HAWAIIAN VOLCANO OBSERVATORY 1978 Annual Administrative Report

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SUMMARY 78, PART 1

SEISMIC DATA, JANUARY TO DECEMBER 1978

BY FRED W. KLEIN, JENNIFER S. NAKATA, AND ROBERT Y. KOYANAGI

CHRONOLOGICAL SUMMARY

BY RICHARD B. MOORE

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**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 78, PART 1
SEISMIC DATA, JANUARY TO DECEMBER 1978

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

Menlo Park, California

1980

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 and tilt data included. Beginning with this volume, the summaries will be issued in two parts. Seismic data will appear in Part 1, and water tube tilt and other deformation data will appear in Part 2. The seismic and chronological summaries are offered without interpretation as a source of preliminary data. The seismic summary is complete in the sense that all data routinely gathered by the observatory are included. The emphasis in collection of tilt and deformation data has recently shifted from quarterly measurements at a few water-tube tilt stations ("wet" tilt) to a larger number of continuously recording borehole tiltmeters, 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 is in preparation by Klein and Koyanagi as a USGS open file report. 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 - 1978

by

Richard B. Moore

Neither Kilauea nor Mauna Loa erupted during 1978, only the second such quiet year since 1966. Deflation of the southern summit area near Ahua associated with the September 1977 east rift eruption continued at a gradually diminishing rate until March 1978. A secondary center on the north side of the caldera, however, began to inflate in October 1977, shortly after the eruption ended. Both centers inflated during the rest of 1978, and by year's end about 75% of the level of inflation on September 12, 1977, just prior to the last eruption, had been regained. In October-November 1978, a slow summit deflation that totaled about 15 microradians may have resulted in an inflation documented by try-tilt measurements in the central east rift zone near the 1977 vents. Seismicity remained at moderately high levels in both the summit and east rift zone.

On Mauna Loa, geodimeter and dry-tilt measurements documented the continued slow inflation of the summit and northeast rift zone during the first half of the year. Borehole tiltmeter data showed a slight deflation of the latter area late in 1978. Seismicity remained generally low with no major earthquake swarms or single earthquakes larger than magnitude 4.5.

Reoccupation of the Mauna Loa-Hualalai-Mauna Kea "Super Triangle" geodimeter lines showed horizontal changes lower than instrumental error among the three volcanoes. Geodimeter lines near the summit of Hualalai showed insignificant changes over two years.

SEISMIC INSTRUMENTATION

The network. The Hawaiian Volcano Observatory has installed and maintains an extensive telemetering seismometer network on the island of Hawaii. In December 1978 the seismometer network consisted of 41 stations spread over an area with a diameter of 125 kilometers on the island of Hawaii (Figs. 1 and 2). Of these 41 stations, two are low-gain multicomponent stations (optical), six are two-component, three are three-component, and twenty-nine are vertical only. The coverage is most complete on and around the main center of seismic and volcanic activity, Kilauea Volcano. Other stations in the network are part of a larger net located on other volcanoes of the island of Hawaii. With the exception of HIL, all seismometer signals from the short period network are telemetered to the observatory for recording.

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 1978. Listed are station name, three letter code, coordinates in degrees and minutes, elevation in meters, and other data described below.

Instrumentation and recording. Each telemetering station has a voltage controlled oscillator (VCO) for FM multiplex transmission to HVO via either hardwire or VHF radio. These telemetering stations are now all of Type 1, the NCER standard system used in USGS seismic networks (see Table 2 for details). After discrimination, the analog signals from thirty-six stations are recorded on two Develocorders using 16mm microfilm. Smoked paper and helicorder drums additionally record a number of critical stations for convenience in rapid assessment of seismicity. FM signals from the telemetering network are also recorded directly on one inch magnetic tape. Selected larger events are copied onto condensed library tapes which are currently archived in Menlo Park.

Develocorder records are read on a film viewer with 20x magnification. Arrivals are read to the nearest 0.05 second. The recorded arrival times, amplitudes (where readable), and other key data are routinely processed on an Eclipse computer which arrived at HVO in November 1978.

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 short period records are used primarily for amplitude measurements for magnitude calculations to supplement readings from 16mm film. Optical seismographs listed in Table 1 are of four types. Types numbered three and four are electro-mechanical systems of high and low gain respectively. Hilo and Haleakala are each equipped with two low-gain Wood-Anderson torsion seismographs. Long period Press-Ewing seismographs record in three components in the Uwekahuna vault. The paper 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 the factors CAL listed in Table 1 to get the response for an

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

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

Table 1. Seismometer stations in Hawaii operated by the U.S. Geological Survey, 1978.

Telemetered type 1 seismographs.

Station Name ¹	Code	LAT-N	LON-W	Elev	Delay 1	Delay 2	Old Cal	Date of Change	New Cal
AHUA	AHU	19 22.40	155 15.90	1070	-.10	-.13	4.3		
AINAPO (3)	AIN	19 22.50	155 27.62	1524	.13	.17	8.5	1/10/78	4.8
CAPTAIN COOK	CAC	19 29.29	155 55.09	323	.00	-.16	11.0		
CONE PEAK (2)	CPK	19 23.70	155 19.70	1030	-.26	-.07	4.6	10/17/78	6.0
DANDELION	DAN	19 21.42	155 40.04	3003	-.27	.03	7.0	6/07/78	6.0
DESERT	DES	19 20.20	155 23.30	815	-.29	-.13	4.4		
ESCAPE ROAD	ESR	19 24.68	155 14.33	1177	-.17	-.19	1.2	11/28/78	1.0
HALE POHAKU	HPU	29 46.85	155 27.50	3396	.31	.17	3.3	10/13/78	5.2
HEIHEIAHULU	HUL	19 25.13	155 58.72	369	-.17	-.16	3.0	3/20/78	2.2
HILINA PALI	HLP	19 17.96	155 18.63	707	.02	.07	4.0		
HUALALAI	HUA	19 41.25	155 50.32	2189	.67	.38	3.8		
HUMUULA (3)	HSS	19 36.31	155 29.13	2445	.20	.35	8.4		
KAAPUNA	KAA	19 15.98	155 52.28	524	-.12	-.01	5.6		
KAENA	KAE	19 17.35	155 7.95	37	-.01	.06	1.3		
KAHUKU	KHU	19 14.90	155 37.10	1939	.03	-.03	3.2	8/23/78	6.3
KALALUA	LUA	19 24.55	155 04.25	622	-.25	-.30	4.6	7/05/78	4.4
KALIU	KLU	19 27.48	154 55.26	271	-.17	-.30	--		
KANEKII (3)	KII	19 30.56	155 45.90	1841	.15	.37	5.5		
KEANAKOLU	KKU	19 53.39	155 20.58	1863	.68	.24	4.8	2/10/78	2.0
KIPUKA NENE	KPN	19 20.10	155 17.40	924	-.11	-.08	6.4		
KOHALA	KOH	20 7.69	155 46.77	1166	-.03	-.17	2.2		
MAUNA LOA (2)	MLO	19 29.80	155 23.30	2010	.03	.08	9.2		
MAUNA LOA X (2)	MLX	19 27.60	155 20.70	1474	.06	.15	2.1		
MAKAOPUHI	MPR	19 22.07	155 9.85	881	-.17	-.20	1.6	3/13/78	1.3
MOKUAWEOWEO	MOK	19 29.28	155 35.98	4104	.15	.16	8.0		
MOUNTAIN VIEW	MTV	19 30.25	155 3.75	409	-.02	.01	5.2		
NATIONAL GUARD	NAG	19 42.12	155 1.72	18	.54	.30	2.4?	1/05/78	11.0
NORTH PIT	NPT	19 24.90	155 17.00	1115	-.30	-.18	5.2		
OUTLET (2)	OTL	19 23.40	155 16.80	1084	-.19	-.18	4.9		
PAUHI (2)	PAU	19 22.62	155 13.10	994	-.21	-.24	6.2	10/15/78	4.0
POLIOKEAWE PALI	POL	19 17.02	155 13.47	169	-.02	.03	4.2	7/05/78	2.5
PUU HOHUAULA	PHO	19 28.90	154 53.40	215	-.09	-.24	4.2		
PUU PILI	PPL	19 9.50	155 27.87	35	-.15	-.15	2.4		
PUU ULAULA	PLA	19 32.00	155 27.67	2992	-.03	.13	7.4	6/07/78	6.8
RIM (2)	RIM	19 23.90	155 16.60	1128	-.21	-.13	7.3		
SOUTH POINT	SPT	18 58.91	155 39.92	244	-.17	-.22	3.6		
SOUTHWEST RIFT	SWR	19 27.26	155 36.30	4048	.01	.04	4.7	4/27/78	9.0
WAHAULA	WHA	19 19.90	155 2.92	29	-.10	-.04	2.3		
WILKES CAMP	WIL	19 28.15	155 35.02	4037	.22	.17	4.0	6/07/78	3.7

¹Numbers in parentheses indicate the total number of seismometers operating if more than a vertical component.

Table 1. (continued)

Optical Seismographs							
Station Name	Code	LAT-N	LON-W	Elev	Type	Cal	
HALEAKALA Z	HAL	20 46.00	156 15.00	2090	3	0.71	
HALEAKALA EW	HAE	20 46.00	156 15.00	2090	WA	1.0	
HALEAKALA NS	HAN	20 46.00	156 15.00	2090	WA	1.0	
HILO Z	HIL	19 43.20	155 5.30	20	3	1.0	
HILO EW	HIE	19 43.20	155 5.30	20	WA	1.0	
HILO NS	HIN	19 43.20	155 5.30	20	WA	1.0	
KIPAPA	KIP	21 25.40	158 .90	76	3	0.56	
UWEKAHUNA EW	UWH	19 25.40	155 17.60	1240	3	0.7	
UWEKAHUNA Z	USZ	19 25.40	155 17.60	1240	4	1.0	
UWEKAHUNA EW	USE	19 25.40	155 17.60	1240	4	1.0	
UWEKAHUNA	PEZ	19 25.40	155 17.60	1240	PE		
UWEKAHUNA	PEE	19 25.40	155 17.60	1240	PE		
UWEKAHUNA	PEN	19 25.40	155 17.60	1240	PE		

Table 2. -- Seismic Instrumentation Types

Type 1. Consists of:

- a) Geophone - Electrotech EV-17 or Mark Products L4C 1.0 sec. period vertical component seismometer or horizontal component adjusted for an output of 0.5 volts/cm/sec. and 0.8 critically damped.
- b) Preamp/VCO - Develco Model 6202 voltage controlled oscillator or a USGS/NCER Model J202 or J302. 3 db points for bandpass filter at 0.1 Hz and 30 Hz. Signals are transmitted on audio FM carrier over cable or FM radio link to HVO.

Type 3. 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. 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.

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 the factors CAL listed in Table 1 to get the response for an individual station.

SEISMIC DATA PROCESSING

Earthquakes are located by the combined efforts of HVO and NCER in Menlo Park. Develocorder films are read at HVO, and P and S arrival times, event amplitude and duration, clock correction, etc. are input and located on the Eclipse computer at HVO. Computer locations are made using the program HYPOINVERSE (Klein, 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 of Table 1. Amplitude magnitudes larger than 2.5 are generally based on the Wood-Anderson instruments in Hilo or Type 4 seismographs at Uwekahuna. Smaller events may occasionally include amplitude readings from stations AHU, KAA, OTL, 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 plot of log (F-P time) versus local (amplitude) magnitude appears in Figure 4. The bilinear relation shown in the figure is an appropriate fit to the data sample and is used to compute all duration magnitudes. Duration times are only read from Type 1 seismographs. Because duration magnitudes are relatively insensitive to station response and can be determined using the high-gain short-period stations, it is felt that duration magnitudes are more accurate and complete at the lower magnitudes (below 2).

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

duration < 210 sec $M = -5.2 + 3.89 \log (F-P) + .013 Z + .0037 D$
duration > 210 sec $M = -.905 + 2.026 \log (F-P) + .013 Z + .0037 D$
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 flank of the island of Hawaii. Hundreds of earthquakes too small to locate are counted daily, and the set of located earthquakes in the Kilauea region is nearly complete above magnitude about 2.0. 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 Kilauea, but nearly all events above magnitude 3.0 to 3.5 are located.

Data presented in the seismic summary is in four parts. Table 3 gives duration of harmonic tremor and numbers of earthquakes (most too small to locate) from several source regions around Kilauea. The source region is determined visually from signal character and pattern of arrival times at key stations. Maps showing computer located epicenters of all depths are given in Figures 5, 6, 7, 8 and 9. 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 in some cases on its depth. Figure 2 is a map of the regions used to assign the location codes. The latitude and longitude limits of rectangular regions are listed in Table 4. When the listed coordinates imply an overlap, precedence is given according to Figure 2. 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 (SPC): shallow earthquakes beneath the caldera.
- 2) Kilauea summit, long period caldera (LPC): earthquakes characterized by low frequency signatures, often originating 5-10 km below the caldera.
- 3) Kilauea summit 30 km (DEP): from about 30 km depth.
- 4) Kaoiki and southwest rift (UKF/SWR): southwest rift of Kilauea and adjacent Kaoiki fault system.
- 5) Upper east rift zone of Kilauea including the Koae faults (UER).
- 6) Lower east rift zone of Kilauea (LER).
- 7) Offshore PPL: earthquakes from offshore areas south of the Puu Pili station, including Loihi seamount (PPL).
- 8) Mauna Loa long period (MLP): low frequency events near Mauna Loa summit.
- 9) Mauna Loa short period (MOK): 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 in the Kilauea summit region.

Dates of Station Outage or Conditions
Affecting Seismic Count

<u>Date</u> <u>(Y-M-D)</u>	<u>Nature of Disturbance</u>	<u>Count Category</u> <u>Affected</u>
78-5-9	High winds, stations out--HUL, PHO, PAU, PLA	SPC, UKF/SWR, UER
78-5-20	Electrical storm, stations out--WHA, ESR, AHU	UER
78-7-18/21	High winds	SPC, UER, UKF/SWR
78-11-6/8	High winds, electrical storm, many stations out	All counts at Kilauea
78-11-13	Film recorder 4-hour outage	All counts
78-12-20	High winds	SPC
78-12-25/26	Film recorder jammed--15 hours	All counts

TABLE 3. KILAUEA SUMMIT			KILAUEA FLANK			MAUNA LOA			TREMOR (MINUTES)		
I	ISHORT LONG		I	KAO. UP. LOW. OFF-		I	KILAUEA MAUNAI				I
I DATE I	I PER. I	I PER. I	I 30 I	I & SW I	I EAST I	I EAST I	I SHORE I	I LONG I	I SHORT I	I INT. I	I LOA I
I 1978 I	I CALDERA I	I KM I	I RIFT I	I RIFT I	I RIFT I	I PPL I	I PER. I	I PER. I	I SHAL. I	I DEEP I	I
<hr/>											
I JAN 1 I	I 124 I	I 4 I	I	I 45 I	I 152 I	I 15 I	I	I 1 I	I	I	I
I 2 I	I 242 I	I 15 I	I 1 I	I 41 I	I 225 I	I 5 I	I	I	I 5 I	I 14 I	I
I 3 I	I 259 I	I 20 I	I 1 I	I 28 I	I 220 I	I 20 I	I	I 1 I	I 7 I	I 2 I	I
I 4 I	I 251 I	I 24 I	I 2 I	I 47 I	I 253 I	I 14 I	I 1 I	I 3 I	I 12 I	I 25 I	I
I 5 I	I 221 I	I 3 I	I 1 I	I 45 I	I 151 I	I 23 I	I 2 I	I 2 I	I 11 I	I 5 I	I
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I 6 I	I 234 I	I 29 I	I	I 42 I	I 190 I	I 13 I	I	I 1 I	I 5 I	I 3 I	I
I 7 I	I 222 I	I 9 I	I	I 42 I	I 193 I	I 5 I	I 6 I	I 1 I	I 3 I	I	I
I 8 I	I 260 I	I 18 I	I	I 46 I	I 226 I	I 12 I	I 3 I	I	I 34 I	I	I
I 9 I	I 188 I	I 3 I	I 1 I	I 46 I	I 203 I	I 12 I	I 4 I	I 2 I	I 21 I	I	I
I 10 I	I 188 I	I 11 I	I	I 51 I	I 276 I	I 23 I	I	I	I	I	I
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I 11 I	I 132 I	I 2 I	I 2 I	I 42 I	I 147 I	I 9 I	I	I	I 10 I	I	I
I 12 I	I 251 I	I 9 I	I 4 I	I 54 I	I 241 I	I 18 I	I	I	I	I	I
I 13 I	I 180 I	I 16 I	I 1 I	I 18 I	I 125 I	I 34 I	I 22 I	I 1 I	I	I 5 I	I
I 14 I	I 163 I	I 6 I	I 1 I	I 23 I	I 90 I	I 41 I	I 15 I	I 2 I	I 6 I	I	I
I 15 I	I 276 I	I 6 I	I 1 I	I 52 I	I 218 I	I 17 I	I	I	I 7 I	I	I
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I 16 I	I 259 I	I 3 I	I 1 I	I 38 I	I 191 I	I 8 I	I 1 I	I 1 I	I 3 I	I	I
I 17 I	I 78 I	I 2 I	I	I 28 I	I 115 I	I 5 I	I	I	I	I	I
I 18 I	I 189 I	I 3 I	I 1 I	I 34 I	I 149 I	I 5 I	I 2 I	I 15 I	I 2 I	I	I
I 19 I	I 192 I	I 1 I	I 2 I	I 33 I	I 140 I	I 10 I	I 1 I	I 20 I	I 26 I	I	I
I 20 I	I 295 I	I 7 I	I	I 53 I	I 164 I	I 9 I	I	I 4 I	I 5 I	I 4 I	I
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I 21 I	I 301 I	I 14 I	I	I 60 I	I 192 I	I 8 I	I	I	I 2 I	I 2 I	I
I 22 I	I 304 I	I 16 I	I 3 I	I 53 I	I 210 I	I 17 I	I	I 1 I	I	I	I
I 23 I	I 180 I	I 5 I	I 3 I	I 37 I	I 95 I	I 5 I	I 2 I	I 8 I	I 8 I	I	I
I 24 I	I 300 I	I 12 I	I 2 I	I 51 I	I 156 I	I 19 I	I 2 I	I 1 I	I 5 I	I	I
I 25 I	I 235 I	I 4 I	I	I 36 I	I 128 I	I 22 I	I 1 I	I	I 2 I	I	I
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I 26 I	I 198 I	I 2 I	I 1 I	I 38 I	I 159 I	I 21 I	I	I 3 I	I	I	I
I 27 I	I 219 I	I 4 I	I	I 45 I	I 178 I	I 26 I	I	I 2 I	I	I	I
I 28 I	I 225 I	I 8 I	I	I 57 I	I 166 I	I 15 I	I	I 5 I	I 7 I	I	I
I 29 I	I 269 I	I 29 I	I 3 I	I 46 I	I 184 I	I 11 I	I 3 I	I 4 I	I	I	I
I 30 I	I 300 I	I 6 I	I 2 I	I 49 I	I 237 I	I 17 I	I 1 I	I 2 I	I	I	I
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I 31 I	I 288 I	I 14 I	I 1 I	I 54 I	I 194 I	I 15 I	I 4 I	I 2 I	I 5 I	I	I
I [FEB 1 I	I 310 I	I 5 I	I	I 37 I	I 170 I	I 12 I	I	I 1 I	I	I	I
I 2 I	I 351 I	I 15 I	I 5 I	I 37 I	I 152 I	I 12 I	I	I 2 I	I 2 I	I	I
I 3 I	I 265 I	I 5 I	I	I 43 I	I 169 I	I 18 I	I	I 2 I	I 30 I	I	I
I 4 I	I 145 I	I 9 I	I	I 17 I	I 93 I	I 38 I	I 2 I	I 3 I	I 10 I	I	I
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I 5 I	I 276 I	I 2 I	I 4 I	I 37 I	I 183 I	I 19 I	I	I 1 I	I 6 I	I	I
I 6 I	I 250 I	I 3 I	I	I 59 I	I 170 I	I 17 I	I 2 I	I 2 I	I	I	I
I 7 I	I 265 I	I 5 I	I 3 I	I 62 I	I 181 I	I 15 I	I	I	I 4 I	I	I
I 8 I	I 96 I	I 7 I	I 1 I	I 34 I	I 104 I	I 8 I	I 1 I	I 2 I	I	I	I
I 9 I	I 124 I	I 5 I	I 4 I	I 24 I	I 118 I	I 10 I	I	I 3 I	I 14 I	I	I
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I 10 I	I 240 I	I 12 I	I 1 I	I 28 I	I 150 I	I 19 I	I	I 1 I	I 15 I	I 2 I	I
I 11 I	I 222 I	I 8 I	I 5 I	I 26 I	I 156 I	I 7 I	I	I 3 I	I 17 I	I	I
I 12 I	I 257 I	I 16 I	I	I 28 I	I 172 I	I 9 I	I 3 I	I 1 I	I 93 I	I	I
I 13 I	I 214 I	I 5 I	I	I 41 I	I 155 I	I 9 I	I 1 I	I 1 I	I 38 I	I	I
I 14 I	I 270 I	I 21 I	I 5 I	I 35 I	I 184 I	I 12 I	I 5 I	I 1 I	I 3 I	I	I

KILAUEA SUMMIT				KILAUEA FLANK				MAUNA LOA		TREMOR (MINUTES)							
I	ISHORT	LONG		I	KAO.	UP.	LOW.	OFF-	I	I	KILAUEA	MAUNA					
I	DATE	I	PER.	PER.	30	I	& SW	EAST	EAST	SHORE	LONG	SHORT	INT.	LOA	I		
I	1978	I	CALDERA	KM	I	RIFT	RIFT	RIFT	PPL	I	PER.	PER.	I	SHAL.	DEEP	I	
I	FEB 15	I	264	15	3	I	46	197	13	I	8		I	7	9	I	
I	16	I	214	13		I	36	143	9	I	3	3	I	18		I	
I	17	I	268	2		I	41	164	27	I	3	2	I			I	
I	18	I	309	26		I	33	202	19	I	22	2	I			I	
I	19	I	269	5	2	I	63	210	15	I	21	5	I		7	I	
I	20	I	335	1		I	44	155	15	I	2	15	I	13		I	
I	21	I	342	3		I	44	245	11	I	26	12	I	5		I	
I	22	I	242			I	36	152	15	I	1	15	I			I	
I	23	I	254	2		I	39	216	6	I	14	1	I		32	I	
I	24	I	279	4		I	48	170	19	I	1	5	I	7		I	
I	25	I	157	3	1	I	29	99	30	I	8	8	I	3		5	I
I	26	I	305	14		I	62	229	20	I	9	3	I				I
I	27	I	297	5		I	40	225	19	I			I				I
I	28	I	251	1		I	34	263	31	I			I	3			I
I	MAR 1	I	201	4		I	35	246	6	I			I	4			I
I	2	I	225	3		I	54	183	9	I	1		I	15			I
I	3	I	202	4		I	31	150	8	I	3	2	I	21			I
I	4	I	270	5		I	49	175	23	I		3	I				I
I	5	I	313	10	6	I	42	209	14	I	2	7	I	18		7	I
I	6	I	304	7	4	I	52	174	6	I		1	I	8			I
I	7	I	244	14		I	34	163	9	I		1	I	2	6		I
I	8	I	183	1	2	I	37	124	12	I	1	2	I				I
I	9	I	259			I	34	149	7	I		1	I	6			I
I	10	I	219	2		I	17	141	7	I		2	I	9			I
I	11	I	249	9	1	I	27	143	6	I			I				I
I	12	I	214	9		I	31	126	3	I		1	I				I
I	13	I	324	11	3	I	26	184	3	I			I		2		I
I	14	I	263	1	1	I	39	173	2	I		2	I	6			I
I	15	I	131	2		I	38	129	3	I	2	1	I				I
I	16	I	98	4		I	13	134	5	I		1	I	2			I
I	17	I	182	2		I	26	139	14	I		1	I	23			I
I	18	I	70		1	I	12	79	5	I			I	8			I
I	19	I	275	14	4	I	32	159	5	I		1	I		14		I
I	20	I	317	10	3	I	40	143	11	I			I				I
I	21	I	345	28	1	I	39	186	7	I		2	I		15		I
I	22	I	270	6	1	I	27	115	8	I	1	2	I	7			I
I	23	I	249	4		I	30	118	6	I		2	I				I
I	24	I	226	4		I	30	135	22	I	1	2	I	13			I
I	25	I	218	2		I	24	134	19	I			I				I
I	26	I	350	9	4	I	46	201	10	I			I		29		I
I	27	I	240	13		I	34	122	21	I		1	I	8			I
I	28	I	263	8		I	25	182	10	I		2	I		62		I
I	29	I	144	2		I	19	88	8	I		1	I				I
I	30	I	186	4		I	29	112	14	I			I				I
I	31	I	159	16		I	19	127	10	I		1	I	3			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	SHORF	LONG	SHORT	I
I	1978	I	CALDERA	KM	I	RIFT	RIFT	RIFT	PPL	I	PER.	PER.	I
I	I	I	I	I	I	I	I	I	I	I	I	I	I
I	APR 1	I	360	11	1	I	37	169	8	I		2	I
I	2	I	280	15		I	25	196	3	I	1		I
I	3	I	257	2		I	38	159	3	I	1	3	I
I	4	I	340	2		I	54	108	3	I		5	I
I	5	I	143	1		I	31	89	10	I		2	I
I	6	I	180	6		I	26	95	7	I		3	I
I	7	I	216	8		I	28	108	8	I		1	I
I	8	I	246	4	1	I	18	95	15	I	6	2	I
I	9	I	292	1	1	I	33	160	4	I		4	I
I	10	I	315	5	1	I	25	156	4	I		5	I
I	11	I	341	8		I	37	169	16	I	2	5	I
I	12	I	188	9		I	29	108	15	I	1	6	I
I	13	I	154	4	2	I	33	127	16	I	2	4	I
I	14	I	160	4		I	23	104	19	I	2	4	I
I	15	I	148	8		I	29	106	20	I	1	6	I
I	16	I	317	6	1	I	39	190	14	I	3	1	I
I	17	I	282	1		I	46	174	12	I		1	I
I	18	I	256	4		I	46	146	8	I	1	2	I
I	19	I	278	5	2	I	36	149	16	I		3	I
I	20	I	177			I	38	99	10	I		5	I
I	21	I	176	5		I	42	133	11	I	1	1	I
I	22	I	345	4	4	I	34	142	8	I		3	I
I	23	I	252	1	4	I	48	156	18	I		4	I
I	24	I	208	1	1	I	33	142	13	I		2	I
I	25	I	262	1	1	I	36	156	7	I		3	I
I	26	I	163		2	I	27	92	6	I			I
I	27	I	206	1	1	I	14	91	13	I	4	7	I
I	28	I	187	3		I	45	138	11	I			I
I	29	I	167	4		I	12	83	18	I	5		I
I	30	I	355	20	1	I	33	165	17	I	1	5	I
I	MAY 1	I	435	19	6	I	29	155	10	I	2		I
I	2	I	477	6	1	I	34	149	9	I		2	I
I	3	I	268	12		I	26	152	15	I			I
I	4	I	228	7	1	I	31	158	22	I	1	2	I
I	5	I	234	6		I	26	114	29	I		2	I
I	6	I	221	1		I	28	132	15	I	1	4	I
I	7	I	239	4		I	32	149	20	I	1		I
I	8	I	231		2	I	43	117	5	I		2	I
I	9	I	90	1		I	16	79	4	I			I
I	10	I	174			I	22	135	19	I			I
I	11	I	254	7	1	I	37	150	5	I	1		I
I	12	I	264	7		I	27	170	14	I	2	2	I
I	13	I	359	1		I	28	143	13	I		5	I
I	14	I	163	3		I	32	113	7	I	2	3	I
I	15	I	407	2	4	I	24	155	2	I		1	I

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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	I & SW	EAST	EAST	SHORE	ILONG	SHORT	INT.	LOA I
I 1978 I	CALDERA	KM	I RIFT	RIFT	RIFT	PPL	I PER.	PER.	I SHAL.	DEEP	I
I JUN 30 I	I 143	I 10	2 I	I 15	I 85	I 5	I	I	I	26	I
I JUL 1 I	I 128	I 7	I	I 19	I 108	I 25	I	I	I		I
I 2 I	I 167	I 15	1 I	I 47	I 154	I 11	I 6	I	I		I
I 3 I	I 122	I 12	8 I	I 34	I 112	I 16	I	I	I	11 15	I
I 4 I	I 164	I 54	1 I	I 36	I 122	I 12	I	I 1	I		I
I 5 I	I 141	I 37	I	I 28	I 70	I 8	I	I	I	30	I
I 6 I	I 208	I 54	I	I 25	I 84	I 11	I	I	I		I
I 7 I	I 165	I 29	I	I 31	I 95	I 18	I	I	I		I
I 8 I	I 133	I 27	2 I	I 33	I 127	I 15	I	I 3	I		I
I 9 I	I 120	I 29	I	I 40	I 110	I 10	I	I 1	I		I
I 10 I	I 123	I 33	I	I 30	I 88	I 10	I 2	I 1	I		I
I 11 I	I 194	I 38	I	I 35	I 124	I 5	I 1	I 4	I	3	I
I 12 I	I 166	I 17	I	I 33	I 91	I 4	I	I 2	I		I
I 13 I	I 281	I 41	I	I 24	I 116	I 8	I	I 10	I		I
I 14 I	I 491	I 35	1 I	I 43	I 218	I 17	I	I 18	I	6	I
I 15 I	I 551	I 34	1 I	I 42	I 193	I 16	I	I 8	I	5	I
I 16 I	I 330	I 49	I	I 36	I 136	I 7	I	I 7	I	4	I
I 17 I	I 350	I 27	I	I 41	I 141	I 8	I	I 9	I		I
I 18 I	I 150	I 1	I	I 19	I 110	I 7	I	I 7	I		I
I 19 I	I 169	I 2	1 I	I 18	I 52	I 5	I	I 4	I		I
I 20 I	I 218	I 6	I	I 23	I 63	I 3	I	I	I		I
I 21 I	I 178	I 98	1 I	I 17	I 91	I 34	I	I 8	I	30	3 I
I 22 I	I 124	I 9	1 I	I 33	I 116	I 62	I 4	I 7	I		I
I 23 I	I 244	I 42	I	I 57	I 182	I 14	I 5	I 9	I		I
I 24 I	I 246	I 10	1 I	I 37	I 165	I 10	I	I 6	I		I
I 25 I	I 262	I 17	1 I	I 49	I 172	I 7	I 3	I 6	I		I
I 26 I	I 162	I 17	1 I	I 25	I 124	I 9	I	I 4	I	12	I
I 27 I	I 189	I 8	I	I 32	I 112	I 23	I	I	I	3	I
I 28 I	I 238	I 8	1 I	I 28	I 125	I 13	I	I 7	I		I
I 29 I	I 217	I 16	I	I 41	I 100	I 12	I	I 1	I	3	I
I 30 I	I 375	I 8	1 I	I 39	I 144	I 12	I 1	I 2	I	15	I
I 31 I	I 284	I 20	I	I 34	I 136	I 7	I	I	I		I
IAUG 1 I	I 346	I 22	I	I 44	I 208	I 7	I	I	I	5	I
I 2 I	I 369	I 20	I	I 39	I 186	I 6	I	I	I		I
I 3 I	I 434	I 35	1 I	I 41	I 167	I 16	I	I	I		I
I 4 I	I 345	I 36	2 I	I 46	I 179	I 18	I	I	I	3	I
I 5 I	I 322	I 38	1 I	I 43	I 135	I 8	I 1	I	I		3 I
I 6 I	I 314	I 8	I	I 64	I 140	I 9	I 2	I 1	I		I
I 7 I	I 321	I 25	I	I 35	I 166	I 4	I 1	I	I	12 6	I
I 8 I	I 308	I 4	I	I 48	I 164	I 21	I	I 2	I		I
I 9 I	I 327	I 3	I	I 42	I 166	I 15	I	I 1	I		I
I 10 I	I 301	I 5	1 I	I 34	I 149	I 13	I 2	I	I		I
I 11 I	I 286	I 4	I	I 27	I 108	I 24	I	I	I	2	I
I 12 I	I 293	I 1	5 I	I 23	I 124	I 20	I	I 1	I	3	I
I 13 I	I 330	I 10	I	I 56	I 160	I 10	I	I	I		I

KILAUEA SUMMIT				KILAUEA FLANK				MAUNA LOA		TREMOR (MINUTES)	
I	ISHORT	LONG	I	KAD.	UP.	LOW.	OFF-	I	I	KILAUEA	MAUNAI
I DATE	I PER.	PER.	30	I & SW	EAST	EAST	SHORE	ILONG	SHORT	INT.	LOA
I 1978	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
IAUG14	I 306	6	1	I 45	153	14		I 2	I	5	
I 15	I 345	5	2	I 44	175	11		I 2	I 3		
I 16	I 263	4		I 34	112	8		I	I	32	
I 17	I 342	13		I 37	155	12		I	I 7		
I 18	I 305	13	2	I 31	160	15		I	I		
I	I	I	I	I	I	I	I	I	I	I	I
I 19	I 283	3	1	I 41	126	22		I	I		
I 20	I 363	3		I 54	171	20		I	I		
I 21	I 357	22		I 39	157	10		I	I 2		
I 22	I 342	12		I 42	153	7		I	I 6		8
I 23	I 286	9		I 36	166	12		I	I		
I	I	I	I	I	I	I	I	I	I	I	I
I 24	I 393	18	2	I 45	181	10		I	I	5	
I 25	I 392	4		I 36	173	3		I 1	I		9
I 26	I 402	12	1	I 34	181	12		I 1	I 2		
I 27	I 395	8		I 48	187	13		I 4	I 2		
I 28	I 296	15	1	I 57	185	11		I 1	I 1		60
I	I	I	I	I	I	I	I	I	I	I	I
I 29	I 227	92		I 46	153			I 2	I 2		6
I 30	I 149	33		I 28	127	5		I	I		
I 31	I 141	55		I 41	138	8		I	I		
ISEP 1	I 210	11	2	I 48	72	8		I 1	I 1		5
I 2	I 178	6	3	I 31	60	7		I 1	I 6		10
I	I	I	I	I	I	I	I	I	I	I	I
I 3	I 191	15		I 38	1	14		I	I 1		3
I 4	I 250	120		I 50	138	18		I	I 3		
I 5	I 327	25		I 39	181	2		I 2	I		
I 6	I 289	15		I 43	124	16		I	I		
I 7	I 337	16		I 40	182	13		I 2	I 2		
I	I	I	I	I	I	I	I	I	I	I	I
I 8	I 323	23		I 42	173	17		I 5	I 1		
I 9	I 355	2	1	I 68	157	30		I	I 1		
I 10	I 372	4	1	I 44	192	6		I	I		32
I 11	I 274	2		I 50	171	9		I	I 4		
I 12	I 248	2	1	I 39	131	12		I	I 3		
I	I	I	I	I	I	I	I	I	I	I	I
I 13	I 335	7		I 55	118	10		I 3	I 3		7
I 14	I 347	4		I 37	126	12		I 1	I		
I 15	I 334	25	1	I 16	135	7		I	I		
I 16	I 480	5	2	I 34	176	2		I	I 1		
I 17	I 389	12	2	I 30	176	6		I	I		
I	I	I	I	I	I	I	I	I	I	I	I
I 18	I 464	13		I 45	150	8		I 2	I 1		
I 19	I 295	16		I 59	142	7		I	I 1		6 3
I 20	I 362	5		I 38	148	8		I	I 2		
I 21	I 371	9		I 63	166	13		I 1	I 2		8
I 22	I 573	62		I 49	189	12		I	I 2		
I	I	I	I	I	I	I	I	I	I	I	I
I 23	I 593	27	4	I 67	198	21		I 4	I 5		
I 24	I 524	45		I 54	197	21		I 2	I 8		
I 25	I 333	45		I 52	158	19		I 1	I 4		10
I 26	I 362	27		I 54	159	9		I	I 3		
I 27	I 490	98		I 39	160	13		I	I		41

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	ILONG	SHORT	I	INT.	LOA
I 1978	I CALDERA	KM	I	RIFT	RIFT	RIFT	PPL	I PER.	I PER.	I	SHAL.	DEEP
<hr/>												
ISEP28	I	342	473	I	44	130	17	I		I	52	I
I 29	I	228	68	2	I	27	43	25	I	2	5	I
I 30	I	307	111	I	28	61	17	I		I	25	I
IOCT 1	I	416	63	2	I	37	139	8	I	2		I
I 2	I	398	35	I	45	150	6	I		1		I
<hr/>												
I 3	I	415	23	1	I	52	184	6	I			I
I 4	I	343	15	1	I	60	168	8	I	4	3	I
I 5	I	481	9	I	40	143	11	I	2	5		I
I 6	I	457	8	I	54	139	14	I		2		I
I 7	I	460	22	1	I	45	174	19	I			I
<hr/>												
I 8	I	365	60	I	41	140	15	I		2	7	I
I 9	I	359	27	I	45	142	9	I	1			I
I 10	I	388	14	I	65	197	9	I				I
I 11	I	351	118	I	31	140	7	I	3	1		I
I 12	I	340	66	2	I	60	175	8	I	1	44	I
<hr/>												
I 13	I	284	93	2	I	51	81	16	I	3	62	28
I 14	I	438	50	5	I	36	60	24	I	5	4	I
I 15	I	318	5	I	31	154	13	I			6	2
I 16	I	311	10	I	35	144	13	I		1	3	12
I 17	I	263	12	I	49	167	18	I	2	3	13	I
<hr/>												
I 18	I	295	20	I	56	124	7	I	1			I
I 19	I	353	14	I	60	130	2	I	2		4	I
I 20	I	224	9	I	77	186	13	I	1	1		I
I 21	I	201	5	I	40	127	11	I				I
I 22	I	354	12	I	50	143	11	I				I
<hr/>												
I 23	I	146	5	1	I	32	137	18	I	1		I
I 24	I	254	7	1	I	40	148	14	I	2	2	I
I 25	I	154	14	3	I	50	140	9	I	2	1	I
I 26	I	190	9	2	I	54	136	6	I	1	1	20
I 27	I	157	5	I	30	140	13	I	3	1		I
<hr/>												
I 28	I	160	5	I	53	144	17	I		1		8
I 29	I	123	3	1	I	51	179	9	I	2	4	I
I 30	I	101	3	2	I	57	117	21	I	1	6	I
I 31	I	211	8	I	68	114	9	I	12	16		2
INOV 1	I	113	14	1	I	39	112	10	I	3	34	I
<hr/>												
I 2	I	273	14	I	48	142	8	I	18	2		I
I 3	I	157	1	1	I	17	43	46	I	28	3	10
I 4	I	87	2	I	29	57	35	I	9	1		5
I 5	I	153	6	I	22	113	9	I	21		4	I
I 6	I	47	1	1	I	13	86	7	I	2		I
<hr/>												
I 7	I		1	I	23	103	27	I	36	3		I
I 8	I	69		I	42	115	18	I	41			I
I 9	I	51	2	1	I	49	115	13	I	23		I
I 10	I	39	8	1	I	45	111	25	I	6	3	I
I 11	I	32	1	I	51	69	16	I	10	1	96	I

KILAUEA SUMMIT				KILAUEA FLANK				MAUNA LOA		TREMOR (MINUTES)		
I	IS	SHORT	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	I	INT.	LOA
I 1978	I CALDERA	KM	I RIFT	RIFT	RIFT	PPL	I PER.	PER.	I SHAL.	DEEP	I	I
I NOV	I 12	I 63		I 60	119	14	I 1		I 37	I		I
I 13	I 43	3	1	I 36	78	14	I 1	1	I 22	I		I
I 14	I 63	3		I 31	100	17	I 7	1	I	I		I
I 15	I 57	20		I 48	80	15	I 6	2	I	I		I
I 16	I 58	1		I 47	134	34	I 6		I 9	I		I
I 17	I 52	14	1	I 60	104	24	I 2	1	I	I		I
I 18	I 64	5		I 94	138	34	I 3	2	I 17	I		I
I 19	I 68			I 77	87	19	I 1	1	I	I		I
I 20	I 106	1		I 27	107	10	I 4	2	I 24	I		I
I 21	I 82	8		I 29	119	16	I 6	2	I	I		I
I 22	I 112	4		I 22	65	24	I 1	4	I	I		I
I 23	I 77	7		I 32	149	16	I 2		I	I		I
I 24	I 103	1	1	I 18	48	14	I	2	I 20	I		I
I 25	I 105	18	2	I 16	56	39	I	1	I 3	I		I
I 26	I 102	50	1	I 38	91	25	I 1		I 3	31	I	I
I 27	I 80	23		I 31	142	16	I	2	I	I		I
I 28	I 97	14		I 46	51	14	I 3		I 19	I		I
I 29	I 98	54		I 42	101	7	I 1		I	I		I
I 30	I 141	17	3	I 47	111	14	I 2		I 5	I		I
I DEC	I 1	I 148	32	I 42	97	14	I 3	2	I	I		I
I 2	I 143	35		I 53	156	17	I 1	3	I	I		I
I 3	I 114	15		I 47	133	18	I 2	2	I 29	I		I
I 4	I 137	8	1	I 46	121	31	I	1	I	I		I
I 5	I 141	2		I 46	155	29	I 3	2	I 10	I		I
I 6	I 121	47		I 78	114	24	I 1		I 11	25	I	I
I 7	I 87	17		I 35	76	20	I	1	I	I		I
I 8	I 213	7		I 45	95	12	I 1	1	I	I		I
I 9	I 245	40	2	I 61	103	26	I	2	I 5	3	I	I
I 10	I 184	22		I 38	93	13	I 1		I	I		I
I 11	I 97	22		I 30	74	16	I 2	1	I 13	I		I
I 12	I 118	3		I 41	65	10	I 3	1	I	I		I
I 13	I 160	5		I 17	78	22	I 1	1	I	I		I
I 14	I 145	3		I 17	87	4	I 1		I	I		I
I 15	I 173	9		I 16	37	26	I 1		I 8	I		I
I 16	I 172	10		I 29	72	7	I		I 11	I		I
I 17	I 165	11	1	I 27	73	26	I 1	1	I 7	I		I
I 18	I 197	32		I 34	93	24	I		I	I		I
I 19	I 170	11	3	I 27	79	17	I 2	1	I	I		I
I 20	I 56	3		I 11	73	11	I 2	1	I	I		I
I 21	I 167	12		I 21	103	34	I		I	I		I
I 22	I 212	28		I 19	97	35	I 1	4	I 2	I		I
I 23	I 166	25		I 144	109	35	I		I 35	I		I
I 24	I 156	24		I 34	98	31	I 3	2	I	I		I
I 25	I 82	6		I 17	48	11	I 2		I	I		I
I 26	I 235	17		I 27	273	34	I 1	2	I 10	I		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	LONG	SHORT	I
I	1978	I	CALDERA	KM	I	RIFT	RIFT	RIFT	PPL	I	PER.	PER.	I
I	I	I	I	I	I	I	I	I	I	I	SHAL.	DEEP	I
IDE	27	I	177	16	3	I	31	102	29	I			I
I	28	I	215	4	8	I	37	110	27	I	2	1	I
I	29	I	372	3	3	I	15	74	42	I	2		I
I	30	I	312	10		I	29	94	20	I		3	I
I	31	I	268	8	1	I	36	120	26	I	2		I

Figure 5. 1978 epicenter map of Hawaii showing only magnitudes larger than 3.

Figure 6. 1978 epicenter map of Hawaii showing all located earthquakes.

Figure 7. Epicenter map of Kilauea-Mauna Loa showing magnitudes larger than 5.
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Figure 8. 1978 epicenter map of Kilauea-Mauna Loa showing all located earthquakes.

Figure 9. 1978 epicenter map of Kilauea Caldera.

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Table 4. Coordinates of named regions.

Name	(-----Limits-----)									
	NORTH		SOUTH		EAST		WEST		DEPTHS	
	D	M	D	M	D	M	D	M	km	
SPC	19	27	19	23	155	15	155	19	0	- 5.5
LPC	19	27	19	23	155	15	155	19	5.5	- 11
INT	19	29	19	18	155	22	155	12	11	- 22
DEP	19	29	19	18	155	22	155	12	22	- 70
UER	19	23	19	19	155	6	155	15		
KOA	19	23	19	17	155	15	155	19		
SWR	19	22	19	16	155	19	155	25		
IKF	19	29	19	22	155	19	155	30		
MER	19	25	19	16	155	1	155	6		
LER	19	31	19	20	154	47	155	1		
POL	19	19	19	10	155	6	155	15		
LSW	19	16	19	0	155	21	155	34		
PPL	19	10	18	30	155	0	155	21		
HLP	19	17	19	10	155	15	155	21		
MOK	19	40	19	22	155	30	155	45		
GLN	19	31	19	23	155	1	155	19		
KON	19	55	19	15	155	45	156	10		
HEA	19	22	19	0	155	25	155	45		
KOH	20	15	19	55	155	30	156	0		
NER	19	40	19	29	155	12	155	30		
HIL	19	50	19	31	154	47	155	12		
KKU	20	5	19	40	155	0	155	45		
DIS	EVERYPLACE ELSE									

When coordinates imply an overlap, precedence is given as shown in Figure 2.

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 1978. Table 6 lists only events of magnitude 3.0 or larger.

