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SEISMOLOGICAL LABORATORY

APR 2 1963

California Institute of Technology  
Pasadena, California

BULLETIN ON LOCAL SHOCKS

January - March, 1962

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 for 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  
March 12, 1963



SEISMOLOGICAL LABORATORY

California Institute of Technology  
Pasadena, California

BULLETIN ON LOCAL SHOCKS

January - March, 1962

NOTE: This quarterly report is being issued with the usual locations based on instrumental recordings, but with notes on perceptibility and intensity derived only from press clippings and individual reports reaching Pasadena. A supplement will be issued later, giving revised and additional data of this kind, and any necessary corrections and additions to the epicenter list.

Date	G.C.T.	Lat.	N.	Long.	W.	Q.	M.	Index	Remarks
1962 January									
1	15:21:39	35	22	118	36	B	2.9	H7	North of Caliente.
7	23:01:31	33	15	118	39	C	2.8	H3	Southwest of Santa Catalina Island.
9	16:30:01	37.0	<i>Blast!</i>		116.2		3.7		Near Shoshone Mountains
15	04:32:02	33	45	117	13	B	3.0	L4	Near Perris. Felt in Banning area (Banning Pass Observer).
15	16:02:45	33	52	117	50	B	2.7	K4	North of Santa Ana.
15	23:17:21	37	33	118	20	B	3.9	J11	Southeast of Yosemite.
16	04:03:29	34	10	119	05	B	3.0	G5	Southeast of Oxnard. Felt at Oxnard and El Rio (press).
17	18:16:10	31	59	116	22	C	3.8	N0	Baja California (south of Barrett).
17	20:38:42	33	50	118	01	B	2.5	J4	Near Anaheim.
19	02:00:35	35	48	117	34	B	2.7	K8	Near China Lake.
19	15:46:09	33	47	118	00	B	2.5	K4	South of Anaheim. Multiple shock?
24	06:11:13	32	20	115	43	D	3.5	P1	Northwest of Laguna Salada.
25	10:58:44	34	59	117	08	B	2.8	L6	Northwest of Barstow.
27	22:59.5	30.8		114.6			4.3		Gulf of California.
27	23:04.1	30.8		114.6			3.8		Gulf of California.
27	23:07:42	30.8		114.6			5.3	✓	Gulf of California. Epicenter and origin time by USCGS.
27	23:26:10	30.8		114.6			4.6	✓	Gulf of California. Epicenter and origin time by USCGS.



Date	G.C.T.	Lat.	N.	Long.	W.	Q.	M.	Index	Remarks
1962									
January									
28	01:29.5	30.8		114.6			4.6		Gulf of California.
28	02:12.6	30.8		114.6			4.4		Gulf of California.
28	02:19.5	30.8		114.6			4.6		Gulf of California.
28	11:47.6	30.8		114.6			4.1		Gulf of California.
28	11:49.2	30.8		114.6			4.5		Gulf of California.
29	23:27.2	30.8		114.6			4.6		Gulf of California.
30	19:05:34	34	29	118	16	B	2.9	J5	Northwest of Acton.
31	03:17.2	36.8		121.3		D	4.3	E10	San Benito county. Felt, Hollister area.
31	04:07.5	39.5		117.5		D	4.3	L15	Central Nevada.
31	08:33:15	34	53	120	41	C	3.6	D6	Off the coast west of Guadalupe.
February									
1	06:37:57	34	53	120	41	C	4.5	D6	West of Guadalupe. Felt at Pismo, Santa Maria, San Luis Obispo (press) Vandenberg AFB (telephone)
1	07:58:12	34	53	120	41	C	3.7	D6	West of Guadalupe.
1	22:04:31	34	13	117	10	C	2.6	L5	North of Redlands.
2	14:26:50	33	58	116	36	B	3.2	M4	West of Desert Hot Springs. Felt at Palm Springs (press).
2	22:41:05	33	27	116	55	B	3.4	M3	Near Palomar.
3	00:03:47	34	27	118	21	B	2.1	J5	East of Solemint.
4	04:45:00	34	03	118	45	B	2.9	H5	Near Malibu.
5	16:25:36	35	13	118	33	B	3.3	H7	South of Caliente.
6	08:45:23	35	07	118	40	B	3.6	H7	Southwest of Tehachapi.
6	15:44:21	34	06	118	44	B	3.1	H5	West of Topanga.
6	19:32:15	34	01	118	45	B	2.9	H5	West of Topanga.
7	13:00.7	34.3		122.1		D	3.9	A5	West of Santa Cruz Island.
8	11:24:54	35	03	119	01	B	3.0	G7	West of Wheeler Ridge.
9	05:00.4	32.2		116.0		D	3.5	P1	Baja California.
10	12:24:50	35	30	118	23	B	3.1	J7	South of Isabella.
10	18:54:35	34	12	118	37	C	2.3	H5	Near Woodland Hills and Calabasas.
15	03:26:53	34	02	116	40	B	3.0	M5	Northwest of Desert Hot Springs.
15	07:12:43	36.9		112.4			4.5		Arizona-Utah border. Felt at Kanab, Utah. Epicenter and origin time by USCGS.



