EP	13	10	54	ES	11 15											192.8	21.0
HIROO	0	EP	13	10	55	IS	11 15.8											199.6	20.8
URAKAW	0	EP	13	11	00	S	11 28.5		8	0.4	16	0.4	5	1.2				245.9	28.5
HACHIN	0	EP	13	11	21.6	IS	12 03.0		7	0.3	6	0.0						430.7	41.4
AOMORI	0	EX	13	12	12				11	0.9	10	0.7						462.6	
MATSUS	0	IP	13	12	25.7	ES	13 56								N		D	949.9	90.3

OT= 20 13 53 51.1 +/- 0.6 (JST)
S OF IBARAKI PREF
LAT= 35 56 +/- 3 LONG= 140 15 +/- 4
H= 80 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A	/T S	E-W A	/T S	U-D A	/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
KAKIOK	0	IP	13	54	04.7	IS	54 11.8		17	1.0	31	1.2	10	0.7			U 1	33.5	07.1
TOKYO	0	EP	13	54	06	S	54 16		25	1.6	20	3.0						52.3	10.0
UTSUNO	0	P	13	54	07.5	S	54 17.8		13	0.0	15	0.0	13					76.1	10.3
KUMAGA	0	EP	13	54	08.4	ES	54 19.6		5	0.6	6	0.8	2	1.0				81.5	11.2
MITO	0	IS	13	54	15.8				13	1.1	8	1.0	3	1.0				53.2	
KOFU	0	IP	13	54	16.0	ES	54 33.9		10	0.3	8	0.3	3	0.8			D 2	155.8	17.9
YOKOHA	0	S	13	54	17.8				11	1.0	2	0.4	10					77.0	
TATEYA	0	EX	13	54	18.5				13	2.7	11	2.5	4	1.2				110.9	
MATSUS	0	IP	13	54	21.2	S	54 44								S		D	195.4	22.8

OT= 21 10 40 14.6 +/- 0.8 (JST)
OFF KUSHIRO
LAT= 42 57 +/- 3 LONG= 145 37 +/- 4
H= 40 MAG=4.3 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A	/T S	E-W A	/T S	U-D A	/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
NEMURO	2	IP	10	40	24.4	IS	40 30.6		47	0.2	68	0.2	19	0.2	N 3	W 1	U 6	42.1	06.2
KUSHIR	1	IP	10	40	31.4	ES	40 41		64	0.4	52	0.6	22	0.5			D 4	99.7	09.6
ABASHI	0	EP	10	40	40	S	40 57.6		12	0.6	10	0.6	3	0.8				160.3	17.6
OBIHIR	0	EP	10	40	44													195.6	
HIROO	0	P	10	40	46.2	S	41 08.0											202.7	21.8
URAKAW	0	EP	10	40	53	S	41 20.4		10	1.0	14	0.8						249.0	27.4
MATSUS	0	X	10	42		X	43 47								S	W	U	953.1	

OT= 22 14 25 48.7 +/- 0.3 (JST)
MIDDLE OF CHIBA PREF
LAT= 35 32 +/- 1 LONG= 140 12 +/- 2
H= 80 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A	/T S	E-W A	/T S	U-D A	/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
YOKOHA	2	P	14	26	03												S 4	D 9	50.6	
TOKYO	1	IP	14	26	03.5	S	26 12.4		138		92	0.6	40						43.4	08.9
TATEYA	0	EP	14	26	04.7	IS	26 16.0		87	0.7	62	0.7	38	0.6					68.1	11.3
KAKIOK	0	EP	14	26	05	IS	26 14.6		28	1.0	26	0.7	14	0.6					77.5	09.6
CHOSHI	0	P	14	26	05.3	S	26 12.7		10	0.5	12	0.6	15						62.0	07.4

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STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MITO	0	EP	14 26 08.0	S	26 19.6	14	0.6	17	1.0	6	1.0				96,9	11.6
KUMAGA	0	EP	14 26 08.4	ES	26 23.0	17	0.6	18	0.8	8	0.8				100,2	14.6
UTSUNO	1	P	14 26 08.7	IS	26 21.9	31	0.0	27	0.0	16					116,2	13.2
CHICHI	0	IP	14 26 09.0	S	26 23.6									D 4	113,2	14.6
AJIRO	0	IP	14 26 09.3	IS	26 21.9	51	0.2	45	0.2	9	0.2			D 3	114,1	12.6
MISHIM	0	IP	14 26 10.4	S	26 24.1	19	0.7	19	0.7	10	0.2			D 2	124,6	13.7
MAEBAS	0	P	14 26 12.3	S	26 28.1	5	0.4	5	0.7	9					140,6	15.8
KOFU	0	IP	14 26 13.2	ES	26 28.8	16	0.3	21	0.4	5	0.6	S 1 E 2 D 6			149,4	15.6
SHIZUO	0	EP	14 26 17.2	S	26 37.3	10	0.3	15	0.4	4					174,6	20.1
MATSUS	0	IP	14 26 20.9	S	26 43							S E D			211,3	22.1
ONAHAM	0	X	14 26 32.8			10	1.0	10	0.9	3	0.5				169,0	

OT= 22 16 38 42.5 +/- 0.6 (JST)
OFF IWATE PREF
LAT= 39 6 +/- 1 LONG= 142 44 +/- 3
H= 0 MAG=4.3 CLASS=L

MIYAKO	1	P	16 39 00.9	IS	39 12.8	17	1.2	18	2.0	15	1.8	S 5 E 6 D 5			89,5	11.9
OFUNAT	1	IP	16 39 01.6	IS	39 13.4	21	0.0	14	0.0	10	0.4	E 2 D 1			87,9	11.8
ISHINO	0	EP	16 39 08.9	IS	39 25.6	10	1.2	8	1.2	5	0.8	N 2 E 4 D 4			145,1	16.7
MORIOK	0	P	16 39 09.8	S	39 28.0	31	0.4	36	0.4	5	0.5	S 0 E 0 D 0			150,2	18.2
HACHIN	0	EP	16 39 14.1	S	39 37.2	5	0.2	6	0.8	5	1.4			D 1	189,0	23.1
SENDAI	0	EP	16 39 14.4	S	39 36.6	24	2.0	20	1.6	9	0.8				184,8	22.2
AKITA	0	EX	16 39 23.0	EX	39 51.8	22	1.8	16	1.8	20	1.6				236,8	
FUKUSH	0	EP	16 39 23.5	ES	39 52.0	13	1.0	13	0.9	4	0.4				247,2	28.5
AOMORI	0	EP	16 39 24	ES	39 56	40	1.6	25	0.9	10	1.4				253,2	32.0
SAKATA	0	EP	16 39 26.0												251,9	
URAKAW	0	EP	16 39 35	ES	40 20	5	3.8	6	3.2	5	3.4				339,7	45.0
MATSUS	0	P	16 39 55	X	41 17										489,3	
ONAHAM	0	EX	16 40 04.6			12	1.1	9	1.4	3	0.4				288,0	

OT= 23 20 23 21.0 +/- 0.2 (JST)
NEAR MATSUSHIRO
LAT= 36 34 +/- 1 LONG= 138 13 +/- 1
H= 10 CLASS=L

MATSUS	2	IP	20 23 23.4	S	23 26							S W U			3,2	02.6
NAGANO	2	IP	20 23 24.6	IS	23 26.7	139		80		83		N 8 W 3 U 90			10,5	02.1
KARUIZ	0	EP	20 23 29.0	S	23 35.4										39,2	06.4
MATSUM	0	P	20 23 29.8	IS	23 35.8									U	42,0	06.0
WAJIMA	0	EX	20 24 04			10	0.8	8	0.8						148,7	

OT= 24 1 50 40.1 +/- 1.1 (JST)
OFF IWATE PREF
LAT= 39 7 +/- 2 LONG= 142 34 +/- 6
H= 10 MAG=3,9 CLASS=U

MIYAKO	0	EP	01 50 54.4	S	51 06.3	6	0.8	6	1.0	5	1.6				78,1	11.9
MORIOK	0	P	01 51 04.4	ES	51 20.7	8	0.4	10	0.4	2	0.4				136,6	16.3
SENDAI	0	EP	01 51 10	ES	51 30.0	4	1	5	0.8	2	1				173,4	20.0
AOMORI	0	EP	01 51 21	ES	51 49	11	1.1	9	0.9	4	1.1				242,6	28.0
MATSUS	0	IP	01 51 48.8	ES	52 44									U	478,5	55.2

OT= 24 23 27 16.7 +/- 0.5 (JST)
MIDDLE OF SETONAIKAI
LAT= 34 5 +/- 2 LONG= 132 39 +/- 3
H= 30 MAG=4.2 CLASS=S

HIROSH	1	IP	23 27 25.7	IS	27 31.8	74	0.5	97	0.5	72	0.3	S 4 E 1 D 6			36,7	06.1
MATSUY	2	EP	23 27 25.8	IS	27 31.8	123	0.7	89	0.7	42	0.5	N W D 5			29,5	06.0
UWAJIM	1	P	23 27 32.5	IS	27 44.9										95,5	12.4
HAMADA	0	IP	23 27 33.9	S	27 45.8	8	0.4	12	0.8	5	0.8	S 0 E 0 D 1			104,3	11.9
TAKAMA	1	EP	23 27 37.8	IS	27 55.8	26	0.4	31	0.4	6	0.6				132,3	18.0
OKAYAM	1	EP	23 27 38.2	ES	27 53.6	31	0.5	29	0.5	6	0.5				133,9	15.4
SHIMON	0	EP	23 27 39.4	ES	27 56.6	4	0.8	5	0.8	6	0.8				158,4	17.2
MUROTO	0	P	23 27 41.0	ES	28 07.8	5	0.9	5	1.0						169,3	26.8
YONAGO	0	P	23 27 42.6	IS	28 01.8							S 2 D 2			162,6	19.2
MATSUE	0	EP	23 27 42.8	S	28 01.4										156,9	18.6
ASHIZU	0	EP	23 27 43.2	ES	28 01.8	16	0.5	17	0.5	5	0.5				155,3	18.6

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TOKUSH	0	EP	23 27 43.6	ES	28 08.0										177,8	24.4
KUMAMO	0	EP	23 27 49.0	IS	28 20.4	11	1.3	12	1.9	4	1.1				229,0	31.4
TOTTOR	0	P	23 27 49.1	S	28 13.2										211,3	24.1
SUMOTO	0	P	23 27 49.7	S	28 16.8										209,9	27.1
SAGA	0	P	23 27 57.9	S	28 27.3										236,4	29.4
MIYAZA	0	X	23 28 05.6	S	28 27.2	8	0.8	8	0.8	3	0.8				266,0	
WAKAYA	0	EX	23 28 20.0			9	1.0	6	0.8	3	1.2				232,5	
KOBE	0	X	23 28 24.3												242,1	
MATSUS	0	P	23 28 35	X	30 01										573,9	
TOYOOK	0	X	23 28 36.5			29	1.0	49	1.0	8	0.9				255,7	

OT= 25 21 3 43.3 +/- 1.5 (JST)
E OFF HOKKAIDO
LAT= 43 45 +/- 7 LONG= 148 19 +/- 8
H= 60 MAG=5.3 CLASS=M

NEMURO	2	P	21 04 16.4	S	04 38.5	21	0.2	19	0.8	16	2.4		E D		225,6	22.1
ABASHI	0	P	21 04 29.6	ES	05 02	14	3.6	19	3.0	11	4.2		E 2 D 2		325,5	32.4
KUSHIR	0	EP	21 04 30	S	05 04.0	55	0.3	48	0.2	20	0.2				329,3	34.0
OBIHIR	0	EP	21 04 44												423,4	
ASAHIK	0	EP	21 04 48			11	2.8	7	2.0						478,6	
URAKAW	0	P	21 04 52.4	S	05 40.5	39	1.4	41	1.4	19	3.8				485,1	48.1
WAKKAN	0	EP	21 05 02					5	4.0	4	5.0				558,3	
SAPPOR	0	P	21 05 02.4	ES	06 05	12	3.6	13	1.4	7	4.2				571,0	62.6
MURORA	0	EP	21 05 08	ES	06 06										618,4	58.0
HAKODA	0	P	21 05 11.7	ES	06 17	24	1.4	15	1.4	7	1.5			U	654,7	65.3
HACHIN	0	EP	21 05 12.3	X	06 34.8	7	0.0	4	0.2	3	2.2					
AOMORI	0	EP	21 05 21	X	06 48.4	29	1.4	23	1.4	9	1.3			D	665,8	
AKITA	0	EX	21 05 32.5			7	3.8	7	3.0	5	3.4				701,3	
MATSUS	0	P	21 06 16	S	08 10										816,6	
															1174,5	114.0

OT= 26 20 29 11.4 +/- 0.5 (JST)
OFF IWATE PREF
LAT= 40 19 +/- 1 LONG= 142 21 +/- 3
H= 40 MAG=3,9 CLASS=L

HACHIN	1	IP	20 29 25.1	IS	29 34.2	21	0.0	20	0.0	4	0.2	S 1 E 2 D 1			73,7	09.1
MIYAKO	1	IP	20 29 26.0	IS	29 35.6	10	0	10	0	5	0				81.4	09.6
MORIOK	0	IP	20 29 31.1	IS	29 44.5	8	0.4	11	0.3	2	0.3	N 0 E 1 D 0			122,1	13.4
OFUNAT	0	EP	20 29 35.4	IS	29 52.2	6	0.2	3	0.2	1	0.2				149,5	16.8
AOMORI	0	X	20 29 54			18	0.2	14	0.2						143,8	
MATSUS	0	P	20 30 27												553,6	

OT= 27 4 15 49.1 +/- 1.8 (JST)
E OFF HOKKAIDO
LAT= 42 59 +/- 5 LONG= 148 21 +/-10
H= 70 CLASS=U

NEMURO	0	P	04 16 21.6	ES	16 50	69	3.4	35	2.8	55	4.0	S W 1 U 1			228,0	28.4
KUSHIR	0	P	04 16 34.0	S	17 08.0	33	3.2	31	3.8	28	3.2	U 3			322,6	34.0
ABASHI	0	P	04 16 37.4	ES	17 16	46	4.0	29	4.0	22	3.0	W 4 U 3			348,4	38.6
				EX	17 16											
URAKAW	0	IP	04 16 56.2	S	17 45.3	40	4.0	38	3.2	33	3.8	E U 3			466,4	49.1
ASAHIK	0	EP	04 16 57			13	2.8	13	3.8	10	2.8				492,2	
SAPPOR	0	IP	04 17 07.0	ES	18 05	30	2.0	18	2.0	13	4.4	U 2			572,1	58.0
WAKKAN	0	P	04 17 08.5	X	18 29.6			26	4.2	15	4.2				597,3	
HACHIN	0	EP	04 17 14.4	S	18 15.4	5	2.8	4	4.4	5	3.6	N E D			629,7	61.0
HAKODA	0	IP	04 17 15.1	ES	18 17	9	3.6	14	4.5	5	2.6	W 1 U 2			638,3	61.9
AOMORI	0	EP	04 17 21	ES	18 26	33	2.0	21	2.0						672,2	65.0
MORIOK	0	P	04 17 24.1	IS	18 31.4	6	1.5	5	0.4	3	1.4				703,0	67.3
				EX	20 45											
AKITA	0	EX	04 17 46	EX	18 51	11	3.6	11	4.2	9	3.2				779,3	
FUKUSH	0	EX	04 17 52.1			5	1.4	6	1.0						884,9	
MATSUS	0	P	04 18 16	IS	20 10.2										1124,3	114.2
SAKATA	0	EX	04 19 10.8												847,5	
ONAHAM	0	EX	04 19 19.4			7	1.4	6	1.3	4	1.3				923,4	

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OT= 28 3 48 28.5 +/- 2.4 (JST)
NEAR NIIGATA
LAT= 37 52 +/-12 LONG= 139 5 +/- 9
H= 10 MAG=3.8 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NIIGAT	2	IP	03	48	29.2	IS	48	32.7	437	1.2	396	0.4	63	1.2			U 56	5,6	03.5
MATSUS	0	IP	03	48	55.4	S	49	16							N	E	D	166,6	20.6
FUKUSH	0	X	03	48	56.1	ES	49	04.8	6	0.9	6	1.0	3	0.5				123,1	
NAGANO	0	EP	03	48	56.6	S	49	14.9	7	1.8	5	1.4						155,3	18.3
SENDAI	0	EX	03	48	59	S	49	14.4	5	2.0	4	1.2	3	1.4				165,3	
SAKATA	0	EX	03	49	00.9													132,6	
ONAHAM	0	ES	03	49	24.1				5	0.8	4	0.9	2	0.5				191,1	

OT= 29 22 9 36.9 +/- 0.4 (JST)
OFF URAKAWA
LAT= 41 28 +/- 2 LONG= 142 54 +/- 2
H= 30 MAG=4.4 CLASS=S

URAKAW	2	IP	22	09	51.0	IS	10	00.0	139	0.4	131	0.2	35	0.2	N	3 E	1 U	5	77,5	09.0
HIROO	1	EP	22	09	53	IS	10	04.5											97,1	11.5
HACHIN	1	IP	22	10	02.3	IS	10	19.8	28	0.2	15	0.2	3	1.4	S	1 W	2 U	1	156,0	17.5
OBIHIR	0	EP	22	10	04	S	10	22.8											163,6	18.8
HAKODA	0	IP	22	10	05.1	S	10	24.2	7	0.6	7	0.6	3	0.7			D		182,6	19.1
KUSHIR	0	EP	22	10	08	S	10	32.2	20	0.2	19	0.3	5	0.3					208,4	24.2
AOMORI	0	EX	22	10	10				20	0.7	21	0.9	9	1.6					191,8	
SAPPOR	0	EP	22	10	12	ES	10	35	10	2.0	8	1.2	4	2.0					219,1	23.0
MORIOK	0	IP	22	10	15.7	S	10	42.3	8	0.4	7	0.4	2	1.8	S	0 W	0 U	0	245,2	26.6
ASAHIK	0	EP	22	10	18				5	1.2	7	0.8	5	1.0					259,5	
MATSUS	0	P	22	11	10	X	12	35											681,3	

OT= 30 4 5 9.1 +/- 0.2 (JST)
SW OF IBARAKI PREF
LAT= 36 6 +/- 3 LONG= 140 3 +/- 1
H= 70 CLASS=L

KAKIOK	0	IP	04	05	20.2	S	05	28.1	12	0.3	17	0.3	15	0.3	S	W	U 11		19,5	07.9
MITO	0	P	04	05	22.1	S	05	31.3	6	0.4	9	0.5	2	0.5					48,9	09.2
KUMAGA	0	EP	04	05	23.4	S	05	33.0	8	0.4	12	0.8	2	0.6					60,1	09.6
TOKYO	0	ES	04	05	34.5				8	0.5	7	2.0	3	0.5					53,0	
MATSUS	0	IP	04	05	35.8	S	05	54							S	E	D		172,4	18.2
UTSUNO	2	P	04	05											N	3 E	5 U	5	52,1	

OT= 30 9 5 38.6 +/- 0.1 (JST)
MIDDLE OF FUKUSHIMA PREF
LAT= 37 30 +/- 1 LONG= 140 11 +/- 2
H=160 CLASS=R

FUKUSH	1	IP	09	06	02.0	IS	06	17.8	240	1.2	140	1.9	70	1.8	S	14 W	15 D	57	38,4	15.8
SHIRAK	X	IP	09	06	02.2	IS	06	17.6	200	2.2	150	2.0	50	2.0	N	9 E	1 D	46	42,5	15.4
YAMAGA	0	IP	09	06	04.2	IS	06	21.4	200	2.6	300	2.0	100	2.2	S	13 E	5 D	60	84,9	17.2
ONAHAM	2	IP	09	06	04.6	IS	06	21.8	400	1.4	500	1.4	200	1.6	N	1 W	1 D	40	89,0	17.2
SENDAI	1	IP	09	06	05.4	IS	06	23.6	202	2.2	298	2	98	1.4	S	10 W	2 D	34	105,3	18.2
NIIGAT	0	IP	09	06	06.4	IS	06	27.0	360	1.9	390	3.6	150	2.8	S	2 E	10 D	94	109,7	20.6
MITO	2	IP	09	06	07.2	IS	06	26.8	345	1.7	150	0.6	75	2.7	N	2	D	20	127,1	19.6
ISHINO	2	IP	09	06	08.4	IS	06	28.0	140	1.0	232	2.0	72	2.0	S	4 W	4 D	6	142,2	19.6
KAKIOK	3	IP	09	06	08.5	S	06	27.9	300	0.7	400	0.7	100	0.8			D	6	140,7	19.4
MAEBAS	0	IP	09	06	10.1	S	06	32.0	33	0.8	48	0.8	16		S	1 W	1 U	4	157,4	21.9
SAKATA	0	EP	09	06	10.3	IS	06	34.4	300	2.0	150	2.8	150	2.6					158,7	24.1
TAKADA	0	IP	09	06	11.0	S	06	36.1									U 20		176,9	25.1
KUMAGA	1	P	09	06	11.6	S	06	34.0	132	0.8	160	1.2	38	1.2	S	2 W	1 U	14	166,2	22.4
CHICHI	0	IP	09	06	13.2	S	06	36.7	100				100	1.4	S	4 W	4 U	7	194,1	23.5
KARUIZ	0	IP	09	06	13.6	IS	06	39.5	200	2.8	200	3.0				W	3 U	26	194,2	25.9
CHOSHI	1	P	09	06	14.1	S	06	38.8	24	0.6	33	0.8	15						205,6	24.7
NAGANO	0	IP	09	06	14.4	IS	06	39.5	177	2.1	92	2.5	34	2.1	S	2 W	7 U	21	199,7	25.1
MATSUS	0	IP	09	06	14.4	S	06	40							S	W	U		205,6	25.6
TOKYO	1	P	09	06	15.3	IS	06	41.3	167	0.4	107	0.8	52						204,9	26.0
OFUNAT	2	IP	09	06	16.0	IS	06	40.6	136	0.8	210	0.4	92	0.6	N	8 E	5 U	12	219,3	24.6
YOKOHA	1	P	09	06	17.8	S	06	45.0	90	0.8	200	0.4	25						233,8	27.2
MATSUM	0	P	09	06	18.4	S	06	47.0											241,4	28.6
AKITA	0	P	09	06	19.2	IS	06	48.0	103	3.2	92	2.6	49	3.4			D	2	246,3	28.8
KOFU	1	IP	09	06	19.4	IS	06	47.4	125	0.4	125	0.4	59	1.2	S	11 W	8 U	19	250,2	28.0
MORIOK	2	IP	09	06	19.8	IS	06	48.5	100	0.4	112	0.4	19	0.4	N	9 E	2 U	6	258,5	28.7

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KAWAGU	1	P	09	06	20.8	S	06	48.4	300	01.8	250	01.5	50	01.4				255,9	27.6
MISHIM	0	IP	09	06	21.9	IS	06	53.3	69	1.0	69	1.0	31	2.4	S	1	U	2	287,9	31.4
AJIRO	1	P	09	06	22.1	ES	06	54.2	52	0.3	86	0.3	15	0.3					289,5	32.1
MIYAKO	2	P	09	06	22.3	IS	06	51.4	108	1.9	89	3.1	102	3.1	N	8 E	4 U	8	284,4	29.1
TATEYA	2	EP	09	06	22.3	IS	06	54.4	195	2.2	123	2.8	87	1.8					280,6	32.1
TOYAMA	0	IP	09	06	22.4	ES	06	53	62	3.4	72	3.4	64	3.2			U	21	278,7	30.6
WAJIMA	0	EP	09	06	24														290,9	
OSHIMA	1	EP	09	06	24.6	S	06	56.5	116	0.2	64	0.4	47	0.2					312,3	31.9
IIDA	0	IP	09	06	25.4	IS	06	59.2	36	2.2	31	1.2	26	2.6	S	W	U		304,9	33.8
SHIZUO	0	P	09	06	27.1	S	07	00.1	42	1.7	34	1.2	15	3.1	S	3	U	4	322,6	33.0
HACHIN	1	IP	09	06	28.3	IS	07	05.4	45	0.4	45	0.4	30	2.4	N	2 E	1 U	5	355,3	37.1
KANAZA	0	IP	09	06	28.8	ES	07	01.1	28	4.8	35	3.0	26	3.0	S	6	U	17	331,8	32.3
OMAEZA	0	EP	09	06	32.6	X	07	27.8	51	3.6	32	2.4							367,1	
AOMORI	0	EP	09	06	33	S	07	12	72	1.9	80	1.4	23	1.4					371,8	39.0
GIFU	0	IP	09	06	33.2	S	07	07.7	17	2.0	28	2.4	10	1.7	S	6 W	10 U	10	385,0	34.5
HAMAMA	0	IP	09	06	33.8	S	07	09.2	33	2.6	25	3.0	15	3.2			U	5	380,7	35.4
NAGOYA	0	IP	09	06	34.0	S	07	10.8	44	2.6	38	2.4	18	2.0	S	4 W	4 U	6	387,8	36.8
FUKUI	0	X	09	06	35.3														387,9	
HIKONE	0	P	09	06	39.7	S	07	23.4									U		430,9	43.7
HAKODA	0	P	09	06	44.6	ES	07	26	10	1.2	10	2.8	5	3.0			U	2	481,4	41.4
KYOTO	0	P	09	06	45.5	ES	07	29.8	7	1.5	10	1.6	16	2.0		W	6 U	17	485,7	44.3
HACHIJ	0	EP	09	06	45.7	S	07	34.1	33	0.2	31	0.2	12	0.2					489,2	48.4
NARA	0	P	09	06	47.5	X	07	27.2	6	0.9	6	0.9							501.0	
						X	07	16.1												
OWASE	0	EP	09	06	49.0	X	07	33.8	3		3		5	2.4					524,3	
OSAKA	0	EP	09	06	49	IX	06	50.3	31	3.0	22	3.2	12	2.0					523,5	
TOYOOK	0	IP	09	06	50.8				25	1.0	23	1.2	9	1.9	S	13 W	5 U	9	527,3	
KOBE	0	EP	09	06	53.0														547,8	
URAKAW	1	P	09	06	53.6	S	07	43.4	34	0.4	59	0.4	13	0.6	N	1	U	2	562,9	49.8
HIROO	0	P	09	06	56.7	IS	07	55.1											594,8	58.4
WAKAYA	0	EX	09	06	56.9				6	3.0	5	3.0	3	3.5					580.4	
UTSUNO	2	P	09	06													D	6	109,4	
TSURUG	0	X	09	06		S	07	23.0								W	6 U	8	421,8	
NEMURO	0	X	09	06		X	07	25	9	0.4	6	0.4	5	0.4			U	1	792,8	
SAPPOR	0	EP	09	07	00	ES	08	03	6	2.6	7	1.8	4	3.0					624,9	63.0
SAIGO	0	IP	09	07	02.7				6	1.2	10	1.5			S	1 W	1 U	2	627,3	
OBIHIR	0	EP	09	07	03	S	08	09.0											655,0	66.0
KUSHIR	1	IP	09	07	08.7	IS	08	16.2	142	0.4	117	0.4	52	0.3			U	3	705,8	67.5
ASAHIK	0	EP	09	07	12				6	1.2	6	0.8	4	1.0					720.5	
KAGOSH	0	EP	09	07	59.0				6	2.2	4	2.4							1100.4	
ABASHI	0	EX	09	08	39				6	1.0	6	1.2	4	1.2					802.0	

OT= 30 16 51 48.7 +/- 0.2 (JST)
OFF URAKAWA
LAT= 41 43 +/- 1 LONG= 142 9 +/- 2
H=100 CLASS=M

URAKAW	3	IP	16	52	07.4	IS	52	19.4	237	0.4			74	0.4			U	3	71,7	12.0
MURORA	1	P	16	52	11.0	IS	52	25.2									U	4	117.4	14.2
HIROO	1	P	16	52	11.0	IS	52	24.7											115,4	13.7
HAKODA	0	IP	16	52	11.2	IS	52	26.6	46	0.4	68	0.8	23	0.8		E	6 D	11	116,2	15.4
HACHIN	2	IP	16	52	13.6	IS	52	30.8	76	0.3	54	0.2	24	0.5	S	3 W	2 U	3	142,4	17.2
AOMORI	1	EP	16	52	14	IS	52	36.6	184	0.7	110	0.9	59	1.2					152,0	22.6
OBIHIR	1	IP	16	52	16.1	IS	52	34.8									U	13	160,2	18.7
SAPPOR	1	P	16	52	16.6	ES	52	34	45	2.0	35	2.0	15	1.2			U	7	163,6	17.4
SUTTSU	0	EP	16	52	21.3	ES	52	43.5											197,7	22.2
KUSHIR	1	IP	16	52	22.8	S	52	45.6	25	0.2	30	0.2	10	0.2			U	1	232,1	22.8
ASAHIK	0	EP	16	52	23	S	52	50.0	13	0.8	10	1.2	17	1.0					228,9	27.0
MIYAKO	0	EP	16	52	23.2	IS	52	47.9	6	0	10	0.8	5	0.4	S	3	U	3	230,6	24.7
MORIOK	X	IP	16	52	25.5	S	52	49.5	16	0.4	18	0.4	3	0.4	S	1 W	1 U	1	239,2	24.0
RUMOI	0	EX	16	52	26	ES	52	55											251,7	
ABASHI	0	P	16	52	30.2	ES	53	04	6	2.2	7	2.6	2	1.4					309,3	33.8
OFUNAT	0	IP	16	52	31.9	ES	53	04.8	7	0.2	6	0.8	3	0.6	S	2	U	2	297,1	32.9
AKITA	0	EP	16	52	32.2	EX	53	04.6	10	2.2	12	2.6	7	2.2			U		281,4	
SAKATA	0	EX	16	52	43.3														369,1	
ONAHAM	0	EX	16	53	06.0				5	1.3	5	1.4	2	1.2					540,5	
MATSUS	0	IP	16	53	18.7	S	54	32							S	W	U		668,1	73.3

OT= 30 22 22 20.6 +/- 0.4 (JST)
OFF FUKUSHIMA PREF
LAT= 36 55 +/- 1 LONG= 141 16 +/- 2
H= 50 MAG=4.0 CLASS=S

ONAHAM	1	IP	22	22	30.4	IS	22	35.9	49	0.4	52	0.6	44	0.4	N	2 E	2 D	55	30,7	05.5
MITO	X	IP	22	22	37.4	IS	22	48.0	15	0.6	16	0.5	5	0.5		W	2 D	3	91,7	10.6

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
SHIRAK	1	IP	22	22	37.5	IS	22	47.6	0		0		0				D 5	93,9	10.1
FUKUSH	1	IP	22	22	40.0	IS	22	52.4	59	0.6	51	0.9	21	0.9	N 1	W 1	U 1	115,8	12.4
KAKIOK	0	EP	22	22	40.4	S	22	51.8	14	0.5	12	0.8	6	0.5				121,3	11.4
SENDAI	0	IP	22	22	44.3	S	23	00.4	22	0.8	14	0.8	9	1.6			U 3	152,2	16.1
ISHINO	0	P	22	22	46.3	ES	23	04.0	7	0.6	6	0.6	2	1.2			U 1	167,5	17.7
CHOSHI	0	EP	22	22	47.7	X	23	59.8	4	0.6	8	0.6	9					137,2	
OFUNAT	0	EP	22	22	57.0	ES	23	20.7	5	0.2	5	0.2	2	1.0				241,6	23.7
MATSUS	0	IP	22	23	00.6	S	23	26								E	D	274,9	25.4

OT= 31 15 43 29.9 +/- 1.3 (JST)
S OF KURILE IS
LAT= 44 20 +/- 7 LONG= 150 49 +/- 7
H= 60 MAG=5.1 CLASS=U

NEMURO	0	IP	15	44	30.8	ES	45	17	7	0.8	9	1.0	3	0.8	N 1	E 1	D 2	435,3	46.2
ABASHI	0	P	15	44	40.4	ES	45	37	4	2.4	5	2.4	2	1.6				523,7	56.6
KUSHIR	0	IP	15	44	43.6	S	45	39.7	20	0.7	15	0.7	6	0.6		E 2	D 3	539,4	56.1
URAKAW	0	P	15	45	04.6	S	46	18.7	6	1.0	8	0.8	3	1.0				695,8	74.1
MORIOK	0	IP	15	45	35.0	S	47	11.8	5	0.4	5	0.4	2	0.5	S 0		U 0	949,9	96.8
MATSUS	0	IP	15	46	27.7	S	48	48							N	E	D	1373,5	140.3
AOMORI	0	EX	15	46	59				12	1.4	15	0.8	4	1.1				911,0	

OT= 31 16 0 9.0 +/- 0.6 (JST)
OFF FUKUSHIMA PREF
LAT= 37 0 +/- 2 LONG= 142 31 +/- 3
H= 60 MAG=5.5 CLASS=M

ONAHAM	X	IP	16	00	31.3	ES	00	46.6	400	1.0	350	1.3	100	2.0		E 1	D 12	143,5	15.3
ISHINO	0	EP	16	00	37.8	IS	00	57.4	77	2.4	80	5.0	74	3.4	S 3	E 1	D 3	190,9	19.6
MITO	1	IP	16	00	38.5	IS	00	58.3	202	3.5	269	3.6	148	2.4			D 3	195,3	19.8
SHIRAK	1	P	16	00	38.8	S	01	00.0	100	3.0	100	3.6	0					204,2	21.2
SENDAI	X	IP	16	00	38.9	IS	00	58.2	194	1.2	142	3.6	82	1.8	S 6	E 4	D 8	199,8	19.3
FUKUSH	1	IP	16	00	38.9	ES	00	59.8	148	0.9	117	1.0	71	4.5	S 5	E 14	D 5	199,3	20.9
KAKIOK	1	EP	16	00	41	X	00	50	132	0.7	115	0.7	74	4.4				224,6	
CHOSHI	0	P	16	00	41.4	S	01	05.1			55	0.8	16					206,3	23.7
YAMAGA	0	EP	16	00	44.8	IS	01	09.8	200	4.0	200	4.2	150	3.0	N 2	W 5		236,5	25.0
OFUNAT	0	IP	16	00	44.8	S	01	08.9	27	4.0	44	3.8	29	3.2	N 3	W 1	U 2	239,3	24.1
TOKYO	0	P	16	00	51.7	S	01	22.4	125	4.2	152	4.4	92	3.8				287,3	30.7
MIYAKO	0	EP	16	00	52.1	S	01	20.8	21	4.9	25	3.0	21	1.0				297,5	28.7
KUMAGA	0	P	16	00	52.4	ES	01	20.6	95	1.8	120	4.6	122	3.6	S 2	W 3	U 10	295,8	28.2
MORIOK	0	EP	16	00	55.0	ES	01	27.0	30	4.0	35	4.0	22	4.0				321,7	32.0
						X	01	17.0											
NIIGAT	0	EP	16	00	55.0	S	01	29.3	230	4.7	325	4.1	115	4.1				322,7	34.3
MAEBAS	0	P	16	00	55.1				21	0.8	23	1.0	15					315,4	
CHICHI	0	EP	16	00	55.1	S	01	26.9										327,4	31.8
SAKATA	0	EP	16	00	55.6				350	2.4	400	3.6	100	2.8				316,3	
TATEYA	0	EP	16	00	57.1				287	3.9	238	4.5	141	4.3				327,2	
YOKOHA	0	P	16	00	57.3				55	1.2	50	0.8	25					310,2	
OSHIMA	0	EP	16	01	00				55	3.4	67	4.2	17	1.2				376,7	
KARUIZ	0	EP	16	01	00.5	S	01	40.9										361,9	40.4
AKITA	0	EP	16	01	01.6	S	01	40.0	217	4.0	172	4.2	74	4.0			U	368,2	38.4
AJIRO	0	EP	16	01	02.0	ES	01	44.2	32	3.4	31	3.4	16	3.8				376,9	42.2
KAWAGU	0	P	16	01	02.1	S	01	41.0										376,1	38.9
MISHIM	0	EP	16	01	02.9	S	01	52.0	92	3.6	75	2.7	25	2.7				385,0	49.1
KOFU	0	EP	16	01	03.2	ES	01	50.0	90	2.2	93	1.8	41	3.6				384,9	46.8
MATSUS	0	IP	16	01	03.4	S	01	52								E	D	388,0	48.6
TAKADA	0	EP	16	01	03.6	X	01	53.0										379,6	
HACHIN	0	EP	16	01	05.1	S	01	49.6	17	2.8	28	3.2	21	3.6				400,7	44.5
NAGANO	0	EP	16	01	05.9	S	01	46.3	138	4.2	115	4.0	32	4.2				387,1	40.4
MATSUM	0	EP	16	01	06.1	ES	01	49.5										414,9	43.4
SHIZUO	0	P	16	01	09.3	X	02	07.7	29	3.8	27	3.5	30	3.4				433,4	
AOMORI	0	EP	16	01	11	ES	02	01	68	2.0	83	2.4	28	2.5				449,5	50.0
IIDA	0	IP	16	01	13.0	X	02	09.0	61	1.6	34	3.5	35	3.0	S 1	W 4	D 5	451,9	
TOYAMA	0	EP	16	01	15	ES	02	04	77	4.2	97	4.6	72	4.0				474,4	49.0
WAJIMA	0	EX	16	01	16				30	2.4	30	2.6	25	3.0				500,6	
OMAEZA	0	EP	16	01	16.9				100	3.2	62	3.2						471,0	
HACHIJ	0	EP	16	01	18.6	S	02	05.0	25	0.6	18	0.5	8	0.4				498,8	46.4
HAMAMA	0	EP	16	01	19	S	02	19.5	36	3.4	56	3.8	16	3.0				501,9	60.5
KANAZA	0	EP	16	01	22.8	ES	02	16.0	46	4.5	50	3.7	33	4.8				526,1	53.2
NAGOYA	0	EP	16	01	24.0	ES	02	20.6	68	3.4	72	2.6	33	2.6				539,4	56.6
GIFU	0	P	16	01	25.2	S	02	16.9	31	2.0	23	3.4	12	2.2				546,8	51.7
URAKAW	0	EP	16	01	29	X	02	13.8	33	4.8	28	3.6	31	4.6				573,2	
HAKODA	0	EP	16	01	29	ES	02	20	17	3.2	17	3.6	14	4.6				555,4	51.0
HIKONE	0	P	16	01	31.0	X	02	44.3										595,7	
TSURUG	0	P	16	01	32.0	ES	02	31.1										598,1	59.1
FUKUI	0	X	16	01	33.2	S	02	27.2										572,8	

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KYOTO	0	EP	16	01	36.2	ES	02	41.2	10	3.5	5	6.0	6	5.8				649,7	65.0
OWASE	0	EP	16	01	37.0	X	03	05.0	6	3.0	5	3.2	6	4.8				658,9	
OSAKA	0	EP	16	01	40.2	ES	03	01	92	3.4	60	3.9	27	2.2				682,1	80.8
NARA	0	EP	16	01	40.4	S	02	44.7	50	2.0	50	2.0						655,9	64.3
						X	03	10.1											
WAKAYA	0	EX	16	01	40.5				13	5.3	6	5.5	7	6.0				733,1	
KUSHIR	0	EP	16	01	42	ES	02	45	10	4.0	10	4.1	8	3.9				682,9	63.0
OBIHIR	0	EX	16	01	43													660,1	
TOYOOK	0	X	16	01	45.4				25	1.3	16	1.3	7	5.1				710,1	
NEMURO	0	EP	16	01	47	ES	03	00	4	2.6	5	3.8	3	3.0				749,6	73.0
SAPPOR	0	X	16	01	48				17	3.4	14	2.4	8	3.4				680,2	
SHIONO	0	EX	16	01	48.8				7	3.9	8	3.9						729,8	
ASAHIK	0	EP	16	01	50				11	1.6	12	1.8	10	2.4				751,9	
ABASHI	0	EP	16	01	55	ES	03	11	9	2.6	8	3.0	5	2.4				793,4	76.0
OKAYAM	0	EP	16	01	57.6				4	3.5	5	4.0	6	4.4		W 1		818,1	
SAIGO	0	EP	16	01	58.5	ES	03	23.6	4	3.9	6	3.6	4	3.6		W 3	U 1	825,9	85.1
TAKAMA	0	EP	16	01	58.9	ES	03	24.8	8	4.2	5	4.2	1	3.0				821,2	85.9
AIKAWA	0	EP	16	01					15	3.2	20	6.0	33	4.2				394,5	
MUROTO	0	X	16	01		EX	02	04.0	5	3.0	5	3.0	4	3.0				865,8	
MATSUY	0	EP	16	02	14.8	ES	03	50.8	8	4.1			2	3.1				950,4	96.0
HAMADA	0	EP	16	02	16.7	S	04	05.0	6	4.6	2	4.2	5	4.6				970,1	108.3
ASHIZU	0	EP	16	02	20.0	ES	04	06.0	5	4.4	3	4.3	2	4.2				989,2	106.0
NAGASA	0	EP	16	02	50.8	X	05	41.8										1248,7	
KAGOSH	0	EP	16	02	52.1				7	3.2	5	3.0	1	4.0				1253,5	
SAGA	0	X	16	02	54.1	X	05	58.0										1187,1	
KOBE	0	EX	16	02	59.6													710,3	
WAKKAN	0	EX	16	03	43	EX	05	17	9	5.3	13	4.6	9	5.2				937,0	

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LIST 6 SEISMOLOGICAL DATA OBTAINED BY MATSUSHIRO

DATE		PHASE AND TIME (JST) H M S			INITIAL MOTION	
1	IP	02 13 36.2			D	*
1	P	02 57 29.	S	57 49.		*
1	P	03 03 44.	S	13 46.	N E U	*
1	P	03 27 48.	S	29 04.		*
1	P	03 47 56.	S	48 14.		*
1	EP	09 09 43.				*
1	PKP	14 25 11.				*
1	P	15 17				*
1	IP	15 35 45.7			U	*
1	P	17 29 46.2	S	30 15.	S U	*
1	P	17 47 41.				*
1	L	18 35 00.				*
2	IP	00 42 02.5	IS	42 17.2	S E U	*
2	IPKP	02 29 55.2				*
2	EP	02 44 24.				*
2	PKP	05 13 09.				*
2	IP	05 42 10.2			U	*
2	IP	05 48 36.6	IS	49 42.4	N D	*
2	IP	13 10 34.4			D	*
2	EP	13 32 43.				*
2	IP	13 49 43.3	IS	49 59.2	N W U	*
2	EP	14 31 00.				*
2	EP	15 31 37.				*
2	EP	16 48 22.				*
3	EP	07 11 41.				*
3	IP	07 12 32.1	S	16 16.	S W U	*
3	P	10 10 36.				*
3	EP	10 45 28.	S	55 20.		*
3	IP	10 56 30.4	S	00 08.	N E U	*
3	EP	16 37 35.	S	39 32.		*
3	P	18 04 29.	ES	05 55.		*
3	P	18 07 44.	ES	08 52.		*
3	IP	21 03 50.3	S	04 14.	N W U	*
3	IP	22 51 20.7	IS	51 31.5	N W U	*
4	P	00 10 18.	S	17 24.		*
4	EP	00 30 04.				*
4	IP	00 48 47.8			U	*
4	P	01 17 05.	S	17 18.		*
4	L	02 51 00.				*
4	EP	10 36 40.	S	36 58.		*
4	EP	13 01 22.				*
4	IP	16 18 45.0	S	19 13.	W D	*
4	IP	18 30 27.5	S	30 35.	N E U	*
4	IP	19 08 07.7	S	08 56.	U	*
4	IP	19 59 17.6	IS	59 32.6	S U	*
4	EP	23 23 43.				*
4	P	23 27 27.				*
5	IP	04 55 39.5	S	55 54.	N U	*
5	P	08 55 39.	S	55 55.		*
5	P	12 01 01.				*
5	IP	12 03 44.7			E D	*
5	P	15 11 16.				*
5	P	16 36 58.	ES	38 46.		*
5	P	18 13 16.	S	13 41.		*
6	P	01 40 40.	ES	45 35.		*
6	P	02 52 37.	S	54 17.	U	*
6	IP	05 57 06.2				*
6	EP	07 02 44.				*
6	P	08 04 50.				*
6	P	08 06 38.	S	07 35.		*
6	IP	10 41 30.7	S	41 45.	N W U	*
6	IP	10 43 52.5	S	43 17.	D	*
6	P	10 54 08.	ES	54 20.		*
6	EP	12 15 02.				*
6	L	13 18 00.				*
6	IP	16 33 18.2	S	33 39.	W U	*
6	IP	21 58 40.0	S	58 08.	D	*
7	EX	03 03 10.				*
7	IP	05 23 15.8			S U	*
7	P	06 52 57.	ES	53 00.		*
7	EP	07 33 14.			U	*
7	IP	12 57 10.4			S D	*
7	IP	14 21 26.8			D	*
7	IP	22 35 12.8	S	36 32.	S U	*
8	IP	00 17 20.3	S	17 42.	E D	*
8	IP	00 38 41.9				*
8	P	01 03 43.	S	08 04.		*
8	EP	01 40 39.	ES	42 08.		*
8	IP	02 29 52.5	S	30 01.		*
8	IP	07 19 13.7			U	*
8	IP	11 28 23.4			S W D	*
8	P	12 03 04.				*
8	IP	13 09 13.4			D	*
8	IP	15 16 12.0	S	16 38.	S W U	*
8	IP	15 37 32.0	S	42 04.	U	*
8	IP	23 42 07.3			U	*
8	EP	23 52 01.	ES	56 32.		*
9	EP	00 04 34.				*
9	EP	07 11 05.	S	22 10.		*
9	IP	09 26 46.5	S	26 52.	S U	*
9	IP	10 23 54.0			D	*
9	IP	17 07 12.7	S	13 16.	D	*
9	IP	21 15 57.0	S	16 51.	S U	*
9	P	23 10 01.				*
10	EP	00 41 22.				*
10	IP	02 33 48.5	S	34 03.	N E U	*
10	EP	02 39 18.	ES	40 02.		*
10	IP	04 49 30.3	S	52 46.	D	*
10	IP	05 42 25.6	IS	42 31.7	N	*
10	IP	08 59 45.5	S	01 57.		*
10	IP	09 16 17.4	S	18 23.	S U	*
10	IP	15 39 02.2	S	39 34.	U	*
10	IP	16 23 06.	ES	23 24.		*
11	IP	02 12 21.0	S	12 39.	U	*
11	EP	02 48 03.	S	49 41.		*
11	IP	07 44 09.0	IS	44 15.3	N E U	*
11	IP	12 22 35.1	S	23 02.	W U	*
11	EP	14 19 25.				*
11	IP	16 17 20.7			U	*
11	P	20 24 15.	ES	34 08.		*
11	IP	21 18 41.4			N U	*
12	IP	04 55 25.1	IS	55 59.7	S U	*
12	EX	05 00 00.				*
12	EP	06 13 31.				*
12	IP	06 58 06.0	S	58 53.	U	*
12	IP	11 02 16.0	IS	02 31.0	S D	*
12	IP	12 38 21.5	ES	41 20.	N E U	*
12	P	14 55 21.				*
12	EP	15 32 40.	ES	33 25.		*
12	EP	18 53 01.				*
12	P	22 46 51.				*
12	EX	23 20 00.				*
12	IP	23 27 27.6			N D	*
13	IP	01 13 30.8			S U	*
13	IP	05 16 23.8	S	16 49.	U	*
13	IP	10 15 04.0	ES	25 32.	N W D	*
13	P	12 37 12.				*
13	IP	16 06 00.2	IS	14 11.	S U	*
13	P	16 15 40.				*
13	P	16 35 00.				*
13	P	18 39 54.	ES	49 18.		*
13	P	21 59 22.				*
13	EP	22 17 07.	ES	17 30.		*
14	P	01 27 06.				*
14	EP	05 05 37.				*
14	IP	11 30 49.8	ES	31 58.	S W U	*
14	P	13 15 31.	S	16 11.		*
14	P	13 19 39.				*
14	IP	16 09 29.5	ES	17 05.	S E U	*
14	P	18 21 39.	S	23 25.		*
14	P	20 44 05.				*
15	P	04 34 00.	ES	39 47.		*
15	IP	05 40 12.0	ES	41 00.	N W D	*
15	IP	05 59 58.6	S	01 27.	U	*
15	IP	07 54 11.2			E D	*
15	IP	08 13 11.5			W D	*

DATE		PHASE AND TIME (JST) H M S			INITIAL MOTION	
15	IP	10 20 00.0			S D	*
15	P	10 38 24.				*
15	IP	13 32 16.7	IS	32 32.0	N E U	*
15	P	14 48 06.	S	53 28.		*
15	IP	19 04 42.5			U	*
15	P	22 34 26.	X	35 40.		*
16	EP	01 26 24.				*
16	IP	13 57 10.8	IS	57 25.5	N E U	*
16	IP	13 59 58.5	IS	00 13.0	N E U	*
16	IP	15 38 22.0	IS	38 24.5		*
16	EP	16 04 06.				*
16	IP	19 26 14.6			W U	*
17	EX	00 26 36.				*
17	IP	05 56 30.2			U	*
17	IP	06 09 28.6			D	*
17	P	08 00 37.				*
17	IP	09 11 03.0	IS	11 25.	N U	*
17	IP	10 32 31.8	IS	34 25.	E D	*
17	IP	10 38 11.9			S D	*
17	IP	10 39 21.0			D	*
17	IP	11 02 24.4			D	*
17	EP	11 20 08.	S	20 37.		*
17	IP	17 29 23.3	EX	30 04.	D	*
17	P	18 39 24.	S	39 43.		*
17	EP	20 32 50.				*
17	IP	21 03 24.0			E D	*
18	IP	01 36 44.6			D	*
18	IP	01 49 17.8	S	50 14.	U	*
18	P	04 38 49.				*
18	EX	05 40 12.				*
18	P	05 41 41.				*
18	EX	07 08 08.				*
18	P	07 59 18.				*
18	P	08 39 51.	ES	40 05.		*
18	IP	10 14 58.8	S	15 42.	N E D	*
18	EP	11 44 33.				*
18	P	14 40 42.	S	40 57.		*
18	EP	15 08 49.				*
18	IP	17 50 03.7	S	54 50.	S W U	*
18	IP	18 00 05.1			D	*
19	EX	02 30 40.				*
19	EP	04 24 54.				*
19	IP	05 42 53.2	S	43 27.	N D	*
19	IP	05 53 05.6	S	53 20.	S W D	*
19	IP	07 09 17.6	S	09 38.	U	*
19	P	08 39 24.				*
19	EP	16 39 33.				*
19	P	18 11 54.				*
19	IP	21 30 16.8	S	30 54.	S W U	*
20	IP	01 16 25.0	IS	16 30.0	N E U	*
20	IP	03 14 44.7	S	14 49.	U	*
20	IP	04 58 04.8	IS	58 10.5	N E U	*
20	IP	07 48 29.5			E D	*
20	IP	09 05 15.1	IS	05 20.5	S D	*
20	P	09 39 02.	S	39 18.		*
20	EP	10 20 27.	ES	26 54.		*
20	IP	13 12 25.7	ES	13 56.	N D	*
20	IP	13 54 21.2	S	54 44.	S D	*
20	IP	22 05 25.1	IS	05 39.8	S D	*
20	IP	22 16 10.7	IS	16 16.5	N E D	*
20	EP	22 30 31.				*
21	P	05 32 21.	IS	32 25.		*
21	IP	10 42 16.4	ES	43 47.	S W U	*
21	P	14 21 34.				*
21	EP	18 25 45.	ES	27 00.		*
21	IP	18 41 45.6	S	42 01.	D	*
21	EP	22 03 27.				*
21	IP	23 48 52.5			S D	*
22	IP	06 00 24.3	S	05 44.	S W U	*
22	P	06 22 00.	S	22 26.		*
22	IP	09 34 23.4	IS	34 30.4	N E U	*
22	IP	11 59 35.5	S	59 40.4	N U	*
22	EP	12 18 00.				*
22	IP	14 26 20.9	S	26 43.	S E D	*
22	IP	15 06 19.4			N U	*
22	P	15 47 24.	ES	48 31.		*
22	EP	16 20 00.				*
22	P	16 21 51.				*
22	P	16 39 55.	S	41 17.		*
22	IP	18 20 35.8			S W U	*
22	IP	19 41 37.6			U	*
22	EL	20 31 08.				*
22	P	21 18 50.				*
22	IPKP	22 11 21.2			U	*
23	IP	08 03 29.5	S	13 18.	D	*
23	P	12 02 45.				*
23	IP	19 24 02.9			N U	*
24	IP	01 51 48.8	ES	52 44.	U	*
24	IP	09 37 33.4			D	*
24	IP	09 53 48.0			U	*
24	P	13 19 17.	S	19 35.		*
24	IP	13 48 10.3	ES	48 37.	W U	*
24	IP	14 06 37.0	ES	07 04.	N E D	*
24	IP	17 41 23.0			U	*
24	P	18 14 37.				*
24	EP	20 41 59.				*
24	EP	20 55 41.				*
24	P	23 28 35.	S	30 01.		*
25	P	06 52 07.				*
25	P	07 42 28.				*
25	IP	13 29 59.4	S	30 56.	D	*
25	IP	13 49 56.5	IS	50 11.5	S D	*
25	P	14 24 11.9			D	*
25	P	15 21 16.	S	21 31.		*
25	P	19 22 55.				*
25	P	21 06 16.	S	08 10.		*
25	P	22 02 46.0	S	03 01.	U	*
25	P	23 42 57.0	S	44 01.	U	*
26	P	01 44 00.				*
26	P	02 17 10.	S	17 18.		*
26	P	02 17 44.0	S	18 00.	N	*
26	IP	03 19 19.7	S	20 06.	S W D	*
26	IP	12 56 37.6	S	06 25.	S E U	*
26	P	13 26 29.				*
26	P	14 30 40.	ES	40 30.		*
26	IP	15 20 15.4	IS	20 51.5	N	*
26	EP	15 48 56.	S	57 50.		*
26	P	20 27 40.				*
26	IP	20 29 27.4	IS	29 41.9	U	*
26	P	20 30 27.				*
26	IP	21 26 22.8	S	26 55.	U	*
26	EL	21 28 40.				*
26	P	23 44 20.				*
27	P	00 22 05.	ES	23 05.		*
27	EP	00 49 21.	S	59 36.		*
27	P	03 53 59.				*
27	P	04 18 16.	IS	20 10.2		*
27	P	06 32 21.				*
27	P	06 37 18.	S	47 12.		*
27	EP	06 58 27.				*
27	P	08 44 21.	S	45 32.		*
27	EX	12 35 22.				*
27	P	16 46 53.	ES	48 05.		*
27	EP	17 23 23.	S	33 42.		*
27	IP	20 41 58.4	S	43 01.	N U	*
27	P	21 33 04.	S	33 57.		*
28	IP	03 48 55.4	S	49 16.	N E D	*
28	IP	10 45 10.6	ES	45 31.	N D	*
28	IP	11 53 22.2	S	53 41.	E D	*
28	EP	16 24 28.	ES	27 16.		*
28	EP	20 58 52.				*
29	P	03 54 05.				*
29	EP	04 26 56.	S	28 50.		*
29	L	05 06 32.				*
29	IP	08 43 14.5	S	43 24.	U	*
29	P	12 11 46.	S	12 07.		*

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DAIE		PHASE	H	M	S		M	S	INITIAL MOTION	
29	EL		16	28	50.					*
29	EP		21	25	33.	S	25	38.		*
29	P		22	11	10.	S	12	35.		*
										*
30	P		01	47	06.					*
30	P		02	26	10.	S	26	18.		*
30	P		03	14	25.	S	16	08.		*
30	EL		03	52	20.					*
30	IP		04	05	35.8	S	05	54.	S E D	*
30	P		05	12	09.					*
30	IP		07	13	59.4				U	*
30	IP		09	06	14.4	S	06	40.	S W U	*
30	IP		09	52	34.0				E D	*
30	IP		10	30	45.9	IS	31	26.	S W D	*
30	P		11	06	48.	S	07	14.		*
30	P		13	10	50.					*
30	IP		16	53	18.7	S	54	32.	S W U	*
30	EX		21	32	10.					*
30	IP		22	20	34.7	S	20	59.	D	*
30	IP		22	23	00.6	S	23	26.	E D	*
30	P		22	56	34.	S	56	52.		*
										*
31	P		02	23	34.					*
31	P		03	46	48.	S	52	40.		*
31	P		10	29	44.					*
31	EP		11	13	59.	S	13	47.		*
31	EP		13	37	10.					*
31	IP		15	46	27.7	S	48	48.	N E D	*
31	IP		16	01	03.4	S	01	52.	E D	*
31	P		16	38	21.	S	46	30.		*
31	EP		16	44	39.					*
31	EP		19	51	39.					*
31	P		20	39	42.	S	45	05.		*
31	P		20	54	10.					*
31	EP		21	05	10.					*
31	IP		21	30	57.2				D	*
31	P		22	49	09.					*
										*

