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EARTHQUAKES IN NORTHERN CALIFORNIA
AND
THE REGISTRATION OF EARTHQUAKES
AT
BERKELEY—MOUNT HAMILTON—PALO ALTO SAN FRANCISCO—FERNDALE—FRESNO

From January 1, 1942, to March 31, 1942

BY
CARL F. ROMNEY
AND
CHARLES HERRICK

UNIVERSITY OF CALIFORNIA PRESS
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CONTENTS

EARTHQUAKES INTENSITY SCALE

Intensities are given by Roman numerals in the list of California earthquakes on the following page, when sufficient information on the effects of the shock is available. Criteria of the Modified Mercalli Scale which are used to rate the intensity are:

Intensity	
II	Felt by a few people only. Duration or direction not appreciable.
III	Duration or direction appreciable.
IV	Rattling of doors and windows; swinging of suspended objects.
V	Disturbance of movable objects; plaster cracked.
VI	Overthrow of movable objects; cracking of chimneys and other brickwork.
VII	Fall of some chimneys; some damage to buildings.

EARTHQUAKE MAGNITUDE SCALE

Richter magnitudes given in the list of epicenters on the next page are found from the Wood Anderson amplitudes, using the nomogram given by Nordquist, "Bulletin of the Seismological Society of America", 32:164.

Latitude and longitude are given for each epicenter in the following list. Only those earthquakes are given for which epicenters were located. The letter represents the excellence with which the epicenter has been located, a indicating excellent, b good, c fair, d poor.

EARTHQUAKES IN NORTHERN CALIFORNIA

1942 - Pacific Standard Time

No.	Date	Time	Richter Magnitude	Latitude North	Longitude West	Quality
1	Jan. 9	12-23-10	2.6	36°.7	121°.5	d
2	14	01-44-40	4.2	36° 39'	121° 13'	b
		Felt at Big Sur, Chualar, Gonzales, Hollister and Pinnacles. Depth about 5 km.				
3	17	19-03-54	3.8	36° 40'	121° 10'	b
		IV at King City and Pinnacles.				
4	17	23-17-17	4.1	40°.2	125°.1	d
		IV at Ferndale and Scotia. Felt at Cape Mendocino and Petrolia.				
5	18	18-05-19	3.0	37° 01'	121° 49'	c
6	21	11-16-41	3.4	36° 51'	121° 31'	c
7	Feb. 11	19-03-33	3.3	36° 55'	121° 41'	c
		III at Hollister.				
8	11	19-07-38	2.7	37° 01'	121° 42'	c
		III at Hollister.				
9	20	16-57-29	2.5	36°.8	121°.5	d
10	20	17-02-00	2.5	36°.8	121°.5	d
11	21	01-35-15	2.5	36°.8	121°.5	d
12	22	00-04-04	2.4	36°.8	121°.5	d
13	Mar. 5	18-01-12	3.7	36° 47'	121° 31'	c
		Felt in Pajaro Valley.				
14	22	10-32-36	3.3	36° 48'	121° 36'	c
15	31	06-21-07	3.3	36° 43'	121° 15'	c
		IV at Hollister.				

THE REGISTRATION OF EARTHQUAKES

SYMBOLS AND NOTATIONS EMPLOYED

1. Character of the Seismogram --

I. Perceptible. II. Moderately Strong. III. Strong.

d (terrae motus domesticus)	Local shock (origin less than 100 kilometers distant).
v (terrae motus vicinus)	Near shock (origin from 100 to 1,000 kilometers distant).
r (terrae motus remotus)	Distant shock (origin from 1,000 to 5,000 kilometers distant).
u (terrae motus ultimus)	Very distant shock or teleseism (origin more than 5,000 kilometers distant).

2. Nature of the Motion --

i (impetus)	Sudden beginning of the motion.
e (emersio)	Gradual beginning of the motion.

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THE BERKELEY STATION, UNIVERSITY OF CALIFORNIA
BERKELEY, CALIFORNIA

CONSTANTS

CONSTANTS OF THE STATION

Latitude and Longitude:

ϕ = 37° 52.3 N.
λ = 122° 15.6 W.

Time -- All determinations are reduced to Universal Time.

Altitude -- 81 meters (266 feet) above mean sea level.

