HAWAIIAN VOLCANO OBSERVATORY 1980 Annual Administrative Report

INTRODUCTORY NOTE BY THOMAS L. WRIGHT AND JENNIFER S. NAKATA

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SUMMARY 80, PART 1

SEISMIC DATA, JANUARY TO DECEMBER 1980

BY WILFRED R. TANIGAWA, JENNIFER S. NAKATA, AND FRED W. KLEIN

CHRONOLOGICAL SUMMARY

BY ROBERT W. DECKER

OPEN-FILE REPORT 2007-1340

**U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY**

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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.
Heiheiāhulu (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>.

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

HAWAIIAN VOLCANO OBSERVATORY
SUMMARY 80, PART 1
SEISMIC DATA, JANUARY TO DECEMBER 1980

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

Mentlo Park, California
1981

UNITED STATES
DEPARTMENT OF THE INTERIOR
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CHRONOLOGICAL SUMMARY

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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 included. The summaries are issued in two parts. Seismic data appears in Part 1, and deformation data appears in Part 2. The seismic 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, repeated measurements at numerous spirit-level tilt stations ("dry" tilt), and surveying of level and trilateration networks. Because of the large quantity of deformation data now gathered and differing schedules of data reduction, the seismic and deformation summaries will be published separately.

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 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.

A report tabulating the instrumentation, calibration and recording history of each seismic station in the network by Klein and Koyanagi is available as a USGS open file report ("Hawaiian Volcano Observatory Seismic Network History 1950-79," U.S.G.S. open file report 80-302, 1980). It is designed as a reference for users of seismograms and phase data, and so includes and goes a bit beyond the information in the station table in this summary.

CHRONOLOGICAL SUMMARY - 1980

by

Robert W. Decker

Yearly summary: 1980 was the year Mount St. Helens did and Hawaiian volcanoes didn't. There have been no eruptions in Hawaii since the small outbreak at Pauahi Crater on the upper east rift zone of Kilauea Volcano in November 1979. Mauna Loa Volcano continued in repose with a pattern of slow inflation and few earthquakes, but Kilauea had five significant intrusive events during 1980 (March 2, March 10-12, August 27-28, October 22, and November 2). These intrusive events were characterized by shallow earthquake swarms, volcanic tremor, rapid deflation of the summit area with simultaneous ground deformation in the earthquake swarm area, and sometimes volcanic gas emissions. They are interpreted to be intrusions of magma into shallow dikes beneath the rift zone. Magma moving into these new fractures is apparently resupplied from the summit reservoir. Rough estimates of the extent and volume of these inferred dikes can be made from the observed data. Seismicity provides the key information to estimate the length, height, depth to top and propagation rates of the dike. Subsidence of the summit area provides an estimate of the total volume and rate of supply of magma involved in the intrusions. Gas emissions of CO₂ and SO₂ occurred at the surface over the inferred intrusions on three occasions. In two of these cases, the seismic data also indicated a shallow depth (0.5 km) to the top of the intrusion. The following table indicates the approximate nature of the five inferred intrusions during 1980:

Date	Location	Length	Height	Minimum Depth	Volume	Propagation	Gases	EM
						Rate m/hr		Anom- alies
Mar. 2	Hiiaka	2 km	2 km	1 km	$0.6 \times 10^6 \text{ m}^3$		no	no
Mar. 10-12	Mauna Ulu	5 km	3 km	0.5 km	$5.3 \times 10^6 \text{ m}^3$	200-500	yes	no
Aug. 27-28	Puhimau	4 km	3 km	0.5 km	$2.3 \times 10^6 \text{ m}^3$	1000	yes	yes
Oct. 22	Mauna Ulu	2 km	2 km	2 km	$0.6 \times 10^6 \text{ m}^3$		yes	yes
Nov. 2	Kokoolau	2 km	2 km	1 km	$2.0 \times 10^6 \text{ m}^3$	700	no	no

The occurrence of these five intrusions without eruptions further confirms the major changes in structure and eruption mechanics of Kilauea Volcano caused by the magnitude 7.2 earthquake in November 1975. From 1959 until the major earthquake, Kilauea had 24 eruptions and 12 intrusions without eruptions; since November 1975, Kilauea has had 10 intrusions without eruptions and only two eruptions. The major seaward displacement of the southeast flank of Kilauea during that M 7.2 earthquake apparently reduced the accumulated stresses across the east rift zone, making it easier for small dike intrusions to dilate the rift zone.

Besides these relatively rapid magma fracturing events, longer periods of slow deflation of the summit and slow inflation and dilation of the middle east rift zone from Makaopuhi to the Pahoa-Kaimu highway have continued to occur during 1980. The volume of magma involved in this slow leakage into the rift is difficult to estimate. Deformation measurements are not easy in the fern forests of the middle east rift, and an assumption must be made on the rate of magma supply into the summit reservoir beneath Kilauea. Using $100 \times 10^6 \text{ m}^3$ per year for that assumption, some $250 \times 10^6 \text{ m}^3$ of magma could have moved (without magma fracturing) into the middle east rift over a zone 25 km long since October

1977. An alternative estimate based on the cumulative amounts of slow summit deflation since October 1977 indicates $140 \times 10^6 \text{ m}^3$ of magma may be involved. A blade-shaped body of magma 25 km long and 3 km high would have to dilate 2 to 3 meters to accommodate these estimates of additional magma. This amount of displacement seems high but not impossible. Refining these estimates of slow magma movement into the middle east rift of Kilauea, and determining how both slow and rapid (magma fracture) intrusion can take place along different segments of the rift is one of the research challenges of the years ahead.

An experiment in quantitative forecasting of eruptions of Kilauea on a probabilistic basis was started by Fred Klein in September 1980. It uses summit earthquake counts, tilt amplitude and rates, and the biweekly tidal cycle to estimate the eruption probability of Kilauea for the next day, week or month. It will take several years to evaluate this dynamic approach as compared to the average probability of eruptions from historic data.

Gas emissions from Halemaumau Crater provided most of the volcanic gases lost from Kilauea during 1980. CO_2 emission averaged about 3×10^6 kg per day and SO_2 emission about 0.17×10^6 kg per day.

Twelve earthquakes of magnitude 4 or greater occurred beneath or near the Island of Hawaii in 1980. The largest was M 4.6 at a depth of 27 km beneath the south flank of Mauna Loa on January 19 at 15:28:49 Hawaii Standard Time.

The observatory staff of 27 people consisted of 10 scientists and 17 support personnel. This group monitored 48 seismic stations, 525 horizontal distance lines, 275 km of level lines, 123 tilt stations, 3 tide gages, 120 gravity stations, 12 self-potential lines, 3 electro-magnetic induction loop stations, and 12 gas-sampling sites. Some of these monitors are continuous; others are occupied at various intervals. Fifteen members of the staff were involved with studies of the Mount St. Helens eruptions. Individual efforts on the St. Helens' projects varied from 1 week to 6 months, and total participation amounted to 36 person-months. Other temporary research assignments involved staff investigations in Argentina, Indonesia, South Korea, and the Azores. Geologic mapping was continued on Hawaii by three USGS geologists closely associated with the observatory. HVO cooperated with 58 guest investigators on 32 research projects with durations ranging from 2 days to 2 months. HVO members presented 9 papers at scientific meetings and published or contributed to 13 papers and 8 open-file reports. HVO also issued weekly, monthly, and yearly reports.

Hawaii Volcanoes National Park estimated their 1980 visitors in excess of 2 million. About 70% of these visitors (1,400,000) stop at HVO to view Kilauea Caldera and to peer into the observatory windows. A very small percentage of these visitors (1,200 in 1980, including the Dalai Lama) sought and gained entrance to the inner workings of the observatory. Most are truly curious about how volcanoes work, and we wish that we could satisfy even greater numbers. It's been a busy year in many ways and I thank everyone at HVO for their full measure, especially Reg Okamura who so ably took charge while I was often away at Mount St. Helens.

SEISMIC INSTRUMENTATION

The network. The Hawaiian Volcano Observatory has installed and maintains an extensive telemetering seismometer network on the island of Hawaii. In December 1980 the seismometer network consisted of 46 stations; two are low-gain multicomponent stations (optical), eight are three-component, and 36 are vertical only. During 1980, three new stations were installed on Kilauea's lower east rift to supplement the Pahoa station. In addition, the horizontal seismometers were redeployed, and the two-component stations (vertical plus one horizontal) were eliminated. The coverage is most complete on and around Kilauea Volcano. With the exception of HIL, all seismometer signals from the short period network are telemetered to the observatory for recording.

Figure 1 is a map of selected geographic and geologic features, and Figure 2 shows the seismic stations which were operated during the year. Table 1 lists all seismic stations operated by the U.S. Geological Survey in Hawaii during 1980. A few stations were only operated for part of the year. Listed are station name, three and four letter codes, coordinates in degrees and minutes, elevation in meters, and other data described below. In addition to seismometers listed in table 1, a horizontal seismometer of type 3 or H1 and a long-period, three-component set of Press-Ewing seismometers are operated in the Uwekahuna vault, all recorded on photographic paper.

Instrumentation and recording. Each telemetering station has a voltage controlled oscillator (VCO) for FM multiplex transmission to HVO via either hardwire or radio. 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 36 stations are recorded on two Develocorders using 16mm microfilm. FM signals from the telemetering network are also recorded directly on one-inch magnetic tape. Selected larger events are copied onto condensed FM library tapes which are currently archived in Menlo Park and archived in digital form at HVO as part of the routine location processing. The type of recording used for each station (in addition to magnetic tape for the telemetered stations) is coded in table 1 as follows: D - Develocorder film, S - smoked paper drum, P - photographic paper, H - Helicorder paper.

In addition to the standard stations, optical seismographs are maintained at Uwekahuna (HVO), Hilo, Maui, and on Oahu (Kipapa station operated by the Pacific Tsunami Warning Center). The less sensitive optical records are used primarily for amplitude measurements for magnitude calculations to supplement readings from the high-gain stations. 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 magnification 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 a constant but known factor (CAL, 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. CAL factors range from about 1 to 8, averaging about 4. A detailed history of Cal factors and other data is given in F.W. Klein and R.Y. Koyanagi, Hawaiian Volcano Observatory Seismic Network History 1950-79, U.S. Geological Survey Open File Report 80-302, 1980.

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 operational during 1980.

Table 1. Seismometer stations in Hawaii operated by the U.S. Geological Survey, 1980.

STATION NAME	CODE	--LAT--		--LON--		ELEV (M)	DELAY 1	DELAY 2	CAL	SEIS TYPE	OPTIC RECORD
		D	M	D	M						
AHUA	AHU Z	19	22.40	155	15.90	1070	-.10	-.13	2.7	E4	SD
AHUA	AHUE E	19	22.40	155	15.90	1070	-.10	-.13	.0	E4	
AHUA	AHUN N	19	22.40	155	15.90	1070	-.10	-.13	.0	E4	
AINAPO	AIN Z	19	22.50	155	27.62	1524	.13	.17	3.3	E	D
AINAPO	AINE E	19	22.50	155	27.62	1524	.13	.17	.0	L	
AINAPO	AINN N	19	22.50	155	27.62	1524	.13	.17	.0	L	
CAPTAIN COOK	CAC Z	19	29.29	155	55.09	323	.00	-.16	3.6	L4	D
CONE PEAK	CPK Z	19	23.70	155	19.70	1038	-.26	-.07	6.0	L4	D
DANDELION	DAN Z	19	21.42	155	40.04	3003	-.27	.03	6.0	L	D
DESERT	DES Z	19	20.20	155	23.30	815	-.29	-.13	3.5	E	SD
ESCAPE ROAD	ESR Z	19	24.68	155	14.33	1177	-.17	-.19	2.1	L	D
HAWAIIAN BEACHES	HAB Z	19	31.89	154	53.89	92	-.09	-.24	.0	L4	
HALEAKALA, MAUI	HAE E	20	46.00	156	15.00	2090	.00	.00	1.0	W	P
HALEAKALA, MAUI	HAL Z	20	46.00	156	15.00	2090	.00	.00	.7	H1	P
HALEAKALA, MAUI	HAN N	20	46.00	156	15.00	2090	.00	.00	1.0	W	P
HILO	HIE E	19	43.20	155	5.30	20	.54	.30	1.0	W	P
HILO	HIL Z	19	43.20	155	5.30	20	.54	.30	1.0	H1	P
HILO	HIN N	19	43.20	155	5.30	20	.54	.30	1.0	W	P
HILINA PALI	HLP Z	19	17.96	155	18.63	707	.02	.07	2.4	E	D
HALE POHAU	HPU Z	19	46.85	155	27.50	3396	.31	.17	3.7	E	D
HUMUULA SHEEP ST	HSS Z	19	36.31	155	29.13	2445	.20	.35	2.7	L4	D
HUALALAI	HUA Z	19	41.25	155	50.32	2189	.67	.38	3.0	E	D
HEIHEIAHULU	HUL Z	19	25.13	154	58.72	369	-.17	-.16	2.2	E	DS
KAAPUNA	KAA Z	19	15.98	155	52.28	524	-.12	-.01	4.2	E	D
KAENA POINT	KAE Z	19	17.35	155	7.95	37	-.01	.06	1.3	E	D
KAOIKI FAULTS	KFA Z	19	25.26	155	25.14	1579	.13	.17	.0	E	H
KAOIKI FAULTS	KFB Z	19	25.26	155	25.14	1579	.13	.17	.0	TE	S
KAHUKU	KHU Z	19	14.90	155	37.10	1939	.03	-.03	4.0	E	D
KANEKII	KII Z	19	30.56	155	45.90	1841	.15	.37	4.1	E	D
KANEKII	KIIE E	19	30.56	155	45.90	1841	.15	.37	.0	L	
KANEKII	KIIN N	19	30.56	155	45.90	1841	.15	.37	.0	L	
KIPAPA, OAHU	KIP Z	21	25.40	158	.90	76	.00	.00	.6	H1	P
KEANAKOLU	KKU Z	19	53.39	155	20.58	1863	.68	.24	1.1	L	D
PUU KALIU	KLU Z	19	27.48	154	55.26	271	-.17	-.30	.0	L	D
KOHALA	KOH Z	20	7.69	155	46.77	1166	-.03	-.17	2.2	L	D
KOHALA	KOHE E	20	7.69	155	46.77	1166	-.03	-.17	2.2	L4	
KOHALA	KOHN N	20	7.69	155	46.77	1166	-.03	-.17	2.2	L4	
KIPUKA NENE	KPN Z	19	20.10	155	17.40	924	-.11	-.08	4.3	E	D
KAPOHO	KPO Z	19	30.02	154	50.51	134	-.09	-.24	.0	L4	
KALALUA	LUA Z	19	24.55	155	4.25	622	-.25	-.30	3.9	L	DH
MAUNA LOA	MLE E	19	29.80	155	23.30	2010	.03	.08	.0	S5	
MAUNA LOA	MLN N	19	29.80	155	23.30	2010	.03	.08	.0	S5	
MAUNA LOA	MLO Z	19	29.80	155	23.30	2010	.03	.08	5.8	L4	SD
MAUNA LOA	MLOH S	19	29.80	155	23.30	2010	.03	.08	.0	E	
MAUNA LOA	MLON N	19	29.80	155	23.30	2010	.03	.08	1.5	L4	
MAUNA LOA	MLV Z	19	29.80	155	23.30	2010	.03	.08	.0	S5	
MAUNA LOA X	MLX Z	19	27.60	155	20.70	1475	.06	.15	2.1	E	
MAUNA LOA X	MLXH E	19	27.60	155	20.70	1475	.06	.15	.0	E	
MOKUAWEO	MOK Z	19	29.28	155	35.98	4104	.15	.16	4.0	L4	DH
MAKAOPUHI	MPR Z	19	22.07	155	9.85	881	-.17	-.20	1.4	L	D
MOUNTAIN VIEW	MTV Z	19	30.25	155	3.75	409	-.02	.01	4.8	E	D
NATIONAL GUARD	NAG Z	19	42.12	155	1.72	18	.54	.30	4.5	E	D
NORTH PIT	NPT Z	19	24.90	155	17.00	1115	-.30	-.18	4.5	E4	SD
OUTLET	OTL Z	19	23.38	155	16.94	1038	-.19	-.18	4.9	L4	
PAUHI	PAU Z	19	22.62	155	13.10	994	-.21	-.24	2.8	E	SD
PAUHI	PAUE E	19	22.62	155	13.10	994	-.21	-.24	.0	L4	
PAUHI	PAUN N	19	22.62	155	13.10	994	-.21	-.24	.0	L4	
PUU HONUAULA	PHO Z	19	28.90	154	53.40	215	-.09	-.24	3.2	E	D
PUU HONUAULA	PHOE E	19	28.90	154	53.40	215	-.09	-.24	.0	L4	

Table 1 (continued)

PUU HONDAULA	PHON N	19	28.90	154	53.40	215	-.09	-.24	.0	L4	
PUU ULAULA	PLA Z	19	32.00	155	27.67	2992	-.03	.13	5.4	L	D
POHOIKI	POI Z	19	27.42	154	51.22	16	-.09	-.24	.0	L4	
POLIOKEAWE PALI	POL Z	19	17.02	155	13.47	169	-.02	.03	3.5	E	D
PUU PILI	PPL Z	19	9.50	155	27.87	35	-.15	-.15	1.7	E	D
PUU KAMOAMOA	PUK Z	19	23.00	155	6.25	704	-.25	-.30	.0	L	D
RIM	RIM Z	19	23.90	155	16.60	1128	-.21	-.13	.0	L4	
SOUTH POINT	SPT Z	18	58.91	155	39.92	244	-.17	-.22	2.7	E	D
SOUTH POINT	SPT E	18	58.91	155	39.92	244	-.17	-.22	.0	L4	
SOUTH POINT	SPTN N	18	58.91	155	39.92	244	-.17	-.22	.0	L4	
SOUTHWEST RIFT	SWR Z	19	27.26	155	36.30	4048	.01	.04	6.4	L	D
UWEKAHUNA	USE E	19	25.40	155	17.60	1240	-.21	.00	1.0	S	P
UWEKAHUNA	USZ Z	19	25.40	155	17.60	1240	-.21	.00	1.0	S	P
WAHAULA	WHA Z	19	19.90	155	2.92	29	-.10	-.04	1.6	E	D
WILKES CAMP	WIL Z	19	28.15	155	35.02	4037	.22	.17	2.6	L	D
WOOD VALLEY	WOO Z	19	15.08	155	30.12	909	-.15	-.06	4.6	E	D

Table 2. Seismic Instrumentation Types

The codes in parentheses refer to the seismometer types listed in Table 1.

Type 1. (Codes E, L, and 4) Consists of:

- a) Geophone - Electrotech EV-17 (E) or Mark Products L4C (L) 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 - USGS/NCER Model J302 or J402 (4) voltage controlled oscillator. Three 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.

Type 3. (Code H1) Consists of:

Electrotech EV-17 or observatory-built 0.8 sec. period moving coil seismometer with HVO-built solid state seismic preamplifier, galvanometer driver, and 2 Hz galvanometer. Peak magnification approximately 40,000 at 4 Hz.

Type 4. (Code S) Consists of:

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

Type 2 instruments have been discontinued.

Code (W) is a Wood-Anderson torsion seismograph.

Codes (TE) and (S5) are experimental seismometers.

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 and magnetic tape. 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 a constant but known factor (CAL), to get the response for an individual station.

SEISMIC DATA PROCESSING

Develocorder films are scanned for earthquakes, and coda durations are measured for magnitude determination. Events are digitized, timed, and located on the Eclipse computer at HVO. Computer locations are made using the program HYPOINVERSE (Klein, F.W., Hypocenter location program HYPOINVERSE, U.S.G.S. Open file report 78-694, 1978), and problem events are reread and rerun. Magnetic tape copies of all arrival time and output summary data are kept in Menlo Park and HVO.

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

Two empirical sets of station delays or corrections were used in the locations, and are given in Table 1. Delay model 1 is used for events on Kilauea and its south flank, and delay model 2 applies to the rest of the island and offshore earthquakes. The delay models are in fact separated by a circle of radius 34 km centered at 19°22'N and 155°10'W.

Magnitudes for most events were computed using both recorded amplitudes on low gain or Wood-Anderson stations and signal or coda duration on short-period vertical stations. Amplitudes read from other than Wood-Anderson instruments are corrected to an equivalent Wood-Anderson amplitude using the curves of Figure 3 and CAL factors. 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, PPL, KHU, PHO, or WIL.

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 nearly to the noise level. A bilinear relation 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).

The equations used in magnitude determination are:

$$\begin{aligned} \text{duration} < 210 \text{ sec} \quad M &= -5.2 + 3.89 \log (F-P) + .013 Z + .0037 D \\ \text{duration} > 210 \text{ sec} \quad M &= -.905 + 2.026 \log (F-P) + .013 Z + .0037 D \end{aligned}$$

where Z and D are the depth and epicentral distance in km.

SEISMIC SUMMARY

The emphasis in both station coverage and detailed data analysis is on the highly active south half 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. 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 are given in Figures 8-13. The epicenter maps are on different 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 depth. Figures 4-7 are maps 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 Figures 4-7. Table 6 relists the events in Table 5 for which either duration or amplitude magnitude is 3.0 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.

Earthquake categories are:

- 1) Kilauea summit, short period caldera: shallow earthquakes beneath the caldera.
- 2) Kilauea summit, long period caldera: earthquakes characterized by low frequency signatures, often originating 5-10 km below the caldera.
- 3) Kilauea summit 30 km: from about 30 km depth.
- 4) Kaoiki and southwest rift: southwest rift of Kilauea, western parts of the Koae faults and adjacent Kaoiki fault system.
- 5) Upper east rift zone of Kilauea including the eastern parts of the Koae faults.
- 6) Lower east rift zone of Kilauea.
- 7) Offshore PPL: earthquakes from offshore areas south of the Puu Pili station, including Loihi seamount.
- 8) Mauna Loa long period: low frequency events near Mauna Loa summit.
- 9) Mauna Loa short period: shallow earthquakes in the Mauna Loa caldera region.

Tremor is separated into four categories: shallow, intermediate and deep Kilauea, and Mauna Loa. Depth is inferred on the basis of relative amplitudes on seismographs.

KILAUEA SUMMIT				KILAUEA FLANK				MAUNA LOA		TREMOR (MINUTES)	
I	I SHORT	I LONG	I	I KAO.	I UP.	I LOW.	I OFF-	I	I	I KILAUEA	I MAUNAI
I DATE	I PER.	I PER.	I 30	I & SW	I EAST	I EAST	I SHORE	I LONG	I SHORT	I INT.	I LOA
I 1980	I CALDERA	I KM	I RIFT	I RIFT	I RIFT	I PPL	I PER.	I PER.	I SHAL.	I DEEP	I
<hr/>											
I JAN	I 1	I 121	I 21	I	I 33	I 200	I 18	I	I 5	I 4	I
I	I 2	I 137	I 8	I	I 31	I 182	I 12	I	I	I 1	I
I	I 3	I 108	I 4	I	I 18	I 167	I 22	I	I	I 1	I
I	I 4	I 123	I 31	I	I 30	I 147	I 16	I	I	I 3	I 7
I	I 5	I 158	I 18	I 1	I 34	I 203	I 29	I	I	I 2	I
<hr/>											
I	I 6	I 191	I 2	I	I 31	I 211	I 17	I	I	I 1	I
I	I 7	I 193	I 2	I 1	I 38	I 272	I 24	I	I	I	I
I	I 8	I 35	I 2	I	I 4	I 106	I 24	I	I	I	I
I	I 9	I 48	I 6	I	I 10	I 91	I 6	I	I	I	I
I	I 10	I 136	I 1	I 1	I 23	I 85	I 8	I	I	I	I
<hr/>											
I	I 11	I 339	I 1	I	I 11	I 166	I 7	I	I	I 9	I 2
I	I 12	I 383	I 2	I	I 20	I 221	I 13	I	I	I 9	I
I	I 13	I 296	I 4	I	I 38	I 211	I 24	I	I	I	I
I	I 14	I 394	I 3	I 3	I 24	I 205	I 32	I	I 3	I 4	I 9
I	I 15	I 295	I 7	I 1	I 32	I 164	I 7	I	I	I	I
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I	I 16	I 214	I 14	I	I 25	I 571	I 9	I	I	I 4	I
I	I 17	I 107	I 7	I	I 29	I 236	I 13	I	I	I	I
I	I 18	I 171	I 6	I	I 31	I 158	I 114	I	I 1	I 1	I 2
I	I 19	I 288	I 20	I	I 22	I 185	I 68	I	I	I 2	I
I	I 20	I 358	I 32	I	I 37	I 192	I 29	I	I	I	I
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I	I 21	I 579	I 34	I	I 32	I 303	I 22	I	I	I 1	I 2
I	I 22	I 636	I 39	I	I 28	I 475	I 16	I	I	I 2	I
I	I 23	I 211	I 33	I	I 30	I 335	I 28	I	I 1	I 3	I 4
I	I 24	I 263	I 21	I	I 14	I 327	I 13	I	I 2	I 20	I 3
I	I 25	I 231	I 32	I	I 33	I 264	I 25	I	I	I 4	I
<hr/>											
I	I 26	I 116	I 19	I	I 33	I 145	I 36	I	I 3	I 2	I
I	I 27	I 157	I 16	I	I 46	I 195	I 37	I	I	I 6	I
I	I 28	I 223	I 15	I	I 50	I 326	I 10	I	I 4	I 9	I 5
I	I 29	I 222	I 13	I	I 37	I 209	I 3	I	I	I 10	I 7
I	I 30	I 116	I 8	I	I 37	I 175	I 20	I	I	I	I
<hr/>											
I	I 31	I 281	I 33	I	I 39	I 228	I 7	I	I	I 3	I
I FEB	I 1	I 334	I 18	I	I 34	I 232	I 9	I	I	I 9	I
I	I 2	I 365	I 4	I	I 27	I 242	I 12	I	I	I 3	I
I	I 3	I 373	I 25	I	I 26	I 219	I 9	I	I	I 3	I 4
I	I 4	I 359	I 13	I	I 55	I 219	I 12	I	I	I 25	I
<hr/>											
I	I 5	I 229	I 42	I 1	I 31	I 182	I 29	I	I	I 7	I 32
I	I 6	I 194	I 13	I 1	I 24	I 179	I 15	I	I	I 4	I
I	I 7	I 212	I 7	I	I 31	I 201	I 20	I	I	I 7	I
I	I 8	I 514	I 8	I	I 34	I 215	I 12	I	I	I 16	I 10
I	I 9	I 274	I 8	I 1	I 35	I 234	I 21	I	I	I 7	I 69
<hr/>											
I	I 10	I 289	I 7	I	I 19	I 212	I 15	I	I	I 2	I
I	I 11	I 344	I 33	I	I 34	I 292	I 10	I	I 1	I 7	I 4
I	I 12	I 384	I 30	I	I 47	I 28	I 11	I	I	I 5	I
I	I 13	I 252	I 10	I	I 19	I 185	I 20	I	I	I 3	I
I	I 14	I 219	I 10	I	I 23	I 180	I 22	I	I	I 4	I

KILAUEA SUMMIT				KILAUEA FLANK				MAUNA LOA		TREMOR (MINUTES)	
I	ISHORT	LONG	I	KAO.	UP.	LOW.	OFF-	I	I	KILAUEA	MAUNAI
I DATE	I PER.	PER.	30	I & SW	EAST	EAST	SHORE	ILONG	SHORT	INT.	LOA
I 1980	I CALDERA	KM	I	RIFT	RIFT	RIFT	PPL	I PER.	PER.	I SHAL.	DEEP
I	I	I	I	I	I	I	I	I	I	I	I
IFEB15	I	138	2	1	I	26	119	48	I	1	I
I 16	I	122	1	I	I	10	135	26	I	4	I
I 17	I	184	1	I	I	32	163	16	I	4	I
I 18	I	286	23	I	I	20	273	17	I	I	9
I 19	I	224	18	I	I	40	291	I	1	3	I
I	I	I	I	I	I	I	I	I	I	I	I
I 20	I	207	14	I	I	35	193	20	I	2	7
I 21	I	197	7	I	I	28	179	19	I	1	3
I 22	I	219	10	I	I	42	165	11	I	I	I
I 23	I	200	3	1	I	19	142	23	I	1	I
I 24	I	181	4	I	I	26	179	12	I	5	I
I	I	I	I	I	I	I	I	I	I	I	I
I 25	I	177	4	I	I	19	200	19	I	5	I
I 26	I	188	8	I	I	29	170	8	I	5	I
I 27	I	145	2	I	I	36	155	12	I	2	6
I 28	I	109	2	I	I	22	169	28	I	1	1
I 29	I	64	2	3	I	32	122	12	I	I	I
I	I	I	I	I	I	I	I	I	I	I	I
IMAR 1	I	69	4	I	I	24	209	28	I	1	I
I 2	I	52	10	I	I	20	1634	10	I	1	I
I 3	I	70	1	I	I	17	115	10	I	5	1
I 4	I	34	1	I	I	19	124	25	I	2	3
I 5	I	39	2	2	I	34	103	22	I	1	10
I	I	I	I	I	I	I	I	I	I	I	I
I 6	I	84	4	I	I	28	122	11	I	1	6
I 7	I	34	3	I	I	14	84	22	I	2	I
I 8	I	45	1	I	I	18	80	14	I	I	3
I 9	I	56	1	I	I	26	85	20	I	I	3
I 10	I	66	12	I	I	18	1253	25	I	1	I
I	I	I	I	I	I	I	I	I	I	I	I
I 11	I	60	18	I	I	18	1532	30	I	1	I
I 12	I	30	27	I	I	18	233	33	I	2	I
I 13	I	34	16	I	I	19	159	33	I	3	I
I 14	I	34	5	I	I	19	136	21	I	I	4
I 15	I	33	5	I	I	29	117	23	I	I	3
I	I	I	I	I	I	I	I	I	I	I	I
I 16	I	34	2	I	I	16	82	7	I	I	I
I 17	I	104	I	I	I	23	89	5	I	I	1
I 18	I	175	1	1	I	8	70	12	I	I	5
I 19	I	77	3	I	I	16	82	36	I	2	5
I 20	I	50	3	I	I	11	75	16	I	1	5
I	I	I	I	I	I	I	I	I	I	I	I
I 21	I	61	3	I	I	16	92	14	I	I	8
I 22	I	68	6	I	I	23	110	20	I	I	1
I 23	I	72	3	I	I	16	71	13	I	2	1
I 24	I	54	3	I	I	10	88	18	I	I	I
I 25	I	54	2	I	I	17	79	14	I	I	11
I	I	I	I	I	I	I	I	I	I	I	I
I 26	I	112	2	I	I	23	99	13	I	1	2
I 27	I	49	12	1	I	8	103	16	I	I	10
I 28	I	79	1	1	I	19	74	30	I	1	3
I 29	I	51	1	I	I	17	66	15	I	I	4
I 30	I	69	6	I	I	28	69	16	I	I	5

KILAUEA SUMMIT				KILAUEA FLANK				MAUNA LOA		TREMOR (MINUTES)	
I	ISHORT	LONG	I	KAO.	UP.	LOW.	OFF-	I	I	KILAUEA	MAUNAI
I DATE	I PER.	I PER.	30	I & SW	EAST	EAST	SHORE	I LONG	SHORT	INT.	LOA
I 1980	I CALDERA	KM	I RIFT	RIFT	RIFT	PPL	I PER.	I PER.	I SHAL.	DEEP	I
<hr/>											
I MAR 31	I 88	1	1	I 20	108	15	I	71	I		I
I APR 1	I 80	21		I 27	84	15	I	15	I	2 3	I
I 2	I 75	19		I 24	96	22	I	7	I		I
I 3	I 57	37	1	I 21	72	21	I	16	I	8 4	I
I 4	I 75	12		I 27	84	18	I	14	I	1 3	I
<hr/>											
I 5	I 80	4		I 36	76	27	I	1 8	I	2	I
I 6	I 128	3	1	I 26	109	30	I	1 7	I		I
I 7	I 84	15		I 29	74	13	I	1 13	I		I
I 8	I 165	2		I 37	119	6	I	1 5	I	16	I
I 9	I 184	2		I 27	111		I	19	I	3	I
<hr/>											
I 10	I 75	17		I 33	164		I	7	I	3	I
I 11	I 43	6		I 20	153	22	I	1 5	I		I
I 12	I 31	1		I 19	75	31	I	2 5	I	4	I
I 13	I 35	7		I 32	82	35	I	4	I	9 8	I
I 14	I 51	2		I 20	106	23	I	2	I	29 22	I
<hr/>											
I 15	I 33	6		I 24	106	28	I	3 11	I	25	I
I 16	I 44	7		I 23	91	46	I	6	I	52	I
I 17	I 38	4		I 31	81	9	I	6 6	I		I
I 18	I 40	1		I 22	42	24	I	1 7	I		I
I 19	I 44	1		I 10	81	15	I	2 9	I		I
<hr/>											
I 20	I 37	4	1	I 31	96	11	I	5	I		I
I 21	I 62	3		I 24	79	12	I	29	I		I
I 22	I 88	12		I 28	121	12	I	1 16	I		I
I 23	I 140	7		I 31	132		I	2 18	I		I
I 24	I 106	13	2	I 35	107	10	I	4 7	I		I
<hr/>											
I 25	I 87	26		I 31	101	21	I	3 5	I		I
I 26	I 127	34		I 27	90	19	I	2 15	I		I
I 27	I 132	29	3	I 36	104	15	I	3 3	I		I
I 28	I 125	29	1	I 36	119	15	I	1 3	I	7	I
I 29	I 142	4		I 35	106	13	I	1 2	I	16	I
<hr/>											
I 30	I 111	21		I 52	123	10	I	4 3	I	1 31	I
IMAY 1	I 65	20		I 29	177	12	I	3	I		I
I 2	I 34	7		I 30	122	9	I	3	I		I
I 3	I 25	4	2	I 13	159	15	I	2 1	I		I
I 4	I 30	10		I 31	378	19	I	1 1	I		I
<hr/>											
I 5	I 52	8		I 41	197	17	I	2	I		I
I 6	I 32	12		I 26	160	12	I	2 1	I	14 2	I
I 7	I 55	3		I 27	139	10	I	4	I	8	I
I 8	I 81	6		I 31	142	20	I		I	25	I
I 9	I 74	2		I 30	161	12	I	1 1	I	3	I
<hr/>											
I 10	I 123	11		I 21	133	15	I	5	I		I
I 11	I 166	7	1	I 37	112	19	I		I	2	I
I 12	I 156	13	5	I 33	137	14	I		I		I
I 13	I 121	15	1	I 30	120	8	I	1	I	5	I
I 14	I 209	17		I 29	117	16	I	2	I		I

KILAUEA SUMMIT					KILAUEA FLANK				MAUNA LOA		TREMOR (MINUTES)					
I	ISHORT	LONG			I	KAO.	UP.	LOW.	OFF-	I		I	KILAUEA	MAUNAI		
I	DATE	I	PER.	PER.	30	I	& SW	EAST	EAST	SHORE	LONG	SHORT	I	INT.	LOA	I
I	1980	I	CALDERA	KM	I	RIFT	RIFT	RIFT	PPL	I	PER.	PER.	I	SHAL.	DEEP	I
I	MAY 15	I	77	7	I	31	114	11	I		1	I				I
I	16	I	114	6	I	20	145	16	I	4	2	I	4			I
I	17	I	72	2	I	20	142	41	I		1	I	9			I
I	18	I	23	4	1	I	26	179	77	I		1	I			I
I	19	I	31	4	I	28	402	52	I		2	I		35		I
I	20	I	68	2	I	26	174	52	I	2	3	I				I
I	21	I	57	14	I	20	147	28	I	4	1	I				I
I	22	I	98	11	1	I	30	122	28	I	1	1	I			I
I	23	I	133	6	I	13	99	21	I	10	5	I		10		I
I	24	I	162	7	2	I	20	119	49	I	5	4	I			I
I	25	I	216	4	I	22	106	17	I	3	4	I				I
I	26	I	220	32	I	34	132	30	I	4	2	I			2	I
I	27	I	267	30	I	36	117	71	I	2	6	I				I
I	28	I	169	19	I	35	257	19	I	6	3	I				I
I	29	I	54	14	2	I	33	178	30	I	5	I			4	I
I	30	I	41	25	I	36	192	20	I	6	I		12			I
I	31	I	46	7	I	26	250	53	I	5	1	I		10	3	I
I	JUN 1	I	47	5	I	42	285	59	I	2	2	I			2	I
I	2	I	47	12	1	I	27	250	50	I	5	2	I		2	I
I	3	I	48	23	I	52	283	124	I	5	I		3	14		I
I	4	I	62	14	I	11	121	25	I		1	I				I
I	5	I	123	19	I	22	138	34	I	4	I					I
I	6	I	77	10	1	I	13	109	24	I	2	7	I			I
I	7	I	113	3	1	I	23	125	13	I		I				I
I	8	I	173	28	1	I	36	143	53	I	6	I		7		I
I	9	I	134	24	I	22	164	64	I	3	I					I
I	10	I	41	5	I	23	117	47	I		2	I				I
I	11	I	60	4	I	29	152	48	I	1	I					I
I	12	I	78	17	1	I	29	131	67	I	1	2	I			I
I	13	I	92	7	I	24	133	36	I		5	I				I
I	14	I	205	13	I	31	145	2	I		2	I	3		13	I
I	15	I	228	34	1	I	35	171	44	I	1	3	I			I
I	16	I	200	31	1	I	37	135	223	I		4	I	2		I
I	17	I	152	30	I	31	159	101	I	2	7	I		11	2	I
I	18	I	72	16	1	I	36	197	81	I	2	2	I	3		I
I	19	I	42	25	1	I	45	180	145	I	2	1	I			I
I	20	I	61	32	1	I	31	146	55	I	4	3	I	30		I
I	21	I	57	42	I	41	162	59	I	1	7	I				I
I	22	I	64	10	I	24	187	63	I		17	I		7		I
I	23	I	57	16	I	29	42	814	I	5	4	I		10		I
I	24	I	63	53	I	26	813	33	I	6	8	I				I
I	25	I	95	27	1	I	34	171	60	I		23	I			I
I	26	I	104	28	I	39	129	61	I	3	9	I				I
I	27	I	85	5	1	I	18	85	33	I	4	1	I			I
I	28	I	125	11	I	13	111	44	I	3	3	I				I

KILAUEA SUMMIT				KILAUEA FLANK				MAUNA LOA		TREMOR (MINUTES)	
I	ISHORT	LONG	I	KAO.	UP.	LOW.	OFF-	I	I	KILAUEA	MAUNAI
I DATE	I PER.	I PER.	30	I & SW	EAST	EAST	SHORE	LONG	SHORT	INT.	LOA
I 1980	I CALDERA	KM	I RIFT	RIFT	RIFT	PPL	I PER.	I PER.	I SHAL.	DEEP	I
I JUN 29	I 256	27	I	23	125	44	I	1	1	3	I
I 30	I 225	17	I	36	93	31	I	2	3		4 I
I JUL 1	I 183	8	I	26	116	222	I				I
I 2	I 305	8	I	30	124	26	I		8		I
I 3	I 303	8	I	21	166	27	I		2	2	I
I 4	I 229	25	I	31	147	29	I	1	1	2	I
I 5	I 188	11	I	21	150	41	I	1	5		I
I 6	I 183	3	I	24	169	55	I		7		I
I 7	I 200	1	I	27	167	58	I		6		I
I 8	I 117	1	I	21	143	38	I		2		I
I 9	I 87	2	2 I	25	188	28	I	1	2		I
I 10	I 58	5	I	42	184	33	I	3	3		I
I 11	I 45	4	1 I	32	230	60	I		5	9	I
I 12	I 46	2	I	31	176	108	I		8		I
I 13	I 62	148	1 I	25	155	65	I	1	1	40 5	I
I 14	I 49	6	I	41	135	61	I		3		I
I 15	I 50	7	I	28	128	54	I	1	7		I
I 16	I 52	6	I	24	166	59	I		2		I
I 17	I 54	5	I	41	190	71	I		4	40	I
I 18	I 50	4	I	23	92	234	I		3		I
I 19	I 86	8	I	20	84	42	I				I
I 20	I 186	10	2 I	19	151	55	I	1	6		I
I 21	I 185	6	I	15	117	39	I			15	I
I 22	I 171	10	I	16	124	180	I	1	3		I
I 23	I 198	54	1 I	18	123	41	I		12		I
I 24	I 333	36	I	28	88	41	I		5		I
I 25	I 342	13	I	31	118	34	I		2		I
I 26	I 142	2	1 I	13	139	165	I	2	4		I
I 27	I 141	2	I	17	152	126	I		2		I
I 28	I 111	10	1 I	21	163	83	I		4		I
I 29	I 200	5	I	20	334	105	I		1	8	I
I 30	I 193	2	I	27	167	47	I		2		I
I 31	I 218	4	I	23	259	63	I	3	3		I
IAUG 1	I 135	13	I	32	132	62	I	1	2		I
I 2	I 190	16	I	23	128	24	I	1	3	9	I
I 3	I 106	3	I	28	186	18	I	4	1		I
I 4	I 82	19	I	24	159	56	I		5	9	I
I 5	I 50	7	I	28	266	48	I		2		I
I 6	I 33	8	I	17	495	73	I		1		I
I 7	I 141	3	2 I	19	282	70	I			9	I
I 8	I 25	3	I	25	142	39	1 I	2		10	I
I 9	I 32		1 I	18	101	38	I	2			I
I 10	I 51	1	1 I	12	174	43	I	3	4		I
I 11	I 63	1	I	22	337	46	I	1	1		I
I 12	I 65		1 I	28	312	56	I	2	1		I

KILAUEA SUMMIT					KILAUEA FLANK				MAUNA LOA		TREMOR (MINUTES)		
I	ISHORT LONG			I	KA0.	UP.	LOW.	OFF-	I	KILAUEA MAUNAI			
I	DATE	I	PER.	I	30	I	EAST	EAST	I	LONG	SHORT	I	
I	1980	I	CALDERA	I	KM	I	RIFT	RIFT	I	PER.	PER.	I	
I		I		I		I			I	SHAL.	DEEP	I	
I	AUG 13	I	78	I	7	I	95	208	I	38	I	1	I
I	14	I	99	I	6	I	52	189	I	37	I	2	I
I	15	I	133	I		I	27	149	I	39	I	2	I
I	16	I	145	I	12	I	58	179	I	26	I	5	I
I	17	I	177	I	9	I	45	204	I	29	I	1	I
I	18	I	136	I	2	I	32	128	I	29	I	2	I
I	19	I	119	I	2	I	35	135	I	17	I	2	I
I	20	I	134	I	3	I	28	144	I	61	I	1	I
I	21	I	147	I	6	I	28	122	I	25	I	2	I
I	22	I	191	I	1	I	28	136	I	12	I	1	I
I	23	I	179	I		I	27	118	I	14	I	3	I
I	24	I	290	I	1	I	26	138	I	28	I	3	I
I	25	I	226	I	3	I	17	154	I	19	I	1	I
I	26	I	89	I	3	I	32	197	I	36	I	15	I
I	27	I	139	I	16	I	27	2241	I	64	I	2	I
I	28	I	123	I	23	I	24	281	I	37	I	5	I
I	29	I	42	I	9	I	11	96	I	14	I	3	I
I	30	I	57	I	10	I	14	89	I	28	I	1	I
I	31	I	89	I	5	I	14	97	I	22	I	9	I
I	SEP 1	I	235	I	5	I	32	163	I	123	I	2	I
I	2	I	286	I	13	I	26	148	I	82	I	4	I
I	3	I	197	I	6	I	27	128	I	50	I	1	I
I	4	I	249	I	6	I	21	158	I	109	I	2	I
I	5	I	222	I	20	I	23	149	I	415	I	2	I
I	6	I	156	I	9	I	34	98	I	83	I	2	I
I	7	I	171	I	2	I	47	125	I	132	I		I
I	8	I	139	I	16	I	27	147	I	80	I	1	I
I	9	I	513	I	8	I	26	155	I	149	I	1	I
I	10	I	720	I	5	I	36	166	I	114	I	3	I
I	11	I	494	I	4	I	37	163	I	67	I	1	I
I	12	I	202	I	7	I	33	289	I	112	I		I
I	13	I	157	I	1	I	42	390	I	90	I		I
I	14	I	101	I	1	I	37	194	I	435	I		I
I	15	I	87	I		I	36	176	I	130	I	1	I
I	16	I	103	I	4	I	17	153	I	66	I	1	I
I	17	I	55	I	6	I	16	126	I	59	I	3	I
I	18	I	111	I	7	I	28	322	I	289	I	3	I
I	19	I	72	I	2	I	16	89	I	52	I	3	I
I	20	I	43	I	8	I	26	113	I	65	I	2	I
I	21	I	90	I	11	I	17	112	I	227	I	2	I
I	22	I	180	I	33	I	25	106	I	340	I	4	I
I	23	I	201	I	1	I	28	152	I	99	I	2	I
I	24	I	166	I	7	I	26	142	I	88	I		I
I	25	I	102	I	1	I	24	184	I	156	I	2	I
I	26	I	68	I	11	I	31	158	I	261	I	2	I

KILAUEA SUMMIT				KILAUEA FLANK				MAUNA LOA		TREMOR (MINUTES)	
I	ISHORT	LONG	I	KAO.	UP.	LOW.	OFF-	I	I	KILAUEA	MAUNAI
I DATE	I PER.	PER.	30	I & SW	EAST	EAST	SHORE	LONG	SHORT	INT.	LOA
I 1980	I CALDERA	KM	I RIFT	RIFT	RIFT	PPL	I PER.	PER.	I SHAL.	DEEP	I
I SEP 27	I 60	6	2	I 42	195	306	I	4	I		I
I 28	I 60	2	1	I 30	163	283	I 3	2	I		I
I 29	I 70	10		I 26	155	147	I	4	I		I
I 30	I 78	3		I 31	152	119	I	9	I		I
I OCT 1	I 110	3		I 24	202	93	I 1	3	I	5	I
I 2	I 89	8		I 24	144	328	I	1	I		I
I 3	I 99	4	2	I 24	166	96	I	2	I		I
I 4	I 80		1	I 33	177	93	I		I		I
I 5	I 104		1	I 16	184	67	I	1	I		I
I 6	I 92	4		I 19	196	153	I		I		I
I 7	I 74	3		I 25	155	272	I	2	I		I
I 8	I 66	2		I 21	139	115	I	3	I		I
I 9	I 90	12		I 32	144	54	I 1	3	I		I
I 10	I 35	8		I 18	98	62	I 9	11	I		I
I 11	I 47	4	2	I 8	90	39	I 19	3	I		I
I 12	I 66	8		I 20	130	222	I 3	5	I		I
I 13	I 90	2		I 27	130	174	I	7	I		I
I 14	I 130	2		I 34	146	50	I	8	I	50	I
I 15	I 180	16	1	I 38	153	135	I	4	I	27	I
I 16	I 267	4		I 37	134	47	I 1	2	I	25	I
I 17	I 299	7		I 36	113	39	I 1	4	I		I
I 18	I 516	14		I 29	145	91	I 4	1	I		I
I 19	I 251	4		I 44	311	91	I	7	I		I
I 20	I 71	23		I 24	284	113	I	9	I		I
I 21	I 75	2		I 33	1354	201	I 2	6	I		I
I 22	I 65	7		I 21	1029	467	I 5	4	I	62	I
I 23	I 51			I 24	239	91	I	14	I		I
I 24	I 87	23		I 25	136	30	I 1	6	I	5	I
I 25	I 151	1202		I 36	110	30	I	13	I	51	I
I 26	I 256	1353		I 33	146	33	I	7	I	3	I
I 27	I 307	502		I 33	140	31	I		I	6	I
I 28	I 219	890	1	I 25	127	44	I	1	I	3	I
I 29	I 225	330		I 24	107	10	I 1		I		I
I 30	I 415	79	2	I 37	132	25	I	4	I	71	I
I 31	I 240	18		I 15	115		I 1	3	I	71	I
I NOV 1	I 195	19		I 16	92	22	3 I 1	7	I		I
I 2	I 137	30		I 31	1383	37	I	4	I	9	I
I 3	I 104	9		I 26	244	35	I	4	I	12 35	I
I 4	I 76	21	1	I 21	114	16	I	3	I	5	I
I 5	I 202	62	1	I 30	212	26	I 1	3	I	23	I
I 6	I 158	28	1	I 24	182	32	I	3	I	32	I
I 7	I 171	23	1	I 28	150	28	I 1	4	I		I
I 8	I 181	36		I 32	116	17	I 7	17	I	4	I
I 9	I 72	4		I 37	76	11	I	14	I		I
I 10	I 250	18		I 39	140	3	I 1	2	I	10	I

KILAUEA SUMMIT				KILAUEA FLANK				MAUNA LOA		TREMOR (MINUTES)		
I	ISHORT LONG		I	KAO.	UP.	LOW.	OFF-	I	T		KILAUEA	MAUNAI
I	DATE	I	PER.	PER.	30	I	& SW	EAST	EAST	SHORE	LONG	SHORT
I	1980	I	CALDERA	KM	I	RIFT	RIFT	RIFT	PPL	I	PER.	PER.
I		I			I					I	SHAL.	DEEP
I	NOV 11	I	392	36	I	42	138	14	I		7	I
I	12	I	430	75	I	24	132	7	I		2	I
I	13	I	629	49	I	28	154	20	I		1	I
I	14	I	187	24	1	I	18	189	11	I	4	I
I	15	I	55	20	1	I	14	102	14	I	1	I
I	16	I	42	34	I	21	184	6	I	1	12	I
I	17	I	51	3	I	18	187	43	I		7	I
I	18	I	60	4	2	I	15	134	42	I	2	I
I	19	I	71	29	1	I	21	166	18	I	2	I
I	20	I	61	52	1	I	15	304	59	I	1	I
I	21	I	54	10	I	35	381	63	I	3	6	I
I	22	I	68	6	I	26	254	25	I	2	1	I
I	23	I	100	16	I	22	217	12	I		10	I
I	24	I	97	5	I	32	192	20	I	3	3	I
I	25	I	111	10	I	12	190	16	I	1	0	I
I	26	I	121	8	I	29	181	22	I	4	8	I
I	27	I	142	17	I	30	167	8	I	1	2	I
I	28	I	126	3	I	21	140	21	I	2	8	I
I	29	I	121	20	I	24	135	23	I	1	10	I
I	30	I	131	35	I	27	166	9	I	1	5	I
I	DEC 1	I	316	20	I	28	148	6	I	3	2	I
I	2	I	618	30	I	25	155	8	I	3	5	I
I	3	I	546	19	I	24	158	8	I		2	I
I	4	I	523	19	I	14	133	3	I		5	I
I	5	I	257	15	I	9	102	11	I	1	1	I
I	6	I	252	15	I	14	92	5	I	1	1	I
I	7	I	379	14	I	26	166	12	I		2	I
I	8	I	163	7	I	37	154	11	I	2	10	I
I	9	I	150	23	2	I	24	135	8	I	5	I
I	10	I	142	25	I	39	145	15	2	I	4	I
I	11	I	229	19	I	32	167	10	I		6	I
I	12	I	144	8	I	29	157	19	I	5	10	I
I	13	I	108	8	I	22	127	9	I		11	I
I	14	I	156	3	I	21	160	6	I		2	I
I	15	I	176	16	I	25	142	22	I			I
I	16	I	118	8	I	26	120	13	I			I
I	17	I	117	5	I	21	123	4	I			I
I	18	I	201	12	I	15	172	3	I			I
I	19	I	99	6	I	22	102	5	I			I
I	20	I	139	11	1	I	15	114	13	1	I	I
I	21	I	198	4	I	18	177	4	I		1	I
I	22	I	178	20	I	19	145	8	I			I
I	23	I	162	15	I	32	137	3	I		1	I
I	24	I	212	3	I	37	142	9	I		4	I
I	25	I	306	9	I	25	125	1	I	1		I

KILAUEA SUMMIT				KILAUEA FLANK				MAUNA LOA		TREMOR (MINUTES)	
I	ISHORT	LONG	I	KA0.	UP.	LOW.	OFF-	I	I	KILAUEA	MAUNAI
I DATE	I PER.	PER.	30	I & SW	EAST	EAST	SHORE	ILONG	SHORT	INT.	LOA
I 1980	I CALDERA	KM	I RIFT	RIFT	RIFT	PPL	IPER.	PER.	I SHAL.	DEEP	I
I DEC 26	I 193	8	I 30	153	18	I	1	I	I	I	I
I 27	I 214	22	I 19	134	14	I	1	I	I	9	I
I 28	I 237	49	I 22	164	8	I	1	I	I	I	I
I 29	I 145	16	I 20	130	8	I	I	I	I	I	I
I 30	I 159	5	I 19	141	12	I	2	I	I	I	I
I 31	I 190	1	I 16	137	7	I	1	I	I	I	I

Table 4. Coordinates of named earthquake regions.

--All earthquakes are in one of the following groups.
 --Identified by a numerical class or 3-letter code:

--Shallow:

- 1 SNC - Shallow north caldera (0-5 km)
- 2 SSC - Shallow south caldera (0-5 km)
- 3 SEC - Shallow east caldera (0-5 km)
- 4 SER - Shallow east rift (0-5 km)
- 5 SME - Shallow middle east rift (0-5 km)
- 6 KOA - Koaie fault zone (0-5 km)
- 7 SSF - Shallow south flank (0-5 km)
- 8 SLF - Shallow lower east rift (0-5 km)

--Intermediate depth:

- 9 SF1 - Kilauea south flank (5-13 km) (west end)
- 10 SF2 - Kilauea south flank (5-13 km)
- 11 SF3 - Kilauea south flank (5-13 km)
- 12 SF4 - Kilauea south flank (5-13 km)
- 13 SF5 - Kilauea south flank (5-13 km) (east end)
- 14 LER - Lower east rift (5-99 km)
- 15 MLO - Mauna Loa (0-13 km)
- 16 LSW - Lower SW rifts of Kilauea & Mauna Loa (0-13 km)
- 17 GLN - Glenwood (0-13 km)
- 18 SWR - SW rift (0-13 km)
- 19 INT - Intermediate caldera (5-13 km)
- 20 KAO - Kaoiki (0-13 km)

--Deep:

- 21 DEP - Deep Kilauea (>13 km) (below regions 1-13, 17-19)
- 22 DLS - Deep lower SW rift (>13 km) (below region 14)
- 23 DML - Deep Mauna Loa (>13 km) (below regions 15, 20)

--Outer regions, all depths:

- 24 LOI - Loihi (all depths)
- 25 KON - South Kona (all depths)
- 26 HUA - Hualalai (all depths)
- 27 KOH - Kohala (all depths)
- 28 KEA - Mauna Kea (all depths)
- 29 HIL - Hilo (all depths)
- 30 DIS - Distant, everywhere else

Table 4 (continued)

--The latitude and longitude limits of the regions are given below.
 --When the coordinates imply an overlap, precedence is given as in the maps.

No.	Code	N.Lat.	S.Lat.	W.Lon.	E.Lon.
1	SNC	19 28	19 24.5	155 19	155 14
2	SSC	19 24.5	19 22	155 19	155 16.5
3	SEC	19 24.5	19 22	155 16.5	155 14
4	SER	19 26	19 20.5	155 14	155 07.2
5	SME	19 26	-----	155 07.2	155 00
6	KOA	19 22	19 20.5	155 17	155 14
7	SSF	-----	19 10	155 17	155 00
8	SLE	19 32	19 16	155 00	154 40
9	SF1	19 22	19 10	155 17	155 14.5
10	SF2	19 26	19 10	155 14.5	155 12.3
11	SF3	19 26	19 10	155 12.3	155 09.1
12	SF4	19 26	19 10	155 09.1	155 05.3
13	SF5	19 26	19 10	155 05.3	155 00
14	LER	19 32	19 16	155 00	154 40
15	MLO	19 43	19 19	155 35	155 19
16	LSW	19 19	18 40	155 43	155 25
17	GLN	19 43	19 26	155 19	155 00
18	SWR	19 22	19 10	155 25	155 17
19	INT	19 28	19 22	155 19	155 14
20	KAO	19 30	19 19	155 32	155 19
21	DEP	19 43	19 10	155 25	155 00
22	DLS	19 19	18 40	155 43	155 25
23	DML	19 43	19 19	155 35	155 19
24	LOI	19 10	18 40	155 25	155 00
25	KON	19 39	19 00	156 20	155 43
26	HUA	19 55	19 39	156 20	155 43
27	KOH	20 25	19 55	156 20	155 34
28	KEA	20 25	19 43	155 43	154 40
29	HIL	19 47	19 32	155 09	154 40

Figure 4. Earthquake classification, shallow 0-5 km deep
Kilauea and east flank Mauna Loa.

Figure 5. Earthquake classification, intermediate 5-13 km Kilauea and east flank Mauna Loa.

Figure 6. Earthquake classification, crustal 0-13 km deep island of Hawaii.

Figure 7. Earthquake classification mantle >13 km deep
island of Hawaii.

1980 EPICENTERS, 0-5 KM DEPTHS

Figure 8

1980 EPICENTERS, 5-13 KM DEPTHS

Figure 9

MAGNITUDES

- 2.0+
- 3.0+
- 4.0+
- 5.0+

Figure 10

1980 EPICENTERS. 0-13 KM DEPTHS

MAUNA LOA

28

30'

20'

20 KM

50'

40'

30'

20'

1980 EPICENTERS, 0-13 KM DEPTHS

Figure 11

1980 EPICENTERS, 13-60 KM DEPTHS

Figure 12

1980 EPICENTERS, 0-5 KM DEPTHS

Figure 13

MAGNITUDES

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.

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

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

ERH km - Standard error of the epicenter in km.

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

REMK - Remarks, three letter code for geographic location of event. See Figure 2 for location of mnemonic code. Additional one letter codes have the following meanings:

F - felt

L - long period character

T - associated with harmonic tremor

B - quarry or other blast

* - the location program had a convergence problem, which usually means that the depth may be unreliable.

Table 5 lists all events located during 1979. Table 6 lists only events of magnitude 3.0 or larger.

Table 5. HVO EARTHQUAKE SUMMARY LIST

PAGE 1

YEAR	MON	DA	HRMN	SEC	LAT N	DEG MIN	LON W	DEG MIN	DEPTH	KM	MAG	AMP	DUR	NR	NS	GAP	RMS	MIN	DIS	ERH	ERZ	NO	REMK
1980	JAN	1	150	55.33	19	22.82	155	14.49	3.51	1.8	2.2	19	0	71	.06	3	.3	.4	16	SEC			
		1	357	49.18	19	26.00	155	24.40	9.81	2.0	1.9	34	0	46	.11	2	.4	.8	26	KA0			
		1	57	3.13	19	20.29	155	6.62	9.84	3.4	3.2	37	0	108	.11	5	.6	.5	33	SF4	F		
		1	613	41.18	19	23.73	155	1.59	8.64	2.1	1.9	29	0	137	.11	5	.6	.5	19	SF5			
		1	759	14.99	19	19.70	155	12.08	9.04	1.8	1.2	17	0	134	.04	6	.7	1.3	14	SF3			
		1	109	31.13	19	19.57	155	5.61	7.44	2.1	2.1	34	0	144	.08	5	.5	.7	21	SF4			
		1	1037	21.75	19	21.15	155	13.09	8.78	1.9	1.9	33	1	57	.10	3	.5	.7	21	SF2			
		1	1451	39.71	19	20.03	155	13.68	5.93	1.5	1.2	19	0	71	.11	5	.6	1.3	17	SF2			
		1	1551	23.19	19	32.43	155	28.03	4.87	1.9	1.5	7	0	119	.02	1	.7	.8	5	ML0			
		1	1659	49.64	19	19.75	155	12.14	8.20	1.4	1.3	15	0	133	.04	6	.7	1.7	11	SF3			
		1	1955	2.24	19	25.62	155	29.05	9.53	2.2	2.1	38	1	52	.10	6	.3	.7	29	KA0			
		1	2214	29.50	19	18.80	155	15.30	8.26	1.4	1.4	20	1	121	.05	4	.5	.9	16	SF1			
		1	234	49.08	19	19.84	155	10.56	9.89	2.6	2.9	35	0	90	.07	4	.4	.7	27	SF3			
		1	2356	39.52	19	21.58	155	5.87	8.09	1.3	1.5	20	0	94	.08	3	.5	1.0	17	SF4			
		2	540	59.06	19	26.12	155	24.03	8.25	1.9	1.6	22	1	51	.12	7	.4	1.5	19	KA0			
		2	614	27.59	19	20.61	155	5.61	8.12	1.9	1.8	26	0	110	.11	5	.7	.6	24	SF4			
		2	752	24.06	19	24.35	155	17.06	1.68	1.1	1.3	9	1	77	.04	1	.3	.5	5	SSC			
		2	916	.08	19	19.34	155	11.65	8.44	2.0	2.3	26	0	98	.09	5	.5	.7	25	SF3			
		2	1343	16.31	19	23.07	155	16.77	2.92	2.1	2.7	24	1	45	.10	1	.3	.3	22	SSC			
		2	1617	55.73	19	19.95	155	11.17	7.95	2.2	2.5	37	1	87	.11	5	.4	.6	32	SF3			
		2	1720	25.87	19	24.20	155	17.58	16.01	2.0	1.6	35	4	37	.08	2	.6	.4	29	DEP			
		2	1746	16.03	19	27.24	155	28.48	8.90	1.9	1.7	29	1	52	.10	7	.4	1.1	21	KA0			
		2	180	45.82	19	22.96	155	14.93	3.23	1.4	1.3	13	0	114	.06	2	.4	.5	10	SEC			
		2	1918	22.21	19	23.15	155	14.82	3.22	2.0	2.2	21	1	66	.06	2	.3	.4	14	SEC			
		2	1920	57.77	19	23.39	155	14.87	2.95	1.1	1.1	8	0	103	.03	3	.5	.9	8	SEC			
		2	2136	37.20	19	23.26	155	16.92	2.87	2.7	3.1	32	1	40	.08	0	.2	.2	28	SSC	F		
		2	2327	24.25	19	31.50	155	36.51	9.74	2.8	1.7	30	1	108	.16	4	.6	.8	18	ML0			
		2	2354	54.91	19	13.12	155	28.07	7.91	2.1	1.6	20	3	102	.14	5	.5	1.3	10	LSW			
		3	16	16.75	19	23.43	155	14.99	3.22	3.4	3.8	39	1	46	.10	3	.3	.4	31	SEC	F		
		3	158	11.17	19	23.37	155	14.90	3.14	1.4	1.4	12	2	91	.07	3	.4	.5	9	SEC			
		3	331	16.16	19	23.05	155	14.74	3.14	1.5	1.8	15	1	77	.05	2	.3	.4	11	SEC			
		3	345	37.41	19	20.48	155	6.94	9.01	1.9	1.6	13	0	237	.04	5	2.8	1.3	11	SF4			
		3	634	2.07	19	20.88	155	6.15	8.80	1.3	1.5	15	0	181	.04	4	.8	1.4	13	SF4			
		3	912	29.16	19	18.28	155	15.14	7.76	1.9	2.0	30	0	133	.07	4	.4	.7	29	SF1			
		3	914	17.09	19	22.85	155	14.45	3.57	1.7	1.7	19	1	70	.05	2	.3	.4	17	SEC			
		3	1212	13.32	19	20.68	155	2.65	8.26	2.4	2.8	34	0	154	.10	2	.6	.7	32	SF5			
		3	1422	34.38	19	56.43	156	23.91	7.00	2.2	2.1	26	0	288	.11	68	4.3	99.0	25	DIS	*		
		3	1610	45.80	19	20.42	155	12.10	8.79	1.6	1.2	22	0	74	.05	4	.5	1.0	20	SF3			
		3	1936	36.04	19	17.82	155	13.11	7.88	1.5	1.3	27	1	109	.08	2	.5	.6	24	SF2			
		3	200	51.53	19	19.87	155	8.13	6.50	1.8	1.5	24	1	87	.08	5	.5	1.1	20	SF4			
		4	049	4.58	19	19.44	155	11.22	5.19	1.7	1.6	23	1	98	.06	5	.4	1.0	21	SF3			
		4	322	22.65	19	18.70	155	15.23	7.16	1.5	1.6	25	2	124	.12	4	.5	1.1	21	SF1			
		4	717	3.00	19	20.09	155	7.62	7.29	1.8	1.7	28	0	95	.09	5	.5	1.0	26	SF4			
		4	842	19.03	19	21.07	155	2.76	8.19	2.4	2.5	35	0	141	.10	2	.6	.5	23	SF5			
		4	1159	22.50	19	22.60	155	14.94	4.39	1.2	1.0	10	0	158	.05	2	.7	1.1	6	SEC			
		4	1221	6.60	19	18.90	155	15.30	7.61	1.6	1.3	24	1	118	.08	4	.5	1.0	20	SF1			
		4	164	34.96	19	22.95	155	14.82	3.39	1.5	1.6	15	0	66	.05	2	.3	.5	11	SEC			
		4	1933	16.34	18	59.57	155	37.76	45.37	2.8	2.6	37	3	196	.09	4	.9	1.6	29	DLS			

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HVO EARTHQUAKE SUMMARY LIST

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		ORIGIN TIME			LAT N		LON W		DEPTH AMP D/R				GAP RMS MIN		ERH		ERZ NO			
YEAR	MON	DA	HRMN	SEC	DEG	MIN	DEG	MIN	KM	MAG	MAG	NR	NS	DEG	SEC	DIS	KM	KM	FM	REMK
1980	JAN	4	20	0	11.48	19	17.63	155	14.84	7.94	1.7	1.4	20	2	162	.11	3	.7	.8	16 SF1
		4	20	4	49.80	19	18.21	155	15.42	6.76	1.6	1.8	29	0	139	.08	4	.4	.7	20 SF1
		4	2252	57	51.51	19	20.56	155	10.88	8.33	1.7	1.8	32	1	76	.09	3	.4	.7	26 SF3
		4	238	18	73.19	19	20.26	155	10.76	9.20	1.7	1.3	12	0	132	.04	4	.7	1.5	10 SF2
		5	1	1	35.96	19	22.36	155	13.94	2.96	1.3	1.1	11	0	142	.04	2	.4	.5	8 SER
		5	215	5	94.19	19	20.71	155	12.97	8.86	1.9	2.0	32	0	63	.10	4	.4	.7	28 SF2
		5	242	38	54.19	19	27.25	155	51.86	6.52	2.4	2.0	24	3	227	.10	12	1.0	.8	13 KON
		5	4	5	20.21	19	19.89	155	8.92	6.23	1.8	1.8	30	1	77	.11	4	.5	1.1	23 SF4
		5	6	8	7.20	19	18.92	155	21.45	2.69	1.6	1.1	14	1	136	.08	4	.5	.7	10 SWR
		5	651	34	48.19	19	20.21	155	12.05	7.71	1.6	1.2	11	0	125	.03	5	.7	2.0	11 SF3
		5	716	30	06.19	19	23.91	155	16.03	3.11	.9	1.1	10	0	106	.06	1	.4	.4	7 SFC
		5	917	14	75.19		.20	155	39.70	43.15	2.1	1.7	3	134	.05	2	1.0	1.8	10 DLS	
		5	1058	5	60.19	19	27.44	154	54.65	4.75	1.2	2.0	0	201	.13	1	1.1	.7	14 SLE	
		5	1439	18	34.19	19	20.77	155	8.26	7.57	2.1	2.4	29	0	76	.08	4	.5	.9	18 SF4
		5	184	4	12.19	19	28.10	155	28.32	9.07	2.3	2.1	31	1	54	.09	7	.4	1.1	21 KAO
		5	1815	27	77.19	19	20.14	155	13.35	7.58	1.6	1.3	22	1	65	.10	5	.5	1.2	17 SF2
		6	444	22	37.19	19	22.77	155	14.58	3.37	1.7	1.6	17	1	72	.08	2	.3	.5	10 SEC
		6	620	48	11.19	19	23.47	155	28.61	9.22	1.4	1.9	0	70	.06	3	.5	1.1	17 KAO	
		6	643	27	18.19	19	22.89	155	2.13	6.36	2.1	2.1	18	1	140	.10	5	.6	1.0	10 SF5
		6	857	49	58.19	19	21.53	155	6.37	6.26	1.5	2.1	1	84	.10	3	.5	.9	14 SF4	
		6	959	8	13.19	19	27.88	154	53.27	1.58	2.3	2.4	26	0	236	.22	2	1.9	.6	10 SLE
		6	1037	49	80.19	19	18.70	155	13.72	7.96	1.7	1.6	28	0	90	.09	3	.5	.9	19 SF2
		6	1214	57	75.19	19	10.82	155	41.32	2.85	2.4	1.6	18	0	219	.10	11	1.3	5.5	13 LSW
		6	1218	48	84.19	19	20.20	155	6.37	8.46	1.9	1.4	13	0	184	.03	5	.9	1.6	9 SF4
		6	1241	28	87.19	19	20.11	155	8.49	7.49	1.8	1.6	27	1	77	.07	4	.4	.9	13 SF4
		6	15	2	25.93	19	18.21	155	20.51	6.26	1.9	1.7	24	2	119	.10	3	.5	1.1	16 SWR
		6	1939	56	98.19	19	20.33	155	13.27	5.17	1.5	1.4	24	0	64	.12	4	.5	1.3	20 SF2
		6	2148	59	11.19	19	21.66	155	12.50	2.88	1.4	1.8	16	2	109	.03	2	.4	.5	10 SER
		7	340	37	13.19	19	19.21	155	16.14	7.02	1.9	1.9	26	0	113	.08	3	.4	.7	20 SF1
		7	514	28	06.19	19	19.13	155	11.86	7.20	1.7	1.3	15	0	145	.03	6	.7	2.0	12 SF3
		7	6	1	33.12	19	19.54	155	11.94	8.08	1.6	1.3	15	0	137	.03	6	.7	1.8	11 SF3
		7	6	2	52.46	19	19.59	155	9.90	8.57	1.6	1.4	16	0	119	.03	5	.7	1.4	13 SF3
		7	750	3	69.19	19	19.79	155	9.77	7.43	1.8	1.9	28	1	88	.08	4	.5	.9	21 SF3
		7	1011	36	52.19	19	27.32	154	52.59	7.55	1.8	1.5	27	3	259	.15	3	1.1	.9	15 LER
		7	1131	43	60.19	19	20.56	155	13.00	8.54	1.9	2.0	30	0	65	.10	4	.5	.8	23 SF2
		7	1711	42	09.19	19	20.33	155	12.81	9.19	1.6	1.5	17	0	77	.03	4	.6	1.2	13 SF2
		7	1956	15	07.19	19	22.33	155	17.07	30.23	2.1	1.7	33	4	41	.07	2	.8	1.1	23 DEP
		7	2045	16	57.19	19	20.27	155	11.51	9.20	1.7	1.4	14	0	191	.03	4	1.1	1.3	13 SF3
		7	2146	24	53.19	19	18.86	155	12.89	7.11	1.7	1.3	20	0	90	.06	4	.5	1.4	17 SF2
		7	2210	48	78.19	19	18.60	155	15.26	9.08	2.3	2.6	31	1	124	.10	4	.5	.7	26 SF1
		8	027	32	06.19	19	22.95	155	14.73	2.96	1.2	1.2	14	0	66	.07	2	.3	.4	11 SEC
		8	3	8	31.11	19	20.54	155	11.63	8.39	2.1	2.1	34	2	75	.10	4	.5	.6	28 SF3
		8	528	17	99.19	19	23.39	155	17.01	2.73	2.4	2.8	25	1	41	.09	0	.3	.3	22 SSC
		8	14	1	33.89	19	23.48	155	15.00	3.33	1.8	1.6	13	0	79	.06	3	.4	.5	10 SEC
		8	1527	45	22.19	19	25.88	155	23.35	8.51	1.9	1.6	21	1	55	.11	3	.5	1.0	17 KAO
		8	1554	34	95.19	19	25.90	155	21.02	11.41	2.1	1.3	6	1	333	.13	6	6.0	1.7	3 KAO
		9	152	.03	19	23.28	155	14.93	3.34	1.2	1.7	14	0	72	.06	2	.4	.4	10 SEC	
		9	152	42	70.19	19	23.20	155	14.90	3.02	1.2	1.2	8	0	110	.02	2	.5	.8	7 SEC

HVO EARTHQUAKE SUMMARY LIST

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YEAR	MON	DA	HRMN	SEC	LAT N DEG MIN	LON W DEG MIN	DEPTH KM	AMP MAG	DJR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ NO KM FM	REMK
1980	JAN	9	1049	7.22	19 19.39	155 10.34	8.54	1.8	1.4	15	1	113	.04	5	.7	1.3 13	SF3
		9	1240	13.38	19 20.25	155 11.66	8.59	2.9	1.1	31	0	79	.10	5	.4	.7 26	SF3
		9	1250	40.77	19 23.20	155 14.78	3.40	1.9	1.8	9	0	116	.02	2	.6	.6 7	SEC
		9	1311	47.14	19 23.13	155 14.73	3.26	2.3	2.0	14	0	65	.06	2	.4	.5 12	SEC
		9	14 5	55.44	19 23.12	155 14.75	3.38	1.8	1.6	11	0	88	.03	2	.4	.6 10	SEC
		9	1458	12.42	19 23.26	155 14.83	3.32	1.8	2.2	15	0	68	.05	2	.4	.4 11	SEC
		9	15 0	14.95	19 23.12	155 14.74	3.06	1.8	2.0	15	1	71	.06	2	.3	.5 10	SEC
		9	1625	3.91	19 22.86	155 14.62	3.30	2.0	2.1	17	0	124	.07	2	.4	.3 11	SEC
		9	18 3	16.87	19 21.85	155 4.90	8.46	2.1	1.9	24	1	77	.10	5	.5	.8 18	SF5
		9	1816	52.99	19 30.62	155 45.54	8.48	2.6	1.9	18	2	169	.12	1	1.4	1.4 11	KON
		9	19 7	27.96	19 24.83	155 28.40	10.47	2.9	3.2	33	1	55	.10	5	.4	.6 28	KA0
		9	2029	39.52	19 23.23	155 14.81	3.17	1.5	1.6	11	1	109	.06	2	.5	.7 8	SEC
		9	2116	20.27	19 18.26	155 15.13	8.37	1.3	1.4	11	1	233	.02	5	1.4	1.6 9	SF1
		9	2126	33.56	19 23.90	155 15.61	2.76	1.2	1.5	13	1	108	.05	2	.3	.4 8	SEC
		9	2341	47.44	19 19.92	155 7.88	7.78	1.9	1.5	11	0	236	.06	5	2.2	1.5 9	SF4
		10	129	49.60	19 19.78	155 12.01	9.15	1.7	1.3	9	0	233	.03	6	1.5	2.0 9	SF3
		10	444	38.93	19 23.72	155 15.30	2.96	1.9	2.1	15	2	96	.07	2	.3	.4 9	SEC
		10	524	57.78	19 18.59	155 11.59	6.68	1.7	1.3	11	0	253	.07	7	1.9	1.8 8	SF3
		10	649	4.25	19 24.29	155 16.53	1.71	1.3	1.3	8	0	115	.05	1	.3	.3 7	SSC
		10	948	3.95	19 20.17	155 7.61	6.66		1.2	17	0	94	.09	5	.5	1.5 17	SF4
		10	1014	7.38	19 20.27	155 12.24	9.46	1.7	1.7	20	1	75	.04	5	.5	.9 17	SF3
		10	1129	57.36	19 23.75	154 59.45	5.67		1.8	14	0	175	.12	3	.8	1.6 11	LER
		10	1241	47.80	19 23.15	155 15.07	2.21	1.6	1.1	10	2	111	.11	2	.4	.7 7	SEC
		10	1411	33.10	19 24.31	155 16.20	1.41	2.1	2.5	12	2	128	.08	1	.3	.3 9	SEC
		10	1540	19.96	19 23.20	155 14.87	3.10	1.6	1.6	9	0	110	.04	2	.5	.8 8	SEC
		10	1928	2.12	19 20.11	155 11.79	8.61	2.0	2.2	16	1	228	.05	5	1.3	1.0 12	SF3
		10	2227	57.39	19 21.14	155 6.18	6.61	2.2	2.5	21	0	93	.08	6	.5	.7 16	SF4
		11	024	44.56	19 18.92	155 15.78	5.83	1.6	1.2	11	0	236	.08	4	1.7	1.6 10	SF1
		11	115	29.46	19 25.48	155 25.46	4.93	1.8	1.6	11	0	128	.09	1	.6	1.1 10	KA0
		11	611	15.85	19 19.56	155 7.89	8.26	1.9	1.4	9	0	254	.02	6	2.8	1.8 8	SF4
		11	1314	38.61	19 20.55	155 7.73	8.61	2.5	2.5	31	1	87	.10	5	.5	.7 25	SF4
		11	1945	53.50	19 20.13	155 8.32	7.89	1.8	1.4	28	1	80	.08	4	.5	1.0 18	SF4
		12	1025	28.85	19 20.05	155 13.11	7.27	1.8	1.3	24	0	69	.12	6	.5	1.1 22	SF2
		12	1325	3.33	19 19.50	155 12.13	7.73	1.7	1.1	12	0	218	.03	6	1.1	1.9 10	SF3
		12	1836	25.73	19 21.62	155 1.42	7.81	2.1	1.6	15	0	175	.10	4	.9	1.4 15	SF5
		12	1933	4.61	19 23.24	155 14.69	3.34	1.2	1.0	10	1	112	.05	3	.4	.7 8	SEC
		12	2118	8.36	19 23.09	155 17.09	2.57	1.2	1.1	12	1	65	.06	1	.4	.2 8	SSC
		13	054	29.29	19 19.08	155 9.65	8.15	1.8	1.4	12	0	237	.07	6	2.2	2.5 8	SF3
		13	220	40.82	19 21.96	155 1.93	7.67	1.7	1.2	13	0	156	.11	4	.7	1.4 11	SF5
		13	258	13.81	19 20.25	155 12.83	8.79	1.6	1.4	13	0	191	.03	6	1.0	1.5 13	SF2
		13	4 8		19 24.53	155 24.25	8.87	1.8	1.7	23	0	44	.09	2	.5	1.1 21	KA0
		13	434	25.03	19 20.09	155 11.74	8.89	1.7	1.3	13	1	211	.04	5	1.1	1.2 10	SF3
		13	832	2.58	19 25.68	155 23.73	8.93	1.6	1.4	13	0	75	.09	6	.5	1.6 9	KA0
		13	1212	13.96	19 25.23	155 16.02	1.20	1.6	2.2	11	0	149	.07	2	.3	.4 8	SNC
		13	1456	32.15	19 19.60	155 11.38	9.28	2.0	2.0	12	0	204	.03	9	1.2	2.5 9	SF3
		13	1618	37.37	19 18.27	155 13.14	9.40	1.7	1.5	14	0	214	.04	8	1.3	1.6 13	SF2
		13	1633	46.46	19 18.01	155 13.09	7.44		1.2	13	0	234	.08	9	1.3	1.9 12	SF2
		13	1657	38.64	19 15.86	155 21.87	6.69		1.2	11	0	210	.08	7	1.1	2.6 10	SWR