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地　震　月　報

昭和44年11月

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OF

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NOVEMBER 1969

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Tokyo

1970

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List 1 JMA stations and their seismographs

Station	Code	CGS Code	λ	φ	Height	Seismographs
					m	
Abashiri	ABASHI	ABJ	E144°17.0′	N44°01.0′	38	S, VI, OP
Aikawa	AIKAWA	AIK	138 14.5	38 01.2	34	S, VI, OP
Ajiro	AJIRO	AJI	139 05.8	35 02.6	59	S, VI, EMT′
Akita	AKITA	AKI	140 06.1	39 43.1	9	S, VI, OP
Anabuki (Tsurugisan)	ANABUK (TURUGI)	TSS	134 05.8	33 51.1	59	S, P
Aomori	AOMORI	AOM	140 47.0	40 49.0	4	S, W
Asahikawa	ASAHIK	ASA	142 22.4	43 46.2	111	S, VI, OP
Ashizuri	ASHIZU	ASZ	133 01.0	32 43.0	30	S, VI
Asosan	ASOSAN	ASJ	131 04.5	32 52.7	1143	S
Chichibu	CHICHI	CHJ	139 04.9	35 59.5	218	S, P
Choshi	CHOSHI	CHO	140 50.6	35 43.5	27	S, EMT′
Fukue	FUKUE	FKJ	128 50.0	32 42.0	26	S, VI
Fukui	FUKUI	FUK	136 13.6	36 03.2	9	S, P(H, V)
Fukuoka	FUKUOK	FKK	130 22.8	33 34.8	2	S, VI, M(H)
Fukushima	FUKUSH	FKS	140 28.5	37 45.4	67	S, VI, OP
Gifu	GIFU	GIF	136 45.9	35 23.9	13	S, W
Hachijojima	HACHIJ	HJJ	139 47.3	33 06.1	80	S, VI
Hachinohe	HACHIN	HAC	141 31.6	40 31.5	27	S, VI, OP
Hakodate	HAKODA	HAK	140 45.5	41 48.8	35	S, VI, OP
Hamada	HAMADA	HMD	132 04.4	34 53.6	18	S, VI, OP
Hamamatsu	HAMAMA	HMM	137 43.4	34 42.5	32	S, VI, OP
Hikone	HIKONE	HIK	136 14.8	35 16.4	87	S, EMT
Himeji	HIMEJI	HIM	134 42.1	34 50.2	37	S, P(H, V)
Hiroo	HIROO	HOO	143 19.0	42 17.0	32	S, P(H, V)
Hiroshima	HIROSH	HIR	132 26.2	34 21.8	29	S, W
Iida	IIDA	IID	137 50.1	35 30.6	482	S, VI, OP
Irozaki (Nagatsuro)	IROZAK (NAGATS)	NGT	138 50.8	34 36.0	55	S
Ishinomaki	ISHINO	ISN	141 18.2	38 25.5	43	S, VI, OP
Izuhara	IZUHAR	IZU	129 17.7	34 12.2	21	S, P(H, V)
Kagoshima	KAGOSH	KAG	130 33.2	31 34.4	4	S, VI
Kakioka	KAKIOK	KAK	140 11.6	36 13.9	27	S, W
Kanazawa	KANAZA	KAN	136 38.9	36 32.8	27	S, VI, OP
Karuizawa	KARUIZ	KRZ	138 33.1	36 20.4	999	S, P(H, V)
Kawaguchiko (Funatsu)	KAWAGU (FUNATU)	FUN	138 45.8	35 29.9	860	S, P
Kobe	KOBE	KOB	135 10.8	34 41.3	58	S, P(H, V)
Kochi	KOCHI	KOC	133 32.0	33 33.0	40	S, P(H, V)
Kofu	KOFU	KOF	138 33.5	35 39.9	272	S, VI
Kumagaya	KUMAGA	KMG	139 23.1	36 08.8	30	S, VI, EMT
Kumamoto	KUMAMO	KUM	130 42.6	32 48.6	38	S, W
Kushiro	KUSHIR	KUS	144 23.7	42 58.7	33	S, VI
Kyoto	KYOTO	KYO	135 44.1	35 00.7	41	S, VI, OP
Maebashi	MAEBAS	MAE	139 03.9	36 24.1	112	S, EMT′
Maizuru	MAIZUR	MAI	135 23.2	35 28.3	31	S, EMT′
Matsue	MATSUE	MTS	133 04.3	35 27.3	17	S, P(H, V)
Matsumoto	MATSUM	MTM	137 58.4	36 14.6	610	S, P(H, V)
Matsushiro	MATSUS	MAT	138 12.5	36 32.3	440	S, L, AW,G,B,V,C
Matsuyama	MATSUY	MTY	132 46.8	33 50.4	32	S, W
Mishima	MISHIM	MIS	138 55.8	35 06.7	20	S, W
Mito	MITO	MIT	140 28.3	36 22.7	30	S, VI, EMT′
Miyako	MIYAKO	MIY	141 58.1	39 38.7	46	S, W
Miyazaki	MIYAZA	MYZ	131 25.6	31 55.0	7	S, VI, OP
Mizusawa	MIZUSA	MIZ	141 08.0	39 08.0	61	P(H, V)
Morioka	MORIOK	MRK	141 10.0	39 41.8	155	S, VI, OP
Muroran	MURORA	MRR	140 59.0	42 19.0	43	S, P(H, V)
Murotomisaki	MUROTO	MRT	134 10.7	33 14.9	185	S, VI, OP
Nagano	NAGANO	NGN	138 11.8	36 39.6	418	S, VI
Nagasaki	NAGASA	NGS	129 52.2	32 43.9	27	S, VD, EM
Nagoya	NAGOYA	NAG	136 58.1	35 09.9	52	S, VI, OP
Nara	NARA	NAR	135 50.0	34 41.0	105	S, EMT′
Nemuro	NEMURO	NEM	145 35.2	43 19.7	26	S, VI, VD, OP
Niigata	NIIGAT	NII	139 03.1	37 54.6	2	S, P(H, V)
Nobeoka	NOBEOK	NOB	131 41.0	32 35.0	19	S, P(H, V)
Obihiro	OBIHIR	OBI	143 13.3	42 55.2	39	S, P(H, V)
Ofunato	OFUNAT	OFU	141 43.1	39 03.7	38	S, VI
Oita	OITA	OIT	131 37.4	33 14.0	5	S, W
Okayama	OKAYAM	OKA	133 54.9	34 40.9	4	S, VI, EMT′
Omaezaki	OMAEZA	OMA	138 12.8	34 36.2	45	S, W
Onahama	ONAHAM	ONA	140 54.4	36 56.7	3	S, VI
Osaka	OSAKA	OSA	135 31.3	34 40.7	13	S, VI

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Station	Code	CGS Code	λ	φ	Height	Seismographs
					m	
Oshima	OSHIMA	OSH	E139°22.7′	N34°45.7′	191	S, W
Owase	OWASE	OWA	136 11.7	34 04.0	14	S, VI, OP
Rumoi	RUMOI	RMJ	141 38.0	43 57.0	22	S, P(H, V)
Saga	SAGA	SAG	130 18.3	33 14.7	4	S, P(H, V)
Saigo	SAIGO	SAI	133 20.0	36 12.3	26	S, VI, OP
Sakata	SAKATA	SAK	139 50.2	38 54.2	2	S, P(H, V)
Sapporo	SAPPOR	SAP	141 19.9	43 03.5	17	S, VI, OP
Sendai	SENDAI	SEN	140 54.0	38 15.6	38	S, VI, S′
Shimonoseki	SHIMON	SHN	130 56.5	33 57.2	46	S, VI, OP
Shionomisaki	SHIONO	SHJ	135 45.8	33 26.9	74	S, W
Shirakawa	SHIRAK	SHR	140 13.5	37 07.1	354	S, P(H, V)
Shizuoka	SHIZUO	SHZ	138 24.4	34 58.4	14	S, VI
Sumoto	SUMOTO	SUM	134 54.5	34 20.1	109	S, EMT
Suttsu	SUTTSU	SUT	140 14.4	42 47.4	16	S, P(H, V)
Takada	TAKADA	TKD	138 15.0	37 06.3	13	S, P(H, V)
Takamatsu	TAKAMA	TKM	134 03.5	34 19.0	10	S, W
Takayasuyama	OSAKA2		135 39.6	34 36.7	472	VD′
Takayama	TAKAYA	TKY	137 15.3	36 09.1	561	S, P(H, V)
Tateyama	TATEYA	TAT	139 52.1	34 59.0	6	S, VI, EMT
Tokushima	TOKUSH	TKS	134 34.6	34 03.9	2	S, P(H, V)
Tokyo	TOKYO	TOK	139 45.5	35 41.2	21	S, VI′, VD′, I′, J
Tottori	TOTTOR	TOT	134 10.7	35 30.7	17	S, EMT′
Toyama	TOYAMK	TOY	137 12.5	36 42.4	9	S, VI
Toyooka	TOYOOA	TYK	134 49.5	35 32.0	4	S, W
Tsu	TSU	TSU	136 31.1	34 42.1	3	S, P(H, V)
Tsuruga	TSURUG	TSR	136 03.9	35 39.0	1	S, P(H, V)
Unzendake	UNZEND	UNZ	130 15.2	32 44.1	849	S
Urakawa	URAKAW	URA	142 46.8	42 09.5	34	S, VI, OP
Utsunomiya	UTSUNO	UTS	139 52.3	36 32.6	120	S, EMT
Uwajima	UWAJIM	UWA	132 33.5	33 13.5	43	S, P
Wajima	WAJIMA	WAJ	136 53.9	37 23.4	6	S, VI
Wakayama	WAKAYA	WKY	135 10.0	34 13.6	14	S, VI
Wakkanai	WAKKAN	WAK	141 40.4	45 25.0	9	S, VI, OP
Yakushima	YAKUSH	YKS	130 29.8	30 27.0	14	S, VI
Yamagata	YAMAGA	YAM	140 21.0	38 15.2	151	S, P(H, V)
Yokohama	YOKOHA	YOK	139 39.3	35 26.2	38	S, EMT
Yonago	YONAGO	YON	133 20.6	35 26.0	7	S, P(H, V)
Ishigakijima	ISHIGA	ISI	124 10	24 20	6	S, VI
Naha	NAHA	NAH	127 41	26 13	11	S, VI
Miyakojima	MIYAKJ	MYK	125 17	24 47	40	S
Yonagunijima	YONAGU		123 01	24 28	32	

Notations : —

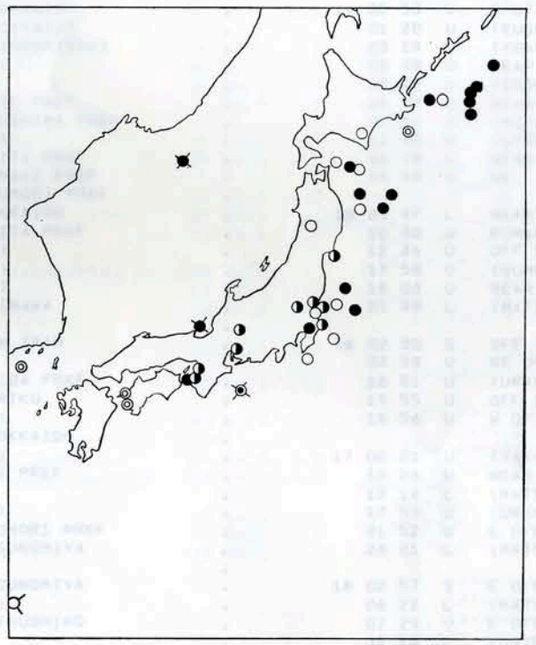
λ	: Longituds.
φ	: Geographical Latitude.
W	: Wiechert's horizontal and vertical seismographs (masses, H; 200kg, V; 80kg).
P	: Portable seismograph (horizontal).
P(H, V)	: do (mass, 22.5kg).
S	: Strong motion seismograph (magnification; 1).
S′	: do (magnification; 0.4).
M(H)	: Mainka's horizontal seismograph (mass, 450kg).
G	: Galitzin's seismograph.
L	: 1,000kg long-period seismograph, JMA type.
I	: Ishimoto's seismograph.
V	: Short-period vertical seismograph.
AW	: Anderson-Wood's seismograph.
C	: Capacity type seismograph.
EM	: Electromagnetic seismograph.
OP	: JMA 59-type electromagnetic seismograph with optical recorder.
VI	: JMA 59-type electromagnetic seismograph with visible recorder.
VD	: JMA 61-type electromagnetic seismograph with visible recorder.
B	: Benioff's seismograph (short and long period).
J	: Remote recording JMA 63-type seismograph.
VI′,VD′,I′	: Remote recording JMA 63-type seismograph.
EMT	: Electromagnetic seismograph with tape recorder.
EMT′	: Electromagnetic seismograph with tape recorder and transmitting unit.

List 2 Number of earthquakes by districts and classes, November, 1969

District \ Class	Number of felt earthquakes					Number of unfelt earthquakes	Total
	Remarkable	Moderate	Small felt area	Local	Total		
Hokkaido	0	1	2	3	6	46	52
Tohoku	0	0	4	5	9	24	33
Kwanto	0	0	4	8	12	14	26
Chubu	1	0	0	24	25	6	31
Kinki	0	0	0	12	12	12	24
Chugoku•Shikoku	0	2	0	5	7	3	10
Kyushu	0	0	0	8	8	8	16
Near Japan*	0	1	1	1	3	13	16
Foreign region	0	0	0	0	0	3	3
Unknown	0	0	0	0	0	7	7
Total	1	4	11	66	82	136	218

* ; Sakhalin, Kurile Is., Korea, Ryukyu Is., Bonin Is., Sikhota Alin.

Epicenters of the major earthquakes



⊙ Remarkable (R) ◎ Moderate (M) ○ Small felt area (S) ◑ Local (L) ● Unfelt (U) × h≧100km.

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Special Event

Earthquake-Swarm near Matsushiro, Northern Chubu

In this month, 19 earthquakes (intensity I : 19) were felt at the Matsushiro Seismological Observatory.

LIST 3 EARTHQUAKES OBSERVED BY SEISMOLOGICAL STATIONS OF JMA

C = CLASS

(JST) DATE,TIME D H M	C	LOCATION	(JST) DATE,TIME D H M	C	LOCATION
1 06 54	L	(NAHA)	10 00 54	L	(TOTTOR)
14 24	L	(MATSUS)	06 01	L	(WAKAYA)
17 30	U	NEAR YONAGUNIJIMA	07 23	L	IBARAKI PREF
20 21	U	OFF FUKUI PREF	17 15	U	(HACHIN)
22 57	U	(KUSHIR)	19 42	U	(HACHIN)
23 21	U	E OFF HOKKAIDO	20 25	U	NEAR URAKAWA
23 21	U	(KUSHIR)	22 19	L	(UNZEND)
			22 39	U	(KUSHIR)
2 01 14	L	(MATSUS)			
01 21	L	(MATSUS)	11 07 38	U	NEAR UTSUNOMIYA
10 51	L	NEAR WAKAYAMA	14 39	L	(WAKAYA-SHIRAHAMA)
12 30	S	NEAR MITO	15 16	U	NEAR KAKIOKA
12 43	U	NEAR YAKUSHIMA	21 14	U	E OFF HOKKAIDO
15 19	U	S OF KURILE IS	23 09	U	(WAKAYA)
16 49	L	NEAR CHOSHI			
17 58	L	(WAKAYA)	12 00 33	U	(WAKAYA)
			05 59	U	(AOMORI)
3 04 28	U	UK	08 02	U	AOMORI PREF
06 09	L	(MATSUS)	10 27	U	SE OFF NEMURO PEN
07 23	L	(KUMAMO)	18 59	U	SE OFF NEMURO PEN
19 19	L	NEAR URAKAWA	21 11	U	(MIYAZA)
23 31	U	(HAKODA)	21 20	U	OFF SANRIKU
			21 29	M	OFF KUSHIRO
4 00 29	U	NEAR HIROO			
05 08	U	S OF KURILE IS	13 02 05	U	KUMAMOTO PREF
06 56	U	MIDDLE OF AICHI PREF	02 27	L	NEAR MITO
17 51	R	OFF TOKAIDO	03 23	S	E OFF CHIBA PREF
21 25	L	E OFF AOMORI PREF	03 47	U	(ISHIGA)
21 48	U	(UTSUNO)	04 16	U	UK
			04 33	U	IBARAKI PREF
5 02 19	U	E OFF HOKKAIDO	20 07	U	(KUSHIR)
			22 54	U	S OF NIIGATA PREF
6 08 36	U	E OFF HOKKAIDO			
08 51	U	E OFF HOKKAIDO	14 00 53	U	N OF TOHOKU
10 56	U	E OFF HOKKAIDO	01 20	U	(KUSHIR)
12 20	L	NEAR SHIONOMISAKI	03 19	U	(YONAGU)
16 56	U	(KUSHIR)	05 49	U	NEAR YAKUSHIMA
			08 22	U	MIDDLE OF AICHI PREF
7 01 22	S	OFF IWATE PREF	09 47	U	NEAR URAKAWA
03 46	U	OFF FUKUSHIMA PREF	10 56	U	(MIYAKO)
04 39	U	(KUSHIR)	11 43	U	(UTSUNO)
04 49	L	N OF AKITA PREF	16 18	L	NEAR WAKAYAMA
07 01	U	OFF IBARAKI PREF	16 48	U	UK
13 06	S	E OFF AOMORI PREF			
17 07	S	S OF HOKKAIDO	15 09 47	L	NEAR WAKAYAMA
17 34	S	S OF AKITA PREF	10 30	U	KUMAMOTO PREF
18 22	L	(MATSUS)	12 36	U	OFF SANRIKU
21 15	L	(MATSUS)	17 58	U	(NUMURO)
21 36	U	(URAKAW)	18 03	U	NEAR WAKAYAMA
22 41	S	NEAR OKINAWA	21 39	L	(MATSUS)
8 03 43	U	SOUTHERN IRAN	16 02 50	S	OFF IBARAKI PREF
04 25	U	(NAHA)	03 58	U	NE OF SHIKOKU
08 03	U	N OF CHIBA PREF	13 01	U	(URAKAW)
14 35	U	OFF SANRIKU	19 55	U	OFF SANRIKU
16 01	L	(UNZEND)	19 56	U	W OF SAGA PREF
16 22	U	E OFF HOKKAIDO			
18 27	U	(UTSUNO)	17 00 21	U	(YAKUSH)
20 20	L	N OF MIE PREF	12 26	U	NEAR CHOSHI
			13 12	L	(MATSUS)
9 00 08	U	(KUSHIR)	17 55	U	(URAKAW)
02 36	U	E OFF AOMORI PREF	21 52	U	E OFF HOKKAIDO
05 15	L	NEAR UTSUNOMIYA	23 21	L	(MATSUS)
07 02	U	UK			
08 07	L	NEAR UTSUNOMIYA	18 02 57	S	E OFF HOKKAIDO
09 32	U	(ISHIGA)	06 22	L	(MATSUS)
12 50	L	NEAR MATSUSHIRO	07 29	U	E OFF HOKKAIDO
17 02	U	(AKITA)	08 13	L	(UNZEND)
18 17	U	UK	09 17	U	(HAMAMA)
			09 19	U	TOCHIGI PREF

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(JST) DATE,TIME D	H	M	C	LOCATION
18	09	46	L	NEAR NAGOYA
	12	11	L	(OSHIMA)
	18	37	L	KASHIMANADA
	18	51	U	(WAKAYA)
19	02	20	U	OFF IWATE PREF
	04	13	L	(KAGOSH-NAZE)
	05	10	U	NEAR OFUNATO
	13	13	L	(WAKAYA)
	15	02	U	NEAR YAKUSHIMA
	16	07	L	W OF SHIZUOKA PREF
	17	46	U	N OF SEA OF JAPAN
	18	49	U	(URAKAW)
	21	45	U	(AOMORI)
	22	45	U	S OF HOKKAIDO
20	03	34	L	(OWASE)
	07	33	U	NEAR WAKAYAMA
	09	05	U	(URAKAW)
	11	02	U	(OFUNAT)
	11	43	U	(YONAGU)
	11	52	L	(UNZEND)
	19	05	U	NEAR TOKYO
21	06	00	U	E OFF HOKKAIDO
	11	12	U	OFF W COAST OF SUMATRA
	12	16	L	W OF SHIZUOKA PREF
	12	43	S	E OFF AOMORI PREF
	15	36	L	(HIROSH-SHOBARA)
	17	12	U	E OFF HOKKAIDO
	17	57	U	E OFF HOKKAIDO
	20	21	U	E OFF HOKKAIDO
22	02	22	U	E OFF HOKKAIDO
	02	22	L	(MATSUS)
	04	23	L	(MATSUS)
	06	06	U	(KUSHIR)
	11	27	U	(FUKUI)
	11	50	U	(AOMORI)
	15	15	L	(MATSUS)
	15	15	L	(MATSUS)
	15	19	U	E OFF HOKKAIDO
	15	39	U	E OFF HOKKAIDO
	16	28	L	(MATSUS)
23	08	37	U	E COAST OF KAMCHATSKA
	05	14	L	OFF MIYAGI PREF
	16	09	U	E OFF HOKKAIDO
	19	52	U	(MAIZUR)
	20	12	L	NEAR HACHINOHE
	20	40	L	OFF TOKACHI
24	15	01	U	(OKAYAM)
	22	52	U	OFF SANRIKU
25	00	54	U	TOCHIGI PREF
	03	57	U	(OFUNAT)
	04	36	L	(KAGOSH-NAZE)
	14	42	U	(MIYAKO)
	18	35	L	S OF NAGANO PREF
	22	53	L	NEAR WAKAYAMA
	22	54	L	NEAR WAKAYAMA
	23	41	U	(WAKAYA)
26	00	40	U	(WAKAYA)
	01	32	U	(WAKAYA)
	02	20	U	(WAKAYA)
	04	33	U	E OFF HOKKAIDO
	09	17	L	(TOTTOR-SAKAI)
	10	05	U	E OFF HOKKAIDO

C = CLASS

(JST) DATE,TIME D	H	M	C	LOCATION
26	10	39	U	(ISHIGA)
	11	19	U	(YONAGU)
	12	49	U	(YONAGU)
	12	56	U	(YONAGU)
	16	40	L	(MATSUS)
	16	41	L	(OKAYAM)
	18	27	L	MIDDLE OF GIFU PREF
27	09	31	M	W OFF TSUSHIMA
	10	11	L	NEAR NEMURO
	13	17	U	(UTSUNO)
	19	11	U	(MATSUY)
	23	53	U	(HAKODA)
29	01	13	U	FUKUSHIMA PREF
	04	07	U	(NEMURO)
	05	20	U	E OFF AOMORI PREF
	07	24	U	UK
	07	29	U	W COAST OF WAKAYAMA PREF
	13	03	U	(NEMURO)
	17	57	U	NEAR NEMURO
	23	15	L	(MATSUS)
30	01	14	U	UK
	01	43	M	W OF EHIME PREF
	11	48	U	(URAKAW)
	13	12	M	W OF EHIME PREF
	15	54	U	OFF IWATE PREF
	17	59	L	(UWAJIM)
	19	38	U	(MAIZUR)
	21	49	S	S OFF CHIBA PREF
	21	58	U	NEAR MIYAKEJIMA
	22	04	L	(TOKYO-MIYAKEJIMA)
	22	14	L	E OFF AOMORI PREF
	22	38	L	(MATSUS)
	23	56	L	(UNZEND)

LIST 4 EARTHQUAKE ORIGINS

(JST) DATE,TIME D	H	M	C	LOCATION	ORIGIN TIME M	S	+/-S	LONG.	+/-	LAT.	+/-	C = CLASS H	M
												KM	
1	20	21	U	OFF FUKUI PREF	20	53.2	0.6	135 26 06		35 48 07		340	
2	10	51	L	NEAR WAKAYAMA	51	20.0	0.5	135 06 02		34 07 02		10	3.5
	12	30	S	NEAR MITO	30	24.2	0.3	140 38 02		36 26 01		50	4.0
	16	49	L	NEAR CHOSHI	49	23.9	0.2	140 43 02		35 47 02		40	3.9
4	17	51	R	OFF TOKAIDO	50	47.4	0.2	137 16 02		33 48 02		340	
6	10	56	U	E OFF HOKKAIDO	55	33.5	3.0	148 47 16		43 39 15		40	5.1
7	01	22	S	OFF IWATE PREF	21	56.9	0.6	142 41 03		39 56 01		30	4.3
	03	46	U	OFF FUKUSHIMA PREF	46	44.6	1.0	141 44 06		37 07 03		40	4.1
	07	01	U	OFF IBARAKI PREF	00	42.7	1.7	142 06 07		36 21 07		10	4.1
	13	06	S	E OFF AOMORI PREF	06	14.6	0.2	141 54 02		41 30 01		90	
	17	07	S	S OF HOKKAIDO	06	52.4	0.2	143 01 01		42 24 01		80	
	17	34	S	S OF AKITA PREF	34	26.6	0.3	140 28 02		39 20 01		20	4.0
	22	41	S	NEAR OKINAWA	41	12.4	0.3	126 24 02		26 20 03		130	
8	08	03	U	N OF CHIBA PREF	03	28.6	0.5	140 34 03		35 51 02		40	3.6
	14	35	U	OFF SANRIKU	35	34.1	1.3	143 47 06		39 55 06		40	4.5
	16	22	U	E OFF HOKKAIDO	21	35.0	1.6	149 45 10		44 18 13		10	5.1
9	05	15	L	NEAR UTSUNOMIYA	14	57.5	0.2	139 50 02		36 31 03		90	
12	10	27	U	SE OFF NEMURO PEN	27	04.1	1.3	146 38 06		43 27 04		00	4.3
	21	29	M	OFF KUSHIRO	29	40.9	0.9	145 21 04		42 21 02		40	5.2
13	02	27	L	NEAR MITO	27	24.8	0.8	140 25 06		36 26 11		60	
	03	23	S	E OFF CHIBA PREF	23	20.8	0.7	141 10 04		35 24 02		50	4.9
15	12	36	U	OFF SANRIKU	35	48.8	1.3	144 03 07		40 10 03		00	4.7
16	02	50	S	OFF IBARAKI PREF	50	18.1	0.4	141 14 02		36 33 01		40	4.6
18	02	57	S	E OFF HOKKAIDO	56	47.2	1.6	147 01 09		43 22 05		50	4.8
	07	29	U	E OFF HOKKAIDO	28	36.8	1.9	148 25 10		43 34 08		40	4.5
	09	46	L	NEAR NAGOYA	46	50.1	0.4	137 00 02		35 02 02		10	4.1
	18	37	L	KASHIMANADA	37	08.5	0.2	140 46 02		36 25 01		60	3.9
19	02	20	U	OFF IWATE PREF	20	11.7	0.8	142 52 04		40 13 02		10	4.0
	17	46	U	N OF SEA OF JAPAN	45	08.8	0.7	134 29 05		41 40 03		460	
21	06	00	U	E OFF HOKKAIDO	00	23.6	2.8	148 11 15		42 56 07		60	5.2
	11	12	U	OFF W COAST OF SUMATRA	05	35.3		94 36		2 06		20	7.7
	12	43	S	E OFF AOMORI PREF	43	35.4	0.9	142 44 06		41 08 03		60	4.5
23	08	37	U	E COAST OF KAMCHATSKA	09	37.2		163 30		57 48		33	7.3
	05	14	L	OFF MIYAGI PREF	13	52.0	1.1	141 31 07		38 13 05		50	3.5
	16	09	U	E OFF HOKKAIDO	08	34.2	2.8	148 54 15		43 25 18		50	4.9
25	22	53	L	NEAR WAKAYAMA	53	38.0	0.3	135 11 01		34 11 01		10	3.6
26	18	27	L	MIDDLE OF GIFU PREF	27	45.5	0.2	137 07 01		35 41 01		10	3.8
27	09	31	M	W OFF TSUSHIMA	30	57.4	2.7	127 44 11		34 07 08		50	5.1
29	05	20	U	E OFF AOMORI PREF	19	58.0	0.3	142 36 02		41 17 01		10	4.4
	07	29	U	W COAST OF WAKAYAMA PREF	29	04.6	0.4	135 05 02		34 02 01		00	
30	01	43	M	W OF EHIME PREF	43	16.1	0.4	132 24 02		33 20 02		40	5.1
	13	12	M	W OF EHIME PREF	12	21.5	0.2	132 24 01		33 15 01		40	5.1
	21	49	S	S OFF CHIBA PREF	48	52.0	0.3	140 00 02		34 43 01		100	

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LIST 5 DATA OF EARTHQUAKES

I = SEISMIC INTENSITY * = MICRON

OT= 1 20 20 53.2 +/- 0.6 (JST)
OFF FUKUI PREF
LAT= 35 48 +/- 7 LONG= 135 26 +/- 6
H=340 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KYOTO	0	IP	20	21	39.4	IS	22	15.0	4	1.0	10	1.5	5	0.7		E 0	D 2	91.6	35.6
HIKONE	0	EP	20	21	39.5	S	22	13.4										94.1	33.9
TOYOOK	0	IP	20	21	39.6				16	1.2	10	1.2	4	1.3			D 4	62.7	
KOBE	0	EP	20	21	40.0	ES	22	16.6										125.4	36.6
OSAKA	0	IP	20	21	40.0	IS	22	16.6	16	3.6	14	2.8	6	1.9			D 5	124.7	36.6
NARA	0	P	20	21	40.1	S	22	16.8										129.1	36.7
NAGOYA	0	IP	20	21	40.8	IS	22	19.6	7	2.2	11	3.0	3	1.4			D 2	156.1	38.8
WAKAYA	0	EP	20	21	42.2	ES	22	19.1	7	1.0	12	2.5	4	0.9				176.2	36.9
SHIONO	0	EP	20	21	45.1	ES	22	25.3	6	1.5	9	2.7	4	1.2			D 3	262.5	40.2
HAMAMA	0	P	20	21	46.0	ES	22	24	4	2.8	7	2.8	2	2.8			U 1	241.0	38.0
MATSUS	0	P	20	21	50	S	22	33										262.7	43.0
KUMAGA	0	X	20	21		ES	22	43.6	5	1.2	4	1.0	3	2.6				358.4	
UTSUNO	0	P	20	22	00.8	S	22	50.0										407.7	49.2
KAKIOK	0	EP	20	22	01	ES	22	52	14	0.8	12	0.5	6	0.5				431.6	51.0
KUMAMO	0	X	20	22	02.9				5	0.8	5	1.4	7	1.0				546.6	
MITO	0	EX	20	22	06.0	IS	22	56.4	9	0.3	8	0.4	2	1.0				458.1	
ONAHAM	0	EP	20	22	08.0	S	23	04.8	11	0.9	11	0.9	3	0.4				507.2	56.8
NAGASA	0	EP	20	22	19.7	X	25	41.0							N	E	D	615.8	
TOKYO	0	ES	20	22	48.4						6	1.0						391.3	
TATEYA	0	EX	20	22	48.7				13	0.8	10	1.7	7	0.7				412.9	

OT= 2 10 51 20.0 +/- 0.5 (JST)
NEAR WAKAYAMA
LAT= 34 7 +/- 2 LONG= 135 6 +/- 2
H= 10 MAG=3.5 CLASS=L

WAKAYA	1	IP	10	51	23.5	IS	51	25.7	40	0.2	38	0.2	23	0.2	N 15	E 9	U 8	13.7	02.2
SUMOTO	1	IP	10	51	27.0	S	51	31.1									U	30.0	04.1
KOBE	0	IP	10	51	32.5	ES	51	41										63.8	08.5
SHIONO	0	EP	10	51	40.9	IS	51	48.1	6	0.5	6	0.2	3	1.0				96.2	07.2
OKAYAM	0	P	10	51	42.3	IS	51	56.2	5	0.6	5	0.6	1	0.4	N 1	W 1		125.7	13.9
OSAKA	0	EX	10	51	43				6	3.6	7	4.0						73.4	
MATSUS	0	X	10	52	24	X	53	13										389.8	

OT= 2 12 30 24.2 +/- 0.3 (JST)
NEAR MITO
LAT= 36 26 +/- 1 LONG= 140 38 +/- 2
H= 50 MAG=4.0 CLASS=S

MITO	2	IP	12	30	33.5	IS	30	40.0	165	0.3	194	0.4	71	0.3			U 27	15.7	06.5
KAKIOK	2	IP	12	30	35.1	IS	30	42.4	110	0.8	98	0.3	52	0.3			D 5	45.4	07.3
ONAHAM	1	IP	12	30	36.4	IS	30	44.4	44	0.8	68	0.5	28	0.4			U 2	61.8	08.0
UTSUNO	1	P	12	30	37.8	S	30	47.0										69.4	09.2
SHIRAK	0	IP	12	30	39.0	IS	30	49.4									D 7	84.3	10.4
CHOSHI	0	P	12	30	39.0	S	30	50.0										80.8	11.0
KUMAGA	0	P	12	30	43.6	ES	30	58.4	12	1.0	11	0.8	8	0.6			D 4	116.5	14.8
TOKYO	0	IP	12	30	44.0	IS	30	52.0	8	4.0	10	4.0	4	2.0				114.5	08.0
MAEBAS	0	P	12	30	46.3	S	31	00.0										140.7	13.7
FUKUSH	1	EP	12	30	49.1	ES	31	03.1	12	0.6	12	0.7	4	0.5				147.5	14.0
KOFU	0	EP	12	30	54.4	ES	31	22.0	7	0.4	6	0.6	3	1.2				205.4	27.6
MATSUS	0	IP	12	30	56.0										S	E	D	217.6	
TATEYA	0	EX	12	31	10.4				10	1.6	7	1.7	4	2.5				175.1	

OT= 2 16 49 23.9 +/- 0.2 (JST)
NEAR CHOSHI
LAT= 35 47 +/- 2 LONG= 140 43 +/- 2
H= 40 MAG=3.9 CLASS=L

CHOSHI	1	P	16	49	31.0	S	49	37.2										13.2	06.2
MITO	0	IP	16	49	36.6	IS	49	45.6	14	0.5	20	0.5	4	0.8			D 3	69.6	09.0
KAKIOK	0	IP	16	49	36.7	S	49	44.1	23	0.4	23	0.5	11	0.8	S 1	E 3	D 2	68.5	07.4
UTSUNO	0	P	16	49	42.6	S	49	54.0										113.8	11.4
ONAHAM	0	EX	16	49	43.7	ES	49	57.3	6	0.8	6	1.0	2	0.5				130.0	

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TATEYA	0	EP	16	49	46.4				11	1.7	11	3.2	5	2.6				117.5	
SHIRAK	0	P	16	49	48.2	S	50	05.7										154.5	17.5
FUKUSH	0	EX	16	50	00.1				7	1.0	7	0.9	2	0.6				220.0	
MATSUS	0	IP	16	50	00.6	ES	50	26								E	D	240.7	25.4

OT= 4 17 50 47.4 +/- 0.2 (JST)
OFF TOKAIDO
LAT= 33 48 +/- 2 LONG= 137 16 +/- 2
H=340 CLASS=R

OWASE	0	IP	17	51	33.8	IS	52	08.0	14	1.6	27	2.0	26	1.2	N	W	U	103.4	34.2
HAMAMA	0	P	17	51	33.9	IS	52	10.6	53	2.0	108	3.2	14	2.8			U	109.2	36.7
TSU	0	P	17	51	34.2	S	52	13.4	42	1.8	47	1.6	23	1.8				121.4	39.2
SHIONO	0	IP	17	51	34.5	S	52	08.8	31	2.2	18	1.8	48	1.4	S	6 W	11 U	55	144.8	34.3
OMAEZA	0	IP	17	51	34.8	IS	52	10.2	76	2.4	116	3.4	27	2.4	S	4 E	4 D	15	124.7	35.4
NAGOYA	0	IP	17	51	35.9	IS	52	13.9	40	2.4	78	2.8	18	2.8	N	1	U	14	153.8	38.0
SHIZUO	0	IP	17	51	36.4	IS	52	15.3	21	1.9	39	2.8	16	3.5	S	3 W	5 D	13	167.1	38.9
NARA	0	IP	17	51	36.6	X	52	13.2									U		164.4	
KYOTO	0	EP	17	51	37.0	IS	52	16.0	22	2.1	10	1.1	14	1.0					194.6	39.0
OSAKA	0	IP	17	51	37.2	IS	52	15.9	99	3.6	40	1.6	37	1.4			U	32	187.9	38.7
HIKONE	0	IP	17	51	37.3	S	52	15.7									U		188.3	38.4
GIFU	0	IP	17	51	37.7	S	52	15.3	19	1.5	60	2.1	17	0.6	N	9 W	4 U	17	183.1	37.6
IIDA	0	EP	17	51	38.2	IS	52	17.6	15	3.0	26	2.0	8	1.2					196.7	39.4
WAKAYA	0	P	17	51	38.2	S	52	16.4	34	1.0	30	0.9	20	0.5					199.6	38.2
KOBE	0	IP	17	51	38.3	X	52	07.4									U	17	215.9	
AJIRO	0	IP	17	51	39.2	ES	52	17.8	11	1.4	25	1.4	25	1.4	S	3 W	7 D	23	217.5	38.6
OSHIMA	0	IP	17	51	39.3	IS	52	20.3	72	0.8	66		65	1.0	N	5 W	8 D	65	221.7	41.0
MISHIM	0	IP	17	51	39.4	IS	52	20.1	35	0.7	34	2.2	31	0.7	S	8	D	31	211.0	40.7
SUMOTO	0	P	17	51	39.6	X	52	19.4									U		225.6	
TSURUG	0	IP	17	51	40.4	ES	52	17.6							N	W	U	17	232.8	37.2
KOFU	0	IP	17	51	40.6	IS	52	22.0	54	2.0	48	2.0	17	2.0	S	8 W	3 D	11	238.3	41.4
HACHIJ	0	IX	17	51	40.6				23	0.6	25	0.3	33	0.3		W	13 D	20	246.8	
KAWAGU	0	P	17	51	40.8	S	52	22.9											233.0	42.1
MAIZUR	0	P	17	51	40.9	S	52	22.2									U		253.1	41.3
TATEYA	0	IP	17	51	42.2				142	1.4	70	1.4	38	1.0					272.8	
FUKUI	0	IP	17	51	42.4	X	52	14.8							N	4 E	6 U	10	267.4	
TOKUSH	0	IP	17	51	42.9	ES	52	22.7											250.4	39.8
MUROTO	0	IP	17	51	43.5	IS	52	28.0	13	2.0	20	1.0	5	2.0	S	1 W	1 U	1	293.2	44.5
TOYOOK	0	IP	17	51	43.9	S	52	28.0	66	1.2	59	1.4	14	1.8	N	10 W	11 U	16	295.5	44.1
TAKAMA	0	IP	17	51	44.4	IS	52	28.8	40	1.4	58	1.4	26	0.8	S	4 W	23 U	42	301.6	44.4
CHICHI	0	P	17	51	45.2	ES	52	27.1							S	3 W	6 D	20	294.2	41.9
MATSUS	0	IP	17	51	45.5	S	52	31							S	W	D		315.6	45.5
TOKYO	1	IP	17	51	45.5	S	52	30.0	111	0.5	107	0.6	45	0.4					309.4	44.5
KARUIZ	0	IP	17	51	45.9	S	52	30.4							S		D	8	305.1	44.5
OKAYAM	0	IP	17	51	46.1	IS	52	31.7	24	2	22	2	14	2.8	N	6 W	14 U	18	323.8	45.6
TOTTOR	0	P	17	51	46.7	S	52	33.9									U		340.8	47.2
TOYAMA	0	EP	17	51	47	S	52	34.0	15	3.0	18	3.0	18	4.2					322.4	47.0
MAEBAS	0	IP	17	51	47.0	IS	52	33.5											331.8	46.5
KUMAGA	1	P	17	51	47.4	S	52	30.6	49	0.6	42	0.8	17	0.8			D	12	324.2	43.2
NAGANO	0	P	17	51	47.6	S	52	33.3	12	1.2	32	2.2	12	1.8			D	5	328.3	45.7
WAJIMA	0	EX	17	51	48				13	1.2	13	1.2							399.6	
KOCHI	0	IP	17	51	48.6	IS	52	35.5								W	11 U	11	347.2	46.9
KAKIOK	0	IP	17	51	49.6	S	52	37.0	125	0.8	120	0.8	56	0.4	S	7 W	5 D	6	379.5	47.4
UTSUNO	2	IP	17	51	50.6	IS	52	38.0							S	1 W	3 D	4	386.1	47.4
TAKADA	0	EP	17	51	51.4	S	52	40.5									D	9	377.3	49.1
CHOSHI	0	P	17	51	51.8	IS	52	41.4											390.8	49.6
KANAZA	0	X	17	51	52.0	ES	52	34.3	20	4.0	15	4.0	14	3.2					309.8	
MITO	1	IP	17	51	52.6	IS	52	42.4	75	0.5	117	0.8	24	0.8		W	2 D	14	408.8	49.8
YONAGO	0	P	17	51	52.8	IS	52	44.0									D	2	402.7	51.2
MATSUY	0	EP	17	51	54.5	IS	52	46.8	31	3.1			6	1.4	N	W	U	4	415.2	52.3
ASHIZU	0	IP	17	51	54.8	S	52	45.9	16	2.4	11	2.6	6	2.2		W	4 U	7	413.7	51.1
SAIGO	0	IP	17	51	56.4	IS	52	51.6	20	2.7	12	2.5	9	2.0			D	1	447.2	55.2
SHIRAK	0	IP	17	51	56.6	IS	52	50.8									D	6	455.5	54.2
HIROSH	0	P	17	51	57.0	S	52	52.2	17	3.1	28	4.0	5	4.2	N	1 W	1 U	3	450.0	55.2
ONAHAM	1	IP	17	51	58.8	IS	52	54.8	86	0.9	107	1.2	36	0.9	S	1	D	9	480.6	56.0
HAMADA	0	P	17	52	00.5	S	52	59.0	15	4.0	25	4.0	12	3.2			D	0	492.8	58.5
FUKUSH	1	P	17	52	03.9	S	53	02.4	89	0.9	64	0.9	26	0.6	S	8 W	6 D	10	526.0	58.5
NOBEOK	0	EP	17	52	06.3	ES	53	08.5											537.6	62.2
MIYAZA	0	P	17	52	10.0	S	53	18.0	10	2.2	28	2.6	8	2.2					584.9	68.0
SENDAI	0	IP	17	52	10.2	IS	53	13.1	41	2.6	32	2.4	27	2.4			D	7	593.2	62.9
SHIMON	0	P	17	52	10.8	S	53	17.6	11	2.8	14	3.2	7	3.2		E	2 D	2	585.2	66.8
KUMAMO	0	P	17	52	13.2	ES	53	22.8	25	2.4	33	2.8	7	2.4					620.1	69.6
ISHINO	0	EP	17	52	13.5	IS	53	18.6	37	1.2	27	0.6	12	0.8	S	2 W	3 D	4	628.6	65.1
SAKATA	0	EP	17	52	13.8	ES	53	21.1											611.3	67.3
FUKUOK	0	EP	17	52	15.7	ES	53	24.2	17	3.2	25	2.7	20	2.1		E	1 D	2	638.7	68.5
SAGA	0	P	17	52	18.2	X	53	49.9											649.3	
OFUNAT	0	IP	17	52	21.7	IS	53	33.0	16	0.4	29	0.4	11	0.6	S	1 W	1 D	2	706.9	71.3
NAGASA	0	P	17	52	22.3	S	53	36.3							N	E	D		699.3	74.0
AKITA	0	EP	17	52	22.8	S	53	37.2	19	2.8	18	3.4	9	2.2					703.6	74.4

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STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MORIOK	0	IP	17 52 25.3	IS	53 41.0	16	0.4	20	0.4	3	1.0	S 1	W 0	D 1	741.0	75.7
MIYAKO	0	EP	17 52 28.0	S	53 44.7	12	1.0	14	1.4	20	3.3				772.3	76.7
HACHIN	0	IP	17 52 35.5	S	53 57.8	8	0.2	8	0.2	3	1.4			U 1	836.3	82.3
AOMORI	0	EP	17 52 38	ES	54 01	17	1.9	15	1.9						838.5	83.0
URAKAW	0	P	17 53 00.8	S	54 43.3	12	2.4	14	1.8	8	3.0				1045.9	102.5
SAPPOR	0	P	17 53 06.4			7	1.8	5	2.4	4	1.4				1086.8	
OBIHIR	0	EP	17 53 10												1137.5	
KUSHIR	0	EP	17 53 17	S	55 09.1	16	0.2	20	0.2	6	0.2				1192.9	112.1
KAGOSH	0	EX	17 53 28.5			13	2.4	15	2.6	3	2.0				675.9	
ABASHI	0	EP	17 53 30	X	54 18	9	2.8	15	2.6	5	2.4				1285.9	
NEMURO	0	X	17 53	X	53 44	16	0.6	11	1.6	10	2.2		W	D	1280.8	

OT= 6 10 55 33.5 +/- 3.0 (JST)
E OFF HOKKAIDO
LAT= 43 39 +/-15 LONG= 148 47 +/-16
H= 40 MAG=5.1 CLASS=U

NEMURO	0	EP	10 56 10	ES	56 37	23	1.2	33	2.2	18	2.0				261.1	27.0
ABASHI	0	EP	10 56 26	X	57 17	8	2.2	15	2.0	6	1.8				364.3	
HIROO	0	EP	10 56 40	S	57 33										471.1	53.0
URAKAW	0	P	10 56 46.5	S	57 42.3	18	1.8	18	0.8	10	1.6				517.5	55.8
OBIHIR	0	EX	10 56 51												458.6	
SAPPOR	0	EX	10 57 07			7	4.0	9	2.0	3	0.8				607.6	
HAKODA	0	EX	10 57 13	EX	58 08	7	0.5	7	1.4	2	1.3				688.0	
AOMORI	0	EX	10 57 41			12	1.9	16	1.4						731.2	
FUKUSH	0	EX	10 58 02.0			6	1.0	3	1.0	1	1.0				959.0	
MATSUS	0	IP	10 58 06.0											D	1196.9	

OT= 7 1 21 56.9 +/- 0.6 (JST)
OFF IWATE PREF
LAT= 39 56 +/- 1 LONG= 142 41 +/- 3
H= 30 MAG=4.3 CLASS=S

MIYAKO	2	IP	01 22 10.4	IS	22 18.4	29	0.6	52	0.6	10	0.8				69.1	08.0
HACHIN	1	IP	01 22 17.1	IS	22 30.0	38	0.2	38	0.0	7	0.3	S 1	E 3	D 1	118.5	12.9
OFUNAT	0	EP	01 22 18.1	IS	22 32.1	16	0.0	15	0.0	9	0.6				127.5	14.0
MORIOK	0	IP	01 22 18.9	S	22 32.4	19	0.3	22	0.4	6	0.2		E 1	D 0	132.4	13.5
AOMORI	0	EP	01 22 26	S	22 47	29	0.9	27	0.9	12	1.4				188.8	21.0
ISHINO	0	P	01 22 28.0	ES	22 48.8	5	0.2	4	0.6	3	0.8				205.6	20.8
SENDAI	0	EX	01 22 38			6	0.8	5	0.8	3	1.3				241.5	
FUKUSH	0	EX	01 22 44.5			6	1.0	5	1.0	1	1.2				308.4	
MATSUS	0	IP	01 23 11.7	X	24 31							N	E	D	543.4	

OT= 7 3 46 44.6 +/- 1.0 (JST)
OFF FUKUSHIMA PREF
LAT= 37 7 +/- 3 LONG= 141 44 +/- 6
H= 40 MAG=4.1 CLASS=U

ONAHAM	0	IP	03 46 58.2	S	47 07.9	22	0.8	38	1.1	9	0.6			D 1	76.0	09.7
FUKUSH	0	EX	03 47 07.1			8	0.8	6	0.9	4	0.6				132.1	
MITO	0	EP	03 47 08.0	S	47 24.4	9	0.8	19	1.1	4	1.0				139.3	16.4
SENDAI	0	P	03 47 08.6	X	47 25.0	7	0.7	7	0.6	4	1.3			D 2	146.6	
KAKIOK	0	EP	03 47 10	ES	47 30	10	0.8	11	0.6	7	0.7				169.1	20.0
UTSUNO	0	P	03 47 11.0	S	47 31.0										177.7	20.0
CHOSHI	0	EP	03 47 13.8	S	47 30.0										173.8	16.2
MATSUS	0	IP	03 47 30.7	ES	48 14								N	D	320.9	43.3
KOFU	0	EP	03 47 33.4	ES	48 13.8	4	1.3	6	1.4	1	1.0				327.2	40.4

OT= 7 7 0 42.7 +/- 1.7 (JST)
OFF IBARAKI PREF
LAT= 36 21 +/- 7 LONG= 142 6 +/- 7
H= 10 MAG=4.1 CLASS=U

ONAHAM	0	IP	07 01 05.6	ES	01 17.5	11	0.8	13	1.2	3	0.4			U 2	125.5	11.9
KAKIOK	0	EP	07 01 10	ES	01 33	9	0.8	6	0.8	4	1.2				171.7	23.0
MITO	0	EP	07 01 10.6	S	01 26.7	8	0.4	9	0.4	3	0.5				146.1	16.1
UTSUNO	0	EP	07 01 16	S	01 41.4										200.9	25.4
FUKUSH	0	EX	07 01 16.0			8	1.0	6	1.0	2	0.8				212.7	
MATSUS	0	IP	07 01 36.0	S	02 17									U	349.5	41.0

OT= 7 13 6 14.6 +/- 0.2 (JST)
E OFF AOMORI PREF
LAT= 41 30 +/- 1 LONG= 141 54 +/- 2
H= 90 CLASS=S

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
HAKODA	0	IP	13 06 34.9	S	06 48.6	21	0.4	32	0.4	19	0.7	N 1	E 8	D 14	101.3	13.7
URAKAW	0	P	13 06 35.1	S	06 48.6	30	0.6	36	0.8	9	0.8				103.4	13.5
HACHIN	1	EP	13 06 35.6	IS	06 48.6	30	0.2	29	0.8	8	0.7				112.8	13.0
MURORA	0	IP	13 06 35.8	IS	06 50.0							S 6	E 6	D 12	118.4	14.2
AOMORI	0	EP	13 06 38	ES	06 51	49	1.1	53	1.6	22	0.8				120.6	13.0
HIROO	0	P	13 06 39.0	IS	06 57.4										146.3	18.4
SAPPOR	0	IP	13 06 43.5	ES	07 02	10	1.4	13	1.6	7	0.8			D 2	179.4	18.5
OBIHIR	0	EP	13 06 46	ES	07 08										191.8	22.0
MORIOK	0	EP	13 06 47.4	S	07 10.0	8	0.4	10	0.4	2	0.7				209.6	22.6
KUSHIR	0	EP	13 06 52	S	07 18.2	12	0.3	9	0.3	6	0.2				263.4	26.2
ASAHIK	0	EP	13 06 54	ES	07 23	8	1.2	6	0.6	5	0.8				255.2	29.0
AKITA	0	EX	13 07 15.0	X	07 25.2	6	2.2	8	2.4	7	2.8				249.6	
FUKUSH	0	EX	13 07 36.2			5	1.0	5	1.2	2	0.8				433.2	
MATSUS	0	IP	13 07 42.6	X	09 07										636.7	
ONAHAM	0	EX	13 08 09.0			6	0.5	5	0.4	2	0.4	N		D	512.9	

OT= 7 17 6 52.4 +/- 0.2 (JST)
S OF HOKKAIDO
LAT= 42 24 +/- 1 LONG= 143 1 +/- 1
H= 80 CLASS=S

HIROO	3	IP	17 07 05.0	IS	07 12.6								E 23	U 51	27.9	07.6
URAKAW	2	IP	17 07 07.0	IS	07 15.9	300	1.0	500	2.0	172	1.8	S 15	W 9	U 36	33.2	08.9
OBIHIR	2	IP	17 07 07.3	IS	07 16.9									U 43	60.2	09.6
KUSHIR	2	IP	17 07 14.6	IS	07 29.4	212	0.2	179	0.2	85	0.3	S 6	E 5	U 7	130.0	14.8
SAPPOR	1	IP	17 07 17.6	ES	07 35	54	2.6	65	2.0	22	2.6			D 13	156.2	17.4
ASAHIK	0	EP	17 07 18	ES	07 37	38	0.6	33	1.0	24	1.0				161.0	19.0
MURORA	0	P	17 07 19.1	S	07 36.0								E 2	D 2	167.8	16.9
RUMOI	0	EP	17 07 23	ES	07 42										205.7	19.0
HAKODA	0	IP	17 07 23.1	IS	07 44.8	27	0.6	43	1.0	25	2.4	N 1	E 2	D 2	197.9	21.7
ABASHI	0	P	17 07 24.6	S	07 46.8	77	2.2	39	2.4	12	2.6				207.1	22.2
NEMURO	0	EP	17 07 27	ES	07 52	16	0.2	11	0.2	6	0.4				234.0	25.0
HACHIN	0	IP	17 07 28.4	IS	07 54.6	22	0.2	22	1.1	10	1.0	S 1	W 1	U 1	242.7	26.2
AOMORI	0	EP	17 07 32	ES	07 56	48	2.2	57	1.7	15	0.6				256.1	24.0
MIYAKO	0	EP	17 07 38	S	08 08.8	5	1.5	7	3.1	4	2.9				318.4	30.8
MORIOK	0	IP	17 07 40.2	IS	08 14.0	8	0.4	9	0.4	4	1.4	S 0	W 0	U 0	338.1	33.8
OFUNAT	0	EP	17 07 47.0	IS	08 23.6	6	0.4	4	0.2	3	1.2				386.6	36.6
AKITA	0	EX	17 07 50			12	1.6	11	3.0	7	2.8				385.6	
WAKKAN	0	EX	17 07 55			5	3.6	10	3.7	7	3.0				351.6	
ISHINO	0	P	17 07 56.8	ES	08 40.0	5	1.2	5	3.4	3	1.2				464.7	43.2
SENDAI	0	X	17 07 59			10	3	9	3	5	1.5				493.6	
FUKUSH	0	EX	17 08 07.1			7	1.1	6	1.0	2	0.8				559.2	
SAKATA	0	EX	17 08 26.1												472.3	
KAKIOK	0	EP	17 08 27	ES	09 39	9	1.0	5	0.8	2	1.1				726.7	72.0
MATSUS	0	IP	17 08 33.4											U	770.9	
ONAHAM	0	EX	17 09 16.3			7	1.5	7	1.3	2	0.5				632.1	
MITO	0	S	17 09 33.6			7	2.2	5	1.6	3	1.6				703.5	
KUMAGA	0	X	17 09 41.4	X	10 17.0	5	1.8	6	4.2	3	2.6				761.5	
TOKYO	0	EX	17 09 48			5	3.6	5	3.8						796.9	
TATEYA	0	EX	17 10 06.5			5	3.6	7	4.0	3	2.1				867.5	

OT= 7 17 34 26.6 +/- 0.3 (JST)
S OF AKITA PREF
LAT= 39 20 +/- 1 LONG= 140 28 +/- 2
H= 20 MAG=4.0 CLASS=S

AKITA	X	P	17 34 37.2	IS	34 42.6	38	1.4	62	0.6	21	1.8			D 4	53.0	05.4
MORIOK	0	IP	17 34 39.6	IS	34 48.2	14	0.4	11	0.4	3	0.3	S 1	W 2	D 0	72.6	08.6
SAKATA	0	EP	17 34 42.4	IS	34 51.9										72.4	09.5
OFUNAT	1	IP	17 34 46.2	IS	35 00.6	22	0.0	13	0.6	11	0.4		W 1		112.3	14.4
YAMAGA	0	P	17 34 46.8	IS	35 01.7							S 1	E 1	U 1	120.3	14.9
SENDAI	0	P	17 34 47.6	ES	35 03.6	8	0.7	5	0.9	3	0.8			U 1	125.0	16.0
ISHINO	0	P	17 34 48.0	ES	35 03.6	7	0.4	5	0.2	3	1.0	S		U	124.2	15.6
MIYAKO	0	EP	17 34 49.9	IS	35 05.7	9	0	14	0.6	5	1.4				133.7	15.8
AOMORI	0	X	17 34 53			10	1.3	10	1.0						166.9	
FUKUSH	0	EX	17 34 55.6			10	1.0	8	1.0	2	1.0				175.0	
ONAHAM	0	X	17 35 14.5	ES	35 42.8	5	1.2	9	1.5	3	1.3				267.9	
MATSUS	0	IP	17 35 19.2	S	35 58							S	E	U	368.2	38.8
NIIGAT	0	EX	17 35 24.2			8	1.8	7	0.9						200.4	
MITO	0	ES	17 35 58.4			4	2.6	6	2.0	2	1.6				327.9	

