EARTHQUAKE ACTIVITY IN THE UTAH REGION

Preliminary Epicenters

July 1 – September 30, 2019

Prepared by the University of Utah Seismograph Stations and funded by
the U.S. Geological Survey (Cooperative Agreement No. G15AC00028) and
by the State of Utah

December 31, 2019

Foreword and Data Explanation

This report contains an epicenter map (Figure 1) and listings of earthquakes (Tables 1 and 2) detected and located in the Utah region (lat. 36° 45′ – 42° 30′ N, long. 108° 45′ – 114° 15′ W). The computer program HYPOINVERSE-2000 (F. W. Klein, 2012, U.S. Geological Survey Open-File Report 02-171 revised) was used to process the earthquake data. This report also includes maps and a table of operating seismograph stations in the University of Utah's regional/urban seismic network (Figures 2 and 3, Table 3).

The earthquake listing in Table 2 is estimated to be systematically complete above magnitude 1.5 within the Intermountain Seismic Belt in Utah and above magnitude 2.0 to 2.5 elsewhere in the state. *These data are preliminary—both the locations and magnitudes in this table are subject to revision. The catalog may include some man-made seismic events not yet identified.*

The following data are listed for each earthquake in Table 2:

- Date (yymmdd) and origin time in Universal Coordinated Time (UTC). To convert to local time, subtract seven hours for Mountain Standard Time (MST) and six hours for Mountain Daylight Time (MDT). During the report period, local time was MDT.

- Earthquake location coordinates in degrees and minutes of north latitude and west longitude, and depth in kilometers below sea level. Note that prior to October 1, 2012, the earthquake depths in these quarterly reports were computed relative to a datum of 1500 m above sea level.

- "*" indicates poor depth resolution: no recording stations within 10 km or twice the depth.

- MAG, the computed Richter local magnitude (M_L) for each earthquake. "W" indicates that peak amplitude measurements from Wood-Anderson records were used. Otherwise, the estimate is calculated from signal durations and is more correctly identified as coda magnitude (M_C). The notation "--" indicates that a reliable magnitude estimate could not be made.

- NO, the number of P and S readings used in the solution.

- GAP, the largest azimuthal separation in degrees between recording stations used in the solution.

- DMN, the epicentral distance in kilometers to the closest station.

- RMS, the weighted root-mean-square of the travel-time residuals in seconds:

$$RMS = \left(\frac{\sum_i (W_i R_i)^2}{\sum_i (W_i)^2} \right)^{\frac{1}{2}}$$

where: R_i is the observed minus the computed arrival time for the i-th P or S reading, and W_i is the relative weight given to the i-th P or S arrival time (0.0 for no weight through 1.0 for full weight).

EARTHQUAKE ACTIVITY IN THE UTAH REGION
July 1 – September 30, 2019

by R. Burlacu, P. M. Roberson, J. M. Hale, N. Forbes, and B. Johnson
with contributions by
K. D. Koper, J. C. Pechmann, and K. L. Pankow

University of Utah Seismograph Stations
115 South 1460 East, Room 107 FASB
Salt Lake City, UT 84112-0102
Voice: (801) 581-6274 FAX: (801) 585-5585
email: *burlacu@seis.utah.edu*
URL: *http://www.seis.utah.edu* (aka *quake.utah.edu*)

During the three-month period July 1, 2019, through September 30, 2019, the University of Utah Seismograph Stations (UUSS) located 437 earthquakes within the Utah region (Figure 1). The total includes two earthquakes in the magnitude 3 range, and 64 earthquakes in the magnitude 2 range. Earthquakes of magnitude 3.0 or larger (plotted as stars and specifically labeled on Figure 1) are listed below. Four earthquakes were reported felt during the report period (see Table 1, a cumulative tabulation of earthquakes during 2019 that were either felt in the Utah region or for which a ShakeMap was produced, or both). Additional information on earthquakes within the Utah region is available from the University of Utah Seismograph Stations.

Online Information

A complete copy of this report, including maps and the earthquake catalog, is available on the UUSS web site at *http://www.quake.utah.edu/earthquake-center/quarterly-seismicity-reports*.

Note: On October 1, 2012 UUSS began using the ANSS Quake Monitoring System (AQMS) software package for data acquisition and data processing. The primary effect on the data reported herein comes from computing the earthquake locations with a newer version of the computer program HYPOINVERSE-2000 (F. W. Klein, 2012, U.S. Geological Survey Open-File Report 02-171 revised) and a revised and expanded set of velocity models. As implemented at UUSS, this new version of the location program accounts for station elevation differences more accurately and reports focal depths relative to sea level instead of the 1500 m elevation datum used previously.

ShakeMaps—computer maps of the ground shaking produced by an earthquake—are automatically produced by UUSS for earthquakes of magnitude 3 and larger within a 75-mile wide zone along the I-15 corridor and magnitude 3.5 and larger elsewhere in the Utah region. These magnitude thresholds have changed with time as the network of strong-motion stations in the state has expanded. The ShakeMaps are accessible on the UUSS web page at *http://www.quake.utah.edu*. Earthquakes for which ShakeMaps are available are indicated in Table 1.

For earthquakes of magnitude 3 and larger in the Utah region, the U. S. Geological Survey automatically posts a Community Internet Intensity Map (CIIM) on its "Did You Feel It?" web page at http://earthquake.usgs.gov/earthquakes/dyfi/. We encourage anyone who feels an earthquake to report their observations on this interactive web site; felt information is available by zip code on the CIIM site or can be obtained from UUSS directly.

Earthquakes of Magnitude 3.0 or Larger

M_L 3.0	September 1	21:59 MDT	14 mi N of Colorado City, AZ
M_L 3.9	September 24	10:15 MDT	13 mi WNW of Garland, UT

Other Notable Seismicity

During the report period, there were seven notable spatial clusters of natural earthquake activity. For reporting purposes, we define a cluster as ten or more earthquakes occurring within a 10-km (6-mile) radius during the report period.

A. A cluster of 15 earthquakes ($0.4 \le M \le 3.9$) occurred about 13 mi WNW of Garland, UT. 12 of these events, including a magnitude 3.9 shock, occurred between September 24 and September 27.
B. A cluster of 10 earthquakes ($1.3 \le M \le 2.3$) occurred about 12 mi WNW of Gunnison, UT. Five of these events occurred on September 26.
C. A cluster of 10 earthquakes ($0.9 \le M \le 2.1$) occurred about 11 mi SW of Emery, UT. Five of these events, including a magnitude 2.1 shock, occurred between September 21 and September 29.
D. A cluster of 10 earthquakes ($-0.6 \le M \le 0.3$) occurred about 11 mi NE of Milford, UT. Three of these events, including a magnitude 0.3 shock, occurred between July 11 and July 26.
E. A cluster of 35 earthquakes ($0.9 \le M \le 2.9$) occurred about 6 mi NNW of Panguitch, UT. 19 of these events, including a magnitude 2.9 shock, occurred between September 12 and September 13.
F. A cluster of 51 earthquakes ($0.9 \le M \le 2.5$) occurred about 10 mi W of Enoch, UT. 17 of these events, including a magnitude 2.5 shock, occurred between July 21 and July 29.
G. A cluster of 22 earthquakes ($0.5 \le M \le 2.8$) occurred about 10 mi SSE of Saint George, UT. Nine of these events, including a magnitude 2.8 shock, occurred between August 15 and August 21.

In Figure 1, the locally clustered seismic events within a radius of approximately 30 miles of Price, together with a localized cluster about 50 miles to its southwest, are associated with known areas of underground coal mining and are interpreted to be mining-related. These events include a total of 85 located shocks ($0.8 \le M \le 2.4$) that occurred during the report period

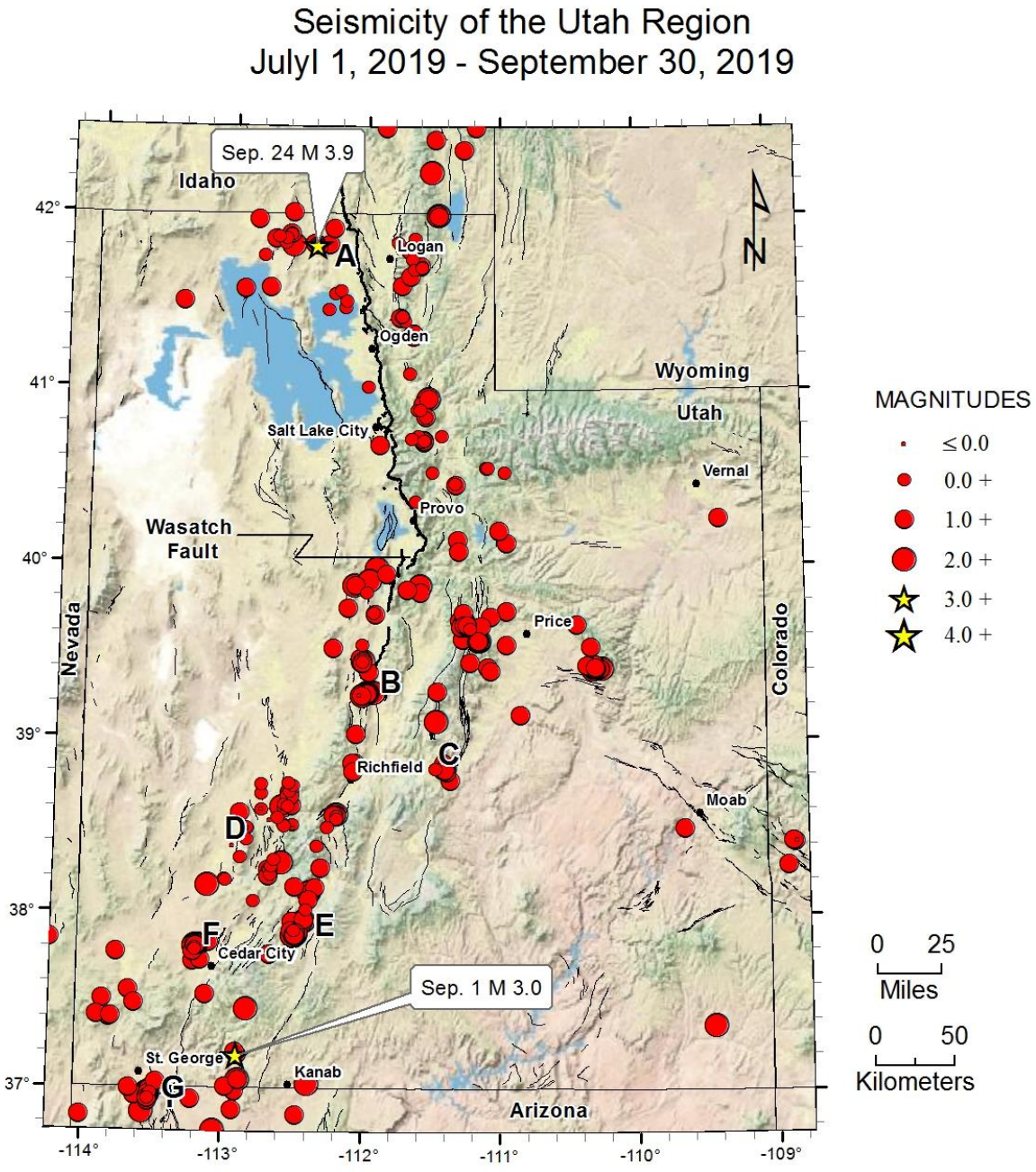


Figure 1. Earthquake epicenters, located by the University of Utah Seismograph Stations, superimposed on a map of Quaternary (geologically young) faults compiled by the Utah Geological Survey (black lines). The Wasatch fault is shown in bold. Earthquakes of magnitude 3.0 and larger are labeled by local date and size. The earthquake clusters labeled A–G are discussed in the text.

Table 1

EARTHQUAKES FELT AND/OR GENERATING A SHAKEMAP IN THE UTAH REGION

January 1, 2019 to December 31, 2019

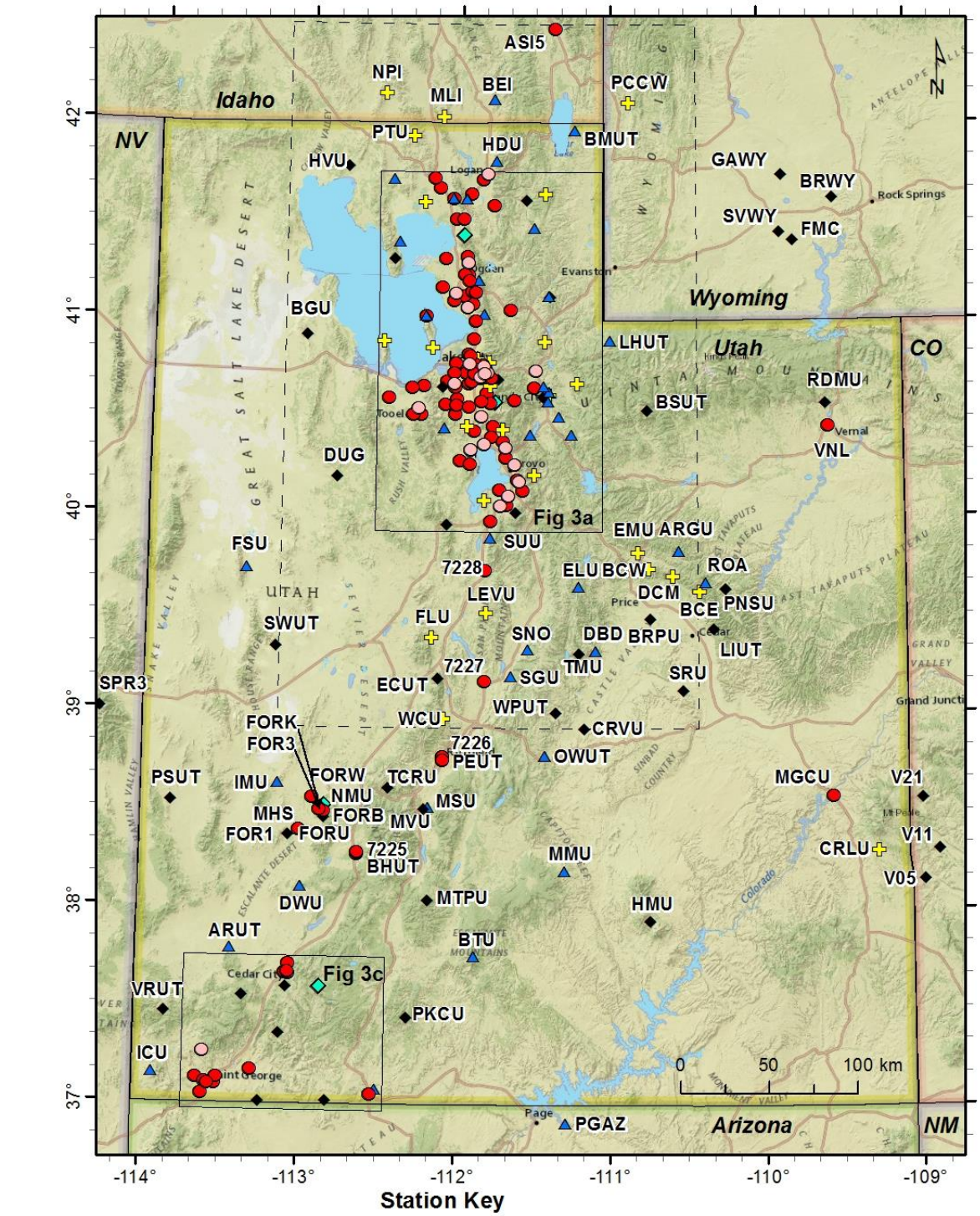
Date	Time†	Felt Information‡	Latitude	Longitude	Magnitude§
January 2	08:47 MST 15:47 UTC	Utah. *CIIM*. Felt (II) at Joseph and Sevier, UT.	38º 34.67′	112º 15.55′	M_L 2.9
January 8 January 9	18:46 MST 01:46 UTC	Utah. *CIIM*. Felt (III) Saint George, UT.	36º 56.30′	113º 30.96′	M_L 3.1
January 16	15:00 MST 22:00 UTC	Utah. *CIIM*. *ShakeMap*. Felt (III) at Central, UT and (II) at Saint George, Ivins, Santa Clara, and Washington, UT.	37º 29.68′	113º 50.95′	M_L 3.8
February 15	05:02 MST 12:02 UTC	Utah. *CIIM*. *ShakeMap*. Felt (IV) at Riverton and Eagle Mountain, UT, (III) at Draper, Lehi, Herriman, and South Jordan, UT, and (II) at Midvale, Alpine, and West Jordan, UT.	40º 27.85′	111º 56.66′	M_L 3.2
February 15	05:09 MST 12:09 UTC	Utah. *CIIM*. *ShakeMap*. Felt (IV) at Riverton, Draper, Lehi, Herriman, and Eagle Mountain, UT, (III) at South Jordan, Saratoga Springs, and American Fork, UT, and (II) at Midvale, West Jordan, and Pleasant Grove, UT.	40º 27.79′	111º 56.88′	M_L 3.7
February 16	15:05 MST 22:05 UTC	Utah. *CIIM*. *ShakeMap*. Felt (II) at Filmore, UT.	38º 43.92′	112º 29.63′	M_L 3.3
February 20	00:05 MST 07:05 UTC	Utah. *CIIM*. *ShakeMap*. Felt (IV) at Filmore, UT, (III) at Richfield, UT, and (II) at Monroe, UT.	38º 44.25′	112º 29.79′	M_L 4.0
February 20 February 21	20:08 MST 03:08 UTC	Utah. *CIIM*. Felt (III) at Draper, Lehi, Herriman, and South Jordan, UT, and (II) at Riverton and Saratoga Springs, UT.	40º 28.12′	111º 56.61′	M_L 2.5

