

Seismological Laboratory
California Institute of Technology

Bulletin on Local Shocks, 1956

This bulletin catalogues earthquakes in the general Southern California area for which seismograph data are sufficient for good epicenter locations. In general this includes shocks of magnitude 3.0 and over, within the boundary indicated on the index map circulated with earlier issues*. Large shocks in adjacent areas are also listed. Shocks smaller than magnitude 3.0 are included when reported as felt, when unusually well located, or when there is some other special reason for interest.

Aftershocks of the major earthquake of December 16, 1954, east of Fallon, Nevada, are included when of magnitude 4.5 or over.

Earthquakes in adjacent Baja California are generally included when of magnitude 4.5 or over. Aftershocks of the earthquake of magnitude 6.8 on February 9, 1956 were especially numerous; for February and March those of magnitude 4.9 or over are included in the body of the bulletin, while a separate list with less detail lists those of magnitude 4.5 and over (104 in all).

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 given is that of origination of the shock, generally to the nearest second (sometimes only the tenth of the minute or the whole minute is given).

Latitudes North and longitudes West are in degrees and minutes, or degrees and tenths. Magnitudes are in the column headed M. Letters and numbers headed Index, such as K7, refer to the index map*. Under Q is a rating for the quality of location: A, specially investigated; B, probably within 5 kilometers (or 3 miles); C probably within 15 kilometers (or 10 miles); D, very rough. USCGS, or CGS - abbreviations for U.S. Coast and Geodetic Survey (reports of felt earthquakes as collected by the San Francisco office, Seismological Field survey; epicenters and origin times determined at the office of the director, Washington, D. C. P.T. and T. Pacific Telephone and Telegraph Co. SPRR - Southern Pacific Railroad.)

*A few copies of the index map are still in stock, and are available on request until exhausted.

Charles F. Richter
June 25, 1956

SEISMOLOGICAL LABORATORY
California Institute of Technology



Bulletin on Local Shocks

No. 1

January-March 1956

Date	G.C.T.	Lat. N.	Long. W.	Q	M	Index	Remarks
<u>January</u>							
1	21:09.4	31.9	116.1	D	3.8	N0	Baja California
3	00:25:49.4	33 45	117 30	A	4.7	K4	Near Glen Ivy, Temescal Canyon. Rock slides in that vicinity. Felt westward as far as San Fernando Valley; intensity about V at Riverside and San Bernardino. Felt south to near San Diego, north to points in the San Gabriel and San Bernardino Mts.
3	14:24:01	32 23	116 00	C	4.7	N1	Baja California, southeast of Tecate. Press reports the shock felt at El Centro, La Mesa, El Cajon and Spring Valley, but not at Brawley or Calexico.
4	11:08:27	34 26	118 31	B	2.2	H5	Near Saugus
4	15:54						Peculiar, unlocated, not close to any of our stations.
5	11:15.4	32.0	115.1	D	4.1	Q1	Baja California
6	16:33:02	33 45	117 30	A	2.8	K4	Near Glen Ivy
7	09:25.0	31.6	116.0	D	3.7	N0	Baja California
9	12:57:01	35 40	116 02	C	3.0	N8	East of Avawatz Mts.
12	16:05:20	33 16	118 27	C	2.9	J3	South of Catalina Is.
13	09:03:35	33 59	117 14	B	2.5	L4	East of Riverside
14	21:14:20.7	35 18	118 32	A	3.4	H7	East of Caliente
15	02:17:21	35 18	118 32	B	3.0	H7	East of Caliente
15	03:05:29	34 03	117 27	B	2.6	L5	Near Bloomington
16	02:32:23	33 42	120 10	C	3.4	E4	South of Santa Rosa Island
17	08:32.7	31.8	115.9	D	3.9	P0	Baja California
17	14:47:21	33 42	116 45	B	2.7	M4	South of Idylwild
18	19:57.4	31.8	115.9	D	4.1	P0	Baja California
21	06:22:01	33 29	116 25	B	3.5	N3	West of Santa Rosa Mt.
21	08:52:38	35 06	118 51	B	2.7	H7	Tejon Ranch
22	12:23:51	34 04	117 36	B	2.5	L5	Near Ontario
24	07:29:31	37 23	118 52	C	3.4	H 11	West of Bishop
26	21:04:16	37 25	118 35	C	3.4	H 11	
27	12:19:23	35 23	118 29	B	2.5	J7	Northeast of Caliente
31	01:37.7	38.4	119.0	D	3.5	G13	North of Mono Lake

February

1	21:16:06	35 26	118 42	B	3.0	H7	North of Bena
3	05:33:41	35 22	118 31	B	2.6	H7	Northeast of Caliente
4	14:22:42	35 10	117 13	B	2.9	L7	Northwest of Barstow
5	03:37:35	33 17	116 17	C	2.7	N3	Borego Valley
6	00:16:43	35 20	118 31	B	2.9	H7	East of Caliente
6	13:05:25	35 24	118 42	B	2.6	H7	North of Bena
6	13:21:15	35 26	118 41	B	2.9	H7	North of Bena
6	18:20:05	35 24	118 48	B	2.9	H7	Near Edison