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YEAR	MON	DA	HRMN	SEC	LAT N DEG MIN	LON W DEG MIN	DEPTH KM	AMP MAG	DJR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ NO KM FM	REMK
1980	JAN	13	1711	19.69	19 21.89	155 12.82	4.08		2.2	17	0	71	.07	5	.4	1.5 11	SER
		13	1751	50.32	19 20.24	155 9.68	8.27		1.4	11	0	206	.03	3	1.3	1.7 9	SF3
		13	1814	45.57	19 18.33	155 13.17	9.34	1.7	1.7	14	0	214	.04	8	1.3	1.5 12	SF2
		13	1825	26.01	19 18.30	155 13.12	8.51		1.1	11	0	228	.03	8	1.3	2.4 8	SF2
		13	1938	34.69	19 22.32	155 1.07	6.46		1.3	7	0	218	.15	6	1.4	2.3 4	SF5
		13	23 0	12.94	19 20.06	155 9.51	8.51		1.2	11	0	210	.03	4	1.1	1.3 8	SF3
		14	424	58.49	19 22.76	155 14.34	3.44	1.8	2.2	11	0	79	.03	3	.4	.7 10	SEC
		14	437	4.38	19 19.53	155 11.81	4.58	1.6	1.3	10	2	221	.05	6	2.4	11.4 6	SSF
		14	7 6	36.72	19 22.90	155 14.48	2.93	1.5	1.6	10	1	125	.05	3	.5	.7 6	SEC
		14	12 7	20.55	19 26.64	155 26.55	8.44	2.0	1.7	24	2	59	.08	4	.4	.9 20	KA0
		14	1616	24.97	19 27.78	154 54.61	4.74	2.3	1.6	25	1	180	.12	1	.9	.9 13	SLE
		14	17 7	.79	19 23.87	155 16.07	3.09	1.3	1.6	17	0	101	.07	1	.3	.3 13	SEC
		14	22 4	52.35	19 23.75	155 16.80	2.42	1.8	2.4	19	1	60	.10	0	.4	.2 15	SSC
		15	058	46.75	19 23.01	155 14.96	3.28	1.1	1.6	10	0	114	.06	2	.4	.6 9	SEC
		15	2 1	22.80	19 25.72	155 23.40	9.75	1.6	1.3	20	1	52	.07	3	.5	1.1 15	KA0
		15	258	9.99	19 26.04	155 24.40	8.18	2.1	2.0	31	0	46	.11	2	.4	.9 27	KA0
		15	5 4	56.49	19 19.65	155 11.01	7.19	1.8	2.2	28	1	94	.08	5	.5	.9 25	SF3
		15	10 0	15.66	19 23.19	155 16.95	2.83	1.3	1.8	8	0	116	.02	0	.5	.5 7	SSC
		15	1016	30.44	19 23.80	155 23.31	7.80	1.5	1.3	13	1	58	.09	4	.5	1.8 11	KA0
		15	1213	11.23	19 18.98	155 13.16	8.31	2.9	2.0	29	1	81	.09	4	.4	.7 21	SF2
		15	1245	31.99	19 24.52	155 28.98	9.49		1.3	9	1	173	.02	4	.8	.9 5	KA0
		15	1341	2.75	19 41.29	156 2.21	35.32	3.8	3.7	32	0	306	.08	35	7.7	2.4 32	HUA
		15	1441	25.97	19 26.64	155 18.50	6.03	1.2	1.1	5	0	321	.11	4	39.4	19.3 5	INT
		15	1543	29.68	19 23.02	155 14.73	3.43	1.6	1.6	10	0	116	.03	2	.5	.6 9	SEC
		15	1750	17.86	19 24.15	155 16.34	3.43	1.1	1.3	9	0	113	.07	1	.6	.4 6	SEC
		15	23 3	58.02	19 19.65	155 8.48	6.57	1.8	1.6	16	2	204	.07	5	1.1	1.6 9	SF4
		16	042	16.44	19 19.53	155 8.53	8.11	1.8	1.7	13	0	223	.04	5	1.5	1.7 8	SF4
		16	133	36.31	19 21.53	155 .56	7.45	2.1	1.8	23	0	193	.12	5	.9	1.1 17	SF5
		16	141	4.33	19 23.20	155 14.79	3.14	1.6	1.8	12	0	86	.03	2	.4	.4 8	SEC
		16	144	44.10	19 1.75	155 25.91	46.56	2.6	2.4	32	2	211	.11	15	1.3	2.5 24	DL8
		16	518	7.25	19 18.66	155 13.00	8.27	2.0	1.6	15	2	209	.05	8	.8	1.5 10	SF2
		16	733	35.58	19 22.59	155 .06	7.73	2.4	2.4	25	0	184	.13	5	.9	.6 17	SF5
		16	11 9	28.57	19 19.56	155 7.82	8.33	1.9	1.3	10	0	243	.04	6	2.1	1.8 8	SF4
		16	1136	18.91	19 20.61	155 7.25	5.64	1.6	1.3	20	0	93	.12	5	.5	1.7 14	SF4
		16	1313	59.06	19 19.60	155 13.16	7.25	1.6	1.8	27	0	73	.12	5	.5	1.2 19	SF2
		16	1535	54.20	19 23.48	155 15.10	2.78	1.4	2.0	12	0	107	.07	2	.4	.4 11	SEC
		16	16 5	30.06	19 22.34	155 5.76	6.82	1.9	1.9	29	2	71	.09	5	.4	.9 16	SF4
		16	1726	8.92	19 22.97	155 14.40	3.46	1.9	2.4	19	0	78	.06	2	.4	.5 16	SEC
		16	1730	57.07	19 23.65	155 15.20	2.60	1.4	1.1	11	1	92	.07	2	.4	.6 8	SEC
		16	1835	21.56	19 23.24	155 14.72	2.69	1.9	1.9	18	1	88	.21	3	.5	.7 14	SEC
		16	1858	31.48	19 23.17	155 14.68	3.14	1.2	1.1	8	0	113	.02	3	.5	.9 7	SEC
		16	19 3	39.82	19 23.30	155 14.69	3.42	3.1	2.2	33	1	46	.09	3	.3	.4 24	SEC
		16	19 8	28.64	19 23.00	155 14.70	3.04	1.1	1.1	11	1	113	.03	2	.4	.6 7	SEC
		16	20 3	9.30	19 24.36	155 14.61	3.78	2.1	2.4	23	1	96	.06	1	.4	.4 18	SEC
		16	2041	48.68	19 24.19	155 25.03	9.91	1.8	1.8	22	0	51	.08	2	.5	1.1 20	KA0
		16	2159	56.07	19 23.25	155 14.69	3.62	3.4	2.6	34	0	47	.08	3	.3	.5 27	SEC
		16	22 4	1.24	19 22.98	155 14.74	2.80	2.0	2.1	19	1	67	.11	2	.4	.5 13	SEC
		16	2218	3.99	19 23.07	155 14.62	2.84	2.1	2.4	19	1	60	.06	3	.3	.4 14	SEC

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YEAR	MON	DA	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 NO KM FM	REMK
1980	JAN	16	23	3	36.69	19 23.89	155 15.53	3.24	1.6	2.1	13	0	107	.05	2	.4	.4 10 SEC
		16	23	7	30.12	19 19.18	155 15.33	8.24	1.6	1.9	21	0	131	.07	4	.7	1.2 16 SF1
		17	134	2	80.19	19 20.20	155 11.82	9.32	1.8	2.2	29	0	80	.08	5	.5	.9 18 SF3
		17	2	6	41.78	19 24.16	155 14.61	3.52	1.5	1.7	16	0	97	.06	1	.5	.4 11 SEC
		17	3	9	44.65	19 19.49	155 10.06	9.38	1.8	1.6	14	0	213	.05	5	1.4	1.7 13 SF3
		17	4	6	11.24	19 22.43	155 14.03	3.20	1.3	1.3	14	0	130	.06	2	.5	.5 8 SEC
		17	535	17	70.19	19 24.25	155 14.73	4.05	2.3	2.7	23	2	99	.08	1	.3	.4 15 SEC F
		17	623	39	85.19	19 24.11	155 14.70	4.22	3.1	3.3	37	1	79	.11	1	.4	.5 30 SEC F
		17	635	39	68.19	19 26.07	155 15.81	1.92	2.5	2.9	21	1	160	.08	3	.4	.5 14 SNC
		17	858	51	53.19	19 25.11	155 15.76	2.07		3.1	18	0	47	.13	2	.4	.8 17 SNC
		17	1221	47	51.19	19 22.28	155 5.27	8.15	3.3	3.7	37	2	72	.10	5	.4	.6 32 SF5
		17	1714	50	66.19	19 24.30	155 14.56	3.54	1.1	1.0	10	0	98	.08	1	.8	.5 9 SEC
		17	1933	42	23.19	19 19.77	155 12.97	9.89	3.6	3.6	37	0	74	.09	5	.4	.4 35 SF2
		17	1936	9	04.19	19 20.02	155 12.81	8.82	2.0	1.9	25	0	72	.08	5	.6	.9 21 SF2
		17	22	8	47.82	19 21.81	155 3.49	6.44	1.4	1.4	24	0	111	.18	4	.8	1.6 18 SF5
		18	055	16	03.19	19 19.61	155 8.64	8.24	2.6	3.0	30	0	78	.07	4	.5	.9 24 SF4
		18	2	9	46.01	19 25.42	155 14.67	1.44	1.0	1.6	10	1	185	.06	2	.8	.3 4 SNC
		18	249	41	71.19	19 19.96	155 11.16	10.05	1.7	1.8	17	0	221	.07	5	1.1	1.1 16 SF3
		18	251	30	42.19	19 23.79	155 15.29	3.21	1.7	2.2	18	1	96	.08	2	.3	.4 12 SEC
		18	352	35	37.19	19 23.71	155 15.19	2.69	1.3	1.1	9	0	93	.03	2	.4	.6 9 SEC
		18	657	27	39.19	19 24.50	155 24.79	9.11	1.6	1.2	20	0	51	.08	2	.5	1.2 16 KAO
		18	749	57	28.19	19 19.03	155 11.72	8.76	1.7	1.4	14	0	210	.06	7	1.2	1.8 11 SF3
		18	1419	57	13.19	19 23.74	155 24.40	10.82	2.4	2.6	31	2	66	.10	3	.5	.7 26 KAO
		18	2131	53	09.19	19 23.99	155 16.28	3.13	1.4	1.6	12	0	98	.06	1	.4	.3 10 SEC
		19	146	49	01.19	19 19.93	155 11.64	9.39	1.7	1.3	14	0	216	.10	5	1.2	1.3 12 SF3
		19	231	38	04.19	19 23.80	155 15.69	3.02	1.1	1.3	11	1	103	.07	2	.4	.5 9 SEC
		19	7	4	39.37	19 20.33	155 6.66	7.84	1.9	2.2	30	0	107	.07	6	.5	.9 20 SF4
		19	822	3	11.19	19 26.71	155 15.09	.08	1.5	1.4	10	1	231	.05	4	.6	.9 8 SNC
		19	843	29	58.19	19 25.40	155 15.23	1.77	2.4	3.0	23	1	75	.08	2	.4	.3 20 SNC
		19	922	52	46.19	19 20.50	155 12.75	7.70	1.6	1.8	27	0	68	.10	4	.5	.9 20 SF2
		19	1528	48	56.19	19 18.72	155 32.46	26.88	4.6	4.4	39	1	59	.07	11	.6	1.2 38 DLS
		19	1737	16	56.19	19 20.88	155 5.79	5.86	2.4	2.6	28	0	102	.08	5	.5	1.4 19 SF4
		19	1759	8	09.19	19 25.36	155 15.13	1.48	1.4	1.7	7	1	235	.03	2	1.5	.5 3 SNC
		19	2028	9	63.19	19 25.23	155 15.61	1.91	2.8	3.5	20	1	122	.09	2	.4	.3 16 SNC
		19	22	0	9.09.19	19 18.48	155 10.82	5.80	1.8	1.7	12	0	238	.11	7	1.8	2.6 8 SF3
		20	043	45	65.19	19 19.70	155 8.92	7.13	1.8	1.9	26	1	81	.07	5	.4	.9 15 SF4
		20	258	2	09.19	19 26.83	154 51.64	9.42	3.1	3.2	30	3	269	.11	6	1.4	.5 16 LER
		20	419	51	89.19	19 18.51	155 14.76	7.15		1.2	20	0	121	.05	4	.5	1.2 16 SF1
		20	5	9	42.35.19	19 23.50	155 15.02	3.16	1.1	1.3	10	0	97	.03	3	.4	.7 8 SEC
		20	519	40	79.19	19 17.88	155 15.32	9.10	1.7	2.1	22	0	147	.06	4	.6	1.0 15 SF1
		20	7	5	23.78.19	19 24.59	155 14.74	3.41	1.0	1.2	11	0	163	.06	1	1.0	.5 8 SNC
		20	831	3	39.19	19 24.46	155 14.69	3.75	1.0	1.3	11	0	127	.04	1	.7	.6 10 SEC
		20	1018	6	62.19	19 17.58	155 12.98	6.92	1.7	1.9	30	2	128	.10	1	.5	.9 20 SF2
		20	1020	7	13.19	19 17.18	155 12.54	7.08	1.8	1.9	28	3	175	.09	2	.6	.9 19 SF2
		20	1219	26	68.19	19 20.23	155 4.15	6.73	2.0	2.1	28	1	127	.11	2	.6	1.0 22 SF5
		20	1321	54	73.19	19 17.46	155 12.91	6.29	2.0	2.2	28	4	141	.09	1	.5	.8 16 SF2
		20	1723	23	26.19	19 21.64	155 4.84	6.60	2.0	1.6	23	1	82	.08	5	.4	.9 15 SF5
		20	1752	15	30.19	19 20.91	155 17.07	32.73	3.1	3.5	37	0	64	.10	2	.7	1.2 36 DEP

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		ORIGIN TIME			LAT N		LON W		DEPTH		AMP		DUR		GAP		RMS		MIN		ERH		ERZ NO	
YEAR	MON	DA	HRMN	SEC	DEG	MIN	DEG	MIN	KM	MAG	MAG	NR	NS	DEG	SEC	DIS	DIS	KM	DIS	KM	FM	KM	FM	REMK
1980	JAN	20	2130	17.79	19	20.27	155	10.62	8.82	1.8	1.9	20	3	200	.05	4	.7	.8	14	SF3				
		20	2343	15.53	19	20.64	155	6.10	8.77	2.4	3.1	35	1	106	.08	6	.4	.6	28	SF4				
		20	2348	58.94	19	18.97	155	12.88	9.00	1.7	1.4	17	0	205	.05	7	1.1	1.4	14	SF2				
		21	336	55.28	19	22.79	155	14.47	3.24	1.8	1.9	16	2	121	.06	2	.3	.4	12	SEC				
		21	423	44.01	19	30.92	155	50.58	7.57	1.6	1.3	13	2	248	.13	8	1.4	1.2	7	KON				
		21	454	33.97	19	25.18	155	15.10	1.77	2.8	3.3	29	1	46	.10	2	.2	.3	21	SNC				
		21	5	8	33.63	19	25.15	155	15.02	1.65	1.2	1.6	14	1	129	.05	2	.5	.3	10	SNC			
		21	6	4	50.25	19	19.00	155	11.85	9.17	1.7	1.7	15	1	227	.05	7	1.2	1.5	11	SF3			
		21	753	18.85	19	20.60	155	13.18	8.93	1.9	2.0	28	0	62	.10	4	.5	.7	21	SF2				
		21	1053	11.03	19	23.90	155	15.29	3.43	1.0	1.3	10	0	104	.04	2	.4	.7	9	SEC				
		21	1115	38.52	19	19.59	155	13.20	9.31	2.7	2.9	28	0	72	.09	5	.4	.6	22	SF2				
		21	1427	11.90	19	24.56	155	23.12	9.41		1.3	14	0	98	.05	4	.7	1.4	11	KAO				
		21	19	5	59.54	19	20.25	155	13.20	9.23	1.6	1.6	19	0	65	.06	4	.5	1.2	18	SF2			
		21	2338	39.40	19	25.77	155	15.20	1.53	2.9	3.4	20	1	137	.09	3	.5	.5	17	SNC				
		22	337	18.03	19	25.50	155	15.26	1.55	1.1	1.1	8	0	242	.02	2	1.2	.7	5	SNC				
		22	348	32.23	19	23.37	155	14.92	3.29	1.8	1.8	15	0	73	.05	3	.4	.4	14	SEC				
		22	741	19.93	19	20.80	155	6.35	8.73		1.3	10	0	240	.04	7	2.2	1.3	9	SF4				
		22	742	18.69	19	19.76	155	9.75	7.38		1.4	12	0	211	.02	4	1.1	1.5	11	SF3				
		22	752	4.61	19	19.85	155	13.28	9.79	3.5	3.6	19	0	123	.05	5	.6	1.1	18	SF2				
		22	953	48.58	19	22.96	155	14.44	3.34	1.3	1.3	12	1	115	.05	2	.4	.5	9	SEC				
		22	10	3	53.64	19	23.03	155	14.60	3.62	1.3	1.2	10	0	112	.03	3	.4	.6	9	SEC			
		22	1235	21.73	19	22.94	155	14.59	3.51	2.1	2.4	24	1	49	.08	3	.4	.4	17	SEC				
		22	1258	40.46	19	23.75	155	15.45	2.98	1.8	1.7	15	0	98	.07	2	.3	.4	11	SEC				
		22	1454	15.78	19	25.36	155	15.66	1.47	1.6	2.1	16	2	124	.08	3	.4	.3	10	SNC				
		22	1610	29.70	19	23.93	155	15.73	3.29	1.5	1.6	17	1	109	.05	2	.3	.3	12	SEC				
		22	17	2	39.41	19	23.52	155	15.23	2.42	2.4	2.5	25	1	81	.11	2	.3	.3	18	SEC			
		22	17	3	49.70	19	23.41	155	14.97	3.29	2.3		18	0	75	.06	3	.3	.4	14	SEC			
		22	1734	4.16	19	20.02	155	11.64	9.74	2.0	2.1	18	0	196	.07	5	1.0	1.2	16	SF3				
		22	1825	19.09	19	23.91	155	15.50	3.32	2.1	2.4	20	0	101	.07	2	.3	.3	18	SEC				
		22	1854	5.68	19	20.01	155	11.65	9.48	1.7	1.5	18	0	197	.06	5	1.0	1.2	14	SF3				
		22	2035	23.36	19	15.12	155	21.74	41.13	2.4	2.6	23	2	190	.11	8	1.4	1.7	6	DEP				
		22	2155	50.81	19	19.70	155	12.25	8.50	1.7	1.3	13	1	212	.04	6	1.1	1.5	11	SF3				
		23	353	24.20	19	24.61	155	16.78	1.41	1.1	1.4	11	0	123	.06	1	.3	.2	9	SNC				
		23	530	59.37	19	20.48	155	8.81	8.22	1.8	1.4	17	2	209	.08	3	1.3	1.0	8	SF4				
		23	553	22.35	19	17.87	155	13.06	9.00	1.8	1.6	15	1	221	.05	9	1.2	1.4	12	SF2				
		23	611	53.22	19	20.41	155	7.21	6.98	2.0	1.8	17	2	225	.09	6	1.2	1.3	11	SF4				
		23	615	3.17	19	23.27	155	15.15	3.31	1.6	1.8	13	0	104	.06	2	.4	.5	12	SEC				
		23	638	38.24	19	20.77	155	16.76	.94	.4	1.0	9	0	151	.05	2	.6	.4	5	KOA				
		23	716	41.35	19	17.85	155	13.90	8.42	1.7	1.5	16	1	219	.03	7	1.0	1.4	10	SF2				
		23	746	24.22	19	20.62	155	7.57	8.29	1.3	1.3	21	1	88	.07	5	.6	1.4	17	SF4				
		23	830	11.26	19	21.57	155	2.20	5.84	2.4	2.1	28	2	162	.11	3	.5	.9	16	SF5				
		23	1637	24.58	19	26.82	155	29.83	10.26	3.3	2.8	39	2	57	.10	9	.4	.6	31	KAO				
		23	1658	27.34	19	23.08	155	14.68	3.43	2.2	2.3	25	1	85	.09	3	.4	.4	20	SEC				
		23	1732	26.11	19	22.83	155	14.44	3.57	1.4	1.8	15	1	120	.07	2	.4	.5	11	SEC				
		23	2136	51.36	19	23.25	155	16.74	2.98	2.4	2.8	29	1	39	.08	0	.2	.2	22	SNC				
		23	2155	23.85	19	22.98	155	14.54	3.57	2.9	3.1	30	0	49	.08	3	.3	.4	22	SEC				
		23	2313	2.69	19	21.84	155	12.48	2.74	1.5	1.5	14	0	153	.08	2	.7	.4	6	SEC				
		24	139	42.60	19	23.76	155	15.26	2.96	1.0	1.3	8	1	98	.03	2	.4	.8	7	SEC				

HVO EARTHQUAKE SUMMARY LIST

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		ORIGIN TIME			LAT N		LON W		DEPTH				AMP		DUR		GAP		RMS		MIN		ERH		ERZ NO		
YEAR	MON	DA	HRMN	SEC	DEG	MIN	DEG	MIN	KM	MAG	MAG	NR	NS	DEG	SEC	DIS	KM	KM	FM	REMK							
1980	JAN	24	221	50.36	19	21.28	155	.60	8.48	2.1	2.1	28	0	201	.10	5	1.0	.5	16	SF5							
		24	658	29.40	19	19.14	155	13.23	6.73	1.5	1.2	26	1	77	.08	4	.5	1.1	15	SF2							
		24	8	19.87	19	23.34	155	15.03	3.18	1.1	1.1	8	0	102	.04	2	.5	.8	8	SEC							
		24	815	49.92	19	20.08	155	7.56	7.36	1.9	1.2	19	0	96	.06	5	.5	1.1	18	SF4							
		24	826	30.02	19	21.49	155	.72	8.71	2.5	2.9	32	0	193	.08	5	.8	.5	23	SF5							
		24	856	33.62	19	23.23	155	14.85	2.91	2.0	2.4	20	1	68	.08	2	.4	.4	14	SEC							
		24	1114	40.47	19	19.57	155	11.89	9.56	3.6	3.9	35	0	91	.09	5	.5	.5	29	SF3							
		24	1127	21.44	19	19.47	155	11.71	7.02	1.7	2.2	27	1	95	.09	5	.5	.8	21	SF3							
		24	1127	52.82	19	23.15	155	14.73	2.77	1.1	1.2	8	0	112	.03	3	.5	.8	8	SEC							
		24	1248	15.42	19	20.07	155	6.89	7.87	1.9	1.9	17	0	205	.07	6	1.4	1.2	14	SF4							
		24	1320	55.05	19	21.66	155	.62	7.52	2.1	1.3	14	0	192	.07	5	1.1	1.4	10	SF5							
		24	1434	23.21	19	22.81	155	14.64	2.87	1.1	1.5	15	2	119	.07	2	.3	.4	8	SEC							
		24	1851	47.50	19	18.44	155	13.04	10.18	2.5	3.0	33	0	136	.09	8	.5	.6	26	SF2							
		24	1932	18.62	19	18.29	155	13.25	6.99	1.7	1.7	14	0	227	.07	8	1.3	2.0	11	SF2							
		24	1941	31.38	19	19.17	155	13.59	8.69	1.7	2.1	20	1	192	.07	6	.9	1.1	15	SF2							
		24	2316	46.10	19	19.93	155	11.95	7.36	1.4	1.2	13	0	211	.03	5	1.0	2.1	8	SF3							
		25	518	22.33	19	19.89	155	11.76	10.29	1.7	1.7	18	0	198	.07	5	1.0	1.3	15	SF3							
		25	614	21.07	19	19.46	155	12.05	8.56		1.6	14	1	219	.03	6	1.1	1.8	12	SF3							
		25	1440	51.46	19	23.34	155	14.70	3.70	1.1	1.1	9	0	100	.03	3	.4	.9	7	SEC							
		25	1847	45.95	19	23.00	155	14.57	3.11	1.5	1.7	12	0	114	.05	3	.4	.5	10	SEC							
		25	2024	50.07	19	10.95	155	28.26	33.30	2.0	1.6	32	3	157	.06	8	.7	1.5	24	DLS							
		25	2057	8.45	19	23.04	154	58.29	5.01	2.2	1.9	23	2	203	.18	4	1.0	1.8	13	LER							
		25	2259	18.74	19	19.58	155	7.56	8.00	2.2	2.5	28	0	105	.05	4	.5	.8	15	SF4							
		26	021	22.18	19	13.10	155	37.63	7.54	2.3	1.8	19	0	201	.20	4	1.4	1.1	11	LSW							
		26	043	9.71	19	18.71	155	12.78	8.87	1.3	1.1	13	0	224	.03	7	1.1	1.5	10	SF2							
		26	131	34.86	19	19.91	155	11.05	7.97	2.6	2.7	32	0	88	.09	5	.5	.7	23	SF3							
		26	137	54.98	19	19.75	155	11.17	8.36	1.7	1.6	15	1	223	.05	5	1.1	1.1	10	SF3							
		26	145	54.02	19	19.62	155	10.96	7.54	1.7	1.7	13	1	226	.04	5	1.3	1.3	9	SF3							
		26	246	34.46	19	19.27	155	10.98	.15	.6	1.5	6	0	104	.03	6	.4	1.9	3	SSF							
		26	646	46.58	19	20.08	155	25.13	10.88	2.1	1.6	17	0	116	.08	3	.8	1.3	10	KA0							
		26	849	4.63	19	24.99	155	24.37	8.76	1.8	1.6	27	0	44	.11	1	.5	1.0	20	KA0							
		26	1343	1.65	18	57.35	155	34.88	41.17	2.7	2.1	36	2	238	.07	9	1.0	1.8	32	DL8							
		26	1537	47.76	19	21.16	155	6.12	7.19	2.4	2.7	35	1	93	.10	6	.5	.9	31	SF4							
		26	18	8	14.68	19	23.52	155	14.90	3.25	1.7	1.8	21	1	76	.07	2	.3	.3	13	SEC						
		26	22	0	50.40	19	20.12	155	8.25	8.44	1.9	1.9	29	1	82	.06	5	.4	.8	21	SF4						
		26	23	8	11.97	19	19.68	155	6.32	8.14	1.5	1.0	15	0	241	.06	8	2.1	1.8	12	SF4						
		26	2330	9.25	19	15.55	155	3.99	37.12	2.4	1.9	19	0	222	.07	16	2.4	3.8	19	DEP							
		27	149	22.92	19	28.86	154	54.63	2.11	1.8	1.3	10	0	230	.08	3	2.5	1.0	7	SLE							
		27	237	18.31	19	18.92	155	15.39	7.87	1.4	1.4	15	1	195	.05	4	.8	1.3	13	SF1							
		27	240	26.40	19	19.18	155	11.17	10.73	1.8	1.8	14	0	238	.05	6	1.9	2.4	13	SF3							
		27	527	10.65	19	19.48	155	8.85	8.49	1.6	1.1	14	1	237	.04	5	1.0	1.3	9	SF4							
		27	1130	39.33	19	19.53	155	10.39	8.31	1.5	1.4	15	0	210	.04	5	1.2	1.8	9	SF3							
		27	1155	26.08	19	25.11	155	38.59	2.23	2.7	2.6	15	1	189	.07	6	.9	1.1	9	MLO							
		27	1322	54.24	19	20.50	155	13.27	6.65	1.5	1.5	20	0	61	.09	4	.5	1.2	17	SF2							
		27	1328	11.50	19	23.11	155	16.91	3.01	1.5	2.1	14	0	69	.08	1	.4	.3	12	SSC							
		27	1718	8.66	19	22.93	155	14.43	3.74	1.7	2.1	17	0	116	.05	2	.4	.5	13	SEC							
		27	1729	18.31	19	22.86	155	14.49	3.29	1.2	1.3	11	0	126	.05	3	.4	.5	9	SEC							
		27	1953	51.06	19	19.46	155	11.98	7.92	1.8	2.3	35	1	91	.09	5	.4	.8	21	SF3							

HVO EARTHQUAKE SUMMARY LIST

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		ORIGIN TIME			LAT N		LON W		DEPTH			AMP		DUR		GAP		RMS		MIN		ERH		ERZ NO		
YEAR	MON	DA	HRMN	SEC	DEG	MIN	DEG	MIN	KM	MAG	MAG	NR	NS	DEG	SEC	DIS	KM	KM	FM	REMK						
1980	JAN	27	2137	43.59	19	19.89	155	7.93	7.94	1.7	1.7	17	2	240	.07	5	1.1	1.1	13	SF4						
		28	0	4	13.98	19	23.38	155	15.13	3.08		2.1	14	0	101	.05	2	.3	.4	12	SEC					
		28	054	13.15	19	22.95	155	14.61	3.03	1.1	1.1	8	1	121	.03	2	.5	1.0	6	SEC						
		28	056	13.68	19	21.30	155	4.58	9.63		1.1	8	0	126	.06	4	1.5	2.6	4	SF5						
		28	057	33.63	19	23.51	155	15.05	3.13	1.1	1.5	11	0	97	.07	3	.5	.5	9	SEC						
		28	1	2	53.28	19	17.58	155	15.27	8.63	1.1	1.3	12	1	230	.04	6	1.1	1.4	10	SF1					
		28	135	23.97	19	16.90	155	28.75	8.84	1.5	1.8	25	1	122	.11	4	.5	.9	11	LSW						
		28	137	34.38	19	22.49	155	3.50	7.67	1.4	1.4	20	0	109	.11	4	.7	1.3	9	SF5						
		28	221	3.30	19	23.44	155	15.05	3.34	1.6	2.0	16	2	99	.05	2	.3	.5	11	SEC						
		28	439	55.09	18	48.35	155	22.99	30.55	2.3	1.8	30	1	278	.07	36	2.0	3.4	25	LOI						
		28	441	12.18	19	23.84	155	15.50	3.06	1.3	1.8	14	0	105	.06	2	.3	.3	11	SEC						
		28	444	17.86	19	26.75	155	23.10	8.10	1.5	1.6	22	4	72	.09	5	.4	1.0	13	KA0						
		28	647	4.07	19	20.20	155	11.65	8.24	1.3	1.2	16	2	194	.05	5	.7	1.0	9	SF3						
		28	651	32.28	19	19.78	155	11.90	5.62	1.5	1.5	11	2	234	.07	6	1.2	2.2	8	SF3						
		28	926	32.85	19	23.20	155	24.72	12.22	1.7	1.5	24	1	58	.08	4	.5	1.2	19	KA0						
		28	1216	47.10	19	27.14	155	21.89	1.92	2.1		27	3	83	.13	2	.3	.5	21	KA0						
		28	1217	8.37	19	27.22	155	21.61	1.97	2.6		30	1	49	.12	2	.3	.4	20	KA0						
		28	1354	37.76	19	23.28	155	25.07	10.61	1.7	1.3	17	1	78	.07	4	.6	1.0	13	KA0						
		28	16	0	49.04	19	20.18	155	13.54	9.50	2.5	2.6	29	0	68	.08	5	.4	.5	25	SF2					
		28	1747	46.46	19	20.06	155	11.05	7.03	1.7	1.6	16	1	199	.08	4	1.1	1.4	14	SF3						
		28	1914	2.16	19	23.17	155	14.66	3.34	3.1		31	0	50	.09	3	.3	.4	25	SEC	F					
		28	1927	4.66	19	23.64	155	15.19	2.98	1.4	1.4	13	0	92	.05	2	.4	.4	11	SEC						
		28	1951	34.36	19	23.26	155	14.75	3.36	1.1	1.0	15	1	103	.04	3	.3	.5	12	SEC						
		28	2011	53.95	19	23.08	155	14.91	3.21	1.6	1.5	14	0	110	.07	2	.4	.5	13	SEC						
		28	2038	30.46	19	23.25	155	14.91	3.08	1.8	1.8	26	1	82	.10	2	.3	.4	21	SEC						
		29	234	34.65	19	23.32	155	14.92	3.40	2.1	2.0	15	1	82	.05	2	.3	.5	12	SEC						
		29	337	56.91	19	23.28	155	14.89	3.12	1.1	1.0	12	0	103	.05	2	.4	.5	11	SEC						
		29	724	58.05	19	23.13	155	14.80	3.29	1.2	1.3	13	0	108	.05	2	.4	.5	11	SEC						
		29	917	24.30	19	23.11	155	16.88	2.95	2.1	2.2	24	1	40	.07	1	.3	.3	21	SSC						
		29	1330	33.24	19	27.57	155	21.44	2.64	1.6		16	2	124	.09	1	.6	.4	11	KA0						
		29	1331	11.99	19	27.47	155	21.49	2.53	1.6	1.4	15	1	115	.12	1	.6	.5	13	KA0						
		29	1631	7.39	19	20.89	155	13.03	8.83	2.0	2.0	31	0	61	.10	3	.5	.7	25	SF2						
		29	1724	47.10	19	19.29	155	7.22	3.84	1.6	1.5	26	2	119	.10	4	.6	1.4	18	SF1						
		29	2043	18.88	19	21.18	155	6.93	6.92	1.6	1.3	33	2	87	.09	5	.4	1.0	23	SF4						
		29	2114	54.20	19	21.02	155	15.67	28.41	3.6	3.1	39	0	71	.09	3	.6	1.0	39	DEP	F					
		30	1	3	57.81	19	22.41	154	58.10	5.76	2.2	1.7	25	0	208	.15	5	.9	1.0	12	LER					
		30	551	35.23	19	20.14	155	6.36	7.96	1.6	1.3	15	2	313	.07	7	1.5	1.2	11	SF4						
		30	1113	46.86	19	23.34	155	30.04	7.94	2.0	2.2	30	1	55	.11	5	.4	1.1	22	KA0						
		30	1125	1.04	19	27.04	155	22.13	1.73	1.3	1.4	12	0	88	.09	3	.4	.8	8	KA0						
		30	15	2	47.27	19	22.08	155	12.85	3.15	1.4	1.3	16	1	144	.05	1	.6	.3	11	SER					
		31	411	13.32	19	19.60	155	7.77	7.86	2.2	2.4	32	0	100	.07	4	.5	.7	23	SF4						
		31	541	54.91	19	24.02	155	16.12	3.22	1.3	1.9	10	0	111	.05	1	.5	.4	10	SEC						
		31	7	1	42.64	19	20.15	155	6.54	8.08	1.9	2.3	25	1	113	.07	6	.5	.9	21	SF4					
		31	739	28.04	19	23.02	155	26.05	9.79	1.8	1.7	20	0	69	.09	3	.5	1.1	16	KA0						
		31	832	31.18	19	23.28	155	14.86	3.08	1.2	1.2	14	0	103	.05	2	.4	.5	14	SEC						
		31	1225	28.37	19	23.10	155	17.07	2.37	1.1	1.4	14	1	64	.06	1	.3	.3	10	SSC						
		31	1241	10.11	19	25.82	155	24.64	6.35	1.6	1.2	17	0	76	.10	1	.5	1.2	14	KA0						
		31	1658	7.79	19	17.94	155	16.33	6.11	1.4	1.5	23	0	154	.09	4	.5	.9	14	SF1						

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YEAR	MON	DA	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
1980	FEB	1	554	34.06	19 19.90	155 5.73	8.59	1.5	1.5	17	0	246	.07	6	2.3	1.3	13	SF4
		1	820	30.03	19 26.39	155 29.72	8.89	1.6	1.3	20	0	78	.10	8	.5	1.5	16	KA0
		1	9 4	55.57	19 23.18	155 14.83	3.27	1.2		17	1	107	.07	2	.3	.4	14	SEC
		1	9 5	51.84	19 23.25	155 15.07	2.56	1.0		9	0	108	.07	2	.5	.6	9	SEC
		1	9 6	53.98	19 23.05	155 14.86	3.09	1.9	2.1	19	1	64	.06	2	.3	.4	18	SEC
		1	1024	45.32	19 20.97	155 15.06	8.36	1.6	1.3	18	1	152	.06	3	.7	1.0	16	SF1
		1	14 5	26.48	19 23.39	155 15.03	3.05	2.6	3.1	32	0	46	.09	2	.3	.4	27	SEC
		1	1558	32.34	19 23.60	155 15.16	2.51	1.1	1.3	11	1	95	.09	3	.4	.5	8	SEC
		1	1623	54.62	19 22.49	155 13.94	3.09	1.1	1.1	12	0	139	.04	2	.4	.4	9	SER
		1	1818	58.61	19 19.22	155 11.48	9.11	1.6	1.1	12	0	227	.03	6	1.2	1.3	12	SF3
		2	057	50.46	19 23.31	155 14.80	3.54	2.1	2.3	19	0	68	.07	3	.3	.4	16	SEC
		2	1 0	24.68	19 23.21	155 14.76	3.52	1.2		15	0	105	.04	3	.3	.5	11	SEC
		2	1 0	51.69	19 23.72	155 16.88	2.64	1.6	2.1	18	1	61	.08	1	.3	.2	15	SEC
		2	317	41.83	19 22.98	155 14.98	3.12	1.2	1.2	13	1	114	.06	2	.4	.5	11	SEC
		2	522	59.58	19 17.96	155 23.20	3.54	.8	1.3	13	1	152	.04	4	.6	1.0	10	SWR
		2	525	45.20	19 27.63	154 55.85	4.16	1.6	1.4	23	0	123	.13	1	1.0	1.2	14	SLE
		2	745	27.62	19 22.98	155 14.73	3.14	2.4		28	1	49	.08	2	.3	.4	20	SEC
		2	746	40.25	19 23.23	155 14.86	3.21	1.1	1.7	10	0	106	.03	2	.4	.6	8	SEC
		2	931	44.49	19 23.14	155 14.80	3.26	3.0		30	1	47	.07	2	.3	.3	22	SEC
		2	932	48.26	19 23.21	155 14.91	3.12	2.3	3.6	23	0	69	.07	2	.3	.3	17	SEC
		2	1010	21.04	19 23.09	155 14.81	3.23	1.8	2.3	19	0	62	.06	2	.3	.4	15	SEC
		2	1019	17.03	19 47.26	155 24.30	23.81	2.6	2.5	37	3	74	.09	13	.5	1.5	23	KA0
		2	1026	4.35	19 23.80	155 15.29	3.52	1.6	1.9	15	1	99	.07	2	.4	.4	11	SEC
		2	1322	43.15	19 22.99	155 14.72	3.10	1.6	2.0	16	0	65	.07	2	.3	.4	13	SEC
		2	1341	35.50	19 23.23	155 14.82	3.19	1.1	1.3	12	0	105	.04	2	.4	.5	10	SEC
		2	1540	22.04	19 19.85	155 11.46	9.95	2.0	2.3	19	0	198	.06	5	.9	1.2	18	SF3
		2	1843	30.03	19 19.92	155 12.69	9.07	1.6	1.2	18	1	188	.06	5	1.0	1.1	15	SF2
		2	2127	55.47	19 20.56	155 7.93	9.30	1.3	1.3	17	0	197	.05	4	1.2	1.0	13	SF4
		3	037	18.91	19 24.03	155 15.62	3.08	1.6	2.2	17	1	113	.08	2	.3	.3	13	SEC
		3	042	54.94	19 22.89	155 14.51	3.53	2.5	2.8	25	0	54	.08	3	.4	.6	20	SEC
		3	146	33.07	19 20.12	155 8.97	8.31	1.8	1.9	17	0	197	.02	4	1.1	.9	11	SF4
		3	157	13.43	19 25.97	155 23.90	8.72	2.0	1.8	25	1	53	.09	3	.4	1.0	20	KA0
		3	215	38.16	19 25.67	155 17.07	1.58	1.3	1.8	12	0	129	.09	1	.4	.4	6	SNC
		3	220	13.13	19 19.61	155 7.71	8.92	1.5	1.2	17	0	228	.05	6	1.5	1.2	12	SF4
		3	5 1	26.84	19 23.34	155 14.95	3.21	2.4	2.8	20	1	71	.05	2	.3	.4	15	SEC
		3	754	34.02	19 22.14	155 12.32	3.66		1.1	10	0	101	.08	2	.5	.7	9	SER
		3	1110	49.82	19 23.16	155 14.79	2.37	1.2	1.6	8	0	111	.04	2	.4	.7	6	SEC
		3	13 0	56.60	19 19.84	155 6.56	8.17	1.8	1.5	19	0	121	.07	5	.7	1.5	19	SF4
		3	1336	14.43	19 19.74	155 10.26	9.01	1.8	1.5	14	1	209	.05	4	1.1	1.3	11	SF3
		3	1429	15.37	19 23.51	155 17.26	2.90	1.3	1.6	15	1	53	.10	1	.4	.4	12	SNC
		3	1555	23.80	19 26.33	155 23.88	9.26	1.6	1.5	15	1	59	.07	6	.6	1.8	11	KA0
		3	17 7	13.00	19 18.98	155 11.63	7.55	2.5	2.9	34	3	107	.12	5	.4	.5	26	SF3
		3	1727	26.63	19 17.51	155 23.34	2.96	1.2	1.5	18	1	158	.08	5	.5	.4	13	SWR
		3	2321	.95	19 41.11	155 47.35	11.17		2.1	13	0	192	.10	5	2.1	1.2	11	HUA
		4	016	51.54	19 21.26	155 13.46	9.06	1.8	2.1	22	1	57	.08	3	.5	.8	21	SF2
		4	145	21.81	19 21.28	155 25.72	10.51	1.6	1.7	23	2	98	.10	4	.5	1.2	18	KA0
		4	2 3	15.05	19 23.01	155 14.64	3.24	1.2	1.4	13	2	139	.06	2	.6	.5	9	SEC
		4	341	47.20	19 23.23	155 17.10	2.71	1.2	1.7	13	1	64	.06	0	.4	.4	12	SNC

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		ORIGIN TIME		LAT N		LON W		DEPTH		AMP		DUR		GAP		RMS		MIN		ERH		ERZ NO	
YEAR	MON	DA	HRMN	SEC	DEG	MIN	DEG	MIN	KM	MAG	MAG	NR	NS	DEG	SEC	DIS	KM	KM	FM	REMK			
1980	FEB	4	959	19.24	19	21.45	155	1.54	7.43	1.8	1.6	16	1	177	.10	4	.7	1.3	13	SF5			
		4	1410	44.68	19	10.05	155	28.99	33.64	2.9	2.5	42	3	107	.07	2	.7	1.3	36	DLS			
		4	1440	48.01	19	22.22	155	13.91	3.00	2.0	2.5	24	1	52	.05	2	.3	.4	17	SER			
		4	1630	55.60	19	23.66	155	15.29	2.94	1.3	1.4	12	0	94	.06	2	.3	.4	10	SEC			
		4	2013	6.69	19	19.51	155	11.06	8.47	1.7	1.5	15	1	206	.06	5	1.1	1.2	14	SF3			
		4	2242	47.14	19	20.08	155	8.48	8.46	1.4	1.2	18	0	167	.07	4	1.0	1.2	16	SF4			
		4	23 4	12.41	19	19.82	155	11.91	9.55	1.7	1.0	7	0	218	.02	8	1.7	2.5	7	SF3			
		5	050	12.77	19	27.33	154	53.94	6.90	2.0	1.8	22	0	212	.11	2	1.4	.8	14	LER			
		5	253	26.68	19	18.80	155	13.67	8.44	2.2	2.7	32	1	88	.10	3	.5	.7	27	SF2			
		5	747	53.32	19	18.33	155	22.02	4.37	2.1	2.6	32	1	123	.12	4	.5	1.4	25	SWR			
		5	852	19.74	19	19.71	155	10.37	8.72	1.8	1.6	14	0	170	.04	4	.9	1.4	12	SF3			
		5	1248	9.84	19	21.36	155	14.07	28.93	3.8	3.2	40	0	56	.10	3	.7	1.1	40	DEP	F		
		5	1350	42.14	19	23.91	155	15.19	2.95	1.1	1.0	11	0	106	.06	2	.4	.5	7	SEC			
		5	1410	30.37	19	20.85	155	4.87	8.49	2.6	2.5	33	1	103	.09	4	.5	.5	19	SF5			
		5	1450	49.16	19	25.89	155	16.88	.91	1.3	1.4	11	0	134	.15	2	.5	.9	10	SNC	F		
		5	1451	3.41	19	25.35	155	17.09	1.20	1.8	2.6	16	1	120	.10	1	.4	.2	12	SNC	F		
		6	852	35.78	19	23.75	155	16.67	2.90	2.4	2.4	23	1	40	.09	0	.3	.2	21	SNC			
		6	11 1	16.56	19	20.02	155	10.73	9.12	2.1	2.4	33	0	86	.09	4	.5	.7	26	SF3			
		6	1454	8.87	19	21.70	155	12.52	3.01	1.8	1.6	14	0	157	.05	2	.6	.5	13	SER			
		6	1927	8.74	19	20.22	155	11.52	8.93	2.9	2.3	33	0	80	.10	5	.4	.6	27	SF3			
		6	1943	1.80	19	23.93	155	2.03	8.18	1.5	1.5	17	0	133	.11	4	.6	1.2	10	SF5			
		6	2032	30.07	19	23.91	155	15.50	3.01	1.3	1.3	10	0	106	.01	3	.4	.5	9	SEC			
		6	2036	30.36	19	21.60	155	1.22	8.66	1.7	1.6	14	0	179	.07	4	.7	1.1	10	SF5			
		7	631	52.23	19	23.57	155	16.88	2.72	1.6	1.4	14	1	48	.10	0	.4	.3	12	SNC			
		7	8 0	52.76	19	19.54	155	7.98	9.79	2.6	2.6	15	0	94	.09	4	.7	.8	12	SF4			
		7	1550	10.26	19	19.91	155	10.02	8.16	1.8	1.6	23	0	93	.09	4	.6	.8	22	SF3			
		7	1950	58.42	19	19.79	155	11.79	9.46	2.3	2.3	25	0	121	.10	5	.7	.5	23	SF3			
		7	2045	23.25	19	21.60	155	6.50	8.02	1.9	1.6	19	0	82	.08	3	.5	1.1	17	SF4			
		7	2110	22.00	19	23.08	155	14.63	3.20	1.2	1.3	11	0	62	.04	3	.4	.5	11	SEC			
		7	2152	16.89	19	28.50	155	25.53	27.14	2.6	2.4	33	0	48	.09	5	.6	1.2	31	DML			
		7	2335	2.77	19	20.31	155	10.64	8.93	1.7	1.7	20	0	81	.09	4	.6	1	0	SF3			
		8	437	53.68	19	18.83	155	15.16	7.67	1.6	1.5	22	0	118	.09	4	.5	.9	19	SF1			
		8	1225	32.33	19	23.18	155	17.28	2.79	1.4	1.6	14	1	92	.11	1	.4	.3	12	SNC			
		8	1358	54.03	19	19.45	155	10.20	9.35	1.8		15	0	213	.06	5	1.3	1.5	12	SF3			
		8	1359	23.07	19	20.72	155	6.77	7.95	2.2	2.4	31	0	97	.07	4	.4	.6	24	SF4			
		8	16 2	45.21	19	26.32	155	25.76	8.50	2.2	2.2	39	2	56	.11	2	.4	.8	28	KAO			
		8	1657	34.11	19	21.30	155	1.89	4.89	1.5	1.0	13	0	170	.11	3	1.1	1.8	8	SF8			
		8	1659	58.18	19	24.62	155	17.75	1.96	1.0	1.1	7	1	280	.05	1	1.5	.4	5	SNC			
		8	2231	39.46	19	20.16	155	12.66	8.71	1.7	1.3	17	1	185	.07	5	.9	1.0	14	SF2			
		9	011	2.90	19	20.81	155	2.05	6.22	1.8	1.7	14	0	179	.10	2	.7	1.3	10	SF5			
		9	027	8.91	19	20.59	155	17.22	1.81	1.3	1.6	10	0	73	.04	1	.5	.3	5	SWR			
		9	654	23.09	19	23.08	155	18.46	2.43	1.2	.9	9	1	185	.08	3	.8	.9	5	SNC			
		9	7 7	7.17	19	23.38	155	16.89	.24	1.0	1.6	9	1	88	.09	0	.3	.2	5	SNC			
		9	810	47.77	19	20.99	155	1.16	8.03	2.4	2.7	32	0	196	.12	4	.9	.6	24	SF5			
		9	1010	44.12	19	23.77	155	16.08	3.07	1.8	1.8	17	1	97	.10	1	.3	.3	11	SEC			
		9	14 0	1.17	19	21.76	155	1.92	8.22	1.8	1.3	14	0	161	.09	4	.9	1.1	12	SF5			
		9	16 1	32.76	19	21.49	155	17.39	34.60	2.3	2.2	40	2	41	.08	3	.7	1.1	35	DEP			
		9	17 2	7.70	19	22.68	155	1.65	6.56	1.6	1.3	16	0	153	.09	6	.6	1.1	8	SF5			

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YEAR	MON	DA	HRMN	SEC	ORIGIN TIME	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
1980	FEB	9	2050	37.43	19 19.00	155 11.39	7.74	2.3	2.4	37	1	109	.10	5		.4		5	27 SF3
		9	23 1	31.13	19 18.79	155 16.14	7.81	1.5	1.2	16	1	190	.05	3		.7	1.2	13 SF1	
		9	2320	55.87	19 20.76	155 10.72	8.94	1.7	1.2	18	2	189	.05	3		.9	.8	15 SF3	
		10	151	31.04	19 20.11	155 11.57	9.35	1.7	1.3	16	0	193	.06	5	1.1	1.2	13 SF3		
		10	240	33.79	19 19.09	155 11.92	6.03	1.7	1.3	17	0	200	.08	7		.9	2.0	11 SF3	
		10	459	52.06	19 23.56	155 16.98	2.77	1.2	1.0	9	0	102	.05	0		.6	.4	5 SSC	
		10	5 8	16.58	19 8.93	155 26.64	40.62	1.7	1.3	13	0	277	.04	22	9.4	3.7	9 DLS		
		10	13 7	43.93	19 40.52	156 4.07	36.31	3.1	2.8	41	2	235	.11	26	1.0	1.8	34 HUA		
		10	1630	39.52	19 19.44	155 10.59	9.77	1.9	1.3	14	0	230	.05	5	1.4	1.1	14 SF3		
		11	136	40.09	19 18.71	155 23.06	5.06	2.2	2.3	31	0	107	.12	3		.4	1.2	24 SWR	
		11	424	43.07	19 22.12	155 1.48	7.38	1.4	1.2	15	0	165	.12	5		.9	1.4	13 SF5	
		11	1035	33.18	19 20.31	155 13.92	9.52	2.8	2.9	33	0	57	.09	5		.4	.5	29 SF2	
		11	1430	55.17	19 22.38	155 30.35	10.00	2.0	1.3	18	0	58	.05	5		.5	1.4	13 KA0	
		11	1630	5.00	19 25.45	155 23.34	10.85	2.1	1.6	19	1	49	.06	3		.5	1.1	15 KA0	
		11	21 4	43.68	19 23.73	155 16.91	3.09	2.0	2.2	15	2	68	.10	1		.5	.3	12 SSC	
		12	159	48.44	19 19.21	155 7.27	6.72	2.5	2.5	27	0	120	.09	4		.5	1.0	22 SF4	
		12	2 2	18.12	19 20.43	155 13.66	8.99	1.6	1.5	14	0	174	.06	5		.9	1.4	11 SF2	
		12	5 1	25.42	19 23.02	155 14.64	2.79	1.6	1.6	13	1	115	.07	3		.4	.5	10 SEC	
		12	538	31.71	19 22.93	155 14.85	2.86	1.9	2.3	14	0	100	.08	2		.5	.6	13 SEC	
		12	540	10.26	19 23.05	155 14.83	3.06	1.5	1.5	13	1	115	.07	2		.5	.5	10 SEC	
		12	545	46.72	19 23.10	155 14.76	3.01	1.2	1.1	11	0	114	.13	2		.7	.8	7 SEC	
		12	555	22.10	19 18.21	155 23.48	6.63	2.8	3.1	28	0	109	.13	9		.5	1.1	25 SWR	
		12	623	12.58	19 23.28	155 14.55	4.12	2.0	1.7	11	1	145	.06	3		.7	.8	9 SEC	
		12	627	51.68	19 23.66	155 14.45	2.73	1.5	1.4	9	0	153	.08	3		.9	1.1	7 SEC	
		12	1122	39.32	19 28.84	155 42.95	7.28	2.4	1.7	25	3	89	.10	6		.5	1.2	18 MLO	
		12	1222	41.36	19 23.34	155 15.17	3.45	1.9	2.3	17	0	77	.06	2		.4	.4	16 SEC	
		12	1520	49.64	19 23.99	155 16.11	3.08	1.8	1.9	16	0	103	.06	1		.3	.2	13 SEC	
		12	19 0	8.37	19 23.21	155 16.92	3.04	3.2		35	0	37	.11	0		.2	.2	27 SSC	
		12	19 2	13.13	19 23.09	155 16.87	2.77	2.6	2.7	34	2	40	.11	1		.3	.2	26 SSC	
		12	1953	5.19	19 23.10	155 14.93	3.53	1.9	2.1	21	1	67	.08	2		.3	.4	17 SEC	
		12	2026	51.92	19 23.19	155 15.01	3.42	2.1	2.1	16	0	107	.08	2		.4	.4	15 SEC	
		13	022	58.65	19 23.41	155 .92	5.75	1.7	1.1	15	1	157	.07	6		.6	1.4	7 SF5	
		13	245	42.79	19 37.67	155 14.13	14.06	2.1	1.7	36	3	90	.10	22		.5	.5	25 KEA	
		13	731	53.56	19 21.56	156 3.22	40.62	2.4	2.0	32	2	269	.07	20	1.9	1.0	24 KON		
		13	1018	17.39	19 25.08	155 17.00	1.45	1.0	1.0	9	0	150	.08	0	1.0		.3	7 SNC	
		13	1257	15.83	19 23.15	155 14.90	3.67	1.4	1.3	10	0	108	.04	2		.4	.7	7 SEC	
		13	1345	25.38	19 40.87	155 2.66	.03	2.8	2.5	23	0	205	.26	20	2.0		5.3	11 HIL	
		13	2027	2.70	19 20.38	155 9.64	8.29	1.8	1.3	18	1	161	.05	3		.9	1.2	16 SF3	
		14	149	56.90	19 23.53	155 16.80	3.10	2.3	2.6	25	1	36	.10	0		.3	.3	18 SSC	
		14	354	52.22	19 20.31	155 13.33	8.88	1.6	1.2	16	0	178	.06	4		.9	1.3	13 SF2	
		14	758	32.61	19 22.68	156 .40	24.11	2.0	1.4	25	1	257	.08	15	2.2		2.0	22 KON	
		14	1050	14.28	19 23.55	155 17.21	2.78	1.3	1.2	14	1	67	.09	1		.4	.3	10 SSC	
		14	1256	39.31	19 24.10	155 16.50	2.34	2.9	3.2	29	0	44	.11	0		.3	.2	28 SEC	
		14	1318	39.40	19 20.89	155 11.24	8.62	2.4	2.2	34	3	71	.09	3		.4	.6	24 SF3	
		14	1344	32.48	19 22.02	155 30.43	8.92	2.0	1.2	19	1	103	.12	5		.6	1.5	16 KA0	
		14	14 9	.82	19 23.93	155 15.53	2.95	1.8	1.9	17	1	108	.09	2		.3	.3	13 SEC	
		14	1726	35.08	19 23.18	154 57.82	6.27	2.2	1.8	25	0	201	.13	4		.8	1.2	15 LER	
		14	1736	54.30	19 18.72	155 15.51	7.67	1.5	1.0	17	2	125	.05	4		.5	1.3	13 SF1	

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YEAR	MON	DA	HRMN	SEC	ORIGIN TIME 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
1980	FEB	14	1959	34.67	19 22.86	155 14.49	3.56	1.6	1.8	18	0	75	.07	3	.3	.5	15	SEC
		14	2130	4.75	19 21.72	155 15.00	9.36	2.9	3.0	34	0	64	.10	2	.4	.4	26	SF1
		14	2156	29.31	19 20.46	155 8.14	7.27	1.8	1.9	29	1	80	.09	4	.4	.9	19	SF4
		14	2328	23.43	19 24.33	155 16.13	3.58	1.2	1.4	12	1	129	.06	1	.5	.4	9	SEC
		15	134	.33	19 21.83	155 6.17	7.44	1.9	1.8	31	2	79	.10	2	.5	.9	25	SF4
		15	3 9	22.34	19 20.28	155 12.81	8.49	1.6	1.7	18	0	182	.05	4	.8	1.1	14	SF2
		15	459	52.05	19 24.13	155 17.69	15.92	2.1	1.5	33	2	36	.09	2	.5	.4	24	DEP
		15	732	53.00	19 10.83	155 37.63	10.81	2.7	2.0	21	0	215	.16	8	1.3	1.1	13	L9W
		15	1259	25.90	19 19.68	155 11.09	8.47	3.1	3.1	32	1	93	.10	5	.4	.6	27	SF3
		15	1534	48.21	19 23.47	155 14.89	3.60	2.4	2.4	23	0	45	.09	2	.4	.5	21	SEC
		15	1928	46.69	19 19.46	155 21.16	31.05	2.2	1.7	32	0	92	.09	4	.7	1.4	29	DEP
		15	20 6	38.12	19 20.36	155 13.00	9.32	1.6	1.3	16	0	179	.06	4	.9	1.2	16	SF2
		15	22 6	30.68	19 20.43	155 12.01	10.05	1.9	1.4	18	1	185	.08	4	1.0	1.1	16	SF3
		16	022	58.16	19 21.26	155 30.08	10.31	2.4	2.3	24	0	63	.08	5	.4	1.1	17	KA0
		16	745	7.99	19 20.42	155 12.05	10.05	1.8	1.9	12	0	185	.05	4	1.0	1.5	12	SF3
		16	937	5.81	19 21.31	155 2.05	8.12	2.1	1.4	23	1	164	.09	3	.6	.8	14	SF5
		16	10 3	35.84	19 19.92	155 10.55	7.47	1.7	1.6	28	0	88	.10	4	.5	1.0	22	SF3
		16	1058	23.62	19 20.02	155 10.26	7.67	2.6	2.8	36	0	86	.12	4	.5	.8	28	SF3
		16	2034	12.62	19 20.12	155 6.76	8.14	2.4	2.8	39	0	110	.07	5	.4	.6	26	SF4
		16	2322	30.52	19 19.81	155 12.90	9.39	2.1	2.1	19	0	187	.06	5	.9	.9	15	SF2
		17	349	7.17	19 21.37	155 2.96	6.78	2.0	1.8	30	0	129	.11	3	.6	.6	19	SF5
		17	719	24.87	19 24.41	155 1.30	7.47	1.8	1.4	17	0	138	.11	5	.6	1.3	11	SF5
		17	10 3	34.25	19 23.81	155 16.94	3.07	1.5	1.4	13	1	77	.06	1	.4	.3	10	SSC
		17	1410	15.25	19 24.71	155 25.72	12.35	1.8	1.4	22	0	49	.08	1	.5	1.2	18	KA0
		17	1454	8.66	19 19.81	155 11.09	9.84	1.8	1.7	17	0	202	.05	5	1.1	1.4	15	SF3
		17	1616	13.66	19 46.99	155 22.55	25.34	3.8	3.4	44	3	87	.10	9	.6	1.5	41	KEA
		17	1625	36.86	19 47.00	155 22.21	24.56	1.6	1.6	23	2	115	.11	12	.7	2.6	18	KEA
		17	1630	55.14	19 46.76	155 22.68	24.50	2.9	2.5	41	2	87	.10	8	.6	1.6	33	KEA
		17	1818	28.17	19 19.40	155 8.87	7.45	1.8	2.0	31	1	85	.08	4	.5	1.0	24	SF4
		17	2345	29.62	19 27.92	155 26.71	9.35	2.3	1.7	18	0	74	.07	6	.5	1.4	16	KA0
		18	013	17.73	19 28.18	155 26.56	10.79	3.5	3.1	37	1	64	.11	6	.4	.6	34	KA0
		18	258	30.35	19 20.18	155 6.69	8.63	2.6	2.9	36	1	109	.08	5	.4	.6	30	SF4
		18	643	13.55	20 16.63	155 46.57	.03	3.3	2.7	38	1	307	.12	63	4.7	1.4	33	KOH
		18	1322	10.29	19 24.94	155 29.76	7.68	1.9	1.9	36	1	46	.12	6	.4	1.0	29	KA0
		18	1521	54.51	19 23.47	155 15.03	3.20	1.1	1.3	11	0	98	.03	3	.4	.5	9	SEC
		18	17 9	20.05	19 24.66	155 16.88	1.55	.9	1.1	10	0	114	.06	1	.4	.2	8	SNC
		18	1759	57.43	19 22.98	155 14.53	3.47	1.2	1.2	11	0	114	.02	3	.4	.6	7	SEC
		18	1813	38.61	19 22.73	155 14.39	3.27	1.6	1.9	18	0	73	.06	2	.3	.4	12	SEC
		18	1847	1.41	19 19.65	155 11.65	8.38	1.7	1.5	15	0	200	.02	5	.9	1.3	11	SF3
		18	2214	21.75	19 24.05	155 15.75	3.13	1.3	1.4	15	1	115	.04	2	.3	.4	8	SEC
		18	2215	49.70	19 23.87	155 15.63	3.22	2.2	2.3	27	1	85	.07	2	.3	.3	21	SEC
		18	2315	54.08	19 20.03	155 11.58	6.79	1.7	1.6	17	0	172	.11	5	.8	1.6	14	SF3
		18	2322	25.33	19 22.24	155 14.19	1.55	1.2	1.4	13	0	80	.08	2	.3	.5	13	SEC
		19	248	2.49	19 22.22	155 25.29	9.59	2.1	2.1	34	1	75	.12	4	.4	.7	24	KA0
		19	352	45.13	19 19.68	155 13.26	9.11	1.6	1.3	15	0	186	.05	5	1.0	1.4	13	SF2
		19	855	22.66	19 23.28	155 14.86	3.39	2.5	2.6	27	1	70	.08	2	.3	.4	21	SEC
		19	918	42.91	19 23.39	155 14.75	3.63	3.1	3.0	30	0	63	.09	3	.3	.4	25	SEC
		19	920	49.95	19 23.28	155 14.94	3.30	1.5	2.0	21	0	72	.07	2	.3	.4	18	SEC

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YEAR	MON	DA	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
1980	FEB	19	1040	19.03	19 23.02	155 14.73	3.38		1.7	20	0	61	.09	2	.3	.4	15	SEC
		19	1041	52.26	19 23.01	155 14.74	3.08		2.7	22	0	61	.07	2	.3	.4	16	SEC
		19	1125	30.89	19 28.02	155 20.50	7.19	1.8	1.3	19	2	171	.09	1	.6	1.1	13	KA0
		19	1724	18.07	19 21.33	155 6.62	7.90	1.7	1.3	17	2	86	.08	3	.5	1.1	12	SF4
		19	2356	49.04	19 19.91	155 8.21	8.45	2.0	1.6	18	1	85	.06	5	.5	1.0	14	SF4
		20	444	53.93	19 19.73	155 8.04	8.32	1.9	1.4	17	1	91	.06	4	.6	1.2	14	SF4
		20	535	10.67	19 22.58	155 14.02	3.14	1.6	1.9	20	0	77	.08	2	.3	.4	16	SEC
		20	12	4	13.35	19 20.63	8.62	2.5	2.2	19	0	204	.04	5	1.5	1.1	15	SF4
		20	12	5	28.56	19 20.51	8.78	2.0	1.3	15	0	206	.08	5	1.7	1.3	13	SF5
		20	14	6	7.17	19 22.87	3.05	1.8	1.2	17	0	69	.05	2	.3	.4	12	SEC
		20	1642	39.16	19 23.06	155 14.53	3.71	2.9	3.0	38	0	48	.11	3	.3	.4	30	SEC
		20	1828	18.29	19 20.69	155 12.97	8.31	1.6	1.3	29	0	63	.11	4	.5	.9	22	SF2
		21	151	3.23	19 20.19	155 10.60	8.49	1.7	1.0	19	1	199	.06	4	.9	.8	14	SF3
		21	417	47.06	19 25.14	155 23.94	9.97	2.6	2.6	38	0	43	.10	2	.4	.6	29	KA0
		21	711	19.00	19 19.58	155 10.60	9.25	1.9	1.9	27	0	96	.08	5	.5	1.0	21	SF3
		21	728	29.22	19 23.79	155 24.73	9.83	2.4	2.4	36	0	36	.09	3	.4	.6	26	KA0
		21	856	12.38	19 25.89	155 37.63	2.07	2.9	2.3	27	0	93	.12	3	.4	.9	21	MLO
		21	1738	11.00	19 19.23	155 11.58	8.11	1.8	1.8	32	0	101	.09	5	.5	.7	23	SF3
		21	2319	28.41	19 22.53	155 2.02	6.72	2.1	1.1	22	0	176	.12	5	.7	1.0	14	SF5
		21	2320	59.48	19 19.07	155 11.52	6.80	2.9	2.8	32	0	106	.10	5	.5	.7	26	SF3
		22	2347	26.06	19 20.31	155 11.27	8.02	2.1	1.7	31	0	146	.11	4	.7	.8	23	SF3
		22	319	57.98	19 24.43	155 24.91	8.43	1.6	1.1	29	0	49	.11	2	.5	.9	23	KA0
		22	1213	24.59	19 20.68	155 12.74	8.25	2.4	2.2	34	0	65	.11	4	.4	.6	28	SF2
		22	1245	19.13	19 23.32	155 2.13	6.89	1.7	1.1	15	1	136	.09	4	.5	1.0	11	SF5
		22	1443	50.59	19 18.43	155 15.99	6.49	1.6	1.4	29	0	112	.10	4	.5	.8	22	SF1
		22	1630	32.92	19 17.03	155 11.80	1.48	2.1	1.8	33	1	160	.10	3	.5	.6	26	SSF
		22	1721	22.01	19 20.16	155 7.34	8.16	2.0	1.3	21	0	99	.07	5	.6	1.3	18	SF4
		22	1953	44.71	19 22.91	155 14.53	3.74	1.9	2.1	22	1	68	.08	3	.4	.5	17	SEC
		22	2255	28.08	19 19.84	155 11.87	6.43	2.1	1.9	26	0	86	.09	5	.5	1.2	17	SF3
		23	028	56.13	19 18.46	155 23.46	4.43	1.8	1.8	30	1	107	.13	3	.5	1.4	23	SWR
		23	949	14.74	19 19.83	155 19.09	31.38	2.5	2.4	41	1	53	.09	3	.7	1.1	37	DEP
		23	13	9	38.36	19 19.35	8.19	1.9	1.3	18	1	82	.04	4	.6	1.3	15	SF4
		23	1421	45.48	19 24.05	155 27.76	5.87	1.9	1.5	22	1	54	.07	3	.4	1.2	19	KA0
		23	1451	29.90	19 22.15	155 5.99	8.14	2.4	2.6	30	1	75	.08	2	.4	.6	23	SF4
		23	1651	52.34	19 20.31	155 10.55	9.34	1.7	1.2	17	0	84	.06	3	.6	1.2	17	SF3
		23	1943	11.60	19 25.90	154 52.57	5.92	2.4	1.7	17	1	260	.11	6	2.4	1.2	10	LER
		24	143	53.52	19 19.73	155 11.52	8.44	1.7	1.3	16	0	90	.03	5	.6	1.3	13	SF3
		24	230	8.56	19 22.28	155 5.57	8.00	2.2	2.3	35	3	139	.09	2	.5	.4	25	SF4
		24	440	33.95	19 24.08	155 26.03	9.61	1.8	1.6	23	1	47	.08	3	.5	1.1	19	KA0
		24	618	46.74	19 25.50	155 17.16	1.15	1.3	1.4	15	0	126	.10	1	.5	.2	12	SNC
		24	1027	9.40	19 30.24	155 20.24	9.72	2.1		12	1	247	.24	10	2.4	3.5	11	MLO
		24	1544	39.04	19 2.53	155 33.69	64.51	2.9		27	0	250	.11	17	3.2	3.8	9	DLS
		24	1648	10.64	20 3.71	155 56.99	10.30	3.7	3.5	37	2	289	.10	43	1.8	1.2	30	KOH
		25	540	.47	19 18.99	155 15.34	7.66	1.5	1.0	24	2	115	.05	4	.5	.9	14	SF1
		25	622	40.55	19 20.45	155 13.09	9.02	1.5	1.2	16	0	177	.06	4	.9	1.2	16	SF2
		25	1357	59.15	19 19.58	155 10.98	7.07	1.7	1.4	30	1	96	.11	5	.5	1.0	23	SF3
		26	030	6.95	19 20.08	155 12.17	10.01	3.6	3.5	37	0	134	.09	5	.6	.4	33	SF3
		26	850	9.26	19 22.81	155 14.59	3.40	1.1	1.4	17	0	70	.06	2	.3	.5	14	SEC

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YEAR	MON	DA	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	
1980	FEB	26	1324	36.20	19 20.20	155 13.38	8.93	1.8	1.2	18	0	155	.07	5	.7	1.1	14	SF2	
		26	1422	43.62	19 22.97	155 14.69	3.16	1.7	1.1	17	0	66	.06	2	.3	.4	12	SEC	
		26	1616	55.14	19 23.40	155 17.32	2.80	1.3	1.0	14	0	56	.09	1	.4	.3	12	SSC	
		26	2216	57.03	19 17.97	155 23.26	3.38	1.7	1.6	25	2	113	.09	4	.4	.8	14	SWR	
		27	051	14.10	19 12.90	155 35.18	7.94	2.4	1.5	28	2	120	.21	5	1.2	.9	19	LSW	
		27	544	45.22	19 23.25	155 17.19	2.74	1.6	1.3	12	0	59	.06	1	.4	.3	11	SSC	
		27	14	8	52.52	19 18.95	7.37	1.6	1.1	33	3	95	.10	4	.4	.7	22	SF1	
		27	1743	50.14	19 28.16	155 34.57	36.52	2.9	2.9	24	0	92	.12	3	.9	2.6	9	DML	
		28	923	12.71	19 26.42	155 27.37	8.80	1.8	1.7	28	0	54	.09	4	.5	1.0	21	KA0	
		28	1025	52.51	19 23.87	155 15.23	3.30	1.8	1.9	18	0	98	.10	2	.3	.3	16	SEC	
		28	17	5	14.96	19 20.81	8.43	2.9	2.8	36	1	71	.08	4	.4	.5	28	SF3	
		28	2149	31.83	19 26.17	155 24.15	8.34	2.4	2.1	36	1	50	.11	2	.4	.8	28	KA0	
		28	2247	25.38	19 20.64	155 13.32	7.26	1.9	1.8	31	1	61	.11	4	.5	.7	26	SF2	
		28	2342	5.46	19 19.09	155 7.65	7.68	1.9	1.9	19	0	220	.10	7	1.4	.9	14	SF4	
		29	328	10.25	19 21.84	155 25.25	10.55	2.6	2.5	39	2	61	.11	4	.4	.7	27	KA0	
		29	1133	1.42	19 19.50	155 12.28	8.08		1.1	18	1	200	.05	6	.9	1.2	14	SF3	
		29	1138	14.90	19 19.97	155 9.64	7.65	1.6	1.4	20	1	83	.03	4	.5	1.1	16	SF3	
		29	1247	11.90	19 12.49	155 20.15	43.86	2.6	2.4	42	3	168	.09	11	.8	1.3	34	DEP	
MAR		1	031	45.05	19 20.35	155 7.18	7.41	1.9	1.7	24	1	98	.12	5	.5	.9	19	SF4	
		1	048	41.37	19 20.22	155 6.76	8.65	1.9	2.0	26	0	108	.07	5	.6	1.0	20	SF4	
		1	058	29.58	19 26.77	155 16.11	26.92	2.0	1.5	34	3	69	.09	4	.6	1.0	26	DEP	
		1	2	2	27.13	19 24.04	155 27.08	11.00	1.8	1.2	24	1	59	.07	3	.5	1.1	22	KA0
		1	6	7	25.91	19 20.44	155 7.38	6.64	1.9	1.9	27	1	94	.09	5	.5	1.0	19	SF4
		1	819	29.93	19 20.86	155 10.68	6.66	2.0	1.8	23	0	81	.10	3	.5	.8	21	SF3	
		1	1220	49.35	19 20.60	155 7.08	7.55		1.5	25	0	96	.10	5	.5	1.0	23	SF4	
		1	1327	.02	19 20.49	155 6.15	8.42	2.0	2.1	25	0	109	.07	5	.4	.8	17	SF4	
		1	1718	7.23	19 20.04	155 11.30	8.28	2.5	2.5	32	0	85	.08	5	.5	.8	26	SF3	
		1	1746	4.77	19 19.09	155 11.15	8.43	1.8	1.6	24	0	108	.05	6	.5	1.1	16	SF3	
		1	1938	28.20	19 46.78	156 41.42	16.27	4.2	4.5	31	0	298	.12	87	5.9	99.0	23	DLS	
		1	2115	59.60	19 19.86	155 7.10	8.68	1.9	1.3	17	0	110	.07	5	.6	1.5	16	SF4	
		1	2358	29.05	19 19.64	155 10.88	9.41	1.8	1.5	14	0	206	.03	5	1.3	1.4	11	SF3	
		2	524	57.18	19 21.93	155 30.33	9.46	3.0	2.7	40	1	60	.08	5	.3	.8	30	KA0	
		2	751	47.13	19 22.28	155 14.06	1.36	1.5	1.3	14	0	80	.10	2	.4	.4	13	SEC	
		2	753	7.05	19 22.22	155 14.06	2.73	1.6	1.3	13	0	81	.08	2	.4	.5	11	SEC	
		2	755	11.14	19 22.51	155 14.21	3.54	1.6	1.6	12	0	76	.10	2	.4	.7	9	SEC	
		2	755	50.20	19 22.32	155 14.01	2.81	1.3	.9	7	0	133	.04	2	.7	.4	3	SEC	
		2	756	20.76	19 22.30	155 14.12	2.48	1.8	1.7	14	0	96	.08	2	.5	1.1	12	SEC	
		2	759	22.06	19 22.77	155 14.61	3.19		.4	4	0	130	.00	2	.8	1.2	3	SEC	
		2	8	4	46.47	19 22.37	2.78	.8	.2	8	0	140	.09	2	.5	.9	5	SEC	
		2	8	6	6.84	19 22.45	2.91	.7	.2	8	1	155	.03	2	.5	.7	5	SEC	
		2	8	6	45.78	19 22.44	2.42	.5		8	0	138	.05	2	.5	.7	7	SEC	
		2	8	7	32.29	19 22.32	3.10	.9		9	0	133	.05	2	.5	.6	8	SEC	
		2	810	56.42	19 22.28	155 14.10	3.05	1.4	.8	16	0	132	.06	2	.3	.5	12	SEC	
		2	815	54.76	19 22.93	155 14.00	3.48	1.0	.2	12	0	113	.08	2	.6	.5	8	SEC	
		2	817	27.15	19 22.37	155 13.97	3.40	1.1	.5	14	1	131	.03	2	.4	.5	9	SEC	
		2	818	51.97	19 22.29	155 14.21	2.94		.8	14	0	131	.06	2	.4	.5	14	SEC	
		2	821	12.14	19 22.39	155 14.16	3.02	.9	.3	9	0	147	.03	2	.6	.8	8	SEC	
		2	822	28.23	19 23.07	155 14.73	2.28		.3	9	1	115	.04	2	.4	.8	8	SEC	