Date	**Time†**	**Felt Information‡**	**Latitude**	**Longitude**	**Magnitude§**
February 23	02:31 MST 09:31 UTC	Utah. *CIIM*. *ShakeMap*. Felt ((III) at Riverton, Draper, Lehi, Herriman, American Fork, and Salt Lake City, UT, and (II) at Orem and Magna, UT.	40º 28.46′	111º 56.98′	M_L 3.1
February 24	01:31 MST 08:31 UTC	Utah. *CIIM*. Felt ((III) at Cedar City, UT.	37º 47.85′	113º 07.77′	M_L 2.9
March 3	09:10 MST 16:10 UTC	Utah. *CIIM*. Felt ((II) at Saint George and Dammeron Valley, UT.	37º 29.62′	113º 50.96′	M_L 3.0
March 4	10:22 MST 17:22 UTC	Utah. *CIIM*. Felt ((III) at Moab and Blanding, UT and (II) at Thomson, UT.	38º 16.82′	108º 54.66′	M_W 4.5
March 5	01:04 MST 08:04 UTC	Utah. *CIIM*. Felt ((III) at Riverton, Draper, and Herriman, UT and (II) at Lehi, South Jordan, and American Fork, UT.	40º 28.18′	111º 56.62′	M_L 2.5
March 15 March 16	23:28 MDT 05:28 UTC	Utah. *CIIM*. Felt ((III) at Ferron, UT and (II) at Huntington, UT.	39º 02.41′	110º 56.51′	M_L 2.8
April 9 April 10	22:32 MDT 04:32 UTC	Utah. *CIIM*. Felt ((III) at Ferron and Huntington, UT.	39º 03.33′	110º 57.74′	M_L 3.2
April 13 April 14	21:59 MDT 03:59 UTC	Utah. *ShakeMap*.	38º 46.31′	112º 45.89′	M_L 4.1
April 20	05:33 MDT 11:33 UTC	Utah. *CIIM*. Felt (III) at Wallsburg, Orem, and Heber City, UT and (II) at Midway and Pleasant Grove, UT.	40º 26.02′	111º 25.72′	M_L 2.6
May 31	11:27 MDT 17:27 UTC	Utah. *CIIM*. Felt (II) at Richfield, UT.	38º 51.65′	112º 04.28′	M_L 2.6
June 30	17:43 MDT 23:43 UTC	Nevada. *CIIM*. Felt (III) at Saint George, Veyo, and Dammeron Valley, UT.	37º 47.83′	114º 18.23′	M_L 4.3
August 15	10:49 MDT 16:49 UTC	Utah. *CIIM*. Felt (III) at Saint George, UT.	36º 57.78′	113º 31.01′	M_L 2.8

Date	Time†	Felt Information‡	Latitude	Longitude	Magnitude§
September 1 September 2	21:59 MDT 03:49 UTC	Utah. *CIIM*. *ShakeMap*. Felt (III) at Hurricane, UT and (II) at Orderville, UT.	37º 11.22′	112º 53.52′	ML 3.0
September 11 September 12	21:07 MDT 03:07 UTC	Utah. *CIIM*. *ShakeMap*. Felt (III) at Panguitch, UT.	37º 52.74′	112º 28.80′	ML 2.9
September 24	10:15 MDT 16:15 UTC	Utah. *CIIM*. *ShakeMap*. Felt (III) at Tremonton, Garland, Plymouth, Fielding, Snowville, Collinston, Deweyville, Honeyville, Corinne, and Smithfield, UT and (II) at Mendon, Brigham City, Wellsville, Logan, and Ogden, UT.	41º 48.94′	112º 23.38′	ML 3.9

† Times are listed both as Local Time—Mountain Standard Time (MST) or Mountain Daylight Time (MDT)—and as Universal Coordinated Time (UTC).
? Indicates on-line reports that appear questionable given the distance from the source
‡ *CIIM* indicates the availability of a Community Internet Intensity Map (http://earthquake.usgs.gov/earthquakes/dyfi), compiled by the U.S. Geological Survey (USGS); *ShakeMap* indicates the availability of computer-generated maps of ground-shaking (http://www.quake.utah.edu), produced by the University of Utah Seismograph Stations (UUSS). Roman numerals correspond to the Modified Mercalli intensity scale. Unless otherwise indicated, felt information is from the USGS (1) CIIM reports and/or (2) PDE Monthly (or) Weekly Listing Files (http://earthquake.usgs.gov/data/pde.php).
§ Richter local magnitude (M_L) or coda magnitude (M_C) determined by UUSS. If labeled "NEIC," data are from the National Earthquake Information Center of the USGS.

Utah Regional/Urban Seismic Network
September 30, 2019



▲ Single-component, Analog-telemetry, Short-period

◆ Multi-component, Analog-telemetry, Short-period

◆ Multi-component, Digital-telemetry, Broadband

● Multi-component, Digital-telemetry, Strong Motion

Bounds of map correspond to standard "Utah Region"

Traditional "Wasatch Front Area"

✚ Multi-comp Strong-Motion, Vertical Short-Period Digital and/or Analog-telemetry

○ NetQuakes

Figure 2

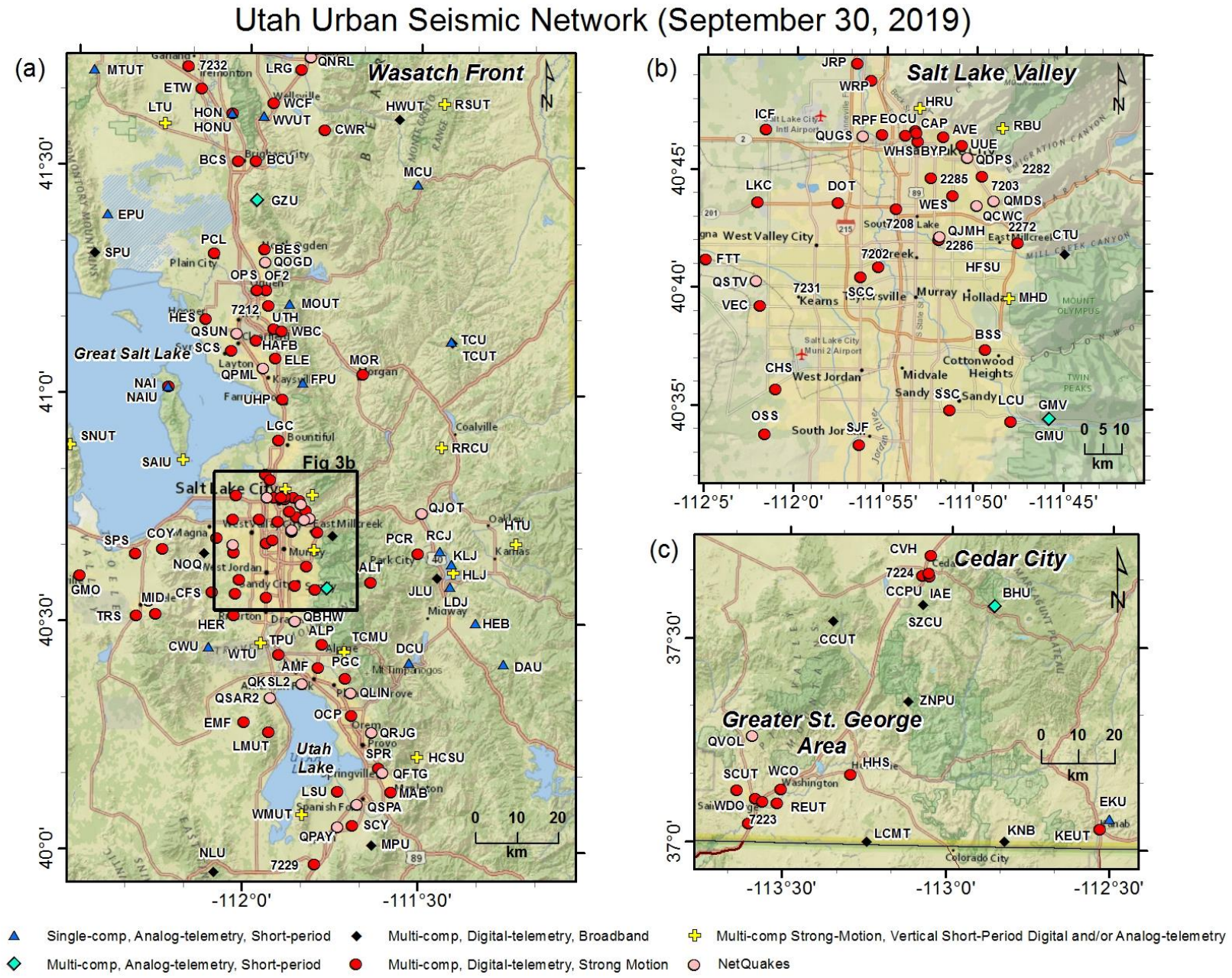

Utah Urban Seismic Network (September 30, 2019)
(a)
Wasatch Front
Great Salt Lake
Salt Lake City
Utah Lake
Fig 3b
(b)
Salt Lake Valley
(c)
Cedar City
Greater St. George Area
Single-comp, Analog-telemetry, Short-period
Multi-comp, Analog-telemetry, Short-period
Multi-comp, Digital-telemetry, Broadband
Multi-comp, Digital-telemetry, Strong Motion
Multi-comp Strong-Motion, Vertical Short-Period Digital and/or Analog-telemetry
NetQuakes

Figure 3

Table 2. Earthquakes in the Utah Region: July 1–September 30, 2019

DATE	ORIGIN TIME	LATITUDE	LONGITUDE	DEPTH	MAG	NO	GAP	DMN	RMS
190701	03:32:22.48	38º 48.79′	112º 04.41′	5.8	1.2W	15	153	4	0.16
190702	11:07:30.69	39º 44.00′	110º 57.09′	-1.0*	1.6W	12	167	15	0.27
190702	12:17:46.45	39º 34.11′	111º 16.66′	1.9	1.6W	13	87	10	0.12
190703	00:17:52.97	41º 18.06′	111º 39.31′	12.0	1.2W	19	100	22	0.16
190703	05:02:20.21	38º 36.50′	112º 35.31′	3.0*	2.0W	15	104	28	0.20
190703	16:32:37.81	39º 44.87′	112º 07.25′	4.3*	1.6	10	124	23	0.12
190703	23:52:01.32	36º 59.58′	113º 39.31′	-3.1*	1.3W	9	220	30	0.29
190704	03:14:48.37	38º 15.91′	112º 39.85′	5.8*	0.7	7	274	28	0.27
190704	12:40:24.70	41º 49.89′	111º 46.64′	6.3	0.8	12	76	3	0.07
190704	17:15:04.13	39º 01.73′	112º 03.54′	10.4	1.3W	16	106	8	0.19
190704	21:14:17.46	40º 08.32′	111º 19.14′	2.2*	1.3W	17	71	30	0.16
190705	00:56:12.95	39º 56.41′	111º 50.45′	0.2*	1.4W	14	72	15	0.25
190705	14:22:04.27	37º 00.36′	112º 58.25′	14.0	1.4W	10	197	13	0.14
190706	00:52:43.22	39º 31.71′	110º 20.12′	1.8*	1.4	10	141	11	0.15
190706	05:14:11.10	39º 54.38′	111º 58.06′	6.2	2.1W	28	98	11	0.17
190706	05:44:23.94	38º 29.08′	112º 50.90′	-0.1	−−	9	243	2	0.14
190706	06:11:56.06	38º 29.21′	112º 50.36′	0.2	−−	10	262	3	0.09
190706	06:43:14.98	38º 29.19′	112º 50.80′	0.2	−−	6	248	2	0.08
190706	08:26:05.39	40º 50.41′	111º 33.50′	11.9	0.9	21	70	11	0.13
190706	08:33:56.24	40º 50.11′	111º 33.41′	9.7	0.8	13	120	12	0.13
190706	09:27:36.30	41º 44.30′	111º 39.76′	11.4	0.9	14	84	11	0.07
190707	04:31:20.17	41º 51.16′	111º 38.55′	11.2	0.4	10	95	11	0.07
190707	12:40:25.86	37º 30.14′	113º 51.45′	5.7	1.8	11	123	4	0.12
190707	12:53:53.09	41º 49.21′	112º 33.78′	7.3*	2.2W	21	109	18	0.15
190707	16:11:50.29	37º 49.06′	113º 11.95′	9.2*	1.6	19	117	19	0.20
190707	22:33:32.48	37º 50.50′	114º 14.83′	9.9*	1.3	11	78	24	0.24
190708	08:44:09.87	41º 51.50′	112º 37.30′	5.8*	0.5	7	138	15	0.16
190708	16:53:56.31	41º 27.81′	112º 10.20′	3.6*	0.7	14	116	16	0.16
190709	01:53:49.84	39º 43.35′	111º 16.27′	10.8	1.2	14	118	11	0.12
190710	07:49:56.03	39º 06.10′	111º 28.11′	4.1*	2.2W	20	70	15	0.21
190710	13:17:02.10	36º 58.01′	113º 30.02′	4.6*	0.7	10	172	13	0.14
190710	14:14:13.76	36º 56.25′	113º 31.07′	5.7*	1.5	13	176	15	0.21
190710	20:19:07.12	36º 58.98′	113º 30.29′	8.5*	1.4	10	171	23	0.10
190711	00:20:55.87	36º 58.80′	113º 30.27′	7.3*	1.8	8	178	23	0.07
190711	00:21:43.33	36º 57.70′	113º 30.61′	6.8	2.2	13	182	13	0.16
190711	00:25:24.93	36º 57.91′	113º 30.46′	7.2*	1.6	8	173	24	0.07
190711	03:56:49.81	37º 02.70′	112º 52.69′	17.5	2.0W	18	122	6	0.09
190711	11:59:34.56	36º 58.64′	113º 30.15′	9.4	1.4W	16	133	12	0.10
190711	17:08:37.24	37º 49.10′	113º 10.66′	7.8*	1.2	12	134	23	0.15
190711	17:15:00.60	37º 49.43′	113º 10.20′	9.1*	1.6W	16	135	24	0.20
190711	17:59:38.48	37º 48.77′	113º 11.32′	10.2*	1.5W	15	132	22	0.18
190711	21:53:15.73	38º 29.37′	112º 50.52′	0.2	0.3	15	220	1	0.08
190711	22:30:04.40	36º 55.05′	113º 31.18′	5.1*	1.3W	12	178	21	0.12
190712	03:06:19.44	38º 49.57′	111º 28.62′	-2.3	0.9W	7	242	7	0.11
190712	04:46:42.82	37º 48.62′	113º 11.68′	11.1	1.5W	17	131	22	0.15

Table 2. Earthquakes in the Utah Region: July 1–September 30, 2019

DATE	ORIGIN TIME	LATITUDE	LONGITUDE	DEPTH	MAG	NO	GAP	DMN	RMS
190712	05:11:11.71	37° 48.51′	113° 11.58′	9.1*	1.2W	11	131	22	0.14
190712	05:11:27.75	37° 47.14′	113° 12.37′	15.4	0.9	8	230	17	0.08
190712	13:00:57.74	38° 33.88′	112° 12.26′	6.0*	1.5W	12	116	45	0.14
190712	13:36:45.25	37° 48.58′	113° 11.98′	10.9	1.1	12	129	21	0.24
190712	23:26:03.11	41° 51.35′	112° 42.31′	6.1	1.2	10	170	10	0.10
190713	16:31:46.36	41° 34.74′	112° 44.28′	8.1*	1.2	12	154	23	0.09
190715	08:15:20.45	38° 29.33′	109° 39.44′	5.6*	1.2W	12	116	13	0.14
190715	09:46:09.59	37° 45.91′	112° 39.78′	4.1*	1.6W	19	94	42	0.29
190715	22:20:43.96	39° 24.52′	111° 05.69′	1.2*	1.1W	11	121	11	0.18
190715	22:43:57.50	41° 35.11′	111° 44.41′	8.0	1.5W	20	54	3	0.12
190716	00:12:20.89	37° 49.05′	113° 11.07′	9.0*	1.3	11	139	23	0.15
190716	03:02:45.10	37° 48.72′	113° 11.46′	10.5*	1.4W	14	132	22	0.17
190716	19:36:54.89	41° 40.73′	111° 38.98′	8.4	0.8W	9	73	11	0.04
190717	11:58:03.86	37° 48.78′	113° 11.37′	9.9*	1.1	12	132	22	0.14
190717	18:16:12.32	38° 41.01′	112° 44.42′	16.3	0.9	16	168	21	0.13
190717	20:48:40.86	40° 31.36′	111° 30.37′	0.2*	0.7	17	70	11	0.15
190718	03:06:59.08	38° 44.31′	112° 44.59′	7.0*	0.9	10	165	29	0.08
190718	18:26:29.57	39° 50.18′	111° 59.16′	6.2*	0.8	10	102	15	0.06
190719	04:12:03.17	37° 48.80′	113° 12.27′	9.0*	1.0	12	127	21	0.12
190719	16:25:59.89	37° 48.92′	113° 11.34′	11.6	1.8W	14	124	19	0.13
190720	13:55:49.21	37° 48.52′	113° 10.94′	11.8	1.3	11	134	23	0.10
190720	20:32:37.51	39° 40.61′	111° 15.83′	-1.8	1.4W	15	72	7	0.12
190721	10:28:30.48	39° 40.61′	111° 16.31′	-3.5	1.6W	19	46	7	0.17
190721	21:26:57.87	39° 37.88′	111° 13.51′	-0.9	0.8W	12	118	2	0.20
190721	22:24:43.99	37° 48.66′	113° 11.59′	11.4	1.2	10	131	22	0.12
190721	23:34:14.83	37° 48.87′	113° 10.73′	9.8*	2.1W	20	131	23	0.12
190721	23:41:19.42	37° 48.67′	113° 11.52′	10.4*	2.1W	17	132	22	0.19
190722	03:02:45.73	37° 48.42′	113° 11.85′	11.3	1.5W	12	130	21	0.19
190722	12:13:33.40	39° 15.76′	111° 55.88′	6.0*	2.3W	29	59	20	0.18
190722	17:53:36.58	37° 48.58′	113° 11.59′	11.3	1.5W	14	131	22	0.13
190723	06:21:33.17	38° 18.87′	112° 53.39′	7.3*	0.3	13	195	16	0.06
190723	16:16:43.34	37° 48.74′	113° 11.05′	9.2*	2.2W	21	126	23	0.11
190724	03:27:54.84	41° 27.09′	112° 17.55′	5.9*	0.8	14	83	12	0.08
190724	04:34:14.84	39° 51.26′	111° 41.37′	6.0*	1.4W	24	70	19	0.20
190724	05:44:12.10	37° 47.82′	113° 12.08′	5.7*	0.9	9	247	21	0.17
190724	05:44:38.10	37° 46.79′	113° 13.05′	5.7*	1.2	11	224	17	0.11
190724	07:20:53.64	41° 54.75′	112° 15.86′	5.3	1.1	13	80	5	0.06
190724	09:01:15.48	37° 48.87′	113° 11.20′	9.9*	2.2W	22	125	23	0.11
190724	18:35:56.73	39° 26.96′	112° 01.38′	6.0*	1.6W	16	68	15	0.09
190724	18:39:19.32	39° 26.60′	112° 01.04′	8.7	1.2W	9	94	15	0.18
190724	18:40:48.37	39° 25.96′	112° 00.95′	8.2	1.1	14	83	15	0.20
190724	18:41:28.63	39° 26.21′	112° 00.94′	2.3*	0.9	13	86	15	0.17
190724	18:42:51.53	39° 26.60′	112° 00.44′	4.9*	2.3W	35	43	16	0.24
190724	18:45:38.67	39° 27.45′	112° 01.65′	6.5*	1.2	16	69	15	0.11
190725	05:35:48.20	37° 49.26′	113° 11.64′	9.1*	1.2	17	123	20	0.26

