

EARTHQUAKE ACTIVITY IN THE UTAH REGION

Preliminary Epicenters

October 1 – December 31, 2012

Prepared by the University of Utah Seismograph Stations and funded by
the U.S. Geological Survey (Cooperative Agreement No. G10AC00085) and
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February 27, 2013

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. $36^{\circ} 45' - 42^{\circ} 30'$ N, long. $108^{\circ} 45' - 114^{\circ} 15'$ 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 (yyymmdd) 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 through 02:00 (2:00 a.m.) on November 4 and MST thereafter.
- 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 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:

$$RMS = \sqrt{\frac{\sum_i (W_i R_i)^2}{\sum_i (W_i)^2}}$$

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

October 1 – December 31, 2012

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During the three-month period October 1 through December 31, 2012, the University of Utah Seismograph Stations (UUSS) located 236 earthquakes within the Utah region (Figure 1). The total includes two earthquakes in the magnitude 3 range and 23 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. Three earthquakes were reported felt during the report period (see Table 1, a cumulative tabulation of earthquakes during 2012 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/EQCENTER/QUARTERLY/quarterly.htm>.

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 (see http://www.seis.utah.edu/shake/shake_trigger_area_09.pdf). 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.seis.utah.edu/shake>. Earthquakes during 2012 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 3.1	November 4	00:04 MDT	8 mi S of Levan, UT (felt, CIIM intensity map, ShakeMap, see Table 1)
M _L 3.1	November 6	02:13 MST	9 mi NE of Lakeview, UT (felt, CIIM intensity map, see Table 1)

Other Notable Seismicity

During the report period, there were no 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.

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 include a total of 74 located shocks ($0.6 \leq M \leq 2.1$) that occurred throughout the report period.

Seismicity of the Utah Region October 1, 2012 - December 31, 2012

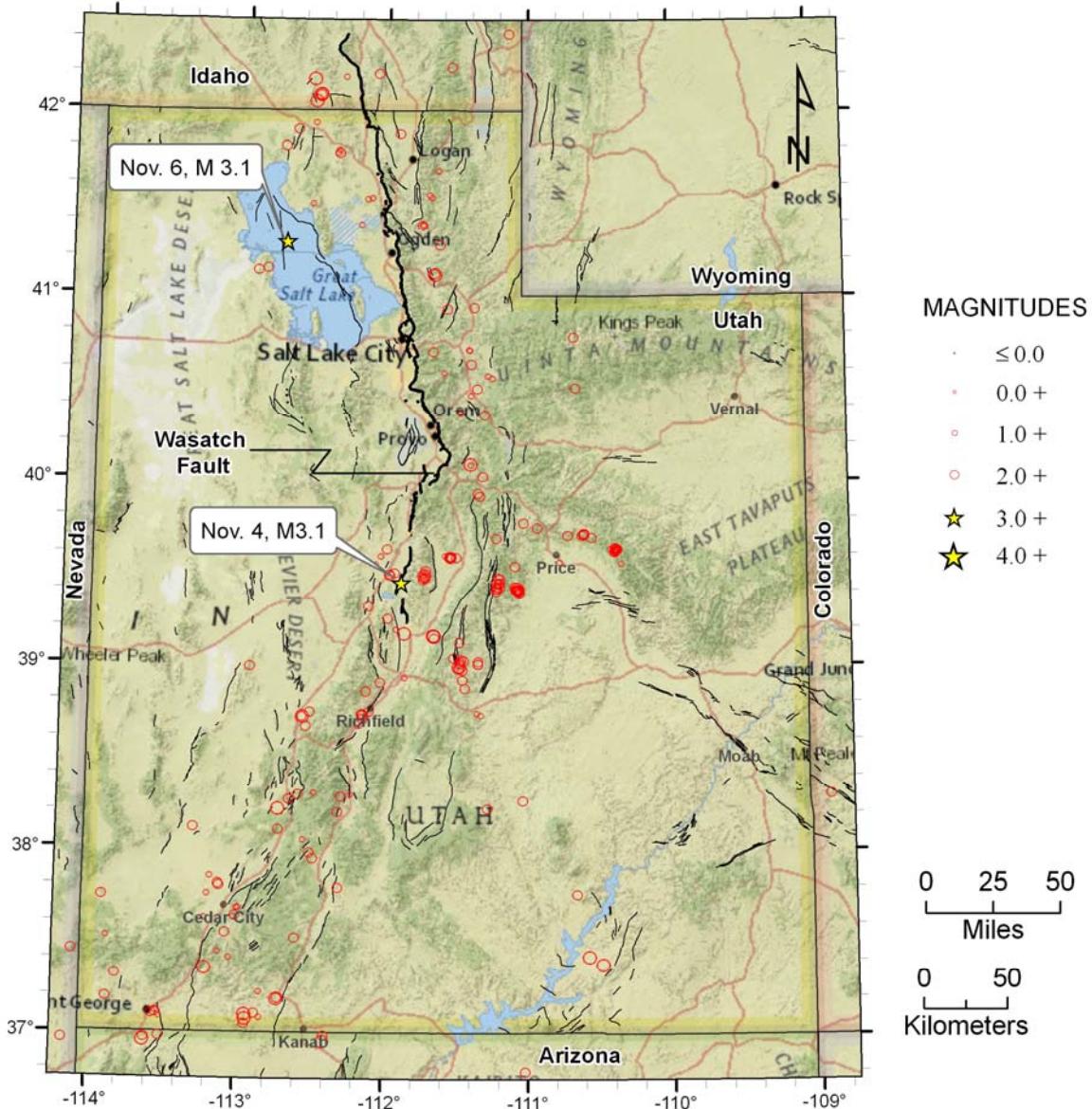


Figure 1. Earthquake epicenters, located by the University of Utah Seismograph Stations, superposed on a map of Quaternary (geologically young) faults compiled by the Utah Geological Survey (black lines). The Wasatch fault is shown in bold. Earthquakes of magnitude 3.0 and larger are labeled by local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

Table 1

EARTHQUAKES FELT AND/OR GENERATING A SHAKEMAP IN THE UTAH REGION
January 1, 2012 to December 31, 2012

Date	Time†	Felt Information‡	Latitude	Longitude	Magnitude§
January 05	12:49 MST 19:49 UTC	Utah. <i>CIIM</i> . Felt (III) at Salt Lake City, UT, and (II) at Park City, Bountiful, Roy, and Orem, UT.	40° 47.94'	111° 38.60'	M _L 2.8
January 23 January 24	23:01 MST 06:01 UTC	Utah. <i>CIIM</i> . Felt (II) at Saint George, Ivins, Washington, Hurricane, and Cedar City, UT and Littlefield, AZ.	37° 24.15'	113° 52.50'	M _L 3.0
February 04	04:27 MST 11:27 UTC	Utah. <i>CIIM ShakeMap</i> . Felt (III) at Salem and Spanish Fork, UT and (II) at Mapleton, Santaquin, Payson, Springville, Provo, Eagle Mountain, and Salt Lake City, UT.	40° 01.09'	111° 31.50'	M _L 3.6
February 11 February 12	20:06 MST 03:06 UTC	Utah. <i>CIIM ShakeMap</i> . Felt (III) at Panguitch, UT and (II) at Kingman (?), AZ.	37° 51.31'	112° 24.26'	M _L 3.2
February 11 February 12	21:18 MST 04:18 UTC	Utah. <i>CIIM ShakeMap</i> . Felt (III) at Panguitch and Milford (?), UT and (II) at Parowan, Escalante, Cedar City, and Payson (?), UT.	37° 51.35'	112° 24.29'	M _L 3.5
February 16	01:20 MST 08:20 UTC	Utah. <i>CIIM ShakeMap</i> . Felt (III) at Fairview, UT and (II) at Mount Pleasant, Ephraim, Nephi, Salt Lake City, and Fielding (?), UT.	39° 37.47'	111° 33.25'	M _L 3.0
February 29	15:36 MST 22:36 UTC	Utah. <i>CIIM ShakeMap</i> . Felt (III) at Veyo, Central, Washington, and Hurricane, UT and (II) at Saint George, Ivins, La Verkin, Parowan, UT, and Las Vegas (?), NV.	37° 21.55'	113° 50.50'	M _L 3.0

Table 1

EARTHQUAKES FELT AND/OR GENERATING A SHAKEMAP IN THE UTAH REGION
January 1, 2012 to December 31, 2012

March 25	17:07 MDT 23:07 UTC	Utah. <i>CIIM. ShakeMap.</i> Felt (III) at Delta, UT and (II) at Lehi, Pleasant Grove, UT, and Kemmerer (?), WY.	39° 37.08'	112° 11.52'	M _L 3.0
March 29	11:22 MDT 17:22 UTC	Utah. <i>CIIM.</i> Felt (II) at Monroe, UT.	38° 58.94'	111° 23.13'	M _L 3.4
April 11	18:25 MDT 00:25 UTC	Utah. <i>CIIM.</i> Felt (III) at Draper (?), UT.	37° 46.90'	112° 21.11'	M _L 2.7
April 11	21:29 MDT 03:29 UTC	Utah. <i>CIIM. ShakeMap.</i> Felt (III) at Antimony, Bryce Canyon, Escalante, Panguitch, Torrey, Alton, Kanab, Boulder, Hurricane, Delta, Provo (?), Saratoga Springs (?), Riverton (?), Draper (?), Layton (?) , UT, Page, Fredonia, , Supai, AZ and (II) at Kingston, Brian Head, Teasdale, Cedar City, Ferron, Washington, Hite, Lehi (?), Salt Lake City (?), UT, Marble Canyon, Kaibeto, Sedona (?), Messa (?), AZ.	37° 49.54'	112° 06.91'	M _L 4.1
June 21	23:37 MDT 05:37 UTC	Utah. <i>CIIM.</i> Felt (III) at Boulder, UT.	38° 00.81'	111° 05.78'	M _L 3.0
July 13	13:53 MDT 19:53 UTC	Utah. <i>CIIM. ShakeMap.</i> Felt (V) at Trenton, UT, (IV) at Clarkston, Cornish, UT, (III) at Richmond, Hyde Park, Logan, Centerville (?), UT, Franklin, Preston, ID, and (II) at Lewiston, Mendon, Providence, Woods Cross (?), Salt Lake City (?), UT, Weston, ID, Jackson (?), WY.	41° 54.07'	111° 54.97'	M _L 3.5
July 18	13:44 MDT 19:44 UTC	Utah. <i>CIIM.</i> Felt (III) at Lewiston, UT and (II) at Trenton, UT.	41° 54.10'	111° 55.56'	M _L 2.3

Table 1

EARTHQUAKES FELT AND/OR GENERATING A SHAKEMAP IN THE UTAH REGION
January 1, 2012 to December 31, 2012

July 31	04:27 MDT 10:27 UTC	Utah. <i>CIIM. ShakeMap.</i> Felt (III) at Salina, UT and (II) at Salt Lake City (?), Farmington, UT.	39° 00.41'	111° 29.82'	M _L 3.6
August 14	01:17 MDT 07:17 UTC	Utah. <i>CIIM. ShakeMap.</i> Felt (II) at Salt Lake City (?), UT.	38° 42.71'	112° 32.99'	M _L 3.1
August 21	15:21 MDT 21:21 UTC	Colorado. <i>CIIM.</i> Felt (II) at Kaysville (?), UT.	39° 30.60'	107° 02.40'	M 3.3
November 4	00:04 MDT 06:04 UTC	Utah. <i>CIIM. ShakeMap.</i> Felt (III) at Nephi, Delta, UT and (II) at Helper, UT.	39° 26.76'	111° 53.14'	M _L 3.1
November 6	02:13 MST 09:13 UTC	Utah. <i>CIIM.</i> Felt (II) at Corinne, Clearfield, Centerville, UT.	41° 17.16'	112° 43.30'	M _L 3.1
November 12	03:43 MST 10:43 UTC	Utah. <i>CIIM.</i> Felt (III) at Eagle Mountain (?), Roy (?), Payson, UT and (II) at Salem, Orem, Saratoga Springs, UT.	40° 05.10'	111° 24.42'	M _L 2.5