Date	G.C.T.	Lat.	N.	Long.	W.	Q.	M.	Index	Remarks
<u>1962</u> <u>February</u>									
15	09:06:45	37.0		112.9			4.4		Arizona-Utah border. Epicenter and time by USCGS.
16	22:39:34	33	54	116	28	B	3.4	N4	Near Desert Hot Springs
17	01:07:25	34	30	118	15	B	2.8	J6	Northwest of Acton.
19	03:25:38	34	12	119	08	B	2.9	G5	Southeast of Oxnard. Felt in Oxnard (press).
20	06:23.7	31.4		115.9		D	3.9	P0	Baja California.
22	22:03:20	37	28	118	28	C	3.4	J11	North of Bishop. Felt at Bishop (press).
25	06:37:03	33	30	116	25	B	3.3	N3	North of Borrego Springs.
27	14:57.0	32.9		116.3		D	3.3	N2	East of Vallecito.
<u>March</u>									
4	19:09:48	33	07	115	46	C	3.2	P3	Northwest of Brawley.
4	20:39:43	33	07	115	46	C	3.5	P3	Northwest of Brawley.
4	21:32:47	33	07	115	46	C	3.3	P3	Northwest of Brawley.
4	23:24:58	33	07	115	46	C	3.2	P3	Northwest of Brawley.
5	07:44:01	34.6		121.6			4.5	B6	Off coast near Lompoc. Epicenter and time by USCGS.
5	08:52:01	32	59	116	13	B	3.2	N2	Northeast of Vallecito. May be shock reported felt in Imperial Valley
6	03:40:22	34.6		121.6		D	3.6	B6	Off coast near Lompoc.
8	06:58:50	34.3		118.8		D	2.6	H5	Near Simi.
10	08:07:21	34.6		121.6		D	4.2	B6	Off coast near Lompoc.
10	13:40:48	34.6		121.6		D	4.0	B6	Off coast near Lompoc.
10	15:24:21	34.6		121.6		D	3.5	B6	Off coast near Lompoc.
12	21:32:09	34.6		121.6		D	3.9	B6	Off coast near Lompoc.
14	15:23						4.8		Gulf of California? Reported felt in Imperial Valley. (San Diego press).
15	11:36:09	36.6		115.9		D	3.0	P10	South of Frenchman Flat, Nevada.
16	17:15						4.6		Gulf of California?
16	21:21:50	35	02	119	05	B	3.4	G7	West of Wheeler Ridge.
17	00:04:45	34	24	118	27	B	2.6	J5	East of Newhall.



Date	G.C.T.	Lat.	N.	Long.	W.	Q.	M.	Index	Remarks
1962									
March									
17	21:27:03	34	55	116	45	B	3.0	M6	East of Barstow.
17	21:38:44	37.8		122.0			4.1		Contra Costa County, California. Epicenter and time by USCGS.
18	12:31:48	35	26	118	42	B	3.1	H7	East of Bakersfield (Kern River).
19	02:38:12	34	04	118	54	C	3.0	H5	West of Santa Monica.
23	22:10:18	34	17	120	12	C	2.9	E5	Santa Barbara Channel.
24	03:38:18	35	46	118	02	B	3.7	J8	Walker Pass. Smaller shock follows.
26	21:09:47	33	59	119	25	B	2.5	G4	Near Anacapa Island.
27	01:25:04	33	53	117	39	B	3.1	K4	West of Palm Springs.
31	00:23:20	34	28	118	17	B	2.6	J5	West of Acton.
31	20:02:23	33	58	117	44	B	2.9	K4	South of Pomona.

March 12, 1963

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



AUG 08 1963

SEISMOLOGICAL LABORATORY  
CALIFORNIA INSTITUTE OF TECHNOLOGY  
PASADENA, CALIFORNIA

BULLETIN ON LOCAL SHOCKS

Addenda and corrigenda

Date	G.C.T.	Lat.	N.	Long.	W.	Q.	M.	Index	Remarks
<u>1962</u>									
<u>January</u>									
9	16:30:01	37.0		116.2			3.7		Delete this entry; clerical error.
15	03:13:25	33	20	118	53	C	2.7±	H7	East of Bakersfield. Felt, Kern Canyon (CGS).
15	23:17:21								Add: North of Laws. IV at Laws (CGS).
<u>February</u>									
1	06:37:57								USCGS reports V at Arroyo Grande, Avila Beach, Casmalia, Grover City, Guadalupe, Halcyon Oceano, Point Arguello, Shell Beach; IV at Bryson, Lompoc, Los Alamos, Nipomo, San Lu Obispo, Santa Margarita Felt at Tehachapi (CGS) IV at Tehachapi (CGS). IV at Laws (CGS).
5	16:25:36								
6	08:45:23								
22	22:03:20								
<u>March</u>									
5	07:44:01								USCGS: V at Morro Bay Pismo Beach; IV at Arroyo Grande, Avila Beach, Guadalupe, Harmony, Shell Beach.