Table 2. Earthquakes in the Utah Region: July 1–September 30, 2019

DATE	ORIGIN TIME	LATITUDE	LONGITUDE	DEPTH	MAG	NO	GAP	DMN	RMS
190725	17:13:16.82	39° 39.42′	111° 15.18′	-1.4	1.4	13	103	5	0.11
190726	02:08:41.53	37° 48.94′	113° 11.60′	11.1	1.5W	26	46	19	0.19
190726	07:48:23.63	41° 47.33′	111° 40.81′	9.8	1.2W	24	87	7	0.21
190726	09:02:42.43	38° 25.22′	112° 50.70′	5.0	0.3	21	60	5	0.08
190726	12:42:26.57	37° 48.43′	113° 12.11′	11.2	1.6W	21	60	19	0.17
190726	15:20:01.52	37° 49.13′	113° 10.94′	6.8*	1.6W	14	105	23	0.15
190726	17:12:56.61	38° 28.97′	112° 50.55′	0.0	0.0	10	222	3	0.23
190726	22:48:37.05	38° 11.22′	112° 59.63′	1.9	0.7	12	163	9	0.06
190728	05:53:37.29	37° 48.81′	113° 11.62′	9.7*	2.0W	26	46	22	0.19
190728	07:09:12.67	37° 48.70′	113° 10.52′	5.3*	1.4W	9	137	23	0.10
190728	09:14:03.08	37° 48.64′	113° 11.87′	10.0	1.0	13	120	19	0.12
190729	01:10:50.88	37° 57.35′	112° 30.54′	3.3*	1.7W	24	62	30	0.21
190729	18:46:40.62	37° 48.81′	113° 11.94′	8.6*	2.5W	27	47	21	0.17
190730	19:59:31.30	38° 33.57′	112° 12.73′	-1.1	1.1	13	87	6	0.12
190731	05:30:28.01	38° 09.58′	113° 07.11′	9.7	2.4W	25	53	12	0.21
190731	05:45:25.47	38° 15.72′	112° 18.04′	1.5*	1.6W	22	60	27	0.23
190731	15:26:05.91	37° 46.18′	113° 46.09′	4.2*	1.2	8	252	29	0.07
190731	19:33:14.97	37° 48.38′	113° 11.97′	11.8	1.2W	10	129	21	0.16
190731	22:47:58.45	37° 43.84′	113° 09.57′	1.3	1.4W	11	71	9	0.29
190801	06:18:57.35	38° 23.19′	112° 56.62′	5.6	-0.1	14	73	11	0.13
190801	12:26:56.82	36° 51.31′	113° 33.49′	17.0	2.0W	14	147	33	0.14
190802	04:14:29.97	37° 33.13′	113° 40.26′	0.1*	1.3W	12	92	19	0.10
190802	16:44:56.48	40° 15.49′	109° 22.86′	11.3*	1.7W	12	113	26	0.20
190802	18:24:50.36	38° 08.81′	112° 20.61′	6.2*	1.5W	16	176	18	0.13
190802	20:21:32.27	40° 43.70′	111° 36.90′	8.9	0.7W	15	110	12	0.15
190802	21:20:16.78	38° 07.34′	112° 22.96′	1.5*	2.4W	28	43	20	0.28
190802	22:38:32.95	39° 25.38′	110° 18.17′	-3.3	1.5	8	197	2	0.09
190803	03:02:05.22	38° 07.16′	112° 22.33′	6.9*	1.8W	21	43	19	0.29
190803	04:00:48.25	37° 48.95′	113° 11.92′	9.5*	2.1W	29	63	19	0.19
190803	08:43:01.58	37° 48.96′	113° 11.31′	10.4*	1.8W	16	55	22	0.14
190803	14:38:34.58	37° 48.79′	113° 12.00′	7.8*	1.6W	18	47	21	0.15
190804	10:48:54.84	37° 27.15′	112° 49.52′	4.1*	2.6W	25	66	28	0.22
190804	20:01:39.91	39° 32.14′	112° 00.93′	13.7	0.9	7	136	18	0.07
190804	20:43:51.17	37° 48.81′	113° 11.83′	10.8*	2.0W	21	61	22	0.15
190804	21:35:19.91	37° 48.69′	113° 11.53′	11.4	1.8W	18	85	22	0.14
190805	00:23:27.52	37° 48.60′	113° 11.47′	10.4*	1.3W	14	131	22	0.16
190805	02:59:52.70	37° 48.64′	113° 12.19′	8.4*	2.1W	20	46	21	0.17
190805	05:24:55.54	39° 52.52′	111° 35.71′	3.1*	2.5W	37	50	16	0.22
190805	09:42:56.01	40° 52.67′	111° 37.31′	11.4	0.8W	12	126	16	0.09
190805	20:18:00.11	41° 52.07′	112° 40.74′	12.6	0.2	6	163	13	0.18
190806	01:18:14.73	37° 01.58′	112° 22.99′	16.9*	2.4W	15	144	39	0.19
190806	05:13:21.83	38° 15.00′	112° 40.89′	0.4	1.6W	20	61	5	0.15
190806	06:21:05.53	38° 14.59′	112° 40.74′	3.0*	0.9	13	115	29	0.12
190806	12:25:14.32	38° 15.07′	112° 41.08′	6.0*	0.9W	11	123	28	0.10
190806	12:58:21.13	38° 43.78′	112° 30.63′	5.7*	0.8	12	122	14	0.09

Table 2. Earthquakes in the Utah Region: July 1–September 30, 2019

DATE	ORIGIN TIME	LATITUDE	LONGITUDE	DEPTH	MAG	NO	GAP	DMN	RMS
190806	16:26:59.67	39° 08.23′	110° 50.96′	9.0*	1.8W	23	80	28	0.16
190806	16:51:17.95	39° 08.16′	110° 51.12′	2.9*	1.2W	16	106	29	0.10
190806	18:00:44.61	38° 14.85′	112° 40.72′	0.8	0.9	13	124	5	0.13
190807	00:46:53.25	38° 51.65′	112° 03.85′	8.1	1.5W	17	89	12	0.21
190807	17:06:38.66	38° 51.78′	112° 05.13′	7.7	1.5W	12	112	11	0.26
190807	18:56:22.65	36° 50.92′	112° 28.13′	21.3	1.5	9	150	25	0.08
190807	22:40:11.67	42° 00.21′	112° 34.28′	6.0*	1.4	12	160	17	0.16
190807	23:12:05.62	39° 24.28′	110° 17.88′	-1.8	1.3	7	201	3	0.07
190808	05:40:56.91	41° 42.08′	111° 36.26′	7.5	1.7W	27	68	11	0.18
190808	05:43:42.39	41° 41.62′	111° 35.66′	11.4	0.5	14	69	10	0.12
190808	05:43:57.98	41° 41.41′	111° 36.04′	12.1	0.9	13	70	10	0.09
190808	05:44:57.93	41° 41.45′	111° 35.71′	11.7	0.3	12	131	10	0.15
190808	14:43:24.55	37° 32.09′	113° 07.40′	12.7	1.5W	20	51	7	0.12
190808	20:02:39.45	39° 24.10′	110° 18.20′	-1.9	1.2W	10	200	3	0.12
190808	23:49:39.27	41° 05.08′	111° 41.02′	7.5	0.7	6	152	14	0.06
190809	10:25:41.80	36° 55.87′	113° 12.70′	27.3	1.1W	13	169	9	0.16
190810	21:30:40.74	38° 36.71′	112° 32.97′	1.5	0.5	10	202	9	0.07
190811	16:32:52.50	38° 28.88′	112° 50.44′	0.1	0.4	13	227	3	0.10
190811	17:23:10.98	37° 48.54′	113° 13.32′	1.3*	1.2W	10	123	19	0.17
190812	01:55:51.88	40° 42.83′	111° 39.96′	6.2	0.4	19	154	8	0.17
190812	02:38:11.42	38° 35.92′	112° 34.42′	4.4*	0.9	8	158	11	0.05
190812	12:09:03.37	37° 57.17′	112° 25.15′	5.6*	1.8W	21	56	23	0.20
190812	14:50:11.82	39° 24.19′	110° 18.51′	-1.4	1.5W	9	198	3	0.04
190812	19:03:17.67	37° 57.06′	112° 25.22′	5.8*	1.7W	21	56	23	0.25
190812	19:04:50.88	37° 57.46′	112° 25.00′	6.5*	2.5W	35	55	22	0.17
190812	19:06:58.41	37° 57.91′	112° 25.14′	1.3*	1.5W	23	55	22	0.19
190812	19:19:52.34	37° 57.46′	112° 25.21′	5.1*	1.7W	21	56	23	0.17
190812	19:57:33.35	37° 48.61′	113° 12.18′	10.6	2.4W	34	45	16	0.17
190812	22:13:59.13	42° 29.40′	111° 11.10′	12.9*	1.4W	9	172	31	0.07
190812	23:27:05.64	41° 50.25′	112° 38.42′	5.9*	0.9	16	135	13	0.15
190813	03:33:45.85	38° 44.58′	112° 32.63′	1.4*	0.5	12	125	17	0.08
190813	04:14:24.69	39° 43.01′	111° 56.14′	10.9*	0.9	9	127	26	0.10
190813	04:23:00.02	39° 42.78′	111° 55.48′	15.4	1.1W	9	125	9	0.16
190813	09:51:17.15	37° 49.05′	113° 12.21′	10.3	1.1	13	115	20	0.20
190813	09:53:42.89	40° 52.63′	111° 35.94′	11.4	0.6W	16	94	14	0.11
190813	09:54:03.70	37° 23.66′	113° 48.44′	2.4	1.6W	14	114	9	0.14
190813	20:18:09.48	38° 11.50′	113° 00.00′	3.7	0.8	13	114	10	0.05
190814	00:27:32.59	38° 23.10′	112° 19.85′	3.0*	0.8	12	111	19	0.14
190814	01:30:35.10	39° 24.30′	110° 18.60′	-1.1	1.1	6	198	2	0.03
190814	23:03:17.07	36° 58.98′	112° 53.98′	18.2	1.5W	13	139	8	0.08
190815	16:49:37.15	36° 57.78′	113° 31.01′	8.5	2.8W	34	135	12	0.18
190815	17:06:44.87	36° 56.05′	113° 31.01′	10.1*	0.5W	6	211	26	0.08
190815	17:06:57.03	36° 55.63′	113° 30.99′	6.2*	1.5	8	212	16	0.11
190815	17:30:41.61	39° 24.81′	110° 19.41′	-2.0	1.6W	12	113	1	0.28
190815	21:56:10.64	37° 02.80′	112° 52.66′	17.2	1.1W	8	122	6	0.07

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190816	00:14:30.46	36º 57.14′	113º 31.15′	6.1*	2.1W	15	174	25	0.18
190816	21:55:25.19	39º 38.38′	111º 17.64′	-1.9	1.4W	10	150	8	0.13
190816	23:09:33.99	37º 24.51′	113º 53.60′	4.8	1.4W	14	85	7	0.12
190817	16:22:49.65	36º 55.97′	113º 30.90′	7.4*	1.4	12	211	15	0.14
190817	16:42:17.99	39º 40.71′	111º 17.96′	-3.5	1.6W	10	193	9	0.19
190817	18:36:24.02	36º 57.20′	113º 36.55′	14.0*	1.4	10	224	33	0.12
190817	18:47:57.38	41º 25.08′	111º 44.45′	4.6*	0.7W	13	129	18	0.09
190817	18:47:58.43	41º 24.27′	111º 45.05′	3.7*	0.9W	6	225	20	0.09
190817	19:24:22.26	39º 22.70′	111º 57.92′	4.5*	1.5W	10	143	18	0.24
190817	19:25:35.30	37º 49.32′	113º 11.24′	4.0*	1.4	14	116	23	0.18
190817	20:16:17.96	41º 23.02′	111º 43.36′	7.3*	0.9	13	208	20	0.17
190817	20:16:55.69	41º 24.62′	111º 44.64′	6.8*	0.6	15	131	19	0.14
190817	21:34:45.22	41º 24.49′	111º 45.10′	3.1*	1.2W	18	82	19	0.08
190818	03:39:11.62	40º 27.38′	111º 20.29′	13.0	0.6	12	130	5	0.11
190818	04:02:46.29	39º 15.64′	111º 58.80′	5.8*	2.2W	26	60	17	0.20
190818	05:08:49.96	39º 15.93′	111º 58.44′	3.2*	1.6W	18	78	17	0.25
190818	10:42:59.60	39º 15.54′	111º 58.87′	4.3*	1.5W	15	97	21	0.16
190818	13:59:31.20	40º 27.22′	111º 20.04′	13.5	1.5W	24	131	5	0.12
190818	21:00:32.36	39º 40.71′	111º 15.51′	-3.2	1.8W	21	49	6	0.22
190818	21:36:29.38	39º 15.34′	111º 58.97′	4.8*	2.1W	26	57	16	0.19
190819	00:56:25.30	37º 48.49′	113º 11.89′	10.3*	1.8W	15	89	21	0.16
190820	00:41:36.59	41º 33.45′	112º 12.21′	-3.1	0.6	13	78	5	0.23
190820	07:36:02.40	37º 48.68′	113º 11.94′	10.2*	1.8W	24	46	21	0.17
190820	13:47:25.59	36º 56.44′	113º 31.16′	6.0*	0.8	11	221	14	0.16
190820	13:49:30.91	36º 56.54′	113º 31.21′	6.8*	1.4W	12	175	14	0.21
190820	14:37:28.34	37º 28.89′	113º 37.71′	6.4*	1.0W	12	70	20	0.08
190821	06:36:38.84	36º 50.01′	113º 59.91′	9.8*	1.3	9	200	36	0.13
190821	09:35:40.64	36º 57.21′	113º 31.22′	7.5	2.0W	23	105	13	0.24
190821	13:42:06.35	42º 25.21′	111º 29.43′	6.5*	1.9W	12	118	41	0.19
190822	10:02:13.91	40º 11.58′	111º 00.57′	13.6*	1.4W	19	105	44	0.22
190822	17:04:14.88	41º 59.31′	111º 28.28′	0.0*	2.1W	28	79	20	0.14
190822	17:12:38.19	41º 59.08′	111º 28.13′	-2.7*	1.9W	28	73	20	0.15
190822	17:25:18.04	40º 07.33′	110º 57.27′	10.0*	1.5	15	112	36	0.18
190822	21:48:22.81	41º 59.06′	111º 28.07′	0.3*	1.3W	16	135	20	0.16
190823	01:00:11.92	41º 00.38′	111º 59.55′	0.5	0.4	12	123	10	0.16
190823	13:12:24.32	42º 29.44′	111º 52.12′	6.7*	1.7W	15	188	42	0.10
190823	18:28:32.04	41º 58.98′	111º 27.98′	0.5*	1.7W	14	135	19	0.15
190823	20:20:09.08	38º 29.45′	112º 15.51′	4.4	0.9	10	189	7	0.04
190823	21:49:13.60	37º 48.52′	113º 12.12′	4.8*	1.4	12	128	21	0.23
190824	08:32:49.25	41º 59.51′	111º 28.55′	1.0*	1.9W	27	75	20	0.17
190824	09:24:02.24	39º 40.16′	111º 16.83′	-3.4	1.5	9	151	7	0.09
190825	04:12:31.41	41º 49.88′	112º 37.64′	8.1	0.6	9	128	14	0.15
190825	19:24:38.35	39º 39.32′	111º 16.89′	-3.5	1.4W	9	119	7	0.25
190825	21:12:05.75	41º 53.00′	112º 35.20′	1.5*	0.9	12	136	19	0.10
190826	02:10:38.85	39º 24.04′	110º 17.27′	-3.3	1.6W	11	205	4	0.06