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YEAR	MON	DA	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
1980	MAR	2	823	8.98	19 23.10	155 14.77	2.54		.4	10	0	114	.04	2	.4		.7	9 SEC
		2	835	19.46	19 23.16	155 14.77	2.29		.2	8	1	127	.03	2	.4		1.2	7 SEC
		2	836	31.62	19 22.43	155 14.13	3.21		.2	9	1	145	.03	2	.5		.8	8 SEC
		2	837	5.58	19 22.83	155 14.43	3.43		.8	14	0	120	.05	2	.4		.5	13 SEC
		2	841	16.70	19 22.44	155 14.09	3.30	1.1	.1	10	1	129	.03	2	.4		.6	8 SEC
		2	842	40.84	19 22.37	155 14.16	3.16	.9	.2	8	1	158	.06	2	.6		.9	6 SEC
		2	843	18.13	19 22.36	155 14.24	3.17		1.4	17	1	130	.06	2	.4		.4	16 SEC
		2	843	59.57	19 22.37	155 14.14	3.39		.8	15	2	130	.04	2	.3		.5	12 SEC
		2	844	37.44	19 22.34	155 14.07	3.59	1.2		10	1	152	.04	2	.6		.7	9 SEC
		2	845	1.71	19 22.38	155 14.17	3.36		1.2	17	1	130	.05	2	.4		.4	16 SEC
		2	847	26.14	19 22.25	155 14.22	3.15	1.1	.9	15	0	133	.06	2	.6		.4	12 SEC
		2	848	19.13	19 22.35	155 14.27	2.92	1.1	.4	14	0	131	.06	2	.3		.4	12 SEC
		2	849	8.11	19 22.46	155 14.06	3.51		.6	4	0	154	.00	2	.9		1.5	4 SEC
		2	849	41.05	19 22.28	155 13.86	3.14	1.3	.5	10	0	134	.03	2	.6		.7	8 SEC
		2	851	36.14	19 20.84	155 15.33	.66	1.7	1.1	8	0	175	.12	3	.7		1.9	6 KOA
		2	852	28.34	19 22.25	155 14.37	2.83	1.3	.5	14	0	132	.07	3	.5		.7	9 SEC
		2	852	47.96	19 22.80	155 14.47	3.16	1.7	1.4	14	0	121	.05	2	.4		.4	14 SEC
		2	857	49.54	19 22.35	155 14.22	3.01	1.3	.8	13	0	130	.05	2	.5		.6	10 SEC
		2	859	35.36	19 22.14	155 14.07	1.59	1.2	.9	10	0	135	.03	2	.4		.4	7 SEC
		2	9	2 58.42	19 21.15	155 14.25	2.11		.2	9	0	156	.12	4	.5		1.2	4 KOA
CH		2	9	4 56.27	19 22.47	155 14.29	2.48	1.2	.8	6	0	141	.02	2	.6		1.0	5 SEC
		2	9	5 53.22	19 22.36	155 13.91	3.08		.3	10	0	155	.04	2	.7		.9	7 SEC
		2	9	8 57.83	19 22.11	155 14.26	1.27	2.4	3.0	20	1	54	.12	3	.4		.7	12 SEC
		2	913	53.80	19 22.74	155 14.30	3.02	1.5	1.0	12	0	122	.10	3	.6		1.0	5 SEC
		2	914	18.13	19 22.28	155 14.31	2.75	1.2	.9	11	0	131	.07	2	.5		.8	8 SEC
		2	916	26.29	19 22.37	155 14.02	3.24	1.2	.9	10	0	131	.03	2	.7		.9	6 SEC
		2	918	5.55	19 22.30	155 14.24	3.28	1.3	.7	13	0	141	.04	2	.4		.5	9 SEC
		2	920	17.87	19 22.24	155 14.27	3.16	1.8	1.6	15	0	132	.06	2	.4		.5	15 SEC
		2	925	33.98	19 22.32	155 14.19	3.00	1.8	1.3	13	0	131	.02	2	.4		.4	10 SEC
		2	927	50.13	19 22.27	155 14.24	2.92	1.8	1.9	18	0	79	.06	2	.3		.4	17 SEC
		2	931	25.71	19 22.28	155 14.36	3.28	1.6	1.2	15	0	132	.05	2	.5		.4	15 SEC
		2	934	39.25	19 22.26	155 14.25	3.01	1.2	1.4	12	0	153	.05	2	.6		.9	8 SEC
		2	936	.09	19 22.33	155 14.02	2.96	2.2	2.1	19	2	132	.12	2	.4		.4	17 SEC
		2	937	47.16	19 22.37	155 14.01	3.28	1.3	.9	14	2	131	.04	2	.4		.5	11 SEC
		2	939	4.45	19 22.25	155 14.05	3.11	1.2	.5	11	1	134	.05	2	.4		.6	10 SEC
		2	939	36.40	19 22.30	155 14.25	3.66	1.3	1.2	15	2	131	.04	2	.4		.5	11 SEC
		2	941	8.71	19 22.48	155 14.05	3.40	2.4	2.3	18	1	128	.05	2	.3		.4	15 SEC
		2	942	42.50	19 22.22	155 14.21	4.25	1.4	.7	13	2	133	.07	2	.5		.8	11 SEC
	2	943	35.87	19 22.35	155 14.24	3.71	1.2	.9	10	2	140	.06	2	.6		.8	8 SEC	
	2	945	51.66	19 22.36	155 14.19	2.98	1.9	1.6	17	1	130	.04	2	.3		.4	14 SEC	
	2	948	8.26	19 22.36	155 14.27	3.69	1.3	1.0	14	1	130	.05	2	.4		.6	12 SEC	
	2	949	55.47	19 23.11	155 14.66	3.61	1.6	1.5	19	2	109	.06	3	.3		.3	17 SEC	
	2	952	57.87	19 22.43	155 14.19	2.87	2.2	2.4	14	1	129	.05	2	.4		.4	13 SEC	
	2	955	48.15	19 22.35	155 14.25	1.62		.7	12	1	140	.05	2	.4		.3	9 SEC	
	2	10	0 5.70	19 22.35	155 14.36	2.96	1.3	.7	11	0	130	.03	2	.4		.6	10 SEC	
	2	10	0 43.94	19 22.50	155 14.20	3.02	1.3		.7	7	1	149	.05	2	.7		.9	5 SEC
	2	10	1 17.84	19 23.13	155 14.70	3.47	1.5	1.1	16	0	108	.06	3	.3		.4	12 SEC	
	2	10	3 56.47	19 22.30	155 14.28	2.59	1.1	.5	11	1	131	.05	2	.4		.5	8 SEC	

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YEAR	MON	DA	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	
1980	MAR	2	10	4	14.45	19 22.02	155 14.06	1.77	1.3	.8	12	1	150	.02	2	.4	.4	10	KOA
		2	10	4	43.47	19 22.37	155 14.43	3.24	1.2	.7	13	1	129	.07	2	.4	.5	10	SEC
		2	10	5	15.83	19 22.49	155 14.42	3.04	1.2	.2	12	1	127	.08	2	.4	.5	6	SEC
		2	10	5	24.23	19 22.24	155 14.38	2.93	1.2	.7	12	1	132	.03	2	.4	.5	11	SEC
		2	1010	35.82	19 22.30	155 14.19	2.85	2.4	2.4	22	1	53	.06	2	.3	.4	18	SEC	
		2	1011	42.35	19 22.27	155 14.40	3.19	1.2	.9	13	0	141	.05	2	.5	.4	12	SEC	
		2	1013	33.64	19 22.60	155 14.78	1.16	2.4	3.0	28	1	52	.10	2	.3	.3	20	SEC	
		2	1022	19.44	19 22.08	155 14.29	1.28	2.4	3.1	21	2	81	.07	2	.2	.4	13	SEC	
		2	1024	1.23	19 22.68	155 14.52	1.49	1.2	.8	15	1	122	.07	2	.3	.4	10	SEC	
		2	1026	38.96	19 22.31	155 14.25	2.72	1.6	1.3	17	1	131	.05	2	.4	.3	14	SEC	
		2	1032	40.04	19 22.32	155 14.37	2.80	1.2	.7	13	1	147	.05	2	.5	.5	11	SEC	
		2	1039	39.34	19 22.33	155 14.12	2.77	1.2	.4	13	1	80	.06	2	.3	.5	8	SEC	
		2	1040	39.74	19 19.29	155 13.30	8.69	1.7	1.0	18	0	124	.07	4	.6	1.3	16	SF2	
		2	1042	34.10	19 22.33	155 14.34	3.30	1.1	.1	13	2	95	.04	2	.4	.6	9	SEC	
		2	1043	25.87	19 22.34	155 14.13	2.90	1.1	.2	13	1	80	.03	2	.3	.4	5	SEC	
		2	1044	44.40	19 22.44	155 14.09	3.11	1.8	1.6	17	1	78	.04	2	.3	.4	13	SEC	
		2	1048	4.01	19 22.26	155 14.17	2.80	1.5	1.0	16	1	80	.04	2	.3	.5	14	SEC	
		2	1049	19.46	19 22.29	155 13.80	2.66	1.0	.1	10	2	163	.06	1	.5	.6	7	SEC	
		2	1051	42.92	19 19.85	155 12.58	6.71	1.6	.4	7	0	283	.07	5	4.9	5.7	7	SF2	
		2	1053	12.21	19 22.52	155 14.16	2.98	1.1	.3	10	2	139	.05	2	.5	.7	8	SEC	
		2	1055	32.87	19 22.39	155 14.16	3.01	1.2	.4	10	1	130	.05	2	.4	.6	8	SEC	
		2	1059	54.70	19 22.34	155 14.10	2.89	1.5	.8	15	1	79	.05	2	.4	.5	12	SEC	
		2	11	2	5.29	19 22.55	155 13.99	3.08	1.1	.1	8	1	148	.01	2	.5	.8	5	SEC
		2	11	4	4.92	19 22.39	155 14.27	3.66	1.3	.5	10	2	79	.04	2	.4	.6	8	SEC
		2	11	5	17.67	19 22.25	155 13.95	3.29	1.3	.5	9	1	161	.07	2	.6	.8	8	SEC
		2	11	6	33.19	19 22.31	155 14.33	3.01	1.8	1.5	15	1	78	.04	2	.3	.5	14	SEC
		2	11	9	3.08	19 22.38	155 14.30	3.00	2.0	1.7	16	1	77	.04	2	.3	.4	15	SEC
		2	1114	4.63	19 22.33	155 13.86	3.33	.8		9	2	143	.05	2	.6	.7	7	SEC	
		2	1119	44.85	19 22.12	155 14.20	3.53	1.2	.5	10	2	108	.04	2	.4	.7	7	SEC	
		2	1120	25.20	19 22.69	155 14.14	1.72	1.1	1.0	12	2	98	.09	2	.4	.5	10	SEC	
		2	1124	43.19	19 22.21	155 14.29	3.79	1.3	.5	14	2	79	.06	2	.4	.6	9	SEC	
		2	1130	28.73	19 22.38	155 14.27	1.63	1.3	1.0	13	0	79	.05	2	.3	.5	13	SEC	
		2	1130	53.91	19 22.78	155 15.21	1.79	1.1	.3	14	1	71	.06	1	.3	.4	10	SEC	
		2	1131	59.03	19 22.30	155 14.26	3.52	1.1		11	1	97	.04	2	.5	.6	7	SEC	
		2	1132	50.51	19 22.33	155 14.27	3.65	1.1	.3	8	1	102	.01	2	.5	.6	6	SEC	
		2	1134	5.93	19 23.34	155 14.88	3.37	1.1	.7	15	1	73	.03	3	.3	.4	10	SEC	
		2	1146	28.35	19 22.21	155 14.39	3.09	1.2	.8	12	0	78	.05	2	.4	.5	7	SEC	
		2	1210	43.66	19 22.81	155 14.54	1.50	1.2	.8	12	0	91	.04	3	.3	.4	9	SEC	
		2	1225	59.81	19 22.02	155 14.46	1.38	2.1	2.6	17	1	80	.04	3	.2	.4	16	KOA	
		2	1240	34.77	19 22.13	155 13.84	1.35	.6	.7	10	1	84	.03	2	.3	.4	7	SEC	
		2	13	2	20.91	19 22.59	155 14.65	1.51	1.1	1.6	8	1	165	.03	2	.3	.6	7	SEC
		2	1312	43.85	19 22.26	155 14.23	3.57	1.0	.2	10	2	80	.03	2	.4	.5	8	SEC	
		2	1336	41.79	19 22.01	155 14.04	1.62	1.8	.9	10	1	139	.04	2	.4	.5	9	KOA	
		2	1340	52.52	19 22.49	155 14.30	3.72	1.2	.3	8	2	136	.02	2	.5	.7	6	SEC	
		2	14	5	31.67	19 22.68	155 14.35	3.54	1.1	.5	7	2	162	.07	2	.8	1.5	4	SEC
		2	14	6	56.39	19 22.89	155 14.43	1.42	1.2	1.2	12	1	117	.05	2	.3	.4	11	SEC
		2	14	7	6.73	19 22.66	155 14.39	.91	3.1	3.5	20	0	74	.09	2	.2	.4	18	SEC
		2	1412	6.41	19 20.87	155 1.05	7.47	2.1	1.8	26	0	201	.13	4	.9	.9	25	SF5	

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YEAR	MON	DA	HRMN	SEC	LAT N DEG MIN	LON W DEG MIN	DEPTH KM	AMP MAG	DUR MAG NR	GAP NS	RMS DEG	MIN SEC	ERH DIS	ERZ NO KM FM	REMK
1980	MAR	2	1425	30.82	19 20.53	155 9.78	8.84	1.8	.6 16	1 172	.04	3	.8	1.3 14	SF3
		2	1438	35.80	19 22.40	155 14.21	3.82	.1	.8 2	139	.03	2	.6	.8 6	SEC
		2	1530	35.72	19 22.16	155 13.98	1.57	1.4	1.8 14	0 83	.03	2	.3	.4 13	SEC
		2	1533	51.52	19 22.73	155 14.96	1.11	1.8	2.0 17	2 76	.09	2	.3	.4 15	SEC
		2	1535	41.28	19 22.90	155 14.57	.01	1.1	1.0 10	2 93	.13	3	.3	.7 7	SEC
		2	1626	13.88	19 21.62	155 12.92	2.74	.8	.3 10	2 106	.06	2	.5	.6 8	SEC
		2	1627	7.45	19 22.43	155 14.21	3.56	1.3	.1 9	1 82	.03	2	.4	.6 7	SEC
		2	1646	40.26	19 22.77	155 14.63	1.72	1.2	1.1 13	1 87	.05	2	.3	.4 11	SEC
		2	1710	.00	19 23.22	155 14.71	2.91	1.2	1.3 13	2 105	.05	3	.4	.5 10	SEC
		2	1711	39.87	19 19.35	155 12.15	7.92	1.3	.2 10	1 154	.04	5	.8	2.0 9	SF3
		2	1715	46.42	19 20.10	155 9.56	8.47	1.4	.3 11	0 183	.02	4	.9	1.6 9	SF3
		2	1854	21.87	19 21.65	155 14.07	1.57	1.6	1.7 17	1 88	.04	3	.3	.5 16	KOA
		2	1856	33.36	19 21.67	155 14.03	1.41	1.9	1.8 21	0 57	.05	2	.2	.5 16	KOA
		2	1857	15.77	19 21.66	155 14.07	1.57	2.1	2.1 20	1 58	.04	3	.2	.5 16	KOA
		2	19 1	16.42	19 21.20	155 5.97	7.23	2.1	2.0 30	2 93	.09	3	.5	.9 21	SF4
		2	1930	7.63	19 21.80	155 14.18	1.40	.5	.5 10	0 142	.04	2	.4	.6 7	KOA
		2	2055	30.03	19 23.11	155 14.70	2.97	.9	.1 8	1 114	.03	3	.5	.8 7	SEC
		2	2219	39.39	19 21.29	155 2.20	8.34	1.4	1.0 18	1 161	.09	3	.8	.8 13	SF5
		2	2323	12.77	19 22.29	155 14.72	1.72	.5	.8 10	0 117	.11	2	.4	.6 6	SEC
		2	2327	12.34	19 19.53	155 9.97	8.63	1.5	.2 16	2 186	.05	5	.8	1.2 11	SF3
		2	2331	.28	19 21.34	155 14.49	1.61	1.3	.8 16	2 87	.04	3	.3	.5 6	KOA
		2	2339	2.35	19 19.91	155 9.44	8.28	1.3	.2 10	0 144	.03	4	1.0	1.7 5	SF3
		3	347	49.60	19 19.84	155 11.55	8.16	1.7	1.4 24	0 87	.09	5	.6	1.0 19	SF3
		3	4	26.33	19 23.16	155 14.84	3.19	1.9	2.0 19	0 66	.05	2	.3	.3 14	SEC
		3	5 7	38.53	19 20.79	155 6.26	8.47	.7	14	0 100	.07	4	.6	1.6 10	SF4
		3	547	46.90	19 20.52	155 4.50	7.59	2.0	1.7 25	0 114	.10	3	.5	.8 19	SF5
		3	550	10.65	19 19.82	155 11.38	4.22	1.2	.6 16	1 160	.13	5	.7	2.2 6	SF5
		3	551	3.61	19 22.15	155 14.68	.56	1.2	1.1 15	0 76	.05	2	.3	.5 10	SEC
		3	6 8	15.06	19 25.28	155 24.39	8.45	1.6	1.1 24	2 47	.09	1	.5	1.0 19	KAO
		3	625	9.62	19 23.41	155 14.75	1.18	.6	.4 9	1 102	.03	2	.3	.7 4	SEC
		3	727	45.37	19 20.60	155 6.05	8.88	.4	13	0 165	.04	4	.9	1.3 9	SF4
		3	2244	55.68	19 20.32	155 11.74	7.88	2.2	1.9 38	1 78	.09	5	.4	.6 24	SF3
		3	2247	47.80	19 20.40	155 11.69	8.15	2.1	2.0 36	2 77	.09	4	.4	.6 27	SF3
		4	1 9	10.83	19 20.35	155 11.69	9.23	1.8	1.6 20	1 115	.07	5	.7	1.0 19	SF3
		4	348	33.13	19 26.86	154 50.89	8.66	2.8	2.6 33	2 285	.13	6	1.8	.6 22	LER
		4	457	21.28	19 22.89	155 15.19	1.39	2.6	2.8 24	0 65	.08	2	.3	.3 19	SEC
		4	5 6	14.07	20 .21	155 39.01	14.82	2.7	2.1 27	3 155	.08	19	1.1	1.6 19	KOH
		4	611	56.56	19 23.01	155 15.24	1.38	2.7	2.6 15	1 73	.08	2	.3	.3 12	SEC
		4	945	27.17	19 22.51	155 15.28	1.82	2.0	2.6 15	1 56	.10	1	.3	.3 13	SEC
		5	021	6.96	18 47.70	156 11.51	32.07	3.1	3.3 9	0 311	.08	59	13.4	5.0 8	DIS
		5	15 0	25.83	19 16.81	155 15.45	11.06	2.8	2.8 31	1 154	.09	6	.7	.5 29	SF1
		5	1554	40.27	19 23.22	155 16.82	2.31	.8	.9 7	0 128	.06	2	.5	.6 6	SEC
		5	2142	17.26	19 28.14	155 18.34	13.59	1.8	1.4 30	4 72	.11	6	.4	.4 29	SEC
		6	038	19.29	19 20.31	155 11.64	8.61	1.7	1.7 19	0 78	.06	5	.5	.8 17	SF3
		6	151	50.50	19 25.17	156 9.41	27.49	.1	1.9 21	1 289	.10	26	4.7	2.1 16	KON
		6	716	14.43	19 21.75	155 1.92	8.60	2.6	2.8 30	0 161	.08	4	.8	.4 26	SF5
		6	1914	30.02	19 20.43	155 13.18	8.87	2.1	2.2 32	0 64	.10	4	.5	.7 26	SF2
		6	21 1	37.68	19 19.68	155 11.09	7.01	1.7	1.1 17	2 168	.07	5	.6	1.2 14	SF3

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YEAR	MON	DA	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 NO KM FM	REMK
1980	MAR	7	059	.69	19 26.03	155 23.91	8.78	2.4	2.0 26	1	61	.10	3	.5	.8 22	KAO
		7	119	33.17	19 19.03	155 12.07	8.35	1.7	1.0 16	0	160	.06	4	.8	1.4 14	SF3
		7	420	14.04	19 19.54	155 11.52	8.43	2.6	2.6 35	1	95	.08	6	.4	.6 28	SF3
		7	1947	42.48	19 19.81	155 11.36	9.54	3.2	3.5 38	0	89	.08	5	.4	.5 27	SF3
		8	10 1	24.97	19 24.08	155 28.70	10.52	2.8	2.8 33	1	56	.10	4	.4	.6 30	KAO
		8	1524	28.95	19 20.35	155 8.16	7.82	1.8	1.6 23	1	81	.09	6	.5	1.2 19	SF4
		8	1558	22.15	19 46.44	155 32.54	14.61	2.6	2.1 33	3	90	.12	9	.5	.5 24	KEA
		8	1646	5.82	19 20.58	155 6.48	8.67	2.9	3.4 41	2	103	.09	5	.4	.5 31	SF4
		8	1829	27.25	19 18.90	155 13.22	7.97	1.7	1.5 18	0	129	.06	4	.6	1.3 18	SF2
		8	1945	36.39	19 20.32	155 6.49	8.76	1.7	1.6 20	0	148	.06	5	1.0	1.3 17	SF4
		9	342	21.26	19 17.35	155 18.49	32.95	1.9	1.5 27	2	135	.08	1	.8	1.5 25	DEP
		9	4 3	51.94	19 24.92	155 25.39	11.41	2.0	1.9 36	3	38	.11	1	.4	.5 28	KAO
		9	1217	5.19	19 21.37	155 15.18	9.71	2.9	2.8 40	3	65	.10	2	.4	.4 32	SF1
		9	1225	53.52	19 21.68	155 15.15	9.21	2.2	1.9 33	2	61	.09	2	.4	.6 25	SF1
		9	1526	53.39	19 12.35	155 33.28	8.14	2.6	2.1 26	0	231	.13	8	1.2	.7 19	LSW
		9	1627	20.71	19 19.70	155 13.34	9.47	3.1	3.0 39	0	69	.10	5	.4	.4 34	SF2
		9	1852	2.69	19 14.50	155 31.86	6.51	2.2	1.5 29	1	193	.13	3	.5	.9 21	LSW
		10	748	41.61	19 20.31	155 13.37	8.77	1.6	1.1 19	0	114	.07	4	.6	1.3 17	SF2
		10	10 0	16.93	19 19.26	155 11.97	8.09	1.5	1.1 18	2	158	.06	5	.6	1.1 15	SF3
		10	10 2	19.93	19 19.32	155 11.96	8.18	1.7	1.5 18	1	157	.04	5	.6	1.1 17	SF3
		10	1121	38.92	19 18.49	155 15.44	8.40	1.2	.8 17	3	134	.05	4	.6	1.3 15	SF1
		10	1241	57.05	19 21.32	155 5.84	8.59	1.4	1.2 17	1	123	.06	3	.6	1.1 15	SF4
		10	1532	33.34	19 20.43	155 13.28	8.02	1.3	.8 15	1	120	.06	4	.6	1.2 13	SF2
		10	1647	44.62	19 26.69	154 52.23	6.79	1.9	1.4 15	0	272	.10	5	2.5	.9 14	LER
		10	17 3	36.29	19 27.53	155 20.97	8.66	1.8	1.3 20	3	92	.10	1	.5	.9 15	KAO
		10	1753	3.60	19 19.79	155 9.49	8.14	1.4	.9 15	2	188	.05	4	.9	1.3 13	SF3
		10	1821	51.56	19 23.37	155 7.33	3.27	1.3	1.0 12	0	104	.06	2	.5	.6 11	SEC
		10	19 7	50.30	19 19.22	155 11.76	5.66	.9	.5 10	0	185	.02	5	1.2	3.7 9	SF3
		10	2049	43.16	19 19.00	155 13.21	7.93	2.1	2.2 36	2	79	.11	4	.4	.7 32	SF2
		10	2155	33.87	19 21.80	155 12.15	2.85	.8	.7 10	1	169	.06	2	1.1	.5 9	SEC
		10	2156	42.36	19 21.78	155 11.90	3.17	2.1	1.4 18	2	117	.06	3	.4	.5 16	SEC
		10	22 0	46.47	19 22.14	155 12.56	2.77	1.3	.6 9	1	184	.07	1	1.0	.4 8	SEC
		10	22 1	6.09	19 21.60	155 12.34	2.62	1.4	.4 13	2	116	.06	2	.4	.5 10	SEC
		10	22 2	21.71	19 22.22	155 12.43	2.76	1.2	.7 10	1	153	.08	1	.7	.4 9	SEC
		10	22 4	28.21	19 21.50	155 12.61	2.58	1.5	.9 13	0	114	.04	2	.3	.6 13	SEC
		10	22 6	57.17	19 21.68	155 12.44	.49	2.2	2.0 17	1	111	.06	5	.4	1.0 15	SEC
		10	22 8	8.91	19 21.63	155 12.55	2.89	1.7	.9 16	1	111	.03	2	.3	.5 15	SEC
		10	22 9	25.42	19 21.64	155 12.66	2.85	1.9	.7 17	1	110	.08	2	.3	.5 16	SEC
		10	2210	46.94	19 21.61	155 12.69	2.17	1.9	.9 15	1	110	.06	2	.3	.6 13	SEC
		10	2211	46.16	19 21.52	155 12.65	2.29	2.1	1.1 18	1	112	.05	2	.3	.5 17	SEC
		10	2212	13.90	19 21.74	155 12.53	1.62	2.3	1.4 17	1	109	.10	5	.5	1.1 16	SEC
		10	2215	13.00	19 21.67	155 12.86	2.46	1.7	.5 19	3	105	.10	2	.4	.4 14	SEC
		10	2217	41.55	19 21.72	155 12.92	2.99	1.9	.8 18	0	104	.05	2	.3	.5 17	SEC
		10	2219	37.34	19 21.84	155 12.88	2.44	1.9	.9 18	1	102	.12	2	.4	.5 15	SEC
		10	2226	25.47	19 21.72	155 12.88	2.32	2.0	1.3 17	0	104	.06	2	.4	.6 15	SEC
		10	2227	31.28	19 21.78	155 12.73	2.36	2.4	1.6 17	1	105	.05	2	.3	.4 13	SEC
		10	2228	3.17	19 21.73	155 12.84	2.80	2.0	1.4 17	1	105	.07	2	.4	.6 16	SEC
		10	2230	9.32	19 21.44	155 12.67	1.89	1.4	.4 9	1	178	.09	2	.7	.8 8	SEC

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YEAR	MON	DA	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
1980	MAR	10	2231	47.94	19 21.63	155 12.74	2.15	1.4		16	1	108	.07	2	.3	.5	14	SER
		10	2232	5.31	19 21.61	155 12.80	1.66	2.4	1.7	18	1	108	.09	2	.3	.5	17	SER
		10	2233	3.82	19 21.60	155 12.75	1.87	2.6	2.1	18	1	109	.08	2	.3	.5	17	SER
		10	2234	44.93	19 22.33	155 12.69	2.63	1.2		8	1	149	.09	1	.9	.5	7	SER
		10	2235	21.75	19 21.70	155 12.75	2.26	1.9	.9	15	0	107	.03	2	.3	.4	15	SER
		10	2236	49.96	19 21.86	155 13.02	2.28	2.6	2.1	19	1	99	.08	1	.4	.4	17	SER
		10	2237	54.38	19 21.60	155 12.80	2.73	1.4	.4	17	1	108	.05	2	.3	.5	16	SER
		10	2238	40.11	19 21.75	155 12.95	2.69		.2	12	2	103	.05	2	.5	.5	10	SER
		10	2239	48.28	19 21.78	155 12.70	3.62	1.2		11	1	106	.09	2	.6	1.0	10	SER
		10	2242	1.74	19 21.61	155 12.92	1.74	1.5	.7	17	1	106	.09	2	.3	.6	15	SER
		10	2242	48.42	19 20.40	155 12.54	.83			5	1	247	.52	6	16.8	9.1	4	SSF *
		10	2243	21.12	19 21.83	155 12.78	4.11	1.4	.3	13	1	103	.07	2	.4	1.1	11	SER
		10	2244	55.45	19 21.67	155 13.04	2.73	1.4	.6	15	0	103	.03	2	.3	.5	15	SER
		10	2245	28.65	19 21.75	155 12.88	3.01	1.4	.6	15	1	104	.06	2	.4	.5	14	SER
		10	2248	37.14	19 21.83	155 12.96	2.64	1.4	.7	18	2	101	.07	2	.4	.4	11	SER
		10	2249	25.11	19 21.67	155 12.87	2.61	1.0		8	1	169	.03	2	.7	.5	7	SER
		10	2251	41.42	19 21.62	155 12.63	2.77	1.0		10	2	110	.05	2	.5	.7	8	SER
		10	2254	13.74	19 21.79	155 13.22	2.45	1.5	.8	17	0	98	.09	2	.4	.5	17	SER
		10	23	3.97	19 21.57	155 13.03	2.62			11	2	106	.06	2	.4	.6	9	SER
		10	2343	50.95	19 20.09	155 9.40	7.99		.3	17	0	79	.09	4	.7	1.4	16	SF3
		11	039	16.80	19 21.49	155 12.68	2.55	.9		11	1	113	.05	2	.4	.6	10	SER
		11	147	16.86	19 21.09	155 12.81	1.79	1.1	.3	8	0	119	.06	3	.4	1.1	8	SER
		11	224	7.16	19 22.12	155 11.42	2.81	2.1	1.8	17	1	109	.06	3	.5	.5	16	SER
		11	226	52.87	19 21.56	155 12.68	2.74	1.5	1.1	12	1	111	.04	2	.4	.6	11	SER
		11	229	.69	19 22.17	155 11.34	2.66	1.8	1.5	12	1	108	.09	3	.5	.5	10	SER
		11	234	36.84	19 21.94	155 11.30	2.40	1.5	1.1	14	0	118	.12	3	.7	.5	13	SER
		11	236	51.91	19 22.08	155 11.42	2.44	1.5	.8	11	0	111	.09	3	.6	.4	7	SER
		11	237	20.41	19 22.62	155 4.80	16.07	1.5	.5	5	0	333	.08	3	9.1	7.5	4	DEP
		11	242	50.23	19 22.08	155 11.25	2.56	1.5	1.0	10	0	113	.09	2	.8	.6	9	SER
		11	259	30.68	19 22.03	155 11.34	2.76	1.8	1.7	19	1	98	.08	3	.4	.4	13	SER
		11	3	5	17.14	19 21.88	2.65	.8	.1	12	1	121	.11	3	.9	.5	8	SER
		11	317	11.04	19 22.25	155 11.34	3.21	1.5	1.1	14	0	104	.08	3	.7	.5	11	SER
		11	319	55.61	19 22.07	155 11.15	2.81	1.8	1.6	17	0	99	.08	2	.6	.5	11	SER
		11	320	44.80	19 22.83	155 11.26	1.63		.3	12	1	125	.09	3	.9	.8	4	SER
		11	322	7.15	19 21.75	155 11.53	3.11	1.5	1.0	10	0	124	.06	3	.6	.5	9	SER
		11	322	54.05	19 22.38	155 11.03	2.65	1.5	1.1	11	0	98	.11	2	.7	.5	7	SER
		11	338	55.91	19 20.86	155 11.83	2.05		1.0	5	0	235	.02	4	2.4	2.3	4	SER
		11	346	23.97	19 22.32	155 11.25	2.68	1.5	.4	11	1	95	.06	3	.6	.4	5	SER
		11	356	33.18	19 22.05	155 11.76	2.71	.6		11	0	109	.08	3	.4	.4	8	SER
		11	4	1	44.59	19 22.47	3.17	.7		11	1	92	.10	1	.6	.3	3	SER
		11	4	2	30.72	19 22.04	3.59	.8	.1	16	1	114	.07	3	.6	.5	8	SER
		11	4	4	44.84	19 22.21	3.91	1.8	.9	19	1	107	.07	2	.6	.7	16	SER
		11	4	5	57.08	19 20.67	2.45	.5	.2	10	0	196	.07	4	.8	.7	3	SER
		11	4	6	18.71	19 20.59	9.55	1.7	1.0	21	1	123	.05	3	.7	1.1	15	SF3
		11	429	12.15	19 21.79	155 12.16	2.19	.8	.2	13	1	113	.11	2	.4	.5	7	SER
		11	445	12.74	19 22.00	155 11.61	2.90	.8	.5	11	0	113	.06	3	.4	.4	8	SER
		11	528	23.50	19 21.80	155 11.67	2.37	.6	.3	8	0	119	.06	3	.5	.7	5	SER
		11	528	23.53	19 21.75	155 11.56	2.42	.6	.3	11	0	122	.11	3	.5	.7	5	SER

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HVO EARTHQUAKE SUMMARY LIST

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YEAR	MON	DA	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	
1980	MAR	11	534	55.93	19 22.19	155 11.41	2.86	1.0	.6	13	1	96	.07	3	.6	.4	7	SER	
		11	546	19.39	19 21.89	155 11.31	2.61	1.5	.8	15	1	121	.05	3	.5	.4	9	SER	
		11	548	58.16	19 18.61	155 13.36	7.95	1.1	.7	15	0	129	.04	3	.6	1.2	12	SF2	
		11	6	3	23.85	19 21.58	155 6.27	7.27	1.9	1.3	30	2	84	.12	3	.5	.7	21	SF4
		11	7	4	.50	19 21.89	155 11.48	3.68	.7		8	0	170	.05	3	1.3	.7	4	SER
		11	7	4	16.35	19 21.54	155 12.61	2.63	1.0	.1	12	0	113	.06	2	.3	.5	8	SER
		11	7	8	17.96	19 22.08	155 11.56	2.14	1.5	.6	17	1	110	.06	3	.4	.3	8	SER
		11	714	42.47	19 21.91	155 11.44	3.22	1.5	.4	9	1	169	.04	3	1.0	.6	7	SER	
		11	8	0	33.41	19 22.06	155 12.30	1.90		.3	7	0	125	.09	2	.8	.6	7	SER
		11	8	4	48.41	19 23.34	155 12.52	8.13	.7	.8	0	101	.07	2	.9	1.9	7	SF2	
		11	811	32.00	19 21.87	155 12.32	2.04		.5	8	0	108	.10	2	.6	.8	8	SER	
		11	826	9.42	19 21.64	155 12.85	2.61	.8		12	1	107	.06	2	.4	.6	6	SER	
		11	831	19.53	19 22.65	155 14.15	1.49	1.5	1.5	16	1	75	.07	2	.3	.4	12	SEC	
		11	833	58.27	19 22.07	155 11.36	3.06	1.0	.6	13	0	112	.06	3	.6	.5	9	SER	
		11	834	35.84	19 21.69	155 12.92	2.59	.9	.4	11	0	105	.03	2	.5	.6	9	SER	
		11	855	9.90	19 21.65	155 11.76	1.86			9	1	123	.08	3	1.1	.5	3	SER	
		11	859	51.06	19 21.73	155 11.30	1.68		.1	10	1	128	.04	3	.5	.4	4	SER	
		11	9	3	56.53	19 21.77	155 13.11	3.13	.7		7	1	164	.02	2	.7	.6	5	SER
		11	9	6	15.79	19 21.80	155 12.37	2.46	.8	.1	9	0	115	.07	2	.5	.6	7	SER
		11	9	6	59.62	19 21.52	155 12.72	2.44	1.0	.8	12	1	111	.03	2	.3	.5	6	SER
		11	918	20.66	19 21.70	155 12.54	3.20	2.0	1.7	19	1	72	.03	2	.3	.5	15	SER	
		11	930	59.61	19 21.52	155 12.73	1.24	.7		9	1	111	.05	2	.6	.8	4	SER	
		11	947	34.55	19 20.35	155 13.29	3.64	.8	.6	8	1	178	.09	4	1.0	1.9	0	SSF	
		11	1013	35.08	19 20.28	155 12.57	2.03	.6		5	0	214	.03	4	.8	1.4	3	SSF	
		11	1029	50.34	19 21.70	155 12.21	1.97	.7	.4	10	2	115	.05	2	.4	.5	4	SER	
		11	1032	43.12	19 21.82	155 12.97	3.08	.7	.1	7	1	101	.02	2	.5	.6	4	SER	
		11	1034	37.95	19 21.68	155 12.96	2.67	.8		9	0	104	.03	2	.4	.6	6	SER	
		11	1043	7.04	19 20.15	155 12.89	8.06	1.1	.2	14	2	134	.05	5	.6	1.5	10	SF2	
		11	1052	42.80	19 21.97	155 11.90	3.60	.8	.2	8	1	110	.05	4	1.0	2.0	3	SER	
		11	11	0	6.64	19 21.74	155 12.37	1.97	.7		8	2	114	.04	2	.4	.5	5	SER
		11	11	7	8.48	19 21.76	155 12.24	1.98	.6		8	1	112	.05	2	.6	.3	3	SER
		11	1117	5.09	19 21.77	155 12.94	2.75	.9	.6	15	1	102	.05	2	.5	.4	6	SER	
		11	1122	27.80	19 21.68	155 13.03	2.83	1.0	.7	16	1	103	.07	2	.4	.5	13	SER	
		11	1130	45.34	19 21.64	155 11.62	3.00	.7	.7	9	0	126	.04	3	.7	.5	3	SER	
		11	1139	54.25	19 21.71	155 12.52	2.23	.5		8	2	169	.05	2	.7	.4	4	SER	
		11	1140	24.09	19 22.72	155 13.75	.27			6	0	133	.03	1	.4	.9	4	SER	
		11	12	1	46.74	19 21.94	2.12	.5		8	0	151	.07	2	.7	.4	5	SER	
		11	12	2	2.22	19 18.25	7.64	1.2	.3	11	1	184	.05	4	.8	1.5	5	SF3	
		11	12	5	7.48	19 21.66	2.93	.7	.4	11	0	112	.10	2	.5	.5	6	SER	
		11	12	8	44.48	19 21.86	2.91	.6		6	1	162	.03	1	.7	.5	5	SER	
		11	1237	18.21	19 22.08	155 11.60	6.27	1.1	.3	9	0	123	.07	3	.8	2.6	5	SF3	
		11	1239	42.27	19 23.04	155 11.13	1.47			6	1	174	.07	3	2.8	2.3	2	SER	
		11	1242	5.67	19 20.80	155 11.61	3.45			5	0	153	.00	4	.8	1.5	2	SER	
		11	1242	14.24	19 22.37	155 11.36	1.61			7	1	152	.05	3	.8	.5	4	SER	
		11	1244	43.72	19 20.36	155 11.48	2.01		.7	5	0	266	.01	4	7.1	4.3	3	SSF	
		11	1245	16.68	19 21.65	155 12.25	2.23	.6	.5	5	1	174	.01	2	.8	.5	4	SER	
		11	1245	44.43	19 18.46	155 10.75	9.38	.4	.9	0	240	.09	7	2.2	2.9	6	SF3		
		11	1246	34.44	19 22.10	155 10.94	3.11		.6	11	0	114	.03	2	1.1	.4	4	SER	

HVO EARTHQUAKE SUMMARY LIST

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YEAR	MON	DA	HR	MIN	SEC	ORIGIN TIME	LAT N	DEG	MIN	DEG	MIN	DEPTH	KM	AMP	MAG	DUR	NR	NS	GAP	RMS	MIN	ERH	ERZ	NO	REMK	
1980	MAR	11	1255	18.51	19	23.16	155	11.84				1.58					7	1	177	.04	2	.6	.4	3	SER	
		11	1256	26.60	19	23.95	155	10.95				.01					9	0	124	.23	4	.9	2.8	5	SER	
		11	1258	2.62	19	22.79	155	13.00				3.53					.6	8	0	111	.04	0	1.5	.5	4	SER
		11	13	2	46.97	19	21.85	155	13.03			2.91					.6	10	0	148	.03	1	.7	.5	7	SER
		11	1313	45.57	19	19.64	155	6.39				8.40					1.6	17	0	188	.04	6	.8	1.5	10	SF4
		11	1320	32.75	19	21.53	155	12.58				2.73					8	1	113	.04	2	.7	.4	3	SER	
		11	1328	38.65	19	21.66	155	12.38				2.32		.7			6	1	113	.02	2	.9	.4	3	SER	
		11	1333	9.06	19	24.23	155	10.22				9.08					.3	5	0	206	.03	4	3.6	4.3	2	SF3
		11	1333	49.39	19	21.81	155	12.79				3.12					.9	8	0	165	.02	2	.8	.4	4	SER
		11	1336	45.19	19	22.38	155	8.61				22.45					.4	5	1	181	.03	2	8.2	2.1	1	DEP
		11	1339	6.14	19	20.40	155	12.90				1.48					.6	10	0	122	.05	4	.5	1.2	3	SF3
		11	1342	24.51	19	21.35	155	12.33				1.54					.4	8	1	121	.06	3	.4	.8	6	SER
		11	1347	46.66	19	19.27	155	12.93				.00		1.0			8	0	134	.17	4	.6	2.7	5	SF3	
		11	1357	54.24	19	22.78	155	11.92				1.70					1.2	8	0	159	.06	2	1.1	.4	2	SER
		11	1359	12.35	19	21.76	155	12.48				1.46					1.5	8	0	113	.03	2	.6	.6	4	SER
		11	14	0	47.65	19	21.94	155	12.16			2.24					.2	5	0	164	.03	2	1.3	.5	2	SER
		11	14	4	45.71	19	20.58	155	12.70			2.07						4	0	148	.00	4	1.0	1.3	3	SER
		11	14	6	.67	19	21.85	155	12.34			2.63					.1	6	1	196	.02	2	1.6	.4	1	SER
		11	14	6	28.42	19	22.08	155	11.67			2.82						7	2	185	.02	3	2.3	.7	2	SER
		11	1415	14.35	19	21.61	155	12.66				2.76						8	2	172	.06	2	.9	.5	4	SER
		11	1421	32.72	19	21.62	155	12.61				2.91					1.3	14	2	110	.03	2	.4	.5	10	SER
		11	1426	49.25	19	20.27	155	13.03				1.38						5	2	286	.04	4	1.2	1.0	3	SF3
		11	1429	45.06	19	21.73	155	13.01				2.82						7	2	166	.04	2	.9	.4	2	SER
		11	1431	12.66	19	21.99	155	13.66				2.00						8	3	155	.08	2	.4	.4	0	SER
		11	1434	2.16	19	21.95	155	12.26				2.08						7	2	163	.05	2	1.0	.5	3	SER
		11	1441	46.21	19	22.22	155	11.63				2.63					.2	6	1	154	.02	3	1.9	.7	3	SER
		11	1456	12.81	19	21.75	155	12.37				2.15					.5	12	1	156	.04	2	.5	.3	5	SER
		11	1523	2.38	19	18.71	155	13.42				7.57		1.2				13	0	126	.04	3	.7	1.6	9	SF2
		11	1524	2.10	19	20.64	155	15.99				.00					.5	7	1	195	.11	3	.6	.8	0	KOA
		11	1531	17.58	19	21.96	155	12.30				1.85						6	2	163	.03	2	.6	.4	2	SER
		11	1536	43.03	19	24.67	155	12.07				.01						6	1	230	.06	4	.3	.8	0	SER
		11	1547	57.18	19	22.71	155	14.28				2.72						9	2	127	.11	2	.8	.4	2	SEC
		11	1554	22.52	19	21.58	155	12.52				1.07					.7	7	2	174	.01	2	.5	.7	5	SER
		11	1622	36.53	19	23.24	155	14.79				2.49					1.0	10	1	88	.09	3	.5	.7	3	SEC
		11	1623	4.28	19	21.33	155	13.40				2.35					.3	5	1	218	.00	2	1.2	.8	1	SER
		11	1624	7.29	19	21.95	155	12.12				1.96						6	2	163	.04	2	1.4	.5	3	SER
		11	1625	28.43	19	21.62	155	12.42				2.11					.4	11	1	160	.06	2	.6	.5	6	SER
		11	1628	33.38	19	22.85	155	14.24				.98		1.5	1.5	14	1	81	.12	2	.4	.4	.4	9	SEC	
		11	1633	30.54	19	22.55	155	14.13				1.46		.7	1.1	9	0	136	.05	2	.4	.4	.4	6	SEC	
		11	1636	7.53	19	21.72	155	12.39				2.26		1.0	.5	9	0	112	.04	2	.4	.6	.6	7	SER	
		11	1654	47.99	19	22.11	155	12.37				2.44		.6	.2	8	1	126	.09	2	.8	.6	.6	4	SER	
		11	17	5	28.81	19	22.76	155	13.33			4.29		.8	.2	7	2	127	.02	1	.8	.6	.6	3	SER	
		11	1713	26.58	19	21.73	155	12.17				2.37					10	1	115	.02	2	.5	.5	6	SER	
		11	1725	13.92	19	22.03	155	11.66				2.43					.2	10	0	113	.06	3	.9	.5	4	SER
		11	1741	18.74	19	21.52	155	14.59				7.80						6	0	160	.05	3	2.7	1.4	2	SF1
		11	1742	27.60	19	22.98	155	11.32				2.29		.9	.7	9	1	121	.09	3	1.5	1.1	5	SER		
		11	1759	45.63	19	21.66	155	12.37				2.08			.5	9	1	113	.04	2	.5	.4	.4	3	SER	
		11	1813	8.94	19	21.51	155	12.39				1.76		.9	.8	14	0	117	.08	2	.4	.6	.6	9	SER	

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HVO EARTHQUAKE SUMMARY LIST

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		ORIGIN TIME			LAT N		LON W		DEPTH	AMP	DUR	GAP			RMS	MIN	ERH	ERZ	NO			
YEAR	MON	DA	HR	MIN	SEC	DEG	MIN	DEG	MIN	KM	MAG	MAG	NR	NS	DIS	DIS	KM	KM	KM	FM	REMK	
1980	MAR	11	1822	.01	19	22.00		155	10.92	4.36			.7	15	1	120	.09	2	.6	.7	7	SER
		11	1832	53.34	19	22.12		155	13.27	2.96	.7		.2	12	1	152	.07	1	.5	.3	4	SER
		11	1838	25.92	19	21.70		155	12.38	2.25	.7		10	1	112	.06	2	.5	.5	5	SER	
		11	1840	13.68	19	21.33		155	12.36	2.07	.5		8	1	122	.04	3	.5	.7	3	SER	
		11	1840	49.06	19	22.38		155	11.58	3.11			6	1	147	.04	3	1.8	1.2	4	SER	
		11	1841	42.58	19	21.45		155	12.66	2.36	.8	.2	14	2	113	.05	2	.4	.5	4	SER	
		11	1851	20.25	19	22.78		155	13.59	3.00	.9	.7	14	1	71	.11	1	.4	.3	8	SER	
		11	1855	54.44	19	20.32		155	13.48	.51			6	0	117	.05	4	.5	1.8	3	SF3	
		11	1858	33.18	19	21.64		155	13.66	1.46	1.3	1.7	13	1	94	.04	2	.3	.6	12	SER	
		11	19	5	35.39	19	22.17	155	12.11	2.05			6	1	156	.02	2	.9	.4	2	SER	
		11	19	8	42.58	19	21.80	155	12.18	1.88	.7	.2	8	2	112	.04	2	.4	.5	5	SER	
		11	19	9	19.87	19	21.31	155	13.01	.42			7	2	179	.10	2	.4	.8	3	SER	
		11	1926	52.04	19	21.53		155	12.48	2.18	.6		7	1	115	.07	2	.6	.7	4	SER	
		11	1945	5.37	19	15.33		155	11.29	5.28		.9	6	0	299	.16	13	10.6	39.5	0	SF3	
		11	20	5	33.96	19	22.69	155	10.64	2.03		.4	7	1	175	.07	4	3.2	1.2	1	SER	
		11	2010	53.95	19	21.67		155	12.20	2.95			8	1	173	.02	2	1.4	.5	3	SER	
		11	2012	11.90	19	23.21		155	12.41	2.09			7	1	142	.06	2	.7	.5	2	SER	
		11	2017	39.61	19	19.37		155	11.49	7.59		.9	16	1	167	.05	6	.6	1.1	9	SF3	
		11	2026	29.77	19	21.62		155	12.10	3.35		.4	9	1	118	.07	3	.5	.9	6	SER	
		11	2028	30.81	19	19.68		155	12.38	6.73		.7	10	1	214	.05	6	.9	1.8	4	SF2	
		11	2029	26.90	19	22.72		155	14.91	1.46	2.2	2.5	18	2	69	.06	2	.3	.2	3	SER	
		11	2033	19.35	19	22.26		155	14.68	1.58		1.0	9	1	129	.02	2	.5	.4	3	SER	
		11	2039	4.48	19	22.92		155	14.96	1.32		1.0	7	2	121	.03	2	.7	.5	3	SER	
		11	2043	17.50	19	21.66		155	13.80	1.41		1.8	14	1	93	.05	2	.3	.6	8	SER	
		11	2044	45.30	19	21.59		155	13.76	1.15	1.6	.9	9	0	150	.03	2	.5	.8	5	SER	
		11	2045	50.60	19	23.44		155	3.84	5.18		.6	10	0	249	.08	2	4.3	1.1	4	SF5	
		11	2053	15.13	19	22.11		155	13.90	2.65		7	2	183	.13	2	1.0	.8	0	SER		
		11	2053	24.10	19	23.37		155	13.28	3.69		7	2	148	.03	1	1.0	.5	1	SER		
		11	2057	45.36	19	21.19		155	11.81	3.43		.4	6	1	257	.03	3	4.0	1.0	3	SER	
		11	2117	59.68	19	21.88		155	13.04	2.89		.6	9	1	148	.03	1	.7	.3	5	SER	
		11	2122	55.09	19	21.69		155	13.23	2.77	1.7	1.7	15	0	72	.07	2	.7	.5	8	SER	
		11	2123	54.72	19	23.11		155	11.87	.53	1.9	1.9	18	2	174	.13	2	.5	.7	11	SER	
		11	2125	52.01	19	21.86		155	13.01	2.96		1.2	16	0	100	.06	1	.5	.3	9	SER	
		11	2126	14.39	19	22.03		155	13.15	5.37	1.9	1.7	18	1	51	.09	1	.5	1.3	11	SF2	
		11	2127	15.99	19	21.85		155	13.10	3.29	1.9	1.7	18	0	96	.07	5	.5	1.0	9	SER	
		11	2127	59.00	19	22.00		155	13.21	3.07	1.6	1.8	19	0	50	.07	1	.5	.3	9	SER	
		11	2129	1.91	19	22.12		155	13.01	3.44	1.4	1.3	13	1	94	.12	1	.5	1.1	5	SER	
		11	2130	11.41	19	21.91		155	13.13	3.02			6	1	160	.03	1	1.2	.5	2	SER	
		11	2132	20.79	19	21.79		155	13.11	2.99	.8		6	1	163	.02	2	.9	.5	4	SER	
		11	2132	45.84	19	21.80		155	13.11	3.05		.2	8	0	163	.02	2	.6	.6	5	SER	
		11	2132	58.20	19	21.90		155	13.12	2.85		.2	10	0	146	.05	1	.6	.4	5	SER	
		11	2133	13.44	19	22.30		155	12.95	3.10		.5	9	1	138	.07	1	.7	.4	5	SER	
		11	2133	26.87	19	21.79		155	12.99	2.60	2.3	2.3	22	1	54	.09	2	.3	.4	18	SER	
		11	2134	24.83	19	22.39		155	12.57	2.65		.1	6	1	147	.03	1	1.3	.4	3	SER	
		11	2134	49.08	19	21.93		155	13.11	2.57	.6	.1	13	2	159	.08	1	.5	.3	6	SER	
		11	2135	14.42	19	23.42		155	12.00	.32			1	7	1	183	.04	2	.4	.9	1	SER
		11	2135	46.78	19	22.13		155	13.09	3.23			7	1	145	.10	0	1.0	.5	2	SER	
		11	2136	5.85	19	22.39		155	13.08	2.62	.8		13	1	94	.09	1	.5	.3	8	SER	

HVO EARTHQUAKE SUMMARY LIST

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		ORIGIN TIME			LAT N		LON W		DEPTH				AMP		DUR		GAP		RMS		MIN		ERH		ERZ NO	
YEAR	MON	DA	HRMN	SEC	DEG	MIN	DEG	MIN	KM	MAG	MAG	NR	NS	DEG	SEC	DIS	KM	KM	FM	REMK						
1980	MAR	11	2136	16.94	19	22.88	155	13.52	1.29	.5	.2	9	1	111	.14	1	.6	.2	6	SER						
		11	2137	25.17	19	21.95	155	13.09	2.65	1.4	1.1	16	1	98	.11	1	.4	.4	10	SER						
		11	2138	22.66	19	22.64	155	12.77	2.77	.9	.6	10	2	139	.11	1	1.1	.4	4	SER						
		11	2138	57.43	19	21.70	155	13.09	2.51	1.7	1.8	15	1	78	.08	2	.4	.5	13	SER						
		11	2139	56.90	19	22.02	155	13.06	4.97	1.7	1.9	17	1	96	.09	1	.6	.9	13	SER						
		11	2140	35.25	19	21.83	155	13.06	2.46	1.0	.7	14	1	100	.10	1	.5	.5	9	SER						
		11	2141	2.75	19	21.62	155	12.96	2.17	1.2	1.0	16	1	105	.09	2	.5	.7	8	SER						
		11	2141	54.59	19	21.73	155	13.03	2.51	1.4	1.6	17	2	102	.09	2	.4	.4	14	SER						
		11	2143	22.10	19	30.95	155	6.41	3.66	1.5		6	0	331	.11	18	32.9	77.5	4	GLN						
		11	2143	41.96	19	21.35	155	13.00	2.65	.6		8	1	110	.06	2	.8	.9	5	SER						
		11	2143	59.82	19	21.95	155	12.88	2.82	.9	1.4	14	1	100	.08	1	.4	.4	9	SER						
		11	2144	35.39	19	22.24	155	12.83	7.92	1.3		13	1	94	.17	1	1.3	1.8	5	SF2						
		11	2144	40.31	19	21.95	155	12.85	2.98	2.3	2.2	29	3	53	.07	1	.3	.4	18	SER						
		11	2146	33.58	19	22.07	155	13.06	2.50	1.0	.8	15	1	95	.10	1	.5	.3	9	SER						
		11	2147	46.71	19	21.96	155	13.01	2.45	1.1	1.2	8	1	97	.10	1	.6	.4	6	SER						
		11	2148	14.53	19	21.72	155	12.82	2.99	2.1	1.7	19	1	105	.06	2	.3	.5	17	SER						
		11	2149	24.21	19	22.48	155	13.75	1.48		.9	10	1	141	.11	1	.4	.3	8	SER						
		11	2149	59.69	19	21.81	155	12.99	2.49	.8		10	1	101	.05	2	.4	.4	6	SER						
		11	2150	5.09	19	21.96	155	12.90	2.88	2.0	1.9	18	1	85	.07	1	.4	.3	10	SER						
		11	2150	51.15	19	21.90	155	12.92	1.57		1.3	17	2	101	.07	1	.4	.3	10	SER						
		11	2151	32.62	19	21.52	155	12.57	2.61	.7		12	2	113	.05	2	.3	.5	6	SER						
		11	2151	47.42	19	20.11	155	13.93	.88		.3	6	0	208	.01	5	1.1	2.3	3	SF3						
		11	2152	36.85	19	21.85	155	12.82	2.75	.9		10	1	103	.02	2	.5	.4	5	SER						
		11	2152	55.62	19	21.83	155	13.01	.01	.9	.2	8	1	149	.12	1	.6	1.1	6	SER						
		11	2152	56.11	19	21.87	155	12.97	2.69			7	2	162	.02	1	.6	.5	5	SER						
		11	2154	6.94	19	22.01	155	12.77	2.84	.6		7	1	159	.03	1	.8	.5	4	SER						
		11	2154	49.35	19	21.87	155	13.02	2.77	2.1	2.2	23	2	52	.07	1	.3	.4	18	SER						
		11	2159	44.46	19	21.56	155	13.17	2.57	.8	.8	16	2	104	.06	2	.4	.5	8	SER						
		11	22	5	36.80	19	22.06	155	10.40	4.79	1.1	.5	7	0	178	.11	5	1.8	3.1	7	SER					
		11	22	7	12.72	19	21.48	155	12.96	2.18	.9	.4	15	2	109	.10	2	.4	.6	8	SER					
		11	2211	.55	19	21.75	155	13.39	2.62	.8	.6	16	2	97	.09	2	.4	.5	11	SER						
		11	2218	54.38	19	21.59	155	12.60	2.75			10	1	112	.05	2	.5	.5	4	SER						
		11	2233	59.51	19	21.63	155	13.82	1.42	.6	.5	13	1	92	.06	2	.3	.6	10	SER						
		11	2235	32.63	19	22.61	155	15.10	1.86		.5	5	0	202	.02	1	1.4	.4	2	SEC						
		11	2238	3.92	19	22.79	155	9.85	10.55			7	0	151	.03	1	.8	2.3	4	SF3						
		11	2259	48.96	19	21.90	155	12.36	2.42	.8	.5	13	2	106	.05	2	.5	.4	6	SER						
		11	2355	12.00	19	18.84	155	15.34	8.15		1.2	15	2	120	.04	4	.6	1.2	11	SF1						
		12	0	4	34.74	19	21.88	155	12.36	2.41	.6	.2	6	1	165	.01	2	1.4	.8	5	SER					
		12	016	54.46	19	22.70	155	14.96	1.23	2.1	2.5	18	1	95	.06	2	.3	.3	13	SEC						
		12	036	34.03	19	21.53	155	12.60	2.55	.7	.4	11	2	113	.06	2	.4	.5	6	SER						
		12	042	42.30	19	22.55	155	12.05	2.07	.7	.9	6	2	188	.03	2	3.6	.7	4	SER						
		12	046	33.81	19	21.66	155	12.19	1.99	.6	.3	9	2	116	.04	2	.6	.7	6	SER						
		12	130	.33	19	17.46	155	12.54	6.14	1.5	1.0	16	1	197	.08	2	1.1	1.4	10	SF2						
		12	141	22.34	19	22.29	155	14.70	1.42	1.7	2.3	17	1	75	.06	2	.2	.4	12	SEC						
		12	2	4	45.34	19	21.73	155	12.53	2.84			7	2	169	.01	2	.7	.5	4	SER					
		12	212	27.87	19	19.96	155	11.20	9.38		.8	14	1	162	.04	5	.7	1.4	9	SF3						
		12	241	25.13	19	21.83	155	12.40	2.31	.9	.9	16	1	108	.06	2	.4	.4	12	SEC						
		12	257	52.71	19	21.51	155	14.18	1.92	3.9	4.5	35	0	57	.13	3	.2	.5	33	KOA						

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YEAR	MON	DA	HR	MIN	SEC	ORIGIN TIME	LAT N	DEG	MIN	LON W	DEG	MIN	DEPTH	KM	AMP	MAG	DUR	MAG	NR	NS	GAP	RMS	MIN	ERH	ERZ	NO	REMK	
1980	MAR	12	3	1	.93	19	21.31	155	14.24	2.09	1.3	.4	13	2	91	.07	3	.3	.8	9	KOA							
		12	3	1	24.26	19	21.20	155	15.28	1.98		1.0	13	2	77	.05	2	.3	.6	9	KOA							
		12	3	5	30.76	19	21.92	155	13.87	1.66	1.0		12	2	88	.08	2	.4	.5	8	SEC							
		12	3	9	43.74	19	22.18	155	13.98	1.58	.6		9	1	147	.12	2	.4	.5	5	SEC							
		12	312	6.70	19	21.74	155	13.93	1.69		.7	8	0	145	.02	2	.7	.7	5	SEC								
		12	313	35.56	19	22.30	155	12.04	2.14		.4	7	1	140	.02	2	.9	.4	3	SEC								
		12	314	32.45	19	21.26	155	14.47	1.98	2.3	2.1	24	0	63	.06	3	.2	.5	19	KOA								
		12	315	51.58	19	21.24	155	15.52	1.99		.6	11	2	163	.19	2	.7	1.0	4	KOA								
		12	316	10.88	19	21.02	155	14.97	.35		.8	2	201	.05	3	.3	.8	1	KOA									
		12	346	25.45	19	21.72	155	13.76	1.61		.4	12	2	147	.07	2	.4	.6	1	SEC								
		12	354	.35	19	17.24	155	12.45	6.60		.7	16	1	213	.08	2	1.2	1.2	4	SF2								
		12	4	3	3.18	19	20.77	155	16.06	1.09	1.7	1.8	11	2	90	.07	3	.4	.7	1	KOA							
		12	448	21.66	19	18.63	155	15.16	8.79		1.1	16	1	125	.05	4	.8	1.4	10	SF1								
		12	510	2.11	19	21.65	155	13.69	1.15	.8	1.0	16	0	94	.06	2	.3	.5	13	SEC								
		12	519	20.87	19	22.11	155	11.14	2.88		1.2	9	1	160	.06	2	1.7	.5	4	SEC								
		12	646	17.91	19	21.38	155	12.43	1.78		.2	7	1	166	.02	3	1.6	2.0	1	SEC								
		12	731	14.28	19	19.97	155	11.71	8.83		.8	13	1	151	.03	5	.7	1.7	7	SF3								
		12	758	20.76	19	21.34	155	15.96	1.27		.8	9	1	87	.08	2	.3	.5	0	KOA								
		12	8	1	59.96	19	20.68	155	15.84	1.32	1.3	1.7	10	0	95	.10	3	.4	.7	9	KOA							
		12	828	10.32	19	21.20	155	11.86	2.06		.4	6	1	129	.05	3	.5	.9	5	SEC								
		12	9	8	55.72	19	20.53	155	6.14	6.84	1.2	.8	11	0	143	.07	5	.9	2.0	11	SF4							
		12	918	16.29	19	21.62	155	12.67	2.92	1.9	1.8	17	1	89	.07	2	.3	.6	14	SEC								
		12	12	0	13.06	19	19.58	155	15.61	8.14	2.4	2.6	31	1	88	.12	3	.5	.8	28	SF1							
		12	1538	2.22	19	18.37	155	12.75	10.00	1.2	.3	16	1	171	.06	3	1.0	1.8	13	SF2								
		12	16	8	55.46	19	20.14	155	8.17	8.63	1.9	2.2	31	0	83	.06	5	.4	.6	25	SF4							
		12	1628	35.87	19	19.56	155	10.63	8.36	1.6	.6	15	1	209	.06	5	1.1	1.5	9	SF3								
		12	18	9	13.33	19	26.40	155	24.27	8.09	2.1	1.8	33	2	51	.12	3	.4	.9	29	KAO							
		12	1942	24.86	19	16.32	155	12.10	7.80		1.3	14	1	245	.07	11	1.2	2.7	11	SF3								
		12	1947	33.69	19	18.56	155	15.78	6.02	1.0	.7	15	1	134	.10	4	.6	1.5	13	SF3								
		12	2151	54.23	19	20.33	155	9.24	8.28	1.4	1.1	17	0	74	.05	3	.6	1.2	17	SF1								
		12	23	5	10.04	19	20.77	155	16.26	1.48	1.9	2.4	23	4	75	.07	2	.2	.4	19	KOA							
		13	043	7.80	19	21.70	155	12.72	3.07	1.0	.7	11	1	107	.04	2	.6	.5	9	SEC								
		13	611	37.66	19	18.89	155	13.23	7.92	1.5	1.7	26	1	80	.12	3	.6	.9	23	SF2								
		13	734	13.32	19	18.02	155	13.00	9.36	1.8	1.8	30	2	142	.10	9	.6	.8	22	SF2								
		13	9	9	29.01	19	21.00	155	16.87	1.69	1.2	1.3	16	3	75	.04	2	.3	.4	12	KOA							
		13	911	43.46	19	18.79	155	13.52	9.83	2.8	2.5	38	0	73	.10	3	.5	.4	37	SF2								
		13	1012	19.14	19	20.52	155	11.93	9.56	1.7	1.3	23	2	109	.07	4	.6	.9	19	SF3								
		13	1134	40.22	19	20.48	155	5.82	8.90	2.0	1.3	20	0	144	.08	5	.9	1.3	19	SF4								
		13	1316	45.65	19	21.69	155	12.62	2.91	1.4	1.0	13	0	109	.05	2	.4	.6	12	SEC								
		13	1558	35.71	19	20.49	155	13.33	9.03	1.6	1.1	18	1	114	.06	4	.6	1.1	16	SF2								
		13	16	8	49.01	19	20.64	155	6.31	8.17	1.9	1.6	20	1	140	.07	4	.7	1.1	19	SF4							
		13	2221	19.68	19	19.61	155	7.83	8.38	1.9	1.6	21	2	159	.06	6	.8	1.2	19	SF4								
		13	2348	43.04	19	15.77	155	12.43	6.15	1.4	1.1	15	1	250	.07	12	1.3	3.6	11	SF2								
		14	3	6	1.76	19	18.60	155	13.55	8.72	1.4	1.1	16	1	119	.06	3	.6	1.2	10	SF2							
		14	416	23.98	19	20.77	155	16.12	1.47	.4	.8	11	1	164	.05	3	.7	.4	7	KOA								
		14	639	23.11	19	20.52	155	9.84	8.26	1.8	1.7	21	2	130	.06	7	.6	1.1	17	SF3								
		14	930	35.26	19	18.45	155	13.83	8.13		1.1	18	0	109	.05	3	.6	1.3	14	SF2								
		14	1017	29.33	19	18.96	155	15.60	8.11	1.6	1.6	28	1	118	.05	4	.4	.8	16	SF1								

HVO EARTHQUAKE SUMMARY LIST

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YEAR	MON	DA	HR	MIN	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	
1980	MAR	14	22	4	8.22	19 20.90	155 6.22	8.26	3.0	3.1	37	2	98	.09	4	.4	.6	24	SF4	
		15	113	41.23	19 20.41	155 17.24	1.84	1.3	1.4	12	0	75	.06	1	.4	.2	5	SWR		
		15	542	9.93	19 26.05	155 23.83	11.59	3.2	2.7	35	0	49	.09	3	.4	.7	25	KA0		
		15	1316	58.86	19 28.53	154 52.51	1.25	2.4	1.2	9	0	309	.09	5	11.8	13.2	1	SLE	*	
		16	215	36.44	19 18.00	155 21.11	3.06	1.6	1.1	16	1	155	.06	4	.7	.5	8	SWR		
		16	537	54.48	19 20.14	155 12.96	9.03	1.6	1.3	21	1	124	.04	5	.5	1.1	13	SF2		
		16	1017	30.48	19 19.02	155 16.20	7.89	1.9	2.1	33	2	119	.05	3	.3	.6	14	SF1		
		16	1032	32.37	19 19.89	155 12.96	7.71	2.1	2.5	34	1	72	.08	5	.4	.8	19	SF2		
		16	12	5	56.64	19 18.32	155 27.11	8.97	1.9	1.6	20	0	127	.07	8	.4	.9	9	LSW	
		16	1446	31.87	19 29.14	155 42.63	9.23		1.2	16	1	236	.10	12	2.0	1.4	3	MLO		
		16	1454	30.95	19 20.76	155 6.40	7.67	2.2	2.6	29	1	137	.08	4	.5	.8	10	SF4		
		17	155	44.46	19 33.73	155 54.32	14.28		1.7	7	0	196	.11	8	2.4	1.6	2	KON		
		17	256	59.92	19 20.39	155 9.31	7.18		1.6	26	0	97	.09	3	.6	.7	10	SF3		
		17	825	30.51	19 16.06	155 11.79	4.69		1.3	12	0	271	.04	12	2.4	13.5	5	SSF		
		17	942	54.21	19 25.84	155 24.10	8.90	1.9	1.7	27	2	48	.10	2	.4	.9	24	KA0		
		17	1141	29.91	19 21.05	155 14.20	33.11	2.3	2.1	38	4	58	.08	4	.6	.9	32	DEP		
		17	1156	26.43	19 21.07	155 5.85	8.89	2.3	2.5	30	2	97	.08	4	.5	.9	26	SF4		
		17	1431	36.43	19 18.06	155 15.56	7.91	1.5	1.3	21	2	152	.05	4	.6	1.1	16	SF1		
		17	2337	56.37	19 21.93	155 2.81	8.19	1.9	1.8	15	0	132	.08	4	.7	1.2	14	SF5		
		18	219	27.61	19 19.47	155 12.14	7.77	1.8	1.3	17	2	153	.04	5	.6	1.1	14	SF3		
		18	324	.74	19 19.56	155 6.06	5.55	1.5	1.3	15	1	168	.10	6	1.0	2.3	9	SF4	*	
		18	1015	25.72	19 22.07	155 16.34	30.64	2.1	1.4	28	3	58	.06	1	.6	1.2	21	DEP		
		18	1029	3.07	19 26.66	155 22.82	4.79	1.9	1.7	19	0	80	.10	4	.4	1.4	17	KA0		
		18	2042	28.53	19 20.17	155 8.64	9.28	1.7	1.3	20	2	144	.06	4	.8	1.1	15	SF4		
		19	612	25.68	19 17.99	155 12.79	9.93	2.6	2.7	33	1	143	.09	9	.5	.5	28	SF2		
		19	1317	10.87	19 22.66	155 2.58	7.20	1.9	1.3	18	2	169	.13	5	.9	1.2	14	SF5		
		19	1552	41.10	19 19.49	155 15.22	8.44	1.3	1.1	20	2	100	.04	4	.5	1.0	17	SF1		
		19	1649	40.73	19 26.17	155 23.93	6.61	2.2	2.4	32	2	49	.13	3	.4	1.0	29	KA0		
		20	158	35.76	19 17.72	155 14.91	8.03	1.4	1.1	16	0	159	.03	3	.7	1.2	13	SF1		
		20	212	11.43	19 23.74	155 24.58	9.43	1.6	.9	25	2	74	.06	3	.4	.8	21	KA0		
		20	240	52.51	19 19.59	155 12.07	8.50	1.5	1.1	20	2	150	.06	5	.6	1.0	13	SF3		
		20	1930	55.10	19 19.19	155 11.44	9.53	2.6	2.9	35	0	103	.08	5	.4	.4	31	SF3		
		21	746	39.84	19 31.56	156 1.83	13.45	3.3	2.8	25	0	232	.12	13	1.9	.5	17	KON	F	
		21	1256	20.21	19 46.26	155 32.32	15.00	3.7	3.5	40	2	89	.10	9	.5	.6	36	KEA	F	
		21	1417	45.67	19 19.10	155 11.94	8.15	2.8	2.9	33	1	101	.11	5	.5	.7	31	SF3	F	
		21	1442	18.17	19 25.88	155 24.17	9.54	2.0	2.1	30	3	48	.10	2	.4	.9	26	KA0		
		21	1552	45.22	19 25.78	155 24.07	8.89	2.8	2.8	38	3	42	.12	2	.4	.7	33	KA0		
		22	1	9	53.53	19 26.52	155 23.61	10.70	3.3	3.1	42	2	46	.10	4	.3	.5	36	KA0	F
		22	444	.14	19 21.67	155 6.50	8.59	1.7	1.4	18	0	118	.07	3	.7	1.3	16	SF4		
		22	852	34.68	19 20.59	155 12.95	9.71	1.6	1.4	21	2	119	.07	4	.6	1.0	17	SF2		
		22	1339	3.89	19 30.65	155 16.16	8.90	1.9	1.2	30	1	59	.11	10	.4	1.2	21	GLN		
		22	1552	57.18	19 24.59	155 24.88	10.15	1.7	1.2	20	0	48	.09	1	.5	1.2	19	KA0		
		22	20	2	21.43	19 20.33	155 11.21	8.14	2.4	2.3	37	3	79	.09	4	.4	.5	30	SF3	
		22	2120	12.49	19 20.41	155 11.47	8.87	1.7	1.6	24	3	117	.06	4	.6	.9	17	SF3		
		23	511	31.07	19 17.55	155 12.80	7.54	1.8	1.1	18	1	139	.09	2	.7	1.0	16	SF2		
		23	1353	27.97	19 10.80	155 29.12	34.55	2.8	2.2	37	4	84	.06	3	.7	1.2	32	DLS		
		23	1951	34.46	19 48.35	156 5.77	36.79	2.5	1.7	28	0	294	.10	40	5.2	3.1	26	HUA		
		24	454	36.47	19 25.35	155 23.84	9.00	1.6	1.2	23	1	47	.09	2	.5	1.0	18	KA0		

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YEAR	MON	DA	HR	MIN	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 FM	NO REMK
1980	MAR	24	1014	16.30	19	22.52	155 27.34	10.31	2.6	2.1	34	1	63	.10	1	.4	.7	28 KA0
		24	1526	29.68	19	20.37	155 6.48	8.05	2.3	2.3	35	2	108	.09	6	.5	.8	26 SF4
		24	1549	8.34	19	19.07	155 10.83	8.04	1.8	1.4	18	1	183	.06	6	.7	1.3	16 SF3
		24	18	1	9.11	19 18.50	155 15.22	8.12	1.7	1.3	19	2	130	.04	4	.6	1.2	14 SF1
		24	1842	50.59	19	59.36	155 50.61	3.09	2.9	2.8	27	1	273	.10	47	1.9	1.4	19 KOH
		24	1920	15.04	19	26.89	154 52.18	7.75	2.4	1.8	21	0	274	.14	4	2.5	.7	13 LER
		25	235	33.76	20	1.45	155 49.60	5.15	2.8	2.1	22	0	193	.09	13	1.0	1.1	21 KOH
		25	1916	31.75	19	59.15	155 50.61	4.84	4.0	3.5	35	3	193	.09	17	.7	.8	28 KOH
		26	1029	6.04	19	19.56	155 10.10	7.70	2.0	1.2	18	2	185	.08	5	.8	1.3	15 SF3
		26	1056	40.08	19	41.95	155 10.39	29.43	3.4	2.5	37	1	168	.10	25	.7	2.2	35 KEA
		26	1435	41.81	19	19.97	155 10.76	8.07	1.8	1.4	18	2	168	.05	4	.7	1.0	15 SF3
		26	15	5	10.03	19 24.48	155 16.36	2.46	1.4	1.3	14	2	134	.07	1	.4	.3	11 SEC
		26	1841	25.22	19	21.37	155 7.95	9.03	2.2	2.4	28	1	74	.06	4	.4	.6	25 SF4
		26	1950	13.81	19	18.30	155 15.10	8.42	1.7	1.5	26	1	136	.08	4	.5	.8	22 SF1
		26	2121	27.85	19	18.68	155 12.82	7.31	1.8	1.7	24	1	95	.09	3	.5	.9	20 SF2
		27	054	16.28	19	21.30	155 6.10	7.89	1.9	1.3	19	1	90	.09	6	.5	1.1	18 SF4
		27	433	52.72	19	26.84	155 30.03	7.50	1.9	1.2	19	0	94	.15	9	.7	2.3	17 KA0
		27	729	58.18	19	20.16	155 13.09	8.40	1.5	1.2	16	2	129	.04	5	.6	1.5	13 SF2
		27	830	27.74	19	19.92	155 8.15	7.70	1.8	1.6	25	1	116	.09	5	.5	.8	20 SF4
		27	1249	36.45	19	21.07	155 2.17	7.36	2.3	1.5	24	1	168	.16	3	1.0	.8	20 SF5
		27	1521	9.78	19	20.47	155 12.96	8.82	1.6	1.3	18	2	125	.06	4	.6	1.2	15 SF2
		27	1736	8.93	19	19.78	155 10.32	9.00	1.8	1.4	17	0	178	.04	4	.8	1.2	15 SF3
		27	2324	2.61	19	19.31	155 17.15	34.48	3.3	2.9	36	0	103	.10	2	.7	1.3	35 DEP
		28	351	47.99	19	19.12	155 11.44	8.93	1.8	1.3	19	1	172	.06	5	.7	1.2	17 SF3
		28	715	35.15	19	19.56	155 12.05	9.46	2.9	2.6	37	0	89	.11	5	.4	.4	31 SF3
		28	720	12.84	19	19.44	155 12.34	6.61	1.7	1.1	19	1	118	.07	5	.6	1.3	18 SF2
		28	832	3.02	19	23.99	155 28.18	9.31	3.1	2.8	37	1	31	.12	3	.4	.7	32 KA0
		28	1932	30.12	19	18.72	155 16.07	8.48	1.5	1.1	19	1	129	.04	4	.5	1.1	14 SF1
		28	2012	54.67	19	21.72	155 6.18	7.31	1.7	1.7	29	1	82	.11	6	.5	1.0	25 SF4
		28	21	9	23.59	19 26.86	155 23.33	4.19	1.3	1.1	14	0	73	.07	4	.4	1.2	12 KA0
		29	5	5	34.98	19 20.53	155 12.54	8.44	1.9	1.7	28	2	68	.11	4	.5	.7	24 SF2
		30	1022	19.02	19	20.64	155 9.51	8.07	1.8	1.7	30	2	71	.07	3	.4	.8	25 SF3
		30	1733	39.93	19	19.93	155 11.55	9.67	1.8	1.4	18	0	156	.06	5	.7	1.3	16 SF3
		31	030	39.97	19	23.02	155 14.88	2.88	1.8	1.4	16	2	64	.13	2	.4	.5	12 SEC
		31	338	45.21	19	17.12	155 22.57	7.02	2.3	2.4	35	0	124	.16	6	.5	1.1	33 SWR
		31	4	0	24.96	19 24.13	155 25.46	10.52	2.3	1.7	33	2	43	.10	2	.4	.6	25 KA0
		31	850	18.22	19	24.65	155 24.87	8.37	2.1	1.8	28	1	47	.12	1	.5	.9	23 KA0
		31	854	38.63	19	24.59	155 24.78	8.26	1.5	1.6	23	0	46	.10	1	.5	.9	17 KA0
		31	11	9	20.45	19 19.31	155 8.30	8.16	2.2	1.8	24	1	87	.08	4	.5	.7	20 SF4
		31	1623	33.16	19	29.84	155 38.24	3.77	2.3	1.8	12	0	261	.09	4	2.6	1.1	10 MLO
		31	1647	38.09	19	19.61	155 12.44	5.26	1.6	1.2	24	3	83	.11	5	.5	1.5	16 SF2
		31	1659	45.80	19	17.61	155 12.70	7.95	1.9	1.4	25	2	139	.10	2	.6	1.0	16 SF2
		31	2339	52.02	19	21.26	155 27.92	9.42	2.0	2.3	31	1	69	.11	2	.4	1.0	25 KA0
		31	2346	13.08	19	23.04	155 16.84	2.83	1.3	1.8	16	0	68	.07	1	.3	.2	13 SSC
		APR	1	429	24.15	19 26.13	155 37.98	3.38	2.2	1.1	12	0	188	.09	4	.8	1.0	9 MLO
		1	535	14.53	19	21.10	155 .61	5.24	2.1	1.2	20	3	202	.13	5	.8	2.0	14 SF5
		1	11	1	34.12	19 24.85	155 26.02	9.59	2.0	1.3	22	1	50	.11	2	.4	.9	19 KA0
		1	1850	8.78	19	19.43	155 9.20	5.00	1.9	1.4	24	2	108	.09	4	.5	1.5	19 SS

