

# **EARTHQUAKE ACTIVITY IN THE YELLOWSTONE REGION**

Preliminary Epicenters

April 1 – June 30, 2014

Prepared by the University of Utah Seismograph Stations and funded by  
the U.S. Geological Survey (Cooperative Agreement No. G13AC00018)

August 28, 2014

## 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 Yellowstone region (lat.  $44^{\circ} 00' - 45^{\circ} 10'$  N, long.  $109^{\circ} 45' - 111^{\circ} 30'$  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 Yellowstone seismic network (Figure 2, Table 3).

The earthquake listing in Table 2 is estimated to be systematically complete above magnitude 1.5 within Yellowstone. *These data are preliminary—both the locations and magnitudes in this table are subject to revision.*

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

- Date (yyymmdd) and origin time in Coordinated Universal 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 2000 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 YELLOWSTONE REGION**

### **April 1 – June 30, 2014**

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During the three-month period April 1 through June 30, 2014, the University of Utah Seismograph Stations (UUSS) located 580 earthquakes within the Yellowstone region (Figure 1). The total includes six earthquakes in the magnitude 3 range and 60 earthquakes in the magnitude 2 range. The largest events to occur during this period were a pair of magnitude 3.5 earthquakes on May 31<sup>st</sup> and June 4<sup>th</sup>. Both of these events were part of an earthquake swarm near the Norris Geyser Basin from May 31<sup>st</sup> – June 12<sup>th</sup>. Earthquakes of magnitude 3.0 or larger (plotted as stars and specifically labeled on Figure 1) are listed below. Two earthquakes were reported felt during the report period (see Table 1, a cumulative tabulation of earthquakes during 2014 that were felt in the Yellowstone region). Additional information on earthquakes within the Yellowstone 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 2000 m elevation datum used previously.

For earthquakes of magnitude 3 and larger in the Yellowstone 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**

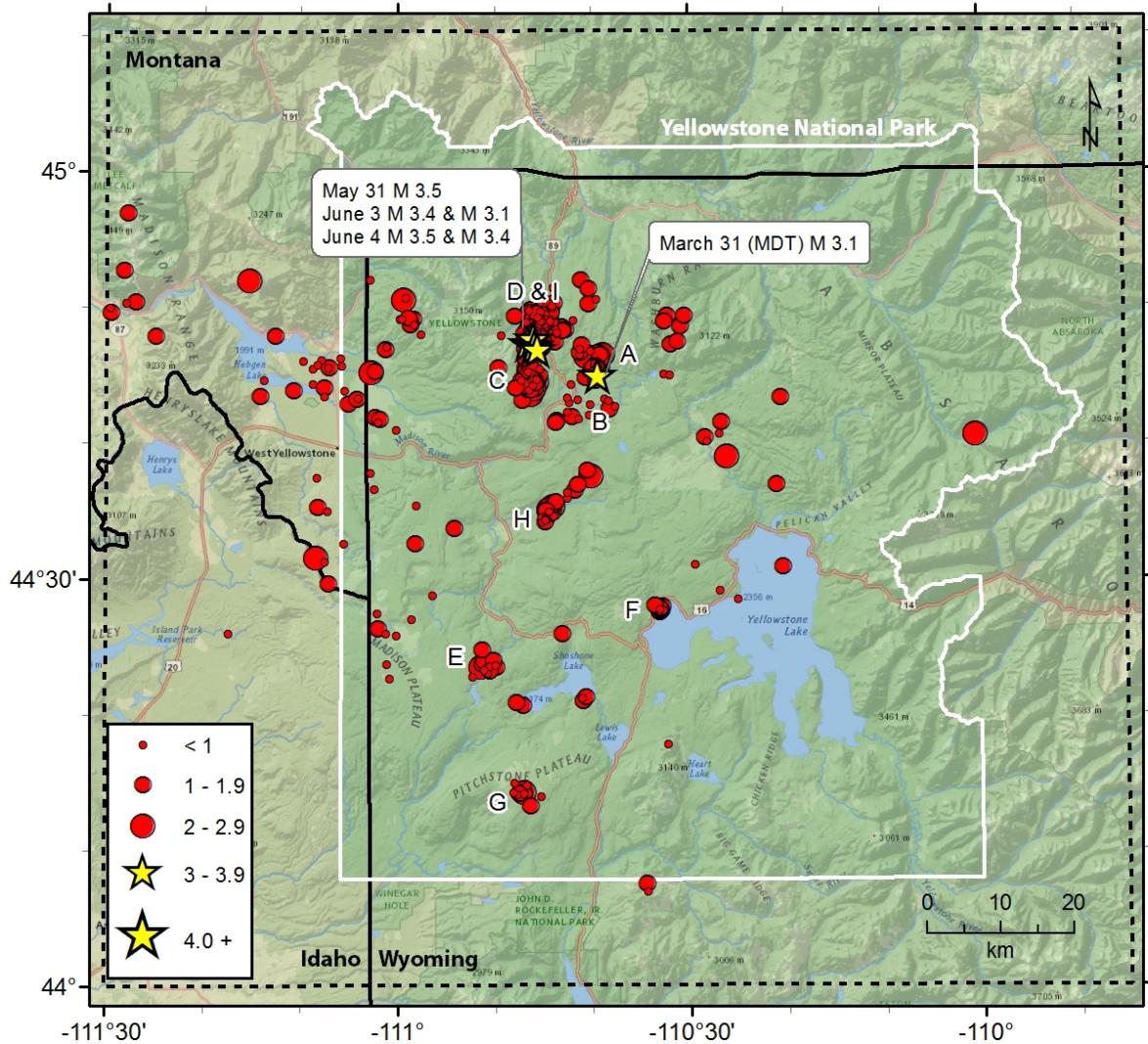
M <sub>L</sub> 3.1	March 31	22:32 MDT	3 mi NE of Norris Geyser Basin, YNP
M <sub>L</sub> 3.5	May 31	16:25 MDT	6 mi NNW of Norris Geyser Basin, YNP
M <sub>L</sub> 3.4	June 3	03:33 MDT	6 mi NNW of Norris Geyser Basin, YNP
M <sub>L</sub> 3.1	June 3	03:52 MDT	5 mi NNW of Norris Geyser Basin, YNP
M <sub>L</sub> 3.5	June 4	06:16 MDT	5 mi NNW of Norris Geyser Basin, YNP
M <sub>L</sub> 3.4	June 4	15:22 MDT	5 mi NNW of Norris Geyser Basin, YNP

## **Notable Swarm Seismicity**

During the report period, there were nine earthquake swarms in the Yellowstone region. For reporting purposes, we use the Mogi definition [Mogi, 1963] of a swarm and require each swarm to have ten or more earthquakes. Note that typically, around 50% of Yellowstone seismicity occurs as swarm seismicity [Farrell et al., 2009].

- A. A swarm of 156 earthquakes ( $-0.1 \leq M \leq 4.8$ ) occurred about 4 miles NNE of Norris Geyser Basin, YNP on March 27th – April 1st.
- B. A swarm of 22 earthquakes ( $0.2 \leq M \leq 1.9$ ) occurred about 1 mile SE of Norris Geyser Basin, YNP on March 30th - April 1st.
- C. A swarm of 48 earthquakes ( $0.1 \leq M \leq 2.8$ ) occurred about 4 miles WNW of Norris Geyser Basin, YNP on March 30th - April 9th.
- D. A swarm of 22 earthquakes ( $-0.2 \leq M \leq 2.4$ ) occurred about 6 miles NNW of Norris Geyser Basin, YNP on April 1st – 8th.
- E. A swarm of 12 earthquakes ( $0.7 \leq M \leq 2.1$ ) occurred about 5 miles SSW of Old Faithful, YNP on April 20th.
- F. A swarm of 11 earthquakes ( $0.4 \leq M \leq 1.9$ ) occurred about 4 miles NNE of West Thumb Geyser Basin, YNP on May 6th – 7th.
- G. A swarm of 13 earthquakes ( $0.6 \leq M \leq 2.1$ ) occurred about 16 miles SW of West Thumb Geyser Basin, YNP on May 8th - 9th.
- H. A swarm of 26 earthquakes ( $0.5 \leq M \leq 2.1$ ) occurred about 7 miles SE of Madison Junction, YNP on May 29th.
- I. A swarm of 248 earthquakes ( $0.2 \leq M \leq 3.5$ ) occurred about 6 miles NNW of Norris Geyser Basin, YNP on May 31st – June 12th.

These nine swarms are labeled in Figure 1.



**Figure 1.** Earthquake epicenters located by the University of Utah Seismograph Stations. Earthquakes of magnitude 3.0 and larger are depicted as yellow stars. Earthquake swarms labeled A-I are discussed in the text.

**Table 1**  
**EARTHQUAKES FELT IN THE YELLOWSTONE REGION**  
**January 1, 2014 to June 30, 2014**

Date	Time†	Felt Information‡	Latitude	Longitude	Magnitude§
January 11	18:46 MST	Yellowstone. Felt (III) at Yellowstone National Park, WY.	44° 48.37'	110° 31.37'	M <sub>L</sub> 3.4
January 12	01:46 UTC				
March 30	06:34 MDT 12:34 UTC	Yellowstone. Felt (III) at West Yellowstone, MT.	44° 46.33'	110° 41.08'	M <sub>W</sub> 4.8
March 30	09:12 MDT 15:12 UTC	Yellowstone. Felt (IV) at West Yellowstone, MT.	44° 46.83'	110° 43.31'	M <sub>L</sub> 3.7
June 03	03:33 MDT 09:33 UTC	Yellowstone. Felt (III) at Yellowstone National Park, WY.	44° 47.78'	110° 45.94'	M <sub>L</sub> 3.4
June 04	06:16 MDT 12:16 UTC	Yellowstone. Felt (IV) at Yellowstone National Park, WY.	44° 47.25'	110° 45.94'	M <sub>L</sub> 3.5

† Times are listed both as Local Time—Mountain Standard Time (MST) or Mountain Daylight Time (MDT)—and as Coordinated Universal 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<sub>L</sub>) or coda magnitude (M<sub>C</sub>) determined by UUSS. If labeled “NEIC,” data are from the National Earthquake Information Center of the USGS.

