

SEISMOLOGICAL BULLETIN OF SYOWA STATION, ANTARCTICA, 2001

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1. Introduction

Seismic observations at Syowa Station (69.0°S, 39.6°E), East Antarctica were started using a short-period seismometer with 1.0 s natural period in 1959 (Eto, 1962). A long-period seismograph was installed and phase readings of the teleseismic events have been reported currently to the United States Geological Survey (USGS), and to the International Seismological Centre (ISC) since 1967 (Kaminuma *et al.*, 1968). A three-component broadband seismometer (STS-1; Wielandt and Steim, 1986) was installed in 1989, for making a contribution to the Federation of Digital broadband Seismograph Networks (FDSN; <http://www.fdsn.org/>) as an important key station in the Japanese PACIFIC21 network (<http://pacific21.eri.u-tokyo.ac.jp>). A distribution of FDSN stations in Antarctic continent and the distribution of PACIFIC21 stations in 2001 at present are shown in Figs. 1 and 2, respectively.

All of the observation systems at Syowa Station were maintained in 2001 by one of the authors (Y. Ito) throughout the wintering season of the 42nd Japanese Antarctic

Research Expedition (JARE-42). He also scaled the arrival times for seismic events and reported to ISC and USGS through that wintering season.

In this data report, we would like to introduce the seismic observations at present in 2001, scaled read-out travel-time data and detected teleseismic earthquake list, in addition to the procedures for public use by Internet service.

2. Observations

The seismic observation systems at Syowa Station were all replaced to the current ones by one of the authors in 1997 (Kanao, 1999). The block diagram of the new recording system is illustrated in Fig. 3.

2.1. Seismographic hut and seismographs

Seismic observations at Syowa Station had been carried out mainly by two types of seismometers, one called a short-period (HES) with 1.0 s natural period of the pendulum and it had been operated since 1967 (Kaminuma *et al.*, 1968). The overall frequency responses and the magnifications of the HES are shown in Fig. 4. A three-component broadband seismometer (Streckeisen STS-1) with the digital recording system has been operating since 1990 (Nagasaka *et al.*, 1992). The amplitude and phase responses for the velocity output (Broadband; BRB) are shown in Fig. 5 (after Streckeisen and Messerget, 1987).

The new seismographic hut was constructed in 1996 and the whole sensors were moved inside it in 1997. The new hut is located about 200 m north from the old vault, with geodetic coordinates of 69°00'24.0"S, 39°35'06.0"E and the elevation is 20 m above mean sea level. Since the broadband seismographs are largely affected by a change of temperature and atmospheric conditions, the sensor room was covered doubly by adiabatic walls, with a surface covered by titanium to keep constant temperature in the room.

Seismic signals of the HES and STS-1 seismometers are transmitted to the Earth Science Laboratory (ESL) via analog cables of 600 m in length. The cables were mounted on racks, which connect the main buildings of Syowa Station, and laid parallel with the other electric power cables of the Station.

2.2. Acquisition system at Earth Science Laboratory

A three-component analogue output by HES is digitized at 200 Hz over sampling by a 24-bit analog-to-digital (A/D) converter, generating triggered signals of 80, 20 and 1 Hz re-sampling data. A three-component broadband signals of STS-1 are also digitized to create the triggered output of 80 Hz re-sampling data and the continuous outputs of 20, 1, 0.1 and 0.01 Hz data, respectively. All the data had been created as a Mini_SEED volume, which is a standard format for data exchange in the global seismology. The digitized data are automatically transmitted from A/D converter to the workstation via TCP/IP protocol (DP/UX software). All kinds of the data are stored in 10 GB hard-disk of the workstation, then copied into DAT or 8 mm tape in every five months interval. A recording condition of A/D converter has been continuously monitored by a personal computer via RS-232C serial port (Kermit software).

A remote-centering operation for the STS-1 sensors can also be carried out by keyboard commands from the computer. A reference clock for the new system has also been calibrated to the Coordinated Universal Time (UTC) from Global Positioning System (GPS). Two sets of thermal pen-recorders for HES and BRB output of STS-1, however, have now been operated for monitoring at ESL. Boom-position output (POS) of STS-1 seismograph has been monitored by RD2212 type analogue-recorder. A temperature in the sensor room is also recorded continuously by the same recorder.

2.3. Data transmission via INMARSAT

The digital waveform of broadband seismographs has been transmitted via the INMARSAT telecommunication link from Syowa Station to National Institute of Polar Research (NIPR) since 1993. The UUCP protocol has been used for the file transfer.

In addition, phase read-out data are reported by email directly from Syowa to USGS/NEIC regularly with time delay of a day, in order to make a contribution to the Quick Earthquake Determination (QED) email services and to the Preliminary Determination for Epicenters (PDE) weekly/monthly bulletins.

3. Data

Since there is a delay time of 1-2 years between the publication of this report and the observing wintering period, the Preliminary Determination of Epicenters (PDE) reports by NEIC are referred to and only the seismograms of teleseismic events are edited. The arrival-time data and the corresponding hypocentral data of teleseismic events are presented in this report.

3.1. Phase read-out data

The phase arrival-time of teleseismic events was detected on the short-period monitoring seismograms. Most phases were scaled on the vertical component, and only clear phases of shear waves were scaled on the horizontal components. These phases were identified by comparing the observed travel time with the calculated one which is within 3 s time difference. The phases which identified as *P*- and *S*-waves are listed in Table 1. The phase *K* denotes the *PKP* phase, which can be identified within 3 s difference by comparing the observed travel time with that of calculated one. While *X* denotes the clear phase whose wave type can be identified but the travel time was within 3-10 s difference in observed and calculated times. Symbols *E* and *I* in the phase column denote emergent and sharp onsets, respectively. The initial ground motion is denoted by + for upward and - for downward direction. Arrival time is given in UTC and the accuracy of the read-out data is limited to 0.2 s. The teleseismic events identified in the PDE are labeled by the serial numbers (#-xxx) in the table. These serial numbers

correspond to those in Table 2. The events without serial numbers are teleseisms whose locations have not been determined by NEIC.

3.2. Teleseismic events

The list of hypocentral parameters of the teleseismic events is shown in Table 2, together with the same serial numbers as given in the remarks of Table 1. Figure 6 shows the hypocenters of 1418 teleseismic events whose initial phases were detected at Syowa.

Figure 7 indicates the relationship between the annual mean number of detected teleseismic events and body-wave magnitude (M_b) in bars of 0.1 magnitude. The events were divided into three groups (1) all events (solid circles), (2) shallow events with depths less than 50 km (open squares), (3) intermediate and deep events larger than 50 km depths (crosses). The peak number of all events for magnitude exists around 4.8, where the number of earthquakes per year is 142. Detection capability of teleseismic events has been evaluated by ISC from global seismic networks for the ten years (Ringdal, 1986). It is pointed out that the magnitude threshold of earthquake detection gradually increases with increasing southern latitude. The bias problem of network magnitude determination is significant at small and middle magnitudes, particularly in the southern high latitude.

3.3. Local events

A local event was recorded on the short period seismograms on the 21st February, 2001. Three-component seismogram of the HES is shown in the Fig. 8. The first arrival time for P wave is 04h35m13.0s on the vertical component. The arrows show P and S phases. P - S time of the event is 10.8 s.

4. Publication

The person maintained the seismic equipment through the year is basically given priority for using any data obtained at Syowa Station with time limit of two years. These data are transmitted to NIPR and then to be stored in the file server, and can be obtained upon request by Internet service and/or UNIX media (*i.e.*, CD-R, DAT, 8 mm-tape, *etc.*) with a permission of the NIPR members. If anybody wish to use the two-year period data, please contact to kanao@nipr.ac.jp concerning the availability.

Hypocenters, arrival-times detected at Syowa Station, and digital waveforms for recent several years are available from Internet services upon request. They are stored in the directories under /pub/HYPO, /pub/ATIME and /pub/STS of UNIX workstation (133.57.3.14), and accessible by use of 'anonymous ftp' command. Data access by use of WWW servers is also supplied by the ftp address; <ftp://geotgx.nipr.ac.jp/pub>.

Archived data after two years from the JARE-period are stored and freely available from both the ftp sites in NIPR and the PACIFIC21 center of the Earthquake Research Institute (ERI), the University of Tokyo. Any questions concerning data availability from ERI should be directed to takeuchi@eri.u-tokyo.ac.jp.

5. Data Processing Staff

A seismic observation system at Syowa Station was designed by M. Kanao and by K. Shibuya of the National Institute of Polar Research. Ms. A. Ibaraki has kindly assisted preparing this data report. Readers can refer to the URL sites below for finding data directory or access; http://geotgx.nipr.ac.jp/~kanao/seismic_obs.

References

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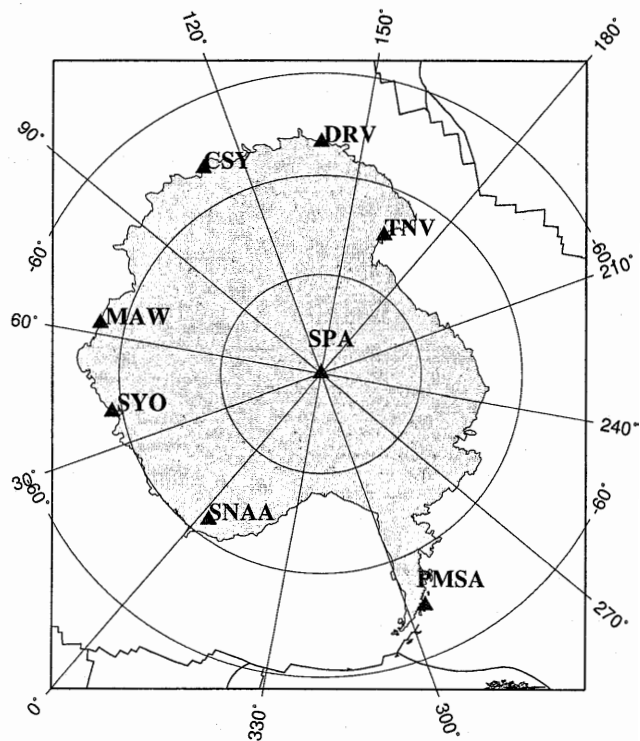


Fig. 1. A distribution of FDSN stations in Antarctic continent. Syowa (SYO), Mawson (MAW), Casey (CSY), Dumont d'Urville (DRV), Terra Nova Bay (TNV), South Pole (SPA), Palmer (PMSA), Sanac (SNAA).

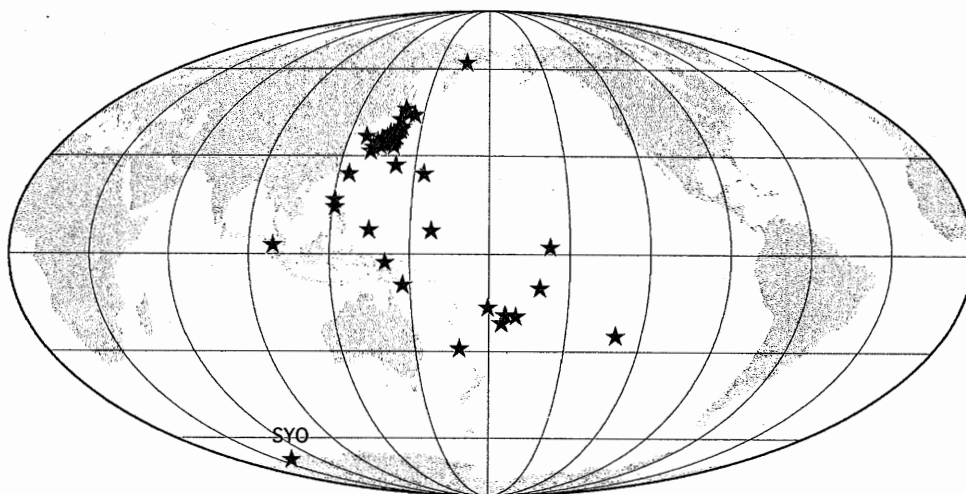


Fig. 2. PACIFIC21 station map in 2001 (<http://pacific21.eri.u-tokyo.ac.jp>).

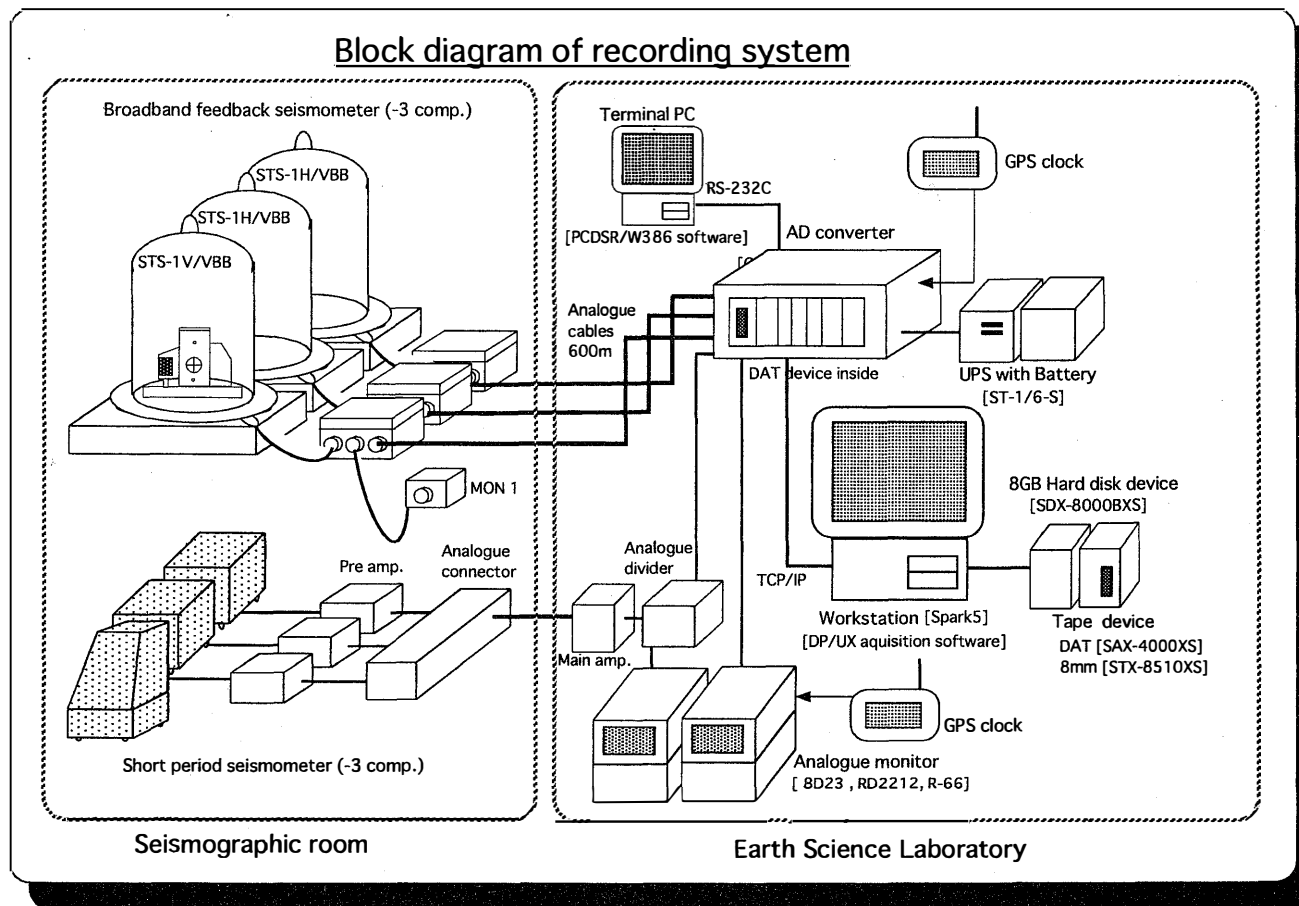


Fig. 3. Block diagram of new recording system for the STS and HES seismographs at Syowa Station. Left figure: Seismographic room; Right figure: Earth Science Laboratory.

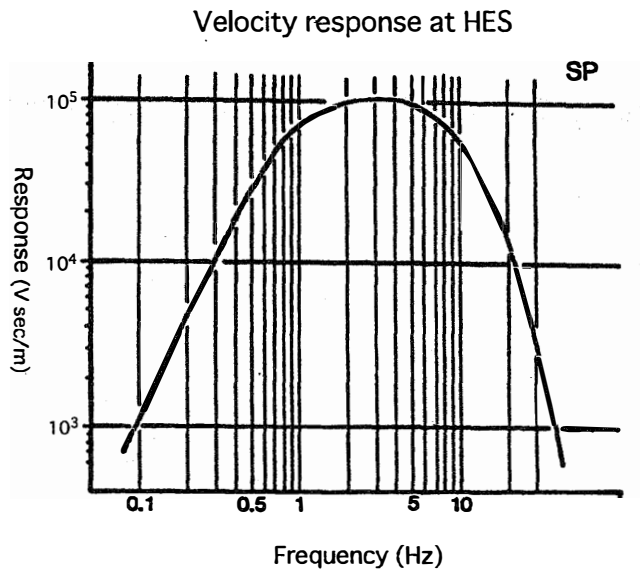


Fig. 4. Over-all frequency responses of the HES seismographs.

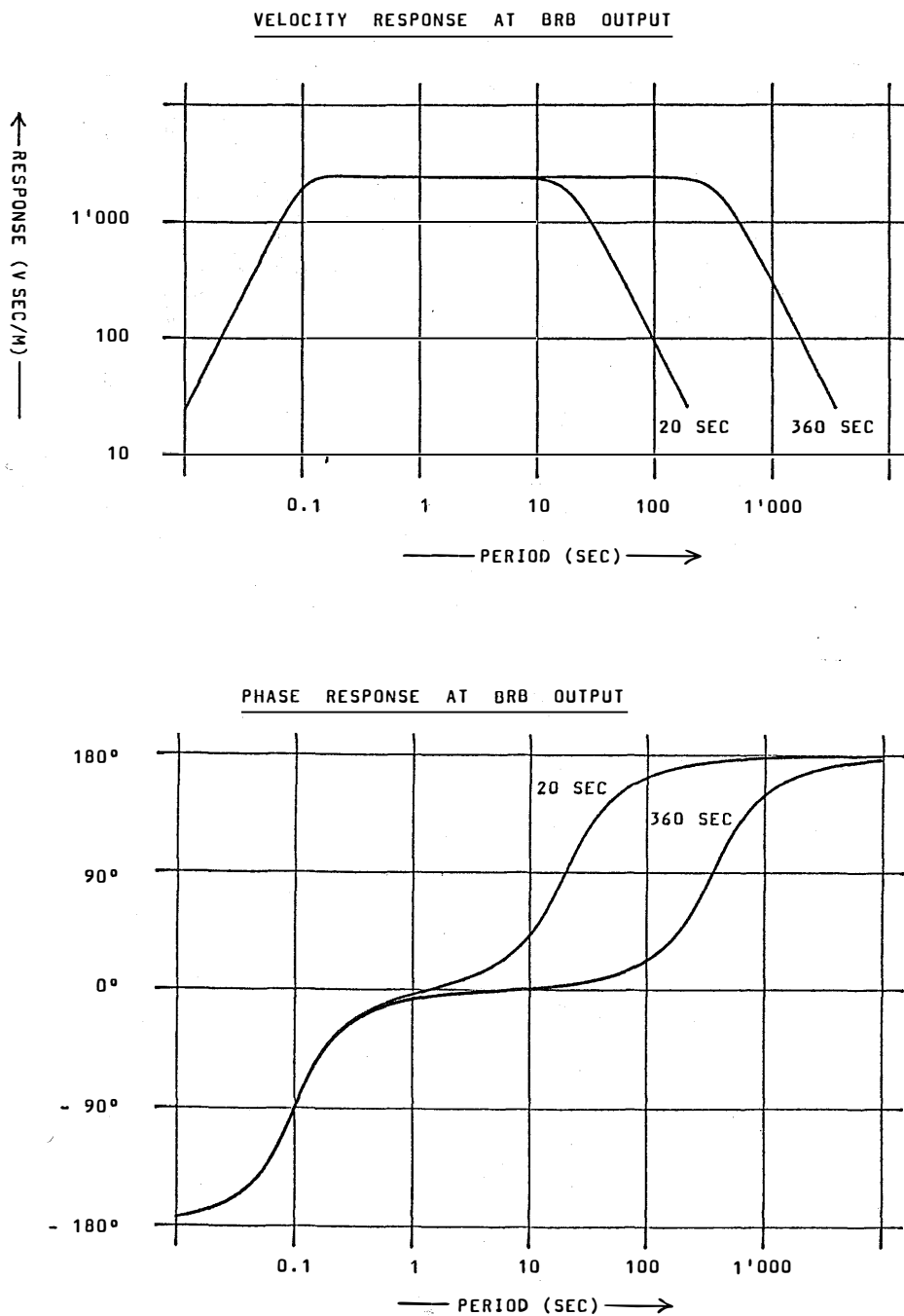


Fig. 5. Amplitude responses (upper figure) and phase responses (lower figure) for the velocity (BRB) output of the broadband seismograph (STS) in the two distinct signal modes of 20-s and 360-s (after Streckeisen and Messegereate, 1987).

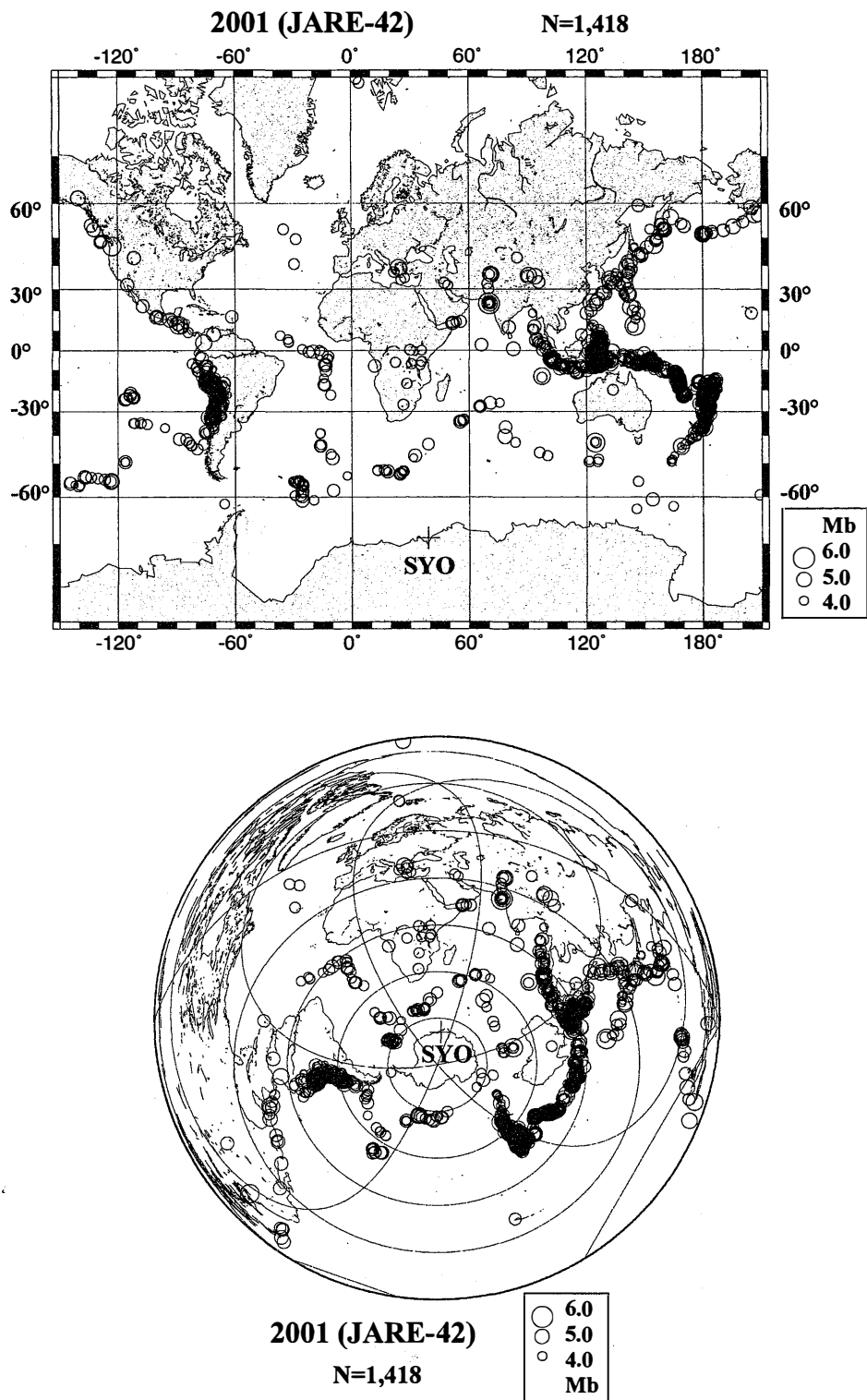


Fig. 6. Epicenters of the 1418 earthquakes recorded at Syowa Station. The sizes of earthquake circles are proportional to the body-wave magnitude (Mb) determined by the National Earthquake Information Center (NEIC) (upper: Mercator Projection, lower: Azimuthal Equidistant Projection).

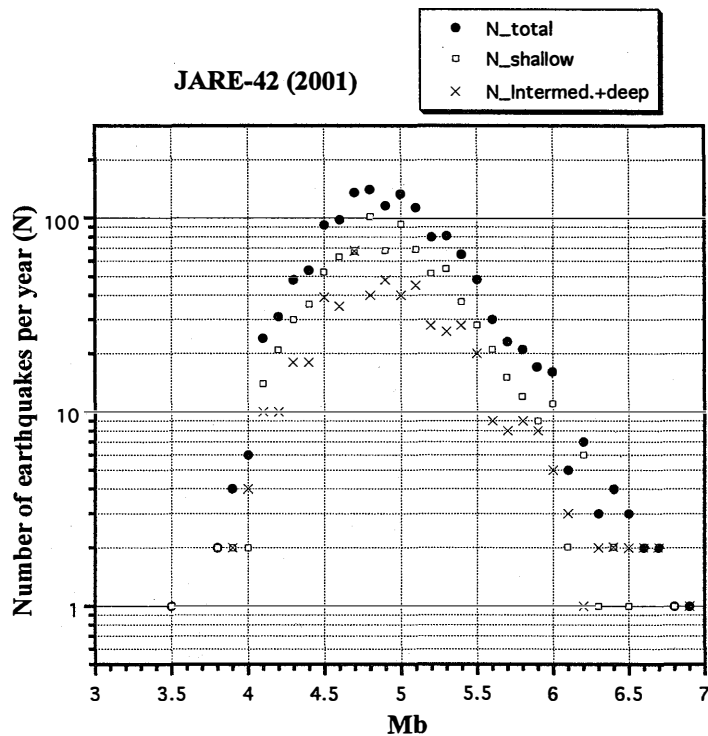


Fig. 7. Annual mean number of total detected earthquakes in 2001 against body-wave magnitude (Mb). The number of events for each group are marked with an increment of 0.1 Mb (solid circles (N-total), 1418 total events; open squares (N-shallow), shallow events of focal depth less than 50 km; crosses (N-Intermed.+deep), intermediate depth and deep events of focal depth larger than 50 km).

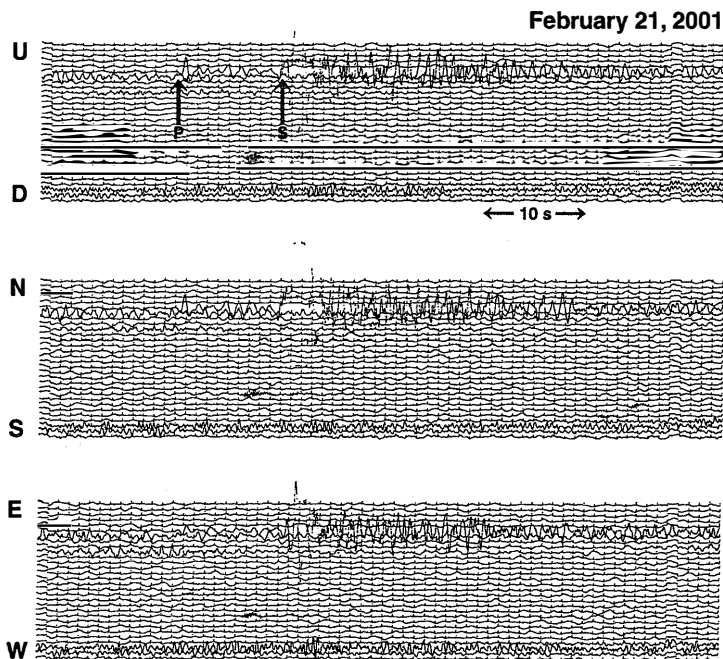


Fig. 8. A three-component seismogram of the HES for a local event on the 21st February, 2001.

Table 1. List of phase arrival-time data in 2001.

Date	Phase	UTC time		Remarks	Date	Phase	UTC time		Remarks		
		h	m	s			h	m	s		
Jan. 1	-epz	0710	25.8	#-1	18	-epz	0738	24.5	#-49		
	esh	0721	09.6			+epz	0843	25.1	#-50		
	+epz	0907	52.8	#-2		+epz	1121	43.0	#-51		
	-epz	1806	50.8	#-3		+epz	1245	29.0	#-52		
	+epz	2140	25.5	#-4		-epz	1529	58.0	#-53		
	2	+epz	0409	07.8		#-5	+epz	2219	43.5	#-54	
		-epz	0743	25.4		#-6	19	-epz	0823	15.7	#-55
		-epz	1316	18.0		#-7		-epz	0909	41.2	#-56
	3	+epz	1152	46.8		#-8		20	-epz	0926	43.0
		-epz	1238	45.6		#-9	-exz	2212	17.5	#-58	
+epz		1526	20.0	#-10	21	-epz	0457	37.4	#-59		
-epz	2051	29.8	#-11	-epz		1414	08.6	#-60			
4	-exz	0032	42.8	#-12	22	+epz	0243	18.5	#-61		
5	+epz	0019	16.0	#-13	23	-exz	1137	35.5	#-62		
	+epz	1150	23.8	#-14	-exz	1643	05.8	#-63			
	-exz	1206	25.7	#-15	24	-epz	0511	50.5	#-64		
+epz	2305	09.4	#-16	+exz		0546	44.0	#-65			
6	+epz	0458	50.9	#-17		+exz	1306	07.7	#-66		
	-exz	0521	03.8	#-18	-epz	2119	11.4	#-67			
	+exz	1608	50.6	#-19	25	+epz	0700	53.8	#-68		
7	+epz	0646	44.2	#-20		+epz	2230	51.2	#-69		
	-epz	1029	08.0	#-21		26	-epz	0330	02.5	#-70	
	+exz	1203	05.6	#-22	-epz		0529	28.5	#-71		
-epz	1307	22.7	#-23	-epz	1233		44.0	#-72			
8	+exz	0434	12.8	#-24	+epz	1612	36.5	#-73			
9	-epz	1702	08.0	#-25	28	+epz	0010	12.5	#-74		
	esh	1712	45.2			+exz	0115	23.5	#-75		
10	+epz	0811	08.3	#-26		29	+exz	1419	56.0	#-76	
	+epz	1622	44.6	#-27	+epz	1538	43.0	#-77			
12	-epz	1100	07.7	#-28	-epz	2334	25.5	#-78			
	+epz	1320	31.3	#-29	30	+epz	0507	21.4	#-79		
13	+epz	1454	54.3	#-30		31	+epz	0433	37.7	#-80	
	-epz	1748	24.2	#-31	-epz	0608	54.2	#-81			
14	+epz	0041	35.5	#-32	+exz	1334	27.2	#-82			
	-epz	0344	09.6	#-33	-epz	1528	16.7	#-83			
	-epz	0632	55.0	#-34	Feb. 1	+epz	0518	09.5	#-84		
-epz	1020	45.8	#-35	+epz		0748	16.6	#-85			
+epz	2003	05.0	#-36	+ePPz		0752	07.8	#-85			
15	-epz	0152	32.7	#-37		+epz	0815	09.5	#-86		
	-epz	0559	10.8	#-38		+epz	0843	31.3	#-87		
	-epz	1205	55.2	#-39		-epz	1241	36.0	#-88		
-epz	2315	32.5	#-40	esh		1250	35.7				
16	-epz	0204	02.5	#-41		-ePKPdz	1839	18.0	#-89		
	-epz	1336	48.4	#-42		+ePKPbcz	1839	28.3			
	+epz	1350	51.5	#-43		-lpz	2227	02.9	#-90		
-exz	1419	44.3	#-44	2	+ePdiffz	0825	24.0	#-91			
+epz	1436	56.0	#-45		+esPz	1705	09.0	#-92			
-epz	1701	41.7	#-46		esh	1715	37.0				
17	-exz	0216	21.8	#-47	3	-lpz	0114	07.0			
	+epz	1103	43.6	#-48		-lpz	0317	55.9	#-93		

Date	Phase	UTC time		Remarks	Date	Phase	UTC time		Remarks
		h	m	s			h	m	s
4	-ePPz	0321	45.5	#-93	8	+ePKiKPz	0231	03.0	#-115
	+ePKiKPz	0322	37.6	#-93		+esPKiKPz	0231	16.2	#-115
	+exz	0509	35.3	#-94		+ePKiKPz	0547	39.8	#-116
	+epz	1438	30.6	#-95		+epPKiKPz	0547	51.7	#-116
	-ePPz	1442	15.9	#-95		+ePKiKPz	0600	13.9	#-117
	+ipPz	1714	28.7	#-96		-epPz	0748	15.2	#-118
	+ePPz	1716	23.2	#-96		esh	0802	41.9	
	+eScPz	1719	31.5	#-96		+ePPz	0950	18.9	#-119
	+epPKiKPz	1722	19.0	#-96		+ipz	1059	50.2	
	-ipz	2348	30.7			+epz	1708	04.2	#-120
	+epz	0554	16.9	#-97		+ePcPz	2018	40.8	#-121
	-epPz	0554	27.0	#-97		+esPz	2021	46.7	#-121
	-esPz	0554	30.9	#-97		+ePPz	2022	02.7	#-121
	-epz	0805	39.2			+ePPz	2230	22.9	#-122
	+ePKiKPz	1434	46.6	#-98	9	-epz	0937	34.7	
	+ePKiKPz	1552	10.1	#-99		+epz	1021	04.2	#-123
	-epPKiKPz	1552	13.7	#-99		+epPz	1021	08.3	#-123
	-epz	1736	36.4	#-100		+epz	1032	58.2	
	+esPz	2149	06.3	#-101		-epPz	1039	13.0	#-124
5	+ePPz	0222	32.3	#-102		+ePPz	1042	30.2	#-124
	+epz	0312	59.1	#-103		-esPKiKPz	1044	18.5	#-124
	+ePPz	0316	49.7	#-103		-epz	1320	40.7	#-125
	+ePKiKPz	0317	39.8	#-103		-epPz	1321	02.0	#-125
	+esPKiKPz	0317	44.9	#-103		+ePKiKPz	1325	33.8	#-125
	-epz	0459	23.4	#-104		+ePKiKPz	1639	05.5	#-126
	-ePKiKPz	0504	15.5	#-104		+epz	1715	41.7	#-127
	-epz	0927	48.9	#-105		+ePcPz	1715	43.1	#-127
	+epPz	1105	31.3	#-106		-epPz	1715	51.8	#-127
	+epPKiKPz	1110	23.3	#-106		+esPz	1715	56.3	#-127
	-esPKiKPz	1110	27.3	#-106	10	-epz	0338	49.8	#-128
	-ePKiKPz	1412	01.6	#-107		-ePcPz	0338	58.6	#-128
	-ePKiKPz	2113	41.7	#-108		-epPz	0339	15.8	#-128
	+epz	2117	50.2	#-109		+epPz	0449	46.6	#-129
6	+ipz	0133	47.6			+esPKiKPz	0454	35.2	#-129
	+epz	0434	55.0	#-110	11	+epz	0135	23.9	
	-epPz	0435	03.8	#-110		+epPz	0144	39.7	#-130
	+esPKiKPz	0442	01.7	#-110		+esPKiKPz	0149	35.2	#-130
	+ipz	0702	25.5			+epPKiKPz	0251	25.0	#-131
	+exz	1245	45.4	#-111		+esPKiKPz	0251	26.5	#-131
	-epz	1838	52.0	#-112		+epz	0303	01.2	
	-epPz	1839	02.3	#-112		+epz	0717	07.5	
	+ePPz	1842	37.0	#-112		-epz	1618	07.0	
	-epPKiKPz	1843	48.2	#-112		-epz	1826	22.7	
7	+epz	0216	27.4	#-113		+ePcPz	1909	39.1	#-132
	-esPz	0216	42.0	#-113		+esPz	1909	49.8	#-132
	+esPKiKPz	0221	29.1	#-113	12	+epz	0846	46.9	
	+epz	0335	47.7			+epz	0927	25.0	
	+ipz	1142	33.1			+epz	0945	24.0	
	+exz	1352	51.4	#-114		+epz	1136	37.3	#-133
	+epz	1535	02.3		13	-epz	0004	35.7	

Date	Phase	UTCtime		Remarks
		h m	s	
	-epPz	0034	35.2	#-134
	-epz	0505	09.5	#-135
	+epPKPdz	1440	50.8	#-136
	-ipz	1940	16.9	#-137
	+ePPz	1943	10.3	#-137
	+ePKiKPz	1946	02.0	#-137
	+esPKiKPz	2244	58.5	#-138
14	+epz	0151	17.5	#-139
16	+ipz	0608	19.7	
	-ipz	0926	55.5	#-140
	-epKiKPz	0934	12.3	#-140
	+epz	1322	06.3	#-141
	+ipz	1331	47.9	#-142
	+epPz	1332	38.2	#-142
	-ePKiKPz	1802	20.9	#-143
	+epKiKPz	1802	30.5	#-143
17	+esPdiffz	0132	34.5	#-144
	-esPKPdz	0136	23.3	#-144
	-ePKPdz	1553	59.4	#-145
	+epPdiffz	1803	46.8	#-146
	+ePKiKPz	1807	47.1	#-146
	-epKiKPz	1807	56.2	#-146
	+esPKiKPz	1808	02.8	#-146
	eSKSach	1814	14.4	#-146
	-epz	1856	35.2	
	-eSKSdfz	2035	04.4	#-147
18	-ipPz	1309	48.3	#-148
	+ePKiKPz	1533	30.5	#-149
	-epz	1835	30.5	
19	-epz	0204	09.2	
	+ePKiKPz	0532	35.0	#-150
	+epKiKPz	0532	46.5	#-150
	+ePcPz	0951	26.5	#-151
	-epz	1333	46.4	#-152
	+esPz	1333	02.0	#-152
	+epPz	1441	45.5	#-153
	+epKiKPz	1537	52.7	#-154
	-epz	1558	06.4	#-155
	+esPz	1558	53.6	#-155
	+esPz	1813	29.2	#-156
20	-epz	0532	48.4	#-157
	+ePKiKPz	0911	05.6	#-158
	-epz	1548	22.1	#-159
	+esPKiKPz	1554	10.2	#-159
	-ePKiKPz	2145	24.3	#-160
21	-epz	0435	06.3	
	-epz	1533	07.9	#-161
	+epPz	1724	04.0	#-162
	+epz	1739	47.3	#-163
	+ePcPz	2303	46.6	#-164

