Bulletin of the

Urakawa Seismological Observatory

No. 1

July — September

1967

Urakawa Seismological Observatory
Faculty of Science, Hokkaido University

Japan

Urakawa Seismological Observatory

Station: Kamikineusu (KMU)

Location Latitude: 42°14'14" N, Longitude: 142°58'01" E, Hight: 180 m.

Instruments

	Abbr.	Comp.	T_s(sec)	h_s	T_g(sec)	h_g	σ^2	V_{max}*
Film-recording Seismograph	N	N-S	0.92	0.59	0.28	3.1	0.003	12,000
	E	E-W	0.93	0.66	0.25	3.0	0.003	12,000
	Z	U-D	0.91	0.54	0.34	1.9	0.003	14,000
	ZX	U-D	0.89	2.02	0.30	1.4	0.018	120,000

	Abbr.	Comp.	T_s(sec)	h_s	Max. Velocity Sensitivity #
Tape-recording Seismograph	T-1	U-D	1.0	1.4	4 mm/μkine (Tripartite Array)
	T-2	U-D	1.0	1.4	4 "
	T-3	U-D	1.0	1.4	4 "

* When measured on a film-viewer of magnification 6.

\# When reproduced using a Sanei FR-201 visigraph with 500 cps galvanometers.

Magnification curves are shown on the next page.

Readings

(1) All earthquakes with maximum trace amplitude 0.5 mm or larger on the Z record measured on the ×6 film-viewer are interpreted in this bulletin.

(2) All times are based on the Japanese Standard Time (JST).

JST = GMT + 9 hours.

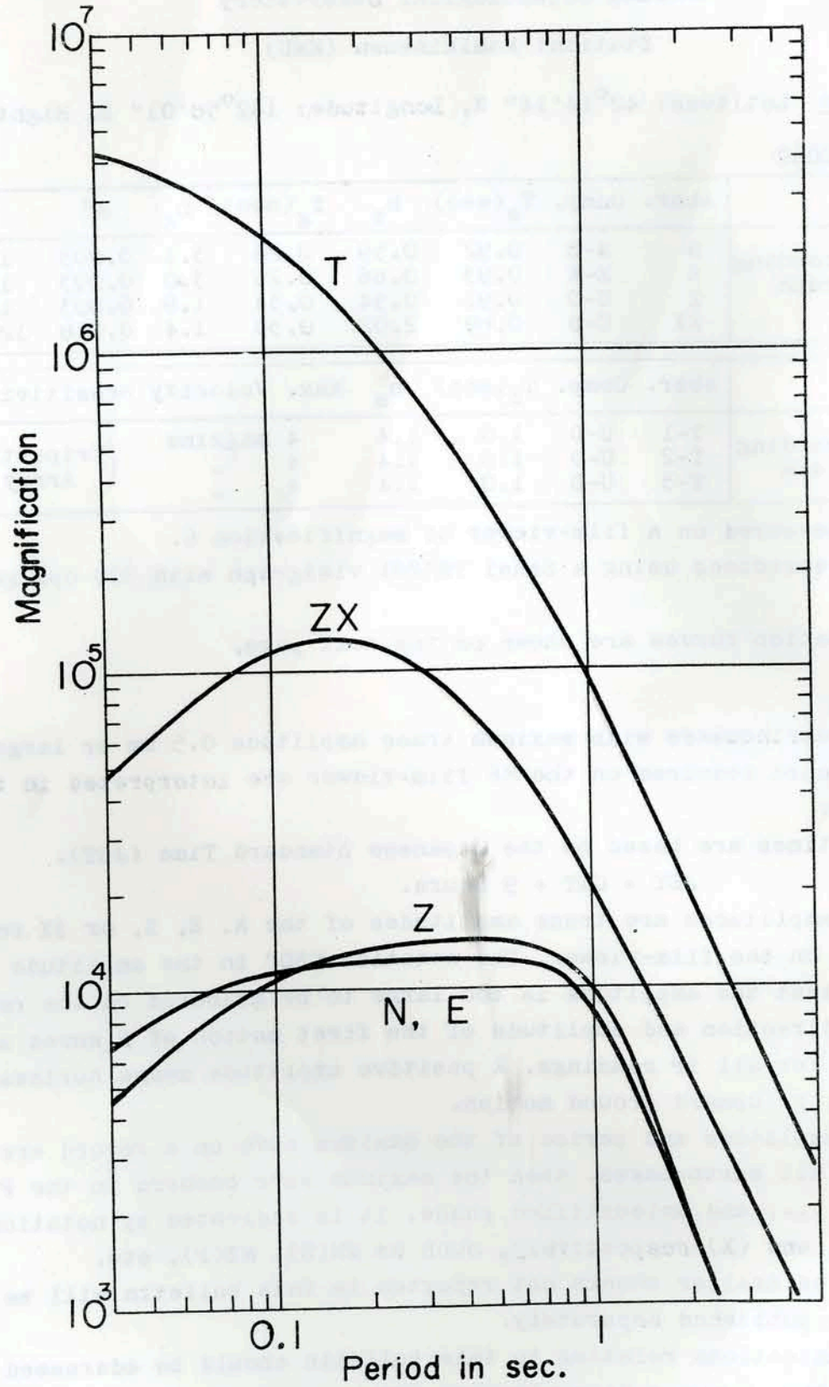
(3) All amplitudes are trace amplitudes of the N, E, Z, or ZX records measured on the film-viewer. The notation "SO" in the amplitude column denotes that the amplitude is too large to be measured on the record.

(4) The direction and amplitude of the first motion of P waves are measured for all iP readings. A positive amplitude means northward, eastward, or upward ground motion.

(5) The amplitude and period of the maximum wave on a record are measured for all earthquakes. When the maximum wave occurrs in the P phase, S phase, ..., and unidentified phase, it is indicated by notations (P), (S), ..., and (X) respectively, such as MN(S), MZ(P), etc.

(6) Data on smaller shocks not reported in this bulletin will be analyzed and published separately.

(7) Communications relating to this bulletin should be addressed to the director, Urakawa Seismological Observatory, Faculty of Science, Hokkaido University, Kamikineusu, Urakawa, Hokkaido, Japan.



Kamikineusu, July 1967

Date	Phase	Time(JST)	Amp. mm	Per. sec
1	iPZ	02h 20m 15.0s	-0.2	
	eSZ	21 51.5		
	MZ(P)		0.8	0.6
	MN(S)		1.1	0.8
	ME(S)		0.6	0.8
	P-S: 1m 36.5s, P-F: 3m 26s,			
1	ePZ	15 37 14.3		
	eSZ	39 38.0		
	MZ(S)		0.6	0.6
	MN(S)		0.8	0.7
	ME(S)		0.5	0.6
	P-S: 2m 23.7s, P-F: 3m 48s,			
1	ePZ	17 33 14.7		
	eSZ	35 22.6		
	MZ(P)		2.3	0.5
	MN(P)		0.8	0.4
	ME(P)		0.5	0.4
	P-S: 2m 07.9, P-F: 3m 43s,			
1	iPZ	23 59 26.5	+0.4	
	iPN	26.5	+0.2	
	eSN	59 41.5		
	MZNE		SO	
	P-S: 15.0s, P-F: 5m 20s,			
2	ePZ	03 24 13.0		
	eSZ	24 22.5		
	MZ(S)		0.9	0.4
	MN(S)		0.8	0.4
	ME(S)		0.6	0.5
	P-S: 09.5s, P-F: 1m 15s,			
2	ePZ	03 28 43.6		
	eSZ	28 58.1		
	MZ(S)		0.7	0.5
	MN(S)		1.0	0.4
	ME(S)		0.6	0.3
	P-S: 14.5s, P-F: 50s,			
2	iPZ	08 17 37.8	-1.1	
	iPN		+0.3	
	iPE	37.7	+0.2	
	eSE	23 45.0		
	MZ(P)		7.4	0.7
	MN(P)		2.2	1.5
	ME(P)		1.5	0.7
	P-S: 6m 07.3s, P-F: 13m,			
2	ePZ	10 07 41.5		
	eSZ	08 57.3		
	eRZ	09 19.3		
	MZ(X)		1.6	0.8
	MN(X)		1.3	1.1
	ME(X)		1.9	1.1
	P-S: 1m 15.8s, P-F: 3m 26s,			
2	ePZ	11 24 31.0		
	eSN	24 51.1		
	MN(S)		12.3	
	P-S: 20.1s, P-F: 2m 55s,			

Date	Phase	Time(JST)	Amp. mm	Per. sec
2	iPZ	12h 03m 03.6s	-0.6	
	iPN	03.6	+0.3	
	iSN	03 51.0		
	MN(S)		5.5	
	P-S: 47.4s, P-F: 4m 45s,			
2	ePZ	15 10 54.5		
	MZ(P)		0.7	0.4
	MN(P)		0.3	0.5
	ME(P)		0.2	0.5
2	eXZ	16 13 21.7		
	MZ(X)		0.5	0.7
	MN(X)		0.5	1.1
	ME(X)		0.4	1.2
2	ePZ	16 40 23.2		
	eSZ	42 03.3		
	MZ(S)		1.5	0.6
	MN(S)		2.1	0.8
	ME(S)		1.3	0.9
	P-F: 1m 40.1s, P-F: 5m 16s			
3	ePZ	01 17 58.5		
	eSZ	19 37.1		
	MZ(S)		1.4	0.6
	MN(S)		1.8	0.8
	ME(S)		1.0	0.9
	P-S: 1m 38.6s, P-F: 5m 13.6s			
3	ePZ	05 37 59.3		
	MZ(P)		0.9	0.6
	MN(P)		0.5	1.0
	ME(P)		0.4	0.6
3	ePZ	13 03 02.9		
	eSZ	03 49.4		
	MZ(P)		0.7	0.3
	P-S: 46.5s, P-F: 2m			
3	ePZ	15 04 56.3		
	eSZ	06 09.5		
	MZ(S)		1.9	0.7
	MN(S)		2.4	0.7
	ME(S)		1.6	0.7
	P-S: 1m 13.2s, P-F: 1m 53s			
4	ePZ	06 17 03.2		
	eSZ	17 22.6		
	MZ(S)		0.8	0.5
	MN(S)		0.8	0.4
	ME(S)		0.4	0.5
	P-S: 19.4s, P-F: 55s			
4	ePZ	08 59 51.3		
	eSZ	09 00 18.5		
	MZ(P)		0.5	0.4
	P-S: 27.2s, P-F: 1m 05s			

Date	Phase	Time(JST)			Amp. mm	Per. sec
4	ePZ	09h	31m	30.1s		
	MZ(P)				0.9	0.5
	MN(S)				0.5	0.7
	ME(S)				0.5	0.9
	P-F: 2m 10s					
4	iPZ	10	13	39.4	+1.4	
	iPN			39.5	-0.1	
	iPE			39.4	+0.2	
	iSN		13	47.1		
	MZ(S)				2.0	0.5
	MN(S)				2.6	0.3
	ME(S)				1.5	0.3
	P-S: 7.6s, P-F: 1m 15s					
4	ePZ	13	47	39.5		
	eSZ		50	19.5		
	NZ(S)				0.9	0.6
	MN(S)				1.0	1.2
	ME(S)				0.6	1.2
	P-S: 2m 40.0s, P-F: 4m 50s					
4	ePZ	14	14	41.7		
	eSZ		15	54.4		
	MZ(S)				1.6	0.6
	MN(S)				1.8	0.7
	ME(S)				1.5	0.9
	P-S: 1m 12.7s, P-F: 2m 33s					
5	iPZ	08	42	38.8	-3.6	
	iPN			38.8	+2.2	
	iPE			38.9	+0.8	
	MZNE(P,S)				S0	
	P-F: 11m					
5	ePZ	22	46	08.2		
	eSZ		48	24.3		
	MZ(P)				0.9	0.6
	MN(S)				1.1	1.1
	ME(S)				0.6	1.1
	P-S: 2m 16.1s, P-F: 3m 36s					
6	ePZ	20	03	57.3		
	eSZ		05	13.9		
	MZ(S)				0.8	0.6
	MN(S)				1.0	0.7
	ME(S)				0.6	0.7
	P-S: 1m 16.6s, P-F: 3m 26s					
6	ePZ	22	49	06.3		
	eSZ		51	45.7		
	MZ(P)				2.4	1.2
	MN(P)				1.1	1.1
	ME(P)				0.8	1.0
	P-S: 2m 39.4s, P-F: 3m 49s					
7	iPZ	13	39	25.2	+0.2	
	eSZ		40	52.9		
	MZ(S)				1.8	
	MN(S)				1.7	0.5
	ME(S)				1.3	0.8
	P-S: 1m 27.7s, P-F: 2m 53s					

Date	Phase	Time(JST)			Amp. mm	Per. sec
7	ePZ	20h	31m	06.8s		
	eSZ		32	20.4		
	MZ(X)				0.7	0.7
	MN(X)				1.3	1.0
	ME(X)				0.8	1.6
	P-S: 1m 13.6s, P-F: 2m 45s					
7	ePZ	20	40	43.0		
	eSZ		41	08.3		
	MZ(S)				0.5	0.7
	MN(S)				0.5	0.9
	ME(S)				0.5	0.8
	P-S: 25.3s, P-F: 1m 45s					
7	iPZ	22	35	29.6	-0.2	
	MZ(P)				0.7	0.7
	MN(P)				0.6	1.0
	ME(P)				0.4	1.0
7	ePZ	22	36	36.1		
	iSZ		37	05.7		
	MZ(P)				0.8	0.3
	MN(S)				0.5	0.6
	ME(S)				0.2	0.5
	P-S: 29.6s, P-F: 1m 14.5s					
8	iPZ	07	27	41.0	+0.4	
	iSZ		27	47.4		
	MZ(S)				1.3	0.3
	MN(Z)				1.3	0.25
	ME(S)				0.8	0.3
	P-S: 06.4s, P-F: 33s					
8	ePZ	09	43	16.7		
	eSZ		44	03.5		
	MZ(S)				7.4	0.8
	MN(S)				3.7	1.0
	ME(S)				4.1	0.7
	P-S: 46.8s, P-F: 11m 30s					
9	iPZ	02	29	23.9	-1.6	
	iPN			24.0	+0.5	
	iPE			23.9	+0.2	
	eSZ		30	03.4		
	MZ(P)				4.5	0.7
	MN(S)				4.3	0.4
	ME(S)				2.0	0.5
	P-S: 39.5s, P-F: 3m 15s					
9	iPZ	04	19	27.3	-1.5	
	iPN			27.5	-0.2	
	iPE			27.4	-0.2	
	iSN		20	15.7		
	MZ(S)				13.6	
	MN(S)				10.4	
	ME(S)				14.9	
	P-S: 48.5s, P-F: 6m 54s					
9	ePZ	05	00	57.2		
	eSZ		01	54.0		
	MZ(S)				0.5	0.6
	MN(S)				0.3	0.4
	ME(S)				0.5	0.3
	P-S: 56.8s, P-F: 1m 47s					

Date	Phase	Time(JST)			Amp. mm	Per. sec
9	iPZ	07h	43m	21.9s	-0.8mm	
	iPN			21.9	+0.2	
	iPE			21.9	+0.2	
	iSN		43	33.3		
	MZ(S)				14.8	
	MN(S)				9.9	
	ME(S)				6.1	0.6
	P-S: 11.4s, P-F: 2m 05s					
9	ePZ	08	02	41.5		
	eSZ		03	56.0		
	MZ(S)				0.8	0.7
	MN(S)				0.8	1.0
	ME(S)				0.8	0.8
	P-S: 1m 14.5s, P-F: 3m 05s					
9	iPZ	12	09	42.5	+0.4	
	iPN			42.7	+1.2	
	iPE			42.7	+0.9	
	eSN		10	07.1		
	MZNE			S0		
	P-S: 24.4s, P-F: 8m 10s					
10	ePZ	02	32	20.5		
	iSN		32	40.1		
	MZ(S)				6.4	0.5
	MN(S)				5.9	0.5
	ME(S)				6.0	0.6
	P-S: 19.6s, P-F: 3m 40s					
10	ePZ	14	52	24.4		
	eSZ		53	27.4		
	MZ(S)				3.3	0.7
	MN(S)				3.3	1.3
	ME(S)				2.3	0.9
	P-S: 1m 03.0s, P-F: 4m 40s					
10	ePZ	21	09	53.5		
	eSZ		10	06.8		
	MZ(S)				0.7	0.6
	MN(S)				0.5	0.6
	ME(S)				0.3	0.5
	P-S: 13.3s, P-F: 2m 15s					
10	ePZ	23	37	17.8		
	eSZ		37	28.5		
	MZ(P)				1.6	0.2
	MN(S)				0.7	0.4
	ME(S)				0.8	0.5
	P-S: 10.7s, P-F: 38s					
11	ePZ	04	25	36.9		
	MZ(P)				0.5	0.6
	MN(P)				0.5	0.9
	ME(P)				0.3	0.7
11	ePZ	09	05	09.8		
	eSZ		06	23.2		
	MZ(S)				0.6	0.5
	MN(S)				0.7	0.5
	ME(S)				0.3	0.5
	P-S: 1m 13.4s, P-F: 1m 02s					

Date	Phase	Time(JST)			Amp. mm	Per. sec
11	ePZ	09h	10m	43.3s		
	eSZ		11	22.7		
	MZ(S)				0.5	0.4
	MN(S)				0.4	0.6
	ME(S)				0.4	0.5
	P-S: 39.4s, P-F: 1m 43s					
11	ePZ	22	46	15.1		
	eSZ		46	46.1		
	MZ(S)				0.6	0.5
	MN(S)				0.5	0.5
	ME(S)				0.3	0.7
	P-S: 31.0s, P-F: 1m 50s					
12	ePZ	03	10	18.7		
	eSZ		11	31.8		
	MZ(S)				0.5	1.0
	MN(S)				0.6	0.7
	ME(S)				0.4	0.8
	P-S: 1m 13.1s, P-F: 2m 28s					
12	ePZ	10	29	45.2		
	eSZ		30	12.8		
	MZ(S)				2.1	0.5
	MN(S)				2.1	0.6
	ME(S)				1.6	0.6
	P-S: 27.6s, P-F: 3m 02s					
12	ePZ	10	41	31.8		
	eSZ		41	53.1		
	MZ(S)				0.6	0.5
	MN(S)				0.5	0.4
	ME(S)				0.3	0.6
	P-S: 21.3s, P-F: 1m 00s					
12	ePZ	22	54	09.4		
	eSZ		55	10.2		
	MZ(S)				0.8	0.6
	MN(S)				1.2	0.7
	ME(S)				1.3	0.9
	P-S: 1m 00.8s, P-F: 3m 30s					
16	ePZ	20	06	07.1		
	MZ(P)				0.7	0.6
	MN(P)				0.5	0.8
	ME(P)				0.4	0.8
16	iPZ	22	42	34.3	+0.3	
	MZ(P)				1.0	1.5
	MN(P)				0.6	1.5
	ME(P)				0.6	1.6
17	ePZ	05	14	08.5		
	MZ(P)				0.9	0.5
	MN(P)				0.3	0.5
	ME(P)				0.2	0.5

* Observation was interrupted
from 12h 01m, 14th to 10h 53m, 15th.

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Date	Phase	Time(JST)	Amp. mm	Per. sec
17	ePZ	07h 02m 43.1s		
	eSZ	03 04.7		
	MZ(S)		0.6	0.6
	MN(S)		0.7	0.3
	ME(S)		0.3	0.5
	P-S: 21.6s, P-F: 1m 15s			
17	iPZ	12 17 24.1	-2.2	
	iPE	24.2	-0.4	
	iSE	17 33.6		
	ME(S)		3.4	0.5
	P-S: 09.4s, P-F: 2m 25s			
17	ePZ	16 28 13.1		
	eSZ	28 54.1		
	MN(S)		1.7	0.5
	ME(S)		0.8	0.5
	P-S: 41.0s, P-F: 2m 35s			
17	ePZ	16 44 55.4		
	eSZ	45 19.3		
	MN(S)		1.0	0.4
	ME(S)		0.6	0.4
	P-S: 23.9s, P-F: 1m 39s			
17	ePZ	17 12 52.1		
	eSN	13 30.4		
	MN(S)		5.9	1.0
	ME(S)		4.4	0.7
	P-S: 38.3s, P-F: 6m 52s			
17	ePZ	18 54 05.0		
	eSZ	54 15.8		
	MN(S)		1.1	0.5
	ME(S)		1.1	0.5
	P-S: 10.8s, P-F: 1m 15s			
17	ePZ	21 07 38.1		
	eSZ	07 48.8		
	MN(S)		0.8	0.7
	ME(S)		0.6	0.5
	P-S: 10.7s, P-F: 1m 55s			
17	ePZ	21 36 37.5		
	eSN	37 59.2		
	MN(S)		14.6	0.9
	ME(S)		12.3	1.0
	P-S: 1m 21.7s, P-F: 7m 10s			
18	ePZ	02 31 34.6		
	eSZ	32 06.4		
	MN(S)		1.9	0.7
	ME(S)		1.3	0.5
	P-S: 31.8s, P-F: 4m 00s			
18	ePZ	07 28 50.1		
	eSZ	29 32.3		
	MZ(S)		0.5	0.5
	MN(S)		0.3	0.5
	ME(S)		0.2	0.5
	P-S: 42.2s, P-F: 2m 07s			
18	ePZ	19h 20m 47.2s		
	eSZ	21 25.3		
	MZ(S)		1.3	0.5
	MN(S)		1.6	0.9
	ME(S)		1.4	1.0
	P-S: 38.1s, P-F: 4m 45s			
19	ePZ	01 59 54.8		
	MN(S)		19.1	1.0
	ME(S)		16.6	0.7
	P-S(E): 25.6s, P-F: 7m 30s			
19	ePZ	05 16 18.3		
	eSZ	16 30.4		
	MZ(S)		0.5	0.6
	MN(S)		0.4	0.7
	ME(S)		0.3	0.9
	P-S: 12.1s, P-F: 1m 05s			
19	iPZ	15 28 06.5	-0.2	
	eSZ	28 12.0		
	MN(S)		2.9	0.4
	ME(S)		1.1	0.3
	P-S: 05.5s, P-F: 35s			
19	ePZ	15 44 33.7		
	eSZ	44 39.6		
	MN(S)		7.3	0.7
	ME(S)		4.6	0.5
	P-S: 05.9s, P-F: 1m 55s			
20	ePZ	02 06 20.9		
	eSZ	07 51.2		
	MZ(S)		1.2	0.5
	MN(S)		0.8	0.6
	ME(S)		0.7	0.5
20	ePZ	10 42 48.8		
	eXZ	43 42.5		
	MZ(X)		1.2	0.5
	MN(X)		1.4	0.8
	ME(X)		1.0	0.7
	P-F: 3m 05s			
20	ePZ	13 14 54.5		
	eSZ	16 18.2		
	MZ(S)		0.9	0.5
	MN(S)		0.9	0.8
	ME(S)		0.7	0.8
	P-S: 1m 23.7s, P-F: 3m 09s			
20	ePZ	15 58 49.6		
	iSN	16 00 16.0		
	MN(S)		12.3	0.8
	ME(S)		8.8	0.9
	P-S: 1m 26.4s, P-F: 5m 15s			
20	ePZ	22 31 14.0		
	MZ(P)		0.5	1.5
	MN(P)		0.3	1.1
	ME(P)		0.3	1.1