Date	G.C.T.	Lat. N.	Long. W.	Q	M	Index	Remarks
<u>February</u>							
7	02:17:56	34 35	118 36	B	4.2	H6	North of Castaic. Felt as far as Los Angeles. Details of reports confused with next.
7	03:16:39	34 35	118 36	B	4.6	H6	North of Castaic. Slide in Elizabeth Lake Canyon (VI?). V to distances of about 15 miles. Felt as far as Redondo Beach and Maricopa.
7	18:59:24	34 02	117 01	B	2.7	L5	Near Yucaipa
7	20:01:20	34 35	118 36	B	2.4	H6	North of Castaic
8	10:53:36	35 24	118 44	B	2.6	H7	North of Bena
8	15:17:27	34 35	118 36	B	2.5	H6	North of Castaic.
9	14:16:24	31 45	115 55	C	4.7	P0	Baja California, near El Alamo. Foreshock of next.
9	14:32:38	31 45	115 55	C	6.8	P0	Baja California. Main shock, with fault trace. Damage at El Alamo; new spring appeared. Serious damage at village of San Miguel, unoccupied at the time. Maximum intensity in the United States, VI (including points in the Imperial Valley and in the vicinity of San Diego). Intensity IV in most of the Los Angeles area. Felt as far as Port Hueneme, Barstow, Newberry, Needles in California; Searchlight, Nevada, and Gila Bend, Arizona. (USCGS)
Aftershocks of magnitude 4.9 and over are reported on the following lines; a list for magnitude 4.5 and over appears on a separate page.							
9	14:34	31.7	115.9	D	5.6	P0	Seismograms obscured by large main shock.
9	14:46:23	31 45	115 55	C	4.9	P0	
9	15:01:33±	31.6	115.7	D	5.3	P0	
9	15:24:26	31 45	115 55	C	6.1	P0	
9	15:45:04	31 45	115 55	C	4.9	P0	
9	16:29:53	31.6	115.7	D	5.8	P0	
9	16:59:53	31 45	115 55	C	5.7	P0	
9	17:06:21	31.6	115.7	C	4.9	P0	
9	18:48:45	31 45	115 55	C	5.7	P0	
10	04:18:15	31 35	115 40	C	5.0	P0	
10	14:30:12	31 45	115 55	C	4.9	P0	
10	15:09:29	31 45	115 55	C	5.0	P0	
10	18:12:54	31 45	115 55	C	5.5	P0	
11	02:57:46	31 45	115 55	C	5.1	P0	
11	06:11:24	31 45	115 55	C	5.0	P0	
11	06:24:25	31 35	115 40	C	5.4	P0	
14	14:45:32	31 30	115 30	C	5.0	P0	
14	18:33:34	31 30	115 30	C	6.3	P0	Baja California. Felt as far as Los Angeles; V at San Diego (USCGS).
14	18:39:04±	31.5	115.5	D	4.9	P0	
14	18:40:32±	31.5	115.5	D	4.9	P0	
14	18:41:15±	31.5	115.5	D	4.9	P0	
15	01:20:38	31 30	115 30	C	6.4	P0	Felt as far as Los Angeles: V at San Diego (USCGS).
15	01:25:11	31 30	115 30	C	4.9	P0	

Date	G.C.T.	Lat. N.	Long. W.	Q	M	Index	Remarks
<u>February</u>							
15	02:28:39	31	30	115	30	C	5.3 P0 Baja California
15	07:07:47	31	30	115	30	C	5.2 P0
15	08:35:54	31	30	115	30	C	5.0 P0
15	18:54:44	31	30	115	30	C	4.9 P0
15	19:57:53	36.3		120.3		D	3.8 E9 Vicinity of Coalinga
16	05:53:02	31	30	115	30	C	4.9 P0 Baja California
16	08:12:28	31	30	115	30	C	5.0 P0
17	09:25:00	31	30	115	30	C	4.9 P0
21	18:40:20	33	08	116	26	B	3.5 N3 East of Julian
21	21:20:42	34	30	116	27	B	3.4 N6 Northeast of Old Woman Springs
25	08:08:51	31	30	115	30	C	5.1 P0 Baja California
25	18:24:21	34	42	117	03	C	2.4± L6 South of Barstow
26	18:43:36	34	06	117	27	B	2.4 L5 Northeast of Mira Loma
<u>March</u>							
3	06:24:12	35	05	119	14	C	4.2 G7 East of Maricopa
3	06:34:03	31	35	115	40	C	4.9 P0 Baja California
3	18:23:13	31	35	115	40	C	5.1 P0
4	02:15:17	35	25	118	34	C	2.8 H7 Walker Basin
4	08:58:58	35	02	118	48	C	3.2 H7 Tejon Ranch
5	02:15:27	33	17	115	36	C	3.4 Q3 Near Niland
6	20:02:51	35	02	118	53	C	2.8 H7 Northeast of Grapevine
8	07:26:28						4.7 Northern Nevada (USCGS)
9	00:32:40	31	45	115	55	C	5.0 P0 Baja California
9	04:25:01	31	30	115	30	C	4.9 P0
9	11:59:54	35	23	118	43	C	2.9 H7 Near Bena
9	13:58:53	34	15	116	45	B	2.7 M5 Near Baldwin Lake
10	14:12:54	31	30	115	30	C	5.0 P0 Baja California.
							Felt at San Diego (press).
10	20:07:22	35	02	118	59	C	3.0 H7 Near Wheeler Ridge
11	07:23:45	34	58	118	49	C	3.0 H6 Tejon Ranch
12	01:05:31	34	15	116	45	B	2.7 M5 Near Baldwin Lake
13	22:21:01	34	36	118	38	B	2.8 H6 North of Castaic
14	00:12:17	33	24	118	16	C	2.8 J3 San Pedro Channel
14	05:29:34	31	30	115	30	C	4.9 P0 Baja California
16	12:35:29	34	17	116	44	C	2.8 M5 Near Baldwin Lake
16	14:35:04	34	17	116	46	C	3.4 M5 Near Baldwin Lake.
							Felt at Sugarloaf and Big Bear City (USCGS).
16	19:43:53	34	15	116	45	B	3.5 M5 Near Baldwin Lake.
							Felt.
16	20:29:34	34	15	116	45	B	4.8 M5 Near Baldwin Lake.
							Largest shock of series. VI at Sugarloaf. V at Big Bear City, Fawnskin, Seven Oaks, Lucerne Valley. Felt to distances of about 50 miles (80 km.).
16	20:33:44	34	16	116	45	B	4.0 M5