Date	Phase	UTCtime		Remarks
		h m	s	
22	+epKiKPz	0231	08.3	#-165
23	+epz	0230	39.8	#-166
24	-epz	0004	08.5	#-167
	-lpz	0736	46.0	#-168
	esh	0747	38.7	#-168
	+epKiKPz	1625	49.0	#-169
	-ePKiKPz	1633	29.1	#-169
	+epKiKPz	1633	41.5	#-169
	+ePcPz	1646	44.0	#-169
	+ePKiKPz	1651	38.3	#-169
	+ipz	1810	21.0	#-170
	-ipPz	1810	51.5	#-170
	+ePPz	1813	14.6	#-170
	+esPKiKPz	2213	13.9	#-171
	+epPz	2309	54.6	#-172
	+ePKiKPz	2314	38.2	#-172
25	+epz	0221	12.6	#-173
	-epPz	0221	23.5	#-173
	+ePKiKPz	0240	02.1	#-174
	-epKiKPz	0240	53.6	#-174
	+esPz	0431	09.0	#-175
	+epz	1102	51.9	#-176
	+ipz	2219	46.5	
26	-epz	0306	18.0	#-177
	-epz	0558	15.0	#-178
	+epz	0609	02.4	#-179
	+esPz	0609	07.8	#-179
	+ePdlffz	0624	21.4	#-180
	+ePcPz	0931	17.9	#-181
	+esPz	0931	31.3	#-181
	+ePcPz	0944	10.5	#-181
	-epPz	0944	19.3	#-181
	+ePKiKPz	0949	02.8	#-181
	-epPz	1112	26.1	#-182
	+ePKiKPz	1117	09.1	#-182
	+ipz	1259	16.7	#-183
	+epz	1529	30.5	#-184
	+esPz	1529	45.2	#-184
	+ePcPz	1641	10.9	#-185
	+epz	1659	32.7	#-186
	-ePKiKPz	2043	09.2	#-187
	+epPz	2336	40.0	#-188
27	+epPz	0224	22.4	#-189
	-ePcPz	0224	33.1	#-189
	-epz	0421	28.1	#-190
	-epz	1223	05.1	#-191
	-ePcPz	1223	08.7	#-191
	-epz	2055	22.2	#-192
	-ePcPz	2055	33.4	#-192
	-ePcPz	2342	33.2	#-193

Date	Phase	UTC time		Remarks
		h m	s	
Mar.1	28	-ezp	0156 30.2	#-194
		+esPz	0156 34.3	#-194
		-epz	0310 54.3	#-195
		+epz	0948 33.7	#-196
		-epz	1044 12.3	#-197
		-ipz	1242 37.0	#-198
		-esPz	1242 49.6	#-198
		+ePPz	1245 46.7	#-198
		-ipz	1313 11.4	#-199
		+ePcPz	1313 15.5	#-199
		-ePPz	1316 20.1	#-199
		-epz	1317 53.7	#-200
		+epPz	1318 03.6	#-200
		+esPz	1318 08.4	#-200
		+epz	1333 51.3	#-201
		-epz	1844 15.9	#-202
		+epPz	1844 25.7	#-202
		+iPKPdz	1914 18.2	#-203
		-iPKPabz	1914 47.6	#-203
		-ePPz	1918 27.1	#-203
		+epz	0106 37.6	#-204
		-epz	0412 15.9	#-205
		+ePcPz	0412 20.0	#-205
		-esPz	0412 28.5	#-205
		+ePPz	0415 20.2	#-205
		+epz	0420 31.9	#-206
		-esPz	0507 29.0	#-206
		+epz	1014 19.3	#-207
		-epz	1616 37.1	#-208
		-epPKiKPz	2328 47.3	#-209
		+esPKiKPz	2328 49.0	#-209
	2	+epz	1008 51.8	
		-ePKiKPz	1302 42.3	#-210
		+epz	1718 21.3	#-211
		+ePcPz	1718 22.7	#-211
		+epPz	1719 31.2	#-211
	3	+ePKiKPz	0321 41.1	#-212
		-esPKiKPz	0321 58.9	#-212
		-epz	0609 28.5	#-213
		+ePPz	0956 57.4	#-214
		+epz	1208 27.5	#-215
		-esPz	1208 40.9	#-215
		+ePcPz	1209 08.4	#-215
		-epPKiKPz	1508 29.9	#-216
		-epPKiKPz	1911 41.2	#-217
		+esPKiKPz	1911 45.2	#-217
	4	-epz	0225 20.9	#-218
		+ePKiKPz	1242 09.2	#-219
	5	+esPKiKPz	1036 40.5	#-220
		+epPKiKPz	1127 31.5	#-221

Date	Phase	UTC time		Remarks
		h m	s	
	7	+epz	2250 09.5	
		+epz	0339 08.1	#-222
		-epPz	0339 17.2	#-222
		-ePcPz	0339 36.8	#-222
		+epz	1834 40.4	#-223
		-ePcPz	1834 42.3	#-223
	8	+epz	0732 15.7	#-224
		+epPz	0732 45.6	#-224
		-ipz	1149 17.2	#-225
		+epz	1540 04.2	#-226
		+ePcPz	1540 13.7	#-226
		+epPz	1541 13.5	#-226
		+esPKiKPz	1547 27.4	#-226
		+epz	2123 05.8	#-227
		+epPz	2123 15.4	#-227
		+ePcPz	2123 17.3	#-227
		+ePPz	2125 36.4	#-227
		+epPKiKPz	2129 04.3	#-227
		+esPKiKPz	2129 08.8	#-227
	9	+ePdiffz	0121 07.8	#-228
		-epPdiffz	0121 18.1	#-228
		+esPdiffz	0121 21.9	#-228
		-esPKiKPz	0125 40.7	#-228
		eSKSdfh	0132 34.5	#-228
		eSdiffh	0132 54.9	#-228
		-ipz	0309 10.7	#-229
		+epz	0819 28.1	#-230
		+ePcPz	0819 30.2	#-230
		+esPz	0822 09.7	#-230
		+epz	1144 29.2	
		+epz	1804 17.6	#-231
		+epz	2154 46.0	#-232
		-ePKiKPz	2159 44.7	#-232
		+epPKiKPz	2159 49.1	#-232
	10	-epz	1116 40.2	
	11	-ipz	0102 35.2	#-233
		-epPz	0103 31.4	#-233
		+epz	1532 45.6	#-234
		-epz	1619 37.0	#-235
		+epz	1808 43.0	
		-epz	2000 05.4	
		-epz	2222 28.7	
	12	-epz	0718 50.0	#-236
		-epz	1032 36.3	
		+epz	1413 41.7	#-237
		+epPz	1413 57.0	#-237
		+epz	2346 45.5	#-238
		+epPKiKPz	2352 47.3	#-238
	13	+epz	1317 02.0	#-239
		+ePcPz	2346 16.8	#-240

Date	Phase	UTC time		Remarks
		h m	s	
14	-ePcPz	0257	44.4	#-241
	+ePPz	0301	03.3	#-241
	+esPKiKPz	0304	03.5	#-241
	-ipz	1908	55.5	#-242
15	-ipz	1313	32.9	#-243
16	-epz	0447	51.0	#-244
	+exz	1203	44.2	#-245
17	+esPKiKPz	0612	09.5	#-246
	-esPdiffz	0741	33.4	#-247
	+epPKiKPz	0744	11.4	#-247
	+esPKPdfz	0744	20.6	#-247
	+esPKiKPz	0744	22.2	#-247
	+ePPz	0746	42.5	#-247
	+epz	1029	27.8	#-248
	-esPz	1029	43.6	#-248
	+ePcPz	1835	53.4	#-249
	-ePKiKPz	1841	27.7	#-249
	+epPdiffz	2106	15.5	#-250
	+esPdiffz	2106	19.2	#-250
	+ePKiKPz	2110	17.0	#-250
	+ePPz	2110	32.8	#-250
18	+epz	0525	04.1	
	+ePKiKPz	1317	28.2	#-251
	-ePPz	1354	33.3	#-252
	+epPKiKPz	1357	45.0	#-252
	-esPz	1500	09.1	#-253
	-esPKiKPz	1505	53.9	#-253
	+epPKiKPz	1657	22.0	#-254
	+esPKiKPz	1657	24.8	#-254
	-epz	2335	07.6	#-255
	-ePPz	2336	48.9	#-255
19	+epz	0557	01.4	#-256
	+ipz	0604	52.0	#-257
	+ePcPz	0604	55.4	#-257
	+esPz	0605	09.7	#-257
	+ePPz	0608	12.2	#-257
	+esPKiKPz	0610	18.2	#-257
	+epz	0609	32.2	#-258
	-ePPz	0612	52.9	#-258
	+esPz	0820	56.5	#-259
	+esPz	0943	20.9	#-260
	+epPKiKPz	0948	51.0	#-260
	-ePKiKPz	1203	32.0	#-261
	+epPKiKPz	1203	44.9	#-261
	-epz	1514	20.8	#-262
	+epPKiKPz	1519	51.3	#-262
	-esPKiKPz	1520	07.4	#-262
	+epz	2242	40.3	#-263
20	+ipz	1120	41.1	#-264
21	-epz	2100	48.7	#-265

Date	Phase	UTC time		Remarks
		h m	s	
22	-epz	1356	43.4	
23	+epPz	0200	03.1	#-266
	-esPz	0200	07.7	#-266
	+ipz	0707	20.4	#-267
	+esPz	0707	35.1	#-267
	+ePKiKPz	1149	31.6	#-268
	+epPKPdfz	1149	40.3	#-268
	-esPKPdfz	1149	44.1	#-268
	-ePcPz	2106	20.5	#-269
	+esPz	2106	32.9	#-269
	-esPz	2128	05.6	#-270
	-ePKiKPz	2341	44.4	#-271
24	+ePKPdfz	0646	42.6	#-272
	+ePKiKPz	0646	43.3	#-272
	-epz	1408	54.3	#-273
	+epPz	1409	04.3	#-273
	+esPz	1409	07.8	#-273
	+exz	2037	22.0	#-274
	-ePKiKPz	2143	41.3	#-275
25	+epz	0235	57.3	
	+epz	0531	21.5	#-276
	-epPKiKPz	0536	18.5	#-276
	-esPKiKPz	0536	23.7	#-276
	-epz	1447	42.0	#-277
	-ePPz	1629	29.9	#-278
	+epPz	1718	53.8	#-279
	-ePKiKPz	1724	06.2	#-279
	+esPKiKPz	1724	11.2	#-279
	-epPz	1904	43.0	#-280
	+esPz	1904	45.6	#-280
	+ePPz	1906	58.6	#-280
	+ePKiKPz	1911	27.7	#-280
	+epPKPdfz	2059	55.0	#-281
	-esPKiKPz	2316	20.5	#-282
26	+epz	1104	38.5	#-283
	+epz	1416	11.5	
27	+ipz	1102	32.3	#-284
	-epz	1118	15.8	#-285
	+epPKiKPz	1507	03.6	#-286
	+epz	1839	11.8	#-287
	-epPz	1840	33.9	#-287
	+esPz	1841	16.2	#-287
	-epz	2205	55.8	#-288
	+esPz	2209	01.5	#-288
28	+epz	0145	50.5	#-289
30	-ePPz	1817	41.5	#-290
	+epz	2038	30.4	#-291
31	+ipz	0705	10.3	#-292
	+ipPz	0705	37.2	#-292
	-epPKPdfz	1823	07.1	#-293

Date	Phase	UTC time		Remarks	Date	Phase	UTC time		Remarks
		h	m	s			h	m	s
Apr. 1	-esPKPdz	1823	12.0	#-293	15	+esPz	1136	26.4	#-319
	+ePKPdz	1850	02.2	#-293		-epz	2245	42.0	#-320
	-epPKPdz	1850	15.3	#-293		-epz	2345	42.0	
	+epPz	1954	21.3	#-294	17	-ipz	0154	05.9	#-321
	-ePcPz	1954	46.8	#-294		+epPz	0449	34.4	#-322
	+ePcPz	0005	28.0	#-295		+epz	1810	16.4	#-323
	+ePKPdz	0107	29.9	#-296	18	-esPz	1810	29.0	#-323
	+ePKPbcz	0107	32.0	#-296		+esPKIKPz	2214	14.7	#-324
	-epz	0400	15.2			+epz	0148	09.2	#-325
	+epPz	0421	12.3	#-297		-ePcPz	0220	10.3	#-326
	-epz	0421	15.1	#-297		-ePPz	1213	40.3	#-327
	+epz	0844	33.1	#-298		-ePKPdz	1320	33.1	#-328
	+epPz	0844	35.9	#-298		+epPKPdz	1320	55.5	#-328
	-ePPz	0845	55.3	#-298		+esPKPdz	1321	04.2	#-328
	-ePnPnz	0845	58.4	#-298		+epz	1944	36.1	#-329
	+epz	1151	11.0	#-299		-epz	2343	46.5	#-330
	+epz	1201	42.6	#-300		-esPz	2343	58.5	#-330
	-epz	1355	47.5			+epPKIKPz	2349	25.5	#-330
	+epz	1451	41.2		19	+epz	0015	48.0	#-331
	-ePKIKPz	1509	36.6	#-301		-epz	0030	24.8	#-332
	+epz	1541	46.5	#-302		-epPz	0030	35.5	#-332
	+epPz	1541	50.2	#-302		+ePcPz	0253	48.5	#-333
	+epz	1553	17.0			-epPz	0253	54.2	#-333
	-epPz	1911	52.2	#-303		-ePKIKPz	0258	35.1	#-333
	+ePcPz	1912	05.2	#-303		-epz	0326	35.1	#-334
	+ePKIKPz	2314	11.8	#-304		+epz	1021	25.4	#-335
	+esPKIKPz	2315	14.5	#-304		+epz	1051	07.2	#-336
2	+esPKIKPz	0742	06.7	#-305		+epz	1244	11.6	#-337
	-epz	1745	09.2	#-306		+epz	1750	31.1	#-338
	+ePKPdz	2013	23.7	#-307		+epz	1753	42.5	#-339
3	+esPz	0158	15.1	#-308		-epz	2018	08.9	#-340
	-ePPz	0200	42.2	#-308		-epz	2111	35.7	#-341
	+epz	2133	08.1	#-309		-epz	2156	50.9	#-342
4	+ipz	2326	54.0	#-310		+epz	2315	46.8	#-343
	+ePcPz	0756	51.7	#-311		-epz	0329	56.9	#-344
5	+epz	0527	24.6	#-312	20	+epPKIKPz	0951	13.0	#-345
	-ipz	2317	46.0			-eScPz	1159	26.8	#-346
	+iPcPz	2329	50.9	#-313		+epPKIKPz	1923	39.3	#-347
8	+ipPz	2329	54.3	#-313		-esPKIKPz	1923	43.1	#-347
	-epz	1541	50.1	#-314		+epPz	1934	09.0	#-348
	+epz	1927	51.6	#-315		+esPz	1934	13.9	#-348
9	+epz	1959	03.9	#-315		+ePKIKPz	1938	49.5	#-348
	-epz	2131	46.0			+esPKIKPz	1939	05.7	#-348
	-epz	0141	21.6			+epz	2346	47.2	#-349
10	-epPz	0911	52.5	#-316	21	+epPz	2346	57.4	#-349
	-esPz	0911	54.9	#-316		+epz	0042	55.2	#-350
	-epz	0746	15.4	#-317		-ePcPz	1321	58.7	#-351
13	+epz	1344	52.7			-ePKPbcz	1738	46.6	#-352
	+exz	1539	54.0	#-318		-esPKPbcz	1738	49.7	#-352
14	+epz	0753	50.5			+epz	1826	38.9	#-353

Date	Phase	UTC time		Remarks
		h m	s	
23	+epz	0438	35.9	#-354
	-epz	1006	04.3	#-355
24	+epz	1007	22.8	#-356
	-epPz	1007	29.5	#-356
	+epz	1447	14.2	#-357
	+epz	1609	43.9	#-358
	+epz	1746	40.9	
25	-epz	2220	09.6	
	+epz	0111	08.9	#-359
	-epz	0643	27.3	
	-ePKIKPz	1458	55.1	#-360
	-epPKIKPz	1459	07.1	#-360
	+esPKIKPz	1459	11.5	#-360
	+epz	1727	21.7	#-361
	-ipz	1751	30.4	#-362
	+epz	2114	10.2	#-363
	+ePcPz	2114	29.5	#-363
27	+epz	0509	14.7	
28	-ipz	0502	09.7	#-364
	-epz	1329	40.5	#-365
	+epz	2206	24.9	#-366
29	+ipz	0254	24.1	#-367
30	+ePdfffz	0218	24.0	#-368
	+epz	0222	21.5	#-369
	+epPz	0222	32.1	#-369
	-epz	0819	07.0	#-370
	-epz	2154	09.9	#-371
	-ePcPz	2154	19.0	#-371
	+epz	0444	51.5	#-372
	-epz	0525	41.1	#-373
	-epz	1519	04.0	#-374
	-epz	0006	23.2	#-375
May 3	-ipz	0117	59.2	#-376
	+epz	0742	15.9	#-377
	-ePKIKPz	0747	11.4	#-377
	-ePcPz	1234	33.5	#-378
	-epz	0533	53.6	#-379
4	-epz	1347	47.7	#-380
	+epz	1538	51.8	#-381
	-ePcPz	0024	49.4	#-382
5	+esPz	0024	51.3	#-382
	+epz	0532	19.1	#-383
	-ipz	0610	34.5	#-384
	-esPz	0610	50.8	#-384
	+epz	0721	44.9	#-385
	+epPz	1028	47.7	#-386
	+esPKIKPz	1035	02.4	#-386
	+epz	1432	43.4	#-387
	+esPKIKPz	1636	52.3	#-388
	-epz	2048	31.2	#-389

Date	Phase	UTC time		Remarks
		h m	s	
7	+ePPz	2052	13.9	#-389
	-ePKIKPz	2053	20.2	#-389
	-epz	0042	54.5	#-390
	+eScPz	0047	55.4	#-390
	+epz	0206	03.7	#-391
9	+ePKIKPz	0711	57.3	#-392
	+ePKPdfz	1607	31.0	#-393
	-esPKPdfz	1607	50.2	#-393
	-epz	1751	23.3	#-394
	-epPz	1751	42.0	#-394
	-esPz	1751	49.3	#-394
10	+epz	1911	11.0	#-395
	+epz	1938	27.0	#-396
	-epPz	1938	44.1	
	+epz	0607	22.0	#-397
	+epPz	0607	29.3	#-397
	-epz	0957	02.7	#-398
	-ePcPz	0957	09.2	#-398
	+epz	2206	08.6	#-399
	+epz	0455	02.4	#-400
	-epz	0618	01.0	#-401
11	+ePPz	0620	42.0	#-401
	+ePKIKPz	0904	47.3	#-402
	-esPKIKPz	0905	03.1	#-402
	+epz	1053	11.6	#-403
	+esPKIKPz	1101	20.1	#-403
	+epPKIKPz	2235	50.8	#-404
	+epz	0044	22.3	#-405
	+ePdfffz	0348	01.5	#-406
	+ePKPdfz	0351	40.2	#-406
	-epPz	0703	23.8	#-407
12	+epPKIKPz	0708	15.4	#-407
	+epz	1033	35.9	#-408
	-epz	1505	59.6	
	+ePKPbcz	1902	13.5	#-409
	+esPKPbcz	1902	28.7	#-409
	-epz	1654	06.4	
	+epz	1713	40.0	
	+epz	2205	59.4	#-410
	-ePPz	2237	36.0	#-411
	-ipz	0244	47.3	#-412
14	-ePcPz	0244	54.9	#-412
	+ePPz	0308	10.1	#-413
	+ePKIKPz	0634	18.0	#-414
	+esPz	1453	05.6	#-415
	+epPz	1816	20.5	#-416
	-esPz	2246	07.5	#-417
	-epz	2255	57.5	#-418
	-epz	0156	18.4	#-419
	-epz	0525	32.4	#-420

Date	Phase	UTC time		Remarks	Date	Phase	UTC time		Remarks
		h	m	s			h	m	s
16	+epz	0004	10.3	#-421		+epz	2139	13.8	#-446
	+ePPz	0006	45.3	#-421		+epz	2227	26.0	
	-epz	0039	11.4	#-422		+epz	2237	00.9	
	-epz	1158	23.3	#-423		-epz	2244	51.1	
	+esPz	1158	38.1	#-423		-epz	2322	20.4	
	+esPKiKPz	1329	03.7	#-424		-epz	2327	16.3	
17	-eScPz	0456	27.2	#-425	24	-epz	0044	39.7	#-447
	-exz	0742	45.1	#-426		-esPz	0045	47.1	#-447
	-epz	1746	48.0			+epz	0610	27.4	#-448
	+ePKiKPz	1931	56.4	#-427		+ePcPz	0610	28.0	#-448
	-epz	2337	16.2	#-428		+epz	0953	38.6	#-449
18	+epz	0143	51.3	#-429		+epz	1052	33.0	#-450
	-epPz	0144	01.2	#-429		-epz	1312	13.0	#-451
	+esPKiKPz	0149	34.0	#-429		-esPz	1511	09.5	#-452
	-epz	0217	37.2	#-430		+esPz	1511	11.2	#-452
	+ePcPz	0217	46.4	#-430		-ePnPz	1511	38.9	#-452
	+ePKiKPz	0223	09.5	#-430		+epz	1818	25.3	#-453
	+epPKiKPz	0223	20.3	#-430		-ePcPz	1818	49.9	#-453
	-ePKPbcz	0306	26.6	#-431		+epPz	1819	21.2	#-453
	+epz	1107	18.1	#-432	25	+epz	0036	59.2	#-454
	+epPz	1107	20.9	#-432		-epPz	0037	12.9	#-454
	-ePcPz	1107	56.0	#-432		+ePKiKPz	0100	12.7	#-455
	+epz	1112	51.2	#-433		-esPKiKPz	0100	29.5	
	-esPz	1113	05.9	#-433		+ipz	0517	41.1	#-456
	+epz	2148	47.8			-epz	2233	53.7	#-457
	+epz	2154	59.3		26	-epDlffz	0051	38.9	#-458
	+epz	2242	54.8			+ePKiKPz	0053	16.6	#-458
19	+epPKiKPz	0257	02.6	#-434		+epPKiKPz	0423	30.9	#-459
	+esPKiKPz	0257	07.0	#-434		-ePcPz	0900	31.5	#-460
	+epz	1120	13.6	#-435		+esPKiKPz	0906	43.3	#-460
	+epz	1748	31.5	#-436		+epz	1109	25.5	#-461
	+ePcPz	1748	33.1	#-436		+iPcPz	1109	27.2	#-461
	eSKSach	1758	18.3	#-436		-epPKiKPz	1116	09.1	#-461
	esh	1758	34.0	#-436	27	-epz	0901	18.1	#-462
20	-epz	0937	40.4	#-437	28	+ePcPz	0653	49.3	#-463
	+epz	1145	17.0	#-438		+esPz	0654	06.6	#-463
	+ePcPz	1145	19.8	#-438		-epz	0811	19.8	
	+epz	1715	14.6	#-439		-epz	0849	38.1	#-464
21	+epz	0716	21.6			-iPcPz	0849	40.4	#-464
	+ePnz	1426	18.2	#-440		+esPz	0849	54.1	#-464
	+epPnz	1426	19.6	#-440		+epPKiKPz	0855	03.6	#-464
	+epz	2204	23.7	#-441		-epz	1153	47.7	#-465
	+epz	2327	15.2	#-442	29	-ipz	0629	17.4	#-466
22	+epz	0025	45.3	#-443		-iPnPz	0630	14.7	#-466
	+ePKiKPz	0933	22.1	#-444		+epz	0754	50.0	#-467
	-epz	2050	11.3	#-445		+ePKiKPz	1406	41.5	#-468
	+ePcPz	2050	15.9	#-445		+epPKiKPz	1921	21.5	#-469
23	-epz	1447	12.2			-epz	1928	47.9	#-470
	+epz	1621	23.4			+epz	2350	30.2	#-471
	-ipz	2045	35.3			+ePPz	2354	09.5	#-471

Date	Phase	UTC time		Remarks	Date	Phase	UTC time		Remarks
		h	m	s			h	m	s
30	+esPKiKPz	2355	25.7	#-471	10	-esPdiffz	0237	53.3	#-501
	-esPz	0042	44.4	#-472		-epz	0327	35.9	#-502
	+ePKiKPz	0447	25.8	#-473		+epz	1246	54.3	
	-esPKiKPz	0447	40.1	#-473		-epz	1841	34.9	
	+ipz	0504	16.4			-epz	0159	23.8	#-503
	+epz	0706	26.2	#-474		+epz	1138	42.1	#-504
	+epPKiKPz	1142	44.5	#-475		+esPz	1139	02.2	#-504
	+epz	1748	40.3			+ePcPz	1144	58.8	#-505
	+ePKiKPz	0103	30.3	#-476		+ePPz	1148	39.0	#-505
	+exz	1929	03.5	#-477		+esPdiffz	1325	35.4	#-506
Jun.1	-epz	0513	37.7		11	-epz	1501	00.4	
	+epz	1101	50.8	#-478		+epz	1531	35.2	#-507
	-epz	1402	05.7			+epz	0055	19.0	#-508
	+epz	2050	03.8	#-479		+epz	1156	40.0	#-509
	-ePcPz	2050	05.5	#-479		-epz	1257	53.9	#-510
	+epPz	2050	12.3	#-479		-epz	0439	17.2	#-511
	-epPKiKPz	2055	01.5	#-479		+ePPz	0834	24.2	#-512
	+ePcPz	2054	46.2	#-480		+epz	0835	22.3	#-512
	+ePKiKPz	2059	36.5	#-480		+epz	1405	07.4	
	+epz	2320	52.2	#-481		+epz	2238	36.6	#-513
2	+ePPz	2323	42.2	#-481	13	+ePKPdz	2300	47.2	#-514
	+epz	1514	37.7			+epz	0402	21.8	#-515
	-epz	1648	53.2	#-482		-esPKiKPz	0407	35.3	#-515
	+epz	1658	58.5			-epz	0422	01.5	#-516
	-ipz	0253	35.7	#-483		-isPz	0422	06.5	#-516
	+ePPz	0531	40.3			+ePcPz	0422	18.0	#-516
	+epz	0001	00.3	#-484		+epz	1238	43.3	#-517
	+epz	0310	05.3	#-485		+epz	1723	58.2	#-518
	+epz	1313	46.9	#-486		+epPz	1724	14.6	#-518
	+epz	2203	14.9	#-487		+epz	2226	44.8	#-519
4	+epz	2338	12.1	#-488	14	-epz	0326	47.8	#-520
	-epz	0913	03.0	#-489		-epz	1238	36.4	#-521
	+esPKiKPz	0918	06.2	#-489		-epPz	1240	45.2	#-521
	+epz	0932	23.2	#-490		+ePKiKPz	1359	22.8	#-522
	-ePcPz	0932	25.3	#-490		+esPKPdz	1359	27.1	#-522
	-epz	0935	29.0	#-491		-esPKiKPz	1359	39.2	#-522
	+epz	1002	17.4	#-492		-epz	1719	56.5	#-523
	-ePKiKPz	1007	16.2	#-492		+epPz	1721	53.5	#-523
	-epz	1002	28.4	#-493		-ePKPdz	2028	36.6	#-524
	-epPz	1002	32.3	#-493		-esPKPdz	2028	45.9	#-524
5	-esPKiKPz	1007	31.0	#-493	15	+ePKPbcz	2021	32.2	#-525
	+epz	1013	08.0	#-494		+ePKiKPz	2350	05.0	#-526
	-epz	1324	59.1	#-495		-ePcPz	1631	35.6	#-527
	+epz	1526	55.8	#-496		+epz	2146	46.1	#-528
	+epz	1629	29.5	#-497		-ePcPz	2146	47.7	#-528
	-ePPz	2308	33.1	#-498		+epz	0226	51.0	#-529
	+esPKiKPz	0713	39.3	#-499		-esPz	0227	04.5	#-529
	-epz	2319	02.5	#-500		+epz	1834	03.2	#-530
	-ePcPz	2319	11.6	#-500		-epz	0440	09.5	#-531
	+epPdiffz	0237	10.0	#-501		+esPKiKPz	0448	29.3	#-531

Date	Phase	UTC time		Remarks
		h m	s	
18	+exz	0540	19.3	#-532
	+epz	1502	35.9	#-533
	+ipz	2008	22.5	#-534
	+ipPz	2008	46.5	#-534
	+ePKIKPz	2014	15.5	#-534
19	+epz	2343	36.2	#-535
	+epz	0334	54.2	#-536
	+epz	0943	50.2	#-537
	+epPz	0944	26.8	#-537
	-ePKIKPz	0949	38.5	#-537
20	+epz	1331	13.9	#-538
	-epz	2317	45.1	#-539
	+epz	1459	03.4	#-540
	+epz	1816	14.0	#-541
	+epPKIKPz	1823	54.8	#-541
21	+epz	2103	22.0	#-542
	-ipPz	1112	21.5	#-543
	-ePcPz	1113	01.5	#-543
	+ePcPz	1704	15.0	#-544
	+epz	0728	58.5	#-545
22	-epz	1447	12.2	#-546
	+epPKPabz	1712	10.5	#-547
	-ipz	2045	34.9	#-548
	-ePcPz	2237	00.1	#-549
	+epPz	2237	07.6	#-549
23	+ePKIKPz	2242	18.0	#-549
	-esPKIKPz	2242	33.7	#-549
	-ePcPz	2244	51.1	#-550
	-ePcPz	2322	21.5	#-551
	-esPz	2322	32.1	#-551
	+ePPz	2325	26.5	#-551
	-esPKIKPz	2327	55.2	#-551
	-ePcPz	2357	16.3	#-552
	+esPz	2357	26.5	#-552
	-ePPz	2400	19.6	#-553
	-ePcPz	2401	24.5	#-553
	+esPz	2401	37.5	#-553
	+ePcPz	0027	03.5	#-554
	+esPz	0027	14.0	#-554
	-epz	0135	06.4	#-555
24	+esPz	0135	19.5	#-555
	+ePcPz	0200	48.4	#-556
	-ePcPz	0223	51.0	#-557
	+epPz	0223	55.5	#-557
	+ePcPz	0243	17.8	#-558
	-esPz	0243	30.0	#-558
	-ePcPz	0415	14.0	#-559
	+epPz	0430	58.7	#-560
	+ePcPz	0541	44.8	#-561
	+esPz	0541	55.3	#-561

Date	Phase	UTC time		Remarks
		h m	s	
	+exz	0613	52.5	#-562
	-esPz	0614	05.4	#-562
	+ePcPz	0620	46.2	#-563
	-epPz	0620	54.3	#-563
	+ePcPz	0823	57.0	#-564
	+esPz	0824	07.4	#-564
	-ePcPz	1057	53.8	#-565
	+esPz	1241	20.4	#-566
	+epPz	1345	55.0	#-567
	+epz	1445	58.6	#-568
25	+ePcPz	1750	05.0	#-569
	+esPz	1957	15.5	#-570
	+ePcPz	2010	34.9	#-571
	+epPz	2010	41.5	#-571
	-epz	2226	15.8	#-572
26	-ePcPz	2304	35.4	#-573
	+esPz	2304	44.2	#-573
	-ePcPz	0041	53.9	#-574
	+epPz	0042	09.5	#-574
	-epz	0119	56.3	#-575
	+iPcPz	0430	46.0	#-575
	+epz	0553	32.5	#-576
	+esPz	0553	45.0	#-576
	+epz	0803	43.5	#-577
	-ePcPz	0859	31.9	#-577
	+esPz	0859	41.2	#-577
	-ePKPdz	1005	30.1	#-578
	-ePKIKPz	1005	33.4	#-578
	-epz	1113	04.5	#-579
	+epPz	1113	11.0	#-579
	+ePcPz	1303	37.0	#-580
	+epPz	1303	41.5	#-580
	+ePKPabz	1427	09.1	#-581
	+epPKPabz	1427	13.7	#-581
	+ePcPz	1525	02.2	#-582
	+epPz	1525	10.9	#-583
	+ePcPz	1740	01.5	#-583
	+esPz	1740	10.3	#-583
	+epz	2121	15.0	#-584
	+ePcPz	2335	55.9	#-585
27	+esPz	2336	05.8	#-585
	-epz	0033	17.5	#-586
	+epz	0213	48.2	#-587
	-ePKIKPz	1707	34.0	#-588
	-epz	2001	32.1	#-589
28	-ePKIKPz	2007	07.4	#-589
	+epz	2315	22.5	#-590
	+ePcPz	0351	47.1	#-591
	+esPz	0351	57.6	#-591
	-epz	0358	13.2	#-592

Date	Phase	UTC time		Remarks	Date	Phase	UTC time		Remarks
		h	m	s			h	m	s
29	+ePcPz	0437	05.7	#-593	5	+esPz	1221	20.0	#-619
	+esPz	0437	16.4	#-593		+epz	1710	23.4	#-620
	-epz	2147	38.1	#-594		+ePKiKPz	1715	42.0	#-620
	-ePcPz	2147	41.0	#-594		-ePKPdz	1806	37.4	#-621
	-epPz	2147	47.2	#-594		+ePKiKPz	1806	40.5	#-621
	+epz	0643	26.3	#-595		-epPKiKPz	1806	49.6	#-621
	-epz	0908	13.0			+esPKiKPz	1806	54.6	#-621
	+epz	1012	28.0	#-596		+epz	1406	06.4	#-622
	+epz	1847	16.8	#-597		+epPz	1406	27.5	#-622
	+ePcPz	2245	41.0	#-598		-epz	1756	35.4	#-623
	+ePcPz	2249	12.1	#-599		-epz	1821	20.7	#-624
	+epPz	2351	11.9	#-600		-esPz	1821	34.2	#-624
	-ipz	1647	25.6	#-601	7	-epz	0031	33.9	
	-epz	0159	22.3	#-602		+epz	0107	48.1	#-625
	-ePPz	0203	07.9	#-602		+epPz	0522	50.5	#-626
30	+ePKiKPz	0204	05.0	#-602		-esPz	0522	52.6	#-626
	+epPKiKPz	0204	14.8	#-602		-epz	0532	03.5	#-627
	-epz	1118	46.8	#-603		+esPz	0532	13.4	#-627
	+ePcPz	1323	44.0	#-604		-ePKiKPz	0537	21.9	#-627
	+epz	0608	36.6	#-605		-ipz	0941	20.1	#-628
	-ePcPz	1322	25.0	#-606		-ePcPz	0941	30.3	#-628
	-esPz	1322	31.6	#-606		-ipz	0950	55.7	#-629
	-epz	1441	49.4	#-607		-epz	1129	45.2	#-630
	-ePKiKPz	1446	54.0	#-607		-ePcPz	1129	50.0	#-630
	+epz	2030	34.1	#-608		+esPz	1129	57.0	#-630
	+epz	2132	43.7			+esPz	1208	24.3	#-631
	-epz	2335	36.5	#-609		-epz	1251	18.9	#-632
	-ipz	0330	57.2	#-610		+epPz	1348	37.5	#-633
	-epPz	0331	50.1	#-610		+epz	1418	06.2	#-634
3	+epz	0755	31.2			-epPz	1420	15.4	#-634
	-epz	0846	50.5	#-611		+epz	1626	14.8	#-635
	-esPz	0847	04.3	#-611		-iPcPz	1626	25.7	#-635
	-epz	0850	19.5	#-612		+epz	1942	13.0	#-636
	+epz	1232	05.0			+esPz	1942	26.0	#-636
	-epz	1310	03.4	#-613	8	+epz	0426	11.7	#-637
	+esPz	1310	12.3	#-613		+ipz	1807	27.7	#-638
	-ePKPdz	1328	49.7	#-614		+esPz	1807	40.5	#-638
	-ePPz	1329	52.5	#-614		+epz	1843	18.5	#-639
	-epPKPdz	1330	03.1	#-614		-epz	2127	37.7	#-640
	+esPKPdz	1330	30.5	#-614		-epz	0455	14.2	#-641
	-epz	1339	26.4			+epz	1551	30.2	#-642
	+epz	1444	04.0	#-615		-epz	2049	08.9	#-643
	+esPz	0006	28.3	#-616		+epz	0208	16.7	#-644
	-epz	0220	45.2	#-617		+epz	0231	50.1	
	-epz	0718	50.4	#-618		+epz	0336	21.0	#-645
	eSKSach	0725	56.0	#-618		+epz	2117	24.4	#-646
	ish	0729	06.0	#-618		+epz	1058	16.5	#-647
	+epz	1221	05.5	#-619		+epz	1523	35.0	#-648
4	+ePcPz	1221	13.7	#-619		+epz	0623	29.9	#-649
	+epPz	1221	15.0	#-619		+epPz	0623	32.0	#-649

Date	Phase	UTC time		Remarks
		h m	s	
13	+ePcPz	0623	49.3	#-649
	+epz	0727	08.1	#-650
	-esPz	0441	43.2	#-651
	+epz	1257	12.6	#-652
	-epPz	1257	40.2	#-652
14	+esPz	1257	52.0	#-652
	-epz	1934	19.7	#-653
	+ePKPdz	0134	11.3	#-654
	+ePKiKPz	0134	12.2	#-654
	+esPKiKPz	0134	16.9	#-654
15	+epPKiKPz	0605	31.4	#-655
	+epPz	2154	56.0	#-656
	-epz	0320	26.5	#-657
	-epz	0330	18.0	#-658
	+epPz	0330	32.0	#-658
16	-epPz	1019	56.9	#-659
	-epz	2104	06.7	#-660
	+epz	0128	43.7	
	+epz	0802	55.4	#-661
	-epz	0917	44.0	#-662
17	+epPKiKPz	0924	29.0	#-662
	+esPKPdz	1429	18.5	#-663
	+epz	2240	10.4	#-664
	-epz	1227	02.1	
	-epz	1319	35.9	
18	-epz	2338	20.8	#-665
	-epPz	2338	27.4	#-665
	+esPz	2338	32.5	#-665
	-epz	0405	31.5	#-666
	-epz	1221	39.8	#-667
19	-epz	2035	29.3	#-668
	+epz	2341	38.1	#-669
	+ePKiKPz	1044	37.7	#-670
	+epz	1323	04.8	#-671
	-epz	1417	37.4	
20	+iPKPdz	1820	39.6	#-672
	+epPKPdz	1820	50.8	#-672
	+esPKPdz	1820	55.2	#-672
	+ePKPabz	1821	49.2	#-672
	+epPKPabz	1821	56.5	#-672
	-epz	2024	52.9	#-673
	+epPz	2025	48.4	#-673
	-epz	2302	53.8	#-674
	+esPKiKPz	2309	46.3	#-674
	-epz	0034	59.8	#-675
	-epz	0040	51.2	#-676
	-iPcPz	0040	52.2	#-676
	+esPz	0042	04.0	#-676
	+ePKiKPz	0444	49.0	#-677
	-epz	0959	06.5	#-678