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Date	Phase	Time(JST)	Amp. mm	Per. sec
20	ePZ	23h 31m 40.9s		
	iXZ	38 50.3		
	MZ(P)		0.7	0.8
	MN(P)		0.5	1.2
	ME(P)		0.6	1.6
21	ePZ	00 43 16.6		
	MZ(P)		1.8	1.8
	MN(P)		1.7	1.7
	ME(P)		1.6	1.8
21	ePZ	02 23 26.6		
	eSN	24 07.0		
	MZ(S)		1.8	1.0
	MN(S)		1.7	1.0
	ME(S)		1.7	1.0
	P-S: 40.4s, P-F: 4m 25s			
21	ePZ	08 42 56.1		
	eSZ	43 02.9		
	MZ(S)		0.5	
	MN(S)		0.5	0.2
	ME(S)		0.4	0.5
	P-S: 06.8s, P-F: 42s			
21	ePZ	14 46 51.9		
	eSZ	48 22.9		
	MZ(S)		2.1	0.6
	MN(S)		1.7	0.6
	ME(S)		1.7	0.7
	P-S: 1m 31.0s, P-F: 4m 50s			
21	ePZ	15 36 36.7		
	eSZ	37 26.0		
	MZ(S)		0.9	0.7
	MN(S)		0.8	0.8
	ME(S)		0.9	0.6
	P-S: 49.3s, P-F: 4m 00s			
21	ePZ	17 44 21.3		
	eSZ	46 08.7		
	MZ(S)		0.7	0.5
	MN(S)		0.4	0.6
	ME(S)		0.3	0.6
	P-S: 1m 47.4s, P-F: 3m 37s			
22	ePZ	01 56 07.6		
	eSZ	56 14.7		
	MZ(S)		0.9	0.6
	MN(S)		1.3	0.6
	ME(S)		0.9	0.5
	P-S: 07.1s, P-F: 45s			
22	ePZ	08 11 16.9		
	eSZ	11 25.7		
	MZ(S)		0.5	0.4
	MN(S)		0.4	0.6
	ME(S)		0.3	0.5
	P-S: 08.8s, P-F: 1m 05s			
22	ePZ	08h 52m 52.2s		
	eSN	53 21.6		
	MN(S)		18.5	0.6
	ME(S)		12.4	0.6
	P-S: 29.4s, P-F: 4m 55s			
22	ePZ	09 42 09.4		
	eXZ	43 28.3		
	MZ(P)		0.6	0.7
	MN(P)		0.4	0.9
	ME(P)		0.4	0.9
	P-F: 4m 15s			
22	ePZ	11 44 25.3		
	eSN	45 05.7		
	MZ(S)		3.3	0.4
	MN(S)		3.4	0.4
	ME(S)		2.2	0.5
	P-S: 40.4s, P-F: 3m 45s			
23	ePZ	00 50 27.7		
	eSZ	51 15.0		
	MZ(S)		0.5	0.6
	MN(S)		0.4	0.5
	ME(S)		0.2	0.7
	P-S: 47.3s, P-F: 2m 52s			
23	ePZ	02 08 49.2		
	ePPZ	11 58.9		
	eSN	18 40.3		
	eSSN	23 35.4		
	eRZ	46 25.9		
	MZ(P)		2.4	1.9
	MN(PP)		1.3	2.3
	ME(R)		1.0	15.5
	P-S: 9m 51.1s			
23	ePZ	07 45 43.8		
	eSZ	47 14.5		
	MZ(S)		1.1	0.6
	MN(S)		1.4	0.7
	ME(S)		0.9	0.6
	P-S: 1m 30.7s, P-F: 4m 43s			
23	iPZ	17 53 06.0	+0.2	
	eSZ	53 14.3		
	MZ(S)		1.4	0.5
	MN(S)		2.0	0.3
	ME(S)		0.8	0.4
	P-S: 08.3s, P-F: 2m 05s			
24	iPZ	00 46 54.5	-0.4	
	eSZ	47 03.0		
	MN(S)		3.3	0.3
	ME(S)		2.0	0.3
	P-S: 08.5s, P-F: 2m 05s			
24	iPZ	21 22 21.2	-0.2	
	eSZ	22 46.7		
	MZ(S)		0.5	0.4
	MN(S)		0.3	0.6
	ME(S)		0.2	0.7
	P-S: 25.5s			

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Date	Phase	Time(JST)	Amp. mm	Per. sec
24	ePZ	21h 23m 31.8s		
	eSZ	23 56.3		
	MZ(S)		0.9	0.4
	MN(S)		0.6	0.7
	ME(S)		0.5	0.6
	P-S: 24.5s, P-F: 2m 10s			
25	ePZ	00 29 12.4		
	eX1Z	30 41.7		
	eX2Z	31 34.0		
	MZ(X2)		1.4	0.6
	MN(X2)		1.0	0.7
	ME(X2)		0.8	0.6
25	ePZ	04 06 46.9		
	eSZ	07 22.2		
	MZ(S)		0.6	0.5
	MN(S)		0.5	0.6
	ME(S)		0.3	0.7
	P-S: 35.3s, P-F: 2m 25s			
25	ePZ	04 28 32.5		
	eSZ	29 24.9		
	MZ(S)		0.5	0.4
	MN(S)		0.6	0.6
	ME(S)		0.4	0.6
	P-S: 52.4			
25	ePZ	09 35 10.6		
	eSZ	36 46.5		
	MZ(S)		1.0	0.7
	MN(S)		0.7	0.8
	ME(S)		0.5	0.6
	P-S: 1m 35.9s, P-F: 3m 45s			
25	ePZ	20 35 35.7		
	eSZ	35 49.9		
	MZ(P)		2.5	0.4
	MN(S)		2.8	0.4
	ME(S)		1.6	0.5
	P-S: 14.2s, P-F: 2m 00s			
25	iPZ	23 20 03.8	-0.2	
	eSZ	20 11.9		
	MZ(P)		0.6	0.2
	MN(S)		0.6	0.3
	ME(S)		0.3	0.2
	P-S: 08.1s, P-F: 55s			
26	iPZ	00 24 29.0	+	
	iPN	28.9	-7.7	
	iPE	29.1	-2.0	
	MZNE(P,S)		S0	
	P-F: 7m 05s			
26	ePZ	04 47 53.8		
	eSZ	49 16.4		
	MZ(S)		0.6	0.6
	MN(S)		0.5	0.7
	ME(S)		0.5	1.1
	P-S: 1m 22.6s, P-F: 3m 43s			

Date	Phase	Time(JST)	Amp. mm	Per. sec
26	ePZ	06h 03m 03.5s		
	eSZ	03 14.9		
	MZ(P)		1.4	0.3
	MN(S)		1.2	0.5
	ME(S)		0.5	0.5
	P-S: 11.4s, P-F: 1m 05s			
26	ePZ	13 42 09.6		
	eSZ	42 17.2		
	MZ(S)		1.0	0.2
	MN(S)		0.6	0.2
	ME(S)		0.4	0.15
	P-S: 07.6s, P-F: 55s			
26	ePZ	14 10 51.8		
	eSZ	11 54.9		
	MZ(S)		0.7	0.6
	MN(S)		1.4	0.8
	ME(S)		0.7	1.0
	P-S: 1m 03.1s, P-F: 3m 33s			
26	iPZ	21 21 52.7	+0.2	
	eSZ	23 13.6		
	MZ(S)		5.9	0.4
	MN(S)		5.8	0.6
	ME(S)		4.0	0.6
	P-S: 1m 20.9s, P-F: 4m 51s			
27	ePZ	02 21 29.3		
	eSZ	21 50.4		
	MN(S)		1.1	0.6
	ME(S)		0.7	0.6
	P-S: 21.1s, P-F: 2m 18s			
27	ePZ	04 04 26.3		
	MZ(P)		0.5	1.4
	MN(P)		0.5	1.6
	ME(P)		0.3	1.9
27	ePZ	14 57 52.1		
	eSZ	58 32.6		
	MZ(S)		2.8	0.5
	MN(S)		3.5	0.4
	ME(S)		2.0	0.5
	P-S: 40.5s, P-F: 3m 50s			
27	iPZ	23 49 56.7	+0.6	
	eSZ	50 05.4		
	MZ(S)		0.5	0.4
	MN(S)		0.7	0.4
	ME(S)		0.4	0.3
	P-S: 08.7s, P-F: 55s			
28	ePZ	01 41 34.6		
	eSZ	41 46.7		
	MZ(S)		0.8	0.5
	MN(S)		0.9	0.4
	ME(S)		0.4	0.4
	P-S: 12.1s, P-F: 1m 05s			

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Date	Phase	Time(JST)	Amp. mm	Per. sec
28	ePZ	10h 59m 06.7s		
	iSZ	59 18.2		
	MZ(S)		0.9	0.4
	MN(S)		0.8	0.4
	ME(S)		0.3	
	P-S: 11.5s, P-F: 55s			
28	ePZ	11 02 45.9		
	eSZ	03 40.8		
	MZ(S)		0.9	0.5
	MN(S)		1.3	0.7
	ME(S)		1.1	0.6
	P-S: 54.9s, P-F: 2m 55s			
28	ePZ	16 04 24.2		
	eSZ	06 05.0		
	MZ(S)		1.2	0.6
	MN(S)		1.2	1.2
	ME(S)		1.1	1.2
	P-S: 1m 40.8s, P-F: 5m 11s			
28	ePZ	17 38 06.8		
	eSZ	40 05.6		
	MZ(P)		0.7	0.4
	MN(S)		0.4	0.5
	ME(S)		0.2	0.5
	P-S: 1m 58.8s, P-F: 3m 28s			
28	iPZ	18 44 51.1	-0.2	
	iPN	51.0	+0.2	
	iPE	51.0	+0.2	
	iSE	45 15.5		
	MZNE(S)		S0	
	P-S: 24.5s, P-F: 7m 10s			
28	ePZ	23 08 13.8		
	eSZ	08 26.2		
	MN(S)		5.0	0.5
	ME(S)		2.4	0.6
	P-S: 12.4s, P-F: 2m 15s			
28	ePZ	23 39 16.0		
	eSZ	39 49.4		
	MZ(S)		0.5	0.4
	MN(S)		0.5	0.7
	ME(S)		0.3	0.7
	P-S: 33.4s, P-F: 1m 48s			
29	ePZ	11 02 50.8		
	eSZ	04 09.1		
	MZ(S)		1.2	0.5
	MN(S)		1.0	0.5
	ME(S)		0.7	0.6
	P-S: 1m 18.3s, P-F: 2m 38s			
29	ePZ	11 58 04.9		
	eSN	58 39.8		
	MZ(S)		13.1	1.4
	MN(S)		14.1	1.0
	ME(S)		7.7	1.6
	P-S: 34.9s, P-F: 5m 55s			

Date	Phase	Time(JST)	Amp. mm	Per. sec
29	iPZ	17h 47m 13.0s	-	
	iPN	13.1	-1.2	
	iPE	13.1	+1.0	
	iSE	47 39.5		
	MN(S)		9.4	0.4
	ME(S)		11.2	0.4
	P-S: 26.4s, P-F: 4m 50s			
29	ePZ	20 28 15.6		
	eSZ	29 17.1		
	MZ(S)		8.0	0.8
	MN(S)		11.0	0.8
	ME(S)		7.2	0.9
	P-S: 1m 01.5s, P-F: 4m 56s			
29	ePZ	21 22 13.4		
	eSZ	22 45.3		
	MZ(S)		3.9	0.8
	MN(S)		2.8	0.6
	ME(S)		1.9	0.9
	P-S: 31.9s, P-F: 4m 50s			
30	ePZ	02 22 55.4		
	eSZ	23 35.7		
	MZ(S)		1.2	0.3
	MN(S)		1.0	0.7
	ME(S)		0.7	0.3
	P-S: 40.3s, P-F: 2m 25s			
30	iPZ	07 00 23.5	-0.2	
	eSZ	01 53.0		
	MZ(S)		2.2	0.6
	MN(S)		1.7	0.7
	ME(S)		1.9	0.9
	P-S: 1m 29.5s, P-S: 4m 04.5s			
30	ePZ	12 41 51.2		
	eX1Z	44 12.1		
	eX2Z	45 36.4		
	MZ(P)		0.5	0.8
	MN(P)		0.4	0.9
	ME(P)		0.4	0.7
31	iPZ	02 06 32.4	-0.3	
	iSZ	06 44.5		
	MZ(S)		2.3	0.5
	MN(S)		2.4	0.5
	ME(S)		1.6	0.4
	P-S: 12.1s, P-F: 1m 05s			
31	ePZ	08 05 10.5		
	eSZ	06 34.1		
	MZ(S)		1.2	1.0
	MN(S)		1.8	1.4
	ME(S)		1.1	0.9
	P-S: 1m 23.6s, P-F: 5m15s			

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Date	Phase	Time(JST)	Amp. mm	Per. sec
31	ePZ	$10^h\ 35^m\ 01.8^s$		
	eSZ	38 49.4		
	eXZ	40 03.5		
	MZ(X)		0.9	0.8
	MN(X)		0.8	0.9
	ME(X)		0.6	0.8
	P-S: 3m 47.6s			

Date	Phase	Time(JST)	Amp. mm	Per. sec
31	ePZ	$17^h\ 44^m\ 24^s$		
	eSZ	45 15		
	MZ(S)		0.6	0.5
	MN(S)		0.5	0.6
	ME(S)		0.4	0.7
	P-S: 51s, P-F: 1m 45s			

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Date	Phase	Time(JST)	Amp. mm	Per. sec
1	ePZ	$02^h\ 04^m\ 11.5^s$		
	MZ(P)		0.6	0.5
	MN(P)		0.2	0.5
	ME(P)		0.3	0.6
1	iPN	23 01 03.7	-0.4	
	iSN	01 48.2		
	MN(S)		5.4	1.0
	ME(S)		4.2	0.6
	P-S: 44.5s, P-F(N): 5m 25s			
2	ePN	04 33 54.5		
	iSN	34 09.3		
	MN(S)		11.1	0.9
	ME(S)		6.7	0.9
	P-S: 14.8s, P-F(N): 3m 05s			
2	iPN	09 45 32.8	-0.4	
	iPE	32.9	-0.4	
	eSN	46 13.6		
	MNS		S0	
	P-S: 40.8s, P-F(N): 10m 50s			
2	ePN	09 01 02.4		
	eSN	02 07.9		
	MN(S)		2.6	0.7
	ME(S)		1.5	0.9
	P-S: 1m 05.5s, P-F(N): 3m 15s			
2	ePN	19 44 20.4		
	eX1N	44 57.7		
	eX2N	45 14.4		
	MN(X2)		2.1	0.7
	ME(X2)		1.4	1.0
2	ePN	22 38 05.7		
	eSN	39 03.4		
	MZ(S)		1.3	0.6
	MN(S)		1.4	0.7
	ME(S)		1.1	0.9
	P-S: 57.7s, P-F(N): 3m 30s			
2	ePN	23 59 31.7		
	iSN	59 48.0		
	MZ(S)		7.7	
	MN(S)		6.4	0.8
	ME(S)		6.6	0.8
	P-S: 16.3s, P-F(N): 3m 15s			

Date	Phase	Time(JST)	Amp. mm	Per. sec
3	ePZ	$01^h\ 49^m\ 56^s$		
	eSZ	50 40		
	MZ(S)		0.8	
	MN(S)		0.6	0.5
	ME(S)		0.4	0.2
	P-S: 44s, P-F: 1m 20s			
3	ePZ	03 27 24		
	MZ(P)		0.6	0.5
	MN(P)		0.3	0.9
	ME(P)		0.2	0.5
3	ePZ	21 14 30		
	eSZ	15 45.5		
	MZ(S)		0.8	0.7
	MN(S)		0.6	1.2
	ME(S)		0.6	1.0
	P-S: 1m 15.5s, P-F: 3m 30s			
3	ePZ	23 24 05.3		
	eSZ	34 53.3		
	MZ(S)		0.9	0.5
	MN(S)		1.0	0.7
	ME(S)		0.7	0.6
	P-S: 48.0s, P-F: 2m 25s			
4	ePZ	02 14 48		
	eSZ	15 13		
	MZ(S)		0.6	0.5
	MN(S)		0.5	0.8
	ME(S)		0.4	0.8
	P-S: 25.5s, P-F: 1m 25s			
4	ePZ	12 43 26.3		
	eSZ	43 32.8		
	MZ(S)		1.3	
	MN(S)		1.3	0.3
	ME(S)		2.0	0.3
	P-S: 06.5s, P-F: 45s			
4	ePZ	15 20 15		
	eSZ	20 53		
	MN(S)		1.0	0.3
	ME(S)		0.8	0.3
	P-S: 38s, P-F: 1m 35s			
4	ePZ	16 06 11.8		
	MZ(P)		0.8	0.7
	MN(P)		0.4	0.7
	ME(P)		0.4	0.7

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Date	Phase	Time(JST)	Amp. mm	Per. sec
4	ePZ	$18^h\ 55^m\ 29^s$		
	eSZ	56 16		
	MZ(S)		0.9	0.5
	MN(S)		0.8	0.6
	ME(S)		0.8	0.6
	P-S: 46.8s, P-F: 1m 35s			
5	ePE	10 45 41.5		
	iSE	46 25.1		
	MN(S)		17.0	0.9
	ME(S)		14.9	1.2
	P-S: 43.6s, P-F: 7m 30s			
6	iPE	10 08 36.0	+0.8	
	iPN		-1.4	
	MZNE		S0	
	P-S(N): 11.9s, P-F: 5m 45s			
6	ePZ	15 43 59		
	eSZ	44 52		
	MZ(S)		0.9	
	MN(S)		1.0	0.7
	ME(S)		0.6	0.7
	P-S: 53s, P-F: 2m 10s			
6	ePZ	23 37 38.3		
	eSZ	38 26.4		
	MZ(P)		0.7	0.4
	MN(S)		0.6	0.7
	ME(S)		0.5	0.6
	P-S: 48.1s, P-F: 1m 55s			
8	ePZX	09 53 35.8		
	eSZX	54 27		
	MZX(S)		2.4	0.6
	MN(S)		0.6	0.5
	ME(S)		0.4	0.7
	P-S: 51s, P-F: 2m 05s			
8	ePZX	10 19 03.7		
	eSZX	20 08.9		
	MZX(S)		2.9	0.7
	MN(S)		0.5	0.8
	ME(S)		0.4	1.0
	P-S: 1m 05.2s, P-F: 2m 05s			
8	ePZX	20 44 44.5		
	iSZX	46 15.8		
	MZX(S)		4.0	0.6
	MN(S)		0.7	0.7
	ME(S)		0.5	0.6
	P-S: 1m 31.3s, P-F: 3m 46s			
9	ePZX	01 07 16.0		
	iSZX	08 17.5		
	MZX(S)		25.9	0.6
	MN(S)		5.0	1.1
	ME(S)		4.4	0.9
	P-S: 1m 01.5s, P-F: 5m 24s			

* Observation was interrupted from 08h 21m, 7th to 09h 01m, 8th

Date	Phase	Time(JST)	Amp. mm	Per. sec
9	ePZX	$05^h\ 51^m\ 33.0^s$		
	eSZX	52 36.0		
	MZX(P)		2.9	0.4
	MN(S)		0.3	0.7
	ME(S)		0.3	0.6
	P-S: 1m 03.0s, P-F: 2m 44s			
9	ePZX	10 40 29.8		
	eSZX	40 59		
	MZX(S)		3.0	0.4
	MN(S)		0.4	0.5
	ME(S)		0.3	0.5
	P-S: 29s, P-F: 1m 25s			
9	ePZX	11 30 43.7		
	eSZX	31 09.4		
	MZX(S)		2.7	0.4
	MN(S)		0.4	0.5
	ME(S)		0.2	0.6
	P-S: 25.7s, P-F: 1m 30s			
9	ePZX	14 07 29.0		
	eSZX	07 36.6		
	MZX(S)		2.9	0.4
	MN(S)		0.6	0.3
	ME(S)		0.3	0.3
	P-S: 07.6s, P-F: 1m 20s			
9	ePZX	14 21 10.7		
	eSZX	21 53.6		
	MZX(S)		3.3	0.6
	MN(S)		0.8	0.8
	ME(S)		0.5	0.8
	P-S: 42.9s, P-F: 2m 30s			
9	iPZX	17 28 49.2	+1.2	
	eXZX	29 20.6		
	MZX(X)		5.4	0.9
	MN(X)		0.6	1.0
	ME(X)		0.4	1.3
9	ePZX	18 32 17.6		
	eSZX	35 08		
	MZX(P)		15.3	0.4
	MN(P)		0.5	0.3
	ME(P)		0.5	0.4
	P-S: 2m 50s			
10	ePZX	04 18 42.1		
	eSZX	19 07.0		
	MZX(S)		5.2	0.4
	MN(S)		0.8	0.5
	ME(S)		0.5	0.6
	P-S: 24.9s, P-F: 2m 50s			
10	iPZX	11 14 57.3	+0.6	
	iSZX	15 22.7		
	MZX(S)		11.0	0.3
	MN(S)		1.9	0.4
	ME(S)		1.2	0.4
	P-S: 25.4s, P-F: 2m 40s			

* From 09h, August 8 to 12h, September 20, all earthquakes with maximum trace amplitude 2.3 mm or larger on the ZX record were interpreted regardless of the statements in the preface.

Date	Phase	Time(JST)	Amp.	Per.
10	ePZX	11h 20m 09 s	mm	sec
	eSZX	20 34		
	MZX(S)		4.0	0.4
	MN(S)		0.5	0.5
	ME(S)		0.4	0.6
	P-S: 25s, P-F: 2m 20s			
10	iPZX	20 22 52.6	-2.0	
	iPN		+0.2	
	iPE	52.8	+0.3	
	eSE	24 05.6		
	MZX(S)		SO	
	MN(S)		84.9	
	ME(S)		77.0	
	P-S: 1m 12.8s, P-F: 12m			
11	ePZX	02 11 01.4		
	iSZX	11 18.0		
	MZX(S)		2.9	0.3
	MN(S)		0.4	0.3
	ME(S)		0.3	0.4
	P-S: 16.6s, P-F: 1m 10s			
11	ePZX	03 05 44.4		
	eSZX	07 29.4		
	MZX(P)		6.4	0.4
	MN(P)		0.3	0.4
	ME(P)		0.3	0.6
	P-S: 1m 45.0s, P-F: 2m 40s			
11	iPZX	06 53 52.0	-1.5	
	MZX(P)		3.4	0.7
	MN(P)		0.3	0.9
	ME(P)		0.2	0.8
11	ePZX	10 48 58.9		
	iSZX	50 44.2		
	MZX(S)		4.7	0.6
	MN(S)		0.9	0.9
	ME(S)		0.5	0.7
	P-S: 1m 45.3s, P-F: 4m 05s			
11	iPZX	12 51 42.0	-0.4	
	eSZX	52 11.3		
	MZX(S)		30.8	0.9
	MN(S)		6.0	1.0
	ME(S)		3.9	0.9
12	iPZX	00 50 35.0	+2.0	
	eSZX	50 45.9		
	MZX(S)		7.5	0.5
	MN(S)		1.2	0.4
	ME(S)		0.9	0.3
	P-S: 10.9s, P-F: 1m 30s			
12	ePZX	03 25 46.3		
	eSZX	25 55.0		
	MZX(S)		5.0	
	MN(S)		0.7	0.5
	ME(S)		0.5	0.3
	P-S: 08.7s, P-F: 1m 15s			

Date	Phase	Time(JST)	Amp.	Per.
12	iPZX	03h 58m 57.2s	+2.8mm	sec
	MZX(P)		9.0	0.7
	MN(P)		1.0	1.0
	ME(P)		0.7	1.1
12	iPZX	13 31 38.7	+0.6	
	eSE	32 21.5		
	MZX(S)		SO	
	MN(S)		SO	
	ME(S)		23.7	
	P-S: 42.8s, P-F: 9m 30s			
12	ePZX	14 03 18.7		
	eSZX	03 53.0		
	MZX(S)		4.5	0.6
	MN(S)		1.0	0.7
	ME(S)		0.6	0.7
	P-S: 34.3s, P-F: 2m 10s			
12	iPZX	18 51 19.4	+3.1	
	eSZX	19 00 25		
	MZX(P)		6.3	2.0
	MN(P)		1.1	1.1
	ME(P)		0.9	1.2
	P-S: 9m 06s			
12	ePZX	19 44 27.4		
	eSZX	47 24.9		
	MZX(P)		5.7	0.3
	MN(P)		0.3	0.3
	ME(P)		0.2	0.4
	P-S: 2m 57.5s, P-F: 4m 40s			
13	iPZX	00 53 08.2	+1.6	
	iSZX	53 16.2		
	MZX(S)		7	
	MN(S)		1.9	0.3
	ME(S)		0.8	0.4
	P-S: 08.0s,			
13	iPZX	00 54 19.8	-SO	
	eSZX	54 27.9		
	MZX(S)		SO	
	MN(S)		12.5	0.3
	ME(S)		5.2	0.4
	P-S: 08.1s, P-F: 2m 40s			
13	iPZX	18 55 26.4	-0.8	
	eSZX	55 33.4		
	MZX(S)		8.6	0.5
	MN(S)		1.5	0.3
	ME(S)		0.7	0.3
	P-S: 07.0s, P-F: 1m 05s			
14	iPZX	05 08 56.2	-17.8	
	iPN		-0.8	
	iPE	56.4	-0.8	
	iSE	10 34.5		
	eX1ZX	21 09		
	eX2ZX	21 19		
	MZXNE		SO	
	P-S: 1m 38.1s, P-F: 12m			