# Yellowstone Seismic Network

## June 30, 2014

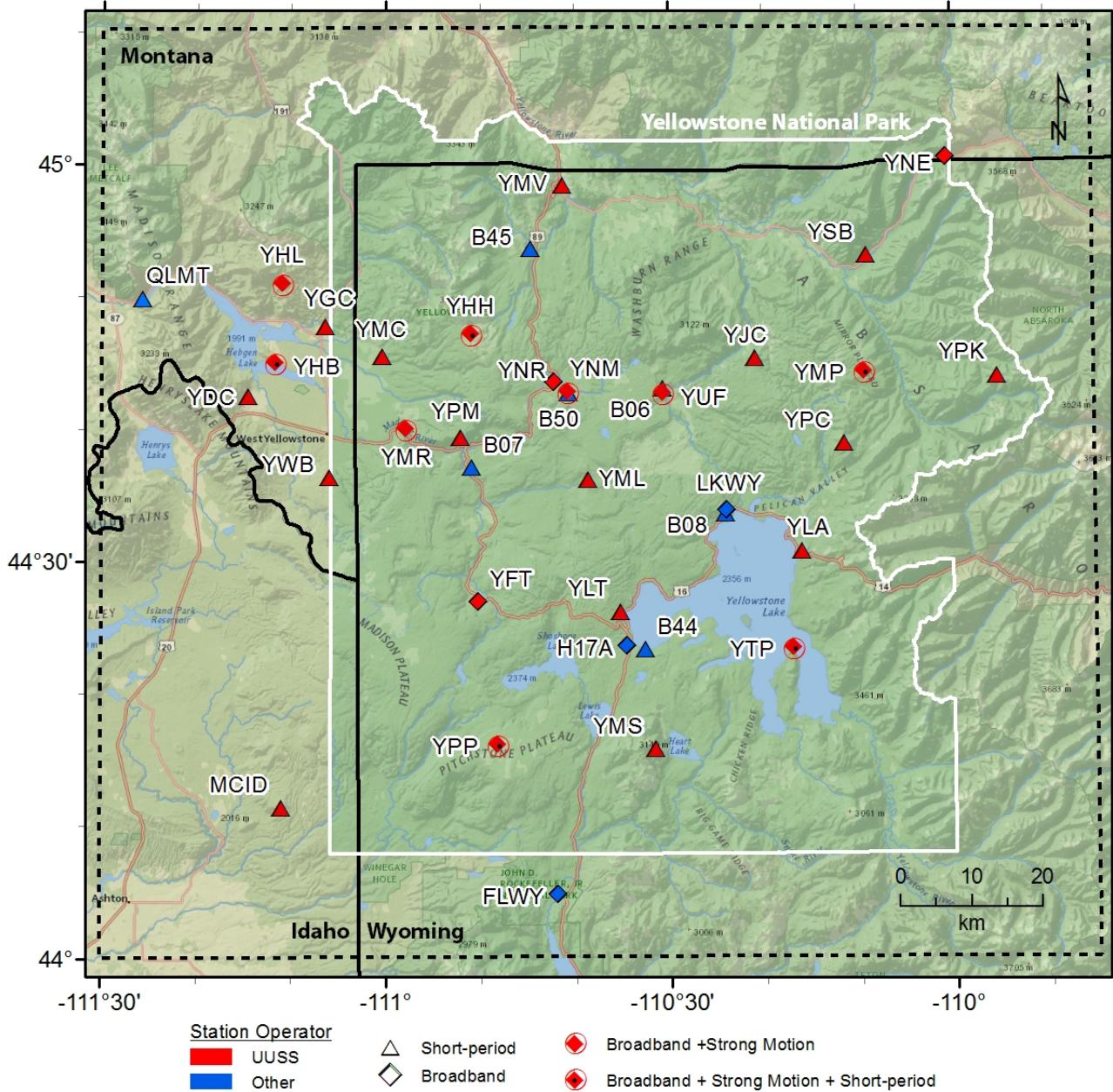


Figure 2

**Table 2. Earthquakes in the Yellowstone Region: April 1–June 30, 2014**

DATE	ORIGIN TIME	LATITUDE	LONGITUDE	DEPTH	MAG	NO	GAP	DMN	RMS
140401	01:50:56.37	44°44.65'	110°39.59'	3.5	1.2W	6	213	4	0.02
140401	02:00:17.50	44°46.55'	110°39.19'	3.7	1.7W	16	140	7	0.19
140401	02:13:59.77	44°44.55'	110°39.49'	3.8	--	7	211	3	0.03
140401	02:14:23.90	44°45.64'	110°39.90'	3.8	1.4W	14	189	5	0.14
140401	02:18:16.79	44°45.99'	110°39.55'	3.8	2.3W	15	139	6	0.14
140401	02:18:33.71	44°41.82'	110°41.37'	6.2	--	5	260	2	0.06
140401	02:27:48.64	44°45.64'	110°39.67'	3.8	1.8W	18	187	5	0.12
140401	02:28:09.37	44°45.89'	110°39.64'	7.8	--	5	254	5	0.07
140401	02:39:35.57	44°46.12'	110°39.52'	3.7	2.2W	17	139	6	0.18
140401	02:43:14.30	44°45.70'	110°39.41'	4.6	2.4W	19	137	5	0.16
140401	02:43:20.08	44°42.00'	110°42.04'	5.2	1.5W	5	272	2	0.01
140401	02:44:52.53	44°45.35'	110°39.64'	4.1	2.2W	22	164	5	0.15
140401	02:46:49.82	44°45.84'	110°39.59'	3.1	1.9W	14	189	5	0.10
140401	02:48:19.84	44°44.88'	110°40.69'	2.6	1.7W	16	159	4	0.16
140401	02:49:12.29	44°45.50'	110°40.09'	2.2	1.8W	10	185	5	0.11
140401	02:49:31.45	44°45.53'	110°39.38'	3.8	1.9W	18	187	5	0.15
140401	02:52:11.93	44°42.36'	110°42.53'	4.6	--	6	223	2	0.02
140401	02:52:27.46	44°46.85'	110°40.18'	-0.1	--	5	207	7	0.03
140401	02:52:32.74	44°45.68'	110°39.55'	3.9	1.6W	18	167	5	0.14
140401	02:55:29.77	44°43.29'	110°38.68'	0.5	--	5	175	3	0.03
140401	02:55:32.54	44°42.92'	110°40.20'	0.9	--	5	166	1	0.02
140401	02:55:42.65	44°45.73'	110°39.68'	2.9	0.4	11	188	5	0.12
140401	02:55:53.93	44°43.23'	110°41.47'	5.8	--	6	174	1	0.04
140401	02:55:58.70	44°46.44'	110°39.41'	4.1	2.1W	28	140	6	0.19
140401	02:56:29.50	44°45.20'	110°40.60'	0.8	--	6	180	4	0.13
140401	02:57:29.64	44°45.78'	110°39.76'	2.1	0.3	9	191	5	0.08
140401	02:57:41.67	44°45.13'	110°39.78'	2.1	--	9	181	4	0.12
140401	02:57:45.19	44°45.02'	110°39.59'	3.8	1.3W	22	181	4	0.13
140401	02:58:08.93	44°45.83'	110°39.40'	2.9	--	10	189	6	0.09
140401	02:58:14.69	44°43.07'	110°42.32'	0.7	--	6	203	1	0.07
140401	02:58:18.37	44°43.40'	110°42.54'	8.0	--	5	295	1	0.03
140401	03:21:13.02	44°07.66'	110°34.55'	11.8	1.1	12	191	11	0.12
140401	03:21:43.80	44°07.12'	110°34.41'	12.3	-0.2	6	193	11	0.04
140401	03:47:59.84	44°45.70'	110°39.75'	4.0	1.9W	18	188	5	0.16
140401	03:48:11.36	44°44.96'	110°39.74'	3.4	--	8	179	4	0.05
140401	04:32:28.50	44°46.51'	110°38.89'	4.4	2.1W	23	105	7	0.22
140401	04:32:45.79	44°45.05'	110°39.35'	3.6	3.1W	29	75	4	0.15
140401	04:40:12.34	44°45.32'	110°39.52'	3.9	1.9W	21	164	5	0.15
140401	07:25:08.31	44°46.67'	110°41.20'	4.0	1.8W	18	142	6	0.17
140401	15:24:44.94	44°44.70'	110°45.96'	8.0	1.3W	9	166	5	0.07
140401	18:28:14.66	44°44.45'	110°45.93'	5.5	1.1W	15	148	5	0.13
140401	18:28:51.38	44°44.05'	110°45.94'	5.0	1.6W	16	143	5	0.16
140401	18:28:58.66	44°44.06'	110°45.96'	2.2	2.0W	12	143	5	0.16
140401	18:41:18.06	44°20.74'	110°47.17'	6.7	1.4	7	100	8	0.25
140401	18:54:01.93	44°44.74'	110°45.97'	8.1	1.9W	17	152	5	0.10