# SEISMOLOGICAL LABORATORY

California Institute of Technology  
Pasadena, California

## BULLETIN ON LOCAL SHOCKS

April - June, 1962

Date	G.C.T.	Lat.	N.	Long.	W.	Q.	M.	Index	Remarks
1962 April									
1	09:09:24	35	14	118	32	B	3.5	H7	Near Woodford. IV at Keene (CGS).
2	03:05:41	35	15	118	30	B	3.7	J7	Northwest of Tehachapi. V at Keene and Tehachapi (CGS).
3	05:50:52	33	49	120	15	B	3.4	E4	South of Santa Rosa Island.
4	06:29:59	34	56	119	00	B	2.8	G6	East of Grapevine.
4	17:00.5	38.4		119.3		D	3.6	G13	Felt at Bridgeport (CGS).
4	21:47.9	38.4		119.3		D	3.5	G13	Felt at Bridgeport (CGS).
5	21:27:54	38.4		119.3			3.9	G13	West of Walker Lake. Epicenter and time by USCGS. Felt chiefly in Mono County; IV at Bridgeport (CGS).
5	22:01.8	38.4		119.3		D	3.6	G13	Felt at Bridgeport (CGS).
8	01:07.3	38.4		119.3			3.7	G13	West of Walker Lake. Felt at Bridgeport (CGS).
8	20:29.4	35.0		119.2		C	3.3	G7	West of Wheeler Ridge.
10	23:45:25	34	28	118	16	B	2.3	J5	South of Acton.
13	15:01:45	35	48	118	04	B	2.7	J8	Walker Pass.
13	15:38:47	38.4		119.2			4.9	G13	Epicenter and time by USCGS. V at Bridgeport. IV in the adjacent Sierra Nevada and east to Hawthorne and Yerington.
13	16:31.4	38.4		119.2		D	3.2	G13	Felt at Bridgeport (CGS).
13	16:40:59	38.4		119.2			3.9	G13	West of Walker Lake. Felt at Bridgeport (CGS).
13	16:47.6	38.4		119.2		D	3.4	G13	Felt at Bridgeport (CGS).
13	19:30:42	35	50	118	02	B	2.8	J8	Walker Pass.
13	20:21:07	38.3		119.2			3.7	G3	West of Walker Lake. Epicenter and time by USCGS. Felt at Bridgeport (CGS).



Date	G.C.T.	Lat.	N.	Long.	W.	Q.	M.	Index	Remarks
1962 April									
14	07:53:17	40.3		125.1			5	A15	Off coast of Humboldt County. Epicenter and time by USCGS, magnitude by Berkeley.
14	15:42:14	33	50	118	10	B	3.0	J4	Near Long Beach. Felt? Press inquiry about earthquake at 7:30 AM.
15	07:08:25	34	16	119	18	B	3.1	G5	Near Ventura.
15	08:41:01	36.5		120.7			4.2		San Benito County. Epicenter by USCGS. V at Idria; felt at Panoche and Tranquillity (CGS).
17	23:08:13	34	27	117	15	C	2.9	L5	Near Hesperia.
19	06:22:34	34	18	119	14	B	3.8	G5	Near Ventura. Felt at Santa Paula, Ventura, Oxnard area.
19	12:19:56	34	01	117	37	B	2.2	K5	South of Ontario.
19	21:34:56	34	05	117	28	B	2.6	L5	East of Ontario.
20	20:12:08	34	26	118	14	B	2.4	J5	Near Acton.
22	17:03:42	33	48	118	14	B	2.8	J4	Near Long Beach. Felt in Long Beach, Gardena and Torrance (press). I Long Beach Airport (CGS).
22	18:05:34	33	09	116	32	B	3.1	M3	South of Julian.
24	14:16:27	32	58	117	50	C	3.2	K2	West of La Jolla.
24	15:24:43	33	08	116	30	C	3.0	M3	North of Julian.
25	08:48:58	38.5		118.1			4.2	J13	East of Walker Lake. Epicenter and time by USCGS. V at Luning; IV at Babbitt, Hawthorn Mina (CGS).
25	12:48:17	32	41	116	12	B	3.4	N2	Near Jacumba.
25	15:54.2	39.5		117.2		D	3.9	L15	Central Nevada.
27	09:12:32	33	44	117	11	B	4.1	L4	Near Perris. Felt at Riverside, San Bernardino, and (press) Redlands. VI at Romoland and Winchester; V at Riverside, and V from Laguna Beach inland to Banning (CGS).