Date	Phase	Time(JST)	Amp.	Per.
14	ePZX	07h 23m 43.7s	mm	sec
	MZX(P)		3.0	1.5
	MN(P)		0.5	1.3
	ME(P)		0.4	1.3
14	iPZX	11 17 03.1	-2.4	
	eSZX	17 09.1		
	MZX(S)		12.3	0.5
	MN(S)		1.6	0.3
	ME(S)		1.2	0.4
	P-S: 06.0s, P-F: 1m 05s			
14	iPZX	18 13 34.5	-2.0	
	MZX(P)		4.0	0.5
	MN(P)		0.6	0.7
	ME(P)		0.5	1.1
14	iPZX	20 56 06.2	-0.6	
	eSZX	56 20.9		
	MZX(S)		9.5	0.6
	MN(S)		1.5	0.4
	ME(S)		1.0	0.6
	P-S: 14.7s, P-F: 2m 25s			
14	iPZX	21 14 54.7	-4.3	
	eSZX	15 06.0		
	MZX(S)		SO	
	MN(S)		25.8	0.7
	ME(S)		20.3	0.6
	P-S: 11.3s, P-F: 3m 55s			
15	iPZX	01 52 19.8		
	iPN		+0.6	
	iPE	19.9	+0.3	
	iSE	52 25.8		
	MZX(S)		SO	
	MN(S)		20.3	0.4
	ME(S)		16.2	0.4
	P-S: 06.0s, P-F: 2m 50s			
15	iPZX	18 28 40.9	-2.4	
	eSZX	34 48		
	MZX(P)		8.1	1.2
	MN(P)		0.9	1.1
	ME(P)		0.6	1.2
	P-S: 6m 07s			
16	iPZX	00 38 03.0	-1.8	
	MZX(P)		5.5	0.8
	MN(P)		0.6	1.2
	ME(P)		0.6	0.8
16	ePZX	11 30 03.4		
	eSZX	30 48.2		
	MZX(S)		4.7	0.6
	MN(S)		0.6	0.8
	ME(S)		0.4	0.5
	P-S: 44.8s, P-F: 2m 05s			
16	ePZX	16 02 51.6		
	eSZX	03 01.6		
	MZX(S)		2.4	0.5
	MN(S)		0.4	0.3
	ME(S)		0.3	0.5
	P-S: 10.0s, P-F: 1m 05s			

* cf. page 15

Date	Phase	Time(JST)	Amp.	Per.
16	iPZX	17h 09m 34.3s	-0.6mm	sec
	eSZX	11 03.5		
	MZX(P)		3.2	0.6
	MN(P)		0.3	0.6
	ME(S)		0.3	0.6
	P-S: 1m 29.2s, P-F: 3m 10s			
16	ePZX	19 26 54.1		
	eSZX	27 37.7		
	MZX(S)		21.3	0.6
	MN(S)		3.6	0.8
	ME(S)		2.1	0.9
	P-S: 43.6s, P-F: 4m 15s			
17	ePZX	02 02 08.4		
	eSZX	02 24.6		
	MZX(P)		3.8	0.2
	MN(S)		0.3	0.3
	ME(S)		0.3	0.2
	P-S: 16.2s, P-F: 1m 10s			
17	iPZX	03 34 32.8	-0.4	
	iSZX	35 27.9		
	MZX(S)		17.4	
	MN(S)		3.8	0.4
	ME(S)		3.0	0.5
	P-S: 55.1s, P-F: 5m 00s			
17	iPZX	04 28 44.0	-1.2	
	MZX(P)		4.1	0.7
	MN(P)		0.6	0.8
	ME(P)		0.5	0.7
17	iPZX	13 59 14.7	-2.2	
	eSZX	59 33.1		
	MZX(S)		6.3	0.5
	MN(S)		1.3	0.6
	ME(S)		1.0	0.7
	P-S: 18.4s, P-F: 1m 55s			
17	iPZX	23 32 40.8	-5.2	
	iSE	33 15.1		
	MZX(S)		SO	
	P-S: 34.3s, P-F: 7m 40s			
17	ePZX	23 58 18.5		
	eSZX	59 06.5		
	MZX(P)		4.7	0.2
	MN(S)		0.4	0.3
	ME(S)		0.3	0.4
	P-S: 48.0s, P-F: 2m 30s			
18	ePZX	00 35 06.0		
	eSZX	35 40.8		
	MZX(S)		4.4	0.6
	MN(S)		0.9	0.7
	ME(S)		0.4	0.7
	P-S: 34.8s, P-F: 2m 30s			

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Date	Phase	Time(JST)			Amp.	Per.
		h	m	s	mm	sec
19	iPZX	06	19	15.9	-1.0	
	eSZX		19	22.7		
	MZX(S)				4.0	0.5
	MN(S)				0.5	0.6
	ME(S)				0.5	0.6
	P-S: 06.8s, P-F: 55s					
19	iPZX	09	12	16.8		
	iPE			16.9	-0.4	
	iSE		12	24.7		
	MN(S)				8.3	0.5
	ME(S)				2.9	0.5
	P-S: 07.8s, P-F: 2m 20s					
19	ePZX	12	07	45		
	eSZ		08	37		
	MZX(S)				4.3	0.5
	MN(S)				0.5	0.7
	ME(S)				0.4	0.7
	P-S: 52s, P-F: 2m 30s					
19	iPZX	14	20	23.5	-0.6	
	eSZ		22	51		
	MZX(P)				2.9	0.5
	MN(P)				0.3	0.6
	ME(P)				0.2	0.5
	P-S: 2m 28s					
19	iPZX	15	26	05.6	+7.0	
	iPN			05.6	-0.2	
	iPE			05.7	+0.2	
	iSN		26	13.6		
	MN(S)				3.4	0.5
	ME(S)				2.2	0.3
	P-S: 08.0s, P-F: 2m 00s					
19	iPE	19	55	09.0	+0.4	
	iPZX				+13.2	
	iPN				+0.4	
	iSE		55	27.8		
	MZX(S)				SO	
	MN(S)				22.5	
	ME(S)				16.8	
	P-S: 18.8s, P-F: 5m 10s					
19	iPE	21	14	44.4	+0.4	
	iPZX				-12.2	
	iPN				-0.9	
	iSE		15	02.1		
	eXE		17	58		
	MZX(S)				SO	
	MN(S)				57.0	1.0
	ME(S)				33.0	1.4
	P-S: 17.7s, P-F: 3m 10s					
19	ePE	22	39	45.1		
	iPZX				-1.4	
	eSE		40	47.6		
	MN(S)				4.2	0.8
	ME(S)				3.3	0.8
	P-S: 1m 02.5s, P-F: 5m 43s					

Date	Phase	Time(JST)			Amp.	Per.
		h	m	s	mm	sec
20	ePE	00	34	59		
	iPZX				-2.2	
	MZX(P)				3.2	0.8
	MN(P)				0.8	1.0
	ME(P)				0.4	1.1
20	ePE	00	55	25		
	MN(P)				4.9	0.5
	ME(P)				5.0	0.8
20	iPZX	06	42	58	-0.6	
	eSZX		43	57		
	MZX(P)				5.0	0.5
	MN(S)				0.6	0.5
	ME(S)				0.4	0.5
	P-S: 58.5s, P-F: 2m 08s					
20	ePZX	09	49	01		
	eXZX		49	48		
	MZX(X)				2.8	0.7
	MN(X)				0.3	0.8
	ME(X)				0.3	0.8
20	ePZX	10	13	01		
	MZX(P)				3.2	0.7
	MN(P)				0.5	1.4
	ME(P)				0.5	1.3
20	iPZX	10	28	12	+1.4	
	eSZX		28	35		
	MZX(S)				2.9	0.7
	MN(S)				0.4	0.8
	ME(S)				0.3	0.8
	P-S: 22.7s, P-F: 1m 20s					
20	iPZX	11	10	14	-1.8	
	MZX(P)				2.9	1.3
	MN(P)				0.4	1.7
	ME(P)				0.3	1.2
20	ePZX	12	53	03		
	MZX(P)				11.1	
	MN(P)				1.6	0.8
	ME(P)				1.7	0.7
20	ePZX	13	19	41		
	eSZX		20	12		
	MZX(S)				2.4	0.5
	MN(S)				0.3	0.5
	ME(S)				0.3	0.6
	P-S: 30.5s, P-F: 1m 40s					
20	ePZX	16	29	47		
	eSZX		33	03		
	MZX(P)				3.5	0.5
	MN(P)				0.2	0.5
	ME(P)				0.2	0.6
	P-S: 3m 16s					
20	ePZX	23	53	09.1		
	MZX(P)				10.3	1.7
	MN(P)				0.9	0.8
	ME(P)				1.0	0.9

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Date	Phase	Time(JST)			Amp.	Per.
		h	m	s	mm	sec
21	ePZX	01	39	02.8		
	eSZX		39	38.1		
	MZX(P)				5.0	0.5
	MN(S)				0.8	0.5
	ME(S)				0.5	0.6
	P-S: 35.3s, P-F: 2m 20s					
21	ePZX	04	39	07.6		
	eSZX		40	11		
	MZX(S)				5.6	0.6
	MN(S)				0.9	0.7
	ME(S)				0.4	0.7
	P-S: 1m 03s, P-F: 3m 00s					
21	iPZX	05	40	33.1	-1.6	
	iSZX		40	44.0		
	MZX(S)				3.8	0.4
	MN(S)				0.7	0.5
	ME(S)				0.6	0.6
	P-S: 10.9s, P-F: 1m 00s					
21	iPZX	12	13	33.5	+1.2	
	iSZX		13	38.8		
	MZX(S)				4.0	0.5
	MN(S)				0.5	0.6
	ME(S)				0.4	0.4
	P-S: 05.3s, P-F: 43s					
21	iPZX	16	42	45.2	-6.7	
	eSZX		50	43		
	eRZX	17	05	30		
	MZX(P)				SO	
	MN(P)				6.3	0.9
	ME(P)				2.6	0.8
	P-S: 7m 58s					
21	iPZX	17	01	55.0	+1.4	
	eSZX		02	01.3		
	MZX(P)				2.5	0.4
	MN(P)				0.4	0.6
	ME(P)				0.3	0.5
	P-S: 06.3s, P-F: 48s					
22	iPZX	02	18	40.7	SO	
	MZXNE				SO	
	P-F: 5m 20s					
22	ePN	12	18	52.3		
	eSN		19	02.0		
	MZX(S)				SO	
	MN(S)				8.6	0.8
	ME(S)				3.9	0.8
	P-S: 09.7s, P-F: 2m 20s					
22	ePZX	22	22	02		
	MZX(P)				4.2	2.1
	MN(P)				0.5	1.5
	ME(P)				0.4	1.9

Date	Phase	Time(JST)			Amp.	Per.
		h	m	s	mm	sec
23	ePZX	00	10	59		
	eSZX		12	51		
	MZX(S)				9.4	0.8
	MN(S)				1.6	0.8
	ME(S)				1.1	0.8
	P-S: 1m 52s, P-F: 4m 05s					
23	ePZX	01	32	20.5		
	eSZX		33	12.6		
	MZX(S)				3.5	1.2
	MN(S)				0.6	0.9
	ME(S)				0.6	0.9
	P-S: 52.1s, P-F: 2m 40s					
23	ePZX	02	17	37.5		
	eSZX		18	19		
	MZX(S)				>25	
	MN(S)				6.3	0.8
	ME(S)				4.6	1.2
	P-S: 41s, P-F: 3m 40s					
23	ePZX	05	29	13.1		
	eSZX		30	15		
	MZX(S)				5.6	0.5
	MN(S)				1.2	0.7
	ME(S)				0.7	0.8
	P-S: 52s					
24	iPZX	03	21	15.3	-1.6	
	iSZX		21	21.2		
	MZX(S)				9.0	0.3
	MN(S)				2.7	0.3
	ME(S)				1.0	0.3
	P-S: 05.9s, P-F: 1m 15s					
24	ePZX	03	51	27.4		
	eSZX		52	41.2		
	MZX(S)				5.4	0.5
	MN(S)				0.8	0.7
	ME(S)				0.6	0.6
	P-S: 1m 13.8s, P-F: 3m 55s					
24	iPZX	05	42	21.1	+0.8	
	iSZX		42	27.7		
	MZX(S)				>15	
	MN(S)				2.1	0.5
	ME(S)				1.5	0.3
	P-S: 06.6s, P-F: 1m 10s					
24	iPZX	12	22	12.8	+8.2	
	iPN			12.9	-0.4	
	iPE			12.9	-0.5	
	iSZX		22	56.5		
	MZXNE				SO	
	P-S: 43.6s, P-F: 10m 50s					
25	iPZX	09	09	57.2		
	iPE			57.3	+0.2	
	iSE		10	01.3		
	MZX(S)				>25	
	ME(S)				> 7.5	
	P-S: 04.0s, P-F: 1m 35s					

Date	Phase	Time(JST)	Amp.	Per.
25	ePN	14h 18m 55 s	mm	sec
	eSZX	19 50		
	MZX(S)		16.4	0.8
	MN(S)		3.8	1.1
	ME(S)		3.0	0.8
	P-S: 55.1s, P-F: 3m 35s			
25	ePN	14 52 43		
	eSZX	52 56		
	MZX(S)		>3.0	0.5
	MN(S)		0.6	0.7
	ME(S)		0.4	0.6
	P-S: 13.5s, P-F: 1m 25s			
26	ePE	09 42 49		
	iPZX		+3.0	
	MZX(P)		8.8	2.1
	MN(P)		1.3	1.8
	ME(P)		0.9	1.7
26	ePE	11 13 15		
	MZX(P)		2.5	2.1
	MN(P)		0.5	1.7
	ME(P)		0.3	1.9
27	ePN	03 52 54		
	eSZX	53 52		
	MZX(S)		5.9	0.9
	MN(S)		1.1	0.8
	ME(S)		0.9	0.8
	P-S: 57.5s, P-F: 3m 10s			
27	ePZX	16 01 14.5		
	eSZX	01 39.8		
	MZX(S)		2.8	0.6
	MN(S)		0.3	0.5
	ME(S)		0.3	0.5
	P-S: 25.3s, P-F: 2m 25s			
27	ePZX	23 25 01.8		
	MZX(P)		3.5	0.8
	MN(P)		0.4	1.0
	ME(P)		0.2	0.6
28	ePZX	03 13 53.3		
	eSZX	15 48.5		
	MZX(S)		5.7	0.9
	MN(S)		1.0	0.7
	ME(S)		0.6	1.0
	P-S: 1m 55.2s, P-F: 4m 25s			
28	ePZX	08 41 44.2		
	eSZX	42 49.7		
	MZX(S)		2.5	0.6
	MN(S)		0.5	0.7
	ME(S)		0.3	0.6
	P-S: 1m 05.5s, P-F: 2m 15s			
29	ePZX	12 47 03.6		
	eSZX	48 47.5		
	MZX(S)		5.2	0.6
	MN(S)		0.5	0.6
	ME(S)		0.5	0.7
	P-S: 1m 43.9s, P-F: 3m 45s			
29	iPZX	16h 36m 46.6s	-2.4mm	
	MZX(P)		4.7	0.8
	MN(P)		0.8	0.9
	ME(P)		0.4	1.0
29	ePZX	18 11 07.5		
	eSZX	12 26.2		
	MZX(S)		2.3	0.6
	MN(S)		0.3	0.4
	ME(S)		0.2	0.8
	P-S: 1m 18.7s, P-F: 2m 38s			
29	ePZX	23 08 23		
	eSZX	08 37		
	MZX(S)		2.7	0.3
	MN(S)		0.5	0.3
	ME(S)		0.3	0.5
	P-S: 14s, P-F: 1m 30s			
30	ePZX	05 43 05.4		
	iSZX	43 57.7		
	MZX(P)		3.5	0.5
	MN(S)		0.6	0.5
	ME(S)		0.4	0.5
	P-S: 52.3s, P-F: 3m 05s			
30	ePZX	07 20 50.3		
	eSZX	22 22.0		
	MZX(S)		4.6	0.8
	MN(S)		0.7	0.8
	ME(S)		0.6	1.0
	P-S: 1m 31.7s,			
30	iPZX	09 25 09.9	-4.6	
	iSZX	25 25.7		
	MZX(S)		>30	
	MN(S)		5.9	0.4
	ME(S)		6.2	0.4
	P-S: 15.8s, P-F: 2m 40s			
30	ePZX	10 15 50		
	eSZX	16 51		
	MZX(S)		11.5	0.7
	MN(S)		1.3	0.9
	ME(S)		0.9	1.1
	P-S:1m 01s, P-F: 4m 05s			
30	iPZX	11 07 48.9	-0.8	
	iSZX	09 06.8		
	MZX(S)		10.1	0.6
	MN(S)		2.0	0.7
	ME(S)		1.4	0.6
	P-S: 1m 17.9s, P-F: 4m 28s			
30	ePZX	13 29 00.7		
	eSZX	34 40.5		
	eRZX	43 30		
	MZX(P)		10.2	3.0
	MN(P)		1.2	1.2
	ME(P)		0.8	0.7
	P-S: 5m 39.8s,			

Date	Phase	Time(JST)	Amp.	Per.
30	ePZX	14h 55m 52 s	mm	sec
	eSZX	57 19		
	MZX(S)		3.9	0.8
	MN(S)		0.7	0.7
	ME(S)		0.5	1.1
	P-S: 1m 27s			
30	iPZX	17 11 12.5	-1.2	
	iSZX	12 24.3		
	MZX(S)		>29	
	MN(S)		4.4	0.5
	ME(S)		3.3	0.5
	P-S: 1m 11.8s, P-F: 6m 05s			
30	ePZX	17 59 01		
	eSZX	18 00 36		
	MZX(S)		3.3	0.8
	MN(S)		0.7	0.8
	ME(S)		0.5	1.0
	P-S: 1m 35.5s, P-F: 2m 55s			
30	ePZX	21 07 44		
	MZX(P)		3.4	1.2
	MN(P)		0.4	1.1
	ME(P)		0.2	1.0
30	iPZX	22 35 05.6	-1.7	
	iSN	36 25.3		
	MZXNE		SO	
	P-S: 1m 19.7s, P-F: 10m			
30	ePZX	22 45 28		
	eSZX	46 51		
	MZX(S)		9.5	1.1
	MN(S)		1.1	0.8
	ME(S)		1.2	0.8
	P-S: 1m 23s, P-F: 3m 10s			
30	ePZX	22 55 42		
	MZX(S)		3.5	0.9
	MN(S)		0.9	1.0
	ME(S)		0.7	1.1
	P-S: 1m 30s, P-F: 2m 35s			
31	ePZX	04 26 44.9		
	eSZX	28 09.3		
	MZX(S)		5.3	0.9
	MN(S)		1.1	0.8
	ME(S)		0.9	0.9
	P-S: 1m 24.4s, P-F: 2m 45s			
31	ePZX	05 05 12.5		
	eSZX	06 35.7		
	MZX(S)		>30	
	MN(S)		8.6	1.5
	ME(S)		7.6	0.9
	P-S: 1m 23.2s, P-F: 5m 40s			
31	iPZX	05h 25m 48.0s	-2.6mm	
	eSZX	25 55.7		
	MZX(P)		6.4	0.3
	MN(S)		0.8	0.3
	ME(S)		0.6	0.4
	P-S: 07.7s, P-F: 1m 20s			
31	iPZX	08 20 48.3	+1.0	
	iSZX	21 27.0		
	MZX(S)		>25	
	MN(S)		5.5	0.6
	ME(S)		4.3	0.5
	P-S: 38.7s, P-F: 4m 35s			
31	ePZX	11 37 37.6		
	eSZX	37 44.4		
	MZX(S)		7.6	0.5
	MN(S)		1.6	0.3
	ME(S)		0.7	0.3
	P-S: 06.8s, P-F: 1m 10s			
31	ePZX	11 53 40.5		
	eSZX	54 28.4		
	MZX(S)		4.0	0.9
	MN(S)		0.7	0.9
	ME(S)		0.5	0.7
	P-S: 47.9s, P-F: 2m 08s			
31	ePZX	13 49 38.4		
	iSZX	50 07.5		
	MZX(S)		2.9	0.4
	MN(S)		0.4	0.6
	ME(S)		0.3	0.6
	P-S: 29.1s, P-F: 1m 20s			
31	ePZX	17 21 12.9		
	eSZX	21 26.0		
	MZX(S)		5.2	0.6
	MN(S)		0.6	0.2
	ME(S)		0.4	0.3
	P-S: 13.1s, P-F: 1m 35s			
31	iPZX	20 55 19.0	-0.4	
	eSZX	55 38.2		
	MZX(S)		15.0	0.8
	MN(S)		2.3	0.25
	ME(S)		1.6	0.4
	P-S: 19.2s, P-F: 2m 20s			

*Addendum

15	iPZX	19 28 55.8	-	
	MZX(S)		SO	
	MN(S)		5.3	0.3
	ME(S)		2.9	0.3
	P-S(N): 09.1s, P-F:2m 20s			

Date	Phase	Time(JST)	Amp. mm	Per. sec
1	iPZX	01h 42m 23.5s	+2.8	
	eSZX	43 11.2		
	MZX(S)		>20	
	MN(S)		3.1	0.6
	ME(S)		1.5	0.6
	P-S: 47.7s, P-F: 4m 40s			
1	iPZX	04 04 14.3	+3.8	
	MZX(P)		7.9	1.6
	MN(P)		0.8	1.3
	ME(P)		0.4	0.9
1	ePZX	08 18 03.3		
	eSZX	18 23.4		
	MZX(P)		4.1	0.3
	MN(S)		0.4	0.4
	ME(S)		0.2	0.6
	P-S: 20.1s, P-F: 1m 15s			
1	iPZX	12 39 31.1	-1.9	
	MZX(P)		4.0	0.8
	MN(P)		0.3	0.8
	ME(P)		0.2	0.8
2	ePZX	00 47 00.4		
	iSZX	47 15.3		
	MZX(S)		>10	
	MN(S)		3.0	0.5
	ME(S)		1.3	0.5
	P-S:14.9s, P-F: 2m 25s			
2	ePZX	04 46 53.5		
	eSZX	47 51.7		
	MZX(S)		2.4	0.8
	MN(S)		0.4	0.6
	ME(S)		0.3	0.9
	P-S: 58.2s, P-F: 2m 40s			
2	iPZX	07 42 57.1	-12.3	
	iPN	57.2	+0.8	
	iPE	57.2	+1.0	
	iSN	43 39.9		
	MZXNE		SO	
	P-S: 42.7s, P-F: 11m 40s			
2	ePZX	14 20 33.7		
	iSZX	20 43.9		
	MZX(S)		7.0	0.5
	MN(S)		0.9	0.4
	ME(S)		0.5	0.4
	P-S: 10.2s, P-F: 1m 05s			
2	ePZX	15 29 50.3		
	eSZX	30 05		
	MZX(S)		>13	
	MN(S)		3.2	0.6
	ME(S)		1.9	0.4
	P-S: 15s, P-F: 3m 00s			
2	iPZX	16 06 19.2	+0.4	
	iSZX	06 28.5		
	MZX(S)		4.9	0.4
	MN(S)		0.7	0.4
	ME(S)		0.5	0.4
	P-S: 09.3s, P-F: 1m 15s			

Date	Phase	Time(JST)	Amp. mm	Per. sec
3	ePZX	02h 29m 11.9s		
	iSZX	30 29.9		
	MZX(S)		5.6	0.7
	MN(S)		1.2	0.8
	ME(S)		0.5	0.7
	P-S: 1m 18.0s, P-F: 2m 50s			
3	iPZX	07 45 10.8	-0.4	
	eSZX	45 11.6		
	MZX(P)		5.8	0.4
	MN(S)		0.3	0.3
	ME(S)		0.2	0.5
	P-S: 08.0s, P-F: 39s			
3	iPZX	09 10 05.6	-1.8	
	iSN	10 19.1		
	MN(S)		3.6	0.5
	ME(S)		1.6	0.6
	P-S: 13.5s, P-F: 2m 20s			
3	ePZX	17 38 30.1		
	eSZX	38 57		
	MZX(S)		>13	
	MN(S)		2.4	0.6
	ME(S)		1.6	0.7
	P-S: 27s, P-F: 2m 30s			
3	iPZX	17 49 42.9	-0.6	
	eSZX	50 07.4		
	MZX(S)		>9	
	MN(S)		1.5	0.6
	ME(S)		1.2	0.5
	P-S: 24.5s, P-F: 2m 50s			
3	iPZX	18 50 04.0	+0.6	
	eSZX	51 24.8		
	MZX(S)		4.5	0.7
	MN(S)		0.8	0.8
	ME(S)		0.6	0.7
	P-S: 1m 20.8s, P-F: 2m 40s			
3	ePZX	21 32 52.9		
	eSZX	33 42.6		
	MZX(S)		>13	
	MN(S)		3.1	0.3
	ME(S)		2.0	0.5
	P-S: 49.7s, P-F: 2m 40s			
4	iPZX	03 32 36.9	+0.6	
	iSZX	32 47.2		
	MZX(S)		>8	
	MN(S)		3.1	0.3
	ME(S)		1.3	0.3
	P-S: 10.3s, P-F: 1m 20s			
4	iPZX	06 05 24.0	-1.4	
	iSZX	06 38.9		
	MZX(X)		4.6	1.2
	MN(X)		1.0	1.0
	ME(X)		0.6	1.0
	P-S: 1m 14.9s, P-F: 3m 25s			