International Seismological Centre From the ISC collection scanned by SISMOS

OT= 7 22 41 12.4 +/- 0.3 (JST)
NEAR OKINAWA
LAT= 26 20 +/- 3 LONG= 126 24 +/- 2
H=130 CLASS=S

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NAHA	3	IP	22 41 38.6	IS	41 55.5	337	2.6	427	2.8	252	1.4	N	W 28	D 25	128.6	16.9
ISHIGA	0	EP	22 41 59.1	S	42 30.0	16	3.3	25	3.8	9	3.3				315.4	30.9
YONAGU	0	EP	22 42 09	ES	42 49	10	0.7	9	0.7	4	0.7				398.0	40.0
YAKUSH	0	EX	22 42 30.4			10	0.7	9	0.7	4	0.7				607.2	
KAGOSH	0	EP	22 42 44.7			16	2.2	12	2.4	2	1.2				707.4	
FUKUE	0	EP	22 42 51.0	ES	44 06.4	12	5.0	11	4.0	10	3.8				743.6	75.4
MIYAZA	0	P	22 42 54.0	S	44 11.0	7	0.6	8	0.6	3	0.6				788.1	77.0
NAGASA	0	EP	22 42 54.8	ES	44 13.2										782.7	78.4
KUMAMO	0	EP	22 43 00.3	ES	44 22.2	11	2.9	9	2.4	2	0.8				829.8	81.9
MATSUS	0	P	22 44 31	S	47 10										1590.6	159.0
TATEYA	0	EX	22 44 33.4			13	3.3	9	4.2	7	5.0				1604.6	
URAKAW	0	EP	22 45 45	X	49 22.5	8	3.8	8	3.4	4	3.6				2305.5	
OSHIMA	0	EX	22 47 22.4			14	3.6	5	2.6						1553.7	
KUMAGA	0	EX	22 47 36.0			7	4.0	5	4.0	8	4.4				1643.7	
AKITA	0	EX	22 48 40.8			12	3.4	7	3.6	4	3.0				1954.5	
OFUNAT	0	X	22 48 46.6			4	4.0	6	3.0	3	3.2				2007.5	

OT= 8 8 3 28.6 +/- 0.5 (JST)
N OF CHIBA PREF
LAT= 35 51 +/- 2 LONG= 140 34 +/- 3
H= 40 MAG=3.6 CLASS=U

CHOSHI	0	IP	08 03 36.8	S	03 43.5										28.6	06.7
KAKIOK	0	P	08 03 39.6	ES	03 48	14	0.8	20	0.8	9	1.0	S	3 E 3	D 2	54.1	08.4
MITO	0	EP	08 03 40.5	S	03 49.5	10	0.4	12	0.4	4	0.6				59.2	09.0
TOKYO	0	EP	08 03 44.2			5	0.8	13	1.2						75.3	
UTSUNO	0	P	08 03 45.2	ES	03 52										99.4	06.8
ONAHAM	0	EP	08 03 48.2	IS	04 02.8	5	0.6	5	1.2	2	0.6				125.3	14.6
TATEYA	0	EP	08 03 49.6			8	1.1	9	3.5	4	1.4				115.2	
MATSUS	0	IP	08 04 02.6	S	04 30									D	225.4	27.4

OT= 8 14 35 34.1 +/- 1.3 (JST)
OFF SANRIKU
LAT= 39 55 +/- 6 LONG= 143 47 +/- 6
H= 40 MAG=4.5 CLASS=U

MIYAKO	0	P	14 35 59.2	S	36 18.5	7	1.3	8	1.7	5	2.0		W 2	U 3	158.4	19.3
OFUNAT	0	IP	14 36 05.0	ES	36 25.0	8	1.0	6	1.2	5	1.0			U 0	201.4	20.0
MORIOK	0	P	14 36 08.1	ES	36 31.3	8	0.4	13	0.4	3	1.0		W 1	U 1	225.3	23.2
SENDAI	0	EX	14 36 18			9	2	10	2.0	4	1.5				309.9	
AOMORI	0	EP	14 36 19	S	36 41	54	1.2	55	0.9	17	0.9				273.7	22.0
AKITA	0	EX	14 36 28			10	3.0	8	1.4	6	1.8				316.0	
SAKATA	0	EX	14 36 52.3												358.0	
MATSUS	0	IP	14 36 58.0	X	38 27							S	W	U	615.3	
KUSHIR	0	S	14 36 58.1			10	0.3	8	0.4	3	0.3				343.9	
ONAHAM	0	EX	14 37 14.7			4	0.8	6	1.2						414.5	

OT= 8 16 21 35.0 +/- 1.6 (JST)
E OFF HOKKAIDO
LAT= 44 18 +/-13 LONG= 149 45 +/-10
H= 10 MAG=5.1 CLASS=U

NEMURO	0	P	16 22 28.6	ES	23 12	6	1.2	8	1.0	4	1.4		W	U	352.0	43.4
ABASHI	0	P	16 22 38.2	ES	23 32	6	2.6	7	2.6	4	2.8				438.5	53.8
KUSHIR	0	P	16 22 41.3	ES	23 35	21	1.0	11	0.5	8	0.8			U 1	456.4	53.7
OBIHIR	0	EX	16 22 55												548.8	
HIROO	0	P	16 22 55.5	ES	24 02										568.1	66.5
SAPPOR	0	EP	16 23 11	ES	24 26	12	2.0	12	2.2	5	2.2				692.6	75.0
HAKODA	0	P	16 23 21.0	ES	24 43	6	3.8	4	1.7	3	1.8			D	782.5	82.0
AOMORI	0	X	16 23 36	ES	25 10	20	1.8	18	1.4	8	1.4				831.3	
MATSUS	0	IP	16 24 25.7											U	1302.5	
AKITA	0	EX	16 25 41			6	2.6	5	2.8	3	2.4				946.7	

OT= 9 5 14 57.5 +/- 0.2 (JST)
NEAR UTSUNOMIYA
LAT= 36 31 +/- 3 LONG= 139 50 +/- 2
H= 90 CLASS=L

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
UTSUNO	1	P	05 15 10.8	S	15 20.0										4.8	09.2
KAKIOK	0	IP	05 15 12.1	IS	15 21.6	19	0.8	22	0.8	7	0.5	N	1 E	2 U 4	45.2	09.5
KUMAGA	0	P	05 15 14.2	S	15 25.6	8	0.2	13	0.4	7	0.2			D 6	57.5	11.4
ONAHAM	0	IP	05 15 18.2	S	15 32.4	5	0.8	7	0.9	2	0.4			U 1	107.0	14.2
MATSUS	0	IP	05 15 22.0	S	15 39								E	D	145.5	17.0

OT= 12 10 27 4.1 +/- 1.3 (JST)
SE OFF NEMURO PEN
LAT= 43 27 +/- 4 LONG= 146 38 +/- 6
H= 0 MAG=4.3 CLASS=U

NEMURO	0	P	10 27 22.2	S	27 34.8	11	0.2	12	0.2	9	1.0		E	D 1	85.9	12.6
KUSHIR	0	EP	10 27 36	ES	28 00	18	0.5	17	0.3	7	0.3				189.3	24.0
ABASHI	0	EP	10 27 38	ES	28 02	4	1.0	6	1.4	3					199.6	24.0
URAKAW	0	P	10 27 59.8	S	28 39.2	13	1.6	10	1.8	6	1.6				346.3	39.4
MATSUS	0	X	10 29	ES	31 17										1050.9	

OT= 12 21 29 40.9 +/- 0.9 (JST)
OFF KUSHIRO
LAT= 42 21 +/- 2 LONG= 145 21 +/- 4
H= 40 MAG=5.2 CLASS=M

KUSHIR	3	IP	21 29 58.0	IS	30 08.0	300	2.3	300	2.6			S	34 E 50	D 92	104.9	10.0
NEMURO	2	IP	21 30 01.0	IS	30 13.0	149	0.6	133	1.0	75	1.8	S	1 W 1	D 2	110.4	12.0
HIROO	1	IP	21 30 07.6	IS	30 28.3										167.8	20.7
OBIHIR	1	P	21 30 09.3	S	30 31.2									D 4	185.7	21.9
ABASHI	X	P	21 30 11.6	S	30 32.0	48	1.8	49	2.0	36	3.0	S	1 E 3	D 1	204.5	20.4
URAKAW	1	IP	21 30 15.2	S	30 37.2	162	0.8	199	0.8	163	1.4		W 7	U 11	213.2	22.0
ASAHIK	0	EP	21 30 21			41	1.2	53	3.0	40	2.0				289.3	
SAPPOR	0	P	21 30 28.7	S	31 02.4	67	2.0	61	1.6	27	1.2				338.5	33.7
MURORA	0	P	21 30 31.6	S	31 15.5								W 1	U 2	359.9	43.9
RUMOI	0	EX	21 30 32												350.7	
HACHIN	0	IP	21 30 33.5	S	31 10.5	9	1.0	11	1.0	12	3.0	S	W 1	U 1	378.5	37.0
HAKODA	0	IP	21 30 34.5	S	31 20.0	35	1.3	22	1.8	18	1.4		W 2	U 3	384.6	45.5
MIYAKO	0	EP	21 30 38.6	S	31 18.3	4	2.1	8	2.7	5	2.3				413.7	39.7
SUTTSU	0	EX	21 30 38.8												422.4	
AOMORI	0	EP	21 30 41	ES	31 23	70	1.4	59	1.4	28	1.4				417.1	42.0
MORIOK	0	IP	21 30 44.0	IS	31 26.5	11	0.4	12	0.4	3	3.0	S	1 W 1	U 1	458.8	42.5
WAKKAN	0	EP	21 30 45	ES	31 40	17	3.5	17	4.6	19	4.0				450.2	55.0
OFUNAT	0	IP	21 30 46.3	IS	31 32.2	8	0.4	10	1.2	7	1.2	S	1 W 1	U 1	476.9	45.9
ISHINO	0	EP	21 30 55.3	X	31 47.8	7	0.8	6	1.0	5	1.0	S	W	U 1	554.9	
SENDAI	0	EP	21 31 00.5	X	31 56.5	12	1.2	15	1.6	8	1.6				590.9	
FUKUSH	0	EP	21 31 09.4	X	32 11.2	17	0.9	19	0.9	4	0.5				657.9	
AKITA	0	EX	21 31 11			15	2.0	14	2.8	9	2.2				529.2	
ONAHAM	0	EP	21 31 15.6	X	32 21.3	11	1.2	11	0.8	4	1.2				710.8	
SAKATA	0	EX	21 31 21.4												603.2	
MITO	0	EP	21 31 25.6	X	32 39.5	11	1.6	10	2.2	5	2.2				784.7	
UTSUNO	0	P	21 31 25.8	X	32 42.0										798.0	
KAKIOK	0	EP	21 31 29	X	32 46	9	1.0	9	0.7	4	0.7				811.6	
MATSUS	0	IP	21 31 37.6	S	33 08							S	W	U	890.6	90.4
KUMAGA	0	X	21 31 42.0	ES	33 04.0	6	1.4	5	1.2	6	2.0				859.4	
KOFU	0	EP	21 31 46.8	ES	33 20.6	4	1.6	6	0.3	2	1.8				946.3	93.8
TOKYO	0	EX	21 31 50	X	33 02.0			8	3.4						883.8	
TATEYA	0	EX	21 33 15.0			11	2.8	9	2.7	5	3.4				946.2	

OT= 13 2 27 24.8 +/- 0.8 (JST)
NEAR MITO
LAT= 36 26 +/-11 LONG= 140 25 +/- 6
H= 60 CLASS=L

MITO	0	IP	02 27 34.0	IS	27 40.6	25	0.4	44	0.3	23	0.3		W 1	U 3	7.8	06.6
KAKIOK	0	P	02 27 35.5	IS	27 43.0	9	0.5	9	0.3	5	0.2	S	1 W 2	U 2	30.0	07.5
UTSUNO	0	P	02 27 36.7	S	27 46.5										50.4	09.8
MATSUS	0	IP	02 27 56.0	S	28 11									U	198.2	15.0

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OT= 13 3 23 20.8 +/- 0.7 (JST)
E OFF CHIBA PREF
LAT= 35 24 +/- 2 LONG= 141 10 +/- 4
H= 50 MAG=4.9 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
CHOSHI	3	IP	03	23	31.6	S	23	37.2	400		900		100				U 9	46.5	05.6
KAKIOK	0	P	03	23	41.1	S	23	53.4	91	1.0	108	1.0	38	0.7	N 3	W 5	D 1	127.5	12.3
MITO	X	IP	03	23	41.9	IS	23	56.3	78	1.8	62	1.2	47	3.2			U 7	125.4	14.4
TATEYA	1	IP	03	23	42.6	IS	23	57.7	168	0.8	112	0.7	60	0.7			U 8	126.9	15.1
TOKYO	2	P	03	23	43.1	IS	23	55.1	55	2.8	67	2.6	38	2.5				131.5	12.0
YOKOHA	0	P	03	23	43.8	S	23	59.0										137.3	15.2
UTSUNO	0	P	03	23	46.8	S	24	02.0										172.7	15.2
ONAHAM	0	EP	03	23	47.7	ES	24	05.6	41	1.0	39	1.1	12	0.6				173.0	17.9
OSHIMA	0	IP	03	23	48.0	S	24	05.3	26	0.8	30	0.6	17	0.4	S 3	W 2	U 8	177.8	17.3
AJIRO	0	EP	03	23	49.5	ES	24	07.2	9	1.2	12	1.4	6	1.2				192.5	17.7
KUMAGA	0	P	03	23	49.6	ES	24	12.0	48	2.0	45	2.0	36	2.8			U 6	181.1	22.4
CHICHI	0	IP	03	23	50.6	EP	24	14.8									U 4	199.8	
MISHIM	0	EP	03	23	51.1	ES	24	06.3	37	2.2	44	2.0	10	2.2				206.0	15.2
SHIRAK	0	P	03	23	52.1	S	24	13.4										208.6	21.3
KAWAGU	0	P	03	23	52.6	S	24	14.4										218.4	21.8
MAEBAS	0	P	03	23	53.4	S	24	14.7										219.8	21.3
KOFU	0	IP	03	23	55.6	ES	24	24.8	40	1.8	27	2.0	15	3.1		W 2	U 1	238.3	29.2
SHIZUO	0	P	03	23	58.0	S	24	24.3	13	4.0	12	3.4	9	4.1		W 2	U 2	255.7	26.3
KARUIZ	0	EP	03	23	59.0	S	24	33.2										258.1	34.2
FUKUSH	0	EX	03	24	02.5				24	0.9	39	1.2	8	0.8				268.7	
OMAEZA	0	EP	03	24	02.5				26	3.4	16	2.6	8	2.0				283.6	
MATSUS	0	IP	03	24	03.2	ES	24	38							N	W	U	295.1	34.8
HACHIJ	0	EP	03	24	04.2	ES	24	33.6	9	0.6	11	0.5						284.7	29.4
IIDA	0	E	03	24	04.6													302.6	
NAGANO	0	EP	03	24	04.9	X	24	52.6	13	3.1	14	3.2	8	2.2				301.9	
MATSUM	0	EP	03	24	05.4	ES	24	40.3										303.3	34.9
SENDAI	0	EP	03	24	07.2	ES	24	37.2	18	1.2	17	2.0	10	1.2				318.2	30.0
ISHINO	0	EP	03	24	10.0	ES	24	43.0	7	1.4	6	1.0	3	1.6			U 1	335.9	33.0
HAMAMA	0	EP	03	24	10	X	24	59	15	3.0	10	2.2	5	3.0				323.3	
TOYAMA	0	EP	03	24	13	X	25	12	12	3.2	13	2.6	11	3.8				384.9	
NAGOYA	0	P	03	24	14.0	ES	24	53.6	24	2.2	15	2.0	8	1.2				382.7	39.6
FUKUI	0	X	03	24	32.7													452.6	
OSAKA	0	EX	03	24	42				21	2.8	12	2.7	9	2.0				521.1	
TOYOOK	0	X	03	24	53	X	25	54.8	15	1.2	11	1.2						576.0	
AOMORI	0	EX	03	24	54				7	1.9	8	2.3						602.1	
KANAZA	0	EX	03	24					18	2.9	16	2.8	12	3.0				426.8	
GIFU	0	X	03	24		S	24	50.6	13	1.5	8	2.4	5	1.7				399.7	
SAKATA	0	EX	03	25	01.6													406.3	
AKITA	0	EX	03	25	03				9	2.0	10	3.2	9	2.2				488.4	

OT= 15 12 35 48.8 +/- 1.3 (JST)
OFF SANRIKU
LAT= 40 10 +/- 3 LONG= 144 3 +/- 7
H= 0 MAG=4.7 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MIYAKO	0	EP	12	36	21	ES	36	45	9	3.0	13	2.0	5	2.6				187.2	24.0
HACHIN	0	IP	12	36	24.0	X	37	06.0	9	2.9	6	3.8	8	3.2			U	218.2	
OFUNAT	0	IP	12	36	27.8	X	37	08.2	6	2.4	4	2.6	6	1.8	S 0	W 1	U 1	234.8	
MORIOK	0	IP	12	36	29.9	ES	36	54.5	8	3.0	6	3.2	6	3.6	S 0	W 1	U 1	251.8	24.6
						X	36	39.8											
URAKAW	0	EP	12	36	30	S	36	50.5	14	3.2	22	6.0	16	4.6				245.5	20.5
AOMORI	0	EP	12	36	36	ES	37	11	40	1.9	34	1.7	15	1.1				286.2	35.0
ISHINO	0	P	12	36	36.5	X	37	05.0	7	4.8	7	5.6	5	3.6				305.8	
HAKODA	0	P	12	36	39.5	ES	37	15	7	2.2	5	5.6	5	6.4			U	331.9	35.5
AKITA	0	EX	12	36	41.0	EX	37	24.7	20	3.8	17	3.8	14	3.0				341.1	
SENDAI	0	EP	12	36	41.7	ES	37	27.3	15	2.6	12	4	5	2			U 2	344.7	45.6
SAPPOR	0	EP	12	36	47				9	4.0	8	2.8	3	4.0				393.0	
FUKUSH	0	EX	12	36	50				6	1.0	4	1.0						409.3	
OBIHIR	0	EX	12	36	57													313.5	
MITO	0	EX	12	36	58.0				8	4.3	9	3.6	4	3.0				524.1	
SAKATA	0	X	12	37	04.6													388.4	
KUSHIR	0	X	12	37	11.0				9	0.3	9	0.3	3	0.4				313.6	
MATSUS	0	IP	12	37	20.4	S	38	30							S	W	U	650.0	69.6
NIIGAT	0	EX	12	37	26.7				42	4.0	32	4.3	12	4.0				499.9	
ABASHI	0	X	12	37	33	X	38	19	4	3.6	6	2.6	2	2.6				428.1	
TOKYO	0	EX	12	37	51				6	4.8	10	5.0						624.1	
TATEYA	0	EX	12	38	47.3				10	5.0	9	4.0	5	3.0				683.4	

OT= 16 2 50 18.1 +/- 0.4 (JST)
OFF IBARAKI PREF
LAT= 36 33 +/- 1 LONG= 141 14 +/- 2
H= 40 MAG=4.6 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
ONAHAM	2	IP	02	50	29.4	IS	50	36.4	137	1.0	176	0.8	48	0.4	S 1	E 1	D 28	52.6	07.0
MITO	1	IP	02	50	31.5	IS	50	40.3	102	0.5	140	0.5	83	0.3	N 9	E 20	D 83	70.9	08.8
KAKIOK	0	IP	02	50	34.7	S	50	44.9	68	0.5	64	0.6	33	0.5	N 7	E 18	D 10	99.8	10.2
CHOSHI	1	P	02	50	35.0	S	50	46.7										98.0	11.7
SHIRAK	1	IP	02	50	36.5	IS	50	49.2									D 16	109.8	12.7
UTSUNO	0	IP	02	50	37.2	S	50	49.5											
FUKUSH	0	IP	02	50	42.3	IS	50	58.3	97	1.0	71	0.9	36	0.8	N 1	E 2	D 3	121.9	12.3
TOKYO	0	P	02	50	44.4	S	51	03.0	13	0.6	22	2.0	10	0.4	S 6	E 4	D 7	149.9	16.0
KUMAGA	0	P	02	50	45.0	ES	51	06.6	15	0.8	15	0.8	6	2.8			D 4	163.8	18.6
SENDAI	0	IP	02	50	47.0	IS	51	07.2	24	0.8	26	0.8	11	0.8			D 3	171.8	21.6
MAEBAS	0	IP	02	50	48.0	S	51	09.0									U 5	192.0	20.2
CHICHI	0	EP	02	50	48.0	ES	51	09.0										195.0	21.0
YOKOHA	0	P	02	50	48.0	S	51	10.2										203.0	21.0
ISHINO	0	P	02	50	48.9	ES	51	09.2	10	1.0	9	1.2	5	1.6				188.4	22.2
KARUIZ	0	EP	02	50	53.5	ES	51	25.9										208.2	20.3
TATEYA	0	EP	02	50	55.1				25	2.0	19	2.1	8	2.2				241.5	32.4
KAWAGU	0	P	02	50	55.4	S	51	31.7										213.1	
KOFU	0	EP	02	50	56.3	ES	51	32.6	25	1.4	24	1.6	6	2.6				251.3	36.3
NIIGAT	0	EX	02	50	57.2				14	1.8	16	3.5	6	3.4				260.0	36.3
MATSUS	0	IP	02	50	57.6	S	51	32							S	E	D	245.4	
MISHIM	0	EP	02	51	01.4				11	2.2	12	2.2	3	1.6				270.8	34.4
IIDA	0	IP	02	51	05.8	ES	51	49.6	11	1.4	8	1.4	8	2.0			D 1	262.2	
MORIOK	0	IP	02	51	06.7	S	51	41.5	7	0.4	9	0.4	1	0.5	N 0			327.2	43.8
						IX	51	08.6										349.3	34.8
SAKATA	0	X	02	51	06.7													288.7	
NAGOYA	0	P	02	51	18.6	S	52	04.4	8	1.8	6	2.0	5	1.6				414.6	45.8
AKITA	0	EX	02	51	19.4				6	2.2	6	2.6	3	2.0				365.4	
AOMORI	0	EX	02	51	46				8	1.2	7	1.6						475.2	
OSAKA	0	EX	02	52	51				12	3.5	5	1.0						557.4	

OT= 18 2 56 47.2 +/- 1.6 (JST)
E OFF HOKKAIDO
LAT= 43 22 +/- 5 LONG= 147 1 +/- 9
H= 50 MAG=4.8 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	1	IP	02	57	05.7	X	58	17.6	36	0.2	45	0.4	23	0.2	S	W 1	D 3	116.0	
KUSHIR	0	EP	02	57	19	ES	57	41	29	0.4	43	0.2	13	0.3				217.5	22.0
ABASHI	0	P	02	57	22.0	IS	57	45.4	7	2.6	21	2.4	7	2.6		E 1	D 1	231.9	23.4
HIROO	0	EP	02	57	34	S	58	06.1							N 2		U 8	325.6	32.1
OBIHIR	0	EX	02	57	35													312.7	
URAKAW	0	P	02	57	41.7	S	58	19.9	29	1.2	34	2.0	15	1.6				371.9	38.2
SAPPOR	0	EP	02	57	52	ES	58	37	5	2.0	7	1.6	2	1.0				463.2	45.0
HAKODA	0	EP	02	58	01	ES	58	52	5	1.8	3	0.7	2	1.5				541.8	51.0
MATSUS	0	P	02	59	04	X	00	46										1067.2	
AOMORI	0	EX	02	59	24.1				9	1.2	8	1.5	3	1.3				588.2	

OT= 18 7 28 36.8 +/- 1.9 (JST)
E OFF HOKKAIDO
LAT= 43 34 +/- 8 LONG= 148 25 +/-10
H= 40 MAG=4.5 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	0	EP	07	29	10	ES	29	37	5	1.6	5	1.6	5	2.4				230.7	27.0
ABASHI	0	EP	07	29	25	X	30	13	5	1.8	6	3.2	4	5.0				336.5	
KUSHIR	0	X	07	29	31	S	30	00.0	7	0.3	15	0.3	4	4.0				333.0	
URAKAW	0	P	07	29	46.0	S	30	37.9	7	1.8	5	1.6	3	1.6				486.5	51.9
MATSUS	0	EP	07	31	07	ES	33	13										1167.9	126.0

OT= 18 9 46 50.1 +/- 0.4 (JST)
NEAR NAGOYA
LAT= 35 2 +/- 2 LONG= 137 0 +/- 2
H= 10 MAG=4.1 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NAGOYA	1	IP	09	46	56.2	IS	46	59.9	61	0.4	62	0.4	28	0.3			U 11	14.9	03.7
GIFU	0	P	09	46	57.3	S	47	07.3	14	1.5	13	1.6						45.8	10.0
TSU	1	IP	09	47	01.1	S	47	08.7	10	1.3	21	0.6	7	1.8	S 3	W 3	D 2	57.4	07.6
HIKONE	0	P	09	47	05.3	S	47	14.9										73.6	09.6
						X	47	07.0											

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STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
IIDA	0	EP	09 47 07.6	IS	47 19.0	19	0.4	14	0.2	9	1.0				92.5	11.4
NARA	0	P	09 47 11.3	ES	47 26.3										113.5	15.0
OMAEZA	0	EP	09 47 11.3					19	3.4	8	2.0				120.8	
SHIZUO	0	EP	09 47 13.7	ES	47 25.8	12	0.5	14	1.0	7	1.6				128.5	12.1
OSAKA	0	EX	09 47 15			16	1.1	10	3.1						140.8	
MAIZUR	0	P	09 47 18.2	ES	47 36.8										154.6	18.6
MISHIM	0	EP	09 47 20.8	S	47 40.6	12	0.7	14	0.7	6	0.7				176.2	19.8
KOFU	0	EP	09 47 22.2	ES	47 36.2	9	1.2	8	0.5	3	1.0				158.0	14.0
AJIRO	0	EP	09 47 22.6	ES	47 44.1	14	0.2	12	0.2	3	0.3				191.3	21.5
KAWAGU	0	P	09 47 23.4	S	47 42.8										168.5	19.4
MATSUS	0	IP	09 47 23.8	S	47 47							S		D	199.5	23.2
TOYOOK	0	EP	09 47 24.0	ES	47 51.9	15	1.2	12	1.1						206.0	27.9
FUKUI	0	X	09 47 37.4												133.1	

OT= 18 18 37 8.5 +/- 0.2 (JST)
KASHIMANADA
LAT= 36 25 +/- 1 LONG= 140 46 +/- 2
H= 60 MAG=3.9 CLASS=L

MITO	2	IP	18 37 19.2	IS	37 25.5	123	0.4	191	0.5	45	0.3		W 2	U 4	26.8	06.3
KAKIOK	1	P	18 37 21.1	IS	37 28.4	65	0.8	48	0.8	28	0.6	N	E 3	D 1	55.4	07.3
ONAHAM	0	IP	18 37 21.6	IS	37 29.4	20	0.8	21	0.9	7	0.5			U 1	59.9	07.8
UTSUNO	0	P	18 37 23.5	S	37 33.3										81.5	09.8
CHOSHI	0	P	18 37 24.0	S	37 34.0										77.0	10.0
SHIRAK	0	P	18 37 25.2	S	37 35.6										91.6	10.4
KUMAGA	0	EP	18 37 30.0	ES	37 45.0	6	0.8	5	0.6	2	0.8				127.7	15.0
FUKUSH	0	EP	18 37 32	ES	37 49.4	9	0.9	7	0.9	5	0.6				150.9	17.4
MATSUS	0	IP	18 37 43.0	S	37 57							N	E	U	229.6	14.0

OT= 19 2 20 11.7 +/- 0.8 (JST)
OFF IWATE PREF
LAT= 40 13 +/- 2 LONG= 142 52 +/- 4
H= 10 MAG=4.0 CLASS=U

HACHIN	0	EP	02 20 33.0	IS	20 48.0	5	0.0	3	0.0						119.0	15.0
MORIOK	0	IP	02 20 38.5	S	20 57.6	12	0.4	11	0.4	2	0.3	N	0 E 0	D 0	156.2	19.3
				IX	20 39.5											
OFUNAT	0	IP	02 20 39.6	IS	20 58.8	5	0.8	6	0.6	3	0.4				161.7	19.2
AOMORI	0	EP	02 20 44	ES	21 05	29	0.8	24	0.8	9	0.8				188.7	21.0
MATSUS	0	IP	02 21 32.5	ES	22 43							S	W	U	576.3	70.5

OT= 19 17 45 8.8 +/- 0.7 (JST)
N OF SEA OF JAPAN
LAT= 41 40 +/- 3 LONG= 134 29 +/- 5
H=460 CLASS=U

AKITA	0	EX	17 46 12.7	EX	47 41.9	10	4.2	11	2.8	7	3.6				521.8	
HAKODA	0	P	17 46 30.5	S	47 37.6	8	3.4	7	2.9	4	2.6		W 2	D 3	522.2	67.1
AOMORI	0	EX	17 46 36			17	2.6	19	2.8	5	1.4				536.4	
SAPPOR	0	EP	17 46 37	ES	47 44	16	2.6	18	2.2	9	1.6				584.9	67.0
HACHIN	0	IP	17 46 38.8	S	47 50.6	2	2.4	5	3.6	2	3.2				604.9	71.8
TOYAMA	0	EP	17 46 40	ES	47 50	8	4.6	6	4.0	7	4.2				598.8	70.0
NAGANO	0	EP	17 46 40.0	S	48 02.1	5	4.0	5	2.6	4	3.8				641.7	82.1
MATSUS	0	P	17 46 43	S	47 58							S	E	U	654.0	75.0
FUKUSH	0	EP	17 46 45.7	S	48 03.3	6	1.0	2	1.0						672.3	77.6
ASAHIK	0	EP	17 46 46			13	3.0	9	3.2	8	2.8				687.0	
URAKAW	0	P	17 46 46.5	S	48 05.6	19	2.0	18	1.2	7	1.8				690.3	79.1
OBIHIR	0	EP	17 46 50	X	48 11.7										733.7	
UTSUNO	0	P	17 46 50.4	S	48 13.5										734.7	83.1
ONAHAM	0	EP	17 46 51.6	S	48 16.0	19	0.8	19	1.0	3	0.5				762.3	84.4
KAKIOK	0	EP	17 46 54	ES	48 18	7	1.3	6	1.0	2	0.7				780.0	84.0
MITO	0	EX	17 46 54.6	S	48 18.6	5	1.1	7	1.5	4	2.4				782.9	
KUSHIR	0	P	17 46 59.0	IS	48 26.6	7	0.4	8	4.0	4	4.0			U 2	829.6	87.6
ABASHI	0	EP	17 47 01	ES	48 31	10	2.4	9	4.4	4	4.4				842.2	90.0
NEMURO	0	EP	17 47 09	ES	48 45	3	2.8	6	2.8	2	3.2				930.6	96.0
WAKKAN	0	IX	17 48 10.0			10	4.0	8	3.4	7	4.1				715.2	
TATEYA	0	X	17 48 37.5			13	2.3	9	2.8	5	2.8				878.2	
HIROO	0	EX	17 48												735.1	

OT= 21 6 0 23.6 +/- 2.8 (JST)
E OFF HOKKAIDO
LAT= 42 56 +/- 7 LONG= 148 11 +/-15
H= 60 MAG=5.2 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	0	P	06 00 54.5	ES	01 21	35	2.4	33	6.0	36	2.8		W	U 1	215.8	26.5
KUSHIR	0	EX	06 01 07	EX	02 01	29	4.0	24	4.4	18	3.2				309.2	
ABASHI	0	P	06 01 10.6	ES	01 45	26	3.2	35	3.2	15	3.0				337.8	34.4
OBIHIR	0	EP	06 01 19												405.1	
URAKAW	0	P	06 01 28.2	S	02 16.4	21	2.8	29	3.2	17	4.6				452.1	48.2
ASAHIK	0	EP	06 01 29			9	2.4	8	2.8	6	2.8				480.1	
SAPPOR	0	EP	06 01 41			16	2.2	10	2.2	5	5.0				558.9	
HAKODA	0	P	06 01 47.7	ES	03 02	6	2.7	5	3.0	4	5.2			D	624.0	74.3
WAKKAN	0	EX	06 01 53			8	4.5	12	4.6	10	4.2				588.3	
MORIOK	0	EP	06 01 55.9	IS	03 01.9	8	4.5	12	4.6	10	4.2				688.4	66.0
				EX	02 07.0											
MATSUS	0	IP	06 02 49.2	ES	04 35									U	1110.1	105.8
AOMORI	0	EX	06 02 50			27	2.2	17	1.9	6	1.1				657.6	

OT= 21 11 5 35.3 (JST) USCGS
OFF W COAST OF SUMATRA
LAT= 2 6 LONG= 94 3A
H= 20 MAG=7.7 CLASS=U

YONAGU	0	EP	11 12 38			28	18.4	14	19.7						3926.6	
ISHIGA	0	EP	11 12 45.4			37	20.0	30	17.5	33	17.1				4015.1	
NAHA	0	IP	11 13 13.4	IS	19 19.0	26	7.4	39	4.8	26	7.4			U	4426.6	365.6
FUKUE	0	EP	11 13 46.0	ES	20 24.2	161	38.0	79	13.4	143	23.8				4920.1	398.2
YAKUSH	0	EX	11 13 46.1			97	18.4	63	14.2	70	14.4				4908.7	
KAGOSH	0	EP	11 13 52.7	EL	30 46	22	2.4	29	12.0	34	14.6				4981.4	
NAGASA	0	EP	11 13 54.0	S	20 38.5	200	18.8	100	18.8	50					4999.8	404.5
KUMAMO	0	EP	11 13 55.8	ES	20 38.8	115	15.4	88	14.3	43	15.1				5070.4	403.0
MIYAZA	0	P	11 13 58.8			98	17.4	78	14.8	80	14.8				5071.4	
IZUHAR	0	EX	11 14 00												5054.1	
NOBEOK	0	EP	11 14 02.6	EX	24 26.8	140	19.5	130	17.8	50	15.6				5132.1	
FUKUOK	0	EP	11 14 04.0	ES	20 43.0	64	17.2	38	19.5	66	15.0				5094.1	399.0
SHIMON	0	EP	11 14 06.6	EX	32 29	92	16.6	62	17.6	83	14.6				5160.5	
SAGA	0	EP	11 14 08.6												5066.9	
UWAJIM	0	EP	11 14 10												5239.5	
ASHIZU	0	EP	11 14 12.1	EX	21 07.0	42	18.1	41	18.2	27	17.0				5245.3	
HAMADA	0	EP	11 14 12.4	S	21 14.4	96	17.5	42	18.5	63	15.3				5305.5	422.0
				PP	16 11.0											
				EL	27 58.0											
MATSUY	0	EP	11 14 12.6	ES	21 06.3	137	16.3	122	15.7	64	15.7				5294.0	413.7
HIROSH	0	EP	11 14 13.4	ES	20 58.4	128	17.0	130	16.0	65	20.0				5299.8	405.0
KOCHI	0	EX	11 14 18.5												5335.3	
MUROTO	0	EX	11 14 20.0	EX	16 29.0	7	3.0	5	2.0	23	4.0				5368.6	
HAMAMA	0	EX	11 14 21	ES	22 04	63	16.8	55	15.6	69	16.2				5732.9	
GIFU	0	P	11 14 21.2	L	26 0	112	19.9	50	17.3	36	16.2				5695.4	
OKAYAM	0	EP	11 14 23.0	ES	21 28	52	16.0	49	19.0	41	15.4			U	5432.5	425.0
ANABUK	0	X	11 14 25.0												5397.3	
SAIGO	0	EP	11 14 27.1	ES	21 33.6	114	18.0	69	15.5	65	15.1	S	0 W	0 D 0	5482.1	426.5
				EPP	16 28.5											
				EL	28 30											
SHIONO	0	EP	11 14 28.4	S	21 29.6	73	18.3	63	16.5	14	13.5				5506.6	421.2
MATSUE	0	EP	11 14 29.0	ES	21 33.0										5415.7	424.0
YONAGO	0	EP	11 14 29.6	ES	21 42.7										5434.8	433.1
WAKAYA	0	P	11 14 29.7	S	21 22.5	70	16.0	45	15.5	70	15.0				5503.2	412.8
OWASE	0	EP	11 14 32.5	ES	21 45.2	45	16.0	24	15.0	43	14.8				5575.6	432.7
TOYOOK	0	EP	11 14 32.5	ES	21 39.4	193	18.7	179	18.3	128	14.3				5553.1	426.9
				IX	16 36.6											
				X	25 31											
KYOTO	0	EP	11 14 34.0	ES	21 50.0	40	19.2	28	16.4	30	15.1				5593.0	436.0
HIMEJI	0	EP	11 14 35.0	EX	32 43.2										5502.5	
NAGANO	0	EP	11 14 35.5	ES	22 24.3	31	20.0	32	19.0	23	17.5				5877.5	468.8
				EX	34 23.8											
KOBE	0	EP	11 14 36.5			150	16.6	100	15.1	50	16.5				5531.0	
OMAEZA	0	EP	11 14 38.8			260	16.2	215	15.6	56	14.4				5766.5	
TSURUG	0	EP	11 14 39			300		100		100					5655.4	
TSU	0	EX	11 14 39.0			18	18.0	12	16.0	10	20.0				5636.8	
NAGOYA	0	EP	11 14 41.4	S	22 02.0	54	19.0	25	18.2	40	19.2				5698.2	440.6
OSHIMA	0	P	11 14 44.5	S	22 24.6	62	17.0	78	14.4	42	15.4				5868.8	460.1
IIDA	0	EP	11 14 46.0	ES	22 11.8	43	19.0	19	14.0	27	19.0				5785.6	445.8
WAJIMA	0	EX	11 14 48	EX	16 52	120	18.0	60	16.8	65	16.6				5820.3	
				EX	22 20											
TOYAMA	0	EP	11 14 48			61	18.6	55	15.8	40	16.6				5804.2	
SHIZUO	0	IP	11 14 49.1	S	22 15.0	57	17.8	49	16.0	61	15.8			D 5	5801.8	445.9
KANAZA	0	EX	11 14 49.2			87	17.5	80	13.5	51	17.8				5752.2	

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TAKAYA	0	EP	11	14	49.2													5776.2	
MATSUM	0	EP	11	14	50.2	EX	22	14.7										5837.0	
MISHIM	0	EP	11	14	51.1	ES	22	17.4	62	17.0	67	15.9	69	16.9				5851.0	446.3
AJIRO	0	EX	11	14	51.2	EX	22	10.1	30	16.1	34	16.2	80	16.5				5860.8	
MATSUS	0	IP	11	14	51.6	S	22	06								E	U	5871.7	434.4
KOFU	0	EP	11	14	52.0	ES	22	18.6	60	19.6	26	17.0	28	17.6				5851.1	446.6
KAWAGU	0	P	11	14	52.5	ES	22	07.6										5858.4	435.1
						L	25	59.5											
KARUIZ	0	EP	11	14	52.7	ES	22	32.0										5887.4	459.3
CHICHI	0	EP	11	14	55.5													5910.0	
TAKADA	0	EP	11	14	56.1													5906.6	
TOKYO	0	EP	11	14	57				38	17.8	48	14.0	14	16.8				5947.5	
AIKAWA	0	EX	11	15					131	20.0	78	17.0	62	16.4				5957.8	
KAKIOK	0	EP	11	15	00				72	18.3	26	21.4	22	16.4				6010.7	
KUMAGA	0	EP	11	15	01.4	ES	23	06.4	59	19.2	37	19.0	28	5.6				5942.3	485.0
MITO	0	X	11	15	04.0	EX	22	47.0	57	16.9	32	16.0	34	18.0				6040.4	
SHIRAK	0	EX	11	15	04.3													6060.0	
TATEYA	0	EX	11	15	05.0				119	15.7	102	12.5	59	12.5				5919.9	
ONAHAM	0	EP	11	15	07.2	ES	23	48.8	56	18.4	37	20.0	35	16.4				6104.2	521.6
YAMAGA	0	EP	11	15	09.5	ES	22	52.4	300	20.0	150	15.0	100	16.0				6130.7	462.9
						EL	30	59											
FUKUSH	0	EP	11	15	09.8	ES	22	50.5	85	18.0	15	12.0	15	12.0				6113.5	460.7
SENDAI	0	EP	11	15	13.1	ES	22	51	93	18.4	42	15.4	49	16.4				6173.1	457.9
						EX	17	26.0											
						X	18	39.2											
NIIGAT	0	EX	11	15	14.0				300	15.5	190	14.7	70	16.6				6012.9	
AKITA	0	EP	11	15	14.7				100	14.8	85	14.6	50	15.2				6192.9	
ISHINO	0	EP	11	15	16.0	ES	23	04.2	53	19.4	33	18.8	34	15.6	S	2 W	3 D	4	6212.8	468.2
MORIOK	0	P	11	15	17.9	S	23	10.5	53	16.4	45	15.8	50	17.0			D	0	6271.0	472.6
						EL	31	30											
OFUNAT	0	EP	11	15	18.8	ES	23	11.4	42	18.6	38	15.8	44	16.6				6278.3	472.6
SAKATA	0	EX	11	15	21.5				300	15.8	300	13.0						6127.5	
HACHIN	0	EP	11	15	22.6	ES	23	19.9	101	15.4	53	15.4	45	15.1				6342.7	477.3
HAKODA	0	EP	11	15	23	ES	23	22	41	17.1	36	17.2	60	16.9				6359.3	479.0
MURORA	0	EP	11	15	24	ES	23	13	100	14.4	100		100					6404.0	469.0
MIYAKO	0	EP	11	15	24.6	S	23	24.8					40	19.9				6328.2	480.2
AOMORI	0	EP	11	15	27	ES	23	10	143	16.8	62	18.7	51	20.4				6304.6	463.0
SAPPOR	0	EP	11	15	31	ES	23	36	28	17.0	13	2.0	26	16.0				6471.0	485.0
ASAHIK	0	EP	11	15	36				6	2.4	9	3.0	16	5.0				6584.0	
URAKAW	0	P	11	15	36.0	S	23	41.6	64	17.4	58	16.0	40	4.0			U 1	6523.4	485.6
OBIHIR	0	EX	11	15	41													6596.5	
KUSHIR	0	EP	11	15	42	ES	23	58	58	16.2	32	18.4	16	4.2				6683.5	496.0
WAKKAN	0	IP	11	15	44.5	S	23	58.5	38	14.6	56	16.0	40	5.8			U 1	6632.0	494.0
NEMURO	0	EP	11	15	52	ES	24	11	17	15.0	22	17.0	18	16.4				6787.4	499.0
ABASHI	0	EP	11	16	03	ES	24	08	29	16.4	22	17.0	10	18.0				6730.9	485.0

OT= 21 12 43 35.4 +/- 0.9 (JST)
E OFF AOMORI PREF
LAT= 41 8 +/- 3 LONG= 142 44 +/- 6
H= 60 MAG=4.5 CLASS=S

HACHIN	1	P	12	43	54.5	IS	44	07.6	23	0.0	16	0.2	3	0.0			D	122.3	13.1
URAKAW	0	P	12	43	54.8	S	44	08.8	5	0.4	9	0.4	3	0.6				113.9	14.0
HAKODA	0	P	12	44	02.5	IS	44	21.1	15	0.6	15	0.7	4	0.2			D	181.5	18.6
AOMORI	0	EP	12	44	04	IS	44	20.2	33	0.5	35	0.5	12	0.2				167.9	16.2
MORIOK	0	P	12	44	07.2	S	44	29.0	13	0.4	15	0.4	4	0.3				207.6	21.8
						IX	44	08.2											

OT= 23 5 13 52.0 +/- 1.1 (JST)
OFF MIYAGI PREF
LAT= 38 13 +/- 5 LONG= 141 31 +/- 7
H= 50 MAG=3.5 CLASS=L

ISHINO	0	IP	05	14	01.0	IS	14	07.8	34	0.2	29	0.2	10	0.2				29.7	06.8
SENDAI	0	IP	05	14	03.8	IS	14	13.0	9	0.4	11	0.2	6	0.2			D 3	54.2	09.2
OFUNAT	0	EP	05	14	09.2	IS	14	18.0	16	0.0	9	0.0	4	0.2				95.4	08.8
MATSUS	0	P	05	14	41	S	15	21										347.1	40.0

OT= 23 8 9 37.2 (JST) USCGS
E COAST OF KAMCHATSKA
LAT= 57 48 LONG= 163 30
H= 33 MAG=7.3 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	0	EP	08	13	37	ES	17	50	1800	16.8	1100	12.6	300	16.8				2038.0	253.0
ABASHI	0	EP	08	13	50	ES	17	57	400	16.0	900	15.0	300	14.0				2030.9	247.0
WAKKAN	0	P	08	13	52.6	S	17	42.0	1000	15.6	1400	11.6						2030.1	229.4
KUSHIR	0	EP	08	13	56	ES	17	58	1700	15.6	800	15.6	400	16.0				2122.3	242.0
ASAHIK	0	EP	08	13	59				68	12.4	95	11.2	255	13.0				2141.4	
RUMOI	0	EX	08	14	10	EX	18	30										2160.5	
SAPPOR	0	EP	08	14	10	ES	18	28	1600	16.0	600	12.0	300	13.0				2254.9	258.0
HIROO	0	EP	08	14	10	EX	18	25	900	21.0	700	20.5	500	17.4				2235.0	
OBIHIR	0	EX	08	14	12				500	15.1	400	11.9						2179.9	
URAKAW	0	EP	08	14	12	ES	18	34	800	15.6	700	16.0	300	14.4				2270.6	262.0
HAKODA	0	EP	08	14	24	ES	18	26	219	17.2	206	14.5	236	14.2				2395.3	242.0
SUTTSU	0	EX	08	14	26													2331.3	
MURORA	0	EP	08	14	28	ES	18	44	500	15.6	300	15.6	100	15.6				2338.7	256.0
HACHIN	0	EP	08	14	33.0	ES	18	46.2	198	21.2	198	15.8	192	17.8				2480.1	253.2
MIYAKO	0	EP	08	14	35.8	ES	19	03	500	15.2	400	23.3	250	17.2				2544.2	267.2
AOMORI	0	P	08	14	36.8	ES	18	35.1	368	20.4	335	16.1	216	16.5				2486.3	238.3
TSU	0	EX	08	14	38.5				30	17.2	26	17.2	25	17.6				3261.2	
MORIOK	0	P	08	14	41.8	ES	18	53.7	400	15.8	400	19.3	400	16.0	N	0 E	0 D	0	2574.4	251.9
						EL	20	30											
						L	23	50											
OFUNAT	0	P	08	14	45.6	S	19	10.8	162	15.0	99	13.8	163	15.2	N	2 E	2 D	5	2611.0	265.2
						L	22	20.8											
AKITA	0	EP	08	14	47.0	X	19	13.4	230	22.4	338	15.4	207	15.4				2620.3	
ISHINO	0	EP	08	14	52.0	ES	19	22.2	92	17.8	76	15.6	127	17.2	N	5 E	3 D	7	2690.3	270.2
YAMAGA	0	EP	08	14	55.2	ES	19	24.6	300	15.0	150	15.0	150	15.6					2748.4	269.4
						L	21	34											
SAKATA	0	EP	08	14	55.6	ES	19	41.5	650	13.0	800	13.0	150	16.0					2709.3	285.9
SENDAI	0	EP	08	14	57.0	ES	19	27	158	15.4	140	14.6	193	11.4				U 4	2723.7	270.0
NIIGAT	0	EX	08	14	57.8				2200	13.5	2000	13.8	165	15.8					2839.1	
FUKUSH	0	P	08	15	01.8	S	19	34.0	89	15.2	67	12.8	78	13.0	S	3		U 4	2790.7	272.2
SHIRAK	0	EP	08	15	04.9	ES	19	56.5	200	18.0	200	15.4	100	18.0					2863.3	291.6
AIKAWA	0	EP	08	15	06.2				188	18.6	230	16.0	161	19.0		E	U		2865.7	
TAKADA	0	EP	08	15	08.6														2952.1	
ONAHAM	0	EP	08	15	08.9	ES	19	37.0	162	15.4	121	19.2	101	16.4					2850.9	268.1
MITO	0	X	08	15	09.5	EX	20	15.0	126	19.0	120	13.0	113	14.0					2924.7	
HAMAMA	0	EP	08	15	10	ES	20	30	89	16.8	80	17.8	70	15.4					3206.5	320.0
UTSUNO	0	EP	08	15	12														2934.0	
KAKIOK	0	EP	08	15	13				119	20.3	100	21.0	66	14.4					2950.9	
WAJIMA	0	EX	08	15	16	EX	18	50	147	15.0	135	14.4	115	15.0					2987.6	
MATSUS	0	IP	08	15	16.6	S	19	53							S	W	U		3008.2	276.4
NAGANO	0	EP	08	15	17.4	ES	20	30.4	114	16.0	160	16.0	84	16.4					2997.1	313.0
KUMAGA	0	EP	08	15	17.6	ES	20	03.4	107	13.4	122	11.2	54	16.6					2994.0	285.8
KARUIZ	0	EP	08	15	18.4	ES	20	08.0											3011.9	289.6
CHICHI	0	EP	08	15	18.7	ES	20	57.6											3022.2	338.9
TOKYO	0	EP	08	15	20	EX	19	32	78	11.6	177	12.0	44	4.6					3022.9	
TOYAMA	0	EP	08	15	22	ES	19	42	116	13.6	121	14.2	79	12.6					3037.8	260.0
MATSUM	0	EP	08	15	22.3	ES	20	08.0	300	18.7	350	18.7	200	17.8					3047.1	285.7
						EL	21	19.4											
KOFU	0	EP	08	15	22.6	ES	20	38.0	81	16.6	80	13.8	63	15.8					3076.9	315.4
MISHIM	0	EP	08	15	25.1	ES	19	46.7	101	19.4	152	19.8	58	18.6					3114.5	261.6
						EL	21	00.8											
IIDA	0	EP	08	15	25.2	ES	23	44.0	66	16.0	77	15.0	83	16.0					3123.9	498.8
TAKAYA	0	EP	08	15	25.3				250	21.3	300	22.4	100	19.1					3088.5	
AJIRO	0	EP	08	15	25.6	ES	19	08.1	47	16.4	79	14.9	68	17.0					3114.0	222.5
KAWAGU	0	P	08	15	25.7	S	20	14.2											3084.1	288.5
						L	22	44.1											
TATEYA	0	EX	08	15	25.8				330	13.2	334	14.0	156	14.3					3087.1	
OSHIMA	0	P	08	15	29.4	S	21	00.0	138	21.6	171	13.4	49	16.4					3129.6	330.6
SHIZUO	0	P	08	15	30.0	EX	22	30.5	100	0.0	110	16.5	96	15.0					3150.7	
KANAZA	0	EX	08	15	30.2				133	13.5	196	15.6	84	19.0					3078.9	
SAIGO	0	EP	08	15	31.5	ES	20	26.2	65	15.4	78	11.8	68	12.2					3269.9	294.7
						EX	17	05.8											
						EL	21	45											
GIFU	0	P	08	15	32.1	L	23	0	153	21.4	126	17.4	101	16.7					3183.0	
NAGOYA	0	EP	08	15	32.6	ES	19	55.6	125	16.0	52	20.0	98	17.4					3196.2	263.0
TSURUG	0	EX	08	15	33														3191.2	
IROZAK	0	EP	08	15	34.6				500	24.0	450	22.0							3168.1	
KYOTO	0	EP	08	15	37.0	ES	20	43.5	104	22.0	65	17.7	32	14.3					3267.4	306.5
TOYOOK	0	EP	08	15	39.6	ES	19	54.9	136	20.7	226	21.7	137	14.6				U	3260.5	255.3
HACHIJ	0	EX	08	15	42.8				66	6.0	85	6.0	31	6.5					3276.8	
KOBE	0	EX	08	15	44.0				200	21.5	300	18.0	50	15.2					3324.1	
OWASE	0	EP	08	15	44.5	ES	24	05.0	70	17.4	50	18.0	80	16.4					3337.1	500.5
SHIONO	0	EP	08	15	45.6	ES	21	05.7	178	18.3	173	18.0	42	16.3					3416.4	320.1
YONAGO	0	EP	08	15	47.0														3341.4	
WAKAYA	0	EX	08	15	47.6				72	22.0	128	18.0	122	15.5					3368.8	
OMAEZA	0	EP	08	15	48.9				393	17.8	392	15.2							3195.2	
OKAYAM	0	EP	08	15	49.0	ES	20	52.0	57	19.0	85	21.0	48	19.2					3384.5	303.0
HAMADA	0	EP	08	15	50.2	ES	20	51.0	76	16.5	50	20.6	43	19.3					3454.2	300.8
						PP	17	09.2											
						EL	24	47.2											
MATSUE	0	EP	08	15	51.7														3352.6	
HIROSH	0	EP	08	15	54.6	EX	21	03.9	125	18.7	105	23.8	82	18.2					3485.9	

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
ANABUK	0	X	08	15	55.3													3454.7	
MUROTO	0	EX	08	15	58.0	EX	27	07.0	45	12.0	60	10.0	20	8.0				3508.6	
UWAJIM	0	EX	08	16														3587.6	
KOCHI	0	EX	08	16	00.3													3510.1	
MATSUY	0	EP	08	16	01.8	ES	20	47.5	179	19.8	166	22.3	66	18.2				3518.6	285.7
SHIMON	0	EP	08	16	04.8				60	19.4	82	15.2	84	16.4				3598.0	
FUKUOK	0	EP	08	16	09.0	ES	21	15.0	41	20.0	60	14.0	58	14.0			U 1	3660.9	306.0
ASHIZU	0	EP	08	16	09.0	EX	21	36.0	61	16.2	68	17.6	77	16.0				3614.2	
NOBEOK	0	EP	08	16	10.8	EX	21	50.2	250	20.3	280	23.6	80	14.8				3690.7	
FUKUE	0	EP	08	16	11.8	ES	22	05.0	162	14.8	118	16.8	105	14.8				3820.8	353.2
KUMAMO	0	EP	08	16	13.8	ES	21	06.0	161	18.3	163	18.7	47	19.8				3716.8	292.2
NAGASA	0	P	08	16	18.0	S	21	29.7	240	18.8	250	18.8	50				D	3767.4	311.7
MIYAZA	0	P	08	16	18.0				71	16.0	102	24.0	75	18.0				3766.6	
IZUHAR	0	EX	08	16	26													3657.8	
KAGOSH	0	EP	08	16	29.4	EL	26	50	16	14.0	25	14.0	31	14.4				3841.6	
YAKUSH	0	EX	08	16	30.7				60	17.2	55	17.0	62	17.0				3951.6	
SAGA	0	EP	08	16	38.2													3696.0	
ISHIGA	0	EP	08	16	43.4				35	17.3	38	13.5	28	18.9	S 2		U 6	4850.0	
NAHA	0	EP	08	17	14				37	12.8	60	17.0	50	17.0				4493.8	
FUKUI	0	X	08	20	21.0				200	20.0	400	18.0						3145.3	
ASOSAN	0	EX	08	23														3692.4	
HIMEJI	0	EX	08	24	43.5													3332.4	
YONAGU	0	EX	08	28	27				28	12.6	14	14.0	12	12.7				4895.0	

OT= 23 16 8 34.2 +/- 2.8 (JST)
E OFF HOKKAIDO
LAT= 43 25 +/-18 LONG= 148 54 +/-15
H= 50 MAG=4.9 CLASS=U

NEMURO	0	EP	16	09	12	ES	09	37	17	2.6	23	3.4	18	2.6				268.8	25.0
ABASHI	0	EP	16	09	27	ES	10	11	12	2.2	15	2.4	8	3.0				378.0	44.0
KUSHIR	0	X	16	09	36	ES	10	06	13	4.8	12	3.0	10	5.4				369.4	
URAKAW	0	P	16	09	46.6	ES	10	34	10	4.0	10	3.4	9	4.4				519.9	47.4
OBIHIR	0	EX	16	09	51													465.1	
SAPPOR	0	EX	16	10	04				6	2.0	7	2.0	3	3.4				616.0	
MATSUS	0	P	16	11	08	EX	13	06										1188.9	

OT= 25 22 53 38.0 +/- 0.3 (JST)
NEAR WAKAYAMA
LAT= 34 11 +/- 1 LONG= 135 11 +/- 1
H= 10 MAG=3.6 CLASS=L

WAKAYA	3	IP	22	53	40.4				265	0.2	295	0.2	128	0.2	S 75	W130	D 20	5.0	
SUMOTO	0	IP	22	53	45.1	S	53	49.7										30.4	04.6
KOBE	0	P	22	53	48.9	IS	53	55.3									D 2	56.0	06.4
NARA	0	EP	22	53	54.5	IS	54	02.4										81.5	07.9
SHIONO	0	EP	22	53	56.2	ES	54	07.3	6	0.2	8	0.2	5	1.2				97.6	11.1
OKAYAM	0	P	22	54	00	S	54	16.0	5	0.6	5	0.6	1	0.5				129.0	16.0
TOYOOK	0	X	22	54	20.6				13	1.0	13	1.0						153.7	
MATSUS	0	P	22	54	34	S	55	25										379.1	51.0

