Earthquake Commentary for April, 1998

Map of recent earthquake activity

Send comments and suggestions to:kate@bombay.gps.caltech.edu

09:51 PDT, Wednesday, April 29

The only quake of interest overnight was a Coso area quake at 8:45 pm, magnitude M3.0. It was located 10 miles north-northeast of Little Lake, or about 11 miles to the west of the center of the March swarm.

10:04 PDT, Tuesday, April 28

There was a small cluster of Northridge aftershocks late yesterday afternoon: a M2.4 at 5:12:19 pm, a M2.1 at 5:12:47 pm, and another M2.1 at 5:13:00 pm. All were located about 2 miles northwest of San Fernando. At least the largest one was felt in the epicentral area.

There was also another small Oceanside quake at 11:56 pm: a M2.6 located 26 miles west-southwest of Oceanside. Due to its offshore location, this event was not felt.

10:08 PDT, Monday, April 27

Since Saturday evening's felt quake, seismicity has been quiet. There have been no more aftershocks in the Alhambra area after the M2.8 at 7:56 pm Saturday. There has been some minor activity south of the U.S./Mexico border (largest M3.1 at 9:18 pm on Sunday, 19 miles east-northeast of Ensenada), but nothing that could be felt in the U.S.. Also Sunday night, at 11:12 pm, there was a M2.5 quake in the Coso Range, located about 4 miles north-northwest of the March center of activity.

20:53 PDT, Saturday, April 25

Here's what we know: the M3.8 earthquake (initially reported as M4.0) was widely felt in the Los Angeles region in the early evening (06:32 pm PDT) of Saturday April 25. The hypocenter was at 34 deg 4.7 min (north) and 118 deg 5.9 min (west) at a depth of 9 km. This location is 2 miles southeast of Alhambra and 10 miles east-northeast of downtown Los Angeles. It is close to the aftershock zone of the 1987 Whittier Narrows earthquake (M5.9), but today's quake is not considered an aftershock because the Whittier Narrows aftershock sequence ended in 1988. There was a small foreshock (M1.8) 4 hours before today's M3.8 event, and one felt aftershock (M2.7) at 07:56 pm. There are no reports of damage from this light earthquake. (see map).

19:07 PDT, Saturday, April 25

Here is some preliminary information on this evening's quake: M4.0, located 2 miles southeast of Alhambra, at 6:32 pm. It was widely felt. This is an the northwest edge of the aftershock zone of the Oct. 1, 1987 Whittier Narrows quake (M5.9). However, that aftershock sequence ended a long time ago, so we cannot call today's quake an aftershock. Interestingly, there was a M1.8 foreshock at the same location at 2:49 pm today. We will post more information later this evening.

11:59 PDT, Saturday, April 25

There were two small offshore earthquakes this morning. The first was M3.0, located about 27 miles west-southwest of Oceanside, at 12:07 am. This epicenter is not too far (7 miles east) from the site of a Mw5.4 quake, dubbed the Oceanside quake, on July 13, 1986. The Oceanside quake had one of the most prolific aftershock sequences, for its size, ever. However, that aftershock sequence did finally end several years ago, so this morning's quake cannot be considered an aftershock. The other quake this morning occurred at 9:52 am and was located 21 miles south of Pt. Dume. It had a magnitude of M2.8. Because of their offshore location, neither of today's quakes was probably felt.

17:39 PDT, Friday, April 24

There were two M2.7's this afternoon, at 3:08 pm and at 3:43 pm. The first occurred in the Wheeler Ridge area near Grapevine, 13 miles northwest of Gorman. The second, unrelated, quake was a Landers aftershock, located 24 miles east-northeast of Lucerne Valley.

11:55 PDT, Friday, April 24

At 10:03 am this morning, a M2.8 quake occurred near Mt. Baldy (otherwise known as Mt. San Antonio). The epicenter was 10 miles south of Wrightwood, which puts the it along Mt. Baldy Road just 2 miles south-southeast of the summit of Mt. Baldy itself. The focal mechanism was thrust.