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Pasadena Local Shocks
January-March 1956

Date	G.C.T.	Lat. N.	Long. W.	Q	M	Index	Remarks
<u>March</u>							
16	20:36:14	34	15	116	45	B	4.0 M5
16	20:38:12	34	15	116	45	B	3.6 M5
16	20:39:36	34	15	116	45	B	3.5 M5
16	23:34:57	34	15	116	45	B	4.4 M5 Near Baldwin Lake.
	Felt at Sugarloaf, Big Bear City, etc. (USCGS).						
16	23:36:04	34	15	116	45	C	3.7 M5
16	23:40:40	34	15	116	45	B	3.8 M5
16	23:48:08	34	15	116	45	B	3.4 M5
17	00:00:17	34	15	116	45	B	3.4 M5
17	00:40:13	34	15	116	45	B	3.4 M5
17	00:44:03	34	15	116	45	B	3.5 M5
18	02:42:18	34	15	116	45	B	4.0 M5
18	06:58:02	34	15	116	45	B	3.0 M5
20	11:01:11	34	15	116	45	B	3.1 M5
21	08:39:52	33	58	117	33	C	2.7 L4 Near Mira Loma
23	21:23:25	35	05	119	10	B	4.3 G7 North of Wheeler
	Ridge. IV at Bakersfield; felt at Taft and Maricopa (USCGS)						
23	22:28:46	35	06	119	04	B	3.2 G7 North of Wheeler Ridge
24	05:45:36	33	44	118	01	C	2.4 J4 San Pedro Channel
24	13:14:49	34	18	116	43	B	2.7 M5 Near Baldwin Lake.
25	03:32:02	33	27	119	00	B	4.2 G3 Near Santa Barbara Is.
30	09:08:51	35	01	117	01	C	2.5 L7 North of Barstow
31	06:00:19	35	19	118	29	B	3.8 J7 East of Caliente. IV at Tehachapi (USCGS)

C. F. Richter
E. A. Flinn

July 3, 1956

Supplement

Baja California shocks, 1956 Feb. 9 ff.

The largest of these earthquakes had epicenters near two locations: A, near 31.7° N 115.9° W; B, near 31.5° N 115.5° W. The principal shock, on Feb. 9, 14:32, is assigned to epicenter A. Faulting was found in the field, extending from this vicinity northwestward, and also roughly eastward toward epicenter B. Immediate aftershocks were mostly near A with a scattering toward B. Beginning with the large aftershocks on Feb. 14-15, most of the shocks originated at or near B, with a few from A and intermediate points.

Numbers during February and March were as follows:

6.0 and over	-	4
5.0 to 5.9	-	21
4.5 to 4.9	-	79

Those of 5.0 and over, and a few others of special interest, are listed in the body of the report on local shocks. These, and those of magnitude 4.5 to 4.9, are included in the list which here follows. About 170 of magnitude 4.0 to 4.4 were counted.

List, magnitudes 4.5 and over.

