

# SEISMOLOGICAL BULLETIN OF SYOWA STATION, ANTARCTICA, 1993

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## 1. Introduction

The seismic observation at Syowa Station has been carried out by two types of seismometers, one called SP (short-period) or HES with 1.0 s natural period of the pendulum and the other called LP (long-period) or PELS with 12.0 s natural period. The SP and LP have been operated since 1961 and 1967, respectively (Kaminuma *et al.*, 1968). A new vault for seismometers was built in March 1970 (Kaminuma and Chiba, 1973). The old type of LP seismometer (Press-Ewing) was replaced by a PELS at Syowa Station in 1982. The overall frequency response and the magnification of the short-period and long-period seismometers (Z, N-S and E-W components) are shown in Fig. 1. The coordinates of the seismographic vault are 69°00'31.7"S, 39°35'31.6"E. The elevation is 20 m above mean sea level.

A three-component Streckeisen Seismometer (STS) was installed in April 1989 at Syowa Station for broad-band digital seismographs, based on the recommendation from the Working Group of Solid Earth Geophysics of SCAR (Scientific Committee on Antarctic Research). The STS system has two different outputs, Broad-Band (BRB) and Long-Period (LP). The digital recording system started BRB output in May 1990 (Nagasaka *et al.*, 1992), and LP output in February 1992 (Kanao and Kaminuma, 1994), respectively. The amplitude and phase responses for BRB output of the STS seismometer are shown in Fig. 2 (after Streckeisen and Messergeraete, 1987). The BRB output has a flat frequency response for velocity from 0.1 s to 20 s in the 20-s mode and from 0.1 s to 360 s in the 360-s mode, respectively. The LP output has a flat response to acceleration for periods longer than 20 s. The block diagram of the observation system is illustrated in Fig. 3.

All of these systems were maintained by the authors throughout the wintering season of JARE-33 (January 1992) and JARE-34 (February 1992 - December 1992). Observations by the STS system were mainly carried out in the 360-s mode for three components.

## 2. Data

Considering the 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 a year, the PDE (Preliminary Determination of Epicenters) reports by NEIC (National Earthquake Information Center) are referred to and only the seismograms of teleseismic events are edited. The system clock has been connected to the UTC from the NNSS (Navy Navigation Satellite System) since February 1987 (see Fig. 3). The accuracy of the read-out data can be estimated as 0.2 s.

### 2.1. Read-out data

The onsets of the teleseismic events were detected on the SP monitoring seismograms and picked out from the pen-monitor records. The arrival times of P- and S- phases are listed in Table 1. Most phases were scaled on the vertical component, and only clear phases were on the horizontal components. The phase K denotes the PKP phase and X is the clear phase but its wave type cannot be identified. Symbols E and I in the phase column denote emergent and sharp onsets, respectively. The direction of the initial ground motion is denoted by + for upward and - for downward. Arrival time is represented in UTC.

The teleseismic events reported in the PDE are identified by serial numbers (#-xxx) in the table. The serial numbers correspond to the numbers in Table 2 which list the big events detected at Syowa Station and reported in the PDE. The events without serial numbers are teleseisms whose locations have not been determined by NEIC.

### 2.2. Teleseismic events

Figure 4 shows the location of 789 teleseismic events of which initial phases were detected at Syowa Station. The list of hypocenters of the teleseisms is shown in Table 2 with the same serial numbers as given in the remarks of Table 1. The seismograms of these events are available from the authors.

The digital records of BRB outputs of STS seismographs for the large 35 events are given in the Appendix with serial numbers. The digital records of these events can be distributed upon request. The three-component seismograms are shown and the scale of amplitude in the Appendix is arbitrary. The serial number of each output is in Table 2. The starting time of each seismogram is given at the top left of each panel.

### 3. Data Processing Staff

The seismic observations at Syowa Station are organized by one of the authors, M. Kanao, K. Kaminuma, and K. Shibuya of the National Institute of Polar Research. Information on the seismic observation at Syowa Station is available from them. M. Takahashi has prepared this manuscript. The authors express their thanks for their cooperation.

### References

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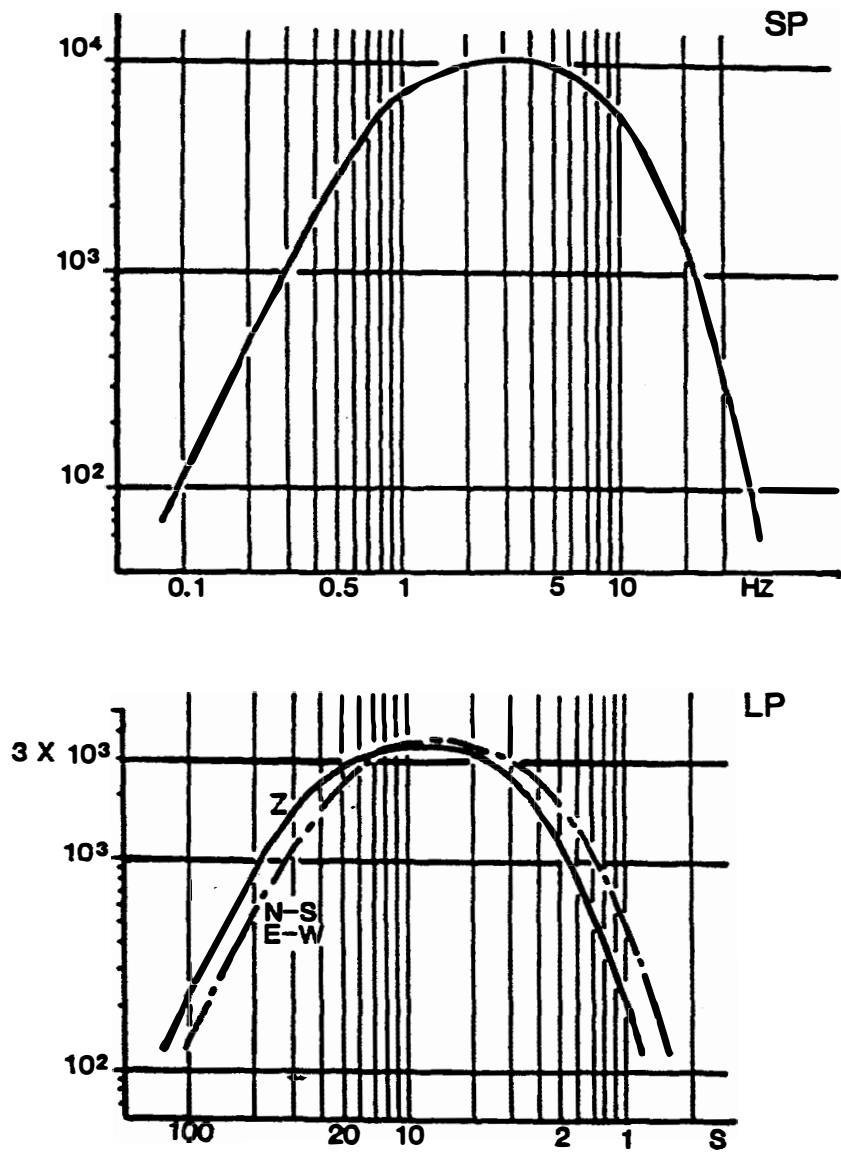


Fig. 1. Over-all frequency responses of the short-period and the long period seismographs.

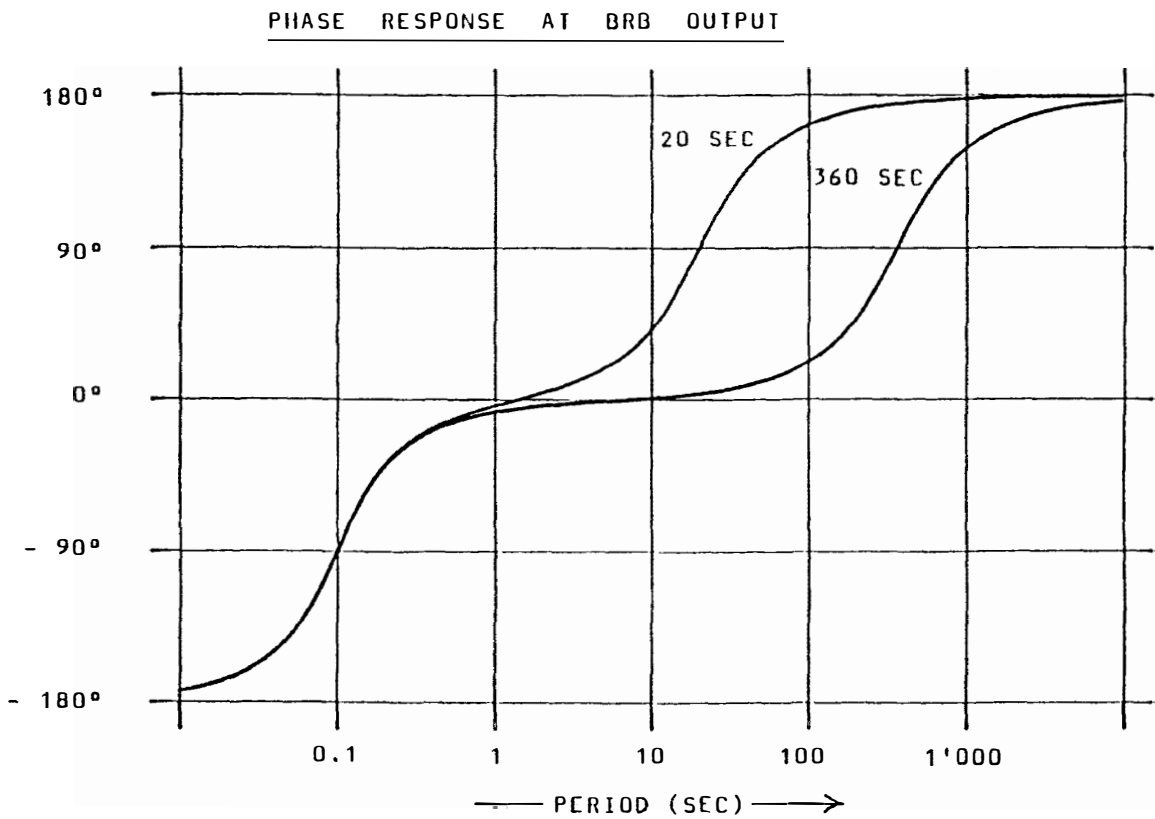
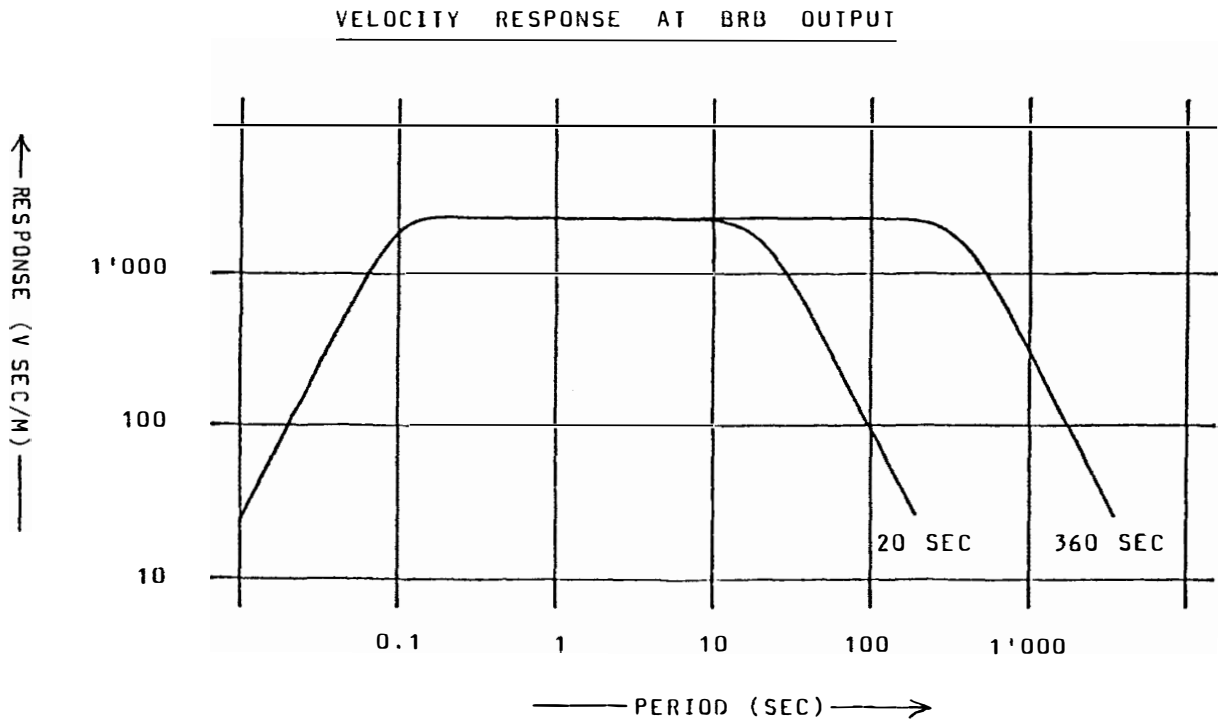


Fig. 2. Amplitude response (upper figure) and phase response (lower figure) of velocity output (BRB(Broad-Band)) of STS seismometer (after Streckeisen and Messegeraete, 1987).

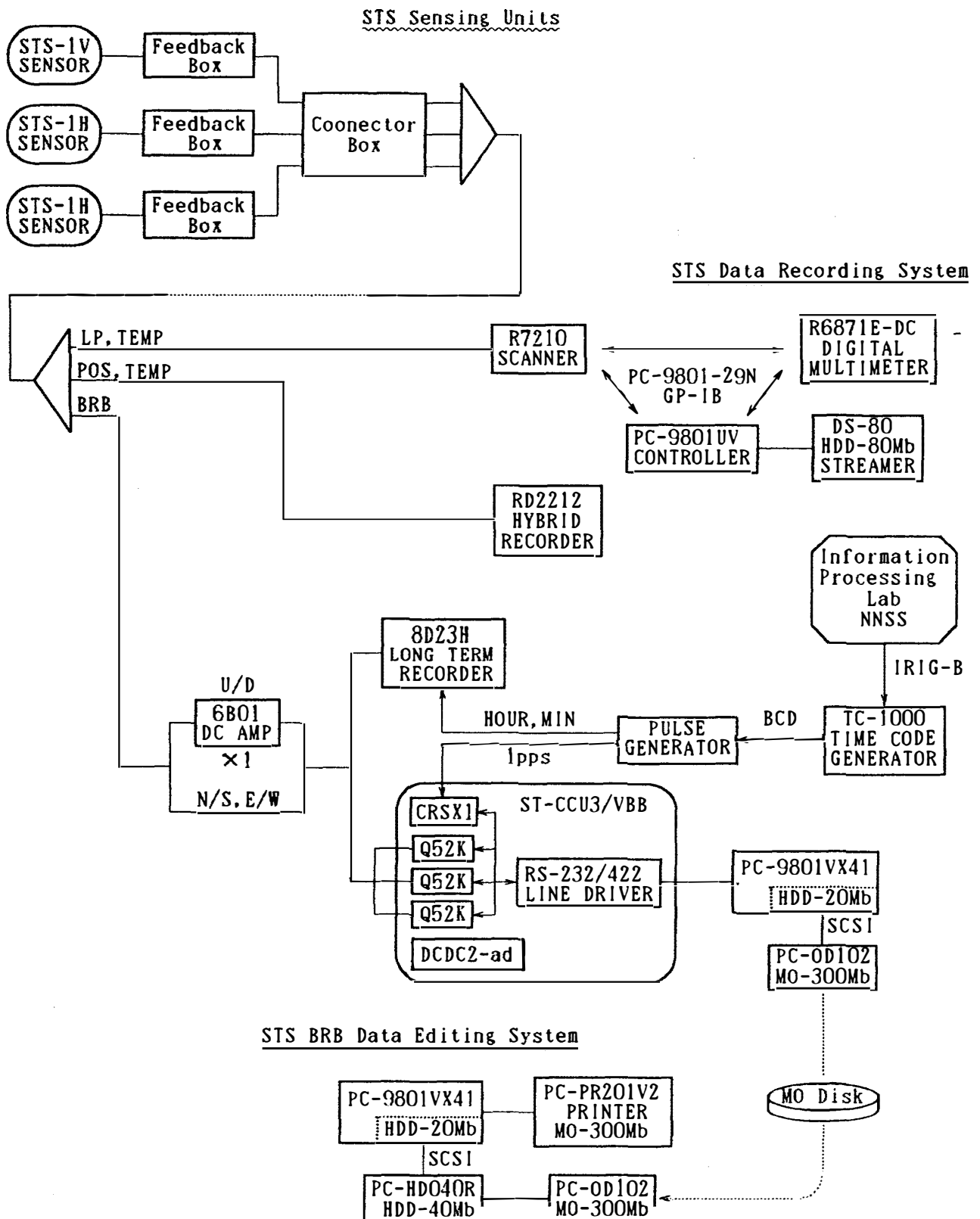


Fig. 3. Seismic observations at Syowa Station. Block diagrams of STS sensing units, data recording and editing system.

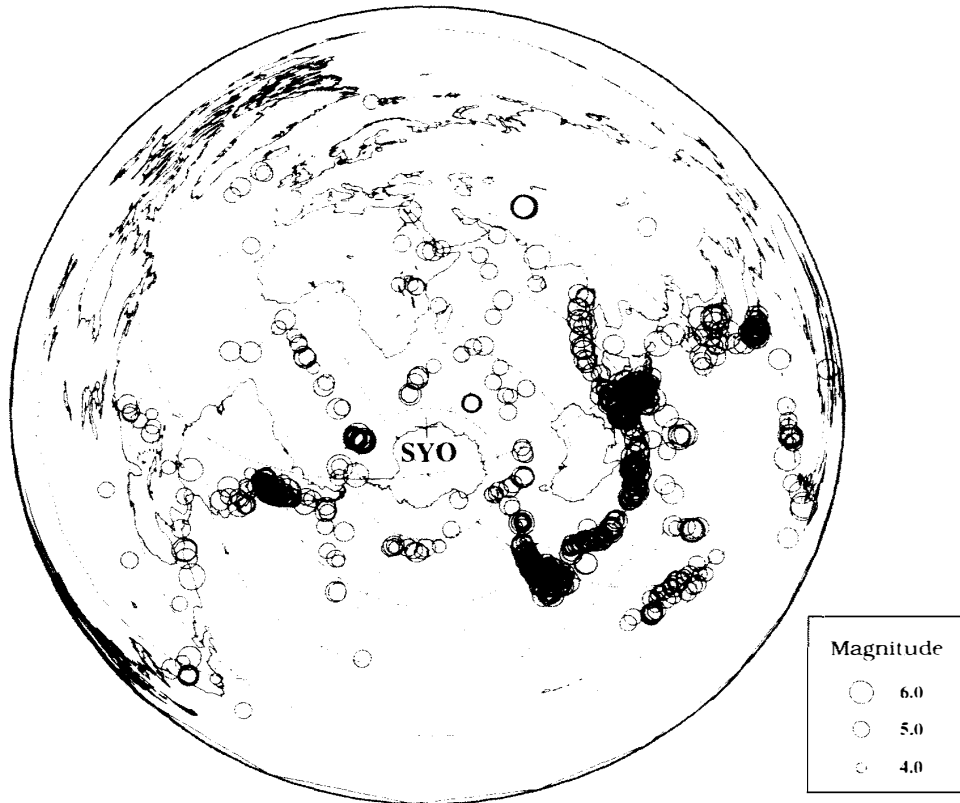
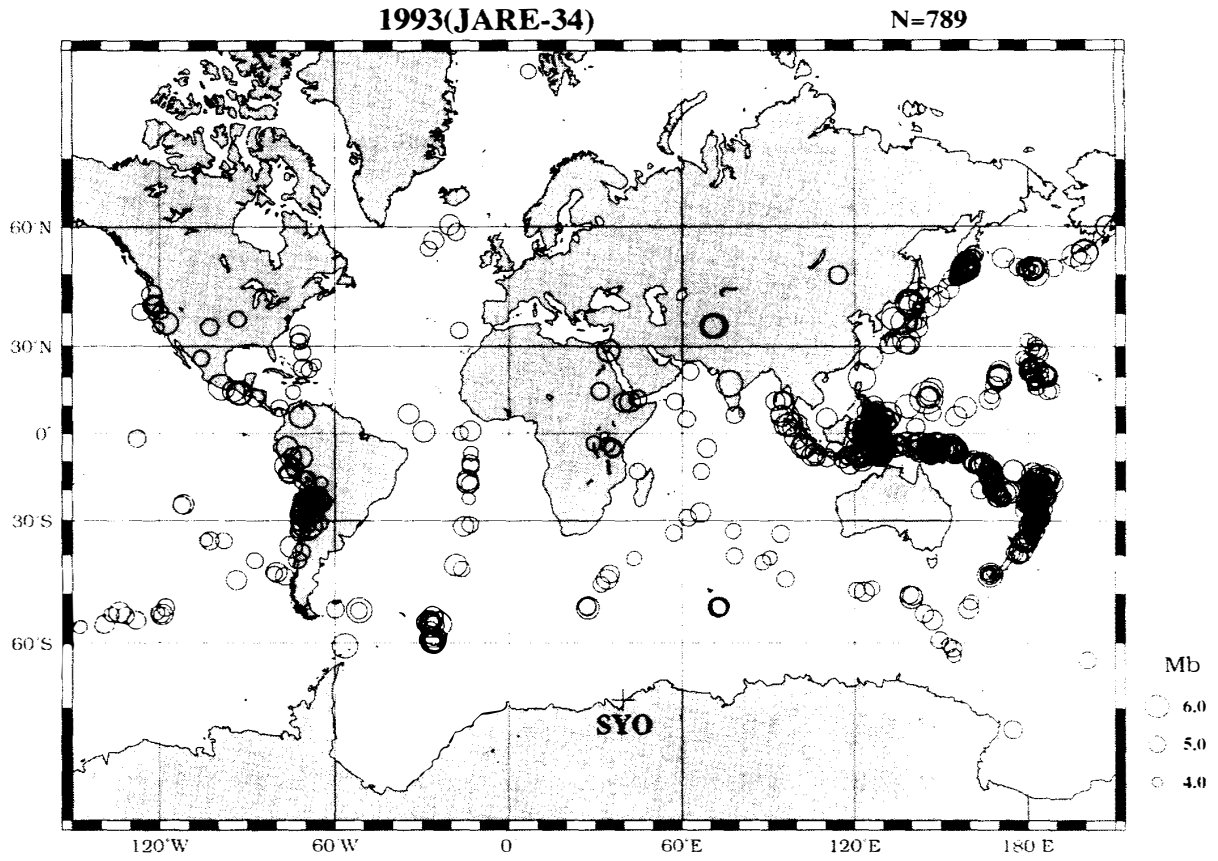


Fig. 4. Epicenters of the 789 earthquakes recorded at Syowa Station.

Table 1. Read-out data.

Date	Phase	Arrival time	Remarks	Date	Phase	Arrival time	Remarks
		h m s				h m s	
Jan. 01	+EPZ	21 44 32.3	#-1	Jan. 10	+IPZ	14 44 54.0	#-21
02	+EXZ	04 16 57.5			+EPZ	16 55 20.3	#-22
	-IXZ	12 43 08.7			+EPZ	18 15 06.9	#-23
03	-IPZ	04 36 07.7	#-2	11	+EPZ	07 16 09.4	#-24
	+EPZ	17 20 50.5	#-3	12	+EXZ	09 19 44.7	
	+EPZ	17 34 35.2	#-4		+EPZ	13 36 10.3	#-25
	+EPZ	17 46 06.5	#-5	13	+EPZ	18 59 10.4	#-26
04	+EPZ	01 39 23.0	#-6	14	+EPZ	05 38 57.3	#-27
	+EPZ	06 17 16.7	#-7		+EPZ	22 47 32.3	#-28
	+EPZ	06 59 53.8	#-8	15	+IXZ	03 39 15.4	
	+IPZ	10 40 46.8	#-9		+EXZ	05 09 00.6	
	+EPZ	11 16 12.9	#-10		PZ	11	#-29
	+IPZ	20 53 49.3	#-11	16	+EPZ	11 06 44.6	#-30
	+EXZ	23 35 19.2			+EXZ	22 51 46.3	
05	+EPZ	23 37 56.0	#-12	17	+EPZ	05 48 36.3	#-31
07	-IPZ	12 13 55.4	#-13		+EPZ	18 30 44.8	#-32
	+EPZ	12 18 29.3	#-14	19	+EPZ	08 35 35.8	#-33
	+EPZ	12 43 38.5	#-15		+EPZ	09 10 16.3	#-34
	+EXZ	15 13 44.7			+EPZ	14 57 37.3	#-35
	+EPZ	16 58 01.8	#-16		-IPZ	21 26 42.8	#-36
	+EPZ	18 46 30.9	#-17		+IPZ	23 19 08.2	#-37
	-IXZ	19 10 43.5		20	+EPZ	02 29 08.2	#-38
08	-IPZ	06 11 51.7	#-18		-IPZ	02 43 08.2	#-39
	+EPZ	17 46 08.1	#-19		+EXZ	03 15 11.8	
09	-IPZ	11 27 37.4	#-20		+IPZ	04 20 31.5	#-40



Date	Phase	Arrival time			Remarks
		h	m	s	
Jan. 20	+EPZ	04	46	58.5	#-41
	+EPZ	15	00	27.3	#-42
	+EPZ	17	43	38.5	#-43
	+EXZ	23	14	46.3	
21	+EXZ	00	30	48.5	
	+EXZ	02	36	33.5	
	+EXZ	11	03	28.4	
	+EXZ	13	17	16.8	
	+EPZ	14	35	06.7	#-44
	+EXZ	18	35	45.6	
	+EXZ	20	18	21.4	
22	+EXZ	05	32	05.4	
	+EPZ	10	16	10.7	#-45
	+EXZ	22	01	35.0	
23	+EXZ	06	02	36.5	
	+EXZ	16	06	57.6	
	+EXZ	19	05	55.7	
24	+EXZ	03	08	04.9	
	+EXZ	16	22	05.8	#-46
	-IXZ	22	14	06.8	
25	+EXZ	03	33	04.3	
	+EPZ	22	34	27.7	#-47
26	+EPZ	07	09	37.2	#-48
	+EXZ	17	05	59.2	
28	+IPZ	01	58	40.0	#-49

Date	Phase	Arrival time			Remarks	
		h	m	s		
Jan. 28	+EPZ	05	10	42.9	#-50	
	+EPZ	18	37	30.7	#-51	
Feb. 01	+IPZ	08	57	57.9	#-52	
	02	+EPZ	17	26	33.9	#-53
		+EPZ	18	29	46.5	#-54
	03	-EPZ	04	43	16.1	#-55
	06	+EPZ	12	49	4.5	#-56
	07	+EPZ	05	14	47.8	#-57
		+EPZ	13	46	46.6	#-58
		-EPZ	18	34	6.3	#-59
	08	-EPZ	04	36	30.8	#-60
	09	-EPZ	00	27	21.8	#-61
		-EXZ	03	50	42.7	
		-EPZ	07	21	51.5	#-62
		-EPZ	12	57	52.4	#-63
		+EPZ	14	47	26.2	#-64
10	-EPZ	11	04	40.5	#-65	
	+EPZ	12	34	39.6	#-66	
	-EPZ	22	08	24.2	#-67	
13	+EPZ	00	56	30.9	#-68	
	+EPZ	11	09	5.4	#-69	
	+EPZ	21	39	29.3	#-70	
14	+EPZ	03	47	7.8	#-71	
	+EXZ	14	07	37.3		
	-EXZ	16	53	15.3		

Date	Phase	Arrival time			Remarks
		h	m	s	
Feb. 15	-EPZ	04	43	30.3	#-72
	+EPZ	09	08	14.5	#-73
	+EPZ	12	14	38.5	#-74
	+EPZ	13	44	10.4	#-75
16	-IPZ	05	36	54.8	#-76
	-EPZ	21	50	35.7	#-77
17	-IPZ	06	11	20.7	#-78
18	+EPZ	19	40	31.5	#-79
19	+EPZ	04	05	58.4	#-80
20	-EPZ	02	02	4.6	#-81
	-EPZ	07	24	26.0	#-82
	-EPZ	15	37	31.2	#-83
	-EPZ	20	37	14.2	#-84
21	-EPZ	07	25	6.3	#-85
	+IPZ	19	11	8.9	#-86
	+EPZ	23	44	19.7	#-87
23	-EXZ	05	29	35.0	
	+EPZ	05	46	10.1	#-88
	-EPZ	13	43	28.6	#-89
24	+IPZ	19	42	16.0	#-90
	-IPZ	22	32	55.8	#-91
25	-IPZ	07	47	9.2	#-92
27	-EPZ	00	39	3.8	#-93
	+EPZ	18	57	40.9	#-94
Mar. 01	-EPZ	01	52	16.8	#-95

Date	Phase	Arrival time			Remarks
		h	m	s	
Mar. 01	+EPZ	09	45	23.6	#-96
02	+IPZ	00	36	8.7	#-97
	-IPZ	21	54	29.8	#-98
03	+EPZ	23	27	36.3	#-99
04	-EPZ	14	49	6.4	#-100
06	+IPZ	03	18	58.7	#-101
	-EPZ	06	03	10.2	#-102
	-EPZ	08	49	15.0	#-103
	+EPZ	10	14	19.7	#-104
	+EPZ	16	40	1.4	#-105
	+EPZ	20	01	45.1	#-106
07	-IPZ	20	38	1.9	#-107
09	+EPZ	01	37	27.4	#-108
	+EPZ	07	51	32.6	#-109
10	-EPZ	12	45	11.7	#-110
	+EPZ	21	29	0.5	#-111
12	+EPZ	12	14	10.4	#-112
	-EPZ	14	14	46.4	#-113
	-EPZ	23	58	30.5	#-114
13	+EPZ	03	14	54.9	#-115
15	-EXZ	06	36	54.4	
	+EPZ	16	20	20.3	#-116
	+EPZ	18	35	35.3	#-117
16	-EPZ	13	15	58.0	#-118
	-EPZ	23	00	46.7	#-119

Date	Phase	Arrival time			Remarks
		h	m	s	
Mar. 16	+EPZ	23	11	59.4	#-120
17	-EPZ	04	46	28.4	#-121
19	-EPZ	01	50	33.6	#-122
	+EPZ	01	59	28.4	#-123
	-EPZ	16	06	51.4	#-124
	+IPZ	16	12	35.0	#-125
20	-EPZ	09	26	47.4	#-126
	+EPZ	19	21	24.2	#-127
21	-EPZ	05	16	52.4	#-128
	+EPZ	18	35	28.8	#-129
22	-EPZ	18	47	54.5	#-130
23	+IPZ	03	41	7.9	#-131
24	-EPZ	19	56	7.0	#-132
25	+EPZ	13	54	25.5	#-133
	-EPZ	22	46	47.5	#-134
	+IPZ	23	24	39.0	#-135
26	-EPZ	09	39	4.0	#-136
29	+EPZ	07	01	17.9	#-137
30	-IPZ	05	35	22.2	#-138