† 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/archives.php>), compiled by the U.S. Geological Survey (USGS); *ShakeMap* indicates the availability of computer-generated maps of ground-shaking (<http://www.seis.utah.edu/shake/archive>), 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/research/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

December 31, 2012

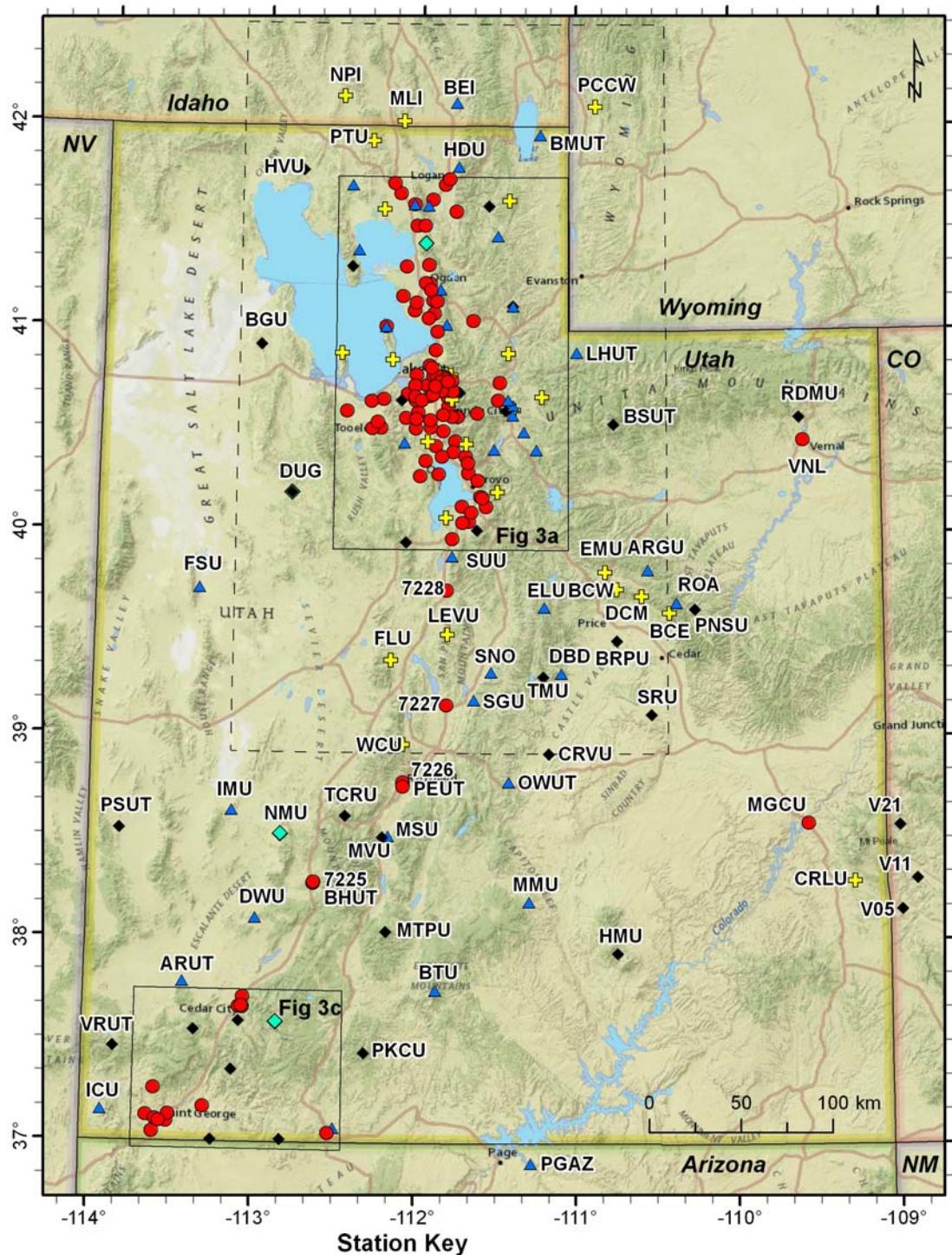


Figure 2

Utah Urban Seismic Network (December 31, 2012)

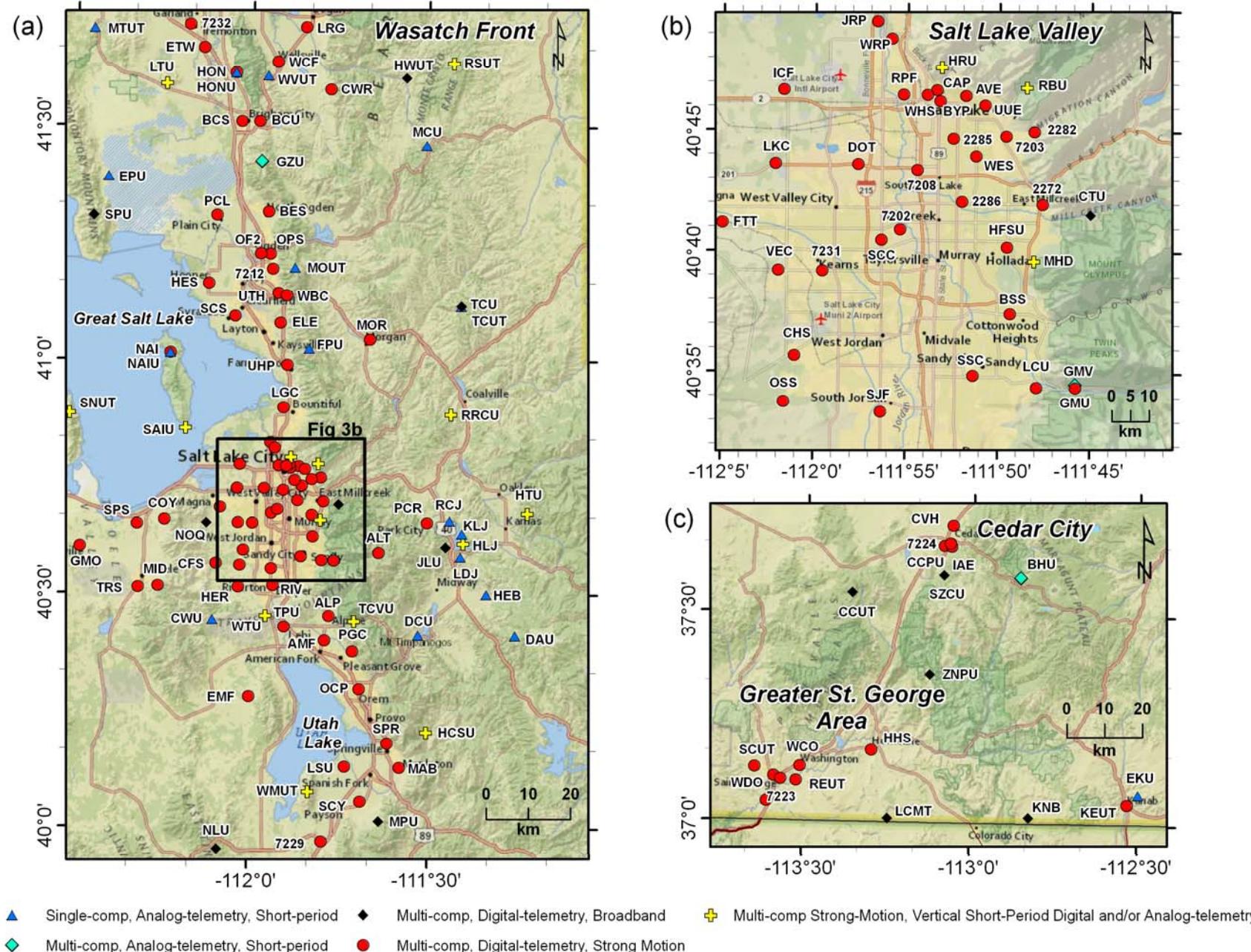


Figure 3

Table 2. Earthquakes in the Utah Region: October 1–December 31, 2012

DATE	ORIGIN TIME	LATITUDE	LONGITUDE	DEPTH	MAG	NO	GAP	DMN	RMS
121001	02:34:22.94	40° 43.11'	112° 15.92'	2.7	0.2	6	152	7	0.07
121001	04:57:41.72	39° 42.27'	110° 43.33'	-3.0	1.9W	13	80	3	0.11
121001	16:51:31.20	39° 08.43'	111° 39.30'	19.5	1.3W	11	80	5	0.13
121001	22:35:11.17	39° 37.72'	110° 22.91'	-0.7	1.4	6	144	3	0.08
121002	20:42:40.42	38° 59.05'	112° 56.17'	0.3*	1.9W	13	96	43	0.20
121002	23:05:33.38	39° 23.54'	111° 03.88'	1.7	1.0W	8	143	9	0.15
121003	12:49:37.09	39° 37.42'	110° 23.28'	-0.6	1.0	7	105	2	0.08
121003	13:35:33.41	39° 34.87'	111° 30.23'	3.7*	1.2	7	170	29	0.21
121003	19:02:57.61	38° 15.92'	112° 39.16'	2.3*	1.4	11	112	33	0.25
121003	23:51:36.32	39° 23.67'	111° 03.75'	1.4	1.5	11	78	9	0.14
121004	12:24:10.02	39° 55.59'	111° 21.37'	3.6*	1.2W	16	91	26	0.16
121004	16:57:26.53	40° 55.52'	111° 34.48'	10.6	1.2	21	64	12	0.07
121006	20:58:14.98	39° 41.47'	110° 33.46'	1.5*	1.1	7	125	15	0.09
121007	02:50:17.32	38° 17.60'	112° 35.22'	6.0*	1.0	10	78	34	0.06
121007	03:11:06.89	37° 10.96'	112° 42.87'	8.9*	2.0W	23	58	21	0.17
121007	23:14:03.38	37° 11.22'	112° 42.72'	-0.3*	1.4	18	72	21	0.14
121008	01:06:19.59	40° 33.32'	111° 15.14'	12.7	0.8	12	90	14	0.14
121008	01:06:33.59	40° 34.07'	111° 17.13'	12.4	0.0	9	79	11	0.08
121008	09:31:19.78	39° 00.19'	111° 28.65'	-1.8*	1.7W	23	70	25	0.16
121008	12:12:12.76	37° 20.89'	113° 12.47'	-0.1	2.0W	18	77	7	0.14
121008	15:49:38.69	41° 23.12'	112° 11.59'	3.3*	0.8	8	87	11	0.26
121009	17:35:06.75	38° 58.16'	111° 27.65'	5.4*	1.3W	10	95	21	0.19
121009	20:13:38.65	39° 46.27'	111° 02.23'	1.6*	1.5	7	287	20	0.17
121011	02:36:30.70	39° 24.54'	111° 03.97'	-1.3*	1.3W	14	79	11	0.19
121011	10:00:41.37	39° 29.11'	111° 43.64'	9.5	1.0	13	85	8	0.15
121011	10:11:57.01	39° 28.20'	111° 43.37'	8.8	1.1	10	120	9	0.11
121011	11:39:46.63	39° 29.04'	111° 43.80'	11.6	2.2W	17	93	8	0.21
121011	22:31:18.69	38° 43.76'	111° 19.70'	5.3	0.8	5	119	10	0.11
121012	01:07:53.48	39° 29.20'	111° 43.27'	10.0	0.9	10	114	8	0.14
121012	01:25:32.24	39° 30.73'	111° 43.21'	11.5	1.3	9	186	8	0.10
121012	05:14:41.24	38° 44.28'	111° 21.46'	10.4	0.7	5	115	7	0.01
121012	06:42:01.14	39° 38.06'	110° 23.39'	-1.4	1.2	8	99	3	0.13
121012	18:13:02.58	39° 27.73'	111° 44.20'	9.0	1.4	15	69	8	0.21
121013	03:22:53.92	39° 38.11'	110° 23.61'	-1.7	1.1	8	98	3	0.08
121013	12:26:37.45	38° 40.86'	112° 10.68'	11.2	1.3	5	181	19	0.05
121014	11:43:13.25	37° 45.33'	113° 11.84'	8.8*	0.9	14	96	20	0.08
121015	11:38:55.00	39° 29.26'	111° 44.10'	8.7	0.9	8	143	7	0.05
121016	03:28:11.02	39° 37.94'	110° 23.15'	-1.1	0.8	8	100	3	0.07
121016	08:03:28.58	38° 16.94'	112° 17.69'	-0.1*	1.8	18	65	28	0.13
121016	09:44:17.38	39° 18.79'	112° 06.82'	11.5	1.1	10	116	9	0.12
121016	11:54:52.38	37° 04.42'	112° 55.44'	22.4	2.0W	15	116	11	0.13
121016	11:55:12.68	37° 05.86'	112° 55.69'	18.3	2.1W	8	119	13	0.06
121017	18:34:00.36	38° 43.08'	112° 33.93'	0.1*	2.6W	16	67	16	0.12
121017	22:46:56.84	36° 47.48'	111° 01.34'	6.0*	1.9	8	183	120	0.15
121017	22:59:46.25	39° 24.69'	111° 13.10'	2.9*	1.5	7	179	13	0.08