TABLE 5. HVO EARTHQUAKE SUMMARY LIST

PAGE 1

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
1978	JAN	2	8	2	38.01	19 21.11	155	1.21	5.81	2.2	2.4	31	2	191	.13	4	.5	.8 28 MER
		2	1234	23.54	19 17.56	155	15.78		8.62	2.2	2.4	29	0	132	.10	4	.5	.7 22 KOA
		2	1629	13.75	19 27.10	155	22.55		9.58	2.4	2.5	32	1	65	.13	5	.5	.8 26 UKF
		2	20	0	49.73	19 20.03	155	13.25	9.86	2.6	3.2	30	1	66	.08	5	.4	.4 29 UER
		3	0	5	43.10	19 17.78	155	15.99	8.58	2.0	2.5	30	0	124	.11	5	.5	.5 24 KOA
		3	127	59.15	19 19.02	155	12.93		8.51	2.1	2.4	35	1	86	.11	4	.4	.6 30 UER
		3	136	8.46	19 23.16	155	2.24		9.21	2.4	2.7	33	2	133	.11	4	.5	.5 31 MER
		3	2	6	16.39	19 19.09	155	10.62	6.79	1.9	2.0	31	2	109	.13	6	.5	.9 27 UER
		3	730	2.34	19 21.45	155	24.68		8.77	2.0	2.1	26	0	109	.13	3	.6	.9 23 SWR
		3	1031	12.80	19 20.40	155	7.18		7.66	2.4	2.6	18	2	199	.08	6	.7	1.4 14 UER
		3	16	6	8.41	19 20.03	155	11.78	8.30	1.7	2.0	25	1	82	.10	5	.4	.7 22 UER
		3	1857	18.65	19 21.55	155	2.58		6.51	2.0	2.2	27	0	143	.12	3	.6	.7 22 MER
		4	733	21.91	19 20.93	155	13.40		9.01	2.5	2.9	31	2	59	.10	3	.4	.6 26 UER
		4	842	27.33	19 19.43	155	10.83		9.93	3.7	4.1	35	1	100	.10	5	.4	.5 28 UER F
		4	846	11.77	19 20.65	155	11.26		8.35	2.1	2.5	29	1	74	.10	4	.4	.6 26 UER
		4	912	18.94	19 20.43	155	2.70		5.59	2.4	2.1	28	2	159	.13	1	.5	1.0 23 MER
		4	10	0	23.66	19 20.45	155	13.70	9.20	2.7	3.4	34	2	57	.12	4	.4	.6 29 UER
		4	1038	4.43	19 20.38	155	13.41		8.48	2.4	2.7	31	2	63	.10	4	.4	.6 28 UER
		4	1137	37.99	18 58.25	155	31.41		12.71	2.5	2.3	34	2	262	.19	43	2.0	3.3 30 DIS
		4	1142	31.15	19 20.65	155	6.92		4.95	2.1	2.0	30	2	96	.12	6	.5	2.3 26 UER
		4	1343	31.51	19 20.38	155	13.52		9.76	2.4	2.7	33	2	66	.11	4	.4	.5 28 UER
		4	1958	58.56	19 51.56	155	1.18		11.81	1.7	1.0	26	3	252	.25	40	4.0	6.4 20 KKKU
		4	23	1	17.72	19 21.12	155	2.12	5.23	2.0	2.4	26	2	167	.13	3	.5	1.1 12 MER
		5	353	13.26	19 20.30	155	9.52		8.54	2.0	2.3	31	1	76	.10	3	.4	.7 24 UER
		5	358	46.70	19 18.96	155	15.97		9.97	3.2	3.4	38	2	100	.10	3	.4	.4 33 KOA F
		5	1213	56.02	19 19.03	154	59.91		44.07	2.8	3.0	34	2	220	.10	6	1.1	1.9 29 DIS
		5	15	9	5.85	19 20.57	155	1.88	5.48	1.9	2.4	24	1	194	.14	2	.7	.9 20 MER
		5	1529	16.43	19 22.81	155	25.14		7.00		2.1	25	0	91	.15	4	.6	1.5 23 UKF
		5	1937	53.04	19 25.83	155	25.19		7.45		1.9	24	0	53	.12	8	.5	1.5 23 UKF
		5	2233	17.33	19 19.93	155	14.73		36.47	2.4	2.6	37	0	72	.10	5	.7	1.4 33 DEP
		5	2255	23.87	19 20.83	155	10.53		7.89	2.0	2.1	29	0	72	.10	3	.4	.7 27 UER
		5	2343	50.28	19 19.36	155	11.23		6.40	2.2	2.1	31	1	101	.12	6	.4	.8 27 UER
		6	854	44.87	19 27.81	155	29.50		9.85	2.4	2.4	35	2	38	.10	8	.3	.6 27 UKF
		6	1033	23.56	19 10.39	155	32.11		47.40	2.4		32	0	111	.13	8	1.1	2.7 22 LSW T
		6	1755	48.98	19 21.72	155	5.80		7.16	2.0	2.0	28	3	82	.14	6	.5	1.2 24 MER
		7	248	50.86	19 20.73	155	9.55		6.90	1.8	1.9	28	2	69	.11	3	.4	1.0 25 UER
		7	1052	36.84	19 17.21	155	13.41		10.10	2.1	2.4	27	0	153	.11	9	.8	.9 24 POL
		7	1452	20.28	19 19.27	155	8.08		8.64	2.4	2.8	32	2	94	.10	4	.4	.7 21 UER
		7	1455	11.32	19 20.29	155	6.14		6.47	2.4	2.5	26	1	114	.11	6	.5	1.3 22 UER
		7	19	9	46.40	19 20.89	154	54.91	4.04	2.2	2.0	27	0	167	.18	1	1.2	1.0 24 LER
		7	2030	35.92	19 59.60	155	20.50		9.71	2.4	3.2	33	2	274	.13	27	1.9	.8 28 KKKU F
		7	21	5	57.43	19 25.61	155	24.86	8.65	2.0	2.0	28	0	56	.11	8	.4	1.3 23 UKF
		7	2235	1.51	19 19.74	155	10.25		7.72	2.1	2.4	30	0	92	.09	4	.4	.7 28 UER
		8	752	3.09	19 19.89	155	10.39		7.05	1.9	2.1	26	0	89	.12	4	.6	1.1 25 UER
		8	13	5	54.05	19 19.13	155	15.41	6.67	1.9	2.1	28	0	93	.11	4	.5	1.0 25 KOA
		8	1732	37.69	19 20.11	155	8.42		7.54	2.4	2.6	32	0	79	.10	4	.5	.7 31 UER
		8	23	0	24.09	19 19.47	155	11.78	6.93	1.9	1.9	30	2	94	.13	5	.5	.9 24 UER
		9	050	52.73	19 22.91	155	3.18		7.65	2.0	2.3	32	2	113	.15	4	.6	.7 27 MER

HVO EARTHQUAKE SUMMARY LIST

PAGE 2

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
1978	JAN	9	1127	16.21	19 19.44	155	9.31		5.90	1.6	2.0	27	0	91	.12	5	.6	1.0 27 UER
		9	2047	32.09	19 26.14	155	21.22		8.59	1.9	2.1	25	3	40	.12	5	.4	1.0 18 UKF
		9	2048	43.65	19 9.18	155	32.28		5.31		1.6	20	1	131	.14	8	.7	3.6 16 LSW *
		10	352	19.23	19 27.94	154	51.33		6.51	1.9	1.4	21	1	268	.22	4	2.3	1.4 20 LER
		10	716	59.09	19 21.51	155	6.38		7.70	2.4	2.8	33	1	84	.11	6	.5	.7 24 UER
		10	14	0	7.29	19 18.96	155	6.85	8.52	2.4	2.7	32	2	139	.11	4	.5	.7 27 POL
		10	1440	57.30	19 20.67	155	4.35		8.80	2.1	2.3	29	2	107	.14	3	.5	.6 25 MER
		10	2132	8.32	19 20.69	155	.66		5.77	2.1	1.9	28	3	206	.18	4	.8	1.2 20 LER
		10	2233	11.45	19 19.55	155	13.06		10.16	3.8	4.1	38	2	75	.10	5	.4	.4 30 UER F
		10	2238	4.02	19 20.13	155	12.54		7.45	1.9	1.9	29	0	74	.13	5	.5	.7 24 UER
		10	23	9	54.40	19 19.63	155	13.37	9.47	2.8	3.2	33	1	69	.10	5	.4	.4 28 UER
		11	4	3	30.13	19 20.72	155	6.83	7.40	2.0	2.3	28	1	96	.08	6	.4	.9 27 UER
		11	2210	18.00	19 19.36	155	10.16		8.12	2.1	2.0	31	2	100	.11	5	.4	.7 27 UER
		12	635	29.84	19 19.64	155	9.70		8.02	2.1	2.0	29	0	90	.11	5	.5	.7 28 UER
		12	1434	6.57	19 31.18	155	55.33		9.95	3.0	3.1	32	0	218	.22	4	1.5	.7 28 KON F
		12	2047	49.03	19 19.63	155	11.28		7.98	1.9	2.2	32	1	94	.13	5	.5	.8 29 UER
		12	2128	.94	19 21.21	154	58.74		5.14	2.1	2.2	26	1	220	.14	7	1.0	1.1 22 LER
		13	153	23.80	19 20.23	155	8.09		8.76	2.2	2.7	32	0	84	.09	5	.4	.6 31 UER
		13	1040	10.72	19 18.98	155	12.25		8.88	2.8	3.0	32	1	100	.11	4	.4	.6 28 POL
		13	1240	2.27	19 20.78	155	1.90		6.95	2.1	2.2	27	3	185	.14	2	.6	.8 21 MER
		13	15	1	19.11	19 26.84	154	51.00	8.36	2.1	2.5	31	4	272	.19	6	1.3	.8 27 LER
		13	1740	42.94	19 21.02	155	13.20		8.76	2.0	2.4	30	1	58	.10	3	.4	.6 25 UER
		13	19	9	28.06	19 20.72	155	13.04	8.80	1.8	1.9	23	1	63	.11	4	.4	.8 21 UER
		13	22	0	20.21	19 20.89	155	12.67	7.93	1.8	1.9	30	3	63	.11	3	.4	.7 27 UER
		14	015	18.89	19 11.00	155	19.84		51.68	2.4	3.1	37	5	178	.10	13	.8	1.0 26 HLP L
		14	016	55.67	19 10.97	155	20.26		49.85	2.2	2.1	32	5	177	.13	13	.9	1.1 20 HLP L
		14	018	40.34	19 7.65	155	21.32		50.95	2.2	2.0	21	1	235	.12	12	1.8	1.5 10 LSW L
		14	1019	54.14	19 24.58	155	25.90		10.69	1.8	1.9	28	1	40	.13	5	.4	.8 24 UKF
		14	11	1	6.11	19 24.81	155	25.89	9.89	1.9	1.8	28	4	50	.11	5	.3	.8 22 UKF
		14	13	5	2.38	19 20.33	155	13.14	7.46	1.8	1.8	25	0	65	.14	4	.6	.9 21 UER

MVO EARTHQUAKE SUMMARY LIST

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YEAR	MON	DA	HRMN	SEC	ORIGIN TIME	LAT N	LON W	DEPTH	AMP	DUR	GAP	RMS	MIN	ERH	ERZ NO	REMK
					DEG MIN	DEG MIN	KM	KM	MAG	MAG	NR	NS	DEG	SEC	DIS	KM
1978	JAN	18	1944	36.24	20 11.33	155 35.57	35.80	2.4	2.3	29	3	241	.08	21	1.4	1.7 22 KOM
		18	2020	53.47	19 20.01	155 11.45	7.66	2.1	2.0	33	0	85	.11	5	.5	.6 31 UER
		18	2126	21.27	19 21.49	155 2.17	8.83	2.4	2.7	32	2	157	.10	3	.5	.5 29 MER
		19	340	21.13	19 31.65	155 39.74	7.65	1.4	1.2	3	164	.12	8	.9	1.8 12 MOK	
		19	549	56.22	19 21.27	155 6.47	7.41	1.9	2.2	32	3	89	.13	6	.4	1.0 26 UER F
		19	623	1.78	19 1.87	155 19.71	38.17	2.3	2.0	32	2	220	.05	20	.9	2.0 29 PPL
		19	12 4	58.49	19 24.89	155 17.10	8.11	2.0	2.1	12	1	88	.09	0	.5	1.1 11 LPC L
		19	1552	10.49	19 45.62	155 6.43	39.00	3.0	3.2	37	2	187	.10	5	.8	1.0 27 HIL
		19	1938	28.76	19 30.70	155 39.23	7.44	2.3	1.8	19	5	78	.12	6	.5	1.3 19 MOK
		19	1956	21.79	19 20.22	155 19.06	28.80	2.1	1.9	29	2	84	.08	3	.7	1.2 27 DEP
		20	340	15.74	19 20.30	155 4.05	7.40	2.1	1.9	31	1	122	.12	2	.7	.7 29 MER
		20	556	54.97	19 21.97	154 59.87	7.70	2.1	2.0	29	0	194	.11	6	1.0	.6 26 LER
		20	751	34.81	19 24.16	155 25.33	9.30	2.0	1.9	34	3	56	.17	5	.4	.9 24 UKF
		20	926	58.34	19 24.64	155 14.85	39.60	2.3	2.3	27	4	89	.09	1	.8	.9 25 DEP L
		20	1624	6.48	19 20.82	155 12.73	7.39	1.4	1.9	27	0	64	.13	3	.6	.9 23 UER
		20	2032	25.42	19 24.60	154 48.22	8.42	2.2	2.1	26	5	292	.18	12	.8	.9 23 LER
		21	026	57.91	19 20.60	155 10.82	8.01	1.9	1.8	27	0	75	.11	3	.5	.7 23 UER
		21	354	33.50	19 19.28	155 13.34	7.60	1.8	2.1	30	0	73	.12	4	.5	.7 26 UER
		21	548	39.62	19 19.80	155 10.41	8.14	2.0	2.2	30	0	91	.11	4	.5	.7 29 UER
		21	12 2	26.21	19 21.37	155 2.91	7.27	2.7	3.1	34	2	132	.11	3	.5	.6 31 MER
		21	15 9	18.06	19 22.60	155 28.18	10.03	2.4	2.5	33	0	61	.12	1	.4	.7 29 UKF
		22	2 6	42.47	19 27.29	155 14.38	9.10	2.0	1.9	29	0	40	.11	5	.3	.9 25 GLN
		22	241	43.40	19 22.69	155 1.95	7.93	2.1	2.0	28	0	147	.12	5	.7	.5 26 MER
		22	423	24.93	19 20.74	155 2.04	6.39	2.2	2.2	31	2	182	.14	2	.5	.8 25 MER
		22	541	32.82	19 18.84	155 7.13	8.69	3.4	3.6	37	2	134	.12	3	.5	.4 33 POL
		22	1349	30.34	19 32.82	155 48.47	9.76	2.2	2.2	15	2	108	.13	6	.7	.9 14 KON
		22	1522	32.11	19 27.84	155 51.42	3.80	1.8	1.3	3	129	.20	7	.8	3.6 8 KON	
		22	1634	55.95	19 43.40	155 56.08	12.75	1.8	2.2	3	203	.09	26	1.1	1.1 21 KON	
		22	1920	47.92	19 20.09	155 3.52	6.90	2.1	2.7	32	2	130	.12	1	.5	.8 27 MER
		22	2021	38.70	19 19.91	155 3.54	9.42	3.7	4.1	36	1	150	.11	1	.7	.4 34 MER F
		22	2026	15.80	19 20.10	155 3.42	7.36	2.1	2.4	32	2	126	.13	1	.6	.7 29 MER
		22	2028	27.13	19 20.65	155 3.87	9.33	3.6	4.0	38	3	101	.11	2	.5	.4 33 MER F
		22	2044	39.79	19 20.68	155 3.68	6.57	2.1	2.3	31	0	94	.14	2	.7	.8 29 MER F
		22	2255	33.59	19 18.97	155 13.63	7.69	2.2	2.5	31	2	84	.11	4	.4	.7 24 POL
		23	056	10.31	19 20.17	155 3.49	8.84	2.4	3.0	32	2	122	.11	1	.6	.5 27 MER
		23	128	8.88	19 17.61	155 27.25	6.95	2.3	2.8	33	1	93	.14	8	.4	.9 28 HEA
		23	431	57.76	19 20.52	155 3.65	7.06	2.1	2.0	30	0	102	.13	2	.7	.6 24 MER
		23	528	10.65	19 19.16	155 16.38	30.64	1.4	2.8	4	114	.09	3	.7	1.0 23 DEP	
		23	817	35.54	19 18.93	155 6.44	5.37	2.2	2.2	17	2	216	.11	8	.9	3.6 15 POL
		23	1034	21.12	19 19.05	155 52.35	6.24	2.9	2.7	32	3	168	.28	6	.9	1.2 23 KON F
		23	21 9	41.73	19 30.90	155 27.62	4.48	2.1	1.7	17	1	91	.10	2	.5	1.3 17 MER
		24	321	9.05	19 21.00	155 1.69	6.56	2.2	2.2	30	1	184	.15	3	.7	.7 28 MER
		24	332	36.77	19 21.24	155 .78	5.32	2.2	2.4	27	1	211	.15	5	1.1	.8 25 LER
		24	450	40.40	19 31.39	155 44.40	15.71	2.8	2.0	20	1	74	.20	15	1.0	1.1 16 MOK
		24	525	14.15	19 31.91	155 42.22	1.65	1.4	1.6	0	109	.12	7	.7	4.0 15 MOK	
		24	557	1.66	19 25.26	155 26.07	12.08	2.4	2.4	35	3	41	.14	6	.3	.5 31 UKF
		24	849	1.92	19 19.08	155 6.62	7.97	2.2	2.3	31	2	141	.12	4	.5	.8 27 UER
		24	1518	17.04	19 20.47	155 6.41	8.77	3.2	3.4	39	3	107	.12	6	.4	.6 35 UER F

MVO EARTHQUAKE SUMMARY LIST

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YEAR	MON	DA	HRMN	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
1978	JAN	24	1852	32.03	19 25.51	155 27.96		9.80	1.9	2.2	32	0	48	.11	6	.4	.7 27	UKF
		25	3 8	31.54	19 20.81	155 7.16		5.87	1.9	2.1	30	2	91	.11	5	.4	1.5 27	UER
		25	319	43.44	19 18.79	155 23.57		5.96	2.0	3.1	35	1	104	.15	3	.5	1.0 31	SWR
		25	516	41.36	19 23.29	155 17.16		3.28	1.7	2.3	11	2	59	.24	3	.7	1.2 11	SPC L
		25	524	16.51	19 26.80	155 21.32		6.04	1.8	1.8	24	0	77	.16	6	.5	2.0 21	UKF
		25	559	17.75	19 19.46	155 13.10		7.89	1.4	2.0	28	0	75	.12	5	.5	.6 24	UER
		25	730	11.72	18 14.05	155 17.08		12.74	2.4	3.6	2	316	.11	92	8.8	13.1 35	DIS	
		25	741	40.41	19 19.69	155 10.21		7.71	2.0	2.0	31	0	93	.10	4	.4	.7 26	UER
		25	844	53.79	19 19.44	155 48.69		8.32	1.3	1.7	0	148	.11	9	.8	1.2 14	KON	
		25	1628	10.82	19 30.49	155 45.92		8.56	2.6	2.4	25	0	78	.10	0	.5	.7 23	KON
		25	1836	32.44	19 26.36	155 21.79		8.92	1.9	1.7	23	2	44	.14	6	.4	1.0 21	UKF
		25	2156	51.20	19 20.63	155 4.21		6.12	2.1	2.1	29	0	108	.13	3	.7	1.0 25	MER
		26	0 1	30.08	19 42.75	155 14.31		27.55	1.8	.8	22	3	210	.15	16	1.2	1.6 20	KKU
		26	124	43.26	19 26.86	155 21.37		7.94	2.0	2.1	27	1	49	.16	6	.5	1.1 21	UKF
		26	154	3.44	19 26.86	155 21.33		6.13	1.8	1.9	23	1	77	.14	6	.6	1.5 20	UKF
		26	10 8	3.39	19 24.03	155 17.17		1.12	1.6	1.9	17	1	53	.12	2	.3	.5 13	SPC
		26	1017	7.59	19 20.34	155 9.46		8.29	1.9	1.9	26	0	75	.13	3	.6	1.0 24	UER
		26	1830	14.63	19 19.41	155 11.77		8.41	2.2	2.0	31	0	96	.10	5	.5	.5 28	UER
		26	1830	44.56	19 19.20	155 11.44		7.27	2.0	2.3	11	0	175	.11	6	1.0	1.6 7	UER
		26	1938	21.21	19 26.65	155 48.08		6.32	2.7	3.1	30	1	91	.20	8	.6	1.3 27	KON
		27	10 5	34.95	19 17.20	155 21.35		7.49	2.1	2.5	22	0	133	.08	5	.6	.9 22	SWR
		27	1629	36.02	19 20.29	155 2.81		7.08	2.3	2.3	32	2	154	.14	1	.6	.7 29	MER
		27	2130	40.09	19 20.82	155 8.97		7.98	2.0	2.1	30	1	66	.11	3	.4	.8 28	UER
		27	2318	27.55	19 22.58	155 24.78		9.94	2.1	1.8	33	1	56	.12	5	.5	.7 29	UKF
		28	327	2.55	19 18.60	155 15.63		7.18	1.9	2.0	27	0	131	.09	4	.5	.8 24	KOA
		28	7 4	6.99	19 56.92	155 20.24		9.92	2.6	2.8	28	2	267	.09	23	1.1	.6 24	KKU
		28	1632	59.51	19 19.82	155 10.24		7.16	2.8	3.3	31	0	90	.10	4	.5	.7 28	UER
		28	1834	20.78	19 19.77	155 11.51		7.47	2.4	2.6	31	1	89	.10	5	.5	.7 27	UER
		28	1952	22.03	19 20.69	155 11.66		8.44	2.2	2.6	33	2	72	.16	4	.5	.7 28	UER
		28	2212	25.72	19 27.82	154 52.75		6.89	2.4	2.3	26	0	261	.17	2	2.3	.8 26	LER
		28	2230	54.37	19 22.73	155 4.42		7.62	2.0	2.0	28	0	87	.10	3	.5	.8 26	MER
		29	635	31.41	19 19.81	155 10.41		8.30	2.0	2.3	30	0	91	.08	4	.4	.7 27	UER
		29	818	56.79	19 21.51	155 .46		7.40	2.5	3.1	30	0	195	.11	5	.9	.6 28	LER
		30	038	2.57	19 22.00	156 22.19		6.26	3.2	2.9	41	5	244	.13	49	.9	1.3 36	DIS
		30	1 8	41.34	19 17.61	155 21.83		5.74	1.6	1.7	26	0	122	.13	5	.5	1.3 22	SWR
		30	451	8.22	19 31.17	155 39.92		.48	2.4	2.0	27	4	80	.14	8	.5	.3 25	MOK
		30	5 4	30.87	19 19.56	155 3.53		6.09	2.0	2.1	29	1	186	.14	1	.7	.8 24	MER
		30	918	51.54	19 20.34	155 4.22		8.37	2.4	2.7	33	2	121	.11	2	.5	.6 31	MER
		30	1241	38.94	19 21.25	155 6.05		6.90	2.4	2.7	31	1	91	.13	6	.5	.9 30	UER
		30	1411	54.31	19 21.37	155 7.91		8.69	1.9	2.1	26	0	74	.09	4	.5	.7 25	UER
		30	18 8	58.42	19 20.68	155 2.39		6.91	2.1	2.2	29	1	170	.13	2	.6	.6 24	MER
		31	311	13.80	19 19.44	155 11.37		4.73	1.8	1.8	28	1	98	.13	6	.5	2.4 22	UER
		31	539	15.03	19 23.92	155 15.83		2.92	2.4	2.8	30	2	52	.16	3	.4	.5 28	SPC
		31	1030	42.58	19 20.42	155 2.50		6.17	2.4	2.6	30	3	175	.17	1	.7	.8 27	MER
		31	1637	59.47	19 19.15	155 6.13		7.09	2.0	1.9	28	3	149	.13	5	.5	1.0 25	UER
		31	2219	45.73	19 26.94	155 27.49		10.15	1.9	2.1	29	1	54	.10	8	.4	.8 23	UKF
FEB		1	411	58.69	19 20.16	155 11.97		7.53	1.9	2.1	29	1	79	.12	5	.5	1.0 26	UER
		2	416	2.25	19 25.21	155 47.87		12.40	1.6	1.5	15	2	174	.13	11	1.1	.6 15	KON

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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	MM	MAG	NR	NS	DEG	SEC	DIS	KM	KM	FM	REMK
1978	FEB	2	7	5	28.78	19	20.68	155	3.65	6.62	2.1	2.1	22	2	93	.12	2	.6	1.4	19	MER
		2	10	14	8.84	19	18.57	155	23.65	4.65	1.9	1.9	0	105	.08	3	.5	1.5	18	SWR	
		2	11	3	47.79	19	20.07	155	14.01	33.45	3.4	3.3	37	1	60	.10	5	.7	.9	30	DEP
		2	13	14	46.48	19	19.26	155	7.00	8.62	2.5	2.5	30	1	126	.10	4	.5	.7	28	UER
		2	16	21	21.66	19	19.68	155	7.89	9.27	3.0	3.1	32	3	95	.10	4	.4	.7	27	UER
		2	17	5	.07	19	20.35	155	50.19	5.78	2.6	1.9	22	0	176	.12	9	.9	1.3	18	KON
		2	19	32	45.99	19	26.48	155	18.14	15.45	3.5	3.5	37	1	58	.11	2	.4	.3	30	INT
		2	23	27	53.00	19	20.26	155	11.91	9.39	2.3	2.2	28	2	78	.11	5	.5	.7	26	UER
		3	11	50	42.57	19	19.84	155	8.73	7.49	2.1	2.2	23	0	75	.11	5	.6	1.2	23	UER
		4	15	12	7.31	19	19.47	155	11.12	8.28	1.9	2.4	25	0	98	.09	5	.5	.8	25	UER
		4	18	26	39.67	19	18.94	155	15.55	7.88	1.0	1.6	20	0	119	.08	4	.5	.9	13	KOA
		4	20	53	26.80	20	2.94	155	44.01	11.70	1.8	2.0	24	5	153	.12	10	1.1	1.3	19	KOM
		5	13	40	40.41	19	19.93	155	.46	6.92	2.8	3.2	33	3	215	.13	4	.5	.6	26	DIS
		5	14	4	4.17	19	20.07	155	12.98	7.52	1.4	1.0	21	1	61	.08	3	.4	.9	19	UER
		5	14	23	36.17	19	33.77	155	36.81	5.28	2.3	1.1	24	2	92	.15	8	.6	2.7	20	MOK
		5	18	29	54.07	19	20.46	155	7.92	5.14	1.9	1.9	31	2	85	.13	5	.5	1.5	27	UER
		5	18	45	25.94	19	24.80	155	28.95	8.04	1.8	1.9	28	0	67	.11	5	.6	1.3	23	UKF
		5	20	34	42.79	19	18.26	155	16.53	8.01	2.2	2.4	28	1	119	.12	4	.5	.8	26	KOA
		6	0	22	33.86	19	22.30	155	15.19	7.23	1.9	2.1	29	2	55	.20	1	.5	1.0	21	KOA
		6	1	3	10.74	19	19.14	155	15.72	9.67	2.6	2.9	34	2	96	.11	3	.4	.5	28	KOA
31		6	1	28	20.17	19	19.35	155	15.43	9.34	2.4	2.7	33	2	88	.15	4	.5	.7	30	KOA
		6	4	9	51.96	19	47.51	156	.90	13.45	2.8	2.6	37	5	228	.21	35	1.3	1.7	33	KON
		6	11	8	24.36	19	21.85	155	30.26	7.37	1.8	2.1	0	93	.13	5	.6	1.7	20	HEA	
		6	12	41	46.94	19	20.25	155	7.99	8.98	2.7	3.1	31	0	86	.10	5	.5	.6	30	UER
		6	15	25	11.99	19	19.85	155	11.70	7.27	1.7	1.6	21	0	86	.10	5	.6	1.2	20	UER
	6	21	59	19.36	19	23.37	155	30.01	9.22	2.3	2.3	33	0	55	.11	5	.4	.9	30	MOK	
	6	22	6	53.49	19	21.81	154	59.71	3.96	2.1	2.1	26	0	200	.15	6	1.1	2.0	23	LER	
	6	22	57	46.28	19	23.59	155	26.75	12.63	1.9	1.8	24	0	50	.11	3	.5	.9	23	UKF	
	7	0	15	25.78	19	21.09	155	3.64	5.54	2.0	2.3	28	0	100	.17	3	.7	1.3	27	MER	
	7	4	29	27.29	19	58.88	155	33.39	20.43	1.9	1.5	2	209	.06	25	.9	3.7	15	KOH		
	7	9	39	14.23	19	19.42	155	9.92	8.33	2.4	3.0	33	0	97	.09	5	.5	.6	29	UER	
	7	12	6	22.99	19	20.16	155	10.50	6.51	1.9	2.3	30	0	83	.13	4	.5	.9	26	UER	
	7	12	38	26.86	19	21.69	155	2.19	5.45	2.0	2.3	28	0	154	.14	4	.7	1.1	23	MER	
	7	13	52	59.94	19	19.63	155	10.16	6.88	2.0	2.2	25	0	94	.12	5	.6	1.2	23	UER	
	7	15	32	26.38	19	40.34	155	3.42	1.77	2.4	3.1	26	1	196	.17	19	1.1	1.5	25	HIL	
	7	17	17	1.32	19	10.55	155	22.23	45.73	2.2	2.3	23	2	185	.11	15	1.3	1.2	19	LSW	
	7	21	57	.21	19	19.47	155	11.98	6.35	1.8	1.9	29	2	91	.14	5	.6	1.3	25	UER	
	7	22	20	10.59	19	26.65	155	21.27	6.58	1.8	1.9	21	0	80	.12	6	.5	1.8	19	UKF	
	8	3	28	42.46	19	20.65	155	8.07	5.97	1.9	1.8	25	0	118	.12	4	.6	1.4	25	UER	
	8	5	53	12.50	19	33.62	154	52.47	3.87	2.1	1.9	26	5	242	.34	9	2.3	4.9	23	HIL	
	8	6	6	10.51	19	18.68	155	13.58	7.77	2.0	2.5	28	0	73	.13	3	.6	.8	27	POL	
	8	11	56	37.30	19	20.75	155	6.12	8.91	2.7	3.0	29	1	103	.10	6	.5	.6	20	UER	
	8	18	51	54.52	19	18.31	155	21.25	5.44	1.4	2.1	20	0	159	.13	5	.8	1.7	17	SWR	
	9	5	5	9.56	19	23.15	155	16.09	.00	2.3	2.6	13	0	101	.16	1	.8	1.3	12	SPC	
	9	6	32	50.20	19	18.94	155	13.40	9.38	1.9	2.3	27	0	129	.11	7	.6	.7	22	POL	
	9	6	42	1.52	19	18.23	155	13.22	7.28	2.0	2.0	25	0	92	.10	2	.6	1.0	18	POL	
	10	3	47	49.64	19	19.92	155	8.94	6.90	2.4	2.6	32	1	76	.12	4	.5	1.0	23	UER	
	10	6	25	58.17	19	20.21	155	12.50	8.90	2.1	2.4	28	1	73	.11	5	.5	.7	21	UER	

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YEAR	MON	DA	HR	MIN	SEC	LAT N DEG MIN	LON W DEG MIN	DEPTH KM	AMP MM	DUR NR	GAP NR	RMS NR	MIN NR	ERH NR	ERZ NO KM FM REMK	
1978	FEB	10	725	33.48	20 .16	155 31.41	16.62	1.8	2.3	2	301	.16	44	7.3	76.5 21 KOH *	
		10	13 4	4.71	19 14.21	155 32.62	7.28	1.6	1.8	2	194	.18	8	1.2	2.8 18 LSW	
		10	1517	44.56	19 21.38	155 50.94	7.63	2.6	2.1	22	1	140	.19	10	.8	1.2 20 KON
		10	1754	11.51	19 23.10	154 58.88	8.64	2.8	2.8	27	2	190	.19	4	.9	.6 22 LER
		10	2223	42.73	19 20.08	155 6.74	7.32	2.0	2.3	25	3	111	.11	6	.5	1.1 22 UER
		10	23 3	39.24	19 21.10	155 24.57	8.97	2.2	2.3	37	2	71	.14	3	.4	.6 28 SWR
		11	1210	17.19	19 21.77	155 15.13	7.80	2.0	1.9	30	1	72	.14	2	.4	.6 20 KOA
		11	1422	33.20	19 23.05	155 25.04	10.11	2.3	2.1	33	1	43	.14	5	.5	.7 25 UKF
		12	5 6	14.47	19 11.91	155 36.55	8.86	3.1	2.8	34	1	92	.25	6	.8	1.1 23 HEA
		12	1245	32.88	19 35.21	155 43.87	1.25	2.0	1.5	2	171	.21	9	1.2	1.2 13 MOK	
		12	14 3	16.19	19 8.14	155 27.07	49.11	2.6	2.9	30	0	171	.07	22	1.0	2.5 26 LSW L
		12	18 5	37.84	19 27.06	155 36.61	45.37	2.2	2.3	23	4	65	.12	1	.9	.8 22 MOK L
		13	233	57.83	19 23.97	155 17.16	2.34	.8	1.7	15	1	95	.20	2	.7	.7 15 SPC L
		13	4 4	12.82	19 25.42	155 16.09	2.22	1.9	2.6	21	1	47	.13	2	.3	.4 19 UER
		13	1046	37.19	19 21.53	155 6.03	6.23	2.0	2.3	30	3	86	.13	6	.5	1.6 25 SPC
		13	2016	42.55	19 11.20	155 41.01	6.53	2.0	1.8	1	223	.22	10	1.4	1.7 15 HEA	
		14	10 5	6.39	19 24.00	155 16.85	15.02	3.4	3.7	40	3	35	.11	2	.4	.2 33 INT F
		14	1314	10.22	19 21.17	155 24.44	8.84	1.8	2.1	28	2	113	.10	3	.5	.7 25 SWR
		14	1851	32.21	19 19.63	155 29.79	3.25	2.0	1.8	26	3	106	.12	7	.4	1.6 25 HEA
		14	20 3	50.61	19 19.54	155 6.41	8.04	2.2	2.5	35	4	131	.12	5	.4	.7 32 UER
		14	2335	47.80	19 26.12	155 15.92	21.75	2.1	2.3	38	5	39	.12	3	.5	.7 28 INT
		15	637	34.75	19 20.18	155 56.64	14.95	2.9	3.5	27	2	234	.20	11	2.4	1.0 26 KON
		15	1155	43.37	19 20.57	155 11.21	8.05	2.2	2.8	33	1	75	.12	4	.4	.6 27 UER
		15	1425	19.00	19 21.20	155 11.27	7.77	2.2	2.7	32	2	67	.15	3	.4	.8 30 UER
		15	1559	12.84	19 22.57	155 25.40	6.79	1.7	1.3	23	0	72	.14	4	.6	1.4 21 UKF
		16	8 0	23.53	19 19.43	155 6.36	8.48	2.5	2.9	33	2	136	.12	5	.5	.6 30 UER
		16	1232	52.80	19 31.46	155 15.88	24.07	2.8	2.9	37	3	51	.13	12	.5	1.1 15 NER
		16	1252	1.54	19 19.94	155 11.50	7.30	2.1	2.1	31	2	86	.11	5	.4	.8 25 UER
		16	19 0	2.31	19 26.95	155 29.79	9.49	2.2	2.3	30	1	55	.13	9	.5	1.0 26 UKF
		16	2022	26.00	20 42.29	155 58.45	2.64	2.4	2.1	19	5	216	.12	30	2.2	1.0 16 DIS *
		16	2034	25.39	19 20.37	155 12.02	9.13	2.1	2.3	32	3	75	.11	5	.4	.7 25 UER
		16	2351	40.19	19 20.80	155 6.09	8.03	2.5	2.5	26	0	102	.09	6	.5	.7 22 UER
		17	2 1	20.16	19 19.92	155 7.68	7.25	2.0	2.1	28	1	97	.12	5	.5	1.1 25 UER
		17	425	25.71	19 18.50	155 16.02	9.09	2.3	2.5	30	2	138	.12	4	.5	.7 26 KOA
		17	10 0	3.51	19 21.60	155 5.70	6.80	2.4	2.7	22	2	146	.11	6	.5	1.3 12 MER
		17	1334	21.24	19 23.64	155 24.35	9.34	2.2	2.4	27	3	72	.13	6	.5	1.1 21 UKF
		17	1650	48.81	19 23.77	155 25.41	9.10	2.1	2.1	29	1	59	.12	5	.4	.9 27 UKF
		17	2059	12.91	19 19.51	155 11.19	7.43	1.9	1.9	24	1	96	.10	5	.5	1.0 15 UER
		18	1451	59.76	19 19.64	155 8.62	9.30	3.0	3.6	32	0	77	.10	4	.5	.4 31 UER
		19	9 1	51.79	19 20.74	155 13.49	9.97	2.7	3.2	35	1	57	.10	4	.4	.5 30 UER
		19	1149	47.68	19 21.63	155 25.72	41.20	3.1	3.1	37	1	215	.06	17	1.0	2.0 35 LSW
		19	15 0	50.97	19 21.84	155 .68	7.41	2.4	2.0	20	2	186	.18	5	1.0	1.0 15 LER
		19	1932	42.27	19 27.10	154 50.47	10.03	2.5	2.7	31	2	280	.14	6	1.1	.6 29 LER
		19	2011	26.64	19 25.07	155 14.85	1.97	1.8	2.3	21	1	122	.21	1	.6	.5 14 GLN
		19	2047	58.01	19 24.07	155 34.25	15.27	2.2	2.1	14	0	84	.17	7	1.3	1.8 13 MOK
		20	734	24.25	19 19.34	155 7.68	8.86	2.4	3.1	34	2	106	.10	4	.4	.6 31 UER
		21	156	55.90	19 21.93	155 5.69	8.15	3.3	3.4	37	3	79	.12	5	.4	.7 30 MER
		21	219	50.81	19 22.51	155 5.71	7.73	2.3	2.1	25	0	69	.10	5	.5	.9 19 MER

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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 KM	NO FM	REMK	
1978	FEB	21	324	45.15	19 25.43	155 36.28	23.48	2.2	7	0	250	.07	7	7.1	12.5	6	MOK		
		21	628	28.66	19 20.67	155 12.70	8.73	2.1	2.2	30	3	66	.13	4	.4	.8	25	UER	
		21	712	48.05	19 23.25	155 25.61	10.43	1.9	1.8	24	0	89	.10	4	.6	.9	22	UKF	
		21	950	24.38	19 20.39	155 3.09	6.37	2.1	2.2	29	2	117	.13	1	.6	1.0	25	MER	
		21	1134	7.09	19 19.51	155 13.54	5.02	1.8	2.1	29	1	66	.15	5	.5	1.5	25	UER	
		21	2224	7.94	19 19.28	155 12.59	1.73	1.9	1.9	34	5	88	.20	4	.4	.8	24	UER	
		22	743	55.09	19 26.06	155 34.41	47.55	2.5	2.0	17	2	74	.14	4	2.0	1.5	14	MOK	
		22	9	55.01	19 20.74	155 7.22	8.81	2.6	2.6	32	2	91	.10	5	.4	.7	29	UER	
		22	1846	27.52	19 25.55	155 15.75	1.83	1.1	1.3	9	2	181	.03	3	.7	.4	9	SPC	
		22	20	1	13.68	19 19.48	155 15.36	7.73	1.9	2.0	27	0	86	.11	4	.5	.7	26	KOA
		22	2056	15.44	19 29.64	155 15.91	4.74	1.6	1.1	6	1	326	.17	9	3.8	31.9	6	GLN	
		23	6	6	11.12	19 19.49	155 6.22	9.31	3.1	3.2	36	2	166	.11	5	.5	.4	32	UER
		23	857	3.39	19 19.54	155 7.61	6.39	2.2	2.1	26	3	104	.09	4	.5	1.1	21	UER	
		23	912	19.24	19 26.56	155 36.09	41.84	2.1	1.2	12	3	177	.10	5	2.0	1.3	11	MOK	
		23	948	2.98	19 26.46	154 48.21	12.84	2.5	2.4	29	5	283	.12	28	1.3	.6	21	LER	
		23	1337	41.10	19 25.40	155 16.73	5.97	2.4	2.3	13	1	140	.11	2	.6	.6	12	LPC	
		23	1722	50.73	19 19.81	155 38.08	41.71	2.5	2.4	13	2	224	.19	5	2.0	2.8	9	HEA	
		23	2031	46.58	19 25.80	155 32.74	23.67	2.2	2.1	14	1	114	.12	7	1.1	1.5	13	MOK	
		24	129	39.97	19 19.17	155 10.40	9.61	2.8	3.1	38	2	106	.13	5	.4	.5	32	UER	
		24	459	43.12	19 19.58	155 15.58	6.66	1.9	2.0	33	2	89	.14	3	.4	.8	29	KOA	
		24	837	4.65	19 26.51	155 59.94	22.22	3.1	2.8	31	2	231	.09	10	1.1	1.6	18	KON	
		24	2255	28.17	19 27.25	156 15.25	16.89	3.2	3.1	33	0	263	.16	35	3.5	98.1	29	DIS	
		25	929	25.39	19 20.07	155 13.61	9.84	2.8	3.3	36	3	61	.10	5	.4	.5	22	UER	
		25	951	30.98	19 22.38	155 27.42	10.35	2.7	2.9	33	0	64	.11	0	.4	.6	27	UKF	
		25	1132	55.65	19 29.61	155 42.55	8.18	2.4	2.3	23	1	71	.12	12	.6	1.3	17	MOK	
		25	1146	4.59	19 26.23	155 18.11	14.89	2.1	2.4	37	2	58	.09	2	.4	.3	31	INT	
		25	13	7	3.24	19 18.79	155 14.81	6.52	1.9	2.1	25	0	91	.11	4	.5	1.1	21	POL
		25	1354	1.88	19 24.14	155 24.01	9.27	1.9	2.1	25	0	66	.09	7	.5	.8	20	UKF	
		25	1944	57.30	19 22.17	155 25.61	8.77	2.4	2.9	34	1	59	.13	4	.5	.8	28	UKF	
		26	045	9.91	19 27.88	155 30.20	11.49	1.9	2.2	14	2	81	.52	9	1.5	2.6	0	MOK	
		26	053	18.33	19 22.35	155 27.27	9.22	2.4	2.6	38	3	64	.13	1	.4	.6	29	UKF	
		26	221	46.92	19 17.28	155 13.11	8.33	1.9	1.7	27	0	145	.11	1	.6	.8	14	POL	
		26	854	21.17	19 20.16	155 10.71	7.41	1.9	2.4	30	2	83	.09	4	.4	.8	26	UER	
		26	1057	17.24	19 19.69	155 11.35	6.67	1.8	2.0	29	1	91	.13	5	.5	.9	25	UER	
		26	1136	42.69	19 24.04	155 29.49	9.86	2.4	2.8	36	1	42	.09	4	.4	.6	33	UKF	
		26	1213	45.55	19 11.79	155 38.38	8.65	2.2	2.1	30	2	101	.23	6	.8	1.2	24	HEA	
		26	1255	50.18	19 18.46	155 14.51	6.98	1.9	1.7	24	0	116	.12	3	.6	.9	21	POL	
		26	1732	50.44	19 25.38	155 24.28	6.66	1.8	1.9	29	0	45	.16	8	.5	1.7	23	UKF	
		26	1750	6.80	19 21.33	155 8.00	7.28	1.8	2.4	27	1	73	.07	4	.4	1.0	24	UER	
		26	1849	54.34	19 33.52	155 42.93	16.91	1.3	1.6	19	6	118	.24	15	1.2	1.9	16	MOK	
		26	2144	51.92	19 23.21	155 15.39	3.21	1.5	1.8	14	1	77	.13	2	.4	.6	12	SPC	
		26	2212	12.92	19 23.00	155 35.82	40.47	2.3	2.6	17	3	120	.15	8	1.3	1.2	15	MOK	
		27	2	0	10.94	19 19.41	6.24	2.1	2.5	36	3	91	.17	3	.5	.8	31	KOA	
		27	541	55.61	19 23.84	155 17.25	.62	1.3	2.1	11	1	61	.22	2	.4	.9	9	SPC	
		27	631	47.53	19 20.60	155 7.96	6.36	2.1	2.4	31	2	81	.12	4	.4	.9	27	UER	
		27	648	26.84	19 16.89	155 22.34	5.58	1.8	2.6	28	0	128	.13	6	.5	1.5	21	SWR	
		27	1151	44.41	19 12.46	155 28.25	2.24	2.1	2.1	24	2	97	.15	6	.5	1.2	19	LSW	
		27	2225	.33	19 28.19	155 34.15	37.51	2.2	2.5	19	3	87	.16	4	1.1	1.6	10	MOK	

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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 KM	NO FM	REMK	
1978	FEB	28	040	49.81	19 20.73	155 13.28	7.06	1.6	1.7	28	2	60	.13	4	.4	.9	26	UER	
		28	151	30.94	19 17.01	155 23.37	5.48	1.8	1.9	27	0	121	.15	6	.5	2.4	23	SWR	
		28	224	33.02	19 18.80	155 15.63	7.29	2.0	2.5	29	0	102	.12	4	.5	.9	24	KOA	
		28	230	45.98	19 23.78	155 15.95	2.26	1.2	1.6	16	3	100	.14	3	.3	.5	12	SPC	
		28	239	45.67	19 13.36	155 38.01	7.44	2.1	2.3	31	1	94	.22	3	.8	1.2	24	HEA	
		28	255	23.32	19 26.55	155 24.10	7.71	1.7	1.9	28	1	54	.17	6	.5	1.7	26	UKF	
		28	1429	24.90	19 20.86	155 4.34	7.25	2.5	2.8	26	1	100	.11	3	.6	1.0	22	MER	
		28	1928	51.35	19 24.16	155 29.23	10.79	2.3	2.1	27	0	49	.09	4	.5	1.0	25	UKF	
	MAR	1	256	43.06	19 18.90	155 13.58	6.17	2.2	2.1	26	2	84	.12	3	.4	1.1	22	POL	
		1	1438	49.92	19 25.31	154 55.01	6.64	2.7	2.5	22	2	213	.14	4	1.3	1.8	15	LER	
		1	1537	49.40	19 26.25	154 50.48	8.54	2.6	2.3	21	1	275	.14	7	1.5	.9	17	LER	
		2	051	3.04	19 19.88	155 13.35	9.72	3.7	4.0	30	3	67	.10	5	.4	.6	22	UER	
		2	745	13.76	19 19.98	155 11.96	7.41	2.7	2.2	31	0	82	.12	5	.5	.9	26	UER	
		2	1225	35.66	19 25.13	154 55.88	6.14	2.1	1.8	16	0	201	.14	5	1.2	1.8	15	LER	
		2	1646	55.64	19 21.00	155 26.16	11.14	1.8	1.6	19	0	127	.06	4	.6	1.1	15	HEA	
		2	1843	8.60	19 23.58	155 2.26	8.97	2.1	1.9	21	0	125	.11	4	.6	1.0	21	MER	
		2	1920	15.35	19 19.28	155 6.23	9.38	2.8	2.8	33	3	143	.12	5	.5	.6	29	UER	
		2	2018	51.69	19 56.03	155 33.38	9.23	2.6	2.1	32	7	170	.18	29	.7	1.2	28	KOH	
		2	2129	2.63	19 18.50	155 13.57	10.09	2.6	2.4	32	1	74	.11	3	.5	.5	22	POL	
		2	2236	.21	19 22.41	155 32.46	6.44	2.4	2.1	12	2	107	.27	8	1.0	2.5	8	MOK	
		3	1451	51.39	19 21.57	155 15.02	9.54	2.8	2.9	30	2	63	.10	2	.4	.5	27	KOA	
		3	1617	22.36	20 3.58	155 35.39	15.35	2.9	1.9	27	5	193	.21	21	3.7	6.5	25	KOH	
		3	2019	4.24	20 23.00	156 19.22	14.26	2.9	3.2	34	6	210	.14	43	1.2	1.8	31	DIS	
		4	1	8	17.63	19 26.22	155 28.67	10.94	2.3	1.9	8	2	87	.09	7	.7	.9	3	UKF
		4	748	25.94	19 48.45	155 32.31	25.56	2.2	2.4	34	1	100	.09	9	.6	1.7	27	KU	
		4	1610	52.83	19 24.88	155 31.72	1.10	2.3	2.6	10	1	95	.18	8	.7	1.4	7	MOK	
		4	1636	18.71	19 20.73	155 9.99	8.08	2.0	1.9	25	0	72	.07	2	.4	.7	25	UER	
		4	1722	9.54	19 2.78	155 26.07	18.76	2.5	2.4	35	4	203	.23	13	1.2	1.8	32	LSW	
		4	2014	33.10	19 10.71	155 32.96	7.02	2.4	2.3	28	2	107	.20	9	.7	1.5	26	LSW	
		4	2045	31.31	19 19.68	155 11.69	6.99	2.0	2.1	30	1	90	.14	5	.5	.8	29	UER	
		5	028	48.93	19 20.36	155 13.37	8.02	2.0	2.2	25	3	63	.12	4	.4	.9	20	UER	
		5	218	56.05	19 24.81	155 34.35	27.34	2.3	2.4	9	1	92	.08	6	1.6	5.1	8	MOK	
		5	1926	16.56	19 26.03	155 35.36	36.61	2.4	3.4	24	1	72	.14	3	1.0	2.4	16	MOK	
		5	2214	20.18	19 24.11	155 15.51	29.06	2.2	2.5	40	4	35	.12	2	.5	.9	32	DEP	
		5	2221	15.25	19 20.56	155 8.63	6.82	1.9	2.4	33	0	72	.10	4	.4	.7	28	UER	
		6	15	3	34.53	19 22.78	155 5.48	.14	2.6	3.5	31	0	71	.22	4	.6	1.7	28	MER
		6	15	6	43.39	19 22.95	155 5.44	1.48	2.5	3.4	29	0	71	.18	4	.5	1.3	27	MER
		6	1549	14.51	19 19.48	155 11.32	5.87	2.0	2.0	27	2	97	.12	5	.5	1.1	22	UER	
		6	16	7	43.73	19 18.09	155 15.26	6.95	2.0	1.9	25	2	141	.13	4	.5	1.0	22	KOA
		6	2252	33.27	19 10.72	155 28.87	32.30	2.4	2.5	32	3	81	.06	3	.7	1.1	29	LSW	
		7	312	29.87	19 19.11	155 8.01	6.07	2.1	2.6	30	0	68	.12	3	.6	1.1	28	UER	
		7	6	9	18.97	19 23.82	2.92	1.8	2.4	13	1	98	.09	3	.4	.5	11	SPC	
		7	621	47.39	19 23.30	155 15.88	3.11	1.5	2.0	11	1	79	.16	2	.5	.8	9	SPC	
		7	738	45.03	19 28.89	155 8.87	3.32	2.0	2.3	16	2	235	.11	28	1.5	.7	15	HIL	
		7	740	16.41	19 39.49	155 8.68	.00	1.3	1.4	14	2	238	.15	29	2.1	.7	13	HIL	
		7	1546	20.75	19 27.09	155 26.93	27.53	2.5	3.3	38	4	39	.10	8	.5	.9	33	UKF	
		8	041	52.35	19 19.61	155 12.23	6.47	2.0	2.2	32	3	86	.16	5	.5	1.0	29	UER	
		8	047	11.62	19 20.52	155 11.70	6.23	1.9	1.8	27	0	75	.15	4	.5	1.1	24	UER	

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	DIR MAG NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ NO KM FM	REMK
1978	MAR	8	16	6	42.80	19 26.11	155 33.31	27.93	2.6	2.9	10	0	72	.09	6	1.4	4.5 10 MOK L
		8	1839	3.80	19 20.46	155 11.79	9.06	2.5	2.4	33	2	75	.13	5	.5	.6 28 UER	
		8	2115	57.20	19 21.10	155 11.09	8.60	2.2	2.1	29	2	68	.14	3	.4	.7 27 UER	
		9	2	2	39.27	19 26.28	155 30.05	14.91	2.1	2.3	10	0	132	.18	8	1.3	4.3 10 MOK L
		9	433	49.91	19 24.62	155 24.79	10.30	2.3	2.1	32	2	69	.14	6	.4	.7 29 UKF	
		9	752	36.12	19 18.86	155 13.62	8.09	2.2	2.4	31	1	85	.11	3	.5	.6 26 POL	
		9	1159	19.90	19 17.51	155 13.64	5.85	2.2	2.5	22	2	104	.14	1	.6	1.4 14 POL	
		9	1638	57.64	19 21.05	155 2.10	7.16	2.3	2.5	28	1	169	.10	3	.6	.5 27 MER	
		9	17	8	4.80	19 23.86	155 27.17	9.06	2.2	2.1	34	1	64	.13	3	.4	.8 32 UKF
		9	1853	57.54	19 20.64	155 7.82	9.05	2.5	2.6	31	1	85	.12	4	.4	.7 29 UER	
		9	2316	16.99	19 20.21	155 8.57	8.17	2.3	2.6	31	0	75	.09	4	.5	.7 27 UER	
		10	524	43.38	19 19.59	155 7.99	9.55	3.1	3.3	37	3	93	.10	4	.4	.5 30 UER	
		10	19	6	23.08	19 22.17	155 2.02	7.43	2.3	2.3	27	0	152	.11	5	.6	.6 26 MER
		10	2017	49.50	19 25.74	155 15.63	5.29	1.7	1.7	10	1	147	.18	3	1.0	1.7 9 SPC	
		10	2155	51.22	19 26.14	155 36.43	46.47	2.8	3.3	20	0	69	.15	2	1.4	3.3 20 MOK L	
		11	014	22.00	19 22.75	155 .44	7.11	2.1	2.2	25	0	173	.19	5	1.0	1.1 24 LER	
		11	3	4	33.16	19 19.60	155 7.90	8.11	2.3	2.3	29	0	96	.08	4	.6	.7 27 UER
		11	10	1	59.31	19 27.15	154 52.51	8.85	2.5	2.7	28	2	260	.15	4	1.4	.6 23 LER
		11	1529	24.84	19 19.04	155 13.52	8.01	1.8	1.9	26	0	80	.09	4	.4	.7 22 UER	
		12	046	47.09	19 19.29	155 12.06	4.29	1.8	2.0	28	1	95	.14	5	.5	1.8 24 UER	
		12	12	0	34.04	19 15.99	155 32.22	1.05	2.2	2.0	30	2	118	.18	9	.5	.7 26 LSW
		12	1920	44.95	19 19.80	155 7.57	7.08	1.8	2.2	29	1	101	.12	5	.4	.9 27 UER	
		12	23	8	18.57	19 27.79	155 29.29	10.78	2.9	3.2	38	2	54	.12	8	.4	.6 36 UKF
		13	846	24.08	19 19.88	155 12.06	8.19	2.2	2.9	30	0	82	.10	5	.4	.6 27 UER	
		13	936	13.84	19 31.89	155 27.70	3.81	1.9	2.1	15	2	102	.14	0	.6	.7 15 UER	
		13	1115	27.10	19 20.58	155 10.35	8.07	1.9	2.1	26	2	125	.10	3	.5	.9 24 UER	
		13	1123	49.54	19 26.03	155 29.10	6.75	2.0	2.3	28	2	52	.11	7	.4	1.4 25 UKF	
		13	1456	8.24	19 23.34	155 17.12	14.06	2.1	2.4	32	3	47	.10	3	.5	.3 29 INT	
		13	1830	25.33	19 10.16	155 29.07	34.98	2.3	2.3	34	3	104	.06	2	.8	1.1 32 LSW	
		13	1947	46.87	19 23.15	155 16.12	2.66	2.3	3.2	21	2	57	.11	1	.3	.5 18 SPC	
		14	337	19.18	19 18.00	155 12.99	9.19	1.8	2.1	28	1	142	.11	9	.6	.7 26 POL	
		14	723	13.27	19 22.09	155 15.50	27.23	2.8	3.1	40	3	57	.11	1	.5	.8 26 DEP	
		14	10	9	28.38	19 19.83	155 6.74	10.03	2.9	3.4	35	2	117	.09	5	.6	.5 29 UER
		14	11	9	1.47	19 19.30	155 20.26	6.63	1.8	1.8	31	1	87	.16	4	.5	.9 27 SWR
		14	1129	51.15	19 19.88	155 6.78	7.75	2.3	2.2	32	2	115	.10	5	.4	.8 26 UER	
		14	1512	24.54	19 22.18	155 4.52	8.56	2.3	2.5	31	1	85	.09	4	.5	.5 30 MER	
		14	1832	2.65	19 19.35	155 7.76	8.90	2.0	2.4	34	2	104	.12	4	.5	.7 28 UER	
		14	19	4	36.18	19 21.77	155 5.62	7.88	2.0	2.1	32	3	81	.14	6	.5	.8 29 MER
		14	2222	6.97	19 21.94	155 .33	8.91	2.6	2.8	34	2	188	.12	6	.7	.5 27 LER	
		15	155	45.50	19 18.32	155 21.20	7.01	1.7	2.4	32	4	117	.15	5	.5	1.0 28 SWR	
		15	226	11.74	19 24.27	155 26.28	7.59	2.2	2.3	36	3	62	.14	4	.4	1.2 35 UKF	
		15	4	2	14.61	19 32.55	155 42.67	1.12	1.5	.8	26	6	83	.13	7	.4	.4 24 MOK
		15	430	1.16	19 24.00	155 25.20	9.45	2.2	1.9	36	3	55	.13	5	.4	.7 30 UKF	
		15	430	30.93	19 24.01	155 25.17	8.33	1.7	1.8	15	0	83	.12	5	.7	1.6 13 UKF	
		15	727	11.43	19 19.38	155 11.65	7.95	2.2	2.6	32	3	97	.10	5	.4	.7 26 UER	
		15	1130	49.87	19 20.99	155 1.88	4.33	2.1	2.2	26	2	178	.11	3	.6	1.2 20 MER	
		16	1043	50.85	19 20.51	155 6.57	6.03	2.2	1.9	20	0	104	.12	6	.7	1.9 18 UER	
		16	1351	58.40	19 20.67	155 7.01	7.32	2.5	2.5	28	1	95	.11	6	.5	1.0 23 UER	