Date	Phase	UTC time		Remarks
		h m	s	
	-epPz	0959	29.5	#-678
	+esPz	0959	42.6	#-678
	+epz	1100	28.9	#-679
	+ePKiKPz	1105	55.4	#-679
	-ipz	1454	34.8	#-680
	+esPz	1454	52.5	#-680
	-epz	1509	19.7	#-681
	-epPz	1509	26.9	#-681
	+epz	2018	06.4	#-682
	-epz	2316	28.8	#-683
21	+esPz	2316	42.4	#-683
	+epz	0635	00.2	
	+epz	2033	03.8	
	-epz	0817	01.8	#-684
	+epPz	1052	14.2	#-685
22	+epz	1118	02.4	
	+ipz	1827	48.2	#-686
	+epPz	1827	57.9	#-686
	-epPKiKPz	1833	05.1	#-686
	+esPKiKPz	1833	08.6	#-686
23	+epz	0113	58.5	#-687
	-epz	0902	51.5	#-688
	+epz	2202	23.8	#-689
	+ePKiKPz	2207	10.8	#-689
	+esPKiKPz	2249	50.0	#-690
24	+ePPz	2250	03.5	#-690
	-epz	0111	10.8	#-691
	+ipz	0512	07.0	#-692
	-ipz	1753	29.4	#-693
	+ipz	2007	08.6	#-694
25	+ePPz	2010	13.8	#-694
	-epz	1149	24.9	#-695
	+ePKiKPz	1241	59.4	#-696
	+epPKiKPz	1242	12.9	#-696
	+ePKiKPz	1621	20.2	#-697
	-epz	1647	59.2	#-698
	+epPz	1648	08.0	#-698
	+esPz	1648	11.9	#-698
	-ipz	2209	09.2	#-699
	+ePKiKPz	0040	05.0	#-700
26	+ePPz	0040	31.4	#-700
	+epz	0639	42.0	#-701
	+epz	1108	18.9	#-702
	+ePKiKPz	1848	05.5	#-703
	+esPKiKPz	1848	20.5	#-703
27	-epz	2254	47.3	#-704
	-ePKPdz	0752	30.0	#-705
	-ePKPabz	0753	41.0	#-705
	+epz	1728	34.3	#-706
	+epz	1858	05.6	#-707

Date	Phase	UTC time		Remarks
		h m	s	
29	-epz	1609	38.2	#-708
	-epPKiKPz	1615	06.8	#-708
30	+epz	0028	08.0	#-709
	+epPz	0028	17.2	#-709
	+ePKiKPz	0532	20.2	#-710
	-epz	0805	56.9	#-711
	-esPz	2001	47.8	#-712
	+ePKiKPz	2213	51.5	#-713
	+epz	2231	37.6	#-714
31	+ipz	0709	36.4	#-715
	-epPz	0711	42.3	#-715
	esh	0719	34.7	#-715
	+ipz	0954	57.4	#-716
	-esPz	0955	12.1	#-716
	+ePKPabz	1244	13.0	#-717
	-epz	1524	16.8	#-718
	+isPz	1524	30.5	#-718
	-epz	1654	42.4	#-719
	+epPz	2230	21.5	#-720
Aug. 1	+epz	0310	49.2	#-721
	+epz	0315	53.2	#-722
	-epz	1036	12.8	#-723
	-esPz	1038	27.4	#-723
	-epz	1445	06.5	#-724
	+epz	2221	41.4	#-725
	-ePcPz	2221	58.6	#-725
2	-epz	0115	55.0	#-726
	-epPz	0116	04.5	#-726
	+epz	0718	24.9	#-727
	+epz	0857	25.8	#-728
3	-ePKPdfz	0000	54.3	#-729
	+iPKPbcz	0001	02.0	#-729
	-epPKPbcz	0001	06.2	#-729
	+epz	1128	34.2	#-730
	+esPz	1128	48.6	#-730
	+epKiKPz	1134	32.0	#-730
4	+epz	0045	10.0	#-731
	+ePcPz	0045	16.1	#-731
	+esPz	0112	03.0	#-732
	+ePKiKPz	0116	49.7	#-732
	+epz	0157	57.2	#-733
	+ePcPz	0157	59.7	#-733
	+esPz	0258	55.5	#-734
	+epz	0343	44.9	#-735
	+epKiKPz	0351	33.7	#-735
	+epz	0548	25.6	#-736
	+epz	1318	47.5	#-737
5	+epz	0407	50.2	#-738
	-ipz	0529	04.3	#-739
	+isPz	0529	40.0	#-739

Date	Phase	UTC time		Remarks
		h m	s	
	-esPz	0739	27.4	#-740
	-ePKPdfz	1128	26.8	#-741
	+epKiKPz	1128	42.5	#-741
	+epz	2035	43.6	#-742
6	+epPz	0402	32.8	#-743
	+ePcPz	0403	29.0	#-743
	-epPz	0419	46.5	#-744
	+ePKiKPz	0657	22.0	#-745
	+ePcPz	0656	02.7	#-746
	-epPz	0754	02.6	#-747
	-epz	0808	06.3	#-748
	-epPz	1230	36.6	#-749
	+epPz	1340	04.4	#-750
	+ipz	1721	34.0	#-751
	+ePKPabz	2050	54.5	#-752
7	-epz	0334	15.7	#-753
	+esPKiKPz	0340	13.0	#-753
	+esPz	2040	20.0	#-754
	-epz	2155	12.4	
	-epz	2358	12.6	
8	-ePcPz	0914	50.6	#-755
	+ePKiKPz	0920	09.6	#-755
	+esPz	1321	21.5	#-756
	-epz	1813	44.1	#-757
9	+ePcPz	0219	29.5	#-758
	+epPz	0219	35.5	#-758
	+esPz	0219	40.6	#-758
	-epz	0320	50.5	#-759
	+esPz	0321	09.6	#-759
	+epz	0345	40.3	#-760
	+epPz	0346	09.2	#-760
	+ePcPz	0658	02.2	#-761
	+ePcPz	0758	11.6	#-762
	-ePPz	0801	19.2	#-762
	+esPKiKPz	1328	50.0	#-763
	-epz	1332	24.6	#-764
	+esPz	1332	37.9	#-764
	+epz	1710	53.5	#-765
	+epz	1910	41.8	#-766
	+epPz	1911	16.0	#-766
	+ePKiKPz	1915	30.5	#-766
10	+epPz	1331	21.4	#-767
	+epz	1517	34.7	#-768
	+epPz	1517	42.2	#-768
	-ipz	1637	19.6	#-769
	+iPcPz	1637	20.3	#-769
	+epPz	1747	10.2	#-770
	-ePcPz	1752	15.4	#-771
	+esPz	1752	24.9	#-771
	+esPz	1821	13.5	#-772

Date	Phase	UTC time		Remarks	Date	Phase	UTC time		Remarks
		h	m	s			h	m	s
	+ePKiKPz	1826	47.4	#-772		+epz	1456	52.2	#-800
	+esPz	2128	29.1	#-773		+epPz	1857	45.0	#-801
	+ePcPz	2128	39.1	#-773	17	-epz	1410	15.8	#-802
11	-epz	0844	12.2	#-774		+epz	1854	44.2	#-803
	-ePcPz	1313	43.6	#-775	18	+epz	0215	46.4	#-804
	+epPz	1313	50.4	#-775		+ePKiKPz	0553	40.5	#-805
	+ePKiKPz	1603	05.2	#-776		+epPz	1321	47.6	#-806
12	+epz	0028	45.1	#-777		+ePnz	1439	16.8	#-807
	+ePPz	0445	44.3	#-778		+epz	1450	29.4	#-808
	+epz	0625	50.7	#-779	19	+epz	0422	36.1	#-809
	-ePKiKPz	0928	31.6	#-780		+esPKiKPz	0431	05.5	#-809
	-esPKiKPz	0929	17.5	#-780		+epz	0600	07.2	#-810
	-ipz	1038	23.4	#-781		-epz	1238	14.5	#-811
	+epz	1218	40.7	#-782		-epz	1312	41.0	#-812
	+epPdiffz	1608	40.0	#-783		+epz	1959	42.5	
	-ePKiKPz	1612	36.7	#-783	20	+epPKiKPz	0431	22.0	#-813
	-epz	1939	30.1	#-784		+epz	0743	48.3	#-814
	+epz	2211	39.2	#-785		-ePcPz	0743	51.5	#-814
13	-epz	0120	11.0	#-786		-epz	2008	46.4	#-815
	-epz	0833	58.2	#-787		-epz	2307	33.5	#-816
	+esPz	0834	11.3	#-787	21	+epz	0648	20.9	#-817
	+ePPz	0837	27.2	#-787		-ipz	0703	19.0	
	+ePKiKPz	0838	52.0	#-787		+epPz	0928	15.4	#-818
	+epz	1656	57.0			+epz	0931	46.4	#-819
	+epz	2001	32.5			+epz	1233	34.0	#-820
	+epz	2027	27.5	#-788		+epz	1342	02.0	#-821
	+esPKiKPz	2030	51.3	#-788		-epPz	1455	18.5	#-822
	+ePPz	2114	19.9	#-789		+epz	1731	55.0	#-823
	+epPz	2345	54.4	#-790		+epz	2140	07.0	#-824
	+esPz	2345	58.0	#-790	22	-epPz	0051	08.5	#-825
14	-ipz	0042	29.1	#-791		+epz	0327	25.0	#-826
	+epPz	0042	36.2	#-791		+esPz	0327	35.7	#-826
	-esPz	0042	40.3	#-791		+epz	0450	41.0	#-827
	+epz	0343	35.2	#-792		+epPz	0450	50.5	#-827
	+esPz	0343	47.1	#-792		-epz	0539	14.0	#-828
	+epPKiKPz	0349	31.5	#-792		+epz	1338	56.5	#-829
	+esPKiKPz	0349	35.0	#-792		-esPz	1339	06.0	#-829
	+epz	0747	56.1	#-793		+esPKiKPz	1345	20.3	#-829
	-ePcPz	0747	57.9	#-793		+epz	1353	10.3	#-830
	+epz	1501	22.1	#-794		+epz	1426	12.0	#-831
15	+epPz	0537	19.6	#-795		-esPz	1426	21.5	#-831
	-ipz	1519	50.2	#-796		+ePcPz	1426	29.5	#-831
	+epPz	1521	54.2	#-796		+epz	1512	16.6	#-832
	-epz	1742	05.1	#-797		-ePcPz	1528	42.0	#-833
	+esPz	1742	49.7	#-797		-epz	1743	55.3	#-834
16	+epz	0225	30.9	#-798		+epPz	1744	05.5	#-834
	+ePPz	0227	57.0	#-798		-epz	2324	58.7	#-835
	+epz	0558	06.1	#-799	23	+epz	0105	09.9	
	+epPz	0558	09.0	#-799		+epz	0531	39.8	#-836
	+ePcPz	0559	08.8	#-799		+epPz	1817	34.8	#-837

Date	Phase	UTC time		Remarks	Date	Phase	UTC time		Remarks
		h	m	s			h	m	s
24	+epPz	2158	25.5	#-838	31	-epPz	0824	55.1	#-875
	-exz	0158	21.3	#-839		-ePKiKPz	0832	16.5	#-875
	+epz	0601	51.7	#-840		+epPdiffz	1154	41.5	#-876
	+epPz	0602	01.8	#-840		+esPz	2004	52.2	#-877
	+epz	1113	45.1	#-841		+epz	2248	05.9	#-878
	+epPz	1115	49.0	#-841		+esPz	2248	17.2	#-878
	+epz	1115	49.0	#-842		-epPz	0134	46.9	#-879
	+epz	1847	23.8	#-843		-epz	0206	28.2	#-880
	+epz	2127	47.2	#-844		-epz	0930	43.1	#-881
	-ePKiKPz	2133	57.6	#-844	Sep.1	+ePKPdz	1236	09.9	#-882
	+epz	2145	11.4	#-845		+ePKPbcz	1236	13.7	#-882
	+ePcPz	2145	30.5	#-845		-epKiKPz	1236	47.3	#-882
	+epz	2151	57.0	#-846		+epPKPabz	1236	50.1	#-882
	+esPz	2152	08.0	#-846		+epz	2129	18.2	#-883
25	+epz	0324	30.5	#-847		+ePKiKPz	2256	31.5	#-884
	+ePKPdz	1340	23.5	#-848		+esPKiKPz	2256	39.2	#-884
	+epz	1942	18.9	#-849		-epz	2346	12.0	#-885
	+epz	2051	25.0	#-850	2	-epz	0007	27.2	#-886
26	-epz	0401	42.4	#-851		-epz	0237	40.3	#-887
	-epz	0830	35.5	#-852		+epz	0840	23.8	
	-epz	1419	42.5	#-853		+epz	0943	48.5	#-888
	+epz	1756	49.9	#-854		-epPz	0943	58.5	#-888
	-epz	1806	44.9	#-855		+epz	1016	32.8	#-889
	-esPKPdz	1848	13.5	#-856		+epPz	1016	36.8	#-889
	+epz	1955	26.0	#-857		-epPz	1123	36.0	#-890
27	-epz	0129	44.2	#-858		+ePcPz	1124	29.8	#-890
	+epPz	0129	51.0	#-858		+eScPz	1128	28.4	#-890
	+esPz	0129	55.5	#-858	3	+epz	1558	48.0	#-891
	+ePKiKPz	0139	39.5	#-859		-epz	0013	48.1	#-892
	+epz	0143	53.3	#-860		+epz	1418	02.0	#-893
	+epz	0244	39.8	#-861		+ePKiKPz	1424	14.9	#-893
	+ePKiKPz	0249	35.0	#-861		-epz	2104	29.2	#-894
	+esPKiKPz	0249	49.3	#-861		-epz	2123	45.5	#-895
	-epz	1110	22.5	#-862	4	+epz	1314	47.5	#-896
	+epz	1301	50.3	#-863		+epPz	1314	57.3	#-896
	+epz	1344	15.4	#-864		-esPdiffz	1510	40.4	#-897
	-epz	1419	34.7	#-865		+esPKPdz	1513	55.0	#-897
	+epz	1454	37.5	#-866	5	+ePKiKPz	0231	29.6	#-898
	+ePPz	2356	07.6	#-867		+epz	0334	21.9	#-899
28	+epz	0108	28.3	#-868		+epz	0506	42.2	#-900
	-ipz	0707	53.9	#-869		+epPz	0506	51.2	#-900
	+epPz	0708	11.0	#-869		-ipz	0729	25.9	#-901
	+epz	1241	40.1	#-870		+esPKiKPz	0734	48.3	#-901
29	-epPz	0334	48.5	#-871		+epz	1120	42.5	#-902
	+esPz	0334	50.0	#-871		-epz	1913	36.9	#-903
	+epz	1406	13.2	#-872		-epPz	1913	45.5	#-903
	-epz	2226	51.8	#-873		-epz	1956	32.0	#-904
	+epz	2254	29.0	#-874	6	-epz	0354	33.2	#-905
30	-ePnPz	2255	50.0	#-874		-ipz	0256	48.4	#-906
	+ipz	0824	44.4	#-875	7	+ePPz	0259	14.4	#-906

Date	Phase	UTC time		Remarks
		h m	s	
8	+epz	1549	17.0	#-907
	+epz	1027	13.0	#-908
	+epz	1627	18.5	#-909
	+esPz	1643	22.7	#-910
9	+ipz	0906	11.0	#-911
	+epz	1408	32.5	
10	-epz	1553	03.6	#-912
	+epz	0653	20.5	#-913
	+esPz	0728	12.0	#-914
	-ipPz	1408	37.5	#-915
11	-epz	1457	21.7	#-916
	-epPz	1502	53.5	#-917
	+epPz	0140	28.4	#-918
	+ePKiKPz	0931	55.0	#-919
12	+epz	1509	51.5	#-920
	-epz	0024	10.8	#-921
	-epz	0117	47.0	#-922
	+epz	0809	50.0	#-923
13	-ipz	0900	15.0	#-924
	-ePKPabz	1310	48.2	#-925
	-esPKPdz	1510	44.8	#-926
	+ePKPabz	1511	08.2	#-926
	+ePKiKPz	2242	31.3	#-927
	-ePKPdz	2250	19.3	#-928
	+ePKPabz	2250	55.4	#-928
	-epz	0029	48.3	#-929
	+ePPz	0141	46.3	#-930
	+ePKiKPz	0144	34.5	#-930
	+epz	0400	07.9	#-931
	+epz	0931	56.4	#-932
14	+ePPz	0934	09.2	#-932
	+epz	1312	55.0	#-933
	+epPz	1313	06.6	#-933
	+epPdiffz	1327	43.0	#-934
	-epz	2032	53.3	#-935
	+epz	0258	00.3	#-936
	+ePKPabz	0505	44.5	#-937
	+esPKPabz	0505	52.3	#-937
	+epz	0630	25.0	#-938
	+epz	0703	35.6	#-939
	-ePKiKPz	0708	47.6	#-939
	-ipz	1159	14.4	#-940
15	+iPcPz	1159	20.5	#-940
	-ipPz	1159	26.7	#-940
	+ePPz	1202	07.1	#-940
	-ePKiKPz	1204	51.8	#-940
	-epPKiKPz	1205	06.4	#-940
	+epz	1530	01.1	#-941
	+epPz	1530	02.5	#-941
	+epz	0123	03.4	#-942

Date	Phase	UTC time		Remarks
		h m	s	
	-epz	0827	07.3	#-943
	+ePPz	0830	48.1	#-943
	+ipz	1409	40.8	#-944
	+esPKiKPz	1416	10.9	#-944
16	+epz	1517	11.9	#-945
	+epz	2159	49.0	#-946
	+epPKiKPz	0219	16.9	#-947
	+epz	0457	25.0	#-948
17	+epPKPabz	2340	48.0	#-949
	+epz	0822	11.0	#-950
	+ePKPdz	1132	42.0	#-951
	-ePKPbcz	1132	43.5	#-951
18	+epPKPbcz	1132	57.0	#-951
	+ePPz	1240	18.9	#-952
	+epz	1553	25.0	#-953
	+ePKiKPz	1558	34.6	#-953
	+epz	2050	34.0	#-954
	+ePcPz	2050	42.5	#-954
	+epz	0032	19.5	#-955
	+epz	0231	38.5	#-956
	+epPz	0232	10.8	#-956
	-ePPz	0234	51.6	#-956
	+ePcPz	0702	17.5	#-957
	+epz	1046	30.2	#-958
20	-epPz	1046	39.6	#-958
	+epz	0213	29.2	#-959
	-epz	0253	01.2	#-960
	-ePcPz	0255	15.6	#-960
21	+epz	0400	18.9	#-961
	+epPz	0400	30.4	#-961
	+epz	0837	26.3	#-962
	+epz	2029	02.2	#-963
	+epz	0147	46.2	#-964
	+ePcPz	0147	47.7	#-964
	+epz	0925	43.7	#-965
	-epz	1529	23.0	#-966
	+ePcPz	1529	25.5	#-966
	+esPz	1529	35.5	#-966
	+iPKPabz	0016	57.1	#-967
	-epz	0239	38.7	#-968
22	eSKSach	0347	35.5	#-969
	-epz	1054	55.6	#-970
	-epz	1629	57.0	#-971
	+epz	1053	24.4	#-972
23	+ePPz	2246	16.9	#-973
	-esPKiKPz	2248	08.7	#-973
	+epPKiKPz	0146	32.8	#-974
	-epz	0500	43.4	#-975
24	+epPz	0500	50.2	#-975
	-epz	1828	37.4	#-976

Date	Phase	UTC time		Remarks
		h m	s	
25	+epz	0541	08.0	#-977
	+epz	1509	24.5	#-978
	+epPdiffz	2331	27.1	#-979
26	-esPz	0347	12.0	#-980
	+ePPz	0349	41.0	#-980
	+epz	0603	29.2	#-981
	+ipz	1100	49.9	#-982
	+epz	1610	10.6	#-983
	+epz	2022	50.9	#-984
	+ipz	2142	17.5	#-985
27	+epz	0208	17.7	#-986
28	+epz	0505	42.8	#-987
	+epz	1200	37.0	#-988
29	-esPz	0034	47.3	#-989
	-epz	0252	41.0	#-990
	+epz	0545	22.9	#-991
	+epPz	0811	08.0	#-992
	+esPz	0811	09.7	#-992
	+epz	0821	09.9	#-993
	+epz	0901	27.5	#-994
	-ePKiKPz	0906	39.9	#-994
	-epz	1119	34.2	#-995
	+epz	2202	33.7	#-996
30	+epz	0616	17.5	#-997
	+ePKiKPz	1101	15.2	#-998
	-epz	1913	53.5	#-999
	+epz	1934	57.0	#-1000
	-epz	2139	05.4	#-1001
Oct.1	-epz	0424	13.7	#-1002
2	+epz	0101	14.4	#-1003
	-epz	0744	07.2	#-1004
	-epz	1050	14.2	#-1005
	+epz	1738	36.1	#-1006
3	-epz	0243	15.6	#-1007
	-epz	0338	53.3	#-1008
	+ipz	0440	38.9	#-1009
	+epz	1059	01.2	#-1010
	-epz	1136	45.3	#-1011
	-epz	1940	55.6	#-1012
4	-epz	0846	35.0	#-1013
	+ePPz	1718	28.4	#-1014
5	-epz	1359	17.1	#-1015
	-epz	1557	56.5	#-1016
	-epz	1707	59.1	#-1017
	-epz	1807	55.5	#-1018
	+ePKiKPz	2305	40.4	#-1019
	-epPz	2304	05.5	#-1020
6	-ipz	0927	32.5	#-1021
7	+epz	0234	18.4	#-1022
	+epPz	0322	50.0	#-1023

Date	Phase	UTC time		Remarks
		h m	s	
	+epPz	0356	54.3	#-1024
	-epz	0500	34.8	#-1025
	+epz	0755	20.6	#-1026
	-epz	0823	45.1	#-1027
	-epz	1115	49.8	#-1028
	-epz	1225	44.6	#-1029
	-ePKPdz	2306	01.8	#-1030
	-ePKiKPz	2306	06.4	#-1030
8	-ipz	0044	20.9	#-1031
	-esPKPdz	0358	27.3	#-1032
	-ePKPdz	0638	32.4	#-1033
	+epz	1659	08.0	#-1034
	+esPz	1659	20.7	#-1034
	+epz	1705	27.6	#-1035
	-ePKPdz	1834	02.5	#-1036
	-iPKPbcz	1834	06.4	#-1036
	-ipPKPbcz	1834	22.0	#-1036
	-ePKPdz	1840	15.5	#-1037
	-ePKPbcz	1840	19.9	#-1037
	-iPKPabz	1840	24.0	#-1037
	-esPKPbcz	1840	45.4	#-1037
	+epz	1938	15.9	#-1038
	+epz	2158	25.9	#-1039
	-esPz	2158	39.5	#-1039
	-epKiKPz	2203	26.9	#-1039
9	+epz	0210	44.7	#-1040
	-epz	1045	37.2	#-1041
	-epz	1445	42.8	#-1042
	-epz	1508	04.2	#-1043
	-epz	1758	04.5	#-1044
	-ePcPz	1758	07.4	#-1044
	+epPz	1758	13.2	#-1044
	-esPz	1758	19.1	#-1044
	-epz	1810	40.5	#-1045
	+ePcPz	1810	44.7	#-1045
	+epz	2020	43.0	#-1046
	+epPz	2020	53.3	#-1046
	+epz	2024	32.4	#-1047
	+esPz	2024	45.5	#-1047
	eSKSach	2034	52.6	#-1047
	-epz	2032	25.7	#-1048
	+ePKiKPz	2037	39.0	#-1048
	+esPKiKPz	2037	53.1	#-1048
	-epz	2033	08.9	#-1049
	+esPz	2033	21.0	#-1049
	-epz	2054	37.0	#-1050
10	+ePKPdz	0013	05.0	#-1051
	-epPKPdz	0013	17.8	#-1051
	-ePKPbcz	0152	26.7	#-1052
	-ePKPabz	0152	30.2	#-1052

Date	Phase	UTC time		Remarks	Date	Phase	UTC time		Remarks
		h	m	s			h	m	s
	-epz	0345	55.8	#-1053		+epPKiKPz	2010	46.3	#-1086
	+ipz	0720	18.7	#-1054	17	+ipz	0245	41.7	#-1087
	+epz	0909	01.5	#-1055		+isPz	0246	11.3	#-1087
	+epPz	1014	58.2	#-1056		+epz	1304	44.0	#-1088
	+epz	1148	38.3			-epz	2030	41.0	#-1089
	+epz	1630	19.9	#-1057		-ipz	2036	49.1	#-1090
	+esPKiKPz	1638	20.0	#-1057		-epz	2211	18.9	#-1091
	eSKSach	1639	48.0	#-1057	18	-epz	1305	37.2	#-1092
	esh	1639	53.5	#-1057	19	-epz	0341	12.5	#-1093
	+epz	1735	31.5	#-1058		+epz	0944	10.2	#-1094
11	+epz	0627	09.1	#-1059		+iPKPdfz	1109	32.4	#-1095
	+epz	1115	54.8	#-1060		+epz	1157	15.3	#-1096
	+epPz	1116	06.8	#-1060		+epPz	1157	23.8	#-1096
	+epz	1238	49.0	#-1061		-epz	1311	56.0	#-1097
	-ePcPz	1238	51.3	#-1061		-epPz	1311	57.5	#-1097
	+epz	1958	04.0	#-1062		-ipz	1546	11.3	#-1098
12	+ipz	0051	06.8	#-1063		-epz	2047	27.8	#-1099
	+epz	0432	17.6	#-1064		+epz	2155	04.1	#-1100
	+ePKPdfz	0522	36.5	#-1065	20	+epz	0203	01.2	#-1101
	-ePKPabz	0523	27.0	#-1065		-epz	0243	31.5	#-1102
	-epz	0838	17.4	#-1066		-ipz	1338	08.5	#-1103
	-epz	0947	12.0	#-1067		+iPcPz	1338	22.2	#-1103
	-epPz	0947	21.5	#-1067		esh	1347	40.5	#-1103
	+esPz	0947	25.0	#-1067		+epz	1416	09.0	#-1104
	+epz	1106	31.6	#-1068		+ePKiKPz	1421	26.0	#-1104
	-epPz	1106	14.5	#-1068		+esPKiKPz	1421	40.7	#-1104
	+ePdiffz	1516	33.5	#-1069		+epPz	1453	52.1	#-1105
	-ePKiKPz	1520	38.4	#-1069		-epPKiKPz	1458	30.2	#-1105
	-esPKiKPz	1520	55.0	#-1069		-epz	1801	57.6	#-1106
	+epz	2057	26.4	#-1070	21	-ipz	0040	33.4	#-1107
	-epz	2231	43.3	#-1071		+epz	0143	08.5	#-1108
13	+epz	0043	35.8	#-1072		-epz	0353	18.5	#-1109
	-epz	0739	36.9	#-1073		+epPz	0540	17.1	#-1110
	-ipz	1501	48.3	#-1074		+esPz	0540	23.2	#-1110
	-epz	1639	55.2	#-1075		+epz	1250	03.5	#-1111
	-ipPz	1640	06.5	#-1075		-esPz	1442	11.5	#-1112
	+epz	2012	03.3	#-1076		+epz	1552	43.5	#-1113
14	-ipz	0122	21.5	#-1077		-epz	1644	38.2	#-1114
	-ipz	0404	49.8	#-1078		+epz	1915	16.4	#-1115
	+ePKiKPz	0410	42.0	#-1078	22	+epz	0140	06.6	#-1116
	+ipz	1539	32.6	#-1079		+epz	0257	45.5	#-1117
15	-epz	0400	27.4	#-1080		+ePKiKPz	0612	16.9	#-1118
	+epz	1227	24.7	#-1081		-ipz	0658	24.0	#-1119
	+epz	1530	39.1	#-1082		eSKSach	0707	46.7	#-1119
	-epz	1626	23.1	#-1083		esh	0708	02.0	#-1119
	-esPz	1626	37.1	#-1083		-epz	2124	13.5	#-1120
	-ePKiKPz	1631	21.1	#-1083		+epPKiKPz	2228	45.0	#-1121
16	+epz	1730	13.3	#-1084		+ePPz	2306	13.6	#-1122
	+epz	1740	33.0	#-1085	23	+epz	0053	43.6	#-1123
	+epz	2005	48.8	#-1086		+ePKiKPz	0058	30.2	#-1123

Date	Phase	UTC time		Remarks
		h m	s	
24	+ipz	0359	46.5	#-1124
	-ePKiKPz	0404	32.3	#-1124
	-epPKiKPz	0404	40.1	#-1124
	-esPKiKPz	0404	47.0	#-1124
	+ePKPdFz	1153	48.8	#-1125
	-ePKiKPz	1153	52.0	#-1125
	-ipz	1633	47.2	#-1126
	+epPz	1634	55.1	#-1126
	+epz	1825	49.7	#-1127
	-eScPz	1830	34.3	#-1127
	+epz	2258	29.8	#-1128
	-epz	2315	13.0	#-1129
	+exz	2329	48.0	#-1130
	+epz	0004	16.1	#-1131
	+epz	0047	06.7	#-1132
	-epz	0209	16.9	#-1133
	+epPz	0209	26.2	#-1133
	+epz	0333	16.5	#-1134
	+epz	1511	18.9	#-1135
	+epz	2119	02.0	#-1136
	+epz	0705	06.2	#-1137
	-epPz	0705	15.0	#-1137
	-epz	1733	55.2	#-1138
26	-epz	0137	21.2	#-1139
	-ePdiffz	0859	52.0	#-1140
27	-epz	1418	22.3	#-1141
	+ipz	1912	01.3	#-1142
	-epPz	1912	52.0	#-1142
	-epz	2318	25.0	#-1143
27	-eSKPdFz	2206	21.5	#-1144
28	+epz	0734	16.8	#-1145
	-epz	0832	03.2	#-1146
29	-ePKiKPz	0838	12.3	#-1146
	-epz	1735	33.8	#-1147
	-ipz	1909	05.9	#-1148
	-epPz	1909	31.7	#-1148
	-epz	2036	24.0	#-1149
	+ePKiKPz	2041	30.6	#-1149
	-epz	2202	47.5	#-1150
	+epz	0305	16.5	#-1151
	-exz	1637	45.4	#-1152
	+ePKPdFz	1801	36.9	#-1153
	-ePKPbcz	1801	47.0	#-1153
	+esPKPbcz	1802	01.5	#-1153
30	-epz	1815	47.7	#-1154
	+epz	2112	13.6	#-1155
	eSKSach	2121	47.0	#-1155
	-epz	2255	25.8	#-1156
	+epz	0109	26.3	#-1157
	+epz	1546	34.8	#-1158

Date	Phase	UTC time		Remarks
		h m	s	
31	-ePKPdFz	2122	51.3	#-1159
	+ipz	0440	38.8	#-1160
	-ipz	0443	13.5	#-1161
	+epPz	0443	47.0	#-1161
	+epz	0510	15.0	#-1162
	-esPz	0510	30.2	#-1162
	+ePcPz	0510	36.0	#-1162
	-ipz	0923	24.5	#-1163
	-ipPz	0923	35.3	#-1163
	+epz	2216	56.4	#-1164
	+isPz	2217	11.9	
	-epz	2227	22.0	#-1165
	-epz	2310	22.5	#-1166
	+esPz	2310	35.5	#-1166
	-epz	0059	44.9	#-1167
	+epz	0731	26.7	#-1168
Nov.1	-epz	1233	47.6	#-1169
	-epz	1645	59.6	#-1170
	+epz	2255	05.5	#-1171
	+epPz	2255	14.6	#-1171
	+epz	0344	59.2	#-1172
	+epz	0517	08.2	#-1173
	-epz	2230	57.8	#-1174
	-epz	0047	41.6	#-1175
	-esPz	0047	51.8	#-1175
	-epz	0153	43.5	#-1176
	+epz	0351	36.7	#-1177
	-esPz	0351	47.4	#-1177
3	-ipz	1000	12.2	#-1178
	+epz	1723	25.0	
	+epz	2202	55.5	#-1179
	+epPz	2203	05.3	#-1179
	+epz	2326	28.6	
	-epz	1520	54.5	
	+epPdiffz	1737	37.5	#-1180
	+epz	1948	48.0	#-1181
	+epz	2300	29.9	#-1182
	+ePcPz	2300	40.4	#-1182
	+esPz	0121	20.8	#-1183
	-epz	0704	13.9	#-1184
5	-epz	0920	22.6	#-1185
	-epz	1326	31.2	
	+ipz	2319	09.3	#-1186
	eSKSach	2328	44.9	#-1186
	esh	2329	08.0	#-1186
	-ipz	0623	52.6	#-1187
	+epPz	0624	04.2	#-1187
	+epz	1321	54.3	#-1188
	+epz	1706	26.5	#-1189
	+ePcPz	1706	29.8	#-1189
6				

Date	Phase	UTC time		Remarks	Date	Phase	UTC time		Remarks
		h	m	s			h	m	s
	+epz	1751	30.5	#-1190		-epPKPdz	1006	50.5	#-1226
	-epz	1903	10.5	#-1191		-ePKPbcz	1103	16.3	#-1227
	-ipz	2027	08.4	#-1192		+epPKPbcz	1103	27.0	#-1227
	-esPz	2027	19.3	#-1192		+lpz	1614	37.8	#-1228
	+lpz	2226	11.4	#-1193		eSKSach	1624	14.4	#-1228
7	+epz	0746	52.5	#-1194		esh	1624	39.7	#-1228
	+epPz	0747	03.3	#-1194	14	+ePKiKPz	0944	44.0	#-1229
	+epz	0818	27.5	#-1195		+ePPz	0945	26.8	#-1229
	+epz	0951	45.2	#-1196		-eSKPdz	0948	21.0	#-1229
	+epz	1258	15.8	#-1197		+ePPz	1117	30.0	#-1230
	+epz	1304	23.0	#-1198		+epz	1351	47.8	#-1231
	+epPz	1304	30.2	#-1198		-epz	1705	13.1	#-1232
	+epz	1337	31.5	#-1199		+epz	1725	04.5	#-1233
	-epz	1622	01.0	#-1200		+ePcPz	1725	11.0	#-1233
8	+epz	0403	38.9	#-1201		+epPz	1725	25.0	#-1233
	+ePnPnz	0404	04.8	#-1201		+epz	1815	03.6	#-1234
	+epz	0705	26.0	#-1202		+epz	1819	34.6	#-1235
	+epPz	0705	34.4	#-1202	15	+ePcPz	0115	05.0	#-1236
	-esPz	0705	37.6	#-1202	16	-epz	0949	50.5	#-1237
	+ePcPz	0807	56.8	#-1203		-esPz	0949	54.0	#-1237
	-epz	1010	19.6	#-1204		-epz	1249	43.6	#-1238
	+epPz	1010	29.7	#-1204	17	+epz	0141	50.4	#-1239
	+exz	1135	33.2	#-1205		+epz	0546	13.5	#-1240
	-epz	1751	05.4	#-1206		-epz	1013	25.0	#-1241
	-esPz	2259	29.3	#-1207		+esPz	1914	51.0	#-1242
	-epz	2303	35.0	#-1208		+ePPz	1918	02.0	#-1242
	-epPz	2303	42.1	#-1208		-epz	2100	48.3	#-1243
	-esPz	2303	51.3	#-1208		+epz	2218	19.9	#-1244
9	+ipz	0507	06.4	#-1209		-epPz	2218	23.0	#-1244
	+ePcPz	0507	39.1	#-1209		-esPz	2218	24.5	#-1244
	-epz	1116	36.0	#-1210		-ePcPz	2220	15.6	#-1244
	+epz	1303	21.9	#-1211	18	+epz	0317	15.3	#-1245
	-epPz	1303	29.0	#-1211		+epPz	0317	20.0	#-1245
	-epz	1920	46.5	#-1212		+ePnPnz	0318	10.5	#-1245
10	+epz	0439	29.4	#-1213		+epz	0506	33.9	#-1246
	-epz	0510	00.5	#-1214		-epz	0550	20.2	#-1247
	-esPdiffz	1724	46.0	#-1215		-ePnPnz	0551	14.8	#-1247
	-ePnz	2128	58.0	#-1216		-ePPz	2219	09.5	#-1248
11	+epz	0615	15.2	#-1217	19	-epz	0511	37.6	#-1249
	+epPz	0615	25.2	#-1217		-esPKiKPz	0516	54.9	#-1249
	+esPz	0615	29.0	#-1217	20	-epz	0846	07.4	#-1250
	-epz	1848	22.7	#-1218		+epz	1044	30.0	#-1251
	-epPz	2002	25.2	#-1219		+epz	1937	08.0	#-1252
12	+epz	0126	55.6	#-1220		-ePcPz	1938	55.9	#-1252
	+ePPz	0513	41.5	#-1221		-epz	2120	43.0	#-1253
	+esPz	0704	48.5	#-1222	21	-epz	0219	08.5	#-1254
	+epz	1054	33.0	#-1223		+epz	0225	20.5	#-1255
	-esPKiKPz	1102	34.4	#-1223		+epz	1131	43.0	#-1256
	-epz	1804	28.9	#-1224	22	-ipz	0429	15.8	#-1257
13	+epz	0812	36.3	#-1225		-iPcPz	0429	25.5	#-1257