G.C.T. M			G.C.T. M			G.C.T. M		
1956 Feb. 9	14:16	4.7	Feb. 10	04:23	4.5	Feb. 15	18:54	4.9
	14:32	6.8		04:39	4.5		01:30	4.6
	14:34	5.6		05:55	4.6		05:53	4.9
	14:36	4.5		07:33	4.7		08:12	5.0
	14:40	4.6		11:41	4.5	Feb. 17	01:13	4.5
	14:45	4.7		12:30	4.5		03:57	4.5
	14:46	4.9		13:42	4.6		06:25	4.7
	14:48	4.8		14:30	4.9		09:25	4.9
	14:50	4.6		15:09	5.0		10:40	4.7
	15:01	5.3		18:12	5.5	Feb. 18	15:11	4.6
	15:24	6.1		19:48	4.5		01:58	4.5
	15:25	4.5	Feb. 11	02:58	5.1	Feb. 19	06:54	4.7
	15:40	4.7		05:19	5.0		02:50	4.7
	15:45	4.9		06:11	5.0	Feb. 21	23:00	4.6
	15:48	4.5		06:24	5.4		13:17	4.5
				06:31	4.7		14:04	4.7
Feb. 10	16:11	4.6		16:59	4.6		16:59	4.7
	16:30	5.8	Feb. 14	14:45	5.0		20:22	4.8
	16:59	5.7		18:33	6.3	Feb. 25	06:04	4.6
	17:07	4.9		18:39	4.9		08:09	5.1
	17:23	4.7		18:40	4.9		19:53	4.5
	17:47	4.6		18:41	4.9		22:35	4.8
	17:50	4.7		22:07	4.7	Feb. 26	05:49	4.7
	18:48	5.7	Feb. 15	01:20	6.4		08:18	4.5
	21:07	4.7		01:25	4.9	Feb. 29	09:01	4.7
	23:56	4.5		01:37	4.5		02:53	4.8
				02:28	5.3	March 1	06:34	4.9
						March 3		

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	G.C.T.	M
Feb. 10	00:12	4.5
	00:32	4.5
	02:53	4.5
	03:57	4.5
	04:18	5.0
	04:20	4.6
March 14	05:29	4.9
	15:49	4.8
March 16	10:33	4.6
	10:52	4.5
	16:29	4.5
March 17	01:27	4.6
March 31	07:27	4.7

	G.C.T.	M
Feb. 15	02:40	4.5
	06:00	4.6
	06:43	4.5
	07:04	4.6
	07:08	5.2
	08:36	5.0
	09:31	4.5

	G.C.T.	M
March 3	18:23	5.1
March 7	13:36	4.5
	15:29	4.8
March 9	00:32	5.0
	04:25	4.9
March 10	14:13	5.0

SEISMOLOGICAL LABORATORY
California Institute of Technology

Bulletin on Local Shocks

April - June, 1956



Date	G.C.T.	Lat. N.	Long. W.	Q	M	Index	Remarks
(From this point Baja California aftershocks of magnitude 4.5 and over are included).							
<u>April</u>							
1	10:39:23	33 46	116 01	C	3.8	N4	East of Indio
2	06:56:55	35 08	118 32	C	3.2	H7	Near Tehachapi
2	19:47:36	31 30	115 30		4.5	P0	Baja California III at San Diego (CGS)
4	00:02:48	34 23	118 16	C	1.4		Near Mt. Waterman. Blast?
4	07:38	31 35	115 40	C	4.4	P0	Baja California
4	14:59	31 35	115 40	C	4.3	P0	Baja California
5	04:29:15	38 1/2	122 1/2		4.7±		Felt, Napa Valley etc. Epicenter and origin time by USCGS; maximum intensity VI.
5	21:55						Blast. 30,000 pounds of dynamite on Big Tujunga highway cutoff.
9	04:42:26	39 1/2	118		4.4	J15	Nevada. Epicenter and origin time by USCGS.
11	06:06:08	34 25	116 20	C	3.0	N5	Mojave Desert, east of Old Woman Springs.
11	21:32:53	35 21	118 29	B	3.5	J7	East of Caliente
12	00:30	31 30	115 30	C	4.3	P0	Baja California
12	17:54:08	34 25	116 20	C	2.9	N5	East of Old Woman Springs.
12	20:07:13	31 50	116 00	D	3.9	P0	Baja California.
12	23:39:01	34 57	116 55	B	3.3	M6	Northeast of Barstow.
14	23:25:03	35 04	118 50	B	3.1	H7	Tejon Ranch
15	00:51:33	31 35	115 40	C	4.0	P0	Baja California.
15	22:51:46	35 39	118 29	B	3.0	J8	Near Isabella
16	00:10:33	34 01	117 14	B	2.5	L5	Near Bryn Mawr
16	05:11:20	35 20	118 59	B	3.1	H7	Near Bakersfield; felt in that vicinity (SPRR); IV (CGS)
18	22:49:51	34 26	118 05	B	2.5	J5	Near Mt. Pacifico