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190826	04:19:31.39	39° 24.26′	110° 18.07′	-1.7	1.6W	10	201	3	0.06
190826	07:19:17.08	38° 41.91′	112° 32.18′	2.4*	0.9	13	99	13	0.08
190826	09:36:09.79	41° 53.07′	112° 35.35′	0.3*	0.9	12	137	19	0.09
190826	09:36:57.54	41° 52.78′	112° 35.42′	1.0*	0.8	13	136	19	0.15
190826	10:56:17.50	38° 41.53′	112° 32.19′	2.2*	1.5W	18	149	12	0.18
190826	14:17:31.81	38° 42.17′	112° 32.15′	0.6*	0.9	13	120	13	0.05
190826	23:37:22.43	41° 48.13′	111° 38.05′	9.7	1.2W	19	81	11	0.15
190828	04:43:03.60	39° 38.75′	111° 08.49′	5.8*	1.3W	7	195	34	0.22
190828	15:58:27.53	38° 04.61′	112° 23.12′	5.8*	1.2W	14	100	18	0.34
190828	15:58:49.41	38° 01.16′	112° 24.27′	3.5*	0.9	8	199	19	0.15
190828	17:25:05.80	38° 29.35′	112° 30.41′	6.2*	−−	9	172	14	0.04
190828	17:25:11.87	38° 30.12′	112° 30.76′	8.7	0.7	16	138	13	0.06
190829	01:36:00.07	39° 25.21′	110° 21.76′	-2.5	1.1	5	138	3	0.16
190829	05:25:14.42	38° 40.19′	112° 32.03′	5.2	1.1	9	195	10	0.08
190829	05:36:27.08	38° 36.84′	112° 31.21′	7.2	1.4W	13	145	6	0.20
190829	14:12:20.15	40° 42.30′	111° 34.13′	5.4*	1.8W	29	65	12	0.16
190829	14:14:14.54	40° 42.18′	111° 34.15′	6.2	1.1W	21	82	8	0.10
190829	14:17:25.92	40° 41.90′	111° 34.36′	6.1	1.2W	25	68	8	0.15
190829	15:01:45.37	40° 42.20′	111° 33.90′	0.5*	0.4W	12	94	12	0.10
190829	15:03:01.75	40° 41.73′	111° 34.99′	11.6	0.8W	13	93	13	0.35
190829	15:39:04.21	40° 41.97′	111° 34.22′	1.2*	0.4	11	93	12	0.08
190829	18:14:52.20	39° 24.35′	110° 18.57′	-1.4	1.8W	14	182	2	0.12
190829	20:40:13.29	37° 49.40′	113° 11.74′	10.3*	1.6	12	89	22	0.14
190830	04:34:05.33	39° 39.14′	111° 14.66′	-1.3	1.0W	11	248	4	0.07
190830	10:19:34.37	37° 11.33′	112° 53.07′	20.6	1.5W	8	183	20	0.09
190901	05:48:19.73	39° 38.35′	111° 14.70′	-1.8	1.1W	11	208	4	0.05
190901	08:32:31.62	40° 54.54′	111° 34.74′	14.8	1.9	31	61	12	0.13
190901	13:33:09.44	38° 33.95′	112° 11.74′	6.8	1.7W	17	78	6	0.16
190901	13:33:34.06	37° 24.25′	113° 47.66′	1.2	1.4	7	95	8	0.09
190901	13:53:29.42	38° 34.01′	112° 11.71′	7.2	2.3W	28	80	6	0.15
190901	14:08:29.44	41° 32.44′	112° 14.96′	-2.2	0.7	14	122	6	0.17
190901	14:11:40.87	38° 33.83′	112° 11.57′	7.1	1.4W	16	78	6	0.13
190901	14:50:39.87	38° 32.26′	112° 11.72′	7.8	0.8	10	86	3	0.09
190901	14:59:20.13	38° 33.19′	112° 11.69′	6.8	0.9	15	96	5	0.12
190902	02:54:25.67	38° 04.06′	112° 47.35′	6.7*	0.5	10	257	19	0.14
190902	03:59:21.63	37° 11.22′	112° 53.52′	17.6	3.0W	27	44	20	0.20
190902	16:49:33.32	40° 31.38′	110° 58.13′	1.4*	0.6	12	159	18	0.16
190902	18:12:14.00	39° 42.07′	111° 04.39′	3.5*	1.5	9	181	13	0.14
190903	10:16:55.42	40° 32.87′	111° 06.40′	11.3	0.9	16	129	17	0.19
190903	20:26:21.35	38° 28.63′	112° 51.09′	3.8	-0.6	11	128	2	0.05
190903	21:02:02.46	38° 30.02′	112° 34.28′	4.5*	0.2	11	126	16	0.06
190903	23:52:32.37	39° 26.32′	111° 13.55′	9.6	1.2W	10	190	16	0.09
190904	17:52:53.46	39° 24.20′	110° 17.04′	-3.2	1.5	7	206	4	0.02
190904	20:49:11.23	39° 25.68′	110° 20.21′	-0.7	1.7	10	93	1	0.25
190905	02:56:57.85	37° 21.76′	109° 27.12′	10.5*	2.0	8	199	87	0.12

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DATE	ORIGIN TIME	LATITUDE	LONGITUDE	DEPTH	MAG	NO	GAP	DMN	RMS
190905	16:56:27.18	39° 24.19′	110° 17.37′	-3.5	1.7W	11	205	4	0.09
190907	03:08:40.87	36° 57.64′	113° 30.59′	7.7*	1.3	12	173	16	0.11
190907	03:35:07.69	39° 32.43′	110° 57.37′	2.5*	1.3	12	79	20	0.16
190907	05:37:51.80	38° 32.14′	112° 40.61′	4.7*	-0.1	9	176	15	0.03
190907	10:04:12.15	38° 16.66′	108° 54.50′	0.9	1.6	9	121	4	0.07
190907	15:00:02.54	41° 49.38′	112° 17.81′	3.7*	1.4	20	70	12	0.14
190907	18:51:46.04	37° 48.70′	113° 12.01′	8.3*	2.5W	24	47	21	0.15
190908	01:41:59.86	39° 24.31′	110° 17.66′	-2.1	1.8	8	203	3	0.11
190908	02:24:40.97	39° 33.37′	111° 09.98′	1.6	1.6W	18	65	10	0.18
190908	02:35:27.69	39° 33.64′	111° 09.56′	1.6	1.2W	15	126	10	0.16
190908	04:55:51.74	39° 33.34′	111° 10.37′	1.8	1.4	10	158	10	0.13
190908	06:28:12.26	40° 32.96′	111° 05.81′	2.2*	0.6	9	130	17	0.09
190908	06:46:55.16	39° 33.03′	111° 10.25′	1.8	1.3W	11	158	10	0.19
190908	07:22:43.84	41° 38.34′	111° 40.58′	10.1	1.0	9	91	10	0.08
190908	08:50:57.83	39° 34.00′	111° 09.33′	1.8	1.4	10	145	9	0.15
190908	09:45:55.76	39° 33.67′	111° 09.49′	2.7	2.4W	32	36	10	0.17
190908	11:06:43.59	36° 52.41′	112° 55.24′	15.4	1.6W	11	159	18	0.17
190908	14:25:13.39	39° 33.35′	111° 09.03′	-1.8	1.8W	17	74	10	0.19
190909	04:50:26.40	39° 24.30′	110° 18.21′	-1.9	1.4W	11	200	3	0.11
190909	14:13:31.99	36° 45.24′	113° 02.84′	19.2	2.0W	14	176	34	0.17
190909	15:16:35.40	39° 23.86′	110° 17.00′	-3.4	1.5W	7	207	5	0.26
190909	17:46:41.09	39° 24.22′	110° 17.94′	-2.1	2.0W	9	201	3	0.09
190909	23:46:27.16	39° 52.67′	112° 04.12′	9.9	1.9W	22	72	9	0.20
190910	00:15:03.93	39° 52.62′	112° 04.64′	7.6	2.5W	34	73	9	0.16
190910	06:06:27.40	39° 39.29′	111° 14.47′	-1.5	1.4	9	249	4	0.07
190910	07:44:20.66	39° 33.79′	111° 09.64′	1.6	1.3W	16	69	9	0.20
190910	15:51:47.95	38° 17.27′	112° 35.24′	6.7	2.1W	22	65	5	0.11
190910	18:00:38.62	39° 39.41′	110° 26.36′	-1.7	1.0	6	148	6	0.06
190910	18:24:28.16	39° 23.83′	110° 16.67′	-3.4	1.6W	7	208	5	0.21
190910	21:12:15.71	41° 57.93′	112° 49.85′	4.9*	1.8W	17	222	21	0.21
190910	21:31:42.46	39° 23.94′	110° 17.49′	-3.5	1.7W	9	205	4	0.16
190910	23:28:24.11	39° 24.21′	110° 17.40′	-2.9	1.7	9	204	4	0.08
190911	01:14:13.30	39° 23.99′	110° 18.95′	-2.7	2.0	6	197	3	0.20
190911	02:06:33.16	39° 23.74′	110° 16.42′	-3.4	1.6	6	210	5	0.29
190911	02:13:27.04	37° 12.36′	112° 53.89′	11.2	1.0	8	183	22	0.18
190911	03:17:38.45	39° 23.82′	110° 17.88′	-3.5	1.7	7	203	4	0.05
190911	03:57:12.11	39° 24.25′	110° 18.00′	-2.6	1.4	6	201	3	0.04
190911	04:06:05.84	39° 23.91′	110° 19.16′	-1.2	1.5	6	197	3	0.03
190911	04:56:14.15	39° 24.03′	110° 17.38′	-3.5	1.9W	13	205	4	0.15
190911	16:52:24.14	39° 24.12′	110° 19.08′	-1.7	1.2	5	196	3	0.05
190911	18:59:47.30	39° 24.00′	110° 17.83′	-3.3	1.9W	10	203	4	0.16
190912	00:29:07.07	39° 24.09′	110° 15.26′	-3.3	2.1W	9	215	7	0.30
190912	03:07:47.68	37° 52.74′	112° 28.80′	6.0*	2.9W	32	58	32	0.19
190912	03:09:35.09	37° 52.86′	112° 29.23′	3.5*	2.9W	28	58	32	0.24
190912	03:42:24.97	37° 52.38′	112° 29.33′	6.0*	1.0	20	58	33	0.29

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DATE	ORIGIN TIME	LATITUDE	LONGITUDE	DEPTH	MAG	NO	GAP	DMN	RMS
190912	03:52:25.02	37º 52.24′	112º 29.39′	4.2*	2.2W	23	58	33	0.26
190912	04:07:33.65	37º 52.93′	112º 29.21′	5.8*	1.9W	13	80	32	0.18
190912	04:18:44.58	37º 53.21′	112º 28.00′	6.1*	1.6W	20	80	30	0.17
190912	04:18:44.64	37º 53.46′	112º 27.50′	6.1*	1.5W	10	81	29	0.10
190912	05:51:15.54	37º 52.64′	112º 28.94′	-2.1*	2.0W	16	59	32	0.17
190912	07:37:54.91	37º 52.87′	112º 29.37′	4.9*	2.5W	28	57	32	0.18
190912	07:42:01.11	37º 52.85′	112º 29.06′	7.0*	1.7W	21	58	32	0.22
190912	10:39:09.89	37º 52.66′	112º 29.05′	-1.5*	1.4W	22	79	32	0.17
190912	15:34:34.95	37º 54.02′	112º 30.67′	4.8*	1.4W	12	84	33	0.15
190912	18:17:22.44	39º 24.17′	110º 15.98′	-3.4	1.5W	11	211	6	0.22
190912	19:45:45.25	38º 37.23′	112º 34.51′	0.5*	0.9	12	211	11	0.14
190912	20:54:50.83	37º 49.89′	113º 06.16′	8.9*	1.9W	16	60	26	0.20
190912	21:05:51.76	39º 24.01′	110º 17.27′	-3.3	1.9W	13	205	4	0.18
190913	04:13:17.20	41º 29.70′	113º 23.30′	6.8*	1.7W	17	161	60	0.18
190913	05:10:44.85	37º 52.71′	112º 29.23′	5.9*	2.1W	29	59	32	0.19
190913	09:41:17.44	37º 52.43′	112º 29.42′	6.0*	1.9W	28	58	33	0.19
190913	15:02:26.56	38º 28.91′	112º 51.12′	-0.2	-0.4	11	196	2	0.14
190915	19:42:02.37	37º 48.55′	113º 12.29′	8.4*	1.6	17	61	21	0.17
190916	02:04:28.80	39º 24.08′	110º 16.62′	-3.2	1.6W	10	208	5	0.18
190916	03:01:51.53	39º 24.08′	110º 16.86′	-3.4	2.3W	16	208	5	0.18
190916	06:30:07.62	39º 24.45′	110º 18.39′	-1.6	1.9W	11	116	2	0.07
190916	14:13:54.81	37º 52.25′	112º 29.67′	6.5*	2.1W	19	59	33	0.23
190916	18:30:06.33	39º 24.14′	110º 17.68′	-3.3	1.7W	9	125	4	0.10
190916	21:38:16.00	38º 24.72′	108º 52.16′	7.7	1.8	9	131	13	0.06
190917	02:33:49.32	39º 24.35′	110º 18.00′	-2.1	2.0W	15	116	3	0.09
190917	05:26:07.97	38º 51.47′	111º 24.86′	-3.0	1.1W	9	114	9	0.10
190917	08:25:24.91	39º 39.98′	111º 15.95′	-2.8	1.9W	20	48	6	0.21
190917	11:47:30.36	40º 43.76′	111º 26.32′	9.6	0.8W	19	77	8	0.12
190917	15:32:49.20	37º 43.44′	113º 12.84′	6.2*	1.6W	11	95	13	0.13
190917	21:47:12.88	40º 32.60′	111º 05.88′	2.0*	0.7	9	132	18	0.12
190918	04:26:04.13	39º 24.43′	110º 18.50′	-1.6	1.8W	12	198	2	0.11
190918	06:38:56.73	39º 24.25′	110º 17.90′	-3.0	1.9W	13	201	3	0.14
190918	07:43:28.30	38º 49.47′	111º 24.36′	4.7	0.9W	5	180	5	0.16
190918	09:56:39.26	39º 39.19′	111º 15.04′	-1.6	1.5	10	250	4	0.10
190918	12:10:16.54	39º 39.16′	111º 16.12′	-2.1	1.1	6	253	6	0.09
190918	13:47:28.87	37º 52.69′	112º 28.87′	9.8*	2.1W	17	58	32	0.21
190918	13:56:49.80	37º 52.97′	112º 29.08′	7.9*	2.1W	23	58	32	0.20
190918	14:24:06.90	39º 24.14′	110º 16.91′	-3.4	1.9W	11	206	4	0.12
190918	15:46:43.86	41º 45.50′	112º 46.98′	5.8	0.9	9	266	2	0.11
190918	16:29:28.20	39º 24.06′	110º 17.49′	-3.3	1.9W	16	186	4	0.16
190918	16:57:30.23	37º 52.32′	112º 29.18′	5.8*	2.6W	23	58	33	0.25
190918	17:23:20.03	37º 53.18′	112º 29.57′	6.0*	1.4W	18	80	32	0.22
190918	18:24:16.60	37º 53.38′	112º 28.83′	8.1*	1.1	11	107	31	0.22
190918	18:25:37.94	37º 54.17′	112º 29.54′	4.8*	0.9	13	84	31	0.19
190918	19:34:41.03	37º 53.38′	112º 29.45′	-0.5*	1.5W	12	105	32	0.26

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190918	19:45:30.22	39° 31.14′	112° 13.96′	1.8*	1.3	8	159	16	0.13
190918	20:22:19.62	39° 25.08′	110° 21.00′	-2.5	1.3	6	132	2	0.06
190918	20:31:19.93	39° 24.46′	110° 17.87′	-1.7	1.1	6	201	3	0.09
190918	21:50:50.65	39° 23.89′	110° 18.22′	-3.4	1.6W	7	200	3	0.17
190919	00:52:37.63	38° 34.49′	112° 53.73′	7.3	1.4	9	152	7	0.11
190919	01:10:17.00	39° 24.12′	110° 18.00′	-2.4	1.6W	9	184	3	0.11
190919	02:22:31.04	37° 52.75′	112° 29.31′	5.8*	2.4W	26	57	32	0.18
190919	03:17:12.67	37° 52.52′	112° 28.89′	5.6*	1.5W	13	78	32	0.23
190919	03:32:22.86	39° 40.01′	111° 16.10′	-2.1	1.9W	22	46	6	0.14
190919	07:51:07.00	40° 21.31′	111° 37.94′	5.2	0.1	8	112	7	0.10
190919	08:09:22.17	37° 52.50′	112° 30.13′	5.3*	2.1W	21	57	33	0.16
190919	18:38:16.28	38° 49.98′	111° 24.07′	0.1	1.3W	10	132	6	0.04
190919	20:47:02.57	39° 24.69′	110° 18.02′	-1.1	1.7W	9	200	3	0.07
190920	02:12:50.88	37° 52.85′	112° 29.48′	5.1*	1.3	16	79	32	0.16
190920	02:53:51.60	37° 53.41′	112° 28.75′	5.9*	1.6W	17	80	31	0.20
190920	04:01:19.94	38° 48.84′	111° 23.50′	4.6	1.2W	8	151	5	0.18
190920	04:07:15.02	37° 52.45′	112° 29.71′	5.9*	2.4W	22	58	33	0.24
190921	01:14:51.43	41° 29.90′	112° 09.59′	5.8*	0.6	10	88	13	0.19
190921	11:16:06.05	38° 49.51′	111° 24.30′	1.6	1.8	11	135	5	0.16
190921	11:44:43.92	37° 01.70′	113° 27.86′	5.3	1.2	15	185	9	0.13
190921	13:59:10.69	38° 50.59′	111° 24.67′	-1.6	1.4	7	156	7	0.08
190921	14:07:50.03	38° 50.03′	111° 24.33′	0.2	1.1W	9	91	6	0.06
190921	23:51:21.82	38° 18.32′	112° 38.69′	5.9	0.4	12	98	3	0.07
190922	05:03:13.36	40° 04.41′	111° 18.52′	2.1*	1.1	17	78	24	0.15
190922	06:30:59.32	41° 18.83′	111° 39.10′	15.2	1.1	21	94	20	0.15
190922	06:35:31.97	41° 18.54′	111° 39.80′	14.6	1.4W	28	92	21	0.20
190922	06:57:33.27	41° 19.54′	111° 38.31′	18.8	0.9	13	105	19	0.18
190922	13:55:07.32	39° 16.39′	111° 27.69′	1.8	1.3W	13	91	8	0.10
190922	19:42:54.61	36° 57.83′	113° 31.21′	6.4*	2.3W	16	135	25	0.20
190922	20:43:16.20	36° 55.88′	113° 31.00′	5.3*	1.2	10	223	15	0.10
190923	03:51:44.82	39° 24.19′	110° 17.81′	-3.5	1.4W	12	203	3	0.07
190923	04:38:26.39	37° 52.89′	112° 29.37′	6.3*	1.6W	23	57	32	0.20
190923	05:15:50.35	39° 58.46′	111° 54.79′	6.0*	2.5W	29	60	13	0.19
190923	06:07:38.14	39° 24.62′	110° 18.39′	-2.2	2.0W	13	116	2	0.14
190923	06:48:57.63	39° 24.63′	110° 18.35′	-1.6	2.2W	23	116	2	0.16
190923	08:23:00.72	39° 33.50′	111° 09.95′	2.0	1.2W	17	69	10	0.26
190923	21:28:02.03	39° 24.24′	110° 17.95′	-2.2	1.7W	8	201	3	0.09
190924	16:15:41.91	41° 48.94′	112° 23.38′	6.6*	3.9W	40	81	14	0.22
190924	16:19:18.93	41° 47.98′	112° 22.01′	0.4*	0.5	6	229	15	0.22
190924	18:01:14.01	41° 49.05′	112° 23.57′	0.4*	0.4	8	121	14	0.05
190924	18:17:10.51	41° 49.01′	112° 23.39′	1.5*	0.8	9	109	14	0.10
190924	19:26:50.11	41° 49.38′	112° 23.93′	0.1*	1.1	21	83	13	0.15
190924	22:30:09.53	41° 49.08′	112° 23.61′	0.4*	0.5	12	82	14	0.09
190925	00:18:10.57	41° 49.44′	112° 23.90′	2.0*	0.5	10	83	13	0.16
190925	02:55:25.91	38° 35.37′	112° 44.30′	9.3	0.2	9	211	13	0.05