Table 2. Earthquakes in the Utah Region: October 1–December 31, 2012

DATE	ORIGIN TIME	LATITUDE	LONGITUDE	DEPTH	MAG	NO	GAP	DMN	RMS
121018	04:42:22.56	38° 43.14'	112° 34.15'	1.6*	1.0	9	156	16	0.13
121018	19:10:50.48	41° 40.57'	111° 38.64'	9.7	0.7	12	82	10	0.08
121019	03:41:41.73	39° 24.73'	111° 13.44'	3.8*	1.3	6	190	13	0.04
121019	16:38:03.22	39° 42.15'	110° 43.52'	-2.9	1.5W	10	96	3	0.07
121020	04:04:38.17	40° 55.99'	111° 23.12'	11.4	1.8W	42	79	7	0.14
121020	13:08:25.37	39° 09.15'	111° 39.66'	19.0	2.3W	29	56	4	0.16
121020	16:31:31.77	39° 25.34'	111° 05.61'	-3.4*	1.9	15	88	12	0.15
121020	19:09:48.57	39° 24.21'	111° 04.80'	1.7	1.3W	10	81	10	0.12
121020	21:27:03.29	39° 24.13'	111° 04.02'	-1.1	0.7W	8	127	10	0.06
121021	08:39:55.10	39° 38.03'	110° 23.33'	-1.3	1.1	8	99	3	0.12
121021	10:33:33.62	39° 37.94'	110° 25.55'	-3.4	0.6	5	154	3	0.11
121021	18:12:40.27	39° 42.53'	110° 36.88'	-2.9	1.5W	13	78	3	0.09
121022	09:09:29.16	39° 38.01'	110° 23.27'	-1.0	0.9	6	126	3	0.03
121023	09:20:49.15	39° 24.65'	111° 04.55'	1.7*	1.1W	8	98	11	0.13
121024	04:28:11.18	39° 37.90'	110° 23.06'	-1.1	0.9	5	135	3	0.02
121024	05:13:17.41	39° 09.21'	111° 39.86'	18.7	2.4W	24	61	4	0.15
121024	08:18:29.42	40° 46.55'	110° 41.02'	6.3*	1.8W	26	134	27	0.14
121024	14:56:34.81	39° 37.64'	110° 22.98'	-0.8	1.1	6	146	3	0.08
121024	15:09:59.73	42° 04.97'	112° 30.03'	5.2	1.9W	17	134	7	0.10
121024	21:12:02.34	39° 37.86'	110° 22.87'	-1.7	1.5	6	139	3	0.02
121025	11:11:39.20	39° 42.77'	110° 36.65'	-2.5	1.5	8	107	3	0.06
121025	14:23:49.36	39° 33.49'	110° 46.76'	5.5*	0.3	6	183	32	0.18
121025	21:16:41.27	42° 04.91'	112° 29.92'	3.9	2.0W	21	133	7	0.15
121025	21:18:24.63	42° 05.12'	112° 29.77'	4.7	2.0W	25	131	7	0.12
121026	05:15:57.05	39° 23.92'	111° 13.52'	4.6*	1.2	7	185	11	0.06
121026	05:31:42.04	39° 24.36'	111° 04.54'	1.2	1.8W	13	81	10	0.12
121026	15:44:30.33	39° 26.39'	111° 12.48'	1.5*	1.5	7	121	16	0.15
121026	21:34:34.66	39° 37.78'	110° 22.87'	-1.6	1.5	5	142	3	0.01
121026	22:03:24.66	37° 18.64'	113° 48.84'	10.4	1.2	10	182	20	0.09
121026	22:09:02.36	39° 24.48'	111° 04.69'	1.6*	1.2W	10	81	11	0.15
121027	07:17:26.73	39° 24.39'	111° 04.19'	1.9	1.7W	18	68	10	0.16
121027	08:13:28.30	39° 37.69'	110° 22.99'	-0.9	0.9	7	143	3	0.09
121027	17:18:44.16	41° 31.79'	112° 07.07'	5.8	0.4	8	95	11	0.04
121027	22:46:29.17	39° 26.66'	111° 13.30'	1.5*	1.7	9	120	16	0.11
121028	08:53:01.34	39° 35.42'	112° 01.71'	7.8*	0.5	7	92	21	0.05
121028	12:47:19.26	37° 44.34'	113° 55.04'	3.3*	1.6	14	182	42	0.14
121028	13:54:38.95	39° 01.39'	111° 28.07'	5.8*	1.8	5	149	23	0.11
121029	01:24:45.53	38° 43.88'	112° 09.53'	2.8*	1.2	8	118	24	0.26
121029	01:26:58.31	38° 43.51'	112° 08.78'	1.8*	1.1	8	117	24	0.17
121029	03:16:37.69	39° 24.16'	111° 04.53'	1.3	1.3	9	80	10	0.08
121029	05:29:05.52	39° 42.79'	110° 36.79'	-3.2	1.3	7	83	3	0.05
121029	09:30:01.60	42° 02.81'	112° 31.94'	5.7	2.1W	25	150	11	0.17
121029	20:00:24.82	39° 24.58'	111° 04.78'	1.6*	1.3W	12	82	11	0.16
121029	23:02:35.64	39° 23.94'	111° 04.31'	1.3	1.8	8	127	10	0.15
121029	23:39:18.28	37° 04.95'	113° 30.25'	11.9*	0.9	10	174	24	0.12

Table 2. Earthquakes in the Utah Region: October 1–December 31, 2012

DATE	ORIGIN TIME	LATITUDE	LONGITUDE	DEPTH	MAG	NO	GAP	DMN	RMS
121029	23:46:06.44	39° 24.71'	111° 04.68'	1.7*	2.1W	17	63	11	0.10
121030	05:12:45.15	39° 24.31'	111° 04.46'	1.6	1.4	9	80	10	0.16
121030	19:36:44.49	42° 14.02'	111° 33.03'	11.5	1.4	11	146	23	0.14
121030	21:59:37.03	37° 45.39'	110° 39.95'	7.1*	1.8	10	175	21	0.08
121031	11:40:18.51	37° 04.92'	112° 49.63'	20.6	0.4W	10	85	7	0.07
121031	17:43:03.70	37° 02.73'	112° 55.93'	17.2	1.1	7	124	10	0.03
121031	18:16:28.65	39° 24.33'	111° 04.06'	1.5	1.7W	13	65	10	0.16
121031	19:15:54.33	41° 07.98'	112° 55.49'	2.8*	1.3	10	168	25	0.17
121101	07:03:54.82	37° 50.90'	113° 10.81'	13.5	0.9	11	131	24	0.15
121101	10:54:05.41	39° 24.38'	111° 04.08'	0.8	1.8W	19	65	10	0.11
121101	15:58:50.97	38° 58.99'	111° 29.04'	1.9*	2.6W	20	93	23	0.10
121101	20:30:58.41	38° 58.80'	111° 28.93'	6.0*	1.3	5	160	23	0.03
121101	23:39:43.74	37° 56.78'	112° 28.91'	5.7*	1.3	7	135	28	0.08
121102	19:49:59.31	38° 58.76'	111° 28.96'	1.6*	1.2W	8	99	23	0.13
121102	21:31:10.97	38° 11.96'	112° 18.91'	6.2*	1.2	9	115	21	0.16
121103	12:23:04.19	38° 39.90'	112° 32.43'	0.7	1.4	12	114	10	0.15
121103	15:44:22.40	39° 01.15'	111° 26.93'	5.9*	1.7	7	142	25	0.21
121103	21:29:03.00	38° 51.32'	112° 07.64'	1.6*	1.1	7	187	13	0.15
121103	23:24:24.07	39° 00.76'	111° 28.66'	16.9	1.7	8	95	24	0.14
121104	04:36:27.36	39° 29.04'	111° 58.00'	0.4*	1.2	9	97	13	0.17
121104	05:37:30.48	39° 29.41'	111° 58.49'	-0.1*	1.0	8	96	14	0.07
121104	06:04:20.01	39° 26.76'	111° 53.14'	12.7	3.1W	28	69	9	0.17
121104	13:18:05.55	39° 24.33'	111° 04.84'	1.2	1.8	11	81	10	0.19
121104	17:13:32.18	40° 27.68'	111° 24.24'	1.0	0.3	10	131	7	0.10
121105	04:01:41.68	41° 47.35'	112° 21.57'	7.4*	0.7	12	101	15	0.07
121105	16:49:31.55	41° 16.35'	111° 37.78'	1.8*	1.1	16	103	23	0.23
121105	21:51:05.44	41° 08.63'	112° 51.62'	5.1*	1.3	9	231	39	0.07
121105	22:39:09.82	39° 24.56'	111° 04.27'	2.1*	1.9W	12	68	11	0.09
121106	09:13:57.72	41° 17.16'	112° 43.30'	9.2*	3.1W	57	131	23	0.18
121106	10:22:32.42	41° 16.97'	112° 42.60'	6.0*	0.7	15	141	22	0.17
121106	22:37:26.59	38° 06.10'	112° 43.25'	3.5*	1.5	14	51	24	0.06
121107	00:37:03.85	36° 58.68'	113° 30.58'	-2.2*	1.9	8	218	24	0.17
121107	08:31:34.66	36° 57.27'	113° 36.82'	12.3*	2.9W	16	194	34	0.23
121107	23:51:36.27	37° 37.39'	113° 12.79'	1.7*	0.6	7	143	12	0.07
121108	21:56:08.53	39° 29.80'	111° 56.23'	0.4*	1.8	9	203	11	0.09
121109	04:11:42.43	39° 34.64'	111° 32.64'	5.9*	1.1	6	128	25	0.12
121109	11:12:00.12	39° 35.19'	111° 33.02'	-1.1*	1.8W	17	64	24	0.19
121109	11:41:14.66	39° 35.14'	111° 32.53'	0.1*	1.4	11	76	25	0.15
121110	05:57:16.05	39° 35.49'	111° 34.95'	6.2*	0.7	6	177	22	0.11
121110	16:49:26.44	37° 24.44'	113° 02.38'	18.3	0.3	8	84	9	0.08
121111	18:36:22.19	41° 53.75'	112° 39.42'	-1.3*	1.4	18	164	16	0.14
121111	23:18:44.26	37° 30.92'	112° 35.80'	11.5*	1.3	8	185	26	0.11
121112	06:45:21.77	39° 34.92'	111° 33.14'	9.9*	1.2	9	85	24	0.10
121112	10:43:32.67	40° 05.10'	111° 24.42'	8.0*	2.5W	48	90	16	0.18
121112	11:00:27.60	40° 04.94'	111° 24.23'	1.7*	0.9	8	118	16	0.06