CONSTANTS OF THE SEISMOGRAPHS

Apparatus	Component	V	T_o	ε	$\frac{r}{T_o^2}$
Bosch-Omori 100 kg. ..	E	45	12	10	0.001
	N	45	12	10	0.001
Wiechert 80 kg.	Z	44	4	5	0.005
Wood-Anderson	E	3000	0.9	15	
	N	3000	0.9	15	

		K	T	T_1	μ^2	A_1(cm)	1(cm)
Galitzin	E	112	12	11.8	0.00	115	11.3
	N	122	12	12.4	0.03	119	11.2
	Z	109	12	11.9	0.01	131	14.9

		V	Coupled Period	ε
Benioff	Z		0.7	5

The letter G before a reading designates that the seismogram was from the Galitzin instrument; W, Wiechert, B, Bosch-Omori; A, Wood-Anderson; H, Benioff.

BERKELEY

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
1	Jan. 1	Iv	iPZ	H 21 57 19.0	Owens Valley
			iSN	A 53.6	
			iSZ	H 54.1	
			eSE	A 54.6	
			F	22 00	
2	Jan. 2	Iv	iPZ	H 15 09 55.0	Owens Valley
			iPN	A 10 01.7	
			ePE	A 07.5	
			iSN	A 30.3	
			iSEZ	AH 31.6	
			F	15 14	
3	Jan. 2	Id	iPZ	H 23 56 18.3	
			iSNEZ	AH 25.7	
			F	23 59	
4	Jan. 3	Id	iPNZ	AH 00 02 20.3	
			iPE	A 21.1	
			iSZ	H 21.7	
			F	00 03	
5	Jan. 5	I	iPZ	H 05 09 30.2	
			ePN	A 36	
			F	05 12	
6	Jan. 5	Id	iPZ	H 22 52 19.6	
			iSNZ	AH 20.3	
			F	22 54	
7	Jan. 5	Id	iPNZ	AH 23 37 46.5	
			ePE	A 47.5	
			iSN	A 54.6	
			F	23 39	
8	Jan. 7	IId	iPZ	H 01 21 50.4	
			iSNZ	AH 52.2	
			F	01 23	
9	Jan. 8	Iu	iPZ	H 15 22 30.0	Peru
			ePN	A 30.4	
			eZ	H 23 10.7	
			F	15 28	
10	Jan. 8	Id	iPNEZ	AH 22 01 03.2	
			iSNE	A 06.7	
			F	22 03	
11	Jan. 9	Id	iPNZ	AH 22 36 14.4	
			iPE	A 15.6	
			iSZ	H 21.9	
			iSN	A 22.7	
			iSE	A 24.0	
			F	22 38	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
12	Jan. 11	Id	iPZ	H 23 30 32.8	
			iZ	H 34.2	
			F	23 31	
13	Jan. 12	Id	iPNZ	AH 21 22 53.3	
			iPE	A 54.2	
			iSN	A 57.2	
			iZ	H 58.0	
			F	21 24	
14	Jan. 13	Id	iPZ	H 20 10 02.7	
			iSZ	H 04.9	
			F	20 11	
15	Jan. 13	Id	iPZ	H 23 37 19.6	
			iSNZ	AH 21.3	
			F	23 38	
16	Jan. 14	IId	iPNZ	AH 09 45 04.9	See list, p. 5
			ePE	A 07.9	
			iSNE	A 14.3	
			F	09 47	
17	Jan. 14	Id	iPZ	H 21 43 09.9	
			iSZ	H 12.9	
			F	21 44	
18	Jan. 15	Id	iPN	A 21 43 24.2	
			iPZ	H 25.0	
			iSNE	A 25.3	
			iSZ	H 26.4	
			F	21 44	
19	Jan. 16	Id	iPZ	H 00 06 00.6	
			iSNZ	AH 02.5	
			F	00 07	
20	Jan. 16	Id	ePNEZ	AH 20 47 37.6	
			iSNZ	AH 41.5	
			F	20 49	
21	Jan. 17	Id	iPZ	H 11 59 49.3	
			iZ	H 49.9	
			iZ	H 54.6	
			iSZ	H 12 00 44.6	
			F	12 02	
22	Jan. 17	Id	iPNEZ	AH 22 57 41.5	
			iSEZ	AH 48.9	
			iSN	A 50.0	
			F	22 59	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
23	Jan. 18	Iv	ePN	A 03 04 22.1	See list, p. 5
			iPZ	H 22.6	
			iSN	A 44.1	
			iSZ	H 44.6	
			F	03 08	
24	Jan. 18	Iv	iPEZ	AH 07 18 07.7	
			ePN	A 08.1	See list, p. 5
			eZ	G 33.1	
			eN	G 33.6	
			eE	G 34.1	
			eZ	G 19 45.3	