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April - June, 1962

Date	G.C.T.	Lat.	N.	Long.	W.	Q.	M.	Index	Remarks
<u>1962</u>									
<u>May</u>									
3	02:28:34	33	56	117	16	B	2.7	L4	Southeast of Riverside.
3	13:48:24	29.1		115.5			5.0	Q0	Baja California. Epi- center and time by USCGS
3	17:16:33	34	25	118	24	B	2.6	J5	West of Solemint.
4	20:52:32	35	16	119	33	B	2.8	F7	Near McKittrick.
5	00:55.2	34.2		121.5		D	3.3	C5	West of San Miguel Island. Peculiar.
5	08:10:24	34	00	117	20	B	2.5	L4	Near Riverside.
5	13:10:24	34	01	117	32	B	2.7	K5	Near Ontario. IV at Bloomington, Etiwanda, Fontana (CGS).
5	14:17:24	33	42	116	43	B	3.6	M4	Near Idyllwild. V at Palm Springs, Palm Desert, Anza, Hemet, Idyllwild (CGS).
5	18:24:46	33	48	116	29	B	3.0	N4	Near Palm Springs.
7	16:12:01	33	45	118	15	C	2.6	J4	Long Beach Harbor. Reported felt sharply at Compton (press).
8	19:30:34	35	59	117	42	C	2.9	K8	East of Little Lake.
16	08:40:34	34	03	116	21	B	3.4	N5	East of Desert Hot Springs.
21	04:27.9	34.1		119.2		D	2.8	G5	Near Oxnard.
21	12:54:10	33	28	116	32	C	3.1	M3	Southeast of Anza.
22	05:18:28	33	56	116	27	B	3.0	N4	East of Desert Hot Springs.
26	08:10:05	35	24	118	33	B	2.7	H7	Southwest of Isabella.
27	01:45:35	31.7		115.6			5.1	P0	Gulf of California. Epicenter and time by USCGS.
31	02:20:00	33	02	116	08	C	3.2	N3	Near Vallecito.
31	02:22:20	33	02	116	08	C	3.7	N3	Near Vallecito.
31	02:31:37	33	02	116	08	C	3.0	N3	Near Vallecito.
<u>June</u>									
2	19:58:09	33	31	116	31	B	3.0	M4	Southeast of Anza.
3	20:57:11	33	23	118	24	B	3.0	J3	Near Catalina Island.
5	07:04:19	34	12	116	53	B	3.0	M5	South of Big Bear.



Date	G.C.T.	Lat.	N.	Long.	W.	Q.	M.	Index	Remarks
1962 June									
6	✓ 17:50:07	39	05	123	04	✓	5.3	A15	✓ Near Lakeport. Epicenter and time by Berkeley. VII about 2 miles west of Lakeport. Felt chiefly in Lake Mendocino and Sonoma counties; noticed as far as Fort Bragg, San Francisco, and Willows (CGS).
7	15:15.9	38.3		119.7			3.6	F13	West of Bridgeport. II at Bridgeport (CGS).
8	✓ 06:28:03	38.3		119.7			4.5	F13	✓ West of Bridgeport. V at Bridgeport (CGS). Felt in Walker River area. Epicenter by USCGS.
8	08:35:48	38.3		119.7			4.2	F13	West of Bridgeport. IV at Bridgeport (CGS). Aftershock of above. Felt in Walker River area. Located by comparison with preceding shock.
8	18:57:54	34	22	119	29	C	3.2	G5	West of Carpinteria.
9	12:52:01	35	09	118	53	C	2.8	H7	North of Wheeler Ridge
15	00:44:58	34.5		118.3		C	2.0	J5	Near Acton.
17	00:01:05	34.5		118.3		C	2.2	J5	Near Acton.
21	12:05:51	34	12	117	25	B	2.8	L5	Northwest of San Bernardino. IV at Etiwanda (CGS).
24	18:17:53	36	11	117	45	C	3.1	K9	East of Haiwee.
24	18:18:28	36	11	117	45	C	3.1	K9	East of Haiwee.
26	07:21:07	33	03	116	13	B	2.8	N3	Northeast of Vallecito
28	18:58:23	33	03	116	13	C	3.8	N3	Northeast of Vallecito