OT= 26 18 27 45.5 +/- 0.2 (JST)
MIDDLE OF GIFU PREF
LAT= 35 41 +/- 1 LONG= 137 7 +/- 1
H= 10 MAG=3.8 CLASS=L

GIFU	0	P	18	27	54.0	S	28	00.1	15	2.2	17	1.7	6	1.5				44.9	06.1
NAGOYA	0	P	18	27	57.5	IS	28	05.4	18	2.0	23	2.8	6	1.6				59.0	07.9
IIDA	0	EP	18	27	58.6	IS	28	07.2	12	1.2	8	1.6	3	1.0				67.9	08.6
TSURUG	0	EP	18	28	03	S	28	13.3										95.3	10.3
TOYAMA	0	EP	18	28	06	IS	28	19.8	9	1.4	12	1.4	3	1.6				113.8	13.8
HAMAMA	0	IP	18	28	07.5	S	28	22.5	6	2.6	7	3.0	2	0.6			D 2	121.4	15.0
MATSUS	0	IP	18	28	09.4	ES	28	26									E U	136.6	16.6
KOFU	0	EP	18	28	11.4	IS	28	24.3	10	0.5	11	0.4	3	0.5				130.5	12.9
MAIZUR	0	P	18	28	13.0	S	28	30.9										158.5	17.9
NARA	0	P	18	28	14.0	ES	28	34										161.1	20.0
TSU	0	EX	18	28	21.8				10	0.5	15	1.0	4	0.6				121.7	
WAJIMA	0	EX	18	28	38				10	0.8	19	1.0						190.4	
TOYOOK	0	IX	18	28	44.5				25	1.1	19	0.8	10	0.7				208.7	

OT= 27 9 30 57.4 +/- 2.7 (JST)
W OFF TSUSHIMA
LAT= 34 7 +/- 8 LONG= 127 44 +/-11
H= 50 MAG=5.1 CLASS=M

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
FUKUE	0	EP	09	31	25.0	ES	31	44.6	36	0.4	36	0.4	28	2.2				187.4	19.6
FUKUOK	2	EP	09	31	32.7	IS	31	58.9	90	0.4	70	0.4	13	0.8			U	252.0	26.2
NAGASA	0	P	09	31	37.8	S	31	59.0							S	E	U	252.2	21.2
SAGA	0	P	09	31	38.9	S	32	00.3										257.2	21.4
SHIMON	0	EP	09	31	40.0				7	1.0	5	1.2	4	1.4				296.7	
KUMAMO	0	P	09	31	46.0	IS	32	15.6	66	2.0	57	2.0	26	1.1	N 4	W 2	D 1	312.2	29.6
IZUHAR	2	X	09	31		X	31	21.2							S 25	W 60	D 40	144.3	
KAGOSH	0	EX	09	32	42.9				21	2.0	24	2.2						386.1	
MIYAZA	0	S	09	32	47.8				7	0.5	11	1.0						422.4	
MATSUS	0	IP	09	33	06.2												U	988.8	

OT= 29 5 19 58.0 +/- 0.3 (JST)
E OFF AOMORI PREF
LAT= 41 17 +/- 1 LONG= 142 36 +/- 2
H= 10 MAG=4.4 CLASS=U

URAKAW	0	P	05	20	17.0	IS	20	29.8	38	0.4	58	0.4	11	0.8				98.3	12.8
HACHIN	0	P	05	20	20.0	ES	20	35.4	15	0.3	14	0.3	8	0.8	N	E	D	123.7	15.4
HIROO	0	P	05	20	20.2	IS	20	34.5										126.1	14.3
HAKODA	0	IP	05	20	25.6	S	20	44.3	17	0.8	21	0.6	18	1.4	S	E	1 D 1	164.6	18.7
AOMORI	0	IP	05	20	26.0	IS	20	44.8	49	0.5	49	0.7	18	1.6			D 6	161.3	18.8
MURORA	0	P	05	20	26.4										S	E	1 D 4	176.7	
OBIHIR	0	EP	05	20	29	ES	20	53										189.0	24.0
SAPPOR	0	P	05	20	32.6				10	2.2	10	2.2	5	1.0				223.3	
MORIOK	0	P	05	20	34.0	IS	20	58.1	11	0.4	10	0.4	3	0.4				214.0	24.1
						IX	20	39.1											
KUSHIR	0	EP	05	20	35	S	20	58.1	11	0.3	9	0.2	3	0.2				239.8	23.1
ASAHIK	0	EP	05	20	40				6	1.2	5	1.6	5	2.0				276.9	
AKITA	0	EX	05	20	51.3				8	3.0	10	4.4	4	2.4				273.9	
MATSUS	0	IP	05	21	28.2	ES	22	45									U	649.8	76.8

OT= 29 7 29 4.6 +/- 0.4 (JST)
W COAST OF WAKAYAMA PREF
LAT= 34 2 +/- 1 LONG= 135 5 +/- 2
H= 0 CLASS=U

WAKAYA	0	IP	07	29	10.5	IS	29	13.0	12	0.5	11	0.8						22.8	02.5
SUMOTO	0	P	07	29	13.6	S	29	17.6										37.1	04.0
SHIONO	0	EP	07	29	23.1	IS	29	34.0	6	0.9	4	0.5	5	0.7				90.4	10.9
MATSUS	0	X	07	30	13	ES	31	01										397.4	

OT= 30 1 43 16.1 +/- 0.4 (JST)
W OF EHIME PREF
LAT= 33 20 +/- 2 LONG= 132 24 +/- 2
H= 40 MAG=5.1 CLASS=M

UWAJIM	3	IP	01	43	24.0	IS	43	29.0	1200		1500		300			W	30 D 70	19.0	05.0
MATSUY	2	IP	01	43	30.1	IS	43	39.3	308	0.6	342	0.6	149	0.5	N	3 E	3 U 7	66.3	09.2
OITA	3	EP	01	43	31.3	ES	43	39.8	700	1.0	600	1.0	300	1.0				73.2	08.5
ASHIZU	1	IP	01	43	31.7	IS	43	41.5	240	0.9	142	0.8	145	0.8	S	9 E	5 U 10	89.4	09.8
KOCHI	2	IP	01	43	33.5	IS	43	45.9							N	2 E	7 U 5	108.1	12.4
HIROSH	1	EP	01	43	33.8	IS	43	47.8	32	0.2	34	0.2	136	6.2	S	2 W	1 D 5	114.3	14.0
NOBEOK	1	IP	01	43	34.8	S	43	43.2	100	0.8	100	1.0	200	1.0	S	39 W	19 U 37	106.8	08.4
MUROTO	0	IP	01	43	39.9	ES	44	01.1	65	1.0	50	1.0				E	1 U 1	165.9	21.2
SHIMON	1	P	01	43	40.0				56	0.6	40	1.6	37	1.2	N	8 W	14 U 18	151.7	
ASOSAN	2	EX	01	43	40													133.5	
KUMAMO	X	IP	01	43	41.8	IS	44	03.1	229	1.8	199	2.4	101	0.9	S	5 W	13 U 9	168.1	21.3
ANABUK	0	EP	01	43	42.4	ES	43	53.6										167.6	11.2
HAMADA	0	IP	01	43	43.5	S	44	05.0	24	1.6	40	2.4	16	1.6	N	0	U 0	175.6	21
FUKUOK	1	IP	01	43	43.8	IS	44	05.0	68	0.9	65	1.3	46	1.6	N	2 W	7 U 16	189.7	21.2
MIYAZA	0	P	01	43	45.8	S	44	08.0	166	0.8	207	1.0	117	0.8				181.7	22.2
OKAYAM	0	EP	01	43	46.4	IS	44	13.6	64	0.5	51	0.6	30	2.3	N	E	1 U 1	204.8	27.2
NAGASA	0	P	01	43	50.0	X	44	06.2							N	E	D	246.0	
TOKUSH	0	EP	01	43	52.6	IS	44	20.4										217.4	27.8
MATSUE	0	EP	01	43	54.0	X	44	31.4										243.2	
SUMOTO	0	EP	01	43	55.0	ES	44	27.0										257.3	32.0
						X	44	00.0											

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STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
						X	44	10.3											
WAKAYA	0	EX	01	43	55.5				40	1.2	30	1.2	15	1.2				274.6	
YONAGO	0	EP	01	43	55.5	ES	44	28.1										248.5	32.6
IZUHAR	0	EP	01	43	56.7	S	44	28.7										303.3	32.0
SHIONO	0	EP	01	43	58.7	S	44	30.2	19	2.4	15	1.2	14	1.4				313.1	31.5
																		261.1	
KAGOSH	0	EP	01	43	59.2	X	44	35.1	137	2.4	115	2.8	33	1.4				291.6	36.5
TOTTOR	0	P	01	43	59.8	S	44	36.3											
						X	44	06.3										361.0	48.2
OWASE	0	EP	01	44	04.8	ES	44	53.0	9	1.0	7	1.2	8	1.6				350.6	
NARA	0	EP	01	44	05.7	X	44	14.5											
																		297.4	
KOBE	0	X	01	44	06.4	ES	44	40.7										359.3	
KYOTO	0	EP	01	44	06.8	X	44	27.0	3	1.2	10	1.5	7	2.5					
SAIGO	0	EP	01	44	08.2	ES	44	49.2	27	1.9	41	1.8	10	1.8	N	0	U 0	329.7	41.0
TOYOOK	0	EP	01	44	08.5	ES	44	47.9	196	1.1	145	1.2	23	1.1				330.3	39.4
FUKUE	0	X	01	44	10.0	ES	44	46.0	15	2.8	12	2.8	14	1.6				340.4	
YAKUSH	0	EX	01	44	10.0				9	0.8	12	0.8	8	2.2				366.8	
HIKONE	0	P	01	44	13.2	X	44	26.6										414.2	
						EX	44	31.0											
MAIZUR	0	X	01	44	14.7	X	45	00.4										362.7	
TSURUG	0	EP	01	44	15	ES	45	01.8										423.3	46.8
NAGOYA	0	P	01	44	20.0	ES	45	15.0	20	2.0	17	2.0	9	1.2				467.1	55.0
TSU	0	X	01	44	23.9	X	45	12.4	60	1.9	44	1.8	20	1.9				409.4	
FUKUI	0	EP	01	44	24.8	X	45	23.6										462.4	
HAMAMA	0	P	01	44	29.0	ES	45	30	22	3.4	12	3.8	8	2.4			U 1	514.6	61.0
IIDA	0	EP	01	44	29.8	X	46	06.0	25	1.8	16	1.8	7	2.4				554.6	
SHIZUO	0	EP	01	44	33.5	X	45	57.0	5	2.8	10	3.0	5	2.0				582.7	
OMAEZA	0	EP	01	44	34.9				26	1.6	29	2.0	8	2.2				555.2	
MATSUS	0	IP	01	44	41.1										N	E	U	638.4	
TOYAMA	0	X	01	44	43	X	45	59	20	2.4	14	2.8	11	2.8				576.4	
MISHIM	0	X	01	44	48.6	X	46	08.2	9	2.2	10	2.2	3	2.3				632.9	
KOFU	0	X	01	44	53.6	X	46	14.8	10	1.8	18	1.9	5	2.0				621.6	
NAGANO	0	X	01	44	54.2	X	46	29.9	8	3.3	10	3.2	5	2.4				644.8	
KAWAGU	0	X	01	44	59.2	X	46	12.5										632.0	
KANAZA	0	EX	01	44					14	2.7	16	2.0	9	2.5				526.7	
KUMAGA	0	X	01	45	05.6	ES	46	19.6	15	4.0	10	3.6	6	4.0				711.3	
TOKYO	0	EX	01	45	20				13	3.0	12	5.8	8	2.4				723.9	
MITO	0	EX	01	45	30				12	4.0	7	3.0	6	3.5				811.2	

OT= 30 13 12 21.5 +/- 0.2 (JST)
W OF EHIME PREF
LAT= 33 15 +/- 1 LONG= 132 24 +/- 1
H= 40 MAG=5.1 CLASS=M

UWAJIM	3	IP	13	12	28.9	IS	12	33.9	600		1100		200		N 16 W 66 D160			15.0	05.0
OITA	2	EP	13	12	36.1	ES	12	45.0	500	1.0	500	1.0	250	1.0				72.4	08.9
MATSUY	3	IP	13	12	36.5	IS	12	46.0	600	0.7	1300	0.7	273	0.6	S 34 W 46 D 46			74.3	09.5
ASHIZU	1	IP	13	12	37.4	IS	12	47.2	161	0.9	151	0.8	114	0.8	S 12 E 5 U 10			82.6	09.8
NOBEOK	1	P	13	12	38.5	S	12	50.0	35	0.6	75	1.0	70	0.8	S W 1 U 1			99.8	11.5
KOCHI	2	IP	13	12	39.9	IS	12	50.9							N 6 E 19 U 11			110.5	11.0
HIROSH	2	IP	13	12	41.6	IS	12	55.5	54	0.3	108	0.3	139	5.5	N 7 U 12			123.5	13.9
ASOSAN	X	EX	13	12	43													130.4	
MUROTO	0	IP	13	12	45.5	IS	13	01.7	80	1.0	63	1.0			U 1			165.7	16.2
SHIMON	0	P	13	12	46.0				93	0.6	37	1.0	65	0.8	N 11 W 21 U 26			156.2	
KUMAMO	0	IP	13	12	46.5	IS	13	07.6	169	2.6	189	0.6	93	2.0	S 3 W 12 U 8			165.2	21.1
HAMADA	X	IP	13	12	49.6	IS	13	11.2	48	1.0	54	0.8	31	1.2	N 2 U 1			184.7	21.6
FUKUOK	0	IP	13	12	50.4	IS	13	09.5	51	1.3	66	0.8	56	1.0	N 1 W 8 U 17			191.4	19.1
MIYAZA	0	P	13	12	51.0	S	13	17.0	143	0.8	191	0.8	55	0.8				173.8	26.0
SAGA	0	IP	13	12	51.6	S	13	04.2							N 12 E 24 U 10			195.2	12.6
OKAYAM	1	EP	13	12	52.2	IS	13	19.0	115	0.6	113	0.6	30	2.0	N 1 E 2 U 1			211.6	26.8
ANABUK	0	P	13	12	53.3	S	13	03.0										171.1	09.7
TOKUSH	0	EP	13	12	55.0	IS	13	19.0										221.1	24.0
NAGASA	0	P	13	12	57.0	X	13	11.6							E			243.7	
MATSUE	0	EP	13	12	59.8	ES	13	27.6										252.2	27.8
YONAGO	0	P	13	13	00.0	IS	13	31.0							S 3 W 2 D 2			257.2	31.0
SUMOTO	0	EP	13	13	00.6	X	13	05.5										261.5	
						X	13	16.4											
						X	13	35.9										254.3	
KAGOSH	0	EP	13	13	02.8	EX	13	36.4	104	2.0	77	2.0	24	1.2					
													9	1.4				313.7	31.1
SHIONO	0	EP	13	13	04.8	ES	13	35.9										299.4	36.0
TOTTOR	0	P	13	13	05.8	S	13	41.8										275.8	
HIMEJI	0	X	13	13	07.0	S	13	34.9										278.2	26.3
WAKAYA	0	P	13	13	07.2	S	13	33.5	48	1.0	34	1.0	15	2.5				338.7	44.7
SAIGO	0	P	13	13	09.3	ES	13	54.0	41	1.8	36	1.7	20	1.2	N 0 U 0				
																		302.3	
KOBE	0	EP	13	13	09.8													363.3	
OWASE	0	EP	13	13	10.0	X	14	04.0	10	1.4	7	1.6	6	1.8				354.8	
NARA	0	P	13	13	10.8	EX	13	20.9										364.3	36.5
KYOTO	0	IP	13	13	12.5	ES	13	49.0	2	1.2	12	1.4	13	1.5	E 0 U 0			368.9	42.1
MAIZUR	0	EP	13	13	12.6	S	13	54.7											

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
						X	13	22.5											
FUKUE	0	EP	13	13	14.6	X	13	57.4	10	3.0	9	2.8	10	1.2				338.8	
TOYOOK	0	EP	13	13	14.9	ES	13	51.0	280	1.1	218	1.1	47	0.9				337.3	36.1
YAKUSH	0	EX	13	13	16.2				8	0.9	8	0.7	3	1.0				358.8	
HIKONE	0	IP	13	13	19.0	EX	13	39										419.2	
TSURUG	0	EP	13	13	21	ES	14	02.3										429.1	41.3
TSU	0	EP	13	13	21.3	ES	14	12.4	53	1.8	46	1.4	18	1.7				413.1	51.1
NAGOYA	0	P	13	13	25.2	S	14	14.0	18	2.4	13	2.2	7	1.0				471.4	48.8
GIFU	0	P	13	13	25.5	S	14	08.7	11	1.9	13	1.4	5	1.3				466.9	43.2
HAMAMA	0	P	13	13	34.5	ES	14	26	20	2.8	16	2.2	6	2.4			D 1	517.6	51.5
IIDA	0	EP	13	13	36.6	X	15	06.8	20	2.3	11	2.0	7	2.2				558.9	
TOYAMA	0	EP	13	13	44	ES	14	55	14	2.4	12	3.0	11	3.4				582.6	71.0
MATSUS	0	IP	13	13	46.9	X	15	24										643.8	
KOFU	0	EP	13	13	49.6	X	15	20.2	9	2.0	14	1.8	4	2.2	N	E	U	625.7	
MISHIM	0	EP	13	13	53				6	2.2	10	2.2						636.1	
KUMAGA	0	EP	13	13	58.0	X	15	38.0	10	3.4	8	3.4	4	3.6				715.7	
OMAEZA	0	X	13	13					23	2.4	18	1.8	8	2.4				557.8	
WAJIMA	0	EX	13	14	00				12	1.4	15	1.4						614.7	
SHIZUO	0	X	13	14	01.8	X	15	02.5	5	4.2	8	2.0	5	2.0				585.9	
IZUHAR	0	X	13	14	04.3	X	14	34.5										306.5	
NAGANO	0	X	13	14	07.0	X	15	26.9	5	3.0								650.3	
KAWAGU	0	X	13	14	07.9	X	15	18.4										635.9	
KANAZA	0	EX	13	14	47				14	2.5	16	2.5	11	3.0				533.2	

OT= 30 21 48 52.0 +/- 0.3 (JST)
S OFF CHIBA PREF
LAT= 34 43 +/- 1 LONG= 140 0 +/- 2
H=100 CLASS=S

TATEYA	3	IP	21	49	07.0	IS	49	17.6	220	0.5	132	0.8	91	0.4			U 15	31.9	10.6
OSHIMA	1	IP	21	49	07.8	IS	49	18.0	93	0.2	85	0.2	58	0.2	S	6 W	6 U 25	57.1	10.2
YOKOHA	0	IP	21	49	11.5	IS	49	25.4									U 6	85.8	13.9
AJIRO	1	P	21	49	12.6	X	29	23.3	25	0.2	32	0.2	9	0.4				90.2	
MISHIM	0	IP	21	49	12.8	IS	49	26.2	64	0.7	56	1.5	21	1.6			D	107.1	13.4
TOKYO	1	P	21	49	14.3	IS	49	30.6	78	0.4	195	0.4	31	0.5				109.6	16.3
CHOSHI	0	P	21	49	16.3	S	49	33.8										135.6	17.5
KAWAGU	0	IP	21	49	17.3	IS	49	34.0										142.2	16.7
SHIZUO	0	EP	21	49	17.4	S	49	35.5	6	1.7	10	2.5	5	3.3				148.4	18.1
CHICHI	0	EP	21	49	18.8	S	49	38.4										164.2	19.6
KAKTOK	0	IP	21	49	19.2	S	49	36.5	25	1.0	29	0.9	10	0.8			D 2	169.0	17.3
KOFU	0	IP	21	49	19.9	IS	49	39.6	39	1.4	32	1.7	15	0.9	S	2 E	2 D 4	168.2	19.7
KUMAGA	0	P	21	49	20.6	S	49	40.6	28	1.2	56	1.8	11	1.0			U 5	168.2	20.0
HACHIJ	0	IP	21	49	21.9	S	49	43.1	29	0.4	31	0.4	13	0.3			U 8	180.1	21.2
UTSUNO	0	IP	21	49	22.7	S	49	46.0									D 4	203.3	23.3
MITO	0	EP	21	49	23.0	ES	49	46.2	17	1.5	22	2.0	6	1.1				189.2	23.2
HAMAMA	0	P	21	49	25.0	ES	49	48.0	12	1.2	15	0.8	5	1.2			D 2	208.5	23.0
IIDA	0	IP	21	49	26.6	IS	49	51.8	8	1.8	6	1.2	5	1.6	N	1 W	3 D 2	216.0	25.2
KARUIZ	0	EP	21	49	27.1	S	49	49.6										222.9	22.5
MATSUM	0	EP	21	49	31.1	S	49	58.6										250.0	27.5
MATSUS	0	IP	21	49	31.2	S	49	58							S	E	D	259.1	26.8
NAGANO	0	EP	21	49	33.0	S	50	02.8	5	1.9	5	1.9	2	2.0				270.4	29.8
NAGOYA	0	P	21	49	33.6	ES	49	57.2	11	1.4	8	1.4	4	1.2				281.3	23.6
FUKUSH	0	EP	21	49	42.8	ES	50	18.7	9	1.0	6	0.9	2	0.6				339.9	35.9

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LIST 6 SEISMOLOGICAL DATA OBTAINED BY MATSUSHIRO

DATE		PHASE AND TIME (JST) H M S			INITIAL MOTION
1	EP	07 42 30.	ES	46 55.	
1	EP	08 23 52.			
1	EP	11 43 20.			
1	IP	20 21 39.5	S	32 30.	D
1	P	20 21 50.	S	22 33.	
2	EP	06 14 59.			
2	EP	10 52 24.	ES	53 13.	
2	P	11 43 48.			
2	IP	12 30 56.0			S E D
2	EP	15 20 49.	S	22 37.	
2	IP	16 50 00.6	ES	50 26.	E D
2	EP	22 30 02.	ES	30 25.	
2	EP	23 52 43.			
3	EP	04 02 12.			
3	P	04 30 15.			
3	EP	05 09 16.			
3	P	07 58 52.			
3	P	12 42 43.			
3	EP	19 20 24.			
3	EP	19 59 02.			
3	EP	22 24 23.			
4	P	05 10 08.			
4	EP	06 56 50.	ES	57 12.	
4	IP	11 04 11.8	ES	04 34.	U
4	P	11 30 34.			
4	P	13 05 21.			
4	P	14 21 05.	S	21 28.	
4	P	15 21 23.			
4	IP	17 51 45.5	S	52 31.	S W D
4	P	17 52 20.			
4	P	18 23 15.			
4	P	21 15 26.			
4	EP	23 37 34.			
5	P	00 37 04.			
5	EP	02 21 38.			
5	EP	04 07 26.	ES	07 54.	
5	IP	07 11 32.4			N U
5	IP	08 50 39.2			D
5	IP	15 30 01.8	S	30 06.	
6	IP	03 06 07.2	S	15 58.	U
6	EX	06 09 40.			
6	IP	06 32 59.7			W D
6	P	07 13 29.6	S	13 52.3	
6	P	08 10 05.			
6	IP	10 58 06.0			D
6	P	12 21 49.	S	22 40.	
6	P	15 40 41.			
6	P	20 42 02.	S	42 34.	
7	IP	01 23 11.7	S	24 31.	N E D
7	IP	02 27 32.2			S U
7	IP	03 47 30.7	ES	48 14.	N D
7	IP	05 26 57.3	S	32 06.	U
7	IP	07 01 36.0	S	02 17.	U
7	P	09 42 40.			
7	IP	11 40 57.4	S	45 37.	U
7	IP	13 07 42.6	S	09 07.	N D
7	EP	13 17 50.			
7	IP	17 08 33.4			U
7	IP	17 35 19.2	S	35 58.	S E U
7	EP	17 41 25.	ES	42 36.	
7	IP	20 50 08.8			W U
7	P	22 44 31.	S	47 10.	
8	IP	03 44 38.8	S	53 14.	S U
8	P	04 29 03.			
8	P	05 05 40.			
8	P	05 57 48.	S	58 05.	
8	IP	08 04 02.6	S	04 30.	D
8	EP	10 18 33.	ES	21 48.	
8	IP	10 51 42.8	S	59 44.	W U
8	IP	14 36 58.0	S	38 27.	S W U
8	IP	16 02 51.4	IS	02 58.4	N E U
8	IP	16 24 25.7			U
8	P	20 21 21.	S	21 46.	
8	EP	21 21 39.			
9	P	02 37 09.			
9	IP	05 15 22.0	S	15 39.	E D
9	P	06 10 33.			
9	P	07 02 15.	S	08 16.	
9	P	07 30 40.			
9	P	07 41 47.	S	42 05.	
9	P	08 07 51.	S	08 11.	
9	P	08 33 20.	S	39 10.	
9	P	10 16 47.	S	22 36.	
9	P	10 29 31.			
9	P	14 19 50.	ES	20 57.	
9	P	15 21 07.	S	21 31.	
9	IP	16 11 49.5	S	12 42.	S D
9	P	16 17 04.			
9	IP	18 17 36.4	S	25 20.	S E D
9	P	18 22 07.			
10	EP	04 51 41.			
10	P	06 21 36.			
10	P	06 35 11.	S	35 26.	
10	IP	07 24 11.6	S	24 26.	U
10	P	19 45 12.			
10	IP	20 36 49.6			W U
11	P	01 25 23.	S	26 07.	
11	IP	03 42 22.6			U
11	P	04 15 26.			
11	IP	07 38 27.4	S	38 40.	
11	EP	10 43 07.			
11	IP	14 01 44.8	S	02 00.	D
11	EP	15 17 10.	ES	17 34.	
11	EP	16 15 23.			
11	EP	17 14 33.			
11	P	20 14 19.			
11	P	21 16 38.			
12	EP	00 31 58.	ES	38 52.	
12	P	01 11 50.	S	16 14.	
12	EP	03 48 08.			
12	IP	09 02 25.2			U
12	EP	09 07 10.	ES	07 46.	
12	P	10 29 20.	ES	31 17.	
12	EP	15 32 34.			
12	EP	16 01 06.			
12	IP	21 21 04.5			U
12	IP	21 31 37.6	S	33 08.	S W U
13	IP	00 48 12.0	S	54 36.	U
13	P	01 15 59.	S	28 11.	U
13	IP	02 27 56.0	S	28 11.	U
13	IP	03 24 03.2	ES	24 38.	N W U
13	EP	03 39 18.			
13	IP	04 16 36.0	S	22 30.	S W D
13	P	04 34 14.	ES	34 39.	
13	P	06 33 34.	S	34 10.	
13	IP	09 50 48.5			D
13	P	13 29 46.	S	30 48.	
13	IP	14 08 59.0	S	17 38.	D
13	EP	15 17 24.	S	18 36.	
13	P	16 21 28.	ES	21 56.	
13	IP	16 55 56.5	S	56 03.	N E U
13	P	17 11 16.			
13	P	22 24 57.	ES	26 15.	
13	IP	22 54 20.5	IS	54 32.5	S U
14	IP	00 10 50.5	S	11 38.	U
14	IP	00 54 10.0	S	55 33.	U
14	P	08 22 50.	S	23 11.	
14	P	09 49 06.			
14	P	10 49 14.5	S	49 39.	N E D
14	IP	12 12 07.5	IS	12 14.5	N E U
14	IP	12 15 20.2	S	15 35.7	E U
14	P	16 19 17.	ES	19 52.	
14	IP	16 48 40.5	S	57 36.	S E D
14	EP	21 06 39.			
14	P	21 14 52.			
15	P	00 48 12.			

DATE		PHASE AND TIME (JST) H M S			INITIAL MOTION
15	IP	10 49 45.6	S	50 48.	S W U
15	IP	12 37 20.4	S	38 30.	S W U
15	P	16 40 45.			
15	P	19 42 51.	IS	43 12.5	
15	P	21 56 17.	S	56 51.	
15	IP	22 13 12.0			E U
15	P	23 16 54.			
16	IP	02 50 57.6	S	51 32.	S E D
16	IP	03 18 21.7			D
16	IP	07 11 23.6	S	13 14.	D
16	EP	12 46 27.			
16	P	17 00 11.			
16	P	17 07 46.			
16	IP	19 56 44.6	S	58 21.	N W U
17	EP	00 04 40.			
17	P	04 07 39.			
17	P	04 09 47.	S	10 09.	
17	P	05 06 41.			
17	P	05 17 09.	S	23 32.	
17	P	09 54 33.			
17	P	11 54 22.			
17	EP	12 27 02.	S	27 32.	
17	EP	21 34 20.			
17	P	21 49 35.			
17	P	21 53 58.	S	55 56.	
17	P	23 09 57.			
18	EP	01 22 42.			
18	P	02 19 27.	IS	19 46.0	
18	P	02 59 04.	ES	00 46.	
18	EP	07 31 07.	ES	33 13.	
18	EP	09 20 07.			
18	IP	09 47 23.8	S	47 47.	S D
18	EP	11 45 13.			
18	P	13 12 16.	S	12 46.	
18	IP	18 37 43.0	S	37 57.	N E U
19	IP	02 21 32.5	ES	22 43.	S W U
19	P	05 57 11.	S	06 46.	
19	P	08 21 54.			
19	IP	11 08 52.0	IS	09 05.6	E U
19	P	16 07 45.	S	08 11.	
19	P	17 46 43.	S	47 58.	S E U
19	EP	22 20 50.			
19	P	22 46 48.			
20	IP	00 01 08.8			U
20	P	12 49 02.			
20	P	18 11 04.	S	12 06.	
20	P	19 05 34.	S	05 56.	
21	IP	06 02 49.2	ES	04 35.	U
21	IP	08 42 55.0	ES	43 18.	U
21	P	08 54 53.	S	01 52.	
21	IP	09 22 55.6			D
21	EP	09 38 34.			
21	IP	11 14 51.6	S	22 06.	E U
21	IP	12 16 08.9	S	16 24.	U
21	P	12 45 04.			
21	EP	16 32 40.			
21	EP	17 14 51.	ES	16 40.	
21	EP	17 59 36.	S	01 29.	
21	EP	20 23 04.	X	24 54.	
22	EP	00 04 09.			
22	P	02 24 02.0	EX	25 57.	
22	IP	02 30 24.5	IS	30 34.3	N E U
22	P	14 12 25.			
22	EP	15 21 14.	ES	23 14.	
22	EP	15 41 21.	EX	43 12.	
22	P	20 26 51.			
22	P	23 41 12.			
22	IP	23 44 29.7			U
23	IP	00 10 02.9	ES	16 18.	S W D
23	P	01 58 46.			
23	P	04 39 16.	S	48 50.	
23	P	05 14 41.	S	15 21.	
23	IP	08 15 16.6	S	19 53.	S W U
23	P	08 59 20.			
23	P	09 54 18.			
23	P	13 21 02.			
23	P	16 11 08.	EX	13 06.	
23	IP	18 03 54.0			D
24	IP	22 53 31.1	S	54 31.	E D
25	P	00 54 52.	S	55 09.	
25	IP	02 32 20.0	ES	39 36.	N W D
25	IP	06 41 19.6	S	49 34.	N D
25	P	08 00 33.	S	07 35.	
25	EP	13 59 39.	EL	06 00.	
25	IP	18 35 48.6	S	36 04.	N E U
25	P	22 54 30.			
25	P	22 54 34.	S	55 25.	
26	IP	04 35 21.5	ES	37 10.	N E D
26	IP	08 59 41.3			U
26	IP	18 28 09.4	ES	28 26.	E U
26	P	21 54 09.	S	02 15.	
26	P	23 37 25.	ES	45 30.	
27	EPKP	03 46 16.			
27	P	06 28 04.			
27	EP	07 50 46.	ES	01 18.	
27	IP	09 33 06.2			U
27	P	11 25 22.	S	25 43.	
27	P	12 17 57.			
28	EP	00 25 44.	ES	30 18.	
28	EP	03 25 43.	ES	26 47.	
28	EP	04 57 58.			
28	EP	05 05 17.			
28	P	06 00 41.	S	02 27.	
28	P	10 36 40.	ES	38 08.	
28	IP	22 55 09.4	ES	01 28.	U
28	IP	23 31 44.9	S	32 09.	U
28	IP	23 59 18.8			D
29	P	01 14 22.	ES	14 49.	
29	IP	05 21 28.2	ES	22 45.	U
29	P	07 24 50.	ES	25 55.	
29	EP	07 30 13.	ES	31 01.	
29	P	12 33 45.			
29	P	13 25 45.			
30	P	01 15 00.			
30	IP	01 44 41.1			N E U
30	IP	01 52 39.5			U
30	EP	02 58 24.			
30	EP	03 35 59.			
30	P	09 18 51.			
30	IP	12 41 06.7			E U
30	IP	13 13 46.9	ES	15 24.	N E U
30	P	15 55 50.			
30	P	17 49 50.			
30	IP	21 49 31.2	S	49 58.	S E D
30	IP	21 59 16.2	S	59 43.	E D
30	EP	23 45 28.	S	45 41.	

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International Seismological Centre From the ISC collection scanned by SISMOS

地　震　月　報

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OF

THE JAPAN METEOROLOGICAL AGENCY

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気　象　庁

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List 1 JMA stations and their seismographs

Station	Code	CGS Code	λ	φ	Height	Seismographs
					m	
Abashiri	ABASHI	ABJ	E144°17.0′	N44°01.0′	38	S, VI, OP
Aikawa	AIKAWA	AIK	138 14.5	38 01.2	34	S, VI, OP
Ajiro	AJIRO	AJI	139 05.8	35 02.6	59	S, VI, EMT′
Akita	AKITA	AKI	140 06.1	39 43.1	9	S, VI, OP
Anabuki (Tsurugisan)	ANABUK (TURUGI)	TSS	134 05.8	33 51.1	59	S, P
Aomori	AOMORI	AOM	140 47.0	40 49.0	4	S, W
Asahikawa	ASAHIK	ASA	142 22.4	43 46.2	111	S, VI, OP
Ashizuri	ASHIZU	ASZ	133 01.0	32 43.0	30	S, VI
Asosan	ASOSAN	ASJ	131 04.5	32 52.7	1143	S
Chichibu	CHICHI	CHJ	139 04.9	35 59.5	218	S, P
Choshi	CHOSHI	CHO	140 50.6	35 43.5	27	S, EMT′
Fukue	FUKUE	FKJ	128 50.0	32 42.0	26	S, VI
Fukui	FUKUI	FUK	136 13.6	36 03.2	9	S, P(H, V)
Fukuoka	FUKUOK	FKK	130 22.8	33 34.8	2	S, VI, M(H)
Fukushima	FUKUSH	FKS	140 28.5	37 45.4	67	S, VI, OP
Gifu	GIFU	GIF	136 45.9	35 23.9	13	S, W
Hachijojima	HACHIJ	HJJ	139 47.3	33 06.1	80	S, VI
Hachinohe	HACHIN	HAC	141 31.6	40 31.5	27	S, VI, OP
Hakodate	HAKODA	HAK	140 45.5	41 48.8	35	S, VI, OP
Hamada	HAMADA	HMD	132 04.4	34 53.6	18	S, VI, OP
Hamamatsu	HAMAMA	HMM	137 43.4	34 42.5	32	S, VI, OP
Hikone	HIKONE	HIK	136 14.8	35 16.4	87	S, EMT
Himeji	HIMEJI	HIM	134 42.1	34 50.2	37	S, P(H, V)
Hiroo	HIROO	HOO	143 19.0	42 17.0	32	S, P(H, V)
Hiroshima	HIROSH	HIR	132 26.2	34 21.8	29	S, W
Iida	IIDA	IID	137 50.1	35 30.6	482	S, VI, OP
Irozaki (Nagatsuro)	IROZAK (NAGATS)	NGT	138 50.8	34 36.0	55	S
Ishinomaki	ISHINO	ISN	141 18.2	38 25.5	43	S, VI, OP
Izuhara	IZUHAR	IZU	129 17.7	34 12.2	21	S, P(H, V)
Kagoshima	KAGOSH	KAG	130 33.2	31 34.4	4	S, VI
Kakioka	KAKIOK	KAK	140 11.6	36 13.9	27	S, W
Kanazawa	KANAZA	KAN	136 38.9	36 32.8	27	S, VI, OP
Karuizawa	KARUIZ	KRZ	138 33.1	36 20.4	999	S, P(H, V)
Kawaguchiko (Funatsu)	KAWAGU (FUNATU)	FUN	138 45.8	35 29.9	860	S, P
Kobe	KOBE	KOB	135 10.8	34 41.3	58	S, P(H, V)
Kochi	KOCHI	KOC	133 32.0	33 33.0	40	S, P(H, V)
Kofu	KOFU	KOF	138 33.5	35 39.9	272	S, VI
Kumagaya	KUMAGA	KMG	139 23.1	36 08.8	30	S, VI, EMT
Kumamoto	KUMAMO	KUM	130 42.6	32 48.6	38	S, W
Kushiro	KUSHIR	KUS	144 23.7	42 58.7	33	S, VI
Kyoto	KYOTO	KYO	135 44.1	35 00.7	41	S, VI, OP
Maebashi	MAEBAS	MAE	139 03.9	36 24.1	112	S, EMT′
Maizuru	MAIZUR	MAI	135 23.2	35 28.3	31	S, EMT′
Matsue	MATSUE	MTS	133 04.3	35 27.3	17	S, P(H, V)
Matsumoto	MATSUM	MTM	137 58.4	36 14.6	610	S, P(H, V)
Matsushiro	MATSUS	MAT	138 12.5	36 32.3	440	S, L, AW,G,B,V,C
Matsuyama	MATSUY	MTY	132 46.8	33 50.4	32	S, W
Mishima	MISHIM	MIS	138 55.8	35 06.7	20	S, W
Mito	MITO	MIT	140 28.3	36 22.7	30	S, VI, EMT′
Miyako	MIYAKO	MIY	141 58.1	39 38.7	46	S, W
Miyazaki	MIYAZA	MYZ	131 25.6	31 55.0	7	S, VI, OP
Mizusawa	MIZUSA	MIZ	141 08.0	39 08.0	61	P(H, V)
Morioka	MORIOK	MRK	141 10.0	39 41.8	155	S, VI, OP
Muroran	MURORA	MRR	140 59.0	42 19.0	43	S, P(H, V)
Murotomisaki	MUROTO	MRT	134 10.7	33 14.9	185	S, VI, OP
Nagano	NAGANO	NGN	138 11.8	36 39.6	418	S, VI
Nagasaki	NAGASA	NGS	129 52.2	32 43.9	27	S, VD, EM
Nagoya	NAGOYA	NAG	136 58.1	35 09.9	52	S, VI, OP
Nara	NARA	NAR	135 50.0	34 41.0	105	S, EMT′
Nemuro	NEMURO	NEM	145 35.2	43 19.7	26	S, VI, VD, OP
Niigata	NIIGAT	NII	139 03.1	37 54.6	2	S, P(H, V)
Nobeoka	NOBEOK	NOB	131 41.0	32 35.0	19	S, P(H, V)
Obihiro	OBIHIR	OBI	143 13.3	42 55.2	39	S, P(H, V)
Ofunato	OFUNAT	OFU	141 43.1	39 03.7	38	S, VI
Oita	OITA	OIT	131 37.4	33 14.0	5	S, W
Okayama	OKAYAM	OKA	133 54.9	34 40.9	4	S, VI, EMT′
Omaezaki	OMAEZA	OMA	138 12.8	34 36.2	45	S, W
Onahama	ONAHAM	ONA	140 54.4	36 56.7	3	S, VI
Osaka	OSAKA	OSA	135 31.3	34 40.7	13	S, VI

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Station	Code	CGS Code	λ	φ	Height	Seismographs
					m	
Oshima	OSHIMA	OSH	E139°22.7′	N34°45.7′	191	S, W
Owase	OWASE	OWA	136 11.7	34 04.0	14	S, VI, OP
Rumoi	RUMOI	RMJ	141 38.0	43 57.0	22	S, P(H, V)
Saga	SAGA	SAG	130 18.3	33 14.7	4	S, P(H, V)
Saigo	SAIGO	SAI	133 20.0	36 12.3	26	S, VI, OP
Sakata	SAKATA	SAK	139 50.2	38 54.2	2	S, P(H, V)
Sapporo	SAPPOR	SAP	141 19.9	43 03.5	17	S, VI, OP
Sendai	SENDAI	SEN	140 54.0	38 15.6	38	S, VI, S′
Shimonoseki	SHIMON	SHN	130 56.5	33 57.2	46	S, VI, OP
Shionomisaki	SHIONO	SHJ	135 45.8	33 26.9	74	S, W
Shirakawa	SHIRAK	SHR	140 13.5	37 07.1	354	S, P(H, V)
Shizuoka	SHIZUO	SHZ	138 24.4	34 58.4	14	S, VI
Sumoto	SUMOTO	SUM	134 54.5	34 20.1	109	S, EMT
Suttsu	SUTTSU	SUT	140 14.4	42 47.4	16	S, P(H, V)
Takada	TAKADA	TKD	138 15.0	37 06.3	13	S, P(H, V)
Takamatsu	TAKAMA	TKM	134 03.5	34 19.0	10	S, W
Takayasuyama	OSAKA2		135 39.6	34 36.7	472	VD′
Takayama	TAKAYA	TKY	137 15.3	36 09.1	561	S, P(H, V)
Tateyama	TATEYA	TAT	139 52.1	34 59.0	6	S, VI, EMT
Tokushima	TOKUSH	TKS	134 34.6	34 03.9	2	S, P(H, V)
Tokyo	TOKYO	TOK	139 45.5	35 41.2	21	S, VI′, VD′, I′, J
Tottori	TOTTOR	TOT	134 10.7	35 30.7	17	S, EMT′
Toyama	TOYAMK	TOY	137 12.5	36 42.4	9	S, VI
Toyooka	TOYOOA	TYK	134 49.5	35 32.0	4	S, W
Tsu	TSU	TSU	136 31.1	34 42.1	3	S, P(H, V)
Tsuruga	TSURUG	TSR	136 03.9	35 39.0	1	S, P(H, V)
Unzendake	UNZEND	UNZ	130 15.2	32 44.1	849	S
Urakawa	URAKAW	URA	142 46.8	42 09.5	34	S, VI, OP
Utsunomiya	UTSUNO	UTS	139 52.3	36 32.6	120	S, EMT
Uwajima	UWAJIM	UWA	132 33.5	33 13.5	43	S, P
Wajima	WAJIMA	WAJ	136 53.9	37 23.4	6	S, VI
Wakayama	WAKAYA	WKY	135 10.0	34 13.6	14	S, VI
Wakkanai	WAKKAN	WAK	141 40.4	45 25.0	9	S, VI, OP
Yakushima	YAKUSH	YKS	130 29.8	30 27.0	14	S, VI
Yamagata	YAMAGA	YAM	140 21.0	38 15.2	151	S, P(H, V)
Yokohama	YOKOHA	YOK	139 39.3	35 26.2	38	S, EMT
Yonago	YONAGO	YON	133 20.6	35 26.0	7	S, P(H, V)
Ishigakijima	ISHIGA	ISI	124 10	24 20	6	S, VI
Naha	NAHA	NAH	127 41	26 13	11	S, VI
Miyakojima	MIYAKJ	MYK	125 17	24 47	40	S
Yonagunijima	YONAGU		123 01	24 28	32	

Notations : —

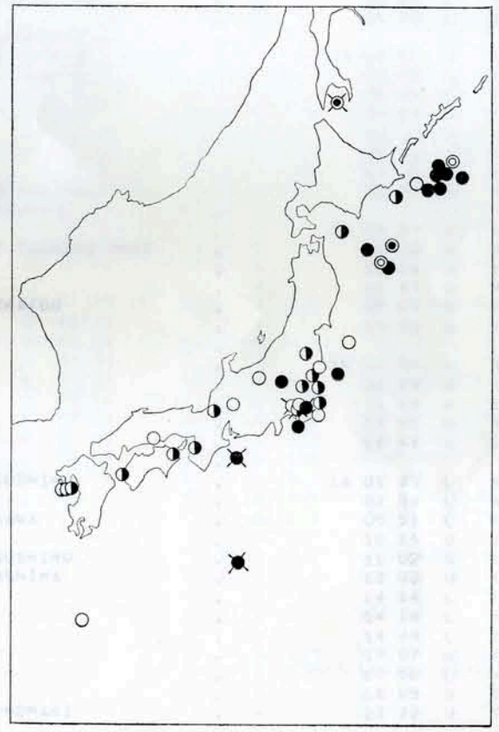
λ	: Longituds.
φ	: Geographical Latitude.
W	: Wiechert's horizontal and vertical seismographs (masses, H ; 200kg, V ; 80kg).
P	: Portable seismograph (horizontal).
P(H, V)	: do (mass, 22.5kg).
S	: Strong motion seismograph (magnification ; 1).
S′	: do (magnification ; 0.4).
M(H)	: Mainka's horizontal seismograph (mass, 450kg).
G	: Galitzin's seismograph.
L	: 1,000kg long-period seismograph, JMA type.
I	: Ishimoto's seismograph.
V	: Short-period vertical seismograph.
AW	: Anderson-Wood's seismograph.
C	: Capacity type seismograph.
EM	: Electromagnetic seismograph.
OP	: JMA 59-type electromagnetic seismograph with optical recorder.
VI	: JMA 59-type electromagnetic seismograph with visible recorder.
VD	: JMA 61-type electromagnetic seismograph with visible recorder.
B	: Benioff's seismograph (short and long period).
J	: Remote recording JMA 63-type seismograph.
VI′,VD′,I′	: Remote recording JMA 63-type seismograph.
EMT	: Electromagnetic seismograph with tape recorder.
EMT′	: Electromagnetic seismograph with tape recorder and transmitting unit.

List 2 Number of earthquakes by districts and classes, December, 1969

District \ Class	Number of felt earthquakes					Number of unfelt earthquakes	Total
	Remarkable	Moderate	Small felt area	Local	Total		
Hokkaido	1	1	1	3	6	51	57
Tohoku	1	1	1	5	8	16	24
Kwanto	0	0	3	5	8	30	38
Chubu	0	0	2	19	21	14	35
Kinki	0	0	0	6	6	8	14
Chugoku•Shikoku	0	0	1	12	13	4	17
Kyushu	0	0	1	9	10	22	32
Near Japan*	0	0	0	0	0	6	6
Foreign region	0	0	0	0	0	2	2
Unknown	0	0	0	0	0	12	12
Total	2	2	9	59	72	165	237

* ; Sakhalin, Kurile Is., Korea, Ryukyu Is., Bonin Is., Sikhota Alin.

Epicenters of the major earthquakes



⊙ Remarkable (R) ◎ Moderate (M) ○ Small felt area (S) ◑ Local (L) ● Unfelt (U) × h≧100km.

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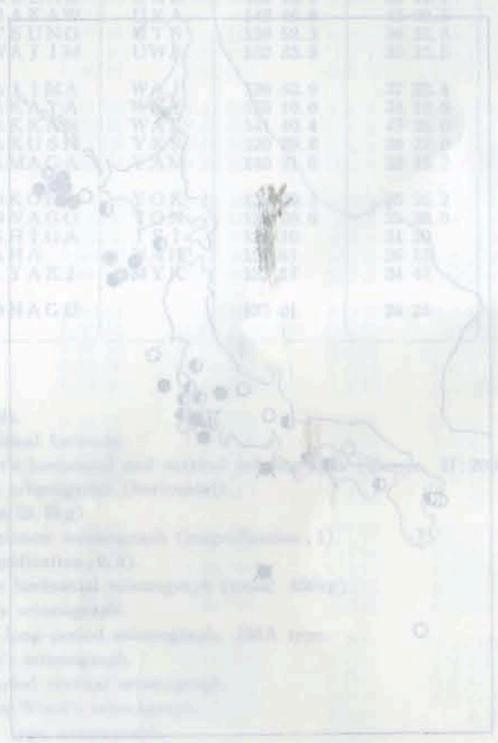
Special Event

Earthquake-Swarm near Matsushiro, Northern Chubu

In this month, 19 earthquakes (intensity Ⅲ : 1, Ⅱ : 4, Ⅰ : 14) were felt at the Matsushiro Seismological Observatory.