			F	07 43	
25	Jan. 19	Iv	iPZ	H 02 05 35.4	See list, p. 5
			iSNEZ	AH 47.6	
			F	02 11	
26	Jan. 20	Iu	ePN	A 04 26 22	
			ePZ	H 23	
27	Jan. 20	Iu	ePN	A 06 30 52.5	USCGS: 17.9°N
			ePE	G 59	105.6°W
			ePZ	G 31 00.5	
			ePN	G 01.0	
			ePN	A 04.0	
			eSN	G 35 43	
			eSE	G 49	
			eSZ	G 36 05	
			eE	G 37 47	
			eLN	G 38 35	
			eLZ	G 47	
			eE	G 39 45	
			F	07 00	
28	Jan. 21	Id	iPZ	H 19 17 01.2	See list, p. 5
			ePN	A 02.1	
			ePE	A 02.6	
			iN	A 16.1	
			iE	A 24.1	
			F	19 19	
29	Jan. 21	Id	iPNEZ	AH 20 46 53.0	
			iE	A 56.6	
			iNZ	AH 58.0	
			iSNE	A 47 03.3	
			iSZ	H 03.9	
			F	20 49	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
30	Jan. 27	Iu	ePZ	G 13 43 27.6	USCGS: 3.9°S
			ePE	G 29.7	135.3°E
			eE	G 52 57.7	
			eSN	G 57 09.7	
			eSZ	G 15.7	
			eLZ	G 14 16 09.7	
			eLN	G 20 40	
			F	15 30	
31	Jan. 29	Iu	ePE	G 09 36 14	Wellington: 19°S 169°E
			iPZ	G 15.3	h = 100 km
			iPNEZ	AH 15.8	
			iSNEZ	A 21.4	
			eN	G 22	
			eE	G 46 04	
			eN	G 17.6	
			eN	G 47 42	
			eGN	G 59 49	
			eLNE	G 10 03 12	
			eLZ	G 52	
			F	10 48	
32	Jan. 29	Id	iPZ	H 18 34 53.3	
			iSZ	H 56.3	
			F	18 36	
33	Jan. 29	Id	iPZ	H 18 35 45.6	
			iSZ	H 48.6	
			F	18 37	
34	Jan. 29	Id	iPZ	H 19 04 00.9	
			iSZ	H 03.8	
			F	19 05	
35	Jan. 29	Id	iPZ	H 19 04 23.5	
			iSZ	H 26.6	
			F	19 05	
36	Jan. 29	Id	iPZ	H 19 05 08.8	
			iSZ	H 11.6	
			F	19 06	
37	Jan. 30	Id	iPNEZ	AH 23 27 10	
			iSNEZ	AH 16	
			F	23 28	
38	Jan. 31	Ir	ePN	G 06 52 19	USCGS: 51°N
			ePZ	G 23	124°W
			iPZ	H 24	
			ePE	G 25.5	
			ePNE	A 26	
			eSE	G 55 19	
			eSZ	G 23	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
38	Jan. 31 (cont.)	Ir	eLNE	G 06 57 45	
			eLZ	G 58 51.5	
			F	07 05	
39	Feb. 1	Iu	eN	A 15 20 57	Pasadena: 116° 55'W
			eE	A 21 26	34° 24'N
40	Feb. 1	I	eN	A 16 06 02	Pasadena: 116° 55W
			eE	A 33	34° 24'N
41	Feb. 3	Id	iPZ	H 19 35 33.5	
			iSZ	H 34	
			F	19 36	
42	Feb. 3	Id	iPZ	H 14 36 10	
			iSZ	H 13	
			F	14 37	
43	Feb. 3	Id	iPZ	H 19 48 48	
			iSZ	H 48 53	
			F	19 50	
44	Feb. 4	Iv	iPNE	A 09 08 43	Felt in Hollister
			iPZ	H 44	
			iNE	A 45	
			iZ	H 45.5	
			iSNE	A 59	
			iSZ	H 09 01	
			F	09 11	
45	Feb. 5	Id	iPNZ	AH 11 49 18	
			F	11 50	
46	Feb. 9	Id	iPZ	H 18 23 44	
			iSZ	H 45	
			F	18 24	
47	Feb. 11	Id	iPZ	H 01 17 44.2	
			iSZ	H 46.0	
			F	01 19	
48	Feb. 12	Id	iPNE	A 00 31 12.0	
			iPZ	H 12.7	
			iZ	H 15.0	
			iSN	A 21.8	
			F	00 33	
49	Feb. 12	Iv	ePN	A 03 03 52.9	See list, p. 5
			eSE	A 04 06.4	
			F	03 06	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
59	Feb. 16 (cont.)	Iu	eSZ	G 18 31 03.9	
			eLN	G 42 43.4	
			eLZ	G 45 13.9	
			eLE	G 45 47.9	
			F	19 00	
