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Hawaiian Volcano Observatory
1977 Annual Administrative Report

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Summary 77
January to December 1977
By Robert Y. Koyanagi, Karen Meagher,
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Chronological Summary
By John P. Lockwood

Open-File Report 2007-1337
U.S. Department of the Interior
U.S. Geological Survey

U.S. Department of the Interior
DIRK KEMPTHORNE, Secretary

U.S. Geological Survey
Mark D. Myers, Director

U.S. Geological Survey, Reston, Virginia 2007

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INTRODUCTORY NOTE

The Hawaiian Volcano Observatory Summaries have been published in the current format since 1956. The Quarterly Summaries (1956 through 1973) and the Annual Summaries (1974 through 1985) were originally published as Administrative Reports. These reports have been compiled and published as U.S. Geological Survey Open-File Reports. The quarterly reports have been combined and published as one annual summary. All the summaries from 1956 to the present are now available as .pdf files at http://www.usgs.gov/pubprod.

The earthquake summary data are presented as a listing of origin time, depth, magnitude, and other location parameters. Network instrumentation, field station sites, and location algorithms are described. Tilt and other deformation data are included until Summary 77, January to December 1977. From 1978, the seismic and deformation data are published separately, due to differing schedules of data reduction.

There are eight quarters—from the fourth quarter of 1959 to the third quarter of 1961—that were never published. Two of these (4th quarter 1959, 1st quarter 1960) have now been published, using handwritten notes of Jerry Eaton (HVO seismologist at the time) and his colleagues. The seismic records for the remaining six summaries went back to California in 1961 with Jerry Eaton. Other responsibilities intervened, and the seismic summaries were never prepared.

Chronology

The following Kīlauea eruption chronology covers the two recent reports and the six missing quarters:

Location	Beginning Date	Ending Date	Comment
Kīlauea Iki crater (Kīlauea's summit)	11/14/1959	12/20/1959	19 eruptive episodes
Kapoho (lower east rift zone)	1/13/1960	2/18/1960	4 eruption stages
Halemaumau (Kīlauea's summit)	2/24/1961	2/24/1961	Intermittent activity during uninterrupted inflation following the 1960 eruption
Halemaumau (Kīlauea's summit)	3/22/1961	3/25/1961	Same as above.
Halemaumau (Kīlauea's summit)	7/10/1961	7/17/1961	Same as above.
Heiheiahulu (middle east rift zone)	9/22/1961	9/25/1961	First historical east rift eruption at this location

The 1959-1960 eruptions were among two of the most spectacular Kīlauea eruptions. The HVO staff was kept busy with acquisition of unusually high quantities of instrumental data and observations of the two sequences, which were separated by less than one month. Even with a year's interval before the beginning of the summit-east rift sequence in 1961, the staff never caught up, and the seismic records were set aside for later study.

A total of 1,672 earthquakes—1,106 for 1960 and 566 for 1961—are part of HVO's cataloged database. The annual listings have been appended to the 1st Quarter Report of 1960 and to the 4th Quarter Report for 1961. The number of earthquakes is probably low, biased toward the larger magnitudes. The entire HVO catalog, including 1960 and 1961, is accessible from the ANSS CATALOG SEARCH site at http://www.ncedc.org/anss/catalog-search.

Thomas L. Wright and Jennifer S. Nakata

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

HAWAIIAN VOLCANO OBSERVATORY

SUMMARY 77

JANUARY TO DECEMBER 1977

This report is preliminary and has not been edited or reviewed for conformity with Geological Survey standards and nomenclature

Menlo Park, California

1978

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

HAWAIIAN VOLCANO OBSERVATORY

SUMMARY 77
JANUARY TO DECEMBER 1977

BY
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CHRONOLOGICAL SUMMARY
BY
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INTRODUCTION

The Hawaiian Volcano Observatory (HVO) summaries present data gathered during the year together with a chronological narrative intended to describe in geologic terms the volcanic activity associated with the seismic events and tilt data included. The seismic, tilt, and chronological summaries are offered without interpretation as a source of preliminary data. The seismic summary is complete in the sense that all data routinely gathered by the observatory are included. The emphasis in collection of tilt and deformation data has recently shifted from quarterly measurements at a few water-tube tilt stations ("wet" tilt) to a larger number of continuously recording borehole tiltmeters and repeated measurements at numerous spirit-level tilt stations ("dry" tilt). To maintain continuity with past summaries, we will continue to publish weekly data from the Uwekahuna vault tiltmeter (Kilauea summit) and from water-tube tilt stations as they are reoccupied. A comprehensive summary of the numerous and varied tilt and deformation data now gathered is beyond the scope of this publication.

The HVO summaries have been published in various formats since 1956. Summaries prior to 1974 were issued quarterly, but cost, convenience of preparation and distribution, and the large quantities of data dictated an annual format beginning with summary 74 (Koyanagi, et al.) for the year 1974. Summary 74 includes an extensive description of the seismic instrumentation, calibration and processing used in recent years. The present summary includes enough background information on the seismic network and processing to use the data and understand the essentials of how it was gathered.

Publication of the summary represents a group effort by the staffs of the Hawaiian Volcano Observatory and the National Center for Earthquake Research in Menlo Park, California.

Chronological Summary-1977

by

John P. Lockwood

Mauna Loa and Kilauea volcanoes both were known to be inflating as 1977 began. Seismic activity was at a low level beneath Mauna Loa, but microearthquakes were numerous beneath Kilauea's caldera and upper east rift zone. Although small amounts of lava had reached Kilauea's surface in response to the M=7.2 earthquake of 29 November, 1975, no significant eruption had occurred on this volcano since 31 December, 1975. This was the longest period of Kilauea eruptive quiescence since 1955-59.

On the evening of 8 February, however, at 1850 hours, several felt earthquakes signalled the onset of a seismic crisis that was to last for seven hours. During this period the Ideal-Aerosmith tiltmeter recorded a precipitous 7 rad deflation at Kilauea's summit, hence an eruption was anticipated. Lava never reached the surface, however. Geodetic measurements during the following days revealed that a major intrusion of lava had occurred in the upper east rift zone between Kokoolau and Pauahi craters. Geodimeter lines across the intrusive zone showed extension up to 25 cm. Continuously recording tiltmeters also documented the transfer of magma from Kilauea's summit to her upper east rift. Electrical self-potential, magnetometer, and strain measurements on open cracks in the area, combined with the geodetic and seimic data, make this magma-transfer episode the best-documented such event in Kilauea's history.

The Mauna Loa summit geodimeter network was reoccupied in July, and a significant decrease in the rate of inflation was observed. On Kilauea, however, geodimeter, tilt, and levelling surveys documented that a significant inflation had occurred near Heiheiahulu, a 1750 (?) satellite shield on the middle east rift zone. Microearthquakes were also abnormally frequent near Heiheiahulu. This new information and the events of 8 February now amply demonstrated that magma was no longer being stored for long periods in a holding reservoir beneath Kilauea's summit--the "gate valve" to the east rift zone was open, and magma was now entering the rift zone (Dzurisin and others, 1979).

Another seismic crisis began on the evening of 12 September at 2130 hours, and precipitous deflation of Kilauea's summit was recorded by tiltmeters again, as on 8 February. This time deflation continued, however, and seismic activity accompanied by harmonic tremor demonstrated subsurface magma migration well east of the 8 February intrusion area. Twenty-two hours later, shortly after 1900 hours on 13 September, glow was sighted on the middle east rift zone by a fisherman at sea. Aerial inspection that evening showed that an en echelon set of low fountains was erupting from a three-km-long zone between Puu Kalalua and Puu Kauka. During the night the zone of ground cracking and discontinuous, short-lived fountaining lengthened to about 5.5 km, but by morning fountaining was restricted to an area near the eastern end of the active zone. A lava flow moved about a kilometer southeast and

threatened an isolated ranch house by the evening of 15 September. Eruptive activity waxed and waned for the next several days, until on 18 September a new vent opened on the west end of the active zone, west of Kalalua. Eruptive activity was irregular and minor for the next week, and no lava was erupted on 21, 22, 24, or 25 September.

On the early morning of 26 September a major eruptive phase began at vents near the middle of the active zone at 590 m elevation. Fountains varied from 50-130 m in height and a major lava flow headed east-northeast. On 28 September it turned south-southeast, toward the coastal village of Kalapana. Almost all lava produced by the 26 September vent was now channeled into the Kalapana flow, and the flow advanced at 20-300 m/hr., reaching 365 m elevation by day's end. By the end of 29 September, the flow had reached about 140 m elevation. The flow continued to advance toward Kalapana slowly and on 30 September, the decision was made to evacuate the village. Various methods to attempt lava diversion in order to protect the village were discussed, but the probability of success was considered so low that it was decided to let the lava run its course.

On the morning of 1 October, the eruptive fountains appeared to be waning, and the lava flow began to thicken and widen above Kalapana, greatly slowing its rate of advance. The fountains ceased activity at 1610 hours, and advance of the flow front slowed to less than 1 m/day by 3 October. All forward movement of the flow front had ceased by the end of October. The flow front stopped at 43 m elevation, less than 700 m from the nearest home in its path, after advancing 10 km from its eruptive source. The 1977 eruption of Kilauea was now over; 8 km^2 of rain forest had been covered by approximately 35 x 10^6 m^3 of new lava, and a 35 m-high spatter cone, named Puu Kia'i, had been built at the site of the principal (26 September-10 October) vent. After a week of diminishing harmonic tremor, Kilauea seismicity returned to low levels, and the northern part of the summit area began to reinflate at a steady rate.

Occupation of the Mauna Loa geodetic net at year's end showed this volcano was also reinflating, at the same rate that had prevailed prior to the diminished rate noted in July. This inflation was not accompanied by any noticeable increase in seismicity.

SEISMIC INSTRUMENTATION

The network. The Hawaiian Volcano Observatory has installed and maintains an extensive telemetering seismometer network on the island of Hawaii. In January 1977 the seismometer network consisted of 41 stations spread over an area with a diameter of 125 kilometres on the island of Hawaii (Figs. 1 and 2). Of these 41 stations, two are low-gain multicomponent stations (optical), six are two-component, three are three-component, and twenty-nine are vertical only. The coverage is most complete on and around the main center of seismic and volcanic activity, Kilauea Volcano. Other stations in the network are part of a larger net located on other volcanoes of the island of Hawaii. With the exception of HIL, all seismometer signals from the short period network are telemetered to the observatory for recording. During 1977 station PLA was added on the east flank of Mauna Loa, and station TAN was replaced by stations HUL and KLU on the lower east rift.

Figure 1 is a map of selected geographic and geologic features, and Figure 2 shows the seismic stations which were operated or added during the year. Table 1 lists all seismic stations operated by the U.S. Geological Survey in Hawaii during 1977. Listed are station name, three letter code, coordinates in degrees and minutes, elevation in meters, and other data described below.

Instrumentation and recording. Each telemetering station has a voltage controlled oscillator (VCO) for FM multiplex transmission to HVO via either hardwire or VHF radio. The VCO frequencies are listed in Table 1. These telemetering stations are now all of Type 1, the NCER standard system used in USGS seismic networks (see Table 2 for details). After discrimination, the analog signals from thirty-two stations are recorded on two Develocorders using 16mm microfilm. Beginning in late 1975, FM signals from the telemetering network were recorded directly on one inch magnetic tape. Selected larger events are copied onto condensed library tapes which are currently archived in Menlo Park.

Develocorder records are read on a film viewer with 20x magnification. Arrivals are read to the nearest 0.05 second. The recorded arrival times, amplitudes (where readable), and other key data are routinely sent to N.C.E.R. in Menlo Park for computer processing.

In addition to the standard stations, optical seismographs are maintained at Uwekahuna (HVO), Hilo, Maui, and on Oahu (Kipapa station operated by Honolulu Observatory). The less sensitive short period records are used primarily for S data and amplitude measurements for magnitude calculations to supplement readings from 16mm film. Optical seismographs listed in Table 1 are of four types. Types numbered three and four are electro-mechanical systems of high and low gain respectively. Hilo and Haleakala are each equipped with two low-gain Wood-Anderson torsion seismographs. Long period Press-Ewing seismographs record in three components in the Uwekahuna vault. The paper (optical) records as well as the 16mm develocorder microfilm are archived at HVO.

Seismograph response and calibration. Displacement response curves for the four short-period seismograph types in use are given in Figure 3. Types three and four are electro-mechanical systems recorded on paper records. The Type 1 curve gives the displacement magnifcation of the standard NCER system from ground motion at the seismometer to the seismic trace as seen on a 20x Develocorder film viewer. The curves plot the unit response which should be multiplied by the factors CAL listed in Table 1 to get the response for an

individual station. Individual CAL factors for Type 1 seismographs are equal to the peak-to-peak amplitude measured in mm on the 20x Develocorder viewer of a 10 microvolt 5 Hz signal introduced to the preamp/VCO in place of the geophone. Calibration is normally done each time a station is visited,and major changes in attenuation or recalibrations are listed in Table 1 along with the dates they took place. Minor changes in CAL factors may not be listed if they are less than 20%.

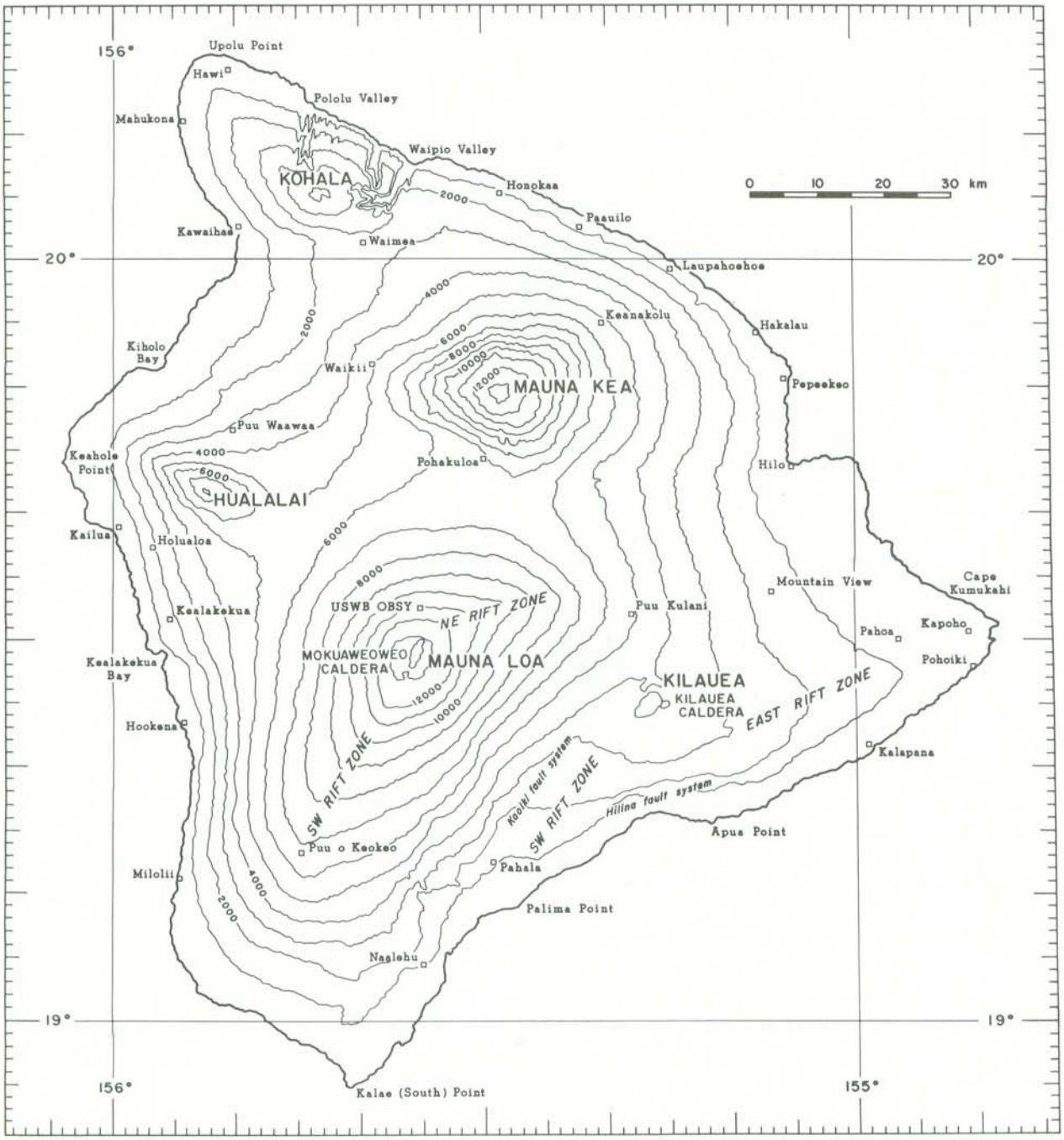

Figure 1 Map of the island of Hawaii showing principal settlements and selected geographic and geologic features.

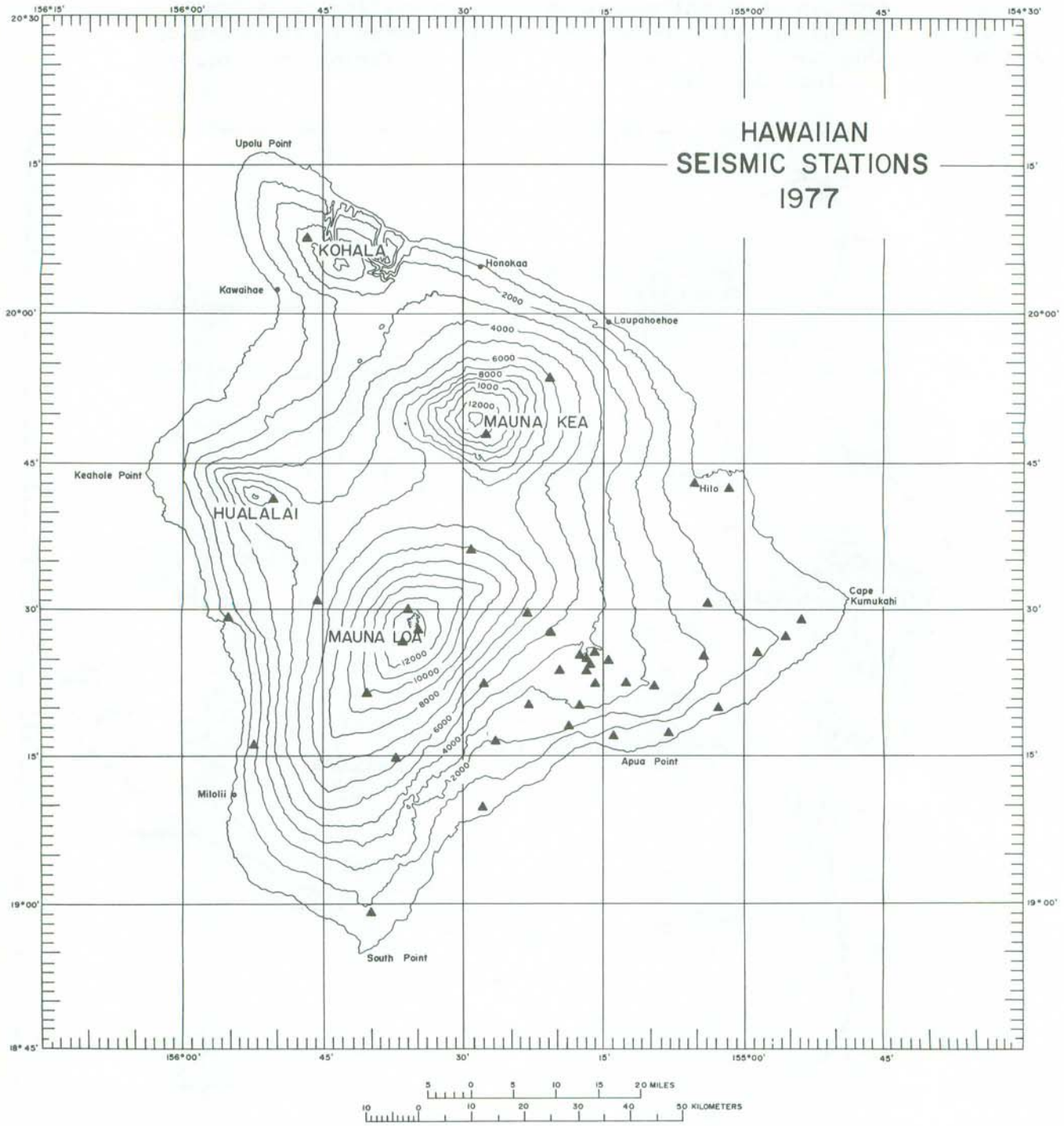

Figure 2 Map of the island of Hawaii showing seismic stations operated by the U.S. Geological Survey.

Table 1. Seismometer stations in Hawaii operated by the U.S. Geological Survey, 1977.

Station Name	Code	LAT-N	LON-W	Delay	ELEV	VCO	Old Type/Cal	Date of Change	New Type/Cal
AHUA	AHU	19 22.40	155 15.90	.06	1070	2380	1 4.3		
AINAPO	AIN	19 22.50	155 27.62	.33	1524	680	1 8.5		
	AINE					2380	1		
	AINN					2720	1		
CAPTAIN COOK	CAC	19 29.29	155 55.09	.15	323	1360	1 5.4	11/30/77	1 1.1
CONE PEAK	CPK	19 23.70	155 19.70	-.04	1030	1700	1 4.0		
	CPKH					1020	1		
DANDELION	DAN	19 21.42	155 40.04	-.07	3003	2380	1 7.0		
DESERT	DES	19 20.20	155 23.30	-.10	815	680	1 4.2		
ESCAPE ROAD	ESR	19 24.68	155 14.33	.01	1177	2720	1 2.8	10/31/77	1 1.2
HALE POHAKU	HPU	29 46.85	155 27.50	.42	3396	2720	1 4.7	10/25/77	1 3.3
HEIHEIAHULU	HUL	19 25.13	155 58.72	.02	369	1020	none	4/17/77	1 4.2
HILINA PALI	HLP	19 17.96	155 18.63	.18	707	2040	1 4.0		
HUALAIAI	HUA	19 41.25	155 50.32	.58	2189	1700	1 2.6	8/03/77	1 3.8
HUMUULA	HSS	19 36.31	155 29.13	.35	2445	1700	1 6.2	3/22/77	1 8.4
	HSSE					680	1		
	HSSN					3060	1		
KAAPUNA	KAA	19 15.98	155 52.28	.00	524	1020	1 5.2	11/30/77	1 5.6
KAENA	KAE	19 17.35	155 7.95	.15	37	2380	1 1.3		
KAHUKU	KHU	19 14.90	155 37.10	.08	1939	1700	1 3.5		
KALALUA	LUA	19 24.55	155 04.25	-.02	622	1020	1 0.6	10/06/77	1 4.6
KALIU	KLU	19 27.48	154 55.26	.00	271	2380	none	9/15/77	1
KANEKII	KII	19 30.56	155 45.90	.18	1841	2040	1 7.1	3/16/77	1 5.5
	KIIE					1020	1		
	KIIN					1360	1		
KAPAPALA RANCH	KPR	19 16.40	155 26.70	.05	610	1700	1 6.0	6/16/77	1 5.0
KEANAKOLU	KKU	19 53.39	155 20.58	.86	1863	2380	1 2.3	8/31/77	1 4.8
KIPUKA NENE	KPN	19 20.10	155 17.40	.07	924	1360	1 6.4		
KOHALA	KOH	20 7.69	155 46.77	.21	1166	2380	1 2.4	11/08/77	1 2.2
MAUNA LOA	MLO	19 29.80	155 23.30	.24	2010	3060	1 10.0	5/03/77	1 9.2
	MLOH					2040	1		
MAUNA LOA X	MLX	19 27.60	155 20.70	.27	1474	2380	1 2.1		
	MLXH					2720	1		
MAKAOPUHI	MPR	19 22.07	155 9.85	-.01	881	2720	1 3.1	9/09/77	1 1.6
MOKUAWEOWEO	MOK	19 29.28	155 35.98	.28	4104	2040	1 5.4	8/12/77	1 1.6
MOUNTAIN VIEW	MTV	19 30.25	155 3.75	.17	409	680	1 7.8	12/15/77	1 5.2
NATIONAL GUARD	NAG	19 42.12	155 1.72	.63	18	1360	1 10.2	12/27/77	1 2.4
NORTH PITT	NPT	19 24.90	155 17.00	-.06	1115	680	1 4.4	12/15/77	1 5.2
OUTLET	OTL	19 23.40	155 16.80	.02	1084	1360	1		
	OTLH					2040	1		
PAU	PAU	19 22.62	155 13.10	-.06	994	2040	1 3.8	6/21/77	1 6.2
	PAUH					1020	1		
POLIOKEAWE PALI	POL	19 17.02	155 13.47	.10	169	1360	1 4.8		
PUU HOHUAULA	PHO	19 28.90	154 53.40	.03	215	2720	1 1.9	3/31/77	1 4.2
PUU PILI	PPL	19 9.50	155 27.87	.24	35	1360	1 2.2		
PUU ULAULA	PLA	19 32.00	155 27.67	-.08	2992	2040	none	9/07/77	1 7.4
RIM	RIM	19 23.90	155 16.60	.02	1128	1020	1 7.3		
	RIMH					2040	1		
SOUTH POINT	SPT	18 58.91	155 39.92	-.07	244	2040	1 3.6		
SOUTHWEST RIFT	SWR	19 27.26	155 36.30	.14	4048	1020	1 2.4	7/26/77	1 4.7
TANGERINE	TAN	19 27.79	154 58.51	.02	351	1020	1 8.0	4/07/77	none
WAHAULA	WHA	19 19.90	155 2.92	.06	29	1020	1 2.3		
WALDRON LEDGE	WLG	19 25.49	155 15.69	-.02	1067	2380	1 2.2	6/17/77	none
WILKINS	WIL	19 28.15	155 35.02	.30	4037		1 5.1	5/25/77	1 4.0

Table 1. (continued)

Optical Seismographs

HALEAKALA Z	HAL	20 46.00	156 15.00		2090	3	0.71
HALEAKALA EW	HAE	20 46.00	156 15.00		2090	WA	1.0
HALEAKALA NS	HAN	20 46.00	156 15.00		2090	WA	1.0
HILO Z	HIL	19 43.20	155 5.30	.64	20	3.	1.0
HILO EW	HIE	19 43.20	155 5.30	.64	20	WA	1.0
HILO NS	HIN	19 43.20	155 5.30	.64	20	WA	1.0
KIPAPA	KIP	21 25.40	158 .90		76	3	0.56
UWEKAHUNA Z	UWE	19 25.40	155 17.60	.06	1240	3	0.7
UWEKAHUNA Z	USZ	19 25.40	155 17.60	.06	1240	4.	1.0
UWEKAHUNA EW	USE	19 25.40	155 17.60	.06	1240	4.	1.0
UWEKAHUNA	PEZ	19 25.40	155 17.60		1240	PE	
UWEKAHUNA	PEE	19 25.40	155 17.60		1240	PE	
UWEKAHUNA	PEN	19 25.40	155 17.60		1240	PE	

Table 2. -- Seismic Instrumentation Types

Type 1. Consists of:

a) EV-17 - Electrotech EV-17 1.0 sec. period moving magnet vertical component seismometer or horizontal component adjusted for an output of 0.5 volts/cm/sec. and 0.8 critically damped.

b) Preamp/VCO Develco Model 6202 voltage controlled oscillator or a USGS/NCER Model JE202. 3 db points for bandpass filter at 0.1 Hz and 30 Hz. Signals are transmitted on audio FM carrier over cable or FM radio link to HVO. USGS Model J302 was introducted in 1974.

Type 3. Consists of:

a) EV-17 - Electrotech EV-17 (as described above), Hall-Sears HS-10 0.5 sec. period moving coil seismometer or Observatory-built 0.8 sec. period moving coil seismometer with HVO-built solid state seismic preamplifier (voltage gain, 2000X), or Observatory-built electronmagnetic seismometer approximately 40,000 at 4 Hz.

Type 4. Consists of:

Sprengnether short period vertical and horizontal seismometers (E-W) with 1.5 sec galvanometers, coupling factor = 0.25, 2X critically damped. Peak magnitication approximately 1500X at 2Hz.

Experimental type amplifier systems are not given type numbers.
Type 2 instruments have been discontinued.

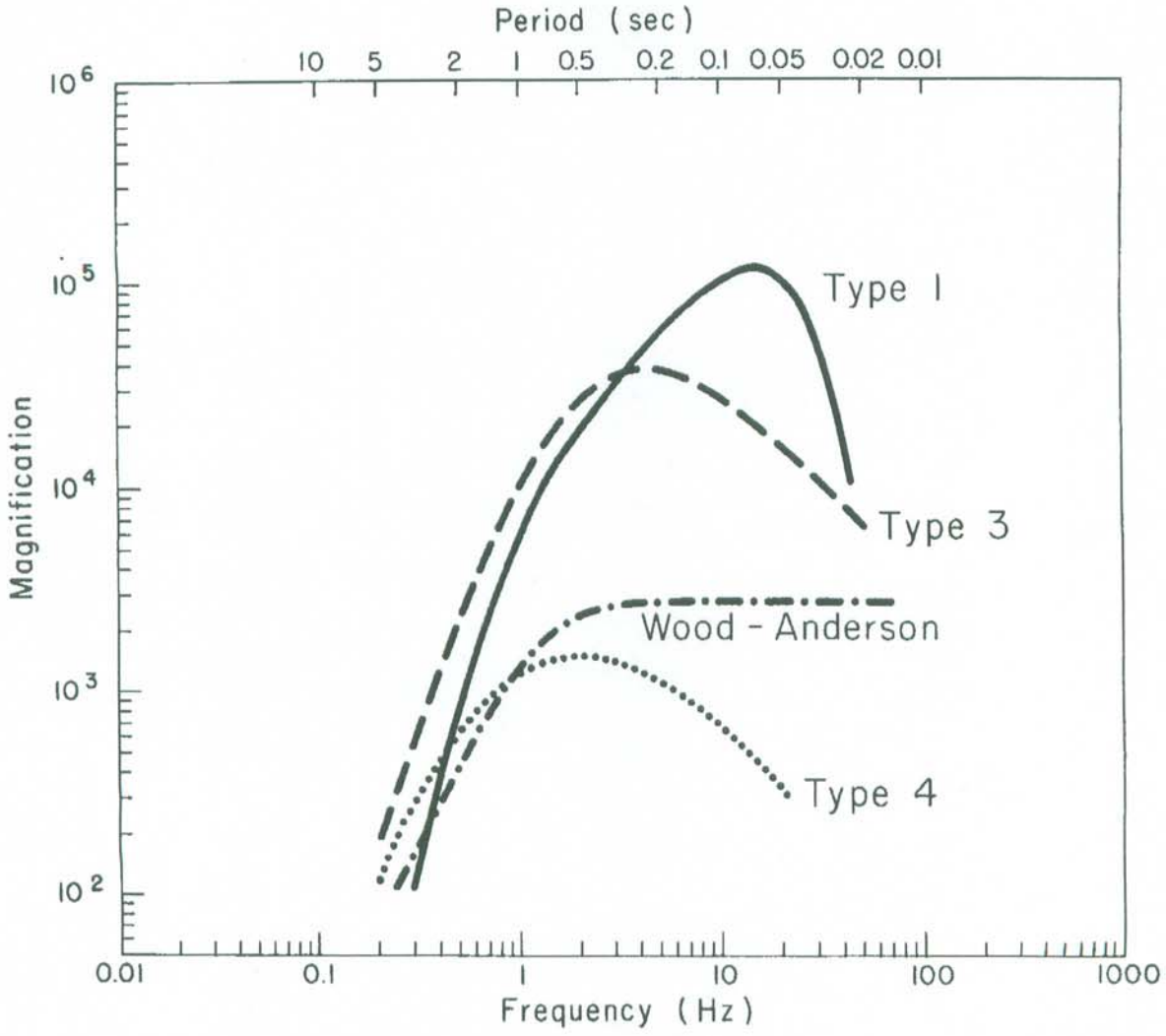

Figure 3. System response curves for the Wood-Anderson torsion seismograph and for the 3 different types of seismometers in use by the Hawaiian Volcano Observatory. Types 3 and 4 are electro-mechanical seismographs recorded optically on photographic paper. Type 1 is the standard NCER seismometer recorded on Develocorder film. The curve for Type 1 includes response of the geophone, all electronics including telemetry, Develocorder galvanometer, and projection of film by a 20X viewer. The curves plot the unit response which should be multiplied by the factors CAL listed in Table 1 to get the response for an individual station.

SEISMIC DATA PROCESSING

Earthquakes are located by the combined efforts of HVO and NCER in Menlo Park. Develocorder films are read at HVO, and lists of P and S arrival times, event amplitude and duration, clock correction, etc. are sent to Menlo Park. Data are then keypunched, computer locations are made using the program HYPOINVERSE (Klein, 1978), and problem events are reread at HVO and rerun. Card and magnetic tape copies of all arrival time (phase) and output summary data (one card per event), are kept in Menlo Park.

The crustal model used is specified by velocities at 4 depth points. Velocity at any depth is given by linear interpolation between points and uses a homogeneous half-space below.

Velocity (km/sec)	DEPTH (km)
1.9	0.0
6.5	4.6
6.9	15.0
8.3	16.5

An empirical set of station delays or corrections were used in the locations, and are given in Table 1. They have been adjusted so the mean delay of Kilauea stations is zero, and are most appropriate for locating earthquakes on the south side of the island.

Magnitudes for most events were computed using both recorded amplitudes on calibrated stations and signal or coda duration on short-period vertical stations. Amplitude magnitudes used by HVO are based on readings from Wood-Anderson seismographs. Amplitudes read from other instruments are corrected to an equivalent Wood-Anderson amplitude using the curves of Figure 3 and CAL factors of Table 1. Amplitude magnitudes larger than 2.5 are generally based on the Wood-Anderson instruments in Hilo or Type 4 seismographs at Uwekahuna. Smaller events may occasionally include amplitude readings from stations AHU, KAA, OTL, or PPL.

Duration magnitudes are determined from the length of signal in seconds read from the Develocorder viewer. This time, also called the "F-P time" is measured from the first P arrival to the point where the earthquake signal has decayed to about twice the noise level, or to about 1 cm peak-to-peak on the Develocorder viewer. A plot of log (F-P time) versus local (amplitude) magnitude appears in Figure 4. The bilinear relation shown in the figure is an appropriate fit to the data sample and is used to compute all duration magnitudes. Duration times are only read from Type 1 seismographs. Because duration magnitudes are relatively insensitive to station response and can be determined using the high-gain short-period stations, it is felt that duration magnitudes are more accurate and complete at the lower magnitudes (below 2).

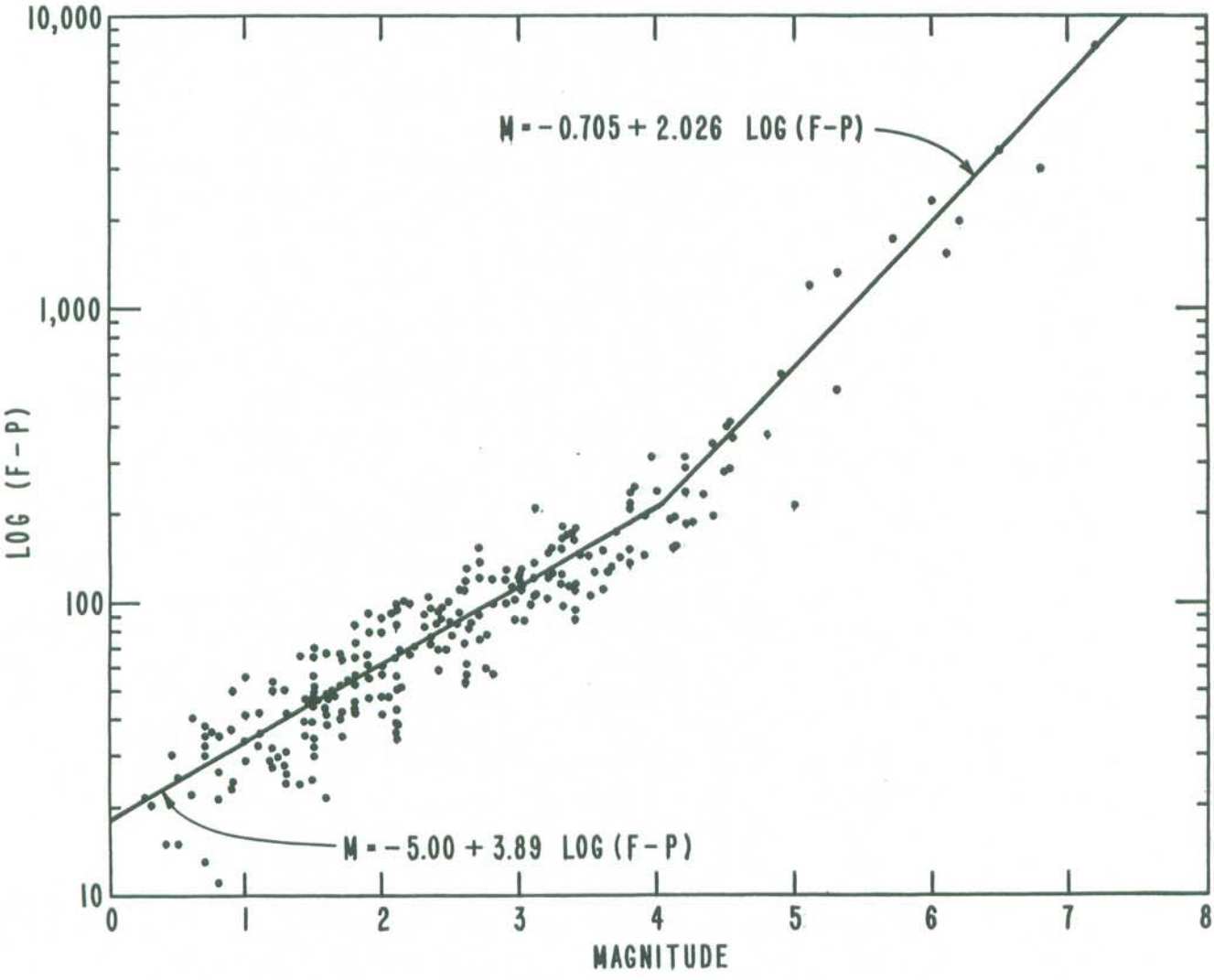

Figure 4. Relationship between signal duration (F-P time) and local magnitude for a large number of earthquakes which occurred during 1975 and 1976. Local magnitude is determined from amplitudes read on Wood-Anderson and other calibrated seismographs. The dual linear relationship between magnitude and log(F-P) appears to hold over a magnitude range of 7 units.

SEISMIC SUMMARY

The emphasis in both station coverage and detailed data analysis is on the highly active south flank of the island of Hawaii. Hundreds of earthquakes too small to locate are counted daily, and the set of located earthquakes in the Kilauea region is nearly complete above magnitude about 2.0 to 2.5. Many smaller events are located also. Substantial effort is made to locate earthquakes elsewhere on the island and within about 150 km of the island. Such coverage cannot be as complete as on the south flank, but nearly all events above magnitude 3.0 to 3.5 are located.

Data presented in the seismic summary is in four parts. Table 3 gives duration of harmonic tremor and numbers of earthquakes (most too small to locate) from several source regions around Kilauea. The source region is determined visually from signal character and pattern of arrival times at key stations. Maps showing computer located epicenters of all depths are given in Figures 5, 6, 7 and 8. The epicenter maps are on two scales, and show both all located earthquakes and large events only.

The list of computer locations constitutes the bulk of this summary, and is given in Table 5. Each earthquake in the list is assigned a three-letter code based on its location and in some cases on its depth. Figure 9 is a map of the regions used to assign the location codes. The latitude and longitude limits of rectangular regions are listed in Table 4. When the listed coordinates imply an overlap, precedence is given according to Figure 9. Table 6 relists the events in Table 5 for which either duration or amplitude magnitude is 3.5 or larger. It is felt that this list is a more objective measure of large earthquakes than a list of felt earthquakes.

Table 3. Number of earthquakes and minutes of tremor recorded on seismographs around Kilauea. Tremor is separated into three categories: Deep, Intermediate, and Shallow, on the basis of relative amplitude on seismographs in the summit region. Unless otherwise stated, tremor is presumed to be associated with movement of magma within the central complex of Kilauea Volcano. Earthquake categories are: Kilauea Summit 30 km, earthquakes from about 30 km beneath the summit region; Kilauea Summit long-period, earthquakes characterized by low-frequency waves from intermediate depths roughly 5-10 km beneath the summit region: Kilauea Summit Shallow, earthquakes from within a few km beneath the caldera region; SW Rift and Kaoiki, earthquakes along the southwest rift zone of Kilauea and the adjacent portions of the Kaoiki fault system; Upper East Rift, earthquakes from the upper east rift zone of Kilauea; Koae, earthquake from along the northeast-trending Koae fault system south of the caldera; Lower East Rift, earthquakes from the lower east rift zone of Kilauea; South Flank, faults on the south flank of Kilauea; Mauna Loa L-P, earthquakes characterized by low-frequency waves from Mauna Loa volcano; Mauna Loa S-P earthquakes from within a few kilometers beneath the summit of Mauna Loa; Offshore PPL, earthquakes from mostly offshore areas south of Puu Pili station.

Date (1977)	Tremor (m = minutes h = hours)			Earthquakes											
				Kilauea Summit			Kilauea Flank			Mauna Loa			Off-shore PPL	Remarks and Events of Interest
	Deep	Inter-mediate	Shallow	S-P	L-P	30 KM	Upper East Rift	Lower East Rift	SW Rift and Kaoiki	L-P	S-P	NE Rift		
Jan 1				415			202	8	17		4			
2				309	7		313	49	20	4	6	5		
3				404	10		322	18	63	13	6	7		
4				392	1	1	253	17	70	2	28			Mauna Kea-1
5	6m			416	11	3	345	25	26	14	8	4		Distant-2
6				619	28	3	446	28	32	19	13	1		
7				349	11		443	19	52	3	9	1	1	LPD-1
8				501	4	1	463	25	50	3	9	4	3	
9	13m			250	1		240	27	29	20	13			LPD-1
10	52m			366	8	3	203	24	11	11	2			
11	10m			364	9	9	180	37	24	6	4	4		
12				573	2		264	30	23	1	4			
13		41m		441	16		607	51	71	4	19	4	2	
14		30m		558	2		382	14	24		4			
15		14m		662	5		206	29	19	6	4			Kona-3
16		5m[1]/		413	4	1	249	49	17	21	5			Kona-1
17	5m			446			447	46	16	29	6	1		
18	41m	3m[1]/		363	4		205	28	17	20	5		2	LPD-6
19		5m 5m[1]/		336	32		226	24	22	40		1		
20		3m		311	50		260	33	17	40	3			
21				360	23		298	27	18	20				LPD-1
22		19m 3m[1]/		333	53	2	427	21	25	6				
23		15m		238	50		314	41	25	14	1			
24		3m 9m[1]/		201	86	1	210	34	21	21	1			
25		5m		219	38		214	32	14	3				
26		14m		236	40		263	19	24	13		1		
27		10m 3m[1]/		319	80		265	26	22	7			1	
28				364	87		560	30	66	14	16	2		
29				373	80		505	36	63	4	8	9		
30				282	20		273	18	43	10	7			
31	13m	2m		302	18	1	294	11	33	23	12	3		Distant-1

1/Tremor beneath Mauna Loa Volcano

Date (1977)	Tremor (m = minutes h = hours)			Earthquakes										
				Kilauea Summit			Kilauea Flank			Mauna Loa				
	Deep	Inter-mediate	Shallow	S-P	L-P	30 KM	Upper East Rift	Lower East Rift	SW Rift and Kaoiki	L-P	S-P	NE Rift	Off-shore PPL	Remarks and Events of Interest
Feb 1				289	6	5	355	16	37	3	5	3		LPD-1, Distant-1
2	35m			333	6	2	381	22	50	5	2	3		LPD-10, Distant-1
	3m[1]/													
3	31m			323	10	1	400	5	30	2	6	1		Distant-1
4				548	10		250	14	17		4	3		
5				550	4		274	17	31	1	5	5		
6	3m			351	8	2	353	11	34	6		1		LPD-1
7		5m		335	4		352	6	45	8	12			
8				249	26		1841	14	39	1	8			East Rift Swarm, LPD-2
9		15m		150	47	1	618	12	40	10	2			
10		5m		61	45		770	23	41	5	1		1	Kona-1
11		25m												
		15m[1]/		138	40		674	24	34	119	10			
12		19m												
		20m[1]/		94	28	1	708	23	37	44	7			Distant-2
13				94	9	2	832	28	56	8	12			Kona-2
14	36m			84	20		594	21	48	7	7	1		
15				74	6		358	21	52	40	4			Kona-2
16				64	3	1	364	13	47	14	4			Kona-2
17				57	13		393	18	73	31	4			LPD-1, Kona-2
18				74	15	1	405	28	48	33	2			
19		3m		47	4	2	340	19	71	15	7	1		LPD-1
20				61	12		364	22	39	1	1			Kona-1
21				50	3	1	312	37	77	1		1		LPD-2
22	16m			51	1		204	49	28	3	2		1	
23	2m			42	9		190	26	18	14	6			Kohala-2, Kona-2
24				50	2		238	79	39	36	41	2		LPD-1, Kona-1
25		13m[1]/		78	4	1	162	124	20	34	16	2		
26		44m[1]/		117	5		206	63	28	10	6	1	1	
27				75	1		271	24	43	9	16	1		LPD-2, Kona-1
28	20m			46	12		261	27	40	30	1			LPD-2, Kona-2, Kohala-2

1/Tremor beneath Mauna Loa Volcano

Date (1977)	Tremor (m = minutes h = hours)			Earthquakes										
				Kilauea Summit			Kilauea Flank			Mauna Loa				
	Deep	Intermediate	Shallow	S-P	L-P	30 KM	Upper East Rift	Lower East Rift	SW Rift and Kaoiki	L-P	S-P	NE Rift	Offshore PPL	Remarks and Events of Interest
Mar 1	6m	5m[1]/	3m[1]/	42	4		206	13	38	24	1	1		Kona-2
2	2m	4m[1]/		60	9	2	210	18	48	46	6	1	2	LPD-3
	2m[1]/													
3	31m			70	20		157	10	49	66	2			Kona-4
4				58			118	21	21	10	7	2	1	
5				47	1		76	41	19	1	1		1	Kona-1
6	2m			17	1		92	16	25	23				Kona-2
7				29	21		136	16	31	13	2			
8		2m		38	23		203	23	37	18				Kona-1
9	2m			42	2		271	24	53	42	4		1	
10	7m[1]/			38	11	1	268	20	55	37		1		Kona-2
11	9m	20m[1]/		106	28		364	40	68	23	42	3		
12				85	28		311	67	43	13	81	7		
13				109	1		188	20	19	2	5			
14				93	7	1	206	22	16	5	3		1	
15	2m	4m[1]/		65	1	1	198	10	42	67	1			Mauna Kea-1, LPD-1, Kona-1
16	5m			125	11	2	226	26	22	10	1	2		
17		10m		93	9		148	29	18	3	1			
18	6m[1]/	5m		49	19	1	153	27	35	30	1			Kona-6, Distant-3
19	3m			83	14		263	11	27	38	4			Mauna Kea-1, Kona-2
20				89	7	2	223	18	50	21	2	2		Kona-3, Mauna Kea-1
21				63	7		201	17	35	68	2	1		
22				50	12		193	28	44	17				
23				38	9		175	24	24	25	3			LPD-1
24	45m	7m[1]/		45	4	2	233	18	31	21	2			Kona-2
25				89	13		301	54	67	237	6	4		
26				136	64		383	128	54	183	3	11		
27				67	26		276	32	41	31				LPD-1
28				83	18	1	240	13	38	43	3			
29				66	28		305		38	21	1	1		
30				80	13		270		28	7				Kona-2
31		14m		73	13	2	306	2	38	12	1			

1/Tremor beneath Mauna Loa Volcano

Date (1977)	Tremor (m = minutes h = hours)			Earthquakes										
				Kilauea Summit			Kilauea Flank			Mauna Loa			Off-shore PPL	Remarks and Events of Interest
	Deep	Inter-mediate	Shallow	S-P	L-P	30 KM	Upper East Rift	Lower East Rift	SW Rift and Kaoiki	L-P	S-P	NE Rift		
Apr 1	9m	7m		97	13		306		40	50	1	1		Kona-1, LPD-4
2				95	6	1	346		61	46	1	1		LPD-1, Kona-1
3				124	3	1	309	5	54	48	2			Kona-1
4				111	9	1	334	3	48	34	1			LPD-1
5	12m			114	15	2	282	2	33	19	3			
6	47m	4m		81	11	1	273	12	47	21	5	1		LPD-2, Kona-1
7	3m1/			87	13	2	239	18	48	24	3			
8	60m			96	31	1	136	15	55	3	2			LPD-20, Kona-3
9		10m		117	32		171	58	45	2	5	1	1	
10				74	175		264	28	44	37	4			LPD-1, Kona-4
11				79	33	1	237	22	38	83	2	5	3	Kona-1
12		9m		72	32		161	11	30	23	5			LPD-3, Distant-1
13				68	12		192	3	26	40	5			Kohala-1, LPD-10, Mauna Kea-1
14				77	5	1	224	10	43	29	5			Kona-1
15				59	11	2	207	5	21	25	6			
16		4m		97	20		245	20	35	35				LPD-7, Distant-2
17				96	7	1	258	19	57	18	5			Kona-3
18	24m	2m		80	9		278	18	45	12	4			LPD-3, Distant-1
19				111	5	2	325	12	44	51	4			Kona-1
20	10m1/	3m1/		110	23		321	19	46	102	7	1		Kona-1, LPD-3, Mauna Kea-34
21		8m 2m1/		128	20	2	163	19	32	10	8	1		LPD-3, Mauna Kea-4
22	31m			204	62		384	56	51	204	15	16		
23	14m			238	59		350	27	52	196	14	12	1	Distant-2
24				202	18		232	40	29	45	9	1		Mauna Kea-2, LPD-1, Kona-3
25		3m1/		211	18	1	323	18	42	158	2			LPD-7, Distant-5, Kona-1
26		4m		180	20		335	24	40	194	3	4		Distant-8, LPD-5, Kona-1
27		7m		163	15	3	295	17	45	226	9		1	Distant-11, LPD-6, Kona-2
28		18m1/		167	7		286	15	32	225	5	2		LPD-7, Distant-1
29		5m		166	2	4	170	18	24	23				
30		1m		204	3	1	136	21	30	43	1	3		Kona-1

1/Tremor beneath Mauna Loa Volcano

Date (1977)	Tremor (m = minutes h = hours)			Earthquakes										
				Kilauea Summit			Kilauea Flank			Mauna Loa				
	Deep	Inter-mediate	Shallow	S-P	L-P	30 KM	Upper East Rift	Lower East Rift	SW Rift and Kaoiki	L-P	S-P	NE Rift	Off-shore PPL	Remarks and Events of Interest
May 1	7m			182	30		276	18	28	218	1			Distant-2, Kona-1, LPD-5
2		27m		169	23	1	338	27	44	154	2		1	Mauna Kea-1, LPD-4, Kona-1
3	39m	13m		161	27		279	12	45	176	3	2		Kohala-1, LPD-21, Mauna Kea-2
4		9m 1m[1]/		119	11	1	237	12	34	141	6	1		LPD-20, Mauna Kea-1
5				157	4		294	14	47	235	6			LPD-16, Mauna Kea-1
6		11m 3m[1]/		128	20		222	18	23	37	1	3		
7		15m 3m[1]/		103	11	1	167	34	15	49		5	1	Distant-1
8		14m		132	6		257	21	46	214		4		Mauna Kea-4, LPD-17, Kona-2
9		27m		153	20		366	18	40	88	3	1		Distant-1, LPD-9, Mauna Kea-1
10	2m	20m		110	13		371	19	39	1	1	1		LPD-2, Kona-1
11	35m	5m		93	3		381	30	34	8		2		LPD-33, Kona-2
12	78m 4m[1]/	3m		122	4		309	18	56	22		5		Kohala-11, LPD-11, Kona-3
13	14m			171	6		332	17	31	186	3	4		LPD-4
14	4m	5m		126	2	1	330	23	41	245	3	1		Mauna Kea-2, LPD-11, Kona-4
15	6m	3m		132	4		308	22	58	240		1		Kona-1, LPD-3, Mauna Kea-1
16	14m	16m		149	12		289	21	53	240	2			LPD-14, Kona-2
17		9m 3m[1]/		170	3		356	27	61	224	2			LPD-15, Kona-3
18		2m		133	4		315	26	43	239			1	LPD-5, Kona-3
19	1m 9m[1]/	3m[1]/		157	6	1	249	12	39	267			4	LPD-1, Kona-2
20	5m			134	22		311	32	61	145	8	5		Distant-2
21	32m	12m		111	7		280	38	37	183	8	9		Kona-2
22				95	1		227	15	38	117	3			
23	3m			90	1		198	7	45	45		4		Mauna Kea-1

Date (1977)	Tremor (m = minutes h = hours)			Earthquakes											
				Kilauea Summit			Kilauea Flank			Mauna Loa					
	Deep	Inter-mediate	Shallow	S-P	L-P	30 KM	Upper East Rift	Lower East Rift	SW Rift and Kaoiki	L-P	S-P	NE Rift	Off-shore PPL	Remarks and Events of Interest
May 24				134	5		203	8	21	24	2			LPD-1, Distant-1
25	6m			137	12		193	14	29	6	3			Mauna Kea-2, Kona-2, LPD-3, Distant-1
26				115	7	3	196	20	35	73	6	2		LPD-3, Kona-1
27				131	5	2	125	18	22	8	8	3		Kona-3
28				176	3		154	33	26	16	9	5		
29				243	2		128	24	25	7	2	5		
30	46m	5m		89	2		249	22	32	16		4	1	Kona-4, LPD-7, Mauna Kea-1
31				109		2	240	25	43	8		6		LPD-5, Kona-3

Date (1977)	Tremor (m = minutes h = hours)			Earthquakes										
				Kilauea Summit			Kilauea Flank			Mauna Loa				
	Deep	Inter-mediate	Shallow	S-P	L-P	30 KM	Upper East Rift	Lower East Rift	SW Rift and Kaoiki	L-P	S-P	NE Rift	Off-shore PPL	Remarks and Events of Interest
Jun 1		10m		90	2	2	258	14	35	10	5	1		Kona-3, Mauna Kea-1, LPD-7, Kohala-1
2				100	7	1	251	17	38	5	4	1		LPD-5, Kona-2
3				96	6		201	26	20	3	2	1		Kona-2, Kohala-1
4		2m[1]/		127	5	1	202	32	42	1	1		4	
5		5m		157	6	2	469	27	40	55		1		Kona-1, LPD-11, Mauna Kea-1
6		6m		169	13		314	24	44	33		3		LPD-1, Kona-1
7				190	14	1	369	30	46	51	1	1		Kona-1, LPD-2, Mauna Kea-2
8				147	8		387	26	34	88	2	2		LPD-6, Kona-1
9		2m[1]/		91	7	2	203	26	23	5	2	2	3	LPD-2
10				262	21		152	28	29	10	2	3		
11				374	13	8	137	27	21	3				
12				84	11		158	21	24		1			Kona-2
13				149	2		162	24	28	1	1	2		Kona-1
14		14m		181	10		208	22	49	66	4	7		LPD-5, Kona-2
15				167	3		180	13	49	54	2	1		LPD-2, Kona-3
16				175	6	1	201	17	38	22				Mauna Kea-1, LPD-1, Kona-1
17		5m		186	8		147	14	33	9	2	1		Distant-1, Kona-4
18		5m 6m[1]/		196	32	2	141	17	31	19	1	2	1	Kona-1
19	37m 2m[1]/			202	17	1	250	19	50	9	1	4		Kona-1, LPD-2, Mauna Kea-1
20		8m		131	16		272	14	44	2				LPD-2, Kona-1
21		51m		159	12	1	230	29	26	4				Mauna Kea-1, LPD-5, Kona-2
22		53m		154	40		321	17	56	7	2	2		LPD-2
23	3m	16m		102	10		280	20	38	8	1	1		Kona-2, LPD-1, Mauna Kea-1
24		12m		236	3	1	143	25	29	4				Kona-2
25		23m		304	2		164	50	21	7	2	3		
26	16m	12m		192	4		271	18	48	13				LPD-4, Kona-3
27	20m	6m		163	8		311	15	41	11	4	1		LPD-13, Kona-2

Date (1977)	Tremor (m = minutes h = hours)			Earthquakes											
				Kilauea Summit			Kilauea Flank			Mauna Loa			Off-shore PPL	Remarks and Events of Interest
	Deep	Inter-mediate	Shallow	S-P	L-P	30 KM	Upper East Rift	Lower East Rift	SW Rift and Kaoiki	L-P	S-P	NE Rift		
Jun 28	3m	21m		198	7	1	266	1	44	25	1			Kona-3, LPD-5, Kohala-1
29	3m	12m		220	14	2	274	16	33	31				Kona-3
30		16m		249	5	1	389	28	37	36		2		LPD-6

1/Tremor beneath Mauna Loa Volcano

Date (1977)	Tremor (m = minutes h = hours)			Earthquakes											
				Kilauea Summit			Kilauea Flank			Mauna Loa			Off-shore PPL	Remarks and Events of Interest
	Deep	Inter-mediate	Shallow	S-P	L-P	30 KM	Upper East Rift	Lower East Rift	SW Rift and Kaoiki	L-P	S-P	NE Rift		
Jul 1		6m		194	12		250	59	31	9	2			Mauna Kea-1
2		7m		152	10		205	39	30	11	3			Distant-2, Kona-1
3		3m		211	6		234	26	21	5				Distant-1
4		5m		458	7		342	10	44	10				Mauna Kea-1, LPD-1, Kona-5
5		2m		504	12		364	11	47	4		1		LPD-4
6		3m		414	8		380	8	46			1		LPD-1, Kona-2
7		35m		300	20		333	18	35	8	1			Mauna Kea-1, LPD-2, Kona-1
8		12m		332	7	2	410	12	43	10				Kona-2, Mauna Kea-1
9	30m	6m		355	22	1	391	18	46	27	1	2		Kona-2
10		5m		581	35		300	16	43	27	1	2		LPD-2
11		40m		529	39	2	255	9	26	22		1		Kona-2
12		9m		354	8		255	10	34	26	4	2		Kona-2
13				328	5		278	27	35	35		1	1	
14		10m		336	25		190	11	30	28				LPD-1, Kona-1
15				334	2		126	19	14	6		4		
16				388	4		154	35	29	5		3		
17		10m		217	23		242	8	51	17				Kona-3
18		12m		216	15		333	18	49	8	2	2		Kona-2, Mauna Kea-1
19	3m1/	4m		245	11	1	261	19	45	5		1		LPD-6, Kona-1
20		4m		352	5		268	20	41	5		2		Kona-4
21				240	1	1	232	20	53		3	1		Kona-3
22		9m		170	15		195	32	21	2	1			LPD-1
23		21m		134	14		152	34	19	1	1			Distant-1
24				166	10	1	253	25	55			1		Kohala-1
25				153	3		260	23	46		2	3		
26				166	17	2	273	24	50	3	3		2	Kona-2, Mauna Kea-1
27				88	17		218	25	49	1		1		
28		2m		94	10	2	236	13	43	1	1	3		
29		8m		116	7	3	270	28	53		3			Kona-5
30		5m		125	21	1	217	24	59	1	3	4		Kona-3
31	20m			135	7		205	14	37	1	1			Kona-1

1/Tremor beneath Mauna Loa Volcano

Date (1977)	Tremor (m = minutes h = hours)			Earthquakes										
				Kilauea Summit			Kilauea Flank			Mauna Loa				
	Deep	Inter-mediate	Shallow	S-P	L-P	30 KM	Upper East Rift	Lower East Rift	SW Rift and Kaoiki	L-P	S-P	NE Rift	Off-shore PPL	Remarks and Events of Interest
Aug 1				186	8	1	322	15	50	1	1			Kona-1
2		4m		182	7	1	273	19	38	1	3			Kona-5
3				117	17		286	34	39					
4				136	9	1	277	29	47	1	1	1		LPD-2, Kona-1
5		11m		95	2		203	75	44	2		3		Kona-3
6				123	9		190	51	36					
7		5m		179	28		430	29	55	1				LPD-3, Mauna Kea-2
8				203	58		219	63	38	3	3	1	4	Kona-3
9		4m		207	21		243	44	49	3				LPD-1, Kona-2
10		10m		208	73		240	59	48				2	Kona-1
11				201	47		201	10	44					Kona-1, Mauna Kea-1
12		2m		213	15	1	230	50	32	1	1	1	3	Mauna Kea-1, LPD-1, Kona-4
13		33m		219	8		250	25	36	4		2		Kohala-1, LPD-3, Kona-1
14	14m			154	10		134	53	44	1	1			Kona-1
15	10m	3m		376	6		249	33	27	2	1	1	4	LPD-3, Kona-1
16	9m	2m		266	25		295	88	52	1	2	1	1	LPD-2, Kona-1
17		10m		378	9	1	299	31	39	11		1		Mauna Kea-1, LPD-2, Kona-1
18	2m			160	28		238	56	38	10	5	1		Kona-2
19		8m		243	17		147	63	16	28	3			Kona-2
20		6m		283	5		114	43	17	6				LPD-1
21	2m			128	28		204	112	18	6	4	2		Kohala-2, Kona-1
22	6m	7m		331	5	1	228	28	35	2	1	1		Mauna Kea-6, Kohala-1, LPD-7, Distant-20
23	42m			98	17		296	50	32	9	3	4		Kona-1
24		16m		154	9		236	10	27	2		1		LPD-1
25	6m	6m		281	6	1	182	32	32	4	2			LPD-3, Kona-1
26	7m			71	10		276	32	29	6		2		Kona-1
27	64m			122	8		281	44	23	7	3		2	Kona-4
28				364	2		415	40	24	4	3	1		LPD-2
29	37m			382	10	2	302	25	51	4	2	2		Kohala-2, Mauna Kea-1, LPD-2, Kona-1
30	17m			222	10		244	38	29	3	2		1	Kona-2
31	5m	6m		387	18	1	280	20	28	2	1			Kona-2, Mauna Kea-1

1/Tremor beneath Mauna Loa Volcano

Date (1977)	Tremor (m = minutes h = hours)			Earthquakes										
				Kilauea Summit			Kilauea Flank			Mauna Loa				
	Deep	Inter-mediate	Shallow	S-P	L-P	30 KM	Upper East Rift	Lower East Rift	SW Rift and Kaoiki	L-P	S-P	NE Rift	Off-shore PPL	Remarks and Events of Interest
Sep 1	16m	7m		192	11		188	41	33	1	3	2		
2				361	33	1	252	21	44	5	9			LPD-1, Mauna Kea-1
3	2m	6m		334	5	1	304	21	20	1	2	1		LPD-2, Mauna Kea-3
4		22m		428	10	3	416	20	41	2	1			Kona-1
5		3m		426	9	2	550	88	53	8	2	1		Mauna Kea-3, Distant-1, LPD-1, Kona-2
6	6m	10m		284	9		601	63	32		7	2	2	Kona-1
7		10m		264			385	47	67	1	6	6		
8		7m		260	1		378	88	51	2	1	2		
9		10m		364	7	1	359	22	16	2	3			
10	15m	26m		265	19		580	34	16	1	2			Kona-1, Distant-1
11	7m	5m		351	19	2	655	43	33	20	4	2		LPD-2, Mauna Kea-1, Kona-1
12	11h	2m		313	53		2048	16	36	24	4	3		15 km-1, LPD-1, East Rift Swarm (continuous tremor)
13				429	139		1987	61	24			2		East Rift eruption
14				874	65		1219	216	51		2	5		Kona-1
15		90m		384	703	2	906	50	55	10		3		Mauna Kea-1, Kohala-1
16	3m			1134	61		664	50	46				1	Kona-2
17		37m[1/]		878	5		635	21	18			1		Kona-1
18				1525	403	1	360	29	29	14	1			Kona-1
19		80m		2012	365		277	27	36	20		4		Kohala-1
20		4m		2145	530		308	13	27			7		
21	3m			2388	671		336	18	39	1	1	2	1	Kona-1
22	3m			2130	396		411	10	27	1	1			
23		8m		1859	422		358	15	78	11	4			Mauna Kea-1, Kona-4
24				2142	932	2	348	18	29	12	2			Kona-2, Distant-1
25	4m			2164	885		317	16	29	8				Kohala-1
26				1950	880	2	309	16		8	3	1		Kona-1, Mauna Kea-1, Kohala-1
27				1797	890		260	17	64			1		Mauna Kea-1
28				2090	644	1	317	12	48			2		
29	86m			893	332		284	8	32					Kona-1
30	10m			1158	274		432	9	44					

1/Tremor beneath Mauna Loa Volcano

Date (1977)	Tremor (m = minutes h = hours)			Earthquakes										
				Kilauea Summit			Kilauea Flank			Mauna Loa				
	Deep	Inter-mediate	Shallow	S-P	L-P	30 KM	Upper East Rift	Lower East Rift	SW Rift and Kaoiki	L-P	S-P	NE Rift	Off-shore PPL	Remarks and Events of Interest
Oct 1		88m		1058	270	3	435	19	52	42	2			Distant-1, LPD-2, Kona-1
2		13m		1372	1084		315	15	30	31				Kona-1
3		2m		880	610		338	7	34	22				
4	2m			1158	325		298	6	19		2	2		
5		2m		1123	842		267	3	22		1			
6		7m		1048	1130		309	14	27	10		1		
7		7m		1525	2386		305	11	51	1			3	
8		8m		736	1952		294	8	24				2	
9	4m	2m[1/]		557	2153		315	11	53		2			Kona-3, Distant-3
		12m												
10				541	281	3	323	13	42	102				Mauna Kea-2, LPD-7, Kona-1
11		11m		110	748		257	9	59			1	2	Mauna Kea-1, Kona-1
12	26m	3m		258	831		324	19	41			3		Kona-1
13	3m			429	868		265	9	35			2		Kona-1
14				621	108	3	285	18	35	68	1			Kona-1
15	2m			506	220	1	273	9	40	70			1	LPD-7
16				729	406		251	10	30	10	2			Mauna Kea-1
17		8m		1010	454	1	231	7	26	31	2	1		Mauna Kea-1
18		5m		1114	461		223	6	38	22	2	1		Kona-2
19		15m		1070	1431		154	1	25	6	1	5		
20		2m		879	521		180	3	26	3	1			Kona-1, LPD-7, Distant-1
21				856	14		98	19	10		5			LPD-1
22				649	8	1	134	37	7	7	10			
23		4m		552	2	1	121	47	12	2	2	1		
24				897	465		236	15	29	6	1	1		LPD-1, Kona-2
25	5m			1094	5		171	6	22	5	6	6		Distant-8, Kona-2
26		5m		459	226	2	185	2	37	1	4			Kona-1
27				472	77		259	8	29		1			LPD-1, Kona-1
28	3m			376	5		230	5	44			3		Kona-1
29	8m			549	7		152	32	6			3		
30				372	30		201	18	27	2	1	2		
31	3m	9m		201	11		179	4	32			3	1	Kona-1

1/Tremor beneath Mauna Loa Volcano

Date (1977)	Tremor (m = minutes h = hours)			Earthquakes										
				Kilauea Summit			Kilauea Flank			Mauna Loa				
	Deep	Inter-mediate	Shallow	S-P	L-P	30 KM	Upper East Rift	Lower East Rift	SW Rift and Kaoiki	L-P	S-P	NE Rift	Off-shore PPL	Remarks and Events of Interest
Nov 1		5m 12m[1/]		343	7		161	25	25			3		Kona-1
2		4m		201	8		179	10	31	3	1	11		Kona-1
3	5m	8m		205	9		171	11	19	1	3	4		Kona-1
4	4m			142	20		135	16	44	4	5			LPD-1, Kona-3
5				125	8	1	123	16	36	2	1	2		LPD-6, Kona-1
6	6m	4m		145	9	3	134	13	52					LPD-1, Mauna Kea-2
7				94	3		143	9	23			4		Kona-3
8	55m	2m		92	1		145	12	32	1	3	6	3	LPD-1
9	4m			98	4	5	149	17	34		5	3		Kona-2
10	8m	2m		112	1	1	186	17	31	1	6	6		
11		3m		100		2	106	41	23	2				
12	67m	3m		86	3		99	41	16	5	1			LPD-6, Kona-5
13				122	2	1	145	10	26	1				
14		5m		108	2	1	159	5	40		2	5	1	
15		3m		142	19		196	17	53					Mauna Kea-1, LPD-1, Kona-1
16		3m		143	11	3	213	27	51	1	1	1		LPD-1, Kona-2
17	3m			106	2		167	13	59		3	3	1	Kona-2
18	16m	13m		91	1		137	14	43		3	3	1	
19				133	2		159	24	67	1				Kona-3
20		3m		130	5		165	10	51		7	7		Kona-2
21				115	4		164	13	57		4	9	1	Mauna Kea-1, Kona-2
22	8m			88	4		135	15	46	4	4		1	Mauna Kea-2, Kona-3
23	4m	10m		148	8	2	206	17	40			1		Kona-4
24				95	7		130	10	44		4	4		Kona-3, Mauna Kea-1
25				143	2		160	8	39	1	1			
26	2m			158	7	7	162	5	31			1		LPD-2
27				187	9	2	181	11	32	3	2			LPD-2
28				101	2		144	7	43		5	1	3	Kona-1
29		7m		183	12	2	191	6	40		5			Mauna Kea-1, Kona-1
30	22m			109	36		165	10	62	5	19	1	1	Kona-4

1/Tremor beneath Mauna Loa Volcano

Date (1977)	Tremor (m = minutes h = hours)			Earthquakes										
				Kilauea Summit			Kilauea Flank			Mauna Loa				
	Deep	Inter-mediate	Shallow	S-P	L-P	30 KM	Upper East Rift	Lower East Rift	SW Rift and Kaoiki	L-P	S-P	NE Rift	Off-shore PPL	Remarks and Events of Interest
Dec 1				137	5	1	172	9	54	1	8	5		
2				122	4	1	100	31	15	9	2	2		Kona-2
3	25m			100	1		107	36	15	3		1		Mauna Kea-1
4		2m		207	4	2	213	13	56	1	4	3		Kona-1, LPD-2, Mauna Kea-1
5				186	8	4	205	15	55	1	4			LPD-3, Kona-2
6	16m	7m		187	9	1	184	13	52	1	3			Kohala-1, Mauna Kea-2, Kona-1
7	5m	8m		114	4	1	167	14	59	1	1	1		Kona-2
8	11m	2m		106	4		166	13	48		1		1	Mauna Kea-1, Kona-3
9				110	1		139	11	49		2		3	Kona-4, Kohala-2
10		1m		95			161	8	57	1				
11	2m	14m		211	3	1	202	19	37			2		15 km-1, Kona-4, LPD-4, Mauna Kea-2
12	40m			97	8		153	14	56	2	1	1		Kona-1
13		13m		115	10	1	136	8	33	2		1	2	Kona-1
14	5m			78	5	1	148	10	40				3	Kona-1
15	6m			64	4		109	10	30			1		Kona-1, Kohala-1
16				175	7	2	157	11	25	5		4		Mauna Kea-3
17				154	3	1	147	11	34	3	2	1		Kohala-1, Kona-1
18		7m		68	1	1	123	5	44	2		2	1	Kohala-1, Kona-1, Mauna Kea-1
19		2m		86	2		137	6	34	1		2	2	
20			6m[1/]	206	9	1	188	15	42		2			Kona-2
21		6m		129	4		130	11	52	1	1	4		Mauna Kea-1, Kona-1
22	1m	13m		125	1	3	156	7	19					
23	45m			123	6		96	21	16		1		15	Kona-2
24	11m	6m		91	10		79	22	19	4	2	3		
25		9m		96	7	1	80	29	20	15		2	1	
26				186	1		175	24	36	2	1	1		Mauna Kea-1
27		33m		138	3	2	140	11	32			1		Kona-2
28	9m	3m		148	5	1	151	18	46	2	1	6		Mauna Kea-1, Kona-3
29				220	8	2	239	21	43	3	4	1		Kona-2, Mauna Kea-2, LPD-2, Kohala-1
30	3m			150	3		156	14	55	2	2	1		Mauna Kea-1
31				139	2	2	178	10	45	3	5			LPD-1

1/Tremor beneath Mauna Loa Volcano

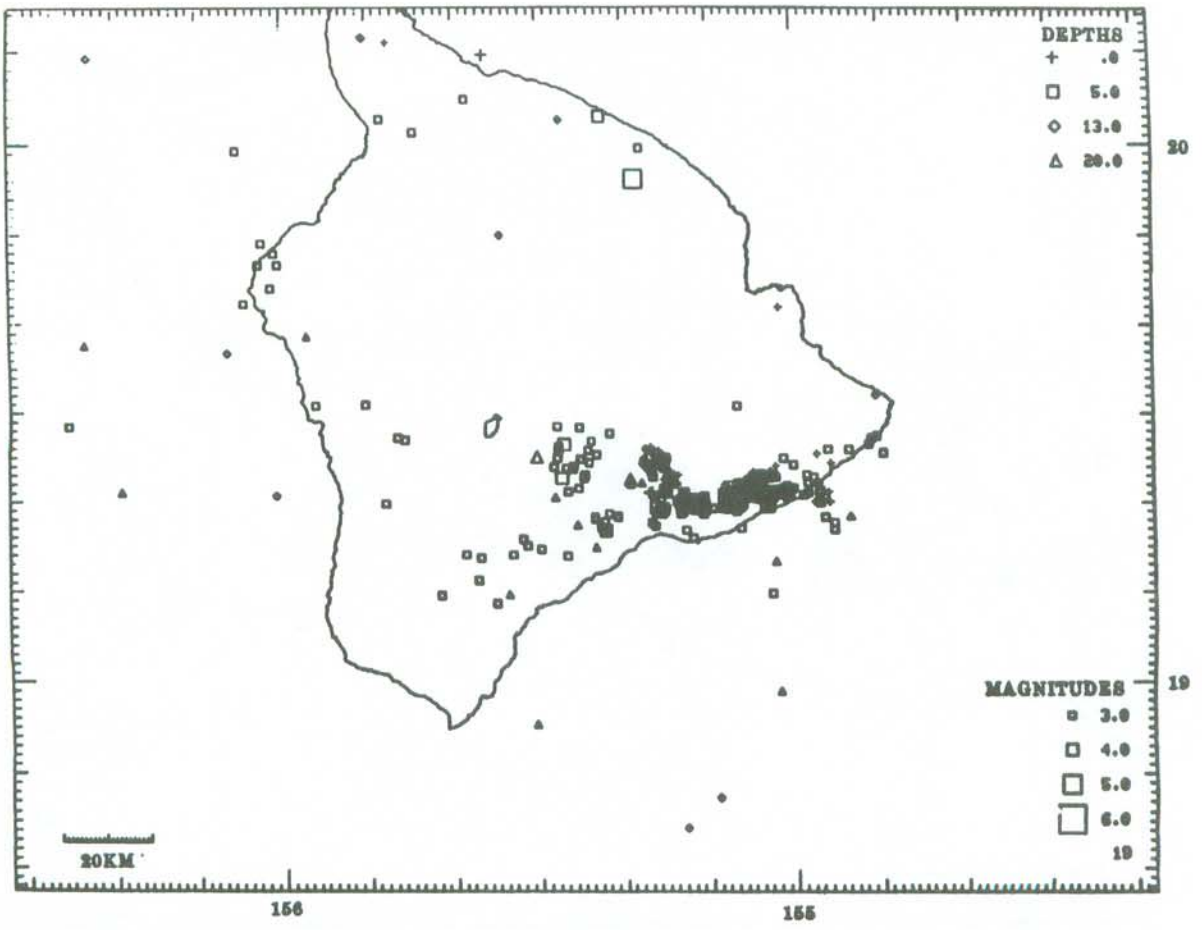

Figure 5 Epicenter plot of magnitude 3 and above earthquakes for the year 1977.