Date	Phase	Arrival time			Remarks
		h	m	s	
Apr. 02	+IPZ	02	08	49.5	#-139
	-IPZ	08	17	16.7	#-140
03	+EPZ	04	13	42.2	#-141
04	-EPZ	20	06	7.1	#-142
05	+EPZ	04	05	57.2	#-143
	+EPZ	16	57	31.3	#-144
06	+EPZ	22	57	22.5	#-145
08	-EPZ	00	32	22.1	#-146
10	-EPZ	21	13	0.2	#-147
	-EPZ	21	59	25.4	#-148
11	-EPZ	06	21	8.0	#-149
	-EPZ	07	10	39.0	#-150
	-EPZ	11	30	53.3	#-151
13	-EPZ	20	20	12.9	#-152
15	-EPZ	10	42	53.2	#-153
16	+EPZ	14	20	20.3	#-154
17	+EPZ	14	51	31.7	#-155
18	-EPZ	05	08	39.1	#-156
	+EPZ	09	29	2.0	#-157
	+EPZ	14	20	26.2	#-158
	-EPZ	17	15	56.7	#-159
19	-EPZ	21	14	59.7	#-160
20	+EPZ	08	19	37.6	#-161
	+EPZ	16	38	0.1	#-162
21	-EPZ	13	11	5.5	#-163

Date	Phase	Arrival time			Remarks
		h	m	s	
Apr. 22	+EPZ	22	24	15.1	#-164
23	+IXZ	16	19	16.5	
	-EPZ	16	45	19.5	#-165
24	-EPZ	10	06	13.0	#-166
27	+EPZ	06	21	56.3	#-167
	+EPZ	13	10	27.7	#-168
	-EPZ	17	47	12.3	#-169
28	-EPZ	02	52	3.6	#-170
	-EPZ	20	42	9.3	#-171
29	-EPZ	02	54	14.1	#-172
	+EPZ	03	12	13.0	#-173
30	-EPZ	07	23	29.2	#-174
	+EPZ	10	25	10.9	#-175
	+EPZ	11	38	42.0	#-176
May 01	-EPZ	01	55	20.3	#-177
	+EPZ	09	05	41.1	#-178
02	-EPZ	02	19	44.2	#-179
	-EPZ	11	33	6.5	#-180
	-EPZ	15	38	33.1	#-181
	-EPZ	21	21	15.5	#-182
04	+EPZ	00	21	35.0	#-183
05	-EPZ	02	04	14.4	#-184
	-EPZ	11	50	14.8	#-185
06	+IPZ	05	54	52.9	#-186
	-IPZ	13	15	14.9	#-187

Date	Phase	Arrival time			Remarks
		h	m	s	
May 07	-EPZ	01	15	14.1	#-188
10	+EPZ	04	13	28.5	#-189
11	+IPZ	16	36	30.0	#-190
	+EPZ	18	40	11.3	#-191
12	-IPZ	12	11	2.8	#-192
13	+EPZ	12	19	43.3	#-193
14	-EPZ	00	08	52.9	#-194
	-EPZ	12	34	38.2	#-195
	-EPZ	18	38	32.0	#-196
	+EPZ	21	42	46.0	#-197
15	-EPZ	01	53	28.7	#-198
	+EPZ	02	09	2.1	#-199
	+EPZ	05	35	44.2	#-200
	+EPZ	06	00	28.4	#-201
	+EPZ	15	46	28.8	#-202
	+EPZ	20	48	59.7	#-203
	+EPZ	22	12	13.7	#-204
16	+EPZ	00	36	45.8	#-205
	+EPZ	03	39	22.6	#-206
	+EPZ	21	57	59.5	#-207
17	-EPZ	16	16	4.9	#-208
	-EPZ	23	40	27.4	#-209
18	-EPZ	01	22	44.5	#-210
	-EXZ	01	54	1.6	
	-EPZ	10	33	30.5	#-211

Date	Phase	Arrival time			Remarks
		h	m	s	
May 19	-EPZ	12	07	39.7	#-212
	+IPZ	12	15	33.1	#-213
	-EPZ	14	33	3.2	#-214
20	+EPZ	11	21	1.3	#-215
	-EXZ	20	44	41.2	
21	-EPZ	06	32	12.3	#-216
22	-EPZ	09	59	33.6	#-217
	+IPZ	13	59	14.7	#-218
23	-EPZ	07	12	22.1	#-219
	+EXZ	17	06	54.2	
24	+EPZ	12	08	28.8	#-220
25	-IPZ	00	02	32.5	#-221
	+EPZ	02	26	23.3	#-222
	+EPZ	23	36	40.3	#-223
26	+EPZ	00	38	6.9	#-224
27	-IPZ	04	59	17.5	#-225
	-IPZ	09	03	47.2	#-226
28	+EPZ	11	14	28.0	#-227
29	-EPZ	00	31	10.4	#-228
30	+EPZ	04	59	0.3	#-229
	-EPZ	05	45	36.4	#-230
	+EPZ	06	19	27.9	#-231
	+EPZ	14	25	28.0	#-232
	-EPZ	16	45	27.5	#-233
	+EPZ	17	21	48.8	#-234

Date	Phase	Arrival time			Remarks
		h	m	s	
May 30	+EXZ	22	46	46.5	
31	-EPZ	08	41	23.3	#-235
	-EPZ	21	26	57.0	#-236
June 01	+EPZ	16	03	27.1	#-237
02	+IPZ	03	05	23.1	#-238
	-EPZ	08	47	7.3	#-239
	+IPZ	20	54	6.6	#-240
03	-EPZ	09	51	2.2	#-241
04	+IPZ	11	02	48.0	#-242
	+EPZ	11	37	48.0	#-243
	-EPZ	13	48	4.8	#-244
	-EPZ	15	41	28.6	#-245
	+EXZ	20	38	17.3	
05	-EPZ	22	24	16.1	#-246
06	+EPZ	06	31	7.0	#-247
	+EPZ	09	30	53.8	#-248
	-EPZ	13	42	1.0	#-249
07	-EPZ	00	20	19.7	#-250
	-EPZ	08	08	36.8	#-251
08	-EXZ	00	35	29.5	#-252
	+EPZ	12	26	45.5	#-253
	-EPZ	13	23	8.2	#-254
	+EPZ	20	57	20.4	#-255
	-EPZ	23	28	23.9	#-256
09	-EPZ	07	58	19.7	#-257

Date	Phase	Arrival time			Remarks
		h	m	s	
June 09	+EPZ	16	09	6.2	#-258
10	+EPZ	13	05	38.7	#-259
	-EPZ	13	18	38.6	#-260
	+EPZ	18	01	2.7	#-261
12	-EPZ	05	58	25.6	#-262
	+EPZ	06	05	40.7	#-263
	-EPZ	07	14	48.2	#-264
	-EPZ	11	33	22.2	#-265
	-EPZ	18	39	33.1	#-266
	+EPZ	20	52	59.6	#-267
13	-EPZ	00	52	2.3	#-268
14	+EPZ	07	38	39.2	#-269
15	+EPZ	04	21	47.0	#-270
	+EPZ	13	19	13.4	#-271
16	+EPZ	07	11	59.9	#-272
18	-EPZ	08	57	21.6	#-273
	+EPZ	12	04	39.6	#-274
	+EPZ	17	49	56.4	#-275
	-EPZ	18	09	52.2	#-276
	-EPZ	19	46	38.1	#-277
	-EPZ	21	07	4.7	#-278
19	-EPZ	15	45	4.3	#-279
20	+EPZ	02	21	41.2	#-280
	+EPZ	02	34	53.9	#-281
	-EPZ	05	25	47.4	#-282

Date	Phase	Arrival time			Remarks
		h	m	s	
June 20	-EPZ	12	17	27.4	#-283
	+IPZ	17	39	39.0	#-284
	+IPZ	19	04	20.5	#-285
	+EPZ	22	29	4.4	#-286
	-EPZ	23	04	5.5	#-287
22	+IPZ	15	13	59.6	#-288
23	-EPZ	11	36	34.5	#-289
25	-EPZ	07	35	14.2	#-290
	-EPZ	07	56	9.6	#-291
	-EPZ	21	43	31.5	#-292
26	+EPZ	20	54	20.1	#-293
	-EPZ	22	19	31.7	#-294
27	+EPZ	12	15	48.5	#-295
	+EPZ	15	44	40.4	#-296
28	+EPZ	07	51	55.5	#-297
	+EPZ	16	43	45.5	#-298
	-EPZ	21	14	33.2	#-299
	-EPZ	23	42	27.0	#-300
	29	-EPZ	03	57	52.8
+EPZ		05	04	59.0	#-302
-EPZ		07	15	4.8	#-303
-EPZ		08	20	52.5	#-304

Date	Phase	Arrival time			Remarks
		h	m	s	
July 01	-EPZ	00	00	5.7	#-305
	+EPZ	04	07	56.7	#-306
	+EPZ	23	01	30.3	#-307
02	+EPZ	00	26	5.2	#-308
	+EPZ	15	46	51.2	#-309
	+EPZ	17	06	20.5	#-310
03	-EPZ	16	55	6.3	#-311
	+EPZ	19	56	43.7	#-312
04	+EPZ	04	33	9.4	#-313
	+EPZ	08	55	58.0	#-314
05	-EPZ	01	05	10.7	#-315
	-EPZ	15	04	53.1	#-316
	-EPZ	15	39	1.8	#-317
06	+EPZ	03	05	31.0	#-318
	-EPZ	18	46	36.6	#-319
07	+IPZ	03	36	55.0	#-320
08	+EPZ	10	48	13.0	#-321
	+EPZ	11	06	2.7	#-322
	-EPZ	18	34	47.7	#-323
	-IPZ	22	17	40.4	#-324
09	+EPZ	13	15	51.4	#-325
	+EPZ	15	49	57.4	#-326
	-EPZ	16	49	48.4	#-327
	-EPZ	21	21	49.6	#-328
	-EPZ	21	46	29.6	#-329

Date	Phase	Arrival time			Remarks
		h	m	s	
July 09	+EPZ	23	30	29.2	#-330
10	+EPZ	11	39	42.2	#-331
11	+EPZ	13	47	48.9	#-332
	-IPZ	20	21	3.6	#-333
12	+EPZ	13	36	9.0	#-334
	-EPZ	15	04	8.3	#-335
13	-EPZ	16	20	9.4	#-336
	+EPZ	08	49	4.9	#-337
15	+EPZ	11	41	55.2	#-338
	+EPZ	01	10	29.0	#-339
16	+EPZ	12	24	7.8	#-340
	-EXZ	12	45	13.1	
	-EPZ	21	32	13.6	#-341
17	-EPZ	22	56	11.7	#-342
	+EPZ	01	46	42.0	#-343
18	+IPZ	07	27	9.9	#-344
	+IPZ	17	30	28.7	#-345
19	-IPZ	00	07	40.1	#-346
	+EPZ	13	51	48.7	#-347
20	-EPZ	19	38	8.1	#-348
	+EPZ	07	51	22.5	#-349
	-EPZ	08	07	28.2	#-350
21	+EPZ	16	54	43.0	#-351
	+EPZ	13	14	23.7	#-352
	+EPZ	19	47	1.2	#-353



Date	Phase	Arrival time			Remarks
		h	m	s	
July 22	-EPZ	04	00	55.7	#-354
	+EPZ	05	10	56.0	#-355
	-EPZ	06	25	44.2	#-356
	+EPZ	13	28	20.7	#-357
23	-EPZ	16	50	26.1	#-358
	-EPZ	16	51	25.0	#-359
	-EPZ	17	08	38.3	#-360
	-EPZ	19	05	26.1	#-361
	-EPZ	19	12	3.9	#-362
24	+EPZ	02	15	2.5	#-363
	+EPZ	20	37	29.0	#-364
25	-EPZ	05	50	29.2	#-365
	+EPZ	15	15	33.4	#-366
27	+EPZ	11	10	29.5	#-367
28	-EPZ	01	19	2.5	#-368
	+EXZ	04	40	28.6	
	+EPZ	18	21	1.1	#-369
29	+EPZ	04	36	36.7	#-370
30	-EPZ	14	14	47.0	#-371
31	-EPZ	09	26	22.2	#-372
Aug. 01	+EPZ	00	33	14.8	#-373
	-EPZ	14	26	44.8	#-374
02	-EPZ	15	57	23.8	#-375
03	-EPZ	07	28	18.8	#-376
	-EPZ	12	56	37.5	#-377

Date	Phase	Arrival time			Remarks	
		h	m	s		
Aug. 04	-EPZ	11	43	14.3	#-378	
	+EPZ	13	14	37.9	#-379	
	+IPZ	19	17	59.1	#-380	
	+EPZ	22	38	29.3	#-381	
05	-IPZ	12	54	35.1	#-382	
	-EPZ	13	28	43.5	#-383	
06	-EPZ	10	01	2.8	#-384	
	-EPZ	18	43	38.0	#-385	
07	-EPZ	00	18	56.8	#-386	
	-EXZ	00	29	39.3		
	+EPZ	18	04	54.8	#-387	
	+EPZ	20	01	52.3	#-388	
	08	-EPZ	00	43	51.3	#-389
	-EPZ	08	48	38.5	#-390	
	-EPZ	13	05	19.8	#-391	
	+EXZ	18	01	43.4		
	+EPZ	20	22	4.0	#-392	
	09	+EPZ	11	56	32.8	#-393
	-EXZ	12	07	48.4		
	-EPZ	12	56	45.6	#-394	
	10	+EPZ	01	01	55.9	#-395
	+EPZ	02	45	34.3	#-396	
	+EXZ	03	42	39.4		
	+EPZ	07	27	30.2	#-397	
	-IPZ	09	57	37.8	#-398	

Date	Phase	Arrival time			Remarks
		h	m	s	
Aug. 10	+EPZ	13	46	20.2	#-399
	+EXZ	14	22	54.3	
11	-EPZ	03	53	51.3	#-400
	+IPZ	04	19	15.6	#-401
	+EXZ	10	07	11.1	
	-EPZ	11	27	42.1	#-402
	-EPZ	14	36	9.2	#-403
	+EPZ	17	22	23.5	#-404
	+EPZ	22	18	51.3	#-405
	12	+EPZ	01	13	31.3
-EXZ		08	51	36.5	
13	+EPZ	11	13	28.7	#-407
14	+EPZ	05	06	7.2	#-408
15	-EXZ	01	47	48.4	
	-EPZ	03	43	58.8	#-409
	-EPZ	12	16	48.4	#-410
	-EPZ	15	02	39.5	#-411
	-EPZ	20	48	36.5	#-412
	16	-EPZ	03	11	36.3
-EPZ		04	51	55.4	#-414
+EPZ		15	04	54.7	#-415
+EPZ		17	17	28.8	#-416
17		-EPZ	07	03	9.0
	+EPZ	09	23	0.4	#-418
	-EPZ	23	51	8.8	#-419

Date	Phase	Arrival time			Remarks	
		h	m	s		
Aug. 19	+EPZ	04	43	59.6	#-420	
	-EXZ	05	00	50.6		
	+EPZ	08	32	10.4	#-421	
	-EPZ	13	48	42.6	#-422	
	+EPZ	15	35	1.7	#-423	
	+EPZ	22	05	28.5	#-424	
	20	+EPZ	05	19	48.8	#-425
		-EPZ	17	07	37.9	#-426
	21	+EPZ	17	16	51.5	#-427
		-EPZ	19	09	30.2	#-428
22	+EPZ	08	14	50.4	#-429	
	-EPZ	09	54	21.5	#-430	
	-EXZ	19	51	13.0		
23	-EPZ	20	07	8.8	#-431	
	+EXZ	05	04	45.6		
24	+EPZ	10	14	14.3	#-432	
	+EPZ	21	16	9.6	#-433	
25	+EPZ	21	35	20.0	#-434	
	+EPZ	05	35	26.3	#-435	
26	+EXZ	20	33	49.8		
	+EXZ	23	24	4.9		
	-EPZ	01	41	14.4	#-436	
27	-EPZ	01	54	46.6	#-437	
	+EPZ	03	45	43.3	#-438	
27	-EPZ	05	57	57.4	#-439	

Date	Phase	Arrival time			Remarks
		h	m	s	
Aug. 27	-EPZ	13	26	50.2	#-440
28	-EPZ	14	05	6.1	#-441
	+EPZ	20	27	5.7	#-442
29	+EPZ	10	10	7.7	#-443
	+EPZ	12	34	3.3	#-444
31	+EPZ	04	02	44.5	#-445
Sep. 01	-EPZ	12	00	22.5	#-446
	+EPZ	14	15	36.5	#-447
	-EXZ	14	45	57.6	
	+EXZ	19	05	54.7	
02	-EPZ	14	19	53.2	#-448
03	-EPZ	11	01	34.2	#-449
	+EPZ	12	53	45.5	#-450
	+EPZ	18	24	11.1	#-451
	-EPZ	23	21	58.5	#-452
04	+EPZ	08	43	20.5	#-453
	+EPZ	11	56	43.0	#-454
	-EXZ	12	07	58.7	
	-EPZ	21	51	32.2	#-455
05	+EXZ	23	20	22.6	
06	+EPZ	04	09	13.5	#-456
07	-EPZ	03	00	34.6	#-457
	+EPZ	04	56	56.0	#-458
	+EPZ	10	19	17.4	#-459
08	-EXZ	00	49	48.6	

Date	Phase	Arrival time			Remarks
		h	m	s	
Sep. 09	+EPZ	21	58	25.1	#-460
10	+EPZ	16	49	48.9	#-461
	+EPZ	19	31	39.5	#-462
	-EPZ	19	57	50.7	#-463
11	+EXZ	06	09	26.6	
	-EPZ	06	27	36.5	#-464
	+EPZ	08	12	45.4	#-465
	+EPZ	18	26	49.2	#-466
	+EPZ	23	41	7.0	#-467
12	+EPZ	02	23	16.2	#-468
	+EPZ	08	34	31.9	#-469
13	-EPZ	10	49	11.5	#-470
	+EPZ	12	49	51.9	#-471
	+EPZ	13	25	2.8	#-472
	+EPZ	13	26	22.8	#-473
	+EPZ	14	15	19.7	#-474
	-EPZ	14	23	16.5	#-475
	+EPZ	16	57	39.7	#-476
	+EPZ	18	57	47.7	#-477
	-EXZ	20	22	31.7	
	+EPZ	20	33	51.0	#-478
	+EPZ	21	09	25.0	#-479
14	+EPZ	01	20	4.0	#-480
	+EPZ	01	35	6.5	#-481
	-EPZ	01	55	19.8	#-482

Date	Phase	Arrival time			Remarks
		h	m	s	
Sep. 14	-EPZ	07	36	26.8	#-483
	+EPZ	12	29	1.2	#-484
	-EPZ	16	36	12.0	#-485
	+EPZ	17	32	41.9	#-486
	-EPZ	21	18	2.5	#-487
15	+EPZ	00	57	56.2	#-488
	+EPZ	01	20	48.6	#-489
	+EPZ	02	42	39.5	#-490
	+EPZ	05	52	57.9	#-491
	-EXZ	10	56	57.1	
	-EXZ	15	41	16.8	
16	-EPZ	20	23	17.3	#-492
	-EPZ	01	18	47.8	#-493
	-EPZ	06	02	34.3	#-494
	+EPZ	09	58	40.3	#-495
	+EPZ	10	33	56.7	#-496
17	-EPZ	19	29	12.3	#-497
	+EPZ	21	32	20.8	#-498
18	+EPZ	00	40	47.4	#-499
	+EPZ	05	20	41.7	#-500
19	+EPZ	04	24	36.2	#-501
	+EPZ	05	22	11.8	#-502
20	+EPZ	10	30	11.2	#-503
	+EPZ	19	50	39.8	#-504
	+EPZ	23	15	56.4	#-505

Date	Phase	Arrival time			Remarks
		h	m	s	
Sep. 21	-EPZ	03	48	43.8	#-506
	+EPZ	06	05	23.8	#-507
	-EPZ	06	34	37.3	#-508
	-EPZ	09	09	56.3	#-509
	-EPZ	14	34	58.4	#-510
22	+EPZ	19	23	37.2	#-511
	+EPZ	06	57	3.7	#-512
	+IPZ	12	50	15.5	#-513
	+EPZ	16	27	45.2	#-514
	23	-EPZ	01	49	3.0
-EPZ		04	27	45.4	#-516
-EPZ		07	19	51.8	#-517
+EPZ		20	23	47.8	#-518
24		+EPZ	01	10	34.0
	-EPZ	09	06	55.6	#-520
	-EPZ	16	48	32.0	#-521
	+EPZ	19	34	59.5	#-522
	25	+EPZ	04	19	39.7
+EPZ		11	46	12.3	#-524
-EPZ		21	18	21.2	#-525
26	-EPZ	03	30	23.7	#-526
	+EPZ	03	45	13.4	#-527
	+EPZ	16	12	8.3	#-528
27	-EPZ	23	55	53.9	#-529
	+EPZ	05	02	42.1	#-530

Date	Phase	Arrival time			Remarks
		h	m	s	
Sep. 27	+EPZ	13	45	20.7	#-531
	+EPZ	16	39	53.0	#-532
	+EPZ	22	31	29.9	#-533
29	+EPZ	08	14	54.5	#-534
	+EPZ	09	51	53.9	#-535
	+EPZ	11	28	41.7	#-536
	-EPZ	18	33	55.5	#-537
	+EPZ	19	16	8.0	#-538
	+EPZ	22	38	55.5	#-539
	30	+EPZ	07	35	27.1
+EPZ		17	17	40.7	#-541
-EPZ		18	46	41.8	#-542
-EPZ		22	58	30.6	#-543

Date	Phase	Arrival time			Remarks
		h	m	s	
Oct. 01	+EPZ	05	25	58.8	#-544
	-IPZ	17	38	36.7	#-545
02	+EPZ	00	17	29.5	#-546
	+EPZ	03	00	1.6	#-547
	-EPZ	16	13	1.4	#-548
	-EPZ	16	15	17.5	#-549
03	-EPZ	08	28	48.4	#-550
04	-EPZ	06	57	14.3	#-551
	+EXZ	21	07	19.6	#-552
05	+EPZ	05	22	18.3	#-553
	-EPZ	11	34	48.5	#-554
	+EPZ	15	32	19.7	#-555
06	+EPZ	09	31	24.4	#-556
07	+EPZ	16	48	24.7	#-557
	-EPZ	21	22	41.3	#-558
08	+EPZ	05	29	20.9	#-559
	-EPZ	06	47	42.2	#-560
	-EXZ	07	10	39.5	
	-EPZ	08	31	10.6	#-561
	-EXZ	18	46	13.6	
09	-EPZ	03	50	38.2	#-562
	+EPZ	22	36	42.2	#-563
10	-EPZ	07	28	24.7	#-564
	-EPZ	11	57	5.8	#-565
	+EPZ	13	54	52.5	#-566

Date	Phase	Arrival time			Remarks
		h	m	s	
Oct. 10	+EPZ	20	21	57.2	#-567
11	-EPZ	08	07	25.6	#-568
	-EPZ	11	29	31.7	#-569
	-IPZ	13	19	28.1	#-570
	+EPZ	16	12	35.5	#-571
12	+EPZ	23	47	8.2	#-572
	-EPZ	02	43	28.8	#-573
13	+EXZ	18	05	38.3	
	+EPZ	01	52	15.9	#-574
14	-EPZ	02	19	1.1	#-575
	-EPZ	02	57	3.7	#-576
	+EPZ	03	20	29.4	#-577
15	+EPZ	03	59	5.8	#-578
	-EPZ	06	03	42.2	#-579
	+EPZ	07	20	26.1	#-580
	-EPZ	15	41	44.5	#-581
	-EPZ	22	59	31.1	#-582
14	-EPZ	23	19	54.3	#-583
	+EPZ	23	51	0.1	#-584
	-EPZ	05	53	58.7	#-585
15	+EPZ	12	11	11.8	#-586
	+EPZ	13	42	15.6	#-587
	+EPZ	00	24	37.3	#-588
15	-EXZ	00	56	31.1	#-589
	+EPZ	21	44	39.8	#-590

Date	Phase	Arrival time			Remarks
		h	m	s	
Oct. 16	-IPZ	00	52	17.5	#-591
	+IPZ	03	18	31.6	#-592
	+EPZ	03	58	39.4	#-593
17	+EXZ	00	17	15.3	
	+EPZ	06	58	25.6	#-594
	-EPZ	09	34	23.1	#-595
18	-EPZ	14	10	32.6	#-596
	-EPZ	21	54	48.3	#-597
19	+EPZ	04	13	34.4	#-598
	-EPZ	09	40	18.2	#-599
	-EPZ	10	00	22.7	#-600
	+EXZ	18	49	35.3	
	+EXZ	23	52	9.5	
20	+EPZ	16	42	27.2	#-601
	+EPZ	18	20	51.6	#-602
	+EPZ	23	19	24.9	#-603
21	-EPZ	07	46	28.6	#-604
	-EPZ	12	57	52.4	#-605
22	+EPZ	05	42	57.2	#-606
	+EPZ	08	48	44.5	#-607
	+EXZ	13	26	27.2	
	+EPZ	15	43	3.3	#-608
	-EPZ	18	35	53.4	#-609
23	-EPZ	07	35	23.7	#-610
	+EPZ	18	22	55.8	#-611

Date	Phase	Arrival time			Remarks
		h	m	s	
Oct. 23	-EPZ	19	05	46.8	#-612
24	+EPZ	03	32	3.8	#-613
	-EPZ	08	11	11.9	#-614
	+EPZ	15	45	45.1	#-615
	-EPZ	23	02	40.0	#-616
	25	+EPZ	08	51	44.6
	+EPZ	10	20	13.5	#-618
	-EPZ	10	33	36.4	#-619
	-EPZ	10	40	4.3	#-620
	+EXZ	11	02	7.5	
	-EPZ	12	12	47.8	#-621
	-EPZ	14	06	34.0	#-622
	+EPZ	14	43	14.9	#-623
	+EPZ	20	54	31.9	#-624
	26	+EPZ	09	31	59.0
27	+EPZ	00	28	43.5	#-626
	+EPZ	05	13	7.4	#-627
	+EPZ	05	50	40.3	#-628
	-EPZ	07	32	6.7	#-629
	+EXZ	17	03	27.3	
	-EPZ	18	03	18.9	#-630
27	-EPZ	21	28	41.6	#-631
28	-EPZ	03	03	22.6	#-632
	+EPZ	06	14	31.3	#-633
	-EPZ	10	02	15.3	#-634

Date	Phase	Arrival time			Remarks
		h	m	s	
Oct. 28	+EXZ	14	46	23.7	
29	+EPZ	01	56	48.5	#-635
	+EPZ	04	28	54.6	#-636
	+EPZ	09	35	18.1	#-637
30	-EPZ	00	41	31.3	#-638
	-EPZ	14	17	35.5	#-639
	-EPZ	18	09	44.9	#-640
	+EXZ	18	48	38.2	
	-EPZ	21	34	6.2	#-641
	-EPZ	23	41	23.2	#-642
	+EPZ	00	48	23.1	#-643
31	+EPZ	04	41	37.4	#-644
	+EPZ	07	49	16.6	#-645
	+EPZ	11	12	56.8	#-646
	+EPZ	17	15	49.0	#-647
	-EPZ	00	13	28.7	#-648
Nov. 01	+EPZ	03	29	22.3	#-649
	-EPZ	05	14	56.2	#-650
	+EPZ	07	57	54.4	#-651
	+EPZ	17	32	19.2	#-652
	-EXZ	22	43	46.5	
02	-EXZ	07	35	23.7	
03	+EXZ	16	01	23.3	
	+EPZ	18	50	49.5	#-653
	+EXZ	20	29	15.3	

Date	Phase	Arrival time			Remarks
		h	m	s	
Nov. 04	+EPZ	02	49	49.7	#-654
05	+EPZ	07	13	43.0	#-655
	-EPZ	22	50	38.3	#-656
06	-EXZ	16	13	31.9	
07	+EPZ	03	18	50.4	#-657
	-EPZ	06	24	12.5	#-658
	+EPZ	07	48	2.7	#-659
	-EXZ	11	32	8.2	
	+EPZ	14	17	58.7	#-660
	+EPZ	20	32	11.2	#-661
	+EPZ	01	38	11.0	#-662
08	+EXZ	09	37	45.3	
	-EPZ	19	28	10.4	#-663
	-EPZ	06	29	32.8	#-664
09	+EPZ	23	56	4.1	#-665
	+EPZ	00	16	30.2	#-666
10	-EPZ	11	26	7.9	#-667
	-EPZ	20	18	39.2	#-668
	-EPZ	21	56	31.9	#-669
11	-EPZ	00	48	23.1	#-670
	-EPZ	04	22	43.6	#-671
11	-EPZ	06	47	55.3	#-672
	+EPZ	10	27	10.4	#-673
	+EPZ	14	11	39.1	#-674
13	+EPZ	01	37	41.6	#-675



Date	Phase	Arrival time			Remarks
		h	m	s	
Nov. 13	+EPZ	02	28	3.6	#-676
	-EPZ	10	43	48.8	#-677
	-EPZ	12	43	2.4	#-678
	+EPZ	22	54	31.7	#-679
14	+EPZ	02	10	53.4	#-680
	+EPZ	12	45	13.7	#-681
15	+EPZ	22	57	53.4	#-682
16	+EPZ	01	05	35.7	#-683
17	-EPZ	02	55	2.5	#-684
	+EPZ	03	00	30.0	#-685
	+EPZ	11	38	29.5	#-686
18	+EPZ	18	00	36.5	#-687
	+EPZ	21	43	42.1	#-688
19	-EPZ	02	03	20.7	#-689
	+IPZ	04	49	30.9	#-690
	-EPZ	09	18	48.2	#-691
20	+EPZ	11	48	58.8	#-692
	+EPZ	19	44	43.6	#-693
21	-EPZ	00	27	25.9	#-694
	-EPZ	12	37	58.6	#-695
22	+EPZ	03	14	13.7	#-696
	-EPZ	04	36	21.5	#-697
23	-EXZ	00	50	47.0	
	-EPZ	15	15	16.6	#-698
	-EPZ	19	14	48.5	#-699

Date	Phase	Arrival time			Remarks
		h	m	s	
Nov. 24	-EPZ	02	53	27.4	#-700
	+EPZ	06	02	5.0	#-701
	-EPZ	11	40	5.0	#-702
25	+EPZ	08	43	35.7	#-703
	-EPZ	14	11	2.2	#-704
	+EPZ	14	23	19.7	#-705
26	+EPZ	20	35	54.8	#-706
	-EXZ	03	51	41.4	
	-EPZ	21	25	16.0	#-707
27	+EPZ	23	33	10.5	#-708
	-EPZ	06	30	21.0	#-709
	-EPZ	22	36	43.5	#-710
28	-EPZ	11	01	29.8	#-711
29	+EPZ	06	48	11.9	#-712
	+EPZ	07	44	39.7	#-713
	-EPZ	19	53	51.7	#-714
30	-EPZ	20	42	21.4	#-715
	+EPZ	05	04	49.5	#-716
	-EXZ	15	51	39.3	
Dec. 01	+EPZ	20	56	31.8	#-717
	-EPZ	01	05	10.1	#-718
	-EXZ	01	37	6.9	
	+IPZ	08	33	46.7	#-719
	-EPZ	13	35	41.1	#-720
	+EPZ	13	54	51.9	#-721

Date	Phase	Arrival time			Remarks
		h	m	s	
Dec. 01	-EPZ	22	14	7.6	#-722
03	+EPZ	06	01	5.8	#-723
	-EPZ	10	23	48.2	#-724
	+IPZ	11	21	1.7	#-725
	+EPZ	12	35	31.6	#-726
	+EPZ	12	42	1.0	#-727
04	-EPZ	13	08	34.0	#-728
	-EXZ	16	01	7.2	
	+EPZ	17	34	11.1	#-729
	+EPZ	22	35	6.1	#-730
	+EPZ	23	27	35.8	#-731
05	-EPZ	19	24	31.1	#-732
	+EPZ	19	49	22.3	#-733
06	-EPZ	02	37	3.7	#-734
	+EPZ	08	48	48.1	#-735
	+EPZ	10	55	14.2	#-736
	-EPZ	21	06	58.1	#-737
07	+EPZ	16	40	9.9	#-738
	+EXZ	17	36	39.5	
	+EPZ	18	05	14.1	#-739
08	-EPZ	02	34	3.4	#-740
	-EPZ	03	24	46.3	#-741
	-EPZ	16	28	20.4	#-742
	-EPZ	17	50	34.8	#-743
	+EPZ	23	49	36.4	#-744

Date	Phase	Arrival time			Remarks
		h	m	s	
Dec. 09	-EPZ	04	45	17.3	#-745
	-EPZ	11	51	26.3	#-746
	-EPZ	12	20	32.1	#-747
	+EPZ	14	58	14.5	#-748
	+EPZ	19	25	35.6	#-749
10	+EPZ	06	43	28.2	#-750
	+EPZ	12	04	1.6	#-751
	-EXZ	20	59	11.4	
	-EPZ	22	34	13.2	#-752
11	+EPZ	13	24	27.1	#-753
	-EPZ	18	15	45.4	#-754
	+EPZ	23	59	54.5	#-755
12	+EPZ	14	31	21.2	#-756
	+EPZ	17	16	16.1	#-757
	-EPZ	18	39	24.3	#-758
13	+EPZ	11	56	32.2	#-759
	-EPZ	16	40	43.0	#-760
	-EPZ	17	26	39.2	#-761
	+EPZ	22	32	7.9	#-762
14	-EPZ	06	20	17.7	#-763
	+EPZ	06	44	4.2	#-764
16	+EPZ	03	24	11.6	#-765
	-EPZ	04	31	6.7	#-766
	-EPZ	17	47	17.3	#-767
	+EPZ	20	31	19.6	#-768

Date	Phase	Arrival time			Remarks
		h	m	s	
Dec. 16	+EPZ	23	54	20.5	#-769
17	-EPZ	00	49	12.9	#-770
	-EPZ	09	01	27.4	#-771
18	+EPZ	05	24	9.3	#-772
	+EPZ	17	29	4.4	#-773
	+IPZ	18	22	8.2	#-774
	+EPZ	22	57	5.9	#-775
19	+EPZ	10	44	45.2	#-776
20	+EXZ	00	44	53.7	
	-EPZ	14	08	47.2	#-777
22	+EPZ	06	50	41.9	#-778
	+EPZ	10	47	57.4	#-779
23	+EPZ	10	24	42.9	#-780
24	-EPZ	05	30	23.3	#-781
26	+EPZ	01	27	27.4	#-782
27	+EPZ	12	06	29.7	#-783
	-EXZ	17	09	31.1	
28	+EPZ	22	40	14.8	#-784
29	+EXZ	01	46	37.9	
	-EPZ	08	00	40.6	#-785
	-EXZ	08	07	7.3	
	+IPZ	08	13	22.6	#-786
	+EPZ	08	50	34.3	#-787
	+EPZ	08	52	11.5	#-788
31	+EPZ	05	30	19.5	#-789

Table 2. List of 789 earthquakes.