60	Feb. 17	Id	iPNEZ	AH 00 47 59.0	
			iSN	A 08.5	
			iSE	A 09.0	
			iSZ	H 10.0	
			F	00 50	
61	Feb. 17	Iu	ePZ	G 04 24 35.3	Pasadena: 10°S 165°E
			eLE	G 50 00.3	
			eLN	G 01.3	
			eLZ	G 21.3	
			F	05 40	
62	Feb. 17	Id	iPZ	H 22 15 56.9	
			iSNZ	AH 58.9	
			F	22 17	
63	Feb. 18	Id	iPN	A 22 50 34.0	
			iPEZ	AH 35.0	
			iSNE	A 37.5	
			F	22 52	
64	Feb. 19	Id	iPZ	H 02 44 37.7	
			eSN	A 39.2	
			iSZ	H 39.5	
			iSE	A 40.5	
			F	02 46	
65	Feb. 19	Id	iPNZ	AH 23 45 33.3	
			iPE	A 33.9	
			iSE	A 35.9	
			iSN	A 36.4	
			F	23 47	
66	Feb. 20	Id	iPZ	H 23 28 46.9	
			iN	A 48.0	
			F	23 30	
67	Feb. 21	IIu	ePZ	G 07 19 03.7	USCGS: 38.2°N 141.5°E
			ePE	G 12.7	
			ePN	G 17.7	
			eSZ	G 28 23.7	
			eSE	G 24.7	
			eSN	G 25.7	
			eN	G 37 23.7	
			eLN	G 39 33.7	
			eLEZ	G 40 23.7	
			F	08 30	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
68	Feb. 21	I	eN	G 18 55 08.2	
			eZ	G 57	
			eL?Z	G 58 33.0	
			eL?E	G 48.2	
			F	19 03	
69	Feb. 22	I	ePN	G 09 50 54.9	
			ePZ	G 51 03.4	
			eLN	G 58 02.9	
			eLE	G 59 24.9	
			eLZ	G 10 00 05.9	
			F	10 30	
70	Feb. 25	Id	iPZ	H 02 13 32.6	
			iSNZ	AH 34.4	
			F	02 15	
71	Feb. 25	Id	ePN	A 16 09 50.5	Felt at Hawthorne, Nevada
			iSE	A 54.7	
			iSN	A 56.2	
			F	16 11	
72	Feb. 25	Iv	ePN	A 16 12 10.5	Felt at Hawthorne, Nevada
			eE	A 37.5	
			iSNE	A 41.7	
			F	16 14	
73	Feb. 25	Id	iPZ	H 22 35 46.7	
			iSNZ	AH 48.6	
			F	22 37	
74	Feb. 28	Id	iPZ	H 02 53 06.8	
			iSN	A 08.8	
			iSZ	H 09.2	
			F	02 54	
75	Feb. 28	Id	iPZ	H 03 53 02.5	
			iSNZ	AH 04.8	
			F	03 54	
76	Mar. 1	IIr	iPZ	G 09 59 22.8	USCGS: 13.3°N
			ePE	G 40.8	91.2°W
			iSN	G 10 05 00.8	
			iSE	G 07.8	
			eLE	G 09 32.8	
			eLN	G 42.8	
			eLZ	G 10 12.2	
			F	11 09	
77	Mar. 1	Id	iPZ	H 23 36 25.5	
			iSNZ	AH 27.6	
			F	23 38	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
78	Mar. 2	Id	iPZ	H 01 46 06.5	
			iSNZ	AH 08.6	
			F	01 47	
79	Mar. 2	Id	iPZ	H 12 31 57.9	
			iSN	A 32 03.3	
			iSZ	H 04.1	
			F	12 33	
80	Mar. 3	Iv	iPN	A 01 05 06.9	Pasadena: 34°N 115°45'W
			iN	A 25.3	
			F	01 10	
81	Mar. 4	Id	iPZ	H 22 33 45.8	
			iZ	H 46.8	
			F	22 35	
82	Mar. 5	Id	iPZ	H 02 25 47.1	
			iSZ	H 49.7	
			F	02 27	
83	Mar. 5	Iu	ePE	G 19 58 52.2	Pasadena: 44.5°N 142.5°E
			ePN	G 54.2	
			iPN	A 54.5	
			iPZ	G 54.7	
			iPZ	H 55.6	
			iSNEZ	G 20 07 37.2	
			eLN	G 15 05.2	
			F	20 29	
84	Mar. 6	Iv	iPNZ	AH 02 01 34.8	See list, p. 5
			iZ	H 48.2	
			iSZ	H 48.6	
			iSN	A 49.6	
			F	02 03	
85	Mar. 6	Id	iPZ	H 02 13 54.5	
			iSN	A 55.9	
			iSZ	H 56.6	
			F	02 15	
86	Mar. 6	Id	iPZ	H 04 12 05.9	
			iSZ	H 07.7	
			iSN	A 08.1	
			F	04 13	
87	Mar. 6	Id	iPZ	H 13 52 54.1	
			iSN	A 55.9	
			F	13 54	