Date	Phase	UTC time		Remarks
		h m	s	
	+epz	0538	10.2	
	+epz	1114	22.5	
	+epz	1255	27.2	#-1258
	-exz	1329	22.5	
	-epz	1540	07.4	#-1259
	+epz	2335	19.3	#-1260
	-esPz	2335	33.1	#-1260
	+ePPz	2338	51.6	#-1260
	+epKIKPz	2340	25.8	#-1260
	-epz	2337	45.0	#-1261
	+ePcPz	2337	48.5	#-1261
	+epPz	2337	55.0	#-1261
	-esPz	2338	01.5	#-1261
23	+epz	0204	39.6	#-1262
	+ePKIKPz	2101	17.5	#-1263
24	+esPdiffz	1647	54.8	#-1264
	+epz	2337	11.4	#-1265
	+ePPz	2340	30.0	#-1265
25	-ePKIKPz	1450	29.2	#-1266
26	+esPdiffz	1913	17.0	#-1267
	+epz	2200	59.2	#-1268
27	-epz	0105	24.2	#-1269
	-ipPz	0105	23.0	#-1269
	esh	0114	57.5	#-1269
	+epz	0131	34.8	#-1270
	-epz	0144	41.5	#-1271
	-epz	0238	18.3	#-1272
	-epPz	0238	25.3	#-1272
	-esPz	0238	32.0	#-1272
	+ePPz	0241	01.8	#-1272
	+ePKIKPz	0244	15.0	#-1272
	-epPz	1256	59.0	#-1273
	-ipz	1352	52.9	#-1274
	+epz	1811	15.4	#-1275
	-ipz	2322	03.6	#-1276
	+ePKIKPz	2327	18.3	#-1276
28	+epz	0100	11.4	#-1277
	-epz	0132	35.7	#-1278
	+epz	0354	19.6	#-1279
	-ePKIKPz	0359	18.4	#-1279
	-epz	0541	34.6	#-1280
	-epz	0913	55.5	#-1281
	+epz	0944	08.8	#-1282
	-epz	1016	46.0	#-1283
	+epz	1105	30.1	#-1284
	-epz	1202	38.7	#-1285
	+ePKIKPz	1207	45.0	#-1285
	+epz	1304	24.2	#-1286
	-ePKIKPz	1451	12.3	#-1287
	+ePPz	1452	33.0	#-1287

Date	Phase	UTC time		Remarks
		h m	s	
	-epz	1810	58.2	#-1288
	-esPz	2038	32.0	#-1289
29	+epz	0032	53.8	#-1290
	+epz	0042	14.4	#-1291
	-epPz	0042	22.0	#-1291
	+epz	0050	29.2	#-1292
	+esPz	1602	09.5	#-1293
	+ePPz	2216	07.5	#-1294
30	+epz	1019	53.1	#-1295
	+epz	1203	14.0	#-1296
	-epz	1424	43.4	#-1297
	+epz	1438	48.4	#-1298
	-epz	1534	40.9	#-1299
	-epz	1712	03.7	#-1300
	+epz	1735	49.0	#-1301
	-epz	1813	44.0	#-1302
	-epPz	1813	52.0	#-1302
	+ePcPz	1813	57.0	#-1302
	-epz	1835	44.6	#-1303
	-epz	1910	30.7	#-1304
	-epz	2035	39.8	#-1305
	-epPz	2035	47.2	#-1305
	-epz	2119	59.4	#-1306
	+epz	2331	15.5	#-1307
Dec.1	-epz	0130	51.4	#-1308
	+epPz	0131	00.8	#-1308
	+ePcPz	0131	04.4	#-1308
	-epz	0259	49.6	#-1309
	+epPz	0259	57.8	#-1309
	+esPz	0300	01.3	#-1309
	-epPz	0304	09.2	#-1310
	-epz	0520	44.1	#-1311
	-epPz	0520	53.5	#-1311
	-esPz	0520	57.4	#-1311
	-epz	1142	18.7	#-1312
	+ePPz	1144	56.7	#-1312
	+epPz	1600	40.5	#-1313
	+epPz	1607	20.0	#-1314
	+esPz	1607	22.5	#-1314
	+epPz	2056	03.4	#-1315
	+esPz	2056	19.2	#-1315
	+epz	2103	32.6	#-1316
2	-ipz	0300	46.7	#-1317
	-ePcPz	0300	47.5	#-1317
	esh	0311	30.0	#-1317
	+ePKIKPz	1320	48.0	#-1318
	+esPKPdfz	1321	35.3	#-1318
	-ePPz	1323	04.0	#-1318
3	+epz	1145	33.9	#-1319
	-esPz	1145	48.3	#-1319

Date	Phase	UTC time		Remarks	Date	Phase	UTC time		Remarks
		h	m	s			h	m	s
4	+epz	1337	00.8	#-1320		-epz	0629	12.2	#-1349
	-epPKiKPz	2342	52.9	#-1321		-iPKPbcz	0704	14.5	#-1349
	-epz	0609	42.6	#-1322		-ePKPabz	0704	22.4	#-1349
	-epPz	0609	50.6	#-1322		-epz	1847	40.6	#-1350
	-epz	0620	52.0	#-1323		-ePKiKPz	1853	24.1	#-1350
	-epz	0729	19.7	#-1324		-epz	1939	12.0	#-1351
	-epz	0731	35.0	#-1325		-ePKPdz	2048	14.5	#-1352
	+epz	0731	28.3	#-1326		-ePKiKPz	2355	41.4	#-1353
5	+epPdiffz	1823	38.3	#-1327	9	-epz	1303	17.4	#-1354
	+epz	0135	17.0	#-1328		+epz	1441	26.0	#-1355
	-epz	0145	45.0	#-1329		-ipz	1827	33.6	#-1356
	+epz	0207	19.0	#-1330		-ePKiKPz	1937	41.6	#-1357
	+esPz	0207	21.9	#-1330		-epz	2116	30.0	#-1358
	-epz	0751	02.9	#-1331	10	-ePKPdz	0438	47.0	#-1359
	+epz	1011	54.5	#-1332		+ePKiKPz	0438	53.0	#-1359
	-ePKiKPz	1553	28.6	#-1333		+ePKiKPz	0546	34.0	#-1360
6	+epz	1753	22.3	#-1334		-epz	1724	20.1	#-1361
	-epz	2037	27.9	#-1335		-ePKPdz	1855	53.1	#-1362
	-epz	2351	35.8	#-1336		+epPKPdz	1856	06.0	#-1362
7	+epz	0042	57.0	#-1337		eSKSach	2259	12.0	#-1363
	+esPz	0043	11.5	#-1337	11	+epz	1546	56.0	#-1364
	+epz	0443	10.7	#-1338		+ePKPdz	1815	19.5	#-1365
	+ePcPz	0443	43.2	#-1338		+ePKiKPz	1815	21.5	#-1365
	+epz	0446	19.0	#-1338	12	+ePdiffz	0601	09.9	#-1366
	+esPz	0447	20.5	#-1338		+esPKiKPz	0607	13.5	#-1366
	+epz	0525	35.0	#-1339		+epz	1143	28.9	#-1367
	+epz	1042	27.0	#-1340		-ipz	1305	58.3	#-1368
	-epz	1300	20.2	#-1341		-ipPz	1306	09.2	#-1368
	-ePnz	1300	23.1	#-1341		eSKSach	1316	19.1	#-1368
	-epPz	1300	25.0	#-1341		-ipz	1411	23.0	#-1369
	+esPnz	1300	27.8	#-1341		esh	1418	29.5	#-1369
	+esPz	1300	30.3	#-1341	13	+ipz	2001	48.9	#-1370
	+epz	1517	13.7	#-1342		+ePcPz	2003	11.7	#-1370
	+ePKiKPz	1523	07.6	#-1342		+epz	2331	04.4	#-1371
	+epz	1827	33.1	#-1343		-epz	0704	44.1	#-1372
	-ipz	1923	57.0	#-1344		-ePKiKPz	0709	42.5	#-1372
	+epPz	1924	25.6	#-1345		-esPKiKPz	0711	49.5	#-1372
	eSKSach	1934	11.5	#-1345		-epz	0736	58.0	#-1373
	esh	1934	19.7	#-1345		+ePcPz	0738	20.0	#-1373
	-ipz	1937	49.3	#-1345	14	-epz	1349	03.6	#-1374
	-ipPz	1937	51.1	#-1345		-ePPz	1351	26.3	#-1374
	-iPcPz	1938	31.0	#-1345		+ePnz	2315	58.3	#-1375
	-ePPz	1940	02.0	#-1345		-epz	2317	00.0	#-1375
	-eScPz	1942	32.0	#-1345		+epz	0034	19.0	#-1376
	+ePKiKPz	1944	48.2	#-1345		+epPz	0034	45.1	#-1376
	-epPKiKPz	1944	52.3	#-1345		-epz	0128	41.2	#-1377
	esh	1946	08.9	#-1345		-ePnz	0739	21.5	#-1378
8	+epz	2109	06.0	#-1346		+ipz	0739	23.6	#-1378
	+epz	0429	47.0	#-1347		-ePnz	1102	02.5	#-1379
	-epz	0539	42.2	#-1348		-ipz	1102	04.0	#-1379

Date	Phase	UTC time		Remarks
		h m	s	
15	+epz	1746	40.3	#-1380
	+esPz	1746	51.3	#-1380
	-epz	1810	13.2	#-1381
	-ePcPz	1810	18.2	#-1381
18	-epz	0222	26.4	#-1382
	+ePcPz	0222	28.4	#-1382
	+ePKiKPz	0421	31.0	#-1383
	-epz	0927	11.7	#-1384
	-isPz	0927	17.8	#-1384
	-epz	0109	44.3	#-1385
	+epz	0435	02.7	#-1386
	+esPz	1208	12.0	#-1387
	+esPz	1433	02.0	#-1388
	-esPz	1433	08.1	#-1388
	-epz	1628	31.4	#-1389
21	+epz	1051	36.2	#-1390
	+epz	1331	20.7	#-1391
	-epPKiKPz	2110	19.3	#-1392
22	+epz	0053	05.9	#-1393
	+epz	1747	56.0	#-1394
	+epz	1913	11.8	#-1395
23	-epz	0944	35.2	#-1396
	+ePcPz	0944	38.7	#-1396
	+epPz	0944	45.0	#-1396
	+esPz	0944	47.5	#-1396
	-epz	1013	54.7	#-1397
	+ePKiKPz	1040	15.3	#-1398
	+esPKiKPz	1040	31.0	#-1398
	-epz	1145	04.7	#-1399
	-epz	1556	03.8	#-1400
	+epz	2306	00.3	#-1401
	-epPz	2306	11.1	#-1401
	-ePKiKPz	2310	46.3	#-1401
	+epPKiKPz	2311	02.0	#-1401
	eSKSach	2316	30.4	#-1401
	+ePdiffz	2347	25.0	#-1402
24	+ipz	1149	27.4	#-1403
25	-ipz	0434	44.7	#-1404
	-ipPz	0435	00.4	#-1404
	-epz	2312	35.8	#-1405
	+ePKiKPz	0141	16.1	#-1406
26	+epz	0347	22.3	#-1407
	-epz	1131	45.0	#-1408
	+epz	1637	10.5	#-1409
	+epPz	1637	20.0	#-1409
27	-epz	0212	17.9	#-1410
	-ipz	1107	28.1	#-1411
	+ePKiKPz	1112	29.0	#-1411
	+ipz	2340	38.1	#-1412
	+epPz	2342	23.9	#-1412

Date	Phase	UTC time		Remarks
		h m	s	
	-esPKiKPz	2348	45.0	#-1412
	eSKSach	2350	08.5	#-1412
28	+epz	2141	07.6	#-1413
	-epz	2222	12.9	#-1414
29	+ipz	0021	34.0	#-1415
	-epz	1444	01.4	#-1416
30	esh	0431	54.0	#-1417
31	-exz	1243	7.6	#-1418

Table 2. List of hypocenters of teleseismic events detected at Syowa Station. The total number of events is 1418.

No.	Date	Origin time			Geographic Coordinates		Depth	Epicentral distance	Magnitude		Region	
		UTC			Latitude	Longitude			Mb	MsZ		
		h	m	s								(deg)
1	1	1	6	57	4.1	6.898	126.579	33	95.31	6.4	7.2	MINDANAO, PHILIPPINES
2	1	1	8	54	31.5	6.631	126.899	33	95.17	5.6	6.0	MINDANAO, PHILIPPINES
3	1	1	17	54	7.6	-20.795	-174.396	33	87.15	4.9		TONGA ISLANDS
4	1	1	21	29	37.3	-31.999	-71.538	82	67.57	5.1		NEAR COAST OF CENTRAL CHILE
5	1	2	3	56	30.6	-17.900	167.900	33	85.85	4.5		VANUATU ISLANDS
6	1	2	7	30	3.7	6.749	126.809	33	95.25	5.8	6.2	MINDANAO, PHILIPPINES
7	1	2	13	3	35.5	-14.956	167.246	97	88.48	5.0		VANUATU ISLANDS
8	1	3	11	42	3.4	-31.416	-69.344	114	67.42	4.5		SAN JUAN PROVINCE, ARGENTINA
9	1	3	12	27	58.9	-33.496	-72.227	33	66.39	4.6		OFF COAST OF CENTRAL CHILE
10	1	3	15	13	7.8	6.695	126.866	113	95.22	4.9		MINDANAO, PHILIPPINES
11	1	3	20	38	57.8	-5.954	130.433	33	84.79	5.0		BANDA SEA
12	1	4	0	20	33.7	-25.697	-176.818	104	81.91	4.7		SOUTH OF FIJI ISLANDS
13	1	5	0	8	10.8	-32.844	179.765	300	74.30	4.5		SOUTH OF KERMADEC ISLANDS
14	1	5	11	40	9.5	-17.582	-13.568	10	60.91	5.2	5.0	SOUTHERN MID-ATLANTIC RIDGE
15	1	5	11	54	13.6	-0.657	-22.074	10	79.54	5.1	4.7	CENTRAL MID-ATLANTIC RIDGE
16	1	5	22	51	53.3	6.917	126.842	84	95.42	5.1		MINDANAO, PHILIPPINES
17	1	6	4	45	29.0	6.772	126.867	33	95.29	5.5	5.3	MINDANAO, PHILIPPINES
18	1	6	5	11	9.9	-40.511	-71.781	139	59.77			S. CHILE-ARGENTINA BORDER REGION
19	1	6	15	55	31.9	5.846	127.349	53	94.61	5.2	5.5	PHILIPPINE ISLANDS REGION
20	1	7	6	26	57.6	59.426	147.228	14	149.04	5.3	5.0	EASTERN SIBERIA, RUSSIA
21	1	7	10	18	20.2	-33.443	-72.233	10	66.44	5.4	5.7	OFF COAST OF CENTRAL CHILE
22	1	7	11	52	9.1	-33.477	-72.195	10	66.40	4.7		OFF COAST OF CENTRAL CHILE
23	1	7	12	55	46.8	-8.703	108.893	33	74.57	5.5	5.1	JAWA, INDONESIA
24	1	8	4	20	48.3	5.532	127.371	33	94.33	5.0	4.4	PHILIPPINE ISLANDS REGION
25	1	9	16	49	28.0	-14.928	167.170	103	88.49	6.3		VANUATU ISLANDS
26	1	10	7	58	18.2	-15.108	168.178	33	88.59	5.2		VANUATU ISLANDS
27	1	10	16	2	44.2	57.078	-153.211	33	166.74	6.2	6.8	KODIAK ISLAND REGION, ALASKA
28	1	12	10	47	40.4	-15.578	-74.809	39	83.94	5.2	5.4	NEAR COAST OF PERU
29	1	12	13	7	57.7	-16.950	-174.995	258	90.78	5.2		TONGA ISLANDS
30	1	13	14	42	10.3	-18.610	176.190	33	87.27	4.5		FIJI ISLANDS REGION
31	1	13	17	33	32.3	13.049	-88.660	60	115.26	6.4	7.8	EL SALVADOR
32	1	14	0	30	6.2	-23.582	-179.870	550	83.35	4.5		SOUTH OF FIJI ISLANDS
33	1	14	3	32	53.2	-27.988	-71.203	33	71.19	4.8		NEAR COAST OF NORTHERN CHILE
34	1	14	6	20	46.5	-24.659	-177.275	134	82.83	4.8		SOUTH OF FIJI ISLANDS
35	1	14	10	8	34.6	-22.470	171.406	100	82.40	4.5		SOUTHEAST OF LOYALTY ISLANDS
36	1	14	19	51	26.3	-8.469	112.635	74	76.09	5.2		JAWA, INDONESIA
37	1	15	1	40	51.2	-20.951	-178.499	568	86.18	4.6		FIJI ISLANDS REGION
38	1	15	5	52	16.2	-40.344	78.362	10	35.29	5.7	6.3	MID-INDIAN RIDGE
39	1	15	11	53	28.0	-15.799	-75.079	33	83.82	5.1	5.2	NEAR COAST OF PERU
40	1	15	23	3	1.9	-0.025	122.926	163	87.58	5.2		MINAHASSA PENINSULA, SULAWESI
41	1	16	1	52	28.7	-21.982	-68.361	124	75.87	4.6		CHILE-BOLIVIA BORDER REGION
42	1	16	13	25	1.0	-3.957	101.746	33	76.59	6.0		SOUTHERN SUMATERA, INDONESIA
43	1	16	13	39	6.2	-4.197	101.614	33	76.33	5.4		SOUTHERN SUMATERA, INDONESIA
44	1	16	14	7	49.6	-4.347	101.633	33	76.19	5.2		SOUTHERN SUMATERA, INDONESIA
45	1	16	14	25	10.5	-4.308	101.648	33	76.23	5.6		SOUTHERN SUMATERA, INDONESIA
46	1	16	16	49	58.5	-4.194	101.604	58	76.33	5.6		SOUTHERN SUMATERA, INDONESIA
47	1	17	2	4	34.4	-30.250	-177.840	33	77.29	5.0		KERMADEC ISLANDS, NEW ZEALAND
48	1	17	10	51	41.8	-28.499	-176.429	33	79.26	5.3	5.1	KERMADEC ISLANDS REGION

No.	Date		Origin time			Geographic Coordinates		Depth (km)	Epicentral distance (deg)	Magnitude		Region
			UTC			Latitude (deg)	Longitude (deg)			Mb	MsZ	
	h	m	s									
49	1	18	7	26	39.3	-4.046	101.746	55	76.51	5.5	5.3	SOUTHERN SUMATERA, INDONESIA
50	1	18	8	30	52.3	0.109	123.429	155	87.88	4.8		MINAHASSA PENINSULA, SULAWESI
51	1	18	11	15	20.1	-55.431	-26.977	33	31.99	4.9		SOUTH SANDWICH ISLANDS REGION
52	1	18	12	32	32.1	2.490	126.344	38	91.14	5.4	4.5	NORTHERN MOLUCCA SEA
53	1	18	15	18	48.4	-29.225	-71.591	33	70.16	5.2	4.9	NEAR COAST OF CENTRAL CHILE
54	1	18	22	13	19.7	-55.395	-26.667	33	31.91	4.7		SOUTH SANDWICH ISLANDS REGION
55	1	19	8	10	14.7	-11.662	166.380	50	91.38	5.7	6.1	SANTA CRUZ ISLANDS
56	1	19	9	4	34.5	-58.161	-9.472	33	23.63	5.3	5.8	EAST OF SOUTH SANDWICH ISLANDS
57	1	20	9	13	27.8	-4.266	152.718	33	94.14	5.1	4.6	NEW BRITAIN REGION, P.N.G.
58	1	20	21	59	10.5	2.874	126.529	75	91.56	5.3		NORTHERN MOLUCCA SEA
59	1	21	4	44	1.5	10.172	126.223	33	98.21	5.3	5.3	PHILIPPINE ISLANDS REGION
60	1	21	14	2	50.9	-29.721	-179.100	350	77.55	3.8		KERMADEC ISLANDS REGION
61	1	22	2	31	8.8	-27.208	-176.607	33	80.49	5.1	5.0	KERMADEC ISLANDS REGION
62	1	23	11	24	19.8	-5.021	153.344	65	93.64	5.0		NEW IRELAND REGION, P.N.G.
63	1	23	16	33	30.8	-54.426	-133.802	10	56.78	4.9		PACIFIC-ANTARCTIC RIDGE
64	1	24	4	59	27.6	-16.589	168.023	204	87.14	4.5		VANUATU ISLANDS
65	1	24	5	34	32.4	-0.596	-19.863	10	78.89	5.5	5.2	CENTRAL MID-ATLANTIC RIDGE
66	1	24	12	53	20.9	-3.347	130.712	33	87.30	4.8		SERAM, INDONESIA
67	1	24	21	7	20.0	-30.131	-178.017	33	77.37	5.4	5.0	KERMADEC ISLANDS, NEW ZEALAND
68	1	25	6	49	17.1	-5.911	103.767	65	75.43	5.4	5.0	SOUTHERN SUMATERA, INDONESIA
69	1	25	22	18	37.3	-23.022	170.023	33	81.52	5.6	5.2	SOUTHEAST OF LOYALTY ISLANDS
70	1	26	3	16	40.5	23.419	70.232	16	94.81	6.9	8.0	SOUTHERN INDIA
71	1	26	5	16	22.9	3.656	126.544	65	92.29	4.8		TALAUD ISLANDS, INDONESIA
72	1	26	12	21	25.5	-19.261	168.918	143	84.83	4.5		VANUATU ISLANDS
73	1	26	15	59	39.2	-10.846	161.578	77	90.75	5.2		SOLOMON ISLANDS
74	1	27	23	57	1.8	-4.352	-76.872	117	95.15	5.5		NORTHERN PERU
75	1	28	1	2	10.7	23.507	70.517	10	94.95	5.9	5.5	SOUTHERN INDIA
76	1	29	14	8	5.4	-5.893	103.304	33	75.29	5.1	5.0	SOUTHERN SUMATERA, INDONESIA
77	1	29	15	26	3.2	-24.046	-115.395	10	85.44	5.3	5.0	SOUTHERN EAST PACIFIC RISE
78	1	29	23	21	25.9	-0.677	133.334	33	90.72	5.9	5.8	IRIAN JAYA REGION, INDONESIA
79	1	30	4	54	47.4	-15.662	167.734	144	87.94	4.8		VANUATU ISLANDS
80	1	31	4	22	25.9	-24.170	-66.866	199	73.35	4.5		SALTA PROVINCE, ARGENTINA
81	1	31	6	2	30.9	-55.808	-28.296	55	32.16	5.3	5.1	SOUTH SANDWICH ISLANDS REGION
82	1	31	13	22	42.5	-8.876	119.286	159	78.07	5.0		FLORES REGION, INDONESIA
83	1	31	15	17	58.7	-17.150	-14.080	10	61.48	5.1		SOUTHERN MID-ATLANTIC RIDGE
84	2	1	5	7	41.9	-36.417	-71.207	10	63.37	4.9		CENTRAL CHILE
85	2	1	7	35	3.7	6.777	126.712	83	95.24	4.3		MINDANAO, PHILIPPINES
86	2	1	8	2	17.0	-5.900	147.048	100	90.70	5.1		EASTERN NEW GUINEA REG., P.N.G.
87	2	1	8	32	10.9	-24.915	-68.965	104	73.34	4.3		CHILE-ARGENTINA BORDER REGION
88	2	1	12	30	39.0	-37.220	177.860	105	69.68	5.0		OFF E. COAST OF N. ISLAND, N.Z.
89	2	1	18	19	30.3	51.437	-177.797	33	155.05			ANDREANOF ISLANDS, ALEUTIAN IS.
90	2	1	22	16	19.0	-31.446	-68.792	105	67.22	5.2		SAN JUAN PROVINCE, ARGENTINA
91	2	2	8	10	40.9	12.819	-88.969	54	115.13	5.1	5.1	OFF COAST OF CENTRAL AMERICA
92	2	2	16	52	6.5	-19.273	-176.111	33	88.30	4.9	5.2	FIJI ISLANDS REGION
93	2	3	3	4	32.8	23.655	70.435	10	95.08	5.3	4.9	SOUTHERN INDIA
94	2	3	4	58	2.0	-34.163	-179.292	33	73.21	5.0		SOUTH OF KERMADEC ISLANDS
95	2	3	14	26	4.4	-15.036	-177.425	380	92.15	4.8		FIJI ISLANDS REGION
96	2	3	17	5	12.2	-16.856	28.513	15	52.60	4.8		ZAMBIA

No.	Date	Origin time				Geographic Coordinates		Depth (km)	Epicentral distance (deg)	Magnitude		Region
		UTC				Latitude (deg)	Longitude (deg)			Mb	MsZ	
		h	m	s								
97	2	4	5	41	2.5	-4.720	153.327	33	93.92	4.8	4.3	NEW IRELAND REGION, P.N.G.
98	2	4	14	17	27.5	-33.389	-68.670	3	65.39			MENDOZA PROVINCE, ARGENTINA
99	2	4	15	34	6.3	23.465	70.107	10	94.84	4.4		SOUTHERN INDIA
100	2	4	17	23	13.7	23.351	70.307	10	94.76	4.4		SOUTHERN INDIA
101	2	4	21	35	38.6	-4.273	152.695	33	94.13	4.7	4.4	NEW BRITAIN REGION, P.N.G.
102	2	5	2	6	11.2	-8.616	-74.325	152	90.32	4.3		PERU-BRAZIL BORDER REGION
103	2	5	2	59	36.1	23.515	70.048	10	94.88	4.7		SOUTHERN INDIA
104	2	5	4	47	8.0	-16.625	-177.380	418	90.62	4.5		FIJI ISLANDS REGION
105	2	5	9	15	11.0	-5.319	131.652	33	85.81	4.7		BANDA SEA
106	2	5	10	52	18.4	-5.892	148.559	33	91.22	4.1		NEW BRITAIN REGION, P.N.G.
107	2	5	13	54	10.9	-18.633	-174.673	33	89.20	5.0		TONGA ISLANDS
108	2	5	20	55	48.6	1.652	127.854	33	90.90	4.8		HALMAHERA, INDONESIA
109	2	5	21	10	57.2	-42.713	83.699	10	34.80	4.6		MID-INDIAN RIDGE
110	2	6	4	24	38.1	-38.907	-74.750	27	62.12	4.9		OFF COAST OF CENTRAL CHILE
111	2	6	12	34	6.2	-31.481	-178.533	33	75.96	4.6		KERMADEC ISLANDS REGION
112	2	6	18	25	41.0	-5.262	152.379	33	93.09	5.1	4.4	NEW BRITAIN REGION, P.N.G.
113	2	7	2	3	29.6	4.311	125.926	146	92.68	4.4		TALAUD ISLANDS, INDONESIA
114	2	7	13	46	24.6	-55.635	-26.913	33	31.81	5.0		SOUTH SANDWICH ISLANDS REGION
115	2	8	2	13	19.8	-23.032	-174.817	33	84.89	4.9		TONGA ISLANDS REGION
116	2	8	5	29	42.3	-14.818	-173.535	33	93.14	5.0		SAMOA ISLANDS REGION
117	2	8	5	41	39.9	24.269	125.112	16	110.83	5.5	5.5	SOUTHWESTERN RYUKYU ISL., JAPAN
118	2	8	7	35	11.0	-10.755	-78.897	33	89.77	4.7		NEAR COAST OF PERU
119	2	8	9	33	8.7	23.338	70.459	10	94.77	4.3		SOUTHERN INDIA
120	2	8	16	54	41.0	23.654	70.425	10	95.08	4.9	5.1	SOUTHERN INDIA
121	2	8	20	7	13.9	-23.351	179.838	600	83.51	4.5		SOUTH OF FIJI ISLANDS
122	2	8	22	13	37.0	-7.399	155.961	33	92.26	5.1	4.5	SOLOMON ISLANDS
123	2	9	10	7	38.8	23.639	70.019	10	94.99	4.7		SOUTHERN INDIA
124	2	9	10	26	15.7	-19.078	-176.074	33	88.50	5.1	5.4	FIJI ISLANDS REGION
125	2	9	13	7	42.6	-6.150	147.758	44	90.71	5.4	5.2	EASTERN NEW GUINEA REG., P.N.G.
126	2	9	16	21	30.0	-9.126	125.977	33	80.25	4.2		TIMOR REGION
127	2	9	17	2	49.7	1.276	123.268	33	88.91	4.9	4.4	MINAHASSA PENINSULA, SULAWESI
128	2	10	3	26	54.5	-28.683	-177.565	59	78.87	4.7		KERMADEC ISLANDS REGION
129	2	10	4	36	22.5	-4.583	153.118	33	93.98	5.1		NEW IRELAND REGION, P.N.G.
130	2	11	1	31	30.8	2.994	126.430	82	91.64	4.4		NORTHERN MOLUCCA SEA
131	2	11	2	33	17.6	23.219	70.512	10	94.66	4.6		SOUTHERN INDIA
132	2	11	18	57	3.9	-22.614	-175.024	33	85.26	4.9	4.8	TONGA ISLANDS REGION
133	2	12	11	23	56.9	0.925	124.697	147	89.10	4.7		MINAHASSA PENINSULA, SULAWESI
134	2	13	0	28	10.0	-48.209	-9.947	10	31.81	5.4		SOUTHERN MID-ATLANTIC RIDGE
135	2	13	4	52	1.2	5.494	121.938	33	92.35	4.8		CELEBES SEA
136	2	13	14	22	5.8	13.671	-88.938	10	115.93	5.5	6.5	EL SALVADOR
137	2	13	19	28	30.2	-4.680	102.562	36	76.18	6.2	7.2	SOUTHERN SUMATERA, INDONESIA
138	2	13	22	27	14.9	-5.154	102.146	33	75.60	5.2		SOUTHERN SUMATERA, INDONESIA
139	2	14	1	39	31.4	-5.023	102.727	33	75.92	5.2		SOUTHERN SUMATERA, INDONESIA
140	2	16	9	15	20.1	-24.697	-178.988	398	82.45	4.6		SOUTH OF FIJI ISLANDS
141	2	16	13	10	24.3	-4.781	102.743	67	76.15	5.3		SOUTHERN SUMATERA, INDONESIA
142	2	16	13	19	45.5	-15.345	-70.475	210	82.76	5.1		SOUTHERN PERU
143	2	16	17	44	35.3	-21.369	-174.591	33	86.55	5.1	5.1	TONGA ISLANDS
144	2	17	1	17	31.4	13.062	-88.909	33	115.34	5.0	4.8	EL SALVADOR

No.	Date		Origin time			Geographic Coordinates		Depth (km)	Epicentral distance (deg)	Magnitude		Region
			UTC			Latitude (deg)	Longitude (deg)			Mb	MsZ	
	h	m	s									
145	2	17	15	35	19.0	46.907	144.928	381	138.11	4.2		SEA OF OKHOTSK
146	2	17	17	49	26.9	20.247	122.428	33	106.18	5.3	4.8	PHILIPPINE ISLANDS REGION
147	2	17	20	11	30.0	53.920	-133.610	20	164.53	5.5	5.9	QUEEN CHARLOTTE ISLANDS REGION
148	2	18	13	4	53.4	-47.456	32.386	10	21.92	5.5	5.7	PRINCE EDWARD ISLANDS REGION
149	2	18	15	15	37.9	1.253	126.302	33	89.98	4.9		NORTHERN MOLUCCA SEA
150	2	19	5	14	54.3	-15.578	-75.113	33	84.04	4.5		NEAR COAST OF PERU
151	2	19	9	39	31.5	-5.220	102.531	33	75.67	4.9		SOUTHERN SUMATERA, INDONESIA
152	2	19	13	20	47.5	5.531	125.799	168	93.76	4.7		MINDANAO, PHILIPPINES
153	2	19	14	31	55.0	-45.097	-79.284	10	57.64	5.1	5.2	OFF COAST OF SOUTHERN CHILE
154	2	19	15	20	14.6	-5.175	102.652	44	75.75	4.7		SOUTHERN SUMATERA, INDONESIA
155	2	19	15	46	5.8	-7.590	127.569	200	82.24	4.5		BANDA SEA
156	2	19	17	58	45.7	-17.780	-178.580	500	89.24			FIJI ISLANDS REGION
157	2	20	5	21	47.7	-26.377	177.945	681	80.17	4.2		SOUTH OF FIJI ISLANDS
158	2	20	8	53	43.4	-27.903	-71.559	33	71.39	4.7	4.5	NEAR COAST OF NORTHERN CHILE
159	2	20	15	36	5.9	-7.055	129.465	113	83.42	5.1		BANDA SEA
160	2	20	21	28	44.6	-20.897	-179.096	600	86.11	4.3		FIJI ISLANDS REGION
161	2	21	15	20	21.3	-11.276	-74.514	33	87.89	5.5	5.2	CENTRAL PERU
162	2	21	17	12	7.5	-4.380	101.387	33	76.08	4.8		SOUTHERN SUMATERA, INDONESIA
163	2	21	17	28	47.4	-30.860	-71.768	46	68.70	4.8		NEAR COAST OF CENTRAL CHILE
164	2	21	22	50	29.8	6.622	126.923	75	95.17	5.3	5.0	MINDANAO, PHILIPPINES
165	2	22	2	13	0.2	23.329	70.291	10	94.73	4.7		SOUTHERN INDIA
166	2	23	2	19	12.0	-23.304	-67.949	124	74.51	4.9		CHILE-ARGENTINA BORDER REGION
167	2	23	23	52	24.1	-30.715	-178.263	60	76.76	5.3		KERMADEC ISLANDS, NEW ZEALAND
168	2	24	7	23	48.7	1.271	126.249	35	89.97	6.6	7.0	NORTHERN MOLUCCA SEA
169	2	24	16	7	47.7	1.559	126.354	33	90.28	5.3	4.7	NORTHERN MOLUCCA SEA
170	2	24	17	58	37.1	-20.183	-68.690	116	77.66	5.3		CHILE-BOLIVIA BORDER REGION
171	2	24	21	53	54.1	37.217	142.146	33	128.63	5.4	5.5	OFF EAST COAST OF HONSHU, JAPAN
172	2	24	22	56	45.5	1.569	126.384	33	90.30	5.3	4.9	NORTHERN MOLUCCA SEA
173	2	25	2	8	15.3	1.464	126.380	33	90.20	4.8		NORTHERN MOLUCCA SEA
174	2	25	2	21	59.5	36.424	70.881	203	107.65	5.8		HINDU KUSH REGION, AFGHANISTAN
175	2	25	4	17	42.6	-4.938	152.729	33	93.51	5.1		NEW BRITAIN REGION, P.N.G.
176	2	25	10	49	49.3	2.123	127.333	33	91.15	5.2		NORTHERN MOLUCCA SEA
177	2	26	2	54	16.5	-17.846	-178.463	500	89.20	4.5		FIJI ISLANDS REGION
178	2	26	5	45	15.8	1.573	126.414	33	90.31	5.4	5.3	NORTHERN MOLUCCA SEA
179	2	26	6	3	29.6	-43.310	39.283	10	25.76	5.1		PRINCE EDWARD ISLANDS REGION
180	2	26	6	8	32.6	37.201	142.131	33	128.61	5.2	5.3	OFF EAST COAST OF HONSHU, JAPAN
181	2	26	9	18	19.9	1.301	126.390	33	90.05	5.4	4.9	NORTHERN MOLUCCA SEA
182	2	26	10	59	16.0	1.842	126.274	33	90.51	4.7	4.1	NORTHERN MOLUCCA SEA
183	2	26	12	46	55.5	-23.747	-176.763	78	83.82	4.7		SOUTH OF FIJI ISLANDS
184	2	26	15	16	35.6	1.338	126.345	60	90.07	5.0	4.3	NORTHERN MOLUCCA SEA
185	2	26	16	28	35.6	-22.475	-175.211	33	85.36	4.6		TONGA ISLANDS REGION
186	2	26	16	53	19.7	-56.019	-27.549	120	31.74	4.9		SOUTH SANDWICH ISLANDS REGION
187	2	26	20	25	18.6	2.458	126.573	65	91.19	4.8		NORTHERN MOLUCCA SEA
188	2	26	23	23	36.0	1.483	126.358	33	90.21	4.8		NORTHERN MOLUCCA SEA
189	2	27	2	13	0.2	-27.897	-71.324	33	71.32	4.8	4.7	NEAR COAST OF NORTHERN CHILE
190	2	27	4	9	53.6	-20.548	-179.373	650	86.39	4.4		FIJI ISLANDS REGION
191	2	27	12	10	32.4	-22.653	-175.059	33	85.21	5.2	5.1	TONGA ISLANDS REGION
192	2	27	20	43	46.0	-7.180	107.182	75	75.40	4.6		JAWA, INDONESIA

No.	Date		Origin time			Geographic Coordinates		Depth (km)	Epicentral		Magnitude		Region
			UTC			Latitude (deg)	Longitude (deg)		distance		Mb	MsZ	
	h	m	s						(deg)	(deg)			
193	2	27	23	30	2.3	-14.077	-75.427	69	85.55	4.9			NEAR COAST OF PERU
194	2	28	1	48	36.8	-49.398	121.418	10	42.29	5.0	4.9		WESTERN INDIAN-ANTARCTIC RIDGE
195	2	28	2	57	40.7	-6.987	-81.497	33	94.13	4.8			NEAR COAST OF NORTHERN PERU
196	2	28	9	35	16.5	6.582	126.852	61	95.11	5.5	5.6		MINDANAO, PHILIPPINES
197	2	28	10	31	4.4	-6.944	155.833	33	92.64	5.4	5.4		SOLOMON ISLANDS
198	2	28	12	30	14.0	-21.986	170.207	10	82.56	6.0	6.5		SOUTHEAST OF LOYALTY ISLANDS
199	2	28	13	0	48.2	-22.030	170.258	10	82.53	5.4			SOUTHEAST OF LOYALTY ISLANDS
200	2	28	13	5	31.6	-22.002	170.108	10	82.52	5.8	6.1		SOUTHEAST OF LOYALTY ISLANDS
201	2	28	13	21	29.0	-22.090	169.992	10	82.40	5.6			SOUTHEAST OF LOYALTY ISLANDS
202	2	28	18	31	53.8	-22.283	170.364	10	82.31	5.1			SOUTHEAST OF LOYALTY ISLANDS
203	2	28	18	54	32.8	47.149	-122.727	52	156.36	6.5	6.6		WASHINGTON
204	3	1	0	53	16.0	23.236	70.276	10	94.64	4.5			SOUTHERN INDIA
205	3	1	3	59	54.4	-22.293	170.324	10	82.29	5.0	5.0		SOUTHEAST OF LOYALTY ISLANDS
206	3	1	4	8	12.4	-22.358	170.230	10	82.21	4.9			SOUTHEAST OF LOYALTY ISLANDS
207	3	1	10	3	10.7	-30.770	-178.871	400	76.58	4.4			KERMADEC ISLANDS, NEW ZEALAND
208	3	1	16	5	27.4	-23.997	-66.610	219	73.42	4.6			JUJUY PROVINCE, ARGENTINA
209	3	1	23	10	42.2	1.801	128.767	33	91.37	4.7			HALMAHERA, INDONESIA
210	3	2	12	44	44.2	-4.811	153.208	33	93.79	5.0	4.7		NEW IRELAND REGION, P.N.G.
211	3	2	17	6	13.3	-20.987	-177.076	303	86.44	4.8			FIJI ISLANDS REGION
212	3	3	3	3	2.3	22.008	145.081	42	115.90	5.1	4.5		NORTH PACIFIC OCEAN
213	3	3	5	56	32.9	1.542	126.659	33	90.37	4.9	4.3		NORTHERN MOLUCCA SEA
214	3	3	9	41	29.2	-22.254	170.274	10	82.32	4.7	5.1		SOUTHEAST OF LOYALTY ISLANDS
215	3	3	11	58	13.3	-38.766	-74.555	33	62.19	5.7	5.1		OFF COAST OF CENTRAL CHILE
216	3	3	14	51	9.3	-38.995	-74.852	33	62.07	4.7			OFF COAST OF CENTRAL CHILE
217	3	3	18	53	31.9	5.090	127.296	33	93.89	4.7	4.1		PHILIPPINE ISLANDS REGION
218	3	4	2	20	39.4	-52.449	13.025	10	20.78	4.5			SOUTHWEST OF AFRICA
219	3	4	12	24	32.6	4.864	95.368	65	82.91	4.8			NORTHERN SUMATERA, INDONESIA
220	3	5	10	17	34.3	17.197	-99.946	42	122.42	5.0	4.5		GUERRERO, MEXICO
221	3	5	11	8	34.9	28.564	129.002	80	116.13	5.4			RYUKYU ISLANDS, JAPAN
222	3	7	3	28	24.9	-33.593	-72.062	46	66.25	5.3	4.9		OFF COAST OF CENTRAL CHILE
223	3	7	18	22	58.5	-20.140	-178.381	600	87.00	4.5			FIJI ISLANDS REGION
224	3	8	7	19	47.6	-6.436	130.820	49	84.48	5.1	5.3		BANDA SEA
225	3	8	11	37	24.3	-29.918	-178.119	33	77.56	5.3	5.0		KERMADEC ISLANDS, NEW ZEALAND
226	3	8	15	28	43.8	-30.277	-178.460	300	77.14	4.7			KERMADEC ISLANDS, NEW ZEALAND
227	3	8	21	11	24.5	-5.362	102.186	33	75.42	5.6	5.3		SOUTHERN SUMATERA, INDONESIA
228	3	9	1	7	9.0	32.401	69.444	33	103.48	5.0	5.1		PAKISTAN
229	3	9	2	56	59.9	-6.351	130.171	200	84.32	5.2			BANDA SEA
230	3	9	8	7	39.0	-20.475	-178.116	502	86.73	4.3			FIJI ISLANDS REGION
231	3	9	17	52	50.1	-22.234	-67.384	153	75.32	4.1			CHILE-BOLIVIA BORDER REGION
232	3	9	21	41	55.1	-19.225	-173.274	33	88.89	5.3	5.2		TONGA ISLANDS
233	3	11	0	50	40.4	-25.373	-177.966	231	82.00	5.5			SOUTH OF FIJI ISLANDS
234	3	11	15	20	35.0	-7.547	127.948	117	82.42	4.1			BANDA SEA
235	3	11	16	7	10.6	-16.290	-176.333	355	91.16	5.0			FIJI ISLANDS REGION
236	3	12	7	7	26.2	-29.237	-178.767	324	78.09	4.0			KERMADEC ISLANDS, NEW ZEALAND
237	3	12	14	2	19.4	-35.000	-179.558	33	72.35	5.1	5.4		EAST OF NORTH ISLAND, N.Z.
238	3	12	23	35	8.3	-7.206	106.116	33	75.01	5.5	5.6		JAWA, INDONESIA
239	3	13	13	5	7.3	-17.774	-178.721	566	89.22	4.9			FIJI ISLANDS REGION
240	3	13	23	34	22.8	-5.650	102.503	33	75.25	4.7			SOUTHERN SUMATERA, INDONESIA