LIST 3 EARTHQUAKES OBSERVED BY SEISMOLOGICAL STATIONS OF JMA

C = CLASS

(JST) DATE,TIME D	H	M	C	LOCATION
1	01	28	U	(UWAJIM)
	02	21	U	(UTSUNO)
	19	19	L	(UWAJIM)
2	02	33	L	OFF TOKACHI
	04	00	U	(TSURUG)
	05	57	L	(UNZEND)
	14	38	U	(KUSHIR)
	19	43	U	OFF IWATE PREF
	23	11	U	S OF KWANTO
3	01	19	U	OFF MIYAGI PREF
	03	02	U	UK
	04	02	U	OFF SANRIKU
	07	13	U	(UTSUNO)
	13	31	U	S OF KWANTO
	21	19	S	NEAR MATSUSHIRO
4	00	16	L	(MATSUS)
	07	24	U	(NEMURO)
	08	12	U	(FUKUI)
	11	40	U	(HAKODA)
	17	50	R	OFF SANRIKU
	20	08	L	(MATSUS)
	20	24	U	W OF SAGA PREF
	21	22	U	(FUKUI)
	21	47	L	SHIGA-GIFU BORDER
5	06	19	U	S OF NAGANO PREF
	07	45	U	OFF URAKAWA
	08	49	U	OFF FUKUSHIMA PREF
	10	09	L	(HAKODA)
	11	41	L	(HIROSH-SHOBARA)
	11	47	L	(HIROSH-SHOBARA)
	14	32	L	(HIROSH-SHOBARA)
	14	59	L	(AKITA)
	16	27	U	OFF SANRIKU
	21	47	U	(GIFU)
6	00	04	U	UK
	00	15	U	N OF ISHIKAWA PREF
	02	26	U	NEAR YAKUSHIMA
	02	41	U	(UTSUNO)
	10	19	U	MIDDLE OF TOCHIGI PREF
	15	21	L	(MATSUS)
	20	14	L	(MATSUS)
	20	32	U	E OFF HOKKAIDO
	22	17	U	UK
7	00	36	U	UK
	02	50	U	(MAIZUR)
	08	06	L	(MATSUS)
	08	23	L	(MATSUS)
	13	19	U	(HACHIN)
	14	53	U	(ISHIGA)
	16	05	L	NEAR MATSUSHIRO
	16	12	U	(YAKUSH)
	18	40	U	NEAR URAKAWA
8	02	32	L	NEAR MATSUSHIRO
	02	59	U	NEAR KAGOSHIMA
	07	02	U	(URAKAW)
	16	43	L	(HACHIN)
	18	15	U	(UTSUNO)
	19	05	U	(UTSUNO)
9	00	41	U	(ONAHAM)
	01	00	L	NEAR ISHINOMAKI
	05	16	U	(KUMAMO)
	06	08	U	(YAKUSH)
9	08	45	U	(UTSUNO)
	11	26	U	(URAKAW)
	12	56	L	(MATSUS)
	14	08	L	(MATSUS)
	14	27	L	NEAR MATSUSHIRO
	14	30	U	(TATEYA)
	19	22	U	(URAKAW)
	20	43	U	(GIFU)
	21	22	U	E OF HOKKAIDO
10	01	34	U	OFF FUKUSHIMA PREF
	06	59	U	E OF HOKKAIDO
	10	15	U	(YOKOHA)
	11	05	U	(KUSHIR)
	15	22	L	(NARA)
	17	24	U	(NEMURO)
	17	35	L	E OF TOKUSHIMA PREF
11	01	43	U	E OF HOKKAIDO
	04	38	L	(MATSUS)
	09	54	U	S OFF HONSHU
	13	40	U	(NEMURO)
	15	06	U	(MATSUY)
	22	49	U	E OF HOKKAIDO
12	00	00	L	NEAR NAGASAKI
	00	22	U	(NAGASA)
	05	10	U	(NAGASA)
	09	29	U	NEAR WAKAYAMA
	10	13	M	OFF SANRIKU
	10	34	L	NEAR MATSUSHIRO
	16	12	L	SE OF FUKUSHIMA PREF
13	04	57	U	(NAHA)
	06	49	U	MIDDLE OF CHIBA PREF
	08	05	L	(MATSUS)
	09	39	U	(URAKAW)
	10	00	U	(URAKAW)
	12	41	U	OFF TOKAIDO
	17	08	U	(GIFU)
	22	30	U	HOKKAIDO
14	06	37	U	NEAR ISHIGAKIJIMA
	09	03	U	UK
	11	18	U	(URAKAW)
	11	47	U	MOLUCCA PASSAGE
	15	01	U	E OFF KAGOSHIMA PREF
	15	36	U	(NAGANO)
15	01	03	S	SE OFF NEMURO PEN
	03	24	U	(HACHIN)
	11	19	U	(KUSHIR)
	17	51	U	NE OF HIROSHIMA PREF
	18	49	U	UK
16	01	35	L	NEAR NAGASAKI
	03	08	L	NEAR NAGASAKI
	05	51	L	KASHIMANADA
	10	15	U	(OSHIMA)
	11	02	U	E OF HOKKAIDO
	13	03	U	(MITO)
	14	14	L	(HIROSH-SHOBARA)
	14	16	L	(HIROSH-SHOBARA)
	14	39	L	(HIROSH-SHOBARA)
	17	07	U	(MIYAKO)
	17	50	L	NEAR WAKAYAMA
	18	05	U	OFF IWATE PREF
	23	32	U	(CHOSHI)
17	02	43	U	MIDDLE OF CHIBA PREF

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(JST) DATE, D	TIME H	M	C	LOCATION
17	03	56	U	E OF HOKKAIDO
	04	17	U	E OF HOKKAIDO
	07	59	L	NEAR UNZENDAKE
	13	42	U	UK
	19	33	U	S OF KWANTO
	19	39	U	(NEMURO)
	21	45	L	(HACHIN)
	22	03	U	(HACHIN)
18	00	25	U	(KUMAMO)
	11	19	U	NEAR URAKAWA
	15	14	U	E OF HOKKAIDO
	19	21	U	NEAR MITO
	22	32	R	NE OFF HOKKAIDO
19	13	30	U	E OFF HOKKAIDO
20	03	42	U	E OFF HOKKAIDO
	05	26	U	(KAGOSH)
	10	18	U	(NAGASA)
	14	40	S	E OFF CHIBA PREF
	18	17	U	S OF KWANTO
	21	16	S	S OF OKAYAMA PREF
	21	21	L	(OKAYAM)
	22	10	U	(YAKUSH)
	23	26	U	(NEMURO)
21	05	41	U	NEAR TATEYAMA
	10	22	U	(KUSHIR)
	10	54	L	NEAR CHOSHI
	11	37	U	S OF SAITAMA PREF
	18	25	U	(UTSUNO)
	19	18	S	NEAR AMAMIOSHIMA
	21	20	L	E OFF HOKKAIDO
22	01	26	U	(URAKAW)
	01	34	U	E OFF KWANTO
	02	17	U	(NEMURO)
	02	30	U	(URAKAW)
	06	57	S	KASHIMANADA
	09	03	U	(URAKAW)
	09	07	U	(MIYAZA)
	09	11	U	E OF HOKKAIDO
	10	15	U	E OF HOKKAIDO
	16	49	U	(OSAKA)
	20	14	U	NEAR WAKAYAMA
	20	41	L	(UNZEND)
	23	35	L	(KAGOSH-NAZE)
23	04	45	U	(FUKUSH)
	08	49	L	(MATSUS)
	10	54	L	NEAR MATSUSHIRO
	13	16	L	(MATSUS)
	16	07	L	BUNGO-SUIDO
	16	38	U	E OF HOKKAIDO
	23	11	U	MINDANAO, PHILIPPINE IS
24	00	50	U	E OF HOKKAIDO
	04	45	L	SW OF IBARAKI PREF
	11	06	U	UK
	20	02	U	SHIZUOKA PREF
	21	07	U	(SHIZUO)
	23	59	U	CHIBA PREF
25	03	10	L	NEAR MITO
	12	52	U	(KUSHIR)
	13	00	L	NEAR MITAKE, NAGANO PREF
	17	32	U	(KUSHIR)
	23	10	U	(ISHIGA)
	23	31	U	NEAR YAKUSHIMA

(JST) DATE, D	TIME H	M	C	LOCATION
26	00	41	L	(MATSUS)
	01	21	U	(ISHIGA)
	01	35	U	(YAKUSH)
	03	20	U	(KUMAMO)
	04	12	U	(YAKUSH)
	04	18	U	(UTSUNO)
	06	51	U	UK
	13	17	U	(ANABUK)
	14	12	L	(HIROSH-SHOBARA)
	19	33	U	(WAKAYA)
	22	36	U	(KUSHIR)
27	05	22	U	NEAR HACHIJOJIMA
	07	28	L	NEAR KUMAMOTO
	07	55	U	COAST OF IBARAKI PREF
	08	00	U	OFF SANRIKU
	09	13	L	NEAR SUMOTO
	17	00	U	MIDDLE OF GIFU PREF
	22	11	U	(UTSUNO)
28	00	33	U	UK
	09	44	U	UK
	10	19	U	E OFF HOKKAIDO
	13	25	U	E OFF HOKKAIDO
	13	53	M	E OFF HOKKAIDO
	14	07	U	E OFF HOKKAIDO
	16	44	S	MIDDLE OF GIFU PREF
	21	45	U	(KUSHIR)
	21	49	U	N OF TOHOKU
	23	00	U	(WAKAYA)
	23	38	U	E OFF HOKKAIDO
29	02	43	S	TOKYO BAY
	05	51	L	NEAR TOKYO
	14	08	L	(HIROSH-KAKE)
	15	40	U	E OF HOKKAIDO
	17	55	U	(URAKAW)
	18	25	L	(KAGOSH-NAZE)
	18	41	U	(ONAHAM)
30	01	25	L	W OF WAKAYAMA PREF
	13	39	U	(URAKAW)
	17	14	U	(WAKAYA)
	18	09	U	SW OF IBARAKI PREF
	19	34	U	(WAKAYA)
31	01	23	U	ARIAKEKAI
	01	34	U	(KUMAMO)
	01	54	U	(FUKUOK)
	02	46	U	UK
	12	39	S	OFF FUKUSHIMA PREF
	14	39	U	E OFF HOKKAIDO
	16	29	U	S OF KWANTO
	16	38	U	N OF NIIGATA PREF
	19	27	L	(WAKAYA-SHIRAHAMA)
	23	10	U	(KAGOSH)

LIST 4 EARTHQUAKE ORIGINS

(JST) DATE, D	TIME H	M	C	LOCATION	ORIGIN TIME M	S	+/-S	LONG.	+/-	LAT.	+/-	C = CLASS H KM	M
2	02	33	L	OFF TOKACHI	33	01.6	1.2	143 27 06		41 35 04		30	4.3
3	04	02	U	OFF SANRIKU	01	36.3	1.5	144 13 08		40 07 04		40	4.5
	21	19	S	NEAR MATSUSHIRO	19	36.0	0.1	138 10 01		36 30 01		10	4.4
4	17	50	R	OFF SANRIKU	50	21.3	0.3	144 47 02		40 40 01		70	
	21	47	L	SHIGA-GIFU BORDER	47	36.6	0.2	136 17 01		35 25 01		30	3.8
5	16	27	U	OFF SANRIKU	27	10.0	1.1	143 28 06		40 44 03		20	4.1
6	10	19	U	MIDDLE OF TOCHIGI PREF	19	14.0	0.1	139 08 01		36 23 01		90	
10	17	35	L	E OF TOKUSHIMA PREF	35	07.6	0.4	134 34 01		33 59 02		50	3.8
11	09	54	U	S OFF HONSHU	53	52.8	2.7	137 01 18		30 10 11		320	
12	00	00	L	NEAR NAGASAKI	00	21.4	0.7	129 53 02		32 38 03		20	3.9
	10	13	M	OFF SANRIKU	13	12.1	0.5	144 01 03		40 10 02		60	5.4
	16	12	L	SE OF FUKUSHIMA PREF	12	26.8	0.2	140 22 02		37 09 01		80	
13	12	41	U	OFF TOKAIDO	40	34.2	0.2	137 01 02		33 51 02		360	
15	01	03	S	SE OFF NEMURO PEN	03	48.8	1.2	146 02 07		42 58 03		40	4.7
16	03	08	L	NEAR NAGASAKI	08	01.7	4.1	129 50 13		32 38 09		10	4.0
	05	51	L	KASHIMANADA	51	23.0	0.2	140 57 01		36 11 01		50	3.4
17	02	43	U	MIDDLE OF CHIBA PREF	42	44.0	1.0	140 06 07		35 34 04		110	
	07	59	L	NEAR UNZENDAKE	58	59.4	0.5	130 09 02		32 47 02		00	3.5
18	22	32	R	NE OFF HOKKAIDO	32	03.6	0.5	142 44 07		46 00 03		360	
19	13	30	U	E OFF HOKKAIDO	29	52.1	3.4	148 27 18		42 54 14		40	5.2
20	14	40	S	E OFF CHIBA PREF	39	56.4	0.3	140 33 02		35 14 02		80	
	21	16	S	S OF OKAYAMA PREF	16	24.8	0.3	133 37 01		34 31 01		00	3.9
21	05	41	U	NEAR TATEYAMA	41	04.1	0.2	139 40 02		34 57 01		40	3.0
	10	54	L	NEAR CHOSHI	54	25.6	0.4	140 49 03		35 38 02		30	3.6
	19	18	S	NEAR AMAMIOSHIMA	18	02.6	1.1	130 43 09		28 05 04		80	
	21	20	L	E OFF HOKKAIDO	20	14.4	0.5	145 03 02		42 32 02		00	4.7
22	01	34	U	E OFF KWANTO	33	54.9	2.2	142 39 10		36 37 07		60	4.1
	06	57	S	KASHIMANADA	57	36.4	0.4	140 55 03		36 51 01		70	
23	16	07	L	BUNGO-SUIDO	06	59.4	0.4	132 18 02		33 21 02		30	3.8
24	04	45	L	SW OF IBARAKI PREF	45	05.3	0.2	140 01 02		36 23 02		70	
25	03	10	L	NEAR MITO	10	31.8	0.1	140 31 02		36 36 01		60	3.6
28	10	19	U	E OFF HOKKAIDO	19	04.8	2.2	148 24 11		43 17 11		40	5.1
	13	25	U	E OFF HOKKAIDO	24	33.0	3.7	148 09 19		43 10 12		00	4.7
	13	53	M	E OFF HOKKAIDO	52	57.2	2.2	148 58 12		43 36 16		80	
	14	07	U	E OFF HOKKAIDO	06	43.9	2.1	148 31 12		43 04 06		50	4.8
	16	44	S	MIDDLE OF GIFU PREF	44	21.2	0.2	137 05 01		35 44 01		10	4.7
	23	38	U	E OFF HOKKAIDO	37	52.8	2.2	147 52 11		42 54 10		00	4.9
29	02	43	S	TOKYO BAY	43	05.7	0.1	139 44 01		35 32 01		120	
	05	51	L	NEAR TOKYO	50	51.0	0.2	139 45 02		35 45 02		120	
30	01	25	L	W OF WAKAYAMA PREF	24	57.2	0.2	135 14 01		34 07 01		10	3.7
31	12	39	S	OFF FUKUSHIMA PREF	38	52.6	0.4	142 07 02		37 48 01		50	4.2
	14	39	U	E OFF HOKKAIDO	39	04.9	1.5	147 03 08		42 40 04		10	4.7

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LIST 5 DATA OF EARTHQUAKES

I = SEISMIC INTENSITY * = MICRON

OT= 2 2 33 1.6 +/- 1.2 (JST)
OFF TOKACHI
LAT= 41 35 +/- 4 LONG= 143 27 +/- 0
H= 30 MAG=4.3 CLASS=L

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
HIROO	0	P	02 33 14.9	IS	33 23.6										78.5	08.7
URAKAW	1	IP	02 33 16.5	IS	33 27.4	58	0.2	81	0.2	18	0.2			D	84.7	10.9
KUSHIR	0	EP	02 33 33	IS	33 46.0	8	0.3	8	1.0	3	0.3				176.5	13.0
SAPPOR	0	EP	02 33 37	ES	34 04	6	2.0	7	2.0	3	1.0				239.5	27.0
AOMORI	0	ES	02 34 05			12	1.4	9	1.2						239.4	
MATSUS	0	EP	02 34 39	IX	34 41.5										720.4	

OT= 3 4 1 36.3 +/- 1.5 (JST)
OFF SANRIKU
LAT= 40 7 +/- 4 LONG= 144 13 +/- 8
H= 40 MAG=4.5 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
MIYAKO	0	EP	04 02 07	ES	02 26.9	8	2.1	10	2.5	4	2.2				199.3	19.9
OFUNAT	0	IP	04 02 13.2	ES	02 38.7	6	2.4	5	1.6	7	2.0	W	1	U 1	244.5	25.5
URAKAW	0	P	04 02 13.9	ES	02 41			17	2.6	13	3.2				256.8	27.1
MORIOK	0	IP	04 02 15.5	IS	02 42.3	9	0.4	9	0.4	6	1.8	W	1	U 0	264.8	26.8
AOMORI	0	P	04 02 20			44	1.8	31	1.3	14	1.8				301.4	
ISHINO	0	P	04 02 22.0	X	03 04.0	6	3.6	6	4.6	4	4.6			U	313.8	
HAKODA	0	EP	04 02 24	ES	03 10	7	1.8	6	1.2	4	6.4				346.8	46.0
AKITA	0	EX	04 02 26.6			16	2.4	18	3.2	11	2.6				354.6	
KUSHIR	0	EX	04 02 27	S	02 52.0	5	2.8	6	0.9	5	2.9				318.2	
SENDAI	0	EX	04 02 27			10	1.8	10	2.0	6	2.0				352.9	
OBIHIR	0	EX	04 02 30												322.3	
SAPPOR	0	EX	04 02 46			9	2.6	10	2.6	4	3.0				405.7	
ASAHIK	0	X	04 02 50			4	3.2	5	2.4	5	2.0				433.6	
MATSUS	0	IP	04 03 06.2	X	04 40							S	W	U	658.3	
SAKATA	0	EX	04 03 22.4												400.0	

OT= 3 21 19 36.0 +/- 0.1 (JST)
NEAR MATSUSHIRO
LAT= 36 30 +/- 1 LONG= 138 10 +/- 1
H= 10 MAG=4.4 CLASS=S

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
MATSUS	3	IP	21 19 38.8									N	E	U	5.7	
NAGANO	3	IP	21 19 40.8	IS	19 42.8	550		500		300		N 35		U 26	18.0	02.0
MATSUM	2	IP	21 19 43.5	IS	19 48.4										33.3	04.9
KARUIZ	0	IP	21 19 45.4	S	19 50.0	100	2.0	200	2.4	100	1.6	N 4	W 6	D 38	38.8	04.6
TAKADA	0	EP	21 19 48.7	S	19 57.5										67.5	08.8
MAEBAS	1	P	21 19 51.8	S	20 02.4	60	0.4	26	0.8	15					81.3	10.6
TOYAMA	0	P	21 19 53.0	ES	20 06	38	1.4	52	2.2	25	3.0			D 6	88.7	13.0
TAKAYA	0	EP	21 19 53.5												90.5	
CHICHI	0	EP	21 19 53.9	S	20 06.0										99.7	12.1
KOFU	0	IP	21 19 54.2	IS	20 06.3	29	0.4	40	0.4	14	1.0			D 2	99.1	12.1
IIDA	0	IP	21 19 56.8	IS	20 10.2	20	0.8	21	1.2	9	1.2			U 9	113.8	13.4
KUMAGA	0	EP	21 19 58.4	ES	20 11.6	19	3.0	25	3.2	15	3.0				116.2	13.2
WAJIMA	0	EP	21 20 00	ES	20 16	38	0.8	48	1.0	9	1.2				150.0	16.0
KAWAGU	0	IP	21 20 00.7	IS	20 13.5										123.5	12.8
GIFU	0	P	21 20 06.1	S	20 28.6	16	1.3	12	1.6	6	1.0				175.8	22.5
SHIZUO	0	P	21 20 06.3	S	20 28.7	13	1.0	16	0.7	5	2.0				170.7	22.4
KAKIOK	0	P	21 20 07.1	S	20 28.3	15	0.9	12	0.8	7	0.9		E	2	184.3	16.2
NAGOYA	0	P	21 20 07.4	IS	20 30.0	15	1.0	14	1.0	7	1.0				183.4	22.6
MISHIM	0	EP	21 20 07.5	ES	20 25.4	20	0.7	25	2.0	10	0.7				168.7	17.9
AJIRO	0	EP	21 20 07.7	ES	20 29.2	6	1.5	7	1.4	2	1.4				182.1	21.5
FUKUI	0	P	21 20 08.6	X	20 44.2										181.2	
YOKOHA	0	EP	21 20 09.0	IS	20 34.0	26	0.9	26	1.0	18					178.7	25.0
TOKYO	0	EP	21 20 09.8	S	20 30.3	20	2.0	20	2.0	10	1.2				169.4	20.5
HAMAMA	0	P	21 20 11.0	S	20 34.5	16	1.0	19	1.8	8	1.8				202.8	23.5
OMAEZA	0	EP	21 20 11.2	ES	20 40.2	40	3.4	34	2.2	12	3.4				210.4	29.0
MITO	0	EP	21 20 11.5	IS	20 36.6	19	1.0	17	0.4	5	1.0				207.1	25.1
TSURUG	0	EP	21 20 12	S	20 37.5										211.5	25.5
HIKONE	0	P	21 20 12.2	S	20 38.8										220.4	26.6
OSHIMA	0	P	21 20 14.8	S	20 39.4	10	1.0	6	0.8	4	0.4				221.9	24.6
ONAHAM	0	IP	21 20 17.2	S	20 48.0	15	0.9	11	1.3	2	0.8			D 1	249.7	30.8
TATEYA	0	X	21 20 19.2			57	3.7	21	2.5	9	3.5				228.0	
UTSUNO	0	S	21 20 21.0			20	0.6	25	0.2	14					152.8	

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
TOYOOK	0	X	21 21 09.6			11	1.2	10	1.2						320.0	

OT= 4 17 50 21.3 +/- 0.3 (JST)
OFF SANRIKU
LAT= 40 40 +/- 1 LONG= 144 47 +/- 2
H= 70 CLASS=R

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
HIROO	2	IP	17 50 53.5	IS	51 19.4							N	7	U 12	217.4	21.9
URAKAW	2	IP	17 50 56.9	IS	51 21.4	400	1.6	400	1.4			N 29	W 30	U 70	235.6	24.5
KUSHIR	2	IP	17 50 58.8	IS	51 24.0	175	0.2	168	0.3	87	0.2	N 3		U 8	258.8	25.2
MIYAKO	1	IP	17 50 59.6	IS	51 25.2	59	2.1	64	2.1	29	4.3	S 2	W 3	U 4	265.3	25.6
HACHIN	2	IP	17 51 00.8	IS	51 27.8	155	0.6	110	2.0	35	1.6		W 2	U 1	276.3	27.0
OBIHIR	0	P	17 51 01.6	ES	51 30										282.0	28.4
NEMURO	1	IP	17 51 04.1	S	51 33.0	17	0.4	20	0.4	15	1.8	N 1	E 1	U 1	303.1	28.9
OFUNAT	1	IP	17 51 06.8	IS	51 38.0	50	1.2	37	1.0	27	0.8	S 1	W 2	U 2	317.0	31.2
MORIOK	2	IP	17 51 08.0	IS	51 40.0	88	0.5	75	0.5	40	3.2	S 3	W 9	U 7	326.2	32.0
				EX	51 19.2											
AOMORI	1	IP	17 51 09.0	S	51 46	199	1.8	171	1.1	79	1.6		W 35	U 31	338.3	34.0
MURORA	0	P	17 51 11.6	S	51 45.0							N 4	W 5	U 2	366.4	33.4
HAKODA	0	IP	17 51 12.0	ES	51 46	78	2.2	61	2.4	35	1.6	N 4	W 25	U 21	360.6	34.0
ABASHI	0	EP	17 51 14	IS	51 50.0	49	2.4	70	3.2	14	2.8				374.4	36.0
SAPPOR	0	P	17 51 15.5	IS	51 53.6	107	2.0	115	2.0	37	2.2				390.8	38.1
ISHINO	0	IP	17 51 15.8	IS	51 52.4	47	2.8	34	3.0	19	0.8	S 1	W 2	U 3	389.1	36.6
ASAHIK	0	EP	17 51 16	IS	51 55.4	57	2.0	50	2.2	40	2.0				398.0	39.4
SENDAI	0	P	17 51 20.8	ES	52 01	52	2.4	45	2.8	28	2.0				427.8	40.2
AKITA	0	EP	17 51 20.8	EX	52 01	94	4.6	65	2.8	44	4.0				412.3	
SUTTSU	0	EX	17 51 21.6												445.5	
RUMOI	0	EX	17 51 22	ES	52 10										447.7	
YAMAGA	0	EP	17 51 25.4	S	52 10.8							N 1		U 1	466.1	45.4
SAKATA	0	EP	17 51 28.3	ES	52 15	150	2.4	100	2.4						466.7	46.7
FUKUSH	0	EP	17 51 28.8	ES	52 16.6	84	1.0	40	0.8	20	0.8				492.7	47.8
ONAHAM	0	P	17 51 34.5	IS	52 28.8	36	0.7	47	0.8	15	0.9			U 1	532.8	49.3
SHIRAK	0	EP	17 51 37.7	S	52 31.6										558.0	53.9
WAKKAN	0	P	17 51 41.4	S	52 41.3	19	4.2	19	3.5	21	3.9				584.7	59.9
MITO	0	EP	17 51 43.4	S	52 41.4	34	0.8	35	1.0	15	2.7				606.4	58.0
KAKIOK	0	EP	17 51 46	S	52 46	96	0.9	45	1.0	22	1.0				634.5	60.0
UTSUNO	0	P	17 51 46.3	S	52 46.7	25	0.8	25	0.8	15					626.0	60.4
CHOSHI	0	P	17 51 47.0	S	52 48.8	10	0.6	15	1.0	8					647.8	61.8
TAKADA	0	EP	17 51 51.9	ES	53 01.8										690.8	69.9
MAEBAS	0	P	17 51 54.3	S	53 02.0	12	0.8	25	0.8	9					687.2	67.7
CHICHI	0	EP	17 51 55.6	S	53 05.4										719.2	69.8
KUMAGA	0	EP	17 51 56.6	ES	53 02.4	21	1.6	17	1.0	10	3.6				688.2	65.8
TOKYO	0	EP	17 51 59	S	53 05.5	23	3.0	18	3.8	15	3.5				706.5	66.5
MATSUS	0	IP	17 51 59.8	S	53 11									U	733.1	71.2
YOKOHA	0	X	17 51	X	52 13.0	25	1.0	36	0.8	15					734.2	
WAJIMA	0	EX	17 52 00			24	1.4	21	1.6						776.2	
KARUIZ	0	EP	17 52 00.0	X	53 08.0										725.0	
NAGANO	0	X	17 52 03.8	S	53 14.0	15	3.2	20	3.5	9	2.7				725.2	
KOFU	0	EP	17 52 05.6	ES	53 22.2	17	1.0	16	0.6	7	1.0				777.9	76.6
KAWAGU	0	P	17 52 08.1	S	53 28.0										779.3	74.9
IIDA	0	E	17 52 13.4												835.6	
TATEYA	0	EX	17 52 13.7			26	4.3	32	3.6	13	4.3				764.6	
TOYAMA	0	X	17 52 14	ES	53 34	12	4.0	12	2.8	12	3.8				791.7	
MISHIM	0	X	17 52 15.0	ES	53 24.1	16	0.8	17	0.8	4	0.8				802.8	
OMAEZA	0	EP	17 52 16.4			14	3.2	18	4.2	5	3.4				887.7	
NAGOYA	0	EP	17 52 24.2	ES	53 55.4	9	2.8	9	2.4	3	2.2				918.5	91.2
HACHIJ	0	EX	17 52 30.0	X	54 53.0	10	0.4	9	0.4						949.7	
HAMAMA	0	X	17 52 34	X	54 18	8	3.0	10	3.0	3	3.0				907.6	
SHIZUO	0	X	17 52 51.2	ES	53 34.2	7	1.0	6	3.5	4	3.5				844.7	
OSHIMA	0	EX	17 53 21.6			15	0.8	10	1.2	3					809.9	

OT= 4 21 47 36.6 +/- 0.2 (JST)
SHIGA-GIFU BORDER
LAT= 35 25 +/- 1 LONG= 136 17 +/- 1
H= 30 MAG=3.8 CLASS=L

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	N-S A/T S	E-W *	E-W A/T S	U-D *	U-D A/T S	INITIAL MOTION N-S	E-W	U-D	DELTA KM	S-P S
HIKONE	0	IP	21 47 42.7	IS	47 48.3									D	16.2	05.6
TSURUG	2	IP	21 47 44.6	IS	47 49.8									D 9	32.6	05.2
NAGOYA	0	IP	21 47 49.0	IS	47 57.8	11	0.8	11	0.8	3	0.4	S 1	E 2	U 1	68.3	08.8
KYOTO	0	EP	21 47 49.3	ES	47 58.3			11	0.0	3	0.7				67.2	09.0
MAIZUR	0	IP	21 47 50.5	S	48 00.6									U	81.6	10.1
NARA	0	X	21 47	S	48 06.8										91.1	
MATSUS	0	P	21 48 07	S	48 41										213.6	34.0
TOYOOK	0	X	21 48 13			10	1.1	10	0.9						133.4	

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OT= 5 16 27 10.0 +/- 1.1 (JST)
OFF SANRIKU
LAT= 40 44 +/- 3 LONG= 143 28 +/- 6
H= 20 MAG=4.1 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
URAKAW	0	EP	16	27	37	S	27	59.0	4	0.6	5	0.4	3	0.8				168.4	22.0
HACHIN	0	IP	16	27	37.3	ES	27	57.5	6	0.2	3	0.2				E	1 D	165.9	20.2
MORIOK	0	P	16	27	46.1	S	28	10.1	9	0.4	9	0.4	1	0.3			D U	227.0	24.0
HAKODA	0	EP	16	27	48	ES	28	15	4	0.4	5	0.8	1	0.8				256.7	27.0
AOMORI	0	EX	16	28	02				14	0.9	13	0.5	7	0.9				226.7	
MATSUS	0	P	16	28	41	X	28	48									D	652.8	

OT= 6 10 19 14.0 +/- 0.1 (JST)
MIDDLE OF TOCHIGI PREF
LAT= 36 23 +/- 1 LONG= 139 8 +/- 1
H= 90 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
UTSUNO	0	P	10	19	31.0	S	19	42.8	11	0.0	13	0.0	10					68.6	11.8
MATSUS	0	IP	10	19	32.1	S	19	45								W	U	84.7	12.9
KAKIOK	0	EP	10	19	33	ES	19	47	9	0.8	8	0.8	3	0.5				96.7	14.0
KOFU	0	EP	10	19	33.6	IS	19	47.0	9	0.4	9	0.4	3	0.3				95.1	13.4

OT= 10 17 35 7.6 +/- 0.4 (JST)
E OF TOKUSHIMA PREF
LAT= 33 59 +/- 2 LONG= 134 34 +/- 1
H= 50 MAG=3.8 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TOKUSH	1	IP	17	35	16.3	IS	35	20.5	83	0.1	78	0.1	66	0.1	N	5 W	4 U 17	9.1	04.2
ANABUK	1	P	17	35	19.0													45.8	
SUMOTO	1	IP	17	35	19.4	IS	35	26.3									D	50.1	06.9
TAKAMA	1	IP	17	35	20.1	IS	35	28.2	21	1.0	19	1.0	13	0.2	N	8 W	11 U 17	59.7	08.1
WAKAYA	0	P	17	35	20.3	S	35	27.2	27	1.0	23	0.8	13	0.7				61.6	06.9
KOBE	0	EP	17	35	23.9													96.4	
OKAYAM	1	IP	17	35	24.4	S	35	35.9	17	0.3	20	0.3	4	0.3	N	1 W	1 U 1	97.9	11.5
TOTTOR	0	P	17	35	34.3	S	35	52.0										173.2	17.7
KOCHI	0	EX	17	35	38.3													107.1	
TOYOOK	0	X	17	35	50.9				11	1.1	14	1.1						173.8	
MATSUS	0	P	17	36	06													435.9	

OT= 11 9 56 52.8 +/- 2.7 (JST)
S OFF HONSHU
LAT= 30 10 +/-11 LONG= 137 1 +/-18
H=320 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
HACHIJ	0	EP	09	54	59.0	S	55	47.0	7	0.5	10	0.6						418.1	48.0
MATSUS	0	IP	09	55	29.3	S	56	44									D	715.1	74.7
UTSUNO	0	P	09	55	31.0	S	56	46.4	8	0.5	9	0.7	10					755.5	75.4
MITO	0	X	09	55	45.0				9	1.5	6	1.4	2	1.0				760.0	
TATEYA	0	X	09	56	15.2				15	1.5	11	0.5	5	0.7				597.2	
TOKYO	0	EX	09	56	22	ES	56	36	2		6	0.4	3					668.2	
KUMAGA	0	X	09	56	38.4	ES	56	46.0	3	1.0	5	0.8	2	1.0				698.7	
FUKUSH	0	EX	09	57	18.4				6	0.8	6	1.0	2	0.7				900.0	

OT= 12 0 0 21.4 +/- 0.7 (JST)
NEAR NAGASAKI
LAT= 32 38 +/- 3 LONG= 129 53 +/- 2
H= 20 MAG=3.9 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NAGASA	2	IP	00	00	26.1	IS	00	27.9								E	8 D 8	9.1	01.8
UNZEND	2	IP	00	00	28.5	ES	00	33.5										36.5	05.0
KUMAMO	0	IP	00	00	35.4	IS	00	47.0	16	2.0	10	2.0	6	0.6				79.9	11.6
FUKUOK	0	EP	00	00	41.6	IS	00	56.7	18	0.5	18	0.4	1	0.9				114.7	12.1
KAGOSH	0	EX	00	01	10.1				6	2.0	6	1.4	2	1.2				133.4	
MIYAZA	0	S	00	01	12.2				6	0.8	5	0.7	2	0.4				165.6	

OT= 12 10 13 12.1 +/- 0.5 (JST)
OFF SANRIKU
LAT= 40 10 +/- 2 LONG= 144 1 +/- 3
H= 60 MAG=5.4 CLASS=M

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MIYAKO	0	IP	10	13	39.6	IS	13	59.4	67	5.0	64	2.7	58	3.4	S	7 W	14 U 14	184.5	19.8
HACHIN	0	IP	10	13	43.6				57	3.2	40	2.3	49	6.6	N	1 W	4 U 2	215.4	
OFUNAT	0	IP	10	13	46.9	ES	14	10.4	45	1.4	38	1.4	49	1.2	S	4 W	6 U 6	232.4	23.5
HIROO	1	P	10	13	47.6	ES	14	13										242.3	25.4
URAKAW	1	P	10	13	48.6	S	14	15.3	73	3.0	150	6.0	88	4.8	N	1 W	U 1	244.3	26.7
MORIOK	0	IP	10	13	48.7	IS	14	14.2	55	1.8	42	2.0	33	2.0	S	1 W	7 U 3	249.0	25.5
AOMORI	0	IP	10	13	52.7	IS	14	17.7	310	1.9	240	1.2	130	1.8	N	4 W	13 U 8	283.5	25.0
OBIHIR	0	EP	10	13	54													312.9	
ISHINO	0	EP	10	13	55.5	ES	14	25.6	34	3.4	30	2.6	22	2.0	S	3 W	3 U 4	306.6	30.1
KUSHIR	0	IP	10	13	56.6	S	14	28.0	40	0.2	32	0.4	21	1.8			U 2	313.9	31.4
HAKODA	0	IP	10	13	58.6	ES	14	32	46	1.4	52	1.0	29	1.4	N	3 W	8 U 6	329.6	33.4
MURORA	0	EP	10	14	00	X	13	28										348.8	
SENDAI	0	P	10	14	01	EX	14	35	95	3.6	71	4.8	34	3.7				342.4	
AKITA	0	EP	10	14	02.2	S	14	32.0	104	4.4	103	3.4	62	2.0				338.3	29.8
NEMURO	0	P	10	14	04.3	ES	14	40	20	0.8	24	1.2	10	1.2			U	374.7	35.7
YAMAGA	0	EP	10	14	04.7	EX	14	58.1							S	W	2 U 3	381.3	
SAPPOR	0	P	10	14	06.4				73	2.6	57	2.4	32	2.6				391.4	
SAKATA	0	EP	10	14	06.6				300	3.2	300	3.4	100	3.4				385.7	
FUKUSH	0	P	10	14	08.6				56	1.1	36	1.0	10	1.0	S	2 W	3	407.1	
ASAHIK	0	EP	10	14	11				35	2.2	31	3.0	23	2.0				422.8	
ABASHI	0	EP	10	14	11	S	14	58.8	16	2.2	37	1.8	10	2.0				428.3	42.8
						EX	16	25											
ONAHAM	0	EP	10	14	13.4	S	14	58.0	39	1.8	33	1.2	16	1.8				448.7	44.6
SHIRAK	0	EP	10	14	16.6	ES	15	08.8										472.6	52.2
MITO	0	EP	10	14	22.2	X	15	35.0	41	3.6	46	3.6	24	2.6				522.4	
KAKIOK	0	EP	10	14	24	ES	15	19	23	1.0	22	1.0	7	0.8				550.2	55.0
NIIGAT	0	EP	10	14	25.1	ES	15	22.6	170	5.0	186	3.3	60	4.1				497.4	57.5
UTSUNO	0	EP	10	14	25.6	S	15	16.4	10	1.2	15	1.2	8					540.9	50.8
AIKAWA	0	IP	10	14	27.3				16	1.5	10	1.4	12	1.5				553.4	
KUMAGA	0	EP	10	14	33.4	ES	15	33.0	25	3.2	32	3.6	14	4.0				603.0	59.6
RUMOI	0	EX	10	14	34													464.2	
TOKYO	0	EP	10	14	36	ES	15	45	28	3.4	46	4.8	24	3.6				622.4	69.0
MAEBAS	0	P	10	14	37.0	X	15	24.1	4	1.0	5	1.2	6					601.7	
KARUIZ	0	EP	10	14	38.6	EX	15	57.3										639.4	
NAGANO	0	EP	10	14	39.3	X	15	57.3	19	5.0	28	4.0	9	2.5				639.9	
MATSUS	0	IP	10	14	39.6	ES	15	44							S	W	U	647.8	64.4
KAWAGU	0	P	10	14	41.9	S	16	04.7										694.2	82.8
WAJIMA	0	EP	10	14	44	X	16	28	16	1.6	18	2.0	13	2.6				690.8	
KOFU	0	EP	10	14	44.6	X	16	14.2	22	1.6	20	1.8	10	4.0				692.5	
AJIRO	0	EP	10	14	45.9	ES	16	01.4	6	2.9	7	2.8	4	2.4				715.2	75.5
TATEYA	0	EX	10	14	48.0				49	4.4	54	3.8	22	3.3				681.8	
IIDA	0	E	10	14	52.4													750.0	
TOYAMA	0	EX	10	14	56				17	3.2	16	5.0	11	4.0				707.3	
WAKKAN	0	EX	10	15	00				12	5.0								613.4	
SHIZUO	0	X	10	15	02.0	X	16	31.5	6	4.5	8	6.0	5	5.0				759.7	
MISHIM	0	X	10	15	05.8				20	2.4	21	2.4						718.2	
NAGOYA	0	EP	10	15	07.2	ES	16	35.6	12	2.8	9	2.7	5	2.2				838.0	88.4
KANAZA	0	EX	10	15	10				14	4.2	15	4.0	14	3.1				758.7	
OMAEZA	0	X	10	15	10.1				19	4.6	18	6.0	11	4.6				802.8	
GIFU	0	X	10	15	10.3	X	16	44.3	9	3.2	6	3.9						829.0	
CHOSHI	0	EX	10	15	11				5	0.8	5	1.2	9					566.3	
HAMAMA	0	X	10	15	12	X	16	47	13	3.0	16	4.0	5	3.6				822.4	
OSAKA	0	EX	10	15	18				14	3.6	14	3.0	6	1.8				966.8	
TOYOOK	0	EP	10	15	21				8	1.4	8	1.0						957.9	
NAGASA	0	EP	10	16	35.3													1510.9	
WAKAYA	0	EX	10	17	41.5				5	6.5	2	6.5	3	6.0				1024.6	

OT= 12 16 12 26.8 +/- 0.2 (JST)
SE OF FUKUSHIMA PREF
LAT= 37 9 +/- 1 LONG= 140 22 +/- 2
H= 80 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
ONAHAM	0	IP	16	12	41.2	IS	12	51.6	14	0.4	16	0.8	8	0.6	S	1	U 5	58.1	10.4
FUKUSH	0	EP	16	12	42.4	IS	12	58.8	20	1.0	16	0.9	5	0.8				68.0	11.4
UTSUNO	1	IP	16	12	44.0	IS	12	56.4	65	0.2	25	0.2	17				U 5	80.2	12.4
MITO	1	P	16	12	45.0	S	12	57.0	18	0.4	24	0.4	9	0.3				86.1	12.0
KAKIOK	0	IP	16	12	45.7	S	12	58.8	13	0.3	22	0.5	8	0.4			U 1	106.1	13.1
MATSUS	0	IP	16	12	58.9	S	13	21							N	E	D	204.1	22.1

International Seismological Centre From the ISC collection scanned by SISMOS

OT= 13 12 40 34.2 +/- 0.2 (JST)
OFF TOKAIDO
LAT= 33 51 +/- 2 LONG= 137 1 +/- 2
H=360 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
OWASE	0	EP	12	41	22.0	IS	41	58.0	7	1.8	8	1.6	7					79.6	36.0
HAMAMA	0	P	12	41	22.8	IS	42	01.4	31	2.4	20	2.4	4	2.2			U 2	115.3	38.6
SHIONO	0	EP	12	41	23.2				15	2.5	3	1.1	17	1.4			U 14	124.5	
OMAEZA	0	EP	12	41	23.4	ES	42	08.4	27	2.0	21	2.8	5	2.6				138.3	40.0
NARA	0	P	12	41	24.0	S	42	02.0									U	142.9	38.0
NAGOYA	0	IP	12	41	24.2				25	3.0	22	2.4	7	1.6	N 1		U 5	145.9	
KYOTO	0	IP	12	41	25.2	ES	42	05.0			5	2.5	3	1.0			U 2	174.5	39.8
OSAKA	0	IP	12	41	25.3				53	3.2	24	2.8	16	2.1			U 11	165.5	
WAKAYA	0	EP	12	41	25.3	ES	42	04.6	22	1.0	8	1.0	7	1.0				175.8	39.3
HIKONE	0	P	12	41	25.5	S	42	05.0										172.9	39.5
GIFU	0	EP	12	41	25.5	S	42	08.9	33	2.0	16	1.7	4	1.9				173.3	38.4
SHIZUO	0	EP	12	41	26.2	S	42	05.5	10	3.0	10	3.0	5	3.0				178.4	39.3
FUKUI	0	EP	12	41	27.1	IS	42	16.1										254.8	46.0
AJIRO	0	EP	12	41	28.1	ES	42	09.9	6	1.8	8	1.8	3	1.6				232.4	41.8
TOKUSH	0	EP	12	41	28.6	ES	42	08.0										226.7	39.4
MAIZUR	0	P	12	41	28.7	S	42	09.4										233.8	40.7
KOFU	0	IP	12	41	28.8	S	42	11.6	10	1.2	11	1.4	4	1.4	S 4	W 4	D 4	245.8	42.8
TATEYA	0	EP	12	41	31.3	S	42	15.0	25	1.0	30	2.2	9	1.4				290.6	43.7
MUROTO	0	P	12	41	31.5	EX	42	17.0	5	1.0	5	0.8						271.8	
TAKAMA	0	IP	12	41	32.0	IS	42	16.2	17	1.8	16	1.2	8	0.6	S 1	W 6	U 5	277.8	44.2
YOKOHA	0	P	12	41	32.8	S	42	16.0	15	0.8	20	0.8	12					299.0	43.2
CHICHI	0	EP	12	41	33.2	S	42	17.6										303.3	44.4
OKAYAM	0	IP	12	41	33.4	S	42	18.8	12	2.4	12	2.4	6	2.4	N 1	W 4	U 5	300.1	45.4
MATSUS	0	IP	12	41	33.4	IS	42	19							S	W	D	317.3	45.6
TOTTOR	0	P	12	41	33.8	S	42	20.9										318.7	47.1
TOKYO	0	EP	12	41	34	ES	42	20	7	0.3	15	0.3	9	0.3				323.0	46.0
KUMAGA	0	EP	12	41	35.0	ES	42	21.2	5	0.8	5	0.8	3	0.6				334.0	46.2
NAGANO	0	P	12	41	35.5	ES	42	21.8	4	1.4	9	2.9	6	0.9			D 5	329.6	46.3
TSURUG	0	EX	12	41	37	ES	42	07.7										217.8	
KAKIOK	0	P	12	41	38.0	ES	42	26	14	0.8	20	0.8	8	0.6	S		D 1	392.1	48.0
UTSUNO	0	P	12	41	38.9	IS	42	27.0	35	0.2	45	0.2	20					396.2	48.1
MATSUY	0	EP	12	41	40.2	IS	42	33.7	12	3.1	4	2.1	3	2.1				392.0	53.5
CHOSHI	0	P	12	41	40.5	S	42	30.4	5	0.6	8	0.8	9					407.2	49.9
MITO	0	EP	12	41	41.6	S	42	32.0	9	0.7	11	0.7	5	1.0				421.6	50.4
HIROSH	0	EP	12	41	43.8	S	42	37.8	6	2.3	7	2.7	2	1.4				426.2	54.0
SHIRAK	0	P	12	41	44.8	S	42	39.2										464.9	54.4
ONAHAM	0	IP	12	41	47.0	IS	42	48.8	23	1.0	15	1.0	6	0.6			D 1	492.5	56.8
HAMADA	0	P	12	41	47.5	S	42	45.4	5	4.0	5	2.8	2	2.2			U	469.0	57.9
KAWAGU	0	X	12	41	48.2	S	42	16.1										242.9	
FUKUSH	0	EP	12	41	51.7	ES	42	52.1	6	1.0	6	0.8	2	0.6				534.2	60.4
SENDAI	0	P	12	41	57.5				5	3	3	3	2	1				601.3	
FUKUOK	0	P	12	42	06.0	S	43	09.0	4	2.2	6	2.2	4	2.0				615.6	63.0
TOYOOK	0	X	12	42	14.2				31	1.2	29	1.2						274.7	
MAEBAS	0	S	12	42	21.3				5	0.8	3	0.8	3					339.0	

OT= 15 1 3 48.8 +/- 1.2 (JST)
SE OFF NEMURO PEN
LAT= 42 58 +/- 3 LONG= 146 2 +/- 7
H= 40 MAG=4.7 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	2	IP	01	03	59.5	IS	04	06.8	97	0.2	120	0.2	106	0.2	S 4	E 8	D 21	54.2	07.3
KUSHIR	1	IP	01	04	10.8	S	04	21.6	50	0.9	71	0.7	29	0.9		E 6	D 5	133.7	10.8
ABASHI	0	EP	01	04	17	S	04	36.2	13	1.8	22	2.4	4	2.0				183.5	19.2
OBIHIR	0	EP	01	04	23													229.6	
HIROO	0	P	01	04	26.0	ES	04	55										235.5	29.0
URAKAW	0	P	01	04	33.8	S	05	06.4	59	1.8	78	2.0	27	1.8				281.9	32.6
ASAHIK	0	EP	01	04	34				8	1.2	7	1.4	8	1.8				309.8	
SAPPOR	0	P	01	04	44.0				10	2.2	10	2.0	5	1.2				383.5	
HACHIN	0	EP	01	04	52.7	ES	05	40.2	7	0.2	4	0.2						462.7	47.5
HAKODA	0	IP	01	04	52.8	ES	05	40	8	2.0	7	0.8	4	1.6			D	452.9	47.2
MORIOK	0	P	01	05	02.6	S	05	55.3	4	0.3	5	0.4	1	0.7			D	545.5	52.7
OFUNAT	0	EP	01	05	05.4	IS	06	00.2	5	0.2	4	0.6	3	1.6				565.4	54.8
AOMORI	0	EX	01	05	48				17	1.9	15	1.7						496.8	
MATSUS	0	P	01	05	56	X	07	32										978.5	

OT= 16 3 8 1.7 +/- 4.1 (JST)
NEAR NAGASAKI
LAT= 32 38 +/- 9 LONG= 129 50 +/-16
H= 10 MAG=4.0 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NAGASA	3	IP	03	08	05.9	IS	08	07.3							N 14	E 32	D 50	9.7	01.4
KUMAMO	0	P	03	08	16.2	ES	08	27.3	13	1.6	9	1.4	6	0.7		W 4	D 3	84.5	11.1
FUKUOK	0	EP	03	08	21.5	IS	08	33.6	29	0.4	22	0.4	2	0.7				116.7	12.1
SAGA	0	X	03	08	23.0	X	08	43.0							S 8	W 5		80.9	
MIYAZA	0	X	03	08	36.8	S	08	52.0	9	0.8	4	0.8	2	0.8				169.8	

OT= 16 5 51 23.0 +/- 0.2 (JST)
KASHIMANADA
LAT= 36 11 +/- 1 LONG= 140 57 +/- 1
H= 50 MAG=3.4 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MITO	X	IP	05	51	34.6	IS	51	41.8	55	0.3	77	0.2	18	0.2		E 3	D 5	48.1	07.2
CHOSHI	0	P	05	51	34.8	IS	51	41.4	3	0.6	7	0.6	10					51.7	06.6
KAKIOK	0	IP	05	51	36.4	S	51	44.6	7	0.3	9	0.3	4	0.2			D 1	68.2	08.2
ONAHAM	0	EP	05	51	38.2	IS	51	47.6	5	0.4	4	0.4	2	0.4				84.6	09.4
UTSUNO	0	P	05	51	40.8	S	51	52.5	10	0.2	7	0.5	9					104.8	11.7
MATSUS	0	IP	05	52	00.7	S	52	31							N	E	U	249.2	30.3

OT= 17 2 42 44.0 +/- 1.0 (JST)
MIDDLE OF CHIBA PREF
LAT= 35 34 +/- 4 LONG= 140 6 +/- 7
H=110 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
YOKOHA	0	P	02	43	01.8	S	43	14.0	7	0.6	8	0.6	11					42.9	12.2
AJIRO	0	EP	02	43	05.5	ES	43	20.5	4	0.2	5	0.2	1	0.3				108.1	15.0
UTSUNO	0	EP	02	43	06	S	43	21.4	5	0.2	6	0.2	6					110.6	15.4
KOFU	0	EP	02	43	14.0	S	43	26.8	8	0.4	5	0.4	2	0.4				140.1	12.8
MATSUS	0	IP	02	43	16.0	S	43	40									U	201.6	24.0

OT= 17 7 58 59.4 +/- 0.5 (JST)
NEAR UNZENDAKE
LAT= 32 47 +/- 2 LONG= 130 9 +/- 2
H= 0 MAG=3.5 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
UNZEND	2	IP	07	59	02.8	ES	59	04.5										11.1	01.7
NAGASA	0	P	07	59	06.3	IS	59	10.6									U	27.3	04.3
KUMAMO	0	IP	07	59	10.3	IS	59	20.6	10	1.9	11	2.5	8	0.9				52.5	10.3
SAGA	0	EP	07	59	15.5	IS	59	18.1										56.2	02.6
FUKUOK	0	IP	07	59	17.3	IS	59	28.7	10	0.4	12	0.4	2	0.6				90.9	11.4

OT= 18 22 32 3.6 +/- 0.5 (JST)
NE OFF HOKKAIDO
LAT= 46 0 +/- 3 LONG= 142 44 +/- 7
H=360 CLASS=R

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
WAKKAN	0	IP	22	32	51.4	IS	33	26.9	400	2.4	200	2.6				S 15	W 26 U211	104.6	35.5
						ScS	43	43.5											
ASAHIK	0	EP	22	33	00	ES	33	44	254	2.6	413	2.2	182	0.8				249.5	44.0
RUMOI	X	IP	22	33	00.2	IS	33	42.0								S 36	W 10 U 76	243.9	41.8
ABASHI	0	EP	22	33	01	S	33	48.0	300	2.4	700	3.0	200	2.6				252.1	42.0
KUSHIR	3	IP	22	33	06.6	ES	33	53	400	0.6	500	1.0				S 6	E 3 U 8	360.9	46.4
SAPPOR	0	IP	22	33	07.0	ES	33	55	800	2.0	500	2.4	200	2.4		S140	W 15 U188	345.4	48.0
OBIHIR	2	IP	22	33	07.4	S	33	56.3									U 98	344.6	48.9
NEMURO	2	P	22	33	07.5	IS	33	57.0	126	2.2	144	2.6	77	3.8	N	W	D 1	373.4	49.5
HIROO	3	IP	22	33	10.2	IS	34	01.2								S 4	E 2 U 10	415.7	51.0
SUTTSU	0	IP	22	33	10.9	ES	33	56.2								S 27	W 23 U 85	408.3	45.3
URAKAW	3	IP	22	33	13.4	IS	34	05.6	700	2.8	800	2.4	300	2.0		S 16	W 9 U 81	427.0	52.2
MURORA	X	IP	22	33	13.9	S	34	08.1	100	1.8	100	2.0	100	2.1		S 16	W 4 U 43	432.6	54.2
HAKODA	1	IP	22	33	18.6	S	34	16.3	400	2.0	300	0.9	200	1.9		S 72	W 22 U143	491.6	57.7
AOMORI	2	IP	22	33	28.6	S	34	36.3	1750	2.0	950	1.8	550	1.6		S 57	U 51	597.2	67.7
HACHIN	3	IP	22	33	29.9	IS	34	32.6	214	1.6	231	2.0	96	2.0		S 21	W 5 U 26	616.2	62.7
MIYAKO	2	IP	22	33	39.3	IS	34	50.2	155	2.3	287	2.1	126	2.1		S 20	W 2 U 14	708.9	70.9
MORIOK	2	IP	22	33	40.3	IS	34	54.0	223	0.4	326	0.4	150	2.0		S 6	W 1 U 4	711.9	73.7
AKITA	0	P	22	33	42.8	S	34	59.6	184	2.0	245	2.4	113	2.6		S 4	U 35	730.2	76.8
OFUNAT	2	IP	22	33	47.4	IS	35	04.4	118	0.6	214	1.4	178	1.6		S 37	W 8 U 42	775.3	77.0
SAKATA	0	EP	22	33	52.9	IS	35	22.1	500	2.0	600	2.0	200	2.0				828.5	89.2
ISHINO	1	IP	22	33	55.0	IS	35	19.0	115	2.8	257	2.0	153	2.4		S 24	W 6 U 27	849.7	84.0
SENDAI	X	IP	22	33	57.7	IS	35	24.4	293	2.0	308	2.1	155	2.2		S 28	W 9 U 56	873.0	86.7
YAMAGA	0	IP	22	33	59.1	S	35	25.8	200	2.0	200	2.2	100	2.2		S 14	W 3 U 20	882.8	86.7
FUKUSH	1	IP	22	34	04.3	S	35	37.5	160	0.9	119	1.2	59	2.2		S 16	W 6 U 10	934.6	93.2

International Seismological Centre From the ISC collection scanned by SISMOS

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
AIKAWA	0	IP	22	34	07.9	IX	35	44.0	60	3.2	70	2.6	50	2.0				961.0	
SHIRAK	0	P	22	34	12.6	S	35	48.7	100	2.0	100	2.0	50	2.6				1008.4	96.1
ONAHAM	1	IP	22	34	13.2	IS	35	57.6	328	3.9	252	1.9	121	2.5			U 12	1017.2	104.4
TAKADA	0	IP	22	34	18.2	ES	36	00.9									U 13	1056.0	102.7
UTSUNO	0	IP	22	34	19.6	S	36	04.2	50	1.0	60	0.8	30					1076.8	104.6
WAJIMA	0	IP	22	34	20.0	ES	36	08	90	1.2	114	1.0	35	2.4			U 20	1072.0	108.0
MITO	0	IP	22	34	20.2	IS	36	09.0	215	2.1	234	2.0	181	2.2			U 12	1085.2	108.8
KAKIOK	0	IP	22	34	21.6	S	36	03	159	0.9	142	0.8	45	0.7	S	6 W	2 U 3	1105.5	101.4
MAEBAS	0	IP	22	34	23.7	S	36	18.1	15	1.2	20	1.2	18					1109.3	114.4
MATSUS	0	IP	22	34	23.8	S	36	16							S	W	U	1116.7	112.2
NAGANO	0	P	22	34	24.0	X	36	25.1	67	2.3	58	2.3	43	2.3	S	5 W	1 U 10	1104.3	
KANAZA	0	EP	22	34	26	ES	36	25	45	2.6	40	2.2	45	3.5				1166.4	119.0
TOYAMA	0	P	22	34	26.0	IS	36	22.0	57	2.4	69	2.8	44	3.0			U 33	1130.4	116.0
KARUIZ	0	IP	22	34	26.5	S	36	09.4	100	2.2	200	2.0	100	1.4			U 9	1128.4	102.9
KUMAGA	0	P	22	34	26.6	ES	36	17.6	93	2.6	95	1.2	65	3.0			U 14	1129.7	111.0
CHICHI	0	EP	22	34	27.6	ES	36	25.3										1152.9	117.7
CHOSHI	0	IP	22	34	27.6	S	36	16.6	50	0.6	45	0.6	20		S	1 W	1 U 2	1152.1	109.0
MATSUM	0	EP	22	34	29.3	X	36	06.1							S	W	U	1154.5	
TOKYO	0	P	22	34	30.8	S	36	30.0	103	2.4	97	3.0	95	3.2				1172.5	119.2
TAKAYA	0	EP	22	34	31.6													1186.0	
KOFU	0	IP	22	34	33.2	ES	36	35.4	108	2.2	77	2.0	59	2.0	S	7 W	3 U 15	1200.1	122.2
	0					ESCS	46	38.0											
KAWAGU	0	EP	22	34	33.6	ES	36	29.6										1213.1	116.0
YOKOHA	0	IP	22	34	34.8													1201.4	
IIDA	0	IP	22	34	37.2	IS	36	45.2	44	2.4	26	2.0	15	2.0	S	10 W	6 U 15	1235.6	128.0
AJIRO	0	EP	22	34	37.5	ES	36	42.0	20	2.0	25	2.0	11	1.8				1254.8	124.5
TATEYA	0	EP	22	34	37.5	S	36	45.1	174	2.8	151	2.4	53	1.9				1247.0	127.6
FUKUI	0	P	22	34	37.7	IS	36	46.5							S	14 W	4 U 16	1231.8	128.8
MISHIM	0	IP	22	34	37.8	S	36	45.6	88	3.5	100	2.0	37	3.4	S	4		1250.9	127.8
OSHIMA	0	EP	22	34	40.7	S	36	44.1	45	2.0	37	3.3	22	2.0				1279.8	123.4
SHIZUO	0	IP	22	34	41.5	S	36	49.7	33	2.6	32	2.0	23	1.3	S	5 W	2 U 8	1277.8	128.2
TSURUG	0	IP	22	34	42.3	S	36	54.3							S	6 W	2 U 7	1278.6	132.0
GIFU	0	P	22	34	42.3	S	36	56.7	131	2.4	48	2.8	32	2.1	S	14 W	8 U 14	1279.9	134.4
NAGOYA	0	IP	22	34	43.8	IS	36	55.8	77	2.2	59	2.4	37	1.2			U 13	1297.6	132.0
HAMAMA	0	IP	22	34	45.5	ES	36	58	35	3.0	42	3.0	17	3.2			U 2	1323.4	132.5
HIKONE	0	P	22	34	45.6												U	1310.4	
MAIZUR	0	IP	22	34	46.9										S	3	U	1322.3	
OMAEZA	0	IP	22	34	47.4	ES	37	02.0	114	2.4	64	2.0	46	2.2	S	3 W	4 U 18	1322.0	134.6
TOYOOK	0	IP	22	34	49.0	S	37	02.4	133	1.3	131	1.1	27	1.6	S	21 W	11 U 16	1338.8	133.4
SAIGO	0	IP	22	34	49.3	S	37	05.7	19	2.5	26	4.7	30	1.2	S	2 W	1 U 2	1342.2	136.4
KYOTO	0	IP	22	34	50.3	ES	37	05.0	24	3.7	15	2.5	31	1.5	S	2 W	1 U 1	1355.5	134.7
TSU	0	P	22	34	50.9	S	37	05.2	30	3.2	48	2.3	10	2.0				1360.1	134.3
TOTTOR	0	P	22	34	51.3													1368.8	
NARA	0	P	22	34	53.3				100	2.0	50	2.0	50	1.8			U	1385.4	
OSAKA	0	IP	22	34	54.8	ES	37	13	58	4.0	69	3.0	28	2.5			U 10	1397.2	138.2
OSAKA2	0	IP	22	34	55.0	S	37	12.7										1398.9	137.7
KOBE	0	P	22	34	56.0												U 9	1409.0	
OWASE	0	IP	22	34	57.0	ES	37	19.6	19	2.2	8	2.2	9	2.0				1436.5	142.6
HIMEJI	0	P	22	34	57.6													1413.0	
MATSUE	0	EP	22	34	59.1	X	37	25.1										1425.1	
WAKAYA	0	P	22	35	01.0	S	37	26.0	38	1.0	10	2.1	11	3.0				1456.2	145.0
HACHIJ	0	P	22	35	01.6	S	37	26.4	49	0.6	45	0.7	45	0.6			U 8	1454.0	141.8
OKAYAM	0	EP	22	35	01.6	ES	37	24.6	17	1.4	20	4.6	16	2.4	S	3 W	4 U 6	1461.1	143.0
TAKAMA	0	EP	22	35	03.5	ES	37	31.4	16	1.2	14	2.7	10	2.3				1491.0	147.9
TOKUSH	0	EP	22	35	05.5	X	37	55.6										1495.1	
SHIONO	0	EP	22	35	06.3	S	37	35.9	33	3.3	35	3.7	13	1.2				1514.8	149.6
HAMADA	0	IP	22	35	09.0	S	37	41.0	14	3.6	22	6.4	14	2.4	S	1 W	U	1526.4	152.0
HIROSH	0	P	22	35	13.1	ES	37	46.3	31	2.4	21	3.2	42	2.5	S	11 W	8 U 11	1558.7	153.2
MUROTO	0	IP	22	35	15.2	EX	37	56.4	8	1.4	8	2.0	8	2.0	S	1	U 1	1592.7	
KOCHI	0	IP	22	35	16.7	ES	37	51.9							S	2 W	2 U 2	1588.7	155.2
MATSUY	0	IP	22	35	17.6	ES	37	56.1	38	2.7	38	2.5	43	2.1	S	13 W	7 U 14	1593.1	155.5
UWAJIM	0	EP	22	35	22	ES	38	01										1662.8	159.0
SHIMON	0	EP	22	35	23.7	ES	38	09.2	16	4.8	5	1.4	13	3.8				1670.6	165.5
ASHIZU	0	P	22	35	26.4	ES	38	12.2	33	2.6	16	2.3	20	2.2			U 1	1692.9	165.8
FUKUOK	0	IP	22	35	28.5	ES	38	16.5	22	2.5	48	2.6	28	2.5			U 2	1733.8	168.0
NOBEOK	0	EP	22	35	32.6	ES	38	27.1										1764.6	174.5
SAGA	0	EP	22	35	33.4	S	37	48.0										1768.6	134.6
KUMAMO	0	P	22	35	34.7	S	38	30.2	55	2.7	46	3.5	18	2.1			U 3	1789.1	175.5
MIYAZA	0	P	22	35	39.7	S	38	47.9	21	2.6	32	2.8	26	2.4				1840.9	188.2
NAGASA	0	P	22	35	39.8	S	38	39.3										1840.1	179.5
FUKUE	0	EP	22	35	44.8	ES	38	47.8	7	4.6	5	3.8	7	4.2				1895.7	183.0
KAGOSH	0	EP	22	35	46.0	EX	38	56.0	48	2.6	50	2.8	8	1.8				1914.5	
YAKUSH	0	IP	22	35	57.4	EX	39	10.0	9	2.1	6	5.6	9	2.1	S	3	U 3	2026.1	