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
88	Mar. 6	Iu	ePN	G 20 19 43.5	New Hebrides
			ePZ	G 46.5	
			eSE	G 31 46.5	
			eSN	G 48.5	
			eLN	G 46	
			eLE	G 50	
			F	21 39	
89	Mar. 6	Id	iPZ	H 23 16 15.3	
			iSZ	H 18.7	
			F	23 17	
90	Mar. 7	Id	iPZ	H 13 40 32.8	
			F	13 42	
91	Mar. 8	Id	iPZ	H 00 42 46.1	
			iSZ	H 48.5	
			F	00 44	
92	Mar. 8	Id	iPZ	H 03 10 28.8	
			iZ	H 30.3	
			F	03 11	
93	Mar. 8	Iv	iPZ	H 19 40 04.7	
			iZ	H 23.5	
			F	19 43	
94	Mar. 8	Id	iPZ	H 23 47 10.4	
			iZ	H 11.4	
			iSZ	H 15.5	
			F	23 48	
95	Mar. 9	Id	iPZ	H 22 57 54.7	
			iSZ	H 56.6	
			F	22 59	
96	Mar. 9	Id	iPZ	H 22 59 00.4	
			iSZ	H 01.3	
			F	23 00	
97	Mar. 10	Id	iPZ	H 03 58 30.4	
			iZ	H 32.1	
			F	04 00	
98	Mar. 10	Id	iPZ	H 19 03 23.5	
			iSZ	H 25.5	
			F	19 04	
99	Mar. 10	Id	iPZ	H 23 02 17.6	
			iSZ	H 18.7	
			F	23 03	