Date	Phase	Time(JST)	Amp. mm	Per. sec
4	iPZX	06h 26m 41.8s	+7.4	
	eXZX	30 11		
	eRZX	07 16 18		
	MZX(P)		16.3	1.9
	MN(X)		1.7	2.2
	ME(X)		1.6	2.8
4	ePZX	06 46 19.1		
	iSZX	47 36.5		
	MZX(S)		15.2	1.2
	MN(S)		4.1	0.9
	ME(S)		1.5	0.9
	P-S: 1m 17.4s, P-F: 4m 40s			
4	ePZX	09 27		
	MZX(S)		3.1	0.4
	MN(S)		0.5	0.3
	ME(S)		0.4	0.5
	P-S: 1m 37.8s, P-F: 3m 15s			
4	iPZX	11 09	+0.6	
	MZX(S)		2.8	0.5
	MN(S)		0.4	0.4
	ME(S)		0.3	0.5
	P-S: 22.9s, P-F: 1m 25s			
4	iPZX	13 03 50.0	+3.6	
	iX1ZX	04 49.1		
	eX2ZX	13 41		
	MZX(P)		16.1	1.4
	MN(P)		1.6	1.3
	ME(P)		1.0	1.1
4	iPZX	18 53 16.1	-17.8	
	iPN	16.2	+0.4	
	iPE	16.3	-0.4	
	iSN	53 32.1		
	MZX(S)		>45	
	MN(S)		7.8	0.4
	ME(S)		5.6	0.6
	P-S: 15.9s, P-F: 2m 45s			
4	ePZX	20 16 41.6		
	eSZX	17 45.1		
	MZX(S)		8.1	0.9
	MN(S)		1.4	0.9
	ME(S)		0.8	0.9
	P-S: 1m 03.5s, P-F: 2m 40s			
5	ePZX	02 39 06.4		
	eSZX	40 14.6		
	MZX(S)		7.7	0.8
	MN(S)		1.6	0.9
	ME(S)		1.0	0.8
	P-S: 1m 08.2s, P-F: 3m 00s			
5	ePZX	02 50 09.1		
	iSZX	51 24.6		
	MZX(S)		13.6	0.7
	MN(S)		1.6	0.6
	ME(S)		0.6	0.9
	P-S: 1m 15.5s, P-F: 4m 05s			

Date	Phase	Time(JST)	Amp. mm	Per. sec
5	ePZX	04h 33m 47.7s		
	eSZX	36 40.4		
	MZX(P)		11.7	0.4
	MN(S)		1.1	0.6
	ME(S)		0.8	0.7
	P-S: 3m 52.7s, P-F: 4m 50s			
5	ePZX	06 48 42.5		
	iSZX	49 03.7		
	MZX(S)		20	0.5
	MN(S)		4.6	0.6
	ME(S)		2.9	0.6
	P-S: 21.2s, P-F: 2m 30s			
5	ePZX	11 58 09.9		
	eSZX	59 41.2		
	MZX(S)		2.4	0.7
	MN(S)		0.4	0.5
	ME(S)		0.3	0.5
	P-S: 1m 31.3s, P-F: 2m 55s			
5	ePZX	13 14 58.7		
	eSZX	15 16.2		
	MZX(S)		4.3	0.6
	MN(S)		0.5	0.5
	ME(S)		0.4	0.5
	P-S: 17.5s, P-F: 1m 50s			
5	ePZX	15 08 24.9		
	iSZX	09 23.4		
	MZX(P)		8.9	0.5
	MN(S)		1.6	0.9
	ME(S)		1.1	0.8
	P-S: 58.5s, P-F: 4m 00s			
5	iPZX	21 41 23.4	+0.6	
	eSZX	41 30.3		
	MZX(S)		2.8	0.4
	MN(S)		0.8	0.3
	ME(S)		0.4	0.3
	P-S: 06.9s, P-F: 55s			
5	ePZX	21 56 21.4		
	eSZX	57 04.9		
	MZX(S)		2.5	0.7
	MN(S)		0.4	0.9
	ME(S)		0.4	0.8
	P-S: 43.5s, P-F: 2m 35s			
5	iPZX	22 21 21.8	-4.0	
	iSZX	21 33.0		
	MZX(S)		35	
	MN(S)		13.9	0.3
	ME(S)		7.2	0.3
	P-S: 11.2s, P-F: 2m 05s			
6	iPZX	03 40 03.9	+1.0	
	iSZX	40 44.7		
	MZX(P)		21.9	
	MN(S)		3.0	0.5
	ME(S)		1.6	0.5
	P-S: 40.8s, P-F: 2m 50s			

Date	Phase	Time(JST)	Amp.	Per.
6	ePZX	$12^h\ 21^m\ 20.3^s$	mm	sec
	iSZX	23 04.9		
	MZX(S)		37.8	1.3
	MN(S)		5.1	1.5
	ME(S)		5.0	1.4
	P-S: 1m 44.6s, P-F: 5m 45s			
6	ePZX	16 39 07.7		
	MZX(P)		5.4	0.7
	MN(P)		0.7	0.8
	ME(P)		0.5	1.1
6	ePZX	17 02 25.5		
	iSZX	03 14.6		
	MZX(S)		22.5	0.7
	MN(S)		3.5	0.8
	ME(S)		3.5	0.8
	P-S: 49.1s, P-F: 4m 40s			
6	iPZX	20 19 50.0	-1.0	
	eSZX	20 05.1		
	MZX(P)		5.4	
	MN(S)		1.0	0.3
	ME(P)		0.5	0.2
	P-S: 15.1s, P-F: 1m 15s			
6	ePZX	21 56 21.3		
	iSZX	56 49.9		
	MZX(S)		5.5	0.5
	MN(S)		0.9	0.4
	ME(S)		0.6	0.5
	P-S: 28.6s, P-F: 1m 55s			
6	ePZX	23 39 26.4		
	eSZX	40 03.3		
	MZX(S)		2.5	0.3
	MN(S)		0.5	0.3
	ME(S)		0.4	0.3
	P-S: 36.9s, P-F: 1m 45s			
7	iPZX	02 32 18.8	-2.0	
	MZX(P)		3.8	0.9
	MN(P)		0.2	0.8
	ME(P)		0.2	0.6
7	iPZX	16 10 11.7	-0.4	
	iSZX	10 35.4		
	MZX(S)		28.9	
	MN(S)		3.2	0.4
	ME(S)		3.8	0.6
	P-S: 23.7s, P-F: 3m 05s			
7	iPZX	16 20 09.7	-3.4	
	iSZX	26 16.5		
	MZX(P)		20.7	1.5
	MN(S)		1.7	1.5
	ME(S)		1.3	2.3
	P-S: 6m 06.8s			
7	iPZX	20 19 40.8	+3.0	
	MZX(P)		3.6	2.1
	MN(P)		0.4	1.3
	ME(P)		0.4	1.8

Date	Phase	Time(JST)	Amp.	Per.
7	iPZX	$22^h\ 39^m\ 09.3^s$	-0.6^{mm}	sec
	eSZX	40 01.6		
	MZX(P)		4.5	0.5
	MN(S)		0.6	0.7
	ME(S)		0.4	0.9
	P-S: 52.3s, P-F: 2m 15s			
8	iPZX	00 12 52.4	+0.6	
	iSZX	13 52.3		
	MZX(S)		>15	
	MN(S)		2.9	0.4
	ME(S)		1.7	
	P-S: 59.9s,			
8	iPZX	05 48 52.2	-1.0	
	iSZX	49 11.0		
	MZX(S)		6.9	0.6
	MN(S)		0.7	0.2
	ME(S)		0.7	0.6
	P-S: 18.8s, P-F: 1m 35s			
8	iPZX	13 59 56.3	-0.8	
	iSZX	14 00 24.2		
	MZX(S)		>20	
	MN(S)		6.5	0.4
	ME(S)		4.1	0.7
	P-S: 27.9s, P-F: 4m 45s			
8	iPZX	18 19 38.3	-2.0	
	MZX(P)		3.7	0.8
	MN(P)		0.3	1.0
	ME(P)		0.4	1.1
9	ePZX	06 09 27.5		
	eSZX	11 37.7		
	MZX(S)		2.7	1.2
	MN(S)		0.4	1.4
	ME(S)		0.3	1.0
	P-S: 2m 10.2s,			
9	ePZX	07 43 47.9		
	MZX(P)		3.8	1.5
	MN(P)		0.4	1.5
	ME(P)		0.4	1.8
9	ePZX	10 50 41.1		
	iSZX	51 11.8		
	MZX(S)		8.7	0.5
	MN(S)		1.3	0.6
	ME(S)		1.1	0.5
	P-S: 30.7s, P-F: 2m 55s			
9	iPZX	14 24 56.1	+4.4	
	iSZX	25 07.4		
	MZX(S)		>10	
	MN(S)		1.9	0.4
	ME(S)		0.9	0.3
	P-S: 11.3s, P-F: 1m 25s			
9	ePZX	17 09 25.8		
	eSZX	10 04.0		
	MZX(S)		2.6	0.5
	MN(S)		0.4	0.3
	ME(S)		0.2	0.8
	P-S: 38.2s, P-F: 1m 55s			

Date	Phase	Time(JST)	Amp.	Per.
9	iPZX	$19^h\ 42^m\ 47.5^s$	$+2.4^{mm}$	sec
	MZX(P)		2.5	0.9
	MN(P)		0.4	0.9
	ME(P)		0.3	0.8
9	ePZX	19 25 32.8		
	iX1ZX	25 41.4		
	iX2ZX	25 57.8		
	eSZX	27 45.8		
	MZX(X1)		14.2	1.6
	MN(X1)		0.8	1.1
	ME(X1)		0.8	0.9
	P-S: 2m 13.0s, P-F: 5m 40s			
9	iPZX	23 27 51.4	-5.6	
	iSZX	28 00.2		
	MZX(S)		>18	
	MN(S)		4.2	0.5
	ME(S)		1.9	0.4
	P-S: 08.8s, P-F: 1m 45s			
10	iPZX	06 16 39.3	-6.2	
	eSZX	17 54.4		
	MZX(S)		SO	
	MN(S)		6.4	0.5
	ME(S)		4.1	0.5
	P-S: 1m 15.1s, P-F: 3m 45s			
10	ePZX	10 59 29.1		
	eSZX	11 00 41.7		
	MN(S)		1.9	0.9
	ME(S)		1.5	0.7
	P-S: 1m 12.6s, P-F: 2m 45s			
10	ePZX	17 31 03.3		
	eSZX	32 22.2		
	MZX(S)		6.6	0.8
	MN(S)		1.0	0.8
	ME(S)		0.7	0.7
	P-S: 1m 18.9s, P-F: 1m 50s			
10	ePZX	18 53 41.6		
	eSZX	54 17.8		
	MZX(S)		>25	
	MN(S)		8.4	0.7
	ME(S)		6.0	0.6
	P-S: 36.2s, P-F: 3m 15s			
11	iPZX	07 56 02.1	+2.2	
	iSZX	56 11.8		
	MZX(S)		>13	
	MN(S)		3.0	0.4
	ME(S)		2.2	0.5
	P-S: 09.7s, P-F: 1m 05s			
12	ePZX	01 47 58		
	MZX(S)		3.2	0.5
	MN(S)		0.5	0.5
	ME(S)		0.3	0.3
	P-S: 12.0s, P-F: 45s			

Date	Phase	Time(JST)	Amp.	Per.
12	ePN	$03^h\ 58^m\ 47^s$	mm	sec
	eSN	04 00 23		
	MZX(P)		4.7	0.6
	MN(S)		0.5	0.4
	ME(S)		0.4	0.7
	P-S: 1m 35.6s, P-F: 2m 35s			
12	iPN	11 44 54.9	+0.4	
	iPZX		+6.8	
	eSN	45 56.3		
	MZX(S)		SO	
	MN(S)		32.0	1.0
	ME(S)		19.7	1.3
	P-S: 1m 01.4s, P-F: 4m 40s			
12	ePZX	12 51 02		
	MZX(S)		12.5	0.8
	MN(S)		1.5	0.7
	ME(S)		1.3	0.7
	P-S; 29.4s, P-F: 2m 25s			
12	ePZX	13 39 35		
	MZX(S)		13.7	0.5
	MN(S)		1.5	0.7
	ME(S)		2.2	0.8
	P-S: 1m 02.9s, P-F: 1m 55s			
12	iPZX	17 58 08	-1.3	
	iSZX	58 14		
	MZX(P)		3.7	0.2
	MN(S)		0.9	0.2
	ME(S)		0.6	0.2
	P-S: 06.4s, P-F: 34s			
12	ePZX	20 04 55.2		
	eSZX	05 33.3		
	MZX(S)		8.1	0.5
	MN(S)		1.6	0.4
	ME(S)		1.0	0.5
	P-S: 38.1s, P-F: 2m 25s			
12	ePZX	21 48 35.5		
	eSZX	49 14.8		
	MZX(S)		8.0	0.8
	MN(S)		2.1	0.8
	ME(S)		1.2	0.7
	P-S: 39.3s, P-F: 2m 05s			
13	ePZX	01 52 57.5		
	eSZX	53 26.2		
	MZX(S)		3.0	0.7
	MN(S)		0.5	0.6
	ME(S)		0.3	0.5
	P-S: 28.7s, P-F: 1m 05s			
13	ePZX	15 44 15.5		
	eSZX	45 49.8		
	MZX(S)		2.8	0.8
	MN(S)		0.5	0.7
	ME(S)		0.3	0.7
	P-S: 1m 34.3s, P-F: 2m 55s			

Date	Phase	Time(JST)	Amp. mm	Per. sec
13	ePZX	$16^h\ 49^m\ 42.4^s$		
	eSZX	50 15.5		
	MZX(S)		4.9	0.5
	MN(S)		0.4	0.5
	ME(S)		0.3	0.4
	P-S: 33.1s, P-F: 1m 35s			
13	ePZX	18 11 28.3		
	eSZX	12 26.3		
	MZX(S)		2.9	0.5
	MN(S)		0.6	0.7
	ME(S)		0.4	0.7
	P-S: 58.0s, P-F: 1m 50s			
13	iPZX	22 10 11.5		
	iSZX	10 31.4		
	MZX(S)		9.9	0.5
	MN(S)		1.3	0.6
	ME(S)		0.9	0.8
	P-S: 19.9s, P-F: 1m 20s			
14	ePZX	03 46 12.0		
	MZX(P)		5.2	1.5
	MN(P)		0.7	1.1
	ME(P)		0.6	1.5
14	ePZX	05 52 48.4		
	eSZX	54 55.5		
	MZX(P)		4.0	0.6
	MN(S)		0.5	0.8
	ME(S)		0.4	0.7
	P-S: 2m 07.1s			
14	ePZX	07 33 28.2		
	iSZX	33 39.4		
	MZX(S)		3.5	0.3
	MN(S)		0.5	0.4
	ME(S)		0.4	0.3
	P-S: 11.2s, P-F: 45s			
14	ePZX	09 47 33.7		
	eSZX	48 02.0		
	MZX(S)		8.3	0.5
	MN(S)		1.2	0.6
	ME(S)		1.0	0.6
	P-S: 28.3s, P-F: 2m 25s			
14	ePZX	14 14 07.8		
	eSZX	14 52.8		
	MZX(P)		4.0	0.4
	MN(S)		0.8	0.5
	ME(S)		0.3	0.5
	P-S: 45.0s, P-F: 1m 55s			
14	ePZX	14 36 28.5		
	eSZX	37 36.0		
	MZX(S)		9.6	1.4
	MN(S)		3.7	1.4
	ME(S)		2.6	1.5
	P-S: 1m 07.5s, P-F: 3m 55s			

Date	Phase	Time(JST)	Amp. mm	Per. sec
14	ePZX	$19^h\ 40^m\ 17.4^s$		
	MZX(P)		5.2	0.9
	MN(P)		0.7	0.8
	ME(P)		0.6	0.9
15	iPZX	04 58 38.0	-1.0	
	iSZX	58 48.7		
	MZX(S)		5.1	0.3
	MN(S)		0.9	0.5
	ME(S)		0.7	0.3
	P-S: 10.7s, P-F: 1m 00s			
15	ePZX	09 30 14.1		
	iSN	31 28.8		
	MZX(S)		SO	
	MN(S)		8.8	1.1
	ME(S)		7.8	0.7
	P-S: 1m 14.7s, P-F: 6m 20s			
15	iPZX	17 07 10.2	-3.2	
	eSZX	09 54.7		
	MZX(P)		11.4	0.5
	MN(P)		0.8	0.8
	ME(P)		0.8	0.5
	P-S: 2m 44.5s, P-F: 4m 20s			
15	ePZX	19 25 37.4		
	eSZX	27 16.6		
	MZX(S)		4.3	0.9
	MN(S)		0.5	1.0
	ME(S)		0.4	0.7
	P-S: 1m 39.2s, P-F: 2m 15s			
15	iPZX	19 40 49.5	-3.4	
	MZX(P)		5.9	1.4
	MN(P)		0.5	1.2
	ME(P)		0.5	1.3
16	ePZX	01 55 09.7		
	iSZX	55 23.6		
	MZX(S)		6.9	0.3
	MN(S)		1.8	0.3
	ME(S)		0.7	0.5
	P-S: 13.9s, P-F: 1m 15s			
16	ePZX	02 13 04.3		
	eSZX	14 44.9		
	MZX(S)		4.1	1.0
	MN(S)		0.6	0.9
	ME(S)		0.5	0.8
	P-S: 1m 40.6s, P-F: 2m 40s			
16	ePZX	06 26 10.6		
	eSZX	26 39.0		
	MZX(S)		6.6	0.7
	MN(S)		1.2	0.5
	ME(S)		0.8	1.0
	P-S: 28.4s, P-F: 1m 30s			

Date	Phase	Time(JST)	Amp. mm	Per. sec
16	ePZX	$07^h\ 34^m\ 23.8^s$		
	eSZX	34 58.4		
	MZX(S)		3.7	0.4
	MN(S)		0.7	0.4
	ME(S)		0.3	0.3
	P-S: 34.6s, P-F: 1m 05s			
16	ePZX	11 31 23		
	eSZX	32 55		
	MZX(P)		4.9	0.5
	MN(P)		0.3	0.4
	ME(P)		0.3	0.6
	P-S: 1m 32s			
17	ePZX	08 18 13.2		
	MZX(S)		4.5	
	MN(S)		0.6	0.6
	ME(S)		0.6	0.8
17	iPZX	18 00 47.4	-0.8	
	iSZX	01 05.9		
	MZX(S)		10.3	0.5
	MN(S)		1.7	0.6
	ME(S)		1.6	0.5
	P-S: 18.5s, P-F: 1m 25s			
17	ePZX	18 49 24.0		
	eSZX	51 01.7		
	MZX(S)		3.5	0.6
	MN(S)		0.4	0.5
	ME(S)		0.4	0.6
	P-S: 1m 37.7s, P-F: 2m 50s			
18	ePZX	01 05 59.6		
	MZX(P)		2.9	0.7
	MN(P)		0.2	0.8
	ME(P)		0.3	0.6
18	ePZX	07 31 14.5		
	eSZX	31 41.1		
	MZX(S)		2.5	0.6
	MN(S)		0.5	0.7
	ME(S)		0.3	0.7
	P-S: 26.6s, P-F: 1m 10s			
18	ePZX	07 42 47.6		
	eSZX	43 44.8		
	MZX(S)		4.2	0.6
	MN(S)		0.9	0.4
	ME(S)		0.4	0.6
	P-S: 57.2s, P-F: 1m 50s			
18	ePZX	11 02 32.3		
	eSZX	03 43.3		
	MZX(S)		SO	
	MN(S)		8.9	0.8
	ME(S)		7.8	0.6
	P-S: 1m 11.0s, P-F: 4m			
19	iPZX	00 41 45.2	-5.1	
	MZX(P)		7.7	0.8
	MN(P)		0.8	0.9
	ME(P)		0.6	1.1

Date	Phase	Time(JST)	Amp. mm	Per. sec
19	ePZX	$02^h\ 50^m\ 43.6^s$		
	eSZX	52 08.0		
	MZX(S)		2.5	0.6
	MN(S)		0.3	0.5
	ME(S)		0.3	0.9
	P-S: 1m 24.4s, P-F: 2m 25s			
19	iPZX	06 22 16.1	+1.0	
	iSZX	22 26.8		
	MZX(S)		>9	
	MN(S)		1.1	0.6
	ME(S)		0.9	0.5
	P-S: 10.7s, P-F: 1m 15s			
19	ePZX	12 30 08.0		
	iSN	31 08.0		
	MZX(S)		SO	
	MN(S)		6.8	1.1
	ME(S)		6.2	1.2
	P-S: 1m 00.0s, P-F: 5m 30s			
19	ePZX	14 48 20.6		
	eSZX	49 40.1		
	MZX(S)		6.7	0.6
	MN(S)		1.0	0.5
	ME(S)		0.9	0.6
	P-S: 1m 19.5s, P-F: 3m 05s			
19	iPZX	19 21 04.5	-2.5	
	iSZX	21 08.6		
	MZX(S)		4.3	0.4
	MN(S)		1.1	0.2
	ME(S)		0.5	0.2
	P-S: 04.1s, P-F: 45s			
19	iPZX	19 56 40.3	-3.4	
	MZXNE(P,S)		SO	
	P-F: 23m 20s			
20	iPZX	00 14 53.8	>-3	
	iPN	53.9	+0.6	
	iPE	53.8	+0.6	
	iSN	15 03.3		
	MZX(S)		>15	
	MN(S)		6.5	0.3
	ME(S)		3.5	0.2
	P-S: 09.4s, P-S: 2m 15s			
20	ePZX	01 43 05.7		
	eSZX	44 11.3		
	MZX(S)		6.8	0.9
	MN(S)		1.0	0.7
	ME(S)		0.7	0.9
	P-S: 1m 05.6s, P-F: 2m 35s			
20	ePZX	05 13 12.5		
	eSZX	14 02.6		
	MZX(S)		17.4	0.3
	MN(S)		2.8	0.3
	ME(S)		2.1	0.4
	P-S: 50.1s, P-F: 2m 35s			

Date	Phase	Time(JST)	Amp.	Per.
20	iPZX	$09^h\ 34^m\ 15.6^s$	-2.6^{mm}	sec
	iSZX	35 31.3		
	MZX(S)		41.6	
	MN(S)		4.9	0.7
	ME(S)		5.0	1.2
	P-S: 1m 15.7s, P-F: 4m 55s			
20	iPZX	09 55 30.3	-4.5	
	eSZX	55 40.7		
	MZX(P)		>15	
	MN(S)		3.8	0.4
	ME(S)		2.0	0.4
	P-S: 10.4s, P-F: 1m 15s			
20	iPZX	14 58 10.8	-1.2	
	iSN	58 31.9		
	MZ(S)		8.5	0.8
	MN(S)		26.4	0.9
	ME(S)		24.8	0.9
	P-S: 21.1s, P-F: 3m 00s			
20	iPZX	20 31 49.1	-0.4	
	eSZX	32 11.2		
	MZ(P)		0.8	0.3
	MN(S)		1.0	0.3
	ME(S)		0.7	0.4
	P-S: 22.1s, P-F: 2m 05s			
21	iPZX	22 41 37.1	-1.4	
	eSZX	41 45.2		
	MZ(S)		3.0	0.4
	MN(S)		6.8	0.4
	ME(S)		3.5	0.4
	P-S: 08.1s, P-F: 1m 15s			
22	ePZX	05 12 19.7		
	iSZX	12 40.2		
	MZ(S)		1.1	0.6
	MN(S)		1.3	0.5
	ME(S)		1.0	0.4
	P-S: 20.5s, P-F: 1m 15s			
22	ePZX	16 15 42.4		
	eSZX	16 37.4		
	MZ(S)		1.3	0.6
	MN(S)		2.4	0.7
	ME(S)		1.2	0.6
	P-S: 55.0s, P-F: 1m 50s			
22	ePZX	19 19 16.0		
	iSZX	20 17.4		
	MZNE(S)		SO	
	P-S: 1m 01.4s, P-F: 7m 30s			
22	ePZX	20 01 34.8		
	eSZX	02 31.2		
	MZ(S)		1.2	1.1
	MN(S)		1.6	0.7
	ME(S)		1.3	1.2
	P-S: 56.4s, P-F: 2m 35s			

Date	Phase	Time(JST)	Amp.	Per.
22	ePZX	$20^h\ 20^m\ 38.3^s$	mm	sec
	iSN	21 39.1		
	MZ(S)		5.0	0.8
	MN(S)		7.7	0.7
	ME(S)		6.5	0.7
	P-S: 1m 00.8s, P-F: 3m 00s			
22	iPZX	21 36 08.5	+4.1	
	eSZX	37 05.3		
	MZ(S)		8.3	1.1
	MN(S)		12.6	0.9
	ME(S)		9.3	1.1
	P-S: 56.8s, P-F: 4m 25s			
23	ePZX	07 06 27.7		
	iSZX	07 29.1		
	MZ(S)		2.2	0.6
	MN(S)		4.0	0.7
	ME(S)		2.0	0.6
	P-S: 1m 01.4s, P-F: 2m 55s			
23	ePZX	07 40 45.5		
	eSZX	41 16.1		
	MZ(S)		0.9	0.6
	MN(S)		1.0	0.6
	ME(S)		0.7	0.7
	P-S: 30.6s, P-F: 1m 50s			
23	ePZX	14 28 55.9		
	eSZX	29 58.3		
	iXN	30 26.6		
	MZ(X)		2.5	0.7
	MN(X)		4.0	0.7
	ME(X)		2.5	0.8
	P-S: 1m 02.4s, P-F: 2m 55s			
23	iXZX	16 07 13.7	+2.3	
	MZ(X)		1.2	1.5
	MN(X)		1.0	1.3
	ME(X)		0.7	1.1
24	ePZX	01 07 25.8		
	eSZX	08 03.5		
	MZ(S)		0.8	0.7
	MN(S)		1.0	0.8
	ME(S)		0.9	1.0
	P-S: 37.7s, P-F: 2m 05s			
24	iPZ	02 18 15.5	+1.4	
	iPN	15.5	+0.4	
	iPE	15.5	+0.5	
	iSN	18 22.4		
	MZ(P)		1.9	0.3
	MN(S)		5.0	0.4
	ME(S)		2.0	0.3
	P-S: 06.9s, P-F: 1m 25s			

* see footnote on page 9.