No.	Date	Origin time			Geographic Coordinates		Depth	Epicentral distance	Magnitude		Region
		UTC			Latitude	Longitude			Mb	MsZ	
		h	m	s							
241	3 14	2 45	34.1	-18.795	169.316	271	85.38	4.7			VANUATU ISLANDS
242	3 14	18 56	18.8	0.451	121.892	109	87.65	5.9			MINAHASSA PENINSULA, SULAWESI
243	3 15	13 2	42.1	-32.321	-71.492	37	67.26	6.1	5.6		NEAR COAST OF CENTRAL CHILE
244	3 16	4 36	8.7	-20.414	-68.743	115	77.46	5.2			CHILE-BOLIVIA BORDER REGION
245	3 16	11 51	57.6	-24.955	-178.987	371	82.20	4.6			SOUTH OF FIJI ISLANDS
246	3 17	5 54	27.0	-4.885	102.626	51	76.01	5.1			SOUTHERN SUMATERA, INDONESIA
247	3 17	7 24	24.6	46.691	151.298	103	140.21	5.4			KURIL ISLANDS
248	3 17	10 16	24.6	-6.291	154.627	95	92.87	4.6			SOLOMON ISLANDS
249	3 17	18 23	59.4	-4.919	102.630	46	75.98	4.6			SOUTHERN SUMATERA, INDONESIA
250	3 17	20 51	55.8	12.037	143.947	33	106.30	5.0	4.6		SOUTH OF MARIANA ISLANDS
251	3 18	13 0	58.2	-7.393	122.565	612	80.62	4.6			FLORES SEA
252	3 18	13 40	5.9	-7.534	107.178	33	75.07	4.5			JAWA, INDONESIA
253	3 18	14 55	14.7	-5.030	102.698	33	75.90	4.8			SOUTHERN SUMATERA, INDONESIA
254	3 18	16 39	17.5	-11.254	166.189	54	91.71	4.4			SANTA CRUZ ISLANDS
255	3 18	23 27	1.4	-49.506	125.829	10	43.71	4.7			WESTERN INDIAN-ANTARCTIC RIDGE
256	3 19	5 45	26.2	-22.161	-68.713	100	75.82	4.8			NORTHERN CHILE
257	3 19	5 52	15.8	-4.029	128.020	33	85.70	6.0	6.5		BANDA SEA
258	3 19	5 56	57.0	-3.999	127.847	33	85.67	5.8			SERAM, INDONESIA
259	3 19	8 8	6.2	-4.131	127.779	33	85.52	4.6			BANDA SEA
260	3 19	9 30	50.8	-21.865	-67.010	205	75.54	4.5			CHILE-BOLIVIA BORDER REGION
261	3 19	11 46	3.4	-8.716	113.257	33	76.08	4.7			JAWA, INDONESIA
262	3 19	15 1	38.3	-17.857	-174.594	138	89.97	4.7			TONGA ISLANDS
263	3 19	22 32	22.5	-37.393	-70.839	33	62.36	4.8			SOUTHERN ARGENTINA
264	3 20	11 9	38.6	-28.790	-70.069	97	70.09	4.6			CENTRAL CHILE
265	3 21	20 47	34.0	-4.527	153.114	33	94.03	5.4	5.5		NEW IRELAND REGION, P.N.G.
266	3 23	1 47	19.0	-1.486	123.668	86	86.49	4.8			SULAWESI, INDONESIA
267	3 23	6 55	44.5	-10.490	113.900	33	74.66	5.1			SOUTH OF JAWA, INDONESIA
268	3 23	11 30	10.5	44.071	148.054	33	136.79	5.9	5.7		KURIL ISLANDS
269	3 23	20 53	27.9	-18.943	-174.063	33	89.02	5.4	4.9		TONGA ISLANDS
270	3 23	21 15	12.8	-17.490	167.989	33	86.27	4.9			VANUATU ISLANDS
271	3 23	23 23	2.9	43.050	84.645	33	116.61	4.9	4.4		NORTHERN XINJIANG, CHINA
272	3 24	6 27	53.5	34.083	132.526	50	122.39	6.4	6.5		WESTERN HONSHU, JAPAN
273	3 24	13 56	59.8	-29.182	-176.848	60	78.52	4.8			KERMADEC ISLANDS REGION
274	3 24	20 26	13.8	-31.940	-179.430	294	75.34	4.1			KERMADEC ISLANDS REGION
275	3 24	21 24	32.8	38.383	143.255	33	130.07	5.3	4.7		OFF EAST COAST OF HONSHU, JAPAN
276	3 25	5 18	12.9	3.764	126.035	33	92.21	5.1	4.7		TALAUD ISLANDS, INDONESIA
277	3 25	14 35	56.4	-9.635	-71.142	602	88.32	3.9			PERU-BRAZIL BORDER REGION
278	3 25	16 14	5.4	-9.625	-71.150	600	88.33	4.2			PERU-BRAZIL BORDER REGION
279	3 25	17 6	22.2	14.450	53.514	10	83.83	4.8			OWEN FRACTURE ZONE REGION
280	3 25	18 54	11.3	-5.695	35.898	10	63.27	4.6			TANZANIA
281	3 25	20 40	51.4	34.017	132.542	43	122.33	5.2	4.7		WESTERN HONSHU, JAPAN
282	3 25	22 58	16.7	-10.306	161.120	74	91.12	5.0			SOLOMON ISLANDS
283	3 26	10 52	50.7	-20.702	-177.989	500	86.53	4.2			FIJI ISLANDS REGION
284	3 27	10 58	34.6	-53.273	25.643	10	17.08	4.8			SOUTH OF AFRICA
285	3 27	11 5	6.7	-15.127	-173.550	33	92.83	4.6			TONGA ISLANDS
286	3 27	14 49	9.1	-22.212	171.615	10	82.70	5.0			SOUTHEAST OF LOYALTY ISLANDS
287	3 27	18 28	7.4	-31.333	179.844	384	75.78	5.0			KERMADEC ISLANDS REGION
288	3 27	21 54	24.8	-22.232	179.984	600	84.62	4.6			SOUTH OF FIJI ISLANDS

No.	Date	Origin time			Geographic Coordinates		Depth (km)	Epicentral distance (deg)	Magnitude		Region
		UTC			Latitude	Longitude			Mb	MsZ	
		h	m	s	(deg)	(deg)					
289	3 28	1	34	1.3	-20.468	-178.293	500	86.70	3.9		FIJI ISLANDS REGION
290	3 30	18	11	42.4	-59.574	-26.263	33	28.60	5.0	4.8	SOUTH SANDWICH ISLANDS REGION
291	3 30	20	25	28.1	-2.747	138.899	33	90.79	5.5	5.1	IRIAN JAYA, INDONESIA
292	3 31	6	54	15.5	-29.402	-68.327	104	68.97	5.5		SAN JUAN PROVINCE, ARGENTINA
293	3 31	18	3	25.9	49.192	156.095	46	144.05	4.9	4.9	KURIL ISLANDS
294	3 31	19	43	23.6	-10.389	-13.089	10	67.54	5.1	4.8	ASCENSION ISLAND REGION
295	3 31	23	52	15.2	6.200	125.390	81	94.23	4.5		MINDANAO, PHILIPPINES
296	4 1	0	48	46.8	52.736	153.011	480	145.86	4.7		NORTHWEST OF KURIL ISLANDS
297	4 1	4	16	39.1	-52.166	16.791	10	20.04	4.9		SOUTHWEST OF AFRICA
298	4 1	8	37	33.9	-34.409	55.464	10	35.78	5.4	5.2	SOUTHWEST INDIAN RIDGE
299	4 1	11	44	7.5	-34.349	55.491	10	35.84	4.8	4.6	SOUTHWEST INDIAN RIDGE
300	4 1	11	47	4.4	-20.152	-68.774	114	77.71	4.3		CHILE-BOLIVIA BORDER REGION
301	4 1	14	51	46.1	4.344	-32.529	10	87.70	4.8	4.6	CENTRAL MID-ATLANTIC RIDGE
302	4 1	15	28	57.5	4.393	-32.450	10	87.72	4.6		CENTRAL MID-ATLANTIC RIDGE
303	4 1	19	0	16.5	-35.065	-111.338	10	74.03	4.8		SOUTHERN EAST PACIFIC RISE
304	4 1	22	56	34.3	-5.629	148.437	172	91.43	4.7		NEW BRITAIN REGION, P.N.G.
305	4 2	7	23	41.9	2.088	126.438	100	90.80	4.6		NORTHERN MOLUCCA SEA
306	4 2	17	33	36.0	-22.331	-68.400	109	75.56	4.5		NORTHERN CHILE
307	4 2	19	54	18.4	40.589	141.772	64	131.49	5.1	4.8	NEAR EAST COAST OF HONSHU, JAPAN
308	4 3	1	46	26.4	-24.306	-70.653	45	74.45	5.0	4.5	NEAR COAST OF NORTHERN CHILE
309	4 3	21	21	58.9	-7.185	120.507	599	80.08	5.3		FLORES SEA
310	4 3	23	16	1.4	-27.885	-66.734	173	69.86	4.8		CATAMARCA PROVINCE, ARGENTINA
311	4 4	7	44	11.2	-5.176	132.369	33	86.20	5.9	6.0	ARU ISLANDS REGION, INDONESIA
312	4 5	5	16	55.7	-34.445	-70.292	109	64.92	4.9		CHILE-ARGENTINA BORDER REGION
313	4 7	23	17	37.9	-27.554	-176.336	33	80.20	5.6	5.8	KERMADEC ISLANDS REGION
314	4 8	15	30	38.2	-23.952	-66.611	202	73.47	4.1		JUJUY PROVINCE, ARGENTINA
315	4 8	19	47	55.6	-23.737	-66.512	203	73.63	4.7		JUJUY PROVINCE, ARGENTINA
316	4 9	9	0	57.1	-32.668	-73.109	11	67.43	6.1	6.3	OFF COAST OF CENTRAL CHILE
317	4 10	7	33	23.8	4.378	125.599	179	92.62	4.5		TALAUD ISLANDS, INDONESIA
318	4 13	15	33	53.5	-59.723	-25.586	26	28.25	5.3	6.0	SOUTH SANDWICH ISLANDS REGION
319	4 15	11	26	44.0	-54.699	-130.308	10	56.38	4.9	4.8	PACIFIC-ANTARCTIC RIDGE
320	4 15	22	38	36.7	-34.074	56.936	10	36.32	5.0		SOUTH INDIAN OCEAN
321	4 17	1	42	11.0	-20.777	-70.476	33	77.69	5.2	5.1	NEAR COAST OF NORTHERN CHILE
322	4 17	4	39	1.8	-6.182	22.730	18	63.73	4.8		DEMOCRATIC REPUBLIC OF CONGO
323	4 17	17	58	8.1	-27.503	-176.357	33	80.25	5.4	5.2	KERMADEC ISLANDS REGION
324	4 17	21	54	2.6	51.239	-179.780	33	154.23	5.8	5.5	ANDREANOF ISLANDS, ALEUTIAN IS.
325	4 18	1	36	55.6	-22.808	-66.231	245	74.40	4.5		JUJUY PROVINCE, ARGENTINA
326	4 18	2	7	20.8	-21.357	-113.329	10	87.78	5.2	4.8	SOUTHERN EAST PACIFIC RISE
327	4 18	12	6	0.1	-55.653	-29.425	33	32.68	5.0	4.6	SOUTH SANDWICH ISLANDS REGION
328	4 18	13	1	8.3	49.080	155.979	71	143.91	5.3		KURIL ISLANDS
329	4 18	19	34	50.5	-47.379	165.378	33	57.24	4.2		OFF W. COAST OF S. ISLAND, N.Z.
330	4 18	23	31	38.7	-27.513	-176.388	33	80.23	5.2	5.4	KERMADEC ISLANDS REGION
331	4 19	0	3	39.3	-27.395	-176.317	33	80.36	4.8		KERMADEC ISLANDS REGION
332	4 19	0	18	16.1	-27.321	-176.372	33	80.42	5.2	4.9	KERMADEC ISLANDS REGION
333	4 19	2	40	36.0	-7.414	155.964	10	92.24	5.6	5.3	SOLOMON ISLANDS
334	4 19	3	13	25.5	-7.455	155.893	12	92.18	6.0	5.7	SOLOMON ISLANDS
335	4 19	10	9	57.5	-24.016	179.909	529	82.88	4.6		SOUTH OF FIJI ISLANDS
336	4 19	10	40	4.3	-28.667	-70.044	101	70.20	4.4		CENTRAL CHILE

No.	Date	Origin time			Geographic Coordinates		Depth	Epicentral distance	Magnitude		Region
		UTC			Latitude	Longitude			Mb	MsZ	
		h	m	s							
337	4 19	12	31	41.5	-14.556	167.173	214	88.84	4.3		VANUATU ISLANDS
338	4 19	17	38	23.0	-27.555	-176.250	33	80.22	4.8		KERMADEC ISLANDS REGION
339	4 19	17	41	34.7	-27.309	-176.401	33	80.43	4.6		KERMADEC ISLANDS REGION
340	4 19	20	4	58.8	-7.353	155.947	10	92.30	5.3	5.2	SOLOMON ISLANDS
341	4 19	20	58	26.1	-7.306	155.965	20	92.35	5.7	6.1	SOLOMON ISLANDS
342	4 19	21	43	42.2	-7.410	155.865	17	92.22	6.0	6.6	SOLOMON ISLANDS
343	4 19	23	2	38.8	-7.270	155.831	10	92.34	4.9		SOLOMON ISLANDS
344	4 20	3	18	27.4	-25.344	-70.844	33	73.54	4.6		NEAR COAST OF NORTHERN CHILE
345	4 20	9	33	1.2	-6.156	147.564	79	90.64	5.1		EASTERN NEW GUINEA REG., P.N.G.
346	4 20	11	44	36.2	-43.771	-82.255	10	59.65	4.6		WEST CHILE RISE
347	4 20	19	5	50.9	6.266	126.820	232	94.81	4.2		MINDANAO, PHILIPPINES
348	4 20	19	20	50.7	-7.560	155.955	10	92.10	5.4	5.4	SOLOMON ISLANDS
349	4 20	23	33	42.4	-6.728	152.279	33	91.69	5.3	4.5	NEW BRITAIN REGION, P.N.G.
350	4 21	0	35	55.1	-46.293	95.970	10	35.86	5.0		SOUTHEAST INDIAN RIDGE
351	4 21	13	9	19.4	-13.552	-76.655	39	86.43	5.1	5.1	NEAR COAST OF PERU
352	4 21	17	18	56.9	42.925	-111.395	1	149.82	5.4	4.9	EASTERN IDAHO
353	4 21	18	15	46.8	-29.103	-67.520	128	68.99	5.3		LA RIOJA PROVINCE, ARGENTINA
354	4 23	4	25	56.1	-5.205	132.372	33	86.18	5.0	4.7	ARU ISLANDS REGION, INDONESIA
355	4 23	9	53	4.2	-5.396	146.093	33	90.85	4.5		EASTERN NEW GUINEA REG., P.N.G.
356	4 24	9	54	33.4	-19.407	-173.834	33	88.61	5.4	5.4	TONGA ISLANDS
357	4 24	14	35	24.0	-30.602	-178.112	33	76.90	5.0		KERMADEC ISLANDS, NEW ZEALAND
358	4 24	15	58	19.4	-26.084	179.807	463	80.85	4.5		SOUTH OF FIJI ISLANDS
359	4 25	0	59	11.4	-17.674	-178.803	545	89.30	4.5		FIJI ISLANDS REGION
360	4 25	14	40	6.0	32.824	132.023	33	121.07	5.7	5.2	SHIKOKU, JAPAN
361	4 25	17	16	26.2	-31.406	-71.454	33	68.09	4.9		NEAR COAST OF CENTRAL CHILE
362	4 25	17	39	53.5	-21.248	-179.061	600	85.78	4.5		FIJI ISLANDS REGION
363	4 25	21	2	42.3	-9.183	106.487	33	73.29	5.5	5.1	SOUTH OF JAWA, INDONESIA
364	4 28	4	49	53.4	-18.064	-176.937	352	89.31	6.2		FIJI ISLANDS REGION
365	4 28	13	18	6.0	-8.035	117.399	234	78.18	4.6		SUMBAWA REGION, INDONESIA
366	4 28	21	54	51.1	-23.034	-179.501	528	83.95	4.8		SOUTH OF FIJI ISLANDS
367	4 29	2	41	45.0	-17.431	167.807	33	86.28	5.1	5.0	VANUATU ISLANDS
368	4 30	2	2	2.4	43.881	147.392	48	136.39	5.6	4.9	KURIL ISLANDS
369	4 30	2	11	25.8	-30.673	-71.586	56	68.82	4.5		NEAR COAST OF CENTRAL CHILE
370	4 30	8	6	35.6	-22.795	-176.609	33	84.78	4.8		SOUTH OF FIJI ISLANDS
371	4 30	21	42	21.2	-30.360	-178.063	53	77.14	5.0		KERMADEC ISLANDS, NEW ZEALAND
372	5 3	4	31	57.0	0.462	126.299	33	89.24	5.7	5.4	NORTHERN MOLUCCA SEA
373	5 3	5	13	27.9	-7.741	124.792	33	81.10	5.3		BANDA SEA
374	5 3	15	6	55.0	-7.260	128.643	150	82.93	4.8		BANDA SEA
375	5 3	23	54	55.4	-24.270	-69.306	82	74.05	4.4		NORTHERN CHILE
376	5 4	1	10	48.9	-33.508	57.296	10	36.93	4.9	4.7	SOUTHWEST INDIAN RIDGE
377	5 4	7	29	21.0	1.280	126.287	46	90.00	4.8		NORTHERN MOLUCCA SEA
378	5 4	12	23	8.4	-23.896	-66.542	192	73.49	4.7		JUJUY PROVINCE, ARGENTINA
379	5 5	5	21	15.7	-23.523	-111.878	10	85.43	5.5	5.1	EASTER ISLAND REGION
380	5 5	13	36	6.2	-21.550	-178.902	538	85.52	4.6		FIJI ISLANDS REGION
381	5 5	15	26	57.3	-16.781	-69.468	197	81.09	4.8		PERU-BOLIVIA BORDER REGION
382	5 6	0	12	13.5	-24.457	-116.076	10	85.13	5.4	5.1	SOUTHERN EAST PACIFIC RISE
383	5 6	5	19	46.5	-18.369	-175.172	212	89.36	5.2		TONGA ISLANDS
384	5 6	5	59	47.6	-32.451	-70.899	52	66.95	5.1		CHILE-ARGENTINA BORDER REGION

No.	Date	Origin time			Geographic Coordinates		Depth	Epicentral distance	Magnitude		Region	
		UTC			Latitude	Longitude			Mb	MsZ		
		h	m	s								(deg)
385	5	6	7	10	37.7	-30.407	-72.233	10	69.26	4.7	OFF COAST OF CENTRAL CHILE	
386	5	6	10	17	1.3	-24.201	-67.075	158	73.39	4.1	CHILE-ARGENTINA BORDER REGION	
387	5	6	14	21	10.3	-7.823	109.140	100	75.47	4.7	JAWA, INDONESIA	
388	5	6	16	18	36.8	4.020	94.972	37	82.00	4.8	OFF W COAST OF NORTHERN SUMATERA	
389	5	6	20	35	31.4	-8.136	158.613	97	92.40	5.0	SOLOMON ISLANDS	
390	5	7	0	33	23.8	-56.186	-144.471	10	55.08	5.4	5.8	PACIFIC-ANTARCTIC RIDGE
391	5	7	1	56	30.1	-55.949	-144.544	10	55.31	5.1	4.8	PACIFIC-ANTARCTIC RIDGE
392	5	7	6	53	21.4	19.898	143.971	33	113.57	5.1	4.5	MARIANA ISLANDS REGION
393	5	9	15	47	36.7	53.641	-164.319	42	161.01	5.8	5.0	UNIMAK ISLAND REGION, ALASKA
394	5	9	17	38	26.1	-10.318	161.232	68	91.15	6.0		SOLOMON ISLANDS
395	5	9	19	0	15.6	-31.444	-72.128	33	68.27	4.6		OFF COAST OF CENTRAL CHILE
396	5	9	19	25	28.0	-10.260	161.290	66	91.22	5.2	4.9	SOLOMON ISLANDS
397	5	10	5	55	56.1	-35.129	-178.426	33	72.44	4.8		EAST OF NORTH ISLAND, NEW ZEALAND
398	5	10	9	45	4.8	-26.543	-177.846	150	80.89	4.8		SOUTH OF FIJI ISLANDS
399	5	10	21	53	43.1	-6.855	129.585	33	83.65	4.8		BANDA SEA
400	5	11	4	43	23.1	-21.326	-178.708	569	85.78	4.8		FIJI ISLANDS REGION
401	5	11	6	6	26.8	-34.916	-108.065	10	73.66	5.0	4.8	SOUTHERN EAST PACIFIC RISE
402	5	11	8	46	56.3	-7.261	155.590	62	92.27	4.4		SOLOMON ISLANDS
403	5	11	10	41	20.6	-17.955	-178.468	606	89.10	4.4		FIJI ISLANDS REGION
404	5	11	22	18	9.0	0.881	98.945	80	80.25	5.0		NORTHERN SUMATERA, INDONESIA
405	5	12	0	32	13.5	-20.994	170.011	167	83.46	4.7		VANUATU ISLANDS
406	5	12	3	32	55.9	30.489	130.907	33	118.56	4.6	5.1	KYUSHU, JAPAN
407	5	12	6	50	4.7	-8.672	-79.710	33	91.98	4.4		NEAR COAST OF NORTHERN PERU
408	5	12	10	27	6.5	-55.169	-28.414	33	32.71	4.3		SOUTH SANDWICH ISLANDS REGION
409	5	12	18	42	43.7	49.710	156.479	44	144.62	5.1	4.4	KURIL ISLANDS
410	5	13	21	53	13.5	-12.019	166.572	166	91.09	4.4		SANTA CRUZ ISLANDS
411	5	13	22	23	18.6	-33.370	-176.700	33	74.47	4.3		SOUTH OF KERMADEC ISLANDS
412	5	14	2	32	38.1	-27.173	-176.898	33	80.46	5.4	5.2	KERMADEC ISLANDS REGION
413	5	14	2	55	31.0	-35.724	-71.216	106	64.02			CENTRAL CHILE
414	5	14	6	16	47.1	-2.172	100.091	33	77.74	4.8	4.4	SOUTHERN SUMATERA, INDONESIA
415	5	14	14	39	35.4	5.263	127.417	33	94.09	4.8		PHILIPPINE ISLANDS REGION
416	5	14	18	5	4.1	-7.330	-13.425	10	70.53	5.1		ASCENSION ISLAND REGION
417	5	14	22	32	24.9	-11.499	166.442	148	91.55	4.7		SANTA CRUZ ISLANDS
418	5	14	22	44	18.6	-20.807	-178.615	600	86.30	4.4		FIJI ISLANDS REGION
419	5	15	1	43	17.8	-11.912	165.267	33	90.82	4.7		SANTA CRUZ ISLANDS
420	5	15	5	15	8.4	-37.105	176.673	435	69.55	4.7		NORTH ISLAND, NEW ZEALAND
421	5	15	23	53	18.3	-28.060	-66.553	177	69.64	5.1		CATAMARCA PROVINCE, ARGENTINA
422	5	16	0	26	21.5	-4.236	143.422	133	91.00	5.2		NEW GUINEA, PAPUA NEW GUINEA
423	5	16	11	46	46.3	-30.472	-178.086	150	77.03	4.9		KERMADEC ISLANDS, NEW ZEALAND
424	5	16	13	10	42.5	30.179	69.841	14	101.37	4.9		PAKISTAN
425	5	17	4	41	34.4	-38.639	-73.300	19	61.94	5.0		NEAR COAST OF CENTRAL CHILE
426	5	17	7	29	48.7	-10.287	161.319	33	91.20	4.6		SOLOMON ISLANDS
427	5	17	19	14	11.4	-5.322	150.883	125	92.54	4.7		NEW BRITAIN REGION, P.N.G.
428	5	17	23	29	53.1	-62.870	145.768	10	38.46	4.7		SOUTH OF AUSTRALIA
429	5	18	1	31	50.3	-17.602	-69.909	105	80.46	4.5		PERU-BOLIVIA BORDER REGION
430	5	18	2	5	33.4	0.414	97.784	33	79.44	5.4	5.8	NORTHERN SUMATERA, INDONESIA
431	5	18	2	46	30.3	54.352	169.062	10	152.92	5.1		KOMANDORSKIYE OSTROVA REGION
432	5	18	10	56	56.8	-43.490	171.020	12	62.21	4.5		SOUTH ISLAND, NEW ZEALAND

No.	Date		Origin time			Geographic Coordinates		Depth (km)	Epicentral distance (deg)	Magnitude		Region
			UTC			Latitude (deg)	Longitude (deg)			Mb	MsZ	
			h	m	s							
433	5	18	10	59	45.3	-7.530	155.888	33	92.11	5.4	5.4	SOLOMON ISLANDS
434	5	19	2	38	58.7	-5.644	150.934	54	92.26	4.3		NEW BRITAIN REGION, P.N.G.
435	5	19	11	6	50.1	7.140	126.866	33	95.63	4.6		MINDANAO, PHILIPPINES
436	5	19	17	36	25.5	-19.903	-177.515	369	87.40	5.9		FIJI ISLANDS REGION
437	5	20	9	24	47.9	-5.501	146.330	100	90.83	4.7		EASTERN NEW GUINEA REG., P.N.G.
438	5	20	11	33	27.1	-4.246	125.997	410	84.77	4.2		BANDA SEA
439	5	20	17	2	29.5	2.735	128.474	227	92.13	4.5		HALMAHERA, INDONESIA
440	5	21	14	22	10.8	-52.407	26.502	10	17.77	4.2		SOUTH OF AFRICA
441	5	21	21	53	30.8	-37.780	177.430	107	69.06	4.3		OFF E. COAST OF N. ISLAND, N.Z.
442	5	21	23	15	47.6	-30.012	-179.102	250	77.27	4.6		KERMADEC ISLANDS REGION
443	5	22	0	12	29.6	-4.206	152.778	33	94.22	5.0	4.4	NEW BRITAIN REGION, P.N.G.
444	5	22	9	15	17.9	36.622	71.417	189	107.92	5.2		AFGHANISTAN-TAJIKISTAN BORD REGION
445	5	22	20	38	11.6	-15.418	-70.631	193	82.74	4.4		SOUTHERN PERU
446	5	23	21	27	21.9	-10.234	120.304	33	77.18	5.3		SUMBA REGION, INDONESIA
447	5	24	0	33	8.4	-20.346	-67.253	204	77.03	5.0		SOUTHERN BOLIVIA
448	5	24	5	57	53.1	-13.771	167.257	207	89.61	4.5		VANUATU ISLANDS
449	5	24	9	42	0.2	-27.481	-177.909	296	79.97	4.6		KERMADEC ISLANDS REGION
450	5	24	10	40	0.1	-15.550	167.648	151	88.03	5.2		VANUATU ISLANDS
451	5	24	12	59	9.7	-5.769	151.058	63	92.18	5.3		NEW BRITAIN REGION, P.N.G.
452	5	24	15	5	40.2	-60.685	-19.498	10	25.43	4.7		EAST OF SOUTH SANDWICH ISLANDS
453	5	24	18	7	55.4	-38.868	175.392	261	67.58	5.1		NORTH ISLAND, NEW ZEALAND
454	5	25	0	25	49.8	-28.889	-71.022	46	70.30	4.9		NEAR COAST OF CENTRAL CHILE
455	5	25	0	54	52.4	44.099	148.453	33	136.96	4.7		KURIL ISLANDS
456	5	25	5	6	10.6	-7.869	110.179	143	75.79	5.8		JAWA, INDONESIA
457	5	25	22	22	34.9	-35.731	-179.669	33	71.62	4.7		EAST OF NORTH ISLAND, N.Z.
458	5	26	0	35	26.7	28.076	139.261	514	119.35	4.4		BONIN ISLANDS, JAPAN REGION
459	5	26	4	5	49.4	-4.304	102.677	52	76.57	5.2		SOUTHERN SUMATERA, INDONESIA
460	5	26	8	48	22.5	-7.437	128.213	156	82.61	5.0		BANDA SEA
461	5	26	10	57	26.1	-20.292	-177.842	407	86.96	5.3		FIJI ISLANDS REGION
462	5	27	8	48	47.2	-19.589	168.851	33	84.50	5.5	4.7	VANUATU ISLANDS
463	5	28	6	41	27.1	-16.223	-74.048	42	83.10	4.9		NEAR COAST OF PERU
464	5	28	8	37	5.1	-6.609	132.346	33	84.87	5.9	5.3	TANIMBAR ISLANDS REG., INDONESIA
465	5	28	11	41	47.5	-18.416	-178.252	488	88.69	4.6		FIJI ISLANDS REGION
466	5	29	6	22	55.1	-55.979	-27.894	33	31.89	5.0		SOUTH SANDWICH ISLANDS REGION
467	5	29	7	43	4.0	-21.108	-69.731	82	77.13	4.3		NORTHERN CHILE
468	5	29	13	48	25.3	37.323	135.033	383	126.19	4.1		SEA OF JAPAN
469	5	29	19	3	42.1	-4.651	102.743	47	76.27	5.0	4.6	SOUTHERN SUMATERA, INDONESIA
470	5	29	19	17	55.4	-32.140	-71.702	33	67.49	4.6		NEAR COAST OF CENTRAL CHILE
471	5	29	23	37	19.4	-7.022	155.037	14	92.31	5.7	6.4	SOLOMON ISLANDS
472	5	30	0	29	21.7	-7.025	155.003	10	92.30	5.2		SOLOMON ISLANDS
473	5	30	4	29	26.1	-7.138	155.091	10	92.22	5.1		SOLOMON ISLANDS
474	5	30	6	56	57.1	-56.619	-139.712	10	54.68	4.8	5.0	PACIFIC-ANTARCTIC RIDGE.
475	5	30	11	24	42.2	7.732	-36.741	10	92.31	4.7	4.2	CENTRAL MID-ATLANTIC RIDGE
476	5	31	0	45	42.4	-8.203	155.928	109	91.49	4.3		SOLOMON ISLANDS
477	5	31	19	14	48.0	26.516	140.639	488	118.43	4.1		BONIN ISLANDS, JAPAN REGION
478	6	1	10	50	50.3	-6.023	112.991	594	78.49	4.5		JAVA, INDONESIA
479	6	1	20	36	56.7	-7.199	154.923	33	92.11	5.6	5.7	SOLOMON ISLANDS
480	6	1	20	41	37.8	-7.222	155.007	33	92.12	5.3	5.4	SOLOMON ISLANDS

No.	Date	Origin time			Geographic Coordinates		Depth (km)	Epicentral distance (deg)	Magnitude		Region
		UTC			Latitude (deg)	Longitude (deg)			Mb	MsZ	
		h	m	s							
481	6 1 23	9	21.6	-7.742	107.213	90	74.88	5.1		JAVA, INDONESIA	
482	6 2 16	36	18.8	-12.387	166.982	257	90.86	4.3		SANTA CRUZ ISLANDS	
483	6 3 2	41	57.1	-29.666	-178.633	178	77.70	6.8		KERMADEC ISLANDS, NEW ZEALAND	
484	6 3 23	48	19.9	0.490	122.538	98	87.92	5.0		MINAHASSA PENINSULA, SULAWESI	
485	6 4 2	58	41.8	-6.948	124.825	538	81.85	5.4		BANDA SEA	
486	6 4 13	0	57.2	1.489	127.189	122	90.51	5.1		HALMAHERA, INDONESIA	
487	6 4 21	51	18.8	-17.827	-178.891	554	89.13	4.5		FIJI ISLANDS REGION	
488	6 4 23	26	58.6	-23.897	-66.681	188	73.54	4.5		JUJUY PROVINCE, ARGENTINA	
489	6 5 9	0	5.3	-6.884	146.388	10	89.56	5.8	6.2	EASTERN NEW GUINEA REG., P.N.G.	
490	6 5 9	19	26.2	-6.886	146.421	10	89.57	5.0		EASTERN NEW GUINEA REG., P.N.G.	
491	6 5 9	22	31.8	-6.816	146.527	10	89.67	5.0		EASTERN NEW GUINEA REG., P.N.G.	
492	6 5 9	49	19.9	-6.895	146.498	10	89.59	4.6		EASTERN NEW GUINEA REG., P.N.G.	
493	6 5 9	49	30.4	-6.862	146.497	10	89.62	5.2	5.0	EASTERN NEW GUINEA REG., P.N.G.	
494	6 5 10	0	9.9	-6.866	146.411	10	89.58	5.0		EASTERN NEW GUINEA REG., P.N.G.	
495	6 5 13	12	0.7	-6.769	146.430	10	89.68	4.8		EASTERN NEW GUINEA REG., P.N.G.	
496	6 5 15	13	58.1	-6.815	146.410	10	89.63	5.8	5.6	EASTERN NEW GUINEA REG., P.N.G.	
497	6 5 16	16	52.7	-14.399	167.387	161	89.05	4.6		VANUATU ISLANDS	
498	6 5 22	52	3.3	-6.818	146.244	10	89.57	4.7		EASTERN NEW GUINEA REG., P.N.G.	
499	6 6 6	55	37.2	-20.229	-174.010	33	87.77	4.5		TONGA ISLANDS	
500	6 8 23	7	43.9	-30.621	-179.173	343	76.67	4.8		KERMADEC ISLANDS REGION	
501	6 9 2	20	51.3	33.452	136.028	421	123.06	4.8		NEAR S. COAST OF WESTERN HONSHU	
502	6 9 3	15	0.8	-15.114	167.361	149	88.36	4.6		VANUATU ISLANDS	
503	6 10 1	47	38.6	-30.590	-177.820	33	76.96	4.9		KERMADEC ISLANDS, NEW ZEALAND	
504	6 10 11	25	32.4	-6.507	154.934	33	92.76	5.5	4.9	SOLOMON ISLANDS	
505	6 10 11	31	49.1	3.704	126.985	33	92.49	5.0		TALAUD ISLANDS, INDONESIA	
506	6 10 13	11	4.2	38.582	25.613	33	107.78	5.3	5.4	AEGEAN SEA	
507	6 10 15	18	33.3	4.033	126.330	94	92.56	5.4		TALAUD ISLANDS, INDONESIA	
508	6 11 0	42	9.7	-6.546	154.994	33	92.75	5.2		SOLOMON ISLANDS	
509	6 11 11	44	1.5	-0.141	122.994	104	87.50	4.9		MINAHASSA PENINSULA, SULAWESI	
510	6 11 12	44	56.0	-5.788	145.572	33	90.30	4.5		EASTERN NEW GUINEA REG., P.N.G.	
511	6 12 4	28	16.9	-34.105	178.987	268	72.92			SOUTH OF KERMADEC ISLANDS	
512	6 12 8	17	6.5	7.511	126.816	45	95.96	4.5		MINDANAO, PHILIPPINES	
513	6 12 22	26	44.3	-17.890	-178.540	600	89.14	4.7		FIJI ISLANDS REGION	
514	6 12 22	41	27.8	44.185	148.578	33	137.08	5.4	4.7	KURIL ISLANDS	
515	6 13 3	49	29.0	-18.831	-173.355	33	89.26	5.1	5.3	TONGA ISLANDS	
516	6 13 4	10	46.3	-27.214	-66.505	17	70.40	5.2	4.8	CATAMARCA PROVINCE, ARGENTINA	
517	6 13 12	27	13.1	-23.217	179.170	550	83.49	4.7		SOUTH OF FIJI ISLANDS	
518	6 13 17	10	43.2	-4.616	152.933	33	93.88	4.9	4.4	NEW BRITAIN REGION, P.N.G.	
519	6 13 22	15	19.9	-6.890	109.071	227	76.32	4.3		JAVA, INDONESIA	
520	6 14 3	22	45.5	-52.747	27.004	10	17.36	4.7		SOUTH OF AFRICA	
521	6 14 12	27	4.4	-22.053	-179.461	604	84.91	5.3		SOUTH OF FIJI ISLANDS	
522	6 14 13	39	26.8	51.192	-179.850	33	154.17	5.2	4.9	ANDREANOF ISLANDS, ALEUTIAN IS.	
523	6 14 17	8	10.8	-20.709	-178.321	537	86.46	5.1		FIJI ISLANDS REGION	
524	6 14 19	48	47.8	51.160	-179.828	18	154.15	6.0	6.3	ANDREANOF ISLANDS, ALEUTIAN IS.	
525	6 14 20	1	37.0	51.230	-179.890	33	154.19	5.0		ANDREANOF ISLANDS, ALEUTIAN IS.	
526	6 14 23	31	28.8	18.852	146.810	33	113.62	5.5	5.7	MARIANA ISLANDS	
527	6 15 16	19	7.6	13.903	51.679	10	83.14	5.5	5.5	EASTERN GULF OF ADEN	
528	6 15 21	34	53.5	-17.729	-178.345	588	89.34	4.7		FIJI ISLANDS REGION	