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190925	02:56:07.95	38º 35.75′	112º 44.44′	8.9	-0.1	10	215	16	0.06
190925	04:29:48.14	38º 28.98′	112º 51.25′	-3.4	-0.3	9	189	2	0.15
190925	13:33:34.99	41º 49.40′	112º 23.83′	0.8*	0.6	10	108	13	0.15
190926	03:49:36.44	40º 56.49′	111º 32.18′	9.9	1.2W	21	68	10	0.07
190926	03:50:36.31	40º 56.47′	111º 32.50′	7.7	2.0W	36	37	11	0.13
190926	05:03:25.64	39º 15.16′	112º 01.92′	4.2*	−−	8	88	18	0.20
190926	05:03:30.60	39º 15.87′	111º 58.94′	6.5*	1.6W	15	73	21	0.25
190926	05:04:23.87	39º 14.82′	112º 00.92′	4.5*	2.0W	22	76	20	0.19
190926	05:12:23.33	39º 14.89′	112º 00.72′	6.7*	1.5W	17	86	20	0.27
190926	05:31:34.81	39º 14.94′	112º 01.35′	8.4*	1.3	12	104	19	0.30
190926	14:17:05.80	38º 24.73′	108º 50.69′	6.5	−−	8	137	13	0.07
190926	18:26:06.24	38º 49.87′	111º 24.30′	1.9	1.6	8	137	6	0.09
190926	22:05:28.15	42º 21.90′	111º 16.51′	-3.1*	1.5W	12	123	44	0.28
190926	23:22:12.41	41º 49.50′	112º 24.48′	0.7*	1.0	15	138	13	0.14
190926	23:39:00.05	41º 49.18′	112º 23.37′	0.7*	0.6	8	109	13	0.20
190927	01:54:46.75	38º 13.12′	112º 40.03′	3.0*	0.8	13	133	32	0.15
190927	04:08:45.67	39º 23.49′	111º 04.33′	2.3	1.0W	7	109	9	0.09
190927	05:30:36.09	41º 48.89′	112º 22.68′	1.3*	0.5	8	108	13	0.07
190927	10:22:27.33	38º 45.76′	111º 21.91′	1.5	1.5W	7	230	5	0.19
190927	11:39:33.88	41º 49.29′	112º 24.35′	0.3*	0.6	10	84	14	0.18
190927	13:41:00.24	38º 24.57′	108º 51.36′	4.3*	1.8	11	133	12	0.13
190927	23:47:25.07	38º 09.05′	112º 29.47′	3.6*	1.3W	13	110	30	0.28
190928	18:58:10.08	41º 33.96′	112º 55.57′	10.3*	1.2	15	200	27	0.14
190928	20:06:31.50	41º 49.50′	112º 23.55′	0.7*	0.6	10	123	13	0.11
190929	03:51:37.49	38º 12.72′	112º 41.10′	5.4*	1.1	11	134	30	0.07
190929	09:09:01.82	41º 49.44′	112º 23.43′	3.6*	1.9W	21	82	13	0.12
190929	10:19:38.83	42º 14.12′	111º 31.27′	3.1*	2.5W	29	101	25	0.25
190929	12:36:56.07	38º 50.04′	111º 24.40′	0.5	2.1W	21	82	6	0.18
190929	17:14:12.72	40º 40.85′	111º 53.97′	2.1	1.0W	26	50	3	0.22
190930	00:42:04.21	38º 30.56′	112º 34.95′	3.4*	0.5	7	212	16	0.04
190930	17:44:21.50	36º 59.39′	113º 30.21′	10.6	1.4	7	210	11	0.04
190930	20:41:36.05	39º 50.14′	111º 35.46′	2.8*	1.4W	7	218	18	0.04

number of earthquakes = 437 M indicates moment magnitude

* indicates poor depth control W indicates Wood-Anderson data used for magnitude calculation

Table 3
UNIVERSITY OF UTAH REGIONAL/URBAN SEISMIC NETWORK
Operating Seismograph Stations
September 30, 2019

SEED Station	Location	SEED Channel	No. of Channels	Network Code	Latitude	Longitude	Elevation (meters)	Sensor	Digitizer	Telemetry	Sponsor
2272	Eastwood Elementary School Salt Lake City, UT	HN[ZEN]	3	NP	40° 41.98′	111° 47.62′	1515	EpiSensor	Basalt	Digital	NSMP, ANSS
2285	Liberty Park Salt Lake City, UT	HN[ZEN]	3	NP	40° 44.70′	111° 52.49′	1298	EpiSensor	Basalt	Digital	NSMP, ANSS
2286	Roosevelt Elementary School Salt Lake City, UT	HN[ZEN]	3	NP	40° 42.08′	111° 52.01′	1314	EpiSensor	Basalt	Digital	NSMP, ANSS
7202	Meadowbrook Golf Course Murray, UT	HN[ZEN]	3	NP	40° 40.93′	111° 55.36′	1293	EpiSensor	Basalt	Digital	NSMP, ANSS
7203	Bonneville Golf Course Salt Lake City, UT	HN[ZEN]	3	NP	40° 44.81′	111° 49.63′	1457	EpiSensor	Basalt	Digital	NSMP, ANSS
7208	SR 201/I-80 Bridge Array, Salt Lake City, UT	EN[ZEN]	3	NP	40° 43.38′	111° 54.43′	1291	EpiSensor	K2	Digital	NSMP, ANSS
7212	Annex Bldg., Weber State University, Ogden, UT	HN[ZEN]	3	NP	41° 11.75′	111° 56.50′	1422	EpiSensor	Basalt	Digital	NSMP, ANSS
7223	Dixie State College St. George, UT	HN[ZEN]	3	NP	37° 06.02′	113° 33.94′	815	EpiSensor	Etna	Digital	NSMP, ANSS
7224	Southern Utah University Cedar City, UT	HN[ZEN]	3	NP	37° 40.35′	113° 04.29′	1782	EpiSensor	Basalt	Digital	NSMP, ANSS
7225	City Maintenance Yard Beaver, UT	HN[ZEN]	3	NP	38° 17.01′	112° 38.32′	1808	EpiSensor	Etna	Digital	NSMP, ANSS
7226	UDOT IT Radio Shop Richfield, UT	HN[ZEN]	3	NP	38° 45.43′	112° 05.26′	1616	FBA23	Basalt	Digital	NSMP, ANSS
7227	City Maintenance Yard Gunnison, UT	HN[ZEN]	3	NP	39° 09.35′	111° 49.17′	1568	EpiSensor	Basalt	Digital	NSMP, ANSS
7228	Juab School District Nephi, UT	HN[ZEN]	3	NP	39° 43.27′	111° 49.49′	1576	EpiSensor	Basalt	Digital	NSMP, ANSS
7229	City Maintenance Shop Santaquin, UT	HN[ZEN]	3	NP	39° 58.35′	111° 47.58′	1520	EpiSensor	Etna	Digital	NSMP, ANSS

SEED Station	Location	SEED Channel	No. of Channels	Network Code	Latitude	Longitude	Elevation (meters)	Sensor	Digitizer	Telemetry	Sponsor
7232	City Parks & Recreation Office Tremonton, UT	HN[ZEN]	3	NP	41° 43.13′	112° 10.91′	1320	EpiSensor	Etna	Digital	NSMP, ANSS
AHID	Auburn, ID	BH[ZEN]	3	US	42° 45.92′	111° 06.02′	1960	*	*	Digital	USGS
ALP	Alpine Fire Station, Alpine, UT	EN[ZEN]	3	UU	40° 27.26′	111° 46.61′	1510	EpiSensor	Etna2	Digital	ANSS
ALT	Alta City Offices, Alta, UT	EN[ZEN]	3	UU	40° 35.42′	111° 38.25′	2635	Applied Mems	ANSS-130	Digital	ANSS
AMF	Tri-Cities Golf Course American Fork, UT	EN[ZEN]	3	UU	40° 24.11′	111° 47.27′	1445	EpiSensor	Basalt	Digital	ANSS
ANMO	Albuquerque, NM	BH[ZEN]	3	IU	34° 57.01′	106° 27.61′	1743	*	*	Digital	USGS
ARGU	Argyle Ridge, UT	EHZ	1	UU	39° 49.37′	110° 32.62′	2828	S13	PSN	Analog	Utah
ARUT	Antelope Range, UT	EHZ	1	UU	37° 47.28′	113° 26.42′	1646	L4C	PSN	Analog	Utah
AVE	Avenues, Salt Lake City, UT	EN[ZEN]	3	UU	40° 46.47′	111° 51.83′	1387	EpiSensor	Etna2	Digital	ANSS
B206	Canyon206bwy2008, Yellowstone, WY	EH[ZEN]	3	PB	44° 46.66′	110° 30.70′	2400	IESE-S2	Q330	Digital	PBO
B207	Madisn207bwy2007, Yellowstone, WY	EH[ZEN]	3	PB	44° 37.14′	110° 50.91′	2182	IESE-S2	Q330	Digital	PBO
B208	Lakejn208bwy2008, Yellowstone, WY	EH[ZEN]	3	PB	44° 33.61′	110° 24.09′	2406	IESE-S2	Q330	Digital	PBO
B944	Grantt944bwy2008, Yellowstone, WY	EH[ZEN]	3	PB	44° 23.38′	110° 32.63′	2365	IESE-S2	Q330	Digital	PBO
B945	Panthr944swy2008, Yellowstone, WY	EH[ZEN]	3	PB	44° 53.64′	110° 44.65′	2249	IESE-S2	Q330	Digital	PBO
B950	Norris950bwy2013, Yellowstone, WY	EH[ZEN]	3	PB	44° 42.77′	110° 40.71′	2328	IESE-S2	Q330	Digital	PBO
BCE	Book Cliffs East, UT	EHZ	1	UU	39° 36.79′	110° 24.51′	2666	L4C	Basalt	Digital	Utah
		EN[ZEN]	3					EpiSensor			
BCS	Brigham City Maintenance Shop Brigham City, UT	EN[ZEN]	3	UU	41° 30.71′	112° 01.98′	1303	EpiSensor	Etna2	Digital	ANSS
BCU	Brigham City, UT	EN[ZEN]	3	UU	41° 30.74′	111° 58.93′	1676	EpiSensor	Etna2	Digital	ANSS
BCW	Book Cliffs West, UT	EHZ	1	UU	39° 43.82′	110° 44.55′	2614	L4C	Basalt	Digital	Utah
		EN[ZEN]	3					EpiSensor			
BEI	Bear River Range, ID	EHZ	1	UU	42° 07.00′	111° 46.94′	1859	L4C	PSN	Analog	USGS
BES	Bates Elementary School Ogden, UT	EN[ZEN]	3	UU	41° 19.10′	111° 57.26′	1455	EpiSensor	K2	Digital	ANSS
BGMT	Barton Gulch, MT	EHZ	1	MB	45° 14.00′	112° 02.43′	2172	*	*	Analog	MBMT
BGU	Big Grassy Mountain, UT	EN[ZEN]	3	UU	40° 55.53′	113° 01.79′	1640	EpiSensor	Q330	Digital	ANSS
		HH[ZEN]	3					Trillium 120			
BHU	Blowhard Mountain, UT	EH[ZEN]	3	UU	37° 35.63′	112° 51.72′	3250	S13	PSN	Analog	Utah

SEED Station	Location	SEED Channel	No. of Channels	Network Code	Latitude	Longitude	Elevation (meters)	Sensor	Digitizer	Telemetry	Sponsor
BHUT	Beaver High School, UT	EN[ZEN]	3	UU	38° 16.61′	112° 38.42′	1799	PA-23	SMART-24	Digital	Utah
BMUT	Black Mountain, UT	EHZ	1	UU	41° 57.49′	111° 14.05′	2243	S13	PSN	Analog	USGS
BOZ	Bozeman, MT	BH[ZEN]	3	US	45° 38.82′	111° 37.78′	1589	*	*	Digital	USGS
BRPU	Butcher Ranch, Price, UT	HH[ZEN]	3	UU	39° 28.38′	110° 44.40′	1687	Trillium 240	Q330	Digital	Utah
		EN[ZEN]	3					EpiSensor			
BRWY	Blue Rim, WY	HH[ZEN]	3	UU	41° 37.32′	109° 30.19′	2098	Trillium 120	Centaur	Digital	Utah
BSS	Butlerville Substation Salt Lake City, UT	EN[ZEN]	3	UU	40° 37.45′	111° 49.37′	1411	EpiSensor	Etna2	Digital	ANSS
BSUT	Blindstream Canyon, Hanna, UT	HH[ZEN]	3	UU	40° 32.19′	110° 45.67′	3211	Trillium 120	Q330	Digital	Utah
		EN[ZEN]	3					EpiSensor			
BTU	Barney Top, UT	EHZ	1	UU	37° 45.34′	111° 52.46′	3235	S13	PSN	Analog	Utah
BW06	Boulder, WY	BH[ZEN]	3	US	42° 46.00′	109° 33.50′	2224	*	*	Digital	USGS
BYP	Brigham Young Park Salt Lake City, UT	EN[ZEN]	3	UU	40° 46.26′	111° 53.23′	1323	EpiSensor	Etna2	Digital	ANSS
BZMT	Bozeman Pass, MT	EHZ	1	MB	45° 38.89′	110° 47.80′	1905	*	*	Analog	MBMT
CAPU	Capitol, Salt Lake City, UT	EN[ZEN]	3	UU	40° 46.71′	111° 53.40′	1384	Applied Mems	ANSS-130	Digital	ANSS
CCPU	Cedar City Park, UT	EN[ZEN]	3	UU	38° 16.61′	112° 38.42′	1799	PA-23	SMART-24	Digital	Utah
CCUT	Cedar City, UT	HH[ZEN]	3	UU	37° 33.04′	113° 21.77′	2124	STS-2	ANSS-130	Digital	USGS
		EN[ZEN]	3					Applied Mems			
CFS	Copperton Fire Station, Copperton, UT	EN[ZEN]	3	UU	40° 33.96′	112° 05.61′	1654	EpiSensor	Etna2	Digital	ANSS
CHS	Copper Hills High School, West Jordan, UT	EN[ZEN]	3	UU	40° 35.68′	112° 01.03′	1460	EpiSensor	Etna2	Digital	ANSS
CMI	Centennial Mountains, ID	EHZ	1	RC	44° 30.99′	111° 37.05′	2267	L4C	*	Analog	BYU-I
COMI	Craters of the Moon, ID	EHZ	1	IE	43° 27.72′	113° 35.64′	1890	*	*	Digital	INL
COY	Coyote Canyon, Tooele Valley, UT	EN[ZEN]	3	UU	40° 39.56′	112° 14.34′	1572	EpiSensor	Etna2	Digital	ANSS
CRLU	Curley Ranch, La Sal, UT	EHZ	1	UU	38° 17.50′	109° 15.64′	2035	L4C	Basalt	Digital	Utah, USGS
		EN[ZEN]	3					Episensor			
CRMT	Chrome Mountain, MT	EHZ	1	MGB	45° 27.35′	110° 08.41′	2941	*	*	Analog	MBMT
CTU	Camp Tracy, UT	HH[ZEN]	3	UU	40° 41.55′	111° 45.02′	1731	Observer	ANSS-130	Digital	USGS
		EN[ZEN]	3					R147			
CVH	Cedar City, Canyon View High School, UT	EN[ZEN]	3	UU	37° 42.91′	113° 03.85′	1724	PA-23	SMART-24	Digital	Utah
CVRU	Castle Valley Ranch, Emery, UT	HH[ZEN]	3	UU	38° 55.06′	111° 10.30′	1912	STS-2	Q330	Digital	Utah
		EN[ZEN]	3					EpiSensor			