Data No.	Origin time			Geographic Coordinates		Region	Depth (km)	Magnitude (Mb)	Epicentral distance (degree)	
	Date	h	m	s	Latitude (degree)					Longitude (degree)
1	01/01	21	36	38.8	61.011 S	154.003 E	BALLENY ISLANDS REGION	10	5.2	41.848
2	01/03	04	04	49.9	29.090 S	176.080 W	KERMADEC ISLANDS REGION	10	5.0	85.028
3	01/03	17	08	13.8	4.064 S	129.512 E	BANDA SEA	54	5.8	86.177
4	01/03	17	21	59.2	4.139 S	129.562 E	BANDA SEA	60	5.2	86.125
5	01/03	17	33	26.7	4.146 S	129.413 E	BANDA SEA	28	5.2	86.065
6	01/04	01	26	17.9	3.266 N	128.094 E	NORTH OF HALMAHERA, INDONESIA	72	5.9	92.513
7	01/04	06	05	25.5	19.326 S	177.515 W	FIJI ISLANDS REGION	562	4.9	87.742
8	01/04	06	47	26.9	22.871 S	175.957 W	SOUTH OF FIJI ISLANDS	93	4.9	84.588
9	01/04	10	28	07.6	4.126 S	129.548 E	BANDA SEA	49	5.4	86.203
10	01/04	11	03	35.1	4.095 S	129.573 E	BANDA SEA	30	5.6	86.132

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11	01/04	20	41	11.2	22.055 S	174.866 W	TONGA ISLANDS	33	5.9	85.594
12	01/05	23	25	28.6	6.412 S	130.402 E	BANDA SEA	63	5.1	84.305
13	01/07	12	02	10.4	32.031 S	178.073 W	KERMADEC ISLANDS REGION	10	5.2	75.239
14	01/07	12	06	44.2	32.036 S	178.074 W	KERMADEC ISLANDS REGION	10	5.5	75.234
15	01/07	12	31	51.6	32.004 S	177.956 W	KERMADEC ISLANDS REGION	10	5.1	75.288
16	01/07	16	46	16.2	32.123 S	177.949 W	SOUTH OF KERMADEC ISLANDS	10	5.3	75.174
17	01/07	18	35	04.0	25.085 S	179.987 E	SOUTH OF FIJI ISLANDS	521	5.0	81.618
18	01/08	06	00	07.1	32.084 S	178.096 W	SOUTH OF KERMADEC ISLANDS	10	5.2	75.183
19	01/08	17	33	53.9	7.032 S	129.791 E	BANDA SEA	144	4.9	83.508
20	01/09	11	15	51.9	32.199 S	178.113 W	SOUTH OF KERMADEC ISLANDS	10	5.4	75.068
21	01/10	14	39	00.3	59.274 S	26.205 W	SOUTH SANDWICH ISLANDS REGION	61	6.3	28.645
22	01/10	16	43	59.5	27.895 S	72.234 W	NEAR COAST OF NORTHERN CHILE	33	5.3	71.392
23	01/10	18	07	57.0	33.744 S	57.211 E	SOUTHWEST INDIAN RIDGE	10	5.0	36.629
24	01/11	07	03	48.2	22.159 S	176.562 W	SOUTH OF FIJI ISLANDS	168	5.2	85.166
25	01/12	13	24	24.2	6.008 S	127.639 E	BANDA SEA	398	4.9	83.693
26	01/13	18	50	42.5	50.791 S	139.505 E	SOUTH OF AUSTRALIA	10	5.9	46.808
27	01/14	05	26	27.4	6.625 S	130.517 E	BANDA SEA	32	5.2	84.147

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28	01/14	22 34	54.7	18.928 S	175.112 W	TONGA ISLANDS	158	5.1	88.609
29	01/15	11 06	01.9	42.982 N	144.165 E	HOKKAIDO, JAPAN REGION	112	6.9	134.625
30	01/16	10 55	08.1	20.798 S	179.006 W	FIJI ISLANDS REGION	622	4.6	85.998
31	01/17	05 36	06.3	19.722 S	168.875 E	VANUATU ISLANDS	31	5.0	84.171
32	01/17	18 24	51.5	58.634 S	26.177 W	SOUTH SANDWICH ISLANDS REGION	110	5.4	29.106
33	01/19	08 24	24.0	23.983 S	66.759 W	SALTA PROVINCE, ARGENTINA	212	4.4	73.301
34	01/19	09 05	01.8	45.118 S	34.996 E	PRINCE EDWARD ISLANDS REGION	10	5.4	24.006
35	01/19	14 39	26.1	38.649 N	133.465 E	SEA OF JAPAN	448	6.0	127.013
36	01/19	21 14	49.9	18.123 S	178.066 W	FIJI ISLANDS REGION	593	5.2	88.803
37	01/19	23 06	10.2	1.221 N	126.072 E	NORTHERN MOLUCCA SEA	27	5.8	89.880
38	01/20	02 17	27.8	32.115 S	177.862 W	SOUTH OF KERMADEC ISLANDS	33	5.1	75.198
39	01/20	02 30	54.7	3.144 N	97.633 E	NORTHERN SUMATERA, INDONESIA	68	6.2	82.061
40	01/20	04 08	26.5	8.318 S	121.377 E	FLORES REGION, INDONESIA	33	5.8	79.297
41	01/20	04 34	52.5	8.327 S	121.334 E	FLORES REGION, INDONESIA	23	5.2	79.273
42	01/20	14 47	38.7	7.934 S	74.467 W	PERU-BRAZIL BORDER REGION	147	5.0	90.904
43	01/20	17 31	15.5	7.205 S	128.566 E	BANDA SEA	33	6.2	82.908
44	01/21	14 23	02.4	8.418 S	121.299 E	FLORES REGION, INDONESIA	33	5.1	79.176

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45	01/22	10 03	46.9	7.075 S	128.666 E	BANDA SEA	33	5.4	83.065
46	01/24	16 09	47.9	22.705 S	171.071 E	LOYALTY ISLANDS REGION	33	5.1	81.866
47	01/25	22 22	35.4	30.291 S	177.799 W	KERMADEC ISLANDS, NEW ZEALAND	33	5.3	76.988
48	01/26	06 57	52.1	31.879 S	178.750 W	KERMADEC ISLANDS REGION	13	5.1	75.256
49	01/28	01 52	27.6	55.972 S	27.379 W	SOUTH SANDWICH ISLANDS REGION	130	5.4	31.550
50	01/28	04 58	50.6	18.220 S	178.396 W	FIJI ISLANDS REGION	601	4.9	88.640
51	01/28	18 25	10.2	8.083 S	129.083 E	TIMOR SEA	33	5.2	82.274
52	02 01	08 38	10.3	54.570 N	161.426 E	NEAR EAST COAST OF KAMCHATKA	34	5.3	150.492
53	02/02	17 14	34.1	29.586 S	176.792 W	KERMADEC ISLANDS REGION	33	5.1	77.867
54	02/02	18 17	47.3	29.726 S	176.870 W	KERMADIC ISLANDS REGION	43	5.3	77.716
55	02/03	04 36	06.5	41.841 S	88.058 E	SOUTHEAST INDIAN RIDGE	10	4.9	36.893
56	02/06	12 42	51.6	56.522 S	25.765 W	SOUTH SANDWICH ISLANDS REGION	33	5.3	30.556
57	02/07	05 02	46.4	29.166 S	176.921 W	KERMADEC ISLANDS REGION	21	5.3	78.253
58	02/07	13 27	42.0	37.634 N	137.245 E	NEAR WEST COAST OF HONSHU, JAPAN	11	6.3	127.436
59	02/07	18 26	17.9	33.063 S	77.881 E	MID-INDIAN RIDGE	10	4.9	41.841
60	02/08	04 24	47.2	4.834 S	101.916 E	SOUTHERN SUMATERA, INDONESIA	30	5.9	75.849
61	02/09	00 14	47.8	14.471 S	167.374 E	VANUATU ISLANDS	193	5.0	88.808

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62	02/09 07 09 12.1	14.942 S	167.298 E	VANUATU ISLANDS	124	5.2	88.336
63	02/09 12 46 56.0	28.164 S	67.343 W	LA RIOJA PROVINCE, ARGENTINA	142	4.7	69.593
64	02/09 14 25 38.9	45.709 N	141.938 E	HOKKAIDO, JAPAN REGION	307	5.6	136.202
65	02/10 10 53 07.2	7.745 S	105.262 E	JAWA, INDONESIA	33	5.7	74.213
66	02/10 12 22 20.4	19.300 S	169.117 E	VANUATU ISLANDS	137	5.1	84.640
67	02/10 21 48 35.0	40.429 N	119.612 W	NEVADA	5	4.8	149.360
68	02/13 00 43 00.5	6.658 N	126.860 E	MINDANAO, PHILIPPINE ISLANDS	22	5.1	95.238
69	02/13 10 55 56.1	14.926 S	176.924 W	FIJI ISLANDS REGION	33	5.7	92.161
70	02/13 21 19 36.0	51.720 N	176.447 E	RAT ISLANDS, ALEUTIAN ISLANDS	33	5.3	153.485
71	02/14 03 35 01.3	28.143 S	176.893 W	KERMADEC ISLANDS REGION	33	4.7	79.257
72	02/15 04 30 32.5	6.331 S	147.102 E	EASTERN NEW GUINEA REGION P.N.G.	42	5.1	90.239
73	02/15 08 55 26.3	12.505 S	166.387 E	SANTA CRUZ ISLANDS	129	5.5	90.419
74	02/15 12 02 13.4	20.040 S	169.187 E	VANUATU ISLANDS	46	5.1	83.947
75	02/15 13 36 01.2	53.311 S	59.732 W	FALKLAND ISLANDS REGION	21	5.2	44.439
76	02/16 05 26 04.4	40.124 S	176.888 E	NORTH ISLAND, NEW ZEALAND	28	4.7	66.398
77	02/16 21 39 12.5	23.018 S	69.305 W	NORTHERN CHILE	84	5.0	75.031
78	02/17 05 59 49.2	7.784 S	117.392 E	BALI SEA	280	5.2	78.378

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79	02/18 19 35 36.8	52.998 S	72.687 E	KERGUELEN ISLANDS REGION	10	5.5	22.145
80	02/19 04 01 01.9	52.865 S	72.779 E	KERGUELEN ISLANDS REGION	10	5.2	22.287
81	02/20 01 57 09.1	52.839 S	73.232 E	KERGUELEN ISLANDS REGION	10	5.3	22.451
82	02/20 07 11 52.1	22.110 S	174.838 W	TONGA ISLANDS REGION	44	5.6	85.546
83	02/20 15 26 00.3	33.055 S	179.102 W	SOUTH OF KERMADEC ISLANDS	77	5.1	74.044
84	02/20 20 32 19.6	52.754 S	73.422 E	KERGUELEN ISLANDS REGION	10	5.1	22.584
85	02/21 07 13 20.1	6.726 S	127.636 E	BANDA SEA	368	5.3	83.022
86	02/21 18 58 17.5	2.447 N	128.339 E	HALMAHERA, INDONESIA	160	5.2	91.836
87	02/21 23 39 22.6	53.206 S	72.725 E	KERGUELEN ISLANDS REGION	10	5.1	21.979
88	02/23 05 34 03.7	26.074 S	177.255 W	SOUTH OF FIJI ISLANDS	98	5.2	81.207
89	02/23 13 31 29.4	8.640 S	123.205 E	FLORES REGION, INDONESIA	89	5.3	79.650
90	02/24 19 22 51.9	51.075 N	156.473 E	KAMCHATKA	119	4.4	145.904
91	02/24 22 21 37.8	24.931 S	68.386 W	CHILE-ARGENTINA BORDER REGION	119	5.8	72.945
92	02/25 07 34 57.0	23.996 S	177.218 W	SOUTH OF FIJI ISLANDS	166	5.3	83.242
93	02/27 00 29 01.3	39.075 S	71.546 W	S. CHILE-ARGENTINA BORDER REGION	106	5.1	60.776
94	02/27 18 38 10.0	49.842 N	156.193 E	KURIL ISLANDS	35	5.4	144.785
95	03/01 01 39 27.8	3.744 S	138.536 E	IRIAN JAYA, INDONESIA	89	6.1	89.691

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96	03/01	09 34 02.6	34.282 S	178.790 W	SOUTH OF KERMADEC ISLANDS	202	4.8	72.911
97	03/02	00 23 59.6	8.294 S	122.303 E	FLORES REGION, INDONESIA	15	5.9	79.650
98	03/02	21 43 15.9	24.295 S	67.080 W	CHILE-ARGENTINA BORDER REGION	178	5.1	73.115
99	03/03	23 14 25.9	13.342 S	175.009 E	FIJI ISLANDS REGION	14	5.9	91.880
100	03/04	14 35 58.5	13.241 S	174.872 E	FIJI ISLANDS REGION	19	5.8	91.944
101	03/06	03 05 49.8	10.972 S	164.181 E	SANTA CRUZ ISLANDS REGION	20	6.1	91.257
102	03/06	05 50 02.7	11.025 S	163.921 E	SOLOMON ISLANDS	28	5.6	91.131
103	03/06	08 37 27.1	19.740 S	177.717 W	FIJI ISLANDS REGION	576	4.9	87.297
104	03/06	10 02 06.9	26.536 S	177.355 W	SOUTH OF FIJI ISLANDS	18	5.9	80.736
105	03/06	16 26 56.9	11.062 S	163.386 E	SOLOMON ISLANDS	25	5.7	90.940
106	03/06	19 50 26.5	31.689 S	179.554 W	KERMADEC ISLANDS REGION	171	4.7	75.283
107	03/07	20 26 38.1	23.842 S	67.972 W	CHILE-ARGENTINA BORDER REGION	124	5.2	73.829
108	03/09	01 29 14.6	55.678 S	146.999 E	WEST OF MACQUARIE ISLAND	10	5.5	44.712
109	03/09	07 45 43.6	59.624 S	25.709 W	SOUTH SANDWICH ISLANDS REGION	33	5.7	28.217
110	03/10	12 39 23.9	59.700 S	25.719 W	SOUTH SANDWICH ISLANDS REGION	33	5.4	28.166
111	03/10	21 24 04.3	53.209 S	72.466 E	KERGUELEN ISLANDS REGION	10	5.2	21.896
112	03/12	12 06 15.3	59.406 S	149.430 E	WEST OF MACQUARIE ISLAND	10	5.2	42.115

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113	03/12	14 01 35.4	14.385 S	178.252 W	FIJI ISLANDS REGION	10	6.0	92.411
114	03/12	23 46 26.2	27.787 S	177.612 W	KERMADEC ISLANDS REGION	33	4.8	79.465
115	03/13	03 03 05.7	18.218 S	178.430 W	FIJI ISLANDS REGION	631	5.1	88.634
116	03/15	16 08 57.8	26.708 S	70.918 W	NEAR COAST OF NORTHERN CHILE	29	6.0	72.092
117	03/15	18 22 34.7	16.367 S	173.688 W	TONGA ISLANDS	69	5.1	91.390
118	03/16	13 03 07.0	0.527 N	126.145 E	NORTHERN MOLUCCA SEA	57	5.2	89.258
119	03/16	22 49 17.8	23.829 S	179.976 W	SOUTH OF FIJI ISLANDS	556	4.6	82.843
120	03/16	22 59 45.8	11.625 N	41.987 E	ETHIOPIA	16	5.6	80.652
121	03/17	04 35 58.1	37.691 S	74.939 W	OFF COAST OF CENTRAL CHILE	9	5.8	63.055
122	03/19	01 39 09.8	26.854 S	70.842 W	NEAR COAST OF NORTHERN CHILE	28	5.3	71.931
123	03/19	01 48 05.1	26.742 S	70.966 W	NEAR COAST OF NORTHERN CHILE	29	5.6	72.075
124	03/19	15 53 52.8	12.147 N	95.082 E	ANDAMAN ISLANDS, INDIA	25	5.4	89.888
125	03/19	16 01 10.2	26.674 S	70.954 W	NEAR COAST OF NORTHERN CHILE	20	5.4	72.135
126	03/20	09 20 32.5	56.084 S	27.803 W	SOUTH SANDWICH ISLANDS REGION	116	6.0	31.613
127	03/20	19 08 50.9	0.147 N	123.432 E	MINAHASSA PENINSULA, SULAWESI	152	5.2	87.934
128	03/21	05 04 59.1	18.042 S	178.528 W	FIJI ISLANDS REGION	589	6.1	88.785
129	03/21	18 22 49.9	17.977 S	168.015 E	VANUATU ISLANDS	17	4.9	85.618

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130	03/22	18 36	41.1	23.593 S	66.630 W	JUJUY PROVINCE, ARGENTINA	213	4.3	73.622
131	03/23	03 21	52.3	53.835 N	158.564 E	NEAR EAST COAST OF KAMCHATKA	169	4.6	148.886
132	03/24	19 45	13.8	27.933 S	66.818 W	CATAMARCA PROVINCE, ARGENTINA	173	4.5	69.639
133	03/25	13 34	35.4	45.035 N	122.607 W	WASHINGTON-OREGON BORDER REGION	21	5.5	154.371
134	03/25	22 35	34.7	24.099 S	66.947 W	SALTA PROVINCE, ARGENTINA	199	4.6	73.355
135	03/25	23 13	03.1	20.702 S	178.988 W	FIJI ISLANDS REGION	654	5.1	86.096
136	03/26	09 25	53.6	5.607 S	153.273 E	NEW IRELAND REGION, P.N.G.	40	5.4	92.979
137	03/29	06 57	19.5	53.039 S	27.396 E	SOUTH OF AFRICA	10	5.9	16.953
138	03/30	05 23	57.9	22.089 S	67.325 W	CHILE-BOLIVIA BORDER REGION	184	5.3	75.256
139	04/02	01 56	31.3	17.840 S	177.073 W	FIJI ISLAND REGION	362	5.4	89.284
140	04/02	08 04	11.7	17.373 S	171.921 W	TONGA ISLANDS REGION	9	5.8	90.727
141	04/03	04 02	05.4	21.199 S	179.070 W	FIJI ISLAND REGION	612	5.1	85.594
142	04/04	19 54	55.4	34.764 S	179.097 E	SOUTH OF KERMADEC ISLANDS	129	4.8	72.027
143	04/05	04 00	05.3	59.801 S	26.312 W	SOUTH SANDWICH ISLANDS REGION	33	6.0	28.298
144	04/05	16 51	39.7	59.787 S	26.203 W	SOUTH SANDWICH ISLANDS REGION	33	5.7	28.271
145	04/06	22 46	04.8	32.174 S	179.915 W	SOUTH OF KERMADEC ISLANDS	229	5.2	74.739

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146	04/08 00 20 00.1	24.605 S	175.931 W	SOUTH OF TONGA ISLANDS	43	5.1	82.897
147	04/10 21 01 26.5	22.571 S	68.940 W	NORTHERN CHILE	116	5.1	75.332
148	04/10 21 47 50.9	22.757 S	68.742 W	NORTHERN CHILE	103	5.0	75.094
149	04/11 06 00 56.4	51.287 N	178.599 W	ANDREANOF ISLANDS, ALEUTIAN IS.	33	5.6	154.768
150	04/11 06 59 48.1	39.744 S	176.542 E	NORTH ISLAND, NEW ZEALAND	33	5.5	66.694
151	04/11 11 18 30.3	0.833 N	123.825 E	MINAHASSA PENINSULA, SULAWESI	284	5.4	88.715
152	04/13 20 07 16.6	1.196 N	126.518 E	NORTHERN MOLUCCA SEA	45	5.5	90.016
153	04/15 10 32 31.2	16.395 S	14.293 W	SOUTHERN MID-ATLANTIC RIDGE	10	5.6	62.220
154	04/16 14 08 38.9	17.778 S	178.864 W	FIJI ISLANDS REGION	565	6.0	88.972
155	04/17 14 38 41.6	18.816 S	174.246 W	TONGA ISLANDS	63	5.3	88.884
156	04/18 04 55 40.0	11.997 N	95.026 E	ANDAMAN ISLANDS, INDIA	24	5.1	89.729
157	04/18 09 16 23.2	11.652 S	76.530 W	CENTRAL PERU	106	6.0	88.046
158	04/18 14 10 38.4	53.958 S	133.868 W	PACIFIC-ANTARCTIC RIDGE	10	5.6	56.939
159	04/18 17 04 06.2	7.046 S	127.390 E	BANDA SEA	309	5.2	82.635
160	04/19 21 01 48.9	4.015 N	128.204 E	NORTH OF HALMAHERA, INDONESIA	24	6.1	93.251
161	04/20 08 11 21.0	54.366 S	144.086 E	WEST OF MACQUARIE ISLAND	10	5.3	45.042
162	04/20 16 26 19.5	20.883 S	178.699 W	FIJI ISLANDS REGION	592	5.6	85.980

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163	04/21 12 58 31.5	0.012 S	123.686 E	MINAHASSA PENINSULA, SULAWESI	149	5.1	87.876
164	04/22 22 15 19.0	53.350 S	159.394 E	MACQUARIE ISLANDS REGION	10	5.5	50.001
165	04/23 16 35 40.4	13.304 S	44.582 E	NORTHWEST OF MADAGASCAR	10	5.0	55.796
166	04/24 09 54 21.0	17.871 S	179.849 E	FIJI ISLANDS	599	5.5	88.604
167	04/27 06 08 56.3	6.138 S	147.761 E	EASTERN NEW GUINEA REG., P.N.G	38	5.3	90.644
168	04/27 13 04 05.1	55.672 S	27.142 W	SOUTH SANDWICH ISLANDS REGION	33	5.5	31.700
169	04/27 17 36 21.5	5.260 S	68.581 E	CHAGOS ARCHIPELAGO REGION	10	5.4	66.571
170	04/28 02 46 03.2	58.936 S	26.316 W	SOUTH SANDWICH ISLANDS REGION	33	5.6	28.932
171	04/28 20 30 34.7	21.000 S	67.936 W	CHILE-BOLIVIA BORDER REGION	168	4.6	76.475
172	04/29 02 42 47.9	33.983 S	179.092 W	SOUTH OF KERMADEC ISLANDS	58	4.8	73.143
173	04/29 03 00 46.2	34.246 S	178.725 W	SOUTH OF KERMADEC ISLANDS	89	5.0	72.958
174	04/30 07 11 53.4	33.696 S	178.665 W	SOUTH OF KERMADEC ISLANDS	10	5.1	73.505
175	04/30 10 15 16.3	13.437 S	66.718 E	MID-INDIAN RIDGE	10	5.0	58.194
176	04/30 11 19 00.2	53.831 N	160.514 E	NEAR EAST COAST OF KAMCHATKA	59	5.2	149.581
177	05/01 01 43 26.9	15.721 S	69.357 W	PERU-BOLIVIA BORDER REGION	260	4.8	81.894
178	05/01 08 52 55.2	3.771 S	131.378 E	IRIAN JAYA REGION, INDONESIA	24	5.4	87.119
179	05/02 02 09 25.8	17.352 S	14.500 W	SOUTHERN MID-ATLANTIC RIDGE	10	5.6	61.381

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180	05/02	11 26 54.8	56.415 S	24.491 W	SOUTH SANDWICH ISLANDS REGION	13	6.3	30.187
181	05/02	15 26 02.5	21.151 S	175.883 W	TONGA ISLANDS	120	5.7	86.284
182	05/02	21 15 23.5	59.852 S	26.302 W	SOUTH SANDWICH ISLANDS REGION	33	5.3	28.258
183	05/04	00 09 32.7	27.973 S	176.670 W	KERMADEC ISLANDS REGION	59	5.3	79.465
184	05/05	01 52 43.6	23.619 S	179.897 W	SOUTH OF FIJI ISLANDS	542	5.1	83.064
185	05/05	11 38 27.2	19.547 S	68.978 W	CHILE-BOLIVIA BORDER REGION	131	5.2	78.178
186	05/06	05 42 03.0	0.895 N	123.171 E	MINAHASSA PENINSULA, SULAWESI	37	5.2	88.540
187	05/06	13 03 18.1	8.472 S	71.485 W	WESTERN BRAZIL	573	5.8	89.420
188	05/07	01 02 59.3	6.396 S	130.001 E	BANDA SEA	157	5.2	84.176
189	05/10	04 03 41.2	53.024 S	118.037 W	SOUTHERN EAST PACIFIC RISE	10	5.1	56.865
190	05/11	16 24 59.5	24.919 S	70.464 W	NEAR COAST OF NORTHERN CHILE	47	5.4	73.623
191	05/11	18 26 51.3	7.219 N	126.570 E	MINDANAO, PHILIPPINE	59	6.1	95.658
192	05/12	11 59 14.3	20.460 S	177.812 W	FIJI ISLANDS REGION	531	5.3	86.575
193	05/13	11 59 49.2	55.177 N	160.458 W	ALASKA PENINSULA	32	6.4	163.457
194	05/13	23 57 37.2	21.558 S	65.807 W	SOUTHERN BOLIVIA	276	4.6	75.251
195	05/14	12 23 08.2	23.824 S	179.848 W	SOUTH OF FIJI ISLANDS	528	5.2	82.875
196	05/14	18 32 09.2	55.959 S	27.199 W	SOUTH SANDWICH ISLANDS REGION	33	5.1	31.497

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197	05/14	21 29 45.0	10.823 S	161.358 E	SOLOMON ISLANDS	25	5.4	90.568
198	05/15	01 41 11.2	22.257 S	169.507 E	LOYALTY ISLANDS REGION	25	5.5	81.900
199	05/15	01 55 38.8	7.230 N	126.641 E	MINDANAO, PHILIPPINE ISLANDS	31	5.6	95.693
200	05/15	05 23 39.5	28.073 S	176.637 W	KERMADEC ISLANDS REGION	33	5.3	79.374
201	05/15	05 48 19.0	28.570 S	176.059 W	KERMADIC ISLANDS REGION	15	4.9	78.997
202	05/15	15 34 47.4	31.882 S	178.884 W	KERMADEC ISLANDS REGION	47	5.2	75.227
203	05/15	20 39 19.9	54.710 S	131.925 W	PACIFIC-ANTARCTIC RIDGE	10	5.1	56.125
204	05/15	21 52 25.3	51.374 N	178.669 W	ANDREANOF ISLANDS, ALEUTIAN IS.	32	6.2	154.820
205	05/16	00 24 46.6	18.473 S	177.935 W	FIJI ISLANDS REGION	515	4.9	88.489
206	05/16	03 19 11.0	51.385 N	178.443 W	ANDREANOF ISLANDS, ALEUTIAN IS.	33	5.3	154.903
207	05/16	21 44 48.9	15.286 S	173.332 W	TONGA ISLANDS	21	6.1	92.517
208	05/17	16 02 53.1	5.343 S	151.985 E	NEW BRITAIN REGION, P.N.G.	17	5.7	92.805
209	05/17	23 20 49.2	37.171 N	117.775 W	CALIFORNIA-NEVADA BORDER REGION	7	6.0	145.849
210	05/18	01 45 16.7	3.902 S	135.421 E	IRIAN JAYA REGION, INDONESIA	42	5.2	88.439
211	05/18	10 19 33.7	19.914 N	122.450 E	PHILIPPINE ISLANDS REGION	169	6.4	106.029
212	05/19	11 55 46.2	30.465 S	178.142 W	KERMADEC ISLANDS, NEW ZEALAND	23	5.5	76.752