**Table 2. Earthquakes in the Yellowstone Region: April 1–June 30, 2014**

DATE	ORIGIN TIME	LATITUDE	LONGITUDE	DEPTH	MAG	NO	GAP	DMN	RMS
140401	18:54:32.50	44°45.48'	110°45.42'	8.8	--	5	192	5	0.03
140401	18:54:32.79	44°44.68'	110°46.15'	5.9	--	5	166	8	0.06
140401	18:54:45.69	44°44.63'	110°46.39'	5.8	1.6W	9	148	6	0.05
140401	18:55:02.93	44°45.00'	110°45.86'	5.8	--	5	176	8	0.05
140401	21:25:59.58	44°42.10'	110°40.32'	1.8	--	6	282	1	0.03
140401	21:26:12.96	44°45.35'	110°39.89'	1.3	--	5	269	5	0.31
140401	21:26:27.16	44°46.44'	110°40.56'	3.8	2.0W	19	140	6	0.21
140401	21:26:59.17	44°44.35'	110°42.17'	-0.6	--	6	254	1	0.06
140402	08:54:15.90	44°44.24'	110°46.22'	5.1	1.6W	19	144	5	0.11
140402	11:02:08.18	44°50.61'	110°59.40'	9.3	2.1W	25	144	9	0.20
140402	23:49:25.32	44°49.67'	110°46.39'	3.6	1.4W	11	120	8	0.13
140403	04:55:23.84	44°44.74'	110°45.95'	7.6	2.1W	20	152	5	0.12
140403	09:49:06.19	44°45.47'	110°46.53'	9.6	1.4W	10	181	7	0.09
140403	09:49:12.67	44°45.66'	110°46.32'	9.2	1.5	7	187	7	0.04
140403	11:09:26.19	44°31.58'	111°08.48'	14.4	2.5W	44	43	9	0.18
140403	11:11:33.39	44°31.32'	111°07.54'	12.5	0.8W	11	149	10	0.15
140404	05:34:39.95	44°49.39'	110°46.17'	5.6	1.7W	24	154	7	0.15
140404	11:29:34.57	44°44.68'	111°13.85'	10.3	0.7W	11	77	3	0.12
140404	13:49:09.91	44°45.72'	111°05.82'	8.5	-0.1	11	115	7	0.14
140404	19:09:35.03	44°46.02'	110°46.11'	6.5	1.5W	15	173	7	0.08
140405	05:44:01.81	44°49.22'	110°46.03'	3.8	1.4W	18	202	7	0.10
140405	10:41:57.32	44°44.34'	110°46.25'	7.6	2.1W	27	80	5	0.13
140405	12:02:52.94	44°32.62'	111°05.62'	15.5	0.4	9	150	7	0.10
140405	18:03:25.14	44°44.59'	110°46.37'	5.8	1.6W	17	147	6	0.11
140406	00:30:06.20	44°48.29'	110°46.32'	4.6	2.4W	27	99	6	0.16
140406	00:42:54.86	44°47.89'	110°46.41'	4.3	-0.2	12	192	6	0.15
140406	01:19:29.34	44°43.69'	110°46.41'	5.1	2.8W	31	71	6	0.18
140406	01:21:15.26	44°43.64'	110°46.28'	4.8	2.5W	28	126	5	0.16
140406	01:24:18.66	44°44.24'	110°46.30'	7.6	2.1W	20	142	6	0.16
140406	01:45:09.84	44°44.29'	110°46.06'	5.1	1.6W	20	145	5	0.14
140406	02:16:37.07	44°44.64'	110°45.88'	8.0	1.3W	16	152	5	0.08
140406	02:16:52.92	44°44.54'	110°46.15'	7.2	1.7W	17	148	5	0.11
140406	02:16:59.87	44°43.22'	110°47.14'	4.1	1.7W	10	118	7	0.12
140406	02:17:12.08	44°45.09'	110°46.03'	6.3	--	5	176	6	0.01
140406	02:17:50.87	44°44.31'	110°46.24'	5.1	1.3W	20	144	5	0.10
140406	02:18:12.73	44°43.97'	110°46.53'	3.0	0.1	8	147	8	0.06
140406	02:22:54.22	44°44.67'	110°46.20'	7.8	1.6W	20	150	6	0.11
140406	02:27:40.59	44°44.67'	110°45.89'	7.1	1.6W	19	152	5	0.15
140406	05:59:19.98	44°49.37'	110°46.35'	4.5	1.4W	14	203	7	0.12
140406	06:01:54.04	44°47.61'	110°46.82'	4.1	1.8W	27	97	6	0.17
140406	11:39:01.83	44°49.23'	110°46.43'	4.1	1.5W	22	201	7	0.12
140406	14:17:45.29	44°44.95'	110°46.51'	3.7	1.4W	9	153	6	0.11
140406	14:17:45.31	44°44.31'	110°46.17'	4.9	1.4W	15	145	5	0.12
140406	16:02:43.47	44°44.48'	110°46.06'	6.3	1.6W	17	148	5	0.14
140406	17:08:19.27	44°48.95'	110°46.79'	4.1	0.9W	13	199	6	0.08

**Table 2. Earthquakes in the Yellowstone Region: April 1–June 30, 2014**

DATE	ORIGIN TIME	LATITUDE	LONGITUDE	DEPTH	MAG	NO	GAP	DMN	RMS
140407	04:50:44.71	44°44.32'	110°46.08'	4.8	--	5	159	7	0.06
140407	04:50:54.90	44°44.81'	110°46.00'	5.8	--	5	171	8	0.05
140407	04:51:14.77	44°48.42'	110°43.68'	4.5	0.9W	12	203	9	0.10
140407	04:51:37.21	44°44.73'	110°45.74'	3.1	--	6	171	7	0.07
140407	05:11:53.36	44°48.14'	110°43.61'	4.4	0.9W	10	201	9	0.08
140407	05:12:20.24	44°49.10'	110°41.96'	7.2	0.1	7	255	10	0.06
140407	05:33:34.38	44°47.48'	110°43.80'	4.8	1.2W	10	195	9	0.19
140407	05:43:02.59	44°48.39'	110°42.72'	4.6	1.2W	6	265	9	0.04
140407	06:01:30.86	44°48.60'	110°43.31'	4.2	1.5W	11	204	9	0.16
140407	06:26:26.47	44°50.31'	110°40.38'	7.5	1.0W	7	270	13	0.23
140407	06:33:32.24	44°48.27'	110°43.31'	4.5	1.4W	11	202	9	0.13
140407	06:36:01.22	44°48.61'	110°43.14'	4.0*	1.3W	9	205	11	0.12
140407	06:51:51.73	44°48.34'	110°43.22'	4.7	1.4W	11	203	9	0.14
140407	07:15:07.62	44°48.33'	110°43.05'	4.5	1.1W	10	204	9	0.13
140407	08:01:17.66	44°48.36'	110°43.00'	4.7	1.1W	11	204	9	0.13
140407	09:59:54.70	44°48.17'	110°43.64'	4.5	0.7W	7	201	10	0.12
140407	10:08:34.82	44°49.25'	110°45.66'	4.4	1.6W	12	205	8	0.08
140407	15:39:30.93	44°41.55'	110°43.72'	7.1	1.5W	10	107	4	0.07
140407	16:42:51.15	44°41.74'	110°43.64'	8.8	1.6W	15	71	4	0.13
140408	01:58:54.75	44°48.78'	110°46.42'	4.5	1.6W	13	200	7	0.13
140408	08:57:05.28	44°44.81'	110°46.36'	7.3	1.5W	16	153	6	0.12
140408	12:32:21.99	44°44.49'	110°45.66'	8.3	2.4W	21	84	5	0.13
140408	18:48:33.76	44°41.60'	110°26.69'	7.0	1.4W	10	221	6	0.08
140409	02:33:59.68	44°39.02'	110°26.14'	5.2	2.7W	27	60	9	0.16
140409	03:41:06.84	44°45.46'	110°46.80'	8.4	1.4W	9	159	7	0.10
140409	05:17:41.17	44°44.64'	110°47.28'	7.5	1.4W	12	151	7	0.13
140409	06:25:07.03	44°45.82'	110°46.46'	9.9	1.4W	16	168	7	0.10
140409	06:25:31.41	44°44.91'	110°47.47'	5.5	--	5	155	6	0.07
140410	06:35:55.42	44°40.59'	110°00.46'	13.6	2.0	10	168	9	0.20
140411	05:49:09.49	44°49.13'	110°45.50'	4.3	1.3W	17	202	8	0.11
140411	09:33:50.01	44°23.70'	110°50.01'	3.9	0.4	6	111	6	0.02
140411	15:42:01.55	44°45.14'	110°46.78'	5.3	--	5	171	7	0.05
140411	15:42:08.73	44°45.24'	110°46.27'	5.7	--	5	178	7	0.06
140411	15:42:12.50	44°45.14'	110°46.54'	9.2	1.3W	8	171	6	0.04
140411	17:01:08.79	44°49.58'	110°46.18'	4.4	2.0W	23	120	8	0.12
140411	23:05:41.07	44°48.34'	110°46.53'	3.4	0.1	6	220	6	0.04
140412	08:52:43.02	44°45.21'	110°46.91'	7.5	1.6W	17	154	7	0.16
140412	12:45:35.37	44°44.68'	110°47.25'	3.0	--	6	155	7	0.07
140412	12:45:56.19	44°44.16'	110°47.29'	2.0	1.2W	11	138	7	0.17
140412	12:46:08.21	44°45.19'	110°46.79'	5.4	--	6	172	7	0.05
140412	13:18:49.16	44°32.63'	110°58.28'	8.6	1.1W	14	100	12	0.23
140412	17:58:10.35	44°44.27'	110°47.12'	2.0	1.1W	10	142	7	0.09
140412	17:58:23.24	44°45.31'	110°46.54'	3.3	--	5	177	7	0.12
140412	18:01:07.50	44°23.30'	110°50.60'	1.0	1.0	7	111	7	0.05
140414	06:53:38.24	44°27.55'	111°02.19'	1.8*	0.2	6	141	16	0.07