Table 2. Earthquakes in the Utah Region: October 1–December 31, 2012

DATE	ORIGIN TIME	LATITUDE	LONGITUDE	DEPTH	MAG	NO	GAP	DMN	RMS
121112	19:28:00.47	40° 30.06'	110° 40.25'	6.0*	1.2	10	203	50	0.11
121113	02:06:36.02	40° 01.09'	111° 19.26'	1.9*	1.6	16	108	26	0.09
121113	05:32:26.48	39° 25.14'	111° 12.09'	1.9*	1.4	6	191	14	0.12
121113	23:56:21.89	40° 37.79'	111° 24.28'	-2.8	1.0	6	99	0	0.07
121114	03:42:40.58	37° 26.38'	114° 06.88'	7.2*	1.6W	8	218	36	0.14
121114	22:19:43.57	39° 24.45'	111° 05.51'	1.8	1.0W	6	120	10	0.08
121115	12:10:40.28	39° 07.11'	111° 28.82'	2.0*	1.7W	14	133	16	0.08
121115	13:47:48.92	38° 06.62'	113° 18.12'	1.0*	1.8	14	116	27	0.13
121115	18:58:31.21	41° 46.22'	112° 21.38'	4.8*	1.0	13	121	14	0.14
121116	09:28:49.48	42° 25.05'	111° 08.56'	2.2*	1.3	12	75	39	0.21
121116	09:33:26.16	40° 21.84'	111° 28.52'	5.0	0.8	14	127	7	0.13
121116	15:43:12.55	37° 38.14'	113° 00.46'	6.4	1.5	11	144	8	0.07
121117	09:36:37.76	40° 41.91'	111° 40.46'	3.5	1.1W	23	76	6	0.11
121118	07:32:53.72	39° 35.27'	111° 32.30'	3.8*	1.1	10	87	25	0.10
121118	17:29:04.42	39° 32.14'	111° 05.71'	3.0*	1.5	7	83	15	0.12
121120	00:20:54.92	38° 02.91'	112° 32.99'	6.0*	0.9	7	106	32	0.14
121120	06:23:27.79	42° 10.80'	112° 18.82'	-0.9*	0.9	9	101	17	0.06
121121	00:53:43.22	37° 47.97'	113° 07.11'	2.3*	1.3	15	109	23	0.13
121121	00:56:45.65	37° 48.35'	113° 07.48'	12.7	1.3	16	55	24	0.17
121121	01:18:53.04	39° 09.28'	111° 39.65'	19.5	2.2W	18	61	3	0.16
121121	04:33:47.16	39° 26.62'	111° 12.07'	1.7*	1.4	8	115	16	0.13
121121	19:30:08.48	39° 42.87'	110° 36.66'	-2.4	1.6W	16	80	3	0.11
121122	03:21:32.74	38° 13.16'	111° 16.89'	8.0	1.8	9	159	3	0.08
121122	03:48:49.13	39° 37.06'	110° 23.66'	-1.4	0.7	7	108	1	0.07
121122	10:17:02.20	39° 25.46'	111° 13.40'	1.9*	1.4	9	151	14	0.08
121123	13:43:15.40	41° 22.86'	111° 45.33'	9.9	1.9W	26	66	19	0.12
121123	13:45:45.08	41° 22.92'	111° 45.03'	8.1*	0.4	12	89	19	0.09
121123	14:56:20.75	39° 36.89'	110° 23.84'	-1.2	1.1	6	176	1	0.10
121124	00:31:09.05	41° 23.17'	111° 45.09'	9.2*	0.9	17	68	19	0.13
121124	04:36:50.56	41° 06.99'	111° 40.15'	9.8	1.3W	26	70	8	0.12
121124	10:40:55.66	36° 58.10'	113° 36.43'	17.9	1.1	12	221	33	0.10
121125	04:42:19.40	39° 00.79'	111° 21.06'	15.7	1.4	7	95	27	0.14
121125	07:48:40.68	39° 02.08'	111° 31.09'	24.4	1.4	5	159	20	0.08
121125	13:02:47.24	38° 12.80'	112° 43.53'	-0.5*	2.1W	21	47	27	0.15
121125	15:15:21.60	39° 24.34'	111° 04.52'	1.2	1.2W	11	81	10	0.14
121126	14:13:27.41	39° 44.68'	110° 56.40'	1.8*	1.6	8	171	13	0.25
121126	20:39:36.41	38° 42.42'	112° 09.04'	12.6	1.2	5	116	22	0.16
121126	22:27:50.71	38° 44.03'	112° 09.17'	3.6*	1.5	9	110	25	0.18
121127	06:55:52.84	41° 48.50'	112° 44.50'	4.8	1.2	15	203	4	0.16
121127	09:25:58.10	37° 05.90'	113° 33.57'	12.9*	1.2	9	173	30	0.11
121127	09:48:42.25	37° 06.33'	113° 32.04'	13.7*	1.0	6	266	28	0.03
121128	04:12:48.10	40° 29.82'	111° 21.61'	11.0	1.3W	22	73	2	0.13
121128	07:09:13.69	38° 15.67'	111° 02.34'	5.8*	1.6	5	118	23	0.03
121128	21:05:22.26	39° 37.16'	110° 23.53'	-2.5	0.6	6	159	2	0.03
121129	17:07:00.52	36° 57.33'	114° 09.74'	7.2*	1.8	6	286	30	0.07

Table 2. Earthquakes in the Utah Region: October 1–December 31, 2012

DATE	ORIGIN TIME	LATITUDE	LONGITUDE	DEPTH	MAG	NO	GAP	DMN	RMS
121130	05:56:34.98	42° 11.75'	112° 04.62'	5.2*	1.4	25	81	19	0.14
121130	15:48:11.06	37° 25.04'	110° 35.05'	16.8*	2.7W	18	103	59	0.19
121130	17:43:25.56	41° 06.70'	111° 40.04'	11.4	2.4W	46	70	7	0.12
121202	05:05:45.32	40° 34.96'	111° 35.55'	6.5	0.4	12	177	4	0.06
121202	15:45:47.62	39° 41.20'	111° 13.60'	-1.2	1.4	9	132	6	0.16
121202	17:20:03.82	37° 37.72'	113° 00.78'	5.9	0.8	6	211	8	0.02
121205	05:36:07.03	39° 37.14'	110° 23.63'	-1.8	0.9	6	107	1	0.01
121205	05:36:26.04	38° 17.83'	108° 55.03'	0.4	1.7	11	91	4	0.10
121205	18:15:22.50	39° 28.25'	111° 12.71'	-1.9*	1.1W	10	87	19	0.18
121206	10:28:46.27	41° 46.41'	112° 22.13'	7.1	0.8	14	99	13	0.16
121207	01:29:20.83	37° 13.37'	112° 49.92'	3.3*	0.4	6	121	23	0.07
121208	08:44:06.24	37° 11.11'	113° 52.42'	14.3	1.0	9	160	6	0.14
121209	02:47:01.59	37° 06.25'	112° 51.97'	20.0	1.2	13	100	10	0.12
121209	05:58:30.88	40° 42.46'	111° 24.73'	9.7	0.3	9	87	9	0.08
121209	06:49:59.83	40° 42.52'	111° 25.15'	11.6	0.8	15	72	9	0.10
121209	10:38:17.05	37° 47.32'	112° 18.39'	2.9*	1.6	11	117	30	0.13
121209	23:54:29.06	39° 32.64'	112° 04.13'	6.0*	0.9	14	75	20	0.18
121210	14:10:45.87	39° 37.58'	111° 59.26'	12.2	1.0	6	139	20	0.08
121210	16:03:42.16	38° 17.47'	112° 13.79'	6.7*	0.6	8	86	25	0.10
121211	19:15:40.29	38° 52.10'	111° 26.47'	21.1	1.5W	13	73	10	0.14
121212	13:33:37.30	37° 06.81'	113° 31.71'	5.9*	0.4	6	164	28	0.03
121212	22:27:07.20	39° 42.17'	110° 37.57'	-3.0	1.7	11	79	4	0.16
121213	00:24:56.01	42° 10.07'	112° 32.76'	6.3	2.2W	20	126	3	0.08
121213	01:57:50.84	41° 32.04'	111° 41.37'	13.7	0.6	12	102	17	0.10
121213	01:58:16.53	41° 32.77'	111° 42.20'	8.2*	0.8	11	138	19	0.10
121214	17:33:15.46	39° 11.35'	111° 55.23'	19.0	0.8	7	111	24	0.05
121214	20:16:08.32	39° 37.21'	110° 23.56'	-2.0	1.0	6	106	2	0.02
121214	20:49:20.60	39° 37.22'	110° 24.01'	-1.0	0.8	5	136	1	0.07
121216	04:39:26.72	36° 57.16'	112° 24.01'	23.7	2.6W	16	106	16	0.11
121217	09:11:56.59	36° 59.11'	112° 23.64'	23.0	1.2	5	213	13	0.06
121217	21:41:17.44	39° 28.01'	111° 11.86'	2.7*	1.5	7	117	19	0.14
121218	02:34:13.49	39° 54.75'	111° 20.52'	1.6*	1.4	22	97	27	0.14
121218	11:56:49.75	38° 59.99'	111° 21.05'	5.5*	1.2	6	114	18	0.22
121219	00:26:53.01	38° 54.90'	111° 27.67'	2.3*	1.2	5	198	15	0.17
121219	01:50:01.81	38° 44.53'	112° 30.99'	-2.5*	1.5	14	71	16	0.22
121220	03:48:50.35	39° 14.91'	111° 58.83'	-0.2*	1.6W	20	75	22	0.21
121221	05:32:55.62	39° 00.00'	111° 21.13'	6.0*	1.3	5	114	18	0.14
121224	01:47:57.12	41° 56.00'	112° 31.67'	1.4*	0.9	11	130	17	0.14
121224	12:45:59.72	37° 32.64'	113° 04.30'	9.4	1.0	8	148	6	0.04
121224	14:46:12.97	41° 31.35'	112° 08.91'	3.0*	0.4	7	104	11	0.07
121226	05:34:14.24	37° 22.48'	110° 29.39'	-2.9*	2.2	12	179	66	0.09
121226	10:09:18.71	38° 55.70'	111° 51.56'	5.8*	0.9	8	111	20	0.17
121226	22:11:14.48	38° 18.25'	112° 28.70'	3.7*	0.6	8	107	34	0.09
121227	01:39:03.93	37° 58.63'	112° 30.48'	3.6*	1.5	12	87	29	0.22
121227	05:39:22.86	41° 29.93'	112° 32.57'	0.7*	0.9W	11	116	16	0.11

