

# SEISMOLOGICAL BULLETIN OF SYOWA STATION, ANTARCTICA, 1995

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## 1. Introduction

Seismic observations at Syowa Station ( $69.00^{\circ}\text{S}$ ,  $39.60^{\circ}\text{E}$ ), East Antarctica started by using short-period seismometers with a 1.0 s natural period in 1959 (Eto, 1962). Phase readings of the teleseismic events, detected from the three-component short- and long-period seismograms, have been regularly reported to US Coastal Geodetic Survey (USCGS), and to the International Seismological Center (ISC) since 1967 (Kaminuma *et al.*, 1968). A three-component broadband seismometer (STreckeisen Seismometer; STS, Streckeisen and Messegeraete, 1987) was installed in April 1989, based on the recommendation from the Working Group of Solid Earth Geophysics of Scientific Committee on Antarctic Research (SCAR). Syowa Station has also an important role in the framework of the Japanese Pacific Orient Seismic Digital Observation Network (POSEIDON) (Tsuboi, 1995). All of these observation systems were maintained by one of the authors, T. Tanaka, throughout the wintering season of JARE-36 in 1995.

## 2. Observations

### 2.1. Short- and long-periods of seismographs

Seismic observations at Syowa Station have been carried out mainly by two types of seismometers, one called HES-type with a 1.0 s natural period of the pendulum and the other called PELS-type with a 12.0 s natural period. The three-component short-period and long-period seismographs had been operated since 1961 and 1967, respectively (Kaminuma *et al.*, 1968). The current seismographic vault was constructed in March 1970 (Kaminuma and Chiba, 1973). The old type of long-period seismometer (Press-Ewing-type) was replaced by PELS in 1982. The geodetic coordinates of the seismographic vault are 69°00'31.7"S, 39°35'31.6"E and the elevation is 20 m above mean sea level. Seismic signals of the short- and long-period seismometers in the vault are transmitted by 700 m analog cables to the Earth Science Laboratory (ESL) where two sets of thermal pen-recorders have been operated for monitoring (Fig. 1). The overall frequency responses and the magnifications of the short- and long-period seismometers are shown in Fig. 2.

### 2.2. Broadband seismographs

A set of STS seismometers has wide dynamic-range of 140 dB and three outputs of different frequency characteristics. Velocity output (BRoadBand; BRB) is characterized by a flat frequency response over 0.1-360 s and is digitized at 20 Hz sampling by a 24-bit analog-to-digital (A/D) converter. The Long-Period output (LP) has a flat response to acceleration for longer periods than 20 s and is A/D converted to 7.5 digits at 3.0 s sampling intervals. The digital recording system for the BRB output started from May 1990 (Nagasaka *et al.*, 1992), and from February 1992 for the LP output (Kanao and Kaminuma, 1994), respectively. Boom-POSition (POS) output is analog-monitored, which is proportional to the offset of the null position of the pendulum.

The amplitude and phase responses for the BRB output are shown in Fig. 3 (after Streckeisen and Messergeraete, 1987). The block diagram of the recording system at Syowa Station is illustrated in Fig. 4. The system reference clock has been calibrated to the Coordinated Universal Time (UTC) from a Global Positioning System (GPS) receiver.

### **2.3. Data transmission via the satellite telecommunication system**

Transmission of the digital waveform data by a broadband seismographs from Syowa Station to the National Institute of Polar Research (NIPR) has been successfully made since 1993 via the INMARSAT telecommunication link. The UUCP protocol has been used for the file transfer. Block diagram of the off-line editing and data transmission system is illustrated in Fig. 5. In addition, *e*-mail communication started from May 1995, and phase read-out data can be sent to the National Earthquake Information Center (NEIC) in the United States Geological Survey (USGS) regularly with time delay of a week.

## **3. Data**

Since there is a delay time of 1-2 years between the publication of this report and the observing wintering period, which is inevitable since the re-supply ship visits Syowa Station only once each year, the Preliminary Determination of Epicenters (PDE) reports by NEIC are referred to and only the seismograms of teleseismic events are edited. The arrival-time data and the corresponding hypocentral data of teleseismic events are presented in this report.

### **3.1. Phase read-out data**

The phase arrival-time of the teleseismic events was detected on the short-period monitoring seismograms. Most phases were scaled on the vertical component, and for

shear waves only clear phases were scaled on the horizontal components. These phases were identified by comparing the observed travel time with the calculation one which is within 3 s difference. The most arrival times consist of *P*- and *S*- phases and are listed in Table 1. The phase *K* denotes the *PKP* phase while *X* denotes the clear phase whose wave type can be identified within 3-10 s difference by comparing the observed travel time with that from calculation. Symbols *E* and *I* in the phase column denote emergent and sharp onsets, respectively. The initial ground motion is denoted by + for upward and - for downward direction. Arrival time is given in UTC. The accuracy of the read-out data is limited to 0.2 s. The teleseismic events identified in the PDE are labeled by the serial numbers (#-xxx) in the table. These serial numbers correspond to those in Table 2. The events without serial numbers are teleseisms whose locations have not been determined by NEIC.

### 3.2. List of teleseismic events

Figure 6 shows the hypocenters of 896 teleseismic events whose initial phases were detected at Syowa Station. The list of hypocentral parameters of the teleseismic events is shown in Table 2, together with the same serial numbers as given in the remarks of Table 1. The seismograms of these events are available from the authors.

Examples of digital waveforms on the BRB outputs for the large 23 events are given in the Appendix, which are transmitted via the INMARSAT telecommunication link. The digital records of these events can be distributed upon request. The three-component seismograms are shown in the Appendix where the scale of amplitude is arbitrary. The serial number of each output is the same as given in Table 2. The beginning time of each seismogram is given at the top left of each panel.

## Data Processing Staff

The seismic observation system at Syowa Station was designed by M. Kanao, K. Kaminuma, and K. Shibuya of National Institute of Polar Research. Ms. A. Ibaraki prepared this manuscript. The authors express their thanks for their cooperation.

## References

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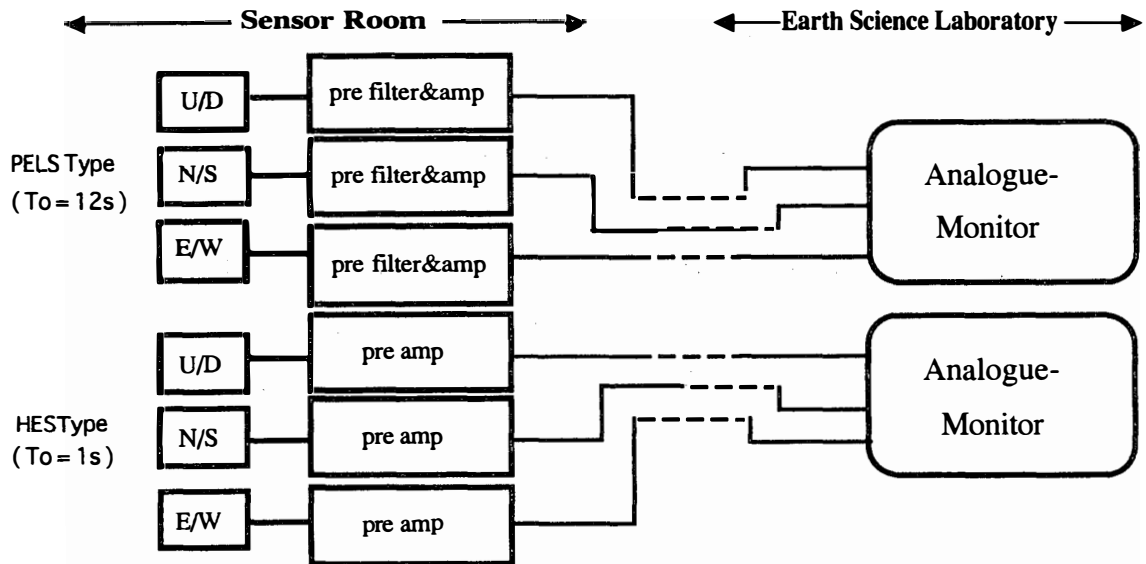


Fig. 1. Block diagram of on-line recording system for the three-component short-period (HES-type) and long-period (PELS-type) seismographs at Syowa Station.

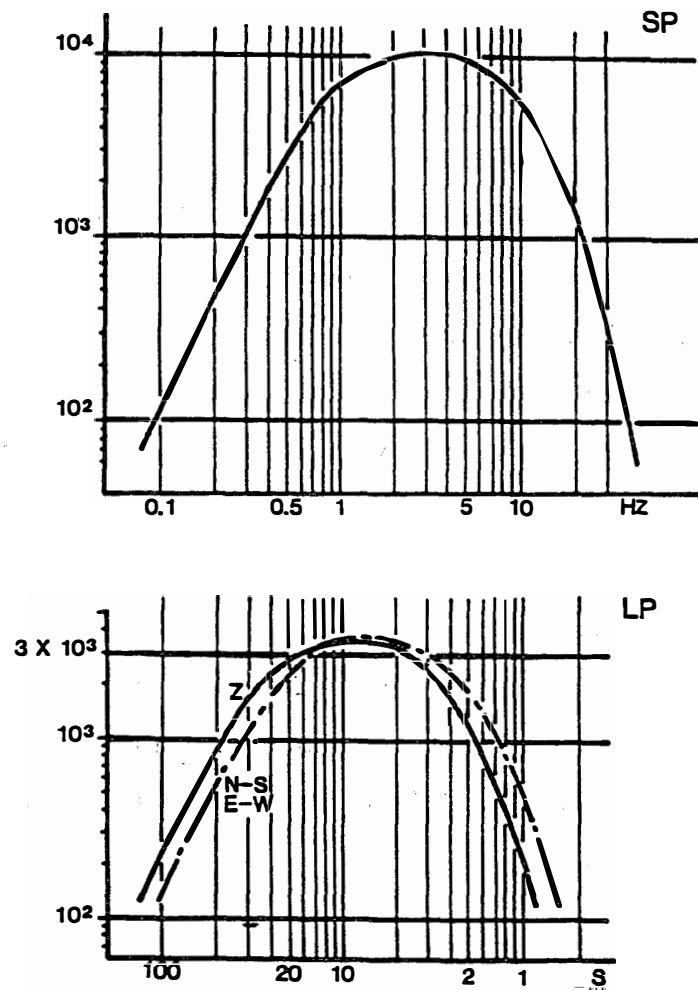
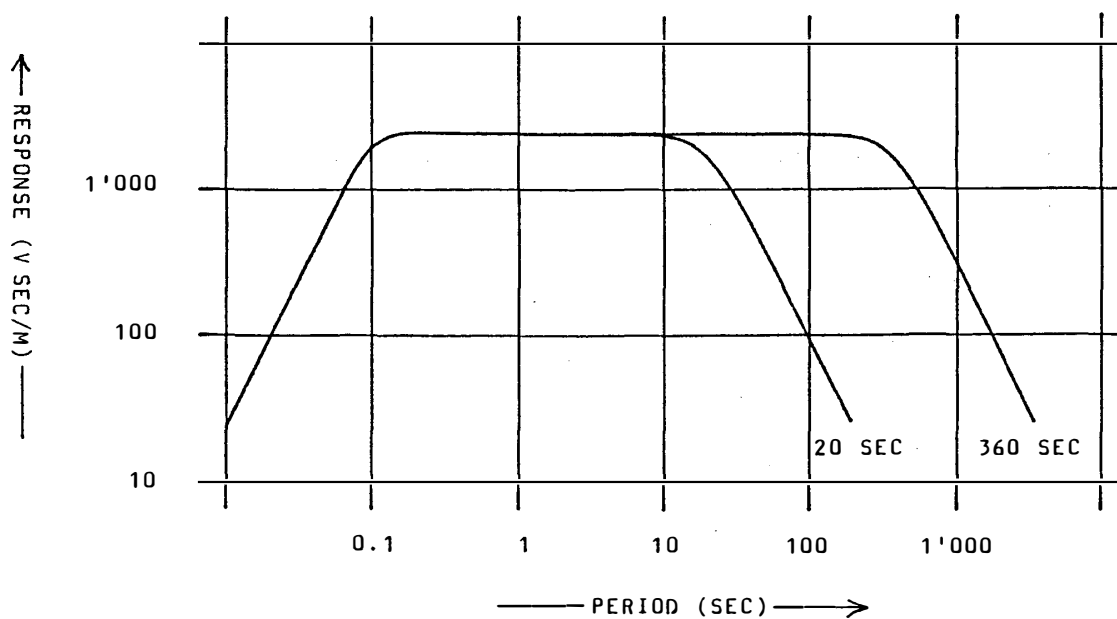


Fig. 2. Over-all frequency responses of the short- and long-period seismographs.

VELOCITY RESPONSE AT BRB OUTPUT



PHASE RESPONSE AT BRB OUTPUT

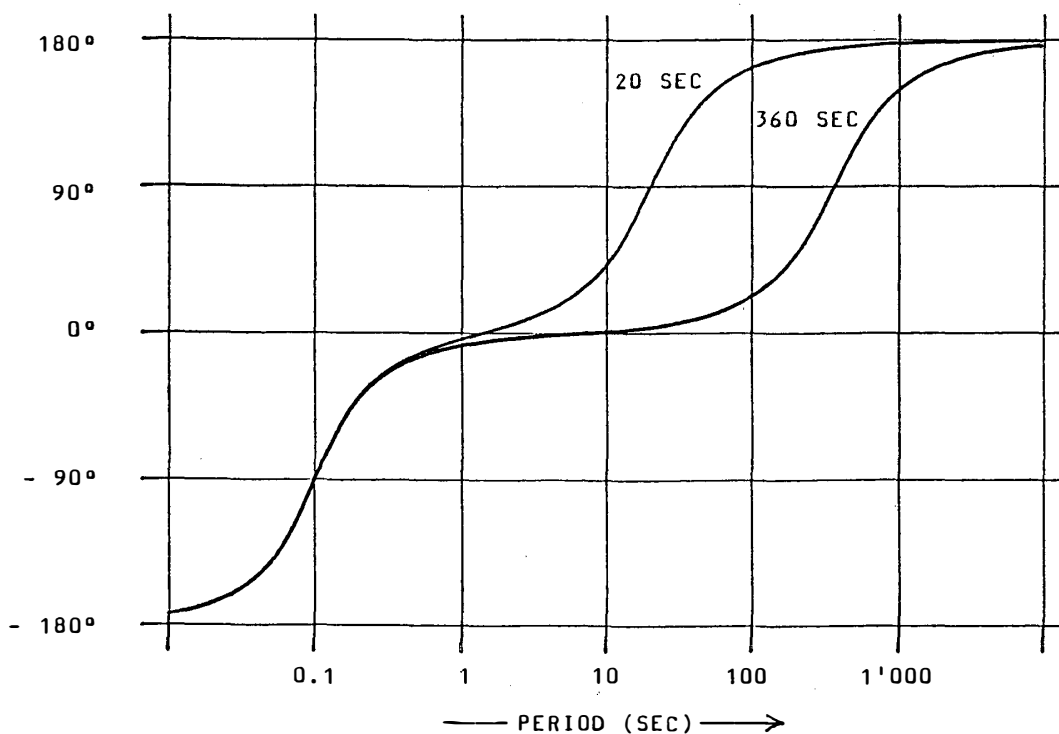


Fig. 3. Amplitude responses (upper figure) and phase responses (lower figure) for the velocity (BRB) output of the broadband seismograph (STS) in the two distinct signal modes of 20-s and 360-s (after Streckeisen and Messegeraete, 1987).

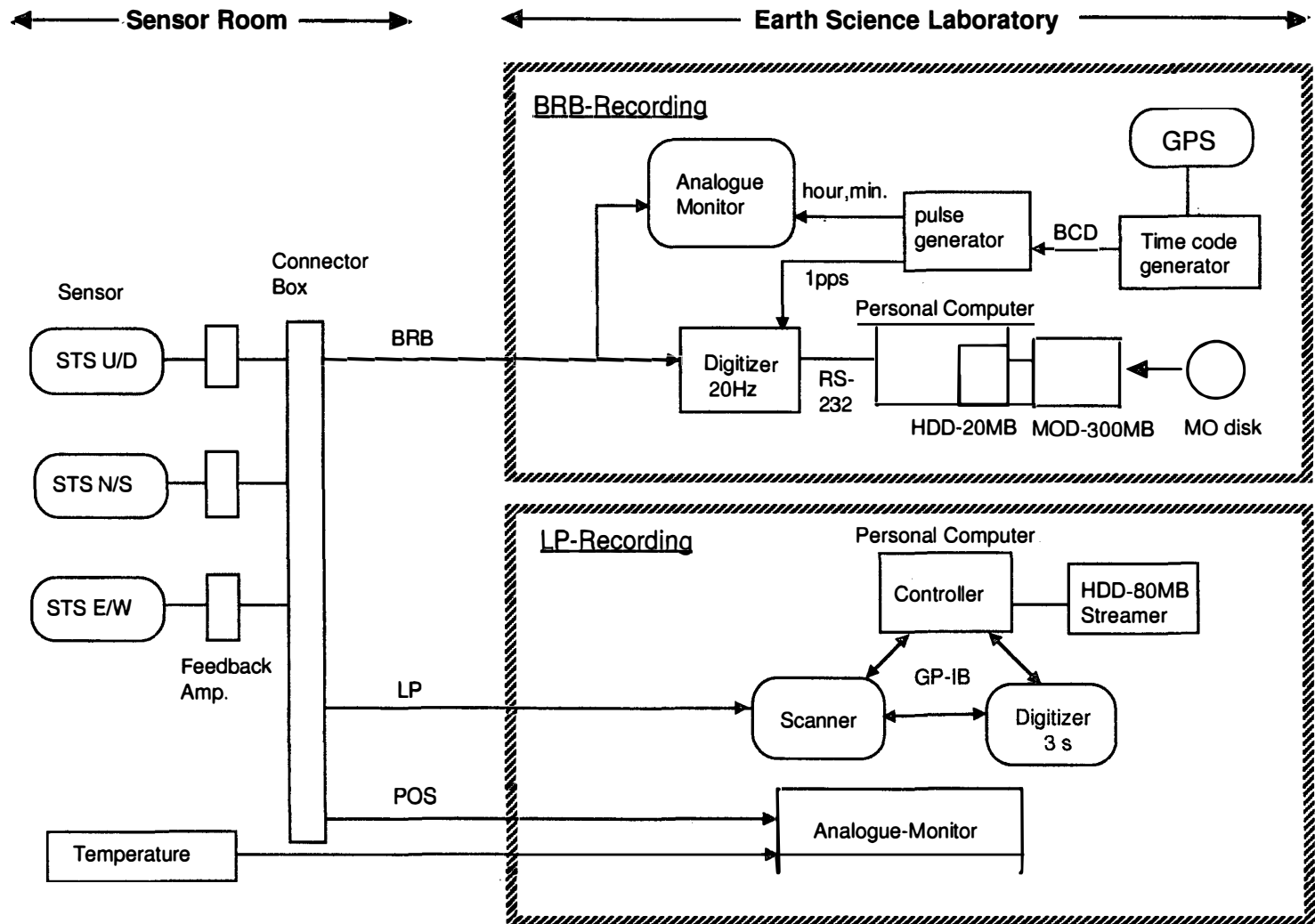


Fig. 4. Block diagram of on-line recording system for the STS seismograph at Syowa Station. Upper figure: recording system of BRB output ; Lower figure: recording system of LP and POS outputs.



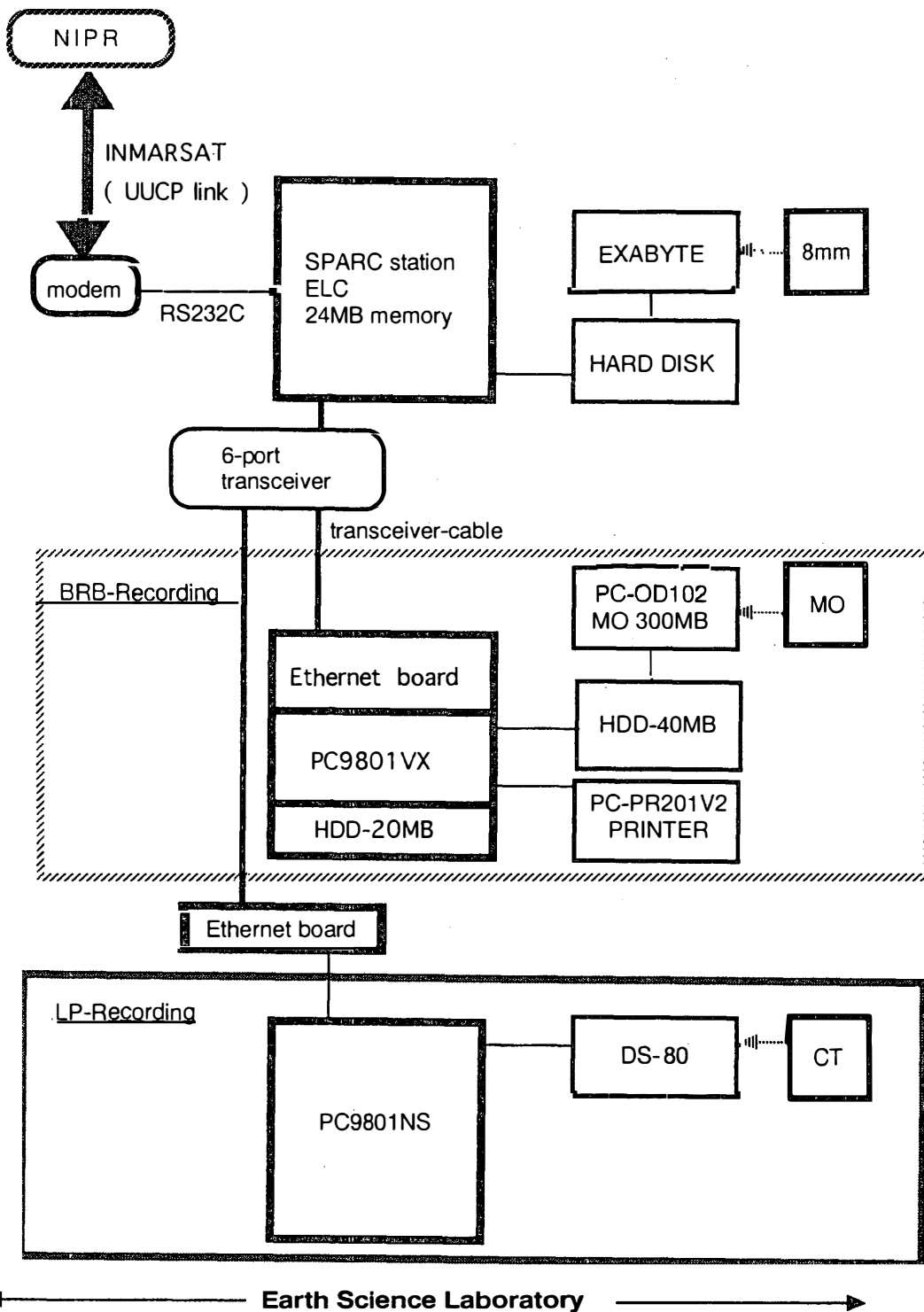


Fig. 5. Block diagram of off-line editing and data transmission system at Syowa Station. Digital data have been successfully transmitted from the Earth Science Laboratory (ESL) at Syowa Station to National Institute of Polar Research (NIPR) from 1994 via the satellite telecommunication link.

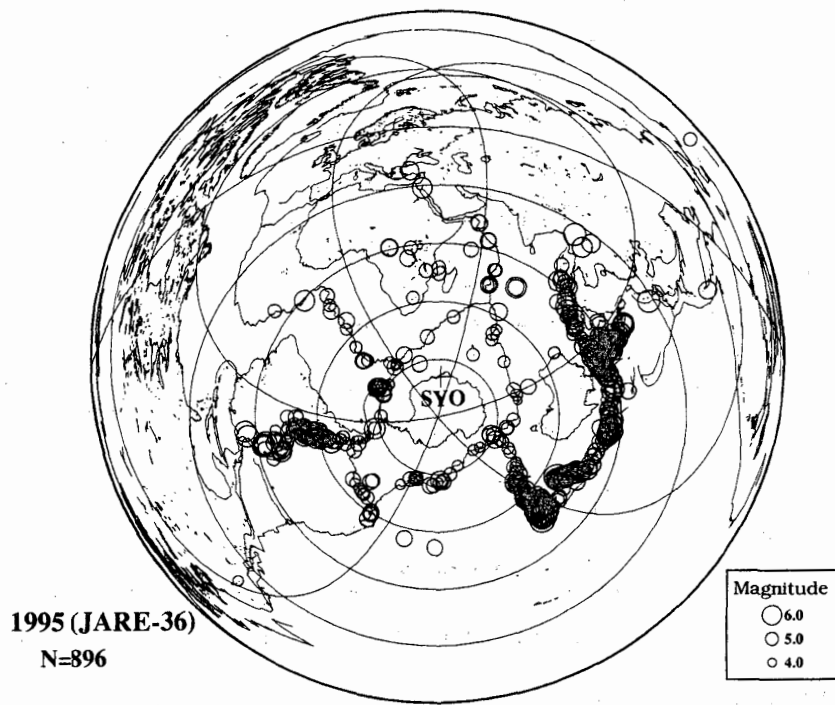
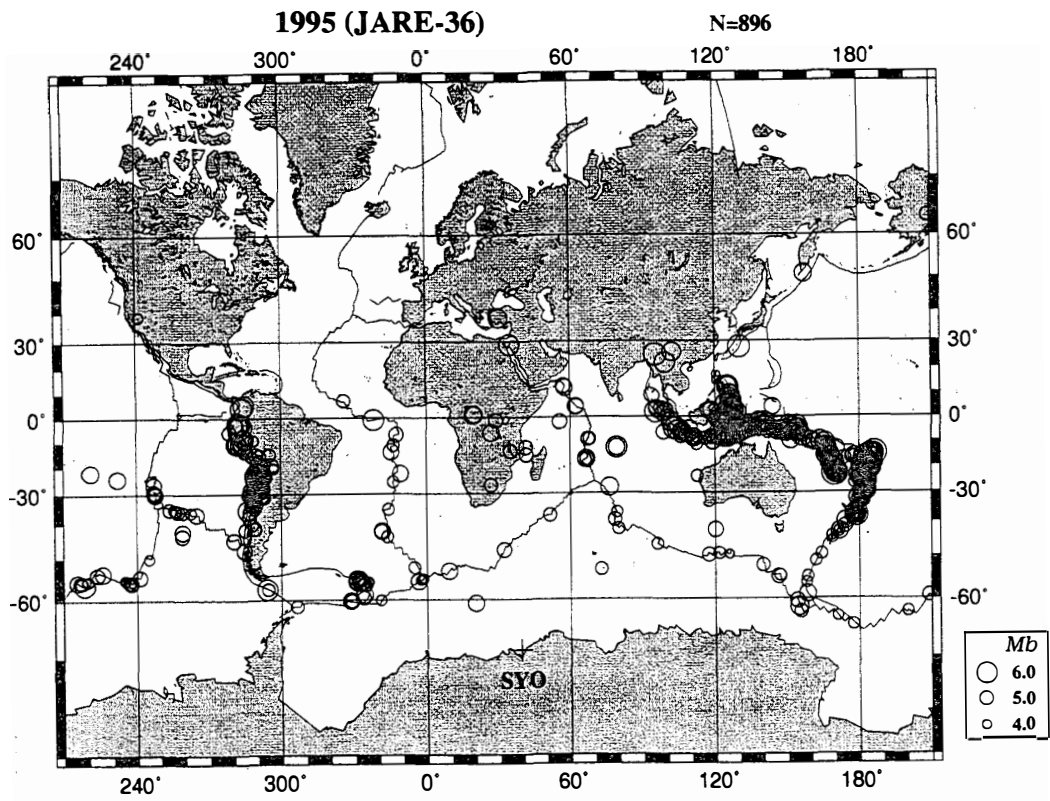


Fig. 6. Epicenters of the 896 earthquakes recorded at Syowa Station. The sizes of earthquake circles are proportional to the body-wave magnitude ( $M_b$ ) determined by National Earthquake Information Center (NEIC).

Table 1. List of phase arrival-time data.