09:31 PDT, Friday, April 24

We recorded and analysed 266 earthquakes in the past week. Click here to see a summary and map .

16:03 PDT, Thursday, April 23

Today's earthquake of interest was a M3.4 at 3:14 pm, located 20 miles east of Barstow. Although the focal mechanism seems to be strike-slip, like most of the Landers aftershocks, today's hypocenter is about 10 km to the east of the nearest zone that was active immediately after the Landers mainshock (Mw7.3 on June 28, 1992). So far, we haven't received any reports that it was felt.

13:28 PDT, Wednesday, April 22

At 10:40 am today, there was a M2.6 quake, near the I5 about 17 miles west-southwest of Bakersfield. As far as we know, it was not felt by anyone, and it is not an aftershock.

09:28 PDT, Monday, April 20

We had another small quake in the Coso Range on Friday, at 3:46 pm. It had a magnitude of M2.6, and was located about twelve miles to the west of where most of the March and April activity has been.

The other quake of minor interest was a M2.8 at 8:51 pm on Saturday, located 22 miles east-northeast of Lucerne Valley. It was an aftershock of Friday morning's M3.6, which was a Landers aftershock. Yes, that makes Saturday night's quake a Landers aftershock, also.

10:04 PDT, Friday, April 17

This morning's quake of note was a Landers aftershock (of the Mw7.3 quake on June 28, 1992), located 22 mi. east-northeast of Lucerne Valley, in the Mojave Desert. The magnitude was ML3.6. The focal mechanism is right-lateral strike slip, just as one would expect from a Landers aftershock. So far, we have not received any inquiries indicating that the quake was felt; the epicenter was in a very remote area. There has been one decent-sized aftershock so far, and that was a M2.7 at 9:10 am.

16:05 PDT, Wednesday, April 15

Okay, here it is: the quake that you felt had a magnitude of ML3.2. It occurred at 1:13 pm today, four miles north-northwest of downtown Los Angeles. That puts it near the I5, just north of Silver Lake. The depth was 10 km (about 6 miles). The focal mechanism indicates thrust faulting, with a small component of right-lateral strike slip. With this focal mechanism, the quake is probably associated with the Elysian Park Fold and Thrust Belt. This system extends from approximately this hypocenter toward the southeast, passing under Dodger Stadium and downtown Los Angeles, to about Montebello. The Whittier Narrows earthquake (ML5.9) of October 1, 1987 was associated with this system. As of 4:04 pm, today's quake has produced no aftershocks.

13:20 PDT, Wednesday, April 15

Yes, I know! I felt it, too. We will get a commentary up as soon as possible.

09:06 PDT, Wednesday, April 15

At 10:31 pm last night, there was a M2.7 quake near the western edge of Owens Valley, 9 miles south of Olancha. This location is just about 'even' (speaking of the north-south length of Owens Valley) with South Haiwee Reservoir, but on the other side of the Valley.

Somewhat earlier, at 5:42 pm, there was a ML3.6 quake in northern Baja, about 26 miles east-southeast of Ensenada, mentioned here only because it had a relatively decent-sized magnitude.

14:50 PDT, Tuesday, April 14

Readers of the old Weekly Earthquake Report will remember that it was customary to include a summary of the seismicity statistics at the end of each quarter. So, here we have the statistics for the first quarter of 1998. The earthquake totals for the quarter are the highest they have been in a year, thanks largely to the March Coso sequence .

Totals listed below apply to the area within a polygon bounded by the following latitude, longitude pairs:
35.0N, 121.0W; 37.0N, 119.0W; 37.0N, 115.0W; 32.5N, 115.0W; and 32.5N, 121.0W.