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YEAR	MON	DA	HR	MIN	SEC	LAT N DEG MIN	LON W DEG MIN	DEPTH KM	AMP MAG	DIR MAG NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ NO KM FM	REMK	
1978	MAR	16	14	6	9.41	19 59.71	155 20.10	8.01	2.9	2.8 29	4	207	.14	27	.9	.6 23	KKK F	
		16	1556	11.52	19 26.15	155 28.41	.77	2.2	2.0 24	2	78	.13	7	.4	.6 20	UKF		
		16	2043	38.02	19 20.86	155 9.52	8.09	2.1	2.0 24	0	101	.10	2	.5	.8 21	UER		
		16	2046	22.41	19 20.55	155 6.05	9.01	2.3	2.4 30	0	108	.10	6	.6	.5 24	UER		
		17	229	1.71	19 26.77	155 24.68	8.55	3.2	3.5 35	2	31	.14	6	.4	.9 25	UKF		
		17	246	14.09	19 20.14	155 13.08	9.75	3.0	3.2 37	2	68	.10	5	.4	.5 26	UER		
		17	3	6	14.41	19 21.48	155 6.62	6.40	2.1	2.0 26	2	84	.14	6	.5	1.6 19	UER	
		17	1313	18.34	19 20.45	155 11.55	9.11	2.8	2.9 32	3	76	.11	4	.4	.7 21	UER		
		17	1544	5.05	19 19.55	155 9.77	6.93	1.9	2.1 27	1	94	.12	5	.5	1.0 24	UER		
		17	2037	25.47	19 22.83	155 3.74	8.15	2.0	2.2 28	0	101	.11	3	.6	.5 24	MER		
		17	2129	10.72	19 18.96	155 13.33	7.65	2.0	2.0 31	0	77	.13	4	.5	.7 26	POL		
		18	345	44.97	19 22.70	155 3.21	9.46	2.4	2.6 29	1	114	.11	4	.6	.5 26	MER		
		18	13	1	22.74	19 20.54	155 1.55	7.38	2.0	1.6 17	2	203	.14	3	1.1	.7 15	MER	
		18	1450	22.69	19 21.13	155 2.72	7.73	2.1	2.1 16	1	143	.12	2	.8	.7 10	MER		
		18	1622	30.02	19 11.77	155 9.26	47.21	2.4	2.5 37	5	236	.12	11	.9	.7 31	POL		
		18	1711	4.88	19 20.94	155 1.49	7.80	2.1	1.8 23	3	191	.10	3	.5	.8 15	MER		
		18	1856	48.64	19 19.90	155 11.72	6.44	1.7	1.4 16	0	85	.12	5	.6	1.4 14	UER		
		18	23	8	20.36	19 41.50	156 5.22	15.94	1.9	2.0 4	4	287	.17	26	2.7	8.0 17	KON	
		19	635	51.58	19 22.26	155 1.37	8.75	2.3	2.6 31	2	165	.10	5	.6	.5 26	MER		
		19	715	30.13	19 25.94	155 23.90	8.53	1.8	1.8 20	1	53	.11	7	.5	1.2 13	UKF		
		19	8	2	18.33	19 22.18	155 6.27	7.09	2.2	2.1 27	1	74	.11	6	.4	1.0 23	UER	
		19	13	4	53.72	19 19.59	155 3.65	7.53	2.1	2.4 29	2	178	.11	1	.5	.7 27	MER	
		19	1648	9.31	19 17.04	155 13.00	8.24	2.1	1.9 27	1	179	.11	1	.5	.7 20	POL		
		19	1832	17.16	19 19.27	155 9.87	8.70	2.1	2.7 35	1	101	.12	5	.4	.6 30	UER		
		20	335	20.71	19 18.62	155 12.13	8.83	2.4	2.7 36	2	112	.14	4	.5	.6 32	POL		
		20	1148	11.40	19 2.28	155 27.44	38.30	2.7	2.6 36	4	203	.07	13	.9	1.3 29	LSW		
		20	1510	3.21	19 27.48	154 49.51	8.49	2.2	2.4 27	5	278	.18	7	1.5	.7 20	LER		
		20	1856	8.79	19 19.16	155 16.25	7.23	2.1	2.2 35	1	100	.13	3	.5	.7 25	KOA		
		20	1913	25.59	19 21.99	155 25.21	11.40	3.3	3.6 40	2	58	.12	4	.4	.3 35	HEA	F	
		20	2310	52.73	19 19.76	155 4.00	6.67	2.1	2.3 32	4	158	.14	2	.6	.9 28	MER		
		21	354	14.25	19 18.96	155 6.87	6.47	2.0	2.0 30	3	138	.15	4	.5	1.2 25	POL		
		21	7	1	14.95	19 20.47	155 11.82	7.50	1.9	2.0 34	3	75	.11	5	.4	.7 31	UER	
		21	15	2	17.87	19 20.30	155 7.87	7.50	2.0	2.0 25	1	88	.10	5	.5	1.1 20	UER	
		22	726	9.58	19 21.86	155 17.96	3.14	1.2	1.7 17	0	62	.08	3	.4	.7 14	KOA		
		22	11	0	40.27	19 23.84	155 17.46	1.61	1.4	1.9 9	1	88	.12	2	.4	.8 8	SPC	L
		22	1318	35.80	19 21.75	155 7.35	39.29	2.4	2.6 35	1	75	.10	4	.7	1.6 28	UER		
		22	1412	15.84	19 21.64	155 1.74	7.18	2.1	1.9 21	0	168	.13	4	1.0	.6 20	MER		
		22	16	3	9.16	19 27.95	155 22.94	7.54	2.0	1.8 22	1	91	.11	3	.6	1.2 18	UKF	
		22	1819	28.33	19 21.04	155 3.72	6.41	2.5	2.8 28	1	95	.09	3	.5	.9 23	MER		
		22	2054	12.61	19 16.63	155 27.27	9.19	2.0	1.9 19	0	127	.14	10	.7	1.3 19	HEA		
		23	1554	44.52	19 17.69	155 21.43	6.15	2.0	2.3 30	0	123	.16	5	.6	1.1 26	SWR		
		23	19	8	29.56	19 20.94	155 13.28	7.42	1.9	2.0 33	2	58	.17	3	.5	.8 28	UER	
		24	13	6	30.09	19 27.74	154 52.68	45.11	3.0	2.8 38	3	262	.10	3	.8	1.0 31	LER	
		24	1857	18.36	19 22.80	155 4.69	7.62	2.3	2.3 27	1	83	.12	3	.5	.9 23	MER		
		25	2	0	49.02	19 19.46	155 10.78	7.82	2.2	2.4 30	1	99	.10	5	.4	.6 22	UER	
		25	626	2.29	19 19.89	155 8.17	8.56	2.4	2.3 32	1	86	.09	5	.4	.7 29	UER		
		25	657	56.43	19 20.88	155 10.74	8.67	2.6	3.0 34	2	71	.10	3	.4	.6 28	UER		
		25	1035	56.50	19 26.17	155 23.03	9.12	2.2	3.3 27	1	47	.12	7	.5	.9 21	UKF		

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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
1978	MAR	25	1238	53.64	19 16.14	155 38.70	5.36	2.6	2.5	21	0	183	.17	4	1.6	1.1 17	HEA
		25	1319	28.00	19 25.16	155 25.55	3.63	2.0	2.1	21	0	55	.12	6	.5	3.3 21	UKF
		25	1835	31.18	19 20.34	155 11.26	7.14	2.1	2.4	19	0	80	.10	4	.6	1.2 18	UER
		25	2038	34.31	19 44.91	155 5.08	46.60	1.9	1.6	29	5	190	.10	3	.9	1.0 27	HIL
		25	2316	59.35	19 26.90	154 55.84	6.15	2.1	1.9	24	2	176	.17	1	1.0	1.0 19	LER
		26	252	43.33	19 18.51	155 13.56	7.57	2.0	1.9	27	1	85	.12	3	.6	1.0 19	POL
		26	738	32.29	19 25.96	155 24.68	7.63	2.1	2.1	32	0	65	.13	8	.5	1.3 26	UKF
		26	10 2	5.67	19 17.73	155 20.76	6.62	2.0	2.0	34	2	125	.17	4	.5	.9 27	SWR
		26	1446	55.21	19 23.69	155 15.82	3.22	1.6	2.0	17	1	77	.12	2	.4	.6 14	SPC
		26	1539	14.11	19 20.49	155 3.19	8.50	2.4	2.6	33	2	110	.13	1	.5	.5 27	MER
		26	1643	59.41	19 24.94	155 28.28	8.33	2.0	1.8	31	3	48	.11	5	.3	1.0 26	UKF
		26	1811	3.14	19 20.03	155 10.36	6.16	1.7	2.2	32	1	86	.14	4	.6	.9 30	UER
		26	1912	57.29	19 10.34	155 28.97	33.88	2.9	3.1	39	2	96	.09	2	.8	1.3 36	LSW
		26	2217	57.37	19 19.13	155 13.35	5.89	2.1	2.4	37	2	74	.13	4	.4	.8 32	UER
		27	153	39.25	20 10.80	155 41.89	13.33	2.9	2.6	46	9	168	.17	49	.7	1.6 38	KOM
		27	211	33.72	19 12.25	155 27.09	7.54	2.1	2.3	37	3	121	.15	5	.6	.9 32	LSW
		27	311	51.72	19 21.14	155 .89	6.17	2.1	2.2	33	3	196	.15	4	.6	.7 25	LER
		27	419	52.71	19 20.88	155 8.00	9.10	2.4	3.1	35	1	78	.08	4	.4	.7 27	UER
		27	729	38.76	19 20.23	155 18.72	31.74	2.2	2.4	36	4	55	.09	2	.6	.9 33	DEP
		27	1131	8.66	19 21.12	155 25.80	10.81	3.1	3.2	34	1	76	.13	4	.4	.6 30	HEA
		27	1432	6.63	19 19.42	155 8.24	8.08	2.0	2.0	26	2	89	.09	4	.4	.8 20	UER
		27	2157	50.96	19 28.02	154 50.60	8.01	3.1	3.2	26	1	284	.14	5	1.4	.6 23	LER
		27	2210	11.37	19 29.64	154 48.37	7.62	2.8	2.3	24	1	301	.16	9	2.0	.8 23	LER
		28	1023	48.98	19 21.37	155 15.29	9.66	2.2	2.5	31	1	65	.09	2	.5	.5 25	KOA
		28	1315	40.13	19 20.59	155 11.06	8.75	2.0	2.6	29	0	76	.12	3	.5	.6 26	UER
		28	1542	46.11	18 49.13	155 12.05	16.34	3.5	3.2	34	3	292	.18	52	5.8	37.1 32	PPL *
		28	1919	51.02	19 20.97	155 9.93	7.51	1.7	1.8	27	0	69	.11	2	.5	.9 24	UER
		28	2018	44.14	19 24.62	155 27.04	5.11	2.1	2.1	31	1	52	.17	4	.5	2.2 28	UKF
		28	22 4	44.53	19 21.03	155 .86	8.06	2.4	2.8	31	1	200	.15	4	.9	.6 27	LER
		28	2212	24.45	19 22.02	155 28.99	8.58	1.9	1.8	33	0	61	.13	2	.4	.9 31	UKF
		28	2213	31.27	19 21.02	155 1.04	8.05	2.1	2.2	24	0	197	.14	4	1.2	.6 20	MER
		28	2341	50.47	19 12.80	155 32.92	42.26	2.5	2.1	28	0	82	.22	8	1.5	3.7 25	LSW LT
		29	156	35.78	19 21.46	155 6.56	8.38	2.7	3.1	32	1	84	.10	6	.4	.5 28	UER
		29	2 1	23.27	19 17.67	155 12.93	10.89	2.7	3.0	31	0	147	.11	9	.7	.6 26	POL
		29	310	32.47	19 22.30	155 .56	8.44	2.4	2.8	30	2	179	.09	6	.8	.4 27	LER
		29	1648	2.45	19 22.43	155 5.70	7.83	2.4	2.6	26	1	70	.10	5	.5	.8 19	MER
		29	1747	23.14	19 19.73	155 7.28	9.21	2.6	3.0	30	0	109	.10	5	.6	.5 23	UER
		30	052	43.73	19 25.32	154 54.89	8.59	2.5	2.8	22	0	214	.11	4	1.6	.6 18	LER
		30	228	.49	19 19.86	155 11.48	6.93	2.1	2.2	23	0	88	.10	5	.6	1.0 20	UER
		30	3 1	15.06	19 22.01	155 4.94	8.21	2.1	2.2	25	0	75	.08	5	.6	.7 23	MER
		30	5 0	36.27	19 17.51	155 16.20	8.09	1.9	1.8	24	0	135	.10	5	.6	1.0 22	KOA
		30	12 9	21.23	19 18.49	155 23.85	5.18	2.2	2.5	23	0	105	.09	3	.5	1.4 21	SWR
		30	2058	.42	19 22.82	155 2.20	7.62	2.0	2.0	20	0	139	.11	5	.8	.6 19	MER
		30	21 5	4.39	19 24.07	155 15.91	2.74	1.8	1.8	14	1	110	.10	2	.4	.5 12	SPC
		31	027	43.24	19 27.16	155 21.70	11.44	2.2	1.9	20	1	94	.11	6	.7	1.0 17	INT
		31	217	21.44	19 19.72	155 8.34	8.32	2.2	2.3	25	0	84	.12	4	.6	1.0 20	UER
		31	249	12.67	19 33.18	155 43.44	6.17	2.4	1.8	18	1	85	.11	7	.6	2.6 17	MOK
		31	523	41.50	19 24.92	155 28.81	10.85	3.4	3.2	35	1	50	.13	5	.5	.6 33	UKF

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
1978	MAR	31	547	2.61	19 20.05	155 8.53	7.85	2.3	2.5	28	0	77	.12	4	.5	.7 25	UER
		31	1310	57.34	19 20.18	155 7.10	7.86	2.5	2.6	28	0	103	.10	5	.5	.9 24	UER
		31	1452	34.85	19 19.92	155 7.81	7.60	2.2	2.4	27	0	95	.10	5	.5	.9 23	UER
		31	1534	18.89	19 19.11	155 11.64	8.41	2.4	2.5	30	1	104	.10	5	.5	.6 27	UER
	APR	1	658	20.38	19 25.74	155 28.24	11.18	2.4	2.5	34	2	49	.13	6	.4	.5 28	UKF
		1	13 0	22.64	19 25.49	155 28.49	9.64	2.0	2.2	28	0	58	.10	6	.4	.8 27	UKF
		1	23 2	3.11	19 19.29	155 11.86	6.19	1.7	2.1	28	0	97	.12	5	.5	.8 27	UER
		2	342	55.46	19 28.19	154 51.18	8.95	2.3	2.0	29	5	275	.17	4	1.0	.6 24	LER
		2	639	50.51	19 28.85	154 54.60	2.73	2.1	2.7	25	4	119	.14	2	1.0	.7 23	LER
		2	1316	49.70	19 18.99	155 15.66	9.44	2.5	3.0	33	0	96	.11	4	.5	.5 30	KOA
		2	1828	32.98	19 19.90	155 12.01	8.80	3.3	3.4	36	1	83	.09	5	.4	.4 32	UER F
		2	2137	21.45	19 20.04	155 12.57	7.34	1.9	2.4	30	1	75	.12	5	.5	.6 24	UER
		3	149	43.19	19 22.97	155 24.49	8.47	1.8	2.2	28	1	79	.11	6	.5	.9 25	UKF
		3	152	22.17	19 39.27	155 8.56	15.63	2.2	2.4	24	2	164	.07	19	.7	1.2 23	HIL
		3	237	46.80	19 18.75	155 15.64	9.79	2.5	3.1	35	1	101	.11	4	.4	.4 31	KOA
		3	15 5	50.40	19 21.56	155 3.17	5.68	2.3	2.6	25	1	177	.11	6	.7	1.4 21	MER
		3	1540	17.30	19 31.36	155 36.84	8.67	2.0	1.3	22	5	111	.20	4	.7	.9 19	MOK
		3	2245	17.51	19 19.86	155 2.49	5.10	2.1	2.5	31	2	202	.15	1	.9	.8 26	MER
		3	2252	54.88	19 19.92	155 2.91	5.14	2.1	2.4	27	1	198	.14	0	.8	.9 24	MER
		3	2359	43.95	19 23.36	155 2.04	7.08	2.0	2.3	31	3	134	.13	4	.4	.7 28	MER
		4	8 0	22.26	19 9.44	155 36.04	5.25	2.8	3.2	28	1	111	.15	14	.6	1.5 24	HEA
		4	15 0	47.12	19 20.13	155 7.66	7.10	2.2	2.5	27	1	94	.08	5	.5	.9 25	UER
		4	1659	11.61	19 25.06	155 25.22	10.33	2.3	2.6	33	2	63	.12	6	.4	.5 27	UKF
		4	1742	2.14	19 31.48	155 42.76	2.23	2.2	1.4	21	2	105	.11	6	.6	1.0 19	MOK
		4	1742	45.13	19 31.59	155 42.69	2.87	2.2	1.5	20	2	105	.10	6	.6	1.2 20	MOK
		4	2245	54.09	19 23.69	155 15.98	2.90	1.9	2.7	24	1	53	.11	2	.3	.5 17	SPC
		4	2345	45.75	19 25.24	155 26.20	5.88	2.2	2.2	31	0	56	.13	6	.4	1.8 28	UKF
		5	125	18.41	19 20.44	155 12.76	5.88	1.9	1.9	31	1	67	.13	6	.5	1.0 28	UER
		5	427	26.34	19 17.98	155 21.81	7.91	1.9	2.3	26	0	119	.09	5	.4	.7 24	SWR
		5	522	25.33	19 18.96	155 12.62	4.67	1.8	2.1	31	2	94	.15	4	.5	1.6 20	POL
		5	630	48.18	19 19.87	155 27.39	28.58	2.2	2.5	32	0	81	.10	5	.7	1.3 25	HEA
		5	1127	41.23	19 23.80	155 15.85	2.71	1.3	1.8	12	1	102	.06	3	.4	.5 10	SPC
		5	1525	13.38	19 10.76	155 32.43	8.30	2.6	2.6	19		149	.13	11	.8	1.4 17	LSW
		5	2052	55.88	19 51.13	155 14.10	23.33	2.2	2.4	26	3	196	.12	12	1.2	2.5 22	KKU
		5	2328	9.73	19 19.57	155 12.24	6.99	2.1	2.1	30	2	87	.10	5	.4	.7 21	UER
		6	046	19.62	19 21.37	155 11.28	8.20	2.1	2.1	29	1	64	.13	3	.4	.6 23	UER
		6	347	14.06	19 19.68	155 8.05	10.08	3.4	3.6	38	2	90	.09	4	.5	.4 31	UER F
		6	5 3	21.27	19 20.84	155 6.73	5.41	2.0	1.9	26	1	95	.12	6	.5	1.9 24	UER
		6	658	2.61	19 20.52	155 6.57	4.26	2.0	2.1	20	1	104	.10	6	.5	2.1 17	UER
		6	1112	4.81	19 20.65	155 1.10	6.33	2.7	2.9	27	2	203	.13	4	.6	.8 20	MER
		6	14 3	36.05	19 19.82	155 18.74	29.35		1.4	15	2	100	.05	2	1.7	1.3 15	DEP L
		6	2341	8.71	19 19.83	155 12.30	7.70	2.9	2.9	29	2	81	.11	5	.5	.7 24	UER
		6	2343	1.70	19 20.33	155 12.20	6.02	2.1	2.0	27	1	74	.18	5	.6	1.0 24	UER
		7	629	46.72	19 21.80	155 28.82	10.11	2.0	2.3	28	1	64	.09	3	.5	.8 25	HEA
		7	920	24.49	19 21.31	155 2.62	8.36	2.1	2.1	27	1	145	.11	3	.8	.6 22	MER
		7	1255	3.99	19 25.83	155 23.48	10.00	2.9	2.1	27	1	49	.11	7	.5	.8 24	UKF
		7	1522	16.28	19 23.92	155 15.90	2.67	2.7	2.8	21	1	45	.11	3	.4	.5 17	SPC
		7	1643	43.29	19 52.38	155 7.68	39.27	4.0	4.3	35	0	235	.11	22	2.1	3.4 32	KKU F

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YEAR	MON	DA	HRMN	SEC	LAT N DEG MIN	LON W DEG MIN	DEPTH KM	AMP MAG	DIR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ NO KM FM	REMK
1978	APR	7	1947	30.94	19 17.31	155 13.43	10.73	2.4	2.8	31	0	152	.10	9	.7	.6 25	POL
		8	1134	39.73	19 19.95	155 6.72	9.26	2.4	2.9	27	2	115	.09	5	.5	.7 24	UER
		8	1539	27.08	19 19.72	155 8.24	6.50	1.9	1.9	24	1	86	.07	4	.5	1.3 20	UER
		9	015	3.38	19 21.21	155 1.96	6.60	2.0	2.3	22	4	170	.11	3	.6	.8 16	MER
		9	129	27.02	19 22.67	155 4.70	8.06	2.4	2.1	30	2	82	.10	4	.4	.6 26	MER
		9	4 2	16.16	19 24.49	154 57.65	6.44	1.9	1.4	19	2	186	.18	2	1.0	1.2 15	LER
		9	411	49.57	19 18.70	155 13.85	8.49	1.7	1.7	21	0	94	.09	3	.5	.8 19	POL
		10	159	9.54	19 23.72	155 15.45	3.35	2.1	2.8	28	0	37	.08	3	.3	.5 24	SPC
		10	244	39.71	19 19.10	155 12.30	8.60	2.4	2.0	34	0	95	.12	4	.4	.4 31	UER
		10	16 3	43.47	19 20.57	155 10.19	7.95	1.9	1.9	30	2	76	.10	3	.4	.7 29	UER
		10	2123	57.83	19 29.16	155 52.84	6.55	2.9	3.1	28	2	97	.22	4	.8	.9 26	KON F
		11	732	40.61	19 12.86	155 27.43	1.25	2.1	2.2	29	1	114	.12	6	.4	1.0 27	LSW
		11	9 4	10.24	19 8.45	155 26.16	44.06	2.4		24	0	241	.10	4	2.2	3.5 16	LSW T
		11	9 5	11.70	18 58.93	155 25.82	61.67	2.7		23	0	225	.15	20	3.2	6.3 13	DIS T
		11	1045	44.19	19 26.59	154 50.17	10.22	2.7	2.8	27	3	277	.16	7	1.8	.6 24	LER
		11	1748	22.34	19 21.56	155 1.67	6.45	2.1	1.8	25	0	171	.14	4	.8	.8 22	MER
		12	553	41.99	19 17.61	155 16.74	7.48	2.0	2.1	33	4	163	.13	3	.6	.7 29	KOA
		12	757	2.07	19 19.14	155 13.74	4.00	1.9	2.1	27	1	84	.14	4	.5	1.7 26	UER
		12	935	28.10	19 21.26	155 7.14	9.25	3.3	2.6	34	1	84	.08	5	.5	.5 29	UER F
		12	2055	12.47	19 20.83	155 3.77	8.43	3.7	3.9	38	2	90	.09	2	.5	.4 34	MER F
		12	2144	32.04	19 21.04	155 3.31	3.83	2.0	1.9	27	0	181	.16	7	.9	3.3 23	MER
		13	010	10.55	19 23.65	155 15.71	3.68	1.4	1.6	10	1	96	.10	2	.5	.7 9	SPC L
		13	537	14.17	19 17.81	155 23.49	4.74	1.7	1.8	20	0	190	.11	4	1.0	2.2 19	SWR
		13	631	38.97	19 21.54	155 2.03	7.34	2.2	2.5	27	1	161	.11	3	.7	.6 24	MER
		13	1034	42.32	19 25.57	155 15.65	2.54	1.7	1.9	13	1	126	.17	3	.5	.6 12	SPC
		13	1249	59.53	19 20.85	155 3.73	7.35	2.4	2.6	28	1	118	.12	2	.7	.5 25	MER
		13	1610	56.40	19 22.82	155 28.19	9.74	2.2	2.4	30	0	58	.11	1	.5	.9 26	UKF
		13	2111	55.16	19 20.23	155 19.08	31.42	2.1	2.3	27	0	49	.10	3	.8	1.5 26	DEP L
		13	2117	52.97	19 20.12	155 3.48	6.15	2.1	1.9	22	1	126	.12	1	.6	1.1 19	MER
		13	2210	32.77	19 20.64	155 13.27	9.22	1.9	2.0	19	0	60	.07	4	.5	.8 17	UER
		14	030	50.88	19 18.13	155 45.51	52.96	3.0	2.7	9	1	313	.12	27	5.7	3.2 8	KON L
		14	129	10.87	19 27.04	155 21.46	7.36	2.1	1.8	19	1	78	.12	6	.5	1.6 17	UKF
		14	512	33.02	19 23.74	155 15.88	3.58	2.2	2.8	26	1	43	.08	3	.3	.5 23	SPC F
		14	6 3	46.11	19 20.94	155 11.39	8.35	1.9	1.9	24	0	70	.12	3	.5	.9 21	UER
		14	659	17.17	19 23.91	155 17.36	.02	1.4	1.8	9	1	73	.19	2	.4	.9 34	SPC L*
		14	8 9	41.32	20 5.90	155 32.77	15.32	2.4	2.4	12	3	323	.26	63	39.2	72.9 12	KOH *
		14	1040	15.51	19 28.12	155 35.97	43.70	2.4	2.7	9	0	75	.10	2	1.9	8.8 9	MOK L
		14	1048	36.85	19 20.29	155 6.47	8.91	2.3	2.4	21	0	110	.06	6	.5	.7 21	UER
		14	1515	18.96	19 23.78	155 28.56	8.77	2.3	2.4	25	0	74	.10	3	.5	1.2 24	UKF
		14	1540	50.23	19 34.72	155 40.82	8.33	2.7	2.4	27	1	98	.13	12	.6	1.0 27	MOK
		14	1624	29.73	19 34.28	155 41.17	8.99	2.7	2.4	22	0	96	.10	11	.5	1.3 21	MOK
		14	1655	7.04	19 21.68	155 49.32	7.94		1.2	20	3	172	.14	12	.8	1.1 19	KON
		14	20 5	27.77	19 20.82	155 8.13	7.32	2.1	2.3	29	1	77	.13	4	.6	.9 26	UER
		15	1917	54.33	19 26.38	155 24.57	7.72	2.1	2.3	21	0	52	.10	7	.5	1.4 16	UKF
		16	0 3	24.56	19 26.01	155 24.53	9.26	2.1	2.3	23	0	51	.14	7	.5	1.2 21	UKF
		16	920		19 21.29	155 2.30	6.45	2.1	2.2	27	2	157	.12	3	.6	.8 24	MER
		16	13 0	7.81	19 24.80	155 28.69	9.79	2.7	2.7	35	1	31	.13	5	.4	.7 28	UKF
		16	2230	6.89	19 20.54	155 8.05	7.06	2.1	2.7	33	0	81	.12	4	.4	.7 29	UER

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YEAR	MON	DA	HRMN	SEC	LAT N DEG MIN	LON W DEG MIN	DEPTH KM	AMP MAG	DIR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ NO KM FM	REMK
1978	APR	17	0 3	17.40	19 25.24	155 16.80	3.86	2.4	2.2	27	1	38	.14	1	.4	.6 25	SPC
		17	244	55.14	19 21.90	155 6.78	7.88	2.0	2.1	31	2	76	.13	5	.4	.8 27	UER
		17	247	49.83	19 21.22	155 14.85	10.01	2.0	2.6	36	2	65	.09	4	.4	.4 32	UER
		17	321	12.23	19 20.17	155 13.81	9.00	2.4	2.1	34	1	72	.16	5	.5	.6 27	UER
		17	433	13.18	19 18.41	155 14.26	9.20	2.1	2.5	31	1	132	.10	6	.5	.6 27	POL
		17	1840	54.66	19 21.14	155 1.44	7.29	3.3	2.9	36	1	186	.09	3	.6	.4 33	MER F
		17	1957	42.00	19 20.89	155 10.71	8.04	2.2	2.2	28	0	71	.13	3	.5	.7 26	UER
		17	2053	47.88	19 19.94	155 3.53	7.94	2.2	2.4	27	1	147	.10	1	.8	.5 22	MER
		17	2349	26.69	19 11.99	155 36.71	6.47	2.6	2.3	31	2	208	.22	5	1.1	1.4 20	HEA
		18	448	55.04	19 20.63	155 3.86	6.96	3.1	2.4	33	1	101	.14	2	.6	.7 25	MER
		18	915	14.18	19 20.59	155 13.37	7.28	2.0	2.1	30	0	60	.11	4	.5	.8 25	UER
		18	1339	8.78	19 20.59	155 3.23	7.05	2.2	2.4	26	1	110	.13	1	.7	.9 24	MER
		18	1610	42.04	19 20.35	155 12.63	8.78	2.0	2.2	24	1	70	.09	4	.4	.6 20	UER
		18	1715	18.62	19 7.15	155 22.09	38.37		2.1	31	3	192	.08	21	.9	1.5 28	LSW
		18	1845	26.35	19 20.96	155 5.90	7.96	2.2	2.4	27	0	99	.10	6	.6	.8 27	MER
		18	2054	27.75	19 19.45	155 12.11	8.00	1.9	2.0	26	1	90	.10	5	.5	.6 24	UER
		18	2121	6.45	19 18.33	155 30.31	.01	2.1	2.1	26	4	99	.17	9	.5	.3 22	HEA
		19	741	7.35	19 27.27	154 55.82	5.19	2.2	2.0	26	2	155	.16	1	1.2	1.2 24	LER
		19	9 3	34.54	19 21.49	155 29.91	7.80	2.3	2.0	32	1	62	.12	4	.5	.8 28	HEA
		19	9 4	37.81	19 21.34	155 29.92	7.39	2.2	1.9	23	1	96	.10	5	.5	1.4 22	HEA
		19	1123	4.30	19 32.10	155 37.26	8.73	2.4	2.1	27	0	114	.12	6	.5	.8 25	MOK
		19	1156	8.93	19 19.69	155 12.00	7.69	2.3	2.7	30	0	87	.12	6	.5	.7 30	UER
		19	1636	25.05	19 12.18	155 31.25	37.46	2.7	3.0	38	2	83	.08	8	.7	1.2 31	LSW
		19	2155	50.94	19 19.91	155 7.63	6.16	2.0	1.9	30	1	98	.12	5	.5	1.3 26	UER
		20	056	35.18	19 20.42	155 11.41	8.40	2.3	2.6	27	0	77	.09	4	.4	.5 27	UER
		20	145	55.62	19 22.37	155 6.40	6.94	2.0	1.8	25	0	71	.14	6	.5	1.2 22	UER
		20	453	43.66	19 20.29	155 3.70	6.23	2.0	1.9	29	2	117	.16	2	.7	.9 27	MER
		20	1327	9.90	19 22.02	155 4.74	7.76	2.3	2.6	27	1	80	.13	5	.5	.7 22	MER
		20	1843	32.30	19 20.75	155 11.09	7.79	2.1	2.1	26	0	74	.11	3	.5	.7 23	UER
		20	2034	33.20	19 21.41	155 2.50	7.23	2.4	2.6	27	1	148	.13	3	.7	.6 25	MER
		20	2349	3.53	19 19.53	155 11.67	9.50	3.0	3.2	30	1	94	.11	6	.5	.6 29	UER
		21	039	38.88	19 21.64	155 2.03	6.40	2.2	2.4	29	1	159	.11	4	.6	.7 26	MER
		21	145	39.55	19 32.28	155 28.25	4.61	2.0	1.6	15	0	114	.10	1	.5	1.1 13	NER
		21	414	41.39	19 20.28	155 17.32	34.87	2.3	2.5	31	1	75	.08	0	.6	1.4 24	DEP
		21	838	15.55	19 44.15	155 34.26	16.13	2.3	2.6	30	0	80	.10	13	.6	1.3 29	KKU
		21	913	22.23	19 21.12	155 2.38	7.42	2.4	2.5	25	0	157	.09	2	.7	.6 20	MER
		21	11 4	27.70	19 20.78	155 1.55	5.41	2.2	2.1	24	0	194	.20	3	1.2	1.5 22	MER
		21	1936	37.46	19 20.38	155 7.42	4.38	2.1	2.1	26	0	94	.09	5	.5	2.1 25	UER
		21	2043	54.60	19 20.82	155 13.57	8.75	2.4	2.6	31	1	62	.10	3	.4	.6 29	UER
		22	213	45.86	19 23.15	155 4.11	7.73	2.4	2.9	28	1	93	.10	3	.5	.7 25	MER
		22	3 2	43.46	19 20.84	155 13.60	7.74	2.2	2.0	30	1	61	.13	3	.5	.6 28	UER
		22	1242	47.69	19 9.06	155 23.30	42.61	1.8	2.0	31	4	178	.11	8	1.0	1.2 26	LSW
		22	1328	50.93	18 51.48	155 12.80	16.11	1.9	2.0	35	6	280	.21	47	4.5	17.9 32	PPL
		23	049	20.77	19 19.32	155 12.16	5.79	1.9	1.8	32	2	93	.14	5	.5	.9 23	UER
		23	2 4	50.07	19 19.60	155 8.92	7.47	1.9	2.3	32	1	83	.10	5	.4	.7 27	UER
		23	726	24.49	19 21.14	155 15.37	9.00	2.8	2.0	32	1	69	.10	3	.4	.5 28	KOA
		23	947	21.68	19 17.47	155 21.77	4.16		2.1	25	2	167	.09	6	.6	1.5 19	SWR
		23	1335	41.04	19 18.63	155 21.47	4.19	1.9	2.2	27	0	111	.13	4	.5	1.5 25	SWR

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YEAR	MON	DA	HRMN	SEC	LAT N DEG MIN	LON W DEG MIN	DEPTH KM	AMP MAG	DIR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ NO KM FM	REMK
1978	APR	23	1520	29.52	19 21.05	155 13.29	7.64	1.9	2.1	33	1	57	.13	3	.4	.6 28	UER
		23	2159	15.67	20 2.98	155 37.27	11.02	2.3	2.5	38	5	183	.10	19	.8	.7 31	KOH
		24	126	48.36	19 22.64	155 4.87	8.32	2.7	3.0	31	1	80	.07	4	.4	.5 27	MER
		24	2 6	56.58	19 19.21	155 15.38	7.26	2.0	1.7	28	1	109	.13	4	.5	.7 24	KOA
		24	421	46.42	19 27.46	155 51.33	6.32		1.3	20	1	113	.12	7	.6	.9 16	KON
		24	838	45.70	19 20.86	155 2.73	4.77	2.0	2.0	26	1	145	.19	2	.9	1.4 19	MER
		24	843	5.89	19 24.52	155 25.00	8.46	2.3	1.6	23	1	71	.10	6	.4	1.2 20	UKF
		24	12 0	31.64	19 20.45	155 12.70	7.77	1.9	2.2	25	0	68	.11	4	.4	.6 22	UER
		24	1422	2.96	19 21.21	155 11.77	7.11	2.4	2.5	33	1	65	.14	3	.5	.7 26	UER
		24	1522	30.45	19 19.95	155 12.33	7.97	2.0	2.1	26	0	79	.10	5	.5	.7 21	UER
		24	16 8	38.96	19 21.80	155 15.27	7.65	2.0	2.4	31	1	60	.15	2	.5	.7 24	KOA
		24	1948	38.12	19 23.35	155 2.05	8.46	2.1	1.6	23	0	134	.12	4	.6	.5 25	MER
		24	2122	12.08	19 19.71	155 10.97	6.42	1.8	2.0	25	1	93	.13	5	.5	1.0 23	UER
		24	23 2	1.06	19 21.90	155 4.04	7.11	2.4	2.1	29	1	95	.10	4	.4	.6 28	MER
		25	227	37.56	19 44.15	156 10.26	13.07		1.1	26	6	255	.25	35	1.2	1.1 24	DIS
		25	354	56.66	19 21.54	155 1.87	6.99	2.1	2.4	29	2	165	.14	4	.7	.7 21	MER
		25	820	35.73	19 20.97	155 5.84	4.83	2.0	1.8	29	1	99	.12	5	.5	2.0 24	MER
		25	1012	11.12	19 21.46	155 7.23	7.86	2.2	2.4	31	1	80	.11	5	.4	.6 24	UER
		25	1139	55.38	19 34.74	155 26.37	.36	2.1	2.0	24	1	53	.12	6	.3	1.3 18	NER
		25	14 3	3.84	19 20.55	155 3.96	5.93	2.0	2.2	27	1	107	.10	2	.5	.9 23	MER
		25	14 8	34.62	19 20.63	155 7.01	7.87	2.1	2.4	26	1	96	.07	6	.5	.8 22	UER
		25	1843	57.16	19 19.69	155 8.65	8.06	2.2	2.3	29	0	177	.09	5	.4	.6 25	UER
		26	054	26.46	19 27.56	155 29.58	7.73	2.2	2.1	30	2	76	.13	9	.3	1.1 27	UKF
		26	128	12.61	19 8.64	155 30.31	11.54	2.3	2.3	31	3	155	.17	5	.8	.6 27	LSW
		26	252	8.61	19 21.52	155 8.05	8.12	1.9	2.2	28	1	70	.09	3	.4	.7 24	UER
		26	3 9	3.40	19 21.76	155 .26	6.40	2.4	2.7	33	2	192	.14	6	.8	.6 25	LER
		26	348	50.20	20 .11	155 56.48	6.49	2.6	2.5	28	3	233	.13	22	1.4	.9 24	KOH
		26	926	41.27	19 21.96	155 26.78	9.74	2.4	2.6	31	1	92	.13	2	.5	.7 27	HEA
		26	15 0	46.10	19 20.37	155 10.88	9.00	2.0	2.2	23	1	80	.09	4	.4	.8 19	UER
		26	1640	56.05	19 20.09	155 11.03	7.86	2.1	2.1	24	1	84	.09	4	.4	.8 22	UER
		26	17 8	21.71	19 20.31	155 11.04	7.93	2.1	2.1	25	1	80	.12	4	.5	.9 22	UER
		26	1914	3.92	19 28.04	154 52.28	7.38	2.3	2.4	20	0	271	.13	3	2.3	.7 20	LER
		26	2033	11.01	19 17.63	155 21.82	6.98	2.1	2.1	29	1	122	.15	5	.5	1.1 25	SWR
		27	157	19.97	19 20.52	155 3.79	5.57	2.1	2.1	28	1	106	.14	2	.6	1.1 25	MER
		27	420	12.60	19 20.89	155 30.00	6.30	2.2	2.1	29	1	99	.17	5	.6	1.5 25	HEA
		27	426	21.40	19 21.03	155 11.56	32.65	2.3	2.6	30	0	68	.07	4	.7	1.2 24	UER
		27	1517	55.92	19 23.65	155 16.81	2.50	1.6	1.9	15	1	69	.09	2	.3	.5 12	SPC
		27	2018	2.53	19 6.10	155 30.10	36.62	2.5		12	2	320	.07	29	2.7	3.4 12	LSW
		27	2135	8.71	19 21.25	155 4.74	8.56	2.2	2.4	31	2	90	.10	4	.5	.5 29	MER
		28	134	37.55	20 9.51	155 35.84	35.59	3.1	2.8	40	4	175	.09	19	.7	1.5 35	KOH
		28	615	53.02	19 32.38	155 32.80	6.93	2.0	1.6	18	2	150	.13	8	.6	1.4 17	MOK
		28	849	10.59	19 33.70	155 33.07	9.73	2.2	1.4	21	2	155	.11	8	.6	.9 21	MOK
		28	1947	51.63	19 26.87	155 46.12	9.38	2.8	2.2	23	1	77	.12	7	.7	1.1 23	KON
		28	2233	27.56	19 23.25	156 12.69	34.74		2.6	23	3	278	.15	33	2.4	1.3 23	DIB
		29	220	13.37	20 19.04	155 54.94	12.69	2.8	2.6	33	6	160	.10	61	.8	1.3 29	DIB
		29	450	40.91	19 17.15	155 39.15	9.68	2.5	2.3	30	2	82	.15	6	.6	.9 27	HEA
		29	524	57.21	19 19.37	155 11.75	7.14	2.2	2.6	34	2	96	.13	5	.5	.7 30	UER
		29	549	52.63	20 4.66	155 33.33	36.83	1.7	1.9	23	5	209	.11	24	1.3	1.0 23	KOH

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YEAR	MON	DA	HRMN	SEC	LAT N DEG MIN	LON W DEG MIN	DEPTH KM	AMP MAG	DIR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ NO KM FM	REMK
1978	APR	29	1559	29.48	19 11.81	155 41.07	5.76	1.6	1.8	23	4	148	.24	9	1.1	2.8 11	HEA
		29	1936	31.33	19 18.53	155 14.58	8.19	1.5	1.5	20	0	117	.08	3	.6	.7 17	POL
		29	2042	17.16	19 19.88	155 11.74	6.91	1.7	1.7	20	0	85	.11	5	.6	1.0 16	UER
		29	2329	2.43	19 24.16	155 16.92	1.56	1.4	1.4	7	1	110	.10	1	.4	.6 6	SPC
		30	339	41.75	19 17.98	155 16.26	7.13	2.0	1.8	23	1	158	.09	4	.6	.8 17	KOA
		30	6 1	5.68	19 19.15	155 11.34	7.33	2.2	2.1	29	1	105	.12	5	.5	.7 24	UER
		30	6 9	15.68	19 20.43	155 11.23	9.16	2.6	2.9	34	1	78	.11	4	.5	.6 28	UER
		30	15 8	18.45	19 20.32	155 11.74	8.20	2.1	2.3	29	0	78	.08	5	.4	.6 26	UER
		30	1550	41.49	19 19.90	155 15.38	6.99	2.0	2.2	35	1	91	.13	4	.5	.7 27	KOA
		30	2016	17.97	19 20.31	155 11.76	8.32	2.1	2.4	30	0	78	.10	5	.4	.6 25	UER
		30	2148	17.09	19 29.13	155 49.60	7.37		1.9	25	2	217	.17	7	1.3	.9 21	KON
		30	2355	36.97	19 22.05	154 59.96	5.57	2.0	2.3	24	1	192	.14	6	.8	.7 23	LER
	MAY	1	423	46.57	19 23.33	155 16.88	2.89	1.9	2.1	18	1	64	.07	2	.3	.5 16	SPC
		1	542	55.71	19 19.37	155 11.07	9.71	2.5	2.9	33	1	101	.11	5	.4	.4 28	UER
		1	1328	4.35	19 19.16	155 16.22	7.18	2.1	2.1	31	2	114	.15	3	.5	.7 23	KOA
		1	1429	11.96	19 24.86	155 25.76	.03	2.2	2.2	30	2	55	.16	5	.4	.5 20	UKF
		1	1546	37.37	19 46.15	155 14.12	28.83	1.9	1.3	33	7	207	.14	16	.8	1.4 31	KKU
		1	1659	21.56	19 18.12	155 15.46	9.57	2.7	2.8	34	0	112	.12	4	.6	.5 27	KOA
		2	540	28.24	19 21.13	155 7.28	7.34	2.2	2.1	30	0	84	.10	5	.5	.8 25	UER
		2	2239	35.93	19 21.66	155 14.12	11.61	2.0	1.9	31	2	55	.10	3	.3	.6 24	INT
		3	729	6.40	19 17.49	155 29.96	7.88	3.3	3.5	36	1	75	.13	10	.5	.8 33	HEA
		3	756	56.34	19 20.61	155 3.97	6.41	2.1	2.3	31	3	105	.15	2	.6	.9 30	MER
		3	1233	8.12	19 21.79	155 18.00	3.08	1.7	2.0	15	1	64	.11	3	.4	.8 14	KOA
		3	1244	29.48	19 23.57	155 23.32	9.73	1.9	2.1	25	0	43	.11	6	.5	.7 24	UKF
		3	1752	27.79	19 21.64	155 4.68	7.10	2.0	2.1	26	0	80	.11	4	.5	.8 24	MER
		3	2223	53.17	19 16.08	155 6.09	9.95	2.2	2.3	27	1	225	.14	9	1.0	.7 25	POL
		4	316	26.79	19 27.27	155 23.05	8.15	2.0	2.0	22	0	75	.13	5	.5	1.3 21	UKF
		4	739	40.93	19 56.88	155 29.97	36.76		1.9	26	4	240	.11	18	1.0	1.6 24	KKU
		4	1514	24.25	19 23.84	155 15.94	3.27	2.0	2.1	16	1	103	.07	3	.4	.5 15	SPC
		4	19 4	17.23	19 21.17	155 13.46	7.73	2.4	2.8	35	2	53	.14	3	.4	.6 32	UER
		4	1926	10.83	19 22.36	155 24.53	9.47	2.2	2.5	35	2	61	.12	5	.4	.5 28	UKF
		4	1943	26.95	19 19.65	155 7.30	7.93	2.0	2.3	26	1	110	.12	4	.6	.7 24	UER
		4	21 2	30.28	19 23.69	155 5.32	10.95	2.1	2.2	25	1	122	.08	4	.6	.7 23	MER
		5	1655	54.18	19 26.55	154 50.79	9.62	2.2	2.4	24	2	273	.17	6	1.3	.8 22	LER
		6	220	35.57	19 5.99	155 28.25	28.20	2.4	1.9	29	0	179	.05	7	.8	1.7 27	LSW
		6	316	49.62	19 55.15	155 20.42	10.48	2.3	1.8	22	3	261	.10	3	.9	.5 19	KKU
		6	812	39.39	19 24.51	155 26.25	9.98	3.2	3.2	22	3	86	.13	4	.5	.8 19	UKF
		7	019	31.91	19 21.95	155 14.04	11.32	1.9	2.0	25	0	54	.10	2	.5	.6 25	INT
		7	536	21.72	19 20.65	155 12.59	8.70	1.9	2.0	25	1	67	.11	4	.5	.7 23	UER
		7	935	43.27	19 21.06	155 6.55	5.99		2.0	30	1	92	.12	6	.5	.9 30	UER
		7	1240	9.53	19 18.97	155 13.42	6.31	2.4	2.8	39	3	75	.18	4	.5	.9 36	POL
		7	13 8	50.35	19 9.00	155 30.37	9.66	2.4	2.5	27	2	145	.11	5	.6	.9 25	LSW
		7	1733	17.05	19 21.56	155 5.86	7.49	2.0	1.9	30	1	86	.10	6	.4	.8 27	MER
		8	011	43.32	19 22.57	155 4.07	8.65	2.1	2.4	27	0	95	.10	4	.6	.7 24	MER
		8	1432	57.05	19 47.55	155 1.71	2.92	2.7	2.6	18	1	285	.26	10	5.9	7.6 15	HSL B+
		9	437	16.55	19 20.12	155 6.46	6.99	2.3	2.5	30	1	115	.13	6	.5	.9 27	UER
		9	1228	28.92	19 20.88	155 1.43	6.68	2.1	2.1	16	1	195	.12	3	.9	1.2 14	MER
		9	1737	4.50	19 22.76	155 24.67	9.89	2.2	2.3	28	1	85	.08	5	.3	.6 22	UKF

HVO EARTHQUAKE SUMMARY LIST

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YEAR	MON	DA	HRMN	SEC	LAT N DEG MIN	LON W DEG MIN	DEPTH KM	AMP MM	DIR NR	GAP NS	RMS DEG	MIN SEC	ERH DIS	ERZ NO KM	FM	REMK
1978	MAY	9	1846	41.16	19 20.17	155 12.02	8.34	2.7	3.1	31	2 78	.12	5	.4	.8	23 UER
		10	240	34.08	19 21.54	155 4.92	8.42	3.1	3.2	34	1 85	.12	5	.5	.5	30 MER
		10	1123	20.44	19 22.86	155 5.94	3.91	2.1	2.2	12	1 247	.14	7	3.4	7.3	11 MER
		10	1245	32.80	19 26.46	155 21.35	5.49	2.0	1.9	22	3 42	.11	6	.4	1.6	18 UKF
		10	1319	4.44	19 23.80	155 15.74	3.07	1.8	2.0	14	1 103	.07	3	.4	.5	13 SPC
		10	1423	57.94	19 19.46	155 6.68	8.63	3.3	3.5	30	1 128	.09	5	.5	.6	29 UER
		10	1429	21.46	19 18.98	155 6.75	7.09	2.2	2.3	30	1 141	.12	4	.6	.9	26 POL
		10	22 5	48.84	19 25.38	155 25.44	10.45	2.7	2.6	31	0 38	.10	7	.4	.7	30 UKF
		11	128	46.53	19 24.94	154 54.03	9.25	2.2	2.6	26	0 232	.12	5	1.8	.5	26 LER
		12	458	26.84	19 20.70	155 10.90	8.47	2.1	2.2	32	2 74	.12	3	.4	.7	28 UER
		12	511	6.14	19 21.12	155 2.41	7.00	2.1	2.2	31	1 156	.13	2	.6	.7	25 MER
		12	516	10.32	19 20.26	155 3.44	8.12	2.8	3.0	35	2 110	.09	1	.5	.4	31 MER
		12	1354	55.95	19 13.94	155 35.28	8.76	2.9	2.8	30	0 196	.21	4	1.2	1.0	25 HEA
		13	445	56.82	19 21.77	155 5.98	5.75	2.3	2.4	32	0 81	.12	6	.5	1.2	30 MER
		13	453	14.98	19 20.34	155 9.52	5.98	1.8	1.8	31	1 76	.14	3	.5	.9	29 UER
		13	732	12.44	19 23.53	155 15.98	2.81	2.0	2.1	26	1 51	.13	2	.4	.5	20 SPC
		13	734	7.60	19 23.82	155 15.77	2.80	1.5	1.9	19	1 81	.28	3	.6	.8	17 SPC
		13	749	50.93	19 23.83	155 15.94	2.44	1.8	2.0	19	1 79	.12	3	.4	.5	17 SPC
		13	9 7	45.73	19 23.75	155 16.00	2.52	1.7	2.3	16	1 48	.13	3	.4	.5	14 SPC
		13	10 9	24.65	19 58.23	155 35.87	10.92	3.0	3.3	33	1 249	.11	26	1.5	.7	29 KOH F
		14	321	52.92	19 19.29	155 11.65	8.70	2.2	2.6	32	0 99	.11	5	.5	.5	29 UER
		14	1039	36.79	19 24.84	155 16.04	15.06	2.1	2.4	31	2 42	.06	2	.5	.3	27 INT
		14	1746	1.00	19 19.71	155 10.85	6.53	2.1	2.3	32	0 93	.13	5	.5	.9	29 UER
		15	147	12.11	19 26.01	155 50.95	7.44	2.6	2.4	22	0 123	.16	9	.6	.9	22 KON F
		15	3 7	24.71	19 20.59	155 6.85	7.69	2.6	2.5	31	2 98	.13	6	.5	.9	27 UER
		15	336	41.27	19 21.85	155 5.78	8.45	2.8	3.2	33	0 80	.13	6	.5	.7	30 MER
		15	341	46.37	19 20.95	155 5.80	8.30	2.8	2.9	33	2 100	.14	5	.4	.7	30 MER
		15	1337	14.64	19 19.83	155 8.48	5.80	1.9	2.0	26	1 80	.10	5	.5	1.2	22 UER
		15	2034	59.81	19 19.27	155 6.82	8.62	2.4	2.7	34	2 131	.09	4	.4	.6	32 UER
		15	2049	41.97	19 20.93	156 18.96	32.36	3.0	2.4	27	2 291	.11	45	3.0	1.6	25 DIS
		16	418	23.84	19 20.11	155 11.40	7.30	2.6	2.9	36	1 83	.12	5	.5	.6	32 UER
		16	456	32.21	19 19.93	155 7.23	7.41	2.0	2.3	31	0 105	.10	5	.5	.7	30 UER
		16	11 9	39.55	19 19.49	155 7.26	5.31	2.1	2.4	31	2 115	.13	4	.5	1.3	27 UER
		16	1724	16.44	19 29.85	155 15.15	9.64	1.9	2.3	35	5 53	.14	9	.3	.8	28 GLN
		16	18 5	19.10	19 20.79	155 5.71	6.69	1.9	2.2	28	0 104	.11	5	.5	1.0	28 MER
		16	1951	50.27	19 19.95	155 11.51	7.04	1.8	2.2	33	0 86	.12	5	.5	.7	30 UER
		16	2235	31.84	19 20.49	155 12.21	7.35	2.0	2.1	35	0 72	.13	4	.5	.6	34 UER
		17	049	46.84	19 21.58	155 30.06	7.68	2.7	2.9	36	0 62	.15	5	.5	.8	33 HEA
		17	1028	52.55	19 21.72	155 30.25	8.68	2.3	2.3	28	1 61	.11	5	.5	.9	25 HEA
		17	1148	58.54	19 20.95	155 12.25	35.08	2.6	2.5	37	1 66	.08	3	.6	.9	33 DEP
		17	1658	25.87	19 20.58	155 8.00	8.29	1.9	1.9	24	1 82	.07	4	.5	.8	22 UER
		17	2213	30.02	19 27.51	155 28.75	6.84	1.9	1.3	23	1 73	.13	9	.5	1.7	23 UKF
		18	1155	12.15	19 51.92	155 57.45	12.71	2.9	2.6	31	4 218	.19	35	3.4	4.9	27 KON
		18	1215	20.96	19 39.93	155 8.46	11.09	1.8	1.5	21	1 110	.13	12	.6	2.5	21 MIL
		18	1621	22.61	19 27.05	154 50.82	8.34	2.4	2.2	24	1 279	.23	6	2.7	1.1	21 LER
		18	1814	18.07	19 17.46	155 13.47	9.99	2.1	2.1	28	0 149	.11	8	.6	.6	26 POL
		18	1828	9.08	19 15.95	155 13.61	10.34	2.4	2.6	33	3 161	.13	10	.6	.5	28 POL
		18	1833	45.36	19 17.38	155 13.32	10.12	1.9	1.9	27	0 151	.10	9	.6	.5	26 POL