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		ORIGIN TIME		LAT N		LON W		DEPTH		AMP		DUR		GAP		RMS		MIN		ERH		ERZ NO	
YEAR	MON	DA	HRMN	SEC	DEG	MIN	DEG	MIN	KM	MAG	MAG	NR	NS	DEG	SEC	DIS	KM	KM	FM	REMK			
1980	APR	2	155	39.33	19	20.06	155	8.44	8.54	2.8	2.6	34	1	79	.09	4	.4			.6	27	SF4	
		2	3	6	43.72	19	20.21	155	6.46	7.41	1.9	1.2	25	1	113	.10	6	.4		1.0	19	SF4	
		2	321	40.43	19	19.88	155	12.48	6.96	1.6	1.7	25	1	78	.12	5	.5		1.1	21	SF2		
		2	536	50.05	19	19.82	155	12.45	7.21	1.6	1.5	26	1	79	.12	5	.5		.9	20	SF2		
		3	151	6.91	19	19.82	155	7.96	8.77	2.6	2.2	31	1	93	.09	5	.5		.6	25	SF4		
		3	741	10.57	19	18.79	155	13.53	10.58	2.6	2.6	28	2	84	.09	3	.5		.7	25	SF2		
		3	825	45.97	19	18.03	155	16.53	8.87	2.8	2.4	39	3	124	.12	4	.4		.5	35	SF1		
		3	1127	2.68	19	25.91	155	23.96	10.03	2.5	1.7	37	3	43	.11	2	.4		.7	29	KAO		
		3	1946	16.93	19	26.92	154	50.71	9.54	2.4	1.4	26	4	280	.12	6	1.6		.5	17	LER		
		3	2050	50.29	19	23.57	155	26.05	9.59	2.0	1.4	37	2	45	.10	3	.4		.7	26	KAO		
		4	043	1.92	19	44.49	154	51.63	39.46	2.8	2.1	34	0	273	.10	18	3.3	3.6	31	HIL			
		4	535	8.17	19	21.19	155	12.00	40.11	2.1	1.5	33	2	69	.08	3	.9	1.6	30	DEP			
		4	1216	46.12	19	25.80	155	25.36	6.68	2.3	1.9	31	2	51	.13	1	.4	1.0	26	KAO			
		4	1417	11.54	19	23.62	155	.36	8.50	1.9	1.2	24	1	207	.12	4	.9	.6	14	SF5			
		4	2110	4.39	19	27.64	155	35.05	10.52	2.7	2.3	11	0	61	.08	1	.6	1.1	3	MLO			
		5	448	46.07	19	18.13	155	12.87	9.70	2.7	2.6	34	1	140	.07	8	.5	.5	26	SF2			
		5	1445	51.76	19	25.34	155	32.03	10.71	2.0	1.4	14	0	73	.11	8	.7	2.0	4	MLO			
		6	929	3.52	19	19.15	155	12.09	7.13	1.9	1.6	31	1	98	.10	5	.4	.7	24	SF3			
		6	1040	35.68	19	20.59	155	6.00	6.15	2.2	1.9	32	3	107	.09	6	.4	1.0	22	SF4			
		6	20	8	29.45	19	20.38	155	12.97	6.53	1.6	1.4	29	1	66	.12	4	.4	.8	24	SF2		
		7	012	9.40	19	19.67	155	11.29	8.66	2.2	2.2	29	1	92	.09	5	.5	.8	25	SF3			
		7	017	41.64	19	22.52	155	27.20	10.05	3.4	3.3	38	2	62	.12	1	.4	.6	36	KAO			
		7	332	53.53	19	20.30	155	13.21	7.58	1.6	1.3	30	1	65	.12	4	.5	.7	26	SF2			
		7	1338	34.45	19	18.02	155	15.29	7.60	1.5	1.1	22	1	151	.06	4	.5	.9	15	SF1			
		7	18	6	17.89	19	26.79	155	29.64	9.18	2.5	1.4	31	2	55	.10	8	.4	.8	22	KAO		
		7	2218	47.49	19	19.94	155	13.12	9.23	2.3	1.9	33	0	70	.08	5	.4	.6	29	SF2			
		8	812	56.41	19	23.52	155	8.01	8.97	1.9	1.3	8	0	152	.07	4	1.2	1.7	6	SF4			
		8	1924	8.94	19	11.48	155	39.14	7.49	2.9	2.6	33	2	107	.18	17	.5	1.3	20	LSW			
		9	417	8.02	19	17.24	155	37.70	6.02	2.4	1.8	17	0	246	.11	9	1.6	1.4	13	LSW			
		9	555	39.41	19	22.84	155	24.38	10.88	2.6	2.2	35	2	41	.09	5	.4	.5	31	KAO			
		9	557	34.25	19	22.73	155	24.35	10.62	2.7	2.8	38	3	40	.11	5	.4	.6	32	KAO			
		9	629	10.54	19	23.37	155	25.89	7.52	1.6	1.2	27	3	65	.11	3	.4	1.0	20	KAO			
		9	1216	24.15	19	24.78	155	24.49	4.20	2.1	1.8	30	1	44	.12	1	.4	.9	27	KAO			
		10	640	22.21	19	32.12	155	41.40	9.59	1.7	1.1	19	1	228	.10	11	1.1	1.5	12	MLO			
		10	23	1	16.41	19	18.83	155	11.94	7.75	1.6	1.0	15	1	168	.06	4	.6	1.0	11	SF3		
		11	030	30.64	20	5.00	156	47.11	52.88		2.6	5	2	314	.01105	4.8	9.8	2	DIS				
		11	121	4.60	19	22.99	155	14.79	3.25	1.8	1.5	21	2	65	.07	2	.3	.4	13	SEC			
		11	321	29.93	19	20.62	155	12.86	8.50	2.0	1.3	29	1	64	.09	4	.5	.8	23	SF2			
		11	1012	46.86	19	24.56	155	.51	1.09	1.8	1.2	17	2	190	.12	7	.9	1.0	12	SME			
		11	1325	51.76	19	21.28	155	6.75	7.05	2.0	1.4	20	2	127	.09	6	.6	1.4	15	SF4			
		11	1459	35.56	19	18.98	155	13.64	7.35	2.1	1.6	32	1	69	.10	4	.4	.8	22	SF2			
		11	16	3	21.68	19	19.59	155	7.39	7.22	2.0	1.7	28	3	109	.10	4	.5	1.0	21	SF4		
		11	1832	51.71	19	21.87	155	.84	5.61	1.6	1.2	18	1	182	.10	5	.6	1.6	9	SF5			
		12	7	1	53.75	19	19.11	155	15.40	7.15	1.9	1.4	28	2	112	.10	4	.5	.8	24	SF1		
		12	940	9.56	19	23.21	155	29.72	9.60	3.2	3.1	42	4	56	.09	4	.3	.6	35	KAO			
		12	1927	38.03	19	23.06	155	2.31	7.27	2.3	1.5	26	1	133	.13	4	.5	.9	18	SF5			
12	1935	26.61	19	28.28	155	26.03	9.59	1.8	1.3	23	3	78	.09	6	.4	.9	16	KAO					
12	1954	6.42	19	19.73	155	11.88	7.89	2.0	1.2	18	2	153	.04	6	.6	1.1	14	SF3					

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YEAR	MON	DA	HRMN	SEC	ORIGIN	LAT N	LON W	DEPTH	AMP	DUR	GAP	RMS	MIN	ERH	ERZ	NO	REMK	
						DEG MIN	DEG MIN	KM	MAG	MAG	NR	NS	DEG	SEC	DIS	KM	KM FM REMK	
1980	APR	13	1353	47.01	19	29.91	155 34.75	8.42	2.3	1.7	13	0	99	.09	3	.7	1.0 7 MLO L	
		13	1845	2.66	19	50.79	155 32.19	23.85	2.0	1.4	25	1	195	.08	11	1.0	2.1 23 KEA	
		14	1546	13.64	19	17.49	155 21.08	8.59	2.2	1.8	32	3	126	.09	4	.4	.6 20 SWR	
		14	16	0	25.21	19	20.48	155 11.30	7.59	2.4	2.0	33	3	77	.10	4	.4	.6 25 SF3
		14	1625	5.37	19	19.81	155 10.95	8.63	2.1	1.7	29	3	90	.09	5	.4	.6 19 SF3	
		15	140	29.34	19	27.25	155 21.19	9.33	2.4	1.7	29	3	52	.10	1	.4	.7 21 KAO	
		15	515	22.91	19	15.46	155 6.48	46.22	2.6	2.2	38	0	201	.09	4	1.1	1.9 38 DEP	
		15	1929	26.60	19	19.97	155 11.50	8.93	2.0	1.4	26	1	85	.09	5	.5	.7 22 SF3	
		16	216	21.01	19	19.98	155 8.41	7.76	1.8	1.2	21	2	149	.09	5	.8	1.2 16 SF4	
		16	2030	44.86	19	21.76	155 4.89	8.83	3.0	3.1	38	1	79	.10	5	.5	.5 35 SF5	
		16	2213	.90	19	10.12	155 28.82	33.65	3.4	3.0	39	2	101	.07	2	.7	1.3 35 DLS	
		16	2230	29.68	19	20.28	155 11.63	8.71	2.1	2.1	34	0	79	.11	5	.4	.6 30 SF3	
		17	354	28.80	19	27.07	155 27.93	8.37	1.8	1.1	22	1	74	.09	6	.4	1.2 18 KAO	
		17	12	7	7.19	19	21.35	155 2.78	5.51	2.4	1.7	21	2	137	.12	3	.5	1.0 12 SF5
		17	1414	45.45	19	27.27	156 3.00	42.75	3.2	2.8	36	1	238	.09	14	1.3	1.9 35 KON	
		17	1616	45.50	19	27.05	155 14.39	33.06	3.2	2.8	43	3	39	.10	4	.6	1.1 40 DEP	
		17	1620	4.41	19	27.25	155 14.40	32.63	3.0	2.6	44	4	40	.10	5	.6	1.0 40 DEP	
		17	1622	5.41	19	22.35	155 18.70	31.63	3.1	2.8	45	4	36	.10	3	.6	.9 40 DEP	
		18	132	2.81	19	24.79	155 23.71	9.47	1.9	1.3	26	3	58	.09	3	.4	.9 23 KAO	
		18	753	38.27	19	25.44	155 29.82	11.26	2.4	1.2	29	3	64	.06	7	.4	.8 24 KAO	
		18	9	6	50.94	19	25.67	155 .81	3.45	1.9	1.9	20	1	95	.09	4	.4	.9 11 SME
		18	2155	15.79	19	17.49	155 12.87	7.32	1.6	1.1	19	2	183	.05	1	.6	.9 15 SF2	
		18	2220	54.55	19	26.29	155 25.15	6.13	2.9	3.1	40	2	37	.12	2	.4	.9 32 KAO F	
		18	2244	48.88	19	19.57	155 10.98	7.49	1.6	1.1	17	2	172	.05	5	.7	1.3 12 SF3	
		19	059	41.98	19	31.40	155 40.92	9.07	1.9	1.7	22	1	224	.09	11	1.0	.9 16 MLO	
		19	423	2.32	19	19.80	155 11.07	8.91	2.7	2.8	37	1	91	.10	5	.4	.6 34 SF3	
		19	13	7	45.15	19	28.40	154 50.79	10.34	2.5	2.2	28	3	276	.13	5	1.4	.5 19 LER
		19	1359	23.47	19	19.41	155 11.12	8.63	1.5	1.0	19	1	172	.08	5	.7	1.0 15 SF3	
		19	1444	56.33	19	20.03	155 7.99	8.77	1.6	1.1	21	2	149	.05	5	.8	1.2 17 SF4	
		19	1622	2.42	19	26.25	155 23.86	9.02	2.4	2.0	39	4	37	.11	3	.4	.7 30 KAO	
		19	1642	59.76	19	20.35	155 11.08	8.11	1.7	1.1	21	3	159	.05	4	.6	.8 15 SF3	
		19	1749	23.57	19	20.99	155 11.02	7.63	2.3	2.1	34	3	75	.13	3	.4	.6 28 SF3	
		20	022	25.21	19	25.12	155 24.84	9.75	2.1	1.9	34	5	44	.12	1	.4	.6 27 KAO	
		20	1710	12.56	19	25.79	155 24.48	8.73	2.1	1.4	28	3	51	.10	2	.4	.8 23 KAO	
		20	2031	45.75	19	25.65	155 25.10	6.80	2.2	2.0	36	1	36	.13	1	.4	.9 29 KAO	
		20	2056	47.64	19	19.73	155 8.75	7.56	1.8	1.2	22	2	181	.09	5	.9	1.2 18 SF4	
		21	530	34.41	19	19.77	155 11.67	7.44	2.5	2.6	38	4	88	.12	5	.4	.7 30 SF3	
		21	12	1	20.70	19	20.20	155 8.64	7.25	1.5	1.3	16	0	193	.08	4	.9	1.4 14 SF4
		21	1736	55.60	19	20.86	155 13.24	7.84	2.0	1.9	38	3	59	.15	3	.5	.6 31 SF2	
		21	2025	13.98	19	21.51	155 6.53	7.07	1.9	1.5	31	2	83	.09	6	.4	1.0 22 SF4	
		21	2129	12.30	19	19.83	155 6.07	7.14	1.5	1.1	21	2	161	.09	6	.6	1.4 9 SF4	
		21	2227	56.50	19	59.46	155 48.43	7.26	2.3	1.7	25	2	178	.09	16	.8	1.0 23 KOH	
		22	533	27.54	19	26.74	155 38.74	3.43	2.4	2.3	17	0	209	.09	4	.9	1.0 15 MLO	
		22	710	15.36	18	50.11	155 35.88	17.90	2.1	1.9	24	2	293	.08	18	2.0	3.1 21 DLS	
		22	14	3	48.38	19	19.69	155 9.95	8.08	1.7	1.2	18	2	185	.07	4	.7	1.0 13 SF3
		22	1515	35.72	19	20.76	155 13.19	9.35	2.5	2.6	35	1	60	.10	3	.4	.6 32 SF2	
		22	1532	55.80	19	26.72	155 23.27	9.16	1.8	1.4	25	3	70	.10	4	.5	.9 20 KAO	
		22	17	9	34.71	19	19.43	155 12.24	8.37	1.7	1.3	19	1	151	.07	5	.7	1.2 16 SF3

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		ORIGIN TIME			LAT N		LON W		DEPTH		AMP		DUR		GAP		RMS		MIN		ERH		ERZ NO	
YEAR	MON	DA	HRMN	SEC	DEG	MIN	DEG	MIN	KM	MAG	MAG	NR	NS	DEG	SEC	DIS	KM	KM	FM	REMK				
1980	APR	23	2	3	23.53	19	19.37	155	12.41	7.18	1.7	1.2	17	1	141	.07	5	.6	1.3	13	SF2			
		23	3	3	18.17	19	19.45	155	10.39	10.38	1.8	1.5	23	0	99	.08	5	.6	1.2	20	SF3			
		23	518	28.98	19	20.90	155	7.46	8.41	1.9	1.4	21	0	134	.06	4	.7	1.1	20	SF4				
		23	1846	38.51	19	21.66	155	.11	7.09	2.5	2.4	30	1	196	.14	6	.9	.7	22	SF5				
		23	2030	57.01	19	17.85	155	13.01	6.89	1.7	1.3	22	1	148	.10	2	.6	1.1	18	SF2				
		24	416	5.57	19	22.94	154	58.47	4.80	2.2	1.5	21	1	197	.12	10	.9	3.4	15	SLE				
		24	449	18.95	19	20.04	155	7.58	8.79	1.9	1.5	21	1	151	.06	5	.8	1.2	20	SF4				
		24	624	36.79	19	19.55	155	10.06	6.58	1.8	1.6	35	2	95	.10	5	.5	.8	26	SF3				
		24	1045	16.73	19	25.83	155	24.63	8.18	2.1	1.5	32	2	52	.12	1	.4	.9	29	KAO				
		24	1252	35.20	19	19.62	155	11.55	8.34	2.1	1.5	34	2	92	.09	5	.4	.7	28	SF3				
		24	1927	23.57	19	20.75	155	12.97	9.15	1.9	1.4	32	2	63	.09	3	.4	.6	25	SF2				
		25	023	50.38	19	19.23	155	15.84	9.28	2.7	2.1	33	3	111	.11	3	.5	.6	28	SF1				
		25	821	21.08	19	20.19	155	12.77	9.10	2.1	1.6	25	1	71	.12	5	.5	.9	23	SF2				
		25	1547	37.65	19	19.79	155	12.65	8.02	2.0	1.2	27	1	78	.09	5	.5	.8	21	SF2				
		25	2027	40.57	19	19.62	155	11.03	5.99	2.4	2.0	29	3	95	.12	5	.4	.7	17	SF3				
		26	531	59.00	19	21.30	155	.66	9.08	2.2	1.3	32	2	197	.07	5	.7	.5	19	SF5				
		26	642	48.40	19	18.91	155	11.89	7.81	1.7	1.1	23	2	158	.06	4	.6	1.0	17	SF3				
		27	2328	33.33	19	15.41	155	19.44	32.53	2.5	1.8	37	2	151	.10	5	.8	1.2	34	DEP				
		27	2336	52.27	19	21.33	155	5.82	7.22	2.1	1.6	25	3	93	.09	3	.4	1.0	16	SF4				
		28	228	13.35	19	26.17	155	29.97	36.85	2.1	1.6	10	1	95	.05	8	1.5	3.3	4	DML				
		28	23	8	16.29	19	20.43	155	10.99	9.05	1.9	1.2	25	3	151	.09	4	.5	.8	18	SF3			
		28	2335	38.01	19	20.29	155	6.40	8.57	2.1	1.3	21	2	149	.08	5	.7	1.2	19	SF4				
		29	149	55.52	20	14.25	155	35.35	26.57	2.9	2.0	30	1	266	.08	23	2.2	2.9	28	KOH				
		29	1436	22.45	19	31.34	155	51.60	9.28	2.3	1.6	19	1	129	.18	7	1.2	.8	13	KON				
29	20	7	14.00	19	20.32	155	11.06	9.18	2.6	2.6	40	3	80	.10	4	.4	.5	30	SF3					
29	2231	40.49	19	25.11	155	22.79	9.32	1.6	1.5	25	1	42	.10	4	.4	.8	21	KAO						
30	029	22.76	19	21.12	155	2.44	7.05	1.6	1.2	15	0	155	.10	2	.6	1.2	12	SF5						
30	044	1.78	19	21.30	155	1.77	8.92	1.7	1.4	24	3	173	.08	3	.6	.9	18	SF5						
30	046	23.64	19	25.07	155	25.20	10.75	3.3	3.4	42	3	31	.12	0	.4	.5	38	KAO						
30	050	39.30	19	25.07	155	25.36	8.80	1.6	1.6	27	2	54	.10	1	.4	.8	19	KAO						
30	539	40.26	19	25.23	155	25.41	9.52	1.6	1.1	26	3	55	.08	1	.5	.9	18	KAO						
30	550	27.48	19	17.95	155	23.42	3.72	1.6	1.7	21	1	112	.11	4	.5	1.2	15	SWR						
30	928	52.49	19	20.02	155	6.22	8.50	2.0	1.1	22	1	156	.08	6	.6	1.1	18	SF4						
30	1622	14.02	19	17.41	155	6.02	10.80	3.4	3.5	40	2	201	.12	7	.8	.5	36	SF4						
MAY		1	125	58.75	19	24.18	155	17.70	16.73	2.5	1.5	41	2	35	.09	2	.4	.3	37	DEP				
		1	435	59.51	19	20.54	155	12.83	9.00	1.6	1.3	28	2	66	.08	4	.5	.7	20	SF2				
		1	1513	49.83	19	11.69	155	36.45	8.25	2.3	1.2	33	2	92	.18	6	.5	.9	18	LSW				
		1	1654	37.73	19	18.53	155	15.18	6.86	1.6	1.0	27	2	129	.10	4	.5	1.1	19	SF1				
		1	1831	56.90	19	25.15	155	25.46	10.34	1.8	1.3	31	2	47	.11	1	.4	.8	26	KAO				
		1	2128	53.25	19	20.58	155	5.83	8.23	2.2	1.5	31	0	109	.09	5	.5	.7	28	SF4				
		2	2044	14.59	19	25.69	154	54.55	8.21	2.4	2.9	26	2	234	.12	4	1.6	.6	21	LER				
		2	22	9	30.60	19	20.54	155	12.03	7.54	1.7	1.9	27	2	73	.08	4	.5	.7	23	SF3			
		3	426	21.02	19	22.11	155	5.25	7.17	1.7	1.3	23	1	75	.12	2	.5	.7	19	SF5				
		3	1141	.32	19	19.48	155	11.06	7.99	1.6	1.2	29	2	98	.07	5	.5	.7	22	SF3				
		3	16	5	18.54	19	19.44	155	9.83	7.84	2.0	2.0	39	4	96	.09	5	.4	.7	28	SF3			
		3	1850	34.85	19	17.45	155	12.98	7.94	2.0	1.9	33	1	137	.12	1	.6	.8	24	SF2				
		4	122	31.63	19	16.77	155	16.07	30.36	2.3	2.3	43	4	147	.08	5	.7	1.0	33	DEP				
		4	421	24.06	19	22.92	155	6.23	1.76	1.3	1.6	15	0	63	.06	0	.5	.2	12	SME				

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HVO EARTHQUAKE SUMMARY LIST

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ORIGIN TIME				LAT N		LON W		DEPTH		AMP		DUR		GAP		RMS		MIN		ERH		ERZ		NO		
YEAR	MON	DA	HRMN	SEC	DEG	MIN	DEG	MIN	KM	MAG	MAG	NR	DEG	SEC	DIS	KM	DIS	KM	FM	REMK	KM	FM	REMK	KM	FM	REMK
1980	MAY	4	442	10.41	19	22.86	155	6.13	1.96	1.2	1.6	15	0	88	.10	0	.5	.2	9	SME						
		4	6	0	4.12	19	21.43	155	6.06	8.10	2.3	2.7	39	1	87	.11	3	.4	.7	31	SF4					
		4	624	1.75	19	21.20	155	6.02	6.52	1.3	1.1	24	1	93	.12	3	.6	1.0	14	SF4						
		4	721	13.00	19	22.45	155	1.56	7.14	1.5	1.3	21	0	159	.13	5	.7	1.3	16	SF5						
		4	853	10.59	19	19.12	155	13.28	7.89	1.9	1.9	34	1	76	.11	4	.5	.7	28	SF2						
		4	1555	59.50	19	21.89	155	4.98	7.92	2.0	1.6	32	2	77	.10	3	.4	.7	22	SF5						
		4	1558	53.57	19	19.96	155	8.22	8.22	1.9	1.3	21	2	169	.06	5	.9	1.1	17	SF4						
		4	18	5	17.75	19	21.25	155	5.89	8.92	1.9	1.2	15	1	125	.07	3	.7	1.1	12	SF4					
		4	19	5	50.56	19	18.93	155	10.72	6.90	1.8	1.3	26	1	113	.09	6	.5	1.0	17	SF3					
		4	2137	23.45	19	22.81	155	6.07	1.83	1.8	1.3	13	0	65	.04	1	.4	.2	9	SME						
		4	23	7	37.65	19	13.71	155	33.11	11.24	3.9	4.0	37	0	123	.13	6	.6	.6	35	LSW	F				
		5	124	56.57	19	22.57	155	7.06	1.84	1.8	2.1	12	0	103	.08	2	.4	.3	10	SME						
		5	344	21.95	19	19.30	155	10.18	6.59	1.8	1.3	23	3	175	.09	5	.6	1.1	19	SF3						
		5	421	33.52	19	18.46	155	13.36	8.18	2.4	2.4	34	2	82	.11	3	.5	.6	27	SF2						
		5	848	9.54	19	19.69	155	11.61	7.99	2.5	2.3	41	4	90	.09	5	.4	.5	32	SF3						
		5	14	7	14.36	19	20.97	154	58.57	6.62	2.0	1.8	23	1	217	.18	8	1.4	2.0	14	LER					
		5	1627	9.55	19	19.98	155	8.28	8.48	2.9	2.9	41	2	83	.09	5	.4	.5	35	SF4						
		5	1812	55.70	19	22.71	155	6.57	1.62	1.8	1.9	13	0	93	.07	1	.5	.3	11	SME						
		5	2054	43.02	19	20.80	155	6.18	8.63	3.1	3.0	44	3	100	.10	4	.4	.5	34	SF4	F					
		6	137	55.94	19	20.24	155	11.76	9.40	1.7	1.2	19	1	146	.08	5	.7	1.1	16	SF3						
		6	4	8	36.77	19	23.97	155	25.69	10.84	3.6	3.6	45	2	41	.14	3	.4	.5	42	KAO	F				
		6	411	6.34	19	24.10	155	25.59	9.31	2.2	1.5	39	4	39	.11	2	.4	.7	28	KAO						
		6	6	0	53.50	19	18.85	155	11.22	6.81	1.9	1.5	30	3	115	.10	5	.5	.9	24	SF3					
		6	6	5	9.58	19	19.64	155	11.87	6.05	1.7	1.2	22	2	147	.07	6	.5	1.2	14	SF3					
		6	728	3.25	19	22.35	155	25.15	9.53	2.1	1.8	28	0	71	.10	4	.4	.7	22	KAO						
		6	1151	2.72	19	20.97	155	2.07	6.84	2.1	1.4	31	2	174	.13	2	.7	.7	25	SF5						
		6	12	6	50.84	19	35.77	156	25.04	38.12	2.9	2.2	34	1	237	.13	54	3.4	2.2	31	D18					
		6	1752	58.03	19	21.84	155	49.27	12.28	2.8	2.0	30	1	118	.10	12	.6	.4	24	KON						
		6	1837	47.07	19	20.66	155	3.55	8.10	2.1	1.9	32	0	93	.09	2	.6	.6	25	SF5						
		6	2017	49.80	19	19.62	155	9.88	7.73	1.9	1.9	32	3	92	.06	5	.4	.7	27	SF3						
		6	2018	16.72	19	19.53	155	9.69	6.48	1.8	1.1	23	2	93	.11	5	.5	1.2	18	SF3						
		7	045	17.24	19	19.30	155	13.83	7.55	2.2	1.7	35	1	63	.12	4	.5	.8	32	SF2						
		7	1950	5.64	19	21.06	155	10.81	7.54	2.5	2.3	40	4	68	.13	3	.4	.6	33	SF3						
		7	23	4	30.43	19	43.64	155	44.84	12.97	2.4	1.8	22	2	111	.10	11	.6	.6	12	HUA					
		7	2342	33.40	19	44.05	155	44.74	12.43	3.4	3.5	40	0	114	.10	11	.5	.5	37	HUA	F					
		8	344	31.68	19	20.43	155	12.94	8.91	1.5	1.2	21	2	96	.07	4	.6	.9	18	SF2						
		8	4	3	7.19	19	19.01	155	11.53	8.58	1.6	1.2	22	2	172	.07	5	.7	1.1	19	SF3					
		8	521	27.78	19	19.68	155	6.59	8.03	1.8	1.3	23	2	162	.08	6	.7	1.2	19	SF4						
		8	1258	43.78	19	19.81	155	11.36	8.06	1.6	1.3	20	2	160	.06	5	.7	1.1	16	SF3						
		9	524	3.34	19	20.51	155	6.73	8.76	1.9	1.2	20	0	143	.04	5	.8	1.2	18	SF4						
		9	536	16.44	19	21.54	155	6.23	8.03	1.5	1.2	20	0	85	.10	3	.6	1.1	19	SF4						
		9	543	30.31	19	21.55	155	25.88	10.50	2.7	2.7	45	4	71	.12	4	.4	.5	38	KAO						
		9	1140	13.61	19	20.36	155	8.62	7.83	1.6	1.2	20	1	140	.07	4	.7	1.3	18	SF4						
		9	1145	43.91	19	21.86	155	30.17	8.97	2.3	1.6	33	0	60	.10	5	.4	1.1	27	KAO						
		9	1733	28.72	19	20.32	155	11.81	9.29	2.6	2.8	38	0	77	.11	5	.5	.6	34	SF3						
		10	122	3.37	19	19.71	155	11.38	8.28	2.1	2.2	35	3	91	.10	5	.5	.8	29	SF3						
		10	236	29.40	19	3.73	155	22.88	35.80	2.3	1.8	36	1	209	.06	14	.9	1.9	35	LOI						
		10	1034	29.35	19	20.52	155	8.52	8.41	2.2	2.4	41	4	74	.09	4	.4	.6	32	SF4						

HVO EARTHQUAKE SUMMARY LIST

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YEAR	MON	DA	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 NO KM FM REMK
1980	MAY	11	1556	56.87	19 20.00	155 12.04	9.47	1.9	1.4	23	2	141	.06	5	.6	.9 19 SF3
		11	1727	46.84	19 24.29	155 17.83	15.77	2.3	1.8	36	2	41	.09	2	.6	.4 33 DEP
		11	2115	28.48	19 20.01	155 7.91	8.68	1.9	1.3	26	4	150	.09	5	.7	1.0 22 SF4
		12	652	31.45	19 20.23	155 13.69	9.99	3.4	3.3	41	2	59	.09	5	.4	.3 38 SF2
		12	1440	27.14	19 19.46	155 6.55	9.43	3.3	3.2	41	1	131	.11	5	.6	.4 37 SF4 F
		12	1443	44.64	19 19.83	155 6.54	9.02	3.4	3.2	40	1	121	.09	5	.6	.4 37 SF4 F
		12	1444	56.47	19 20.11	155 6.63	7.81	2.8	2.2	38	1	112	.10	5	.5	.5 33 SF4
		12	1454	47.84	19 20.45	155 8.19	7.38	2.2	1.9	35	3	79	.09	4	.4	.8 26 SF4
		12	1612	41.37	19 27.23	155 14.73	32.67	1.9	1.4	38	2	70	.09	5	.7	1.2 33 DEP
		12	1718	48.51	19 27.73	155 14.57	33.13	3.1	2.8	45	2	41	.10	6	.5	1.1 42 DEP
		12	1844	53.13	19 35.61	156 1.20	41.81	2.9	2.3	33	1	222	.08	15	1.2	1.9 29 KON
		12	1939	25.30	19 23.14	155 16.77	2.95	2.5	2.5	26	1	40	.09	1	.3	.3 25 SSC
		12	2057	4.85	19 20.04	155 6.49	8.43	2.4	2.3	36	2	116	.09	6	.5	.6 27 SF4
		12	2328	8.88	19 21.56	154 59.83	5.14	1.8	1.4	27	2	202	.14	6	.8	2.0 18 LER
		13	556	12.82	19 18.68	155 15.35	9.41	2.1	1.4	29	2	101	.08	4	.5	.7 21 SF1
		13	736	45.02	19 29.74	155 53.57	8.60	2.6	1.5	26	4	123	.16	3	.7	.7 17 KON
		13	1319	12.63	19 3.99	155 22.92	35.70	2.6	2.2	42	3	204	.08	13	.9	1.3 37 LOI
		13	1936	2.48	19 20.19	155 11.28	7.63	1.8	1.2	28	2	82	.10	6	.5	1.0 24 SF3
		13	2224	20.09	19 31.14	155 28.47	4.24	2.0	1.4	25	1	98	.11	2	.4	1.1 22 MLO
		13	2245	40.35	19 23.58	155 15.18	2.65	1.4	1.4	15	2	88	.14	3	.4	.5 11 SEC
		14	051	15.76	19 20.35	155 7.74	7.39	1.4	1.2	31	3	89	.11	6	.5	1.1 24 SF4
		14	958	39.72	19 17.75	155 15.06	8.48	2.1	1.6	28	1	143	.08	6	.6	.7 21 SF1
		14	1448	44.25	19 18.02	155 23.52	4.12	1.7	1.6	9	1	136	.05	4	.6	1.4 7 SWR
		15	217	6.19	19 24.03	155 25.73	7.42	1.8	1.3	28	1	57	.09	3	.4	.9 26 KAO
		15	339	15.44	19 18.91	155 13.34	7.12	2.5	2.4	40	5	78	.11	3	.4	.6 25 SF2
		15	1031	10.09	19 19.76	155 4.03	7.60	1.5	1.1	22	0	157	.12	2	1.0	1.0 21 SF5
		15	1850	37.77	19 27.80	155 21.23	8.18	2.1	1.8	31	3	61	.10	1	.4	.7 27 KAO
		15	2342	47.28	19 19.16	155 15.84	7.84	1.9	1.5	25	2	113	.08	3	.5	.8 21 SF1
		16	212	11.64	19 20.01	155 8.32	8.62	1.9	1.8	36	3	81	.09	5	.4	.6 32 SF4
		16	454	9.29	19 24.72	155 23.79	9.99	1.9	1.3	29	3	41	.11	3	.5	.9 24 KAO
		16	513	32.37	19 26.18	155 36.61	39.14	2.5	2.4	11	2	224	.13	2	1.4	2.0 4 DML L
		16	7 3	15.52	19 23.08	155 14.81	3.16	1.2	1.2	12	1	89	.04	2	.4	.6 9 SEC
		16	949	12.62	19 20.57	155 12.02	8.74	2.1	1.9	29	2	73	.09	4	.4	.7 26 SF3
		16	1336	6.03	19 20.20	155 6.49	8.16	2.1	1.8	31	1	112	.06	5	.5	.8 21 SF4
		16	1618	29.38	19 23.96	155 15.80	3.18	1.5	1.9	20	3	110	.07	1	.3	.3 12 SEC
		16	1755	32.93	19 23.13	155 14.90	3.28	1.8	1.7	21	2	67	.07	2	.3	.4 15 SEC
		16	1811	2.83	19 23.07	155 14.79	3.09	1.1	1.1	12	1	111	.17	2	.6	.7 10 SEC
		16	1921	22.32	19 23.63	155 15.25	3.22	2.7	3.1	32	1	49	.11	2	.3	.4 29 SEC
		17	310	7.72	19 23.90	155 15.95	3.22	1.3	1.2	16	2	105	.06	1	.3	.3 12 SEC
		17	13 6	.97	19 23.90	155 15.72	2.58	1.3	1.1	16	3	108	.11	2	.5	.6 9 SEC
		17	1311	13.50	19 23.94	155 15.88	3.09	1.3	1.0	16	3	108	.05	1	.3	.3 11 SEC
		17	1312	49.91	19 23.96	155 15.91	3.12	1.3	1.0	13	2	108	.08	1	.3	.3 11 SEC
		17	1314	42.81	19 24.19	155 16.01	2.35	1.1	1.3	13	1	114	.07	1	.4	.3 12 SEC
		17	1542	47.12	19 10.82	155 42.03	7.05	2.5	1.8	24	1	129	.24	12	.8	2.0 20 LSW
		17	2341	31.88	19 20.22	155 13.43	7.86	1.6	1.3	28	2	65	.12	5	.5	.8 24 SF2
		18	049	26.74	19 21.37	155 2.52	8.12	2.1	1.7	34	3	148	.12	3	.6	.5 23 SF5
		18	054	56.96	19 21.65	155 2.81	8.58	2.6	2.4	37	2	135	.10	3	.5	.5 31 SF5
		18	1 6	28.99	19 20.45	155 12.56	7.85	1.6	1.5	30	4	69	.10	4	.5	.7 21 SF2

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YEAR	MON	DA	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 NO KM FM REMK
1980	MAY	18	344	38.06	19 23.30	155 29.64	9.72	2.8	2.8	36	0	56	.08	4	.3	.7 33 KAO
		18	712	5.15	19 20.51	155 6.62	7.71	2.2	2.0	32	0	103	.08	6	.4	.7 26 SF4
		18	855	40.85	19 20.98	155 25.03	10.98	2.0	1.4	27	2	97	.11	3	.5	.8 20 KAO
		18	12 4	47.45	19 19.34	155 11.73	8.63	1.8	1.2	18	1	162	.06	5	.7	1.0 15 SF3
		18	1438	45.57	19 19.42	155 12.39	7.36	1.6	1.1	17	0	145	.04	5	.6	1.3 13 SF2
		18	1514	55.49	19 26.57	155 24.35	8.15	2.9	2.9	37	1	52	.12	3	.4	.8 29 KAO
		19	023	13.34	19 21.22	155 17.30	31.51	2.1	1.4	28	3	46	.08	2	.8	1.1 20 DEP
		19	314	26.32	19 23.16	155 14.83	3.23	1.5	1.5	16	0	107	.06	2	.4	.5 15 SEC
		19	342	33.30	19 22.69	155 2.18	7.06	2.0	1.3	21	2	142	.09	5	.6	.8 9 SF5
		19	635	57.65	19 20.57	155 10.80	9.26	1.8	1.5	21	3	156	.05	3	.6	1.0 17 SF3
		19	1425	31.17	19 27.05	154 54.81	6.85	2.3	2.2	25	0	197	.12	1	1.2	.5 9 LER
		19	1515	12.17	19 22.53	155 6.47	1.32	2.7	3.4	29	0	68	.10	1	.3	.4 22 SME
		19	16 8	52.34	19 22.32	155 6.31	1.80	1.1	1.9	9	0	225	.07	1	3.7	.6 6 SME
		19	1628	57.80	19 23.77	154 59.09	6.51	2.1	1.7	23	1	208	.12	3	1.2	.7 15 LER
		19	1726	9.85	19 20.00	155 8.36	8.16	1.9	2.1	33	3	81	.06	5	.4	.7 25 SF4
		19	1755	31.65	19 21.85	155 6.72	7.15	1.8	1.7	30	4	77	.12	2	.5	.9 24 SF4
		19	18 0	23.16	19 20.45	155 12.51	8.60	2.1	2.0	33	2	70	.11	4	.4	.6 28 SF2
		19	18 4	32.41	19 23.12	155 6.30	1.46	1.2	1.2	8	0	108	.05	0	.9	.2 5 SME
		19	19 6	16.67	19 22.93	155 5.99	1.50	2.1	1.3	13	0	154	.08	1	.8	.2 11 SME
		19	1935	56.80	19 23.26	155 6.20	.22	1.8	1.8	5	0	137	.07	1	1.3	.7 4 SME
		19	2110	3.82	19 23.02	155 6.17	1.60	1.8	2.1	10	0	148	.06	0	.8	.3 8 SME
		19	22 0	33.91	19 22.96	155 6.08	1.46	1.1	2.0	10	0	151	.06	0	.8	.3 8 SME
		19	2244	6.07	19 21.43	155 6.43	7.94	2.3	1.9	35	2	86	.08	3	.4	.6 27 SF4
		20	013	16.60	19 19.59	155 10.86	9.07	1.7	1.1	14	1	173	.05	5	.8	1.3 10 SF3
		20	052	3.98	19 22.40	155 5.33	.23	1.7	1.8	11	0	141	.23	2	1.1	1.4 7 SME
		20	141	27.65	20 1.58	155 26.82	46.57	2.6	2.2	43	4	200	.10	19	.9	1.8 37 KEA
		20	447	26.45	19 23.32	155 6.39	.97	.8	1.1	9	0	105	.04	1	.7	.3 5 SME
		20	452	36.36	19 23.12	155 6.49	1.38	1.8	2.3	8	0	97	.09	0	.8	.3 6 SME
		20	550	59.46	19 22.14	155 28.61	10.43	2.6	2.8	37	1	63	.09	2	.4	.6 31 KAO
		20	556	13.35	19 22.55	155 8.75	2.07	1.0	1.8	9	0	144	.03	1	.6	.3 4 SME
		20	6 1	17.15	19 22.44	155 6.84	1.73	2.1	2.9	15	0	122	.08	1	.6	.5 14 SME
		20	1249	12.39	19 20.05	155 13.65	8.07	1.6	1.1	18	1	113	.06	5	.6	1.2 15 SF2
		20	2146	36.02	19 18.81	155 15.50	7.86	1.9	1.7	34	5	123	.09	4	.4	.8 22 SF1
		20	2333	34.88	19 21.65	155 6.21	9.46	1.6	1.3	20	1	176	.07	3	.8	1.0 15 SF4
		21	037	13.18	19 21.13	155 7.19	8.20	2.1	2.3	31	3	128	.08	4	.5	.7 17 SF4
		21	1 7	54.46	19 20.57	155 9.22	7.64	2.5	3.0	37	4	94	.10	3	.4	.8

HVO EARTHQUAKE SUMMARY LIST

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YEAR	MON	DA	HR	TIME	SEC	LAT N	DEG	MIN	LON W	DEG	MIN	DEPTH	KM	AMP	MAG	DUR	NR	NS	GAP	RMS	MIN	ERH	ERZ	NO	REMK
1980	MAY	23	046	17.18	19	20.45	155	7.54	8.35	1.3	1.2	17	1	202	.08	5	1.0	1.3	12	SF4					
		23	4 0	25.19	19	20.92	155	7.39	7.69	2.2	2.4	37	3	86	.11	4	.5	.8	29	SF4					
		23	434	45.61	19	20.04	155	10.01	6.54	2.1	2.5	36	2	84	.11	4	.5	.8	30	SF3					
		23	1055	12.81	19	19.83	154	56.70	10.88	1.7	1.3	17	1	239	.12	14	2.1	.8	10	LER					
		24	018	29.17	19	18.57	155	11.67	7.68	1.6	1.1	19	3	179	.07	4	.7	1.2	14	SF3					
		24	142	27.94	19	19.87	155	10.42	9.35	1.8	1.0	18	1	175	.05	4	.7	1.1	17	SF3					
		24	212	21.54	19	20.30	155	12.63	8.96	1.5	1.2	22	3	129	.05	4	.6	.9	16	SF2					
		24	8 7	56.28	19	27.49	155	21.08	5.16	1.2	1.4	20	0	113	.11	1	.5	1.0	15	KA0					
		24	1121	19.24	19	19.03	155	20.63	31.71	2.3	2.3	42	3	98	.09	4	.6	.9	36	DEP					
		24	1244	48.97	19	21.09	155	.97	3.42	2.0	1.8	21	0	199	.13	8	1.1	7.1	17	S8F	*				
		24	1827	50.82	19	26.09	155	28.02	8.61	1.6	1.2	24	2	61	.09	5	.4	1.1	21	KA0					
		25	327	54.94	19	21.13	155	2.67	8.35	2.1	2.0	27	2	185	.08	7	.7	1.0	24	SF5					
		25	10 4	8.55	19	22.89	155	2.38	7.17	1.6	1.2	22	1	167	.13	5	.7	1.2	19	SF5					
		25	1547	48.91	19	18.42	155	13.81	8.00	1.5	1.3	20	1	109	.07	3	.6	1.3	18	SF2					
		25	2259	25.29	19	21.66	155	6.42	7.93	2.1	2.1	36	4	135	.08	3	.4	.6	27	SF4					
		25	2333	53.80	19	23.60	155	16.76	2.99	1.9	2.1	28	2	36	.09	1	.3	.2	24	SSC					
		26	028	20.43	19	20.26	155	9.66	8.64	1.6	1.6	26	2	102	.08	3	.6	1.0	17	SF3					
		26	240	24.28	19	19.81	155	11.39	7.19	1.7	1.6	31	3	89	.08	5	.5	.8	25	SF3					
		26	651	13.16	19	21.91	155	2.42	8.42	2.0	1.9	32	3	179	.11	6	.8	.7	17	SF5					
		26	830	23.68	19	19.79	155	12.77	7.46	1.9	1.9	34	4	76	.09	5	.4	.6	24	SF2					
		26	932	23.28	19	20.16	155	8.72	8.53	2.3	2.5	39	4	103	.09	4	.5	.6	25	SF4					
		26	1042	23.92	19	22.53	155	3.09	8.37	2.1	2.3	34	2	165	.09	4	.6	.4	25	SF5					
		26	1339	3.85	19	19.62	155	11.16	7.28	2.4	2.6	37	3	95	.11	5	.5	.7	31	SF3					
		26	1937	46.35	19	23.73	155	15.40	3.02	1.4	1.6	19	2	97	.08	2	.3	.4	15	SEC					
		26	1941	3.06	19	23.95	155	16.00	3.19	1.3	1.4	18	2	105	.07	1	.3	.3	12	SEC					
		26	2141	37.06	19	23.57	155	16.98	3.03	2.2	2.3	26	2	47	.08	0	.3	.2	19	SSC					
		26	22 2	44.65	19	23.78	155	15.71	3.03	2.0	2.5	26	3	82	.09	2	.3	.3	21	SEC F					
		26	2312	21.94	19	22.78	155	1.30	4.07	2.0	1.7	25	1	194	.19	6	1.1	2.5	17	S8F					
		27	925	20.35	19	27.29	155	24.08	6.50	2.4	2.4	35	2	44	.12	4	.4	1.0	28	KA0					
		27	932	55.06	19	25.31	155	25.68	6.79	2.1	1.8	32	1	51	.12	1	.4	1.0	28	KA0					
		27	13 0	12.04	19	19.49	155	8.80	6.74	1.6	1.5	28	3	102	.11	4	.6	1.1	23	SF4					
		27	1555	18.27	19	22.89	155	2.03	8.22	1.5	1.3	22	1	172	.12	5	1.0	1.2	18	SF5					
		27	2143	8.00	19	19.03	155	13.05	8.75	1.5	1.1	21	1	133	.07	4	.6	1.0	17	SF2					
		27	2225	51.10	19	19.15	155	16.37	8.00	2.2	2.1	41	4	101	.09	3	.4	.6	23	SF1					
		27	2245	5.45	19	26.44	155	24.21	4.13	2.0	1.8	30	2	45	.11	3	.3	.9	21	KA0					
		27	2325	11.10	19	20.85	155	9.99	7.08	1.6	1.3	22	2	157	.08	2	.7	.9	15	SF3					
		28	549	48.63	19	23.65	155	16.79	2.80	1.6	1.5	23	3	44	.08	1	.3	.2	17	SSC					
		28	616	13.23	19	23.28	155	15.01	3.20	1.1	1.1	14	2	80	.05	2	.3	.4	10	SEC					
		28	8 4	50.94	19	19.13	155	13.76	10.13	3.2	3.4	38	0	128	.09	7	.5	.6	34	SF2 F					
		28	859	58.58	19	24.27	155	26.63	10.14	2.7	2.8	43	3	43	.11	3	.4	.6	35	KA0					
		28	1031	40.31	19	18.66	155	15.22	6.54	1.5	1.1	27	1	122	.11	4	.5	1.1	21	SF1					
		28	1040	42.67	19	23.44	155	16.88	3.07	1.9	2.4	22	1	36	.09	0	.3	.3	21	SSC					
		28	1338	52.00	19	22.86	155	14.54	3.30	1.2	1.3	15	2	74	.16	3	.5	.4	11	SEC					
		28	14 2	41.45	19	22.98	155	14.50	2.95	1.4	1.3	15	1	75	.06	3	.3	.4	12	SEC					
		28	1829	37.70	19	26.30	155	29.71	9.11	1.9	1.5	25	1	66	.09	8	.4	1.1	20	KA0					
		28	2155	12.25	19	19.85	155	12.32	9.24	1.6	1.6	20	1	112	.08	5	.6	.9	18	SF2					
		29	324	2.44	19	22.15	155	11.14	2.51	1.5	1.3	12	1	110	.06	2	.6	.5	9	SER					
		29	656	21.53	19	20.31	155	13.24	6.57	1.4	1.1	18	1	117	.09	4	.6	1.2	14	SF2					

HVO EARTHQUAKE SUMMARY LIST

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YEAR	MON	DA	HR	MIN	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
1980	MAY	29	721	54.81	19	19.88	155 8.10	7.84	1.9	1.9	33	2	87	.08	5	.5	.9	29	SF4
		29	838	32.06	19	22.74	155 14.72	3.51	1.3	1.4	18	3	83	.08	2	.3	.4	12	SEC
		29	1129	58.02	19	23.95	155 .25	8.72	2.3	2.2	33	0	160	.11	3	.7	.6	28	SF5
		29	1133	54.04	19	26.32	155 23.48	8.25	1.9	1.5	31	3	47	.12	4	.4	.8	19	KA0
		29	1632	33.09	19	23.06	155 14.86	3.16	1.4	1.4	17	2	64	.07	2	.3	.4	12	SEC
		29	1752	10.50	19	21.92	155 11.24	3.04	1.5	1.0	14	1	121	.05	2	.5	.4	11	SER
		29	2144	26.42	19	17.88	155 15.31	9.10	1.3	1.2	21	2	157	.07	4	.6	1.0	17	SF1
		29	2231	44.44	19	21.28	155 6.56	7.22	1.4	1.2	20	2	126	.10	3	.7	1.1	13	SF4
		29	2246	58.41	19	19.30	155 12.07	7.29	1.6	1.0	21	2	156	.05	5	.6	1.0	13	SF3
		29	2322	17.78	19	20.80	155 13.14	8.46	1.6	1.6	31	2	60	.09	3	.5	.7	25	SF2
		30	432	49.03	19	19.56	155 23.13	32.63	2.3	1.9	40	4	94	.10	1	.7	1.1	35	DEP
		30	653	26.83	19	26.47	155 23.00	7.38	2.4	2.4	35	4	48	.13	4	.4	.8	29	KA0
		30	11 4	.90	19	18.42	155 47.40	.55	1.9	1.9	27	4	239	.14	23	1.6	.7	24	KON
		30	1142	7.65	19	26.45	155 38.52	2.93	2.7	2.7	23	0	204	.09	4	.8	1.0	21	ML0
		30	13 3	16.26	19	22.94	155 8.42	3.10	.9	1.1	11	0	131	.05	3	.9	.6	10	SER
		30	1851	4.49	19	21.87	155 11.23	12.36	1.8	1.7	30	5	86	.08	2	.5	.7	25	SF3
		30	2310	37.27	19	26.28	155 24.78	6.48	1.8	1.5	26	3	65	.09	2	.4	1.0	18	KA0
		30	2346	54.17	19	24.21	155 24.05	10.22	2.0	1.8	33	3	44	.08	3	.4	.7	25	KA0
		31	041	43.14	19	20.27	155 12.91	8.78	1.4	1.1	19	2	124	.06	4	.6	1.1	13	SF2
		31	134	21.23	19	19.18	155 13.23	8.08	2.1	2.0	33	2	76	.08	4	.4	.8	22	SF2
		31	231	22.69	19	23.17	155 7.25	3.58	1.2	1.4	16	0	101	.06	2	.8	.6	10	SER
		31	6 7	31.43	19	28.30	155 23.16	7.46	2.1	1.8	29	3	78	.12	3	.5	.9	22	KA0
		31	911	15.77	19	20.56	155 11.32	8.60	2.2	2.6	33	2	75	.10	4	.5	.7	26	SF3
		31	950	24.37	19	20.48	155 12.37	8.40	1.6	1.1	17	1	131	.05	4	.6	1.1	11	SF2
		31	1322	22.15	19	19.37	155 11.61	7.19	1.6	1.1	17	2	163	.08	5	.6	1.2	9	SF3
		31	1358	54.85	19	20.97	155 25.30	11.32	2.1	2.5	30	2	77	.11	4	.5	.8	25	KA0
		31	1713	13.36	19	27.11	155 21.36	6.67	1.9	1.6	23	3	85	.10	2	.4	.9	14	KA0
		31	1745	18.16	19	20.82	155 11.80	7.46	2.2	.0	40	4	70	.12	4	.4	.6	30	SF3
		31	2126	30.13	19	20.57	155 5.77	8.63	2.2	2.7	32	1	110	.08	5	.5	.7	27	SF4
		31	2128	20.78	19	20.89	155 5.78	8.52	2.5	2.8	37	2	102	.08	4	.4	.7	28	SF4
		31	2149	58.33	19	22.16	155 26.53	10.80	2.2	2.2	34	1	64	.09	2	.4	.8	21	KA0
		31	2222	36.22	19	19.41	155 9.08	8.43	1.8	1.8	30	3	89	.07	4	.5	.9	22	SF4
JUN		1	239	50.42	19	18.32	155 14.38	7.36	1.5	1.4	20	0	116	.11	3	.7	1.1	17	SF2
		1	9 4	13.76	19	19.70	155 11.17	9.00	2.0	1.6	28	0	93	.09	5	.5	1.0	24	SF3
		1	1511	6.58	19	23.68	155 24.26	9.83	2.1	2.0	37	2	32	.12	3	.4	.6	26	KA0
		1	1628	46.87	19	25.81	155 25.42	6.44	1.5	1.5	24	2	57	.09	1	.4	1.0	20	KA0
		1	2346	38.71	19	29.05	154 48.86	1.36	1.9	1.6	11	0	321	.20	8	10.8	17.6	6	SLE
		1	2348	59.66	19	25.50	155 23.88	9.34	2.8	2.8	42	3	37	.12	2	.4	.7	31	KA0
		2	033	.81	19	20.74	155 1.86	9.00	1.6	1.4	15	1	190	.06	2	.9	.9	11	SF5
		2	424	58.96	19	20.09	155 13.03	9.28	1.5	1.4	23	3	97	.06	5	.6	.9	16	SF2
		2	11 7	30.61	19	20.23	155 6.50	7.02	1.6	1.2	18	1	150	.09	5	.8	1.4	15	SF4
		2	1729	52.75	19	23.27	154 57.33	5.98	1.6	1.3	29	2	205	.13	4	.8	1.0	17	SER
		2	1855	13.97	19	23.21	155 5.35	5.71	1.0	1.9	11	0	98	.08	2	.7	.4	9	SME
		2	2129	39.41	19	21.10	155 5.53	7.53	1.9	1.8	30	2	97	.12	4	.6	1.0	25	SF4
		2	2238	34.56	19	19.02	155 13.08	6.35	1.5	1.1	26	1	83	.11	4	.5	1.2	21	SF2
		2	2316	33.84	19	21.21	155 15.16	9.34	1.5	1.1	25	3	68	.08	3	.5	.7	16	SF1
		2	2352	.02	19	21.01	155 6.15	6.79	2.5	2.8	33	2	97	.13	4	.6	1.0	26	SF4
		3	026	41.51	19	.59	155 40.14	31.31	3.2	3.2	38	3	152	.07	3	1.1	1.7	33	DL0

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YEAR	MON	DA	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 NO KM FM	REMK
1980	JUN	3	335	17.81	19 22.35	155 5.07	7.92	2.4	2.1	35	2	75	.10	2	.4	.7 23	SF5
		3	1113	55.73	19 20.85	155 3.02	5.90	1.7	1.7	22	2	128	.13	2	.6	1.1 15	SF5
		3	1257	2.62	19 20.16	155 11.62	8.49	1.9		32	2	81	.10	5	.5	1.8 25	SF3
		3	1339	5.64	19 19.98	155 7.40	6.94	1.8	1.6	27	2	102	.10	5	.5	1.2 21	SF4
		3	14 1	2.48	19 19.75	155 7.83	6.84	1.7	1.4	27	2	96	.08	4	.5	1.1 19	SF4
		3	1614	18.93	19 22.82	155 6.19	.01	2.4	3.1	26	1	68	.17	5	.5	1.2 20	SME *
		3	17 6	33.21	19 18.80	155 13.35	7.48	1.9	2.5	31	1	79	.11	3	.5	.9 24	SF2
		3	1718	35.58	19 12.09	155 17.00	43.08	1.6		25	3	181	.07	11	1.2	1.3 15	DEP T
		4	510	45.32	19 26.73	154 50.08	5.06	1.9	2.0	12	1	282	.14	15	3.1	2.1 8	LER
		4	540	50.17	19 26.14	155 25.12	7.01	1.3	1.1	19	2	55	.09	2	.4	1.0 13	KA0
		4	1619	58.39	19 19.93	155 8.81	7.45	2.7	2.9	41	4	75	.09	4	.4	.7 30	SF4
		5	659	31.39	19 20.77	155 8.35	6.07	1.8	1.9	25	2	74	.05	4	.4	1.0 18	SF4
		5	853	3.19	19 20.66	155 8.43	4.95	1.4	1.3	18	2	84	.06	4	.5	1.3 14	SF4
		5	1048	35.79	19 21.70	155 .78	6.27	1.6	1.3	19	0	188	.12	5	.8	1.5 13	SF5
		5	1724	18.00	19 20.95	155 8.00	8.74	1.3	1.2	22	3	131	.06	4	.8	1.1 16	SF4
		5	23 0	36.34	19 25.28	155 25.12	8.33	1.6	1.2	25	1	49	.08	0	.5	1.0 20	KA0
		6	2 0	54.68	19 20.14	155 7.35	6.84	1.8	1.2	23	3	149	.09	6	.6	1.2 18	SF4
		6	4 8	4.72	19 20.54	155 8.15	8.20	1.8	1.6	34	3	79	.07	4	.4	.8 21	SF4
		6	1234	.25	19 25.91	154 56.04	6.66	1.9	1.8	22	1	189	.13	3	1.5	1.3 14	LER
		6	1846	7.81	19 21.50	155 6.17	8.43	1.5	1.5	21	1	87	.08	3	.6	1.3 20	SF4
		6	2046	48.63	19 44.07	155 25.70	15.07	1.5	2.0	12	0	178	.08	19	1.9	1.2 7	KEA
		6	2225	28.35	19 19.84	155 10.45	9.29	1.6	1.1	18	0	175	.07	4	.8	1.3 18	SF4
		7	020	6.81	19 19.84	155 10.63	8.76	2.1	2.2	29	2	90	.08	4	.5	.8 21	SF3
		7	146	29.89	19 12.00	155 35.01	7.79	2.6	3.0	33	2	90	.21	7	.6	1.3 23	LSW
		7	3 6	6.33	19 23.33	155 25.16	23.99	2.1	1.8	21	2	149	.11	8	1.6	2.6 18	KON
		7	624	58.81	19 22.89	155 15.00	2.88	1.2	1.2	15	3	70	.11	2	.3	.5 11	SEC
		7	1312	36.09	19 19.59	155 12.34	7.99	1.7	1.5	26	2	85	.07	5	.5	.9 19	SF2
		7	1350	29.07	19 21.18	155 13.10	8.53	2.5	2.8	40	5	57	.11	3	.4	.5 30	SF2
		7	15 0	24.54	19 20.94	155 13.11	8.56	2.1	2.1	35	5	59	.09	3	.4	.6 29	SF2
		7	1616	24.20	19 20.72	155 11.00	8.30	2.0	1.9	30	3	74	.08	3	.4	.6 21	SF3
		7	1625	42.39	19 20.53	155 10.81	9.37	2.7	2.9	39	4	77	.10	3	.4	.5 33	SF3
		7	1629	46.03	19 19.98	155 10.83	9.31	1.8	1.1	18	0	166	.06	4	1.0	1.2 14	SF3
		7	1932	24.78	19 26.45	155 22.83	7.42	1.8	2.0	28	2	51	.11	4	.4	.9 23	KA0
		7	2256	45.66	19 18.82	155 13.42	6.88	2.2	2.6	35	5	77	.13	3	.5	.8 24	SF2
		8	5 2	48.57	19 18.57	155 1.25	35.49	2.1	1.8	26	2	274	.06	12	1.7	1.5 23	DEP
		8	936	6.24	19 21.52	155 14.99	9.11	1.5	1.1	26	3	102	.09	2	.5	.6 19	SF1
		8	1312	46.35	19 22.17	155 5.87	7.81	2.2	2.3	34	1	74	.08	2	.4	.7 28	SF4
		8	17 6	21.85	19 19.75	155 11.30	9.47	1.6	1.4	21	0	129	.06	5	.7	1.1 18	SF3
		8	1852	5.30	19 19.32	155 11.90	7.76	1.6	1.0	17	2	158	.04	5	.6	1.2 11	SF3
		8	1959	25.55	19 19.91	155 11.57	8.93	1.8	1.9	32	3	86	.10	5	.6	.8 28	SF3
		8	2041	7.67	19 20.62	155 7.31	8.46	1.6	1.3	22	1	140	.07	5	.7	1.1 19	SF4
		8	2043	11.58	19 20.76	155 6.37	8.24	1.4	1.2	20	0	137	.08	4	.7	1.2 19	SF4
		9	0 1	16.71	19 26.03	155 23.75	11.28	3.2	3.2	41	2	55	.10	3	.4	.5 35	KA0
		9	043	23.30	19 25.89	155 23.82	11.68	3.5	3.7	43	2	53	.11	3	.4	.5 41	KA0 F
		9	220	39.95	19 21.43	155 16.52	31.66	2.0	1.6	35	3	64	.07	2	.8	1.2 31	DEP
		9	231	46.90	19 19.80	155 12.43	8.57	1.5	1.1	19	2	139	.06	5	.6	1.1 14	SF2
		9	3 4	49.56	19 24.95	155 23.73	9.06	1.5	1.3	25	2	43	.10	3	.5	1.0 19	KA0
		9	3 7	2.80	19 26.06	155 24.09	10.35	1.6	1.2	23	2	53	.10	2	.6	1.1 19	KA0

YEAR	MON	DA	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 NO KM FM	REMK
1980	JUN	9	437	14.28	19 22.69	155 24.72	12.53	1.3	1.1	24	3	63	.08	5	.5	1.0 19	KA0
		9	1045	48.71	19 20.37	155 5.52	8.38	1.3	1.2	19	2	169	.09	5	.8	1.1 17	SF4
		9	13 4	15.67	19 31.42	156 16.72	34.38	3.1	3.1	27	3	264	.11	38	1.5	2.1 21	KON
		9	1350	59.25	19 20.54	155 12.92	7.33	1.9	2.1	33	2	65	.12	4	.5	.7 28	SF2
		9	1355	52.80	19 21.74	155 .43	8.67	2.5	2.4	32	0	193	.08	6	.9	.5 27	SF5
		9	1528	7.74	19 19.85	155 12.71	8.68	1.5	1.2	17	1	133	.08	5	.8	1.4 15	SF2
		9	1732	54.07	19 17.75	155 12.97	6.61	1.8	1.6	30	2	120	.10	2	.5	.9 18	SF2
		10	133	41.89	19 21.48	155 .64	7.45	1.5	1.2	23	2	193	.12	5	.9	1.2 18	SF5
		10	320	38.43	19 57.17	155 12.08	9.08	2.0	1.7	19	1	288	.07	33	4.1	1.1 16	KEA
		10	533	53.74	19 24.30	155 23.94	9.84	1.6	1.1	25	2	42	.09	3	.5	1.0 22	KA0
		10	1524	13.65	19 27.52	155 27.81	9.17	1.7	1.1	21	2	69	.09	6	.5	1.4 17	KA0
		10	1622	47.62	19 21.83	155 .39	6.20	1.9	1.8	25	0	192	.14	6	.9	1.3 20	SF5
		10	1625	12.62	19 23.28	155 14.86	.79	2.2	2.7	17	1	69	.08	2	.2	.4 12	SEC
		10	1756	44.72	19 23.10	155 14.86	3.16	1.6	1.8	20	2	65	.08	2	.3	.3 18	SEC
		10	1825	6.41	19 20.12	155 11.25	7.90	1.9	1.6	28	0	84	.12	4	.6	1.1 26	SF3
		10	2021	19.34	19 23.79	155 28.73	8.82	1.7	1.6	28	1	48	.08	3	.4	.8 22	KA0
		10	2049	25.10	19 20.91	155 6.25	7.43	1.2	1.1	18	1	98	.09	4	.5	1.1 12	SF4
		10	2144	39.79	19 30.85	155 28.91	3.71	2.0	2.0	24	2	101	.09	3	.4	1.0 17	MLO
		11	016	22.35	19 28.62	155 53.19	7.27	2.6	2.5	23	2	140	.11	4	.7	.8 15	KON
		11	042	39.67	19 28.01	155 3.04	12.28	1.8	1.8	25	2	100	.06	4	.6	.9 22	GLN
		11	229	56.16	19 19.59	155 12.36	9.02	2.5	2.7	37	3	85	.09	5	.4	.5 31	SF2
		11	336	14.40	19 19.46	155 12.18	7.51	2.1	2.2	32	2	90	.11	5	.5	.8 28	SF3
		11	421	12.35	19 22.78	155 24.19	10.31	2.2	2.7	38	2	51	.10	5	.4	.5 25	KA0
		11	1049	41.50	19 20.84	155 3.17	8.67	2.3	2.4	33	0	118	.09	2	.7	.6 27	SF5
		11	1437	59.08	19 20.31	155 12.85	7.63	2.0	2.1	31	2	68	.11	4	.5	.7 22	SF2
		11	1536	15.91	19 21.70	155 28.19	10.26	1.8	1.5	19	0	84	.09	2	.6	1.3 18	KA0
		11	1632	16.98	19 19.79	155 12.20	6.46	1.8	1.6	25	1	83	.11	5	.5	1.2 20	SF3
		12	013	19.01	19 24.45	155 .54	7.58	1.9	1.7	24	1	139	.18	3	.8	1.3 19	SF5
		12	048	47.38	19 20.19	155 13.83	8.09	1.6	1.5	26	2	71	.09	5	.5	.9 20	SF2
		12	411	43.87	19 24.78	155 25.77	9.26	1.5	1.3	24	1	51	.08	1	.5	.9 20	KA0
		12	519	59.41	19 24.23	154 57.01	1.60	1.7	1.5	14	1	198	.11	3	1.0	1.1 10	SLE
		12	1152	40.84	19 19.90	155 12.33	7.44	2.0	2.2	33	2	80	.11	5	.5	.8 27	SF2
		12	1416	16.68	19 25.44	155 27.66	8.80	2.4	2.1	36	1	46	.10	4	.4	.8 27	KA0
		12	18 1	27.82	19 13.40	155 26.84	6.83	1.2	1.1	21	1	148	.12	7	.7	1.4 12	LSW
		12	18 2	5.84	19 23.05	155 17.00	2.55	1.1	1.0	11	2	97	.05	1	.4	.4 9	SSC
		13	046	56.25	19 20.73	155 5.99	9.25	1.9	1.7	24	0	104	.06	4	.6	1.0 22	SF4
		13	213	6.25	19 18.75	155 12.13	6.87	1.9	1.6	20	0	165	.08	4	.6	1.3 17	SF3
		13	440	39.79	19 17.22	155 21.12	5.74	1.0	1.3	20	1	129	.07	5	.6	1.7 16	SWR
		14	525	.53	19 20.71	155 6.78	7.40	2.0	1.6	28	0	97	.09	4	.5	1.0 20	SF4
		14	644	42.34	19 24.63	155 16.74	2.03	1.1	.9	12	1	130	.08	1	.4	.3 9	SNC
		14	1234	2.83	19 19.40	155 11.49	8.54	3.0	3.0	43	4	98	.10	6	.4	.5 31	SF3
		14	1354	24.38	19 20.65	155 6.74	7.83	1.7	1.2	22	2	99	.09	4	.5	1.1 17	SF4
		14	1625	.09	19 19.19	155 11.27	9.12	1.8	1.1	21	1	140	.05	6	.6	1.0 15	SF3
		14	2351	21.39	19 23.00	155 2.33	7.77	1.9	1.2	15	0	133	.10	4	.6	1.2 11	SF5
		15	026	45.27	19 20.44	155 13.34	9.05	1.6	1.2	21	1	89	.07	4	.6	1.0 17	SF2
		15	753	32.70	19 23.85	155 49.54	11.57	1.9	1.3	24	1	118	.12	14	.6	.6 20	KON
		15	9 4	33.75	19 21.47	155 1.44	6.90	1.8	1.4	22	0	179	.14	4	.8	1.0 16	SF5
		15	18 3	9.91	19 19.64	155 12.19	5.02	1.6	1.2	15	1	142	.08	5	.6	2.4 14	SF3

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YEAR	MON	DA	HRMN	SEC	ORIGIN TIME	LAT N DEG MIN	LON W DEG MIN	DEPTH KM	AMP MAG	DUR MAG	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ NO KM FM REMK
1980	JUN	15	2046	14.43	19 41.76	155 3.87	31.00	2.9	2.5	33	2	235	.11	24	1.2	1.8 27 HUA
		15	2218	18.76	19 23.62	155 15.35	2.86	1.3	1.5	18	2	91	.08	2	.3	.4 12 SEC
		16	144	53.04	19 25.69	155 28.14	8.50	1.8	1.3	25	3	92	.08	5	.4	1.0 20 KAO
		16	146	34.09	19 21.54	155 6.60	8.65	2.4	2.3	37	2	83	.08	3	.4	.8 29 SF4
		16	5	3.44	19 19.38	155 11.63	6.01	1.7	1.6	26	1	97	.10	5	.5	1.3 21 SF3
		16	529	37.39	19 23.86	155 15.72	3.11	2.3	2.8	30	1	71	.07	2	.3	.3 25 SEC F
		16	1539	45.29	19 20.78	155 13.46	8.88	1.6	1.3	27	2	62	.08	3	.5	.7 19 SF2
		16	1725	34.17	19 25.06	155 16.13	15.17	2.2	1.9	36	3	113	.08	2	.5	.4 29 DEP
		16	1853	4.39	19 24.13	155 15.92	3.31	1.3	1.2	20	3	111	.07	1	.3	.3 13 SEC
		16	21	6.12	19 20.24	155 8.62	8.37	1.7	1.0	21	3	142	.08	4	.7	1.2 18 SF4
		16	2217	47.16	19 23.48	155 15.18	2.94	1.6	1.6	25	4	83	.09	2	.3	.3 16 SEC
		16	2336	21.72	19 26.90	154 56.03	5.88	2.0	1.9	27	1	174	.13	2	.9	1.2 15 LER
		17	1	3.47	19 20.79	155 14.06	23.99	2.1	1.6	30	2	152	.08	10	.8	1.2 23 DEP
		17	128	47.75	19 21.49	155 6.72	8.31	1.4	1.3	17	1	150	.07	3	.8	1.2 14 SF4
		17	938	45.83	19 16.43	155 12.12	1.38	1.6	1.2	18	3	243	.06	3	.8	.4 12 SSF
		17	1057	16.90	19 11.21	155 20.56	46.09	2.0		25	1	195	.21	13	2.2	4.5 10 DEP T
		17	1233	37.03	19 25.16	155 23.07	7.62	1.5	1.2	19	2	44	.10	4	.4	1.2 12 KAO
		17	1324	58.10	19 21.69	155 30.26	9.49	1.4	1.3	19	1	91	.06	5	.6	1.0 15 KAO
		17	1339	8.59	19 23.11	155 14.66	3.08	1.4		13	1	109	.06	3	.4	.5 10 SEC
		17	1339	37.43	19 22.94	155 14.71	3.10	2.5	3.0	25	1	49	.08	2	.3	.4 24 SEC
		17	14	9.42	19 18.97	155 15.08	9.04	2.2	2.2	32	3	113	.09	5	.5	.7 26 SF1
		17	1514	51.78	19 23.77	155 16.87	2.74	.9	1.2	13	1	68	.05	1	.3	.3 8 SSC
		17	18	4.21	19 26.77	155 22.76	8.13	1.8	1.6	26	3	76	.09	4	.5	1.0 20 KAO
		17	2037	11.36	19 35.16	156 18.30	37.89	2.9	3.4	38	0	267	.12	42	2.5	1.6 31 KON
		17	2046	41.04	19 25.33	155 24.16	8.72	2.0	2.0	33	2	44	.11	2	.4	.9 29 KAO
		17	2229	17.35	19 23.76	155 16.79	2.92	1.4	1.4	22	2	59	.07	0	.3	.2 16 SSC
		17	2240	52.36	19 23.06	155 14.85	3.25	1.2	1.6	12	2	111	.05	2	.4	.5 9 SEC
		17	23	9.42	19 25.73	155 37.68	1.95	2.5	2.2	21	0	94	.11	4	.5	1.0 18 MLO
		18	419	8.15	19 55.22	155 17.71	10.88	2.3	2.7	22	1	266	.08	40	3.1	1.0 13 KEA
		18	448	33.64	19 23.11	155 14.77	3.43	1.7	1.9	21	1	64	.05	2	.3	.3 15 SEC
		18	755	45.35	19 25.01	155 38.05	.02	2.6	2.9	25	0	77	.18	5	.5	1.6 15 MLO *
		18	952	21.21	19 19.61	155 12.39	8.23	2.0	1.6	27	2	84	.05	5	.4	.8 18 SF2
		18	1052	57.90	19 20.60	155 12.49	8.68	1.4	1.1	18	1	128	.06	4	.6	1.1 12 SF2
		18	1239	34.18	19 22.00	155 13.14	2.97	.9	1.0	15	2	96	.05	1	.4	.4 10 SER
		18	1243	28.00	19 19.85	155 12.08	6.07	1.6	1.4	27	2	83	.11	5	.5	1.3 19 SF3
		18	1653	35.66	19 23.07	155 14.81	3.12	1.1	1.1	12	2	111	.03	2	.4	.6 7 SEC
		18	1659	35.95	19 22.28	155 9.34	3.41	1.2	1.1	14	0	168	.05	1	1.3	.5 12 SER
		18	1752	20.20	18 58.65	155 21.24	21.32	2.1	1.5	26	1	247	.07	23	1.8	3.4 23 LOI
		18	22	0.17	19 19.54	155 10.25	8.55	2.0	2.0	30	2	96	.09	5	.5	1.0 24 SF3
		19	016	47.67	19 55.60	155 39.71	17.29	2.0	2.1	14	0	271	.11	32	4.4	35.0 9 KOH *
		19	018	1.93	19 58.01	155 39.52	16.66	2.3	2.1	15	0	252	.09	34	2.3	99.0 10 KOH *
		19	2	7.21	19 23.15	155 14.87	3.26	1.1	1.2	14	1	66	.05	2	.4	.5 13 SEC
		19	251	41.00	19 25.42	155 25.11	7.76	1.5	1.2	23	1	49	.09	0	.4	1.0 20 KAO
		19	3	7.28	19 20.85	155 8.99	8.20	2.5	2.5	36	2	92	.10	4	.5	.8 29 SF4
		19	4	9.36	19 19.85	155 10.50	9.14	1.8	1.8	30	1	89	.10	4	.5	.9 24 SF3
		19	613	50.33	19 13.81	155 37.05	8.35	2.8	2.7	34	2	197	.20	2	.8	.7 25 LSW
		19	848	25.50	19 18.97	155 13.44	8.81	2.6	2.8	40	3	76	.10	4	.4	.6 34 SF2
		19	9	5.98	19 20.36	155 12.92	6.62	1.8	2.0	26	2	67	.11	4	.5	1.0 18 SF2

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		ORIGIN TIME		LAT N		LON W		DEPTH		AMP		DUR		GAP		RMS		MIN		ERH		ERZ NO	
YEAR	MON	DA	HRMN	SEC	DEG	MIN	DEG	MIN	KM	MAG	MAG	MAG	NR	NS	DEG	SEC	DIS	DIS	KM	KM	FM	REMK	
1980	JUN	19	910	9.80	19	23.50	155	23.92	10.66			1.3	17	1	73	.07	4		.5	1.4	13	KAO	
		19	1156	43.66	19	22.08	155	11.40	3.51	1.5	1.5	18	1	149	.07	3		.8	.6	14	SER		
		19	1211	55.97	19	23.64	155	23.94	9.81	1.6	1.5	23	1	66	.06	4		.5	.9	20	KAO		
		19	1810	49.88	19	13.77	155	39.54	8.89	2.8	3.0	31	0	257	.18	5	1.8	.9	.9	23	LSW		
		19	1954	54.05	19	33.02	155	.16	42.42	2.8	2.8	42	1	132	.09	8	1.0	1.9	.9	38	HIL		
		19	2125	38.98	19	28.68	155	52.02	9.80	2.3	2.2	26	1	128	.16	5	.8	.5	.5	19	KON		
		19	23	5.22	19	26.22	155	24.30	7.83	2.0	1.9	34	2	46	.11	2	.4	.9	.9	26	KAO		
		19	2312	12.28	19	20.98	155	2.01	6.03	1.6	1.4	19	0	175	.13	3	.8	1.2	1.0		SF5		
		20	154	54.29	19	17.75	155	15.57	7.06	1.1	1.1	21	2	166	.07	4	.6	1.1	1.4		SF1		
		20	156	.64	19	19.52	155	10.58	9.47	1.7	1.3	21	2	179	.05	5	.7	1.1	1.6		SF3		
		20	318	20.34	19	23.39	155	5.76	1.53	1.8	2.0	16	0	95	.08	1	.5	.3	1.0		SME		
		20	530	37.71	19	23.24	155	5.65	1.53	2.3	3.0	21	0	80	.11	1	.4	.3	1.4		SME		
		20	610	34.73	19	19.35	155	10.15	8.88	1.5	1.1	18	1	188	.04	5	.7	1.3	1.6		SF3		
		20	613	49.44	19	23.40	155	5.49	1.33	1.3	2.0	12	0	94	.10	2	.5	.4	.7		SME		
		20	623	27.52	19	20.32	155	12.15	7.85	2.4	2.3	41	3	75	.11	5	.4	.6	.29		SF3		
		20	626	55.82	19	25.37	154	57.41	2.94	2.4	2.6	27	1	178	.21	2	1.1	.8	.20		SLE		
		20	1228	17.71	19	24.30	155	17.73	15.62	2.6	2.1	34	2	47	.08	2	.6	.4	.30		DEP		
		20	1414	6.08	19	18.90	155	15.45	7.83	1.3	1.3	18	2	119	.05	4	.5	1.1	1.5		SF1		
		20	18	4.57	19	21.70	155	6.13	8.67	1.3	1.1	19	2	117	.08	2	.7	1.2	1.5		SF4		
		20	2355	36.78	19	17.16	155	22.94	6.82	2.4	2.8	34	2	122	.14	6	.4	1.1	1.22		SWR		
		21	010	58.00	19	21.95	155	4.93	.04	.7	1.6	7	0	259	.12	3	5.5	8.2	.2		SSF		
		21	527	6.72	19	19.65	155	8.53	8.93	1.4	1.3	18	0	154	.05	5	.8	1.3	1.37		SF4		
		21	1147	57.01	19	19.63	155	11.28	7.50	1.5	1.4	30	3	94	.09	5	.5	.9	.25		SF3		
		21	1619	48.87	19	19.54	155	7.95	7.51	2.2	2.4	36	3	96	.09	4	.4	.9	.22		SF4		
		21	1928	6.25	19	18.45	155	15.08	7.67	1.1	1.2	22	2	130	.06	4	.6	1.0	1.8		SF1		
		21	2022	27.82	19	19.64	155	7.39	8.53	1.5	1.3	24	3	160	.07	6	.7	1.2	1.5		SF4		
		21	2043	50.50	19	25.67	155	25.06	7.56	2.5	2.7	37	1	49	.13	1	.4	.9	.26		KAO		
		21	2358	38.72	19	20.08	155	8.74	8.63	1.6	1.6	20	2	145	.05	4	.8	1.1	1.5		SF4		
		22	034	.71	19	20.17	155	6.24	7.31	2.1	1.5	23	2	152	.12	5	.7	1.2	1.8		SF4		
		22	624	13.54	19	19.78	155	10.09	7.39	1.4	1.1	16	2	181	.06	4	.7	1.4	1.2		SF3		
		22	1256	.58	19	10.91	155	28.77	33.25	2.1	1.4	31	2	89	.05	3	.8	1.7	.25		DLS		
		22	1756	27.80	19	25.52	155	24.13	10.50	1.8	1.1	24	1	47	.08	2	.5	1.1	.22		KAO		
		22	20	8.37	19	18.45	155	13.03	10.20	2.7	2.7	38	2	136	.10	8	.5	.6	.30		SF2		
		23	1428	26.47	19	20.14	155	12.07	6.19	1.7	1.3	15	1	141	.05	5	.6	1.1	1.2		SF3		
		23	1943	24.35	19	22.60	155	5.92	1.19	2.7	3.1	26	1	116	.13	1	.4	.2	1.2		SME		
		23	1954	55.91	19	21.50	155	5.81	8.64	1.8	1.7	20	1	119	.09	3	.6	1.1	1.5		SF4		
		23	2013	39.95	19	23.09	155	6.06	1.56	1.6	2.1	13	0	94	.07	0	.8	.2	.9		SME		
		23	2018	35.70	19	20.16	155	11.87	8.55	1.6	1.1	19	1	145	.06	5	.7	1.0	1.4		SF3		
		23	2327	32.23	19	22.82	155	6.16	1.56	1.1	1.5	9	0	210	.06	0	2.9	.2	.5		SME		
		24	154	28.03	18	56.48	155	34.39	43.59	2.7	2.6	35	0	244	.07	11	2.0	2.6	.30		DLS		
		24	259	3.51	19	18.71	155	11.32	7.29	1.5	1.3	22	2	150	.06	5	.6	1.1	1.3		SF3		
		24	324	8.27	19	22.97	155	6.88	1.60	1.8	2.5	17	0	98	.09	1	.6	.4	.12		SME		
		24	635	1.57	19	18.89	155	15.89	8.20	1.8	1.9	26	2	123	.05	4	.5	.8	.20		SF1		
		24	732	18.25	19	22.94	155	6.20	1.62	2.1	1.9	19	0	96	.06	0	.4	.2	1.4		SME		
		24	8	5	19	22.88	155	6.21	1.37	3.4	4.1	32	1	97	.12	0	.5	.3	.25		SME		
		24	915	17.55	19	22.48	155	6.43	1.14	3.0	3.9	25	0	122	.13	1	.5	.3	1.8		SME		
		24	949	1.13	19	18.87	155	13.32	7.36	2.4	2.4	39	3	102	.09	3	.4	.5	.30		SF2		
		24	1129	7.77	19	23.76	155	2.94	6.98	1.9	1.6	27	1	108	.16	3	.5	.9	.21		SF5		