Date	phase	time		Date	phase	time	
		h m s				h m s	
Jan. 01	-EPZ	04 16 26.2			ESH	10 08 26.6	
	+EPZ	19 29 41.0	#-1		+EPZ	15 19 05.0	#-20
	+EPZ	20 51 09.0	#-2	12	-EPZ	14 49 19.1	#-21
02	+EPZ	05 51 26.6	#-3	13	(NIL)		
03	+EPZ	03 01 06.8	#-4	14	+EPZ	01 34 30.8	
	+EPZ	07 01 05.6	#-5		-EPZ	07 01 07.4	#-22
	ESH	07 10 52.3		15	-EPZ	19 45 14.8	
	+EPZ	12 57 22.0	#-6		+EPZ	20 57 58.4	#-23
	+EPZ	16 19 53.9	#-7	16	+EPZ	00 12 34.6	#-24
	-EPZ	21 24 42.2	#-8		-EPZ	03 14 58.0	#-25
04	+EPZ	06 38 09.8	#-9		-EPZ	18 34 35.2	
05	+EPZ	17 11 54.3	#-10		-EPZ	19 02 12.3	
	+EPZ	23 42 26.0	#-11		-EPZ	21 05 48.7	
06	-EXZ	15 57 15.6	#-12		+EPZ	21 41 50.6	
	-EPZ	18 07 23.5	#-13	17	-EPZ	06 48 16.2	#-26
	-EPZ	19 08 03.2	#-14		-EPZ	17 05 47.5	#-27
	+EPZ	22 12 59.8	#-15		ESH	17 15 26.8	
	-EPZ	22 56 37.3		18	+EXZ	12 27 16.0	#-28
07	+EPZ	02 55 14.8		19	+EPZ	05 38 19.0	#-29
08	-EPZ	09 35 04.8	#-16		+IPZ	10 07 41.3	#-30
	-EXZ	13 53 24.8	#-17		ESH	10 17 40.6	
09	-EPZ	22 02 00.0	#-18		-EPZ	15 22 24.2	
10	(NIL)			20	(NIL)		
11	+EPZ	09 58 49.3	#-19	21	-EPZ	07 43 25.3	#-31

Date	phase	time	
		h m s	
	-EPZ	09 06 42.0	
	+EPZ	16 13 30.9	#-32
	ESH	16 23 33.6	
22	+EPZ	00 32 29.4	#-33
	+EXZ	04 55 38.4	#-34
23	+EPZ	10 28 28.2	#-35
24	+EPZ	18 09 12.0	#-36
	+EPZ	22 49 46.0	#-37
25	-EPZ	18 17 09.4	#-38
	-EXZ	19 12 37.8	#-39
26	+EPZ	01 25 54.7	#-40
	+EPZ	05 28 59.7	#-41
	-EPZ	20 43 24.4	
27	+EPZ	06 02 05.2	#-42
	-EPZ	18 47 53.1	#-43
	-EPZ	20 29 40.0	#-44
	ESH	20 40 25.4	
28	-EXZ	09 49 29.9	#-45
29	-EPZ	03 31 43.8	
	+EPZ	05 12 23.5	
30	(NIL)		
31	+EPZ	21 21 15.0	
	-EPZ	06 53 14.9	#-46
Feb. 01	+EPZ	14 34 19.3	#-47
02	-EPZ	12 46 46.2	#-48

Date	phase	time	
		h m s	
	-EPZ	20 03 45.4	#-49
03	-EPZ	15 45 57.2	
04	+EPZ	14 45 33.2	#-50
05	+EPZ	20 40 07.1	#-51
	-EPZ	23 02 12.5	#-52
	ESH	23 11 35.0	
	-EPZ	23 28 30.6	
	+EPZ	23 43 47.2	
	-EPZ	23 54 20.9	
06	+EPZ	00 04 30.4	
	+EPZ	00 13 50.2	
	-EPZ	00 34 00.3	
	-EPZ	01 03 22.8	#-53
	-EPZ	03 36 44.1	#-54
	+EPZ	05 30 35.9	#-55
	-EPZ	06 11 33.4	#-56
	-EPZ	06 45 23.2	
	-EXZ	07 32 38.6	#-57
	+EPZ	07 52 03.0	
	-EPZ	10 30 57.7	#-58
	-EPZ	10 55 02.5	#-59
	-EPZ	11 34 08.6	#-60
	-EPZ	15 30 34.3	#-61
	-EXZ	15 30 47.8	
	+EPZ	18 02 58.1	

Date	phase	time	
		h m s	
07	-EPZ	03 07 22.5	#-62
	+EPZ	05 30 34.4	#-63
08	-EPZ	08 30 59.2	#-64
	-EPZ	08 44 22.0	#-65
	-EXZ	08 50 24.0	#-66
	-EPZ	13 10 02.5	#-67
	+EPZ	17 31 29.4	#-68
	-EPZ	18 54 18.8	#-69
	-EXZ	18 54 21.0	
	ESH	18 58 33.0	
	EXH	19 04 47.0	
	EXH	19 05 23.0	
09	-EPZ	01 46 11.3	#-70
	ESH	01 46 11.9	
	-EPZ	02 32 44.7	#-71
	-EPZ	03 57 01.0	#-72
	+EPZ	08 25 49.1	
	+EPZ	08 36 48.0	#-73
	+EPZ	09 55 59.5	#-74
	+EPZ	10 41 08.0	
	-EXZ	10 46 09.5	#-75
	-EPZ	11 07 46.5	#-76
	+EPZ	13 05 03.3	#-77
10	-EPZ	00 43 38.4	#-78
	+EPZ	01 17 53.0	#-79

Date	phase	time	
		h m s	
	-EPZ	01 56 07.0	#-80
	-EPZ	18 16 14.9	#-81
	+EPZ	20 38 44.2	#-82
	+EPZ	22 21 00.0	#-83
	-EPZ	22 48 40.3	#-84
11	+EPZ	02 13 01.0	#-85
	-EPZ	03 09 32.2	#-86
	+EPZ	05 25 27.7	#-87
12	(NIL)		
13	+EPZ	00 22 52.2	#-88
	-EPZ	08 54 04.5	#-89
	-EPZ	12 42 43.7	#-90
	-EPZ	13 19 35.6	#-91
	-EPZ	13 32 31.2	#-92
	-EPZ	14 04 54.0	#-93
	-EPZ	14 07 26.0	#-94
	-EPZ	15 17 14.5	#-95
	ESH	15 27 40.0	
	+EXZ	15 49 18.0	#-96
	-EPZ	16 07 34.6	#-97
14	-EPZ	16 05 16.9	#-98
	ESH	16 14 38.0	
	-EPZ	21 06 55.4	
15	-EPZ	00 52 21.4	#-99
	-EPZ	01 28 00.0	#-100

Date	phase	time	
		h m s	
	+EXZ	10 49 03.0	#-101
	-EPZ	23 47 22.2	#-102
16	(NIL)		
17	(NIL)		
18	-EPZ	09 34 44.0	#-103
	+EPZ	13 47 45.9	
19	+EPZ	00 30 54.8	#-104
	-EPZ	04 23 06.0	
	+EPZ	05 05 07.0	
	+EPZ	21 10 28.8	#-105
	+EPZ	23 35 33.6	
20	-EPZ	03 07 41.0	#-106
	+EPZ	22 14 54.0	#-107
21	(NIL)		
22	-EPZ	00 17 47.0	
23	-EPZ	02 03 40.0	#-108
	+EPZ	22 04 19.6	#-109
24	-EPZ	06 35 39.0	#-110
25	+EPZ	06 21 55.0	#-111
	+EPZ	22 06 24.3	#-112
	ESH	22 16 20.0	
26	+EPZ	15 15 50.0	#-113
27	-EPZ	09 15 23.0	#-114
	+EPZ	12 40 06.0	#-115
28	-EXZ	00 34 40.8	#-116

Date	phase	time	
		h m s	
Mar. 01	+EPZ	20 24 41.4	#-117
02	-EPZ	16 14 24.3	#-118
	ESH	16 23 49.0	
	-EXZ	18 06 01.5	#-119
	-EPZ	18 50 25.0	
03	-EPZ	00 12 21.0	#-120
	+EPZ	04 53 49.0	
	-EPZ	11 59 10.0	#-121
	+EPZ	12 15 19.0	#-122
	-EPZ	12 32 31.0	
	+EPZ	21 25 49.0	#-123
	-EPZ	22 40 03.8	#-124
04	+EPZ	18 07 16.0	#-125
05	(NIL)		
06	+EPZ	07 08 25.0	
	-EPZ	15 52 49.0	
	+EPZ	18 56 32.8	#-126
	+EPZ	22 37 08.0	
07	+EPZ	08 12 03.0	
	+EPZ	11 22 13.0	#-127
	-EPZ	12 12 34.8	
	-EPZ	13 42 36.0	
	-EPZ	13 47 33.0	#-128
	-EPZ	20 23 26.2	
08	-EPZ	05 06 14.2	

Date	phase	time	
		h m s	
	-EPZ	07 22 10.6	#-129
	+EPZ	20 27 42.2	
09	-EPZ'	07 24 09.5	
10	+EPZ	07 33 23.2	#-130
11	+EPZ	05 50 08.0	#-131
	-EPZ	07 38 01.0	#-132
	+EPZ	13 37 01.0	
	-EPZ	15 10 21.0	
	-EPZ	15 40 31.0	
12	+EPZ	12 22 22.0	#-133
	ESH	12 32 54.0	
	LP+EPZ	12 22 22	
	ESH	12 32 54.0	
	+EPZ	20 12 32.2	#-134
13	-EPZ	10 44 44.7	#-135
	-EPZ	14 03 28.2	#-136
14	-EPZ	03 42 55.9	#-137
	-EPZ	08 26 19.0	#-138
	+EXZ	11 36 41.0	#-139
	+IPZ	13 07 46.2	#-140
	ISH	13 17 06.4	
	+EPZ	17 53 46.0	
15	+EPZ	10 04 30.0	#-141
	+EPZ	11 54 51.0	
16	-IPZ	04 47 05.6	#-142

Date	phase	time	
		h m s	
	-IPZ	14 47 46.4	#-143
17	+EPZ	02 31 36.7	#-144
18	-EXZ	07 37 02.4	#-145
	-EPKP	09 46 00.0	
	-EPZ	15 35 32.4	#-146
	-EPZ	17 12 46.2	#-147
19	+EPZ	10 05 08.0	#-148
	+EPZ	18 46 55.2	#-149
	-EXZ	20 04 14.8	#-150
	-EPZ	20 25 08.5	#-151
20	-EXZ	00 06 06.6	#-152
	-EPZ	04 05 44.0	#-153
	-IPZ	08 26 25.9	
	-EXZ	17 44 23.0	#-154
21	-EPZ	09 22 09.0	#-155
22	-EXZ	22 51 46.0	#-156
23	+EPZ	09 28 51.4	#-157
	+EPZ	10 22 05.7	#-158
24	+EPZ	07 23 55.4	#-159
	+EPZ	12 15 12.0	
25	-EPZ	22 57 28.4	#-160
26	+EPZ	02 22 37.0	#-161
	ESH	02 32 56.6	
27	-EPZ	22 21 38.9	
28	(NIL)		

Date	phase	time		Date	phase	time	
		h m s				h m s	
29	-EXZ	14 50 33.0	#-162		+EPZ	14 41 47.0	#-179
30	+EPZ	22 37 29.0			+EPZ	16 48 45.2	#-180
31	-EPZ	14 20 02.4			+EPZ	17 26 03.8	#-181
	-EPZ	16 52 28.5	#-163		-EPZ	17 50 53.6	#-182
Apr. 01	-EPZ	04 08 40.6			EPKP	18 03 22.0	
	-EPZ	06 09 57.5			+EPZ	18 03 22.0	
02	-EPZ	03 24 14.3			EPKKP	18 13 59.0	
03	+EPZ	15 55 26.6	#-164		EPKP	19 33 32.0	
	-EXZ	23 34 40.7	#-165		-EPZ	22 58 11.0	#-183
04	-EXZ	11 52 57.3	#-166	09	-EPZ	01 01 43.0	#-184
	-EPZ	17 34 17.1	#-167		+EPZ	06 48 45.0	#-185
05	-EPZ	00 14 47.3			+EPZ	14 51 31.0	#-186
	-EPZ	02 36 44.9	#-168		+EPZ	20 48 14.0	#-187
	-EPZ	05 51 20.6	#-169	10	-EPZ	05 09 48.0	#-188
	+EPZ	08 59 31.0	#-170		-EPZ	11 08 18.0	
06	-EPZ	01 53 54.6	#-171		-EPZ	13 04 10.0	#-189
	+EPZ	05 15 04.0	#-172		-EPZ	13 05 28.3	#-190
	+EPZ	17 12 39.0	#-173		+EPZ	23 16 27.0	#-191
07	-EPZ	16 12 47.7	#-174	11	+EPZ	10 52 06.9	#-192
	+EPZ	22 20 07.5	#-175		-EPZ	21 45 10.0	#-193
	ESH	22 30 41.6		12	(NIL)		
	ESKS	23 30 38.0		13	-EPZ	02 46 35.4	#-194
08	+EPZ	01 33 17.0	#-176		+EXZ	04 28 57.7	#-195
	-EPZ	03 38 39.0	#-177		+EPZ	05 38 54.4	
	+EPZ	06 33 47.0	#-178		-EPZ	17 32 24.3	#-196



Date	phase	time	
		h m s	
14	+EPZ	04 43 50.0	#-197
	+EPZ	13 20 46.0	#-198
	-EPZ	15 16 34.8	#-199
	-EPZ	23 19 06.0	#-200
15	(NIL)		
16	+EPZ	07 20 14.0	#-201
	+EPZ	09 11 53.4	#-202
	-EPZ	13 36 51.0	#-203
	+EXZ	17 04 47.0	
17	-EPZ	01 27 23.5	#-204
	+EPZ	08 58 45.0	#-205
	ESH	09 03 53.0	
	+EPZ	15 33 45.0	
	+EPZ	16 59 57.1	#-206
	-EPZ	23 47 19.5	
18	-EPZ	04 02 43.6	#-207
	-EXZ	16 33 20.7	#-208
	-EPZ	23 30 48.6	#-209
	+EPZ	23 36 20.0	#-210
19	-EXZ	04 28 04.9	#-211
20	+EPZ	06 07 07.8	#-212
	+EPZ	08 58 24.0	#-213
21	-EPZ	00 23 37.5	#-214
	-EXZ	00 43 56.6	#-215
	-EPZ	00 47 52.9	

Date	phase	time	
		h m s	
22	-EPZ	10 41 03.0	#-216
23	-EPZ	03 15 45.0	
	-EPZ	04 59 05.2	#-217
	+EXZ	05 21 42.0	#-218
	ESKS	05 32 23.0	
	+EXZ	06 50 38.0	#-219
24	-EPZ	21 12 18.9	#-220
25	+EPZ	06 28 03.3	#-221
	+EPZ	09 00 51.5	
26	-EPZ	04 33 14.6	#-222
27	-EPZ	02 16 04.5	#-223
	+EPZ	16 07 06.9	#-224
28	-EPZ	02 15 14.0	#-225
	-EPZ	04 56 51.3	
	-EPZ	06 06 20.8	
	+EPZ	10 12 00.0	#-226
	-EPZ	15 09 22.6	#-227
	EPKP	16 49 16.4	
	EPKP	17 28 05.0	
	-EPZ	17 55 13.6	#-228
29	-EPZ	12 02 01.0	#-229
	-EPZ	14 10 03.1	#-230
	-EPZ	16 58 04.5	#-231
30	-EPZ	03 08 32.0	#-232
	-EPZ	11 16 35.5	#-233

Date	phase	time				Date	phase	time			
		h	m	s				h	m	s	
May. 01	-EPZ	00	42	20.6	#-234		-EPZ	17	59	09.8	#-251
	EPcP	00	42	23.0			-EXZ	21	08	28.5	#-252
	EpP	00	42	31.0		07	-EPZ	09	12	36.8	#-253
	-EPZ	18	42	34.6	#-235		+EPZ	22	51	39.0	#-254
	-EPZ	20	27	27.5	#-236	08	+EPZ	03	41	34.0	#-255
02	-EPZ	06	19	20.8	#-237		-EPZ	12	19	24.0	#-256
	EPKP	12	07	02.0		09	-EPZ	12	39	47.0	#-257
03	+EPZ	00	00	42.8	#-238	10	(NIL)				
04	-EPZ	02	31	53.0	#-239	11	+EPZ	07	57	21.3	
05	-EXZ	04	07	36.0	#-240		+EPZ	22	10	58.8	#-258
	ESKS	04	18	10.0			ESH	22	20	44.8	
	LP-EPZ	04	07	36		12	-EPZ	14	03	32.4	#-259
	+EXZ	05	04	28.8	#-241		-IPZ	15	23	15.4	#-260
	+EPZ	10	20	41.9	#-242		ISH	15	32	15.3	
	-EPZ	13	13	30.9	#-243		+EPZ	18	03	31.4	#-261
	-EPZ	16	21	20.0	#-244	13	EPKiKP	09	05	42.4	
	+EXZ	17	30	50.0	#-245		EPKKP	09	16	59.0	
	+EPZ	19	05	07.0	#-246		+EPZ	16	35	50.0	#-262
	-EPZ	23	00	30.2	#-247		-IPZ	21	11	55.7	#-263
	-EPZ	23	03	54.0	#-248		ESH	21	20	58.5	
	ESKS	23	10	41.0			-EPZ	22	58	31.0	
06	-EXZ	01	07	55.4	#-249		-EPZ	23	06	06.7	#-264
	+EPZ	02	12	47.0	#-250	14	-EPZ	11	45	33.2	#-265
	EPP	02	17	01.0			ESH	11	55	38.0	
	ESKS	02	23	17.0			LP+EPZ	11	45	33	

Date	phase	time	
		h m s	
	EXZ	11 55 35.0	
	-EPZ	12 38 05.4	#-266
15	-EPZ	04 24 43.2	
	+EPZ	15 33 10.0	#-267
	ESH	15 38 09.0	
	EScP	15 39 29.0	
	-EPZ	22 38 10.0	#-268
16	-EPZ	03 53 07.0	
	+EPZ	04 45 25.5	#-269
	ESH	04 55 08.0	
	-EXZ	15 35 10.5	#-270
	-EPZ	20 24 59.0	#-271
	LP-EPZ	20 24 59	
	-EXZ	21 26 23.0	#-272
	+EPZ	21 37 56.0	#-273
	+EXZ	21 59 48.0	#-274
	+EPZ	22 38 37.0	
	-EPZ	23 36 04.0	
17	+EPZ	00 00 01.0	#-275
	-EXZ	01 05 41.8	#-276
	+EPZ	02 42 24.0	#-277
	-EPZ	02 49 02.0	
	-EPZ	03 36 57.0	#-278
	+EPZ	05 35 33.0	#-279
	+IPZ	06 35 59.8	#-280

Date	phase	time	
		h m s	
	-EPZ	11 36 04.6	#-281
	LP-EPZ	11 36 05	
	-EPZ	13 16 12.0	#-282
18	-EPZ	00 18 35.6	#-283
	LP-EPZ	00 18 35	
	ESH	00 28 35.0	
19	-EPZ	07 29 40.0	#-284
	-EPZ	09 42 54.0	#-285
	-EPZ	16 40 23.3	#-286
	+EPZ	17 21 34.2	#-287
	ESH	17 31 45.0	
	-EPZ	18 02 13.0	#-288
	EXZ	18 04 12.0	
	EXZ	18 05 56.0	#-289
	+EPZ	18 25 38.0	#-290
	+EPZ	21 42 45.0	#-291
	-EPZ	21 48 09.0	#-292
20	+EPZ	13 51 17.0	#-293
	ESH	13 56 21.7	
	EScP	13 57 42.0	
	EPKiKP	14 01 39.0	
	-EPZ	17 36 35.0	#-294
21	-EPZ	02 32 37.0	
	+EPZ	06 25 20.7	#-295
	-EPZ	07 43 46.0	#-296

Date	phase	time		Date	phase	time	
		h m s				h m s	
	+EPZ	15 58 47.0	#-297		LP-EPZ	13 23 21.0	
	-EPZ	17 02 43.5	#-298		+EPZ	14 45 11.3	#-312
22	-EPZ	03 57 20.8	#-299		+EPZ	14 47 59.0	#-313
	+EPZ	04 02 12.0	#-300		-EPZ	20 28 00.0	#-314
	-EPZ	04 15 46.7	#-301	28	-EPZ	02 22 21.8	
	-EXZ	07 11 10.3	#-301		+IPZ	02 54 01.4	#-315
23	-EPZ	07 32 22.3	#-302		-EPZ	06 04 43.0	#-316
	-EPKP	10 20 45.5			-EPZ	06 10 07.8	#-317
	-EPKP	16 08 19.8			-EPZ	10 06 39.5	#-318
	-EXZ	22 15 12.7	#-304		-EPZ	14 07 18.0	#-319
	LP+EPZ	22 15 13			-EPZ	14 17 40.1	#-320
	-EPZ	23 24 50.3	#-305		+EPZ	16 15 09.8	#-321
	-EPZ	23 36 30.7	#-306		+EPZ	20 10 21.7	#-322
	-EPZ	23 43 37.2	#-307		+EPZ	20 38 20.0	
24	-EPZ	03 33 44.6		29	-EPZ	01 10 23.8	#-323
	-EPKP	11 23 35.0			-EXZ	07 42 58.4	#-324
	+EPZ	13 14 34.0	#-308		+EPZ	10 17 07.7	#-325
25	(NIL)				-EPKP	10 40 58.8	
26	-EPZ	03 23 32.8	#-309	30	+EPZ	03 30 26.5	#-326
	+EPZ	05 31 35.2			-EPZ	09 20 31.8	#-327
	-EPZ	06 08 15.7			+EPZ	17 02 31.3	#-328
	-EPZ	13 52 02.5	#-310	31	-EPZ	00 59 37.0	#-329
27	-EPZ	07 09 30.5		Jun. 01	-EPZ	15 47 49.0	#-330
	-EPZ	07 28 20.4	#-311		-EPZ	16 09 06.9	#-331
	-EPKP	13 23 20		02	-EPZ	07 57 18.0	

Date	phase	time	
		h m s	
	-EPZ	15 58 03.6	#-332
	-EPZ	18 06 24.6	#-333
	-EPZ	19 18 12.0	#-334
03	-EPZ	15 40 48.3	#-335
	+EPZ	21 09 56.1	#-336
04	-EPZ	02 27 28.3	#-337
	-EPZ	11 25 01.0	#-338
	-EPZ	12 08 54.7	#-339
	+EPZ	12 29 47.0	#-340
05	+EPZ	07 16 42.3	#-341
06	+EXZ	03 36 02.0	#-342
07	-pPKiKP	01 13 59.4	
	-EXZ	20 11 06.5	#-343
	+EPZ	23 00 06.7	#-344
08	+EPZ	01 34 25.3	
09	+EPZ	04 45 10.9	#-345
	-IPZ	05 47 23.9	#-346
	+EPZ	11 47 54.8	#-347
	-EPZ	12 13 10.8	#-348
10	(NIL)		
11	(NIL)		
12	-EPZ	00 29 17.6	#-349
	+EPZ	03 48 51.2	#-350
	+EPZ	17 58 01.1	#-351
13	-EPKP	11 02 08.5	

Date	phase	time	
		h m s	
	-EPKP	21 54 28.0	
14	-EPZ	11 30 27.9	
	+EPZ	16 24 29.3	#-352
	ESP	16 24 49.6	
15	EPKiKP	00 34 20.0	
	-EPKP	05 51 11.2	
	-EPZ	19 04 18.6	#-353
	-EPZ	19 04 48.0	#-354
	ESH	19 05 36.0	
	ESH	19 09 48.2	
	+EXZ	19 30 02.0	#-355
16	-EPZ	09 46 55.1	#-356
	-IPZ	14 01 44.6	#-357
	ESKS	14 11 15.0	
	ESH	14 11 39.0	
17	-EPZ	01 49 19.6	#-358
	+EPZ	06 15 07.0	#-359
18	-EXZ	12 07 35.0	#-360
19	+EPZ	10 23 55.2	
20	+EPZ	18 02 25.0	#-361
21	+IPZ	15 36 39.3	#-362
	LP-IPZ	15 36 41.2	
	-EPZ	16 45 52.3	#-363
22	-EPKiKP	01 20 17.6	
	-EPZ	08 09 56.2	#-364

Date	phase	time		Date	phase	time	
		h m s				h m s	
	-EPZ	18 43 01.6	#-365		+EPZ	04 29 02.9	#-381
	-EPZ	19 59 31.7	#-366		+EPZ	05 28 10.2	#-382
	+EPZ	20 31 31.6	#-367		-EPZ	17 29 09.0	#-383
23	(NIL)				-EXZ	21 22 19.4	#-384
24	-EPZ	05 41 04.9	#-368	28	-EPZ	12 01 18.0	#-385
	-EPZ	07 10 45.5	#-369		+EPZ	21 27 38.3	#-386
	ESH	07 21 23.5			-EPZ	23 40 01.0	#-387
	LP-EPZ	07 10 46		29	+EPZ	01 37 46.3	#-388
	ESH	07 21 20.0			+EPKP	08 04 32.5	
	EXH	07 22 43.0			-EPZ	12 36 22.0	#-389
	-EPZ	17 03 48.6	#-370		ESKS	12 46 30.3	
	-EPZ	17 48 58.9	#-371		LP-EPZ	12 46 22	
25	-EPZ	02 23 56.8	#-372		ESH	12 46 30.0	
	+EPZ	05 11 31.0	#-373		-EPKP	23 21 36.0	
26	-EPZ	02 58 07.5	#-374	30	+EPZ	00 11 52.3	
	ESH	03 03 19.5			-EPZ	00 21 48.5	#-390
	-EPZ	03 48 10.0	#-375		+EPZ	08 06 25.2	
	ESH	03 53 19.5			+EPKP	12 18 13.0	
	EXZ	03 54 31.5			LP+EPZ	12 18 13	
	-EPZ	04 40 54.0	#-376		+EPKP	14 00 58.9	
	-EPZ	07 00 44.0	#-377		-EPZ	16 41 36.5	#-391
	-EPZ	10 31 01.3	#-378		-EPZ	22 10 56.8	#-392
	-EXZ	21 40 02.0	#-379	Jul. 01	+EXZ	04 23 23.9	#-393
27	+EPZ	04 15 57.2	#-380		-EPZ	09 25 38.8	#-394
	ESH	04 21 08.8			+EPZ	09 28 51.4	#-395

Date	phase	time	
		h m s	
	-EPZ	22 16 36.6	
02	+EPZ	00 04 10.0	#-396
	-EPZ	01 26 59.5	#-397
	+EPZ	11 26 28.5	#-398
	-EPZ	17 58 19.0	#-399
03	-EPKP	00 12 10.4	
	+EPZ	20 02 47.5	#-400
	ESH	20 12 37.5	
	LP+EPZ	20 02 47	
	-EPZ	21 02 10.3	#-401
	+IPZ	22 08 47.9	#-402
	ESH	22 18 38.5	
	LP+IPZ	22 08 47.8	
04	+EPZ	01 02 10.1	#-403
	-EPZ	02 48 24.5	#-404
	+EPZ	03 13 15.3	#-405
	+EPZ	04 34 21.7	#-406
	+EPZ	12 39 54.1	#-407
	-EPZ	14 29 20.1	#-408
	-EXZ	19 38 00.4	#-409
	-EPZ	21 52 19.2	#-410
	+EPZ	22 34 46.0	#-411
05	-EPZ	00 02 37.7	#-412
	-EPZ	03 23 33.1	#-413
	-EPZ	03 48 47.8	#-414

Date	phase	time	
		h m s	
	+EPZ	05 30 59.5	#-415
06	-EXZ	09 51 23.4	#-416
	+EPZ	21 53 13.5	
07	-EPZ	10 44 49.0	#-417
	LP-EPZ	10 44 49	
	+EPZ	13 35 55.2	#-418
	ESKS	13 46 05.8	
	+EPKP	21 33 38.9	
	EXZ	21 36 18.7	
	ESKS	21 40 08.0	
	EXH	21 41 48.0	
	EPKKP	21 43 26.0	
08	EPKP	06 02 04.8	
	-EPZ	07 25 16.1	#-419
	-EPZ	10 20 57.0	#-420
	+EPZ	11 50 49.6	#-421
	+EPZ	11 56 24.5	#-422
	EPKP	17 35 25.0	
09	+IPZ	00 02 10.9	#-423
	+EPZ	13 58 16.7	#-424
	-EPZ	18 00 23.4	#-425
	-EPZ	21 14 00.5	#-426
10	-EPZ	11 45 45.0	
11	-EPZ	09 52 05.6	#-427
	PKiKP	15 26 42.8	

Date	phase	time	
		h m s	
	-EPZ	22 04 29.4	#-428
12	+EPZ	09 51 04.0	#-429
	-IPZ	15 59 13.9	#-430
	LP-IPZ	15 59 13.8	
	ESH	16 09 35.5	
	+EPZ	18 52 29.8	#-431
	+EPZ	21 45 10.0	#-432
13	-EXZ	00 12 36.5	#-433
	-EPZ	15 30 44.0	#-434
14	+EPZ	04 59 26.0	
	-EPZ	06 53 27.0	#-435
	-EPZ	22 20 56.0	#-436
	ESH	22 30 27.0	
15	+EPZ	01 47 22.0	#-437
	SKS	01 57 11.0	
	+EPZ	02 55 00.0	#-438
	-EPZ	14 04 37.7	#-439
16	-EPZ	10 51 50.5	#-440
	-EPZ	23 59 38.3	#-441
17	-EPZ	03 36 31.0	#-442
	+EPZ	08 27 40.9	#-443
18	-EPZ	14 48 37.1	#-444
	-EPZ	22 20 04.7	
19	-EPZ	00 36 32.6	#-445
	-EPZ	04 06 57.0	

Date	phase	time	
		h m s	
	-EPZ	13 41 41.5	#-446
	-EPZ	21 09 36.5	#-447
20	+EPZ	00 31 56.0	
	IXZ	00 32 02.3	
	+EPZ	04 23 34.2	
	-EPZ	05 18 10.6	#-448
	-EPZ	11 04 21.8	#-449
	-EPZ	16 44 10.2	
21	+EPZ	07 50 23.8	
	+EPZ	13 40 32.8	#-450
	-EPZ	23 02 45.9	
22	+EPZ	07 00 58.1	#-451
	-EPZ	13 41 29.0	#-452
	-EPZ	22 41 16.0	#-453
23	-EPZ	10 12 14.2	#-454
	-EPZ	18 11 03.9	#-455
24	+EPZ	18 47 02.6	#-456
25	-EPZ	15 45 29.7	#-457
	+IPZ	23 59 44.8	#-458
26	+EPZ	08 06 56.0	
	-EPZ	09 21 16.2	
	+EPZ	23 55 03.9	#-459
27	ESH	00 05 29.4	
	+EPZ	06 01 38.2	#-460
	IXZ	06 05 54.1	#-461



Date	phase	time	
		h m s	
	-EPZ	12 33 09.5	#-462
	-EPZ	15 29 11.1	#-463
28	+EPZ	14 41 44.9	#-464
	LP+EPZ	14 41 45.0	
	ESH	14 52 11.6	
	-EPZ	20 45 22.0	#-465
29	-EPZ	08 14 35.9	#-466
	-EPZ	08 50 52.6	#-467
	-EPKP	16 36 47.0	
	-EPKP	18 43 01.0	
	-EPZ	22 26 50.8	#-468
30	+IPZ	05 23 01.9	#-469
	LP+IPZ	05 23 01.9	
	+EPZ	06 51 05.2	#-470
	+EPZ	07 15 57.5	
	-EPZ	07 26 05.8	#-471
	+EPZ	07 33 43.2	#-472
	-EPZ	07 44 55.4	#-473
	+EPZ	07 45 58.7	#-474
	+EPZ	08 14 05.5	#-475
	+EPZ	08 28 56.3	#-476
	-EPZ	09 09 41.0	#-477
	+EPZ	09 46 15.1	#-478
	+IPZ	10 47 18.1	#-479
	+EPZ	11 07 53.1	#-480

Date	phase	time	
		h m s	
	+EPZ	12 39 11.6	#-481
	-EPZ	12 52 51.5	#-482
	-EPZ	13 03 13.7	#-483
	+EPZ	13 10 59.7	#-484
	+EPZ	13 38 56.2	#-485
	pP of+EPZ	13 38 56.0	
	-EPZ	13 57 38.0	#-486
	-EXZ	14 20 36.8	#-487
	+EpP	14 56 34.5	
	EXZ	14 56 34.0	
	-EPZ	15 52 28.4	#-488
	+EPZ	16 30 56.8	#-489
	+EPZ	18 14 23.0	#-490
	-EPZ	18 38 12.2	#-491
	-EPZ	19 05 00.2	#-492
	+EPZ	21 17 31.3	#-493
	+EPZ	22 39 35.5	#-494
	EpP	22 39 46.0	
	+EPZ	23 26 17.2	#-495
	-EPZ	23 33 37.4	#-496
31	+EPZ	00 26 24.0	#-497
	EpP	00 26 34.0	
	+EPZ	02 18 55.6	#-498
	-EPZ	06 20 15.2	#-499
	-EPZ	06 59 06.8	#-500

Date	phase	time	
		h m s	
	-EPZ	08 31 57.3	#-501
	-EPZ	09 01 24.2	#-502
	IpP	09 01 40.9	
	+EPZ	09 11 27.3	#-503
	+EPZ	20 27 27.0	#-504
AUG. 01	+EPZ	02 56 28.2	#-505
	EpP	02 56 38.0	
	+EPZ	03 32 42.0	#-506
	-EPZ	04 40 32.3	#-507
	ESH	04 49 46.3	
	+EPZ	05 22 31.0	#-508
	+EXZ	06 12 15.0	#-509
	-EPZ	09 38 22.6	#-510
	+EPZ	12 48 59.2	#-511
	+EPZ	13 40 34.0	#-512
	+EPZ	15 56 07.7	#-513
	+EPZ	22 03 25.6	#-514
02	+EPZ	00 25 52.4	#-515
	-EPZ	02 16 21.3	
	-EPZ	05 34 05.1	#-516
	+EPZ	11 17 20.6	#-517
	+EPZ	16 39 13.3	#-518
	+EPZ	18 51 20.8	#-519
	-EPZ	20 31 56.9	#-520
	-EPZ	21 51 06.2	#-521

Date	phase	time	
		h m s	
	03	+EPKP	01 36 31.5
		EpPKP	01 36 41.0
	+EPZ	02 09 02.0	#-522
	+EPZ	02 42 21.6	#-522
	+EPZ	04 54 47.2	#-524
	-IPZ	08 29 56.8	#-525
	EP'P'	08 57 53.7	
	+EPZ	12 12 11.4	#-526
	-EPZ	14 00 03.6	#-527
	-EPZ	14 30 47.5	#-528
	-EPZ	19 19 23.4	#-529
	-EPZ	20 02 15.6	#-530
04	+EPZ	06 50 10.0	#-531
	EPKP	13 50 27.0	
05	+EPZ	00 44 29.5	#-532
	-EPZ	01 50 35.2	#-533
	+EPZ	02 01 56.6	#-534
	+EPZ	08 32 48.2	#-535
	-EPZ	19 55 45.1	#-536
	+EPZ	22 51 38.3	#-537
06	EPKP	12 18 48.8	
	-EPZ	19 28 05.3	#-538
	+EPZ	22 50 14.5	#-539
07	+EPZ	05 37 00.0	#-540
	-EPZ	08 17 59.4	#-541

Date	phase	time	
		h m s	
	-EXZ	19 58 10.0	#-542
	-EPZ	21 49 30.0	#-543
08	-EPZ	04 44 13.8	#-544
	-EPZ	15 45 00.5	
	-EPZ	16 44 31.2	#-545
09	+EPZ	07 28 41.5	#-546
	+EPZ	07 32 11.5	#-547
	+EPZ	08 34 41.7	#-548
10	-EPZ	00 50 26.7	#-549
	-EPZ	11 58 31.4	#-550
	+EPZ	18 22 16.9	#-551
	-EPZ	22 58 51.9	#-552
11	-EPZ	09 31 38.7	#-553
	-IPZ	10 25 59.5	#-554
	-EXZ	10 28 44.3	#-555
	ESH	10 35 14.4	
12	-EXZ	03 52 12.2	#-556
13	-EPZ	11 05 01.6	#-557
14	-EPZ	04 33 48.7	#-558
	+EPZ	04 50 18.3	#-559
	ESKS	05 00 36.6	
	ESH	05 01 08.6	
	LP+EPZ	04 50 16	
	EXZ	04 50 50.0	
	ESH	05 01 07.0	

Date	phase	time	
		h m s	
	15	(NIL)	
	16	-IPZ 01 34 08.2	#-560
		ESH 01 43 39.3	
		LP-IPZ 01 34 08.2	
		ESH 01 43 39.8	
		-EPZ 08 29 20.0	#-561
		+EPZ 10 40 40.4	#-562
		ESH 10 51 42.2	
		-EPZ 11 34 20.5	#-563
		ESH 11 45 55.0	
		-EPZ 14 18 57.8	#-564
		-EPZ 15 14 54.8	#-565
		ESH 15 23 50.6	
		+IPZ 15 42 04.3	#-566
		+EPZ 16 37 41.7	#-567
		ESH 16 48 46.8	
		LP+EPZ 16 37 41	
		-EPZ 21 36 46.8	#-568
		+EPZ 23 23 35.7	#-569
		+EPZ 23 43 25.6	#-570
		ESH 23 53 26.0	
	17	+EPZ 00 03 04.8	#-571
		-EPZ 00 10 26.7	
		-EPZ 00 29 03.5	#-572
		ESH 00 39 34.6	