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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 MM	DIR NR	GAP NS	RMS DEG	MIN SEC	ERH DIS	ERZ NO KM	FM	REMK
1978	MAY	18	20 7	28.40	19 20.53	155 6.48	7.47	2.4	2.5	30	2 104	.10	6	.4	.7	27 UER
		18	2051	2.20	19 17.19	155 13.38	9.97	1.9	2.3	19	0 177	.09	9	.9	.7	17 POL
		18	2052	6.14	19 17.79	155 13.44	9.83	2.1	2.3	29	0 145	.11	8	.5	.5	27 POL
		18	21 3	16.00	19 19.90	155 6.39	6.82	2.4	2.3	31	2 122	.11	5	.5	1.0	29 UER
		18	2145	29.54	19 21.00	155 11.25	7.78	2.0	2.1	27	1 69	.12	3	.5	.6	26 UER
		18	2332	14.91	19 23.31	155 4.54	7.37	2.5	2.8	34	2 84	.10	2	.4	.7	32 MER
		19	244	23.27	19 25.32	155 25.87	11.75	2.2	2.1	35	1 40	.14	6	.5	.6	33 UKF
		19	722	19.96	19 22.52	155 25.18	10.16	2.6	2.9	37	2 50	.13	4	.4	.6	31 UKF
		19	950	16.21	19 19.66	155 11.56	6.16	1.9	1.9	25	0 91	.12	5	.5	.9	21 UER
		19	1059	48.91	19 18.62	155 26.50	10.19	2.9	3.1	36	1 91	.13	6	.4	.6	31 HEA
		19	12 9	8.13	19 6.13	155 34.68	59.02	2.0	2.5	17	1 153	.09	14	1.8	2.6	4 HEA L
		19	1453	44.39	19 20.14	155 11.75	6.71	1.8	2.2	24	1 81	.13	5	.5	.9	17 UER
		20	2 9	50.29	19 26.85	154 51.73	5.71	1.9	1.8	16	3 282	.13	5	2.0	1.6	11 LER
		20	243	9.06	19 20.64	155 7.80	7.49	1.9	1.7	26	2 85	.09	4	.4	.9	19 UER
		20	344	52.34	19 23.76	155 16.92	2.87	1.5	1.8	17	1 65	.10	2	.3	.5	12 SPC
		20	421	25.27	19 21.60	155 5.98	7.27	2.1	2.6	31	3 84	.09	6	.4	.9	25 MER
		20	548	31.72	19 19.13	155 13.66	8.35	1.8	1.6	24	0 83	.09	4	.4	.8	18 UER
		20	1352	10.80	19 10.41	155 29.51	34.89	2.5	2.6	33	5 102	.09	3	.7	1.0	30 LSW
		20	1554	20.54	19 21.15	155 1.33	7.90	2.5	2.9	26	1 196	.11	8	.7	.6	23 MER
		20	19 5	41.30	19 19.57	155 8.17	7.97	1.8	2.1	25	2 116	.13	4	.5	.7	18 UER
		21	4 8	22.00	19 19.73	155 12.26	5.46	2.1	2.1	29	3 83	.15	5	.5	1.0	20 UER
		21	538	36.65	19 20.13	155 11.00	6.86	2.3	2.0	23	0 84	.10	4	.5	.9	21 UER
		21	1317	51.60	19 19.70	155 13.42	9.61	2.7	3.2	33	1 67	.10	5	.4	.4	29 UER
		21	1716	48.36	19 23.32	155 16.80	2.50	2.4	2.7	27	1 43	.12	3	.3	.6	23 SPC
		22	545	39.97	19 22.40	154 59.84	5.32	2.2	2.5	30	0 188	.15	5	.7	.8	29 LER
		22	819	18.21	19 25.20	155 25.16	6.58	2.1	1.9	30	1 48	.16	7	.4	1.6	26 UKF
		22	820	11.64	19 50.15	155 15.60	36.35	2.5	2.7	36	3 176	.13	11	1.1	1.3	31 KKU
		22	1257	38.28	19 14.72	155 35.62	8.37	2.4	2.2	28	1 111	.20	3	.7	1.1	27 HEA
		22	1610	49.32	19 18.22	155 23.57	4.89	2.3	2.8	16	0 113	.12	4	.7	1.9	16 SWR
		22	21 8	28.21	19 23.97	155 15.82	2.69	1.9	2.4	25	1 43	.10	3	.3	.5	18 SPC F
		22	21 9	26.70	19 18.58	155 13.46	10.25	3.4	3.9	34	0 78	.10	3	.5	.4	32 POL F
		22	2227	4.59	19 20.07	155 7.70	8.84	2.7	3.0	34	1 95	.09	5	.4	.5	31 UER
		22	2345	58.20	19 20.87	155 5.87	6.54	1.9	2.1	26	1 102	.11	5	.5	1.0	24 MER
		23	1 7	12.28	19 21.82	155 2.18	8.88	2.5	2.6	30	1 152	.10	4	.6	.4	26 MER
		23	354	47.12	19 21.39	155 8.53	7.18	1.9	2.0	30	1 67	.12	3	.4	1.0	28 UER
		23	7 9	40.14	19 19.23	155 13.90	7.87	2.0	2.2	30	0 65	.13	4	.5	.6	28 UER
		23	359	15.39	19 20.92	155 2.10	7.48	3.3	3.8	37	2 174	.11	2	.6	.5	37 MER
		24	438	48.64	19 25.45	155 25.71	2.25	2.1	1.9	26	0 56	.17	6	.5	3.2	22 UKF
		24	1222	19.13	19 23.52	155 15.01	3.23	1.8	2.0	13	1 80	.04	2	.4	.6	12 SPC
		24	1652	52.98	19 21.06	155 12.79	36.49	2.9	3.2	34	1 60	.09	3	.7	1.0	30 DEP
		24	1939	47.83	19 21.17	155 12.80	37.99	3.0	3.1	34	0 60	.10	3	.7	1.6	30 DEP
		25	012	13.46	19 18.40	155 13.60	9.54	2.8	3.1	30	2 73	.12	3	.5	.5	26 POL
		25	119	29.91	19 20.16	155 6.41	8.16	2.2	2.3	27	1 114	.09	6	.5	.7	25 UER
		25	123	3.04	19 14.11	156 10.35	31.50	2.5	2.3	16	1 315	.09	32	3.8	2.1	16 DIS
		25	8 0	30.97	19 26.25	155 24.62	8.10	3.6	2.9	19	2 77	.13	9	.5	1.4	16 UKF
		25	945	47.39	19 18.93	155 22.09	4.02	2.1	2.3	20	0 149	.11	3	.7	1.2	19 SWR
		25	1248	8.63	19 20.93	155 6.16	8.65	2.4	2.6	32	1 98	.09	6	.4	.6	29 UER
		25	23 0	30.80	19 20.34	155 6.85	8.45	2.3	2.6	31	1 104	.09	6	.4	.5	24 UER

HVO EARTHQUAKE SUMMARY LIST

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YEAR	MON	DA	HRMN	SEC	LAT N DEG MIN	LON W DEG MIN	DEPTH KM	AMP MM	DUR SEC	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ NO KM FM	REMK
1978	MAY	26	043	1.37	19 12.13	155 25.80	35.96	3.0	3.1	36	1	145	.08	6	.8	1.2 35	LSW
		26	056	19.53	19 24.66	155 25.19	6.40	2.1	1.9	32	1	52	.14	6	.4	1.6 27	UKF
		26	955	24.79	19 23.48	155 23.70	10.74	2.6	2.8	35	3	40	.12	6	.4	.5 30	UKF
		26	1211	56.41	19 22.85	155 27.74	4.76	2.6	2.6	32	0	.44	.13	1	.4	1.1 32	UKF
		26	1512	6.16	19 41.25	155 2.83	8.39	2.7	3.0	21	0	197	.15	20	1.1	1.8 19	HIL B
		26	1910	9.05	19 19.92	155 6.75	8.87	2.4	2.4	32	1	115	.09	5	.4	.5 30	UER
		26	1911	19.59	19 19.35	155 6.49	8.17	2.0	2.1	26	1	135	.10	5	.5	.7 24	UER
		26	1912	3.16	19 19.68	155 6.52	8.43	2.3	2.4	30	1	126	.09	5	.5	.6 26	UER
		26	2139	39.62	19 17.60	155 16.78	8.87	2.6	2.5	34	1	130	.13	3	.5	.5 32	KOA
		26	2335	45.20	20 3.85	156 4.43	5.03	2.8	2.2	12	2	270	.09	32	2.0	1.4 12	DIS
		27	341	3.11	19 38.56	156 1.43	9.81	3.0	2.4	22	0	226	.11	20	1.5	.9 20	KON
		27	1144	.39	19 39.53	156 .62	8.79	2.8	2.3	17	1	223	.17	18	1.7	.9 17	KON
		28	059	11.62	19 22.63	155 2.61	7.54	2.1	2.0	25	1	132	.13	5	.5	.8 24	MER
		28	059	49.37	19 22.03	155 25.49	9.61	2.2	2.6	28	1	80	.13	4	.5	.7 21	UKF
		28	112	7.48	19 19.48	155 25.28	10.28	1.9	2.1	21	1	145	.11	4	.6	.9 20	HEA
		28	648	4.47	19 20.35	155 5.76	7.90	2.1	2.1	26	1	116	.10	5	.5	.8 25	MER
		28	1033	25.97	19 26.75	155 24.00	2.79	2.0	2.1	20	1	67	.11	6	.4	1.4 19	UKF
		28	1440	36.31	19 20.52	155 12.93	7.52	2.1	2.2	30	1	66	.12	4	.5	.8 28	UER
		28	1825	42.92	19 23.52	155 16.05	1.98	2.1	2.5	18	1	52	.14	3	.4	.7 17	SPC
		29	1032	32.86	19 25.69	155 24.95	6.81	2.4	2.6	29	1	45	.12	8	.4	1.5 25	UKF
		29	1528	4.20	19 26.36	155 21.44	7.83	2.5	2.6	35	3	41	.17	6	.4	.9 31	UKF
		29	17 2	28.18	19 19.76	155 13.37	5.23	1.9	1.9	33	1	67	.19	5	.6	1.3 29	UER
		29	1715	33.27	19 19.11	155 11.66	6.32	2.2	2.3	32	1	104	.15	5	.5	.9 29	UER
		29	1720	.45	19 19.25	155 12.00	8.55	2.5	2.9	33	0	96	.12	5	.4	.6 31	UER
		30	228	55.68	19 19.89	155 9.85	5.70	1.9	2.0	31	0	87	.15	4	.6	1.0 26	UER
		30	1257	39.93	19 19.04	155 12.05	6.62	2.1	2.2	30	1	101	.16	4	.6	.9 25	UER
		30	17 8	57.52	19 19.49	155 7.20	7.70	2.2	2.6	31	1	116	.10	4	.5	.8 29	UER
		30	1759	55.47	19 20.60	155 7.54	8.34	2.2	2.4	31	1	89	.11	5	.5	.6 29	UER
		30	2158	37.49	19 20.24	155 11.77	7.34	1.9	2.1	30	0	79	.12	5	.5	.8 27	UER
		31	414	46.13	19 21.49	155 15.36	9.04	2.1	2.4	32	0	64	.12	2	.4	.5 30	KOA
		31	434	19.89	19 19.98	155 11.40	7.32	1.9	2.1	34	2	86	.15	5	.5	.8 29	UER
		31	750	36.55	18 48.95	155 9.99	16.67	1.9	1.7	34	5	286	.21	52	5.1	63.7	33 PPL
		31	1433	44.28	19 20.49	155 13.23	7.57	2.0	2.1	30	1	62	.13	4	.5	.7 29	UER
		31	1437	5.62	19 21.11	155 15.26	10.18	3.1	3.3	37	2	69	.09	3	.4	.4 33	KOA
		31	1612	36.50	19 20.25	155 12.22	6.49	1.9	2.0	32	1	76	.17	5	.6	.9 31	UER
		31	1912	9.65	19 19.41	155 18.64	5.93	2.1	2.3	28	1	77	.14	3	.5	.8 27	KOA
		31	1915	30.22	19 19.54	155 18.59	5.92	2.2	2.4	30	1	74	.11	2	.5	.8 28	KOA
		31	1916	55.47	19 19.57	155 18.86	6.42	2.4	3.2	34	1	55	.16	3	.5	.9 31	KOA
		31	22 6	1.22	19 27.60	155 27.22	7.92	2.2	2.1	35	1	46	.14	8	.4	1.0 33	UKF
		JUN 1	119	37.94	19 26.31	155 27.80	8.03	2.3	2.1	35	0	47	.13	7	.4	1.0 34	UKF
		1	154	35.03	19 26.04	155 24.35	8.83	2.4	2.3	36	0	31	.16	7	.5	.9 33	UKF
		1	530	27.42	19 21.01	155 13.20	7.30	1.7	1.6	28	0	58	.15	3	.5	.8 27	UER
		1	6 3	47.48	19 20.93	155 6.18	6.95	1.9	1.8	26	0	98	.09	6	.5	1.0 26	UER
		1	622	24.55	19 15.88	155 15.56	10.04	2.7	2.6	35	1	156	.11	4	.6	.4 33	HLP
		1	633	7.02	19 17.31	155 15.45	8.15	2.3	2.4	30	0	139	.10	4	.6	.7 28	KOA
		1	1259	59.53	19 19.56	155 8.06	6.36	2.0	2.2	17	2	255	.13	6	2.5	1.8 15	UER
		1	1426	59.95	19 24.02	155 25.16	13.29	2.2	2.2	13	1	134	.05	8	.9	2.2 12	UKF
		1	1611	27.19	19 16.88	155 22.75	4.76	1.8	1.8	27	0	126	.16	6	.6	2.3 27	SWR

HVO EARTHQUAKE SUMMARY LIST

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YEAR	MON	DA	HRMN	SEC	LAT N DEG MIN	LON W DEG MIN	DEPTH KM	AMP MM	DUR SEC	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ NO KM FM	REMK
1978	JUN	1	19 4	40.23	19 27.04	155 29.81	9.37	2.4	2.3	32	0	72	.11	9	.4	.7 32	UKF
		1	2031	18.13	19 20.19	155 7.20	7.85	2.0	2.1	30	2	102	.13	5	.5	.9 27	UER
		2	132	23.05	19 20.07	155 6.19	7.60	2.0	1.8	28	0	120	.11	6	.6	.8 28	UER
		2	459	52.97	19 19.78	155 11.02	8.32	2.1	2.3	32	1	91	.09	5	.5	.6 30	UER
		2	15 2	2.11	19 40.01	155 9.80	14.44	3.4	3.9	37	1	90	.13	10	.5	.6 34	HIL F
		2	1525	19.50	19 41.89	156 2.91	7.89	2.9	3.0	23	0	283	.14	22	3.4	1.0 19	KON
		2	20 0	45.56	19 23.15	155 1.63	8.00	2.2	2.4	30	0	147	.15	5	.7	.5 27	MER
		2	2237	16.74	19 21.41	155 8.06	8.98	2.0	2.5	31	0	71	.08	3	.4	.5 30	UER
		3	419	54.49	19 27.48	154 54.92	4.89	2.1	2.1	20	0	182	.16	1	1.3	1.1 17	LER
		3	1518	45.72	18 11.09	154 55.01	6.98	2.4	2.3	28	3	325	.14	119	24.9	31.9 24	DIS
		3	1740	45.95	19 20.42	155 9.55	6.02	1.8	2.0	25	0	75	.13	3	.5	.9 23	UER
		3	22 0	45.03	19 47.86	155 46.74	16.01	3.2	3.5	36	0	129	.11	14	1.1	1.6 35	KON F
		3	2257	49.83	19 20.45	155 3.02	7.13	2.3	2.8	31	0	126	.12	1	.7	.5 28	MER
		4	1212	18.29	19 22.66	155 3.18	7.39	2.0	2.0	27	3	116	.14	4	.5	.8 25	MER
		4	1213	22.89	19 22.21	155 2.84	9.03	2.7	3.0	34	3	130	.12	4	.4	.5 29	MER
		4	1235	59.20	19 20.89	155 6.01	8.61	2.7	3.0	33	1	100	.11	6	.4	.5 30	UER
		4	1248	16.22	19 20.23	155 6.24	6.25	2.1	3.1	31	2	115	.14	6	.5	1.4 25	UER
		4	1840	43.33	19 19.75	155 11.02	8.26	2.4	3.0	28	0	92	.09	5	.4	.6 28	UER
		5	2 9	32.53	19 19.38	155 7.16	9.14	2.5	2.9	35	1	119	.11	4	.4	.4 33	UER
		5	1425	6.20	19 23.84	155 15.85	2.79	2.1	2.7	27	2	47	.11	3	.4	.4 20	SPC
		5	1531	22.26	19 19.63	155 7.71	4.21	1.9	2.0	28	1	100	.12	4	.5	1.9 26	UER
		5	1647	35.24	19 19.12	155 13.36	6.26	2.0	1.9	31	0	74	.15	4	.6	1.0 25	UER
		5	2056	58.73	19 27.53	155 46.81	3.70	2.5	2.1	25	0	180	.14	6	.9	2.1 19	KON
		5	2132	5.29	19 31.62	155 28.17	3.64	2.1	2.0	25	0	97	.13	1	.4	.8 21	NER
		5	22 7	15.09	19 19.66	155 11.44	7.20	1.7	1.8	30	0	92	.11	5	.5	.8 26	UER
		6	440	19.51	19 17.08	155 22.30	5.67	1.9	2.3	29	0	125	.15	6	.6	1.5 24	SWR
		6	1021	53.56	19 23.67	155 15.87	3.04	2.3	2.8	27	1	39	.11	2	.3	.5 25	SPC
		6	1141	38.60	19 23.62	155 15.40	2.48	1.8	2.0	13	1	117	.15	2	.4	.6 9	SPC
		6	1630	16.59	19 23.60	155 15.49	2.93	1.6	2.3	16	0	82	.10	2	.4	.5 16	SPC
		6	2321	33.82	19 23.26	155 16.70	2.61	1.9	2.3	26	1	45	.13	2	.3	.5 18	SPC
		7	249	36.97	19 18.99	155 13.45	8.58	1.9	2.1	31	0	125	.11	7	.6	.6 26	POL
		7	914	30.51	19 30.39	155 24.22	7.21	2.2	2.4	23	3	46	.14	2	.4	1.2 19	NER
		7	1055	34.28	19 30.79	155 23.64	8.03	2.3	2.1	31	1	47	.14	2	.4	.9 28	NER
		7	1653	15.34	19 19.30	155 15.32	8.65	2.0	1.8	30	1	87	.12	4	.5	.6 26	KOA
		7	1820	23.27	19 20.89	155 11.51	7.91	2.1	2.2	31	1	70	.13	4	.4	.8 29	UER
		7	1827	57.59	19 19.89	155 7.89	7.11	2.2	2.2	31	0	93	.11	5	.5	.9 29	UER
		8	934	19.12	19 22.09	155 2.55	8.00	2.2	2.5	28	2	139	.12	4	.5	.6 26	MER
		8	1131	22.81	19 19.48	155 7.33	7.51	2.0	1.9	29	1	113	.09	4	.4	.8 26	UER
		8	1527	47.11	19 42.75	155 3.69	2.28	2.1	2.2	13	1	219	.28	3	3.2	4.9 12	HIL B
		8	1618	18.05	19 20.24	155 6.68	7.89	2.2	2.1	32	0	108	.11	6	.5	.7 32	UER
		8	1625	41.51	19 17.29	155 21.41	8.56	2.1	2.8	29	1	133	.10	5	.5	.7 28	SWR
		8	2054	14.17	19 18.75	155 7.14	8.99	2.5	2.8	35	2	136	.11	3	.5	.5 31	POL
		9	428	2.96	19 14.60	155 32.92	7.31	2.4	2.1	30	0	120	.18	7	.7	1.3 30	LSW
		9	10 0	18.39	19 23.64	155 16.77	2.73	1.9	2.4	17	1	74	.08	2	.3	.5 14	SPC
		9	10 7	9.65	19 19.48	155 11.18	8.21	1.8	2.0	22	0	98	.07	5	.5	.8 16	UER
		9	1055	39.97	19 18.46	155 14.96	7.48	1.9	1.8	23	0	126	.09	4	.5	.6 19	POL
		9	1551	25.56	19 21.31	155 26.39	9.29	1.9	1.8	24	2	68	.11	3	.5	.9 15	HEA
		10	346	4.94	19 19.43	155 7.97	7.28	2.0	2.1	29	2	95	.13	4	.5	1.1 22	UER

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	DIR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ NO KM FM REMK
1978	JUN	10	1852	22.01	19 16.72	155 28.53	9.13	2.4	7.1	28	0	86	.13	11	.5	.9 25 HEA
		10	20 7	44.63	19 19.87	155 6.67	9.96	3.0	3.3	33	1	117	.09	5	.6	.4 29 UER
		11	1 7	19.98	19 20.01	155 8.93	7.65	1.6	1.8	25	1	76	.07	4	.4	.5 20 UER
		11	434	56.35	19 20.61	155 12.02	8.36	1.5	2.1	20	0	71	.08	4	.5	.8 20 UER
		11	651	30.99	19 27.87	154 52.67	6.19		1.6	21	3	261	.11	2	1.7	.5 14 LER
		11	934	4.96	19 20.91	155 6.52	6.93	2.7	2.6	30	0	95	.12	6	.5	.9 28 UER
		11	1248	36.64	19 17.07	155 27.83	8.71	2.4	2.7	31	0	123	.14	10	.6	.9 28 HEA
		12	240	.62	19 22.29	155 25.16	10.55	2.7	3.1	37	0	53	.12	4	.4	.5 35 UKF
		12	3 5	58.51	19 20.48	155 13.68	8.62	2.1	2.7	32	0	66	.13	4	.4	.6 24 UER
		12	318	18.29	18 56.84	156 36.40	.05	3.1	2.6	41	8	306	.12	85	7.2	1.8 34 DIS *
		12	836	29.61	19 25.40	155 24.58	8.51	2.0	1.9	26	0	47	.12	8	.4	1.1 21 UKF
		12	1157	12.12	19 24.02	155 15.72	3.28	3.3	3.8	35	1	44	.12	3	.3	.3 31 SPC F
		12	12 5	27.71	19 23.77	155 15.33	2.73	1.8	2.3	17	1	97	.12	2	.4	.5 16 SPC F
		12	1324	34.78	19 20.83	155 6.67	6.74	2.4	2.3	29	0	96	.11	6	.5	1.1 27 UER
		12	16 3	36.39	19 31.31	155 23.33	8.83	2.8	2.9	37	2	49	.18	3	.4	.9 31 NER
		12	1626	43.12	19 19.70	155 11.75	7.28	2.1	2.1	31	0	89	.13	6	.5	.8 30 UER
		12	1649	34.98	18 54.32	155 27.64	15.40	3.4	4.1	36	0	249	.09	23	1.8	1.2 32 DIS F
		12	1826	53.32	19 23.64	155 16.69	2.71	1.6	2.0	18	1	73	.10	2	.3	.5 17 SPC
		12	2238	37.04	19 25.09	155 16.77	2.21	2.4	3.1	31	2	39	.10	1	.4	.2 28 SPC F
		13	440	32.83	19 22.99	155 24.81	7.86	2.2	2.4	35	1	59	.19	5	.5	1.3 30 UKF
		13	442	40.84	19 24.83	155 24.99	10.97	2.9	3.2	36	1	36	.14	6	.4	.5 32 UKF
		13	654	1.15	19 20.47	155 3.21	6.08	3.4	4.0	37	1	108	.10	1	.6	.5 32 MER F
		13	7 1	23.19	19 19.92	155 2.96	6.25	2.3	2.6	28	1	140	.14	0	.7	.9 25 MER
		13	710	7.08	19 18.77	155 13.60	8.54	2.2	2.6	27	0	86	.10	3	.5	.6 24 POL
		13	843	18.67	19 19.78	155 2.83	5.48	1.9	2.1	23	0	218	.12	0	1.0	.9 16 MER
		13	1941	11.48	19 20.57	155 3.49	8.69	2.8	3.2	33	1	93	.12	2	.7	.5 28 MER
		13	2310	47.66	19 20.73	155 2.91	7.01	2.0	1.8	20	3	135	.11	2	.6	1.3 15 MER
		14	642	38.44	19 21.05	155 6.21	8.74	2.5	2.9	28	2	95	.10	6	.5	.8 25 UER
		14	720	19.49	19 17.52	155 13.54	7.59	2.0	2.3	28	1	94	.12	1	.5	.7 21 POL
		14	1813	30.22	19 17.59	155 23.30	39.32	2.4	2.3	34	2	128	.11	5	.8	1.2 27 SWR
		14	2153	59.10	19 20.26	155 3.05	7.50	2.3	2.3	27	2	117	.13	1	.5	.7 23 MER
		14	22 5	40.81	19 23.62	155 15.46	3.08	1.8	2.1	19	0	54	.08	2	.4	.5 19 SPC
		15	125	50.04	19 20.12	155 18.84	30.95		1.4	25	0	80	.08	3	.8	1.5 23 DEP
		15	454	31.47	19 25.37	155 24.46	8.59	2.4	2.4	32	0	37	.12	8	.4	.9 28 UKF
		15	8 4	49.93	19 23.74	155 16.86	2.55	1.9	1.9	17	1	68	.09	2	.3	.4 14 SPC
		15	2222	22.44	19 4.15	156 40.51	22.70	2.4	2.9	10	0	321	.15	87	26.6	17.5 9 DIS *
		16	624	58.06	19 13.38	155 37.08	7.66	2.4	2.0	27	0	111	.18	3	.7	1.0 21 HEA
		16	1116	40.50	19 21.77	155 6.41	7.57	2.8	2.9	32	1	80	.12	6	.4	.7 26 UER
		16	1323	58.90	19 22.63	155 29.09	9.37	2.2	1.9	27	1	89	.09	3	.4	.9 22 UKF
		16	1425	18.27	19 20.16	155 13.40	8.82	2.3	2.3	33	0	65	.13	5	.5	.8 28 UER
		16	2110	23.88	19 20.94	155 5.92	8.79	2.6	2.7	35	2	100	.10	6	.4	.5 31 MER
		16	2144	48.92	19 20.03	155 7.56	8.97	2.7	2.9	34	0	97	.09	5	.5	.4 32 UER
		17	754	7.87	19 21.71	155 25.33	10.09	2.4	2.7	37	3	85	.13	4	.4	.4 30 HEA
		17	1036	14.22	19 20.32	155 7.19	6.76	2.3	2.2	29	0	99	.09	6	.4	.8 23 UER
		17	1126	26.02	18 43.18	155 8.95	16.85	2.9	2.6	30	2	292	.19	59	5.0	98.9 27 PPL *
		17	1734	23.67	19 20.56	155 1.01	8.92	3.2	3.5	36	2	204	.10	4	.6	.4 33 MER
		17	1752	27.10	19 21.13	155 1.22	8.28	2.7	3.2	28	0	191	.10	4	.9	.5 23 MER
		17	1758	1.81	19 28.48	155 47.38	7.16	2.4	2.1	22	0	204	.22	5	1.7	1.2 20 KON

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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	DIR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ NO KM FM	REMK
1978	JUN	17	2116	7.16	19 19.23	155 13.58	6.88	2.0	2.1	31	0	79	.13	4	.5	.8 28	UER
		18	021	.52	19 17.07	155 20.80	7.29	1.7	2.0	27	0	132	.10	4	.5	.9 25	SWR
		18	034	21.07	19 20.12	155 6.74	7.87	2.1	1.8	27	1	110	.09	6	.5	.8 25	UER
		18	451	28.67	19 21.55	155 3.68	7.38	2.1	2.1	29	1	103	.14	3	.5	.8 28	MER
		18	535	52.42	19 19.71	155 7.16	7.29	2.0	2.1	29	1	112	.13	5	.5	1.0 27	UER
		18	855	55.59	19 21.88	155 4.32	6.16	2.3	2.6	26	1	88	.12	4	.5	.9 18	MER
		19	15 3	32.92	19 18.88	155 15.65	9.22	1.6	2.2	26	0	122	.07	4	.6	.4 24	KOA
		19	1835	50.66	19 18.33	155 16.46	9.39	2.5	2.7	32	3	115	.12	4	.4	.5 27	KOA
		19	2336	53.72	20 39.29	155 47.03	6.95	3.5	3.5	38	6	218	.20	50	.9	1.4 34	DIS
		20	3 7	55.52	19 21.57	155 1.72	7.65	2.1	2.1	31	1	169	.13	4	.7	.5 29	MER
		20	312	48.70	19 25.53	155 16.49	2.58	2.0	2.9	22	1	46	.12	1	.4	.3 18	SPC
		20	814	56.40	19 19.76	155 8.21	9.04	2.2	2.7	33	1	86	.09	4	.5	.5 24	UER
		21	020	44.12	19 19.45	155 13.35	10.23	3.6	4.0	38	3	71	.10	5	.4	.5 33	UER
		21	135	52.16	19 16.95	155 22.56	7.07	1.8	2.4	27	0	125	.12	6	.6	1.1 22	SWR
		21	611	32.78	19 20.39	155 13.23	9.09	2.1	2.6	34	1	63	.09	4	.3	.5 24	UER
		21	1847	35.06	19 16.09	156 10.69	19.97		2.0	11	0	316	.12	32	19.1	9.5 11	DIS
		21	1850	2.77	19 14.66	156 13.07	26.31	3.1	4.1	18	0	320	.11	37	17.5	7.3 17	DIS
		21	1919	54.17	19 13.15	156 20.48	30.06	2.8	3.8	13	0	327	.08	50	24.7	7.7 13	DIS
		21	22 6	10.47	19 20.28	155 8.30	6.28	2.2	2.4	32	1	79	.13	4	.5	1.0 30	UER
		21	2212	33.68	19 24.26	155 27.47	10.87	2.2	2.3	36	1	47	.13	3	.5	.6 31	UKF
		22	013	48.74	19 19.95	155 6.83	8.56	2.7	3.1	32	0	113	.10	5	.6	.5 30	UER
		22	137	4.43	19 20.49	155 6.91	7.38	2.7	2.2	32	1	100	.12	6	.5	.9 27	UER
		22	1315	7.98	19 19.97	155 11.79	9.08	2.4	2.7	35	2	84	.13	5	.5	.6 30	UER
		22	22 3	25.68	19 3.36	156 39.01	7.00	3.2	3.8	15	0	321	.13	85	11.1	99.0 15	DIS
		22	2235	5.03	19 23.58	155 16.79	3.00	2.2	2.3	24	1	67	.08	2	.3	.4 23	SPC
		23	147	58.56	19 19.16	155 15.46	10.51	4.4	4.5	38	2	91	.10	4	.5	.4 31	KOA
		23	2 2	25.46	19 23.86	155 15.92	3.03	1.6	1.6	14	1	104	.10	3	.4	.6 13	SPC
		23	219	33.13	19 19.17	155 15.38	6.92	1.6	1.0	25	1	110	.12	4	.4	.7 25	KOA
		23	225	.73	19 18.14	155 15.10	7.87	2.1	1.9	26	1	137	.10	4	.6	.7 25	KOA
		23	519	57.26	19 23.27	155 15.13	2.79	1.6	1.3	15	1	75	.12	2	.4	.6 14	SPC
		23	621	3.31	19 23.48	155 15.24	3.28	2.1	2.0	23	1	83	.10	2	.4	.5 22	SPC
		23	2341	17.57	19 18.19	155 15.37	9.91	2.6	2.9	35	1	135	.12	5	.6	.5 24	KOA
		24	114	4.30	18 45.60	155 14.31	12.11		1.3	32	7	286	.19	51	4.5	6.1 30	PPL
		24	131	14.27	19 19.32	155 11.90	8.21	2.1	2.1	29	0	96	.09	5	.5	.5 24	UER
		24	658	27.80	19 20.82	155 13.18	9.52	2.1	2.2	28	0	59	.08	3	.4	.4 26	UER
		24	9 7	27.78	19 20.83	155 15.63	7.49	1.9	2.2	34	0	83	.15	3	.6	.7 25	KOA
		24	12 5	24.89	19 24.03	155 24.50	9.33	2.0	2.2	31	0	39	.11	7	.4	.7 27	UKF
		24	13 0	16.06	19 21.91	155 6.59	7.83	2.1	2.1	30	1	77	.11	6	.5	.9 27	UER
		24	1940	38.59	19 25.56	155 26.11	.93	1.6	1.7	23	4	69	.18	5	3	.6 17	NER
		24	1952	20.25	19 20.75	155 12.92	7.76	1.6	1.8	28	0	63	.13	3	.5	.7 23	UER
		25	0 8	11.27	19 20.00	155 12.45	7.07	1.8	1.7	31	0	77	.13	5	.5	.8 25	UER
		25	545	.34	19 19.74	155 8.53	6.30	1.8	1.7	28	0	79	.10	5	.5	1.0 21	UER
		25	931	15.67	19 19.19	155 9.04	7.41	1.9	1.8	30	1	93	.13	4	.5	.9 26	UER
		25	1349	13.36	19 13.70	155 37.74	9.17	2.6	2.6	27	1	198	.16	3	.9	.8 21	HEA
		25	1536	35.75	19 27.23	154 51.96	3.48	2.1	1.8	22	2	281	.15	4	1.6	.9 20	LER
		25	1740	39.15	19 18.55	155 15.24	9.40	2.1	2.4	31	1	129	.09	4	.5	.4 26	KOA
		25	2039	59.70	19 23.26	155 16.84	3.15	1.5	1.8	17	1	164	.10	2	.4	.6 15	SPC
		25	2134	45.40	19 20.43	155 3.65	7.12	2.1	2.5	30	2	106	.14	2	.6	.8 24	MER

HVO EARTHQUAKE SUMMARY LIST

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		ORIGIN TIME			LAT N		LON W		DEPTH AMP DIR				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
1978	JUN	25	2247	14.28	19	21.02	155	.61	7.84	2.1	2.3	28	1	203	.14	5	.8	.6	23	LER
		25	23 9	29.35	19	10.36	155	36.54	9.31	2.4	2.1	36	5	101	.21	9	.7	1.0	31	HEA
		26	1214	.18	19	27.71	155	49.65	6.18	2.4	1.9	25	1	96	.20	8	.7	1.6	20	KON
		26	1656	5.08	19	19.17	155	15.68	30.56	2.2	1.9	36	7	94	.09	4	.6	.6	35	DEP
		26	1927	36.32	19	21.51	155	.41	7.79	2.1	1.9	27	2	196	.13	5	1.0	.7	22	LER
		26	2055	14.13	19	18.76	155	8.21	8.68	2.2	2.6	34	2	94	.12	3	.4	.6	24	POL
		27	023	32.03	19	20.19	154	59.90	5.89	2.1	2.1	28	2	222	.19	5	1.0	.9	21	LER
		27	740	16.96	19	20.36	155	12.71	7.92	1.9	2.2	30	1	69	.14	4	.5	.8	28	UER
		27	933	26.02	19	10.33	155	29.04	33.61	2.5	2.2	30	3	98	.06	3	.8	1.3	26	LSW
		27	1041	31.64	19	20.72	155	13.18	7.44	2.2	2.5	33	0	61	.15	4	.5	.8	26	UER
		27	2231	5.96	19	24.78	155	25.16	11.04	2.0	2.0	38	0	32	.14	6	.4	.5	35	UKF
		28	331	4.77	19	23.82	155	15.84	2.98	1.0	1.8	16	1	104	.09	3	.4	.5	9	SPC
		28	1128	17.70	19	20.84	155	12.82	7.37	1.9	2.1	31	2	62	.14	3	.4	.7	25	UER
		28	1345	20.80	19	20.14	155	8.37	6.32	1.8	2.0	24	1	79	.11	4	.5	1.4	20	UER
		28	1953	56.09	19	20.78	155	12.96	7.07	1.6	1.7	29	0	63	.14	3	.5	.8	25	UER
		28	2331	47.87	19	24.97	155	15.79	1.21	1.1	.9	12	1	120	.13	2	.5	.6	10	SPC
		29	513	6.70	19	23.84	155	1.99	9.36	1.9	1.6	27	1	126	.14	4	.6	.7	25	MER
		29	1159	25.98	19	20.38	155	17.89	32.72	2.1	2.4	29	0	69	.09	1	.8	1.5	25	DEP
		29	1511	29.08	19	19.30	155	13.64	8.20	1.9	2.3	31	1	125	.13	6	.6	.8	27	UER
		29	1831	10.89	19	21.75	155	6.99	9.23	3.2	2.3	37	2	77	.08	5	.3	.5	34	UER
		29	20 4	9.50	19	25.50	155	24.31	8.25	2.2	2.2	31	1	58	.11	8	.4	.9	28	UKF
		29	2216	25.23	19	30.62	155	23.49	6.16	1.9	2.0	28	1	49	.13	2	.4	1.0	23	NER
		29	2258	39.80	19	20.35	155	7.60	7.04	2.0	1.7	30	2	92	.14	5	.5	1.0	27	UER
		30	146	11.05	19	20.14	155	6.25	6.87	2.1	1.9	30	1	117	.09	6	.4	.9	27	UER
		30	712	3.61	19	18.96	155	13.21	8.07	2.1	2.2	31	1	81	.14	4	.5	.8	27	POL
		30	1228	2.76	19	16.84	155	28.92	10.15	3.3	3.7	37	2	83	.12	11	.4	.5	32	HEA
		30	1420	34.92	19	19.63	155	10.35	9.87	3.1	2.3	38	2	94	.10	5	.4	.5	33	UER
		30	1537	51.13	19	26.34	155	51.73	14.10	1.9	1.6	4	130	.11	8	.7	.5	14	KON	
		30	1811	33.35	19	19.82	155	7.85	8.03	2.4	2.6	30	2	95	.08	5	.4	.8	27	UER
		30	2039	6.93	19	20.46	155	7.24	7.81	1.9	1.9	29	0	96	.08	5	.5	.8	25	UER
		30	21 1	52.21	19	19.03	155	14.88	7.43	1.8	1.8	30	0	88	.12	4	.5	.8	24	UER
		30	2211	43.81	19	17.44	155	14.77	9.94	1.8	1.7	26	2	157	.12	2	.6	.5	18	POL
		30	2231	22.10	19	18.35	155	15.48	10.20	2.9	3.0	34	0	106	.11	4	.7	.5	30	KOA
		30	2235	26.89	19	17.87	155	14.73	7.42	1.7	1.5	20	0	139	.10	3	.6	.7	13	POL
		30	2239	16.86	19	17.84	155	14.79	8.77	1.7	1.6	23	0	141	.11	3	.8	.5	18	POL
		30	2246	4.68	19	20.45	155	17.80	31.55	2.3	2.4	36	2	68	.10	1	.7	.9	32	DEP
		30	2248	37.23	19	19.31	155	12.04	8.15	2.2	2.3	33	3	95	.13	5	.5	.7	24	UER
		1	4 9	24.15	19	20.25	155	15.61	6.84	1.8	1.3	24	2	85	.12	3	.4	1.0	16	KOA
		1	451	40.91	19	14.19	156	14.61	34.69	2.9	2.9	18	4	272	.06	39	1.3	2.2	13	DIS
		1	511	3.29	19	20.51	155	7.50	6.62	2.1	2.3	31	1	91	.11	5	.5	1.1	28	UER
		1	653	28.46	19	20.21	155	2.24	6.82	1.7	1.8	26	1	200	.15	1	.7	.7	16	MER
		1	917	58.44	19	19.68	155	7.09	8.40	2.5	.34	1	114	.09	5	.5	.6	.6	29	UER
		1	918	13.27	19	18.47	155	6.73	7.97	4.2	2.3	23	2	160	.11	3	.5	1.1	2	POL
		1	919	37.51	19	19.97	155	7.13	7.02	2.4	2.6	17	0	107	.07	5	.6	1.5	0	UER
		1	1029	47.07	19	19.65	155	6.95	7.80	1.8	2.1	27	1	118	.09	5	.6	.8	18	UER
		1	1258	35.88	19	18.36	155	14.48	7.02	1.8	1.8	25	1	118	.09	3	.5	.7	20	POL
		1	1541	25.84	19	19.73	155	7.25	8.65	2.0	2.3	29	0	109	.09	5	.6	.6	22	UER
		1	1548	6.56	19	16.98	155	30.75	3.56	2.1	1.8	26	3	70	.13	12	.4	1.7	19	HEA

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YEAR	MON	DA	HRMN	SEC	LAT N DEG MIN	LON W DEG MIN	DEPTH KM	AMP MM	DIR NR	NS	GAP DEG	RMS SEC	MIN DIS	ERM KM	ERZ KM	NO FM	REMK
1978	JUL	1	2112	54.51	19 27.26	155 22.07	7.24	1.4	1.7	22	1 77 .14	5 .5	1.2 15	UKF			
		2	1329	39.31	19 19.89	155 8.30	8.88	2.3	2.7	33	1 83 .09	5 .5	.5 30	UER			
		2	2133	57.86	19 25.55	154 54.41	8.77	2.2	2.4	30	4 221 .14	4 1.1	.5 21	LER			
		3	1 6	40.27	19 20.66	155 6.70	9.11	2.4	2.0	33	1 99 .09	6 .5	.4 29	UER			
		3	550	47.20	19 46.82	155 48.04	12.35	2.9	2.1	38	2 162 .12	11 .6	.6 35	KON			
		3	1612	45.60	19 20.71	155 12.75	7.84	1.2	1.3	25	0 65 .12	4 .5	.7 17	UER			
		3	21 5	16.33	19 21.72	155 4.86	9.07	3.4	2.6	37	0 80 .11	5 .6	.4 36	MER	F		
		3	2254	31.03	19 25.31	155 27.68	11.08	3.0	2.5	37	1 38 .11	5 .4	.5 32	UKF	F		
		4	425	48.67	19 22.45	155 49.48	11.37	1.8	2.0	23	2 120 .14	13 .6	.7 20	KON			
		4	618	15.09	19 25.60	155 24.94	9.25	2.2	2.5	33	0 49 .11	7 .4	.8 28	UKF			
		4	634	27.59	19 21.30	155 15.08	7.71	1.9	1.8	26	1 66 .10	3 .5	.8 23	KOA			
		4	738	2.79	19 20.87	155 10.99	8.41	1.9	1.7	27	1 72 .11	3 .5	.7 20	UER			
		4	744	50.22	19 20.87	155 11.22	8.53	2.3	2.6	32	1 71 .10	3 .4	.6 28	UER			
		4	745	28.04	19 26.04	154 56.03	6.32	1.1	1.4	4	187 .19	3 1.1	1.9 11	LER			
		5	424	2.72	19 21.96	155 6.18	7.69	2.0	1.8	30	2 78 .13	6 .4	.6 25	UER			
		5	430	34.96	19 19.61	155 6.64	7.43	2.8	2.4	37	1 125 .12	5 .5	.5 31	UER			
		5	5 3	12.70	19 21.02	155 5.81	8.61	2.4	2.9	32	1 97 .09	5 .5	.5 27	MER			
		5	1218	52.21	19 33.91	155 38.21	10.14	2.4	1.7	22	0 151 .12	9 .7	1.0 19	MOK			
		5	1817	25.17	19 19.90	155 11.42	8.09	1.9	2.1	29	0 88 .10	5 .5	.8 25	UER			
		5	1913	49.43	19 17.55	155 29.16	6.83	2.3	2.7	31	1 84 .11	10 .4	1.2 29	HEA			
		5	2234	19.05	19 20.24	155 30.39	7.04	1.9	1.7	27	0 66 .12	6 .5	1.4 25	HEA			
		6	1315	18.08	19 21.61	155 6.66	6.55	1.9	2.1	25	0 82 .09	6 .5	1.3 24	UER			
		6	1719	31.24	19 39.72	155 8.37	20.10	2.2	1.4	20	1 174 .10	19 .9	3.5 20	HIL			
		6	2120	12.72	19 25.40	155 15.87	2.33	2.4	2.8	25	1 46 .12	2 .3	.4 23	SPC	F		
		7	719	20.15	19 18.60	155 15.25	9.66	2.0	2.7	33	1 128 .10	4 .5	.5 31	KOA			
		7	1131	29.20	19 12.09	156 7.13	26.40	3.1	2.9	12	0 322 .12	27 19.5	7.7 12	DIS	*		
		7	1910	6.41	19 19.55	155 8.53	7.44	2.1	2.3	29	1 80 .09	4 .5	.8 27	UER			
		8	211	35.61	19 25.86	155 24.67	8.02	2.6	2.8	34	1 33 .13	8 .4	1.1 32	UKF			
		8	1411	44.94	19 27.52	154 46.71	7.42	2.3	2.1	17	2 292 .14	12 3.0	1.1 14	DIS			
		9	140	50.34	19 18.21	155 15.78	8.99	2.1	2.3	35	2 112 .13	5 .5	.5 31	KOA			
		9	754	38.19	19 21.11	155 13.17	7.07	1.9	2.1	30	1 57 .16	3 .5	.8 29	UER			
		9	845	31.42	19 19.15	155 11.21	8.43	2.0	2.5	29	0 106 .09	6 .5	.6 25	UER			
		9	13 7	56.91	19 22.28	155 5.85	8.48	3.1	2.3	33	0 72 .10	5 .5	.5 30	MER	F		
		9	1654	8.29	19 23.03	155 25.69	8.87	2.3	2.3	27	0 93 .10	4 .5	.9 24	UKF			
		9	1837	37.90	19 14.86	155 20.54	8.68	1.9	2.0	32	0 156 .11	7 .6	.6 24	HLP			
		9	1841	32.22	19 20.39	155 3.58	6.94	2.0	2.3	27	1 107 .10	1 .6	.6 24	MER			
		9	19 7	7.34	19 14.46	155 20.36	7.76	1.9	2.1	31	1 162 .12	7 .6	.8 26	HLP			
		9	1943	24.54	19 14.96	155 20.63	8.57	2.2	2.4	33	0 156 .11	7 .6	.6 29	HLP			
		10	4 1	44.70	19 18.79	155 13.43	8.03	2.0	2.2	29	1 80 .13	3 .5	.7 24	POL			
		10	1026	24.86	19 18.65	155 13.22	8.04	2.3	2.4	29	1 84 .10	3 .5	.6 22	POL			
		10	1322	5.77	19 11.47	155 30.72	7.43	2.2	2.1	27	2 90 .16	6 .4	1.2 20	LSW			
		10	1621	40.76	19 21.94	155 3.76	6.51	2.0	1.9	23	1 102 .16	4 .7	1.0 19	MER			
		11	059	47.44	19 19.67	155 8.43	7.25	2.2	2.3	29	1 82 .11	4 .5	.8 25	UER			
		11	347	46.06	19 48.16	155 23.26	24.77	2.6	2.6	36	4 130 .11	8 .6	1.4 29	KKU			
		11	11 4	18.73	19 30.19	155 35.29	14.73	2.6	1.8	23	2 71 .11	2 .5	.5 19	MOK			
		12	330	2.84	19 20.08	155 6.46	7.81	2.1	2.2	29	1 116 .10	6 .6	.7 25	UER			
		12	331	44.62	19 20.36	155 11.25	7.33	1.7	1.7	28	0 80 .13	4 .5	.8 22	UER			
		12	532	37.56	19 20.29	155 9.53	7.36	1.8	2.0	28	0 76 .10	3 .4	.7 24	UER			