OT= 19 13 29 52.1 +/- 3.4 (JST)
E OFF HOKKAIDO
LAT= 42 54 +/-14 LONG= 148 27 +/-18
H= 40 MAG=5.2 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	0	P	13	30	26.2	S	30	57.8	49	3.2	64	4.2	40	3.0			U 1	237.9	31.6
KUSHIR	0	EX	13	30	39	ES	31	08	29	4.0	40	3.2	22	4.0				331.1	
ABASHI	0	EP	13	30	43	ES	31	28	22	3.4	38	2.8	15	4.4				359.4	45.0
URAKAW	0	P	13	30	59.9	S	31	45.6	27	3.6	31	4.0	20	4.2				478.1	45.7
OBIHIR	0	EX	13	31	00													427.0	
ASAHIK	0	EP	13	31	04				11	2.6			10	3.0				502.2	
SAPPOR	0	EP	13	31	08				12	2.4	11	2.4	6	3.0				580.9	
HAKODA	0	EX	13	31	23	ES	32	34	5	3.6	6	4.3	3	3.6				645.0	
MORIOK	0	P	13	31	29.0	X	32	33.3	8	0.4	5	0.4	2	0.6				705.8	
AOMORI	0	EX	13	31	37				20	2.4	14	2.4						677.1	
SENDAI	0	EX	13	31	50				6	2.3	6	3	2	3				820.5	
FUKUSH	0	EX	13	32	18.0				9	1.0	3	0.8	2	0.9				885.6	
MATSUS	0	P	13	32	20	X	34	09										1125.5	
WAKKAN	0	EX	13	32	27				10	5.0	15	4.1	11	3.6				609.0	

OT= 20 14 39 56.4 +/- 0.3 (JST)
E OFF CHIBA PREF
LAT= 35 14 +/- 2 LONG= 140 33 +/- 2
H= 80 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
CHOSHI	1	P	14	40	10.9	S	40	18.6	100	0.8	70	0.8	20					60.7	07.7
TATEYA	0	P	14	40	12.8	IS	40	20.1	132	0.8	158	1.2	27	0.7				68.0	10.3
YOKOHA	1	P	14	40	13.8	S	40	25.4	200	0.8	280	0.6	21					84.4	11.6
TOKYO	2	P	14	40	14.1	IS	40	25.1	70	0.6	110	0.4	47	0.5				87.6	11.0
OSHIMA	2	P	14	40	17.3	IS	40	30.0	93	0.2	52	0.6	74	0.2	N	5 E	6 D 5	119.0	12.7
AJIRO	0	P	14	40	19.0	IS	40	33.0	23	0.2	24	0.2	7	0.3				134.1	14.0
MITO	0	EP	14	40	19.9	S	40	34.5	59	2.3	53	2.6	32	3.0				127.2	14.6
MISHIM	0	EP	14	40	21.1	S	40	35.3	50	0.8	56	0.8	31	2.2				148.2	14.2
KUMAGA	1	P	14	40	22.0	ES	40	36.4	53	1.4	50	1.4	37	2.2			D 4	146.2	14.4
CHICHI	0	EP	14	40	22.2	ES	40	38.7										157.4	16.5
KAWAGU	0	IP	14	40	23.2	IS	40	39.4										165.0	16.2
KOFU	0	IP	14	40	25.4	ES	40	43.0	42	0.6	34	0.7	14	1.0			D 1	187.0	17.6
SHIZUO	0	EP	14	40	26.2	IS	40	48.5	13	2.0	23	1.0	9	1.5				197.5	22.3
ONAHAM	0	EP	14	40	26.4	ES	40	45.6	14	1.2	17	1.1	6	0.8				192.6	19.2
MAEBAS	0	P	14	40	26.5	S	40	46.0	15	0.6	20	0.8	14					186.5	19.5
SHIRAK	0	EP	14	40	28.2	ES	40	50.2										211.2	22.0
KARUIZ	0	EP	14	40	30.2	ES	40	55.0										218.4	24.8
OMAEZA	0	EP	14	40	32.5	ES	40	55.7	19	2.8	16	2.2	7	1.0				224.6	23.2
MATSUS	0	IP	14	40	34.4	ES	41	02								W	U	256.2	27.6
IIDA	0	EP	14	40	34.6	ES	41	00.8	12	2.0	10	1.4	5	1.4				248.6	26.2
HACHIJ	0	EP	14	40	35.0	ES	41	01.4	14	0.6	15	0.5						246.6	26.4
MATSUM	0	EP	14	40	36.4	S	41	03.2										258.6	26.8
NAGANO	0	EP	14	40	36.8	ES	41	05.7	12	2.0	11	3.1	5	1.2				264.8	28.9
HAMAMA	0	EP	14	40	40	ES	41	07	10	3.8	10	3.8	5	3.0				264.5	27.0
SENDAI	0	EX	14	40	44				9	2.0	9	1.9	5	1.4				337.3	
TOYAMA	0	EP	14	40	46	ES	41	25	11	4.0	11	3.4	7	2.4				342.8	39.0
ISHINO	0	P	14	40	46.5	ES	41	22.0	6	1.6	4	1.4	3	1.6				360.4	35.5
NAGOYA	0	EP	14	40	47.0	ES	41	22.8	14	2.0	13	2.2	7	2.0				326.2	35.8
GIFU	0	X	14	40	53.4	X	41	28.3	13	1.6	8	2.2						344.6	
KAKIOK	0	X	14	40		ES	40	27	91	0.8	83	0.8	28	0.6				115.3	
FUKUSH	0	EX	14	40					15	0.8	16	0.8	6	0.6				280.0	
WAJIMA	0	EX	14	41	00				9	1.2	8	0.8						405.9	
KANAZA	0	X	14	41	05.0	ES	41	32.4	8	2.2	7	3.0	6	2.4				381.1	
OSAKA	0	EX	14	41	26				11	3.2	11	2.8	6	1.0				463.2	
FUKUI	0	X	14	41	31.5													401.9	
AKITA	0	EX	14	41	37.0				8	2.6	10	2.8	7	2.2				499.3	
SAKATA	0	EX	14	41	42.8													412.1	
TOYOOK	0	X	14	42	16				10	1.1	13	1.1						521.5	

OT= 20 21 16 24.8 +/- 0.3 (JST)
S OF OKAYAMA PREF
LAT= 34 31 +/- 1 LONG= 133 37 +/- 1
H= 0 MAG=3.9 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
OKAYAM	1	IP	21	16	32.7	IS	16	36.0	197	0.2	71	0.1	27	0.3	S	2 W	7 D	32.9	03.3
TAKAMA	0	IP	21	16	36.3	IS	16	42.2	23	0.9	19	0.9	10	1.0	N	5 W	5 D 6	46.3	05.9
KOCHI	0	IP	21	16	44.4	IS	16	58.3							S	2		107.5	13.9
TOKUSH	0	EP	21	16	45.9	ES	16	58.2										101.6	12.3
MATSUE	0	EP	21	16	46.9	S	16	59.3										115.3	12.4
HIROSH	0	IP	21	16	46.9	IS	17	00.7	7	0.2	8	0.2	4	0.2			D 1	109.7	13.8
MATSUY	0	EP	21	16	47.4	ES	17	01.7	18	0.7	20	0.5	7	0.6				107.6	14.3
MUROTO	0	EP	21	16	54.0	X	17	36.0	5	1.0	5	1.0						149.9	
KOBE	0	EX	21	17	07.1													144.6	
TOYOOK	0	S	21	17	08.9				31	1.1	29	1.1						157.6	
MATSUS	0	X	21	17	47	S	18	39										472.8	

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OT= 21 5 41 4.1 +/- 0.2 (JST)
NEAR TATEYAMA
LAT= 34 57 +/- 1 LONG= 139 40 +/- 2
H= 40 MAG=3.0 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
TATEYA	0	EP	05	41	11.6	IS	41	16.9	22	0.6	8	0.3	8	0.3				18.8	05.3
OSHIMA	0	P	05	41	13.1	ES	41	18.0	11	0.2	8	0.6	8	0.2				36.6	04.9
AJIRO	0	EP	05	41	15.6	S	41	21.9	7	0.2	8	0.2	2	0.2				53.0	06.3
MATSUS	0	IP	05	41	37.2	S	42	00							N		U	220.1	22.8

OT= 21 10 54 25.6 +/- 0.4 (JST)
NEAR CHOSHI
LAT= 35 38 +/- 2 LONG= 140 49 +/- 3
H= 30 MAG=3.6 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
CHOSHI	2	P	10	54	31.2	S	54	35.7										10.5	04.5
MITO	0	EP	10	54	40.6	S	54	51.5	4	0.4	8	0.8	2	0.4				88.3	10.9
KAKIOK	0	EP	10	54	41	ES	54	49	10	0.9	8	1.1	4	0.5				87.0	08.0
MATSUS	0	IP	10	55	04.0	S	55	33									U	255.4	29.0

OT= 21 19 18 2.6 +/- 1.1 (JST)
NEAR AMAMIOSHIMA
LAT= 28 5 +/- 4 LONG= 130 43 +/- 9
H= 80 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
YAKUSH	0	IP	19	18	39.9	S	19	06.2	77	1.1	80	0.7	28	0.5	S 2		D 1	263.0	26.3
NAHA	0	EP	19	18	54	ES	19	26	7	2.5	12	2.2	5	2.9				363.6	32.0
KAGOSH	0	EP	19	18	58.0	ES	19	33.7	31	1.6	31	1.4	14	1.4				387.0	35.7
MIYAZA	0	P	19	19	01.3	S	19	42.9	22	0.9	27	0.9	7	0.6				430.2	41.6
KUMAMO	0	P	19	19	12.4	IS	20	04.1	17	2.5	15	2.0	7	1.4	S 1		D 1	526.7	51.7
NAGASA	0	P	19	19	14.0	S	20	07.0									U	519.6	53.0
SAGA	0	EP	19	19	17.7	IS	20	15.9										573.3	58.2
FUKUOK	0	EP	19	19	24.0	ES	20	24.5	4	1.2	5	2.8	2	1.5				609.9	60.5
MATSUS	0	IP	19	20	34.0	S	22	30							N	E	U	1172.0	116.0

OT= 21 21 20 14.4 +/- 0.5 (JST)
E OFF HOKKAIDO
LAT= 42 32 +/- 2 LONG= 145 3 +/- 2
H= 0 MAG=4.7 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KUSHIR	2	IP	21	20	30.8	IS	20	41.2	143	0.3	134	0.2	58	0.4	S 10	E 16	D 28	72.9	10.4
NEMURO	1	EP	21	20	34	IS	20	46.2	97	0.2	114	0.2	43	0.4				98.6	12.2
HIROO	0	IP	21	20	40.9	S	21	01.3									U 5	145.4	20.4
OBIHIR	0	P	21	20	41.8	S	21	01.8										155.8	20.0
ABASHI	0	P	21	20	45.0	S	21	05.8	14	1.4	11	1.0	6	2.2		E 1	D 1	176.2	20.8
URAKAW	0	P	21	20	47.6	S	21	08.7	42	1.8	52	1.6	35	3.4		W 1	U 2	191.7	21.1
ASAHIK	0	EP	21	20	56				13	1.0	12	2.0	12	3.0				257.5	
SAPPOR	0	P	21	21	02.8	ES	21	35	16	1.8	22	1.6	8	0.8				309.8	32.2
HAKODA	0	P	21	21	07.4	ES	21	46	9	1.0	5	1.6	3	2.4			U	363.5	38.6
WAKKAN	0	EX	21	21	18				4	3.0	4	4.2	5	3.1				418.8	
AOMORI	0	X	21	21		ES	22	09	18	1.4	19	1.4	8	1.1				403.2	
MATSUS	0	X	21	22		X	23	40							S		U	887.6	

OT= 22 1 33 54.9 +/- 2.2 (JST)
E OFF KWANTO
LAT= 36 37 +/- 7 LONG= 142 39 +/-10
H= 60 MAG=4.1 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
ONAHAM	0	EP	01	34	19.5	ES	34	34.2	8	1.0	5	0.6	1	0.4				159.8	14.7
KAKIOK	0	EP	01	34	28	ES	34	54	7	0.9	6	1.0	2	1.0				224.4	26.0
FUKUSH	0	EX	01	34	29.0				5	1.0	4	1.0	2	0.5				230.8	
SENDAI	0	EP	01	34	31.2	ES	34	54.5	5	1.2	4	1.2	3	1.8				239.2	23.3
MATSUS	0	IP	01	34	50.6	S	35	27								W	U	397.5	36.4

OT= 22 6 57 36.4 +/- 0.4 (JST)
KASHIMANADA
LAT= 36 51 +/- 1 LONG= 140 55 +/- 3
H= 70 CLASS=S

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
ONAHAM	X	IP	06	57	47.4	IS	57	54.0	12	0.5	9	0.8	10	0.3				10.6	06.6
SHIRAK	0	P	06	57	51.5	IS	58	01.2										68.4	09.7
MITO	1	IP	06	57	52.0	IS	58	02.6	24	0.3	36	0.2	13	0.2			U 8	65.7	10.6
KAKIOK	0	IP	06	57	53.4	S	58	06.5	17	0.3	20	0.3	7	0.3				94.3	13.1
UTSUNO	0	P	06	57	54.7	S	58	07.2										99.2	12.5
FUKUSH	0	EP	06	57	56.1	S	58	07.8	14	0.3	9	0.7	3	0.5				108.0	11.7
MATSUS	0	IP	06	58	13.4	S	58	31									N E D	244.4	17.6

OT= 23 16 6 59.4 +/- 0.4 (JST)
BUNGO-SUIDO
LAT= 33 21 +/- 2 LONG= 132 18 +/- 2
H= 30 MAG=3.8 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
UWAJIM	2	IP	16	07	06.6	IS	07	12.6										27.8	06.0
MATSUY	0	EP	16	07	12.0	IS	07	20.5	22	0.5	29	0.6	7	0.6				70.3	08.5
ASHIZU	0	EP	16	07	15.5	ES	07	28.5	6	0.4	7	0.4	4	0.4				97.0	13.0
KUMAMO	0	EP	16	07	25.9	ES	07	41.4	6	1.5	7	1.3						160.0	15.5
MIYAZA	0	X	16	07	53.7				4	0.8	5	0.8	2	0.3				178.8	

OT= 24 4 45 5.3 +/- 0.2 (JST)
SW OF IBARAKI PREF
LAT= 36 23 +/- 2 LONG= 140 1 +/- 2
H= 70 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
KAKIOK	0	IP	04	45	15.6	S	45	24.5	32	0.3	31	0.3	8	0.3			U 7	23.1	08.9
UTSUNO	1	P	04	45	16.2	S	45	25.3										22.3	09.1
MITO	0	IP	04	45	17.8	S	45	28.1	8	0.3	17	0.3	5	0.3				40.8	10.3
KUMAGA	0	P	04	45	20.4	S	45	30.6	21	0.4	27	0.8	6	0.2			D 6	62.5	10.2
MAEBAS	0	P	04	45	21.8	S	45	35.2										85.4	13.4
TOKYO	0	EP	04	45	22	S	45	34	5	0.6	5	0.6	5	0.6				80.9	12.0
CHICHI	0	EP	04	45	22.4	ES	45	34.2										94.7	11.8
ONAHAM	0	IP	04	45	24.0	IS	45	37.2	7	0.8	6	1.2	2	0.8			U 1	101.1	13.2
AJIRO	0	EP	04	45	30.3	S	45	48.0	6	0.2	7	0.2	1	0.3				170.4	17.7
KOFU	0	EP	04	45	30.6	ES	45	48.6	6	0.4	5	0.4	2	0.8				158.7	18.0
MATSUS	0	IP	04	45	30.8	ES	45	46								E	D	163.0	15.2

OT= 25 3 10 31.8 +/- 0.1 (JST)
NEAR MITO
LAT= 36 36 +/- 1 LONG= 140 31 +/- 2
H= 60 MAG=3.6 CLASS=L

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
MITO	1	IP	03	10	42.4	IS	10	49.4	50	0.5	60	0.4	16	0.3		E 3	D 3	24.9	07.0
ONAHAM	0	EP	03	10	44.0	IS	10	52.0	9	0.8	9	1.0	3	0.8				51.7	08.0
KAKIOK	0	IP	03	10	44.2	S	10	51.6	38	0.5	58	0.4	16	0.5				50.1	07.4
UTSUNO	0	P	03	10	44.8	S	10	54.3										58.0	09.5
TOKYO	0	EP	03	10	55	IS	11	07.5	5		4							122.3	12.5
KUMAGA	0	X	03	11	01.6	ES	11	06.6	6	0.2	5	0.8	2	0.6				116.3	
MATSUS	0	IP	03	11	04.3	S	11	27								W	U	206.7	22.7

OT= 28 10 19 4.8 +/- 2.2 (JST)
E OFF HOKKAIDO
LAT= 43 17 +/-11 LONG= 148 24 +/-11
H= 40 MAG=5.1 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S A/T *	S	E-W A/T *	S	U-D A/T *	S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	0	P	10	19	38.1	ES	19	59	27	1.4	33	1.8	29	1.8		W 1	U 1	228.4	20.9
KUSHIR	0	EP	10	19	51	ES	20	29	18	2.2	25	1.4	12	2.0				327.7	38.0
ABASHI	0	EP	10	19	55	ES	20	32	11	3.0	17	3.6	7	3.0				342.0	37.0
URAKAW	0	P	10	20	11.9	S	21	06.9	14	2.2	21	2.2	8	1.0				477.0	55.0
OBIHIR	0	EX	10	20	13													423.5	
SAPPOR	0	EP	10	20	24				9	2.0	11	2.0	3	2.4				575.3	
AOMORI	0	EX	10	20	46				12	1.7	18	1.5	6	1.1				687.3	
FUKUSH	0	EX	10	21	08.0				10	1.0	5	1.0						909.0	
MATSUS	0	IP	10	21	33.8	X	23	22									U	1147.5	

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OT= 28 13 24 33.0 +/- 3.7 (JST)
E OFF HOKKAIDO
LAT= 43 10 +/-12 LONG= 148 9 +/-19
H= 0 MAG=4.7 CLASS=U

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	0	EP	13	25	07	ES	25	31	16	1.2	25	1.4	13	1.2				209.0	24.0
ABASHI	0	EP	13	25	22	ES	26	09	8	1.8	10	3.4	7	3.2				326.3	47.0
KUSHIR	0	EP	13	25	24	ES	25	55	10	0.5	11	0.4	6	4.0				306.6	31.0
URAKAW	0	P	13	25	40.8	X	26	45	11	1.2	9	1.2	4	2.6				454.3	
MATSUS	0	P	13	27	02	S	29	05										1123.5	123.0

OT= 28 13 52 57.2 +/- 2.2 (JST)
E OFF HOKKAIDO
LAT= 43 36 +/-16 LONG= 148 58 +/-12
H= 80 CLASS=M

NEMURO	1	P	13	53	36.0	ES	54	04	90	2.0	124	2.0	93	2.0			U 1	275.2	28.0
KUSHIR	0	P	13	53	48.9	ES	54	22	47	1.8	61	2.8	34	3.0			U 4	377.4	33.1
ABASHI	0	P	13	53	52.6	S	54	19.6	44	1.6	46	1.8	31	2.4	N	W 7	U 6	379.7	27.0
OBIHIR	0	EP	13	54	02													472.6	
HIROO	0	EP	13	54	03	ES	54	52										483.8	49.0
URAKAW	0	P	13	54	10.6	S	55	04.2	60	2.0	68	2.0	32	3.6			U 1	530.2	53.6
ASAHIK	0	EP	13	54	12				26	2.6	18	3.0	15	2.4				532.0	
SAPPOR	0	EP	13	54	22	ES	55	25	22	2.2	30	2.0	10	4.0				622.1	63.0
WAKKAN	0	EX	13	54	26				13	4.8	18	4.4	18	4.3				613.1	
RUMOI	0	EX	13	54	26													591.6	
HAKODA	0	EP	13	54	29	ES	55	48	22	4.0	14	2.6	7	2.0				701.0	79.0
MORI	0	EP	13	54	29.2	X	55	26.3	5	2.0	2	1.6	6	3.8			D	705.5	
AOMORI	0	EP	13	54	38	ES	55	54	37	2.0	30	1.8	11	1.4				742.8	76.0
MORIOK	0	EP	13	54	38.2	X	55	48.2	5	0.8	5	0.4	5	1.6			U 0	780.6	
OFUNAT	0	EP	13	54	40.0	X	55	45.0	4	1.4	5	1.2	6	2.0				788.4	
ISHINO	0	EP	13	54	48.7	X	56	01.2	7	2.4	5	2.6	3	2.0			U	863.0	
SENDAI	0	EX	13	54	54.0	X	56	09.2	13	2.4	9	1.9	5	1.9				901.1	
FUKUSH	0	EX	13	55	03.4				13	1.0	6	1.0						966.8	
AKITA	0	EX	13	55	18.6				14	2.4	10	2.8	7	2.2				854.5	
MATSUS	0	IP	13	55	32.5	S	57	30							N	E D		1205.4	117.5
SAKATA	0	EX	13	56	15.7													925.3	
ONAHAM	0	X	13	56	35.2				9	0.9	6	1.2	3	0.9				1007.0	
MITO	0	EX	13	56	51.4				10	3.5	10	2.7	4	1.6				1080.2	
KUMAGA	0	EX	13	57	12.4				5	2.0	6	2.8	3	2.4				1163.3	

OT= 28 14 6 43.9 +/- 2.1 (JST)
E OFF HOKKAIDO
LAT= 43 4 +/- 6 LONG= 148 31 +/-12
H= 50 MAG=4.8 CLASS=U

NEMURO	0	EP	14	07	18	ES	07	45	18	1.4	20	1.6	17	2.0				240.0	27.0
ABASHI	0	EP	14	07	34	ES	08	14	8	1.8	10	2.8	5	3.0				358.1	40.0
KUSHIR	0	EX	14	07	35				12	2.2	13	2.4	6	3.4				336.1	
URAKAW	0	P	14	07	51.9	S	08	37.5	8	2.0	10	2.0	5	2.6				481.4	45.6
ASAHIK	0	EP	14	07	53				5	1.0								503.6	
SAPPOR	0	EX	14	08	09				6	2.0	6	1.8	2	1.8				585.2	
MATSUS	0	IP	14	09	13.2	X	11	00									U	1140.8	

OT= 28 16 44 21.2 +/- 0.2 (JST)
MIDDLE OF GIFU PREF
LAT= 35 44 +/- 1 LONG= 137 5 +/- 1
H= 10 MAG=4.7 CLASS=S

TAKAYA	0	P	16	44	30.9	ES	44	36.9							N 26	E 2	U 42	48.9	06.0
GIFU	1	IP	16	44	31.8	IS	44	38.5	129	1.3	138	1.1	46	0.7	S 8	W 25	U 35	47.0	06.7
NAGOYA	1	IP	16	44	34.6	IS	44	42.3	69	1.0	56	1.0	35	1.0	S 2		U 24	63.9	07.7
IIDA	0	IP	16	44	35.0	IS	44	44.0	34	0.4	33	0.8	25	0.6		W 29	D 25	72.4	09.0
MATSUM	0	EP	16	44	39.1	ES	44	49.9										98.2	10.8
TSURUG	1	IP	16	44	39.4	IS	44	50.2	100	1.6	100							92.6	10.8
HIKONE	0	P	16	44	40.3	S	44	51.8										91.4	11.5
TOYAMA	0	IP	16	44	42.8	IS	44	55.6	36	0.6	26	0.6	22	0.6			U 13	108.6	12.8
KOFU	1	IP	16	44	43.6	IS	44	59.0	79	0.4	66	0.4	22	0.7	N 1	W 5	D 4	133.7	15.4
KANAZA	0	EP	16	44	44.0	ES	44	52.8	65	2.1	70	2.0	30	2.0				98.4	08.8
HAMAMA	0	P	16	44	44.6	IS	44	59.4	52	0.2	116	0.4	22	0.2				127.7	14.8
TSU	0	P	16	44	44.7	S	44	59.8	63	0.7	83	0.7	26	0.6				125.5	15.1
MATSUS	0	IP	16	44	44.8	S	45	00							N	E	U	135.0	15.2
SHIZUO	X	EP	16	44	45.7	ES	45	02.8	27	0.5	23	1.6	6	0.9				146.9	17.1

STATION	I	PHASE	TIME H	M	S	PHASE	TIME M	S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NAGANO	0	P	16	44	47.2	ES	45	03.5	22	1.5			15	0.8				143.5	16.3
KARUIZ	0	EP	16	44	47.8	ES	45	03.2										148.4	15.4
KAWAGU	0	IP	16	44	48.1	IS	45	06.2										154.4	18.1
KYOTO	2	EP	16	44	48.3	IS	45	06.1	62	0.7	150	0.3	37	0.7				146.3	17.8
MAIZUR	0	IP	16	44	49.6	IS	45	07.0							N	E	D	156.4	17.4
NARA	0	IP	16	44	49.9	IS	45	10.1									D	162.8	20.2
OMAEZA	0	EP	16	44	50.3	ES	45	09.5	49	1.0	49	1.6	15	0.8				162.2	19.2
CHICHI	0	EP	16	44	51.4	IS	45	13.2										182.7	21.8
MISHIM	0	IP	16	44	51.7	IS	45	13.4	54	0.8	37	0.8	14	0.9			D 3	181.3	21.7
WAJIMA	0	EP	16	44	52	ES	45	14	118	1.6	135	1.4	33	1.0				184.5	22.0
AJIRO	0	EP	16	44	54.2	S	45	17.9	6	0.4	5	0.4	4	0.5				198.2	23.7
TAKADA	0	EP	16	44	54.9	ES	45	16.5										184.7	21.6
OSAKA	0	EX	16	44	55	IS	45	16.2	50	1.5	32	1.8	22	1.7				184.1	
MAEBAS	0	P	16	44	55.3	S	45	18.5										193.3	23.2
KUMAGA	0	EP	16	44	57.6	S	45	23.4	19	1.0	23	0.8	8	1.2				212.6	25.8
TOYOOK	0	EP	16	44	58	ES	45	21.7					58	0.8				206.1	23.7
KOBE	0	P	16	44	59.0	IS	45	23.6										208.5	24.6
FUKUI	0	X	16	44		S	44	40.2							S 6	E 8	D 6	85.1	
OSHIMA	0	P	16	45	00.0	S	45	26.8	14	0.7	8	0.8	3	2.0				235.0	26.8
YOKOHA	0	P	16	45	00.8	S	45	29.0										235.3	28.2
SUMOTO	0	P	16	45	01.8	ES	45	29									D	251.8	27.2
						X	45	07.0											
TOKYO	0	P	16	45	02.4	ES	45	32	18	3.0	24	3.4	12	3.0				242.1	29.6
UTSUNO	0	P	16	45	05.5	S	45	35.0										266.6	29.5
TATEYA	0	EP	16	45	05.6				26	0.7	31	2.0	10	2.9				266.4	
WAKAYA	0	X	16	45	05.8	ES	45	35.0	17	1.0	10	1.0	5	1.8				241.9	
SHIONO	0	EP	16	45	05.9	ES	45	39.8	6	0.9	4	0.6	4	1.2				280.8	33.9
TOTTOR	0	EP	16	45	06.2	S	45	38.5										264.2	32.3
KAKIOK	0	EP	16	45	07	ES	45	40	17	1.0	17	1.0	5	1.2				285.8	33.0
TOKUSH	0	EP	16	45	07.7	ES	45	43.9										294.4	36.2
MITO	0	EP	16	45	12.5	S	45	47.4	13	2.8	10	0.9	5	1.2				313.5	34.9
OKAYAM	0	EP	16	45	12.8	ES	45	50.9	12	0.6	18	0.6	4	1.6				311.1	38.1
YONAGO	0	EP	16	45	14.0	IS	46	01.5									D	340.5	47.5
CHOSHI	0	P	16	45	16.8	S	45	55.6										340.1	38.8
TAKAMA	0	X	16	45	17.5	IS	45	54.7	12	0.6	13	0.6						317.6	
ONAHAM	0	EX	16	45	18.4				8	0.9	6	0.9	2	0.4				368.5	
FUKUOK	0	X	16	46	14.5	X	47	30.0	7	2.5	4	1.6	2	1.3				658.9	
SHIMON	0	X	16	47	06				6	2.2	2	1.8	3	2.2				595.1	

OT= 28 23 37 52.8 +/- 2.2 (JST)
E OFF HOKKAIDO
LAT= 42 54 +/-10 LONG= 147 52 +/-11
H= 0 MAG=4.9 CLASS=U

NEMURO	0	P	23	38	25.0	ES	38	50	27	0.6	35	1.4	21	2.0		W	U 1	191.6	25.0
KUSHIR	0	EP	23	38	38	ES	39	13	23	0.4	25	0.5	12	3.0				283.5	35.0
ABASHI	0	P	23	38	41.2	S	39	26.6	15	2.2	11	2.0	7	2.2			U 1	315.5	45.4
URAKAW	0	P	23	38	59.9	ES	39	42	26	1.0	17	1.0	9	1.4		W	U 1	426.0	42.1
ASAHIK	0	EP	23	39	00				6	2.0	6	2.8						455.9	
OBIHIR	0	X	23	39	01													379.4	
SAPPOR	0	EP	23	39	10				9	2.0	7	2.6	3	1.6				533.3	
HAKODA	0	P	23	39	18.3	ES	40	22	5	0.9	6	1.0	2	1.6			U	597.9	63.7
AOMORI	0	X	23	39	33	S	40	31.4	13	1.4	11	1.4	6	1.4				631.9	
FUKUSH	0	EX	23	40	01.8				5	1.0	3	0.9						848.4	
MATSUS	0	IP	23	40	20.5	L	42	40								N	D	1087.2	

OT= 29 2 43 5.7 +/- 0.1 (JST)
TOKYO BAY
LAT= 35 32 +/- 1 LONG= 139 44 +/- 1
H=120 CLASS=S

YOKOHA	0	P	02	43	23.7	S	43	37.2										12.9	13.5
TATEYA	0	EP	02	43	24.5	IS	43	40.0	42	0.6	35	1.0	15	0.4				62.2	15.5
TOKYO	0	P	02	43	24.6	IS	43	38.4	42	0.8	150	0.8	24					17.0	13.8
AJIRO	1	EP	02	43	26.0	S	43	40.3	37	0.2	28	0.2	10	0.2				79.4	14.3
KAKIOK	1	IP	02	43	26.6	IS	43	41.1	86	1.0	125	1.0	44	0.5	N 6		U 4	87.9	14.5
CHICHI	0	IP	02	43	26.8	S	43	41.6							S 3		D 10	77.8	14.8
KAWAGU	0	X	02	43	26.9	IS	43	41.4										88.1	
KUMAGA	1	P	02	43	27.0	S	43	42.0	34	0.8	23	1.0	14	1.0			D 12	75.0	15.0
OSHIMA	0	P	02	43	27.1	IS	43	41.5	31	0.6	33	0.8	27	0.4				91.5	14.4
MISHIM	0	EP	02	43	27.2	IS	43	41.9	62	0.8	50	0.8	20	0.7				86.7	14.7
CHOSHI	0	IP	02	43	27.8	S	43	44.2							S 1	E 1	U 1	102.8	16.4
MAEBAS	0	P	02	43	28.5	S	43	45.0										113.6	16.5
KOFU	1	IP	02	43	28.5	IS	43	44.8	70	0.4	98	0.4	16	0.3	S 6	E 2	D 6	107.5	16.3
UTSUNO	3	IP	02	43	29.0	S	43	46.0							N 1	E 1	D 4	113.1	17.0
MITO	1	IP	02	43	29.5	S	43	45.6	42	0.4	59	0.4	14	0.6			U 3	115.0	16.1

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STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
SHIZUO	0	EP	02 43 31.4	S	43 50.6	16	1.2	15	1.0	5	1.2				135.7	19.2
KARUIZ	0	IP	02 43 31.8	ES	43 51.2									D 6	139.2	19.4
MATSUS	0	IP	02 43 35.3	S	43 57							S	E	0	176.9	21.7
SHIRAK	0	P	02 43 35.6	IS	43 57.0										181.3	21.4
ONAHAM	0	IP	02 43 36.0	IS	43 57.3	26	0.9	24	1.1	7	0.7	S	1 W	1 0	7 186.8	21.3
OMAEZA	0	EP	02 43 36.2			11	3.0	9	1.6	2	1.2				172.8	
IIDA	0	EP	02 43 36.4	IS	43 58.4	20	2.0	18	1.2	6	1.0				172.2	22.0
HAMAMA	0	P	02 43 39.0			6	1.8	6	3.2	3	2.2			U 2	204.8	
FUKUSH	0	EP	02 43 44.2	S	44 11.9	53	1.0	39	1.0	11	0.4				255.4	27.7
NAGOYA	0	P	02 43 45.0	S	44 12.5	7	1.0	12	2.0	4	1.1			U 2	254.6	27.5
HACHIJ	0	EP	02 43 45.0	S	44 14.4	5	0.3	6	0.4						269.7	29.4
GIFU	0	EP	02 43 46.5	S	44 15.7	5	1.8	12	1.8	3	2.0				269.8	29.2
SENDAI	0	P	02 43 50.6	ES	44 17.0	9	1.2	7	1.0	5	1.2				319.9	26.4
				IX	44 26.8											
ISHINO	0	P	02 43 53.8	ES	44 28.6	5	0.8	4	0.8	2	2.4				350.0	34.8
WAJIMA	0	EX	02 43 54			10	1.0	10	1.0						327.1	
MORIOK	0	P	02 44 09.2	S	44 56.4	5	0.4	4	0.3			N	0	U 0	479.1	47.2
HIKONE	0	EX	02 44 27												317.9	
TOYOOK	0	X	02 44 28			10	1.2	6	1.2						445.4	
KUSHIR	0	X	02 46 26.0			7	0.2	8	0.4	2	0.3				918.9	

OT= 29 5 50 51.0 +/- 0.2 (JST)
NEAR TOKYO
LAT= 35 45 +/- 2 LONG= 139 45 +/- 2
H=120 CLASS=L

YOKOHA	0	P	05 51 09.0	S	51 28.2										35.8	14.2
KAKIOK	0	P	05 51 09.9	S	51 28.4	7	0.5	12	0.4	5	0.2				66.7	13.5
UTSUNO	1	IP	05 51 12.3	S	51 27.8									D 2	89.1	15.5
AJIRO	0	EP	05 51 12.7	ES	51 27.5	8	0.2	9	0.2	2	0.3				98.3	14.8
MITO	0	EP	05 51 13.0	IS	51 28.1	5	0.4	6	0.4	1	0.5				95.3	15.1
TOKYO	0	EX	05 51 13.5	IS	51 22.1	4		5							7.2	
KOFU	0	EP	05 51 14.8	IS	51 30.0	15	0.5	17	0.4	5	0.3				108.2	15.2
MATSUS	0	IP	05 51 19.2	S	51 40							S	E	D	164.0	20.8

OT= 30 1 24 57.2 +/- 0.2 (JST)
W OF WAKAYAMA PREF
LAT= 34 7 +/- 1 LONG= 135 14 +/- 1
H= 10 MAG=3.7 CLASS=L

WAKAYA	1	IP	01 25 01.0	IS	25 02.3	97	0.5	80	0.5	38	0.5				13.7	01.3
SUMOTO	0	IP	01 25 06.1	S	25 10.7							N	0 E	0 0	38.5	04.6
TOKUSH	0	EP	01 25 09.6	ES	25 17.6										60.9	08.0
KOBE	0	EP	01 25 10.0	ES	25 17.8										63.6	07.8
OSAKA	0	EX	01 25 11	IS	25 19.0	17	2.9	28	3.1	8	2.3				67.7	
NARA	0	P	01 25 12.8	S	25 22.9									U	83.6	10.1
SHIONO	0	EP	01 25 14.0	ES	25 24.9	8	0.4	4	0.4	3	1.2				88.9	10.9
OWASE	0	EP	01 25 14.8	ES	25 25.0	6		8		5					88.9	10.2
TAKAMA	0	EP	01 25 16.6	ES	25 32.2	10	1.0	7	1.0	3	1.2				110.5	15.6
TSU	0	EX	01 25 21.9			20	1.2	10	1.0	11	1.8				134.8	
MUROTO	0	EP	01 25 22.5	EX	25 59.0	4	1.0	5	1.0						137.2	
TOYOOK	0	X	01 25 31.6			13	1.1	8	1.1						162.0	
MATSUS	0	P	01 25 53	X	26 34										381.1	
KYOTO	0	X	02 25 16.5	X	25 29.5	5	1.0	6	1.5	3	0.7				109.4	

OT= 31 12 38 52.6 +/- 0.4 (JST)
OFF FUKUSHIMA PREF
LAT= 37 48 +/- 1 LONG= 142 7 +/- 2
H= 50 MAG=4.2 CLASS=S

ISHINO	1	IP	12 39 09.4	IS	39 20.0	33	0.2	25	0.2	16	1.0		W 4	U 4	99.5	10.6
SENDAI	0	IP	12 39 12.0	IS	39 25.0	14	0.6	13	0.8	13	1.2			U 5	118.4	13.0
				X	39 26.5											
FUKUSH	1	IP	12 39 16.0	S	39 31.6	30	1.0	24	0.9	33	2.4		W 3	D 15	144.7	15.6
ONAHAM	0	EX	12 39 16.0	ES	39 30.2	7	0.9	7	1.0	2	0.4				143.1	
OFUNAT	0	EP	12 39 16.0	ES	39 29.4	7	0.0	7	0.0	3	0.4				144.3	13.4
MORIOK	0	P	12 39 25.8	ES	39 49.1	9	0.4	9	0.4	3	1.0				226.1	23.3
				X	39 39.0											
UTSUNO	0	P	12 39 28.2	S	39 54.2										243.1	26.0
MATSUS	0	IP	12 39 47.0	X	40 38								E	U	374.2	
AKITA	0	EX	12 39 55.2			6	1.0	5	1.0	3	1.2				275.7	

OT= 31 14 39 4.9 +/- 1.5 (JST)
E OFF HOKKAIDO
LAT= 42 40 +/- 4 LONG= 147 3 +/- 8
H= 10 MAG=4.7 CLASS=U

STATION	I	PHASE	TIME H M S	PHASE	TIME M S	MAXIMUM AMPLITUDE / PERIOD N-S *	A/T S	E-W *	A/T S	U-D *	A/T S	INITIAL MOTION N-S *	E-W *	U-D *	DELTA KM	S-P S
NEMURO	0	IP	14 39 29.3	S	39 48.0	13	2.0	27	1.8	10	1.4	N	E 1	U 1	140.2	18.7
KUSHIR	0	IP	14 39 41.6	S	40 08.5	10	1.6	9	2.4	5	2.0		E 2	D 3	219.9	26.9
ABASHI	0	EP	14 39 46	ES	40 16	10	3.0	9	2.6	4	2.4				269.9	30.0
URAKAW	0	P	14 40 00.9	X	40 26.2	5	2.2	6	4.2	4	4.2				356.0	
MORIOK	0	EP	14 40 29.3	S	41 01.5	7	0.3	6	0.4	2	0.3	N	E	D	593.4	62.2
AOMORI	0	X	14 40			9	1.1	9	1.1	5	0.9				560.2	
FUKUSH	0	EX	14 41 01.8	ES	41 26	6	0.9	4	1.2						780.9	
MATSUS	0	IP	14 41 22.2	X	43 25							S	E	U	1018.6	

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LIST 6 SEISMOLOGICAL DATA OBTAINED BY MATSUSHIRO

DATE		PHASE AND TIME (JST) H M S		M S	INITIAL MOTION
1	IP	11 26 47.5			D
1	P	18 46 35.	IS	44 06.4	D
1	P	22 08 28.			
2	EP	00 36 56.	S	37 24.	
2	EP	02 34 39.	IX	34 41.5	
2	P	05 30 42.			
2	P	05 39 47.			
2	EP	05 54 38.	X	54 45.	
2	EP	07 32 49.	X	51 28.	
2	P	09 17 09.	S	17 34.	
2	P	13 18 13.	S	23 10.	
2	P	17 32 02.			
2	IP	23 11 29.6	S	11 54.	S E D
3	P	02 31 37.	X	36 25.	
3	P	03 03 06.	S	07 54.	
3	IP	04 03 06.2	S	04 40.	S W U
3	P	13 31 49.5	EX	32 13.	
3	P	17 38 14.			
3	P	21 40 06.			
4	P	01 22 32.			
4	P	12 08 16.	EL	14 10.	
4	IP	17 51 59.8	S	53 11.	E U
4	P	20 39 20.			
4	P	21 48 07.	S	48 41.	
5	IP	06 20 10.0	S	20 27.	S D
5	EP	08 49 42.			
5	P	16 28 41.	X	28 48.	D
6	IP	00 04 45.4	S	05 30.	N U
6	P	00 16 04.	S	16 18.	
6	P	02 12 08.			
6	EP	02 21 33.	X	21 57.	
6	P	02 28 16.			
6	P	07 28 25.	S	29 43.	
6	EP	07 44 23.	S	44 38.	
6	IP	10 19 32.1	S	19 45.	W U
6	P	16 16 18.			
6	IP	22 17 24.2	IS	17 47.6	D
7	EP	00 14 07.	X	14 16.	
7	P	00 36 58.	S	38 16.	
7	P	13 05 43.	ES	14 00.	
7	IP	22 40 40.5	EX	47 00.	U
8	P	06 52 11.	S	57 10.	
8	P	07 40 09.			
8	IP	14 11 12.5	ES	16 50.	U
8	P	14 24 06.	ES	28 24.	
8	P	18 44 48.			
9	IP	04 33 04.0	IS	33 18.5	U
9	EP	04 45 20.			
9	P	12 32 53.			
10	P	01 35 22.			
10	P	03 58 04.	ES	01 33.	
10	P	07 01 41.	ES	04 23.	
10	P	09 02 51.			
10	EP	09 18 04.	ES	24 17.	
10	IP	10 48 02.3			U
10	X	14 54 10.	L	57 40.	
10	P	17 36 06.			
11	IP	05 03 49.7	S	11 37.	D
11	P	07 01 47.			
11	IP	09 55 29.3	S	56 44.	D
11	IP	11 40 39.7	IS	40 56.0	E D
11	EX	20 11 10.			
11	P	22 51 41.			
12	PKP	02 16 09.			
12	P	07 53 04.			
12	IP	10 14 39.6	ES	15 44.	S W U
12	EP	15 08 26.			
12	IP	16 12 58.9	S	13 21.	N E D
13	IP	06 50 03.1	S	50 24.	W U
13	IP	12 41 33.4	IS	42 19.	S W D
13	IP	13 10 58.3			N U
13	IP	17 08 37.7	S	08 55.	N E U
13	P	22 32 07.			
14	P	05 16 36.	ES	17 20.	
14	EP	06 40 53.	S	43 56.	
14	P	06 53 04.			
14	IP	09 03 36.5			S W U
14	IP	11 49 06.7	S	54 37.	S W D
14	P	18 16 18.	S	16 53.	
15	P	01 05 56.	S	07 32.	
15	P	03 48 52.	S	58 42.	
15	EP	15 13 20.			
15	EP	17 45 08.			
15	IP	18 49 26.4	S	50 11.	N E U
15	IP	19 53 37.8	S	53 45.	N W U
16	IP	03 04 02.8			N E D
16	IP	05 52 00.7	S	52 31.	N E U
16	EP	07 22 17.			
16	P	17 51 15.	S	52 00.	
16	IP	18 06 37.9			D
16	P	20 26 09.	S	26 29.	
17	EX	00 44 40.			
17	IP	02 43 16.0	S	43 40.	U
17	EX	11 48 50.			
17	IP	13 42 08.9			N W D
17	EX	16 48 05.			
17	P	18 15 06.			
17	P	19 33 30.	S	33 55.	
18	IP	00 12 08.8			U
18	P	05 53 27.			
18	P	11 19 33.			
18	EP	14 11 25.			
18	P	15 16 24.			
18	P	15 21 41.			
18	P	19 21 54.	ES	22 08.	
18	IP	22 34 23.8	S	36 16.	S W U
19	P	04 12 09.			
19	P	04 25 09.			
19	IP	08 05 13.8	IS	05 20.0	N E D
19	P	09 23 01.			
19	IP	11 27 19.7	S	27 34.	D
19	P	13 32 20.	ES	34 09.	
19	EP	18 02 17.			
19	P	18 04 03.	ES	05 00.	
19	P	22 40 02.	ES	47 28.	
20	P	00 57 00.			
20	IP	03 44 47.8	ES	46 45.	N E D
20	EX	11 19 02.			
20	P	14 40 11.			
20	IP	14 40 34.4	ES	41 02.	W U
20	IP	18 18 24.8	S	18 52.	W U
20	P	19 33 23.	ES	33 55.	
20	P	21 17 47.	S	18 39.	
20	IP	22 13 20.5			N U
20	IP	23 28 06.0	ES	29 55.	U
21	IP	05 41 37.2	S	42 00.	N U
21	IP	09 41 15.1			E D
21	IP	10 55 04.0	S	55 33.	U
21	IP	11 37 36.9	S	37 54.	U
21	EP	19 18 54.	ES	19 26.	
21	IP	19 20 34.0	S	22 30.	N E U
21	IP	21 22 10.2	S	23 40.	S U
21	P	22 23 27.	X	23 48.	
22	IP	01 34 50.6	S	35 27.	W U
22	IP	06 58 13.4	S	58 31.	N E D
22	P	09 25 41.			
22	IP	10 17 24.8	X	19 45.	D
22	L	10 40 40.			
22	L	13 05 30.			
22	Ex	16 49 36.2			

DATE		PHASE AND TIME (JST) H M S		M S	INITIAL MOTION
22	IP	20 26 56.1	S	33 08.	N W U
23	IP	05 03 57.0	S	04 33.	D
23	P	06 06 42.			
23	P	11 22 01.			
23	P	20 49 27.	IS	49 42.4	
23	IP	22 28 30.2	S	32 40.	D
23	P	23 11 16.0	S	11 46.	N E U
23	EX	23 13 12.			
23	P	23 13 36.	ES	17 35.	
24	P	00 52 45.			
24	L	01 28 16.			
24	IP	04 45 30.8	ES	45 46.	E D
24	IP	08 05 44.0			U
24	P	11 06 56.	ES	07 42.	
24	P	20 03 02.	S	03 26.	
25	IP	00 00 01.8	S	00 27.	N W
25	IP	03 11 04.3	S	11 27.	W U
25	P	03 40 21.			
25	IP	12 47 38.3	IS	47 46.4	N E U
25	IP	13 00 00.6	S	00 09.	N E
25	EP	16 39 50.	L	42 10.	
26	IP	04 16 55.3	S	18 12.	U
26	IP	06 32 05.4	S	32 20.	U
26	PKP	06 51 30.	ESKS	58 10.	U
26	EX	06 51 39.			
26	P	07 45 13.			
26	IP	07 50 03.6			U
26	IP	09 26 35.5			S W U
26	P	12 22 17.			
27	P	01 30 35.	X	32 21.	
27	P	02 46 55.	S	48 00.	
27	EP	05 22 27.			
27	EP	05 23 17.	S	23 59.	
27	P	07 55 24.			
27	P	08 01 04.			
27	L	12 08 00.			
27	P	15 31 02.	IS	31 17.6	
27	IP	17 00 36.8	S	00 52.	S D
27	IP	18 20 10.5	S	27 10.	S U
27	P	23 55 19.	S	55 55.	
28	L	00 09 40.			
28	IP	00 22 43.8	S	23 20.	D
28	IP	00 33 58.6	S	34 59.	S E D
28	IP	00 59 17.8			N W D
28	P	09 44 59.	S	45 21.	
28	IP	10 21 33.8	S	23 22.	U
28	IP	10 32 51.6			N E D
28	IP	12 55 13.7			D
28	P	13 27 02.	S	29 05.	
28	IP	13 55 32.5	S	57 30.	N E D
28	IP	14 09 13.2	S	11 00.	U
28	IP	16 44 44.8	S	45 00.	N E U
28	EX	16 44 55.	IS	45 16.2	
28	IP	23 40 20.5	L	42 40.	N D
29	IP	02 43 35.3	S	43 57.	S E D
29	IP	05 51 19.2	S	51 40.	S E D
29	X	07 58 00.			
29	EP	10 10 48.	L	52 00.	
29	EP	18 30 12.			
29	Ex	23 57 34.			
30	EX	01 25 11.	IS	25 19.0	
30	P	01 25 53.	X	26 34.	
30	IP	18 09 27.4	S	09 42.	D
30	IP	20 24 48.0	IX	26 59.	N U
30	EP	21 45 19.			
31	P	00 25 45.	ES	27 00.	
31	IP	02 45 55.8	S	46 50.	D
31	P	07 26 38.	S	24 13.	
31	IP	12 39 47.0	S	40 38.	E U
31	IP	14 41 22.2	S	43 25.	S E U
31	P	14 49 38.			
31	IP	16 30 03.4	S	30 30.	D
31	IP	16 39 30.8	S	39 52.	S E U
31	IP	18 57 25.3			D
31	L	22 52 04.			

International Seismological Centre From the ISC collection scanned by SISMOS

Number of earthquakes by the districts and classes, 1969

Class / District	Number of felt earthquakes					Number of unfelt earthquakes	Total
	Remarkable	Moderate	Small felt area	Local	Total		
Hokkaido	26	27	35	85	173	912	1085
Tohoku	11	21	38	73	143	331	474
Kwanto	4	1	32	113	150	331	481
Chubu	2	6	23	476	507	118	625
Kinki	1	0	2	93	96	150	246
Chugoku•Shikoku	0	3	4	39	46	49	95
Kyushu	4	2	7	135	148	231	379
Near Japan*	3	1	3	8	15	124	139
Foreign region	1	0	0	0	1	66	67
Unknown	0	0	0	0	0	74	74
Total	52	61	144	1022	1279	2386	3665

* ; Sakhalin, Kurile Is., Korea, Ryukyu Is., Bonin Is., Sikhota Alin.