BERKELEY

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
100	Mar. 12	Id	iPZ	H 03 26 17.7	
			iSZ	H 19.7	
			F	03 27	
101	Mar. 12	Id	iPZ	H 23 10 06.0	
			iSZ	H 07.4	
			F	23 11	
102	Mar. 13	Id	iPZ	H 00 19 46.8	
			iSZ	H 49.2	
			F	00 21	
103	Mar. 13	Id	iPZ	H 03 12 22.9	
			iSZ	H 24.9	
			F	03 13	
104	Mar. 13	Id	iPZ	H 11 16 42.6	
			F	11 18	
105	Mar. 14	Id	iPZ	H 01 01 48.6	
			iSZ	H 50.7	
			F	01 03	
106	Mar. 14	Id	iPZ	H 10 59 38.3	
			F	10 01	
107	Mar. 16	Id	iPZ	H 23 15 37.5	
			iSNZ	AH 39.7	
			F	23 17	
108	Mar. 17	Id	iPZ	H 02 22 16.0	
			iSZ	H 17.8	
			F	02 23	
109	Mar. 18	Id	iPZ	H 23 45 29.8	
			iSZ	H 31.8	
			iSN	A 32.1	
			F	23 47	
110	Mar. 19	Id	iPNZ	AH 00 34 48.4	
			iSN	A 49.6	
			F	00 35	
111	Mar. 19	Id	iPZ	H 01 16 22.1	
			iSZ	H 23.6	
			F	01 17	
112	Mar. 19	Ir	ePZ	G 12 02 07.6	USCGS: 51.2°N 130.0°W
			iPZ	G 49.1	
			ePN	A 52.6	
			ePZ	A 53.1	
			iPE	G 57.6	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
112	Mar. 19 (cont.)	Ir	iZ	H 12 02 57.7	
			iSZ	G 05 49.6	
			eLZ	G 07 27.6	
			F	13 13	
113	Mar. 20	Ir	ePN	A 01 19 53.1	USCGS: 52.4°N 167.7°W
			iPNZ	AG 59.2	
			ePE	G 20 01.2	
			eSE	G 25 21.2	
			eSZ	G 34.2	
			eE	G 27 27.2	
			eLEZ	G 29 27.2	
			F	02 34	
114	Mar. 20	Id	iPZ	H 17 20 10.6	
			iSZ	H 12.5	
			F	17 21	
115	Mar. 20	Id	iPZ	H 18 32 53.2	
			iSZ	H 55.4	
			F	18 34	
116	Mar. 20	Id	iPZ	H 22 24 35.0	
			iSZ	H 36.9	
			F	22 25	
117	Mar. 20	Id	iPZ	H 22 47 50.2	
			iSZ	H 52.3	
			F	22 49	
118	Mar. 21	Id	iPZ	H 01 58 30.4	
			iSZ	H 32.2	
			F	01 00	
119	Mar. 21	Id	iPZ	H 20 39 06.3	
			iSNZ	AH 08.5	
			F	20 40	
120	Mar. 21	Id	iPZ	H 20 58 26.2	
			iSZ	H 29.5	
			F	20 59	
121	Mar. 21	Id	iPZ	H 22 35 34.4	
			iPN	A 37.7	
			F	22 36	
122	Mar. 21	Id	iPZ	H 22 40 13.2	
			iSZ	H 15.0	
			F	22 41	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
123	Mar. 21	Iu	ePE	G 23 33 16	Pasadena: 30°N 130°E
			iPNZ	G 16.5	
			ePN	A 18.5	
			eSE	G 43 41	
			iSZ	G 44 31	
			eEZ	G 59 25	
			F	01 00	
124	Mar. 22	Id	iPZ	H 02 46 39.8	
			iSZ	H 43.4	
			F	02 48	
125	Mar. 22	Iv	iPZ	H 18 32 58.2	See list, p. 5
			ePN	A 58.5	
			iSNZ	AH 33 13.1	
			F	18 35	
126	Mar. 22	Iv	iPZ	H 18 44 20.2	Aftershock
			iSN	A 45.1	
			iSZ	H 45.6	
			F	18 46	
127	Mar. 22	Id	iPZ	H 19 04 09.8	
			iSZ	H 11.5	
			iN	A 13.5	
			F	19 05	
128	Mar. 22	Id	iPZ	H 21 47 24.6	
			iSN	A 25.6	
			F	21 48	
129	Mar. 22	Id	iPZ	H 22 29 47.9	
			iSZ	H 50.5	
			iSN	A 51.5	
			F	22 31	
130	Mar. 22	Id	iPZ	H 23 50 36.0	
			iSZ	H 37.8	
			F	23 51	
131	Mar. 23	Id	iPZ	H 00 29 25.5	
			iN	A 26.6	
			iZ	H 28.5	
			F	00 30	
132	Mar. 24	Id	iPZ	H 22 51 55.8	
			iSNZ	AH 58.0	
			F	22 53	
133	Mar. 24	Id	iPZ	H 23 52 28.3	
			iSNZ	AH 29.7	
			F	23 53	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
134	Mar. 25	Id	iPZ	H 01 04 53.4	
			iSZ	H 55.5	
			F	01 06	
135	Mar. 25	Id	iPZ	H 08 03 20.9	
			iSZ	H 22.8	
			F	08 05	
136	Mar. 25	Id	ePN	A 22 46 10.1	
			iSN	A 12.3	
			F	22 47	
137	Mar. 26	Id	iPZ	H 22 07 49.3	
			iSN	A 51.0	
			F	22 08	
138	Mar. 27	Id	iPZ	H 00 42 55.5	
			iSZ	H 57.5	
			F	00 43	
139	Mar. 27	Id	iPZ	H 09 13 06.3	
			iSZ	H 08.6	
			F	09 13	
140	Mar. 27	Id	iPZ	H 23 51 27.3	
			F	23 52	
141	Mar. 28	Id	iPZ	H 01 22 56.2	
			iZ	H 58.9	
			F	01 23	
142	Mar. 28	Id	iPZ	H 03 07 08.4	
			iSZ	H 10.7	
			F	03 07	
143	Mar. 28	Id	iPZ	H 06 54 16.0	
			iZ	H 17.7	
			F	06 55	
144	Mar. 28	Id	iPZ	H 09 41 59.8	
			iSZ	H 21.6	
			F	09 42	
145	Mar. 28	Id	iPZ	H 23 02 34.9	
			iSZ	H 37.3	
			F	23 03	
146	Mar. 29	Id	iPZ	H 00 46 59.3	
			iSZ	H 47 01.3	
			F	00 47	