Table 2. Earthquakes in the Utah Region: October 1–December 31, 2012

DATE	ORIGIN TIME	LATITUDE	LONGITUDE	DEPTH	MAG	NO	GAP	DMN	RMS
121227	10:04:21.87	38° 54.04'	112° 01.75'	7.2	1.4	12	80	9	0.06
121227	15:52:07.74	37° 40.83'	112° 58.95'	4.5*	0.7	9	186	13	0.11
121227	16:08:42.08	37° 40.74'	112° 59.66'	6.8	0.9	11	72	12	0.06
121228	11:03:33.14	41° 52.39'	111° 55.35'	0.9*	1.4	19	78	15	0.14
121228	21:10:50.66	40° 21.07'	111° 18.57'	0.3	1.5W	19	161	8	0.10
121229	04:19:15.02	37° 31.12'	113° 52.72'	10.2	0.4	11	175	7	0.08
121229	07:20:47.05	40° 12.03'	113° 26.72'	5.9*	1.4	9	208	53	0.15
121229	20:50:11.02	39° 10.03'	111° 52.02'	0.4	2.0W	17	81	4	0.12
121229	23:17:10.04	39° 33.17'	110° 21.03'	-2.6	0.9	5	202	8	0.04
121231	14:05:54.27	38° 44.66'	112° 06.42'	2.9*	1.2	7	119	25	0.14
121231	21:17:03.80	37° 26.48'	113° 07.12'	10.1	0.8	8	106	9	0.08

number of earthquakes = 236

* 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
December 31, 2012

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

UURSN	Location	SEED	SEED	No. of	Network	Latitude	Longitude	Elevation	Sensor	Digitizer	Telemetry	Sponsor
		Station	Channel	Channels	Code			(meters)				
7229	City Maintenance Shop Santaquin, UT	7229	HN[ZEN]	3	NP	39° 58.35'	111° 47.58'	1520	EpiSensor	Etna	Digital	NSMP, ANSS
7232	City Parks & Recreation Office Tremonton, UT	7232	HN[ZEN]	3	NP	41° 43.13'	112° 10.91'	1320	EpiSensor	Etna	Digital	NSMP, ANSS
AHI	Auburn, ID	AHID	BH[ZEN]	3	US	42° 45.92'	111° 06.02'	1960	*	*	Digital	USGS
ALP	Alpine Fire Station, Alpine, UT	ALP	EN[ZEN]	3	UU	40° 27.26'	111° 46.61'	1510	EpiSensor	K2	Digital	ANSS
ALT	Alta City Offices, Alta, UT	ALT	EN[ZEN]	3	UU	40° 35.42'	111° 38.25'	2635	Applied Mems	ANSS-130	Digital	ANSS
AMF	Tri-Cities Golf Course	AMF	EN[ZEN]	3	UU	40° 24.11'	111° 47.27'	1445	EpiSensor	K2	Digital	ANSS
	American Fork, UT											
ANMO	Albuquerque, NM	ANMO	BH[ZEN]	3	IU	34° 57.01'	106° 27.61'	1743	*	*	Digital	USGS
ARGU	Argyle Ridge, UT	ARGU	EHZ	1	UU	39° 49.37'	110° 32.62'	2828	S13	PSN	Analog	Utah
ARUT	Antelope Range, UT	ARUT	EHZ	1	UU	37° 47.28'	113° 26.42'	1646	L4C	PSN	Analog	Utah
AVE	Avenues, Salt Lake City, UT	AVE	EN[ZEN]	3	UU	40° 46.47'	111° 51.83'	1387	Applied Mems	ANSS-130	Digital	ANSS
BCE	Book Cliffs East, UT	BCE	EHZ EN[ZEN]	4	UU	39° 36.79'	110° 24.51'	2666	L4C EpiSensor	K2	Digital	Utah
BCS	Brigham City Maintenance Shop	BCS	EN[ZEN]	3	UU	41° 30.71'	112° 01.98'	1303	EpiSensor	K2	Digital	ANSS
	Brigham City, UT											
BCU	Brigham City, UT	BCU	EN[ZEN]	3	UU	41° 30.74'	111° 58.93'	1676	EpiSensor	K2	Digital	ANSS
BCW	Book Cliffs West, UT	BCW	EHZ EN[ZEN]	4	UU	39° 43.82'	110° 44.55'	2614	L4C EpiSensor	K2	Digital	Utah
BEI	Bear River Range, ID	BEI	EHZ	1	UU	42° 07.00'	111° 46.94'	1859	L4C	PSN	Analog	USGS
BES	Bates Elementary School	BES	EN[ZEN]	3	UU	41° 19.10'	111° 57.26'	1455	EpiSensor	K2	Digital	ANSS
	Ogden, UT											
BGMZ	Barton Gulch, MT	BGMT	EHZ	1	MB	45° 14.00'	112° 02.43'	2172	*	*	Analog	MBMT
BGU	Big Grassy Mountain, UT	BGU	EN[ZEN]	3	UU	40° 55.53'	113° 01.79'	1640	EpiSensor Trillium 120	Q330	Digital	ANSS
			HH[ZEN]	3								
BHU	Blowhard Mountain, UT	BHU	EH[ZEN]	3	UU	37° 35.55'	112° 51.42'	3230	S13	PSN	Analog	Utah
BHUT	Beaver High School, UT	BHUT	EN[ZEN]	3	UU	38° 16.61'	112° 38.42'	1799	PA-23	SMART- 24	Digital	Utah
BMN	Battle Mountain, NM	BMN	BHZ	1	NN	40° 25.89'	117° 13.31'	1594	*	*	Digital	UNR
BMUT	Black Mountain, UT	BMUT	EHZ	1	UU	41° 57.49'	111° 14.05'	2243	S13	PSN	Analog	USGS
BON	Boundary Peak, NV	BONR	SHZ	1	NN	37° 57.31'	118° 18.10'	2582	*	*	Digital	UNR

UURSN	Location	SEED	SEED	No. of	Network	Latitude	Longitude	Elevation	Sensor	Digitizer	Telemetry	Sponsor
		Station	Channel	Channels	Code			(meters)				
BOZ	Bozeman, MT	BOZ	BH[ZEN]	3	US	45° 38.82'	111° 37.78'	1589	*	*	Digital	USGS
BRPU	Butcher Ranch, Price, UT	BRPU	HH[ZEN]	3	UU	39° 37.67'	110° 14.56'	1687	Trillium 240 EpiSensor	Q330	Digital	Utah
			EN[ZEN]	3								
BSS	Butlerville Substation Salt Lake City, UT	BSS	EN[ZEN]	3	UU	40° 37.45'	111° 49.37'	1411	EpiSensor	K2	Digital	ANSS
BSUT	Blindstream Canyon, Hanna, UT	BSUT	HH[ZEN]	3	UU	40° 32.19'	110° 45.67'	3211	Trillium 120 EpiSensor	Q330	Digital	Utah
			EN[ZEN]	3								
BTU	Barney Top, UT	BTU	EHZ	1	UU	37° 45.34'	111° 52.46'	3235	S13	PSN	Analog	Utah
BW0	Boulder, WY	BW06	BH[ZEN]	3	US	42° 46.00'	109° 33.50'	2224	*	*	Digital	USGS
BYP	Brigham Young Park	BYP	EN[ZEN]	3	UU	40° 46.26'	111° 53.23'	1323	Applied Mems	ANSS-130	Digital	ANSS
	Salt Lake City, UT											
BZMZ	Bozeman Pass, MT	BZMT	EHZ	1	MB	45° 38.89'	110° 47.80'	1905	*	*	Analog	MBMT
CAPU	Capitol, Salt Lake City, UT	CAP	EN[ZEN]	3	UU	40° 46.71'	111° 53.40'	1384	Applied Mems	ANSS-130	Digital	ANSS
CCPU	Cedar City Park, UT	CCPU	EN[ZEN]	3	UU	38° 16.61'	112° 38.42'	1799	PA-23	SMART-24	Digital	Utah
CCUT	Cedar City, UT	CCUT	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	CFS	EN[ZEN]	3	UU	40° 33.96'	112° 05.61'	1654	EpiSensor	K2	Digital	ANSS
	Copperton, UT											
CHS	Copper Hills High School, West Jordan, UT	CHS	EN[ZEN]	3	UU	40° 35.68'	112° 01.03'	1460	Applied Mems	ANSS-130	Digital	ANSS
COM	Craters of the Moon, ID	COMI	EHZ	1	IE	43° 27.72'	113° 35.64'	1890	*	*	Digital	INL
COY	Coyote Canyon,	COY	EN[ZEN]	3	UU	40° 39.56'	112° 14.34'	1572	Applied Mems	ANSS-130	Digital	ANSS
	Tooele Valley, UT											
CRLU	Curley Ranch, La Sal, UT	CRLU	EHZ	1	UU	38° 17.50'	109° 15.64'	2035	L4C Episensor	Basalt	Digital	Utah, USGS
			EN[ZEN]	3								
CRMZ	Chrome Mountain, MT	CRMT	EHZ	1	MB	45° 27.35'	110° 08.41'	2941	*	*	Analog	MBMT
CTU	Camp Tracy, UT	CTU	HH[ZEN]	3	UU	40° 41.55'	111° 45.02'	1731	40T	72A-07	Digital	USGS
CVH	Cedar City, Canyon View High School, UT	CVH	EN[ZEN]	3	UU	37° 42.91'	113° 03.85'	1724	PA-23	SMART-24	Digital	Utah
CVRU	Castle Valley Ranch, Emery, UT	CVRU	HH[ZEN]	3	UU	38° 55.06'	111° 10.30'	1912	STS-2 EpiSensor	Q330	Digital	Utah
			EN[ZEN]	3								

UURSN	Location	SEED	SEED	No. of	Network	Latitude	Longitude	Elevation (meters)	Sensor	Digitizer	Telemetry	Sponsor	
		Station	Channel	Channels	Code								
CWR	Coldwater Ranch, Paradise, UT	CWR	EN[ZEN]	3	UU	41° 34.90'	111° 46.89'	1837	Applied Mems	ANSS-130	Digital	ANSS	
CWU	Camp Williams, UT	CWU	EHZ	1	UU	40° 26.75'	112° 06.13'	1945	L4C	PSN	Analog	USGS	
DAU	Daniels Canyon, UT	DAU	EHZ	1	UU	40° 24.75'	111° 15.35'	2771	S13	PSN	Analog	USGS	
DBD	Des Bee Dove, UT	DBD	EHZ	1	UU	39° 18.82'	111° 05.55'	2265	L4C	PSN	Analog	Utah	
DCM	Dugout Coal Mine, UT	DCM	EHZ	1	UU	39° 41.70'	110° 35.00'	2537	L4C	Basalt	Digital	Utah	
			EN[ZEN]	3					EpiSensor				
DCU	Deer Creek Reservoir, UT	DCU	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	DOT	EN[ZEN]	3	UU	40° 43.61'	111° 57.65'	1282	Applied Mems	ANSS-130	Digital	ANSS	
DUG	Dugway, UT	DUG	BH[ZEN]	3	US	40° 11.70'	112° 48.80'	1477	*	*	Digital	USGS	
			EH[ZEN]	3	UU				S13	PSN	Analog	Utah, USGS	
DWU	Dry Willow, UT	DWU	EHZ	1	UU	38° 06.32'	112° 59.85'	2270	S13	PSN	Analog	Utah	
ECR	Eagle Creek, ID	ECRI	EHZ	1	IE	43° 03.24'	111° 22.26'	2086	*	*	Digital	INL	
EKU	East Kanab, UT	EKU	EHZ	1	UU	37° 04.48'	112° 29.81'	1829	S13	PSN	Analog	Utah	
ELE	East Layton Elementary School, East Layton, UT	ELE	EN[ZEN]	3	UU	41° 04.84'	111° 55.09'	1444	Applied Mems	ANSS-130	Digital	ANSS	
ELK	Elko, NV	ELK	BH[ZEN]	3	US	40° 44.69'	115° 14.33'	2210	*	*	Digital	USGS	
ELU	Electric Lake, UT	ELU	EHZ	1	UU	39° 38.41'	111° 12.23'	2970	L4C	PSN	Analog	Utah	
EMF	Eagle Mountain Gas Tap, UT	EMF	EN[ZEN]	3	UU	40° 16.89'	111° 59.92'	1487	Applied Mems	ANSS-130	Digital	ANSS	
EMU	Emma Park, UT	EMU	EH[ZEN]	3	UU	39° 48.84'	110° 48.92'	2268	S13	PSN	Analog	USGS	
			EN[ZEN]	3					FBA23	K2	Digital	Utah	
EPU	East Promontory, UT	EPU	EHZ	1	UU	41° 23.49'	112° 24.53'	1436	L4C	PSN	Analog	USGS	
ETW	Elwood Town Hall,	ETW	EN[ZEN]	3	UU	41° 40.15'	112° 08.53'	1305	Applied Mems	ANSS-130	Digital	ANSS	
	Elwood, UT												
FLU	Fool's Peak, UT	FLU	EHZ	1	UU	39° 22.69'	112° 10.29'	1951	18300	PSN	Analog	USGS	
			EHZ	1						Basalt	Digital		
			EN[ZEN]	3									
FPU	Francis Peak, UT	FPU	EHZ	1	UU	41° 01.58'	111° 50.21'	2816	L4C	PSN	Analog	USGS	
FSU	Fish Springs, UT	FSU	EHZ	1	UU	39° 43.35'	113° 23.48'	1487	18300	PSN	Analog	Utah	
FTT	Fire Training Tower,	FTT	EN[ZEN]	3	UU	40° 41.16'	112° 04.99'	1381	Applied Mems	ANSS-130	Digital	ANSS	
	Magna, UT												
FLWY	Flagg Ranch, WY	FLWY	BH[ZEN]	3	IW	44° 04.96'	110° 41.96'	2078	3ESP	RT-130	Digital	ANSS	