Date	phase	time	
		h m s	
	+EPZ	01 18 42.8	
	-EPZ	02 13 11.3	#-573
	+EPZ	05 47 53.5	#-574
	-EPZ	10 14 41.8	#-575
	-EPZ	12 45 06.0	#-576
	-EPZ	14 45 16.7	#-577
	+EPZ	18 16 16.6	#-578
	-EXZ	18 23 10.9	#-579
	-EPZ	19 06 15.4	#-580
	+EPZ	22 59 33.7	
18	+EXZ	02 22 53.9	#-581
	LP+EPZ	02 22 53	
	+EPZ	19 57 40.7	#-582
19	-EPZ	06 09 37.4	#-583
	-EPZ	18 35 51.5	#-584
	+EPZ	21 41 30.0	#-585
	+EPZ	21 57 19.5	#-586
	EXZ	22 01 18.5	
	ESKS	22 07 46.0	
20	+EPZ	01 32 19.0	#-587
	+EPZ	03 20 48.2	#-588
	+EPZ	08 47 54.7	#-589
21	-EPZ	06 53 06.2	#-590
22	+EPZ	22 23 56.6	#-591
	ESH	22 33 50.0	

Date	phase	time	
		h m s	
23	-EPZ	07 19 44.6	
	ESH	07 30 21.4	
	LP-EPZ	07 19 45.0	
	PKKP of+EPZ	07 19 46.0	
	-EPZ	08 15 08.0	
	-EPZ	13 24 11.9	#-592
	LP-EPZ	13 24 11	
	sPKiKP	13 31 52.8	
24	PKP	02 13 05.7	
	SKS	02 18 54.3	
	PKKP	02 23 54.1	
	+EPKP	06 46 22.4	
	PKP	08 12 57.6	
25	+EPZ	12 00 36.4	#-593
	+EPZ	14 37 13.5	#-594
	ESH	14 47 45.4	
	+EPZ	17 04 17.3	#-595
	ESH	17 14 43.5	
26	+EPZ	01 28 30.0	#-596
	-EPZ	07 10 27.7	#-597
	+EPZ	11 06 10.8	#-598
	+EPZ	11 56 40.8	#-599
	-EPZ	17 24 06.0	#-600
	-EPZ	17 29 01.7	#-601
27	-EPZ	00 42 32.4	#-602

Date	phase	time	
		h m s	
	+EPZ	11 45 40.5	
	-EPZ	17 55 49.4	#-603
	LP+EPZ	17 55 49	
28	-EPZ	11 05 27.5	
	-EPZ	15 48 00.4	#-604
29	-EXZ	00 51 30.0	#-605
	EPZ	00 52 20.0	
	+EPZ	07 32 47.5	
	LP+EPZ	07 32 47	
	+EPZ	09 04 15.5	#-606
	ESH	09 14 50.9	
	-EPZ	13 19 44.5	#-607
	-EPZ	20 27 41.3	#-608
	-EPZ	23 02 55.0	#-609
	EXZ	23 06 06.4	
30	-EXZ	02 58 40.9	#-610
	ESP	02 58 51.0	
	-EXZ	20 48 06.3	#-611
	-EPZ	23 16 58.5	#-612
31	+EPZ	10 50 41.5	#-613
	-EPZ	13 47 11.4	#-614
	-EPZ	16 00 41.2	#-615
	+EPZ	17 23 22.7	#-616
	LP+EPZ	17 23 21	
	ESH	17 34 02.5	

Date	phase	time	
		h m s	
	-EPZ	20 52 27.1	#-617
SEP. 01	-EPZ	05 30 33.0	#-618
	+EPZ	06 43 09.0	#-619
	ESH	06 53 37.0	
02	(NIL)		
03	-EPZ	07 43 53.2	#-620
	-EPZ	23 28 46.5	
04	-EPZ	01 52 29.0	#-621
	+EPZ	04 32 30.0	#-622
	+EPZ	07 33 43.2	#-623
	-EPZ	14 35 57.4	
05	-EXZ	01 20 32.0	#-624
06	-EPZ	08 40 39.7	#-625
	+EPZ	10 11 55.2	#-626
	-EPZ	19 17 50.0	#-627
	+EPZ	19 38 14.1	#-628
	-EPZ	22 19 40.3	#-629
07	PKP	02 46 46.4	
	-EPZ	05 22 20.2	#-630
	+EPZ	13 06 32.6	#-631
	+EPZ	13 51 40.4	#-632
08	+EPZ	00 37 17.8	#-633
	-EPZ	01 24 58.0	#-634
	ESH	01 32 44.0	
	LP-EPZ	01 24 58	

Date	phase	time	
		h m s	
	-EPZ	16 14 02.0	#-635
09	+EPZ	00 41 13.5	#-636
	PKP	12 27 37.2	
	-EPZ	13 42 14.8	#-637
	+EPZ	20 02 33.5	#-638
	-EPZ	21 10 28.6	#-639
	ESH	21 20 18.3	
	LP-EPZ	21 10 30	
	+EPZ	23 54 11.0	#-640
10	+EPZ	02 53 34.8	#-641
	+EPZ	04 25 02.0	#-642
	-EPZ	06 28 48.5	#-643
11	-EPZ	00 01 20.0	#-644
	+EPZ	10 38 15.8	#-645
	-EPZ	11 05 46.5	#-646
	PKP	12 00 16.9	
	+EPZ	12 34 13.7	#-647
12	-EPZ	05 12 08.3	#-648
	-EPZ	08 52 23.4	#-649
	+EPZ	12 56 15.7	#-650
	ESH	13 05 53.5	
	+IPZ	14 35 07.5	#-651
	ESH	14 44 44.5	
	+EPZ	20 13 53.8	#-652
13	-EPZ	01 28 51.6	#-653

Date	phase	time	
		h m s	
	+EPZ	12 18 37.1	#-654
14	-EPZ	12 36 33.5	#-655
	ESH	12 46 09.5	
	pPKP	14 23 27.9	
15	+EPZ	05 00 27.7	#-656
	PKiKP	21 13 02.2	
16	-EPZ	01 16 33.7	#-657
	ESH	01 27 22.0	
	-IPZ	03 52 24.4	#-658
	-EXZ	19 38 18.0	#-659
17	-EPZ	07 36 08.0	#-660
	+EPZ	10 14 17.5	#-661
	-EPZ	17 18 50.4	#-662
	LP-EPZ	17 18 50	
	-EPZ	19 35 47.7	#-663
	-EPZ	23 24 06.4	#-664
18	LP-EPZ	07 08 39	
	-EPZ	17 25 26.4	#-665
	LP-EPZ	17 25 25	
	+EPZ	20 33 52.0	#-666
	ESKS	20 43 19.5	
	ESH	20 43 34.0	
	+EPZ	23 11 57.1	
19	+EPZ	00 58 56.3	#-667
	-EPZ	03 43 32.9	#-668

Date	phase	time
		h m s
	ESH	03 53 29.1
	-IPZ	07 37 21.4 #-669
	-EPZ	23 02 49.5 #-670
20	-EPZ	07 02 16.4 #-671
	-EPZ	14 45 29.5 #-672
	-EPZ	22 29 36.8 #-673
	PKP	23 47 11.4
21	+EPZ	05 30 03.6 #-674
22	-EXZ	01 44 04.5 #-675
	EpPKP	03 42 44.0
	-EPZ	05 52 28.3 #-676
	LP-EPZ	05 52 29
	ESH	06 03 19.8
	+EPZ	09 03 11.5 #-677
	EPKP	15 07 02.8 #-678
	+EPZ	20 18 40.2 #-679
23	LP+EPZ	02 47 13.0
	-EPZ	16 17 32.0 #-680
	LP-EPZ	16 17 32
	ESH	16 27 08.7
	+EPZ	21 08 48.1 #-681
	-EPZ	22 44 48.0 #-682
	LP-EPZ	22 44 48
	SKS	22 55 11
24	-EPZ	01 30 44.4 #-683

Date	phase	time
		h m s
	-EXZ	08 59 13.4 #-684
	-EPZ	14 10 27.3 #-685
	PKP	17 09 19.0
	+EPZ	20 32 18.3 #-686
25	+EPZ	01 22 57.6 #-687
	+EPZ	09 26 05.0 #-688
	ESH	09 36 30.5
	+EPZ	17 16 11.3 #-689
	-EPZ	21 46 29.9 #-690
26	-EPZ	00 43 14.1 #-691
	+EPZ	06 48 24.3 #-692
	-EPZ	17 03 46.9 #-693
	SKS	18 08 15.8
	+EPZ	18 36 52.6 #-694
	+EXZ	18 44 28.3 #-695
	-EXZ	19 54 24.5 #-696
	+EPZ	22 44 36.5 #-697
	ESH	22 54 33.3
27	+EPZ	01 40 25.5 #-698
	EXZ	01 40 44
	+EPZ	02 18 06.3 #-699
	-EPZ	08 34 30.4 #-700
28	-EXZ	06 49 29.2 #-701
29	-EPZ	04 22 08.0 #-702
	+EPZ	06 17 56.5 #-703

Date	phase	time
		h m s
	+EPZ	06 25 47.3
	+EPZ	13 35 36.2 #-704
	-EPZ	13 44 02.5 #-705
30	-EPZ	08 42 02.0 #-706
	PKP	11 07 31.5 #-707
	LP+EPZ	11 07 31
	-EPZ	13 28 24.4 #-708
OCT. 01	-EPZ	13 01 08.8 #-709
	-EXZ	16 16 02.3 #-710
	-EPZ	16 50 29.5 #-711
	-EPZ	17 24 03.8
	ESP KP	17 26 57.0
	-EXZ	18 38 14.0 #-712
02	(NIL)	
03	-EPZ	00 01 33.8 #-713
	+EPZ	02 04 54.2 #-714
	LP+EPZ	02 04 54
	-EPZ	02 59 48.8 #-715
	+EPZ	08 57 38.3
	-EPZ	11 03 49.1 #-716
	+EPZ	12 58 30.0 #-717
	ESH	13 09 06.0
	LP+EPZ	12 58 30
	+EPZ	16 19 19.2 #-718
	LP+EPZ	16 19 19

Date	phase	time
		h m s
	ESH	16 28 22.0
	-EPZ	18 51 21.5 #-719
	pP	23 41 31.1 #-720
04	-EPZ	01 44 01.0 #-721
	-EPZ	02 07 02.3 #-722
	PKP	09 37 10.5
	-EPZ	12 46 07.3 #-723
	PKP	15 32 27.2
	EXZ	15 39 41.0 #-724
	-EPZ	16 21 38.6 #-725
05	-EPZ	09 34 35.7 #-726
	-EPZ	19 22 56.9 #-727
06	PKP	05 45 03.4
	-EPZ	11 52 01.6 #-728
	LP-EPZ	11 52 01
	ESH	12 02 23.2
	PKP	13 02 40.2
	+EPZ	18 21 45.7 #-729
	LP-EPZ	18 21 44
	-EPZ	18 48 25.8 #-730
	+IPZ	23 45 41.5 #-731
07	-EPZ	00 08 08.8 #-732
	+EPZ	03 44 39.7 #-733
	-EPZ	21 41 35.5 #-734
08	-EPZ	05 27 30.4 #-735



Date	phase	time	
		h m s	
	+EPZ	09 14 21.3	
	-EPZ	22 33 58.4	#-736
09	-EPZ	08 00 21.4	#-737
	-EPZ	09 28 35.1	
	-EPZ	13 55 54.3	#-738
	ESH	14 06 03.0	
	LP+EPZ	13 55 54	
	PKP	15 54 52.9	
	LP+EPZ	15 54 48	
10	(NIL)		
11	-EPZ	19 58 58.4	#-739
	sP	19 59 12.6	
12	+EPZ	02 46 47.3	#-740
	IXZ	02 46 50.9	
	-EXZ	12 31 48.3	#-741
	-EPZ	16 15 29.8	#-742
	+EPZ	23 08 52.0	#-743
	-EPZ	23 52 16.1	
13	-EPZ	15 30 41.0	#-744
	ESH	15 37 31.5	
14	-EPZ	08 12 08.4	
	ESH	08 22 51.0	
	LP+IPZ	08 12 53.4	
	-EPZ	20 58 09.5	#-745
15	+EPZ	06 45 35.8	#-746

Date	phase	time	
		h m s	
	+EPZ	15 17 20.0	#-747
16	-EPZ	01 17 39.9	#-748
	+IPZ	16 48 01.0	#-749
	+EPZ	16 56 02.3	#-750
	-EPZ	17 17 13.3	#-751
	+EPZ	17 38 38.3	#-752
17	-EPZ	14 41 41.9	
	-EPZ	17 33 16.9	#-753
18	PKiKP	09 48 38.9	
	SKS	09 56 33.5	
	PP	09 49 04	
	-EXZ	09 50 16	
	+EPKP	10 56 07.0	
	LP-EPZ	10 56 07	
	EPP	10 57 21	#-754
	PKKP of+EPKP	10 56 07	
	+EPKP	23 44 39.9	
19	PKP	00 50 51	
	PKKP of+EPKP	01 01 24.4	
	-EPKP	03 00 17.0	
	PKKPbc of-EPKP	03 00 17	
	EXZ	03 10 50.3	
	+EPZ	10 28 55.1	
	LP+EPZ	10 28 55	
20	+EPZ	01 12 52.6	#-755

Date	phase	time		Date	phase	time	
		h m s				h m s	
	SKPbc	08 10 14.9		26	+EPZ	00 34 48.0	#-770
	PKiKP	19 39 44.8			+IPZ	13 55 59.2	#-771
21	-IPZ	00 13 35.7	#-756		ESH	14 05 31.9	
	+EPZ	00 42 24.6	#-757		-EPZ	14 41 30.5	#-772
	-IPZ	01 58 01.0	#-758		ESH	14 51 15.8	
	ESH	02 07 03.4		27	-IPZ	00 07 23.8	#-773
	+EPKP	02 57 30.0			+EPZ	09 06 14.2	#-774
PKKP of	+EPKP	02 57 30			-EPZ	22 12 58.0	#-775
	+EPZ	19 06 01.8	#-759	28	+EPZ	14 51 28.7	#-776
22	+EPZ	09 38 04.5	#-760		-EPZ	14 51 43.7	
	+EPZ	20 06 17.2	#-761		-EXZ	17 50 15.4	#-777
23	+IPZ	04 10 42.2	#-762		+EPZ	18 17 08.7	#-778
	LP+IPZ	04 10 42.2			-EPZ	19 32 49.2	#-779
	ESH	04 21 13.3		29	+EPZ	18 42 45.0	#-780
	-IPZ	11 44 24.4	#-763		+IPZ	18 57 17.2	#-781
	-EXZ	23 05 20.7	#-764		+EPZ	19 08 33.6	#-782
24	-EPZ	22 52 45.3	#-765		+EPZ	19 37 24.5	#-783
	EXZ	22 52 53.0			+IPZ	19 52 31.0	#-784
	-EPZ	23 48 42.2	#-766		ESKS	20 01 54.9	
25	-EPZ	02 32 17.3	#-767		ESH	20 02 07.7	
	-EPZ	05 34 44.2	#-768		LP+IPZ	19 52 31	
	+IPZ	11 44 01.0			ESH	20 02 07	
	-EPZ	13 58 25.8	#-769	30	+EPZ	00 14 42.2	
	ESH	14 07 42.6			-EPZ	03 31 15.0	#-785
	-EPZ	22 14 05.5			PKP	20 45 18.5	

Date	phase	time	
		h m s	
31	-EPZ	00 23 08.5	#-786
	-EPZ	02 07 08.2	#-787
	+EPZ	02 35 12.5	
	+EPZ	06 32 18.1	#-788
NOV. 01	+EPZ	00 46 44.5	#-789
	ESH	00 55 55.8	
	P'P'	01 14 39.4	
	LP+EPZ	00 46 43	
	ESH	00 55 55	
	-EPZ	01 23 21.7	#-790
	+EXZ	09 54 24.4	
02	-EXZ	05 51 58.8	#-791
	-EPZ	16 21 46.0	#-792
	-EPZ	18 31 24.6	#-793
	+EPZ	22 26 06.7	#-794
	SKS	22 36 14.3	
03	+EPZ	12 49 28.4	#-795
04	-EPZ	12 07 21.6	#-796
05	-EPZ	01 51 51.0	#-797
	PnPn	01 52 54	
	-EPZ	02 22 53.7	#-798
	-EPZ	09 37 52.5	#-799
	+EPZ	11 17 06.8	#-800
	-EPZ	12 02 10.4	#-801
	+EPZ	15 46 44.4	#-802

Date	phase	time	
		h m s	
	-IPZ	16 41 43.7	#-803
	LP-IPZ	16 41 43.6	
	ESH	16 51 21.0	
06	-EPZ	02 30 39.5	#-804
	+EPZ	03 49 50.7	#-805
	-EPZ	04 02 55.7	#-806
	-EPZ	04 38 15.0	#-807
	-EPZ	08 15 17.2	#-808
	-EPZ	15 18 36.6	#-809
	-EPZ	17 02 12.7	#-810
	-EXZ	20 39 23.5	#-811
07	SP	01 25 21.5	
	-IPZ	13 28 49.2	#-812
	+IPZ	14 07 59.5	#-813
	-EPZ	14 53 29.2	#-814
	+EPZ	16 20 48.3	#-815
	-EPZ	23 48 55.6	
08	-EPZ	07 26 26.8	#-816
	ESH	07 36 32.8	
	LP-EPZ	07 26 27	
	+EPZ	08 32 07.8	#-817
	-EPZ	16 14 09.5	#-818
	ESH	16 24 36.4	
	-EPZ	19 54 55.0	#-819
09	+EPZ	18 41 24.9	#-820

Date	phase	time	
		h m s	
	-EPZ	20 06	27.7 #-821
10	+EPZ	01 27	53.0 #-822
	-EPZ	17 39	27.0 #-823
	-EPZ	18 33	47.8 #-824
11	-EPZ	04 18	46.5 #-825
12	-EPZ	22 11	03.8 #-826
13	+EPZ	02 30	59.6 #-827
	LP+EPZ	02 31	00
	-EPZ	03 42	49.6 #-828
	-EPZ	07 51	51.6
	SKS	08 02	29
	-EPZ	07 51	57.6 #-829
	SKS	08 02	28.4
	PKP	09 02	34
	+EPZ	22 11	35.3 #-830
14	+EPZ	04 14	50.8 #-831
	-EPZ	15 31	31.5
	-EPZ	21 41	47.0 #-832
15	+EPZ	10 02	56.6 #-833
	+EPZ	10 37	44.5 #-834
16	-EPZ	07 42	52.3 #-835
	-EXZ	09 12	05.2 #-836
	-EPZ	09 37	49.5 #-837
	+IPZ	14 19	11.5 #-838
	-EPZ	18 03	14.0

Date	phase	time	
		h m s	
17	-EPZ	02 50	42.8 #-839
	-EPZ	15 51	48.8 #-840
	PKP	23 24	12.2
18	(NIL)		
19	pPKP	22 55	48.0
	PKP	23 24	12
20	+EPZ	01 05	07.7 #-841
	+EPZ	18 19	40.6 #-842
21	+EPZ	18 27	50.9 #-843
	-EPZ	19 24	17.8 #-844
	+EPZ	22 27	23.2 #-845
22	-EPZ	01 04	06.9 #-846
	+EPZ	04 28	48.0 #-847
	LP+EPZ	04 28	48
	-EPZ	13 40	10.2 #-848
	+EPZ	16 12	54.3
	PKP	21 15	44.7
23	-EXZ	16 57	48.8 #-849
24	+EPZ	06 29	23.3 #-850
	-EPZ	08 27	59.3 #-851
	-EPZ	09 32	22.7 #-852
	PKP	17 43	33.0
	LP+EPZ	17 43	23
	-EPZ	22 04	26.4 #-853
	PKP	22 09	19.0

Date	phase	time	
		h m s	
	PKP	22 09 42.3	
	-EPZ	22 38 48.2	#-854
25	-EPZ	03 25 33.3	#-855
	LP+EPZ	03 25 34	
	EXZ	03 32 50.5	
	-EPZ	04 13 02.8	#-856
	-EPZ	20 18 00.8	#-857
26	+EPZ	03 16 54.0	#-858
	ESH	03 27 40.3	
	LP+EPZ	03 16 54	
	+EPZ	03 44 34.2	#-859
	-EPZ	04 22 41.0	#-860
	-IPZ	14 05 21.3	#-861
	-EPZ	17 41 54.2	#-862
	-EPZ	21 15 59.5	#-863
	+EPZ	22 04 25.2	
27	PKP	01 40 28.7	
	-IPZ	05 36 10.0	#-864
	ESH	05 45 47.3	
	PKP	16 12 07.8	
	LP+EPZ	16 12 14	
	-EPZ	22 48 33.5	#-865
	-EPZ	23 35 25.3	#-866
28	+EPZ	07 51 09.1	#-867
	-EPZ	15 39 08.2	#-868

Date	phase	time	
		h m s	
29	-EPZ	01 02 07.5	
	+EPZ	18 52 58.3	#-869
	ESH	19 03 19.6	
	+EPZ	23 44 47.2	#-870
30	-IPZ	13 26 54.0	#-871
	-EPZ	15 28 14.3	
	SKP	15 31 46.2	
	+EPZ	17 30 13.4	#-872
	-EPZ	18 13 51.2	#-873
	PKP	23 56 58.4	
DEC. 01	-EPZ	06 35 07.5	
	+EPZ	17 02 13.3	
	-EPZ	17 25 29.8	
02	PKP	17 32 36.5	
	sPKP	19 59 46.0	
03	-EXZ	18 20 17.5	
	LP-EPKP	18 20 18	
	PKP	21 57 58	
04	-EXZ	00 06 47.0	
	-EPZ	01 12 36.8	
	-EPZ	15 50 09.7	
05	-EPZ	05 59 03.0	#-874
	-EPZ	06 44 12.0	#-875
	LP-EPZ	06 44 12	
	ESH	06 54 16.9	

Date	phase	time		Date	phase	time	
		h m s				h m s	
	-EPZ	15 07	37.5 #-876		+EPZ	18 05	10.6 #-882
	-EPZ	18 15	13.5 #-877	12	-EPZ	10 24	30.6
06	+IPZ	01 01	37.4 #-878	13	+EPZ	18 12	06.7 #-883
	ESH	01.06	38.8	14	-EPZ	02 20	32.9 #-884
	ScP	01 07	54		pPdiff	06 43	41
	PKiKP	01 11	53	15	+EPZ	20 55	15.8
	-EPZ	02 55	19.9	16	-EPZ	20 44	07.5
07	+EPKP	03 41	20.3	17	(NIL)		
	PKP	05 31	39.5	18	-EPZ	03 38	28.0
	-EXZ	08 32	15.0 #-879		+EPZ	06 04	58.3 #-885
	+EPZ	10 16	42.5 #-880		ESH	06 15	18.3
	-EPZ	18 01	50.0		+IPZ	06 27	54.7
	PKP	19 49	35.6		+EPZ	21 01	25.5
08	+EPZ	07 08	35.7	19	-EPZ	23 41	08.4 #-886
	+EPZ	08 00	44.0		LP-EPZ	23 41	08
	-EPZ	18 31	19.8		ESH	23 51	54.9
09	(NIL)			20	(NIL)		
10	PKP	22 42	30.3	21	+EPZ	08 07	24.9 #-887
	PKP	23 07	33.4	22	-EPZ	13 48	29.2
	-EPZ	23 58	53.5 #-881		-EPZ	23 06	12.0 #-888
	-EPZ	23 58	55.0	23	(NIL)		
11	ESH	00 08	49.0	24	(NIL)		
	ESH	00 08	48.0	25	+EPZ	03 18	38.5 #-889
	PKP	06 37	02.0		LP+EPZ	03 18	38
	-IPZ	16 20	12.9		ESH	03 28	40.3

Date	phase	time	
		h m s	
	+EPZ	03 36	51.3 #-890
	+IPZ	04 55	37.3 #-891
	LP+IPZ	04 55	37
	-EPZ	17 52	23.0 #-892
26	-EPZ	17 07	59.2 #-893
	ESH	17 18	32.8
	LP-EPZ	17 08	00
	+EPZ	22 08	30.8 #-894
27	(NIL)		
28	(NIL)		
29	(NIL)		
30	+EPZ	12 30	18.0
	-IPZ	16 34	15.6
31	+EPZ	07 45	54.9
	+EPZ	15 08	58.0 #-895
	+EPZ	18 41	45.3
	+EPZ	22 35	18.8 #-896

Table 2. List of hypocenters of teleseismic events detected at Syowa Station. The total number of events are 896.

Data No.	Origin Time UTC			Geographic Coordinates		Region	Depth (km)	Magnitude (Mb)	Epicentral distance	
	Date	h	m	s	Latitude (degree)					Longitude (degree)
1.	01/01	19	17	20.0	7.939 S	129.066 E	BANDA SEA	33	4.8	82.512
2.	01/01	20	39	40.2	23.767 S	179.891 E	SOUTH OF FIJI ISLANDS	552	4.8	83.104
3.	01/02	05	41	37.0	41.630 S	71.040 W	S. CHILE-ARGENTINA BORDER REGION	78	4.9	58.424
4.	01/03	02	54	56.9	56.206 S	27.285 W	SOUTH SANDWICH ISLANDS REGION	130	5.5	31.385
5.	01/03	06	49	20.1	19.634 S	178.106 W	FIJI ISLANDS REGION	601	5.3	87.532
6.	01/03	12	46	54.2	35.120 S	70.968 W	CHILE-ARGENTINA BORDER REGION	90	4.8	64.408
7.	01/03	16	11	57.0	57.699 S	65.883 W	DRAKE PASSAGE	14	6.2	42.554
8.	01/03	21	13	03.9	23.050 S	69.702 W	NORTHERN CHILE	60	4.6	75.230
9.	01/04	06	28	39.0	56.060 S	123.232 W	SOUTHERN EAST PACIFIC RISE	10	5.0	54.521
10.	01/05	16	59	18.3	15.230 S	167.356 E	VANUATU ISLANDS	139	5.1	88.260
11.	01/05	23	30	07.4	22.033 S	168.902 E	NEW CALEDONIA	29	5.6	82.178



12.	01/06	15 46	32.5	41.340 S	174.080 E	COOK STRAIT, NEW ZEALAND	70	5.1	64.911
13.	01/06	18 01	12.8	56.497 S	25.319 W	SOUTH SANDWICH ISLANDS REGION	33	5.2	30.462
14.	01/06	19 01	51.0	56.627 S	25.724 W	SOUTH SANDWICH ISLANDS REGION	33	5.0	30.506
15.	01/06	21 59	28.6	9.189 N	126.179 E	MINDANAO, PHILIPPINE ISLANDS	32	5.9	97.355
16.	01/08	09 22	18.8	8.496 S	74.307 W	PERU-BRAZIL BORDER REGION	149	5.1	90.350
17.	01/08	13 41	13.9	27.032 S	176.104 W	KERMADEC ISLANDS REGION	67	5.0	80.733
18.	01/09	21 49	11.4	19.738 S	173.920 W	TONGA ISLANDS	47	5.1	88.253
19.	01/11	09 47	16.3	22.180 S	179.536 W	SOUTH OF FIJI ISLANDS	594	5.2	84.763
20.	01/11	15 07	15.2	30.942 S	177.977 W	KERMADEC ISLANDS, NEW ZEALAND	33	5.1	76.571
21.	01/12	14 37	43.5	7.199 S	106.587 E	JAW, INDONESIA	78	5.2	75.246
22.	01/14	06 49	23.8	27.929 S	178.273 W	KERMADEC ISLANDS REGION	213	5.3	79.441
23.	01/15	19 34	17.1	34.060 S	69.900 W	CHILE-ARGENTINA BORDER REGION	5		65.060
24.	01/15	20 46	58.9	28.712 S	68.849 W	<u>LA RIOJA PROVINCE, ARGENTINA</u>	119	5.1	69.687
25.	01/15	23 59	26.1	5.246 S	152.040 E	NEW BRITAIN REGION, P.N.G.	62	5.7	93.032
26.	01/16	03 03	27.9	35.360 S	106.123 W	SOUTHERN EAST PACIFIC RISE	10	4.9	72.811
27.	01/17	06 41	12.5	61.341 S	53.603 W	SOUTH SHETLAND ISLANDS	10	4.8	36.021
28.	01/17	16 54	11.8	20.833 S	179.236 W	FIJI ISLANDS REGION	634	5.9	86.132
29.	01/18	12 14	37.1	19.160 S	167.402 E	VANUATU ISLANDS REGION	36	5.5	84.524

30.	01/19	05 25	17.8	3.470 S	140.084 E	IRIAN JAYA, INDONESIA	27	5.4	90.588
31.	01/19	09 55	33.6	7.395 S	128.260 E	BANDA SEA	160	5.9	82.726
32.	01/21	07 30	22.9	2.563 N	126.882 E	NORTHERN MOLUCCA SEA	42	6.2	91.463
33.	01/21	16 01	23.9	7.046 S	129.113 E	BANDA SEA	177	5.8	83.356
34.	01/22	00 20	40.3	20.436 S	177.929 W	FIJI ISLANDS REGION	504	5.1	86.789
35.	01/22	04 44	21.6	33.599 S	179.477 E	SOUTH OF KERMADEC ISLANDS	117	5.2	73.492
36.	01/23	10 16	18.5	26.835 S	176.472 W	SOUTH OF FIJI ISLANDS	33	5.4	80.855
37.	01/24	17 57	01.3	27.153 S	176.457 W	KERMADEC ISLANDS REGION	33	5.3	80.548
38.	01/24	22 36	34.1	5.902 S	154.492 E	SOLOMON ISLANDS	25	5.8	93.220
39.	01/25	18 05	35.9	25.281 S	179.198 W	SOUTH OF FIJI ISLANDS	428	4.8	81.825
40.	01/25	19 00	34.0	26.975 S	176.548 W	SOUTH OF FIJI ISLANDS	52	5.2	80.704
41.	01/26	01 12	48.6	5.969 S	154.467 E	SOLOMON ISLANDS	81	5.1	93.149
42.	01/26	05 16	50.6	26.961 S	176.538 W	SOUTH OF FIJI ISLANDS	47	5.1	80.720
43.	01/27	05 50	11.0	17.341 S	69.322 W	PERU-BOLIVIA BORDER REGION	174	4.7	80.434
44.	01/27	18 34	50.6	2.303 S	138.843 E	IRIAN JAYA, INDONESIA	39	5.8	91.233
45.	01/27	20 16	52.1	4.434 S	134.476 E	IRIAN JAYA REGION, INDONESIA	22	6.2	87.700
46.	01/31	06 40	26.8	1.293 S	127.546 E	HALMAHERA, INDONESIA	33	5.4	88.126
47.	02/01	14 26	44.6	42.423 S	18.458 W	SOUTHERN MID-ATLANTIC RIDGE	10	5.4	39.734

48.	02/02	12 33	54.1	1.269 S	127.530 E	HALMAHERA, INDONESIA	7	5.6	88.142
49.	02/02	19 50	47.9	6.234 S	148.795 E	NEW BRITAIN REGION, P.N.G.	58	5.3	91.023
50.	02/04	14 32	40.7	1.310 N	123.286 E	MINAHASSA PENINSULA, SULAWESI	46	5.0	89.012
51.	02/05	20 28	45.7	24.580 S	179.010 E	SOUTH OF FIJI ISLANDS	582	4.8	82.129
52.	02/05	22 51	05.1	37.759 S	178.752 E	OFF E. COAST OF N. ISLAND, N.Z.	21	6.5	69.321
53.	02/06	00 52	17.7	37.745 S	178.801 E	OFF E. COAST OF N. ISLAND, N.Z.	33	5.2	69.344
54.	02/06	03 25	37.8	37.614 S	178.763 E	OFF E. COAST OF N. ISLAND, N.Z.	33	4.7	69.463
55.	02/06	05 19	28.5	37.574 S	178.829 E	OFF E. COAST OF N. ISLAND, N.Z.	33	5.0	69.515
56.	02/06	06 00	28.4	37.913 S	178.727 E	OFF E. COAST OF N. ISLAND, N.Z.	33	4.6	69.167
57.	02/06	07 21	37.1	37.814 S	178.185 E	OFF E. COAST OF N. ISLAND, N.Z.	33	4.6	69.155
58.	02/06	10 19	52.6	37.852 S	178.814 E	OFF E. COAST OF N. ISLAND, N.Z.	33	5.6	69.243
59.	02/06	10 43	57.1	37.825 S	178.844 E	OFF E. COAST OF N. ISLAND, N.Z.	33	5.7	69.275
60.	02/06	11 23	03.7	37.952 S	178.733 E	OFF E. COAST OF N. ISLAND, N.Z.	33	5.3	69.131
61.	02/06	15 19	28.4	37.811 S	178.816 E	OFF E. COAST OF N. ISLAND, N.Z.	33	5.5	69.283
62.	02/07	02 56	18.0	37.956 S	178.736 E	OFF E. COAST OF N. ISLAND, N.Z.	33	4.7	69.127
63.	02/07	05 21	12.8	47.997 S	75.533 W	SOUTHERN CHILE	33	5.3	53.859
64.	02/08	08 19	52.8	37.639 S	178.747 E	OFF E. COAST OF N. ISLAND, N.Z.	33	4.3	69.436
65.	02/08	08 32	28.4	20.297 S	177.595 W	FIJI ISLANDS REGION	480	4.4	86.992