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YEAR	MON	DA	HRMN	SEC	ORIGIN TIME	LAT N	LON W	DEPTH	AMP	DIR	GAP	RMS	MIN	ERH	ERZ	NO	REMK
					DEG MIN	DEG MIN	DEG MIN	KM	MAG	MAG	NR	NS	DEG	SEC	DIS	KM	KM FM REMK
1978	JUL	12	1133	10.16	19 17.98	155 11.45	8.45	2.1	2.1	29	2	168	.17	4	.6	.7 21	POL
		12	1239	1.91	19 21.25	155 5.95	7.77	2.2	2.3	29	1	146	.12	7	.6	.7 28	MER
		12	2126	10.78	19 19.32	155 7.34	5.22	2.0	2.1	28	1	116	.12	4	.5	1.5 26	UER
		12	23 5	57.24	19 23.56	155 15.40	3.06	1.8	1.8	17	1	51	.11	2	.4	.6 16	SPC
		12	2332	22.22	19 23.94	155 28.83	9.22	2.2	2.1	29	0	48	.14	3	.5	1.1 27	UKF
		13	529	9.14	19 19.81	155 10.57	8.23	2.2	2.6	33	1	91	.10	4	.4	.6 30	UER
		13	8 3	48.97	19 13.30	156 14.48	26.86	3.1	2.6	9	0	330	.13	39	43.0	13.8 9	DIS
		13	1349	22.63	19 21.98	155 4.33	6.56	2.0	2.0	26	0	88	.12	5	.5	.9 26	MER
		13	17 6	21.25	19 23.51	155 15.86	3.47	1.4	1.5	13	1	88	.12	2	.5	.7 12	SPC
		13	2019	38.06	19 25.07	155 37.68	.00	2.5	2.1	11	0	75	.25	5	.9	3.8 11	MOK
		13	2052	3.71	19 44.78	156 8.65	16.08	2.9	2.3	30	0	288	.16	33	4.9	99.0 28	KON
		13	2129	51.47	19 13.66	155 28.58	6.77	2.4	2.4	27	0	138	.15	15	.7	1.2 26	LSW
		13	22 1	15.70	19 19.27	155 6.38	8.17	2.2	2.1	29	1	140	.10	5	.6	.7 27	UER
		14	256	37.19	19 21.18	155 15.28	9.92	3.2	3.3	37	2	68	.09	3	.4	.4 33	KOA F
		14	1733	45.88	19 23.89	155 16.01	2.71	2.4	2.8	30	1	44	.14	3	.3	.5 22	SPC F
		14	1849	28.99	19 19.92	155 8.05	5.36	1.8	2.0	23	0	88	.08	5	.5	1.2 17	UER
		14	1938	39.96	19 20.84	155 6.46	6.72	2.1	2.1	30	1	98	.08	6	.5	.9 25	UER
		14	22 9	5.25	19 17.21	155 12.66	11.94	3.0	2.9	38	1	147	.11	8	.6	.4 30	POL
		14	2250	9.39	19 17.44	155 12.93	7.83	1.9	1.9	25	0	142	.13	1	.7	.8 21	POL
		14	23 2	56.19	19 18.12	155 13.07	9.30	2.0	1.9	29	0	141	.11	8	.6	.5 23	POL
		15	645	43.66	19 13.69	155 25.79	37.68	2.4	2.4	33	3	129	.12	9	.6	.9 29	LSW
		15	11 9	54.75	19 17.80	155 47.57	5.27	2.5	1.5	30	4	89	.22	9	.6	1.9 29	KON
		15	1138	47.15	19 20.20	155 13.20	9.00	2.0	2.2	33	3	66	.11	5	.4	.5 21	UER
		15	1914	58.30	19 19.67	155 11.67	7.33	1.7	2.0	31	0	90	.13	5	.5	.7 28	UER
		16	829	41.78	19 21.05	155 1.02	7.84	3.4	3.7	34	0	196	.11	4	.9	.5 33	MER F
		16	1443	47.73	19 22.80	155 20.70	13.09	2.1	2.3	34	1	50	.12	2	.5	.4 27	INT
		16	1644	33.76	19 20.75	155 5.68	8.06	1.9	1.9	28	0	106	.11	5	.6	.7 24	MER
		17	322	31.41	19 22.38	155 2.91	7.48	2.1	2.6	32	1	126	.11	5	.5	.5 26	MER
		17	1311	20.43	19 28.50	154 53.80	5.09	2.2	2.2	28	2	184	.19	1	1.6	1.1 23	LER
		17	1448	59.33	19 21.06	155 3.68	5.71	2.0	1.9	30	2	97	.14	3	.5	.9 26	MER
		17	1525	40.84	19 22.36	155 6.09	7.00	2.0	2.2	28	1	71	.11	5	.5	1.0 23	UER
		17	1619	16.24	19 20.44	155 13.19	7.12	1.8	1.8	28	0	64	.14	4	.5	.8 23	UER
		18	331	34.97	19 20.10	155 11.86	7.53	1.9	2.1	30	1	81	.13	5	.5	.7 26	UER
		18	4 3	55.24	19 20.61	155 10.70	9.29	2.7	2.1	34	1	76	.12	3	.4	.5 30	UER
		18	429	20.08	19 28.64	154 53.57	5.36	2.3	2.6	11	3	198	.35	1	3.6	2.2 6	LER
		18	1421	58.69	19 19.81	155 11.13	8.05	1.7	1.9	28	0	90	.09	5	.4	.6 27	UER
		18	1443	57.66	19 26.48	154 56.64	5.50	2.1	2.3	24	2	171	.13	3	.9	.8 20	LER
		18	1541	39.67	19 20.76	155 5.99	7.58	2.1	2.3	29	0	103	.11	6	.5	.8 22	MER
		19	1359	.49	19 21.09	155 7.17	6.98	2.0	1.7	25	0	86	.12	5	.5	.9 24	UER
		20	018	5.75	19 20.84	155 12.97	7.79	2.1	2.3	26	1	61	.13	3	.5	.7 21	UER
		20	2 6	1.13	19 20.35	155 11.61	7.00	2.0	1.6	25	0	78	.10	4	.5	.8 21	UER
		20	235	50.45	19 20.25	155 6.44	7.36	2.5	2.5	28	1	112	.11	6	.5	.9 24	UER
		20	955	13.70	19 23.76	155 15.43	2.74	1.2	1.2	9	0	98	.12	3	.5	.7 8	SPC
		21	120	7.34	19 23.00	155 16.93	2.64	1.2	1.5	13	0	68	.07	2	.4	.6 13	SPC
		21	239	21.69	19 19.92	155 13.00	7.34	2.2	2.6	29	0	71	.12	5	.5	.7 28	UER
		21	338	15.01	19 19.24	155 8.46	7.77	2.2	2.1	28	0	83	.11	4	.6	.7 27	UER
		21	943	10.09	19 22.11	155 4.82	7.69	1.7	1.5	21	0	79	.11	5	.6	1.0 15	MER
		21	1246	21.65	19 19.37	155 12.13	7.50	1.8	1.5	21	0	92	.09	5	.5	.9 19	UER

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YEAR	MON	DA	HRMN	SEC	ORIGIN TIME	LAT N	LON W	DEPTH	AMP	DIR	GAP	RMS	MIN	ERH	ERZ	NO	REMK
						DEG MIN	DEG MIN	KM	MAG	MAG	NR	NS	DEG	SEC	DIS	KM	KM FM REMK
1978	JUL	21	14 9	48.65	19 20.50	155 11.78		7.16		1.6 19	0	74	.10	4	.6	.9 16	UER
		21	1532	48.53	19 20.92	155 4.52		7.72	1.8	1.9 25	1	100	.13	3	.6	1.0 20	MER
		21	2250	1.16	19 22.88	155 16.94		3.28	2.4	2.7 26	1	49	.10	2	.3	.6 23	KOA
		22	022	41.62	19 20.06	155 11.83		7.37	1.6	1.3 25	0	82	.11	5	.5	.9 17	UER
		22	442	27.57	19 20.05	155 12.40		7.88	1.8	2.2 26	0	77	.11	5	.5	.7 18	UER
		22	737	17.14	19 22.08	155 5.13		7.12	1.9	2.4 27	1	74	.10	5	.5	.8 25	MER
		22	1258	55.42	19 21.02	155 7.44		8.10	2.7	2.0 31	2	84	.12	5	.5	.7 27	UER
		22	1741	32.23	19 20.45	155 13.30		8.11	1.2	1.4 20	0	62	.08	4	.5	.9 13	UER
		23	0 9	14.31	19 18.80	155 13.52		8.17	1.4	1.4 19	0	83	.08	3	.5	.9 16	POL
		23	214	52.12	19 20.26	155 13.40		9.19	1.5	1.5 21	0	64	.10	4	.5	.7 14	UER
		23	315	37.64	19 21.22	155 6.04		8.78	2.2	2.6 30	1	92	.09	6	.5	.6 22	UER
		23	546	28.27	19 27.08	154 52.65		9.10	3.1	3.6 31	1	255	.11	4	1.6	.4 26	LER
		23	625	6.95	19 26.77	155 29.59		8.94	2.0	2.1 29	1	44	.10	9	.4	.9 24	UKF
		23	635	43.06	19 22.55	155 4.40		9.07	2.4	2.9 30	1	88	.09	4	.5	.5 22	MER
		23	742	54.54	19 23.81	155 16.86		2.83	1.0	1.3 14	1	68	.06	2	.3	.5 8	SPC
		23	1227	36.60	19 20.10	155 11.10		7.03	2.3	2.3 33	2	84	.10	4	.4	.6 27	UER
		23	1933	35.19	19 24.77	155 25.42		4.02	2.0	2.0 22	1	54	.15	6	.5	3.1 17	UKF
		23	2220	23.89	19 20.42	155 4.34		5.63	2.3	2.2 30	0	119	.12	3	.6	1.0 27	MER
		24	139	42.02	19 21.17	155 2.73		8.52	2.4	2.7 34	1	142	.10	2	.7	.4 27	MER
		24	612	15.33	19 19.42	155 13.03		10.05	2.6	2.9 35	0	77	.09	5	.4	.3 30	UER
		24	810	35.11	19 19.14	155 8.02		9.10	2.1	2.1 16	1	98	.08	3	.8	.7 10	UER
		24	851	4.63	19 24.54	155 29.52		8.26	2.0	2.3 29	1	63	.10	5	.4	1.0 27	UKF
		24	1020	17.50	19 28.39	155 43.26		7.84		2.0 17	0	86	.13	6	.7	1.7 16	MOK
		24	1047	6.98	19 21.27	155 2.43		7.47	2.4	2.6 28	1	152	.11	3	.6	.6 23	MER
		24	11 6	30.39	19 22.11	155 28.65		9.41	2.1	2.3 24	0	63	.10	2	.5	.9 23	UKF
		24	1136	19.00	19 19.88	155 8.05		7.89	2.3	2.6 27	1	88	.10	5	.5	.9 25	UER
		24	13 2	5.01	19 10.03	155 41.27		8.02	2.6	2.4 25	0	127	.20	12	.9	1.2 23	HEA
		24	1644	58.14	19 20.05	155 8.24		5.83	1.8	2.3 28	0	83	.11	5	.5	1.0 22	UER
		24	2341	57.57	19 50.47	155 44.89		11.55	2.7	2.8 33	0	146	.10	20	.6	.7 23	KKU
		25	127	44.11	19 20.00	155 8.17		7.70	1.8	2.4 26	0	85	.09	5	.5	.7 25	UER
		25	324	44.55	19 20.25	155 8.94		8.08	1.9	2.1 26	1	72	.09	4	.5	.8 24	UER
		25	338	41.72	19 20.78	155 17.20		26.12	2.0	1.8 29	1	60	.08	1	.6	.8 25	DEP
		25	654	52.62	19 25.94	155 22.67		9.33	2.2	2.6 34	1	46	.14	7	.5	.7 30	UKF
		25	1529	5.46	19 26.39	155 21.21		8.95	2.0	1.9 23	1	48	.14	6	.5	1.0 12	UKF
		25	2354	37.38	19 13.66	155 6.36		51.45	3.0	3.3 37	0	208	.09	7	1.3	2.2 32	POL
		26	1027	8.98	19 30.14	155 16.99		13.90	2.6	2.9 33	2	48	.10	9	.3	.4 30	GLN
		26	1756	55.43	19 12.39	155 40.52		6.32	2.4	2.1 17	0	215	.20	8	1.2	1.7 16	HEA
		26	1848	29.86	19 20.80	155 10.50		7.95	2.2	2.7 28	0	72	.12	3	.5	.8 26	UER
		26	1851	23.34	19 19.81	155 13.09		8.28	2.0	2.5 30	0	72	.12	5	.4	.7 27	UER
		26	2155	24.15	19 23.10	155 17.43		11.43		.7 12	0	63	.05	3	.8	1.3 12	INT
		27	035	43.10	19 30.53	155 51.87		7.14		1.9 19	0	164	.17	6	.9	.9 19	KON
		27	10 9	26.55	19 29.03	155 38.98		5.20	2.7	3.0 28	0	72	.15	5	.5	1.5 24	MOK F
		27	1040	57.04	19 21.50	155 29.44		7.21	2.3	2.5 27	0	63	.11	4	.4	.9 25	HEA
		28	230	8.42	19 19.84	155 8.30		8.04	1.9	2.1 30	0	83	.10	5	.5	.8 28	UER
		28	232	46.54	19 23.89	155 49.50		11.96		2.4 21	1	117	.14	14	.7	.7 19	KON
		28	1451	45.69	19 28.39	155 38.32		7.15	2.3	1.8 13	0	92	.15	4	.7	1.4 13	MOK
		28	1528	40.91	19 17.25	155 22.52		5.84	1.8	2.4 26	0	123	.14	6	.5	1.2 23	SWR
		28	1858	7.70	19 20.28	155 13.32		9.39	2.0	2.4 32	1	63	.14	4	.5	.6 31	UER

HVO EARTHQUAKE SUMMARY LIST

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YEAR	MON	DA	HR	MIN	SEC	ORIGIN TIME	LAT N	DEG	MIN	DEG	MIN	DEG	MIN	DEPTH	KM	AMP	MAG	DIR	MAG	NR	NS	GAP	RMS	MIN	ERH	ERZ	NO	REMK
1978	JUL	29	1	9	19.50	19 19.52	155	7.39						9.43	2.2	2.5	34	2	110	.11	4	.5	.5	30	UER			
		29	427	49.60	19 27.05	155 21.61								5.50	1.9	2.1	31	2	41	.14	6	.4	1.6	27	UKF			
		29	720	43.26	19 12.31	155 37.20								9.08	2.6	2.7	33	1	94	.27	5	.9	1.2	31	HEA			
		29	1210	48.07	19 19.83	155 6.35								7.79	2.0	2.3	27	1	124	.10	5	.5	.8	23	UER			
		29	1542	18.99	19 20.12	155 12.95								7.92	1.8	2.2	24	0	69	.13	5	.6	.5	20	UER			
		29	1648	52.18	19 23.90	155 15.55								2.85	1.2	1.3	9	1	107	.11	3	.6	.9	8	SPC			
		29	19	1	20.90	19 22.86	155 25.13							10.58	2.0	2.2	27	0	89	.09	4	.4	.6	26	UKF			
		29	1953	4.33	19 23.89	155 17.56								5.21	1.3	1.2	12	1	59	.15	2	.6	1.1	11	SPC			
		29	2155	1.34	19 23.22	155 1.03								8.49	1.9	1.9	27	1	158	.15	5	.7	.7	26	MER			
		30	1449	21.90	19 24.32	155 27.42								10.59	1.9	2.3	27	1	51	.12	3	.5	.9	24	UKF			
		31	1626	11.11	19 24.16	155 27.51								10.58	2.2	2.4	25	0	48	.10	3	.5	.8	20	UKF			
		31	1631	15.29	19 17.70	155 12.97								9.53	2.2	2.4	30	1	146	.12	9	.6	.6	26	POL			
		31	1858	53.84	19 24.20	155 27.59								11.38	2.1	2.1	35	1	48	.13	3	.5	.6	29	UKF			
		31	20	1	18.89	19 23.78	155 1.46							10.08	2.1	2.4	29	2	138	.10	5	.6	.5	24	MER			
		31	2317	49.33	19 23.80	155 15.73								2.94	1.3	1.8	16	1	103	.09	3	.4	.5	15	SPC			
AUG		1	028	5.62	19 24.38	155 17.07								1.59	1.2	1.4	11	0	58	.04	1	.3	.4	11	SPC			
		1	435	15.76	19 27.17	155 22.09								7.88	2.6	2.9	33	2	41	.16	5	.4	1.0	28	UKF			
		1	12	8	36.49	19 19.90	155 6.54							9.11	3.0	3.4	34	1	119	.10	5	.6	.4	28	UER			
		1	14	1	36.28	19 19.98	155 11.42							8.14	2.1	2.3	34	1	86	.10	5	.4	.6	28	UER			
		1	16	2	10.96	19 21.32	155 29.81							7.88	1.9	1.9	31	0	64	.13	4	.4	1.0	18	HEA			
		1	1611	13.30	19 55.59	155 27.32								14.24	2.4	1.9	31	2	175	.17	36	1.4	4.5	26	KKU			
		1	19	8	15.33	19 20.61	155 11.23							8.46	2.1	2.1	30	1	75	.09	4	.4	.6	26	UER			
		2	416	39.87	19 22.21	155 25.39								9.01	2.3	2.3	35	1	76	.11	4	.4	.6	31	UKF			
		2	1041	18.17	19 20.92	155 13.27								7.74	2.1	2.5	29	0	58	.16	3	.6	.8	26	UER			
		2	1117	50.41	19 21.02	155 4.20								6.66	2.1	2.1	29	1	93	.12	3	.6	.9	27	MER			
		2	1640	55.72	19 23.60	155 16.66								2.93	2.1	2.5	20	1	70	.09	3	.3	.5	19	SPC			
		2	1718	43.66	19 22.88	155 16.92								3.12	1.6	1.9	14	1	57	.09	2	.4	.6	13	KOA			
		3	021	49.35	19 18.86	155 16.31								9.49	2.4	2.6	29	0	105	.09	3	.4	.4	27	KOA			
		3	2	1	23.44	19 21.92	155 6.55							8.65	2.4	2.9	34	0	77	.10	6	.5	.5	29	UER			
		3	6	5	1.02	19 21.60	155 12.71							2.71	1.7	1.6	16	0	87	.08	2	.3	.5	15	UER			
		3	946	59.14	19 23.78	155 15.90								2.65	2.0	2.3	19	1	78	.11	3	.4	.5	18	SPC			
		4	737	27.82	19 21.89	155 8.07								7.34	1.9	2.5	28	1	88	.14	5	.6	1.1	25	UER			
		4	9	3	52.84	19 21.78	155 19.02							31.84	2.2	2.1	31	0	41	.08	4	.7	1.3	28	DEP			
		4	1424	15.10	19 45.24	156 4.59								30.87	3.0	3.2	36	0	238	.12	26	1.4	2.0	30	KON F			
		4	1648	45.45	19 19.90	155 6.38								7.59	2.4	2.5	30	1	122	.12	5	.5	.9	25	UER			
		4	1954	15.74	19 24.29	155 29.87								8.70	2.0	1.8	27	0	52	.11	5	.4	1.0	24	UKF			
		4	23	8	47.51	19 20.41	155 11.16							9.66	2.5	2.8	33	1	78	.12	4	.5	.5	28	UER			
		5	428	55.61	19 23.35	155 15.10								3.13	2.0	2.4	19	1	56	.10	2	.4	.5	14	SPC			
		5	1211	56.59	19 21.95	155 6.22								7.34	2.1	2.0	30	0	77	.11	6	.5	.8	23	UER			
		5	1352	52.15	19 18.26	155 24.49								8.73	1.8	2.2	31	0	104	.13	4	.5	.8	26	SWR			
		5	20	0	23.43	19 26.40	155 23.99							10.10	3.0	3.2	35	0	42	.13	6	.5	.7	34	UKF			
		5	21	7	52.84	19 34.96	155 10.71							11.24	2.1	2.4	30	0	136	.11	15	.5	.8	21	HIL			
		5	23	5	3.01	19 23.23	155 3.66							8.20	2.7	3.1	30	0	101	.11	3	.5	.6	24	MER			
		6	131	54.22	19 25.84	155 24.26								4.52	1.6	1.9	23	2	54	.14	8	.4	7.6	17	UKF			
		6	517	33.02	19 22.00	155 5.55								8.15	2.0	2.4	30	0	77	.12	5	.5	.7	23	MER			
		6	1639	57.18	19 20.30	155 12.81								9.15	1.9	2.3	29	0	69	.11	4	.4	.5	22	UER			
		7	415	49.60	19 26.86	155 24.69								6.57	2.0	2.1	30	0	49	.15	6	.4	1.5	28	UKF			
		7	6	4	1.68	19 21.15	155 2.60							7.13	2.1	2.4	29	0	147	.12	2	.8	.6	28	MER			

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		ORIGIN TIME			LAT N		LON W		DEPTH				AMP		DIR		GAP		RMS		MIN		ERH		ERZ		NO			
YEAR	MON	DA	HRMN	SEC	DEG	MIN	DEG	MIN	KM	MAG	MAG	MAG	NR	NS	DEG	SEC	DIS	KM	KM	FM	FM	REMK								
1978	AUG	7	1256	30.33	19	16.76	155	21.59	9.09	2.4	2.5	34	1	133	.15	6	.5	.7	28	SWR										
		7	1435	37.83	19	20.42	155	13.05	9.44	2.4	2.6	32	0	65	.13	4	.4	.5	28	UER										
		7	22	7	51.11	19	20.72	155	10.37	8.09	2.1	2.1	26	0	74	.08	3	.4	.6	20	UER									
		8	115	40.71	19	22.03	155	4.88	8.80	2.7	3.3	34	1	78	.10	5	.5	.5	30	MER										
		8	11	1	6.25	19	19.86	155	11.94	9.50	2.8	3.0	34	1	84	.11	5	.4	.5	29	UER									
		8	1226	35.42	19	23.12	155	17.00	2.93	2.2	2.6	27	0	64	.06	2	.3	.5	22	SPC										
		8	1240	43.13	19	21.86	155	12.81	2.76	2.0	2.0	22	0	54	.12	2	.4	.5	17	UER										
		8	2110	10.28	19	18.19	155	13.18	10.44	3.7	4.0	36	0	94	.09	2	.6	.5	33	POL	F									
		9	125	38.81	19	18.83	155	13.53	7.01	2.1	2.1	34	1	83	.12	3	.5	.7	24	POL										
		9	223	12.45	19	23.55	155	15.82	3.09	2.1	2.1	22	0	43	.12	2	.4	.6	18	SPC										
		9	443	22.04	19	27.30	154	49.44	8.62	3.3	3.9	33	0	277	.14	8	3.0	.6	30	LER	F									
		9	1225	47.02	19	18.37	155	23.75	4.12	1.7	2.1	18	0	158	.08	4	.6	1.3	17	SWR										
		9	1522	24.50	19	21.18	155	3.62	7.92	2.4	2.8	24	1	101	.09	3	.6	.7	22	MER										
		9	1526	8.41	19	21.31	155	3.59	6.66	2.1	2.4	23	1	105	.12	3	.6	1.0	20	MER										
		9	16	6	42.80	19	21.28	155	3.80	6.70	2.0	2.4	24	0	97	.13	3	.7	.8	21	MER									
		9	2337	24.91	19	23.82	155	16.10	2.59	1.1	1.4	10	1	100	.09	3	.4	.7	9	SPC										
		10	132	40.92	19	30.99	155	23.95	.40	2.1	1.9	15	1	103	.08	3	.6	.4	13	NER										
		10	321	34.68	19	24.01	155	17.08	1.21	.8	1.1	9	0	78	.11	2	.4	.6	9	SPC										
		10	1136	20.97	19	23.18	155	17.02	2.72	1.4	1.5	13	1	80	.09	2	.4	.6	12	SPC										
		10	1216	18.34	19	26.52	154	53.37	8.20	2.2	2.1	26	0	235	.17	4	2.1	.6	25	LER										
		10	1327	1.75	19	24.78	155	23.59	9.20	2.1	2.4	27	0	57	.10	7	.4	.9	27	UKF										
		10	1444	21.86	19	19.77	155	13.34	7.68	2.0	2.1	26	1	68	.14	5	.5	1.0	22	UER										
		11	414	34.67	19	23.64	155	15.28	3.38	1.4	1.6	15	1	91	.08	3	.4	.6	14	SPC										
		11	921	39.06	19	22.82	155	16.84	3.42	2.1	2.9	25	1	47	.09	2	.3	.5	18	KOA										
		11	948	46.34	19	26.42	154	55.71	6.58	1.7	2.3	19	2	205	.12	2	1.2	.7	16	LER										
		11	1054	37.00	19	22.41	155	29.30	8.98	1.7	2.7	28	0	60	.11	3	.4	1.0	27	UKF										
		11	1244	29.22	19	27.26	155	21.87	10.43	2.3	2.9	27	2	78	.12	5	.5	.8	23	UKF										
		11	1444	58.70	19	41.03	155	3.15	4.48	2.3	3.2	12	0	242	.14	20	2.2	33.4	8	HIL	B*									
		11	15	8	51.86	20	45.36	155	59.54	15.95	3.1	3.6	31	4	323	.14	73	15.4	44.3	22	DIS	*								
		11	2316	20.48	19	23.35	155	26.55	8.94	1.7	2.1	21	0	95	.09	2	.5	1.1	18	UKF										
		12	052	50.53	19	20.05	155	6.84	9.88	3.3	3.9	36	2	110	.09	5	.5	.4	32	UER	F									
		12	251	23.14	19	46.49	156	.25	11.39	2.8	3.5	29	3	224	.11	20	1.0	.6	24	KON	F									
		12	6	1	32.71	19	20.53	155	12.89	8.26	1.4	1.8	26	0	65	.07	4	.5	.7	22	UER									
		12	624	19.73	19	20.62	155	12.77	7.35	1.2	1.3	22	0	66	.09	4	.5	.8	14	UER										
		12	949	42.75	19	51.50	155	52.24	35.67	1.3	2.6	24	5	190	.09	19	.7	1.1	23	KON										
		12	14	6	10.07	19	18.62	155	13.53	9.31	2.6	3.1	32	2	84	.10	3	.4	.5	23	POL									
		12	1525	44.22	19	19.60	155	7.74	8.40	1.8	2.2	17	1	100	.08	4	.6	1.4	9	UER										
		12	1615	2.79	19	19.68	155	7.99	7.97	1.8	2.1	25	0	92	.10	4	.6	.8	17	UER										
		12	1729	9.21	19	22.13	155	25.16	10.34	1.4	1.8	20	0	74	.09	4	.5	1.0	12	UKF										
		12	2238	13.98	19	23.81	155	2.70	7.70	2.0	2.6	31	3	114	.14	3	.6	.6	20	MER										
		13	531	17.46	19	24.98	155	24.48	9.41	1.8	1.9	23	0	45	.11	7	.5	1.1	19	UKF										
		13	1014	36.80	19	20.79	155	10.92	8.06	2.2	2.3	31	1	73	.13	3	.5	.8	25	UER										
		13	1237	54.46	19	28.31	155	22.21	8.00	2.1	2.0	23	0	98	.13	3	.6	1.2	18	UKF										
		13	2019	39.18	19	23.05	155	16.95	2.88	1.7	2.3	22	1	66	.09	2	.3	.5	17	SPC										
		13	2212	28.96	19	56.00	155	21.66	11.30	2.2	1.8	22	2	278	.12	5	1.3	.8	12	KKU										
		13	2245	29.27	19	20.86	155	7.33	8.47	2.5	3.1	32	1	88	.11	5	.5	.6	22	UER										
		14	1442	9.85	19	41.33	155	44.90	14.49	2.5	2.7	30	3	88	.09	9	.5	.5	27	KKU										
		14	1547	16.73	19	20.29	155	12.35	8.11	1.8	1.5	26	0	73	.10	5	.5	.6	19	UER										

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
1978	AUG	15	053	2.99	19 32.01	155 28.61	3.9A	2.0	1.9	25	1	105	.11	2	.4	.7	21	NER
		15	316	20.46	19 20.14	155 11.56	8.06	1.8	1.7	28	0	81	.10	5	.4	.7	22	UER
		15	1040	8.70	19 20.65	155 12.69	7.70	1.8	1.7	29	1	66	.12	4	.4	.4	24	UER
		15	2120	6.73	19 23.96	155 16.13	2.99	1.3	1.7	15	1	102	.05	2	.3	.5	12	SPC
		16	1120	53.21	19 21.52	155 .32	5.2A	2.1	2.4	23	1	196	.14	5	.8	1.0	22	LER
		16	1736	13.31	19 25.99	154 51.13	9.6A	2.2	2.4	26	1	273	.14	7	2.2	.5	23	LER
		16	2023	35.63	18 49.63	155 7.88	13.86	2.6	2.6	33	0	284	.16	51	5.1	99.0	31	PPL
		17	615	52.70	19 21.73	155 1.23	8.44	2.3	2.4	27	1	177	.10	5	.8	.5	24	MER
		17	8 6	33.36	19 24.64	155 16.37	16.17	1.8	2.1	30	1	63	.07	1	.5	.4	23	INT
		17	853	21.17	19 20.41	155 6.21	6.10	2.2	2.5	30	0	110	.10	6	.5	1.2	28	UER
		17	1724	12.04	19 24.02	155 16.08	3.25	1.9	2.1	14	0	105	.08	2	.4	.5	14	SPC
		18	0 1	52.27	19 23.25	155 17.18	2.85	2.1	2.4	19	1	74	.09	3	.4	.7	18	SPC
		18	432	42.00	19 13.52	155 31.16	31.35	3.4	3.7	34	0	68	.06	9	.6	1.3	33	LSW
		18	2120	44.90	19 23.51	155 24.95	10.39	2.1	2.3	33	0	56	.15	8	.5	.7	33	UKF
		18	2343	10.04	19 18.41	155 13.35	6.28	2.1	3.1	30	0	84	.14	3	.6	.8	30	POL
		19	212	29.11	19 55.90	155 21.54	10.52	2.9	3.1	34	2	189	.13	20	.9	.7	29	KKU
		19	523	25.26	19 32.71	155 37.43	10.45	2.7	2.6	32	0	47	.15	7	.5	.6	32	MOK
		19	524	21.37	19 22.70	155 1.83	7.52	2.2	2.3	25	0	149	.14	5	.7	.6	25	MER
		19	954	27.38	19 18.58	155 13.58	7.84	2.1	2.3	32	0	73	.10	3	.5	.7	32	POL
		19	2018	14.78	19 21.32	155 25.70	8.8A	2.0	3.0	33	0	95	.13	4	.5	.8	32	HEA
		19	22 6	24.92	19 19.32	155 9.99	7.80	1.9	2.1	26	0	101	.09	5	.5	.7	25	UER
		20	948	6.25	19 26.95	154 55.94	5.97	2.3	2.4	26	0	174	.13	2	.9	.7	23	LER
		20	1132	58.97	19 21.81	155 4.27	4.02	2.1	1.9	27	0	89	.12	4	.5	1.0	25	MER
		20	1339	54.29	19 18.38	155 13.52	10.28	2.8	2.9	36	1	76	.11	3	.6	.5	30	POL
		20	1652	59.95	19 21.50	155 10.88	8.03	2.0	2.1	33	1	63	.12	2	.4	.6	30	UER
		21	115	59.74	19 19.35	155 8.03	8.94	2.6	2.4	34	1	94	.11	4	.5	.5	31	UER
		21	556	40.96	19 20.19	155 6.63	9.14	2.9	2.9	34	0	110	.11	6	.6	.5	30	UER
		21	9 2	44.86	19 19.84	155 8.75	6.02	1.8	2.1	27	0	75	.08	5	.5	.8	19	UER
		21	2114	24.87	19 25.47	155 24.51	10.97	3.0	3.0	37	1	33	.14	8	.4	.5	33	UKF
		22	012	58.68	19 23.06	155 17.14	2.73	1.4	1.8	17	2	66	.07	3	.3	.5	13	SPC
		22	931	11.70	19 22.73	155 2.50	8.32	2.5	2.9	34	1	133	.11	5	.6	.5	30	MER
		22	1111	27.17	19 19.12	155 7.70	9.35	2.8	3.1	35	2	109	.10	3	.5	.4	30	UER
		22	1225	50.66	19 21.19	155 7.83	8.60	2.1	2.2	29	0	77	.08	4	.5	.7	28	UER
		22	2021	59.00	19 26.02	155 26.94	7.09	2.3	2.4	32	0	48	.13	7	.4	1.3	24	UKF
		23	324	35.80	19 25.55	155 24.23	8.52	2.0	2.0	32	0	41	.14	8	.5	1.0	23	UKF
		23	1022	48.45	19 20.87	155 24.77	9.23	2.1	2.6	30	0	127	.13	3	.5	.7	28	SWR
		23	1148	53.12	19 19.82	155 8.16	8.39	3.3	3.8	34	1	87	.11	5	.5	.6	32	UER
		23	1757	24.55	19 19.57	155 11.31	9.22	2.5	3.1	31	0	95	.12	5	.6	.5	30	UER
		23	1934	55.96	19 24.71	155 25.78	9.51	2.2	2.2	37	1	39	.14	5	.4	.7	34	UKF
		23	21 8	54.04	19 23.06	155 16.78	3.69	2.4	3.1	30	1	47	.10	2	.3	.6	30	SPC
		24	150	39.90	19 19.91	155 11.71	8.28	2.0	2.1	29	1	85	.11	5	.5	.7	26	UER
		24	5 1	42.86	19 32.33	155 57.72	5.57	1.9	2.1	0	0	214	.16	7	1.4	1.0	19	KON
		24	9 7	33.06	19 26.64	155 26.48	1.71	2.1	2.2	26	0	42	.16	8	.5	.4	15	UKF
		24	939	28.07	19 19.93	155 9.96	7.44	1.8	2.1	28	0	86	.09	4	.5	.9	28	UER
		24	1049	16.18	19 19.91	155 10.87	7.93	2.0	2.3	29	1	89	.11	4	.4	.8	28	UER
		24	17 9	49.54	19 23.14	155 16.99	2.64	2.2	2.9	28	1	47	.11	2	.3	.5	27	SPC
		24	1947	8.56	19 23.77	155 15.74	2.96	1.8	2.0	17	1	81	.07	3	.4	.5	16	SPC
		24	2128	21.13	19 19.47	155 8.58	7.10	2.0	2.2	32	1	79	.10	4	.4	.8	30	UER

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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
1978	AUG	25	056	57.22	19 22.67	155 24.91	8.7A	2.0	2.3	33	1	64	.14	5	.5	.8	31	UKF
		25	647	57.61	19 47.39	155 3.92	40.12	2.8	2.9	39	2	220	.12	8	.9	1.4	33	HIL
		25	1459	54.84	19 24.57	155 16.64	7.30	1.7	2.3	2	2	48	.12	1	.5	.8	19	LPC
		25	1717	8.38	19 20.10	155 7.50	8.22	2.0	1.8	29	1	97	.11	5	.5	.8	24	UER
		26	4 8	36.76	19 19.70	155 11.30	8.26	1.7	1.9	27	0	92	.10	5	.5	.6	26	UER
		26	720	19.45	19 17.65	155 21.70	6.10	2.4	2.5	28	1	122	.12	5	.5	1.0	27	SWR
		26	1324	34.01	19 23.75	155 16.90	2.43	1.6	1.8	17	1	66	.07	2	.3	.4	15	SPC
		26	23 2	44.70	19 23.31	155 16.77	2.97	2.2	2.9	31	0	45	.11	2	.3	.5	28	SPC
		27	227	48.91	19 21.74	155 12.78	5.87	2.4	2.7	28	0	55	.09	5	.4	.9	28	UER
		27	316	51.33	19 25.75	155 24.49	6.48	2.1	1.9	31	1	46	.13	8	.4	1.3	23	UKF
		27	633	4.70	19 23.04	155 16.91	3.05	1.6	2.3	19	1	67	.09	2	.3	.5	19	SPC
		27	933	31.77	19 20.73	155 12.46	9.47	2.1	2.6	31	1	67	.10	4	.4	.4	26	UER
		27	2046	59.87	19 22.91	155 16.98	4.89	2.9	3.3	34	1	48	.13	2	.4	.7	31	KOA
		28	9 8	21.65	19 18.61	155 13.95	9.65	2.3	2.7	35	0	69	.10	3	.5	.5	33	POL
		28	1525	18.49	19 19.85	155 10.55	8.14	2.1	2.6	28	0	90	.11	4	.5	.7	26	UER
		28	2025	42.04	19 20.25	155 12.72	8.50	1.9	2.3	32	0	71	.12	4	.4	.5	28	UER
		29	033	36.90	19 18.31	155 15.82	9.00	1.7	2.1	28	0	142	.12	4	.6	.5	25	KOA
		29	340	17.55	19 23.15	155 17.14	2.70	1.7	2.1	24	1	56	.11	3	.3	.5	20	SPC
		29	920	45.03	19 19.44	155 11.11	7.47	2.1	2.6	31	0	88	.12	5	.5	.7	26	UER
		29	1011	30.14	19 22.87	155 17.03	2.91	2.2	2.6	31	1	39	.11	2	.3	.5	30	KOA
		29	1144	8.82	19 19.05	155 11.78	9.95	3.1	3.5	34	0	104	.09	5	.5	.5	27	UER
		29	1229	54.47	19 20.72	155 5.98	6.16	1.9	2.0	27	0	105	.12	6	.5	1.1	26	MER
		29	1541	6.98	19 17.54	155 16.30	7.30	1.7	2.0	28	0	134	.11	4	.6	.9	23	KOA
		29	1613	1.59	19 18.41	155 13.42	10.69	2.5	2.7	29	1	81	.11	3	.5	.5	25	POL
		29	2358	29.25	19 20.20	155 11.45	7.85	1.9	2.0	27	1	81	.12	4	.5	.9	25	UER
		30	11 9	42.58	19 19.36	155 7.46	6.73	2.4	2.7	27	0	112	.12	4	.6	1.0	22	UER
		30	1240	15.66	19 20.45	155 1.98	7.03	2.3	3.6	29	1	197	.10	2	.8	.5	28	MER
		30	1247	14.89	19 19.33	155 12.08	7.71	2.5	2.3	30	1	94	.10	5	.4	.7	26	UER
		30	1441	35.10	19 19.89	155 11.23	7.66	2.2	2.7	27	0	88	.11	5	.5	.7	25	UER
		30	1627	4.14	19 21.46	155 2.72	7.60	2.7	3.1	32	0	139	.12	3	.7	.5	29	MER
		31	1 3	43.52	19 52.33	155 20.87	10.49	2.8	2.9	30	0	126	.08	2	1.0	.5	25	KKU
		31	132	55.11	19 36.02	155 52.16	14.15	1.8	2.0	17	0	175	.09	10	1.1	.5	17	KON
		31	324	46.64	19 19.53	155 13.80	7.71	1.9	2.1	32	0	61	.15	5	.5	.7	29	UER
		31	13 7	20.97	18 58.73	155 29.29	38.51	4.3	4.6	36	0	223	.07	19	1.3	2.1	32	DIS
		31	1312	28.99	18 58.85	155 29.00	38.57	2.8	2.9	28	0	222	.07	19	1.7	2.7	25	DIS
		31	1322	54.96	19 19.42	155 12.56	9.94	2.5	3.4	32	1	85	.09	5	.5	.4	29	UER
		31	1332	45.47	18 59.50	155 29.11	35.94	2.8	2.7	29	1	217	.07	19	1.1	1.8	26	DIS
		31	1414	53.51	18 59.56	155 28.67	37.25	3.2	3.6	37	2	217	.08	19	1.0	1.5	32	DIS
		31	1420	33.85	19 19.88	155 9.95	7.02	2.0	2.1	30	0	87	.11	4	.5	.8	29	UER
		31	1421	15.10	19 19.90	155 9.67	5.78	2.1	2.1	20	0	85	.11	4	.6	1.5	17	UER
		31	2146	29.09	19 30.09	155 12.10	5.41	1.8	2.1	25	0	57	.14	11	.5	2.4	25	GLN
		31	2232	6.84	19 23.11	155 32.75	2.26	2.3	2.6	29	0	50	.23	9	.6	10.1	27	MOK
SEP		1	4 1	25.15	19 20.38	155 6.37	9.35	2.7	3.1	33	1	109	.08	6	.5	.5	30	UER
		1	816	47.61	19 18.39	155 19.05	7.73	1.5	1.8	23	0	130	.10	4	.6	.7	17	KOA
		1	823	25.28	19 21.16	155 17.26	34.30	1.9	2.8	32	0	49	.08	2	.7	1.3	28	DEP
		1	1458	1.76	18 53.52	155 31.29	37.11	2.1	2.3	23	2	269	.07	18	1.5	2.0	19	DIS
		1	1748	17.79	19 20.30	155 6.61	7.74	2.0	2.1	27	0	108	.09	6	.5	1.0	24	UER
		1	1857	10.24	19 21.75	155 1.42	5.63	2.0	2.1	14	1	173	.13	4	1.0	2.3	11	MER

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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
1978	SEP	1	2245	4.90	19 20.52	155 12.48	8.03	1.5	1.8	25	0	69	.12	4	.5		8 21	UER
		2	036	18.00	19 28.57	155 52.38	8.41	1.5	1.7	3	3	126	.21	5	1.0		1 0 11	KON
		2	040	15.20	19 12.34	155 27.19	6.64	2.0	2.3	26	0	123	.14	5	.6		1 3 24	LSW
		2	056	13.52	19 21.07	155 4.60	7.49	1.8	2.1	27	0	95	.11	4	.6		1 0 18	MER
		2	247	30.78	19 20.30	155 12.57	7.98	1.5	1.8	23	0	71	.11	4	.5		.7 19	UER
		2	619	35.80	19 21.74	155 18.11	3.67	1.9	2.1	23	1	49	.09	3	.3		.8 19	KOA
		2	844	11.50	19 23.19	155 16.84	3.24	2.1	2.6	19	1	61	.07	2	.3		.5 17	SPC
		2	17 5	4.00	19 32.46	155 56.15	10.79	2.9	3.2	22	0	225	.13	6	1.3		.5 17	KON
		2	19 4	57.45	19 1.50	155 29.50	30.41	1.9	1.8	23	2	216	.12	15	1.2		1 4 18	LSW
		2	1932	.45	19 20.33	155 11.56	6.76	1.0	1.3	24	0	78	.12	4	.5		.8 20	UER
		2	2224	20.64	19 32.11	155 54.09	8.82	1.9	2.1	21	4	182	.19	6	.7		.7 15	KON
		3	110	49.66	18 58.48	155 28.82	38.77	2.7	2.7	31	0	225	.05	19	1.5		2 4 29	DIS
		3	212	53.50	19 30.77	155 53.66	8.29	2.2	1.6	20	2	192	.19	4	.9		.6 14	KON
		3	426	10.51	19 18.84	155 12.21	9.60	2.7	3.4	38	1	104	.10	4	.4		.4 33	POL
		3	1650	25.05	19 25.40	155 24.20	7.81	2.1	2.5	33	1	40	.13	8	.4		1 1 29	UKF
		3	1711	8.54	19 22.98	155 16.91	2.26	1.2	1.3	13	1	69	.08	2	.4		.6 10	KOA
		3	21 0	1.91	19 20.54	155 13.47	9.10	2.2	2.7	32	2	64	.11	4	.4		.6 24	UER
		4	345	53.36	19 33.99	155 41.78	8.91	2.1	2.5	27	2	92	.11	10	.5		.9 21	MOK
		4	411	56.81	19 33.25	155 45.62	3.85	1.7	2.0	20	2	86	.12	5	.6		1 7 18	KON
		4	920	55.58	19 11.50	155 20.05	45.76	2.4	2.6	35	1	175	.07	12	.9		1 6 32	HLP
		4	2014	44.10	19 19.31	155 8.49	8.57	3.1	3.3	36	1	82	.09	4	.5		.4 34	UER
		4	2241	17.23	19 18.83	155 15.12	8.91	2.2	2.1	30	0	118	.12	4	.5		.4 25	KOA
		5	047	17.38	19 20.55	155 6.44	7.23	2.4	2.3	27	1	105	.11	6	.5		.9 26	UER
		5	428	18.61	19 19.06	155 11.86	7.31	2.1	2.1	31	0	103	.12	5	.5		.6 26	UER
		5	618	18.19	19 19.84	155 8.24	9.56	3.2	3.6	37	1	84	.10	5	.5		.4 35	UER
		5	1026	46.87	19 20.13	155 13.60	10.09	3.7	4.2	34	0	60	.09	5	.4		.4 30	UER
		5	1524	23.15	19 22.79	155 16.73	2.89	1.5	1.8	10	1	78	.12	2	.5		.8 7	KOA
		5	1738	20.55	19 23.07	155 17.01	3.63	2.7	3.3	33	1	38	.10	2	.3		.6 29	SPC
		5	1939	43.64	19 20.74	155 4.13	6.20	2.2	2.4	31	0	101	.12	3	.6		.9 25	MER
		5	2322	35.78	19 21.17	155 6.74	7.10	2.1	2.2	29	0	88	.10	6	.5		1 0 24	UER
		6	429	7.14	19 19.58	155 11.05	8.23	1.5	1.7	27	0	95	.08	5	.4		.6 23	UER
		6	448	25.19	19 19.63	155 11.05	8.45	1.9	2.3	28	0	95	.10	5	.5		.6 24	UER
		6	450	9.83	19 20.33	155 3.65	5.22	1.4	1.8	27	3	113	.14	1	.6		1 1 23	MER
		6	828	53.07	19 20.18	155 8.13	6.58	1.9	2.0	29	0	83	.13	5	.5		1 1 28	UER
		6	13 6	35.24	19 23.96	155 15.96	3.18	1.4	1.2	11	1	107	.06	3	.4		.6 10	SPC
		6	1414	30.06	19 24.04	155 24.21	10.48	2.1	2.3	32	0	41	.13	7	.5		.6 26	UKF
		6	2349	40.72	19 19.61	155 11.74	8.58	2.3	2.3	28	0	91	.12	6	.5		.8 27	UER
		7	214	28.38	19 21.36	155 15.36	9.77	2.0	2.2	28	0	66	.11	2	.4		.6 26	KOA
		7	423	35.08	19 51.99	155 23.68	11.11	2.9	2.6	28	0	199	.09	6	1.2		.4 26	KKU
		7	442	55.24	19 14.42	156 11.51	16.76	3.2	3.3	23	0	266	.11	40	3.3		84.0 21	DIS
		7	758	33.90	19 19.87	155 12.16	5.94	1.9	1.8	24	0	82	.15	6	.6		1 2 22	UER
		7	1137	46.03	19 21.76	155 4.05	6.79	3.2	3.7	33	0	94	.13	4	.5		.7 30	MER
		7	1656	53.39	19 .21	156 18.22	26.73	2.9	3.3	22	0	291	.09	54	6.3		4 1 20	DIS
		7	1838	1.17	19 18.02	155 13.14	9.45	2.1	2.2	34	2	142	.12	8	.5		.5 29	POL
		7	2033	45.73	19 21.67	155 2.76	7.12	2.2	2.5	29	0	136	.10	3	.6		.6 25	MER
		8	821	44.70	19 20.88	155 9.71	7.73	2.2	1.7	27	0	69	.12	2	.5		.9 27	UER
		8	1347	50.54	19 23.57	155 15.35	2.33	1.2	1.3	11	1	90	.24	2	.6		.9 9	SPC
		8	1548	53.52	19 24.56	155 16.05	14.99	1.9	1.7	27	1	71	.09	2	.6		.3 22	INT

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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
1978	SEP	8	18 5	45.28	19 23.70	155 16.01	3.39	1.8	2.1	20	1	73	.10	2	.4	.6	18	SPC
		9	859	46.45	19 21.58	155 6.38	6.95	2.1	2.1	29	1	83	.13	6	.5	1.2	26	UER
		9	2224	40.23	19 21.13	155 3.81	6.06	2.3	2.2	26	0	94	.10	3	.6	.9	25	MER
		10	039	6.25	19 21.72	155 29.94	8.36	2.0	1.9	11	0	152	.10	4	.9	1.9	9	HEA
		10	2 0	48.15	19 21.05	155 3.25	6.16	1.9	1.9	28	0	116	.12	2	.6	.7	26	MER
		10	334	56.58	19 23.46	154 58.11	5.45	2.0	1.9	28	1	194	.17	3	1.1	.9	25	LER
		10	1132	49.18	19 14.32	155 33.48	1.11	2.5	2.3	31	1	120	.17	18	.6	1.0	23	LSW
		10	1143	40.78	19 23.16	155 16.68	3.04	2.3	2.6	21	1	58	.10	2	.3	.5	20	SPC
		10	1340	34.50	19 21.58	155 26.40	8.99	1.7	2.0	27	0	121	.13	3	.5	.8	24	HEA
		10	1833	55.86	19 19.10	155 11.01	9.87	2.4	2.8	34	1	108	.12	6	.5	.4	29	UER
		10	2114	54.31	19 20.84	155 3.10	6.38	1.9	2.3	26	0	122	.13	2	.7	.8	24	MER
		11	0 1	47.87	19 23.06	155 16.93	3.34	1.7	2.2	18	1	65	.11	2	.4	.7	16	SPC
		11	121	57.18	18 58.08	155 20.62	53.32	3.6	4.1	34	0	234	.07	25	1.6	2.6	32	PPL
		11	3 0	1.37	19 18.79	155 11.44	5.93	1.8	2.1	24	1	115	.11	5	.6	1.5	18	POL
		11	713	20.19	19 8.29	155 34.14	42.67	2.8		26	1	217	.20	11	1.9	2.3	20	HEA T
		11	731	55.37	19 23.60	155 15.19	3.31	2.6	2.7	18	1	78	.12	3	.4	.6	10	SPC F
		11	824	23.92	19 21.04	155 19.06	4.22	1.6	1.8	16	0	87	.09	3	.5	1.4	15	SWR
		11	1150	38.44	19 20.01	155 12.65	7.81	2.1	2.5	32	2	75	.13	5	.4	.7	26	UER
		11	12 2	.10	19 19.89	155 12.26	7.58	2.0	2.2	28	0	81	.12	5	.5	.7	23	UER
		11	1216	59.22	19 20.02	155 12.28	7.92	2.0	2.0	28	0	78	.11	5	.5	.6	27	UER
		11	1219	51.00	19 20.71	155 12.02	7.38	1.9	2.0	28	0	70	.12	4	.5	.8	23	UER
		11	1951	39.25	19 20.54	155 3.85	6.39	2.0	1.7	26	0	124	.12	2	.8	.7	21	MER
		11	2016	6.11	19 20.00	155 6.52	9.60	4.1	4.3	37	1	117	.10	6	.6	.4	33	UER F
		11	2355	28.08	19 20.77	155 6.47	6.77	2.0	1.8	28	1	99	.10	6	.5	.9	24	UER
		12	555	5.75	19 20.20	155 8.16	7.75	1.6	1.7	23	0	145	.09	5	.6	.7	23	UER
		12	712	13.67	19 24.53	155 17.18	1.25	1.1	1.7	12	1	57	.09	1	.4	.3	10	SPC
		12	714	28.48	19 23.40	154 59.00	8.21	2.1	2.3	27	2	184	.16	3	.8	.8	25	LER
		12	729	1.36	19 29.90	155 42.36	2.71	2.4	1.6	18	3	123	.13	6	.7	1.2	15	MOK
		13	330	10.94	19 19.89	155 8.24	8.65	2.4	2.8	31	0	84	.11	5	.6	.6	27	UER
		13	531	49.33	19 24.56	155 24.79	8.42	1.7	1.9	31	2	49	.12	6	.4	.7	25	UKF
		13	12 1	55.94	19 20.53	155 3.92	7.95	2.1	2.3	22	0	108	.11	2	.8	.6	18	MER
		13	1210	2.11	19 23.50	155 12.27	8.07	2.2	2.5	28	0	127	.11	4	.6	.5	27	MER
		13	1558	32.54	19 21.61	155 2.53	7.37	2.9	3.2	30	1	144	.09	3	.6	.5	25	MER
		13	1627	9.44	19 24.70	155 25.09	7.74	1.8	2.1	23	1	69	.10	6	.5	1.3	20	UKF
		13	1634	44.81	19 20.71	155 13.27	5.53	1.6	1.8	20	0	60	.13	4	.6	1.2	18	UER
		13	1636	16.86	19 20.33	155 12.94	8.20	2.1	2.5	27	0	67	.11	4	.5	.7	26	UER
		13	1818	4.35	19 25.23	155 17.04	1.40	1.8	2.4	15	1	120	.09	1	.4	.2	15	SPC
		13	2142	21.17	19 23.12	155 16.83	2.67	1.4	1.9	13	0	62	.08	2	.4	.5	12	SPC
		13	2231	36.85	19 24.62	155 29.79	8.67	2.9	2.9	34	0	54	.12	5	.4	.7	32	UKF
		13	2233	30.46	19 25.05	155 29.86	6.93	2.1	1.9	25	0	74	.15	6	.6	1.9	22	UKF
		13	2238	7.14	19 24.86	155 29.72	10.00	2.9	3.0	34	2	54	.10	6	.4	.6	28	UKF
		13	2328	59.31	19 20.64	155 12.19	7.45	1.9	1.9	33	0	70	.12	4	.5	.6	28	UKF
		14	2 8	35.14	19 25.25	155 22.92	9.87	2.3	2.4	32	1	38	.12	6	.4	.6	31	UKF
		14	253	21.41	19 22.82	155 2.15	6.98	2.1	2.4	29	1	141	.12	5	.6	.7	27	MER
		14	322	45.40	19 21.61	155 1.57	5.19	2.3	2.1	23	0	172	.13	4	.6	1.0	23	MER
		14	833	47.98	19 22.02	155 1.96	6.24	2.0	1.7	24	0	155	.15	4	.7	1.1	22	MER
		14	1147	25.36	19 23.04	155 16.87	2.87	1.3	1.4	12	1	65	.05	2	.4	.5	11	SPC
		14	1156	48.70	19 22.97	155 16.91	3.01	1.7	2.0	15	0	70	.06	2	.3	.5	15	OKA