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YEAR	MON	DA	HRMN	SEC	ORIGIN TIME	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
1980	JUN	24	1630	12.11	19 26.62	155 29.91	9.02 2.2	1.9 35	0 69 .12	9	.4	1.1 32	KAO						
		25	148	44.44	19 43.38	155 44.34	16.36 3.3	3.5 44	3 105 .09	11	.5	1.6 37	HUA F						
		25	348	16.95	19 19.90	155 10.53	7.73 1.6	1.3 25	0 88 .11	4	.6	1.1 21	SF3						
		25	755	50.79	19 20.29	155 12.91	9.15 2.7	2.8 42	1 68 .11	4	.5	.5 36	SF2						
		25	12 6	9.12	19 19.87	155 6.75	7.21 1.8	1.2 26	1 116 .10	5	.6	1.3 22	SF4						
		25	15 1	7.66	19 18.12	155 15.45	7.23 1.9	1.1 29	3 149 .09	4	.5	.8 23	SF1						
		25	15 2	23.17	19 25.73	155 37.89	1.32 2.2	1.8 21	0 97 .13	4	.6	1.3 18	MLO						
		25	17 3	41.23	19 25.68	155 29.15	7.94 1.9	1.3 25	1 60 .06	7	.5	1.5 20	KAO						
		25	1752	34.24	19 21.60	155 4.96	8.20 1.5	1.2 24	1 83 .12	3	.5	1.0 17	SF5						
		26	12 3	10.02	19 19.76	155 10.06	6.99 2.4	29	1 90 .10	4	.5	1.0 24	SF3						
		26	12 4	20.55	19 19.68	155 10.08	8.16 1.9	1.8 27	3 92 .08	4	.5	.9 21	SF3						
		26	1451	49.19	19 20.61	155 10.64	7.26 1.7	1.6 30	3 75 .09	3	.5	.8 24	SF3						
		26	17 9	15.05	19 20.18	155 11.91	7.17 2.5	2.9 39	5 78 .10	5	.4	.5 28	SF3						
		26	2058	11.41	19 21.16	155 2.54	5.69 1.4	1.0 19	0 150 .17	2	1.0	1.7 17	SF5						
		27	1 3	58.60	19 19.16	155 26.49	8.91 1.0	1.3 11	1 138 .07	6	.7	1.5 8	KAO						
		27	139	19.26	19 19.07	155 22.00	3.67 .8	1.0 14	0 135 .07	3	.6	.8 11	SWR						
		27	1011	32.13	19 23.34	155 2.67	7.39 1.5	1.1 19	1 121 .12	4	.6	1.2 14	SF5						
		27	1232	5.80	19 23.56	155 1.79	8.25 1.8	1.4 21	0 136 .12	5	.7	1.2 19	SF5						
		27	1347	32.73	19 23.15	155 23.62	11.84 1.5	1.3 21	1 88 .06	5	.6	1.1 18	KAO						
		27	1610	25.08	19 33.21	155 58.46	22.25 1.8	1.5 19	0 242 .11	9	2.4	2.4 15	KON						
		27	1949	30.59	19 20.30	155 3.39	7.76 1.6	1.6 26	0 105 .10	1	.8	.8 20	SF5						
		27	2253	1.36	19 25.97	155 59.46	28.52 2.1	1.7 22	0 285 .08	22	4.5	3.4 20	KON						
		28	014	33.66	19 15.98	155 18.32	26.61 1.9	1.6 26	1 185 .06	4	1.0	1.6 21	DEP						
		28	923	49.85	19 20.10	155 8.75	7.65 1.6	1.6 28	3 73 .06	4	.5	.9 21	SF4						
		28	1145	52.40	19 19.25	155 15.60	7.99 2.7	2.8 42	4 92 .10	4	.4	.6 30	SF1						
		28	1252	32.43	19 19.71	155 8.51	8.53 2.0	2.1 33	2 80 .08	4	.4	.8 22	SF4						
		28	1856	4.25	19 38.97	155 8.17	14.81 2.0	1.4 27	3 230 .09	18	1.0	.8 17	HIL B						
		28	2055	13.22	19 26.90	155 28.93	8.67 1.4	1.1 19	1 87 .09	7	.5	1.4 18	KAO						
		28	2149	49.07	19 20.67	155 11.49	8.38 1.7	1.7 29	2 74 .09	4	.5	.7 22	SF3						
		29	053	10.06	19 20.80	155 8.15	7.77 1.3	1.3 24	2 77 .08	4	.5	.9 16	SF4						
		29	145	44.25	19 18.11	155 13.22	6.22 1.6	1.8 26	3 94 .11	2	.5	1.1 19	SF2						
		29	839	21.82	19 19.27	155 12.15	6.18 .	1.2 19	0 94 .10	5	.5	1.3 14	SF3						
		29	21 7	38.13	19 19.65	155 12.50	7.09 2.2	2.2 36	3 82 .10	5	.4	.7 29	SF2						
		30	317	16.73	19 19.83	155 11.74	7.81 1.4	1.3 20	2 87 .06	5	.4	.9 13	SF3						
		30	538	22.28	19 18.54	155 25.88	8.55 2.0	2.2 29	1 95 .11	6	.4	1.0 19	LSW						
		30	626	27.79	19 18.18	155 21.05	2.52 1.6	1.5 16	2 152 .08	4	.6	.6 10	SWR						
		30	741	16.23	19 19.65	155 6.90	8.11 2.0	1.8 29	3 119 .08	5	.5	1.0 21	SF4						
		30	825	19.32	19 28.42	154 47.79	8.26 2.0	1.6 17	1 288 .18	10	4.0	1.1 9	LER						
		30	921	.84	19 18.97	155 15.25	7.24 1.3	1.2 26	2 115 .07	4	.5	.9 19	SF1						
		30	1022	46.69	19 23.31	155 26.17	11.68 1.7	1.7 25	2 67 .09	3	.5	1.0 23	KAO						
		30	1426	44.69	19 23.17	155 27.69	10.71 1.8	1.8 30	1 49 .10	1	.4	.8 23	KAO						
		30	1927	46.71	19 23.47	155 17.02	2.80 1.8	2.4 22	1 42 .08	0	.3	.2 21	SSC						
		30	2035	28.21	19 20.03	155 11.94	9.32 1.9	1.7 32	4 81 .07	5	.4	.8 22	SF3						
		30	21 5	3.39	19 23.50	155 16.98	2.81 1.3	1.5 17	1 46 .05	0	.3	.2 12	SSC						
JUL	1	024	3.29	19 24.32	155 36.73	9.57 2.2	1.6 25	2 45 .07	6	.4	.9 18	MLO							
		1	517	25.99	19 19.78	155 50.77	6.81 2.1	1.7 22	1 160 .12	7	.6	1.5 14	KON						
		1	952	41.84	19 20.56	155 6.52	8.92 2.7	2.4 35	1 103 .09	5	.4	.6 26	SF4						
		1	14 2	39.93	19 23.66	155 16.90	2.82 1.6	1.3 19	2 54 .07	1	.2	.2 14	SSC						

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YEAR	MON	DA	HRMN	SEC	ORIGIN TIME	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
1980	JUL	1	1525	53.44	19 20.27	155 8.72	6.73 1.8 1.1 34	2	73 .09	4	.4	.9 24	SF4						
		1	1747	46.33	19 27.70	154 52.07	1.08 2.4 1.5 21	1	265 .22	3	1.7	.9 15	SLE						
		1	1958	51.73	19 19.72	155 11.86	8.51 2.2 1.8 36	3	88 .10	6	.5	.7 28	SF3						
		1	2322	22.48	19 18.96	155 26.01	7.97 1.9 1.7 28	2	92 .15	5	.6	1.0 25	LSW						
		2	618	12.48	19 23.31	155 16.90	3.12 1.4 1.2 19	1	56 .05	0	.3	.3 15	SSC						
		2	824	37.22	19 20.52	155 9.33	7.97 1.8 1.2 23	0	72 .08	3	.6	1.0 21	SF3						
		2	854	58.06	19 23.86	155 16.73	2.84 1.9 2.1 22	2	83 .10	0	.4	.2 17	SSC						
		2	1417	48.04	19 19.88	155 13.40	7.12 1.4 1.3 23	1	67 .10	5	.5	1.1 18	SF2						
		2	1820	40.91	19 24.29	155 25.14	10.80 2.8 2.6 41	1	37 .10	2	.3	.4 37	KAO						
		2	1856	13.33	19 20.33	155 24.87	9.85 1.8 1.4 30	1	84 .11	3	.5	.7 23	SWR						
		2	2343	34.01	19 23.64	155 15.51	2.92 1.4 1.3 22	3	94 .08	2	.3	.3 14	SEC						
		3	215	57.91	19 24.14	155 26.83	10.94 2.0 1.8 32	0	45 .08	3	.5	.7 24	KAO						
		3	3 0	38.14	19 19.70	155 7.27	8.49 2.2 1.9 35	2	110 .07	5	.4	.8 25	SF4						
		3	317	34.90	19 20.57	155 6.49	7.92 2.1 1.4 32	0	104 .09	5	.5	.9 26	SF4						
		3	419	20.17	19 23.31	155 14.96	3.34 2.3 2.2 25	1	72 .08	2	.3	.4 23	SEC						
		3	924	43.87	19 23.18	155 17.10	2.69 2.1 2.0 22	1	48 .22	0	.4	.5 21	SSC						
		3	12 5	16.30	19 22.05	155 5.19	7.11 2.0 1.3 24	0	75 .12	3	.5	1.0 21	SF5						
		3	1430	19.94	19 21.61	155 7.05	7.03 1.9 1.2 22	3	79 .10	3	.5	1.1 16	SF4						
		3	17 1	25.22	19 19.88	155 6.43	8.41 2.0 1.3 20	0	121 .06	5	.7	1.3 18	SF4						
		3	1823	16.62	19 23.83	155 15.45	3.09 1.8 1.9 20	2	102 .06	2	.3	.3 16	SEC						
		3	22 5	33.71	19 23.13	155 14.99	2.74 1.9 1.6 22	2	68 .09	2	.3	.4 16	SEC						
		3	2221	23.46	19 20.07	155 6.36	6.98 1.8 1.2 22	2	81 .07	5	.5	1.2 19	SF4						
		3	2331	7.05	19 23.87	155 15.60	3.28 1.8 1.8 20	2	106 .07	2	.3	.3 15	SEC						
		4	4 6	53.84	19 20.38	155 12.84	6.95 1.5 1.4 17	0	67 .09	4	.5	1.2 16	SF2						
		4	4 9	19.15	19 23.74	154 58.02	6.76 1.8 1.3 22	1	191 .13	3	1.1	1.1 16	LER						
		4	439	45.78	19 24.62	155 .53	6.80 2.3 2.1 34	2	133 .10	3	.4	.7 22	SF5						
		4	653	23.75	19 26.08	155 27.12	7.71 2.1 1.4 27	3	59 .09	4	.4	1.0 21	KAO						
		4	9 5	25.10	19 27.82	155 14.61	32.34 2.7 2.7 44	5	46 .10	6	.6	1.0 36	DEP						
		4	928	12.56	19 23.43	155 16.81	3.07 2.6 2.9 30	2	39 .09	0	.2	.2 24	SSC						
		4	11 4	25.11	19 20.11	155 12.25	7.59 1.5 1.3 24	2	77 .08	5	.5	1.0 17	SF3						
		4	1116	48.60	19 19.80	155 6.77	8.07 1.6 1.2 22	0	117 .08	5	.6	1.4 15	SF4						
		4	1346	5.80	19 19.82	155 7.60	8.34 2.4 2.3 36	2	100 .08	5	.4	.8 25	SF4						
		4	16 6	3.59	19 23.22	155 17.20	2.56 1.2 1.4 18	2	61 .08	1	.3	.3 14	SSC						
		4	1936	.66	20 53.05	157 47.47	9.70 3.7 .16	6 206 .15	64	1.6	2.0 14	D1S							
		4	2038	45.02	19 24.59	155 22.82	10.16 1.8 1.4 27	3	39 .06	4	.5	.9 24	KAO						
		4	21 0	29.14	19 18.28	155 13.23	8.63 1.5 1.1 21	1	90 .07	2	.6	1.1 16	SF2						
		5	254	18.42	19 26.58	155 23.05	8.04 1.9 1.8 33	4	48 .11	4	.4	.8 22	KAO						
		5	1233	9.15	19 19.85	155 9.18	7.94 1.6 1.0 19	2	81 .06	4	.5	1.2 13	SF3						
		5	15 7	42.31	19 23.71	155 15.19	1.64 1.4 1.5 14	2	95 .13	2	.3	.4 8	SEC						
		5	1840	13.55	19 18.61	155 15.51	7.29 1.6 1.3 22	3	129 .08	4	.5	1.0 16	SF1						
		5	20 1	26.44	19 19.36	155 11.33	6.93 1.5 1.4 25	2	99 .09	6	.5	1.3 15	SF3						
		5	2040	51.01	19 13.84	155 33.13	37.75 2.3 2.0 37	2	74 .07	6	.8	1.4 31	D1S						
		5	2328	44.24	19 22.06	155 5.69	9.44 1.9 1.6 24	2	76 .05	2	.6	.9 13	SF4						
		6	015	4.96	19 19.36	155 11.15	7.97 2.1 2.0 27	1	101 .10	6	.6	1.1 23	SF3						
		6	1 4	24.37	19 20.14	155 8.33	8.84 2.9 2.9 38	2	80 .08	4	.5	.6 34	SF4						
		6	2 5	29.67	19 18.18	155 30.23	9.26 2.0 1.6 33	1	71 .12	6	.4	1.1 25	LSW						
		6	215	40.14	19 19.74	155 11.75	7.53 1.9 1.7 31	1	88 .09	5	.5	.9 24	SF3						
		6	224	41.50	19 19.99	155 11.22	7.94 1.5 1.4 30	2	86 .07	5	.5	.8 23	SF3						

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YEAR	MON	DA	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 NO KM FM	REMK
1980	JUL	6	246	18.51	19 21.36	155 2.67	8.28	2.3	2.3	38	4	141	.11	3	.6	.6 28 SF5	
		6	652	2.88	19 19.19	155 11.52	8.04	1.9	1.4	25	1	103	.07	5	.5	1.1 17 SF3	
		6	7	49.23	19 23.86	155 15.67	3.07	1.3	1.5	20	2	106	.07	2	.3	.3 12 SEC	
		6	1138	7.76	19 19.87	155 8.48	8.55	2.7	2.8	38	2	79	.08	5	.4	.6 28 SF4	
		6	1358	43.73	19 18.89	155 13.64	8.03	1.5	1.2	20	1	86	.06	3	.5	1.1 16 SF2	
		6	1648	2.58	19 22.83	155 14.49	3.63	1.5	1.3	22	3	70	.05	3	.3	.4 15 SEC	
		6	20	7 33.35	19 24.66	155 1.22	6.81	2.0	1.6	33	3	121	.09	4	.4	.8 19 SF5	
		6	2253	54.43	19 24.08	155 16.38	.68	2.1	2.4	5	1	155	.01	3	1.6	2.3 3 SEC	
		7	025	58.42	19 28.68	154 52.85	3.04		1.6	17	2	259	.19	1	2.6	.5 14 SLE	
		7	143	53.29	19 20.26	155 6.32	6.57	1.9	1.7	22	0	113	.08	5	.5	1.1 19 SF4	
		7	349	4.70	19 22.83	155 14.84	3.11	1.8	1.6	14	0	68	.09	2	.4	.5 12 SEC	
		7	4	17.34	19 23.11	155 14.83	3.13	1.6	1.5	13	1	65	.06	2	.4	.5 11 SEC	
		7	410	22.61	19 23.22	155 14.93	3.23	1.2	1.1	8	0	131	.07	2	.8	.6 7 SEC	
		7	738	7.34	19 23.92	155 15.51	3.23	1.2	1.0	9	0	110	.06	3	.5	.6 8 SEC	
		7	939	44.03	19 19.48	155 8.90	7.93	2.1	1.9	35	2	84	.09	4	.5	.8 27 SF4	
		7	1459	35.91	19 23.82	155 15.27	3.15	1.3	1.4	18	2	99	.07	2	.3	.3 13 SEC	
		7	2249	9.12	19 21.38	155 15.16	9.01	2.6	2.2	41	4	65	.09	2	.4	.4 29 SF1	
		8	0	4 5.70	19 20.22	155 7.34	8.87	1.6	1.3	21	1	159	.06	5	.6	1.1 18 SF4	
		8	151	4.86	19 20.23	155 12.85	7.75	1.5	1.2	29	2	70	.09	4	.5	.7 21 SF2	
		8	316	43.93	19 19.35	155 9.89	6.78	1.7	1.3	26	1	99	.11	5	.6	1.2 20 SF3	
		8	352	6.14	19 21.22	155 7.82	8.41	2.9	3.0	39	3	77	.09	4	.4	.6 33 SF4	
		8	455	33.10	19 23.30	155 15.01	3.13	1.8	1.8	23	3	74	.07	2	.2	.3 17 SEC	
		8	1036	7.40	19 59.62	155 23.94	11.61	2.0	1.4	13	3	198	.11	13	1.5	.4 5 KEA	
		8	1111	37.93	19 23.33	155 14.96	3.03	1.8	1.9	17	0	74	.05	2	.3	.3 15 SEC	
		8	1148	20.84	19 21.06	155 13.11	9.12	1.5	1.4	27	2	66	.10	3	.5	.8 22 SF2	
		8	18	3 39.83	19 59.45	155 24.72	10.28	1.7	1.5	11	2	196	.12	13	1.2	.8 8 KEA	
		8	1834	60.00	19 59.73	155 24.31	9.56	2.6	1.6	13	1	198	.15	13	1.2	.8 11 KEA	
		8	1934	44.47	19 19.37	155 11.09	8.50	2.8	2.7	40	5	100	.10	5	.4	.7 31 SF3	
		8	2222	30.12	19 22.99	155 14.71	3.15	1.4	1.2	18	3	69	.05	2	.3	.3 12 SEC	
		8	2314	55.66	19 24.10	155 16.32	2.83	1.3	1.3	17	2	100	.11	1	.4	.3 13 SEC	
		9	647	4.81	19 20.58	155 12.94	8.77	1.5	1.3	28	2	64	.08	4	.5	.8 21 SF2	
		9	1042	13.06	19 22.82	155 14.55	3.43	3.0		33	1	50	.09	3	.3	.4 27 SEC	
		9	1042	51.12	19 22.92	155 14.82	3.08	2.5	2.5	17	1	62	.09	2	.4	.4 13 SEC	
		9	1058	59.41	19 22.92	155 14.67	3.07	2.4	2.4	26	2	63	.10	2	.3	.4 20 SEC	
		9	19	8 30.41	19 22.27	155 9.31	3.78	2.0	1.3	27	0	86	.07	1	.5	.6 23 SER	
		9	2029	52.36	19 18.57	155 15.59	6.68	1.9	1.3	35	3	106	.10	4	.5	.8 25 SF1	
		9	22	4 51.61	19 20.21	155 12.45	8.55	1.5	1.3	28	1	74	.09	5	.5	.8 21 SF2	
		10	1	5 8.45	19 17.72	154 58.36	40.55	2.3	1.6	34	1	232	.06	9	1.6	2.1 30 LER	
		10	625	32.71	19 27.38	155 14.68	33.00	2.8	2.6	44	2	41	.11	5	.6	1.1 40 DEP	
		10	733	26.81	19 39.63	155 54.59	27.19	2.8	2.2	29	2	191	.12	8	.8	1.7 23 HUA	
		10	1414	53.22	19 20.74	155 12.94	7.74	1.6	1.2	26	2	68	.09	4	.5	.8 19 SF2	
		10	1426	43.12	19 27.58	155 14.74	32.69	2.6	2.4	44	1	40	.11	5	.6	1.2 38 DEP	
		10	1844	5.17	19 19.99	155 7.90	7.41	1.6	1.0	26	1	92	.11	5	.4	1.0 16 SF4	
		10	2141	18.78	19 20.41	155 11.67	8.80	2.2	2.0	37	3	76	.07	4	.4	.6 26 SF3	
		11	252	43.87	19 21.93	155 9.32	3.61	1.7	1.3	16	0	149	.04	1	.9	.5 14 SER	
		11	7	2 34.34	19 23.32	155 7.43	3.01	1.7	1.7	19	0	104	.07	2	.5	.4 13 SER	
		11	834	56.51	19 20.55	155 10.85	8.27	1.8	1.2	29	4	77	.08	3	.4	.8 21 SF3	
		11	1037	56.37	19 23.26	155 14.94	3.21	2.0	2.0	19	2	71	.07	2	.3	.4 17 SEC	

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YEAR	MON	DA	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 NO KM FM	REMK
1980	JUL	11	1554	24.74	19 13.58	155 22.03	38.75	2.3		24	1	229	.12	10	1.8	2.7 12	DEP T
		11	1822	57.48	19 24.98	155 25.19	9.31	1.7	1.3	30	2	38	.10	1	.4	.8 24	KAO
		12	535	48.15	19 55.19	155 22.74	10.38	2.4	2.3	23	1	241	.09	5	1.4	.4 16	KEA
		12	9 6	36.87	19 24.20	155 21.49	7.65	2.1	1.7	26	1	47	.09	7	.4	1.1 22	KAO
		12	933	52.83	19 20.81	155 6.00	8.53	2.3	2.0	29	0	102	.08	4	.5	.9 25	SF4
		12	1230	13.58	19 26.30	155 24.46	3.37	1.6	1.2	21	2	114	.08	2	.3	.6 15	KAO
		12	1558	33.98	19 21.31	155 6.14	8.18	2.3	2.1	34	2	90	.08	3	.4	.7 24	SF4
		12	1724	30.34	19 20.65	155 12.88	8.61	1.8	1.4	28	1	64	.09	4	.5	.7 22	SF2
		13	116	16.04	19 25.40	155 15.34	1.88	1.9	2.1	23	3	153	.08	2	.3	.3 13	SNC F
		13	123	38.98	19 19.08	155 3.79	2.54	1.9	1.2	24	1	214	.13	8	1.0	3.3 18	SSF
		13	632	36.71	19 22.32	155 28.60	10.40	2.5	2.4	34	1	62	.08	2	.4	.6 28	KAO
		13	7 5	16.03	19 20.20	155 13.43	6.22	1.5	1.1	25	3	65	.11	5	.5	1.1 19	SF2
		13	1531	1.78	20 1.60	155 23.09	11.29	2.4	1.9	15	2	208	.08	16	1.4	.6 5	KEA
		13	2225	7.77	19 20.61	155 6.15	8.08	2.6	2.4	39	3	106	.12	4	.4	.7 32	SF4
		13	2249	12.59	19 21.03	155 6.16	6.83	1.6	1.2	27	1	95	.12	4	.6	1.1 24	SF4
		14	1419	29.02	19 14.82	155 18.77	1.81	2.4	2.4	30	1	163	.08	6	.5	1.1 24	SWR
		14	1511	13.36	19 26.19	155 23.37	6.66	1.5	1.3	22	3	76	.08	4	.4	1.1 12	KAO
		14	1838	55.19	19 26.37	154 51.57	8.88	2.9	2.9	32	3	273	.12	6	1.5	.5 24	LER F
		15	1145	4.80	19 26.12	155 27.66	8.60	2.6	2.1	39	2	48	.11	5	.4	.7 29	KAO
		15	1226	39.39	19 20.80	155 6.59	7.12	2.1	1.6	31	2	97	.09	4	.5	.9 24	SF4
		15	1249	37.17	19 11.07	155 19.12	45.20	1.9	1.5	19	1	193	.03	13	1.2	1.7 11	DEP L
		15	15	0 50.49	19 24.40	155 24.90	10.10	2.3	1.8	31	3	36	.10	2	.4	.6 25	KAO
		15	1623	4.14	19 23.48	155 24.65	10.09	2.7	2.5	42	3	39	.10	3	.4	.5 30	KAO
		15	2131	21.37	19 29.78	155 23.25	13.32	2.3	1.6	26	2	91	.08	0	.5	.9 21	DML
		15	2135	31.01	19 29.98	155 23.02	13.76	2.5	1.8	29	4	93	.10	1	.5	.6 21	DML
		16	1350	54.04	19 59.67	155 10.89	35.43	2.2	1.7	21	0	293	.10	36	7.6	7.4 18	KEA
		16	14	9 14.65	19 19.42	155 11.08	8.80	2.8	3.0	33	3	99	.08	5	.4	.7 26	SF3
		16	1533	36.39	19 29.94	155 23.11	13.89	2.6	2.1	27	3	92	.10	0	.5	.6 20	DML
		16	16	5 .52	19 30.07	155 23.19	14.58	2.0	1.2	21	2	100	.11	1	.6	.5 17	DML
		16	1854	17.27	19 21.33	155 5.88	8.85	1.9	1.2	19	0	91	.07	3	.6	1.4 17	SF4
		16	19	3 51.00	19 57.27	155 22.42	8.85	2.7	2.6	19	1	248	.07	40	1.4	.8 14	KEA F
		16	1939	11.21	19 26.55	155 29.59	6.38	1.9	.9	15	2	105	.13	8	.6	2.2 11	KAO
		16	2232	9.93	19 33.96	155 39.53	3.53	2.3	1.2	13	1	273	.16	13	3.4	8.1 10	MLO
		17	825	36.91	19 18.95	155 13.51	8.88	2.3	2.1	25	1	81	.09	4	.5	.7 22	SF2
		17	2239	33.75	19 21.52	155 4.94	6.69	2.0	1.3	27	1	85	.13	4	.5	.9 19	SF5
		18	056	47.28	19 23.85	155 5.65	1.89	1.7	2.2	5	0	135	.01	2	1.6	.7 4	SME
		18	126	30.05	19 22.86	155 4.87	1.81	3.3	3.9	27	1	167	.15	2	1.0	.5 22	SME
		18	9 4	48.34	19 15.02	155 38.82	7.40	2.3	2.1	26	0	182	.14	3	.8	.6 17	LSW
		18	941	58.48	19 20.13	155 10.70	8.55	2.0	2.0	33	2	84	.07	4	.4	.8 23	SF3
		18	1031	10.57	19 31.54	155 28.12	3.80	3.2	3.3	39	1	68	.11	1	.4	.7 35	MLO
		18	11	9 57.63	19 20.59	155 12.75	7.75	1.6	1.3	24	1	66	.10	4	.5	.9 18	SF2
		18	1227	54.03	19 20.34	155 10.71	8.87	2.1	2.4	31	2	81	.09	4	.4	.8 24	SF3
		18	1930	48.92	19 19.79	155 11.61	8.95	2.7	3.0	38	2	88	.08	5	.4	.6 32	SF3
		18	2243	18.22	19 19.58	155 11.33	8.60	2.4	2.8	37	2	95	.08	5	.3	.5 28	SF3
		19	119	31.40	19 28.19	155 21.77	5.09	2.0	2.1	22	3	86	.12	8	.4	4.6 19	KAO
		19	551	19.61	19 10.87	155 20.27	46.33	1.9	2.1	27	1	191	.07	14	1.1	1.6 11	DEP L
		19	637	5.79	19 22.07	155 15.91	3.04	1.4	1.8	16	1	110	.04	1	.4	.3 13	SEC
		19	652	56.59	19 24.84	155 4.26	7.62	2.3	2.0	30	3	90	.10	3	.4	.7 15	SF5

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YEAR	MON	DA	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
1980	JUL	19	9 8	9.82	19 19.68	155 10.20	7.95	1.7	1.3	26	1	93	.08	4	.5	.9	18	SF3
		19	956	31.19	19 20.46	155 6.63	8.47	2.1	2.0	25	2	175	.08	5	.6	1.0	19	SF4
		19	1223	3.72	19 25.46	155 24.99	8.67	1.6	1.3	25	2	56	.10	0	.4	.9	21	KA0
		19	13 4	39.98	19 19.39	155 8.56	7.60	1.7	1.6	26	2	80	.07	4	.5	1.1	21	SF4
		20	043	50.28	19 23.98	155 26.67	10.30	2.3	2.3	38	3	46	.12	3	.4	.7	27	KA0
		20	051	16.39	19 23.79	155 26.82	9.04	1.6	1.3	23	1	64	.09	3	.5	.8	20	KA0
		20	231	47.47	19 23.74	155 26.83	9.40	1.7	1.6	28	1	48	.10	3	.4	.9	22	KA0
		20	257	31.60	19 25.41	155 24.98	8.54	1.6	1.3	25	2	56	.10	0	.5	1.0	23	KA0
		20	721	30.28	19 20.88	155 7.70	8.39	2.1	2.3	33	3	82	.08	4	.4	.7	24	SF4
		20	855	34.92	19 20.06	155 11.76	9.82	3.0	3.2	42	1	82	.08	5	.4	.3	38	SF3
		20	1724	5.55	19 19.99	155 13.36	7.58	1.5	1.1	22	1	66	.09	5	.5	1.0	19	SF2
		21	0 7	5.26	19 10.71	155 35.85	8.21	2.2	1.3	20	2	126	.12	8	.5	.8	15	LSW
		21	9 6	43.85	19 21.14	155 6.66	6.81	1.8	1.4	25	3	89	.11	4	.5	.9	15	SF4
		21	1141	3.71	19 24.83	154 58.79	5.73	2.0	1.4	16	0	199	.14	1	1.1	1.2	13	LER
		22	018	52.23	19 20.79	155 11.63	8.19	2.4	2.2	31	3	139	.11	4	.5	.8	25	SF3
		22	421	21.50	19 18.51	155 13.38	8.59	2.0	2.1	34	4	81	.11	3	.4	.6	21	SF2
		22	1442	4.01	19 21.64	155 6.50	7.40	2.5	2.5	40	3	81	.09	3	.4	.6	28	SF4
		23	249	29.42	19 20.14	155 8.17	8.04	1.9	1.2	30	1	83	.09	5	.5	.9	22	SF4
		23	1321	7.08	19 20.03	155 3.32	8.56	2.8	2.7	40	3	132	.09	1	.7	.4	31	SF5
		23	16 7	12.31	19 19.69	155 11.46	6.87	1.6	1.3	26	1	91	.09	5	.5	.9	24	SF3
		23	1611	25.09	19 19.94	155 11.68	6.81	1.6	1.3	30	2	85	.10	5	.5	.8	23	SF3
		24	031	3.24	19 23.52	155 16.90	2.86	1.6	1.4	18	3	45	.08	0	.3	.2	13	SSC
		24	655	45.16	19 23.89	155 36.94	3.72	2.4	1.9	22	1	67	.14	6	.5	2.8	15	MLO
		24	7 8	3.54	19 23.72	155 16.96	2.61	2.1	2.1	21	2	63	.09	1	.3	.2	15	SSC
		24	831	52.93	19 19.79	155 11.07	7.26	1.7	1.4	19	0	91	.11	5	.5	.9	16	SF3
		24	1812	17.93	19 20.70	155 10.88	7.36	1.7	1.2	28	2	74	.10	3	.5	.7	21	SF3
		24	1836	58.87	19 21.52	155 8.16	8.27	2.4	2.3	33	2	69	.09	3	.4	.5	25	SF4
		24	1938	3.33	19 27.00	155 29.16	10.10	1.9	1.3	29	3	70	.09	8	.4	.8	20	KA0
		24	2039	41.68	19 23.46	155 36.43	2.52	2.1	1.6	22	2	65	.14	7	.4	1.4	11	MLO
		25	147	22.89	19 20.26	155 11.19	7.68	2.5	2.4	41	4	81	.11	4	.3	.6	28	SF3
		25	518	28.73	19 20.62	155 9.78	7.56	2.1	1.2	26	3	73	.07	3	.5	.9	15	SF3
		25	1059	48.99	19 21.71	155 7.04	8.01	1.9	1.3	24	2	78	.08	3	.5	.7	15	SF4
		25	1253	8.28	19 20.58	155 6.93	8.21	1.9	1.1	24	0	98	.08	5	.6	1.0	19	SF4
		25	1824	8.19	19 20.21	155 12.90	8.22	1.6	1.1	25	1	69	.09	4	.5	.8	23	SF2
		25	1934	31.86	19 23.21	155 14.97	3.12	1.1	.9	15	2	106	.07	2	.4	.4	11	SEC
		26	041	50.80	19 22.78	155 14.43	3.24	1.2	1.3	14	2	76	.04	2	.4	.3	11	SEC
		26	159	4.01	19 22.26	155 25.12	9.63	1.6	1.3	28	2	53	.11	4	.5	.7	20	KA0
		26	754	38.15	19 15.03	155 36.99	8.56	2.6	2.6	36	1	68	.21	0	.6	.7	28	LSW
		26	1716	34.96	19 28.96	154 53.61	2.59	2.1	1.9	18	0	140	.14	0	1.6	.5	12	SLE
		27	249	38.87	19 17.46	155 13.16	6.71	2.1	2.0	32	3	123	.10	1	.5	.8	23	SF2
		27	911	58.48	19 27.48	155 22.24	7.29	1.9	1.6	23	2	88	.11	7	.4	1.3	17	KA0
		27	1135	44.00	18 43.42	156 18.73	35.42	3.7	3.9	46	4	312	.08	74	1.5	1.6	42	DIS
		27	1628	24.09	19 20.68	155 4.13	8.26	2.1	2.1	33	1	104	.10	3	.6	.6	26	SF5
		27	1740	24.74	19 18.66	155 48.01	11.09	2.9	2.3	33	2	91	.11	9	.5	.5	27	KON
		27	2127	6.39	19 26.47	155 23.77	6.07	1.8	1.6	25	2	73	.11	3	.4	1.0	17	KA0
		28	2 2	8.62	19 20.67	155 13.18	9.05	2.6	2.7	44	3	62	.09	4	.3	.5	30	SF2
		28	252	58.67	19 20.46	155 12.89	8.01	1.5	1.5	27	2	66	.09	4	.5	.7	23	SF2
		28	618	7.15	19 20.69	155 30.00	11.15	3.4	3.3	42	0	65	.09	5	.4	.5	39	KA0

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YEAR	MON	DA	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
1980	JUL	28	622	33.15	19 20.69	155 29.98	10.39	2.9	2.8	40	2	65	.10	5	.4	.7	35	KA0
		28	1020	26.53	19 27.92	155 23.89	3.85	1.5	1.1	16	2	79	.09	4	.3	.9	11	KA0
		28	1158	2.24	19 20.92	155 10.76	9.15	2.2	2.1	34	3	166	.12	3	.7	.5	25	SF3
		28	1538	15.40	19 20.48	155 17.64	35.30	2.3	2.3	45	2	54	.10	1	.6	1.0	40	DEP
		28	1830	11.61	19 19.23	155 8.90	7.68	1.7	1.9	30	3	90	.08	4	.5	.8	20	SF4
		28	2023	59.83	19 19.79	155 12.40	7.15	1.6	1.3	28	1	80	.09	5	.5	.9	21	SF2
		29	0 8	13.30	19 20.06	155 13.16	9.60	2.4	2.4	33	5	198	.09	5	.7	.5	24	SF2
		29	015	27.46	19 20.91	155 13.31	8.56	2.7	2.6	34	4	187	.12	3	.7	.5	23	SF2
		29	019	49.01	19 21.00	155 12.67	7.80	2.0	2.2	34	4	161	.11	3	.6	.5	20	SF2
		29	3 7	25.30	19 18.18	155 13.17	8.79	2.0	2.1	40	4	95	.10	2	.4	.5	23	SF2
		29	331	42.67	19 23.39	155 29.58	7.67	1.9	1.3	31	1	67	.11	4	.4	1.0	22	KA0
		29	4 7	51.92	19 23.57	155 16.98	2.94	1.3	1.4	20	2	47	.07	0	.3	.2	13	SSC
		29	451	7.94	19 23.32	155 16.82	3.03	1.7	2.1	22	3	46	.09	0	.3	.2	19	SSC
		29	912	21.18	19 20.18	155 6.58	7.89	2.1	1.6	30	3	111	.08	5	.5	1.0	22	SF4
		29	1229	45.13	19 23.68	155 26.07	10.44	1.9	1.3	28	2	63	.09	3	.5	.9	23	KA0
		29	1520	39.04	19 20.56	155 13.35	8.51	2.0	2.0	36	2	61	.11	4	.5	.6	26	SF2
		29	1858	23.70	19 19.76	155 11.99	9.56	1.5	1.1	23	2	85	.07	6	.6	.9	17	SF3
		29	2251	38.63	19 20.61	155 8.18	8.53	1.9	1.9	33	2	79	.06	4	.4	.6	24	SF4
		30	020	44.24	19 21.14	155 4.41	9.56	1.8	1.6	14	0	192	.04	5	1.2	.9	11	SF5
		30	428	38.21	19 20.50	155 12.79	9.19	1.5	1.7	30	1	67	.07	4	.5	.8	21	SF2
		30	724	14.21	19 23.93	155 14.21	10.14	1.4	.7	1	148	.08	1	2.3	2.9	4	INT	
		30	724	37.26	19 23.74	155 15.35	.00	.8	1.0	5	1	157	.08	2	.3	1.3	3	SEC
		30	724	53.95	19 24.24	155 15.82	3.97	1.2	1.0	8	2	131	.04	2	.6	2.0	5	SEC
		30	725	22.61	19 24.08	155 15.62	2.22	.9	.5	7	1	127	.04	2	.4	.9	4	SEC
		30	725	34.87	19 23.70	155 15.58	3.25	1.3	1.2	13	2	98	.08	2	.5	.5	7	SEC
		30	725	50.91	19 23.75	155 15.57	2.55	1.0	.8	10	2	100	.12	2	.4	.7	4	SEC
		30	726	12.38	19 23.83	155 15.23	2.81	1.0	.5	12	2	102	.06	2	.4	.5	9	SEC
		30	726	23.20	19 23.87	155 15.36	2.75	1.0	.2	10	2	106	.02	2	.3	.6	5	SEC
		30	726	43.91	19 23.37	155 14.97	3.57	.9	.6	9	2	111	.08	2	.6	.7	0	SEC
		30	727	5.05	19 23.86	155 14.80	1.44	.8	.7	7	1	186	.10	2	.7	.7	4	SEC
		30	727	53.82	19 23.63	155 15.11	.69	.5	.2	9	1	95	.13	2	.3	.9	3	SEC
		30	728	19.78	19 23.69	155 15.08	3.41	.9	.2	9	2	92	.04	2	.4	.6	5	SEC
		30	728	50.55	19 23.89	155 15.49	3.22	.9	.9	9	1	108	.07	2	.5	.7	6	SEC
		30	729	16.51	19 24.12	155 15.56	3.46	.8	.8	12	2	124	.09	2	.5	.6	7	SEC
		30	729	51.29	19 23.98	155 15.50	3.56	.7	.6	1	136	.01	2	.7	2.9	5	SEC	
		30	730	3.76	19 23.79	155 15.23	2.96	1.6	1.7	19	3	98	.07	2	.3	.4	9	SEC
		30	730	19.70	19 23.71	155 15.52	3.83	1.0	.8	8	2	98	.04	2	.5	1.7	7	SEC
		30	731	30.88	19 23.81	155 15.16	3.23	.9	.2	9	2	128	.02	2	.5	.6	7	SEC
		30	732	19.31	19 23.99	155 15.34	2.41	.6	.9	9	1	113	.04	2	.4	.9	7	SEC
		30	732	31.51	19 23.70	155 15.22	2.94	.8	.2	10	2	94	.03	2	.4	.6	8	SEC
		30	733	47.44	19 23.77	155 15.22	2.93	.7	.2	10	2	99	.03	2	.4	.6	8	SEC
		30	734	6.91	19 23.89	155 15.30	2.75	.9	.2	10	2	106	.03	2	.4	.6	8	SEC
		30	735	32.35	19 23.80	155 15.31	2.50	.4	.8	10	2	101	.04	2	.4	.5	7	SEC
		30	736	13.49	19 23.82	155 15.32	2.20	.3	.9	9	1	102	.04	2	.4	.6	6	SEC
		30	736	33.21	19 23.83	155 15.32	2.24	.5	.2	9	1	104	.09	2	.4	.6	5	SEC
		30	737	3.66	19 23.91	155 15.24	2.69	.8	.5	10	2	107	.02	2	.4	.6	8	SEC
		30	738	23.47	19 23.92	155 15.19	2.31	.5	.8	8	2	157	.05	2	.5	1.0	5	SEC
		30	741	14.98	19 23.95	155 15.62	1.68	.5	.8	1	131	.02	2	.3	.7	5	SEC	

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1980	JUL	30	742	11.48	19 23.33	155 15.83	2.01	.1		8	0	81	.08	2	.4	.5 3 SEC
		30	744	26.85	19 23.77	155 15.17	2.83	1.0	1.0	10	2	97	.03	2	.4	.6 8 SEC
		30	745	25.47	19 23.69	155 15.24	2.90	1.1	1.2	12	2	94	.05	2	.4	.5 7 SEC
		30	748	16.15	19 23.86	155 15.77	3.21	2.4	2.6	33	3	72	.09	1	.3	.3 23 SEC
		30	750	43.24	19 23.60	155 15.15	3.30	2.0	2.3	24	3	86	.09	2	.4	.4 20 SEC
		30	757	6.08	19 24.10	155 15.95	3.14	.8	.3	9	1	120	.03	1	.4	.6 7 SEC
		30	758	18.73	19 23.77	155 15.20	2.97	.6	.1	8	1	98	.02	2	.5	1.1 5 SEC
		30	8	42.63	19 23.92	155 15.79	2.85	1.8	2.4	23	3	108	.11	1	.4	.4 17 SEC
		30	8	9.94	19 23.72	155 15.31	2.96	1.0	1.1	11	2	97	.04	2	.4	.5 8 SEC
		30	813	49.43	19 23.80	155 15.30	2.92	1.0	.7	10	2	101	.02	2	.4	.6 8 SEC
		30	844	1.37	19 23.76	155 15.18	3.14	1.3	1.4	14	2	97	.05	2	.3	.4 9 SEC
		30	1020	43.86	19 20.10	155 7.89	9.01	2.8	2.9	41	2	90	.10	5	.4	.5 29 SF4
		30	11	20.86	19 10.84	155 29.01	33.79	2.9	2.5	44	4	81	.07	3	.7	1.2 39 DLS
		30	15	2	34.10	19 26.27	10.18	2.7	2.5	40	2	35	.11	3	.4	.6 31 KAO
		31	144	7.58	19 10.99	155 29.04	33.99	2.4	2.1	39	4	79	.06	3	.7	1.2 32 DLS
		31	6	5	28.56	19 20.01	7.49	2.4	2.4	41	5	87	.11	4	.4	.6 32 SF3
		31	629	5.87	19 22.68	155 3.94	8.11	1.5	1.2	19	1	98	.11	4	1.1	.6 10 SF5
		31	8	3	10.52	19 22.08	8.44	2.3	2.1	36	3	72	.10	2	.4	.6 27 SF4
		31	932	8.59	19 23.28	155 16.85	2.93	2.5	2.4	29	4	39	.08	0	.2	.2 21 SSC
		31	1053	4.77	19 23.11	155 14.82	3.21	2.5	2.7	26	3	109	.07	2	.3	.4 20 SEC
		31	11	2	12.68	19 23.06	33.70	2.4	2.3	36	1	62	.10	2	.6	1.3 33 DEP
		31	1320	10.17	19 22.92	155 14.64	3.24	1.6	2.0	19	3	68	.06	2	.4	.4 14 SEC
		31	1351	19.48	19 22.95	155 17.17	2.43	1.8	2.1	22	2	42	.07	1	.3	.3 19 SSC
		31	2015	56.68	19 20.00	155 4.22	7.78	1.7	1.5	24	1	141	.09	2	.5	.9 12 SF5
		31	2124	25.87	19 23.41	155 15.11	3.26	1.9	2.4	25	3	79	.08	2	.3	.3 18 SEC
		31	2236	9.73	19 23.28	155 15.19	2.87	1.7	1.9	22	3	76	.07	2	.3	.3 17 SEC
		1	141	57.02	19 22.85	155 14.78	3.05	2.1	1.9	23	1	68	.10	2	.4	.5 18 SEC
		1	142	15.56	19 23.08	155 14.62	4.96	3.4	3.7	24	1	82	.11	7	.5	1.5 19 SEC
		1	536	5.60	19 20.27	155 12.71	8.16	1.6	1.1	25	2	71	.07	4	.4	.7 19 SF2
		1	1044	59.96	19 19.36	155 11.61	7.12	1.7	1.4	28	1	97	.09	5	.5	1.0 23 SF3
		1	1341	35.50	19 23.14	155 14.86	3.22	2.5	2.7	30	1	48	.08	2	.3	.4 23 SEC
		1	15	6	33.71	19 17.44	4.02	2.6	3.1	35	1	126	.14	6	.5	1.7 28 SWR
		1	1535	13.78	19 22.19	155 4.78	7.45	2.2	1.9	34	2	80	.14	3	.5	.7 25 SF5
		1	1647	26.83	19 24.00	155 16.09	2.98	1.3	1.5	16	3	110	.09	1	.3	.3 12 SEC
		1	2218	41.37	19 20.47	155 12.77	8.04	1.8	1.7	33	2	67	.11	4	.5	.8 25 SF2
		1	2259	35.47	19 23.07	155 17.05	2.65	1.7	1.5	18	1	66	.06	1	.3	.3 17 SBC
		2	117	10.70	19 20.52	155 6.48	8.90	2.6	2.3	31	2	186	.08	5	.8	.6 25 SF4
		2	151	3.40	19 17.93	155 12.82	6.96	1.4	1.0	17	2	165	.08	2	.6	1.2 10 SF2
		2	13	3	25.26	19 22.33	7.14	2.0	1.5	33	4	72	.10	1	.4	.7 25 SF4
		2	15	0	58.32	19 19.43	8.14	1.6	1.6	28	1	95	.09	5	.5	1.0 22 SF3
		2	1710	43.53	19 19.32	155 9.70	8.34	1.8	1.5	27	2	98	.06	5	.5	1.0 20 SF3
		2	1849	24.46	19 23.47	155 15.19	3.29	2.8	3.0	28	1	52	.08	2	.3	.4 21 SEC
		2	1915	49.26	19 23.52	155 15.10	3.32	2.1	2.2	23	2	82	.08	3	.3	.4 19 SEC
		2	2044	51.21	19 19.74	155 10.84	9.86	2.8	3.0	42	3	92	.09	5	.4	.5 35 SF3
		2	2211	12.87	19 26.51	155 28.51	7.75	2.1	1.5	28	1	65	.10	6	.4	1.3 23 KAO
		2	2242	12.27	19 21.11	155 5.75	7.95	1.4	1.3	21	2	96	.10	4	.6	1.1 14 SF4
		2	2351	50.38	19 22.79	155 14.39	3.37	1.3	1.3	12	2	121	.03	2	.4	.5 7 SEC
		3	157	11.23	19 23.17	155 15.04	2.87	1.6	1.5	20	3	70	.08	2	.3	.4 15 SEC

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1980	AUG	3	230	56.51	19 22.79	155 14.63	3.32	2.1	2.3	27	4	70	.08	2	.3	.4 21 SEC	
		3	3	4	36.56	19 22.62	155 3.78	8.96	2.0	1.6	26	1	105	.10	4	.5	.7 18 SF5
		3	543	3.26	19 25.47	155 25.48	7.47	2.1	1.5	26	0	51	.11	1	.5	1.1 22 KAO	
		3	13	9	.03	19 19.77	155 8.22	8.07	1.9	1.3	23	1	86	.07	5	.6	1.1 20 SF4
		3	2158	58.79	19 23.21	155 17.02	2.86	1.0	1.3	15	1	69	.05	0	.3	.3 10 SSC	
		3	2345	50.16	19 18.24	155 13.35	9.01	2.2	2.0	39	4	123	.12	2	.5	.5 27 SF2	
		4	126	46.46	19 18.58	155 13.81	7.54	1.5	1.2	25	1	109	.07	3	.5	1.0 18 SF2 F	
		4	6	8	27.89	19 20.85	155 11.34	7.82	1.7	1.5	30	2	71	.10	3	.5	.7 23 SF3
		4	759	11.33	19 20.07	155 13.70	6.57	1.5	1.1	25	2	71	.10	5	.5	1.0 17 SF2	
		4	1422	5.78	19 19.56	155 11.02	8.81	1.6	1.0	22	1	96	.05	5	.5	1.0 18 SF3	
		4	1515	3.40	19 19.75	155 11.03	8.40	1.7	1.6	30	1	92	.09	5	.5	.9 25 SF3	
		4	1550	5.55	19 10.77	155 34.69	7.60	2.1	1.4	23	1	102	.23	9	1.0	1.1 14 LSW	
		4	1632	3.42	19 22.44	155 29.10	10.41	1.9	1.4	26	0	61	.06	3	.4	1.0 20 KAO	
		4	1829	51.30	19 10.66	155 29.01	34.10	2.1	1.7	37	3	86	.06	3	.7	1.3 33 DLS	
		4	1944	9.52	19 20.16	155 11.22	7.98	1.9	1.7	32	1	83	.11	4	.5	.9 27 SF3	
		4	21	7	40.65	19 12.45	155 29.05	39.26	2.1	1.7	33	2	86	.06	5	.7	1.5 29 DLS
		5	745	41.92	20 2.87	155 43.46	9.66	2.9	3.0	40	3	145	.10	11	.6	.6 27 KOH F	
		5	858	11.05	19 19.60	155 10.50	9.94	3.3	3.3	42	2	95	.08	5	.4	.3 40 SF3	
		5	1038	28.37	19 20.01	155 11.34	8.57	1.5	1.5	29	1	85	.09	5	.5	.8 19 SF3	
		5	1438	28.53	19 19.00	155 13.15	8.51	1.7	1.5	26	1	81	.08	4	.6	.9 22 SF2	
		5	17	4	51.49	19 22.69	155 6.55	2.22	2.1	2.0	20	0	66	.06	1	.4	.3 17 SME
		5	1812	28.23	19 22.67	155 6.44	1.96	2.9	3.1	33	0	67	.10	1	.4	.3 26 SME	
		5	1815	26.16	19 22.86	155 6.25	1.92	2.5	2.7	32	0	64	.10	0	.4	.3 24 SME	
		5	1817	41.43	19 22.87	155 6.10	1.77	1.8	2.0	23	0	65	.07	0	.4	.2 18 SME	
		5	2249	37.35	19 26.38	155 24.29	9.99	1.7	1.3	26	3	55	.10	3	.4	.9 20 KAO	
		5	23	6	46.48	19 20.00	155 8.27	8.33	2.4	2.4	42	3	83	.08	5	.4	.7 29 SF4
		6	238	17.87	19 23.19	155 5.78	1.79	1.7	1.4	10	0	94	.05	1	.5	.3 8 SME	
		6	858	.54	19 20.79	155 10.13	7.37	1.6	1.4	29	2	71	.07	2	.4	.7 20 SF3	
		6	1115	3.25	19 20.85	155 6.33	7.80	1.8	1.7	21	1	98	.08	4	.6	1.2 15 SF4	
		6	1322	42.99	19 41.63	155 2.27	1.12	2.2	2.1	24	0	101	.52	1	2.5	2.5 13 HIL B*	
		6	14	2	17.76	19 22.80	155 6.65	1.89	1.4	1.7	12	0	95	.06	1	.5	.2 6 SME
		6	16	3	57.07	19 20.47	155 7.52	6.45	1.8	1.8	27	2	91	.10	5	.5	1.0 18 SF4
		6	1944	7.26	19 23.09	155 6.37	.63	2.4	3.1	28	0	61	.08	0	.4	.2 20 SME	
		6	23	8	3.42	19 18.46	155 14.63	7.11	1.8	1.5	25	1	126	.07	4	.5	.9 20 SF1
		6	2346	54.89	19 20.26	155 7.83	8.10	2.1	2.4	31	2	179	.08	6	.5	.6 24 SF4	
		7	232	54.50	19 19.77	155 10.96	8.79	2.1	2.1	37	3	91	.11	5	.4	.4 27 SF3	
		7	3	0	13.62	19 20.29	155 7.48	8.31	2.0	2.2	29	2	95	.08	5	.4	.8 23 SF4
		7	526	28.48	19 22.80	155 6.13	2.18	2.0	2.8	25	0	65	.17	0	.5	1.1 17 SME	
		7	856	52.38	19 15.31	155 29.73	7.91	1.6	1.5	31	1	79	.17	1	.5	.9 19 LSW	
		7	10	3	11.86	19 19.91	155 10.43	6.66	1.6	1.0	32	2	88	.10	4	.4	.8 22 SF3
		7	1440	2.15	19 20.35	155 7.40	7.17	1.6	1.2	25	1	95	.08	5	.5	.8 20 SF4	
		7	1936	57.76	19 24.02	155 15.91	3.15	1.0	.9	13	2	110	.04	1	.3	.3 9 SEC	
		7	1942	56.82	19 24.01	155 15.96	2.97	.9	.9	15	2	108	.04	1	.3	.3 8 SEC	
		7	2128	3.33	19 18.37	155 17.91	34.02	2.6	2.6	46	3	120	.10	1	.6	1.0 41 DEP	
		8	210	19.74	19 23.28	155 5.61	1.95	1.1	1.5	11	0	103	.08	1	.6	.3 5 SME	
		8	228	55.53	19 20.61	155 8.68	5.80	1.3	1.3	16	1	71	.05	3	.6	1.3 12 SF4	
		8	432	38.72	19 20.66	155 8.54	5.65	1.8	1.6	14	0	72	.05	3	.6	1.5 13 SF4	
		8	753	44.57	19 24.69	155 25.50	9.73	2.3	2.1	39	3	38	.12	1	.4	.7 33 KAO	

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YEAR	MON	DA	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 NO KM FM REMK
1980	AUG	8	1552	31.61	19 20.67	155 12.90	7.44	1.6	1.9	33	2	64	.12	4	.5	.7 29 SF2
		8	18 8	42.28	19 27.00	155 27.42	9.82	2.9	2.9	44	3	52	.11	5	.4	.6 36 KAO
		9	312	30.95	19 50.83	155 33.92	24.93	2.1	2.2	24	1	113	.08	13	.6	1.8 18 KEA
		9	611	4.17	19 19.65	155 10.30	7.52	1.5	1.0	22	1	93	.09	5	.6	1.2 19 SF3
		9	1026	3.59	19 19.60	155 12.80	7.11	1.9	2.0	31	2	78	.09	5	.4	.7 21 SF2
		9	1150	18.27	19 15.66	155 22.09	8.06	2.0	2.6	26	1	202	.10	7	.7	1.3 19 SWR
		9	1210	50.09	19 19.41	155 10.95	6.34	1.6	1.3	25	3	101	.10	5	.5	1.1 14 SF3
		9	2037	6.54	19 20.87	155 26.06	9.78	1.5	1.1	24	2	99	.10	4	.5	.9 19 KAO
		9	2329	1.41	19 19.69	155 6.84	8.56	1.9	1.6	21	2	221	.06	6	1.1	.9 14 SF4
		10	250	31.67	19 23.58	155 29.92	9.60	1.8	1.9	27	1	64	.07	5	.4	1.1 23 KAO
		10	616	6.35	19 22.80	155 6.66	1.67	2.2	3.0	17	0	95	.06	1	.4	.2 9 SME
		10	757	23.56	19 17.63	155 17.88	42.14	2.3	2.4	37	0	131	.09	5	.8	1.8 30 DEP
		10	10 0	11.21	19 23.61	155 29.66	9.35	1.9	1.2	21	1	75	.07	4	.5	1.2 17 KAO
		10	22 5	25.35	19 22.42	155 1.82	8.04	2.1	1.9	30	2	153	.13	5	.6	.9 21 SF5
		11	042	58.42	19 17.83	155 14.88	6.29	1.4	1.3	18	2	153	.06	3	.7	1.3 12 SF1
		11	143	58.59	19 21.19	155 6.84	7.54	2.0	1.9	30	1	87	.09	4	.4	.7 27 SF4
		11	220	26.72	19 21.90	155 6.29	5.93	2.0	1.9	34	2	78	.10	6	.4	1.5 18 SF4
		11	517	50.35	19 19.41	155 6.37	6.63	1.1	1.2	17	2	136	.09	5	.6	1.4 9 SF4
		11	615	29.46	19 22.85	155 6.82	1.85	.8	1.7	9	0	127	.03	1	.5	.3 5 SME
		11	7 5	52.88	19 19.89	155 12.40	8.52	1.8	1.9	28	1	79	.07	5	.5	.7 23 SF2
		11	1028	8.47	19 24.28	155 27.68	6.27	2.0	1.6	22	1	62	.10	3	.4	1.2 20 KAO
		11	1125	51.11	19 20.70	155 5.60	8.36	2.2	1.8	25	2	107	.09	4	.5	1.1 22 SF4
		11	19 7	.07	19 20.85	155 6.22	7.10	2.1	1.7	27	2	100	.10	4	.5	1.0 21 SF4
		11	2042	33.11	19 20.07	155 6.22	10.20	4.2	4.3	42	1	120	.09	5	.6	.4 40 SF4
		11	2046	33.01	19 20.52	155 6.86	7.02	1.8	1.3	28	0	100	.09	5	.5	.9 21 SF4
		11	2121	51.41	19 20.30	155 6.70	8.16	1.4	1.3	25	1	107	.07	5	.5	1.2 17 SF4
		11	2246	59.80	19 21.08	155 6.78	9.37	2.1	2.0	33	3	90	.09	4	.4	.8 21 SF4
		12	138	48.07	19 23.19	155 5.82	1.48	2.2	2.9	22	0	93	.09	1	.4	.2 11 SME
		12	353	47.84	19 23.34	155 6.14	1.43	2.1	2.7	20	0	98	.06	1	.4	.2 13 SME
		12	7 8	36.26	19 20.71	155 7.01	7.62	2.0	1.6	29	2	94	.07	4	.4	.9 18 SF4
		12	723	44.58	19 20.37	155 6.07	9.72	3.2	3.1	43	2	113	.09	5	.4	.3 37 SF4
		12	741	36.80	19 20.42	155 5.96	9.72	2.9	3.0	41	3	112	.08	5	.4	.4 31 SF4
		12	831	38.29	19 19.95	155 7.24	7.51	1.9	1.6	25	0	105	.09	5	.5	.9 18 SF4
		12	11 1	55.95	19 19.84	155 10.48	10.25	3.5	3.6	41	1	90	.08	4	.4	.3 39 SF3
		12	1334	29.98	19 23.27	155 5.71	1.51	2.4	2.9	24	0	82	.10	1	.4	.3 15 SME
		12	14 6	5.34	19 21.35	155 5.59	7.98	2.9	2.6	39	4	91	.10	3	.4	.6 33 SF4
		12	14 8	50.29	19 21.50	155 5.58	7.03	2.2	2.4	38	5	87	.09	3	.4	.7 27 SF4
		13	514	18.29	19 30.25	155 56.03	27.36	2.1	1.6	31	4	208	.10	2	.9	1.1 27 KON
		13	556	22.51	19 17.78	155 19.21	7.56	2.4	2.1	36	0	122	.10	3	.5	.7 31 SF1
		13	642	7.59	19 20.03	155 8.87	8.54	1.7	1.3	30	3	74	.07	4	.5	.8 23 SF4
		13	1234	58.84	19 22.97	155 6.57	1.48	2.9	3.5	26	1	85	.10	1	.5	.3 20 SME
		13	1537	50.63	19 19.97	155 6.31	8.22	2.0	1.5	27	1	121	.06	6	.5	1.0 21 SF4
		13	2127	16.70	19 21.12	155 25.24	10.71	4.1	4.0	46	2	77	.13	4	.4	.5 43 KAO
		14	1029	10.91	19 27.98	155 28.54	9.10	2.1	1.2	22	2	95	.08	8	.5	1.3 14 KAO
		14	1130	22.85	19 26.37	155 29.49	9.13	1.8	1.5	36	2	54	.11	8	.4	.9 25 KAO
		14	1242	51.38	19 18.56	155 13.47	6.94	1.8	1.6	31	1	76	.10	3	.5	.9 20 SF2
		14	1639	53.17	19 20.61	155 12.73	8.73	1.8	1.9	35	2	66	.10	4	.4	.7 24 SF2
		14	1912	56.32	19 21.03	155 5.66	7.29	2.0	1.4	28	3	98	.11	4	.5	.8 18 SF4

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YEAR	MON	DA	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 NO KM FM REM
1980	AUG	15	225	15.92	19 20.57	155 6.27	8.03	2.7	2.6	35	4	106	.08	5	.4	.6 25 SF4
		15	3 4	59.12	19 20.72	155 6.29	7.32	2.2	2.2	34	2	102	.10	4	.5	.7 24 SF4
		15	347	28.53	19 20.43	155 12.88	9.21	1.5	1.5	26	2	123	.07	4	.5	.7 18 SF2
		15	427	11.42	19 21.28	155 6.18	7.66	1.5	1.5	24	2	210	.09	3	1.0	.7 15 SF4
		15	436	8.32	19 20.11	155 6.20	8.88	1.5	1.5	26	2	158	.07	5	.6	.9 17 SF4
		15	7 3	7.31	19 24.49	155 16.54	15.85	1.7	1.4	38	4	62	.10	1	.5	.3 29 DEP
		15	1258	17.09	19 26.35	155 23.92	3.88	1.8	1.5	23	2	49	.08	3	.3	.8 14 KAO
		15	2043	51.65	19 19.59	155 11.46	8.37	1.7	1.7	31	1	93	.09	5	.5	.8 22 SF3
		16	010	25.34	19 20.49	155 11.89	8.17	2.6	2.8	41	3	135	.14	4	.4	.5 30 SF3
		16	856	17.26	19 22.91	155 24.99	10.20	2.4	2.3	45	4	43	.10	4	.3	.4 31 KAO
		16	1254	56.94	19 21.63	155 6.76	7.05	2.0	2.0	34	2	80	.10	3	.4	.7 22 SF4
		16	1422	1.76	19 20.33	155 7.44	6.70	2.0	1.7	29	3	95	.10	5	.5	1.0 15 SF4
		16	2043	1.72	19 18.38	155 13.31	9.05	2.4	2.6	42	4	86	.11	3	.4	.5 28 SF2
		17	043	25.87	19 20.71	155 10.75	6.71	1.7	1.7	26	3	154	.09	3	.5	.8 16 SF3
		17	11 1	41.60	19 21.92	155 2.80	8.20	1.9	1.3	29	2	133	.10	4	.5	.5 19 SF5
		17	16 8	41.35	19 18.17	155 13.16	8.31	2.1	1.8	36	3	95	.09	2	.5	.6 24 SF2
		17	1732	48.59	19 15.86	155 27.12	10.53	3.6	3.8	44	4	103	.13	5	.4	.4 37 LSW
		17	2128	35.13	19 19.99	155 12.00	8.06	1.9	1.4	33	2	81	.08	5	.4	.6 19 SF3
		17	2231	41.89	19 20.08	155 13.08	8.68	2.3	2.3	43	3	68	.10	5	.4	.5 34 SF2
		17	23 5	30.79	19 19.63	155 6.91	7.74	1.7	1.3	29	2	119	.10	5	.5	.9 24 SF4
		18	1 6	29.81	19 19.77	155 8.48	8.06	2.0	2.2	36	3	181	.09	5	.6	.8 22 SF4
		18	120	29.06	19 19.73	155 9.70	7.48	1.7	1.5	23	2	187	.07	4	.7	1.0 15 SF3
		18	121	58.67	19 19.62	155 9.67	7.76	1.8		24	3	174	.06	5	.7	1.0 17 SF3
		18	2 2	16.28	19 25.10	155 22.79	11.62	2.0	1.5	37	6	38	.09	4	.4	.6 26 KAO
		18	338	8.18	19 18.84	155 15.10	7.42	2.5	2.5	35	3	94	.13	4	.4	.6 25 SF1
		18	5 0	27.61	19 18.75	155 13.25	8.19	1.5	1.1	28	3	82	.08	3	.5	.8 18 SF2
		18	631	52.67	19 24.33	155 26.19	8.48	1.7	1.5	30	3	49	.09	3	.4	.8 23 KAO
		18	651	.36	19 19.79	155 8.25	8.59	1.5	1.1	21	1	85	.06	5	.6	1.2 17 SF4
		18	13 6	26.86	19 20.73	155 8.38	5.70	1.7	1.6	22	3	74	.06	4	.4	1.1 16 SF4
		18	18 1	1.34	19 22.41	155 24.72	8.08	1.7	1.3	25	1	67	.08	5	.4	.7 20 KAO
		18	2058	44.14	19 20.39	155 13.27	7.76	1.5	1.4	29	2	63	.11	4	.5	.8 22 SF2
		18	2325	17.13	19 49.96	155 36.37	15.10	2.8	2.8	34	4	105	.10	17	.4	.6 20 KEA
		19	1950	12.81	19 21.69	155 1.89	7.16	2.0	1.5	28	3	163	.14	4	.7	.6 15 SF5
		19	2249	28.20	19 20.69	155 12.99	8.10	2.0	2.0	38	4	62	.10	4	.4	.6 27 SF2
		19	2316	56.75	19 19.83	155 8.98	7.91	1.6	1.4	29	2	79	.08	4	.5	.9 19 SF4
		20	538	.37	19 22.58	155 24.16	10.48	1.8	1.7	35	2	53	.07	5	.4	.5 28 KAO
		20	6 6	25.94	19 36.09	156 9.01	24.60	3.6	4.2	39	4	213	.13	27	1.3	2.1 34 KON
		20	11 4	58.45	19 20.03	155 11.20	10.15	2.7	2.7	42	2	85	.10	4	.3	.4 31 SF3
		20	1153	33.82	19 56.17	155 29.90	35.86	2.5	1.9	38	5	161	.08	17	.7	1.5 30 KEA
		20	2315	28.36	19 15.62	155 6.58	46.27	3.0	2.7	44	1	200	.09	4	1.0	1.7 42 DEP
		21	0 1	5.88	19 29.51	154 54.85	.01	1.9	1.8	7	1	149	.13	3	.5	1.2 4 SLE
		21	317	33.63	19 17.97	155 23.18	8.98	1.1	1.2	22	1	125	.11	4	.6	1.0 16 SWR
		21	341	26.48	19 19.52	155 21.76	2.83	1.5	1.7	20	2	124	.10	3	.5	.7 15 SWR
		21	731	5.65	19 19.30	155 11.53	7.48	1.7	1.6	31	3	100	.09	5	.5	.8 21 SF3
		21	916	55.85	19 24.24	155 23.22	10.34	2.0	1.6	37	2	36	.10	4	.4	.5 27 KAO
		21	1210	48.17	19 25.66	155 16.49	15.10	2.3	2.1	38	1	47	.10	2	.6	.3 32 DEP
		21	1444	41.51	19 21.06	155 13.12	8.45	1.6	1.6	33	3	58	.08	3	.4	.5 21 SF2
		21	1713	22.40	19 25.41	154 51.67	6.91	1.8	1.5	26	4	279	.12	7	1.3	.8 15 LER

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YEAR	MON	DA	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 NO KM FM	REMK	
1980	AUG	22	0	2	16.83	19 23.45	155 25.17	12.64	1.6	1.1	26	2	97	.08	3	.5	.7 20	KA0
		22	752		56.66	19 20.24	155 6.97	9.73	2.9	2.8	44	3	104	.10	5	.4	.5 33	SF4
		22	1141		46.04	19 20.70	155 5.95	8.29	2.2	1.8	32	2	105	.09	4	.4	.8 19	SF4
		22	1833	51.27	19 20.28	155 11.68	8.92	2.7	2.8	43	3	79	.09	5	.3	.5 29	SF3	
		22	19	8	56.02	19 19.29	155 9.05	7.14	1.6	1.2	25	2	111	.09	4	.6	1.1 20	SF4
		22	20	8	47.53	19 21.41	155 6.51	8.25	2.0	1.8	33	3	86	.08	6	.4	.8 20	SF4
		22	2034	43.70	19 23.38	155 16.95	3.28	1.2	1.1	15	2	80	.08	0	.4	.5 7	SSC	
		23	210	12.49	19 20.52	155 12.96	9.59	2.7	2.7	46	3	65	.10	4	.4	.5 34	SF2	
		23	231	17.33	19 25.02	155 25.48	9.12	1.6	1.3	30	2	50	.09	1	.4	.7 23	KA0	
		23	349	38.15	19 20.66	155 12.59	7.99	2.1	2.2	41	4	66	.10	4	.4	.5 23	SF2	
		23	639	15.18	19 29.25	155 42.14	8.65	1.3	1.3	25	1	70	.13	7	.5	1.1 18	MLO	
		23	8	5	53.93	19 26.67	155 24.18	3.48	1.5	1.2	18	3	111	.08	3	.3	.7 12	KA0
		23	1328	57.25	19 23.35	155 16.87	3.01	2.5	3.0	35	4	53	.09	0	.2	.2 25	SSC	
		23	1633	8.84	19 20.22	155 6.95	7.34	1.5	1.2	23	1	105	.09	5	.5	1.0 16	SF4	
		23	1736	53.67	19 19.99	155 6.00	8.61	1.9	1.2	27	2	125	.05	5	.4	.9 17	SF4	
		23	2013	6.49	19 22.28	155 4.93	9.53	1.8	1.3	24	1	77	.08	3	.4	.8 13	SF5	
		23	2124	20.97	19 20.40	155 10.59	7.93	1.8	1.5	25	2	79	.08	3	.4	.7 15	SF3	
		24	448	4.83	19 32.69	155 37.34	9.65	2.3	1.3	29	0	87	.13	7	.5	.8 18	MLO	
		24	452	32.15	19 18.56	155 20.05	8.21	1.4	1.2	32	4	111	.09	3	.4	.6 20	SWR	
		24	5	1	30.93	19 20.28	155 13.02	8.96	2.1	2.0	40	2	67	.10	4	.4	.5 30	SF2
		24	548	43.73	19 26.40	155 25.04	5.29	1.6	1.6	31	2	51	.11	2	.3	1.0 24	KA0	
		24	1114	35.68	19 19.10	155 11.60	7.95	2.8	2.7	44	4	105	.11	5	.4	.5 34	SF3	
		24	1251	31.21	19 19.24	155 11.65	8.00	2.2	2.0	40	4	100	.07	5	.4	.6 26	SF3	
		24	1311	10.42	19 19.34	155 12.47	5.98	1.5	1.3	29	2	88	.10	5	.4	1.2 16	SF2	
		24	2020	14.23	19 20.19	155 11.41	7.58	2.2	1.8	37	3	81	.09	4	.4	.5 25	SF3	
		25	1	5	56.33	19 25.87	155 23.78	8.82	2.3	1.8	31	3	42	.13	3	.4	.9 25	KA0
		25	1342	7.66	19 19.45	155 8.58	7.87	1.7	1.2	29	2	80	.07	4	.5	.8 19	SF4	
		25	1643	5.60	19 27.39	155 26.37	10.44	2.2	2.1	34	3	53	.08	5	.4	.7 25	KA0	
		25	19	4	46.25	19 21.75	155 2.26	6.51	1.6	1.3	26	1	152	.12	4	.6	.8 14	SF5
		25	2219	50.25	19 20.64	155 29.97	10.14	2.7	2.4	42	2	66	.09	5	.4	.7 32	KA0	
		26	633	47.91	19 26.27	155 27.27	6.55	1.6	1.0	23	2	66	.09	4	.4	1.1 17	KA0	
		26	1040	49.55	19 17.83	155 21.24	4.51	1.7	2.3	34	2	121	.12	5	.4	1.7 27	SWR	
		26	1238	26.46	19 19.97	155 11.73	9.42	3.0	3.1	46	4	84	.09	5	.4	.4 35	SF3	
		26	1321	39.04	19 20.89	155 2.33	6.00	2.3	2.3	29	3	165	.10	2	.5	.7 19	SF5	
		26	2136	2.03	19 19.94	155 12.27	7.32	1.5	1.3	27	1	80	.11	5	.5	1.0 19	SF3	
		27	144	45.63	19 21.27	155 6.06	8.20	2.3	2.1	37	4	91	.10	3	.4	.7 31	SF4	
		27	158	53.97	19 54.60	155 17.04	38.12	3.0	3.0	44	2	194	.10	7	.7	1.5 37	KEA F	
		27	3	2	26.45	19 22.60	155 8.41	3.32	1.6	1.7	23	1	167	.07	3	.9	.6 18	SER
		27	622	24.60	19 55.42	155 21.40	12.95	1.9	1.3	13	2	187	.09	4	1.7	.6 11	KEA	
		27	1016	56.48	19 19.46	155 9.32	6.82	1.6	1.7	22	3	105	.07	5	.5	1.2 17	SF3	
		27	1413	11.62	19 20.78	155 13.24	8.40	2.0	2.4	33	3	60	.11	3	.4	.7 28	SF2	
		27	1430	45.69	19 23.90	155 15.21	3.11	.9		10	2	105	.03	2	.4	.5 5	SEC	
		27	1431	10.94	19 23.88	155 15.24	3.19	1.3	.9	10	2	105	.04	2	.4	.6 7	SEC	
		27	1432	29.19	19 23.78	155 15.21	2.75	.9	.4	10	2	99	.04	2	.4	.6 8	SEC	
		27	1434	29.09	19 23.82	155 15.25	3.00	1.3	1.2	15	2	101	.04	2	.3	.3 10	SEC	
		27	1435	49.37	19 23.95	155 15.22	3.20	1.1	.8	10	2	109	.03	2	.4	.6 8	SEC	
		27	1438	15.54	19 23.76	155 15.21	2.85	.8	.3	10	2	97	.02	2	.4	.6 8	SEC	
		27	1439	3.73	19 23.96	155 15.25	2.81	1.0	.3	10	2	110	.04	2	.4	.5 7	SEC	