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213	05/19	12 03 28.3	8.347 S	121.992 E	FLORES REGION, INDONESIA	40	5.8	79.490
214	05/19	13 59 03.4	51.209 N	178.064 W	ANDREANOF ISLANDS, ALEUTIAN IS.	33	4.0	154.875
215	05/20	11 08 11.2	0.023 S	124.793 E	SOUTHERN MOLUCCA SEA	30	5.9	88.261
216	05/21	06 12 11.8	51.897 N	176.563 W	ANDREANOF ISLANDS, ALEUTIAN IS.	61	5.3	155.946
217	05/22	09 48 07.4	30.501 S	179.175 W	KERMADEC ISLANDS REGION	222	5.0	76.514
218	05/22	13 53 00.2	55.980 S	27.477 W	SOUTH SANDWICH ISLANDS REGION	113	5.3	31.578
219	05/23	06 59 54.1	16.171 S	167.914 E	VANUATU ISLANDS	178	5.4	87.324
220	05/24	11 55 41.3	1.100 S	127.577 E	HALMAHERA, INDONESIA	42	5.1	88.251
221	05/24	23 51 20.8	23.238 S	66.631 W	JUJUY PROVINCE, ARGENTINA	221	6.2	73.954
222	05/25	02 13 45.8	13.494 S	167.120 E	VANUATU ISLANDS	190	5.6	89.675
223	05/25	23 16 43.4	55.021 N	160.513 W	ALASKA PENINSULA	37	6.2	163.302
224	05/26	00 27 06.0	30.442 S	72.002 W	OFF COAST OF CENTRAL CHILE	53	5.1	68.938
225	05/27	04 47 20.7	17.666 S	178.837 W	FIJI ISLANDS REGION	563	5.2	89.087
226	05/27	08 51 59.5	29.359 S	178.271 W	KERMADEC ISLANDS, NEW ZEALAND	119	5.9	77.804
227	05/28	11 06 12.6	27.264 S	66.474 E	SOUTH INDIAN OCEAN	10	5.5	44.626
228	05/29	00 18 34.9	18.378 S	174.922 W	TONGA ISLANDS	195	5.0	89.184

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229	05/30	04 46 46.5	7.253 S	128.434 E	BANDA SEA	110	5.2	82.816
230	05/30	05 34 21.2	23.018 S	66.500 W	JUJUY PROVINCE, ARGENTINA	245	4.3	74.116
231	05/30	06 00 03.2	51.515 N	156.586 E	KAMCHATKA	122	4.8	146.306
232	05/30	14 12 20.0	3.674 S	142.703 E	NEAR N COAST OF NEW GUNIA, P.N.G.	6	5.9	91.218
233	05/30	16 32 27.4	5.423 S	150.514 E	NEW BRITAIN REGION, P.N.G.	102	5.7	92.242
234	05/30	17 08 53.9	1.546 N	127.207 E	HALMAHERA, INDONESIA	81	6.0	90.589
235	05/31	08 34 22.0	72.448 S	174.838 E	ROSS SEA	10	5.3	35.565
236	05/31	21 15 02.5	29.390 S	176.373 W	KERMADEC ISLANDS REGION	68	5.1	78.138
237	06/01	15 53 47.1	45.711 S	77.211 W	OFF COAST OF SOUTHERN CHILE	33	5.3	56.253
238	06/02	03 00 18.4	46.471 S	33.954 E	PRINCE EDWARD ISLANDS REGION	10	5.6	22.716
239	06/02	08 27 19.1	51.513 N	178.744 W	ANDREANOF ISLANDS, ALEUTIAN IS.	33	5.6	154.914
240	06/02	20 42 52.8	36.237 S	179.597 E	OFF E. COAST OF N. ISLAND, N.Z.	66	5.7	70.698
241	06/03	09 38 25.6	14.841 S	167.299 E	VANUATU ISLANDS	152	5.9	88.433
242	06/04	10 49 33.6	3.734 N	128.497 E	NORTH OF HALMAHERA, INDONESIA	20	5.9	93.094
243	06/04	11 24 54.7	1.227 N	123.310 E	MINAHASSA PENINSULA, SULAWESI	27	5.4	88.900
244	06/04	13 35 11.6	1.226 N	123.348 E	MINAHASSA PENINSULA, SULAWESI	31	5.0	88.913

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245	06/04	15 29 57.9	24.207 S	69.399 W	NORTHERN CHILE	72	4.9	73.949
246	06/05	22 12 20.3	29.998 S	177.047 W	KERMADEC ISLANDS, NEW ZEALAND	33	5.0	77.417
247	06/06	06 18 42.7	24.567 S	175.857 W	SOUTH OF TONGA ISLANDS	33	5.2	82.948
248	06/06	09 18 29.0	24.509 S	175.928 W	SOUTH OF TONGA ISLANDS	29	5.4	82.992
249	06/06	13 23 20.8	15.823 N	146.595 E	MARIANA ISLANDS	14	6.0	110.815
250	06/07	00 07 23.2	0.773 S	129.799 E	HALMAHERA, INDONESIA	28	4.9	89.352
251	06/07	07 49 35.1	35.972 N	141.529 E	NEAR EAST COAST OF HONSHU, JAPAN	36	5.6	127.472
252	06/08	00 22 43.9	2.018 S	127.732 W	CERAM SEA	61	5.1	87.450
253	06/08	12 18 06.5	31.669 S	15.695 W	SOUTHERN MID-ATLANTIC RIDGE	10	5.5	48.410
254	06/08	13 03 36.4	51.218 N	157.829 E	NEAR EAST COAST OF KAMCHATKA	71	6.4	146.508
255	06/08	20 37 46.1	51.699 N	158.090 E	NEAR EAST COAST OF KAMCHATKA	66	5.1	146.995
256	06/08	23 17 41.4	31.560 S	69.234 W	SAN JUAN PROVINCE, ARGENTINA	113	6.5	67.036
257	06/09	07 46 01.7	4.548 S	119.948 E	SULAWESI, INDONESIA	60	5.0	82.308
258	06/09	15 57 48.8	7.008 S	13.041 W	ASCENSION ISLAND REGION	10	4.7	70.749
259	06/10	12 54 02.9	22.975 S	179.320 W	SOUTH OF FIJI ISLANDS	545	5.0	83.812
260	06/10	12 58 59.4	51.115 N	159.272 E	EAST OF KURIL ISLANDS	16	5.8	146.940
261	06/10	17 48 38.3	24.353 S	176.082 W	SOUTH OF FIJI ISLANDS	34	5.7	83.115

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262	06/12 05 45 21.2	11.140 S	162.937 E	SOLOMON ISLANDS	15	5.5	90.734
263	06/12 05 52 39.0	11.212 S	162.951 E	SOLOMON ISLANDS	33	5.3	90.670
264	06/12 07 01 59.8	5.609 S	148.095 E	NEW BRITAIN REGION, P.N.G.	157	5.7	91.254
265	06/12 11 15 07.4	13.250 N	87.528 W	HONDURAS	218	5.4	115.114
266	06/12 18 26 42.2	4.375 S	135.118 E	IRIAN JAYA REGION, INDONESIA	10	5.8	87.890
267	06/12 20 33 25.7	51.259 N	157.692 E	NEAR EAST COAST OF KAMCHATKA	44	5.9	146.492
268	06/13 00 39 10.4	6.380 S	155.476 E	SOLOMON ISLANDS	194	5.5	92.962
269	06/14 07 26 56.8	31.684 S	178.573 W	KERMADEC ISLANDS REGION	33	4.8	75.481
270	06/15 04 09 47.2	18.949 S	177.797 W	FIJI ISLANDS REGION	477	4.7	88.053
271	06/15 13 06 34.2	4.991 S	145.459 E	NEAR N COAST OF NEW GUINEA, P.N.G.	227	5.5	90.936
272	06/16 06 59 20.5	21.779 S	173.768 W	TONGA ISLANDS	35	5.6	86.069
273	06/18 08 45 19.4	28.444 S	176.991 W	KERMADEC ISLANDS REGION	33	5.1	78.944
274	06/18 11 52 34.5	28.866 S	176.869 W	KERMADEC ISLANDS REGION	16	6.2	78.556
275	06/18 17 38 30.3	28.772 S	176.881 W	KERMADEC ISLANDS REGION	33	5.4	78.645
276	06/18 17 57 46.6	28.678 S	176.893 W	KERMADEC ISLANDS REGION	11	5.9	78.735
277	06/18 19 34 37.7	28.817 S	176.803 W	KERMADEC ISLANDS REGION	29	5.3	78.616
278	06/18 20 55 02.5	28.849 S	176.666 W	KERMADEC ISLANDS REGION	42	5.2	78.611

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279	06/19	15 33 00.2	28.299 S	176.643 W	KERMADEC ISLANDS REGION	33	5.5	79.152
280	06/20	02 09 24.6	6.262 S	130.092 E	BANDA SEA	152	5.3	84.334
281	06/20	02 22 52.1	28.562 S	176.356 W	KERMADEC ISLANDS REGION	33	5.5	78.950
282	06/20	05 15 06.5	39.286 S	175.167 E	NORTH ISLAND, NEW ZEALAND	122	5.0	66.849
283	06/20	12 09 46.2	49.161 S	120.649 E	SOUTH OF AUSTRALIA	10	5.0	42.033
284	06/20	17 26 30.6	6.946 S	155.776 E	SOLOMON ISLANDS	38	5.5	92.522
285	06/20	18 51 28.1	5.670 S	146.318 E	EASTERN NEW GUINEA REG., P.N.G.	104	5.3	90.593
286	06/20	22 18 08.0	10.577 S	13.173 W	ASCENSION ISLAND REGION	10	5.2	67.391
287	06/20	22 52 01.9	28.271 S	177.097 W	KERMADEC ISLANDS REGION	35	5.2	79.093
288	06/22	15 01 43.4	6.499 S	130.167 E	BANDA SEA	147	5.4	84.140
289	06/23	11 29 19.3	60.549 S	56.376 W	SOUTH SHETLAND ISLANDS	10	6.2	37.375
290	06/25	07 23 17.0	28.673 S	176.447 W	KERMADEC ISLANDS REGION	60	5.3	78.824
291	06/25	07 44 10.8	28.835 S	176.419 W	KERMADEC ISLANDS REGION	70	5.0	78.671
292	06/25	21 30 42.0	4.063 S	135.196 E	IRIAN JAYA REGION, INDONESIA	33	5.2	88.209
293	06/26	20 42 13.2	28.695 S	176.481 W	KERMADEC ISLANDS REGION	65	4.7	78.796
294	06/26	22 08 06.3	24.281 S	68.693 W	CHILE-ARGENTINA BORDER REGION	106	5.2	73.652
295	06/27	11 56 11.0	51.246 N	158.914 E	NEAR EAST COAST OF KAMCHATKA	41	5.6	146.919

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296	06/27 15 32 59.0	9.177 S	115.873 E	SOUTH OF BALI, INDONESIA	88	5.2	76.540
297	06/28 07 39 53.9	28.787 S	176.620 W	KERMADEC ISLANDS REGION	51	4.9	78.680
298	06/28 16 31 55.8	19.584 S	177.781 W	FIJI ISLANDS REGION	560	4.8	87.436
299	06/28 21 02 47.1	31.299 S	177.543 W	KERMADEC ISLANDS REGION	33	5.1	76.054
300	06/28 23 33 52.9	62.922 S	159.578 W	PACIFIC-ANTARCTIC RIDGE	10	5.1	47.369
301	06/29 03 46 10.0	11.026 S	118.385 E	SOUTH OF SUMBAWA, INDONESIA	40	5.5	75.706
302	06/29 04 45 21.1	51.274 N	159.080 E	OFF EAST COAST OF KAMCHATKA	33	5.3	147.002
303	06/29 07 07 11.5	60.437 S	152.775 E	WEST OF MACQUARIE ISLAND	10	4.8	42.054
304	06/29 08 09 56.3	31.666 S	71.836 W	NEAR COAST OF CENTRAL CHILE	32	4.9	67.744
305	06/30 23 47 33.9	20.836 S	172.957 E	VANUATU ISLANDS REGION	13	5.9	84.134
306	07/01 03 58 06.9	45.046 S	80.621 W	OFF COAST OF SOUTHERN CHILE	33	4.9	57.768
307	07/01 22 49 31.9	28.521 S	176.570 W	KERMADEC ISLANDS REGION	79	4.8	78.949
308	07/02 00 14 08.6	8.083 S	117.901 E	SUMBAWA REGION, INDONESIA	32	5.0	78.279
309	07/02 15 26 58.8	53.082 N	161.881 W	SOUTH OF ALASKA	33	5.6	161.205
310	07/02 16 54 27.7	29.141 S	178.570 W	KERMADEC ISLANDS REGION	96	4.5	77.958
311	07/03 16 43 33.5	23.974 S	69.903 W	NORTHERN CHILE	70	4.8	74.329
312	07/03 19 43 59.5	3.005 S	129.323 E	SERAM, INDONESIA	32	5.4	87.098

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313	07/04	04 22 02.8	28.928 S	71.277 W	NEAR COAST OF CENTRAL CHILE	70	5.3	70.128
314	07/04	08 45 27.3	30.717 S	64.986 W	CORDOBA PROVINCE, ARGENTINA	188	4.8	66.460
315	07/05	00 52 41.4	24.886 S	112.393 W	EASTER ISLAND REGION	10	5.2	83.915
316	07/05	14 52 24.9	23.679 S	63.600 W	SALTA PROVINCE, ARGENTINA	551	4.8	72.537
317	07/05	15 20 57.7	30.242 N	138.808 E	SOUTH OF HONSHU, JAPAN	420	5.3	121.318
318	07/06	02 53 03.7	24.601 S	111.888 W	EASTER ISLAND REGION	10	5.5	84.118
319	07/06	18 34 12.4	20.431 S	168.810 E	LOYALTY ISLANDS	37	5.3	83.473
320	07/07	03 24 50.6	7.590 S	127.408 E	BANDA SEA	164	5.1	82.134
321	07/08	10 35 49.8	20.832 S	169.294 E	VANUATU ISLANDS	34	5.5	83.214
322	07/08	10 46 25.5	51.218 N	159.151 E	OFF EAST COAST OF KAMCHATKA	36	5.4	146.981
323	07/08	18 22 17.8	20.858 S	172.317 E	VANUATU ISLANDS REGION	33	5.4	83.955
324	07/08	22 06 15.0	24.148 S	68.725 W	CHILE-ARGENTINA BORDER REGION	106	5.2	73.787
325	07/09	13 03 09.5	17.369 S	167.929 E	VANUATU ISLANDS	17	5.6	86.179
326	07/09	15 37 53.6	19.782 S	177.486 W	FIJI ISLANDS REGION	398	6.0	87.303
327	07/09	16 37 06.3	17.448 S	167.783 E	VANUATU ISLANDS	10	5.0	86.064
328	07/09	21 09 48.9	29.054 S	176.744 W	KERMADEC ISLANDS REGION	40	5.3	78.396
329	07/09	21 34 28.7	29.071 S	176.734 W	KERMADEC ISLANDS REGION	38	5.2	78.381

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330	07/09	23 17 47.9	17.553 S	167.770 E	VANUATU ISLANDS	29	5.1	85.959
331	07/10	11 28 26.6	28.497 S	71.725 W	NEAR COAST OF CENTRAL CHILE	40	4.8	70.670
332	07/11	13 36 21.2	25.304 S	70.166 W	NEAR COAST OF NORTHERN CHILE	48	6.2	73.167
333	07/11	20 09 38.4	23.176 S	67.995 W	CHILE-ARGENTINA BORDER REGION	133	5.4	74.459
334	07/12	13 17 11.9	42.851 N	139.197 E	HOKKAIDO, JAPAN REGION	17	6.6	132.748
335	07/12	14 45 05.5	43.124 N	139.183 E	EASTERN SEA OF JAPAN	33	6.0	132.983
336	07/12	16 01 07.1	42.825 N	139.288 E	HOKKAIDO, JAPAN REGION	29	6.0	132.758
337	07/13	08 35 53.3	3.372 S	145.633 E	NEAR N COAST OF NEW GUINEA, P.N.G.	24	5.3	92.516
338	07/13	11 29 50.6	29.439 S	176.499 W	KERMADEC ISLANDS REGION	33	4.8	78.066
339	07/15	00 51 13.1	46.679 N	152.577 E	KURIL ISLANDS	32	5.7	140.824
340	07/15	12 12 38.5	23.604 S	179.157 E	SOUTH OF FIJI ISLANDS	548	5.1	82.877
341	07/16	21 21 26.4	33.173 S	71.994 W	NEAR COAST OF CENTRAL CHILE	31	5.4	66.388
342	07/16	22 45 42.4	41.441 S	87.367 W	WEST CHILE RISE	10	5.0	62.841
343	07/17	01 35 39.7	30.000 S	71.591 W	NEAR COAST OF CENTRAL CHILE	52	5.5	69.224
344	07/17	07 15 56.4	23.173 S	66.476 W	JUJUY PROVINCE, ARGENTINA	235	4.4	73.964
345	07/17	17 17 30.0	2.036 N	126.678 E	NORTHERN MOLUCCA SEA	63	5.6	90.858
346	07/17	23 56 36.5	6.091 S	113.090 E	JAWA, INDONESIA	567	5.3	78.449

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347	07/19	13 40 16.4	24.090 S	179.729 W	SOUTH OF FIJI ISLANDS	500	5.3	82.641
348	07/19	19 31 45.3	55.945 S	27.569 W	SOUTH SANDWICH ISLANDS REGION	33	5.2	31.638
349	07/20	07 38 19.4	16.807 S	172.595 W	SAMOA ISLANDS REGION	31	5.2	91.161
350	07/20	07 54 27.2	16.643 S	173.109 W	TONGA ISLANDS	33	4.9	91.227
351	07/20	16 50 44.8	52.917 S	27.174 E	SOUTH OF AFRICA	10	5.1	17.105
352	07/21	13 03 10.9	35.967 S	97.976 W	WEST CHILE RISE	10	5.0	70.467
353	07/21	19 38 49.8	48.706 S	125.937 E	SOUTH OF AUSTRALIA	10	4.9	44.230
354	07/22	03 51 15.7	54.538 S	119.444 W	SOUTHERN EAST PACIFIC RISE	10	4.9	55.502
355	07/22	04 57 07.0	6.470 N	71.210 W	NORTHERN COLOMBIA	20	6.1	103.392
356	07/22	06 16 09.4	54.439 S	119.333 W	SOUTHERN EAST PACIFIC RISE	10	5.6	55.590
357	07/22	13 15 48.2	0.158 S	122.959 E	MINAHASSA PENINSULA, SULAWESI	141	5.1	87.481
358	07/23	16 38 36.8	18.341 S	178.104 W	FIJI ISLANDS REGION	631	5.4	88.583
359	07/23	16 39 36.4	18.133 S	178.171 W	FIJI ISLANDS REGION	630	4.7	88.771
360	07/23	16 56 18.6	22.087 S	170.790 E	LOYALTY ISLANDS REGION	26	5.0	82.390
361	07/23	18 54 53.1	5.469 S	35.784 E	TANZANIA	10	5.0	63.590
362	07/23	19 01 33.1	5.023 S	35.907 E	TANZANIA	33	5.1	64.033
363	07/24	02 01 56.7	5.070 N	127.714 E	PHILIPPINE ISLANDS REGION	116	5.7	94.061

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364	07/24	20 24	50.1	13.060 S	167.056 E	VANUATU ISLANDS	194	5.8	90.074
365	07/25	05 37	46.3	16.832 S	167.730 E	VANUATU ISLANDS	33	5.1	86.640
366	07/25	15 05	19.6	17.844 S	13.431 W	SOUTHERN MID-ATLANTIC RIDGE	10	5.2	60.581
367	07/27	10 57	28.6	3.544 S	140.190 E	IRIAN JAYA, INDONESIA	33	5.1	90.461
368	07/28	01 07	37.1	35.747 S	104.042 W	SOUTHERN PACIFIC OCEAN	10	4.4	71.861
369	07/28	18 07	48.2	5.573 S	154.132 E	SOLOMON ISLANDS	26	5.6	93.291
370	07/29	04 24	39.4	28.734 S	176.641 W	KERMADEC ISLANDS REGION	35	5.1	78.728
371	07/30	14 03	08.1	21.691 S	178.892 W	FIJI ISLANDS REGION	568	4.9	85.152
372	07/31	09 13	34.7	20.185 S	174.006 W	TONGA ISLANDS	33	5.1	87.587
373	08/01	00 20	40.5	15.385 N	31.690 E	SUDAN	13	5.2	84.583
374	08/01	14 19	28.9	43.824 S	16.235 W	SOUTHERN MID-ATLANTIC RIDGE	10	5.0	37.659
375	08/02	15 44	40.1	11.726 S	74.162 W	CENTRAL PERU	54	5.1	87.222
376	08/03	07 17	04.3	24.213 S	66.920 W	SALTA PROVINCE, ARGENTINA	170	5.3	73.139
377	08/03	12 43	05.3	28.729 N	34.553 E	EGYPT	10	5.9	97.808
378	08/04	11 31	18.0	1.629 S	99.615 E	SOUTHERN SUMATERA, INDONESIA	32	5.9	78.144
379	08/04	13 02	20.7	7.445 S	125.814 E	BANDA SEA	26	5.3	81.699
380	08/04	19 05	05.2	5.249 S	145.697 E	EASTERN NEW GUINEA REG., P.N.G.	96	5.3	90.776

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381	08/04	22 29 20.4	51.929 S	160.171 E	NORTH OF MACQUARIE ISLAND	10	4.9	51.492
382	08/05	12 42 43.5	18.104 S	178.333 W	FIJI ISLANDS REGION	616	5.4	88.766
383	08/05	13 17 27.2	34.377 S	179.235 W	SOUTH OF KERMADEC ISLANDS	249	4.6	72.732
384	08/06	09 50 12.8	11.556 S	13.236 W	ASCENSION ISLAND REGION	10	5.0	66.479
385	08/06	18 31 03.3	17.549 S	174.811 W	TONGA ISLANDS	244	5.1	90.017
386	08/07	00 00 37.0	26.585 N	125.612 E	NORTHEAST OF TAIWAN	155	6.0	113.303
387	08/07	17 53 24.2	23.866 S	179.846 E	SOUTH OF FIJI ISLANDS	523	6.0	82.769
388	08/07	19 42 41.9	41.985 N	139.839 E	HOKKAIDO, JAPAN REGION	14	6.2	132.215
389	08/08	00 31 06.6	0.841 N	120.368 E	MINAHASSA PENINSULA, SULAWESI	34	5.4	87.495
390	08/08	08 34 24.9	12.982 N	144.801 E	SOUTH OF MARIANA ISLANDS	59	7.1	107.536
391	08/08	12 45 43.3	51.176 N	158.506 E	NEAR EAST OF KAMCHATKA	34	4.9	146.716
392	08/08	20 03 14.9	13.483 N	145.657 E	MARIANA ISLANDS	56	5.3	108.305
393	08/09	11 38 30.5	36.436 N	70.711 E	HINDU KUSH REGION, AFGHANISTAN	204	5.8	107.926
394	08/09	12 42 48.1	36.379 N	70.868 E	HINDU KUSH REGION, AFGHANISTAN	215	6.2	107.894
395	08/10	00 51 53.2	45.277 S	166.927 E	OFF W. COAST OF S. ISLAND, N.Z.	28	6.2	59.304
396	08/10	02 35 33.4	45.393 S	166.673 E	OFF W. COAST OF S. ISLAND, N.Z.	33	4.6	59.135

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397	08/10 07 17 27.6	45.208 S	166.689 E	OFF W. COAST OF S. ISLAND, N.Z.	23	4.8	59.313
398	08/10 09 46 35.3	38.520 S	177.553 E	NORTH ISLAND, NEW ZEALAND	14	6.0	68.081
399	08/10 13 36 20.6	45.381 S	166.182 E	OFF W. COAST OF S. ISLAND, N.Z.	33	4.3	59.031
400	08/11 03 43 49.1	45.192 S	166.659 E	OFF W. COAST OF S. ISLAND, N.Z.	22	4.9	59.321
401	08/11 04 09 12.5	45.209 S	166.857 E	OFF W. COAST OF S. ISLAND, N.Z.	28	5.5	59.352
402	08/11 11 14 36.3	2.919 N	126.445 E	NORTHERN MOLUCCA SEA	33	5.1	91.599
403	08/11 14 17 37.7	13.178 N	145.651 E	MARIANA ISLANDS	22	5.9	108.019
404	08/11 17 11 34.7	3.527 S	29.360 E	LAKE TANGANYIKA REGION	21	4.8	65.839
405	08/11 22 08 49.2	45.328 S	166.666 E	OFF W. COAST OF S. ISLAND, N.Z.	33	4.8	59.195
406	08/12 01 00 34.3	12.744 S	166.518 E	SANTA CRUZ ISLANDS	35	5.3	90.227
407	08/13 11 02 20.3	35.989 S	178.510 E	OFF E. COAST OF N. ISLAND, N.Z.	95	5.8	70.722
408	08/14 04 56 10.7	44.827 S	165.595 E	OFF W. COAST OF S. ISLAND, N.Z.	33	4.5	59.414
409	08/15 03 32 39.6	36.014 S	179.892 E	OFF E. COAST OF N. ISLAND, N.Z.	26	5.1	70.972
410	08/15 12 05 42.2	27.553 S	69.123 W	NORTHERN CHILE	114	4.4	70.733

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411	08/15	14 43	13.9	52.871 N	157.574 E	KAMCHATKA	149	4.9	147.760
412	08/15	20 28	57.3	53.015 N	159.680 E	NEAR EAST COAST OF KAMCHATKA	58	5.3	148.630
413	08/16	03 00	54.2	31.555 S	68.839 W	SAN JUAN PROVINCE, ARGENTINA	117	4.4	66.916
414	08/16	04 33	48.4	12.966 N	144.972 E	SOUTH OF MARIANA ISLANDS	18	5.6	107.582
415	08/16	14 44	58.9	51.479 N	178.696 E	RAT ISLANDS, ALEUTIAN ISLANDS	33	5.2	154.040
416	08/16	17 04	40.9	15.259 S	166.103 E	VANUATU ISLANDS	26	5.3	87.702
417	08/17	06 53	06.8	45.473 S	166.630 E	OFF W. COAST OF S. ISLAND, N.Z.	33	4.5	59.050
418	08/17	09 12	53.0	44.521 S	167.949 E	SOUTH ISLAND, NEW ZEALAND	33	4.4	60.255
419	08/17	23 40	05.8	30.599 S	71.925 W	NEAR COAST OF CENTRAL CHILE	33	4.8	68.768
420	08/19	04 31	03.9	1.928 N	127.603 E	HALMAHERA, INDONESIA	80	5.4	91.088
421	08/19	08 11	53.6	51.579 N	171.217 W	FOX ISLANDS, ALEUTIAN ISLANDS	33	5.3	157.319
422	08/19	13 35	51.0	7.926 S	146.468 E	EASTERN NEW GUINIA REG., P.N.G.	26	5.3	88.525
423	08/19	15 21	38.2	7.197 N	126.807 E	MINDANAO, PHILIPPINE ISLANDS	31	5.4	95.722
424	08/19	21 52	05.2	7.167 N	126.743 E	MINDANAO, PHILIPPINE ISLANDS	31	5.3	95.671
425	08/20	05 06	53.8	5.997 S	142.743 E	NEW GUINEA, PAPUA NEW GUINEA	15	6.0	89.055
426	08/20	16 56	33.3	26.662 S	178.271 E	SOUTH OF FIJI ISLANDS	638	4.9	79.716

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427	08/20	16 57 22.3	49.663 N	155.950 E	KURIL ISLANDS	47	4.8	144.549
428	08/20	18 57 10.7	25.991 S	175.261 W	SOUTH OF TONGA ISLANDS	22	5.5	81.668
429	08/21	08 07 49.9	46.404 S	96.032 E	SOUTHEAST INDIAN RIDGE	10	5.2	35.638
430	08/21	09 42 35.9	21.278 S	178.023 W	FIJI ISLANDS REGION	427	5.7	85.734
431	08/21	19 57 23.1	54.450 S	136.603 W	PACIFIC-ANTARCTIC RIDE	10	4.7	56.510
432	08/23	10 01 42.7	14.302 S	167.214 E	VANUATU ISLANDS	197	4.8	88.926
433	08/23	21 02 59.8	15.582 S	172.859 W	SAMOA ISLANDS REGION	33	5.1	92.315
434	08/24	21 23 16.0	8.438 S	121.639 E	FLORES REGION, INDONESIA	33	5.0	79.279
435	08/25	05 25 32.2	44.718 S	79.958 W	OFF COAST OF SOUTHERN CHILE	10	5.6	57.901
436	08/26	01 30 00.0	35.899 S	178.265 E	OFF E. COAST OF N. ISLAND, N.Z.	33	5.5	70.760
437	08/26	01 43 10.4	8.672 S	110.358 E	JAWA, INDONESIA	66	5.3	75.082
438	08/26	03 32 42.3	5.480 S	154.193 E	SOLOMON ISLANDS	137	5.8	93.399
439	08/27	05 46 43.1	35.544 S	178.265 E	OFF E. COAST OF N. ISLAND, N.Z.	33	4.9	71.103
440	08/27	13 15 25.5	24.063 S	179.191 E	SOUTH OF FIJI ISLANDS	579	4.6	82.438
441	08/28	13 51 46.4	7.056 N	126.861 E	MINDANAO, PHILIPPINE ISLANDS	67	5.0	95.609
442	08/28	20 14 45.8	6.571 N	94.668 E	NICOBAR ISLANDS, INDIA	133	5.8	84.440

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443	08/29	09 57 54.9	7.005 S	129.560 E	BANDA SEA	147	5.8	83.450
444	08/29	12 21 23.1	15.014 S	167.272 E	VANUATU ISLANDS	113	5.2	88.259
445	08/31	03 50 28.6	7.017 S	129.365 E	BANDA SEA	123	5.2	83.370
446	09/01	11 48 38.4	4.331 S	102.567 E	SOUTHERN SUMATERA, INDONESIA	71	5.8	76.537
447	09/01	14 03 19.1	2.986 N	96.122 E	NORTHERN SUMATERA, INDONESIA	34	5.9	81.451
448	09/02	14 07 09.0	2.382 N	128.562 E	HALMAHERA, INDONESIA	233	5.1	91.855
449	09/03	10 50 54.0	3.995 S	34.059 E	LAKE VICTORIA REGION	33	4.8	65.119
450	09/03	12 35 00.2	14.523 N	92.713 W	NEAR COAST OF CHIAPAS, MEXICO	27	5.8	117.874
451	09/03	18 14 09.8	41.265 S	72.743 W	SOUTHERHN CHILE	33	5.2	59.106
452	09/03	23 09 42.9	7.970 S	127.285 E	BANDA SEA	59	5.1	81.736
453	09/04	08 30 56.6	16.166 S	176.732 W	FIJI ISLANDS REGION	388	5.4	90.989
454	09/04	11 38 38.9	36.429 N	70.812 E	HINDU KUSH REGION, AFGHANISTAN	195	5.9	107.935
455	09/04	21 39 33.8	9.571 S	122.528 E	SAVU SEA	33	5.8	78.540
456	09/06	03 56 00.1	4.641 S	153.231 E	NEW IRELAND REGION, P.N.G.	49	6.2	93.878
457	09/07	02 48 50.8	31.635 S	179.440 W	KERMADEC ISLANDS REGION	10	5.9	75.358
458	09/07	04 44 42.2	7.363 S	128.779 E	BANDA SEA	117	5.1	82.837
459	09/07	10 07 30.9	31.848 S	177.564 W	KERMADEC ISLANDS REGION	33	4.8	75.515