Number of felt earthquakes at seismological stations of JMA, 1969

Station \ Seismic intensity	1	2	3	4	5	6	7	Total
Abashiri	2	1	0	0	0	0	0	3
Aikawa	2	0	0	0	0	0	0	2
Ajiro	18	3	0	0	0	0	0	21
Akita	4	2	0	0	0	0	0	6
Anabuki (Tsurugisan)	4	0	0	0	0	0	0	4
Aomori	16	5	3	0	0	0	0	24
Asahikawa	1	0	0	0	0	0	0	1
Ashizuri	3	0	0	0	0	0	0	3
Asosan	2	2	0	0	0	0	0	4
Chichibu	10	4	0	0	0	0	0	14
Choshi	16	3	7	0	0	0	0	26
Fukue	0	0	0	0	0	0	0	0
Fukui	3	1	0	1	0	0	0	5
Fukuoka	4	2	0	0	0	0	0	6
Fukushima	22	10	4	0	0	0	0	36
Gifu	9	4	1	0	0	0	0	14
Hachijojima	1	3	0	0	0	0	0	4
Hachinohe	42	16	9	2	0	0	0	69
Hakodate	4	2	0	0	0	0	0	6
Hamada	1	1	0	0	0	0	0	2
Hamamatsu	3	0	1	0	0	0	0	4
Hikone	0	0	1	0	0	0	0	1
Himeji	1	0	0	0	0	0	0	1
Hiroo	25	7	4	1	0	0	0	37
Hiroshima	3	3	0	0	0	0	0	6
Iida	5	0	0	1	0	0	0	6
Irozaki(Nagatsuro)	0	1	0	0	0	0	0	1
Ishinomaki	17	9	4	0	0	0	0	30
Izuhara	2	0	0	0	0	0	0	2
Kagoshima	3	2	2	0	0	0	0	7
Kakioka	18	26	3	0	0	0	0	47
Kanazawa	0	1	0	0	0	0	0	1
Karuizawa	1	2	0	0	0	0	0	3
Kawaguchiko(Funatsu)	10	3	1	0	0	0	0	14
Kobe	0	0	1	0	0	0	0	1
Kochi	3	3	0	0	0	0	0	6
Kofu	17	1	1	0	0	0	0	19
Kumagaya	20	3	1	0	0	0	0	24
Kumamoto	7	1	2	0	0	0	0	10
Kushiro	59	22	3	2	0	0	0	86
Kyoto	5	2	2	0	0	0	0	9
Maebashi	5	2	0	0	0	0	0	7
Maizuru	3	2	0	0	0	0	0	5
Matsue	2	0	0	0	0	0	0	2
Matsumoto	10	3	1	0	0	0	0	14
Matsushiro	360	31	6	0	0	0	0	397
Matsuyama	3	4	1	0	0	0	0	8
Mishima	0	1	2	0	0	0	0	3
Mito	37	15	2	0	0	0	0	54
Miyako	32	20	5	0	0	0	0	57
Miyazaki	5	1	1	2	0	0	0	9
Mizusawa	16	4	1	0	0	0	0	21
Mori	5	0	0	0	0	0	0	5
Morioka	27	11	5	1	0	0	0	44
Muroran	2	2	0	0	0	0	0	4
Murotomisaki	0	1	0	0	0	0	0	1
Nagano	63	10	6	1	0	0	0	80
Nagasaki	4	4	1	0	0	0	0	9
Nagoya	10	4	0	1	0	0	0	15
Nara	3	0	1	0	0	0	0	4

Station \ Seismic intensity	1	2	3	4	5	6	7	Total
Nemuro	69	32	3	1	0	0	0	105
Niigata	1	1	0	0	0	0	0	2
Nobeoka	10	1	0	1	0	0	0	12
Obihiro	15	6	2	0	0	0	0	23
Ofunato	31	15	4	0	0	0	0	50
Oita	7	2	3	0	0	0	0	12
Okayama	11	1	0	0	0	0	0	12
Omaezaki	0	1	0	0	0	0	0	1
Onahama	17	12	3	0	0	0	0	32
Osaka	0	0	0	1	0	0	0	1
Oshima	7	8	1	0	0	0	0	16
Owase	6	0	0	0	0	0	0	6
Rumoi	1	0	0	0	0	0	0	1
Saga	2	0	1	0	0	0	0	3
Saigo	0	0	0	0	0	0	0	0
Sakata	2	2	2	0	0	0	0	6
Sapporo	7	1	0	0	0	0	0	8
Sendai	15	4	3	0	0	0	0	22
Shimonoseki	2	0	0	0	0	0	0	2
Shionomisaki	4	0	0	0	0	0	0	4
Shirakawa	11	9	1	0	0	0	0	21
Shizuoka	0	1	0	0	0	0	0	1
Sumoto	5	0	0	0	0	0	0	5
Suttsu	0	0	0	0	0	0	0	0
Takada	0	1	0	0	0	0	0	1
Takamatsu	7	1	0	0	0	0	0	8
Takayama	9	2	1	0	0	0	0	12
Tateyama	13	4	4	0	0	0	0	21
Tokushima	4	0	1	0	0	0	0	5
Tokyo	22	7	3	0	0	0	0	32
Tomakomai	6	4	0	0	0	0	0	10
Tottori	4	1	0	0	0	0	0	5
Toyama	1	0	1	0	0	0	0	2
Toyooka	4	0	1	0	0	0	0	5
Tsu	9	0	0	1	0	0	0	10
Tsuruga	9	2	1	0	0	0	0	12
Unzendake	40	32	9	1	0	0	0	82
Urakawa	31	19	6	0	0	0	0	56
Utsunomiya	61	15	2	0	0	0	0	78
Uwajima	11	5	4	0	0	0	0	20
Wajima	0	0	1	0	0	0	0	1
Wakayama	34	13	3	0	0	0	0	50
Wakkanai	0	0	0	0	0	0	0	0
Yakushima	5	0	1	0	0	0	0	6
Yamagata	9	1	0	0	0	0	0	10
Yokohama	16	6	0	0	0	0	0	22
Yonago	1	0	0	0	0	0	0	1
Ishigakijima	6	0	1	0	0	0	0	7
Miyakojima	0	1	1	0	0	0	0	2
Naha	4	1	1	0	0	0	0	6
Yonagunijima	0	2	0	0	0	0	0	2

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Summary of major earthquakes in and near Japan, 1969

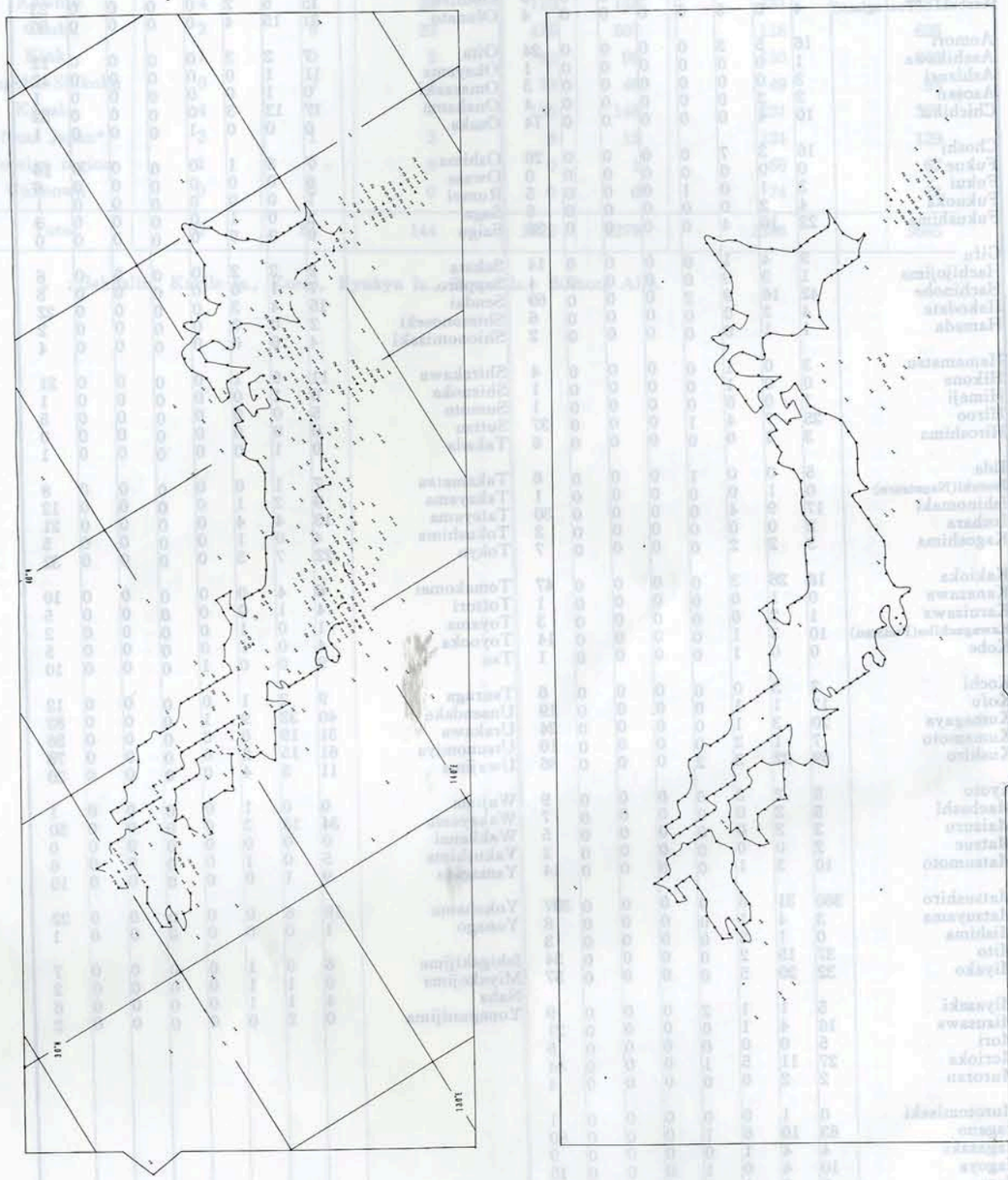

Fig. 1. M<5.0

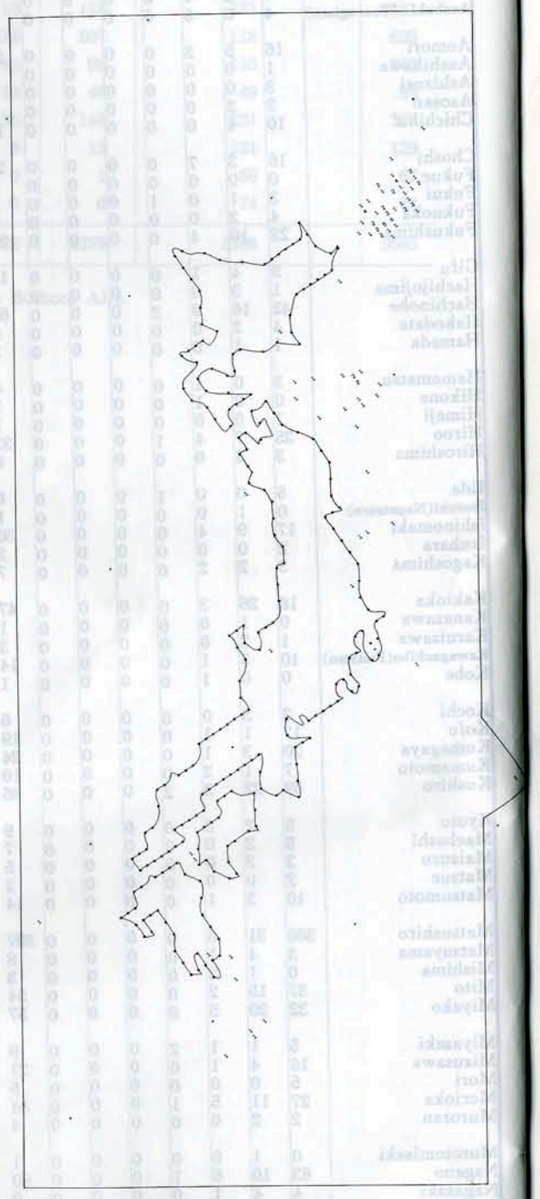

Fig. 2. 5.0≦M<6.0

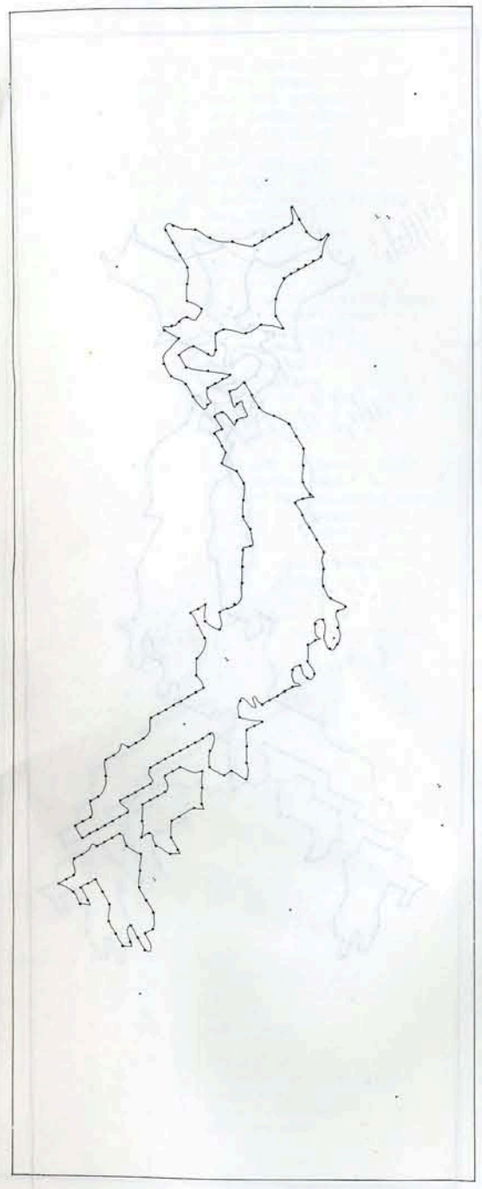

Fig. 3. M≧6.0

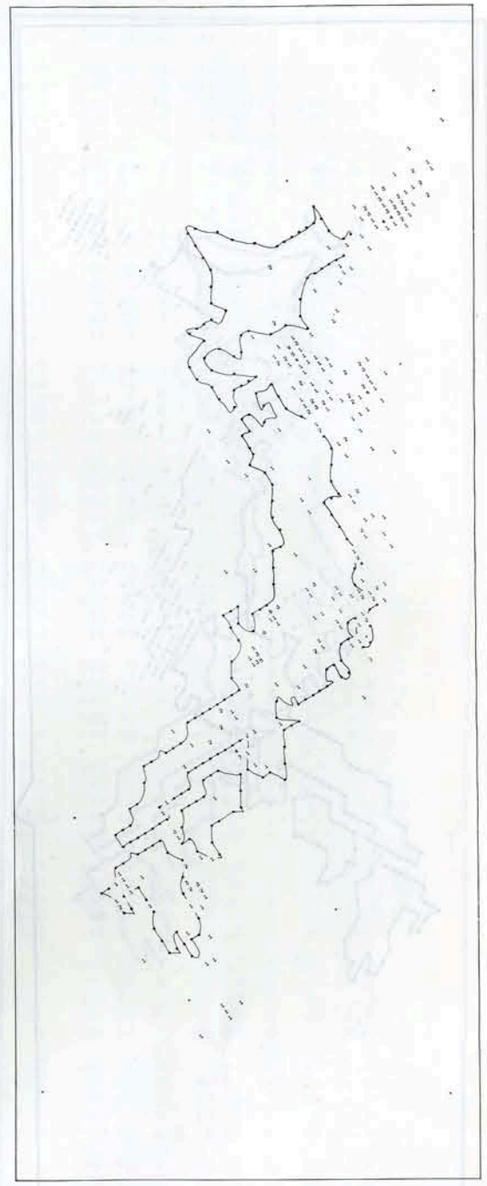

Fig. 4. h≦40km

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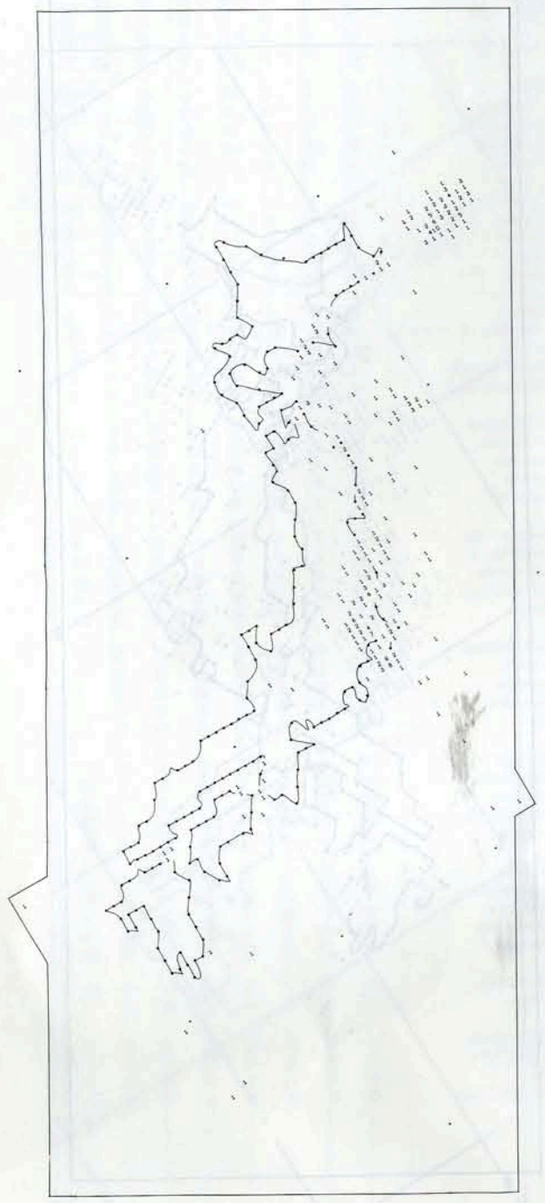

Fig. 5. 40km<h≦100km

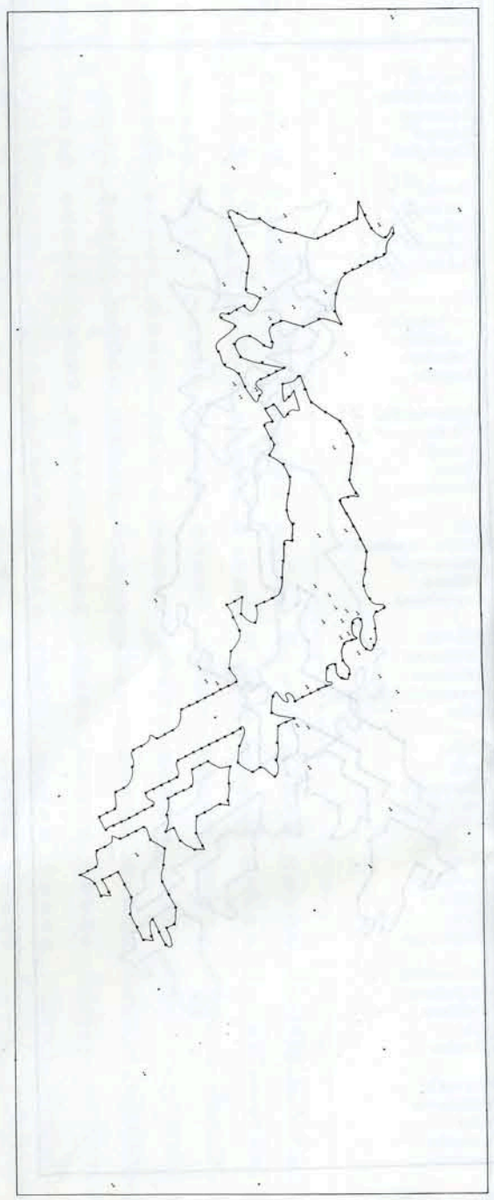

Fig. 6. h>100km

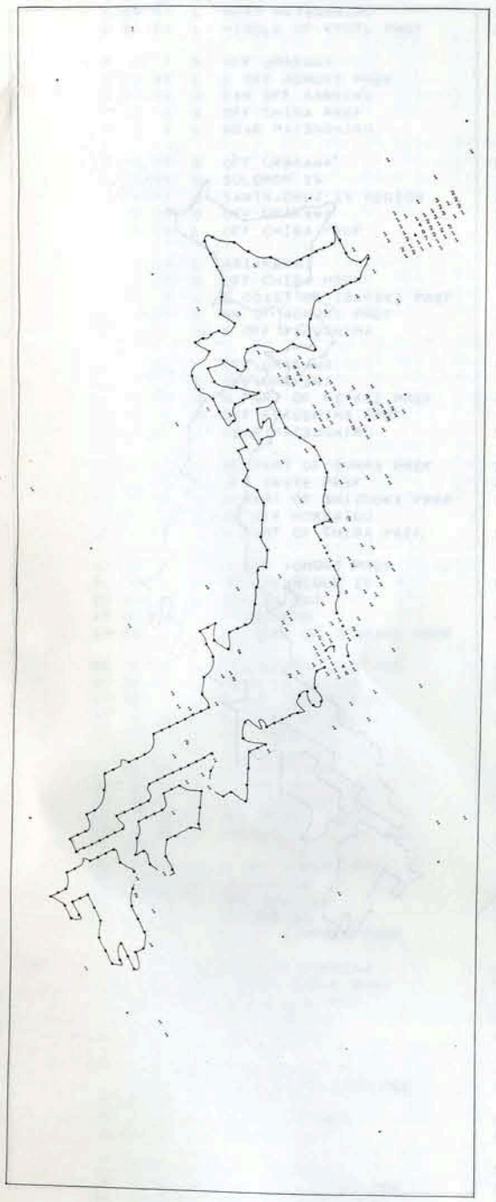

Fig. 7. Unfelt earthquake

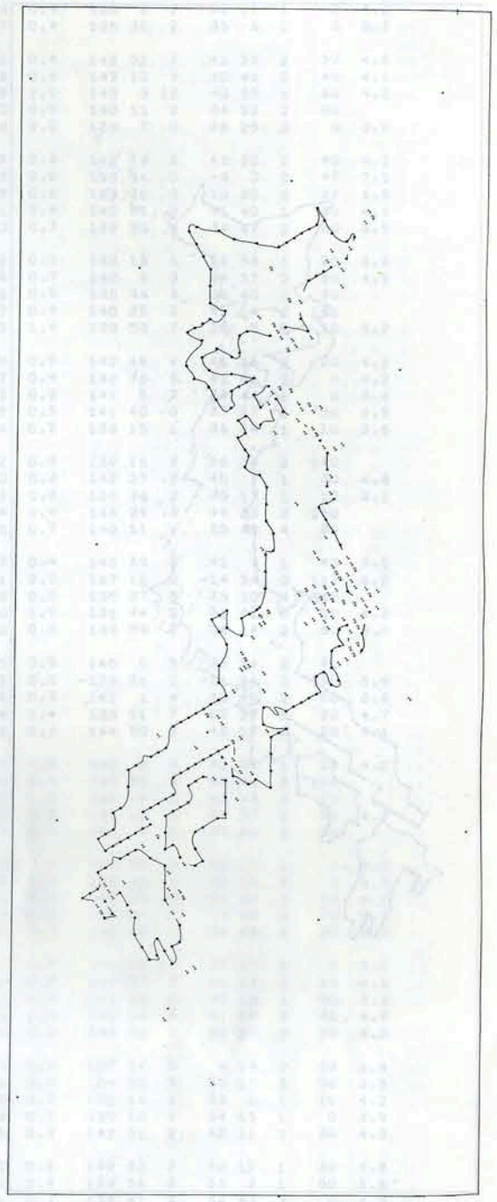

Fig. 8. Local earthquake

International Seismological Centre From the ISC collection scanned by SISMOS

arthquake

Fig. 10. Remarkable and moderate earthquke

C=CLASS

DATE AND JST TIME D	H	M	C	LOCATION	ORIGIN TIME M	S	+/-S	LONG.	+/-	LAT.	+/-	H KM	M	REMARKS
JAN. 31	5	54	S	S OFF NEMURO PEN	54	17.6	1.1	145 40	6	42 41	4	50	4.6	
1	9	18	U	HYUGANADA	18	24.7	1.8	131 55	8	32 17	4	0	3.8	
1	16	28	L	NEAR MATSUSHIRO	28	30.2	0.4	138 6	2	36 25	1	0	4.2	
1	16	34	L	NEAR MATSUSHIRO	34	24.3	0.4	138 8	2	36 27	1	0	4.0	
2	21	36	L	MIDDLE OF KYOTO PREF	36	50.7	0.4	135 30	2	35 6	2	0	3.7	
3	3	7	S	OFF URAKAWA	7	7.6	0.4	142 32	3	41 58	2	50	4.6	
4	11	34	L	E OFF AOMORI PREF	34	30.8	0.6	142 10	5	40 46	2	40	4.1	
4	20	11	U	FAR OFF SANRIKU	11	38.9	2.0	143 3	12	40 35	6	60	4.2	
4	23	2	S	OFF CHIBA PREF	2	9.0	0.5	140 11	2	34 52	2	80		
5	8	4	L	NEAR MATSUSHIRO	4	25.8	0.0	138 7	0	36 25	0	0	3.0	
5	20	52	U	OFF URAKAWA	51	52.9	0.3	142 39	3	41 30	2	40	4.1	
5	22	34	U	SOLOMOM IS	26	39.9	0.0	158 54	0	-8 0	0	47	7.1	
7	0	47	U	SANTA CRUZ IS REGION	39	0.9	0.0	164 30	0	-10 30	0	32	6.8	
8	10	24	U	OFF URAKAWA	24	42.1	0.4	142 51	3	41 40	1	60	4.1	
8	16	26	L	OFF CHIBA PREF	26	40.0	0.7	139 50	4	34 47	2	60	3.5	
8	18	36	L	ARIAKEKAI	36	19.2	0.1	130 18	1	32 58	1	20	3.8	
9	12	28	S	OFF CHIBA PREF	28	46.8	0.7	140 9	3	34 57	2	60	4.2	
9	21	6	L	E COAST OF IBARAKI PREF	6	38.6	0.5	140 44	4	36 40	2	90		
10	6	33	U	NW OF AOMORI PREF	33	24.2	0.4	140 25	3	41 14	2	140		
10	12	21	U	S OFF YAKUSHIMA	20	54.5	1.4	130 53	7	29 5	5	10	5.2	
12	1	41	L	OFF URAKAWA	41	44.0	0.5	142 49	4	41 36	2	20	4.2	
12	14	5	U	OFF URAKAWA	5	25.7	0.4	142 36	3	41 36	2	0	4.2	
14	9	34	U	N PART OF MIYAGI PREF	34	12.3	0.2	141 5	2	38 44	1	0	3.6	
15	1	2	M	OFF FUKUSHIMA PREF	1	58.5	0.5	141 40	3	37 27	1	50	4.9	
16	10	59	L	NEAR MATSUSHIRO	58	58.4	0.2	138 15	1	36 34	1	10	3.8	
16	16	25	U	NE PART OF GUNMA PREF	25	9.2	0.3	139 16	3	36 38	2	140		
17	0	35	S	OFF IWATE PREF	35	15.0	0.3	142 27	2	40 7	1	30	4.8	
17	16	14	U	N PART OF SHIZUOKA PREF	14	31.9	0.3	138 36	2	35 17	1	10	3.1	
19	16	2	R	NE OFF HOKKAIDO	2	9.4	0.4	143 29	3	44 33	3	260		
20	0	17	U	N PART OF CHIBA PREF	17	0.0	0.7	140 11	9	35 42	4	80		
20	3	4	M	E OFF AOMORI PREF	4	23.7	0.4	142 39	3	41 9	1	40	5.0	
20	4	0	U	NEW HEBRIDES IS	50	52.1	0.0	167 12	0	-14 54	0	112	6.2	
20	13	8	U	WAKASA BAY	7	56.3	0.2	135 37	5	35 30	4	360		
23	22	42	L	HYUGANADA	42	44.0	1.0	131 44	3	31 41	3	10	4.3	
23	23	2	L	SW PART OF IBARAKI PREF	1	58.0	0.3	139 59	2	36 14	2	60	3.8	
24	9	32	L	MIDDLE OF BOSO PEN	31	55.5	0.5	140 5	5	35 14	2	90		
24	11	43	U	FIJI IS REGION	33	3.5	0.0	-179 36	0	-21 54	0	595	5.9	
24	13	0	L	E OFF AOMORI PREF	0	15.4	0.3	142 1	4	40 45	2	50	3.8	
25	4	44	U	NEAR AMAMIOSHIMA	43	56.8	1.4	130 51	7	29 27	6	20	4.7	
25	8	2	L	OFF KUSHIRO	1	51.3	0.6	144 50	2	42 17	2	20	4.1	
25	21	15	U	OFF URAKAWA	15	20.9	0.3	142 2	2	41 31	1	20	4.0	
28	3	38	U	W OFF HOKKAIDO	37	43.2	0.6	140 52	6	43 40	3	220		
28	14	38	S	NEAR ETOROFU IS	38	36.8	1.1	146 19	6	43 43	3	70		
28	19	6	L	OFF IWATE PREF	6	37.6	0.8	142 13	5	39 37	2	50	4.2	
29	2	20	S	MIDDLE OF CHIBA PREF	20	42.9	0.4	140 7	2	35 31	2	90		
29	17	23	U	E OFF AOMORI PREF	23	31.9	0.4	142 33	3	41 13	1	0	4.0	
30	7	15	L	HYUGANADA	15	31.4	0.3	132 12	1	32 38	2	0	4.5	
30	13	49	U	OFF URAKAWA	48	53.5	0.3	142 33	2	41 29	1	10	4.0	
30	19	34	U	TALAUD IS	29	40.4	0.0	127 24	0	4 48	0	70	5.9	
30	23	57	L	NE OF IBARAKI PREF	57	17.6	0.7	140 30	5	36 36	6	60	3.7	
FEB. 1	0	39	U	FAR OFF SANRIKU	38	27.0	1.9	144 33	11	39 57	5	0	5.0	
2	16	56	U	E OFF AOMORI PREF	56	34.9	0.3	142 57	2	41 19	1	10	4.6	
2	23	41	L	OFF IWATE PREF	41	13.1	0.3	142 19	2	40 18	1	40	3.6	
3	17	31	S	OFF URAKAWA	31	35.1	0.4	142 34	4	41 29	2	40	4.9	
4	6	20	L	OFF TOKACHI	19	57.9	0.3	143 32	2	42 27	2	50	4.3	
4	6	46	U	TALAUD IS	41	41.9	0.0	127 24	0	4 54	0	33	6.4	
5	5	34	U	W COAST OF BOSO PEN	34	36.6	0.8	139 50	5	35 17	3	50	3.5	
5	15	9	S	ARIAKEKAI	9	15.8	0.3	130 14	1	33 0	1	10	4.2	
6	8	57	L	NEAR WAKAYAMA	57	53.3	0.2	135 13	1	34 11	1	0	3.5	
6	13	30	L	OFF URAKAWA	30	31.5	0.3	142 31	2	42 11	2	30	4.3	
6	17	35	S	OFF URAKAWA	35	50.0	0.2	142 32	2	42 12	1	30	4.8	
8	1	12	U	S PART OF BOSO PEN	12	33.0	0.4	139 56	3	35 3	1	60	3.6	
11	6	15	L	OFF ASHIZURI PEN	15	45.4	0.7	132 41	2	32 37	3	0	4.3	
11	8	7	U	SOUTH OF FIJI IS	58	5.8	0.0	178 36	0	-22 42	0	673	6.0	
12	7	21	U	BANDA SEA	16	13.5	0.0	126 48	0	-6 42	0	450	6.0	
14	21	42	L	S COAST OF NAGASAKI PREF	42	8.4	0.3	130 4	1	32 45	1	0	4.2	
14	21	47	L	S COAST OF NAGASAKI PREF	47	25.4	0.3	130 4	1	32 43	1	0	4.0	
14	22	29	S	OFF IWATE PREF	29	10.0	0.6	143 6	3	39 29	2	30	4.9	
16	5	32	L	OFF URAKAWA	32	18.7	0.4	142 55	5	41 40	2	30	4.0	
16	15	30	S	OFF IWATE PREF	29	46.4	0.6	142 34	3	39 2	1	50	4.5	
16	20	37	L	MIDDLE OF KYOTO PREF	37	0.8	0.2	135 17	1	35 13	1	10	3.5	
17	15	24	L	OFF KUSHIRO	24	22.9	0.5	144 54	3	42 52	3	50	4.7	
17	16	29	M	COAST OF FUKUSHIMA PREF	29	7.5	0.3	141 2	4	37 27	2	80		
17	18	22	U	OFF MIYAGI PREF	22	31.0	0.7	143 2	3	38 35	2	10	4.3	
17	22	30	U	SW COAST OF HOKKAIDO	29	52.8	1.1	139 59	12	41 38	5	220		
18	6	57	S	E PART OF OKAYAMA PREF	57	8.9	0.1	134 8	1	34 53	1	0	4.3	
18	9	50	L	SE PART OF OSAKA PREF	49	56.1	0.2	135 36	1	34 26	1	20	4.0	
18	13	53	U	E OFF AOMORI PREF	53	11.6	0.3	142 25	2	41 16	1	20	3.9	
18	14	50	L	SE PART OF OSAKA PREF	49	53.0	0.5	135 37	2	34 26	2	0	3.9	
18	21	18	U	OFF IWATE PREF	18	11.4	0.9	142 32	5	40 17	2	50	4.1	

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DATE	JST AND TIME D	H	M	C	LOCATION	ORIGIN TIME M	S	+/-S	LONG.	+/-	LAT.	+/-	H KM	M	REMARKS
FEB.	21	2	14	S	OFF URAKAWA	14	21.2	0.3	142 30	2	41 30	1	0	4.5	
	21	12	38	L	E OFF CHIBA PREF	38	0.1	0.4	140 38	3	35 23	2	90		
	21	21	36	U	OFF IBARAKI PREF	36	36.1	3.1	141 44	15	36 13	10	60	3.8	
	22	5	17	L	NEAR MATSUSHIRO	17	55.2	0.7	138 2	3	36 32	2	0	3.6	
	22	11	36	L	NEAR MATSUSHIRO	36	38.1	0.2	138 10	1	36 24	0	0	3.4	
	22	12	6	U	FAR E OFF KWANTO	6	32.8	1.5	142 32	8	36 29	4	70		
	23	9	42	U	CELEBES	36	56.6	0.0	118 54	0	-3 6	0	13	6.9	
	23	11	10	L	E PART OF KANAGAWA PREF	10	18.2	0.2	139 40	1	35 31	1	30	4.1	
	28	5	22	L	KII CHANNEL	22	17.0	0.3	135 8	2	33 34	2	60	3.7	
	28	6	6	M	IYONADA	5	46.7	0.3	132 5	2	33 38	2	70		
	28	11	53	U	NORTH ATLANTIC OCEAN	40	32.5	0.0	-10 36	0	36 0	0	22	8.0	
	28	15	5	L	MIDDLE OF WAKAYAMA PREF	4	48.9	0.2	135 29	2	33 58	1	70		
MAR.	1	0	42	L	E PART OF AOMORI PREF	42	42.1	0.4	141 16	5	40 47	2	90		
	1	4	51	L	OFF IBARAKI PREF	51	39.7	0.7	141 0	4	36 35	2	40	3.6	
	1	11	2	S	OFF IWATE PREF	2	29.7	0.8	143 15	4	39 51	2	40	4.3	
	1	23	2	L	W COAST OF EHIME PREF	2	11.1	0.3	132 23	2	33 24	1	20	3.7	
	2	14	40	S	W PART OF TOKYO PREF	40	6.8	0.5	139 12	5	35 46	4	130		
	5	8	28	L	NEAR YAKUSHIMA	28	6.6	2.0	131 6	7	30 28	7	0	4.2	
	7	15	43	L	E PART OF SAITAMA PREF	43	32.9	0.2	139 40	2	36 1	2	50	3.4	
	7	17	49	U	OFF URAKAWA	48	48.6	0.3	142 38	2	41 31	1	30	4.2	
	8	8	44	L	E OF IWATE PREF	43	59.3	0.2	141 50	2	39 45	1	50	3.8	
	8	16	51	L	IYONADA	51	11.3	0.3	132 27	3	33 50	1	40	3.8	
	8	19	20	R	W OFF AOMORI PREF	20	8.7	0.6	139 53	6	41 17	2	190		
	9	20	36	R	NW OF KURILE IS	35	32.0	1.1	148 34	12	47 34	7	360		
	11	0	52	S	OFF IBARAKI PREF	52	44.4	0.3	140 43	2	36 25	1	60	4.3	
	11	21	32	U	FAR OFF SANRIKU	31	37.2	1.4	143 30	7	38 24	3	70		
	13	5	39	S	NE PART OF TOKYO BAY	39	17.4	0.3	140 6	2	35 37	2	80		
	14	0	5	S	MIDDLE OF CHIBA PREF	5	7.0	0.4	140 12	3	35 37	2	70		
	14	13	24	U	OFF URAKAWA	24	42.4	0.2	141 53	1	42 11	1	0	4.3	
	15	0	30	L	W COAST OF WAKAYAMA PREF	30	10.1	0.1	135 7	1	34 4	1	10	4.0	
	15	10	23	L	KYOTO-OSAKA BORDER	23	9.8	0.3	135 34	1	34 56	1	10	3.9	
	15	12	2	L	OFF KUSHIRO	2	2.0	0.4	145 6	3	42 41	2	90		
	16	17	35	L	SW PART OF IBARAKI PREF	35	22.9	0.6	139 59	2	35 56	4	50	3.2	
	17	0	54	R	OFF MIYAGI PREF	54	14.3	0.5	142 59	3	38 32	1	70		
	17	0	57	M	OFF MIYAGI PREF	57	37.5	1.0	142 52	5	38 26	2	50	5.2	
	17	1	57	M	OFF TOKACHI	57	4.0	0.4	143 4	2	41 1	1	10	4.9	
	19	1	17	U	S OF KURILE IS	16	42.9	2.0	150 18	10	43 28	9	50	5.2	
	19	7	53	L	SW OFF YAKUSHIMA	53	12.7	1.1	129 56	7	29 46	4	70		
	19	12	14	L	N PART OF IWATE PREF	14	4.5	0.2	141 13	1	40 7	1	10	3.9	
	19	23	0	R	NEAR AMAMIOSHIMA	59	22.7	0.5	128 44	8	28 21	5	180		
	20	10	7	U	OFF URAKAWA	7	31.5	0.2	142 46	3	41 30	1	10	4.1	
	21	1	40	L	E OFF TANEGASHIMA	39	49.1	1.4	131 15	5	30 27	4	0	5.0	
	21	3	43	L	TOKYO-SAITAMA BORDER	43	6.0	0.4	139 35	3	35 50	4	140		
	21	12	5	M	FAR OFF SANRIKU	5	6.9	0.7	144 5	4	40 20	2	30	5.6	
	21	16	40	S	SE OFF SHIKOKU	40	11.8	0.3	134 28	1	33 27	2	50	4.5	
	21	22	29	L	W COAST OF WAKAYAMA PREF	28	54.7	0.4	135 16	2	33 43	2	30	4.2	
	22	10	58	U	SE PART OF GUNMA PREF	58	40.9	0.5	139 17	3	36 20	4	40	3.1	
	22	22	36	U	E OFF HOKKAIDO	36	6.6	1.1	147 10	6	43 40	6	10	4.9	
	23	2	47	S	E OFF AOMORI PREF	47	38.8	0.4	142 35	3	41 29	2	50	4.3	
	23	14	13	L	OFF IWATE PREF	12	51.9	0.6	142 14	4	39 38	1	30	3.8	
	23	17	4	U	COAST OF IBARAKI PREF	4	15.7	0.8	140 41	4	36 36	4	80		
	25	16	7	U	E OFF AOMORI PREF	6	56.6	0.7	142 29	5	41 29	3	0	4.0	
	26	0	9	L	SE PART OF GIFU PREF	9	42.5	0.6	137 25	4	35 21	7	70		
	26	5	24	L	HYUGANADA	24	45.9	0.4	131 49	2	32 12	2	0	4.5	
	26	12	2	L	SW PART OF IBARAKI PREF	2	20.4	0.1	139 57	1	36 7	1	50	3.7	
	27	21	46	U	TALAUD IS	41	35.9	0.0	127 30	0	4 48	0	32	6.7	
	28	12	7	L	ENE OFF HACHIJOJIMA	7	8.6	0.8	140 31	5	33 17	2	80		
	28	15	24	U	E OFF AOMORI PREF	24	8.6	0.3	142 55	2	41 2	1	10	4.2	
	28	16	28	L	SW PART OF IBARAKI PREF	27	54.4	0.5	139 54	1	36 4	3	50	3.1	
APR.	1	4	26	R	MIDDLE OF JAPAN SEA	25	25.3	0.3	134 34	2	38 34	2	420		
	1	14	2	S	OFF FUKUSHIMA PREF	2	33.5	0.8	141 40	5	37 5	2	40	4.1	
	3	0	24	U	S COAST OF CHIBA PREF	23	57.2	0.5	140 3	3	34 49	2	80		
	3	9	28	U	N OF HACHIJOJIMA	28	36.6	0.6	140 1	10	33 32	2	130		
	4	0	55	L	MIDDLE OF HOKKAIDO	55	3.3	0.2	143 23	1	43 24	1	0	4.2	
	4	2	41	L	MIDDLE OF HOKKAIDO	41	24.4	0.1	143 24	1	43 24	1	0	4.0	
	4	16	2	U	S COAST OF CHIBA PREF	2	10.8	0.6	140 2	3	34 49	2	70		
	6	1	36	L	NEAR MATSUSHIRO	36	15.8	0.3	138 15	1	36 31	1	0	4.5	
	6	9	47	S	S COAST OF CHIBA PREF	47	8.0	0.6	140 0	4	34 45	3	80		
	8	3	40	S	OFF URAKAWA	40	21.6	0.2	142 28	2	41 59	2	80		
	8	19	20	U	OFF IWATE PREF	19	50.8	0.5	143 13	3	40 22	1	20	4.5	
	9	4	1	U	E OFF HOKKAIDO	1	15.0	1.2	146 10	7	41 55	3	70		
	9	7	56	L	SW OF SHIZUOKA PREF	56	29.4	0.3	137 38	1	34 49	1	20	4.1	
	9	21	57	R	MIDDLE OF TOCHIGI PREF	57	25.2	0.1	139 46	1	36 47	1	100		
	10	20	51	L	NEAR MATSUSHIRO	51	13.9	0.2	138 8	1	36 30	1	10	4.2	
	10	23	16	U	OFF KYOTO PREF	15	22.9	0.6	135 19	8	36 4	6	340		
	10	23	55	U	W OF JAPAN SEA	54	3.9	0.0	130 54	0	42 0	0	555	5.6	
	11	6	58	U	NE OF MIYAKOJIMA	57	34.5	1.4	125 49	5	24 51	9	100		
	12	15	52	L	OFF IBARAKI PREF	52	29.3	0.4	140 58	3	36 43	2	60	3.9	
	13	19	27	L	OFF IWATE PREF	27	38.3	0.3	142 10	2	40 23	1	40	4.0	
	13	22	13	S	NE OF OKINAWA	12	32.6	1.0	129 57	13	29 5	5	0	5.1	

C=CLASS

DATE	JST AND TIME D	H	M	C	LOCATION	ORIGIN TIME M	S	+/-S	LONG.	+/-	LAT.	+/-	H KM	M	REMARKS
APR.	15	5	17	U	S PART OF HOKKAIDO	17	20.0	0.2	143 1	3	42 14	2	60	3.4	
	16	2	31	R	FAR OFF SANRIKU	30	51.3	0.5	143 52	3	39 50	2	20	5.9	
	16	2	58	U	FAR OFF SANRIKU	57	35.2	0.9	143 47	5	39 46	4	10	4.3	
	17	4	59	L	NEAR CHICHIBU	59	43.9	0.2	139 5	1	35 59	1	20	3.1	
	17	12	59	U	NW PART OF CHIBA PREF	59	42.7	0.3	139 59	2	35 43	1	40	3.7	
	17	13	56	M	FAR OFF SANRIKU	56	12.8	0.6	143 47	4	39 34	2	70		
	17	19	19	L	HYUGANADA	18	50.1	0.6	131 56	2	31 35	2	30	4.3	
	18	16	59	U	FAR OFF SANRIKU	59	12.5	1.2	143 57	6	39 42	3	0	4.6	
	19	9	13	L	SW PART OF IBARAKI PREF	12	52.1	0.2	139 59	2	36 2	2	60	3.9	
	19	10	23	M	OFF MIYAGI PREF	23	19.5	0.5	141 59	3	37 55	1	40	4.8	
	19	13	27	U	W PART OF FUKUSHIMA PREF	26	49.2	0.3	139 34	2	37 25	2	0	4.2	
	19	16	20	L	SW PART OF IBARAKI PREF	20	25.0	0.5	140 0	2	36 0	2	40	4.3	
	20	0	18	S	E OFF AOMORI PREF	18	8.0	0.3	142 19	3	40 44	1	40	4.8	
	20	12	55	U	OFF MIYAGI PREF	54	45.0	0.8	142 5	4	37 53	2	40	4.1	
	21	16	19	R	HYUGANADA	19	24.5	0.5	132 7	2	32 9	2	10	6.5	
	21	16	37	U	HYUGANADA	37	14.5	1.7	132 11	5	31 44	5	10	4.2	
	21	16	59	L	KASHIMANADA	59	5.1	0.2	140 41	2	36 20	1	80		
	21	19	26	L	HYUGANADA	26	7.7	1.2	132 10	4	31 58	4	20	4.5	
	21	19	28	L	HYUGANADA	28	25.8	1.2	132 9	5	32 0	4	10	4.6	
	21	19	59	S	HYUGANADA	59	26.1	0.5	132 5	2	32 7	2	10	4.7	
	22	17	11	R	FAR OFF SANRIKU	11	18.4	0.5	143 25	3	39 50	2	60	5.9	
	24	7	44	L	HYUGANADA	44	34.8	1.4	131 59	6	32 9	3	0	4.1	
	24	11	14	U	E OFF AOMORI PREF	13	42.9	0.3	142 31	2	41 19	1	0	4.4	
	25	12	29	S	NW PART OF CHIBA PREF	29	27.5	0.2	140 6	1	35 40	1	50	4.5	
	26	3	49	L	NEAR MATSUSHIRO	49	11.5	0.2	138 7	1	36 26	1	10	4.0	
	26	6	35	S	OFF IWATE PREF	35	19.6	0.5	143 14	3	39 52	2	20	4.8	
	28	14	5	L	S PART OF IBARAKI PREF	5	24.8	0.4	140 16	3	35 59	2	70		
	28	16	16	U	COAST OF IBARAKI PREF	15	58.5	1.4	140 45	7	36 45	7	90		
MAY	2	2	1	L	N OF KUMAMOTO PREF	1	6.4	0.3	130 47	3	32 55	1	10	3.5	
	3	5	40	M	OFF SANRIKU	40	8.7	0.4	143 14	3	40 55	1	40	5.2	
	3	7	45	M	OFF IWATE PREF	45	41.8	0.3	142 32	2	40 8	1	30	5.1	
	4	0	46	S	E OF YAMANASHI PREF	46	24.5	0.1	138 58	1	35 29	1	20	3.9	
	4	4	9	L	NE OFF CHOSHI	9	39.4	0.9	141 6	6	35 54	3	80		
	4	11	37	U	S OFF BOSO PEN	36	48.3	0.3	140 30	3	34 2	1	80		
	4	15	39	U	OFF IWATE PREF	39	24.0	0.2	142 40	1	40 22	1	30	4.3	
	4	18	25	U	MIDDLE OF KOCHI PREF	25	24.9	0.1	133 48	1	33 33	1	10	3.5	
	5	16	32	U	MIDDLE OF IWATE PREF	32	35.3	0.3	141 46	4	39 40	2	100		
	5	23	59	L	E OFF AOMORI PREF	59	37.7	0.3	141 55	3	40 55	1	60	4.3	
	6	15	54	L	SW OF IBARAKI PREF	54	14.9	0.4	139 57	3	36 4	3	70		
	7	13	10	U	MIDDLE OF HOKKAIDO	9	28.9	0.6	142 49	4	44 3	4	220		
	7	19	35	U	S OFF MIURA PEN	35	1.8	0.3	139 38	3	35 10	2	120		
	8	11	48	L	E OF CHIBA PREF	47	58.5	0.7	140 29	3	35 14	2	40	4.4	
	9	3	37	U	OFF SANRIKU	36	57.3	0.6	143 19	4	40 53	2	40	4.3	
	9	5	52	U	S OF KURILE IS	52	9.9	1.3	148 43	7	44 4	13	40	5.0	
	11	19	43	R	S OFF KURILE IS	42	46.4	1.1	148 49	6	43 38	5	50	5.2	
	12	1	4	L	OFF IWATE PREF	4	31.0	0.8	142 32	4	40 9	1	40	3.9	
	13	3	53	L	S OF CHIBA PREF	53	0.4	0.2	139 47	1	34 56	1	40	4.3	
	13	7	31	U	OFF URAKAWA	30	55.1	0.3	142 40	2	41 34	1	40	4.3	
	13	12	55	S	N OF CHIBA PREF	54	51.3	0.2	140 7	1	35 44	1	80		
	13	23	19	R	KASHIMANADA	19	43.2	0.2	140 40	2	36 28	1	50	5.2	
	14	21	58	U	N OFF NOTO PEN	58	2.6	1.1	137 37	5	37 52	4	0	4.1	
	15	1	6	S	S OFF BOSO PEN	5	50.9	0.5	139 58	4	34 20	1	30	4.2	
	15	4	38	U	ALEUTIAN IS	32	54.2	0.0	-179 54	0	51 18	0	21	6.2	
	15	5	34	L	NE OFF NEMURO PEN	34	10.8	1.3	146 43	7	43 20	4	40	4.9	
	15	10	56	R	SE OFF CHIBA PREF	56	8.0	0.3	140 6	2	34 54	1	70		
	15	11	49	U	S OF CHIBA PREF	49	37.8	0.7	140 2	4	34 49	4	70		
	15	14	39	U	S OF CHIBA PREF	39	35.0	0.4	140 1	3	34 51	2	70		
	15	23	49	U	S OF CHIBA PREF	49	43.8	2.2	140 19	12	34 46	8	70		
	16	1	5	U	S OF CHIBA PREF	5	8.6	0.5	140 0	4	34 47	3	70		
	16	2	33	L	S OF CHIBA PREF	33	43.2	0.3	140 1	2	34 50	1	70		
	16	3	19	U	S OF CHIBA PREF	19	40.4	0.5	140 1	3	34 50	2	70		
	16	11	14	S	E OF IWATE PREF	14	14.7	0.4	141 51	3	39 45	1	80		
	16	15	57	R	SE OFF KII PEN	56	39.6	0.3	136 52	2	32 58	3	400		
	17	5	36	U	S OF CHIBA PREF	36	28.4	0.6	139 57	4	34 51	2	70		
	17	9	5	L	NEAR MATSUSHIRO	4	57.9	0.3	138 4	1	36 27	1	10	3.3	
	17	19	29	U	S OFF CHOSHI	29	50.2	0.9	140 51	5	35 31	2	30	3.9	
	18	3	31	U	S OF CHIBA PREF	30	57.1	1.6	140 20	9	34 51	5	70		
	18	7	20	U	MIDDLE OF IBARAKI PREF	19	51.6	0.6	140 28	4	36 29	5	70		
	19	5	56	M	E OFF AOMORI PREF	56	22.9	0.3	142 30	3	41 22	1	40	4.8	
	19	7	1	L	S OF CHIBA PREF	1	46.0	0.5	139 55	3	34 50	2	70		
	19	12	55	L	S OF CHIBA PREF	54	57.6	0.4	140 4	3	34 54	2	70		
	19	13	17	U	S OF CHIBA PREF	17	28.1	0.4	140 3	3	34 55	2	70		
	19	16	48	U	S OF CHIBA PREF	48	23.5	0.2	139 57	1	34 47	1	70		
	20	15	36	M	OFF MIYAGI PREF	35	58.8	0.3	141 50	3	38 21	1	60	4.8	
	20	16	12	U	E OFF CHIBA PREF	12	41.7	1.1	140 51	5	35 30	5	50	3.8	
	20	23	22	S	E OFF AOMORI PREF	21	49.7	0.3	141 55	3	40 55	1	50	4.4	
	21	0	0	S	E OFF NEMURO PEN	59	40.3	2.6	147 20	18	43 34	13	0	4.9	
	21	0	6	L	NEAR OSHIMA	5	54.7	0.5	139 27	6	34 47	4	100		
	21	17	43	S	E OFF AOMORI PREF	43	36.5	0.3	142 4	3	41 26	2	20	4.2	
	22	0	46	L	MIDDLE OF NARA PREF	45	50.7	0.3	135 53	2	34 22	2	40	3.9	

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C=CLASS

DATE	JST AND TIME D	H	M	C	LOCATION	ORIGIN TIME M	S	+/-S	LONG.	+/-	LAT.	+/-	H KM	M	REMARKS
MAY	22	2	55	L	NEAR MATSUSHIRO	55	43.4	0.2	138 6 1		36 25 1		0	4.4	
	22	18	37	U	OFF SANRIKU	36	34.6	1.4	143 35 7		38 14 3		0	4.9	
	22	20	40	S	E OF IBARAKI PREF	40	49.4	0.3	140 34 2		36 29 1		50	4.4	
	24	8	4	L	SW OF IBARAKI PREF	4	3.8	0.2	139 55 1		36 8 1		60	4.0	
	29	2	13	U	S OF KURILE	13	13.3	1.1	147 40 7		44 56 5		90		
	29	7	25	S	OFF IWATE PREF	25	37.3	0.4	142 8 3		40 4 1		40	4.4	
	29	22	16	U	OFF IWATE PREF	16	17.5	0.7	143 19 4		39 49 2		10	4.5	
	29	22	18	U	OFF SANRIKU	17	50.4	0.8	143 25 4		39 53 2		30	4.3	
	29	22	46	U	OFF IWATE PREF	46	1.4	0.7	143 28 3		39 48 2		30	4.5	
	30	20	55	U	OFF FUKUSHIMA PREF	55	16.2	0.6	141 6 7		37 15 2		100		
	31	19	44	S	NEAR WAKAYAMA	44	38.6	0.1	135 7 1		34 1 1		10	4.4	
	31	23	12	U	N OF CHIBA PREF	12	42.7	0.4	139 45 4		35 54 2		70		
JUNE	2	10	49	U	OFF URAKAWA	49	0.2	0.4	142 41 2		41 26 1		10	4.0	
	3	6	57	U	OFF IBARAKI PREF	56	53.2	1.0	141 55 5		36 7 3		60	4.6	
	3	9	26	L	NEAR NEMURO	25	52.5	0.3	145 13 2		43 9 2		0	4.3	
	4	1	22	L	OFF URAKAWA	22	18.0	0.5	142 42 3		41 36 3		40	4.2	
	4	2	11	U	E OFF AOMORI PREF	11	35.1	0.9	142 39 4		40 33 2		0	4.1	
	4	6	53	U	FAR OFF SANRIKU	52	57.8	0.9	144 12 5		40 13 3		0	5.0	
	4	17	37	L	ARIAKEKAI	37	12.9	0.1	130 20 1		33 0 1		20	3.4	
	4	23	14	U	FAR OFF SANRIKU	13	47.8	1.4	143 43 7		40 20 3		20	4.4	
	5	18	39	L	OFF IWATE PREF	39	37.3	0.3	142 9 3		39 19 1		50	4.0	
	5	20	16	S	OFF IWATE PREF	16	26.7	0.2	142 3 2		39 59 1		50	4.0	
	6	3	42	M	OFF FUKUSHIMA PREF	42	0.9	0.5	141 41 3		37 36 1		60	4.3	
	6	7	18	U	OFF FUKUSHIMA PREF	18	36.5	0.5	141 44 2		36 56 1		40	4.3	
	7	0	48	S	OFF IBARAKI PREF	48	7.4	0.7	141 15 4		36 35 1		50	4.3	
	7	22	28	S	NW OF CHIBA PREF	28	44.2	0.2	139 56 2		35 42 2		70		
	9	3	25	U	E OFF AOMORI PREF	25	11.5	1.6	142 7 4		41 24 8		40	4.1	
	9	16	3	L	W OF TOCHIGI PREF	3	4.0	1.0	139 30 3		36 39 6		30	3.7	
	10	8	10	U	E OFF HOKKAIDO	9	47.8	2.6	148 39 15		43 29 3		50	5.0	
	10	9	26	L	NEAR MATSUSHIRO	26	30.0	0.2	138 8 1		36 31 0		10	3.8	
	10	19	53	L	NEAR MATSUSHIRO	53	33.9	0.2	138 6 1		36 26 1		10	4.5	
	11	1	41	S	OFF MIYAGI PREF	41	38.2	0.6	141 52 5		38 35 2		60	4.5	
	11	7	52	U	FAR OFF SANRIKU	51	42.9	1.1	144 26 7		40 23 3		0	5.0	
	12	14	23	U	OFF IBARAKI PREF	22	56.4	1.6	141 34 8		36 50 4		50	4.0	
	12	16	41	M	FAR OFF SANRIKU	41	21.4	0.8	144 2 5		40 20 2		40	5.6	
	12	17	3	L	OFF URAKAWA	3	23.5	0.4	142 38 3		41 37 2		30	4.3	
	12	19	26	U	FAR OFF SANRIKU	25	42.6	2.1	144 12 12		40 4 5		50	4.6	
	13	17	50	U	KURILE IS	48	29.5	0.0	155 30 0		49 24 0		64	5.9	
	14	1	3	U	NEAR HIMEJI	3	14.2	0.3	134 44 1		34 47 1		10	3.5	
	14	17	12	L	E COAST OF BOSO PEN	12	21.4	0.5	140 19 2		35 22 2		0	4.4	
	16	17	45	L	SW OF IBARAKI PREF	45	41.9	0.6	139 54 3		36 15 11		50	3.1	
	16	18	53	L	NEAR HIMEJI	53	48.5	0.3	134 41 1		34 47 1		10	3.3	
	17	1	45	L	MIDDLE OF TOTTORI PREF	45	19.9	0.2	133 58 1		35 23 1		10	3.9	
	18	4	29	U	MARIANA	26	28.9	0.0	145 30 0		19 0 0		206	5.8	
	18	9	31	S	W OFF AOMORI PREF	30	38.8	0.6	139 26 3		40 50 2		10	4.6	
	18	17	22	M	ENSHUNADA	22	11.0	0.8	137 58 7		34 33 8		280		
	18	21	32	U	OFF IWATE PREF	32	5.0	1.0	142 36 6		40 9 2		50	4.0	
	19	16	3	L	NEAR AMAMIOSHIMA	3	2.4	1.7	130 9 16		27 55 8		90		
	20	12	9	S	HYUGANADA	9	32.2	0.6	131 51 2		32 6 2		0	4.1	
	20	15	33	U	S OF HYOGO PREF	33	36.3	0.7	135 2 3		34 52 4		0	3.5	
	20	15	41	R	OFF MIYAGI PREF	41	4.5	0.3	142 12 2		38 25 1		70		
	20	16	7	U	S OF HYOGO PREF	7	47.8	0.2	135 5 1		34 56 1		10	3.5	
	21	0	38	R	E OFF AOMORI PREF	37	47.9	0.3	142 22 2		40 42 1		40	5.6	
	21	6	19	S	OFF FUKUSHIMA PREF	19	21.6	0.5	141 42 2		37 0 1		40	4.3	
	21	17	30	S	OFF FUKUSHIMA PREF	30	31.5	0.3	141 33 2		37 21 1		50	4.4	
	21	18	24	L	S OF KUMAMOTO PREF	24	36.8	0.2	130 34 1		32 17 1		10	4.0	
	23	14	57	R	OFF FUKUSHIMA PREF	57	7.1	0.3	141 40 2		37 18 1		50	5.2	
	24	2	56	U	OFF IBARAKI PREF	56	24.6	0.8	141 36 4		35 52 2		50	4.2	
	24	10	20	S	OFF IWATE PREF	20	4.4	0.6	143 5 3		39 6 1		20	4.7	
	24	10	22	R	S OFF HONSHU	21	12.1	0.0	138 18 0		31 18 0		387		
	24	20	25	U	E OF SAITAMA PREF	25	29.2	0.2	139 32 2		35 56 2		70		
	25	13	0	L	OFF URAKAWA	0	4.4	0.3	142 32 2		41 52 3		80		
	26	5	51	L	E COAST OF CHIBA PREF	51	22.0	0.8	140 23 3		35 16 2		0	3.8	
	27	11	15	R	S OF HOKKAIDO	15	48.9	0.2	143 9 1		42 11 1		60	5.4	
	27	12	19	L	OFF IWATE PREF	18	57.3	0.6	142 11 4		39 39 1		40	3.8	
	27	20	48	L	S OF CHIBA PREF	48	10.3	0.7	139 53 3		34 47 4		50	3.5	
	27	23	42	S	E OF SAITAMA PREF	42	42.1	0.1	139 31 1		35 56 1		90		
	28	6	29	M	OFF FUKUSHIMA PREF	29	25.0	0.3	141 36 2		37 2 1		50	4.5	
	28	11	14	L	SW OF IBARAKI PREF	14	24.4	0.2	140 5 1		36 18 1		40	3.8	
	29	1	0	L	S OF CHIBA PREF	0	10.7	0.5	139 44 3		34 40 3		140		
	30	9	12	U	OFF ASHIZURI PEN	12	24.2	1.1	132 56 4		32 23 4		30	4.3	
JULY	1	18	13	L	S OF IBARAKI PREF	13	2.9	0.3	140 20 2		36 12 2		60	3.9	
	2	5	43	S	OFF MIYAKO	43	32.5	0.4	142 12 3		39 36 1		50	4.1	
	2	11	45	U	OFF MIYAZAKI PREF	45	26.6	0.4	132 3 2		32 36 2		20	4.1	
	2	21	14	S	SE OFF NEMURO PEN	13	50.8	0.7	146 11 3		42 36 1		0	4.6	
	4	2	59	L	OFF IBARAKI PREF	59	40.7	0.3	141 4 2		36 43 1		40	4.0	
	4	8	52	U	OFF URAKAWA	52	17.9	0.6	142 32 4		41 30 3		0	4.2	
	5	18	16	U	MIE-NARA BORDER	15	54.9	0.1	135 44 1		34 13 1		60	3.6	
	8	6	43	S	OFF URAKAWA	43	19.3	0.3	142 32 2		42 6 2		70		
	8	7	52	U	KII CHANNEL	52	32.0	0.7	134 44 3		34 0 4		50	3.6	