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YEAR	MON	DA	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
1980	AUG	27	1439	25.03	19 23.77	155 15.22	2.86	1.0	.3	10	2	98	.03	2	.4	.6	8	SEC
		27	1439	40.33	19 23.94	155 15.28	2.54	.8	.2	10	2	109	.04	2	.3	.6	7	SEC
		27	1442	15.93	19 23.98	155 15.30	2.74	.7	.1	10	2	112	.05	2	.5	.5	6	SEC
		27	1442	27.69	19 23.82	155 15.21	2.80	.9	.2	10	2	101	.04	2	.5	.5	6	SEC
		27	1443	1.75	19 23.87	155 15.27	3.13	1.1	.8	10	2	104	.03	2	.4	.6	8	SEC
		27	1444	18.42	19 23.98	155 15.26	2.86	1.1	.7	10	2	111	.04	2	.4	.6	8	SEC
		27	1448	17.72	19 23.67	155 15.19	2.62	1.3	.4	9	2	93	.05	2	.4	.7	6	SEC
		27	1449	31.89	19 23.81	155 15.21	2.87	1.0	.5	10	2	101	.02	2	.4	.6	8	SEC
		27	1449	56.30	19 23.79	155 15.20	2.94	1.2	.9	9	1	99	.02	2	.4	.6	8	SEC
		27	1451	50.29	19 23.80	155 15.24	2.85	1.1	.4	10	2	100	.03	2	.4	.7	8	SEC
		27	1452	7.85	19 23.85	155 15.21	3.09			10	2	103	.03	2	.4	.7	7	SEC
		27	1453	.55	19 23.82	155 15.20	3.00	1.1	.7	9	1	101	.02	2	.4	.7	7	SEC
		27	1453	23.27	19 23.72	155 15.26	2.75	1.3	1.2	13	2	97	.05	2	.3	.4	8	SEC
		27	1453	51.87	19 23.88	155 15.15	2.49		.1	9	1	103	.04	2	.4	.6	8	SEC
		27	1454	24.11	19 23.79	155 15.17	2.89	1.0	.3	10	2	99	.02	2	.4	.7	6	SEC
		27	1455	35.90	19 23.86	155 15.23	2.81	.9	.4	9	1	104	.03	2	.4	.6	8	SEC
		27	1458	57.22	19 23.71	155 15.28	2.72	1.3	1.1	11	1	96	.09	2	.4	.5	9	SEC
		27	1459	53.59	19 23.77	155 15.23	2.45	1.0	1.3	10	1	99	.06	2	.4	.6	7	SEC
		27	15	0	27.40	19 23.51	3.07	2.1	2.2	9	1	98	.02	3	.4	.7	8	SEC
		27	15	1	47.60	19 23.72	2.80	1.0	.4	10	2	94	.03	2	.3	.6	7	SEC
		27	15	2	30.86	19 23.83	2.84		.2	18	4	123	.04	2	.3	.5	12	SEC
		27	15	7	35.93	19 23.57	2.02	1.5	.8	11	2	97	.09	2	.4	.5	7	SEC
		27	15	9	30.73	19 23.77	2.52	1.5	1.0	13	1	92	.04	2	.4	.5	10	SEC
		27	15	9	60.00	19 23.59	3.15	1.9	.7	12	0	96	.05	2	.4	.5	12	SEC
		27	1512	5.57	19 23.82	155 15.00	2.88	1.3	.8	10	1	96	.02	2	.4	.6	7	SEC
		27	1512	39.70	19 23.73	155 15.05	2.81	1.3	1.0	12	2	93	.03	2	.3	.6	8	SEC
		27	1513	46.84	19 23.76	155 15.11	2.65	1.1	.8	11	2	96	.04	2	.3	.6	8	SEC
		27	1515	36.63	19 23.72	155 14.96	2.93		.2	10	2	92	.05	2	.4	.8	7	SEC
		27	1515	50.28	19 23.73	155 15.16	1.55		.2	10	2	94	.20	2	.5	.9	8	SEC
		27	1517	52.28	19 23.83	155 15.05	2.85	1.3	1.0	13	2	98	.06	2	.3	.6	9	SEC
		27	1518	12.80	19 23.16	155 15.08	2.56	2.1	2.4	19	0	70	.10	2	.4	.4	17	SEC
		27	1519	35.34	19 23.48	155 14.94	2.48		.2	10	2	99	.01	2	.4	.6	8	SEC
		27	1520	22.32	19 23.07	155 15.45	.79	2.1	2.3	11	3	112	.06	1	.2	.	3	2 SEC
		27	1521	23.61	19 23.35	155 14.93	3.34	2.4	2.6	25	1	55	.07	2	.3	.4	24	SEC
		27	1524	59.50	19 23.64	155 15.08	2.90	1.5	1.4	8	1	94	.02	2	.4	.7	0	SEC
		27	1525	58.73	19 23.49	155 14.80	3.52	3.1	3.0	34	1	46	.09	2	.3	.4	28	SEC
		27	1527	39.66	19 23.47	155 15.11	2.76	2.1	2.4	21	0	81	.08	2	.4	.4	18	SEC
		27	1528	12.78	19 23.26	155 14.60	.01	1.8	1.7	11	1	106	.09	3	.2	.4	8	SEC
		27	1529	25.68	19 23.82	155 15.02	2.81	1.5	.8	10	2	96	.05	2	.4	.6	8	SEC
		27	1529	42.51	19 23.57	155 14.94	3.15	2.3	2.4	24	2	47	.09	2	.3	.3	17	SEC
		27	1530	19.45	19 23.83	155 15.52	2.80	2.0	2.3	23	3	85	.08	2	.3	.3	15	SEC
		27	1531	46.56	19 23.51	155 15.03	2.98	2.2	2.4	26	2	45	.10	3	.3	.4	18	SEC
		27	1533	26.41	19 23.66	155 15.10	2.56	1.6	1.0	15	1	93	.08	2	.4	.4	11	SEC
		27	1533	49.43	19 23.49	155 15.08	2.44	1.7	1.4	16	1	98	.10	3	.4	.4	13	SEC
		27	1534	40.33	19 23.11	155 14.70	2.67	1.8	1.2	14	0	62	.08	2	.3	.5	14	SEC
		27	1535	35.66	19 23.50	155 14.84	3.30	2.7	3.0	36	0	45	.09	2	.3	.4	30	SEC
		27	1539	7.49	19 23.73	155 15.13	2.61	1.3	.5	10	2	94	.02	2	.3	.6	4	SEC
		27	1541	12.42	19 23.35	155 14.85	3.04	1.9	.8	11	2	104	.05	3	.4	.5	5	SEC

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YEAR	MON	DA	HR	MIN	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 NO KM FM	REMK
1980	AUG	27	15	42	4.81	19 23.07	155 14.58	2.93	1.0		8	2	116	.03	3	.5	.7	4 SEC
		27	15	44	8.48	19 23.75	155 15.13	2.65	1.1		10	2	95	.03	2	.4	.6	8 SEC
		27	15	45	27.58	19 23.31	155 14.62	2.35	1.0	.2	10	2	105	.04	3	.4	.7	6 SEC
		27	15	46	3.66	19 23.32	155 14.84	3.19	1.8	1.2	22	2	70	.07	3	.3	.4	15 SEC
		27	15	47	17.52	19 23.21	155 14.76	2.90	1.1		10	2	109	.03	3	.4	.7	8 SEC
		27	15	48	14.18	19 23.47	155 14.83	2.96	1.1		10	2	99	.02	2	.4	.6	7 SEC
		27	15	48	31.65	19 23.47	155 14.82	2.97	1.1		10	2	99	.03	2	.4	.6	8 SEC
		27	15	48	57.88	19 23.75	155 15.13	2.90	1.1		10	2	95	.03	2	.4	.6	7 SEC
		27	15	50	30.99	19 22.80	155 14.82	3.04	2.1	2.3	25	1	63	.09	2	.3	.4	19 SEC
		27	15	52	8.17	19 23.58	155 14.80	3.42	1.4	.8	21	2	74	.08	2	.3	.4	15 SEC
		27	15	55	52.24	19 23.39	155 14.92	2.74	1.4	.4	20	2	74	.08	2	.3	.4	13 SEC
		27	16	0	53.13	19 23.13	155 14.73	3.19	1.7	.8	23	2	62	.07	2	.4	.3	15 SEC
		27	16	4	26.42	19 23.99	155 15.96	2.86	1.4	.5	23	3	108	.09	1	.3	.3	13 SEC
		27	16	6	2.16	19 23.49	155 14.65	3.33	1.5	.6	21	2	68	.10	2	.3	.3	15 SEC
		27	16	9	36.41	19 23.13	155 14.67	2.98	1.2		11	2	130	.02	3	.4	.5	8 SEC
		27	16	12	1.35	19 23.46	155 14.74	3.67	1.5	.7	20	2	71	.06	2	.4	.4	16 SEC
		27	16	13	30.45	19 23.35	155 14.48	1.53	1.6	.3	14	3	102	.07	2	.3	.4	9 SEC
		27	16	14	22.54	19 22.97	155 14.96	1.13	1.6	1.1	15	1	65	.12	2	.3	.4	9 SEC
		27	16	17	6.32	19 23.99	155 14.28	3.30	2.1	2.2	23	2	44	.16	1	.4	.6	14 SEC
		27	16	23	1.13	19 23.45	155 14.62	1.68	1.3	.4	12	2	100	.06	2	.3	.5	10 SEC
		27	16	26	54.93	19 23.46	155 14.65	3.15	3.0	3.1	40	0	45	.09	2	.3	.4	33 SEC
		27	16	29	31.65	19 23.49	155 15.08	1.60	1.5	1.0	16	2	98	.05	3	.3	.4	12 SEC
		27	16	30	15.91	19 23.33	155 14.60	1.83	1.4	.5	14	2	104	.07	3	.4	.4	12 SEC
		27	16	32	56.98	19 23.89	155 15.52	2.98	1.6	1.0	18	2	108	.07	2	.3	.3	11 SEC
		27	16	33	9.05	19 23.09	155 15.60	2.35	1.9	.9	14	1	73	.07	1	.3	.4	4 SEC
		27	16	34	1.24	19 23.10	155 14.81	.51	3.6	4.1	43	1	48	.11	2	.2	.3	33 SEC
		27	16	35	45.76	19 23.78	155 15.42	1.57	1.6	.9	18	2	100	.07	2	.3	.3	14 SEC
		27	16	36	24.08	19 23.45	155 15.54	1.95	1.5	.6	17	2	89	.06	2	.2	.3	10 SEC
		27	16	38	28.28	19 23.93	155 15.90	3.10	1.6	.9	21	2	107	.06	1	.4	.3	19 SEC
		27	16	52	11.59	19 22.83	155 14.22	1.98	1.3		9	2	127	.07	2	.6	.4	5 SEC
		27	16	55	58.69	19 23.11	155 14.36	1.36	1.6	.8	17	2	60	.08	2	.3	.4	12 SEC
		27	17	3	36.75	19 25.03	155 15.67	2.45	1.0	.8	14	1	126	.10	2	.5	.4	5 SNC
		27	17	3	50.36	19 21.32	155 13.93	28.35	2.8	2.5	30	1	90	.08	4	.8	1.2	26 DEP
		27	17	5	36.73	19 23.50	155 14.55	.56	1.5	.7	12	2	114	.21	3	.5	1.0	9 SEC
		27	17	10	17.29	19 23.79	155 15.41	1.84	1.8	1.8	19	3	100	.06	2	.2	.3	12 SEC
		27	17	14	1.21	19 23.49	155 15.68	1.73	1.4		14	3	88	.06	2	.2	.2	8 SEC
		27	17	20	11.98	19 23.33	155 14.58	3.60	1.1	.2	12	2	106	.03	3	.5	.6	7 SEC
		27	17	22	6.92	19 24.56	155 16.01	1.78	1.5	.5	16	2	118	.10	2	.3	.4	10 SNC
		27	17	25	16.33	19 22.96	155 14.20	1.37	2.1	2.3	19	3	66	.08	2	.3	.3	13 SEC
		27	17	26	16.18	19 24.39	155 16.38	1.54	1.7	1.1	16	2	111	.08	1	.3	.2	13 SEC
		27	17	28	56.17	19 24.54	155 16.05	1.54	2.0	1.2	21	3	118	.08	2	.3	.3	13 SEC
		27	17	29	25.39	19 23.81	155 15.42	1.30	1.5	.8	13	2	102	.07	2	.3	.4	11 SEC
		27	17	32	19.44	19 23.35	155 15.01	1.22	1.6	1.2	19	3	102	.07	2	.2	.4	13 SEC
		27	17	34	9.45	19 23.46	155 15.52	1.94	1.4		11	2	89	.03	2	.3	.5	6 SEC
		27	17	35	28.39	19 23.12	155 14.25	1.56	1.8	1.4	19	3	58	.09	2	.3	.4	14 SEC
		27	17	35	57.59	19 23.47	155 14.81	2.93	1.5	.7	14	2	100	.05	2	.4	.4	9 SEC
		27	17	40	19.09	19 23.42	155 14.58	3.51	1.4	.3	14	2	109	.05	2	.4	.5	6 SEC
		27	17	48	25.45	19 23.73	155 15.41	1.20	1.6	.8	14	3	97	.07	2	.2	.4	9 SEC

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		ORIGIN TIME			LAT N		LON W		DEPTH			AMP		DUR		GAP		RMS		MIN		ERH		ERZ NO	
YEAR	MON	DA	HR	MIN	SEC	DEG	MIN	DEG	MIN	KM	MAG	MAG	NR	NS	DEG	SEC	DIS	DIS	KM	KM	FM	REMK			
1980	AUG	27	1750	2.85	19 23.68	155	15.63	1.52	2.0	1.4	14	2	97	.07	2	.2	.3	7	SEC						
		27	1750	50.03	19 23.87	155	15.45	3.02	1.3	.4	13	2	106	.05	2	.4	.4	6	SEC						
		27	1753	53.07	19 24.57	155	15.86	4.25	1.8	1.3	7	1	157	.10	2	.9	3.2	4	SNC						
		27	1754	33.59	19 23.50	155	15.26	1.69	2.3	2.4	22	2	93	.11	2	.3	.4	16	SEC						
		27	1756	51.83	19 23.69	155	15.57	1.50	1.9	1.6	21	3	96	.06	2	.2	.3	14	SEC						
		27	1757	51.48	19 23.89	155	15.42	1.72	1.2		11	2	107	.06	2	.3	.5	8	SEC						
		27	1758	33.94	19 23.31	155	14.73	3.14	1.1		11	2	106	.06	3	.5	.6	7	SEC						
		27	1758	50.98	19 23.47	155	15.53	2.16	1.3		10	2	88	.05	2	.3	.5	8	SEC						
		27	18 1	39.01	19 23.83	155	15.37	1.44	.9		11	2	104	.04	2	.3	.5	9	SEC						
		27	18 3	15.93	19 23.74	155	15.39	1.81	1.8	.9	18	2	97	.08	2	.3	.4	13	SEC						
		27	18 5	26.00	19 23.34	155	14.72	2.95	1.1		12	2	104	.05	3	.4	.5	7	SEC						
		27	1812	48.42	19 23.70	155	15.46	1.50	1.6	.5	18	2	97	.05	2	.3	.3	11	SEC						
		27	1813	12.31	19 23.91	155	15.94	2.85	1.9	.8	21	3	106	.06	1	.3	.3	13	SEC						
		27	1816	1.23	19 23.30	155	14.70	3.17	1.3		11	2	106	.03	3	.4	.7	7	SEC						
		27	1816	38.93	19 23.15	155	15.45	1.16	1.4	.9	20	3	73	.09	2	.2	.3	12	SEC						
		27	1819	7.44	19 23.65	155	15.35	1.47	2.4	2.6	23	3	93	.09	2	.2	.3	16	SEC						
		27	1826	58.09	19 23.12	155	15.69	2.05	1.3	.3	16	2	73	.06	1	.2	.3	10	SEC						
		27	1835	35.67	19 23.29	155	14.67	3.31	1.3		11	2	106	.03	3	.4	.6	8	SEC						
		27	1836	32.73	19 23.48	155	14.97	1.90	1.0		11	2	100	.15	3	.4	.7	8	SEC						
		27	1838	17.44	19 24.21	155	15.88	3.11	1.1	.8	14	2	119	.06	1	.4	.3	9	SEC						
		27	1844	29.84	19 23.97	155	15.13	1.83	1.6	1.2	12	1	102	.07	2	.4	.5	5	SEC						
		27	1845	2.26	19 23.49	155	15.49	1.88	1.4	.7	12	3	90	.07	2	.3	.4	8	SEC						
		27	1848	53.83	19 23.11	155	15.69	2.22	1.1		12	2	95	.06	1	.3	.4	9	SEC						
		27	1849	20.50	19 23.45	155	15.55	1.63	2.2	2.4	20	2	86	.07	2	.3	.3	17	SEC						
		27	1855	59.50	19 23.35	155	14.90	1.25	1.9	2.4	22	3	72	.07	3	.3	.3	14	SEC						
		27	19 5	30.13	19 23.72	155	15.50	1.62	1.2	.4	10	1	99	.05	2	.3	.5	7	SEC						
		27	1915	30.55	19 23.50	155	14.90	2.95	1.0		11	2	98	.05	2	.4	.6	8	SEC						
		27	1920	55.80	19 23.55	155	14.74	3.11	1.1	1.0	12	2	97	.06	2	.4	.5	8	SEC						
		27	1924	18.44	19 24.02	155	16.10	3.11	1.4	1.5	19	2	104	.08	1	.3	.3	13	SEC						
		27	1930	13.27	19 23.93	155	15.43	3.08	.9	.9	10	2	110	.04	2	.4	.5	7	SEC						
		27	1932	39.69	19 23.06	155	15.67	2.48	1.5	1.4	21	3	72	.07	1	.2	.3	12	SEC						
		27	1932	59.09	19 27.06	155	21.00	5.37	2.3	2.4	26	2	50	.11	1	.4	.9	17	KAO						
		27	1934	26.53	19 23.08	155	15.81	2.20	.8	.5	10	2	87	.03	1	.3	.4	7	SEC						
		27	1935	51.79	19 24.44	155	16.20	1.54	1.5	1.4	13	3	135	.05	1	.3	.3	9	SEC						
		27	1936	34.69	19 24.46	155	16.38	1.51	1.5	1.4	14	2	114	.10	1	.3	.3	8	SEC						
		27	1941	33.78	19 24.12	155	15.57	3.06	.9	.1	10	2	124	.05	2	.4	.5	7	SEC						
		27	1946	10.15	19 23.79	155	15.53	1.54	.5	.1	10	2	103	.07	2	.3	.5	6	SEC						
		27	1949	20.56	19 23.45	155	14.88	2.13	.9		11	2	100	.06	2	.3	.6	5	SEC						
		27	1952	38.12	19 23.94	155	14.80	1.97	.7	.9	9	1	96	.11	2	.6	.6	6	SEC						
		27	1957	1.18	19 23.93	155	15.52	2.74	1.0	.5	10	2	111	.02	2	.4	.6	7	SEC						
		27	20 0	51.44	19 19.13	155	13.06	8.23	1.5	.6	20	1	133	.06	4	.6	1.0	17	SF2						
		27	20 1	32.55	19 24.02	155	15.91	3.00	.9	.8	11	3	114	.06	1	.4	.5	7	SEC						
		27	20 8	32.95	19 24.05	155	15.72	3.25	1.0	.7	11	2	118	.03	2	.4	.5	6	SEC						
		27	20 9	25.67	19 24.52	155	14.81	2.87	1.0	1.1	8	1	150	.11	1	1.2	.7	4	SEC						
		27	2010	53.07	19 23.53	155	14.38	3.24	1.1	.5	11	2	104	.05	3	.4	.6	7	SEC						
		27	2013	31.71	19 23.52	155	14.95	2.68	.9		10	2	98	.05	2	.5	.6	5	SEC						
		27	2032	31.78	19 24.48	155	16.21	1.55		.2	11	2	143	.04	1	.3	.3	8	SEC						
		27	2047	5.57	19 23.35	155	14.66	3.61	.9		9	2	104	.08	3	.6	.8	6	SEC						

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YEAR	MON	DA	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 NO KM FM REMK
1980	AUG	27	2048	40.26	19 23.52	155 14.52	3.21	1.1	.5	10	2	114	.03	2	.4	.8 7 SEC
		27	2048	45.16	19 23.33	155 15.59	1.49	3.1	3.6	30	1	38	.12	2	.2	.3 23 SEC
		27	2057	15.02	19 23.48	155 14.67	4.00	1.1		10	2	104	.04	2	.6	1.0 5 SEC
		27	21	2 36.30	19 22.89	155 14.34	1.69	.6	.5	10	2	125	.06	2	.5	.5 5 SEC
		27	2111	2.24	19 20.25	155 13.49	7.31	1.2	.6	16	2	117	.06	4	.6	1.3 11 SF2
		27	2120	47.85	19 23.90	155 15.23	1.44	.9	1.0	12	1	106	.03	2	.3	.4 10 SEC
		27	2124	14.76	19 23.89	155 15.49	2.96	1.3	1.0	13	3	106	.07	2	.4	.5 6 SEC
		27	2124	48.37	19 23.94	155 15.58	2.93	.9	.6	10	2	112	.05	2	.4	.6 5 SEC
		27	2125	21.66	19 23.80	155 15.50	2.79	1.0	.1	10	2	103	.04	2	.4	.5 4 SEC
		27	2127	40.83	19 22.86	155 15.63	2.26	1.7	1.5	20	3	66	.06	1	.2	.2 11 SEC
		27	2129	44.58	19 25.14	155 14.44	3.76	1.2	.7	8	1	247	.04	1	1.7	.7 5 SNC
		27	2138	32.72	19 23.06	155 15.75	1.86	.7	.5	10	2	92	.02	1	.3	.4 6 SEC
		27	2138	47.84	19 23.35	155 14.65	3.47	1.3	.9	11	2	103	.05	3	.5	.7 8 SEC
		27	2144	9.84	19 23.92	155 15.43	1.63	.8	1.2	12	2	109	.07	2	.3	.5 10 SEC
		27	2153	16.45	19 18.30	155 15.04	7.06	1.8	1.2	19	0	135	.07	4	.6	1.2 14 SF1
		27	2155	28.81	19 23.46	155 14.88	3.06	.8	.5	9	2	107	.03	2	.4	.7 6 SEC
		27	22	8 39.63	19 23.68	155 15.10	2.88	.9		10	2	92	.02	1	.4	.6 8 SEC
		27	2235	54.28	19 25.23	155 16.48	1.80	.9	1.3	10	0	147	.08	1	.4	.4 8 SNC
		27	2247	35.10	19 23.79	155 15.19	3.01	1.0	.9	11	2	98	.03	2	.4	.5 8 SEC
		27	2248	38.04	19 23.89	155 15.85	3.96	1.1	1.2	9	1	149	.08	1	.6	.5 5 SEC
		27	2259	28.35	19 24.28	155 16.27	1.32	1.4	1.7	16	2	110	.10	1	.3	.3 10 SEC
		27	23	0 23.27	19 23.46	155 14.85	2.88	.8		10	2	100	.03	2	.4	.6 7 SEC
		27	23	4 53.87	19 23.45	155 14.80	3.52	1.1	1.4	13	2	97	.06	2	.4	.5 8 SEC
		27	23	5 50.93	19 23.17	155 14.32	1.48			10	2	109	.07	2	.3	.5 5 SEC
		27	23	6 18.34	19 23.41	155 15.78	1.43	1.0	.7	7	1	164	.03	2	.5	.3 6 SEC
		27	2345	47.67	19 24.51	155 26.39	10.13	2.0	1.5	27	1	50	.11	3	.4	1.0 23 KAO
		27	2358	49.03	19 24.02	155 15.79	3.27	.8	.6	9	2	158	.03	1	.5	.6 5 SEC
		28	0	0 59.74	19 23.55	155 16.06	.00	1.4	1.8	13	2	97	.15	1	.4	.5 8 SEC
		28	0	5 18.54	19 24.08	155 15.95	3.20	.8	.7	9	1	118	.04	1	.4	.5 7 SEC
		28	0	6 56.79	19 23.66	155 14.83	3.44	1.2	.6	9	2	106	.05	2	.5	.6 7 SEC
		28	026	44.42	19 24.19	155 15.93	3.26	1.0	.6	10	2	126	.03	1	.4	.5 8 SEC
		28	027	53.70	19 24.00	155 15.91	2.97	.8	.5	10	2	113	.04	1	.4	.5 7 SEC
		28	031	9.03	19 23.89	155 15.87	2.96	1.5	1.4	21	3	106	.06	1	.3	.2 16 SEC
		28	031	29.87	19 24.15	155 15.95	2.80	1.1	.6	8	1	167	.04	1	.4	.5 5 SEC
		28	032	20.68	19 23.91	155 16.04	2.80	1.6	1.3	21	3	103	.08	1	.3	.3 14 SEC
		28	035	15.11	19 23.79	155 15.64	.12	1.7	1.9	14	3	102	.12	2	.2	.3 7 SEC
		28	038	29.65	19 24.07	155 16.12	2.91	.8	.2	9	1	115	.04	1	.4	.5 7 SEC
		28	039	13.11	19 23.99	155 16.12	3.02	.9	.1	9	1	109	.04	1	.4	.5 7 SEC
		28	045	30.63	19 23.65	155 14.96	3.13	1.0		9	2	110	.03	2	.5	.6 7 SEC
		28	059	4.02	19 24.00	155 15.72	3.30	1.3	.5	15	2	155	.05	2	.5	.4 8 SEC
		28	059	44.46	19 24.14	155 16.12	3.10	1.2	.5	11	1	159	.07	1	.6	.4 7 SEC
		28	1	3 26.72	19 24.14	155 15.96	3.24	.8	.5	9	1	122	.03	1	.5	.6 5 SEC
		28	1	3 59.54	19 24.12	155 16.24	3.07	1.3	.8	11	2	114	.08	1	.6	.4 6 SEC
		28	1	4 14.11	19 24.02	155 15.87	3.04	2.6	3.3	33	1	43	.10	1	.5	.3 25 SEC F
		28	1	7 34.98	19 23.90	155 15.73	2.80	1.5	.8	20	3	108	.06	2	.3	.3 12 SEC
		28	1	9 49.31	19 23.95	155 15.74	3.23	1.3	1.4	18	2	111	.06	2	.4	.4 14 SEC
		28	118	50.11	19 23.90	155 15.89	3.35	1.5	1.6	17	2	107	.05	1	.4	.3 11 SEC
		28	146	3.20	19 24.04	155 16.02	3.09	1.3	.9	13	2	108	.05	1	.3	.3 9 SEC

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YEAR	MON	DA	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 NO KM FM REMK	
1980	AUG	28	149	40.62	19 23.77	155 15.53	1.51	.8	1.0	11	2	101	.06	2	.3	.5 6 SEC	
		28	3	4	2.56	19 17.50	155 12.64	3.59	1.4	1.1	18	1	192	.10	2	1.1	.8 11 SF1
		28	331	14.19	19 24.35	155 16.33	3.06	.7	.9	9	1	129	.05	1	.4	.5 7 SEC	
		28	429	58.65	19 24.02	155 15.86	3.25	1.0	.9	12	2	111	.04	1	.4	.5 8 SEC	
		28	826	25.55	19 18.51	155 13.45	6.27	1.8	1.5	24	0	80	.14	3	.7	1.3 20 SF2	
		28	842	31.10	19 23.27	155 14.78	3.33	1.1	1.3	12	2	104	.04	3	.4	.4 9 SEC	
		28	949	54.69	19 24.05	155 15.69	3.24	1.4	1.7	20	3	114	.06	2	.3	.3 11 SEC	
		28	1013	33.26	19 22.00	155 5.59	9.26	2.2	2.2	35	3	77	.09	2	.4	.7 22 SF4	
		28	1118	53.47	19 21.06	155 16.46	1.47	1.5	2.0	15	2	134	.09	2	.4	.3 9 KOA	
		28	14	6	57.07	19 23.23	155 15.56	1.04	3.5	3.9	38	2	40	.13	2	.2	.3 31 SEC F
		28	1540	37.35	19 16.41	155 12.54	6.87	1.8	1.7	28	2	168	.10	2	.7	.9 20 SF2	
		28	16	9	20.18	19 23.75	155 15.72	2.92	2.4	2.6	34	2	37	.10	2	.3	.3 26 SEC
		28	1643	.82	19 23.75	155 15.52	1.46	1.1	1.3	13	2	100	.07	2	.3	.4 10 SEC	
		28	1740	14.49	19 19.90	155 13.49	6.46	1.6	1.4	27	1	70	.11	5	.5	1.0 20 SF2	
		28	1754	17.80	19 20.56	155 17.63	35.36	2.0	1.6	40	2	47	.08	1	.7	1.1 32 DEP	
		28	2030	17.29	19 16.95	155 13.43	7.86	1.4	1.2	19	1	234	.06	0	.7	1.0 14 SF2	
		29	025	12.17	19 20.07	155 13.27	8.66	1.6	1.8	23	1	118	.09	5	.5	.8 19 SF2	
		29	246	1.58	19 23.96	155 15.54	2.84	.9	.9	10	2	113	.02	2	.4	.6 8 SEC	
		29	247	5.38	19 31.51	155 28.09	3.29	2.2	2.4	28	1	95	.14	1	.4	.6 20 MLO	
		29	249	54.33	19 31.66	155 27.88	3.57	1.7	1.4	17	1	93	.11	1	.4	.5 10 MLO	
		29	355	23.99	19 23.75	155 1.33	8.51	1.7	1.4	22	0	142	.12	5	.8	.8 17 SF5	
		29	547	11.37	19 19.45	155 12.06	8.12	1.8	1.6	30	1	91	.08	5	.5	.8 22 SF3	
		29	841	5.28	19 23.85	155 15.38	1.71		1.8	11	0	101	.09	2	.3	.4 11 SEC	
		29	9	7	47.89	19 21.88	155 15.86	1.65	1.1	1.3	16	1	80	.04	1	.3	.3 12 KOA
		29	1337	33.97	19 21.11	155 15.25	8.65	2.0	1.7	27	2	69	.10	3	.5	.8 21 SF1	
		29	1341	40.10	19 21.22	155 15.27	9.14	2.9	2.9	39	4	68	.09	2	.4	.5 28 SF1	
		29	1419	45.61	19 19.63	155 11.33	7.76	1.9	2.2	34	1	93	.10	5	.5	.9 24 SF3	
		29	1437	48.44	19 23.92	155 15.44	3.04	1.3	1.4	13	1	105	.05	2	.3	.4 8 SEC	
		29	1555	30.95	19 20.18	155 13.29	9.07	1.5	1.4	18	1	64	.06	5	.6	1.2 14 SF2	
		29	2225	36.14	19 16.84	155 28.80	8.89	1.4	1.6	23	1	100	.12	4	.4	1.0 16 LSW	
		30	136	8.70	19 20.80	155 5.94	7.39	1.5	1.6	26	0	103	.11	4	.5	1.1 19 SF4	
		30	429	25.75	19 20.74	155 10.75	8.33	2.3	2.8	38	3	73	.08	3	.3	.4 30 SF3	
		30	1154	18.11	19 25.31	155 25.60	11.40	1.5	1.3	25	2	59	.07	1	.5	.9 22 KAO	
		30	1217	32.34	19 19.79	155 11.18	9.08	1.9	1.6	27	1	91	.11	5	.6	.9 25 SF3	
		30	1317	44.82	19 23.85	154 58.06	6.41	1.9	2.1	22	2	214	.12	3	1.0	.8 18 LER	
		30	1527	47.68	19 23.91	155 15.54	1.51	1.8	2.6	11	2	110	.03	2	.3	.4 7 SEC F	
		30	2148	31.84	19 20.35	155 13.02	7.70	1.7	1.7	26	2	66	.08	4	.4	.9 20 SF2	
		30	2330	39.56	19 25.62	155 15.93	14.97	2.0	2.2	34	4	95	.09	2	.5	.4 27 DEP	
		31	9	2	41.51	19 54.21	155 36.56	14.36	2.6	3.0	26	3	128	.07	21	.5	.6 18 KEA
		31	916	2.94	19 16.24	155 14.87	6.36	1.6	1.7	25	2	207	.09	3	.7	1.0 20 SF1	
		31	10	3	21.13	19 52.33	155 35.89	12.35	2.2	2.1	17	2	214	.09	18	1.2	.7 14 KEA
		31	13	4	10.34	19 26.20	155 23.96	8.11	1.7	1.6	26	2	55	.12	3	.4	.9 23 KAO
		31	1816	53.76	19 20.80	155 6.46	9.12	3.7	4.0	43	2	99	.11	4	.5	.4 35 SF4 F	
		31	1818	23.84	19 20.55	155 6.66	6.38	2.1		27	2	101	.11	5	.5	1.1 19 SF4	
		31	1819	4.01	19 20.74	155 6.05	6.18	2.8	2.7	35	3	104	.08	4	.4	.6 29 SF4	
		31	1924	29.48	19 20.01	155 11.23	7.29	1.9	1.8	29	0	86	.09	5	.5	1.0 21 SF3	
		31	20	8	30.28	19 26.41	155 24.06	5.96	1.6	1.8	24	1	44	.11	3	.4	1.0 16 KAO
		31	2012	58.04	19 26.64	155 24.22	6.75	2.7	3.2	37	1	45	.13	3	.4	1.0 26 KAO	

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YEAR	MON	DA	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
1980	SEP	1	141	12.29	19 8.20	155 25.96	40.39	2.1	1.7	25	0	250	.09	4	2.7	4.3	17	DLS T
		1	328	24.86	19 20.77	155 6.31	7.14	1.1	1.3	25	1	101	.12	4	.6	1.1	17	SF4
		1	9 5	5.88	19 8.82	155 25.84	39.15	2.0	2.3	23	0	228	.04	4	2.7	4.4	13	DLS L
		1	9 6	13.96	19 6.87	155 26.56	43.40	2.4	2.4	30	0	179	.07	5	1.1	2.6	23	DLS L
		1	9 7	19.89	19 7.78	155 27.00	42.71	2.7	2.3	26	1	174	.09	4	.9	2.0	16	DLS L
		1	1727	58.40	19 20.78	155 5.86	8.45	2.3	2.8	40	1	104	.10	4	.4	.6	33	SF4
		1	1859	44.73	19 23.91	155 15.68	3.12	2.0	2.1	26	3	109	.06	2	.3	.3	19	SEC
		1	19 0	26.44	19 24.00	155 15.80	2.82	1.2	1.3	11	1	111	.05	1	.4	.4	7	SEC
		1	2141	4.36	19 19.85	155 7.96	7.13	1.8	2.0	28	2	92	.08	5	.5	1.0	21	SF4
		1	23 8	.05	19 20.89	155 6.16	8.61	2.3	2.4	39	2	99	.09	4	.4	.6	25	SF4
		2	523	5.75	19 19.81	155 13.37	9.31	2.8	3.3	41	2	68	.09	5	.4	.4	36	SF2
		2	921	45.10	19 20.64	155 6.66	7.06	2.1	2.1	36	2	100	.10	4	.4	.8	24	SF4
		2	1036	38.99	19 20.57	155 17.48	34.04	2.1	1.8	37	3	38	.07	1	.7	1.1	31	DEP
		2	1138	49.62	19 19.77	155 8.97	7.41	1.6	1.5	28	2	80	.06	5	.5	1.0	19	SF4
		2	1539	58.11	19 19.88	155 12.25	7.47	1.6	1.5	30	1	81	.10	5	.5	.9	22	SF3
		2	1734	50.05	19 16.42	155 23.75	5.05	2.0	2.2	31	0	124	.15	7	.5	1.5	25	SWR
		3	2 3	37.52	19 29.76	155 39.24	6.81	2.1	1.6	23	2	74	.11	6	.5	1.1	16	MLO
		3	5 7	36.91	19 20.43	155 8.68	3.12	1.3	1.3	15	0	72	.12	4	.5	.9	14	SF4
		3	639	38.01	19 23.18	155 17.22	2.50	1.6	2.1	18	1	62	.08	3	.3	.5	15	SF4
		3	732	18.30	19 26.61	155 29.11	8.80	1.9	1.4	26	1	59	.09	7	.4	1.1	18	KA0
		3	851	40.32	19 24.09	155 15.62	1.58	2.4	2.9	30	3	44	.11	2	.2	.3	24	SEC
		3	943	27.09	19 29.43	155 25.77	9.93	1.9	1.3	32	3	70	.10	4	.4	.6	19	KA0
		3	959	1.65	19 25.56	155 24.13	10.40	1.6	1.2	31	3	66	.08	2	.4	.6	22	KA0
		3	1043	6.28	19 21.51	155 1.21	8.03	3.2	3.1	41	3	182	.09	4	.6	.4	32	SF5
		3	1153	43.16	19 25.66	155 26.14	10.91	1.8	1.2	24	2	54	.06	2	.5	1.0	19	KA0
		3	1258	1.69	19 23.97	155 15.48	3.03	1.0	1.3	13	2	112	.04	2	.4	.4	11	SEC
		3	1259	48.56	19 24.21	155 16.17	1.54	2.1	2.3	19	3	122	.11	1	.2	.3	10	SEC
		3	1332	3.31	19 24.15	155 16.24	1.32	1.6	1.9	16	3	116	.11	1	.2	.2	10	SEC
		3	1352	27.55	19 20.92	155 1.98	5.01	1.3	1.5	18	1	178	.13	3	1.2	1.7	11	SF5
		3	1433	11.76	19 58.36	155 20.19	11.94	2.6	1.7	12	0	254	.05	9	2.3	.6	9	KEA
		3	1552	59.33	19 21.75	155 6.65	7.37	1.3	1.3	25	2	79	.11	2	.5	1.0	19	SF4
		4	2 9	36.15	19 20.12	155 12.75	7.83	1.6	1.4	23	1	72	.06	5	.5	.8	17	SF2
		4	456	4.36	19 19.89	155 11.44	6.32	1.5	1.5	25	2	87	.09	5	.5	1.0	20	SF3
		4	1019	50.48	19 20.08	155 8.21	7.50	1.8	1.5	31	3	84	.09	5	.5	.9	24	SF4
		4	1438	45.44	19 21.96	155 4.94	8.33	2.1	1.9	27	2	76	.10	3	.5	.8	17	SF5
		4	1545	46.97	19 19.85	155 10.42	7.48	1.7	1.3	23	0	89	.08	4	.6	1.2	20	SF3
		4	1924	7.23	19 23.70	155 15.60	3.26	1.8	1.9	23	2	98	.10	2	.3	.4	17	SEC
		4	1928	33.79	19 20.46	155 6.04	8.52	2.6	2.9	36	0	111	.08	5	.5	.6	27	SF4
		4	1940	50.91	19 23.40	155 17.17	2.62	1.6	1.5	18	1	54	.08	0	.3	.3	15	SSC
		4	2113	30.61	19 19.05	155 25.88	8.13	1.3	1.3	21	1	127	.12	5	.5	.8	17	KA0
		5	1 7	17.40	19 27.39	154 51.85	1.69	1.2	1.2	14	1	283	.21	4	1.7	1.2	9	SLE
		5	215	37.87	19 23.42	155 16.95	2.99	1.3	1.8	17	1	45	.07	0	.4	.3	11	SSC
		5	640	23.75	19 20.26	155 13.15	6.96	1.4	1.1	26	2	66	.10	4	.5	.9	17	SF2
		5	7 5	43.61	19 18.46	155 12.93	7.82	1.7	1.6	22	2	146	.08	3	.6	.9	15	SF2
		5	853	53.42	19 20.30	155 12.72	7.84	1.8	1.3	27	1	70	.11	4	.5	.8	24	SF2
		5	1527	24.23	19 20.92	155 2.50	6.05	1.9	1.6	29	2	156	.14	2	.6	.8	13	SF5
		5	1545	37.78	19 20.69	155 11.49	8.35	1.9	1.6	36	4	72	.10	4	.4	.6	26	SF3
		5	17 5	48.42	19 20.64	155 11.53	7.37	2.0	1.7	32	3	73	.11	4	.5	.7	25	SF3

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YEAR	MON	DA	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
1980	SEP	5	1828	41.03	19 28.60	154 53.69	1.74	1.8	1.3	22	1	185	.22	1	1.7	.5	18	SLE
		6	157	9.32	19 26.59	155 24.66	7.56	1.6	1.3	26	3	52	.11	3	.4	.9	15	KA0
		6	340	42.28	19 26.58	154 54.34	3.11	1.8	1.4	23	2	211	.23	2	1.7	.9	17	SLE
		6	821	20.46	19 19.08	155 15.86	8.70	2.1	2.3	41	4	117	.11	3	.5	.6	25	SF1
		6	15 7	55.66	19 26.16	154 53.96	2.23	2.0	1.3	25	2	224	.15	3	1.0	.6	11	SLE
		7	156	12.12	19 19.06	155 15.33	7.74	1.9	1.5	31	2	113	.08	4	.5	.6	20	SF1
		7	621	36.32	19 26.91	155 49.03	9.25	3.0	3.1	36	2	97	.15	9	.5	.6	30	KON
		7	1118	16.29	19 20.28	155 11.68	9.85	2.4	3.0	42	1	79	.08	5	.4	.4	36	SF3
		7	1250	54.41	19 22.92	155 26.86	10.83	2.1	1.3	29	2	74	.10	2	.4	.9	20	KA0
		7	1733	54.42	19 22.46	155 25.29	9.53	2.1	2.2	41	3	72	.12	4	.4	.6	29	KA0
		8	2 7	50.95	19 22.74	155 24.14	11.13	2.2	1.9	35	3	76	.08	5	.4	.5	28	KA0
		8	2 8	39.76	19 23.09	155 23.91	9.54	1.8	1.3	29	2	44	.08	5	.4	.7	23	KA0
		8	1227	6.31	19 19.58	155 11.45	6.97	1.7	1.4	29	3	94	.10	5	.6	.8	14	SF3
		8	1235	8.26	19 22.28	155 .05	6.82	1.9	1.3	23	1	187	.16	6	1.1	.9	11	SF5
		8	1342	51.57	19 20.47	155 12.97	7.50	1.6	1.1	28	1	65	.09	4	.5	.8	20	SF2
		8	2031	.47	19 17.23	155 13.74	7.02	1.4	1.3	22	2	154	.08	1	.6	.9	15	SF2
		8	2135	24.03	19 25.22	155 22.69	10.52	2.1	1.8	40	4	38	.11	4	.4	.5	28	KA0
		9	040	52.76	19 18.93	155 15.40	8.35	1.6	1.9	29	3	118	.07	4	.4	.7	19	SF1
		9	618	55.39	19 19.50	155 11.45	6.65	1.7	1.2	22	1	164	.06	6	.5	1.0	13	SF3
		9	817	29.50	19 20.63	155 11.89	8.13	1.8	1.9	30	1	133	.11	4	.6	.9	25	SF3
		9	940	9.83	19 21.20	155 7.95	8.27	1.7	1.8	28	1	76	.08	4	.5	.9	22	SF4
		9	11 8	26.11	19 19.49	155 12.24	8.72	1.8	1.3	20	1	89	.05	5	.5	.9	19	SF3
		9	1215	15.09	19 20.72	155 9.09	7.67	2.4	2.0	37	3	67	.10	3	.4	.7	33	SF4
		9	1454	45.57	19 20.44	155 11.88	8.51	2.8	3.1	38	1	75	.11	5	.4	.7	36	SF3
		9	16 2	9.32	19 18.65	155 15.80	6.77	1.2	1.0	18	2	130	.08	4	.6	1.1	16	SF1
		9	1746	10.11	19 19.90	155 12.01	7.25	1.7	1.3	16	1	83	.05	5	.5	1.3	14	SF3
		9	1929	18.88	19 18.76	155 21.54	2.56	1.1	1.1	15	1	199	.06	4	.8	.6	14	SWR
		10	537	4.72	19 23.63	155 17.37	3.18	1.4	1.1	13	2	91	.08	1	.4	.5	10	SSC
		10	914	32.83	19 21.91	155 6.93	7.97	2.1	1.9	32	3	76	.10	2	.4	.7	26	SF4
		10	1221	43.49	19 16.71	155 6.91	44.57	3.5	3.4	47	3	192	.11	2	.9	1.4	44	DEP
		10	1257	26.99	19 23.09	155 17.05	2.59	1.0	1.3	10	1	97	.03	1	.4	.3	9	SSC
		10	1324	26.98	19 23.07	155 16.91	2.86	1.5	1.8	23	3	64	.07	1	.2	.2	17	SSC
		10	1336	23.32	19 23.15	155 17.07	2.47	1.4	1.2	18	2	62	.09	1	.3	.3	13	SSC
		10	1458	39.76	19 23.42	155 17.11	2.88	1.3	1.3	16	2	54	.09	0	.3	.3	9	SSC
		10	15 1	22.42	19 23.52	155 16.74	2.83	2.2	2.5	32	2	37	.10	0	.2	.2	23	SSC
		10	15 2	25.00	19 23.68	155 16.83	2.61	1.2	1.3	11	2	71	.05	1	.4	.4	8	SSC
		10	15 9	22.75	19 23.63	155 16.97	3.19	1.3	1.5	14	2	54	.06	0	.3	.3	11	SSC
		10	1545	11.29	19 24.65	155 16.08	1.37	.9	1.6	9	1	161	.11	2	.4	.4	7	SSC
		10	1710	21.98	19 19.53	155 8.46	7.80	1.8	1.5	19	2	205	.06	5	.9	1.2	11	SF4
		10	1954	9.21	19 19.33	155 12.09	7.01	2.1	1.9	31	4	154	.09	5	.5	.8	21	SF3
		10	2043	21.80	19 19.10	155 21.85	3.14	1.1	1.3	18	2	192	.09	3	.7	.7	13	SWR
		10	2330	40.32	19 19.47	155 15.15	7.24	1.5	1.1	16	0	100	.07	4	.5	1.3	13	SF1
		11	0033	52.08	19 23.57	155 17.03	2.91	1.6	1.7	21	2	50	.09	0	.3	.3	11	SSC
		11	049	39.05	19 23.78	155 15.58	3.29	1.6	1.3	17	3	101	.07	2	.3	.4	11	SEC
		11	051	45.72	19 21.97	155 13.32	3.16	1.4	1.3	16	2	94	.04	1	.4	.4	13	SSC
		11	354	8.67	19 23.45	155 16.86	3.14	1.6	1.8	20	3	50	.06	0	.3	.3	11	SSC
		11	650	37.77	19 21.78	155 13.23	3.02	1.4	1.0	15	2	99	.07	2	.5	.5	9	SSC
		11	710	55.66	19 22.19	155 27.50	9.05	1.8	1.3	28	2	66	.09	1	.4	.8	21	KA0

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YEAR	MON	DA	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 NO KM FM	REMK	
1980	SEP	11	11	9	19.41	19 23.29	155	16.97	2.95	1.4	1.5	20	4	57	.07	0	.3	.3 15 SSC
		11	23	6	23.39	19 59.59	155	29.59	11.14	2.5	2.1	29	4	189	.11	20	1.1	.6 11 KEA
		11	23	28	24.33	19 24.61	155	16.66	1.68	.8	1.0	12	1	135	.08	1	.4	.3 10 SNC
		12	41	2	43.12	19 23.56	155	16.96	2.82	1.4	1.3	19	2	45	.07	0	.3	.3 11 SSC
		12	42	2	6.57	19 19.96	155	10.17	7.52	1.5	1.6	28	2	91	.08	4	.5	.8 20 SF3
		12	71	1	11.58	19 19.70	155	11.10	9.47	3.2	3.3	36	1	155	.08	5	.5	.4 32 SF3
		12	74	4	13.44	19 21.63	155	1.95	8.38	2.1	1.7	28	2	210	.12	7	1.0	.7 22 SF5
		12	12	38	30.22	19 20.49	155	5.84	7.96	1.4	1.1	23	0	112	.09	5	.7	1.2 17 SF4
		12	19	31	31.33	19 23.01	155	14.42	3.11	1.2	1.3	15	2	112	.05	2	.4	.4 12 SEC
		12	19	59	56.09	19 23.37	155	26.32	9.72	3.1	3.0	45	1	49	.13	3	.4	.6 39 KAO
		12	20	6	24.34	19 19.01	155	13.88	8.10	1.7	1.7	36	3	63	.09	4	.4	.7 22 SF2
		12	21	30	45.44	19 22.77	155	16.98	2.97	2.2	2.4	29	1	41	.09	1	.3	.3 22 SSC
		12	23	52	34.94	19 19.62	155	12.37	6.80	1.4	1.2	23	1	143	.10	5	.6	1.1 14 SF2
		13	4	42	14.23	19 19.78	155	7.08	7.64	2.3	2.3	38	1	112	.09	5	.4	.8 25 SF4
		13	7	54	26.71	19 23.25	155	17.00	2.93	.9	1.0	9	0	75	.05	3	.4	.7 9 SSC
		13	8	19	50.26	19 24.78	155	16.67	1.64	1.6	1.8	22	3	116	.08	1	.3	.2 14 SNC
		13	9	4	11.82	19 19.28	155	11.49	9.92	3.2	3.3	41	2	156	.10	5	.6	.4 35 SF3
		13	9	46	21.76	19 22.90	155	16.93	2.69	1.6	1.5	21	1	73	.08	1	.3	.3 16 SSC
		13	11	16	1.08	19 23.14	155	17.01	2.70	1.8	1.8	25	4	47	.08	0	.3	.2 15 SSC
		13	16	3	29.81	19 21.55	155	1.14	5.96	2.1	1.7	23	2	183	.15	4	.8	1.4 14 SF5
		13	16	7	39.42	19 23.07	155	16.85	2.96	2.3	2.2	27	4	64	.08	1	.2	.2 21 SSC
		13	17	54	20.22	19 23.19	155	16.94	2.79	2.2	2.7	32	3	40	.09	0	.2	.2 23 SSC
		13	18	44	20.53	19 23.23	155	17.01	2.75	1.6	1.5	22	3	59	.06	0	.3	.3 16 SSC
		13	19	27	40.04	19 25.07	155	25.65	9.27	1.7	1.6	33	1	39	.12	1	.4	.9 21 KAO
		14	1	57	50.60	19 18.72	155	15.30	8.62	2.0	1.7	36	2	122	.10	5	.4	.5 23 SF1
		14	2	35	47.47	19 25.12	155	24.93	7.90	1.6	1.2	24	2	45	.10	0	.4	1.0 18 KAO
		14	8	14	45.56	19 23.23	155	16.95	2.75	1.5	1.5	25	3	47	.08	0	.3	.2 16 SSC
		14	12	4	6.56	19 23.36	155	16.84	3.14	1.4	1.6	20	2	53	.07	0	.3	.3 11 SSC
		14	20	26	12.44	20 9.95	155	45.68	1.66	2.5	1.9	20	0	296	.09	53	11.2	8.9 13 KOH
		14	20	31	55.24	19 18.95	155	13.64	8.41	1.9	1.9	33	2	83	.09	4	.5	.7 19 SF2
		15	4	8	8.49	19 23.02	155	16.95	3.00	1.9	2.2	25	4	47	.07	1	.2	.3 14 SSC
		15	5	9	22.95	19 26.16	155	24.07	6.70	1.5	1.1	17	2	102	.12	3	.5	1.2 13 KAO
		15	6	27	29.33	19 20.42	155	12.69	8.33	1.8	1.7	30	2	127	.12	4	.5	.7 21 SF2
		15	9	7	1.41	19 18.62	155	15.26	8.35	1.6	1.2	26	3	127	.06	4	.5	.8 16 SF1
		15	9	48	30.49	19 28.59	154	53.86	2.53	2.3	2.0	10	1	172	.08	1	1.5	.6 5 SLE
		15	10	21	21.13	19 27.87	154	52.53	2.54	1.9	1.6	10	2	276	.07	2	1.0	.3 7 SLE
		15	12	32	53.19	19 18.23	155	15.58	7.74	1.9	1.8	32	3	141	.10	4	.5	.7 17 SF1
		15	14	6	19.98	19 20.16	155	12.62	7.60	1.6	1.1	25	3	73	.08	5	.5	.9 18 SF2
		15	14	29	46.46	19 19.63	155	12.44	7.40	1.9	1.8	35	3	83	.09	5	.4	.7 18 SF2
		15	15	11	6.59	19 21.51	155	6.65	6.94	2.0	1.2	28	3	83	.11	3	.4	.9 17 SF4
		15	17	13	1.47	19 22.89	155	16.99	2.62	2.0	2.0	27	2	48	.07	1	.2	.3 16 SSC
		16	8	53	53.26	19 19.33	155	9.94	8.86	2.6	3.0	43	2	99	.10	5	.4	.4 34 SF3
		17	4	22	43.12	19 22.70	155	27.00	10.71	2.1	1.7	36	3	59	.12	1	.4	.7 26 KAO
		17	6	20	47.62	19 49.17	155	4.71	43.90	2.3	1.9	33	2	221	.12	14	1.0	2.2 26 KEA
		17	7	19	55.96	19 23.27	155	16.80	2.91	1.3	1.4	14	3	75	.08	1	.3	.4 8 SSC
		17	8	45	25.30	19 13.83	155	36.51	7.71	2.3	1.9	29	1	198	.20	2	1.0	.8 21 LSW
		17	14	28	54.49	19 20.81	155	12.96	9.09	1.6	1.6	20	1	68	.08	3	.5	.9 16 SF2
		17	15	18	47.87	19 24.54	155	25.19	9.61	2.0	1.9	31	2	50	.11	6	.4	.8 22 KAO

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YEAR	MON	DA	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 NO KM FM	REMK
1980	SEP	18	052	53.88	19 51.21	155 41.15	12.72	2.8	2.8	33	4	132	.11	25	.5	.7 22	KEA
		18	1 9	41.18	19 22.92	155 16.94	2.20	1.2	1.3	15	3	92	.07	5	.3	.6 6	SSC
		18	130	5.72	19 19.58	155 12.73	6.84	1.4	1.3	17	1	80	.09	5	.5	1.1 12	SF2
		18	3 0	14.17	19 21.10	155 .87	6.77	2.1	2.1	28	3	197	.14	4	.7	.8 18	SF5
		18	313	34.88	19 21.13	155 .91	6.18	2.1	1.7	23	2	196	.14	4	.9	.9 15	SF5
		18	1021	16.79	19 22.92	155 16.84	2.53	1.4	1.2	13	2	94	.07	5	.3	.8 5	SSC
		18	1126	17.93	19 23.51	155 16.87	4.58	1.5	1.3	16	2	86	.09	3	.4	1.0 6	SSC
		18	1138	28.77	19 28.54	154 53.81	2.88	2.3	2.1	12	1	180	.08	1	1.4	.5 8	SLE
		18	1835	36.84	18 54.48	155 12.46	51.84	2.4	2.0	29	2	290	.07	39	2.0	2.6 23	LOI
		18	1957	53.28	19 23.18	155 6.25	1.36	1.6	1.8	12	0	96	.06	0	.5	.2 10	SME
		18	2115	1.12	19 18.48	155 15.04	7.36	1.7	1.3	29	2	101	.09	4	.5	.8 17	SF1
		19	038	24.65	19 23.02	155 17.00	2.68	1.4	1.6	18	2	68	.06	1	.3	.3 10	SSC
		19	323	48.58	19 23.06	155 17.02	3.21	1.0	1.1	14	2	98	.07	1	.4	.4 9	SSC
		19	645	7.05	19 23.85	154 58.20	5.64	1.7	1.5	23	2	204	.16	3	1.0	.9 12	LER
		19	1727	56.89	19 21.84	155 6.42	8.02	1.9	1.9	33	3	78	.11	2	.4	.8 20	SF4
		19	1919	7.12	19 19.73	155 7.12	7.72	1.7	1.7	26	2	112	.07	5	.5	1.0 19	SF4
		19	2257	11.27	19 20.61	155 3.80	8.63	3.4	3.5	37	0	195	.12	6	.9	.6 33	SF5
		19	23 0	10.00	19 20.81	155 4.24	7.70	2.4	2.9	31	0	196	.12	5	1.1	.8 26	SF5
		20	625	37.17	19 22.97	155 16.90	2.79	2.1	2.4	31	3	39	.09	1	.2	.2 16	SSC
		20	720	54.69	19 26.25	154 56.27	6.07	1.6	1.2	20	1	199	.07	3	.9	1.2 8	LER
		20	1021	39.13	19 20.13	155 3.46	8.44	1.8	2.0	25	0	124	.08	1	.8	.7 13	SF5
		20	1424	52.34	19 24.16	155 .49	6.84	1.5	1.6	27	2	149	.13	4	.6	1.2 14	SF5
		20	1525	29.07	19 19.51	155 10.90	8.85	1.9	2.0	32	0	98	.11	5	.4	.7 23	SF3
		20	1823	7.95	19 23.07	155 20.13	32.26	2.3	2.4	43	1	45	.10	1	.6	1.0 35	DML
		20	2221	14.40	19 20.44	155 5.81	7.37	2.0	2.2	34	1	114	.10	5	.4	.8 22	SF4
		21	055	39.99	19 20.55	155 8.65	8.39	2.5	3.1	41	4	170	.10	4	.5	.4 26	SF4
		21	451	6.69	19 23.12	155 20.00	31.54	2.3	2.6	42	2	44	.10	1	.6	1.0 39	DML
		21	816	40.59	19 19.87	155 11.38	7.40	1.9	1.5	22	2	158	.10	5	.6	1.1 15	SF3
		21	1139	44.27	19 23.10	155 27.96	9.28	1.6	1.3	25	2	46	.11	1	.4	.9 21	KAO
		21	1323	21.76	19 28.45	154 49.23	1.48	2.5	2.2	15	0	319	.23	7	11.8	15.3 10	SLE
		21	1436	34.23	19 19.42	155 12.01	8.37	1.7	2.0	33	2	92	.10	5	.5	.8 25	SF3
		22	159	43.14	19 17.50	155 12.97	6.28	1.7	1.3	25	2	135	.10	1	.5	1.0 16	SF2
		22	16 4	13.48	19 23.37	155 16.84	2.88	2.6	3.6	35	0	37	.08	0	.2	.2 25	SSC
		22	2022	18.91	19 24.92	154 54.77	1.81	2.4	1.9	22	2	221	.14	5	1.0	1.0 16	SLE
		22	2026	9.89	19 23.95	155 25.59	9.81	1.8	1.6	26	4	57	.09	3	.4	.8 21	KAO
		23	730	41.23	19 20.39	155 11.61	7.91	1.7	1.4	25	3	146	.10	4	.6	.8 14	SF3
		23	753	14.24	19 20.90	155 1.05	7.61	1.7	1.5	26	2	210	.11	9	1.2	.9 16	SF5
		23	1426	48.79	19 20.10	155 4.16	5.98	1.5	1.2	26	0	135	.13	2	.7	.9 17	SF5
		23	1430	55.79	19 11.58	155 19.34	14.74	3.1	3.2	45	3	176	.10	12	.7	.4 38	DEP
		23	1549	51.61	19 20.55	155 6.82	7.64	1.4	1.2	19	0	100	.08	5	.5	1.3 15	SF4
		23	1927	25.05	19 20.23	155 8.51	8.70	2.0	2.1	34	3	174	.10	4	.5	.6 22	SF4
		23	2226	36.38	19 20.37	155 11.48	8.72	1.6	1.2	24	2	78	.07	4	.5	.9 13	SF3
		24	0 8	35.07	19 19.08	155 15.36	6.82	1.4	1.1	25	2	113	.10	4	.5	.9 18	SF1
		24	830	44.27	19 25.12	155 25.73	6.49	2.0	1.6	27	2	51	.11	1	.4	1.0 24	KAO
		24	1037	36.13	19 20.02	155 .40	8.06	2.2	2.2	26	0	214	.10	4	1.2	.6 17	SF5
		24	1211	50.22	19 27.40	154 52.50	.79	2.4	2.3	13	2	263	.10	3	.7	.4 6	SLE
		24	1347	30.55	19 18.93	155 13.98	7.84	1.9	1.7	27	2	93	.09	4	.5	.8 19	SF2
		24	1923	42.34	19 31.56	155 28.80	6.47	1.9	1.5	27	2	105	.09	2	.4	1.0 18	MLO

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YEAR	MON	DA	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 NO KM FM	REMK	
1980	SEP	24	2245	34.94	19 47.77	156 2.27	10.94	2.2	2.0	15	4	233	.09	24	1.2	.7 8 HUA		
		25	253	12.03	19 22.57	155 14.51	3.14	1.9	2.1	29	3	73	.10	2	.3	.4 20 SEC		
		25	256	19.72	19 25.86	155 24.49	8.54	1.9	1.6	28	2	47	.11	2	.4	1.0 24 KAO		
		25	310	9.06	19 22.68	155 14.45	2.86	1.5	1.8	21	4	72	.05	2	.3	.3 12 SEC		
		25	1534	13.79	19 23.31	155 1.01	7.99	1.8	1.4	27	1	157	.11	5	.6	.7 14 SF5		
		25	1830	45.71	19 19.51	155 11.50	6.44	1.7	1.5	28	2	95	.09	6	.5	1.0 21 SF3		
		25	1950	4.31	19 20.30	155 12.88	7.62	1.5	1.3	26	2	68	.09	4	.5	.8 15 SF2		
		25	2326	47.53	19 25.86	155 54.21	12.06	2.0	1.6	22	1	194	.14	7	.9	.4 7 KON		
		26	1032	24.85	19 20.77	155 6.61	7.63	2.3	2.1	38	4	98	.09	4	.4	.6 25 SF4		
		26	1923	.64	19 19.94	155 6.30	8.57	2.6	2.7	40	1	82	.08	5	.4	.6 28 SF4		
		26	1952	43.96	19 17.95	155 2.18	8.64	1.6	1.4	22	0	227	.13	4	1.6	1.2 16 SF5		
		26	2023	43.03	19 19.88	155 8.41	8.19	2.3	2.1	37	2	81	.07	5	.4	.6 25 SF4		
		26	2218	46.96	19 19.82	155 30.44	7.05	1.5	1.2	28	0	67	.13	7	.4	1.4 19 KAO		
		27	415	39.41	19 37.30	155 21.89	13.25	1.9	1.3	24	2	71	.08	13	.4	.8 15 KEA		
		27	635	37.60	19 44.15	155 18.88	9.32		1.9	6	0	310	.09	27	18.5	22.8 2 KEA	*	
		27	646	54.17	19 20.27	155 10.80	7.47	1.7	1.5	29	3	81	.09	4	.5	.8 18 SF3		
		27	8	14.41	20 .11	155 43.56	30.82	2.8	2.0	25	2	139	.07	15	1.2	2.4 18 KOH		
		27	1255	11.44	19 23.45	155 15.04	31.97	2.3	1.8	40	2	46	.09	2	.6	1.0 30 DEP		
		27	13	4	36.47	19 25.50	155 .61	3.55	2.4	2.5	36	0	100	.15	3	.5	1.1 27 SME	
		27	1940	2.25	19 21.34	155 24.54	10.67	2.1	2.3	36	1	62	.12	3	.5	.6 22 SWR		
		27	2251	12.66	19 24.27	154 56.43	.74	2.2	1.9	18	2	204	.22	6	1.6	1.0 13 SLE		
		28	234	19.91	19 23.79	155 23.80	10.35	1.6	1.3	22	2	58	.07	4	.5	1.1 18 KAO		
		28	522	48.64	19 26.40	154 57.81	3.14	1.3	1.0	10	1	149	.05	3	.8	.6 7 SLE		
		28	623	8.56	19 26.04	154 57.47	3.33	2.2	2.2	26	1	166	.11	3	.6	.6 17 SLE		
		28	12	0	27.06	19 27.04	7.31	1.5	1.4	20	2	68	.12	4	.5	1.0 14 KAO		
		28	1228	25.57	19 23.80	154 58.89	6.48	1.3	1.0	21	2	180	.13	2	.7	1.2 16 LER		
		28	15	4	39.43	19 28.36	1.97	.6	1.4	17	1	208	.17	1	1.5	.3 9 SLE		
		28	1630	33.47	19 20.36	155 12.13	7.89	1.6	1.2	26	1	74	.09	5	.5	.9 21 SF3		
		29	8	4	46.75	19 20.54	6.88	1.4	1.0	23	1	68	.09	4	.5	1.0 14 SF2		
		29	848	.97	19 28.13	154 52.20	1.90	1.4	1.2	13	1	263	.17	3	1.8	1.3 8 SLE		
		29	1040	13.91	19 26.25	155 37.24	2.97	2.5	2.1	20	0	89	.13	3	.5	.8 18 MLO		
		29	1125	43.16	19 16.45	155 13.39	7.33	1.9	1.5	35	3	165	.10	1	.5	.9 21 SF2		
		29	1127	4.10	19 16.85	155 13.28	6.18	1.8	1.3	24	1	158	.09	0	.6	.9 19 SF2		
		29	1128	18.57	19 17.08	155 13.32	5.44	1.7	1.3	24	1	156	.08	0	.5	1.0 18 SF2		
		29	1152	42.48	19 26.22	155 24.16	9.49	2.3	1.9	38	4	45	.12	2	.4	.7 28 KAO		
		29	1436	39.04	19 16.81	155 13.33	6.90	1.9	2.0	34	1	159	.11	0	.6	1.0 27 SF2		
		30	843	17.41	19 24.60	155 22.89	9.13	2.0	1.7	37	2	37	.10	4	.4	.6 33 KAO		
		30	1517	53.58	19 17.14	155 13.26	4.49	1.7	1.3	24	0	155	.08	0	.4	.7 16 SFF		
		30	1546	44.88	19 18.38	155 13.69	8.04	2.1	2.1	39	4	92	.11	3	.4	.7 26 SF2		
		30	16	5	4.71	19 21.73	6.56	1.1	1.2	26	2	81	.12	3	.6	1.0 18 SF4		
		30	1649	23.54	19 23.53	154 57.87	2.18	1.8	1.5	14	0	195	.11	3	1.1	1.2 6 SLE		
		30	1932	46.71	19 57.13	155 41.86	16.56	2.3	1.7	25	1	130	.09	21	2.4	17.3 22 KOH	*	
		30	2220	7.27	19 26.11	155 37.39	2.90	2.6	3.0	36	2	83	.14	3	.4	.8 27 MLO		
OCT		1	215	11.47	19 19.12	155 15.34	7.44	1.4	1.4	28	2	111	.07	4	.5	.8 19 SF1		
		1	949	56.58	19 20.55	155 11.46	8.10	1.8	1.3	28	1	76	.09	4	.5	.8 21 SF3		
		1	1222	25.59	19 23.05	155 6.09	1.34	2.3	2.8	21	0	80	.11	0	.4	.2 15 SME		
		1	1621	55.15	19 20.16	155 12.19	6.19	1.9	1.6	36	3	77	.10	5	.4	.8 23 SF3		
		1	2256	.65	19 19.35	155 13.37	8.77	2.0	2.1	36	2	72	.10	4	.4	.6 23 SF2		

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HVO EARTHQUAKE SUMMARY LIST

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YEAR	MON	DA	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 NO KM FM	REMK	
1980	OCT	1	2312	58.51	19 26.34	155 25.49	8.11	1.9	1.4	26	3	54	.09	2	.4	.9 20 KAO		
		2	018	9.01	19 19.88	155 9.33	6.41	1.7	1.5	31	3	82	.10	4	.5	1.0 14 SF3		
		2	030	47.26	19 19.95	155 9.33	8.03	1.7	1.4	21	2	81	.07	4	.5	1.1 15 SF3		
		2	045	53.26	19 24.94	155 .86	7.44	1.6	1.3	23	2	118	.09	4	.4	1.0 12 SF5		
		2	054	23.91	19 21.84	155 4.74	8.40	1.9	1.5	25	3	155	.11	3	.6	1.0 19 SF5		
		2	1	6	17.27	19 21.59	155 15.26	8.46	1.9	1.9	38	4	63	.10	2	.4	.5 27 SF1	
		2	128	7.94	19 24.32	155 1.02	7.84	2.1	1.8	27	1	134	.13	4	.5	.8 20 SF5		
		2	251	22.90	19 25.29	155 25.08	9.79	1.9	1.7	32	3	49	.10	0	.4	.8 24 KAO		
		2	3	1	29.14	19 20.20	155 7.80	7.68	2.0	1.7	32	2	91	.09	5	.4	.9 25 SF4	
		2	1011	59.49	19 27.66	154 53.09	2.13	1.6	1.5	11	1	200	.07	2	.7	.4 7 SLE		
		2	1912	47.22	19 10.39	155 22.33	47.23	2.6	2.0	41	2	174	.07	10	.9	1.3 35 DEP		
		3	131	52.11	19 20.45	155 9.05	7.92	1.8	1.4	26	1	70	.06	3	.4	.7 21 SF4		
		3	759	38.16	19 20.39	155 11.29	8.42	2.4	2.3	38	3	79	.12	4	.5	.7 32 SF3		
		3	1435	12.40	19 19.64	155 8.97	7.53	1.8	1.4	23	2	82	.08	5	.5	.9 20 SF4		
		3	1552	38.10	19 24.44	155 37.39	.04	2.2	1.5	10	1	165	.13	6	.7	1.7 8 MLO		
		3	1556	41.06	19 28.46	154 53.17	2.67	1.7	1.4	11	1	170	.05	1	.8	.3 7 SLE		
		3	1853	51.68	19 49.51	155 49.08	13.35	2.7	2.3	29	3	170	.13	15	.9	.7 19 HUA		
		3	20	5	26.12	19 27.12	154 53.38	7.90	2.1	1.7	25	2	189	.13	3	1.0	.5 18 LER	
		3	21	3	59.81	19 20.24	155 12.85	7.24	1.8	1.8	33	2	70	.10	4	.4	.8 24 SF2	
		4	1	1	13.13	19 23.51	155 2.52	9.95	1.4	1.3	19	1	122	.08	4	.5	1.0 14 SF5	
		4	331	27.25	19 16.74	155 30.05	7.01	2.5	2.3	39	2	75	.18	3	.4	1.2 31 LSW		
		4	334	.68	19 16.42	155 21.74	8.01	1.8	1.4	23	1	135	.08	6	.5	1.1 20 SWR		
		4	1752	16.77	19 19.45	155 11.74	7.43	2.1	2.1	41	4	94	.10	5	.4	.7 28 SF3		
		4	2255	16.59	19 21.50	155 6.78	8.32	3.2	3.2	43	3	83	.09	3	.4	.4 33 SF4		
		5	057	26.50	19 21.64	155 6.82	7.57	2.0	1.5	26	3	80	.10	3	.5	1.0 21 SF4		
		5	1724	57.63	19 22.03	155 25.64	10.73	1.9	1.5	28	1	91	.10	4	.5	1.1 21 KAO		
		5	2330	26.91	19 24.47	155 6.25	.01		1.9	10	0	115	.09	3	2.2	4.0 3 SME		
		6	328	37.02	19 20.36	155 12.90	7.24	1.5	1.2	27	1	67	.10	4	.5	.9 21 SF2		
		6	1947	54.36	19 18.44	155 23.37	3.77	2.1	2.1	30	2	108	.11	3	.4	1.0 19 SWR		
		6	1954	49.46	19 18.49	155 23.31	3.48	1.7	1.6	27	2	108	.10	3	.4	.7 15 SWR		
		6	2027	53.18	19 21.45	155 1.32	5.31	2.1	2.0	30	2	176	.15	4	.6	1.2 18 SF5		
		6	2126	51.25	19 20.28	155 13.35	8.89	2.4	2.4	43	4	63	.10	4	.4	.5 31 SF2		
		6	2244	48.86	19 19.74	155 8.22	8.52	2.3	2.3	38	2	87	.09	4	.4	.6 27 SF4		
		7	2	1	20.68	19 23.26	155 4.84	1.25	2.1	2.6	17	0	79	.13	3	.5	.3 11 SME	
		7	337	28.36	19 22.78	155 29.92	8.98	1.9	1.5	33	2	57	.11	4	.4	.9 25 KAO		
		7	12	3	.36	19 18.27	155 13.37	8.31	1.7	1.3	24	1	84	.09	2	.5	.9 17 SF2	
		7	1855	47.04	19 28.50	154 53.61	2.43	2.0	1.5	24	1	164	.19	1	.8	.3 16 SLE		
		7	19	7	3.92	19 20.89	155 2.59	7.41	2.5	2.4	38	2	148	.10	2	.6	.5 24 SF5	
		8	049	54.11	19 28.66	154 53.41	2.42	2.6	2.6	27	1	163	.12	0	.6	.3 17 SLE		
		8	648	19.45	19 19.66	155 12.42	7.83	1.7	1.4	26	1	83	.07	5	.4	.7 21 SF2		
		8	729	59.10	19 28.02	155 21.52	7.16	2.1	1.4	26	3	98	.12	2	.5	1.0 19 KAO		
		8	10	7	9.96	19 26.80	154 53.43	6.47	2.4	2.0	29	1	193	.12	3	.9	.7 22 LER	
		8	1033	17.35	19 20.37	155 12.98	7.24	1.9	1.5	35	5	66	.12	4	.4	.7 22 SF2		
		8	1638	20.21	19 23.32	155 5.43	1.14	2.0	2.6	16	0	93	.11	2	.6	.3 7 SME		
		8	1814	46.21	19 23.26	155 2.64	7.88	2.1	1.6	30	0	122	.15	4	.5	.6 21 SF5		
		8	2054	33.91	19 23.24	155 5.83	1.68	.8	1.8	9	0	104	.08	1	.5	.3 7 SME		
		9	0	4	38.41	19 19.15	155 16.27	8.70	2.3	2.1	39	4	115	.09	3	.4	.5 24 SF1	
		9	11	5	55.65	19 23.00	155 49.51	12.62	3.3	3.1	36	1	120	.13	14	.6	.4 30 KDI	

HVO EARTHQUAKE SUMMARY LIST

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YEAR	MON	DA	HRMN	SEC	LAT N	DEG MIN	LON W	DEG MIN	DEPTH	AMP	DUR	NR	NS	GAP	RMS	MIN	ERH	ERZ	NO	REMK
									KM	MAG	MAG	NR	NS	DEG	SEC	DIS	KM	KM	FM	REMK
1980	OCT	9	22	4	39.81	19 23.91	155 25.95		10.51	2.4	1.9	40	2	43	.11	3	.4	.7	30	KAO
		9	23	59	11.25	19 21.59	155 6.51		8.45	2.8	2.7	42	4	82	.10	3	.4	.7	32	SF4
		10	0	2	14.59	19 21.52	155 6.76		7.03	1.8	1.2	33	3	83	.11	3	.4	.8	25	SF4
		10	22	6	10.54	19 21.23	155 1.41		7.18	3.1	3.1	45	4	179	.10	4	.5	.4	33	SF5
		10	611	41	6.66	19 26.24	154 57.84		3.29	2.6	2.6	30	1	155	.11	3	.4	.6	21	SLE
		10	1317	36	3.37	19 35.60	155 41.85		7.63	1.7	1.4	14	0	140	.13	12	.9	3.9	11	KEA
		10	1330	28	6.67	19 29.12	155 38.84		5.55	1.3	1.6	19	1	92	.13	5	.5	2.0	13	MLO
		10	16	4	8.94	19 29.08	155 38.83		6.18	1.1	1.3	16	2	92	.16	5	.6	1.8	12	MLO
		10	1850	52	1.15	19 17.82	155 16.42		8.84	2.1	2.3	40	3	128	.11	4	.4	.4	27	SF1
		11	834	55	5.58	19 29.02	155 38.92		7.23	2.3	2.1	24	2	92	.14	5	.5	1.1	15	MLO
		11	925	17	1.11	19 30.29	155 23.83		13.63	2.1	1.8	24	2	64	.09	1	.4	.8	15	DML
		11	951	37	4.66	19 28.98	155 38.33		7.19	1.5	1.6	17	2	91	.15	4	.6	1.1	10	MLO
		11	953	24	6.3	19 28.90	155 15.58		31.37	1.8	1.6	34	1	113	.07	8	.7	1.3	25	DEP
		11	1114	10	1.15	19 28.55	155 37.63		9.28	.9	1.2	11	1	89	.07	3	.7	1.0	6	MLO
		11	1120	8	3.35	19 20.11	155 7.61		7.56	2.2	2.1	26	2	95	.07	5	.4	.7	18	SF4
		11	1720	33	1.15	19 19.69	155 8.03		8.16	1.8	1.8	29	3	91	.07	4	.4	.9	18	SF4
		12	133	48	8.7	19 28.93	155 38.63		6.62	1.2	1.6	17	2	91	.15	5	.6	1.4	12	MLO
		12	6	6	34.47	19 19.39	155 12.11		7.65	1.4	1.4	26	1	92	.10	5	.5	1.0	19	SF3
		12	624	.35	19 17.62	155 12.75	155 12.75		7.91	1.8	1.4	22	2	137	.07	2	.5	.9	16	SF2
		12	726	53	6.9	19 23.99	155 17.12		16.31	2.1	1.9	37	2	57	.09	1	.4	.4	31	DEP
		12	851	27	4.4	19 26.32	154 55.27		6.11	1.7	1.7	20	2	200	.07	2	.6	.7	14	LER
		12	856	44	9.1	19 29.77	155 39.00		7.55	1.1	1.4	12	1	191	.12	5	1.1	1.6	8	MLO
		12	1257	29	6.0	19 18.48	155 14.60		6.98	1.4	1.3	24	1	120	.09	3	.5	1.1	18	SF1
		12	1352	3	4.2	19 54.46	155 36.32		14.38	2.3	2.4	19	3	130	.11	21	.7	.8	11	KEA
		12	1614	37	0.0	19 20.22	155 6.86		6.54	1.4	1.3	24	0	106	.11	5	.6	1.3	20	SF4
		12	1743	24	8.1	19 24.15	155 29.86		9.83	1.8	1.5	26	0	51	.06	5	.4	1.2	21	KAO
		12	1754	59	2.9	19 18.71	155 11.11		7.69	1.6	1.3	24	1	120	.09	5	.5	1.1	13	SF3
		12	2231	6	6.9	19 24.12	154 58.71		6.38	1.5	1.2	19	1	192	.11	2	.7	.9	12	LER
		12	23	1	51.99	19 22.72	154 59.77		7.17	1.3	.9	14	2	177	.09	5	.7	1.2	9	LER
		12	2350	59	8.9	19 28.72	154 53.71		2.62	2.6	3.1	13	0	159	.08	1	.5	.2	7	SLE
		13	021	32	8.8	19 25.13	155 24.49		9.79	2.6	2.8	38	2	42	.11	1	.4	.6	27	KAO
		13	342	54	6.6	19 20.09	155 12.10		7.25	1.6	1.8	31	1	79	.10	5	.5	.7	25	SF3
		13	1045	41	3.8	19 40.40	156 1.74		13.44	2.9	2.7	20	1	237	.12	20	2.8	.5	14	HUA
		13	1333	12	2.0	19 24.56	155 24.69		10.83	2.5	2.3	41	3	39	.10	2	.4	.6	28	KAO
		14	238	39	9.2	19 19.85	155 7.96		7.09	1.6	1.3	25	2	90	.08	5	.4	1.0	19	SF4
		14	459	39	2.8	19 30.09	155 39.13		7.50	1.4	1.3	15	1	99	.13	6	.6	1.5	10	MLO
		14	1433	34	3.8	19 26.11	155 25.33		4.88	1.8	1.4	24	2	129	.11	2	.4	1.1	19	KAO
		14	1614	2	4.0	19 26.05	155 25.46		5.64	1.8	1.4	24	1	74	.12	2	.4	1.1	18	KAO
		14	1810	40	4.2	19 21.35	155 1.16		7.27	2.6	2.4	33	2	173	.10	4	.6	.5	24	SF5
		14	1836	2	9.5	19 19.56	155 11.34		7.31	2.0	1.9	39	2	95	.11	5	.5	.8	31	SF3
		14	2034	29	4.8	19 20.31	155 14.01		9.51	3.4	3.4	47	1	59	.11	5	.4	.3	40	SF2 F
		15	020	39	0.8	19 18.06	155 23.30		4.32	1.7	1.4	22	2	150	.10	4	.5	1.4	13	SWR
		15	256	30	4.2	19 19.74	155 7.92		7.04	1.8	1.4	29	2	94	.08	4	.5	1.0	20	SF4
		15	537	25	6.3	19 5.68	155 28.28		41.79	2.4	.21	1	1	184	.09	7	1.4	1.9	5	DLS T
		15	1418	32	3.8	19 14.80	155 21.44		35.13	2.1	2.0	36	1	150	.08	8	.7	1.4	32	DEP
		15	15	4	36.41	19 19.29	155 8.85		7.88	1.8	1.6	27	2	87	.06	4	.5	.9	18	SF4
		15	1527	42	6.8	19 19.64	155 11.58		6.61	1.7	1.5	26	2	92	.07	5	.4	.8	17	SF3
		15	18	1	.83	19 18.37	155 26.36		9.43	1.5	1.3	23	1	132	.11	6	.5	.8	15	LSW