July 23, 1963

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



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SEISMOLOGICAL LABORATORY

California Institute of Technology  
Pasadena, California

BULLETIN ON LOCAL SHOCKS

July - September, 1962

Date	G. C. T.	Lat N.	Long W.	Q.	M.	Index	Remarks
<u>1962</u> <u>July</u>							
1	17:11:26	33 02	115 49	B*	3.4	P 3	West Of Brawley
2	07:16:03	33 03	115 48	B*	3.2	P 3	West of Brawley
2	07:44:23	33 03	115 48	B*	3.2	P 3	West of Brawley
8	15:58.1	37.5	114.2	D	4.4	S12	South of Pioche, Nevada
10	06:27:02	33 32	116 56	B*	3.3	M 4	South of Hemet
11	11:59:19	34 16	116 54	B*	2.6	M 5	Near Big Bear Lake
12	07:32:09	35 17	118 40	B*	2.7	H 7	Southwest of Caliente
14	19:43:50	40 17	124 41		4.9	A15	V in part of Humboldt County. (CGS). Epicenter and Origin time by Berkeley.
16	00:47:35	34 03	117 00	C*	2.7	M 5	East of Redlands
17	07:53:27	37 20	118 17	B*	3.8	J11	Near Tinemaha. IV at Laws (CGS)
20	09:02:03	39.8	118.1		5.2	J15	East of Fallon. Epicenter and origin time by Berkeley. V at Austin, Fallon, Luning (CGS)
21	13:19.7	36.1	120.5	D	3.3	D 9	Near Coalinga
24	06:55:27	34 43	118 59	B*	2.1	H 6	Near Gorman
26	00:37.4	38.5	118.9	D	4.1	H14	West of Hawthorne, Nevada
26	16:43:31	34 10	117 12	B*	2.4	L 5	North of Redlands



Date	G. C. T.	Lat N.	Long W.	Q.	M.	Index	Remarks
<u>1962</u>							
<u>July</u>							
26	17:11:51	35 19	118 29	B*	3.2	J 7	Northeast of Caliente
27	04:18:57	35 12	118 37	B*	2.8	H 7	Near Bear Mountain. IV at Keene (CGS)
27	09:51:29	33 52	118 11	C*	1.7	J 4	Near Artesia
27	15:27:07	34 20	119 25	B*	3.0	G 5	Northwest of Ventura
27	15:27:58	34 20	119 25	B	2.6	G 5	Northwest of Ventura
31	14:55:47	33 06	115 52	D	3.3	P 3	Near Kane Springs
<u>August</u>							
1	02:56:42	37 42	118 18	D	3.2	J12	North of Bishop
2	10:39:57	34 02	117 06	B*	2.7	L 5	East of Redlands
3	17:30:08	33 55	117 07	B*	2.8	L 4	West of Beaumont
4	06:37:27	32 38	117 18	B*	3.2	L 2	Southwest of San Diego. IV on Point Loma (CGS).
4	13:39:53	33 44	117 56	B*	2.7	K 4	Near Santa Ana
6	02:17:57	34 17	119 28	B*	2.9	G 5	Off Carpinteria.
6	14:00:04	34 51	116 27	C*	2.7	N 6	East of Barstow
6	17:59:41	34 20	119 29	B*	2.7	G 5	Off Carpinteria
7	22:32:35	31.5	116.1		4.7	N 0	East of Ensenada, Epicenter and origin time by USCGS.
8	05:40:03	34 09	118 03	C	2.6	J 5	Near Pasadena
8	06:19:50	34 09	118 03	B*	2.8	J 5	Near Pasadena
9	23:57:53	34 13	116 26	C*	2.8	N 5	Near Joshua Tree
10	02:29.9	35.0	115.6	D	3.1	M 7	Near Kelso
10	19:18:42	35 03	119 07	B*	3.6	G 7	Near Wheeler Ridge



-3- Pasadena Bulletin on Local Shocks  
July - September, 1962

Date	G. C. T.	Lat N.	Long W.	Q.	M.	Index	Remarks
<u>1962</u> <u>August</u>							
12	21:37:57	37.9	118.3	C	3.2	J12	East of Mono Lake: Northeast of Benton
15	01:55:37	33 18	116 10	C	3.8	N 3	East of Borrego
15	01:57:07	33 18	116 10	C	3.0	N 3	East of Borrego
17	11:03:54	35 57	117 59	B*	3.2	K 8	Near Little Lake
18	07:57:09	34 03	116 25	B*	3.0	N 5	South of Joshua Tree
20	10:43:23	31.1	114.1	4.9	S 0		Gulf of California, Epicenter and origin time by USCGS
21	00:35:26	33 53	119 17	B*	2.7	G 4	Off Point Mugu
21	03:36:49	33 59	117 35	B*	2.8	K 4	Near Ontario.
22	14:47:11	33 53	115 44	C*	3.6	P 4	Northwest of Indio
23	19:29:13	41 51	124 20		5.2	A15	Off Del Norte County. Epicenter and origin by Berkeley. Felt widely in Northwestern Calif. and southwestern Oregon. Damage at Crescent City. CGS gives Crescent City VI, Smith River V-VI; Brookings VI; Cave Junction VI.
25	00:34:59	33 12	119 35	C	2.3	F 3	Near San Nicolas
27	08:18:03	33 58	117 35	B*	2.3	K 4	Near Ontario
30	13:35:29	41.8	11.8		5.8±	T15	Epicenter and origin time by USCGS. East Cache Valley, Utah. Extensive moderate damage (VII) at Richmond, Logan, and adjacent points. Felt in 4 states.
31	03:26:43	33 57	117 56	B*	3.2	K 4	Near Fullerton
31	13:52:32	34 22	117 37	B*	2.6	K 5	Near Wrightwood
31	22:37:58	32 49	117 08	B*	2.9	L 2	Near Mission San Diego. IV at San Diego and East San Diego