SEED Station	Location	SEED Channel	No. of Channels	Network Code	Latitude	Longitude	Elevation (meters)	Sensor	Digitizer	Telemetry	Sponsor
CWR	Coldwater Ranch, Paradise, UT	EN[ZEN]	3	UU	41° 34.90′	111° 46.89′	1837	EpiSensor	Etna2	Digital	ANSS
CWU	Camp Williams, UT	EHZ	1	UU	40° 26.75′	112° 06.13′	1945	L4C	PSN	Analog	USGS
DAU	Daniels Canyon, UT	EHZ	1	UU	40° 24.75′	111° 15.35′	2771	S13	PSN	Analog	USGS
DBD	Des Bee Dove, UT	EHZ	1	UU	39° 18.82′	111° 05.55′	2265	L4C	PSN	Analog	Utah
DCM	Dugout Coal Mine, UT	EHZ	1	UU	39° 41.70′	110° 35.00′	2537	L4C	Basalt	Digital	Utah
		EN[ZEN]	3					EpiSensor			
DCU	Deer Creek Reservoir, UT	EHZ	1	UU	40° 24.82′	111° 31.61′	1829	L4C	PSN	Analog	USGS
DOT	Utah Dept. of Transportation Region II Offices, Salt Lake City, UT	EN[ZEN]	3	UU	40° 43.61′	111° 57.65′	1282	Applied Mems	ANSS-130	Digital	ANSS
DUG	Dugway, UT	BH[ZEN]	3	US	40° 11.70′	112° 48.80′	1477	STS-2	Q330	Digital	USGS
DVCI	Devils Canyon, ID	HH[ZEN]	3	IE	44° 22.99′	114° 02.31′	1997	Trillium 120	Q330	Digital	INL
DWU	Dry Willow, UT	EHZ	1	UU	38° 06.32′	112° 59.85′	2270	S13	PSN	Analog	Utah
ECRI	Eagle Creek, ID	EHZ	1	IE	43° 03.24′	111° 22.26′	2086	*	*	Digital	INL
ECUT	Ebbs Canyon, Scipio, UT	HH[ZEN]	3	UU	39° 10.30′	112° 07.99′	2136	Trillium 120	Centaur	Digital	Utah
EKU	East Kanab, UT	EHZ	1	UU	37° 04.48′	112° 29.81′	1829	S13	PSN	Analog	Utah
ELE	East Layton Elementary School, East Layton, UT	EN[ZEN]	3	UU	41° 04.84′	111° 55.09′	1444	EpiSensor	Etna2	Digital	ANSS
ELK	Elko, NV	BH[ZEN]	3	US	40° 44.69′	115° 14.33′	2210	*	*	Digital	USGS
ELU	Electric Lake, UT	EHZ	1	UU	39° 38.41′	111° 12.23′	2970	L4C	PSN	Analog	Utah
EMF	Eagle Mountain Gas Tap, UT	EN[ZEN]	3	UU	40° 16.89′	111° 59.92′	1487	EpiSensor	Etna2	Digital	ANSS
EMU	Emma Park, UT	EH[ZEN]	3	UU	39° 48.84′	110° 48.92′	2268	S13	PSN	Analog	USGS
		EN[ZEN]	3					FBA23	K2	Digital	Utah
EOCU	EOC, State Capitol Campus, Salt Lake City, UT	EN[ZEN]	3	UU	40° 46.62′	111° 53.95′	1356	EpiSensor	Basalt	Digital	Utah
EPU	East Promontory, UT	EHZ	1	UU	41° 23.49′	112° 24.53′	1436	L4C	PSN	Analog	USGS
ETW	Elwood Town Hall, Elwood, UT	EN[ZEN]	3	UU	41° 40.15′	112° 08.53′	1305	EpiSensor	Etna2	Digital	ANSS
FLU	Fool′s Peak, UT	EHZ	1	UU	39° 22.69′	112° 10.29′	1951	18300	Basalt	Digital	USGS
		EN[ZEN]	3								
FLWY	Flagg Ranch, WY	BH[ZEN]	3	IW	44° 04.96′	110° 41.96′	2078	3ESP	RT-130	Digital	ANSS
FMC	FMC Mine, Green River, WY	HH[ZEN]	3	UU	41° 24.49′	109° 46.67′	1903	40T	RT-130	Digital	Utah
FOR1	Milford Southwest, UT	HH[ZEN]	3	UU	38° 22.13′	113° 05.63′	1642	Trillium 120	Centaur	Digital	Utah
FOR2	Blundell East, UT	HH[ZEN]	3	UU	38° 29.70′	112° 52.34′	1760	Trillium 120	Centaur	Digital	Utah
FOR3	Blundell North, UT	HH[ZEN]	3	UU	38° 30.80′	112° 52.85′	1699	Trillium 120	ANSS-130	Digital	Utah
		EN[ZEN]	3								
FOR4	Blundell West, UT	HH[ZEN]	3	UU	38° 29.92′	112° 53.79′	1657	Trillium 120	Centaur	Digital	Utah
FORB	Blundell, Power Plant, UT	EN[ZEN]	3	UU	38° 29.41′	112° 51.30′	1845	EpiSensor	Basalt	Digital	Utah

SEED Station	Location	SEED Channel	No. of Channels	Network Code	Latitude	Longitude	Elevation (meters)	Sensor	Digitizer	Telemetry	Sponsor
FORK	Blundell, UT	EH[Z12]	3	UU	38° 30.07′	112° 53.19′	1408	Omni-2400	Obsidian	Digital	Utah
		EN[Z12]	3					Silicon-ULN			
FORU	South Mineral Mountains, UT	HH[ZEN]	3	UU	38° 27.53′	112° 51.68′	1840	40T	ANSS-130	Digital	Utah
FORW	Milford Wind Farm, UT	EN[ZEN]	3	UU	38° 33.76′	112° 56.21′	1516	EpiSensor	Obsidian	Digital	Utah
FPU	Francis Peak, UT	EHZ	1	UU	41° 01.58′	111° 50.21′	2816	L4C	PSN	Analog	USGS
FSU	Fish Springs, UT	EHZ	1	UU	39° 43.35′	113° 23.48′	1487	18300	PSN	Analog	Utah
FTT	Fire Training Tower, Magna, UT	EN[ZEN]	3	UU	40° 41.16′	112° 04.99′	1381	EpiSensor	Etna2	Digital	ANSS
GAWY	Genesis Alkali Granger, WY	HH[ZEN]	3	UU	41° 44.43′	109° 51.13′	2011	Trillium 120	Centaur	Digital	Utah
GBI	Big Grassy Butte, ID	EHZ	1	IE	43° 59.22′	112° 03.78′	1541	*	*	Digital	INL
GCAZ	Grand Canyon, AZ	EHZ	1	AR	36° 03.51′	112° 11.02′	2072	*	*	Analog	NAU
GMO	Grantsville Maintenance Office, Grantsville, UT	EN[ZEN]	3	UU	40° 36.04′	112° 28.48′	1320	EpiSensor	Etna2	Digital	ANSS
GMU	Granite Mountain, UT	EH[ZEN]	3	UU	40° 34.53′	111° 45.79′	1829	S13	PSN	Analog	USGS
GRRI	Grays Lake, ID	EHZ	1	IE	42° 56.28′	111° 25.32′	2207	*	*	Digital	INL
GZU	Grizzly Peak, UT	EH[ZEN]	3	UU	41° 25.53′	111° 58.50′	2646	S13	PSN	Analog	USGS
HAFB	Hill Air Force Base, Hill AFB, UT	EN[ZEN]	3	UU	41° 07.07′	111° 58.55′	1471	EpiSensor	Etna2	Digital	Utah
HCSU	Hobble Creek, Springville, UT	EHZ	1	UU	40° 12.40′	111° 30.14′	1789	L4C	Basalt	Digital	Utah, USGS
		EN[ZEN]	3					EpiSensor			
HDU	Hyde Park, UT	EHZ	1	UU	41° 48.18′	111° 45.99′	1807	L4C	PSN	Analog	USGS
HEB	Heber, UT	EHZ	1	UU	40° 30.09′	111° 20.15′	1925	S13	PSN	Analog	Utah
HER	Herriman Fire Station Herriman, UT	EN[ZEN]	3	UU	40° 30.94′	112° 01.85′	1502	EpiSensor	Etna2	Digital	ANSS
HES	Hooper Elementary School Hooper, UT	EN[ZEN]	3	UU	41° 09.89′	112° 07.30′	1292	EpiSensor	K2	Digital	ANSS
HHAI	Hell′s Half Acre, ID	HH[Z12]	3	IE	43° 17.70′	112° 22.74′	1371	*	*	Digital	INL
HHS	Hurricane High School, UT	EN[ZEN]	3	UU	37° 10.43′	113° 17.74′	987	EpiSensor	Etna	Digital	Utah
HLID	Hailey, ID	BH[ZEN]	3	US	43° 33.75′	114° 24.83′	1772	*	*	Digital	USGS
HLJ	Hailstone, UT	EHZ	1	UU	40° 36.64′	111° 24.05′	1931	S13	PSN	Analog	Utah
		EN[ZEN]	3					FBA23	K2	Digital	
HMU	Henry Mountain, UT	HH[ZEN]	3	UU	37° 56.28′	110° 44.51′	2430	Trillium 120	Q330	Digital	Utah
		EN[ZEN]	3					EpiSensor			
HON	Honeyville, UT	EN[ZEN]	3	UU	41° 36.96′	112° 03.05′	1546	Applied Mems	ANSS-130	Digital	ANSS
HONU	Honeyville, UT	EHZ	1	UU	41° 36.90′	112° 03.00′	1515	L4C	PSN	Analog	USGS
HRU	Hogsback Ridge, UT	EHZ	1	UU	40° 47.67′	111° 53.14′	1620	Ranger	PSN	Analog	USGS
		EN[ZEN]	3					EpiSensor	Etna2	Digital	ANSS

SEED Station	Location	SEED Channel	No. of Channels	Network Code	Latitude	Longitude	Elevation (meters)	Sensor	Digitizer	Telemetry	Sponsor
HTU	Hoyt, UT	EHZ	1	UU	40° 40.52′	111° 13.21′	2576	L4C	PSN	Analog	USGS
		EHZ	1						Basalt	Digital	
		EN[ZEN]	3					Episensor			
HVU	Hansel Valley, UT	HH[ZEN]	3	UU	41° 46.78′	112° 46.50′	1609	Trillium 120	Q330	Digital	USGS
		EN[ZEN]	3					EpiSensor			
HWUT	Hardware Ranch, UT	BH[ZEN]	3	US	41° 36.41′	111° 33.91′	1830	*	*	Digital	USGS
IAE	Cedar City, Iron County Adult Education, UT	EN[ZEN]	3	UU	37° 39.91′	113° 40.02′	1807	EpiSensor	Etna	Digital	Utah
ICF	International Center Fire Station, Salt Lake City, UT	EN[ZEN]	3	UU	40° 46.69′	112° 01.72′	1281	EpiSensor	Etna2	Digital	ANSS
ICU	Indian Springs Canyon, UT	EHZ	1	UU	37° 08.98′	113° 55.41′	1451	S13	PSN	Analog	Utah
IMU	Iron Mountain, UT	EHZ	1	UU	38° 37.99′	113° 09.50′	1833	L4C	PSN	Analog	Utah
IMW	Indian Meadows, WY	BH[ZEN]	3	IW	43° 53.58′	110° 56.58′	2670	3ESP	RT-130	Digital	ANSS
ISCO	Idaho Springs, CO	BH[ZEN]	3	US	39° 47.98′	105° 36.80′	2743	STS-2	Q330	Digital	ANSS
JLU	Jordanelle, UT	EN[ZEN]	3	UU	40° 36.12′	111° 27.00′	2285	EpiSensor	ANSS-130	Digital	ANSS
		HH[ZEN]	3					3ESP			
JRP	Jordan River State Park Salt Lake City, UT	EN[ZEN]	3	UU	40° 49.54′	111° 56.66′	1284	EpiSensor	Etna2	Digital	ANSS
KEUT	Kanab Elementary School, UT	EN[ZEN]	3	UU	37° 03.02′	112° 31.76′	1514	PA-23	SMART-24	Digital	Utah
KLJ	Keetley, UT	EHZ	1	UU	40° 37.85′	111° 24.30′	1992	S13	PSN	Analog	Utah
KNB	Kanab, UT	HH[ZEN]	3	UU	37° 01.00′	112° 49.34′	1715	3T	ANSS-130	Digital	Utah. ANSS, LLNL
		EN[ZEN]	3					Episensor			
LCMT	Little Creek Mountain, UT	HH[ZEN]	3	UU	37° 00.71′	113° 14.63′	1411	3T	SMART-24	Digital	Utah
		EN[ZEN]	3					PA-23			
LCU	Little Cottonwood, UT	EN[ZEN]	3	UU	40° 34.41′	111° 47.91′	1571	EpiSensor	Etna2	Digital	ANSS
LDJ	Lady, UT	EHZ	1	UU	40° 34.89′	111° 24.52′	2217	S13	PSN	Analog	Utah
LEVU	Levan, UT	EHZ	1	UU	39° 30.39′	111° 48.88′	1996	L4C	Basalt	Digital	USGS
		EN[ZEN]	3					EpiSensor			
LGC	Lakeside Golf Course Bountiful, UT	EN[ZEN]	3	UU	40° 54.04′	111° 54.51′	1292	EpiSensor	Etna2	Digital	ANSS
LHUT	Little Humpy Peak, UT	EHZ	1	UU	40° 53.49′	110° 59.78′	3084	S13	PSN	Analog	Utah
LIUT	Lila Canyon, UT	HH[ZEN]	3	UU	39° 25.45′	110° 19.51′	2178	Trillium 120	Centaur	Digital	Utah
LKC	Lee Kay Hunter Education Center Magna, UT	EN[ZEN]	3	UU	40° 43.62′	112° 02.14′	1289	EpiSensor	Etna2	Digital	ANSS
LKWY	Lake, WY	BH[ZEN]	3	US	44° 33.91′	110° 24.00′	2424	*	*	Digital	USGS
LMUT	Lake Mountain, UT	EN[ZEN]	3	UU	40° 15.69′	111° 55.69′	2330	EpiSensor	K2	Digital	ANSS
LOHW	National Elk Refuge, WY	BH[ZEN]	3	IW	43° 36.76′	110° 36.30′	2245	3ESP	RT-130	Digital	ANSS
LRG	Logan River Golf Course Logan, UT	EN[ZEN]	3	UU	41° 42.82′	111° 51.08′	1362	EpiSensor	Etna2	Digital	ANSS

SEED Station	Location	SEED Channel	No. of Channels	Network Code	Latitude	Longitude	Elevation (meters)	Sensor	Digitizer	Telemetry	Sponsor
LSU	Lake Shores, UT	EN[ZEN]	3	UU	40° 07.94′	111° 43.80′	1375	EpiSensor	Etna2	Digital	ANSS
LTU	Little Mountain, UT	EHZ	1	UU	41° 35.51′	112° 14.83′	1585	L4C	PSN	Analog	USGS
		EHZ	1						Basalt	Digital	
		EN[ZEN]	3					EpiSensor			
MAB	Mapleton Ambulance Building Mapleton, UT	EN[ZEN]	3	UU	40° 07.85′	111° 34.67′	1440	EpiSensor	Etna2	Digital	ANSS
MCID	Moose Creek, ID	EHZ	1	WY	44° 11.45′	111° 11.03′	2137	L4C	PSN	Analog	USGS
MCU	Monte Cristo Peak, UT	EHZ	1	UU	41° 27.70′	111° 30.45′	2664	18300	PSN	Analog	USGS
MGCU	Grand County Courthouse, Moab, UT	EN[ZEN]	3	UU	38° 34.46′	109° 32.89′	1241	EpiSensor	K2	Digital	Utah
MHD	Mile High Drive, UT	EHZ	1	UU	40° 39.64′	111° 48.05′	1597	Ranger	Basalt	Digital	USGS
		EN[ZEN]	3					EpiSensor			
MID	Middle Canyon, UT	EN[ZEN]	3	UU	40° 31.04′	112° 15.28′	1722	EpiSensor	Etna2	Digital	ANSS
MLI	Malad Range, ID	EHZ	1	UU	42° 01.61′	112° 07.53′	1896	L4C	Basalt	Digital	USGS
		EN[ZEN]	3					EpiSensor			
MMU	Miners Mountain, UT	EHZ	1	UU	38° 11.57′	111° 17.66′	2387	S13	PSN	Analog	Utah
MOMT	Monida, MT	EHZ	1	MB	44° 35.60′	112° 23.66′	2220	*	*	Analog	MBMT
MOOW	Moose Ponds, WY	BH[ZEN]	3	IW	43° 44.92′	110° 44.69′	2128	3ESP	RT-130	Digital	ANSS
MOR	Morgan, UT	EN[ZEN]	3	UU	41° 02.77′	111° 39.94′	1633	Applied Mems	ANSS-130	Digital	ANSS
MOUT	Mount Ogden, UT	EHZ	1	UU	41° 11.94′	111° 52.73′	2743	S13	PSN	Analog	USGS
MPU	Maple Canyon, UT	EN[ZEN]	3	UU	40° 00.93′	111° 38.00′	1909	EpiSensor	ANSS-130	Digital	ANSS
		HH[ZEN]	3					3ESP			USGS
MSU	Marysvale, UT	EHZ	1	UU	38° 30.74′	112° 10.63′	2105	18300	PSN	Analog	Utah
MTPU	Mt. Pierson, UT	EN[ZEN]	3	UU	38° 02.49′	112° 11.06′	3112	EpiSensor	Q330	Digital	Utah
		HH[ZEN]	3					Trillium 120			
MTUT	Morton Thiokol, UT	EHZ	1	UU	41° 42.55′	112° 27.28′	1373	L4C	PSN	Analog	USGS
MVCO	Mesa Verde, CO	BH[ZEN]	3	US	37° 12.62′	108° 29.92′	2170	STS-2	Q330	Digital	ANSS
MVU	Marysvale, UT	BH[ZEN]	3	LB	38° 30.22′	112° 12.74′	2240	*	*	Digital	Sandia
NAI	North Antelope Island, UT	EN[ZEN]	3	UU	41° 00.97′	112° 13.68′	1472	EpiSensor	Etna2	Digital	ANSS
NAIU	North Antelope Island, UT	EHZ	1	UU	41° 00.97′	112° 13.68′	1472	L4C	PSN	Analog	USGS
NLU	North Lily Mine, UT	EN[ZEN]	3	UU	39° 57.29′	112° 04.50′	2036	Episensor	ANSS-130	Digital	ANSS
		HH[ZEN]	3					Trillium 120			
NMU	North Mineral Mountain, UT	EH[ZEN]	3	UU	38° 30.99′	112° 51.00′	1853	S13	PSN	Analog	Utah
NOQ	North Oquirrh Mountains, UT	EN[ZEN]	3	UU	40° 39.16′	112° 07.26′	1628	EpiSensor	K2	Digital	ANSS
		HH[ZEN]	3					Trillium 120	ANSS-130	Digital	USGS
NPI	North Pocatello, ID	EHZ	1	UU	42° 08.84′	112° 31.10′	1640	L4C	Basalt	Digital	ANSS
		EN[ZEN]	3					EpiSensor			
O20A	White River City, CO	BH[ZEN]	3	N4	40° 08.09′	108° 14.50′	1915	STS-2	Q330	Digital	NCF
OCP	Orem City Park, Orem, UT	EN[ZEN]	3	UU	40° 17.87′	111° 41.44′	1464	EpiSensor	Etna2	Digital	ANSS