Date	G.C.T.	Lat. N.	Long. W.	Q	M	Index	Remarks
<u>April</u>							
19	05:59	31 30	115 30	C	4.0	P0	Baja California
19	18:02	31 35	115 40	C	3.9	P0	Baja California.
19	19:35						Sonic blast; broke window in Temple City (press)
22	14:52:25	34 19	116 22	C	3.0	N5	Mojave Desert, east of Old Woman Springs
22	14:58:38	34 19	116 22	C	3.3	N5	Mojave Desert, east of Old Woman Springs.
22	23:07	31 30	115 30	C	4.3	P0	Baja California
23	14:17	31 30	115 30	C	4.3	P0	Baja California
24	00:15	31 35	115 40	C	4.4	P0	Baja California
25	09:08:29	31 30	115 30	C	4.7	P0	Baja California Felt in San Diego (CGS, press)
27	22:39.5	38.1	117.9	D	3.4	K13	West of Tonopah, Nevada.
28	06:41	31 50	116 00	D	4.3	P0	Baja California
28	21:14:24	33 04	118 48	C	3.0	H3	Northwest of San Clemente Island.
<u>May</u>							
2	16:28:45	33 59	118 06	B	2.0	J4	Near Montebello
4	03:09	31 35	115 40	C	4.4	P0	Baja California
4	08:16:16	35 57	120 56	D	3.5	D8	Near Parkfield?
6	09:56:12	35 16	118 36	B	2.5	H7	Southeast of Caliente
6	17:46:21	34 00	118 20	B	2.3	J5	Near Inglewood
7	00:49:18	35 30	118 22	B	3.0	J8	East of Isabella
7	08:39	31 30	115 30	C	4.2	P0	Baja California
9	12:52	31 30	115 30	C	4.4	P0	Baja California
10	11:48:54	31 50	116 00	C	5.0	P0	Baja California. Ill at San Diego (CGS)
10	16:13	31 30	115 30	C	4.2	P0	Baja California
11	15:02:26	35 24	118 43	B	2.8	H7	Near Bena
11	16:30:50	34 16	116 45	C	4.7	M5	Near Baldwin Lake. Press: felt as far as Los Angeles and Laguna Beach; sharp at Indio. Maximum reported intensities V; felt as far as San Diego (CGS).
13	04:10				4.5?	J15	Nevada. Felt at Fallon and Austin (CGS).
14	14:52:22	31 35	115 40	C	4.6	P0	Baja California. Ill at San Diego (CGS)
15	04:34:15	35 09	118 50	B	2.8	H7	South of Arvin

Date	G.C.T.	Lat. N.	Long. W.	Q	M	Index	Remarks
May							
17	04:07:07	34 15	117 09	B	3.2	L5	Near Lake Arrow-head.
17	20:54:01	35 22	118 43	B	2.9	H7	Near Bena
18	14:52:07	34 16	117 08	B	3.0	L5	Near Lake Arrow-head.
18	18:07:03	35 00	118 52	B	3.3	H7	Tejon Ranch. Felt at Fort Tejon.
20	03:37:44	33 45	117 28	B	2.7	L4	Near Glen Ivy, Temescal Canyon
20	08:38:00	33 06	115 31	C	3.6	P3	Near Brawley
20	08:48:04	33 06	115 31	C	2.6		Near Brawley.
20	09:48:23	33 06	115 31	C	2.7		"
20	10:57:48	33 06	115 31	C	2.6		" "
20	10:59:17	33 06	115 31	C	2.5		" "
21	04:21:15	34 52	119 10	B	3.3	G6	Near Mount Pinos
21	16:57						Sonic blast.
	Sharp at Laboratory.		Cracks in wall, Altadena				(!) (press).
22	08:41:13	35 22	118 28	B	3.0	J7	West of Piute, Kern County
22	17:09	31 35	115 35	C	4.1	P0	Baja California
23	00:14	31 45	115 55	C	4.2	P0	Baja California
23	08:47:09	33 25	116 24	C	3.2	N3	Northwest of Clark Lake.
24	09:52	31 45	115 55	C	4.0	P0	Baja California.
26	10:18	31 35	115 40	C	4.3	P0	Baja California.
26	11:38:51	33 42	117 29	B	2.9	L4	Off Point Vicente
27	16:03:37	34 09	117 38	B	2.7	K5	North of Claremont
29	01:49:50	34 28	118 06	B	2.7	J5	East of Acton
30	07:46:15	33 14	116 09	C	2.8	N3	Borego Valley
30	08:09:18	35 22	118 39	B	2.8	H7	North of Caliente.
30	19:19				4		Northern Calif.?
June							
1	00:17	31 45	115 55	C	4.2	P0	Baja California.
3	08:00:13	35 16	118 34	B	3.0	H7	Near Caliente
3	13:39				3.9	P0	Baja California
4	08:33:19	35 10	119 10	B	4.0	G7	East of Buena
	Vista Lake. Felt sharply at Taft, especially the western section.						
	Pictures moved on walls at Bakersfield (press).						
5	20:34						Sonic Blast, noted at Laboratory.
5	21:08:33	35 19	118 31	C	3.0	H7	East of Caliente
7	03:50	31 30	115 30	C	4.0	P0	Baja California
7	06:04	31 50	116 00	C	4.1	P0	Baja California
7	09:03:06	35 21	118 31	B	3.1	H7	East of Caliente
8	13:43:11	33 49	118 40	B	2.2	H4	Santa Monica Bay.
9	08:36:24	35 29	118 20	B	3.0	J7	West of Sageland, Kern County.
13	16:08:32	35 17	118 47	C	3.0	H7	Near Bena
13	21:44:51	34 22	118 27	C	2.4	J5	Near Newhall