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		UTC			Latitude	Longitude			Mb	Msz	
		h	m	s	(deg)	(deg)					
529	6 16	2	13	38.1	-14.889	-173.339	10	93.11	5.6	5.8	SAMOA ISLANDS REGION
530	6 16	18	21	9.8	-6.858	146.390	33	89.58	4.7		EASTERN NEW GUINEA REG., P.N.G.
531	6 17	4	28	36.3	-21.713	-179.196	610	85.30	4.4		FIJI ISLANDS REGION
532	6 17	5	27	28.6	-4.082	151.679	300	93.97	4.7		NEW BRITAIN REGION, P.N.G.
533	6 18	14	50	59.0	-21.137	-179.124	600	85.87	4.8		FIJI ISLANDS REGION
534	6 18	19	56	56.3	-24.291	-69.173	89	73.99	5.5		NORTHERN CHILE
535	6 18	23	31	8.4	-20.154	169.063	33	84.01	5.3	5.1	VANUATU ISLANDS
536	6 19	3	23	18.1	-21.779	-178.626	600	85.35	4.2		FIJI ISLANDS REGION
537	6 19	9	32	24.7	-22.739	-67.877	147	75.01	5.5		CHILE-BOLIVIA BORDER REGION
538	6 19	13	19	21.3	-17.842	-178.738	600	89.15	4.7		FIJI ISLANDS REGION
539	6 19	23	5	50.8	-17.327	-179.159	600	89.56	4.3		FIJI ISLANDS REGION
540	6 20	14	47	45.1	-24.671	178.750	600	82.00	4.2		SOUTH OF FIJI ISLANDS
541	6 20	18	5	4.7	-26.216	178.517	600	80.45	4.2		SOUTH OF FIJI ISLANDS
542	6 20	20	50	34.2	3.040	128.573	213	92.45	5.0		NORTH OF HALMAHERA, INDONESIA
543	6 21	11	2	3.8	-17.263	-14.134	10	61.39	5.3	4.8	SOUTHERN MID-ATLANTIC RIDGE
544	6 21	16	51	21.9	-18.812	-173.357	33	89.28	4.8		TONGA ISLANDS
545	6 22	7	16	5.5	-18.891	-173.366	33	89.20	4.8	4.7	TONGA ISLANDS
546	6 23	14	34	19.3	1.443	125.691	70	89.93	5.6		NORTHERN MOLUCCA SEA
547	6 23	16	51	9.8	55.011	-159.326	35	163.51	5.2	5.1	ALASKA PENINSULA
548	6 23	20	33	14.1	-16.265	-73.641	33	82.93	6.7	8.2	NEAR COAST OF PERU
549	6 23	22	24	39.5	-16.645	-73.606	33	82.56	5.7		NEAR COAST OF PERU
550	6 23	22	32	37.2	-17.602	-72.646	33	81.35	5.5		NEAR COAST OF PERU
551	6 23	23	10	0.9	-16.767	-73.632	33	82.45	5.9		NEAR COAST OF PERU
552	6 23	23	44	56.0	-16.751	-73.723	33	82.50	5.4		NEAR COAST OF PERU
553	6 23	23	49	13.8	-17.849	-71.579	33	80.78	5.6		NEAR COAST OF PERU
554	6 24	0	14	41.6	-16.546	-73.932	31	82.76	5.2		NEAR COAST OF PERU
555	6 24	1	22	53.4	-17.585	-71.958	33	81.15	5.4	5.5	NEAR COAST OF PERU
556	6 24	1	48	31.8	-17.270	-73.289	33	81.87	5.3		OFF COAST OF PERU
557	6 24	2	11	35.1	-17.254	-72.760	33	81.72	5.2		NEAR COAST OF PERU
558	6 24	2	31	6.3	-17.745	-71.531	33	80.86	5.4	5.6	NEAR COAST OF PERU
559	6 24	4	2	59.3	-17.466	-72.412	33	81.41	5.1	5.2	NEAR COAST OF PERU
560	6 24	4	18	34.8	-17.403	-72.445	33	81.48	4.9		NEAR COAST OF PERU
561	6 24	5	29	26.4	-17.003	-73.570	33	82.21	5.1		OFF COAST OF PERU
562	6 24	5	56	35.3	-17.307	-72.279	31	81.51	4.8		NEAR COAST OF PERU
563	6 24	6	8	25.3	-16.506	-73.256	33	82.58	5.0		NEAR COAST OF PERU
564	6 24	8	11	39.0	-17.037	-73.549	34	82.17	5.1		OFF COAST OF PERU
565	6 24	10	45	30.7	-16.235	-73.972	33	83.06	4.8		NEAR COAST OF PERU
566	6 24	12	28	58.9	-17.673	-72.049	33	81.10	5.0		NEAR COAST OF PERU
567	6 24	13	33	24.9	-16.655	-74.058	33	82.69	5.1		NEAR COAST OF PERU
568	6 24	14	32	43.3	-17.267	-72.546	30	81.64	5.4	5.2	NEAR COAST OF PERU
569	6 24	17	37	51.3	-17.437	-72.281	39	81.39	5.1	4.9	NEAR COAST OF PERU
570	6 25	19	44	47.6	-16.627	-73.918	33	82.68	4.9		NEAR COAST OF PERU
571	6 25	19	58	13.3	-16.518	-73.719	33	82.71	5.0		NEAR COAST OF PERU
572	6 25	22	14	10.0	-17.574	-70.685	74	80.74	5.4		NEAR COAST OF PERU
573	6 25	22	52	17.2	-17.115	-73.387	33	82.05	4.9		OFF COAST OF PERU
574	6 26	0	29	1.7	0.382	125.310	33	88.81	5.1		NORTHERN MOLUCCA SEA
575	6 26	4	18	31.3	-17.745	-71.649	24	80.90	6.2	6.7	NEAR COAST OF PERU
576	6 26	5	41	11.3	-16.650	-74.083	33	82.71	4.9		NEAR COAST OF PERU

No.	Date	Origin time			Geographic Coordinates		Depth (km)	Epicentral distance (deg)	Magnitude		Region
		UTC			Latitude (deg)	Longitude (deg)			Mb	MsZ	
		h	m	s							
577	6 26	8	47	9.5	-16.561	-74.193	33	82.83	5.1	4.8	NEAR COAST OF PERU
578	6 26	9	46	16.6	43.652	147.123	59	136.09	5.3		KURIL ISLANDS
579	6 26	11	2	3.8	-30.653	-71.656	33	68.86	4.6		NEAR COAST OF CENTRAL CHILE
580	6 26	12	51	16.3	-16.652	-73.618	33	82.56	5.3	5.3	NEAR COAST OF PERU
581	6 26	14	5	37.0	61.340	-140.070	10	172.30	5.8	5.4	SOUTHERN YUKON TERRITORY, CANADA
582	6 26	15	12	40.6	-16.686	-74.132	33	82.69	5.0		NEAR COAST OF PERU
583	6 26	17	27	48.5	-17.611	-72.102	33	81.17	5.2	5.2	NEAR COAST OF PERU
584	6 26	21	8	59.0	-17.358	-73.021	33	81.70	4.5		OFF COAST OF PERU
585	6 26	23	23	39.0	-17.213	-73.135	33	81.88	4.9	4.3	OFF COAST OF PERU
586	6 27	0	21	6.9	-17.887	-71.529	33	80.73	5.2	5.0	NEAR COAST OF PERU
587	6 27	2	5	34.9	-48.688	126.188	10	44.54	4.8	4.6	WESTERN INDIAN-ANTARCTIC RIDGE
588	6 27	16	50	28.1	-49.718	163.891	33	54.70	4.1		AUCKLAND ISLANDS, N.Z. REGION
589	6 27	19	49	59.0	-29.394	-178.604	227	77.97	4.7		KERMADEC ISLANDS, NEW ZEALAND
590	6 27	23	4	26.2	-31.508	-71.649	33	68.06	4.9		NEAR COAST OF CENTRAL CHILE
591	6 28	3	39	27.4	-16.793	-73.713	33	82.45	5.0		NEAR COAST OF PERU
592	6 28	3	46	28.1	-6.990	108.275	37	75.95	5.0		JAVA, INDONESIA
593	6 28	4	24	46.4	-16.788	-73.664	33	82.44	5.1	4.3	NEAR COAST OF PERU
594	6 28	21	35	24.8	-17.580	-72.538	33	81.34	5	4.4	NEAR COAST OF PERU
595	6 29	6	31	11.5	-17.275	-72.299	33	81.55	4.9	4.5	NEAR COAST OF PERU
596	6 29	10	0	22.0	-17.758	-177.955	454	89.40	4.7		FIJI ISLANDS REGION
597	6 29	18	35	51.9	-19.522	-66.254	274	77.46	5.7		SOUTHERN BOLIVIA
598	6 29	22	33	19.1	-15.408	-70.357	33	82.66	5.0		SOUTHERN PERU
599	6 29	22	36	51.2	-15.493	-70.577	33	82.65	4.9		SOUTHERN PERU
600	6 29	23	40	0.8	0.292	29.972	10	69.48	5.0	4.4	DEMOCRATIC REPUBLIC OF CONGO
601	6 30	16	34	36.0	-6.406	146.761	104	90.13	5.8		EASTERN NEW GUINEA REG., P.N.G.
602	7 1	1	46	6.1	-4.312	152.956	28	94.18	5.8	6.0	NEW BRITAIN REGION, P.N.G.
603	7 1	11	6	30.8	-17.124	-72.956	33	81.90	5.1	5.2	NEAR COAST OF PERU
604	7 1	13	11	23.9	-16.979	-74.178	33	82.43	4.7		NEAR COAST OF PERU
605	7 2	5	55	44.1	0.457	125.255	33	88.86	5.1		NORTHERN MOLUCCA SEA
606	7 2	13	10	12.3	-27.875	-176.652	33	79.83	4.8		KERMADEC ISLANDS REGION
607	7 2	14	29	24.4	-16.224	167.857	189	87.44	4.5		VANUATU ISLANDS
608	7 2	20	18	10.5	-7.005	129.403	33	83.44	4.5		BANDA SEA
609	7 2	23	23	53.5	-5.210	102.696	33	75.73	5.1		SOUTHERN SUMATRA, INDONESIA
610	7 3	3	18	7.2	-6.033	154.806	211	93.17	5.2		SOLOMON ISLANDS
611	7 3	8	34	36.9	-8.525	127.237	33	81.26	5.2	4.5	TIMOR REGION
612	7 3	8	38	5.8	-8.459	127.358	33	81.36	5.1		TIMOR REGION
613	7 3	12	57	42.6	-16.623	-73.971	33	82.70	5.4	5.1	NEAR COAST OF PERU
614	7 3	13	10	42.6	21.641	142.984	290	114.81	6.0		MARIANA ISLANDS REGION
615	7 3	14	32	51.5	-32.297	-179.766	250	74.92	4.3		SOUTH OF KERMADEC ISLANDS
616	7 3	23	54	22.9	0.026	-16.482	10	78.42	4.8	4.0	NORTH OF ASCENSION ISLAND
617	7 4	2	7	49.6	-11.500	166.445	102	91.55	5.0		SANTA CRUZ ISLANDS
618	7 4	7	6	31.6	-21.725	-176.705	185	85.80	5.9	5.8	FIJI ISLANDS REGION
619	7 4	12	9	3.8	-17.003	-65.711	33	79.62	5.6	5.9	CENTRAL BOLIVIA
620	7 4	16	58	3.2	-22.142	170.780	33	82.55	4.8		SOUTHEAST OF LOYALTY ISLANDS
621	7 4	17	47	45.0	32.156	139.545	33	123.16	5.4	5.5	SOUTHEAST OF HONSHU, JAPAN
622	7 5	13	53	48.3	-16.086	-73.987	62	83.21	6.2		NEAR COAST OF PERU
623	7 5	17	43	38.5	1.097	126.308	33	89.83	4.7		NORTHERN MOLUCCA SEA
624	7 5	18	9	3.1	-16.864	-72.453	33	81.98	4.9		NEAR COAST OF PERU

No.	Date	Origin time			Geographic Coordinates		Depth (km)	Epicentral distance (deg)	Magnitude		Region
		UTC			Latitude (deg)	Longitude (deg)			Mb	MsZ	
		h	m	s							
625	7 7	0 56	34.0	-23.848	-66.610	189	73.56	4.6		JUJUY PROVINCE, ARGENTINA	
626	7 7	5 11	3.4	2.860	66.226	10	74.01	5.3	4.7	CARLSBERG RIDGE	
627	7 7	5 19	42.9	-16.492	-73.409	33	82.64	4.8		NEAR COAST OF PERU	
628	7 7	9 29	37.7	-22.831	-70.128	33	75.66	5.1		NEAR COAST OF NORTHERN CHILE	
629	7 7	9 38	43.5	-17.543	-72.077	33	81.23	6.6	7.3	NEAR COAST OF PERU	
630	7 7	11 17	32.5	-17.634	-71.828	31	81.06	5.2		NEAR COAST OF PERU	
631	7 7	11 55	59.2	-17.487	-72.000	33	81.25	4.7		NEAR COAST OF PERU	
632	7 7	12 39	41.5	-20.719	-178.730	625	86.36	4.4		FIJI ISLANDS REGION	
633	7 7	13 36	16.5	-17.644	-72.150	33	81.16	4.6		NEAR COAST OF PERU	
634	7 7	14 6	18.7	-19.981	-177.629	551	87.31	4.5		FIJI ISLANDS REGION	
635	7 7	16 14	29.9	-31.205	-178.276	33	76.28	5.0		KERMADEC ISLANDS REGION	
636	7 7	19 30	0.0	-17.605	-72.131	33	81.19	4.9	4.7	NEAR COAST OF PERU	
637	7 8	4 13	23.1	-10.607	165.901	197	92.24	4.6		SANTA CRUZ ISLANDS	
638	7 8	17 54	18.7	-6.663	152.108	10	91.69	6.0	5.7	NEW BRITAIN REGION, P.N.G.	
639	7 8	18 30	42.0	-14.810	167.333	150	88.65	4.6		VANUATU ISLANDS	
640	7 8	21 15	18.8	-16.739	-72.643	33	82.16	4.7		NEAR COAST OF PERU	
641	7 9	4 43	21.8	-30.197	-177.911	33	77.33	5.0		KERMADEC ISLANDS, NEW ZEALAND	
642	7 9	15 43	20.0	-27.738	65.668	10	44.05	4.8		INDIAN OCEAN TRIPLE JUNCTION	
643	7 9	20 37	35.3	-25.542	-179.473	400	81.53	4.5		SOUTH OF FIJI ISLANDS	
644	7 10	2 0	6.4	-27.740	65.493	10	44.01	4.8		INDIAN OCEAN TRIPLE JUNCTION	
645	7 10	3 24	0.1	-15.504	-70.509	33	82.62	4.7	4.1	SOUTHERN PERU	
646	7 10	21 5	28.3	-17.745	-178.597	567	89.27	4.5		FIJI ISLANDS REGION	
647	7 11	10 46	13.8	-25.064	-177.680	170	82.36	4.4		SOUTH OF FIJI ISLANDS	
648	7 11	15 11	49.4	-20.265	-178.116	563	86.93	5.0		FIJI ISLANDS REGION	
649	7 12	6 12	16.7	-7.429	-13.378	10	70.43	5.6	5.1	ASCENSION ISLAND REGION	
650	7 12	7 15	5.2	-17.426	-66.077	33	79.35	4.5		CENTRAL BOLIVIA	
651	7 13	4 33	26.0	-55.673	146.711	10	44.88	4.8		WEST OF MACQUARIE ISLAND	
652	7 13	12 45	25.2	-19.955	-69.172	107	78.03	5.0		NORTHERN CHILE	
653	7 13	19 23	55.5	-6.883	30.917	10	62.31	4.8	4.0	LAKE TANGANYIKA REGION	
654	7 14	1 14	56.1	52.764	-34.935	10	133.03	4.9	4.4	REYKJANES RIDGE	
655	7 14	5 46	56.5	-4.196	152.581	75	94.16	4.3		NEW BRITAIN REGION, P.N.G.	
656	7 14	21 42	20.8	14.699	55.640	10	84.27	5.2	4.7	OWEN FRACTURE ZONE REGION	
657	7 15	3 8	3.5	-19.601	-176.156	250	87.97	4.5		FIJI ISLANDS REGION	
658	7 15	3 19	44.3	-34.784	-71.638	69	65.02	4.9		NEAR COAST OF CENTRAL CHILE	
659	7 15	10 8	42.2	-29.630	-71.203	21	69.67	4.8		NEAR COAST OF CENTRAL CHILE	
660	7 15	20 51	24.1	2.429	128.523	232	91.87	4.3		HALMAHERA, INDONESIA	
661	7 16	7 52	12.3	-31.318	-68.739	116	67.32	4.2		SAN JUAN PROVINCE, ARGENTINA	
662	7 16	9 7	8.8	-14.165	-14.270	10	64.35	4.5		SOUTHERN MID-ATLANTIC RIDGE	
663	7 16	14 9	29.2	79.514	4.188	10	149.68	5.0	4.5	GREENLAND SEA	
664	7 16	22 29	17.7	-32.184	-71.954	47	67.53	4.6		NEAR COAST OF CENTRAL CHILE	
665	7 17	23 26	0.2	-16.670	-73.443	33	82.48	4.8	4.4	NEAR COAST OF PERU	
666	7 18	3 52	47.0	-15.833	166.373	33	87.40	5.1		VANUATU ISLANDS	
667	7 18	12 9	48.7	-21.135	-69.528	33	77.04	4.6		NORTHERN CHILE	
668	7 18	20 23	8.4	-16.734	-73.495	33	82.44	4.1		NEAR COAST OF PERU	
669	7 18	23 29	9.8	-6.296	130.167	33	84.37	4.8		BANDA SEA	
670	7 19	10 26	46.9	27.177	140.335	502	118.92	4.1		BONIN ISLANDS, JAPAN REGION	
671	7 19	13 10	26.1	-17.404	167.694	33	86.27	5.0	4.7	VANUATU ISLANDS	
672	7 19	18 0	40.3	57.203	-151.036	33	167.24	5.9	5.4	KODIAK ISLAND REGION, ALASKA	

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		UTC			Latitude (deg)	Longitude (deg)			Mb	MsZ	
		h	m	s							
673	7 19 20 12	15.5	-16.971	-174.676	227	90.82	5.4				TONGA ISLANDS
674	7 19 22 51	23.5	-30.561	-178.312	200	76.90	4.6				KERMADEC ISLANDS, NEW ZEALAND
675	7 20 0 21	51.4	-15.167	-173.687	40	92.77	5.2	5.0			TONGA ISLANDS
676	7 20 0 27	56.7	-17.942	-174.819	33	89.85	4.9				TONGA ISLANDS
677	7 20 4 26	40.3	32.356	137.494	403	122.60	4.6				SOUTHEAST OF HONSHU, JAPAN
678	7 20 9 45	54.6	6.133	126.825	91	94.69	5.5				MINDANAO, PHILIPPINES
679	7 20 10 48	48.7	-28.107	-178.316	243	79.28	4.8				KERMADEC ISLANDS REGION
680	7 20 14 42	0.9	-18.039	167.723	53	85.67	5.3				VANUATU ISLANDS
681	7 20 14 58	27.8	-32.360	-71.808	28	67.32	4.5				NEAR COAST OF CENTRAL CHILE
682	7 20 20 6	42.4	-24.024	179.030	567	82.68	4.0				SOUTH OF FIJI ISLANDS
683	7 20 23 4	39.4	-30.007	-177.864	56	77.52	5.0				KERMADEC ISLANDS, NEW ZEALAND
684	7 22 8 10	39.4	-55.334	-26.880	33	32.03	4.7				SOUTH SANDWICH ISLANDS REGION
685	7 22 10 38	57.3	-6.092	153.205	33	92.59	4.4				NEW BRITAIN REGION, P.N.G.
686	7 22 18 15	9.0	-5.147	132.338	33	86.22	5.7	5.4			ARU ISLANDS REGION, INDONESIA
687	7 23 1 2	27.9	-22.586	-179.683	596	84.35	4.9				SOUTH OF FIJI ISLANDS
688	7 23 8 49	46.1	-6.267	151.634	33	91.91	5.1	4.7			NEW BRITAIN REGION, P.N.G.
689	7 23 21 49	26.3	-4.993	151.290	142	92.98	5.0				NEW BRITAIN REGION, P.N.G.
690	7 23 22 31	7.8	9.194	-83.881	33	110.14	4.8	5.0			COSTA RICA
691	7 24 0 58	47.4	-7.590	129.501	33	82.94	4.9				BANDA SEA
692	7 24 5 0	9.0	-19.448	-69.255	33	78.53	5.7	6.2			NORTHERN CHILE
693	7 24 17 42	41.5	-32.855	-71.582	33	66.79	5.5	4.7			NEAR COAST OF CENTRAL CHILE
694	7 24 19 54	47.9	-16.745	-73.990	33	82.59	5.0	4.3			NEAR COAST OF PERU
695	7 25 11 36	35.6	-19.289	-174.928	33	88.52	4.8				TONGA ISLANDS
696	7 25 12 22	3.5	51.087	-179.404	33	154.23	5.1	4.7			ANDREANOF ISLANDS, ALEUTIAN IS.
697	7 25 16 2	52.0	33.165	95.600	33	109.81	5.3	5.3			QINGHAI, CHINA
698	7 25 16 35	12.8	10.561	93.007	33	87.63	4.9				ANDAMAN ISLANDS, INDIA REGION
699	7 25 21 56	36.9	0.043	122.970	157	87.66	5.3				MINAHASSA PENINSULA, SULAWESI
700	7 26 0 21	36.9	39.059	24.244	10	108.35	6.0	6.6			AEGEAN SEA
701	7 26 6 26	26.8	-4.273	152.887	33	94.19	4.6				NEW BRITAIN REGION, P.N.G.
702	7 26 10 57	12.2	-28.865	-71.590	52	70.50	4.6				NEAR COAST OF CENTRAL CHILE
703	7 26 18 30	10.4	-5.390	151.692	33	92.75	4.7				NEW BRITAIN REGION, P.N.G.
704	7 27 22 42	31.9	-17.411	-72.722	33	81.56	5.2	5.0			NEAR COAST OF PERU
705	7 28 7 32	43.0	59.025	-155.116	131	168.13	5.7				SOUTHERN ALASKA
706	7 28 17 15	57.5	-16.255	-175.142	248	91.43	4.6				TONGA ISLANDS
707	7 28 18 46	53.3	-24.289	-66.937	186	73.26	4.5				SALTA PROVINCE, ARGENTINA
708	7 29 15 57	15.3	-15.595	-71.938	33	83.00	4.2				SOUTHERN PERU
709	7 30 0 15	0.4	-6.159	152.954	33	92.44	5.3				NEW BRITAIN REGION, P.N.G.
710	7 30 5 14	12.5	12.598	123.381	33	99.45	5.1	4.7			LUZON, PHILIPPINES
711	7 30 7 55	25.4	-34.093	-70.484	106	65.30	4.6				CHILE-ARGENTINA BORDER REGION
712	7 30 19 50	9.2	-3.294	-12.183	10	73.99	5.2	4.7			NORTH OF ASCENSION ISLAND
713	7 30 21 56	19.1	-4.209	102.177	33	76.50	5.0				SOUTHERN SUMATRA, INDONESIA
714	7 30 22 20	53.9	-31.379	-69.208	118	67.42	4.4				SAN JUAN PROVINCE, ARGENTINA
715	7 31 6 57	40.8	-17.692	-178.826	564	89.28	5.3				FIJI ISLANDS REGION
716	7 31 9 43	14.5	-5.281	103.336	33	75.88	5.5	5.3			SOUTHERN SUMATRA, INDONESIA
717	7 31 12 24	4.4	51.156	179.385	33	153.88	5.3	5.3			RAT ISLANDS, ALEUTIAN ISLANDS
718	7 31 15 11	18.3	1.557	126.399	33	90.29	5.8	5.1			NORTHERN MOLUCCA SEA
719	7 31 16 41	30.9	8.023	117.466	33	93.12	5.2	4.8			PALAWAN, PHILIPPINES
720	7 31 22 22	22.2	-26.915	26.611	5	42.82	4.9	4.0			SOUTH AFRICA

No.	Date		Origin time			Geographic Coordinates		Depth	Epicentral distance	Magnitude		Region
			UTC			Latitude (deg)	Longitude (deg)			Mb	MsZ	
	h	m	s									
721	8	1	3	0	16.1	-35.189	-72.203	33	64.81	5.0	4.8	NEAR COAST OF CENTRAL CHILE
722	8	1	3	4	17.8	-21.257	-179.260	600	85.73	4.6		FIJI ISLANDS REGION
723	8	1	10	24	31.7	-20.363	-178.438	600	86.77	4.3		FIJI ISLANDS REGION
724	8	1	14	32	20.3	-7.512	-73.950	180	91.23	4.9		PERU-BRAZIL BORDER REGION
725	8	1	22	10	15.2	-35.496	-104.733	10	72.52	4.8		SOUTHEAST OF EASTER ISLAND
726	8	2	1	4	27.9	-25.982	-70.651	33	72.89	4.6		NEAR COAST OF NORTHERN CHILE
727	8	2	7	6	58.1	-24.407	-69.691	74	74.05	4.0		NORTHERN CHILE
728	8	2	8	45	25.3	-9.198	122.071	33	78.77	5.0		SAVU SEA
729	8	2	23	41	6.1	56.260	163.790	14	152.51	5.9	6.2	NEAR EAST COAST OF KAMCHATKA
730	8	3	11	16	46.7	-4.644	102.617	33	76.24	4.5		SOUTHERN SUMATERA, INDONESIA
731	8	4	0	33	51.5	-28.255	-179.425	409	78.91	4.6		KERMADEC ISLANDS REGION
732	8	4	0	59	46.1	-24.007	-66.695	203	73.44	4.1		SALT A PROVINCE, ARGENTINA
733	8	4	1	44	53.7	2.809	126.995	33	91.67	5.8	5.6	NORTHERN MOLUCCA SEA
734	8	4	2	45	39.0	2.692	126.876	33	91.52	4.8		NORTHERN MOLUCCA SEA
735	8	4	3	33	1.7	-22.288	-63.663	520	74.02	4.1		SALTA PROVINCE, ARGENTINA
736	8	4	5	37	2.7	-26.310	-69.295	33	72.15	4.6		NORTHERN CHILE
737	8	4	13	6	48.8	-21.253	-177.827	378	86.03	4.6		FIJI ISLANDS REGION
738	8	5	3	54	43.5	2.822	126.938	33	91.66	5.1	4.7	NORTHERN MOLUCCA SEA
739	8	5	5	16	16.8	12.224	93.352	96	89.31	5.4	5.2	ANDAMAN ISLANDS, INDIA REGION
740	8	5	7	24	14.4	5.435	124.182	514	93.09	4.5		MINDANAO, PHILIPPINES
741	8	5	11	8	55.4	51.086	157.458	72	146.11	4.9		NEAR EAST COAST OF KAMCHATKA
742	8	5	20	23	13.3	-23.098	-175.556	33	84.69	4.7		TONGA ISLANDS REGION
743	8	6	3	52	59.5	-55.537	-123.422	10	55.14	6.1	6.5	SOUTHERN EAST PACIFIC RISE
744	8	6	3	56	9.6	-55.573	-123.395	10	55.10	5.6		SOUTHERN EAST PACIFIC RISE
745	8	6	6	40	26.1	-17.711	-178.603	500	89.30	4.5		FIJI ISLANDS REGION
746	8	6	6	44	0.0	-19.550	-69.120	33	78.39	4.8		NORTHERN CHILE
747	8	6	7	44	36.0	-56.996	-140.304	10	54.30	4.9		PACIFIC-ANTARCTIC RIDGE
748	8	6	7	55	25.3	2.175	128.507	240	91.62	5.1		HALMAHERA, INDONESIA
749	8	6	12	24	26.1	-59.456	-29.369	33	29.77	4.7		SOUTH SANDWICH ISLANDS REGION
750	8	6	13	33	53.4	-59.535	-29.414	33	29.72	4.7		SOUTH SANDWICH ISLANDS REGION
751	8	6	17	8	46.3	-8.535	-75.009	137	90.62	5.4		CENTRAL PERU
752	8	6	20	29	34.2	63.125	-149.815	97	172.97			CENTRAL ALASKA
753	8	7	3	22	35.8	-8.610	113.832	91	76.38	5.4		JAWA, INDONESIA
754	8	7	20	26	24.4	-23.528	-178.854	400	83.61	4.5		SOUTH OF FIJI ISLANDS
755	8	8	9	2	34.4	-17.015	-72.490	33	81.85	4.8		NEAR COAST OF PERU
756	8	8	13	8	3.6	-10.867	165.396	33	91.85	5.3	5.4	SANTA CRUZ ISLANDS
757	8	8	18	7	29.9	-56.003	-27.681	116	31.79	5.1		SOUTH SANDWICH ISLANDS REGION
758	8	9	2	6	59.9	-14.258	-72.683	33	84.50	5.4	5.5	CENTRAL PERU
759	8	9	3	9	2.3	-30.656	-178.072	51	76.85	5.3		KERMADEC ISLANDS, NEW ZEALAND
760	8	9	3	33	44.9	-18.166	-69.428	113	79.78	5.5		NORTHERN CHILE
761	8	9	6	45	37.2	-15.618	-72.073	33	83.03	4.9		SOUTHERN PERU
762	8	9	7	46	8.8	-15.332	-70.534	204	82.79	4.1		SOUTHERN PERU
763	8	9	13	8	36.7	51.400	-178.059	33	154.93	5.3	4.9	ANDREANOF ISLANDS, ALEUTIAN IS.
764	8	9	13	20	17.4	-7.352	120.719	33	80.00	5.5		FLORES SEA
765	8	9	16	59	44.3	-27.899	-69.973	85	70.89	4.6		NORTHERN CHILE
766	8	9	18	57	49.7	-5.506	149.597	145	91.94	5.2		NEW BRITAIN REGION, P.N.G.
767	8	10	13	21	47.3	-55.528	-123.682	10	55.17	4.9	4.6	SOUTHERN EAST PACIFIC RISE
768	8	10	15	5	12.1	-22.217	170.571	10	82.43	5.2	4.9	SOUTHEAST OF LOYALTY ISLANDS

No.	Date	Origin time				Geographic Coordinates		Depth (km)	Epicentral		Magnitude		Region
		UTC			Latitude (deg)	Longitude (deg)	distance (deg)		Mb	MsZ			
		h	m	s									
769	8 10	16	24	35.1	-14.700	167.106	82	88.69	5.4	5.0		VANUATU ISLANDS	
770	8 10	17	36	22.5	-33.384	-72.354	33	66.53	4.5			OFF COAST OF CENTRAL CHILE	
771	8 10	17	39	43.9	-14.329	-72.661	33	84.42	5.0	4.8		CENTRAL PERU	
772	8 10	18	9	19.0	-5.963	102.702	33	75.03	4.8			SOUTHERN SUMATERA, INDONESIA	
773	8 10	21	17	23.0	-31.835	-71.365	52	67.67	4.7	4.5		NEAR COAST OF CENTRAL CHILE	
774	8 11	8	32	43.0	-21.961	179.383	625	84.76	4.3			SOUTH OF FIJI ISLANDS	
775	8 11	13	1	6.2	-22.149	-174.926	33	85.73	5.0	5.2		TONGA ISLANDS REGION	
776	8 11	15	44	21.6	46.495	144.671	368	137.66	4.4			SEA OF OKHOTSK	
777	8 12	0	16	30.9	-16.721	-69.971	33	81.31	5.1	4.6		PERU-BOLIVIA BORDER REGION	
778	8 12	4	29	13.1	-10.943	166.355	163	92.05	4.3			SANTA CRUZ ISLANDS	
779	8 12	6	14	16.4	-22.087	-68.400	113	75.79	4.7			NORTHERN CHILE	
780	8 12	9	11	24.9	-31.662	-69.245	111	67.17	3.5			SAN JUAN PROVINCE, ARGENTINA	
781	8 12	10	27	0.6	-6.958	125.170	553	81.96	5.0			BANDA SEA	
782	8 12	12	6	9.1	6.322	94.774	33	84.12	5.1	5.2		NICOBAR ISLANDS, INDIA REGION	
783	8 12	15	53	51.6	11.498	-86.713	30	113.19	5.1	5.1		NEAR COAST OF NICARAGUA	
784	8 12	19	26	25.6	2.701	126.916	33	91.54	5.0			NORTHERN MOLUCCA SEA	
785	8 12	22	0	34.8	-28.205	-68.809	87	70.23	4.2			LA RIOJA PROVINCE, ARGENTINA	
786	8 13	1	7	16.1	-13.879	167.827	33	89.67	5.3	5.0		VANUATU ISLANDS	
787	8 13	8	21	4.2	-13.616	166.280	33	89.49	5.2	5.3		VANUATU ISLANDS	
788	8 13	20	11	23.4	41.046	142.308	38	132.08	6.0	6.3		HOKKAIDO, JAPAN REGION	
789	8 13	20	57	57.5	-5.703	142.305	33	89.24	5.2	5.1		NEW GUINEA, PAPUA NEW GUINEA	
790	8 13	23	32	51.9	-5.803	142.266	33	89.14	4.6			NEW GUINEA, PAPUA NEW GUINEA	
791	8 14	0	31	4.5	-34.806	-179.322	33	72.58	5.0	4.7		SOUTH OF KERMADEC ISLANDS	
792	8 14	3	31	49.1	-31.106	-178.250	33	76.38	4.6			KERMADEC ISLANDS REGION	
793	8 14	7	35	34.5	-16.200	-73.836	33	83.05	4.7			NEAR COAST OF PERU	
794	8 14	14	49	54.1	-25.254	179.921	470	81.68	4.5			SOUTH OF FIJI ISLANDS	
795	8 15	5	24	58.7	0.741	-25.452	10	81.95	4.7			CENTRAL MID-ATLANTIC RIDGE	
796	8 15	15	8	19.9	-22.664	179.317	587	84.06	5.1			SOUTH OF FIJI ISLANDS	
797	8 15	17	29	11.2	4.287	127.780	200	93.32	5.0			TALAUD ISLANDS, INDONESIA	
798	8 16	2	14	49.7	-31.901	-69.802	123	67.12	4.8			SAN JUAN PROVINCE, ARGENTINA	
799	8 16	5	48	36.9	-49.570	163.717	10	54.80	4.5			AUCKLAND ISLANDS, N.Z. REGION	
800	8 16	14	45	17.4	-33.334	-179.208	33	74.03	4.5			SOUTH OF KERMADEC ISLANDS	
801	8 16	18	50	18.9	-36.710	78.667	10	38.74	5.3	5.1		MID-INDIAN RIDGE	
802	8 17	13	57	4.1	-4.808	153.398	58	93.86	5.1			NEW IRELAND REGION, P.N.G.	
803	8 17	18	42	27.4	-16.398	-73.318	77	82.70	4.5			NEAR COAST OF PERU	
804	8 18	2	5	39.1	-33.416	122.555	10	56.75				WESTERN AUSTRALIA	
805	8 18	5	35	39.6	-3.039	-77.621	33	96.63	4.7	4.4		PERU-ECUADOR BORDER REGION	
806	8 18	13	8	47.2	10.957	92.439	24	87.85	4.8	3.9		ANDAMAN ISLANDS, INDIA REGION	
807	8 18	14	35	11.1	-52.547	26.439	10	17.65	4.7			SOUTH OF AFRICA	
808	8 18	14	46	23.8	-52.498	26.470	10	17.69	4.9			SOUTH OF AFRICA	
809	8 19	4	11	8.8	-23.776	-179.928	550	83.15	4.2			SOUTH OF FIJI ISLANDS	
810	8 19	5	47	54.1	-23.104	169.779	33	81.38	4.5	4.6		SOUTHEAST OF LOYALTY ISLANDS	
811	8 19	12	27	1.9	-33.609	-179.293	200	73.75	4.2			SOUTH OF KERMADEC ISLANDS	
812	8 19	13	0	15.7	-18.884	168.729	78	85.14	4.8			VANUATU ISLANDS	
813	8 20	4	12	37.4	25.653	126.208	33	112.49	5.5	4.8		RYUKYU ISLANDS, JAPAN	
814	8 20	7	31	30.0	-17.103	-73.523	33	82.10	4.6			OFF COAST OF PERU	
815	8 20	19	56	47.0	-17.664	-178.536	539	89.36	4.8			FIJI ISLANDS REGION	
816	8 20	22	56	45.8	-13.775	97.417	10	65.98	4.8			SOUTH INDIAN OCEAN	