66.	02/08	08 38	26.9	28.420 S	176.160 W	KERMADEC ISLANDS REGION	155	4.4	79.371
67.	02/08	12 58	56.8	37.580 S	179.008 E	OFF E. COAST OF N. ISLAND, N.Z.	33	4.5	69.545
68.	02/08	17 20	24.8	37.702 S	178.407 E	OFF E. COAST OF N. ISLAND, N.Z.	33	4.6	69.307
69.	02/08	18 40	25.3	4.104 N	76.622 W	COLOMBIA	74	6.3	102.934
70.	02/09	01 35	03.2	37.736 S	179.074 E	OFF E. COAST OF N. ISLAND, N.Z.	33	4.8	69.407
71.	02/09	02 21	37.1	37.547 S	179.073 E	OFF E. COAST OF N. ISLAND, N.Z.	33	5.1	69.590
72.	02/09	03 45	55.4	37.686 S	178.620 E	OFF E. COAST OF N. ISLAND, N.Z.	33	4.6	69.365
73.	02/09	08 25	42.3	37.700 S	178.780 E	OFF E. COAST OF N. ISLAND, N.Z.	33	4.3	69.384
74.	02/09	09 43	50.3	25.574 S	177.198 W	SOUTH OF FIJI ISLANDS	112	5.0	81.942
75.	02/09	10 34	56.1	38.490 S	179.450 W	EAST OF NORTH ISLAND, N.Z.	33	5.0	68.962
76.	02/09	10 56	42.8	37.969 S	178.591 E	OFF E. COAST OF N. ISLAND, N.Z.	33	5.2	69.086
77.	02/09	12 53	59.2	38.039 S	178.561 E	OFF E. COAST OF N. ISLAND, N.Z.	33	4.8	69.012
78.	02/10	00 31	33.4	29.639 S	112.002 W	EASTER ISLAND REGION	10	5.0	79.371
79.	02/10	01 06	49.4	38.077 S	178.513 E	OFF E. COAST OF N. ISLAND, N.Z.	33	4.6	68.966
80.	02/10	01 45	03.9	37.855 S	178.602 E	OFF E. COAST OF N. ISLAND, N.Z.	28	5.8	69.198
81.	02/10	18 03	24.9	11.872 S	166.508 E	SANTA CRUZ ISLANDS	137	5.1	91.226
82.	02/10	20 26	58.1	19.942 S	68.761 W	CHILE-BOLIVIA BORDER REGION	118	5.5	77.822
83.	02/10	22 09	52.1	37.490 S	178.981 E	OFF E. COAST OF N. ISLAND, N.Z.	33	4.6	69.627

84.	02/10	22 35	33.9	10.662 S	165.153 E	SANTA CRUZ ISLANDS	36	5.5	91.993
85.	02/11	02 01	55.0	37.889 S	178.855 E	OFF E. COAST OF N. ISLAND, N.Z.	33	4.7	69.216
86.	02/11	02 58	23.3	37.330 S	179.250 E	OFF E. COAST OF N. ISLAND, N.Z.	33	4.3	69.834
87.	02/11	05 13	48.8	32.802 S	176.549 W	SOUTH OF KERMADEC ISLANDS	33	4.8	75.031
88.	02/13	00 11	47.0	37.621 S	178.629 E	OFF E. COAST OF N. ISLAND, N.Z.	28	5.7	69.430
89.	02/13	08 41	14.2	1.332 S	127.512 E	HALMAHERA, INDONESIA	22	5.8	88.077
90.	02/13	12 29	53.0	1.310 S	127.429 E	HALMAHERA, INDONESIA	17	6.0	88.068
91.	02/13	13 06	46.0	1.338 S	127.357 E	HALMAHERA, INDONESIA	22	5.6	88.016
92.	02/13	13 19	41.9	1.355 S	127.489 E	HALMAHERA, INDONESIA	33	5.2	88.048
93.	02/13	13 52	04.4	1.164 S	127.391 E	HALMAHERA, INDONESIA	20	5.5	88.190
94.	02/13	13 54	38.4	1.497 S	127.409 E	HALMAHERA, INDONESIA	33	5.3	87.887
95.	02/13	15 04	24.0	1.318 S	127.438 E	HALMAHERA, INDONESIA	14	6.3	88.064
96.	02/13	15 36	23.9	1.607 S	127.492 E	HALMAHERA, INDONESIA	15	5.5	87.815
97.	02/13	15 54	44.9	1.481 S	127.401 E	HALMAHERA, INDONESIA	19	5.2	87.899
98.	02/14	15 53	55.7	23.366 S	67.688 W	CHILE-ARGENTINA BORDER REGION	147	5.7	74.280
99.	02/15	00 40	28.5	30.095 S	177.034 W	KERMADEC ISLANDS, NEW ZEALAND	33	4.9	77.575
100.	02/15	01 16	53.7	37.721 S	178.822 E	OFF E. COAST OF N. ISLAND, N.Z.	33	5.0	69.372
101.	02/15	10 36	11.8	1.692 S	127.255 E	HALMAHERA, INDONESIA	29	5.2	87.651

102.	02/15	23 36	16.4	37.776 S	178.712 E	OFF E. COAST OF N. ISLAND, N.Z.	33	5.0	69.297
103.	02/18	09 21	54.5	1.533 S	127.503 E	HALMAHERA, INDONESIA	18	5.4	87.888
104.	02/19	00 17	45.1	5.244 N	126.265 E	MINDANAO, PHILIPPINE ISLANDS	76	6.1	93.728
105.	02/19	20 57	39.2	1.350 S	127.620 E	HALMAHERA, INDONESIA	33	5.5	88.100
106.	02/20	02 59	12.7	27.774 S	76.172 E	MID-INDIAN RIDGE	10	5.7	46.527
107.	02/20	22 02	40.0	7.388 S	128.339 E	BANDA SEA	103	5.5	82.761
108.	02/23	01 50	53.6	1.506 S	127.434 E	HALMAHERA, INDONESIA	40	5.3	87.888
109.	02/23	21 51	31.6	1.675 S	127.249 E	HALMAHERA, INDONESIA	10	5.4	87.665
110.	02/24	06 24	06.7	8.109 S	105.720 E	SOUTH OF JAW, INDONESIA	39	5.1	74.102
111.	02/25	06 09	30.7	26.662 S	112.629 W	EASTER ISLAND REGION	10	5.4	82.389
112.	02/25	21 54	30.1	18.213 S	178.069 W	FIJI ISLANDS REGION	570	5.5	88.919
113.	02/26	15 03	43.3	1.290 N	97.883 E	NORTHERN SUMATERA, INDONESIA	53	5.2	80.378
114.	02/27	09 04	16.8	37.821 S	179.079 E	OFF E. COAST OF N. ISLAND, N.Z.	33	5.5	69.326
115.	02/27	12 27	55.2	7.282 S	128.387 E	BANDA SEA	131	5.5	82.877
116.	02/28	00 21	45.3	1.637 S	127.609 E	HALMAHERA, INDONESIA	33	5.1	87.829
117.	03/01	20 11	52.6	1.352 S	127.630 E	HALMAHERA, INDONESIA	33	5.0	88.101
118.	03/02	16 03	02.7	26.104 S	179.619 E	SOUTH OF FIJI ISLANDS	500	4.7	80.782
119.	03/02	17 52	49.4	5.129 S	151.890 E	NEW BRITAIN REGION, P.N.G.	96	4.8	93.092

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120.	03/03	00 00	11.2	27.115 S	176.443 W	KERMADEC ISLANDS REGION	33	4.8	80.588
121.	03/03	11 46	00.6	6.551 S	155.004 E	SOLOMON ISLANDS	33	5.5	92.776
122.	03/03	12 02	10.4	6.496 S	155.008 E	SOLOMON ISLANDS	37	5.9	92.829
123.	03/03	21 12	37.6	14.688 S	175.486 W	SAMOA ISLANDS REGION	22	5.7	92.872
124.	03/03	22 26	51.1	4.762 S	151.805 E	NEW BRITAIN REGION, P.N.G.	111	5.1	93.408
125.	03/04	17 56	38.0	13.972 S	14.495 W	SOUTHERN MID-ATLANTIC RIDGE	10	5.4	64.562
126.	03/06	18 43	40.1	2.690 N	118.226 E	CELEBES SEA	17	5.5	88.497
127.	03/07	11 10	54.6	25.690 S	179.419 E	SOUTH OF FIJI ISLANDS	562	4.4	81.141
128.	03/07	13 35	19.2	26.695 S	176.563 W	SOUTH OF FIJI ISLANDS	33	4.5	30.974
129.	03/08	07 10	35.8	22.087 S	68.331 W	NORTHERN CHILE	115	4.8	75.681
130.	03/10	07 21	30.2	18.465 S	69.043 W	NORTHERN CHILE	134	4.7	79.292
131.	03/11	05 39	13.5	31.080 S	67.762 W	SAN JUAN PROVINCE, ARGENTINA	10	4.7	67.144
132.	03/11	07 26	23.0	21.137 S	68.536 W	CHILE-BOLIVIA BORDER REGION	136	4.5	76.634
133.	03/12	12 09	41.7	5.346 S	146.731 E	EASTERN NEW GUINEA REG., P.N.G.	217	5.5	91.152
134.	03/12	20 01	08.0	24.058 S	179.804 E	SOUTH OF FIJI ISLANDS	582	4.3	82.803
135.	03/13	10 31	46.4	2.788 S	134.377 E	IRIAN JAYA REGION, INDONESIA	8	5.6	89.192
136.	03/13	13 50	31.7	16.305 S	173.619 W	TONGA ISLANDS	94	4.9	91.658
137.	03/14	03 32	32.3	37.913 S	73.368 W	NEAR COAST OF CENTRAL CHILE	25	5.1	62.543

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138.	03/14	08 13	24.2	4.837 S	144.684 E	NEAR N COAST OF NEW GUINEA, P.N.G.	100	5.0	90.923
139.	03/14	11 23	50.2	14.860 S	177.547 W	FIJI ISLANDS REGION	132	4.9	92.284
140.	03/14	12 56	30.6	15.148 S	64.817 W	CENTRAL BOLIVIA	587	5.0	80.967
141.	03/15	09 53	49.1	34.215 S	71.635 W	NEAR COAST OF CENTRAL CHILE	41	4.7	65.451
142.	03/16	04 34	44.8	21.605 S	176.477 W	FIJI ISLANDS REGION	182	5.5	85.944
143.	03/16	14 33	49.0	29.193 S	68.411 W	SAN JUAN PROVINCE, ARGENTINA	112	5.1	69.100
144.	03/17	02 18	39.3	13.175 S	166.821 E	VANUATU ISLANDS	33	5.8	90.072
145.	03/18	07 24	53.5	28.192 S	176.496 W	KERMADEC ISLANDS REGION	37	4.8	79.529
146.	03/18	15 24	19.0	24.015 S	66.771 W	SALTA PROVINCE, ARGENTINA	192	4.4	73.375
147.	03/18	17 00	52.0	17.923 S	178.444 W	FIJI ISLANDS REGION	560	4.6	89.122
148.	03/19	09 52	34.0	6.247 S	131.378 E	TANIMBAR ISLANDS REG., INDONESIA	33	5.1	84.910
149.	03/19	18 34	04.4	4.231 S	135.013 E	IRIAN JAYA REGION, INDONESIA	19	5.6	88.080
150.	03/19	19 51	22.8	4.970 S	133.770 E	IRIAN JAYA REGION, INDONESIA	33	4.1	86.951
151.	03/19	20 13	23.0	7.329 S	126.620 E	BANDA SEA	331	4.7	82.198
152.	03/19	23 53	14.9	4.183 S	135.109 E	IRIAN JAYA REGION, INDONESIA	33	6.2	88.159
153.	03/20	03 52	47.3	12.486 S	166.475 E	SANTA CRUZ ISLANDS	53	5.0	90.632
154.	03/20	17 34	50.8	54.792 S	118.778 W	SOUTHERN EAST PACIFIC RISE	10	5.2	55.406
155.	03/21	09 10	36.1	22.760 S	68.512 W	NORTHERN CHILE	103	4.9	75.114

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156.	03/22	22 39	20.8	21.280 S	169.077 E	LOYALTY ISLANDS REGION	33	5.2	82.943
157.	03/23	09 18	21.0	36.272 S	72.964 W	NEAR COAST OF CENTRAL CHILE	42	5.2	63.944
158.	03/23	10 14	21.2	62.588 S	155.503 E	BALLENY ISLANDS REGION	10	4.9	41.024
159.	03/24	07 11	40.3	24.359 S	176.930 W	SOUTH OF FIJI ISLANDS	108	5.4	83.176
160.	03/25	22 44	28.9	10.998 S	166.123 E	SANTA CRUZE ISLANDS	79	5.9	91.950
161.	03/26	02 16	12.5	55.950 S	28.214 W	SOUTH SANDWICH ISLANDS REGION	48	5.9	31.914
162.	03/29	14 39	48.7	42.493 S	100.755 W	SOUTHERN PACIFIC OCEAN	10	5.3	64.907
163.	03/31	16 39	57.3	22.427 S	175.162 W	TONGA ISLANDS REGION	67	5.4	85.398
164.	04/03	15 43	46.5	20.123 S	178.770 W	FIJI ISLANDS REGION	623	5.0	86.919
165.	04/03	23 26	21.6	54.849 S	147.074 E	WEST OF MACQUARIE ISLANDS	10	4.6	45.686
166.	04/04	11 39	45.0	6.813 S	154.560 E	SOLOMON ISLANDS	36	5.1	92.386
167.	04/04	17 21	05.6	6.126 N	126.975 E	MINDANAO, PHILIPPINE ISLANDS	100	5.4	94.800
168.	04/05	02 24	10.4	13.825 S	167.252 E	VANUATU ISLANDS	220	5.1	89.572
169.	04/05	05 39	38.2	8.960 S	115.703 E	BALI REGION, INDONESIA	102	4.8	76.780
170.	04/05	08 47	54.2	6.308 S	105.186 E	SUNDA STRAIT	78	5.1	75.605
171.	04/06	01 43	05.0	32.304 S	71.346 W	NEAR COAST OF CENTRAL CHILE	50	5.2	67.136
172.	04/06	05 02	16.6	15.417 S	166.230 E	VANUATU ISLANDS	28	5.5	87.772
173.	04/06	16 59	53.4	4.877 S	133.896 E	IRIAN JAYA REGION, INDONESIA	28	5.0	87.082

174.	04/07	16 01	24.8	25.597 S	70.300 W	NEAR COAST OF NORTHERN CHILE	64	5.0	73.048
175.	04/07	22 06	56.8	15.199 S	173.529 W	TONGA ISLANDS	21	6.8	92.754
176.	04/08	01 20	08.7	15.213 S	173.421 W	TONGA ISLANDS	38	5.8	92.761
177.	04/08	03 27	13.8	24.340 S	179.766 E	SOUTH OF FIJI ISLANDS	570	4.4	82.522
178.	04/08	06 21	04.3	0.578 S	124.231 E	SOUTHERN MOLUCCA SEA	60	4.9	87.599
179.	04/08	14 28	37.8	15.216 S	173.319 W	TONGA ISLANDS	33	5.5	92.777
180.	04/08	16 35	35.9	15.302 S	173.413 W	TONGA ISLANDS	31	5.2	92.676
181.	04/08	17 12	54.5	15.351 S	173.359 W	TONGA ISLANDS	33	5.2	92.638
182.	04/08	17 38	37.8	21.612 S	170.083 E	LOYALTY ISLANDS REGION	93	5.6	82.885
183.	04/08	22 45	03.2	3.129 N	126.933 E	TALAUD ISLANDS, INDONESIA	38	5.1	92.016
184.	04/09	00 52	13.0	56.000 S	122.220 W	SOUTHERN EAST PACIFIC RISE	10	4.1	54.504
185.	04/09	06 35	53.9	0.021 N	126.552 E	NORTHERN MOLUCCA SEA	53	5.2	88.987
186.	04/09	14 41	57.5	55.711 S	124.943 W	SOUTHERN EAST PACIFIC RISE	10	4.1	54.989
187.	04/09	20 38	39.6	55.541 S	124.948 W	SOUTHERN EAST PACIFIC RISE	10	4.3	55.158
188.	04/10	04 57	06.2	17.909 S	168.002 E	VANUATU ISLANDS	10	4.3	85.879
189.	04/10	12 52	00.0	27.055 S	176.557 W	KERMADEC ISLANDS REGION	33	4.2	80.625
190.	04/10	12 53	18.4	27.212 S	176.500 W	KERMADEC ISLANDS REGION	34	5.2	80.483
191.	04/10	23 04	21.7	27.229 S	176.675 W	KERMADEC ISLANDS REGION	70	4.5	80.433

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192.	04/11	10 40	06.5	28.039 S	176.749 W	KERMADEC ISLANDS REGION	81	4.6	79.630
193.	04/11	21 33	06.6	28.299 S	176.684 W	KERMADEC ISLANDS REGION	31	5.2	79.390
194.	04/13	02 34	37.9	13.446 S	170.434 E	VANUATU ISLANDS REGION	638	5.6	90.793
195.	04/13	04 16	07.9	0.592 S	124.261 E	SOUTHERN MOLUCCA SEA	33	5.2	87.597
196.	04/13	17 20	34.2	30.844 S	178.005 W	KERMADEC ISLANDS, NEW ZEALAND	33	4.7	76.661
197.	04/14	04 31	47.2	15.251 S	70.448 W	SOUTHERN PERU	203	5.2	82.757
198.	04/14	13 15	17.3	60.774 S	20.074 E	SOUTHWESTERN ATLANTIC OCEAN	11	5.5	25.444
199.	04/14	15 11	37.1	53.159 S	72.651 E	KERGUELEN ISLANDS REGION	10	4.8	22.110
200.	04/14	23 07	57.1	37.073 S	178.490 E	OFF E. COAST OF N. ISLAND, N.Z.	33	5.4	69.932
201.	04/16	07 07	46.6	24.011 S	174.808 W	SOUTH OF TONGA ISLANDS	31	4.5	83.920
202.	04/16	09 00	02.4	20.366 S	177.867 W	FIJI ISLANDS REGION	500	4.3	86.870
203.	04/16	13 23	47.5	9.796 S	159.578 E	SOLOMON ISLANDS	21	5.6	91.158
204.	04/17	01 14	16.6	8.527 S	156.612 E	SOLOMON ISLANDS	12	5.8	91.431
205.	04/17	08 52	20.8	55.633 S	27.425 W	SOUTH SANDWICH ISLANDS REGION	33	5.2	31.859
206.	04/17	16 48	20.4	20.325 S	178.740 W	FIJI ISLANDS REGION	657	4.5	86.729
207.	04/18	03 49	37.0	2.061 S	140.457 E	NEAR NORTH COAST OF IRIAN JAYA	20	5.9	92.029
208.	04/18	16 23	36.4	54.235 S	136.596 W	PACIFIC-ANTARCTIC RIDGE	10	5.1	56.959
209.	04/18	23 25	16.4	60.051 S	19.109 W	SOUTHWESTERN ATLANTIC OCEAN	10	4.4	25.611

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210.	04/18	23 24	46.7	21.787 S	179.376 W	FIJI ISLANDS REGION	612	4.8	85.178
211.	04/19	04 16	01.8	29.270 S	176.890 W	KERMADEC ISLANDS REGION	33	4.6	78.405
212.	04/20	05 54	02.4	4.475 N	126.425 E	TALAUD ISLANDS, INDONESIA	86	5.0	93.072
213.	04/20	08 45	11.6	6.279 N	126.777 E	MINDANAO, PHILIPPINE ISLANDS	94	6.2	94.871
214.	04/21	00 09	54.3	12.011 N	125.656 E	SAMAR, PHILIPPINE ISLANDS	20	6.2	99.782
215.	04/21	00 30	10.8	11.925 N	125.564 E	SAMAR, PHILIPPINE ISLANDS	17	6.3	99.670
216.	04/22	10 31	47.0	51.143 S	161.885 E	NORTH OF MACQUARIE ISLAND	10	4.6	52.878
217.	04/23	04 46	06.3	16.384 S	177.940 E	FIJI ISLANDS	33	4.7	89.819
218.	04/23	05 08	01.9	12.390 N	125.396 E	SAMAR, PHILIPPINE ISLANDS	24	6.1	100.041
219.	04/23	06 38	11.2	5.954 N	123.818 E	MINDANAO, PHILIPPINE ISLANDS	531	5.5	93.512
220.	04/24	21 00	50.4	21.906 S	67.367 W	CHILE-BOLIVIA BORDER REGION	170	4.8	75.533
221.	04/25	06 15	00.3	5.902 S	147.417 E	EASTERN NEW GUINEA REG., P.N.G.	22	5.6	90.866
222.	04/26	04 21	36.8	22.773 S	69.382 W	NORTHERN CHILE	71	5.0	75.385
223.	04/27	02 03	16.3	1.607 S	127.448 E	HALMAHERA, INDONESIA	33	5.0	87.799
224.	04/27	15 59	32.6	42.488 S	18.700 W	SOUTHERN MID-ATLANTIC RIDGE	10	5.1	39.762
225.	04/28	02 04	19.1	31.640 S	71.963 W	NEAR COAST OF CENTRAL CHILE	32	5.1	67.944
226.	04/28	09 59	16.0	21.405 S	174.337 W	TONGA ISLANDS	9	5.7	86.549
227.	04/28	14 58	06.3	25.115 S	178.617 E	SOUTH OF FIJI ISLANDS	607	4.4	81.527

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228.	04/28	17 44	13.5	1.904 S	55.622 E	SOUTH INDIAN OCEAN	10	5.2	67.921
229.	04/29	11 50	52.5	1.315 S	28.605 E	ZAIRE	10	5.1	68.017
230.	04/29	13 58	27.5	32.891 S	178.620 W	SOUTH OF KERMADEC ISLANDS	33	5.2	74.554
231.	04/29	16 45	24.2	1.025 S	120.918 E	SULAWESI, INDONESIA	33	4.7	86.000
232.	04/30	02 55	40.2	16.778 S	176.985 E	FIJI ISLANDS REGION	43	5.1	89.218
233.	04/30	11 05	39.8	27.874 S	66.968 W	CATAMARCA PROVINCE, ARGENTINA	158	4.3	69.858
234.	05/01	00 29	40.5	0.315 S	120.943 E	MINAHASSA PENINSULA, SULAWESI	48	5.0	86.668
235.	05/01	18 29	34.5	10.568 S	161.399 E	SOLOMON ISLANDS	32	5.5	90.980
236.	05/01	20 14	54.7	6.335 S	131.444 E	TANIMBAR ISLANDS REG., INDONESIA	33	4.7	84.852
237.	05/02	06 06	05.6	3.792 S	76.917 W	NORTHERN PERU	97	6.5	95.616
238.	05/02	23 52	43.6	60.427 S	154.042 E	WEST OF MACQUARIE ISLAND	10	5.2	42.578
239.	05/04	02 18	47.9	1.889 N	128.478 E	HALMAHERA, INDONESIA	23	6.0	91.411
240.	05/05	03 53	45.0	12.626 N	125.297 E	SAMAR, PHILIPPINE ISLANDS	16	6.2	100.224
241.	05/05	04 53	00.2	24.546 S	179.281 E	SOUTH OF FIJI ISLANDS	560	4.5	82.220
242.	05/05	10 09	06.5	8.919 S	110.335 E	JAW, INDONESIA	67	4.9	74.932
243.	05/05	13 01	41.4	9.897 S	118.915 E	SUMBAWA REGION, INDONESIA	33	5.7	77.054
244.	05/05	16 08	11.6	15.824 S	172.798 W	SAMOA ISLANDS REGION	33	5.2	92.281
245.	05/05	17 19	19.3	8.725 S	111.034 E	JAW, INDONESIA	77	5.7	75.356

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246.	05/05	18 51	58.2	15.284 S	173.369 W	TONGA ISLANDS	33	4.8	92.701
247.	05/05	22 48	04.4	18.553 S	168.779 E	VANUATU ISLANDS	117	5.9	85.471
248.	05/05	22 51	29.1	15.206 S	177.575 W	FIJI ISLANDS REGION	400	4.8	91.942
249.	05/06	00 59	53.1	57.737 S	65.532 W	DRAKE PASSAGE	10	4.8	42.424
250.	05/06	01 59	07.1	24.987 N	95.294 E	MYANMAR	118	6.4	102.070
251.	05/06	17 47	44.7	22.069 S	67.206 W	CHILE-BOLIVIA BORDER REGION	187	4.7	75.328
252.	05/06	20 59	03.2	17.039 S	66.945 E	MAURITIUS-REUNION REGION	10	4.9	54.767
253.	05/07	09 00	46.1	9.253 S	71.244 W	PERU-BRAZIL BORDER REGION	604	4.4	88.633
254.	05/07	22 38	28.1	15.420 S	173.266 W	TONGA ISLANDS	21	5.3	92.588
255.	05/08	03 29	12.0	18.051 S	168.464 E	VANUATU ISLANDS	171	5.4	85.867
256.	05/08	12 06	36.8	20.157 S	173.547 W	TONGA ISLANDS	33	4.9	87.913
257.	05/09	12 29	57.6	53.973 S	134.304 W	PACIFIC-ANTARCTIC RIDGE	10	5.4	57.170
258.	05/11	21 59	16.2	20.330 S	178.479 W	FIJI ISLANDS REGION	599	5.1	86.779
259.	05/12	13 50	38.8	5.187 N	125.393 E	MINDANAO, PHILIPPINE ISLANDS	194	5.1	93.363
260.	05/12	15 12	23.2	19.338 S	63.947 W	SOUTHERN BOLIVIA	601	5.2	76.775
261.	05/12	17 51	45.9	19.832 S	178.028 W	FIJI ISLANDS REGION	588	4.6	87.355
262.	05/13	16 23	06.4	5.478 S	147.121 E	EASTERN NEW GUINEA REG., P.N.G.	194	5.0	91.161
263.	05/13	21 00	56.1	5.304 S	108.903 E	JAVA SEA	577	5.7	77.806

264.	05/13	22 53	02.2	15.157 S	173.635 W	TONGA ISLANDS	81	4.9	92.775
265.	05/14	11 33	18.8	8.378 S	125.127 E	TIMOR REGION, INDONESIA	11	6.2	80.690
266.	05/14	12 25	54.5	8.674 S	125.358 E	TIMOR REGION, INDONESIA	26	5.2	80.498
267.	05/15	15 26	53.9	56.037 S	27.811 W	SOUTH SANDWICH ISLANDS REGION	100	5.5	31.703
268.	05/15	22 29	31.4	42.420 S	120.036 E	SOUTH OF AUSTRALIA	10	5.3	47.865
269.	05/16	04 33	46.2	20.766 S	178.761 W	FIJI ISLANDS REGION	605	4.9	86.297
270.	05/16	15 22	55.5	8.443 S	125.478 E	TIMOR REGION, INDONESIA	32	4.9	80.756
271.	05/16	20 12	44.2	23.008 S	169.900 E	LOYALTY ISLANDS REGION	20	6.9	81.502
272.	05/16	21 14	09.4	22.702 S	170.051 E	LOYALTY ISLANDS REGION	29	5.2	81.833
273.	05/16	21 25	40.3	22.876 S	170.118 E	LOYALTY ISLANDS REGION	32	5.4	81.684
274.	05/16	21 47	27.4	22.930 S	170.441 E	LOYALTY ISLANDS REGION	30	4.9	81.714
275.	05/16	23 47	47.3	23.334 S	170.483 E	LOYALTY ISLANDS REGION	25	4.9	81.338
276.	05/17	00 53	20.5	23.416 S	170.336 E	LOYALTY ISLANDS REGION	30	4.6	81.222
277.	05/17	02 29	29.1	6.240 S	147.417 E	EASTERN NEW GUINEA REG., P.N.G.	71	5.4	90.551
278.	05/17	03 24	42.5	23.198 S	170.263 E	LOYALTY ISLANDS REGION	27	5.2	81.412
279.	05/17	05 23	17.3	22.743 S	169.902 E	LOYALTY ISLANDS REGION	27	5.4	81.756
280.	05/17	06 24	11.0	30.865 S	178.282 W	KERMADEC ISLANDS, NEW ZEALAND	33	5.3	76.587
281.	05/17	11 23	49.5	23.030 S	170.108 E	LOYALTY ISLANDS REGION	20	5.9	81.534

282.	05/17	13 03	57.9	23.179 S	170.591 E	LOYALTY ISLANDS REGION	33	4.9	81.513
283.	05/18	00 06	27.4	0.893 S	21.996 W	CENTRAL MID-ATLANTIC RIDGE	12	6.2	79.256
284.	05/19	07 17	28.2	26.720 S	175.740 W	SOUTH OF TONGA ISLANDS	37	5.2	81.105
285.	05/19	09 31	45.7	23.836 S	66.413 W	JUJUY PROVINCE, ARGENTINA	230	4.9	73.423
286.	05/19	16 27	27.3	4.617 N	125.368 E	TALAUD ISLANDS, INDONESIA	156	5.1	92.825
287.	05/19	17 09	14.5	6.102 S	130.408 E	BANDA SEA	140	5.5	84.696
288.	05/19	17 49	57.8	23.223 S	170.682 E	LOYALTY ISLANDS REGION	23	5.0	81.494
289.	05/19	17 53	42.6	23.570 S	170.230 E	LOYALTY ISLANDS REGION	33	4.8	81.494
290.	05/19	18 13	24.3	23.247 S	170.750 E	LOYALTY ISLANDS REGION	33	5.3	81.048
291.	05/19	21 30	06.4	1.021 S	120.505 E	SULAWESI, INDONESIA	26	5.5	85.856
292.	05/19	21 35	32.2	1.039 S	120.505 E	SULAWESI, INDONESIA	33	5.3	85.840
293.	05/20	13 45	02.7	56.025 S	27.736 W	SOUTH SANDWICH ISLANDS REGION	100	5.5	31.686
294.	05/20	17 24	19.0	23.308 S	170.596 E	LOYALTY ISLANDS REGION	23	5.1	81.391
295.	05/21	06 13	11.8	8.265 S	122.977 E	FLORES REGION, INDONESIA	28	5.2	80.022
296.	05/21	07 33	12.3	43.758 S	100.912 W	SOUTHERN PACIFIC OCEAN	10	5.1	63.713
297.	05/21	15 47	24.8	35.939 S	102.647 W	SOUTHERN PACIFIC OCEAN	10	4.9	71.616
298.	05/21	16 50	39.3	27.855 S	176.468 W	KERMADEC ISLANDS REGION	33	5.5	79.863
299.	05/22	03 45	02.6	22.795 S	170.010 E	LOYALTY ISLANDS REGION	19	5.8	81.734



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300.	05/22	03 49	56.6	22.830 S	170.124 E	LOYALTY ISLANDS REGION	33	5.7	81.729
301.	05/22	04 02	55.0	9.662 S	151.507 E	D'ENTRECASTEAUX ISLANDS REGION	30	5.7	88.717
302.	05/22	06 59	04.1	22.850 S	169.894 E	LOYALTY ISLAND REGION	33	5.2	81.652
303.	05/23	07 20	19.3	27.913 S	176.330 W	KERMADEC ISLANDS REGION	64	5.3	79.832
304.	05/23	22 10	11.8	55.945 S	3.361 W	SOUTHERN MID-ATLANTIC RIDGE	10	5.4	23.030
305.	05/23	23 19	45.4	55.440 S	1.547 W	BOUVET ISLAND REGION	10	4.3	22.797
306.	05/23	23 31	24.4	55.600 S	2.500 W	SOUTHERN MID-ATLANTIC RIDGE	10	4.2	23.001
307.	05/23	23 38	31.5	55.299 S	1.490 W	BOUVET ISLAND REGION	10	4.1	22.891
308.	05/24	13 06	10.5	52.261 S	139.805 E	WEST OF MACQUARIE ISLAND	10	5.0	45.844
309.	05/26	03 11	17.1	12.115 N	57.939 E	ARABIAN SEA	62	5.4	82.024
310.	05/26	13 40	09.6	29.520 S	176.540 W	KERMADEC ISLANDS REGION	73	4.8	78.228
311.	05/27	07 16	12.3	27.799 S	175.784 W	KERMADEC ISLANDS REGION	33	4.8	80.046
312.	05/27	14 32	46.3	23.936 S	176.003 W	SOUTH OF FIJI ISLANDS	52	5.5	83.767
313.	05/27	14 35	38.2	23.963 S	175.875 W	TONGA ISLANDS REGION	85	5.5	83.766
314.	05/27	20 15	34.4	19.707 S	168.967 E	VANUATU ISLANDS	75	5.4	84.418
315.	05/28	02 42	27.1	6.783 S	107.277 E	JAW, INDONESIA	116	5.1	75.639
316.	05/28	05 52	16.1	24.004 S	175.884 W	SOUTH OF TONGA ISLANDS	33	5.0	83.724
317.	05/28	05 57	40.7	23.986 S	175.972 W	TONGA ISLANDS REGION	33	5.2	83.725