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460	09/09	21 52 12.8	56.214 S	27.332 W	SOUTH SANDWICH ISLANDS REGION	110	5.8	31.346
461	09/10	16 37 42.2	8.505 S	122.288 E	FLORES REGION INDONESIA	33	3.9	79.448
462	09/10	19 12 54.6	14.717 N	92.645 W	NEAR COAST OF CHIAPAS, MEXICO	34	6.2	118.040
463	09/10	19 46 55.7	27.861 S	66.747 W	CATAMARCA PROVINCE, ARGENTINA	154	5.2	69.683
464	09/11	06 14 27.7	4.689 S	76.318 W	NORTHERN PERU	121	5.6	94.570
465	09/11	08 01 54.0	32.510 S	71.565 W	NEAR COAST OF CENTRAL CHILE	29	5.4	66.874
466	09/11	18 14 02.0	3.805 S	131.345 E	IRIAN JAYA REGION, INDONESIA	24	5.0	87.075
467	09/11	23 29 03.7	28.392 S	176.674 W	KERMADEC ISLANDS REGION	39	5.3	79.055
468	09/12	02 11 11.5	28.309 S	176.660 W	KERMADEC ISLANDS REGION	30	4.9	79.139
469	09/12	08 22 34.7	29.608 S	177.279 W	KERMADEC ISLANDS, NEW ZEALAND	33	5.6	77.753
470	09/13	10 37 16.2	30.074 S	177.193 W	KERMADEC ISLANDS, NEW ZEALAND	40	4.6	77.315
471	09/13	12 37 51.9	29.492 S	177.136 W	KERMADEC ISLANDS, NEW ZEALAND	20	5.8	77.894
472	09/13	13 13 06.2	29.982 S	177.125 W	KERMADEC ISLANDS, NEW ZEALAND	33	4.9	77.418
473	09/13	13 14 25.2	29.840 S	177.043 W	KERMADEC ISLANDS, NEW ZEALAND	33	5.3	77.572
474	09/13	14 03 21.0	29.499 S	177.078 W	KERMADEC ISLANDS, NEW ZEALAND	30	5.2	77.898
475	09/13	14 11 18.5	29.692 S	177.108 W	KERMADEC ISLANDS, NEW ZEALAND	33	5.5	77.704
476	09/13	16 45 42.2	29.730 S	177.100 W	KERMADEC ISLANDS, NEW ZEALAND	33	5.0	77.669

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477	09/13	18 44	37.1	5.575 S	154.163 E	SOLOMON ISLANDS	52	5.3	93.299
478	09/13	20 21	53.0	29.731 S	177.110 W	KERMADEC ISLANDS, NEW ZEALAND	33	4.9	77.666
479	09/13	20 57	27.2	29.745 S	177.155 W	KERMADEC ISLANDS, NEW ZEALAND	33	4.9	77.643
480	09/14	01 08	04.3	29.592 S	176.913 W	KERMADEC ISLANDS REGION	33	4.7	77.839
481	09/14	01 23	07.7	29.598 S	177.042 W	KERMADEC ISLANDS, NEW ZEALAND	33	5.4	77.808
482	09/14	01 43	24.4	29.794 S	177.095 W	KERMADEC ISLANDS, NEW ZEALAND	43	5.3	77.607
483	09/14	07 24	29.4	29.663 S	177.193 W	KERMADEC ISLANDS, NEW ZEALAND	33	4.4	77.716
484	09/14	12 17	02.6	29.724 S	177.157 W	KERMADEC ISLANDS, NEW ZEALAND	35	5.3	77.664
485	09/14	16 24	09.5	29.484 S	176.822 W	KERMADEC ISLANDS REGION	33	4.7	77.961
486	09/14	17 20	42.0	29.384 S	177.081 W	KERMADEC ISLANDS, NEW ZEALAND	24	5.3	78.010
487	09/14	21 06	03.3	29.564 S	176.999 W	KERMADEC ISLANDS REGION	33	4.8	77.850
488	09/15	00 45	57.9	29.496 S	177.286 W	KERMADEC ISLANDS, NEW ZEALAND	33	5.2	77.861
489	09/15	01 08	50.9	29.547 S	177.231 W	KERMADEC ISLANDS, NEW ZEALAND	33	5.1	77.822
490	09/15	02 30	40.2	29.653 S	177.243 W	KERMADEC ISLANDS, NEW ZEALAND	28	5.4	77.716
491	09/15	05 40	56.8	28.198 S	177.440 W	KERMADEC ISLANDS REGION	61	5.4	79.098
492	09/15	20 11	40.5	22.198 S	68.395 W	NORTHERN CHILE	114	4.9	75.504
493	09/16	00 59	26.4	44.533 N	149.036 E	KURIL ISLANDS	33	5.8	137.713

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494	09/16	05 50 36.3	29.572 S	177.144 W	KERMADEC ISLANDS, NEW ZEALAND	33	4.5	77.814
495	09/16	09 46 51.1	29.819 S	178.213 W	KERMADEC ISLANDS, NEW ZEALAND	33	5.0	77.367
496	09/16	10 21 59.9	29.874 S	177.244 W	KERMADEC ISLANDS, NEW ZEALAND	33	4.5	77.501
497	09/17	19 16 36.8	5.536 S	131.107 E	BANDA SEA	33	5.3	85.374
498	09/17	21 20 20.8	8.192 S	117.881 E	SUMBAWA REGION, INDONESIA	24	5.2	78.170
499	09/18	00 27 47.9	1.632 N	126.770 E	NORTHERN MOLUCCA SEA	40	5.5	90.513
500	09/18	05 02 27.0	36.421 N	71.592 E	AFGHANISTAN-TAJIKISTAN BORD. REG.	113	6.1	108.051
501	09/19	04 18 36.3	60.079 S	26.967 W	SOUTH SANDWICH ISLANDS REGION	46	5.4	28.324
502	09/19	05 10 35.4	21.937 S	179.306 W	FIJI ISLANDS REGION	586	5.3	84.826
503	09/20	10 17 42.0	0.750 N	29.354 W	CENTRAL MID-ATLANTIC RIDGE	10	5.8	83.312
504	09/20	19 38 37.0	17.312 S	64.688 W	CENTRAL BOLIVIA	33	4.3	78.845
505	09/20	23 04 12.6	5.225 S	102.829 E	SOUTHERN SUMATERA, INDONESIA	39	5.5	75.779
506	09/21	03 28 55.4	42.314 N	122.012 W	OREGON	11	5.7	151.627
507	09/21	05 45 33.7	42.358 N	122.045 W	OREGON	5	5.6	151.676
508	09/21	06 14 43.0	42.372 N	122.009 W	OREGON	5	5.0	151.683
509	09/21	08 57 37.9	16.926 S	177.503 W	FIJI ISLANDS REGION	377	4.7	90.088
510	09/21	14 23 04.4	18.668 S	177.891 W	FIJI ISLANDS REGION	571	5.1	88.308

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511	09/21	19 11 35.9	11.478 N	39.638 E	ETHIOPIA	15	5.4	80.487
512	09/22	06 44 19.2	15.843 S	166.383 E	VANUATU ISLANDS	44	5.3	87.220
513	09/22	12 37 03.5	6.470 S	154.901 E	SOLOON ISLANDS	28	6.1	92.692
514	09/22	16 15 36.4	4.060 N	122.892 E	CELEBES SEA	557	4.9	91.399
515	09/23	01 37 16.9	20.218 S	178.180 W	FIJI ISLANDS REGION	529	4.5	86.736
516	09/23	04 16 09.8	22.078 S	179.297 W	SOUTH OF FIJI ISLANDS	585	5.0	84.690
517	09/23	07 08 19.1	23.707 S	179.930 W	SOUTH OF FIJI ISLANDS	525	4.8	82.971
518	09/23	20 04 00.8	78.517 N	6.928 E	SVALBARD REGION	10	4.9	148.750
519	09/24	00 57 25.5	6.087 N	125.376 E	MINDANAO, PHILIPPINE ISLANDS	102	5.3	94.176
520	09/24	08 55 18.8	7.600 S	119.379 E	FLORES SEA	282	5.0	79.255
521	09/24	16 35 50.0	3.965 S	129.943 E	SERAM, INDONESIA	33	4.8	86.424
522	09/24	19 22 23.4	14.370 S	167.138 E	VANUATU ISLANDS	179	4.9	88.840
523	09/25	04 14 49.3	47.770 S	31.999 E	SOUTH OF AFRICA	10	5.0	21.570
524	09/25	11 33 14.6	15.971 S	173.803 W	TONGA ISLANDS	116	5.2	91.756
525	09/25	21 06 31.8	23.195 S	71.276 W	OFF COAST OF NORTHERN CHILE	10	5.1	75.497
526	09/26	03 19 16.4	28.848 S	70.936 W	CENTRAL CHILE	72		70.096
527	09/26	03 31 14.6	9.997 N	138.222 E	WESTERN CAROLINE ISLANDS	10	6.1	102.416

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528	09/26	15 59	03.2	2.028 N	126.473 E	NORTHERN MOLUCCA SEA	14	5.2	90.777
529	09/26	23 47	10.2	31.148 S	13.376 W	SOUTHERN MID-ATLANTIC RIDGE	10	5.0	48.121
530	09/27	04 43	55.6	30.678 N	132.121 E	SOUTHEAST OF SHIKOKU, JAPAN	38	5.5	119.337
531	09/27	13 37	32.9	53.651 S	51.621 W	SOUTH ATLANTIC OCEAN	33	6.2	41.628
532	09/27	16 27	17.5	14.727 S	75.970 W	NEAR COAST OF PERU	27	5.0	84.960
533	09/27	22 11	58.7	49.796 N	155.736 E	KURIL ISLANDS	33	4.7	144.583
534	09/29	08 02	00.5	6.122 S	147.601 E	EASTERN NEW GUINEA REG., P.N.G.	96	5.3	90.605
535	09/29	09 39	20.6	18.966 S	167.667 E	VANUATU ISLANDS	35	5.5	84.576
536	09/29	11 16	03.5	0.494 N	121.528 E	MINAHASSA PENINSULA, SULAWESI	97	6.1	87.581
537	09/29	18 26	20.2	42.677 S	18.385 W	SOUTHERN MID-ATLANTIC RIDGE	10	5.9	39.419
538	09/29	19 03	05.7	6.030 S	149.348 E	NEW BRITAIN REGION, P.N.G.	50	5.7	91.280
539	09/29	22 25	48.6	18.066 N	76.451 E	SOUTHERN INDIA	7	6.3	90.976
540	09/30	07 15	49.9	51.403 N	158.744 E	NEAR EAST COAST OF KAMCHATKA	49	4.8	146.987
541	09/30	17 04	45.8	11.815 N	92.529 E	ANDAMAN ISLANDS, INDIA	23	5.4	88.845
542	09/30	18 27	50.8	15.417 N	94.698 W	NEAR COAST OF OAXACA, MEXICO	19	5.8	119.297
543	09/30	22 50	39.7	53.698 S	51.719 W	SOUTH ATLANTIC OCEAN	10	5.0	41.620
544	10/01	05 15	04.8	29.427 S	68.140 W	SAN JUAN PROVINCE, ARGENTINA	117		68.674

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545	10/01	17 27	25.1	22.949 S	65.953 W	JUJUY PROVINCE, ARGENTINA	271	4.7	74.000
546	10/02	00 06	01.4	24.038 S	64.462 W	SALTA PROVINCE, ARGENTINA	21	5.2	72.491
547	10/02	02 51	28.6	50.147 S	138.892 E	SOUTH OF AUSTRALIA	10	5.3	47.184
548	10/02	15 54	05.5	37.552 N	140.459 E	EASTERN HONSHU, JAPAN	102	5.0	128.504
549	10/02	16 02	00.7	3.444 S	148.805 E	BISMARCK SEA	37	5.2	93.531
550	10/03	08 15	54.3	5.207 N	125.374 E	MINDANAO, PHILIPPINE ISLANDS	198	5.0	93.353
551	10/04	06 39	16.1	30.599 N	137.671 E	SOUTH OF HONSHU, JAPAN	480	5.3	121.237
552	10/04	20 54	38.3	21.437 S	174.301 W	TONGA ISLANDS	34	5.8	86.305
553	10/05	05 09	45.7	6.130 S	128.965 E	BANDA SEA	13	5.9	84.054
554	10/05	11 27	21.8	40.759 S	90.497 E	SOUTHEAST INDIAN RIDGE	10	4.7	38.679
555	10/05	15 25	22.9	40.200 S	78.227 E	MID-INDIAN RIDGE	10	5.0	35.279
556	10/06	09 18	44.6	4.083 S	129.668 E	BANDA SEA	28	5.1	86.216
557	10/07	16 35	49.5	14.117 S	75.779 W	NEAR COAST OF PERU	45	5.5	85.477
558	10/07	21 11	08.1	34.921 S	178.729 W	SOUTH OF KERMADEC ISLANDS	47	4.8	72.301
559	10/08	05 16	10.1	5.567 N	126.517 E	MINDANAO, PHILIPPINE ISLANDS	92	5.3	94.097
560	10/08	06 36	17.6	35.903 S	102.778 W	SOUTHERN PACIFIC OCEAN	10	5.3	71.476
561	10/08	08 24	52.4	56.083 S	26.285 W	SOUTH SANDWICH ISLANDS REGION	33	5.1	31.078

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562	10/09	03 37 23.8	15.286 S	173.537 W	TONGA ISLANDS	10	5.1	92.478
563	10/09	22 24 21.9	11.712 N	57.660 E	ARABIAN SEA	10	5.2	81.724
564	10/10	07 15 58.5	19.863 S	163.302 E	NEW CALEDONIA	14	5.3	82.516
565	10/10	11 44 06.7	10.895 S	164.520 E	SANTA CRUZ ISLANDS REGION	32	5.1	91.429
566	10/10	13 42 17.1	14.159 S	75.995 W	NEAR COAST OF PERU	49	5.0	85.505
567	10/10	20 11 26.4	0.056 N	16.582 W	NORTH OF ASCENSION ISLAND	10	4.7	78.551
568	10/11	07 55 56.3	24.922 S	179.977 W	SOUTH OF FIJI ISLANDS	500	5.0	81.779
569	10/11	11 16 18.4	4.544 S	153.316 E	NEW IRELAND REGION, P.N.G.	30	5.4	93.997
570	10/11	13 07 29.5	17.845 S	178.726 W	FIJI ISLANDS REGION	555	5.8	88.936
571	10/11	15 54 21.2	32.020 N	137.832 E	SOUTH OF HONSHU, JAPAN	351	6.4	122.585
572	10/11	23 34 45.8	21.492 S	169.758 E	LOYALTY ISLANDS REGION	24	4.7	82.700
573	10/12	02 35 00.8	33.913 S	94.278 E	SOUTH INDIAN OCEAN	10	5.2	46.151
574	10/13	01 39 12.3	6.426 S	154.934 E	SOLOMON ISLANDS	102	5.5	92.744
575	10/13	02 06 00.3	5.889 S	146.020 E	EASTERN NEW GUINEA REG., P.N.G.	25	6.4	90.285
576	10/13	02 44 03.9	5.792 S	146.076 E	EASTERN NEW GUINEA REG., P.N.G.	33	4.7	90.396
577	10/13	03 07 30.9	5.932 S	146.153 E	EASTERN NEW GUINEA REG., P.N.G.	33	6.1	90.290

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578	10/13	03 46 04.3	5.979 S	146.315 E	EASTERN NEW GUINEA REG., P.N.G.	22	4.6	90.302
579	10/13	05 50 42.5	6.013 S	146.061 E	EASTERN NEW GUINEA REG., P.N.G.	33	5.7	90.183
580	10/13	07 08 36.0	8.438 S	106.817 E	JAWA, INDONESIA	33	5.1	74.087
581	10/13	15 28 44.0	5.827 S	145.984 E	EASTERN NEW GUINEA REG., P.N.G.	35	4.9	90.331
582	10/13	22 46 31.6	6.010 S	145.994 E	NEW GUINEA, PAPUA NEW GUINEA	33	5.2	90.163
583	10/13	23 06 53.6	5.920 S	146.194 E	EASTERN NEW GUINEA REG., P.N.G.	28	4.7	90.316
584	10/13	23 37 59.7	5.944 S	146.070 E	EASTERN NEW GUINEA REG., P.N.G.	33	5.0	90.251
585	10/14	05 42 04.5	17.870 S	178.706 W	FIJI ISLANDS REGION	594	4.8	88.916
586	10/14	12 02 35.5	50.436 S	139.904 E	SOUTH OF AUSTRALIA	10	5.4	47.242
587	10/14	13 30 04.2	7.470 S	128.319 E	BANDA SEA	134	4.7	82.573
588	10/15	00 11 35.9	6.033 S	146.198 E	EASTERN NEW GUINEA REG., P.N.G.	22	5.2	90.211
589	10/15	00 43 54.6	22.231 S	175.109 W	TONGA ISLANDS REGION	33	5.0	85.376
590	10/15	21 31 37.3	4.214 N	127.797 E	TALAUD ISLANDS, INDONESIA	126	5.3	93.291
591	10/16	00 41 00.0	24.201 S	67.358 W	CHILE-ARGENTINA BORDER REGION	162	5.1	73.293

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592	10/16	03 05 30.3	5.898 S	146.202 E	EASTERN NEW GUINEA REG., P.N.G.	27	6.2	90.339
593	10/16	03 45 39.3	5.867 S	146.377 E	EASTERN NEW GUINEA REG., P.N.G.	39	4.9	90.428
594	10/17	06 38 38.1	53.998 N	161.509 E	OFF EAST COAST OF KAMCHATKA	35	4.7	150.070
595	10/17	09 23 00.9	7.275 S	119.750 E	FLORES SEA	448	5.1	79.690
596	10/18	13 57 14.6	22.133 N	62.861 E	ARABIAN SEA	10	5.2	92.689
597	10/18	21 43 09.3	33.129 S	177.820 W	SOUTH OF KERMADEC ISLANDS	33	5.4	74.218
598	10/19	04 02 21.9	22.378 S	65.971 W	JUJUY PROVINCE, ARGENTINA	272	5.9	74.539
599	10/19	09 28 21.8	18.011 S	178.401 W	FIJI IALANDS REGION	581	4.8	88.842
600	10/19	09 47 12.3	5.163 S	151.901 E	NEW BRITAIN REGION, P.N.G.	44	5.3	92.947
601	10/20	16 29 18.9	2.811 S	142.011 E	NEAR N. COAST OF NEW GUINEA, P.N.G.	26	5.3	91.786
602	10/20	18 08 21.7	7.465 S	130.559 E	TANIMBAR ISLANDS REG., INDONESIA	22	4.9	83.379
603	10/20	23 07 42.7	29.199 S	178.356 W	KERMADEC ISLANDS, NEW ZEALAND	214	4.7	77.943
604	10/21	07 36 55.8	56.497 S	138.909 W	PACIFIC-ANTARCTIC RIDGE	10	5.4	54.489
605	10/21	12 45 51.7	29.497 S	176.493 W	KERMADEC ISLANDS REGION	33	4.8	78.011
606	10/22	05 38 54.7	52.729 S	27.089 E	SOUTH OF AFRICA	10	5.2	17.300
607	10/22	08 42 16.5	54.835 S	26.557 W	SOUTH SANDWICH ISLANDS REGION	33	5.5	32.149

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608	10/22	15 30	30.9	0.157 S	123.047 E	MINAHASSA PENINSULA, SULAWESI	156	5.0	87.513
609	10/22	18 26	10.8	54.054 S	120.791 W	SOUTHERN EAST PACIFIC RISE	10	4.6	56.099
610	10/23	07 22	31.3	1.873 N	122.435 E	MINAHASSA PENINSULA, SULAWESI	53	5.1	89.193
611	10/23	18 11	03.8	20.237 S	177.771 W	FIJI ISLANDS REGION	509	4.6	86.801
612	10/23	18 45	54.1	40.404 N	126.359 W	OFF COAST OF NORTHERN CALIFORNIA	10	5.1	150.433
613	10/24	03 19	42.9	4.359 S	129.086 E	BANDA SEA	190	5.1	85.750
614	10/24	07 52	15.6	16.755 N	98.717 W	NEAR COAST OF GUERRERO, MEXICO	21	6.3	121.688
615	10/24	15 36	08.6	55.621 S	128.041 W	PACIFIC-ANTARCTIC RIDGE	10	5.3	55.043
616	10/24	22 49	35.6	5.736 S	146.070 E	EASTERN NEW GUINEA REG., P.N.G.	10	4.7	90.446
617	10/25	08 39	19.8	7.851 S	130.128 E	TANIMBAR ISLANDS REG, INDONESIA	33	5.2	82.865
618	10/25	10 07	11.5	5.882 S	145.933 E	EASTERN NEW GUINEA REG., P.N.G.	18	5.7	90.262
619	10/25	10 20	33.3	5.838 S	146.031 E	EASTERN NEW GUINEA REG., P.N.G.	10	4.8	90.337
620	10/25	10 27	04.5	5.909 S	145.990 E	EASTERN NEW GUINEA REG., P.N.G.	30	6.3	90.256
621	10/25	11 59	48.0	5.858 S	146.016 E	EASTERN NEW GUINEA REG., P.N.G.	27	5.6	90.313

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622	10/25	13 53 32.7	5.929 S	145.966 E	EASTERN NEW GUINEA REG., P.N.G.	20	4.8	90.229
623	10/25	14 30 12.9	5.813 S	145.822 E	EASTERN NEW GUINEA REG., P.N.G.	21	5.1	90.289
624	10/25	20 41 28.7	5.874 S	145.879 E	EASTERN NEW GUINEA REG., P.N.G.	10	4.7	90.251
625	10/26	09 19 16.5	5.622 S	133.785 E	ARU ISLANDS REGION, INDONESIA	33	4.9	86.250
626	10/27	00 15 38.8	5.717 S	145.988 E	EASTERN NEW GUINEA REG., P.N.G.	10	4.5	90.436
627	10/27	04 53 27.7	52.845 N	160.176 E	OFF EAST COAST OF KAMCHATKA	68	5.1	148.671
628	10/27	05 37 37.2	5.805 S	145.852 E	EASTERN NEW GUINEA REG., P.N.G.	10	4.9	90.307
629	10/27	07 18 47.3	6.946 N	125.653 E	MINDANAO, PHILIPPINE ISLANDS	46	5.4	95.076
630	10/27	17 51 36.8	23.222 S	70.780 W	NEAR COAST OF NORTHERN CHILE	52	4.8	75.314
631	10/27	21 16 48.9	18.279 S	177.874 W	FIJI ISLANDS REGION	617	5.3	88.691
632	10/28	02 53 17.1	46.706 S	93.729 W	SOUTHERN PACIFIC OCEAN	10	5.5	59.269
633	10/28	06 01 26.8	5.722 S	145.956 E	EASTERN NEW GUINEA REG., P.N.G.	10	4.9	90.420
634	10/28	09 50 06.3	6.879 S	128.785 E	BANDA SEA	182	5.1	83.291
635	10/29	01 43 47.5	10.247 S	160.949 E	SOLOMON ISLANDS	52	5.1	90.994

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636	10/29 04 09 05.6	51.509 N	178.184 W	ANDREANOF ISLANDS, ALEUTIAN IS.	34	5.8	155.092
637	10/29 09 22 13.6	5.631 S	145.923 E	EASTERN NEW GUINEA REG., P.N.G.	10	5.4	90.495
638	10/30 00 29 19.3	22.013 S	170.547 E	LOYALTY ISLANDS REGION	107	4.8	82.400
639	10/30 14 04 43.4	19.305 S	176.231 W	FIJI ISLANDS REGION	17	5.3	88.021
640	10/30 17 59 02.7	31.704 S	68.232 W	SAN JUAN PROVINCE, ARGENTINA	107	5.9	66.586
641	10/30 21 21 04.1	6.072 S	145.951 E	NEW GUINEA, PAPUA NEW GUINEA	12	4.4	90.090
642	10/30 23 31 43.5	22.648 S	13.844 W	SOUTHERN MID-ATLANTIC RIDGE	10	4.5	56.189
643	10/31 00 40 25.1	49.553 S	123.274 E	SOUTH OF AUSTRALIA	10	5.5	42.602
644	10/31 04 29 19.4	21.291 S	176.725 W	FIJI ISLANDS REGION	231	4.5	85.982
645	10/31 07 36 58.6	23.733 S	177.123 W	SOUTH OF FIJI ISLANDS	115	5.1	83.518
646	10/31 10 59 53.0	5.732 S	145.966 E	EASTERN NEW GUINEA REG., P.N.G.	10	5.1	90.414
647	10/31 17 02 54.8	4.647 N	125.783 E	TALAUD ISLANDS, INDONESIA	190	5.1	92.976
648	11/01 00 01 19.6	2.042 N	98.121 E	NORTHERN SUMATERA, INDONESIA	84	5.2	81.163
649	11/01 03 19 56.8	56.898 S	147.392 W	PACIFIC-ANTARCTIC RIDGE	10	4.6	53.990
650	11/01 05 01 53.1	5.806 S	146.246 E	EASTERN NEW GUINEA REG., P.N.G.	18	5.0	90.441

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651	11/01 07 44 51.5	5.795 S	146.195 E	EASTERN NEW GUINEA REG., P.N.G.	24	5.0	90.434
652	11/01 17 19 25.2	10.065 S	161.210 E	SOLOMON ISLANDS	118	5.8	91.246
653	11/03 18 37 46.0	5.793 S	145.912 E	EASTERN NEW GUINEA REG., P.N.G.	10	5.3	90.339
654	11/04 02 36 46.3	5.843 S	145.964 E	EASTERN NEW GUINEA REG., P.N.G.	17	5.2	90.309
655	11/05 07 02 06.1	7.033 S	106.101 E	JAWA, INDONESIA	75	5.4	75.165
656	11/05 22 37 20.1	3.188 S	148.339 E	BISMARCK SEA	14	5.7	93.614
657	11/07 03 05 45.5	6.447 S	154.929 E	SOLOMON ISLANDS	95	5.2	92.722
658	11/07 06 11 44.7	21.983 S	177.506 W	FIJI ISLANDS REGION	118	5.5	85.150
659	11/07 07 34 59.3	5.805 S	146.207 E	EASTERN NEW GUINEA REG., P.N.G.	21	5.0	90.428
660	11/07 14 04 56.1	5.944 S	146.180 E	EASTERN NEW GUINEA REC., P.N.G.	14	4.5	90.288
661	11/07 20 24 21.7	62.195 S	154.361 E	BALLENY ISLANDS REGION	10	4.6	40.902
662	11/08 01 25 09.5	5.923 S	145.909 E	EASTERN NEW GUINEA REG., P.N.G.	19	4.8	90.216
663	11/08 19 15 49.7	25.414 S	176.607 W	SOUTH OF FIJI ISLANDS	29	5.3	81.977
664	11/09 06 23 17.6	57.459 S	27.082 W	SOUTH SANDWICH ISLANDS REGION	33	5.0	30.304
665	11/09 23 44 26.2	28.764 S	178 396 W	KERMADEC ISLANDS REGION	268	5.0	78.359

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666	11/10	00 03 23.4	4.676 S	151.927 E	NEW BRITAIN REGION, P.N.G.	96	5.6	93.415
667	11/10	11 13 37.9	15.344 S	177.029 W	FIJI ISLANDS REGION	381	5.3	91.731
668	11/10	20 10 43.0	29.051 S	61.840 E	SOUTHWEST INDIAN RIDGE	10	5.1	41.995
669	11/10	21 45 01.6	22.583 S	179.169 E	SOUTH OF FIJI ISLANDS	613	5.2	83.873
670	11/11	00 28 33.5	50.200 N	177.446 W	ANDREANOF ISLANDS, ALEUTIAN IS.	19	6.3	154.202
671	11/11	04 10 54.2	31.512 S	178.037 W	KERMADEC ISLANDS REGION	33	4.8	75.752
672	11/11	06 41 59.2	40.902 S	43.297 E	SOUTHWEST INDIAN RIDGE	10	4.8	28.176
673	11/11	10 13 55.3	4.543 S	153.147 E	NEW IRELAND REGION, P.N.G.	46	5.7	93.943
674	11/11	13 59 44.4	30.954 S	177.371 W	KERMADEC ISLANDS, NEW ZEALAND	33	5.1	76.423
675	11/13	01 18 04.1	51.934 N	158.647 E	NEAR EAST COAST OF KAMCHATKA	34	6.5	147.386
676	11/13	02 08 26.4	51.990 N	158.759 E	NEAR EAST COAST OF KAMCHATKA	62	5.1	147.471
677	11/13	10 31 30.9	22.428 S	169.725 E	LOYALTY ISLANDS REGION	36	5.5	81.792
678	11/13	12 30 54.7	16.370 S	70.733 W	SOUTHERN PERU	123	5.3	81.735
679	11/13	22 42 10.5	7.608 S	127.650 E	BANDA SEA	33	5.1	82.204
680	11/14	01 59 20.2	22.572 S	68.571 W	NORTHERN CHILE	112	5.8	75.211
681	11/14	12 25 34.8	35.953 N	120.494 W	SOUTHERN CALIFORNIA	12	4.1	145.165
682	11/15	22 45 19.3	18.559 S	167.637 E	VANUATU ISLANDS	48	5.2	84.959

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683	11/16	00 53 09.7	24.368 S	175.835 W	SOUTH OF TNAGA ISLANDS	33	5.3	83.147
684	11/17	02 42 29.6	1.577 N	124.033 E	MINAHASSA PENINSULA, SULAWESI	240	5.6	89.485
685	11/17	02 47 55.8	13.681 S	167.347 E	VANUATU ISLANDS	241	4.8	89.558
686	11/17	11 18 51.6	51.816 N	158.659 E	NEAR EAST COAST OF KAMCHATKA	33	6.1	147.294
687	11/18	17 52 09.8	35.095 S	17.208 W	SOUTHERN MID-ATLANTIC RIDGE	10	5.1	45.792
688	11/18	21 32 40.8	31.754 S	72.536 W	OFF COAST OF CENTRAL CHILE	33	4.9	67.876
689	11/19	01 43 23.7	54.287 N	164.164 W	UNIMAK ISLAND REGION	30	6.1	161.705
690	11/19	04 37 56.4	22.427 S	179.565 W	SOUTH OF FIJI ISLANDS	591	5.3	84.294
691	11/19	09 05 39.3	7.317 N	34.703 W	CENTRAL MID-ATLANTIC RIDGE	10	5.7	91.303
692	11/20	11 37 59.1	31.723 S	72.009 W	OFF COAST OF CENTRAL CHILE	21	5.2	67.744
693	11/20	19 24 53.8	60.025 N	153.003 W	SOUTHERN ALASKA	116	5.6	169.554
694	11/21	00 16 00.6	35.959 S	102.893 W	SOUTHERN PACIFIC OCEAN	10	5.2	71.443
695	11/21	12 26 24.1	22.652 S	68.844 W	NORTHERN CHILE	115	4.9	75.225
696	11/22	03 00 55.8	5.877 N	126.229 E	MINDANAO, PHILIPPINE ISLANDS	38	5.7	94.284
697	11/22	04 16 51.3	50.747 N	156.556 E	KURIL ISLANDS	85	5.1	145.664
698	11/23	15 02 13.0	6.430 N	125.827 E	MINDANAO, PHILIPPINE ISLANDS	161	5.1	94.657
699	11/23	19 02 33.4	18.567 S	176.917 W	FIJI ISLANDS REGION	371	4.7	88.605