Date	Phase	Time(JST)	Amp.	Per.
24	iPZX	$16^h\ 23^m\ 45.3^s$	-0.6^{mm}	sec
	eSZX	23 58.0		
	MZ(S)		0.6	0.6
	MN(S)		1.6	0.5
	ME(S)		0.9	0.5
	P-S: 12.7s, P-F: 1m 15s			
25	ePZX	05 21 11.5		
	eSZX	23 38.0		
	MZ(S)		0.6	0.8
	MN(S)		0.7	0.8
	ME(S)		0.5	1.0
	P-S: 2m 26.5s			
25	iPZX	11 50 40.0	+0.3	
	iSN	50 46.5		
	MZ(S)		2.2	0.7
	MN(S)		4.5	0.3
	ME(S)		2.4	0.3
	P-S: 06.5s, P-F: 55s			
25	iPZX	19 28 49.0	+0.4	
	eSZX	28 59.0		
	MZ(S)		1.3	0.6
	MN(S)		2.8	0.5
	ME(S)		1.6	0.5
	P-S: 10.0s, P-F: 1m 05s			
26	iPZX	02 11 35.0	+1.2	
	MZ(P)		1.4	0.7
	MN(P)		0.7	1.0
	ME(P)		0.4	0.7
26	ePZX	15 48 54.1		
	eSZX	50 08.7		
	MZ(S)		7.1	0.9
	MN(S)		9.2	0.9
	ME(S)		8.1	0.7
	P-S: 1m 14.6s, P-F: 4m 50s			
26	iPZX	20 31 11.0		
	iXZX	31 34.1		
	MZ(X)		1.0	0.7
	MN(Y)		1.0	0.8
	ME(X)		0.7	0.9
26	ePZX	23 54 49.1		
	iSZX	56 06.3		
	MZ(S)		1.3	0.7
	MN(S)		2.2	0.7
	ME(S)		1.3	0.8
	P-S: 1m 17.2s, P-F: 4m 35s			
27	ePZX	01 31 05.1		
	MZ(P)		1.3	1.9
	MN(P)		0.8	1.1
	ME(P)		0.9	1.4

Date	Phase	Time(JST)	Amp.	Per.
27	iPZX	$14^h\ 41^m\ 53.6^s$	-1.2^{mm}	sec
	iSZX	42 08.5		
	MZ(S)		2.6	0.5
	MN(S)		5.6	0.8
	ME(S)		4.1	0.5
	P-S: 14.9s, P-F: 1m 40s			
27	ePZX	15 20 43.5		
	eSZX	21 50.4		
	MZ(S)		0.8	0.7
	MN(S)		1.2	0.9
	ME(S)		1.0	0.9
	P-S: 1m 06.9s, P-F: 3m 25s			
28	iPZX	02 11 32.6	-1.6	
	MZ(P)		1.2	0.8
	MN(P)		0.5	0.7
	ME(P)		0.5	0.7
28	iPZX	14 05 43.9	+1.0	
	eSZX	12 49.0		
	MZ(P)		0.9	0.8
	MN(P)		1.0	1.0
	ME(P)		0.6	1.2
	P-S: 7m 05.1s			
29	ePZX	12 09 19.3		
	iXZX	09 37.1		
	MZ(X)		2.9	0.9
	MN(X)		4.0	0.7
	ME(X)		2.2	0.9
	P-F: 3m 35s			
29	iPZX	13 21 57.3	-3.4	
	eSZX	22 02.4		
	MZ(P)		1.0	0.2
	MN(S)		0.4	0.3
	ME(S)		0.6	0.2
	P-S: 05.1s, P-F: 18s			
30	ePZX	10 07 49.0		
	eSZX	09 11.2		
	MZ(S)		1.1	0.7
	MN(S)		1.0	0.8
	ME(S)		1.3	0.8
	P-S: 1m 22.2s, P-F: 3m 30s			
30	ePZX	17 01 17.9		
	eSZX	04 41.9		
	MZ(P)		1.4	1.0
	MN(P)		1.7	1.0
	ME(P)		0.9	1.1
	P-S: 3m 28.0s			

Bulletin of the

Urakawa Seismological Observatory

No. 2

October — December

1967

Urakawa Seismological Observatory

Faculty of Science, Hokkaido University

Japan

Urakawa Seismological Observatory

Station: Kamikineusu (KMU)

Location Latitude: 42°14'14" N, Longitude: 142°58'01" E, Hight: 180 m.

Instruments

	Abbr.	Comp.	T_s(sec)	h_s	T_g(sec)	h_g	σ^2	V_{max}*
Film-recording Seismograph	N	N-S	0.94	0.70	0.28	3.1	0.003	15,000
	E	E-W	0.93	0.73	0.25	3.0	0.003	15,000
	Z	U-D	0.91	0.70	0.34	1.8	0.003	19,000
	ZX	U-D	0.89	2.02	0.30	1.4	0.018	120,000

	Abbr.	Comp.	T_s(sec)	h_s	Max. Velocity-Sensitivity #	
Tape-recording Seismograph	T-1	U-D	1.0	1.4	4 mm/μkine	(Tripartite Array)
	T-2	U-D	1.0	1.4	4 "	
	T-3	U-D	1.0	1.4	4 "	

* When measured on a film-viewer of magnification 6.

\# When reproduced using a Sanei FR-201 visigraph with 500 cps galvanometers.

Magnification curves are shown on the next page.

Readings

(1) All earthquakes with maximum trace amplitude 0.5 mm or larger on the Z record measured on the ×6 film-viewer are interpreted in this bulletin.

(2) All times are based on the Japanese Standard Time (JST).

JST = GMT + 9 hours.

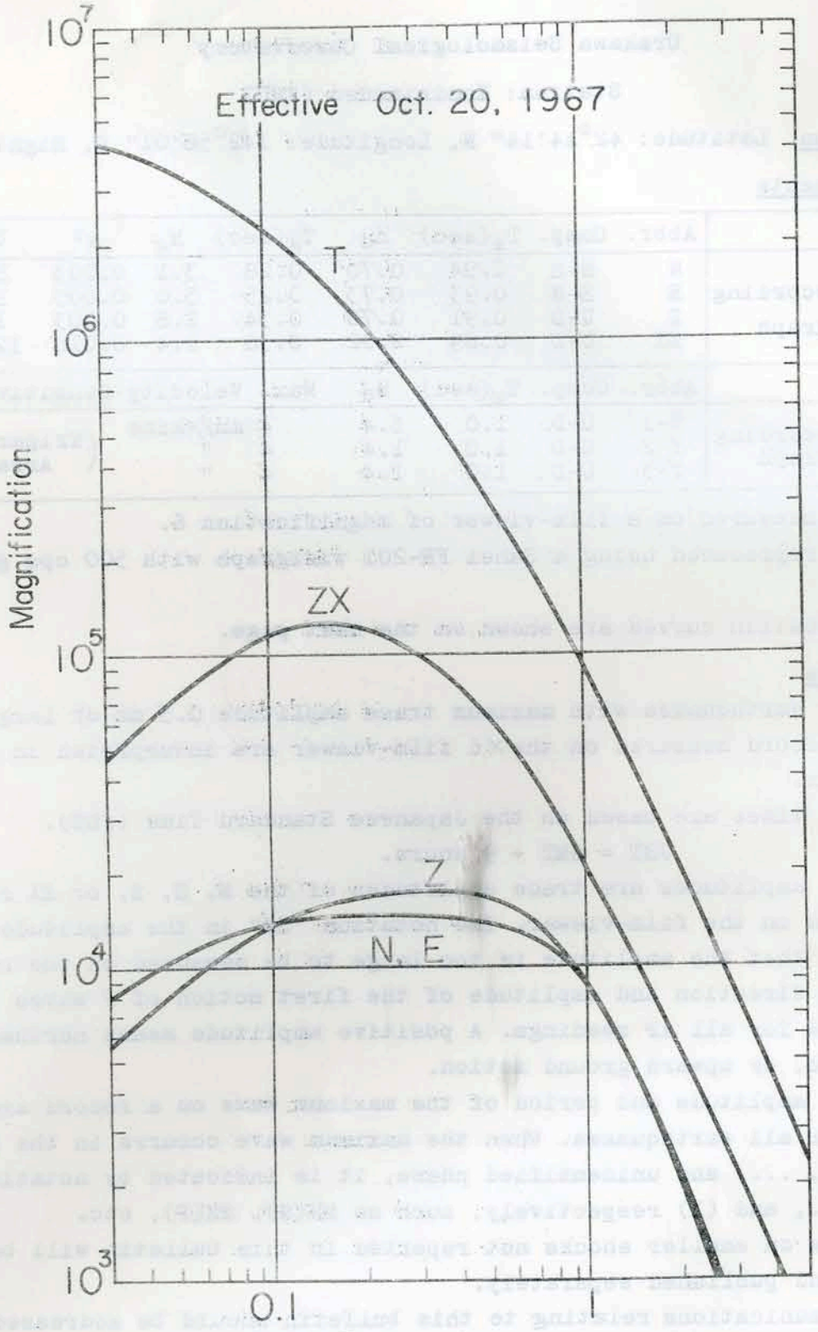
(3) All amplitudes are trace amplitudes of the N, E, Z, or ZX records measured on the film-viewer. The notation "SO" in the amplitude column denotes that the amplitude is too large to be measured on the record.

(4) The direction and amplitude of the first motion of P waves are measured for all iP readings. A positive amplitude means northward, eastward, or upward ground motion.

(5) The amplitude and period of the maximum wave on a record are measured for all earthquakes. When the maximum wave occurrs in the P phase, S phase, ..., and unidentified phase, it is indicated by notations (P), (S), ..., and (X) respectively, such as MN(S), MZ(P), etc.

(6) Data on smaller shocks not reported in this bulletin will be analyzed and published separately.

(7) Communications relating to this bulletin should be addressed to the director, Urakawa Seismological Observatory, Faculty of Science, Hokkaido University, Kamikineusu, Urakawa, Hokkaido, Japan.



See No.1 of this bulletin for magnification curves before October 20, 1967.

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Date	Phase	Time(JST)	Amp. mm	Per. sec
1	iPZX	$11^h\ 46^m\ 23.6^s$	+	
	iSN	46 29.3		
	MZ(S)		1.6	0.3
	MN(S)		5.2	0.4
	ME(S)		1.9	0.3
	P-S: 05.7s, P-F: 35s			
1	ePZX	16 53 52.7		
	eSZX	54 25.4		
	MZ(S)		0.9	0.6
	MN(S)		2.3	0.7
	ME(S)		1.1	0.7
	P-S: 32.7s, P-F: 1m 25s			
2	ePZX	09 23 19.6		
	MZ(P)		0.7	1.1
	MN(P)		0.6	1.1
	ME(P)		0.4	1.0
3	ePZX	05 55 25.0		
	iSZX	56 44.2		
	MZ(S)		0.7	0.6
	MN(S)		0.9	0.5
	ME(S)		0.6	0.4
	P-S: 1m 19.2s, P-F: 3m 30s			
3	ePZX	06 49 28.4		
	eSZX	50 41.2		
	eXZX	50 57.5		
	MZ(X)		1.7	0.7
	MN(X)		3.3	0.8
	ME(X)		2.2	0.7
	P-S: 1m 12.8s, P-F: 3m 35s			
3	ePZX	08 39 22.4		
	iSZX	39 31.5		
	MZ(S)		0.6	0.7
	MN(S)		1.2	0.5
	ME(S)		0.5	0.5
	P-S: 09.1s, P-F: 45s			
4	iPZX	04 06 52.5	+0.5	
	iSZX	07 02.8		
	MZ(S)		0.5	0.5
	MN(S)		1.2	0.3
	ME(S)		0.6	0.4
	P-S: 10.3s			
4	iPZX	20 23 18.2	-1.2	
	iSZX	23 24.6		
	MZ(S)		10.5	0.3
	MN(S)		22.6	0.3
	ME(S)		18.4	0.3
	P-S: 06.4s, P-F: 2m 05s			
4	ePZX	21 37 48.3		
	eSZX	38 15.4		
	MZ(S)		1.2	0.4
	MN(S)		1.7	0.7
	ME(S)		1.2	0.7
	P-S: 27.1s, P-F: 3m 40s			

Date	Phase	Time(JST)	Amp. mm	Per. sec
5	ePZX	$02^h\ 30^m\ 03.2^s$		
	eSZX	37 05.5		
	eRZX	43 35		
	MZ(P)		2.0	1.0
	MN(P)		1.2	1.1
	ME(P)		1.0	0.7
	P-S: 7m 02.3s			
6	ePZX	00 56 38.3		
	eSZX	57 53.8		
	MZ(S)		33.4	1.0
	MN(S)		43 4	0.9
	ME(S)		29 2	1.2
	P-S: 1m 15.5s, P-F: 7m 25s			
6	ePZX	01 30 53.1		
	eSZX	32 15.3		
	MZ(S)		1.5	1.0
	MN(S)		1.5	1.0
	ME(S)		1.7	1.0
	P-S: 1m 22.2s, P-F: 3m 05s			
6	iPZX	02 02 30.3	-1.4	
	iX1N	02 33.2		
	iX2N	02 37.6		
	iX3N	02 39.6		
	iX4N	02 44.6		
	MZ(X4)		7.4	0.5
	MN(X4)		12.9	0.6
	ME(X4)		7.4	0.7
	P-F: 2m 05s			
6	ePZX	08 41 26.8		
	eSZX	42 42.0		
	eXZX	43 04.4		
	MZ(X)		2.1	0.8
	MN(X)		2.5	0.7
	ME(X)		1.4	1.1
	P-S: 1m 15.2s, P-F: 3m 10s			
6	iPZX	09 28 53.7	-0.8	
	eSZX	29 14.8		
	MZ(S)		1.4	0.6
	MN(S)		2.4	0.4
	ME(S)		1.4	0.5
	P-S: 21.1s, P-F: 1m 55s			
6	iPZX	14 12 24.5	-1.2	
	iSZX	12 34.4		
	MZ(S)		2.3	0.4
	MN(S)		6.0	0.4
	ME(S)		2.9	0.4
	P-S: 09.9s, P-F: 45s			
6	iPZX	20 10 42.4	+1.8	
	iSN	11 02.6		
	MZ(P)		>7	
	MN(S)		6.4	0.4
	ME(S)		4.4	0.5
	P-S: 20.2s, P-F: 2m 35s			

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Date	Phase	Time(JST)	Amp. mm	Per. sec
7	ePZX	10h 33m 50.2s		
	MZ(P)		0.7	1.4
	MN(P)		0.4	1.3
	ME(P)		0.4	1.5
7	ePZX	17 30 42.5		
	eSZX	32 45.0		
	MZ(P)		2.1	0.5
	MN(S)		1.9	1.3
	ME(S)		1.8	1.5
	P-S: 2m 02.5s, P-F: 4m 35s			
7	ePZX	18 09 34.0		
	eSZX	11 32.1		
	MZ(P)		0.9	0.7
	MN(S)		0.8	1.3
	ME(S)		0.8	1.5
	P-S: 1m 58.1s, P-F: 4m 35s			
7	ePZX	19 55 24.9		
	eSN	55 47.8		
	MZ(S)		22.2	0.9
	MN(S)		32.2	1.0
	ME(S)		24.2	1.2
	P-S: 22.9s, P-F: 4m 55s			
8	iPZX	00 30 08.5	-0.6	
	eSZX	30 21.6		
	MZ(S)		5.0	0.7
	MN(S)		7.6	0.8
	ME(S)		4.4	0.6
	P-S: 13.1s, P-F: 2m 45s			
8	ePZX	10 43 56.6		
	eSZX	44 13.8		
	MZ(S)		2.5	0.6
	MN(S)		4.1	0.6
	ME(S)		2.8	0.6
	P-S: 17.2s, P-F: 1m 45s			
8	iPZX	13 09 55.4	+0.4	
	iSZX	09 43.2		
	MZ(S)		0.6	0.3
	MN(S)		1.2	0.3
	ME(S)		0.5	0.2
	P-S: 07.8s, P-F: 30s			
8	ePZX	15 16 42.4		
	eSZX	17 02.3		
	MZ(S)		0.9	0.5
	MN(S)		1.5	0.6
	ME(S)		0.9	0.6
	P-S: 19.9s, P-F: 1m 25s			
8	iPZX	20 49 05.7	-0.8	
	eSZX	49 14.5		
	MZ(S)		0.9	0.4
	MN(S)		1.6	0.4
	ME(S)		1.0	0.4
	P-S: 08.8s, P-F: 38s			
9	ePZX	06h 11m 54.3s		
	eSZX	13 57.6		
	MZ(P)		1.5	0.7
	MN(P)		1.4	0.4
	ME(P)		1.0	0.5
	P-S: 2m 03.3s, P-F: 4m 10s			
9	iPZX	12 02 57.0	-6.5	
	iSN	03 05.5		
	MZ(S)		>5	
	MN(S)		5.9	0.5
	ME(S)		3.6	0.4
	P-S: 08.5s, P-F: 1m 25s			
9	ePZX	23 13 59.1		
	eSZX	16 28.7		
	MZ(S)		8.8	0.8
	MN(S)		13.8	0.6
	ME(S)		18.6	0.9
	P-S: 2m 29.6s, P-F: 6m 15s			
10	iPZX	02 32 11.9	+11.9	
	epPZX	33 23.0		
	eX1ZX	34 25.0		
	ePPZX	35 06.2		
	eSZX	41 13.3		
	iPPZX	59 47.0	-4.4	
	eSKPPZX	03 02 28.5		
	ePPPZX	19 19.3		
	eX2ZX	*02 51 45.3		
	eX3ZX	03 21 42.0		
	eX4ZX	43 30		
	MZ(P)		SO	
	MN(P)		27.5	1.5
	ME(P)		26.3	2.3
	P-S: 9m 01.4s			
10	ePZX	10 33 32.7		
	eSZX	34 30.9		
	MZ(S)		0.7	0.7
	MN(S)		1.2	0.7
	ME(S)		0.5	0.6
	P-S: 58.2s, P-F: 2m 05s			
10	ePZX	15 48 22.5		
	iSZX	49 28.9		
	eXN	49 57.9		
	MZ(X)		4.8	0.9
	MN(X)		7.9	0.8
	ME(X)		6.4	1.1
	P-S: 1m 06.4s, P-F: 6m 15s			
10	ePZX	22 53 14.1		
	eSZX	53 44.7		
	MZ(S)		0.6	0.7
	MN(S)		0.7	0.4
	ME(S)		0.5	0.6
	P-S: 30.6s, P-F: 1m 05s			
11	ePZX	04 13 11.2		
	MZ(P)		0.6	0.4
	MN(P)		0.4	0.4
	ME(P)		0.3	0.3

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Date	Phase	Time(JST)	Amp. mm	Per. sec
11	ePZX	10h 52m 13.8s		
	eXZX	52 27.8		
	eSZX	53 27.2		
	MZ(X)		1.5	0.6
	MN(S)		2.8	0.8
	ME(S)		1.9	1.0
	P-S: 1m 13.4s, P-F: 3m 25s			
11	ePZX	12 31 00.6		
	eSZX	31 13.1		
	MZ(P)		0.6	0.3
	MN(S)		0.8	0.5
	ME(S)		0.4	0.3
	P-S: 12.5s, P-F: 37s			
11	ePZX	15 14 50.4		
	eSZX	15 40.4		
	MZ(S)		1.2	0.7
	MN(S)		1.7	0.7
	ME(S)		1.2	1.0
	P-S: 50.0s, P-F: 3m 55s			
11	ePZX	22 07 11.1		
	eSZX	08 22.4		
	MZ(S)		1.2	1.0
	MN(S)		2.6	1.2
	ME(S)		1.3	0.9
	P-S: 1m 11.3s, P-F: 3m 15s			
12	iPZX	00 54 58.6	+0.4	
	iSZX	57 01.6		
	MZ(S)		3.8	0.7
	MN(S)		3.8	0.7
	ME(S)		4.2	0.7
	P-S: 2m 03.0s, P-F: 6m 30s			
12	ePZX	01 27 42.1		
	eSZX	29 44.4		
	MZ(S)		0.9	0.6
	MN(S)		1.1	0.7
	ME(S)		1.3	0.8
	P-S: 2m 02.3s, P-F: 3m 45s			
12	ePZX	03 42 07.4		
	iSZX	42 53.5		
	MZ(S)		6.9	1.6
	MN(S)		9.4	1.2
	ME(S)		7.6	1.3
	P-S: 46.1s, P-F: 4m 75s			
12	ePZX	05 27 15.4		
	eSZX	28 02.0		
	MZ(S)		2.0	1.0
	MN(S)		2.3	0.8
	ME(S)		1.3	0.8
	P-S: 46.6s, P-F: 2m 45s			
12	iPZX	07 55 26.0	+1.0	
	iSN	55 43.6		
	MZ(S)		SO	
	MN(S)		SO	
	ME(S)		60.4	
	P-S: 17.6s, P-F: 4m 55s			
12	ePZX	14h 11m 59.2s		
	eSZX	12 49.0		
	MZ(S)		0.8	0.8
	MN(S)		1.0	0.6
	ME(S)		1.0	0.7
	P-S: 49.8s, P-F: 2m 15s			
12	iPZX	15 45 30.5	+2.9	
	eSN	54 37		
	MZ(P)		2.9	1.8
	MN(P)		1.4	1.3
	ME(P)		1.3	1.8
	P-S: 9m 07s			
12	iPZX	21 56 19.3	-0.8	
	eSZX	58 21.4		
	MZ(S)		31.0	1.1
	MN(S)		54.8	1.0
	ME(S)		45.4	1.1
	P-S: 2m 02.1s, P-S: 8m 20s			
13	iPZ	01 10 09.7	-10.4	
	iPN	09.7	-0.4	
	iPE	09.7	-3.3	
	iSN	10 16.7		
	MZ(S)		>25	
	MN(S)		>35	
	ME(S)		>35	
	P-S: 07.0s, P-F: 2m 45s			
13	iPZX	03 40 33.7	-4.4	
	eSZX	47 36.8		
	MZ(P)		1.7	1.6
	MN(P)		1.2	1.5
	ME(P)		0.9	1.2
	P-S: 7m 03.1			
13	ePZX	18 28 12.5		
	eSZX	28 43.5		
	MZ(S)		0.9	0.6
	MN(S)		1.0	0.7
	ME(S)		0.8	0.6
	P-S: 31.0s, P-F: 1m 25s			
14	ePZX	04 50 28.2		
	eSZX	52 03.5		
	MZ(P)		0.9	1.2
	MN(P)		1.1	1.7
	ME(P)		0.7	1.1
	P-S: 1m 35.3s, P-F: 4m 20s			
14	ePZX	05 59 11.6		
	iSZX	06 00 22.3		
	eXN	00 45.7		
	MZ(X)		3.1	0.9
	MN(X)		4.6	1.1
	ME(X)		3.4	1.3
	P-S: 1m 10.7s, P-F: 3m 25s			
15	ePZX	17 45 15.0		
	eSZX	45 44.1		
	MZ(S)		1.1	0.5
	MN(S)		1.5	0.8
	ME(S)		1.2	0.7
	P-S: 29.1s, P-F: 1m 35s			