UURSN	Location	SEED	SEED	No. of	Network	Latitude	Longitude	Elevation	Sensor	Digitizer	Telemetry	Sponsor	
		Station	Channel	Channels	Code			(meters)					
GBI	Big Grassy Butte, ID	GBI	EHZ	1	IE	43° 59.22'	112° 03.78'	1541	*	*	Digital	INL	
GCN	Grand Canyon, AZ	GCN	EHZ	1	AR	36° 02.64'	112° 07.68'	2294	*	*	Analog	NAU	
GMO	Grantsville Maintenance Office, Grantsville, UT	GMO	EN[ZEN]	3	UU	40° 36.04'	112° 28.48'	1320	Applied Mems	ANSS-130	Digital	ANSS	
	Granite Mountain, UT												
GMV	Granite Mountain Vault Sandy, UT	GMV	EN[ZEN]	3	UU	40° 34.40'	111° 45.79'	1829	EpiSensor	K2	Digital	ANSS	
	Grays Lake, ID	GRRI	EHZ	1	IE	42° 56.28'	111° 25.32'	2207	*	*	Digital	INL	
GZU	Grizzly Peak, UT	GZU	EH[ZEN]	3	UU	41° 25.53'	111° 58.50'	2646	S13	PSN	Analog	USGS	
HCSU	Hobble Creek, Springville, UT	HCSU	EHZ	1	UU	40° 12.40'	111° 30.14'	1789	L4C	Basalt	Digital	Utah, USGS	
			EN[ZEN]	3					EpiSensor				
HDU	Hyde Park, UT	HDU	EHZ	1	UU	41° 48.18'	111° 45.99'	1807	L4C	PSN	Analog	USGS	
HEB	Heber, UT	HEB	EHZ	1	UU	40° 30.09'	111° 20.15'	1925	S13	PSN	Analog	Utah	
HER	Herriman Fire Station Herriman, UT	HER	EN[ZEN]	3	UU	40° 30.94'	112° 01.85'	1502	EpiSensor	K2	Digital	ANSS	
HES	Hooper Elementary School Hooper, UT	HES	EN[ZEN]	3	UU	41° 09.89'	112° 07.30'	1292	EpiSensor	K2	Digital	ANSS	
HFSU	Holladay Fire Station Holladay, UT	HFSU	EN[ZEN]	3	UU	40° 40.21'	111° 49.54'	1344	EpiSensor	K2	Digital	ANSS	
HHA	Hell's Half Acre, ID	HHAI	EHZ	1	IE	43° 17.70'	112° 22.74'	1371	*	*	Digital	INL	
HHS	Hurricane High School, UT	HHS	EN[ZEN]	3	UU	37° 10.43'	113° 17.74'	987	EpiSensor	Etna	Digital	Utah	
HLI	Hailey, ID	HLID	BH[ZEN]	3	US	43° 33.75'	114° 24.83'	1772	*	*	Digital	USGS	
HLJZ	Hailstone, UT	HLJ	EHZ	1	UU	40° 36.64'	111° 24.05'	1931	S13	PSN	Analogs	Utah	
			EN[ZEN]	3					FBA23	K2	Digital		
HMU	Henry Mountain, UT	HMU	HH[ZEN]	3	UU	37° 56.28'	110° 44.51'	2430	3T	72A-07	Digital	Utah	
HON	Honeyville, UT	HON	EN[ZEN]	3	UU	41° 36.97'	112° 03.05'	1528	Applied Mems	ANSS-130	Digital	ANSS	
									L4C	PSN	Analog	USGS	
HRU	Hogsback Ridge, UT	HRU	EHZ	1	UU	40° 47.67'	111° 53.14'	1620	Ranger	PSN	Analog	USGS	
			EN[ZEN]	3					Applied Mems	ANSS-130	Digital	ANSS	
HTU	Hoyt, UT	HTU	EHZ	1	UU	40° 40.52'	111° 13.21'	2576	L4C	PSN	Analogs	USGS	
			EHZ	1					Episensor	Basalt	Digital		
			EN[ZEN]	3									

UURSN Code	Location	SEED	SEED	No. of	Network	Latitude	Longitude	Elevation	Sensor	Digitizer	Telemetry	Sponsor
		Station	Channel	Channels	Code			(meters)				
HVU	Hansel Valley, UT	HVU	HH[ZEN]	3	UU	41° 46.78'	112° 46.50'	1609	Trillium 120	Q330	Digital	USGS
			EN[ZEN]	3					EpiSensor			
HWU	Hardware Ranch, UT	HWUT	BH[ZEN]	3	US	41° 36.41'	111° 33.91'	1830	*	*	Digital	USGS
IAE	Cedar City, Iron County Adult Education, UT	IAE	EN[ZEN]	3	UU	37°39.91'	113° 40.02'	1807	EpiSensor	Etna	Digital	Utah
ICF	International Center Fire Station, Salt Lake City, UT	ICF	EN[ZEN]	3	UU	40° 46.69'	112° 01.72'	1281	EpiSensor	K2	Digital	ANSS
ICU	Indian Springs Canyon, UT	ICU	EHZ	1	UU	37° 08.98'	113° 55.41'	1451	S13	PSN	Analog	Utah
IMU	Iron Mountain, UT	IMU	EHZ	1	UU	38° 37.99'	113° 09.50'	1833	L4C	PSN	Analog	Utah
IMW	Indian Meadows, WY	IMW	BH[ZEN]	3	IW	43° 53.58'	110° 56.58'	2670	3ESP	RT-130	Digital	ANSS
JLU	Jordanelle, UT	JLU	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	JRP	EN[ZEN]	3	UU	40° 49.54'	111° 56.66'	1284	EpiSensor	K2	Digital	ANSS
KEUT	Kanab Elementary School, UT	KEUT	EN[ZEN]	3	UU	37° 03.02'	112° 31.76'	1514	PA-23	SMART-24	Digital	Utah
KLJ	Keetley, UT	KLJ	EHZ	1	UU	40° 37.85'	111° 24.30'	1992	S13	PSN	Analog	Utah
KNB	Kanab, UT	KNB	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	LCMT	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	LCU	EN[ZEN]	3	UU	40° 34.41'	111° 47.91'	1571	Applied Mems	K2	Digital	ANSS
LDJ	Lady, UT	LDJ	EHZ	1	UU	40° 34.89'	111° 24.52'	2217	S13	PSN	Analog	Utah
LEVU	Levan, UT	LEVU	EHZ	1	UU	39° 30.39'	111° 48.88'	1996	L4C	Basalt	Digital	USGS
			EHZ	1					PSN			
			EN[ZEN]	3					EpiSensor			
LGC	Lakeside Golf Course Bountiful, UT	LGC	EN[ZEN]	3	UU	40° 54.04'	111° 54.51'	1292	EpiSensor	K2	Digital	ANSS
LHUT	Little Humpy Peak, UT	LHUT	EHZ	1	UU	40° 53.49'	110° 59.78'	3084	S13	PSN	Analog	Utah
LKC	Lee Kay Hunter Education Center Magna, UT	LKC	EN[ZEN]	3	UU	40° 43.62'	112° 02.14'	1289	EpiSensor	K2	Digital	ANSS
LKW	Lake, WY	LKWy	BH[ZEN]	3	US	44° 33.91'	110° 24.00'	2424	*	*	Digital	USGS

UURSN	Location	SEED	SEED	No. of	Network	Latitude	Longitude	Elevation (meters)	Sensor	Digitizer	Telemetry	Sponsor	
		Station	Channel	Channels	Code								
LMU	Lake Mountain, UT	LMU	EN[ZEN]	3	UU	40° 18.91'	111° 55.92'	1593	EpiSensor	K2	Digital	ANSS	
LOHW	National Elk Refuge, WY	LOHW	BH[ZEN]	3	IW	43° 36.76'	110° 36.30'	2245	3ESP	RT-130	Digital	ANSS	
LRG	Logan River Golf Course	LRG	EN[ZEN]	3	UU	41° 42.82'	111° 51.08'	1362	Applied Mems	ANSS-130	Digital	ANSS	
LSU	Lake Shores, UT	LSU	EN[ZEN]	3	UU	40° 07.94'	111° 43.80'	1375	EpiSensor	K2	Digital	ANSS	
LTU	Little Mountain, UT	LTU	EHZ	1	UU	41° 35.51'	112° 14.83'	1585	L4C	PSN	Analog	USGS	
			EHZ	1						Basalt	Digital		
			EN[ZEN]	3									
MAB	Mapleton Ambulance Building Mapleton, UT	MAB	EN[ZEN]	3	UU	40° 07.85'	111° 34.67'	1440	EpiSensor	K2	Digital	ANSS	
MCID	Moose Creek, ID	MCID	EHZ	1	WY	44° 11.45'	111° 11.03'	2137	L4C	PSN	Analog	USGS	
MCU	Monte Cristo Peak, UT	MCU	EHZ	1	UU	41° 27.70'	111° 30.45'	2664	18300	PSN	Analog	USGS	
MGCU	Grand County Courthouse, Moab, UT	MGCU	EN[ZEN]	3	UU	38° 34.46'	109° 32.89'	1241	EpiSensor	K2	Digital	Utah	
MGU	Meadow Brook Golf Course Salt Lake City, UT	MGU	EHZ	1	UU	40° 40.89'	111° 55.09'	1291	Ranger	PSN	Analog	USGS	
MHD	Mile High Drive, UT	MHD	EHZ	1	UU	40° 39.64'	111° 48.05'	1597	Ranger	PSN	Analog	USGS	
			EHZ	1						Basalt	Digital		
			EN[ZEN]	3									
MID	Middle Canyon, UT	MID	EN[ZEN]	3	UU	40° 31.04'	112° 15.28'	1722	Applied Mems	ANSS-130	Digital	ANSS	
MLI	Malad Range, ID	MLI	EHZ	1	UU	42° 01.61'	112° 07.53'	1896	L4C	PSN	Analog	USGS	
			EHZ	1						Basalt	Digital		
			EN[ZEN]	3									
MMU	Miners Mountain, UT	MMU	EHZ	1	UU	38° 11.57'	111° 17.66'	2387	S13	PSN	Analog	Utah	
MOMZ	Monida, MT	MOMT	EHZ	1	MB	44° 35.60'	112° 23.66'	2220	*	*	Analog	MBMT	
MOR	Morgan, UT	MOR	EN[ZEN]	3	UU	41° 02.77'	111° 39.94'	1633	Applied Mems	ANSS-130	Digital	ANSS	
MOUT	Mount Ogden, UT	MOUT	EHZ	1	UU	41° 11.94'	111° 52.73'	2743	S13	PSN	Analog	USGS	
MPU	Maple Canyon, UT	MPU	EN[ZEN]	3	UU	40° 00.93'	111° 38.00'	1909	EpiSensor	K2	Digital	ANSS	
			HH[ZEN]	3					3ESP	ANSS-130	Digital	USGS	
MSU	Marysvale, UT	MSU	EHZ	1	UU	38° 30.74'	112° 10.63'	2105	18300	PSN	Analog	Utah	
MTLO	Mt. Logan, AZ	MTL	EHZ	1	AR	36° 21.18'	113° 11.94'	2418	*	*	Analog	NAU	