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700	11/24	02 40 17.3	2.376 S	141.167 E	NEAR N. COAST OF NEW GUINEA, P.N.G.	34	5.3	91.897
701	11/24	05 49 52.1	27.677 S	176.257 W	KERMADEC ISLANDS REGION	33	5.3	79.833
702	11/24	11 27 20.2	21.412 S	174.270 W	TONGA ISLANDS	33	5.3	86.336
703	11/25	08 31 14.8	22.035 S	170.094 E	LOYALTY ISLANDS REGION	32	5.6	82.264
704	11/25	13 58 43.5	26.279 S	105.706 W	EASTER ISLAND REGION	10	4.9	81.414
705	11/25	14 10 53.0	19.862 S	175.409 W	TONGA ISLANDS	217	4.4	87.637
706	11/25	20 24 00.7	0.963 S	13.264 W	NORTH OF ASCENSION ISLAND	10	5.7	76.587
707	11/26	21 12 30.4	3.355 S	129.765 E	SERAM, INDONESIA	33	5.0	86.930
708	11/26	23 20 04.1	9.597 S	158.148 E	SOLOMON ISLANDS	17	5.9	90.756
709	11/27	06 11 22.6	38.625 N	141.164 E	NEAR EAST COAST OF HONSHU, JAPAN	104	5.9	129.712
710	11/27	22 25 16.0	25.231 S	179.999 E	SOUTH OF FIJI ISLAND	524	5.2	81.473
711	11/28	10 50 27.1	5.599 S	110.267 E	JAVA SEA	569	5.6	77.932
712	11/29	06 35 24.4	20.783 S	174.092 W	TONGA ISLANDS	33	5.3	86.985
713	11/29	07 32 05.5	0.105 S	123.005 E	MINAHASSA PENINSULA, SULAWESI	146	5.1	87.547
714	11/29	19 42 29.2	7.208 S	93.840 E	SOUTH INDIAN OCEAN	10	5.1	71.047
715	11/29	20 28 43.9	10.294 N	126.477 E	PHILIPPINE ISLANDS REGION	38	5.5	98.493

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716	11/30	04 59	26.1	59.047 S	18.158 W	SOUTHWESTERN ATLANTIC OCEAN	33	5.2	25.974
717	11/30	20 44	13.1	16.995 S	177.048 W	FIJI ISLANDS REGION	411	5.2	90.114
718	12/01	00 59	01.2	57.475 S	25.685 W	SOUTH SANDWICH ISLANDS REGION	33	5.5	29.801
719	12/01	08 21	54.3	6.276 S	127.988 E	BANDA SEA	361	4.9	83.568
720	12/01	13 23	56.4	23.205 S	70.890 W	OFF COAST OF NORTHERN CHILE	33	5.3	75.365
721	12/01	13 42	15.6	17.497 S	168.189 E	VANUATU ISLANDS	76	5.1	86.126
722	12/01	22 04	22.3	12.781 S	44.766 E	NORTHWEST OF MADAGASCAR	10	5.2	56.326
723	12/03	05 41	08.2	51.204 N	179.308 E	RAT ISLANDS, ALEUTIAN ISLANDS	33	5.2	154.011
724	12/03	10 16	19.1	49.954 S	114.201 E	SOUTH OF AUSTRALIA	10	5.3	39.114
725	12/03	11 09	29.9	23.709 S	179.932 W	SOUTH OF FIJI ISLANDS	544	4.9	82.969
726	12/03	12 22	17.6	15.684 S	171.986 W	SAMOA ISLANDS REGION	10	5.0	92.374
727	12/03	12 36	25.5	60.353 S	20.446 W	SOUTHWESTERN ATLANTIC OCEAN	10	5.5	25.854
728	12/04	12 55	46.3	3.620 S	131.248 E	IRIAN JAYA REGION, INDONESIA	33	5.0	87.213
729	12/04	17 21	23.2	3.590 S	131.256 E	IRIAN JAYA REGION, INDONESIA	33	5.3	87.244
730	12/04	22 15	19.5	42.303 N	122.011 W	OREGON	8	5.2	151.617
731	12/04	23 16	52.4	33.838 S	71.913 W	NEAR COAST OF CENTRAL CHILE	50	5.5	65.744
732	12/05	19 05	02.2	49.181 N	153.380 E	KURIL ISLANDS	37	4.9	143.226



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733	12/05	19 37 01.4	6.467 S	130.426 E	BANDA SEA	137	5.3	84.262
734	12/06	02 25 03.2	28.492 S	176.909 W	KERMADEC ISLANDS REGION	79	5.1	78.913
735	12/06	08 36 22.8	5.982 S	130.680 E	BANDA SEA	123	5.1	84.806
736	12/06	10 42 03.7	6.360 S	154.916 E	SOLOMON ISLANDS	48	5.6	92.800
737	12/06	20 54 45.4	6.818 N	78.301 E	LACCADIVE SEA	10	5.2	80.403
738	12/07	16 27 25.5	0.730 N	122.702 E	MINAHASSA PENINSULA, SULAWESI	78	5.6	88.219
739	12/07	17 53 35.3	20.835 S	178.943 W	FIJI ISLANDS REGION	618	4.8	85.975
740	12/08	02 21 02.7	12.544 S	166.634 E	SANTA CRUZ ISLANDS	40	5.6	90.451
741	12/08	03 13 31.2	24.155 S	66.662 W	SALTA PROVINCE, ARGENTINA	195	4.3	73.108
742	12/08	16 16 39.9	28.902 S	178.693 W	KERMADEC ISLANDS REGION	199	4.6	78.166
743	12/08	17 38 53.3	20.721 S	178.760 W	FIJI ISLANDS REGION	594	4.7	86.125
744	12/08	23 37 13.3	6.530 S	129.979 E	BANDA SEA	99	5.2	84.044
745	12/09	04 32 19.5	0.486 N	125.995 E	NORTHERN MOLUCCA SEA	15	6.5	89.166
746	12/09	11 38 27.9	0.425 N	125.891 E	NORTHERN MOLUCCA SEA	16	6.3	89.072
747	12/09	12 07 36.6	0.380 N	125.896 E	NORTHERN MOLUCCA SEA	34	5.2	89.032
748	12/09	14 46 59.7	28.128 S	71.066 W	NEAR COAST OF CENTRAL CHILE	60	5.0	70.810
749	12/09	19 14 24.9	26.087 S	178.348 E	SOUTH OF FIJI ISLANDS	634	5.0	80.291

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750	12/10	06 31	54.1	22.180 S	179.575 W	SOUTH OF FIJI ISLANDS	605	5.6	84.532
751	12/10	11 52	15.8	19.664 S	178.150 W	FIJI ISLANDS REGION	616	5.0	87.282
752	12/10	22 21	16.6	0.517 N	125.863 E	NORTHERN MOLUCCA SEA	28	5.3	89.148
753	12/11	13 04	52.6	49.733 N	157.246 E	EAST OF KURIL ISLANDS	32	5.0	145.071
754	12/11	18 03	46.6	8.097 S	123.446 E	FLORES REGION, INDONESIA	135	4.9	80.243
755	12/11	23 47	30.1	21.935 S	176.415 W	FIJI ISLANDS REGION	164	5.3	85.414
756	12/12	14 19	21.7	29.386 S	176.862 W	KERMADEC ISLANDS REGION	38	5.3	78.049
757	12/12	17 03	19.3	0.317 N	125.939 E	NORTHERN MOLUCCA SEA	23	5.8	88.988
758	12/12	18 26	28.6	0.344 N	125.925 E	NORTHERN MOLUCCA SEA	33	5.6	89.008
759	12/13	11 43	44.2	20.422 S	173.839 W	TONGA ISLANDS	33	5.8	87.386
760	12/13	16 27	47.6	0.483 N	126.100 E	NORTHERN MOLUCCA SEA	33	5.1	89.201
761	12/13	17 13	40.8	0.491 N	126.292 E	NORTHERN MOLUCCA SEA	16	5.1	89.277
762	12/13	22 25	41.2	55.702 S	27.749 W	SOUTH SANDWICH ISLANDS REGION	33	5.0	31.891
763	12/14	06 07	16.1	9.314 S	79.012 W	OFF COAST OF NORTHERN PERU	64	5.1	91.039
764	12/14	06 31	19.3	20.704 S	173.451 W	TONGA ISLANDS	31	5.5	87.181
765	12/16	03 12	01.2	9.183 S	127.618 E	TIMOR SEA	33	5.0	80.725
766	12/16	04 18	19.2	20.473 S	173.884 W	TONGA ISLANDS	24	5.1	87.328

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767	12/16	17	35	27.9	18.020 S	178.052 W	FIJI ISLANDS REGION	635	4.7	88.907
768	12/16	20	11	21.9	53.804 N	171.382 E	NEAR ISLANDS, ALEUTIAN ISLANDS	9	5.8	153.434
769	12/16	23	41	11.2	15.458 S	173.360 W	TONGA ISLANDS	33	5.2	92.343
770	12/17	00	37	25.6	5.311 N	61.523 E	CARLSBERG RIDGE	10	5.1	75.850
771	12/17	08	49	03.9	15.037 S	74.265 W	NEAR COAST OF PERU	82	4.8	84.128
772	12/18	05	12	34.7	23.636 S	179.741 W	SOUTH OF FIJI ISLANDS	500	4.4	83.080
773	12/18	17	16	36.9	6.622 S	130.454 E	BANDA SEA	50	5.0	84.128
774	12/18	18	11	06.3	32.002 S	179.734 E	SOUTH OF KERMADEC ISLANDS	376	4.9	74.836
775	12/18	22	44	20.0	20.477 S	173.883 W	TONGA ISLANDS	33	5.7	87.324
776	12/19	10	31	28.6	5.746 N	127.004 E	MINDANAO, PHILIPPINE ISLANDS	43	5.5	94.438
777	12/20	13	56	14.8	6.876 S	131.340 E	TANIMBAR ISLANDS REG., INDONESIA	8	6.4	84.207
778	12/22	06	38	46.0	18.292 S	178.388 W	FIJI ISLANDS REGION	544	4.5	88.571
779	12/22	10	35	17.4	4.938 S	132.083 E	IRIAN JAYA REGION, INDONESIA	33	5.4	86.282
780	12/23	10	12	19.4	23.553 S	176.670 W	SOUTH OF FIJI ISLANDS	84	5.0	83.783
781	12/24	05	18	34.6	21.853 S	178.646 W	FIJI ISLANDS REGION	445	5.6	85.045
782	12/26	01	15	39.5	30.939 S	177.817 W	KERMADEC ISLANDS, NEW ZEALAND	50	4.7	76.353

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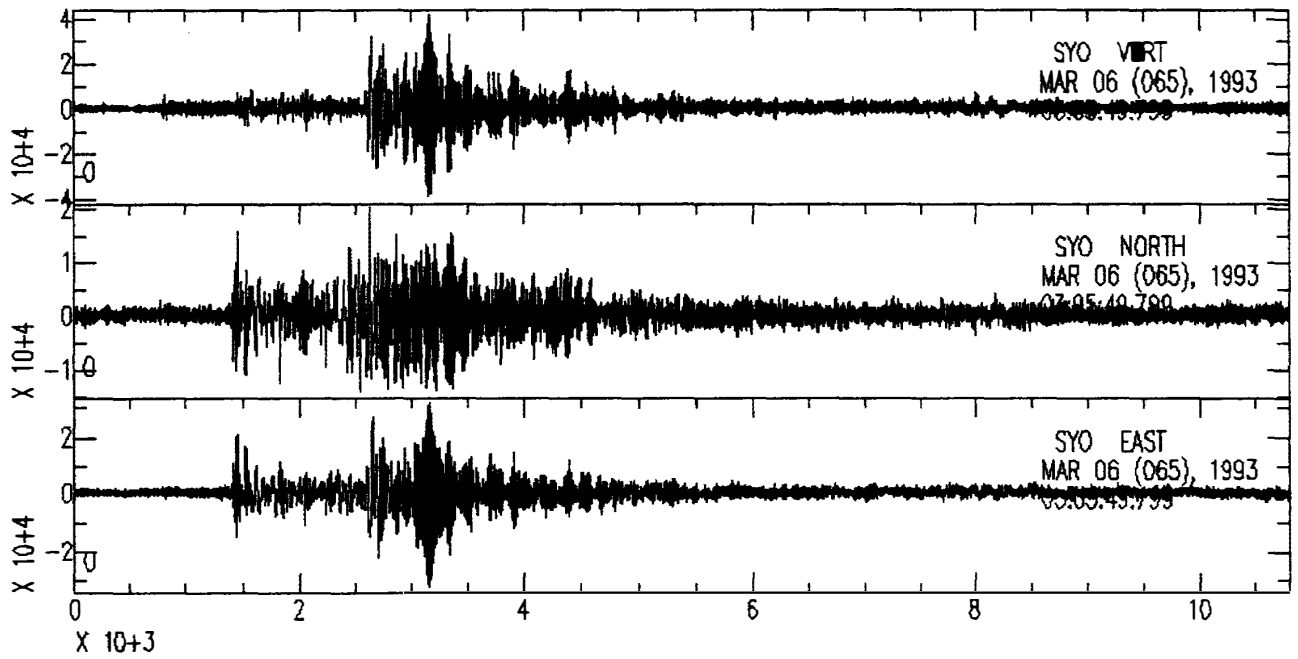
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783	12/27	11 53 37.3	7.640 S	146.806 E	EASTERN NEW GUINEA REG., P.N.G.	33	5.2	88.908
784	12/28	22 20 47.5	49.356 N	155.614 E	KURIL ISLANDS	54	5.1	144.172
785	12/29	07 48 14.2	20.230 S	169.789 E	VANUATU ISLANDS	33	6.1	83.921
786	12/29	08 00 55.3	20.076 S	169.680 E	VANUATU ISLANDS	33	5.9	84.041
787	12/29	08 38 07.4	20.132 S	169.653 E	VANUATU ISLANDS	33	5.4	83.980
788	12/29	08 39 44.8	19.990 S	169.857 E	VANUATU ISLANDS	33	6.1	84.169
789	12/31	05 19 23.0	38.332 S	93.202 W	WEST CHILE RISE	10	5.0	67.160

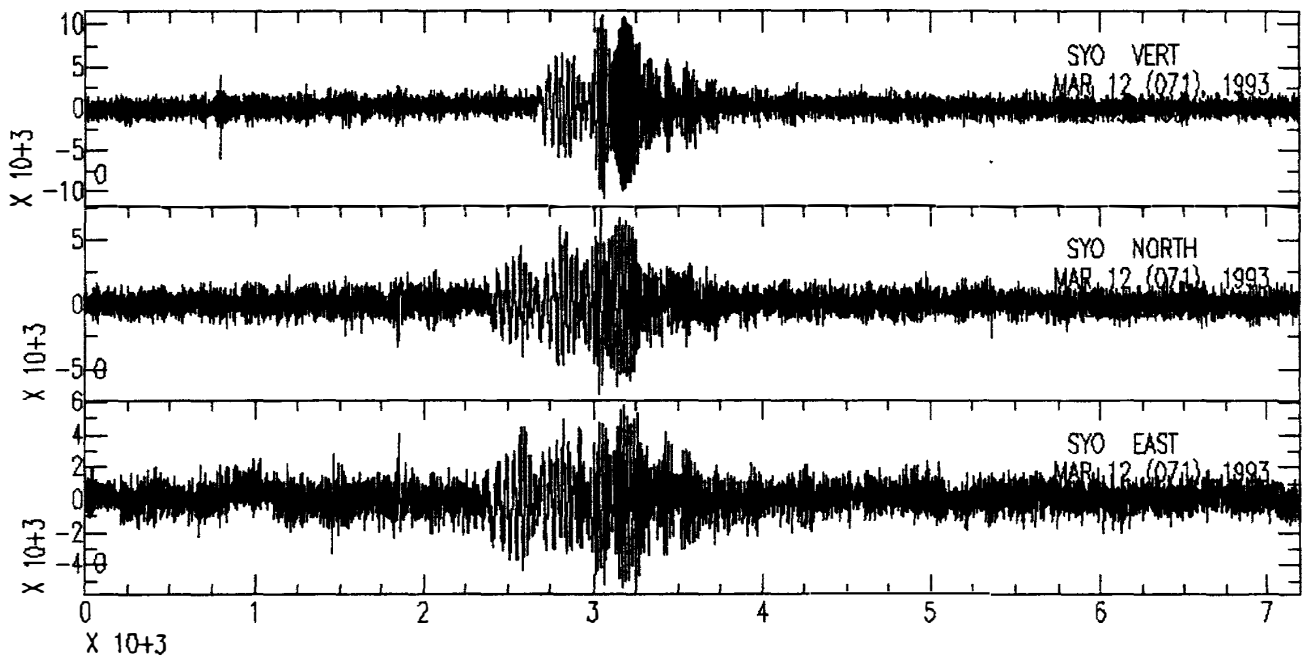
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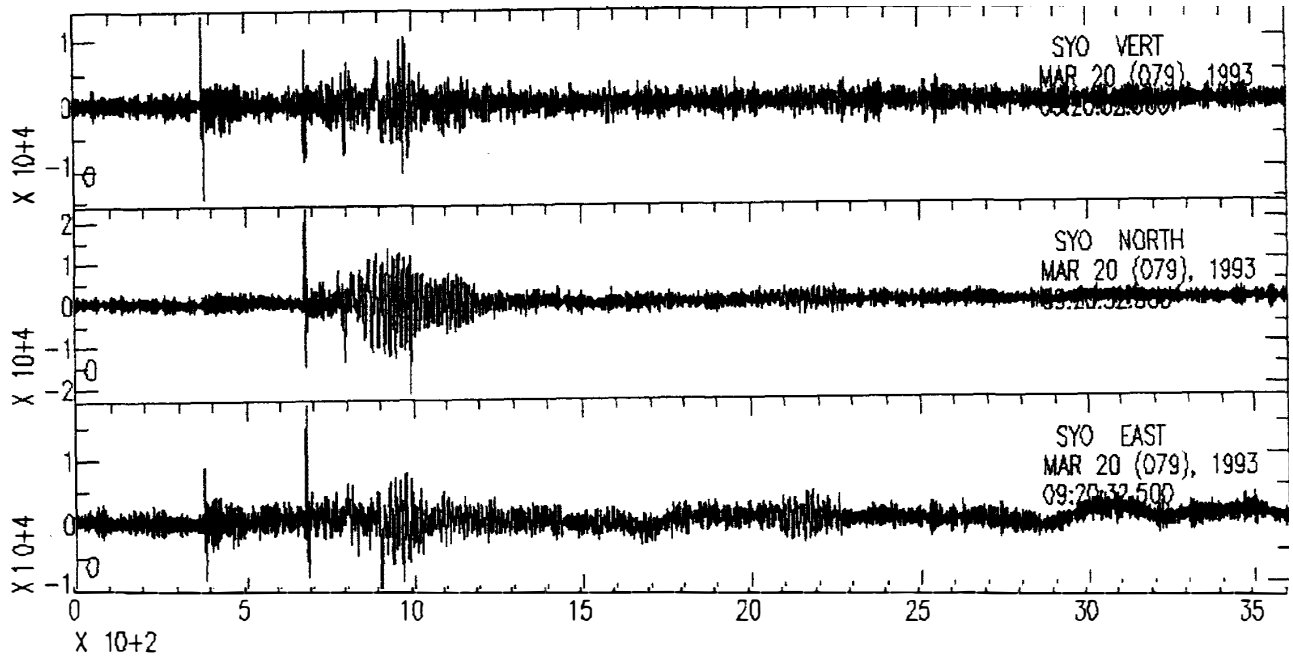
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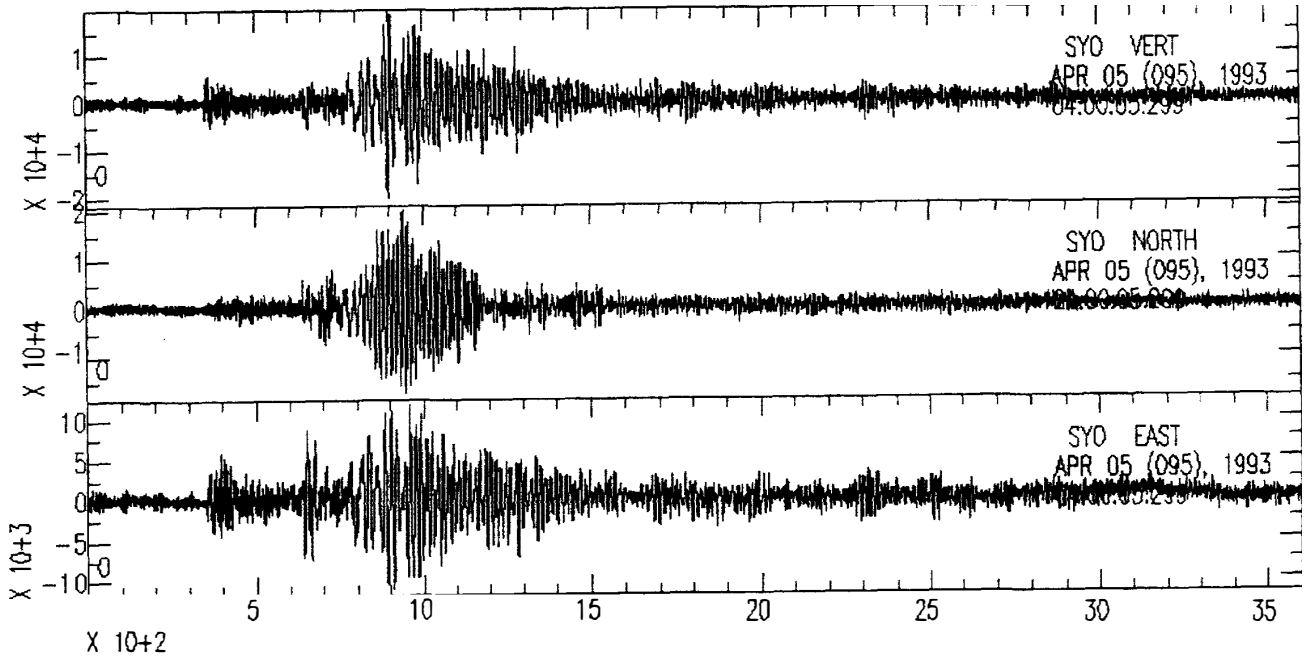
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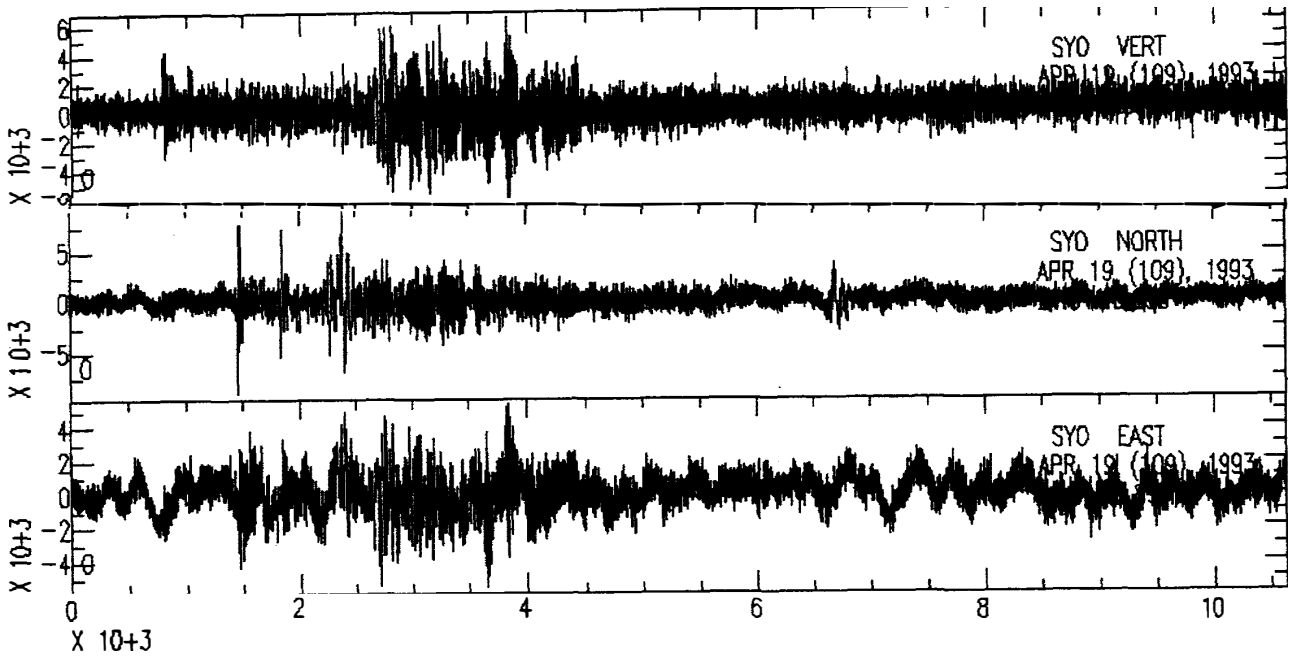
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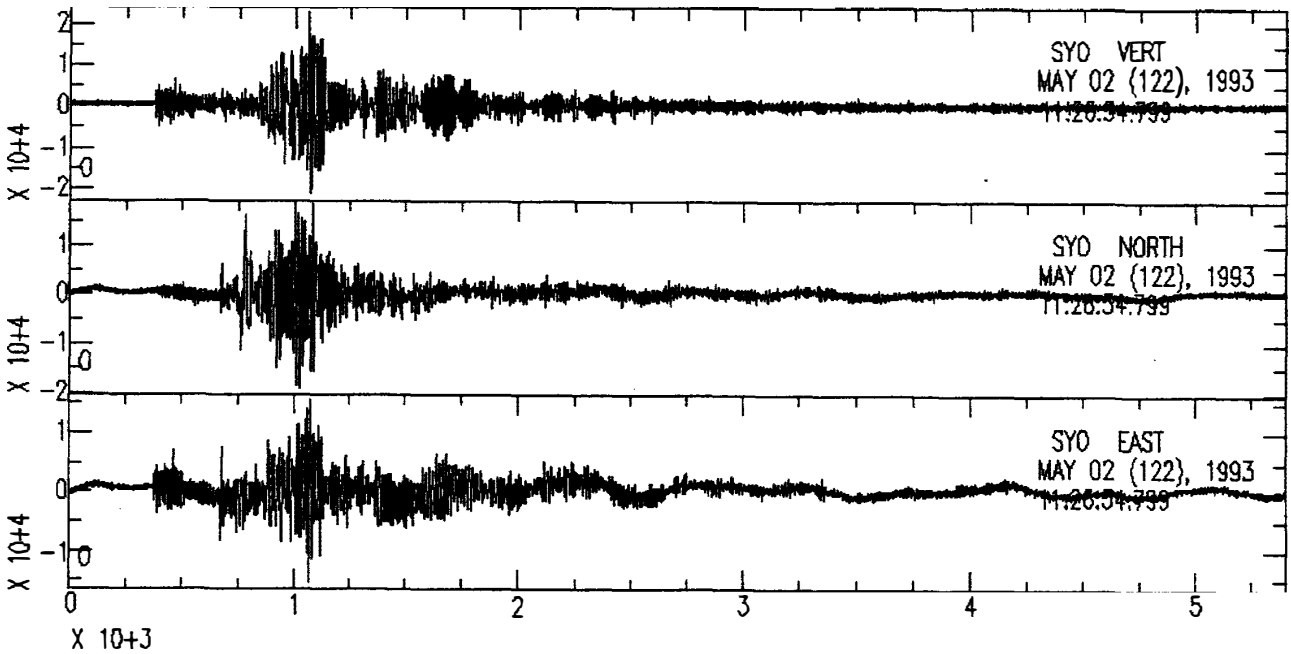
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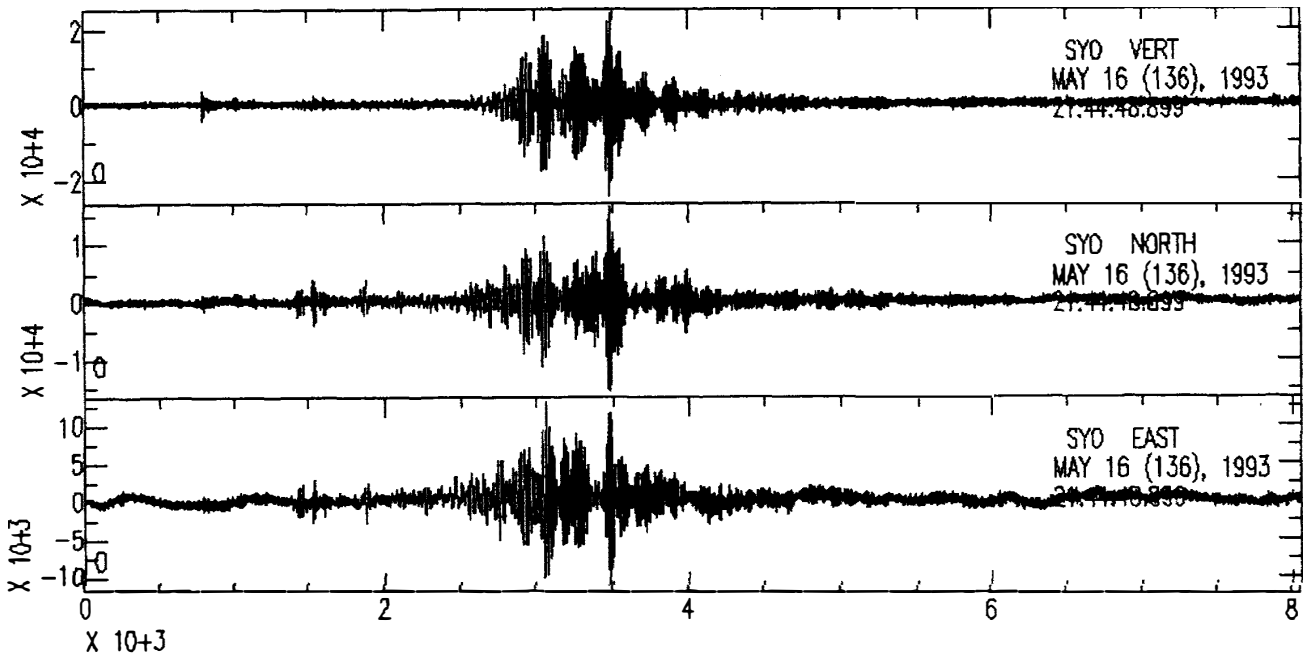
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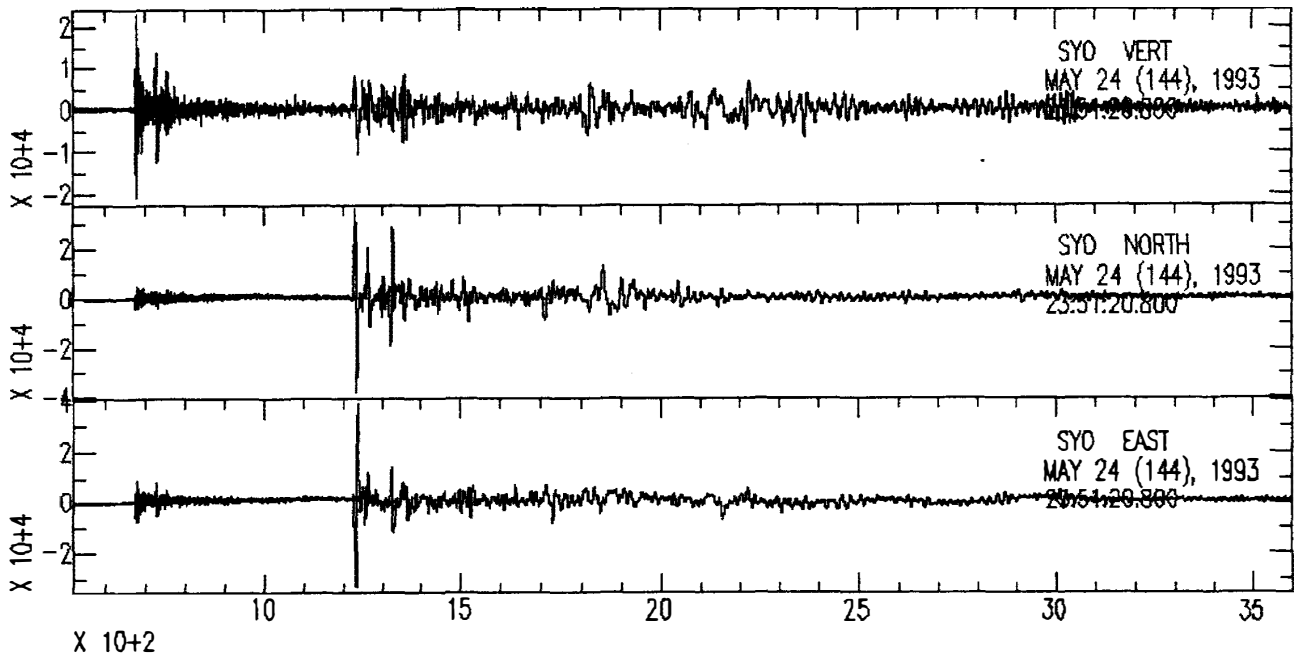