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Date	Phase	Time(JST)	Amp. mm	Per. sec
16	iPZX	02h 51m 01.8s	+0.9	
	eSZX	51 24.4		
	MZ(S)		7.8	0.5
	MN(S)		11.0	0.8
	ME(S)		11.7	1.0
	P-S: 22.6s, P-F: 3m 05s			
16	iPZX	14 41 25.3	+0.9	
	iSZX	41 31.9		
	MZ(S)		0.7	0.4
	MN(S)		1.3	0.5
	ME(S)		0.7	0.3
	P-S: 06.6s, P-F: 45s			
16	iPZX	23 06 54.8	+0.4	
	eSZX	07 08.8		
	MZ(S)		0.6	0.4
	MN(S)		2.0	0.4
	ME(S)		0.8	0.4
	P-S: 14.0s, P-F: 38s			
17	iPZX	02 05 48.7	+1.6	
	MZ(P)		0.9	0.9
	MN(P)		0.6	1.5
	ME(P)		0.5	1.2
17	ePZX	02 28 17.3		
	iSZX	29 31.8		
	MZ(S)		1.7	0.7
	MN(S)		2.4	0.5
	ME(S)		1.9	0.7
	P-S: 1m 14.5s, P-F: 3m 35s			
17	ePZX	08 32 21.6		
	iSZX	33 25.9		
	eXN	33 55		
	MZ(X)		8.0	1.1
	MN(X)		8.0	1.1
	ME(X)		6.4	0.8
	P-S: 1m 04.3s, P-F: 4m 25s			
17	ePZX	08 37 16.6		
	eSZX	38 08.8		
	MZ(S)		0.6	0.9
	MN(S)		1.1	0.9
	ME(S)		0.8	0.8
	P-S: 52.2s, P-F: 2m 25s			
17	iPZX	09 45 25.2	-3.0	
	iSZX	45 36.7		
	MZ(P)		1.2	0.4
	MN(S)		2.2	0.4
	P-S: 11.5s, P-F: 1m 35s			
17	iPZX	14 12 11.9	-0.8	
	MZ(P)		1.3	0.7
	MN(P)		0.7	0.7
	ME(P)		0.7	0.7
17	iPZX	22 52 25.4	+1.8	
	MZ(P)		0.8	0.8
	MN(P)		0.5	0.9
	ME(P)		0.4	1.1

Date	Phase	Time(JST)	Amp. mm	Per. sec
17	ePZX	23h 07m 01.1s		
	iSZX	08 03.2		
	eXN	08 27.9		
	MZ(X)		1.7	0.8
	MN(X)		2.4	0.9
	ME(X)		1.8	0.7
	P-S: 1m 02.1s, P-F: 2m 25s			
18	iPZX	06 11 36.5	-0.4	
	MZ(P)		0.9	1.1
	MN(P)		0.9	0.9
	ME(P)		0.5	1.1
18	ePZX	12 40 39.9		
	iSZX	40 50.5		
	MZ(S)		0.5	0.6
	MN(S)		0.7	0.5
	ME(S)		0.7	0.5
	P-S: 10.6s, P-F: 55s			
18	ePZX	17 39 48.1		
	eSZX	41 02.1		
	MZ(S)		1.0	1.0
	MN(S)		1.0	0.9
	P-S: 1m 14.0s, P-F: 2m 45s			
18	iPZX	19 34 23.5	-1.8	
	MZ(P)		0.6	1.5
	MN(P)		0.4	1.3
18	ePZX	19 50 31.0		
	eSZX	51 21.7		
	MZ(S)		3.4	0.7
	MN(S)		3.5	1.0
	P-S: 50.7s, P-F: 2m 45s			
18	iPZX	23 41 32.6	-1.4	
	MZ(P)		1.1	0.7
	MN(P)		0.6	0.8
19	iPZX	05 30 23.5	+3.7	
	iSN	30 29.1		
	MZ(S)		5.8	0.5
	MN(S)		9.3	0.3
	P-S: 05.6s, P-F: 1m 15s			
19	iPZX	20 34 44.7	-0.3	
	eSZX	35 25.6		
	MZ(S)		0.9	0.5
	MN(S)		1.4	0.4
	P-S: 40.9s, P-F: 1m 25s			
20	ePZX	11 13 01.2		
	eSZX	13 29.2		
	MZ(S)		0.6	0.4
	MN(S)		0.9	0.6
	P-S: 28.0s, P-F: 1m 17s			
20	iPZX	13 42 27.3	-0.5	
	eSZX	42 46.6		
	MZ(S)		2.1	0.4
	MN(S)		2.7	0.4
	P-S: 19.3s, P-F: 1m 50s			

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Date	Phase	Time(JST)	Amp. mm	Per. sec
21	iPZX	01h 07m 04.0s	+1.0	
	MZ(P)		0.6	1.5
	MN(P)		0.5	1.3
21	ePZX	11 54 59.2		
	MZ(P)		0.9	1.5
	MN(P)		0.6	1.3
21	iPZX	14 08 52.5	+2.7	
	eX1ZX	08 56.7		
	eX2ZX	10 14.2		
	MZ(P)		2.1	0.8
	MN(P)		1.1	0.8
21	ePZX	23 05 29.2		
	eSZX	06 05.9		
	MZ(S)		1.0	0.6
	MN(S)		2.8	0.7
	P-S: 36.7s, P-F: 1m 28s			
22	ePZX	17 32 57.9		
	eSZX	33 14.6		
	MZ(S)		0.6	0.6
	MN(S)		1.1	0.5
	P-S: 16.7s, P-F: 1m 03s			
22	ePZX	19 01 38.8		
	eSZX	02 28.1		
	MZ(S)		1.7	0.8
	MN(S)		3.1	1.1
	P-S: 49.3s, P-F: 3m 25s			
23	ePZX	03 32 17.6		
	eSZX	32 34.1		
	MZ(S)		0.5	0.2
	MN(S)		1.0	0.4
	P-S: 16.5s, P-F: 38s			
23	ePZX	11 54 21.8		
	iSN	55 00.8		
	MZ(S)		15.9	0.6
	MN(S)		24.8	0.8
	P-S: 39.0s, P-F: 6m 10s			
23	iPZ	17 30 05.3	-1.6	
	iPN	05.3	-0.8	
	eSN	32 42.0		
	MZ(P)		5.0	1.3
	MN(P)		6.4	1.5
	P-S: 2m 36.7s			
25	ePZX	03 48 10.8		
	eSZX	49 10.6		
	MZ(S)		0.6	0.8
	MN(S)		0.8	0.9
	ME(S)		0.7	0.8
	P-S: 59.8s, P-F: 2m 25s			

Date	Phase	Time(JST)	Amp. mm	Per. sec
25	iPZX	10h 04m 36.6s	-3.8	
	eSZX	08 51.7		
	eRZX	11 10		
	eXN	15 37		
	MZ(P)		10.6	0.6
	MN(P)		4.8	0.6
	ME(P)		5.8	0.5
	P-S: 4m 15.4s			
25	iPZX	11 07 11.4	-0.5	
	iSZX	07 20.5		
	MZ(S)		4.2	0.5
	MN(S)		15.5	
	ME(S)		7.7	0.4
	P-S: 09.1s, P-S: 1m 35s			
25	ePZX	14 08 10.7		
	eSZX	09 15.3		
	eXN	09 47.9		
	MZ(X)		0.9	1.1
	MN(X)		1.3	1.2
	ME(X)		0.9	0.8
	P-S: 1m 04.6s, P-F: 3m 35s			
25	ePZX	15 14 29.5		
	iSZX	14 47.0		
	MZ(S)		1.1	0.6
	MN(S)		2.3	0.6
	ME(S)		1.6	0.6
	P-S: 17.5s, P-F: 1m 33s			
25	iPZX	16 27 21.1	-1.4	
	iSZX	27 52.7		
	MZ(S)		2.7	0.7
	MN(S)		6.0	0.8
	ME(S)		5.1	1.0
	P-S: 31.6s, P-F: 4m 15s			
25	ePZX	17 59 54.6		
	MZ(P)		0.6	0.6
	MN(P)		0.3	0.7
	ME(P)		0.4	0.6
25	iPZX	21 45 15.3	-0.5	
	iSZX	45 31.0		
	MZ(S)		1.1	0.6
	MN(S)		1.5	0.5
	ME(S)		1.0	0.7
	P-S: 15.7s, P-F: 1m 55s			
26	ePZX	01 02 45.1		
	eSZX	03 15.5		
	MZ(S)		2.3	0.8
	MN(S)		4.4	0.8
	ME(S)		2.9	0.9
	P-S: 30.4s, P-F: 2m 53s			
26	ePZX	09 27 35.3		
	eSZX	31 53.8		
	MZ(P)		1.3	0.6
	MN(P)		0.8	0.9
	ME(P)		0.9	0.5
	P-S: 4m 18.5			

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Date	Phase	Time(JST)	Amp. mm	Per. sec
26	ePZX	17h 21m 29.5s		
	iSN	21 50.2		
	MZ(S)		0.9	0.8
	MN(S)		1.7	0.8
	ME(S)		1.4	0.8
	P-S: 20.7s, P-F: 2m 10s			
27	ePZX	02 30 20.3		
	eSN	36 53		
	MZ(P)		0.8	1.0
	MN(P)		0.6	1.1
	ME(P)		0.5	1.0
	P-S: 6m 33s			
27	iPZX	03 17 45.7	+2.4	
	iXZX	17 49.4		
	iSN	17 51.4		
	MZ(S)		1.7	0.3
	MN(S)		3.4	0.4
	ME(S)		2.2	0.4
	P-S: 05.7s, P-F: 48s			
27	ePZX	03 54 27.4		
	eSZX	54 45.3		
	MZ(S)		0.9	0.6
	MN(S)		1.4	0.7
	ME(S)		0.9	0.5
	P-S: 12.9s, P-F: 1m 45s			
27	ePZX	08 48 32.4		
	eSZX	49 24.5		
	eXN	49 43.1		
	MZ(X)		1.7	0.6
	MN(X)		2.3	0.7
	ME(X)		1.3	0.7
	P-S: 52.1s, P-F: 2m 53s			
27	iPZ	13 00 59.0	+4.6	
	iPN	59.0	-1.5	
	iPE	59.0	+1.0	
	iSN	01 06.1		
	MZ(S)		13.5	0.4
	MN(S)		>37	0.5
	ME(S)		21.9	0.5
	P-S: 07.1s, P-F: 2m 33s			
27	ePZX	18 21 13.5		
	eSZX	21 31.0		
	MZ(S)		0.5	0.4
	MN(S)		0.9	0.4
	ME(S)		0.5	0.3
	P-S: 17.5s, P-F: 1m 18s			
28	ePZX	00 36 20.9		
	eSZX	37 54.9		
	MZ(S)		0.6	0.8
	MN(S)		1.0	0.5
	ME(S)		0.8	0.8
	P-S: 1m 34.0s, P-F: 3m 12s			
28	iPZ	12h 38m 33.8s	-18.9mm	
	iPN	33.9	+5.0	
	iPE	33.8	+1.0	
	iSN	38 40.2		
	MZNE(S)		SO	
	P-S: 06.3s, P-F:2m 25s			
28	iPZX	13 37 10.6	-1.8	
	iSN	37 15.6		
	MZ(S)		1.7	0.5
	MZ(S)		2.4	0.3
	ME(S)		3.3	0.5
	P-S: 05.0s, P-F: 32s			
29	ePZX	02 22 01.2		
	eSZX	22 26.3		
	MZ(S)		8.8	0.6
	MN(S)		11.3	0.5
	ME(S)		8.1	0.8
	P-S: 25.1s, P-F: 2m 57s			
29	ePZX	23 41 13.7		
	iXZX	41 16.6		
	eSZX	41 56.5		
	MZ(S)		1.0	0.8
	MN(S)		1.6	0.6
	ME(S)		0.9	0.8
	P-S: 42.8s, P-F: 1m 53s			
30	iPZ	12 03 51.9	-0.7	
	iPN	52.0	-0.2	
	iPE	52.1	-0.4	
	iSZ	04 12.6		
	MZ(P)		2.7	0.7
	MN(S)		4.3	0.3
	ME(S)		2.7	0.3
	P-S: 20.7s, P-F: 1m 40s			
30	iPZX	15 12 11.3	-0.5	
	MZ(P)		0.8	0.7
	MN(P)		0.4	0.7
	ME(P)		0.4	0.8
30	ePZX	15 36 51.4		
	eSZX	37 50.6		
	MZ(S)		2.1	0.8
	MN(S)		2.0	0.8
	ME(S)		1.9	0.8
	P-S: 59.2s, P-F: 2m 45s			
30	ePZX	20 44 35.5		
	eSZX	45 06.0		
	MZ(S)		3.3	0.9
	MN(S)		4.0	0.8
	ME(S)		2.6	1.0
	P-S: 30.5s, P-F: 3m 55s			
31	ePZX	03 01 50.6		
	eSZX	02 37.0		
	MZ(S)		0.7	0.8
	MN(S)		1.5	0.3
	ME(S)		0.8	0.3
	P-S: 46.4s, P-F: 1m 35s			

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Date	Phase	Time(JST)	Amp. mm	Per. sec
31	iPZ	09h 52m 22.6s	-14.4mm	
	iPN	22.6	+0.4	
	iPE	22.6	-3.9	
	iSN	52 30.9		
	MZNE(S)		SO	
	P-S: 08.3s, P-F: 3m 43s			
31	ePZX	10 05 53.2		
	eSZX	06 31.5		
	MZ(S)		1.9	0.5
	MN(S)		4.0	0.4
	ME(S)		1.9	0.3
	P-S: 38.3s, P-F: 1m 45s			
31	ePZX	12h 00m 48.6s		
	eSZX	01 42.2		
	eXZX	01 58.8		
	MZ(X)		0.8	0.9
	MN(X)		1.0	0.5
	ME(X)		0.9	0.7
	P-S: 53.6s, P-F: 1m 52s			
31	ePZX	23 47 55.2		
	eSZX	48 09.8		
	MZ(S)		3.9	0.6
	MN(S)		7.9	0.4
	ME(S)		5.0	0.5
	P-S: 14.6s, P-F: 2m 28s			

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Date	Phase	Time(JST)	Amp. mm	Per. sec
2	ePZX	00h 06m 23.9s		
	eSZX	06 58.9		
	MZ(S)		1.3	0.8
	MN(S)		2.8	0.9
	ME(S)		1.5	1.0
	P-S: 35.0s, P-F: 1m 55s			
2	iPZX	00 22 52.8	+0.6	
	eSZX	22 59.6		
	MZ(P)		0.6	0.2
	MN(S)		1.4	0.3
	ME(S)		0.7	0.2
	P-S: 06.8s, P-F: 27s			
2	ePZX	01 11 38.6		
	eSZX	13 30.2		
	iXZX	14 17.8		
	MZ(X)		12.7	0.9
	MN(X)		17.7	1.1
	ME(X)		13.5	0.8
	P-S: 1m 51.6s, P-F: 6m 35s			
2	ePZX	01 33 19.9		
	eSZX	35 13.5		
	eX1N	35 35.6		
	eX2ZX	35 55.7		
	MZ(X2)		4.3	0.9
	MN(X2)		6.0	1.4
	ME(X2)		4.5	1.6
	P-S: 1m 53.6s, P-F: 5m 08s			
2	ePZX	04 18 37.2		
	eSZX	19 37.8		
	eXN	20 07.8		
	MZ(X)		10.1	0.9
	MN(X)		8.9	0.8
	ME(X)		7.4	0.8
	P-S: 1m 00.6s,P-F: 5m 42s			
2	iPZ	06 56 21.4	-	
	iPN	21.4	+	
	iPE	21.3	+	
	eSN	56 27.2		
	MZNE(P,S)		SO	
	P-S: 05.8s, P-F: 4m 20s			
2	iPZX	11 53 43.0	-0.6	
	iX1ZX	53 45.2		
	eSZX	54 42.3		
	iX2ZX	54 50.7		
	MZ(X1)		2.4	0.4
	MN(X2)		2.3	0.4
	ME(X2)		1.6	0.5
	P-S: 59.3s, P-F: 2m 23s			
2	ePZX	22 43 48.2		
	eSZX	45 09.7		
	MZ(P)		1.3	0.6
	MN(S)		1.4	0.4
	ME(S)		1.0	0.6
	P-S: 1m 21.5s, P-F: 2m 53s			
3	ePZX	13 32 27.3		
	eSZX	34 09.2		
	MZ(S)		1.0	0.6
	MN(S)		1.2	0.7
	ME(S)		0.8	0.7
	P-S: 1m 42.4s, P-F: 3m 45s			
3	ePZX	13 53 55.8		
	eSZX	54 26.1		
	MZ(S)		0.8	0.9
	MN(S)		1.1	0.8
	ME(S)		0.7	1.0
	P-S: 30.3s, P-F: 2m 40s			
3	ePZX	16 43 09.8		
	MZ(P)		0.7	2.7
	MN(P)		0.4	2.7
	ME(P)		0.4	2.6

Date	Phase	Time(JST)	Amp. mm	Per. sec
4	iPZX	$00^h\ 22^m\ 04.0^s$	-1.3	
	iSN	22 11.9		
	MZ(P)		0.5	0.3
	MN(S)		2.5	0.3
	ME(S)		0.7	0.3
	P-S: 07.9s, P-F: 27s			
4	ePZX	14 46 12.5		
	eSZX	46 35.4		
	MZ(S)		0.5	0.7
	MN(S)		0.6	0.6
	ME(S)		0.4	0.7
	P-S: 22.9s, P-F: 1m 05s			
4	iPZX	19 27 28.0	-2.4	
	MZ(P)		0.9	1.3
	MN(P)		0.9	1.0
	ME(P)		0.5	0.9
4	ePZX	22 27 59.4		
	iSE	28 57.5		
	MZNE(S)		SO	
	P-S: 58.1s, P-F: 12m			
4	iPZ	23 31 02.7	-11.0	
	iPN	02.8	+8.8	
	iPE	02.7	+7.4	
	MZNE(P,S)		SO	
4	ePZX	23 40 16.6		
	eSZX	40 41.2		
	MZ(S)		14.5	1.0
	MN(S)		20.7	1.0
	ME(S)		15.7	1.0
	P-S: 24.6s,			
4	ePZX	23 45 58.9		
	iSN	46 27.0		
	MZNE(S)		SO	
	P-S: 25.1s, P-F: 20m			
4	ePZX	23 59 38.7		
	eSZX	59 59.8		
	MZ(S)		1.4	1.1
	MN(S)		2.2	0.8
	ME(S)		1.4	1.0
	P-S: 21.1s, P-F: 2m 15s			
5	ePZX	00 12 17.0		
	eSZX	12 39.2		
	MZ(S)		4.7	1.0
	MN(S)		6.5	1.0
	ME(S)		5.3	0.7
	P-S: 22.2s, P-F: 3m 30s			
5	ePZX	00 20 57.3		
	eSN	21 20.4		
	MZ(S)		0.9	0.6
	MN(S)		1.5	0.7
	ME(S)		1.3	0.7
	P-S: 23.1s, P-F: 2m 15s			
5	ePZX	$00^h\ 35^m\ 18.9^s$		
	eSZX	35 40.5		
	MZ(S)		0.7	0.8
	MN(S)		1.1	0.9
	ME(S)		0.9	0.7
	P-S: 21.6s, P-F: 1m 40s			
5	ePZX	00 47 29.8		
	eSZX	47 52.2		
	MZ(S)		0.7	0.6
	MN(S)		0.8	0.9
	ME(S)		0.7	0.6
	P-S: 22.4s, P-F: 2m 20s			
5	ePZX	00 50 59.2		
	eSZX	51 21.2		
	MZ(S)		0.9	0.7
	MN(S)		1.6	0.7
	ME(S)		1.4	0.6
	P-S: 22.0s, P-F: 2m 15s			
5	ePZX	00 53 26.0		
	eSZX	53 50.2		
	MZ(S)		2.6	0.8
	MN(S)		3.7	0.9
	ME(S)		3.6	0.9
	P-S: 24.2s, P-F: 3m 45s			
5	ePZX	01 01 55.6		
	eSZX	02 18.4		
	MZ(S)		2.8	0.8
	MN(S)		5.9	0.8
	ME(S)		2.8	0.7
	P-S: 22.8s, P-F: 1m 05s			
5	ePZX	01 03 00.5		
	eSZX	03 21.6		
	MZ(S)		0.7	0.7
	MN(S)		1.3	0.8
	ME(S)		1.2	0.4
	P-S: 21.1s, P-F: 53s			
5	ePZX	01 03 54.5		
	iSN	04 18.4		
	MZ(S)		12.5	
	MN(S)		20.3	0.6
	ME(S)		10.7	0.8
	P-S: 23.9s, P-F: 5m 55s			
5	ePZX	01 15 41.5		
	eSZX	16 02.5		
	MZ(S)		1.0	0.9
	MN(S)		1.4	0.8
	ME(S)		1.0	0.6
	P-S: 21.0s, P-F: 2m 35s			
5	ePZX	01 45 41.7		
	MZ(P)		0.7	1.3
	MN(P)		0.3	1.2
	ME(P)		0.3	1.0

Date	Phase	Time(JST)	Amp. mm	Per. sec
5	ePZX	$03^h\ 40^m\ 08.0^s$		
	eSZX	40 25.2		
	MZ(S)		0.5	0.8
	MN(S)		0.8	0.6
	ME(S)		0.5	0.6
	P-S: 17.2s, P-F: 1m 30s			
5	ePZX	03 49 51.9		
	eSZX	50 13.7		
	MZ(S)		1.2	0.9
	MN(S)		1.8	1.0
	ME(S)		1.3	0.8
	P-S: 21.8s, P-F: 2m 20s			
5	ePZX	04 06 55.8		
	iSZX	07 18.2		
	MZ(S)		0.8	0.8
	MN(S)		1.2	0.9
	ME(S)		1.1	0.7
	P-S: 22.4s, P-F: 1m 30s			
5	ePZX	08 44 05.2		
	eSZX	44 27.8		
	MZ(S)		1.0	0.7
	MN(S)		1.8	0.7
	ME(S)		1.5	0.8
	P-S: 22.6s, P-F: 2m 45s			
5	ePZX	09 29 24.7		
	eSZX	29 43.7		
	MZ(S)		0.7	0.5
	MN(S)		2.3	0.7
	ME(S)		1.1	0.7
	P-S: 19.0s, P-F: 1m 05s			
5	ePZX	09 30 48.5		
	eSZX	31 10.8		
	MZ(S)		1.3	0.8
	MN(S)		1.8	0.8
	ME(S)		1.6	1.1
	P-S: 22.3s, P-F: 2m 50s			
5	ePZX	13 29 49.3		
	eSZX	30 14.3		
	MZ(S)		1.8	0.7
	MN(S)		2.2	0.6
	ME(S)		2.0	0.8
	P-S: 25.0s, P-F: 2m 55s			
5	ePZX	18 29 20.8		
	eSZX	29 40.8		
	MZ(S)		0.9	0.8
	MN(S)		1.6	0.8
	ME(S)		1.1	0.9
	P-S: 20.0s, P-F: 1m 35s			
6	ePZX	00 51 37.6		
	eSZX	51 59.0		
	MZ(S)		0.8	0.9
	MN(S)		1.2	0.9
	ME(S)		0.8	0.7
	P-S: 21.4s, P-F: 1m 25s			
6	ePZX	$03^h\ 22^m\ 17.8^s$		
	eSZX	22 53.8		
	MZ(S)		0.7	0.7
	MN(S)		0.8	0.7
	ME(S)		0.5	0.6
	P-S: 36.0s, P-F: 1m 50s			
6	ePZX	08 29 35.3		
	eSZX	31 33.7		
	MZ(S)		0.7	0.8
	MN(S)		1.0	0.7
	ME(S)		0.8	0.6
	P-S: 1m 58.4s			
6	ePZX	16 03 19.3		
	eSZX	04 21.4		
	MZ(S)		0.8	0.8
	MN(S)		1.2	0.8
	ME(S)		0.8	0.7
	P-S: 1m 02.1s, P-F: 2m 25s			
7	ePZX	03 16 28.2		
	eSZX	16 52.0		
	MZ(S)		0.9	0.8
	MN(S)		2.1	0.5
	ME(S)		1.4	0.7
	P-S: 23.8s, P-F: 1m 45s			
7	ePZX	19 30 20.2		
	eSZX	30 42.4		
	eXN	30 49.8		
	MZ(X)		1.0	0.9
	MN(X)		1.7	1.0
	ME(X)		1.6	0.9
	P-S: 22.2s, P-F: 2m 25s			
8	ePZX	06 43 45.4		
	eSZX	44 06.3		
	MZ(S)		0.5	0.8
	MN(S)		1.0	1.0
	ME(S)		0.7	0.7
	P-S: 20.9s, P-F: 1m 25s			
8	ePZX	10 57 49.6		
	iSZX	59 05.2		
	eXE	59 43		
	MZ(S)		1.9	0.7
	MN(S)		2.5	0.6
	ME(X)		2.5	1.2
	P-S: 1m 15.6s, P-F: 4m 10s			
8	ePZX	12 32 39.5		
	eSZX	33 54.8		
	MZ(S)		0.6	0.7
	MN(S)		0.5	0.6
	ME(S)		0.5	1.1
	P-S: 1m 15.3s, P-F: 2m 35s			