**Table 2. Earthquakes in the Yellowstone Region: April 1–June 30, 2014**

DATE	ORIGIN TIME	LATITUDE	LONGITUDE	DEPTH	MAG	NO	GAP	DMN	RMS
140414	16:54:22.92	44°46.92'	111°01.33'	5.8	1.0W	12	144	3	0.04
140415	01:09:45.27	44°21.28'	110°41.13'	2.2	0.8	6	121	10	0.05
140415	01:10:02.34	44°17.92'	110°32.26'	5.5*	--	5	223	11	0.03
140415	01:10:11.68	44°21.12'	110°41.03'	2.7	1.3	6	123	10	0.06
140415	01:18:33.83	44°21.36'	110°40.71'	10.4	1.0	7	102	12	0.20
140415	15:41:32.10	44°49.37'	110°47.92'	4.1	1.2W	16	120	6	0.10
140416	06:26:12.51	44°43.46'	111°07.55'	14.3	-0.1	8	113	6	0.13
140416	16:26:21.23	44°47.12'	111°01.22'	5.5	0.8	10	148	3	0.06
140417	11:16:35.48	44°49.18'	110°59.62'	6.4	0.6W	13	182	7	0.14
140418	09:23:40.15	44°43.94'	110°46.59'	4.6	1.3W	12	138	6	0.10
140419	05:42:51.68	44°42.75'	110°37.61'	2.2	--	5	183	4	0.05
140419	05:42:57.91	44°43.19'	110°38.32'	6.0	--	5	189	3	0.04
140419	05:43:09.98	44°42.55'	110°38.23'	7.1	1.6W	18	139	3	0.14
140420	02:20:57.63	44°49.40'	110°30.50'	6.0	1.5W	15	108	12	0.15
140420	08:56:58.56	44°23.35'	110°51.16'	3.0	0.7	12	114	7	0.26
140420	08:57:47.40	44°28.83'	110°56.46'	14.7	0.6	5	278	9	0.07
140420	09:06:39.78	44°24.04'	110°50.74'	3.8	1.7W	17	89	6	0.12
140420	09:07:06.77	44°24.84'	110°51.33'	6.6	1.0	12	98	4	0.16
140420	09:09:15.99	44°22.88'	110°52.34'	4.5	0.9	8	162	8	0.15
140420	09:15:15.18	44°23.78'	110°51.38'	6.8	1.3	11	116	6	0.27
140420	09:52:17.41	44°23.68'	110°50.58'	2.3	0.7	6	112	6	0.07
140420	09:53:20.47	44°23.13'	110°50.74'	2.4	0.9	7	112	7	0.22
140420	09:53:26.96	44°23.55'	110°49.86'	6.0	1.5W	7	109	7	0.33
140420	09:54:45.08	44°23.60'	110°51.43'	6.4	2.0W	23	91	7	0.23
140420	10:08:11.17	44°23.82'	110°51.31'	6.9	1.8W	17	92	6	0.21
140420	13:06:30.39	44°44.07'	110°46.53'	7.1	1.2W	12	140	6	0.11
140420	13:20:44.45	44°42.90'	111°05.08'	13.9	1.7W	19	80	8	0.17
140420	15:58:09.62	44°24.10'	110°50.17'	4.0	0.9	6	130	6	0.07
140420	16:29:16.74	44°24.02'	110°51.19'	2.0	1.0	5	144	6	0.01
140420	16:50:00.12	44°43.24'	111°04.27'	13.7	1.1W	16	81	7	0.15
140420	23:51:13.96	44°43.35'	111°04.16'	8.9	0.6W	10	97	6	0.17
140421	00:03:32.04	44°48.05'	110°57.67'	6.3	0.3	12	170	6	0.06
140421	06:03:33.83	44°52.04'	111°02.84'	13.2	0.0	10	216	11	0.06
140422	06:16:15.97	44°45.11'	110°32.60'	5.3	--	5	256	5	0.03
140422	13:08:48.80	44°45.62'	111°07.25'	4.5	0.6W	8	114	4	0.10
140423	00:40:37.12	44°47.32'	110°31.90'	4.8	1.9W	10	193	8	0.11
140423	02:53:09.92	44°41.60'	111°02.03'	4.8	0.5	6	99	6	0.04
140423	16:57:32.88	44°47.49'	110°31.21'	5.8	1.2W	9	196	8	0.03
140423	19:07:30.32	44°45.02'	110°45.43'	11.3	1.6W	14	162	5	0.14
140426	04:13:29.27	44°48.77'	110°58.32'	9.1	-0.2	10	180	7	0.12
140426	04:27:20.49	44°49.20'	110°58.46'	10.1	1.3W	16	120	7	0.10
140426	19:43:15.97	44°48.62'	110°30.82'	2.3	1.9W	10	156	10	0.19
140427	00:20:02.32	44°43.95'	110°46.29'	5.4	1.1W	8	142	5	0.08
140427	14:10:43.84	44°40.74'	110°26.86'	5.0	--	7	212	6	0.08
140428	04:10:10.08	44°48.73'	110°58.76'	8.7	1.0W	15	178	6	0.08

**Table 2. Earthquakes in the Yellowstone Region: April 1–June 30, 2014**

DATE	ORIGIN TIME	LATITUDE	LONGITUDE	DEPTH	MAG	NO	GAP	DMN	RMS
140428	23:24:19.51	44°41.95'	111°02.37'	7.2	1.5W	17	69	7	0.16
140430	23:52:22.70	44°41.78'	111°01.84'	6.0	1.1	9	89	6	0.14
140502	01:50:46.13	44°49.80'	110°46.45'	4.4	0.3	11	206	8	0.08
140502	10:03:44.38	44°33.75'	110°54.18'	11.1	1.1W	15	122	11	0.14
140503	06:48:21.31	44°43.90'	111°05.54'	11.6	0.6W	13	93	7	0.14
140503	14:03:39.75	44°49.20'	110°59.84'	7.1	0.7W	10	182	7	0.07
140503	14:07:25.79	44°28.59'	110°25.07'	4.3	--	7	132	9	0.08
140504	11:29:50.72	44°37.65'	110°40.16'	5.4	2.0W	13	87	3	0.12
140504	11:58:42.31	44°45.61'	110°46.32'	8.1	1.2W	10	187	7	0.06
140504	21:41:45.75	44°29.67'	111°07.22'	13.3	1.5W	15	130	12	0.14
140506	23:34:45.65	44°27.85'	110°32.96'	5.3	1.5W	12	130	8	0.15
140506	23:36:55.16	44°28.02'	110°32.82'	2.2	1.7W	9	110	8	0.08
140506	23:44:00.12	44°27.98'	110°33.19'	2.5	1.5W	14	64	8	0.05
140506	23:47:23.45	44°27.62'	110°33.10'	6.1	1.8W	20	66	8	0.17
140506	23:47:39.63	44°27.91'	110°33.07'	3.3	1.3	11	73	8	0.04
140506	23:49:01.29	44°27.63'	110°33.13'	6.2	1.9W	19	65	8	0.16
140506	23:49:11.39	44°27.73'	110°32.86'	3.6	1.9	10	71	8	0.04
140506	23:52:52.61	44°28.14'	110°33.54'	2.2	1.3W	11	143	8	0.09
140506	23:54:00.76	44°27.73'	110°32.70'	4.0	0.7	13	72	8	0.15
140506	23:54:16.14	44°27.83'	110°33.13'	2.6	0.4	8	140	8	0.09
140506	23:58:03.02	44°29.17'	110°26.93'	0.4	--	5	281	9	0.04
140507	00:01:08.08	44°27.73'	110°33.08'	2.5	1.7W	17	65	8	0.12
140507	03:21:57.17	44°27.11'	110°58.58'	2.8*	0.5W	6	186	11	0.10
140507	18:21:02.89	44°50.74'	110°59.20'	6.7	-0.3	10	207	10	0.11
140507	21:54:36.63	44°49.97'	111°29.77'	12.1	0.5	9	128	5	0.09
140507	22:44:13.10	44°23.83'	111°01.13'	11.4	0.8W	7	136	16	0.05
140507	22:46:30.13	44°22.75'	111°00.84'	8.0	0.8	5	207	16	0.04
140508	22:04:39.10	44°50.38'	111°27.05'	11.7	1.5W	16	132	2	0.16
140508	23:37:04.68	44°14.21'	110°47.79'	4.6	0.9	8	111	4	0.17
140509	00:33:36.78	44°14.30'	110°47.24'	7.5	1.5	11	91	4	0.31
140509	00:46:11.67	44°14.92'	110°46.82'	2.8	0.8	6	116	3	0.03
140509	01:08:04.93	44°14.36'	110°47.10'	4.9	2.1W	16	76	4	0.25
140509	01:13:45.01	44°15.07'	110°48.05'	2.0	--	5	197	2	0.16
140509	01:13:56.35	44°14.26'	110°47.62'	4.6	1.1	8	90	4	0.17
140509	01:22:04.36	44°14.34'	110°47.18'	6.6	1.6W	12	77	4	0.28
140509	01:38:50.45	44°14.26'	110°47.07'	4.5	1.5W	10	92	4	0.25
140509	01:41:34.73	44°13.41'	110°46.39'	3.0	1.1	5	157	6	0.13
140509	01:53:27.94	44°14.07'	110°45.38'	4.0	0.9	5	178	6	0.08
140509	02:15:15.94	44°14.30'	110°47.22'	7.4	1.7W	14	79	4	0.28
140509	03:01:15.46	44°14.33'	110°47.13'	4.4	0.6	5	167	4	0.14
140509	03:11:39.65	44°14.26'	110°47.28'	7.6	1.8W	14	80	4	0.27
140510	06:58:38.07	44°49.36'	110°45.42'	6.4	1.8W	24	118	8	0.16
140510	07:08:21.25	44°49.14'	110°45.87'	5.2	1.5W	19	153	8	0.13
140510	16:05:24.20	44°49.44'	110°32.25'	6.5	1.7W	11	122	12	0.11
140510	18:18:48.25	44°48.28'	110°45.70'	4.4	1.6W	14	196	7	0.13

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DATE	ORIGIN TIME	LATITUDE	LONGITUDE	DEPTH	MAG	NO	GAP	DMN	RMS
140510	18:58:39.14	44°48.99'	110°32.50'	7.3	1.6W	14	148	11	0.13
140511	00:54:43.35	44°49.43'	110°45.58'	6.1	1.1W	17	118	8	0.14
140511	20:50:45.73	44°38.07'	110°40.50'	5.5	1.6	11	121	4	0.16
140512	04:44:24.52	44°26.42'	111°02.02'	10.7	1.5W	13	136	16	0.19
140512	06:17:21.53	44°26.02'	111°01.24'	3.9*	0.6	12	136	15	0.05
140512	07:57:59.60	44°25.91'	111°00.20'	11.0	0.3	8	130	14	0.20
140513	06:33:47.19	44°14.39'	110°48.20'	4.5	0.1	5	200	3	0.01
140513	06:33:50.06	44°49.70'	110°45.29'	6.0	--	8	239	9	0.07
140513	09:56:42.46	44°40.99'	111°00.22'	4.0	0.8	10	83	3	0.15
140515	13:20:42.70	44°47.98'	110°49.38'	4.8	0.5W	12	207	3	0.15
140515	13:22:26.88	44°48.25'	110°45.73'	4.2	1.5W	19	195	7	0.17
140516	02:51:33.36	44°48.34'	110°45.56'	4.6	1.1W	19	197	7	0.16
140516	05:12:14.93	44°49.47'	110°45.51'	4.2	1.9W	24	118	8	0.13
140516	06:07:50.81	44°48.83'	110°45.94'	4.4	1.9W	19	199	7	0.12
140516	18:31:12.19	44°49.61'	110°45.76'	4.0	2.1W	20	119	8	0.13
140517	04:00:03.48	44°44.42'	111°08.82'	13.5	0.7W	13	90	4	0.09
140517	09:24:14.81	44°46.11'	111°09.78'	7.9	0.5	12	117	3	0.16
140518	17:43:16.37	44°49.34'	110°45.51'	5.5	2.0W	25	99	8	0.14
140519	00:40:17.34	44°36.97'	110°21.06'	4.1	1.5W	8	216	7	0.05
140519	07:23:07.36	44°49.59'	110°45.67'	4.1	1.0W	14	206	8	0.10
140520	12:39:56.99	44°49.23'	110°58.92'	7.0	1.0W	14	185	7	0.09
140521	14:11:59.41	44°36.69'	111°02.47'	13.8	-0.1	5	220	5	0.05
140521	14:12:19.65	44°37.83'	111°02.85'	11.4	0.3	9	144	5	0.11
140521	19:07:04.96	44°47.88'	111°24.95'	9.5	1.8W	19	93	4	0.15
140521	23:09:56.68	44°51.40'	110°40.32'	2.6*	1.7W	13	121	16	0.21
140522	15:36:16.04	44°46.91'	110°46.02'	10.2	1.5W	15	212	7	0.10
140522	16:32:08.08	44°47.09'	110°46.19'	9.6	0.5	10	213	6	0.04
140522	16:32:13.25	44°47.11'	110°45.56'	11.4	--	10	217	7	0.04
140522	16:32:16.89	44°46.71'	110°46.45'	9.0	1.9W	10	184	6	0.05
140522	16:32:26.26	44°45.58'	110°46.91'	6.3	1.8	13	179	6	0.18
140522	16:37:40.67	44°47.01'	110°46.09'	9.1	1.5W	13	212	7	0.09
140522	16:57:46.48	44°47.04'	110°46.01'	9.5	1.4W	15	110	7	0.10
140522	17:20:13.76	44°46.79'	110°46.16'	10.7	1.0W	9	211	6	0.05
140524	18:11:04.02	44°40.21'	110°28.13'	6.1	0.9W	15	110	6	0.16
140525	08:28:17.06	44°43.89'	111°10.72'	9.8	1.1W	14	84	3	0.14
140525	09:59:08.60	44°45.23'	111°02.73'	8.4	2.2W	28	93	3	0.16
140525	13:31:55.73	44°30.95'	110°20.37'	2.1	1.7W	10	132	7	0.12
140527	13:21:45.19	44°47.93'	111°12.65'	10.9	1.2W	12	259	5	0.16
140528	01:10:56.87	44°35.31'	111°08.31'	9.1	1.5W	17	145	4	0.15
140529	01:45:31.33	44°35.18'	110°44.41'	7.8	2.0W	23	68	8	0.16
140529	01:48:44.41	44°35.24'	110°44.32'	8.2	1.5W	19	67	8	0.16
140529	01:52:37.69	44°34.25'	110°45.11'	4.7	0.7W	7	96	9	0.04
140529	01:59:26.40	44°34.48'	110°44.77'	4.4	--	6	141	9	0.04
140529	01:59:44.61	44°35.32'	110°44.27'	8.1	1.6W	21	66	8	0.16
140529	02:03:05.38	44°34.94'	110°44.50'	7.2	0.7W	12	88	8	0.14