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318.	05/28	09 54	12.1	23.797 S	176.137 W	SOUTH OF FIJI ISLANDS	37	4.7	83.877
319.	05/28	13 55	34.9	29.367 S	176.600 W	KERMADEC ISLANDS REGION	169	4.4	78.366
320.	05/28	14 05	11.0	23.592 S	175.853 W	TONGA ISLANDS REGION	33	4.8	84.131
321.	05/28	16 02	59.1	7.322 S	128.529 E	BANDA SEA	139	5.3	82.891
322.	05/28	19 59	12.8	28.978 S	71.217 W	NEAR COAST OF CENTRAL CHILE	42	5.7	70.189
323.	05/29	00 58	52.5	30.604 S	178.991 W	KERMADEC ISLANDS, NEW ZEALAND	183	4.7	76.701
324.	05/29	07 29	45.7	10.246 S	164.001 E	SANTA CRUZ ISLANDS REGION	26	5.9	92.055
325.	05/29	10 06	41.6	43.050 S	171.511 E	SOUTH ISLAND, NEW ZEALAND	10	4.5	62.719
326.	05/30	03 18	17.9	27.391 S	176.400 W	KERMADEC ISLANDS REGION	33	4.3	80.327
327.	05/30	09 09	18.6	6.992 S	123.665 E	BANDA SEA	631	5.3	81.448
328.	05/30	16 56	24.7	60.229 S	31.548 W	SCOTIA SEA	33	5.4	29.827
329.	05/31	00 46	11.7	9.058 N	126.279 E	MINDANAO, PHILIPPINE ISLANDS	79	4.9	97.269
330.	06/01	15 35	29.0	19.814 S	169.395 E	VANUATU ISLANDS	115	5.1	84.427
331.	06/01	16 02	04.2	46.496 S	95.943 E	SOUTHEAST INDIAN RIDGE	10	4.6	35.706
332.	06/02	15 45	08.8	4.304 S	143.573 E	NEW GUINEA, PAPUA NEW GUINEA	104	5.0	91.034
333.	06/02	17 54	23.7	19.760 S	178.560 W	FIJI ISLANDS REGION	400	4.0	87.315
334.	06/02	19 07	22.4	31.773 S	71.296 W	NEAR COAST OF CENTRAL CHILE	70	5.4	67.614
335.	06/03	15 28	11.3	14.843 S	167.305 E	VANUATU ISLANDS	140	5.2	88.616

336.	06/03	20 58	59.3	32.429 S	179.655 E	SOUTH OF KERMADEC ISLANDS	400	5.0	74.661
337.	06/04	02 15	41.3	31.850 S	178.619 W	KERMADEC ISLANDS REGION	10	5.3	75.565
338.	06/04	11 13	04.3	20.044 S	70.740 W	NEAR COAST OF NORTHERN CHILE	60	4.7	78.372
339.	06/04	12 02	36.7	56.032 S	27.164 W	SOUTH SANDWICH ISLANDS REGION	70	4.6	31.478
340.	06/04	12 18	58.9	33.312 S	72.182 W	OFF COAST OF CENTRAL CHILE	33	4.9	66.456
341.	06/05	07 04	50.2	30.270 S	177.831 W	KERMADEC ISLANDS, NEW ZEALAND	33	5.0	77.253
342.	06/06	03 23	47.5	26.639 S	175.870 W	SOUTH OF TONGA ISLANDS	58	4.6	81.160
343.	06/07	20 02	56.8	63.510 S	171.000 E	BALLENY ISLANDS REGION	10	4.3	43.325
344.	06/07	22 49	18.1	33.136 S	72.115 W	OFF COAST OF CENTRAL CHILE	25	5.0	66.600
345.	06/09	04 32	25.5	3.676 S	131.235 E	IRIAN JAYA REGION, INDONESIA	33	5.3	87.242
346.	06/09	05 35	50.0	21.509 S	67.980 W	CHILE-BOLIVIA BORDER REGION	132	5.3	76.104
347.	06/09	11 35	58.3	7.188 S	127.692 E	BANDA SEA	257	4.7	82.714
348.	06/09	12 01	56.0	24.038 S	66.945 W	SALTA PROVINCE, ARGENTINA	181	4.8	73.411
349.	06/12	00 16	47.4	2.369 S	121.197 E	SULAWESI, INDONESIA	64	5.0	84.852
350.	06/12	03 35	48.8	8.304 S	75.908 W	CENTRAL PERU	34	5.7	91.048
351.	06/12	17 47	16.4	33.756 S	70.331 W	CHILE-ARGENTINA BORDER REGION	9	5.0	65.475
352.	06/14	16 12	59.1	24.822 S	70.049 W	NEAR COAST OF NORTHERN CHILE	49	5.4	73.690
353.	06/15	18 58	10.7	60.269 S	31.203 W	SCOTIA SEA	10	5.0	29.679

354.	06/15	18 58	38.1	60.197 S	31.697 W	SCOTIA SEA	10	5.2	29.901
355.	06/15	19 23	52.9	60.360 S	31.205 W	SCOTIA SEA	10	5.1	29.613
356.	06/16	09 35	24.2	8.040 S	109.120 E	JAW, INDONESIA	128	4.8	75.330
357.	06/16	13 49	49.3	18.269 S	178.010 W	FIJI ISLANDS REGION	566	5.6	88.877
358.	06/17	01 37	12.1	8.259 S	123.008 E	FLORES REGION, INDONESIA	38	5.4	80.038
359.	06/17	06 02	00.2	3.196 N	126.915 E	TALAUD ISLANDS, INDONESIA	33	5.1	92.062
360.	06/18	11 54	34.1	17.868 S	176.384 W	FIJI ISLANDS REGION	31	5.0	89.598
361.	06/20	17 56	11.8	56.206 S	27.242 W	SOUTH SANDWICH ISLANDS REGION	101	5.0	31.370
362.	06/21	15 28	51.7	61.673 S	154.766 E	BALLENY ISLANDS REGION	10	5.8	41.655
363.	06/21	16 33	06.0	11.538 S	77.530 W	NEAR COAST OF PERU	71	5.6	88.521
364.	06/22	07 57	10.9	16.413 S	168.108 E	VANUATU ISLANDS	33	5.6	87.336
365.	06/22	18 30	15.6	5.613 S	147.726 E	EASTERN NEW GUINEA REG., P.N.G.	175	5.0	91.241
366.	06/22	19 47	00.4	0.815 N	124.162 E	MINAHASSA PENINSULA, SULAWESI	215	5.4	88.866
367.	06/22	20 21	59.2	56.295 S	142.775 W	PACIFIC-ANTARCTIC RIDGE	10	4.6	54.917
368.	06/24	05 28	52.2	23.292 S	170.667 E	LOYALTY ISLANDS REGION	33	4.9	81.424
369.	06/24	06 58	06.6	3.959 S	153.930 E	NEW IRELAND REGION, P.N.G.	386	6.2	94.862
370.	06/24	16 55	29.6	35.291 S	15.869 W	TRISTAN DA CUNHA REGION	10	4.7	45.219
371.	06/24	17 37	03.8	18.539 S	177.767 W	FIJI ISLANDS REGION	545	4.6	88.665

372.	06/25	02 10	39.7	3.321 S	150.458 E	NEW IRELAND REGION, P.N.G.	32	5.7	94.307
373.	06/25	05 05	17.6	56.333 S	26.613 W	SOUTH SANDWICH ISLANDS REGION	60	5.2	31.049
374.	06/26	02 51	40.2	55.380 S	27.907 W	SOUTH SANDWICH ISLANDS REGION	33	5.1	32.252
375.	06/26	03 41	42.3	55.359 S	27.899 W	SOUTH SANDWICH ISLANDS REGION	33	5.4	32.266
376.	06/26	04 34	27.3	55.379 S	27.706 W	SOUTH SANDWICH ISLANDS REGION	33	4.7	32.182
377.	06/26	06 48	49.7	17.923 S	178.529 W	FIJI ISLANDS REGION	582	5.0	89.104
378.	06/26	10 18	47.0	23.245 S	170.353 E	LOYALTY ISLANDS REGION	33	5.1	81.390
379.	06/26	21 26	49.3	7.115 N	34.342 W	CENTRAL MID-ATLANTIC RIDGE	10	4.9	90.866
380.	06/27	04 09	29.3	55.333 S	27.995 W	SOUTH SANDWICH ISLANDS REGION	33	5.2	32.321
381.	06/27	04 22	36.2	55.365 S	27.962 W	SOUTH SANDWICH ISLANDS REGION	33	5.0	32.284
382.	06/27	05 16	35.4	7.751 S	108.035 E	JAW, INDONESIA	81	4.8	75.225
383.	06/27	17 16	34.5	3.958 S	151.085 E	NEW IRELAND REGION, P.N.G.	391	5.4	93.921
384.	06/27	21 12	56.2	17.175 S	66.871 E	MAURITIUS-REUNION REGION	10	5.0	54.620
385.	06/28	11 50	07.7	28.100 S	70.628 W	CENTRAL CHILE	75	4.7	70.821
386.	06/28	21 14	49.9	1.551 S	127.467 E	HALMAHERA, INDONESIA	33	5.7	87.858
387.	06/28	23 27	14.6	1.506 S	127.607 E	HALMAHERA, INDONESIA	48	4.8	87.950
388.	06/29	01 27	02.8	33.912 S	72.319 W	OFF COAST OF CENTRAL CHILE	41	5.1	65.941
389.	06/29	12 24	03.2	19.544 S	169.287 E	VANUATU ISLANDS	139	6.3	84.657

390.	06/30	00 09	33.2	23.388 S	169.117 E	LOYALTY ISLANDS REGION	10	4.5	80.938
391.	06/30	16 29	21.1	3.730 N	95.379 E	OFF W COAST OF NORTHERN SUMATERA	55	5.2	81.921
392.	06/30	21 59	23.7	23.717 S	179.995 W	SOUTH OF FIJI ISLANDS	499	4.8	83.176
393.	07/01	04 10	55.1	12.892 N	57.424 E	ARABIAN SEA	10	5.2	82.734
394.	07/01	09 14	53.9	33.988 S	72.329 W	OFF COAST OF CENTRAL CHILE	33	4.9	65.873
395.	07/01	09 18	06.8	33.904 S	72.342 W	OFF COAST OF CENTRAL CHILE	33	4.9	65.955
396.	07/01	23 57	44.2	55.413 S	27.654 W	SOUTH SANDWICH ISLANDS REGION	33	5.0	32.137
397.	07/02	01 14	17.1	9.762 S	74.589 W	CENTRAL PERU	131	5.2	89.253
398.	07/02	11 14	57.8	24.234 S	179.808 E	SOUTH OF FIJI ISLANDS	500	4.2	82.634
399.	07/02	17 46	28.9	19.722 S	69.013 W	NORTHERN CHILE	105	4.5	78.110
400.	07/03	19 50	50.6	29.211 S	177.589 W	KERMADEC ISLANDS, NEW ZEALAND	35	6.5	78.329
401.	07/03	20 50	12.2	29.300 S	177.600 W	KERMADEC ISLANDS, NEW ZEALAND	33	4.1	78.240
402.	07/03	21 56	51.4	29.117 S	177.627 W	KERMADEC ISLANDS, NEW ZEALAND	54	6.1	78.413
403.	07/04	00 50	38.9	24.140 S	179.877 E	SOUTH OF FIJI ISLANDS	500	4.3	82.739
404.	07/04	02 36	14.8	7.628 S	127.387 E	BANDA SEA	117	4.9	82.197
405.	07/04	03 01	11.3	28.020 S	178.053 W	KERMADEC ISLANDS REGION	33	5.3	79.396
406.	07/04	04 22	17.8	28.045 S	178.124 W	KERMADEC ISLANDS REGION	33	5.2	79.358
407.	07/04	12 27	56.1	29.319 S	177.430 W	KERMADEC ISLANDS, NEW ZEALAND	33	5.1	78.255

408.	07/04	14 18	03.3	29.120 S	178.430 W	KERMADEC ISLANDS, NEW ZEALAND	400	3.9	78.253
409.	07/04	19 25	51.0	20.121 S	177.733 W	FIJI ISLANDS REGION	334	3.9	86.993
410.	07/04	21 40	20.8	28.580 S	177.490 W	KERMADEC ISLANDS REGION	33	4.4	78.962
411.	07/04	22 22	49.7	29.337 S	177.485 W	KERMADEC ISLANDS, NEW ZEALAND	46	5.1	78.226
412.	07/04	23 50	33.3	7.948 S	120.051 E	FLORES SEA	33	4.5	79.267
413.	07/05	03 10	52.5	17.194 S	167.511 E	VANUATU ISLANDS	33	4.8	86.429
414.	07/05	03 36	47.9	28.998 S	177.056 W	KERMADEC ISLANDS REGION	33	4.5	78.639
415.	07/05	05 19	02.7	29.178 S	176.919 W	KERMADEC ISLANDS REGION	63	4.9	78.489
416.	07/06	09 38	55.5	22.608 S	170.593 E	LOYALTY ISLANDS REGION	33	4.7	82.061
417.	07/07	10 40	03.5	53.449 S	9.114 E	SOUTHWEST OF AFRICA	10	5.5	20.958
418.	07/07	13 23	59.7	29.415 S	177.468 W	KERMADEC ISLANDS, NEW ZEALAND	49	5.5	78.154
419.	07/08	07 12	58.6	21.008 S	170.299 E	LOYALTY ISLANDS REGION	100	4.8	83.518
420.	07/08	10 09	01.5	17.146 S	69.370 W	PERU-BOLIVIA BORDER REGION	177	4.4	80.631
421.	07/08	11 39	06.1	4.308 N	62.400 E	CARLSBERG RIDGE	10	5.4	74.904
422.	07/08	11 44	42.7	4.327 N	62.439 E	CARLSBERG RIDGE	10	5.2	74.929
423.	07/08	23 49	43.7	24.265 S	176.316 W	SOUTH OF FIJI ISLANDS	20	5.8	83.387
424.	07/09	13 47	26.7	31.336 S	67.757 W	SAN JUAN PROVINCE, ARGENTINA	43	4.7	66.905
425.	07/09	17 48	00.0	25.182 S	175.828 W	SOUTH OF TONGA ISLANDS	33	4.7	82.587

426.	07/09	21 01	20.3	5.276 S	132.445 E	ARU ISLANDS REGION, INDONESIA	33	5.0	86.193
427.	07/11	09 39	59.9	9.175 S	124.028 E	TIMOR REGION, INDONESIA	33	4.5	79.557
428.	07/11	21 46	39.7	21.966 N	99.196 E	MYANMAR-CHINA BORDER REGION	13	6.1	100.321
429.	07/12	09 38	16.7	2.483 N	116.977 E	BORNEO	33	5.3	87.865
430.	07/12	15 46	56.8	23.260 S	170.865 E	LOYALTY ISLANDS REGION	11	6.0	81.505
431.	07/12	18 38	49.8	12.324 N	125.058 E	SAMAR, PHILIPPINE ISLANDS	34	5.9	99.859
432.	07/12	21 32	48.6	6.860 S	130.161 E	BANDA SEA	87	4.9	83.905
433.	07/13	00 00	22.5	23.080 S	170.641 E	LOYALTY ISLANDS REGION	14	5.7	81.621
434.	07/13	15 18	39.5	27.406 S	176.456 W	KERMADEC ISLANDS REGION	75	4.8	80.302
435.	07/14	06 41	12.6	23.164 S	170.791 E	LOYALTY ISLANDS REGION	33	4.9	81.578
436.	07/14	22 09	24.4	33.640 S	179.575 W	SOUTH OF KERMADEC ISLANDS	33	4.9	161.387
437.	07/15	01 35	14.6	19.900 S	177.547 W	FIJI ISLANDS REGION	358	5.5	87.388
438.	07/15	02 42	56.8	2.672 N	99.068 E	NORTHERN SUMATERA, INDONESIA	165	5.2	82.052
439.	07/15	13 52	21.6	23.319 S	170.845 E	LOYALTY ISLANDS REGION	22	5.6	81.443
440.	07/16	10 39	28.3	7.880 S	130.133 E	TANIMBAR ISLANDS REG., INDONESIA	32	5.0	82.950
441.	07/16	23 46	54.4	18.161 S	174.574 W	TONGA ISLANDS	130	5.1	89.667
442.	07/17	03 24	15.9	22.987 S	170.343 E	LOYALTY ISLANDS REGION	37	5.0	81.635
443.	07/17	08 15	31.2	7.462 S	127.721 E	BANDA SEA	122	5.0	82.470



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444.	07/18	14 35	42.7	3.854 S	135.266 E	IRIAN JAYA REGION, INDONESIA	13	5.5	88.521
445.	07/19	00 24	14.6	22.719 S	169.783 E	LOYALTY ISLANDS REGION	12	5.7	81.749
446.	07/19	13 28	26.2	4.625 S	153.237 E	NEW IRELAND REGION, P.N.G.	31	5.3	94.009
447.	07/19	20 56	25.2	6.035 S	154.510 E	SOLOMON ISLANDS	32	5.2	93.101
448.	07/20	05 08	25.8	12.402 S	41.410 E	NORTHWEST OF MADAGASCAR	10	5.1	56.616
449.	07/20	10 58	25.2	58.910 S	25.798 W	SOUTH SANDWICH ISLANDS REGION	33	5.4	28.806
450.	07/21	13 27	26.4	1.330 S	137.911 E	NEAR NORTH COAST OF IRIAN JAYA	29	5.2	91.806
451.	07/22	06 49	23.8	33.090 S	178.900 W	SOUTH OF KERMADEC ISLANDS	33	4.6	74.306
452.	07/22	13 31	53.5	13.966 S	34.820 E	MALAWI	10	5.1	55.124
453.	07/22	22 32	37.2	62.559 S	159.955 W	PACIFIC-ANTARCTIC RIDGE	10	4.5	47.914
454.	07/23	09 59	52.3	5.799 S	130.038 E	BANDA SEA	129	4.8	84.844
455.	07/23	17 58	53.0	26.841 S	175.892 W	SOUTH OF TONGA ISLANDS	52	4.6	80.959
456.	07/24	18 35	24.7	32.720 S	178.320 W	SOUTH OF KERMADEC ISLANDS	33	4.8	74.778
457.	07/25	15 32	49.4	2.247 S	124.962 E	CERAM SEA	31	5.4	86.313
458.	07/25	23 48	23.8	26.970 S	179.185 W	SOUTH OF FIJI ISLANDS	470	4.5	80.189
459.	07/26	23 42	02.7	2.534 N	127.681 E	NORTHERN MOLUCCA SEA	65	6.0	91.723
460.	07/27	05 51	18.9	12.590 S	79.228 E	SOUTH INDIAN OCEAN	16	6.2	61.846
461.	07/27	05 55	33.4	12.622 S	79.224 E	SOUTH INDIAN OCEAN	10	5.4	61.815

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462.	07/27	12 21	32.4	8.683 S	111.206 E	JAW, INDONESIA	72	5.1	75.455
463.	07/27	15 16	29.2	8.845 N	93.678 E	NICOBAR ISLANDS, INDIA	28	5.2	86.275
464.	07/28	14 29	11.0	21.182 S	175.394 W	TONGA ISLANDS	92	6.3	86.567
465.	07/28	20 33	16.8	30.010 S	111.993 W	EASTER ISLAND REGION	10	5.5	79.005
466.	07/29	08 01	26.3	4.278 N	126.656 E	TALAUD ISLANDS, INDONESIA	54	5.5	92.962
467.	07/29	08 38	47.1	30.056 S	112.004 W	EASTER ISLAND REGION	10	5.2	78.962
468.	07/29	22 18	54.0	49.159 S	121.683 E	SOUTH OF AUSTRALIA	10	4.7	42.604
469.	07/30	05 11	23.6	23.340 S	70.294 W	NEAR COAST OF NORTHERN CHILE	46	6.6	75.151
470.	07/30	06 39	28.8	24.266 S	70.574 W	NEAR COAST OF NORTHERN CHILE	33	5.1	74.377
471.	07/30	07 14	29.8	24.346 S	70.541 W	NEAR COAST OF NORTHERN CHILE	33	4.6	74.292
472.	07/30	07 22	06.5	24.242 S	70.720 W	NEAR COAST OF NORTHERN CHILE	33	4.6	74.446
473.	07/30	07 33	15.6	23.558 S	70.650 W	NEAR COAST OF NORTHERN CHILE	33	4.5	75.062
474.	07/30	07 34	18.4	23.453 S	70.361 W	NEAR COAST OF NORTHERN CHILE	33	5.0	75.067
475.	07/30	08 02	25.0	23.563 S	70.573 W	NEAR COAST OF NORTHERN CHILE	33	4.6	75.033
476.	07/30	08 17	18.2	23.982 S	70.276 W	NEAR COAST OF NORTHERN CHILE	30	5.2	74.546
477.	07/30	08 58	01.7	23.517 S	70.554 W	NEAR COAST OF NORTHERN CHILE	33	4.6	75.069
478.	07/30	09 34	39.1	24.174 S	70.209 W	NEAR COAST OF NORTHERN CHILE	32	5.2	74.346
479.	07/30	10 35	39.2	24.359 S	70.715 W	NEAR COAST OF NORTHERN CHILE	11	5.8	74.335

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480.	07/30	10 56	13.0	23.055 S	70.799 W	NEAR COAST OF NORTHERN CHILE	33	5.4	75.579
481.	07/30	12 27	37.3	24.649 S	70.512 W	NEAR COAST OF NORTHERN CHILE	33	4.5	74.000
482.	07/30	12 40	37.5	20.635 S	169.769 E	VANUATU ISLANDS	137	5.2	83.739
483.	07/30	12 51	37.6	24.441 S	70.850 W	NEAR COAST OF NORTHERN CHILE	33	4.6	74.302
484.	07/30	12 59	21.5	24.102 S	70.563 W	NEAR COAST OF NORTHERN CHILE	33	4.4	74.526
485.	07/30	13 27	19.7	24.146 S	70.276 W	NEAR COAST OF NORTHERN CHILE	33	4.6	74.393
486.	07/30	13 45	56.9	23.229 S	70.090 W	NEAR COAST OF NORTHERN CHILE	33	4.6	75.189
487.	07/30	14 09	02.6	24.719 S	70.479 W	NEAR COAST OF NORTHERN CHILE	33	4.6	75.189
488.	07/30	15 40	51.7	24.184 S	70.532 W	NEAR COAST OF NORTHERN CHILE	33	4.5	74.440
489.	07/30	16 19	24.4	24.876 S	70.715 W	NEAR COAST OF NORTHERN CHILE	33	5.3	73.853
490.	07/30	18 02	45.8	24.015 S	70.734 W	NEAR COAST OF NORTHERN CHILE	33	5.0	74.662
491.	07/30	18 26	31.9	23.685 S	70.626 W	NEAR COAST OF NORTHERN CHILE	33	4.7	74.936
492.	07/30	18 53	26.6	24.634 S	70.597 W	NEAR COAST OF NORTHERN CHILE	33	4.3	74.041
493.	07/30	21 05	47.7	23.347 S	70.609 W	NEAR COAST OF NORTHERN CHILE	14	5.6	75.246
494.	07/30	22 27	55.0	23.271 S	70.057 W	NEAR COAST OF NORTHERN CHILE	33	4.9	75.046
495.	07/30	23 14	35.2	23.310 S	70.604 W	NEAR COAST OF NORTHERN CHILE	33	4.8	75.279
496.	07/30	23 22	01.0	24.241 S	70.526 W	NEAR COAST OF NORTHERN CHILE	33	4.3	74.385
497.	07/31	00 14	47.3	24.125 S	70.219 W	NEAR COAST OF NORTHERN CHILE	33	5.0	74.395
498.	07/31	02 07	12.8	23.108 S	70.461 W	NEAR COAST OF NORTHERN CHILE	33	4.8	75.421

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499.	07/31	06 08	35.2	23.609 S	70.407 W	NEAR COAST OF NORTHERN CHILE	33	4.6	74.936
500.	07/31	06 47	31.1	24.471 S	70.532 W	NEAR COAST OF NORTHERN CHILE	33	4.2	74.172
501.	07/31	08 20	22.4	21.046 S	68.031 W	CHILE-BOLIVIA BORDER REGION	159	4.6	76.552
502.	07/31	08 48	30.7	10.422 S	78.264 W	NEAR COAST OF PERU	59	5.7	89.803
503.	07/31	08 59	54.1	24.823 S	70.755 W	NEAR COAST OF NORTHERN CHILE	33	4.4	73.915
504.	07/31	20 15	50.9	24.174 S	70.305 W	NEAR COAST OF NORTHERN CHILE	33	4.3	74.377
505.	08/01	02 44	46.5	23.315 S	70.275 W	NEAR COAST OF NORTHERN CHILE	31	4.8	75.168
506.	08/01	03 21	08.0	24.783 S	70.740 W	NEAR COAST OF NORTHERN CHILE	33	4.6	73.948
507.	08/01	04 29	19.8	24.089 S	66.674 W	SALTA PROVINCE, ARGENTINA	193	4.8	73.274
508.	08/01	05 10	57.4	24.914 S	70.916 W	NEAR COAST OF NORTHERN CHILE	30	5.2	73.882
509.	08/01	06 00	37.4	24.210 S	70.826 W	NEAR COAST OF NORTHERN CHILE	33	4.7	73.882
510.	08/01	09 26	41.0	23.313 S	70.654 W	NEAR COAST OF NORTHERN CHILE	33	4.4	75.292
511.	08/01	12 37	19.9	23.125 S	70.519 W	NEAR COAST OF NORTHERN CHILE	23	4.8	74.678
512.	08/01	13 29	42.9	31.175 S	67.166 W	SAN JUAN PROVINCE, ARGENTINA	25	5.0	66.865
513.	08/01	15 44	30.6	24.124 S	70.771 W	NEAR COAST OF NORTHERN CHILE	30	5.2	74.573
514.	08/01	21 51	43.9	23.380 S	70.627 W	NEAR COAST OF NORTHERN CHILE	33	4.6	75.221
515.	08/02	00 14	09.4	23.230 S	70.677 W	NEAR COAST OF NORTHERN CHILE	33	5.4	75.377
516.	08/02	05 22	21.5	23.114 S	70.534 W	NEAR COAST OF NORTHERN CHILE	33	4.8	75.439

517.	08/02	11 05	38.9	23.119 S	70.405 W	NEAR COAST OF NORTHERN CHILE	33	5.2	75.393
518.	08/02	16 27	32.6	23.432 S	70.571 W	NEAR COAST OF NORTHERN CHILE	33	5.1	75.154
519.	08/02	18 39	37.8	23.034 S	70.559 W	NEAR COAST OF NORTHERN CHILE	33	4.5	75.522
520.	08/02	20 20	13.9	22.966 S	70.576 W	NEAR COAST OF NORTHERN CHILE	33	5.1	75.591
521.	08/02	21 39	36.8	32.781 S	178.700 W	SOUTH OF KERMADEC ISLANDS	100	5.0	74.645
522.	08/03	01 57	19.9	23.062 S	70.588 W	NEAR COAST OF NORTHERN CHILE	17	5.4	75.505
523.	08/03	02 31	00.2	33.034 S	179.197 W	SOUTH OF KERMADEC ISLANDS	150	5.0	74.303
524.	08/03	04 43	04.5	23.156 S	70.485 W	NEAR COAST OF NORTHERN CHILE	34	4.7	75.384
525.	08/03	08 18	53.9	28.281 S	69.239 W	CHILE-ARGENTINA BORDER REGION	104	5.9	70.212
526.	08/03	12 00	27.7	23.032 S	70.562 W	NEAR COAST OF NORTHERN CHILE	33	5.0	75.525
527.	08/03	13 48	26.3	24.081 S	70.240 W	NEAR COAST OF NORTHERN CHILE	33	4.6	74.442
528.	08/03	14 19	04.6	22.954 S	70.403 W	NEAR COAST OF NORTHERN CHILE	33	5.2	75.546
529.	08/03	19 07	45.2	24.008 S	70.768 W	NEAR COAST OF NORTHERN CHILE	34	4.6	74.680
530.	08/03	19 50	37.5	23.780 S	70.547 W	NEAR COAST OF NORTHERN CHILE	45	4.9	74.822
531.	08/04	06 38	33.1	32.674 S	178.448 W	SOUTH OF KERMADEC ISLANDS REGION	33	5.2	74.798
532.	08/05	00 32	46.6	23.229 S	70.624 W	NEAR COAST OF NORTHERN CHILE	38	4.6	75.361
533.	08/05	01 38	24.5	23.043 S	177.080 W	SOUTH OF FIJI ISLANDS	200	4.3	84.426
534.	08/05	01 50	13.4	23.109 S	70.596 W	NEAR COAST OF NORTHERN CHILE	33	4.7	75.464

535.	08/05	08 21	06.1	23.094 S	70.520 W	NEAR COAST OF NORTHERN CHILE	33	4.8	75.453
536.	08/05	19 42	49.2	16.255 S	177.893 E	FIJI ISLANDS	33	5.5	89.933
537.	08/05	22 42	03.2	22.563 S	10.778 W	SOUTHERN MID-ATLANTIC RIDGE	10	5.4	55.328
538.	08/06	19 16	17.1	23.445 S	179.192 W	SOUTH OF FIJI ISLANDS	363	4.2	83.608
539.	08/06	22 38	32.9	23.642 S	70.833 W	NEAR COAST OF NORTHERN CHILE	33	4.6	75.042
540.	08/07	05 27	52.5	59.378 S	151.161 W	PACIFIC-ANTARCTIC RIDGE	10	4.9	51.605
541.	08/07	08 05	45.7	6.747 S	129.333 E	BANDA SEA	146	4.8	83.712
542.	08/07	19 44	25.4	4.041 N	143.770 E	E.CAROLINE ISLANDS, MICRONESIA	13	5.4	98.871
543.	08/07	21 36	45.6	20.198 S	173.799 W	TONGA ISLANDS	33	4.9	87.827
544.	08/08	04 37	55.8	55.897 S	26.995 W	SOUTH SANDWICH ISLANDS REGION	60	4.8	31.523
545.	08/08	16 32	57.6	18.586 S	66.667 W	CENTRAL BOLIVIA	268	4.6	78.391
546.	08/09	07 17	45.6	35.790 S	178.104 E	OFF E. COAST OF N. ISLAND, N.Z.	213	4.7	71.094
547.	08/09	07 20	37.4	24.475 S	70.190 W	NEAR COAST OF NORTHERN CHILE	34	5.0	74.059
548.	08/09	08 23	01.1	23.097 S	70.151 W	NEAR COAST OF NORTHERN CHILE	35	5.3	75.332
549.	08/10	00 41	04.4	15.473 S	41.604 E	MOZAMBIQUE CHANNEL	10	5.1	53.564
550.	08/10	11 46	32.2	17.758 S	178.661 W	FIJI ISLANDS REGION	530	4.3	89.236
551.	08/10	18 10	37.2	23.769 S	70.567 W	NEAR COAST OF NORTHERN CHILE	33	5.4	74.838
552.	08/10	22 46	54.3	8.881 S	124.049 E	TIMOR REGION, INDONESIA	112	4.8	79.836

553.	08/11	09 19	21.6	23.199 S	170.813 E	LOYALTY ISLANDS REGION	16	5.6	81.550
554.	08/11	10 14	45.6	23.629 S	66.709 W	JUJUY PROVINCE, ARGENTINA	215	4.9	73.713
555.	08/11	10 16	04.2	14.989 S	167.283 E	VANUATU ISLANDS	119	5.1	88.470
556.	08/12	03 39	07.1	16.071 S	179.384 W	FIJI ISLANDS REGION	33	4.8	90.718
557.	08/13	10 53	01.0	17.802 S	178.135 W	FIJI ISLANDS REGION	515	4.3	89.304
558.	08/14	04 21	20.8	23.680 S	175.890 W	TONGA ISLANDS REGION	36	4.8	84.038
559.	08/14	04 37	17.5	4.836 S	151.515 E	NEW BRITAIN REGION, P.N.G.	128	6.4	93.242
560.	08/16	01 22	38.2	23.631 S	179.054 E	SOUTH OF FIJI ISLANDS	540	5.3	83.057
561.	08/16	08 17	12.2	29.262 S	112.634 W	EASTER ISLAND REGION	10	5.2	79.836
562.	08/16	10 27	28.6	5.799 S	154.178 E	SOLOMON ISLANDS	30	6.5	93.215
563.	08/16	11 21	42.6	14.802 S	167.148 E	VANUATU ISLANDS	135	5.9	88.611
564.	08/16	14 05	44.1	5.146 S	153.447 E	NEW IRELAND REGION	33	5.4	93.589
565.	08/16	15 04	01.3	31.950 S	179.362 E	KERMADEC ISLANDS REGION	463	5.7	75.066
566.	08/16	15 28	56.1	5.032 S	153.935 E	NEW IRELAND REGION, P.N.G.	83	5.8	93.856
567.	08/16	16 24	26.5	5.429 S	153.773 E	NEW IRELAND REGION, P.N.G.	19	5.8	93.430
568.	08/16	21 23	33.4	5.498 S	153.592 E	NEW IRELAND REGION, P.N.G.	28	5.1	93.307
569.	08/16	23 10	23.9	5.771 S	154.347 E	SOLOMON ISLANDS	33	6.2	93.296
570.	08/16	23 31	17.0	6.902 S	129.235 E	BANDA SEA	185	5.4	83.533