UURSN	Location	SEED	SEED	No. of	Network	Latitude	Longitude	Elevation (meters)	Sensor	Digitizer	Telemetry	Sponsor
		Station	Channel	Channels	Code							
MTPU	Mt. Pierson, UT	MTPU	HH[ZEN]	3	UU	38° 02.49'	112° 11.06'	3112	Trillium 120 EpiSensor	Q330	Digital	Utah
MTUT	Morton Thiokol, UT		EHZ	1		41° 42.55'	112° 27.28'					
MVCO	Mesa Verde, CO	MVCO	BH[ZEN]	3	US	37° 12.62'	108° 29.92'	2170	STS-2	Q330	Digital	ANSS
MVU	Marysvale, UT	MVU	BH[ZEN]	3	LB	38° 30.22'	112° 12.74'	2240	*	*	Digital	Sandia
NAI	North Antelope Island, UT	NAI	EN[ZEN]	3	UU	41° 00.97'	112° 13.68'	1472	EpiSensor	K2	Digital	ANSS
NAIU		NAIU	EHZ	1					L4C	PSN	Analog	USGS
NLU	North Lily Mine, UT	NLU	EN[ZEN]	3	UU	39° 57.29'	112° 04.50'	2036	Episensor 3ESP	72A-08	Digital	ANSS
NMU	North Mineral Mountain, UT		HH[ZEN]	3								
NOQ	North Oquirrh Mountains, UT	NOQ	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	NPI	EHZ	1	UU	42° 08.84'	112° 31.10'	1640	PSN	Analog	USGS	
			EHZ	1					L4C	Basalt	Digital	
			EN[ZEN]	3					EpiSensor			
OCP	Orem City Park, Orem, UT	OCP	EN[ZEN]	3	UU	40° 17.87'	111° 41.44'	1464	EpiSensor	K2	Digital	ANSS
OF2	Ogden Fire Station ° 2 Ogden, UT	OF2	EN[ZEN]	3	UU	41° 13.70'	111° 56.92'	1358	EpiSensor	K2	Digital	ANSS
OPS	Ogden Public Safety Building, Ogden, UT	OPS	EN[ZEN]	3	UU	41° 13.72'	111° 58.54'	1317	Applied Mems	ANSS-130	Digital	ANSS
OSS	Oquirrh Sub Station, UT	OSS	EN[ZEN]	3	UU	40° 33.77'	112° 01.61'	1503	Applied Mems	ANSS-130	Digital	ANSS
OWUT	Old Woman Plateau, UT	OWUT	EHZ	1	UU	38° 46.80'	111° 25.42'	2568	L4C	PSN	Analog	Utah
PCCW	Pine Creek, Cokeville, WY	PCCW	EHZ	1	UU	42° 05.97'	110° 52.36'	1996	L4C	Basalt	Digital	Utah, USGS
PCL	Plain City Landfill Plain City, UT		EN[ZEN]	3					EpiSensor			
PCR	Park City Recreation Center Park City, UT	PCR	EN[ZEN]	3	UU	40° 39.25'	111° 30.19'	2100	EpiSensor	K2	Digital	ANSS
PEUT	Richfield, Pahvant Elementary School, UT	PEUT	EN[ZEN]	3	UU	38° 46.55'	112° 05.32'	1644	PA-23	SMART- 24	Digital	Utah
PGAZ	Page, AZ	PGA	EHZ	1	AR	36° 54.34'	111° 16.86'	1272	*	*	Analog	NAU
PGC	Pleasant Grove Creek, UT	PGC	EN[ZEN]	3	UU	40° 22.71'	111° 42.62'	1707	EpiSensor	K2	Digital	ANSS

UURSN Code	Location	SEED	SEED	No. of	Network	Latitude	Longitude	Elevation	Sensor	Digitizer	Telemetry	Sponsor
		Station	Channel	Channels	Code			(meters)				
PKCU	Pink Cliffs, UT	PKCU	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	PNSU	HH[ZEN]	3	UU	39° 28.38'	110° 44.40'	2743	Trillium 240	Q330	Digital	Utah
PRN	Pahroc, Range, NV	PRN	SHZ	1	NN	37° 24.40'	115° 03.05'	1402	*	*	Digital	UNR
PSUT	Pine Spring, UT	PSUT	HH[ZEN]	3	UU	38° 32.02'	113° 51.28'	1999	Trillium 120	Q330	Digital	Utah
			EN[ZEN]	3					EpiSensor			
PTI	Pocatello, ID	PTI	EHZ	1	IE	42° 52.20'	112° 22.21'	1670	*	*	Digital	INL
PTU	Portage, UT	PTU	EHZ	1	UU	41° 55.76'	112° 19.48'	2192	L4C	Basalt	Digital	USGS
			EHZ	1					EpiSensor			
			EN[ZEN]	3								
QLMZ	Earthquake Lake, MT	QLMT	EHZ	1	MB	44° 49.84'	111° 25.80'	2064	*	*	Analog	MBMT
RBUZ	Red Butte Canyon, UT	RBU	EHZ	1	UU	40° 46.85'	111° 48.50'	1676	L4C	Basalt	Digital	USGS
			EHZ	1					EpiSensor			
			EN[ZEN]	3								
RCJZ	Ross Creek, UT	RCJ	EHZ	1	UU	40° 39.51'	111° 26.36'	2090	S13	PSN	Analog	Utah
RDMU	Red Mountain, UT	RDMU	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	REDW	BH[ZEN]	3	IW	43° 21.74'	110° 51.18'	2322	3ESP	RT-130	Digital	ANSS
REUT	Washington Fields, Riverside Elementary School, UT	REUT	EN[ZEN]	3	UU	37° 05.86'	113° 31.16'	791	PA-23	SMART-24	Digital	Utah
RIV	Public Works Building Riverton, UT	RIV	EN[ZEN]	3	UU	40° 31.16'	111° 56.05'	1347	EpiSensor	K2	Digital	ANSS
ROA	Roan Cliffs, UT	ROA	EHZ	1	UU	39° 39.69'	110° 21.88'	2962	S13	PSN	Analog	Utah
RPF	Rose Park Fire Station, Salt Lake City, UT	RPF	EN[ZEN]	3	UU	40° 46.52'	111° 55.22'	1287	Applied Mems	ANSS-130	Digital	ANSS
RRCU	Rees Ranch, Coalville, UT	RRCU	EHZ	1	UU	40° 53.21'	111° 26.22'	2028	L4C	Basalt	Digital	Utah, USGS
			EN[ZEN]	3					EpiSensor			
RRI2	Red Ridge, ID	RRI2	BH[ZEN]	3	IW	43° 20.84'	111° 19.20'	2547	3ESP	RT-130	Digital	ANSS
RSUT	Red Spur, UT	RSUT	EHZ	1	UU	41° 38.31'	111° 25.90'	2682	S13	Basalt	Digital	USGS
			EHZ	1					EpiSensor			
			EN[ZEN]	3								

UURSN Code	Location	SEED	SEED	No. of	Network	Latitude	Longitude	Elevation (meters)	Sensor	Digitizer	Telemetry	Sponsor
		Station	Channel	Channels	Code							
SAIU	South Antelope Island, UT	SAIU	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	SCC	EN[ZEN]	3	UU	40° 40.49'	111° 56.37'	1306	EpiSensor	K2	Digital	ANSS
SCS	Syracuse City Cemetery Shop Syracuse, UT	SCS	EN[ZEN]	3	UU	41° 05.73'	112° 02.81'	1321	EpiSensor	K2	Digital	ANSS
SCUT	Santa Clara, UT	SCUT	EN[ZEN]	3	UU	37° 07.69'	113° 38.68'	837	EpiSensor	Etna	Digital	Utah
SCY	Salem City Yard, Salem, UT	SCY	EN[ZEN]	3	UU	40° 03.47'	111° 41.14'	1386	Applied Mems	ANSS-130	Digital	ANSS
SGSU	St. George Fire Station #4, UT	SGSU	EN[ZEN]	3	UU	38° 16.61'	112° 38.42'	1799	PA-23	SMART- 24	Digital	Utah
SGU	Sterling, UT	SGU	EHZ	1	UU	39° 10.94'	111° 38.68'	2357	18300	PSN	Analog	USGS
SHP	Sheep Range, NV	SHP	EHZ	1	NN	36° 30.33'	115° 09.61'	1590	*	*	Digital	UNR
SJF	South Jordan Fire Station, South Jordan, UT	SJF	EN[ZEN]	3	UU	40° 33.37'	111° 56.34'	1356	Applied Mems	ANSS-130	Digital	ANSS
SNO	Snow College, UT	SNO	EHZ	1	UU	39° 19.18'	111° 32.33'	2503	Ranger	PSN	Analog	Utah
SNUT	Stansbury North, UT	SNUT	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	SPR	EN[ZEN]	3	UU	40° 10.94'	111° 36.71'	1379	EpiSensor	K2	Digital	ANSS
SPS	Stansbury Park Sewage Lagoon Stansbury Park, UT	SPS	EN[ZEN]	3	UU	40° 38.97'	112° 18.95'	1293	Applied Mems	ANSS-130	Digital	ANSS
SPU	South Promontory Point, UT	SPU	EN[ZEN]	3	UU	41° 18.52'	112° 26.95'	2086	EpiSensor 3ESP	ANSS-130	Digital	ANSS
			HH[ZEN]	3								
SRU	San Rafael Swell, UT	SRU	EHZ	1	UU	39° 06.65'	110° 31.43'	1804	S13	PSN	Analog	Utah, ANSS, IRIS
			HH[ZEN]	6					STS-2		Digital	
			EN[ZEN]						EpiSensor			
SSC	Sandy Senior Center Sandy, UT	SSC	EN[ZEN]	3	UU	40° 34.89'	111° 51.35'	1414	EpiSensor	K2	Digital	ANSS
SUU	Santaquin Canyon, UT	SUU	EHZ	1	UU	39° 53.29'	111° 47.45'	2024	18300	PSN	Analog	USGS