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DATE	ORIGIN TIME	LATITUDE	LONGITUDE	DEPTH	MAG	NO	GAP	DMN	RMS
140529	02:25:49.44	44°34.55'	110°44.79'	2.7	1.5	8	120	9	0.05
140529	02:54:49.99	44°35.09'	110°44.71'	7.4	1.0	10	111	8	0.09
140529	03:16:40.75	44°35.00'	110°44.43'	7.7	--	15	87	8	0.16
140529	03:16:43.32	44°35.08'	110°44.84'	8.6	1.9W	10	143	9	0.10
140529	03:23:36.03	44°34.75'	110°43.73'	9.3	0.6W	8	145	7	0.14
140529	03:32:42.47	44°34.46'	110°44.64'	5.4	0.8W	8	92	9	0.07
140529	03:36:13.33	44°34.42'	110°44.88'	4.7	--	9	121	9	0.06
140529	03:36:15.79	44°35.35'	110°44.02'	7.7	2.1W	12	97	7	0.15
140529	03:42:16.35	44°34.61'	110°44.63'	5.6	1.4W	19	69	9	0.11
140529	03:44:19.57	44°34.60'	110°45.22'	7.5	0.9W	10	96	9	0.10
140529	04:29:08.79	44°34.66'	110°44.78'	5.8	0.8W	11	93	9	0.08
140529	05:36:29.98	44°34.66'	110°43.95'	5.6	0.6W	9	124	8	0.11
140529	06:12:33.21	44°34.73'	110°44.73'	6.2	1.5	11	92	9	0.11
140529	06:22:08.23	44°34.74'	110°44.21'	6.2	0.7W	10	87	8	0.15
140529	06:23:38.12	44°34.95'	110°44.70'	7.9	1.3W	16	90	8	0.13
140529	06:38:05.37	44°34.84'	110°44.63'	6.4	0.9W	14	90	8	0.09
140529	10:18:56.99	44°34.90'	110°44.40'	6.8	1.1W	16	68	8	0.11
140529	10:45:21.95	44°34.73'	110°44.48'	7.1	0.6W	10	90	8	0.09
140529	11:15:53.72	44°45.07'	110°32.00'	4.8	--	6	263	4	0.04
140529	11:16:12.99	44°34.50'	110°44.84'	5.0	0.5W	11	94	9	0.04
140529	18:30:01.08	44°34.24'	110°44.86'	4.4	1.4	7	143	9	0.04
140530	03:10:57.65	44°44.13'	111°07.60'	12.9	1.1W	14	85	6	0.11
140530	12:43:16.61	44°31.13'	110°29.44'	2.2	--	5	207	8	0.09
140531	08:02:13.15	44°47.20'	110°45.91'	4.7	2.6W	23	103	7	0.14
140531	08:11:33.39	44°49.56'	110°45.07'	6.8	1.4W	10	239	9	0.05
140531	08:21:50.77	44°47.31'	110°46.00'	4.2	1.2W	10	229	7	0.12
140531	08:30:55.78	44°49.69'	110°45.70'	6.4	1.1W	9	255	8	0.16
140531	15:38:32.33	44°48.90'	110°45.44'	4.9	1.4W	8	251	8	0.05
140531	18:39:51.88	44°47.12'	110°46.17'	4.5	2.8W	27	103	6	0.15
140531	19:02:31.59	44°49.09'	110°45.54'	6.9	1.1W	9	252	8	0.10
140531	19:18:19.58	44°47.91'	110°46.32'	5.1	1.3W	10	211	6	0.09
140531	19:24:35.47	44°48.12'	110°45.64'	4.5	1.7W	15	214	7	0.13
140531	19:27:47.73	44°50.07'	110°44.68'	5.8	1.1W	7	262	10	0.05
140531	20:12:00.95	44°47.86'	110°45.79'	4.4	1.6W	18	211	7	0.09
140531	21:17:12.81	44°47.48'	110°45.98'	2.4	1.0W	6	232	7	0.04
140531	21:45:15.44	44°47.73'	110°46.06'	4.4	1.2W	8	238	7	0.15
140531	21:51:25.69	44°47.89'	110°45.66'	2.3	1.2W	11	242	7	0.08
140531	21:56:32.16	44°48.63'	110°45.60'	4.6	1.7W	15	218	8	0.13
140531	22:24:57.91	44°47.54'	110°46.02'	4.1	2.1W	20	105	7	0.11
140531	22:25:00.66	44°47.43'	110°46.59'	4.7	3.5W	14	110	6	0.21
140531	23:30:37.41	44°50.64'	110°39.56'	7.8	--	7	289	14	0.08
140531	23:30:56.81	44°47.90'	110°45.66'	6.2	1.1	9	242	7	0.13
140531	23:33:56.73	44°47.63'	110°46.11'	5.6	1.2W	11	208	7	0.11
140531	23:52:24.42	44°47.16'	110°45.96'	4.4	2.2W	22	103	7	0.15
140531	23:54:32.58	44°47.68'	110°46.06'	4.6	1.1	8	210	7	0.13

**Table 2. Earthquakes in the Yellowstone Region: April 1–June 30, 2014**

DATE	ORIGIN TIME	LATITUDE	LONGITUDE	DEPTH	MAG	NO	GAP	DMN	RMS
140601	00:33:31.11	44°47.74'	110°45.96'	4.1	1.2	14	210	7	0.15
140601	01:37:26.32	44°47.44'	110°45.96'	4.5	1.1W	12	205	7	0.17
140601	02:12:29.83	44°47.55'	110°45.88'	4.5	1.1W	15	205	7	0.14
140601	02:44:56.77	44°48.04'	110°46.30'	5.1	1.6	8	248	6	0.07
140601	03:04:05.59	44°47.87'	110°46.12'	4.4	1.8W	20	211	7	0.12
140601	03:06:25.66	44°48.11'	110°45.99'	4.6	1.2W	13	243	7	0.15
140601	03:10:18.95	44°46.20'	110°46.17'	0.6	0.5	6	204	7	0.12
140601	03:12:39.38	44°47.82'	110°45.94'	4.1	--	13	211	7	0.11
140601	03:12:41.97	44°47.89'	110°46.30'	5.7	2.4W	16	211	6	0.16
140601	03:13:12.15	44°47.44'	110°45.84'	4.1	2.4W	25	108	7	0.16
140601	03:27:57.09	44°48.01'	110°46.01'	4.7	1.0W	8	242	7	0.16
140601	04:07:39.95	44°47.48'	110°46.51'	4.1	1.2	10	231	6	0.21
140601	05:14:38.55	44°48.06'	110°45.66'	4.4	1.2W	14	214	7	0.14
140601	05:15:32.90	44°47.21'	110°45.87'	4.8	2.1W	22	104	7	0.13
140601	05:17:15.79	44°47.23'	110°45.89'	4.8	2.0W	21	104	7	0.14
140601	05:17:50.85	44°47.30'	110°45.87'	4.8	1.7W	19	200	7	0.14
140601	05:24:48.09	44°47.34'	110°45.70'	4.5	1.5W	18	201	7	0.13
140601	05:29:03.82	44°48.32'	110°46.20'	5.3	1.1W	9	215	7	0.14
140601	05:29:14.95	44°47.48'	110°45.74'	4.3	1.5W	12	204	7	0.15
140601	05:43:39.99	44°50.46'	110°45.28'	4.6	0.8W	7	261	10	0.15
140601	07:14:36.32	44°47.81'	110°46.04'	4.4	1.9W	20	211	7	0.10
140601	08:33:21.80	44°48.44'	110°46.42'	2.3	1.6	13	244	6	0.29
140601	09:13:13.76	44°47.40'	110°46.19'	4.2	1.1W	13	202	6	0.15
140601	10:17:24.82	44°20.98'	110°47.83'	1.9	1.2	8	99	9	0.08
140601	20:21:38.36	44°48.04'	110°45.26'	5.6	1.4W	14	246	8	0.14
140601	20:21:38.62	44°47.26'	110°45.66'	3.8	1.7	10	235	7	0.12
140601	21:16:57.96	44°47.53'	110°45.63'	4.3	1.5W	15	207	7	0.13
140601	21:47:54.79	44°47.74'	110°46.17'	4.6	1.6W	19	209	6	0.14
140601	23:37:30.29	44°46.99'	110°46.36'	4.3	0.6	11	219	6	0.20
140602	00:55:37.02	44°47.56'	110°46.14'	4.1	1.2	8	238	6	0.08
140602	02:02:29.56	44°48.36'	110°46.02'	7.4	1.4W	15	215	7	0.15
140602	02:04:14.35	44°45.29'	111°02.35'	7.6	1.2W	11	167	3	0.06
140602	02:23:21.52	44°46.86'	110°46.37'	3.7	1.2	11	219	6	0.09
140602	02:40:24.56	44°47.44'	110°46.12'	5.0	1.9W	18	203	6	0.13
140602	06:54:41.78	44°43.46'	111°14.24'	10.2	1.0	8	220	2	0.16
140602	07:00:39.02	44°49.00'	110°45.05'	7.4	--	5	254	8	0.01
140602	07:00:52.10	44°48.04'	110°45.28'	6.0	1.4W	16	214	8	0.08
140602	07:20:42.12	44°47.69'	110°45.51'	5.3	1.4	8	245	7	0.06
140602	07:41:26.78	44°46.62'	110°46.59'	2.7	0.6	7	211	6	0.15
140602	09:24:03.16	44°48.72'	110°44.86'	7.8	1.5W	13	220	9	0.10
140602	10:13:24.16	44°48.61'	110°45.15'	7.5	1.5W	14	219	8	0.09
140602	10:34:37.78	44°47.68'	110°45.65'	4.7	0.6	7	244	7	0.05
140602	11:24:18.79	44°46.94'	110°46.18'	4.7	1.7W	20	100	6	0.13
140602	11:33:59.94	44°50.37'	110°43.86'	7.7	1.5W	11	267	11	0.11
140602	13:27:45.41	44°47.56'	110°46.25'	4.4	1.0	12	207	6	0.17