Date	G.C.T.	Lat. N.	Long. W.	Q	M	Index	Remarks
June							
14	17:43						Sonic blast.
15	23:41:31	35 18	118 30	B	3.7	H7	East of Caliente
20	20:15	31 30	115 30	C	4.3	P0	Baja California
22	06:17:58	33 54	118 32	B	3.0	H4	Santa Monica Bay.
	Felt, Inglewood and Beverly Hills (telephone, United Press).						
23	20:53:05	35 18	118 30	B	3.3	H7	East of Caliente
24	03:54:17	31 35	118 40	C	4.2	P0	Baja California
24	06:41:50	32 56	117 39	B	3.3	K2	Off LaJolla
25	21:23:11	35 23	117 54	B	3.1	K7	Northeast of Cantil
28	00:05:11	31 30	115 30	C	4.0	P0	Baja California

E. A. Flynn,
C. F. Richter,

September 13th, 1956.

SEISMOLOGICAL LABORATORY
California Institute of Technology

Bulletin on Local Shocks

July - September, 1956

CORRECTION: The report as issued for April-June 1956 includes a number of artificial disturbances and small earthquakes which it was intended to omit. One of these involves a misprint; for June 24, 03:54:17, read 115 40 in place of 118 40. Also note the following revisions:

March	23	21:23:26.0	35	05	119	03	A	4.3	G7	
May	26	11:38:51	33	42	117	29	B	2.9	L4	Northwest of Elsinore
June	4	08:33:19.0	35	10	119	08	A	4.0	G7	

Date	G.C.T.	Lat.	N.	Long.	W.	Q	M	Index	Remarks
<u>July</u>									
2	01:34:20	33	26	116	27	B	2.9	N3	South of Santa Rosa Mt.
2	14:22:44	34	27	117	50	C	2.7	K5	Near Valherno
4	05:52:56	34	14	117	06	B	3.2	L5	East of Arrowhead. Felt, Lake Arrowhead (press)
4	05:57.4	37.7		119.6		D	4.0	F12	Near Yosemite Felt at Silver Lake, Mono County (telephone report to Laboratory) IV at Yosemite, at June Lake, and near Trimmer (CGS)
4	10:43:38	34	14	117	06	B	3.1	L5	East of Arrowhead. Felt, Lake Arrowhead (press)
4	21:41:	31	30	115	30	C	4.7	P0	Baja California. Felt slightly at San Diego (USCGS)
6	03:31.7	38.5		118.5		D	4.6±	J13	Felt at Hawthorne, Nevada (press)

Date	G.C.T.	Lat. N.	Long. W.	Q	M	Index	Remarks
July							
7	12:41:54	32 59	116 58	B	3.5	K2	North of Lake-side
8	05:48:55	33 53	117 51	B	3.0	K4	Southeast of Brea
8	11:22:18	34 14	117 06	B	3.5	L5	East of Arrowhead. Felt at Lake Arrowhead (telephone to Laboratory)
8	11:25:42	34 14	117 07	B	2.7	L5	East of Arrowhead
10	17:41	35 22	118 29	B	3.0	J7	Northeast of Caliente
10	18:50				4.5	PO	Baja California
11	02:21:06	33 28	116 50	B	3.1	M3	Near Aguanga
11	09:19:39	35 19	118 32	B	3.2	H7	East of Caliente
11	19:22:06	35 46	117 56	B	4.2	K8	Southwest of Brown. Felt by many at China Lake (P. St. Amand)
13	23:04:03	34 02	117 28	B	2.5	L5	Near Mira Loma
15	11:06:53	33.9	118.2	D	2.3	J4	Los Angeles. Felt there (report to Lab.)
15	21:17:42	32 51	116 04	C	2.6	N2	Near Carrizo
15	21:17:58	32 51	116 04	C	3.1	N2	Near Carrizo
16	00:39	31.5	118.6	D	4.9	PO	Baja California Chandeliers swayed at San Diego (press)
17	03:32:56	35 00	116 52	C	3.2	M7	Northeast of Barstow
18	18:43:42	34 12	116 53	B	3.6	M5	Near Big Bear. IV at Fawnskin (CGS)
19	09:29	32 16	117 21	C	3.8	L1	West of Los Coronados Islands
20	04:39:40	34 07	117 28	B	2.4	L5	Near Fontana
20	13:54:39	34 17	116 43	C	2.7	M5	East of Baldwin Lake
20	14:04:41	34 17	116 43	C	2.7	M5	East of Baldwin Lake
20	20:37:31	34 07	117 30	B	2.3	L5	Near Fontana
23	08:03:51	36 $\frac{1}{2}$	122		4.7	B9	Epicenter and origin time by USCGS.

USCGS: intensity IV-V over a large area in Monterey, San Luis Obispo, and San Benito Counties, including Paso Robles, King City. San Benito, San Juan Bautista, and Big Sur.