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571.	08/16	23 50	28.3	14.989 S	167.198 E	VANUATU ISLANDS	152	5.2	88.447
572.	08/17	00 15	50.4	5.934 S	154.213 E	SOLOMON ISLANDS	14	6.1	93.100
573.	08/17	01 59	58.4	6.007 S	154.300 E	SOLOMON ISLANDS	26	5.4	93.059
574.	08/17	05 35	37.1	21.848 S	170.436 E	LOYALTY ISLANDS REGION	73	5.7	82.749
575.	08/17	10 01	25.9	5.168 S	153.447 E	NEW IRELAND REGION, P.N.G.	21	5.6	93.569
576.	08/17	12 31	56.0	6.267 S	154.517 E	SOLOMON ISLANDS	33	5.2	92.885
577.	08/17	14 34	06.7	30.325 S	73.643 W	OFF COAST OF CENTRAL CHILE	14	4.9	69.684
578.	08/17	18 03	02.7	5.009 S	153.649 E	NEW IRELAND REGION, P.N.G.	36	5.2	93.784
579.	08/17	18 09	57.9	6.079 S	154.394 E	SOLOMON ISLANDS	22	5.4	92.780
580.	08/17	18 54	32.9	23.178 S	70.489 W	NEAR COAST OF NORTHERN CHILE	33	4.9	75.365
581.	08/18	02 16	25.9	55.934 S	28.832 W	SOUTH SANDWICH ISLANDS REGION	42	5.7	32.145
582.	08/18	19 45	52.5	18.212 S	178.555 W	FIJI ISLANDS REGION	637	4.7	88.818
583.	08/18	05 56	22.5	5.032 S	153.464 E	NEW IRELAND REGION, P.N.G.	33	5.2	93.702
584.	08/19	18 23	54.7	17.797 S	178.721 W	FIJI ISLANDS REGION	558	4.4	89.186
585.	08/19	21 28	22.1	4.960 S	153.755 E	NEW IRELAND REGION, P.N.G.	88	5.6	93.865
586.	08/19	21 43	31.9	5.139 N	75.577 W	COLOMBIA	120	6.2	103.557
587.	08/20	01 20	29.1	30.619 S	178.108 W	KERMADEC ISLANDS, NEW ZEALAND	33	4.7	76.860
588.	08/20	03 09	05.1	23.249 S	70.474 W	NEAR COAST OF NORTHERN CHILE	33	4.6	75.294

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589.	08/20	08 35	16.7	6.038 S	131.585 E	TANIMBAR ISLANDS REG., INDONESIA	18	4.8	85.178
590.	08/21	06 40	52.1	0.240 S	121.979 E	MINAHASSA PENINSULA, SULAWESI	293	4.7	87.107
591.	08/22	22 11	56.6	29.155 S	177.370 W	KERMADEC ISLANDS, NEW ZEALAND	23	5.6	78.426
592.	08/23	13 14	42.4	56.883 S	141.654 W	PACIFIC-ANTARCTIC RIDGE	12	5.9	54.335
593.	08/25	11 50	18.8	23.865 S	112.348 E	WESTERN AUSTRALIA	33	4.6	61.821
594.	08/25	14 25	25.1	20.333 S	177.850 W	FIJI ISLANDS REGION	540	5.2	86.905
595.	08/25	16 51	46.6	18.686 S	175.409 W	TONGA ISLANDS	225	5.5	88.995
596.	08/26	01 16	03.9	6.453 S	130.848 E	BANDA SEA	76	5.1	84.529
597.	08/26	06 57	16.6	5.643 S	153.541 E	NEW IRELAND REGION, P.N.G.	17	5.7	93.154
598.	08/26	10 53	26.4	13.062 S	166.748 E	VANUATU ISLANDS	144	4.9	90.159
599.	08/26	11 45	48.1	35.354 S	178.274 E	OFF E. COAST OF N. ISLAND, N.Z.	276	4.3	71.550
600.	08/26	17 11	18.2	0.594 N	122.632 E	MINAHASSA PENINSULA, SULAWESI	33	5.0	88.114
601.	08/26	17 16	56.9	8.280 S	121.548 E	FLORES REGION, INDONESIA	34	5.6	79.495
602.	08/27	00 30	06.2	23.956 S	176.630 W	SOUTH OF FIJI ISLANDS	33	4.8	83.627
603.	08/27	17 51	00.2	48.004 S	32.018 E	PRINCE EDWARD ISLANDS REGION	10	5.2	21.380
604.	08/28	15 35	28.3	3.797 N	124.609 E	CELEBES SEA	329	5.3	91.793
605.	08/29	00 39	11.5	19.609 S	178.851 W	FIJI ISLANDS REGION	186	5.0	87.401
606.	08/29	08 51	30.7	21.159 S	174.354 W	TONGA ISLANDS	19	5.5	86.7867

607.	08/29	13 06	42.4	2.379 N	127.322 E	NORTHERN MOLUCCA SEA	53	5.2	91.458
608.	08/29	20 16	27.3	24.381 S	67.062 W	CHILE-ARGENTINA BORDER REGION	173	4.5	73.131
609.	08/29	22 57	01.0	59.620 S	26.160 W	SOUTH SANDWICH ISLANDS REGION	33	5.0	28.411
610.	08/30	02 45	27.7	6.250 S	154.703 E	SOLOMON ISLANDS	48	4.9	92.962
611.	08/30	20 35	05.0	5.057 S	153.410 E	NEW IRELAND REGION, P.N.G.	79	4.8	93.661
612.	08/30	23 04	04.3	19.360 S	173.464 W	TONGA ISLANDS	10	5.3	88.706
613.	08/31	10 39	29.2	22.639 S	66.211 W	JUJUY PROVINCE, ARGENTINA	260	4.3	74.468
614.	08/31	13 36	16.6	27.971 S	66.855 W	CATAMARCA PROVINCE, ARGENTINA	159	4.4	69.731
615.	08/31	15 49	18.0	5.815 S	107.122 E	JAWA, INDONESIA	271	4.8	76.720
616.	08/31	17 10	35.0	15.838 S	166.426 E	VANUATU ISLANDS	17	6.1	87.425
617.	08/31	20 39	44.7	21.207 S	174.287 W	TONGA ISLANDS	33	5.2	86.752
618.	09/01	05 18	04.0	13.614 S	74.886 W	CENTRAL PERU	109	5.1	85.731
619.	09/01	06 30	35.7	0.042 N	123.235 E	MINAHASSA PENINSULA, SULAWESI	144	5.6	87.817
620.	09/03	07 31	41.2	15.896 S	72.159 W	SOUTHERN PERU	123	4.7	82.713
621.	09/04	01 41	35.1	28.868 S	67.375 W	LA RIOJA PROVINCE, ARGENTINA	127	4.2	69.068
622.	09/04	04 19	51.8	15.152 S	167.415 E	VANUATU ISLANDS	124	5.4	88.351
623.	09/04	07 21	47.2	17.852 S	178.151 W	FIJI ISLANDS REGION	572	4.6	89.252
624.	09/05	01 10	32.0	40.418 S	72.118 W	CENTRAL CHILE	33	4.5	59.858

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625.	09/06	08 27	34.1	16.422 S	172.891 W	SAMOA ISLANDS REGION	33	5.2	91.680
626.	09/06	09 59	42.2	7.118 S	129.795 E	BANDA SEA	146	4.5	83.534
627.	09/06	19 08	27.3	25.661 S	13.741 W	SOUTHERN MID-ATLANTIC RIDGE	10	4.7	53.373
628.	09/06	19 26	04.0	7.298 S	128.862 E	BANDA SEA	153	4.5	83.033
629.	09/06	22 07	26.5	23.306 S	170.713 E	LOYALTY ISLANDS REGION	33	4.9	81.422
630.	09/07	05 10	23.6	28.596 S	177.570 W	KERMADEC ISLANDS REGION	69	4.3	78.931
631.	09/07	12 55	03.5	24.854 S	70.571 W	NEAR COAST OF NORTHERN CHILE	57	4.6	73.828
632.	09/07	13 39	28.7	22.200 S	170.357 E	LOYALTY ISLANDS REGION	94	5.0	82.392
633.	09/08	00 27	48.8	56.202 S	122.267 W	SOUTHERN EAST PACIFIC RISE	10	4.8	54.307
634.	09/08	01 15	28.2	56.222 S	122.419 W	SOUTHERN EAST PACIFIC RISE	10	5.2	54.299
635.	09/08	16 03	37.5	9.126 S	67.322 E	MID-INDIAN RIDGE	10	5.0	62.556
636.	09/09	00 31	39.9	49.425 S	164.260 E	AUCKLAND ISLANDS REGION	10	4.6	55.041
637.	09/09	13 30	48.5	33.570 S	179.590 W	SOUTH OF KERMADEC ISLANDS	75	4.9	73.706
638.	09/09	19 49	48.7	20.767 S	174.068 W	TONGA ISLANDS	33	4.9	87.222
639.	09/09	20 58	40.4	20.135 S	69.323 W	NORTHERN CHILE	75	5.6	77.826
640.	09/09	23 41	24.6	0.151 S	125.241 E	SOUTHERN MOLUCCA SEA	64	5.2	88.357
641.	09/10	02 41	04.9	14.233 S	167.344 E	VANUATU ISLANDS	230	4.6	89.208
642.	09/10	04 13	22.2	5.491 S	104.874 E	SOUTHERN SUMATERA, INDONESIA	90	4.7	76.264

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643.	09/10	06 17	53.0	28.848 S	67.607 W	LA RIOJA PROVINCE, ARGENTINA	126	4.2	69.162
644.	09/10	23 48	32.7	1.744 S	127.451 E	HALMAHERA, INDONESIA	33	4.6	87.673
645.	09/11	10 27	07.1	27.139 S	68.465 W	CHILE-ARGENTINA BORDER REGION	100	4.2	71.025
646.	09/11	10 58	41.4	39.007 S	78.316 E	MID-INDIAN RIDGE	15	4.9	36.558
647.	09/11	12 21	38.0	13.721 S	167.163 E	VANUATU ISLANDS	201	5.0	89.646
648.	09/12	05 00	17.3	8.643 S	119.087 E	FLORES REGION, INDONESIA	97	4.8	78.278
649.	09/12	08 40	43.1	23.749 S	71.089 W	OFF COAST OF NORTHERN CHILE	33	4.5	75.024
650.	09/12	12 44	41.2	21.709 S	179.337 W	FIJI ISLANDS REGION	601	4.8	85.262
651.	09/12	14 23	32.7	21.721 S	179.347 W	FIJI ISLANDS REGION	600	5.1	85.248
652.	09/12	20 05	46.3	49.490 S	125.930 E	SOUTH OF AUSTRALIA	10	4.1	43.774
653.	09/13	01 16	01.0	0.474 N	123.607 E	MINAHASSA PENINSULA, SULAWESI	28	5.1	88.351
654.	09/13	12 05	06.7	9.020 N	126.366 E	MINDANAO, PHILIPPINE ISLANDS	33	5.0	97.265
655.	09/14	12 24	34.1	17.623 S	178.966 W	FIJI ISLANDS REGION	533	5.5	89.303
656.	09/15	04 50	20.4	50.175 S	114.829 W	SOUTHERN EAST PACIFIC RISE	10	4.4	59.550
657.	09/16	01 03	36.9	6.323 S	155.207 E	SOLOMON ISLANDS	151	5.9	93.056
658.	09/16	03 40	50.5	31.127 S	178.872 W	KERMADEC ISLANDS REGION	130	5.2	76.217
659.	09/16	19 27	33.8	31.411 S	67.718 W	SAN JUAN PROVINCE, ARGENTINA	33	4.5	66.824
660.	09/17	07 25	26.9	35.561 S	74.167 W	OFF COAST OF CENTRAL CHILE	8	5.9	64.963

661.	09/17	10 03	22.2	31.758 S	72.134 W	OFF COAST OF CENTRAL CHILE	33	4.2	67.887
662.	09/17	17 09	20.6	17.093 S	66.707 E	MARUTIUS-REUNION REGION	8	5.6	54.668
663.	09/17	19 23	21.4	21.161 S	170.160 E	LOYALTY ISLANDS REGION	33	5.0	83.336
664.	09/17	23 14	40.0	17.505 S	65.959 E	MARUTIUS-REUNION REGION	10	5.0	54.124
665.	09/18	17 13	20.3	8.887 S	123.787 E	FLORES REGIN, INDONESIA	33	5.6	79.737
666.	09/18	20 22	13.9	20.642 S	178.544 W	FIJI ISLANDS REGION	617	5.1	86.462
667.	09/19	00 47	03.7	5.867 S	128.367 E	BANDA SEA	361	4.9	84.181
668.	09/19	03 31	53.9	21.194 S	68.672 W	CHILE-BOLIVIA BORDER REGION	112	5.7	76.625
669.	09/19	07 25	36.8	21.591 S	178.822 W	FIJI ISLANDS REGION	500	4.3	85.484
670.	09/19	22 52	23.1	39.698 S	174.168 E	NORTH ISLAND, NEW ZEALAND	217	5.6	66.505
671.	09/20	06 49	34.3	21.260 S	174.318 W	TONGA ISLANDS	33	5.1	86.694
672.	09/20	14 34	25.6	30.946 S	179.989 E	KERMADEC ISLANDS REGION	426	4.8	76.166
673.	09/20	22 17	23.9	23.353 S	170.605 E	LOYALTY ISLANDS REGION	36	5.2	81.350
674.	09/21	05 17	36.5	20.238 S	169.146 E	VANUATU ISLANDS	39	4.9	83.957
675.	09/22	01 36	40.1	36.550 S	79.342 E	MID-INDIAN RIDGE	10	4.5	39.140
676.	09/22	05 39	30.5	6.053 S	146.543 E	EASTERN NEW GUINEA REG., P.N.G.	45	5.8	90.427
677.	09/22	08 51	49.5	1.065 N	19.395 E	ZAIRE	10	5.7	71.307
678.	09/22	14 47	21.2	38.743 N	118.579 W	CALIFORNIA-NEVADA BORDER REGION	20	4.4	147.412

679.	09/22	20 05	39.2	10.072 S	160.804 E	SOLOMON ISLANDS	43	5.2	91.270
680.	09/23	16 05	49.5	5.561 S	104.062 E	SOUTHERN SUMATERA, INDONESIA	45	5.9	75.927
681.	09/23	20 56	04.1	24.328 S	128.003 W	SOUTH PACIFIC OCEAN	10	5.5	86.427
682.	09/23	22 31	56.3	10.680 S	78.581 W	NEAR COAST OF PERU	60	6.0	89.659
683.	09/24	01 17	51.9	10.650 S	78.390 W	NEAR COAST OF PERU	67	4.7	89.627
684.	09/24	08 47	01.9	23.970 S	175.700 W	TONGA ISLANDS REGION	236	4.3	83.792
685.	09/24	13 59	00.2	23.170 S	67.878 W	CHILE-ARGENTINA BORDER REGION	127	4.7	74.524
686.	09/24	20 19	59.2	3.463 N	97.273 E	NORTHERN SUMATERA, INDONESIA	36	5.1	82.243
687.	09/25	01 10	07.0	19.542 S	173.757 W	TONGA ISLANDS	33	5.4	88.475
688.	09/25	09 13	28.1	4.703 S	130.493 E	BANDA SEA	43	5.6	86.023
689.	09/25	17 04	49.2	1.120 N	19.424 E	ZAIRE	10	5.5	71.358
690.	09/25	21 33	45.3	20.544 S	174.189 W	TONGA ISLANDS	33	4.6	87.417
691.	09/26	00 30	01.2	4.378 S	152.918 E	NEW BRITAIN REGION., P.N.G.	64	5.0	94.136
692.	09/26	06 38	50.8	56.081 S	143.249 W	PACIFIC-ANTARCTIC RIDGE	10	4.8	55.127
693.	09/26	16 53	33.7	44.248 S	168.484 E	SOUTH ISLAND, NEW ZEALAND	10	4.4	60.899
694.	09/26	18 24	12.9	13.098 S	166.997 E	VANUATU ISLANDS	186	5.6	90.194
695.	09/26	18 31	52.6	13.074 S	166.907 E	VANUATU ISLANDS	228	4.7	90.192
696.	09/26	19 41	30.0	15.992 S	174.112 W	TONGA ISLANDS	99	4.7	91.870

697.	09/26	22 32	37.4	26.432 S	177.525 W	SOUTH OF FIJI ISLANDS	158	5.1	81.043
698.	09/27	01 27	34.8	6.410 S	145.471 E	NEW GUINEA, PAPUA NEW GUINEA	77	5.2	89.727
699.	09/27	02 05	21.4	14.773 S	167.074 E	VANUATU ISLANDS	79	5.2	88.619
700.	09/27	08 21	45.9	11.388 S	77.602 W	NEAR COAST OF PERU	56	4.6	88.685
701.	09/28	06 37	55.6	33.872 S	179.524 W	SOUTH OF KERMADEC ISLANDS	33	4.6	73.426
702.	09/29	04 09	23.6	20.884 S	174.147 W	TONGA ISLANDS	33	4.9	87.093
703.	09/29	06 06	28.9	24.004 S	179.893 E	SOUTH OF FIJI ISLANDS	556	4.6	82.875
704.	09/29	13 29	24.3	56.066 S	24.158 W	SOUTH OF SANDWICH ISLANDS REGION	33	4.4	30.382
705.	09/29	13 32	39.4	35.864 S	103.402 W	SOUTHERN PACIFIC OCEAN	10	4.7	71.831
706.	09/30	08 29	42.2	16.021 S	177.893 W	FIJI ISLANDS REGION	414	4.1	91.084
707.	09/30	10 47	58.1	50.829 N	157.341 E	KURIL ISLANDS	45	5.7	145.954
708.	09/30	13 17	17.2	37.724 S	178.895 E	OFF E. COAST OF N. ISLAND, N.Z.	33	4.4	69.383
709.	10/01	12 50	15.7	31.356 S	71.249 W	NEAR COAST OF CENTRAL CHILE	64	5.4	67.987
710.	10/01	15 57	16.2	38.063 N	30.134 E	TURKEY	33	5.8	107.043
711.	10/01	16 38	36.0	17.949 S	178.570 W	FIJI ISLANDS REGION	587	4.8	89.070
712.	10/01	18 29	47.2	56.479 S	158.015 E	MÁCQUARIE ISLANDS REGION	10	4.5	47.058
713.	10/02	23 48	23.2	15.221 S	174.934 W	TONGA ISLANDS	33	5.5	92.462
714.	10/03	01 51	23.9	2.750 S	77.881 W	PERU-ECUADOR BORDER REGION	24	6.5	96.906

715.	10/03	02 46	37.7	14.882 S	175.110 W	SAMOA ISLANDS REGION	33	5.3	92.758
716.	10/03	10 50	34.5	4.903 S	153.643 E	NEW IRELAND REGION, P.N.G.	33	5.2	93.882
717.	10/03	12 44	58.0	2.778 S	77.851 W	PERU-ECUADOR BORDER REGION	17	6.0	96.871
718.	10/03	16 08	17.8	30.715 S	71.937 W	NEAR COAST OF CENTRAL CHILE	37	5.5	68.796
719.	10/03	18 38	29.7	19.381 S	173.416 W	TONGA ISLANDS	33	5.2	88.695
720.	10/03	23 29	36.8	9.202 S	123.760 E	TIMOR REGION, INDONESIA	125	4.5	79.435
721.	10/04	01 31	08.2	1.909 N	127.417 E	HALMAHERA, INDONESIA	115	5.2	91.049
722.	10/04	01 55	43.2	36.281 S	100.546 W	SOUTHERN PACIFIC OCEAN	10	4.7	70.878
723.	10/04	12 33	25.5	3.203 S	129.864 E	SERAM, INDONESIA	64	4.7	87.188
724.	10/04	15 30	03.3	55.800 S	140.270 W	PACIFIC-ANTARCTIC RIDGE	10	4.3	55.424
725.	10/04	16 10	05.0	22.400 S	68.717 W	NORTHERN CHILE	126	4.1	75.516
726.	10/05	09 23	09.4	25.077 S	179.844 E	SOUTH OF FIJI ISLANDS	508	4.6	81.824
727.	10/05	19 11	02.0	28.836 S	177.603 W	KERMADEC ISLANDS REGION	73	4.5	78.691
728.	10/06	11 39	34.8	20.002 S	175.921 W	TONGA ISLANDS	198	5.8	87.613
729.	10/06	18 09	45.9	2.045 S	101.436 E	SOUTHERN SUMATERA, INDONESIA	33	5.8	78.363
730.	10/06	18 39	42.7	55.072 S	158.380 E	MACQUARIE ISLANDS REGION	10	4.7	48.423
731.	10/03	23 33	26.2	7.252 S	128.698 E	BANDA SEA	100	5.1	83.016
732.	10/06	23 55	01.1	5.032 N	127.380 E	PHILIPPINE ISLANDS REGION	98	5.3	93.931



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733.	10/07	03 32	56.8	23.215 S	70.426 W	NEAR COAST OF NORTHERN CHILE	33	4.8	75.310
734.	10/07	21 28	03.1	2.775 S	77.823 W	PERU-ECUADOR BORDER REGION	12	5.8	96.864
735.	10/08	05 15	53.3	6.890 S	106.318 E	JAWA, INDONESIA	68	5.1	75.443
736.	10/08	22 20	49.8	7.472 S	156.275 E	SOLOMON ISLANDS	20	5.4	92.317
737.	10/09	07 50	46.0	56.057 S	144.213 W	PACIFIC-ANTARCTIC RIDGE	10	5.4	55.138
738.	10/09	13 43	41.3	21.474 S	170.176 E	LOYALTY ISLANDS REGION	105	5.7	83.041
739.	10/11	19 47	05.8	10.478 S	119.031 E	SUMBA REGION, INDONESIA	33	5.3	76.558
740.	10/12	02 35	30.8	22.558 S	66.207 W	JUJUY PROVINCE, ARGENTINA	236	4.6	74.542
741.	10/12	12 20	45.4	37.992 S	178.799 E	OFF E. COAST OF N. ISLAND, N.Z.	10	4.6	69.105
742.	10/12	16 04	22.1	38.041 S	178.678 E	OFF E. COAST OF N. ISLAND, N.Z.	10	4.6	69.034
743.	10/12	22 57	09.9	23.010 S	70.466 W	NEAR COAST OF NORTHERN CHILE	32	5.3	75.514
744.	10/13	15 22	23.4	59.014 S	158.280 E	MACQUARIE ISLANDS REGION	14	5.6	44.833
745.	10/14	20 44	57.4	6.435 S	154.556 E	SOLOMON ISLANDS	19	5.2	92.740
746.	10/15	06 34	01.9	22.355 S	68.572 W	NORTHERN CHILE	111	4.6	75.510
747.	10/15	15 04	08.1	6.514 S	154.631 E	SOLOMON ISLANDS	14	5.4	92.690
748.	10/16	01 06	26.6	24.268 S	67.020 W	CHILE-ARGENTINA BORDER REGION	191	4.4	73.222
749.	10/16	16 36	19.4	23.258 S	70.471 W	NEAR COAST OF NORTHERN CHILE	28	5.4	75.284
750.	10/16	16 44	20.1	23.382 S	70.624 W	NEAR COAST OF NORTHERN CHILE	30	5.0	75.218

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751.	10/16	17 05	31.0	23.319 S	70.573 W	NEAR COAST OF NORTHERN CHILE	33	4.7	75.260
752.	10/16	17 26	03.9	6.410 S	132.255 E	TANIMBAR ISLANDS REG., INDONESIA	33	5.4	85.073
753.	10/17	17 21	49.6	23.922 S	179.134 E	SOUTH OF FIJI ISLANDS	551	42	82.792
754.	10/18	10 37	26.3	27.929 N	130.175 E	RYUKYU ISLANDS	28	6.4	116.049
755.	10/20	01 06	37.6	56.623 S	26.698 W	SOUTH SANDWICH ISLANDS REGION	33	4.7	30.854
756.	10/21	00 02	32.1	26.750 S	178.030 E	SOUTH OF FIJI ISLANDS	657	4.5	79.819
757.	10/21	00 34	06.7	55.118 S	146.410 E	WEST OF MACQUARIE ISLAND	10	5.2	45.265
758.	10/21	01 47	08.6	27.976 S	67.100 W	CATAMARCA PROVINCE, ARGENTINA	176	4.9	69.806
759.	10/21	18 52	47.6	5.037 S	153.318 E	NEW IRELAND REGION, P.N.G.	33	5.4	93.649
760.	10/22	09 26	49.2	31.072 S	178.941 W	KERMADEC ISLANDS REGION	327	4.5	76.257
761.	10/22	19 54	47.7	6.404 S	98.668 E	SOUTHWEST OF SUMATERA, INDONESIA	33	5.2	73.372
762.	10/23	03 58	08.5	14.281 S	167.294 E	VANUATU ISLANDS	199	5.5	89.148
763.	10/23	11 32	05.0	18.457 S	176.747 W	FIJI ISLANDS REGION	317	5.0	88.953
764.	10/23	22 46	50.8	26.003 N	102.227 E	SICHUAN, CHINA	10	5.8	105.022
765.	10/24	22 47	08.5	52.580 S	5.010 W	SOUTHERN MID-ATLANTIC RIDGE	10	4.6	26.326
766.	10/24	23 37	11.4	33.316 S	179.467 W	SOUTH OF KERMADEC ISLANDS	57	4.4	73.976
767.	10/25	02 20	40.4	22.186 S	68.605 W	NORTHERN CHILE	107	4.2	75.679
768.	10/25	05 21	50.7	19.128 S	173.160 W	TONGA ISLANDS	33	5.3	88.989

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769.	10/25	13 47	13.2	7.081 S	123.667 E	BANDA SEA	638	5.3	81.366
770.	10/26	00 22	06.3	17.217 S	173.849 E	FIJI ISLANDS REGION	74	4.9	88.046
771.	10/26	13 44	28.3	23.962 S	179.879 E	SOUTH OF FIJI ISLANDS	517	4.8	82.912
772.	10/26	14 29	43.0	28.384 S	178.004 W	KERMADEC ISLANDS REGION	163	4.3	79.052
773.	10/26	23 55	52.9	23.499 S	179.940 W	SOUTH OF FIJI ISLANDS	540	4.8	83.399
774.	10/27	08 53	22.1	2.495 N	128.242 E	HALMAHERA, INDONESIA	156	5.3	91.889
775.	10/27	21 59	58.1	21.891 S	138.983 W	TUAMOTU ARCHIPELAGO REGION	0	5.4	89.297
776.	10/28	14 38	19.4	6.227 S	154.966 E	SOLOMON ISLANDS	39	5.3	93.068
777.	10/28	17 39	54.4	8.957 S	68.076 E	CHAGOS ARCHIPELAGO REGION	10	4.8	62.864
778.	10/28	18 05	35.9	24.954 S	70.635 W	NEAR COAST OF NORTHERN CHILE	33	5.0	73.755
779.	10/28	19 20	37.3	23.116 S	169.751 E	LOYALTY ISLANDS REGION	33	4.6	81.361
780.	10/29	18 29	49.2	0.851 N	126.018 E	NORTHERN MOLUCCA SEA	33	5.0	89.565
781.	10/29	18 44	21.1	0.859 N	125.982 E	NORTHERN MOLUCCA SEA	33	5.5	89.560
782.	10/29	18 55	40.4	0.824 N	125.975 E	NORTHERN MOLUCCA SEA	52	5.5	89.525
783.	10/29	19 24	33.6	0.858 N	125.886 E	NORTHERN MOLUCCA SEA	69	6.1	89.524
784.	10/29	19 40	57.9	21.793 S	179.387 W	FIJI ISLANDS REGION	618	5.7	85.170
785.	10/30	03 19	04.7	7.458 S	127.900 E	BANDA SEA	117	4.9	82.539
786.	10/31	00 10	37.1	19.822 S	169.948 E	VANUATU ISLANDS	24	4.9	84.563

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787.	10/31	01 55	57.4	28.939 S	71.390 W	NEAR COAST OF CENTRAL CHILE	33	5.2	70.280
788.	10/31	06 20	34.9	20.198 S	178.298 W	FIJI ISLANDS REGION	597	4.8	86.944
789.	11/01	00 35	32.7	28.906 S	71.417 W	NEAR COAST OF CENTRAL CHILE	20	6.3	70.319
790.	11/01	01 12	09.8	28.947 S	71.348 W	NEAR COAST OF CENTRAL CHILE	33	5.3	70.259
791.	11/02	05 40	37.3	35.510 S	103.920 W	SOUTHERN PACIFIC OCEAN	10	4.6	72.271
792.	11/02	16 08	41.0	9.789 S	159.701 E	SOLOMON ISLANDS	13	5.6	91.202
793.	11/02	18 19	16.0	27.887 S	175.813 W	KERMADEC ISLANDS REGION	20	4.5	79.955
794.	11/02	22 13	46.0	6.727 S	130.290 E	BANDA SEA	105	6.0	84.074
795.	11/03	12 36	58.8	0.030 N	123.226 E	MINAHASSA PENINSULA, SULAWESI	192	4.6	87.803
796.	11/04	11 59	22.6	65.025 S	177.285 E	BALLENY ISLANDS REGION	33	4.5	42.937
797.	11/05	01 45	21.1	37.478 S	51.467 E	SOUTH INDIAN OCEAN	10	5.0	32.288
798.	11/05	02 09	39.1	6.376 N	126.451 E	MINDANAO, PHILIPPINE ISLANDS	71	5.3	94.844
799.	11/05	09 24	22.8	2.825 S	78.839 W	ECUADOR	33	5.1	97.143
800.	11/05	11 05	27.5	20.940 S	178.821 W	FIJI ISLANDS REGION	595	4.5	86.115
801.	11/05	11 49	14.0	0.723 N	127.023 E	HALMAHERA, INDONESIA	38	5.0	89.807
802.	11/05	15 35	56.4	20.539 S	63.094 W	SOUTHERN BOLIVIA	566	4.4	75.370
803.	11/05	16 29	58.3	4.920 S	103.220 E	SOUTHERN SUMATERA, INDONESIA	36	6.4	76.248
804.	11/06	02 18	43.6	19.067 S	68.344 W	CHILE-BOLIVIA BORDER REGION	59	5.2	78.500

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805.	11/06	03 37	52.2	8.204 S	118.115 E	SUMBAWA REGION, INDONESIA	33	4.8	78.338
806.	11/06	03 50	55.9	8.096 S	118.127 E	SUMBAWA REGION, INDONESIA	33	4.8	78.443
807.	11/06	04 31	43.6	55.284 S	29.240 W	SOUTH SANDWICH ISLANDS REGION	33	5.3	32.800
808.	11/06	08 03	48.1	11.377 S	112.256 E	SOUTH OF JAWA, INDONESIA	33	4.7	73.319
809.	11/06	15 06	59.4	32.634 S	178.430 W	SOUTH OF KERMADEC ISLANDS	33	4.6	74.840
810.	11/06	16 49	58.3	22.733 S	169.459 E	LOYALTY ISLANDS REGION	33	4.8	81.652
811.	11/06	20 26	16.5	12.744 S	166.004 E	SANTA CRUZ ISLANDS	40	4.9	90.254
812.	11/07	13 16	59.4	18.132 S	178.321 W	FIJI ISLANDS REGION	627	4.9	88.945
813.	11/07	13 55	35.8	24.527 S	176.400 W	SOUTH OF FIJI ISLANDS	33	5.6	83.116
814.	11/07	14 40	22.3	4.538 N	126.392 E	TALAUD ISLANDS, INDONESIA	80	5.2	93.119
815.	11/07	16 08	10.1	17.918 S	168.065 E	VANUATU ISLANDS	33	5.0	85.887
816.	11/08	07 14	18.6	1.833 N	95.050 E	OFF W COAST OF NORTHERN SUMATERA	33	6.2	80.025
817.	11/08	08 20	04.5	18.925 S	178.027 W	<u>FIJI ISLANDS REGION</u>	440	4.6	88.236
818.	11/08	16 01	19.1	1.290 N	121.678 E	MINAHASSA PENINSULA, SULAWESI	20	5.5	88.420
819.	11/08	19 43	28.3	24.172 S	68.931 W	CHILE-ARGENTINA BORDER REGION	99	4.4	73.935
820.	11/09	18 28	42.2	20.990 S	173.499 W	TONGA ISLANDS	45	5.0	87.109
821.	11/09	19 54	43.2	4.601 S	125.573 E	BANDA SEA	454	4.8	84.350
822.	11/10	01 15	32.7	25.393 S	175.867 W	SOUTH OF TONGA ISLANDS	33	5.1	82.374