SEED Station	Location	SEED Channel	No. of Channels	Network Code	Latitude	Longitude	Elevation (meters)	Sensor	Digitizer	Telemetry	Sponsor
OF2	Ogden Fire Station º 2 Ogden, UT	EN[ZEN]	3	UU	41° 13.70′	111° 56.92′	1358	EpiSensor	Etna2	Digital	ANSS
OPS	Ogden Public Safety Building, Ogden, UT	EN[ZEN]	3	UU	41° 13.72′	111° 58.54′	1317	EpiSensor	Etna2	Digital	ANSS
OSS	Oquirrh Sub Station, UT	EN[ZEN]	3	UU	40° 33.77′	112° 01.61′	1503	EpiSensor	Etna2	Digital	ANSS
OWUT	Old Woman Plateau, UT	EHZ	1	UU	38° 46.80′	111° 25.42′	2568	L4C	PSN	Analog	Utah
PCCW	Pine Creek, Cokeville, WY	EHZ	1	UU	42° 05.97′	110° 52.36′	1996	L4C	Basalt	Digital	Utah, USGS
		EN[ZEN]	3					EpiSensor			
PCL	Plain City Landfill Plain City, UT	EN[ZEN]	3	UU	41° 18.60′	112° 06.00′	1290	Applied Mems	ANSS-130	Digital	ANSS
PCR	Park City Recreation Center, Park City, UT	EN[ZEN]	3	UU	40° 39.25′	111° 30.19′	2100	EpiSensor	Etna2	Digital	ANSS
PEUT	Pahvant Elementary School, Richfield, UT	EN[ZEN]	3	UU	38° 46.55′	112° 05.32′	1644	PA-23	SMART-24	Digital	Utah
PGA	Page, AZ	EHZ	1	AR	36° 54.34′	111° 16.86′	1272	*	*	Analog	NAU
PGC	Pleasant Grove Creek, UT	EN[ZEN]	3	UU	40° 22.71′	111° 42.62′	1707	EpiSensor	K2	Digital	ANSS
PIO	Pioche, NV	HH[ZEN]	3	NN	37° 56.83′	114° 29.48′	1887	Trillium 120	Q330	Digital	UNR
PKCU	Pink Cliffs, UT	HH[ZEN]	3	UU	37° 26.63′	112° 18.66′	2834	Trillium 120	SMART-24	Digital	Utah
		EN[ZEN]	3					PA-23			
PNSU	Preston Nutter Ranch, Sunnyside, UT	HH[ZEN]	3	UU	39° 37.67′	110° 14.74′	2743	Trillium 240	Q330	Digital	Utah
		EN[ZEN]	3					EpiSensor			
PRN	Pahroc, Range, NV	HH[ZEN]	3	NN	37° 24.40′	115° 03.05′	1402	Trillium 120	ANSS-130	Digital	UNR
PSUT	Pine Spring, UT	HH[ZEN]	3	UU	38° 32.02′	113° 51.28′	1999	Trillium 120	Q330	Digital	Utah
		EN[ZEN]	3					EpiSensor			
PTI	Pocatello, ID	EHZ	1	IE	42° 52.20′	112° 22.21′	1670	*	*	Digital	INL
PTU	Portage, UT	EHZ	1	UU	41° 55.76′	112° 19.48′	2192	L4C	Basalt	Digital	ANSS
		EN[ZEN]	3					EpiSensor			
PV05	E. Island Mesa, Paradox Basin, CO	HH[ZEN]	3	RE	38° 08.87′	108° 50.08′	2142	*	*	Digital	USBR
PV11	Davis Mesa, Paradox Basin, CO	HH[ZEN]	3	RE	38° 17.96′	108° 52.33′	1881	*	*	Digital	USBR
PV15	Pinto Mesa, Paradox Basin, CO	HH[ZEN]	3	RE	38° 20.51′	108° 28.66′	2280	*	*	Digital	USBR
PV21	Cone Mountain, Paradox Basin, CO	HH[ZEN]	3	RE	38° 33.67′	108° 58.50′	2235	*	*	Digital	USBR
Q12A	Willow Creek Ranch, Ely, NV	HH[ZEN]	3	NN	39° 02.40′	114° 19.88′	1625	Trillium 120	Q330	Digital	UNR
QBHW	Bridle Trail Rd, Draper, UT	HN[ZEN]	3	UU	40° 30.23′	111° 51.35′	1400	Gsig-AC63	Gsig-GMS	Digital	ANSS
QCSP	White Pine Dr., Tooele, UT	HN[ZEN]	3	UU	40° 32.75′	112° 16.56′	1538	Gsig-AC63	Gsig-GMS	Digital	ANSS
QCWC	E 2100 S, Salt Lake City, UT	HN[ZEN]	3	UU	40° 43.54′	111° 49.94′	1373	Gsig-AC63	Gsig-GMS	Digital	ANSS
QDPS	Dept of Public Safety Univ. of Utah, Salt Lake City, UT	HN[ZEN]	3	UU	40° 45.60′	111° 50.46′	1460	Gsig-AC63	Gsig-GMS	Digital	ANSS
QFTG	N 450 E St., Springville, UT	HN[ZEN]	3	UU	40° 10.42′	111° 36.12′	1395	Gsig-AC63	Gsig-GMS	Digital	ANSS
QJHW	Red Rock Ranch, Teton County, WY	HN[ZEN]	3	UU	43° 34.99′	110° 24.65′	2169	Gsig-AC63	Gsig-GMS	Digital	ANSS

SEED Station	Location	SEED Channel	No. of Channels	Network Code	Latitude	Longitude	Elevation (meters)	Sensor	Digitizer	Telemetry	Sponsor
QJMH	S 900 E, Salt Lake City, UT	HN[ZEN]	3	UU	40° 42.21′	111° 51.97′	1312	Gsig-AC63	Gsig-GMS	Digital	ANSS
QJOT	Whileaway Rd., Snyderville, UT	HN[ZEN]	3	UU	40° 44.50′	111° 41.68′	1977	Gsig-AC63	Gsig-GMS	Digital	ANSS
QKSL2	Lehi, UT	HN[ZEN]	3	UU	40° 15.98′	111° 50.07′	1371	Gsig-AC63	Gsig-GMS	Digital	ANSS
QLIN	884 E 490 N, Lindon, UT	HN[ZEN]	3	UU	40° 20.83′	111° 29.63′	1538	Gsig-AC63	Gsig-GMS	Digital	ANSS
QLMT	Earthquake Lake, MT	EHZ	1	MB	44° 49.84′	111° 25.80′	2064	*	*	Analog	MBMT
QMDS	S 2600 E, Salt Lake City, UT	HN[ZEN]	3	UU	40° 43.74′	111° 48.97′	1405	Gsig-AC63	Gsig-GMS	Digital	ANSS
QNRL	E 500 N, Logan, UT	HN[ZEN]	3	UU	40° 44.44′	111° 49.49′	1407	Gsig-AC63	Gsig-GMS	Digital	ANSS
QOGD	1723 N 900 E, North Ogden, UT	HN[ZEN]	3	UU	41° 17.38′	111° 57.11′	1361	Gsig-AC63	Gsig-GMS	Digital	ANSS
QPAY	N 300 E Payson, UT	HN[ZEN]	3	UU	40° 03.18′	111° 43.70′	1404	Gsig-AC63	Gsig-GMS	Digital	ANSS
QPML	S Whitesides St., Layton, UT	HN[ZEN]	3	UU	40° 03.47′	111° 57.23′	1334	Gsig-AC63	Gsig-GMS	Digital	ANSS
QRJG	N 1450 E, Provo, UT	HN[ZEN]	3	UU	40° 15.65′	111° 37.96′	1530	Gsig-AC63	Gsig-GMS	Digital	ANSS
QSAR2	Saratoga Springs, UT	HN[ZEN]	3	UU	40° 20.17′	111° 55.43′	1420	Gsig-AC63	Gsig-GMS	Digital	ANSS
QSPA	520 S, Spanish Fork, UT	HN[ZEN]	3	UU	40° 17.47′	111° 52.95′	1413	Gsig-AC63	Gsig-GMS	Digital	ANSS
QSTV	S City Vistas Way, Kearns, UT	HN[ZEN]	3	UU	40° 40.25′	112° 02.18′	1416	Gsig-AC63	Gsig-GMS	Digital	ANSS
QSUN	1412 N 350 W, Sunset, UT	HN[ZEN]	3	UU	41° 08.04′	112° 01.97′	1373	Gsig-AC63	Gsig-GMS	Digital	ANSS
QUGS	240 N Redwood Road, SLC, UT	HN[ZEN]	3	UU	40° 46.45′	111° 56.32′	1300	Gsig-AC63	Gsig-GMS	Digital	ANSS
R11B	Troy Canyon, Currant, NV	HH[ZEN]	3	NN	38° 20.93′	115° 35.12′	1756	STS-5A	Q330	Digital	UNR
RBU	Red Butte Canyon, UT	EHZ	1	UU	40° 46.85′	111° 48.50′	1676	L4C	Basalt	Digital	USGS
		EN[ZEN]	3					EpiSensor			
RCJ	Ross Creek, UT	EHZ	1	UU	40° 39.51′	111° 26.36′	2090	S13	PSN	Analog	Utah
RDMU	Red Mountain, UT	HH[ZEN]	3	UU	40° 34.25′	109° 34.17′	2087	Trillium 120	SMART-24	Digital	Utah
		EN[ZEN]	3					PA-23			
REDW	Red-Top Meadows, WY	BH[ZEN]	3	IW	43° 21.74′	110° 51.18′	2322	3ESP	RT-130	Digital	ANSS
REUT	Washington Fields, Riverside Elementary School, UT	EN[ZEN]	3	UU	37° 05.86′	113° 31.16′	791	PA-23	SMART-24	Digital	Utah
ROA	Roan Cliffs, UT	EHZ	1	UU	39° 39.69′	110° 21.88′	2962	S13	PSN	Analog	Utah
RPF	Rose Park Fire Station, Salt Lake City, UT	EN[ZEN]	3	UU	40° 46.52′	111° 55.22′	1287	Applied Mems	ANSS-130	Digital	ANSS
RRCU	Rees Ranch, Coalville, UT	EHZ	1	UU	40° 53.21′	111° 26.22′	2028	L4C	Basalt	Digital	Utah, USGS
		EN[ZEN]	3					EpiSensor			
RSUT	Red Spur, UT	EHZ	1	UU	41° 38.31′	111° 25.90′	2682	S13	Basalt	Digital	USGS
		EN[ZEN]	3					EpiSensor			
RWWY	Rawlins, WY	BH[ZEN]	3	IW	41° 41.33′	107° 12.61′	2402	3ESP	RT-130	Digital	ANSS
SAIU	South Antelope Island, UT	EHZ	1	UU	40° 51.29′	112° 10.89′	1384	L4C	PSN	Analog	USGS
		EHZ	1						Basalt	Digital	
		EN[ZEN]	3					EpiSensor			
SCC	Salt Lake Community College, SLC UT Salt Lake City, UT	EN[ZEN]	3	UU	40° 40.49′	111° 56.37′	1306	EpiSensor	Etna2	Digital	ANSS
SCS	Syracuse City Cemetery Shop	EN[ZEN]	3	UU	41° 05.73′	112° 02.81′	1321	EpiSensor	K2	Digital	ANSS

SEED Station	Location	SEED Channel	No. of Channels	Network Code	Latitude	Longitude	Elevation (meters)	Sensor	Digitizer	Telemetry	Sponsor
	Syracuse, UT										
SCUT	Santa Clara, UT	EN[ZEN]	3	UU	37° 07.69′	113° 38.68′	837	EpiSensor	Etna	Digital	Utah
SCY	Salem City Yard, Salem, UT	EN[ZEN]	3	UU	40° 03.47′	111° 41.14′	1386	Applied Mems	ANSS-130	Digital	ANSS
SGSU	St. George Fire Station #4, UT	EN[ZEN]	3	UU	38° 16.61′	112° 38.42′	1799	PA-23	SMART-24	Digital	Utah
SGU	Sterling, UT	EHZ	1	UU	39° 10.94′	111° 38.68′	2357	18300	PSN	Analog	USGS
SHP	Sheep Range, NV	HH[ZEN]	3	NN	36° 30.33′	115° 09.61′	1590	Trillium 120	ANSS-130	Digital	UNR
SJF	South Jordan Fire Station, South Jordan, UT	EN[ZEN]	3	UU	40° 33.37′	111° 56.34′	1356	Applied Mems	ANSS-130	Digital	ANSS
SMAZ	Slide Mountain, AZ	EHZ	1	AR	36° 19.29′	113° 10.14′	2200	*	*	Analog	NAU
SNO	Snow College, UT	EHZ	1	UU	39° 19.18′	111° 32.33′	2503	Ranger	PSN	Analog	Utah
SNOW	Snowking Mountain, WY	BH[ZEN]	3	IW	43° 27.75′	110° 45.31′	2390	3ESP	RT-130	Digital	ANSS
SNUT	Stansbury North, UT	EHZ	1	UU	40° 53.10′	112° 30.52′	1652	18300	PSN	Analog	USGS
		EHZ	1						Basalt	Digital	
		EN[ZEN]	3					EpiSensor			
SPR	Wildlife Resource Center Springville, UT	EN[ZEN]	3	UU	40° 10.94′	111° 36.71′	1379	EpiSensor	K2	Digital	ANSS
SPR3	Spring Creek 3, NV	HH[ZEN]	3	NN	38° 59.93′	114° 19.88′	2815	Trillium 120	RT-130	Digital	UNR
SPS	Stansbury Park Sewage Lagoon Stansbury Park, UT	EN[ZEN]	3	UU	40° 38.97′	112° 18.95′	1293	EpiSensor	Etna2	Digital	ANSS
SPU	South Promontory Point, UT	EN[ZEN]	3	UU	41° 18.52′	112° 26.95′	2086	EpiSensor	ANSS-130	Digital	ANSS
		HH[ZEN]	3					3ESP			
SRU	San Rafael Swell, UT	EHZ	1	UU	39° 06.65′	110° 31.43′	1804	S13	PSN	Analog	Utah, ANSS, IRIS
		HH[ZEN]	3					STS-2	ANSS-130	Digital	
		EN[ZEN]	3					EpiSensor			
SSC	Sandy Senior Center Sandy, UT	EN[ZEN]	3	UU	40° 34.89′	111° 51.35′	1414	EpiSensor	Etna2	Digital	ANSS
SUU	Santaquin Canyon, UT	EHZ	1	UU	39° 53.29′	111° 47.45′	2024	18300	PSN	Analog	USGS
SVWY	Solvay Mine, WY	HH[ZEN]	3	UU	41° 27.02′	109° 51.88′	1950	Trillium 120	Centaur	Digital	Utah
SWUT	Soap Wash, Delta, UT	EN[ZEN]	3	UU	39° 19.72′	113° 11.72′	1644	EpiSensor	Q330	Digital	Utah
		HH[ZEN]	3					Trillium 120			
SZCU	Shurtz Canyon, UT	HH[ZEN]	3	UU	37° 35.72′	113° 05.25′	2026	3T	SMART-24	Digital	Utah
		EN[ZEN]	3					PA-23			
TCMU	Timpanogos Cave Mouth, UT	EHZ	1	UU	40° 26.26′	111° 42.71′	2045	L4C	Basalt	Digital	Utah
		EN[ZEN]	3					EpiSensor			
TCRU	Three Creeks Reservoir, UT	HH[ZEN]	3	UU	38° 36.57′	112° 26.83′	2293	Trillium 120	SMART-24	Digital	Utah
		EN[ZEN]	3					PA-23			
TCU	Toone Canyon, UT	EN[ZEN]	3	UU	41° 07.04′	111° 24.47′	2269	EpiSensor	ANSS-130	Digital	ANSS
		HH[ZEN]	3					3ESP			