**Table 2. Earthquakes in the Yellowstone Region: April 1–June 30, 2014**

DATE	ORIGIN TIME	LATITUDE	LONGITUDE	DEPTH	MAG	NO	GAP	DMN	RMS
140602	14:44:35.26	44°46.88'	110°46.07'	4.5	2.0W	16	99	7	0.14
140602	14:50:08.03	44°47.26'	110°46.22'	4.4	2.3W	22	104	6	0.15
140602	17:46:53.91	44°46.66'	110°45.92'	2.3	1.9	7	219	7	0.12
140602	20:19:13.62	44°47.02'	110°46.06'	4.9	2.4W	19	101	7	0.16
140602	20:19:45.84	44°47.05'	110°46.05'	4.6	2.3W	18	101	7	0.12
140602	20:36:56.42	44°48.37'	110°45.08'	8.2	2.0W	14	216	8	0.13
140602	22:43:48.91	44°48.00'	110°45.40'	4.8	1.3W	9	250	8	0.16
140602	23:09:27.89	44°47.24'	110°46.07'	3.8	1.0	10	228	7	0.20
140603	03:37:08.70	44°46.50'	110°46.04'	2.1	0.9	7	213	7	0.12
140603	07:03:47.11	44°48.15'	110°45.08'	7.5	0.9	7	256	8	0.07
140603	07:22:14.13	44°47.34'	110°45.63'	5.6	1.1W	11	232	7	0.09
140603	07:54:37.46	44°47.23'	110°45.58'	4.6	1.3W	13	229	7	0.11
140603	08:42:44.37	44°47.92'	110°45.66'	6.3	1.8	7	249	7	0.05
140603	08:45:32.89	44°48.38'	110°45.06'	7.4	1.6W	13	249	8	0.08
140603	08:52:33.95	44°46.58'	110°46.00'	2.2	0.5	7	215	7	0.11
140603	09:15:46.90	44°47.68'	110°45.66'	4.9	0.9	8	244	7	0.11
140603	09:22:56.60	44°48.77'	110°44.93'	7.4	1.5W	13	253	8	0.11
140603	09:29:26.65	44°47.43'	110°45.53'	4.8	1.2W	12	234	7	0.13
140603	09:30:04.31	44°47.02'	110°46.00'	4.1	1.5W	16	101	7	0.17
140603	09:33:22.85	44°48.52'	110°45.44'	1.3	1.1W	11	249	8	0.18
140603	09:33:27.73	44°47.78'	110°45.94'	10.3	3.4W	28	165	7	0.20
140603	09:36:30.14	44°47.26'	110°45.60'	4.6	--	10	220	7	0.07
140603	09:36:42.17	44°47.28'	110°45.34'	4.7	2.4W	20	103	8	0.12
140603	09:38:10.80	44°48.04'	110°45.03'	3.7	--	5	248	8	0.02
140603	09:38:24.69	44°48.39'	110°45.07'	7.1	1.5W	13	249	8	0.11
140603	09:39:25.26	44°47.14'	110°45.81'	9.0	2.9W	24	102	7	0.19
140603	09:41:34.41	44°47.86'	110°45.54'	4.6	1.5W	16	230	7	0.15
140603	09:42:01.73	44°48.13'	110°45.55'	4.4	0.2	10	231	7	0.08
140603	09:43:29.98	44°48.65'	110°44.75'	7.1	1.2W	12	234	9	0.11
140603	09:43:45.02	44°49.18'	110°44.26'	9.0	0.8	9	259	10	0.04
140603	09:44:00.58	44°47.04'	110°45.92'	2.1	0.2	8	223	7	0.27
140603	09:45:03.31	44°48.07'	110°46.01'	4.3	0.8W	12	243	7	0.18
140603	09:45:24.37	44°46.28'	110°46.25'	2.0	0.3	10	204	7	0.20
140603	09:45:57.21	44°47.33'	110°45.45'	4.9	1.4W	15	233	7	0.14
140603	09:46:22.81	44°48.02'	110°45.34'	4.8	1.1W	12	245	8	0.14
140603	09:46:56.48	44°49.31'	110°44.33'	7.6	1.5W	11	260	10	0.09
140603	09:52:33.27	44°48.07'	110°45.83'	4.5	1.6W	14	213	7	0.14
140603	09:52:52.03	44°46.97'	110°45.55'	7.6	3.1W	30	99	7	0.16
140603	09:59:31.34	44°47.53'	110°45.92'	4.2	1.5W	13	234	7	0.18
140603	10:01:16.36	44°48.35'	110°45.66'	6.9	1.6W	16	216	7	0.10
140603	10:01:16.59	44°47.50'	110°45.78'	6.0	1.6W	19	109	7	0.16
140603	10:05:34.51	44°47.46'	110°45.69'	4.1	1.0W	9	234	7	0.15
140603	10:06:12.79	44°48.81'	110°44.80'	9.5	0.8	9	254	9	0.09
140603	10:06:52.38	44°47.48'	110°46.23'	4.7	1.2W	11	231	6	0.16
140603	10:07:06.39	44°47.59'	110°46.00'	5.0	1.3	9	235	7	0.15

**Table 2. Earthquakes in the Yellowstone Region: April 1–June 30, 2014**

DATE	ORIGIN TIME	LATITUDE	LONGITUDE	DEPTH	MAG	NO	GAP	DMN	RMS
140603	10:07:21.36	44°50.00'	110°44.08'	7.0	--	7	264	10	0.02
140603	10:09:03.21	44°50.01'	110°44.19'	7.2	1.5W	10	264	10	0.06
140603	10:10:49.09	44°47.79'	110°45.63'	7.7	2.2W	17	210	7	0.16
140603	10:13:59.64	44°47.30'	110°45.49'	4.2	0.9	9	236	7	0.13
140603	10:14:19.37	44°46.43'	110°46.11'	2.0	--	5	210	7	0.19
140603	10:14:59.21	44°47.44'	110°45.61'	4.7	1.4W	14	234	7	0.14
140603	10:18:04.71	44°48.16'	110°46.05'	4.5	1.0	9	243	7	0.09
140603	10:20:52.94	44°47.53'	110°45.67'	4.4	1.7W	17	205	7	0.13
140603	10:21:07.94	44°46.97'	110°45.83'	3.7	2.2W	15	193	7	0.15
140603	10:34:49.22	44°49.15'	110°44.89'	7.8	1.4W	11	255	9	0.11
140603	10:52:17.10	44°48.34'	110°46.04'	6.1	0.7	11	245	7	0.14
140603	10:52:43.11	44°47.41'	110°46.03'	4.8	1.1W	13	231	7	0.19
140603	10:54:51.85	44°47.12'	110°45.98'	4.8	1.0W	9	229	7	0.22
140603	10:55:18.33	44°47.44'	110°45.87'	4.9	1.0W	12	233	7	0.16
140603	10:55:49.62	44°48.97'	110°45.19'	8.0	0.8W	5	253	8	0.03
140603	10:59:08.31	44°48.99'	110°45.33'	6.4	--	7	252	8	0.04
140603	10:59:14.09	44°47.50'	110°44.93'	5.4	1.4W	10	224	8	0.08
140603	11:12:47.60	44°47.37'	110°45.96'	3.8	0.9	7	235	7	0.07
140603	11:26:42.85	44°47.56'	110°45.71'	6.4	1.1W	13	236	7	0.18
140603	11:29:31.25	44°47.73'	110°45.51'	5.3	1.5W	14	241	7	0.15
140603	11:31:35.08	44°49.00'	110°44.30'	7.7	--	6	258	9	0.07
140603	11:42:44.65	44°48.82'	110°44.84'	8.3	1.4W	12	253	9	0.10
140603	11:53:49.59	44°48.23'	110°45.25'	6.4	2.1W	18	215	8	0.15
140603	11:55:37.48	44°49.84'	110°44.18'	6.8	1.6W	7	266	10	0.07
140603	11:56:16.00	44°50.09'	110°44.17'	6.8	0.4	5	265	10	0.11
140603	12:00:00.66	44°50.13'	110°44.09'	6.9	--	6	265	11	0.05
140603	12:00:23.97	44°47.27'	110°45.27'	4.5	1.4W	15	200	8	0.16
140603	12:03:18.38	44°47.80'	110°45.76'	4.6	1.4W	16	229	7	0.16
140603	12:16:38.54	44°47.62'	110°45.71'	5.4	0.9W	10	237	7	0.14
140603	13:05:38.07	44°48.08'	110°45.62'	7.1	2.1W	16	214	7	0.14
140603	13:08:50.38	44°47.20'	110°46.23'	4.7	2.2W	22	105	6	0.15
140603	13:23:47.75	44°47.24'	110°45.63'	3.2	0.2	6	230	7	0.03
140603	13:23:55.93	44°47.50'	110°45.77'	4.8	0.8	5	239	7	0.02
140603	13:48:49.70	44°47.04'	110°45.57'	2.2	1.0W	10	226	7	0.14
140603	13:50:31.03	44°47.66'	110°45.96'	4.9	1.5	7	294	7	0.06
140603	14:01:13.56	44°48.67'	110°44.83'	9.6	1.5W	14	253	9	0.09
140603	14:09:34.35	44°48.05'	110°45.58'	4.6	1.0W	12	244	7	0.14
140603	14:47:46.85	44°48.51'	110°45.31'	7.5	1.8W	14	250	8	0.08
140603	14:50:45.82	44°47.79'	110°45.57'	5.1	1.6W	10	242	7	0.16
140603	14:54:02.15	44°47.86'	110°45.01'	4.4	0.8	6	245	8	0.06
140603	15:14:40.19	44°48.75'	110°45.13'	9.0	1.0	8	251	8	0.08
140603	15:17:45.92	44°47.18'	110°46.12'	3.8	1.1W	8	226	6	0.06
140603	15:36:24.20	44°48.82'	110°45.22'	7.9	1.2W	9	252	8	0.08
140603	15:39:09.66	44°48.98'	110°44.84'	8.9	1.3W	8	255	9	0.08
140603	16:09:42.14	44°47.47'	110°45.03'	4.5	1.0W	6	238	8	0.03