Date	G.C.T.	Lat. N.	Long. W.	Q	M	Index	Remarks
<u>July</u>							
23	09:40:36	35 05	118 56	C	2.9	H7	Northeast of Wheeler Ridge
23	10:43:34	35 58	117 48	C	3.4	K8	Northeast of Little Lake
23	16:58:36	33 50	118 36	B	2.8	H4	Santa Monica Bay
25	03:35:07	35 03	118 55	C	3.0	H7	Northeast of Wheeler Ridge
26	00:43:57	34 16	117 47	C	2.8	K5	San Gabriel River (East Fork)
26	09:53:18	39 $\frac{1}{2}$	118 $\frac{1}{2}$		4.9	J15	Nevada.
27	16:34:33	32 15	117 03	C	3.7	L1	Felt at Fallon (CGS) Near Los Coronados Islands; followed by small aftershocks.
29	12:35:28	33 58	118 59	C	2.8	K4	Off Point Dume
31	00:40:43	34 09	119 36	C	3.2	F5	Santa Barbara Channel
<u>August</u>							
1	19:04:10	35 24	118 36	B	2.8	H7	North of Caliente
3	04:27	31 30	115 30	C	4.6	PO	Baja California
6	05:31:09	33 32	116 44	B	3.0	M4	Near Anza.
9	00:08:49	34 22	119 48	B	4.0	F5	Felt at Hemet (CGS) Off Santa Barbara. Felt sharply there.
9	21:55:43	35 22	118 34	B	3.0	H7	North of Caliente
10	01:50:16	35 05	119 06	B	3.0	G7	North of Wheeler Ridge
11	10:03:23	34 12	117 33	B	2.6	K5	Near Cucamonga Peak
12	04:04.2	38.0	119.0	D	4.0	G13	Vicinity of Mono Lake
14	06:22				4.0	PO	Baja California
14	10:24:31	35 33	118 19	C	2.4	J8	South of Weldon
15	17:05:49	34 26	117 56	B	2.1	K5	West of Valyermo
16	08:00:39	34 10	117 25	B	2.4	L5	South of Devore
18	21:31:24	34 40	116 59	B	2.7	M6	South of Barstow
19	17:02:06	34 13	117 28	B	3.0	L5	West of Devore
21	13:10:51	35 16	118 35	B	3.0	H7	Near Caliente
25	15:57:43	31 30	115 30	C	5.0	PO	Baja California. Felt at San Diego

Date	G.C.T.	Lat. N.	Long. W.	Q	M	Index	Remarks
<u>August</u>							
25	23:37:33	34	20	116	40	B	3.1 M5 Northeast of Big Bear
28	11:28:30	34	18	117	01	B	2.5 L5 Northwest of Big Bear
28	23:01:23	34	04	117	05	B	2.7 L5 East of Redlands
29	06:21:20	34	03	117	14	B	2.4 L5 Vicinity of Redlands
31	22:52:48	34	14	117	00	B	2.9 M5 Near Big Bear Lake
<u>September</u>							
1	01:45:21	33	45	116	01	B	3.5 N4 East of Indio
1	03:30:07	33	48	115	58	B	3.0 P4 East of Indio
1	05:57:53	33	46	115	59	B	4.0 P4 East of Indio
2	02:46:37	33	45	116	00	B	4.2 N4 East of Indio
2	05:26:19	33	48	116	02	B	3.7 N4 East of Indio
4	01:23:02	34	18	118	35	C	2.5 H5 Southwest of Newhall
5	03:46:04	34	30	118	03	B	2.5 J5 Near Little Rock
5	06:27:01	34	35	118	16	B	2.8 J6 West of Palmdale
5	09:22:40	34	08	118	20	B	2.2 J5 Hollywood
7	17:58:00	34	12	117	28	B	2.4 L5 Vicinity of Devore
10	10:32:33	34	11	117	29	B	2.4 L5 West of Devore
10	13:12:35	35	23	119	05	B	2.8 G7 Felt at Bakersfield (S.P.R.R.)
15	00:34.6	36.4		120.5		D	3.5 E9 North of Parkfield.
17	00:03:36	33	57	116	13	B	3.2 N4 South-west of Twentynine Palms
17	00:58:01	33	58	116	15	B	3.8 N4 South-west of Twentynine Palms
18	18:16:49	35	12	118	36	C	2.7 H7 South of Caliente
20	06:23:50	34	01	116	07	B	3.2 N5 Near Twentynine Palms
20	19:14:47	33	47	118	36	B	3.0 H4 Santa Monica Bay
20	20:15:13	33	48	118	37	B	3.1 H4 Santa Monica Bay. Felt in Inglewood.
20	22:52:45	34	14	117	00	B	2.7 L5 Near Big Bear Lake
23	08:51:55	31	35	115	40	C	4.9 P0 Baja California. Felt in San Diego.