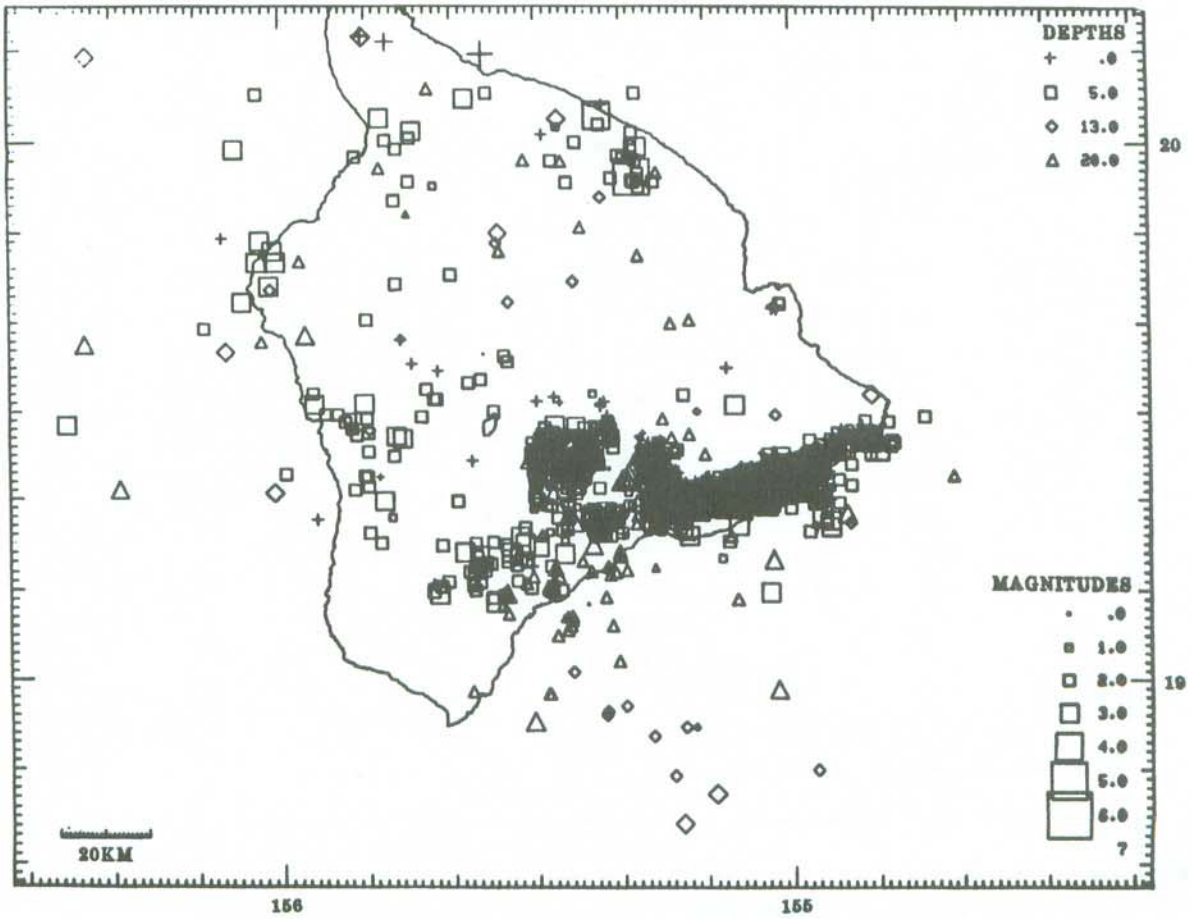

Figure 6. Epicenter plot of all events located for the year 1977.

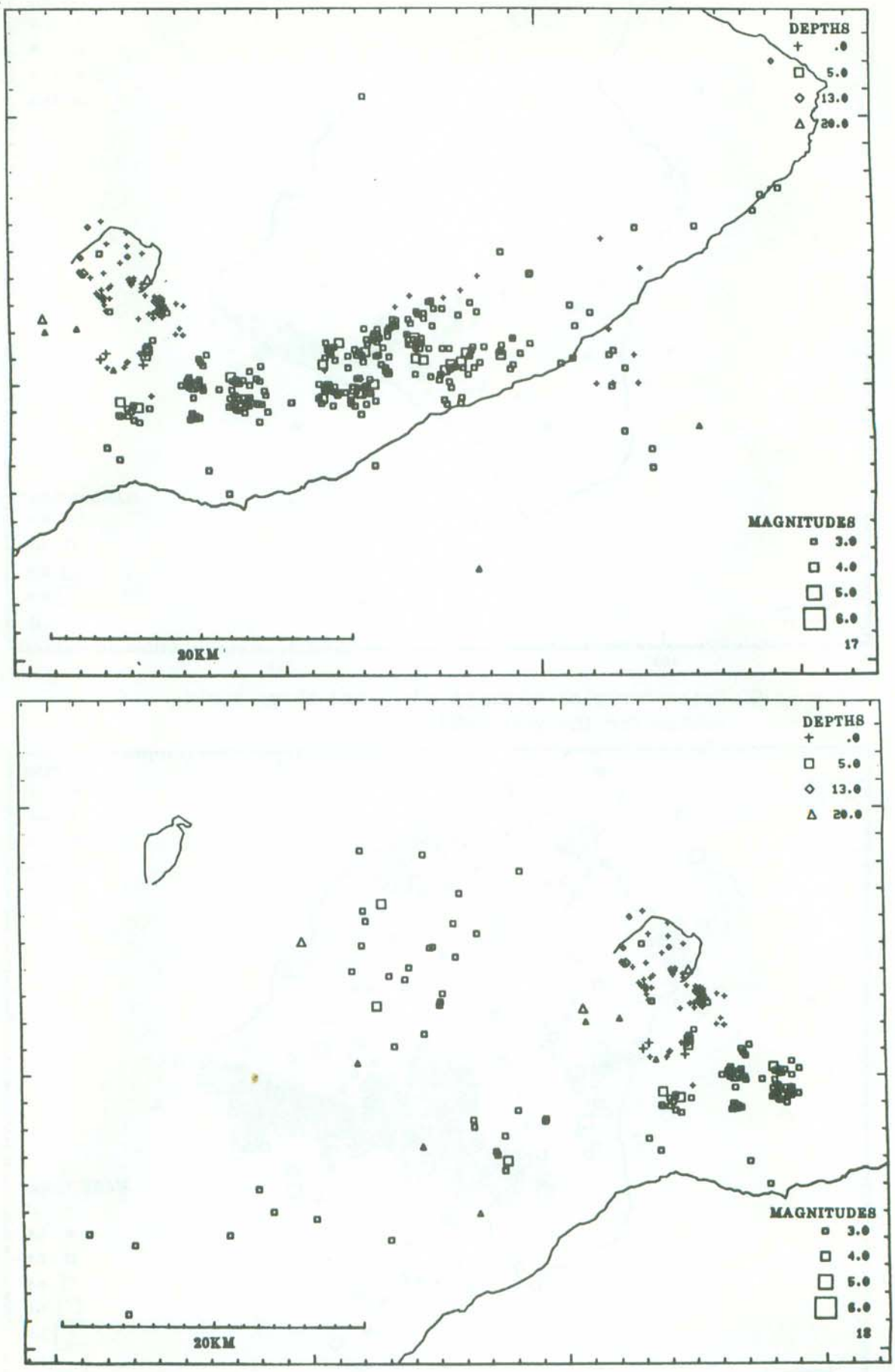

Figure 7. Epicenter plot of Mauna Loa and Kilauea earthquakes magnitude 3 and above for the year 1977.

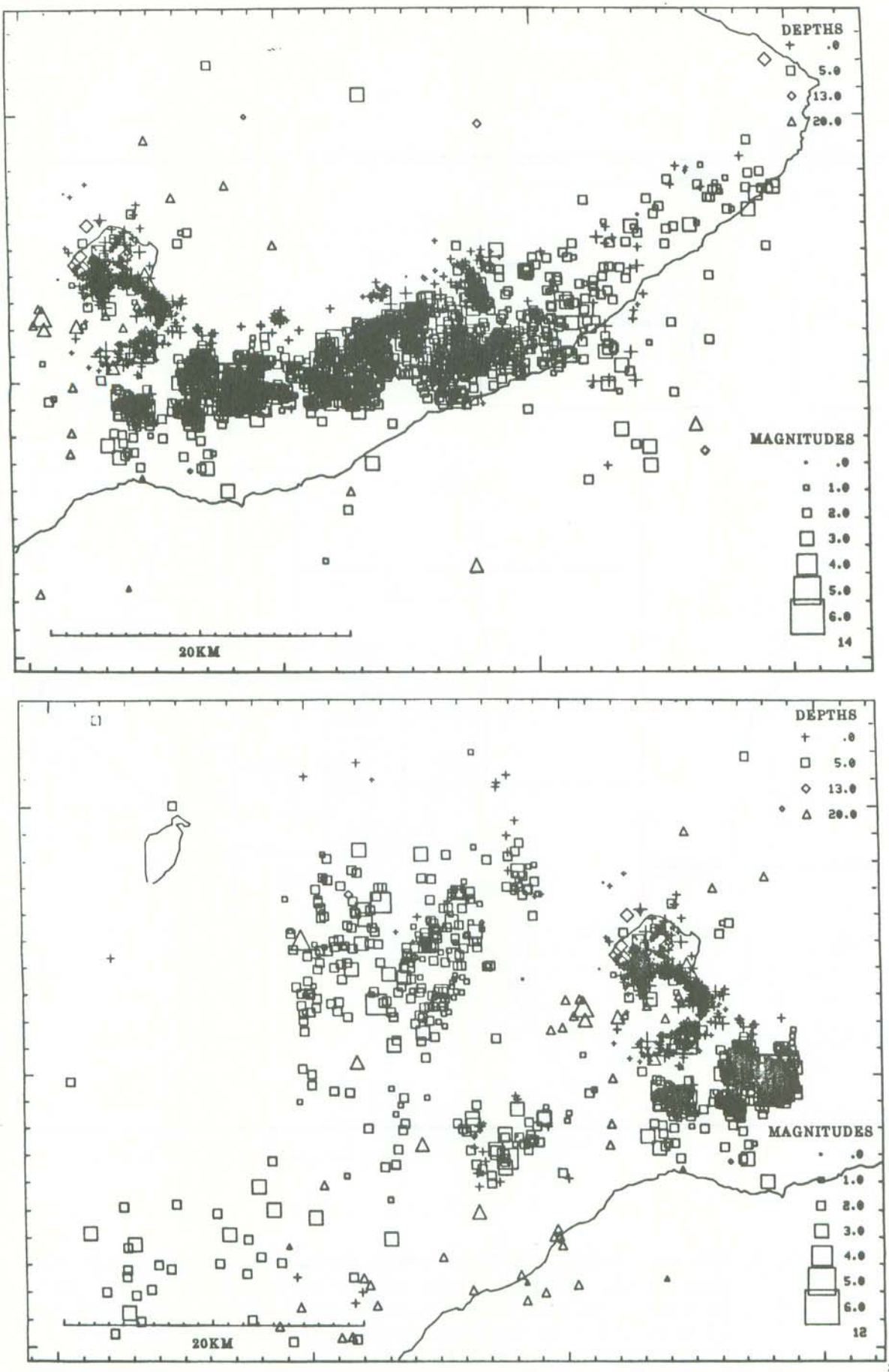

Figure 8. Epicenter plot of all Mauna Loa and Kilauea earthquakes located for the year 1977.

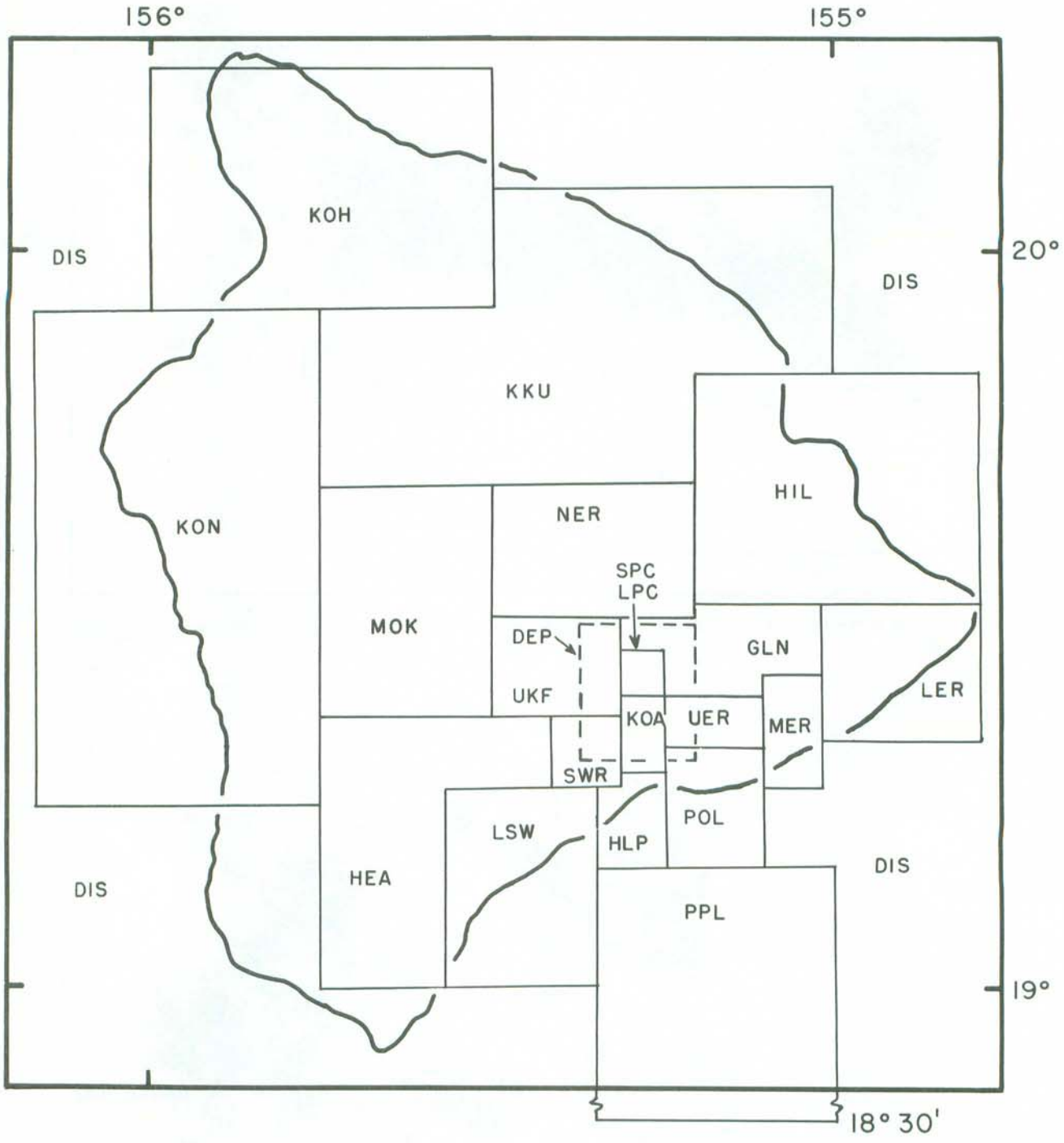

Figure 9. Map indicating limits of areas for specific mnemonic codes used in the remarks column of the earthquake summary. DEP is a code applied to earthquakes with depths greater than 13 kilometres in the Kilauea region. SPC is used for depths between 0 and 6 km, and LPC is used between 6 and 13 km.

Table 4. Coordinates of named regions.

Name	(Limits) NORTH		SOUTH		EAST		WEST		DEPTHS
	D	M	D	M	D	M	D	M	0
SPC	19	27	19	23	155	15	155	19	0 - 6
LPC	19	27	19	23	155	15	155	19	6 - 13
DEP	19	29	19	18	155	22	155	22	13 - 70
UER	19	23	19	19	155	6	155	15	
KOA	19	23	19	17	155	15	155	19	
SWR	19	22	19	16	155	19	155	25	
UKF	19	29	19	22	155	19	155	30	
MER	19	25	19	16	155	1	155	6	
LER	19	31	19	20	154	47	155	1	
POL	19	19	19	10	155	6	155	15	
LSW	19	16	19	0	155	21	155	34	
PPL	19	10	18	30	155	0	155	21	
HLP	19	17	19	10	155	15	155	21	
MOK	19	40	19	22	155	30	155	45	
GLN	19	31	19	23	155	1	155	19	
KON	19	55	19	15	155	45	156	10	
HEA	19	22	19	0	155	25	155	45	
KOH	20	15	19	55	155	30	156	0	
NER	19	40	19	29	155	12	155	30	
HIL	19	50	19	31	154	47	155	12	
KKU	20	5	19	40	155	0	155	45	
DIS	EVERYPLACE ELSE								
BLS	QUARRY BLAST								

When coordinates imply an overlap, precedence is given as shown in Figure 9.

Table 5 is a chronological listing of successfully located earthquakes. For each event the following data are presented:

Origin time in Hawaiian Standard Time: date, hour (HR), minute (MN), and second (SEC).

Epicenter in degrees and minutes of North latitude (LAT N) and west longitude (LON W).

DEPTH - Depth of focus in km.

AMP MAG - Amplitude magnitude, if determined.

DUR MAG - Duration magnitude, if determined.

NR - Number of arrivals (P or S) used for solution.

NS - Number of S arrivals used for solution.

GAP DEG - Largest azimuthal separation in degrees between stations.

RMS SEC - Root mean square error of time residuals in sec.

$$RMS = \left(\sum R_i^2/NR\right)^{1/2}$$

MIN DIS - Epicentral distance in km to the third nearest station.

ERH km - Standard error of the epicenter in km.

ERZ km - Standrad error of depth of focus in km.

REMK - Remarks, three letter code for geographic location of event. See Figure 9 for location of mnemonic code.

Table 5 lists all events located during 1977. Table 6 lists only events of magnitude 3.5 or larger.

TABLE 5. HVO EARTHQUAKE SUMMARY LIST PAGE 1

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	JAN	1	426	35.33	19	19.69	155	6.95	9.11	3.7	4.0	31	2	183	.09	7	1.0	.9	29	UER
		1	1137	23.25	19	22.88	155	14.54	5.45	2.4	2.8	16	0	150	.06	3	.9	.7	15	UER
		2	446	25.06	19	21.01	155	8.35	8.48	2.6	3.1	23	1	186	.09	3	.9	1.0	22	UER
		2	716	30.72	19	20.42	155	9.20	9.21	2.2	2.7	22	0	191	.07	3	1.4	1.1	21	UER
		2	828	43.26	19	22.80	155	5.09	8.55	2.0	2.6	16	0	210	.08	4	2.6	1.0	15	MER
		2	15	1	11.32	20	.16	155	47.75	9.54	2.6	2.9	24	2	174	.16	14	1.3	2.0	21	KOH
		2	16	9	21.81	19	22.49	155	25.49	8.92	1.8	2.9	20	0	54	.08	4	.8	1.5	20	UKF
		2	2133		2.89	19	23.21	155	14.97	2.96	2.4	3.3	16	0	114	.08	2	.6	.6	16	GLN
		2	2140		36.67	19	23.00	155	14.85	3.27	2.1	3.0	15	1	61	.08	2	.6	.6	14	GLN
		2	2248		56.77	19	19.71	155	7.56	8.54	2.3	3.2	19	0	206	.06	6	2.5	1.2	17	UER
		3	212		35.41	19	21.75	155	4.47	7.48	2.0	2.7	18	0	203	.12	5	1.9	1.3	18	MER
		3	232		44.85	19	21.39	155	13.03	7.69	1.8	2.6	19	0	161	.13	2	1.3	1.1	18	UER
		3	1524		16.21	19	21.10	155	6.28	8.77	2.4	3.0	26	0	93	.07	6	.7	1.3	26	UER
		3	17	5	51.56	19	23.92	155	15.80	3.39	3.0	3.7	27	0	31	.07	2	.5	.6	25	SPC
		4	057		6.13	19	20.42	155	12.90	8.97	2.1	2.7	18	0	67	.04	4	.8	1.4	18	UER
		4	157		10.18	19	23.48	155	17.18	3.64	3.0	3.7	32	1	55	.13	0	.4	.7	30	SPC
		4	855		45.90	19	23.33	155	16.87	2.88	2.9	3.7	14	2	54	.11	0	.5	.6	9	SPC
		4	1023		37.86	20	4.76	155	38.45	7.80	3.1	3.5	31	2	162	.14	38	1.1	1.4	25	KOH
		4	1425		13.23	19	23.24	155	14.85	3.84	3.6	4.1	29	0	47	.08	2	.5	.8	27	GLN
		4	1446		34.16	19	23.23	155	14.79	3.37	1.8	2.4	14	0	66	.05	3	.6	.8	10	GLN
		4	1454		43.37	19	23.01	155	14.73	3.25	2.3	3.3	18	1	60	.11	2	.7	.8	14	GLN
		4	1521		52.59	19	23.54	155	15.39	2.65	1.8	2.7	17	1	88	.07	2	.5	.6	16	SPC
		4	2014		39.53	19	22.15	155	4.96	8.07	2.0	2.8	24	0	81	.08	5	.7	1.2	22	MER
		5	146		5.13	19	19.68	155	12.57	7.53	1.7	2.6	19	0	81	.05	5	.8	1.6	18	UER
		5	425		44.56	19	19.83	155	11.10	7.99	1.7	2.4	21	0	90	.10	5	.9	1.6	21	UER
		5	439		54.63	19	20.09	155	12.01	7.59	1.7	2.4	21	0	80	.11	5	.7	1.5	16	UER
		5	556		36.07	19	21.40	155	6.56	9.47	2.2	2.9	28	1	86	.09	6	.7	.9	25	UER
		5	615		34.73	19	22.08	155	16.11	31.81	2.3	2.6	31	1	58	.10	1	1.2	1.5	27	DEP
		5	959		30.90	19	21.08	155	2.69	6.41		2.6	18	0	162	.10	2	1.5	1.7	16	MER
		5	1522		3.85	19	21.02	155	51.36	8.98	1.9	2.6	16	2	147	.17	9	1.2	2.3	15	KON
		5	16	9	38.28	19	22.86	155	17.50	12.59	1.5	2.3	24	1	41	.09	1	.8	.8	23	KOA
		5	1725		2.01	19	19.21	155	15.59	8.85	1.8	2.7	22	0	94	.06	4	.7	1.3	22	KOA
		5	22	7	35.94	18	58.58	155	37.91	37.96	2.7	2.7	26	2	266	.13	27	2.4	1.6	22	DIS
		5	2326		26.84	19	20.32	155	13.35	8.91	1.6	2.6	22	0	63	.07	4	.8	1.5	17	UER
		5	2356		29.92	19	25.69	155	24.35	9.45	2.4	3.1	29	0	49	.10	8	.6	1.3	26	UKF
		6	311		24.49	19	22.79	155	14.50	3.42	2.0	2.6	15	1	71	.08	2	.6	.9	5	UER
		6	435		30.36	19	19.70	155	12.43	7.09		2.6	20	0	83	.10	5	.8	1.7	19	UER
		6	443		24.79	19	59.19	155	46.48	9.62	1.7	2.3	21	3	125	.19	16	1.3	1.7	20	KOH
		6	515		58.96	19	20.34	155	8.73	8.15	1.6	2.4	22	0	72	.08	4	.8	1.6	17	UER
		6	6	3	49.33	19	19.02	155	13.40	6.37	1.9	2.6	21	0	76	.11	4	.8	1.8	19	UER
		6	833		10.38	18	56.95	155	19.71	14.84		2.3	29	1	242	.19	27	2.3	2.4	26	PPL
		6	1212		53.48	19	23.57	155	15.46	2.68	1.7	2.1	15	1	89	.07	2	.5	.7	11	SPC
		6	1225		43.79	19	25.38	155	25.01	9.13	1.8	2.5	24	0	56	.11	7	.7	1.9	18	UKF
		6	1453		47.60	19	21.05	155	13.08	8.39	1.6	2.6	21	0	59	.07	3	.8	1.5	16	UER
		6	1515		29.69	19	20.38	155	12.97	9.63	1.6	2.5	19	0	67	.06	4	.9	1.5	18	UER
		6	1817		12.68	19	23.13	155	14.82	3.44	2.2	3.2	19	0	47	.06	2	.6	.8	19	GLN
		6	1918		29.92	19	20.62	155	9.51	8.76	1.8	2.6	22	0	72	.07	3	.8	1.5	20	UER
		6	2144		47.86	19	23.79	155	15.27	3.20	1.4	2.4	12	0	95	.05	2	.6	.8	8	SPC

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	JAN	6	2352	6.67	19	19.10	155	11.79	7.32	2.6	3.3	24	0	103	.09	5	.8	1.5	22	UER
		7	048	33.70	19	13.72	155	36.96	9.44	2.6	3.1	29	0	197	.22	2	1.6	1.3	26	HEA
		7	522	57.60	19	23.34	155	14.96	3.25	2.2	2.8	17	1	73	.09	2	.6	.8	16	GLN
		7	15	1.70	19	23.79	155	15.82	3.16	2.4	3.0	24	0	64	.11	2	.6	.7	23	SPC
		7	2059	59.20	19	20.16	155	12.05	7.89	2.4	2.8	29	0	79	.08	5	.7	1.0	29	UER
		8	0	2 38.71	19	19.50	155	8.44	9.67	2.9	4.0	34	2	82	.08	4	.6	.8	32	UER
		8	2224	44.19	19	23.98	155	15.93	3.50	2.4	3.3	27	0	44	.08	2	.6	.6	26	SPC
		8	2240	54.67	19	24.00	155	15.90	3.24	2.4	3.1	25	0	44	.09	2	.5	.6	21	SPC
		9	1137	27.35	19	20.93	155	6.15	8.05	2.0	2.7	24	1	98	.08	6	.7	1.1	20	UER
		9	1348	36.66	19	21.56	155	5.99	7.97	1.9	2.4	20	0	85	.09	6	.9	1.9	18	MER
		9	1745	22.51	19	18.99	155	15.79	8.31	1.7	2.6	21	0	100	.08	4	.8	1.4	16	KOA
		9	2125	52.17	19	19.11	155	13.33	8.72	1.5	2.2	18	0	75	.07	4	.9	1.7	14	UER
		9	2232	19.73	19	26.94	154	53.04	8.78	1.8	2.7	13	0	244	.11	4	2.8	1.1	12	LER
		10	4	7 59.69	19	19.16	155	12.08	7.38	1.7	2.6	23	0	98	.10	5	.7	1.3	20	UER
		10	951	47.52	19	20.71	155	10.85	8.13	2.7	3.2	26	1	75	.07	3	.6	1.2	24	UER
		10	1212	56.89	19	23.68	155	16.71	2.93	2.4	3.4	23	0	74	.10	1	.4	.6	18	SPC
		10	1654	42.31	19	46.81	155	57.83	26.55	2.8	2.6	28	2	268	.22	17	2.6	2.6	24	KON
		11	017	47.90	19	21.18	155	7.53	7.98	1.8	2.7	25	0	80	.09	7	.7	1.8	22	UER
		11	1655	21.63	19	22.36	155	4.64	7.70	2.0	2.5	23	0	88	.09	4	.7	1.2	21	MER
		11	1733	9.91	19	23.03	155	16.89	3.22	2.0	3.3	19	1	58	.06	1	.5	.6	18	SPC
		11	2120	17.37	19	25.84	154	54.54	6.45	1.8	2.7	18	1	215	.14	6	1.8	2.5	12	LER
		11	2129	25.91	19	24.03	155	16.18	2.91	1.6	2.5	14	0	103	.07	2	.6	.6	13	SPC
		12	3	5 59.27	19	24.22	155	17.65	17.60	3.9	4.1	36	1	29	.12	2	.6	1.2	33	DEP
		12	712	51.37	19	19.54	155	11.51	9.48	2.5	3.1	25	0	94	.08	6	.7	1.2	25	UER
		12	745	12.23	19	21.13	155	4.56	6.90	2.2	2.7	22	1	93	.10	4	.7	1.2	17	MER
		12	1520	42.67	19	13.92	155	26.94	9.17	2.9	3.4	28	0	141	.13	5	.9	1.3	26	LSW
		13	4	1 3.84	19	20.62	155	7.70	9.42	2.6	2.7	26	2	83	.07	6	.6	1.1	24	UER
		13	754	17.68	19	23.83	155	15.45	3.12	2.2	3.1	20	2	66	.08	3	.5	.7	18	SPC
		13	834	32.32	19	23.33	155	14.74	3.70	3.0	3.4	24	0	46	.08	3	.6	.8	24	GLN
		13	1134	5.04	19	17.41	155	16.04	8.17	2.4	2.8	24	0	137	.10	5	.8	1.1	24	KOA
		13	1151	1.06	19	17.40	155	15.77	8.66	2.4	2.7	26	0	137	.10	4	.7	.8	26	KOA
		14	1326	42.38	19	19.83	155	7.21	9.93	4.6	4.5	32	0	108	.07	5	.8	.6	29	UER
		14	1441	51.72	19	18.03	155	23.42	3.96	2.3	2.8	20	0	124	.11	4	.8	2.1	20	SWR
		14	2130	30.95	19	20.23	155	7.72	8.33	2.3	2.7	21	0	92	.07	5	.9	1.7	21	UER
		14	2158	45.82	19	24.16	155	17.72	17.06	2.9	3.2	33	2	34	.11	2	.7	.9	29	DEP
		14	2218	15.51	19	19.94	155	7.24	9.57	2.9	3.1	29	1	105	.10	5	.8	.9	26	UER
		14	23	1 53.07	19	22.96	155	14.42	3.66	2.1	2.5	21	0	48	.07	2	.6	.8	20	UER
		15	428	16.78	19	23.07	155	14.62	3.55		2.8	22	0	48	.06	3	.6	.8	22	GLN
		15	1820	18.68	19	22.47	155	29.70	9.98		2.8	19	0	49	.13	4	.7	1.5	18	UKF
		16	10	0 52.78	19	23.23	155	14.77	3.29	1.6	2.6	12	0	67	.04	3	.6	.9	10	GLN
		16	2244	58.01	19	23.10	155	14.79	2.45	1.8	2.3	11	0	91	.04	2	.6	.8	9	GLN
		17	5	3 48.16	19	19.51	155	8.58	8.23	2.2	3.3	23	0	79	.07	4	1.0	1.3	22	UER
		17	512	46.46	19	20.26	155	8.52	8.21	1.8	2.7	23	0	76	.09	5	.8	1.9	19	UER
		17	515	16.91	19	21.44	155	49.85	12.18	2.3	2.5	18	1	54	.13	11	1.0	.9	18	KON
		17	835	32.32	19	23.56	155	16.96	2.89	1.6	2.6	9	0	67	.04	0	.7	.7	9	SPC
		17	1154	50.24	19	23.10	155	16.96	2.64	1.7	2.6	12	1	64	.04	1	.5	.7	11	SPC
		17	1720	58.03	19	22.91	155	14.53	3.91	2.5	3.1	21	0	65	.06	3	.6	.9	20	UER
		17	2356	2.45	19	23.15	155	14.99	3.09	2.2	3.2	12	0	68	.04	2	.6	.8	12	GLN

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	JAN	18	011	49.50	19	23.35	155	14.88	5.31	1.5	2.0	11	0	72	.03	3	.6	.9	10	GLN
		18	014	6.43	19	23.15	155	14.79	3.17	2.3	2.9	15	0	64	.04	2	.6	.7	15	GLN
		18	435	26.43	19	19.26	155	16.37	7.94	1.5	2.5	18	0	100	.09	2	.9	1.6	17	KOA
		18	732	50.12	19	23.39	155	16.93	2.91	2.6	3.4	25	1	36	.10	0	.4	.5	20	SPC
		18	1241	37.30	19	20.16	155	8.02	7.50		2.6	15	0	88	.07	3	1.1	3.2	13	UER
		18	1327	15.07	19	27.10	154	51.28	8.94	2.5	3.0	23	1	270	.09	5	2.3	1.0	19	LER
		18	1615	31.32	19	23.46	155	16.92	2.93	1.2	2.4	12	1	66	.06	0	.5	.7	11	SPC
		18	18 3	55.28	19	24.03	155	15.74	3.07	2.0	3.0	17	1	112	.05	2	.6	.7	15	SPC
		18	1814	1.60	19	19.58	155	10.17	8.50		2.6	25	0	95	.09	6	.8	1.5	22	UER
		18	1915	27.87	19	14.87	155	33.67	8.37	2.2	2.9	25	0	118	.16	6	.9	1.4	22	LSW
		18	2155	43.60	19	18.61	155	15.15	9.45	2.5	2.9	22	0	99	.08	4	.8	1.0	21	KOA
		19	153	34.97	19	23.30	155	17.05	2.83	1.2	2.4	12	1	57	.06	0	.5	.7	10	SPC
		19	252	13.60	19	22.67	155	4.46	8.28	2.4	3.0	21	1	93	.07	4	.6	1.1	18	MER
		19	349	51.94	19	19.58	155	11.35	9.91	2.4	2.9	28	0	95	.06	6	.8	.9	25	UER
		19	356	9.07	19	29.62	155	2.08	14.00		2.8	6	0	119	.78	3	5.1	7.2	3	GLN
		19	426	12.85	19	5.64	155	26.70	41.37	1.8	2.1	14	1	205	.12	7	2.1	2.5	6	LSW
		19	429	2.94	19	6.09	155	26.29	41.05	1.9	2.1	13	0	194	.10	7	2.9	5.4	7	LSW
		19	1011	10.85	19	19.66	155	11.17	7.11	1.8	2.6	20	0	93	.10	6	.8	2.0	18	UER
		19	1212	59.05	19	23.99	155	28.95	10.46	2.8	2.9	29	0	39	.10	4	.7	1.2	22	UKF
		19	2358	33.60	19	20.77	155	13.02	8.69	1.6	2.3	21	0	62	.07	3	.7	1.1	19	UER
		20	220	27.97	19	19.30	155	11.02	9.11	3.4	3.8	30	3	103	.10	6	.6	1.0	27	UER
		20	736	38.38	19	20.74	155	3.07	6.83		2.6	16	0	123	.09	2	1.1	1.7	16	MER
		20	1121	43.13	19	27.34	154	50.59	7.40	2.5	3.2	15	2	273	.10	6	1.6	1.3	14	LER
		20	1439	34.89	19	18.64	155	10.91	8.05	2.7	3.3	25	1	123	.09	5	.7	1.4	22	POL
		21	111	38.35	19	23.49	155	15.07	3.30	1.9	2.7	12	0	85	.05	3	.7	.8	11	SPC
		21	928	54.12	19	23.79	155	15.58	3.06	1.4	2.1	14	0	97	.05	3	.6	.7	14	SPC
		21	1211	44.15	19	19.58	155	3.13	6.75	2.1	2.5	23	0	201	.12	1	1.5	1.6	17	MER
		21	13 0	47.85	19	20.42	155	12.66	8.00	1.6	2.3	21	0	69	.08	4	.8	1.2	19	UER
		21	1331	2.64	19	20.69	155	13.82	8.10	1.6	2.3	19	0	66	.08	4	.8	1.3	16	UER
		21	18 4	57.73	19	19.31	155	3.07	7.44	2.4	3.1	23	0	43	.11	1	1.4	1.0	17	MER
		21	2018	39.05	19	20.03	155	3.59	5.80	2.0	2.6	21	0	135	.11	1	1.3	1.2	16	MER
		21	2026	3.67	19	24.76	155	25.33	10.18	1.7	2.2	23	0	52	.10	6	.7	1.7	18	UKF
		21	2140	33.08	19	19.26	155	15.60	8.79	1.6	2.5	28	1	93	.07	4	.6	.8	22	KOA
		21	2147	26.69	19	19.20	155	2.75	7.13	2.1	2.5	20	0	208	.13	1	1.7	1.0	17	MER
		21	2152	1.93	19	23.90	155	16.19	3.35	2.0	2.6	25	1	45	.08	2	.5	.6	21	SPC
		21	2246	23.44	19	19.43	155	11.84	7.17	1.8	2.3	27	0	94	.12	5	.8	1.2	22	UER
		22	038	27.78	19	19.94	155	13.12	10.53	2.7	3.3	33	0	70	.08	5	.6	.7	31	UER
		22	114	.59	19	17.26	155	23.60	3.95	1.6	2.1	16	1	117	.09	5	.8	2.7	16	SWR
		22	320	17.31	19	24.03	155	16.21	3.20	1.8	2.5	21	1	77	.07	2	.5	.6	20	SPC
		22	514	16.52	19	19.29	155	19.12	7.94	1.6	2.0	24	0	89	.10	5	.7	1.2	16	SWR
		22	525	40.82	19	23.68	155	15.32	3.02	1.1	1.9	14	0	94	.05	3	.5	.7	11	SPC
		22	732	42.69	19	21.32	155	15.25	10.23	3.6	4.0	32	0	66	.06	2	.6	.7	26	KOA
		22	8 2	44.18	19	23.04	155	14.62	3.87	3.1	3.5	26	0	53	.07	3	.6	.8	23	GLN
		22	832	15.10	19	22.62	155	14.58	2.89	2.0	3.5	11	0	120	.04	3	.6	.8	8	UER
		22	836	33.23	19	23.20	155	14.76	3.45	1.4	1.8	11	0	105	.03	3	.7	.9	7	GLN
		22	856	32.74	19	17.39	155	12.65	11.32	1.8	1.8	14	0	213	.05	10	1.7	1.9	0	POL
		22	937	4.27	19	22.74	155	14.57	2.51	1.8	1.9	11	0	88	.03	2	.5	.8	0	UER
		22	959	36.32	19	22.76	155	14.68	2.51	1.4	1.6	12	0	86	.03	2	.5	.7	0	UER

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	JAN	22	958	19.73	19	23.41	155	14.78	3.62	1.6	2.4	19	0	64	.06	3	.6	.8	18	GLN
		22	1142	15.39	19	22.61	155	14.00	3.51	1.8	1.9	17	0	59	.05	2	.6	.7	0	UER
		22	1153	7.36	19	55.44	155	26.56	10.09	1.6	2.1	15	1	244	.10	11	2.7	.9	0	KKU
		22	1236	28.17	21	15.07	160	33.76	6.92	5.1	3.6	26	4	331	.26265		60.2	78.6	1	DIS
		22	1441	22.38	19	20.00	155	13.13	6.67		1.6	21	0	69	.09	5	.8	1.5	16	UER
		22	15 0	1.60	19	23.52	155	15.25	2.90	1.4	1.7	11	0	85	.07	2	.7	.8	0	SPC
		22	1526	55.92	19	23.94	155	15.74	3.12	1.8	2.2	18	0	109	.07	2	.5	.5	15	SPC
		22	1627	31.61	19	23.91	155	15.73	3.25	1.4	1.8	12	0	109	.05	2	.7	.6	0	SPC
		22	19 9	10.44	19	40.26	155	49.90	6.91	2.6	2.5	23	0	135	.17	2	.9	1.1	15	KON
		22	1950	38.63	19	19.59	155	8.04	7.84		1.6	22	0	92	.07	4	.8	1.5	0	UER
		22	20 2	.10	19	23.25	155	14.66	3.28	3.0	3.6	25	1	47	.10	3	.6	1.0	21	GLN
		22	20 3	29.77	19	23.25	155	14.90	3.36	2.0	1.4	14	0	70	.03	2	.6	.7	0	GLN
		22	2017	58.32	19	23.16	155	14.87	3.13	1.2	1.9	15	0	67	.06	2	.6	.7	0	GLN
		22	21 7	58.20	19	23.14	155	14.79	3.38	1.4	1.9	12	0	64	.04	2	.6	.9	9	GLN
		22	2113	56.91	19	21.20	155	1.33	6.66		1.6	20	0	186	.09	4	1.2	1.4	0	MER
		22	2159	1.87	19	20.95	155	11.61	9.24		1.6	22	0	69	.05	4	.7	1.3	0	UER
		22	2313	22.79	19	20.07	155	7.83	6.05	1.8	1.6	21	0	92	.14	5	.9	2.6	16	UER
		22	2358	10.93	19	28.56	154	49.45	2.83	1.1	.7	10	1	293	.10	7	3.5	3.2	0	LER
		23	056	46.83	19	23.31	155	15.07	3.18	1.1	1.5	12	1	74	.06	2	.6	.8	0	SPC
		23	2 1	37.25	19	23.20	155	14.81	3.24	1.1	1.6	9	0	110	.03	2	.8	1.0	0	GLN
		23	239	26.97	19	23.76	155	15.54	3.11	1.3	1.9	14	0	100	.04	3	.6	.7	12	SPC
		23	321	56.01	19	26.29	154	55.96	5.77		.2	8	2	60	.14	5	2.3	3.7	0	LER
		23	431	27.09	19	22.81	155	2.27	8.00	2.3	2.2	25	0	140	.12	5	1.0	1.1	20	MER
		23	435	51.93	19	20.23	155	8.25	7.90	1.8	2.2	21	0	81	.07	4	.7	1.4	0	UER
		23	438	55.47	19	17.68	155	21.97	5.96		.9	12	0	219	.09	5	1.7	3.3	0	SWR
		23	537	35.46	19	15.37	155	26.94	9.20		1.3	13	0	79	.07	2	1.4	1.0	0	LSW
		23	641	31.21	19	19.79	155	16.44	8.99	2.3	2.6	29	0	93	.07	2	.7	1.0	22	KOA
		23	715	52.23	19	19.68	155	11.07	8.63	1.7	2.5	27	0	93	.08	5	.7	1.1	19	UER
		23	741	58.65	19	19.50	155	10.97	7.92		1.2	21	0	98	.10	5	.8	1.4	0	UER
		23	1049	1.84	19	20.32	155	12.01	8.78	4.0	4.3	36	1	76	.09	5	.6	.7	34	UER
		23	18 9	30.19	19	22.82	155	16.82	3.05	2.0	3.1	15	1	56	.09	1	.5	.7	13	KOA
		23	2032	3.16	19	19.63	155	10.67	9.69	2.6	3.2	32	1	95	.08	5	.6	.9	27	UER
		24	146	19.19	19	21.05	155	1.71	6.46		2.4	20	1	182	.14	3	1.4	1.6	17	MER
		24	2 5	26.85	19	20.20	155	12.30	8.27	1.6	2.6	28	0	76	.09	5	.8	1.0	25	UER
		24	3 4	32.54	20	.01	155	25.34	10.38	2.0	2.1	17	4	282	.12	15	1.6	.7	10	KKU
		24	3 7	58.46	19	18.09	155	23.64	10.26	2.8	3.7	35	0	109	.12	4	.6	.8	34	SWR
		24	1532	21.67	19	22.92	155	2.57	8.46	2.0	2.5	20	0	132	.11	4	1.1	1.4	13	MER
		25	339	8.15	19	.90	155	25.97	15.24		2.1	31	3	40	.23	16	1.8	1.0	29	LSW
		25	541	9.30	19	27.20	154	52.94	6.75	1.7	2.1	16	1	247	.12	3	1.8	2.1	13	LER
		25	542	22.08	19	19.22	155	11.94	7.41	2.4	3.0	29	1	98	.11	5	.7	1.3	27	UER
		25	552	.27	19	18.55	155	8.41	7.91	1.9	2.6	23	0	85	.10	2	.8	1.2	20	POL
		25	1042	56.48	19	19.32	155	15.53	7.78	1.7	2.3	17	0	105	.10	4	.9	1.9	15	KOA
		25	1128	51.99	19	19.67	155	11.13	7.68	1.9	2.5	20	0	94	.08	5	.8	1.4	20	UER
		25	1130	10.97	19	19.19	155	12.06	8.77	2.6	3.1	26	1	97	.11	5	.7	1.0	23	UER
		25	1524	57.42	19	21.50	155	6.72	7.72	1.9	2.5	22	0	83	.08	6	.8	1.5	20	UER
		25	1917	9.04	19	21.36	155	4.60	7.65	1.9	2.4	24	0	87	.09	4	.8	1.5	22	MER
		25	2139	58.06	19	19.63	155	11.65	8.29	2.3	3.0	29	3	90	.12	6	.6	1.0	24	UER
		26	041	28.43	19	22.49	155	4.45	8.21	2.3	3.0	24	2	93	.07	4	.6	1.0	19	MER

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	JAN	26	046	17.51	19	19.14	155	11.80	7.13	1.7	2.4	23	0	101	.08	5	.7	1.2	19	UER
		26	927	37.52	19	27.32	155	29.36	11.96	2.0	2.4	24	1	73	.13	9	.9	1.3	16	UKF
		26	1533	22.44	19	21.33	155	8.22	8.97	2.4	3.2	22	0	71	.06	3	.8	1.1	20	UER
		26	1536	13.19	19	20.94	155	8.04	8.70	1.7	2.5	19	0	76	.08	4	.8	1.5	11	UER
		26	2113	10.46	19	20.44	155	5.89	8.78	2.7	3.1	29	2	113	.08	5	.6	1.0	24	MER
		26	23 6	24.56	19	19.59	155	11.04	7.84	1.9	2.6	26	0	96	.06	5	.7	1.1	25	UER
		27	1222	38.06	19	19.96	155	8.28	8.44	1.8	2.6	21	0	83	.06	5	.8	1.7	20	UER
		27	1234	5.05	19	19.22	155	15.81	9.13	2.6	3.1	24	1	96	.06	3	.7	1.2	23	KOA
		27	1358	9.06	19	21.84	155	5.91	9.46	3.0	3.4	22	1	80	.11	6	.9	1.5	21	MER
		27	1424	32.15	19	25.02	155	28.76	10.63	2.2	2.6	24	0	56	.11	5	.8	1.8	18	UKF
		27	1552	22.19	19	19.95	155	11.35	8.31	1.8	2.6	22	0	86	.10	5	.9	1.5	21	UER
		27	1810	9.55	19	21.15	155	12.96	9.09	2.1	3.0	23	0	59	.07	3	.7	1.1	21	UER
		27	1855	37.88	19	19.33	155	12.26	7.13	1.7	2.5	20	0	92	.08	5	.8	1.9	19	UER
		27	2221	6.87	19	18.34	155	23.66	6.01	2.1	3.1	22	0	108	.11	4	.8	2.0	19	SWR
		28	733	32.21	19	23.36	155	17.06	2.87	2.1	3.0	18	1	60	.06	0	.4	.5	16	SPC
		28	1939	16.10	19	22.12	155	5.05	7.51	1.9	2.0	22	0	120	.09	5	.9	1.4	22	MER
		29	5 8	46.47	19	20.60	155	13.32	8.21	1.6	2.0	25	0	61	.11	4	.7	1.1	24	UER
		29	1125	43.45	19	20.49	155	5.92	9.13	3.4	3.6	33	1	111	.09	5	.8	.6	32	MER
		29	1614	52.09	19	19.34	155	8.84	8.47	2.1	2.7	25	0	86	.08	4	.9	1.1	25	UER
		29	17 8	17.83	19	19.29	155	15.62	8.78	1.9	2.5	25	0	92	.07	4	.7	1.0	25	KOA
		29	2055	55.78	19	19.98	155	13.13	8.11	1.9	2.4	26	0	69	.09	5	.7	1.1	26	UER
		29	2248	49.72	19	21.44	155	4.68	9.07	4.1	4.3	35	1	86	.09	4	.8	.6	33	MER
		30	1023	32.57	19	18.93	155	12.32	7.27	1.7	2.0	26	0	100	.09	4	.7	1.3	24	POL
		30	1351	48.27	19	19.76	155	11.56	7.05	2.0	2.4	28	0	89	.12	5	.8	1.2	27	UER
		30	1628	56.24	19	11.18	155	37.26	12.02	3.3	3.1	32	0	115	.23	7	.9	.8	30	HEA
		30	1644	24.21	19	26.80	154	58.04	6.89	2.2	2.4	25	2	161	.11	2	1.1	.9	22	LER
		30	2155	22.66	19	23.44	155	16.90	3.07	2.1	2.8	24	0	41	.09	0	.5	.6	23	SPC
		30	22 2	37.18	19	25.32	155	16.79	1.84	2.1	3.3	19	0	47	.10	1	.5	.5	18	SPC
		31	2 5	34.43	19	21.04	155	2.91	6.81	2.0	2.4	26	1	151	.11	2	1.1	1.1	25	MER
		31	354	50.67	19	19.35	155	12.78	7.75	1.7	2.3	29	0	83	.09	4	.7	1.0	29	UER
		31	556	24.36	19	22.96	155	17.07	2.79	1.4	2.2	16	0	70	.06	1	.6	.6	16	KOA
		31	823	56.22	19	20.85	155	3.50	6.33	2.0	2.3	27	0	116	.12	2	1.2	1.1	25	MER
		31	923	36.70	19	21.57	155	8.29	8.38	2.5	3.0	30	1	67	.08	3	.6	.9	27	UER
		31	1953	19.63	19	27.82	154	51.55	8.59	2.4	2.3	27	2	267	.13	4	2.4	.9	23	LER
		31	2120	51.98	20	58.15	156	6.76	7.75	3.3	3.3	16	3	288	.45	27	16.4	14.5	5	DIS
	FEB	1	448	51.93	19	17.97	155	27.75	9.77	2.1	2.6	28	0	65	.11	3	.7	1.0	26	HEA
		1	722	1.31	19	23.74	155	15.54	3.20	1.6	2.3	16	0	84	.07	3	.6	.8	16	SPC
		1	2128	.89	19	14.79	155	41.35	7.62	2.9	2.9	32	1	189	.19	7	1.0	1.1	28	HEA
		1	2341	35.18	19	23.89	155	15.91	3.03	1.8	2.6	17	1	105	.08	2	.6	.6	12	SPC
		2	541	43.04	19	30.03	155	35.21	7.51	2.0		11	0	159	.11	2	3.8	4.8	9	MOK
		2	647	44.83	19	19.30	155	15.62	8.87	1.8	2.3	27	0	92	.07	4	.6	.8	26	KOA
		2	811	29.30	19	23.14	155	4.18	8.72	3.0	3.3	32	2	110	.08	3	.8	.8	29	MER
		2	1753	44.48	19	28.27	155	22.13	2.55	1.8	2.2	18	0	98	.09	4	.8	1.5	17	UKF
		2	18 8	40.47	19	28.11	155	22.12	6.06	2.0	2.2	17	0	51	.09	9	.8	5.9	14	UKF
		2	19 5	18.37	19	27.59	155	22.11	4.25	1.8	2.3	19	0	49	.15	8	.7	28.5	17	UKF
		3	040	.31	19	22.08	155	4.67	6.19	2.1	2.6	27	0	85	.12	5	.8	1.7	26	MER
		3	151	.77	19	6.47	155	26.24	40.76		1.4	22	0	192	.08	6	1.9	5.3	22	LSW
		3	223	8.82	19	23.34	155	15.10	2.98	2.1	2.9	25	0	46	.08	2	.5	.6	18	SPC

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	FEB	3	450	25.24	19	39.29	156	9.05	6.50	2.9	2.3	21	0	268	.18	31	7.3	2.1	20	KON
		3	852	5.01	19	23.61	155	15.44	2.74	1.9	2.2	15	0	91	.07	2	.5	.6	13	SPC
		3	10 0	48.16	19	25.64	155	25.06	9.31	2.1	2.2	29	0	51	.11	7	.7	1.7	26	UKF
		3	1229	19.61	19	23.32	155	16.94	3.02	2.2	2.7	20	0	56	.07	0	.4	.5	20	SPC
		3	1511	27.68	19	23.95	155	15.78	3.13	2.1	2.7	18	0	110	.05	2	.5	.6	18	SPC
		3	1520	49.70	19	20.94	155	4.50	9.87	4.5	4.6	37	1	99	.09	3	.9	.6	33	MER
		3	1533	22.35	19	20.81	155	7.34	7.92	2.2	2.9	20	0	88	.11	5	.8	2.0	11	UER
		3	1610	1.30	19	20.60	155	4.44	7.81	2.3	2.6	29	0	111	.10	3	.9	.9	29	MER
		3	2052	19.20	19	21.90	155	5.16	8.37	2.6	3.2	32	0	78	.07	5	.8	.7	30	MER
		4	1 7	41.60	19	21.82	155	4.22	6.65	2.4	2.8	31	0	92	.12	4	.8	1.1	28	MER
		4	123	32.86	19	19.29	155	3.58	8.49	2.5	3.0	30	0	201	.11	2	1.4	.8	27	MER
		4	322	42.71	19	21.38	155	7.21	5.59	1.8	2.0	22	0	82	.11	5	.8	2.6	21	UER
		4	359	22.16	19	4.93	155	27.84	43.22	2.6		14	0	293	.08	9	7.5	9.5	14	LSW
		4	425	14.62	20	2.62	155	27.36	16.54	3.7	3.8	19	2	15	.12	53	12.0	98.3	15	KKU
		4	445	12.70	19	20.42	155	13.52	8.83	1.9	2.2	14	0	168	.06	4	1.3	1.9	14	UER
		4	652	38.91	18	39.54	155	5.14	7.00	2.9	3.1	18	0	310	.31	68	32.4	99.0	16	PPL
		4	2121	33.15	19	23.64	155	2.74	9.09	2.5	2.9	29	0	124	.08	3	1.0	.7	27	MER
		4	2157	24.62	19	19.24	155	15.55	8.63	1.6	2.0	20	0	109	.08	4	.8	1.4	19	KOA
		4	2316	24.99	19	18.92	155	13.58	8.55	1.9	1.9	25	1	71	.08	4	.7	1.4	24	POL
		5	10 2	34.94	19	21.72	155	15.15	9.46	1.8	2.2	21	0	61	.07	2	.8	1.2	21	KOA
		5	1418	19.37	19	19.60	155	12.99	7.79	1.6	2.0	19	0	76	.09	5	1.0	1.7	18	UER
		5	1537	50.81	19	24.05	155	16.18	3.16	2.1	2.8	14	0	104	.06	2	.7	.5	14	SPC
		5	2245	.81	19	19.13	155	16.00	9.60	1.6	2.1	19	1	114	.07	3	.9	1.4	17	KOA
		6	017	26.44	19	23.88	155	15.90	3.56	2.5	3.4	27	0	37	.09	2	.6	.7	27	SPC
		7	327	15.97	19	22.77	155	4.66	7.77	2.4	2.9	32	1	91	.10	3	.6	.9	30	MER
		7	724	53.09	19	18.84	155	13.36	10.16	2.8	3.2	33	2	78	.10	3	.6	.9	31	POL
		7	1125	21.92	19	23.88	155	16.11	2.68	1.7	2.2	14	0	100	.08	2	.6	.6	14	SPC
		7	1633	15.52	19	24.94	155	23.35	10.77	2.6	2.5	32	1	44	.11	7	.6	.9	30	UKF
		7	2028	11.19	19	22.98	155	14.71	3.08	1.9	2.3	20	0	49	.08	2	.6	.7	20	UER
		7	2030	56.21	19	22.91	155	14.79	2.91	1.6	2.2	15	0	68	.07	2	.6	.7	15	UER
		7	2036	31.10	19	22.91	155	14.81	2.63	1.9	2.3	20	0	67	.10	2	.6	.7	20	UER
		8	047	48.76	19	22.82	155	14.87	2.90	1.5	2.4	15	0	69	.08	2	.6	.7	13	UER
		8	147	38.21	19	17.19	155	22.79	8.62	2.6	3.1	36	0	122	.17	6	.8	1.0	33	SWR
		8	310	40.67	19	23.39	155	14.90	3.25	1.9	2.6	23	0	46	.09	3	.6	.7	23	GLN
		8	1413	3.58	19	23.03	155	14.77	3.41	1.6	2.1	12	0	88	.04	2	.6	.9	12	GLN
		8	1431	56.50	19	23.80	155	15.87	2.91	1.6	2.1	14	0	101	.07	2	.5	.6	12	SPC
		8	1447	2.07	19	23.05	155	14.63	3.03	3.1	3.7	29	0	48	.10	3	.5	.6	28	GLN
		8	1449	42.34	19	23.20	155	14.75	2.89	2.1	2.6	17	0	65	.13	3	.7	.8	10	GLN
		8	1450	29.97	19	23.18	155	14.65	3.00	2.5	3.1	22	0	47	.12	3	.7	.8	18	GLN
		8	16 5	40.78	19	29.04	154	51.59	6.87	2.4	2.3	20	1	266	.17	3	1.7	1.4	20	LER
		8	1844	26.57	19	22.51	155	14.19	1.64	2.3	2.8	22	0	50	.07	4	.5	1.7	21	UER
		8	1850	40.27	19	22.86	155	14.77	3.70	2.5	3.2	24	0	49	.11	3	.6	1.4	23	UER
		8	1851	19.29	19	23.07	155	14.13	.15	3.4	3.7	18	1	72	.15	8	.7	2.3	10	GLN
		8	1853	51.85	19	22.74	155	14.84	1.64	2.6	2.9	23	0	50	.11	3	.5	.8	22	UER
		8	1855	8.95	19	23.37	155	15.30	2.89	2.9	3.1	35	1	34	.09	2	.5	.6	29	SPC
		8	1858	47.87	19	22.71	155	14.30	1.77	2.1	2.2	21	0	49	.09	4	.6	2.0	14	UER
		8	19 2	22.21	19	22.74	155	14.48	6.44	3.5		28	0	54	.12	6	.7	1.8	25	UER
		8	19 4	42.29	19	22.56	155	15.01	.00	2.4	3.0	18	0	52	.20	4	.5	2.0	15	KOA