UURSN Code	Location	SEED	SEED	No. of	Network	Latitude	Longitude	Elevation	Sensor	Digitizer	Telemetry	Sponsor
		Station	Channel	Channels	Code			(meters)				
SZCU	Shurtz Canyon, UT	SZCU	HH[ZEN]	3	UU	37° 35.72'	113° 05.25'	2026	3T	SMART-24	Digital	Utah
			EN[ZEN]	3					PA-23			
TCRU	Three Creeks Reservoir, UT	TCRU	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	TCU	EN[ZEN]	3	UU	41° 07.04'	111° 24.47'	2269	EpiSensor	ANSS-130	Digital	ANSS
			HH[ZEN]	3					3ESP			
TCUT	Toone Canyon, UT	TCUT	EHZ	1	UU	41° 07.07'	111° 24.51'	2320	L4C	PSN	Analog	USGS
TCVU	Timpanogos Cave, UT	TCVU	EHZ	1	UU	40° 26.61'	111° 42.31'	1730	L4C	Basalt	Digital	Utah
			EN[ZEN]	3					EpiSensor			
TMI	Taylor Mountain, ID	TMI	EHZ	1	IE	43° 18.30'	111° 55.08'	2179	*	*	Digital	INL
TMU	Trail Mountain, UT	TMU	HH[ZEN]	3	UU	39° 17.79'	111° 12.49'	2731	Observer	ANSS-130	Digital	Utah, ANSS
			EN[ZEN]	3					EpiSensor			
TPMZ	Teepe Creek, MT	TPMT	EHZ	1	MB	44° 43.79'	111° 39.94'	2518	*	*	Analog	MBMT
TPNV	Topopah Spring, NV	TPNV	BH[ZEN]	3	US	36° 56.93'	116° 14.97'	1600	*	*	Digital	USGS
TPU	Thanksgiving Point, Lehi, UT	TPU	EN[ZEN]	3	UU	40° 25.81'	111° 54.13'	1383	EpiSensor	K2	Digital	ANSS
TRC	Troy Canyon, NV	TRC	BHZ	1	NN	38° 20.98'	115° 35.11'	1815	*	*	Digital	UNR
TRS	Tooele County Radio Shop, Tooele, UT	TRS	EN[ZEN]	3	UU	40° 30.83'	112° 18.63'	1568	EpiSensor	K2	Digital	ANSS
TUC	Tucson, AZ	TUC	BH[ZEN]	3	US	32° 18.58'	110° 47.05'	906	*	*	Digital	USGS
U15A	North Rim, AZ	U15A	BH[ZEN]	3	AE	36° 25.80'	112° 17.40'	2489	Trillium 240	Q330	Digital	AZGS
UHP	Utah Highway Patrol Farmington, UT	UHP	EN[ZEN]	3	UU	40° 59.47'	111° 53.88'	1295	EpiSensor	K2	Digital	ANSS
UTH	Uintah Town Hall, Uintah, UT	UTH	EN[ZEN]	3	UU	41° 08.65'	111° 55.52'	1389	EpiSensor	K2	Digital	ANSS
UUE	University of Utah EMCB Bldg. Salt Lake City, UT	UUE	EN[ZEN]	3	UU	40° 46.09'	111° 50.77'	1449	EpiSensor	K2	Digital	ANSS
V05	E. Island Mesa, Paradox Basin, CO	PV05	HH[ZEN]	3	RE	38° 08.87'	108° 50.08'	2142	*	*	Digital	USBR
V11	Davis Mesa, Paradox Basin, CO	PV11	HH[ZEN]	3	RE	38° 17.96'	108° 52.33'	1881	*	*	Digital	USBR
V15	Pinto Mesa, Paradox Basin, CO	PV15	HH[ZEN]	3	RE	38° 20.51'	108° 28.66'	2280	*	*	Digital	USBR
V21	Cone Mountain, Paradox Basin, CO	PV21	HH[ZEN]	3	RE	38° 33.67'	108° 58.50'	2235	*	*	Digital	USBR
VEC	Valley Emergency Communications Center West Valley City, UT	VEC	EN[ZEN]	3	UU	40° 39.21'	112° 01.95'	1480	EpiSensor	K2	Digital	ANSS

UURSN	Location	SEED	SEED	No. of	Network	Latitude	Longitude	Elevation	Sensor	Digitizer	Telemetry	Sponsor	
		Station	Channel	Channels	Code			(meters)					
VNL	Vernal, UT	VNL	EN[ZEN]	3	UU	40° 27.48'	109° 32.89'	1648	FBA23	Etna	Digital	Utah	
VRUT	Veyo Road, Veyo, UT	VRUT	HH[ZEN]	3	UU	37° 27.71'	113° 51.41'	1874	Trillium 120 PA-23	SMART-24	Digital	Utah	
			EN[ZEN]	3									
W13A	Hualapai Mountain Park, Kingman, AZ	W13A	BH[ZEN]	3	AE	35° 06.00'	113° 53.40'	1988	3T	Q330	Digital	AZGS	
WBC	Weber Canyon, UT	WBC	EN[ZEN]	3	UU	41° 08.38'	111° 54.05'	1602	EpiSensor	K2	Digital	ANSS	
WCF	Wellsville Fire Station, Wellsville, UT	WCF	EN[ZEN]	3	UU	41° 38.37'	111° 55.94'	1387	Applied Mems	ANSS-130	Digital	ANSS	
WCN	Washoe, NV	WCN	HHZ	1	NN	39° 18.10'	119° 45.38'	1500	*	*	Digital	UNR	
WCO	Washington City Office Building, UT	WCO	EN[ZEN]	3	UU	37° 07.91'	113° 30.56'	837	EpiSensor	Etna	Digital	Utah	
WCU	Willow Creek, UT	WCU	EHZ	1	UU	38° 57.88'	112° 05.44'	2673	18300	PSN	Analog	USGS	
			EHZ	1						Basalt	Digital		
			EN[ZEN]	3									
WDO	Saint George, Washington County School District Office, UT	WDO	EN[ZEN]	3	UU	37° 06.46'	113° 35.19'	831	PA-23	SMART-24	Digital	Utah	
WES	Westminster College Salt Lake City, UT	WES	EN[ZEN]	3	UU	40° 43.97'	111° 51.26'	1341	EpiSensor	K2	Digital	ANSS	
WHS	West High School	WHS	EN[ZEN]	3	UU	40° 46.51'	111° 53.93'	1301	EpiSensor	K2	Digital	ANSS	
WMUT	West Mountain, UT	WMUT	EHZ	1	UU	40° 04.60'	111° 50.00'	1981	L4C	PSN	Analog	USGS	
			EHZ	1						Basalt	Digital		
			EN[ZEN]	3									
WRP	Water Reclamation Plant Salt Lake City, UT	WRP	EN[ZEN]	3	UU	40° 48.82'	111° 55.87'	1286	Applied Mems	ANSS-130	Digital	ANSS	
WTU	Western Traverse Mountains, UT	WTU	EH[ZEN]	4	UU	40° 27.29'	111° 57.21'	1552	S13	PSN	Analog	USGS	
			EN[ZEN]	3					Applied Mems	ANSS-130	Digital	ANSS	
WUAZ	Wupatki, AZ	WUAZ	BH[ZEN]	3	US	35° 31.01'	111° 22.43'	1592	*	*	Digital	USGS	
WVUT	Wellsville, UT	WVUT	EHZ	1	UU	41° 36.61'	111° 57.55'	1828	L4C	PSN	Analog	USGS	
YDC	Denny Creek, MT	YDC	EHZ	1	WY	44° 42.51'	111° 14.60'	2025	L4C	PSN	Analog	USGS	
YFT	Old Faithful (YNP), WY	YFT	HH[ZEN]	3	WY	44° 27.05'	110° 50.24'	2292	Trillium 120	72A-07	Digital	USGS	
			EN[ZEN]	3					Titan				
			EHZ	1					L4C	None	None		
YGC	Grayling Creek, MT	YGC	EHZ	1	WY	44° 47.77'	111° 06.45'	2075	L4C	PSN	Analog	USGS	

UURSN	Location	SEED	SEED	No. of	Network	Latitude	Longitude	Elevation (meters)	Sensor	Digitizer	Telemetry	Sponsor
		Station	Channel	Channels	Code							
YHB	Horse Butte, MT	YHB	EHZ	1	WY	44° 45.07'	111° 11.71'	2157	L4C	PSN	Analog	USGS
			HH[ZEN]	3					40T	ANSS-130	Digital	
			EN[ZEN]	3					Titan			
YHH	Holmes Hill (YNP), WY	YHH	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	YHL	HH[ZEN]	3	WY	44° 51.05'	111° 10.98'	2691	Trillium 120	Q330	Digital	USGS
			EN[ZEN]	3					Titan			
YJCZ	Joseph's Coat (YNP), WY	YJC	EH[ZEN]	3	WY	44° 45.33'	110° 20.95'	2684	S13	PSN	Analog	USGS
YLAZ	Lake Butte (YNP), WY	YLA	EHZ	1	WY	44° 30.76'	110° 16.12'	2580	L4C	PSN	Analog	USGS
YLT	Little Thumb Creek (YNP), WY	YLT	EHZ	1	WY	44° 26.25'	110° 35.28'	2439	L4C	PSN	Analog	USGS
YMC	Maple Creek (YNP), WY	YMC	EH[ZEN]	3	WY	44° 45.53'	111° 00.41'	2073	S13	PSN	Analog	USGS
YML	Mary Lake (YNP), WY	YML	EH[ZEN]	3	WY	44° 36.20'	110° 38.63'	2653	L4C	PSN	Analog	USGS
YMP	Mirror Plateau (YNP), WY	YMP	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	YMR	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	YMS	EHZ	1	WY	44° 15.84'	110° 31.67'	3106	L4C	PSN	Analog	USGS
YMV	Mammoth Vault (YNP), WY	YMV	EHZ	1	WY	44° 58.42'	110° 41.33'	1829	L4C	PSN	Analog	USGS
YNE	Northeast Entrance (YNP), WY	YNE	HH[ZEN]	3	WY	45° 00.46'	110° 00.48'	2343	Compact	Taurus	Digital	USGS
YNM	Norris Museum (YNP), WY	YNM	HH[ZEN]	3	WY	44° 43.59'	110° 42.22'	2311	Trillium 240	Q330	Digital	USGS
YNR	Norris Junction (YNP), WY	YNR	HH[ZEN]	3	WY	44° 42.93'	110° 40.75'	2336	Trillium 120	RT-130	Digital	USGS
			EN[ZEN]	3					Titan			
YPC	Pelican Cone (YNP), WY	YPC	EHZ	1	WY	44° 38.88'	110° 11.55'	2932	L4C	PSN	Analog	USGS
YPK	Parker Peak (YNP), WY	YPK	EH[ZEN]	3	WY	44° 43.91'	109° 55.32'	2897	L4C	PSN	Analog	USGS
YPM	Purple Mountain (YNP), WY	YPM	EHZ	1	WY	44° 39.43'	110° 52.12'	2582	L4C	PSN	Analog	USGS
YPP	Pitchstone Plateau (YNP), WY	YPP	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	YSB	EHZ	1	WY	44° 53.04'	110° 09.06'	2072	L4C	PSN	Analog	USGS
YTP	The Promontory (YNP), WY	YTP	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			

UURSN Code	Location	SEED	SEED	No. of	Network	Latitude	Longitude	Elevation (meters)	Sensor	Digitizer	Telemetry	Sponsor
		Station	Channel	Channels	Code							
YUF	Upper Falls (YNP), WY	YUF	HH[ZEN]	3	WY	44° 42.76'	110° 30.71'	2394	3ESP	ANSS-130	Digital	USGS
			EN[ZEN]	3					Titan			
YWB	West Boundary (YNP), WY	YWB	EHZ	1	WY	44° 36.35'	111° 06.05'	2310	L4C	PSN	Analog	USGS
ZNPU	Zion National Park, UT	ZNPU	HH[ZEN]	3	UU	37° 21.37'	113° 07.52'	1953	Trillium 120	Q330	Digital	Utah
			EN[ZEN]	3					EpiSensor			

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

Network Statistics: 803 data channels from 259 stations were being recorded at the end of this report period

EXPLANATION OF TABLE

UURSN Code: Station code formerly used in routine processing. Due to processing 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
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
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
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)

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

NETWORK CHANGES DURING OCTOBER 1-DECEMBER 31, 2012

October 19 Installation station VRUT (EN[ZEN], HH[ZEN]).