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DATE	ORIGIN TIME	LATITUDE	LONGITUDE	DEPTH	MAG	NO	GAP	DMN	RMS
140603	16:34:20.19	44°48.14'	110°45.27'	7.8	1.7W	11	247	8	0.06
140603	17:33:07.81	44°47.37'	110°45.17'	4.7	1.2W	7	235	8	0.07
140603	18:42:25.13	44°47.17'	110°45.95'	2.5	0.9W	8	226	7	0.09
140603	18:49:17.26	44°49.16'	110°44.56'	6.2	0.9	8	257	9	0.07
140603	18:49:38.31	44°49.24'	110°45.12'	6.9	1.6W	10	255	9	0.13
140603	18:57:44.80	44°50.35'	111°28.03'	12.6	0.9	9	294	23	0.18
140603	19:08:50.03	44°47.59'	110°45.16'	6.5	2.2W	16	206	8	0.12
140603	19:42:18.61	44°47.22'	110°45.55'	4.2	1.6W	15	199	7	0.16
140603	20:12:21.04	44°47.48'	110°45.79'	2.1	1.2	7	238	7	0.13
140603	20:17:24.23	44°51.49'	110°43.95'	9.4	0.9	5	287	12	0.07
140603	20:26:07.39	44°45.59'	110°49.59'	1.4	1.2	7	140	4	0.10
140603	20:35:55.90	44°47.91'	110°46.31'	3.7	1.4	13	212	6	0.18
140603	21:27:10.25	44°47.12'	110°45.28'	3.2	0.9W	7	229	8	0.07
140603	22:04:50.81	44°48.01'	110°45.78'	4.6	2.1W	15	212	7	0.15
140603	22:05:13.00	44°46.28'	110°46.85'	2.2	1.0	6	199	6	0.20
140603	22:33:31.38	44°48.93'	110°45.00'	6.7	2.0W	11	254	9	0.09
140603	23:48:59.08	44°46.94'	110°46.17'	6.3	2.1W	20	100	6	0.19
140603	23:52:48.02	44°49.16'	110°45.16'	7.7	1.1W	6	255	8	0.06
140603	23:54:30.00	44°48.25'	110°45.64'	5.1	1.4W	11	246	7	0.13
140604	00:09:57.83	44°46.99'	110°46.21'	4.7	2.1W	18	100	6	0.16
140604	00:32:42.90	44°48.20'	110°45.24'	6.4	1.6W	10	247	8	0.08
140604	00:58:31.14	44°46.95'	110°45.93'	4.8	2.4W	23	99	7	0.12
140604	01:02:19.35	44°49.10'	110°44.79'	7.3	1.2W	11	256	9	0.10
140604	01:18:17.95	44°49.43'	110°44.79'	6.7	1.4W	10	258	9	0.07
140604	01:21:37.77	44°46.93'	110°46.24'	3.2	0.8W	8	219	6	0.09
140604	01:23:52.19	44°47.74'	110°45.83'	4.0	0.7	7	244	7	0.08
140604	01:26:15.45	44°48.08'	110°45.72'	5.6	0.9W	9	244	7	0.13
140604	01:31:08.11	44°47.99'	110°46.13'	4.9	2.0W	15	212	7	0.16
140604	01:32:26.59	44°48.95'	110°45.34'	7.2	1.5W	11	252	8	0.09
140604	01:45:32.69	44°49.82'	110°44.97'	7.4	0.7	6	259	9	0.06
140604	01:50:15.37	44°47.57'	110°45.96'	4.3	1.4W	13	207	7	0.15
140604	01:53:18.97	44°47.18'	110°46.12'	4.4	1.9W	17	104	6	0.13
140604	01:56:42.90	44°48.66'	110°45.39'	6.9	1.2W	8	250	8	0.08
140604	01:56:57.13	44°46.95'	110°46.32'	4.4	0.3	9	218	6	0.16
140604	01:57:45.96	44°49.40'	110°44.85'	7.8	1.5W	9	257	9	0.05
140604	02:14:56.67	44°47.72'	110°45.70'	5.3	1.0W	10	240	7	0.16
140604	02:21:17.03	44°48.23'	110°45.68'	5.0	1.1W	10	245	7	0.08
140604	02:23:57.47	44°48.22'	110°45.91'	5.1	1.5W	13	215	7	0.15
140604	02:35:36.67	44°47.08'	110°46.43'	3.9	2.0W	19	103	6	0.14
140604	02:42:30.53	44°47.09'	110°46.35'	2.5	0.9	8	225	6	0.04
140604	02:46:30.95	44°46.81'	110°46.01'	3.9	0.4	11	192	7	0.23
140604	03:20:25.08	44°47.04'	110°46.30'	2.4	1.1	9	224	6	0.11
140604	03:20:46.14	44°47.46'	110°46.14'	4.8	1.2W	14	205	6	0.21
140604	06:34:51.52	44°36.03'	110°42.62'	7.7	0.9W	14	73	5	0.19
140604	08:52:10.93	44°49.13'	110°44.75'	8.4	0.3	8	256	9	0.03

**Table 2. Earthquakes in the Yellowstone Region: April 1–June 30, 2014**

DATE	ORIGIN TIME	LATITUDE	LONGITUDE	DEPTH	MAG	NO	GAP	DMN	RMS
140604	09:30:51.17	44°48.31'	110°45.94'	4.8	1.3W	11	244	7	0.13
140604	09:31:04.13	44°47.10'	110°46.07'	4.8	1.9W	22	102	7	0.16
140604	09:33:53.84	44°48.31'	110°44.84'	8.9	1.2	7	260	8	0.08
140604	11:01:02.12	44°48.92'	110°44.53'	7.8	0.9W	7	256	9	0.05
140604	11:51:12.46	44°47.91'	110°45.94'	4.0	0.8W	11	241	7	0.17
140604	11:59:32.12	44°47.19'	110°46.52'	3.5	0.9W	11	224	6	0.22
140604	12:12:47.34	44°47.96'	110°45.24'	5.3	1.2	14	213	8	0.14
140604	12:12:47.49	44°47.07'	110°45.59'	4.5	1.7	13	196	7	0.11
140604	12:16:03.00	44°47.25'	110°45.94'	7.7	3.5W	28	103	7	0.18
140604	12:34:10.96	44°48.13'	110°46.37'	4.6	1.6	16	214	6	0.17
140604	12:39:43.26	44°49.18'	110°45.36'	7.2	1.4	8	254	8	0.06
140604	13:11:38.23	44°49.36'	110°45.10'	7.7	1.1W	7	256	9	0.07
140604	13:16:25.05	44°47.19'	110°46.44'	4.1	0.9	7	228	6	0.08
140604	13:50:57.62	44°48.22'	110°45.28'	4.2	1.2	6	250	8	0.02
140604	14:47:13.24	44°47.75'	110°45.90'	4.9	0.9	7	243	7	0.05
140604	14:57:50.68	44°47.47'	110°46.52'	6.3	1.3W	10	230	6	0.14
140604	15:03:32.15	44°48.79'	110°45.34'	6.4	0.5	7	252	8	0.07
140604	15:03:45.79	44°48.71'	110°45.44'	6.0	1.4W	7	250	8	0.11
140604	15:20:57.05	44°47.99'	110°46.32'	6.2	2.5W	15	212	6	0.13
140604	15:25:22.31	44°49.27'	110°45.56'	7.2	--	5	253	8	0.07
140604	15:25:44.08	44°48.27'	110°45.74'	6.6	1.6W	14	245	7	0.14
140604	15:30:20.08	44°46.77'	110°46.14'	2.3	0.6	8	216	7	0.09
140604	15:31:03.78	44°46.97'	110°46.14'	2.2	0.8	9	221	6	0.11
140604	15:38:30.41	44°49.24'	110°45.28'	8.1	0.2	6	255	8	0.07
140604	15:49:59.26	44°47.93'	110°45.79'	6.5	1.1W	12	242	7	0.16
140604	15:50:54.62	44°47.22'	110°45.69'	2.0	1.0W	10	229	7	0.12
140604	15:55:48.48	44°48.90'	110°44.81'	7.4	1.1W	6	255	9	0.07
140604	15:55:57.95	44°47.50'	110°46.14'	4.8	1.3	5	233	6	0.05
140604	16:01:34.38	44°47.32'	110°46.15'	4.8	1.0W	9	229	6	0.16
140604	17:38:39.03	44°47.40'	110°45.71'	2.2	1.0	8	233	7	0.13
140604	17:40:29.04	44°48.07'	110°46.28'	5.3	1.4W	13	214	6	0.13
140604	17:49:10.83	44°47.89'	110°45.67'	5.2	1.0	7	243	7	0.09
140604	17:56:47.03	44°47.36'	110°45.73'	4.8	2.1W	18	105	7	0.17
140604	20:00:06.88	44°47.50'	110°46.28'	5.3	1.8W	15	206	6	0.12
140604	20:12:49.03	44°47.53'	110°45.89'	4.7	0.8	8	234	7	0.08
140604	21:14:49.36	44°49.23'	110°44.64'	7.7	1.3W	7	258	9	0.03
140604	21:21:25.85	44°47.12'	110°46.48'	1.9	0.8	5	225	6	0.03
140604	21:22:31.63	44°47.22'	110°45.88'	9.2	3.4W	31	103	7	0.23
140604	22:17:25.50	44°44.11'	110°47.82'	8.0	1.0W	7	139	7	0.07
140604	23:53:52.73	44°46.88'	110°46.16'	3.1	1.5W	15	192	6	0.13
140605	01:04:59.44	44°47.52'	110°46.99'	3.2	1.0	9	230	5	0.18
140605	01:09:04.57	44°48.08'	110°46.95'	4.1	1.2W	16	212	6	0.17
140605	02:32:42.57	44°36.40'	110°42.56'	9.7	0.7W	9	86	5	0.14
140605	02:41:37.52	44°35.74'	110°43.77'	6.7	1.1W	14	92	7	0.20
140605	06:05:43.27	44°47.29'	110°45.47'	4.3	0.5	9	236	7	0.09