YEAR MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977 FEB	8	19 7	44.66	19	22.52	155	14.45	2.76	1.8	1.9	15	0	75	.06	2	.6	.7	9	UER
	8	1911	19.05	19	22.57	155	14.68	.48	2.6	3.1	19	1	74	.11	4	.5	.8	16	UER
	8	1920	24.11	19	22.99	155	14.38	1.62	1.5	1.8	11	0	77	.11	2	.7	.8	6	UER
	8	1921	42.65	19	23.11	155	14.98	2.65	1.9	2.3	16	0	72	.07	1	.6	.4	12	SPC
	8	1923	31.85	19	23.18	155	14.76	3.87	3.1	4.0	33	0	48	.11	3	.6	1.0	26	GLN
	8	1926	51.36	19	23.56	155	15.41	3.28	2.3	2.9	21	0	45	.14	4	.6	1.7	15	SPC
	8	1928	29.96	19	22.93	155	14.72	3.23	3.3	4.1	34	0	49	.12	2	.5	.7	30	UER
	8	1934	34.98	19	22.62	155	14.58	2.30	1.8	1.9	15	0	75	.12	2	.7	1.0	11	UER
	8	1939	30.24	19	22.26	155	14.06	3.50	2.0	2.4	14	0	82	.28	5	1.1	3.7	13	UER
	8	1941	13.32	19	22.41	155	14.64	1.84	2.4	2.1	22	0	53	.13	2	.4	.6	17	UER
	8	1942	18.41	19	22.73	155	14.72	2.39	1.9	2.1	21	0	50	.12	2	.5	.6	16	UER
	8	1943	43.92	19	22.53	155	14.50	2.17	2.3	2.5	21	0	51	.08	2	.5	.6	21	UER
	8	1951	13.75	19	23.17	155	13.76	1.49	1.9	2.3	12	0	53	.15	2	.6	.6	9	GLN
	8	1954	26.64	19	21.91	155	14.17	1.06	3.0	3.6	21	0	55	.12	3	.6	1.4	15	UER
	8	1957	5.92	19	22.71	155	14.84	1.92	1.9	2.1	17	0	75	.08	2	.6	.6	16	UER
	8	20 2	28.50	19	22.97	155	13.84	1.37	2.9	3.5	26	0	47	.17	1	.5	.6	26	UER
	8	20 4	53.64	19	22.25	155	14.65	1.30	1.9	2.1	18	0	76	.10	2	.5	.7	17	UER
	8	2011	20.48	19	22.65	155	14.56	1.77	2.3	2.8	29	0	66	.11	2	.5	.6	28	UER
	8	2017	58.88	19	22.79	155	14.92	1.56	2.3	2.1	20	0	68	.13	2	.5	.6	17	UER
	8	2019	13.82	19	23.34	155	14.94	3.35	2.9	3.2	26	0	46	.08	2	.5	.7	23	GLN
	8	2022	13.54	19	22.32	155	14.69	1.15	1.9	2.6	7	0	150	.03	2	1.2	.7	6	UER
	8	2024	28.30	19	21.90	155	13.88	.81	2.4	3.4	11	0	88	.20	2	.9	1.4	10	UER
	8	2027	22.52	19	22.71	155	15.46	1.88	2.3	2.5	29	0	52	.12	1	.4	.5	29	KOA
	8	2035	1.88	19	22.91	155	13.95	.83	1.7	2.1	16	0	66	.17	2	.6	.7	16	UER
	8	2038	27.00	19	21.95	155	14.33	1.29	1.7	2.1	20	0	82	.09	3	.5	.8	19	UER
	8	2044	6.01	19	22.63	155	14.78	1.78	3.1	3.4	28	0	51	.11	2	.5	.6	27	UER
	8	2047	50.50	19	22.14	155	13.99	1.84	2.3	3.5	12	0	84	.05	2	.6	.8	11	UER
	8	2050	9.45	19	22.79	155	14.88	1.10	2.3	2.4	13	0	69	.10	2	.6	.6	13	UER
	8	2057	12.69	19	22.90	155	15.01	1.01	1.8	2.1	18	0	67	.10	2	.5	.6	15	KOA
	8	21 8	9.71	19	22.76	155	15.03	1.39	2.5	2.6	23	0	51	.10	2	.5	.6	22	KOA
	8	21 9	39.03	19	22.73	155	15.13	1.72	1.8	1.9	13	0	72	.09	2	.5	.6	13	KOA
	8	2110	42.64	19	22.84	155	14.30	1.44	1.8	2.0	16	0	81	.11	2	.7	.6	14	UER
	8	2114	1.86	19	22.78	155	14.91	1.26	2.9	3.5	25	0	62	.11	2	.5	.6	24	UER
	8	2118	1.76	19	22.56	155	14.71	1.65	1.5	1.8	15	0	73	.05	2	.5	.7	15	UER
	8	2120	36.88	19	22.35	155	14.53	1.50	2.0	2.2	19	0	76	.07	2	.4	.6	19	UER
	8	2122	11.87	19	23.08	155	14.93	3.29	1.8	1.6	18	0	48	.08	2	.6	.8	17	GLN
	8	2122	27.98	19	23.10	155	15.10	2.87	1.9	1.8	9	0	114	.10	2	.7	.9	9	SPC
	8	2127	35.58	19	22.52	155	15.56	1.41	3.3	3.6	28	2	53	.13	1	.5	.6	20	KOA
	8	2130	6.44	19	23.08	155	14.95	3.13	2.1	2.3	25	0	48	.08	2	.5	.6	23	GLN
	8	2132	8.49	19	22.81	155	15.06	1.54	1.8	2.2	14	0	76	.04	2	.5	.6	14	KOA
	8	2137	32.07	19	22.55	155	14.81	1.26	1.3	2.2	17	0	72	.15	2	.5	.6	16	UER
	8	2144	58.07	19	22.78	155	14.89	1.62	2.6	3.4	29	0	51	.09	2	.4	.6	28	UER
	8	2150	30.52	19	22.70	155	15.16	1.46	2.5	3.3	31	0	51	.11	1	.4	.5	30	KOA
	8	2156	24.62	19	22.69	155	14.43	.81	2.4	2.8	15	0	72	.12	2	.5	.8	15	UER
	8	2211	42.49	19	22.46	155	14.63	3.50	2.0	2.2	26	0	52	.10	2	.6	.8	25	UER
	8	2212	53.53	19	22.74	155	14.80	1.54	1.9	2.1	17	0	69	.09	2	.5	.7	17	UER
	8	2217	16.67	19	22.54	155	14.61	1.66	2.3	2.6	29	0	51	.09	2	.5	.6	28	UER
	8	2223	48.30	19	23.10	155	14.86	2.60	2.0	2.2	20	0	48	.09	2	.5	.8	19	GLN

YEAR MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977 FEB	8	2224	50.84	19	23.28	155	14.78	3.62	2.7	3.0	27	0	47	.12	3	.6	1.3	25	GLN
	8	2235	38.70	19	23.02	155	14.74	3.41	1.9	2.2	21	0	48	.09	3	.6	1.0	18	GLN
	8	2238	17.81	19	22.75	155	14.94	1.36	1.8	2.2	15	0	68	.08	2	.5	.6	15	UER
	8	2243	22.44	19	22.24	155	14.79	1.50	2.1	2.9	25	0	55	.09	2	.5	.6	25	UER
	8	2247	28.42	19	23.01	155	14.85	3.04	1.8	2.0	17	0	65	.08	2	.6	.7	17	GLN
	8	2249	30.38	19	22.66	155	14.64	1.53	2.8	3.4	30	0	51	.10	2	.4	.6	30	UER
	8	2317	47.74	19	22.97	155	15.12	1.56	1.9	2.4	19	0	65	.08	2	.5	.6	19	KOA
	8	2336	55.32	19	22.05	155	13.14	2.54	2.1	2.1	11	0	98	.04	5	.9	2.5	11	UER
	8	2342	9.06	19	22.07	155	13.20	3.29	2.4	2.7	28	0	50	.11	1	.5	.8	28	UER
	8	2347	6.70	19	22.02	155	13.21	3.01	2.3	2.5	24	0	50	.09	1	.6	.8	24	UER
	8	2356	5.93	19	22.34	155	14.65	1.37	1.8	2.4	12	0	75	.07	2	.5	.8	11	UER
	9	016	45.71	19	21.92	155	13.14	2.38	1.5	2.0	18	0	51	.09	1	.5	.7	16	UER
	9	044	13.44	19	23.33	155	15.14	3.08	2.2	2.3	28	0	46	.09	2	.5	.6	27	SPC
	9	5 1	46.31	19	20.33	155	6.91	8.76	2.0	2.5	30	0	103	.09	6	.7	1.0	27	UER
	9	917	39.45	19	22.74	155	15.01	3.09	2.9	3.6	23	1	51	.14	2	.5	.7	16	KOA
	9	922	1.02	19	23.09	155	4.27	8.31	3.3	3.8	30	2	98	.09	6	.6	1.1	26	MER
	9	1318	18.91	19	19.13	155	15.18	9.74	2.8	3.2	19	1	90	.05	4	.9	1.4	17	KOA
	9	1630	21.64	19	23.20	155	16.92	2.71	1.7	3.0	16	1	60	.07	0	.4	.6	14	SPC
	9	1755	23.70	19	21.32	155	7.18	8.30	2.8	3.1	30	0	82	.07	5	.6	1.2	27	UER
	9	1946	2.59	19	21.52	155	4.99	8.11	2.9	3.4	26	2	85	.09	5	.7	1.1	13	MER
	9	2114	46.96	19	23.25	155	14.78	3.49	2.9	3.7	26	0	47	.07	3	.5	.7	25	GLN
	9	2122	36.30	19	23.23	155	14.86	3.09	2.5	3.4	22	1	63	.08	2	.5	.7	9	GLN
	9	2220	55.42	19	20.72	155	11.36	9.18	1.7	2.6	26	0	73	.06	4	.7	1.1	21	UER
	10	3 3	29.26	19	24.80	155	25.17	10.22	2.6	3.1	33	0	41	.12	6	.6	1.1	30	UKF
	10	5 6	35.54	19	17.08	155	22.70	7.46	2.1	3.0	30	0	123	.16	6	.8	1.5	24	SWR
	10	723	58.75	19	19.54	155	10.09	7.96	1.8	2.3	25	0	96	.08	5	.7	1.4	20	UER
	10	1448	7.79	19	24.05	155	16.01	3.31	1.7	2.4	16	0	106	.07	2	.5	.6	12	SPC
	10	1727	43.35	19	6.68	155	26.08	31.79	2.4	1.9	26	2	191	.08	6	1.4	2.1	25	LSW
	10	1853	32.03	19	20.01	155	11.59	8.73	1.6	2.4	25	0	84	.10	5	.7	1.1	23	UER
	10	1935	32.90	19	28.78	155	52.39	7.73	2.2	2.4	23	2	128	.19	5	1.0	1.0	16	KON
	10	1957	28.85	19	20.44	155	5.95	8.58	2.7	3.3	34	2	112	.12	5	.7	.8	31	MER
	10	2316	36.20	19	21.78	155	6.22	7.81	2.4	3.0	26	0	81	.09	6	.8	1.0	26	UER
	11	133	40.87	19	20.33	155	11.80	8.40	1.9	2.5	27	0	77	.09	5	.6	.9	25	UER
	11	520	51.38	19	21.84	155	6.36	7.83	2.2	2.7	27	0	79	.10	6	.8	1.0	26	UER
	11	531	7.87	19	19.67	155	11.55	6.66	1.7	2.2	24	0	91	.12	5	.8	1.3	23	UER
	11	739	22.45	19	19.23	155	15.27	7.65	1.6	2.6	25	0	107	.11	4	.8	1.1	24	KOA
	11	1357	52.54	19	21.85	155	12.63	3.20	2.2	2.9	17	0	57	.05	2	.6	.9	16	UER
	11	1922	4.58	19	20.42	155	4.07	6.29		2.4	19	0	116	.10	2	1.0	1.8	17	MER
	11	2028	31.60	19	22.71	154	58.01	7.65	2.8	3.4	29	2	206	.11	9	1.2	.9	26	LER
	12	0 9	32.56	19	17.24	155	16.38	10.41	2.5	3.5	31	1	137	.08	4	.6	.5	27	KOA
	12	3 8	38.63	19	20.21	155	9.56	8.14	1.6	2.3	20	0	78	.07	4	.8	1.5	20	UER
	12	419	6.15	19	24.49	155	26.10	9.41	1.6	2.3	20	0	61	.08	5	.8	2.2	17	UKF
	12	518	8.87	19	18.17	155	24.25	8.62	1.9	2.9	29	0	106	.13	4	.7	1.2	25	SWR
	12	1247	49.58	19	20.21	155	11.38	9.65	1.7	2.3	20	0	81	.05	4	.9	1.7	19	UER
	12	1422	48.01	19	22.38	155	5.67	7.93	2.0	2.8	22	0	73	.09	5	.8	1.2	21	MER
	12	1612	15.35	19	19.54	155	11.37	7.73	2.2	2.8	24	0	95	.08	5	.7	1.2	20	UER
	12	1953	30.30	19	18.73	155	15.75	7.93		2.4	18	0	127	.08	4	.9	1.8	14	KOA
	12	2036	41.12	19	20.66	155	10.49	8.59	1.5	2.1	18	0	74	.07	3	.9	1.6	14	UER

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	FEB	12	2346	59.68	19	18.65	155	14.65	7.70	1.7	2.1	18	0	44	.07	4	1.0	1.7	17	POL
		13	546	57.74	19	20.07	155	8.12	8.49	1.1	2.0	20	0	85	.06	5	.9	2.0	19	UER
		13	756	14.06	19	20.25	155	13.67	10.19	2.3	3.2	27	2	58	.07	5	.6	1.2	23	UER
		13	1124	25.23	19	20.64	155	5.64	8.63	2.4	2.6	32	2	109	.10	5	.6	.9	29	MER
		13	1553	49.74	19	19.24	155	13.59	8.29	2.1	2.4	26	0	68	.09	4	.8	1.1	25	UER
		13	2126	5.63	19	24.84	155	27.25	10.31	2.6	2.6	35	0	35	.12	4	.6	.9	34	UKF
		13	2248	56.56	19	33.16	155	38.19	6.57	2.1	2.3	24	1	172	.21	8	1.3	2.8	23	MOK
		13	2348	59.16	19	19.31	155	15.54	8.36	1.9	2.6	28	0	90	.09	4	.7	.8	28	KOA
		14	2 4	22.86	19	29.11	155	49.96	7.69	2.6	2.1	28	4	87	.22	8	.9	1.2	26	KON
		14	2240	42.98	19	21.26	155	4.70	8.85	2.5	2.5	30	0	91	.09	4	.9	.7	29	MER
		14	2330	21.76	19	19.53	155	11.03	7.05	1.8	2.2	29	0	97	.10	5	.7	1.1	29	UER
		15	254	9.41	19	18.89	155	13.46	4.59	1.6	2.0	28	1	75	.13	3	.7	2.7	27	POL
		15	428	50.42	19	20.90	155	11.11	8.49	2.3	2.5	33	0	72	.10	3	.6	.9	33	UER
		15	1347	19.22	19	27.30	155	25.53	10.34	2.6	2.6	29	0	76	.11	10	.7	1.2	28	UKF
		16	4 9	29.30	19	21.05	155	13.03	7.75	2.2	2.5	33	0	60	.13	3	.6	.9	31	UER
		16	955	14.26	19	20.32	155	13.58	7.37	1.6	2.3	26	0	66	.11	4	.8	1.2	26	UER
		16	1811	41.15	19	19.82	155	13.04	8.56	1.9	2.3	28	0	72	.08	5	.7	.9	28	UER
		17	335	16.58	19	21.13	155	6.29	8.04	2.2	2.6	30	0	93	.10	6	.7	1.1	30	UER
		17	514	27.48	19	20.86	155	13.02	8.57	2.1	2.2	28	0	61	.08	3	.6	.8	28	UER
		17	756	46.49	19	21.58	155	3.97	7.51	2.4	2.8	29	1	110	.10	4	.9	.9	28	MER
		17	1824	38.66	19	19.67	155	12.05	6.16	2.5	2.8	31	0	88	.12	6	.7	1.2	31	UER
		17	2255	39.45	19	16.63	155	23.53	7.28	2.2	2.5	28	0	123	.12	6	.8	1.2	25	SWR
		18	358	29.13	19	23.14	155	2.08	8.30	2.1	2.1	29	0	141	.14	5	1.1	.7	29	MER
		18	751	56.44	19	19.20	155	11.58	7.24	2.2	2.5	31	0	102	.10	5	.7	1.1	30	UER
		18	1839	2.94	19	20.84	155	10.62	7.88	2.0	2.0	28	0	72	.11	3	.7	1.0	27	UER
		18	2344	47.78	19	19.94	155	9.06	8.43	1.8	2.2	31	0	78	.11	4	.7	.9	30	UER
		19	332	43.25	19	17.02	155	22.46	5.69	1.8	2.2	31	0	23	.17	6	.8	2.2	29	SWR
		19	1634	55.37	19	20.24	155	11.54	8.59	2.2	2.4	29	0	80	.07	5	.7	.9	29	UER
		19	2346	18.44	19	20.47	155	4.36	5.18	2.4	2.6	27	0	116	.11	3	1.0	1.9	27	MER
		20	049	35.34	19	21.36	155	6.69	7.15	2.2	2.4	28	0	85	.09	6	.7	1.2	25	UER
		20	116	7.93	19	22.08	155	6.27	7.00	2.1	2.4	30	1	75	.11	6	.6	1.4	29	UER
		20	156	50.66	19	20.79	155	6.73	7.11	2.0	2.4	29	0	96	.10	6	.7	1.3	28	UER
		20	312	21.80	19	20.05	155	12.10	7.67	2.2	2.5	32	0	80	.11	5	.6	.9	30	UER
		20	340	23.86	19	20.12	155	7.82	8.02	2.1	2.5	26	0	91	.08	5	.7	1.0	26	UER
		20	732	52.12	19	25.18	154	57.23	.31	2.4	2.7	25	2	183	.22	5	1.9	.6	20	LER
		20	17 0	30.67	19	21.66	155	4.74	8.96	2.9	3.2	15	1	128	.07	5	.8	1.2	8	MER
		20	1729	42.86	19	19.38	155	16.29	10.14	3.7	4.0	37	1	27	.09	2	.5	.6	34	KOA
		20	1742	15.87	19	18.80	155	15.42	7.14	2.0	2.5	32	0	99	.13	4	.7	1.0	30	KOA
		20	1748	4.88	19	18.82	155	15.53	7.64	2.0	2.2	31	0	100	.13	4	.7	.9	30	KOA
		20	1813	16.55	19	21.71	155	6.41	5.84	2.2	2.4	23	0	81	.12	6	.8	2.7	22	UER
		20	2236	56.16	20	.82	155	29.29	4.81	2.7	2.1	37	6	142	.20	33	.9	1.2	34	KKU
		20	2349	20.33	19	19.30	155	16.27	9.17	2.2	2.7	30	0	99	.10	3	.6	.8	30	KOA
		21	154	54.14	19	20.11	155	9.05	6.65	2.1	2.4	31	0	75	.10	4	.7	1.2	30	UER
		21	1159	49.12	19	21.41	155	7.97	8.66	3.1	3.6	36	2	72	.09	4	.5	.8	32	UER
		21	1229	22.14	19	20.83	155	9.55	8.34	2.1	2.6	27	0	70	.09	5	.8	.9	19	UER
		21	17 7	54.40	19	22.30	155	5.00	7.39	2.6	3.0	31	0	82	.13	4	.7	1.1	28	MER
		22	145	19.28	19	19.51	155	11.83	6.96	1.8	2.2	30	0	93	.11	5	.7	1.0	30	UER
		22	412	40.24	19	17.54	155	21.27	7.69	2.0	2.3	32	0	125	.13	5	.7	1.1	31	SWR

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	FEB	22	1219	35.26	19	21.27	155	5.95	7.12	2.3	2.7	29	2	91	.10	6	.6	1.3	26	MER
		22	1545	30.56	19	21.25	155	8.12	8.72	2.5	3.1	31	2	72	.09	3	.6	.9	27	UER
		22	1646	11.75	19	19.10	155	11.44	8.26	2.6	2.8	31	2	107	.09	5	.6	1.0	29	UER
		22	1713	8.18	19	20.18	155	12.89	6.88	1.6	2.4	19	0	70	.11	5	.8	1.8	16	UER
		22	1729	3.94	19	20.07	155	13.64	9.80	2.9	3.3	36	2	61	.08	5	.5	.6	32	UER
		22	2129	6.24	19	20.90	155	7.24	8.09	1.9	2.4	27	0	88	.09	5	.8	.9	23	UER
		22	2249	31.93	19	19.41	155	9.87	6.47	1.8	2.5	28	0	98	.12	5	.8	1.4	25	UER
		23	014	37.90	19	20.81	155	10.99	8.02	2.1	2.4	30	0	72	.12	3	.6	.9	28	UER
		23	1150	23.31	19	21.97	155	1.11	8.21	2.5	2.6	51	2	175	.13	5	1.1	.7	26	MER
		23	1723	25.21	20	11.61	155	50.42	4.70	3.4	2.9	38	3	155	.17	56	1.2	1.5	31	KOH
		24	015	39.78	19	35.27	155	44.75	.01	2.5	2.2	19	2	172	.23	9	1.2	.6	16	MOK
		24	2 8	22.90	19	21.93	155	6.22	5.80	2.2	2.5	30	0	77	.13	6	.8	1.6	26	UER
		24	528	36.96	19	20.62	155	10.67	8.35	2.4	2.8	31	0	76	.11	3	.6	1.0	28	UER
		24	1010	45.32	19	20.82	155	2.28	6.71	2.6	2.7	26	2	170	.14	2	.9	1.1	24	MER
		24	1029	44.28	19	24.94	155	46.76	11.77	2.5	2.1	21	1	74	.13	11	1.0	1.1	17	KON
		24	1548	32.04	19	22.28	155	4.48	7.76	2.8	2.8	29	1	91	.09	4	.7	.9	28	MER
		24	2118	6.14	19	19.75	155	9.90	7.05	1.8	2.1	26	0	90	.13	4	.8	1.4	26	UER
		24	22 0	14.17	19	21.05	155	2.89	5.97	2.0	2.1	23	0	135	.15	2	1.2	1.4	23	MER
		25	622	25.39	19	19.39	155	11.20	6.89	2.0	2.2	31	0	100	.12	6	.7	1.0	31	UER
		25	1151	14.09	19	20.54	155	6.54	8.51	2.2	2.9	24	0	103	.06	6	.8	1.0	22	UER
		25	1346	34.45	19	25.82	154	57.21	2.69	2.2	2.4	15	0	174	.27	4	1.5	3.5	12	LER
		25	1750	51.94	19	20.65	155	2.95	5.74	3.1	3.7	25	0	131	.09	1	1.1	1.4	21	MER
		25	1815	31.15	19	19.25	155	14.22	7.70		2.1	19	0	91	.09	4	.8	1.7	17	UER
		26	1 0	52.30	19	26.48	154	52.21	6.74	1.9	1.8	16	2	263	.15	5	1.8	3.0	15	LER
		26	351	28.03	19	25.41	154	56.95	.03	2.0	2.1	11	2	58	.17	5	1.0	.4	5	LER
		26	814	23.52	19	21.76	155	6.16	7.69	2.1	2.4	27	0	81	.10	6	.7	1.5	24	UER
		26	924	31.70	19	20.18	155	13.02	9.03	2.1	2.8	26	1	68	.10	5	.7	1.2	22	UER
		26	11 0	38.28	19	19.02	155	11.55	8.80		2.0	21	0	107	.08	5	.8	1.6	17	UER
		26	1434	48.11	19	18.57	155	15.12	7.27		2.0	19	0	126	.07	4	.9	1.7	14	KOA
		26	1444	32.87	19	21.81	155	4.87	8.48	2.0	2.6	18	0	80	.08	5	.9	1.5	14	MER
		26	1451	22.30	19	22.43	155	4.55	8.95	2.0	2.6	24	0	90	.06	4	.9	1.1	22	MER
		26	1725	27.07	19	13.91	155	32.49	8.53	2.3	2.7	28	0	125	.17	8	1.0	1.3	20	LSW
		26	1953	44.95	19	20.80	155	7.53	7.36	1.4	2.1	24	0	86	.10	5	.7	1.6	19	UER
		26	2145	37.44	19	23.74	155	2.05	7.69	1.3	2.1	20	0	136	.15	4	1.0	1.8	16	MER
		26	2324	47.59	19	22.48	155	4.40	7.56		2.3	21	0	105	.12	4	.8	1.4	17	MER
		27	350	1.77	19	25.43	154	57.57	4.25	2.8	3.6	28	0	175	.18	5	1.3	2.1	22	LER
		27	1014	30.85	19	24.72	155	26.15	9.09	2.5	2.6	31	0	50	.12	5	.6	1.3	30	UKF
		27	14 7	53.71	19	21.58	155	4.56	7.80	3.0	3.4	30	0	82	.10	4	.9	.8	27	MER
		27	1713	36.74	19	19.80	155	8.12	9.24	2.8	3.1	34	1	88	.07	5	.6	.8	31	UER
		27	1859	22.94	19	28.37	155	27.95	10.24	3.1	2.7	34	0	51	.12	9	.6	1.3	32	UKF
		27	2149	51.86	19	24.15	155	.31	8.60	3.1	3.2	33	2	158	.15	7	1.0	.7	30	LER
		28	1 5	19.00	19	19.71	155	11.38	7.66	2.2	2.3	29	0	91	.10	5	.7	1.1	29	UER
		28	146	36.58	19	21.64	155	14.66	9.33	2.5	2.8	29	0	45	.08	3	.6	.7	29	UER
		28	716	43.60	19	18.92	155	15.86	9.31	2.5	2.7	35	1	100	.11	4	.5	.7	31	KOA
		28	18 6	35.60	19	19.93	155	10.08	6.68	2.0	2.2	26	0	86	.11	4	.8	1.2	26	UER
	MAR	1	335	17.26	19	23.33	155	2.47	7.47	2.4	2.4	29	0	132	.16	4	1.0	1.0	28	MER
		1	539	20.88	19	57.12	155	48.37	20.15		2.0	33	1	175	.12	20	2.0	6.7	30	KOH
		1	6 5	46.56	19	19.23	155	15.68	9.02	2.0	2.3	29	0	94	.09	3	.7	.8	29	KOA

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	MAR	1	14 0	15.68	19	20.94	155	5.04	7.30	2.0	2.2	24	0	101	.11	4	1.0	1.4	24	MER
		1	1551	32.07	19	20.52	155	7.74	4.76	2.2	2.5	27	0	87	.12	5	.8	2.1	25	UER
		1	2113	51.36	19	23.90	155	1.54	8.21	2.1	2.3	29	0	145	.17	5	1.2	.8	26	MER
		2	419	12.47	19	20.77	155	13.21	6.67	1.8	2.4	32	0	60	.13	5	.7	1.1	31	UER
		2	1436	.04	18	44.01	155	12.94	16.92	3.1	2.5	30	2	294	.17	54	5.3	98.9	29	PPL
		2	1455	50.08	19	23.58	155	2.56	9.91	2.4	2.7	29	0	132	.15	4	1.2	.7	23	MER
		2	1544	37.31	18	49.27	155	13.87	14.27	2.7	2.1	30	1	272	.19	45	5.4	9.8	28	PPL
		2	1639	9.70	19	21.70	155	4.90	8.70	3.0	3.4	32	2	81	.08	5	.7	.7	28	MER
		2	19 6	5.25	19	27.26	155	25.14	8.56	2.8	2.9	33	0	56	.12	6	.6	1.4	31	UKF
		3	620	47.60	19	32.53	155	43.07	8.69	2.4	1.5	25	0	68	.17	6	.9	1.8	24	MOK
		3	2232	23.00	19	23.06	155	24.79	8.69	3.1	3.3	36	2	40	.14	5	.6	1.2	32	UKF
		4	115	41.36	19	36.65	156	6.43	13.23	3.4	3.6	39	4	38	.18	29	1.5	1.5	30	KON
		4	548	.81	19	24.69	155	25.82	11.28	2.3	2.4	31	0	51	.11	5	.6	.9	31	UKF
		5	924	22.86	19	19.43	155	11.80	9.26	2.6	2.9	25	0	95	.09	5	.7	1.0	23	UER
		5	1149	59.40	19	21.66	155	.44	7.23	2.9	2.8	22	2	192	.08	5	1.1	.8	16	LER
		5	2123	38.04	19	23.99	155	.24	7.33	2.2	2.4	15	1	227	.16	7	2.8	1.4	14	LER
		6	1522	3.59	19	25.19	154	54.90	6.13	2.2	2.3	21	2	216	.14	7	1.2	1.6	12	LER
		7	1510	51.80	19	24.26	155	17.84	16.56	3.3	3.1	36	1	29	.11	2	.6	.7	31	DEP
		7	19 5	20.87	19	24.15	155	29.52	8.77	2.6	2.4	32	0	57	.12	5	.7	1.3	30	UKF
		7	2222	40.44	19	18.82	155	13.55	9.10	2.8	3.0	33	0	72	.11	3	.6	.7	31	POL
		8	1 4	40.64	19	55.96	155	20.94	10.90	2.1	2.1	33	3	191	.12	36	1.4	1.0	29	KKU
		8	3 1	48.82	19	19.85	155	3.87	5.55	2.3	2.2	20	0	153	.17	2	1.6	2.6	17	MER
		8	349	50.33	19	20.21	155	7.68	6.63	2.3	2.6	29	2	93	.13	5	.7	1.4	26	UER
		8	619	4.04	19	20.40	155	3.80	8.46	2.7	3.3	29	2	113	.10	2	.9	.8	25	MER
		8	839	38.59	19	27.30	155	51.11	9.54	2.6	1.8	14	0	118	.14	8	1.4	1.6	12	KON
		8	1033	40.35	19	20.33	155	10.82	8.39	2.4	2.8	27	2	81	.09	4	.6	1.1	24	UER
		8	12 7	18.20	19	22.67	155	27.11	10.36	2.4	2.8	30	0	52	.10	1	.6	.9	26	UKF
		8	1625	38.63	19	19.59	155	10.96	7.52	2.2	2.5	28	0	96	.10	5	.8	1.2	27	UER
		9	029	17.40	19	25.02	155	30.29	44.21	4.0	4.0	30	2	42	.20	7	1.2	3.2	15	MOK
		9	214	52.50	19	19.98	155	12.99	7.29	2.0	2.4	31	0	71	.12	5	.7	1.0	30	UER
		9	6 2	37.93	19	21.02	155	13.14	6.99	2.0	2.6	29	0	59	.14	3	.7	1.0	26	UER
		9	1046	20.98	18	53.63	155	16.40	16.99	2.9	2.4	34	3	253	.22	36	2.5	64.1	32	PPL
		9	1615	30.07	19	20.14	155	11.92	8.63	2.8	3.1	34	2	80	.12	5	.5	.8	31	UER
		9	1948	17.91	19	23.35	155	2.52	8.61	2.3	2.2	27	0	130	.13	4	1.1	.8	27	MER
		9	2231	8.57	19	24.05	155	24.14	9.34	2.4	2.6	35	2	38	.13	7	.5	1.0	32	UKF
		10	317	15.69	19	20.32	155	13.65	9.01	3.0	3.4	37	2	59	.10	4	.5	.7	34	UER
		10	437	9.05	19	19.22	155	13.55	4.52	1.9	2.3	30	0	74	.11	4	.7	2.0	28	UER
		10	1157	21.77	19	23.00	155	1.81	8.40	2.4	2.7	28	1	147	.14	5	.8	.8	27	MER
		10	1248	41.59	19	26.72	154	48.41	10.31	2.3	2.3	21	1	283	.14	10	3.2	1.1	20	LER
		10	17 3	3.98	19	20.93	155	7.93	10.17	2.9	3.4	27	1	137	.07	4	.8	.6	19	UER
		11	748	26.37	19	16.75	155	23.17	2.98	1.9	2.3	28	0	124	.16	6	.8	2.7	28	SWR
		11	1432	8.07	19	21.35	155	6.04	7.15	2.1	2.3	23	1	89	.13	6	.8	1.5	22	UER
		12	040	7.79	19	19.85	155	8.56	9.47	3.0	3.5	33	2	82	.09	5	.6	.8	31	UER
		12	1051	33.30	19	20.04	155	13.11	9.35	2.6	2.7	30	0	69	.06	5	.6	.8	30	UER
		12	16 4	4.33	19	23.20	155	2.37	7.93	2.1	1.9	25	1	135	.13	4	.8	1.0	24	MER
		12	1858	17.32	19	19.12	155	15.56	8.94	1.9	2.1	26	0	111	.08	4	.7	.8	26	KOA
		12	1934	50.58	19	20.06	155	13.02	9.29	2.4	2.7	30	0	70	.10	5	.6	.8	29	UER
		12	23 0	41.38	19	27.39	155	21.52	8.63	2.4	1.9	24	0	67	.10	5	.7	1.4	24	UKF

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	MAR	13	413	26.47	19	18.93	155	13.52	9.46	3.1	3.2	34	2	72	.09	4	.6	.8	32	POL
		13	640	17.82	19	20.54	155	5.87	8.62	2.6	2.8	31	2	110	.10	5	.6	1.1	29	MER
		13	1256	50.19	19	19.02	155	13.03	7.18	1.7	2.0	19	0	84	.08	4	.8	1.8	14	UER
		13	19 2	53.02	19	19.54	155	13.47	8.81	2.0	3.0	30	1	69	.10	5	.7	.9	29	UER
		14	842	19.43	18	56.01	155	22.09	14.08	2.8	2.7	19	1	282	.11	27	2.7	1.3	14	DIS
		15	244	35.32	19	19.31	155	11.83	9.87	2.9	3.6	34	0	97	.09	5	.7	.6	34	UER
		15	252	1.24	19	19.52	155	11.75	9.12	2.6	3.3	30	0	93	.09	6	.7	1.1	27	UER
		15	535	54.71	19	20.72	155	13.21	8.89	1.9	2.5	24	0	60	.08	4	.6	1.0	23	UER
		15	655	33.19	19	19.53	155	16.01	7.78	1.6	2.4	26	0	93	.10	3	.7	1.1	24	KOA
		15	2218	1.39	19	26.17	155	24.66	8.56	2.6	2.6	31	0	51	.12	7	.6	1.7	30	UKF
		16	620	49.87	19	19.30	155	15.72	7.66	1.9	2.5	29	0	94	.11	3	.8	1.0	28	KOA
		16	17 4	14.42	19	20.18	155	13.34	6.80	1.6	1.8	20	0	64	.13	5	.9	1.5	17	UER
		16	1833	58.56	19	20.00	155	11.28	8.20	2.3	3.0	31	2	86	.10	5	.6	1.0	27	UER
		16	2356	52.01	19	19.83	155	7.93	8.44	1.9	2.8	24	0	93	.08	5	.9	1.0	23	UER
		17	418	39.87	19	23.39	155	2.36	9.57		2.6	24	0	133	.10	4	1.2	.9	23	MER
		17	531	6.00	19	19.85	155	4.48	5.49	2.0	2.7	21	0	146	.07	3	1.2	1.5	20	MER
		17	7 4	33.95	19	9.62	155	34.07	36.12	2.6	2.8	35	1	136	.11	11	1.3	2.2	30	HEA
		17	731	17.83	19	19.49	155	12.02	7.84	2.4	3.0	27	1	91	.09	5	.7	1.0	25	UER
		17	2240	10.86	19	22.65	155	4.69	8.34	2.6	3.2	28	1	89	.10	4	.7	1.1	24	MER
		18	123	11.68	19	22.19	155	6.11	7.58		2.3	24	0	76	.10	5	.8	1.2	23	UER
		18	233	57.37	19	21.75	155	5.91	8.19	1.9	2.5	26	1	81	.12	6	.7	1.0	22	MER
		18	456	21.84	19	22.64	155	24.92	10.17	2.9	3.2	37	3	45	.13	5	.5	.8	33	UKF
		18	519	9.44	19	20.68	155	12.88	9.75	1.6	1.9	16	0	69	.03	4	1.1	2.0	16	UER
		18	1333	7.32	19	22.15	155	17.96	33.67	3.2	3.2	35	1	33	.10	5	1.0	1.4	32	DEP
		19	026	49.86	19	27.27	154	51.05	10.28	2.7	2.6	25	1	271	.17	5	3.1	1.0	20	LER
		19	1220	15.32	19	21.91	155	6.22	7.39	2.0	2.4	21	0	78	.12	6	.7	1.4	21	UER
		19	1248	59.43	19	20.27	155	11.77	8.65	2.4	2.6	29	0	79	.10	5	.6	.9	26	UER
		19	1343	58.14	19	22.65	155	29.10	9.90	2.3	2.6	32	0	45	.09	3	.6	1.2	30	UKF
		19	1914	58.63	19	32.01	154	50.76	15.68	2.6	3.1	20	1	264	.19	7	3.1	1.2	16	HIL
		20	036	44.72	19	22.84	155	1.90	6.80	2.3	2.3	27	0	147	.15	5	1.0	1.1	26	MER
		20	044	44.92	20	1.96	155	22.49	9.14	2.7	2.1	17	2	310	.08	16	2.6	1.0	13	KKU
		20	711	29.17	19	21.37	155	1.54	7.37	2.3	2.5	24	0	178	.12	4	1.3	.8	23	MER
		20	14 7	39.93	19	49.92	155	34.45	16.74	3.3	3.2	34	1	108	.13	25	.9	30.4	32	KKU
		21	159	23.10	19	19.75	155	15.22	6.28	1.8	2.1	28	0	82	.12	4	.7	1.0	27	KOA
		21	459	24.73	19	22.20	155	4.14	8.12	3.4	3.9	31	1	97	.10	4	.8	.8	29	MER
		21	630	24.55	19	24.64	155	29.51	8.16	2.3	2.4	31	0	50	.11	5	.7	1.8	29	UKF
		21	11 1	27.43	19	18.41	155	15.15	7.03	1.8	2.2	28	0	103	.11	4	.8	1.1	26	KOA
		21	13 1	56.33	19	21.69	155	15.06	8.93	2.5	3.0	29	0	61	.11	2	.6	.8	26	KOA
		21	1350	19.71	19	19.35	155	15.90	8.21	2.1	2.5	27	0	94	.10	3	.7	.9	25	KOA
		21	16 8	10.69	19	27.31	154	53.39	4.70	2.5	2.5	25	1	231	.12	3	1.9	1.3	23	LER
		21	2256	48.16	19	24.17	155	24.63	8.75	2.1	2.4	33	0	38	.14	6	.6	1.3	31	UKF
		22	956	37.71	19	21.49	155	6.61	7.39	2.0	2.2	27	0	84	.10	6	.7	1.2	24	UER
		23	1423	8.88	19	21.43	155	6.68	6.55	1.9	2.0	23	0	84	.14	6	.8	1.7	23	UER
		23	16 9	39.96	19	19.71	155	11.45	8.00	2.3	2.6	24	0	91	.07	5	.7	1.0	23	UER
		24	720	35.92	19	20.40	155	11.02	8.80	2.2	2.4	28	0	79	.09	4	.7	.8	27	UER
		24	959	52.82	19	22.28	155	6.96	7.93	2.8	2.7	31	0	70	.12	5	.7	1.1	29	UER
		24	1937	.41	19	20.76	155	6.44	7.37	3.5	4.0	36	1	73	.11	4	.6	.8	32	UER
		24	2243	41.30	19	15.97	155	12.14	8.92	2.9	3.4	30	0	177	.13	8	1.1	1.0	30	POL

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	MAR	25	246	3.28	19	20.55	155	8.36	5.60	2.5	3.2	33	2	76	.13	4	.6	1.5	29	UER
		25	325	59.23	19	19.50	155	11.35	9.97	2.8	3.3	37	2	97	.11	5	.5	.6	35	UER
		25	1317	44.69	19	20.73	155	1.04	6.79	2.5	3.0	21	1	202	.11	4	1.2	.6	20	MER
		25	1648	6.41	19	18.33	155	20.89	9.71	2.8	3.3	32	0	117	.12	4	.6	.8	30	SWR
		25	2014	59.17	19	19.97	155	8.07	8.75	2.2	2.6	25	0	87	.07	5	.9	.9	25	UER
		25	2321	34.96	19	14.92	155	23.45	29.83	2.7	3.7	19	0	143	.16	6	2.1	5.4	13	LSW
		26	123	53.87	19	19.53	155	10.89	6.91	2.0	2.2	24	0	97	.10	5	.7	1.2	23	UER
		26	3 8	1.76	19	21.05	156	19.34	34.72	3.4	2.9	34	0	273	.16	45	6.4	3.4	31	DIS
		26	350	2.94	19	19.35	155	11.66	7.70	1.7	2.0	26	0	98	.10	5	.8	1.4	26	UER
		26	1845	48.39	19	22.37	155	28.88	10.25	2.6	2.8	30	0	67	.10	2	.6	1.0	30	UKF
		26	1919	53.73	19	21.66	155	4.84	8.73	2.4	2.6	28	0	81	.08	5	.9	.7	28	MER
		26	2343	47.37	19	22.04	155	6.96	8.07	2.3	2.6	26	0	73	.10	5	.8	1.3	26	UER
		27	437	58.69	19	21.48	155	15.23	9.91	3.6	3.8	34	2	64	.08	2	.5	.7	32	KOA
		27	858	6.85	19	21.36	155	4.27	7.24	2.9	3.6	31	2	85	.12	4	.7	1.2	28	MER
		27	17 3	25.54	19	24.04	155	23.99	9.64	2.7	2.8	37	2	30	.12	7	.5	.9	31	UKF
		28	355	57.67	19	22.16	155	5.24	7.18	2.6	2.9	27	0	77	.12	5	.7	1.2	24	MER
		28	845	9.73	19	20.54	155	13.25	8.87	2.1	2.5	28	0	62	.11	4	.6	.8	26	UER
		28	1431	39.77	19	12.51	155	30.64	4.61	2.6	2.4	27	1	136	.15	10	1.0	4.3	25	LSW
		28	2353	58.10	19	20.04	155	12.83	9.05	2.1	2.6	25	0	72	.08	5	.7	1.1	25	UER
		29	1256	41.03	19	14.11	155	38.73	9.59	3.3	3.2	27	0	232	.22	3	2.4	1.3	24	HEA
		29	1615	13.97	19	20.16	155	8.85	7.98	2.2	2.4	26	0	72	.08	4	.7	1.1	26	UER
		30	1517	38.04	19	43.98	156	1.31	8.54	3.6	3.4	36	0	226	.23	20	2.4	1.4	34	KON
		31	1934	57.89	19	22.17	155	4.64	5.10	2.0	2.3	18	0	134	.16	5	.9	3.4	18	MER
	APR	1	231	44.68	19	19.92	155	8.49	6.04	1.8	2.2	23	0	91	.10	5	.9	1.5	23	UER
		1	441	44.78	19	20.21	155	6.88	6.58	2.3	2.8	28	0	106	.11	6	.8	1.5	26	UER
		1	8 6	11.22	19	15.82	155	32.05	9.25	2.9	3.2	28	0	118	.15	9	.9	1.5	27	LSW
		1	1315	21.05	19	24.87	154	59.75	3.63	2.3	2.3	20	0	157	.13	8	1.1	3.9	18	LER
		1	2354	43.82	19	20.87	155	6.87	6.85	2.8	3.1	30	2	93	.12	6	.7	1.2	24	UER
		2	1344	14.82	19	20.21	155	6.97	7.08	2.5	2.9	25	0	105	.12	6	.8	1.1	21	UER
		2	2024	57.15	19	16.47	155	15.46	33.08		1.0	18	0	188	.12	8	3.1	4.3	18	HLP
		2	2058	50.88	19	19.94	155	7.98	8.56	3.2	3.5	31	0	89	.09	5	.8	.8	29	UER
		3	112	11.11	19	19.24	155	15.68	9.42	2.0	2.5	28	0	126	.06	3	.8	.9	25	KOA
		3	1052	8.55	19	20.22	155	12.64	7.75	2.3	2.5	30	0	112	.11	5	.8	.9	28	UER
		3	1352	24.04	19	19.67	155	11.70	8.72	2.3	2.6	29	0	114	.10	6	.7	.8	29	UER
		4	2226	56.22	19	20.58	155	11.82	8.35	2.0	2.2	28	0	103	.09	4	.7	.9	28	UER
		6	225	8.30	19	22.57	155	3.92	8.01	2.3	2.4	23	0	159	.12	4	1.1	.9	23	MER
		6	517	16.11	19	19.88	155	8.00	8.10	2.4	2.5	24	0	90	.10	5	.9	1.3	24	UER
		6	522	56.10	19	22.08	155	6.29	6.56	3.0	3.1	26	0	87	.12	6	.8	1.4	25	UER
		6	628	13.86	19	20.10	155	17.03	7.17	2.0	2.5	28	0	109	.13	1	.8	1.1	28	KOA
		6	1033	58.27	19	27.30	154	51.65	10.05	2.8	2.7	23	0	268	.10	4	5.0	.9	21	LER
		6	11 0	25.20	19	21.44	155	4.81	9.07	3.6	3.9	32	0	87	.08	4	1.0	.6	31	MER
		6	11 1	52.16	19	21.75	155	4.56	8.31	3.1	3.6	13	0	85	.06	4	1.1	1.6	13	MER
		6	12 4	40.52	19	24.07	155	2.37	.12	2.6	3.1	18	0	128	.29	3	1.0	2.3	17	MER
		6	1731	41.26	19	17.01	155	6.47	9.34	3.3	3.7	29	0	202	.10	3	1.4	.7	29	POL
		7	8 8	59.66	19	19.92	155	8.88	7.90		2.7	28	0	72	.08	4	.8	.9	27	UER
		7	10 3	18.28	19	19.89	155	10.75	6.92	2.1	2.3	25	0	123	.09	4	.9	1.1	24	UER
		7	1617	32.62	19	25.23	154	57.05	7.95	2.6	2.7	25	0	184	.20	9	1.9	1.2	24	LER
		8	219	50.33	19	25.27	155	25.44	11.04	2.4	2.3	30	0	52	.11	6	.6	1.0	29	UKF

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	APR	9	040	15.99	19	9.75	155	33.66	36.09	2.2	2.1	21	1	117	.19	10	1.5	2.1	4	LSW
		9	4 7	4.02	19	21.17	155	11.08	7.87	1.5	1.9	26	0	104	.12	3	.8	1.0	20	UER
		9	5 4	4.91	19	20.22	155	30.29	8.61	2.0	2.0	26	2	37	.13	6	.6	1.6	21	HEA
		9	6 5	22.27	19	21.04	155	11.57	8.04	2.2	2.7	28	0	97	.11	4	.8	1.0	25	UER
		9	629	47.02	19	6.88	155	27.09	38.97	1.5	1.6	22	1	187	.09	5	1.7	3.7	14	LSW
		9	633	13.87	19	7.24	155	26.59	36.16	1.5	1.6	17	2	187	.12	5	2.9	3.5	8	LSW
		10	122	1.40	19	20.57	155	12.24	9.05	1.7	2.3	25	0	71	.08	4	.8	1.2	23	UER
		10	931	57.83	19	24.89	155	27.91	10.20	2.9	3.1	34	0	35	.11	4	.6	1.0	31	UKF
		10	1259	53.88	19	20.37	155	8.38	2.84	2.4	2.7	29	0	77	.10	4	.6	1.4	29	UER
		10	2031	16.33	19	18.84	155	16.52	9.60	3.0	3.3	36	2	106	.11	3	.6	.7	32	KOA
		10	23 7	40.40	19	18.05	155	20.72	4.25	1.9	2.2	21	0	36	.11	4	.9	2.2	16	SWR
		11	0 9	2.45	19	20.72	155	12.90	8.87	2.5	2.7	32	1	64	.12	4	.6	.8	28	UER
		11	613	11.98	19	18.18	155	21.47	6.50	2.2	2.3	31	0	117	.14	5	.7	1.2	28	SWR
		11	2236	30.92	19	24.23	155	25.09	10.53	2.1	2.3	29	0	46	.13	5	.7	1.2	27	UKF
		13	12 6	16.19	20	11.04	155	47.58	3.29	3.2	2.6	29	0	298	.15	55	8.5	5.9	28	KOH
		13	2224	23.12	20	1.06	155	18.56	10.23	2.8	2.5	25	1	215	.08	15	1.5	1.0	23	KKU
		14	159	45.26	19	24.63	154	59.52	7.59	2.3	2.5	27	1	162	.21	8	1.3	1.1	27	LER
		14	2148	24.79	19	22.78	155	4.89	7.24	2.4	2.8	28	0	87	.14	4	.7	1.1	28	MER
		15	1541	15.28	19	17.93	155	24.01	8.24	2.2	2.7	32	0	109	.13	4	.7	1.0	28	SWR
		15	22 2	43.17	19	19.41	155	10.82	8.02	2.1	2.5	27	0	100	.10	5	.7	1.1	27	UER
		16	0 9	25.41	19	22.45	155	5.10	7.58	2.6	3.0	31	1	76	.11	4	.6	.9	29	MER
		16	326	5.47	19	24.95	155	17.04	7.64	1.6	3.0	19	0	85	.12	0	.8	1.4	17	LPC
		17	1 7	41.75	19	19.42	155	13.50	5.72	1.9	2.2	30	0	75	.14	4	.7	1.3	29	UER
		17	138	42.91	19	55.76	155	18.54	10.53	2.7	2.8	31	2	245	.10	6	1.6	.8	29	KKU
		17	14 5	37.92	19	31.08	155	30.08	2.06	2.3	2.2	26	0	92	.12	10	.6	9.9	23	MOK
		17	2142	33.02	19	21.98	155	25.29	8.98	2.3	2.7	34	0	59	.12	4	.6	1.0	30	HEA
		18	444	3.73	19	27.24	155	29.15	10.81	2.3	2.1	32	0	54	.11	9	.6	1.1	32	UKF
		19	1 5	15.97	19	21.15	155	6.08	6.48	1.9	2.3	26	0	94	.12	6	.8	2.0	26	UER
		19	149	26.07	19	18.89	155	13.23	6.87	2.3	2.3	32	0	81	.10	3	.7	1.0	31	POL
		19	2138	19.29	19	21.80	155	6.39	7.01	2.2	2.8	26	0	80	.12	6	.7	1.3	26	UER
		19	23 4	19.47	19	20.76	155	6.17	8.56	2.9	3.4	31	1	102	.09	6	.7	.9	27	UER
		20	127	51.76	19	19.25	155	13.73	5.97	1.8	2.3	28	0	64	.12	4	.7	1.3	28	UER
		20	624	43.90	19	23.97	155	26.27	6.87	2.4	2.6	31	0	41	.15	4	.6	1.8	30	UKF
		20	1314	53.18	19	22.01	155	30.22	9.25	2.6	2.8	33	0	53	.11	5	.6	1.2	33	MOK
		20	1625	27.26	19	20.23	155	8.58	8.72	2.1	2.6	31	0	75	.08	4	.7	.9	31	UER
		20	1849	23.01	19	56.12	155	18.48	10.47	5.0	4.3	32	2	265	.11	6	1.9	.8	23	KKU
		20	1923	59.97	19	56.43	155	17.88	9.57	2.9	2.7	21	1	200	.15	7	1.6	.9	19	KKU
		21	125	28.05	19	59.58	155	18.64	8.49	2.6	2.4	20	0	209	.09	12	2.0	1.2	20	KKU
		21	151	31.99	19	19.11	155	16.02	9.84	3.6	3.7	38	2	99	.11	3	.5	.6	34	KOA
		21	153	22.98	19	23.61	155	3.05	4.72	2.5	2.8	25	0	109	.16	3	.9	1.9	23	MER
		21	427	39.45	19	24.26	155	.27	8.17	2.1	2.4	28	0	152	.16	3	1.2	.8	28	LER
		21	927	46.60	19	58.02	155	16.08	11.08	2.3	2.7	23	3	23	.14	10	2.0	.7	15	KKU
		21	931	9.58	19	58.24	155	19.52	12.90	2.7	2.9	20	2	207	.09	9	1.5	.9	14	KKU
		21	16 3	51.36	19	23.39	155	1.04	8.57	2.7	2.9	29	2	156	.12	5	.9	.7	22	MER
		21	21 1	13.64	19	19.83	155	13.07	8.77	1.7	2.1	24	0	71	.06	5	.7	1.1	19	UER
		21	22 7	1.47	19	19.49	155	15.94	8.75	1.7	2.4	24	0	93	.08	3	.7	1.0	21	KOA
		21	2255	16.71	19	19.83	155	10.33	8.35	2.1	2.7	32	3	90	.09	4	.6	1.1	28	UER
		22	944	.12	19	19.16	155	15.61	10.10	4.0	4.1	35	0	93	.10	4	.7	.6	33	KOA

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	APR	22	1059	18.36	19	20.98	155	4.80	11.40	3.6	4.0	30	1	99	.17	4	1.0	.6	28	MER
		22	2145	23.26	19	20.98	155	13.26	9.84	3.2	3.6	36	2	59	.09	3	.5	.7	34	UER
		23	1344	56.30	19	19.63	155	10.27	7.80	2.1	2.4	29	0	94	.09	5	.6	1.0	28	UER
		23	17 5	2.21	19	22.91	155	1.75	7.20	2.1	2.3	24	1	149	.17	5	1.1	1.2	23	MER
		24	455	41.67	19	47.94	156	.92	10.36	3.0	3.1	33	2	228	.28	22	1.9	1.1	33	KON
		24	817	47.75	19	19.39	155	12.88	3.69	2.0	2.4	17	0	174	.09	6	1.2	3.8	17	UER
		24	920	9.32	19	20.83	155	10.40	7.35	2.0	2.3	29	0	72	.10	3	.7	1.0	29	UER
		24	2030	46.99	19	22.21	155	25.69	9.42	2.3	2.8	32	1	59	.13	3	.6	1.0	30	UKF
		24	21 5	49.41	19	23.00	155	30.26	8.56	2.2	2.4	33	0	44	.13	5	.6	1.4	31	MOK
		25	030	15.79	19	29.39	155	43.56	8.52	2.2	2.3	23	3	68	.11	5	.9	1.4	23	MOK
		25	741	11.46	19	37.63	156	23.36	36.02	3.2	2.7	25	1	282	.19	52	7.3	3.8	24	DIS
		25	1027	3.93	19	20.23	155	11.00	8.98	3.2	3.6	37	2	83	.10	4	.5	.7	30	UER
		25	1820	53.10	19	19.92	155	13.47	9.37	3.5	4.0	36	0	65	.10	5	.6	.6	35	UER
		25	1842	34.80	19	19.83	155	12.39	7.98	2.1	2.8	30	0	81	.11	5	.7	.9	28	UER
		25	1937	12.15	19	21.62	155	30.19	8.76	2.5	2.8	33	0	56	.12	5	.6	1.2	28	HEA
		25	22 6	50.22	19	24.44	155	24.27	9.31	2.5	3.0	33	0	41	.12	7	.6	1.1	32	UKF
		26	544	9.87	19	18.85	155	23.50	5.01	2.4	2.7	31	0	30	.14	3	.7	1.6	30	SWR
		26	14 2	56.93	19	41.67	155	2.44	2.30	2.6	2.8	22	0	201	.22	21	1.9	15.5	22	BLS
		26	2011	51.51	19	21.10	155	12.85	8.70	1.9	2.6	29	0	60	.11	3	.6	.9	28	UER
		26	2146	51.77	19	17.84	155	13.13	9.14	1.9	2.5	29	0	145	.11	9	.7	.7	29	POL
		26	2328	57.28	18	58.34	155	28.72	27.06	2.6	1.8	29	1	229	.15	20	2.4	2.1	27	DIS
		27	313	40.43	19	17.94	155	47.06	10.72	1.7	1.4	23	2	135	.16	10	1.0	.9	21	KON
		27	1224	32.84	19	55.88	155	17.82	9.58	2.9	2.7	23	1	247	.14	7	1.6	.8	22	KKU
		27	1341	7.52	19	22.56	155	24.75	9.48	2.1	2.5	28	0	44	.09	5	.6	1.1	27	UKF
		27	1940	44.40	19	20.83	155	11.34	8.17	2.4	2.9	34	2	71	.12	4	.5	.9	30	UER
		27	2248	33.71	19	19.42	155	7.36	7.81	2.5	3.0	32	2	113	.12	4	.7	1.1	30	UER
		28	5 1	21.64	19	30.93	155	27.41	3.28	1.8	1.8	30	1	50	.17	8	.6	3.3	30	NER
		28	631	31.74	18	54.64	155	11.39	13.17		1.3	30	2	263	.12	40	2.2	3.1	28	PPL
		28	1955	32.93	19	20.40	155	13.46	7.03	1.9	2.2	28	0	63	.14	4	.8	1.1	27	UER
		28	2215	56.06	19	18.95	155	13.49	8.02	2.2	2.5	30	0	73	.10	4	.7	1.0	29	POL
		29	331	1.53	19	27.31	155	29.52	8.92	1.9	1.9	32	0	55	.13	9	.6	1.4	32	UKF
		29	1224	39.40	19	19.21	155	12.29	7.71	2.4	2.7	24	0	94	.06	5	.7	1.2	23	UER
		29	1823	32.96	19	19.57	155	10.75	2.87	1.8	2.4	21	0	96	.13	5	.7	1.9	21	UER
		30	323	38.07	19	19.25	155	12.22	8.65	2.4	2.5	27	1	94	.07	5	.8	1.3	25	UER
		30	2056	59.91	19	18.93	155	13.55	10.29	3.1	3.4	33	1	71	.10	4	.6	.6	32	POL
	MAY	1	354	29.21	19	16.72	155	13.60	15.45	1.9	1.9	21	0	159	.13	9	1.5	.7	20	POL
		1	9 2	31.75	19	22.92	155	25.16	8.54	2.1	2.3	33	0	44	.10	4	.6	1.2	30	UKF
		1	13 7	21.78	19	56.66	155	15.65	38.39	2.7	1.8	31	2	222	.12	11	1.7	2.4	28	KKU
		1	1714	13.72	19	24.22	155	1.71	7.96	2.1	2.1	26	1	125	.20	5	1.2	1.0	26	MER
		2	747	54.70	19	22.48	155	5.69	6.85	2.0	2.3	29	0	69	.13	5	.7	1.5	27	MER
		2	854	5.85	20	3.01	155	22.60	8.44	3.7	4.0	36	1	218	.10	18	1.7	1.0	35	KKU
		2	16 6	47.10	19	20.51	155	11.28	9.80	3.1	3.5	35	2	76	.08	4	.5	.7	31	UER
		2	1937	4.50	19	21.70	154	57.50	7.52	2.2	2.6	27	0	221	.15	7	2.1	1.1	25	LER
		2	2358	21.40	19	21.26	155	26.61	9.43	2.6	2.6	32	0	69	.14	5	.7	1.1	31	HEA
		3	136	11.33	19	25.89	155	29.54	8.87	2.3	2.3	33	0	39	.12	7	.6	1.4	31	UKF
		3	3 5	14.14	19	21.25	155	7.01	8.28	2.7	3.3	35	1	86	.11	5	.6	.8	33	UER
		3	1658	37.40	19	20.52	155	12.84	7.40	1.9	2.2	25	0	66	.11	4	.8	1.1	25	UER
		4	4 5	49.81	19	19.76	155	10.94	8.16	2.1	2.6	27	0	92	.08	5	.6	.9	26	UER

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	MAY	4	422	58.31	20	11.50	155	50.35	13.47	3.0	2.9	38	5	5	.15	56	1.0	2.6	32	KOH
		4	924	13.87	19	17.34	155	12.67	11.07	2.6	2.8	33	0	153	.10	9	1.0	.7	31	POL
		4	925	49.80	19	21.91	155	6.52	6.60	2.5	2.8	29	0	77	.10	6	.7	1.4	29	UER
		4	11 5	22.15	19	16.82	155	12.92	9.22	2.8	3.1	34	1	160	.12	1	.7	.9	31	POL
		4	1151	47.94	19	10.16	155	30.84	11.69	2.4	2.1	25	0	147	.12	14	.9	1.0	25	LSW
		4	12 0	24.83	19	21.35	155	7.08	5.98	1.9	2.2	26	0	82	.13	5	.8	1.8	26	UER
		4	1617	54.42	19	19.63	155	11.92	7.98	2.2	2.7	30	0	89	.10	6	.7	.9	29	UER
		4	2041	16.59	19	21.35	155	10.52	8.03	2.1	2.2	27	0	65	.11	2	.7	1.1	27	UER
		5	512	19.29	19	19.32	155	8.49	9.19	3.2	3.6	20	2	82	.09	4	1.1	1.0	18	UER
		5	1243	42.26	19	15.82	155	23.42	2.04	2.1	2.3	19	0	140	.21	6	1.1	3.8	19	LSW
		5	1619	44.15	19	17.44	155	21.44	7.76	2.1	2.5	27	0	125	.10	5	.7	1.2	27	SWR
		5	2013	58.84	19	20.35	155	9.09	7.66	1.9	2.4	28	0	72	.09	3	.7	1.2	28	UER
		6	057	19.77	19	19.95	155	12.49	7.66	2.0	2.4	27	0	77	.11	5	.7	1.0	27	UER
		6	4 7	44.25	19	21.21	155	6.09	6.30	2.0	2.2	29	0	92	.11	6	.7	1.6	28	UER
		6	849	56.54	19	19.56	155	10.99	8.42	1.8	1.9	21	0	96	.08	5	1.0	1.7	18	UER
		6	1133	6.89	19	16.33	155	20.14	8.88	1.8	2.1	23	1	144	.09	4	.8	1.4	16	SWR
		6	12 2	34.51	19	19.08	155	15.49	8.49	1.7	2.1	20	0	94	.04	4	.8	1.5	19	KOA
		6	1756	29.92	19	20.56	155	9.66	8.13	1.7	2.0	24	1	73	.07	3	.8	1.5	22	UER
		7	547	47.01	19	19.73	155	12.14	6.48	1.7	1.8	25	1	86	.09	6	.7	1.6	21	UER
		7	616	2.99	19	19.42	155	9.63	7.93	1.8	2.1	25	0	97	.08	5	.7	1.3	23	UER
		7	1231	28.63	19	19.03	155	15.22	8.31	1.9	2.3	21	0	92	.08	4	.7	1.1	20	KOA
		7	1435	33.84	19	18.38	155	13.18	8.56	1.8	2.1	19	1	91	.10	3	.9	1.9	15	POL
		7	17 9	39.12	19	21.40	155	25.09	9.89	1.7	2.1	20	1	72	.10	4	.8	1.4	18	HEA
		7	1840	49.91	19	23.92	156	47.44	16.62	3.1	2.7	29	4	32	.25	92	7.0	57.0	18	DIS
		7	1911	18.81	19	27.40	155	12.07	27.51	2.8	2.7	34	0	50	.09	6	.9	2.0	30	DEP
		8	210	46.81	19	19.98	155	8.46	7.96	1.8	2.0	24	0	79	.07	5	.8	1.4	21	UER
		8	639	28.42	19	20.07	155	13.57	8.83	1.6	1.7	21	1	69	.05	5	.7	1.1	15	UER
		9	813	4.03	19	20.95	155	.97	6.17	2.4	2.4	30	0	200	.11	4	1.4	.9	29	LER
		9	1058	27.65	19	19.92	155	13.67	9.43	2.7	3.1	35	2	61	.11	5	.5	.7	33	UER
		9	12 4	3.42	19	25.74	154	54.84	7.75	2.3	2.1	18	0	210	.13	6	2.3	1.4	17	LER
		10	636	52.65	19	24.27	155	16.00	7.57	1.6		18	0	81	.11	2	.8	1.3	17	LPC
		10	729	2.38	19	20.21	155	8.42	6.95	1.8	2.0	29	0	78	.10	4	.8	1.5	29	UER
		10	1942	11.15	19	19.96	155	8.34	9.17	2.7	3.3	35	1	82	.09	5	.6	.8	33	UER
		10	1953	52.26	19	18.97	155	15.33	8.55	2.4	2.6	33	2	95	.12	4	.6	.9	31	KOA
		10	20 7	3.31	19	29.56	155	53.35	8.05	2.6	2.0	23	1	237	.14	13	2.0	1.1	23	KON
		10	22 6	6.19	19	19.18	155	11.54	6.75	1.7	2.0	27	0	103	.10	5	.7	1.1	27	UER
		11	754	21.39	19	21.64	155	6.16	7.38	2.2	2.5	28	0	83	.13	6	.7	1.2	27	UER
		11	1232	8.62	19	17.91	155	26.42	12.42	2.6	2.5	15	0	126	.06	7	1.1	3.3	14	HEA
		11	2255	8.84	19	19.73	155	9.79	5.99	2.1	2.3	28	0	90	.10	4	.7	1.2	28	UER
		11	2311	6.37	19	18.77	155	13.47	9.72	3.1	3.5	37	1	76	.10	3	.6	.7	33	POL
		11	2316	59.60	19	18.68	155	13.27	8.15	1.7	2.2	25	0	83	.08	3	.7	1.0	23	POL
		12	448	44.79	19	20.18	155	11.54	7.91	2.3	2.5	31	0	82	.08	5	.6	.9	30	UER
		12	534	27.39	19	21.30	155	5.86	4.30	2.0	2.4	27	0	91	.13	6	.8	3.6	25	MER
		12	1522	43.52	19	21.70	155	6.50	6.90	2.4	2.5	25	0	81	.12	6	.7	1.4	24	UER
		12	1723	32.40	19	7.19	155	31.03	47.54			25	1	167	.13	18	1.8	2.7	25	LSW
		12	2134	4.12	19	21.35	155	3.50	7.83	2.8	3.2	30	1	108	.11	3	.8	.8	29	MER
		12	23 8	42.19	19	16.00	155	22.65	2.90	2.1	2.3	25	1	155	.11	7	.8	2.2	24	SWR
		12	2338	23.82	19	16.47	155	23.31	6.54	2.3	2.9	28	0	126	.16	6	.9	1.6	27	SWR