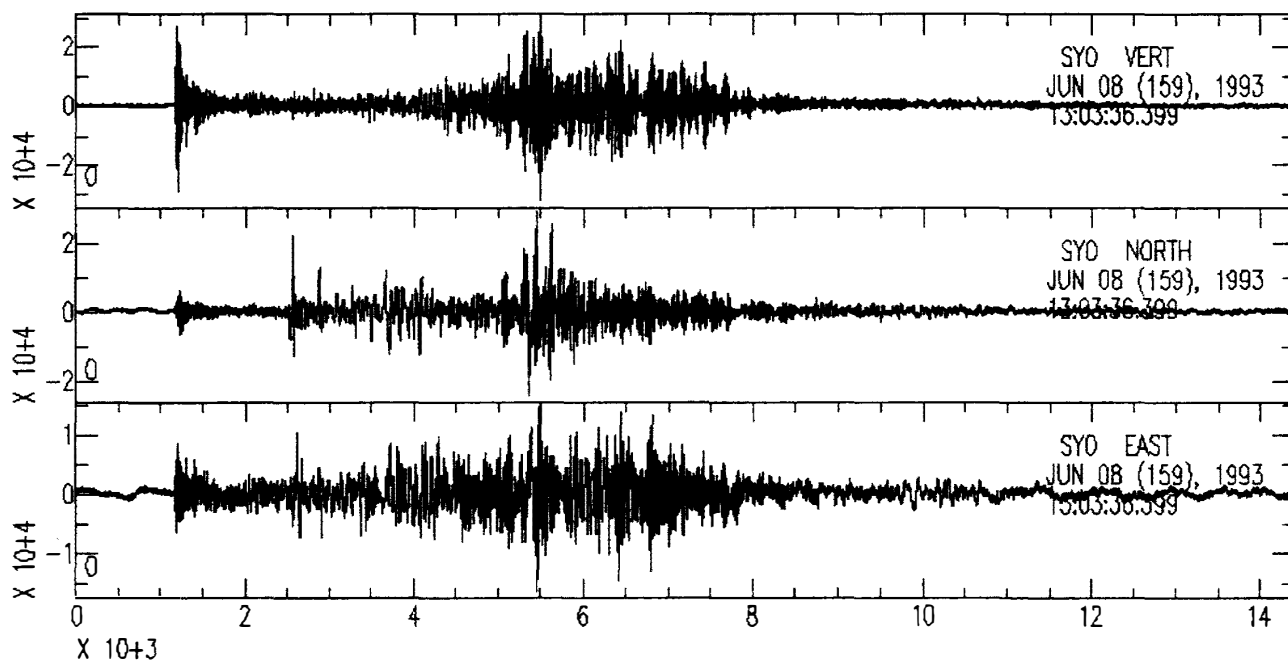
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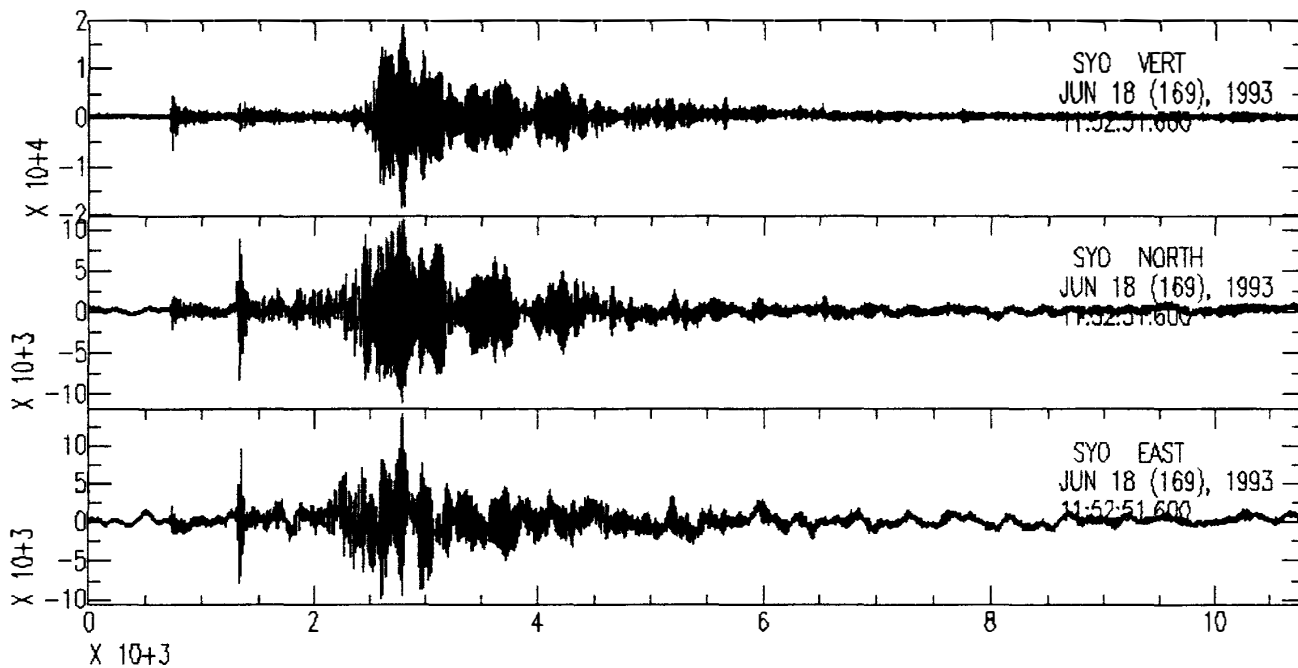
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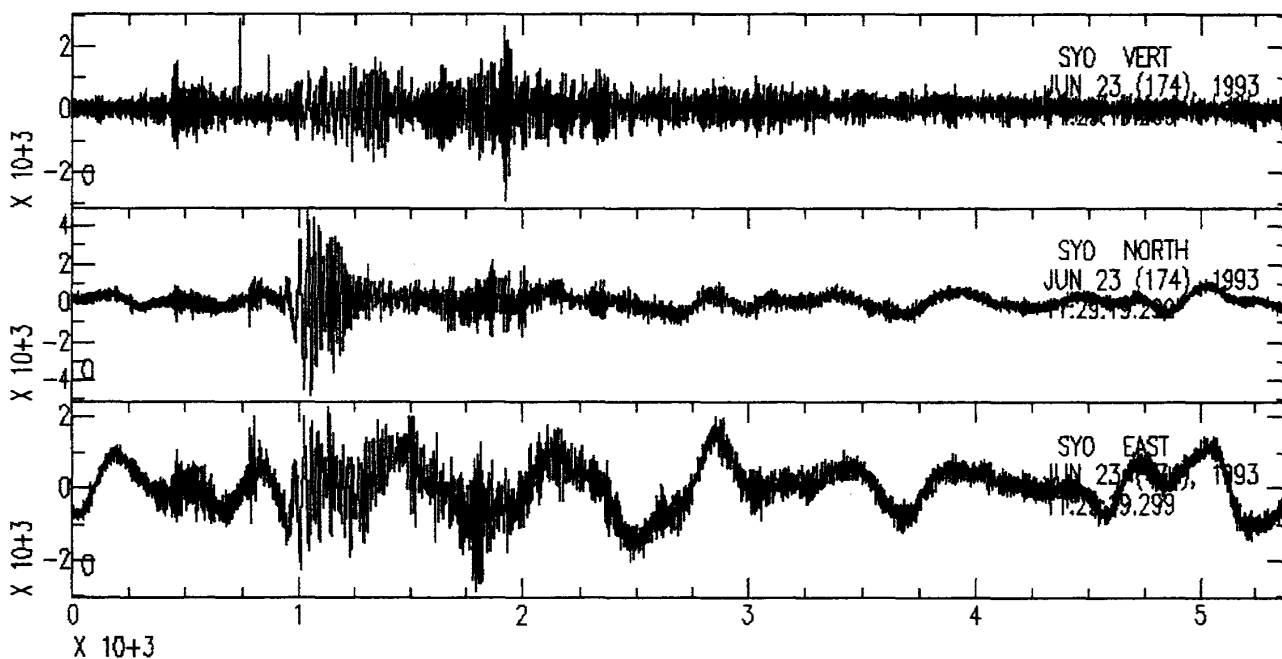
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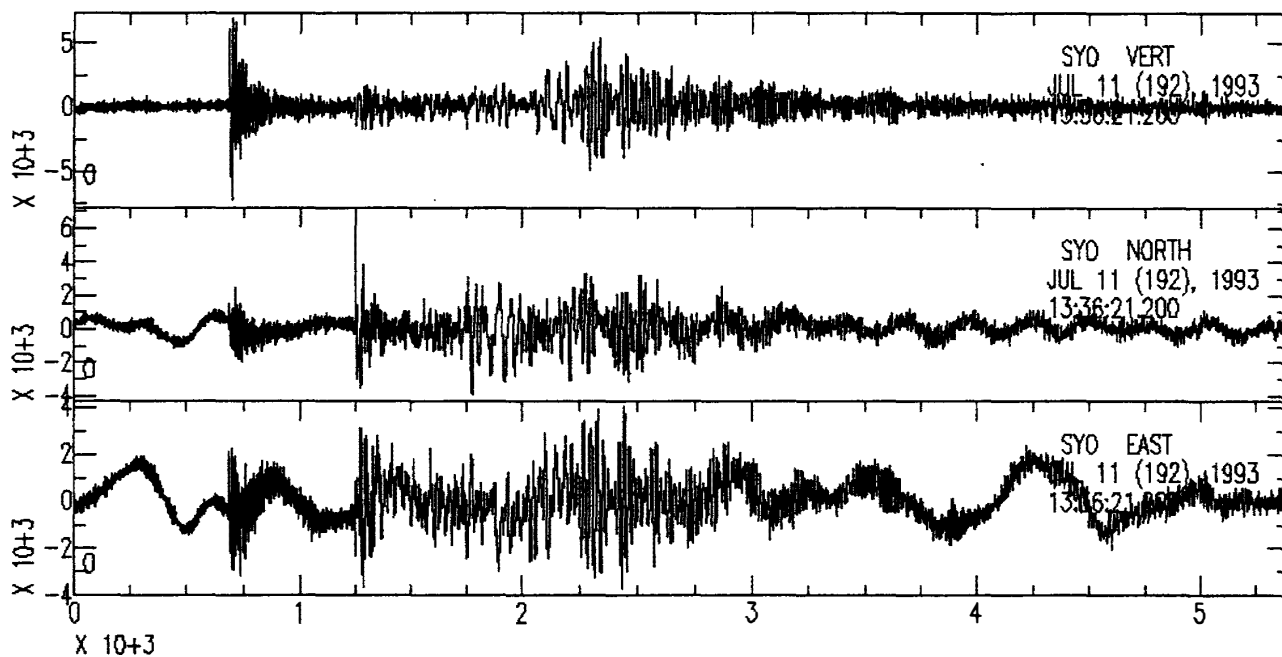
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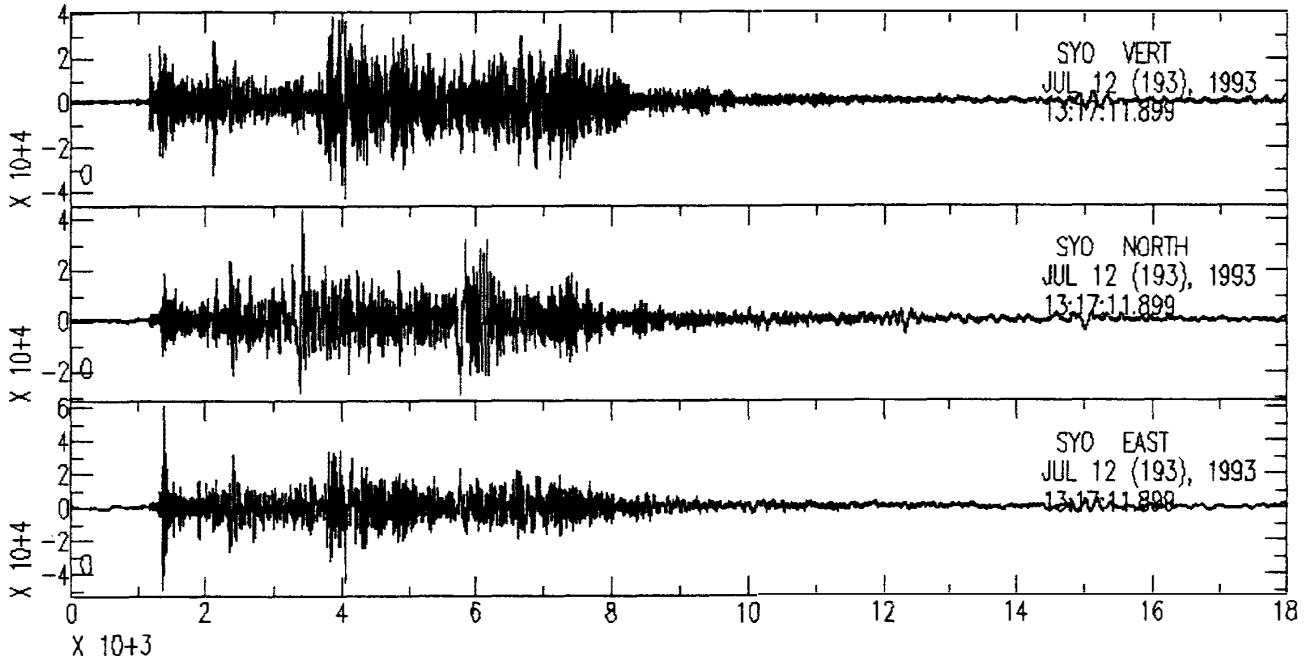
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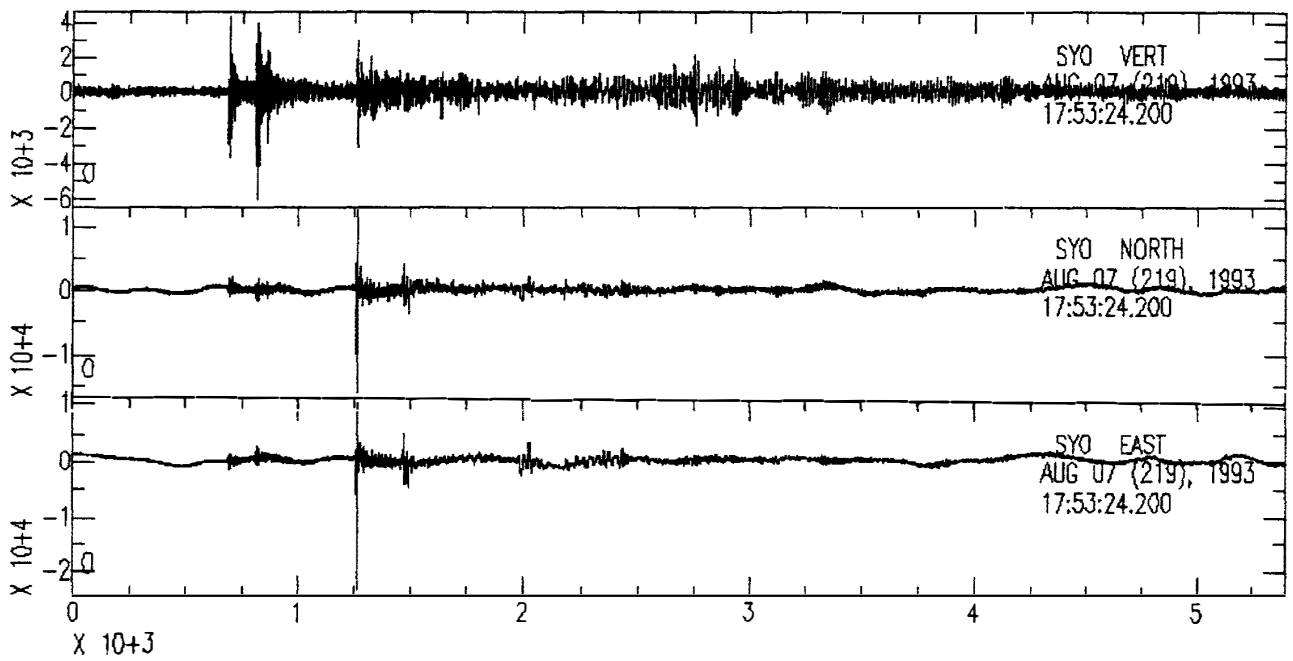
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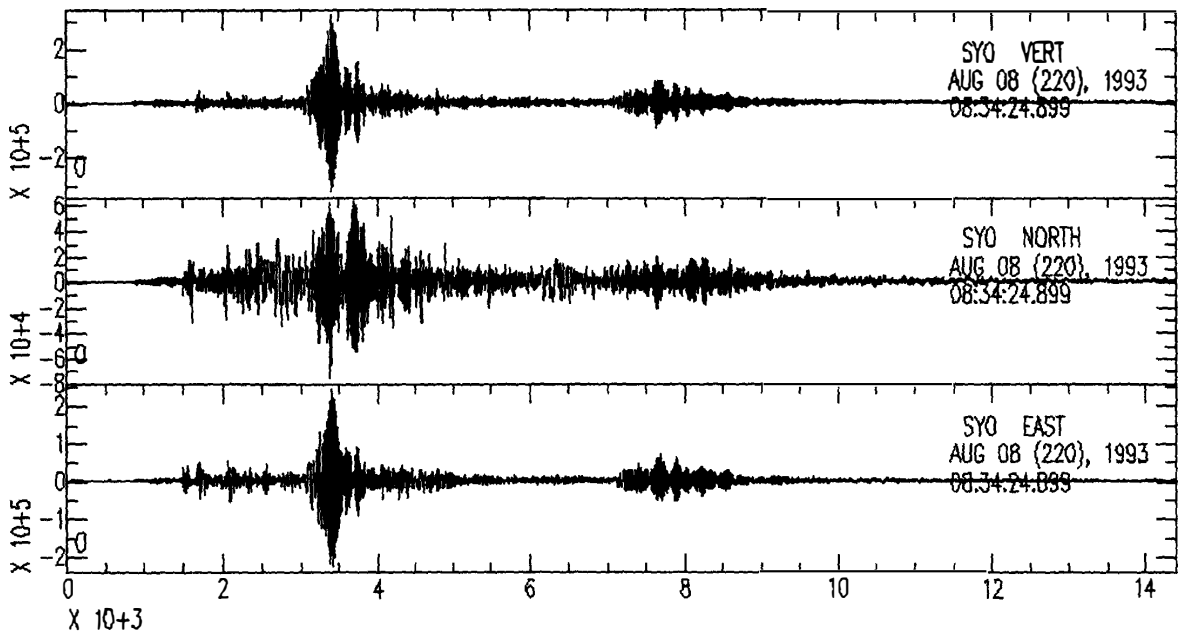
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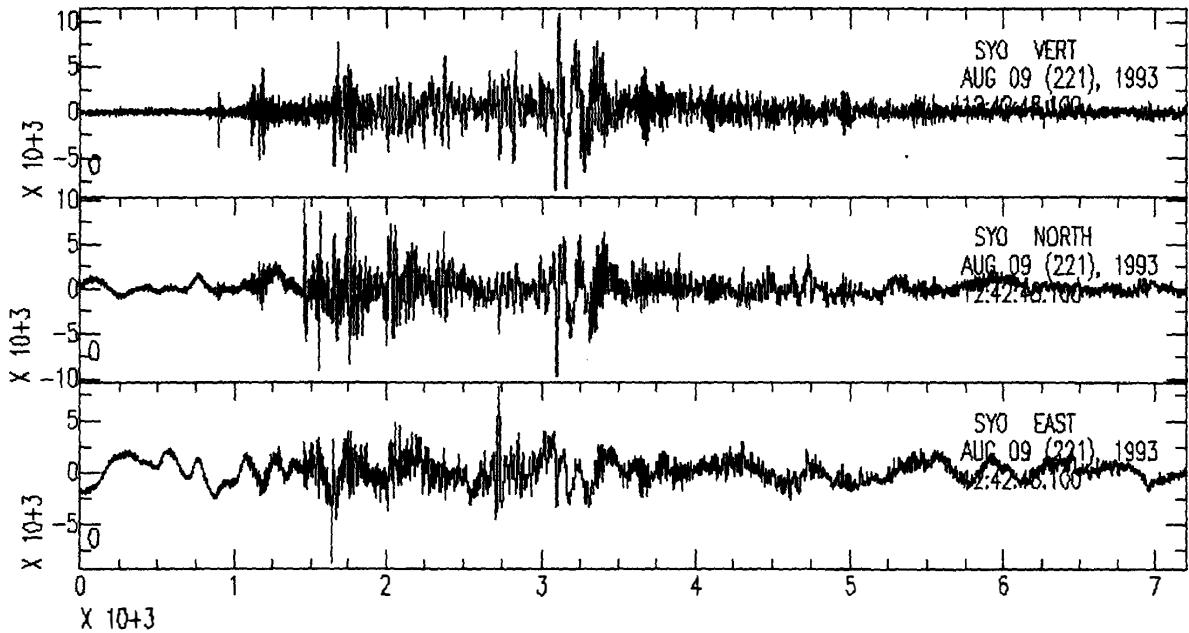
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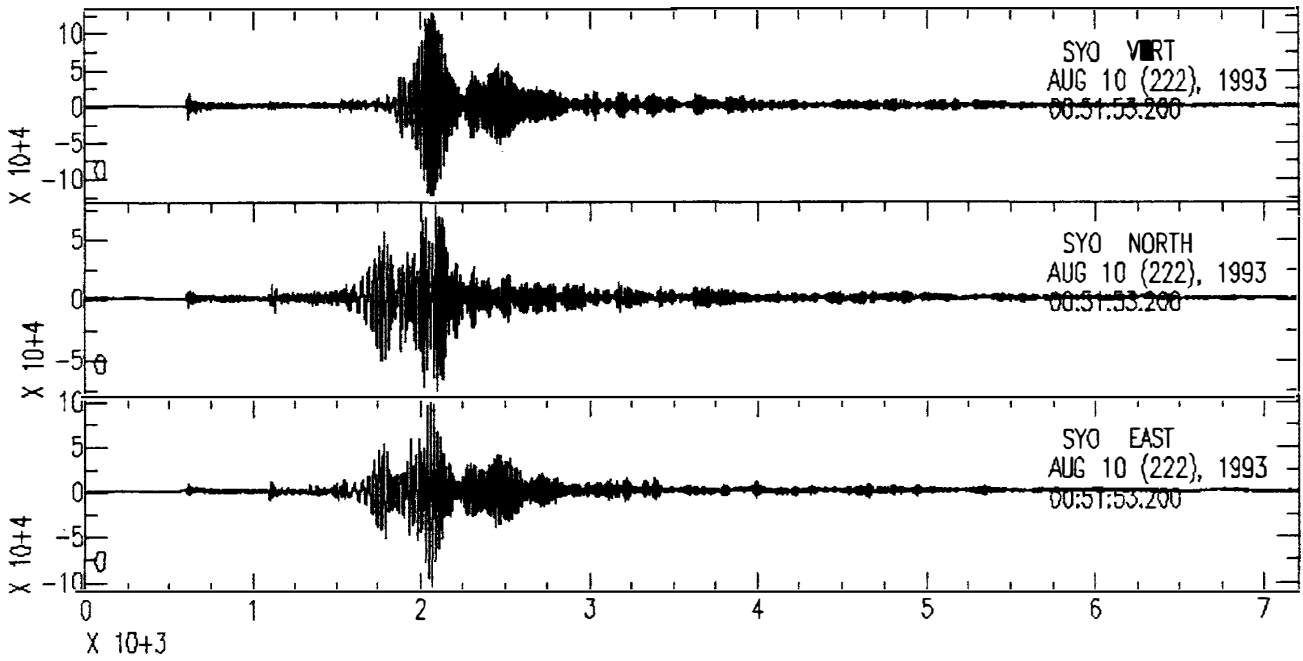
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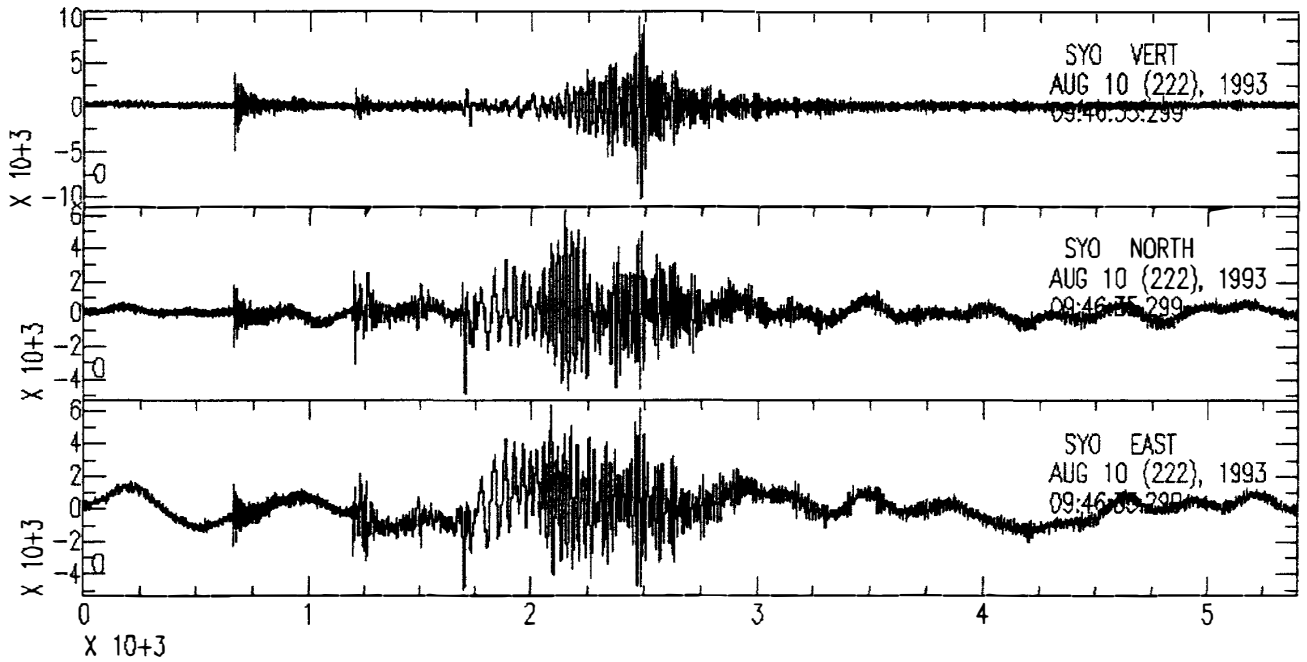
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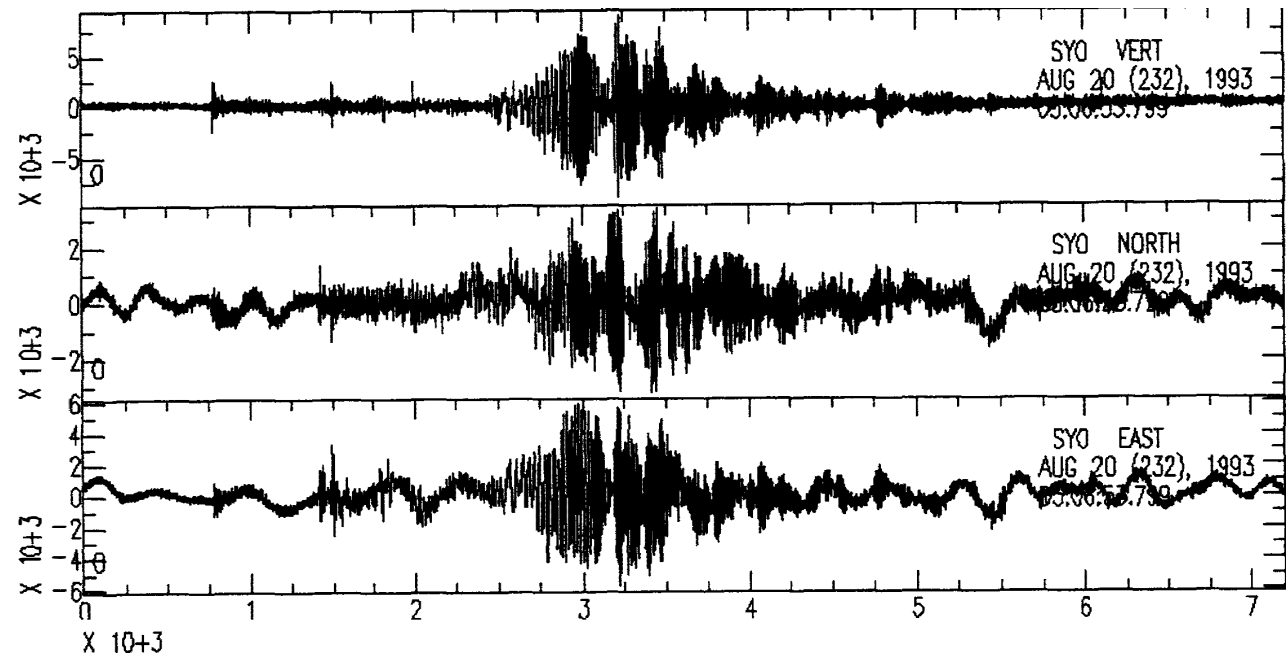
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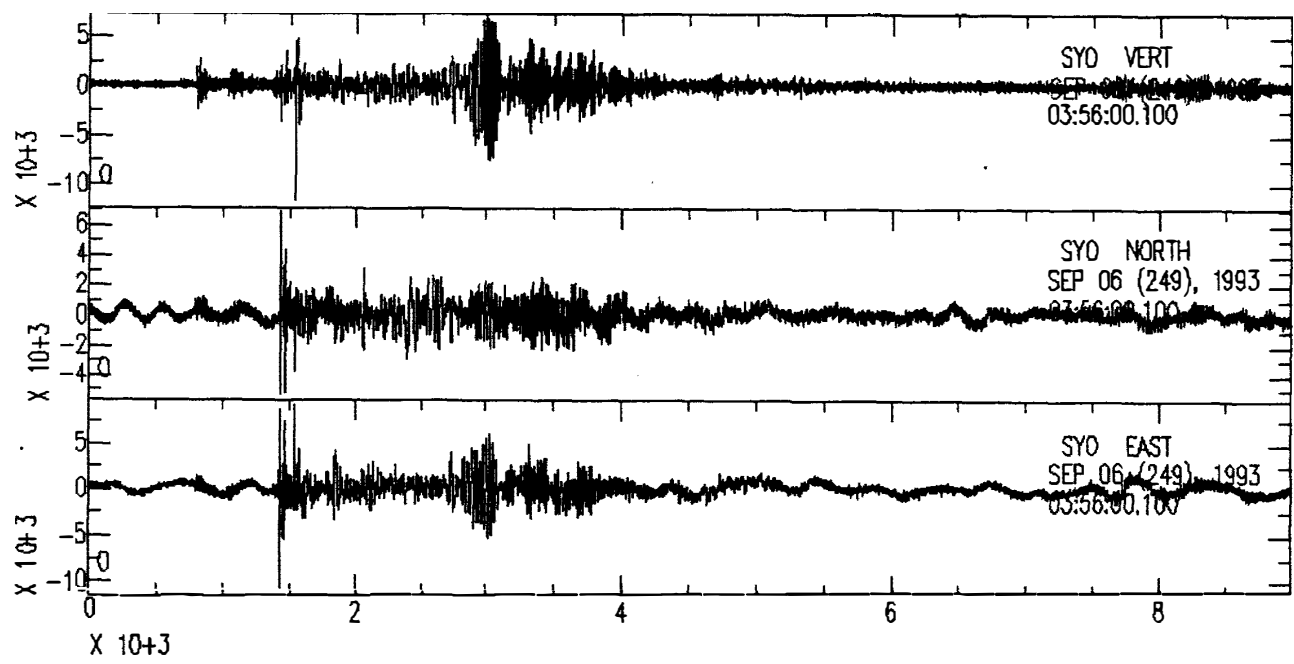
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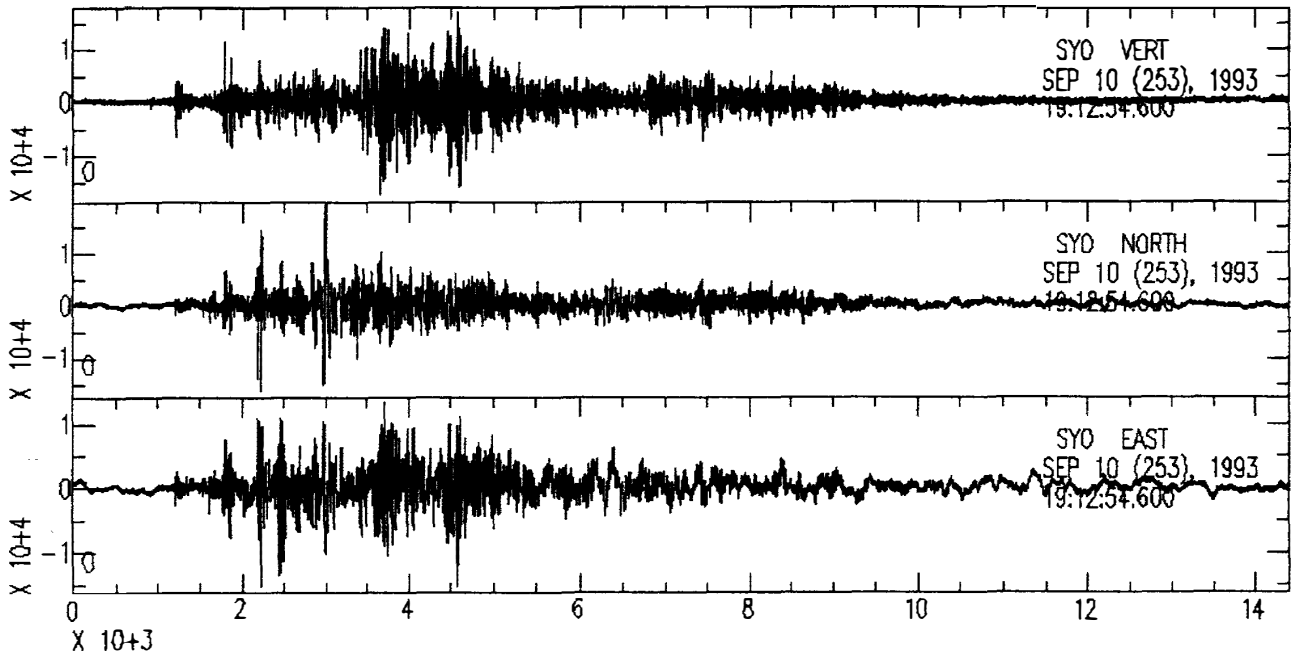