No.	Date	Origin time				Geographic Coordinates		Depth (km)	Epicentral distance (deg)	Magnitude		Region
		UTC			Latitude (deg)	Longitude (deg)	Mb			MsZ		
		h	m	s								
817	8 21	6	52	6.2	-36.813	-179.575	33	70.59	6.4	7.1	EAST OF NORTH ISLAND, N.Z.	
818	8 21	9	16	57.4	-37.446	179.776	33	69.85	4.9		OFF E. COAST OF N. ISLAND, N.Z.	
819	8 21	9	20	21.4	-34.630	-179.388	33	72.74	4.7		SOUTH OF KERMADEC ISLANDS	
820	8 21	12	22	22.2	-36.930	-179.654	33	70.46	5.0		EAST OF NORTH ISLAND, N.Z.	
821	8 21	13	29	12.6	-6.404	146.842	105	90.16	4.7		EASTERN NEW GUINEA REG., P.N.G.	
822	8 21	14	44	57.7	-37.104	-179.842	33	70.25	4.8		EAST OF NORTH ISLAND, N.Z.	
823	8 21	17	20	40.7	-36.680	-179.491	33	70.73	4.8		EAST OF NORTH ISLAND, N.Z.	
824	8 21	21	27	58.1	-27.093	-176.500	33	80.62	4.9		KERMADEC ISLANDS REGION	
825	8 22	0	39	44.9	-36.665	-179.732	33	70.70	4.8		EAST OF NORTH ISLAND, N.Z.	
826	8 22	3	16	12.3	-36.865	-179.641	33	70.52	5.1		EAST OF NORTH ISLAND, N.Z.	
827	8 22	4	39	29.7	-36.980	-179.834	33	70.38	4.9	4.8	EAST OF NORTH ISLAND, N.Z.	
828	8 22	5	28	4.1	-36.848	-179.866	33	70.50	5.0		EAST OF NORTH ISLAND, N.Z.	
829	8 22	13	27	45.6	-37.195	-179.842	33	70.17	4.7		EAST OF NORTH ISLAND, N.Z.	
830	8 22	13	41	59.6	-36.943	179.932	33	70.37	4.8		OFF E. COAST OF N. ISLAND, N.Z.	
831	8 22	14	15	1.2	-37.157	-179.871	33	70.20	4.7		EAST OF NORTH ISLAND, N.Z.	
832	8 22	15	1	5.5	-37.101	-179.837	33	70.26	4.8		EAST OF NORTH ISLAND, N.Z.	
833	8 22	15	17	16.5	-36.988	-179.826	33	70.37	4.7		EAST OF NORTH ISLAND, N.Z.	
834	8 22	17	32	42.6	-36.781	-179.836	33	70.57	4.8	4.9	EAST OF NORTH ISLAND, N.Z.	
835	8 22	23	13	54.6	-29.694	-71.178	54	69.60	4.7		NEAR COAST OF CENTRAL CHILE	
836	8 23	5	20	32.9	-36.876	-179.462	33	70.55	4.7		EAST OF NORTH ISLAND, N.Z.	
837	8 23	18	10	0.2	-61.659	-65.351	10	39.16	4.7		DRAKE PASSAGE	
838	8 23	21	45	3.1	-3.373	146.311	10	92.81	5.8	6.2	BISMARCK SEA	
839	8 24	1	46	58.3	-36.621	-179.600	30	70.77	4.6		EAST OF NORTH ISLAND, N.Z.	
840	8 24	5	50	40.8	-36.980	-179.930	32	70.36	4.6		EAST OF NORTH ISLAND, N.Z.	
841	8 24	11	1	51.5	-17.905	-178.600	577	89.12	5.0		FIJI ISLANDS REGION	
842	8 24	11	4	37.1	-37.057	-179.614	33	70.34	5.2		EAST OF NORTH ISLAND, N.Z.	
843	8 24	18	35	58.1	-23.529	-68.017	118	74.32	4.7		NORTHERN CHILE	
844	8 24	21	16	35.5	-36.820	-179.701	33	70.56	5.2		EAST OF NORTH ISLAND, N.Z.	
845	8 24	21	34	0.7	-36.807	179.948	37	70.50	5.3	5.5	OFF E. COAST OF N. ISLAND, N.Z.	
846	8 24	21	40	44.5	-36.756	-179.720	36	70.61	5.0	5.4	EAST OF NORTH ISLAND, N.Z.	
847	8 25	3	12	18.5	-4.597	149.919	574	92.89	5.0		BISMARCK SEA	
848	8 25	13	21	26.1	35.047	135.654	23	124.37	5.1	4.5	WESTERN HONSHU, JAPAN	
849	8 25	19	29	24.7	1.221	126.031	57	89.85	5.1	4.2	NORTHERN MOLUCCA SEA	
850	8 25	20	39	15.4	-19.630	-177.367	346	87.70	4.4		FIJI ISLANDS REGION	
851	8 26	3	49	58.1	-8.543	117.633	128	77.79	5.0		SUMBAWA REGION, INDONESIA	
852	8 26	8	17	58.0	-17.876	167.877	33	85.87	5.2	5.2	VANUATU ISLANDS	
853	8 26	14	6	54.5	-15.327	167.667	33	88.24	5.0		VANUATU ISLANDS	
854	8 26	17	45	34.3	-23.061	-66.521	210	74.26	4.4		JUJUY PROVINCE, ARGENTINA	
855	8 26	17	56	13.0	-5.726	36.067	10	63.24	4.8		TANZANIA	
856	8 26	18	28	23.3	79.863	2.671	10	150.12	4.9	5.0	GREENLAND SEA	
857	8 26	19	45	11.3	-7.637	35.251	10	61.36	4.6		TANZANIA	
858	8 27	1	16	47.4	1.091	126.360	33	89.85	5.8	5.9	NORTHERN MOLUCCA SEA	
859	8 27	1	21	48.3	1.156	126.419	33	89.93	5.1		NORTHERN MOLUCCA SEA	
860	8 27	1	30	55.4	1.120	126.450	33	89.91	5.1		NORTHERN MOLUCCA SEA	
861	8 27	2	31	41.8	1.192	126.450	33	89.97	5.3	4.8	NORTHERN MOLUCCA SEA	
862	8 27	10	57	27.6	-16.653	-173.782	95	91.30	4.7		TONGA ISLANDS	
863	8 27	12	50	36.1	-36.559	-179.649	33	70.82	5.3	4.7	EAST OF NORTH ISLAND, N.Z.	
864	8 27	13	30	59.3	5.494	126.554	33	94.00	4.5		MINDANAO, PHILIPPINES	

No.	Date	Origin time			Geographic Coordinates		Depth	Epicentral distance	Magnitude		Region
		UTC			Latitude	Longitude			Mb	MsZ	
		h	m	s							
865	8 27 14	7	18.7		-16.537	-177.517	419	90.67	4.4		FIJI ISLANDS REGION
866	8 27 14	41	40.1		1.058	126.370	33	89.82	5.0		NORTHERN MOLUCCA SEA
867	8 27 23	42	59.0		-37.208	-179.901	33	70.14	4.6		EAST OF NORTH ISLAND, N.Z.
868	8 28 0	57	16.6		-36.915	179.990	33	70.40	4.7		OFF E. COAST OF N. ISLAND, N.Z.
869	8 28 6	56	9.1		-21.722	-70.108	66	76.68	5.8		NEAR COAST OF NORTHERN CHILE
870	8 28 12	28	18.2		-1.493	149.719	33	95.73	5.4	5.2	NEW IRELAND REGION, P.N.G.
871	8 29 3	13	32.3		-52.455	17.710	10	19.55	4.6		SOUTHWEST OF AFRICA
872	8 29 13	54	58.5		-36.538	-179.464	33	70.88	4.9		EAST OF NORTH ISLAND, N.Z.
873	8 29 22	14	13.7		-2.964	128.014	57	86.69	4.8		CERAM SEA
874	8 29 22	47	24.0		-47.426	100.017	10	36.33	4.8	5.2	SOUTHEAST INDIAN RIDGE
875	8 30 8	12	27.2		-22.928	169.787	10	81.55	5.6	5.5	SOUTHEAST OF LOYALTY ISLANDS
876	8 30 11	38	47.2		49.528	-28.496	10	128.32	4.9	4.7	NORTHERN MID-ATLANTIC RIDGE
877	8 30 19	51	55.9		-2.665	127.813	33	86.89	4.4		CERAM SEA
878	8 30 22	36	53.6		-37.418	-179.687	33	69.98	4.8		EAST OF NORTH ISLAND, N.Z.
879	8 31 1	22	15.5		-18.472	-66.754	261	78.61	4.7		CENTRAL BOLIVIA
880	8 31 1	54	7.9		-16.262	-73.776	33	82.97	4.0		NEAR COAST OF PERU
881	8 31 9	19	27.9		-36.572	-179.467	33	70.84	4.8		EAST OF NORTH ISLAND, N.Z.
882	9 1 12	16	39.5		54.061	159.287	117	149.17	5.4		NEAR EAST COAST OF KAMCHATKA
883	9 1 21	17	35.7		-20.890	-178.630	557	86.22	4.3		FIJI ISLANDS REGION
884	9 1 22	38	16.8		32.726	47.680	14	101.61	5.0	4.3	IRAN-IRAQ BORDER REGION
885	9 1 23	33	15.3		1.189	126.083	33	89.84	5.2		NORTHERN MOLUCCA SEA
886	9 1 23	54	22.0		-5.386	151.201	59	92.59	5.5		NEW BRITAIN REGION, P.N.G.
887	9 2 2	25	54.0		0.889	82.501	10	75.55	5.6	5.8	NORTH INDIAN OCEAN
888	9 2 9	31	37.1		-17.680	-72.090	33	81.10	5.3		NEAR COAST OF PERU
889	9 2 10	6	51.5		-54.356	-137.016	10	56.92	5.6	6.3	PACIFIC-ANTARCTIC RIDGE
890	9 2 11	13	50.8		-54.374	-136.622	10	56.90	5.1	5.8	PACIFIC-ANTARCTIC RIDGE
891	9 2 15	46	20.2		14.066	51.690	10	83.30	5.0		EASTERN GULF OF ADEN
892	9 3 0	2	34.5		-36.655	-179.674	33	70.72	4.6		EAST OF NORTH ISLAND, N.Z.
893	9 3 14	6	47.1		-7.656	106.979	33	74.88	4.9		JAWA, INDONESIA
894	9 3 20	51	34.1		-5.985	154.623	165	93.15	4.7		SOLOMON ISLANDS
895	9 3 21	10	45.7		-16.284	178.158	10	89.97	5.6	5.4	FIJI ISLANDS
896	9 4 13	1	47.8		-16.277	178.225	10	89.99	5.1	4.9	FIJI ISLANDS
897	9 4 14	54	40.3		36.748	141.383	46	127.94	5.0	4.9	NEAR EAST COAST OF HONSHU, JAPAN
898	9 5 2	13	35.2		2.049	128.622	33	91.55	4.9	4.3	HALMAHERA, INDONESIA
899	9 5 3	23	17.2		-29.523	-71.584	62	69.89	4.5		NEAR COAST OF CENTRAL CHILE
900	9 5 4	53	43.3		-16.244	177.998	10	89.97	5.2	5.7	FIJI ISLANDS
901	9 5 7	16	47.2		-17.445	168.404	33	86.42	4.9		VANUATU ISLANDS
902	9 5 11	9	43.4		-30.343	179.784	500	76.73	4.5		KERMADEC ISLANDS REGION
903	9 5 19	0	36.7		-16.062	178.067	10	90.16	4.8	4.5	FIJI ISLANDS
904	9 5 19	43	18.4		-4.607	152.862	33	93.87	5.0	4.3	NEW BRITAIN REGION, P.N.G.
905	9 6 3	42	55.7		-7.901	107.469	33	74.82	4.4		JAWA, INDONESIA
906	9 7 2	45	59.0		-13.166	97.297	10	66.51	6.2	5.8	SOUTH INDIAN OCEAN
907	9 7 15	36	41.7		-15.379	-175.470	300	92.21	4.3		TONGA ISLANDS
908	9 8 10	18	31.4		-25.923	75.664	10	48.10	4.5		MID-INDIAN RIDGE
909	9 8 16	21	27.1		-58.415	-26.878	150	29.67	4.1		SOUTH SANDWICH ISLANDS REGION
910	9 8 16	30	13.4		0.862	125.828	33	89.44	5.0		NORTHERN MOLUCCA SEA.
911	9 9 8	55	3.1		-32.213	179.833	289	74.93	4.6		SOUTH OF KERMADEC ISLANDS
912	9 9 15	41	28.0		-21.308	-179.391	600	85.65	4.1		FIJI ISLANDS REGION

No.	Date	Origin time			Geographic Coordinates		Depth (km)	Epicentral distance (deg)	Magnitude		Region
		UTC			Latitude (deg)	Longitude (deg)			Mb	MsZ	
		h	m	s							
913	9 10	6	40	3.0	5.854	126.728	33	94.39	5.0		MINDANAO, PHILIPPINES
914	9 10	7	16	39.1	-36.940	-179.618	33	70.46	4.7		EAST OF NORTH ISLAND, N.Z.
915	9 10	13	57	24.0	-36.877	-179.664	33	70.51	4.8		EAST OF NORTH ISLAND, N.Z.
916	9 10	14	46	7.8	-36.687	-179.566	33	70.71	4.4		EAST OF NORTH ISLAND, N.Z.
917	9 10	14	52	48.4	-43.807	-82.403	10	59.65	4.8		WEST CHILE RISE
918	9 11	1	29	6.7	-36.831	-179.696	33	70.55	4.4		EAST OF NORTH ISLAND, N.Z.
919	9 11	9	13	26.1	14.995	-91.571	161	117.97	5.0		GUATEMALA
920	9 11	14	56	50.9	-0.578	133.130	33	90.74	5.8	6.4	IRIAN JAYA REGION, INDONESIA
921	9 12	0	12	10.0	-25.921	-177.308	150	81.60	4.6		SOUTH OF FIJI ISLANDS
922	9 12	1	6	25.5	-24.208	179.539	600	82.61	4.3		SOUTH OF FIJI ISLANDS
923	9 12	8	0	19.7	-56.470	-142.387	10	54.82	4.1		PACIFIC-ANTARCTIC RIDGE
924	9 12	8	48	37.2	-20.993	-179.109	608	86.02	5.7		FIJI ISLANDS REGION
925	9 12	12	50	16.0	48.810	-128.560	10	158.91	5.1	4.7	VANCOUVER ISLAND, CANADA REGION
926	9 12	14	50	38.1	52.460	-169.245	33	158.58	5.3	5.1	FOX ISLANDS, ALEUTIAN ISLANDS
927	9 12	22	23	44.0	27.692	141.907	33	119.96	6.0	5.1	BONIN ISLANDS, JAPAN REGION
928	9 12	22	30	21.0	48.720	-128.670	10	158.84	5.2	4.7	VANCOUVER ISLAND, CANADA REGION
929	9 13	0	17	23.9	-24.059	-176.781	33	83.51	4.8		SOUTH OF FIJI ISLANDS
930	9 13	1	27	7.2	-3.184	101.436	74	77.22	5.2		SOUTHERN SUMATERA, INDONESIA
931	9 13	3	48	31.9	-21.092	-179.108	619	85.92	5.2		FIJI ISLANDS REGION
932	9 13	9	21	33.8	-41.515	-84.702	10	62.39	5.1		WEST CHILE RISE
933	9 13	12	59	46.3	-5.427	151.487	33	92.64	4.9		NEW BRITAIN REGION, P.N.G.
934	9 13	13	11	45.4	18.858	-155.240	13	129.02	5.2	4.5	HAWAII
935	9 13	20	21	39.2	-24.328	-66.831	166	73.19	4.9		SALTA PROVINCE, ARGENTINA
936	9 14	2	46	20.0	-6.934	126.559	400	82.48	4.6		BANDA SEA
937	9 14	4	45	8.0	48.690	-128.710	10	158.82	5.5	5.8	VANCOUVER ISLAND, CANADA REGION
938	9 14	6	19	28.3	-31.177	-71.643	46	68.37	4.7		NEAR COAST OF CENTRAL CHILE
939	9 14	6	51	46.6	-4.344	125.697	412	84.57	4.4		BANDA SEA
940	9 14	11	47	21.2	-29.652	-177.737	48	77.89	5.3	4.7	KERMADEC ISLANDS, NEW ZEALAND
941	9 14	15	18	28.7	-19.867	133.790	10	73.12	5.0		NORTHERN TERRITORY, AUSTRALIA
942	9 15	1	10	24.0	-3.213	127.818	33	86.38	4.8	4.3	SERAM, INDONESIA
943	9 15	8	14	0.1	-6.476	154.854	50	92.77	4.9		SOLOMON ISLANDS
944	9 15	13	58	12.1	-23.175	-68.219	113	74.72	5.0		NORTHERN CHILE
945	9 15	15	4	34.0	-22.393	-175.010	10	85.48	5.6	6.0	TONGA ISLANDS REGION
946	9 15	21	47	9.4	-13.230	167.155	183	90.10	4.6		VANUATU ISLANDS
947	9 16	2	0	47.3	37.244	21.873	10	106.75	5.0	5.3	SOUTHERN GREECE
948	9 16	4	46	34.8	-31.603	179.010	518	75.35	4.8		KERMADEC ISLANDS REGION
949	9 16	23	20	9.0	48.540	-128.600	10	158.66	5.1	5.4	VANCOUVER ISLAND, CANADA REGION
950	9 17	8	9	18.2	0.467	125.287	33	88.88	4.7		NORTHERN MOLUCCA SEA
951	9 17	11	13	4.5	52.933	159.745	60	148.44	5.3	4.7	OFF EAST COAST OF KAMCHATKA
952	9 17	12	24	22.4	-17.589	167.212	33	85.96	4.4		VANUATU ISLANDS
953	9 17	15	40	52.8	-22.650	-174.840	33	85.26	4.3		TONGA ISLANDS REGION
954	9 17	20	39	7.9	-22.034	-67.209	174	75.44	4.4		CHILE-BOLIVIA BORDER REGION
955	9 18	0	20	20.9	-16.316	-69.653	180	81.58	4.3		PERU-BOLIVIA BORDER REGION
956	9 18	2	19	30.7	-7.506	127.739	132	82.38	5.6	5.1	BANDA SEA
957	9 18	6	50	45.4	-36.517	-179.669	33	70.86	4.5		EAST OF NORTH ISLAND, N.Z.
958	9 18	10	34	24.2	-27.934	-176.656	33	79.77	5.2	5.0	KERMADEC ISLANDS REGION
959	9 20	2	1	51.8	-11.375	115.042	10	74.24	5.5	5.1	SOUTH OF BALI, INDONESIA
960	9 20	2	45	41.2	-43.464	-15.853	10	37.98	4.7		SOUTHERN MID-ATLANTIC RIDGE

No.	Date	Origin time			Geographic Coordinates		Depth (km)	Epicentral distance		Magnitude		Region
		UTC			Latitude	Longitude		(deg)		Mb	MsZ	
		h	m	s	(deg)	(deg)						
961	9 20	3	48	44.7	-11.426	115.121	33	74.22	4.9			SOUTH OF BALI, INDONESIA
962	9 20	8	24	11.8	-4.699	153.220	33	93.90	5.0	4.6		NEW IRELAND REGION, P.N.G.
963	9 20	20	17	52.7	-21.698	-68.374	114	76.14	4.3			CHILE-BOLIVIA BORDER REGION
964	9 21	1	34	59.3	-1.172	126.880	33	87.94	4.6			SOUTHERN MOLUCCA SEA
965	9 21	9	15	0.1	-31.204	-68.656	115	67.40	4.0			SAN JUAN PROVINCE, ARGENTINA
966	9 21	15	16	37.9	-3.281	130.641	33	87.34	5.1			SERAM, INDONESIA
967	9 21	23	56	39.4	51.786	-175.305	33	156.15	5.4	5.0		ANDREANOF ISLANDS, ALEUTIAN IS.
968	9 22	2	27	53.7	-30.661	-178.164	64	76.83	4.7			KERMADEC ISLANDS, NEW ZEALAND
969	9 22	3	23	38.2	3.873	-75.968	179	102.57	6.0			COLOMBIA
970	9 22	10	42	15.7	-18.633	-174.853	146	89.17	4.4			TONGA ISLANDS
971	9 22	16	18	21.4	-21.849	-68.416	122	76.01	4.4			CHILE-BOLIVIA BORDER REGION
972	9 23	10	41	24.8	-26.385	-177.749	140	81.06	4.5			SOUTH OF FIJI ISLANDS
973	9 23	22	30	6.6	-20.356	-173.335	33	87.78	4.4			TONGA ISLANDS
974	9 24	1	29	7.4	0.104	35.979	10	69.03	4.7			KENYA
975	9 24	4	49	57.1	-40.342	176.520	33	66.40	4.9	4.9		NORTH ISLAND, NEW ZEALAND
976	9 24	18	15	48.5	-14.967	166.862	33	88.37	4.6			VANUATU ISLANDS
977	9 25	5	29	16.9	-28.112	-177.818	155	79.37	5.1			KERMADEC ISLANDS REGION
978	9 25	14	56	44.2	11.956	80.214	10	85.66	5.5	4.9		BAY OF BENGAL
979	9 25	23	16	54.9	17.016	-61.415	33	109.70	5.3	4.7		LEEWARD ISLANDS
980	9 26	3	33	13.5	2.262	128.629	200	91.75	4.8			HALMAHERA, INDONESIA
981	9 26	5	50	46.3	-16.644	167.538	33	86.95	4.4			VANUATU ISLANDS
982	9 26	10	47	28.8	-3.662	153.521	20	94.97	5.2			NEW IRELAND REGION, P.N.G.
983	9 26	15	57	1.3	-15.220	-173.602	33	92.73	5.1	4.8		TONGA ISLANDS
984	9 26	20	11	50.9	-27.333	-67.276	155	70.55	4.8			CATAMARCA PROVINCE, ARGENTINA
985	9 26	21	31	12.2	-26.559	178.158	631	80.04	5.4			SOUTH OF FIJI ISLANDS
986	9 27	1	57	35.8	-31.708	-69.487	116	67.20	4.2			SAN JUAN PROVINCE, ARGENTINA
987	9 28	4	53	9.3	-17.105	-175.032	250	90.62	4.8			TONGA ISLANDS
988	9 28	11	49	17.5	-31.425	-179.569	226	75.81	4.7			KERMADEC ISLANDS REGION
989	9 29	0	21	4.9	-10.662	165.886	133	92.19	4.8			SANTA CRUZ ISLANDS
990	9 29	2	40	7.3	-18.503	168.159	33	85.35	5.5	6.4		VANUATU ISLANDS
991	9 29	5	32	14.4	-5.420	151.632	33	92.70	5.2	4.6		NEW BRITAIN REGION, P.N.G.
992	9 29	7	58	29.9	-23.641	-111.850	10	85.31	4.9			EASTER ISLAND REGION
993	9 29	8	8	33.3	-23.722	-111.952	10	85.25	4.9			EASTER ISLAND REGION
994	9 29	8	48	51.0	-23.629	-111.736	10	85.30	4.7			EASTER ISLAND REGION
995	9 29	11	6	31.6	-5.978	154.645	97	93.17	4.7			SOLOMON ISLANDS
996	9 29	21	50	16.1	-21.397	170.151	74	83.11	4.9			SOUTHEAST OF LOYALTY ISLANDS
997	9 30	6	3	33.2	-22.541	-113.563	10	86.66	5.2	5.3		EASTER ISLAND REGION
998	9 30	10	43	29.9	-18.541	168.170	33	85.32	4.6	4.2		VANUATU ISLANDS
999	9 30	19	1	18.7	-18.419	168.121	33	85.42	5.4	6.2		VANUATU ISLANDS
1000	9 30	19	23	29.0	-7.516	117.393	313	78.66	4.9			BALI SEA
1001	9 30	21	27	25.6	-20.885	-178.486	600	86.25	4.8			FIJI ISLANDS REGION
1002	10 1	4	18	15.1	-58.306	-25.438	33	29.24	5.5	5.3		SOUTH SANDWICH ISLANDS REGION
1003	10 2	0	48	18.7	-16.183	-173.820	107	91.75	5.8			TONGA ISLANDS
1004	10 2	7	31	46.7	-6.032	130.403	128	84.70	4.9			BANDA SEA
1005	10 2	10	38	29.8	-49.009	121.467	10	42.64	4.4			WESTERN INDIAN-ANTARCTIC RIDGE
1006	10 2	17	25	40.6	-6.351	147.606	59	90.47	5.0			EASTERN NEW GUINEA REG., P.N.G.
1007	10 3	2	31	23.0	-30.175	-177.546	33	77.42	5.1			KERMADEC ISLANDS, NEW ZEALAND
1008	10 3	3	27	27.9	-25.400	179.619	492	81.48	4.3			SOUTH OF FIJI ISLANDS

No.	Date	Origin time				Geographic Coordinates		Depth (km)	Epicentral distance (deg)	Magnitude		Region
		UTC			Latitude (deg)	Longitude (deg)	Mb			MsZ		
		h	m	s								
1009	10	3	4	29	25.8	-24.091	-66.710	181	73.37	4.9		SALT A PROVINCE, ARGENTINA
1010	10	3	10	47	9.2	-30.099	-177.646	33	77.47	4.7		KERMADEC ISLANDS, NEW ZEALAND
1011	10	3	11	23	42.3	-3.502	139.717	10	90.38	5.4	5.4	IRIAN JAYA, INDONESIA
1012	10	3	19	29	12.7	-19.741	-68.336	149	77.95	4.3		CHILE-BOLIVIA BORDER REGION
1013	10	4	8	34	56.9	-21.011	-178.819	600	86.06	4.5		FIJI ISLANDS REGION
1014	10	4	16	57	29.4	34.920	141.598	43	126.38	5.0	4.9	OFF EAST COAST OF HONSHU, JAPAN
1015	10	5	13	46	10.2	-6.906	155.838	52	92.68	5.1		SOLOMON ISLANDS
1016	10	5	15	46	31.5	-31.672	-178.845	182	75.71	4.6		KERMADEC ISLANDS REGION
1017	10	5	16	54	55.1	-8.711	-79.453	48	91.87	4.9		NEAR COAST OF NORTHERN PERU
1018	10	5	17	54	46.5	-15.225	-173.636	33	92.72	5.2	4.9	TONGA ISLANDS
1019	10	5	22	48	27.9	-42.780	-83.461	10	60.88	4.8		WEST CHILE RISE
1020	10	5	22	53	52.2	-42.731	-83.411	10	60.92	5.0	4.7	WEST CHILE RISE
1021	10	6	9	15	56.4	-21.249	-179.169	615	85.75	4.4		FIJI ISLANDS REGION
1022	10	7	2	21	9.8	-3.296	142.934	10	91.70	5.7	6.1	NEAR N COAST OF NEW GUINEA, P.N.G.
1023	10	7	3	9	30.1	-3.260	143.076	10	91.79	4.9		NEAR N COAST OF NEW GUINEA, P.N.G.
1024	10	7	3	44	11.5	-3.500	126.837	33	85.76	5.0		BURU, INDONESIA
1025	10	7	4	47	26.3	-3.239	142.732	10	91.69	5.0		NEAR N COAST OF NEW GUINEA, P.N.G.
1026	10	7	7	43	51.5	-23.844	-179.926	540	83.08	4.8		SOUTH OF FIJI ISLANDS
1027	10	7	8	11	41.0	-27.500	-177.062	58	80.11	4.6		KERMADEC ISLANDS REGION
1028	10	7	11	4	34.5	-25.909	-65.455	46	71.27	4.6		SALT A PROVINCE, ARGENTINA
1029	10	7	12	12	56.0	-0.283	125.018	33	88.09	5.1	4.7	SOUTHERN MOLUCCA SEA
1030	10	7	22	46	20.4	52.615	160.471	33	148.44	5.0	4.8	OFF EAST COAST OF KAMCHATKA
1031	10	8	0	32	29.3	-6.734	128.007	319	83.19	4.6		BANDA SEA
1032	10	8	3	39	17.9	17.044	-99.996	10	122.29	5.6	5.4	GUERRERO, MEXICO
1033	10	8	6	18	50.2	52.585	160.441	33	148.41	5.0	4.9	OFF EAST COAST OF KAMCHATKA
1034	10	8	16	46	21.4	-0.327	125.104	52	88.08	5.3	4.1	SOUTHERN MOLUCCA SEA
1035	10	8	16	52	38.8	-0.266	125.297	33	88.21	4.8		SOUTHERN MOLUCCA SEA
1036	10	8	18	14	26.4	52.591	160.324	49	148.37	5.9	6.4	OFF EAST COAST OF KAMCHATKA
1037	10	8	18	20	38.2	52.631	160.214	33	148.36	5.9		OFF EAST COAST OF KAMCHATKA
1038	10	8	19	27	33.3	-40.924	174.398	10	65.40	4.4		COOK STRAIT, NEW ZEALAND
1039	10	8	21	45	23.9	2.105	126.542	33	90.85	4.7		NORTHERN MOLUCCA SEA
1040	10	9	1	57	51.1	-14.117	167.755	33	89.42	4.6		VANUATU ISLANDS
1041	10	9	10	34	22.3	-25.916	-68.834	122	72.37	4.5		CHILE-ARGENTINA BORDER REGION
1042	10	9	14	35	56.5	-54.224	-136.686	10	57.05	5.1	4.9	PACIFIC-ANTARCTIC RIDGE
1043	10	9	14	55	24.9	-21.567	-174.613	33	86.36	4.3		TONGA ISLANDS
1044	10	9	17	45	33.4	-23.223	-175.505	33	84.57	5.5	5.3	TONGA ISLANDS REGION
1045	10	9	17	58	9.7	-23.185	-175.564	33	84.60	4.7		TONGA ISLANDS REGION
1046	10	9	20	8	13.1	-23.170	-175.558	33	84.62	4.8		TONGA ISLANDS REGION
1047	10	9	20	12	2.3	-23.247	-175.653	33	84.52	5.0	5.2	TONGA ISLANDS REGION
1048	10	9	20	19	55.1	-23.169	-175.547	33	84.62	4.9		TONGA ISLANDS REGION
1049	10	9	20	20	38.4	-23.207	-175.446	33	84.60	5.0		TONGA ISLANDS REGION
1050	10	9	20	42	6.5	-23.152	-175.509	33	84.64	4.9	4.9	TONGA ISLANDS REGION
1051	10	9	23	53	37.0	47.758	155.102	33	142.48	6.5	5.7	EAST OF KURIL ISLANDS
1052	10	10	1	32	43.6	52.543	160.663	33	148.45	5.3	5.0	OFF EAST COAST OF KAMCHATKA
1053	10	10	3	34	14.1	-28.338	-178.326	200	79.05	4.1		KERMADEC ISLANDS REGION
1054	10	10	7	8	49.2	-23.707	179.921	553	83.18	4.6		SOUTH OF FIJI ISLANDS
1055	10	10	8	56	30.9	-23.197	-175.531	33	84.59	4.8		TONGA ISLANDS REGION
1056	10	10	10	2	0.5	5.799	-32.743	10	89.13	4.7	4.7	CENTRAL MID-ATLANTIC RIDGE

No.	Date	Origin time			Geographic Coordinates		Depth	Epicentral		Magnitude		Region
		UTC			Latitude	Longitude		distance	Mb	MsZ		
		h	m	s							(deg)	
1057	10 10	16	18	49.3	-23.846	-179.892	521	83.09	5.0			SOUTH OF FIJI ISLANDS
1058	10 10	17	23	46.5	-31.330	-179.128	33	75.99	4.9	4.6		KERMADEC ISLANDS REGION
1059	10 11	6	15	51.7	-25.984	-69.240	95	72.43	4.5			NORTHERN CHILE
1060	10 11	11	3	23.9	-23.050	-175.382	33	84.77	4.6			TONGA ISLANDS REGION
1061	10 11	12	26	11.0	-19.461	175.611	33	86.31	5.1	4.8		SOUTH OF FIJI ISLANDS
1062	10 11	19	46	33.1	-23.279	-68.696	95	74.77	4.3			NORTHERN CHILE
1063	10 12	0	39	55.1	-24.171	-66.831	201	73.33	4.9			SALTA PROVINCE, ARGENTINA
1064	10 12	4	21	31.5	-33.303	-69.744	4	65.80	5.1	5.6		CHILE-ARGENTINA BORDER REGION
1065	10 12	5	2	34.0	52.630	-132.200	20	163.11	5.6	5.8		QUEEN CHARLOTTE ISLANDS REGION
1066	10 12	8	26	33.1	-19.996	-178.267	582	87.16	4.6			FIJI ISLANDS REGION
1067	10 12	9	34	55.8	3.248	96.123	36	81.61	5.0			NORTHERN SUMATERA, INDONESIA
1068	10 12	10	55	50.1	-31.890	-69.892	118	67.16	4.8			SAN JUAN PROVINCE, ARGENTINA
1069	10 12	15	2	16.8	12.686	144.980	37	107.27	6.7	7.3		SOUTH OF MARIANA ISLANDS
1070	10 12	20	46	3.9	-26.112	179.394	477	80.74	4.7			SOUTH OF FIJI ISLANDS
1071	10 12	22	19	18.1	-20.590	169.524	37	83.72	4.7			VANUATU ISLANDS
1072	10 13	0	31	22.1	-17.289	-70.794	29	81.05	4.8			NEAR COAST OF PERU
1073	10 13	7	27	53.3	-21.176	-178.688	527	85.93	4.3			FIJI ISLANDS REGION
1074	10 13	14	49	11.7	-15.238	167.456	132	88.27	4.8			VANUATU ISLANDS
1075	10 13	16	27	0.0	0.839	125.980	33	89.48	5.6	5.7		NORTHERN MOLUCCA SEA
1076	10 13	20	0	35.4	-24.287	-69.459	81	74.08	4.4			NORTHERN CHILE
1077	10 14	1	10	45.6	-8.598	110.633	67	75.27	5.6	5.3		JAWA, INDONESIA
1078	10 14	3	53	48.9	-32.568	179.545	320	74.52	4.7			SOUTH OF KERMADEC ISLANDS
1079	10 14	15	27	56.5	-11.433	116.293	37	74.63	4.9	4.2		SOUTH OF SUMBAWA, INDONESIA
1080	10 15	3	49	37.9	-39.702	176.614	48	67.04	5.3	5.2		NORTH ISLAND, NEW ZEALAND
1081	10 15	12	14	40.0	-22.477	-113.611	10	86.73	5.3	4.9		EASTER ISLAND REGION
1082	10 15	15	19	50.9	-33.132	-72.046	33	66.67	5.0	4.7		OFF COAST OF CENTRAL CHILE
1083	10 15	16	13	32.1	-14.689	167.469	33	88.80	5.0			VANUATU ISLANDS
1084	10 16	17	18	0.0	1.955	99.456	77	81.42	4.8			NORTHERN SUMATERA, INDONESIA
1085	10 16	17	28	20.0	-15.005	-71.650	136	83.46	4.2			SOUTHERN PERU
1086	10 16	19	52	38.3	4.222	126.599	33	92.83	5.2			TALAUD ISLANDS, INDONESIA
1087	10 17	2	34	41.2	-28.493	-68.916	117	70.00	5.3			LA RIOJA PROVINCE, ARGENTINA
1088	10 17	12	52	36.5	-8.658	123.896	33	79.93	4.9			FLORES REGION, INDONESIA
1089	10 17	20	18	32.8	-16.548	-177.670	500	90.63	4.2			FIJI ISLANDS REGION
1090	10 17	20	25	15.4	-20.753	-179.347	657	86.20	4.8			FIJI ISLANDS REGION
1091	10 17	21	59	0.0	-16.662	-73.683	48	82.57	4.5			NEAR COAST OF PERU
1092	10 18	12	55	58.5	-55.092	-126.907	10	55.81	5.1	5.3		SOUTHERN EAST PACIFIC RISE
1093	10 19	3	28	44.4	-4.102	123.907	33	84.15	6.3	7.3		BANDA SEA
1094	10 19	9	31	40.5	-4.097	123.896	33	84.15	4.8			BANDA SEA
1095	10 19	10	50	13.3	54.335	158.113	238	148.97	5.0			KAMCHATKA PENINSULA, RUSSIA
1096	10 19	11	44	48.6	-4.750	123.904	33	83.55	4.8			BANDA SEA
1097	10 19	13	1	23.4	-7.946	12.026	10	63.61	5.3	4.7		ANGOLA
1098	10 19	15	35	0.3	-22.495	-66.007	266	74.62	4.9			JUJUY PROVINCE, ARGENTINA
1099	10 19	20	35	5.7	-20.047	-176.153	233	87.54	4.2			FIJI ISLANDS REGION
1100	10 19	21	42	37.2	-4.558	124.004	33	83.76	5.0			BANDA SEA
1101	10 20	1	51	41.0	-24.190	178.655	606	82.44	4.5			SOUTH OF FIJI ISLANDS
1102	10 20	2	31	15.7	-16.993	-73.195	40	82.10	4.6			NEAR COAST OF PERU
1103	10 20	13	26	35.0	-22.184	-68.411	118	75.70	5.0			NORTHERN CHILE
1104	10 20	14	3	47.5	-5.845	124.107	33	82.61	4.8			BANDA SEA

No.	Date	Origin time			Geographic Coordinates		Depth (km)	Epicentral distance (deg)	Magnitude		Region
		UTC			Latitude (deg)	Longitude (deg)			Mb	MsZ	
		h	m	s							
1105	10 20	14	40	22.0	18.849	92.397	33	95.35	4.4		BAY OF BENGAL
1106	10 20	17	49	5.4	-18.660	-174.732	33	89.17	4.6		TONGA ISLANDS
1107	10 21	0	29	21.4	-37.137	178.982	18	69.99	6.0	6.8	OFF E. COAST OF N. ISLAND, N.Z.
1108	10 21	1	31	55.2	-37.024	179.492	10	70.20	4.7		OFF E. COAST OF N. ISLAND, N.Z.
1109	10 21	3	40	18.2	1.830	126.506	33	90.58	5.6	5.3	NORTHERN MOLUCCA SEA
1110	10 21	5	27	14.5	-4.680	139.440	33	89.19	5.3	5.0	IRIAN JAYA, INDONESIA
1111	10 21	12	36	52.1	3.929	128.620	45	93.29	5.4	4.5	NORTH OF HALMAHERA, INDONESIA
1112	10 21	14	30	46.3	-37.112	179.860	10	70.19	4.4		OFF E. COAST OF N. ISLAND, N.Z.
1113	10 21	15	41	29.5	-36.914	179.601	10	70.33	4.4		OFF E. COAST OF N. ISLAND, N.Z.
1114	10 21	16	32	52.3	-22.349	-70.633	34	76.27	4.7		NEAR COAST OF NORTHERN CHILE
1115	10 21	19	2	50.7	-4.855	123.917	33	83.46	5.3	5.2	BANDA SEA
1116	10 22	1	28	53.3	-37.269	179.839	10	70.03	5.1		OFF E. COAST OF N. ISLAND, N.Z.
1117	10 22	2	46	30.6	-36.983	179.946	10	70.33	4.6		OFF E. COAST OF N. ISLAND, N.Z.
1118	10 22	5	54	56.7	-21.105	-68.168	109	76.63	4.4		CHILE-BOLIVIA BORDER REGION
1119	10 22	6	46	48.0	-20.908	-179.125	623	86.09	5.5		FIJI ISLANDS REGION
1120	10 22	21	19	26.2	-48.139	31.692	10	21.30	4.2		SOUTH OF AFRICA
1121	10 22	22	10	37.9	-15.861	-173.964	33	92.04	4.5		TONGA ISLANDS
1122	10 22	22	49	47.7	-4.485	138.977	33	89.20	4.2		IRIAN JAYA, INDONESIA
1123	10 23	0	40	34.9	3.635	126.657	33	92.31	5.3	4.9	TALAUD ISLANDS, INDONESIA
1124	10 23	3	46	32.1	-4.844	153.555	33	93.87	5.1		NEW IRELAND REGION, P.N.G.
1125	10 23	11	34	7.6	52.924	159.756	42	148.43	5.0		OFF EAST COAST OF KAMCHATKA
1126	10 23	16	22	17.3	-7.551	117.145	295	78.53	4.9		BALI SEA
1127	10 23	18	15	46.7	-43.879	-82.047	10	59.49	4.8		WEST CHILE RISE
1128	10 23	22	51	14.5	-43.967	-16.195	10	37.66	5.0	4.8	SOUTHERN MID-ATLANTIC RIDGE
1129	10 23	23	3	29.6	-31.614	-178.051	33	75.92	4.9		KERMADEC ISLANDS REGION
1130	10 23	23	22	30.8	-43.941	-16.045	10	37.63	5.3	4.9	SOUTHERN MID-ATLANTIC RIDGE
1131	10 23	23	54	24.6	-43.498	-75.894	33	58.20	4.9		OFF COAST OF SOUTHERN CHILE
1132	10 24	0	35	22.2	-31.610	-177.950	33	75.95	5.1		KERMADEC ISLANDS REGION
1133	10 24	1	57	33.5	-31.638	-178.098	33	75.89	4.5		KERMADEC ISLANDS REGION
1134	10 24	3	20	48.7	-17.202	-175.190	300	90.50	4.0		TONGA ISLANDS
1135	10 24	14	59	47.4	-23.896	-179.772	500	83.06	4.3		SOUTH OF FIJI ISLANDS
1136	10 24	21	9	24.9	-22.395	-10.648	10	55.48	4.8		SOUTHERN MID-ATLANTIC RIDGE
1137	10 25	6	54	7.2	-37.163	179.260	122	70.02	4.8		OFF E. COAST OF N. ISLAND, N.Z.
1138	10 25	17	21	46.1	-7.548	128.175	131	82.50	4.3		BANDA SEA
1139	10 26	1	26	9.7	-36.847	179.553	25	70.38	4.1		OFF E. COAST OF N. ISLAND, N.Z.
1140	10 26	8	44	28.3	30.554	141.755	33	122.50	5.0	4.4	SOUTHEAST OF HONSHU, JAPAN
1141	10 26	14	9	51.7	-26.150	70.885	10	46.71	5.3	5.3	INDIAN OCEAN TRIPLE JUNCTION
1142	10 26	18	59	56.8	-14.766	-70.497	212	83.31	5.4		CENTRAL PERU
1143	10 26	23	5	50.9	-18.494	168.108	33	85.34	5.7	6.1	VANUATU ISLANDS
1144	10 27	21	43	1.9	51.393	-174.829	33	155.96	5.0	4.7	ANDREANOF ISLANDS, ALEUTIAN IS.
1145	10 28	7	22	4.5	-7.446	127.985	100	82.52	4.3		BANDA SEA
1146	10 28	8	20	47.7	-7.296	-13.479	10	70.58	4.9	4.0	ASCENSION ISLAND REGION
1147	10 28	17	22	41.4	-4.220	142.519	105	90.70	4.8		NEW GUINEA, PAPUA NEW GUINEA
1148	10 28	18	57	8.3	-25.941	-177.613	178	81.52	4.8		SOUTH OF FIJI ISLANDS
1149	10 28	20	24	5.6	-21.797	-176.716	190	85.73	5.5		FIJI ISLANDS REGION.
1150	10 28	21	49	32.1	5.446	126.730	33	94.02	5.1	4.3	MINDANAO, PHILIPPINES
1151	10 29	2	52	17.6	1.587	126.613	33	90.40	5.2		NORTHERN MOLUCCA SEA
1152	10 29	16	26	32.4	-37.909	-179.997	10	69.44	4.2		EAST OF NORTH ISLAND, N.Z.