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	MAY	13	140	53.23	19	58.39	155	51.24	9.48	2.8	2.5	31	2	85	.17	19	1.4	1.2	29	KOH
		13	10 3	39.34	19	20.23	155	11.81	6.99	2.2	2.7	28	0	79	.12	5	.7	1.1	28	UER
		13	11 9	7.81	19	25.86	155	25.71	4.18	2.4	2.6	30	0	48	.14	7	.6	8.7	30	UKF
		13	1145	57.00	19	23.40	154	57.15	7.75	2.2	2.2	28	1	206	.17	4	1.6	1.0	27	LER
		13	1337	38.97	19	26.31	154	55.33	5.94	2.2	2.5	20	1	195	.16	6	1.3	2.1	19	LER
		13	2052	48.52	19	22.21	155	2.02	9.42	2.4	2.8	35	2	151	.12	5	1.0	.6	33	MER
		13	2211	54.88	19	20.11	155	6.65	6.45	2.3	2.4	34	2	112	.10	6	.6	.9	31	UER
		14	0 4	47.86	19	20.56	155	3.12	7.03	2.3	2.6	31	1	118	.12	1	.9	.9	29	MER
		14	055	51.62	19	20.11	155	3.52	4.62	2.1	2.4	27	0	129	.13	1	1.1	1.5	26	MER
		14	128	49.37	19	21.98	155	2.54	6.48	2.1	2.3	31	2	140	.13	4	.7	1.2	29	MER
		14	5 0	2.55	19	20.01	155	6.76	8.36	2.4	2.8	31	1	113	.12	5	.7	1.0	30	UER
		14	535	10.79	19	19.87	155	13.50	9.67	2.9	3.5	37	1	64	.11	5	.5	.6	36	UER
		14	1728	3.73	19	22.84	155	3.29	8.90	2.2	2.3	30	0	112	.10	4	1.0	.7	28	MER
		14	20 1	4.74	19	21.41	155	7.26	6.61	2.4	2.9	33	1	80	.12	5	.6	1.2	31	UER
		14	2127	13.02	19	22.06	155	5.90	8.96	3.6	3.8	37	1	76	.09	5	.6	.7	36	MER
		14	2132	22.68	19	22.44	155	5.70	8.49	3.2	3.6	36	0	69	.09	5	.7	.7	36	MER
		15	514	19.74	19	20.55	155	12.36	9.10	2.0	2.4	29	0	70	.09	4	.6	.8	29	UER
		15	713	32.15	19	55.62	155	18.44	10.72	2.4	2.3	31	3	245	.12	6	1.6	.8	29	KKU
		15	1956	38.78	19	17.56	155	21.42	7.22	2.3	2.6	31	0	125	.14	5	.7	1.2	30	SWR
		15	20 0	35.31	19	22.11	155	6.75	8.15	2.4	2.9	33	1	73	.10	5	.6	.9	32	UER
		15	2056	41.29	19	19.91	155	11.18	7.45	2.3	2.8	34	2	88	.11	5	.6	1.1	31	UER
		16	457	4.34	19	21.28	155	7.13	8.13	2.5	2.9	33	2	83	.11	5	.6	1.0	30	UER
		16	723	43.74	19	25.07	154	56.00	.44	2.0	2.3	23	1	200	.28	5	1.4	.8	21	LER
		16	1735	8.65	19	24.15	155	.34	8.69	2.1	2.2	28	3	154	.15	3	.9	.9	25	LER
		17	6 8	58.29	19	19.60	155	11.50	7.54	2.0	2.4	28	0	94	.10	5	.7	1.0	27	UER
		17	818	53.73	19	22.28	155	4.72	7.93	2.0	2.4	25	0	81	.09	4	.9	1.1	25	MER
		17	1750	50.13	19	20.86	155	13.17	9.20	2.6	3.1	32	1	60	.10	3	.6	.8	31	UER
		17	1832	42.73	19	22.15	155	5.84	8.47	3.3	3.8	33	0	74	.09	5	.7	.7	31	MER
		17	19 7	4.16	19	19.30	155	28.45	8.52	2.2	2.3	28	0	58	.13	6	.7	1.5	27	HEA
		17	2011	25.64	19	20.43	155	4.20	6.17	2.0	2.6	28	0	117	.12	2	1.0	1.4	28	MER
		17	2110	28.00	19	26.60	154	55.10	7.92	2.4	2.7	28	1	194	.18	5	1.6	1.0	27	LER
		17	23 2	40.69	19	21.96	155	3.71	6.30	2.1	2.5	25	0	105	.16	4	.8	1.4	24	MER
		18	611	50.59	19	20.85	155	12.60	7.77	1.9	2.2	29	0	65	.10	5	.6	.8	29	UER
		18	1014	32.42	19	19.00	155	15.89	9.45	3.0	3.2	36	2	99	.09	5	.5	.7	32	KOA
		18	1046	43.04	19	30.83	155	50.16	10.23	3.3	3.2	32	0	108	.17	7	.8	.6	32	KON
		18	1746	15.99	19	21.68	155	15.22	8.80	2.0	2.6	29	0	61	.09	2	.5	.7	29	KOA
		18	2135	35.17	19	11.95	155	38.14	9.57	2.4	2.3	34	2	109	.25	6	1.0	1.3	32	HEA
		18	22 7	16.66	19	20.35	155	6.94	8.19	2.3	2.3	33	2	102	.10	6	.6	1.1	31	UER
		18	23 6	21.71	19	21.33	155	15.25	9.31	2.9	3.3	35	2	66	.11	2	.5	.8	32	KOA
		19	456	55.06	19	20.85	155	12.79	8.85	2.2	2.6	28	0	63	.10	5	.6	.8	28	UER
		19	526	49.97	19	29.07	155	15.20	30.33	2.5	2.4	32	0	100	.11	8	1.0	2.4	32	GLN
		19	23 1	11.08	19	20.07	155	11.66	6.42	2.0	2.3	31	0	81	.12	5	.7	1.1	29	UER
		20	015	12.16	19	23.90	155	29.61	9.32	2.2	2.5	32	0	43	.12	4	.7	1.4	32	UKF
		20	726	43.00	19	22.11	155	.47	6.20	2.1	2.2	25	0	199	.21	6	2.1	1.2	24	LER
		20	1120	56.24	19	24.84	154	58.86	5.63	2.1	2.2	25	0	168	.22	1	1.3	1.1	24	LER
		20	21 0	48.87	19	17.17	155	23.72	6.36	2.1	2.3	28	0	118	.14	5	.8	1.3	28	SWR
		21	1647	57.69	19	26.51	154	51.56	9.21	2.9	3.2	26	1	270	.13	6	2.7	.7	25	LER
		21	1657	34.09	19	38.57	155	57.16	37.29	3.4	3.2	28	2	210	.15	15	1.1	2.6	18	KON

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	MAY	23	115	20.58	19	25.20	154	58.50	6.53	2.1	2.4	22	2	167	.14	0	.9	1.2	18	LER
		23	358	32.92	19	18.97	155	12.81	5.75	2.2	2.5	29	0	90	.12	4	.7	1.4	29	POL
		23	426	54.89	19	18.14	155	16.60	8.97	2.3	2.9	32	0	121	.11	4	.7	.6	31	KOA
		23	718	45.59	19	21.69	155	6.12	3.83	2.5	2.6	31	2	82	.11	6	.6	2.3	28	UER
		23	1029	28.55	19	17.39	155	25.66	36.71	3.1	2.8	34	0	126	.09	3	1.2	2.3	32	HEA
		23	1127	2.46	19	20.11	155	13.54	9.47	2.1	2.4	28	0	69	.09	5	.7	.6	27	UER
		23	1349	28.43	19	20.41	155	11.27	8.11	2.3	2.6	29	0	78	.11	4	.7	1.1	28	UER
		23	1947	17.18	18	54.59	155	12.65	16.73		2.1	32	2	257	.15	38	3.2	52.9	31	PPL
		24	146	17.31	19	23.69	155	16.07	2.84	2.3	2.8	21	0	44	.12	2	.5	.6	21	SPC
		25	721	36.05	19	19.13	155	16.40	6.99	1.6	2.2	27	0	115	.12	3	.8	1.1	25	KOA
		25	1738	7.07	19	20.51	155	6.01	8.69	3.1	3.3	35	1	110	.10	6	.7	.8	30	UER
		26	211	42.39	19	20.73	155	13.09	8.96	2.6	3.3	37	2	62	.13	4	.6	.8	30	UER
		26	438	39.60	19	19.48	155	11.99	6.91	2.1	2.2	29	0	91	.10	5	.7	1.0	28	UER
		26	448	5.12	19	20.58	155	5.72	8.22	2.2	2.2	29	2	110	.09	5	.7	1.1	25	MER
		26	449	3.53	19	20.42	155	5.65	7.86	2.2	2.2	28	2	115	.08	5	.6	1.3	25	MER
		26	516	47.22	19	21.27	155	4.69	9.00	2.6	2.8	33	2	90	.10	4	.7	.7	30	MER
		26	1440	40.79	19	19.52	155	11.35	7.33	2.1	2.3	31	0	95	.11	5	.7	1.0	30	UER
		26	2347	36.65	19	19.07	155	21.93	3.52	1.9	2.2	16	0	131	.09	3	.9	1.5	16	SWR
		27	623	20.80	19	19.86	155	8.16	9.14	2.5	3.1	36	2	86	.09	5	.7	.7	33	UER
		27	725	31.96	19	22.71	155	28.80	8.66	2.2	2.3	29	0	50	.10	2	.7	1.3	29	UKF
		27	1418	29.86	19	20.69	156	.89	14.05	2.8	3.1	12	2	272	.26	17	3.2	1.1	12	KON
		27	17 5	44.26	19	20.26	155	11.42	8.63	2.4	2.6	23	2	81	.10	4	.6	1.3	21	UER
		27	2042	42.48	19	18.05	155	23.33	4.31	2.3	2.4	21	0	147	.08	4	.9	2.2	21	SWR
		28	5 4	42.19	19	20.63	155	13.41	8.91	2.0	2.3	26	0	60	.07	4	.7	1.2	25	UER
		28	527	15.65	19	18.89	155	13.40	9.17	1.7	2.2	26	0	77	.06	3	.8	1.0	26	POL
		28	738	59.68	19	26.21	155	24.47	7.53	2.3	2.6	21	0	61	.13	7	.8	2.2	21	UKF
		28	2311	32.22	19	24.13	155	.33	8.79	2.6	3.1	27	2	155	.13	3	.9	.9	25	LER
		29	643	12.41	19	25.30	155	23.42	8.12	2.8	3.2	35	3	45	.14	7	.5	1.4	31	UKF
		29	1820	23.29	19	21.42	155	4.93	8.27	2.1	2.5	24	2	88	.11	4	.8	1.9	19	MER
		29	2048	48.70	19	17.94	155	14.62	9.87	2.2	2.8	20	1	133	.08	3	.9	1.3	19	POL
		29	2254	15.25	19	20.31	155	11.96	9.27	2.4	2.5	28	1	76	.07	5	.7	.9	26	UER
		30	927	13.06	19	12.23	155	19.60	45.94		2.2	17	2	172	.07	11	2.1	3.3	17	HLP
		30	1253	54.17	19	18.90	155	13.38	7.54	2.0	2.4	27	0	77	.11	3	.8	1.0	26	POL
		30	1310	5.97	19	20.66	155	6.01	8.36	3.2	3.9	32	1	106	.12	6	.6	.9	30	UER
		30	1325	47.51	19	23.34	154	57.68	10.16	2.5	2.5	26	0	201	.12	4	1.8	.7	25	LER
		31	133	20.36	19	23.26	155	15.18	3.00	2.2	2.6	22	0	47	.09	2	.5	.6	21	SPC
		31	925	53.94	19	20.91	155	6.95	7.23	2.0	2.5	25	0	91	.12	6	.8	1.4	23	UER
		31	18 9	16.63	19	19.26	155	11.65	6.98	2.4	3.0	32	0	100	.11	5	.7	1.0	27	UER
		31	1813	7.57	19	21.67	155	2.86	6.31	2.1	2.5	23	0	133	.13	3	.9	1.2	22	MER
		31	22 6	18.68	19	19.17	155	13.60	7.43	1.9	2.2	31	0	68	.12	4	.7	1.0	30	UER
JUN		1	531	27.86	19	19.26	155	10.95	9.10	2.6	3.2	33	2	103	.13	6	.6	.8	31	UER
		1	830	11.82	19	20.15	155	9.50	7.71	1.9	2.3	26	0	79	.09	4	.7	1.2	26	UER
		1	1846	30.64	20	5.30	156	2.78	7.73	2.9	2.9	36	3	177	.20	28	.7	1.4	30	DIS
		1	2244	46.01	19	22.83	155	29.66	9.38	2.3	2.4	32	0	47	.11	4	.7	1.3	32	UKF
		2	310	10.04	19	20.37	155	13.21	7.69	1.9	2.3	29	0	64	.14	4	.7	1.0	28	UER
		2	353	29.07	19	24.45	155	18.09	17.42	2.4	2.5	31	0	69	.10	2	.8	1.2	28	DEP
		2	840	47.39	19	12.45	155	16.12	43.69		1.2	27	0	180	.11	10	1.6	3.6	26	HLP
		2	17 5	14.10	19	34.55	155	41.75	4.98	2.7	1.9	27	0	97	.18	10	.9	2.6	27	MOK

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	JUN	3	439	21.02	19	22.10	155	6.10	6.97	2.0	2.4	26	0	75	.09	6	.7	1.4	26	UER
		3	8 2	22.53	19	25.10	155	25.36	6.80	2.1	2.3	30	0	50	.15	6	.6	2.3	29	UKF
		3	910	48.13	19	21.58	155	5.01	8.14	2.4	2.6	22	0	84	.06	5	.9	1.2	19	MER
		3	1235	20.10	19	21.22	155	5.92	7.51	1.9	1.8	23	1	93	.10	6	.8	1.6	20	MER
		3	1354	48.19	19	55.65	155	44.93	11.29	2.5	1.9	27	7	23	.33	23	.9	1.3	25	KOH
		3	1546	52.36	19	18.96	155	10.99	8.24	2.1	2.2	23	1	112	.09	6	.7	1.1	17	POL
		3	1929	38.60	19	20.88	155	6.17	8.87	2.4	2.5	28	3	99	.09	6	.6	1.0	22	UER
		3	1951	59.12	19	18.88	155	8.83	8.17	1.8	2.1	27	1	97	.10	3	.7	1.1	21	POL
		3	2139	27.75	19	21.99	155	4.37	8.12	2.3	2.5	21	2	88	.10	5	.6	1.3	15	MER
		4	033	58.50	19	28.10	154	53.40	6.01	1.6	1.7	15	2	229	.11	2	2.0	1.4	12	LER
		4	142	52.69	19	25.85	154	56.22	6.30	3.1	3.5	27	2	187	.18	5	1.5	1.3	16	LER
		4	332	55.15	19	20.83	155	13.17	8.54	2.2	2.6	33	2	60	.10	3	.6	.9	26	UER
		4	732	6.10	19	19.19	155	13.94	9.21	2.1	2.3	26	0	66	.08	4	.7	1.0	23	UER
		4	8 1	6.91	19	27.91	154	54.03	3.96	1.4	1.6	17	3	197	.13	2	2.2	3.0	12	LER
		4	843	59.95	19	26.09	155	17.02	15.84	1.4	1.9	30	1	48	.09	2	.8	.7	28	DEP
		4	952	32.68	19	19.79	155	9.62	7.68	1.8	1.9	23	2	86	.09	4	.7	1.4	22	UER
		4	1452	41.26	19	21.45	155	6.67	8.32	1.9	1.9	24	1	84	.10	6	.9	1.3	23	UER
		4	1547	43.99	19	21.77	155	1.06	5.24	1.3	1.7	16	2	179	.19	5	1.3	2.4	15	MER
		4	1623	35.04	19	16.32	155	23.37	6.13	1.8	1.8	17	2	195	.12	6	1.0	2.3	12	SWR
		4	2115	24.13	20	.07	155	18.60	9.34	1.3	1.5	10	1	285	.08	13	2.9	1.3	9	KKU
		5	0 5	40.00	19	24.07	155	16.10	2.87	1.8	2.2	17	1	107	.11	2	.6	.7	13	SPC
		5	1253	8.62	19	54.98	155	17.77	10.17	1.2	2.0	18	3	265	.21	6	1.7	.8	18	KKU
		5	1810	12.65	19	20.96	155	12.97	8.47	1.9	2.5	31	0	60	.13	3	.6	.8	31	UER
		5	2157	38.04	19	22.25	155	30.21	8.78		2.5	33	0	52	.13	5	.7	1.2	31	MOK
		5	2342	18.92	19	21.66	155	4.91	9.31	5.1	4.6	35	0	81	.09	5	.9	.5	35	MER
		6	033	4.15	19	22.85	155	4.41	7.43	2.4	2.6	28	0	88	.10	5	.7	1.1	27	MER
		6	348	52.94	19	21.19	155	.74	5.64	2.5	3.1	30	1	198	.11	5	.9	.8	27	LER
		6	529	38.56	19	22.64	155	4.53	7.85	2.6	2.9	33	1	86	.09	4	.6	.9	30	MER
		6	1058	37.78	19	19.52	155	11.28	8.99	3.4	3.6	35	0	96	.11	5	.6	.7	34	UER
		6	1441	6.48	19	22.73	155	4.76	8.40	2.9	3.5	31	1	81	.10	4	.7	.8	29	MER
		6	1954	20.13	19	20.94	155	9.76	7.76	1.8	2.1	29	0	68	.10	2	.7	1.1	29	UER
		6	2049	11.30	19	19.63	155	11.91	7.55	2.3	3.0	31	0	89	.10	6	.7	.9	28	UER
		6	2114	18.98	19	30.73	155	56.16	10.85	3.0	3.0	30	0	221	.12	3	2.0	.7	29	KON
		6	23 1	27.78	19	19.81	155	11.97	7.91	2.5	3.0	31	1	86	.08	6	.6	.8	30	UER
		6	2316	24.63	19	25.99	155	28.10	8.05	2.2	2.4	33	0	44	.10	7	.6	1.5	32	UKF
		7	028	50.07	19	22.23	155	5.72	7.38	2.6	3.2	36	2	73	.13	5	.5	1.0	33	MER
		7	545	24.25	19	22.82	155	4.69	8.13	2.4	2.7	32	2	83	.11	3	.6	.9	29	MER
		7	1438	38.17	19	21.78	155	6.83	7.65	2.3	2.6	30	0	78	.09	5	.6	1.0	28	UER
		7	17 6	57.87	19	21.05	155	5.88	6.48	1.9	2.4	26	0	96	.11	6	.8	1.6	26	MER
		8	231	11.38	19	19.35	155	16.04	7.82	1.9	2.4	31	0	96	.13	3	.7	1.0	30	KOA
		8	1135	19.56	19	19.23	155	11.31	7.96	2.8	3.4	33	2	104	.09	6	.6	.9	31	UER
		8	1326	2.37	19	46.70	156	.55	7.10	3.1	3.3	34	1	226	.21	21	1.3	1.0	32	KON
		9	1 8	7.69	19	20.75	155	2.55	6.90	2.2	2.5	25	0	158	.12	2	1.2	1.0	25	MER
		9	1458	15.24	19	21.21	155	6.17	8.23	2.1	2.4	24	2	92	.10	6	.8	1.6	21	UER
		9	2024	57.16	19	22.25	155	5.48	7.81	1.9	1.9	24	3	72	.12	5	.7	1.3	17	MER
		10	241	28.57	19	19.78	155	10.53	8.42	1.9	2.5	25	0	92	.08	4	.6	1.2	23	UER
		10	313	1.14	19	20.39	155	11.74	6.47	1.6	2.0	25	0	77	.11	5	.7	1.4	23	UER
		10	441	44.30	19	21.07	155	5.97	9.28	2.3	2.6	27	0	96	.09	6	.7	1.1	26	MER

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	JUN	10	451	2.24	19	17.72	155	21.40	8.19	2.0	2.1	27	2	122	.12	5	.7	1.4	22	SWR
		10	1957	9.83	19	20.25	155	3.89	6.95	2.1	2.3	20	0	123	.13	2	1.2	1.9	19	MER
		10	2127	2.14	19	20.73	155	13.48	8.39	1.9	2.3	24	0	57	.08	4	.7	1.3	23	UER
		11	330	2.45	19	28.62	155	21.67	6.81	2.4	2.4	20	2	85	.13	4	.7	1.9	16	UKF
		11	621	47.12	19	23.44	155	17.03	2.98	2.2	2.8	21	1	61	.07	0	.4	.5	20	SPC
		11	1137	19.36	19	21.55	155	6.70	9.55	2.6	3.2	24	0	82	.08	6	1.0	1.1	22	UER
		11	1652	6.92	19	19.74	155	12.52	8.87	2.5	2.8	26	0	83	.10	5	.8	1.1	25	UER
		11	1828	41.56	19	58.39	155	18.61	10.68	2.7	2.6	24	1	18	.10	10	3.3	.9	21	KKU
		12	516	36.23	19	20.14	155	11.70	9.18	2.1	2.5	25	0	81	.09	5	.7	1.0	25	UER
		12	1220	33.02	19	19.93	155	11.30	9.10	2.0	2.1	22	0	87	.07	5	.7	1.2	21	UER
		12	1259	22.59	19	18.45	155	15.69	8.34	1.6	1.9	20	0	38	.08	4	.8	1.2	15	KOA
		12	1746	8.09	19	21.93	155	1.45	7.98		1.9	23	1	169	.12	5	1.4	.9	17	MER
		12	2129	44.90	19	18.81	155	13.31	8.37	2.1	2.1	24	1	80	.08	3	.7	1.3	15	POL
		12	2310	12.14	19	18.85	155	13.86	8.22	2.1	2.4	26	1	67	.07	3	.7	1.1	20	POL
		13	419	42.11	19	16.23	155	22.95	8.36	1.9	2.2	20	0	149	.10	7	.9	1.5	19	SWR
		13	931	15.13	19	20.83	155	10.85	8.27	2.4	2.6	26	1	73	.08	3	.6	1.0	22	UER
		13	1748	42.84	19	21.61	155	3.12	7.62	2.0	1.9	24	1	123	.14	3	1.1	1.1	22	MER
		13	2214	54.06	19	25.71	155	25.15	5.96	1.9	2.3	23	0	51	.12	7	.7	3.3	22	UKF
		14	047	50.33	19	37.80	156	2.25	41.34	2.7	1.8	30	5	47	.18	22	1.4	1.9	28	KON
		14	219	40.21	19	20.89	155	12.99	8.49	2.1	2.2	26	1	61	.10	3	.7	1.1	25	UER
		14	446	37.35	19	18.36	155	13.21	8.92	1.7	2.0	26	0	91	.09	3	.7	1.0	21	POL
		14	1522	.85	19	19.28	155	10.82	10.07	3.1	3.9	37	1	104	.10	5	.7	.6	35	UER
		15	639	46.05	19	26.79	155	24.28	4.86	2.1	2.6	30	0	52	.13	6	.6	4.4	27	UKF
		15	14 4	16.67	19	21.08	155	7.44	7.79	3.1	3.6	37	3	83	.11	5	.6	.9	33	UER
		15	1450	33.16	19	21.74	155	1.04	7.90	2.6	3.1	28	1	180	.11	5	1.1	.7	27	MER
		15	1955	15.57	19	15.16	155	35.29	7.24	2.5	2.6	30	0	111	.18	3	.9	1.5	28	HEA
		15	2357	33.92	19	21.88	155	6.66	4.62	1.8	2.4	27	0	77	.16	6	.9	3.3	26	UER
		16	156	35.95	19	25.45	155	25.05	6.87	2.0	2.3	30	0	50	.12	7	.6	2.3	30	UKF
		16	338	56.83	19	26.63	155	27.30	10.39	2.6	2.8	33	0	46	.12	8	.6	1.1	32	UKF
		16	659	35.00	19	19.36	155	29.02	8.25	2.1	2.3	28	1	109	.12	6	.8	1.6	28	HEA
		16	2141	58.54	19	16.14	155	19.94	4.48	2.1	2.5	11	0	192	.16	9	1.8	48.6	11	SWR
		16	22 1	59.34	19	28.07	154	54.40	4.39	2.1	2.5	26	0	177	.19	2	2.1	2.4	25	LER
		17	456	51.05	19	21.10	155	6.91	8.25	3.0	3.5	35	2	88	.10	5	.6	.8	32	UER
		17	6 5	36.63	18	55.28	155	30.54	43.40	3.5	3.2	34	0	247	.11	18	3.2	4.5	34	DIS
		17	843	11.25	19	21.80	155	5.37	8.40	2.1	2.1	26	4	80	.11	5	.6	1.0	20	MER
		18	510	1.12	19	22.54	155	50.02	11.74	2.6	2.1	26	5	41	.15	13	.8	.9	22	KON
		18	915	59.62	19	18.99	155	13.80	6.92	1.7	2.0	20	0	87	.12	4	.9	1.9	17	POL
		18	1138	52.13	19	23.91	154	59.40	8.81	2.1	2.1	23	5	172	.14	3	.9	.8	17	LER
		18	1214	44.47	19	20.50	155	13.24	8.27	1.9	2.1	23	0	62	.09	4	.7	1.0	22	UER
		18	1227	38.64	19	21.89	155	14.94	4.86	2.4	2.1	17	3	77	.23	2	.7	1.7	12	UER
		19	728	15.07	19	19.68	155	7.90	9.08	2.9	3.3	35	3	95	.08	4	.5	.7	30	UER
		19	1657	15.63	19	22.43	155	5.57	7.39	2.4	3.0	32	1	69	.10	5	.6	1.1	28	MER
		20	249	57.12	19	23.86	155	16.14	2.64	1.4	2.3	16	0	73	.12	2	.6	.6	16	SPC
		20	546	44.35	19	20.66	155	3.43	7.28	2.9	3.6	29	1	100	.10	2	.9	1.0	28	MER
		20	614	8.57	19	20.36	155	11.93	8.01	2.1	2.5	29	1	76	.11	5	.6	1.0	29	UER
		21	015	57.45	19	20.47	155	28.16	27.62	2.8	3.2	34	1	56	.10	4	1.0	1.6	33	HEA
		21	2 0	37.66	19	10.34	155	28.52	35.85	2.9	2.5	29	0	160	.11	12	1.4	3.1	28	LSW
		21	643	28.20	19	19.63	155	6.41	9.09	2.4	2.8	29	2	128	.08	5	.6	1.0	27	UER

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	JUN	21	652	37.84	19	20.39	155	5.47	5.60	2.4	2.8	27	2	117	.20	5	.8	2.4	22	MER
		21	850	36.60	19	28.80	154	48.61	10.74	2.7	2.5	22	2	279	.12	19	3.4	1.2	20	LER
		22	345	21.76	19	20.03	155	6.47	9.80	3.7	4.0	35	1	117	.09	6	.8	.6	34	UER
		22	1215	26.71	19	18.87	155	13.39	7.57	2.1	2.6	28	0	77	.11	3	.7	1.0	27	POL
		22	1352	26.17	19	18.41	155	13.64	6.99	2.0	2.2	29	0	72	.11	3	.8	1.1	29	POL
		22	1414	38.32	19	41.88	155	1.91	2.09	2.4	3.0	21	0	204	.19	22	1.8	14.6	21	BLS
		22	2358	31.33	19	20.38	155	13.48	8.92	2.5	2.7	29	0	59	.09	4	.6	.7	28	UER
		23	028	24.14	19	21.71	155	15.09	8.00	2.0	2.3	31	0	60	.14	2	.7	.9	30	KOA
		23	036	28.34	19	42.35	156	4.49	9.04	3.4	2.8	30	2	279	.16	29	1.8	1.1	28	KON
		23	1511	23.10	19	21.61	155	8.65	4.19	1.9	2.4	24	0	82	.14	6	.8	3.0	23	UER
		23	1910	8.54	19	22.84	155	26.03	9.12	2.2	2.6	31	0	51	.10	3	.6	1.0	31	UKF
		23	2238	21.45	19	19.60	155	13.25	8.58	2.2	2.6	31	1	71	.11	5	.6	.9	29	UER
		24	2133	40.45	19	15.96	155	22.95	7.18	1.9	2.3	17	0	153	.08	7	1.0	2.4	17	LSW
		25	555	28.90	19	46.64	156	2.74	6.57	3.1	3.3	27	2	278	.20	24	1.5	1.6	24	KON
		25	835	19.21	19	19.80	155	12.77	8.47	2.9	2.9	32	3	76	.11	5	.6	1.0	29	UER
		25	1411	14.95	19	28.17	155	24.56	11.26	2.8	2.6	27	2	46	.14	4	.7	1.1	24	UKF
		26	352	23.34	19	20.34	155	12.58	6.79	1.6	2.0	25	0	71	.10	4	.7	1.3	25	UER
		26	11 8	51.65	19	21.39	155	8.10	8.31	2.5	3.1	29	0	72	.10	3	.7	1.0	28	UER
		27	5 6	34.39	19	20.58	155	5.93	7.42	2.4	2.7	30	1	108	.13	5	.7	1.2	29	MER
		27	1243	27.91	19	22.60	155	3.14	6.49	2.8	3.1	31	2	117	.12	4	.7	.8	27	MER
		27	1318	28.19	19	21.01	155	12.89	9.22	2.3	2.6	27	0	60	.09	3	.7	.8	26	UER
		27	1759	19.50	19	20.96	155	5.75	7.14	2.4	2.8	32	2	100	.17	5	.7	1.5	30	MER
		27	20 4	8.61	19	23.93	155	16.19	2.85	1.6	2.2	14	0	99	.11	2	.6	.8	13	SPC
		27	2247	14.78	19	22.70	155	3.09	5.81	2.0	2.6	24	0	117	.24	5	1.0	4.7	22	MER
		28	132	57.80	19	33.54	155	36.77	7.91	2.6	2.2	26	1	95	.13	8	.8	1.3	25	MOK
		28	654	4.87	19	22.26	155	5.54	7.14	2.0	2.1	27	0	73	.12	5	.7	1.4	25	MER
		28	1728	31.52	19	49.38	156	6.94	2.42	2.9	2.3	21	2	296	.24	33	2.9	3.0	20	KON
		28	2023	32.24	19	19.56	155	11.50	7.36	1.9	2.3	26	0	94	.10	6	.8	1.2	26	UER
		29	124	36.13	19	21.10	155	15.29	10.28	3.7	4.0	31	2	39	.09	3	.5	.7	29	KOA
		29	426	19.87	19	20.83	154	58.13	5.85	2.2	2.2	26	2	266	.23	9	5.4	1.7	24	LER
		29	9 3	4.19	19	19.88	155	10.60	5.29	2.4	2.8	25	2	89	.11	4	.7	1.8	23	UER
		29	15 8	24.42	19	19.21	155	11.55	4.48	2.1	2.4	26	2	101	.13	5	.7	2.7	24	UER
		29	1637	23.31	19	20.55	155	2.95	7.45	2.3	2.7	26	1	190	.12	8	.9	1.0	25	MER
		29	1721	45.52	19	21.08	155	5.64	6.54	2.5	2.9	24	0	178	.11	7	1.1	1.3	23	MER
		29	1727	41.27	19	19.90	155	8.43	8.15	2.3	2.5	25	0	110	.08	5	.7	1.2	24	UER
		29	1754	17.37	19	9.29	155	33.91	10.17	2.3	2.4	25	1	138	.15	12	1.0	1.5	23	LSW
		29	1917	40.71	19	20.09	155	11.13	7.76	2.3	2.9	27	0	85	.09	4	.7	1.0	27	UER
		29	1932	21.52	19	17.26	155	13.83	7.76	2.2	2.5	26	0	117	.11	1	1.0	.9	26	POL
		30	358	18.82	19	19.41	155	13.34	5.15	2.0	2.5	29	0	73	.13	4	.7	1.6	28	UER
		30	13 4	2.43	19	19.56	155	11.40	8.24	2.2	2.8	29	0	94	.09	5	.7	.9	27	UER
		30	1727	1.12	19	21.73	155	6.69	7.25	1.9	2.3	26	0	79	.13	6	.7	1.4	26	UER
	JUL	1	728	39.08	19	21.36	155	5.84	7.50	2.5	2.8	32	2	89	.13	6	.7	1.1	29	MER
		1	814	56.36	19	20.04	155	8.20	9.61	3.2	3.7	32	0	84	.10	5	.8	.6	26	UER
		1	1244	58.22	19	59.46	155	17.66	9.80	3.0	3.0	28	4	275	.12	12	1.9	.9	21	KKU
		1	1723	35.94	19	20.17	155	8.65	8.93	2.1	2.6	27	0	104	.08	4	.8	1.0	25	UER
		1	2011	16.11	19	25.45	154	49.52	7.71	1.8	1.6	15	2	284	.09	9	2.4	1.2	10	LER
		2	320	12.79	19	19.93	155	6.67	7.99	2.3	2.5	27	1	147	.09	5	.9	1.3	20	UER
		2	1132	51.74	19	20.87	155	7.65	5.41	1.9	2.1	18	2	122	.21	4	1.5	3.2	16	UER

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	JUL	2	1729	44.02	19	26.94	154	53.16	7.17	2.1	1.9	15	2	36	.11	4	1.8	1.3	12	LER
		2	19 5	14.83	19	19.82	155	8.92	8.10	1.9	2.4	24	0	98	.08	5	.8	1.1	22	UER
		2	1925	42.44	19	21.99	155	5.68	8.33	2.5	2.7	24	1	141	.11	5	.9	1.2	21	MER
		3	0 2	49.63	19	20.71	155	11.03	7.93	2.3	2.3	30	1	74	.11	3	.7	.9	23	UER
		3	141	59.93	19	25.25	155	30.66	12.52	2.2	2.0	21	0	54	.12	7	.8	1.2	21	MOK
		3	222	18.61	19	18.79	155	12.44	7.65	1.9	2.1	24	3	102	.10	4	.6	1.1	20	POL
		3	447	54.40	19	18.61	155	15.71	9.28	2.3	2.4	29	1	106	.12	4	.8	.9	24	KOA
		3	646	34.10	19	58.57	154	4.18	6.95	2.4	1.8	24	5	335	.12	102	58.0	75.6	16	DIS
		3	811	36.58	19	27.91	154	51.10	7.30	2.1	1.7	14	4	278	.14	4	1.9	1.2	8	LER
		3	827	19.46	19	20.16	155	13.74	8.19	1.4	1.6	19	0	70	.09	5	.8	1.5	13	UER
		3	2233	15.13	19	27.66	154	52.45	5.07	1.9	1.6	16	3	273	.12	3	1.5	2.1	11	LER
		4	240	57.76	19	19.29	155	6.76	8.90	2.9	3.3	26	1	159	.12	4	.8	1.4	21	UER
		4	259	58.10	19	26.48	154	52.42	6.75	2.5	2.6	24	3	266	.22	5	1.9	1.5	20	LER
		4	327	15.28	19	19.66	154	56.76	9.63	1.5	1.7	16	1	240	.16	11	2.0	1.3	9	DIS
		4	420	6.07	20	2.66	155	48.33	9.73	3.3	3.2	35	3	278	.20	40	3.2	1.4	31	KOH
		4	1844	52.23	19	18.64	155	15.19	8.00	2.2	2.7	29	0	99	.10	4	.7	.9	27	KOA
		4	2050	17.69	20	9.44	156	22.98	15.27	3.2	3.3	30	3	314	.20	77	21.4	35.7	29	DIS
		4	2130	30.18	19	19.49	155	8.58	8.94	2.8	3.4	31	0	106	.10	4	.9	.6	31	UER
		4	2152	46.95	20	4.19	155	22.05	4.95	2.7	2.6	31	3	269	.11	20	1.1	1.3	28	KKU
		5	711	54.21	19	18.68	155	21.91	7.44	2.5	3.4	34	1	110	.16	4	.7	1.2	31	SWR
		5	759	42.03	19	26.41	155	27.14	11.89	4.1	4.3	33	2	45	.12	7	.6	.6	26	UKF
		5	823	4.69	19	26.97	155	27.05	11.02	2.4	2.8	14	0	125	.11	8	1.7	1.6	13	UKF
		6	724	5.22	19	21.06	155	12.70	8.32	2.1	2.2	26	0	62	.11	3	.6	1.0	25	UER
		6	850	18.47	19	19.40	155	6.40	9.40	3.5	3.9	34	2	135	.10	5	.7	.7	31	UER
		6	11 6	25.70	19	22.19	155	3.01	8.06	2.2	2.2	28	1	125	.14	4	.9	1.0	26	MER
		6	1431	50.60	19	16.78	155	22.33	4.93	1.9	2.2	22	0	128	.16	7	.9	3.0	22	SWR
		7	740	31.28	19	20.74	155	12.94	7.30	2.1	2.5	25	0	63	.13	4	.7	.9	24	UER
		7	1330	54.43	19	19.48	155	11.96	7.58	2.3	2.4	28	0	92	.10	5	.7	1.0	27	UER
		7	1640	35.24	19	18.70	155	13.62	2.94	2.1	2.4	19	1	171	.11	7	1.0	2.0	16	POL
		7	2025	50.90	19	50.55	155	24.77	22.67	2.9	2.4	18	3	27	.07	35	3.0	4.6	15	KKU
		7	2359	19.46	19	19.38	155	10.12	7.91	2.1	2.2	14	0	179	.06	5	1.4	2.1	13	UER
		8	051	54.52	19	9.95	155	27.35	8.98	2.6	2.6	15	2	176	.21	1	1.8	1.8	13	LSW
		8	952	17.91	19	18.05	155	21.15	6.84	2.0	2.1	26	0	120	.13	4	.8	1.4	25	SWR
		8	1014	36.34	19	26.09	154	48.54	9.03	2.9	2.7	27	1	282	.16	10	3.2	1.1	26	LER
		8	17 4	2.58	19	20.09	155	7.94	5.24	2.3	2.6	30	2	89	.15	5	.7	1.5	26	UER
		9	116	30.25	19	23.29	155	16.90	3.16	3.1	3.9	33	0	37	.14	2	.5	.8	32	SPC
		9	138	54.29	19	20.06	155	11.73	9.65	2.9	3.4	35	1	82	.11	5	.5	.6	33	UER
		9	915	51.28	19	26.80	155	23.60	9.98	2.3	2.6	28	0	47	.14	6	.7	1.3	28	UKF
		9	2149	4.49	19	23.52	155	15.47	3.10	1.9	2.6	22	0	43	.08	2	.6	.8	22	SPC
		10	126	15.13	19	19.97	155	12.86	7.49	1.9	2.3	29	0	72	.12	5	.7	1.1	29	UER
		10	4 1	52.09	19	23.12	154	58.04	6.48	2.2	2.2	27	0	199	.19	4	1.9	1.2	27	LER
		10	1045	59.83	19	20.80	154	59.13	6.35	3.0	3.2	31	1	28	.18	7	1.6	1.2	28	LER
		10	1555	7.79	19	24.38	154	59.95	6.07	2.1	2.2	19	0	157	.11	3	.9	1.4	19	LER
		11	0 0	50.91	19	24.66	154	58.72	6.88	2.2	2.6	25	1	193	.15	1	1.6	.9	25	LER
		11	912	55.33	19	20.78	155	5.89	6.08	2.1	2.7	27	1	103	.13	5	.8	1.9	25	MER
		11	1236	57.48	19	23.99	155	16.54	8.55	2.1	2.7	19	0	46	.17	2	.8	1.4	19	LPC
		11	1351	53.82	19	21.24	155	2.61	6.67	2.4	2.7	25	0	137	.11	2	1.0	1.2	24	MER
		11	19 5	9.66	19	20.15	155	10.69	8.55	2.5	3.2	33	1	84	.13	4	.6	.9	30	UER

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	GAP	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	JUL	12	338	14.03	19	21.89	155	.65	6.77	2.3	2.8	28	184	.17	5	1.2	.9	27	LER
		12	859	40.14	19	18.72	155	13.59	10.12	3.1	3.5	34	72	.11	3	.7	.6	34	POL
		12	1459	23.65	19	21.50	155	1.44	9.01	2.6	3.1	33	177	.11	4	1.1	.6	31	MER
		12	1717	12.25	19	20.22	155	12.71	8.16	2.3	2.7	34	71	.11	5	.6	.9	32	UER
		12	23 7	21.00	19	18.89	155	6.94	8.86	2.5	3.1	54	139	.13	5	.7	.8	31	POL
		13	1420	46.16	19	21.64	155	.61	4.11	2.4	2.6	27	189	.16	5	1.3	2.1	26	LER
		13	1947	24.97	19	20.98	154	58.67	6.47	2.5	3.2	25	217	.16	8	2.2	1.6	22	LER
		13	2055	14.95	19	16.91	154	55.58	7.95	3.0	3.2	30	248	.19	14	1.9	1.2	28	DIS
		13	2057	17.28	19	17.61	154	55.63	5.83	2.6	3.0	28	257	.23	14	2.2	1.8	26	DIS
		13	2115	26.75	19	21.19	154	58.77	7.67	2.1	2.3	26	214	.17	7	2.1	1.3	25	LER
		13	2116	51.16	19	20.97	154	59.12	6.91	2.3	2.4	27	213	.15	8	1.8	1.4	24	LER
		14	053	35.32	19	20.89	155	10.83	7.80	2.3	2.4	32	71	.13	3	.6	1.1	30	UER
		14	145	48.07	19	20.50	155	12.59	8.15	2.3	2.8	31	69	.10	4	.6	.9	30	UER
		14	155	47.21	19	24.66	155	.09	7.39	1.9	2.2	27	141	.16	3	.9	1.0	26	LER
		14	216	42.95	19	21.39	154	59.21	8.07	2.1	2.3	23	208	.15	7	2.1	1.4	22	LER
		14	2350	39.69	19	23.22	155	15.25	2.65	2.4	2.9	24	48	.13	2	.5	.6	21	SPC
		15	419	50.17	19	19.50	155	10.47	6.93	2.1	2.5	30	98	.11	5	.7	1.0	29	UER
		15	643	35.89	19	18.25	154	56.70	7.41	2.9	3.3	29	238	.20	11	1.9	1.3	27	DIS
		15	1216	46.05	19	18.97	155	11.68	7.06	2.3	2.4	23	108	.12	5	.7	1.3	19	POL
		16	126	43.67	19	19.41	155	15.59	7.60	2.0	2.0	21	88	.07	4	.7	1.3	20	KOA
		16	128	28.57	19	29.66	155	54.75	8.51	2.4	2.1	17	215	.11	1	2.7	1.0	17	KON
		16	222	36.32	19	20.53	155	10.60	8.54	2.2	2.3	22	77	.10	3	.6	1.5	18	UER
		16	15 2	13.66	19	20.98	155	8.15	8.09	2.0	2.1	19	75	.09	4	.7	2.0	13	UER
		16	18 9	18.54	19	20.81	155	2.56	5.63	2.2	2.3	22	174	.19	2	1.4	2.0	21	MER
		17	055	40.99	19	20.42	155	5.98	7.06	2.3	2.1	20	112	.11	5	1.1	2.3	18	MER
		18	448	22.74	19	20.21	155	11.80	8.62	2.8	3.2	34	79	.12	5	.6	.9	31	UER
		18	629	45.81	19	20.13	155	11.82	8.61	2.6	3.0	31	80	.08	5	.5	.9	29	UER
		18	7 3	56.75	19	20.15	155	11.82	7.39	2.1	2.2	27	80	.11	5	.7	1.0	26	UER
		18	1739	28.21	19	26.95	155	27.23	8.90	2.3	2.2	27	64	.11	8	.6	1.4	25	UKF
		19	358	11.13	19	18.98	155	11.49	8.91	3.0	3.4	53	110	.12	5	.6	.8	30	POL
		19	510	13.90	19	19.71	155	11.13	7.65	1.9	2.2	29	92	.10	5	.7	1.1	28	UER
		19	723	23.04	19	22.34	155	26.80	9.05	2.2	2.1	28	56	.16	1	.6	1.3	27	UKF
		20	1836	34.92	19	23.18	155	2.69	6.81	2.0	2.5	27	123	.18	4	.9	1.2	26	MER
		21	1 8	59.07	19	22.52	155	25.31	9.20	1.8	2.3	25	51	.11	4	.6	1.1	25	UKF
		21	258	14.25	19	19.07	155	11.73	8.99	2.8	3.4	29	105	.12	5	.7	1.1	27	UER
		21	5 0	14.48	19	23.60	155	26.29	10.02	2.9	3.3	30	44	.14	3	.6	.9	30	UKF
		21	640	42.84	19	19.43	155	11.55	7.58	2.1	2.4	24	97	.09	6	.7	1.1	24	UER
		21	1757	5.92	19	18.60	155	15.58	8.61	2.7	3.1	32	104	.12	4	.6	1.1	30	KOA
		21	1810	44.04	19	20.27	155	8.76	6.52	2.0	2.5	28	72	.11	4	.7	1.3	27	UER
		21	2046	25.55	19	18.89	155	13.66	7.55	2.0	2.2	24	69	.10	5	.7	1.1	23	POL
		21	2110	29.44	19	21.78	155	.64	4.05	2.1	2.2	19	187	.14	5	1.2	2.2	19	LER
		22	1038	50.23	19	18.91	155	13.28	9.04	1.9	2.1	23	79	.07	4	.8	1.2	18	POL
		22	11 3	50.88	19	22.78	154	41.07	44.07	2.6	2.5	28	306	.12	24	2.6	1.6	26	DIS
		22	12 1	45.19	19	23.66	155	15.44	3.25	2.4	3.0	24	36	.09	5	.5	.7	22	SPC
		23	051	29.56	19	20.66	155	12.84	8.83	1.6	2.0	22	65	.08	4	.6	1.0	17	UER
		23	649	38.15	19	19.88	155	7.71	8.65	1.8	2.2	23	97	.09	5	.7	.7	18	UER
		24	2 6	2.43	19	23.53	155	28.66	9.54	2.1	2.2	32	49	.18	5	.7	1.4	29	UKF
		24	1217	9.96	19	19.97	155	11.15	8.36	2.3	2.2	26	87	.11	5	.6	1.0	25	UER

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	GAP	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	JUL	25	2 3	11.35	19	20.82	155	13.46	8.07	2.5	2.8	31	58	.12	3	.7	1.0	30	UER
		25	1310	30.03	19	24.35	154	56.01	.46	2.9	3.2	27	208	.21	5	1.2	.6	25	LER
		25	1419	57.89	19	9.50	155	41.68	9.39	3.0	3.3	29	157	.30	13	1.4	1.5	25	HEA
		26	628	22.74	19	22.37	155	1.33	7.41	2.3	2.4	28	164	.15	5	.9	.9	25	MER
		26	1041	39.60	19	20.06	155	11.68	9.15	2.6	3.0	34	83	.10	5	.6	.9	31	UER
		26	2317	54.89	19	20.90	155	7.01	8.45	2.6	2.6	31	91	.11	5	.7	1.0	30	UER
		27	738	12.02	19	24.37	155	37.89	1.35	2.2	2.2	11	75	.49	6	1.9	6.0	9	MOK
		27	8 8	18.99	19	18.87	155	16.37	9.62	3.1	3.3	37	106	.12	3	.6	.7	31	KOA
		27	1032	5.82	19	21.56	155	25.57	8.83	2.9	3.2	36	69	.16	4	.5	1.0	32	HEA
		27	1519	25.31	19	17.37	155	21.65	5.97	1.8	2.1	24	125	.14	5	.8	1.7	24	SWR
		28	518	51.77	19	24.95	155	25.45	7.90	2.1	2.4	29	50	.13	6	.6	1.8	28	UKF
		28	742	26.96	19	23.01	155	3.35	7.93	2.1	2.4	26	109	.11	3	.9	1.0	25	MER
		28	1342	8.56	19	21.10	155	6.96	4.22	2.2	2.3	28	88	.13	5	.7	2.8	25	UER
		28	2356	35.30	19	20.57	155	16.54	30.18	3.4	3.4	35	78	.18	2	.9	1.6	30	DEP
		29	158	34.46	19	24.83	155	25.15	7.72	2.4	2.6	32	36	.15	6	.6	1.8	30	UKF
		29	2 0	1.16	19	20.49	155	13.52	8.71	2.2	2.3	29	59	.10	4	.6	.9	28	UER
		29	1736	26.43	19	21.33	155	6.00	7.68	2.2	2.4	30	90	.11	6	.7	1.1	29	UER
		29	1740	39.90	19	21.30	155	6.07	7.97	2.4	2.8	30	90	.10	6	.6	1.1	28	UER
		29	1935	20.06	19	21.05	155	2.09	7.25	2.2	2.5	28	170	.16	3	1.0	.8	26	MER
		30	042	58.92	19	20.28	155	7.02	8.68	2.7	3.0	31	102	.10	6	.8	.9	31	UER
		30	1528	51.81	19	23.87	154	56.43	9.00	2.4	2.4	27	209	.17	5	1.4	.9	22	LER
		31	0 4	19.77	19	22.73	155	2.39	8.86	3.0	3.3	32	170	.12	5	.9	.7	30	MER
		31	443	22.85	19	24.15	155	2.44	8.69	1.2	1.0	21	144	.14	3	1.2	1.0	20	MER
		31	522	6.28	19	21.35	155	2.91	8.58	2.3	2.4	29	182	.12	6	.9	.7	24	MER
		31	723	8.47	19	20.50	155	10.62	8.23	2.0	2.2	26	83	.09	3	.6	1.1	25	UER
	AUG	1	18 2	8.00	19	20.02	155	7.54	8.33	2.1	2.2	28	98	.10	5	.8	1.0	27	UER
		1	1948	3.74	19	10.26	155	28.32	7.39	2.5	2.4	27	136	.20	2	1.4	1.4	27	LSW
		1	2022	36.14	19	11.97	155	26.08	.10	2.3	2.5	27	101	.17	5	.6	2.6	27	LSW
		2	637	35.75	19	26.91	155	29.66	9.32	2.2	2.2	30	56	.13	9	.7	1.4	28	UKF
		2	1444	30.30	19	18.57	155	13.44	8.86	2.5	2.9	33	79	.11	3	.7	1.0	30	POL
		2	15 4	59.54	19	19.37	155	15.18	6.97	2.1	2.2	29	86	.13	4	.7	1.1	28	KOA
		3	235	10.04	19	20.01	155	8.26	9.25	2.8	3.3	35	82	.09	5	.6	.8	33	UER
		3	1022	41.92	18	58.32	155	28.86	33.86	2.6	1.9	28	233	.13	19	2.1	3.3	27	DIS
		3	1750	5.11	19	24.68	155	25.48	8.22	2.1	2.3	28	49	.13	6	.6	1.6	27	UKF
		4	135	23.65	19	20.58	155	13.33	7.16	2.0	2.4	33	61	.12	4	.6	.9	31	UER
		4	426	1.43	19	19.83	155	12.46	9.60	2.7	3.1	33	79	.11	5	.6	.8	31	UER
		4	1555	37.95	19	22.74	155	2.02	7.46	2.3	2.5	31	146	.14	5	.8	.9	29	MER
		5	550	58.19	19	19.94	155	7.85	8.20	2.2	2.3	24	93	.10	5	.9	1.1	24	UER
		5	744	25.52	19	24.19	155	1.34	7.64	2.3	2.3	29	131	.20	5	1.0	1.1	28	MER
		5	1931	12.12	19	20.67	155	2.08	4.68	2.4	1.9	21	183	.14	2	1.3	1.7	17	MER
		5	2119	59.99	19	21.21	155	6.31	7.16	2.1	1.8	24	90	.12	6	.7	1.7	21	UER
		6	2239	58.52	19	49.05	156	2.44	9.54	3.1	2.3	22	280	.13	26	1.9	1.7	21	KON
		7	653	54.91	19	19.42	155	10.62	9.45	2.8	2.9	33	100	.11	5	.7	.8	30	UER
		7	9 4	9.97	19	17.77	155	22.42	7.10	2.3	3.0	35	118	.14	5	.6	1.2	33	SWR
		7	13 1	18.15	19	10.74	155	31.36	35.08	2.7	2.6	32	142	.11	13	1.3	2.8	30	LSW
		7	1841	58.93	19	25.19	155	24.96	9.50	2.3	2.7	33	36	.15	7	.6	1.1	32	UKF
		7	2154	20.32	19	20.07	155	13.30	10.29	4.1	4.2	38	66	.10	5	.5	.6	36	UER
		8	143	41.36	19	11.57	155	28.38	1.35	2.4	2.6	27	116	.15	4	1.3	3.8	27	LSW

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	AUG	8	334	32.48	19	13.28	155	2.43	48.26	3.3	3.2	35	2	220	.11	12	1.4	2.5	33	DIS
		8	652	22.36	19	12.22	155	27.80	47.61	2.6	2.5	36	4	147	.12	8	1.3	1.7	34	LSW
		8	711	28.07	19	24.51	155	1.85	10.10	2.3	2.8	32	2	116	.10	4	.8	.7	30	MER
		8	815	38.31	19	20.36	155	10.76	7.38	2.0	2.2	29	0	80	.12	4	.7	1.1	28	UER
		8	1224	35.61	19	20.35	155	11.77	10.48	2.4	2.4	30	1	77	.12	5	.6	.8	25	UER
		8	1247	45.99	19	20.64	155	12.84	8.08	1.9	2.0	28	0	65	.16	4	.7	1.1	26	UER
		8	20 4	15.92	19	11.48	155	27.53	42.75	2.6	2.5	33	1	117	.13	4	1.4	3.0	32	LSW
		9	136	35.44	19	20.93	155	11.57	8.28	2.2	2.2	33	1	39	.10	4	.6	.9	25	UER
		9	1620	56.73	19	20.72	155	15.95	.82	1.8	2.3	13	0	76	.08	3	.5	1.0	13	KOA
		10	124	14.01	19	19.44	155	11.79	6.74	2.4	2.7	35	2	95	.12	5	.6	1.0	28	UER
		10	1919	16.79	19	19.26	155	11.56	8.19	3.8	4.0	35	3	101	.09	5	.6	.8	29	UER
		10	2018	59.48	19	26.86	154	55.59	6.40	2.3	2.0	24	0	180	.14	5	1.7	1.2	24	LER
		10	2343	4.94	19	19.98	155	13.97	9.26	3.2	3.7	32	2	59	.10	5	.5	.7	28	UER
		11	022	33.64	19	17.66	155	16.84	10.29	2.8	3.1	28	0	129	.14	3	.9	.7	24	KOA
		11	640	41.45	19	19.80	155	13.09	8.57	2.7	3.2	31	2	72	.13	5	.6	.9	28	UER
		11	741	51.88	19	18.40	155	15.85	8.28	2.2	2.2	23	0	111	.10	5	.7	1.2	21	KOA
		11	1323	28.34	19	57.90	155	26.97	27.55	2.3	1.6	29	4	250	.12	14	1.6	2.5	26	KKU
		12	1333	58.49	19	19.79	155	48.02	12.18	3.4	3.3	31	0	98	.12	10	.9	.7	31	KON
		12	1530	18.47	19	38.11	155	46.03	3.98	2.5	2.2	13	1	148	.32	9	1.6	11.7	13	KON
		12	1615	14.32	20	.47	155	44.86	9.57	2.9	2.4	29	2	149	.16	14	1.1	1.5	26	KOH
		12	1812	19.36	19	19.75	155	8.51	5.56	2.2	2.2	27	0	79	.11	5	.9	1.6	26	UER
		13	033	42.49	19	19.21	155	13.81	7.27	2.3	2.4	23	0	85	.09	4	.9	1.2	20	UER
		13	748	3.74	19	20.40	155	2.76	6.72	2.6	3.1	27	2	154	.13	1	.8	1.1	22	MER
		13	1224	28.46	20	9.71	155	36.36	4.61	4.1	3.8	37	2	231	.36	19	2.9	2.1	28	KOH
		14	1140	45.61	19	24.64	155	15.89	2.32	1.9	2.6	11	0	133	.26	2	1.3	1.0	10	SPC
		14	1146	35.19	19	23.48	155	15.76	6.22	2.7	2.9	20	2	53	.19	3	.7	1.7	16	LPC
		14	2229	10.86	19	20.07	155	8.38	9.88	2.2	2.1	21	2	181	.14	5	1.3	1.1	18	UER
		15	1011	49.24	19	20.42	155	12.02	7.62	2.0	2.3	23	0	75	.10	5	.8	1.1	21	UER
		15	1833	41.95	19	20.62	155	15.39	.44	1.8	2.4	14	0	175	.11	4	1.0	1.7	14	KOA
		15	1836	15.09	19	19.59	155	15.12	.20	2.7	3.6	26	2	106	.24	4	.6	.7	24	KOA
		15	21 8	20.53	19	20.89	155	2.57	6.15	2.3	2.6	25	2	153	.15	2	1.0	1.5	20	MER
		15	2134	9.09	19	26.47	155	24.51	.76	2.3	2.6	23	2	47	.15	7	.6	.8	21	UKF
		16	013	27.79	19	21.09	155	1.34	12.11	2.3	2.3	20	2	252	.14	8	2.7	1.1	16	MER
		16	21 5	10.03	19	20.89	155	6.27	8.74	2.3	2.1	27	1	98	.12	6	.8	1.0	25	UER
		17	156	51.55	19	14.08	155	33.21	10.31	2.8	3.0	32	3	121	.19	7	.9	1.2	30	LSW
		17	356	3.72	19	19.22	155	15.69	6.76	2.1	1.9	29	0	94	.13	6	.7	1.2	22	KOA
		17	443	.49	19	20.48	155	5.87	8.15	2.5	2.6	27	2	112	.10	5	.6	1.1	23	MER
		17	515	5.96	19	21.06	155	5.86	8.20	2.9	3.2	29	2	97	.11	5	.6	1.1	26	MER
		17	1452	49.06	19	24.01	154	53.18	9.27	2.6	2.8	26	0	247	.12	9	3.1	.9	24	LER
		17	18 7	5.55	19	21.23	155	2.76	6.81	2.0	2.2	28	2	140	.13	2	.8	1.1	26	MER
		18	321	44.21	19	23.86	155	2.51	9.59	2.0	2.2	28	1	120	.13	4	1.1	.8	28	MER
		18	827	6.64	19	25.79	155	27.76	10.76	2.7	3.0	34	0	42	.12	6	.6	.9	30	UKF
		18	20 9	30.56	19	19.74	155	11.06	8.70	2.4	2.4	29	2	92	.13	5	.6	1.0	24	UER
		18	2130	44.02	19	22.19	155	6.32	7.74	2.4	2.3	27	0	73	.10	6	.7	1.2	23	UER
		18	2318	55.01	19	20.18	155	3.64	5.72	2.1	2.3	28	1	125	.16	1	1.0	1.4	25	MER
		19	340	17.33	19	21.67	155	17.99	2.97	1.6	2.1	18	0	53	.10	4	.6	1.5	18	KOA
		19	819	13.34	19	19.71	155	7.05	10.15	4.2	4.1	36	1	114	.09	5	.7	.5	33	UER
		19	851	48.70	19	19.13	155	26.56	7.57	2.0	2.2	21	1	114	.15	6	.8	1.6	18	HEA

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	AUG	19	937	.64	19	24.88	155	27.58	9.87	2.4	2.3	23	3	53	.14	4	.6	1.4	16	UKF
		19	1023	24.99	19	20.24	155	9.56	7.70	1.8	1.9	16	0	78	.08	3	1.1	2.0	14	UER
		19	1644	30.75	19	21.24	155	6.90	6.72	2.0	1.9	24	2	86	.11	5	.7	1.8	20	UER
		19	2033	33.55	19	23.32	155	16.82	3.21	1.5	1.8	14	1	65	.05	2	.5	.9	12	SPC
		21	238	47.50	19	19.91	155	12.52	7.62	1.6	1.5	19	0	78	.09	5	.8	1.6	15	UER
		21	432	44.30	19	22.43	155	2.92	7.18	1.9	1.9	16	1	126	.08	5	.8	1.7	10	MER
		21	1046	16.99	19	19.90	155	7.92	8.45	2.0	1.9	28	2	92	.09	5	.6	1.1	26	UER
		21	1443	45.24	20	1.26	155	44.64	6.59	3.1	2.4	32	2	271	.22	38	3.6	1.4	29	KOH
		21	1959	42.51	19	28.44	154	51.88	4.96	2.0	2.1	22	1	265	.20	5	1.8	1.6	22	LER
		21	23 1	39.87	19	26.76	155	24.03	6.91	2.0	2.0	28	2	44	.17	6	.6	2.4	24	UKF
		22	040	26.14	19	55.14	155	42.14	9.08	1.7	1.6	18	0	140	.19	25	1.2	1.6	15	KOH
		22	411	30.79	19	22.13	155	5.44	7.59	2.0	1.8	26	2	74	.11	5	.6	1.2	22	MER
		22	846	11.08	19	22.12	155	10.70	3.54	2.0	1.9	25	0	57	.08	2	.6	1.0	22	UER
		22	925	49.47	19	23.71	155	16.94	2.55	1.6	2.3	9	0	71	.07	2	.6	.9	8	SPC
		22	1158	56.84	19	23.85	155	16.19	2.57	1.6	2.2	12	0	97	.10	2	.7	.7	12	SPC
		22	1233	49.10	19	21.33	155	6.01	7.71	2.2	2.2	28	2	90	.13	6	.6	1.2	25	UER
		22	1722	40.24	18	34.45	154	58.70	22.30	2.2	2.9	25	0	319	.18	81	23.0	17.6	23	BLS
		22	1811	53.28	18	49.96	154	57.15	13.11	2.7	2.9	15	0	303	.24	56	18.0	99.0	14	BLS
		22	1842	56.75	19	9.65	155	2.81	7.05	2.3	3.1	24	1	256	.90	19	11.0	4.6	22	BLS
		22	2112	54.66	19	17.43	154	53.42	19.52	1.6	2.6	19	0	267	.43	17	9.8	5.2	17	BLS
		22	2128	.93	19	15.29	155	7.46	6.94	1.1	2.8	18	2	2265.58		11	32.9	34.9	13	BLS
		22	2142	16.54	17	33.59	152	5.40	6.88	3.5	3.0	25	7	349	.62364		60.3	78.6	20	BLS
		22	2357	15.17	19	26.77	155	24.07	9.16	2.7	3.5	35	2	45	.15	6	.5	1.3	30	UKF
		23	232	46.10	19	19.34	155	11.64	6.23	2.1	2.2	27	2	99	.14	5	.7	1.4	25	UER
		23	11 5	32.66	19	22.12	155	25.57	8.90	2.1	1.9	26	0	106	.12	4	.8	1.3	25	UKF
		23	1128	46.44	19	22.16	155	14.69	1.90	2.1	2.2	18	2	77	.24	2	.7	.6	16	UER
		23	1227	53.58	19	22.16	155	6.23	7.57	2.4	2.0	26	1	74	.13	6	.7	1.4	24	UER
		23	1646	59.62	19	23.93	155	15.96	3.16	1.9	2.1	16	0	106	.09	3	.7	.8	16	SPC
		23	20 5	49.07	19	20.77	155	6.33	8.83	2.2	2.0	29	2	101	.11	6	.7	1.0	27	UER
		23	21 2	33.34	19	20.57	155	10.86	8.43	2.1	2.1	27	2	77	.10	3	.6	1.2	23	UER
		24	041	16.12	19	23.55	155	21.62	8.06			18	0	82	.12	3	.9	1.9	18	UKF
		24	316	29.85	19	16.53	155	27.14	8.27	2.1	1.9	29	0	110	.12	1	.8	1.1	28	HEA
		24	1025	9.58	19	20.22	155	13.24	8.34	2.5	3.0	22	0	66	.10	5	.7	1.3	18	UER
		24	1316	9.91	19	20.88	155	2.01	6.90	2.6	2.8	28	1	178	.18	2	1.1	.9	23	MER
		24	1952	46.92	19	20.67	155	12.72	8.57	1.9	2.1	26	0	66	.10	4	.6	.9	26	UER
		24	20 7	13.81	19	19.46	155	11.33	9.94	3.6	3.8	37	2	97	.09	6	.5	.6	33	UER
		24	2132	22.19	19	19.65	155	11.34	8.25	2.1	2.1	29	0	93	.11	5	.6	1.0	28	UER
		25	1613	36.93	19	19.63	154	54.64	11.26	2.5	2.7	22	1	253	.15	12	2.6	1.1	17	DIS
		25	1924	46.98	19	19.70	155	16.34	8.92	2.5	2.7	30	0	93	.12	2	.7	.8	28	KOA
		25	2232	17.53	19	23.78	155	15.99	2.72	2.0	2.9	22	1	43	.11	3	.5	.7	19	SPC
		26	20 2	16.40	19	19.31	155	8.91	9.51	2.1	2.3	32	2	87	.10	4	.6	1.0	28	UER
		27	531	34.97	19	20.83	155	6.09	7.57	2.0	1.8	28	1	101	.12	6	.7	1.5	25	UER
		27	1012	54.09	19	21.63	155	20.56	31.14	2.5	2.5	36	1	66	.11	4	.8	1.7	28	DEP
		27	1811	8.33	19	19.82	155	6.22	9.22	2.5	2.3	30	1	126	.10	6	.7	.8	28	UER
		28	444	12.57	19	20.81	155	1.25	7.49	2.3	2.0	24	2	199	.19	3	1.3	1.2	20	MER
		28	1618	48.23	19	6.15	155	21.23	41.26	2.5	2.3	31	2	207	.11	22	1.8	2.1	31	LSW
		29	153	5.86	19	18.93	155	15.65	6.69	2.0	2.0	32	3	120	.16	4	.6	1.1	28	KOA
		29	328	45.91	19	24.05	155	22.89	9.05	2.0	2.3	31	2	43	.12	6	.5	1.2	29	UKF