**Table 2. Earthquakes in the Yellowstone Region: April 1–June 30, 2014**

DATE	ORIGIN TIME	LATITUDE	LONGITUDE	DEPTH	MAG	NO	GAP	DMN	RMS
140605	20:25:20.79	44°48.83'	110°44.75'	7.5	0.4	11	254	9	0.07
140606	01:19:34.54	44°49.55'	110°44.77'	7.4	0.5	7	259	9	0.07
140606	01:32:37.11	44°49.08'	110°45.16'	8.7	1.5W	10	254	8	0.10
140606	03:05:55.68	44°47.40'	110°45.94'	4.4	1.5W	15	204	7	0.12
140606	11:43:42.55	44°47.99'	110°46.14'	5.6	0.6	9	241	7	0.15
140606	13:12:36.61	44°47.92'	110°44.88'	5.2	1.2W	10	247	8	0.06
140606	13:54:36.05	44°26.01'	111°17.45'	23.8	0.7	10	205	24	0.10
140607	07:53:52.10	44°47.66'	110°45.53'	4.7	1.1W	9	239	7	0.09
140607	11:57:17.21	44°51.99'	111°15.36'	11.0	2.1W	15	290	14	0.16
140607	16:30:36.61	44°45.61'	111°07.09'	12.0	1.6W	11	112	4	0.12
140607	16:30:51.31	44°45.52'	111°08.81'	16.1	0.3	7	139	4	0.13
140607	17:49:00.82	44°47.81'	110°45.32'	5.8	1.2W	9	243	8	0.07
140607	20:55:05.33	44°48.93'	110°44.30'	7.3	1.1W	9	258	9	0.09
140607	21:25:07.88	44°49.68'	110°44.17'	7.8	1.1	7	263	10	0.05
140608	19:46:43.72	44°47.43'	110°45.83'	4.9	1.6W	19	202	7	0.13
140609	00:48:40.04	44°47.56'	110°45.45'	4.5	1.1W	7	237	7	0.06
140609	08:43:46.35	44°47.47'	110°46.08'	4.8	2.2W	20	109	7	0.13
140610	21:29:01.07	44°49.59'	111°29.63'	14.9	1.0	6	294	24	0.14
140611	01:09:10.85	44°52.00'	110°41.15'	3.5*	1.8W	15	180	16	0.12
140611	06:40:09.92	44°47.93'	110°45.98'	6.2	1.4W	17	213	7	0.13
140612	11:03:18.40	44°26.04'	110°43.17'	1.9	1.2W	8	92	9	0.16
140612	20:53:47.25	44°48.21'	110°45.46'	5.6	1.6W	9	246	8	0.07
140612	21:43:05.81	44°35.47'	110°58.16'	7.0	0.8W	6	203	9	0.06
140613	06:37:15.39	44°37.00'	110°41.52'	6.6	1.5W	17	60	4	0.14
140613	09:17:18.52	44°36.54'	110°41.80'	5.7	1.6	8	91	4	0.10
140615	04:28:19.14	44°49.15'	110°44.89'	7.7	1.2W	11	255	9	0.11
140615	09:51:58.00	44°34.83'	110°44.28'	8.3	0.7W	13	81	8	0.16
140618	13:46:32.08	44°35.07'	111°07.31'	7.6	0.2	7	208	3	0.11
140619	11:56:04.08	44°46.56'	110°41.23'	3.7	0.1	7	134	6	0.10
140619	11:56:27.14	44°46.99'	110°41.21'	3.8	0.1	11	137	6	0.12
140619	11:59:24.33	44°47.28'	110°41.00'	4.7	1.8W	21	120	7	0.18
140620	14:03:39.00	44°43.36'	110°20.54'	2.0	1.4	12	156	4	0.12
140621	03:06:32.33	44°56.94'	111°27.90'	10.5*	1.4W	7	186	31	0.17
140623	06:09:57.81	44°46.27'	111°05.94'	9.8	0.2	8	103	3	0.11
140623	09:51:07.62	44°40.49'	110°28.33'	5.6	1.2W	12	107	5	0.20
140624	21:49:03.06	44°52.69'	111°28.31'	7.0*	1.6W	11	189	23	0.09
140625	15:24:31.86	44°47.12'	110°46.17'	4.4	0.7	10	128	6	0.11

number of earthquakes = 580

\* indicates poor depth control

W indicates Wood-Anderson data used for magnitude calculation

**Table 3**  
**UNIVERSITY OF UTAH YELLOWSTONE SEISMIC NETWORK**  
**Operating Seismograph Stations**  
**June 30, 2014**

UURSN Code	Location	SEED	SEED	No. of	Network	Latitude	Longitude	Elevation (meters)	Sensor	Digitizer	Telemetry	Sponsor	
		Station	Channel	Channels	Code								
B206*	Canyon206bwy2008, Yellowstone, WY	B206	EH[ZEN]	3	PB	44° 46.66'	110° 30.70'	2400	IESE-S2	Q330	Digital	PBO	
B207*	Madisn207bwy2007, Yellowstone, WY	B207	EH[ZEN]	3	PB	44° 37.14'	110° 50.91'	2182	IESE-S2	Q330	Digital	PBO	
B208*	Lakejn208bwy2008, Yellowstone, WY	B208	EH[ZEN]	3	PB	44° 33.61'	110° 24.09'	2406	IESE-S2	Q330	Digital	PBO	
B944*	Grant944bwy2008, Yellowstone, WY	B944	EH[ZEN]	3	PB	44° 23.38'	110° 32.63'	2365	IESE-S2	Q330	Digital	PBO	
B945*	Panthr944swy2008, Yellowstone, WY	B945	EH[ZEN]	3	PB	44° 53.64'	110° 44.65'	2249	IESE-S2	Q330	Digital	PBO	
B950*	Norris950bwy2013, Yellowstone, WY	B950	EH[ZEN]	3	PB	44° 42.77'	110° 40.71'	2328	IESE-S2	Q330	Digital	PBO	
FLWY*	Flagg Ranch, WY	FLWY	BH[ZEN]	3	IW	44° 04.96'	110° 41.96'	2078	3ESP	RT-130	Digital	ANSS	
H17A*	Grant Junction, Yellowstone, WY	H17A	BH[ZEN]	3	TA	44° 24.00'	110° 34.80'	2400	STS-2	Q330	Digital	ES	
IMW	Indian Meadows, WY	IMW	BH[ZEN]	3	IW	43° 53.58'	110° 56.58'	2670	3ESP	RT-130	Digital	ANSS	
LKWY*	Lake, WY	LKWY	BH[ZEN]	3	US	44° 33.91'	110° 24.00'	2424	STS-2	Q330	Digital	USGS	
LOHW*	National Elk Refuge, WY	LOHW	BH[ZEN]	3	IW	43° 36.76'	110° 36.30'	2245	3ESP	RT-130	Digital	ANSS	
MCID	Moose Creek, ID	MCID	EHZ	1	WY	44° 11.45'	111° 11.03'	2137	L4C	PSN	Analog	USGS	
QLMT*	Earthquake Lake, MT	QLMT	EHZ	1	MB	44° 49.84'	111° 25.80'	2064	L4C	-	Analog	MBMT	
REDW*	Red-Top Meadows, WY	REDW	BH[ZEN]	3	IW	43° 21.74'	110° 51.18'	2322	3ESP	RT-130	Digital	ANSS	
RRI2*	Red Ridge, ID	RRI2	BH[ZEN]	3	IW	43° 20.84'	111° 19.20'	2547	3ESP	RT-130	Digital	ANSS	
TPMT*	Teepe Creek, MT	TPMT	EHZ	1	MB	44° 43.79'	111° 39.94'	2518	L4C	-	Analog	MBMT	
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				
YGC	Grayling Creek, MT	YGC	EHZ	1	WY	44° 47.77'	111° 06.45'	2075	L4C	PSN	Analog	USGS	
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				

UURSN	Location	SEED	SEED	No. of	Network	Latitude	Longitude	Elevation (meters)	Sensor	Digitizer	Telemetry	Sponsor	
		Station	Channel	Channels	Code								
YJC	Joseph's Coat (YNP), WY	YJC	EH[ZEN]	3	WY	44° 45.33'	110° 20.95'	2684	S13	PSN	Analog	USGS	
YLA	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				
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	

\* Station operated by another agency and recorded as part of the Yellowstone Seismic Network  
 Network Statistics: 136 data channels from 42 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](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:

<b>Band Code</b>	<b>Band Type</b>	<b>Sample Rate</b>	<b>Corner Period</b>
E	Extremely short period	$\geq 80$ Hertz	< 10 seconds
H	High broadband	$\geq 80$ Hertz	$\geq 10$ seconds
B	Broadband	$\geq 10$ to $< 80$ Hertz	$\geq 10$ seconds
S	Short period	$\geq 10$ to $< 80$ Hertz	< 10 seconds

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

<b>Instrument Code</b>	<b>Description</b>
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](http://www.iris.edu/dms/nodes/dmc/services/network_codes)>> for information about registered seismograph network codes. Network codes referenced in this table:

<b>Network Code</b>	<b>Network name; Network operator or responsible organization</b>
IE	Idaho National Laboratory Seismic Network
IU	IRIS/USGS Network; USGS Albuquerque Seismological Laboratory
IW	Intermountain West Network, U.S. Geological Survey

MB	Montana Regional Seismic Network; Montana Bureau of Mines and Geology
PB	Plate Boundary Observatory
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.

<b>Sensor</b>	<b>Description</b>
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
IESE-S2	Institute of Earth Science and Engineering S-2 model borehole seismometer
<b>Digitizer</b>	<b>Description</b>
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)
<b>Telemetry</b>	<b>Description</b>
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
MBMT	Montana Bureau of Mines and Geology
PBO	Plate Boundary Observatory
ES	EarthScope

**NETWORK CHANGES DURING APRIL 1-JUNE 30, 2014**

None