Date	G.C.T.	Lat. N.	Long. W.	Q	M	Index	Remarks
September							
23	08:55:24	31 35	115 40	C	4.6	P0	Baja Calif- ornia
23	11:24:42	33 32	116 33	B	4.3	M4	Southwest of Santa Rosa Mt. USCGS reports VI at Palm Springs, V at Hemet, San Jac- into, Banning, etc.
23	13:51:58	34 59	119 06	B	2.9	G6	Near Fort Tejon
24	06:24:18	35 22	118 28	B	2.4	J7	East of Caliente
26	03:22:10	35 06	119 07	B	2.7	G7	South of Bakersfield
26	11:36:27	34 00	116 05	B	2.9	N5	Vicinity of Twentynine Palms
26	23:30:00	34 03	118 27	B	2.5	J5	West of Pasadena
29	18:03:06	35 39	118 28	B	3.6	J8	Near Isabella. Felt at Isabella. IV at Kernville (CGS).
30	19:29:36	35 08	118 24	B	2.8	J7	Near Mono- lith. This or the next felt at Tehachapi (IV, CGS).
30	19:30:02	35 08	118 24	B	3.0	J7	Near Mono- lith
30	20:01:25	35 45	118 03	B	3.2	J8	Near Walker Pass
30	20:26:50	35 47	118 01	B	3.3	J8	Near Walker Pass

C. F. Richter
R. Nielsen,
January 4, 1957

SEISMOLOGICAL LABORATORY
California Institute of Technology
Bulletin on Local Shocks
October - December, 1956.

Date	G.C.T.	Lat. N.	Long. W.	Q	M	Index	Remarks
<u>October</u>							
2	20:44:35	33 50	117 01	B	3.8	L4	Southeast of Riverside. Felt at Riverside and Arlington (P); Hemet, Redlands, Wildomar (CGS)
3	01:34:36	33 50	117 00	B	3.3	L4	Southeast of Riverside. IV at Hemet (CGS).
4	20:06:35	35 32	118 21	B	3.9	J8	Southeast of Isabella. Felt at Bakersfield. III at Tehachapi. (CGS).
5	11:40:40	33 58	116 11	B	2.8	N4	South of Twentynine Palms.
7	13:32:02	33 59	116 38	B	3.2	M4	North of Palm Springs.
8	11:54:20	35 05	118 49	B	3.5	H7	North of Fort Tejon.
10	20:02.4	34.7	121.0	D	3.8	C6	Off coast, northwesterly of Pt. Arguello.
11	16:48:46	40 1/2	126 1/2		6	A15	Off coast of northern California; V at Eureka, Fortuna, Petrolia, etc; felt generally in Humboldt County. Origin time and epicenter by USCGS.
11	17:18:17	41	126		5±	A15	Origin time and epicenter by USCGS.
11	17:22:32	41	125 1/2		5±	A15	Origin time and epicenter by USCGS.
12	04:11:23	33 07	116 24	B	2.9	N3	Southeast of Palomar.
13	12:29:42	32.9	115.1	D	3.2	Q2	East of El Centro.
13	15:06:17	33.7	119.1	C	2.7	G4	Off coast, west of Los Angeles.
16	10:15:28	34 05	117 27	B	2.3	L5	Vicinity of Riverside.
17	12:59:15	33 07	116 24	B	3.2	N3	Southeast of Palomar.
18	22:11:45	34 56	119 00	B	3.0	H6	Near Fort Tejon.
18	23:20:22	33 54	117 57	B	2.4	K4	East of Los Angeles. Felt at Anaheim and Fullerton. (P.T. and T. Co.)
18	12:32:05	36 19	121 20	C	4.0	C9	Near Paraiso Springs.
20	02:38:56	34 01	116 44	B	2.9	M5	Southeast of Big Bear Lake.

Date	G.C.T.	Lat. N.	Long. W.	Q	M	Index	Remarks
December							
1	14:11:25	37	122	D	4.1	A10	Monterey Bay area. Felt as far as San Francisco.
3	12:52:30	33 26	117 01	B	2.9	L3	Northwest of Palomar.
7	04:29:49	37.5	118.9	C+	3.3	H11	West of Bishop.
8	12:52:53	34 13	118 41	C	2.1	H5	Near Calabasas.
9	16:17:16	35 07	118 42	B	3.2	H7	Tejon Ranch
11	10:56:51	35.9	121.0	C	4.2	D8	West of Parkfield.
13	13:15:37	31	115			6	Epicenter and origin time by USCGS. Awakened sleepers at San Diego (press). N.E. of Wheeler Ridge
15	02:18:05	35 08	118 54	B	2.8	H7	East of Caliente.
16	11:57:43	35 19	118 25	C	3.2	J7	Vallecito Mountains.
20	18:37	33 02	116 11	B	3.7	N3	Baja California.
22	05:18:00	31 47	115 55	C	4.5	P0	Near Yucaipa.
23	23:25:20	34 03	117 05	B	2.7	L5	
28	09:55:39	33 56	115 46	C	3.4	P4	
31	15:23:28	35 00	119 03	C	2.8	G7	
31	17:36:15	38 1/2	119			H14	Nevada. Epicenter and origin time by USCGS.
31	17:37:46						Nevada. "
31	17:39:28						Nevada. "

March 21st, 1957.
C. F. Richter,
Richard Nielsen.

Addendum:
1956

Feb. 11 05:19 5.0 P0 Baja California.