HVO EARTHQUAKE SUMMARY LIST

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ORIGIN TIME				LAT N		LON W		DEPTH	AMP	DUR	GAP			RMS	MIN	ERH	ERZ	NO	
YEAR	MON	DA	HRMN	SEC	DEG	MIN	DEG	MIN	KM	MAG	MAG	NR	NS	DEG	SEC	DIS	KM	KM	FM
1980	OCT	16	0	6	20.05	19 21.87	155 10.99		3.44	2.2	2.3	26	1	59	.09	2	.5	.6	20
		16	11	4	8.37	19 6.20	155 26.98		42.61	2.3		22	1	191	.10	6	1.2	1.9	6
		16	11	4	21.14	18 55.00	155 24.37		57.01	2.6		24	0	241	.11	28	2.0	4.6	9
		16	11	5	36.69	19 7.67	155 27.53		44.68	2.3		24	1	247	.09	3	1.5	2.5	13
		16	1411	49.71	19 19.48	155 11.26			7.49	1.5	1.4	31	1	97	.10	5	.5	.8	23
		16	1427	4.59	19 4.99	155 28.34		42.27	2.0			20	1	193	.08	8	1.4	2.4	11
		16	1434	23.97	19 6.71	155 26.65		40.02	2.3			24	1	180	.08	6	1.0	1.9	10
		16	1436	18.88	19 7.26	155 25.22		38.14	1.9			17	1	257	.11	6	1.7	2.3	7
		16	1815	24.72	19 19.77	155 8.90		9.27	2.9	3.0	41	1	79	.10	5	.5	.4	37	
		16	23	8	15.02	19 22.97	155 25.04		10.27	2.3	2.2	41	3	44	.10	4	.4	.6	30
		17	715	38.37	19 20.38	155 11.77		8.56	2.2	2.1	29	3	76	.11	5	.5	.7	23	
		17	814	58.93	19 18.37	155 23.35		4.57	1.7	1.3	20	1	145	.10	3	.7	1.4	13	
		17	2115	37.84	19 16.86	155 22.27		8.50	3.0	3.4	47	2	128	.14	6	.5	.5	43	
		17	2138	18.08	19 16.84	155 22.08		7.17	1.8	1.5	32	1	129	.13	6	.5	1.2	20	
		17	2138	56.60	19 16.79	155 22.21		8.40	2.1	2.1	36	0	129	.12	7	.5	1.0	23	
		17	2231	20.77	19 14.14	156 2.00		40.85	2.4	1.8	32	1	257	.08	17	1.3	1.7	27	
		18	3	8	38.75	19 20.26	155 8.59		7.02	1.8	1.4	27	3	89	.08	4	.5	.9	16
		18	651	59.12	19 20.66	155 8.93		8.48	2.6	2.6	39	1	67	.08	3	.3	.5	28	
		18	752	11.41	19 52.41	156 24.59		1.24		1.6	33	2	286	.11	63	1.8	.8	28	
		18	840	30.52	19 28.02	154 53.94		2.37	1.9	1.8	22	1	124	.19	2	.6	.5	16	
		18	1733	33.86	19 4.55	155 40.60		26.27	2.6	1.9	35	1	144	.08	11	1.2	2.1	32	
		18	2029	47.92	19 19.73	155 11.62		7.65	1.7	1.7	31	1	89	.06	5	.4	.7	20	
		18	2118	17.93	19 23.52	155 17.07		2.94	1.4	1.7	21	2	47	.08	0	.3	.2	15	
		19	817	.49	19 24.46	155 16.69		1.75	1.3	1.3	15	4	125	.09	1	.3	.2	7	
		19	932	18.19	19 21.04	155 6.51		7.18	2.0	1.4	31	3	93	.12	4	.4	.8	17	
		19	20	1	10.83	19 18.58	155 13.76		7.43	1.7	1.3	28	2	94	.09	3	.6	.9	18
		19	2219	15.65	19 26.64	155 24.47		8.54	1.7	1.5	27	4	58	.11	3	.4	.9	22	
		20	129	58.48	19 23.77	155 16.81		2.50	1.9	2.0	25	3	65	.10	0	.3	.2	15	
		20	751	18.00	19 13.46	155 32.47		7.32	2.6	2.3	40	4	74	.18	5	.5	.9	22	
		20	758	34.68	19 20.64	155 10.85		8.46	1.7	1.5	26	3	75	.06	3	.5	.8	13	
		20	759	2.45	19 20.60	155 10.78		6.69	1.7	1.4	21	2	76	.08	3	.5	1.0	17	
		20	1234	2.25	19 19.09	155 14.10		8.23	2.4	2.5	40	2	93	.11	4	.4	.5	32	
		20	1736	8.09	19 19.58	155 11.75		7.12	1.7	1.4	28	1	92	.08	6	.5	1.0	23	
		20	2035	48.30	19 15.05	155 29.67		7.17	2.8	2.9	39	0	128	.15	1	.5	.7	22	
		20	2257	14.58	19 19.49	155 10.27		8.93	1.6	1.2	15	0	97	.04	5	.6	1.4	15	
		21	625	28.59	19 26.10	155 24.00		10.09	2.0	1.5	25	2	54	.10	3	.5	1.0	22	
		21	642	44.76	19 20.81	155 13.24		9.04	2.5	2.5	39	3	60	.11	3	.4	.5	30	
		21	1416	31.54	19 26.33	154 58.15		2.85	2.3	2.6	10	1	137	.11	2	.9	.7	7	
		21	19	1	37.92	19 22.53	155 6.76		1.83	1.8	2.2	11	0	104	.08	1	.5	.3	8
		21	2032	27.09	19 22.30	155 7.59		2.10	1.6	2.2	12	0	107	.07	3	.4	.6	9	
		21	2038	25.07	19 22.62	155 5.12		3.87	3.4	4.0	37	1	75	.13	6	.4	3.4	26	
		21	2116	44.40	19 22.74	155 5.35		1.24	2.6	2.9	22	0	72	.20	2	.4	.5	16	
		21	2148	19.63	19 21.88	155 6.85		1.50	3.7	4.2	46	2	75	.23	2	.4	.6	31	
		21	22	5	42.17	19 22.15	155 6.26		.57	3.0	3.6	34	3	74	.22	2	.4	.5	25
		21	2340	39.58	19 23.12	155 6.34		1.45	2.3	2.6	20	1	90	.07	0	.4	.5	18	
		22	225	10.33	19 22.94	155 6.06		1.61	1.0	1.4	13	0	87	.06	0	.5	.2	13	
		22	258	35.68	19 23.86	155 5.24		2.13	1.2	1.4	11	0	96	.05	2	.6	.4	10	
		22	329	4.33	19 23.22	155 5.94		1.52	1.4	2.1	11	0	102	.07	1	.6	.3	11	

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YEAR	MON	DA	HRMN	SEC	ORIGIN TIME	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
1980	OCT	22	413	24.73	19 22.40	155 7.24	3.10 1.7 2.4	14	0 93 .09	2	.5	1.1 10	SER						
		22	644	41.48	19 22.20	155 6.19	7.28 2.0 1.5	26	0 74 .13	2	.5	1.0 20	SF4						
		22	944	39.02	19 25.72	154 58.58	3.82 2.9 2.8	25	1 117 .11	1	.4	.5 13	SLE						
		22	1016	55.55	19 26.01	154 53.21	5.17 3.5 3.7	36	0 122 .16	4	.5	.9 24	LER F						
		22	1021	17.99	19 26.39	154 54.21	2.39 1.8 1.5	14	1 116 .11	2	.4	.3 12	SLE						
		22	1139	3.75	19 25.67	154 57.85	3.57 2.1 1.8	26	1 146 .19	2	.7	.5 21	SLE						
		22	1157	2.59	19 23.76	155 1.16	7.07 1.5 1.1	21	1 145 .12	5	.5	1.2 17	SF5						
		22	12 9	30.00	19 22.35	155 7.32	1.88 1.7 2.4	14	1 102 .10	4	.5	.8 11	SER						
		22	1424	8.65	19 19.56	155 12.44	6.77 1.7 1.8	27	2 84 .09	5	.4	.9 24	SF2						
		22	1542	17.03	19 23.10	155 5.05	.99 2.4 3.1	31	0 77 .14	2	.3	.3 10	SME						
		22	1551	59.71	19 26.12	154 58.17	3.35 2.7 2.6	27	1 130 .09	2	.5	.5 24	SLE						
		22	1632	27.20	19 20.63	155 7.75	8.03 2.0 1.8	30	2 86 .07	5	.4	.8 25	SF4						
		22	1650	35.23	19 20.29	155 6.54	8.13 2.6 2.5	36	2 109 .09	5	.4	.7 30	SF4						
		22	1718	6.03	19 23.34	155 5.98	1.72 1.0 1.6	6	0 111 .01	1	.6	.3 5	SME						
		22	1841	45.66	19 21.95	155 13.14	3.12 .6 10	2	158 .07	1	.8	.4 8	SER						
		22	1842	45.83	19 22.04	155 13.26	2.65 1.1 .2	10	2 155 .12	1	.8	.4 8	SER						
		22	1846	13.27	19 21.97	155 13.03	2.80 1.7 .9	15	2 145 .09	1	.6	.4 13	SER						
		22	1848	28.86	19 21.85	155 12.95	2.85 1.4 1.7	15	2 101 .10	1	.4	.4 13	SER						
		22	1849	3.18	19 22.16	155 12.99	2.76 1.4 .5	14	2 140 .10	1	.6	.4 12	SER						
		22	1855	11.00	19 21.94	155 12.98	2.30 1.8 2.0	19	2 53 .12	1	.4	.4 17	SER						
		22	1857	11.74	19 21.80	155 12.80	2.41 2.2 1.6	23	3 62 .09	2	.3	.3 18	SER						
		22	1858	25.54	19 21.84	155 13.28	3.50 2.1 2.0	16	2 103 .10	5	.5	1.4 14	SER						
		22	19 0	26.59	19 22.65	155 12.89	2.74 1.3 .5	10	2 134 .08	0	.7	.4 7	SER						
		22	19 3	37.60	19 22.22	155 13.12	2.69 1.6 1.1	12	2 181 .07	1	.7	.4 5	SER						
		22	19 4	50.96	19 22.01	155 12.79	2.49 1.4 .5	10	1 159 .07	5	.8	1.1 7	SER						
		22	19 8	.83	19 21.75	155 12.83	2.79 1.4 1.0	14	1 153 .06	2	.6	.4 9	SER						
		22	19 9	27.07	19 21.41	155 12.72	2.07 1.3 1.0	8	1 178 .05	2	.6	.7 4	SER						
		22	1910	59.43	19 22.17	155 12.68	2.15 1.4 .8	13	1 142 .11	1	.7	.4 7	SER						
		22	1911	23.74	19 22.21	155 12.84	1.86 1.2 .8	12	2 140 .08	1	.4	.7 5	SER						
		22	1912	8.58	19 23.37	155 12.74	.01 .9 .8	10	1 163 .18	2	.4	.9 7	SER *						
		22	1914	15.53	19 21.96	155 12.73	2.84 2.1 1.0	19	1 101 .06	1	.4	.4 15	SER						
		22	1915	4.41	19 21.97	155 12.75	2.25 1.4 .9	14	2 147 .07	1	.6	.3 10	SER						
		22	1917	6.22	19 21.93	155 12.76	2.69 2.1 1.3	20	1 68 .07	1	.5	.3 13	SER						
		22	1922	1.01	19 21.98	155 12.69	2.49 2.1 1.2	19	2 101 .04	1	.4	.3 13	SER						
		22	1932	41.73	19 21.93	155 12.78	2.84 2.1 1.2	18	2 101 .09	1	.5	.3 12	SER						
		22	1935	7.35	19 21.93	155 12.79	2.60 2.7 1.6	31	2 53 .07	1	.3	.4 22	SER						
		22	1945	27.17	19 21.89	155 12.73	2.54 2.3 1.4	29	2 54 .07	2	.3	.4 16	SER						
		22	1948	7.63	19 21.80	155 13.28	2.27 2.0 .7	17	1 98 .06	2	.4	.4 13	SER						
		22	1951	54.72	19 21.89	155 13.07	2.97 2.0 1.6	24	1 52 .05	1	.3	.4 16	SER						
		22	1953	5.28	19 21.81	155 12.93	2.58 2.1 1.9	27	2 53 .10	2	.3	.4 18	SER						
		22	1957	59.44	19 21.90	155 13.20	3.25 1.4 1.1	16	1 96 .20	1	.7	1.4 10	SER						
		22	20 7	32.85	19 21.81	155 13.09	2.96 1.7 .8	20	1 53 .04	2	.3	.5 15	SER						
		22	20 8	13.44	19 21.95	155 12.75	2.50 2.1 1.9	25	0 53 .06	1	.3	.4 21	SER						
		22	2017	2.23	19 21.96	155 13.05	3.13 1.0 .3	13	2 145 .04	1	.7	.4 8	SER						
		22	2017	31.74	19 21.64	155 12.66	2.22 1.4 .8	13	2 157 .03	2	.6	.5 7	SER						
		22	2033	21.17	19 24.11	155 6.84	.11 1.1 10	0	116 .08	2	2.6	5.1 5	SME *						
		22	2045	5.14	19 21.79	155 13.07	2.65 .8 .5	11	2 149 .03	2	.6	.5 7	SER						
		22	2047	34.32	19 21.89	155 12.66	2.13 1.0 .7	14	2 103 .07	2	.5	.4 7	SER						

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YEAR	MON	DA	HRMN	SEC	ORIGIN TIME	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
1980	OCT	22	2048	28.47	19 22.12	155 12.79	3.14 2.3 2.5	33	1 52 .07	1	.3	.4	26	SER					
		22	21 4	.54	19 22.52	155 1.73	5.42 1.3 1.2	12	0 217 .09	5	1.0	1.8	9	SF5					
		22	21 4	42.75	19 23.58	155 3.95	1.91 1.7 2.3	10	0 93 .11	2	.5	.7	8	SME					
		22	2114	36.14	19 24.20	155 16.11	3.17 .7 .7	8	1 124 .02	1	.4	.6	6	SEC					
		22	2135	26.97	19 21.88	155 13.00	2.95 .7 .5	13	2 148 .05	1	.6	.3	8	SER					
		22	2136	52.79	19 21.67	155 12.83	2.76 .5 .7	14	2 106 .07	2	.5	.4	10	SER					
		23	158	27.74	19 18.76	155 16.00	6.79 1.2 1.1	22	0 131 .10	4	.6	.9	19	SF1					
		23	518	2.64	19 22.33	155 29.80	8.53 1.9 1.4	29	1 71 .09	4	.4	.7	20	KAO					
		23	841	24.01	19 18.68	155 15.39	7.87 1.5 1.3	23	3 127 .09	4	.6	1.0	19	SF1					
		23	1032	54.87	19 26.27	155 37.59	3.52 2.8 3.0	27	2 185 .16	3	.6	.8	16	MLO					
		23	12 8	19.24	19 25.15	155 25.28	9.06 1.7 1.3	27	1 49 .09	0	.4	.8	19	KAO					
		23	1229	15.03	19 20.30	155 11.28	8.78 2.6 2.8	40	3 80 .12	4	.4	.6	31	SF3					
		23	1346	20.59	19 20.00	155 11.22	7.21 1.8 1.1	23	1 86 .09	5	.5	1.1	15	SF3					
		23	1715	51.61	19 23.06	155 14.39	1.27 1.1 1.3	11	2 115 .04	2	.4	.5	5	SEC					
		23	1812	47.17	19 20.39	155 9.71	8.12 1.9 1.4	25	2 76 .08	3	.5	1.0	17	SF3					
		23	19 1	17.05	19 23.70	155 4.93	1.91 2.0 2.6	16	0 92 .08	2	.4	.3	9	SME					
		23	1913	13.81	19 25.04	155 27.01	9.28 1.8 1.1	23	2 53 .10	3	.5	1.0	18	KAO					
		23	2239	4.86	19 20.54	155 5.72	7.29 1.5 1.4	19	0 111 .10	5	.6	1.0	15	SF4					
		24	137	21.04	19 22.50	155 30.23	8.93 1.9 1.5	30	2 58 .09	5	.4	.9	24	KAO					
		24	422	36.15	19 26.36	155 37.29	2.88 2.3 2.1	21	1 112 .13	2	.5	.7	12	MLO					
		24	749	45.16	19 23.28	155 14.56	2.71 1.1 1.1	11	2 106 .04	3	.3	.5	5	SEC					
		24	1120	49.68	19 18.70	155 12.94	6.82 2.1 .35	5	92 .10	3	.4	.8	29	SF2					
		24	1121	17.03	19 18.84	155 13.19	7.14 2.8 2.8	42	5 82 .11	3	.4	.7	33	SF2					
		24	16 1	39.09	19 28.20	154 51.01	6.64 2.2 1.9	24	2 181 .10	2	.9	.5	20	LER					
		24	1642	48.58	19 25.30	155 24.59	8.03 1.8 1.4	30	3 46 .09	1	.4	.8	27	KAO					
		24	2121	16.64	19 20.64	155 8.09	8.41 1.9 1.8	31	3 79 .08	4	.4	.8	25	SF4					
		25	0 2	49.19	19 16.46	155 2.09	41.70 2.4 1.8	33	3 222 .09	7	1.1	2.1	28	DEP					
		25	021	41.83	19 23.63	155 24.58	9.36 1.8 1.7	29	2 74 .10	3	.4	.9	25	KAO					
		25	1055	33.27	19 23.31	155 5.57	1.73 1.2 1.4	9	0 102 .11	1	.6	.4	9	SME					
		25	1110	4.41	19 19.57	155 10.18	7.20 1.8 1.7	28	2 95 .10	5	.5	.9	25	SF3					
		25	1330	.25	19 24.79	155 26.19	9.34 2.7 .40	40	2 52 .12	2	.4	.7	29	KAO					
		25	1330	29.17	19 20.18	155 12.88	8.56 3.0 3.0	40	1 69 .13	5	.4	.6	31	SF2					
		25	1937	48.44	19 20.99	155 8.01	7.75 1.6 1.2	29	1 77 .07	4	.5	.8	14	SF4					
		25	22 2	27.78	19 20.09	155 8.15	9.18 2.6 2.9	39	4 85 .09	5	.4	.5	28	SF4					
		25	2252	9.13	19 27.06	155 29.26	7.62 1.9 1.6	25	0 59 .11	8	.4	1.4	20	KAO					
		26	0 6	21.09	19 19.80	155 12.69	9.12 1.8 1.6	31	2 77 .07	5	.4	.7	22	SF2					
		26	150	42.00	19 26.43	155 38.48	2.94 3.3 3.4	32	1 189 .07	4	.6	.8	27	MLO					
		26	533	44.50	19 19.46	155 10.95	8.94 2.2 1.9	29	1 99 .08	5	.5	.8	26	SF3					
		26	738	33.50	19 20.14	155 8.62	7.11 1.5 1.1	20	2 75 .08	4	.5	1.0	16	SF4					
		26	1550	5.11	19 19.89	155 10.23	7.89 1.9 1.7	36	3 88 .09	4	.5	.7	22	SF3					
		26	1733	37.61	19 20.73	155 6.93	8.87 2.7 2.8	40	1 95 .10	4	.4	.6	29	SF4					
		26	1913	34.67	19 20.67	155 10.83	8.80 2.5 2.5	40	1 75 .11	3	.4	.6	30	SF3					
		26	1914	44.31	19 20.26	155 10.76	6.55 1.5 1.2	23	2 82 .11	4	.5	.9	14	SF3					
		26	1956	3.26	19 21.70	155 2.13	7.66 2.3 2.4	35	2 143 .10	4	.4	.5	24	SF5					
		27	241	2.99	19 23.18	155 14.22	1.21 1.1 1.4	14	2 110 .08	2	.3	.4	7	SEC					
		27	436	18.25	19 24.88	155 28.47	9.95 1.9 1.2	24	1 63 .08	5	.5	.9	17	KAO					
		27	6 7	28.68	19 23.63	155 16.81	2.82 2.4 2.7	33	2 41 .11	1	.3	.2	28	SF3					
		27	8 8	18.12	19 19.39	155 11.52	8.07 1.9 1.9	34	3 97 .07	6	.4	.6	25	SF3					

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YEAR	MON	ORIGIN TIME			LAT N		LON W		DEPTH KM	AMP MAG	DUR MAG NR	GAP NS	RMS DEG	MIN SEC DIS	ERH	ERZ NO					
		DA	HRMN	SEC	DEG	MIN	DEG	MIN								KM	FM	REMK			
1980	OCT	27	928	47.12	19	18.38	155	15.08	7.13	2.0	1.7	25	0	130	.08	4	.5	1.0	17	SF1	
		27	2021	52.77	19	22.13	155	.45	8.51	2.1	2.0	31	1	178	.11	6	.7	.6	19	SF5	
		28	047	56.43	19	23.67	155	24.45	10.94	3.1	2.9	42	3	40	.11	3	.4	.5	30	KA0	
		28	1150	31.12	19	21.46	155	15.29	8.95	2.0	1.8	35	4	65	.09	2	.4	.5	23	SF1	
		28	13	8	47.02	19	29.62	154	50.43	5.86	2.0	1.5	22	2	210	.15	1	1.1	.6	11	LER
		28	15	3	20.04	19	19.71	155	12.33	8.62	1.9	1.6	27	1	83	.08	5	.5	1.0	18	SF2
		28	2038	27.81	19	19.12	155	13.15	6.50	1.5	1.3	29	2	79	.11	4	.5	1.1	18	SF2	
		28	2054	43.71	19	26.13	154	55.13	5.97	1.8	1.3	21	2	160	.09	3	.7	.9	11	LER	
		28	2310	31.00	19	23.88	155	15.75	3.05	1.8	2.0	24	3	107	.05	2	.3	.3	13	SEC	
		30	120	42.98	19	19.60	155	12.12	6.94	1.6	1.1	26	1	88	.10	5	.5	1.0	20	SF3	
		30	430	20.69	19	19.86	155	13.16	8.20	1.9	2.1	37	3	70	.11	5	.5	.7	25	SF2	
		30	814	56.40	19	22.06	155	23.26	12.23	1.4	1.0	10	0	157	.07	3	1.3	2.9	10	KA0	
	30	822	41.27	19	4.45	155	26.17	46.62	2.6		21	0	193	.12	10	1.5	3.9	15	DLS		
	30	835	31.54	19	25.84	155	28.06	8.16	1.9	1.5	18	1	114	.12	5	.6	1.3	13	KA0		
	30	855	11.76	19	25.80	155	24.04	8.81	1.9	1.4	22	2	63	.11	2	.4	.9	13	KA0		
	30	1029	14.03	19	27.29	155	12.59	27.42	3.6	3.9	43	2	39	.11	6	.5	1.1	41	DEP		
	30	1232	44.28	19	23.94	155	15.94	3.05	1.8	1.9	21	3	107	.08	1	.3	.3	13	SEC		
	30	23	9	41.07	19	8.71	155	28.26	41.00	1.9		17	1	248	.07	2	1.6	2.3	10	DLS	
	31	055	35.62	19	23.26	155	16.82	2.63	1.8	2.3	17	2	68	.09	0	.4	.2	10	SSC		
	31	1	1	17.23	19	23.55	155	16.77	2.69	1.9	2.2	17	1	51	.12	0	.5	.3	12	SSC	
	NOV	31	1139	58.05	19	19.92	155	13.15	9.66	3.2	3.5	39	1	69	.10	5	.4	.4	27	SF2	
		31	1434	1.09	19	21.82	155	2.35	4.95	1.9	1.5	13	0	148	.10	4	.7	1.7	7	SSF	
		31	1438	54.68	19	25.17	155	24.56	7.13	1.6	1.3	17	2	66	.09	1	.5	1.1	14	KA0	
		31	2338	45.93	19	19.36	155	9.59	7.37	1.7	1.8	24	2	96	.07	5	.4	1.0	13	SF3	
31		2356	24.93	19	22.67	155	14.55	3.88	1.2	1.9	12	1	128	.05	2	.6	.5	8	SEC		
1		7	9	30.24	19	12.25	155	32.22	38.75	2.5		25	0	86	.09	6	.8	2.3	9	DLS	
1		845	.99	19	23.17	155	17.27	2.29	.5	1.6	11	1	90	.09	1	.5	.3	10	SSC		
1		1217	47.81	19	21.43	155	5.90	8.18	1.6	1.3	19	1	88	.08	3	.5	.9	14	SF4		
1		1459	47.97	19	26.09	155	23.80	5.41	1.9	1.9	19	1	61	.11	3	.5	1.3	17	KA0		
1		15	3	8.24	19	23.83	155	15.92	3.21	1.0	1.3	10	2	103	.04	1	.5	.5	7	SEC	
1		1555	31.80	19	27.28	154	52.75	8.42	2.1	2.3	24	2	246	.09	3	1.6	.4	14	LER		
1		1611	39.24	19	15.49	155	31.07	11.55	1.6	1.5	20	0	99	.11	2	.8	.6	13	LW		
1	1643	18.18	19	20.58	155	6.67	8.86	2.1	2.1	27	1	101	.09	5	.5	1.0	17	SF4			
1	17	5	32.07	19	15.61	155	30.54	10.83	1.7	1.4	18	1	107	.14	1	.7	.7	13	LW		
1	18	5	3.43	19	20.74	155	13.13	8.39	2.0	2.3	30	3	61	.10	6	.4	.7	22	SF2		
1	2235	19.26	19	24.24	155	25.04	9.43	1.6	1.4	22	2	73	.09	2	.4	.9	14	KA0			
1	2316	5.84	19	22.78	155	14.72	3.65	2.1	2.4	23	2	70	.10	2	.4	.5	15	SEC			
1	2328	42.04	19	23.77	155	16.68	2.91	1.8	2.1	19	2	47	.09	0	.4	.2	12	SSC			
2	033	21.14	19	22.79	155	14.62	3.70	1.3	1.7	13	1	102	.05	2	.4	.4	8	SEC			
2	444	37.53	19	19.54	155	12.21	5.21	1.3	1.0	16	2	88	.11	5	.5	2.1	11	SF3			
2	840	15.95	19	23.10	155	16.97	3.11	1.0	.7	10	1	96	.06	1	.4	.5	7	SSC			
2	840	48.13	19	23.33	155	17.00	2.61	1.2	1.4	11	1	83	.07	0	.3	.4	10	SSC			
2	919	26.26	19	25.33	155	23.95	10.97	2.1	1.6	35	4	43	.10	2	.4	.7	28	KA0			
2	1253	28.58	19	17.83	155	21.74	7.65	1.6	1.5	23	1	120	.08	5	.4	1.0	18	SWR			
2	1322	16.44	19	16.07	155	15.09	4.92	1.4	1.5	22	0	188	.11	3	.8	1.5	22	SSF			
2	1326	50.85	19	16.46	155	15.09	4.45	1.6	1.4	23	0	159	.09	3	.6	1.2	21	SSF			
2	1412	41.70	19	22.99	155	14.58	2.91	.9	.2	10	1	119	.04	3	.4	.5	8	SEC			
2	1413	29.23	19	21.48	155	14.38	9.21	1.3	1.1	10	1	181	.07	3	.9	1.1	8	SF2			

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YEAR	MON	DA	HR	MIN	SEC	ORIGIN TIME	LAT N	LON W	DEPTH	AMP	DUR	GAP	RMS	MIN	ERH	ERZ	NO	REMK			
							DEG	MIN	KM	MAG	MAG	NR	NS	DEG	SEC	DIS	KM	KM	FM	REMK	
1980	NOV	2	1415	35.66	19	23.05	155	14.73	2.91	1.0	.8	10	1	111	.03	2	.4	.5	9	SEC	
		2	1415	58.02	19	22.98	155	14.57	3.57	1.0	.8	9	1	120	.06	3	.5	.7	7	SEC	
		2	1419	12.67	19	22.89	155	14.49	2.67	1.1	1.0	9	1	118	.08	3	.5	.7	6	SEC	
		2	1420	56.85	19	23.08	155	14.39	3.93	1.9	1.7	17	1	61	.10	2	.4	.5	13	SEC	
		2	1422	2.03	19	23.15	155	14.58	1.76	1.1	.8	9	1	112	.09	3	.4	.7	5	SEC	
		2	1422	22.38	19	23.07	155	14.61	1.40	.9	1.7	8	1	134	.06	3	.4	.8	7	SEC	
		2	1422	47.78	19	22.96	155	14.49	2.64	1.2	1.7	13	1	114	.09	3	.4	.5	7	SEC	
		2	1422	58.71	19	22.95	155	14.46	3.60	2.6	2.9	30	3	49	.09	3	.3	.4	20	SEC	
		2	1423	53.58	19	22.90	155	14.63	2.87	1.7	2.9	13	1	117	.06	2	.3	.4	10	SEC	
		2	1424	21.73	19	22.99	155	14.34	2.75	2.0	2.4	13	1	65	.06	2	.4	.4	10	SEC	
		2	1427	24.20	19	22.65	155	14.52	2.48	1.7	2.4	15	1	72	.09	2	.4	.4	11	SEC	
		2	1428	26.46	19	23.00	155	14.39	3.33	1.7	1.9	16	1	73	.07	2	.4	.5	13	SEC	
		2	1429	39.81	19	22.93	155	14.40	3.26	2.3	2.6	25	3	72	.09	2	.4	.4	18	SEC	
		2	1430	58.39	19	23.06	155	14.62	2.26	1.1	1.7	9	1	136	.04	3	.4	.6	7	SEC	
		2	1432	9.57	19	23.04	155	14.31	2.57	1.8	2.1	19	2	63	.08	2	.3	.4	14	SEC	
		2	1432	58.31	19	23.03	155	14.36	3.41	1.9	1.7	17	1	63	.08	2	.4	.5	13	SEC	
		2	1433	34.80	19	23.04	155	14.44	2.47	.9		11	1	116	.05	3	.4	.6	9	SEC	
		2	1435	23.39	19	24.12	155	15.38	.11	1.3	.6	10	0	115	.10	2	.4	.6	3	SEC	
		2	1436	23.34	19	23.12	155	14.38	2.64	1.1	.2	15	2	106	.10	2	.4	.4	10	SEC	
		2	1436	38.51	19	23.13	155	14.41	3.19	1.9	1.5	18	1	59	.09	3	.4	.5	13	SEC	
		2	1437	8.50	19	23.09	155	14.53	2.57	1.2		11	1	109	.08	3	.4	.6	6	SEC	
		2	1437	53.00	19	23.11	155	14.95	2.56	1.2	1.0	9	1	113	.04	2	.4	.6	8	SEC	
		2	1439	47.28	19	22.91	155	15.09	2.80	1.8	1.7	12	1	76	.09	2	.3	.5	8	SEC	
		2	1443	4.13	19	23.15	155	14.45	2.66	1.8	1.8	13	2	106	.08	3	.4	.5	9	SEC	
		2	1443	27.66	19	23.14	155	14.49	2.85	2.0	2.0	17	2	80	.08	3	.4	.4	12	SEC	
		2	1444	23.94	19	23.07	155	14.80	1.88	1.2	.8	9	1	111	.05	2	.3	.6	4	SEC	
		2	1445	47.92	19	23.02	155	14.16	2.68	1.8	1.0	14	1	156	.18	2	.8	.6	9	SEC	
		2	1446	42.10	19	23.41	155	14.29	2.89	2.0	1.5	20	0	78	.10	3	.4	.5	16	SEC	
		2	1447	34.34	19	22.97	155	14.72	1.89	2.0	1.5	21	2	70	.12	2	.3	.4	10	SEC	
		2	1448	40.17	19	23.07	155	14.68	2.67	1.6	1.0	14	2	91	.07	2	.3	.4	8	SEC	
		2	1449	2.27	19	22.96	155	14.43	2.64	1.6	1.0	16	1	67	.08	2	.3	.4	10	SEC	
		2	1449	43.93	19	23.27	155	14.52	2.19	1.6	1.0	13	0	62	.10	3	.4	.5	11	SEC	
		2	1451	2.06	19	23.03	155	14.52	2.59	1.1	.8	12	1	96	.07	3	.4	.5	8	SEC	
		2	1451	38.05	19	23.04	155	14.60	2.51	2.4	3.4	16	2	63	.06	3	.3	.3	13	SEC	
		2	1453	8.44	19	23.14	155	14.60	2.62	2.2	2.2	18	0	71	.07	3	.3	.4	15	SEC	
		2	1454	40.11	19	23.78	155	14.10	3.09	1.1	.8	8	0	126	.07	2	.7	.5	5	SEC	
		2	1454	56.87	19	22.96	155	15.11	2.77	1.8	1.2	16	2	142	.10	2	.5	.4	13	SEC	
		2	1455	27.76	19	23.28	155	14.58	2.39	1.7	1.7	13	1	102	.06	3	.3	.5	10	SEC	
		2	1455	49.01	19	23.15	155	14.83	2.06	1.4	1.7	13	0	86	.08	2	.3	.5	6	SEC	
		2	1456	24.30	19	22.99	155	14.64	2.50	1.5	1.7	12	1	91	.07	2	.3	.5	8	SEC	
		2	1457	15.36	19	22.98	155	15.01	2.43	2.0		11	1	114	.10	2	.4	.5	6	SEC	
		2	1458	8.75	19	22.10	155	14.57	2.71	1.7	1.8	12	0	95	.09	3	.4	.5	8	SEC	
		2	1458	37.42	19	23.07	155	14.60	2.03	2.2	2.2	22	1	62	.08	3	.3	.4	17	SEC	
		2	15	0	44.52	19	23.08	155	14.73	2.26	1.6	1.7	14	1	62	.08	2	.3	.4	8	SEC
		2	15	1	18.88	19	22.93	155	14.25	2.62	2.4	2.5	26	1	48	.09	2	.3	.3	16	SEC
		2	15	2	29.91	19	23.13	155	14.75	2.42	1.1	.5	10	1	109	.05	2	.4	.6	6	SEC
		2	15	3	30.38	19	22.83	155	14.61	2.62	2.2	2.5	27	2	65	.10	2	.3	.4	12	SEC
		2	15	4	49.87	19	22.67	155	14.25	2.75	2.7	3.1	23	2	74	.07	2	.3	.3	20	SEC

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YEAR	MON	DA	HR	MIN	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 NO KM FM	REMK
1980	NOV	2	15	6	41.06	19 23.31	155 14.53	2.58	2.0	1.7	16	2	74	.09	3	.3	.4 12 SEC	
		2	15	7	5.12	19 23.21	155 14.56	2.29	2.0	2.3	14	1	61	.09	3	.3	.4 10 SEC	
		2	15	9	7.69	19 23.01	155 14.55	2.71	2.4	2.7	24	2	57	.09	3	.3	.3 18 SEC	
		2	15	10	.81	19 23.06	155 14.77	4.03	1.8		12	1	91	.11	2	.6	.8 9 SEC	
		2	15	10	39.83	19 23.08	155 14.52	2.58	1.2	1.2	11	1	110	.04	3	.4	.5 10 SEC	
		2	15	11	41.70	19 21.68	155 14.79	4.41	1.7	1.6	9	1	153	.03	2	.6	.9 7 KOA	
		2	15	12	43.16	19 22.70	155 14.72	3.62	1.8		13	2	136	.05	2	.5	.4 11 SEC	
		2	15	13	13.89	19 22.74	155 15.05	3.38	2.1	2.3	16	1	72	.07	2	.3	.4 14 SEC	
		2	15	15	37.71	19 22.73	155 14.20	3.01	1.4	1.0	15	1	123	.10	2	.4	.4 12 SEC	
		2	15	16	31.05	19 22.85	155 14.30	3.17	1.9	1.9	21	2	50	.06	2	.3	.4 19 SEC	
		2	15	17	23.07	19 23.10	155 14.31	2.45	1.5	1.3	14	1	60	.09	2	.3	.4 13 SEC	
		2	15	18	58.77	19 22.93	155 14.30	3.65	1.8	1.8	20	1	73	.07	2	.3	.5 18 SEC	
		2	15	21	7.62	19 22.97	155 14.25	2.88			13	1	113	.07	2	.4	.5 11 SEC	
		2	15	22	1.05	19 22.60	155 14.14	3.30	1.2		15	1	126	.07	2	.5	.4 13 SEC	
		2	15	22	32.70	19 22.73	155 14.23	2.75	1.8	1.2	17	1	73	.09	2	.3	.4 13 SEC	
		2	15	24	14.52	19 23.01	155 14.46	2.39	1.5	1.2	13	1	98	.07	3	.3	.5 10 SEC	
		2	15	24	55.60	19 22.97	155 14.43	2.85	2.4	2.8	21	1	66	.09	2	.3	.4 19 SEC	
		2	15	26	12.20	19 22.91	155 14.31	2.96	2.8	3.1	21	1	51	.08	2	.3	.3 19 SEC	
		2	15	27	42.68	19 22.65	155 14.13	2.94	1.7	.9	19	1	75	.09	2	.3	.4 15 SEC	
		2	15	28	49.79	19 23.06	155 14.45	2.43	1.8	1.1	14	1	98	.07	3	.3	.4 12 SEC	
		2	15	30	28.18	19 22.90	155 14.12	2.88	1.2		14	1	116	.10	2	.4	.5 12 SEC	
		2	15	30	54.64	19 23.09	155 14.52	2.23	1.1	.2	10	1	109	.05	3	.4	.6 9 SEC	
		2	15	31	25.13	19 22.63	155 14.09	3.12	1.5	.3	15	1	75	.09	2	.3	.5 14 SEC	
		2	15	31	42.64	19 22.76	155 14.19	2.91	1.8	1.6	21	2	74	.08	2	.3	.5 17 SEC	
		2	15	33	31.77	19 22.91	155 14.25	2.28	1.7	1.1	15	2	68	.05	2	.3	.4 13 SEC	
		2	15	34	9.54	19 23.07	155 14.49	2.53	2.1	2.3	20	2	62	.08	3	.3	.4 15 SEC	
		2	15	35	23.76	19 22.69	155 14.00	3.26	1.2	.2	13	1	102	.07	2	.4	.5 12 SEC	
		2	15	35	55.88	19 22.75	155 14.04	2.79	2.4	2.4	11	1	132	.11	2	.5	.6 10 SEC	
		2	15	36	55.21	19 22.71	155 14.14	3.02		.2	15	1	123	.08	2	.4	.4 14 SEC	
		2	15	38	48.20	19 22.50	155 14.04	2.32	2.6	2.6	30	3	50	.17	2	.4	.4 15 SEC	
		2	15	40	16.74	19 22.71	155 14.35	2.72	2.1	.8	21	3	67	.10	2	.3	.5 13 SEC	
		2	15	40	58.92	19 20.95	155 14.97	4.56	1.7	.6	9	1	173	.08	3	.8	1.3 8 KOA	
		2	15	41	15.83	19 22.93	155 14.30	2.74	2.2	2.4	23	2	55	.09	2	.3	.4 15 SEC	
		2	15	42	32.08	19 22.79	155 14.28	2.52	2.0	1.2	21	1	67	.14	2	.4	.5 17 SEC	
		2	15	44	3.97	19 23.19	155 14.54	2.24	1.6	.6	14	1	96	.08	3	.3	.4 12 SEC	
		2	15	44	41.39	19 22.75	155 13.94	3.18	1.8	.4	18	1	75	.08	2	.3	.4 12 SEC	
		2	15	45	12.81	19 23.11	155 14.70	1.96	1.0		11	1	109	.06	2	.3	.5 7 SEC	
		2	15	45	53.38	19 23.09	155 14.71	2.13	1.0		12	1	109	.05	2	.3	.5 8 SEC	
		2	15	47	13.09	19 23.03	155 14.26	2.56	1.3		10	1	116	.07	2	.5	.6 8 SEC	
		2	15	47	42.57	19 22.66	155 14.15	3.46	1.7	1.0	15	1	75	.04	2	.3	.4 11 SEC	
		2	15	48	5.61	19 23.12	155 14.46	2.28	1.5	1.1	13	1	108	.08	3	.4	.5 10 SEC	
		2	15	48	18.66	19 23.14	155 14.06	.92	2.6	2.9	27	2	46	.11	2	.3	.3 14 SEC	
		2	15	49	34.22	19 22.99	155 14.38	3.02	1.3		10	1	119	.07	2	.4	.6 7 SEC	
		2	15	50	11.67	19 23.04	155 14.62	2.58	1.1		10	1	116	.08	3	.5	.6 7 SEC	
		2	15	50	30.18	19 23.28	155 15.01	2.05	1.9	2.2	15	1	73	.13	2	.4	.5 9 SEC	
		2	15	53	3.69	19 22.99	155 14.23	2.93	2.4	2.4	21	1	58	.08	2	.3	.4 16 SEC	
		2	15	53	50.63	19 22.62	155 14.22	.68	2.0	1.4	13	1	80	.13	2	.4	.6 7 SEC	
		2	15	54	41.80	19 22.72	155 14.24	3.28	1.6	.8	12	1	101	.11	3	.6	1.0 9 SEC	

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YEAR	MON	DA	HR	MIN	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 NO KM FM	REMK
1980	NOV	2	15	57	19.17	19 23.07	155 14.45	2.20	1.9	1.6	17	2	62	.08	3	.3	.4 11 SEC	
		2	15	59	17.63	19 22.83	155 14.39	2.22	1.9	2.1	21	2	71	.08	2	.3	.4 17 SEC	
		2	16	0	45.76	19 23.09	155 14.52	2.56	1.5	.2	10	1	114	.06	3	.5	.6 9 SEC	
		2	16	1	57.37	19 23.17	155 14.21	1.44	2.3	2.6	27	1	56	.09	2	.3	.3 20 SEC	
		2	16	3	17.93	19 23.03	155 14.05	2.60	1.6	.5	15	1	88	.08	2	.3	.4 11 SEC	
		2	16	4	42.21	19 22.79	155 14.52	2.58	2.3	2.4	22	1	71	.08	3	.3	.4 16 SEC	
		2	16	5	20.44	19 22.64	155 13.95	3.51	1.3	.2	9	1	165	.09	2	.7	.6 6 SEC	
		2	16	6	41.50	19 22.87	155 13.99	3.49	1.3		9	1	124	.07	2	.5	.6 6 SEC	
		2	16	7	34.21	19 23.09	155 14.36	2.73	2.4	2.7	28	1	86	.09	2	.2	.2 19 SEC	
		2	16	12	2.05	19 22.61	155 13.98	3.14	1.3		11	1	135	.08	2	.4	.5 9 SEC	
		2	16	14	.77	19 22.26	155 14.33	2.96	1.3	.1	10	1	142	.12	2	.7	.5 8 SEC	
		2	16	16	.36	19 22.99	155 14.25	2.51	1.1		10	1	118	.06	2	.5	.6 9 SEC	
		2	16	19	59.47	19 22.91	155 14.32	2.48	1.1	.7	12	1	116	.09	2	.4	.5 10 SEC	
		2	16	21	21.18	19 22.94	155 14.22	2.86	1.7	1.5	21	1	67	.09	2	.3	.4 14 SEC	
		2	16	21	41.54	19 22.91	155 14.31	2.54	2.2	2.4	21	1	51	.07	2	.3	.3 18 SEC	
		2	16	26	27.20	19 22.97	155 14.34	2.18	1.8	1.3	16	0	66	.09	2	.3	.4 14 SEC	
		2	16	28	20.36	19 22.83	155 13.99	3.54			10	1	127	.10	2	.6	.8 5 SEC	
		2	16	31	5.13	19 22.99	155 14.33	2.63	1.2		11	1	119	.06	2	.4	.5 9 SEC	
		2	16	36	23.92	19 22.47	155 13.89	2.98	1.1	.5	12	1	89	.09	1	.5	.4 5 SEC	
		2	16	38	46.92	19 22.91	155 14.11	2.44	1.2	.3	10	1	122	.07	2	.5	.6 8 SEC	
		2	16	39	17.82	19 23.10	155 14.37	2.70	1.0		10	1	113	.07	2	.5	.7 7 SEC	
		2	16	39	31.94	19 23.18	155 13.87	1.88	1.3	.7	12	1	96	.09	2	.5	.5 6 SEC	
		2	16	41	24.10	19 23.14	155 14.14	2.49	1.1	.5	11	1	111	.06	2	.4	.5 8 SEC	
		2	16	41	35.90	19 23.13	155 14.01	2.33	1.3	.6	10	1	115	.12	2	.5	.7 7 SEC	
		2	16	41	50.98	19 22.85	155 14.27	3.29	1.1	.7	7	1	127	.07	2	.5	.7 5 SEC	
		2	16	42	34.45	19 22.93	155 14.75	3.01	.8		8	1	121	.03	2	.5	.8 5 SEC	
		2	16	43	29.21	19 22.97	155 14.67	2.39	.8	.3	9	1	120	.05	2	.4	.6 7 SEC	
		2	16	43	59.43	19 22.78	155 14.45	2.26	2.0	2.6	22	2	71	.13	2	.3	.4 18 SEC	
		2	16	44	33.82	19 22.85	155 14.38	.02	3.2	3.8	33	3	49	.16	2	.3	.3 19 SEC	
		2	16	47	59.27	19 24.04	155 16.37	1.98	.6	.2	6	1	194	.07	1	.7	.4 2 SEC	
		2	16	48	22.29	19 22.80	155 14.40	2.72	.5		7	1	129	.06	2	.5	.8 4 SEC	
		2	16	49	44.70	19 22.50	155 14.11	1.90	.9	1.0	7	1	137	.09	2	.4	.6 5 SEC	
		2	16	52	14.39	19 23.03	155 14.96	3.10	1.0		9	1	116	.06	2	.5	.7 8 SEC	
		2	16	56	13.19	19 22.91	155 14.28	3.07	1.1		10	1	123	.08	2	.5	.7 7 SEC	
		2	16	57	35.97	19 22.94	155 14.62	2.18	.5		9	1	121	.06	2	.4	.6 6 SEC	
		2	16	57	46.76	19 22.57	155 14.05	2.98	1.2	1.3	15	1	92	.09	2	.4	.5 11 SEC	
		2	16	58	5.28	19 22.98	155 14.21	1.74	1.1	.2	8	1	142	.08	2	.4	.6 5 SEC	
		2	16	58	51.61	19 23.01	155 14.39	1.24	1.6	2.0	18	2	64	.07	2	.3	.4 14 SEC	
		2	16	59	21.19	19 22.93	155 13.74	3.22	.9	.5	7	1	140	.07	1	.6	.7 6 SEC	
		2	17	4	17.72	19 22.84	155 14.13	3.10	.7	.1	8	1	127	.05	2	.4	.6 5 SEC	
		2	17	8	9.79	19 23.34	155 14.72	1.60	.5	.4	9	1	105	.08	3	.4	.6 8 SEC	
		2	17	16	13.52	19 23.06	155 14.89	2.98	.8		10	1	115	.02	2	.4	.6 8 SEC	
		2	17	17	15.15	19 22.93	155 14.69	2.34	.5		7	1	122	.00	2	.4	.8 6 SEC	
		2	17	20	28.99	19 22.91	155 14.55	3.36	.8	.2	8	1	123	.06	3	.6	.8 5 SEC	
		2	17	26	22.63	19 23.14	155 14.37	1.27	.8	.8	9	1	111	.07	2	.3	.5 5 SEC	
		2	17	30	29.81	19 23.07	155 14.18	2.90	.8	.2	10	1	113	.07	2	.5	.6 6 SEC	
		2	17	35	43.07	19 22.97	155 14.76	3.37	.7	.2	8	1	120	.06	2	.6	.8 6 SEC	
		2	17	40	13.88	19 22.73	155 14.42	3.80	1.3	1.1	14	1	185	.07	2	.4	.6 7 SEC	

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YEAR	MON	DA	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 NO KM FM	REMK	
1980	NOV	2	1748	40.51	19 22.62	155 14.26	1.60	1.2	1.8	13	1	75	.10	2	.4	.5 10 SEC		
		2	1757	12.37	19 23.10	155 14.87	2.65	.5	.8	1	114	.03	2	.4	.7 6 SEC			
		2	1758	45.51	19 22.70	155 14.19	1.67	.5	.2	9	1	132	.06	2	.4	.5 7 SEC		
		2	18	2	12.58	19 22.99	155 14.45	2.53	.9	1	10	1	120	.07	3	.4	.6 7 SEC	
		2	20	9	19.24	19 23.02	155 14.75	3.46	1.1	.9	9	1	117	.03	2	.5	.7 8 SEC	
		2	2053	52.06	19 24.15	155 26.87	9.60	2.1	1.8	28	1	63	.11	3	.4	1.0 22 KAO		
		2	2058	.09	19 23.08	155 15.05	3.20	1.1	.9	13	1	111	.07	2	.4	.5 8 SEC		
		2	2114	5.50	19 22.95	155 14.66	2.69	1.1	1.4	14	1	91	.11	2	.4	.5 8 SEC		
		2	2216	54.06	19 21.03	155 13.09	9.37	2.1	2.1	21	0	58	.07	3	.5	.9 21 SF2		
		3	053	27.76	19 22.27	155 3.11	8.61	1.9	1.8	31	1	121	.11	4	.5	.7 22 SF5		
		3	127	3.99	19 23.72	155 15.51	1.80	.9	1.2	10	1	99	.03	2	.3	.5 8 SEC		
		3	132	11.65	19 24.03	155 15.64	3.53	1.0	1.4	12	1	116	.08	2	.4	.4 10 SEC		
		3	21	8	38.96	19 20.44	155 13.08	9.59	2.1	2.0	36	2	64	.09	4	.4	.5 27 SF2	
		3	2145	31.47	19 19.62	155 15.56	6.55	1.7	1.4	26	1	87	.10	3	.5	1.0 17 SF1		
		3	2212	42.83	19 21.01	155 7.25	7.34	1.4	1.1	23	2	87	.08	4	.5	1.1 13 SF4		
		4	2	5	30.33	19 20.09	155 8.08	8.48	2.3	2.5	31	0	85	.09	5	.5	1.0 26 SF4	
		4	622	32.44	19 23.62	155 25.69	11.11	3.5	3.4	43	1	59	.12	3	.4	.4 40 KAO		
		4	756	32.30	19 18.36	155 13.23	8.59	2.6	2.7	38	3	89	.12	3	.5	.7 27 SF2		
		4	832	11.18	19 18.26	155 13.27	7.13	1.8	2.1	22	1	89	.08	2	.5	1.2 14 SF2		
		4	915	9.07	19 25.10	155 29.17	9.34	1.7	1.6	23	1	102	.08	6	.5	1.1 18 KAO		
		4	10	1	45.42	19 23.01	155 25.49	10.55	1.7	1.8	27	0	91	.10	4	.5	.7 25 KAO	
		4	1159	50.31	19 20.07	155 10.44	8.20	1.9	1.8	23	0	85	.08	4	.5	1.2 17 SF3		
		4	20	6	6.26	19 23.88	155 15.52	2.92	.9	1.1	12	2	107	.05	2	.3	1.4 10 SEC	
		4	2159	13.98	19 18.08	155 13.02	7.75	1.3	1.3	19	1	104	.06	2	.6	1.0 15 SF2		
		4	23	9	22.19	19 22.67	155 27.53	4.93	1.7	1.8	17	1	101	.09	0	.5	.8 13 KAO	
		5	717	.08	19 13.14	155 27.88	8.46	1.7	1.9	23	1	142	.10	5	.5	1.1 12 LSW		
		5	745	47.72	19 13.11	155 28.02	9.10	1.6	1.7	20	0	145	.07	5	.5	.8 11 LSW		
		5	748	25.71	19 20.73	155 2.50	7.44	1.9	1.8	17	0	158	.09	2	.9	.8 10 SF5		
		5	8	0	34.24	19 20.94	155 2.90	7.62	1.3	1.4	14	0	136	.07	2	.7	1.1 11 SF5	
		5	1526	3.52	19 21.36	155 3.30	7.68	1.9	1.7	24	0	104	.09	3	.6	1.0 19 SF5		
		5	1616	54.11	19 22.85	155 25.42	11.83	2.1	2.1	38	2	68	.08	4	.4	.4 30 KAO		
		5	1915	40.88	19 19.30	155 11.57	7.58	2.0	1.9	29	1	100	.07	5	.4	.7 20 SF3		
		5	2041	42.58	19 18.66	155 13.58	9.87	3.7	3.9	41	0	72	.10	3	.5	.4 38 SF2		
		5	2045	26.31	19 18.88	155 13.51	8.68	2.1	1.9	37	3	82	.10	3	.4	.6 24 SF2		
		5	2256	32.88	19 18.67	155 13.47	7.90	1.9	1.7	26	2	79	.09	3	.5	.9 16 SF2		
		6	0	6	48.64	19 19.23	155 13.68	7.72	2.0	1.8	29	2	82	.07	4	.5	.8 24 SF2	
		6	019	58.26	19 46.41	155 24.36	28.51	2.5	1.8	24	2	108	.07	6	.6	1.3 17 KEA		
		6	126	34.45	19 19.01	155 13.44	7.41	2.5	2.3	39	5	74	.11	4	.4	.7 26 SF2		
		6	152	6.43	19 18.61	155 13.46	8.06	1.5	1.1	22	2	84	.06	3	.5	.9 13 SF2		
		6	2	8	53.44	19 20.40	155 10.55	7.76	1.9	1.7	21	2	79	.07	3	.5	1.0 16 SF3	
		6	316	23.00	19 24.04	155 15.93	3.03	.8	1.0	9	0	110	.05	1	.4	.5 8 SEC		
		6	427	43.72	19 23.25	155 16.94	2.78	2.2	2.6	24	3	47	.08	0	.2	.2 18 SSC		
		6	611	55.69	19 20.13	155 11.62	8.37	2.2	2.6	34	4	82	.10	5	.4	.6 24 SF3		
		6	653	16.65	19 26.79	155 24.88	9.05	2.1	1.4	27	3	61	.12	3	.5	1.0 21 KAO		
		6	1053	41.64	19 21.74	155 1.01	7.28	1.7	1.5	20	2	176	.10	5	.7	1.1 12 SF5		
		6	1439	12.14	19 20.23	155 12.89	8.98	1.8	1.5	23	2	69	.06	4	.5	.9 15 SF2		
		6	1534	57.93	19 19.17	155 15.70	8.31	2.3	2.3	37	3	112	.11	3	.5	.6 24 SF1		
		6	1828	26.69	19 21.12	155 7.31	8.11	1.9	1.5	20	1	84	.07	4	.5	1.2 13 SF4		

YEAR	MON	DA	HRMN	SEC	LAT N DEG MIN	LON W DEG MIN	DEPTH KM	AMP MAG	OUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ NO KM FM	REMK	
1980	NOV	6	1834	9.07	19 21.25	155 8.09	6.76	1.4	1.3	20	2	76	.08	5	.5	1.3 15 SF4		
		7	737	41.08	19 20.59	155 11.00	8.85	1.7	1.3	18	2	76	.04	5	.6	1.1 13 SF3		
		7	1441	53.34	19 22.56	155 26.41	8.93	2.5	2.3	36	4	58	.11	2	.4	.7 27 KAO		
		7	1617	22.72	19 19.42	155 8.54	7.40	1.7	1.3	22	3	80	.07	4	.5	1.2 17 SF4		
		8	339	16.04	19 25.13	155 25.30	9.34	2.0	1.4	25	2	62	.08	0	.4	.9 18 KAO		
		8	342	45.42	19 26.68	155 23.79	8.91	1.8	1.5	25	3	51	.11	4	.5	.9 18 KAO		
		8	632	34.88	19 19.58	155 11.70	8.99	2.7	2.8	44	4	92	.11	6	.4	.5 29 SF3		
		8	854	51.85	19 19.13	155 15.24	8.48	2.0	1.6	25	0	110	.11	4	.5	.6 17 SF1		
		8	1049	49.70	19 18.25	155 13.30	8.27	2.2	2.1	39	4	87	.11	2	.4	.4 22 SF2		
		8	1057	55.34	19 18.04	155 13.07	7.94	1.7	1.3	22	3	103	.09	2	.6	1.0 17 SF2		
		8	1111	28.16	19 20.57	155 6.38	7.45	1.8	1.4	19	1	104	.09	5	.6	1.4 18 SF4		
		8	1159	47.17	19 20.19	155 7.34	8.22	2.1	1.4	23	3	99	.09	5	.6	1.2 15 SF4		
		8	1319	8.63	19 23.49	155 17.02	2.92	1.3	1.3	15	3	69	.07	0	.3	.3 9 SSC		
		8	1921	3.51	19 20.43	155 9.02	7.95	1.8	1.4	23	3	71	.05	3	.5	1.0 14 SF4		
		8	21	3	9.37	19 23.94	155 27.12	11.09	1.8	1.2	25	3	92	.08	3	.5	.9 20 KAO	
		9	925	1.96	19 18.69	155 15.38	7.06	1.3	1.0	22	2	124	.07	4	.5	1.1 18 SF1		
		9	1119	55.06	19 21.88	155 6.54	9.20	1.0	.8	14	0	81	.05	2	.7	1.5 12 SF4		
		9	1757	28.65	19 25.60	155 24.81	10.43	3.1	2.8	40	1	34	.13	1	.4	.6 33 KAO		
		9	2041	24.92	19 18.87	155 13.65	9.53	2.6	2.6	45	3	86	.11	3	.5	.5 34 SF2		
		9	2119	45.68	19 24.45	155 29.87	9.61	2.1	1.1	28	3	79	.08	5	.4	.9 18 KAO		
		9	2124	26.73	19 24.57	155 29.73	9.03	2.0	1.2	26	2	78	.07	5	.4	.9 20 KAO		
		9	2231	56.95	19 18.73	155 13.40	5.61	1.8	1.1	23	1	80	.11	3	.5	1.5 14 SF2		
		10	323	7.79	19 24.92	155 36.65	1.78	2.2	1.5	6	0	156	.08	4	.8	1.9 5 MLO		
		10	5	9	37.89	19 19.37	155 11.74	8.48	1.9	1.2	21	1	96	.07	5	.5	1.0 17 SF3	
		10	612	16.91	19 22.58	155 27.77	8.87	1.8	.9	22	2	95	.09	0	.4	.8 16 KAO		
		10	1149	6.62	19 22.47	155 24.39	9.75	2.4	2.2	41	3	40	.12	5	.4	.5 28 KAO		
		10	1656	2.58	19 20.27	155 12.72	7.26	1.9	1.4	29	3	71	.10	4	.5	.8 18 SF2		
		10	2326	8.16	19 22.63	155 27.27	9.35	2.0	1.6	29	2	78	.12	1	.5	.8 23 KAO		
		11	0	7	2.83	19 20.19	155 9.58	8.60	1.8	1.4	21	2	79	.05	4	.6	1.0 17 SF3	
		11	2	2	20.56	19 26.79	155 45.07	2.98	1.6	1.3	24	1	77	.09	7	.4	2.8 14 KON	
		11	955	48.89	19 24.88	155 16.78	1.65	1.1	1.5	10	2	148	.05	0	.4	.3 8 SNC		
		11	1322	56.25	19 23.45	155 17.48	8.87	1.6	1.4	10	0	87	.09	2	.8	1.4 7 INT	L	
		11	16	5	22.54	19 23.32	155 26.41	9.06	3.0	2.7	44	2	50	.13	3	.4	.6 36 KAO	
		11	1629	23.22	19 24.00	155 16.00	2.32	1.2	1.3	16	1	112	.11	1	.3	.3 9 SEC		
		11	1633	39.29	19 23.90	155 15.51	2.77	1.0	1.0	14	3	107	.03	2	.3	.4 9 SEC		
		11	1850	54.21	19 19.79	155 12.79	9.05		1.3	22	1	76	.07	5	.5	.9 16 SF2		
		11	1935	13.06	19 24.61	155 .62	8.14	2.4	2.4	37	1	131	.15	3	.6	.6 31 SF5		
		11	1943	56.95	19 23.92	155 16.88	2.73	1.2	.7	17	2	68	.07	1	.3	.3 11 SSC		
		11	2150	3.44	19 23.70	155 16.85	2.69	1.4	1.4	20	2	55	.09	1	.3	.3 15 SSC		
		11	2229	26.15	19 23.86	155 16.87	2.91	1.3	1.3	14	2	77	.05	0	.3	.3 11 SSC		
		11	23	0	53.56	19 26.57	155 23.17	8.09	2.2	1.6	29	2	45	.11	4	.4	.8 19 KAO	
		12	055	.83	19 24.58	155 16.03	1.61	1.4	1.3	12	2	123	.04	2	.3	.4 7 SNC		
		12	439	40.16	19 31.66	155 27.83	4.24	1.9	1.1	15	0	93	.09	1	.5	.7 12 MLO		
		12	1138	2.64	21 28.17	158 15.77	13.74	4.0	4.2	34	1	326	.26	26	4.6	1.6 21 DIS		
		12	1740	23.82	19 26.69	155 23.74	3.96	1.7	1.6	24	1	65	.13	4	.4	1.1 18 KAO		
		12	1839	49.65	19 22.62	155 16.32	4.37	1.8	1.6	13	1	84	.20	1	1.5	1.3 5 SEC	T	
		12	1845	40.34	19 25.17	155 14.90	5.95	1.3	1.0	10	2	148	.05	1	.8	1.3 4 INT	T	
		12	1921	8.62	19 21.42	155 2.66	7.73	2.1	1.1	26	3	137	.13	3	.6	1.2 20 SF5		

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YEAR	MON	DA	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
1980	NOV	12	2142	34.19	19 24.16	155 23.57	9.80	1.9	1.6	25	2	44	.07	3	.4	.9	20	KA0
		12	22 0	1.92	19 24.03	155 26.65	9.95	1.8	1.5	26	3	79	.12	3	.5	1.0	18	KA0
		12	2327	4.75	19 24.29	155 17.15	9.36	1.8	1.8	16	2	83	.11	1	.7	.9	8	INT L
		12	2355	37.06	19 19.90	155 13.54	5.91	1.6	1.4	26	4	71	.11	5	.4	1.1	17	SF2
		13	234	53.08	19 23.37	155 17.09	2.62	1.4	1.4	21	4	56	.11	0	.3	.2	12	SSC
		13	316	46.57	19 24.89	155 25.46	10.71	1.8	1.3	27	4	63	.09	1	.4	.9	22	KA0
		13	830	38.04	19 25.55	155 17.02	19.50	1.4	1.4	26	0	75	.09	3	.6	1.0	24	DEP
		13	916	24.50	19 23.48	155 16.87	3.17	2.2	2.5	20	2	36	.09	0	.3	.2	16	SSC
		13	921	19.52	19 28.21	154 52.46	5.97	1.7	1.4	25	1	107	.13	2	.7	.9	17	LER
		13	11 7	24.15	19 21.82	155 6.78	7.86	1.6	1.6	24	1	77	.08	2	.4	.9	18	SF4
		13	1227	56.37	19 22.78	155 24.57	7.14	1.3	1.3	17	2	61	.09	5	.5	1.2	13	KA0
		13	1254	36.73	19 23.34	155 17.01	2.61	.8	1.0	11	1	92	.04	0	.3	.3	8	SSC
		13	13 4	22.79	19 33.05	155 36.77	6.49	1.1	1.4	14	1	122	.13	7	.8	2.4	10	MLO
		13	1341	24.99	19 31.06	155 46.36	9.17	2.5	2.0	27	2	82	.10	1	.5	.7	20	KON
		13	1524	21.04	19 20.78	155 7.74	6.33	1.8	1.5	21	2	84	.09	4	.6	1.1	15	SF4
		13	1825	28.87	19 21.63	155 25.28	8.45	1.7	1.1	21	3	89	.10	4	.5	1.0	14	KA0
		13	1843	33.56	19 23.08	155 14.82	3.12	1.8	1.6	23	3	64	.09	2	.3	.3	15	SEC
		13	1848	51.41	19 20.23	155 8.15	7.95	2.4	2.6	36	3	83	.07	5	.4	.7	23	SF4
		13	1923	49.04	19 23.32	155 16.98	2.76	1.2	1.4	20	4	56	.07	0	.3	.2	12	SSC
		13	2028	47.95	19 27.23	154 52.80	6.96	2.1	1.5	27	3	150	.11	3	.6	.7	19	LER
		13	2123	59.67	19 19.96	155 9.55	8.68	1.8	1.6	23	3	83	.05	4	.5	1.0	16	SF3
		13	2249	29.18	19 23.29	155 16.89	2.83	2.1	2.5	29	3	39	.10	0	.2	.2	21	SSC
		13	2337	55.43	19 21.74	155 1.61	4.04	1.9	1.1	23	1	164	.09	4	.6	1.5	11	SSF
		13	2341	21.81	19 23.38	155 17.23	2.31	.8	1.0	10	2	95	.05	1	.3	.4	6	SSC
		14	451	26.99	19 21.90	155 12.25	1.76	.5	1.3	7	1	193	.08	2	1.1	.5	3	SER
		14	734	.47	19 20.10	155 13.17	9.60	2.6	2.9	43	3	67	.09	5	.3	.4	31	SF2
		14	1214	18.15	19 19.42	155 12.31	7.97	1.7	1.3	25	3	89	.08	5	.5	.9	17	SF2
		14	1551	51.92	18 57.69	155 13.27	39.18	2.5	1.6	24	0	279	.09	34	3.8	3.0	22	LOI
		14	16 4	20.72	19 23.40	155 16.94	2.77	1.8	1.9	26	3	40	.09	0	.3	.2	18	SSC
		14	1715	15.79	19 24.57	155 30.08	8.25	2.4	1.8	38	3	52	.08	6	.3	.8	31	KA0
		14	18 5	49.36	19 20.69	155 11.38	7.49	1.9	1.6	31	2	74	.08	4	.4	.7	24	SF3
		14	1822	24.91	19 23.40	155 26.66	8.71	3.5	3.7	44	1	51	.15	2	.4	.6	40	KA0 F
		14	2114	42.70	19 30.70	156 6.13	27.69	2.4	2.4	27	1	284	.10	20	3.7	2.3	20	KON
		14	2140	27.83	19 23.16	155 27.36	7.29	1.6	1.1	23	2	152	.11	1	.8	.9	15	KA0
		16	033	8.82	19 19.91	155 12.32	8.67	2.1	2.1	26	1	80	.08	5	.4	.8	23	SF2
		16	041	48.73	19 18.82	155 14.19	6.92	2.0	2.2	26	1	77	.11	4	.5	.9	22	SF2
		16	127	7.06	19 19.96	155 8.01	7.82	1.8	1.2	19	0	88	.07	5	.5	.8	18	SF4
		16	134	58.21	19 25.64	155 25.42	9.81	1.8	1.4	17	0	56	.08	7	.5	1.1	12	KA0
		16	2 1	31.80	19 20.74	155 8.03	9.00	2.0	2.0	26	0	79	.07	4	.4	.5	24	SF4
		16	1428	5.47	19 25.60	155 49.49	8.58	2.2	1.6	19	2	109	.16	11	.5	1.4	11	KON
		16	1516	44.16	19 20.62	155 5.82	8.12	2.1	2.2	28	0	108	.10	5	.4	.7	27	SF4
		16	16 6	21.48	19 17.54	155 21.79	7.83	.8	1.1	15	0	179	.07	6	1.3	.7	12	SWR
		16	1859	54.00	19 19.03	155 8.45	7.17	1.3	1.3	21	0	84	.07	3	.6	.9	20	SF4
		16	1946	38.43	19 20.17	155 11.02	9.63	3.6	3.8	35	1	83	.08	4	.3	.5	30	SF3 F
		17	025	25.97	19 24.21	155 23.84	10.00	2.1	1.9	29	1	62	.08	7	.4	.6	25	KA0
		17	047	36.54	19 18.11	155 13.34	10.13	3.8	4.0	36	1	89	.10	2	.6	.4	33	SF2
		17	056	27.30	19 18.00	155 13.08	6.56	1.3	1.2	10	0	104	.11	2	1.0	3.3	8	SF2
		17	058	10.46	19 18.12	155 13.23	9.50	2.6	2.9	30	0	94	.10	2	.5	.7	24	SF2

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YEAR	MON	DA	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
1980	NOV	17	1 2	49.53	19 18.47	155 13.35	8.03	1.6	1.4	22	1	83	.08	3	.5	1.0	18	SF2
		17	2 5	5.06	19 19.36	155 11.24	8.23	2.3	2.5	30	1	101	.08	6	.4	.7	22	SF3
		17	936	50.07	19 21.41	155 27.92	9.84	1.9	1.1	14	0	129	.04	2	.4	1.0	13	KA0
		17	1119	2.08	19 18.70	155 12.16	8.61	2.8	2.6	28	2	109	.12	4	.5	.8	26	SF3
		17	1625	22.59	19 18.60	155 13.19	8.81	1.9	1.7	22	0	86	.10	3	.5	.9	21	SF2
		17	18 1	27.94	19 20.62	155 6.87	7.95	2.1	1.7	21	0	98	.07	5	.5	.9	19	SF4
		17	1951	52.34	19 20.16	155 12.88	9.04	1.6	1.5	17	0	128	.08	5	.6	1.0	17	SF2
		17	2122	33.59	19 19.51	155 12.51	8.55	1.2	1.1	0	84	.07	5	.7	1.0	9	SF2	
		18	1 4	20.55	19 21.63	155 6.73	9.61	2.7	2.6	28	0	81	.07	3	.4	.5	23	SF4
		18	910	33.98	19 21.15	155 5.81	8.14	2.4	1.8	20	0	95	.08	6	.5	1.4	20	SF4
		18	1122	19.29	19 26.98	155 27.12	11.10	2.2	1.6	23	0	57	.08	8	.5	.9	22	KA0
		18	1310	47.19	19 20.17	155 10.40	8.33	1.1	1.1	19	0	86	.05	4	.5	1.0	19	SF3
		19	744	33.00	19 21.90	155 7.07	8.88	1.3	1.2	20	1	75	.05	3	.6	1.1	17	SF4
		19	1212	9.31	19 18.92	155 12.98	7.14	1.4	1.4	22	1	86	.07	4	.5	1.1	15	SF2
		19	1330	22.20	19 18.92	155 13.13	8.30	1.3	1.3	21	1	83	.07	4	.6	1.1	16	SF2
		19	15 3	10.84	19 17.35	155 15.66	6.16	1.7	1.3	22	2	185	.09	4	.6	1.1	13	SF1
		19	19 4	14.45	19 23.27	155 2.06	8.31	2.0	1.5	25	1	127	.12	5	.6	1.0	19	SF5
		19	2327	27.72	19 21.20	155 8.18	8.86	1.8	1.4	24	4	72	.05	3	.5	.9	16	SF4
		19	2330	29.76	19 19.28	155 12.26	7.16	1.7	1.2	16	0	92	.07	5	.5	1.5	14	SF3
		19	2338	21.58	19 19.71	155 12.34	7.08	1.5	1.3	20	3	83	.07	5	.5	1.1	13	SF2
		20	054	3.83	19 20.36	155 13.84	8.94	2.7	3.1	46	3	56	.11	4	.3	.3	33	SF2
		20	5 7	1.31	19 21.85	155 5.04	8.95	1.0	1.1	19	1	78	.07	3	.6	1.0	12	SF5
		20	535	10.03	19 19.65	155 7.30	7.44	1.8	1.9	27	2	110	.08	4	.5	1.0	17	SF4
		20	556	23.00	19 20.51	155 29.22	7.87	1.9	1.5	22	1	91	.10	5	.5	1.1	19	KA0
		20	918	13.56	19 20.26	155 12.14	5.25	1.4	1.1	17	1	76	.11	5	.6	1.8	14	SF3
		20	955	57.13	19 13.95	155 20.28	.03	1.9	1.7	18	0	210	.12	8	1.1	3.5	14	SWR
		20	1225	32.01	20 5.25	155 56.06	10.40	2.9	2.0	8	2	267	.04	17	1.9	.7	4	KOH
		20	1227	49.24	20 1.93	155 50.78	5.61	2.7	2.3	11	0	215	.08	13	1.5	1.0	6	KOH
		20	1656	27.03	19 22.71	155 8.35	3.21	1.7	1.4	14	0	103	.07	3	.7	.5	10	SER
		20	1728	12.07	19 21.88	155 9.62	1.15	1.6	1.7	10	1	164	.08	6	1.0	1.6	4	SER
		20	21 4	44.11	19 19.02	155 15.93	7.86	1.6	1.2	18	2	118	.07	3	.5	1.1	13	SF1
		21	134	50.64	19 29.42	155 31.21	27.07	2.2	2.6	15	0	106	.09	7	1.5	3.9	4	DML
		21	2 8	50.50	19 20.35	155 11.95	8.76	1.7	1.4	22	2	76	.07	5	.5	.9	17	SF3
		21	227	12.26	19 19.66	155 11.32	7.48	2.0	1.9	27	1	93	.09	5	.5	.9	21	SF3
		21	3 9	28.35	19 22.81	155 6.52	2.19	2.0	1.8	19	0	94	.06	1	.5	.3	13	SME
		21	311	21.65	19 22.88	155 6.58	1.98	.9	1.1	11	0	126	.06	1	.6	.3	4	SME
		21	6 5	44.67	19 22.92	155 6.05	1.98	1.6	2.2	16	0	85	.06	0	.4	.3	9	SME
		21	1145	20.37	19 20.87	155 6.83	8.40	2.0	1.3	23	2	93	.07	4	.5	1.0	16	SF4
		21	1223	25.02	19 19.84	155 13.45	7.82	1.6	1.1	20	2	69	.09	5	.5	1.1	15	SF2
		21	1256	43.81	19 19.67	155 12.03	9.29	2.5	2.6	40	1	87	.11	6	.4	.4	34	SF3
		21	1259	33.38	19 18.61	155 13.56	8.28	1.7	1.0	20	1	87	.04	3	.6	1.0	15	SF2
		21	1524	58.42	19 27.78	155 27.75	8.22	2.2	1.4	25	1	71	.11	7	.5	1.1	22	KA0
		21	1921	57.84	19 21.97	155 29.69	9.67	2.1	1.5	26	1	86	.08	4	.4	1.0	22	KA0
		21	1939	24.75	19 22.07	155 29.76	10.18	2.0	1.2	26	1	86	.07	4	.4	.9	17	KA0
		21	1950	6.30	19 22.06	155 29.88	9.90	2.4	1.6	20	1	87	.08	4	.5	1.0	12	KA0
		21	2345	25.96	19 19.99	155 7.60	7.75	1.4	1.3	19	2	98	.07	5	.6	1.1	11	SF4
		22	120	36.28	19 20.95	155 7.99	7.78	1.2	1.1	13	1	163	.06	4	1.1	1.7	7	SF4
		22	3 8	11.66	19 28.30	155 51.83	1.80	1.8	1.1	16	2	166	.09	6	.8	1.1	6	KON

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YEAR	MON	DA	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
1980	NOV	22	1017	24.53	19 22.90	155 1.87	7.51	1.8	1.4	30	0	134	.14	5	.6	.9	20	SF5
		22	1245	45.29	19 20.04	155 12.60	8.58	1.0	1.0	19	2	75	.06	5	.5	1.2	15	SF2
		22	1340	48.63	19 21.20	155 15.01	9.07	1.4	1.0	22	3	67	.07	3	.6	.8	17	SF1
		22	1713	59.33	19 20.72	155 8.47	5.78	1.8	1.4	21	1	73	.06	3	.5	1.1	19	SF4
		22	19 0	40.77	19 19.82	155 6.12	7.01	1.8	1.4	29	2	88	.09	5	.5	1.0	24	SF4
		22	1929	16.41	19 20.52	155 5.93	8.25	2.2	1.9	33	2	110	.09	5	.4	.8	24	SF4
		22	2346	55.14	19 20.74	155 8.40	5.67	1.7	1.5	21	3	73	.07	4	.5	1.4	14	SF4
		23	131	55.92	19 21.43	155 2.93	9.12	4.2	4.1	46	1	120	.10	3	.6	.4	45	SF5 F
		23	135	40.02	19 21.46	155 2.85	9.01	3.2	3.4	45	3	123	.10	3	.6	.4	41	SF5 F
		23	312	10.45	19 22.21	155 7.60	1.96	1.2	1.5	15	1	92	.07	3	.4	.5	10	SER
		23	628	14.55	19 19.39	155 12.59	7.36	1.4	1.0	20	2	86	.07	5	.5	1.1	12	SF2
		23	657	3.64	19 21.83	155 6.71	9.24	2.6	2.4	42	3	77	.08	2	.4	.5	26	SF4
		23	751	22.03	19 25.26	155 39.82	4.07	2.3	1.7	7	0	295	.06	7	6.0	5.5	6	MLO
		23	911	36.81	19 19.38	155 15.64	8.67	2.3	2.7	40	3	106	.11	3	.4	.5	30	SF1
		23	12 5	11.46	19 19.78	155 13.11	5.11	1.6	1.7	30	3	71	.14	5	.5	1.5	21	SF2
		23	1240	33.25	19 24.86	155 24.50	9.83	2.4	2.4	42	5	47	.13	1	.3	.5	33	KAO
		23	1338	49.46	19 21.32	155 8.08	8.41	2.1	2.4	34	2	72	.08	3	.4	.7	21	SF4
		23	14 2	49.03	19 20.04	155 9.68	7.32	1.6	1.4	22	3	82	.06	4	.5	1.0	16	SF3
		23	1410	49.71	19 20.02	155 9.56	6.59	1.6	1.6	26	3	82	.08	4	.5	.9	17	SF3
		23	1518	47.61	19 19.70	155 10.61	7.74	1.7	1.9	39	2	93	.12	5	.4	.6	26	SF3
		23	1646	59.34	19 11.47	155 36.52	9.54	3.0	2.7	40	5	92	.24	7	.6	1.0	28	LSW
		23	1714	54.67	19 20.76	155 13.17	8.53	2.4	2.6	40	2	61	.10	3	.3	.4	30	SF2
		23	2253	3.35	19 27.51	155 29.30	8.71	1.5	1.4	26	2	75	.11	8	.4	1.1	15	KAO
		23	2344	3.40	19 20.37	155 8.86	8.29	1.5	1.3	27	2	70	.07	4	.5	.9	16	SF4
		24	019	52.95	19 19.97	155 9.09	7.22	1.4	1.4	26	3	78	.08	4	.4	.9	16	SF4
		24	4 2	51.05	19 19.39	155 10.97	7.78	1.5	1.3	20	2	100	.07	5	.5	1.2	11	SF3
		24	5 0	47.46	19 21.77	155 1.68	2.80	1.3	1.4	24	2	167	.17	4	.7	1.1	15	SF4
		24	943	49.78	19 5.20	155 31.87	13.67	2.9	3.2	38	0	170	.11	11	.8	.4	31	DL8
		24	1738	2.71	19 22.79	155 48.78	11.84	2.7	2.5	31	2	112	.12	14	.5	.5	23	KON
		24	1748	10.86	19 26.10	155 24.32	10.25	2.9	2.6	46	3	32	.13	2	.4	.5	31	KAO
		24	1811	50.72	19 19.62	155 11.48	7.15	1.6	1.2	29	2	92	.11	5	.5	1.0	20	SF3
		24	1819	13.18	19 19.91	155 8.37	7.65	1.8	1.7	33	2	82	.08	5	.5	.9	22	SF4
		24	20 3	23.14	19 20.63	155 8.64	5.29	1.6	1.6	24	2	71	.07	3	.5	1.2	19	SF4
		25	0 3	10.11	19 19.93	155 11.22	7.60	2.1	1.8	31	2	88	.07	5	.4	.8	24	SF3
		25	233	46.20	19 20.70	155 8.65	5.15	1.4	1.3	23	3	70	.08	3	.5	1.3	15	SF4
		25	5 1	40.63	19 51.80	155 44.19	11.99	2.5	2.5	13	0	143	.09	22	.6	.9	8	HUA
		25	1141	17.29	19 21.04	155 6.91	6.93	2.2	2.4	35	2	90	.11	4	.4	.8	24	SF4
		25	1352	41.18	19 20.99	155 6.82	6.42	1.4	1.4	26	2	91	.13	4	.6	1.1	19	SF4
		25	1525	31.07	19 22.71	155 2.36	7.77	1.7	1.7	36	2	127	.14	5	.5	.7	29	SF5
		25	19 0	11.31	19 23.08	155 2.20	7.53	1.1	1.3	25	0	126	.14	5	.7	1.2	20	SF5
		25	1916	41.11	19 17.77	155 13.02	6.25	1.7	1.3	24	2	116	.08	2	.6	1.1	17	SF2
		25	1945	31.00	19 17.99	155 13.03	6.27	1.7	1.3	25	1	107	.09	2	.5	1.1	17	SF2
		26	827	9.16	19 20.25	155 7.59	7.65	1.4	1.4	24	2	93	.09	5	.5	.8	19	SF4
		26	838	25.62	19 21.58	155 28.05	10.47	1.7	1.5	30	1	67	.10	2	.4	.7	23	KAO
		26	1853	43.39	19 21.22	155 6.66	8.71	2.4	2.4	43	3	88	.11	3	.4	.6	26	SF4
		26	19 5	34.60	19 21.60	155 6.60	8.62	2.9	3.0	47	4	82	.11	3	.4	.4	35	SF4 F
		26	2240	50.98	19 19.07	155 12.03	5.25	1.4	1.3	30	2	101	.10	5	.5	1.5	19	SF3
		26	2333	3.09	19 22.25	155 2.07	6.48	1.7	1.6	33	1	137	.14	5	.6	1.0	23	SF5