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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 SEC	MIN DIS	ERH KM	ERZ NO KM FM	REMK
1978	SEP	15	0 6	22.57	19 20.73	155 6.44	8.73	2.4	2.7 31	0 101	.10	6	.5	.6 30	UER
		15	114	41.06	19 20.77	155 6.60	8.38	2.7	3.0 29	0 98	.09	6	.5	.6 29	UER
		15	332	1.73	19 19.89	155 11.32	7.00	2.0	1.9 30	1 88	.13	5	.5	.7 25	UER
		15	514	.74	19 25.42	155 16.56	1.87	2.1	2.7 22	1 40	.10	1	.3	.3 20	SPC F
		15	515	53.10	19 25.38	155 16.61	2.19	2.4	2.7 21	0 75	.11	1	.4	.3 20	SPC F
		15	715	58.31	20 15.24	156 .24	16.49	3.0	3.0 31	1 307	.20	27	4.9	40.9 26	DIS *
		15	723	55.65	19 25.33	155 16.50	2.06	2.8	3.6 32	1 37	.10	1	.3	.2 31	SPC F
		15	1137	31.14	19 24.14	155 16.12	2.57	1.8	2.0 16	0 109	.10	2	.3	.5 15	SPC
		15	1238	38.01	19 20.01	155 12.31	6.61	1.8	2.1 30	0 79	.13	5	.6	.9 25	UER
		15	2330	37.73	19 16.94	155 22.58	7.79	2.3	2.6 36	1 125	.19	6	.6	1.0 31	SWR
		16	2 1	29.59	19 20.87	155 6.08	6.87	1.9	1.9 29	2 100	.12	6	.5	1.0 23	UER
		16	630	.61	19 23.97	155 15.68	3.67	2.8	3.2 35	1 60	.11	3	.4	.5 33	SPC F
		16	1529	58.89	19 24.91	155 25.74	8.02	2.0	2.1 34	1 39	.14	6	.4	1.1 30	UKF
		16	1747	1.85	19 20.12	155 11.68	9.16	2.8	3.1 34	0 81	.08	5	.4	.4 29	UER
		16	21 2	12.47	19 19.50	155 9.72	8.46	2.3	2.8 32	0 94	.12	5	.5	.6 30	UER
		16	2141	5.36	19 22.17	155 3.42	6.72	2.6	3.1 30	0 112	.10	4	.4	.6 29	MER
		17	055	35.29	19 20.22	155 10.34	6.40	1.5	1.9 28	0 82	.11	4	.5	.8 21	UER
		17	3 7	43.55	19 23.58	155 16.84	2.72	2.1	2.3 26	1 45	.10	2	.3	.4 21	SPC
		17	351	46.60	19 21.77	155 .24	8.96	2.6	3.1 33	0 192	.10	6	.8	.4 30	LER
		17	9 6	21.91	19 23.45	155 16.97	2.74	1.8	1.8 17	1 61	.07	3	.3	.5 14	SPC
		17	921	40.58	19 21.42	155 7.06	4.29	1.8	2.0 30	0 81	.14	5	.6	1.7 25	UER
		17	1656	52.31	19 19.69	155 10.97	5.26	1.8	1.8 30	1 93	.14	5	.5	1.2 23	UER
		18	5 0	56.41	19 21.25	155 2.71	5.50	1.9	1.8 31	1 142	.14	3	.6	.9 24	MER
		18	832	9.31	19 20.35	155 13.24	8.24	2.0	2.1 30	1 64	.10	4	.4	.6 27	UER
		18	1049	40.74	19 20.48	155 13.21	6.00	1.6	1.8 26	1 62	.13	4	.5	.9 20	UER
		18	1121	6.23	19 23.08	155 16.90	2.83	1.3	1.9 9	1 86	.10	2	.5	.7 8	SPC
		18	1730	1.13	19 20.87	155 2.84	5.78	2.0	1.8 27	1 139	.12	2	.6	.8 25	MER
		18	1733	35.55	19 24.72	155 24.42	10.82	2.3	2.4 34	1 33	.13	7	.4	.6 32	UKF
		18	22 4	5.36	19 20.79	155 6.16	8.25	2.7	2.9 32	1 101	.09	6	.5	.6 31	UER
		18	23 3	13.56	19 17.04	155 23.82	4.98	1.8	2.0 26	0 118	.19	6	.6	2.3 24	SWR
		18	2344	29.20	19 23.38	155 16.77	3.58	3.2	3.6 36	0 38	.10	2	.3	.5 33	SPC F
		18	2346	53.33	19 23.45	155 16.93	2.95	1.1	1.0 7	0 79	.04	3	.4	.7 7	SPC
		19	024	16.73	19 21.04	155 5.85	8.16	2.3	2.3 32	1 97	.10	6	.5	.7 30	MER
		19	1 3	35.18	19 22.77	155 16.99	2.90	1.8	2.0 24	1 52	.06	2	.3	.9 22	KOA
		19	3 4	59.25	19 19.58	155 26.71	8.26	2.0	1.8 28	0 111	.13	6	.6	1.0 28	HEA
		19	319	34.02	19 23.06	155 16.97	2.15	1.1	.7 8	0 96	.07	2	.4	.8 7	SPC
		19	843	44.06	19 2.59	155 41.46	43.14	3.1	3.4 36	2 165	.08	7	1.1	2.0 34	HEA
		19	1048	10.75	19 18.54	155 10.92	8.33	2.2	2.3 34	2 123	.13	5	.5	.6 30	POL
		19	1242	23.97	19 21.79	155 12.72	2.89	1.8	2.0 24	0 55	.16	2	.4	.7 21	UER
		19	1541	8.71	19 26.22	155 23.95	9.22	3.3	3.5 40	2 36	.12	7	.4	.7 37	UKF F
		19	18 1	25.11	19 25.82	155 24.90	5.90	1.5	1.5 31	2 57	.19	8	.4	2.0 29	UKF
		20	056	10.25	19 19.87	155 12.11	8.30	2.1	2.5 31	1 83	.10	5	.4	.6 28	UER
		20	1 1	24.88	19 8.89	155 29.97	39.72	2.2	2.8 36	4 152	.08	4	.8	.9 34	LSW L
		20	1 6	2.97	19 8.75	155 31.03	42.14	2.2	37	5 146	.12	6	.8	.8 34	LSW LT
		20	410	24.47	19 21.66	155 28.10	8.20	1.7	2.0 30	1 66	.11	2	.4	.7 23	HEA
		20	1028	56.03	19 18.91	155 11.56	8.66	2.9	3.4 31	0 110	.10	5	.5	.5 28	POL F
		20	1136	40.11	19 21.68	155 1.17	5.93	2.0	2.1 24	0 179	.20	5	1.0	1.2 21	MER
		20	1217	56.73	19 23.12	155 3.26	11.09	2.1	2.3 26	1 110	.08	3	.6	.5 25	MER

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
1978	SEP	20	1320	26.99	19 30.67	155 52.63	9.63	3.1	3.3 30	0	129	.17	5	.7	.5 26	KON
		20	1512	27.63	19 23.57	155 17.00	14.45	2.2	2.3 29	1	45	.08	2	.6	.3 28	INT
		21	0 5	46.43	19 21.70	155 14.84	8.03	1.8	1.8 26	2	60	.14	2	.6	.8 24	UER
		21	215	12.65	19 53.24	155 7.58	42.98	3.1	3.2 37	2	240	.10	19	1.2	1.6 31	KKU
		21	1043	36.83	19 26.68	155 45.69	5.71	2.7	2.6 27	3	76	.14	7	.5	1.5 25	KON
		21	1428	14.37	19 17.45	155 16.96	8.81	2.3	2.6 35	2	133	.14	3	.6	.6 30	KOA
		21	1615	3.80	19 18.12	155 22.58	6.14	1.7	2.0 27	1	114	.16	4	.5	1.1 22	SWR
		21	1810	19.91	19 38.74	156 6.03	21.78	1.3	1.4 27	1	242	.13	28	1.6	2.9 25	KON
		21	2027	55.59	19 19.37	155 11.32	9.90	2.7	3.1 35	0	99	.09	6	.5	.4 33	UER
		22	127	.14	19 19.20	155 10.74	9.61	3.3	3.7 38	1	105	.12	6	.5	.4 32	UER F
		22	153	51.08	19 19.92	155 11.18	7.87	2.3	2.7 33	1	87	.11	5	.4	.6 28	UER
		22	12 0	22.37	19 19.50	155 10.05	6.18	1.9	1.9 31	0	96	.11	5	.5	.9 31	UER
		22	1456	35.00	19 19.81	155 11.11	7.17	2.0	2.1 25	1	90	.12	5	.5	.8 23	UER
		22	19 4	48.23	19 19.83	155 10.85	7.67	1.8	1.8 28	1	90	.11	4	.5	.8 27	UER
		22	1955	59.37	19 23.16	155 3.19	7.52	2.2	2.3 30	1	110	.15	3	.6	.7 29	MER
		22	20 5	44.04	19 25.95	155 27.87	11.22	2.9	3.0 36	0	34	.13	6	.4	.6 33	UKF
		22	2340	35.47	19 25.89	155 24.05	7.89	2.2	2.5 30	1	44	.11	7	.4	1.1 29	UKF
		23	0 7	18.42	19 20.19	155 8.55	8.85	1.9	2.1 28	0	76	.09	4	.5	.6 26	UER
		23	2 3	57.31	19 23.77	155 15.43	2.97	1.8	1.6 15	1	98	.07	3	.4	.5 14	SPC
		23	7 5	30.93	19 21.55	155 24.71	8.90	2.0	1.9 32	1	107	.13	4	.5	.6 29	SWR
		23	714	17.99	19 25.90	155 24.02	7.46	2.1	2.4 28	0	44	.13	7	.5	1.4 26	UKF
		23	734	3.56	20 23.10	155 44.09	17.52	2.8	2.6 37	6	186	.12	68	1.2	59.0 32	DIS
		23	921	52.83	19 24.33	155 16.23	3.25	1.1	1.4 8	1	127	.05	2	.7	.9 7	SPC
		23	1257	46.36	19 23.72	155 15.85	2.71	1.8	2.0 15	1	77	.10	2	.4	.5 13	SPC
		23	14 4	35.18	19 21.40	155 7.11	7.54	2.1	2.4 28	1	82	.10	5	.5	.9 24	UER
		23	1636	22.35	19 20.46	155 13.05	6.74	1.8	1.6 27	1	94	.12	4	.5	.9 24	UER
		23	2159	5.24	19 19.14	155 11.61	7.45	2.1	2.4 34	2	103	.12	5	.5	.7 32	UER
		24	114	41.62	19 20.38	155 13.29	7.59	1.7	1.6 30	1	63	.12	4	.5	.7 27	UER
		24	212	11.39	19 27.15	155 28.09	10.04	2.1	2.2 37	2	38	.12	9	.4	.7 32	UKF
		24	3 3	29.67	19 32.83	155 41.71	3.94	1.5	1.7 23	2	87	.14	8	.6	3.0 23	MOK
		24	555	48.94	19 22.90	155 17.02	2.70	1.2	1.4 10	1	131	.08	2	.4	.7 9	KOA
		24	911	57.16	19 20.19	155 11.29	7.27	1.9	2.0 32	1	82	.13	4	.5	.7 28	UER
		24	940	42.38	19 23.42	155 23.61	10.50	1.8	1.9 27	1	63	.08	6	.4	.6 25	UKF
		24	1042	15.62	19 59.09	155 42.32	31.00	2.6	2.4 37	2	132	.08	18	.9	2.3 33	KOH
		24	1055	55.73	19 23.96	155 15.98	2.70	1.7	2.0 20	1	81	.11	3	.4	.5 18	SPC
		24	1158	35.53	19 23.05	155 16.99	2.53	1.2	1.3 8	0	74	.06	2	.4	.7 6	SPC
		24	12 0	38.98	19 23.53	155 15.56	2.28	1.3	1.4 12	0	89	.12	2	.4	.6 11	SPC
		24	1214	24.81	19 21.12	155 17.78	6.24	1.8	1.6 14	1	89	.12	2	.7	1.6 13	KOA
		24	1249	9.91	19 22.96	155 16.98	2.81	2.4	3.0 28	0	48	.09	2	.3	.5 27	KOA
		24	1254	38.87	19 22.81	155 16.96	2.42	1.3	1.5 9	1	94	.07	2	.4	.7 7	KOA
		24	1530	53.02	19 23.36	155 25.04	10.66	2.4	3.0 35	0	58	.11	5	.4	.4 33	UKF
		24	1726	47.72	19 20.52	155 8.84	7.13	1.9	1.8 29	0	69	.11	3	.5	.8 26	UER
		24	1925	35.64	19 23.16	155 2.26	8.43	2.1	1.9 28	0	133	.14	4	.7	.5 28	MER
		24	2226	58.93	19 20.70	155 13.09	9.21	2.0	2.1 31	0	62	.09	4	.4	.5 30	UER
		24	2352	6.46	19 22.92	155 16.84	3.11	1.8	1.5 14	1	71	.08	2	.4	.6 13	KOA
		25	1 3	18.28	19 47.47	155 6.78	41.28	1.3	1.6 37	5	199	.11	8	.9	1.3 36	HIL
		25	114	54.73	19 21.26	155 7.02	8.66	2.5	2.7 37	2	84	.12	5	.4	.6 31	UER
		25	128	21.50	19 20.12	155 13.19	7.11	1.8	1.6 29	1	66	.12	5	.5	.8 28	UER

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YEAR	MON	DA	HRMN	SEC	LAT N DEG MIN	LON W DEG MIN	DEPTH KM	AMP MM	DIR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ NO KM FM	REMK
1978	SEP	25	149	54.75	19 22.79	155 17.05	3.35	1.7	1.2	13	1	78	.12	2	.4	.8 12 KOA	
		25	336	1.20	19 28.19	154 52.25	6.70	1.2	1.3	22	1	273	.23	2	3.5	1.1 21 LER	
		25	7 5	31.08	19 22.89	155 14.95	3.04	1.5	1.5	13	0	67	.10	2	.4	.6 12 UER	
		25	834	57.38	19 27.41	154 51.50	8.23	2.5	2.5	26	0	269	.16	4	2.8	.8 24 LER	
		25	1131	42.04	19 23.16	155 15.18	2.45	1.4	1.6	12	1	72	.14	2	.5	.6 11 SPC	
		25	1330	13.54	19 19.51	155 7.89	8.46	3.1	3.3	36	1	98	.09	4	.5	.4 33 UER	
		25	1539	23.10	19 24.16	154 57.66	5.27	2.1	1.9	24	1	190	.15	3	.9	1.0 20 LER	
		25	20 2	33.99	18 58.31	155 20.90	17.32	3.2	3.5	37	1	232	.23	33	2.1	31.8 35 PPL	
		25	2020	35.19	19 22.93	155 2.82	7.97	1.9	1.6	30	1	123	.12	4	.6	.6 27 MER	
		25	2021	.15	18 56.93	155 20.80	42.35	2.5	2.3	24	1	247	.06	26	1.6	2.7 21 PPL	
		25	2028	21.14	19 21.60	155 7.86	8.16	1.9	1.8	30	1	73	.12	4	.4	.8 28 UER	
		25	2335	31.51	19 20.11	155 10.97	9.74	2.8	3.2	37	1	84	.10	4	.4	.4 34 UER	
		26	016	16.29	19 24.05	155 17.39	1.64	1.0	1.3	10	1	56	.06	2	.3	.5 9 SPC	
		26	514	39.39	19 24.79	155 29.38	8.14	2.1	1.9	31	0	51	.10	5	.4	1.1 27 UKF	
		26	650	29.76	19 20.17	155 11.32	6.90	2.0	1.8	30	1	82	.11	4	.5	.7 29 UER	
		26	951	3.16	19 21.24	155 2.06	5.48	2.0	2.0	25	1	166	.14	3	.6	.8 23 MER	
		26	1443	20.99	19 20.93	155 7.57	7.55	2.4	2.9	30	1	123	.09	5	.4	.8 24 UER	
		26	1912	7.79	19 26.87	155 22.75	9.18	2.9	3.4	36	1	41	.11	6	.4	.7 33 UKF	
		26	1935	44.22	19 26.48	155 23.08	7.22	1.9	2.2	33	2	47	.15	6	.4	1.1 27 UKF	
		27	5 9	16.10	19 19.98	155 8.97	6.74	1.7	2.1	29	0	76	.10	4	.5	.8 23 UER	
		27	1443	38.17	19 23.06	155 16.67	3.43	1.4	1.6	10	1	73	.11	2	.5	.9 9 SPC	
		27	1458	57.45	19 14.95	155 1.59	44.40	2.8	2.9	36	2	219	.08	10	1.0	1.3 30 DIS	
		27	16 7	46.38	19 19.07	155 16.16	9.50	2.3	1.8	27	0	117	.10	3	.4	.6 25 KOA	
		27	2143	51.87	19 23.57	155 16.81	3.13	1.8	1.8	15	1	71	.09	3	.4	.6 14 SPC	
		27	2212	54.73	19 22.15	155 30.21	7.76	2.0	1.8	27	0	92	.11	5	.5	1.3 27 MOK	
		28	2 6	21.12	19 23.34	155 16.99	2.18	1.1	1.5	6	0	92	.04	3	.4	.8 6 SPC	
		28	4 3	12.19	19 21.08	155 12.96	7.84	1.9	1.9	30	1	59	.14	3	.5	.8 26 UER	
		28	519	52.77	19 22.87	155 17.02	3.00	1.4	1.6	12	0	74	.10	2	.4	.7 11 KOA	
		28	752	11.73	19 47.81	155 35.59	12.70	2.3	2.0	17	0	123	.16	14	.8	.7 17 KGU	
		28	1112	59.27	19 19.58	155 22.00	3.30	2.1	2.4	23	1	93	.10	3	.4	.8 21 SWR	
		28	1137	30.06	19 22.80	155 16.75	3.90	1.8	1.8	14	1	77	.12	2	.5	.8 13 KOA	
		28	1536	20.19	19 22.99	155 17.03	3.31	2.9	3.4	33	1	48	.10	2	.3	.5 32 KOA	F
		28	1544	33.90	19 23.13	155 17.09	2.66	1.4	1.4	16	2	64	.06	3	.3	.5 14 SPC	
		28	2134	50.04	19 22.78	155 24.28	8.79	2.2	2.4	31	1	78	.11	5	.5	.7 27 UKF	
		28	2215	11.75	19 21.46	155 25.86	8.80	2.2	1.9	33	3	123	.11	4	.4	.8 29 HEA	
		29	125	51.20	19 59.59	155 27.96	16.66	2.8	2.9	37	3	190	.17	36	1.0	34.5 32 KGU	*
		29	927	41.27	19 23.20	155 16.76	3.51	1.0	1.4	10	1	64	.08	2	.4	.8 8 SPC	
		29	1316	54.29	19 23.08	155 13.79	5.84	1.0	1.3	17	0	47	.57	2	1.7	3.2 10 GLN	
		29	1627	58.34	19 22.31	155 5.72	7.48	2.0	2.0	29	1	72	.12	5	.5	1.1 22 MER	
		29	19 6	8.52	19 17.70	155 23.77	8.20	1.3	1.8	21	0	165	.12	5	.8	1.1 19 SWR	
		29	2159	44.03	19 20.62	155 9.51	8.95	2.0	2.3	31	1	72	.10	3	.4	.6 29 UER	
		30	125	39.72	19 20.21	155 11.14	6.82	1.7	1.5	30	1	82	.11	4	.5	.8 22 UER	
		30	214	47.92	19 25.13	155 17.07	1.60	2.1	2.6	15	0	118	.05	0	.4	.3 15 SPC	
		30	343	36.83	19 19.01	155 22.76	4.80	1.3	1.8	20	0	150	.11	2	.7	1.3 19 SWR	
		30	420	17.09	19 23.30	155 17.10	2.94	2.1	2.5	24	1	58	.08	0	.3	.4 17 SPC	
		30	1118	21.91	19 27.31	155 51.76	7.25	1.7	1.9	22	4	120	.24	7	.7	1.2 18 KON	
		30	1256	24.36	18 56.80	155 8.32	17.06	2.9	2.0	32	1	272	.37	38	5.0	83.2 31 PPL	*
		30	1334	44.96	19 19.40	155 11.41	7.10	2.1	2.4	29	1	98	.09	6	.5	.7 25 UER	

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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	DIR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ NO KM FM	REMK
1978	SEP	30	1356	13.29	19 23.03	155 26.70	9.44	3.4	3.9	38	1	54	.13	2	.4	.7 38 UKF	F
		30	1442	20.64	19 54.33	155 14.73	11.29	2.2	2.4	23	1	233	.09	10	1.4	.7 21 KGU	
		30	1630	44.55	19 20.63	155 12.77	7.38	1.8	1.8	27	0	66	.12	4	.5	.8 22 UER	
		30	1756	.35	19 20.44	155 11.65	7.07	1.7	1.6	24	0	76	.09	4	.5	.7 22 UER	
		30	18 0	2.53	19 20.56	155 11.55	7.31	1.8	1.5	26	0	75	.10	4	.5	.7 21 UER	
		30	22 5	11.51	19 25.30	155 29.38	8.94	1.4	1.6	23	0	58	.10	6	.4	1.1 17 UKF	
	OCT	1	812	5.93	19 23.20	155 16.91	2.49	1.8	2.1	24	2	60	.11	0	.3	.3 20 SPC	
		1	1531	21.70	19 28.52	155 29.26	12.04	2.8	2.7	38	2	35	.14	7	.4	.5 33 UKF	
		1	1910	1.25	19 18.94	155 12.60	5.85	1.8	2.0	32	1	95	.13	4	.5	.9 26 POL	
		2	224	52.81	19 27.14	155 21.95	8.55	2.2	2.4	35	3	42	.14	5	.4	.8 30 UKF	
		2	6 1	15.80	19 25.52	155 15.97	15.64	2.3	2.8	40	5	37	.10	2	.4	.3 36 INT	
		2	1021	41.52	19 19.99	155 7.96	9.43	2.4	2.6	32	1	91	.09	5	.5	.5 28 UER	
		2	14 6	25.22	19 58.39	155 32.20	42.56	2.8	2.7	41	8	169	.10	22	.7	1.2 37 KOH	
		2	1457	54.00	19 22.41	155 29.78	7.51	2.3	2.2	30	1	91	.08	12	.4	1.1 28 UKF	
		2	20 4	49.74	19 18.36	155 13.44	8.85	1.9	2.3	33	0	81	.12	2	.6	.5 27 POL	
		3	431	56.20	19 20.07	155 12.79	7.95	2.1	2.1	33	0	72	.15	5	.5	.6 27 UER	
		3	638	21.88	19 23.82	155 16.11	2.78	1.4	1.8	16	1	98	.11	2	.4	.4 10 SPC	
		3	715	43.10	19 19.11	155 11.98	5.62	1.9	2.0	27	0	100	.13	5	.6	1.0 24 UER	
		3	1158	29.86	19 53.46	155 15.10	10.70	2.2	2.2	26	2	222	.08	10	1.0	.5 16 KGU	
		3	2326	48.38	19 29.07	155 51.22	5.13	1.9	1.9	29	2	135	.18	7	.8	1.2 27 KON	
		4	221	5.05	19 20.79	155 12.36	8.45	1.8	1.9	26	0	74	.11	4	.5	.6 22 UER	
		4	342	46.89	19 21.77	155 12.64	2.83	1.7	1.9	23	0	55	.08	2	.4	.5 22 UER	
		4	9 3	39.32	19 17.38	155 21.73	8.46	2.5	3.0	34	1	125	.13	6	.5	.7 30 SWR	
		4	1447	1.22	19 19.95	155 7.98	7.05	1.9	2.0	26	0	89	.09	5	.5	1.0 23 UER	
		5	232	24.42	19 20.90	155 12.98	7.41	1.9	2.0	25	1	61	.13	3	.6	.7 23 UER	
		5	441	37.92	19 20.84	155 12.66	7.98	1.7	1.6	27	0	64	.11	3	.5	.6 25 UER	
		5	6 2	22.51	19 19.67	155 12.14	7.80	2.0	2.1	30	1	86	.12	5	.4	.6 25 UER	
		5	10 1	11.81	19 27.49	155 50.95	7.35	2.6	2.4	27	2	108	.16	8	.7	.8 25 KON	
		6	155	34.52	19 19.87	155 8.30	8.03	2.0	2.1	33	1	83	.13	5	.5	.8 29 UER	
		6	10 8	22.52	19 28.19	155 43.56	8.77	1.7	1.6	23	3	104	.15	6	.6	1.1 20 MOK	
		6	1426	25.30	19 20.17	155 11.65	8.73	2.3	2.4	30	0	81	.09	5	.4	.7 27 UER	
		6	21 7	36.33	19 23.10	155 16.98	3.00	2.2	2.8	29	0	48	.10	1	.3	.3 25 SPC	
		7	543	11.91	19 19.58	155 12.61	9.86	2.3	2.7	34	0	82	.10	5	.5	.4 26 UER	
		7	548	45.46	19 22.93	155 17.10	2.92	2.5	3.4	35	0	37	.10	1	.3	.4 27 KOA	
		7	1210	46.18	19 29.00	155 51.81	8.85	2.8	2.9	33	0	94	.21	6	.7	.6 25 KON	
		7	1811	7.54	19 12.67	155 21.06	47.87	2.3	3.2	28	2	164	.08	11	1.0	1.7 19 LSW	L
		7	2035	13.18	19 26.47	155 24.94	8.03	2.6	2.9	35	0	50	.14	7	.4	1.1 31 UKF	
		8	047	57.22	19 27.98	154 49.98	10.36	2.2	2.4	28	0	280	.12	6	2.5	.6 19 LER	
		8	056	17.02	19 20.17	155 13.36	6.29	1.7	1.6	28	0	65	.15	5	.6	.9 26 UER	
		8	5 8	31.33	19 23.61	155 15.54	2.90	2.0	2.3	24	1	38	.10	2	.3	.4 19 SPC	F
		8	827	1.53	19 20.77	155 7.68	7.11	1.6	1.6	27	2	85	.10	5	.4	.8 27 UER	
		8	1139	48.15	19 25.71	155 50.56	12.33	2.7	2.7	26	0	120	.14	10	.7	.5 25 KON	
		8	2235	59.08	19 19.46	155 12.13	7.78	2.1	2.4	30	0	90	.10	5	.5	.6 26 UER	
		8	2239	45.26	19 20.98	155 3.44	7.21	2.2	2.3	27	0	105	.10	2	.7	.6 22 MER	
		9	135	46.68	19 23.20	155 14.90	3.29	1.9	2.2	19	1	59	.06	2	.4	.4 17 GLN	
		9	140	36.66	19 23.12	155 14.83	2.86	1.5	1.4	16	0	65	.08	2	.4	.5 11 GLN	
		9	212	35.91	19 22.96	155 14.75	3.15	1.5	1.9	16	0	66	.08	2	.4	.5 12 UER	
		9	217	27.74	19 23.19	155 17.01	2.87	2.5	3.1	35	1	36	.10	0	.3	.3 31 SPC	

HVO EARTHQUAKE SUMMARY LIST

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		ORIGIN TIME			LAT N		LON W		DEPTH				AMP		DIR		GAP		RMS	MIN	ERH	ERZ NO	
YEAR	MON	DA	HR	MIN	SEC	DEG	MIN	DEG	MIN	KM	MAR	MAG	NR	NS	DEG	SEC	DIS	SEC	DIS	KM	KM	FM	REMK
1978	OCT	9	6	0	55.88	19	20.57	155	10.20	6.75	1.7	2.0	32	0	76	.13	3	.5	.8	24	UER		
		9	855	9.39	19	13.58	155	40.25	6.70	2.4	3.0	26	0	237	.23	6	2.2	1.1	22	HEA			
		9	13	3	14.56	19	23.63	155	26.17	8.87	1.9	2.3	28	1	67	.12	3	.4	.9	26	UKF		
		9	1340	11.16	19	23.25	155	15.03	3.12	1.4	1.6	9	0	105	.05	2	.5	.7	7	SPC			
		9	1344	32.07	19	23.24	155	14.91	2.97	1.5	1.7	13	0	105	.22	2	.7	.8	12	GLN			
		9	1356	39.25	19	23.29	155	14.98	3.31	1.4	1.4	10	0	103	.02	2	.4	.5	10	GLN			
		9	1559	12.78	19	30.72	155	47.05	20.48	1.8	1.8	18	0	195	.08	2	1.5	2.4	18	KON			
		9	2112	56.01	19	20.85	155	11.90	7.07	1.9	2.0	29	0	69	.14	4	.5	.8	27	UER			
		9	2257	25.07	19	21.51	155	.11	6.72	2.2	2.0	23	1	200	.13	6	1.0	.7	21	LER			
		10	1	8	38.89	19	23.93	155	15.82	2.99	1.2	1.1	7	0	110	.03	2	.5	.7	7	SPC		
		10	527	12.55	19	19.93	155	11.75	6.94	2.2	2.5	34	1	85	.12	5	.5	.8	29	UER			
		10	1117	22.38	19	57.42	155	49.53	27.85	3.1	3.2	37	0	183	.08	20	1.3	3.0	35	KOH			
		10	1332	26.67	19	23.72	155	16.86	2.71	1.8	1.8	18	1	68	.07	1	.3	.3	16	SPC			
		10	1943	44.69	19	18.55	155	15.11	6.32	2.0	2.1	31	2	127	.13	4	.5	.7	29	KOA			
		10	2157	23.15	19	18.45	155	14.85	8.81	2.4	2.6	33	1	124	.10	4	.5	.5	26	POL			
		10	22	1	44.82	19	23.43	155	16.74	2.91	1.7	2.3	23	1	66	.10	0	.3	.4	19	SPC		
		10	2224	6.54	19	22.91	155	16.90	2.82	2.0	2.6	24	2	47	.09	1	.3	.3	22	KOA			
		10	2255	32.46	19	19.87	155	8.17	8.44	2.1	2.2	30	0	86	.11	5	.6	.7	29	UER			
		11	619	.73	19	25.90	155	24.27	7.60	2.2	2.2	35	1	39	.14	7	.4	1.2	30	UKF			
		11	734	58.48	19	13.11	155	34.47	3.52	3.2	3.3	35	1	81	.23	13	.7	3.2	29	HEA			
		11	1049	36.77	19	21.03	155	12.92	8.25	2.1	2.4	32	0	60	.13	3	.4	.6	30	UER			
		11	1231	3.10	19	19.62	155	11.45	7.05	2.0	2.2	28	0	93	.10	5	.5	.8	26	UER			
		11	1437	46.22	18	57.36	155	19.18	16.23	1.9	1.9	32	0	238	.17	36	2.1	99.0	32	PPL			
		11	1528	3.72	19	42.23	155	4.51	4.99	2.0	2.8	15	0	194	.19	31	1.5	32.7	13	HIL			
		11	1558	46.17	19	24.11	155	16.65	2.36	1.4	1.7	9	1	109	.12	1	.5	.6	7	SPC			
		11	1837	11.36	19	21.06	155	6.13	8.43	2.6	2.8	34	1	95	.11	6	.5	.6	30	UER			
		12	351	58.58	19	22.81	155	15.22	30.99	1.7	3.0	0	0	51	.07	1	.7	1.2	27	DEP			
		12	1530	34.01	19	24.08	155	25.09	10.99	1.8	2.1	28	1	76	.09	5	.4	.7	26	UKF			
		12	18	3	56.29	19	19.48	155	12.11	6.51	2.0	2.1	33	0	90	.11	5	.5	.7	28	UER		
		12	1830	13.73	19	21.08	155	4.12	6.36	2.2	2.4	34	2	89	.12	3	.5	.9	27	MER			
		12	2227	36.90	19	20.56	155	13.13	9.27	2.6	3.1	34	0	63	.12	4	.5	.5	31	UER			
		13	052	40.49	19	23.40	155	16.81	2.87	1.4	1.5	16	1	67	.07	0	.3	.4	14	SPC			
		13	1	1	2.23	19	25.13	155	25.19	8.69	1.8	1.8	34	1	49	.13	6	.4	.9	30	UKF		
		13	254	38.57	19	19.86	155	7.49	7.53	2.1	2.3	31	1	102	.10	5	.5	.8	26	UER			
		13	11	0	6.59	19	26.36	155	27.52	9.06	2.3	2.5	31	1	61	.12	7	.4	.9	23	UKF		
		13	1140	5.54	19	12.63	155	33.63	43.44	1.4	2.5	26	1	85	.14	7	1.1	2.4	19	LSW			
		13	1148	27.58	19	8.99	155	27.17	38.99	2.3		16	1	173	.08	2	1.4	2.7	7	LSW			
		13	1155	2.48	19	7.74	155	26.01	44.91	1.8	2.1	11	0	186	.08	5	1.9	6.6	6	LSW			
		13	12	3	18.62	19	11.86	156	39.02	.10	2.6	9	0	324	.15	82	31.1	31.6	7	DIS		*	
		13	1213	17.85	19	12.09	156	38.98	.10	2.7	12	0	324	.28	82	40.6	31.6	11	DIS		*		
		13	1230	17.56	19	13.54	156	39.01	.10	3.2	3.2	13	0	317	.17	82	21.6	31.6	13	DIS		*	
		13	1240	19.30	19	15.26	156	39.21	.10	3.2	2.8	12	0	325	.20	81	34.8	31.6	11	DIS		*	
		13	1250	16.09	19	15.43	156	39.21	.10	3.2	3.2	13	0	325	.25	81	35.7	31.6	13	DIS		*	
		13	13	0	21.62	19	14.97	156	18.74	.10	3.0	3.1	15	0	276	.31	46	5.4	31.6	13	DIS		*
		13	1310	18.84	19	15.44	156	20.29	.10	3.0	3.0	16	0	278	.39	49	6.3	31.6	15	DIS		*	
		13	1320	20.56	19	16.92	156	14.22	.10	2.9	3.0	17	0	267	.29	41	4.1	31.6	17	DIS		*	
		13	1330	22.13	19	18.72	156	12.91	.10	2.5	3.2	22	0	264	.43	36	5.1	31.6	21	DIS		*	
		13	1342	21.27	19	18.29	155	26.67	8.43	1.0	2.1	18	0	118	.12	7	.7	1.3	15	HEA			

HVO EARTHQUAKE SUMMARY LIST

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YEAR	MON	DA	HR	MIN	SEC	ORIGIN TIME	LAT N	DEG	MIN	DEG	MIN	DEPTH	AMP	DIR	GAP	RMS	MIN	ERH	ERZ	NO	REMK		
												KM	MAG	MAG	NR	NS	DEG	SEC	DIS	KM	KM	FM	REMK
1978	OCT	13	1352	19.12	19	23.26	156	3.61				.10	2.4	2.7	23	0	255	.30	19	3.3	31.6	22	KON R*
		13	14	2	22.47	19	21.75	156	5.52			.10	2.4	2.8	22	0	248	.41	23	4.4	31.6	20	KON R*
		13	1412	17.54	19	21.34	156	12.44				.10	2.9	2.8	14	0	280	.21	34	3.9	31.6	12	DIS B*
		13	1422	19.42	19	22.70	156	.43				.10	2.5	2.7	27	0	235	.33	15	2.6	31.6	26	KON B*
		13	1432	35.44	19	23.42	155	58.65				.10	2.5	2.6	28	0	230	.20	13	1.7	31.6	27	KON B*
		13	1433	25.49	19	14.75	155	1.14				46.82	2.0	2.4	32	1	220	.08	10	1.6	2.1	20	DIS
		13	1442	18.06	19	23.45	155	56.68				.10	2.6	2.4	0	0	221	.17	11	1.4	31.6	24	KON B*
		13	1937	20.83	19	20.23	155	12.46				8.22	1.6	2.0	26	0	73	.11	5	.5	.8	22	UER
		14	113	3.37	19	24.45	155	29.64				5.64	1.6	2.1	24	0	92	.10	12	.5	3.5	16	UKF
		14	214	8.08	19	19.28	155	11.27				6.90	1.7	2.0	27	0	102	.11	6	.5	.9	25	UER
		14	333	44.90	19	20.71	155	12.01				8.53	1.8	1.9	28	1	70	.12	5	.5	.8	19	UER
		14	534	32.19	19	23.00	155	16.89				3.04	.4	1.4	11	0	68	.04	1	.4	.4	7	KOA
		14	1058	39.46	19	27.14	155	24.10				9.49	1.8	2.4	28	1	45	.13	5	.5	.9	23	UKF
		14	2039	22.49	19	21.65	155	1.47				8.68	1.7	2.4	27	1	173	.12	4	.8	.6	20	MER
		15	033	20.60	19	23.75	154	59.27				5.23	1.9	2.4	25	1	177	.15	3	.9	.8	17	LER
		15	3	1	51.95	19	20.49	155	10.72			8.38	2.2	2.6	28	1	77	.10	3	.4	.7	25	UER
		15	454	30.12	19	22.13	155	30.03				7.85	1.6	2.3	26	0	112	.12	4	.6	1.0	22	MOK
		15	535	48.65	19	22.93	155	4.32				8.61	3.4	4.0	36	1	89	.09	3	.5	.4	35	MER F
		15	1314	6.89	19	23.72	155	23.79				8.97	1.8	2.1	27	0	43	.08	7	.4	.8	25	UKF
		15	1411	24.01	19	19.70	155	14.32				6.87	2.4	2.5	30	0	86	.11	5	.5	.8	29	UER
		15	2127	54.95	19	19.76	155	11.65				7.50	2.2	2.8	30	1	89	.11	5	.4	.7	28	UER
		16	024	.62	19	20.87	155	2.81				7.54	2.1	2.2	21	1	141	.12	2	.9	.7	17	MER
		16	1117	22.48	19	29.46	154	51.16				7.02	2.2	2.4	19	0	268	.12	4	2.6	.9	13	LER
		16	1148	41.55	19	22.67	155	17.04				2.78	1.9	2.5	22	1	50	.09	4	.3	.8	20	KOA
		16	2058	42.28	19	27.94	155	41.05				4.48	2.3	1.3	24	3	94	.17	8	.5	5.3	21	MOK
		16	2219	5.36	19	22.54	155	17.07				3.00	1.7	2.4	20	0	51	.08	4	.5	.9	16	KOA
		17	235	48.14	19	19.93	155	8.05				9.47	2.2	2.9	31	1	88	.10	5	.5	.5	28	UER
		17	516	24.23	19	23.28	155	16.86				3.18	2.9	3.7	33	1	38	.11	3	.3	.7	30	SPC
		17	15	1	2.12	19	20.58	155	49.77			3.56	2.5	2.0	27	1	172	.16	10	.9	2.4	22	KON
		17	2232	37.48	19	18.10	155	14.58				6.43	1.9	1.9	25	1	133	.13	3	.6	.8	21	POL
		17	2242	44.65	19	19.89	155	7.80				9.57	3.2	3.7	36	1	95	.11	5	.6	.4	34	UER
		17	2323	.70	19	22.08	155	4.41				7.73	2.0	2.4	31	1	87	.11	5	.4	.7	27	MER
		18	247	40.12	19	21.48	155	15.24				9.61	2.2	2.6	32	1	64	.10	2	.4	.5	27	KOA
		18	540	37.91	19	35.13	155	50.28				3.14	2.7	2.8	20	0	147	.25	14	1.1	40.0	19	KON *
		18	542	7.08	19	35.44	155	52.29				6.09	2.2	2.4	17	0	215	.17	12	1.1	1.1	13	KON
		18	546	37.00	19	20.02	155	10.63				7.97	1.8	2.3	30	1	86	.09	4	.4	.6	24	UER F
		18	616	55.55	19	21.32	155	15.35				9.50	2.8	3.0	36	1	66	.09	2	.4	.4	32	KOA
		18	1154	55.97	19	20.58	155	8.90				7.30	1.8	1.9	28	0	68	.10	3	.5	.9	27	UER
		18	1254	31.16	19	24.91	155	25.89				7.42	1.8	1.8	29	0	51	.11	5	.4	1.3	29	UKF
		18	13	0	42.75	19	20.86	155	6.85			5.22	1.9	1.6	26	1	93	.11	6	.5	2.3	24	UER
		18	2012	35.90	19	20.88	155	2.44				7.20	2.1	2.0	30	1	161	.17	2	1.0	.7	25	MER
		18	2037	11.79	19	25.25	155	27.28				9.60	1.9	1.8	28	0	55	.10	5	.5	1.0	26	UKF
		19	040	5.47	19	20.50	155	2.44				5.21	1.9	1.6	20	1	175	.16	1	1.0	1.2	17	MER
		19	746	29.72	19	23.77	155	16.71				4.08	1.8	2.0	6	0	119	.09	2	.9	1.6	4	SPC
		19	828	32.03	19	16.73	155	21.28				2.91	2.7	2.4	27	0	134	.15	5	.6	1.9	23	SWR
		19	1147	27.37	19	20.27	155	13.09				7.38	1.9	2.1	29	0	67	.12	4	.5	.7	29	UER
		19	1437	4.48	19	23.96	155	16.02				2.74	1.1	1.2	10	1	110	.10	2	.4	.5	9	SPC
		19	1522	28.62	19	22.99	155	4.44				6.94	1.8	1.8	25	2	87	.10	3	.5	.8	24	MER

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	GAP NS	RMS DEG	MIN SEC	DIS DIS	ERH KM	ERZ KM	NO FM	REMK
1978	OCT	19	1632	55.72	19 21.45	155 6.22	7.22	2.2	2.3 32	2	86	.12	6	.5	.9	29	UER
		19	20	2 56.08	19 19.77	155 12.38	4.57	1.9	2.1 25	1	81	.12	5	.5	1.6	23	UER
		20	021	46.99	19 23.17	155 16.82	3.04	1.9	2.4 22	1	62	.09	0	.3	.4	20	SPC
		20	215	54.82	19 32.43	155 25.07	9.58	1.0	1.3 22	1	56	.13	5	.5	1.3	20	NER
		20	751	52.60	19 22.74	155 24.79	9.24	2.2	2.1 28	0	87	.09	5	.4	.7	26	UKF
		20	1150	56.71	19 17.38	155 30.62	1.23	2.1	1.9 25	0	115	.18	11	.6	16.0	21	HEA
		20	1254	2.20	19 17.13	155 28.29	6.05	2.0	1.6 20	1	122	.15	10	.6	1.7	19	HEA
		20	1610	52.55	19 17.58	156 20.32	32.39	2.2	1.7	1	276	.10	49	8.8	3.8	16	DIS
		20	23	9 53.77	19 26.37	155 23.99	8.80	3.3	1.4 36	1	44	.14	7	.4	.9	31	UKF
		20	2342	10.83	19 26.30	155 24.01	7.83	2.6	2.7 36	0	44	.13	7	.4	1.0	33	UKF
		21	655	49.82	19 21.37	155 10.60	8.31	2.0	2.1 30	0	64	.11	2	.4	.7	29	UER
		21	1249	3.73	19 26.37	155 28.90	7.85	2.2	1.8 30	1	52	.10	8	.4	1.4	28	UKF
		22	241	53.58	19 16.40	155 23.47	3.48	1.8	1.8 23	0	126	.16	7	.7	3.4	21	SWR
		22	246	2.97	19 25.60	154 55.16	5.00	2.1	2.0 21	0	207	.16	6	1.3	.4	19	LER
		22	15	3 14.69	19 19.71	155 11.72	8.36	2.1	2.3 30	0	89	.10	5	.5	.6	28	UER
		22	1513	1.48	19 12.47	155 19.93	46.84	2.9	3.2 40	3	169	.12	10	.8	1.3	38	HLP
		22	2347	6.28	19 19.63	155 11.52	7.91	1.9	2.0 30	0	92	.11	5	.4	.6	29	UER
		23	8	7 39.15	19 20.17	155 12.77	7.65	1.9	2.2 31	1	71	.12	5	.5	.7	28	UER
		23	1110	37.20	19 18.98	155 23.55	4.38	2.1	2.3 21	0	116	.12	2	.6	1.3	21	SWR
		23	1339	11.94	19 21.47	155 7.13	6.50	2.0	2.3 30	1	80	.11	5	.5	1.1	25	UER
		23	1534	3.30	19 19.47	155 11.79	8.87	2.6	2.9 32	0	94	.10	5	.5	.5	29	UER
		23	1913	22.69	19 20.50	155 12.49	7.38	1.7	1.9 28	0	69	.11	4	.5	.7	26	UER
		24	023	1.49	19 23.29	155 16.96	2.72	1.9	2.2 22	1	57	.10	0	.3	.4	20	SPC
		24	334	24.35	19 23.07	155 2.15	8.15	2.2	2.3 24	0	137	.16	5	.9	.6	23	MER
		24	1433	13.99	19 19.47	155 12.04	9.86	2.9	3.3 36	1	91	.10	5	.4	.4	34	UER
		24	1527	51.40	19 20.01	155 11.20	7.87	1.9	1.9 34	1	86	.11	4	.4	.7	29	UER
		25	648	13.09	19 20.28	155 3.71	7.16	2.1	2.0 28	1	118	.11	2	.7	.6	26	MER
		25	841	56.33	19 20.30	155 11.27	7.33	2.4	2.8 31	0	80	.09	4	.4	.7	29	UER
		25	2053	37.79	19 22.13	155 6.01	7.23	2.1	1.9 28	0	75	.13	5	.5	1.0	28	UER
		25	2132	56.31	19 19.88	155 7.92	7.81	2.4	2.9 33	1	92	.09	5	.4	.7	32	UER
		25	2334	48.43	19 19.13	155 13.98	7.67	1.8	1.9 27	0	68	.12	4	.5	.7	25	UER
		26	228	33.51	19 21.40	155 6.62	7.75	2.1	2.4 30	0	85	.09	6	.5	.7	28	UER
		26	318	58.82	19 21.96	155 .16	7.12	1.9	2.0 31	1	191	.20	6	1.2	.8	29	LER
		26	349	5.26	19 20.15	155 6.80	8.91	2.6	2.9 33	0	109	.07	6	.6	.4	30	UER
		26	615	7.48	19 18.07	155 13.20	8.95	2.2	2.5 31	0	96	.09	2	.6	.5	30	POL
		26	747	22.19	19 20.17	155 8.21	5.82	1.1	1.7 26	0	83	.11	5	.6	1.2	25	UER
		27	351	50.63	19 25.67	155 27.44	9.04	2.1	1.9 32	0	42	.11	6	.4	.8	24	UKF
		27	424	47.76	19 39.50	155 15.78	47.86	1.4	1.4 34	9	146	.09	22	.7	.9	25	NER
		27	552	38.67	19 18.92	155 13.48	9.12	2.0	2.1 34	1	80	.10	4	.5	.4	32	POL
		28	552	53.73	19 20.25	155 11.44	7.23	1.7	1.8 31	1	80	.12	4	.5	.7	27	UER
		28	1057	34.73	19 18.98	155 11.30	9.29	2.0	2.3 30	0	110	.11	5	.6	.6	26	POL
		28	1237	34.70	21 34.97	157 44.49	1.22	4.1	4.5 38	6	242	.30	33	6.3	1.8	27	DIS
		28	1450	47.11	19 24.00	155 16.11	3.16	1.8	1.7 15	0	104	.08	2	.4	.3	13	SPC
		28	1644	13.37	19 12.08	155 20.81	48.40	3.2	3.7 35	0	168	.10	12	1.0	2.2	31	HLP
		29	051	28.19	19 25.18	155 15.99	1.97	2.4	3.2 32	1	40	.10	2	.2	.3	28	SPC
		29	328	54.89	19 22.62	155 4.94	7.73	2.4	2.9 33	2	78	.10	4	.4	.6	27	MER
		29	1155	6.09	19 27.89	155 28.30	10.37	2.8	2.8 37	2	52	.13	8	.4	.7	31	UKF
		29	1333	53.04	19 33.98	155 41.25	4.56	1.8	1.5 18	1	127	.14	10	.8	5.3	15	MOK

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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	DIS DIS	ERH KM	ERZ KM	NO FM	REMK
1978	OCT	29	1413	16.22	19 18.42	155 23.73	6.96	1.8	1.7 29	0	106	.14	3	.5	1.0	29	SWR
		29	1651	32.58	19 21.24	155 10.80	6.80	2.1	2.3 32	0	66	.11	2	.5	.8	27	UER
		29	1725	51.97	19 19.90	155 7.81	6.68	1.8	2.3 28	1	95	.11	5	.5	1.1	27	UER
		29	1820	7.15	19 21.49	155 2.56	6.79	2.1	2.7 31	1	144	.12	3	.7	.7	24	MER
		30	550	11.99	19 20.23	155 12.78	8.80	1.5	2.1 29	0	70	.11	4	.4	.6	27	UER
		30	2025	44.60	19 20.89	155 7.42	7.80	2.0	1.5 27	0	87	.10	5	.5	.8	21	UER
		31	611	55.69	19 22.17	155 3.67	7.65	2.3	2.4 30	0	105	.10	4	.6	.6	27	MER
		31	616	43.27	19 20.11	155 11.13	7.65	2.1	2.1 30	0	84	.11	4	.5	.7	26	UER
		31	7	5 20.19	19 19.57	155 7.84	8.69	1.9	2.0 29	0	98	.11	4	.7	.7	28	UER
		31	815	42.04	19 24.08	155 26.86	11.98	2.3	2.6 18	1	98	.07	10	.6	.7	15	UKF
		31	2312	1.42	19 20.23	155 6.39	9.67	2.8	3.2 34	0	113	.10	6	.6	.4	33	UER
	NOV	1	046	27.40	19 19.65	155 11.86	9.41	2.1	2.4 34	0	89	.11	6	.4	.4	32	UER
		1	457	57.83	19 19.33	155 11.55	10.00	2.9	3.5 36	0	99	.08	5	.5	.4	35	UER
		1	5	6 23.61	19 19.75	155 11.48	7.43	2.0	2.1 32	0	90	.11	5	.5	.7	32	UER
		1	950	40.07	19 18.43	155 15.00	7.40	1.8	1.9 25	0	128	.12	4	.6	.8	22	POL
		1	1033	43.98	19 21.26	155 2.11	4.83	1.7	1.9 21	1	172	.15	3	.7	1.5	19	MER
		1	1037	7.62	19 24.71	155 25.97	7.35	2.0	1.8 27	0	50	.14	5	.5	1.5	26	UKF
		1	1324	34.21	19 25.80	155 24.43	9.78	2.4	2.6 28	0	54	.11	8	.5	1.0	22	UKF
		1	1833	45.21	19 24.16	154 56.61	8.27	2.6	2.4 28	0	203	.14	4	1.3	.6	26	LER
		2	5	6 27.51	19 21.39	155 15.01	9.01	1.6	1.8 28	0	64	.09	2	.4	.5	26	KOA
		2	946	25.50	19 13.23	155 28.28	6.40	2.5	2.3 24	0	96	.20	7	.7	1.9	17	LSW
		2	1922	30.65	19 27.93	155 35.26	36.06	2.5	2.9 25	1	61	.13	1	.9	2.1	21	MOK L
		2	2211	29.51	19 20.53	155 11.62	7.46	2.0	1.9 29	0	75	.11	4	.5	.7	26	UER
		2	2212	11.99	19 20.81	155 10.76	7.38	1.6	1.7 25	0	73	.10	3	.5	.7	25	UER
		2	2250	32.51	19 34.61	155 55.61	14.58	2.0	2.7	3	200	.11	10	.9	.5	24	KON
		2	2358	36.50	19 21.24	155 6.11	6.33	1.9	1.9 28	0	92	.09	6	.5	1.1	27	UER
		3	346	53.85	19 27.69	155 34.81	37.31	2.7	3.3 24	1	34	.09	3	.7	1.7	18	MOK L
		3	4	7 13.66	19 45.42	154 54.13	14.94	2.1	2.4 23	2	264	.13	15	2.0	.6	19	HIL
		3	821	7.60	19 59.37	155 8.71	6.66	2.1	3.1 19	0	282	.21	23	6.2	1.6	14	KKU
		3	1052	54.67	19 20.34	155 13.27	6.91	1.4	1.7 24	0	64	.09	4	.5	.8	22	UER
		3	1233	47.52	19 26.56	155 34.35	37.72	1.9	2.4 14	0	67	.05	4	1.0	2.6	3	MOK L
		3	1339	51.37	19 19.89	155 3.21	5.39	2.1	1.9 23	1	159	.16	1	.9	1.5	16	MER
		3	18	8 55.71	19 18.36	155 13.25	5.52	1.5	1.6 23	0	88	.12	3	.6	.9	15	POL
		3	2034	51.76	19 26.87	155 37.67	34.99	2.0	2.6 15	0	95	.20	3	1.6	3.3	0	MOK L
		3	21	2 38.88	19 21.18	155 3.48	6.78	2.4	2.4 27	1	107	.11	3	.5	.8	22	MER
		3	2348	7.40	19 15.75	155 24.82	34.97	1.9	2.0 33	3	121	.09	9	.7	.8	25	LSW
		4	127	7.16	19 20.19	155 13.31	8.82	1.5	1.8 23	0	64	.07	5	.4	.6	17	UER
		4	729	11.23	19 20.58	155 10.54	8.84	1.4	1.9 29	0	76	.11	3	.4	.7	23	UER
		5	238	26.60	19 21.14	155 7.13	7.56	1.3	1.3 21	0	85	.09	5	.5	1.2	16	UER
		5	3	7 3.96	19 20.32	155 3.80	5.73	1.5	1.6 18	0	117	.10	2	.8	1.2	15	MER
		5	8	1 58.02	19 20.27	155 10.48	8.06	1.8	1.7 23	1	87	.08	4	.4	.8	19	UER
		5	829	13.98	19 17.38	155 21.47	5.95	1.3	1.6 21	1	126	.12	5	.6	1.3	15	SWR
		5	1625	1.60	19 19.67	155 11.20	8.99	3.1	3.3 35	1	93	.11	5	.5	.6	31	UER
		5	17	0 5.03	19 20.70	155 4.61	4.45	2.4	2.6 30	1	108	.12	3	.5	1.3	28	UER
		6	10	0 39.65	19 21.15	155 7.69	8.63	2.4	2.7 27	1	79	.08	4	.4	.6	26	UER
		6	2031	6.46	19 20.38	155 10.64	13.50	2.8	2.9 19	0	166	.49	3	2.4	1.3	17	UER
		6	2034	3.34	19 21.34	155 27.83	11.25	2.3	2.4 13	0	107	.12	18	.7	.9	12	MEA
		6	2048	16.66	19 19.50	155 8.84	7.93	2.6	3.0 12	0	207	.14	5	1.9	1.0	10	UER