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	GAP NS	DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	AUG	29	1216	25.18	19	10.31	155	28.91	36.73	2.6	2.3	31	0	153	.12	12	1.3	2.9	27	LSW
		29	1723	2.48	19	23.63	155	16.81	3.00	1.9	2.7	20	0	45	.11	2	.6	.7	16	SPC
		29	2137	53.29	19	20.20	155	6.62	9.23	2.9	3.2	33	1	111	.10	6	.7	.7	30	UER
		30	035	7.24	19	22.86	155	4.07	8.08	2.8	3.2	31	1	94	.09	3	.7	.9	28	MER
		30	1 4	46.29	19	59.17	156	5.39	10.05	3.4	3.4	36	1	186	.27	36	1.7	1.4	32	DIS
		30	246	21.34	19	22.61	155	27.37	10.35	3.9	4.0	37	1	61	.14	0	.5	.8	33	UKF
		30	423	49.76	19	23.24	155	14.74	2.74	2.1	2.7	23	0	46	.17	3	.6	.8	23	GLN
		30	443	9.67	19	20.81	155	3.69	6.75	2.2	2.2	27	3	91	.13	2	.7	1.2	23	MER
		30	510	46.01	19	31.56	155	28.03	4.87	2.5	2.7	34	0	53	.17	1	.6	1.6	33	NER
		30	6 6	58.79	19	19.54	155	12.53	7.34	2.0	2.2	31	2	84	.15	5	.7	1.0	28	UER
		30	1412	43.24	19	22.70	155	4.28	7.80	2.8	2.9	30	1	90	.14	3	.7	1.1	25	MER
		30	2038	16.00	19	19.98	155	29.90	9.26	2.3	2.1	30	0	66	.13	6	.7	1.5	26	HEA
		30	2157	45.60	19	21.39	155	6.97	8.07	2.6	2.6	30	2	82	.09	5	.6	1.0	27	UER
		30	2233	11.35	19	20.39	155	6.84	7.48	2.1	2.0	27	2	103	.14	6	.7	1.4	24	UER
		31	049	29.89	19	20.80	155	8.93	9.44	1.9	1.9	28	1	67	.11	3	.6	1.0	21	UER
		31	514	.84	19	22.46	155	48.48	1.62		1.9	18	3	145	.21	14	.9	1.1	15	KON
		31	521	38.69	19	19.74	155	12.98	5.90	1.9	1.6	33	2	74	.13	5	.6	1.1	28	UER
		31	1153	17.40	19	23.07	155	2.67	6.83	2.5	3.0	30	2	125	.17	4	.7	1.2	26	MER
		31	1237	5.57	19	18.41	155	13.17	8.34	2.2	2.4	31	0	91	.11	3	.7	.8	29	POL
		31	1414	35.11	19	22.11	155	6.81	6.62	2.7	3.1	33	1	73	.12	5	.7	1.4	31	UER
		31	1537	20.69	19	20.07	155	8.21	7.61	2.3	2.3	32	2	84	.13	5	.6	1.3	29	UER
		31	2044	41.43	20	5.46	155	18.14	5.82	2.7	2.8	22	3	300	.29	23	2.3	1.6	20	DIS
		31	2325	23.87	19	19.44	155	11.49	6.81	2.1	2.1	33	2	97	.13	6	.6	1.1	27	UER
	SEP	1	641	59.08	19	21.84	155	6.52	8.23	2.3	2.6	28	2	78	.10	6	.6	1.1	26	UER
		1	7 9	38.22	19	23.08	155	24.23	8.93	1.8	1.9	29	0	41	.12	6	.6	1.3	29	UKF
		1	1340	3.86	19	42.23	155	1.47	7.79	2.5	2.9	26	0	208	.23	23	1.7	1.5	26	HIL
		1	1718	34.29	19	24.38	155	26.15	9.81	2.2	2.3	32	1	40	.15	4	.6	1.2	27	UKF
		1	1836	21.38	19	19.47	155	11.82	5.97	1.9	1.9	31	2	93	.10	5	.6	1.3	26	UER
		2	0 5	57.52	19	22.15	155	3.43	7.67	2.0	2.1	27	0	112	.13	4	.9	1.0	24	MER
		2	224	29.19	19	24.71	155	23.35	10.81	1.9	2.0	27	1	42	.12	7	.6	1.1	21	UKF
		2	4 1	49.50	19	23.66	155	15.49	2.66	1.9	2.5	24	0	44	.11	2	.5	.7	23	SPC
		2	526	48.44	19	23.56	155	15.30	2.88	1.7	1.9	16	0	83	.11	2	.7	.8	16	SPC
		2	948	40.22	19	20.83	155	5.92	4.63	2.1	2.3	25	2	102	.14	6	.9	5.8	19	MER
		2	1120	44.23	19	22.49	155	3.11	7.99	2.3	2.3	27	1	119	.15	4	.9	1.0	24	MER
		2	1813	15.51	19	20.74	155	12.82	7.69	2.0	2.1	31	1	64	.13	4	.6	1.0	28	UER
		2	2322	14.16	19	23.07	155	14.93	3.12	1.6	2.1	15	0	64	.07	2	.6	.8	14	GLN
		3	040	17.69	19	22.87	155	3.76	9.02	2.8	3.0	33	0	101	.10	3	.9	.6	29	MER
		3	321	59.09	19	24.75	155	28.92	8.67	2.2	2.0	33	0	50	.16	5	.6	1.3	32	UKF
		3	356	59.63	19	16.31	155	23.49	3.11	1.8	2.2	29	0	127	.14	6	.9	2.9	28	SWR
		3	1810	37.28	19	21.21	155	6.12	7.20	2.3	2.7	28	0	92	.11	6	.7	1.3	27	UER
		3	1816	42.44	19	19.71	155	11.62	7.34	1.7	2.1	29	0	90	.10	5	.7	1.0	29	UER
		3	1940	42.17	19	22.79	155	16.69	6.99	2.9	3.4	14	0	85	.11	12	1.2	7.7	13	KOA
		4	416	15.17	19	23.04	155	16.84	2.60	1.9	2.5	22	0	41	.12	2	.5	.8	21	SPC
		4	921	57.90	19	22.98	155	29.93	7.93	1.9	2.1	32	0	47	.13	4	.7	1.4	31	UKF
		4	1144	33.10	19	26.14	155	27.85	10.10	3.1	3.3	35	0	48	.14	7	.7	1.0	32	UKF
		5	159	21.19	19	26.84	155	45.81	7.64	3.1	2.9	30	1	58	.14	7	.7	1.4	30	KON
		5	416	59.91	19	27.27	154	50.74	5.79	2.4	1.9	26	2	272	.22	6	2.2	1.5	25	LER
		5	820	37.84	19	21.77	155	12.67	2.93	1.9	2.5	26	0	56	.11	2	.6	.8	25	UER

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	GAP NS	DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	SEP	5	940	35.90	21	44.11	157	46.65	8.84	4.2	2.6	37	7	344	1.10	274	59.0	79.5	35	DIS
		5	1934	2.24	19	21.90	155	7.35	5.21	1.8	2.2	29	0	73	.16	4	.8	2.3	27	UER
		5	2323	44.53	19	19.83	155	11.41	8.43	2.0	2.3	28	0	89	.08	5	.6	.9	25	UER
		5	2331	33.07	19	20.80	155	10.77	7.49	2.0	2.1	31	0	73	.13	3	.7	1.0	31	UER
		6	2 8	48.98	19	19.98	155	8.25	8.92	2.9	3.1	33	0	83	.09	5	.7	.7	32	UER
		6	227	52.62	19	19.25	155	15.79	10.32	2.4	3.1	31	0	95	.10	3	.7	.6	30	KOA
		6	541	33.93	19	18.78	155	13.23	9.18	2.8	3.2	34	0	83	.11	3	.7	.8	32	POL
		6	625	49.42	19	23.66	155	16.10	2.96	1.6	2.4	13	0	92	.10	2	.7	.9	13	SPC
		6	916	14.01	19	20.08	155	12.89	8.53	1.9	2.4	27	0	71	.09	5	.7	1.1	25	UER
		6	934	17.85	19	26.53	155	23.60	9.62	2.1	2.3	28	0	48	.12	6	.7	1.4	27	UKF
		6	1617	13.29	19	21.70	155	2.86	6.77	2.0	1.9	26	0	132	.16	3	1.1	1.2	24	MER
		6	1621	27.14	19	44.56	155	25.68	15.48	2.6	2.4	31	0	68	.10	5	.7	1.1	27	KKU
		6	1739	47.53	19	22.97	155	14.81	2.63	1.9	2.2	20	0	60	.16	2	.6	.7	20	UER
		6	1741	11.62	19	23.02	155	14.90	2.90	2.3	2.9	26	0	48	.12	2	.6	.8	23	GLN
		6	2312	1.06	19	19.85	155	18.20	40.25	2.7	2.2	34	0	71	.08	1	1.1	2.3	29	DEP
		7	310	5.29	19	16.40	154	58.03	12.06	2.4	1.8	22	2	238	.37	16	4.3	1.5	20	DIS
		7	1351	6.71	19	22.52	155	19.32	31.26	4.5	4.3	33	0	49	.10	2	1.0	1.9	27	DEP
		7	1357	13.80	19	22.91	155	15.55	25.93		2.0	26	0	50	.09	1	1.1	2.4	25	DEP
		7	1431	2.77	19	23.08	155	24.75	8.60		2.3	28	0	39	.13	5	.6	1.4	27	UKF
		7	1655	11.20	19	18.98	155	15.68	7.83		2.0	28	0	118	.12	4	.7	1.0	26	KOA
		7	2050	37.14	19	22.75	155	19.97	29.62		2.2	34	0	54	.11	2	1.0	1.8	31	DEP
		8	135	8.96	19	27.39	154	53.54	6.43		2.1	27	0	226	.12	3	2.2	1.0	25	LER
		8	252	13.23	19	19.29	155	8.70	7.10		2.0	28	0	84	.11	4	.8	1.3	26	UER
		8	746	14.03	19	21.85	155	12.53	3.40		2.1	20	0	74	.08	2	.6	.9	20	UER
		8	1129	33.30	19	22.09	155	6.28	7.92	2.4	2.7	31	0	75	.10	6	.7	1.0	31	UER
		8	1832	12.92	19	23.27	155	1.12	7.90	2.1	2.0	26	0	156	.16	5	1.3	.8	26	MER
		8	1922	59.36	19	20.21	155	6.95	8.34	1.9	2.2	26	0	105	.10	6	.9	1.0	26	UER
		8	2230	52.57	19	20.26	155	11.16	7.35	2.1	2.3	32	0	82	.12	4	.7	1.0	31	UER
		8	2339	49.86	19	24.05	155	17.54	16.44	2.9	2.8	32	0	36	.10	2	.7	.8	31	DEP
		9	049	14.80	19	20.82	155	9.26	7.07	1.8	2.0	25	0	67	.09	3	.7	1.4	24	UER
		9	355	20.29	19	23.00	155	14.90	2.95	1.5	1.8	19	0	66	.13	2	.6	.7	18	GLN
		9	658	22.37	19	18.74	155	13.59	9.39	2.3	2.7	31	0	72	.09	3	.6	.8	30	POL
		9	10 0	55.25	19	9.49	155	28.13	33.32	2.7	2.7	30	2	145	.15	1	1.2	2.5	24	LSW
		9	1031	39.42	19	20.80	155	7.28	7.82	1.9	2.0	19	2	89	.10	5	.9	1.4	14	UER
		9	1149	38.10	19	22.79	155	19.45	29.51	2.3	2.4	30	2	54	.10	2	1.0	1.1	24	DEP
		9	1325	26.68	19	20.04	155	7.57	8.62	2.2	2.4	24	0	97	.10	5	.8	1.3	20	UER
		9	17 9	55.21	19	20.65	155	7.46	9.04	3.4	3.5	32	1	90	.09	5	.6	.8	28	UER
		9	2235	34.76	19	25.32	155	27.40	10.71	2.1	2.3	30	1	45	.15	5	.7	1.3	25	UKF
		10	450	2.94	19	23.69	155	16.77	2.84	2.3	2.6	20	1	71	.10	2	.5	.7	16	SPC
		10	753	55.52	19	21.96	155	9.22	3.71	1.7	2.0	19	0	71	.07	1	.8	1.1	17	UER
		10	1111	39.61	19	23.25	155	30.46	8.98	2.4	2.1	22	0	103	.15	5	.9	2.1	18	MOK
		10	1159	54.51	19	20.65	155	13.13	7.70	1.5	1.9	22	1	63	.12	4	.9	1.4	16	UER
		10	1257	57.60	19	20.80	155	11.30	8.48	1.8	1.9	20	0	98	.10	3	.9	1.5	18	UER
		10	13 3	47.72	19	24.05	155	16.03	3.04	1.9	2.3	16	1	108	.06	2	.5	.7	14	SPC
		10	1323	8.76	19	21.39	155	3.14	7.00	2.0	2.4	21	2	122	.10	3	.8	1.1	17	MER
		10	14 4	41.87	19	23.29	155	14.69	3.19	1.8	2.1	13	0	70	.07	2	.7	.8	11	GLN
		10	2150	9.33	19	23.44	155	23.80	8.95	1.6	1.9	23	1	66	.11	6	.7	1.4	23	UKF
		11	014	17.77	20	5.91	155	42.72	20.22	2.1	1.8	27	5	98	.17	8	1.1	2.8	18	KOH

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	SEP	11	021	23.99	19	19.33	155	11.61	8.09	1.7	2.2	22	0	99	.10	5	.8	1.4	20	UER
		11	534	22.45	19	19.53	155	9.41	7.05		1.5	21	1	91	.09	5	.8	1.6	21	UER
		11	938	21.38	19	21.38	155	15.58	27.57	2.3	2.1	33	2	66	.09	2	.9	1.4	29	DEP
		11	950	42.40	19	47.86	155	34.35	20.43	2.5	2.6	31	2	179	.11	12	1.1	2.6	30	KKU
		11	11 1	53.36	19	23.98	155	15.94	2.14	1.4	2.4	18	1	106	.15	3	.5	.7	18	SPC
		11	11 5	42.19	19	23.47	155	15.24	3.40	1.4	2.1	15	2	99	.10	2	.6	.9	13	SPC
		11	12 3	41.81	19	19.65	155	11.73	7.14	1.7	2.2	27	0	91	.10	6	.8	1.3	25	UER
		11	1350	11.79	19	19.70	155	9.83	8.09	1.8	2.1	23	0	91	.10	4	.8	1.5	23	UER
		11	1837	49.57	19	20.53	155	7.50	6.82	2.3	2.9	28	0	90	.12	5	.7	1.4	27	UER
		11	2018	46.84	19	22.17	155	19.65	30.61	2.1	1.8	42	7	46	.11	3	.8	1.0	35	DEP
		11	2215	15.33	19	31.29	155	41.84	8.79	2.4	1.9	26	3	61	.19	7	.7	2.0	22	MOK
		11	2244	32.67	19	21.76	155	12.65	2.93	1.8	2.4	24	0	56	.08	2	.5	.8	24	UER
		12	037	18.67	19	20.19	155	11.55	8.65	2.2	3.0	32	0	62	.11	5	.7	.9	32	UER
		12	836	26.77	19	21.24	155	25.63	10.07		2.3	28	0	75	.12	4	.7	1.3	26	HEA
		12	9 3	21.59	19	19.77	155	10.71	8.59	2.4	3.1	30	1	106	.10	5	.6	1.0	28	UER
		12	10 8	25.67	19	23.96	155	15.77	3.48	2.0	3.1	26	0	72	.11	3	.6	.8	25	SPC
		12	1041	11.34	19	17.11	155	23.25	3.43		2.3	27	0	131	.22	6	.9	3.7	25	SWR
		12	1244	16.65	19	25.92	155	17.50	15.57	2.9	3.4	34	2	29	.13	2	.6	.7	31	DEP
		12	1641	29.44	19	23.69	155	18.08	9.60		1.4	12	0	93	.10	3	1.2	2.0	11	LPC
		12	1754	5.38	19	24.66	154	58.45	8.40	1.6	1.7	29	4	174	.16	1	1.0	1.1	25	LER
		12	19 1	29.53	19	21.32	155	6.47	3.94	1.6	2.1	31	2	88	.17	6	.7	3.2	29	UER
		12	19 9	25.89	19	19.78	155	8.32	6.68		1.9	29	0	83	.11	5	.7	1.4	25	UER
		12	1931	2.66	19	23.28	155	16.68	3.84		3.1	22	0	42	.09	2	.6	1.3	20	SPC
		12	2133	21.66	19	22.11	155	11.47	2.59	1.6	2.0	18	0	94	.15	3	.9	1.4	14	UER
		12	22 4	35.56	19	21.72	155	10.55	6.11	2.4	2.6	27	1	61	.19	5	.7	1.6	22	UER
		12	2212	1.09	19	21.50	155	12.61	3.74	2.1	2.2	24	2	98	.22	2	.8	1.4	19	UER
		12	2229	2.72	19	21.78	155	13.00	2.55	1.3	2.0	20	0	54	.08	2	.5	.7	18	UER
		12	2246	53.88	19	21.26	155	12.69	1.33	1.9	2.3	23	2	60	.14	3	.5	.7	20	UER
		12	2248	24.35	19	21.50	155	12.71	2.15	2.1	2.3	17	2	58	.14	2	.6	.8	13	UER
		12	23 6	34.27	19	19.27	155	11.72	5.21	1.4	1.5	25	0	99	.13	5	.8	1.8	24	UER
		12	23 7	15.74	19	25.01	155	16.86	3.80		2.4	6	0	148	.14	0	1.6	1.4	2	SPC
		12	2341	41.23	19	22.42	155	10.21	3.18	1.8	2.1	24	0	53	.21	1	.8	1.0	20	UER
		12	2354	10.10	19	22.20	155	9.92	3.27	1.9	2.1	23	0	55	.12	0	.7	.8	22	UER
		13	024	55.21	19	22.45	155	10.08	3.69	2.2	2.7	26	0	53	.10	1	.7	.9	20	UER
		13	028	4.65	19	23.87	155	17.02	1.24		2.0	8	0	73	.17	2	.6	1.0	7	SPC
		13	049	59.47	19	22.37	155	9.81	3.13	1.8	1.5	20	0	50	.14	1	.7	.8	17	UER
		13	050	17.29	19	22.36	155	9.95	3.27	1.9	2.5	15	0	53	.10	1	.7	.8	12	UER
		13	1 4	39.88	19	25.23	155	15.98	4.18	3.0	3.5	33	0	46	.16	3	.6	1.9	32	SPC
		13	115	4.56	19	19.58	155	29.93	8.27	2.3	2.3	29	2	70	.17	7	.7	1.6	28	HEA
		13	116	8.33	19	22.57	155	10.13	3.58	2.5	2.7	31	0	52	.13	1	.6	1.0	30	UER
		13	132	46.23	19	24.58	155	17.27	2.01	1.1	1.9	9	0	81	.12	1	.8	.6	9	SPC
		13	150	49.12	19	22.70	155	9.89	3.49	2.0	2.4	26	0	55	.15	6	.8	3.0	23	UER
		13	158	39.70	19	22.35	155	9.90	.32	2.6	2.9	30	2	54	.13	6	.6	.7	24	UER
		13	218	16.88	19	20.71	155	7.41	8.88	2.6	2.5	27	1	89	.17	6	.7	1.0	23	UER
		13	227	45.67	19	22.77	155	8.00	3.82	1.9	2.0	23	0	59	.16	4	.8	1.9	17	UER
		13	3 1	32.26	19	22.30	155	10.13	2.38	2.4	2.6	25	2	54	.20	1	.6	.6	21	UER
		13	3 3	41.39	19	23.50	155	17.06	2.50	1.9	2.0	11	0	55	.19	3	.8	1.1	11	SPC
		13	340	29.89	19	24.05	155	17.24	.02	.9	2.2	8	0	66	.51	2	1.0	2.4	8	SPC

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	SEP	13	357	5.61	19	21.84	155	6.46	8.24	3.0	3.0	35	2	78	.11	6	.6	.9	31	UER
		13	358	22.53	19	21.66	155	7.11	7.86	2.2	1.6	26	2	78	.12	7	.6	1.3	22	UER
		13	421	2.18	19	22.16	155	10.70	2.22	2.2	2.3	26	1	57	.34	2	.7	.9	24	UER
		13	432	1.51	19	21.58	155	9.60	2.81	2.0	2.2	28	2	60	.18	1	.6	.8	26	UER
		13	446	.51	19	23.78	155	16.89	2.49	1.9	2.1	9	0	74	.10	2	.6	.9	9	SPC
		13	447	13.45	19	21.87	155	10.24	3.24	2.5	2.6	29	1	59	.14	1	.6	.8	27	UER
		13	5 1	46.29	19	25.10	155	18.36	.00	1.1	1.8	8	0	140	.15	2	.9	1.3	6	SPC
		13	512	35.16	19	27.03	155	18.16	2.40	1.7	1.9	9	0	170	.42	4	2.4	4.1	9	GLN
		13	6 0	4.45	19	21.62	155	6.32	8.76	3.3	3.4	37	2	82	.11	6	.5	.8	32	UER
		13	6 2	57.84	19	19.73	155	2.94	5.98	2.4	1.9	21	2	200	.12	0	1.1	1.8	18	MER
		13	6 4	13.42	19	19.60	155	2.83	8.84	2.7	2.3	34	2	203	.13	1	1.1	.7	30	MER
		13	611	45.26	19	22.45	155	9.88	3.63	2.0	1.7	23	0	55	.10	1	.7	1.0	19	UER
		13	7 5	35.99	19	22.36	155	10.10	3.54	2.4	2.8	27	0	53	.13	1	.7	.9	25	UER
		13	727	11.20	19	22.44	155	9.87	3.27	1.8	1.3	21	0	70	.09	1	.6	.8	20	UER
		13	727	34.94	19	20.90	155	7.37	5.76	2.1	1.5	21	0	86	.14	7	.9	2.7	20	UER
		13	727	48.62	19	19.41	155	11.53	7.65	2.6	2.6	23	2	97	.10	6	.6	1.1	16	UER
		13	747	50.88	19	22.97	155	17.54	.68	1.3	1.9	9	0	80	.46	3	1.1	2.4	8	KOA
		13	756	32.84	19	21.03	155	2.16	7.08	2.4	2.4	27	0	168	.15	2	1.3	.8	26	MER
		13	758	1.49	19	22.48	155	10.00	3.24	2.0	1.8	18	0	96	.11	1	.7	.8	17	UER
		13	821	55.39	19	19.88	155	1.64	7.63	2.6	2.1	16	2	221	.19	2	2.2	1.2	12	MER
		13	832	10.44	19	22.34	155	9.67	3.68	1.8	1.6	14	0	94	.05	1	.9	.9	11	UER
		13	839	3.99	19	23.92	155	16.97	1.10	1.6	1.5	9	0	74	.15	2	.6	1.1	1	SPC
		13	839	44.29	19	21.84	155	5.21	8.87	2.9	1.9	13	0	80	.09	5	1.1	1.4	9	MER
		13	841	45.34	19	20.40	155	2.28	7.09	1.8	1.9	17	1	189	.13	1	1.5	1.1	14	MER
		13	857	51.29	19	20.67	155	16.93	1.61	1.4	1.1	8	1	122	.05	1	1.0	.6	7	KOA
		13	9 0	35.28	19	22.74	155	3.62	.20	2.2	2.8	15	2	105	.35	4	1.0	.8	9	MER
		13	939	50.10	19	23.74	155	3.27	2.27	2.1	2.2	12	0	104	.09	2	.6	.9	9	MER
		13	10 7	1.70	19	23.96	155	5.00	4.17		.9	7	0	109	.07	2	1.1	1.5	6	MER
		13	1018	1.21	19	23.32	155	16.98	1.97	1.6		10	1	82	.14	3	.7	1.2	8	SPC
		13	1046	15.00	19	24.33	155	16.67	3.25	1.8	1.9	11	1	109	.08	1	.9	.9	4	SPC
		13	1053	26.86	19	24.60	155	16.59	2.71	1.3		8	1	136	.05	1	1.0	.7	3	SPC
		13	1055	57.41	19	23.19	155	6.69	2.94		1.0	10	2	116	.07	5	1.1	2.0	10	GLN
		13	1113	31.57	19	23.97	155	16.72	1.72	1.7	2.1	10	1	88	.14	2	.6	1.0	3	SPC
		13	1127	29.85	19	20.47	155	7.92	6.51	2.0	1.8	21	1	85	.12	5	.7	1.9	16	UER
		13	1130	2.66	19	24.32	155	15.78	3.96	1.7	1.2	9	1	126	.13	3	.9	1.5	7	SPC
		13	1137	35.17	19	24.49	155	16.33	1.42	1.3	1.2	11	1	134	.11	1	.6	.7	8	SPC
		13	1152	34.84	19	24.15	155	17.07	3.86	1.8	1.4	8	1	75	.09	1	1.1	1.9	2	SPC
		13	1159	41.09	19	20.79	155	16.34	1.05	1.4	1.9	11	0	74	.12	2	.6	.9	8	KOA
		13	1213	13.75	19	23.25	155	3.68	.78	3.3	3.8	25	0	101	.20	3	.7	1.3	22	MER
		13	1215	42.33	19	21.72	155	2.94	7.05	2.5	2.7	9	1	130	.10	3	1.4	3.7	6	MER
		13	1230	26.81	19	22.25	155	3.41	6.06	2.6	2.9	18	1	113	.19	4	1.3	4.3	12	MER
		13	1232	4.93	19	20.98	155	10.92	12.00	1.7	1.0	15	1	100	.10	3	1.1	1.9	12	UER
		13	1237	15.04	19	23.75	155	16.97	1.96	1.8	1.6	8	1	82	.08	2	.6	1.0	6	SPC
		13	1237	34.53	19	23.68	155	3.91	1.67	2.3	2.5	17	1	93	.14	2	.6	.6	10	MER
		13	1244	47.45	19	23.55	155	2.98	4.47	1.6	1.8	8	0	111	.21	7	1.6	21.2	5	MER
		13	1253	15.93	19	25.54	155	16.15	1.91	2.8		17	1	48	.14	2	.5	.7	16	SPC
		13	1258	4.16	19	23.24	155	17.09	3.05	1.8	1.7	13	1	58	.06	3	.5	1.0	11	SPC
		13	13 1	12.96	19	24.40	155	15.01	2.29	2.0	2.1	7	0	189	.04	4	.9	1.0	4	SPC

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	SEP	13	13 2	33.93	19	21.28	154	59.62	9.05	2.3	1.8	21	1	207	.11	6	1.4	1.5	14	LER
		13	1312	4.79	19	20.95	155	16.85	1.56	1.7	1.7	9	0	76	.10	2	.6	.7	8	KOA
		13	1321	41.13	19	20.73	155	16.83	1.77		1.4	8	0	151	.11	2	1.0	.7	7	KOA
		13	1325	36.80	19	23.71	155	17.19	8.13	2.2	1.6	8	1	86	.06	2	1.2	1.4	2	LPC
		13	1343	12.33	19	24.17	155	3.87	4.31	1.6	1.5	14	1	90	.11	1	.8	.6	11	MER
		13	1346	14.90	19	19.05	155	15.92	6.07		1.1	9	0	117	.07	3	1.2	2.6	8	KOA
		13	1346	44.51	19	23.53	155	3.03	.21	3.1	3.4	22	2	110	.19	3	.6	.5	10	MER
		13	1350	49.46	19	22.93	155	5.61	.02	2.5	3.0	17	0	69	.18	4	.8	2.1	13	MER
		13	1417	58.42	19	20.02	155	8.18	7.15		1.5	20	0	115	.12	5	.8	1.6	11	UER
		13	1437	14.88	19	23.86	155	16.79	2.06	1.7	1.8	10	1	81	.12	2	.6	.9	7	SPC
		13	1443	35.79	19	21.32	155	3.61	4.61	1.8	1.5	17	3	105	.15	3	1.3	3.5	16	MER
		13	1453	17.15	19	24.38	155	2.65	3.01	1.9	1.9	7	0	106	.16	7	1.3	8.3	3	MER
		13	1456	45.87	19	23.92	155	4.33	3.22		1.6	8	0	102	.04	8	1.2	12.3	4	MER
		13	15 1	38.89	19	24.48	155	16.26	1.95		.4	8	2	62	.09	2	1.3	1.3	4	SPC
		13	15 8	31.75	19	24.08	155	17.13	1.37	1.3		8	1	94	.04	3	.6	1.2	5	SPC
		13	1510	23.47	19	21.11	155	17.19	3.50	1.2	1.5	8	1	125	.31	2	1.4	1.7	7	KOA
		13	1510	34.12	19	24.48	155	2.51	2.48			6	0	107	.13	3	1.0	1.5	4	MER
		13	1515	49.55	19	25.27	155	3.89	3.26	1.9	1.6	9	0	116	.11	1	2.3	.9	3	GLN
		13	1518	24.74	19	20.69	155	3.81	7.61	2.4	2.1	15	2	97	.15	2	.9	1.6	8	MER
		13	1526	9.55	19	24.59	155	3.24	2.99		2.9	7	0	94	.07	2	.9	.9	7	MER
		13	1545	54.76	19	19.72	155	3.55	6.39	2.2	1.9	23	4	170	.13	1	.8	1.4	20	MER
		13	1550	55.48	19	21.44	155	2.70	8.08	2.8	2.6	27	2	140	.17	3	1.0	1.2	22	MER
		13	16 1	28.65	19	21.78	155	1.05	4.18	2.8	3.2	18	3	179	.24	5	1.4	4.3	13	MER
		13	16 6	43.25	19	23.80	155	16.79	1.99	1.8		9	0	78	.09	2	.6	.8	7	SPC
		13	16 9	55.88	19	21.48	155	2.47	5.93		1.2	18	1	147	.15	3	1.3	1.9	17	MER
		13	1614	53.09	19	23.86	155	4.27	4.49		1.6	6	0	102	.04	8	1.2	40.0	6	MER
		13	1624	40.26	19	30.70	155	6.80	12.39	3.1	1.9	10	0	219	.40	17	5.2	15.1	7	GLN
		13	1632	28.78	19	20.17	155	3.54	5.59	2.0	1.9	15	2	123	.17	1	1.6	2.7	15	MER
		13	1635	18.31	19	21.57	155	6.61	5.38	1.9	1.9	14	0	82	.09	6	.9	3.4	11	UER
		13	1642	54.29	19	20.40	155	3.39	3.24	2.0	1.7	12	1	98	.15	1	1.4	1.3	10	MER
		13	1645	7.18	19	24.05	155	17.03	1.61	1.5	1.4	9	1	77	.13	2	.6	1.0	3	SPC
		13	1652	1.31	19	21.07	155	7.67	7.63	1.5	1.7	12	0	121	.11	4	1.1	2.3	9	UER
		13	1655	45.84	19	21.67	155	3.14	5.74	2.1	2.0	17	2	122	.13	3	.8	2.7	14	MER
		13	17 1	15.90	19	21.37	155	2.70	6.75	2.2	2.1	16	2	140	.11	3	.9	2.2	12	MER
		13	17 8	56.74	19	21.15	155	3.92	4.93	1.9		15	2	92	.18	3	.9	3.1	8	MER
		13	1715	4.60	19	23.75	155	16.94	2.44	1.6	1.3	7	1	125	.09	2	.7	1.1	3	SPC
		13	1717	55.41	19	20.16	155	3.22	8.03	2.6	2.5	23	3	106	.11	1	.8	.9	20	MER
		13	1723	32.25	19	20.97	155	3.24	6.90	2.0	1.7	18	4	115	.10	2	.9	2.2	16	MER
		13	1731	7.28	19	24.74	155	16.85	6.03	2.1	1.6	9	1	131	.19	0	2.8	3.5	6	LPC
		13	1744	20.29	19	19.91	155	3.41	7.48	2.8	3.0	22	3	152	.11	1	.9	1.5	14	MER
		13	1755	24.06	19	20.79	155	17.03	1.56	1.2	1.6	9	0	111	.09	1	.7	.7	8	KOA
		13	1757	42.65	19	25.29	155	17.65	6.78	2.3		8	1	76	.17	0	3.5	2.2	4	LPC
		13	1758	21.62	19	23.69	155	17.33	4.47	2.0	.7	10	1	78	.17	3	.9	2.0	8	SPC
		13	1759	28.83	19	19.84	155	3.25	6.98	2.6	2.4	32	2	35	.14	1	.9	.9	29	MER
		13	18 0	27.50	19	16.93	154	57.27	4.17	2.6	1.7	14	3	257	.28	11	7.7	22.3	10	DIS
		13	18 9	36.21	19	21.13	155	6.49	6.74	1.9	.5	23	2	92	.14	6	.7	2.2	21	UER
		13	1810	4.57	19	20.25	155	3.70	7.26	2.5	1.9	21	2	121	.14	1	1.0	1.9	9	MER
		13	1822	40.87	19	21.07	155	2.44	5.82	2.0	.9	19	1	156	.14	2	1.1	1.7	17	MER

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	SEP	13	1824	27.05	19	25.45	155	16.43	7.35	2.1	1.0	7	1	202	.21	1	3.7	3.2	5	LPC
		13	1830	17.46	19	19.51	155	2.14	4.66	2.3	1.1	24	4	208	.20	2	1.0	1.9	19	MER
		13	1839	18.32	19	23.71	155	17.09	1.67	1.6	1.6	10	1	67	.12	2	.6	1.0	7	SPC
		13	1848	15.81	19	21.27	155	2.45	6.74		2.1	19	0	151	.18	3	1.7	2.2	19	MER
		13	1852	15.07	19	21.76	155	2.86	5.33	1.8	1.6	25	2	132	.20	3	.9	3.1	22	MER
		13	1855	11.79	19	21.48	155	2.85	7.09	2.5	2.5	29	3	134	.13	3	.7	1.1	24	MER
		13	1912	24.08	19	19.52	155	3.01	7.67	3.7	3.7	33	3	197	.13	1	.8	.6	29	MER
		13	1918	13.39	19	23.68	155	16.85	2.98	1.6	.5	7	1	82	.11	2	.9	2.0	5	SPC
		13	1939	.35	19	23.68	155	16.76	1.50	1.5	1.6	8	1	82	.15	2	.6	1.1	7	SPC
		13	1951	10.73	19	20.99	155	11.63	10.12	2.1	1.3	14	0	90	.07	4	1.1	1.8	12	UER
		13	20 2	26.25	19	20.12	155	1.32	7.13	2.3	1.9	27	2	207	.16	3	1.2	.8	20	MER
		13	20 5	58.94	19	20.69	155	2.16	6.98	2.6	2.4	29	3	179	.14	2	.9	1.0	26	MER
		13	2017	.79	19	24.32	155	16.67	1.94	1.9	2.4	12	1	108	.19	1	.7	.8	11	SPC
		13	2017	.36	19	21.88	155	3.08	6.49		2.1	13	0	124	.09	4	1.1	1.9	12	MER
		13	2019	54.13	19	24.38	155	15.98	2.29	1.6	1.4	9	1	129	.11	2	.7	1.0	8	SPC
		13	2023	8.43	19	23.40	154	59.35	10.84	1.9	1.3	13	1	209	.14	3	1.5	1.2	12	LER
		13	2023	56.59	19	22.06	154	59.11	9.27	2.3	2.2	29	4	202	.21	6	1.1	1.0	25	LER
		13	2038	16.42	19	21.39	155	6.09	8.93	2.7	3.2	30	4	88	.10	6	.6	1.0	24	UER
		13	2047	2.63	19	21.07	155	2.12	7.37	2.4	2.1	24	2	168	.11	3	.9	1.1	18	MER
		13	2113	3.12	19	23.78	155	2.43	.34	2.1	1.9	15	2	120	.21	4	.7	.7	12	MER
		13	2115	16.57	19	20.46	155	2.20	7.09	2.5	2.8	25	2	189	.17	2	.9	1.1	21	MER
		13	2125	58.41	19	20.54	155	.59	7.09	2.5	2.2	28	2	208	.13	4	1.1	.9	22	LER
		13	2128	41.93	19	24.06	155	15.87	2.95	.9	.6	8	0	117	.02	3	.9	1.2	8	SPC
		13	2131	56.52	19	20.86	155	3.01	8.37	3.7	4.0	33	2	127	.09	2	.9	.6	30	MER
		13	2136	52.46	19	20.55	155	2.42	6.47	2.8		25	3	194	.13	8	.9	1.7	17	MER
		13	2142	8.64	19	24.24	155	17.07	2.61	1.9	1.7	9	0	79	.09	1	.9	1.0	8	SPC
		13	2145	42.49	19	24.87	155	2.45	3.32	2.1	1.9	18	0	101	.16	3	.9	2.9	17	MER
		13	2150	18.41	19	23.54	155	17.65	.92	1.6	1.0	8	1	99	.14	3	.6	1.3	7	SPC
		13	2150	44.57	19	20.92	155	3.71	5.26	1.9	1.1	14	0	93	.17	2	1.6	3.5	13	MER
		13	22 6	31.85	19	24.29	155	17.04	4.41	1.6	1.6	8	1	79	.22	1	2.0	3.0	6	SPC
		13	22 7	23.48	19	20.41	155	2.12	7.14	2.4	1.9	24	2	194	.16	2	1.1	1.1	20	MER
		13	22 9	57.61	19	23.76	155	2.58	1.49	1.8	1.6	18	1	117	.12	3	.7	1.0	17	MER
		13	23 1	36.01	19	21.66	155	2.71	7.30	2.4	1.9	26	1	141	.13	3	1.2	1.0	25	MER
		13	23 3	16.37	19	20.39	155	8.38	5.97	2.0	2.4	24	1	77	.14	4	.8	1.7	22	UER
		13	23 6	9.03	19	24.04	155	17.34	1.29	1.4	.9	10	1	57	.09	2	.5	1.0	8	SPC
		13	2314	14.19	19	23.81	155	16.75	2.59	1.9	2.4	9	1	80	.09	2	.6	1.2	6	SPC
		13	2318	25.21	19	21.52	155	1.37	5.42	2.0	1.2	20	1	178	.17	4	1.1	2.3	18	MER
		13	2332	6.57	19	21.01	154	59.39	9.18	2.5	2.4	27	2	211	.13	7	1.3	.8	21	LER
		13	2336	45.91	19	24.29	155	16.70	4.10	1.5	1.3	9	1	104	.08	1	1.4	1.8	7	SPC
		13	2342	33.64	19	20.92	155	1.93	6.05	2.1	1.9	22	1	179	.15	3	1.1	1.4	19	MER
		13	2354	3.70	19	23.21	155	1.94	6.98	2.2	1.9	19	1	139	.19	6	1.0	2.0	17	MER
		14	0 3	12.89	19	24.21	155	17.15	2.24	1.8	2.4	13	1	69	.09	1	.7	.9	7	SPC
		14	0 5	48.98	19	20.74	155	3.10	7.20	2.2	1.8	22	2	121	.12	2	1.0	1.3	17	MER
		14	017	20.57	19	22.15	155	5.80	8.59	3.5	3.7	41	3	75	.10	5	.5	.7	37	MER
		14	020	17.68	19	20.99	155	17.04	1.60	3.8	4.2	24	0	64	.10	2	.4	.6	21	KOA
		14	025	22.81	19	20.57	155	17.51	2.11	1.9	1.8	12	1	65	.08	1	.7	.7	11	KOA
		14	042	25.41	19	21.28	155	17.03	1.80	1.2	.7	9	0	115	.08	2	.6	.8	8	KOA
		14	045	14.05	19	23.97	155	16.86	1.54	1.4	1.4	9	1	89	.05	2	.5	.9	7	SPC

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	SEP	14	045	18.86	19	23.20	154	58.75	7.21	1.8	2.1	13	0	190	.23	4	2.0	1.4	9	LER
		14	046	17.84	19	20.96	155	2.93	3.97	1.8	1.3	11	0	133	.14	2	1.6	2.1	10	MER
		14	059	40.36	19	23.86	155	16.64	.42	1.9	2.0	11	1	86	.20	2	.6	1.0	8	SPC
		14	1 1	57.46	19	20.60	155	11.96	5.66		.8	13	0	149	.18	4	1.3	3.1	13	UER
		14	1 8	40.29	19	21.01	155	2.90	5.76	2.1	1.7	16	0	134	.17	2	2.2	3.4	16	MER
		14	114	13.83	19	24.88	155	1.64	3.98	1.8	1.8	14	0	110	.11	5	1.0	4.9	14	MER
		14	117	14.14	19	24.35	155	2.82	.20	1.9	1.7	16	1	104	.15	7	.7	.9	16	MER
		14	120	52.67	19	19.63	155	7.15	7.14	1.9	1.8	22	1	114	.13	4	.9	1.5	21	UER
		14	138	50.64	19	20.73	155	16.47	1.14	1.9	1.9	14	1	75	.14	2	.6	.7	13	KOA
		14	142	9.43	19	24.35	155	16.06	2.61	2.4	2.4	13	1	128	.09	2	.7	.7	12	SPC
		14	146	49.81	19	23.98	155	16.65	3.08	1.5	1.1	7	0	82	.15	2	.9	1.4	6	SPC
		14	148	30.07	19	24.65	155	1.33	4.49	1.8	1.3	13	0	120	.14	5	1.0	4.5	11	MER
		14	2 1	7.10	19	20.97	155	16.36	1.56	1.8	2.4	10	0	71	.04	2	.6	.8	9	KOA
		14	219	26.95	19	21.21	155	6.90	5.23	2.0	2.0	19	2	86	.11	5	.6	3.0	17	UER
		14	226	4.21	19	23.82	155	16.84	2.38	1.6	2.1	11	1	77	.28	2	.8	1.2	10	SPC
		14	236	6.71	19	23.99	155	16.98	3.00	1.6	1.8	10	0	76	.06	2	.6	1.0	10	SPC
		14	242	45.84	19	23.47	155	2.11	5.57	2.2	1.6	26	2	131	.22	7	.8	2.7	21	MER
		14	247	17.72	19	22.23	155	6.18	5.62	2.0	1.4	23	3	72	.20	6	.8	3.0	20	UER
		14	255	41.23	19	23.27	155	17.14	7.02	2.0	1.0	10	2	72	.24	3	1.2	2.1	7	LPC
		14	255	56.87	19	20.40	155	2.51	6.86	2.1	1.8	20	1	187	.15	1	1.1	1.5	19	MER
		14	259	56.34	19	20.29	155	1.68	7.03	2.3	2.0	25	3	202	.19	2	1.2	1.2	20	MER
		14	3 3	15.10	19	20.92	155	6.88	7.65		1.0	18	0	93	.14	6	1.0	1.7	18	UER
		14	310	20.45	19	23.74	155	16.13	7.31	2.2	2.0	8	1	111	.13	3	1.5	1.9	7	LPC
		14	314	52.84	19	20.82	155	8.04	7.19	1.7	1.1	21	0	78	.14	4	.8	1.7	20	UER
		14	320	39.94	19	24.31	155	16.11	1.47	1.0	1.0	10	1	128	.11	2	.5	.8	8	SPC
		14	330	5.62	19	24.54	155	2.21	2.95	2.3	2.4	27	0	110	.18	4	.8	1.5	25	MER
		14	338	27.28	19	21.10	155	15.89	.76	1.9	2.1	13	1	70	.07	2	.5	.7	12	KOA
		14	339	5.83	19	20.84	155	2.57	6.42	2.7	2.6	22	2	155	.11	2	.9	1.7	20	MER
		14	342	13.80	19	21.89	155	2.80	5.60	2.2	1.1	23	3	133	.14	4	.8	1.6	19	MER
		14	348	15.68	19	20.70	155	.45	6.85	2.5	2.4	27	3	207	.19	5	1.1	1.2	19	LER
		14	355	4.26	19	24.48	155	2.81	.02	2.3	2.4	18	3	102	.17	7	.8	.6	15	MER
		14	423	.45	19	21.56	155	15.66	1.68	1.2	.9	10	0	71	.03	2	.6	.8	10	KOA
		14	424	36.82	19	20.31	155	6.25	7.66	2.3	2.0	21	2	112	.12	6	.7	1.2	12	UER
		14	428	4.54	19	24.04	155	17.53	1.79	2.3	2.3	12	1	58	.13	2	.6	.9	11	SPC
		14	431	6.74	19	24.95	155	2.05	3.96	2.2	2.6	24	0	104	.12	4	.8	3.1	21	MER
		14	435	40.77	19	25.10	155	3.02	6.66	2.1	1.6	16	0	90	.13	8	.8	3.0	15	GLN
		14	452	54.29	19	19.21	155	12.40	5.51		.8	17	0	93	.09	4	.8	2.1	15	UER
		14	5 4	22.42	19	21.45	154	55.60	12.71	1.9	1.8	16	0	236	.10	9	3.4	1.2	15	LER
		14	514	32.37	19	23.76	155	17.26	1.46	1.9	2.3	12	1	48	.12	2	.5	.9	10	SPC
		14	517	19.60	19	22.94	154	56.46	11.33	2.2	1.8	18	1	197	.15	4	1.7	1.0	15	LER
		14	518	41.65	19	22.20	154	58.58	8.32	3.2	3.4	29	2	37	.16	5	1.3	.9	24	LER
		14	523	14.35	19	23.37	155	2.50	5.72	2.0	2.1	16	1	128	.21	7	1.6	6.5	12	MER
		14	524	53.60	19	24.01	155	17.57	1.95	1.1	1.0	9	1	81	.05	2	.6	1.0	8	SPC
		14	529	57.16	19	20.92	155	3.01	6.99	2.2	2.6	26	2	128	.17	2	1.0	1.4	23	MER
		14	532	16.56	19	22.48	154	59.98	7.57	2.1	1.9	28	4	185	.22	5	.9	1.7	23	LER
		14	534	24.11	19	22.49	155	.54	6.65	2.2	1.9	28	3	176	.16	6	.8	1.3	25	LER
		14	553	16.98	19	24.01	155	2.47	6.20	2.4	2.4	27	1	115	.14	7	.8	1.7	21	MER
		14	610	30.28	19	24.12	155	17.71	.01	1.3	1.0	11	1	70	.40	2	.8	1.7	9	SPC

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	SEP	14	611	57.81	19	20.56	155	3.20	7.16	2.3	1.9	30	3	111	.15	1	.9	1.0	25	MER
		14	617	27.75	19	23.08	154	56.97	5.04	2.1	2.4	21	3	212	.41	5	1.7	2.6	17	LER
		14	619	28.08	19	21.64	155	15.63	3.32	1.2	1.1	12	0	71	.08	2	.7	.9	12	KOA
		14	620	54.01	19	20.67	155	3.27	7.85	3.2	3.4	32	2	109	.10	2	.8	.8	28	MER
		14	633	11.38	19	23.81	155	16.50	3.25	1.4	1.1	9	0	89	.16	2	.9	1.2	9	SPC
		14	640	5.56	19	24.57	155	16.72	5.56	1.6	1.1	11	1	124	.12	1	1.8	2.1	8	SPC
		14	650	48.00	19	24.11	155	16.65	2.36	1.4	1.4	11	1	97	.09	2	.6	.8	9	SPC
		14	655	12.15	19	21.44	155	3.98	3.76	2.2	1.7	21	2	94	.13	3	1.3	2.8	17	MER
		14	7 4	29.09	19	23.27	154	57.44	8.97	2.6	2.4	23	3	250	.15	4	2.2	1.1	20	LER
		14	7 8	18.93	19	22.15	155	1.27	4.25	2.0	2.2	17	2	169	.19	5	1.9	6.3	15	MER
		14	712	11.80	19	25.33	155	16.29	.56	.9	1.3	10	1	163	.18	2	1.3	.8	8	SPC
		14	715	16.34	19	23.69	154	55.85	.11	1.6	1.8	10	2	218	.55	6	2.5	1.0	8	LER
		14	726	52.84	19	20.87	155	2.60	7.29	2.6	2.6	25	3	152	.16	2	.9	1.0	20	MER
		14	730	3.42	19	22.20	154	59.01	8.70	2.6	2.4	23	3	201	.14	5	.8	.9	20	LER
		14	813	56.33	19	24.34	155	2.73	3.03	2.4	2.3	25	0	105	.13	7	1.6	10.7	25	MER
		14	823	12.83	19	21.97	155	3.07	5.81	1.8	2.0	20	0	124	.13	4	1.0	1.5	16	MER
		14	834	4.33	19	20.92	155	4.65	4.71	2.1	1.9	24	0	124	.12	4	1.0	2.5	22	MER
		14	834	51.74	19	21.48	155	1.89	1.42	2.3	1.9	21	0	174	.16	3	1.6	2.1	20	MER
		14	835	24.95	19	24.93	155	1.44	5.42	2.4	3.1	16	0	111	.20	5	1.1	2.8	14	MER
		14	842	15.46	19	19.94	154	57.20	9.61	3.1	3.0	29	0	230	.24	10	2.8	1.0	26	DIS
		14	846	34.81	19	24.30	154	56.67	6.73	2.3	2.0	25	0	201	.16	4	1.9	1.1	17	LER
		14	9 1	58.88	19	21.51	155	5.85	6.56		1.7	20	0	108	.13	6	.8	2.1	20	MER
		14	911	34.59	19	21.72	155	.80	5.08	2.3	2.8	26	0	185	.12	5	1.0	1.6	25	LER
		14	931	59.50	19	21.72	155	6.74	8.16	2.8	3.3	30	0	79	.09	6	.7	1.0	29	UER
		14	942	13.83	19	24.17	155	3.00	6.26	2.4	2.4	25	0	139	.19	8	1.0	2.1	22	MER
		14	10 8	7.97	19	21.22	155	16.24	1.43	1.7	1.6	9	0	87	.05	2	.6	.8	9	KOA
		14	1012	43.96	19	20.78	155	6.91	5.27	2.0	1.6	23	0	95	.15	6	.9	3.5	23	UER
		14	1013	46.50	19	21.75	155	1.51	7.34	2.4	2.4	22	0	180	.12	4	1.5	.8	19	MER
		14	1015	40.93	19	21.67	155	11.03	10.24	1.7	1.6	19	0	97	.12	2	1.1	1.4	18	UER
		14	1018	28.82	19	21.41	155	7.02	6.83	2.2	1.8	25	0	82	.11	5	.7	1.5	20	UER
		14	1019	35.76	19	21.00	155	1.91	6.77	2.0	1.9	21	0	186	.16	3	1.6	1.1	19	MER
		14	1029	57.99	19	21.43	155	1.40	6.18	2.4	2.4	20	0	191	.12	4	1.5	.9	20	MER
		14	1036	49.13	19	22.40	154	59.38	8.19	2.6	2.5	24	0	222	.21	5	2.4	1.1	22	LER
		14	1041	53.87	19	19.45	155	3.38	7.63	2.8	2.9	30	2	196	.13	1	.9	.7	23	MER
		14	1044	42.42	19	24.07	155	17.40	1.60	2.1	3.4	11	1	55	.14	2	.5	.9	9	SPC
		14	11 3	19.06	19	21.91	155	2.11	5.78	2.1	2.2	25	0	158	.17	4	1.3	1.7	22	MER
		14	11 7	38.24	19	21.55	155	.33	6.88	3.4	3.6	32	1	215	.15	5	1.6	.9	25	LER
		14	1118	16.95	19	21.54	155	3.29	5.10	2.0	1.8	22	0	118	.14	3	1.2	2.7	20	MER
		14	1129	15.22	19	21.44	155	2.15	8.51	2.9	3.1	16	2	166	.11	3	1.3	1.6	10	MER
		14	1137	33.04	19	22.52	155	1.23	6.81	2.5	2.0	21	0	163	.15	6	1.0	1.2	16	MER
		14	1144	50.51	19	21.93	155	2.79	4.90	2.0	1.8	20	0	134	.14	4	1.1	3.2	18	MER
		14	1149	13.56	19	24.90	155	16.21	3.09	2.1	2.6	9	1	149	.46	1	2.4	1.5	8	SPC
		14	1150	8.32	19	21.11	155	7.11	9.16	3.6	3.8	36	2	87	.11	5	.6	.8	28	UER
		14	1222	57.37	19	21.78	155	1.31	7.78	2.1	2.1	24	0	184	.13	4	1.6	.9	19	MER
		14	1246	56.98	19	21.26	154	56.98	9.30	2.9	2.8	19	2	262	.08	8	2.4	1.0	15	LER
		14	1250	5.67	19	21.00	155	3.16	6.71	2.3	2.1	17	0	195	.14	2	1.7	1.2	15	MER
		14	13 0	52.78	19	21.48	154	58.19	8.70	2.9	2.8	28	1	253	.19	7	2.3	1.0	24	LER
		14	13 9	15.91	19	35.01	155	7.75	3.51	2.4	1.9	11	0	249	.46	29	6.5	90.5	9	HIL

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	SEP	14	1311	21.21	19	21.79	155	3.13	6.81	2.7	2.3	21	2	123	.11	4	1.0	1.7	17	MER
		14	1312	39.55	19	21.71	155	3.42	6.46	2.2	1.7	21	0	113	.11	3	1.0	1.6	14	MER
		14	1326	5.38	19	28.88	155	22.14	3.62	2.3	1.8	12	0	134	.09	3	1.3	1.6	11	UKF
		14	1334	54.72	19	28.29	155	21.81	6.95	2.2	2.3	12	0	142	.12	4	1.2	2.6	12	UKF
		14	1341	58.53	19	19.94	155	7.79	8.41	1.9	1.7	23	0	94	.09	5	1.0	1.0	21	UER
		14	14	2 19.60	19	21.20	155	3.73	6.08		1.4	16	0	144	.14	3	1.5	1.9	10	MER
		14	14	6 21.27	19	20.96	155	.63	8.53	2.7	2.7	31	1	203	.14	5	1.7	.8	24	LER
		14	1426	8.49	19	25.08	155	24.21	10.99	1.9	2.1	20	0	44	.11	8	.7	1.2	18	UKF
		14	1452	10.97	19	24.24	155	2.76	1.02	2.3	2.2	23	2	107	.19	7	.7	1.0	17	MER
		14	15	0 42.82	19	20.74	155	2.54	8.75	2.7	2.8	28	2	166	.15	2	1.3	.7	22	MER
		14	16	9 33.64	19	23.38	155	5.79	7.42	2.5	2.1	23	0	127	.13	8	.8	1.5	20	MER
		14	1641	48.58	19	21.19	155	2.35	7.44	2.4	1.9	22	0	157	.13	3	1.3	.8	16	MER
		14	1710	42.93	19	24.32	154	57.10	6.47	2.0	1.9	19	0	199	.16	3	1.8	1.3	17	LER
		14	1748	39.75	19	23.93	155	17.30	.00	1.6	1.6	11	1	60	.21	2	.5	1.1	10	SPC
		14	18	4 47.33	19	24.61	155	16.26	2.81	3.0	3.3	34	0	28	.14	1	.5	.6	31	SPC
		14	18	8 47.03	19	20.46	155	8.20	5.99	1.8	1.5	22	0	79	.13	4	.8	1.7	19	UER
		14	1859	45.41	19	21.21	155	15.33	.29	3.4	4.1	32	1	67	.28	2	.5	1.0	31	KOA
		14	19	7 25.60	19	21.94	155	3.31	7.06	2.3	2.0	22	0	166	.14	4	1.3	1.2	20	MER
		14	1912	22.93	19	24.09	155	16.56	.53	1.6	2.1	11	1	100	.19	2	.6	.9	10	SPC
		14	1918	3.76	19	26.71	155	15.55	.22	1.8	2.2	10	1	57	.15	4	.7	1.5	8	SPC
		14	1935	17.48	19	21.19	155	2.07	6.03	2.1	2.1	26	2	167	.15	5	1.0	1.3	19	MER
		14	1937	11.76	19	19.46	155	9.74	6.95	2.3	2.1	24	2	151	.10	5	.8	1.1	19	UER
		14	1959	21.06	19	22.58	155	.05	6.91	2.2	2.1	28	1	182	.23	5	1.4	1.0	24	LER
		14	20	8 12.27	19	23.84	155	2.28	6.06	2.5	2.5	25	1	122	.15	7	.7	1.7	22	MER
		14	2013	44.77	19	24.44	155	16.09	2.61	2.2	2.5	20	1	53	.09	2	.5	.5	19	SPC
		14	2018	7.93	19	21.85	155	2.57	7.89	2.5	2.8	26	0	141	.18	4	1.3	1.0	23	MER
		14	2128	1.37	19	20.80	155	1.47	5.55	2.1	2.0	23	2	195	.13	3	.9	1.3	19	MER
		14	2129	1.65	19	23.63	155	2.17	6.69	2.6	2.6	16	1	127	.16	7	1.2	1.8	13	MER
		14	2131	58.93	19	20.80	155	2.42	6.21	2.3	2.2	25	2	164	.17	2	.9	1.3	20	MER
		14	2149	27.70	19	21.34	155	16.27	1.47	1.8	1.9	16	0	66	.11	2	.6	.8	14	KOA
		14	2155	13.01	19	21.25	155	2.18	6.29	2.2	1.6	24	1	170	.21	3	1.4	1.5	19	MER
		14	2221	14.51	19	23.75	155	17.40	3.51	2.1	2.1	9	1	77	.14	3	.8	1.4	7	SPC
		14	2225	16.18	19	23.28	154	55.80	4.17	2.3	2.1	26	0	222	.29	6	1.9	2.5	22	LER
		14	2232	54.44	19	23.87	155	16.26	1.41	1.9	2.7	8	1	104	.18	3	.7	1.5	7	SPC
		14	2254	2.78	19	22.24	154	54.71	12.27	2.3	2.2	22	2	239	.13	13	2.2	1.0	18	LER
		14	23	3 41.82	19	23.83	155	2.42	6.33	2.3	2.4	26	1	119	.16	7	.7	1.8	24	MER
		14	23	9 25.97	19	20.56	154	59.12	5.92	2.1	2.0	20	1	263	.21	7	4.9	1.7	16	LER
		14	2319	57.51	19	21.06	155	2.65	6.54	2.2	2.1	26	1	146	.12	2	.9	1.3	20	MER
		14	2343	57.11	19	21.59	155	3.41	7.88	2.3	1.9	27	2	113	.11	5	.8	1.0	20	MER
		14	2346	20.72	19	20.87	155	4.07	6.76	2.1	2.4	28	1	96	.16	3	.9	1.2	22	MER
		15	0	9 1.68	19	21.10	155	3.13	6.36	2.7	2.8	32	2	122	.12	2	.8	1.3	25	MER
		15	010	51.71	19	24.06	155	17.85	1.77	1.6	2.5	8	1	85	.20	3	.7	1.4	7	SPC
		15	038	13.86	19	21.68	154	58.21	2.85	2.2	2.3	20	0	213	.18	7	1.9	3.5	19	LER
		15	041	41.88	19	23.78	154	59.11	7.73	2.2	1.7	22	0	198	.16	3	1.9	1.0	19	LER
		15	1	0 9.30	19	23.99	155	16.00	2.91	2.0	2.6	16	1	45	.10	3	.6	.8	15	SPC
		15	1	7 41.12	19	24.31	155	1.81	5.79	2.0	2.2	21	0	120	.20	6	.9	2.1	18	MER
		15	123	56.61	19	21.80	154	59.32	5.11	2.9	2.5	24	0	29	.26	6	1.9	1.6	20	LER
		15	132	21.86	19	20.05	154	56.16	4.84	3.1	3.5	32	2	235	.20	10	1.6	1.4	29	LER

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	SEP	15	136	36.27	19	21.11	154	56.30	2.55	2.9	3.3	24	2	233	.20	9	2.0	2.4	22	LER
		15	142	8.30	19	24.99	155	16.60	1.22	1.7	1.6	10	1	149	.12	1	1.0	.6	9	SPC
		15	151	50.38	19	24.30	155	16.84	1.78	1.6	1.6	10	1	95	.12	1	.6	.8	9	SPC
		15	156	36.85	19	20.92	155	12.73	7.37	1.8	1.6	27	0	63	.14	3	.7	.9	26	UER
		15	218	19.62	19	23.66	154	58.25	7.90	2.5	2.6	27	1	195	.20	3	1.5	.9	25	LER
		15	225	39.34	19	24.44	155	16.77	1.48	1.8	2.1	16	1	64	.11	1	.5	.4	14	SPC
		15	229	34.75	19	23.54	155	2.23	3.82	1.9	1.3	24	1	127	.22	7	1.0	5.2	22	MER
		15	245	23.21	19	21.09	155	1.67	6.14	1.9	1.1	21	0	226	.23	3	2.4	1.4	18	MER
		15	250	20.57	19	22.16	155	14.75	1.08	1.9	2.8	15	0	76	.08	2	.5	.8	15	UER
		15	3	5 30.64	19	22.26	155	14.64	1.31	1.8	2.2	11	0	76	.05	2	.5	.8	11	UER
		15	310	23.28	19	21.21	155	15.53	.00	2.6	3.2	27	3	68	.14	2	.4	.3	24	KOA
		15	318	20.07	19	23.94	155	16.39	2.02	1.4	1.8	12	0	99	.16	2	.6	.8	11	SPC
		15	323	23.82	19	24.40	155	16.89	1.75	1.6	1.9	17	1	47	.10	1	.5	.5	16	SPC
		15	327	46.88	19	23.23	155	6.42	3.04	1.9	1.3	20	0	71	.15	6	.8	4.1	19	GLN
		15	340	52.15	19	19.88	155	9.86	7.47	1.8	1.3	22	0	87	.12	4	.7	1.2	20	UER
		15	421	50.66	19	23.72	155	6.17	2.27	2.1	2.2	24	0	63	.15	7	.7	4.8	22	GLN
		15	439	48.40	19	24.24	155	2.51	3.69	2.6	2.4	26	0	111	.20	7	.9	7.9	24	MER
		15	443	31.79	19	24.94	155	25.89	3.27	1.6	1.6	17	0	90	.14	5	.7	3.3	16	UKF
		15	452	48.51	19	24.53	155	16.91	1.29	1.4	2.0	16	1	100	.23	1	.7	.5	14	SPC
		15	5	5 11.19	19	21.19	155	1.93	6.09	2.0	1.5	24	0	171	.19	3	1.4	1.3	22	MER
		15	5	7 46.86	19	24.18	155	16.09	.01	2.5	2.9	17	1	82	.49	2	.9	1.4	15	SPC
		15	525	26.89	19	24.72	155	2.10	.90	2.4	2.6	29	1	108	.22	6	.7	1.3	28	MER
		15	6	5 22.53	19	23.93	155	2.54	3.47	2.0	2.1	23	1	115	.18	7	.9	4.5	21	MER
		15	615	47.85	19	23.19	155	6.16	2.43	1.8	1.8	16	0	120	.14	7	.8	4.4	15	GLN
		15	621	46.00	19	21.20	155	16.80	1.52	3.2	4.0	35	0	29	.12	2	.4	.7	32	KOA
		15	624	47.43	19	24.42	155	1.73	4.62	2.1	2.0	22	0	120	.16	5	.9	3.6	21	MER
		15	646	20.20	19	19.21	155	7.20	8.46	3.6	3.7	36	1	123	.10	4	.6	.6	35	UER
		15	651	53.97	19	21.91	155	3.59	4.45		1.5	21	1	108	.21	4	1.4	4.9	19	MER
		15	711	23.94	19	24.93	155	18.22	.00	.9	2.2	7	0	95	.21	1	.8	1.2	7	SPC
		15	720	20.90	19	20.78	155	2.50	5.33	2.4	2.5	25	2	160	.15	2	.9	1.4	23	MER
		15	729	52.42	19	24.36	155	16.88	1.95	1.4	1.9	10	1	94	.07	1	.7	.7	7	SPC
		15	730	39.27	19	24.50	155	2.66	2.37	2.5	2.5	27	1	104	.13	7	.6	2.0	24	MER
		15	741	54.29	19	20.56	155	3.15	6.50	2.5	2.1	24	0	116	.11	1	1.3	1.1	24	MER
		15	8	9 3.48	19	21.73	155	20.09	26.71	2.9	.9	22	3	70	.10	4	1.0	1.5	22	DEP
		15	812	8.04	19	20.81	155	15.78	1.23	2.0	2.4	14	0	97	.08	3	.6	1.0	13	KOA
		15	825	19.52	19	22.31	154	59.07	8.02	2.2	1.9	25	2	199	.20	5	1.3	.9	20	LER
		15	829	25.93	19	21.38	155	16.20	1.65	1.6	1.8	9	0	68	.04	2	.6	.8	8	KOA
		15	9	4 32.71	19	24.52	155	17.17	1.51	2.1	2.4	17	1	54	.13	1	.5	.4	14	SPC
		15	917	29.99	19	23.12	155	2.02	5.70	2.2	1.9	23	1	139	.16	6	.8	2.0	22	MER
		15	926	23.09	19	21.27	155	6.17	7.55	2.2	1.8	26	1	91	.15	6	.7	1.6	25	UER
		15	937	58.82	19	21.59	154	53.21	6.58	2.6	2.9	27	2	251	.22	14	2.2	1.5	25	LER
		15	945	39.60	19	24.26	154	56.29	.89	2.0	2.1	21	1	206	.20	5	1.0	.8	19	LER
		15	948	21.33	19	20.32	155	4.03	5.38	1.9	1.2	16	0	121	.15	2	1.3	2.1	15	MER
		15	958	9.08	19	24.17	155	17.03	1.74	2.0	2.1	10	1	78	.16	1	.6	.9	10	SPC
		15	959	31.88	19	22.37	154	56.20	4.41	2.5	2.7	27	2	225	.21	7	1.7	2.1	25	LER
		15	10	5 57.35	19	22.68	154	56.17	4.03	2.5	2.8	25	0	225	.28	6	2.4	2.6	23	LER
		15	1020	32.79	19	21.24	155	3.80	5.57	2.2	2.2	26	2	96	.12	3	.7	1.8	23	MER
		15	1029	53.01	19	23.17	155	2.38	6.26	2.5	2.1	25	1	130	.14	6	.8	1.7	24	MER

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	SEP	15	1030	42.55	19	23.19	154	59.05	10.72	2.3	2.0	17	1	213	.16	4	1.9	.9	15	LER
		15	1036	22.14	19	24.06	155	17.43	2.58	1.6	.8	8	1	82	.08	2	.8	1.5	7	SPC
		15	1036	35.84	19	24.06	155	17.13	1.85	1.9	2.0	10	2	92	.25	2	.7	1.2	9	SPC
		15	1049	16.68	19	22.37	155	.31	7.85	2.2	1.9	26	1	182	.18	6	1.2	1.0	25	LER
		15	1052	48.63	19	21.33	155	15.69	.04	2.1	2.8	24	3	66	.23	2	.4	.3	20	KOA
		15	1059	20.48	19	22.32	154	59.50	7.97	2.4	1.9	24	2	193	.18	5	1.0	1.0	20	LER
		15	11	4 56.36	19	22.38	155	5.17	.17	2.3	2.8	21	1	74	.25	6	.8	1.1	20	MER
		15	1114	36.72	19	22.09	154	57.29	4.62	3.5	3.9	31	0	217	.17	6	1.8	1.6	29	LER
		15	1124	55.52	19	22.06	155	.07	8.00	2.5	2.4	25	1	190	.15	6	1.0	.9	23	LER
		15	1142	49.66	19	22.66	155	1.70	7.41	2.4	2.5	25	2	153	.22	6	.9	1.3	23	MER
		15	1155	28.27	19	20.66	155	2.58	7.11	2.7	2.6	29	2	159	.12	2	.8	.9	27	MER
		15	1157	44.48	19	24.55	155	2.08	1.91	2.2	2.1	29	0	111	.20	6	.9	4.4	28	MER
		15	12	3 42.05	19	20.01	154	57.80	4.76	3.1	3.7	27	2	231	.17	9	1.5	1.7	24	LER
		15	1222	35.87	19	23.36	155	17.04	2.55	1.1	1.0	9	0	62	.07	3	.6	1.1	9	SPC
		15	1224	11.72	19	23.21	155	6.36	2.95	2.0	1.0	21	0	89	.14	6	.9	4.3	20	GLN
		15	1315	26.55	19	22.66	155	.07	7.51	2.3	2.2	26	2	180	.24	5	1.0	1.3	23	LER
		15	1329	2.46	19	23.17	155	6.04	2.93	2.0	1.8	24	0	64	.15	7	.7	4.9	23	GLN
		15	1336	9.84	19	23.32	155	2.09	6.57	2.2	1.4	27	2	134	.17	7	.7	1.5	24	MER
		15	1338	.96	19	24.25	155	2.04	2.33	2.6	2.9	27	0	118	.19	6	.9	4.9	23	MER
		15	1345	40.75	19	18.95	155	13.87	4.65	2.4	.9	16	0	89	.12	4	.9	3.2	16	POL
		15	1350	18.65	19	20.90	154	58.40	.41	2.2	2.4	27	2	218	.14	8	1.6	.6	23	LER
		15	1356	2.58	19	23.55	155	24.29	9.13	1.9	1.2	18	0	71	.12	6	.8	1.6	18	UKF
		15	1356	41.54	19	24.24	155	16.89	.01	2.6	3.1	17	2	89	.43	1	.7	1.2	16	SPC
		15	14	6 30.08	19	27.49	155	17.60	2.29	1.6	1.8	10	1	198	.26	4	1.4	2.6	9	GLN
		15	1410	21.98	19	20.42	155	8.49	5.56	2.1	2.4	26	1	75	.15	4	.7	1.8	21	UER
		15	1446	1.87	19	21.25	155	1.52	7.80	3.0	3.1	33	2	182	.12	4	.8	.8	27	MER
		15	15	2 2.15	19	21.44	155	11.05	10.95	1.7	.8	15	0	84	.08	2	1.0	1.9	13	UER
		15	1510	40.39	19	20.17	155	3.24	6.12		.9	20	0	107	.15	1	1.4	1.1	16	MER
		15	1526	3.24	19	21.65	155	.92	5.44	2.4	1.6	23	2	184	.14	5	.8	1.4	20	LER
		15	1530	29.45	19	24.38	155	17.14	.99	1.3	2.0	9	0	72	.10	1	.6	.8	9	SPC
		15	1538	10.60	19	23.45	155	17.55	8.15	2.2	1.4	8	1	101	.28	3	1.9	2.6	7	LPC
		15	1548	56.47	19	23.02	155	.28	3.06	2.0	1.5	18	1	172	.23	5	1.2	2.2	15	LER
		15	1613	39.76	19	19.47	155	7.29	6.23	2.0	1.8	25	1	114	.13	4	.8	1.6	22	UER
		15	1617	22.55	19	23.12	155	2.01	6.49	2.3	1.8	22	1	140	.19	6	.8	1.8	19	MER
		15	1618	37.86	19	26.15	155	16.99	4.44	2.4	3.1	11	2	178	.27	2	2.1	.8	10	SPC
		15	1633	13.92	19	20.46	155	.44	6.45	2.1	2.0	26	0	209	.14	4	1.8	1.1	24	LER
		15	1655	57.01	19	22.51	155	5.09	11.94	2.1	1.7	26	1	75	.11	6	.8	.8	23	MER
		15	17	5 15.87	19	20.92	155	7.08	6.76	2.1	2.3	29	1	90	.12	5	.6	1.4	26	UER
		15	1721	50.53	19	18.96	155	11.63	6.54	2.0	1.2	24	0	106	.09	5	.8	1.7	24	POL
		15	1742	13.09	19	21.08	155	6.38	7.44	2.5	3.0	29	1	93	.13	6	.6	1.2	27	UER
		15	1759	57.44	19	21.22	155	1.56	7.35	2.4	2.4	30	1	182	.15	3	1.0	.8	29	MER
		15	1817	3.70	19	23.90	155	17.19	.29	1.2	1.4	9	1	68	.09	2	.5	1.0	7	SPC
		15	1817	32.38	19	25.82	155	16.53	2.60	2.1	2.6	13	1	176	.26	2	1.6	.7	11	SPC
		15	1842	20.43	19	20.26	155	15.51	26.92	1.9	1.2	20	0	79	.11	3	1.8	3.6	20	DEP
		15	1849	4.85	19	23.74	155	2.87	4.47	2.3	2.0	27	1	56	.13	7	.8	8.3	22	MER
		15	1850	5.45	19	20.55	155	3.65	9.30	4.0	4.0	37	1	157	.10	7	.9	.7	27	MER
		15	1857	.85	19	22.20	154	59.63	9.21	2.0	1.7	24	0	143	.15	1	1.8	1.1	19	LER
		15	19	9 17.01	19	23.26	155	5.95	.55	2.3	2.6	26	2	72	.13	7	.6	.8	24	MER