Date	Phase	Time(JST)	Amp. mm	Per. sec
8	iPZX	13h 46m 16.3s	+0.4	
	iSZX	46 25.2		
	MZ(S)		1.1	0.6
	MN(S)		2.6	0.5
	ME(S)		1.5	0.4
	P-S: 08.9s, P-F: 35s			
8	ePZX	17 11 22.9		
	eSZX	11 45.5		
	MZ(S)		0.9	0.9
	MN(S)		1.3	0.8
	ME(S)		1.1	0.8
	P-S: 22.6s, P-F: 1m 22s			
8	ePZX	21 17 51.3		
	eSZX	18 12.8		
	MZ(S)		0.5	0.8
	MN(S)		0.9	0.6
	ME(S)		0.9	0.7
	P-S: 21.5s, P-F: 53s			
8	iPZ	22 13 11.4	+1.5	
	iPN	11.3	-0.4	
	iPE	11.4	+0.7	
	eSN	13 59.5		
	MZ(S)		14.6	0.8
	MN(S)		18.6	0.5
	ME(S)		9.4	0.7
	P-S: 48.2s, P-F: 3m 15s			
8	ePZX	23 44 39.5		
	eSZX	45 31.2		
	MZ(S)		0.8	0.7
	MN(S)		0.8	0.7
	ME(S)		0.5	0.9
	P-S: 51.7s, P-F: 1m 45s			
9	iPZX	00 53 53.3	-0.4	
	iSZX	54 17.5		
	MZ(S)		3.8	0.7
	MN(S)		6.1	0.8
	ME(S)		5.7	0.7
	P-S: 24.2s, P-F: 2m 08s			
9	iPZX	11 27 07.0		
	eXZX	28 56		
	MZ(P)		1.3	1.4
	MN(P)		0.8	1.0
	ME(P)		0.6	1.2
9	ePZX	13 09 45.5		
	iXZX	09 48.0		
	eSZX	10 11.2		
	MZ(X)		0.5	0.3
	MN(S)		0.5	0.5
	ME(S)		0.6	0.7
	P-S: 25.7s P-F: 58s			
10	ePZX	01 05 35.3		
	eSZX	06 54.7		
	MZ(S)		0.6	0.4
	MN(S)		1.0	0.5
	ME(S)		0.4	0.6
	P-S: 1m 19.4			

Date	Phase	Time(JST)	Amp. mm	Per. sec
10	iPZX	03h 21m 13.4s	-0.6	
	iSZX	22 30.5		
	MZ(S)		11.2	0.8
	MN(S)		10.5	0.8
	ME(S)		9.6	0.9
	P-S: 1m 17.1s, P-F: 5m 40s			
10	iPZX	03 48 47.0	+0.4	
	iXZX	48 49.8		
	eSZX	49 29.8		
	MZ(X)		1.6	0.4
	MN(S)		2.5	0.5
	ME(S)		2.3	0.5
	P-S: 42.8s, P-F: 1m 50s			
10	ePZX	06 41 40.6		
	eSZX	42 05.6		
	MZ(S)		0.5	0.8
	MN(S)		0.7	0.7
	ME(S)		0.5	0.6
	P-S: 25.0s, P-F: 55s			
10	iPZX	06 54 35.5	-0.7	
	iSN	54 44.2		
	MZ(S)		1.1	0.3
	MN(S)		2.8	0.4
	ME(S)		1.4	0.3
	P-S: 08.7s, P-F: 38s			
10	iPZX	09 43 22.0	-3.2	
	iSZX	43 34.4		
	MZ(P)		2.1	0.2
	MN(S)		2.2	0.4
	ME(S)		0.9	0.4
	P-S: 12.4s, P-F: 35s			
11	iPZX	02 09 39.6	-0.5	
	iXZX	09 41.0		
	eSZX	09 55.9		
	MZ(P)		0.7	0.3
	MN(S)		0.5	0.3
	ME(S)		0.4	0.4
	P-S: 16.3s, P-F: 29s			
11	iPZX	05 49 52.3	+0.8	
	iSZX	50 53.2		
	MZ(S)		4.9	0.7
	MN(S)		7.3	0.7
	ME(S)		6.0	0.7
	P-S: 1m 00.9s, P-F: 3m 28s			
11	ePZX	09 24 40.6		
	eSZX	27 20.6		
	MZ(S)		0.6	1.0
	MN(S)		0.7	1.3
	ME(S)		0.7	1.4
	P-S: 2m 40s			

Date	Phase	Time(JST)	Amp. mm	Per. sec
11	ePZX	09h 58m 36.3s		
	eSZX	58 53.3		
	MZ(S)		0.8	0.6
	MN(S)		1.5	0.3
	ME(S)		1.0	0.5
	P-S: 17.0s, P-F: 1m 15s			
11	iPZ	16 13 02.3	-4.2	
	iPN	02.3	+0.3	
	iPE	02.3	+0.3	
	iSN	13 08.0		
	MZNE(S)		S0	
	P-S: 05.7s, P-F: 2m 23s			
11	ePZX	18 51 42.4		
	iSZX	52 14.8		
	MZ(S)		1.3	0.7
	MN(S)		2.3	0.5
	ME(S)		1.0	0.4
	P-S: 32.4s, P-F: 1m 35s			
12	ePZX	00 01 40.4		
	eSZX	03 08.4		
	MZ(S)		0.6	0.6
	MN(S)		0.7	0.5
	ME(S)		0.5	0.5
	P-S: 1m 28.0s, P-F: 2m 38s			
12	iPZX	11 28 42.2	-1.8	
	eXZ	29 00.9		
	eSN	29 43.8		
	MZ(S)		10.8	0.8
	MN(S)		>22	
	ME(S)		>18	
	P-S: 1m 01.6s, P-F: 6m 25s			
13	ePZX	19 19 02.0		
	eSZX	20 24.7		
	MZ(S)		1.1	0.8
	MN(S)		2.2	0.9
	ME(S)		1.0	0.9
	P-S: 1m 22.7s, P-F: 2m 45s			
13	ePZX	21 49 37.8		
	eSZX	49 59.5		
	MZ(S)		0.7	0.7
	MN(S)		0.7	0.5
	ME(S)		0.7	0.5
	P-S: 21.7s, P-F: 1m 15s			
14	iPZX	14 36 55.2	-1.2	
	eXZX	37 43.7		
	MZ(P)		1.1	0.7
	MN(P)		0.6	0.6
	ME(P)		0.6	0.6
14	ePZX	17 48 46.9		
	eSZX	49 40.8		
	MZ(S)		0.5	0.7
	MN(S)		0.6	0.8
	ME(S)		0.6	1.0
	P-S: 53.9s, P-F: 2m 35s			

Date	Phase	Time(JST)	Amp. mm	Per. sec
14	iPZX	21h 10m 11.8s	+1.0	
	eSZX	10 22.6		
	MZ(S)		0.5	0.4
	MN(S)		1.2	0.4
	ME(S)		0.7	0.4
	P-S: 10.8s, P-F: 52s			
15	iPZX	00 28 11.5	+0.5	
	eSZX	28 22.8		
	MZ(S)		0.8	0.6
	MN(S)		1.4	0.7
	ME(S)		1.0	0.6
	P-S: 11.3s, P-F: 45s			
15	iPZX	01 34 06.0	+0.4	
	eSZX	34 17.2		
	MZ(S)		0.7	0.7
	MN(S)		1.3	0.5
	ME(S)		1.2	0.4
	P-S: 11.2s, P-F: 58s			
15	iPZ	06 16 37.0	-7.8	
	iPN	37.0	+1.0	
	iPE	37.0	+0.4	
	iSN	16 43.2		
	MZNE(S)		S0	
	P-S: 06.2s, P-F: 2m 40s			
15	iPZX	08 27 08.3	+0.8	
	iSN	27 38.4		
	MZ(S)		4.7	0.6
	MN(S)		10.5	0.4
	ME(S)		6.3	0.3
	P-S: 30.1s, P-F: 2m 15s			
16	ePZX	10 53 19.2		
	eSZX	53 42.1		
	MZ(S)		0.7	0.8
	MN(S)		1.0	1.0
	ME(S)		1.2	0.7
	P-S: 22.9s, P-F: 1m 07s			
16	ePZX	10 54 26.9		
	eSZX	54 48.8		
	MZ(S)		1.0	0.8
	MN(S)		1.4	0.9
	ME(S)		1.4	0.8
	P-S: 21.9s			
16	ePZX	11 39 12.3		
	eSZX	40 22.5		
	MZ(S)		1.3	0.7
	MN(S)		1.7	0.8
	ME(S)		1.4	0.6
	P-S: 1m 10.2s, P-F: 2m 28s			
16	ePZX	17 13 24.6		
	eSZX	14 33.7		
	MZ(S)		1.2	0.7
	MN(S)		1.2	1.0
	ME(S)		1.0	0.7
	P-S: 1m 09.1s			

Date	Phase	Time(JST)	Amp. mm	Per. sec
17	ePZX	21h 37m 53.9s		
	eSZX	38 32.5		
	eXZX	38 53.5		
	MZ(X)		0.6	0.8
	MN(X)		0.7	0.6
	ME(X)		0.5	0.8
	P-S: 38.8s, P-F: 1m 35s			
19	ePZX	05 44 12.7		
	eSZX	45 28.0		
	eXZX	45 48		
	MZ(X)		0.5	0.8
	MN(X)		0.5	0.7
	ME(X)		0.5	0.9
	P-S: 1m 15.3s, P-F: 3m 10s			
19	ePZX	07 18 53.7		
	eSZX	19 17.0		
	MZ(S)		0.8	0.6
	MN(S)		1.5	0.7
	ME(S)		1.1	0.5
	P-S: 23.3s, P-F: 1m 55s			
19	ePZX	07 40 55.5		
	iSZX	41 19.9		
	MZ(S)		0.7	0.6
	MN(S)		1.1	0.6
	ME(S)		1.1	0.4
	P-S: 24.4s, P-F: 1m 25s			
19	iPZX	08 14 32.8	-0.6	
	iSZX	14 48.4		
	MZ(P)		0.7	0.2
	MN(S)		1.0	0.4
	ME(S)		0.4	0.6
	P-S: 15.6s, P-F: 35s			
19	iPZX	11 38 43.8	-0.8	
	iXZX	38 47.1		
	iSN	38 57.8		
	MZ(S)		1.9	0.6
	MN(S)		2.2	0.4
	ME(S)		2.9	0.6
	P-S: 14.0s, P-F: 1m 45s			
19	iPZX	14 04 18.5		
	iSN	04 25.6		
	MZ(S)		1.4	0.5
	MN(S)		4.4	0.5
	ME(S)		2.1	0.5
	P-S: 07.1s, P-F: 50s			
19	ePZX	16 22 38.5		
	eSZX	23 51.0		
	MZ(S)		0.8	0.8
	MN(S)		0.9	0.7
	ME(S)		0.5	0.7
	P-S: 1m 12.5s, P-F: 2m 50s			
19	iPZX	17h 31m 48.9s	-2.2mm	
	eSZX	31 55.6		
	MZ(P)		1.0	0.2
	MN(S)		1.3	0.2
	ME(S)		0.8	0.3
	P-S: 06.7s, P-F: 25s			
19	iPZX	21 08 25.6	-1.0	
	iSN	09 34.3		
	MZ(S)		63.1	0.9
	MNE(S)		SO	
	P-S: 1m 08.7s, P-F: 8m 40s			
20	ePZX	06 24 32.5		
	eSZX	24 56.7		
	MZ(S)		1.9	0.5
	MN(S)		4.5	0.6
	ME(S)		3.4	0.6
	P-S: 24.2s, P-F: 2m 10s			
20	ePZX	19 18 04.2		
	eSZX	19 55.0		
	MZ(P)		2.4	0.6
	MN(S)		3.4	1.0
	ME(S)		3.3	0.7
	P-S: 1m 50.8s, P-F: 3m 55s			
20	ePZX	19 50 54.0		
	eSZX	52 41.9		
	MZ(S)		2.0	0.5
	MN(S)		2.3	0.6
	ME(S)		1.7	0.9
	P-S: 1m 47.9s, P-F: 3m 55s			
20	ePZX	20 07 34.2		
	eSZX	07 58.4		
	MZ(S)		0.6	0.5
	MN(S)		0.9	0.6
	ME(S)		1.0	0.4
	P-S: 24.2s, P-F: 1m 24s			
20	iPZX	20 37 55.0	+1.8	
	eSZX	38 04.5		
	MZ(S)		0.7	0.5
	MN(S)		2.5	0.3
	ME(S)		1.4	0.3
	P-S: 09.5s, P-F: 42s			
20	iPZX	21 05 38.8	+0.6	
	eSZX	05 58.4		
	MZ(S)		0.8	0.4
	MN(S)		2.0	0.3
	ME(S)		1.0	0.2
	P-S: 19.6s, P-F: 1m 10s			
20	iPZX	21 34 46.3	+6.8	
	eSZX	34 53.0		
	MZ(P)		0.8	0.2
	MN(S)		1.8	0.3
	ME(S)		1.0	0.3
	P-S: 06.7s, P-F: 35s			

Date	Phase	Time(JST)	Amp. mm	Per. sec
21	ePZX	01h 51m 21.3s		
	eSZX	52 42		
	MZ(P)		1.2	0.9
	MN(S)		1.3	1.5
	ME(S)		1.1	1.4
	P-S: 1m 21s, P-F: 3m 20s			
21	ePZX	09 25 31.7		
	eSZX	26 04.9		
	MZ(S)		1.9	0.8
	MN(S)		2.7	0.8
	ME(S)		1.7	0.8
	P-S: 33.2s, P-F: 2m 50s			
21	ePZX	14 04 34.8		
	eSZX	06 03.3		
	MZ(S)		0.7	0.8
	MN(S)		0.9	0.9
	ME(S)		0.5	0.6
	P-S: 28.5s, P-F: 2m 25s			
21	ePZX	20 47 33.4		
	eSZX	48 37.6		
	MZ(S)		0.7	0.9
	MN(S)		0.9	0.8
	ME(S)		0.5	0.8
	P-S: 1m 04.2s, P-F: 2m 10s			
22	ePZX	14 51 56.7		
	eSZX	52 55.4		
	iXZX	53 19.7		
	MZ(P)		5.1	0.5
	MN(S)		7.4	0.9
	ME(S)		5.5	1.1
	P-S: 58.7s, P-F: 3m 35s			
22	ePZX	15 42 29.4		
	eSZX	42 59.3		
	MZ(S)		0.6	0.5
	MN(S)		1.1	0.6
	ME(S)		0.7	0.6
	P-S: 29.9s, P-F: 1m 45s			
22	ePZX	17 25 59.4		
	eSZX	26 53.9		
	MZ(S)		0.5	0.9
	MN(S)		0.7	0.4
	ME(S)		0.5	0.8
	P-S: 54.5s, P-F: 1m 45s			
22	iPZX	22 48 44.5	-0.6	
	iSZX	48 54.2		
	MZ(S)		0.6	0.4
	MN(S)		0.8	0.3
	ME(S)		1.3	0.7
	P-S: 09.7s, P-F: 40s			
23	iPZX	01 32 10.7	+0.5	
	eSZX	32 21.1		
	MZ(S)		1.0	0.7
	MN(S)		1.2	0.6
	ME(S)		1.8	0.8
	P-S: 10.4s, P-F: 45s			
23	ePZX	13h 37m 23.6s		
	eSZX	37 47.4		
	MZ(S)		1.9	0.6
	MN(S)		4.1	0.7
	ME(S)		2.3	0.7
	P-S: 23.8s, P-F: 1m 45s			
23	ePZX	15 37 08.5		
	eSZX	37 26.1		
	MZ(S)		0.9	0.4
	MN(S)		1.7	0.4
	ME(S)		1.4	0.3
	P-S: 12.6s, P-F: 1m 38s			
23	ePZX	17 08 02.8		
	eSZX	08 15.4		
	MZ(S)		0.5	0.6
	MN(S)		0.9	0.6
	ME(S)		0.6	0.6
	P-S: 12.6s, P-F: 33s			
23	ePZX	17 48 11.4		
	eXZX	50 45		
	MZ(P)		1.0	1.1
	MN(P)		0.8	1.5
	ME(P)		0.7	1.9
23	ePZX	18 31 17.1		
	eSZX	33 10.7		
	MZ(S)		0.6	0.8
	MN(S)		1.5	0.8
	ME(S)		0.7	0.7
	P-S: 1m 53.6s, P-F: 3m 25s			
23	ePZX	18 38 58.4		
	eSZX	40 13.1		
	MZ(S)		0.8	0.9
	MN(S)		1.8	0.9
	ME(S)		1.5	1.5
	P-S: 1m 14.7s, P-F: 3m 25s			
23	iPZX	21 09 15.5	+5.0	
	eSZX	09 25.7		
	iXN	09 29.6		
	MZ(X)		2.9	0.4
	MN(X)		5.9	0.3
	ME(X)		4.1	0.2
	P-S: 10.2s, P-F: 1m 05s			
23	ePZX	22 51 42.2		
	MZ(P)		0.6	1.0
	MN(P)		0.4	0.9
	ME(P)		0.4	0.9
24	ePZX	03 30 41.9		
	eSZX	31 57.6		
	eXZX	32 25.2		
	MZ(X)		1.8	0.9
	MN(X)		3.4	1.1
	ME(X)		1.9	1.1
	P-S: 1m 15.7s, P-F: 3m 25s			

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Date	Phase	Time(JST)	Amp. mm	Per. sec
24	ePZX	12h 03m 19.1s		
	eSZX	03 41.4		
	MZ(S)		0.7	0.5
	MN(S)		1.3	0.3
	ME(S)		0.7	0.4
	P-S: 22.3s, P-F: 1m 15s			
24	ePZX	12 27 59.9		
	eSZX	29 15.9		
	MZ(S)		0.5	0.8
	MN(S)		0.6	0.7
	ME(S)		0.5	0.8
	P-S: 1m 16.0s, P-F: 3m 35s			
24	ePZX	17 27 22.5		
	eSZX	27 36.5		
	MZ(S)		0.7	0.5
	MN(S)		1.6	0.6
	ME(S)		0.8	0.6
	P-S: 14.0s, P-F: 55s			
26	iPZX	09 12 09.4	+1.2	
	eSZX	15 25.8		
	MZ(P)		1.0	0.8
	MN(P)		1.2	1.1
	ME(P)		0.8	1.0
	P-S: 3m 16.4s			
26	iPZX	12 03 38.2	-0.9	
	MZ(P)		2.0	0.7
	MN(P)		1.8	0.9
	ME(P)		0.7	0.7
26	ePZX	17 33 37.2		
	eSZX	34 27.5		
	MZ(P)		0.5	0.4
	MN(S)		0.8	0.6
	ME(S)		0.4	0.6
	P-S: 50.3s, P-F: 2m 20s			
26	ePZX	20 01 49.5		
	MZ(P)		0.8	1.5
	MN(P)		0.6	1.1
	ME(P)		0.5	1.5
27	ePZX	06 07 14.0		
	eSZX	07 36.9		
	MZ(S)		0.7	0.9
	MN(S)		0.8	0.7
	ME(S)		1.0	0.7
	P-S: 22.9s, P-F: 1m 25s			
27	iPZX	12 24 20.4	-4.2	
	eSZX	24 27.1		
	MZ(S)		1.5	0.5
	MN(S)		4.3	0.2
	ME(S)		2.5	0.4
	P-S: 06.7s, P-F: 1m 25s			
27	ePZX	14 32 57.6		
	MZ(P)		0.6	1.5
	MN(P)		0.4	1.6
	ME(P)		0.3	1.3

Date	Phase	Time(JST)	Amp. mm	Per. sec
27	iPZX	16h 53m 33.6s	-3.4	
	iSZX	53 46.8		
	MZ(P)		1.4	0.2
	MN(S)		2.4	0.3
	ME(S)		1.5	0.2
	P-S: 13.2s, P-F: 48s			
28	ePZX	06 05 43.5		
	eSZX	06 50.0		
	iXZX	07 20.6		
	MZ(X)		0.6	0.7
	MN(X)		0.7	0.7
	ME(X)		0.7	0.8
	P-S: 1m 06.5s, P-F: 3m 10s			
28	ePZX	09 11 36.4		
	eSZX	12 37.1		
	MZ(S)		0.7	0.9
	MN(S)		0.8	0.8
	ME(S)		0.6	0.8
	P-S: 1m 00.7s, P-F: 2m 25s			
28	iPZ	09 41 39.9	+1.0	
	iPN	39.8	-0.6	
	iPE	39.9	-0.5	
	iSN	41 51.5		
	MZ(S)		5.3	0.5
	MN(S)		17.4	
	ME(S)		7.3	0.6
	P-S: 11.7s, P-F: 2m 25s			
28	iPZX	11 40 06.5	+1.4	
	eSZX	42 29.3		
	MZ(P)		2.0	1.6
	MN(P)		2.1	1.7
	ME(P)		1.6	1.3
	P-S: 2m 22.8s, P-F: 6m			
28	ePZX	13 15 51.0		
	iSZX	18 07.0		
	MZ(S)		1.2	1.1
	MN(S)		1.7	1.1
	ME(S)		1.1	1.1
	P-S: 2m 16.0s, P-F: 4m 25s			
29	iPZX	08 50 43.5	-0.6	
	iSZX	51 16.1		
	MZ(S)		2.7	0.6
	MN(S)		2.8	0.6
	ME(S)		3.3	0.5
	P-S: 32.6s, P-F: 2m 10s			
29	ePZX	16 11 27.5		
	eSZX	12 05.2		
	MZ(S)		5.4	0.8
	MN(S)		9.3	0.8
	ME(S)		6.5	0.7
	P-S: 37.7s, P-F: 2m 25s			

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Date	Phase	Time(JST)	Amp. mm	Per. sec
29	iPZX	16h 23m 53.6s	+0.4	
	eSZX	25 23.7		
	MZ(S)		0.8	1.0
	MN(S)		2.2	0.4
	ME(S)		1.2	0.7
	P-S: 1m 30.1s, P-F: 2m 40s			
30	ePZX	12 33 47.3		
	eSZX	34 54.8		
	MZ(S)		0.7	0.5
	MN(S)		0.8	0.5
	ME(S)		0.5	0.5
	P-S: 1m 07.5s, P-F: 1m 45s			
30	ePZX	16 36 10.4		
	MZ(P)		0.7	2.0
	MN(P)		0.9	1.5
	ME(P)		0.5	1.2

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Date	Phase	Time(JST)	Amp. mm	Per. sec
1	ePZX	00h 22m 50.3s		
	eSZX	23 59.6		
	MZ(S)		1.7	0.7
	MN(S)		1.5	1.0
	ME(S)		1.4	0.8
	P-S: 1m 09.3s, P-F: 2m 15s			
1	iPZX	02 35 13.6	+0.4	
	eSZX	36 19.3		
	eXN	36 38.7		
	MZ(X)		1.6	0.6
	MN(X)		2.5	0.7
	ME(X)		1.4	0.9
	P-S: 1m 05.7s, P-F: 2m 25s			
1	ePZX	15 51 39.1		
	eSZX	52 11.7		
	MZ(S)		0.7	1.0
	MN(S)		1.1	0.8
	ME(S)		0.8	0.7
	P-S: 32.6s, P-F: 1m 35s			
1	ePZX	16 56 36.3		
	eSZX	57 55.6		
	MZ(S)		0.6	0.7
	MN(S)		0.8	0.7
	ME(S)		0.5	0.8
	P-S: 1m 19.3s, P-F: 2m 05s			
1	iPZX	22 59 30.0	+0.6	
	iSN	23 01 23.5		
	eScSN	12 17.3		
	MZ(S)		20.7	0.8
	MN(S)		53.5	
	ME(S)		34.0	0.7
	P-S: 1m 53.5s, P-F: 13m			

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Date	Phase	Time(JST)	Amp. mm	Per. sec
30	ePZX	19h 46m 55.5s		
	eSZX	47 06.7		
	MZ(P)		0.5	0.2
	MN(S)		1.2	0.3
	ME(S)		0.4	0.3
	P-S: 11.2s, P-F: 26s			
30	iPZX	21 45 18.4	+1.4	
	iSZX	45 24.5		
	MZ(S)		0.6	0.4
	MN(S)		1.6	0.3
	ME(S)		1.0	0.2
	P-S: 06.1s, P-F: 21s			

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Date	Phase	Time(JST)	Amp. mm	Per. sec
2	ePZX	07h 44m 36.4s		
	eSZX	45 49.0		
	MZ(S)		0.7	0.6
	MN(S)		0.8	0.8
	ME(S)		0.7	0.8
	P-S: 1m 12.6s, P-F: 2m 35s			
2	ePZX	08 21 10.6		
	eSZX	22 31.8		
	MZ(S)		0.5	0.8
	MN(S)		0.7	0.9
	ME(S)		0.6	0.8
	P-S: 1m 21.2s, P-F: 2m 45s			
2	iPZX	09 44 05.7	-1.2	
	MZ(P)		0.6	1.9
	MN(P)		0.3	1.5
	ME(P)		0.3	1.4
2	iPZX	13 48 18.1	-1.5	
	eSZX	48 37.6		
	MZ(S)		1.8	0.7
	MN(S)		2.7	0.6
	ME(S)		1.7	0.7
	P-S: 19.5s, P-F: 1m 25s			
2	ePZX	14 56 45.2		
	eSZX	57 29.8		
	MZ(S)		1.1	0.6
	MN(S)		1.5	0.7
	ME(S)		0.9	0.8
	P-S: 44.6s, P-F: 2m 45s			
2	ePZX	20 21 10.6		
	eSZX	22 45.8		
	eXZX	23 25		
	MZ(X)		0.5	0.7
	MN(X)		0.6	0.7
	ME(X)		0.5	0.7
	P-S: 1m 35.2s, P-F: 3m 25s			