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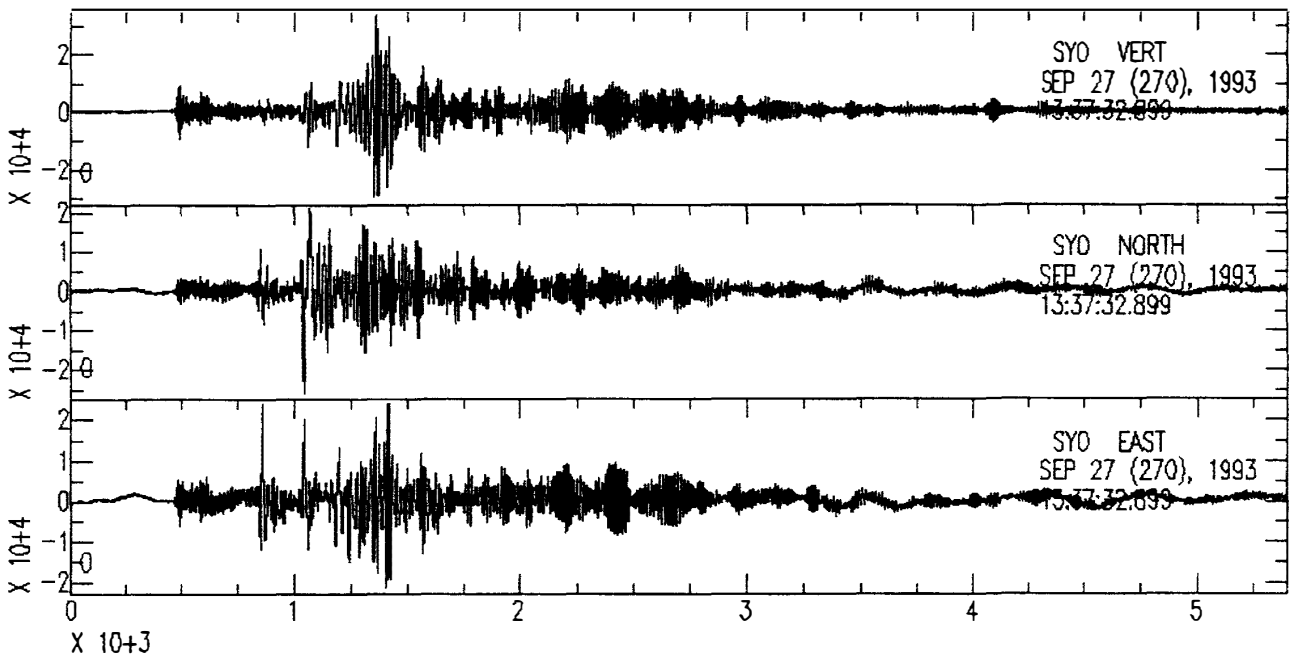




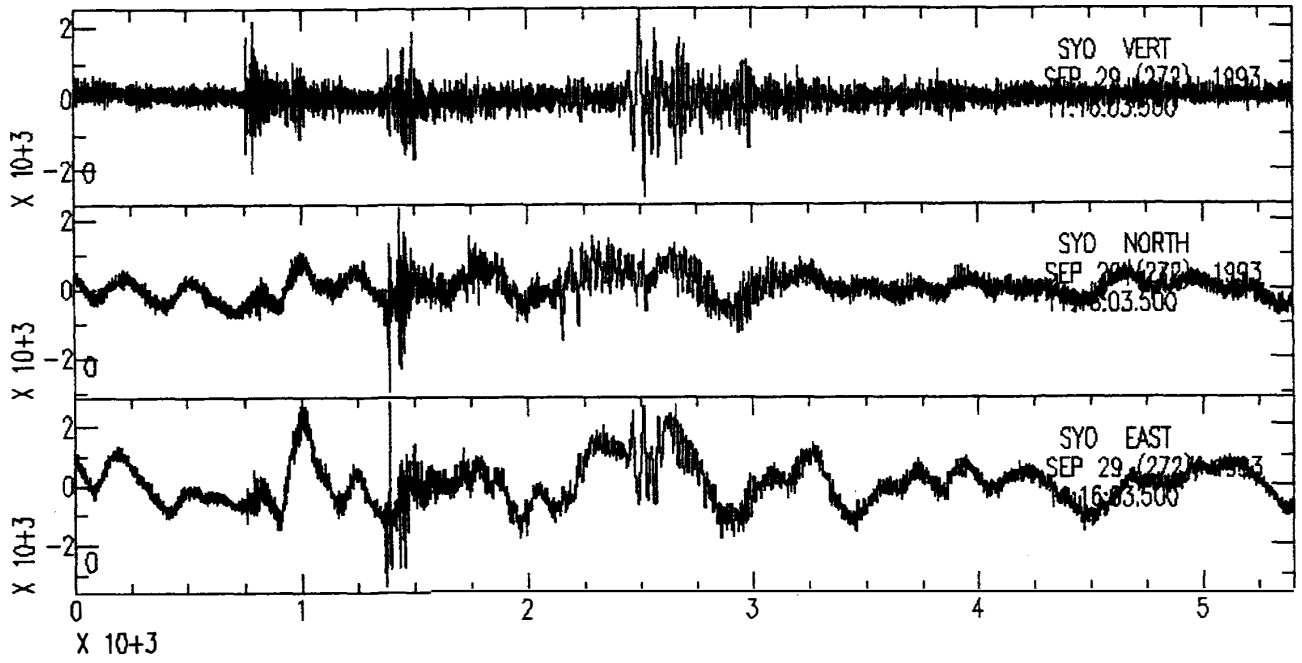
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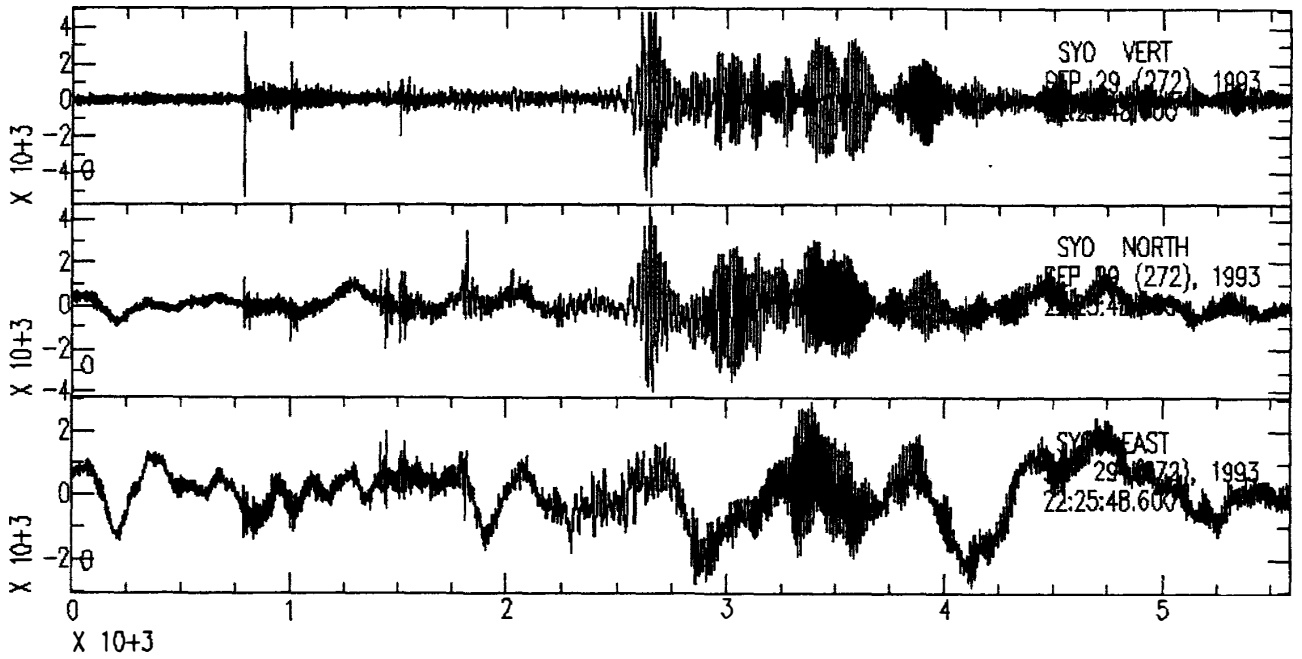
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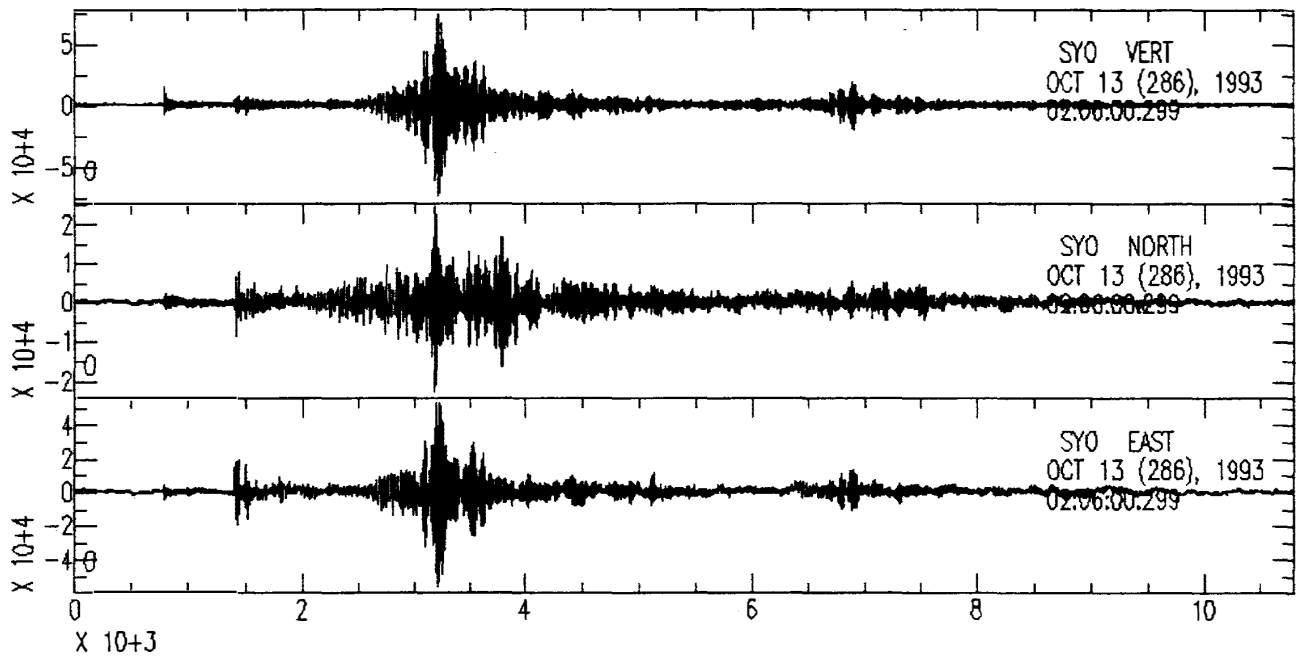
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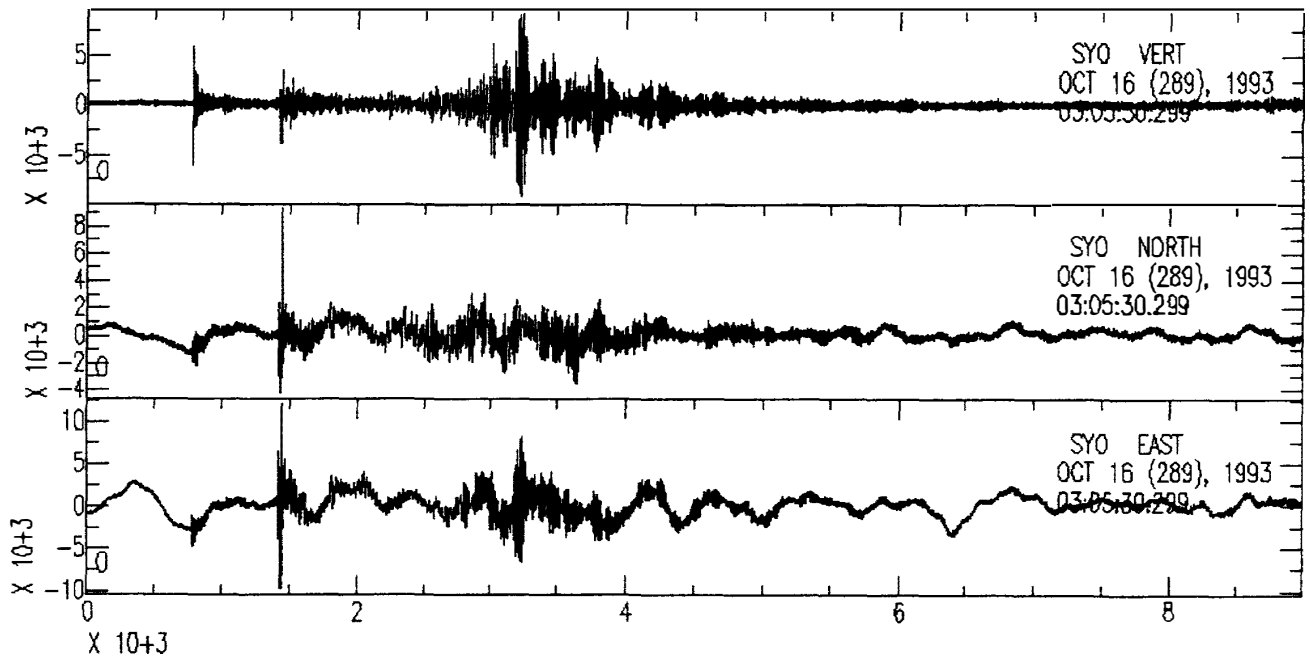
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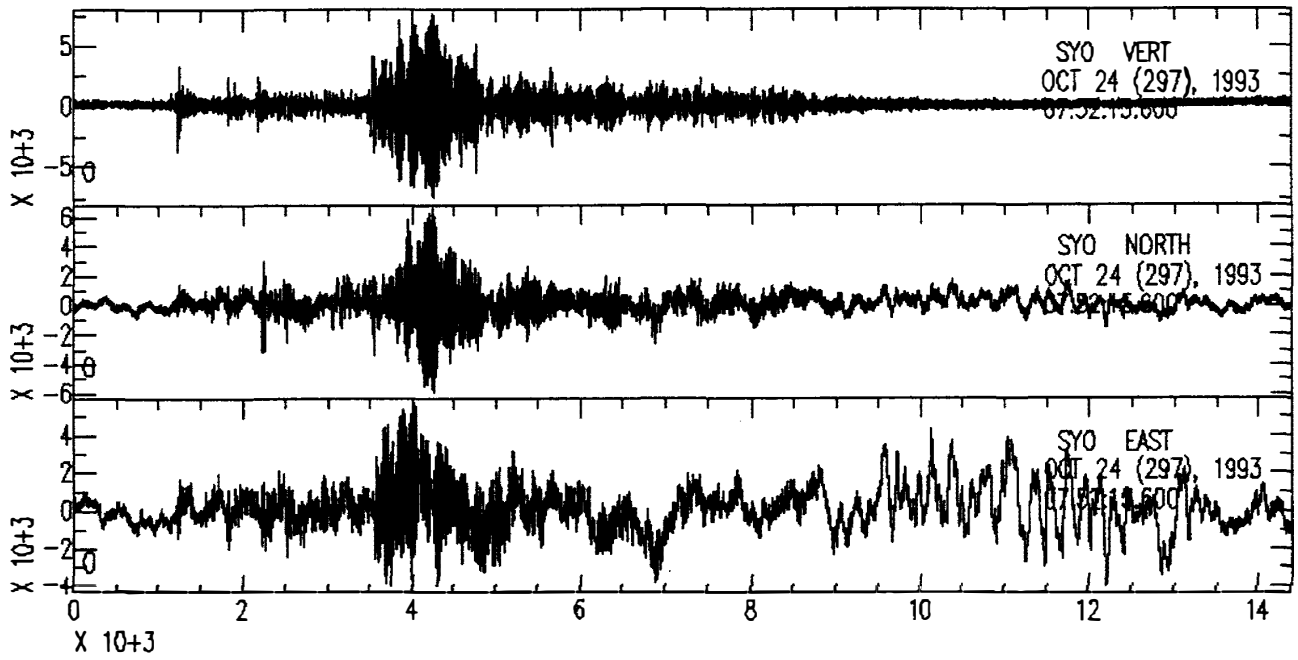
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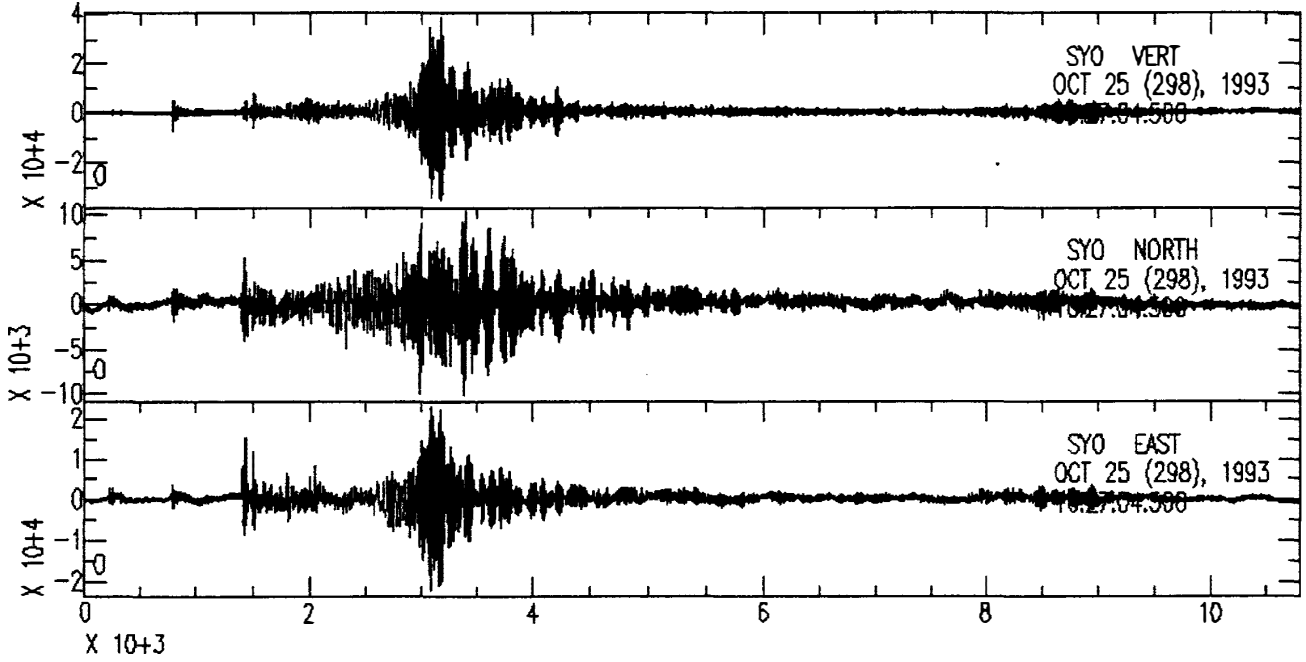
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#-614

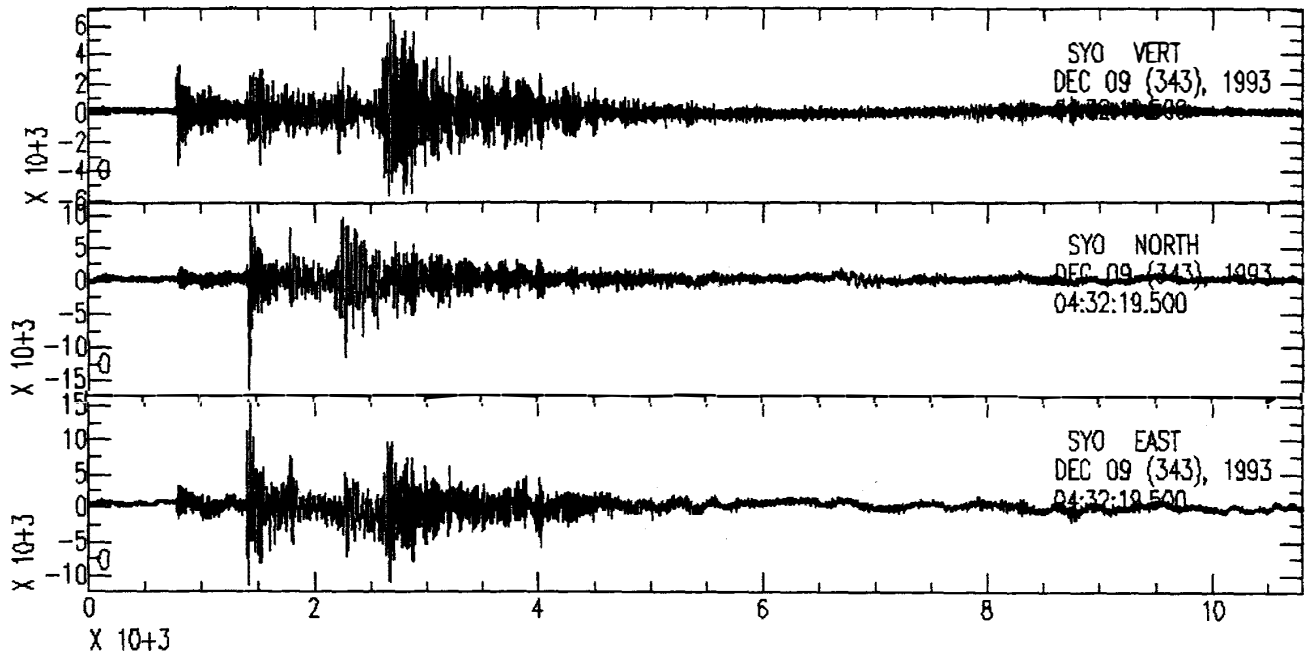


#-620

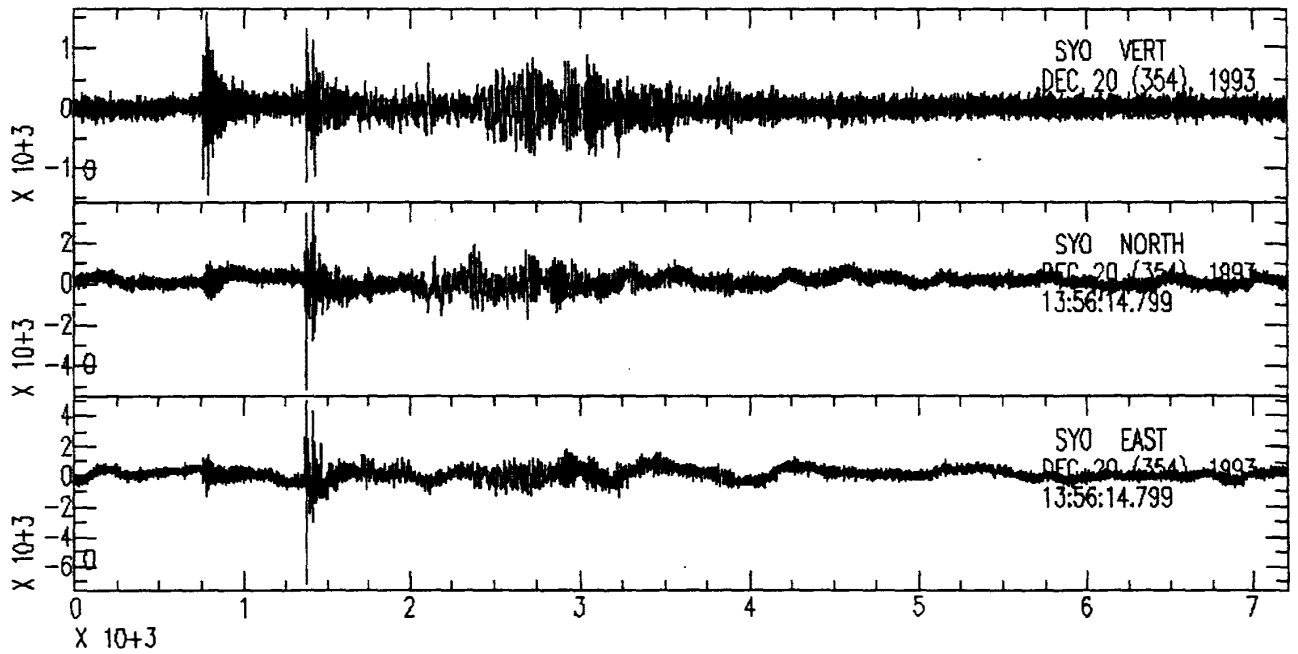




#-746



#-777



#-785

