

Boyle

SEISMOLOGICAL LABORATORY

California Institute of Technology  
Pasadena, California

BULLETIN ON LOCAL SHOCKS

January - March, 1963

This bulletin catalogues earthquakes in the general Southern California area for which seismograph data are sufficient for good epicenter determinations. In general this includes shocks of magnitude 3.0 within the boundaries indicated on the index map circulated with earlier issues. (A limited number of copies of this index map are still in stock, available on request until exhausted). Shocks in adjacent parts of Mexico, Nevada, and central California are included when of magnitude 4.5 or over.

Shocks of magnitude less than 3.0 in the Southern California area, or less than 4.5 in the adjacent areas, are included when reported as felt, when unusually well located, or when there is some other reason or special interest.

Artificial earthquakes due to explosions, etc., are not listed.

Dates and times are in terms of Greenwich Civil Time (G.C.T.). For Pacific Standard Time subtract 8 hours, for Pacific Daylight-Saving Time subtract 7 hours; this will sometimes change the date. Time reported is that of origination of the shock, generally to the nearest second; when determination is less precise, time is given to the nearest tenth of a minute.

Latitudes North and longitudes West are in degrees and minutes, or degrees and tenths. Quality of location is indicated in the column headed Q, as follows: A, specially investigated; B, probably within 5 kilometers (3 miles); C, probably within 15 kilometers (or 10 miles); D, very rough.

Magnitudes are given in the column headed M. Index letters and figures, such as K7, refer to the index map.

USCGS, or CGS: United States Coast and Geodetic Survey. Reports of felt earthquakes as collected by the San Francisco office, Seismological Field Survey; epicenters and origin times as determined at the office of the Director, Washington, D. C.

Roman numerals I, II, III....are intensities on the Modified Mercalli scale of 1931.

Charles F. Richter  
Violet M. Taylor  
August 24, 1964



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Date	G. C. T.	Lat N.	Long. W.	Q	M.	Index	Remarks
<u>1963</u> <u>January</u>							
1	18:37:50	36 04	117 58	B	2.9	K 9	Near Haiwee
1	18:50:07	33 58	118 23	B	2.0	J 4	Near Inglewood
9	06:04:04	34 55	119 06	B	4.0	G 6	Near Wheeler Ridge
							Felt (III) at Wheeler Ridge (CGS)
12	03:34:44	34 16	117 04	C	2.7	L 5	Near Lake Arrowhead
13	02:39:39	33 01	116 13	B	4.2	N 3	Near Vallecito
13	07:56:34	34 16	117 05	B	2.7	L 5	Near Lake Arrowhead
13	20:45:18	33 01	116 13	B	3.9	N 3	Near Vallecito
13	20:47:25	33 01	116 13	B	3.0	N 3	Near Vallecito
13	21:09:19	33 01	116 13	B	3.4	N 3	Near Vallecito
14	01:33:31	33 01	116 13	B	3.4	N 3	Near Vallecito
15	16:35:43	34 07	117 38	B	2.4	K 5	Near Ontario
16	12:51:08	34 16	117 05	B	3.4	L 5	Near Lake Arrowhead
16	14:39:22	34 16	117 07	B	2.7	L 5	Near Lake Arrowhead
16	21:01:25	34 17	117 04	B	2.9	L 5	Near Lake Arrowhead
18	21:12:37	37.3	118.1	C	3.3	J11	East of Bishop
23	13:21.3	38.2	118.1	D	3.6	J13	East of Mono Lake. Southeast of Hawthorne



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Date	G. C. T.	Lat N.	Long. W.	Q	M.	Index	Remarks
<u>1963</u>							
<u>January</u>							
25	05:39:59	33 01	116 13	B	3.5	N 3	Near Vallecito
25	06:33:35	33 01	116 13	B	3.4	N 3	Near Vallecito
27	03:00:39	31.6	115.7		4.9	P 0	Near Laguna Salada. Epicenter and Origin Time by USCGS. Apparently felt by a few persons at San Diego.
31	07:54:41	33 55	118 21	B	2.6	J 4	Near Inglewood. Felt in Crenshaw area. Felt in general area within several miles of epicenter (LA Times)
<u>February</u>							
1	15:28:00	35 19	118 34	B	2.9	H 7	North of Caliente
2	11:51:42	39.0	122.8		3.5±	A15	Lake County, Calif. Epicenter and origin time by USCGS. Felt at Clear Lake.
2	12:09:37	39.0	122.8		3.6±	A15	Lake County, Calif. Epicenter and origin time by USCGS. Felt at Clear Lake.
2	13:58:19	36.8	121.5		4.2	C10	San Benito County, Calif. Epicenter and origin time by USCGS. IV at Hollister (CGS)
3	15:28:13	35 27	118 25	B	2.8	J 7	Northeast of Caliente
11	01:07:54	34 15	116 52	B	2.6	M 5	Near Big Bear
12	21:45:49	34 55	118 59	B	3.5	H 6	Near Wheeler Ridge
18	16:58:53	33 55	118 22	B	3.4	J 4	South of Inglewood. Felt: Santa Monica, Manhattan Beach, near Beverly Hills
19	19:01:21	32 25	115 05	C	3.7	Q 1	East of Volcano Lake, Baja California
21	11:44:42	31.7	115.9	D	3.8	P 0	Baja California
22	01:52:51	32 55	117 30	C	2.9	K 2	Northwest of San Diego
22	15:56:6	35 40	120 50	D	3.6	E 8	West of Paso Robles