C=CLASS

DATE	JST AND TIME D	H	M	C	LOCATION	ORIGIN TIME M	S	+/-S	LONG.	+/-	LAT.	+/-	H KM	M	REMARKS
JULY	8	9	7	L	SE OF CHOSHI	6	56.0	0.9	141 3 5		35 28 2		30	3.9	
	8	11	58	L	CHIBA-IBARAKI BORDER	58	50.6	0.4	140 15 1		35 57 2		40	3.7	
	8	19	27	S	OFF URAKAWA	27	26.2	0.4	142 46 2		41 32 2		30	4.5	
	9	11	44	L	KUMANONADA	44	30.1	0.4	136 31 2		34 11 1		30	4.1	
	9	17	38	U	KII CHANNEL	38	3.6	0.2	135 0 1		33 43 1		50	3.8	
	9	19	21	L	W COAST OF WAKAYAMA PREF	21	49.7	0.2	135 8 1		34 10 1		10	4.4	
	10	20	47	L	OFF URAKAWA	47	30.9	0.2	142 32 2		42 4 1		70		
	11	5	5	U	OFF TOKACHI	4	53.2	0.5	143 8 3		41 3 2		110		
	11	17	56	L	S OF HOKKAIDO	56	1.6	0.3	142 19 3		42 37 3		110		
	11	19	38	U	OFF IWATE PREF	37	46.7	0.7	142 56 3		40 7 3		30	3.8	
	12	6	58	U	TOKYO-KANAGAWA BORDER	58	27.7	0.2	139 36 2		35 34 1		50	3.6	
	12	11	34	L	S OF KII PEN	34	42.8	0.5	135 43 3		33 35 2		10	3.5	
	13	4	16	M	OFF SANRIKU	16	24.9	0.8	143 54 4		39 45 2		10	5.6	
	13	12	4	U	OFF SANRIKU	4	18.8	1.1	143 57 6		39 46 3		30	4.7	
	14	15	0	U	OFF IBARAKI PREF	0	1.6	0.6	141 13 3		36 26 2		50	3.6	
	15	0	56	U	OFF SANRIKU	55	47.9	0.9	144 2 5		39 50 2		30	4.8	
	15	5	2	U	OFF SANRIKU	1	27.1	1.3	144 12 7		40 18 3		40	4.7	
	16	5	51	L	OFF IBARAKI PREF	51	9.4	0.4	140 57 2		36 9 1		40	3.5	
	16	12	25	U	S OF CHIBA PREF	25	35.1	0.4	140 4 2		34 49 2		60	4.0	
	16	15	10	S	S OF CHIBA PREF	10	33.6	1.0	140 19 5		34 34 3		60	4.1	
	16	17	19	U	KAMCHATKA	16	53.3	0.0	159 0 0		52 12 0		69	5.8	
	18	14	26	R	NORTHEASTERN CHINA	24	48.0	0.0	119 24 0		38 18 0		33	7.3	
	19	18	15	U	OFF SANRIKU	15	8.6	0.8	143 42 4		39 28 3		30	4.4	
	19	18	24	U	OFF SANRIKU	24	32.6	1.4	143 38 7		39 30 5		50	4.4	
	20	3	31	S	E OFF AOMORI PREF	30	44.7	0.3	142 35 2		40 57 1		20	4.3	
	20	7	15	S	MIDDLE OF CHIBA PREF	15	13.1	0.2	140 7 2		35 32 1		80		
	20	11	11	U	OFF KUSHIRO	10	45.1	0.8	145 2 3		42 22 3		20	4.2	
	21	1	7	U	OFF SANRIKU	7	18.5	2.4	143 49 13		39 43 10		80		
	21	22	49	U	OFF URAKAWA	49	43.6	0.4	142 20 8		41 40 5		30	4.1	
	22	4	44	M	OFF SANRIKU	44	10.5	0.4	143 18 2		39 29 1		30	5.2	
	23	17	28	L	NEAR CHOSHI	28	6.7	1.6	141 15 8		35 48 4		30	4.2	
	23	20	25	L	NEAR CHOSHI	25	50.7	1.1	140 57 6		35 49 2		20	4.0	
	23	22	14	R	OFF FUKUSHIMA PREF	14	32.0	0.4	141 45 2		37 14 1		40	5.5	
	23	23	28	L	NEAR CHOSHI	28	48.9	0.5	140 42 4		35 45 3		20	3.5	
	24	5	12	S	N OF MIYAGI PREF	12	9.9	0.2	141 23 3		38 47 1		100		
	24	23	57	S	OFF URAKAWA	56	56.8	0.2	142 35 2		41 51 1		80		
	25	1	33	L	NEAR CHOSHI	33	20.4	0.8	141 0 4		35 48 2		30	4.1	
	25	20	48	L	KII CHANNEL	48	7.3	0.3	134 46 1		33 15 1		60	4.2	
	26	23	39	S	E OF KANAGAWA PREF	39	12.6	0.2	139 40 1		35 28 1		40	4.2	
	27	4	36	L	NEAR UNZENDAKE	36	42.2	0.2	130 11 1		32 47 1		10	4.4	
	27	4	47	L	NEAR UNZENDAKE	47	38.7	0.2	130 16 1		32 49 0		0	3.5	
	27	20	2	U	E OFF AOMORI PREF	2	29.8	0.4	142 32 3		41 10 1		40	4.3	
	28	1	43	L	SE OF FUKUSHIMA PREF	43	28.7	0.2	140 25 3		37 10 2		90		
	28	19	19	U	MIDDLE OF HOKKAIDO	19	10.1	0.5	141 55 3		43 15 4		100		
	28	22	3	M	SE OFF KYUSHU	3	15.9	0.6	132 35 2		30 32 3		80		
	29	12	23	U	E OFF MIYAKEJIMA	22	56.4	0.3	139 54 3		34 0 1		110		
	30	4	16	U	OFF NIIGATA PREF	16	37.0	0.2	138 22 1		37 37 1		0	4.2	
	30	21	47	S	OFF KUSHIRO	47	26.1	0.6	144 41 3		42 32 3		50	4.4	
	31	3	42	U	SW OFF MIYAKEJIMA	41	58.2	0.8	139 10 5		33 40 2		0	4.4	
AUG.	1	6	15	L	OFF IWATE PREF	15	31.7	0.2	142 15 1		39 3 0		40	3.8	
	1	19	19	U	OFF MIYAZAKI PREF	19	28.3	1.5	131 53 6		32 13 4		0	4.1	
	2	8	7	U	OFF SANRIKU	7	4.2	1.9	143 33 10		40 11 6		50	4.3	
	2	8	44	R	S OF KURILE IS	43	45.5	1.7	151 4 10		44 46 8		60	5.8	
	2	9	35	U	S OF KURILE IS	34	21.1	1.7	150 54 10		44 30 11		20	5.3	
	4	3	17	U	OFF KUSHIRO	17	33.7	0.9	144 1 4		42 26 3		0	4.2	
	4	23	12	S	OFF IWATE PREF	12	42.5	0.8	142 6 6		40 4 2		40	4.0	
	5	2	25	U	BANDA SEA	19	19.6	0.0	125 18 0		-5 42 0		521	6.2	
	5	11	18	U	MOLUCCA PASSAGE	13	9.6	0.0	126 12 0		1 18 0		33	7.0	
	6	3	34	M	E OF FUKUSHIMA PREF	34	31.7	0.2	140 49 2		37 22 1		110		
	6	17	40	S	SE OF HACHIJOJIMA	40	30.5	0.9	140 50 4		32 25 3		70		
	6	19	21	U	OFF FUKUSHIMA PREF	21	33.7	0.4	141 5 4		37 34 2		80		
	9	5	51	U	BANDA SEA	44	21.0	0.0	129 42 0		-6 6 0		196	5.9	
	11	12	31	S	MIDDLE OF CHIBA PREF	31	1.2	0.2	140 12 1		35 34 1		80		
	11	20	28	L	NEAR MATSUSHIRO	28	53.0	0.2	138 3 1		36 24 1		0		
	11	20	45	L	NEAR MATSUSHIRO	45	34.3	0.1	138 7 1		36 26 0		0		
	12	4	51	U	OFF IWATE PREF	51	8.0	0.8	142 29 4		40 8 1		30	3.7	
	12	6	8	U	E OFF HOKKAIDO	7	56.3	1.1	147 35 5		43 18 6		0	4.7	
	12	6	22	U	E OFF HOKKAIDO	21	42.1	2.6	148 27 14		43 12 10		60	4.6	
	12	6	27	R	E OFF HOKKAIDO	26	32.6	1.2	148 11 7		43 6 5		50		
	12	6	28	R	E OFF HOKKAIDO	27	39.1	1.8	147 37 9		42 42 7		30	7.8	Minor tsunami
	12	7	42	S	E OFF HOKKAIDO	41	57.7	2.2	147 32 12		43 23 16		70		
	12	7	54	R	E OFF HOKKAIDO	54	2.9	1.8	148 5 9		43 22 8		50	5.6	
	12	8	3	M	E OFF HOKKAIDO	2	55.9	1.6	147 41 10		43 12 7		100		
	12	8	34	U	E OFF HOKKAIDO	34	6.5	2.2	148 17 12		43 34 14		60	5.3	
	12	8	39	N	E OFF HOKKAIDO	39	25.7	1.4	146 59 7		42 56 5		10	5.3	
	12	8	43	U	E OFF HOKKAIDO	42	3.9	2.0	147 41 12		43 10 14		60	5.2	
	12	9	19	S	E OFF HOKKAIDO	19	4.8	1.4	147 2 8		42 55 7		40	4.8	
	12	9	53	M	E OFF HOKKAIDO	53	34.8	1.8	147 19 10		42 56 6		60	5.3	
	12	10	3	S	E OFF HOKKAIDO	2	59.0	2.9	147 56 15		43 7 14		60	5.3	
	12	11	7	U	E OFF HOKKAIDO	6	42.8	2.2	147 49 12		42 48 6		50	4.8	

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DATE	JST AND TIME D	H	M	C	LOCATION	ORIGIN TIME M	S	+/-S	LONG.	+/-	LAT.	+/-	H KM	M	REMARKS
AUG.	12	11	35	U	E OFF HOKKAIDO	34	43.5	3.1	147 8 18		42 48 6		50	4.8	
	12	12	9	U	E OFF HOKKAIDO	9	17.4	1.9	147 31 11		43 9 5		50	4.8	
	12	12	19	U	E OFF HOKKAIDO	18	42.0	2.8	148 46 15		43 32 18		70		
	12	12	34	S	E OFF HOKKAIDO	33	36.9	1.7	147 42 10		42 57 5		60	5.5	
	12	13	13	M	E OFF HOKKAIDO	12	49.2	1.5	146 54 8		43 28 7		50	4.9	
	12	13	48	U	E OFF HOKKAIDO	48	25.1	2.1	147 53 13		42 52 6		110		
	12	13	54	M	E OFF HOKKAIDO	53	35.5	1.5	147 42 8		43 10 5		70		
	12	14	3	R	E OFF HOKKAIDO	3	26.5	1.9	148 16 10		42 58 5		70		
	12	14	9	M	E OFF HOKKAIDO	8	58.0	3.6	147 15 18		42 33 12		30	5.2	
	12	14	54	R	E OFF HOKKAIDO	53	33.7	1.8	148 3 10		43 19 6		70		
	12	15	39	S	E OFF HOKKAIDO	38	53.2	3.7	147 18 20		42 52 16		60	5.0	
	12	15	49	S	E OFF HOKKAIDO	49	28.7	1.4	146 43 7		42 54 3		0	4.9	
	12	16	11	U	E OFF HOKKAIDO	10	45.3	1.3	147 55 7		43 27 5		70		
	12	16	38	S	E OFF HOKKAIDO	38	12.6	0.9	147 57 5		43 46 5		40	5.1	
	12	16	55	M	E OFF HOKKAIDO	54	44.4	0.9	147 13 5		42 41 3		50	5.4	
	12	18	26	M	E OFF HOKKAIDO	25	40.6	1.1	147 13 6		42 56 3		10	5.5	
	12	18	34	M	E OFF HOKKAIDO	33	43.5	1.4	147 37 7		43 12 4		60	5.3	
	12	20	22	R	E OFF HOKKAIDO	21	21.6	1.4	148 52 8		43 13 5		50	5.9	
	12	20	57	M	E OFF HOKKAIDO	56	59.9	2.0	147 46 11		43 27 9		70		
	12	21	32	U	E OFF HOKKAIDO	31	42.2	3.0	148 19 17		42 38 8		70		
	12	21	44	U	E OFF HOKKAIDO	44	34.7	2.5	147 21 12		43 34 12		0	4.5	
	12	22	18	R	E OFF HOKKAIDO	18	6.1	2.5	148 32 13		43 10 9		90		
	13	2	46	L	MIDDLE OF TOCHIGI PREF	46	51.8	0.2	139 44 1		36 38 1		10	4.2	
	13	3	20	L	MIDDLE OF TOCHIGI PREF	20	20.8	0.3	139 41 1		36 39 1		0	3.9	
	13	4	20	U	E OFF HOKKAIDO	20	37.0	1.7	147 19 9		43 4 7		60	4.7	
	13	6	16	M	E OFF HOKKAIDO	16	8.0	1.5	147 10 8		42 42 4		60	5.4	
	13	8	6	R	E OFF HOKKAIDO	5	53.6	2.9	148 19 17		43 2 7		80		
	13	11	7	U	E OFF HOKKAIDO	7	7.8	2.8	148 53 16		43 14 12		70		
	13	12	29	S	E OFF HOKKAIDO	29	16.6	1.3	147 8 7		43 8 4		20	5.3	
	13	13	28	U	E OFF HOKKAIDO	28	26.9	1.9	147 9 10		43 30 9		10	4.9	
	13	14	55	U	E OFF HOKKAIDO	54	54.2	1.6	147 59 8		43 42 8		50	5.1	
	13	15	10	M	E OFF HOKKAIDO	10	26.8	2.2	147 26 11		43 35 12		20	5.0	
	13	16	24	U	E OFF HOKKAIDO	24	1.0	1.5	147 36 8		43 7 6		60	5.1	
	13	17	32	M	E OFF HOKKAIDO	31	33.2	1.5	147 56 8		43 31 6		50	5.7	
	13	21	28	S	OFF FUKUSHIMA PREF	28	40.3	0.4	141 53 2		37 18 1		50	3.9	
	14	2	7	M	E OFF HOKKAIDO	7	8.2	3.0	147 22 17		42 47 7		40	5.1	
	14	3	48	U	E OFF HOKKAIDO	48	11.8	2.2	146 38 10		43 13 7		10	4.1	
	14	4	34	U	E OFF HOKKAIDO	33	41.6	2.0	147 14 10		43 21 7		0	5.0	
	14	7	57	R	E OFF HOKKAIDO	57	8.9	1.4	148 23 7		43 38 5		50	5.8	
	14	12	7	U	E OFF HOKKAIDO	7	29.9	1.5	147 42 8		43 10 6		50	4.9	
	14	13	48	U	E OFF HOKKAIDO	47	49.0	1.6	148 8 9		43 7 6		50	5.0	
	14	18	0	U	E OFF HOKKAIDO	59	47.5	1.3	147 51 6		43 5 4		50	4.7	
	14	20	51	U	E OFF HOKKAIDO	51	12.0	2.2	147 36 12		42 58 6		60	4.8	
	14	21	40	U	S OFF CHIBA PREF	40	8.2	0.4	140 3 3		34 50 2		70		
	14	22	32	U	E OFF HOKKAIDO	31	41.6	1.8	147 28 9		43 7 7		60	4.7	
	14	23	19	R	E OFF HOKKAIDO	19	1.2	1.2	147 15 6		42 54 3		0	6.2	
	15	0	28	U	E OFF HOKKAIDO	27	44.6	3.1	147 56 17		42 30 8		70		
	15	0	38	U	E OFF HOKKAIDO	38	19.7	1.1	147 12 6		43 0 4		0	4.9	
	15	1	28	U	E OFF HOKKAIDO	27	41.8	2.4	148 19 13		43 11 8		40	4.9	
	15	1	59	U	E OFF HOKKAIDO	58	45.1	3.2	146 56 17		42 45 8		0	4.8	
	15	2	6	S	E OFF HOKKAIDO	5	54.9	1.5	147 25 8		42 42 5		50	4.9	
	15	5	16	U	E OFF HOKKAIDO	15	40.5	1.9	147 39 10		43 3 6		60	4.8	
	15	6	56	S	E OFF AOMORI PREF	56	35.3	1.1	142 28 7		40 38 2		60	4.3	
	15	7	13	U	E OFF HOKKAIDO	12	23.8	1.9	148 46 10		43 19 8		50	5.1	
	15	9	37	L	SE OF SAITAMA PREF	37	36.2	0.2	139 31 2		35 49 2		90		
	15	13	32	R	E OFF HOKKAIDO	32	2.8	1.7	147 24 9		42 50 6		10	5.6	
	15	15	19	M	E OFF HOKKAIDO	18	29.8	1.8	148 30 10		43 12 12		60	5.3	
	15	17	44	U	MARIANA IS	41	54.9	0.0	143 0 0		21 36 0		319	6.1	
	15	18	48	L	S OF TOCHIGI PREF	47	58.6	0.1	139 32 1		36 18 1		120		
	15	18	48	U	E OFF HOKKAIDO	47	56.9	1.7	147 15 9		43 2 7		0	4.9	
	15	19	2	U	E OFF HOKKAIDO	2	16.0	2.3	148 11 13		42 45 6		90		
	15	19	34	U	E OFF HOKKAIDO	34	3.1	2.0	147 11 10		42 53 6		0	4.5	
	15	20	30	U	E OFF HOKKAIDO	29	47.5	2.9	148 25 16		42 53 9		50	4.9	
	16	0	24	U	OFF MIYAGI PREF	23	59.3	0.8	142 18 5		38 41 1		40	3.6	
	16	5	6	U	E OFF HOKKAIDO	6	17.2	2.3	147 52 13		43 16 11		50	4.8	
	16	5	48	M	E OFF HOKKAIDO	47	44.8	1.8	147 6 9		43 2 6		30	5.1	
	16	7	44	M	E OFF HOKKAIDO	43	47.1	1.3	147 25 7		42 53 4		50	5.2	
	16	12	28	U	E OFF HOKKAIDO	28	3.2	0.7	147 39 4		43 0 4		40	4.8	
	16	12	39	L	S OF IBARAKI PREF	39	37.1	0.3	139 57 2		36 0 2		50	3.6	
	16	17	48	M	E OFF HOKKAIDO	47	47.6	1.5	147 38 8		42 51 5		60	5.0	
	16	18	3	R	E OFF HOKKAIDO	3	14.7	1.5	148 23 9		43 38 6		60	5.2	
	16	22	13	U	E OFF HOKKAIDO	12	38.4	2.6	147 36 13		42 53 9		50	4.4	
	17	0	15	R	E OFF HOKKAIDO	15	31.1	1.0	147 25 6		42 53 3		60	5.9	
	17	1	11	L	E OF GUNMA PREF	11	26.5	0.2	139 20 1		36 38 1		20	3.5	
	17	2	14	M	E OFF HOKKAIDO	13	41.6	1.1	147 34 6		42 52 3		60	5.5	
	17	3	34	U	SAGAMI BAY	33	48.6	0.2	139 23 2		35 11 1		120		
	17	3	53	L	OFF IWATE PREF	52	55.3	0.6	142 7 3		40 11 1		30	3.6	
	17	6	5	U	E OF KANAGAWA PREF	5	7.0	0.2	139 38 2		35 27 1		90		
	17	14	52	U	E OFF HOKKAIDO	52	18.9	1.2	147 17 6		43 7 5		10	4.2	
	17	17	5	U	S OFF CHIBA PREF	5	6.4	1.2	140 11 8		34 46 4		80		

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DATE	JST AND TIME D	H	M	C	LOCATION	ORIGIN TIME M	S	+/-S	LONG.	+/-	LAT.	+/-	H KM	M	REMARKS
AUG.	17	20	55	R	OFF TOMAKOMAI	54	54.3	0.2	141 31 2		42 35 1		140		
	18	3	9	U	E OFF HOKKAIDO	9	8.8	1.9	147 30 10		43 3 5		60	4.8	
	18	14	26	M	OFF BOSO PEN	25	46.9	0.6	140 45 3		34 1 2		60	5.2	
	18	18	28	U	OFF TOKACHI	28	2.8	1.9	144 17 5		41 47 7		0	4.4	
	18	20	44	U	E OFF HOKKAIDO	43	34.7	1.6	148 4 9		43 27 7		60	5.3	
	18	22	47	U	E OFF HOKKAIDO	47	25.9	1.2	146 58 6		42 52 4		0	4.4	
	19	17	16	U	E OFF IBARAKI PREF	15	58.2	0.8	142 10 4		36 12 4		50	4.1	
	19	17	50	R	E OFF HOKKAIDO	49	53.2	1.4	148 16 8		43 20 6		80		
	19	18	30	U	E OFF HOKKAIDO	30	14.5	2.3	148 0 12		43 16 8		60	4.6	
	19	21	16	U	OFF FUKUSHIMA PREF	16	9.3	0.8	141 53 3		37 43 2		30	3.8	
	20	8	36	U	E OFF HOKKAIDO	36	29.3	1.7	147 42 8		42 56 6		60	4.7	
	20	19	12	U	E OFF HOKKAIDO	12	2.3	2.0	147 49 10		43 6 7		50	4.4	
	20	23	21	U	E OFF AOMORI PREF	20	52.0	0.7	143 6 4		40 49 2		0	4.3	
	21	1	34	U	OFF SANRIKU	33	43.7	2.1	144 21 13		39 33 6		60	4.8	
	21	3	20	L	OFF IBARAKI PREF	20	37.6	0.7	141 6 4		36 23 2		40	3.7	
	21	4	23	U	OFF URAKAWA	23	32.6	0.5	143 8 4		41 28 1		80		
	21	9	29	U	E OFF HOKKAIDO	28	33.1	2.8	148 18 16		43 20 13		60	5.1	
	21	11	44	U	E OFF HOKKAIDO	43	58.8	2.3	147 34 12		42 49 6		60	5.2	
	21	12	32	R	E OFF HOKKAIDO	32	8.5	1.3	147 6 7		42 53 4		10	5.4	
	21	13	47	S	E OFF HOKKAIDO	47	23.8	1.5	147 36 8		42 53 5		60	5.1	
	21	16	51	M	E OFF HOKKAIDO	51	32.0	1.7	147 14 9		43 33 8		50	5.2	
	21	19	7	U	SW OFF HOKKAIDO	6	36.8	2.2	138 57 10		41 34 8		60	4.7	
	21	22	22	S	OFF IBARAKI PREF	21	53.3	0.3	141 7 2		36 23 1		40	4.7	
	21	22	24	U	E OFF HOKKAIDO	24	4.5	1.8	147 44 9		43 5 7		50	5.1	
	21	22	41	U	OFF IBARAKI PREF	41	33.9	0.9	141 3 4		36 24 3		40	3.2	
	22	1	28	L	NEAR MATSUSHIRO	28	45.2	0.1	138 18 0		36 32 0		10	4.0	
	22	2	15	U	E OFF SANRIKU	14	28.0	0.3	144 32 2		39 36 1		80		
	22	13	40	S	E OFF HOKKAIDO	40	26.2	1.7	147 30 9		42 53 6		10	4.8	
	22	14	30	U	E OFF HOKKAIDO	30	11.9	2.6	148 9 13		43 16 10		50	4.6	
	22	16	12	S	E OFF HOKKAIDO	12	33.0	1.5	146 17 8		43 36 4		0	4.7	
	23	11	54	U	OFF SANRIKU	54	19.4	1.1	144 8 6		39 47 3		40	4.8	
	23	12	49	U	OFF SANRIKU	49	26.8	0.6	144 29 4		39 42 2		70		
	23	15	39	U	OFF SANRIKU	39	21.4	0.5	144 28 3		39 45 2		60	5.3	
	24	4	57	U	OFF SANRIKU	56	43.9	0.6	144 28 3		39 38 2		70		
	24	9	9	L	OFF MIYAZAKI PREF	9	21.8	0.6	132 9 2		31 58 2		0	4.7	
	24	19	50	U	OFF SANRIKU	50	17.4	1.9	144 21 11		39 35 5		90		
	24	22	26	S	OFF FUKUSHIMA PREF	26	43.4	0.6	141 8 4		37 0 2		90		
	25	7	3	U	OFF SANRIKU	3	0.4	0.5	144 36 3		39 43 1		80		
	25	8	4	L	NEAR WAKAYAMA	4	24.7	0.8	135 12 2		34 8 3		20	3.5	
	25	9	35	L	SW OF IBARAKI PREF	35	25.9	0.3	140 6 2		36 21 3		80		
	25	10	6	U	OFF SANRIKU	6	17.8	0.8	144 30 4		39 42 2		70		
	25	10	12	U	OFF SANRIKU	12	3.3	0.6	144 27 3		39 44 2		70		
	25	23	4	U	E OFF HOKKAIDO	4	7.4	1.0	147 3 5		43 11 4		40	4.7	
	26	5	24	U	OFF SANRIKU	23	43.6	2.9	144 6 14		39 29 6		40	4.5	
	26	5	41	U	OFF SANRIKU	41	19.9	3.2	144 54 14		39 32 10		80		
	26	15	27	U	E OF SHIZUOKA PREF	26	57.0	0.3	138 56 3		35 11 2		30	3.1	
	27	5	36	S	MIDDLE OF SHIZUOKA PREF	36	49.2	0.3	138 3 2		35 1 2		40	3.7	
	27	8	39	U	OFF SANRIKU	39	4.6	0.8	144 22 5		39 53 2		100		
	27	10	10	U	E OFF HOKKAIDO	10	19.4	2.5	148 23 14		42 55 10		60	5.2	
	27	10	28	U	E OFF HOKKAIDO	28	26.3	3.2	148 23 18		42 54 8		60	4.9	
	27	12	26	U	E OFF HOKKAIDO	26	6.7	2.3	148 15 13		42 48 7		50	5.4	
	27	19	46	U	E OFF HOKKAIDO	45	39.8	1.6	147 35 8		43 14 7		10	4.6	
	28	3	6	U	E OFF HOKKAIDO	5	47.4	2.5	145 53 13		42 43 8		60	4.3	
	28	4	51	U	SE OFF BOSO PEN	50	56.2	0.6	141 31 3		34 42 2		60	4.8	
	28	6	4	L	N OF IWATE PREF	4	8.7	0.2	141 47 2		40 3 1		60	3.6	
	28	20	45	U	OFF FUKUSHIMA PREF	45	3.7	0.5	142 16 2		37 4 1		40	4.6	
	28	23	54	U	E OFF HOKKAIDO	53	42.9	2.9	147 42 15		43 22 11		70		
	29	1	16	U	E OFF HOKKAIDO	15	38.5	2.9	148 46 15		43 8 10		60	4.6	
	29	6	35	U	E OFF HOKKAIDO	35	19.1	1.5	147 32 8		42 53 5		0	5.1	
	29	10	2	U	E OFF HOKKAIDO	2	1.5	2.8	147 18 15		42 52 7		0	4.2	
	29	12	9	U	E OFF HOKKAIDO	9	3.4	2.3	148 4 12		42 52 8		50	5.1	
	29	13	22	U	OFF IBARAKI PREF	22	22.4	0.6	142 14 3		36 41 2		40	4.1	
	29	19	14	L	OFF IWATE PREF	13	57.1	0.3	142 8 2		39 43 1		40	3.8	
	30	15	53	U	E OFF HOKKAIDO	52	30.3	1.9	148 16 10		43 26 10		70		
	30	16	12	R	E OFF HOKKAIDO	11	33.1	2.9	148 27 17		43 22 10		100		
	30	16	54	R	E OFF HOKKAIDO	54	28.2	1.1	146 35 6		43 6 3		40	5.4	
	30	17	28	R	E OFF HOKKAIDO	28	1.2	1.5	148 15 8		43 1 5		50	5.5	
	31	11	51	S	E OFF HOKKAIDO	50	58.4	3.3	145 42 18		42 52 10		60	4.1	
	31	20	18	S	W OF NAGANO PREF	18	19.3	0.2	137 43 1		36 12 1		10	4.7	
SEPT.	1	4	13	S	W OF NAGANO PREF	13	20.5	0.2	137 42 1		36 11 1		0	4.4	
	1	7	17	M	E OFF HOKKAIDO	17	2.5	1.6	146 50 8		43 16 5		50	5.0	
	1	18	46	U	OFF SANRIKU	45	55.0	0.5	143 54 3		40 30 2		50	5.1	
	1	18	50	U	E OFF HOKKAIDO	49	50.6	1.8	147 40 9		42 56 6		60	5.2	
	2	3	48	U	E OFF AOMORI PREF	47	49.4	0.4	142 40 3		41 20 1		20	4.5	
	2	16	18	S	OFF IBARAKI PREF	18	19.0	0.8	141 9 3		36 23 2		30	4.3	
	2	16	23	S	NEAR AMAMIOSHIMA	22	34.8	2.4	131 19 15		29 16 10		0	5.1	
	2	21	7	S	W OF NAGANO PREF	7	13.9	0.2	137 43 1		36 12 1		0	5.0	
	2	21	25	U	W OF NAGANO PREF	25	25.7	0.4	137 44 2		36 11 1		10	3.9	
	3	0	20	U	E OFF HOKKAIDO	20	6.3	2.5	146 57 13		42 57 10		10	4.2	
	3	16	59	L	SW OF IBARAKI PREF	59	28.6	0.2	139 55 1		36 3 1		40	3.6	

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DATE	JST AND TIME D	H	M	C	LOCATION	ORIGIN TIME M	S	+/-S	LONG.	+/-	LAT.	+/-	H KM	M	REMARKS
SEPT.	3	21	10	U	W OF NAGANO PREF	9	54.1	0.2	137 42 1		36 12 1		10	3.4	
	4	1	20	U	NEAR TORISHIMA	20	12.6	1.2	140 30 5		30 43 4		60	6.2	
	4	3	37	L	MIDDLE OF CHIBA PREF	37	28.9	0.4	140 17 3		35 21 1		80		
	4	7	1	U	E OFF HOKKAIDO	1	30.7	2.9	147 38 15		42 59 9		50	4.4	
	4	7	9	S	S OF OITA PREF	9	24.5	0.1	131 26 1		32 57 1		110		
	4	12	56	S	SE OFF CHIBA PREF	56	28.3	0.5	140 19 4		34 54 1		90		
	4	16	30	U	E OFF HOKKAIDO	30	14.8	2.7	147 17 15		42 43 10		10	4.8	
	5	6	13	R	E OFF HOKKAIDO	12	38.8	1.3	147 4 7		43 28 6		10	5.6	
	5	8	47	L	E OFF HOKKAIDO	46	45.6	1.4	146 38 7		43 12 4		40	4.9	
	6	2	4	U	OFF FUKUSHIMA PREF	4	8.0	0.6	142 12 3		37 12 1		10	4.3	
	6	16	43	R	E OFF HOKKAIDO	43	31.8	1.0	147 0 5		43 29 4		0	5.4	
	7	1	18	U	NEAR TORISHIMA	17	18.5	1.3	141 26 8		30 36 5		50	5.3	
	7	3	58	U	E OFF HOKKAIDO	58	37.9	1.5	147 4 8		43 7 5		50	4.4	
	7	9	24	R	IYO-NADA	23	45.5	0.2	131 48 1		33 37 1		100		
	7	15	54	L	OFF MIYAGI PREF	54	1.3	0.5	141 57 3		38 36 1		50	3.6	
	7	21	34	S	E OFF HOKKAIDO	33	49.7	1.3	146 53 6		42 57 4		10	4.6	
	8	11	44	U	OFF URAKAWA	44	8.9	0.3	142 36 3		41 33 1		60	4.1	
	9	12	33	L	IYO-NADA	33	18.8	0.4	131 52 2		33 20 3		60	4.1	
	9	14	15	R	MIDDLE OF GIFU PREF	15	33.5	0.2	137 4 1		35 47 1		0	6.6	Casualties and
	9	14	25	U	MIDDLE OF GIFU PREF	25	15.8	0.2	137 3 1		35 51 1		10	4.1	property damage
	9	14	30	L	MIDDLE OF GIFU PREF	29	53.8	1.1	137 6 5		36 6 5		40	4.2	
	9	14	31	L	MIDDLE OF GIFU PREF	31	21.2	0.3	137 8 1		35 42 1		0	3.7	
	9	14	37	L	MIDDLE OF GIFU PREF	37	11.8	0.4	137 3 2		35 51 2		10	3.7	
	9	14	39	L	MIDDLE OF GIFU PREF	39	32.2	0.4	137 10 2		35 45 2		0	3.5	
	9	14	42	L	MIDDLE OF GIFU PREF	42	46.9	0.2	137 7 1		35 45 1		10	4.0	
	9	14	47	L	MIDDLE OF GIFU PREF	46	53.7	0.1	137 6 1		35 45 1		10	3.9	
	9	14	48	L	MIDDLE OF GIFU PREF	48	20.6	0.2	137 6 1		35 43 1		20	4.1	
	9	15	32	S	MIDDLE OF GIFU PREF	32	49.6	0.2	137 8 1		35 46 1		10	4.0	
	9	15	55	S	MIDDLE OF GIFU PREF	55	34.8	0.4	137 6 2		35 49 2		0	3.5	
	9	16	25	S	MIDDLE OF GIFU PREF	25	21.3	0.4	137 5 1		35 45 2		10	3.3	
	9	17	43	U	MIDDLE OF GIFU PREF	43	38.9	0.2	137 7 1		35 44 1		10	3.9	
	10	3	29	U	W OF TOKYO BAY	29	34.4	0.4	139 47 4		35 33 2		90		
	10	5	14	S	MIDDLE OF GIFU PREF	14	44.9	0.2	137 2 1		35 49 1		0	4.0	
	10	5	32	M	MIDDLE OF GIFU PREF	31	57.2	0.1	137 5 1		35 45 1		10	4.6	
	10	5	57	U	MIDDLE OF GIFU PREF	57	7.6	0.2	136 58 1		35 51 1		10	3.6	
	10	10	40	S	MIDDLE OF GIFU PREF	40	31.3	0.2	137 6 1		35 44 1		0	3.9	
	10	10	54	U	MIDDLE OF GIFU PREF	54	57.1	0.3	137 8 3		35 41 2		30	3.5	
	10	11	56	L	MIDDLE OF GIFU PREF	56	4.9	0.4	137 0 3		35 49 2		0	3.8	
	10	16	47	U	E OFF HOKKAIDO	46	51.6	2.3	148 27 12		43 37 13		40	5.0	
	10	21	3	L	MIDDLE OF GIFU PREF	3	14.8	0.2	137 1 1		35 50 1		10	4.3	
	11	0	20	S	MIDDLE OF GIFU PREF	20	47.5	0.2	137 7 1		35 43 1		10	3.8	
	11	1	2	M	MIDDLE OF GIFU PREF	2	47.2	0.1	137 6 1		35 45 1		10	4.9	
	11	1	47	S	MIDDLE OF GIFU PREF	47	11.1	0.1	137 7 1		35 45 1		10	4.4	
	11	3	18	M	MIDDLE OF GIFU PREF	18	39.0	0.1	137 6 1		35 44 0		0	4.8	
	11	3	22	S	MIDDLE OF GIFU PREF	22	49.5	0.2	137 7 1		35 43 1		10	4.2	
	11	4	24	L	MIDDLE OF GIFU PREF	24	32.5	0.2	137 9 1		35 43 1		10	4.1	
	11	11	19	L	FUKUOKA-SAGA BORDER	19	19.0	0.2	130 28 1		33 19 1		10	3.5	
	11	15	20	M	OFF MIYAGI PREF	20	38.2	0.3	141 51 2		38 11 1		80		
	11	18	9	L	MIDDLE OF GIFU PREF	9	23.7	2.0	136 52 9		35 47 6		0	3.7	
	12	0	2	L	MIDDLE OF GIFU PREF	1	52.8	0.1	137 8 1		35 43 1		10	4.6	
	12	1	21	S	MIDDLE OF GIFU PREF	20	51.4	0.1	137 7 0		35 44 0		10	4.2	
	12	3	38	S	MIDDLE OF GIFU PREF	38	33.1	0.2	136 57 2		35 42 1		50	4.0	
	12	4	13	M	MIDDLE OF GIFU PREF	13	45.3	0.1	137 7 0		35 44 0		10	4.6	
	12	11	15	L	E OFF HOKKAIDO	15	30.1	1.4	146 29 7		43 14 5		30	4.5	
	12	23	16	U	OFF FUKUSHIMA PREF	16	21.0	0.5	142 7 2		37 59 1		40	3.9	
	13	11	57	L	W OF NAGANO PREF	57	48.1	0.2	137 43 1		36 12 1		0	4.0	
	13	13	10	L	NEAR WAKAYAMA	10	39.7	0.3	135 7 1		34 10 1		10	3.4	
	13	20	19	U	SE OFF BOSO PEN	18	59.9	0.7	141 50 3		33 43 2		70		
	13	20	52	M	E OFF HOKKAIDO	52	10.6	1.5	147 44 8		43 4 5		70		
	14	5	0	S	OFF TOKACHI	0	23.3	0.6	144 2 3		41 31 2		30	4.8	
	14	21	49	S	E OFF HOKKAIDO	49	11.6	1.3	147 31 7		43 8 7		40	5.0	
	14	23	31	M	MIDDLE OF GIFU PREF	31	13.7	0.1	137 5 1		35 46 0		10	4.8	
	14	23	39	S	MIDDLE OF GIFU PREF	38	51.0	0.1	137 6 1		35 44 1		10	4.0	
	15	8	49	S	MIDDLE OF GIFU PREF	49	44.0	0.1	137 5 1		35 45 1		10	4.2	
	15	23	10	S	MIDDLE OF IWATE PREF	10	23.3	0.2	141 22 2		39 28 1		90		
	16	3	48	U	S OF KURILE IS	47	46.9	2.4	150 56 16		45 7 18		30	5.0	
	16	10	18	U	S OF KURILE IS	17	16.9	1.9	151 21 11		44 26 19		50	5.2	
	16	23	34	U	E OFF AOMORI PREF	33	50.4	0.3	142 16 2		41 26 1		0	3.9	
	17	6	28	L	MIDDLE OF GIFU PREF	28	35.5	0.2	137 8 1		35 43 1		10	3.8	
	17	23	3	U	MIDDLE OF GIFU PREF	2	58.0	0.4	137 12 2		35 40 2		10	3.8	
	18	2	15	L	NEAR WAKAYAMA	15	23.3	0.2	135 17 1		34 9 1		10	3.8	
	18	3	41	R	NEAR YAKUSHIMA	40	44.8	0.8	131 41 3		30 56 3		0	5.9	
	18	3	51	M	NEAR YAKUSHIMA	51	10.3	0.9	131 8 6		31 12 3		0	5.5	
	18	20	52	L	E OFF HOKKAIDO	52	36.2	0.9	146 33 4		43 16 3		0	4.9	
	19	21	1	L	E COAST OF AOMORI PREF	1	36.4	0.2	141 30 2		40 51 1		90		
	20	0	46	S	OFF FUKUSHIMA PREF	46	47.1	0.4	141 25 2		37 11 1		50	4.3	
	20	3	59	L	MIDDLE OF GIFU PREF	59	39.8	0.1	137 6 1		35 46 1		10	4.0	
	20	18	15	U	E OF SHIZUOKA PREF	15	32.1	0.2	138 42 1		35 18 1		10	3.7	
	21	8	41	S	MIDDLE OF GIFU PREF	41	29.4	0.1	137 6 1		35 47 0		10	3.9	
	21	9	20	S	E OF IWATE PREF	20	39.2	0.1	141 52 1		39 45 1		60	3.6	

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DATE	JST AND TIME D	H	M	C	LOCATION	ORIGIN TIME M	S	+/-S	LONG.	+/-	LAT.	+/-	H KM	M	REMARKS
SEPT.	22	8	21	L	NEAR MATSUSHIRO	21	9.0	0.2	138 9 1		36 30 1		0	4.5	
	22	11	36	S	E OFF HOKKAIDO	35	41.1	1.7	147 27 9		43 13 6		0	5.1	
	22	12	16	L	NEAR URAKAWA	16	24.0	0.2	142 40 2		42 16 1		50	4.1	
	23	15	52	S	MIDDLE OF GIFU PREF	52	9.3	0.3	137 10 2		35 44 1		0	3.7	
	24	0	9	L	S OF NAGASAKI PREF	9	17.2	0.3	129 58 1		32 43 1		10	4.1	
	24	10	36	L	E OF FUKUSHIMA PREF	36	42.3	0.2	140 46 3		37 26 1		80		
	27	3	28	U	E COAST OF CHIBA PREF	28	27.7	1.8	140 30 9		35 33 5		70		
	27	13	2	S	E OFF HOKKAIDO	2	16.9	1.8	147 9 9		43 23 5		50	5.0	
	29	23	55	U	U OFF KAGOSHIMA PREF	54	47.8	0.5	129 32 2		31 18 1		30	4.2	
	30	2	59	R	E OFF HOKKAIDO	58	30.8	1.3	148 29 7		42 57 5		40	5.5	
	30	6	11	L	OFF IBARAKI PREF	11	8.7	0.8	141 6 4		36 26 3		50	3.6	
	30	10	9	S	N OF CHIBA PREF	9	44.0	0.4	140 5 3		35 45 2		80		
	30	12	1	U	TOKYO-CHIBA BORDER	1	17.7	0.4	139 56 4		35 41 3		100		
	30	21	40	L	E OF IBARAKI PREF	40	16.3	0.3	140 37 2		36 29 2		50	3.8	
OCT.	2	0	36	L	S OF HOKKAIDO	36	48.6	0.3	143 19 4		42 38 2		60	4.3	
	3	10	10	U	GIFU-SHIGA BORDER	10	3.3	0.1	136 24 1		35 27 1		20	3.7	
	3	16	35	U	SE OFF KAGOSHIMA PREF	35	41.7	1.4	131 37 8		31 1 4		60	4.7	
	3	21	3	S	MIDDLE OF CHIBA PREF	3	18.6	0.3	140 3 1		35 18 1		40	4.5	
	3	22	51	U	SAITAMA-GUNMA BORDER	51	2.5	0.2	139 3 1		36 15 2		90		
	4	16	18	L	NEAR CHOSHI	18	6.3	0.9	141 0 4		35 41 2		40	4.5	
	5	12	0	U	E COAST OF CHIBA PREF	0	25.6	0.6	140 31 5		35 21 4		60	3.6	
	6	2	50	U	NEAR NEMURO	50	29.1	0.5	145 43 4		43 29 3		120		
	6	10	41	L	MIDDLE OF SAITAMA PREF	41	9.5	0.5	139 15 2		35 52 3		30	3.8	
	6	16	33	L	NE OF TOKYO BAY	32	47.7	0.2	140 2 2		35 31 1		70		
	7	22	33	L	S OF HOKKAIDO	33	28.3	0.3	143 24 2		42 34 2		110		
	8	0	16	U	OFF IBARAKI PREF	16	41.9	1.1	141 6 5		36 26 4		50	3.5	
	8	15	15	S	E OF FUKUSHIMA PREF	15	35.4	0.2	140 49 2		37 13 1		90		
	9	21	15	S	OFF AKITA PREF	14	58.3	1.1	139 26 4		40 1 3		0	4.2	
	9	23	8	U	E OFF HOKKAIDO	7	35.1	1.6	147 45 8		43 12 9		0	4.9	
	10	2	33	S	MIDDLE OF GIFU PREF	33	25.1	0.2	137 4 1		35 44 1		10	4.5	
	10	3	56	U	MIDDLE OF IWATE PREF	56	38.9	0.1	141 13 2		39 41 1		80		
	10	7	4	L	E OFF AOMORI PREF	4	19.6	0.3	141 55 3		40 52 1		90		
	10	9	14	U	E OFF HOKKAIDO	13	41.6	1.6	148 48 8		43 28 7		20	5.0	
	10	15	38	S	S OF MIYAGI PREF	38	18.1	0.2	140 44 1		38 7 1		10	4.6	
	10	15	41	L	MIDDLE OF MIYAGI PREF	41	15.2	0.4	140 41 1		38 20 2		0	3.3	
	11	2	10	S	NEAR AMAMIOSHIMA	9	57.7	1.7	130 53 12		29 14 7		0	5.0	
	11	2	46	U	E OFF HOKKAIDO	45	42.3	1.8	147 42 10		42 58 6		60	4.7	
	11	12	22	U	NE OFF CHOSHI	21	56.3	1.1	141 5 6		35 49 3		50	3.8	
	12	4	54	L	MIDDLE OF KYOTO PREF	54	34.5	0.1	135 20 1		35 15 1		10	3.8	
	13	16	14	L	OFF IWATE PREF	14	23.7	0.7	142 21 4		40 8 1		10	3.6	
	14	11	29	U	OFF SANRIKU	29	19.5	1.0	143 39 6		40 29 2		0	4.7	
	15	5	40	U	SEA OF JAPAN	39	12.7	0.4	135 14 2		37 55 3		360		
	15	5	59	U	OFF SANRIKU	58	37.2	1.1	143 39 5		39 42 3		40	4.1	
	16	15	38	L	MIDDLE OF NAGANO PREF	38	16.7	0.7	138 12 5		36 23 4		30	3.4	
	18	1	48	S	NEAR WAKAYAMA	48	19.3	0.1	135 5 1		34 3 1		0	4.5	
	18	10	14	R	S OF IWATE PREF	13	59.2	0.2	141 39 3		39 13 1		130		
	19	21	29	M	OFF AKITA PREF	29	23.9	0.5	139 38 3		39 34 1		0	5.0	
	20	1	16	S	MIDDLE OF NAGANO PREF	16	16.9	0.2	138 2 1		36 11 1		10	4.0	
	20	13	10	L	OFF KUSHIRO	10	23.5	0.5	145 35 3		42 56 2		90		
	20	18	54	U	S OF IBARAKI PREF	53	51.1	0.6	140 15 4		35 56 3		80		
	21	10	40	S	OFF KUSHIRO	40	14.6	0.8	145 37 4		42 57 3		40	4.3	
	22	14	26	S	MIDDLE OF CHIBA PREF	25	48.7	0.3	140 12 2		35 32 1		80		
	22	16	39	L	OFF IWATE PREF	38	42.5	0.6	142 44 3		39 6 1		0	4.3	
	23	20	23	L	NEAR MATSUSHIRO	23	21.0	0.2	138 13 1		36 34 1		10		
	24	1	50	U	OFF IWATE PREF	50	40.1	1.1	142 34 6		39 7 2		10	3.9	
	24	23	27	S	MIDDLE OF SEIONAIKAI	27	16.7	0.5	132 39 3		34 5 2		30	4.2	
	25	21	4	M	E OFF HOKKAIDO	3	43.3	1.5	148 19 8		43 45 7		60	5.3	
	26	20	29	L	OFF IWATE PREF	29	11.4	0.5	142 21 3		40 19 1		40	3.9	
	27	4	16	U	E OFF HOKKAIDO	15	49.1	1.8	148 21 10		42 59 5		70		
	28	3	48	L	NEAR NIIGATA	48	28.5	2.4	139 5 9		37 52 12		10	3.8	
	29	22	9	S	OFF URAKAWA	9	36.9	0.4	142 54 2		41 28 2		30	4.4	
	30	4	5	L	SW OF IBARAKI PREF	5	9.1	0.2	140 3 1		36 6 3		70		
	30	9	6	R	MIDDLE OF FUKUSHIMA PREF	5	38.6	0.1	140 11 2		37 30 1		160		
	30	16	52	M	OFF URAKAWA	51	48.7	0.2	142 9 2		41 43 1		100		
	30	22	22	S	OFF FUKUSHIMA PREF	22	20.6	0.4	141 15 2		36 55 1		50	4.0	
	31	15	44	U	S OF KURILE IS	43	29.9	1.3	150 49 7		44 20 7		60	5.1	
	31	16	0	M	OFF FUKUSHIMA PREF	0	9.0	0.6	142 31 3		37 0 2		60	5.5	
NOV.	1	20	21	U	OFF FUKUI PREF	20	53.2	0.6	135 26 6		35 48 7		340		
	2	10	51	L	NEAR WAKAYAMA	51	20.0	0.5	135 6 2		34 7 2		10	3.5	
	2	12	30	S	NEAR MITO	30	24.2	0.3	140 38 2		36 26 1		50	4.0	
	2	16	49	L	NEAR CHOSHI	49	23.9	0.2	140 43 2		35 47 2		40	3.9	
	4	17	51	R	OFF TOKAIDO	50	47.4	0.2	137 16 2		33 48 2		340		
	6	10	56	U	E OFF HOKKAIDO	55	33.5	3.0	148 47 16		43 39 15		40	5.1	
	7	1	22	S	OFF IWATE PREF	21	56.9	0.6	142 41 3		39 56 1		30	4.3	
	7	3	46	U	OFF FUKUSHIMA PREF	46	44.6	1.0	141 44 6		37 7 3		40	4.1	
	7	7	1	U	OFF IBARAKI PREF	0	42.7	1.7	142 6 7		36 21 7		10	4.1	
	7	13	6	S	E OFF AOMORI PREF	6	14.6	0.2	141 54 2		41 30 1		90		
	7	17	7	S	S OF HOKKAIDO	6	52.4	0.2	143 1 1		42 24 1		80		
	7	17	34	S	S OF AKITA PREF	34	26.6	0.3	140 28 2		39 20 1		20	4.0	
	7	22	41	S	NEAR OKINAWA	41	12.4	0.3	126 24 2		26 20 3		150		

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DATE	JST AND TIME D	H	M	C	LOCATION	ORIGIN TIME M	S	+/-S	LONG.	+/-	LAT.	+/-	H KM	M	REMARKS
NOV.	8	8	3	U	N OF CHIBA PREF	3	28.6	0.5	140 34	3	35 51	2	40	3.6	
	8	14	35	U	OFF SANRIKU	35	34.1	1.3	143 47	6	39 55	6	40	4.5	
	8	16	22	U	E OFF HOKKAIDO	21	35.0	1.6	149 45	10	44 18	13	10	5.1	
	9	5	15	L	NEAR UTSUNOMIYA	14	57.5	0.2	139 50	2	36 31	3	90		
	12	10	27	U	SE OFF NEMURO PEN	27	4.1	1.3	146 38	6	43 27	4	0	4.3	
	12	21	29	M	OFF KUSHIRO	29	40.9	0.9	145 21	4	42 21	2	40	5.2	
	13	2	27	L	NEAR MITO	27	24.8	0.8	140 25	6	36 26	11	60		
	13	3	23	S	E OFF CHIBA PREF	23	20.8	0.7	141 10	4	35 24	2	50	4.9	
	15	12	36	U	OFF SANRIKU	35	48.8	1.3	144 3	7	40 10	3	0	4.7	
	16	2	50	S	OFF IBARAKI PREF	50	18.1	0.4	141 14	2	36 33	1	40	4.6	
	18	2	57	S	E OFF HOKKAIDO	56	47.2	1.6	147 1	9	43 22	5	50	4.8	
	18	7	29	U	E OFF HOKKAIDO	28	36.8	1.9	148 25	10	43 34	8	40	4.5	
	18	9	46	L	NEAR NAGOYA	46	50.1	0.4	137 0	2	35 2	2	10	4.1	
	18	18	37	L	KASHIMANADA	37	8.5	0.2	140 46	2	36 25	1	60	3.9	
	19	2	20	U	OFF IWATE PREF	20	11.7	0.8	142 52	4	40 13	2	10	4.0	
	19	17	46	U	N OF SEA OF JAPAN	45	8.8	0.7	134 29	5	41 40	3	460		
	21	6	0	U	E OFF HOKKAIDO	0	28.6	2.8	148 11	15	42 56	7	60	5.2	
	21	11	12	U	OFF W COAST OF SUMATRA	5	35.3	0.0	94 36	0	2 6	0	20	7.7	
	21	12	43	S	E OFF AOMORI PREF	43	35.4	0.9	142 44	6	41 8	3	60	4.5	
	23	5	14	L	OFF MIYAGI PREF	13	52.0	1.1	141 31	7	38 13	5	50	3.5	
	23	8	37	U	E COAST OF KAMCHATSKA	9	37.2	0.0	163 30	0	57 48	0	33	7.3	
	23	16	9	U	E OFF HOKKAIDO	8	34.2	2.8	148 54	15	43 25	18	50	4.4	
	25	22	53	L	NEAR WAKAYAMA	53	38.0	0.3	135 11	1	34 11	1	10	3.6	
	26	18	27	L	MIDDLE OF GIFU PREF	27	45.5	0.2	137 7	1	35 41	1	10	3.8	
	27	9	31	M	W OFF TSUSHIMA	30	57.4	2.7	127 44	11	34 7	8	50	5.1	
	29	5	20	U	E OFF AOMORI PREF	19	58.0	0.3	142 36	2	41 17	1	10	4.4	
	29	7	29	U	W COAST OF WAKAYAMA PREF	29	4.6	0.4	135 5	2	34 2	1	0		
	30	1	43	M	W OF EHIME PREF	43	16.1	0.4	132 24	2	33 20	2	40	5.1	
	30	13	12	M	W OF EHIME PREF	12	21.5	0.2	132 24	1	33 15	1	40	5.1	
	30	21	49	S	S OFF CHIBA PREF	48	52.0	0.3	140 0	2	34 43	1	100		
DEC.	2	2	33	L	OFF TOKACHI	33	1.6	1.2	143 27	6	41 35	4	30	4.3	
	3	4	2	U	OFF SANRIKU	1	36.3	1.5	144 13	8	40 7	4	40	4.5	
	3	21	19	S	NEAR MATSUSHIRO	19	36.0	0.1	138 10	1	36 30	1	10	4.4	
	4	17	50	R	OFF SANRIKU	50	21.3	0.3	144 47	2	40 40	1	70		
	4	21	47	L	SHIGA-GIFU BORDER	47	36.6	0.2	136 17	1	35 25	1	30	3.8	
	5	16	27	U	OFF SANRIKU	27	10.0	1.1	143 28	6	40 44	3	20	4.1	
	6	10	19	U	MIDDLE OF TOCHIGI PREF	19	14.0	0.1	139 8	1	36 23	1	90		
	10	17	35	L	E OF TOKUSHIMA PREF	35	7.6	0.4	134 34	1	33 59	2	50	3.8	
	11	9	54	U	S OFF HONSHU	53	52.6	2.7	137 1	18	30 10	11	320		
	12	0	0	L	NEAR NAGASAKI	0	21.4	0.7	129 53	2	32 38	3	20	3.9	
	12	10	13	M	OFF SANRIKU	13	12.1	0.5	144 1	3	40 10	2	60	5.4	
	12	16	12	L	SE OF FUKUSHIMA PREF	12	26.8	0.2	140 22	2	37 9	1	80		
	13	12	41	U	OFF TOKAIDO	40	34.2	0.2	137 1	2	33 51	2	360		
	15	1	3	S	SE OFF NEMURO PEN	3	48.8	1.2	146 2	7	42 58	3	40	4.7	
	16	3	8	L	NEAR NAGASAKI	8	1.7	4.1	129 50	13	32 38	9	10	4.0	
	16	5	51	L	KASHIMANADA	51	23.0	0.2	140 57	1	36 11	1	50	3.4	
	17	2	43	U	MIDDLE OF CHIBA PREF	42	44.0	1.0	140 6	7	35 34	4	110		
	17	7	59	L	NEAR UNZENDAKE	58	59.4	0.5	130 9	2	32 47	2	0	3.5	
	18	22	32	R	NE OFF HOKKAIDO	32	3.6	0.5	142 44	7	46 0	3	360		
	19	13	30	U	E OFF HOKKAIDO	29	52.1	3.4	148 27	18	42 54	14	40	5.2	
	20	14	40	S	E OFF CHIBA PREF	39	56.4	0.3	140 33	2	35 14	2	80		
	20	21	16	S	S OF OKAYAMA PREF	16	24.8	0.3	133 37	1	34 31	1	0	3.9	
	21	5	41	U	NEAR TATEYAMA	41	4.1	0.2	139 40	2	34 57	1	40	3.0	
	21	10	54	L	NEAR CHOSHI	54	25.6	0.4	140 49	3	35 38	2	30	3.6	
	21	19	18	S	NEAR AMAMIOSHIMA	18	2.6	1.1	130 43	9	28 5	4	80		
	21	21	20	L	E OFF HOKKAIDO	20	14.4	0.5	145 3	2	42 32	2	0	4.7	
	22	1	34	U	E OFF KWANTO	33	54.9	2.2	142 39	10	36 37	7	60	4.1	
	22	6	57	S	KASHIMANADA	57	36.4	0.4	140 55	3	36 51	1	70		
	23	16	7	L	BUNGO-SUIDO	6	59.4	0.4	132 18	2	33 21	2	30	3.8	
	24	4	45	L	SW OF IBARAKI PREF	45	5.3	0.2	140 1	2	36 23	2	70		
	25	3	10	L	NEAR MITO	10	31.8	0.1	140 31	2	36 36	1	60	3.6	
	28	10	19	U	E OFF HOKKAIDO	19	4.8	2.2	148 24	11	43 17	11	40	5.1	
	28	13	25	U	E OFF HOKKAIDO	24	33.0	3.7	148 9	19	43 10	12	0	4.7	
	28	13	53	M	E OFF HOKKAIDO	52	57.2	2.2	148 58	12	43 36	16	80		
	28	14	7	U	E OFF HOKKAIDO	6	43.9	2.1	148 31	12	43 4	6	50	4.8	
	28	16	44	S	MIDDLE OF GIFU PREF	44	21.2	0.2	137 5	1	35 44	1	10	4.7	
	28	23	38	U	E OFF HOKKAIDO	37	52.8	2.2	147 52	11	42 54	10	0	4.9	
	29	2	43	S	TOKYO BAY	43	5.7	0.1	139 44	1	35 32	1	120		
	29	5	51	L	NEAR TOKYO	50	51.0	0.2	139 45	2	35 45	2	120		
	30	1	25	L	W OF WAKAYAMA PREF	24	57.2	0.2	135 14	1	34 7	1	10	3.7	
	31	12	39	S	OFF FUKUSHIMA PREF	38	52.6	0.4	142 7	2	37 48	1	50	4.2	
	31	14	39	U	E OFF HOKKAIDO	39	4.9	1.5	147 3	8	42 40	4	10	4.7	

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