Date	G. C. T.	Lat N.	Long W.	Q.	M.	Index	Remarks
<u>1962</u> <u>September</u>							
1	15:53:44	33 57	118 22	B*	3.0	J 4	Near Inglewood. Felt: Inglewood, Baldwin Hills area.
4	17:17:28	41.0	124.0		4.9	A15	Near Eureka. Epicenter and origin time by USCGS. Felt chiefly in Humboldt County. VI at Orick, Samoa, and Eureka (slight damage) (CGS)
5	16:04:29	40.7	112.0		5.1±	T15	Near Salt Lake City, Utah. VI in Salt Lake City. Epicenter and origin time by USCGS.
6	23:26:11	34 38	117 04	B*	2.5	L 6	Northeast of Victorville
7	23:19:14	41 06	116 48		4.6	M15	West of Tuscarora, Nevada. Epicenter and origin time by USCGS
9	16:37:12	33 58	116 38	C*	3.1	M 4	West of Desert Hot Springs
14	23:50:02	34 09	118 41	C*	2.1	H 5	Near Woodland Hills
16	05:26:16	35 45	118 03	B*	4.9	J 8	Near Walker Pass. VI near Sierra front (rocks fell); V over a large area including Inyokern, the southern Sierra Nevada, and southern San Joaquin Valley. Felt to Fresno and Los Angeles.
16	09:26:39	35 44	118 04	B*	3.3	J 8	Near Walker Pass
16	11:37:06	35 46	118 03	B*	3.5	J 8	Near Walker Pass
16	11:37:27	35 46	118 03	C	3.2	J 3	Near Walker Pass
16	18:12:35	34 29	119 41	B*	4.0	F 5	Near Santa Barbara. Felt at Santa Barbara
16	18:17:09	34 29	119 41	C	2.2	F 5	Near Santa Barbara
16	18:31:17	34 31	119 46	B*	2.9	F 6	Near Santa Barbara. Felt at Santa Barbara
17	01:56:02	36 04	118 06	B*	3.0	J 9	Near Haiwee
17	09:30:04	35 45	118 03	B*	3.0	J 8	Near Walker Pass



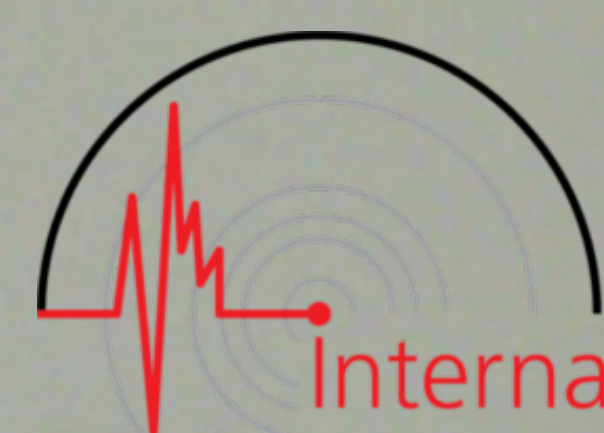
-5- Pasadena Bulletin on Local Shocks  
July - September, 1962

Date	G. C. T.	Lat N.	Long W.	Q.	M.	Index	Remarks
1962 September							
17	15:50:47	35 21	118 34	B*	2.9	H 7	North of Caliente
19	18:50:31	35 48	118 00	B*	3.1	J 8	Near Walker Pass
21	05:07:18	34 28	119 35	B*	3.0	F 5	Near Carpinteria
23	21:29:44	37.6	117.4	D	3.1	L12	Near Goldfield, Nevada
29	08:30:05	34 11	117 29	B*	3.3	L 5	Near Etiwanda
29	19:47:32	34 28	119 42	B*	2.9	F 5	Near Santa Barbara

March 6, 1964

C. F. Richter  
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International  
Seismological  
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MAR 24 1964