No.	Date	Origin time			Geographic Coordinates		Depth	Epicentral distance	Magnitude		Region
		UTC			Latitude	Longitude			Mb	MsZ	
		h	m	s							
1153	10 29 17 41	48.9	51.452	-178.545	33	154.82	5.4	4.7	ANDREANOF ISLANDS, ALEUTIAN IS.		
1154	10 29 18 4	4.9	-4.984	102.084	33	75.74	5.0		SOUTHERN SUMATERA, INDONESIA		
1155	10 29 21 0	45.5	-23.454	179.110	540	83.25	4.9		SOUTH OF FIJI ISLANDS		
1156	10 29 22 44	11.5	-37.105	179.778	10	70.18	4.2		OFF E. COAST OF N. ISLAND, N.Z.		
1157	10 30 0 56	21.8	-5.650	154.320	93	93.37	4.5		SOLOMON ISLANDS		
1158	10 30 15 35	20.5	-37.031	179.881	10	70.27	4.8		OFF E. COAST OF N. ISLAND, N.Z.		
1159	10 30 21 4	24.7	28.579	128.280	136	115.89	5.3		RYUKYU ISLANDS, JAPAN		
1160	10 31 4 29	30.0	-23.896	-66.995	184	73.64	4.5		JUJUY PROVINCE, ARGENTINA		
1161	10 31 4 31	3.2	-24.533	-177.494	128	82.91	5.1		SOUTH OF FIJI ISLANDS		
1162	10 31 4 59	23.5	-31.714	-71.382	54	67.79	4.7		NEAR COAST OF CENTRAL CHILE		
1163	10 31 9 10	20.0	-5.912	150.196	33	91.76	5.9	6.9	NEW BRITAIN REGION, P.N.G.		
1164	10 31 22 4	32.3	5.361	94.359	33	83.09	5.6	5.6	NORTHERN SUMATERA, INDONESIA		
1165	10 31 22 14	26.1	-10.760	-78.889	33	89.76	5.0		NEAR COAST OF PERU		
1166	10 31 22 57	21.3	-11.536	164.562	33	90.98	5.1		SANTA CRUZ ISLANDS REGION		
1167	11 1 0 47	45.0	-8.205	117.837	15	78.18	4.6		SUMBAWA REGION, INDONESIA		
1168	11 1 7 20	0.4	-25.260	-179.389	500	81.82	4.2		SOUTH OF FIJI ISLANDS		
1169	11 1 12 21	34.8	-17.556	-71.926	33	81.17	5.2	4.8	NEAR COAST OF PERU		
1170	11 1 16 33	33.7	0.647	123.391	236	88.37	4.4		MINAHASSA PENINSULA, SULAWESI		
1171	11 1 22 43	58.4	-37.058	179.489	57	70.17	5.1	5.3	OFF E. COAST OF N. ISLAND, N.Z.		
1172	11 2 3 31	43.1	6.070	125.811	33	94.26	4.9		MINDANAO, PHILIPPINES		
1173	11 2 5 6	33.0	-41.170	174.560	35	65.20	4.5		COOK STRAIT, NEW ZEALAND		
1174	11 2 22 17	42.5	6.058	126.953	61	94.66	5.2		MINDANAO, PHILIPPINES		
1175	11 3 0 36	42.9	-30.856	-71.683	55	68.68	5.2		NEAR COAST OF CENTRAL CHILE		
1176	11 3 1 43	21.0	-36.248	-71.651	86	63.66	4.9		CENTRAL CHILE		
1177	11 3 3 40	23.4	-36.994	179.818	10	70.29	4.8		OFF E. COAST OF N. ISLAND, N.Z.		
1178	11 3 9 48	9.8	-20.132	-177.848	394	87.11	5.1		FIJI ISLANDS REGION		
1179	11 3 21 50	22.8	-2.891	122.361	33	84.72	5.1	4.5	SULAWESI, INDONESIA		
1180	11 4 17 23	29.3	34.015	25.351	33	103.26	4.7		CRETE, GREECE		
1181	11 4 19 36	26.2	-16.624	-73.920	27	82.68	4.9		NEAR COAST OF PERU		
1182	11 4 22 48	52.2	-30.940	-178.956	100	76.40	4.8		KERMADEC ISLANDS, NEW ZEALAND		
1183	11 5 1 15	12.8	-58.415	-25.120	33	29.05	5.0		SOUTH SANDWICH ISLANDS REGION		
1184	11 5 6 51	46.3	-6.845	130.335	33	83.93	4.8		BANDA SEA		
1185	11 5 9 9	1.6	-25.052	179.386	550	81.76	4.4		SOUTH OF FIJI ISLANDS		
1186	11 5 23 7	11.7	-17.289	-179.251	564	89.57	5.4		FIJI ISLANDS REGION		
1187	11 6 6 12	53.8	-30.437	-71.155	61	68.90	5.3	4.8	NEAR COAST OF CENTRAL CHILE		
1188	11 6 13 9	31.4	-21.288	170.267	33	83.24	4.7		SOUTHEAST OF LOYALTY ISLANDS		
1189	11 6 16 54	48.6	-22.492	-178.645	500	84.66	4.3		SOUTH OF FIJI ISLANDS		
1190	11 6 17 38	39.0	-14.583	167.505	33	88.91	4.3		VANUATU ISLANDS		
1191	11 6 18 50	31.5	-17.502	167.762	33	86.20	4.6		VANUATU ISLANDS		
1192	11 6 20 15	16.6	-21.123	-70.334	34	77.32	4.6		NEAR COAST OF NORTHERN CHILE		
1193	11 6 22 13	49.8	-21.840	-176.712	150	85.68	4.8		FIJI ISLANDS REGION		
1194	11 7 7 34	21.8	-15.871	167.814	163	87.77	4.9		VANUATU ISLANDS		
1195	11 7 8 5	31.5	-11.411	166.298	98	91.59	4.8		SANTA CRUZ ISLANDS		
1196	11 7 9 40	8.3	-21.197	-178.915	600	85.86	4.3		FIJI ISLANDS REGION		
1197	11 7 12 48	43.9	-48.958	163.672	33	55.36	4.3		OFF W. COAST OF S. ISLAND, N.Z.		
1198	11 7 12 54	48.6	-48.723	164.455	33	55.76	4.3		OFF W. COAST OF S. ISLAND, N.Z.		
1199	11 7 13 25	54.7	-21.073	-68.094	127	76.63	5.2		CHILE-BOLIVIA BORDER REGION		
1200	11 7 16 10	21.8	-28.541	-178.488	220	78.82	4.8		KERMADEC ISLANDS REGION		

No.	Date		Origin time			Geographic Coordinates		Depth	Epicentral distance	Magnitude		Region
			UTC			Latitude	Longitude			Mb	MsZ	
			h	m	s							
1201	11	8	3	58	20.9	-53.985	-2.384	10	24.36	4.4		SOUTHERN MID-ATLANTIC RIDGE
1202	11	8	6	53	5.9	-6.090	123.971	33	82.33	4.8		BANDA SEA
1203	11	8	7	54	43.8	4.843	126.288	33	93.30	4.9		TALAUD ISLANDS, INDONESIA
1204	11	8	9	57	39.9	-17.445	167.864	33	86.28	4.8	4.3	VANUATU ISLANDS
1205	11	8	11	27	22.4	-27.719	65.364	10	44.01	4.7		INDIAN OCEAN TRIPLE JUNCTION
1206	11	8	17	42	55.3	-27.759	65.664	10	44.03	5.3	4.6	INDIAN OCEAN TRIPLE JUNCTION
1207	11	8	22	52	46.4	-55.582	-30.153	33	33.00	4.6		SOUTH SANDWICH ISLANDS REGION
1208	11	8	22	57	52.6	-60.800	-25.650	33	27.50	5.4	5.3	SOUTH SANDWICH ISLANDS REGION
1209	11	9	4	56	38.9	-41.540	173.350	96	64.58	4.6		SOUTH ISLAND, NEW ZEALAND
1210	11	9	11	4	52.5	-31.629	-178.358	33	75.85	4.9	4.6	KERMADEC ISLANDS REGION
1211	11	9	12	51	6.0	-17.307	-72.725	33	81.66	4.7	4.2	NEAR COAST OF PERU
1212	11	9	19	7	54.1	-10.607	165.959	155	92.26	5.1		SANTA CRUZ ISLANDS
1213	11	10	4	28	39.6	-30.306	-69.246	117	68.42	4.7		CHILE-ARGENTINA BORDER REGION
1214	11	10	4	57	22.7	-12.341	166.909	229	90.88	4.5		SANTA CRUZ ISLANDS
1215	11	10	17	9	16.4	16.219	-98.054	18	120.98	5.3	5.1	NEAR COAST OF GUERRERO, MEXICO
1216	11	10	21	25	0.5	-53.167	25.601	10	17.19	4.7		SOUTH OF AFRICA
1217	11	11	6	3	3.1	-7.705	124.906	28	81.17	4.7		BANDA SEA
1218	11	11	18	37	0.2	-5.760	124.416	600	82.80	5.1		BANDA SEA
1219	11	11	19	49	11.6	-6.343	150.149	33	91.34	4.5		NEW BRITAIN REGION, P.N.G.
1220	11	12	1	15	47.1	-36.987	-95.793	10	69.30	4.5		WEST CHILE RISE
1221	11	12	5	1	24.7	-49.518	-116.094	10	60.43	4.4		SOUTHERN EAST PACIFIC RISE
1222	11	12	6	54	37.7	-49.515	-116.092	10	60.43	4.6		SOUTHERN EAST PACIFIC RISE
1223	11	12	10	42	47.3	-20.272	-178.315	550	86.88	4.8		FIJI ISLANDS REGION
1224	11	12	17	54	19.1	-49.591	-116.194	10	60.37	5.4	5.0	SOUTHERN EAST PACIFIC RISE
1225	11	13	7	59	44.6	1.101	123.275	33	88.75	4.6		MINAHASSA PENINSULA, SULAWESI
1226	11	13	9	47	36.5	22.371	-106.973	33	129.15	5.5	5.8	NEAR COAST OF CENTRAL MEXICO
1227	11	13	10	43	23.0	53.627	170.551	33	152.87	5.5	5.8	NEAR ISLANDS, ALEUTIAN ISLANDS
1228	11	13	16	2	38.4	-17.431	-178.705	543	89.55	5.4		FIJI ISLANDS REGION
1229	11	14	9	26	10.0	35.946	90.541	10	111.16	6.1	8.0	QINGHAI, CHINA
1230	11	14	11	4	39.2	35.753	89.960	10	110.84	5.2		XIZANG
1231	11	14	13	38	46.1	-15.108	-174.204	92	92.73	5.3		TONGA ISLANDS
1232	11	14	16	52	44.3	-20.280	-175.894	166	87.36	5.1		TONGA ISLANDS
1233	11	14	17	13	4.6	-8.861	124.226	85	79.86	5.3		TIMOR REGION
1234	11	14	18	3	51.1	-24.234	-66.847	182	73.28	4.2		SALT A PROVINCE, ARGENTINA
1235	11	14	18	7	28.5	-8.933	123.985	33	79.71	4.9		FLORES REGION, INDONESIA
1236	11	15	1	3	6.0	-1.587	-15.578	10	76.62	5.5	6.0	NORTH OF ASCENSION ISLAND
1237	11	16	9	42	1.0	-39.264	-16.140	10	41.80	4.7		SOUTHERN MID-ATLANTIC RIDGE
1238	11	16	12	36	55.7	-17.291	-174.145	131	90.61	5.2		TONGA ISLANDS
1239	11	17	1	30	40.6	-27.579	-69.698	96	71.10	4.1		NORTHERN CHILE
1240	11	17	5	34	45.9	-23.937	179.981	546	82.97	4.5		SOUTH OF FIJI ISLANDS
1241	11	17	10	0	54.7	0.037	123.127	169	87.71	4.7		MINAHASSA PENINSULA, SULAWESI
1242	11	17	19	2	12.4	-24.409	-115.864	10	85.15	5.3	5.3	SOUTHERN EAST PACIFIC RISE
1243	11	17	20	49	15.5	-8.464	109.425	75	74.97	4.7		JAWA, INDONESIA
1244	11	17	22	10	26.7	-60.588	154.092	10	42.48	5.5	5.6	WEST OF MACQUARIE ISLAND
1245	11	18	3	11	4.1	-56.375	-25.127	33	30.60	4.7		SOUTH SANDWICH ISLANDS REGION
1246	11	18	4	55	4.3	-23.441	-179.973	550	83.46	4.7		SOUTH OF FIJI ISLANDS
1247	11	18	5	44	8.5	-56.388	-25.193	33	30.61	5.1		SOUTH SANDWICH ISLANDS REGION
1248	11	18	21	59	52.5	35.726	93.691	10	111.74	5.9	5.6	QINGHAI, CHINA

No.	Date	Origin time			Geographic Coordinates		Depth (km)	Epicentral distance (deg)	Magnitude		Region
		UTC			Latitude	Longitude			Mb	Msz	
		h	m	s	(deg)	(deg)					
1249	11 19	4	58	50.3	-15.562	167.837	33	88.07	5.0		VANUATU ISLANDS
1250	11 20	8	33	2.9	6.425	126.864	170	94.97	5.0		MINDANAO, PHILIPPINES
1251	11 20	10	32	25.6	-6.544	129.056	230	83.74	5.0		BANDA SEA
1252	11 20	19	29	3.7	-62.219	164.760	10	43.38	4.7		BALLENY ISLANDS REGION
1253	11 20	21	8	18.4	-6.880	128.921	33	83.39	5.7	6.0	BANDA SEA
1254	11 21	2	6	13.6	-9.851	155.067	33	89.67	4.9		D'ENTRECASTEAUX ISLANDS REGION
1255	11 21	2	12	59.6	-22.637	169.545	33	81.77	4.4		SOUTHEAST OF LOYALTY ISLANDS
1256	11 21	11	19	35.5	-7.438	128.040	150	82.55	4.9		BANDA SEA
1257	11 22	4	17	26.6	-31.068	-176.724	33	76.71	5.8	5.7	KERMADEC ISLANDS REGION
1258	11 22	12	43	2.4	-17.854	-71.946	46	80.89	5.4		NEAR COAST OF PERU
1259	11 22	15	28	13.8	-17.689	-179.126	600	89.21	4.7		FIJI ISLANDS REGION
1260	11 22	23	22	20.4	-16.255	178.019	10	89.97	5.7	6.2	FIJI ISLANDS
1261	11 22	23	24	47.7	-16.242	178.054	10	89.99	5.9	6.2	FIJI ISLANDS
1262	11 23	1	54	26.2	-4.458	152.941	33	94.03	4.1		NEW BRITAIN REGION, P.N.G.
1263	11 23	20	43	3.5	36.392	71.506	107	107.71	5.9		AFGHANISTAN-TAJIKISTAN BORD REGION
1264	11 24	16	29	1.3	33.063	141.034	55	124.51	5.1		OFF EAST COAST OF HONSHU, JAPAN
1265	11 24	23	24	55.7	-5.097	129.644	200	85.30	4.5		BANDA SEA
1266	11 25	14	31	57.7	23.031	125.362	10	109.78	5.4	5.4	SOUTHWESTERN RYUKYU ISL., JAPAN
1267	11 26	18	56	25.3	28.880	139.368	433	120.12	4.2		BONIN ISLANDS, JAPAN REGION
1268	11 26	21	49	12.8	-7.340	125.848	300	81.85	4.5		BANDA SEA
1269	11 27	0	53	46.1	-33.228	-178.573	10	74.26	5.3	5.7	SOUTH OF KERMADEC ISLANDS
1270	11 27	1	19	33.6	-20.422	-177.547	400	86.89	4.6		FIJI ISLANDS REGION
1271	11 27	1	32	17.4	-15.876	-74.141	42	83.45	5.4	5.7	NEAR COAST OF PERU
1272	11 27	2	26	46.8	-33.172	-178.771	10	74.27	5.1		SOUTH OF KERMADEC ISLANDS
1273	11 27	12	50	30.6	-55.519	-27.185	33	32.00	4.7		SOUTH SANDWICH ISLANDS REGION
1274	11 27	13	41	31.2	-27.069	-71.000	33	71.99	4.7		NEAR COAST OF NORTHERN CHILE
1275	11 27	17	59	14.8	2.921	99.269	198	82.27	4.5		NORTHERN SUMATERA, INDONESIA
1276	11 27	23	10	35.1	-23.686	179.871	546	83.19	5.1		SOUTH OF FIJI ISLANDS
1277	11 28	0	48	32.6	-33.000	-178.673	10	74.46	4.9		SOUTH OF KERMADEC ISLANDS
1278	11 28	1	20	56.2	-32.816	-178.482	10	74.67	4.9		SOUTH OF KERMADEC ISLANDS
1279	11 28	3	41	45.5	0.075	123.381	142	87.84	4.3		MINAHASSA PENINSULA, SULAWESI
1280	11 28	5	29	54.2	-32.694	-178.442	10	74.80	4.8		SOUTH OF KERMADEC ISLANDS
1281	11 28	9	2	18.2	-32.933	-178.644	10	74.53	4.8		SOUTH OF KERMADEC ISLANDS
1282	11 28	9	31	16.0	4.848	125.341	200	92.96	4.5		TALAUD ISLANDS, INDONESIA
1283	11 28	10	5	55.9	-32.611	-71.768	33	67.07	4.5		NEAR COAST OF CENTRAL CHILE
1284	11 28	10	54	40.7	-32.718	-71.806	33	66.98	4.4		NEAR COAST OF CENTRAL CHILE
1285	11 28	11	51	12.9	-23.507	-179.976	600	83.40	4.7		SOUTH OF FIJI ISLANDS
1286	11 28	12	52	56.5	-24.524	179.313	500	82.26	4.1		SOUTH OF FIJI ISLANDS
1287	11 28	14	32	32.7	15.571	-93.106	85	118.97	5.7		NEAR COAST OF CHIAPAS, MEXICO
1288	11 28	17	58	25.3	-0.023	123.089	145	87.64	5.0		MINAHASSA PENINSULA, SULAWESI
1289	11 28	20	32	12.6	-56.525	-24.778	33	30.36	4.1		SOUTH SANDWICH ISLANDS REGION
1290	11 29	0	21	14.3	-32.998	-178.510	10	74.49	5.0		SOUTH OF KERMADEC ISLANDS
1291	11 29	0	30	35.8	-33.023	-178.428	10	74.48	4.6		SOUTH OF KERMADEC ISLANDS
1292	11 29	0	39	39.9	-40.400	176.940	19	66.43	4.2		NORTH ISLAND, NEW ZEALAND
1293	11 29	15	55	31.9	-46.866	-10.775	10	33.25	4.8	4.4	SOUTHERN MID-ATLANTIC RIDGE
1294	11 29	21	59	25.0	-10.618	163.993	33	91.68	4.6		SOLOMON ISLANDS
1295	11 30	10	7	38.6	-21.970	170.832	83	82.73	4.6		SOUTHEAST OF LOYALTY ISLANDS
1296	11 30	11	50	12.3	-16.638	-174.193	33	91.24	4.5		TONGA ISLANDS

No.	Date		Origin time			Geographic Coordinates		Depth	Epicentral distance	Magnitude		Region
			UTC			Latitude	Longitude			Mb	MsZ	
	h	m	s	(deg)	(deg)	(km)	(deg)					
1297	11	30	14	13	5.8	-33.177	-178.478	10	74.32	4.9		SOUTH OF KERMADEC ISLANDS
1298	11	30	14	27	11.4	-33.341	-178.576	10	74.15	4.5		SOUTH OF KERMADEC ISLANDS
1299	11	30	15	22	5.9	-1.203	119.922	38	85.41	5.0		SULAWESI, INDONESIA
1300	11	30	17	0	31.1	-21.025	-179.355	650	85.93	4.2		FIJI ISLANDS REGION
1301	11	30	17	24	10.3	-20.040	-178.617	650	87.04	4.7		FIJI ISLANDS REGION
1302	11	30	18	2	6.3	-33.248	-178.482	10	74.26	5.0	5.5	SOUTH OF KERMADEC ISLANDS
1303	11	30	18	24	7.0	-33.256	-178.721	10	74.20	4.7		SOUTH OF KERMADEC ISLANDS
1304	11	30	18	58	53.7	-32.410	-178.690	10	75.03	4.8		SOUTH OF KERMADEC ISLANDS
1305	11	30	20	24	1.2	-33.234	-178.466	10	74.27	4.9		SOUTH OF KERMADEC ISLANDS
1306	11	30	21	8	22.4	-33.114	-178.614	10	74.36	4.9		SOUTH OF KERMADEC ISLANDS
1307	11	30	23	19	32.6	-32.040	-178.810	10	75.36	5.1		SOUTH OF KERMADEC ISLANDS
1308	12	1	1	19	12.3	-33.061	-178.453	10	74.44	4.8		SOUTH OF KERMADEC ISLANDS
1309	12	1	2	48	11.2	-33.239	-178.310	10	74.30	4.8		SOUTH OF KERMADEC ISLANDS
1310	12	1	2	52	26.3	-33.509	-178.759	10	73.95	4.7		SOUTH OF KERMADEC ISLANDS
1311	12	1	5	9	3.4	-4.759	101.903	59	75.89	5.2	5.4	SOUTHERN SUMATERA, INDONESIA
1312	12	1	11	30	51.9	-24.396	-69.271	88	73.92	4.4		NORTHERN CHILE
1313	12	1	15	54	14.9	-4.348	-12.281	10	73.02	4.8		NORTH OF ASCENSION ISLAND
1314	12	1	15	55	48.8	-4.457	-12.297	10	72.92	4.7		NORTH OF ASCENSION ISLAND
1315	12	1	20	42	28.5	4.619	127.777	135	93.63	5.0		TALAUD ISLANDS, INDONESIA
1316	12	1	20	52	1.0	-4.365	-12.205	10	72.98	4.8	4.3	NORTH OF ASCENSION ISLAND
1317	12	2	2	47	56.2	-12.738	166.664	101	90.43	5.8		SANTA CRUZ ISLANDS
1318	12	2	13	1	53.6	39.402	141.089	124	130.19	6.1		EASTERN HONSHU, JAPAN
1319	12	3	11	32	29.8	-16.496	-177.540	10	90.71	5.7	6.1	FIJI ISLANDS REGION
1320	12	3	13	25	9.5	-19.266	-68.924	102	78.59	5.3		CHILE-BOLIVIA BORDER REGION
1321	12	3	23	23	15.4	17.474	145.648	507	111.93	4.5		MARIANA ISLANDS
1322	12	4	5	57	17.9	-15.350	-72.516	33	83.42	5.5	5.6	SOUTHERN PERU
1323	12	4	6	8	26.3	-15.299	-72.520	33	83.47	5.0		SOUTHERN PERU
1324	12	4	7	17	53.8	-26.011	-70.727	47	72.89	4.7		NEAR COAST OF NORTHERN CHILE
1325	12	4	7	19	25.5	3.718	97.794	139	82.57	5.1		NORTHERN SUMATERA, INDONESIA
1326	12	4	7	22	20.9	-59.370	-150.888	10	51.69	5.0	4.8	PACIFIC-ANTARCTIC RIDGE
1327	12	4	18	9	26.6	18.961	120.240	33	104.23	5.5	5.2	LUZON, PHILIPPINES
1328	12	5	1	22	0.7	5.578	126.758	33	94.15	4.3		MINDANAO, PHILIPPINES
1329	12	5	1	32	59.2	-2.980	130.169	33	87.45	5.4	5.1	SERAM, INDONESIA
1330	12	5	1	55	46.3	-35.141	-107.550	10	73.35	4.4		SOUTHERN EAST PACIFIC RISE
1331	12	5	7	46	37.8	-52.606	18.349	10	19.25	5.4	5.5	SOUTHWEST OF AFRICA
1332	12	5	10	7	29.8	-52.676	18.624	10	19.12	4.3		SOUTHWEST OF AFRICA
1333	12	5	15	35	27.0	36.386	70.726	209	107.58	4.7		HINDU KUSH REGION, AFGHANISTAN
1334	12	5	17	40	18.0	-4.971	152.009	93	93.24	5.5		NEW BRITAIN REGION, P.N.G.
1335	12	5	20	24	45.2	-1.178	123.579	33	86.74	4.9		SULAWESI, INDONESIA
1336	12	6	23	40	7.3	-24.463	179.890	500	82.44	3.8		SOUTH OF FIJI ISLANDS
1337	12	7	0	29	58.5	-6.078	148.518	55	91.04	5.0		NEW BRITAIN REGION, P.N.G.
1338	12	7	4	32	40.8	-41.398	-88.334	10	63.39	5.2	5.1	WEST CHILE RISE
1339	12	7	5	13	41.3	-29.948	-176.364	43	77.87	4.9	4.7	KERMADEC ISLANDS REGION
1340	12	7	10	29	59.8	0.313	121.885	185	87.52	4.7		MINAHASSA PENINSULA, SULAWESI
1341	12	7	12	55	43.3	-52.233	13.486	10	20.85	4.9	4.5	SOUTHWEST OF AFRICA
1342	12	7	15	5	59.8	-24.313	-66.991	170	73.26	4.7		SALTA PROVINCE, ARGENTINA
1343	12	7	18	15	54.2	-34.998	-111.913	10	74.18	4.7		SOUTHERN EAST PACIFIC RISE
1344	12	7	19	11	31.8	-5.645	130.742	111	85.18	5.5		BANDA SEA

No.	Date	Origin time					Geographic Coordinates		Depth (km)	Epicentral distance (deg)	Magnitude		Region
		UTC					Latitude (deg)	Longitude (deg)			Mb	MsZ	
		h	m	s									
1345	12	7	19	27	34.1	-44.216	168.819	10	61.02	6.0	5.8	SOUTH ISLAND, NEW ZEALAND	
1346	12	7	20	58	52.9	-44.080	168.570	12	61.10	3.9		SOUTH ISLAND, NEW ZEALAND	
1347	12	8	4	17	21.6	-15.114	-72.742	26	83.72	5.4	5.3	SOUTHERN PERU	
1348	12	8	5	27	14.7	-15.250	-72.391	33	83.47	4.3		SOUTHERN PERU	
1349	12	8	6	23	2.6	-56.799	-25.382	33	30.36	5.1		SOUTH SANDWICH ISLANDS REGION	
1350	12	8	18	36	12.0	-21.326	-67.418	187	76.17	4.5		CHILE-BOLIVIA BORDER REGION	
1351	12	8	19	26	20.3	-5.824	147.387	113	90.89	5.2		EASTERN NEW GUINEA REG., P.N.G.	
1352	12	8	20	29	34.2	28.251	129.574	33	116.05	5.7	5.7	RYUKYU ISLANDS, JAPAN	
1353	12	8	23	36	10.6	32.038	-114.906	10	140.23	5.4	5.7	W. ARIZONA-SONORA BORDER REGION	
1354	12	9	12	50	23.7	1.374	123.446	37	89.06	4.7		MINAHASSA PENINSULA, SULAWESI	
1355	12	9	14	28	32.8	-6.803	147.543	69	90.03	5.0		EASTERN NEW GUINEA REG., P.N.G.	
1356	12	9	18	15	2.6	-0.002	122.870	156	87.58	5.7		MINAHASSA PENINSULA, SULAWESI	
1357	12	9	19	19	51.4	28.001	139.184	503	119.26	4.7		BONIN ISLANDS, JAPAN REGION	
1358	12	9	21	4	54.6	-27.482	-178.473	301	79.85	4.6		KERMADEC ISLANDS REGION	
1359	12	10	4	19	16.9	49.105	156.276	33	144.04	5.1	4.4	KURIL ISLANDS	
1360	12	10	5	29	45.0	-17.618	-178.779	570	89.36	4.7		FIJI ISLANDS REGION	
1361	12	10	17	12	43.8	-20.801	-178.840	629	86.26	4.5		FIJI ISLANDS REGION	
1362	12	10	18	36	23.6	49.267	156.199	33	144.15	5.0	4.6	KURIL ISLANDS	
1363	12	10	22	35	36.9	2.818	128.287	33	92.14	5.1	5.0	HALMAHERA, INDONESIA.	
1364	12	11	15	35	7.5	-18.741	-177.903	600	88.45	4.4		FIJI ISLANDS REGION	
1365	12	11	17	56	30.2	31.509	137.463	33	121.82	5.0	4.4	SOUTHEAST OF HONSHU, JAPAN	
1366	12	12	5	47	16.5	15.800	145.322	380	110.27	4.5		MARIANA ISLANDS	
1367	12	12	11	31	54.7	-21.917	-68.164	128	75.87	4.5		CHILE-BOLIVIA BORDER REGION	
1368	12	12	12	53	18.4	-17.189	167.721	33	86.48	6.0	6.0	VANUATU ISLANDS	
1369	12	12	14	2	35.0	-42.813	124.688	10	49.13	6.5	6.7	SOUTH OF AUSTRALIA	
1370	12	12	19	52	58.4	-42.620	125.070	10	49.43	4.8		SOUTH OF AUSTRALIA	
1371	12	12	23	22	14.5	-42.603	124.544	10	49.27	4.2		SOUTH OF AUSTRALIA	
1372	12	13	6	52	33.0	-18.794	-177.617	367	88.46	4.7		FIJI ISLANDS REGION	
1373	12	13	7	28	9.0	-42.695	124.847	10	49.29	4.9	4.7	SOUTH OF AUSTRALIA	
1374	12	13	13	38	27.6	-33.229	-70.222	104	66.02	4.5		CHILE-ARGENTINA BORDER REGION	
1375	12	13	23	12	2.2	-53.438	24.864	10	17.07	5.3	5.0	SOUTH OF AFRICA	
1376	12	14	0	21	27.0	-4.169	142.397	110	90.70	5.2		NEW GUINEA, PAPUA NEW GUINEA	
1377	12	14	1	17	53.7	-31.730	-67.717	33	66.62	5.1		SAN JUAN PROVINCE, ARGENTINA	
1378	12	14	7	35	25.5	-53.386	24.724	10	17.14	5.2	5.2	SOUTH OF AFRICA	
1379	12	14	10	58	5.9	-53.430	24.954	10	17.06	5.0	5.1	SOUTH OF AFRICA	
1380	12	15	17	34	16.7	-24.545	-176.044	33	83.18	5.1	4.9	SOUTH OF FIJI ISLANDS	
1381	12	15	17	57	55.1	-22.694	172.165	33	82.37	4.8	4.9	SOUTHEAST OF LOYALTY ISLANDS	
1382	12	18	2	9	53.4	0.038	123.322	146	87.78	4.9		MINAHASSA PENINSULA, SULAWESI	
1383	12	18	4	2	58.2	23.954	122.734	14	109.71	6.3	7.3	TAIWAN REGION	
1384	12	18	9	16	28.1	-32.038	-66.717	33	66.01	4.8		SAN LUIS PROVINCE, ARGENTINA	
1385	12	20	0	59	0.6	-32.960	178.950	500	74.02	4.1		SOUTH OF KERMADEC ISLANDS	
1386	12	20	4	23	30.4	-33.290	-178.880	33	74.14	4.9		SOUTH OF KERMADEC ISLANDS	
1387	12	20	12	1	54.0	-56.895	-25.024	33	30.16	5.1	5.2	SOUTH SANDWICH ISLANDS REGION	
1388	12	20	14	28	31.5	-52.424	17.561	10	19.61	4.8		SOUTHWEST OF AFRICA	
1389	12	20	16	17	1.3	-22.495	-179.719	600	84.43	4.6		SOUTH OF FIJI ISLANDS	
1390	12	21	10	38	29.5	-6.356	154.450	60	92.75	5.3		SOLOMON ISLANDS	
1391	12	21	13	20	8.2	-24.158	-66.842	184	73.35	3.9		SALTA PROVINCE, ARGENTINA	
1392	12	21	20	51	52.4	8.170	-70.961	33	104.89	5.6	5.1	VENEZUELA.	

No.	Date	Origin time			Geographic Coordinates		Depth (km)	Epicentral distance (deg)	Magnitude		Region
		UTC			Latitude (deg)	Longitude (deg)			Mb	MsZ	
		h	m	s							
1393	12 22	0	40	4.3	-10.910	165.863	74	91.95	5.4		SANTA CRUZ ISLANDS
1394	12 22	17	40	4.8	-39.028	-15.991	10	41.96	4.6		TRISTAN DA CUNHA REGION
1395	12 22	19	1	36.0	-22.160	-68.466	107	75.74	4.4		NORTHERN CHILE
1396	12 23	9	32	13.9	-16.566	-73.831	28	82.71	5.2	5.0	NEAR COAST OF PERU
1397	12 23	10	0	46.6	2.884	128.372	33	92.23	5.3		HALMAHERA, INDONESIA
1398	12 23	10	21	28.2	27.871	141.750	35	120.06	5.7	5.6	BONIN ISLANDS, JAPAN REGION.
1399	12 23	11	34	5.2	-31.209	-71.965	26	68.44	5.0	4.9	NEAR COAST OF CENTRAL CHILE
1400	12 23	15	42	58.5	-15.832	-173.920	33	92.08	4.7		TONGA ISLANDS
1401	12 23	22	52	54.3	-9.613	159.530	16	91.29	6.2	7.0	SOLOMON ISLANDS
1402	12 23	23	33	38.5	31.776	49.293	33	100.74	4.7		WESTERN IRAN
1403	12 24	11	38	22.0	-28.605	-70.191	84	70.30	4.7		CENTRAL CHILE
1404	12 25	4	22	56.6	-30.316	-178.178	58	77.16	5.4		KERMADEC ISLANDS, NEW ZEALAND
1405	12 25	23	0	46.1	-30.224	-178.091	57	77.27	5.4		KERMADEC ISLANDS, NEW ZEALAND
1406	12 26	1	22	25.2	40.631	-29.387	10	120.45	4.9	4.7	AZORES ISLANDS REGION
1407	12 26	3	35	30.8	-30.251	-177.859	33	77.29	4.9		KERMADEC ISLANDS, NEW ZEALAND
1408	12 26	11	19	21.1	-6.320	130.040	80	84.31	4.9		BANDA SEA
1409	12 26	16	24	7.4	2.244	126.636	33	91.02	5.2		NORTHERN MOLUCCA SEA
1410	12 27	1	59	25.5	4.415	125.681	190	92.68	4.7		TALAUD ISLANDS, INDONESIA
1411	12 27	10	54	51.7	-14.647	167.262	153	88.78	5.7		VANUATU ISLANDS
1412	12 27	23	29	10.7	-24.885	179.879	496	82.03	4.9		SOUTH OF FIJI ISLANDS
1413	12 28	21	30	21.0	-32.878	-71.608	55	66.77	4.3		NEAR COAST OF CENTRAL CHILE
1414	12 28	22	9	28.0	-8.357	-74.220	161	90.53	5.5		PERU-BRAZIL BORDER REGION
1415	12 29	0	9	38.7	-17.780	-178.788	563	89.20	5.3		FIJI ISLANDS REGION
1416	12 29	14	32	22.6	-6.009	102.849	33	75.03	5.6	5.7	SOUTHWEST OF SUMATERA, INDONESIA
1417	12 30	4	6	31.8	34.836	27.391	64	103.93	4.7		EASTERN MEDITERRANEAN SEA
1418	12 31	12	31	59.9	-32.287	-179.687	250	74.95	4.3		SOUTH OF KERMADEC ISLANDS