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823.	11/10	17 26	08.7	3.755 S	151.406 E	NEW IRELAND REGION, P.N.G.	33	5.3	94.219
824.	11/10	18 20	45.7	2.263 N	126.599 E	NORTHERN MOLUCCA SEA	42	4.8	91.083
825.	11/11	04 07	13.1	22.124 S	179.544 W	SOUTH OF FIJI ISLANDS	600	4.6	84.816
826.	11/12	21 59	51.2	24.073 S	66.783 W	SALTA PROVINCE, ARGENTINA	207	4.0	73.325
827.	11/13	02 17	51.0	3.588 N	126.647 E	TALAUD ISLANDS, INDONESIA	33	5.9	92.329
828.	11/13	03 29	40.2	3.506 N	126.723 E	TALAUD ISLANDS, INDONESIA	33	5.2	92.281
829.	11/13	07 38	42.6	15.114 S	173.473 W	TONGA ISLANDS	10	5.8	92.848
830.	11/13	21 59	57.4	21.103 S	179.069 W	FIJI ISLANDS REGION	600	4.5	85.906
831.	11/14	04 01	46.2	6.143 S	150.759 E	NEW BRITAIN REGION, P.N.G.	33	5.6	91.766
832.	11/14	21 28	30.9	6.325 N	126.573 E	MINDANAO, PHILIPPINE ISLANDS	60	4.9	94.841
833.	11/15	09 51	05.9	19.330 S	69.352 W	NORTHERN CHILE	126	4.6	78.587
834.	11/15	10 24	30.7	4.871 S	153.348 E	NEW IRELAND REGION, P.N.G.	38	5.6	93.815
835.	11/16	07 30	38.0	22.854 S	169.723 E	LOYALTY ISLANDS REGION	33	4.6	81.604
836.	11/16	08 58	51.3	3.476 N	126.760 E	TALAUD ISLANDS, INDONESIA	33	5.0	92.266
837.	11/16	09 24	37.8	3.512 N	126.877 E	TALAUD ISLANDS, INDONESIA	15	5.5	92.341
838.	11/16	14 07	58.4	24.299 S	67.003 W	CHILE-ARGENTINA BORDER REGION	192	4.4	73.187
839.	11/17	02 40	50.4	45.100 S	79.924 W	OFF COAST OF SOUTHERN CHILE	33	5.2	57.705
840.	11/17	15 40	06.8	21.419 S	69.967 W	NORTHERN CHILE	108	4.3	76.838

841.	11/20	00 52	43.6	24.742 S	175.946 W	SOUTH OF TONGA ISLANDS	33	5.4	82.993
842.	11/20	18 07	36.7	28.244 S	176.659 W	KERMADEC ISLANDS REGION	33	5.4	79.448
843.	11/21	18 17	04.7	33.234 S	71.947 W	NEAR COAST OF CENTRAL CHILE	42	5.1	66.457
844.	11/21	19 13	30.7	33.274 S	71.903 W	NEAR COAST OF CENTRAL CHILE	52	4.7	66.406
845.	11/21	22 15	48.6	21.264 S	179.206 W	FIJI ISLANDS REGION	631	4.2	85.721
846.	11/22	00 52	41.1	20.716 S	66.608 W	SOUTHERN BOLIVIA	245	4.2	76.388
847.	11/22	04 15	11.9	28.826 N	34.799 E	EGYPT	10	6.2	97.663
848.	11/22	13 27	52.7	3.090 N	95.915 E	OFF W COAST OF NORTHERN SUMATERA	21	5.6	81.476
849.	11/23	16 50	35.5	44.090 S	16.430 W	SOUTHERN MID-ATLANTIC RIDGE	10	4.6	37.557
850.	11/24	06 18	56.4	42.984 S	171.793 E	SOUTH ISLAND, NEW ZEALAND	10	5.6	62.844
851.	11/24	08 16	44.7	23.540 S	66.711 W	JUJUY PROVINCE, ARGENTINA	209	4.2	73.797
852.	11/24	09 21	14.8	37.589 S	178.760 E	OFF E. COAST OF N. ISLAND, N.Z.	33	5.1	69.487
853.	11/24	21 53	22.0	37.737 S	178.235 E	OFF E. COAST OF N. ISLAND, N.Z.	33	4.8	69.239
854.	11/24	22 27	30.0	35.327 S	179.599 E	OFF E. COAST OF N. ISLAND, N.Z.	62	5.3	71.843
855.	11/25	03 17	56.1	49.628 S	117.327 E	SOUTH OF AUSTRALIA	33	5.1	40.690
856.	11/25	04 05	03.7	26.925 S	26.718 E	REPUBLIC OF SOUTH AFRICA	13	4.9	42.809
857.	11/25	20 04	30.8	9.708 N	126.187 E	MINDANAO, PHILIPPINE ISLANDS	62	5.3	97.838
858.	11/26	03 03	58.4	13.765 S	166.496 E	VANUATU ISLANDS	22	5.8	89.419

859.	11/26	03 32	39.2	30.415 S	177.809 W	KERMADEC ISLANDS, NEW ZEALAND	10	4.7	77.116
860.	11/26	04 15	53.3	41.982 S	79.924 E	MID-INDIAN RIDGE	10	4.7	34.311
861.	11/26	13 54	26.4	28.750 S	67.553 W	LA RIOJA PROVINCE, ARGENTINA	131	4.8	69.235
862.	11/26	17 31	02.8	11.283 S	13.670 W	ASCENSION ISLAND REGION	10	4.8	66.843
863.	11/26	21 05	58.5	41.919 S	75.143 W	OFF COAST OF SOUTHERN CHILE	33	5.0	59.348
864.	11/27	05 24	28.1	22.859 S	70.046 W	NEAR COAST OF NORTHERN CHILE	48	5.2	75.520
865.	11/27	22 36	49.8	31.870 S	178.210 W	KERMADEC ISLANDS REGION	33	4.8	75.625
866.	11/27	23 23	18.6	25.260 S	176.220 W	SOUTH OF FIJI ISLANDS	149	4.3	82.437
867.	11/28	07 39	59.0	28.987 S	71.491 W	NEAR COAST OF CENTRAL CHILE	40	4.9	70.267
868.	11/28	15 26	23.0	1.197 N	122.480 E	MINAHASSA PENINSULA, SULAWESI	64	4.8	88.620
869.	11/29	18 40	36.6	16.959 S	176.275 W	FIJI ISLANDS REGION	370	5.1	90.504
870.	11/29	23 32	40.3	20.340 S	177.595 W	FIJI ISLANDS REGION	341	4.8	86.951
871.	11/30	13 15	35.4	27.750 S	70.933 W	NEAR COAST OF NORTHERN CHILE	20	5.5	71.244
872.	11/30	17 18	58.4	36.330 S	97.310 W	WEST CHILE RISE	10	4.4	70.169
873.	11/30	18 00	30.0	5.970 S	81.702 W	NEAR COAST OF NORTHERN PERU	33	4.9	95.072
874.	12/05	05 46	15.4	15.500 S	167.430 E	VANUATU ISLANDS	33	6.0	88.023
875.	12/05	06 32	05.5	9.175 S	124.815 E	TIMOR REGION, INDONESIA	33	5.6	79.839
876.	12/05	14 54	45.5	1.758 N	127.195 E	HALMAHERA, INDONESIA	100	5.7	90.829



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877.	12/05	18 03	03.0	8.941 S	124.955 E	TIMOR REGION, INDONESIA	33	5.0	80.106
878.	12/06	00 55	13.0	55.970 S	27.730 W	SOUTH SANDWICH ISLANDS	33	5.6	31.727
879.	12/07	08 21	10.4	36.908 S	95.027 W	WEST CHILE RISE	10	5.2	69.120
880.	12/07	10 04	13.7	19.914 S	168.547 E	VANUATU ISLANDS	33	5.6	84.109
881.	12/10	23 47	00.3	21.370 S	178.214 W	FIJI ISLANDS REGION	413	5.9	85.824
882.	12/11	17 54	38.8	6.320 S	26.795 E	ZAIRE	10	5.4	63.204
883.	12/13	18 00	31.5	22.390 S	68.812 W	NORTHERN CHILE	87	5.0	75.556
884.	12/14	02 09	15.8	6.925 S	12.450 W	ASCENSION ISLAND	10	5.2	70.598
885.	12/18	05 52	33.1	19.053 S	176.086 W	FIJI ISLANDS REGION	253	5.1	88.505
886.	12/19	23 28	12.8	3.694 S	140.268 E	IRIAN JAYA, INDONESIA	71	6.2	90.444
887.	12/21	07 54	47.8	12.334 S	166.929 E	SANTA CRUZ ISLANDS	242	5.0	90.903
888.	12/22	22 54	19.5	15.546 S	68.957 W	CENTRAL BOLIVIA	244	5.0	81.989
889.	12/25	03 06	34.3	28.167 S	176.914 W	KERMADEC ISLANDS REGION	33	5.4	79.474
890.	12/25	03 24	46.9	28.072 S	176.833 W	KERMADEC ISLANDS REGION	33	5.1	79.582
891.	12/25	04 43	24.9	6.943 S	129.179 E	BANDA SEA	150	6.2	83.475
892.	12/25	17 40	54.2	33.978 S	179.681 W	SOUTH OF KERMADEC ISLANDS	33	4.5	73.292
893.	12/26	16 55	19.6	21.395 S	174.782 W	TONGA ISLANDS	33	5.4	86.475
894.	12/26	21 55	20.6	5.192 S	151.448 E	NEW BRITAIN REGION, P.N.G.	33	5.4	92.886

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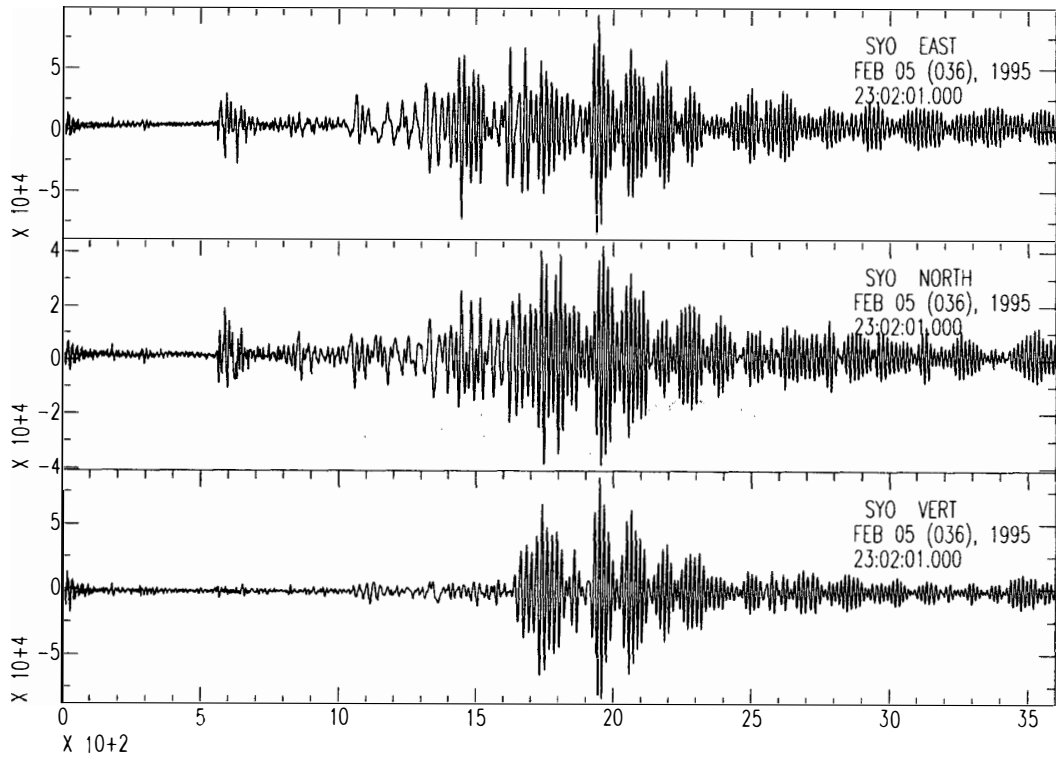
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895.	12/31	14 57	23.0	33.336 S	178.725 W	SOUTH OF KERMADEC ISLANDS	33	4.8	74.101
896.	12/31	22 23	06.7	7.231 S	128.603 E	BANDA SEA	127	4.7	83.001

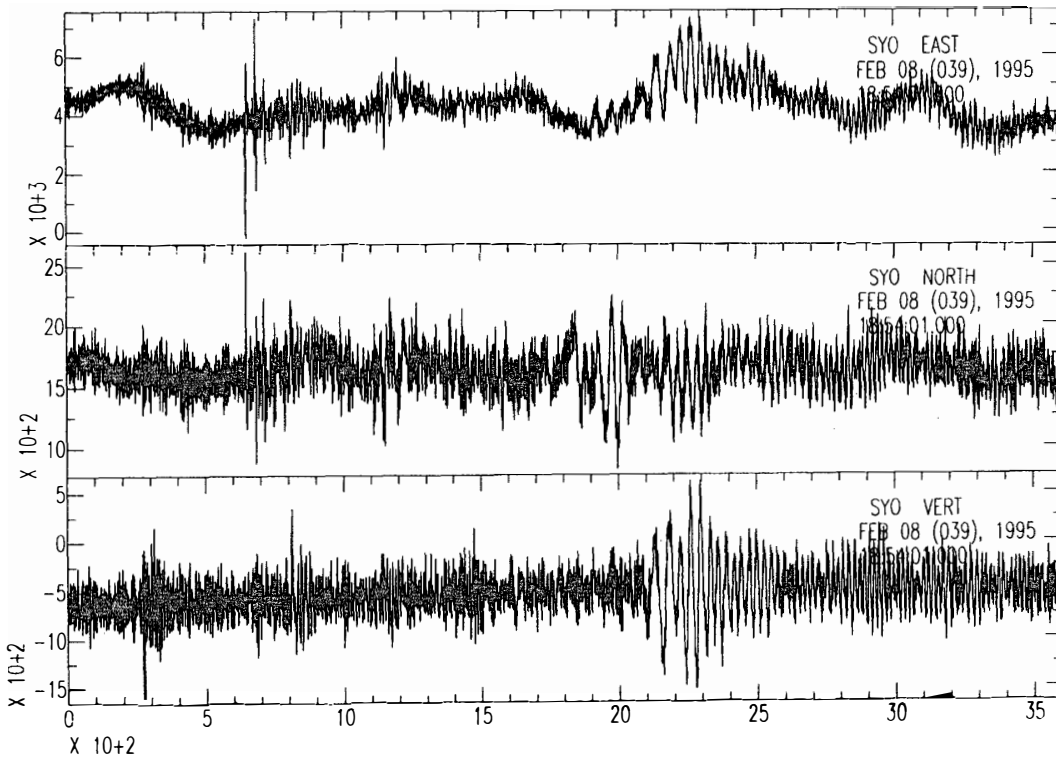
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# APPENDIX

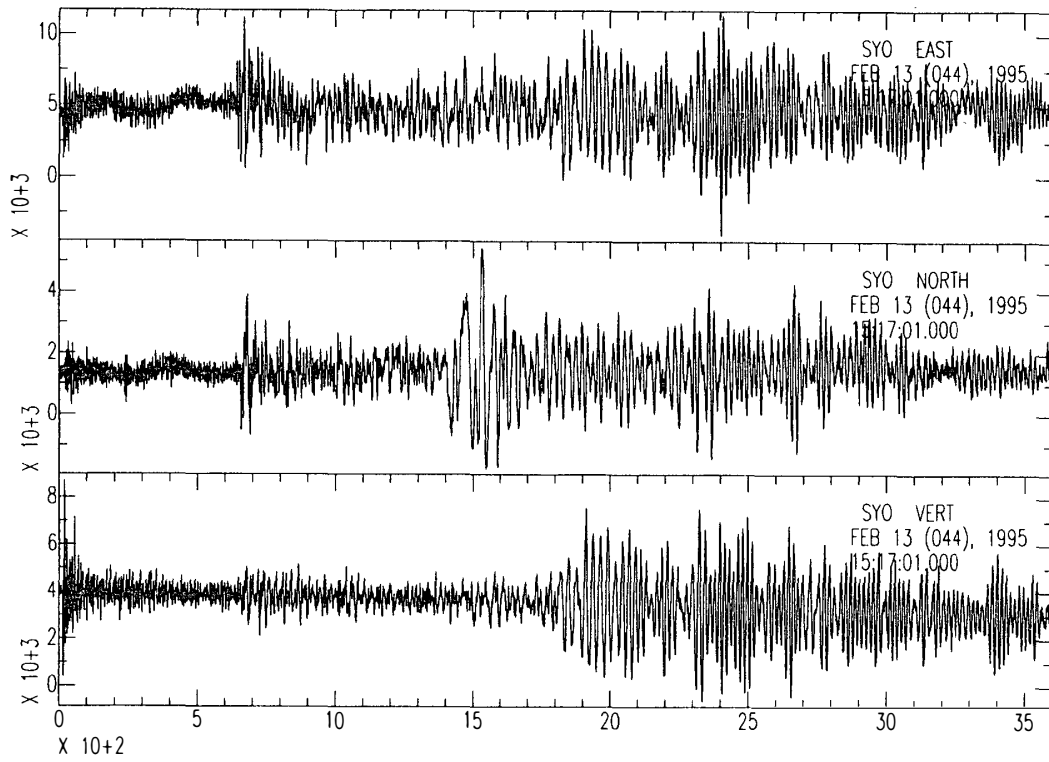
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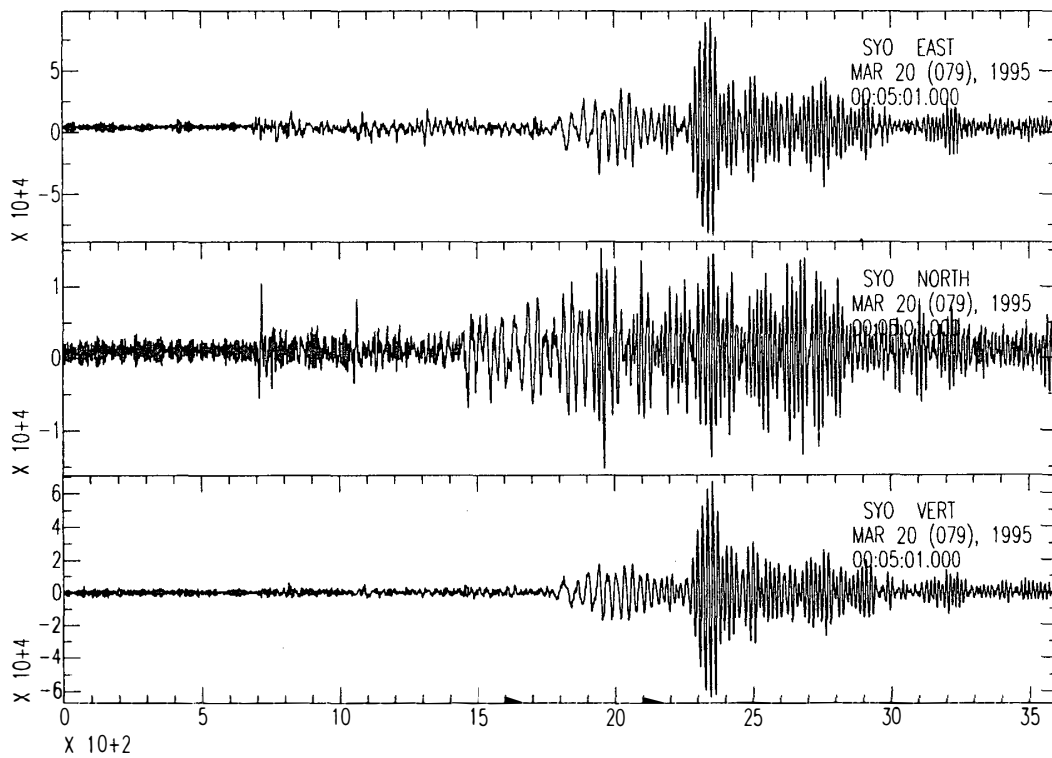
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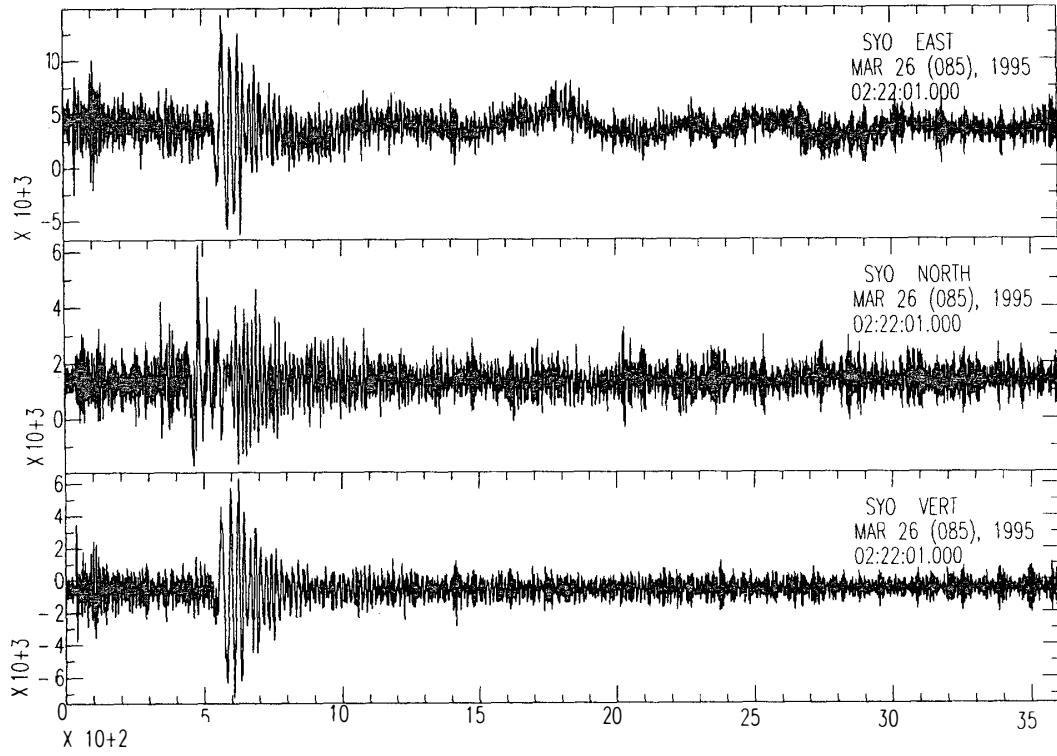
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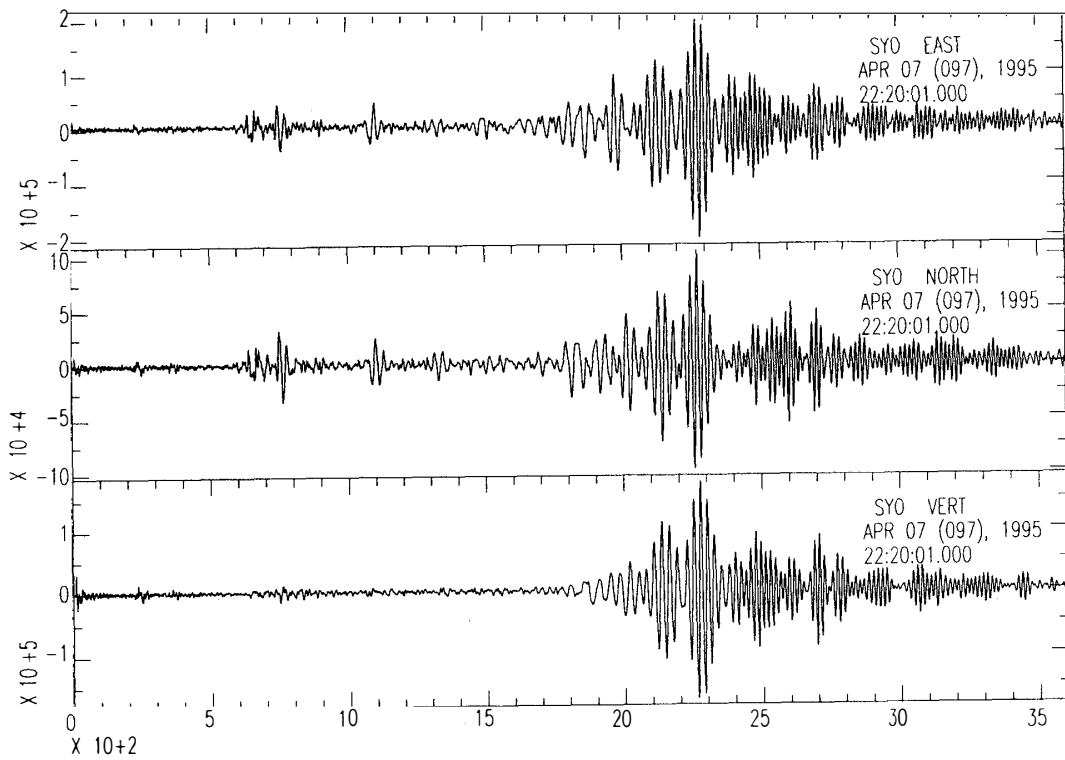
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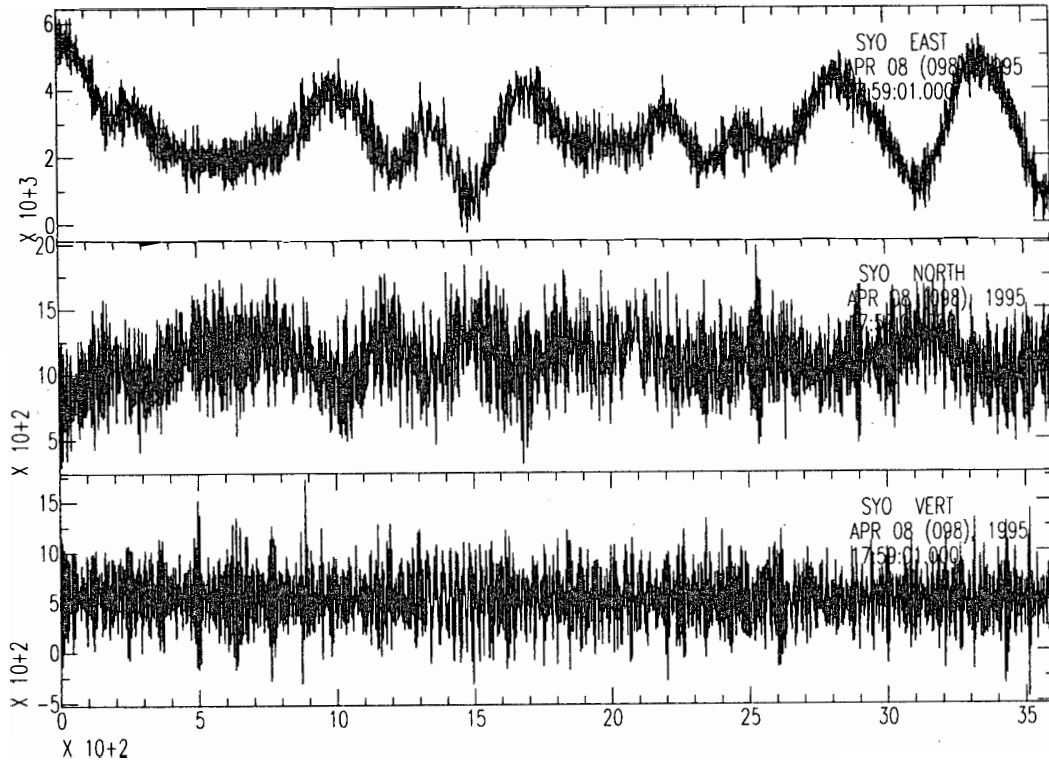
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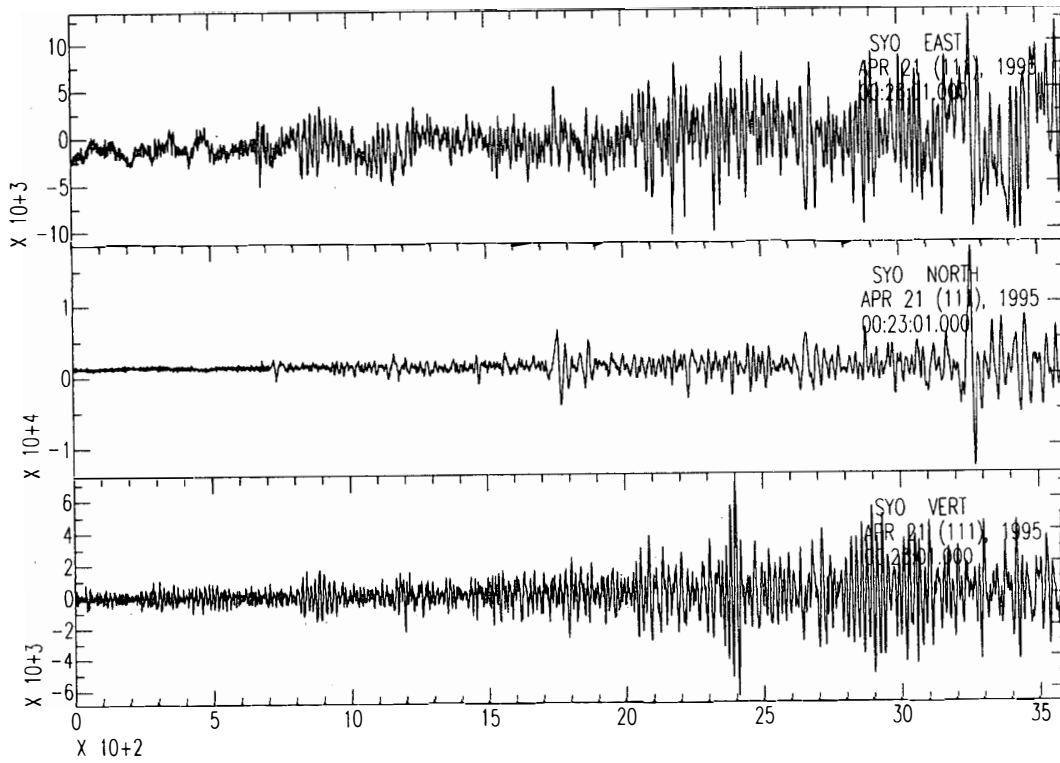
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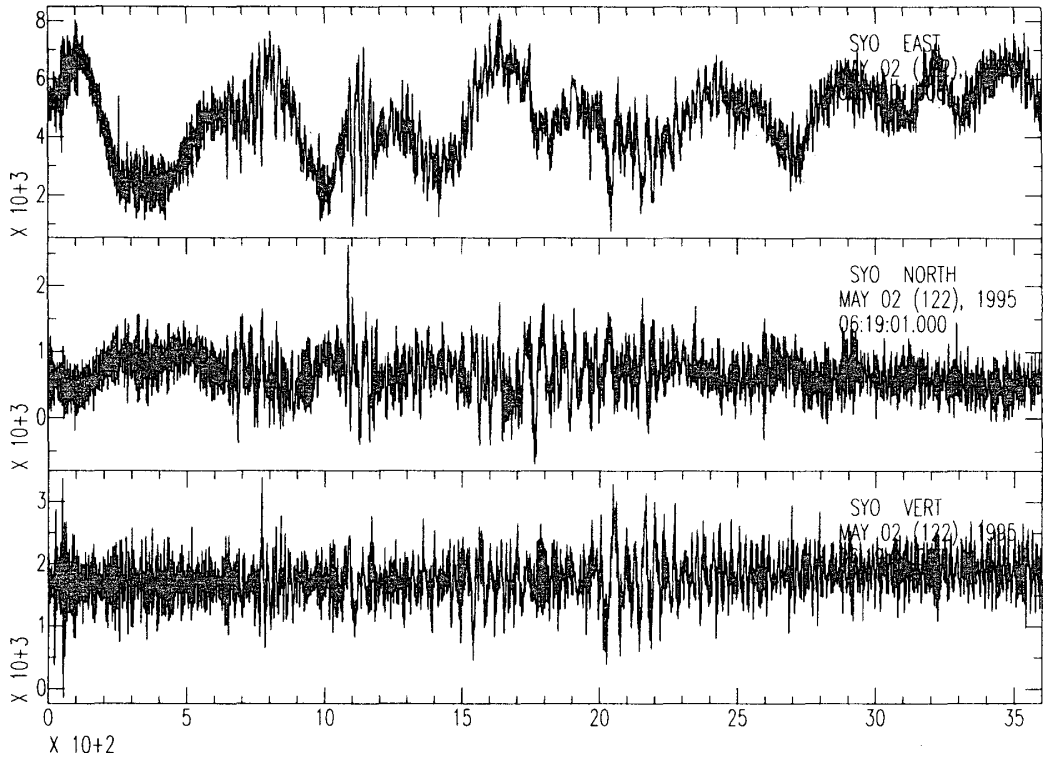
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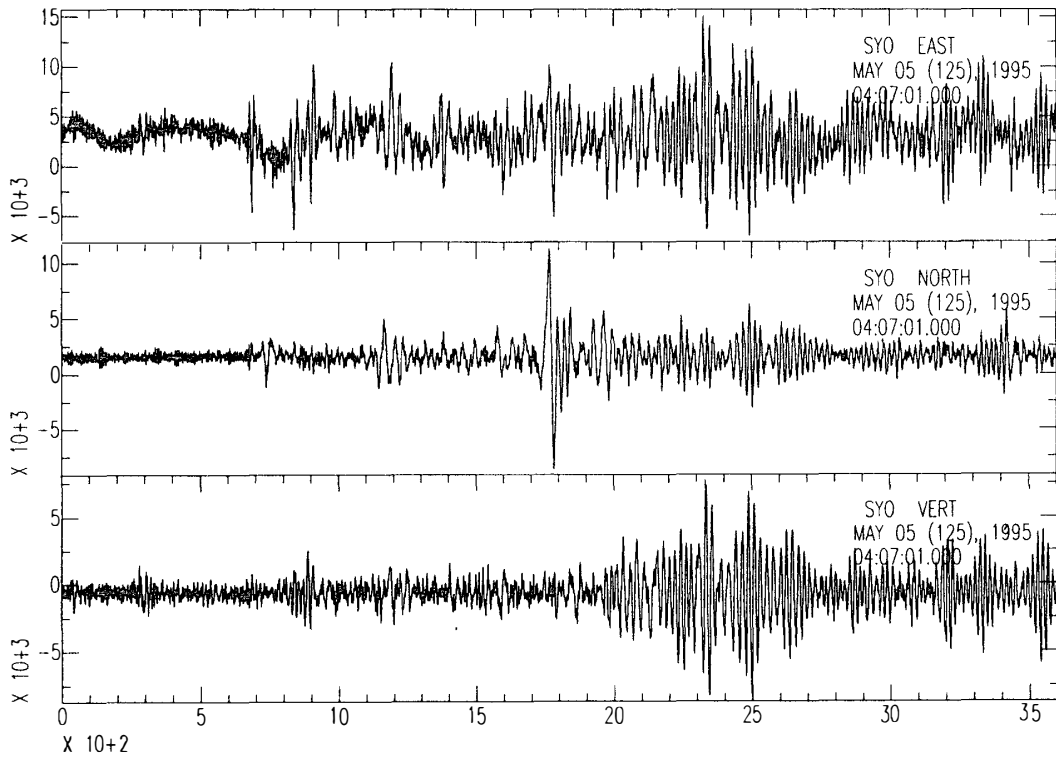
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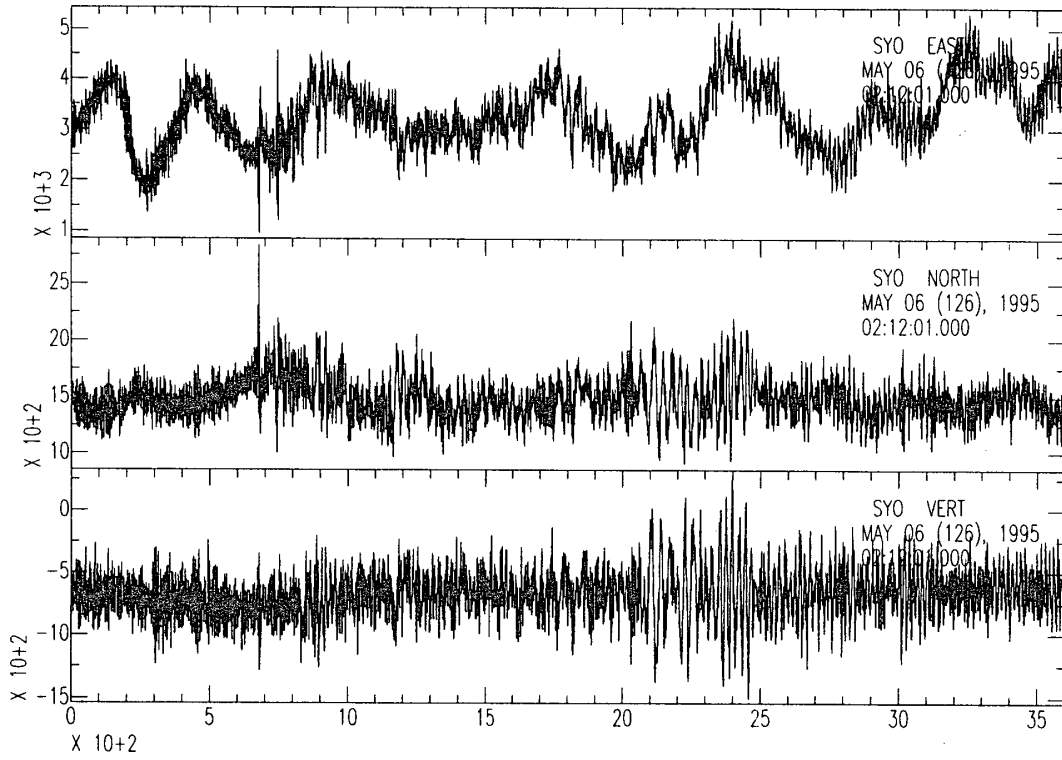