SEED Station	Location	SEED Channel	No. of Channels	Network Code	Latitude	Longitude	Elevation (meters)	Sensor	Digitizer	Telemetry	Sponsor
TCUT	Toone Canyon, UT	EHZ	1	UU	41° 07.07′	111° 24.51′	2320	L4C	PSN	Analog	USGS
TMI	Taylor Mountain, ID	EHZ	1	IE	43° 18.30′	111° 55.08′	2179	*	*	Digital	INL
TMU	Trail Mountain, UT	HH[ZEN]	3	UU	39° 17.79′	111° 12.49′	2731	Observer	ANSS-130	Digital	Utah, ANSS
		EN[ZEN]	3					EpiSensor			
TPAW	Teton Pass, WY	BH[ZEN]	3	IW	43° 29.41′	110° 57.04′	2512	3ESP	RT-130	Digital	ANSS
TPH	Tonopah, NV	BH[ZEN]	3	LB	38° 04.50′	117° 13.35′	1883	3ESP	Q330	Digital	Sandia
TPMT	Teepe Creek, MT	EHZ	1	MB	44° 43.79′	111° 39.94′	2518	*	*	Analog	MBMT
TPNV	Topopah Spring, NV	BH[ZEN]	3	US	36° 56.93′	116° 14.97′	1600	*	*	Digital	USGS
TPU	Thanksgiving Point, Lehi, UT	EN[ZEN]	3	UU	40° 25.81′	111° 54.13′	1383	EpiSensor	Etna2	Digital	ANSS
TRS	Tooele County Radio Shop, Tooele, UT	EN[ZEN]	3	UU	40° 30.83′	112° 18.63′	1568	EpiSensor	Etna2	Digital	ANSS
U15A	North Rim, AZ	BH[ZEN]	3	AE	36° 25.80′	112° 17.40′	2489	Trillium 240	Q330	Digital	AZGS
UHP	Utah Highway Patrol Farmington, UT	EN[ZEN]	3	UU	40° 59.47′	111° 53.88′	1295	EpiSensor	Etna2	Digital	ANSS
UTH	Uintah Town Hall, Uintah, UT	EN[ZEN]	3	UU	41° 08.65′	111° 55.52′	1389	EpiSensor	Etna2	Digital	ANSS
UUE	University of Utah EMCB Bldg. Salt Lake City, UT	EN[ZEN]	3	UU	40° 46.09′	111° 50.77′	1449	EpiSensor	Etna2	Digital	ANSS
V12A	Nelson, NV	HH[ZEN]	3	NN	35° 44.00′	114° 51.07′	1098	Trillium 120	Q330	Digital	UNR
VEC	Valley Emergency Communications Center West Valley City, UT	EN[ZEN]	3	UU	40° 39.21′	112° 01.95′	1480	EpiSensor	Basalt	Digital	ANSS
VNL	Vernal, UT	EN[ZEN]	3	UU	40° 27.48′	109° 32.89′	1648	EpiSensor	Obsidian	Digital	Utah
VRUT	Veyo Road, Veyo, UT	HH[ZEN]	3	UU	37° 27.71′	113° 51.41′	1874	Trillium 120	SMART-24	Digital	Utah
		EN[ZEN]	3					PA-23			
W13A	Hualapai Mountain Park, Kingman, AZ	BH[ZEN]	3	AE	35° 06.00′	113° 53.40′	1988	3T	Q330	Digital	AZGS
WBC	Weber Canyon, UT	EN[ZEN]	3	UU	41° 08.38′	111° 54.05′	1602	EpiSensor	Etna2	Digital	ANSS
WCF	Wellsville Fire Station, Wellsville, UT	EN[ZEN]	3	UU	41° 38.37′	111° 55.94′	1387	EpiSensor	Etna2	Digital	ANSS
WCO	Washington City Office Building, UT	EN[ZEN]	3	UU	37° 07.91′	113° 30.56′	837	EpiSensor	Etna	Digital	Utah
WCU	Willow Creek, UT	EHZ	1	UU	38° 57.88′	112° 05.44′	2673	18300	PSN	Analog	USGS
		EHZ	1						Basalt	Digital	
		EN[ZEN]	3					EpiSensor			
WDO	Saint George, Washington County School District Office, UT	EN[ZEN]	3	UU	37° 06.46′	113° 35.19′	831	PA-23	SMART-24	Digital	Utah
WES	Westminster College Salt Lake City, UT	EN[ZEN]	3	UU	40° 43.97′	111° 51.26′	1341	EpiSensor	Etna2	Digital	ANSS
WHS	West High School, SLC UT Salt Lake City, UT	EN[ZEN]	3	UU	40° 46.51′	111° 53.93′	1301	EpiSensor	Etna2	Digital	ANSS
WMUT	West Mountain, UT	EHZ	1	UU	40° 04.60′	111° 50.00′	1981	L4C	PSN	Analog	USGS

SEED Station	Location	SEED Channel	No. of Channels	Network Code	Latitude	Longitude	Elevation (meters)	Sensor	Digitizer	Telemetry	Sponsor
		EHZ	1						Basalt	Digital	
		EN[ZEN]	3					EpiSensor			
WPUT	Wasatch Plateau, UT	HH[ZEN]	3	UU	38° 59.85′	111° 21.53′	2618	Trillium 120	Taurus	Digital	Utah
WRP	Water Reclamation Plant Salt Lake City, UT	EN[ZEN]	3	UU	40° 48.82′	111° 55.87′	1286	EpiSensor	Etna2	Digital	ANSS
WTNK	7433 Soaring Heights, NV	HH[ZEN]	3	NN	36° 11.50′	115° 00.64′	676	3ESP	ANSS-130	Digital	UNR
WTU	Western Traverse Mountains, UT	EH[ZEN]	3	UU	40° 27.29′	111° 57.21′	1552	S13	PSN	Analog	USGS
		EN[ZEN]	3					Applied Mems	ANSS-130	Digital	
WUAZ	Wupatki, AZ	BH[ZEN]	3	US	35° 31.01′	111° 22.43′	1592	*	*	Digital	USGS
WVUT	Wellsville, UT	EHZ	1	UU	41° 36.61′	111° 57.55′	1828	L4C	PSN	Analog	USGS
YDC	Denny Creek, MT	EHZ	1	WY	44° 42.51′	111° 14.60′	2025	L4C	PSN	Analog	USGS
YDD	Grant Junction, Yellowstone, WY	HH[ZEN]	3	WY	44° 24.00′	110° 34.80′	2400	STS-2	Q330	Digital	USGS
		EN[ZEN]	3					Episensor			
YEE	East Entrance (YNP), WY	HH[ZEN]	3	WY	44° 29.12′	109° 53.81′	2270	Compact	Taurus	Digital	USGS
YFT	Old Faithful (YNP), WY	HH[ZEN]	3	WY	44° 27.05′	110° 50.24′	2292	Compact	Centaur	Digital	USGS
		EN[ZEN]	3					Titan			
YGC	Grayling Creek, MT	EHZ	1	WY	44° 47.77′	111° 06.45′	2075	L4C	PSN	Analog	USGS
YHB	Horse Butte, MT	EHZ	1	WY	44° 45.07′	111° 11.71′	2157	L4C	PSN	Analog	USGS
		HH[ZEN]	3					Compact	ANSS-130	Digital	
		EN[ZEN]	3					Titan			
YHH	Holmes Hill (YNP), WY	EHZ	1	WY	44° 47.30′	110° 51.03′	2717	S13	PSN	Analog	USGS
		HH[ZEN]	3					Trillium 120	Q330	Digital	
		EN[ZEN]	3					Titan			
YHL	Hebgen Lake, MT	HH[ZEN]	3	WY	44° 51.05′	111° 10.98′	2691	Trillium 120	Q330	Digital	USGS
		EN[ZEN]	3					Titan			
YHR	Hawk's Rest, WY	HH[ZEN]	3	WY	44° 06.36′	110° 04.90′	2976	Trillium 120	Q330	Digital	USGS
YJC	Joseph′s Coat (YNP), WY	EH[ZEN]	3	WY	44° 45.33′	110° 20.95′	2684	S13	PSN	Analog	USGS
YLA	Lake Butte (YNP), WY	EHZ	1	WY	44° 30.76′	110° 16.12′	2580	L4C	PSN	Analog	USGS
YLT	Little Thumb Creek (YNP), WY	EHZ	1	WY	44° 26.25′	110° 35.28′	2439	L4C	PSN	Analog	USGS
YMC	Maple Creek (YNP), WY	EH[ZEN]	3	WY	44° 45.53′	111° 00.41′	2073	S13	PSN	Analog	USGS
YML	Mary Lake (YNP), WY	EH[ZEN]	3	WY	44° 36.20′	110° 38.63′	2653	L4C	PSN	Analog	USGS
YMP	Mirror Plateau (YNP), WY	EHZ	1	WY	44° 44.38′	110° 09.40′	2774	S13	PSN	Analog	USGS
		HH[ZEN]	3					Trillium 120	Q330	Digital	
		EN[ZEN]	3					Titan			
YMR	Madison River (YNP), WY	HH[ZEN]	3	WY	44° 40.12′	110° 57.90′	2149	Trillium 120	Q330	Digital	USGS
		EN[ZEN]	3					Titan			
YMS	Mount Sheridan (YNP), WY	EHZ	1	WY	44° 15.84′	110° 31.67′	3106	L4C	PSN	Analog	USGS
YMV	Mammoth Vault (YNP), WY	EHZ	1	WY	44° 58.42′	110° 41.33′	1829	L4C	PSN	Analog	USGS

SEED Station	Location	SEED Channel	No. of Channels	Network Code	Latitude	Longitude	Elevation (meters)	Sensor	Digitizer	Telemetry	Sponsor
YNE	Northeast Entrance (YNP), WY	HH[ZEN]	3	WY	45° 00.46′	110° 00.48′	2343	Compact	ANSS-130	Digital	USGS
YNM	Norris Museum (YNP), WY	HH[ZEN]	3	WY	44° 43.59′	110° 42.22′	2311	Trillium 240	Q330	Digital	USGS
YNR	Norris Junction (YNP), WY	HH[ZEN]	3	WY	44° 42.93′	110° 40.75′	2336	Trillium 120	Q330	Digital	USGS
		EN[ZEN]	3					Titan			
YPC	Pelican Cone (YNP), WY	EHZ	1	WY	44° 38.88′	110° 11.55′	2932	L4C	PSN	Analog	USGS
YPK	Parker Peak (YNP), WY	EH[ZEN]	3	WY	44° 43.91′	109° 55.32′	2897	L4C	PSN	Analog	USGS
YPM	Purple Mountain (YNP), WY	EHZ	1	WY	44° 39.43′	110° 52.12′	2582	L4C	PSN	Analog	USGS
YPP	Pitchstone Plateau (YNP), WY	EHZ	1	WY	44° 16.26′	110° 48.27′	2707	S13	PSN	Analog	USGS
		HH[ZEN]	3					Trillium 120	Q330	Digital	
		EN[ZEN]	3					Titan			
YSB	Soda Butte (YNP), WY	EHZ	1	WY	44° 53.04′	110° 09.06′	2072	L4C	PSN	Analog	USGS
YTP	The Promontory (YNP), WY	EHZ	1	WY	44° 23.51′	110° 17.10′	2384	L4	PSN	Analog	USGS
		HH[ZEN]	3					Trillium 120	Q330	Digital	
		EN[ZEN]	3					Titan			
YUF	Upper Falls (YNP), WY	HH[ZEN]	3	WY	44° 42.76′	110° 30.71′	2394	Compact	ANSS-130	Digital	USGS
		EN[ZEN]	3					Titan			
YWB	West Boundary (YNP), WY	EHZ	1	WY	44° 36.35′	111° 06.05′	2310	L4C	PSN	Analog	USGS
ZNPU	Zion National Park, UT	HH[ZEN]	3	UU	37° 21.37′	113° 07.52′	1953	Trillium 120	Q330	Digital	Utah

* Station operated by another agency and recorded as part of University of Utah regional seismic network

Network Statistics: 984 data channels from 315 stations were being recorded at the end of this report period

EXPLANATION OF TABLE

UURSN Code: Station code formerly used in routine processing. Because of software limitations, the station code may not be the station code used by the original operator. For multi-component stations, the vertical, east-west, and north-south high gain (low gain) components are identified by an appended Z(V), E(L), and N(M), respectively, in UUSS phase files.

Location: General description of station location. YNP = Yellowstone National Park.

SEED Station: The SEED (Standard for the Exchange of Earthquake Data) station code used by the original operator.

SEED Channel: The SEED format uses three letters to name seismic channels. See <<http://www.iris.edu/manuals/SEEDManual_V2.4.pdf>> for information about the SEED channel naming convention. Relevant sections are reproduced below. In the SEED convention, each letter describes one aspect of the instrumentation and its digitization. The first letter specifies the general sampling rate and the response band of the instrument. Band codes used in this table include:

Band Code	Band Type	Sample Rate	Corner Period
E	Extremely short period	≥ 80 Hertz	< 10 seconds
H	High broadband	≥ 80 Hertz	≥ 10 seconds
B	Broadband	≥ 10 to < 80 Hertz	≥10 seconds
S	Short period	≥ 10 to < 80 Hertz	< 10 seconds

The second letter specifies the family to which the sensor belongs. Sensor families used in this table are:

Instrument Code	Description
H	High gain seismometer
L	Low gain seismometer
N	Accelerometer

The third letter specifies the physical configuration of the members of a multiple axis instrument package. Channel orientations used in this table are:

Z E N	Traditional (Vertical, East-West, North-South)

Number of Channels: Total number of waveform channels recorded.

Network Code: The FDSN (Federation of Digital Seismographic Networks) registered network code. See <<http://www.iris.edu/dms/nodes/dmc/services/network_codes>> for information about registered seismograph network codes. Network codes referenced in this table:

Network Code	Network name; Network operator or responsible organization
AE	Arizona Broadband Seismic Network, Arizona Geological Survey
AR	Northern Arizona Seismic Network, Northern Arizona University
IE	Idaho National Laboratory Seismic Network

IU	IRIS/USGS Network; USGS Albuquerque Seismological Laboratory
IW	Intermountain West Network, U.S. Geological Survey
LB	Leo Brady Network; Sandia National Laboratory
MB	Montana Regional Seismic Network; Montana Bureau of Mines and Geology
NN	Western Great Basin Network; University of Nevada, Reno
NP	National Strong Motion Network; U.S. Geological Survey
PB	Plate Boundary Observatory
RE	U.S. Bureau of Reclamation Seismic Networks; U.S. Bureau of Reclamation, Denver Federal Center
UU	University of Utah Regional Network; University of Utah
US	US National Network; USGS National Earthquake Information Center
WY	Yellowstone Wyoming Seismic Network; University of Utah

Latitude, Longitude: Sensor location in degrees and decimal minutes; North latitude, West longitude.

Elevation: Sensor altitude in meters above sea level.

Sensor	**Description**
L4, L4C	Mark Products L4 or L4C short-period seismometer
S13, 18300	Geotech S13 or 18300 short-period seismometer
Ranger	Kinemetrics Ranger short-period seismometer
40T	Guralp CMG-40T broadband seismometer
3T	Guralp CMG-3T broadband seismometer
3ESP	Guralp CMG-3ESP broadband seismometer
STS-2	Streckheisen STS-2 broadband seismometer
STS-5A	Streckheisen STS-5A broadband seismometer
FBA23	Kinemetrics FBA-23 accelerometer
EpiSensor	Kinemetrics EpiSensor accelerometer
Applied Mems	Applied Mems accelerometer
PA-23	Geotech PA-23 accelerometer
Compact	Nanometrics Compact broadband seismometer
Trillium 120	Nanometrics Trillium 120 broadband seismometer
Trillium 240	Nanometrics Trillium 240 broadband seismometer
Titan	Nanometrics Titan accelerometer
Observer	Refraction Technology (REF TEK) Model 151 Observer broadband seismometer
R147	Refraction Technology (REF TEK) Model 147 accelerometer
IESE-S2	Institute of Earth Science and Engineering S-2 model borehole seismometer
Gsig-AC63	Geosig-AC63 NetQuakes accelerometer
Omni-2400	Geospace OMNI-2400
Silicon-ULN	Silicon Audio Ultra Low Noise

Digitizer	**Description**
K2	Kinemetrics Altus Series K2 (19-bit resolution field digitizer)
Etna	Kinemetrics Altus Series Etna (18-bit resolution field digitizer)
72A-07	Refraction Technology (REF TEK) model 72A-07 (24-bit field digitizer)

72A-08	Refraction Technology (REF TEK) model 72A-08 (24-bit field digitizer)
ANSS-130	Refraction Technology (REF TEK) model 130-ANSS/02 (24-bit resolution field digitizer)
RT-130	Refraction Technology (REF TEK) model RT-130 (24-bit resolution field digitizer)
Q330	Quanterra, Inc. Q330 digitizer (24-bit resolution field digitizer)
SMART-24	Geotech SMART-24 digitizer (24-bit resolution field digitizer)
PSN	PSN-ADC-SERIAL version III (16-bit resolution field digitizer)
Basalt	Kinemetrics Basalt (24-bit resolution field digitizer)
Taurus	Nanometrics Taurus (24-bit resolution field digitizer)
Gsig-GMS	Geosig-GMS NetQuakes (24-bit resolution field digitizer)
Centaur	Nanometrics Centaur (24-bit resolution field digitizer)
Obsidian	Kinemetrics Obsidian (24-bit resolution field digitizer)
Etna2	Kinemetrics Etna 2 (24-bit resolution field digitizer)

Telemetry	**Description**
Analog	Data transmission is analog along part of the transmission pathway
Digital	Data are converted to digital form at the station site
None	On-site recording system

Sponsor (or Operator for stations marked by * in preceding columns)

USGS	U.S. Geological Survey
Utah	State of Utah
ANSS	Advanced National Seismic System
INL	Idaho National Laboratory
USBR	U.S. Bureau of Reclamation
LLNL	Lawrence Livermore National Laboratory
Sandia	Sandia National Laboratory
BYU-I	Brigham Young University, Idaho (formerly Ricks College)
MBMT	Montana Bureau of Mines and Geology
NSMP	National Strong Motion Project, U.S. Geological Survey
UNR	University of Nevada, Reno
AZGS	Arizona Geological Survey
NAU	Northern Arizona University
NSF	National Science Foundation
PBO	Plate Boundary Observatory

NETWORK CHANGES DURING JULY 1–SEPTEMBER 30, 2019

NONE