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	SEP	15	1940	3.98	19	19.62	155	3.70	6.67	2.7	2.8	28	2	174	.13	1	.8	1.2	24	MER
		15	1956	25.31	19	24.21	155	2.84	2.45	1.9	1.8	19	0	106	.13	7	.8	5.9	19	MER
		15	2013	16.52	19	21.48	155	.97	6.28	2.1	1.7	26	1	188	.21	5	1.1	1.4	23	LER
		15	2150	49.99	19	22.25	154	57.99	5.05	2.2	1.0	20	0	211	.26	6	1.9	2.3	20	LER
		15	22	0 39.06	19	23.51	155	6.12	.02	1.9	1.9	24	2	64	.17	7	.7	.7	21	GLN
		15	2227	6.31	19	21.59	155	15.84	1.28	1.9	1.9	18	0	64	.08	2	.5	.7	18	KOA
		15	23	1 27.81	19	23.60	155	17.16	.35	2.2	2.8	13	3	55	.36	2	.8	1.0	11	SPC
		15	2310	48.70	19	22.04	155	1.96	6.80	2.2	2.1	25	2	155	.24	4	.9	1.6	23	MER
		15	2329	31.95	19	21.37	155	15.85	1.34	1.3	.9	9	0	89	.09	2	.7	.9	8	KOA
		15	2333	28.46	19	21.10	154	57.29	5.27	2.5	3.0	28	1	225	.26	8	2.0	1.9	27	LER
		15	2335	22.39	19	21.42	155	16.07	1.24	1.3	1.3	12	0	67	.09	2	.6	.8	12	KOA
		15	2347	58.61	19	18.70	155	13.49	5.05	2.0	1.8	33	2	75	.15	3	.6	1.5	30	POL
		15	2355	11.72	19	24.06	155	17.28	1.64	1.4	1.4	8	1	89	.11	3	.6	1.1	7	SPC
		16	0	9 54.82	19	45.28	155	40.15	9.80	2.3	1.7	20	4	205	.25	19	2.0	1.2	18	KKU
		16	046	56.27	19	20.54	155	7.15	6.25	2.3	1.9	26	2	96	.13	6	.7	2.2	23	UER
		16	122	11.09	19	20.73	155	8.41	5.31	1.6	2.4	20	0	74	.16	4	.9	2.1	18	UER
		16	128	12.65	19	23.26	155	24.38	9.27	1.6	1.0	14	0	78	.10	6	.8	1.7	14	UKF
		16	133	22.67	19	20.63	154	56.67	5.28	2.5	3.1	25	1	233	.26	9	2.1	1.9	22	LER
		16	159	53.08	19	23.37	155	5.91	.32	1.9	1.8	24	1	65	.17	7	.6	.9	22	MER
		16	2	5 17.32	19	23.70	155	17.54	.10	1.9	2.1	11	1	85	.25	2	.5	1.3	10	SPC
		16	210	22.22	19	24.04	155	17.25	.15	1.2	1.8	9	1	79	.35	2	.8	1.6	8	SPC
		16	228	27.31	19	23.44	155	2.25	5.81	2.1	1.9	24	2	129	.16	7	.8	2.2	22	MER
		16	243	34.68	19	22.41	155	13.75	3.26	1.3	1.0	10	0	109	.17	1	1.3	1.2	8	UER
		16	248	9.93	19	24.14	155	16.82	.12	2.1	2.6	15	3	52	.39	2	.7	.9	13	SPC
		16	3	7 42.48	19	20.66	154	59.69	7.13	2.5	2.1	32	2	213	.14	6	1.1	.8	28	LER
		16	315	22.36	19	26.37	155	15.73	6.55	2.0	2.4	9	1	205	.34	4	3.0	2.1	8	LPC
		16	321	44.68	19	24.61	155	17.37	1.44	1.1	1.7	8	1	103	.07	2	.6	.8	7	SPC
		16	328	18.00	19	20.75	155	1.73	6.71	2.1	1.8	26	2	192	.15	3	.9	1.1	22	MER
		16	4	9 55.79	19	22.56	155	3.10	1.00	2.1	2.2	24	2	164	.17	9	1.1	1.2	21	MER
		16	435	21.09	19	23.43	155	17.69	.43	2.0	2.3	10	1	104	.57	3	1.1	2.5	9	SPC
		16	5	0 51.72	19	20.39	155	2.39	6.80	2.1	1.8	25	2	184	.17	1	.8	1.3	21	MER
		16	5	6 52.26	19	21.11	155	11.36	11.27	1.6	.9	18	0	68	.07	3	.8	.9	17	UER
		16	5	8 51.25	19	21.44	154	57.18	5.77	2.1	2.6	18	1	236	.14	7	1.4	1.7	12	LER
		16	526	28.33	19	23.94	154	57.37	6.48	2.6	.5	18	0	201	.20	3	2.2	1.3	13	LER
		16	652	9.65	19	19.45	155	13.42	5.03	1.6	.9	15	0	72	.14	5	.9	3.4	13	UER
		16	710	16.39	19	23.43	155	24.39	10.64	1.7	1.2	16	0	73	.09	6	.9	2.4	14	UKF
		16	713	50.66	19	28.45	155	23.43	5.21	1.9	1.9	19	0	86	.13	3	.9	2.2	17	UKF
		16	748	21.40	19	21.53	155	6.51	3.91	1.9	.8	21	1	99	.15	6	.9	3.5	21	UER
		16	749	24.90	19	24.08	155	16.89	2.41	1.8	2.4	8	1	83	.11	2	.6	.9	7	SPC
		16	757	59.48	19	23.31	155	6.26	3.10	1.8	2.1	16	0	89	.14	7	.9	4.9	16	GLN
		16	821	28.78	19	21.90	155	15.48	3.46	1.3	1.3	20	0	70	.15	1	.6	.9	19	KOA
		16	851	23.26	19	21.17	155	8.14	7.75	2.7	2.8	33	2	73	.12	3	.6	1.2	30	UER
		16	852	20.52	19	20.67	155	7.54	5.62	2.3	1.6	17	1	88	.12	5	.8	1.9	14	UER
		16	913	12.63	19	23.65	155	17.49	1.67	1.8	2.1	8	1	73	.08	3	.5	1.1	7	SPC
		16	915	47.76	19	24.53	155	16.52	.06	1.3	1.9	8	1	138	.16	1	.6	.9	7	SPC
		16	920	33.74	19	20.06	154	57.17	4.59	3.1	3.7	29	1	235	.20	10	1.4	1.4	28	LER
		16	925	32.75	19	23.63	155	16.56	.02	1.6	1.7	10	1	132	.25	3	.7	1.3	7	SPC
		16	941	59.31	19	24.44	155	17.12	2.48	1.6		8	0	109	.12	2	.7	1.1	5	SPC

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	SEP	16	1045	.45	19	22.86	154	59.39	7.27	2.1	1.5	23	2	190	.17	4	1.3	2.0	19	LER
		16	11 9	29.16	19	12.63	155	32.56	9.35	2.2	1.3	20	0	129	.12	9	.9	1.5	19	LSW
		16	1127	7.91	19	23.41	155	5.87	.41	2.1	2.3	29	2	74	.16	7	.6	.8	27	MER
		16	1137	43.88	19	21.36	155	3.74	8.58	3.3	3.6	58	2	100	.10	3	.7	.7	32	MER
		16	1147	8.62	19	21.73	155	3.09	5.01	2.0	1.9	24	1	123	.19	3	1.0	2.7	21	MER
		16	1159	6.43	19	19.86	155	6.14	6.99	2.0	1.8	27	2	127	.12	6	.8	1.7	25	UER
		16	12 3	39.10	19	22.43	154	59.85	7.74	2.8	2.6	30	2	187	.13	5	.9	.8	27	LER
		16	1223	53.05	19	20.79	155	3.57	5.96	2.0	1.9	22	1	96	.17	2	1.1	2.0	19	MER
		16	1226	.58	19	19.11	155	10.98	3.90	2.0	1.8	25	1	108	.15	6	.7	2.5	21	UER
		16	1244	30.45	19	20.23	155	12.90	5.76	1.9	1.3	25	0	69	.13	5	.8	1.4	24	UER
		16	1245	35.12	19	21.48	154	59.31	9.20	2.2	1.8	24	2	212	.19	7	1.6	1.1	21	LER
		16	1248	44.19	19	21.97	155	5.69	6.33	1.9	1.3	20	0	77	.17	6	1.0	3.8	20	MER
		16	1257	16.74	19	22.81	155	24.66	8.30	1.6	2.2	23	0	63	.12	5	.7	1.6	21	UKF
		16	13 2	49.98	19	23.07	155	2.07	7.57	2.4	2.8	28	2	139	.17	6	.8	1.2	23	MER
		16	1359	11.10	19	27.58	155	21.74	6.81	3.2	3.2	35	1	67	.15	5	.7	1.4	30	UKF
		16	14 1	28.33	19	19.49	155	9.64	6.09	2.0	2.1	29	1	93	.10	5	.7	1.4	28	UER
		16	14 5	6.67	19	22.69	155	1.04	7.36	1.9	1.8	23	0	183	.15	6	1.4	1.0	19	MER
		16	1429	43.12	19	23.85	155	17.18	.21	2.4	2.9	18	2	54	.40	2	.7	.8	15	SPC
		16	1440	58.05	19	19.83	154	57.85	2.13	1.9	1.7	17	0	239	.25	9	3.4	10.7	17	DIS
		16	1519	13.28	19	23.34	155	17.49	.09	1.4	1.8	10	2	88	.31	3	.7	1.4	9	SPC
		16	1522	53.95	19	21.48	154	59.70	7.21	2.0	1.9	22	1	22	.20	6	1.3	1.2	20	LER
		16	16 1	49.65	19	20.98	155	2.03	7.20	2.5	2.4	31	1	174	.10	3	.9	.7	28	MER
		16	1639	42.19	19	27.81	155	21.08	6.81	1.3	1.3	8	0	196	.11	5	2.1	3.8	8	UKF
		16	17 1	25.54	19	13.44	155	8.35	8.99		1.3	20	0	236	.13	15	2.6	1.2	20	POL
		16	1711	35.92	19	24.40	155	3.00	.93	2.0	2.1	17	2	100	.11	8	.6	.9	16	MER
		16	1715	51.20	19	27.75	155	21.31	8.00	1.6	1.6	12	0	163	.11	5	1.3	3.1	11	UKF
		16	1718	33.72	19	24.34	155	16.78	.76	1.1	1.8	9	0	102	.14	1	.6	.8	8	SPC
		16	1726	33.25	19	23.61	155	5.82	2.07	1.9	1.0	19	0	75	.11	8	.8	5.7	18	MER
		16	1728	31.46	19	21.44	155	15.98	1.41	1.5	.9	13	0	68	.07	2	.5	.7	11	KOA
		16	1735	43.15	19	23.91	155	17.45	.02	1.5	1.9	9	1	129	.39	2	.7	1.6	7	SPC
		16	1738	22.74	19	20.87	155	1.99	6.77	2.3	2.3	24	1	179	.14	2	.9	1.5	22	MER
		16	1740	59.97	19	23.06	155	24.94	7.42	2.3	1.9	28	2	84	.19	5	.6	1.9	25	UKF
		16	1743	.56	19	21.33	155	6.56	4.78	1.8	1.5	23	1	87	.12	6	.8	4.7	22	UER
		16	1835	10.12	19	22.25	155	2.97	4.32	2.0	1.9	24	0	125	.14	4	1.0	4.2	23	MER
		16	1840	36.34	19	20.39	155	4.82	6.25	2.6	3.1	31	0	121	.11	3	.8	1.5	30	MER
		16	1854	4.73	19	21.37	155	1.32	3.88	1.9	1.8	25	0	183	.23	4	1.3	2.8	22	MER
		16	1922	47.97	19	24.07	155	2.56	4.05	2.0	2.4	23	1	112	.16	7	.8	6.2	22	MER
		16	1937	49.31	19	23.72	155	26.86	11.16	2.9	3.1	35	1	48	.13	3	.5	.7	33	UKF
		16	20 4	33.52	19	21.86	155	6.30	6.76	2.5	2.6	29	2	79	.13	6	.6	1.8	24	UER
		16	2026	13.25	19	19.42	155	3.67	8.04	3.3	3.2	32	2	189	.10	2	.8	.8	28	MER
		16	2037	31.23	19	19.52	155	3.27	6.76	2.2	2.7	26	1	201	.14	1	1.0	1.1	25	MER
		16	2042	4.81	19	22.89	155	2.09	6.82	2.0	2.0	22	2	142	.17	6	.8	1.7	19	MER
		16	21 5	15.27	19	22.06	155	3.27	4.55	1.9	1.5	20	0	117	.15	4	1.1	4.3	19	MER
		16	21 6	18.45	19	20.35	154	59.35	8.83	1.8	1.6	20	0	217	.14	9	2.5	1.6	19	LER
		16	2113	7.99	19	19.09	155	11.51	5.83	2.0	1.8	29	1	106	.16	5	.8	1.4	25	UER
		16	2136	26.43	19	23.00	154	58.66	7.57	1.3	1.8	20	0	217	.16	4	1.9	1.2	18	LER
		16	2158	56.15	19	20.74	155	13.14	6.50	1.4	1.3	23	0	61	.12	4	.8	1.4	21	UER
		16	2159	29.26	19	20.91	155	8.41	6.49	2.0	2.4	30	2	73	.13	3	.6	1.5	25	UER

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	SEP	16	22 1	13.63	19	22.20	155	1.24	2.30	1.3	1.3	18	0	170	.20	5	1.8	3.7	16	MER
		16	23 1	17.99	19	22.57	155	.53	5.97	1.9	1.6	23	0	178	.16	6	1.1	1.6	16	LER
		16	2314	7.06	19	20.96	155	6.18	3.99	2.0	1.8	29	3	98	.16	6	.8	3.5	26	UER
		16	2321	55.75	19	23.18	155	5.94	.19	2.0	2.1	27	2	66	.15	7	.7	.7	24	MER
		16	2344	5.63	19	23.83	155	2.54	2.63	1.9	1.3	26	1	116	.16	3	.7	1.2	24	MER
		16	2345	9.71	19	20.82	155	2.29	7.56	3.0	3.4	32	2	168	.09	2	.8	.7	27	MER
		16	2353	3.29	19	24.11	155	15.46	.43	1.8	2.6	11	1	112	.23	2	.6	1.5	10	SPC
		17	0 4	31.47	19	20.67	155	2.04	6.92	2.1	1.6	27	2	185	.20	2	.9	1.2	20	MER
		17	0 5	2.07	19	21.39	155	15.22	1.54	1.9	2.3	14	0	65	.08	2	.5	1.0	14	KOA
		17	018	14.55	19	23.76	155	17.18	.34	2.1	2.6	14	2	48	.50	2	.9	1.1	11	SPC
		17	052	15.95	19	20.86	155	14.80	2.51	1.3	1.5	11	0	86	.09	4	.7	1.6	10	UER
		17	1 1	19.69	19	25.67	155	23.16	14.01	1.5	1.3	14	0	97	.11	7	1.1	1.7	13	UKF
		17	1 2	48.99	19	21.13	155	2.83	7.24	2.1	2.0	26	1	137	.11	2	.8	1.3	23	MER
		17	129	41.51	19	25.51	155	25.86	9.83	1.7	1.3	16	0	65	.14	6	.8	2.5	13	UKF
		17	145	35.65	19	21.15	155	3.05	5.20	1.9	1.9	22	2	126	.14	2	.9	2.0	18	MER
		17	148	8.65	19	21.14	155	6.82	4.84	1.9	1.8	25	2	88	.14	6	.7	3.9	20	UER
		17	213	16.59	19	24.39	155	3.12	.60	1.9	1.6	16	1	98	.10	8	.6	1.0	15	MER
		17	220	17.40	19	23.68	155	24.26	9.28	1.5	1.3	15	0	75	.11	6	.9	1.6	15	UKF
		17	239	6.11	19	24.09	155	17.00	1.29	1.7	2.4	12	0	77	.15	2	.6	.9	11	SPC
		17	313	52.47	19	23.74	154	59.29	6.98		1.3	19	0	188	.24	3	1.8	1.4	14	LER
		17	4 1	47.09	19	21.27	154	57.12	7.83	3.0	3.4	31	2	218	.13	8	1.3	.9	29	LER
		17	444	33.96	19	22.72	155	15.25	26.21	2.3	2.1	34	2	51	.18	1	.9	1.8	29	DEP
		17	454	23.30	19	20.97	155	11.45	11.11	1.8	1.8	19	0	69	.08	3	.8	1.4	17	UER
		17	5 4	58.73	19	23.30	155	2.36	5.91	2.2	2.1	28	2	129	.16	6	.8	2.0	22	MER
		17	537	53.10	19	20.25	155	3.17	7.31	2.4	2.4	27	2	101	.14	1	1.0	1.1	22	MER
		17	712	6.80	19	23.59	155	2.44	5.52	1.9	1.6	21	0	122	.14	7	.9	2.3	21	MER
		17	720	13.87	19	20.57	155	3.06	6.20	2.0	1.6	27	2	122	.14	1	.7	1.3	22	MER
		17	817	18.51	19	21.21	155	.20	8.74	2.3	2.4	18	2	221	.18	8	1.2	1.8	14	LER
		17	849	18.42	19	24.36	155	16.39	.03	1.8	2.4	11	0	126	.40	2	.8	1.4	9	SPC
		17	947	54.91	19	18.99	155	.34	6.38	2.1	2.0	15	1	254	.16	12	2.6	2.3	13	DIS
		17	953	57.59	19	23.86	155	17.09	4.59	2.0	1.3	7	1	125	.11	3	1.2	1.8	6	SPC
		17	955	48.04	19	21.89	155	15.37	3.86	1.6	2.0	14	1	132	.08	1	.6	1.0	11	KOA
		17	1020	25.57	19	18.83	155	13.44	9.59	2.8	3.0	19	1	171	.08	7	1.0	1.5	17	POL
		17	1024	22.02	19	23.05	155	2.10	4.38	1.9	1.8	14	1	203	.13	7	2.3	13.6	13	MER
		17	11 3	7.77	19	19.93	155	8.44	8.29	2.1	2.4	19	3	199	.11	5	1.2	2.0	16	UER
		17	12 2	47.92	19	20.72	155	5.37	.85	2.7	2.9	9	0	213	.32	8	3.9	14.2	9	MER
		17	1249	29.77	19	19.23	155	2.07	3.69	1.7	1.9	25	0	212	.14	2	1.7	1.2	22	MER
		17	1330	2.20	19	21.72	155	2.86	6.07	1.9	2.0	27	3	135	.22	3	.9	1.8	25	MER
		17	1411	2.77	19	23.83	155	15.23	5.00	2.1	2.1	8	1	981.50		2	8.3	12.4	6	SPC
		17	1443	37.77	19	18.31	155	15.61	6.91		1.8	25	0	139	.07	4	.8	1.1	25	KOA
		17	1446	53.85	19	21.70	155	1.63	4.86	2.0	2.0	24	1	169	.14	4	.9	2.3	23	MER
		17	1519	23.71	19	21.87	155	6.35	8.57	3.7	4.0	39	3	78	.11	6	.5	.8	34	UER
		17	16 8	.90	19	25.15	155	23.79	8.30		1.5	20	0	60	.12	8	.7	2.1	20	UKF
		17	1618	57.03	19	20.49	155	8.54	6.25	2.1	2.4	31	1	74	.12	4	.7	1.3	25	UER
		17	1726	20.63	19	21.16	154	58.67	6.34	2.2	2.0	28	2	215	.21	7	1.2	1.1	25	LER
		17	1729	30.28	19	21.96	155	24.93	10.46		1.3	14	0	101	.09	4	.9	2.2	13	SWR
		17	1828	56.00	19	21.80	155	6.50	6.11	2.1	1.9	25	0	79	.11	6	.7	1.8	24	UER
		17	1836	48.68	19	21.94	155	6.24	2.65	2.0	1.2	26	1	78	.17	6	.7	2.2	23	UER

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	SEP	17	1851	13.29	19	21.09	155	2.92	4.80	2.0	1.9	22	0	134	.22	2	1.4	2.8	20	MER
		17	1855	27.45	19	19.63	155	16.05	7.33	1.5	1.9	26	1	100	.13	3	.7	1.2	25	KOA
		17	1916	59.24	19	20.60	155	5.84	7.50	2.2	1.8	23	0	108	.10	5	.9	1.1	22	MER
		17	2034	37.54	19	23.94	155	3.54	3.71	2.0	1.6	25	0	97	.14	8	.8	11.7	23	MER
		17	2246	21.22	19	21.08	154	59.19	8.15	2.1	2.0	30	2	212	.23	7	1.5	1.0	25	LER
		17	2331	6.89	19	23.77	155	16.63	.00	2.8	3.7	26	2	45	.54	2	.8	1.0	21	SPC
		18	0	3 50.71	19	23.98	155	17.23	.01	1.7	2.3	10	1	79	.31	2	.6	1.3	8	SPC
		18	055	13.76	19	23.68	155	2.54	5.25	2.1	1.9	24	0	119	.15	7	.9	2.8	23	MER
		18	058	1.57	19	17.70	154	56.15	6.52	2.2	1.6	27	1	254	.17	15	2.0	1.5	22	DIS
		18	110	45.33	19	21.36	155	1.00	5.64	2.1	1.9	25	1	189	.20	4	1.0	1.6	23	MER
		18	2	3 48.30	19	23.04	155	6.38	.03	1.9	1.9	26	2	62	.19	6	.7	.9	22	GLN
		18	235	2.56	19	23.33	155	5.02	2.43	3.0	3.8	28	0	77	.12	3	.7	1.2	28	MER
		18	338	44.34	19	24.11	155	16.94	.27	2.0	2.8	12	1	81	.16	2	.5	.9	9	SPC
		18	356	52.55	19	24.45	155	16.32	2.25	1.0	1.0	8	1	132	.14	2	.9	.8	7	SPC
		18	434	23.45	19	24.72	155	16.10	.10	1.1	1.5	10	1	143	.28	2	1.0	1.0	8	SPC
		18	5	3 21.53	19	24.04	155	16.82	.00	1.8	2.4	10	1	86	.26	2	.6	1.1	9	SPC
		18	5	4 59.77	19	23.84	155	17.06	.02	2.2	2.9	12	2	53	.27	2	.6	1.0	10	SPC
		18	515	20.94	19	20.97	155	2.04	5.75	2.1	2.3	30	2	175	.14	3	.8	1.3	28	MER
		18	524	55.20	19	20.39	155	.72	8.99	2.7	2.8	34	2	209	.12	4	1.1	.7	31	LER
		18	551	25.80	19	23.99	155	2.51	3.32	2.0	2.0	29	2	114	.22	3	.8	1.6	27	MER
		18	639	28.45	19	20.54	155	2.24	7.44	2.1	2.2	31	2	184	.17	2	1.1	.8	28	MER
		18	836	27.17	19	20.86	155	.74	5.25	2.1	2.0	28	2	203	.22	4	1.0	1.5	25	LER
		18	941	12.17	19	24.15	155	28.46	9.86	2.4	2.2	25	3	53	.15	3	.6	1.4	20	UKF
		18	10	2 54.97	19	20.68	155	16.71	1.62	1.3	1.9	7	0	154	.11	2	1.2	.8	7	KOA
		18	1012	42.83	19	21.38	155	5.23	6.95	1.9	1.7	18	0	213	.14	8	1.7	1.5	17	MER
		18	1058	59.24	19	21.69	155	6.46	7.46	3.1	3.3	34	1	81	.11	6	.6	1.1	32	UER
		18	1315	44.89	19	21.98	155	6.37	6.73	2.9	2.8	34	2	76	.11	7	.6	1.5	31	UER
		18	1516	11.39	19	24.74	155	28.58	7.18		1.4	19	0	63	.12	4	.8	2.3	18	UKF
		18	1627	46.39	19	18.94	155	11.98	6.44	2.2	2.0	28	2	105	.14	4	.7	1.4	25	POL
		18	1657	58.98	19	20.80	155	12.47	7.69		.7	19	0	67	.14	4	.9	1.6	19	UER
		18	1734	42.42	19	21.31	155	6.98	4.19		1.8	28	0	84	.16	5	.8	3.2	24	UER
		18	1853	16.92	19	27.18	155	23.82	7.21	1.8	1.9	15	1	50	.15	5	.8	2.5	12	UKF
		18	20	3 31.03	19	23.80	154	57.73	7.33	2.0	1.6	19	1	216	.11	3	1.7	1.1	19	LER
		18	2041	9.14	19	22.93	154	58.76	9.72	1.7	1.1	18	1	216	.11	4	1.3	1.0	16	LER
		18	2043	47.93	19	22.04	154	58.84	8.40	1.7	1.3	25	2	29	.23	6	1.4	1.0	21	LER
		18	2131	17.94	19	21.44	155	3.19	5.23	1.9	1.3	25	2	120	.15	3	.8	2.1	21	MER
		18	2142	27.35	19	21.13	155	1.26	5.44	2.0	2.0	27	1	190	.17	4	.9	1.3	25	MER
		18	22	1 10.89	19	23.91	155	16.98	.08	1.9	2.7	11	1	74	.23	2	.5	1.2	9	SPC
		18	22	3 42.67	19	21.15	155	.23	5.05	1.6	1.6	18	0	204	.21	5	1.8	5.2	16	LER
		18	22	8 49.69	19	25.26	155	13.94	10.01	2.1	2.1	9	1	275	.50	1	4.9	3.5	5	GLN
		18	2321	.04	19	21.93	154	58.15	9.06	1.4	1.4	21	1	212	.20	6	2.3	1.2	15	LER
		18	2344	46.64	19	20.66	155	1.36	8.40	2.1	1.8	24	2	201	.23	3	1.1	1.2	19	MER
		18	2349	5.07	19	21.72	154	59.53	8.28	2.2	1.8	23	2	203	.19	7	1.1	1.4	15	LER
		19	114	22.55	19	20.88	155	.91	4.48	2.1	1.9	25	1	202	.14	4	1.2	3.0	22	LER
		19	145	55.09	19	20.39	154	56.36	6.82	2.6	2.4	28	2	232	.14	10	1.5	1.2	24	LER
		19	259	10.03	19	18.76	155	13.42	10.19	3.5	3.5	39	2	77	.10	3	.5	.6	34	POL
		19	337	50.23	19	20.76	155	15.42	.04	3.5	4.1	32	1	74	.20	3	.4	.7	23	KOA
		19	346	17.85	19	21.02	155	15.27	.29	1.9	1.9	15	2	70	.10	3	.4	.6	13	KOA

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	SEP	19	356	13.56	19	22.49	155	4.50	7.55	2.4	2.3	27	1	86	.11	6	.6	1.2	21	MER
		19	448	10.69	19	21.29	155	15.32	1.54	1.9	2.3	16	0	67	.08	2	.5	.9	14	KOA
		19	520	42.06	19	20.99	155	16.29	1.64		1.3	8	0	85	.05	3	.7	.8	7	KOA
		19	535	13.21	19	20.96	155	.87	7.08	2.0	1.8	27	3	201	.18	4	.9	1.0	21	LER
		19	612	44.70	19	20.89	155	16.00	.14	2.8	3.5	34	3	73	.13	3	.4	.4	27	KOA
		19	654	26.26	19	21.02	155	15.20	.00	2.1	2.4	22	2	70	.15	3	.4	.4	19	KOA
		19	658	51.07	19	19.71	155	3.68	5.58	1.9	1.0	22	2	167	.13	1	.9	1.6	20	MER
		19	714	39.41	19	21.16	155	8.09	7.56	3.1	3.6	37	3	74	.12	4	.6	1.1	33	UER
		19	753	46.27	19	20.96	155	16.32	1.39	1.5	2.1	20	1	72	.08	3	.5	.7	17	KOA
		19	9	1 45.11	19	21.59	155	7.78	8.77	4.0	4.2	39	2	73	.10	4	.5	.8	34	UER
		19	1049	38.13	19	21.09	155	2.95	7.02	2.5	2.7	28	3	131	.18	2	.8	1.3	26	MER
		19	1117	59.18	19	18.96	155	30.39	7.50		1.4	17	0	109	.15	8	.9	3.5	17	HEA
		19	12	3 22.64	19	19.53	155	11.45	7.44	1.8	1.9	27	0	95	.12	5	.7	1.1	27	UER
		19	1257	17.98	19	20.94	155	15.39	.01	2.5	2.8	28	3	71	.12	3	.4	.4	25	KOA
		19	1436	56.16	19	23.97	155	15.79	2.81	1.9	2.1	21	1	40	.09	3	.5	.6	18	SPC
		19	1517	31.77	19	21.43	155	2.58	7.43	3.0	3.3	32	2	144	.13	3	.6	.8	30	MER
		19	1545	6.58	19	21.15	155	.52	7.91	1.9	1.4	25	2	30	.19	5	1.4	.9	19	LER
		19	16	3 14.22	19	14.71	155	29.85	11.22	3.0	3.3	36	2	130	.19	13	.8	.7	28	LSW
		19	1631	33.54	19	19.85	155	11.88	6.05	1.4	1.0	21	0	86	.13	5	.8	1.6	18	UER
		19	1640	59.31	19	18.46	155	5.65	6.33	2.4	2.4	33	2	184	.18	5	.8	1.3	31	MER
		19	1738	37.77	19	26.03	155	28.15	7.95	2.3	2.1	35	2	48	.12	7	.5	1.4	31	UKF
		19	1825	23.46	19	24.94	155	23.50	10.23	2.8	2.7	36	1	37	.13	7	.6	.8	32	UKF
		19	1931	50.69	19	26.00	154	57.26	5.71		1.2	19	0	188	.16	3	1.5	1.5	18	LER
		19	1958	1.38	19	21.20	155	7.80	5.09		1.0	25	0	78	.16	4	.8	2.7	22	UER
		19	2122	51.67	19	30.83	155	22.52	1.04	2.0	2.3	20	2	68	.15	2	.6	.8	12	NER
		19	2334	39.77	19	21.85	155	3.08	5.86	2.1	2.1	22	2	123	.12	4	.7	1.5	19	MER
		20	322	19.69	19	21.73	155	.75	7.60	2.1	2.0	28	2	186	.16	5	.9	1.1	23	LER
		20	340	1.98	19	23.66	154	58.06	7.19	1.9	1.3	18	0	197	.13	3	1.5	1.2	15	LER
		20	426	40.12	19	12.48	155	28.03	36.48	2.4	1.0	23	2	149	.10	17	1.4	2.0	23	LSW
		20	437	24.30	19	20.95	155	1.59	7.33	2.1	1.2	26	2	188	.18	3	1.0	1.2	24	MER
		20	525	37.41	19	20.63	155	6.60	5.64	2.0	1.1	27	2	101	.14	6	.7	3.1	24	UER
		20	536	6.21	19	30.66	155	22.55	1.28	2.0	2.2	19	1	75	.12	2	.6	.8	15	NER
		20	946	.85	19	31.09	155	22.15	4.15	2.0	2.6	17	1	143	.22	10	1.2	10.0	16	NER
		20	1226	51.65	19	55.65	155	16.01	11.30	2.4	2.5	29	2	252	.10	9	2.4	.9	22	KKU
		20	1247	28.42	19	18.94	155	14.26	7.23	2.0	2.1	29	2	99	.13	4	.7	1.3	23	POL
		20	1556	9.49	19	21.31	155	3.47	5.27	2.0	1.9	28	2	109	.14	3	.7	1.8	20	MER
		20	1645	8.27	19	18.96	155	11.63	7.23	1.9	1.9	28	1	109	.12	5	.7	1.2	25	POL
		20	1744	6.88	19	22.05	155	15.22	34.65		1.7	30	0	58	.09	1	1.3	2.2	28	DEP
		20	1920	38.01	19	22.79	154	59.37	9.17	2.0	2.1	27	0	188	.16	5	1.6	.8	25	LER
		20	1956	50.77	19	25.67	155	13.81	7.11	1.4	1.2	11	1	178	.16	2	1.5	1.4	9	GLN
		20	2036	44.40	19	22.25	154	59.92	8.86	1.8	1.6	24	0	189	.17	6	1.7	.8	24	LER
		20	21	1 41.48	19	21.52	155	6.58	6.11	1.9	1.6	26	2	84	.14	6	.7	2.1	24	UER
		20	2145	30.74	19	18.80	155	13.56	9.05	1.8	1.4	21	0	72	.11	3	.9	1.2	20	POL
		20	23	8 17.66	19	24.75	155	25.31	8.10		1.4	13	0	70	.10	6	.9	2.7	12	UKF
		20	2315	58.07	19	25.21	155	25.70	11.42	1.6	1.8	20	0	59	.12	6	.8	1.3	18	UKF
		20	2331	14.51	19	27.00	155	22.20	7.71	2.3	2.6	30	4	40	.14	6	.5	1.4	20	UKF
		21	138	27.26	19	25.84	155	15.36	2.49	1.4	2.1	8	1	187	.08	3	1.3	.9	7	SPC
		21	142	36.67	19	21.42	155	6.20	6.69	1.9	1.4	28	1	87	.15	6	.7	1.9	21	UER

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	SEP	21	814	47.28	19	31.95	155	23.46	6.10	1.8	1.7	14	0	109	.16	4	1.1	2.8	13	NER
		21	823	32.74	19	28.01	154	54.00	4.82	1.9	1.8	17	0	196	.13	2	2.7	2.2	13	LER
		21	829	4.64	19	27.16	154	52.68	5.11	1.9	1.7	19	3	255	.14	3	1.5	1.6	16	LER
		21	857	17.44	19	18.96	155	9.95	7.97		1.5	24	0	111	.10	5	.9	1.4	24	POL
		21	9	3 50.39	19	25.14	155	25.00	12.16		1.9	21	0	73	.12	7	.9	1.7	17	UKF
		21	920	38.77	19	23.96	155	14.97	1.46	2.1	2.4	12	1	911	.19	2	2.6	3.9	10	GLN
		21	1229	1.31	19	19.89	155	6.51	9.73	2.6	2.5	33	2	120	.10	5	.7	.7	28	UER
		21	13	2 .52	19	21.66	155	3.65	5.09	2.1	2.1	21	1	106	.14	3	1.2	3.3	19	MER
		21	1823	7.66	19	26.73	155	24.32	8.04	2.2	2.3	20	0	46	.11	6	.8	2.2	16	UKF
		21	2136	15.53	19	25.20	155	15.76	2.83	2.0	2.3	22	1	44	.18	3	.6	.8	19	SPC
		21	2253	17.32	19	24.54	155	24.82	9.34	1.5	1.3	20	0	70	.11	6	.7	1.7	16	UKF
		22	028	37.29	19	25.65	155	13.54	7.82	2.1	1.6	8	1	279	.34	2	4.5	3.2	7	GLN
		22	141	27.29	19	21.83	155	6.90	7.71	2.1	2.3	31	2	76	.12	5	.6	1.4	25	UER
		22	341	8.85	19	23.49	154	59.18	6.20		1.4	14	0	209	.11	3	1.7	1.9	14	LER
		22	427	49.15	19	20.25	155	.59	8.87	2.0	1.8	28	2	210	.16	4	1.3	.9	20	LER
		22	432	37.42	19	24.19	155	26.27	8.58		1.3	15	0	51	.12	4	.9	2.1	13	UKF
		22	648	14.21	19	21.04	155	3.38	4.99	1.9	1.9	23	1	109	.17	2	1.0	2.5	19	MER
		22	8	0 49.37	19	27.99	155	22.95	6.58	2.2	2.3	26	1	50	.19	3	.7	2.0	24	UKF
		22	10	5 37.34	19	19.13	155	12.49	4.12	2.0	2.2	27	1	92	.13	4	.7	2.7	22	UER
		22	1522	14.71	19	26.50	155	29.56	11.65	1.9	2.3	16	0	67	.13	8	1.0	2.3	14	UKF
		22	1623	20.10	19	24.91	155	24.20	11.73	1.7	1.8	17	0	65	.09	7	1.0	2.5	16	UKF
		22	1846	12.46	19	20.98	155	2.97	7.12	2.1	2.4	23	1	130	.11	2	.9	1.0	21	MER
		23	018	11.73	19	22.62	155	4.56	7.67	2.1	2.2	29	3	85	.10	6	.6	1.3	19	MER
		23	126	14.10	19	24.45	155	17.16	7.13	1.5	2.2	17	0	60	.11	1	.7	1.5	17	LPC
		23	2	8 44.01	19	21.20	155	2.83	8.37	3.9	4.2	39	2	136	.10	2	.7	.6	35	MER
		23	259	56.68	19	24.94	155	15.42	2.22	2.9	3.8	34	1	36	.14	2	.5	.7	31	SPC
		23	442	33.71	19	21.55	155	6.61	7.83	2.5	2.8	33	2	82	.09	6	.6	1.1	27	UER
		23	724	43.20	19	31.82	155	12.71	5.65	2.6	2.5	6	0	323	.84	14	98.5	76.1	5	MER
		23	728	35.38	19	21.36	155	2.58	7.92	2.1	2.3	28	0	146	.13	3	1.1	.8	27	MER
		23	959	59.42	19	21.52	155	2.11	6.30	2.1	1.9	26	1	159	.16	5	.8	1.2	24	MER
		23	1033	40.05	19	16.84	155	22.51	8.77	3.4	4.0	36	1	128	.17	6	.7	.9	33	SWR
		23	1312	42.81	19	20.52	155	13.49	5.78	1.6	1.6	26	0	64	.13	4	.8	1.5	25	UER
		23	1611	40.58	19	20.77	155	2.99	6.41	2.7	2.8	28	2	129	.11	2	.7	1.3	23	MER
		23	1739	11.46	18	56.34	155	21.87	16.61	2.7	1.9	34	4	266	.20	27	3.2	38.5	30	DIS
		23	1828	30.24	19	20.19	155	2.76	7.13	2.4	2.5	30	2	167	.14	1	.8	1.1	28	MER
		23	1942	53.96	19	20.86	155	2.20	5.65	2.0	1.7	24	0	172	.21	2	1.3	1.5	21	MER
		24	425	33.38	19	58.52	155	20.25	12.51	2.3	2.1	32	3	202	.14	39	1.0	1.7	30	KKU
		24	455	3.81	19	20.90	155	5.51	7.47	2.0	1.9	30	4	103	.16	5	.6	1.3	24	MER
		24	816	21.26	19	20.82	155	7.44	7.20	2.1	2.3	31	2	88	.15	5	.7	1.5	30	UER
		24	952	32.45	19	18.49	155	14.96	6.55		1.3	18	0	126	.08	4	.9	1.8	18	POL
		24	1031	37.43	19	21.13	155	3.05	7.07	2.1	2.4	26	1	126	.14	2	.9	1.2	23	MER
		24	1126	39.03	19	20.79	155	2.86	6.87	2.1	1.8	23	1	139	.18	2	1.2	1.4	22	MER
		24	12	0 9.73	19	19.21	155	11.93	6.09	1.7	1.8	25	0	98	.11	5	.7	1.3	23	UER
		24	1215	39.77	19	21.46	155	6.27	7.87	2.3	2.2	32	2	86	.11	6	.6	1.1	29	UER
		24	1225	40.29	19	21.31	155	2.70	5.57	2.1	2.2	22	1	141	.11	5	.7	1.4	21	MER
		24	1228	57.82	19	18.83	155	13.39	7.35	1.9	2.0	28	1	77	.12	3	.7	1.2	25	POL
		24	1420	25.80	19	18.86	155	13.19	7.87	2.0	1.9	29	0	83	.11	3	.7	1.0	27	POL
		24	1644	32.09	19	19.92	155	12.99	5.81	1.8	1.5	22	1	72	.13	5	.7	2.0	20	UER

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	SEP	24	1652	5.55	19	24.26	155	17.18	.77	1.9	2.7	9	0	68	.11	1	.6	.9	8	SPC
		24	2016	.14	19	59.91	157	46.74	2.60	3.6	2.6	43	11	235	.27	160	2.9	1.4	35	DIS
		25	047	45.98	19	24.08	155	16.37	16.78	1.7	1.3	29	2	61	.09	2	.7	.8	29	DEP
		25	5	4 58.60	19	19.98	155	11.57	6.46	1.6	1.2	21	0	90	.15	5	.8	1.8	19	UER
		25	611	3.79	19	23.60	155	16.97	.35	2.5	3.2	19	0	47	.41	2	.7	1.4	18	SPC
		25	817	43.80	19	24.70	155	23.88	9.25	2.8	2.8	35	3	30	.12	8	.5	1.0	32	UKF
		25	1510	52.95	19	21.08	155	16.29	1.44	1.7	2.4	16	0	70	.09	3	.6	.8	16	KOA
		25	1623	45.42	19	18.87	155	16.12	8.30	2.4	2.6	29	0	104	.14	3	.8	1.2	29	KOA
		25	1920	59.59	19	20.30	155	13.43	5.16	1.9	2.0	23	1	62	.10	4	.7	2.1	22	UER
		25	1958	3.75	19	19.21	155	8.02	9.28	2.7	3.1	33	2	97	.08	3	.6	1.0	31	UER
		25	2259	44.73	19	20.93	154	59.60	5.77	2.3	2.1	29	2	210	.18	6	1.1	1.3	25	LER
		26	241	56.75	19	20.59	155	3.32	5.95	2.4	2.6	28	2	104	.13	1	.7	1.3	25	MER
		26	757	3.81	19	20.59	155	7.70	6.23	1.9	2.2	16	0	195	.12	5	1.9	2.5	16	UER
		26	817	29.96	19	21.49	155	1.74	2.97	1.9	1.8	23	0	171	.23	4	1.5	2.5	23	MER
		26	10	7 57.86	19	26.93	155	21.88	5.80	1.8	1.7	18	1	49	.13	6	.7	3.3	16	UKF
		26	1044	25.82	19	39.91	155	14.21	40.94	2.0	1.0	31	6	45	.12	17	1.2	1.4	29	NER
		26	1227	55.83	19	21.72	155	6.41	6.25	1.9	1.4	23	0	81	.13	6	.8	2.7	20	UER
		26	1328	29.92	19	21.52	155	1.07	3.55	2.0	1.9	23	2	184	.14	4	1.0	2.3	18	MER
		26	1349	3.99	19	24.61	155	24.49	10.54	1.7	1.5	15	0	75	.09	7	.9	2.5	15	UKF
		26	1458	26.04	19	20.81	155	8.30	5.34	2.0	2.1	26	1	74	.14	4	.7	2.3	25	UER
		26	1615	22.27	19	19.12	155	25.42	9.20	1.8	1.9	28	0	115	.13	4	.8	1.2	26	HEA
		26	1742	25.09	19	21.23	155	5.77	8.83	2.3	2.6	26	0	93	.10	6	.7	1.0	22	MER
		26	18	5 39.71	19	20.58	155	3.46	7.97	3.2	3.7	33	0	95	.09	2	1.0	.7	32	MER
		26	1952	26.73	19	22.98	154	58.76	6.96	3.0	3.4	29	1	193	.12	4	1.0	.8	26	LER
		26	2125	14.99	19	21.49	155	2.50	5.23	2.1	1.9	26	1	146	.11	3	.8	1.7	24	MER
		27	233	51.18	19	20.13	155	3.49	8.13	2.9	3.3	33	1	125	.10	1	.9	.6	32	MER
		27	442	7.91	19	19.04	155	13.57	7.08		1.2	19	0	70	.10	4	.8	1.6	18	UER
		27	543	27.58	19	19.63	155	8.04	4.58		1.2	21	0	91	.12	4	.8	3.1	19	UER
		27	722	28.90	19	19.41	155	18.90	5.71		1.4	17	1	87	.10	3	.9	1.3	17	KOA
		27	858	2.86	19	17.73	155	23.57	3.13	1.7	1.4	15	0	164	.13	5	1.1	2.6	15	SWR
		27	1035	21.03	19	24.63	155	17.14	1.42	.6	.7	9	0	69	.07	1	.6	.4	9	SPC
		27	1042	46.40	19	24.69	155	17.26	1.22	.6	1.4	9	0	92	.05	1	.6	.4	8	SPC
		27	1139	10.43	19	18.68	155	13.39	6.44	1.7	1.4	16	0	80	.09	3	.9	2.4	16	POL
		27	1159	18.72	19	24.52	155	17.18	1.48	.5	.8	8	0	82	.08	1	.7	.5	8	SPC
		27	1215	20.42	19	17.63	155	23.60	3.21	1.7	1.6	20	0	165	.10	5	1.0	2.4	20	SWR
		27	1223	55.73	19	24.55	155	17.14	1.40	.6	.8	9	0	69	.07	1	.6	.4	8	SPC
		27	1225	59.43	19	24.68	155	17.03	1.29	.6	.8	9	0	88	.07	0	.6	.5	9	SPC
		27	1231	21.06	19	24.49	155	17.10	1.40	.3	.5	7	0	81	.08	1	.6	.4	7	SPC
		27	1243	34.66	19	24.50	155	17.25	1.61	.7	1.1	10	0	74	.05	1	.6	.3	10	SPC
		27	1253	47.59	19	24.45	155	17.26	1.62	.9	1.3	9	0	72	.05	1	.7	.4	8	SPC
		27	1255	18.06	19	24.11	155	17.08	.47	.7	1.1	9	0	76	.09	1	.4	.5	8	SPC
		27	1256	5.84	19	24.10	155	17.24	2.08	.6	.3	8	0	122	.08	1	.8	.5	8	SPC
		27	1337	59.90	19	19.34	155	7.25	6.10		1.1	17	0	118	.09	4	1.1	2.9	17	UER
		27	1358	32.68	19	24.59	155	17.20	1.13	.2	.6	9	0	74	.11	1	.6	.4	8	SPC
		27	14	1 6.95	19	24.25	155	17.31	3.36		.3	6	0	125	.04	1	1.5	1.4	5	SPC
		27	14	5 9.60	19	24.48	155	17.12	1.68	.7	.7	9	0	74	.07	1	.6	.4	8	SPC
		27	1417	28.14	19	24.26	155	17.15	2.12	.5	.4	8	0	126	.09	1	.8	.5	8	SPC
		27	1420	50.31	19	24.53	155	17.16	1.21	.3	.3	9	0	67	.12	1	.6	.4	9	SPC

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	SEP	27	1433	53.71	19	24.71	155	17.39	.88	.1	.6	8	0	105	.11	1	.6	.5	8	SPC
		27	15 4	1.00	19	24.77	155	17.15	1.38	.7	.9	9	0	89	.04	0	.7	.4	9	SPC
		27	1534	17.20	19	19.99	155	6.23	7.21	2.6	3.4	35	2	84	.11	5	.6	1.1	31	UER
		27	16 9	10.51	19	24.59	155	17.28	1.25	.6	1.1	9	0	83	.04	1	.5	.3	8	SPC
		27	1618	25.72	19	24.51	155	17.14	1.41	.3	.5	8	0	82	.06	1	.7	.5	8	SPC
		27	1622	37.05	19	12.76	155	37.26	9.56	2.3	1.9	27	2	111	.23	4	1.1	1.4	25	HEA
		27	1632	17.18	19	24.66	155	17.08	1.47	.3	.4	9	0	78	.07	1	.7	.4	9	SPC
		27	1746	12.58	19	24.54	155	17.32	.88	.2	.6	8	0	87	.07	1	.5	.5	8	SPC
		27	1754	18.21	19	24.89	155	17.26	1.66	.2	.6	7	0	199	.09	0	1.0	.6	6	SPC
		27	1756	18.55	19	24.41	155	17.15	1.52	.4	.4	9	0	70	.06	1	.6	.4	8	SPC
		27	18 4	52.22	19	10.08	155	28.87	36.54	2.7	2.3	31	0	155	.12	17	1.4	2.9	24	LSW
		27	18 9	49.73	19	19.77	155	8.42	6.68		1.4	18	0	81	.08	5	.9	2.4	18	UER
		27	1819	23.19	19	24.77	155	17.35	1.42	.2	.5	9	0	112	.04	1	.7	.4	8	SPC
		27	1825	42.05	19	24.50	155	17.20	1.60	.6	1.2	8	0	84	.07	1	.7	.5	8	SPC
		27	1827	1.69	19	24.63	155	17.06	1.22	.2	.8	7	0	80	.03	1	.6	.4	7	SPC
		27	1829	27.65	19	24.70	155	17.00	1.44	.3	.6	8	0	95	.11	0	.7	.5	8	SPC
		27	1852	46.48	19	25.25	154	56.42	6.31	2.1	2.1	27	1	193	.14	4	1.1	1.1	22	LER
		27	1920	25.90	19	24.57	155	17.07	1.51	.3	.6	9	0	80	.08	1	.6	.4	8	SPC
		27	1939	13.67	19	24.65	155	17.26	1.26	.4	.5	9	0	87	.06	1	.6	.4	8	SPC
		27	1944	20.20	19	18.98	155	16.24	5.60		.6	19	0	120	.11	3	.8	1.9	18	KOA
		27	1956	16.73	19	24.45	155	17.19	1.43	.3	.3	9	0	70	.07	1	.6	.3	8	SPC
		27	20 5	44.14	19	24.52	155	17.18	1.62	.7	.6	10	0	67	.08	1	.6	.4	10	SPC
		27	20 6	3.97	19	24.79	155	17.23	1.18	.4	.5	9	0	104	.07	0	.6	.4	8	SPC
		27	2044	38.89	19	24.61	155	17.16	1.32	.5	.2	9	0	74	.08	1	.6	.4	9	SPC
		27	2057	40.04	19	24.61	155	17.38	1.27	.5	.7	8	0	94	.08	1	.6	.4	8	SPC
		27	21 2	45.82	19	22.14	155	26.69	7.09	2.1	2.1	30	0	64	.15	2	.7	1.5	29	UKF
		27	2121	6.19	19	21.82	155	2.63	4.99	1.9	1.3	28	1	139	.13	4	.8	2.4	25	MER
		27	2131	56.80	19	24.23	155	17.31	1.41	.4	.3	7	0	99	.09	1	.6	.6	7	SPC
		27	2133	37.65	19	24.61	155	17.17	1.14	.2	.4	9	0	73	.11	1	.6	.4	8	SPC
		27	2137	40.46	19	21.24	155	16.27	1.38		1.0	11	0	68	.05	2	.6	1.2	9	KOA
		27	22 7	30.99	19	24.43	155	17.32	1.45	.6	.7	9	0	76	.07	1	.6	.5	9	SPC
		27	2220	40.70	19	20.16	155	13.57	5.47		.6	17	0	68	.11	5	.8	2.6	16	UER
		27	2225	44.61	19	24.58	155	17.39	1.19	.2	.5	8	0	91	.11	1	.6	.6	8	SPC
		27	2228	14.44	19	24.64	155	17.35	1.26	.2	.5	7	0	94	.06	1	.6	.6	7	SPC
		27	2311	41.08	19	25.76	155	25.27	8.81	1.7	1.5	21	0	54	.12	7	.8	2.4	19	UKF
		28	017	49.34	19	24.59	155	17.27	1.60	.6	.9	10	0	82	.08	1	.6	.3	8	SPC
		28	023	5.29	19	24.45	155	17.27	1.44	.3	.6	8	0	88	.06	1	.6	.5	8	SPC
		28	037	20.74	19	22.27	155	1.28	4.49	2.0	1.7	25	2	166	.18	5	1.1	5.7	23	MER
		28	143	17.50	19	21.45	155	14.54	1.38	1.3	2.1	14	0	61	.05	3	.5	1.1	13	UER
		28	2 0	34.49	19	24.30	154	57.29	6.12	2.0	1.8	22	1	193	.12	3	1.0	1.6	20	LER
		28	241	2.74	19	24.50	155	17.16	1.20	.6	.8	9	0	67	.03	1	.5	.4	6	SPC
		28	335	34.01	19	24.57	155	17.31	1.47	.5	1.1	9	0	85	.06	1	.6	.4	9	SPC
		28	337	26.55	19	24.63	155	17.13	1.35	.5	.6	9	0	69	.08	1	.7	.4	7	SPC
		28	6 7	4.18	19	24.55	155	17.16	1.38	.5	.6	8	0	69	.07	1	.6	.4	7	SPC
		28	636	46.72	19	24.59	155	16.90	1.20	.6	1.4	10	0	105	.11	1	.6	.4	9	SPC
		28	648	24.12	19	20.85	155	7.84	6.35	2.0	2.4	26	2	81	.12	4	.7	2.0	24	UER
		28	650	11.05	19	24.56	155	16.91	1.56	.6	1.2	9	0	101	.12	1	.7	.5	7	SPC
		28	7 0	28.39	19	18.54	155	19.84	6.33		1.0	15	0	164	.12	2	1.1	2.3	15	SWR

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	SEP	28	7 2	23.05	19	24.56	155	17.20	1.44	.3	.4	8	0	81	.07	1	.7	.5	7	SPC
		28	722	52.64	19	19.32	155	14.17	5.56		1.2	18	0	69	.09	4	.7	2.3	18	UER
		28	738	1.12	19	20.77	155	5.41	7.96	3.7	4.0	35	1	103	.09	2	.8	.7	34	MER
		28	747	12.78	19	21.21	155	3.70	5.32	2.1	2.4	26	2	99	.13	3	.7	1.7	22	MER
		28	834	44.47	19	19.68	155	12.89	8.52	2.0	1.6	17	0	76	.09	5	1.1	2.0	16	UER
		28	1144	13.61	19	25.46	155	27.49	11.02	2.0	2.4	28	2	65	.12	5	.6	.9	21	UKF
		28	1239	57.36	19	21.01	155	2.87	5.30	1.9	2.1	18	1	137	.21	2	1.3	2.9	15	MER
		28	1312	39.11	19	17.88	155	23.37	3.50	1.7	1.9	13	0	163	.09	4	1.1	2.3	13	SWR
		28	1335	56.20	19	23.88	155	17.19	2.69	1.2	1.4	11	0	65	.07	1	.6	.5	7	SPC
		28	1410	47.26	19	20.47	155	17.11	2.06	1.3	1.6	13	0	75	.08	1	.7	.7	11	KOA
		28	1539	18.95	19	20.82	155	4.48	7.72		1.5	22	0	103	.13	3	1.4	2.3	17	MER
		28	1612	37.38	19	24.23	155	17.53	2.33	1.3	1.6	8	1	101	.09	1	.8	.9	7	SPC
		28	1627	55.18	19	25.31	155	16.02	2.15	2.3	2.7	22	1	77	.10	2	.4	.6	21	SPC
		28	1649	10.96	19	24.44	155	17.06	1.92	1.1	1.4	11	1	77	.13	1	.7	.5	9	SPC
		28	17 9	5.00	19	24.85	155	16.00	3.87	.8	.6	9	1	149	.17	2	1.2	1.1	7	SPC
		28	19 2	49.20	19	24.72	155	17.09	1.49	.5	.3	9	1	74	.09	0	.7	.5	7	SPC
		28	19 4	7.78	19	24.43	155	17.22	1.57	.4		7	0	87	.05	1	.6	.5	7	SPC
		28	1915	24.09	19	24.17	155	17.23	2.04	.5		8	1	98	.10	1	.6	.6	7	SPC
		28	2017	49.75	19	24.59	155	17.07	1.65	.6	.1	7	1	79	.08	1	.6	.7	6	SPC
		28	2042	.48	19	18.46	155	12.28	7.83	2.2	2.2	34	3	114	.17	3	.7	1.2	26	POL
		28	2159	39.18	19	21.18	155	16.46	1.48		1.6	10	0	132	.07	2	.6	.9	9	KOA
		28	22 6	46.04	19	21.39	155	1.59	4.93		1.6	17	0	176	.15	4	1.2	3.1	14	MER
		28	2210	39.32	19	24.49	155	17.19	1.52	.6	.6	10	1	84	.08	1	.6	.5	8	SPC
		28	2242	.61	19	12.94	155	36.05	9.04	2.3	2.2	23	0	115	.16	4	1.0	1.5	18	HEA
		28	2257	27.33	19	24.31	155	17.42	1.37	.7	.4	10	1	101	.13	1	.5	.5	8	SPC
		28	2320	37.52	19	24.37	155	17.12	1.65	.8	.5	11	1	73	.10	1	.6	.5	9	SPC
		28	2329	16.68	19	22.29	154	57.67	5.47	2.2	2.3	28	2	213	.18	6	1.3	1.6	25	LER
		29	351	48.28	19	26.56	155	30.88	12.09		1.1	14	0	69	.10	8	1.0	3.5	14	MOK
		29	414	7.26	19	23.98	155	15.58	2.86	1.3	1.9	12	0	109	.06	2	.7	.5	9	SPC
		29	546	54.31	19	24.16	155	15.86	6.19	1.8	1.9	8	0	1201	.25	1	8.2	14.9	6	LPC
		29	7 9	51.22	19	23.82	155	17.12	2.05	.8	.6	9	1	108	.15	1	.8	.7	7	SPC
		29	950	27.73	19	21.43	155	2.70	5.99	2.1	2.5	14	2	140	.17	3	1.1	1.7	9	MER
		29	1042	34.13	19	20.44	155	6.80	6.62	2.0	1.7	26	1	102	.10	6	.7	1.8	21	UER
		29	14 7	34.28	19	23.59	155	16.59	1.84	2.0	2.7	11	1	66	.21	1	.7	.6	9	SPC
		29	1458	46.85	19	25.57	155	24.04	7.64	2.3	2.5	29	0	42	.14	8	.7	2.0	26	UKF
		29	1627	46.98	19	23.92	155	15.47	7.00	1.2	.7	5	0	142	.05	2	2.8	24.6	5	LPC
		29	17 9	17.51	19	24.03	155	17.19	1.98	.9	.8	8	1	102	.08	1	.6	.6	6	SPC
		29	1719	33.55	19	23.75	155	15.83	6.37	1.2	.6	7	1	98	.08	1	2.4	9.1	6	LPC
		29	1919	57.44	19	16.75	155	20.77	6.97		1.7	22	0	146	.13	4	.9	1.9	18	SWR
		29	2047	39.95	19	24.95	155	18.27	2.89	.6	.2	9	1	98	.15	1	.9	.5	8	SPC
		29	2116	20.25	19	23.92	155	18.64	2.20	.8	.8	12	1	110	.16	3	.9	1.4	9	SPC
		29	2140	56.53	19	18.25	155	19.96	8.76	1.7	.3	9	0	246	.18	10	4.5	7.2	7	SWR
		29	2145	9.75	19	24.38	155	17.26	1.40	.5	.5	9	1	100	.11	1	.5	.4	7	SPC
		29	2229	37.53	19	20.49	155	16.70	3.59	1.6	1.5	9	0	159	.11	1	1.4	1.4	8	KOA
		30	014	40.63	19	24.41	155	17.28	1.52	.4	.3	10	1	90	.07	1	.6	.4	8	SPC
		30	043	7.52	19	29.15	155	51.92	8.14	2.6	1.8	14	0	158	.10	6	1.5	1.2	14	KON
		30	114	1.99	19	24.09	155	17.19	1.90	.7	.1	9	1	99	.06	1	.6	.5	7	SPC
		30	157	38.71	19	19.91	155	11.74	7.55		1.8	25	0	85	.09	5	.8	1.3	22	UER

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	SEP	30	2 1	54.73	19	24.07	155	15.61	2.70		.2	6	0	128	.01	2	1.0	1.4	5	SPC
		30	314	40.09	19	24.37	155	17.22	1.34	.5	.8	12	1	64	.07	1	.5	.4	10	SPC
		30	4 9	37.58	19	13.60	155	37.23	11.15	2.5	2.6	28	0	108	.24	2	1.5	1.2	27	HEA
		30	445	3.70	19	24.21	155	17.27	1.77	.8	.3	10	1	75	.14	1	.6	.5	8	SPC
		30	5 6	12.50	19	24.79	155	16.79	2.03	.9	1.5	10	1	142	.12	2	.7	.6	9	SPC
		30	512	25.62	19	24.31	155	17.33	1.21	.7	.6	10	1	97	.13	1	.5	.5	8	SPC
		30	516	11.22	19	23.99	155	17.16	1.96	1.0	.7	11	1	76	.07	1	.5	.4	9	SPC
		30	519	57.54	19	24.33	155	17.15	1.44	.7	.4	9	1	87	.10	1	.5	.4	7	SPC
		30	523	58.37	19	21.16	154	59.17	4.87	2.1	2.3	27	1	211	.14	7	1.4	2.1	24	LER
		30	546	34.73	19	24.05	155	22.96	10.87	1.6	1.7	16	0	88	.12	6	1.1	2.6	16	UKF
		30	714	36.18	19	25.73	155	15.98	2.37	2.8	3.6	30	1	56	.10	2	.4	.6	29	SPC
		30	832	52.71	19	23.88	155	15.62	2.79	1.0		7	1	136	.03	3	.7	1.3	6	SPC
		30	937	20.65	19	21.64	155	15.35	3.37	1.2	.5	9	0	157	.10	2	1.0	1.2	8	KOA
		30	11 0	2.75	19	23.82	155	16.45	2.66	1.2	1.6	11	1	92	.11	2	.6	1.0	10	SPC
		30	1123	3.80	19	24.01	155	17.19	.86	1.2	1.2	7	1	120	.12	2	.6	1.1	6	SPC
		30	1615	40.41	19	21.52	155	1.82	5.25		1.8	20	0	168	.11	4	.9	1.5	17	MER
		30	1646	6.44	19	24.39	155	17.29	1.00	.3		7	0	107	.03	1	.6	.7	6	SPC
		30	1655	49.25	19	21.48	155	1.66	7.29	2.2	2.3	28	1	172	.13	4	.9	.9	21	MER
		30	1739	40.37	19	20.67	155	16.79	1.49	2.4	3.3	24	0	74	.10	2	.5	.7	24	KOA
		30	1826	16.31	19	21.41	155	16.24	.76	1.9	2.0	13	1	82	.11	2	.7	.6	12	KOA
		30	22 7	49.55	19	24.30	155	16.48	1.54	.7	.5	8	1	117	.08	2	.6	.8	5	SPC
		30	2227	18.03	19	26.35	155	15.65	.13	2.1	2.9	14	0	81	.27	4	1.0	2.6	12	SPC
	OCT	1	011	38.77	19	21.46	155	14.31	1.58	1.6	1.5	15	0	61	.05	3	.5	.9	12	UER
		1	024	44.80	19	24.35	155	17.09	.82	.3	.2	8	1	76	.12	1	.5	.9	6	SPC
		1	247	24.42	19	21.48	155	16.18	1.61	1.7	1.8	14	0	66	.05	2	.6	.7	12	KOA
		1	722	16.47	19	23.03	155	23.98	9.16	1.9	1.9	26	1	70	.12	5	.7	1.3	18	UKF
		1	750	52.12	19	27.47	154	50.44	5.27	2.1	1.9	17	1	14	.22	6	3.9	2.8	13	LER
		1	752	32.27	19	21.26	155	16.21	.52	2.7	3.9	24	0	67	.39	2	.7	1.8	22	KOA
		1	754	7.35	19	21.42	155	16.30	1.37	1.8	2.2	14	0	65	.10	2	.6	.8	14	KOA
		1	756	3.85	19	21.46	155	16.34	1.41	1.5	1.9	12	0	64	.09	2	.6	.8	12	KOA
		1	1624	7.14	19	20.69	155	16.14	.96	2.7	3.8	31	1	76	.14	3	.5	.7	30	KOA
		1	17 7	39.43	19	20.32	155	15.56	.92	1.3	2.1	13	0	83	.08	3	.6	1.3	12	KOA
		1	1735	47.50	19	19.55	155	12.45	3.14	2.0	2.0	27	2	85	.16	5	.6	1.6	21	UER
		1	1755	39.78	19	26.13	155	27.56	7.12	2.1	1.9	28	2	47	.14	7	.6	1.8	25	UKF
		1	18 6	4.77	19	24.30	155	16.95	1.60	1.2	1.8	10	0	85	.10	1	.7	.7	9	SPC
		1	2012	38.29	19	19.34	155	15.46	7.17	2.0	2.1	28	0	91	.12	4	.7	1.2	27	KOA
		1	2014	28.14	19	26.91	155	21.80	2.86	1.9	1.9	22	2	40	.13	6	.5	1.8	16	UKF
		1	2118	47.27	19	20.77	155	2.78	5.79	2.2	2.5	27	2	143	.14	2	.7	1.3	23	MER
		1	2126	30.61	19	21.60	155	3.97	6.03	2.0	1.8	25	1	95	.12	4	.8	1.8	22	MER
		1	2238	21.61	19	12.59	155	21.82	45.59	2.5	2.0	33	1	163	.13	11	1.4	1.8	30	LSW
		1	2337	37.89	19	19.20	155	21.98	3.57	1.6	2.2	20	0	99	.09	3	.8	1.4	20	SWR
		2	124	28.93	19	12.69	155	21.97	48.30	2.5	2.5	34	1	161	.12	11	1.6	2.9	30	LSW
		2	128	8.72	19	20.78	155	13.65	5.81	1.8	1.9	32	2	55	.16	4	.6	1.3	28	UER
		2	246	8.86	19	25.44	155	25.17	.46	2.0	2.3	29	2	50	.14	7	.5	.7	27	UKF
		2	312	22.95	19	19.46	155	8.25	5.23	2.0	2.2	30	2	88	.15	4	.7	2.1	27	UER
		2	323	45.27	19	17.43	155	21.03	5.52	1.7	2.3	29	0	127	.14	4	.8	1.6	27	SWR
		2	551	27.76	19	24.57	155	16.44	1.58	1.3	1.9	12	1	137	.18	3	.7	.9	9	SPC
		2	7 7	6.05	19	24.30	155	17.19	.99	.6	1.1	8	0	73	.03	1	.5	.8	6	SPC