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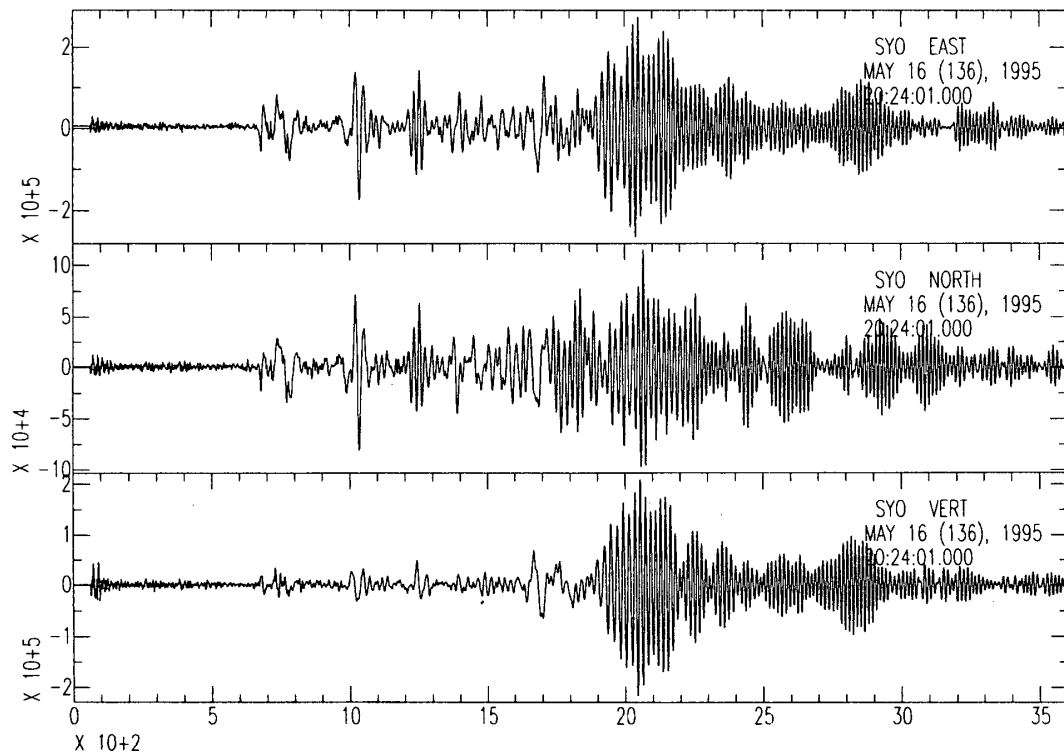




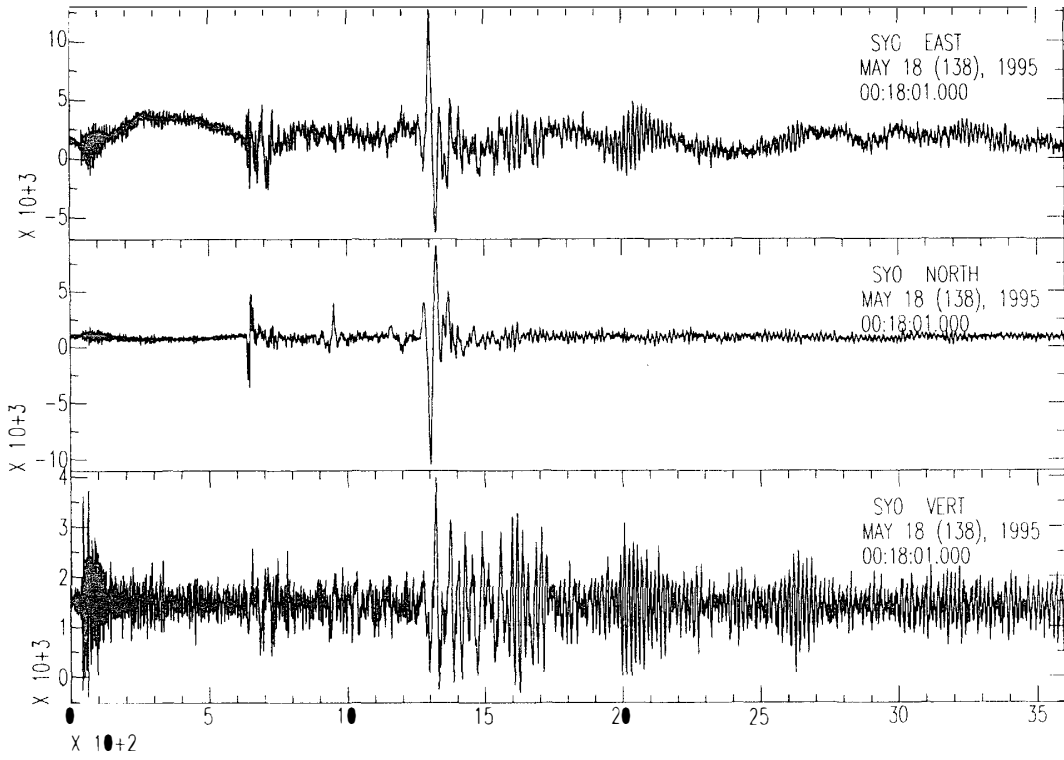
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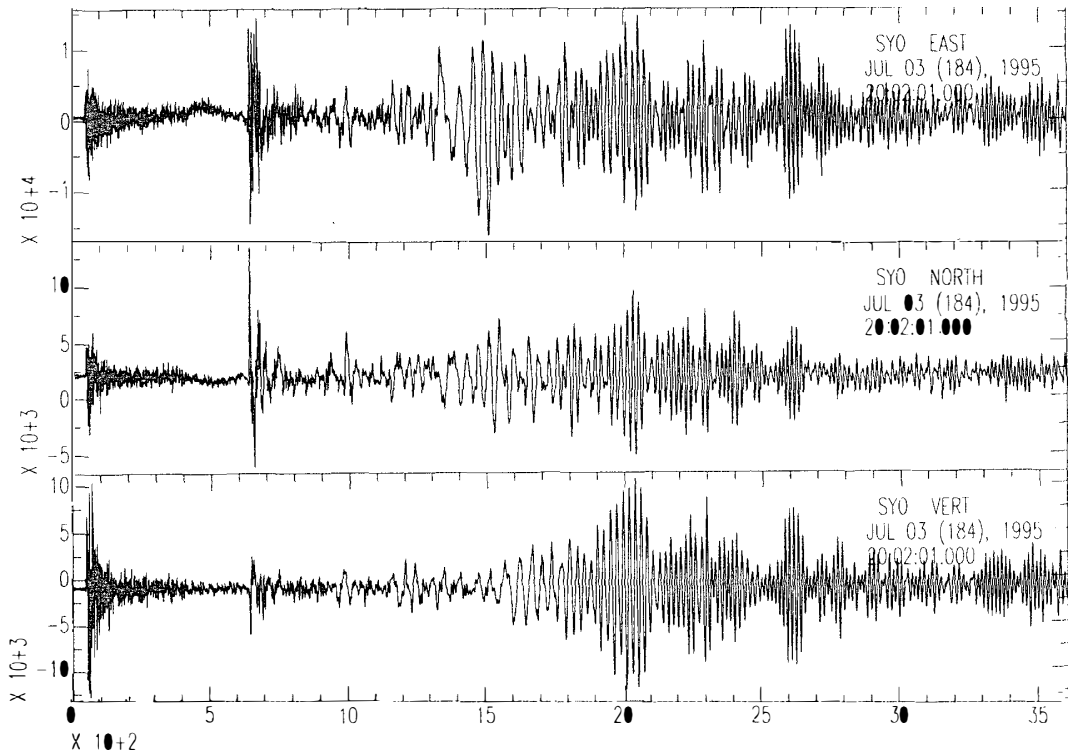
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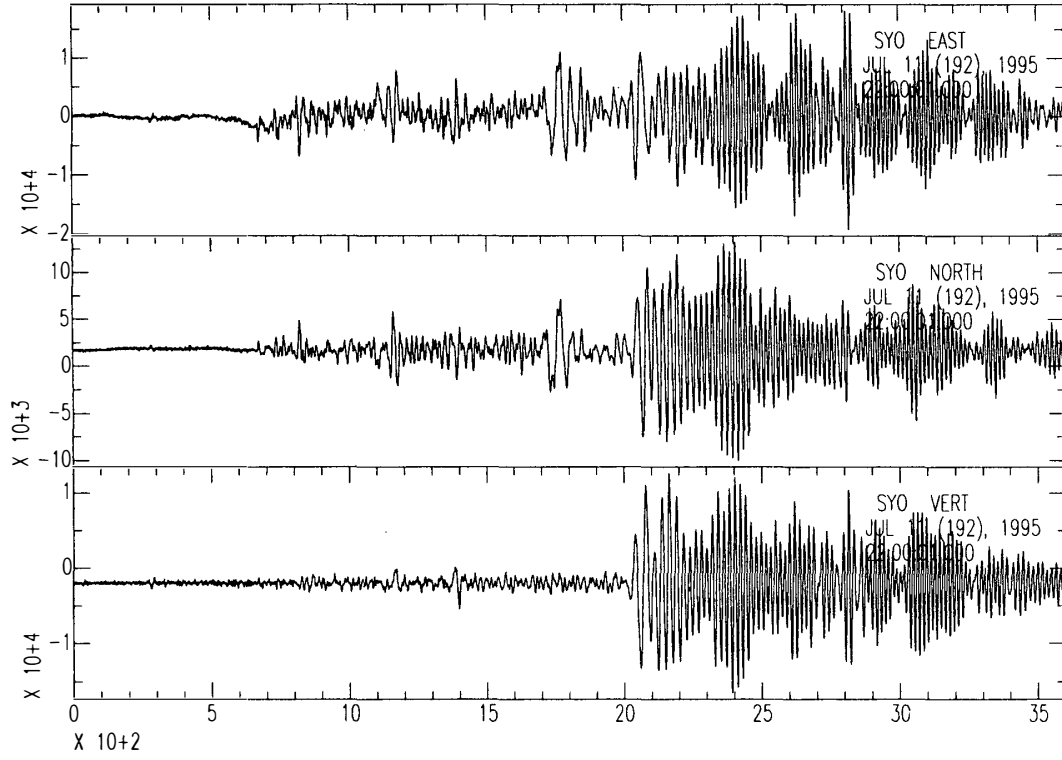
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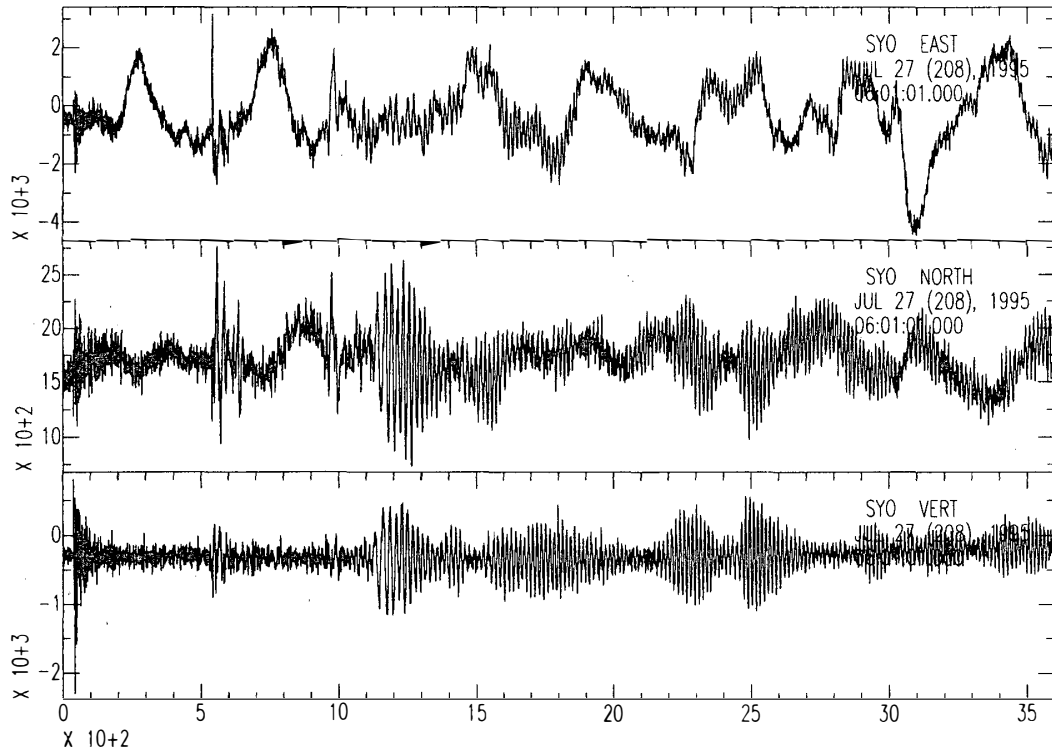
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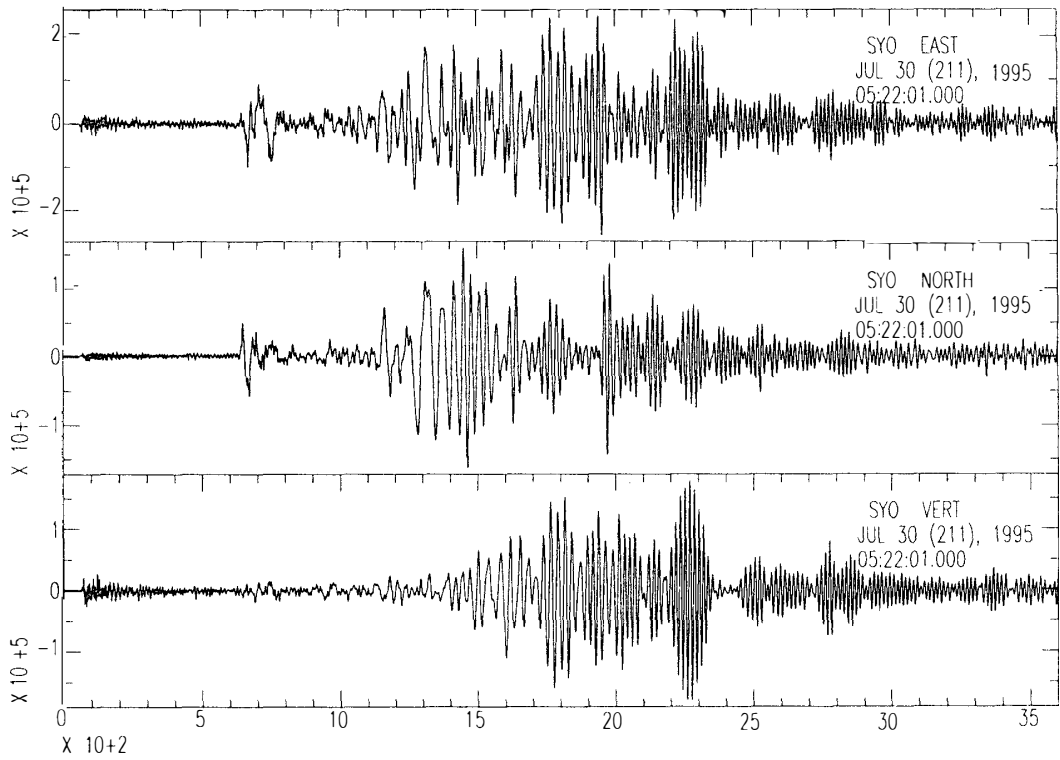
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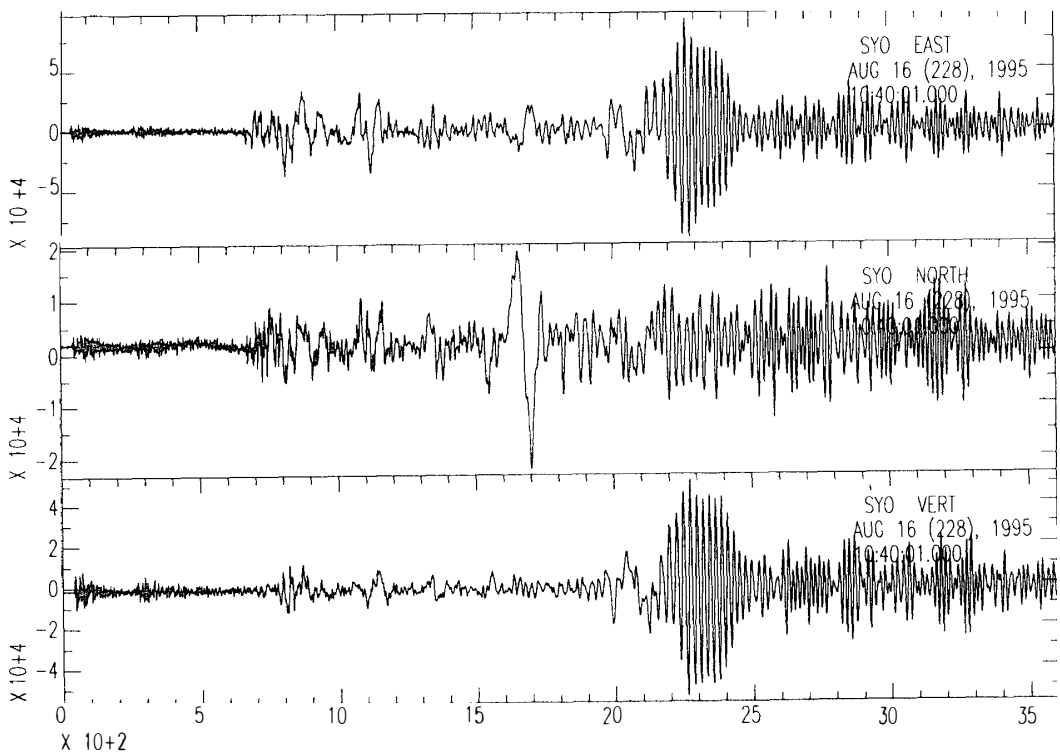
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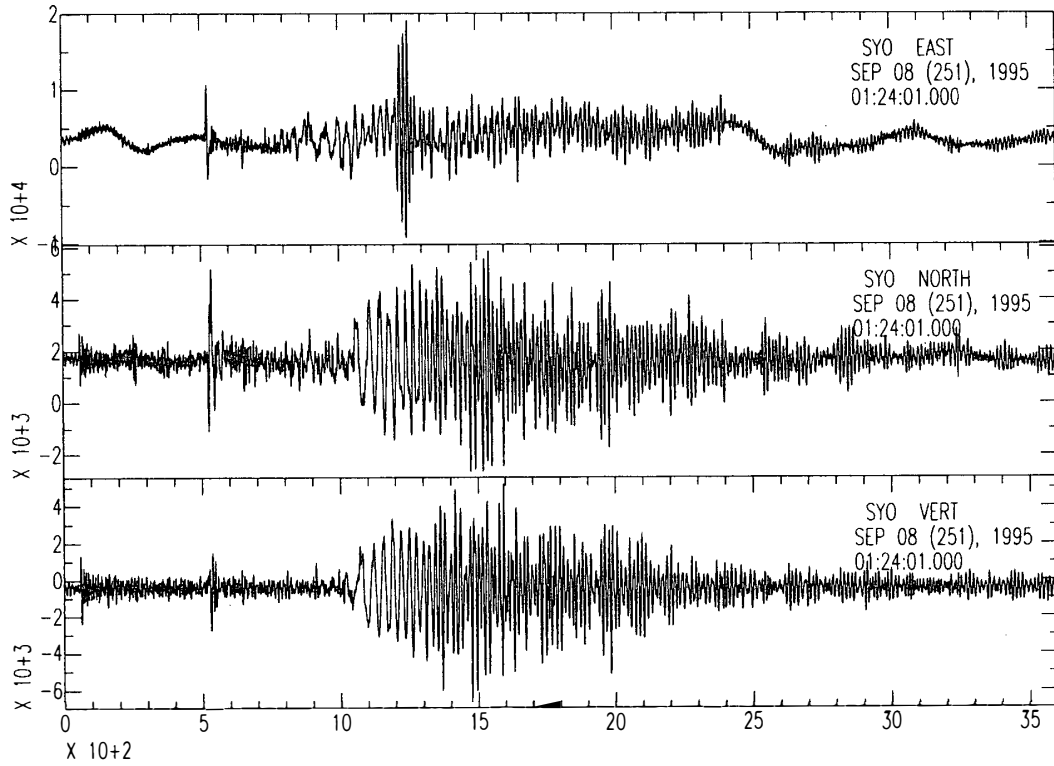
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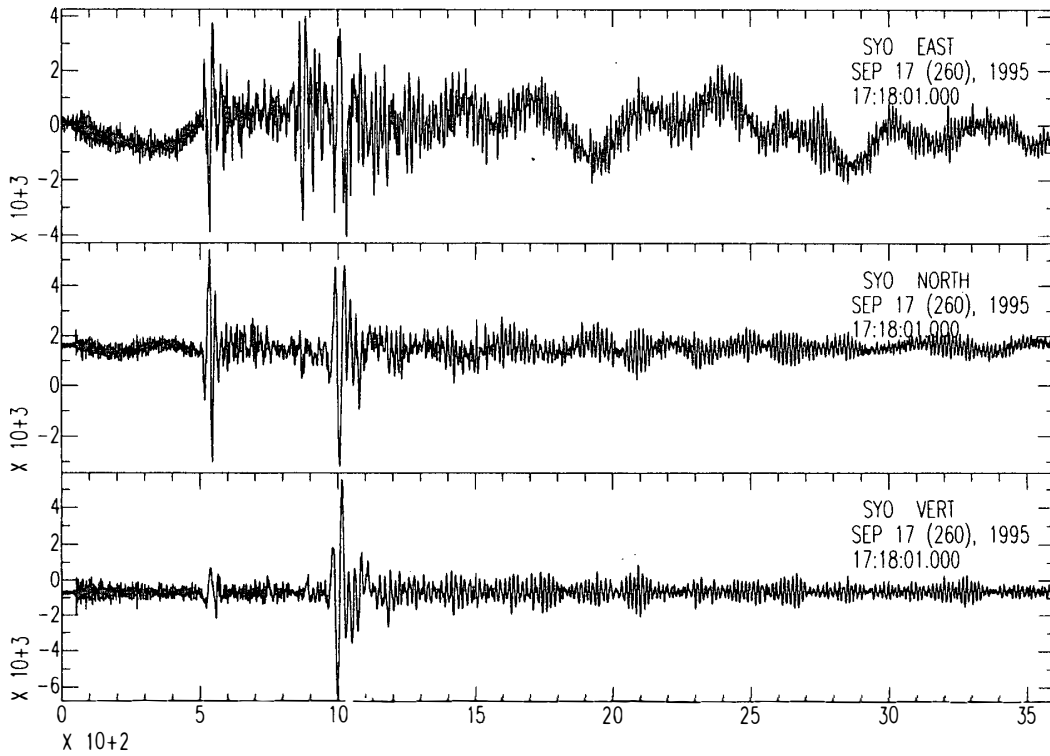
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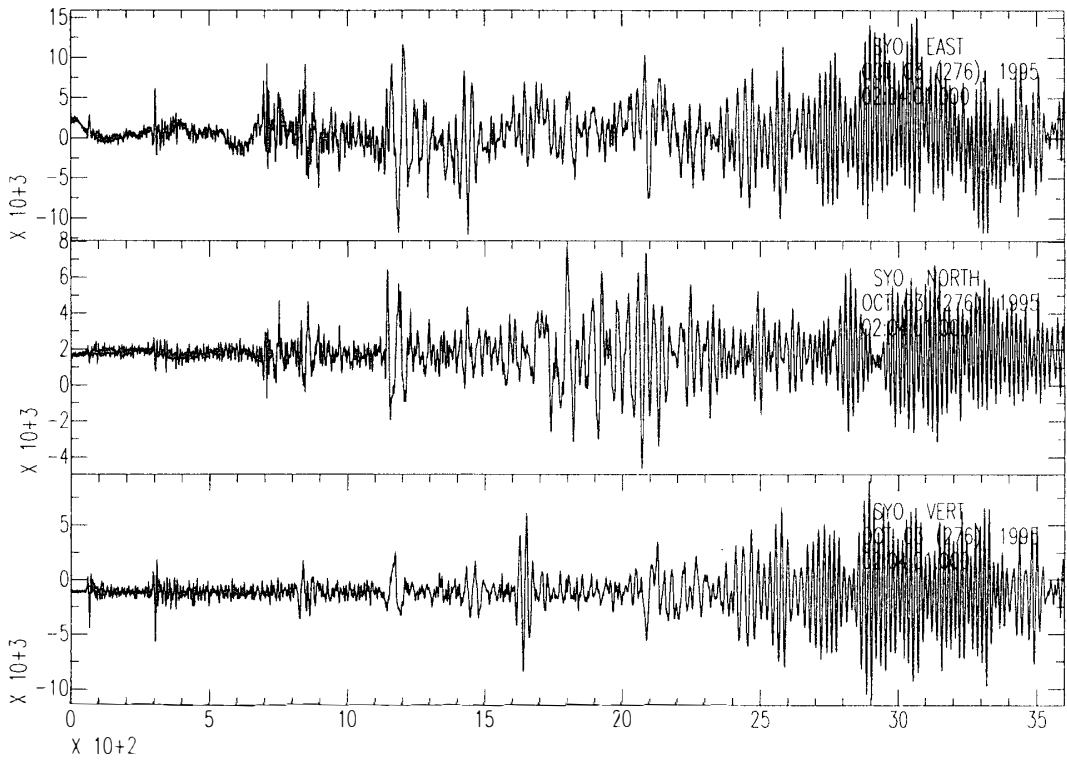
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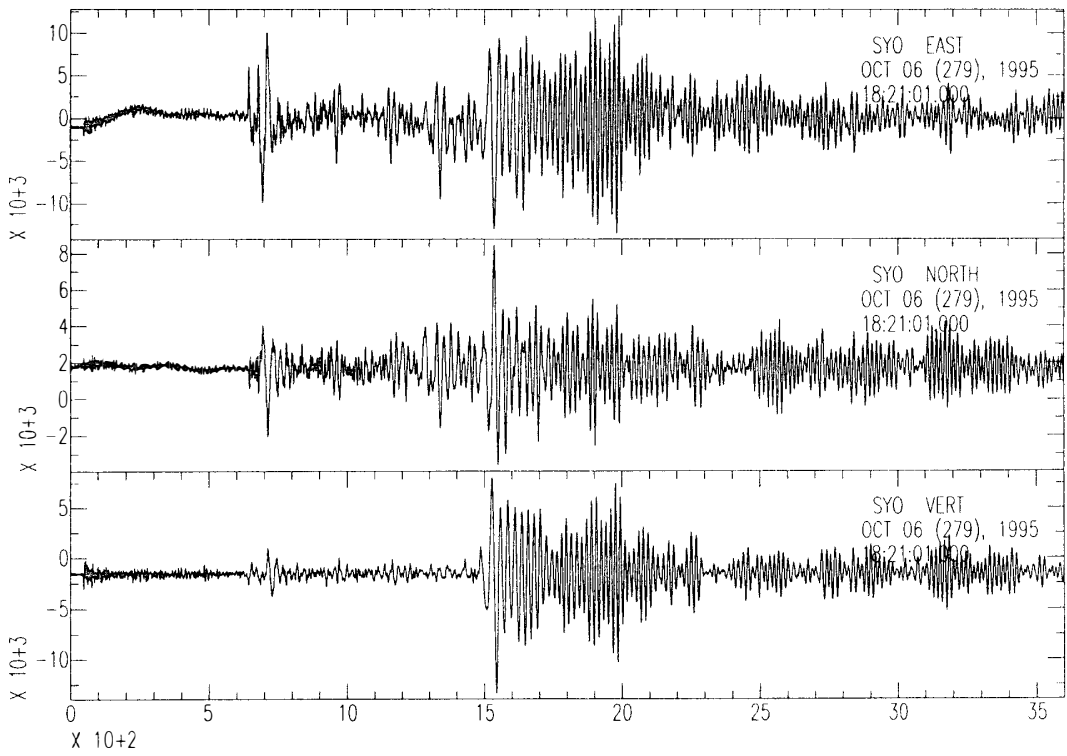
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#-714



#-729



#-754