SEISMOLOGICAL LABORATORY

California Institute of Technology  
Pasadena, California

BULLETIN ON LOCAL SHOCKS

October - December 1962

Date	G. C. T.	Lat N.	Long W.	Q.	M.	Index	Remarks
<u>1962</u> <u>October</u>							
2	03:51:10	39.2	119.6		4.3	F15	Near Carson City. Epicenter and origin time by USCGS. V at Virginia City, IV at Carson, Felt at Reno (CGS)
5	15:39:03	33 20	116 14	B	4.1	N 3	North of Borrego. V at La Quinta; IV at Anza, Cathedral City, Hemet, Thermal etc. (CGS)
5	20:13:55	35 47	118 02	B	3.0	J 8	Near Walker Pass
9	14:07:34	35 49	118 02	B	3.0	J 8	Near Walker Pass
13	00:05:51	33 24	116 28	B	3.4	N 3	North of Borrego Springs
13	02:40:03	33 32	118 15	B	2.0	J 4	Off Newport Beach
13	17:49.6	36.5	120.4	D	4.2	E10	West of Fresno
14	10:14:32	38.7	124.0		4.6	A14	Off Pt. Arena. Epicenter and origin time by USCGS
19	13:52:33	34 21	116 48	B	3.0	M 5	Near Big bear
22	11:10:59	33 04	116 10	C	3.8	N 3	Near Vallecito; IV at Borrego Springs, Descanso, Pine Valley, Warner Springs (CGS)
22	22:11:42	35 03	118 54	B	2.6	H 7	Near Wheeler Ridge
26	05:30:18	35 22	118 33	B	2.8	H 7	North of Caliente
27	04:44:44	35 22	118 33	B	3.0	H 7	North of Caliente



Date	G. C. T.	Lat N.	Long W.	Q.	M.	Index	Remarks
<u>1962</u> <u>October</u>							
27	12:49:53	33 03	116 13	B	3.3	N 3	Near Vallecito
27	20:59:30	33 03	116 14	B	3.1	N 3	Near Vallecito
28	09:00:36	33 03	116 14	B	2.9	N 3	Near Vallecito
29	02:42:54	34 20	116 52	B	4.8	M 5	Near Big Bear. Slight damage in Big Bear Valley (goods off shelves, etc.) Felt from West Los Angeles to Palm Springs, etc. Rock slide on highway north of Bear Valley.
29	03:01:40	34 17	116 52	B	3.2	M 5	Near Big Bear
29	03:07:12	34 21	116 52	B	3.2	M 5	Near Big Bear
29	03:46:17	34 17	116 51	B	2.8	M 5	Near Big Bear
29	05:35:05	34 19	116 52	B	3.7	M 5	Near Big Bear
29	09:24:48	34 21	116 52	B	2.6	M 5	Near Big Bear
29	12:35:29	34 18	116 52	B	2.8	M 5	Near Big Bear
29	14:41:41	34 17	116 55	B	3.1	M 5	Near Big Bear
30	00:09:27	34 19	116 53	B	3.1	M 5	Near Big Bear
30	01:40:42	34 20	116 49	B	2.8	M 5	Near Big Bear
30	05:46:00	34 16	116 54	B	3.2	M 5	Near Big Bear
30	06:11:43	34 22	116 48	B	3.1	M 5	Near Big Bear
30	11:28:44	34 21	116 48	B	2.8	M 5	Near Big Bear
30	12:57:56	34 23	116 49	B	2.8	M 5	Near Big Bear
31	05:48:52	34 20	116 49	B	2.8	M 5	Near Big Bear
31	15:27:20	34 21	116 50	B	3.3	M 5	Near Big Bear
31	19:06:33	33 10	116 24	B	3.2	N 3	Near Banner
31	23:25:20	34 21	116 53	B	3.0	M 5	Near Big Bear



-3- Pasadena Bulletin on Local Shocks  
October - December, 1962

Date	G. C. T.	Lat N.	Long W.	Q.	M.	Index	Remarks
<u>1962</u> <u>November</u>							
2	02:48:08	33 15	116 17	B	3.8	N 3	Near Borrego. IV at Descanso (CGS)
2	02:48:51	33 15	116 17	C	3.5	N 3	Near Borrego
2	04:30:57	33 13	116 14	B	3.5	N 3	Near Borrego
2	22:35:32	34 16	116 53	B	2.9	M 5	Near Big Bear
3	11:25:50	33 01	116 13	C	3.4	N 3	Near Vallecito
4	12:04:21	33 02	116 14	B	3.7	N 3	Near Vallecito
4	12:05:20	33 02	116 14	C	3.3	N 3	Near Vallecito
9	06:05:14	34 21	116 52	B	3.5	M 5	Near Big Bear
9	07:17:48	34 20	116 51	C	2.7	M 5	Near Big Bear
9	07:27:28	34 22	116 51	B	2.7	M 5	Near Big Bear
9	14:03:40	34 20	116 52	C	2.8	M 5	Near Big Bear
10	00:46:24	34 22	116 54	B	3.1	M 5	Near Big Bear
11	01:51:57	34 22	116 52	B	3.4	M 5	Near Big Bear. Felt at Big Bear (phone call)
11	15:50:30	34 18	116 50	B	2.8	M 5	Near Big Bear
12	07:53:56	35 11	118 08	B	3.5	J 7	North of Mojave
12	15:57:04	34 19	116 52	B	3.0	M 5	Near Big Bear
13	02:39:05	34 22	116 53	B	2.7	M 5	Near Big Bear
13	06:35:27	37.9	118.3	C	3.2	J12	East of Mono Lake (northeast of Benton)
14	12:29:56	34 19	116 53	B	2.9	M 5	Near Big Bear
18	14:59:06	34 14	116 55	C	2.7	M 5	South of Big Bear
28	03:03.8	36.6	120.6	D	4.0	D10	Western Fresno County