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	OCT	2	821	20.69	19	23.57	155	17.27	2.92	1.1	1.0	8	1	91	.12	3	.8	1.3	5	SPC
		2	847	32.90	19	21.18	155	6.47	7.58	2.3	2.6	29	2	91	.10	6	.6	1.2	27	UER
		2	1158	57.90	19	20.82	155	2.27	5.44	2.1	2.3	28	1	171	.13	2	.8	1.4	25	MER
		2	1413	55.54	19	20.63	155	25.45	7.91	1.9	2.0	25	1	80	.12	4	.6	1.3	23	HEA
		2	1442	.27	19	20.34	155	12.68	6.38	1.9	2.2	27	1	68	.13	4	.6	1.3	25	UER
		2	20 1	3.16	19	26.89	155	21.32	5.66	1.9	2.1	19	0	94	.14	6	.8	3.2	17	UKF
		3	115	3.85	19	24.36	155	25.81	7.75	1.9	1.9	29	2	48	.14	5	.6	1.8	26	UKF
		3	340	39.03	19	29.92	155	11.24	14.05	1.8	1.9	25	0	156	.10	11	.9	1.0	24	GLN
		3	644	32.22	19	21.52	155	2.02	6.82	2.3	2.7	27	2	162	.13	3	.8	1.3	25	MER
		3	954	46.92	19	22.15	155	17.67	5.52	1.8	.9	10	1	227	.55	3	3.8	5.4	9	KOA
		3	1136	16.39	19	24.50	155	17.13	1.12	.3	.7	8	0	81	.10	1	.5	.5	7	SPC
		3	12 9	22.75	19	23.11	155	25.95	8.45	1.7	1.7	19	0	94	.11	7	.8	2.2	19	UKF
		3	1251	30.40	19	24.46	155	17.10	1.91	.7	.5	10	1	81	.11	1	.6	.5	7	SPC
		3	1253	30.15	19	24.47	155	16.46	1.68	.8	.9	10	1	132	.06	1	.5	.5	8	SPC
		3	1319	53.18	19	24.60	155	17.19	1.41	.3	.4	9	1	81	.08	1	.6	.4	7	SPC
		3	1333	15.78	19	20.81	155	2.07	7.13	2.4	2.4	25	2	178	.12	2	1.0	.9	20	MER
		3	14 5	59.71	19	18.06	155	13.51	7.79	2.1	2.2	30	1	81	.11	2	.8	1.1	22	POL
		3	1427	.11	19	21.79	155	24.72	9.71	1.7	1.3	16	0	130	.12	4	1.1	2.3	13	SWR
		3	1454	29.31	19	27.16	155	18.43	4.04	.9	.8	11	2	182	.32	4	2.6	2.4	9	GLN
		3	1640	9.81	19	24.65	155	17.34	1.62	.3	.4	7	0	161	.09	1	.8	.5	7	SPC
		3	1645	1.36	19	21.52	155	15.84	1.61	1.2	1.6	11	0	74	.05	2	.5	.9	11	KOA
		3	1656	10.23	19	23.90	155	17.10	2.00	.6	.3	9	1	102	.06	1	.7	.6	7	SPC
		3	1718	46.14	19	24.33	155	17.17	1.53	.4	.2	9	1	100	.11	1	.8	.5	7	SPC
		3	1759	36.11	19	20.73	155	10.74	8.13	1.6	1.8	25	0	74	.09	3	.8	1.4	25	UER
		3	1810	46.68	19	24.56	155	17.16	1.48	.3	.8	10	1	81	.08	1	.6	.5	7	SPC
		3	1825	19.07	19	24.73	155	16.50	.92	.5	.5	9	1	141	.11	1	.5	.7	6	SPC
		3	1846	57.87	19	24.74	155	17.15	1.44	.5	.7	9	0	75	.09	0	.7	.5	8	SPC
		3	19 3	53.59	19	24.60	155	17.25	1.10	.2	.7	8	0	82	.10	1	.6	.5	7	SPC
		3	2059	23.69	19	21.49	155	1.47	4.25	2.0	2.0	28	2	177	.13	4	.9	2.3	23	MER
		3	2114	49.73	19	18.99	155	15.48	6.66	1.7	2.1	27	0	96	.11	4	.8	1.2	23	KOA
		3	2139	39.05	19	19.37	155	11.98	4.59		1.4	24	0	95	.13	5	.8	3.8	22	UER
		3	2156	19.84	19	24.28	155	17.07	1.36	.4	.3	10	1	84	.09	1	.6	.5	8	SPC
		3	22 3	43.79	19	24.46	155	16.89	1.59	1.6	2.4	9	0	98	.13	1	.7	.6	7	SPC
		3	2231	11.00	19	25.45	155	15.76	1.47	.6	.5	9	1	196	.16	2	1.3	1.5	7	SPC
		3	2320	13.18	19	24.24	155	17.10	1.81	.8	.7	9	1	88	.09	1	.7	.6	8	SPC
		3	2329	30.97	19	24.38	155	17.12	1.55	.5	.6	10	1	84	.09	1	.6	.5	8	SPC
		3	2336	15.36	19	24.61	155	29.48	7.63	2.0	1.8	24	2	78	.16	5	.7	2.2	20	UKF
		3	2356	33.00	19	24.47	155	17.14	1.48	.6	.8	10	1	82	.07	1	.6	.5	8	SPC
		4	023	44.21	19	24.51	155	16.99	1.52	.7	.5	9	1	88	.12	1	.7	.6	7	SPC
		4	220	53.50	19	24.47	155	17.19	1.24	.3	.5	9	1	84	.10	1	.6	.5	7	SPC
		4	234	31.36	19	24.53	155	16.91	1.88	.4	.7	10	1	101	.15	1	.8	.6	8	SPC
		4	328	18.18	19	24.09	155	17.10	1.87	.5	.4	8	1	95	.07	1	.6	.5	6	SPC
		4	5 4	31.39	19	25.04	155	17.14	3.37	.6	.4	9	1	147	.15	1	1.2	.7	7	SPC
		4	625	25.91	19	26.68	155	21.55	5.39	2.0	2.4	23	1	69	.13	6	.6	3.1	19	UKF
		4	658	5.17	19	20.54	155	13.29	5.97	1.5	1.7	23	0	61	.11	4	.8	1.7	22	UER
		4	945	6.14	19	19.41	155	9.66	6.86	1.9	1.3	23	1	96	.11	5	.7	1.7	19	UER
		4	1041	4.51	19	20.21	155	6.96	4.12	3.0	3.1	28	0	105	.13	6	.9	2.6	23	UER
		4	1140	35.10	19	20.44	155	2.51	7.42	2.6	2.6	27	2	174	.17	1	1.1	1.2	20	MER

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	ND FM	REMK
1977	OCT	4	1457	10.76	19	24.38	155	17.19	1.56	.4	.4	10	1	87	.09	1	.6	.5	8	SPC
		4	15 6	30.52	19	21.84	155	15.40	4.24	1.9	1.7	19	0	60	.09	1	.6	1.1	17	KOA
		4	1752	7.81	19	24.32	155	17.06	1.52	.7	.8	10	1	84	.08	1	.6	.5	8	SPC
		4	1833	11.36	19	22.04	155	17.76	2.25	1.4	.6	9	1	231	.27	3	1.5	1.5	7	KOA
		4	1847	49.61	19	24.81	155	17.18	1.23	.1	.3	6	0	169	.02	0	.7	.5	5	SPC
		4	2146	41.07	19	26.87	155	24.17	7.76	1.6	1.4	13	0	65	.12	6	1.0	3.0	13	UKF
		5	213	1.36	19	24.26	155	17.16	2.62	.8	.4	8	1	99	.11	1	.6	.5	6	SPC
		5	324	1.62	19	24.34	155	17.10	1.53	.9	1.1	10	1	85	.11	1	.7	.5	8	SPC
		5	416	48.55	19	21.40	155	6.13	8.18	1.9	1.3	27	1	88	.12	6	.7	1.3	23	UER
		5	546	12.07	19	24.30	155	17.22	1.81	.5	.2	10	1	92	.05	1	.6	.5	7	SPC
		5	6 8	50.62	19	24.44	155	17.22	.91	.3	.2	10	1	87	.12	1	.5	.5	8	SPC
		5	654	26.15	19	24.82	155	17.21	1.19	.1	.3	9	0	92	.12	0	.7	.4	7	SPC
		5	734	39.57	19	23.20	155	17.63	2.42	1.2	1.3	9	1	169	.14	1	.8	.9	8	SPC
		5	1126	4.65	19	24.08	155	17.40	1.96	1.1	1.2	9	1	113	.06	1	.5	.4	8	SPC
		5	1132	47.97	19	25.14	155	17.21	1.47	.3	.5	10	1	149	.11	1	.8	.4	8	SPC
		5	1322	19.73	19	9.99	155	28.57	34.90	2.4	2.0	27	0	156	.12	18	1.5	3.7	27	LSW
		5	1436	29.78	19	24.30	155	25.52	10.69	1.8	1.5	25	0	76	.12	5	.8	1.8	17	UKF
		5	1731	20.18	19	24.78	155	17.76	16.18	3.4	3.4	37	1	26	.12	1	.8	.5	25	DEP
		5	1925	41.01	19	17.63	155	21.86	8.93	2.4	2.9	32	0	129	.17	5	.9	1.0	27	SWR
		5	1952	24.87	19	24.38	155	17.00	1.56	.9	1.0	10	1	83	.12	1	.7	.6	8	SPC
		5	2027	56.17	19	24.65	155	17.29	1.51	.8	1.0	10	0	89	.12	1	.6	.3	10	SPC
		5	2214	2.52	19	24.24	155	17.14	1.71	.7	.5	10	1	90	.12	1	.7	.5	8	SPC
		5	2347	32.60	19	24.42	155	17.25	1.66	1.0	1.2	10	1	89	.13	1	.7	.5	9	SPC
		5	2349	10.75	19	24.51	155	17.16	1.60	.8	1.6	11	1	88	.11	1	.6	.4	9	SPC
		5	2355	24.05	19	24.24	155	17.23	2.07	.8	.8	9	1	96	.04	1	.6	.5	7	SPC
		5	2358	55.26	19	21.55	155	2.30	5.29	2.1	1.9	23	0	153	.12	3	.9	1.6	19	MER
		6	1 8	.02	19	21.60	155	15.54	4.11	2.3	2.5	27	0	63	.11	2	.6	1.0	23	KOA
		6	231	56.68	19	20.13	155	3.96	7.52	2.0	2.0	31	0	132	.11	2	.9	1.0	26	MER
		6	326	21.78	19	21.17	155	1.50	5.36	2.0	1.8	29	2	184	.13	3	.9	1.6	23	MER
		6	411	37.10	19	24.42	155	17.05	1.61	.9	1.0	10	1	80	.09	1	.7	.5	8	SPC
		6	530	42.19	19	25.23	155	23.72	8.77	1.8	1.7	25	1	56	.13	8	.6	1.7	20	UKF
		6	544	49.62	19	21.81	154	59.70	3.84	2.2	2.1	23	0	200	.16	6	1.6	3.8	18	LER
		6	628	.63	19	21.27	155	1.62	5.35	1.9	1.9	23	0	178	.13	3	1.0	1.8	20	MER
		6	825	43.62	19	9.75	155	42.35	10.55	2.5	2.1	22	0	136	.12	21	.8	.9	19	HEA
		6	1229	1.67	19	26.55	154	49.49	9.03	2.3	1.4	22	2	289	.10	8	1.6	1.0	21	LER
		6	15 2	21.03	19	26.10	154	50.24	9.44	2.2	1.9	27	3	25	.13	8	1.6	1.0	23	LER
		6	1558	.97	19	24.33	155	17.13	1.52	.9	1.3	12	1	72	.08	1	.6	.4	10	SPC
		6	16 2	2.06	19	24.26	155	17.13	1.59	1.0	1.3	12	1	71	.10	1	.6	.4	11	SPC
		6	1726	32.08	19	26.06	155	28.14	8.68	2.3	2.2	31	1	49	.13	7	.6	1.4	26	UKF
		6	1818	25.37	19	19.62	155	6.35	7.69	1.9	2.3	29	1	84	.09	4	.7	1.3	25	UER
		6	2057	24.85	19	24.27	155	17.22	1.58	.4	1.0	12	1	65	.11	1	.6	.4	8	SPC
		6	2143	44.52	19	24.23	155	17.25	1.23	.9	.9	12	1	63	.14	1	.5	.5	9	SPC
		6	2220	19.29	19	20.25	155	2.42	6.47	2.1	1.8	28	1	155	.13	1	.8	1.3	26	MER
		7	113	32.80	19	20.39	155	8.66	6.67	2.1	2.3	28	0	70	.10	4	.7	1.6	26	UER
		7	331	37.64	19	21.48	155	2.50	4.56	2.2	2.2	27	1	146	.14	3	.8	2.2	24	MER
		7	337	.64	19	21.56	155	1.19	6.77	2.4	2.7	28	1	182	.13	4	.8	1.2	26	MER
		7	339	14.26	19	22.54	154	59.87	6.91	2.4	2.4	29	2	185	.18	5	.9	1.3	26	LER
		7	434	50.08	19	20.06	155	4.07	4.45	1.9	1.3	29	2	137	.15	2	.9	2.3	25	MER

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	ND FM	REMK
1977	OCT	7	442	14.77	19	19.10	155	15.51	6.38	2.2	1.4	21	0	113	.11	4	.8	1.7	20	KOA
		7	618	2.37	19	22.94	154	57.71	4.87	2.0	1.5	27	2	205	.19	4	1.3	2.1	24	LER
		7	727	23.30	19	24.33	155	17.04	1.49	.4	.3	10	0	80	.11	1	.6	.5	9	SPC
		7	1026	20.63	19	23.77	155	17.14	2.14	.7	.8	9	1	115	.14	1	.8	.7	7	SPC
		7	1039	36.13	19	24.50	155	17.10	1.34	.5	.7	10	1	80	.07	1	.6	.5	8	SPC
		7	1112	10.11	19	24.24	155	16.96	1.75	.5	.3	10	1	83	.12	1	.7	.6	8	SPC
		7	1135	35.62	19	24.25	155	17.02	1.57	.8	.4	10	1	82	.12	1	.7	.6	8	SPC
		7	1140	21.36	19	24.35	155	17.12	1.74	.8	.7	10	1	84	.10	1	.7	.5	7	SPC
		7	1317	40.65	19	18.98	155	12.08	7.15	2.0	2.3	24	1	103	.12	4	.7	1.7	18	POL
		7	1335	41.54	19	21.32	155	2.53	4.76	2.1	2.3	25	1	148	.16	3	.8	2.1	20	MER
		7	1432	54.41	19	21.15	155	15.29	.53	2.2	3.2	27	1	68	.13	3	.4	.7	24	KOA
		7	1521	8.85	19	24.41	155	16.99	1.56	.5	.7	10	1	85	.12	1	.7	.6	8	SPC
		7	1531	22.74	19	27.47	155	21.81	7.34	1.5	1.3	14	0	110	.11	5	1.0	2.7	10	UKF
		7	1543	29.86	19	24.53	155	17.05	1.42	.7	.9	10	1	82	.13	1	.7	.5	8	SPC
		7	1620	39.05	19	24.12	155	17.31	1.60	.9	.7	8	1	105	.07	1	.5	.6	7	SPC
		7	1654	3.17	19	23.60	155	25.61	8.87		1.5	20	0	85	.11	4	.8	1.8	18	UKF
		7	20 8	34.02	19	19.64	155	8.22	5.04	1.8	1.7	24	0	87	.12	4	.9	2.9	23	UER
		7	2041	32.13	19	24.04	155	17.06	2.01	.8	.5	9	1	95	.08	1	.7	.6	6	SPC
		7	2124	7.29	19	24.35	155	17.02	1.80	1.1	1.2	11	1	82	.10	1	.6	.5	10	SPC
		7	2232	15.76	19	24.19	155	17.14	1.79	.5	.4	9	1	92	.11	1	.7	.6	8	SPC
		8	0 3	53.01	19	18.99	155	11.51	6.27	1.8	1.9	24	0	108	.11	5	.8	1.9	24	POL
		8	037	35.07	19	26.52	154	55.22	5.80	1.9	1.8	26	1	193	.13	2	1.4	1.5	23	LER
		8	048	14.88	19	24.29	155	16.86	1.67	.5		10	1	93	.15	1	.7	.6	7	SPC
		8	224	19.06	19	23.60	155	17.11	2.02	.7	.4	9	1	128	.15	0	.8	.7	7	SPC
		8	228	7.65	19	21.96	155	6.78	6.08	2.1	2.4	31	1	75	.10	5	.7	1.7	28	UER
		8	238	56.51	19	23.95	155	17.07	2.38	.6	.4	9	1	96	.15	1	.9	.8	7	SPC
		8	244	35.34	19	24.83	155	25.31	9.23	1.7	1.8	15	0	133	.14	9	1.5	4.0	15	UKF
		8	3 4	46.35	19	24.32	155	17.17	1.40	.4	.2	9	1	89	.10	1	.5	.4	8	SPC
		8	325	41.53	19	24.50	155	17.14	1.35	.3	.5	10	1	82	.08	1	.6	.5	8	SPC
		8	4 1	4.65	19	24.19	155	17.19	1.71	.5	.7	10	1	95	.08	1	.6	.5	7	SPC
		8	412	18.69	19	19.47	155	26.85	9.66	1.9	1.9	23	0	86	.13	6	.8	1.7	20	HEA
		8	451	8.40	19	23.78	155	16.54	1.74	.7	.6	9	1	93	.07	0	.6	.5	7	SPC
		8	5 9	45.60	19	24.47	155	17.20	1.46	.3	.4	10	1	85	.12	1	.6	.5	7	SPC
		8	510	21.23	19	24.26	155	17.24	1.76	.5	.5	8	1	96	.06	1	.6	.5	7	SPC
		8	614	.35	19	24.21	155	17.27	1.97	.5	.1	10	1	98	.09	1	.6	.5	7	SPC
		8	632	38.77	19	23.64	155	17.17	1.74	.7	.1	9	1	132	.13	1	.7	.6	6	SPC
		8	637	49.51	19	18.83	155	26.46	10.60		1.8	16	0	153	.09	6	1.2	2.4	16	HEA
		8	645	34.98	19	24.50	155	17.22	.09	.1	.5	9	1	85	.13	1	.4	.7	7	SPC
		8	1415	24.41	19	21.94	155	5.84	6.55	2.5	2.8	33	2	78	.14	6	.6	1.5	25	MER
		8	1518	19.01	19	20.69	155	7.55	7.21	2.1	2.1	29	2	87	.09	5	.7	1.8	24	UER
		8	16 7	2.04	19	24.19	155	17.08	1.75	.8	1.0	9	1	88	.11	1	.7	.6	8	SPC
		8	1713	52.40	19	27.19	155	21.07	7.48	2.1	2.0	19	0	96	.12	6	.9	1.8	18	UKF
		8	19 1	45.14	19	19.11	155	12.07	5.81	1.7	1.6	25	0	99	.10	5	.8	2.1	24	UER
		8	2139	14.74	19	13.00	155	33.62	10.48	2.7	2.9	30	0	124	.17	7	1.0	1.3	27	LSW
		9	0 5	11.83	19	24.34	155	16.93	1.50	.4	.4	10	1	89	.08	1	.6	.5	8	SPC
		9	338	37.90	19	24.45	155	17.14	1.47	.4	.3	9	1	83	.08	1	.6	.5	7	SPC
		9	524	44.37	19	13.02	155	31.23	7.13	2.2	1.9	26	0	133	.16	11	1.0	2.7	18	LSW
		9	551	29.54	19	20.24	155	11.73	6.62	1.9	2.1	31	2	80	.11	5	.6	1.1	27	UER

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	OCT	9	557	42.99	19	24.23	155	17.25	1.88	.8	.6	10	1	96	.08	1	.6	.5	7	SPC
		9	6 3	13.40	19	24.18	155	17.35	1.44	.4	.4	9	1	104	.13	1	.4	.5	6	SPC
		9	7 9	14.58	19	21.14	155	18.14	.68	1.2	.7	9	1	20	.33	5	1.6	1.2	6	KOA
		9	715	35.68	19	21.92	155	.04	4.97	2.0	2.2	28	1	193	.16	6	1.1	2.1	25	LER
		9	839	17.79	19	20.40	155	13.98	6.80	1.5	1.7	22	0	71	.11	4	.8	1.6	19	UER
		9	859	58.39	19	23.51	155	17.22	2.03	1.3	1.7	8	1	143	.15	1	.7	.7	6	SPC
		9	1316	37.83	19	19.12	155	15.31	7.43	1.6	1.7	22	0	110	.09	4	.9	1.5	19	KOA
		9	1438	51.90	19	23.98	155	15.22	24.90	4.0	4.1	38	1	61	.11	2	.8	1.0	28	DEP
		9	15 4	56.38	19	18.55	155	13.65	6.40	2.2	2.4	33	2	72	.15	3	.7	1.3	27	POL
		9	1943	59.75	19	19.58	155	8.02	8.16	2.3	2.5	30	1	93	.09	4	.7	1.2	28	UER
		9	1948	33.74	19	24.62	155	17.19	2.00	.4	.4	10	1	80	.14	1	.7	.5	7	SPC
		9	1958	14.94	19	20.35	155	6.05	9.54	2.3	2.4	31	0	114	.09	6	.9	.8	27	UER
		9	20 0	1.73	19	22.32	155	17.61	1.96	1.0	.7	9	1	218	.33	2	1.2	1.3	7	KOA
		9	2117	46.71	19	24.52	155	17.05	1.46	.3	.5	10	1	82	.07	1	.6	.5	8	SPC
		9	2217	55.60	19	20.57	155	1.12	7.14	2.7	3.1	32	2	203	.12	3	.7	.9	26	MER
		9	2226	10.19	19	21.78	155	1.12	5.59	2.0	2.4	30	2	178	.16	5	.9	1.5	27	MER
		9	2323	58.68	19	22.20	155	5.59	7.91	3.1	3.4	38	3	73	.10	5	.6	.9	32	MER
		9	2327	33.22	19	21.72	155	6.02	7.41	2.0	2.1	27	2	82	.11	6	.6	1.6	25	UER
		10	133	9.57	19	23.59	155	23.97	10.51	1.6	1.7	20	0	66	.08	6	.9	2.1	19	UKF
		10	232	.31	19	24.37	155	17.15	1.53	.4	1.0	9	1	86	.15	1	.7	.5	8	SPC
		10	246	54.53	19	24.38	155	17.15	1.54	.5	.7	9	0	86	.08	1	.6	.5	8	SPC
		10	351	8.64	19	24.14	155	17.19	2.23	.8	.7	8	1	97	.04	1	.6	.5	6	SPC
		10	413	52.03	19	24.13	155	17.48	.25	.3	.8	8	1	120	.11	2	.4	.8	7	SPC
		10	557	47.40	19	21.85	155	6.01	6.97	2.1	2.1	31	1	80	.11	6	.7	1.7	28	UER
		10	725	5.56	19	15.08	155	48.35	6.31	2.6	1.8	26	3	131	.21	7	1.1	1.9	23	KON
		10	854	14.48	19	14.29	155	20.34	44.91	2.4	1.5	34	4	156	.10	7	1.1	1.4	33	HLP
		10	956	18.70	19	23.17	155	4.42	12.74	2.0	1.8	28	1	87	.11	3	.9	.7	23	MER
		10	1159	48.34	19	20.63	155	9.40	6.68	1.9	2.0	30	1	71	.11	3	.6	1.3	27	UER
		10	1538	18.37	19	9.99	155	37.52	9.80	2.5	2.3	28	2	117	.16	9	1.0	1.3	25	HEA
		10	1559	31.31	19	24.57	155	17.44	1.30	.6	1.5	11	1	69	.18	1	.6	.6	9	SPC
		10	1757	33.67	19	17.31	155	21.56	7.96	1.8	1.7	25	0	126	.12	5	.8	1.9	20	SWR
		10	2152	48.84	19	20.74	155	8.50	5.60	2.1	2.3	30	1	73	.13	3	.7	1.9	28	UER
		11	820	51.64	19	22.57	155	30.26	7.77	2.2	2.2	29	1	90	.14	5	.7	1.6	27	MOK
		11	936	34.03	19	11.95	155	20.85	46.33	2.4	2.1	16	1	205	.09	12	3.4	8.5	13	HLP
		11	947	27.72	19	21.42	155	14.84	6.88	1.4	1.2	14	0	146	.12	4	1.1	2.2	12	UER
		11	1316	48.17	19	13.88	155	20.25	43.51		1.7	25	0	159	.09	8	1.7	4.6	22	HLP
		11	17 1	20.39	19	14.02	155	20.30	46.16	2.5	1.6	28	0	158	.11	8	1.6	3.8	22	HLP
		11	2045	1.33	19	9.80	155	28.58	31.53	2.3	1.7	28	0	113	.12	1	1.4	3.4	22	LSW
		12	2 0	55.10	19	24.11	155	17.20	1.63	.5	.5	8	1	117	.08	1	.5	.5	7	SPC
		12	2 2	19.40	19	26.34	155	23.23	9.61	1.6	1.6	16	0	102	.08	6	.9	2.6	13	UKF
		12	415	47.25	19	25.48	155	24.53	10.95	2.0	2.1	23	0	58	.11	8	.8	1.9	20	UKF
		12	6 8	9.97	19	58.88	155	28.16	17.68	2.2	2.2	24	0	187	.12	36	3.0	99.0	18	KKU
		12	625	17.00	19	24.22	155	16.92	.46	.9	1.8	10	1	85	.08	1	.5	.4	7	SPC
		12	640	50.32	19	21.14	155	2.95	7.27	2.2	2.4	30	2	130	.13	2	.7	1.2	26	MER
		12	10 4	5.63	19	24.65	155	30.56	10.04	2.0	1.6	25	0	86	.11	7	.8	2.1	22	MOK
		12	1016	37.76	19	19.70	155	12.11	5.75	1.8	2.3	25	1	86	.13	6	.7	2.1	18	UER
		12	1033	29.31	19	24.00	155	22.99	8.84	2.6	2.6	32	2	54	.13	6	.6	1.1	24	UKF
		12	1246	43.82	19	19.71	155	11.56	6.31	2.0	2.3	28	0	91	.14	5	.8	1.6	25	UER

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	OCT	12	1432	20.49	19	19.68	155	12.00	5.84	1.6	1.5	26	0	87	.11	6	.7	2.0	22	UER
		12	1452	17.24	19	10.59	155	42.30	1.69	2.5	2.1	20	2	131	.33	20	1.2	2.2	17	HEA
		12	1815	45.96	19	24.41	155	17.09	1.49	.4	.3	11	1	76	.07	1	.6	.4	8	SPC
		12	1823	15.51	19	19.32	155	12.44	3.78	1.8	1.9	27	1	90	.16	5	.7	2.1	22	UER
		12	1857	41.53	19	27.11	155	46.50	11.33	3.4	3.2	28	0	84	.09	6	.9	.6	27	KON
		13	125	15.38	19	24.18	155	17.08	1.94	.8	.9	9	1	99	.06	1	.6	.6	7	SPC
		13	258	28.25	19	47.35	155	18.01	30.25	2.4	1.9	30	1	161	.12	17	1.4	3.2	27	KKU
		13	441	36.01	19	22.71	154	58.07	6.88	2.0	1.9	30	2	204	.22	5	1.2	1.3	25	LER
		13	7 0	29.30	19	20.25	155	3.88	6.24	2.0	1.7	24	1	124	.12	2	.9	1.6	19	MER
		13	927	3.64	19	19.84	155	12.77	8.06	1.8	2.2	27	0	76	.11	5	.8	1.1	26	UER
		13	1114	56.66	19	20.61	155	.62	4.71	2.0	1.8	21	2	206	.18	4	1.2	2.6	17	LER
		13	12 5	35.76	19	25.96	155	24.39	8.56	1.6	1.4	16	0	62	.12	7	.9	2.6	13	UKF
		13	1316	44.47	19	42.24	155	33.58	13.12	2.4	1.7	20	0	247	.14	13	3.8	1.0	16	KKU
		13	1452	5.10	19	19.97	155	11.37	7.53	2.0	2.0	28	1	87	.10	5	.7	1.3	26	UER
		13	15 3	8.30	19	20.22	155	5.82	8.87	2.6	2.9	28	1	120	.11	5	.7	1.1	25	MER
		13	1632	56.64	19	25.60	154	55.96	5.88	2.1	2.4	26	0	195	.12	4	1.3	1.6	23	LER
		13	1818	55.43	19	20.66	155	2.53	6.74	2.5	3.0	32	2	162	.14	2	.8	1.4	28	MER
		13	2157	25.75	19	20.88	155	3.22	4.27	1.9	1.8	26	2	115	.12	2	.8	1.8	23	MER
		13	2246	59.84	19	20.02	155	3.79	5.99	1.8	1.7	24	1	139	.13	2	.9	1.8	21	MER
		14	4 4	18.04	19	16.15	155	23.24	5.84		1.9	23	0	124	.16	4	.9	2.4	22	SWR
		14	20 4	53.77	19	20.93	155	2.80	4.73	2.0	1.6	26	0	141	.12	2	1.0	2.0	22	MER
		15	154	18.23	19	19.40	155	16.02	5.90	1.5	1.5	25	0	106	.12	3	.7	1.5	24	KOA
		15	420	26.92	19	19.23	155	11.60	5.73	1.7	1.4	26	0	101	.10	5	.8	2.1	23	UER
		15	9 3	8.85	19	25.06	155	24.94	11.03	2.6	2.8	35	0	34	.11	7	.6	.7	34	UKF
		15	12 2	31.18	18	47.32	155	9.13	17.20	3.4	2.8	33	2	287	.17	53	2.5	99.0	32	PPL
		15	19 4	20.36	19	15.97	155	7.53	50.55	2.4	1.7	39	4	196	.11	3	1.3	1.4	37	POL
		15	19 7	23.08	19	21.47	155	15.64	3.27	2.1	2.5	26	2	64	.13	2	.5	.8	24	KOA
		16	637	19.00	19	19.86	155	10.88	7.84	2.1	1.9	31	2	89	.12	5	.7	1.0	29	UER
		16	724	56.94	19	23.48	155	30.01	8.17	1.9	2.0	28	0	84	.11	5	.8	1.9	26	MOK
		16	733	8.23	19	9.18	155	22.08	43.15	2.2	1.1	30	3	216	.14	10	1.6	1.4	27	LSW
		16	1250	21.43	19	20.72	155	19.35	11.39	1.6	1.5	26	2	86	.08	4	.7	.8	26	SWR
		16	14 5	18.98	19	23.41	154	59.54	6.49	2.3	2.7	30	3	177	.15	4	.8	1.2	27	LER
		16	1528	52.58	19	25.31	155	26.59	1.21	1.8	1.9	22	1	53	.11	5	.5	1.5	19	UKF
		16	2216	31.01	19	25.56	155	28.45	9.26	2.7	2.6	34	2	49	.16	6	.6	1.1	31	UKF
		16	2314	16.37	19	21.42	155	6.59	6.50	2.0	1.8	29	2	139	.15	6	.8	2.1	25	UER
		16	2318	50.37	19	23.91	154	59.14	5.47	2.1	2.0	27	0	185	.19	2	1.4	1.2	25	LER
		17	026	59.76	19	19.45	155	10.52	4.92	1.7	1.5	21	0	100	.14	5	.9	3.5	18	UER
		17	2 1	12.45	19	18.05	155	15.11	5.99	1.9	1.7	26	1	139	.12	3	.8	1.4	23	KOA
		17	337	42.36	19	11.22	155	20.56	47.46	2.5	1.7	25	2	222	.10	13	2.1	1.6	25	HLP
		17	623	42.11	19	25.65	155	23.61	11.79	1.8	1.7	23	0	54	.11	8	.8	1.4	22	UKF
		17	1336	10.17	19	24.05	155	26.12	10.62	2.8	3.0	35	2	63	.12	4	.6	.8	32	UKF
		17	1815	54.92	19	21.05	155	2.85	5.70	2.0	2.3	28	0	138	.12	2	.9	1.3	28	MER
		17	21 3	19.19	19	25.50	155	15.68	1.79	1.3	2.0	14	0	126	.08	3	.6	.7	13	SPC
		17	21 7	54.87	19	21.04	155	1.94	4.90	2.1	2.0	28	1	176	.15	3	.9	1.8	24	MER
		17	2111	51.83	19	25.31	155	15.52	1.87	1.0	1.6	12	0	153	.09	2	.7	.6	12	SPC
		18	652	21.35	19	20.80	155	13.57	8.59	2.1	2.4	31	2	59	.12	3	.6	1.0	28	UER
		18	834	29.10	19	20.02	155	13.24	7.40	2.1	2.2	32	2	67	.13	5	.6	1.0	29	UER
		18	11 2	29.06	19	21.07	155	2.73	6.74	1.9	2.2	29	1	143	.12	2	.9	1.2	27	MER

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	OCT	18	1431	26.27	19	21.00	155	12.90	7.61	1.8	2.2	28	1	61	.11	3	.7	1.0	25	UER
		18	1948	52.82	19	19.24	155	7.75	8.37	2.4	2.6	33	1	106	.09	4	.6	.9	30	UER
		18	2129	12.71	19	25.46	155	16.39	1.86	1.6	2.2	17	0	115	.09	2	.6	.5	15	SPC
		18	2330	48.30	19	25.68	155	16.07	1.36	1.3	2.1	17	0	117	.10	2	.6	.8	16	SPC
		19	251	7.35	19	25.44	155	16.20	1.74	1.6	2.4	17	0	95	.10	2	.5	.5	16	SPC
		19	3 6	48.50	19	21.85	155	.13	6.92	2.1	2.2	28	2	193	.19	6	.8	1.1	26	LER
		19	454	55.90	19	20.52	155	3.50	6.19	2.0	1.8	28	1	96	.15	2	.9	1.5	27	MER
		19	5 6	56.78	19	22.34	155	29.90	8.03	2.0	1.8	31	1	90	.15	4	.7	1.4	28	UKF
		19	858	29.81	19	24.32	155	16.95	16.01	2.0	2.1	29	1	42	.11	1	.8	.8	25	DEP
		19	1018	17.35	19	24.27	155	17.16	.86	.9	1.7	6	0	114	.06	1	.5	.7	5	SPC
		19	2120	21.13	19	57.22	156	37.75	7.50		2.1	19	4	335	.31	88	59.9	78.9	17	DIS
		19	2341	36.14	19	20.04	155	4.09	5.56	2.0	1.7	27	2	138	.14	2	.8	1.7	21	MER
		20	525	.33	19	26.96	155	14.16	32.57	2.3	2.4	34	0	69	.10	4	1.1	2.0	25	DEP
		20	7 8	21.83	19	22.23	155	.05	7.82	2.1	2.0	26	2	190	.12	6	1.2	1.0	21	LER
		20	1048	59.29	19	20.46	155	1.02	6.46	2.5	2.7	27	2	208	.12	4	1.0	.9	25	MER
		20	1127	17.61	19	10.87	155	36.80	10.37	2.4	2.0	25	2	118	.11	8	.8	1.2	24	HEA
		20	18 5	47.78	19	19.85	155	13.28	5.74	2.1	2.4	30	1	68	.13	5	.7	1.4	28	UER
		20	19 0	28.21	19	26.57	155	23.66	2.69	1.7	2.1	20	1	47	.12	6	.6	1.8	18	UKF
		20	19 2	2.76	19	21.99	155	2.14	5.81	2.0	1.8	27	1	151	.13	4	.9	1.7	25	MER
		21	137	2.25	19	19.57	155	9.86	6.24	1.9	1.8	29	1	94	.10	5	.7	1.8	25	UER
		21	2 8	15.76	19	18.59	155	15.23	7.26	1.9	1.6	26	0	100	.12	4	.8	1.2	25	KOA
		21	227	22.22	19	24.11	155	25.98	6.97	1.9	1.7	27	2	50	.14	4	.7	2.0	26	UKF
		21	234	59.49	19	12.32	155	21.60	43.81		1.4	33	2	165	.09	12	1.3	2.2	32	LSW
		21	445	52.68	19	19.11	155	15.50	5.65	1.8	1.9	33	1	92	.16	4	.7	1.2	28	KOA
		21	1624	10.71	19	20.43	155	5.71	7.97	2.0	1.8	27	1	114	.10	5	.8	1.2	22	MER
		21	2112	25.06	19	20.70	155	10.50	8.09	1.7	1.7	18	0	88	.10	3	.9	1.7	16	UER
		22	118	7.47	19	27.47	154	52.63	5.74	1.9	1.6	20	2	263	.11	5	1.9	1.2	16	LER
		22	2 1	17.18	19	20.71	155	12.73	7.68	1.9	1.7	22	1	65	.10	4	.7	1.5	20	UER
		22	438	9.12	19	19.68	155	6.40	7.55	2.0	1.7	27	3	128	.09	5	.7	1.6	19	UER
		22	7 9	35.55	19	21.51	155	3.63	6.12	2.0	1.9	22	2	105	.11	3	.8	1.6	18	MER
		23	510	.17	19	19.86	155	6.16	7.38	2.4	2.4	32	1	127	.11	6	.7	1.0	29	UER
		23	1557	24.17	19	20.62	155	7.75	6.55	1.9	1.9	25	2	86	.12	5	.7	1.1	19	UER
		23	2032	18.86	19	22.72	155	26.97	10.56	1.9	2.3	28	0	58	.13	1	.7	1.2	23	UKF
		24	1551	25.47	19	22.98	155	27.57	9.77	1.8	1.9	30	4	58	.11	1	.6	1.0	28	UKF
		24	20 3	23.12	19	13.25	155	32.00	7.49	2.2	2.3	34	3	129	.22	9	.9	1.5	32	LSW
		24	2119	58.08	19	27.55	155	49.79	7.81	2.5	1.9	28	2	98	.15	9	.8	1.2	24	KON
		25	1053	18.53	19	20.94	155	3.33	7.31	2.4	2.0	25	1	111	.14	2	1.0	1.2	21	MER
		25	2141	2.61	19	24.22	155	17.40	1.27	1.1	1.9	9	0	71	.06	1	.5	.8	7	SPC
		25	2256	32.80	19	18.51	155	26.66	8.54		1.7	21	0	154	.12	7	1.2	1.7	17	HEA
		26	1 9	5.76	19	8.57	155	35.14	12.25	2.8	3.2	27	0	135	.15	12	1.0	.8	26	HEA
		26	111	43.43	19	5.20	155	3.94	46.41	3.5	3.2	35	2	262	.12	24	1.8	3.0	24	PPL
		26	2 6	17.00	19	52.05	155	45.26	36.45		1.6	23	1	263	.14	22	2.3	3.9	20	KON
		26	222	18.01	19	20.18	155	5.36	4.76	1.4	1.8	24	0	125	.10	4	1.0	3.7	17	MER
		26	810	10.77	19	19.13	155	8.72	5.37	1.9	2.1	15	1	206	.08	6	1.6	3.4	14	UER
		26	1233	46.75	19	21.13	155	1.69	5.67	2.1	2.4	26	0	176	.13	3	1.2	1.1	24	MER
		26	14 8	21.32	19	21.97	155	5.42	8.00	2.6	2.7	33	2	77	.13	5	.6	1.0	28	MER
		26	1758	57.15	19	20.29	155	11.49	6.97	1.9	1.8	26	0	80	.11	4	.7	1.1	26	UER
		26	2026	27.27	19	19.73	155	39.41	6.24	2.4	2.4	26	3	71	.18	10	.7	1.5	26	HEA

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	OCT	26	2156	16.53	19	27.41	154	54.65	4.40	2.2	2.3	28	2	189	.15	1	1.3	1.2	27	LER
		26	23 0	8.02	19	24.10	155	28.69	9.72	2.0	1.9	28	1	52	.16	3	.7	1.3	27	UKF
		27	453	34.73	19	17.84	155	23.89	7.29	1.8	2.0	27	0	125	.15	5	.9	1.4	25	SWR
		27	12 8	16.03	19	20.21	155	4.01	5.73	2.2	2.3	28	2	127	.15	2	.7	1.4	23	MER
		27	1753	42.81	19	23.05	155	26.51	9.90	2.4	2.6	33	0	53	.12	2	.7	.9	32	UKF
		27	2242	59.70	19	19.41	155	12.05	5.43	1.9	1.8	29	2	92	.14	5	.7	1.7	23	UER
		28	2 7	54.30	19	19.15	155	16.48	8.12	2.3	2.4	33	1	102	.15	2	.7	.9	30	KOA
		28	219	37.97	19	20.01	155	12.70	7.97	2.1	2.2	33	2	74	.11	5	.5	.9	31	UER
		28	351	54.86	19	25.15	155	10.20	28.70	2.1	1.8	36	2	37	.12	6	.8	1.9	32	GLN
		28	428	25.66	19	18.69	155	15.81	9.48	3.2	3.4	37	2	104	.13	4	.6	.7	32	KOA
		28	638	9.75	19	19.91	155	6.69	6.65	2.0	2.0	25	2	117	.12	5	.7	1.7	23	UER
		28	1318	22.67	19	25.89	154	53.90	9.01	3.0	3.6	31	1	227	.13	4	1.7	.6	26	LER
		28	1618	23.22	19	19.41	155	7.22	8.99	2.1	2.1	28	2	117	.11	4	.8	1.1	24	UER
		28	1640	59.72	19	19.30	155	7.34	8.70	2.5	3.0	31	2	116	.10	4	.6	1.0	26	UER
		28	18 3	40.49	19	16.08	155	29.51	52.32	2.5	2.1	32	1	175	.13	12	1.7	3.4	23	HEA
		28	2112	19.82	19	26.81	155	21.92	6.89	1.9	1.6	14	1	82	.10	6	.7	2.7	12	UKF
		28	2317	3.23	19	20.80	155	2.41	7.27	2.2	2.2	29	2	164	.16	2	1.0	.9	23	MER
		28	2322	25.60	19	21.61	155	2.68	5.75	2.0	1.7	28	2	139	.13	3	.7	1.6	23	MER
		29	236	57.98	19	23.67	155	17.80	1.96	1.5	2.2	9	1	66	.21	3	.7	1.5	5	SPC
		29	427	57.04	19	23.13	155	2.38	8.60	2.0	1.9	30	2	131	.15	4	.8	1.0	26	MER
		29	8 3	57.36	19	21.43	155	.70	5.84	2.1	2.2	28	1	193	.17	5	1.0	1.4	25	LER
		29	821	1.05	19	20.80	155	11.27	7.02		1.8	11	0	202	.08	3	2.3	3.0	11	UER
		29	834	.59	19	27.04	155	21.65	6.96	1.7	1.8	19	0	77	.13	6	.8	2.3	15	UKF
		29	1256	7.30	20	1.76	155	27.54	8.39		1.6	15	1	213	.19	20	2.0	1.7	14	KKU
		29	2047	14.03	19	23.38	154	59.46	5.37		1.6	14	0	189	.14	4	1.7	2.9	12	LER
		30	245	43.69	19	21.24	155	9.95	7.65	1.8	1.6	28	1	69	.11	2	.6	1.2	24	UER
		30	344	17.88	19	24.76	155	29.31	8.20		1.5	22	0	73	.13	5	.8	2.1	19	UKF
		30	937	52.48	19	26.20	155	29.45	9.88	2.3	2.0	31	2	67	.15	8	.6	1.1	27	UKF
		30	1035	31.58	19	19.97	155	6.80	6.97	3.1	3.3	38	2	113	.09	5	.6	.7	36	UER
		30	1346	16.19	19	20.53	155	11.00	7.65	2.4	2.7	34	2	77	.10	4	.6	1.0	31	UER
		30	1424	2.35	19	19.07	155	13.45	7.94	1.8	2.0	31	0	73	.10	4	.7	.9	28	UER
		30	1442	14.89	19	16.82	155	13.15	8.98	2.2	2.1	34	2	160	.14	1	.7	.9	27	POL
		30	1455	25.17	19	17.15	155	21.51	5.73	1.7	2.2	23	0	130	.15	5	.9	1.7	21	SWR
		30	2332	2.25	19	19.79	155	7.09	7.75	2.6	2.9	32	0	111	.11	5	.8	1.0	31	UER
		31	221	46.16	19	19.34	155	9.68	8.55	3.0	3.4	33	0	98	.09	5	.7	.8	32	UER
		31	548	9.43	19	19.43	155	11.80	5.53	1.9	2.1	30	2	95	.13	5	.7	1.5	27	UER
		31	13 9	43.96	19	19.39	155	6.77	8.67	2.8		29	1	128	.10	4	.9	.9	27	UER
		31	1311	8.97	19	19.73	155	6.66	8.34	2.7	3.1	24	2	122	.09	5	.7	1.3	16	UER
		31	1650	29.38	19	15.08	155	37.36	7.63	2.7	2.6	28	0	148	.20	1	1.2	1.0	27	HEA
		31	19 4	4.22	19	20.71	155	13.00	6.76	1.5	1.9	26	0	62	.13	4	.8	1.2	23	UER
	NOV	1	224	5.08	19	25.37	155	30.67	8.95		1.5	23	0	77	.13	8	.8	1.8	21	MOK
		1	533	6.04	19	26.07	155	29.40	11.55		1.4	18	0	63	.11	7	.8	1.5	18	UKF
		1	654	57.38	19	20.64	155	1.93	7.10	2.2	2.4	27	1	189	.13	2	1.0	.8	20	MER
		1	8 3	35.01	19	13.24	155	24.86	37.53	2.4	1.9	26	0	155	.10	13	1.5	2.9	21	LSW
		1	1338	23.39	19	21.25	155	6.78	9.35	3.8	4.1	36	2	86	.09	6	.6	.8	31	UER
		1	1614	50.77	19	25.89	155	21.17	6.52	2.8	2.9	29	2	37	.15	8	.6	2.5	21	UKF
		1	1616	13.28	19	21.89	155	1.52	7.32	1.9	1.8	21	1	168	.16	4	.9	1.6	16	MER
		1	1911	59.91	19	26.70	155	20.94	5.06	1.7	1.8	14	0	77	.13	6	.8	4.5	15	UKF

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	NOV	1	1929	50.32	19	26.62	155	21.07	4.92	1.8	1.9	17	0	77	.13	6	.8	5.0	14	UKF
		1	2245	3.97	20	5.40	155	35.78	10.54	2.0	1.6	25	7	14	.22	35	1.8	1.3	23	KOH
		2	122	20.07	19	24.71	155	20.80	1.63	1.8	1.8	21	2	44	.14	6	.5	1.4	16	UKF
		2	154	35.99	19	53.46	155	46.68	9.71		2.1	18	3	251	.31	24	2.2	1.6	14	KON
		2	4 1	44.05	19	35.64	155	33.47	7.53	2.5	2.1	29	0	133	.21	8	1.0	1.7	23	MOK
		2	532	36.71	19	19.34	155	13.20	6.99		1.5	26	0	76	.12	4	.8	1.2	25	UER
		2	831	33.72	19	23.79	155	16.86	.25	1.4	1.9	9	0	75	.44	2	.9	2.1	8	SPC
		2	1547	5.72	19	19.12	155	6.52	8.64	2.2	2.1	28	2	142	.12	4	.7	1.2	23	UER
		2	1550	30.51	19	19.94	155	13.08	7.17	2.0	1.6	25	1	70	.12	5	.7	1.3	23	UER
		2	18 7	6.18	19	17.37	155	22.02	5.32	1.7	1.9	29	0	124	.16	6	.8	2.3	25	SWR
		2	1832	52.06	19	21.97	154	57.83	5.82	2.1	2.4	25	2	215	.16	6	1.1	1.4	22	LER
		2	2117	45.08	19	20.95	155	6.28	7.44	2.1	2.1	28	0	96	.10	6	.7	1.3	23	UER
		2	2322	12.02	19	20.36	155	12.54	6.96	1.5	1.8	29	1	71	.11	4	.7	1.3	27	UER
		3	246	46.87	19	20.32	155	8.75	6.91	1.8	1.7	25	0	71	.12	4	.8	1.7	21	UER
		3	351	24.40	19	21.33	155	6.72	7.41	2.2	2.5	31	2	86	.12	6	.6	1.3	27	UER
		3	436	55.79	19	24.45	155	16.19	16.92		1.6	28	0	62	.10	2	.7	1.1	26	DEP
		3	12 3	6.66	19	19.74	155	8.02	8.63	2.7	3.1	30	1	91	.08	4	.7	1.0	28	UER
		3	1313	53.95	19	19.36	155	11.64	7.24	1.7	1.8	26	0	98	.11	5	.8	1.3	24	UER
		3	1912	26.74	19	27.93	155	51.71	7.91		2.0	14	0	131	.13	6	1.3	1.2	18	KON
		3	2045	33.87	19	19.04	155	9.59	4.27	1.8	2.0	25	0	105	.14	4	.8	2.4	21	UER
		4	053	46.39	19	13.64	155	30.92	38.71		1.4	26	0	67	.14	9	1.5	4.0	22	LSW
		4	256	22.76	19	16.24	155	28.61	11.39		1.6	24	0	126	.17	12	1.0	1.3	20	HEA
		4	656	20.98	19	22.18	155	6.19	7.57	2.4	2.4	30	2	74	.11	6	.6	1.3	23	UER
		4	943	.25	19	19.51	155	12.03	6.25	2.5	2.6	30	0	90	.10	5	.7	1.3	29	UER
		4	1137	46.24	19	18.84	155	16.03	9.78	2.9	3.2	34	1	103	.11	3	.6	.7	26	KOA
		4	1256	10.44	19	21.71	155	6.13	5.96	1.9	2.1	28	1	82	.15	6	.7	2.6	23	UER
		4	1622	13.45	19	18.66	155	15.31	5.94	2.3	2.4	29	1	100	.13	4	.7	1.3	26	KOA
		5	745	.20	19	18.41	155	13.21	6.22	1.8	1.9	27	0	89	.11	3	.7	.9	27	POL
		5	1252	59.91	19	18.87	155	13.99	6.87	1.6	2.0	25	0	94	.10	4	.8	1.3	22	POL
		5	1759	40.76	19	23.71	155	17.07	15.34	2.0	1.9	28	2	60	.09	2	.9	.5	27	DEP
		5	19 0	3.87	19	19.70	155	7.76	8.99	2.9	3.4	32	0	98	.08	4	.8	.7	30	UER
		5	1923	31.31	19	19.61	155	7.88	8.11	2.6	3.0	34	2	96	.11	4	.6	1.1	29	UER
		5	1936	56.64	19	19.66	155	8.25	5.38	1.8	2.1	31	1	86	.13	4	.7	2.0	30	UER
		5	2255	50.35	19	25.41	155	24.67	7.32	1.8	1.9	17	0	62	.10	7	.9	2.9	17	UKF
		6	724	15.23	19	22.76	155	24.91	11.78	3.6	3.8	35	3	42	.12	5	.7	.4	30	UKF
		6	1011	36.82	19	12.50	155	28.41	8.57	2.0	2.1	27	0	144	.14	16	1.1	1.5	22	LSW
		6	15 2	38.84	19	21.42	155	6.38	7.63	2.2	2.2	30	1	87	.13	6	.7	1.3	27	UER
		6	2236	2.43	19	12.49	155	37.28	10.55	2.7	2.9	30	0	113	.25	4	1.1	1.2	29	HEA
		6	2313	36.90	19	19.91	155	13.36	6.54	2.0	2.5	33	1	67	.15	5	.7	1.3	29	UER
		7	010	25.19	19	20.16	155	13.13	6.58	1.6	2.1	28	0	87	.13	5	.8	1.4	26	UER
		7	1448	16.25	19	27.90	155	49.67	13.47	2.6	1.6	14	2	67	.15	8	1.5	.8	14	KON
		7	1717	57.26	19	23.82	155	16.71	14.91	1.8	1.8	26	0	77	.08	2	1.0	.6	20	DEP
		7	2134	46.54	19	29.45	154	44.40	8.87	2.2	1.6	28	5	294	.12	16	1.3	.9	24	DIS
		8	110	16.76	19	25.97	154	53.56	6.60	1.9	1.7	20	1	234	.18	4	2.3	1.5	18	LER
		8	259	49.85	19	22.34	155	24.54	9.45	1.5	1.8	26	0	87	.09	5	.7	1.2	26	UKF
		8	635	8.05	19	19.38	155	11.38	6.59	2.1	1.9	28	0	99	.10	6	.8	1.4	24	UER
		8	938	52.09	19	19.66	155	11.17	7.20	1.8	2.0	26	0	93	.11	5	.8	1.4	19	UER
		8	946	23.71	19	20.80	155	10.56	7.35	2.2	2.0	27	0	73	.10	3	.8	1.2	25	UER

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	NOV	8	1217	46.23	19	23.25	155	26.37	8.97	1.9	2.4	24	0	50	.13	3	.7	1.5	22	UKF
		8	1429	49.10	19	9.08	155	35.45	10.67	2.4	2.1	21	0	131	.18	11	1.0	1.2	19	HEA
		8	1445	58.21	19	25.47	155	28.29	8.63	2.0	2.1	24	2	58	.12	6	.7	1.8	17	UKF
		8	15 3	48.29	19	19.75	155	10.05	8.00	1.9	2.1	26	0	91	.08	4	.7	1.1	25	UER
		8	1535	26.46	19	19.14	155	11.60	9.21	2.3	2.5	22	2	104	.07	5	.6	.9	16	UER
		8	16 9	34.31	19	19.14	155	10.92	7.50	2.4	2.7	32	1	107	.12	6	.6	1.0	26	UER
		9	0 4	38.67	19	25.42	155	23.16	10.04	1.6	1.9	29	0	50	.13	7	.7	1.1	26	UKF
		9	540	23.62	19	22.95	155	29.85	9.08		1.8	27	0	87	.12	4	.7	1.4	23	UKF
		9	744	55.26	19	19.68	155	7.08	7.45	1.4	1.8	26	0	114	.09	5	.8	1.4	23	UER
		9	1045	52.32	19	25.34	155	49.76	8.53	2.5	2.1	22	1	164	.19	12	1.1	1.1	20	KON
		10	321	45.80	19	44.32	155	46.53	6.47	2.3	2.2	23	1	199	.22	9	1.5	1.8	20	KON
		10	917	38.56	19	19.44	155	15.50	7.48	1.9	2.3	35	1	88	.14	4	.7	1.0	21	KOA
		10	956	31.11	19	20.51	155	12.54	8.81	1.9	2.1	27	1	69	.11	4	.6	1.0	26	UER
		10	12 3	52.27	19	23.90	155	16.37	6.12	2.1	2.4	9	2	104	.17	3	1.3	1.7	7	LPC
		10	1258	32.30	19	36.26	155	33.84	8.42	2.4	1.8	23	2	53	.26	8	1.0	3.0	21	MOK
		10	17 9	46.77	19	20.72	155	13.00	8.56	1.9	1.6	30	1	63	.13	4	.6	1.1	24	UER
		10	1725	28.96	19	20.73	154	59.77	6.50	2.5	2.3	30	2	211	.13	6	1.0	.8	23	LER
		10	20 8	22.51	19	19.45	155	10.94	6.75	1.9	2.0	34	2	99	.15	5	.7	1.3	29	UER
		10	2240	42.32	19	20.38	155	6.65	6.96	2.0	1.8	30	2	106	.15	6	.7	1.6	25	UER
		10	2335	1.76	19	40.30	155	11.99	42.35	2.7	2.5	36	0	110	.11	18	1.2	3.6	31	MIL
		11	1 7	57.72	19	16.52	155	22.42	8.41	2.4	3.0	36	2	131	.17	7	.8	.7	31	SWR
		11	3 7	34.65	19	20.26	155	11.42	6.45	1.6	1.7	25	0	81	.11	7	.7	1.6	24	UER
		11	526	19.51	19	21.51	155	15.16	9.29	1.9	1.9	33	1	63	.14	2	.6	.9	30	KOA
		11	650	55.43	19	19.58	155	10.87	5.34	1.9	2.1	28	2	97	.11	5	.7	1.9	23	UER
		11	910	33.18	19	22.65	155	4.91	8.14	2.9	2.9	29	2	79	.10	4	.6	1.0	24	MER
		11	14 8	10.27	19	19.94	155	6.11	6.73	2.0	1.7	25	2	125	.11	6	.7	1.8	21	UER
		11	1515	30.66	19	20.88	155	3.94	6.05	1.9	1.9	19	3	93	.13	3	.8	1.6	17	MER
		11	1527	43.13	19	27.13	155	21.84	.65	1.9	2.2	23	2	45	.19	6	.5	.8	17	UKF
		11	1546	54.56	19	27.57	154	54.79	5.15	2.1	2.1	20	1	182	.11	1	1.8	1.8	15	LER
		11	1715	49.06	19	19.53	155	11.01	8.24		1.2	17	0	97	.08	5	1.0	2.0	16	UER
		11	1717	.48	19	22.07	155	17.77	.01		.9	11	0	81	.29	3	.7	1.7	11	KOA
		11	2035	44.41	19	20.47	155	11.93	7.71	1.3	1.4	16	0	75	.08	5	1.0	1.7	11	UER
		12	1232	21.71	19	18.69	155	12.24	6.68	2.2	2.3	33	3	108	.18	4	.7	1.3	25	POL
		12	1929	30.48	19	21.31	155	1.58	7.49	1.6	1.3	20	3	178	.11	4	.8	1.2	15	MER
		13	1341	12.53	19	19.98	155	11.09	7.35	2.1	2.3	28	0	87	.11	4	.7	1.0	27	UER
		13	20 5	20.88	19	27.51	155	28.06	7.92	1.8	2.0	27	0	50	.13	8	.7	1.8	27	UKF
		14	134	32.18	19	18.74	155	15.10	6.34	2.1	2.4	29	0	96	.13	4	.7	1.1	29	KOA
		14	148	20.96	19	7.87	155	33.45	48.43	2.2	2.1	25	3	223	.13	10	1.7	2.4	25	LSW
		14	840	28.65	19	19.69	155	10.72	5.75	2.2	1.9	18	0	94	.15	5	1.0	2.7	16	UER
		14	1844	22.40	19	22.28	155	24.74	9.83	1.8	1.9	32	0	47	.12	5	.6	.9	26	UKF
		15	6 9	23.71	19	24.51	155	29.67	9.13	2.2	2.3	31	2	66	.12	5	.5	1.1	26	UKF
		15	16 5	31.82	19	23.53	155	25.99	9.53	2.0	2.2	31	0	50	.13	3	.6	1.1	28	UKF
		15	2241	31.06	19	23.04	155	25.66	8.49	2.1	2.5	32	2	48	.13	4	.6	1.5	27	UKF
		16	228	11.14	19	21.09	155	26.71	8.81	2.6	3.1	36	2	74	.13	3	.5	.8	33	HEA
		16	4 8	8.39	19	19.36	155	7.28	9.42	2.4	2.6	36	0	116	.09	4	.9	.6	33	UER
		16	736	23.36	19	26.19	155	23.91	7.54	1.8	2.1	22	0	68	.12	7	.7	2.1	22	UKF
		16	838	10.37	19	19.40	155	11.26	5.66	1.9	2.1	31	0	99	.11	6	.7	1.4	29	UER
		16	1521	36.65	19	17.20	155	26.60	6.35	1.9	2.4	30	1	125	.14	8	.8	2.2	27	HEA

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	NOV	16	1529	16.21	19	20.68	155	2.16	5.38	2.1	2.2	29	2	180	.16	2	.8	1.3	24	MER
		16	22 8	18.43	19	20.04	155	8.59	6.47	2.4	3.2	38	2	76	.15	4	.6	1.1	33	UER
		16	2332	10.39	19	19.31	155	11.39	7.04	2.6	3.0	38	2	101	.11	6	.6	1.0	32	UER
		17	2 5	47.19	19	20.38	155	2.84	6.29	2.1	2.2	30	2	140	.18	1	.9	1.3	27	MER
		17	413	58.81	19	25.12	154	50.92	9.24	2.3	2.6	29	2	276	.16	8	1.6	.9	27	LER
		17	1113	58.90	19	13.69	155	20.20	32.52	2.4	2.1	33	1	160	.11	8	1.1	2.1	29	HLP
		17	1126	7.55	19	24.60	155	29.19	10.57	2.1	1.9	30	0	58	.13	5	.7	1.1	27	UKF
		17	1234	12.49	19	9.53	155	33.66	38.64	3.6	3.4	37	1	138	.11	12	1.4	2.3	30	LSW
		17	1359	31.96	19	23.07	155	27.47	7.06	2.0	1.9	26	1	69	.12	1	.7	1.7	22	UKF
		17	16 0	13.86	19	12.03	155	36.36	9.66	2.4	2.1	28	0	117	.20	5	1.1	1.3	27	HEA
		17	18 1	59.31	19	10.44	155	37.81	11.56	2.8	2.8	28	0	217	.19	8	2.2	1.0	25	HEA
		17	2141	49.78	19	8.33	155	34.25	38.17	2.4	2.2	34	0	140	.10	13	1.3	3.0	29	HEA
		18	147	53.67	19	19.76	155	6.94	7.59	1.8	2.2	29	0	115	.10	5	.9	1.2	29	UER
		18	327	.05	19	20.20	155	12.61	7.24	1.8	2.1	32	0	73	.12	5	.7	1.0	29	UER
		18	1025	5.62	19	21.67	155	2.34	7.80	2.7	2.9	31	0	149	.11	3	1.0	.7	26	MER
		18	15 9	7.88	19	22.04	155	5.13	8.11	1.9	1.9	29	0	75	.11	5	.8	1.0	29	MER
		18	1825	39.67	19	26.86	155	23.84	5.11	1.5	1.6	17	0	70	.11	6	.7	3.8	14	UKF
		18	1851	40.19	19	19.53	155	8.13	7.34	2.1	2.2	32	0	90	.10	4	.7	1.1	29	UER
		18	1916	17.14	19	20.17	155	3.88	7.81	3.2	3.4	36	0	128	.10	2	1.0	.7	36	MER
		19	1243	10.77	19	24.35	155	25.99	9.17	2.1	2.2	34	2	40	.13	4	.6	1.3	26	UKF
		19	1311	33.23	19	20.59	155	9.59	7.99	1.8	1.8	25	0	72	.08	3	.7	1.2	21	UER
		19	1423	25.36	19	24.85	155	29.71	7.19		1.6	27	0	51	.10	6	.7	1.8	26	UKF
		19	1429	53.89	19	24.43	155	24.05	10.29	2.3	2.4	29	2	42	.11	7	.6	1.0	25	UKF
		19	2036	36.86	19	19.69	155	12.11	6.29	1.9	1.9	30	0	86	.14	5	.8	1.4	28	UER
		19	2126	12.52	19	19.25	155	7.58	7.95	1.8	1.9	30	1	117	.09	4	.7	1.1	27	UER
		20	158	26.62	19	25.04	155	25.66	9.77	1.9	1.9	31	1	50	.14	6	.6	1.4	24	UKF
		20	1052	45.07	19	19.30	155	2.45	6.30	2.8	2.9	16	1	225	.09	13	1.5	3.0	14	MER
		20	1053	52.77	19	19.77	155	2.43	5.58	2.4	2.1	11	1	222	.09	12	1.5	5.4	8	MER
		20	1330	14.31	19	20.98	155	2.12	4.69	2.0	1.6	15	1	221	.11	10	1.8	12.4	13	MER
		20	1524	30.98	19	26.71	155	28.37	16.71	2.0	1.7	14	0	97	.04	10	1.4	2.9	14	UKF
		20	2140	43.15	19	20.90	155	13.95	9.52	2.2	2.3	17	0	157	.10	4	1.0	1.3	11	UER
		21	337	31.97	19	28.22	155	25.51	12.17	3.0	2.9	21	2	78	.09	5	.8	.9	16	UKF
		21	417	37.52	19	20.16	155	9.17	8.17	2.2	2.3	18	2	180	.09	4	1.1	1.6	14	UER
		21	1246	9.59	19	17.64	155	55.88	1.24	2.7	1.7	17	1	256	.11	22	2.7	1.9	14	KON
		21	1610	49.00	19	26.45	155	28.21	7.69	2.0	1.9	27	2	64	.11	7	.5	2.1	22	UKF
		21	1857	55.23	19	21.86	154	59.56	6.62	2.2	1.8	26	0	200	.14	6	1.6	1.0	23	LER
		22	124	26.02	19	20.65	155	10.59	8.75	2.4	2.2	30	2	76	.10	3	.6	1.0	22	UER
		22	3 4	19.23	19	22.28	155	2.87	8.73	2.1	2.1	29	1	129	.09	4	.8	.8	28	MER
		22	454	42.12	19	36.51	155	36.38	4.02	.9	.8	11	2	219	.16	13	1.5	6.9	11	MOK
		22	938	12.58	19	28.31	156	25.39	6.09	3.1	2.4	24	0	243	.18	53	5.5	3.2	22	DIS
		22	1114	57.71	19	24.42	155	30.01	9.64	1.9	2.1	27	0	71	.14	5	.8	1.5	24	MOK
		22	1124	47.53	19	19.86	155	11.74	9.25	2.1	2.4	31	0	86	.11	5	.6	.8	25	UER
		22	13 6	46.47	19	18.37	155	20.83	10.20	3.3	3.5	36	2	117	.13	4	.6	.5	28	SWR
		22	1714	9.85	19	19.69	155	6.59	9.88	3.2	3.4	35	2	123	.09	5	.7	.6	30	UER
		22	1721	5.29	19	20.66	155	2.04	7.99	2.5	2.7	30	1	165	.10	2	1.0	.7	26	MER
		22	2224	36.90	19	20.48	155	4.06	5.77	1.8	1.9	27	0	113	.14	2	.9	1.6	26	MER
		23	350	35.40	19	28.06	155	29.18	11.45	2.3	2.0	33	0	56	.13	8	.7	.9	29	UKF
		23	359	39.50	19	20.00	155	6.73	9.27	2.5	2.6	32	2	113	.10	5	.7	.8	27	UER