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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
1978	NOV	7	1256	57.79	19 48.04	156 8.42	12.35	3.0	2.9	17	1	200	.09	34	1.7	.9	15	KON
		7	1824	8.48	19 22.32	155 7.06	6.92	2.1	2.4	23	3	167	.13	5	.6	.7	19	UER
		8	528	28.18	19 21.72	155 9.40	7.48	2.0	2.5	21	0	165	.13	1	.7	.6	19	UER
		8	633	57.79	19 20.04	155 8.43	8.75	2.8	3.0	22	1	199	.10	5	.9	.7	17	UER
		8	729	15.15	19 25.24	155 36.12	11.67	1.6	1.3	23	5	51	.13	4	.4	.8	15	MOK
		8	1314	10.94	19 42.89	155 41.95	14.10	2.4	2.5	15	0	163	.13	15	1.0	.8	15	KKU
		8	1519	18.01	19 21.64	155 1.68	7.62	1.9	1.9	13	1	229	.12	7	1.6	.9	9	MER
		8	16	9 13.94	19 11.27	155 27.69	44.01	2.8	1.8	10	0	127	.07	3	1.0	3.0	18	LSW L
		8	1721	42.22	19 19.98	155 13.75	8.21	1.9	2.2	21	0	162	.13	5	.8	.9	18	UER
		8	2146	39.00	19 20.73	155 8.64	8.18	2.8	3.3	26	1	170	.11	3	.7	.6	23	UER
		8	2216	17.57	19 17.43	155 21.51	7.46	2.0	2.1	19	1	151	.13	6	.6	1.4	15	SWR
		9	321	8.02	19 20.31	155 11.07	8.89	2.3	2.4	24	1	191	.13	4	1.0	.8	18	UER
		9	934	37.59	19 25.47	155 36.36	11.59	2.3	1.7	15	0	71	.12	3	.6	.8	14	MOK
		9	1436	6.82	19 22.67	155 27.33	8.27	1.7	2.0	20	0	61	.13	1	.5	1.1	18	UKF
		9	1833	32.36	19 19.58	155 12.15	6.19	1.6	1.6	21	0	87	.11	5	.6	1.1	19	UER
		10	148	49.55	19 25.28	155 24.48	8.20	2.1	2.1	23	0	60	.11	8	.4	1.2	23	UKF
		10	533	7.16	19 23.64	155 33.13	7.15	2.1	1.8	13	0	92	.13	9	.6	2.5	13	MOK
		10	17	2 26.81	19 20.72	155 12.84	7.05	1.6	1.8	20	0	64	.13	4	.6	1.2	19	UER
		10	20	5 23.36	19 21.80	155 4.99	9.04	3.3	3.7	30	1	79	.11	5	.6	.6	27	MER
		10	22	0 46.63	19 20.75	155 12.58	6.97	2.0	2.0	26	1	66	.13	4	.5	.8	20	UER
		10	2344	38.74	19 19.55	155 15.99	31.93	2.4	2.9	26	0	92	.10	5	.7	1.4	25	DEP
		11	015	27.16	20 4.79	155 28.67	.70	2.6	2.4	24	1	270	.12	25	2.1	1.0	21	KKU
		11	411	.52	19 18.70	155 13.16	7.71	2.0	2.1	25	1	85	.13	3	.5	.8	24	POL
		11	629	4.74	19 20.18	155 11.81	9.46	2.4	2.9	26	0	80	.08	5	.4	.6	25	UER
		11	10	8 25.04	19 21.27	155 14.95	4.68	1.9	1.9	24	1	66	.16	6	.5	4.1	21	UER
		11	20	5 .52	19 7.56	155 33.90	42.07	2.3	2.4	15	0	143	.17	11	1.6	4.3	3	LSW L
		12	1	3 40.47	19 22.75	155 3.63	9.05	2.7	2.9	24	1	156	.10	4	.7	.5	20	MER
		12	5	0 47.98	19 20.86	155 11.53	6.45	2.1	2.2	25	1	70	.14	4	.5	1.1	22	UER
		12	528	51.20	19 6.80	155 37.98	56.74	1.9		18	3	170	.12	15	1.2	1.0	7	HEA L
		12	624	12.84	19 19.65	155 7.61	7.01	2.2	2.4	23	1	133	.09	4	.6	1.1	20	UER
		12	946	38.69	19 23.92	155 25.34	7.58	2.3	2.0	24	0	45	.14	5	.4	1.3	20	UKF
		12	1239	54.40	19 22.04	155 2.68	8.22	2.3	2.2	22	0	176	.12	5	.9	.6	19	MER
		12	1458	51.07	19 35.31	155 59.63	9.13	2.4	2.2	16	0	272	.18	14	3.4	1.1	14	KON
		12	15	8 2.47	19 22.08	155 4.94	.00	3.2	3.7	23	1	150	.25	5	1.0	1.2	20	MER
		12	1526	5.15	19 22.39	155 6.20	1.18	2.7	3.1	18	1	131	.11	5	.6	1.0	14	UER
		12	1718	.18	19 19.75	155 11.57	5.59	2.0	2.2	24	1	89	.11	5	.5	1.1	22	UER
		12	2158	25.80	19 23.03	155 2.19	8.97	2.4	2.0	26	1	167	.11	5	.7	.5	20	MER
		12	2159	20.05	19 22.95	155 3.34	8.09	2.2	1.8	21	1	155	.14	3	.7	.7	20	MER
		13	112	55.02	19 24.35	155 12.82	3.53	2.2	2.3	22	2	47	.10	7	4	1.7	18	GLN
		13	232	12.93	19 19.17	155 14.15	8.78	2.9	3.2	28	1	68	.10	4	.5	.6	26	UER F
		13	959	3.42	19 20.05	155 8.35	6.70	2.2	2.4	26	1	81	.10	5	.5	1.0	22	UER
		13	1829	51.60	19 8.23	155 26.13	42.74	2.3		10	0	248	.05	4	5.0	9.8	7	LSW
		13	2212	8.18	19 21.44	154 59.68	7.08	2.2	2.2	23	1	205	.13	6	1.1	.6	18	LER
		14	1956	19.19	19 21.41	155 1.37	7.68	2.0	2.0	26	3	180	.12	4	.8	.6	21	MER
		14	2033	12.13	20 12.96	156 8.12	16.09	2.4		26	0	299	.14	38	6.4	99.0	19	DIS *
		15	337	17.74	19 25.43	155 24.31	9.86	3.2	3.4	34	1	39	.12	8	.4	.6	30	UKF
		15	741	24.34	19 11.00	155 40.62	6.83	2.6	2.6	23	1	217	.17	10	.9	1.3	18	HEA
		15	1023	7.48	19 23.01	155 28.76	8.69	2.1	2.1	24	0	55	.14	2	.5	1.0	17	UKF

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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
1978	NOV	15	1053	18.98	19 8.40	155 36.33	6.33	2.9	3.1	25	0	118	.17	15	.7	1.3	21	HEA
		15	1227	21.62	19 19.61	155 11.50	7.57	2.2	2.1	28	0	93	.10	5	.5	.6	24	UER
		15	1257	52.77	19 20.59	155 3.20	8.19	2.5	2.9	28	1	112	.12	1	.8	.5	22	MER
		15	1329	29.95	19 20.09	155 7.44	8.87	2.6	3.1	30	1	99	.09	5	.5	.6	27	UER
		15	14	5 45.40	19 24.82	154 55.27	8.97	2.4	2.6	23	1	213	.15	6	1.5	.7	19	LER
		15	16	0 27.28	19 21.49	155 5.94	6.27	1.4	1.6	25	1	87	.12	6	.5	1.2	22	MER
		15	1647	46.75	19 24.24	155 24.74	11.34	3.3	3.4	37	1	31	.12	6	.4	.5	34	UKF
		15	2126	9.68	19 19.66	155 11.25	6.76	2.0	1.9	28	0	93	.12	5	.5	.8	22	UER
		15	23	5 12.09	19 17.90	155 20.81	6.18	2.0	2.0	19	0	122	.11	4	.5	1.1	14	SWR
		16	835	53.29	19 20.04	155 8.13	8.29	2.2	2.5	28	0	85	.11	5	.6	.7	26	UER
		16	1121	2.65	19 18.46	155 14.02	6.44	1.5	1.6	28	2	77	.12	3	.5	.9	27	POL
		16	1154	8.93	19 18.03	155 12.89	10.38	2.6	2.9	29	0	141	.08	9	.5	.5	24	POL
		16	1253	39.80	19 24.51	155 25.97	6.66	2.0	1.8	20	0	69	.13	5	.6	1.9	18	UKF
		16	15	1 .40	19 17.52	155 13.03	9.93	2.3	2.4	29	1	173	.09	9	.7	.7	23	POL
		16	1718	5.78	19 20.92	155 6.67	7.92	1.9	1.8	21	0	94	.10	6	.5	.8	18	UER
		16	2258	40.96	19 22.55	155 4.53	9.20	2.0	1.7	25	0	86	.10	4	.7	.7	19	MER
		16	2332	54.71	19 47.07	155 6.87	.19	2.3	2.8	28	0	198	.63	13	3.2	9.8	20	HIL
		16	2336	4.74	19 23.01	155 6.26	.00	2.1	1.8	13	1	95	.08	5	.5	1.0	13	GLN
		16	2347	7.48	19 27.08	154 49.68	3.42	2.4	1.8	11	1	295	.23	7	2.4	2.6	10	LER
		17	426	53.11	19 26.99	154 49.84	3.15	2.6	2.3	11	2	294	.21	7	2.4	1.9	9	LER
		17	536	50.65	19 17.73	155 13.18	7.83	2.1	2.1	29	0	107	.13	1	.5	.7	28	POL
		17	1110	20.96	19 25.16	155 28.63	9.44	2.3	2.4	31	1	38	.12	5	.4	.8	23	UKF
		17	1124	40.40	19 40.67	155 2.40	10.16	2.9	3.2	23	0	197	.17	19	1.1	1.3	22	HIL
		17	1529	48.74	19 40.87	155 2.52	.00	2.3	2.4	11	1	113	.60	3	2.9	7.3	5	HIL
		17	1621	34.36	19 19.11	155 11.99	8.35	2.3	2.4	29	0	100	.13	5	.5	.6	26	UER
		17	1714	15.24	19 54.90	155 14.35	38.04	2.5	2.1	36	6	241	.11	11	.7	.6	33	KKU
		17	1951	36.57	19 21.77	155 6.56	8.46	2.2	2.3	30	1	79	.09	6	.5	.7	28	UER
		17	2043	37.08	19 14.15	155 36.66	8.44	2.7	2.7	29	0	195	.20	2	1.1	.9	25	HEA
		17	2130	9.03	19 25.32	155 24.63	8.20	2.2	2.4	35	0	33	.12	7	.4	1.0	29	UKF
		17	2134	21.94	19 23.17	155 2.07	7.22	2.1	1.9	28	1	137	.13	5	.6	.6	25	MER
		17	2149	1.43	19 21.96	155 4.21	7.89	2.4	2.7	30	0	91	.10	4	.5	.6	25	MER
		17	2213	15.55	19 19.04	155 13.88	7.99	1.9	2.1	27	1	89	.11	4	.6	.8	19	UER
		18	158	57.25	19 24.90	155 16.05	15.22	2.5	2.9	33	0	46	.09	2	.5	.3	31	INT
		18	211	21.73	19 22.47	155 4.51	10.15	2.0	2.0	28	1	85	.08	4	.6	.5	22	MER
		18	659	39.53	19 25.25	155 28.71	7.15	2.4	2.5	35	1	41	.15	5	.5	1.2	27	UKF
		18	1227	3.71	19 23.18	155 26.41	8.93	2.0	1.9	26	0	96	.10	2	.4	.8	19	UKF
		18	1233	15.75	19 22.34	155 4.41	10.20	2.0	1.9	26	1	88	.09	4	.6	.6	21	MER
		18	1628	53.09	19 21.38	155 5.72	6.56	2.0	1.9	28	1	89	.12	6	.5	1.1	24	MER
		18	2349	46.33	19 23.12	155 5.41	.47	1.9	2.6	17	0	80	.16	3	.6	1.4	13	MER
		19	149	56.38	19 22.56	155 2.58	6.98	1.9	1.9	31	2	134	.11	5	.6	.6	26	MER
		19	835	20.17	19 20.04	155 5.14	9.99	2.6	3.4	19	1	132	.12	4	.9	.5	15	UER
		19	1259	22.53	19 19.87	155 9.77	8.80	2.4	2.9	30	0	86	.10	4	.4	.7	29	UER
		19	1341	25.50	19 20.85	155 13.24	9.03	2.5	2.8	31	0	59	.14	3	.5	.6	29	UER
		19	1432	16.13	19 19.94	155 8.05	7.08	1.8	1.9	28	0	88	.11	5	.5	1.0	24	UER
		19	1527	38.10	19 21.45	155 5.80	8.02	2.2	2.7	29	1	88	.11	6	.5	.9	25	MER
		19	1630	53.69	19 25.89	155 24.39	8.62	2.3	2.4	32	1	46	.11	8	.4	.9	27	UKF
		19	1720	21.63	19 23.93	155 26.12	6.95	2.1	2.0	29	1	43	.13	4	.4	1.3	22	UKF
		19	1741	49.47	19 20.18	155 11.78	7.87	1.9	2.1	28	0	79	.09	5	.5	.6	25	UER

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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 NO KM FM	REMK
1978	NOV	19	1848	37.13	19 20.03	155 11.55	8.58 1.7 1.8	30	0	84 .09	5	.4	.5	29	UER			
		19	19 2	37.76	19 22.55	155 27.89	8.66 2.3 2.3	31	0	61 .12	1	.4	.8	26	UKF			
		19	2051	13.53	19 20.89	155 5.72	8.33 2.0 2.2	28	0	101 .11	5	.6	.6	25	MER			
		19	2349	17.93	19 21.40	155 13.13	6.85 1.8 1.7	32	1	56 .15	2	.5	.8	26	UER			
		20	212	2.57	19 19.81	155 12.33	6.64 1.6 1.7	26	0	82 .13	5	.6	1.0	24	UER			
		20	1351	4.85	19 19.84	155 11.70	5.50 1.8 1.7	23	0	86 .11	5	.5	1.4	21	UER			
		20	16 8	20.92	19 21.23	155 6.03	6.19 2.2 1.8	24	1	92 .10	6	.5	1.2	22	UER			
		20	20 0	8.71	19 20.53	155 6.56	7.58 2.0 2.0	26	0	103 .10	6	.6	.9	25	UER			
		20	2014	22.96	19 19.86	155 9.78	6.33 1.8 1.7	26	0	86 .08	4	.5	1.1	25	UER			
		21	337	55.91	19 19.05	155 11.41	6.99 2.3 2.1	29	1	107 .09	5	.5	.6	26	UER			
		21	910	45.03	19 20.25	155 11.59	7.35 1.8 1.8	24	0	79 .10	5	.6	.9	19	UER			
		21	1210	30.01	19 17.37	155 13.13	8.02 1.8 1.9	27	0	134 .12	1	.7	.8	22	POL			
		21	1423	44.04	19 21.12	155 6.73	6.00 2.0 2.0	24	0	90 .11	6	.5	1.3	23	UER			
		22	216	36.21	19 21.77	155 14.97	8.45 2.0 2.3	31	0	60 .15	2	.5	.6	29	UER			
		22	526	36.46	19 22.40	155 4.05	9.53 2.6 3.5	34	1	96 .07	4	.5	.4	30	MER			
		22	820	42.87	19 12.68	155 27.98	5.24 3.1 3.4	31	0	101 .15	6	.6	1.6	28	L3W			
		22	824	3.42	19 12.62	155 27.55	6.68 2.4 2.7	30	0	111 .17	6	.6	1.3	21	L3W			
		22	839	37.14	19 20.83	155 5.93	7.91 1.8 2.4	25	0	102 .08	6	.5	.9	21	MER			
		22	954	38.54	19 13.54	155 27.89	7.40 2.3 2.7	26	0	140 .14	15	.7	1.3	15	L3W			
		22	1032	6.95	19 20.42	155 7.57	7.87 2.1 2.3	28	2	91 .10	5	.5	.9	24	UER			
		22	1041	24.09	19 12.41	155 27.56	2.37 1.8 1.5	15	1	116 .15	5	.9	3.0	14	L3W			
		22	1138	43.30	19 20.80	155 12.60	8.03 1.0 1.8	20	0	76 .10	3	.6	.8	18	UER			
		22	1323	14.81	19 20.97	155 3.13	6.06 3.4 3.8	30	1	121 .12	2	.7	.9	27	MER			
		22	1528	16.02	19 20.58	155 2.48	5.01 1.0 1.9	13	0	169 .08	1	.9	1.2	9	MER			
		22	1732	51.15	19 23.73	155 2.55	8.32 2.0 2.1	26	1	118 .11	3	.5	.6	20	MER			
		22	1757	46.83	19 19.78	155 12.37	7.17 1.8 1.3	23	0	81 .10	5	.6	1.0	17	UER			
		23	117	36.15	19 21.90	155 6.67	9.25 2.4 3.2	32	0	77 .10	6	.5	.5	28	UER			
		23	3 3	10.71	19 21.12	155 3.33	7.25 2.3 2.3	31	1	112 .10	2	.6	.6	25	MER			
		23	316	15.88	19 14.16	155 32.81	11.40 4.2 4.2	33	0	122 .09	8	.5	.6	33	L3W			F
		23	613	4.54	19 20.83	155 14.96	6.84 1.9 1.1	20	0	84 .12	3	.6	.9	15	UER			
		23	754	40.55	19 20.82	155 2.27	4.61 1.9 2.1	20	0	170 .15	2	1.1	1.5	13	MER			
		23	1229	32.14	19 20.47	155 12.39	6.96 1.4 1.6	28	1	71 .10	4	.5	.8	23	UER			
		23	1446	22.91	19 20.07	155 7.71	7.92 2.2 2.2	31	0	94 .09	5	.5	.7	25	UER			
		23	2325	39.74	19 23.53	155 28.53	8.15 2.5 2.4	37	1	37 .14	3	.4	.9	30	UKF			
		24	148	8.43	19 21.12	155 13.30	9.02 2.6 3.0	33	1	57 .10	3	.4	.6	28	UER			
		24	3 5	42.32	19 25.65	154 57.27	6.21 2.0 1.8	23	0	175 .13	3	.9	.7	23	LER			
		24	4 7	51.44	19 10.62	155 37.42	7.36 2.6 2.2	26	1	215 .12	8	1.0	.8	23	HEA			
		24	852	19.66	19 22.20	155 1.53	5.67 1.8 1.1	10	0	211 .08	5	1.2	1.0	0	MER			
		24	1559	8.06	19 22.16	155 4.86	5.95 2.1 1.8	23	0	79 .14	5	.6	1.7	19	MER			
		24	1644	56.11	19 19.49	155 12.25	9.05 1.7 2.0	24	0	89 .11	5	.6	.9	20	UER			
		24	2347	44.40	19 19.62	155 11.15	9.18 2.2 2.3	26	1	95 .11	6	.4	.8	20	UER			
		25	027	15.74	19 26.10	154 52.85	9.11 2.0 2.0	23	1	247 .11	5	1.5	.7	17	LER			
		25	318	34.25	19 28.70	154 54.27	2.98 2.0 2.4	17	1	154 .10	2	2.0	1.7	10	LER			
		25	558	44.88	19 19.76	155 17.51	34.63 1.7 22	1	86 .09	1	.9	1.7	21	DEP				
		25	925	38.32	19 20.30	155 8.61	8.25 1.7 2.2	24	0	74 .07	6	.4	1.1	19	UER			
		25	10 2	8.94	19 20.07	155 8.40	9.77 2.8 3.2	31	0	80 .09	5	.4	.5	29	UER			
		25	1257	42.64	19 12.67	155 27.46	4.18 1.9 25	3	112 .12	6	.5	2.2	21	L3W				
		25	1458	39.65	19 21.06	155 13.21	1.41 1.4 2.0	7	0	235 .06	3	1.0	.8	5	UER			

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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 DEG	RMS SEC	MIN DIS	ERH KM	ERZ NO KM FM	REMK
1978	NOV	25	1813	49.35	19	20.50	155 8.12	6.72 2.0 2.3	18	1	81 .09	6	.5	2.2	14	UER			
		25	2035	29.08	19	25.50	155 25.38	8.22 2.5 2.8	26	0	51 .10	7	.4	1.1	22	UKF			
		25	21 1	24.83	19	19.77	155 13.29	9.62 2.5 2.8	26	0	69 .09	5	.4	.6	26	UER			
		25	21 4	55.52	19	25.22	155 26.97	10.84 1.9 27	0	58 .10	5	.4	.8	23	UKF				
		25	23 4	23.34	19	21.65	155 .42	6.21 1.6 1.8	18	1	192 .12	5	.7	1.0	11	LER			
		25	2314	3.57	19	20.13	155 13.27	9.75 2.0 2.1	24	0	66 .06	5	.4	.7	17	UER			
		26	0 5	40.08	19	19.56	155 10.11	8.62 2.4 2.8	28	1	95 .09	6	.4	.8	27	UER			
		26	2 2	17.78	19	7.64	155 4.52	35.21 1.7 1.9	25	0	230 .07	19	1.6	1.9	22	PPL			
		26	345	43.97	19	21.70	155 6.54	7.80 2.0 2.1	25	1	81 .10	7	.5	1.3	18	UER			
		26	12 1	47.91	19	23.04	155 6.23	.59 2.4 3.1	10	0	94 .10	4	.6	2.1	10	GLN			
		26	1614	5.26	19	17.52	155 26.53	8.40 1.9 1.6	25	0	123 .14	8	.6	1.2	21	HEA			
		27	1 9	39.56	19	22.40	155 5.82	1.36 2.1 2.2	21	0	70 .22	5	.6	2.5	19	MER			
		27	451	54.68	19	20.62	155 11.61	5.96 2.1 2.2	35	2	73 .17	5	.5	1.0	30	UER			
		27	1116	16.12	19	19.61	155 11.64	7.61 2.1 2.4	29	0	92 .10	6	.5	.8	24	UER			
		27	1313	39.25	19	20.19	155 10.12	3.70 1.9 1.9	27	0	81 .14	7	.6	3.3	24	UER			
		27	1618	52.50	19	20.41	155 11.62	8.26 2.0 1.8	27	1	77 .10	5	.4	.7	23	UER			
		27	1619	50.14	19	20.44	155 11.69	10.36 3.3 3.6	35	1	76 .08	5	.4	.4	30	UER			
		27	2131	23.48	19	20.68	155 7.78	1.94 1.9 2.0	30	1	84 .08	6	.4	1.8	21	UER			
		27	2245	26.05	19	18.57	155 14.47	7.72 1.8 1.6	27	0	113 .11	3	.5	.6	24	POL			
		27	2319	49.41	19	20.04	155 14.65	6.73 1.8 1.7	27	0	71 .13	5	.5	.8	17	UER			
		28	129	30.11	19	22.51	155 1.37	6.54 2.1 2.1	24	1	161 .15	6	.8	1.1	21	MER			
		28	131	36.75	19	18.74	155 13.19	10.13 3.6 3.9	37	1	84 .10	3	.5	.4	36	POL			
		28	140	4.81	19	19.14	155 13.46	5.24 1.6 1.8	23	0	73 .15	4	.6	1.2	21	UER			
		28	9 4	33.79	19	36.48	155 53.73	7.33 1.9 1.7	14	1	269 .14	14	3.9	.9	14	KON			
		28	2059	29.30	19	23.20	155 5.52	1.97 1.9 2.5	16	0	91 .19	3	.7	1.6	15	MER			
		28	2150	40.39	19	38.54	156 .79	10.68 3.3 3.4	34	2	224 .11	20	1.1	.8	33	KON			F
		28	2242	59.64	19	22.43	155 26.65	11.13 3.5 3.6	35	1	62 .11	2	.4	.5	34	UKF			F
		29	219	43.41	19	21.92	155 5.81	8.06 2.0 2.1	27	1	79 .12	6	.5	.8	20	MER			
		29	1140	25.48	19	38.50	156 1.17	10.36 2.8 2.8	25	0	225 .12	20	1.4	.8	18	KON			
		29	1555	58.85	19	17.61	155 15.58	9.29 2.8 2.9	34	0	144 .10	5	.5	.5	33	KOA			
		29	1915	23.63	19	17.23	155 15.52	6.56 2.1 1.7	15	0	190 .12	4	1.3	2.2	15	KOA			
		29	2138	46.94	19	19.65	155 10.86	6.17 1.7 1.7	25	2	94 .13	5	.5	1.1	23	UER			
		29	2139	17.94	19	19.98	155 10.84	6.09 2.0 1.8	22	1	88 .13	4	.5	.9	20	UER			
		29	2156	24.13	19	18.05	155 16.14	8.91 2.2 2.4	31	0	167 .08	4	.5	.5	27	KOA			
		30	10 9	19.40	19	20.21	155 12.85	10.35 2.7 3.3	34	1	70 .09	4	.4	.3	29	UER			
		30	1134	45.01	19	38.78	155 8.27	46.74 2.6 2.8	35	0	99 .12	13	1.1	3.0	31	HIL			
		30	1440	18.25	19	31.71	155 19.04	9.28 2.1 2.2	32	2	51 .12	8	.4	.9	30	NER			
		30	1522	39.42	19	20.99	155 16.84	29.47 3.2 3.5	37	0	69 .11	2	.7	1.1	30	DEP			
		30	1616	52.07	19	21.33	155 5.92	9.72 3.3 3.6	35	1	90 .09	6	.5	.3	31	MER			
		30	1646	10.08	19	21.15	155 5.64	7.33 2.4 2.6	33	2	96 .13	5	.5	.8	27	MER			
		30	1657	27.24	19	20.94	155 5.12	7.69 2.6 2.5	29	1	125 .13	4	.7	.8	24	MER			
		30	2138	30.40	19	20.26	155 6.74	8.77 2.7 3.0	31	0	92 .10	6	.5	.6	29	UER			
		30	2139	46.85	19	21.06	155 6.49	7.01 3.0 3.2	33	1	93 .13	6	.5	.8	28	UER			
DEC		1	019	9.76	19	12.58	155 27.36	34.56 1.8 1.5	30	2	118 .06	6	.8	1.0	29	LSW			
		1	229	39.43	19	31.59	155 18.87	6.76 1.2 2.2	0	60 .13	8	.5	3.1	17	NER				
		1	714	39.80	19	21.41	155 25.28	9.93 1.8 1.6	21	2	118 .08	4	.5	.8	20	HEA			
		1	1031	23.36	19	20.57	155 11.57	6.57 1.9 1.8	28	1	74 .18	4	.6	1.2	23	UER			
		1	12 7	6.74	19	21.04	155 16.86	25.82 1.8 2.4	0	68 .07	2	.7	1.3	21	DEP				

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YEAR	MON	DA	HRMN	SEC	LAT N DEG MIN	LON W DEG MIN	DEPTH KM	AMP MM	MR	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ NO KM FM REMK
1978	DEC	1	1457	5.00	19 19.64	155 7.95	7.45	1.9	1.8	25	0	95	.08	4	.5	.8 23 UER
		2	637	56.99	19 21.56	154 59.75	5.70	2.2	1.8	22	0	203	.20	6	1.5	1.3 22 LER
		2	836	5.78	19 12.50	155 27.48	6.91	2.4	2.6	34	0	112	.16	6	.6	1.2 28 LSW
		2	849	10.52	19 25.69	155 24.82	9.12	2.4	2.5	29	0	55	.11	8	.5	1.2 21 UKF
		2	1112	39.26	19 21.58	155 8.08	8.42	2.4	2.9	31	0	70	.09	3	.4	.6 30 UER
		2	18 2	33.17	19 20.89	155 5.77	7.50	2.0	2.0	31	1	101	.11	5	.5	.7 27 MER
		2	1829	17.08	19 18.22	155 13.19	8.81	2.2	2.4	29	1	94	.09	2	.4	.5 25 POL
		2	1914	26.18	20 .96	155 34.65	11.98	2.4	2.6	25	2	178	.15	25	1.4	1.1 23 KON
		2	20 5	6.55	19 45.49	155 18.60	40.32	2.4	1.6	36	4	114	.11	15	.7	.9 35 KKK
		2	22 5	5.93	19 23.07	155 3.00	8.20	2.0	2.0	28	1	115	.17	4	.8	.6 28 MER
		3	121	21.23	19 20.78	155 11.44	9.48	3.0	3.3	34	1	72	.09	4	.4	.4 32 UER
		3	417	57.36	19 23.56	155 26.56	8.71	2.0	1.7	30	1	71	.12	3	.5	.8 29 UKF
		3	445	24.00	19 21.02	155 7.20	6.83	2.1	2.4	31	0	87	.10	5	.4	.8 27 UER
		3	1027	5.28	19 19.75	155 11.95	6.77	2.0	2.0	30	0	86	.13	6	.5	.8 29 UER
		3	11 4	16.82	19 45.16	155 22.32	28.53	1.9	1.9	25	4	109	.10	16	.6	1.1 22 KKK
		3	1123	26.37	19 18.63	155 51.35	5.03	2.4	2.1	23	3	143	.32	5	1.1	2.2 18 KON
		3	21 7	12.16	19 19.95	155 11.59	6.49	2.1	2.2	32	0	85	.14	5	.5	.8 25 UER
		3	2331	10.71	19 20.11	155 12.25	8.45	2.2	2.6	30	0	77	.11	5	.5	.6 25 UER
		4	311	10.35	19 19.75	155 7.86	8.55	2.5	2.8	33	0	96	.10	4	.6	.5 30 UER
		4	339	31.24	19 21.11	155 3.31	6.13	2.1	2.1	27	0	113	.11	2	.6	.9 22 MER
		4	1256	36.96	19 20.66	155 7.61	5.10	2.4	2.4	29	0	87	.14	5	.6	2.1 26 UER
		4	1451	56.91	19 28.33	155 51.20	6.98	1.9	2.0	0	125	.15	7	.7	1.2 20 KON	
		4	2152	24.61	19 20.04	155 12.87	9.39	2.1	2.4	32	0	71	.10	5	.5	.4 30 UER
		5	451	43.95	19 24.33	155 51.99	7.96	1.9	1.9	25	1	148	.19	11	.8	.9 23 KON
		5	853	23.97	19 19.73	155 11.42	9.15	2.4	2.7	32	0	91	.11	5	.5	.5 28 UER
		5	857	33.79	19 19.51	155 11.38	9.38	2.9	3.2	37	2	96	.12	5	.5	.4 27 UER
		5	10 8	54.76	19 19.51	155 11.41	9.44	2.4	2.9	33	0	96	.11	5	.5	.4 30 UER
		5	1136	39.82	19 19.90	155 11.63	9.74	3.8	4.0	37	1	86	.11	5	.5	.5 25 UER
		5	13 7	58.63	19 21.08	155 13.27	8.31	2.2	2.2	33	0	57	.12	3	.4	.6 29 UER
		5	1521	11.77	19 21.57	155 1.72	6.59	2.1	2.3	25	0	169	.12	4	.8	.8 21 MER
		5	1651	.10	19 19.93	155 11.15	7.32	1.7	1.8	27	0	88	.10	5	.5	.8 22 UER
		5	1742	23.58	19 20.01	155 50.89	1.55	1.8	1.4	31	4	139	.19	8	.5	.7 18 KON
		5	1745	41.21	19 20.03	155 11.25	9.12	2.4	2.0	29	0	85	.11	5	.5	.6 26 UER
		5	2018	21.29	19 24.19	155 29.80	7.40	2.0	2.1	31	0	51	.13	5	.4	1.4 24 UKF
		5	2026	18.98	19 20.19	155 8.39	7.68	1.9	2.1	29	0	78	.09	4	.5	.7 23 UER
		6	228	32.93	19 25.18	154 50.41	8.74	2.0	1.8	26	4	277	.16	9	.9	.8 20 LER
		6	351	8.61	19 22.73	155 24.57	9.96	2.4	2.5	36	1	40	.13	5	.5	.6 30 UKF
		6	451	14.11	19 22.93	155 24.66	8.10	1.8	1.8	30	0	57	.13	5	.5	1.1 25 UKF
		6	1311	28.00	19 20.17	155 11.23	7.95	2.4	2.4	29	0	82	.09	4	.5	.7 28 UER
		6	1451	39.59	19 22.27	155 4.35	8.58	2.3	2.8	28	0	89	.07	4	.5	.5 24 MER
		6	1633	43.52	19 17.37	155 22.02	5.07	1.4	1.4	23	0	124	.17	6	.6	3.0 21 SWR
		6	17 5	7.32	19 20.42	155 13.71	8.88	2.4	2.6	31	0	68	.10	4	.4	.5 28 UER
		6	2246	9.49	19 23.56	155 1.79	8.61	2.1	1.7	24	0	136	.14	5	.8	.5 23 MER
		6	2255	48.29	19 10.78	155 24.94	72.96	2.6	2.0	0	186	.34	6	9.1	13.8 18 LSW	
		7	0 6	9.18	19 17.40	155 29.41	7.98	2.4	2.3	29	0	118	.13	10	.6	1.8 25 HEA
		7	115	51.55	19 20.93	155 6.25	7.45	2.0	1.8	27	0	98	.09	6	.5	.9 26 UER
		7	358	17.77	19 19.28	155 11.55	6.44	2.0	2.0	29	0	100	.11	5	.5	.9 25 UER
		7	1045	32.10	19 19.65	155 7.98	8.99	2.4	2.3	27	0	93	.09	4	.5	.7 25 UER

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YEAR	MON	DA	HRMN	SEC	LAT N DEG MIN	LON W DEG MIN	DEPTH KM	AMP MM	MR	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ NO KM FM REMK
1978	DEC	7	1838	54.72	19 21.41	155 2.72	5.43	2.2	2.3	27	1	139	.13	3	.6	1.2 22 MER
		7	2210	5.44	19 17.94	155 30.42	8.33	2.4	2.3	27	0	70	.15	10	.5	1.7 22 HEA
		8	321	18.97	19 20.73	155 6.06	7.67	2.2	2.0	29	1	103	.13	6	.5	.9 23 UER
		8	724	.25	19 20.13	155 11.34	4.45	2.0	1.7	25	0	83	.12	4	.5	1.5 21 UER
		8	730	12.59	19 47.93	155 8.38	41.45	2.0	2.2	41	3	193	.11	10	.9	1.5 34 HIL
		8	910	3.01	19 19.22	155 11.94	9.79	3.2	3.4	35	0	98	.10	5	.5	.4 32 UER
		8	917	7.51	19 19.66	155 11.81	8.58	2.2	2.4	31	0	89	.10	6	.4	.5 30 UER
		8	10 0	25.21	19 23.85	155 24.80	8.11	1.6	1.7	22	0	75	.11	6	.6	1.3 17 UKF
		8	1023	1.14	19 19.97	155 11.90	7.41	2.4	2.3	31	0	82	.10	5	.5	.7 23 UER
		8	11 5	50.09	19 19.29	155 11.70	9.44	2.4	2.5	29	0	99	.10	5	.5	.5 24 UER
		9	153	58.99	19 22.41	155 4.42	10.22	2.0	1.9	27	0	87	.08	4	.6	.5 22 MER
		9	7 4	10.24	19 17.20	155 16.36	10.17	2.4	2.8	31	1	138	.09	4	.5	.4 28 KOA
		9	2219	50.14	19 29.93	155 20.37	3.85	1.9	1.9	19	1	161	.17	5	.9	2.4 16 MER
		9	2250	1.52	19 22.38	155 4.61	8.02	2.0	2.0	29	0	84	.11	4	.6	.6 26 MER
		10	052	46.71	19 11.19	155 33.59	7.41	1.7	1.7	28	5	99	.19	9	.6	1.0 24 LSW
		10	1228	48.78	19 19.39	155 9.83	7.58	2.4	2.5	29	1	98	.09	5	.5	.8 26 UER
		10	1325	2.30	19 20.38	155 6.73	5.42	2.2	2.3	25	0	104	.13	6	.6	2.1 18 UER
		10	1629	42.39	19 10.87	155 41.70	7.20	2.4	2.5	29	1	127	.21	11	.8	1.3 24 HEA
		10	1835	25.13	19 20.16	155 6.92	7.60	2.1	1.8	27	0	107	.10	6	.5	.9 24 UER
		11	713	19.85	19 22.02	155 4.28	9.44	2.0	2.2	33	1	89	.08	5	.6	.4 30 MER
		11	821	13.06	19 22.97	155 4.57	9.99	2.4	2.0	27	0	85	.09	3	.6	.5 23 MER
		11	928	52.77	19 22.71	155 4.46	10.35	2.2	2.0	24	0	86	.09	3	.6	.6 21 MER
		11	1159	.01	19 26.57	155 30.24	8.54	2.4	2.3	28	0	62	.11	9	.5	1.4 22 MOK
		11	2315	38.17	19 17.50	155 30.80	4.08	2.4	2.1	28	0	69	.16	11	.6	3.7 24 HEA
		12	0 4	11.60	19 22.05	155 7.15	5.50	2.0	1.5	21	1	72	.14	5	.6	1.3 20 UER
		12	116	55.14	19 6.33	155 27.27	46.63	2.2	2.2	17	0	189	.06	23	1.5	5.7 17 LSW
		12	253	23.98	19 24.71	154 57.18	7.37	2.2	1.7	21	1	189	.21	3	1.7	1.0 19 LER
		12	1844	31.65	19 21.75	155 4.60	8.72	3.0	0.2	37	1	81	.09	4	.6	.4 32 MER
		12	2139	39.12	19 23.23	155 3.44	7.29	1.9	2.0	23	0	104	.12	3	.6	.9 20 MER
		13	512	17.50	19 19.98	155 48.41	11.00	2.8	2.3	26	1	103	.16	10	.7	.7 20 KON
		13	8 5	42.92	19 25.31	155 25.02	7.33	2.4	2.0	32	1	48	.13	7	.4	1.3 26 UKF
		13	1248	25.65	19 20.41	155 12.55	8.22	1.9	1.9	30	1	70	.10	4	.5	.6 21 UER
		13	1657	46.41	19 19.86	155 7.37	6.92	2.2	2.5	23	0	104	.08	5	.5	1.2 22 UER
		13	19 7	37.47	19 16.88	155 12.47	8.32	2.1	1.5	23	0	183	.09	2	.8	.8 18 POL
		14	412	45.04	19 18.69	155 13.51	10.49	4.1	4.2	37	1	74	.10	3	.5	.4 31 POL
		14	416	35.26	19 19.06	155 14.01	3.87	1.9	1.9	11	0	106	.10	4	.6	1.9 9 UER
		14	417	48.72	19 21.14	155 6.81	6.78	2.0	2.0	22	0	89	.12	6	.6	1.1 20 UER
		14	429	21.70	19 19.88	155 10.95	7.68	2.2	2.1	26	0	89	.10	4	.5	.6 20 UER
		14	16 2	15.50	19 18.53	155 13.34	10.28	2.9	2.2	30	0	83	.10	3	.5	.4 29 POL
		14	1720	16.05	19 19.16	155 13.02	6.87	1.1	1.6	24	0	82	.09	4	.6	1.1 23 UER
		14	2034	47.27	19 20.74	155 10.92	7.03	2.0	2.0	28	0	73	.09	3	.5	.8 22 UER
		15	129	22.42	19 30.36	155 17.63	11.18	2.6	3.1	35	1	57	.11	9	.4	.6 30 GLN
		15	214	58.15	19 26.39	155 23.81	8.91	1.6	1.6	23	1	70	.13	6	.5	1.2 22 UKF
		15	320	30.28	19 21.27	155 5.86	4.34	1.9	1.8	14	1	245	.12	7	1.4	6.0 11 MER
		15	6 2	10.12	19 34.33	155 41.67	5.67	1.4	1.2	15	1	129	.13	10	.7	3.7 15 MOK
		15	737	50.42	19 19.99	155 13.14	10.07	3.4	3.6	36	2	68	.09	5	.5	.4 30 UER
		15	915	48.07	19 22.92	155 3.74	7.92	2.4	2.4	26	0	100	.10	3	.5	.6 19 MER
		15	1050	40.59	19 19.81	155 8.27	8.39	2.4	2.3	27	0	85	.09	5	.5	.8 23 UER

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	FM	REMK	
1978	DEC	15	1550	57.97	19 24.18	155 25.66	10.02	2.0	2.6	33	0	59	.11	5	.4	.6	31	UKF	
		15	2334	43.55	19 16.93	155 30.69	2.77	1.4	1.2	17	1	71	.16	12	.6	1.8	12	HEA	
		16	537	14.36	19 26.13	155 24.87	9.84	2.4	2.8	31	0	33	.11	7	.4	.7	25	UKF	
		16	552	19.72	19 19.75	155 8.02	6.62	1.2	1.8	23	0	91	.08	4	.5	1.2	19	UER	
		16	1350	23.42	19 23.99	155 16.85	2.86	1.0	1.5	10	0	74	.40	1	1.4	1.0	10	SPC	
		16	15	0	48.98	19 20.86	8.58	2.4	2.5	29	0	62	.11	3	.4	.6	27	UER	
		17	1531	28.62	19 24.65	155 26.23	8.20	1.7	1.5	18	0	120	.11	5	.6	1.4	16	UKF	
		18	558	32.63	19 19.53	155 16.19	8.99	2.3	2.4	28	0	94	.11	2	.4	.6	23	KOA	
		18	1027	17.14	19 19.16	155 12.98	7.79	2.0	1.8	29	0	83	.10	4	.5	.6	25	UER	
		18	23	2	10.16	19 20.64	8.19	2.0	1.9	29	0	69	.11	4	.5	.6	27	UER	
		19	426	38.82	19 20.16	155 7.35	9.14	2.6	2.9	31	0	99	.08	5	.6	.5	30	UER	
		19	1019	9.48	19 23.91	155 16.78	16.72	1.1	1.1	28	2	68	.09	1	.5	.7	27	INT	
		19	1129	29.20	19 21.94	155 4.65	8.02	2.2	2.4	27	0	81	.13	5	.6	.8	26	MER	
		19	1426	46.57	19 30.25	155 42.41	2.31	1.0	1.0	17	2	101	.12	6	.7	.9	13	MOK	
		19	1738	21.08	19 17.27	155 14.03	7.37	1.7	2.0	30	0	151	.11	1	.6	.6	27	POL	
		19	1941	.65	19 19.80	155 13.27	6.05	1.6	1.4	26	0	69	.11	5	.5	1.0	23	UER	
		20	1231	43.95	19 42.51	155 2.18	4.93	2.0	2.2	15	0	251	.21	23	2.5	4.7	15	HIL	
		20	1630	.06	19 26.35	155 30.11	9.40	2.2	2.3	33	1	56	.13	8	.4	.9	26	MOK	
		20	1735	53.93	19 23.21	154 59.76	6.85	2.3	2.3	24	1	177	.16	4	1.0	.7	21	LER	
		21	123	4.94	19 26.04	155 23.12	8.84	1.5	1.6	21	0	72	.12	7	.6	1.2	21	UKF	
		21	127	5.96	19 21.13	155 5.73	4.34	1.9	1.6	25	0	96	.11	5	.6	2.5	19	MER	
		21	3	37.58	19 21.55	155 2.19	5.56	2.1	1.8	23	0	156	.14	3	.7	1.2	20	MER	
		21	650	44.75	19 42.92	156 .43	7.79	2.8	2.3	20	1	223	.10	27	1.1	.9	20	KON	
		21	815	49.67	19 16.77	155 27.56	7.48	2.0	2.0	26	1	126	.13	10	.6	1.0	24	HEA	
		21	10	3	28.63	19 13.55	155 34.97	10.01	1.8	15	0	224	.13	5	1.5	1.0	14	HEA	
		21	1225	9.22	19 17.99	155 13.06	8.08	1.7	1.6	25	1	105	.08	2	.5	.8	24	POL	
		21	1329	27.68	19 19.97	155 13.51	10.20	3.5	3.9	35	0	62	.11	5	.5	.4	35	UER	
		21	1625	15.71	19 28.03	155 23.42	8.49	3.3	3.1	35	1	77	.15	3	.5	.8	35	UKF	
		21	1848	9.33	19 19.63	155 9.20	6.50	1.8	1.6	24	0	86	.11	5	.5	1.0	24	UER	
		21	23	7	56.57	19 25.06	8.15	1.7	1.8	14	1	144	.11	0	.8	.7	13	LPC	
		22	149	48.07	19 12.02	155 33.21	7.23	2.7	2.7	34	1	90	.21	9	.7	1.3	32	LSW	
		22	436	49.97	19 20.43	155 12.51	7.16	1.6	1.5	21	0	70	.11	4	.6	.9	21	UER	
		22	550	.09	19 20.43	155 8.00	6.22	1.4	1.4	20	1	83	.09	4	.5	1.0	16	UER	
		22	828	31.67	19 19.71	155 12.72	9.27	2.6	3.1	29	0	78	.10	5	.4	.5	21	UER	
		22	834	50.01	19 20.44	155 3.96	6.41	1.8	2.1	24	0	113	.09	2	.6	.9	20	MER	
		22	1850	55.90	19 22.11	155 4.94	7.43	2.2	2.7	27	0	77	.11	5	.5	.8	27	MER	
		22	21	1	7.37	19 21.10	155 7.14	7.75	1.9	1.8	28	0	86	.10	5	.5	.8	23	UER
		22	22	9	10.91	19 24.77	155 30.02	7.40	2.4	2.3	30	0	53	.13	6	.4	1.5	29	MOK
		23	240	16.05	19 12.09	155 32.85	6.55	2.4	2.6	33	1	89	.20	9	.7	1.3	30	LSW	
		23	411	37.43	19 17.26	155 21.58	7.46	1.9	2.1	32	0	127	.16	5	.6	1.1	29	SWR	
		23	443	40.27	19 11.79	155 32.42	6.49	2.2	2.2	28	0	92	.15	9	.6	1.3	28	LSW	
		23	1026	38.99	19 26.36	155 49.42	8.27	2.8	2.4	29	1	104	.20	10	.7	.9	27	KON	
		23	1323	4.52	19 21.98	155 4.81	7.33	2.2	2.3	27	0	78	.12	5	.5	.9	26	MER	
		23	1340	42.55	19 23.62	155 15.45	2.85	1.5	1.4	12	0	93	.09	2	.5	.5	12	SPC	
		23	1437	12.08	19 20.95	155 12.68	7.78	1.9	2.0	27	1	63	.12	3	.5	.8	23	UER	
		23	1715	11.84	19 27.96	155 14.70	33.36	1.4	.9	14	1	167	.07	6	1.2	1.3	14	DEP	
		23	18	2	49.50	19 20.02	6.40	1.8	1.8	25	1	148	.15	5	.7	1.1	24	UER	
		24	012	48.44	19 19.88	155 12.25	7.30	1.6	1.5	28	1	81	.12	5	.5	.8	27	UER	

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YEAR	MON	DA	HRMN	SEC	LAT N DEG MIN	LON W DEG MIN	DEPTH KM	AMP MAR	DUR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ NO	FM	REMK	
1978	DEC	24	029	47.17	19 22.15	155 26.38	9.24	1.6	1.4	23	1	112	.12	2	.5	.9	23	UKF	
		24	130	34.67	19 22.37	155 29.70	8.44	1.8	1.7	29	0	60	.10	4	.4	1.0	28	UKF	
		24	228	22.58	19 21.00	155 12.67	7.84	1.9	2.1	29	0	62	.13	3	.5	.8	27	UER	
		24	358	1.00	19 19.97	155 12.82	7.65	1.5	1.6	26	1	73	.13	5	.6	.7	25	UER	
		24	441	7.00	19 20.92	155 6.96	7.45	1.4	1.4	26	0	91	.13	6	.6	.9	26	UER	
		24	710	.85	19 19.49	155 7.48	3.21	1.9	1.8	29	0	108	.17	4	.6	1.6	27	UER	
		24	858	34.78	19 19.07	155 13.14	7.57	1.2	1.5	27	0	80	.12	4	.5	.7	26	UER	
		24	919	50.62	19 26.37	155 25.07	8.20	1.9	2.1	30	0	51	.15	7	.5	1.1	30	UKF	
		24	1219	10.88	19 17.68	155 12.75	7.46	1.2	1.4	22	0	133	.08	2	.6	1.1	22	POL	
		24	1631	16.33	19 21.82	155 27.51	47.93	1.9	1.6	26	2	94	.11	1	.9	1.3	26	HEA	
		24	1716	58.07	19 17.02	155 23.66	5.00	1.5	2.4	24	0	119	.16	6	.6	3.6	23	SWR	
		24	1745	35.25	19 24.28	155 37.50	.21	2.2	1.9	8	0	77	.17	6	.9	3.6	8	MOK	
		24	1938	27.47	19 18.00	155 13.02	9.77	2.1	2.3	29	0	142	.10	9	.6	.7	26	POL	
		24	2253	6.27	19 18.62	155 13.97	6.61	1.4	1.7	30	0	73	.10	3	.5	.8	29	POL	
		25	1252	9.60	19 20.09	155 11.62	7.99	1.9	2.1	30	0	82	.11	5	.5	.7	26	UER	
		25	1320	52.75	19 20.13	155 11.32	8.15	2.0	2.4	28	0	83	.10	4	.5	.6	24	UER	
		25	1324	40.26	19 30.89	155 5.77	46.30	1.8	3.4	34	3	81	.12	4	.9	2.0	31	GLN	
		25	1628	50.32	19 21.19	155 4.62	8.98	3.2	3.4	34	0	92	.11	4	.6	.4	32	MER	
		25	1712	45.00	19 19.92	155 7.09	7.73	1.8	2.0	11	0	108	.11	5	1.3	1.6	11	UER	
		25	2138	54.44	19 23.52	155 24.13	10.52	2.5	2.8	16	0	90	.12	6	.6	.8	15	UKF	
		25	2258	47.34	19 20.61	155 2.40	7.61	2.1	2.3	16	0	173	.11	2	1.1	.5	12	MER	
		26	042	1.14	20 2.86	155 34.79	28.56	1.5	1.3	10	2	189	.07	23	1.2	1.3	9	KOH	
		26	121	24.97	19 20.79	155 3.45	8.50	2.8	2.9	16	0	102	.11	2	1.1	.6	12	MER	
		26	153	15.16	19 20.74	155 2.63	7.46	2.0	1.7	12	0	155	.11	2	1.2	.8	11	MER	
		26	1834	.73	19 13.77	155 35.80	7.87	2.2	2.2	25	1	84	.20	3	.7	1.2	21	HEA	
		27	040	55.83	19 20.13	155 12.94	9.93	4.3	4.6	35	0	70	.08	5	.5	.4	34	UER	
		27	049	8.20	19 20.05	155 11.86	7.87	2.2	2.1	30	0	81	.12	5	.5	.6	26	UER	
		27	2	9	16.19	19 21.09	155 10.68	7.81	1.7	1.8	26	0	68	.12	2	.5	.8	25	UER
		27	254	59.32	19 21.05	155 2.84	6.56	2.0	1.9	25	0	137	.13	2	.7	.7	18	MER	
		27	330	36.59	19 13.92	155 37.30	7.92	2.3	1.9	32	3	89	.18	2	.6	.8	27	HEA	
		27	6	9	39.91	19 26.30	154 53.37	6.74	2.0	2.0	27	1	236	.20	4	2.2	.8	23	LER
		27	1452	16.90	19 19.29	155 12.05	9.60	2.9	3.2	34	0	95	.12	5	.5	.4	28	UER	
		27	1510	54.57	19 17.85	155 15.41	8.60	2.6	3.1	32	0	142	.10	6	.6	.7	32	KOA	
		27	1619	29.49	19 21.54	155 13.05	7.75	1.6	2.0	26	0	54	.13	2	.5	.7	23	UER	
		27	1855	40.26	19 20.74	155 8.25	6.98	1.6	2.4	24	0	76	.11	4	.5	1.0	24	UER	
		28	036	48.15	19 19.89	155 10.77	6.50	1.5	1.7	27	0	89	.14	4	.6	.9	26	UER	
		28	314	32.39	19 21.88	155 10.40	33.77	2.8	3.2	36	1	59	.09	1	.7	1.2	30	UER	
		28	315	27.40	19 15.06	155 6.15	47.52	3.4	3.8	36	1	204	.08	5	.9	1.6	30	POL	
		28	615	19.70	19 20.97	155 2.94	6.30	1.3	1.4	21	1	132	.17	2	.8	1.1	20	MER	
		28	740	21.40	19 19.95	155 11.70	7.54	1.9	2.3	27	0	84	.13	5	.6	.8	26	UER	
		28	756	19.40	19 19.90	155 11.66	7.44	2.1	2.5	33	0	86	.15	5	.5	.7	27	UER	
		28	851	1.88	19 21.65	155 15.21	9.41	3.4	3.4	34	2	62	.16	2	.4	.5	28	KOA	
		28	11	4	15.97	19 19.75	6.01	1.8	1.6	19	0	81	.13	5	.6	1.8	17	UER	
		28	1731	31.42	19 27.03	155 14.77	32.44	2.0	1.9	31	3	70	.09	4	.7	1.1	29	DEP	
		29	011	55.46	19 19.79	155 10.42	7.57	1.7	2.1	26	0	91	.10	4	.5	.9	24	UER	
		29	017	56.40	19 19.86	155 10.36	7.32	1.7	2.0	26	0	90	.12	4	.6	1.1	22	UER	
		29	738	49.44	19 19.88	155 8.05	8.30	1.6	2.1	24	0	88	.08	5	.6	.7	22	UER	
		29	739	36.95	19 20.01	155 8.27	6.47	1.8	1.5	21	0	82	.11	5	.5	1.3	21	UER	