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Date	Phase	Time(JST)	Amp. mm	Per. sec
2	ePZX	$20^h\ 28^m\ 15.8^s$		
	eSZX	29 26.4		
	eXZX	29 43.2		
	MZ(X)		1.0	1.1
	MN(X)		1.3	1.0
	ME(X)		1.2	0.7
	P-S: 1m 10.6s, P-F: 2m 55s			
3	ePZX	05 10 43.4		
	iXZX	10 54.6		
	eSN	14 31.5		
	MZ(X)		0.7	0.8
	MN(X)		0.5	0.8
	ME(P)		0.4	1.0
	P-S: 3m 48.1s			
4	iPZX	06 10 52.4 +0.4		
	eSZX	11 08.4		
	MZ(S)		2.2	0.4
	MN(S)		7.4	0.3
	ME(S)		3.4	0.6
	P-S: 16.0s, P-F: 1m 35s			
4	ePZX	21 41 51.3		
	eSZX	42 48.1		
	MZ(S)		1.3	0.6
	MN(S)		2.0	0.6
	ME(S)		1.1	0.6
	P-S: 56.8s, P-F: 2m 15s			
5	ePZX	18 11 27.0		
	MZ(P)		0.5	0.8
	MN(P)		0.4	0.7
	ME(P)		0.4	0.9
5	ePZX	18 35 06.5		
	eSZX	36 28.6		
	eXZX	36 43		
	MZ(X)		0.9	0.8
	MN(S)		0.9	0.3
	ME(X)		0.7	1.1
	P-S: 1m 22.1s, P-F: 3m 10s			
6	iPZX	13 51 01.6 +0.6		
	MZ(P)		0.7	0.6
	MN(P)		0.4	0.8
	ME(P)		0.3	0.6
6	ePZX	17 05 34.8		
	eSZX	08 30.3		
	MZ(P)		0.5	0.7
	MN(P)		0.4	0.7
	ME(P)		0.4	0.8
	P-S: 2m 55.5s			
6	iPZX	23 56 59.9 -3.2		
	eSN	57 16.5		
	MZ(S)		50.9	1.0
	MN(S)		65.0	1.1
	ME(S)		61.8	1.0
	P-S: 16.6s, P-F: 6m 50s			
7	ePZX	$00^h\ 09^m\ 54.4^s$		
	eSZX	10 13.0		
	MZ(S)		4.5	0.6
	MN(S)		6.0	0.4
	ME(S)		5.0	0.7
	P-S: 18.6s, P-F: 2m 40s			
7	iPZX	00 48 00.5 +2.2		
	iSZX	48 07.4		
	MZ(S)		0.5	0.2
	MN(S)		1.2	0.4
	ME(S)		1.3	0.3
	P-S: 06.9s, P-F: 28s			
7	ePZX	04 52 18.7		
	eSZX	52 37.4		
	MZ(S)		0.8	1.0
	MN(S)		1.2	0.6
	ME(S)		0.9	0.7
	P-S: 18.7s, P-F: 1m 35s			
7	ePZX	06 07 49.6		
	iSZX	08 03.4		
	MZ(S)		1.1	0.4
	MN(S)		2.2	0.3
	ME(S)		2.0	0.4
	P-S: 13.8s, P-F: 44s			
7	ePZX	06 10 05.4		
	eSZX	10 19.5		
	MZ(S)		2.6	0.9
	MN(S)		3.5	0.9
	ME(S)		2.4	0.8
	P-S: 14.1s, P-F: 2m 25s			
7	iPZX	06 58 18.3 +0.6		
	iSZX	58 29.4		
	MZ(S)		1.3	0.7
	MN(S)		1.8	0.4
	ME(S)		2.4	0.8
	P-S: 11.1s, P-F: 1m 10s			
7	ePZX	15 47 54.7		
	eSZX	49 01.2		
	MZ(S)		1.7	1.1
	MN(S)		3.0	1.0
	ME(S)		1.8	0.9
	P-S: 1m 06.5s, P-F: 3m 45s			
7	ePZX	21 33 37.1		
	eSZX	33 53.5		
	MZ(S)		0.6	0.5
	MN(S)		0.7	0.4
	ME(S)		0.5	0.4
	P-S: 16.4s, P-F: 1m 20s			
7	ePZX	23 16 50.5		
	eXZX	17 08.1		
	eSZX	17 27.2		
	MZ(S)		0.5	0.4
	MN(S)		1.5	0.3
	ME(S)		0.8	0.4
	P-S: 36.7s, P-F: 1m 30s			

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Date	Phase	Time(JST)	Amp. mm	Per. sec
8	iPZ	$13^h\ 12^m\ 34.2^s$ +3.4		
	iPN	34.2 -0.8		
	iPE	34.2 +0.8		
	iSN	12 40.4		
	MZ(S)		7.5	0.6
	MN(S)		24.8	0.5
	ME(S)		11.0	
	P-S: 06.2s, P-F: 1m 37s			
8	iPZX	15 12 10.5		
	MZ(P)		0.5	0.8
	MN(P)		0.3	0.7
	ME(P)		0.4	0.9
9	ePZX	01 19 01.1		
	eSZX	20 07.7		
	MZ(S)		0.5	0.6
	MN(S)		1.0	0.7
	ME(S)		0.5	0.8
	P-S: 1m 06.6s, P-F: 1m 55s			
9	iPZX	14 39 12.1 -3.0		
	MZ(P)		0.6	1.6
	MN(P)		0.5	1.3
	ME(P)		0.4	1.1
9	ePZX	15 49 56.3		
	iSN	50 19.1		
	MZ(S)		1.5	0.7
	MN(S)		2.6	0.5
	ME(S)		1.4	0.7
	P-S: 22.8s, P-F: 1m 55s			
9	eXZX	20 00 26.5		
	MZ(X)		0.6	1.9
	MN(X)		0.4	1.8
	ME(X)		0.4	2.2
9	iPZX	22 27 41.2 +2.2		
	iSZX	27 45.2		
	MZ(S)		0.5	0.3
	MN(S)		1.8	0.3
	ME(S)		0.8	0.2
	P-S: 04.0s, P-F: 25s			
9	ePZX	22 33 21.3		
	eSZX	34 08.9		
	MZ(S)		0.8	0.8
	MN(S)		1.0	0.7
	ME(S)		0.9	1.0
	P-S: 47.6s, P-F: 2m 25s			
10	ePZX	02 51 29.8		
	iSZX	51 42.6		
	MZ(S)		2.4	0.5
	MN(S)		2.6	0.5
	ME(S)		2.2	0.8
	P-S: 12.8s, P-F: 1m 55s			
10	ePZX	$06^h\ 49^m\ 19.3^s$		
	eSZX	49 35.4		
	MZ(S)		2.1	1.1
	MN(S)		3.3	0.6
	ME(S)		3.6	0.6
	P-S: 16.1s, P-F: 1m 50s			
10	iPZX	14 07 28.3 +0.8		
	eSZX	07 51.6		
	MZ(S)		1.1	0.6
	MN(S)		1.5	0.3
	ME(S)		1.5	0.7
	P-S: 23.3s, P-F: 1m 40s			
11	ePZX	08 01 52.1		
	eSZX	10 28.8		
	MZ(P)		1.3	0.9
	MN(P)		1.5	1.0
	ME(P)		1.0	1.2
	P-S: 8m 36.7s			
11	ePZX	08 09 39.0		
	eSZX	11 09.4		
	MZ(S)		0.6	0.6
	MN(S)		1.0	0.5
	ME(S)		0.8	0.5
	P-S: 1m 30.4s, P-F: 2m 25s			
11	ePZX	15 08 41.3		
	eSZX	10 19.3		
	eXZX	10 43		
	MZ(X)		1.4	1.1
	MN(X)		2.4	1.0
	ME(X)		1.7	1.1
	P-S: 1m 38s, P-F: 3m 50s			
11	ePZX	15 34 41.2		
	eSZX	35 41.8		
	MZ(S)		2.0	0.7
	MN(S)		2.5	0.6
	ME(S)		1.1	0.6
	P-S: 1m 00.6s, P-F: 2m 25s			
11	ePZX	21 26 52.1		
	iSZX	27 05.0		
	MZ(S)		0.7	0.4
	MN(S)		1.2	0.4
	ME(S)		0.8	0.5
	P-S: 12.9s, P-F: 1m 10s			
13	ePZX	18 01 00.4		
	eXZX	01 09.3		
	eSE	01 40.8		
	MZ(S)		9.1	0.9
	MN(S)		12.5	1.0
	ME(S)		14.0	0.7
	P-S: 40.4s, P-F: 5m 40s			

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Date	Phase	Time(JST)	Amp. mm	Per. sec
13	ePZX	$19^h\ 40^m\ 25.6^s$		
	eSZX	41 57.4		
	eXN	42 34.2		
	MZ(S)		4.8	0.7
	MN(S)		6.8	0.7
	ME(S)		3.9	0.8
	P-S: 31.8s, P-F: 12m			
13	ePZX	20 00 48.7		
	eSZX	02 33.3		
	MZ(S)		1.9	0.7
	MN(S)		3.0	0.7
	ME(S)		1.7	0.6
	P-S: 1m 44.6s, P-F: 6m 50s			
14	iPZX	02 49 14.2	-2.6	
	iSZX	50 14.0		
	MZ(P)		6.6	0.6
	MN(S)		12.0	0.6
	ME(S)		8.8	0.8
	P-S: 59.8s, P-F: 4m 40s			
14	iPZX	04 17 53.8	+0.7	
	MZ(P)		0.8	0.9
	MN(P)		0.6	0.9
	ME(P)		0.3	0.8
14	ePZX	07 27 25.6		
	eSZX	27 54.7		
	MZ(S)		4.6	0.7
	MN(S)		9.5	0.6
	ME(S)		4.4	0.7
	P-S: 29.1s, P-F: 2m 35s			
14	ePZX	14 48 11.7		
14	iPZX	17 35 28.7	+0.6	
	eSZX	35 58.8		
	MZ(S)		0.6	0.5
	MN(S)		1.1	0.3
	ME(S)		0.7	0.4
	P-S: 30.1s, P-F: 1m 40s			
14	ePZX	18 05 13.8		
	eSN	05 36.6		
	MZ(S)		2.4	0.4
	MN(S)		3.5	0.3
	ME(S)		2.8	0.6
	P-S: 22.8s			
15	ePZX	01 07 22.4		
	eSN	07 44.8		
	MZ(S)		6.0	0.6
	MN(S)		8.5	0.7
	ME(S)		4.9	0.6
	P-S: 22.4s, P-F: 3m 50s			
15	ePZX	02 16 39.3		
	eSZX	16 49.7		
	MZ(S)		0.8	0.7
	MN(S)		1.0	0.3
	ME(S)		0.9	0.3
	P-S: 10.4s, P-F: 28s			

Date	Phase	Time(JST)	Amp. mm	Per. sec
15	ePZX	$03^h\ 29^m\ 08.4^s$		
	eXZ	29 17.1		
	eSZX	32 06.2		
	MZ(X)		2.2	0.5
	MN(X)		0.8	0.4
	ME(X)		1.0	0.6
	P-S: 2m 57.8s			
15	ePZX	08 24 49.0		
	eSZX	26 33.9		
	MZ(S)		0.7	0.8
	MN(S)		1.2	1.1
	ME(S)		0.7	1.0
	P-S: 1m 44.9s, P-F: 2m 40s			
15	ePZX	09 56 29.5		
	eSZX	58 02.9		
	MZ(S)		0.9	0.4
	MN(S)		1.8	0.3
	ME(S)		1.0	0.4
	P-S: 1m 33.4s, P-F: 2m 50s			
15	iPZX	21 39 36.4	-2.8	
	eSZX	39 51.2		
	MZ(P)		1.7	0.3
	MN(S)		4.4	0.4
	ME(S)		1.6	0.4
	P-S: 14.8s, P-F: 1m 00s			
16	iPZ	02 48 03.1	-2.2	
	iPN	03.1	+0.4	
	iPE	03.1	-0.6	
	iSE	48 11.2		
	MZ(S)		3.6	0.3
	MN(S)		8.7	0.3
	ME(S)		>5	
	P-S: 08.1s, P-F: 1m 25s			
16	ePZX	14 45 54.9		
	eSZX	46 42.5		
	MZ(S)		0.5	0.5
	MN(S)		1.0	0.5
	ME(S)		0.5	0.3
	P-S: 47.6s, P-F: 1m 20s			
16	ePZX	17 28 44.6		
	iSZX	29 07.5		
	MZ(S)		2.3	0.8
	MN(S)		4.7	0.9
	ME(S)		2.2	0.8
	P-S: 22.9s, P-F: 1m 40s			
16	ePZX	20 30 31.4		
	eSZX	31 41.0		
	eXZX	32 03		
	MZ(X)		0.9	0.6
	MN(X)		1.4	0.7
	ME(X)		0.8	0.7
	P-S: 1m 09.6s, P-F: 2m 30s			

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Date	Phase	Time(JST)	Amp. mm	Per. sec
17	ePZX	$02^h\ 06^m\ 10.3^s$		
	iSZX	06 55.5		
	MZ(S)		2.6	0.8
	MN(S)		2.5	0.7
	ME(S)		2.2	0.6
	P-S: 45.2s, P-F: 2m 10s			
17	ePZX	02 24 58.4		
	eSN	25 43.0		
	MZ(S)		>8	
	MN(S)		16.8	0.7
	P-S: 44.6s, P-F: 3m 10s			
17	ePZX	04 45 51.2		
	eSZX	47 06.8		
	MZ(S)		0.6	0.6
	MN(S)		1.0	0.5
	ME(S)		0.6	0.8
	P-S: 1m 15.6s, P-F: 3m 30s			
17	ePZX	05 57 07.3		
	eSZX	59 39.7		
	eXZX	06 00 48		
	MZ(P)		4.5	0.6
	MN(X)		6.2	1.2
	ME(X)		4.8	0.8
	P-S: 2m 32.4s, P-F: 6m 50s			
17	iPZX	07 47 54.4	-0.6	
	iSN	48 04.4		
	MZ(S)		1.6	0.5
	MN(S)		2.3	0.3
	ME(S)		2.3	0.5
	P-S: 10.0s, P-F: 1m 40s			
18	ePZX	05 58 37.3		
	eSZX	59 03.9		
	MZ(S)		0.9	0.8
	MN(S)		1.1	0.8
	ME(S)		1.2	1.0
	P-S: 26.6s, P-F: 1m 50s			
19	iPZX	04 13 09.1	+0.4	
	iSN	13 35.6		
	MZ(S)		17.6	0.6
	MN(S)		20.8	
	ME(S)		>13	
	P-S: 26.5s, P-F: 3m 25s			
19	ePZX	14 29 17.9		
	eSZX	29 45.8		
	MZ(S)		1.5	0.7
	MN(S)		3.2	0.6
	ME(S)		1.9	0.8
	P-S: 27.9s, P-F: 2m 10s			
20	iPZX	07 23 35.8	-2.2	
	iSN	23 43.1		
	MZ(S)		>15	
	MN(S)		>23	
	ME(S)		>20	
	P-S: 07.3s, P-F: 2m 00s			

Date	Phase	Time(JST)	Amp. mm	Per. sec
20	iPZX	$08^h\ 23^m\ 43.4^s$	-1.2	
	eSZX	24 12.9		
	MZ(S)		1.4	0.4
	MN(S)		2.0	0.5
	ME(S)		1.5	0.5
	P-S: 29.5s, P-F: 1m 10s			
20	ePZX	14 46 14.4		
	eXZ	46 18.1		
	eSN	46 50.7		
	MZ(S)		>20	
	MN(S)		38.8	0.9
	ME(S)		22.8	0.7
	P-S: 36.3s, P-F: 4m 20s			
21	iPZX	11 44 58.9	-3.2	
	MZ(P)		11.5	1.5
	MN(P)		7.3	2.0
	ME(P)		7.1	1.0
21	iPZX	17 13 36.9	-3.0	
	iSZ	13 49.7		
	MZ(S)		6.6	0.5
	MN(S)		>18	
	ME(S)		>8	
	P-S: 12.8s, P-F: 1m 40s			
22	ePZX	01 05 59.4		
	eSZX	08 05.5		
	eXZX	09 16		
	MZ(X)		1.4	1.1
	MN(S)		1.5	0.8
	ME(S)		1.0	1.2
	P-S: 2m 06.1s, P-F: 4m 20s			
22	ePZX	01 15 09.5		
	eSZX	17 19.6		
	MZ(P)		0.9	0.6
	MN(S)		0.9	0.7
	ME(S)		0.8	1.3
	P-S: 2m 10.1s, P-F: 4m			
22	ePZX	01 19 21.7		
	eSZX	21 15.8		
	eXZX	22 34		
	MZ(P)		0.5	0.5
	MN(X)		0.9	1.3
	ME(X)		0.6	1.6
	P-S: 1m 54.1s, P-F: 3m 10s			
22	ePZX	13 26 25.7		
	eSZX	26 49.5		
	MZ(S)		2.0	0.6
	MN(S)		4.8	0.7
	ME(S)		2.6	0.7
	P-S: 23.8s, P-F: 1m 50s			
22	iPZX	18 34 58.6	-0.4	
	eSE	35 13.5		
	MZ(S)		1.9	0.7
	MN(S)		4.1	0.5
	ME(S)		2.1	0.6
	P-S: 14.9s, P-F: 1m 35s			

Date	Phase	Time(JST)	Amp. mm	Per. sec
23	ePZX	02h 17m 58.7s		
	eSZX	18 20.5		
	MZ(S)		0.9	0.7
	MN(S)		1.7	0.4
	ME(S)		1.6	0.5
	P-S: 21.8s, P-F: 1m 15s			
23	ePZX	04 21 04.5		
	iSZX	21 26.5		
	MZ(S)		0.8	0.7
	MN(S)		1.1	0.8
	ME(S)		0.8	0.6
	P-S: 22.0s, P-F: 57s			
24	iPZX	02 21 13.4	-1.8	
	MZ(P)		0.5	0.9
	MN(P)		0.7	1.0
	ME(P)		0.4	1.0
25	ePZX	08 13 32.4		
	eSZX	15 45.7		
	MZ(P)		0.7	0.6
	MN(S)		0.6	0.6
	ME(S)		0.4	1.0
	P-S: 2m 13.3s			
25	ePZX	09 45 22.4		
	eSZX	46 15.1		
	MZ(S)		1.2	0.7
	MN(S)		1.4	0.7
	ME(S)		1.4	0.7
	P-S: 52.7s, P-F: 2m 40s			
25	ePZX	10 32 11.1		
	eSZX	39 09.8		
	eSSZX	43 42		
	eLg1ZX	44 22		
	eLr1ZX	46 08		
	eLg2ZX	50 58		
	MZ(P)		2.9	0.7
	MN(P)		2.8	1.8
	ME(P)		2.0	1.4
	P-S: 6m 58.7s			
25	iPZX	20 01 05.0	+5.0	
	iXZX	01 20.8		
	MZ(P)		4.2	1.5
	MN(P)		1.5	0.8
	ME(P)		1.5	1.0
26	iPZ	07 59 36.4	-3.8	
	iPN	36.4	+0.6	
	iPE	36.4	+0.2	
	iSN	59 42.3		
	MZ(S)		5.6	0.3
	MN(S)		11.3	0.3
	ME(S)		11.0	0.3
	P-S: 05.9s, P-F: 1m 35s			

Date	Phase	Time(JST)	Amp. mm	Per. sec
26	iPZ	22h 28m 22.5s	+4.6	
	iPN	22.5	-2.0	
	iPE	22.6	+1.0	
	iSN	28 29.2		
	MZ(S)		11.9	0.8
	MN(S)		29.0	0.8
	ME(S)		21.2	0.5
	P-S: 06.7s, P-F: 2m 25s			
26	ePZX	22 47 52.2		
	eSZX	48 16.1		
	MZ(S)		0.6	0.7
	MN(S)		0.9	0.4
	ME(S)		0.5	0.5
	P-S: 23.9s, P-F: 1m 10s			
27	iPZX	10 57 11.9	-1.0	
	iSN	57 30.3		
	MZ(S)		1.2	0.4
	MN(S)		2.4	0.5
	ME(S)		1.6	0.4
	P-S: 18.4s, P-F: 1m 05s			
27	ePZX	18 24 11.4		
	eSZX	25 01.3		
	eXZX	25 18.7		
	MZ(X)		0.7	0.7
	MN(X)		1.6	0.8
	ME(X)		0.7	0.7
	P-S: 49.9s, P-F: 1m 55s			
27	iPZX	18 37 21.8	+3.6	
	eXZX	37 59.5		
	eSZX	40 41		
	MZ(P)		6.4	1.9
	MN(P)		3.0	1.3
	ME(X)		2.5	1.7
	P-S: 3m 19s			
27	ePZX	23 08 14.0		
	eSN	08 25.6		
	MZ(S)		1.1	0.4
	MN(S)		2.8	0.4
	ME(S)		0.9	0.5
	P-S: 11.6s, P-F: 45s			
28	iPZ	01 34 32.3	-0.8	
	MZ(P)		3.0	1.8
	MN(P)		2.5	1.6
	ME(P)		1.7	1.8
28	ePZ	05 01 54.5		
	eSZ	02 02.0		
	MZ(S)		1.3	0.5
	MN(S)		2.7	0.4
	ME(S)		2.5	0.4
	P-S: 07.5s, P-F: 45s			
28	ePZ	14 29 21.1		
	eSZ	30 24.9		
	eXZ	31 28		
	MZ(S)		2.7	0.4
	MN(S)		7.0	0.4
	ME(S)		5.2	0.3
	P-S: 1m 03.8s, P-F: 3m 40s			

Date	Phase	Time(JST)	Amp. mm	Per. sec
28	ePZ	17h 15m 56.6s		
	eSZ	16 16.8		
	MZ(S)		1.0	0.7
	MN(S)		1.7	0.6
	ME(S)		1.1	0.6
	P-S: 20.2s, P-F: 1m 25s			
29	ePZ	06 46 38.9		
	eSZ	46 53.7		
	MZ(P)		1.3	0.3
	MN(S)		2.5	0.3
	ME(S)		1.1	0.5
	P-S: 14.8s, P-F: 45s			
29	iPZ	10 09 15.9	-	
	iPN	16.0	+1.8	
	iPE	16.0	+0.4	
	iSN	09 21.9		
	MZ(S)		>22	
	MNE(S)		S0	
	P-S: 05.9s, P-F: 2m 25s			
29	ePZ	15 26 19.5		
	eSZ	26 39.5		
	MZ(P)		1.5	0.4
	MN(S)		1.8	0.3
	ME(S)		1.0	0.6
	P-S: 20.0s, P-F: 1m 40s			
30	iPZX	05 41 15.4	-1.0	
	MZ(P)		0.7	1.8
	MN(P)		0.5	1.4
	ME(P)		0.4	1.9
30	iPZX	09 15 02.2	+1.4	
	MZ(P)		0.5	0.7
	MN(P)		0.4	1.3
	ME(P)		0.3	0.8

Date	Phase	Time(JST)	Amp. mm	Per. sec
30	ePZX	11h 28m 51.4s		
	eSN	29 37.3		
	MZ(S)		6.9	0.8
	MN(S)		7.6	0.6
	ME(S)		4.8	0.8
	P-S: 45.9s, P-F: 4m 20s			
30	ePZX	12 44 29.1		
	eSZX	44 53.1		
	MZ(S)		0.6	0.4
	MN(S)		0.7	0.4
	ME(S)		0.8	0.5
	P-S: 24.0s, P-F: 55s			
30	iPZX	13 42 06.7	-3.8	
	iSN	42 12.6		
	MZ(S)		2.0	0.3
	MN(S)		12.4	0.4
	ME(S)		3.9	0.3
	P-S: 05.9s, P-F: 40s			
30	ePZX	14 23 34.2		
	eSN	23 59.8		
	MZ(S)		0.9	0.6
	MN(S)		1.6	0.5
	ME(S)		1.1	0.6
	P-S: 25.6s, P-F: 1m 55s			
31	ePZX	03 24 05.5		
	eSZX	25 08.9		
	iXN	25 33.7		
	MZ(X)		0.8	0.8
	MN(X)		1.9	0.8
	ME(X)		0.9	0.6
	P-S: 1m 03.4s, P-F: 2m 35s			