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	NOV	23	634	10.38	19	53.92	155	22.32	15.07	2.2	1.8	22	1	180	.12	35	1.5	6.9	18	KKU
		23	841	.39	19	8.42	155	24.11	42.43			27	3	178	.08	20	1.2	1.9	26	LSW
		23	942	57.86	19	19.78	155	11.60	6.72	1.9	2.0	27	1	88	.12	5	.7	1.2	24	UER
		23	1325	17.74	19	21.31	155	2.59	6.42	2.0	2.2	28	1	146	.14	3	.9	1.1	24	MER
		23	2145	4.73	19	24.82	155	15.96	15.32	2.6	3.1	38	2	29	.11	2	.7	.4	33	DEP
		24	440	50.38	19	43.63	156	1.26	15.07	2.8	2.0	39	5	46	.27	20	1.7	1.2	36	KON
		24	532	7.14	19	22.35	155	30.16	7.88	1.9	1.9	31	0	59	.13	4	.7	1.6	26	MOK
		24	6 9	24.85	19	22.65	155	50.22	9.73	2.6	2.1	27	1	61	.16	13	.8	1.0	24	KON
		24	721	17.76	19	20.42	155	4.31	4.52	2.0	2.4	33	2	118	.18	3	.8	2.2	30	MER
		24	827	28.24	19	19.37	155	12.54	5.62	1.9	1.8	29	1	87	.11	5	.7	1.6	27	UER
		25	050	7.58	19	20.21	155	11.83	9.74	2.1	2.0	32	0	80	.08	5	.6	.8	28	UER
		25	059	.24	19	20.04	155	11.96	5.66	2.1	2.2	32	1	81	.14	5	.6	1.3	28	UER
		25	854	51.35	19	21.11	155	1.47	7.71	3.5	4.0	34	2	186	.12	3	.9	.6	32	MER
		25	9 5	59.72	19	23.20	155	25.59	9.86	2.0	2.1	25	0	53	.12	4	.7	1.5	23	UKF
		25	913	54.06	19	21.44	155	.13	7.31	2.1	2.2	25	2	201	.22	6	1.2	1.2	20	LER
		25	1051	54.97	19	19.97	155	8.24	7.23	1.8	2.1	26	0	84	.11	5	.8	1.4	25	UER
		25	1437	24.23	19	16.73	155	22.40	6.72	1.9	2.4	24	0	146	.11	7	.9	1.7	22	SWR
		25	2237	18.68	19	23.72	155	16.06	2.87	1.6	1.8	15	1	94	.10	2	.5	.8	13	SPC
		26	122	44.65	19	20.34	155	6.62	7.38	2.2	2.7	33	0	107	.11	6	.7	1.0	32	UER
		26	137	46.02	19	27.01	155	28.66	11.30	2.0	1.8	29	0	53	.12	9	.7	.9	28	UKF
		26	651	14.86	19	19.49	155	7.64	7.79	1.8	1.7	29	1	105	.12	4	.8	1.2	26	UER
		26	1223	11.34	19	20.93	155	6.85	4.13	1.8	1.9	22	1	92	.15	6	.8	3.9	20	UER
		26	1336	23.38	19	21.31	155	2.62	7.73	2.6	3.2	32	2	145	.13	3	.8	.8	29	MER
		26	1632	49.93	19	10.32	155	41.42	8.73	2.5	2.0	28	3	127	.20	11	1.0	1.4	25	HEA
		26	1755	13.13	19	21.10	155	.86	5.65	2.0	2.4	26	2	199	.18	4	1.0	1.6	21	LER
		26	2133	10.29	19	19.39	155	4.26	5.90	2.0	2.3	25	2	174	.14	3	.8	1.6	23	MER
		27	839	40.35	19	19.37	155	8.28	6.40	1.9	2.2	30	2	88	.13	4	.7	1.5	26	UER
		27	1057	54.68	19	11.80	155	36.96	10.38	2.7	2.8	30	1	115	.23	6	1.0	1.3	28	HEA
		27	18 2	.28	19	18.68	155	15.11	6.67	1.9	2.3	27	1	97	.13	4	.7	1.3	22	KOA
		27	1845	3.18	19	20.23	155	7.11	8.38	2.6	3.1	35	1	102	.09	6	.6	.9	34	UER
		27	2017	30.94	19	21.38	155	.98	7.80	2.0	2.1	28	1	189	.16	4	1.1	.9	23	LER
		27	22 8	55.60	19	20.48	155	13.31	5.78	1.8	2.3	34	2	62	.17	4	.6	1.4	32	UER
		28	645	33.73	19	13.98	155	20.50	47.69	2.6	2.8	34	0	157	.10	8	1.4	3.0	33	HLP
		28	1137	47.58	19	19.36	155	6.34	8.39	2.1	2.1	29	1	138	.11	5	.8	.9	24	UER
		28	1342	19.19	19	21.59	155	2.69	7.58	2.3	2.2	30	2	138	.14	3	.8	1.0	25	MER
		28	22 3	14.66	19	20.32	155	11.15	9.99	2.7	2.8	37	2	80	.11	4	.5	.7	29	UER
		28	23 3	12.21	19	18.14	155	18.25	33.48	2.1	1.9	32	1	124	.08	1	1.0	2.2	24	DEP
		29	038	42.59	19	16.14	155	49.66	8.55	2.3	2.0	25	0	116	.16	5	1.0	1.2	22	KON
		29	926	19.95	19	17.34	155	18.33	32.72	2.2	1.7	28	2	135	.09	1	1.3	1.6	28	KOA
		29	1211	1.85	19	23.69	155	15.54	3.28	1.5	2.0	12	1	96	.10	3	.6	1.0	11	SPC
		29	1246	54.44	19	23.62	155	15.70	3.14	1.4	2.1	14	1	92	.09	2	.6	.8	13	SPC
		30	138	11.58	19	22.50	155	25.12	9.29	2.2	2.3	36	2	49	.12	4	.5	.8	33	UKF
		30	329	29.29	19	23.72	155	17.55	1.65	1.6	2.2	10	1	64	.12	3	.5	1.0	7	SPC
		30	641	58.79	19	19.64	155	8.42	8.00	2.0	2.5	30	1	83	.10	4	.7	1.3	27	UER
		30	814	23.97	19	20.39	155	2.46	6.73	2.2	2.2	29	2	180	.14	1	.8	1.2	24	MER
		30	11 8	15.80	19	17.63	155	22.41	8.34	2.1	2.0	26	2	120	.12	5	.6	1.0	23	SWR
		30	1237	57.43	19	27.85	155	51.80	7.83		1.9	21	0	129	.16	6	1.4	1.1	20	KON
		30	17 5	14.75	19	22.71	155	59.50	9.09	2.0	1.9	18	0	251	.15	14	3.1	1.0	17	KON

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	NOV	30	1755	24.17	19	19.63	155	4.36	6.58	2.1	2.2	30	2	160	.12	3	.7	1.2	25	MER
	DEC	1	311	13.39	19	18.15	155	26.32	7.80	2.2	2.0	33	2	119	.13	7	.7	.9	29	HEA
		1	321	26.93	19	18.98	155	10.60	9.01	2.6	2.7	36	3	40	.12	6	.6	.9	30	POL
		1	921	43.53	19	19.94	155	10.99	7.42	2.1	2.0	29	2	87	.10	4	.6	1.3	24	UER
		1	1631	1.01	19	27.25	154	52.78	7.37	1.9	2.1	24	0	252	.20	3	3.3	1.1	20	LER
		2	1	9 34.42	19	20.00	155	3.68	7.28	2.1	2.2	28	1	141	.14	1	1.0	.9	23	MER
		2	2	9 37.72	19	21.12	155	13.29	8.90	2.1	2.3	36	3	57	.14	3	.5	.8	31	UER
		2	235	47.51	19	20.12	155	8.81	8.53	2.2	2.2	27	0	73	.12	4	.8	1.2	24	UER
		2	1459	57.37	19	22.14	155	28.46	8.95	1.9	2.1	24	0	115	.13	2	.8	1.4	22	UKF
		2	1830	55.74	19	19.90	155	6.86	9.19	3.1	3.4	33	1	114	.10	5	.7	.9	31	UER
		2	1923	42.43	19	19.37	155	11.24	6.19	1.7	2.1	29	1	101	.11	6	.7	1.3	19	UER
		2	2251	47.27	19	20.44	155	11.62	8.41	1.0	1.9	26	0	77	.09	4	.7	1.1	22	UER
		2	2343	21.72	19	20.84	155	11.22	7.87	1.6	1.9	25	1	72	.11	3	.6	1.3	22	UER
		3	047	12.46	19	20.93	155	2.25	6.66	1.8	2.1	28	5	167	.12	2	.6	1.0	19	MER
		3	3	6 39.30	19	19.82	155	10.16	7.80	1.9	2.2	27	0	90	.10	4	.7	1.2	21	UER
		3	9	6 55.06	19	21.12	155	8.40	5.78	2.5	2.9	17	3	231	.10	3	1.5	1.9	9	UER
		3	1131	49.95	19	19.63	155	10.48	8.20	2.3	2.6	29	0	95	.09	5	.7	1.1	25	UER
		4	040	43.62	19	57.99	155	31.29	43.53	2.0	1.8	36	5	170	.14	21	1.0	1.3	28	KOH
		4	1	5 24.88	19	19.55	155	11.99	6.29	1.9	2.0	31	0	91	.11	5	.7	1.2	22	UER
		4	2	5 19.67	19	19.44	155	11.02	7.17	2.0	2.1	28	1	99	.10	5	.7	1.4	22	UER
		4	238	5.84	19	19.06	155	12.07	6.17	1.4	1.8	23	0	101	.12	5	.8	2.0	18	UER
		4	948	47.28	19	26.51	155	25.19	6.63	2.1	2.4	28	0	52	.16	7	.6	2.5	25	UKF
		4	1657	46.02	19	21.76	155	2.87	6.93	2.0	2.4	28	0	131	.14	3	.9	1.1	26	MER
		4	1735	40.13	19	20.18	155	7.69	7.46	2.0	2.4	31	1	93	.11	5	.7	1.3	27	UER
		4	2225	37.79	19	21.07	155	2.70	8.98	3.2	3.7	38	2	144	.10	2	.8	.5	35	MER
		5	113	42.78	19	23.56	154	57.71	7.63	2.1	2.2	31	3	197	.17	3	.9	.8	23	LER
		5	210	36.61	19	18.08	155	16.27	6.78	1.9	2.4	33	0	29	.14	4	.8	1.1	29	KOA
		5	1520	23.52	19	25.84	155	29.45	8.11	2.1	2.1	30	1	37	.15	7	.6	1.7	28	UKF
		5	1939	2.30	19	22.03	155	19.24	30.89	3.2	3.1	36	1	50	.10	3	.9	1.2	34	DEP
		6	917	22.08	19	57.81	153	56.68	6.98	3.2	2.4	36	4	10	.12	113	24.1	31.2	33	DIS
		6	951	56.64	19	20.10	155	13.56	7.04	2.1	2.5	32	2	61	.14	5	.6	1.1	26	UER
		6	2030	35.76	19	19.45	155	3.80	6.58	2.1	1.9	27	2	183	.17	2	.9	1.4	24	MER
		7	436	16.52	19	19.62	155	13.28	4.47	2.0	2.1	32	0	71	.14	5	.7	2.1	29	UER
		7	1348	26.24	19	20.52	155	7.78	8.87	2.1	2.2	28	2	87	.11	5	.6	1.0	22	UER
		7	1436	27.50	19	20.30	155	5.13	5.85	2.0	1.9	19	0	123	.10	4	.9	2.0	17	MER
		7	16	1 54.18	19	20.15	155	11.44	7.76	2.2	2.4	29	0	82	.09	5	.7	1.0	25	UER
		7	1935	.08	19	19.85	155	11.70	7.20	1.7	2.2	29	0	86	.09	5	.7	1.1	27	UER
		7	2220	2.32	19	20.50	155	13.18	9.59	2.5	2.7	32	1	63	.12	4	.6	.9	23	UER
		8	030	30.67	19	23.05	155	29.99	9.12	2.5	2.4	33	1	87	.13	4	.6	.9	28	UKF
		8	031	30.38	19	23.28	155	29.79	8.70	1.5	1.9	17	0	86	.09	4	.9	1.9	14	UKF
		8	842	25.56	19	20.50	155	2.08	5.36	2.1	2.2	29	2	191	.18	2	.9	1.5	26	MER
		8	1410	29.09	19	10.93	155	32.42	9.57	2.3	2.1	27	1	137	.16	11	1.1	1.4	25	LSW
		8	2348	42.24	19	21.88	155	25.87	8.78	2.2	2.4	33	0	65	.16	3	.7	1.0	32	HEA
		9	155	5.35	19	31.93	155	56.27	11.02	2.9	2.6	24	0	235	.11	5	2.1	.8	21	KON
		9	14	9 42.61	19	19.64	155	10.74	9.78	2.5	2.8	31	0	95	.08	5	.7	.7	28	UER
		9	19	7 43.35	20	20.75	155	58.42	34.25	2.7	2.2	35	5	156	.22	32	2.0	3.2	29	DIS
		9	2239	42.37	19	12.77	155	35.55	9.74	2.4	2.2	30	1	117	.17	5	.9	1.1	22	HEA
		10	1217	14.01	19	20.06	155	4.65	5.86	2.3	2.7	26	2	135	.12	3	.8	1.7	24	MER

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	DEC	10	1539	36.16	19	19.74	155	9.69	6.51	2.1	2.2	33	2	88	.13	4	.6	1.1	29	UER
		10	1913	18.88	19	21.30	155	.74	5.72	2.5	2.9	30	1	195	.11	5	.8	1.0	29	LER
		11	017	15.03	19	20.65	155	5.80	8.27	2.2	2.4	28	1	107	.12	5	.7	1.1	25	MER
		11	7	5 22.62	19	10.80	155	40.71	10.74	2.5	2.1	26	2	120	.23	10	1.1	1.2	25	HEA
		11	823	44.54	19	20.09	155	13.14	7.36	1.9	2.2	28	0	68	.13	5	.7	1.0	25	UER
		11	1856	52.61	19	20.33	155	4.98	5.63	2.3	2.6	25	0	123	.12	4	.9	1.8	22	MER
		11	1929	6.79	19	20.14	155	13.52	7.31	2.1	2.6	33	2	65	.14	5	.6	1.0	28	UER
		12	053	31.96	19	23.03	155	15.65	11.29	1.5	1.6	30	3	59	.12	1	.6	.9	28	LPC
		12	6	1 47.74	19	16.63	155	26.69	8.21	1.9	2.1	28	1	128	.16	9	.9	1.5	24	HEA
		13	121	58.29	19	20.04	155	13.19	9.64	2.6	2.8	33	0	68	.09	5	.6	.6	29	UER
		13	444	54.56	19	16.75	155	31.53	8.91	2.5	2.5	28	0	115	.14	10	.8	1.3	25	HEA
		13	841	2.56	19	26.39	155	29.55	10.91	2.1	1.9	26	0	54	.12	8	.7	1.3	21	UKF
		13	16	0 56.81	19	19.99	155	8.20	7.95	2.7	3.3	30	0	85	.09	5	.7	1.2	28	UER
		13	1937	28.26	19	20.61	155	9.53	7.74	2.0	2.0	30	0	72	.08	3	.6	1.2	25	UER
		14	031	1.84	19	22.54	155	16.80	33.95	2.8	2.9	37	3	44	.11	2	.9	1.3	32	DEP
		14	420	47.71	19	21.26	155	1.50	7.18	2.3	2.1	28	1	182	.13	4	1.0	.7	27	MER
		14	7	3 37.79	19	24.14	155	17.49	.90	1.7	2.4	15	1	56	.12	2	.5	.8	12	SPC
		14	819	32.72	19	19.01	155	10.60	11.45	3.2	3.3	22	3	41	.15	6	.7	.7	18	UER
		14	1239	35.99	19	22.95	155	30.10	8.25	1.9	1.6	24	0	88	.14	4	.8	2.1	19	MOK
		14	2249	25.93	19	7.07	155	26.06	32.39	2.4	1.8	29	1	181	.09	24	1.6	2.2	23	LSW
		15	21	8 5.73	19	22.86	155	24.33	9.28	1.6	1.6	23	0	78	.11	5	.8	1.5	23	UKF
		16	114	22.61	19	22.32	155	5.99	7.59	2.6	2.5	32	2	72	.12	5	.6	1.3	24	MER
		16	7	4 55.16	19	25.56	154	49.79	8.77	2.9	3.0	31	2	279	.17	9	2.4	1.0	28	LER
		16	1321	56.70	19	20.39	155	11.03	8.35	1.7	2.0	26	0	79	.09	4	.7	1.0	22	UER
		16	2329	5.03	19	19.11	155	12.32	7.68	2.4	2.7	32	2	95	.12	4	.6	1.1	23	UFR
		17	147	11.31	19	20.19	155	7.54	7.79	2.4	2.8	34	3	96	.10	5	.6	1.1	27	UER
		17	340	25.64	19	19.01	155	14.04	8.19	2.3	2.4	33	2	69	.12	4	.6	1.0	24	UER
		17	723	40.07	19	29.45	155	21.83	.01	1.7	2.1	23	2	54	.23	3	.7	.9	20	NER
		17	1752	32.40	19	20.98	155	10.79	7.62	1.7	2.0	29	0	70	.10	3	.7	1.1	26	UER
		17	2341	14.96	19	19.37	155	11.28	7.07	1.9	2.3	32	1	100	.11	6	.6	1.0	27	UER
		18	044	51.42	19	26.87	155	21.38	6.06	2.1	2.4	27	1	49	.12	6	.6	2.5	20	UKF
		18	133	51.28	19	19.97	155	6.56	7.53	2.0	1.8	29	0	117	.09	5	.9	1.1	25	UER
		18	9	4 56.37	19	23.90	155	28.31	10.79	3.0	3.2	36	1	50	.13	3	.6	.8	27	UKF
		18	1539	35.51	19	23.41	155	15.19	3.20	1.8	2.1	19	1	76	.09	2	.6	.8	16	SPC
		19	356	12.16	19	20.87	155	13.33	7.82	2.1	2.1	30	1	59	.14	3	.7	.9	23	UER
		19	545	45.51	19	18.61	155	13.50	8.51	2.3	2.6	32	0	76	.10	3	.6	.9	27	POL
		19	854	23.17	19	17.29	155	16.16	9.62	2.0	2.2	26	0	140	.10	5	1.0	.7	19	KOA
		19	935	1.56	19	19.91	155	13.10	9.80	3.2	3.2	34	2	71	.10	5	.5	.7	28	UER
		19	939	13.88	19	27.61	155	28.26	11.11	2.8	2.6	31	1	51	.16	8	.7	1.0	29	UKF
		19	2024	31.07	19	21.63	155	15.26	7.46	2.6	2.8	36	2	62	.14	2	.5	.8	28	KOA
		20	10	7 13.77	19	20.35	155	13.50	7.26	1.8	2.2	29	0	65	.11	4	.7	1.0	28	UER
		20	1053	32.80	19	20.83	155	10.31	8.86	1.8	2.1	27	1	72	.10	2	.6	1.2	26	UER
		20	2052	12.42	19	19.63	155	7.89	7.03	1.9	1.9	27	0	96	.10	4	.8	1.5	25	UER
		21	019	43.85	19	19.25	155	8.69	5.29	1.8	2.2	30	1	88	.12	4	.8	1.6	27	UER
		21	654	12.43	19	19.71	155	10.32	7.35	1.7	2.2	29	0	93	.10	4	.6	1.0	25	UER
		21	1238	14.86	19	21.33	155	22.70	10.24	1.8	2.3	18	0	72	.16	7	.8	1.4	17	SWR
		21	13	7 19.46	19	17.76	155	16.22	8.64	2.0	2.3	32	0	129	.11	4	.7	.8	30	KOA
		21	1352	17.98	19	21.54	155	.02	6.91	2.5	2.6	26	0	200	.16	6	1.6	1.1	24	LER

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	DEC	21	2225	55.07	19	20.14	155	13.74	9.80	3.6	3.7	39	2	59	.09	5	.5	.7	39	UER
		22	735	52.90	19	20.98	155	13.22	9.34	2.3	2.6	33	1	58	.09	3	.6	.7	29	UER
		22	8 0	18.59	19	23.37	155	2.02	8.28	2.2	2.0	30	1	135	.17	5	.9	1.0	28	MER
		22	14 2	48.97	19	19.25	155	8.79	7.69	1.9	2.2	26	1	85	.12	4	.7	1.1	21	UER
		22	1444	4.88	19	23.80	155	15.98	3.16	1.8	2.3	17	1	100	.12	3	.6	.9	13	SPC
		22	19 8	21.55	19	19.48	155	11.82	6.60	2.1	2.2	32	1	93	.11	5	.6	1.1	28	UER
		22	22 5	47.12	19	20.29	155	3.40	6.61	2.1	2.0	25	2	106	.15	1	1.0	1.4	22	MER
		23	156	17.83	19	15.00	155	31.48	10.86	2.9	3.1	32	0	124	.17	10	.9	1.1	29	LSW
		23	723	34.81	19	16.85	155	15.53	8.40	2.1	2.1	26	0	153	.11	4	.8	1.0	21	HLP
		23	1447	29.39	19	12.03	155	23.70	40.33	2.1	1.6	14	1	160	.08	9	1.5	3.4	7	LSW
		23	1543	6.46	19	11.40	155	30.51	35.61	2.7	2.3	34	2	142	.14	13	1.4	2.4	30	LSW
		23	1745	53.17	19	9.87	155	28.76	29.53	1.9	1.6	28	3	112	.13	2	1.4	1.5	26	LSW
		23	2057	35.87	19	19.87	155	4.25	7.01	2.7	2.9	28	2	148	.10	2	.7	1.2	18	MER
		24	010	45.79	19	20.41	155	12.00	8.64	2.2	2.3	25	0	75	.09	5	.7	1.1	23	UER
		24	7 1	51.35	19	19.64	155	11.84	5.95	1.7	1.6	20	0	90	.12	6	.8	2.2	14	UER
		24	1311	.85	19	20.38	155	11.92	8.47	1.7	2.3	25	0	76	.08	5	.7	1.1	23	UER
		24	1412	51.71	19	25.80	154	56.11	5.80	1.6	1.9	15	2	189	.12	3	2.0	1.5	14	LER
		24	1427	5.64	19	31.33	155	42.07	8.62	2.3	2.3	19	0	105	.13	7	1.0	2.0	17	MOK
		24	1824	19.40	19	18.50	155	13.10	7.84	1.4	1.8	22	0	91	.09	3	.9	1.5	19	POL
		24	2157	59.83	19	16.84	155	22.43	5.97	2.1	2.5	30	1	127	.17	6	.8	1.8	26	SWR
		24	2254	50.15	19	20.63	155	11.42	7.83	2.0	2.1	22	1	75	.11	4	.8	1.3	16	UER
		25	422	2.05	19	20.30	155	4.20	6.74	2.9	3.2	30	1	124	.09	2	.7	1.1	29	MER
		25	748	4.89	19	28.22	155	29.35	11.62	1.5	1.6	21	5	52	.13	8	.7	1.4	19	UKF
		25	1947	27.88	19	24.79	155	25.28	10.33	2.5	3.0	32	1	54	.13	6	.7	1.0	30	UKF
		25	2043	44.34	19	19.77	155	8.34	9.89	2.6	3.3	37	1	83	.09	5	.7	.5	32	UER
		26	223	22.72	19	10.62	155	5.82	53.23	2.1	1.6	33	1	219	.08	13	1.8	2.0	32	DIS
		26	537	44.18	19	24.97	155	28.98	9.86	2.2	2.6	35	3	32	.14	5	.5	1.0	26	UKF
		26	834	47.43	19	24.79	155	28.54	10.62	2.4	2.6	35	1	30	.13	5	.6	.8	29	UKF
		26	11 6	17.61	19	48.79	155	34.74	16.49	2.4	2.4	29	2	100	.17	13	.9	3.2	22	KKU
		26	1613	5.70	19	19.32	155	7.31	8.73	2.0	2.1	30	2	117	.12	4	.7	1.0	26	UER
		27	357	50.11	19	18.43	154	53.78	43.13	3.5	2.9	37	0	245	.10	15	3.8	3.9	30	DIS
		27	957	35.18	19	20.62	155	2.89	6.05	2.1	2.1	29	1	137	.13	1	.9	1.1	25	MER
		27	1421	1.68	19	22.32	155	4.33	7.41	2.1	2.3	30	1	90	.15	4	.7	1.1	26	MER
		28	131	49.29	19	20.39	155	.68	6.96	2.1	2.1	28	2	209	.15	4	1.0	.8	23	LER
		28	447	27.24	19	22.91	155	2.14	7.97	2.1	2.0	30	2	140	.15	5	.7	1.0	27	MER
		28	521	26.98	19	22.65	155	4.12	6.99	2.2	2.0	29	2	94	.13	4	.6	1.2	25	MER
		28	725	10.97	19	20.69	155	10.08	8.15	2.0	2.0	32	2	73	.10	3	.6	1.0	26	UER
		28	9 6	35.98	19	19.89	155	8.20	8.21	2.2	2.3	32	2	85	.09	5	.6	1.0	28	UER
		28	12 3	23.94	19	24.16	155	27.19	11.05	2.4	2.6	35	3	46	.14	3	.5	.7	26	UKF
		28	2352	22.30	19	26.55	154	48.17	7.52	2.5	2.4	31	3	284	.16	10	1.6	1.0	26	LER
		29	640	15.77	19	18.99	155	16.44	8.67	2.8	2.7	37	3	103	.12	3	.6	.8	29	KOA
		29	957	52.22	19	19.16	155	6.17	8.57	2.5	2.8	33	2	147	.11	5	.6	.9	30	UER
		29	11 0	20.49	19	24.96	155	15.89	14.94	2.1	2.5	36	1	36	.09	2	.7	.3	29	DEP
		29	2111	14.08	19	20.74	155	13.56	7.06	1.8	2.1	28	1	56	.09	4	.6	1.2	25	UER
		30	121	52.23	19	24.69	155	26.26	7.65	2.1	2.2	33	4	48	.16	4	.6	1.7	25	UKF
		30	635	33.49	19	23.48	155	15.51	2.87	1.8	2.3	21	0	37	.13	2	.5	.7	19	SPC
		30	1150	9.28	19	25.11	155	16.49	1.78	2.1	2.7	20	1	46	.10	1	.5	.4	18	SPC
		30	12 0	20.95	19	25.26	155	16.40	1.94	2.1	2.3	17	1	122	.15	1	.8	.6	16	SPC

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	DEC	31	524	55.61	19	38.19	155	45.89	14.52		1.9	12	3	21	.35	10	1.6	1.6	10	KON
		31	625	55.38	19	21.64	155	1.88	8.67	2.4	2.6	29	0	164	.11	4	1.3	.7	28	MER
		31	751	19.14	19	17.96	155	15.79	7.84	2.0	2.2	28	0	150	.11	4	.7	.9	25	KOA
		31	1048	40.10	19	20.14	155	2.48	5.82	2.2	2.4	30	0	198	.21	1	1.3	1.1	27	MER
		31	1754	14.94	19	20.58	155	12.93	7.47	1.9	2.3	31	0	65	.14	4	.7	.9	26	UER
		31	1926	.34	19	23.26	155	16.96	14.74	2.1	2.0	33	2	46	.09	2	.8	.4	28	DEP

TABLE 6. HVO EARTHQUAKE SUMMARY LIST

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	JAN	1	426	35.33	19	19.69	155	6.95	9.11	3.7	4.0	31	2	183	.09	7	1.0	.9	29	UER
		3	17 5	51.56	19	23.92	155	15.80	3.39	3.0	3.7	27	0	31	.07	2	.5	.6	25	SPC
		4	157	10.18	19	23.48	155	17.18	3.64	3.0	3.7	32	1	55	.13	0	.4	.7	30	SPC
		4	855	45.90	19	23.33	155	16.87	2.88	2.9	3.7	14	2	54	.11	0	.5	.6	9	SPC
		4	1023	37.86	20	4.76	155	38.43	7.80	3.1	3.5	31	2	162	.14	38	1.1	1.4	25	KOH
		4	1425	13.23	19	23.24	155	14.85	3.84	3.6	4.1	29	0	47	.08	2	.5	.8	27	GLN
		8	0 2	38.71	19	19.50	155	8.44	9.67	2.9	4.0	34	2	82	.08	4	.6	.8	32	UER
		12	3 5	59.27	19	24.22	155	17.65	17.60	3.9	4.1	36	1	29	.12	2	.6	1.2	33	DEP
		14	1326	42.38	19	19.83	155	7.21	9.93	4.6	4.5	32	0	108	.07	5	.8	.6	29	UER
		20	220	27.97	19	19.30	155	11.02	9.11	3.4	3.8	30	3	103	.10	6	.6	1.0	27	UER
		22	732	42.69	19	21.32	155	15.25	10.23	3.6	4.0	32	0	66	.06	2	.6	.7	26	KOA
		22	8 2	44.18	19	23.04	155	14.62	3.87	3.1	3.5	26	0	53	.07	3	.6	.8	23	GLN
		22	832	15.10	19	22.82	155	14.58	2.89	2.0	3.5	11	0	120	.04	3	.6	.8	8	UER
		22	1236	28.17	21	15.07	160	33.76	6.92	5.1	3.6	26	4	331	.26265		60.2	78.6	1	DIS
		22	20 2	.10	19	23.25	155	14.66	3.28	3.0	3.6	25	1	47	.10	3	.6	1.0	21	GLN
		23	1049	1.84	19	20.32	155	12.01	8.78	4.0	4.3	36	1	76	.09	5	.6	.7	34	UER
		24	3 7	58.46	19	18.09	155	23.64	10.26	2.8	3.7	35	0	109	.12	4	.6	.8	34	SWR
		29	1125	43.45	19	20.49	155	5.92	9.13	3.4	3.6	33	1	111	.09	5	.8	.6	32	MER
		29	2248	49.72	19	21.44	155	4.68	9.07	4.1	4.3	35	1	86	.09	4	.8	.6	33	MER
	FEB	3	1520	49.70	19	20.94	155	4.50	9.87	4.5	4.6	37	1	99	.09	3	.9	.6	33	MER
		4	425	14.62	20	2.62	155	27.36	16.54	3.7	3.8	19	2	15	.12	53	12.0	98.3	15	KKU
		8	1447	2.07	19	23.05	155	14.63	3.03	3.1	3.7	29	0	48	.10	3	.5	.6	28	GLN
		8	1851	19.29	19	23.07	155	14.13	.15	3.4	3.7	18	1	72	.15	8	.7	2.3	10	GLN
		8	19 2	22.21	19	22.74	155	14.48	6.44	3.5		28	0	54	.12	6	.7	1.8	25	UER
		8	1923	31.85	19	23.18	155	14.76	3.87	3.1	4.0	33	0	48	.11	3	.6	1.0	26	GLN
		8	1928	29.96	19	22.93	155	14.72	3.23	3.3	4.1	34	0	49	.12	2	.5	.7	30	UER
		8	1954	26.64	19	21.91	155	14.17	1.06	3.0	3.6	21	0	55	.12	3	.6	1.4	15	UER
		8	20 2	28.50	19	22.97	155	13.84	1.37	2.9	3.5	26	0	47	.17	1	.5	.6	26	UER
		8	2047	50.50	19	22.14	155	13.99	1.84	2.3	3.5	12	0	84	.05	2	.6	.8	11	UER
		8	2114	1.86	19	22.78	155	14.91	1.26	2.9	3.5	25	0	62	.11	2	.5	.6	24	UER
		8	2127	35.58	19	22.52	155	15.56	1.41	3.3	3.6	28	2	53	.13	1	.5	.6	20	KOA
		9	917	39.45	19	22.74	155	15.01	3.09	2.9	3.6	23	1	51	.14	2	.5	.7	16	KOA
		9	922	1.02	19	23.09	155	4.27	8.31	3.3	3.8	30	2	98	.09	6	.6	1.1	26	MER
		9	2114	46.96	19	23.25	155	14.78	3.49	2.9	3.7	26	0	47	.07	3	.5	.7	25	GLN
		12	0 9	32.56	19	17.24	155	16.38	10.41	2.5	3.5	31	1	137	.08	4	.6	.5	27	KOA
		20	1729	42.86	19	19.38	155	16.29	10.14	3.7	4.0	37	1	27	.09	2	.5	.6	34	KOA
		21	1159	49.12	19	21.41	155	7.97	8.66	3.1	3.6	36	2	72	.09	4	.5	.8	32	UER
		25	1750	51.94	19	20.65	155	2.95	5.74	3.1	3.7	25	0	131	.09	1	1.1	1.4	21	MER
		27	350	1.77	19	25.43	154	57.57	4.25	2.8	3.6	28	0	175	.18	5	1.3	2.1	22	LER
	MAR	4	115	41.36	19	36.65	156	6.43	13.23	3.4	3.6	39	4	38	.18	29	1.5	1.5	30	KON
		9	029	17.40	19	25.02	155	30.29	44.21	4.0	4.0	30	2	42	.20	7	1.2	3.2	15	MOK
		12	040	7.79	19	19.85	155	8.36	9.47	3.0	3.5	33	2	82	.09	5	.6	.8	31	UER
		15	244	35.32	19	19.31	155	11.83	9.87	2.9	3.6	34	0	97	.09	5	.7	.6	34	UER
		21	459	24.73	19	22.20	155	4.14	8.12	3.4	3.9	31	1	97	.10	4	.8	.8	29	MER
		24	1937	.41	19	20.76	155	8.44	7.37	3.5	4.0	36	1	73	.11	4	.6	.8	32	UER
		25	2321	34.96	19	14.92	155	23.43	29.83	2.7	3.7	19	0	143	.16	6	2.1	5.4	13	LSW
		27	437	58.69	19	21.48	155	15.23	9.91	3.6	3.8	34	2	64	.08	2	.5	.7	32	KOA
		27	838	6.85	19	21.36	155	4.27	7.24	2.9	3.6	31	2	85	.12	4	.7	1.2	28	MER

TABLE 5.

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	MAR	30	1517	38.04	19	43.98	156	1.31	8.54	3.6	3.4	36	0	226	.23	20	2.4	1.4	34	KON
	APR	2	2058	50.88	19	19.94	155	7.98	8.56	3.2	3.5	31	0	89	.09	5	.8	.8	29	UER
		6	11 0	25.20	19	21.44	155	4.81	9.07	3.6	3.9	32	0	87	.08	4	1.0	.6	31	MER
		6	11 1	52.16	19	21.75	155	4.56	8.31	3.1	3.6	13	0	85	.06	4	1.1	1.6	13	MER
		6	1731	41.26	19	17.01	155	6.47	9.34	3.3	3.7	29	0	202	.10	3	1.4	.7	29	POL
		20	1849	23.01	19	56.12	155	18.48	10.47	5.0	4.3	32	2	265	.11	6	1.9	.8	23	KKU
		21	151	31.99	19	19.11	155	16.02	9.84	3.6	3.7	38	2	99	.11	3	.5	.6	34	KOA
		22	944	.12	19	19.16	155	15.61	10.10	4.0	4.1	35	0	93	.10	4	.7	.6	33	KOA
		22	1059	18.36	19	20.98	155	4.80	11.40	3.6	4.0	30	1	99	.17	4	1.0	.6	28	MER
		22	2145	23.26	19	20.98	155	13.26	9.84	3.2	3.6	36	2	59	.09	3	.5	.7	34	UER
		25	1027	3.93	19	20.23	155	11.00	8.98	3.2	3.6	37	2	83	.10	4	.5	.7	30	UER
		25	1820	53.10	19	19.92	155	13.47	9.37	3.5	4.0	36	0	65	.10	5	.6	.6	35	UER
	MAY	2	854	5.85	20	3.01	155	22.60	8.44	3.7	4.0	36	1	218	.10	18	1.7	1.0	35	KKU
		2	16 6	47.10	19	20.51	155	11.28	9.80	3.1	3.5	35	2	76	.08	4	.5	.7	31	UER
		5	512	19.29	19	19.32	155	8.49	9.19	3.2	3.6	20	2	82	.09	4	1.1	1.0	18	UER
		11	2311	6.37	19	18.77	155	13.47	9.72	3.1	3.5	37	1	76	.10	3	.6	.7	33	POL
		14	535	10.79	19	19.87	155	13.50	9.67	2.9	3.5	37	1	64	.11	5	.5	.6	36	UER
		14	2127	13.02	19	22.06	155	5.90	8.96	3.6	3.8	37	1	76	.09	5	.6	.7	36	MER
		14	2132	22.68	19	22.44	155	5.70	8.49	3.2	3.6	36	0	69	.09	5	.7	.7	36	MER
		17	1832	42.73	19	22.15	155	5.84	8.47	3.3	3.8	33	0	74	.09	5	.7	.7	31	MER
		30	1310	5.97	19	20.66	155	6.01	8.36	3.2	3.9	32	1	106	.12	6	.6	.9	30	UER
	JUN	4	142	52.69	19	25.85	154	56.22	6.30	3.1	3.5	27	2	187	.18	5	1.3	1.3	16	LER
		5	2342	18.92	19	21.66	155	4.91	9.31	5.1	4.6	35	0	81	.09	5	.9	.5	35	MER
		6	1058	37.78	19	19.52	155	11.28	8.99	3.4	3.6	35	0	96	.11	5	.6	.7	34	UER
		6	1441	6.48	19	22.73	155	4.76	8.40	2.9	3.5	31	1	81	.10	4	.7	.8	29	MER
		14	1522	.85	19	19.28	155	10.82	10.07	3.1	3.9	37	1	104	.10	5	.7	.6	35	UER
		15	14 4	16.67	19	21.08	155	7.44	7.79	3.1	3.6	37	3	83	.11	5	.6	.9	33	UER
		17	456	51.05	19	21.10	155	6.91	8.25	3.0	3.5	35	2	88	.10	5	.6	.8	32	UER
		17	6 5	36.63	18	55.28	155	30.54	43.40	3.5	3.2	34	0	247	.11	18	3.2	4.5	34	DIS
		20	346	44.35	19	20.66	155	3.43	7.28	2.9	3.6	29	1	100	.10	2	.9	1.0	28	MER
		22	345	21.76	19	20.03	155	6.47	9.80	3.7	4.0	35	1	117	.09	6	.8	.6	34	UER
		29	124	36.13	19	21.10	155	15.29	10.28	3.7	4.0	31	2	39	.09	3	.5	.7	29	KOA
	JUL	1	814	56.36	19	20.04	155	8.20	9.61	3.2	3.7	32	0	84	.10	5	.8	.6	26	UER
		5	759	42.03	19	26.41	155	27.14	11.89	4.1	4.3	33	2	45	.12	7	.6	.6	26	UKF
		6	850	18.47	19	19.40	155	6.40	9.40	3.5	3.9	34	2	135	.10	5	.7	.7	31	UER
		9	116	30.25	19	23.29	155	16.90	3.16	3.1	3.9	33	0	37	.14	2	.5	.8	32	SPC
	AUG	7	2154	20.32	19	20.07	155	13.30	10.29	4.1	4.2	38	2	66	.10	5	.5	.6	36	UER
		10	1919	16.79	19	19.26	155	11.56	8.19	3.8	4.0	35	3	101	.09	5	.6	.8	29	UER
		10	2343	4.94	19	19.98	155	13.97	9.26	3.2	3.7	32	2	59	.10	5	.5	.7	28	UER
		13	1224	28.46	20	9.71	155	36.36	4.61	4.1	3.8	37	2	231	.36	19	2.9	2.1	28	KOH
		15	1836	15.09	19	19.59	155	15.12	.20	2.7	3.6	26	2	106	.24	4	.6	.7	24	KOA
		19	819	13.34	19	19.71	155	7.05	10.15	4.2	4.1	36	1	114	.09	5	.7	.5	33	UER
		22	2142	16.54	17	33.59	152	5.40	6.88	3.5	3.0	25	7	349	.62364		60.3	78.6	20	BLS
		22	2357	15.17	19	26.77	155	24.07	9.16	2.7	3.5	35	2	45	.15	6	.5	1.3	30	UKF
		24	20 7	13.81	19	19.46	155	11.33	9.94	3.6	3.8	37	2	97	.09	6	.5	.6	33	UER
		30	246	21.34	19	22.61	155	27.37	10.35	3.9	4.0	37	1	61	.14	0	.5	.8	33	UKF
	SEP	5	940	35.90	21	44.11	157	46.65	8.84	4.2	2.6	37	7	3441	.10274		59.0	79.5	35	DIS
		7	1351	6.71	19	22.52	155	19.32	31.26	4.5	4.3	33	0	49	.10	2	1.0	1.9	27	DEP

YEAR	MON	DA	ORIGIN TIME HRMN	SEC	LAT N DEG	MIN	LON W DEG	MIN	DEPTH KM	AMP MAG	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1977	SEP	9	17 9	55.21	19	20.65	155	7.46	9.04	3.4	3.5	32	1	90	.09	5	.6	.8	28	UER
		13	1 4	39.88	19	25.23	155	15.98	4.18	3.0	3.5	33	0	46	.16	3	.6	1.9	32	SPC
		13	1213	13.75	19	23.25	155	3.68	.78	3.3	3.8	25	0	101	.20	3	.7	1.3	22	MER
		13	1912	24.08	19	19.52	155	3.01	7.67	3.7	3.7	33	3	197	.13	1	.8	.6	29	MER
		13	2131	56.52	19	20.86	155	3.01	8.37	3.7	4.0	33	2	127	.09	2	.9	.6	30	MER
		14	017	20.57	19	22.15	155	5.80	8.59	3.5	3.7	41	3	75	.10	5	.5	.7	37	MER
		14	020	17.68	19	20.99	155	17.04	1.60	3.8	4.2	24	0	64	.10	2	.4	.6	21	KOA
		14	11 7	38.24	19	21.55	155	.33	6.88	3.4	3.6	32	1	215	.15	5	1.6	.9	25	LER
		14	1150	8.32	19	21.11	155	7.11	9.16	3.6	3.8	36	2	87	.11	5	.6	.8	28	UER
		14	1859	45.41	19	21.21	155	15.33	.29	3.4	4.1	32	1	67	.28	2	.5	1.0	31	KOA
		15	132	21.86	19	20.05	154	56.16	4.84	3.1	3.5	32	2	235	.20	10	1.6	1.4	29	LER
		15	621	46.00	19	21.20	155	16.80	1.52	3.2	4.0	35	0	29	.12	2	.4	.7	32	KOA
		15	646	20.20	19	19.21	155	7.20	8.46	3.6	3.7	36	1	123	.10	4	.6	.6	35	UER
		15	1114	36.72	19	22.09	154	57.29	4.62	3.5	3.9	31	0	217	.17	6	1.8	1.6	29	LER
		15	12 3	42.05	19	20.01	154	57.80	4.76	3.1	3.7	27	2	231	.17	9	1.5	1.7	24	LER
		15	1850	5.45	19	20.55	155	3.65	9.30	4.0	4.0	37	1	157	.10	7	.9	.7	27	MER
		16	920	33.74	19	20.06	154	57.17	4.59	3.1	3.7	29	1	235	.20	10	1.4	1.4	28	LER
		16	1137	43.88	19	21.36	155	3.74	8.58	3.3	3.6	38	2	100	.10	3	.7	.7	32	MER
		17	1519	23.71	19	21.87	155	6.35	8.57	3.7	4.0	39	3	78	.11	6	.5	.8	34	UER
		17	2331	6.89	19	23.77	155	16.63	.00	2.8	3.7	26	2	45	.54	2	.8	1.0	21	SPC
		18	235	2.56	19	23.33	155	5.02	2.43	3.0	3.8	28	0	77	.12	3	.7	1.2	28	MER
		19	259	10.03	19	18.76	155	13.42	10.19	3.5	3.5	39	2	77	.10	3	.5	.6	34	POL
		19	337	50.23	19	20.76	155	15.42	.04	3.5	4.1	32	1	74	.20	3	.4	.7	23	KOA
		19	612	44.70	19	20.89	155	16.00	.14	2.8	3.5	34	3	73	.13	3	.4	.4	27	KOA
		19	714	39.41	19	21.16	155	8.09	7.56	3.1	3.6	37	3	74	.12	4	.6	1.1	33	UER
		19	9 1	45.11	19	21.59	155	7.78	8.77	4.0	4.2	39	2	73	.10	4	.5	.8	34	UER
		23	2 8	44.01	19	21.20	155	2.83	8.37	3.9	4.2	39	2	136	.10	2	.7	.6	35	MER
		23	259	56.68	19	24.94	155	15.42	2.22	2.9	3.8	34	1	36	.14	2	.5	.7	31	SPC
		23	1033	40.05	19	16.84	155	22.31	8.77	3.4	4.0	36	1	128	.17	6	.7	.9	33	SWR
		24	2016	.14	19	59.91	157	46.74	2.60	3.6	2.6	43	11	235	.27	160	2.9	1.4	35	DIS
		26	18 5	39.71	19	20.58	155	3.46	7.97	3.2	3.7	33	0	95	.09	2	1.0	.7	32	MER
		28	738	1.12	19	20.77	155	3.41	7.96	3.7	4.0	35	1	103	.09	2	.8	.7	34	MER
		30	714	36.18	19	25.73	155	15.98	2.37	2.8	3.6	30	1	56	.10	2	.4	.6	29	SPC
	OCT	1	752	32.27	19	21.26	155	16.21	.52	2.7	3.9	24	0	67	.39	2	.7	1.8	22	KOA
		1	1624	7.14	19	20.69	155	16.14	.96	2.7	3.8	31	1	76	.14	3	.5	.7	30	KOA
		9	1438	51.90	19	23.98	155	15.22	24.90	4.0	4.1	38	1	61	.11	2	.8	1.0	28	DEP
		26	111	43.43	19	5.20	155	3.94	46.41	3.5	3.2	35	2	262	.12	24	1.8	3.0	24	PPL
		28	1318	22.87	19	25.89	154	53.90	9.01	3.0	3.6	31	1	227	.13	4	1.7	.6	26	LER
	NOV	1	1338	23.39	19	21.25	155	6.78	9.35	3.8	4.1	36	2	86	.09	6	.6	.8	31	UER
		6	724	15.23	19	22.76	155	24.91	11.78	3.6	3.8	35	3	42	.12	5	.7	.4	30	UKF
		17	1234	12.49	19	9.53	155	33.66	38.64	3.6	3.4	37	1	138	.11	12	1.4	2.3	30	LSW
		22	13 6	46.47	19	18.37	155	20.83	10.20	3.3	3.5	36	2	117	.13	4	.6	.5	28	SWR
		25	854	51.35	19	21.11	155	1.47	7.71	3.5	4.0	34	2	186	.12	3	.9	.6	32	MER
	DEC	4	2225	37.79	19	21.07	155	2.70	8.98	3.2	3.7	38	2	144	.10	2	.8	.5	35	MER
		21	2225	55.07	19	20.14	155	13.74	9.80	3.6	3.7	39	2	59	.09	5	.5	.7	39	UER
		27	357	50.11	19	18.43	154	53.78	43.13	3.5	2.9	37	0	245	.10	15	3.8	3.9	30	DIS

TILT INSTRUMENTATION

In addition to the seismic network, a network of spirit-level tilt stations (dry), borehole tiltmeters, and water-tube (wet) tilt stations is maintained. The network is located on the summits and flanks of Kilauea and Mauna Loa Volcanoes. In December 1977 the tilt network consisted of:

82 spirit level tilt stations (dry)

9 borehole tiltmeters

10 water-tube tilt stations (wet)

1 continuous recording Ideal-Arrowsmith tiltmeter

Dry and wet tilt stations are generally occupied at irregular intervals. Critical stations are measured more frequently than the entire network. Digital borehole tiltmeters data are telemetered by VHF radio and recorded at the observatory. An Ideal-Arrowsmith mercury-pool capacitor-type tiltmeter with a 1 m base is located at the Uwekahuna vault, and the analog signal is recorded at the observatory.

TILTING OF THE GROUND AROUND KILAUEA CALDERA

Tilting of the ground around the summit of Kilauea is monitored daily by a short-base water-tube tiltmeter in the Uwekahuna Vault, and at irregular intervals it is measured on a regional scale by means of a network of field tilt-bases and a portable water-tube tiltmeter. The attitude of the ground surface at each tilt-base is reported in terms of north-south and east-west tilt coordinates. Both coordinates at each station were arbitrarily set equal to 500 when measurements at that station were begun. Increasing tilt coordinates correspond to northward and eastward tilting of the earth's surface; that is, to a relative subsidence toward the north and east. A one-unit change in coordinate corresponds to a tilting of 1 microradian (1 mm per km) in the direction indicated.

Table 7.--Tilt Coordinates at Uwekahuna, 1977

Date	N-S	E-W	Date	N-S	E-W
Jan 2	545	366	Jul 3	532	395
9	548	369	10	533	390
16	551	366	17	532	391
23	551	363	24	532	391
30	550	363	31	532	390
Feb 6	550	362	Aug 7	531	391
13	548	368	14	531	388
20	546	382	21	530	387
27	545	389	28	529	385
Mar 6	543	386	Sep 4	530	387
13	542	388	11	525	402
20	540	387	18	475	493
27	539	389	25	448	478
Apr 3	537	392	Oct 2	458	484
10	537	393	9	454	487
17	537	392	16	455	484
24	536	390	23	453	481
May 1	528	390	30	453	478
8	536	391	Nov 6	450	478
15	535	390	13	449	477
22	534	377	20	449	473
29	534	393	27	449	471
Jun 5	540	396	Dec 4	449	468
12	532	393	11	449	467
19	532	395	18	447	467
26	532	397	25	449	460

Table 8.--U.S. Geological Survey water-tube tiltmeter stations in Hawaii

Station	Symbol	Location		Frequency of reading	Base length M	Description
		Lat. N. Deg. Min.	Long. W. Deg. Min.			
Tree Molds	TM	19 - 26.3	155 - 17.3		50.79	NS. and EW.
Sand Spit	SS	19 - 24.1	155 - 16.8		25.40	Equilateral triangle.
Keamoku	Kea	19 - 25.1	155 - 19.0		47.55	do
Ahua Kamokukolau	Kam	19 - 22.7	155 - 16.6		50.79	do
Kipuka Nene	KN	19 - 19.4	155 - 16.7		47.73	do
Hilina Pali	HP	19 - 18.2	155 - 18.6		47.73	do
Kapapala Ranch	Kap	19 - 20.5	155 - 23.8		50.79	do
Mehana	M	19 - 26.2	155 - 14.3		25.00	do
Uwekahuna	U	19 - 25.5	155 - 17.4		50.79	do
Uwekahuna Vault		19 - 25.4	155 - 17.6	Daily	3.48	NS. and EW.

Table 9. Tilt coordinates and changes at bases around Kilauea Caldera. (See fig.10)

Tilt base and location	Date (1977)	Tilt coordinates N-S	E-W	Rate (10^{-6} rad/mo) and direction of tilting since last reading		Date of last reading (1976)
Uwekahuna (U on fig.10) Lat. 19° 25.5'N Long. 155° 17.4'W	Not Occupied This Epoch					
Tree Molds (TM) Lat. 19° 26.3'N Long. 155° 17.3'W	3 May	486.9	515.5	0.46	S12.1°W	15 Apr
Sand Spit (SS) Lat. 19° 24.1'N Long. 155° 16.8'W	Not Occupied This Epoch					
Keamoku (Kea) Lat. 19° 25.1'N Long. 155° 19.0'W	Not Occupied This Epoch					
Ahua Kamokukolau (Kam) Lat. 19° 22.7'N Long. 155° 16.6'W	Not Occupied This Epoch					
Kipuka Nene (KN) Lat. 19° 19.4'N Long. 155° 16.7'W	26 Apr	171.3	562.7	0.98	N11.1°W	28 Sep
Hilina Pali (HP) Lat. 19° 18.2'N Long. 155° 18.6'W	26 Apr	336.3	527.3	2.83	N41.5°W	15 Apr
Kapapala (Kap) Lat. 19° 20.5'N Long. 155° 23.8'W	3 May	509.7	531.9	1.51	S62.8°E	27 Sep
Mehana (M) Lat. 19° 26.2'N Long. 155° 14.3'W	Not Occupied This Epoch					

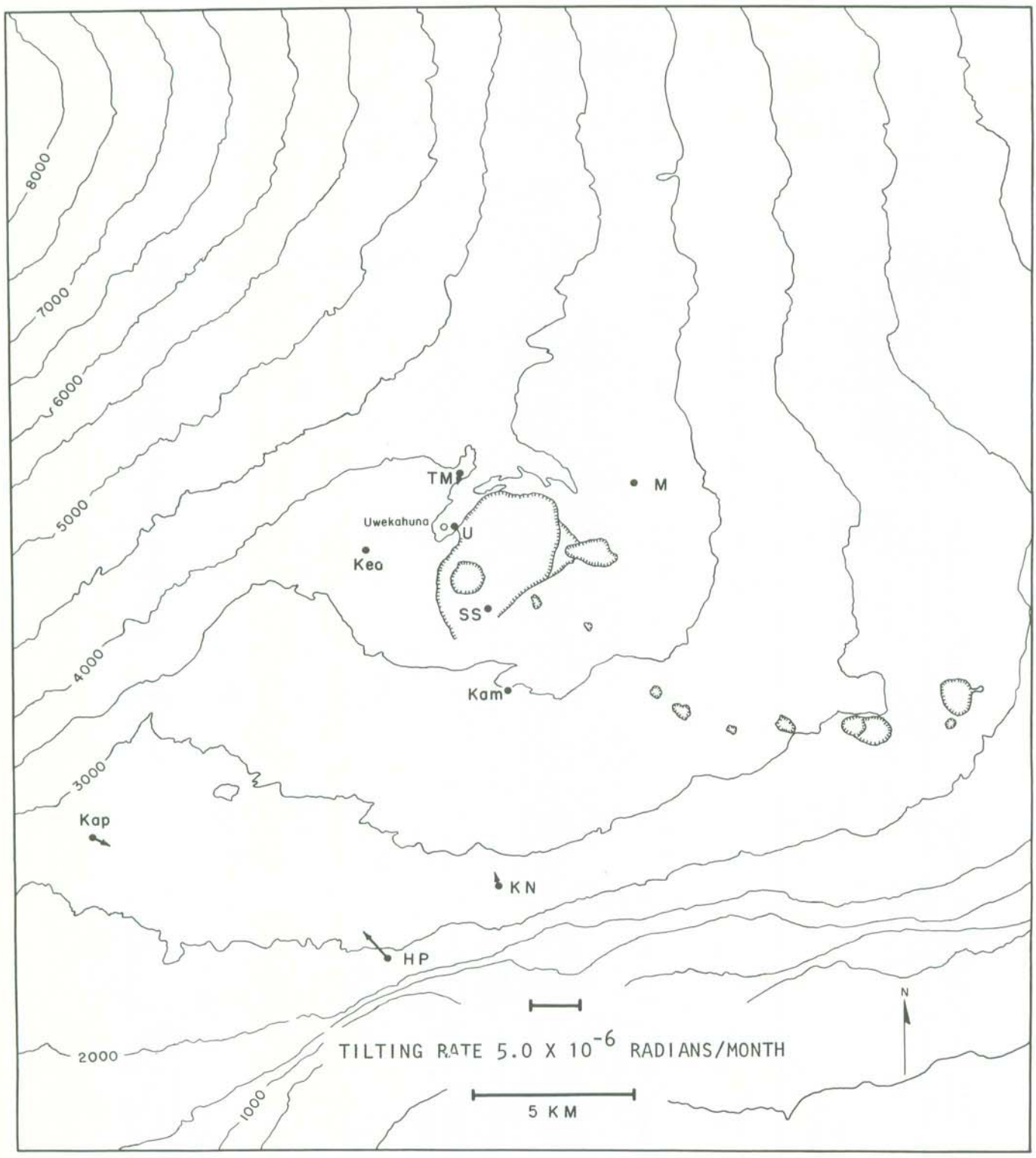

Figure 10 September 1976 to May 1977 tilting of the ground around Kilauea Caldera. The vector depicting tilt at a given tilt base points in the direction of maximum relative subsidence, and its length is proportional to the rate of tilting during the measurement interval. Closed circles represent field tilt bases; open circles, short-base watertube tiltmeters. See Table 8 for explanation of abbreviations.

Table10. Tilt coordinates and changes at bases around Kilauea Caldera. (See fig.11)

Tilt base and location	Date (1977)	Tilt coordinates N-S	Tilt coordinates E-W	Rate (10^{-6} rad/mo) and direction of tilting since last reading		Date of last reading (1977)
Uwekahuna (U on fig.11) Lat. 19° 25.5'N Long. 155° 17.4'W	Not Occupied This Epoch					
Tree Molds (TM) Lat. 19° 26.3'N Long. 155° 17.3'W	8 Aug	485.2	511.3	1.42	S67.8°W	3 May
Sand Spit (SS) Lat. 19° 24.1'N Long. 155° 16.8'W	Not Occupied This Epoch					
Keamoku (Kea) Lat. 19° 25.1'N Long. 155° 19.0'W	Not Occupied This Epoch					
Ahua Kamokukolau (Kam) Lat. 19° 22.7'N Long. 155° 16.6'W	Not Occupied This Epoch					
Kipuka Nene (KN) Lat. 19° 19.4'N Long. 155° 16.7'W	16 Aug	174.2	552.9	2.74	N73.8°W	26 Apr
Hilina Pali (HP) Lat. 19° 18.2'N Long. 155° 18.6'W	11 Aug	341.4	522.4	1.98	N44.3°W	26 Apr
Kapàpala (Kap) Lat. 19° 20.5'N Long. 155° 23.8'W	9 Aug	508.9	533.3	0.50	S60.1°E	3 May
Mehana (M) Lat. 19° 26.2'N Long. 155° 14.3'W	Not Occu½ied This Epoch					

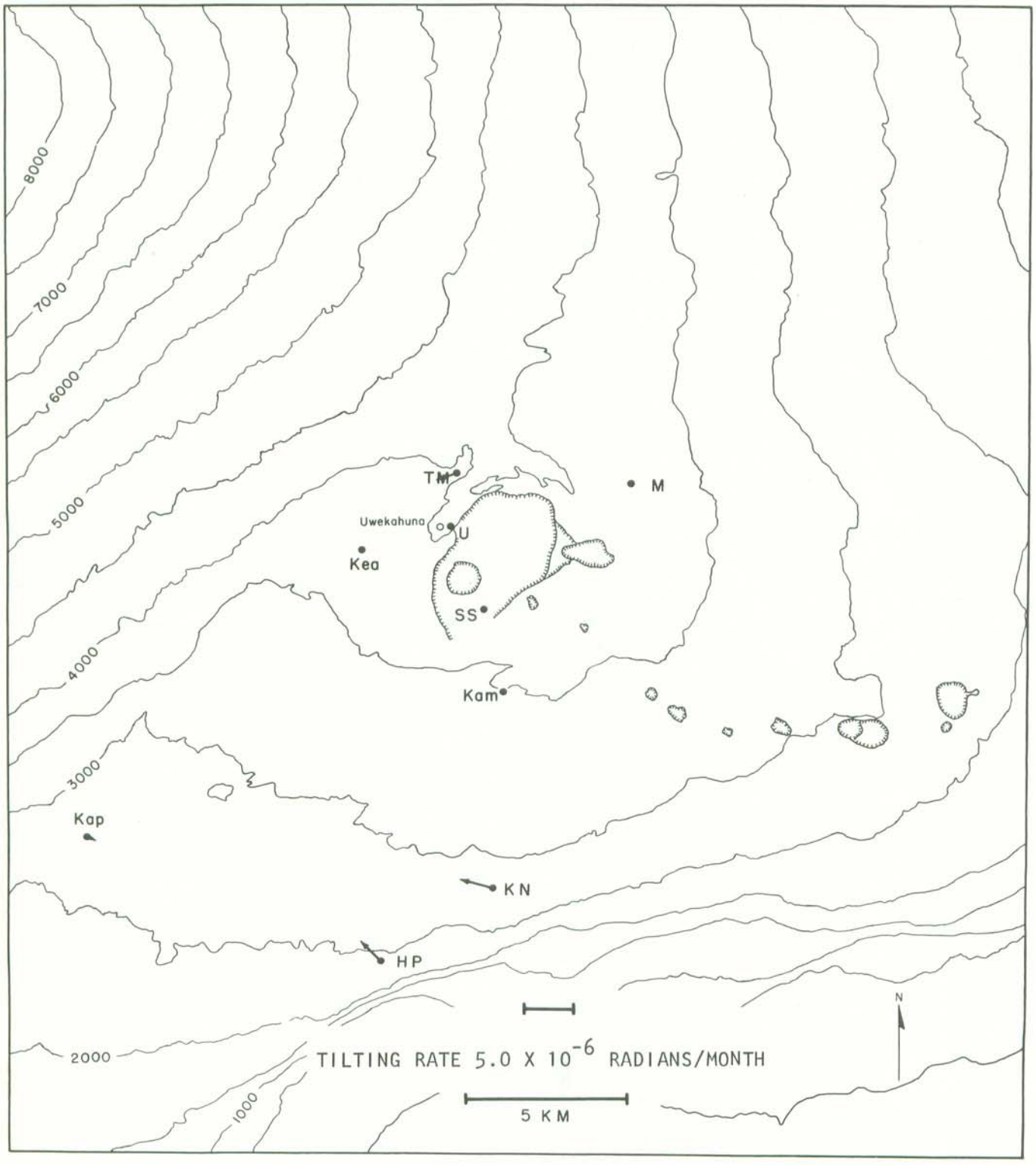

Figure 11 May to August 1977 tilting of the ground around Kilauea Caldera.

Table 11. Tilt coordinates and changes at bases around Kilauea Caldera. (See fig. 12)

Tilt base and location	Date (1977)	Tilt coordinates N-S	Tilt coordinates E-W	Rate (10^{-6} rad/mo) and direction of tilting since last reading		Date of last reading (1977)
Uwekahuna (U on fig. 12) Lat. 19° 25.5'N Long. 155° 17.4'W	5 Dec	477.3	413.0	42.68	S35.1°E	26 Aug
Tree Molds (TM) Lat. 19° 26.3'N Long. 155° 17.3'W	6 Dec	422.0	531.8	16.61	S18.0°E	8 Aug
Sand Spit (SS) Lat. 19° 24.1'N Long. 155° 16.8'W	5 Dec	736.0	963.4	23.26	S50.9°E	10 Aug
Keamoku (Kea) Lat. 19° 25.1'N Long. 155° 19.0'W	6 Dec	483.6	618.4	30.06	S57.4°E	9 Aug
Ahua Kamokukolau (Kam) Lat. 19° 22.7'N Long. 155° 16.6'W	7 Dec	907.6	467.2	44.50	N11.2°W	10 Aug
Kipuka Nene (KN) Lat. 19° 19.4'N Long. 155° 16.7'W	8 Dec	191.8	550.3	4.69	N8.4°W	16 Aug
Hilina Pali (HP) Lat. 19° 18.2'N Long. 155° 18.6'W	8 Dec	349.5	519.0	2.22	N23.0°W	11 Aug
Kapapala (Kap) Lat. 19° 20.5'N Long. 155° 23.8'W	7 Dec	509.1	538.4	1.29	N88.1°E	9 Aug
Mehana (M) Lat. 19° 26.2'N Long. 155° 14.3'W	6 Dec	505.0	540.7	9.96	S35.7°W	8 Aug

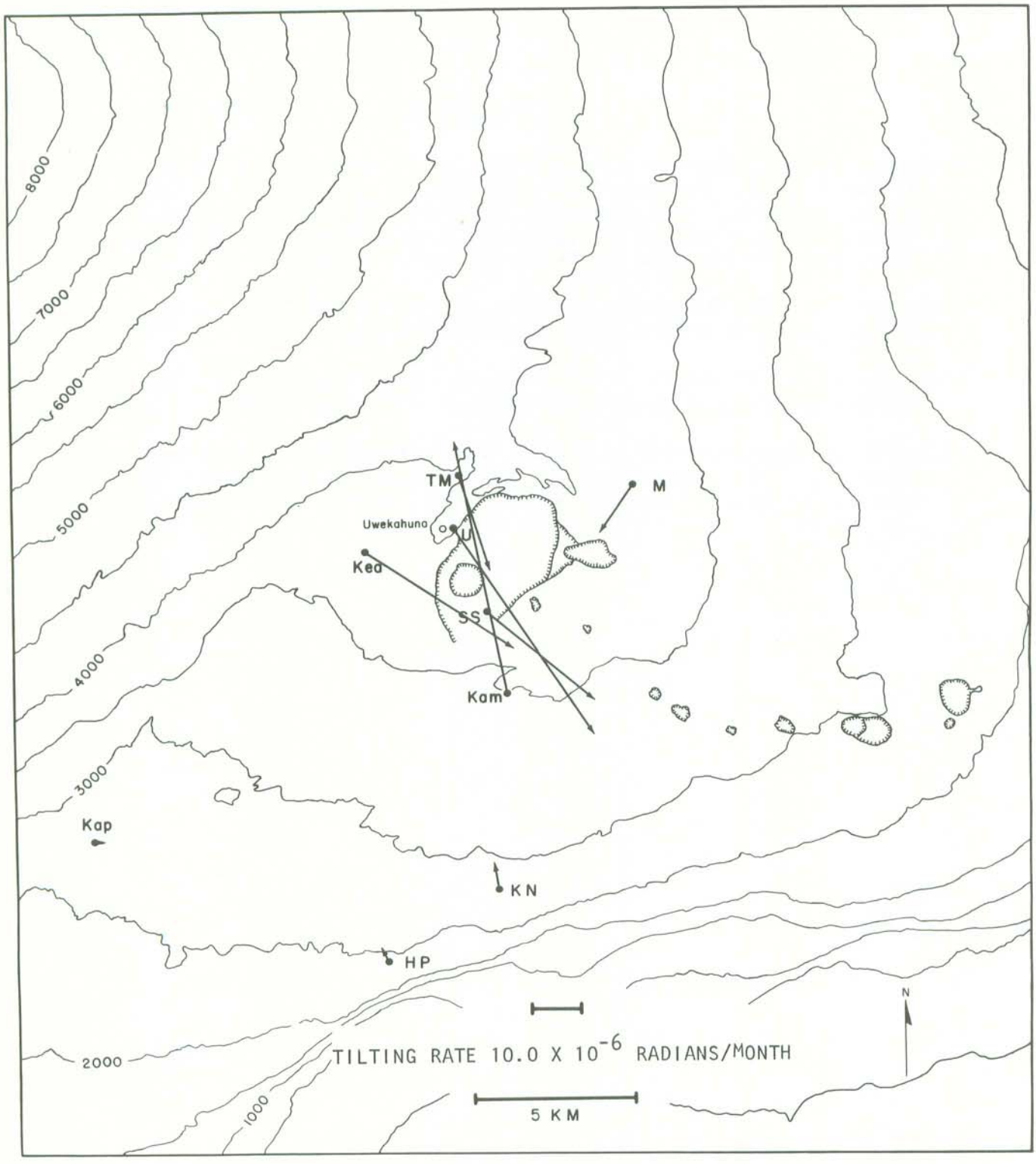

Figure 12 August to December 1977 tilting of the ground around Kalauea Caldera.

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GPO 789-107