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October - December, 1962

Date	G. C. T.	Lat N.	Long W.	Q.	M.	Index	Remarks
<u>1962</u>							
<u>November</u>							
28	03:23.2	36.6	120.6	D	4.0	D10	Western Fresno County
28	10:29:19	34 21	116 53	B	2.7	M 5	Near Big Bear
29	12:42:04	35 48	118 03	B	2.5	J 8	Near Walker Pass
30	23:51:05	34 20	116 55	B	4.3	M 5	Near Big Bear. Felt.
<u>December</u>							
1	00:35:49	34 19	116 53	B	4.3	M 5	Near Big Bear. Felt at Riverside. V at Big Bear City and Big Bear Lake; IV at Angelus Oaks, Colton, East Highlands, Fawnskin, Sugarloaf (CGS)
1	00:37:01	34 19	116 53	C	3.8	M 5	Near Big Bear
1	00:40:44	34 18	116 55	B	3.3	M 5	Near Big Bear
1	00:44 :46	34 21	116 51	B	3.4	M 5	Near Big Bear
1	00:57:29	34 22	116 52	B	2.7	M 5	Near Big Bear
1	01:15:05	34 21	116 54	B	3.4	M 5	Near Big Bear
1	03:51:47	34 19	116 54	B	3.4	M 5	Near Big Bear
1	05:07:57	34 19	116 53	B	3.2	M 5	Near Big Bear
1	06:58:26	34 22	116 50	B	3.4	M 5	Near Big Bear
1	08:39:45	34 21	116 55	B	3.4	M 5	Near Big Bear
1	10:36:13	34 20	116 54	B	3.7	M 5	Near Big Bear
1	14:06:02	34 17	116 54	B	3.4	M 5	Near Big Bear
1	20:44.9	35.0	116.3	C	3.1	N 7	South of Baker
1	20:48:03	34 20	116 53	B	2.9	M 5	Near Big Bear
2	00:41:38	34 20	116 53	B	4.4	M 5	Near Big Bear



Date	G. C. T.	Lat N.	Long W.	Q.	M.	Index	Remarks
<u>1962</u> <u>December</u>							
2	01:58:27	34 19	116 53	B	3.1	M 5	Near Big Bear
2	03:06:36	34 20	116 51	B	3.6	M 5	Near Big Bear
2	10:36:52	34 19	116 53	B	3.1	M 5	Near Big Bear
2	20:34:58	34 18	116 55	B	2.7	M 5	Near Big Bear
2	21:18:57	34 18	116 52	B	2.7	M 5	Near Big Bear
3	10:16:19	37 30	118 38	C	3.0	H12	Northwest of Bishop
4	22:53:58	34 18	116 51	B	2.8	M 5	Near Big Bear
9	05:33:48	34 00	118 35	B	2.7	H 5	Off Santa Monica
9	22:42:22	34 17	116 56	B	3.1	M 5	Near Big Bear
11	09:12:32	34 19	116 51	B	2.8	M 5	Near Big Bear
13	18:11:57	33 26	116 17	C	3.3	N 3	Santa Rosa Mountains
14	00:35:38	34 20	117 37	B	2.5	K 5	Near Wrightwood
14	07:03:32	35 23	118 45	B	2.7	H 7	North of Caliente
15	00:40.3	36.3	120.6	D	3.8	D 9	Near Coalinga
15	06:34:59	40.7	117.5		4.9	K15	Near Winnemucca, Nevada. Epicenter and origin time by USCGS
16	11:06:46	38.7	117.5		3.9	K14	Near Winnemucca, Nevada Epicenter and Origin time by USCGS
16	12:14:15	33 01	116 13	B	3.4	N 3	Near Vallecito
18	23:06:27	33 28	116 28	B	3.3	N 3	South of Anza
21	10:27:11	35 47	118 03	B	3.1	J 8	Near Walker Pass
31	03:15:05	33 13	116 13	B	3.0	N 3	Near Borrego

March 6, 1964

C. F. Richter  
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