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YEAR	MON	DA	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 NO KM FM	REMK
1980	NOV	27	010	31.11	19 19.87	155 11.56	8.66	2.1	2.2	34	2	87	.10	5	.4	.6 26	SF3
		27	5 6	58.38	19 10.65	155 29.31	33.91	2.2	1.9	34	2	92	.06	3	.6	1.2 31	DL8
		27	614	43.94	19 15.46	155 27.45	7.93	1.2	1.4	25	1	100	.18	5	.6	1.2 11	LSW
		27	15 7	38.02	19 20.08	155 13.13	7.28	1.6	1.4	31	3	67	.09	5	.5	.8 20	SF2
		27	21 7	33.57	19 19.84	155 12.02	8.12	1.4	1.4	30	1	84	.10	5	.5	.9 19	SF3
		27	2111	25.07	19 20.18	155 7.85	8.56	2.0	1.8	40	4	90	.08	5	.4	.6 23	SF4
		28	240	9.83	19 21.80	155 4.92	8.69	2.3	2.5	35	1	78	.11	3	.4	.7 22	SF5
		28	728	55.59	19 20.10	155 8.25	9.41	2.7	3.1	42	3	82	.08	5	.5	.4 34	SF4
		28	731	49.25	19 22.30	155 3.08	8.93	1.8	1.8	31	1	120	.08	4	.5	.4 18	SF5
		28	858	9.86	19 25.06	155 28.25	8.57	1.5	1.3	22	0	48	.10	5	.5	1.3 17	KAO
		28	946	54.66	19 19.74	155 11.15	8.86	1.5	1.3	24	0	91	.10	5	.6	1.2 16	SF3
		28	1333	15.37	19 17.46	155 3.01	19.77	2.0	1.6	33	3	220	.07	5	1.3	.9 25	DEP
		28	1542	41.78	19 23.98	155 23.26	10.07	1.6	1.4	29	3	70	.07	4	.5	.8 20	KAO
		29	055	57.76	19 21.38	156 2.76	41.02	2.3	1.8	30	1	254	.09	20	1.6	2.0 23	KON
		29	837	39.53	19 19.92	155 7.17	7.91	2.1	2.3	37	2	108	.09	5	.4	.7 24	SF4
		29	9 6	7.51	19 26.65	155 20.23	6.44	1.7	1.3	25	4	100	.11	2	.5	1.0 17	KAO
		29	14 2	43.01	19 20.50	155 6.13	7.57	1.3	1.3	21	0	109	.11	5	.6	1.3 14	SF4
		29	1542	1.18	19 20.17	155 11.38	8.09	2.0	1.7	33	2	82	.10	4	.5	.8 23	SF3
		29	2051	50.13	19 25.21	155 25.03	7.28	1.6	1.2	25	2	45	.09	0	.4	.9 19	KAO
		30	138	53.25	19 21.36	155 1.53	7.01	1.4	1.2	23	0	165	.11	4	.7	1.1 13	SF5
		30	338	30.55	19 20.13	155 12.91	7.60	1.5	1.6	25	3	70	.07	5	.4	.7 17	SF2
		30	6 7	46.65	19 22.55	154 58.51	6.54	1.6	1.3	26	1	184	.13	5	.9	1.3 13	LER
		30	832	23.17	19 31.78	155 53.95	9.98	1.6	1.2	21	1	177	.10	5	.8	.5 10	KON
		30	1512	32.16	19 19.79	155 12.34	6.78	1.6	1.4	33	2	82	.11	5	.4	.9 18	SF2
		30	1537	15.18	19 26.13	155 24.11	7.64	1.9	1.6	30	2	45	.11	2	.4	.9 20	KAO
		30	2221	13.85	19 20.15	155 13.18	8.74	2.2	2.4	40	2	66	.11	5	.4	.5 30	SF2
		30	2228	47.58	19 24.83	155 25.52	9.16	1.9	1.3	31	2	38	.11	1	.4	.8 21	KAO
		30	2246	11.77	19 19.70	155 12.41	6.40	1.7	1.9	38	3	82	.13	5	.4	.8 24	SF2
	DEC	1	520	50.26	19 21.85	155 7.08	7.84	1.4	1.2	29	0	75	.10	3	.5	.9 22	SF4
		1	6 3	2.45	19 20.41	155 13.19	8.28	1.4	1.1	21	1	64	.08	4	.5	1.0 18	SF2
		1	7 3	49.60	19 24.69	155 25.85	8.71	2.0	1.2	21	1	53	.10	2	.5	1.0 17	KAO
		1	838	11.19	19 19.84	155 13.31	7.46	1.4	1.3	27	1	67	.09	5	.5	.8 19	SF2
		1	842	33.52	19 30.83	155 55.22	11.50	3.4	3.6	36	2	209	.12	3	.9	.4 31	KON F
		1	1246	56.85	19 22.37	155 26.69	9.72	1.8	1.5	35	2	62	.12	2	.4	.7 24	KAO
		1	1318	53.20	19 19.96	155 11.45	8.12	1.5	1.1	18	3	85	.06	5	.5	1.0 15	SF3
		1	1323	43.57	19 20.65	155 12.72	8.82	1.8	1.8	33	3	65	.10	4	.5	.7 22	SF2
		1	1456	19.07	19 40.57	155 3.14	3.02	2.0	1.6	17	0	205	.18	19	1.5	66.6	5 HIL B*
		1	1544	21.31	19 28.12	154 52.41	6.35	1.6	1.3	28	2	109	.10	2	.7	.6 21	LER
		1	1937	6.25	20 1.98	155 28.41	47.75	2.6	2.3	42	3	202	.09	21	1.0	2.0 31	KEA
		1	2223	58.06	19 20.22	155 7.85	7.91	1.5	1.2	22	2	90	.07	5	.5	1.1 16	SF4
		1	2227	3.14	19 20.15	155 7.87	7.47	1.5	1.2	22	2	90	.10	5	.6	1.3 16	SF4
		2	144	21.53	19 23.81	155 16.23	.01	1.0	1.3	8	0	97	.20	1	.4	.6 0	SEC L*
		2	223	54.57	19 7.78	155 39.80	6.74	2.5	2.3	25	0	124	.13	14	.6	1.3 19	LSW
		2	253	3.85	19 18.10	155 13.43	9.03	2.7	2.9	42	1	84	.13	2	.5	.4 32	SF2
		2	356	25.19	19 20.13	155 10.60	8.84	1.9	1.1	23	3	84	.07	4	.6	1.0 16	SF3
		2	418	57.97	19 18.66	155 11.23	6.38	1.9	1.5	33	3	121	.09	5	.5	1.0 22	SF3
		2	9 5	54.42	19 21.08	155 5.97	8.05	1.1	1.2	20	1	95	.08	4	.6	1.2 16	SF4
		2	916	47.70	19 23.97	155 16.09	3.42	1.3	1.2	15	2	109	.07	1	.4	.4 9	SEC

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YEAR	MON	DA	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
1980	DEC	2	10	1	26.58	19 21.85	155 6.08	7.97	1.4	1.1	19	1	138 .10	2	.6	1.2	14	SF4
		2	16	0	58.76	19 20.82	155 5.82	5.71	1.4	1.6	24	2	103 .11	4	.5	1.4	15	SF4
		2	16	27	25.88	19 26.38	155 37.17	3.11	2.5	2.8	31	1	84 .14	2	.5	.8	23	MLO
		2	17	23	37.43	19 19.08	155 11.78	5.56	1.6	1.8	31	2	103 .12	5	.5	1.3	21	SF3
		2	19	38	38.81	19 18.85	155 12.04	6.27	1.4	1.3	19	2	106 .09	4	.5	1.3	11	SF3
		2	19	46	18.12	19 21.50	155 4.59	7.11	1.7	1.7	36	2	83 .14	4	.5	.8	22	SF5
		2	20	16	56.21	19 22.96	155 2.43	7.01	1.5	1.4	33	2	122 .15	4	.6	.8	25	SF5
		2	22	27	51.29	19 20.49	155 13.40	8.92	1.4	1.2	20	2	62 .06	4	.5	.9	14	SF2
		2	23	46	49.29	19 20.05	155 7.49	7.94	1.4	1.3	21	0	99 .07	5	.6	1.4	17	SF4
		3	01	2	25.22	19 20.07	155 13.35	8.42	1.4	1.2	21	2	66 .04	5	.5	1.0	14	SF2
		3	04	7	53.59	19 21.47	155 5.68	7.45	2.0	2.2	34	1	88 .12	3	.5	.8	26	SF4
		3	05	4	45.96	19 24.01	155 16.24	1.16	1.0	1.4	13	2	100 .08	1	.3	.3	7	SEC
		3	24	0	5.41	19 19.79	155 10.26	7.74	1.6	1.8	26	3	90 .09	6	.5	1.1	16	SF3
		3	35	9	51.78	19 20.38	155 11.68	4.23	1.2	1.1	14	0	236 .07	5	1.6	2.5	14	SF3
		3	41	8	42.34	19 21.10	155 4.55	7.36	1.2	1.2	18	0	94 .11	4	.7	1.3	14	SF5
		3	42	5	40.07	19 25.01	155 25.25	9.09	1.9	1.7	34	4	49 .11	1	.4	.6	27	KA0
		3	71	0	1.66	19 25.72	155 23.39	9.33	2.0	1.5	31	2	48 .12	3	.5	.8	21	KA0
		3	91	1	39.90	19 20.38	155 13.14	6.92	1.6	1.5	31	2	65 .13	4	.5	.8	22	SF2
		3	92	4	9.69	19 21.24	155 6.05	6.16	2.0	1.8	31	3	91 .13	3	.6	1.1	20	SF4
		3	11	46	3.91	19 20.16	155 13.57	9.61	2.0	1.8	26	4	91 .07	5	.5	.7	17	SF2
		3	13	33	34.75	19 21.09	155 15.18	9.46	2.0	1.7	28	3	69 .07	3	.5	.6	20	SF1
		3	13	55	16.34	19 21.79	155 7.05	8.93	2.4	2.5	39	4	76 .08	3	.4	.5	27	SF4
		3	16	14	52.76	19 20.27	155 9.46	6.50	1.6	1.4	24	2	77 .07	3	.5	1.0	20	SF3
		3	18	39	4.68	19 16.91	155 21.46	7.81	1.8	1.7	29	1	131 .12	5	.6	1.4	20	SWR
		3	20	53	11.92	19 23.52	155 16.73	2.84	1.5	1.4	21	1	44 .08	0	.3	.2	18	SBC
		3	23	41	2.87	19 24.20	155 16.07	1.36	2.0	2.6	26	3	111 .12	1	.2	.3	18	SEC
		3	23	59	14.01	19 21.68	155 25.44	11.12	1.6	1.4	24	3	89 .09	4	.5	.9	17	KA0
		4	11	6	19.13	19 23.41	155 16.95	3.15	3.1	3.4	44	2	30 .11	0	.2	.3	37	SBC
		4	11	9	35.50	19 23.37	155 17.02	2.74	1.7	2.1	24	0	255 .09	0	.3	.2	19	SBC
		4	12	0	9.40	19 23.65	155 16.90	2.73	1.8	1.3	20	1	52 .09	1	.4	.3	12	SBC
		4	15	5	46.61	19 24.66	155 16.86	1.64	.8	1.0	10	1	117 .08	1	.4	.2	7	SNC
		4	2	7	9.73	19 24.28	155 17.16	1.38	.8	1.0	14	1	68 .08	1	.3	.2	13	SBC
		4	51	8	18.62	19 23.97	155 16.93	2.51	1.2	1.1	19	2	67 .08	1	.3	.2	12	SBC
		4	6	32	51.85	19 19.94	155 11.98	8.11	2.0	1.7	34	3	82 .07	5	.4	.5	23	SF3
		4	9	3	32.99	19 21.60	155 2.67	6.12	1.4	1.2	32	2	128 .15	3	.6	.9	19	SF5
		4	10	35	49.30	19 24.35	155 16.26	1.56	2.0	2.3	22	2	112 .10	1	.3	.2	17	SEC
		4	10	49	25.38	19 20.30	155 12.29	8.00	1.8	1.3	29	3	74 .10	5	.5	.9	18	SF3
		4	13	8	15.23	19 24.22	155 15.84	.86	2.3	2.9	22	2	113 .09	1	.2	.3	12	SEC
		4	13	52	39.85	19 24.17	155 15.95	.71	1.4	1.6	11	2	122 .13	1	.3	.5	6	SEC
		4	14	20	24.07	19 22.99	155 16.91	3.03	1.6	2.1	22	2	69 .10	1	.3	.3	16	SBC
		4	16	9	25.62	19 24.67	155 29.33	8.89	2.3	1.7	42	2	53 .10	5	.3	.7	29	KA0
		4	21	47	10.24	19 23.98	155 16.93	2.93	1.2	1.0	13	2	78 .08	1	.4	.3	8	SBC
		5	4	2	17.87	19 23.09	155 17.09	2.58	1.7	2.1	26	2	41 .10	1	.2	.2	16	SBC
		5	7	34	11.20	19 19.41	155 7.60	8.13	2.1	2.2	37	2	107 .08	4	.4	.7	28	SF4
		5	8	48	9.16	19 20.41	155 8.40	7.80	2.1	2.4	40	2	77 .10	4	.4	.6	28	SF4
		5	12	26	15.29	19 22.55	155 2.32	7.83	2.5	2.6	36	3	128 .12	5	.5	.6	26	SF5
		5	22	47	39.92	19 19.83	155 12.19	7.06	1.4	1.0	21	1	83 .09	5	.5	1.2	13	SF3
		5	23	46	57.64	19 18.86	155 12.06	7.66	1.7	1.1	20	1	106 .07	4	.6	1.2	15	SF3

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YEAR	MON	DA	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	
1980	DEC	6	151	35.30	19 23.69	155 16.85	2.76	1.3	1.2	20	1	55	.07	1	.3		.2 13	SSC	
		6	334	40.08	19 19.08	155 15.42	6.93	1.3	1.0	23	2	113	.09	4	.5		1.1 18	SF1	
		6	4	0	46.95	19 26.86	154 53.89	5.35	1.5	.9	26	1	154	.12	3	.7	1.0	21	LER
		6	634	2.76	19 26.46	155 24.46	5.54	1.8	1.1	27	3	68	.12	3	.4		1.3 23	KA0	
		6	954	6.46	19 20.52	155 3.29	7.24	1.9	1.6	27	1	100	.12	1	.6		1.0 20	SF5	
		6	1458	58.78	19 26.30	155 38.40	3.57	2.1	2.4	21	0	199	.08	4	.8		1.2 18	MLO	
		6	1521	2.36	19 20.85	155 13.20	7.90	1.9	2.4	33	2	59	.10	3	.5		.6 25	SF2	
		6	18	1	1.34	19 22.20	155 1.54	8.02	1.8	2.3	33	2	158	.11	5	.7	.5	24	SF5
		6	2038	30.80	19 22.22	155 5.63	8.31	2.7	2.6	40	3	73	.08	2	.4		.4 28	SF4	
		7	9	1	17.37	19 24.42	155 17.42	3.12	1.0	1.2	12	0	83	.06	1	.5	.3	7	SSC
		7	1059	4.24	19 23.82	155 15.77	2.88	1.2	1.2	18	2	104	.08	1	.3		.3 11	SEC	
		7	1250	36.10	19 20.56	155 12.46	8.29	1.8	1.9	37	5	69	.09	4	.4		.6 22	SF2	
		7	1348	23.28	19 19.86	155 8.59	8.31	1.9	1.4	27	2	77	.07	5	.5		.8 19	SF4	
		7	1348	55.31	19 19.78	155 8.84	6.79	1.6	1.1	22	0	77	.08	5	.5		1.3 18	SF4	
		7	1349	19.75	19 19.85	155 8.97	7.13	2.4	2.6	45	4	78	.09	4	.4		.6 31	SF4	
		8	018	6.01	19 51.95	156 25.78	1.75		1.8	20	1	230	.37	65	6.4		3.0 13	DIS	
		8	214	33.81	19 15.84	155 5.17	48.22	2.5	2.3	41	1	206	.10	6	1.2		2.1 37	DEP	
		8	1024	54.51	19 23.90	155 15.62	3.20	.9	1.0	14	2	147	.08	2	.4		.3 7	SEC	
		8	1048	45.16	19 19.71	155 7.65	7.47	1.4	1.2	23	1	101	.07	4	.5		1.0 16	SF4	
		8	1140	22.73	19 32.49	155 43.93	7.41	1.4	1.2	20	1	108	.14	5	.7		1.7 14	KON	
		8	1623	29.42	19 17.92	155 14.91	6.79	1.2	1.0	23	3	140	.09	3	.6		1.0 14	SF1	
		8	1647	51.03	19 19.77	155 7.86	8.40	2.2	2.4	39	3	95	.07	4	.4		.5 31	SF4	
		8	1756	5.60	19 21.97	155 5.23	8.02	1.9	1.8	29	1	77	.09	3	.5		.8 17	SF5	
		8	1837	27.50	19 19.61	155 11.33	7.30	1.7	1.7	30	2	94	.09	5	.5		1.0 22	SF3	
		8	1858	33.26	19 21.73	155 7.35	7.85	1.7	1.4	27	1	75	.10	3	.5		.9 20	SF4	
		8	2136	38.34	19 20.58	155 12.06	8.44	1.8	1.9	30	2	72	.09	4	.5		.7 24	SF3	
		9	326	23.62	19 20.13	155 7.83	8.35	2.2	2.6	37	2	91	.08	5	.4		.6 29	SF4	
		9	433	16.14	19 23.47	155 25.76	9.66	1.6	1.0	25	2	63	.08	4	.5		.9 19	KA0	
		9	719	35.32	19 18.28	155 15.09	7.57	1.3	1.0	20	2	137	.07	4	.6		1.2 14	SF1	
		9	822	57.07	19 23.05	155 3.04	8.77		1.2	19	0	115	.10	4	.6		.9 18	SF5	
		9	856	49.72	19 14.17	155 20.56	42.94	2.1	1.7	37	2	162	.08	8	1.0		1.4 30	DEP	
		9	859	25.37	19 19.94	155 10.76	8.77	1.8	1.8	33	1	88	.09	4	.4		.7 23	SF3	
		9	1114	43.48	19 19.77	155 8.82	7.40	1.7	1.7	31	2	78	.09	5	.5		.8 21	SF4	
		9	15	9	20.64	19 19.99	9.55	3.1	3.1	33	1	108	.07	5	.6		.4 28	SF4	
		9	1853	1.22	19 24.17	155 24.99	9.60	1.7	1.4	26	3	52	.09	2	.4		.9 21	KA0	
		9	1922	28.62	19 23.11	155 16.88	2.96	2.2	2.6	28	2	40	.10	1	.3		.2 21	SSC	
		9	1924	52.55	19 23.20	155 17.16	2.76	.9	1.1	19	4	71	.09	1	.3		.3 12	SSC	
		9	2034	58.75	19 19.51	155 10.46	8.03	1.9	1.5	31	2	97	.08	5	.4		.8 21	SF3	
		9	2151	11.81	19 17.99	155 12.98	5.93	2.0	1.8	36	4	109	.12	2	.4		1.0 23	SF2	
		9	2216	46.06	19 27.01	155 23.72	7.47	2.3	2.3	33	2	45	.12	4	.4		.9 29	KA0	
		10	521	40.26	19 20.68	155 7.19	7.22	2.1	1.8	36	1	93	.11	5	.5		.9 24	SF4	
		10	824	11.64	19 18.58	155 15.55	8.76		1.1	14	0	132	.04	4	.6		1.3 11	SF1	
		10	847	30.60	19 19.88	155 10.14	8.22	1.8	1.4	27	3	88	.09	4	.4		1.0 19	SF3	
		10	855	51.83	19 20.52	155 6.98	8.75	2.6	2.7	40	2	99	.09	5	.4		.6 27	SF4	
		10	10	3	28.50	19 19.82	6.51	1.8	1.5	31	2	84	.11	6	.5		1.0 20	SF3	
		10	10	7	46.32	19 20.35	6.40	1.3	1.1	24	1	96	.10	5	.5		1.2 17	SF4	
		10	1312	54.28	19 20.14	155 13.23	7.54	1.6	1.3	27	2	65	.12	5	.6		1.0 22	SF2	
		10	1932	15.80	19 20.22	155 17.15	1.46	1.0	1.2	11	0	70	.10	1	.3		.2 9	SSC	

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YEAR	MON	DA	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
1980	DEC	10	2137	36.26	19 21.06	155 1.37	7.91	1.9	1.7	20	0	177	.09	3	.6	1.0	14	SF5
		10	23 6	29.72	19 24.74	155 24.76	8.84	2.4	2.5	40	3	46	.11	1	.4	.6	26	KA0
		11	010	9.97	19 25.89	154 55.85	6.10	1.9	1.8	31	1	159	.11	3	.6	.8	17	LER
		11	8 9	56.01	19 24.28	155 24.96	9.26	2.1	2.0	36	2	36	.11	2	.4	.7	23	KA0
		11	816	56.42	19 21.72	155 7.32	7.62	1.4	1.3	27	2	75	.09	3	.5	.8	11	SF4
		11	819	45.64	19 30.86	155 29.09	4.33	1.2	1.1	14	2	103	.08	3	.4	1.2	9	MLO
		11	14 4	41.41	19 18.76	155 12.01	6.85	2.0	1.8	35	3	109	.09	4	.4	.7	20	SF3
		11	1631	22.97	19 20.16	155 13.35	8.08	1.3	1.3	24	2	65	.09	5	.5	.9	18	SF2
		11	1657	39.44	19 30.72	155 46.92	9.00	1.9	1.9	28	2	84	.13	2	.6	.8	15	KON
		11	18 2	10.93	20 3.34	156 .84	10.16	3.4	3.5	35	0	173	.14	26	.6	.6	25	KOH
		11	2059	30.58	19 17.91	155 12.91	9.58	2.5	2.7	43	3	138	.10	9	.5	.6	24	SF2
		11	2137	.89	19 20.99	155 5.88	7.63	1.1	1.2	19	0	98	.10	4	.6	1.3	16	SF4
		12	157	4.51	19 19.88	155 11.86	7.71	1.6	1.4	26	1	84	.09	5	.5	.9	16	SF3
		12	3 6	47.21	19 20.00	155 9.86	7.98	1.4	1.1	23	2	84	.08	4	.5	1.1	18	SF3
		12	423	45.98	18 57.23	155 33.51	37.15	2.2	1.7	30	2	243	.09	12	1.6	1.7	25	DL3
		12	524	13.65	19 20.38	155 12.96	8.99	2.0	2.0	36	3	67	.09	4	.4	.6	26	SF2
		12	657	39.76	19 19.53	155 7.06	7.83	2.0	1.9	32	2	118	.10	4	.5	1.0	23	SF4
		12	1030	24.97	19 23.18	155 16.98	2.43	.8	1.0	10	1	94	.03	0	.3	.4	8	SSC
		12	1114	11.55	19 18.86	155 15.27	7.94	1.3	1.1	20	1	119	.08	4	.5	1.0	17	SF1
		12	1523	50.08	19 23.16	155 17.01	2.49	.8	1.1	16	3	80	.09	0	.3	.3	9	SSC
		12	1650	15.85	19 20.04	155 13.08	9.27	2.1	2.6	40	2	68	.10	5	.4	.5	32	SF2
		12	2338	35.18	19 18.95	155 15.76	8.24	1.4	1.3	19	2	120	.06	4	.5	1.1	14	SF1
		13	2 3	36.51	19 19.68	155 12.43	7.98	1.8	1.7	25	3	83	.07	5	.5	.8	16	SF2
		13	447	53.68	19 18.13	155 15.54	8.21	2.0	2.0	29	1	143	.06	4	.5	.7	17	SF1
		13	548	8.80	19 21.85	155 4.99	8.38	2.2	2.2	36	1	78	.09	3	.4	.4	23	SF5
		13	553	23.31	19 20.52	155 13.11	8.56	1.3	1.1	21	2	63	.05	4	.5	1.0	14	SF2
		13	6 1	27.66	19 26.02	155 28.39	8.16	1.8	1.3	21	1	62	.08	6	.5	1.2	17	KA0
		13	1321	8.00	19 20.00	155 25.08	10.50	2.5	2.8	46	3	87	.12	3	.4	.5	33	KA0
		13	15 1	43.17	19 22.38	155 27.43	8.33	1.6	1.1	26	1	64	.11	0	.4	.8	21	KA0
		13	1738	33.79	19 21.72	155 4.66	8.18	2.1	2.1	30	0	79	.12	4	.5	.6	20	SF5
		13	2337	55.60	19 25.24	155 24.52	9.08	2.0	1.8	28	1	61	.09	1	.4	.9	23	KA0
		14	015	32.21	19 22.26	155 5.72	6.60	1.5	1.7	25	1	73	.12	2	.5	.9	15	SF4
		14	252	48.45	19 21.44	155 1.91	7.34	1.6	1.1	23	1	167	.11	3	.7	.9	7	SF5
		14	419	5.67	19 18.41	155 15.51	8.24	1.2	1.2	18	1	137	.03	4	.6	1.1	15	SF1
		14	5 4	48.56	19 20.27	155 7.38	7.65	2.0	1.8	29	0	97	.09	5	.5	1.0	22	SF4
		14	629	15.32	19 20.10	155 12.72	9.02	1.5	1.3	24	2	72	.07	5	.6	.8	17	SF2
		14	633	33.75	19 20.05	155 12.85	8.50	1.5	1.3	23	3	71	.06	5	.5	.9	14	SF2
		14	9 0	7.06	19 19.93	155 10.19	7.65	1.5	1.4	20	0	87	.09	4	.5	1.1	17	SF3
		14	1257	45.97	19 19.85	155 8.20	8.90	3.0	3.2	43	3	85	.09	5	.4	.4	33	SF4
		14	1513	6.87	19 19.86	155 7.62	4.84	1.8	1.6	23	3	99	.12	5	.6	1.9	14	SF5
		14	1547	56.43	19 26.46	155 20.54	2.42	1.6	1.5	24	3	82	.12	2	.3	.5	16	KA0
		14	1930	36.02	19 20.60	155 10.90	8.10	2.1	1.9	32	3	76	.07	3	.4	.6	23	SF3
		14	20 1	.75	19 23.00	155 4.02	7.15	1.6	1.2	23	1	94	.11	3	.5	.8	13	SF5
		14	22 6	52.12	19 25.88	155 25.66	6.64	1.8	1.7	30	2	53	.12	1	.4	1.0	21	KA0
		15	2 6	59.17	19 27.03	155 24.34	7.77	2.4	1.8	41	3	46	.13	4	.4	.7	30	KA0
		15	214	.38	19 19.77	155 7.97	9.60	3.1	3.1	45	3	91	.10	4	.5	.4	36	SF4 F
		15	346	29.74	19 24.88	155 24.69	7.68	1.5	1.5	29	2	44	.10	1	.4	.9	22	KA0
		15	533	8.35	19 19.73	155 12.00	8.63	3.6	3.6	42	2	86	.11	6	.4	.4	37	SF3 F

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YEAR	MON	DA	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
1980	DEC	15	552	9.75	19 23.88	155 15.85	2.96	1.3	1.1	21	3	106	.08	1	.3	.3	10	SEC
		15	845	42.80	19 23.50	155 16.86	3.27	1.6	1.8	22	4	61	.09	0	.3	.2	14	SSC
		15	9 4	49.58	19 24.95	155 25.54	9.86	2.6	2.7	38	3	41	.12	1	.4	.6	29	KA0
		15	919	14.41	19 24.79	155 25.70	10.90	3.1	3.0	40	4	39	.12	1	.3	.4	31	KA0
		15	10 7	12.00	19 26.52	155 24.37	8.55	3.1	2.9	38	3	61	.13	3	.4	.7	29	KA0
		15	1042	22.50	19 18.45	155 11.06	7.50	1.6	1.2	15	1	134	.06	5	.7	1.5	12	SF3
		15	11 0	37.53	19 19.48	155 11.85	8.69	1.7	1.4	25	2	93	.07	5	.5	.8	20	SF3
		15	1323	43.64	19 25.59	155 27.96	8.63	1.8	1.2	25	2	106	.09	5	.4	.9	18	KA0
		15	16 9	3.52	19 23.24	155 16.92	2.80	2.1	2.3	21	0	40	.09	0	.3	.3	19	SSC
		15	1741	7.45	19 23.22	155 17.01	2.61	1.2	1.6	17	2	69	.07	0	.4	.3	11	SSC
		15	2011	36.16	19 21.52	155 14.79	10.30	3.5	3.8	44	1	62	.10	3	.4	.4	40	SF1 F
		16	1 0	.91	19 19.85	155 11.30	7.68	2.6	2.7	38	3	89	.11	5	.4	.6	31	SF3
		16	1 2	21.17	19 19.69	155 12.35	7.79	1.7	1.4	21	3	83	.06	5	.5	.9	16	SF2
		16	126	48.04	19 23.98	155 17.19	2.98	1.1	1.2	16	4	64	.07	1	.4	.3	8	SSC
		16	2 7	38.14	19 20.07	155 12.91	8.35	1.6	1.1	22	2	70	.07	5	.5	1.0	14	SF2
		16	251	48.07	19 20.03	155 6.90	7.11	1.9	1.4	24	0	110	.11	5	.6	1.2	19	SF4
		16	920	38.64	19 22.04	155 10.76	2.87	.8	1.2	14	1	118	.09	2	.5	.4	11	SER
		16	1336	34.02	19 18.55	155 15.07	7.96	1.3	1.2	21	2	100	.05	4	.5	1.1	13	SF1
		16	2347	51.71	19 20.82	155 6.52	8.71	1.2	1.3	18	2	98	.05	4	.5	1.1	13	SF4
		16	2356	49.36	19 18.03	155 26.02	10.39	1.9	2.0	25	1	98	.10	6	.5	.8	17	LSW
		17	556	31.68	19 19.63	155 7.60	7.22	1.6	1.3	27	2	103	.08	4	.5	1.0	18	SF4
		17	1236	11.35	19 19.15	155 8.86	7.49	1.9	1.8	25	4	91	.05	4	.4	.7	16	SF4
		17	1631	29.75	19 19.09	155 26.13	9.80	1.4	1.3	25	3	91	.10	5	.4	.7	16	KA0
		17	1754	35.79	19 19.30	155 13.46	7.23	1.5	1.4	31	2	74	.12	4	.5	.9	20	SF2
		17	2048	31.87	19 19.64	155 6.88	8.17	1.8	1.4	28	2	120	.07	5	.5	.9	19	SF4
		18	7 0	38.13	19 20.27	155 11.76	8.16	2.2	1.9	32	3	78	.11	5	.4	.7	26	SF3
		18	737	48.94	19 17.99	155 13.05	5.10	1.7	1.3	24	3	105	.09	2	.4	1.1	19	SF2
		18	852	53.61	19 23.34	155 17.10	2.86	.9	1.0	17	2	56	.09	0	.4	.3	12	SSC
		18	945	18.17	19 23.55	155 16.98	15.26	2.2	2.4	31	1	37	.10	3	.5	.4	30	DEP
		18	1152	56.90	19 19.00	155 13.30	7.32	1.7	1.2	23	2	77	.07	4	.5	.9	17	SF2
		18	1251	50.08	19 20.32	155 10.56	7.81	1.8	1.3	25	3	84	.09	3	.5	.9	19	SF3

HVO EARTHQUAKE SUMMARY LIST

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YEAR	MON	DA	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
1980	DEC	20	2053	17.17	19 20.18	155 8.81	7.43	1.8	1.3	27	3	72	.07	4	.5	.8	16 SF4	
		21	7 4	35.37	19 21.51	155 4.86	8.72	3.4	3.8	39	1	85	.09	4	.4	.4	37 SF5	
		21	12 6	31.05	19 21.14	155 11.24	9.54	1.8	1.9	20	0	72	.06	3	.5	.9	15 SF3	
		21	1253	31.99	19 19.09	155 13.46	5.51	2.0	1.6	30	4	78	.10	4	.4	1.1	18 SF2	
		21	1423	38.81	19 20.38	155 11.86	8.38	1.9	1.7	34	5	76	.10	5	.5	.8	26 SF3	
		21	1626	25.54	19 21.18	155 6.07	7.84	2.1	1.9	30	2	93	.08	3	.5	.8	20 SF4	
		21	1922	20.82	19 19.76	155 7.69	7.94	1.9	1.6	31	3	99	.08	5	.5	1.0	19 SF4	
		21	1932	34.33	19 26.63	155 50.48	7.67	2.2	1.8	16	0	113	.14	9	.6	1.1	14 KON	
		21	1955	8.71	19 26.10	155 22.30	4.19	1.9	1.7	22	3	67	.09	4	.3	1.1	14 KAO	
		22	043	34.08	19 20.37	155 12.83	8.74	2.0	1.7	37	5	68	.11	4	.4	.6	23 SF2	
		22	443	30.87	19 8.94	155 33.47	32.17	3.0	2.9	47	4	129	.08	10	.7	1.2	39 DL3	
		22	541	8.67	19 23.36	155 16.78	2.68	2.7	3.1	34	2	39	.11	0	.3	.2	28 SSC	
		22	653	24.00	19 23.48	155 16.79	3.60		1.6	10	0	70	.06	3	.5	.8	9 SSC	
		22	1753	16.11	19 19.47	155 8.83	7.70	1.6	1.1	21	1	83	.06	4	.5	1.2	15 SF4	
		22	2129	12.58	19 19.74	155 9.74	7.76	1.6	1.2	24	3	89	.08	4	.5	1.0	18 SF3	
		23	150	26.62	19 16.36	155 27.32	8.19	1.6	1.3	29	1	128	.14	5	.5	1.0	13 LSW	
		23	227	8.89	19 23.55	155 1.33	8.08	1.8	1.3	29	1	146	.13	5	.6	.8	20 SF5	
		23	755	33.53	19 25.55	155 29.50	8.39	2.1	1.4	31	2	59	.11	7	.4	1.1	20 KAO	
		23	1411	30.28	19 20.41	155 13.21	7.44	1.6	1.3	27	3	64	.10	4	.4	.8	19 SF2	
		23	18 8	58.53	19 23.88	155 24.55	8.57	1.6	1.2	28	2	50	.12	3	.4	.9	23 KAO	
		23	1946	22.04	19 22.39	155 17.17	2.80	1.0	1.1	18	1	94	.07	2	.3	.4	10 SSC	
		23	2243	40.30	19 23.20	155 16.86	2.86	1.0	1.0	21	3	46	.09	0	.3	.3	13 SSC	
		24	029	19.99	19 22.63	155 22.98	6.52	1.5	1.4	22	2	82	.08	5	.4	1.2	16 KAO	
		24	053	19.44	19 23.67	155 2.33	8.56	1.7	1.7	29	1	122	.12	4	.6	.8	19 SF5	
		24	1 2	19.53	19 21.35	155 2.49	7.05	1.9	1.6	36	2	137	.11	3	.5	.7	18 SF5	
		24	516	1.43	19 25.36	155 15.97	2.37	2.8	3.3	35	2	40	.12	2	.3	.3	31 SNC F	
		24	1119	35.52	19 40.32	155 3.35	4.43	2.1	2.6	24	0	181	.17	19	1.0	2.6	8 HIL B	
		24	1123	34.26	19 23.02	155 16.77	2.29	2.2	2.4	26	4	40	.10	1	.3	.2	20 SSC	
		24	13 5	24.76	19 20.54	155 13.05	9.33	1.6	1.2	23	2	64	.08	4	.5	.9	14 SF2	
		24	1314	.50	19 20.35	155 13.26	8.34	1.7	1.4	26	2	64	.08	4	.5	.8	17 SF2	
		24	1339	.58	19 18.64	155 13.54	9.60	2.8	2.7	43	2	74	.11	3	.5	.4	36 SF2	
		24	1430	56.67	19 20.56	155 30.03	10.57	2.6	2.9	39	1	66	.10	6	.4	.6	30 KAO	
		24	15 5	31.21	19 20.08	155 12.83	7.69	1.6	1.5	23	2	72	.08	5	.5	.9	17 SF2	
		24	1545	37.10	19 23.20	155 16.98	2.85	1.2	1.4	19	2	47	.06	0	.3	.3	12 SSC	
		24	2251	21.16	19 25.22	155 24.04	8.75	2.2	2.2	41	2	36	.12	2	.4	.6	26 KAO	
		24	2353	57.17	19 21.35	155 1.90	8.14	1.4	1.5	24	1	164	.11	3	.9	1.0	14 SF5	
		25	2 2	56.11	19 22.33	155 6.55	7.96	2.3	2.3	36	2	70	.10	1	.4	.6	21 SF4	
		25	255	16.83	19 20.04	155 12.15	9.03	1.7	1.4	31	3	79	.08	5	.5	.7	23 SF3	
		25	256	15.24	19 22.16	155 3.06	8.34	1.9	1.9	30	1	121	.11	4	.6	.6	23 SF5	
		25	315	38.84	19 18.46	155 30.20	7.67	1.6	1.1	20	0	83	.11	6	.6	1.5	15 LSW	
		25	1331	33.69	19 19.22	155 11.39	7.94	1.7	1.1	21	1	103	.06	5	.5	1.1	15 SF3	
		25	1844	56.36	19 16.46	155 22.87	1.89	1.2	1.4	24	2	129	.12	7	.5	1.1	17 SWR	
		26	112	13.79	19 23.99	155 15.61	2.77	1.0	1.1	17	3	115	.06	2	.3	.4	9 SEC	
		26	215	37.30	19 20.50	155 12.93	8.65	1.8	1.8	33	2	66	.08	4	.4	.6	21 SF2	
		26	3 7	28.86	19 20.59	155 12.66	8.71	1.9	1.8	37	5	67	.10	4	.4	.5	23 SF2	
		26	713	17.28	19 24.11	155 17.99	3.57	1.8	1.1	22	4	52	.07	2	.3	.4	12 SSC	
		26	731	16.96	19 20.05	155 12.11	8.72	2.2	2.0	36	1	79	.11	5	.4	.6	27 SF3	
		26	10 2	16.19	19 23.77	155 15.93	2.91	1.8	2.3	25	2	100	.09	1	.3	.2	14 SEC	

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		ORIGIN TIME			LAT N		LON W		DEPTH		AMP		DUR		GAP		RMS		MIN		ERH		ERZ NO	
YEAR	MON	DA	HRMN	SEC	DEG	MIN	DEG	MIN	KM	MAG	MAG	NR	NS	DEG	SEC	DIS	KM	KM	FM	REMK				
1980	DEC	26	1118	30.21	19	20.74	155	9.57	8.37	1.8	1.9	33	3	70	.08	3	.4	.7	22	SF3				
		26	1133	22.34	19	22.03	155	24.40	10.21	1.6	1.3	19	1	69	.08	4	.6	1.1	15	KAO				
		26	1237	15.74	19	19.99	155	12.82	6.95	1.3	1.1	22	2	73	.10	5	.5	1.1	11	SF2				
		26	1347	59.99	19	23.88	155	17.02	2.68	1.1	1.3	16	1	71	.07	1	.3	.2	12	SSC				
		26	15 6	56.11	19	20.07	155	13.09	8.58	1.6	1.2	28	1	68	.08	5	.5	.8	18	SF2				
		26	1730	43.02	19	20.70	155	13.37	9.17	1.6	1.2	24	2	60	.07	4	.5	.8	15	SF2				
		26	1742	47.17	19	11.35	155	27.96	9.20	1.4	1.5	22	1	110	.14	3	.6	1.1	13	L3				
		26	18 2	21.11	19	19.84	155	11.08	10.16	1.6	1.1	21	1	89	.07	5	.6	1.2	15	SF3				
		26	1839	20.00	19	20.74	155	10.65	9.02	1.6	1.3	28	3	73	.06	3	.5	.8	15	SF3				
		26	1912	5.41	19	20.28	155	12.83	9.15	1.6	1.2	23	2	69	.06	4	.5	.9	17	SF2				
		26	1941	15.96	19	19.62	155	11.12	6.79	1.8	1.7	23	3	94	.07	5	.5	1.1	15	SF3				
		26	2257	45.15	19	23.23	155	16.78	3.04	2.2	2.6	28	4	45	.09	0	.2	.2	19	SSC				
		26	2345	25.85	19	20.15	155	12.79	8.47	1.6	1.2	24	3	71	.08	5	.5	.9	16	SF2				
		27	0 0	47.41	19	19.44	155	10.37	8.04	1.4	1.2	29	3	99	.07	5	.4	.8	18	SF3				
		27	142	21.95	19	8.46	155	33.37	33.55	2.3	1.6	30	1	135	.06	10	.7	1.4	26	DL3				
		27	149	42.44	19	20.49	155	13.10	8.88	1.5	1.6	30	3	64	.10	4	.5	.8	20	SF2				
		27	11 2	50.78	19	20.38	155	3.03	6.72	1.2	1.3	24	0	124	.11	1	.7	1.0	16	SF5				
		27	1126	16.67	19	19.18	155	10.02	7.84	1.4	1.0	24	2	104	.07	5	.5	1.0	16	SF3				
		27	2021	15.16	19	25.17	155	27.20	11.61	2.7	2.8	45	3	40	.12	4	.4	.4	31	KAO				
		28	031	46.76	19	20.42	155	13.11	9.01	1.6	1.2	24	2	64	.06	4	.5	.8	18	SF2				
		28	035	19.49	19	19.78	155	6.93	8.78	2.5	2.9	40	1	115	.10	5	.4	.5	27	SF4				
		28	312	3.68	19	19.84	155	12.02	6.53	1.6	1.4	24	3	84	.07	5	.4	.9	17	SF3				
		28	4 9	56.62	19	27.07	155	26.59	10.01	1.6		34	1	43	.10	4	.4	.8	20	KAO				
		28	410	21.58	19	20.04	155	12.46	5.03	1.8	1.9	33	3	76	.14	5	.4	1.3	21	SF2				
		28	915	24.78	19	23.16	155	16.99	2.77	.7	1.8	24	0	40	.07	0	.3	.2	18	SSC				
		28	1126	30.91	19	19.79	155	12.38	8.77	2.8	2.6	43	4	81	.10	5	.3	.5	29	SF2				
		28	1331	12.27	19	23.29	155	16.66	3.15	2.1	2.1	29	3	39	.09	2	.3	.4	20	SSC				
		28	1348	26.36	19	27.89	155	26.14	8.15	2.1	1.5	35	1	52	.10	7	.4	1.0	22	KAO				
		28	1814	15.02	19	21.43	155	2.89	6.57	1.5	1.2	30	1	129	.12	3	.6	1.0	16	SF5				
		28	2111	25.67	19	20.74	155	13.37	9.31	1.5	1.3	28	3	59	.07	4	.4	.7	21	SF2				
		28	2320	42.16	19	24.85	155	17.35	1.24	1.3	1.3	17	1	88	.07	1	.4	.2	11	SNC				
		28	2354	20.40	19	17.96	155	13.27	8.02	2.0	1.9	34	3	96	.10	2	.5	.7	23	SF2				
		29	314	7.94	19	18.52	155	13.39	9.12	2.7	2.4	40	3	135	.11	8	.4	.4	29	SF2				
		29	325	59.22	19	18.58	155	12.91	5.54	1.7	1.1	29	1	95	.10	3	.4	1.3	21	SF2				
		29	341	5.62	19	18.38	155	13.02	5.60	1.7	1.3	31	3	96	.12	3	.5	1.1	15	SF2				
		29	428	43.46	19	21.52	155	1.68	8.34	1.5	1.2	25	0	166	.09	4	.8	.7	15	SF5				
		29	522	21.58	19	18.76	155	15.28	8.57	2.1	1.9	39	4	121	.08	5	.4	.5	22	SF1				
		29	546	10.73	19	18.15	155	10.98	4.54	1.3	1.1	25	1	137	.08	5	.4	2.1	11	S9F				
		29	855	5.38	19	18.52	155	13.26	5.52	1.9	1.4	30	2	85	.10	3	.4	1.2	23	SF2				
		29	1339	30.31	19	18.75	155	13.79	7.50	2.1	1.7	40	4	88	.12	3	.5	.7	31	SF2				
		29	1758	39.62	19	56.18	155	9.79	7.50		1.8	21	0	256	.11	19	2.5	.9	17	KEA				
		30	244	8.29	19	22.00	155	26.33	12.38	2.3	1.9	42	4	66	.11	2	.4	.4	31	KAO				
		30	355	59.56	19	20.59	155	11.89	8.38	1.5	1.4	31	2	73	.10	4	.5	.7	22	SF3				
		30	517	48.63	19	19.56	155	12.49	7.12	1.6	1.4	28	4	84	.06	5	.4	.7	19	SF2				
		30	534	13.29	19	23.66	155	17.16	2.86	1.2	1.1	18	3	56	.08	1	.3	.3	11	SSC				
		30	11 5	15.63	19	23.73	155	16.82	2.74	1.1	.9	20	3	58	.06	1	.3	.2	13	SSC				
		30	1130	55.31	19	18.01	155	46.64	9.88	3.9	3.5	47	2	89	.12	11	.4	.5	44	KON				
		30	1221	55.91	19	23.73	155	16.77	3.08	1.3	1.0	18	2	55	.09	0	.4	.2	12	SSC				

HVO EARTHQUAKE SUMMARY LIST

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YEAR	MON	DA	HRMN	SEC	LAT N DEG MIN	LON W DEG MIN	DEPTH KM	AMP MAG	DJR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1980	DEC	30	1242	16.35	19 23.87	155 16.91	2.88	1.1	1.0	17	3	75	.06	1	.3	.3	9	SSC
		30	1812	48.92	19 18.41	155 14.26	9.29	2.9	2.8	41	2	136	.10	6	.5	.6	36	SF2
		30	1817	12.77	19 25.89	155 22.57	6.86	1.8	1.5	28	3	43	.10	5	.4	.9	18	KAO
		30	2028	37.21	19 24.29	155 29.13	9.75	2.5	2.0	37	2	34	.11	4	.4	.8	25	KAO
		31	013	34.80	19 17.60	155 14.12	5.62	1.1	1.3	13	0	144	.06	2	1.2	2.1	9	SF2
		31	230	43.45	19 26.07	155 24.97	8.50	2.6	2.3	39	1	46	.14	2	.4	.8	30	KAO
		31	727	53.63	19 20.09	155 11.89	8.45	2.2	2.1	36	3	80	.09	5	.4	.6	29	SF3
		31	734	33.87	19 20.27	155 11.81	8.72	2.6	2.7	39	2	78	.10	5	.4	.6	32	SF3
		31	958	23.56	19 30.57	156 2.83	36.88	2.2	1.8	32	1	275	.10	14	1.8	1.8	26	KON
		31	1618	6.18	19 26.84	155 23.57	8.67	2.0	1.7	26	5	58	.10	4	.4	1.0	19	KAO
		31	1843	17.53	19 22.95	155 16.83	2.84	2.4	2.6	28	2	47	.08	1	.2	.3	20	SSC
		31	1858	8.65	19 22.22	155 6.21	8.02	1.9	1.7	28	1	73	.10	1	.5	.8	20	SF4
		31	1916	4.55	19 19.54	155 11.97	8.55	2.3	1.9	28	2	91	.08	5	.5	.9	22	SF3

TABLE 6. HVO EARTHQUAKE SUMMARY LIST, MAGNITUDE 3.0 AND LARGER

PAGE 1

HVO EARTHQUAKE SUMMARY LIST

PAGE 2

YEAR	MON	DA	HRMN	SEC	DEG	MIN	DEG	MIN	DEPTH	AMP	DUR	NR	NS	GAP	RMS	MIN	ERH	ERZ	NO	REMK	YEAR	MON	DA	HRMN	SEC	DEG	MIN	DEG	MIN	DEPTH	AMP	DUR	NR	NS	GAP	RMS	MIN	ERH	ERZ	NO	REMK				
1980	JAN	1	5	7	3.13	19	20.29	155	6.62	9.84	3.4	3.2	37	0	108	.11	5	.6	.5	33	SF4	F	1980	MAR	2	9	8	57.83	19	22.11	155	14.26	1.27	2.4	3.0	20	1	54	.12	3	.4	.7	12	SEC	
		2	2136	37.20	19	23.26	155	16.92	2.87	2.7	3.1	32	1	40	.08	0	.2	.2	28	SSC	F			2	1013	33.64	19	22.60	155	14.78	1.16	2.4	3.0	28	1	52	.10	2	.3	.3	20	SEC			
		3	1	6	16.75	19	23.43	155	14.99	3.22	3.4	3.8	39	1	46	.10	3	.3	.4	31	SEC	F			2	1022	19.44	19	22.08	155	14.29	1.28	2.4	3.1	21	2	81	.07	2	.2	.4	13	SEC		
		9	1240	13.38	19	20.25	155	11.66	8.59	2.9	3.1	31	0	79	.10	5	.4	.7	26	SF3				2	14	7	6.73	19	22.66	155	14.39	.91	3.1	3.5	20	0	74	.09	2	.2	.4	18	SEC		
		9	19	7	27.96	19	24.83	155	28.40	10.47	2.9	3.2	33	1	55	.10	5	.4	.6	28	KA0				5	021	6.96	18	47.70	156	11.51	32.07	3.1	3.3	9	0	311	.08	59	13.4	5.0	8	DIS		
		15	1213	11.23	19	18.98	155	13.16	8.31	2.9	3.0	29	1	81	.09	4	.4	.7	21	SF2				7	1947	42.48	19	19.81	155	11.36	9.54	3.2	3.5	38	0	89	.08	5	.4	.5	27	SF3	F		
		15	1341	2.75	19	41.29	156	2.21	35.32	3.8	3.7	32	0	306	.08	35	7.7	2.4	32	HUA				8	1646	5.82	19	20.58	155	6.48	8.67	2.9	3.4	41	2	103	.09	5	.4	.5	31	SF4	F		
		16	19	3	39.82	19	23.30	155	14.69	3.42	3.1	3.2	33	1	46	.09	3	.3	.4	24	SEC				9	1627	20.71	19	19.70	155	13.34	9.47	3.1	3.0	39	0	69	.10	5	.4	.4	34	SF2		
		16	2159	56.07	19	23.25	155	14.69	3.62	3.4	3.6	34	0	47	.08	3	.3	.5	27	SEC				12	257	52.71	19	21.51	155	14.18	1.92	3.9	4.5	35	0	57	.13	3	.2	.5	33	KOA			
		17	623	39.85	19	24.11	155	14.70	4.22	3.1	3.3	37	1	79	.11	1	.4	.5	30	SEC	F			14	22	4	8.22	19	20.90	155	6.22	8.26	3.0	3.1	37	2	98	.09	4	.4	.6	24	SF4		
		17	858	51.53	19	25.11	155	15.76	2.07		3.1	18	0	47	.13	2	.4	.8	17	SNC				15	542	9.93	19	26.05	155	23.83	11.59	3.2	2.7	35	0	49	.09	3	.4	.7	25	KA0			
		17	1221	47.51	19	22.28	155	5.27	8.15	3.3	3.7	37	2	72	.10	5	.4	.6	32	SF5				21	746	39.84	19	31.56	156	1.83	13.45	3.3	2.8	25	0	232	.12	13	1.9	.5	17	KON	F		
		17	1933	42.23	19	19.77	155	12.97	9.89	3.6	3.6	37	0	74	.09	5	.4	.4	35	SF2				21	1256	20.21	19	46.26	155	32.32	15.00	3.7	3.5	40	2	89	.10	9	.5	.6	16	KEA	F		
		18	055	16.03	19	19.61	155	8.64	8.24	2.6	3.0	30	0	78	.07	4	.5	.9	24	SF4				22	1	9	53.53	19	26.52	155	23.61	10.70	3.3	3.1	42	2	46	.10	4	.3	.5	36	KAO	F	
		19	843	29.58	19	25.40	155	15.23	1.77	2.4	3.0	23	1	75	.08	2	.4	.3	20	SNC				25	1916	31.75	19	59.15	155	50.61	4.84	4.0	3.5	35	3	193	.09	17	.7	.8	28	KOH	F		
		19	1528	48.56	19	18.72	155	32.46	26.88	4.6	4.4	39	1	59	.07	11	.6	1.2	38	DLS				26	1056	40.08	19	41.95	155	10.39	29.43	3.4	2.5	37	1	168	.10	25	.7	2.2	35	KEA			
		19	2028	9.63	19	25.23	155	15.61	1.91	2.8	3.5	20	1	122	.09	2	.4	.3	16	SNC				27	2324	2.61	19	19.31	155	17.15	34.48	3.3	2.9	36	0	103	.10	2	.7	1.3	35	DEP			
		20	258	2.09	19	26.83	154	51.64	9.42	3.1	3.2	30	3	269	.11	6	1.4	.5	16	LER				28	832	3.02	19	23.99	155	28.18	9.31	3.1	2.8	37	1	31	.12	3	.4	.7	32	KAO			
		20	1752	15.30	19	20.91	155	17.07	32.73	3.1	3.5	37	0	64	.10	2	.7	1.2	36	DEP				7	017	41.64	19	22.52	155	27.20	10.05	3.4	3.3	38	2	62	.12	1	.4	.6	36	KAO			
		20	2343	15.53	19	20.64	155	6.10	8.77	2.4	3.1	35	1	106	.08	6	.4	.6	28	SF4				12	940	9.56	19	23.21	155	29.72	9.60	3.2	3.1	42	4	56	.09	4	.3	.6	35	KAO			
		21	454	33.97	19	25.18	155	15.10	1.77	2.8	3.3	29	1	46	.10	2	.2	.3	21	SNC				16	2030	44.86	19	21.76	155	4.89	8.83	3.0	3.1	38	1	79	.10	5	.5	.5	35	SF5			
		21	2338	39.40	19	25.77	155	15.20	1.53	2.9	3.4	20	1	137	.09	3	.5	.5	17	SNC				16	2213	.90	19	10.12	155	28.82	33.65	3.4	3.0	39	2	101	.07	2	.7	1.3	35	DLS			
		22	752	4.61	19	19.85	155	13.28	9.79	3.5	3.6	19	0	123	.05	5	.6	1.1	18	SF2				17	1414	45.45	19	27.27	156	3.00	42.75	3.2	2.8	36	1	238	.09	14	1.3	1.9	35	KON			
		23	1637	24.58	19	26.82	155	29.83	10.26	3.3	2.8	39	2	57	.10	9	.4	.6	31	KAO				17	1616	45.50	19	27.05	155	14.39	33.06	3.2	2.8	43	3	39	.10	4	.6	1.1	40	DEP			
		23	2155	23.85	19	22.98	155	14.54	3.57	2.9	3.1	30	0	49	.08	3	.3	.4	22	SEC				17	1620	4.41	19	27.25	155	14.40	32.63	3.0	2.6	44	4	40	.10	5	.6	1.0	40	DEP			
		24	1114	40.47	19	19.57	155	11.89	9.56	3.6	3.9	35	0	91	.09	5	.4	.5	29	SF3				17	1622	5.41	19	22.35	155	18.70	31.63	3.1	2.8	45	4	36	.10	3	.6	.9	40	DEP			
		24	1851	47.50	19	18.44	155	13.04	10.18	2.5	3.0	33	0	136	.09	8	.5	.6	26	SF2				18	2220	54.55	19	26.29	155	25.15	6.13	2.9	3.1	40	2	37	.12	2	.4	.9	32	KAO	F		
		28	1914	2.16	19	23.17	155	14.56	3.34	3.1		31	0	50	.09	3	.3	.4	25	SEC	F				30	046	23.64	19	25.07	155	25.20	10.75	3.3	3.4	42	3	31	.12	0	.4	.5	38	KAO		
		29	2114	54.20	19	21.02	155	15.67	28.41	3.6	3.1	39	0	71	.09	3	.6	1.0	39	DEP	F				30	1622	14.02	19	17.41	155	6.02	10.80	3.4	3.5	40	2	201	.12	7	.8	.5	36	SF4		
FEB		1	14	5	26.48	19	23.39	155	15.03	3.05	2.6	3.1	32	0	46	.09	2	.3	.4	27	SEC				4	23	7	37.65	19	13.71	155	33.11	11.24	3.9	4.0	37	0	123	.13	6	.6	.6	35	LSW	F
		2	931	44.49	19	23.14	155	14.80	3.26	3.0		30	1	47	.07	2	.3	.3	22	SEC				5	2054	43.02	19	20.80	155	6.18	8.63	3.1	3.0	44	3	100	.10	4	.4	.5	34	SF4	F		
		2	932	48.26	19	23.21	155	14.91	3.12	2.3	3.6	23	0	69	.07	2	.3	.3	17	SEC				6	4	8	36.77	19	23.97	155	25.69	10.84	3.6	3.6	45	2	41	.14	3	.4	.5	42	KAO	F	
		5	1248	9.84	19	21.36	155	14.07	28.93	3.8	3.2	40	0	56	.10	3	.7	1.1	40	DEP	F				7	2342	33.40	19	44.05	155	44.74	12.43	3.4	3.5	40	0	114	.10	11	.5	.5	37	HUA	F	
		10	13	7	43.93	19	40.52	156	4.07	36.31	3.1	2.8	41	2	235	.11	26	1.0	1.8	34	HUA				12	652	31.45	19	20.23	155	13.69	9.99	3.4	3.3	41	2	59	.09	5	.4	.3	38	SF2		
		12	555	22.10	19	18.21	155	23.48	6.63	2.8	3.1	28	0	109	.13	9	.5	1.1	25	SWR				12	1440	27.14	19	19.46	155	6.55	9.43	3.3	3.2	41	1	131	.11	5	.6	.4	37	SF4	F		
		12	19	0	8.37	19	23.21	155	16.92	3.04	3.2		35	0	37	.11	0	.2	.2	27	SSC	F				12	1443	44.64	19	19.83	155	6.54	9.02	3.4	3.2	40	1	121	.09	5	.6	.4	37	SF4	F
		14	1256	39.31	19	24.10	155	16.50	2.34	2.9	3.2	29	0	44	.11	0	.3	.2	28	SEC	F				12	1718	48.51	19	27.73	155	14.57	33.13	3.1	2.8	45	2	41	.10	6	.5	1.1	42	DEP		
		14	2130	4.75	19	21.72	155	15.00	9.36																																				

HVO EARTHQUAKE SUMMARY LIST

PAGE 3

YEAR	MON	DA	HR	MIN	SEC	ORIGIN TIME	LAT N	LON W	DEPTH	AMP	DUR	GAP	RMS	MIN	ERH	ERZ	NO	REMK
							DEG MIN	DEG MIN	KM	MAG	MAG	NR	NS	DEG SEC DIS	KM	KM	FM	REMK
1980	JUN	14	1234	2.83	19	19.40	155 11.49	8.54 3.0 3.0 43	4	98 .10	6	.4	.5 31	SF3				
		17	1339	37.43	19	22.94	155 14.71	3.10 2.5 3.0 25	1	49 .08	2	.3	.4 24	SEC				
		17	2037	11.36	19	35.16	156 18.30	37.89 2.9 3.4 38	0	267 .12	42	2.5	1.6 31	KON				
		19	1810	49.88	19	13.77	155 39.54	8.89 2.8 3.0 31	0	257 .18	5	1.8	.9 23	LSW				
		20	530	37.71	19	23.24	155 5.65	1.53 2.3 3.0 21	0	80 .11	1	.4	.3 14	SME				
		23	1943	24.35	19	22.60	155 5.92	1.19 2.7 3.1 26	1	116 .13	1	.4	.2 12	SME				
		24	8 5	24.59	19	22.88	155 6.21	1.37 3.4 4.1 32	1	97 .12	0	.5	.3 25	SME				
		24	915	17.55	19	22.48	155 6.43	1.14 3.0 3.9 25	0	122 .13	1	.5	.3 18	SME				
		25	148	44.44	19	43.38	155 44.34	16.36 3.3 3.5 44	3	105 .09	11	.5	1.6 37	HUA F				
JUL	4	1936	.66	20	53.05	157 47.47	9.70 3.7	16	6	206 .15	64	1.6	2.0 14	DIS				
		8	352	6.14	19	21.22	155 7.82	8.41 2.9 3.0 39	3	77 .09	4	.4	.6 33	SF4				
		9	1042	13.06	19	22.82	155 14.55	3.43 3.0	33	1	50 .09	3	.3	.4 27	SEC			
		16	14 9	14.65	19	19.42	155 11.08	8.80 2.8 3.0 33	3	99 .08	5	.4	.7 26	SF3				
		18	126	30.05	19	22.86	155 4.87	1.81 3.3 3.9 27	1	167 .15	2	1.0	.5 22	SME				
		18	1031	10.57	19	31.54	155 28.12	3.80 3.2 3.3 39	1	68 .11	1	.4	.7 35	MLO				
		18	1930	48.92	19	19.79	155 11.61	8.95 2.7 3.0 38	2	88 .08	5	.4	.6 32	SF3				
		20	855	34.92	19	20.06	155 11.76	9.82 3.0 3.2 42	1	82 .08	5	.4	.3 38	SF3				
		27	1135	44.00	18	43.42	156 18.73	35.42 3.7 3.9 46	4	312 .08	74	1.5	1.6 42	DIS				
		28	618	7.15	19	20.69	155 30.00	11.15 3.4 3.3 42	0	65 .09	5	.4	.5 39	KAO				
AUG	1	142	15.56	19	23.08	155 14.62	4.96 3.4 3.7 24	1	82 .11	7	.5	1.5 19	SEC F					
		1	15 6	33.71	19	17.44	155 21.29	4.02 2.6 3.1 35	1	126 .14	6	.5	1.7 28	SWR				
		2	1849	24.46	19	23.47	155 15.19	3.29 2.8 3.0 28	1	52 .08	2	.3	.4 21	SEC F				
		2	2044	51.21	19	19.74	155 10.84	9.86 2.8 3.0 42	3	92 .09	5	.4	.5 35	SF3				
		5	745	41.92	20	2.87	155 43.46	9.66 2.9 3.0 40	3	145 .10	11	.6	.6 27	KOH F				
		5	858	11.05	19	19.60	155 10.50	9.94 3.3 3.3 42	2	95 .08	5	.4	.3 40	SF3				
		5	1812	28.23	19	22.67	155 6.44	1.96 2.9 3.1 33	0	67 .10	1	.4	.3 26	SME				
		6	1944	7.26	19	23.09	155 6.37	.63 2.4 3.1 28	0	61 .08	0	.4	.2 20	SME				
		10	616	6.35	19	22.80	155 6.66	1.67 2.2 3.0 17	0	95 .06	1	.4	.2 9	SME				
		11	2042	33.11	19	20.07	155 6.22	10.20 4.2 4.3 42	1	120 .09	5	.6	.4 40	SF4 F				
		12	723	44.58	19	20.37	155 6.07	9.72 3.2 3.1 43	2	113 .09	5	.4	.3 37	SF4 F				
		12	741	36.80	19	20.42	155 5.96	9.72 2.9 3.0 41	3	112 .08	5	.4	.4 31	SF4 F				
		12	11 1	55.95	19	19.84	155 10.48	10.25 3.5 3.6 41	1	90 .08	4	.4	.3 39	SF3 F				
		13	1234	58.84	19	22.97	155 6.57	1.48 2.9 3.5 26	1	85 .10	1	.5	.3 20	SME				
		13	2127	16.70	19	21.12	155 25.24	10.71 4.1 4.0 46	2	77 .13	4	.4	.5 43	KAO F				
		17	1732	48.59	19	15.86	155 27.12	10.53 3.6 3.8 44	4	103 .13	5	.4	.4 37	LSW F				
		20	6 6	25.94	19	36.09	156 9.01	24.60 3.6 4.2 39	4	213 .13	27	1.3	2.1 34	KON F				
		20	2315	28.36	19	15.62	155 6.58	46.27 3.0 2.7 44	1	200 .09	4	1.0	1.7 42	DEP				
		23	1328	57.25	19	23.35	155 16.87	3.01 2.5 3.0 35	4	53 .09	0	.2	.2 25	SSC				
		26	1238	26.46	19	19.97	155 11.73	9.42 3.0 3.1 46	4	84 .09	5	.4	.4 35	SF3				
		27	158	53.97	19	54.60	155 17.04	38.12 3.0 3.0 44	2	194 .10	7	.7	1.5 37	KEA F				
		27	1525	58.73	19	23.49	155 14.80	3.52 3.1 3.0 34	1	46 .09	2	.3	.4 28	SEC				
		27	1535	35.66	19	23.50	155 14.84	3.30 2.7 3.0 36	0	45 .09	2	.3	.4 30	SEC				
		27	1626	54.93	19	23.46	155 14.65	3.15 3.0 3.1 40	0	45 .09	2	.3	.4 33	SEC				
		27	1634	1.24	19	23.10	155 14.81	.51 3.6 4.1 43	1	48 .11	2	.2	.3 33	SEC F				
		27	2048	45.16	19	23.33	155 15.59	1.49 3.1 3.6 30	1	38 .12	2	.2	.3 23	SEC				
		28	1 4	14.11	19	24.02	155 15.87	3.04 2.6 3.3 33	1	43 .10	1	.3	.3 25	SEC F				
		28	14 6	57.07	19	23.23	155 15.56	1.04 3.5 3.9 38	2	40 .13	2	.2	.3 31	SEC F				
		31	9 2	41.51	19	54.21	155 36.56	14.36 2.6 3.0 26	3	128 .07	21	.5	.6 18	KEA				

HVO EARTHQUAKE SUMMARY LIST

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YEAR	MON	DA	HR	MIN	SEC	ORIGIN TIME	LAT N	LON W	DEPTH	AMP	DUR	GAP	RMS	MIN	ERH	ERZ	NO	REMK
							DEG MIN	DEG MIN	KM	MAG	MAG	NR	NS	DEG SEC DIS	KM	KM	FM	REMK
1980	AUG	31	1816	53.76	19	20.80	155 6.46	9.12 3.7 4.0 43	2	99 .11	4	.5	.4 35	SF4	F			
		31	2012	58.04	19	26.64	155 24.22	6.75 2.7 3.2 37	1	45 .13	3	.4	1.0 26	KAO				
	SEP	2	523	5.75	19	19.81	155 13.37	9.31 2.8 3.3 41	2	68 .09	5	.4	.4 36	SF2				
		3	1043	6.28	19	21.51	155 1.21	8.03 3.2 3.1 41	3	182 .09	4	.6	.4 32	SF5	F			
		7	621	36.32	19	26.91	155 49.03	9.25 3.0 3.1 36	2	97 .15	9	.5	.6 30	KON				
		7	1118	16.29	19	20.28	155 11.68	9.85 2.8 3.0 42	1	79 .08	5	.4	.4 36	SF3				
		9	1454	45.57	19	20.44	155 11.88	8.51 2.8 3.1 38	1	75 .11	5	.4	.7 36	SF3				
		10	1221	43.49	19	16.71	155 6.91	44.57 3.5 3.4 47	3	192 .11	2	.9	1.4 44	DEP				
		12	711	11.58	19	19.70	155 11.10	9.47 3.2 3.3 36	1	155 .08	5	.5	.4 32	SF3				
		12	1959	56.09	19	23.37	155 26.32	9.72 3.1 3.0 45	1	49 .13	3	.4	.6 39	KAO				
		13	9 4	11.82	19	19.28	155 11.49	9.92 3.2 3.3 41	2	156 .10	5	.6	.4 35	SF3	F			
		16	853	53.26	19	19.33	155 9.94	8.86 2.6 3.0 43	2	99 .10	5	.4	.4 34	SF3				
		19	2257	11.27	19	20.61	155 3.80	8.63 3.4 3.5 37	0	195 .12	6	.9	.6 33	SF5	F			
		21	055	39.99	19	20.55	155 8.65	8.39 2.5 3.1 41	4	170 .10	4	.5	.4 26	SF4				
		22	16 4	13.48	19	23.37	155 16.84	2.88 2.6 3.6 35	0	37 .08	0	.2	.2 25	SSC	F			
		23	1430	55.79	19	11.58	155 19.34	14.74 3.1 3.2 45	3	176 .10	12	.7	.4 38	DEP				
		30	2220	7.27	19	26.11	155 37.39	2.90 2.6 3.0 36	2	83 .14	3	.4	.8 27	MLO				
	OCT	4	2255	16.59	19	21.50	155 6.78	8.32 3.2 3.2 43	3	83 .09	3	.4	.4 33	SF4	F			
		9	11 5	55.65	19	23.00	155 49.51	12.62 3.3 3.1 36	1	120 .13	14	.6	.4 30	KON				
		10	226	10.54	19	21.23	155 1.41	7.18 3.1 3.1 45	4	179 .10	4	.5	.4 33	SF5				
		12	2350	59.89	19	28.72	154 53.71	2.62 2.6 3.1 13	0	159 .08	1	.5	.2 7	SLE				
		14	2034	29.48	19	20.31	155 14.01	9.51 3.4 3.4 47	1	59 .11	5	.4	.3 40	SF2	F			
		16	1815	24.72	19	19.77	155 8.90	9.27 2.9 3.0 41	1	79 .10	5	.5	.4 37	SF4				
		17	2115	37.84	19	16.86	155 22.27	8.50 3.0 3.4 47	2	128 .14	6	.5	.5 43	SWR				
		21	2038	25.07	19	22.62	155 5.12	3.87 3.4 4.0 37	1	75 .13	6	.4	3.4 26	SME				
		21	2148	19.63	19	21.88	155 6.85	.50 3.7 4.2 46	2	75 .23	2	.4	.6 31	SME	F			
		21	22 5	42.17	19	22.15	155 6.26	.57 3.0 3.6 34	3	74 .22	2	.4	.5 25	SME	*			
		22	1016	55.55	19	28.01	154 53.21	5.17 3.5 3.7 36	0	122 .16	4	.5	.9 24	LER	F			
		22	1542	17.03	19	23.10	155 5.05	.99 2.4 3.1 31	0	77 .14	2	.3	.3 10	SME				
		23	1032	54.87	19	26.27	155 37.59	3.52 2.8 3.0 27	2	185 .16	3	.6	.8 16	MLO				
		25	1330	29.17	19	20.18	155 12.88	8.56 3.0 3.0 40	1	69 .13	5	.4	.6 31	SF2				
		26	150	42.00	19	26.43	155 38.48	2.94 3.3 3.4 32	1	189 .07	4	.6	.8 27	MLO				
		28	047	56.43	19	23.67	155 24.45	10.94 3.1 2.9 42	3	40 .11	3	.4	.5 30	KAO				
		30	1029	14.03	19	27.29	155 12.59	27.42 3.6 3.9 43	2	39 .11	6	.5	1.1 41	DEP	F			
		31	1139	58.05	19	19.92	155 13.15	9.66 3.2 3.5 39	1	69 .10	5	.4	.4 27	SF2				
	NOV	2	1451	38.05	19	23.04	155 14.60	2.51 2.4 3.4 16	2	63 .06	3	.3	.3 13	SEC				
		2	15 4	49.87	19	22.67	155 14.25	2.75 2.7 3.1 23	2	74 .07	2	.3	.3 20	SEC				
		2	1526	12.20	19	22.91	155 14.31	2.96 2.8 3.1 21	1	51 .08	2	.3	.3 19	SEC				
		2	1644	33.82	19	22.85	155 14.38	.02 3.2 3.8 33	3	49 .16	2	.3	.3 19	SEC				
		4	622	32.44	19	23.62	155 25.69	11.11 3.5 3.4 43	1	59 .12	3	.4	.4 40	KAO	F			
		5	2041	42.58	19	18.66	155 13.58	9.87 3.7 3.9 41	0	72 .10	3	.5	.4 38	SF2	F			
		9	1757	28.65	19	25.60	155 24.81	10.43 3.1 2.8 40	1	34 .13	1	.4	.6 33	KAO				
		11	16 5	22.54	19	23.32	155 26.41	9.06 3.0 2.7 44	2	50 .13	3	.4	.6 36	KAO				
		12	1138	2.64	21	28.17	158 15.77	13.74 4.0 4.2 34	1	326 .26	26	4.6	1.6 21	D18				
		14	1822	24.91	19	23.40	155 26.66	8.71 3.5 3.7 44	1	51 .15	2	.4	.6 40	KAO	F			
		16	1946	38.43	19	20.17	155 11.02	9.63 3.6 3.8 35	1	83 .08	4	.3	.5 30	SF3	F			
		17	047	36.54	19	18.11	155 13.34	10.13 3.8 4.0 36	1	89 .10	2	.6	.4 33	SF2				
		20	054	3.83	19	20.36	155 13.84	8.94 2.7 3.1 46	3	56 .11	4	.3	.4 33	SF2				

HVO EARTHQUAKE SUMMARY LIST

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YEAR	MON	DA	HRMN	SEC	LAT N DEG MIN	LON W DEG MIN	DEPTH KM	AMP MAG	DIIR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ NO KM FM	REMK
1980	NOV	23	131	55.92	19 21.43	155 2.93	9.12	4.2	4.1	46	1	120	.10	3	.6	.4 45	SF5 F
		23	135	40.02	19 21.46	155 2.85	9.01	3.2	3.4	45	3	123	.10	3	.6	.4 41	SF5 F
		23	1646	59.34	19 11.47	155 36.52	9.54	3.0	2.7	40	5	92	.24	7	.6	1.0 28	LSW
		24	943	49.78	19 5.20	155 31.87	13.67	2.9	3.2	38	0	170	.11	11	.8	.4 31	DLS
		26	19 5	34.60	19 21.60	155 6.60	8.62	2.9	3.0	47	4	82	.11	3	.4	.4 35	SF4 F
		28	728	55.59	19 20.10	155 8.25	9.41	2.7	3.1	42	3	82	.08	5	.5	.4 34	SF4
DEC		1	842	33.52	19 30.83	155 55.22	11.50	3.4	3.6	36	2	209	.12	3	.9	.4 31	KON F
		4	116	19.13	19 23.41	155 16.95	3.15	3.1	3.4	44	2	30	.11	0	.2	.3 37	SSC
		9	15 9	20.64	19 19.99	155 7.02	9.55	3.1	3.1	33	1	108	.07	5	.6	.4 28	SF4
		11	18 2	10.93	20 3.34	156 .84	10.16	3.4	3.5	35	0	173	.14	26	.6	.6 25	KOH
		14	1257	45.97	19 19.85	155 8.20	8.90	3.0	3.2	43	3	85	.09	5	.4	.4 33	SF4
		15	214	.38	19 19.77	155 7.97	9.60	3.1	3.1	45	3	91	.10	4	.5	.4 36	SF4 F
		15	533	8.35	19 19.73	155 12.00	8.63	3.6	3.6	42	2	86	.11	6	.4	.4 37	SF3 F
		15	919	14.41	19 24.79	155 25.70	10.90	3.1	3.0	40	4	39	.12	1	.3	.4 31	KAO
		15	10 7	12.00	19 26.52	155 24.37	8.55	3.1	2.9	38	3	61	.13	3	.4	.7 29	KAO
		15	2011	36.16	19 21.52	155 14.79	10.30	3.5	3.8	44	1	62	.10	3	.4	.4 40	SF1 F
		19	7 9	35.79	20 12.89	156 41.08	2.38	3.5	3.0	31	4	254	.13	76	2.8	1.8 22	DLS
		21	7 4	35.37	19 21.51	155 4.86	8.72	3.4	3.8	39	1	85	.09	4	.4	.4 37	SF5
		22	443	30.87	19 8.94	155 33.47	32.17	3.0	2.9	47	4	129	.08	10	.7	1.2 39	DLS
		22	541	8.67	19 23.36	155 16.78	2.68	2.7	3.1	34	2	39	.11	0	.3	.2 28	SSC
		24	516	1.43	19 25.36	155 15.97	2.37	2.8	3.3	35	2	40	.12	2	.3	.3 31	SNC F
		30	1130	55.31	19 18.01	155 46.64	9.88	3.9	3.5	47	2	89	.12	11	.4	.5 44	KON