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	DIR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1978	DEC	29	9 9	55.80	19 26.97	155 14.71	31.55	1.5	2.1	26	1	127	.07	4	.8	1.4	21	DEP
		29	1043	49.63	19 22.85	155 3.19	7.73	1.8	1.9	19	1	114	.13	4	.6	1.4	14	MER
		29	1333	55.37	19 28.37	154 53.05	5.01	1.3	1.4	17	2	258	.14	1	1.9	.6	9	LER
		29	1451	17.97	19 49.03	156 17.25	6.36	3.4	3.9	28	0	322	.11	49	15.7	5.5	26	DIS *
		29	1456	44.06	19 50.07	156 21.44	2.29	2.7	3.1	29	0	322	.11	57	11.2	11.4	22	DIS *
		29	1523	44.19	19 20.95	155 10.85	8.34	1.2	1.4	18	0	71	.08	3	.5	1.1	11	UER
		29	1652	9.35	19 7.35	155 24.21	44.18	1.5	1.7	19	0	184	.05	8	1.4	3.2	16	LSW L
		29	2017	1.05	19 19.76	155 7.64	6.96	1.0	1.3	19	1	187	.08	6	.9	1.0	16	UER
		29	2231	44.38	19 21.34	155 6.66	6.60	1.4	1.8	20	1	87	.10	6	.5	1.2	16	UER
		29	2327	.78	19 25.56	155 24.46	9.69	2.3	2.7	30	0	46	.13	8	.4	.8	27	UKF
		29	2356	14.35	19 29.07	154 51.07	5.49	1.5	1.3	15	1	268	.10	4	2.5	.9	6	LER
		30	0 4	54.89	19 21.59	155 1.94	7.34	2.1	2.6	25	0	163	.09	4	.7	.6	17	MER
		30	2 6	41.70	19 19.83	155 11.53	8.63	1.1	1.4	21	0	88	.09	5	.5	1.0	17	UER
		30	439	56.69	19 28.10	154 53.42	4.93	1.2	1.1	17	3	228	.12	1	1.5	.7	8	LER
		30	553	52.22	19 20.66	155 10.86	8.49	1.5	1.8	24	0	75	.09	3	.4	.7	19	UER
		30	648	14.51	19 25.67	155 26.55	8.90	2.7	2.9	35	0	38	.14	6	.5	.8	32	UKF
		30	744	17.46	19 19.49	155 11.71	7.30	1.1	.7	18	0	94	.07	6	.5	1.2	16	UER
		30	946	17.33	19 26.30	154 51.04	8.14	1.7	1.7	23	1	273	.18	6	2.7	.7	16	LER
		30	1840	48.14	19 22.85	155 4.12	10.23	1.6	1.6	22	0	94	.07	3	.5	.8	21	MER
		31	248	39.41	19 31.92	155 41.90	9.48	3.0	2.9	32	0	62	.12	7	.5	.7	28	MOK
		31	434	29.58	19 20.86	155 13.06	6.66	1.8	2.2	27	0	120	.21	3	.8	1.1	16	UER
		31	1039	.30	19 27.44	154 54.33	4.52	2.1	1.9	20	0	211	.19	2	2.1	1.2	19	LER
		31	1939	43.04	19 20.21	155 11.58	6.65	2.4	2.6	34	1	81	.19	5	.6	.9	27	UER
		31	1945	12.55	19 30.03	155 29.06	2.68	1.6	1.6	21	0	96	.12	4	.5	1.6	14	NER
		31	2232	7.61	19 20.47	155 13.02	8.42	1.6	1.8	28	0	64	.10	4	.4	.6	24	UER

TABLE 6. HVO EARTHQUAKE SUMMARY LIST (M>3)

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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	
1978	JAN	2	20	0	49.73	19 20.03	155 13.25	9.86	2.4	3.2	30	1	66	.08	5	.4	.4	29	UER	
		4	842	27.33	19 19.43	155 10.83	9.93	3.7	4.1	35	1	100	.10	5	.4	.4	.5	28	UER F	
		4	10	0	23.66	19 20.45	155 13.70	9.20	2.7	3.4	34	2	57	.12	4	.4	.6	29	UER	
		5	358	46.70	19 18.96	155 15.97	9.97	3.2	3.4	38	2	100	.10	3	.4	.4	.4	33	KOA F	
		5	1213	56.02	19 19.03	154 59.91	44.07	2.8	3.0	34	2	220	.10	6	1.1	1.9	.29	DIS		
		7	2030	35.92	19 59.60	155 20.50	9.71	2.9	3.2	33	2	274	.13	27	1.9	.8	.28	KKU F		
		10	2233	11.45	19 19.55	155 13.06	10.16	3.8	4.1	38	2	75	.10	5	.4	.4	.30	UER F		
		10	23	9	54.40	19 19.63	155 13.37	9.47	2.8	3.2	33	1	69	.10	5	.4	.4	.28	UER	
		12	1434	6.57	19 31.18	155 55.53	9.95	3.0	3.1	32	0	218	.22	4	1.5	.7	.28	KON F		
		13	1040	10.72	19 18.98	155 12.25	8.88	2.6	3.0	32	1	100	.11	4	.4	.6	.28	POL		
		14	015	18.89	19 11.00	155 19.84	51.68	2.4	3.1	37	5	178	.10	13	.8	1.0	.26	HLP L		
		16	1643	46.56	19 20.88	155 6.65	7.93	2.7	3.2	32	0	95	.12	6	.5	.7	.29	UER		
		19	1552	10.49	19 45.62	155 6.43	39.00	3.0	3.2	37	2	187	.10	5	.8	1.0	.27	HIL		
		21	12	2	26.21	19 21.37	155 2.91	7.27	2.7	3.1	34	2	132	.11	3	.5	.6	.31	MER	
		22	541	32.82	19 18.84	155 7.13	8.69	3.3	3.6	37	2	134	.12	3	.5	.4	.33	POL		
		22	2021	38.70	19 19.91	155 3.54	9.42	3.7	4.1	36	1	150	.11	1	.7	.4	.34	MER F		
		22	2028	27.13	19 20.65	155 3.87	9.33	3.6	4.0	38	3	101	.11	2	.5	.4	.33	MER F		
		23	056	10.31	19 20.17	155 3.49	8.84	2.3	3.0	32	2	122	.11	1	.6	.5	.27	MER		
		24	1518	17.04	19 20.47	155 6.41	8.77	3.2	3.4	39	3	107	.12	6	.4	.6	.35	UER F		
		25	319	43.44	19 18.79	155 23.57	5.96	2.4	3.1	35	1	104	.15	3	.5	1.0	.31	SWR		
		26	1938	21.21	19 26.65	155 48.08	6.32	2.7	3.1	30	1	91	.20	8	.6	1.3	.27	KON		
		28	1632	59.51	19 19.82	155 10.24	7.16	2.8	3.3	31	0	90	.10	4	.5	.7	.28	UER		
		29	818	56.79	19 21.51	155 .46	7.40	2.5	3.1	30	0	195	.11	5	.9	.6	.28	LER		
		30	038	2.57	19 22.00	156 22.19	6.26	3.2	2.9	41	5	244	.13	49	.9	1.3	.36	DIS		
FEB		2	11	3	47.79	19 20.07	155 14.01	33.45	3.4	3.3	37	1	60	.10	5	.7	.9	.30	DEP	
		2	1621	21.66	19 19.68	155 7.89	9.27	3.0	3.1	32	3	95	.10	4	.4	.7	.27	UER		
		2	1932	45.99	19 26.48	155 18.14	15.45	3.5	3.5	37	1	58	.11	2	.4	.3	.30	INT F		
		5	138	40.41	19 19.93	155 .46	6.92	2.8	3.2	33	3	215	.13	4	.5	.6	.26	DIS		
		6	1241	46.94	19 20.25	155 7.99	8.98	2.7	3.1	31	0	86	.10	5	.5	.6	.30	UER		
		7	939	14.23	19 19.42	155 9.92	8.33	2.4	3.0	33	0	97	.09	5	.5	.6	.29	UER		
		7	1532	26.38	19 40.34	155 3.42	1.77	2.4	3.1	26	1	196	.17	19	1.1	1.5	.25	HIL B		
		8	1156	37.30	19 20.75	155 6.12	8.91	2.7	3.0	29	1	103	.10	6	.5	.6	.20	UER		
		12	5	6	14.47	19 11.91	155 36.55	8.86	3.1	2.8	34	1	92	.25	6	.8	1.1	.23	HEA	
		14	10	5	6.39	19 24.00	155 16.85	15.02	3.4	3.7	40	3	35	.11	2	.4	.2	.33	INT F	
		15	637	34.75	19 20.18	155 56.64	14.95	2.9	3.5	27	2	234	.20	11	2.4	1.0	.26	KON		
		18	1451	59.76	19 19.64	155 8.62	9.30	3.0	3.6	32	0	77	.10	4	.5	.4	.31	UER		
		19	9	1	51.79	19 20.74	155 13.49	9.97	2.7	3.2	35	1	57	.10	4	.4	.5	.30	UER	
		19	1149	47.68	19 .63	155 25.72	41.20	3.1	3.1	37	1	215	.06	17	1.0	2.0	.35	LSW		
		20	734	24.25	19 19.34	155 7.68	8.86	2.6	3.1	34	2	106	.10	4	.4	.6	.31	UER		
		21	156	55.90	19 21.93	155 5.69	8.15	3.3	3.4	37	3	79	.12	5	.4	.7	.30	MER		
		22	743	55.09	19 26.06	155 34.41	47.55	2.5	3.0	17	2	74	.14	4	2.0	1.5	.14	MOK		
		23	6	6	11.12	19 19.49	155 6.22	9.31	3.1	3.2	36	2	166	.11	5	.5	.4	.32	UER	
		24	129	39.97	19 19.17	155 10.40	9.61	2.8	3.1	38	2	106	.13	5	.4	.5	.32	UER		
		24	837	4.65	19 26.51	155 59.94	22.22	3.1	2.8	31	2	231	.09	10	1.1	1.6	.18	KON		
		24	2255	28.17	19 27.25	156 15.25	16.89	3.2	3.1	33	0	263	.16	35	3.5	98.1	.29	DIS F*		
		25	929	25.39	19 20.07	155 13.61	9.84	2.8	3.3	36	3	61	.10	5	.4	.5	.22	UER		
MAR		2	051	3.04	19 19.88	155 13.35	9.72	3.7	4.0	30	3	67	.10	5	.4	.6	.22	UER F		
		3	2019	4.24	20 23.00	156 19.22	14.26	2.9	3.2	34	6	210	.14	43	1.2	1.8	.31	DIS		

HVO EARTHQUAKE SUMMARY LIST (M>3)

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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
1978	MAR	5	1926	16.56	19 26.03	155 35.36	36.61	2.4	3.4	24	1	72	.14	3	1.0	2.4	16	MOK L
		6	15 3	34.53	19 22.78	155 5.48	.14	2.6	3.5	31	0	71	.22	4	.6	1.7	28	MER *
		6	15 6	43.39	19 22.95	155 5.44	1.48	2.5	3.4	29	0	71	.18	4	.5	1.3	27	MER
		7	1546	20.75	19 27.09	155 26.93	27.53	2.5	3.3	38	4	39	.10	8	.5	.9	33	UKF
		10	524	43.38	19 19.59	155 7.99	9.55	3.1	3.3	37	3	93	.10	4	.4	.5	30	UER
		10	2155	51.22	19 26.14	155 36.43	46.47	2.8	3.3	20	0	69	.15	2	1.4	3.3	20	MOK L
		12	23 8	18.57	19 27.79	155 29.29	10.78	2.9	3.2	38	2	54	.12	8	.4	.6	36	UKF
		13	1947	46.87	19 23.15	155 16.12	2.66	2.3	3.2	21	2	57	.11	1	.3	.5	18	SPC
		14	723	13.27	19 22.09	155 15.50	27.23	2.8	3.1	40	3	57	.11	1	.5	.8	26	DEP
		14	10 9	28.38	19 19.83	155 6.74	10.03	2.9	3.4	35	2	117	.09	5	.6	.5	29	UER
		17	229	1.71	19 26.77	155 24.68	8.55	3.2	3.5	35	2	31	.14	6	.4	.9	25	UKF
		17	246	14.09	19 20.14	155 13.08	9.75	3.0	3.2	37	2	68	.10	5	.4	.5	26	UER
		20	1913	25.59	19 21.99	155 25.21	11.40	3.3	3.6	40	2	58	.12	4	.4	.3	35	HEA F
		24	13 6	30.09	19 27.74	154 52.68	45.11	3.0	2.8	38	3	262	.10	3	.8	1.0	31	LER
		25	657	56.43	19 20.88	155 10.74	8.67	2.6	3.0	34	2	71	.10	3	.4	.6	28	UER
		26	1912	57.29	19 10.34	155 28.97	33.88	2.9	3.1	39	2	96	.09	2	.8	1.3	36	LSW
		27	419	52.71	19 20.88	155 8.00	9.10	2.4	3.1	35	1	78	.08	4	.4	.4	27	UER
		27	1131	8.66	19 21.12	155 25.80	10.81	3.1	3.2	34	1	76	.13	4	.4	.6	30	HEA
		27	2157	50.96	19 28.02	154 50.60	8.01	3.1	3.2	26	1	284	.14	5	1.4	.6	23	LER
		28	1542	46.11	18 49.13	155 12.05	16.34	3.5	3.2	34	3	292	.18	52	5.8	37.1	32	PPL *
		29	156	35.78	19 21.46	155 6.56	8.38	2.7	3.1	32	1	84	.10	6	.4	.5	28	UER
		29	2 1	23.27	19 17.67	155 12.93	10.89	2.7	3.0	31	0	147	.11	9	.7	.6	26	POL
		29	1747	23.14	19 19.73	155 7.28	9.21	2.6	3.0	30	0	109	.10	5	.6	.5	23	UER
		31	523	41.50	19 24.92	155 28.81	10.85	3.3	3.2	35	1	50	.13	5	.5	.6	33	UKF
APR	2	1316	49.70	19 18.99	155 15.66	155 15.66	9.44	2.5	3.0	33	0	96	.11	4	.5	.5	30	KOA
		2	1828	32.98	19 19.90	155 12.01	8.80	3.3	3.4	36	1	83	.09	5	.4	.4	32	UER F
		3	237	46.80	19 18.75	155 15.64	9.79	2.5	3.1	35	1	101	.11	4	.4	.4	31	KOA
		4	8 0	22.26	19 9.44	155 36.04	5.25	2.8	3.2	28	1	111	.15	14	.6	1.5	24	HEA
		6	347	14.06	19 19.68	155 8.05	10.08	3.4	3.6	38	2	90	.09	4	.5	.4	31	UER F
		7	1643	43.29	19 52.38	155 7.68	39.27	4.0	4.3	35	0	235	.11	22	2.1	3.4	32	KKU F
		9	129	27.02	19 22.67	155 4.70	8.06	2.6	3.1	30	2	82	.10	4	.4	.6	26	MER
		10	244	39.71	19 19.10	155 12.30	8.60	2.5	3.0	34	0	95	.12	4	.4	.4	31	UER
		10	2123	57.83	19 29.16	155 52.84	6.55	2.9	3.1	28	2	97	.22	4	.8	.9	26	KON F
		12	935	28.10	19 21.26	155 7.14	9.25	3.3	3.6	34	1	84	.08	5	.5	.5	29	UER F
		12	2055	12.67	19 20.83	155 3.77	8.43	3.7	3.9	38	2	90	.09	2	.5	.4	34	MER F
		14	030	50.88	19 18.13	155 45.51	52.96	3.0	3.7	9	1	313	.12	27	5.7	3.2	8	KON L
		17	0 3	17.40	19 25.24	155 16.80	3.86	2.6	3.2	27	1	38	.14	1	.4	.6	25	SPC
		17	247	49.83	19 21.22	155 14.85	10.01	3.0	3.6	36	2	65	.09	4	.4	.4	32	UER
		17	321	12.23	19 20.17	155 13.81	9.00	2.5	3.1	34	1	72	.16	5	.5	.6	27	UER
		17	1840	54.66	19 21.14	155 1.44	7.39	3.3	3.9	36	1	186	.09	3	.6	.4	33	MER F
		18	448	55.04	19 20.63	155 3.86	6.96	3.1	3.4	33	1	101	.14	2	.6	.7	25	MER
		19	1636	25.05	19 12.18	155 31.25	37.46	2.7	3.0	38	2	83	.08	8	.7	1.2	31	LSW
		20	2349	3.53	19 19.53	155 11.67	9.50	3.0	3.2	30	1	94	.11	6	.5	.6	29	UER
		23	726	24.49	19 21.14	155 15.37	9.00	2.8	3.0	32	1	69	.10	3	.4	.5	28	KOA
		24	126	48.36	19 22.64	155 4.87	8.32	2.7	3.0	31	1	80	.07	4	.4	.5	27	MER
		24	23 2	1.06	19 21.90	155 4.04	7.11	2.6	3.1	29	1	95	.10	4	.4	.6	28	MER
		28	134	37.55	20 9.51	155 35.84	35.59	3.1	2.8	40	4	175	.09	19	.7	1.5	35	KOH
MAY	3	729	6.40	19 17.49	155 29.96	155 29.96	7.88	3.3	3.5	36	1	75	.13	10	.5	.8	33	HEA F

HVO EARTHQUAKE SUMMARY LIST (M>3)

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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
1978	MAY	6	812	39.39		19 24.51	155 26.25	9.98	3.2	3.2	22	3	86	.13	4	.5	.8	19	UKF
		9	1846	41.16		19 20.17	155 12.02	8.34	2.7	3.1	31	2	78	.12	5	.4	.8	23	UER
		10	240	34.08		19 21.54	155 4.92	8.82	3.1	3.2	34	1	85	.12	5	.5	.5	30	MER
		10	1423	57.94		19 19.46	155 6.68	8.63	3.3	3.5	30	1	128	.09	5	.5	.6	29	UER
		12	516	10.32		19 20.26	155 3.44	8.12	2.8	3.0	35	2	110	.09	1	.5	.4	31	MER
		13	10 9	24.65		19 58.23	155 35.87	10.92	3.0	3.3	33	1	249	.11	26	1.5	.7	29	KOH F
		15	336	41.27		19 21.85	155 5.78	8.45	2.8	3.2	33	0	80	.13	6	.5	.7	30	MER
		15	2045	41.97		19 20.93	156 18.96	32.36	3.0	2.4	27	2	291	.11	45	3.0	1.6	25	DIS
		19	1059	48.91		19 18.62	155 26.50	10.19	2.9	3.1	36	1	91	.13	6	.4	.6	31	HEA
		21	1317	51.60		19 19.70	155 13.42	9.61	2.7	3.2	33	1	67	.10	5	.4	.4	29	UER
		22	21 9	26.70		19 18.58	155 13.46	10.25	3.6	3.9	34	0	78	.10	3	.5	.4	32	POL F
		22	2227	4.59		19 20.07	155 7.70	8.84	2.7	3.0	34	1	95	.09	5	.4	.5	31	UER
		24	359	15.39		19 20.92	155 2.10	7.48	3.3	3.8	37	2	174	.11	2	.6	.5	37	MER
		24	1652	52.98		19 21.06	155 12.79	36.49	2.9	3.2	34	1	60	.09	3	.7	1.0	30	DEP
		24	1939	47.83		19 21.17	155 12.80	37.99	3.0	3.1	34	0	60	.10	3	.7	1.6	30	DEP
		25	012	13.46		19 18.40	155 13.60	9.54	2.8	3.1	30	2	73	.12	3	.5	.5	26	POL
		25	8 0	30.97		19 26.25	155 24.62	8.10	3.0	2.9	19	2	77	.13	9	.5	1.4	16	UKF
		26	043	1.37		19 12.13	155 25.80	35.96	3.0	3.1	36	1	145	.08	6	.8	1.2	35	LSW
		26	1512	6.16		19 41.25	155 2.83	8.39	2.7	3.0	21	0	197	.15	20	1.1	1.8	19	HIL B
		27	341	3.11		19 38.56	156 1.43	9.81	3.0	2.4	22	0	226	.11	20	1.5	.9	20	KON
		31	1437	5.62		19 21.11	155 15.26	10.18	3.1	3.3	37	2	69	.09	3	.4	.4	33	KOA
		31	1916	55.47		19 19.57	155 18.86	6.42	2.6	3.2	34	1	55	.16	3	.5	.9	31	KOA
JUN		2	15 2	2.11		19 40.01	155 9.80	14.44	3.4	3.9	37	1	90	.13	10	.5	.6	34	HIL F
		2	1525	19.50		19 41.89	156 2.91	7.89	2.9	3.0	23	0	283	.14	22	3.4	1.0	19	KON
		3	22 0	45.03		19 47.86	155 46.74	16.01	3.2	3.5	36	0	129	.11	14	1.1	1.6	35	KON F
		4	1213	22.89		19 22.21	155 2.84	9.03	2.7	3.0	34	3	130	.12	4	.4	.5	29	MER
		4	1235	59.20		19 20.89	155 6.01	8.61	2.7	3.0	33	1	100	.11	6	.4	.5	30	UER
		4	1248	16.22		19 20.23	155 6.24	6.25	2.1	3.1	31	2	115	.14	6	.5	1.4	25	UER
		4	1840	43.33		19 19.75	155 11.02	8.26	2.4	3.0	28	0	92	.09	5	.4	.6	28	UER
		10	1852	22.01		19 16.72	155 28.53	9.13	2.4	3.1	28	0	86	.13	11	.5	.9	25	HEA
		10	20 7	44.63		19 19.87	155 6.67	9.96	3.0	3.3	33	1	117	.09	5	.6	.4	29	UER
		12	240	.62		19 22.29	155 25.16	10.55	2.7	3.1	37	0	53	.12	4	.4	.5	35	UKF
		12	318	18.29		18 56.84	156 36.40	.05	3.1	2.6	41	8	306	.12	85	7.2	1.8	34	DIS *
		12	1157	12.12		19 24.02	155 15.72	3.28	3.3	3.8	35	1	44	.12	3	.3	.5	31	SPC F
		12	1649	34.98		18 54.32	155 27.64	15.40	3.6	4.1	36	0	249	.09	23	1.8	1.2	32	DIS F
		12	2238	37.04		19 25.09	155 16.77	2.21	2.4	3.1	31	2	39	.10	1	.4	.2	28	SPC F
		13	442	40.84		19 24.83	155 24.99	10.97	2.9	3.2	36	1	36	.14	6	.4	.5	32	UKF
		13	654	1.15		19 20.47	155 3.21	6.08	3.4	4.0	37	1	108	.10	1	.6	.5	32	MER F
		13	1941	11.48		19 20.57	155 3.49	8.69	2.8	3.2	33	1	93	.12	2	.7	.5	28	MER
		17	1734	23.67		19 20.56	155 1.01	8.92	3.2	3.5	36	2	204	.10	4	.6	.4	33	MER
		17	1752	27.10		19 21.13	155 1.22	8.28	2.7	3.2	28	0	191	.10	4	.9	.5	23	MER
		19	2336	53.72		20 39.29	155 47.03	6.95	3.5	3.5	38	6	218	.20	50	.9	1.4	34	DIS *
		21	020	44.12		19 19.45	155 13.35	10.23	3.6	4.0	38	3	71	.10	5	.4	.5	33	UER F
		21	1850	2.77		19 14.66	156 13.07	26.31	3.1	4.1	18	0	320	.11	37	17.5	7.3	17	DIS *
		21	1919	54.17		19 13.15	156 20.48	30.06	2.8	3.8	13	0	327	.08	50	24.7	7.7	13	DIS *
		22	013	48.74		19 19.95	155 6.83	8.56	2.7	3.1	32	0	113	.10	5	.6	.5	30	UER
		22	22 3	25.68		19 3.36	156 39.01	7.00	3.2	2.8	15	0	321	.13	85	11.1	99.0	15	DIS *
		23	147	58.56		19 19.16	155 15.46	10.51	4.4	4.5	38	2	91	.10	4	.5	.4	31	KOA F

HVO EARTHQUAKE SUMMARY LIST (M>3)

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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
1978	JUN	27	2231	5.96	19 24.78	155 25.16	11.04	2.9	3.0	38	0	32	.14	6	.4	.5	35	UKF
		29	1831	10.89	19 21.75	155 6.99	9.23	3.2	3.3	37	2	77	.08	5	.3	.5	34	UER
		30	1228	2.76	19 16.84	155 28.92	10.15	3.3	3.7	37	2	83	.12	11	.4	.5	32	HEA F
		30	1420	34.92	19 19.63	155 10.35	9.87	3.1	3.3	38	2	94	.10	5	.4	.5	33	UER
		30	2231	22.10	19 18.35	155 15.48	10.20	2.9	3.0	34	0	106	.11	4	.7	.5	30	KOA
	JUL	1	918	13.27	19 18.47	155 6.73	7.97	4.2	4.3	23	2	160	.11	3	.5	1.1	2	POL F
		3	1 6	40.27	19 20.66	155 6.70	9.11	2.8	3.0	33	1	99	.09	6	.5	.4	29	UER
		3	550	47.20	19 46.82	155 48.04	12.35	2.9	3.1	38	2	162	.12	11	.6	.6	35	KON
		3	21 5	16.33	19 21.72	155 4.86	9.07	3.4	3.6	37	0	80	.11	5	.6	.4	36	MER F
		3	2254	31.03	19 25.31	155 27.68	11.08	3.0	3.5	37	1	38	.11	5	.4	.5	32	UKF F
		5	430	34.96	19 19.61	155 6.64	7.43	2.8	3.4	37	1	125	.12	5	.5	.5	31	UER
		7	1131	29.20	19 12.09	156 7.13	26.40	3.1	3.9	12	0	322	.12	27	19.5	7.7	12	DIS *
		9	13 7	56.91	19 22.28	155 5.85	8.48	3.1	3.3	33	0	72	.10	5	.5	.5	30	MER F
		13	8 3	48.97	19 13.30	156 14.48	26.86	3.1	2.6	9	0	330	.13	39	43.0	13.8	9	DIS *
		14	256	37.19	19 21.18	155 15.28	9.92	3.2	3.3	37	2	68	.09	3	.4	.4	33	KOA F
		14	22 9	5.25	19 17.21	155 12.66	11.54	3.0	2.9	38	1	147	.11	8	.6	.4	30	POL
		16	829	41.78	19 21.05	155 1.02	7.84	3.4	3.7	34	0	196	.11	4	.9	.5	33	MER F
		18	4 3	55.24	19 20.61	155 10.70	9.29	2.7	3.1	34	1	76	.12	3	.4	.5	30	UER
		22	1258	55.42	19 21.02	155 7.44	8.10	2.7	3.0	31	2	84	.12	5	.5	.7	27	UER
		23	546	28.27	19 27.08	154 52.65	9.10	3.1	3.6	31	1	255	.11	4	1.6	.4	26	LER
		25	2354	37.38	19 13.66	155 6.36	51.45	3.0	3.3	37	0	208	.09	7	1.3	2.2	32	POL
		27	10 9	26.55	19 29.03	155 38.98	5.20	2.7	3.0	28	0	72	.15	5	.5	1.5	24	MOK F
	AUG	1	12 8	36.49	19 19.90	155 6.54	9.11	3.0	3.4	34	1	119	.10	5	.6	.4	28	UER
		4	1424	15.10	19 45.24	156 4.59	30.87	3.0	3.2	36	0	238	.12	26	1.4	2.0	30	KON F
		5	20 0	23.43	19 26.40	155 23.99	10.10	3.0	3.2	35	0	42	.13	6	.5	.7	34	UKF
		5	23 5	3.01	19 23.23	155 3.66	8.20	2.7	3.1	30	0	101	.11	3	.5	.6	24	MER
		8	115	40.71	19 22.03	155 4.88	8.80	2.7	3.3	34	1	78	.10	5	.5	.5	30	MER
		8	11 1	6.25	19 19.86	155 11.94	9.50	2.8	3.0	34	1	84	.11	5	.4	.5	29	UER
		8	2110	10.28	19 18.19	155 13.18	10.44	3.7	4.0	36	0	94	.09	2	.6	.5	33	POL F
		9	443	22.04	19 27.30	154 49.44	8.62	3.3	3.9	33	0	277	.14	8	3.0	.6	30	LER F
		11	1444	58.70	19 41.03	155 3.15	4.48	2.3	3.2	12	0	242	.14	20	2.2	33.4	8	HIL B*
		11	15 8	51.86	20 45.36	155 59.54	15.95	3.1	3.6	31	4	323	.14	73	15.4	44.3	22	DIS *
		12	052	50.53	19 20.05	155 6.84	9.88	3.3	3.9	36	2	110	.09	5	.5	.4	32	UER F
		12	251	23.14	19 46.49	156 .25	11.39	2.8	3.5	29	3	224	.11	20	1.0	.6	24	KON F
		12	14 6	10.07	19 18.62	155 13.53	9.31	2.6	3.1	32	2	84	.10	3	.4	.5	23	POL
		13	2245	29.27	19 20.86	155 7.33	8.47	2.5	3.1	32	1	88	.11	5	.5	.6	22	UER
		18	432	42.00	19 13.52	155 31.16	31.35	3.4	3.7	34	0	68	.06	9	.6	1.3	33	LSW
		18	2343	10.04	19 18.41	155 13.35	8.28	2.1	3.1	30	0	84	.14	3	.6	.8	30	POL
		19	212	29.11	19 55.90	155 21.54	10.52	2.9	3.1	34	2	189	.13	20	.9	.7	29	KKU
		19	2018	14.78	19 21.32	155 25.70	8.88	2.0	3.0	33	0	95	.13	4	.5	.8	32	HEA
		21	2114	24.87	19 25.47	155 24.51	10.97	3.0	3.0	37	1	33	.14	8	.4	.5	33	UKF
		22	1111	27.17	19 19.12	155 7.70	9.35	2.8	3.1	35	2	109	.10	3	.5	.4	30	UER
		23	1148	53.12	19 19.82	155 8.16	8.39	3.3	3.8	34	1	87	.11	5	.5	.6	32	UER
		23	1757	24.55	19 19.57	155 11.31	9.22	2.5	3.1	31	0	95	.12	5	.6	.5	30	UER
		23	21 8	54.04	19 23.06	155 16.78	3.69	2.4	3.1	30	1	47	.10	2	.3	.6	30	SPC
		27	2046	59.87	19 22.91	155 16.98	4.89	2.9	3.3	34	1	48	.13	2	.4	.7	31	KOA
		29	1144	8.82	19 19.05	155 11.78	9.95	3.1	3.5	34	0	104	.09	5	.5	.5	27	UER F
		30	1240	15.66	19 20.45	155 1.98	7.03	3.3	3.6	29	1	197	.10	2	.8	.5	28	MER F

HVO EARTHQUAKE SUMMARY LIST (M>3)

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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
1978	AUG	30	1627	4.14	19 21.46	155 2.72	7.60	2.7	3.1	32	0	139	.12	3	.7	.5	29	MER
		31	13 7	20.97	18 58.73	155 29.29	38.51	4.3	4.6	36	0	223	.07	19	1.3	2.1	32	DIS F
		31	1322	54.96	19 19.42	155 12.56	9.94	2.5	3.4	32	1	85	.09	5	.5	.4	29	UER
		31	1414	53.51	18 59.56	155 28.67	37.25	3.2	3.6	37	2	217	.08	19	1.0	1.5	32	DIS
	SEP	1	4 1	25.15	19 20.38	155 6.37	9.35	2.7	3.1	33	1	109	.08	6	.5	.5	30	UER
		2	17 5	4.00	19 32.46	155 56.15	10.79	2.9	3.2	22	0	225	.13	6	1.3	.5	17	KON
		3	426	10.51	19 18.84	155 12.21	9.60	2.7	3.4	38	1	104	.10	4	.4	.4	33	POL F
		4	2014	44.10	19 19.31	155 8.49	8.57	3.1	3.3	36	1	82	.09	4	.5	.4	34	UER
		5	618	18.19	19 19.84	155 8.24	9.56	3.2	3.6	37	1	84	.10	5	.5	.4	35	UER
		5	1026	46.87	19 20.13	155 13.60	10.09	3.7	4.2	34	0	60	.09	5	.4	.4	30	UER F
		5	1738	20.55	19 23.07	155 17.01	3.63	2.7	3.3	33	1	38	.10	2	.3	.6	29	SPC F
		7	442	55.24	19 14.42	156 11.51	16.76	3.2	3.3	23	0	266	.11	40	3.3	84.0	21	DIS *
		7	1137	46.03	19 21.76	155 4.05	6.79	3.2	3.7	33	0	94	.13	4	.5	.7	30	MER
		7	1656	53.39	19 .21	156 18.22	26.73	2.9	3.3	22	0	291	.09	54	6.3	4.1	20	DIS
		11	121	57.18	18 58.08	155 20.62	53.32	3.6	4.1	34	0	234	.07	25	1.6	2.6	32	PPL
		11	2016	6.11	19 20.00	155 6.52	9.60	4.1	4.3	37	1	117	.10	6	.6	.4	33	UER F
		13	1558	32.54	19 21.61	155 2.53	7.37	2.9	3.2	30	1	144	.09	3	.6	.5	25	MER
		13	2238	7.14	19 24.86	155 29.72	10.00	2.9	3.0	34	2	54	.10	6	.4	.6	28	UKF
		15	114	41.06	19 20.77	155 6.60	8.38	2.7	3.0	29	0	98	.09	6	.5	.6	29	UER
		15	715	58.31	20 15.24	156 .24	16.49	3.0	3.0	31	1	307	.20	27	4.9	40.9	26	DIS *
		15	723	55.65	19 25.33	155 16.50	2.06	2.8	3.6	32	1	37	.10	1	.3	.2	31	SPC F
		16	630	.61	19 23.97	155 15.68	3.67	2.8	3.2	35	1	60	.11	3	.4	.5	33	SPC F
		16	1747	1.85	19 20.12	155 11.68	9.16	2.8	3.1	34	0	81	.08	5	.4	.4	29	UER
		16	2141	5.36	19 22.17	155 3.42	6.72	2.6	3.1	30	0	112	.10	4	.4	.6	29	MER
		17	351	46.60	19 21.77	155 .24	8.96	2.6	3.1	33	0	192	.10	6	.8	.4	30	LER
		18	2344	29.20	19 23.38	155 16.77	3.58	3.2	3.6	36	0	38	.10	2	.3	.5	33	SPC F
		19	843	44.06	19 2.59	155 41.46	43.14	3.1	3.4	36	2	165	.08	7	1.1	2.0	34	HEA
		19	1541	8.71	19 26.22	155 23.95	9.22	3.3	3.5	40	2	36	.12	7	.4	.7	37	UKF F
		20	1028	56.03	19 18.91	155 11.56	8.66	2.9	3.4	31	0	110	.10	5	.5	.5	28	POL F
		20	1320	26.99	19 30.67	155 52.63	9.63	3.1	3.3	30	0	129	.17	5	.7	.5	26	KON
		21	215	12.65	19 53.24	155 7.58	42.98	3.1	3.2	37	2	240	.10	19	1.2	1.6	31	KKU
		21	2027	55.59	19 19.37	155 11.32	9.90	2.7	3.1	35	0	99	.09	6	.5	.4	33	UER
		22	127	.14	19 19.20	155 10.74	9.61	3.3	3.7	38	1	105	.12	6	.5	.4	32	UER F
		22	20 5	44.04	19 25.95	155 27.87	11.22	2.9	3.0	36	0	34	.13	6	.4	.6	33	UKF
		24	1249	9.91	19 22.96	155 16.98	2.81	2.4	3.0	28	0	48	.09	2	.3	.5	27	KOA
		24	1530	53.02	19 23.36	155 25.04	10.66	2.4	3.0	35	0	58	.11	5	.4	.4	33	UKF
		25	1330	13.54	19 19.51	155 7.89	8.86	3.1	3.3	36	1	98	.09	4	.5	.4	33	UER
		25	20 2	33.99	18 58.31	155 20.90	17.32	3.2	3.5	37	1	232	.23	33	2.1	31.8	35	PPL *
		25	2335	31.51	19 20.11	155 10.97	9.74	2.8	3.2	37	1	84	.10	4	.4	.4	34	UER
		26	1912	7.79	19 26.87	155 22.75	9.18	2.9	3.4	36	1	41	.11	6	.4	.7	33	UKF
		28	1538	20.19	19 22.99	155 17.03	3.31	2.9	3.4	33	1	48	.10	2	.3	.5	32	KOA F
		30	1356	13.29	19 23.03	155 26.70	9.44	3.6	3.9	38	1	54	.13	2	.4	.7	38	UKF F
	OCT	4	9 3	39.32	19 17.38	155 21.73	8.46	2.5	3.0	34	1	125	.13	6	.5	.7	30	SWR
		7	548	45.46	19 22.93	155 17.10	2.92	2.5	3.4	35	0	37	.10	1	.3	.4	27	KOA
		7	1811	7.54	19 12.67	155 21.06	47.87	2.3	3.2	28	2	164	.08	11	1.0	1.7	19	LSW L
		9	217	27.74	19 23.19	155 17.01	2.87	2.5	3.1	35	1	36	.10	0	.3	.3	31	SPC
		9	855	9.39	19 13.58	155 40.25	9.70	2.6	3.0	26	0	237	.23	6	2.2	1.1	22	HEA
		10	1117	22.38	19 57.42	155 49.53	27.85	3.1	3.2	37	0	183	.08	20	1.3	3.0	35	KOH

HVO EARTHQUAKE SUMMARY LIST (M>3)

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YEAR	MON	DA	HRMN	SEC	LAT N DEG MIN	LON W DEG MIN	DEPTH KM	AMP MAG	DIR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1978	OCT	11	734	58.48	19 13.11	155 34.47	3.52	3.2	3.3	35	1	81	.23	13	.7	3.2	29	HEA *
		12	2227	36.90	19 20.56	155 13.13	9.27	2.4	3.1	34	0	63	.12	4	.5	.5	31	UER
		13	1230	17.56	19 13.54	156 39.01	.10	3.2	3.2	13	0	317	.17	82	21.6	31.6	13	DIS B*
		13	1240	19.30	19 15.26	156 39.21	.10	3.2	2.8	12	0	325	.20	81	34.8	31.6	11	DIS B*
		13	1250	16.09	19 15.43	156 39.21	.10	3.2	3.2	13	0	325	.25	81	35.7	31.6	13	DIS B*
		13	13 0	21.62	19 14.97	156 18.74	.10	3.0	3.1	15	0	276	.31	46	5.4	31.6	13	DIS B*
		13	1310	18.84	19 15.44	156 20.29	.10	3.0	3.0	16	0	278	.39	49	6.3	31.6	15	DIS B*
		13	1320	20.56	19 16.92	156 14.22	.10	2.9	3.0	17	0	267	.29	41	4.1	31.6	17	DIS B*
		13	1330	22.13	19 18.72	156 12.91	.10	2.5	3.2	22	0	264	.43	36	5.1	31.6	21	DIS B*
		15	535	48.65	19 22.93	155 4.32	8.61	3.6	4.0	36	1	89	.09	3	.5	.4	35	MER F
		17	516	24.23	19 23.28	155 16.86	3.18	2.9	3.7	33	1	38	.11	3	.3	.7	30	SPC
		17	2242	44.65	19 19.89	155 7.80	9.57	3.2	3.7	36	1	95	.11	5	.6	.4	34	UER
		18	616	55.55	19 21.32	155 15.35	9.50	2.8	3.0	36	1	66	.09	2	.4	.4	32	KOA
		20	23 9	53.77	19 26.37	155 23.99	8.80	3.3	3.4	36	1	44	.14	7	.4	.9	31	UKF
		22	1513	1.48	19 12.47	155 19.93	46.84	2.9	3.2	40	3	169	.12	10	.8	1.3	38	HLP
		24	1433	13.99	19 19.47	155 12.04	9.86	2.9	3.3	36	1	91	.10	5	.4	.4	34	UER
		28	1237	34.70	21 34.97	157 44.49	1.22	4.1	4.5	38	6	242	.30	33	6.3	1.8	27	DIS F*
		28	1644	13.37	19 12.08	155 20.81	48.40	3.2	3.7	35	0	168	.10	12	1.0	2.2	31	HLP
		29	051	28.19	19 25.18	155 15.99	1.97	2.5	3.2	32	1	40	.10	2	.2	.3	28	SPC F
		31	2312	1.42	19 20.23	155 6.39	9.67	2.8	3.2	34	0	113	.10	6	.6	.4	33	UER
NOV		1	457	57.83	19 19.33	155 11.55	10.00	2.9	3.5	36	0	99	.08	5	.5	.4	35	UER
		3	346	53.85	19 27.69	155 34.81	37.31	2.7	3.3	24	1	34	.09	3	.7	1.7	18	MOK L
		3	821	7.60	19 59.37	155 8.71	6.66	2.1	3.1	19	0	282	.21	23	6.2	1.6	14	KKU
		5	1625	1.60	19 19.67	155 11.20	8.99	3.1	3.3	35	1	93	.11	5	.5	.6	31	UER
		6	2048	16.66	19 19.50	155 8.84	7.93	2.6	3.0	12	0	207	.14	5	1.9	1.0	10	UER
		7	1256	57.79	19 48.04	156 8.42	12.35	3.0	2.9	17	1	200	.09	34	1.7	.9	15	KON
		8	633	57.79	19 20.04	155 8.43	8.75	2.8	3.0	22	1	199	.10	5	.9	.7	17	UER
		8	2146	39.00	19 20.73	155 8.64	8.18	2.8	3.3	26	1	170	.11	3	.7	.6	23	UER
		10	20 5	23.36	19 21.80	155 4.99	9.04	3.3	3.7	30	1	79	.11	5	.6	.6	27	MER
		12	15 8	2.47	19 22.08	155 4.94	.00	3.2	3.7	23	1	150	.25	5	1.0	1.2	20	MER *
		12	1526	5.15	19 22.39	155 6.20	1.18	2.7	3.1	18	1	131	.11	5	.6	1.0	14	UER
		13	232	12.93	19 19.17	155 14.13	8.78	2.9	3.2	28	1	68	.10	4	.5	.6	26	UER F
		15	337	17.74	19 25.43	155 24.31	9.86	3.2	3.4	34	1	39	.12	8	.4	.6	30	UKF
		15	1053	18.98	19 8.40	155 36.33	6.33	2.9	3.1	25	0	118	.17	15	.7	1.3	21	HEA
		15	1329	29.95	19 20.09	155 7.44	8.87	2.6	3.1	30	1	99	.09	5	.5	.6	27	UER
		15	1647	46.75	19 24.24	155 24.74	11.34	3.3	3.4	37	1	31	.12	6	.4	.5	34	UKF
		17	1124	40.40	19 40.67	155 2.40	10.16	2.9	3.2	23	0	197	.17	19	1.1	1.3	22	HIL B
		19	835	20.17	19 20.04	155 5.14	9.99	2.6	3.4	19	1	132	.12	4	.9	.5	15	MER
		22	526	36.46	19 22.40	155 4.05	9.53	2.6	3.5	34	1	96	.07	4	.5	.4	30	MER
		22	820	42.87	19 12.68	155 27.98	5.24	3.1	3.4	31	0	101	.15	6	.6	1.6	28	LSW
		22	1323	14.81	19 20.97	155 3.13	6.06	3.4	3.8	30	1	121	.12	2	.7	.9	27	MER
		23	117	36.15	19 21.90	155 6.67	9.25	2.6	3.2	32	0	77	.10	6	.5	.5	28	UER
		23	316	15.88	19 14.16	155 32.81	11.40	4.2	4.2	33	0	122	.09	8	.5	.6	33	LSW F
		24	148	8.43	19 21.12	155 13.30	9.02	2.6	3.0	33	1	57	.10	3	.4	.6	28	UER
		25	10 2	8.94	19 20.07	155 8.40	9.77	2.8	3.2	31	0	80	.09	5	.4	.5	29	UER
		26	12 1	47.91	19 23.04	155 6.23	.59	2.4	3.1	10	0	94	.10	4	.6	2.1	10	GLN
		27	1619	50.14	19 20.44	155 11.69	10.36	3.3	3.6	35	1	76	.08	5	.4	.4	30	UER
		28	131	36.75	19 18.74	155 13.19	10.13	3.6	3.9	37	1	84	.10	3	.5	.4	36	POL

HVO EARTHQUAKE SUMMARY LIST (M>3)

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YEAR	MON	DA	HRMN	SEC	LAT N DEG MIN	LON W DEG MIN	DEPTH KM	AMP MAG	DIR MAG	NR	NS	GAP DEG	RMS SEC	MIN DIS	ERH KM	ERZ KM	NO FM	REMK
1978	NOV	28	2150	40.39	19 38.54	156 .79	10.68	3.3	3.4	34	2	224	.11	20	1.1	.8	33	KON F
		28	2242	59.64	19 22.43	155 26.65	11.13	3.5	3.6	35	1	62	.11	2	.4	.5	34	UKF F
		30	10 9	19.40	19 20.21	155 12.85	10.35	2.7	3.3	34	1	70	.09	4	.4	.3	29	UER
		30	1522	39.42	19 20.99	155 16.84	29.47	3.2	3.5	37	0	69	.11	2	.7	1.1	30	DEP
		30	1616	52.07	19 21.33	155 5.92	9.72	3.3	3.6	35	1	90	.09	6	.5	.3	31	MER
		30	2138	30.40	19 20.96	155 6.74	8.77	2.7	3.0	31	0	92	.10	6	.5	.6	29	UER
		30	2139	46.85	19 21.06	155 6.49	7.01	3.0	3.2	33	1	93	.13	6	.5	.8	28	UER
DEC		3	121	21.23	19 20.78	155 11.44	9.88	3.0	3.3	34	1	72	.09	4	.4	.4	32	UER
		5	857	33.79	19 19.51	155 11.38	9.38	2.9	3.2	37	2	96	.12	5	.5	.4	27	UER
		5	1136	39.82	19 19.90	155 11.63	9.74	3.8	4.0	37	1	86	.11	5	.5	.5	25	UER
		8	730	12.59	19 47.93	155 8.38	41.45	2.9	3.2	41	3	193	.11	10	.9	1.5	34	HIL
		8	910	3.01	19 19.22	155 11.94	9.79	3.2	3.4	35	0	98	.10	5	.5	.4	32	UER
		11	713	19.85	19 22.02	155 4.28	9.44	2.9	3.2	33	1	89	.08	5	.6	.4	30	MER
		12	1844	31.65	19 21.75	155 4.60	8.72	3.9	4.2	37	1	81	.09	4	.6	.4	32	MER
		14	412	45.04	19 18.69	155 13.51	10.49	4.1	4.2	37	1	74	.10	3	.5	.4	31	POL
		14	16 2	15.50	19 18.53	155 13.34	10.28	2.9	3.2	30	0	83	.10	3	.5	.4	29	POL
		15	129	22.42	19 30.36	155 17.63	11.18	2.6	3.1	35	1	57	.11	9	.4	.6	30	GLN
		15	737	50.42	19 19.99	155 13.14	10.07	3.3	3.6	36	2	68	.09	5	.5	.4	30	UER
		21	1329	27.68	19 19.97	155 13.51	10.20	3.5	3.9	35	0	62	.11	5	.5	.4	35	UER
		21	1625	15.71	19 28.03	155 23.42	8.49	3.3	3.1	35	1	77	.15	3	.5	.8	35	UKF
		22	828	31.67	19 19.71	155 12.72	9.27	2.6	3.1	29	0	78	.10	5	.4	.5	21	UER
		25	1628	50.32	19 21.19	155 4.62	8.98	3.2	3.4	34	0	92	.11	4	.6	.4	32	MER
		27	040	55.83	19 20.13	155 12.94	9.93	4.3	4.6	35	0	70	.08	5	.5	.4	34	UER
		27	1452	16.90	19 19.29	155 12.05	9.60	2.9	3.2	34	0	95	.12	5	.5	.4	28	UER
		27	1510	54.57	19 17.85	155 15.41	8.60	2.6	3.1	32	0	142	.10	6	.6	.7	32	KOA
		28	314	32.39	19 21.88	155 10.40	33.77	2.8	3.2	36	1	59	.09	1	.7	1.2	30	UER
		28	315	27.40	19 15.06	155 6.15	47.52	3.4	3.8	36	1	204	.08	5	.9	1.6	30	POL
		28	851	1.88	19 21.65	155 15.21	9.41	3.4	3.4	34	2	62	.16	2	.4	.5	28	KOA
		29	1451	17.97	19 49.03	156 17.25	6.36	3.4	3.9	28	0	322	.11	49	15.7	5.5	26	DIS *
		29	1456	44.06	19 50.07	156 21.44	2.29	2.7	3.1	29	0	322	.11	57	11.2	11.4	22	DIS *
		31	248	39.41	19 31.92	155 41.90	9.48	3.0	2.9	32	0	62	.12	7	.5	.7	28	MOK