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Date	G. C. T.	Lat N.	Long. W.	Q	M	Index	Remarks
<u>1963</u>							
<u>February</u>							
27	09:13:40	34 18	116 51	B	2.6	M 5	Near Big Bear
27	12:57:52	36 08	118 04	B	2.8	J 9	Near Haiwee
27	16:45:08	33 15	115 35	C	2.7±	P 3	Near Niland. Palomar seismograms peculiar
27	20:07:07	35 06	118 56	B	2.6	H 7	North of Wheeler Ridge
<u>March</u>							
1	00:25:58	34 56	118 59	B	5.0	H 6	Near Fort Tejon. USCGS reports: VI, Fort Tejon, Frazier Park, Tejon Ranch, Taft; V, Bakersfield, Gorman, Lake Elizabeth, Maricopa, Paloma cycling plant, Tehachapi, Wheeler Ridge. Felt in Los Angeles, and as far as Cantil, Colton, Fullerton, Goleta, Johnsondale, Lost Hills, McKittrick, Porterville, Santa Ynez, Simmler.
2	20:38:31	34 18	116 49	B	2.9	M 5	Near Big Bear
4	14:48:32	34 57	118 56	B	3.1	H 6	North of Fort Tejon
4	20:10:42	34 57	118 58	B	4.0	H 6	North of Fort Tejon
8	14:29:22	32 58	116 26	B	3.0	N 2	Northeast of Descanso
10	09:32:04	34 19	116 51	B	3.0	M 5	Near Big Bear
10	11:40:29	38.4	127.2		4?	A13	Epicenter and origin time by USCGS
11	06:07:01	33 45	118 21	B	3.0	J 4	West of Wilmington. Felt in Torrance, Hawthorne, Redondo Beach, and Manhattan Beach
11	06:45:39	35 19	118 35	B	2.6	H 7	North of Caliente
12	09:19:30	36 42	119 56	B	3.1	F10	Near Fresno
12	18:06:31	33 38	117 54	B	2.3	K 4	Near Newport Beach
14	12:23:47	35 22	118 47	B	3.2	H 7	East of Bakersfield. Felt by many persons, especially north and east of city. (telephone, press)
15	20:27:55	34 07	117 38	B	2.5	K 5	Near Ontario



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Date	G. C. T.	Lat N.	Long. W.	Q	M	Index	Remarks
<u>1963</u> <u>March</u>							
16	09:35:54	34 20	116 53	B	3.5	M 5	Near Big Bear
16	12:15:13	34 20	116 53	B	2.6	M 5	Near Big Bear
17	10:10:53	34 20	119 12	C	2.8	G 5	Northeast of Bentura
20	15:58:19	34 05	117 57	B	2.3	K 5	Near West Covina.
20	23:15:15	31.5	116.0	D	4.0	N 0	Reported by Fred Robinson Compare Mar. 22, 10:36
22	10:36.1	31.5	116.0	D	3.9	N 0	Southeast of Ensenada
22	22:03:34	33 23	118 22	B	2.4	J 3	Near Avalon
23	00:13:38	34 19	116 52	B	2.6	M 5	Near Big Bear
23	00:19:08	34 20	116 56	B	2.5	M 5	Near Big Bear
23	14:09:29	33 57	118 12	B	2.5	J 4	Near Compton
24	17:31:39	34 55	116 33	B	2.8	M 6	Near Manix
25	09:28:44	36.0	114.9		4.9	R 9	Near Las Vegas, Nevada. Epicenter and origin time by USCGS. VI at Boulder City with minor damage. V at Hoover Dam and Las Vegas.
26	04:29.7	36.0	114.9	D	3.2	R 9	Near Las Vegas, Nevada
27	20:30:28	35 48	118 02	B	3.0	J 8	Near Walker Pass
30	18:28:16	33 59	116 46	C	3.2	M 4	North of Cabazon

August 24, 1964

C. F. Richter  
J. K. Gardner  
J. M. Nordquist