	1st quarter		2nd quarter		3rd quarter		4th quarter	
	all	3.0+	all	3.0+	all	3.0+	all	3.0+
1986	3,040	16	2,865	19	6,634	192	2,300	38
1987	1,679	24	1,887	36	2,341	38	5,748	198
1988	2,749	40	2,128	45	2,195	30	2,208	27
1989	2,528	46	2,340	21	2,323	19	2,335	26
1990	2,850	56	2,293	43	1,859	27	2,039	31
1991	1,679	10	1,843	32	2,081	21	2,337	27
1992	3,389	37	10,084	741	25,849	808	9,775	181
1993	4,799	41	5,152	58	5,039	46	4,419	34
1994	10,735	418	5,766	42	5,221	48	4,813	39
1995	3,639	28	3,788	37	8,252	88	7,733	49
1996	5,735	56	3,966	32	3,690	23	4,660	50
1997	3,699	39	3,276	54	3,193	31	2,443	27
1998	3,590	56						

Northridge

1/17/94 - 3/31/98
Latitude 34.1 - 34.5 North, Longitude 118.3 - 118.85 West

All events	14,660	(137 of them this quarter)
3.0 - 3.9	416	(3 of them this quarter)
4.0 - 4.9	52	(none this quarter)
5.0 and up	11	(none this quarter)

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Landers/Big Bear
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4/23/92 - 3/31/98
Latitude 33.8 - 35.33 North, Longitude 116.0 - 117.05 West

All events      68,792  (510 of them this quarter)
3.0 - 3.9        1,641  (4 of them this quarter)
4.0 - 4.9          172  (none this quarter)
5.0 and up          23  (none this quarter)

Coso Range
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1/1/98 - 3/31/98
Latitude 35.95 - 36.25 North, Longitude 117.55 - 117.75 West

All events       1,384  (this quarter only)
3.0 - 3.9           33  (this quarter only)
4.0 - 4.9            4  (this quarter only)
5.0 and up           2  (this quarter only)

UTC date    UTC time     Lat.      Long.      Mag.
1998  3  6   5 47 40.33  36  3.99  117 38.28  5.2
1998  3  7   0 36 46.84  36  4.56  117 37.09  5.0
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08:25 PDT, Tuesday, April 14

At 4:57 am today, there was a M2.8 Landers aftershock, located 18 miles north of Yucca Valley. In case you forgot, the Landers quake occurred on June 28, 1992 and had a magnitude of Mw7.3.

15:52 PDT, Monday, April 13

We had another small Coso quake at 2:15 pm today, magnitude M2.8. This quake occurred at the same location as the early March sequence.

08:39 PDT, Saturday, April 11

Well, we finally had a quake above M2.5! This one occurred at 11:50 pm Friday night and had a magnitude of M2.6. It was located 4 miles south of Morongo Valley, near the site of the 1986 North Palm Springs quake (M5.6). Because of the time that has elapsed, of course, last night’s quake was not an aftershock of the North Palm Springs.

07:45 PDT, Monday, April 06

Since the M3.4 on Saturday, there have been two more M2.6 Coso events. They occurred at 8:00 am on

Sunday, and at 6:32 am today (Monday). In addition, there was a M2.5 at 3:10 this morning, located about 3 miles south of San Bernardino. Like Coso, this area, near the intersection of the San Jacinto fault with the Banning fault, is a common source of small quakes.

20:07 PST, Saturday, April 04

And another one! This one was M3.4, at 1:22 pm today, and at the usual (at least since March) Coso location. It was the largest quake we've had since March 18 (that one was also a Coso quake).

12:26 PST, Saturday, April 04

We had another Coso quake this morning at 10:25 am, magnitude M2.7. It was located in the Little Lake area, where the two M5+ quakes, with aftershocks, occurred in early March.

Just a reminder: if this page doesn't get updated every day, it might be because we forgot to do it, but it's more likely because all the quakes were smaller than M2.5.

08:43 PST, Thursday, April 02

It sure has been quiet lately! Actually, we did have a M2.5 at 3:02 am this morning. It was located in the Little Lake area, where the two M5+ quakes, with aftershocks, occurred in early March.

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