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
147	Mar. 29	Id	iPZ	H 05 41 36.1	
			iSZ	H 38.0	
			F	05 42	
148	Mar. 29	Id	iPZ	H 18 13 23.1	
			ePN	A 23.8	
			iZ	H 24.3	
			F	18 14	
149	Mar. 30	Id	iPZ	H 01 07 23.2	
			iSZ	H 25.2	
			F	01 08	
150	Mar. 31	Id	iPZ	H 03 05 36.0	
			iSZ	H 38.0	
			F	03 06	
151	Mar. 31	Iv	iPZ	H 14 20 33.2	See list, p. 5
			ePN	A 36.9	
			iSN	A 53.4	
			iZ	H 54.4	
			F	14 22	

MOUNT HAMILTON
THE LICK OBSERVATORY STATION, UNIVERSITY OF CALIFORNIA
MOUNT HAMILTON, CALIFORNIA

CONSTANTS

CONSTANTS OF THE STATION

Latitude and longitude:

ϕ = 37° 20!4 N.
λ = 121° 38!6 W.

Time -- All determinations are reduced to Universal Time.

Altitude -- 1281.7 meters (4205 feet) above mean sea level.

CONSTANTS OF THE SEISMOGRAPHS

Apparatus	Component	V	T_o	ε
Wood-Anderson	E	3000	1	15
	N	3000	1	15

MT. HAMILTON

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
1	Jan. 1	Iv	ePNE	21 57 12.5	Owens Valley
			iN	20.8	
			iSN	41.8	
			iSE	42.9	
			F	22 00	
2	Jan. 2	Iv	ePN	05 22 16.5	
			iSNE	45.7	
			F	05 24	
3	Jan. 2	Iv	ePE	15 09 48.5	Owens Valley
			iPN	49.4	
			iSNE	10 18.2	
			F	15 13	
4	Jan. 2	Id	ePN	23 56 28	
			iSE	32.4	
			iSN	34.5	
			F	23 58	
5	Jan. 3	Id	iPN	02 15 14.5	
			iN	23.7	
			F	02 16	
6	Jan. 3	Iv	ePN	16 00 48.0	
			iN	01 16.9	
			F	16 03	
7	Jan. 3	Id	ePN	16 30 14	
			F	16 31	
8	Jan. 5	I	iPN	05 09 56.2	
			F	05 12	
9	Jan. 5	Iv	eN	06 19 18.1	
			iNE	27.6	
			F	06 21	
10	Jan. 5	Id	ePN	17 17 35.5	
			iSNE	19 38.2	
			F	17 19	
11	Jan. 6	Iv	iPN	00 10 11.8	
			ePE	12.4	
			iSNE	41.9	
			F	00 12	
12	Jan. 6	Iv	ePN	08 02 24.5	
			ePE	25.2	
			iSNE	53.8	
			F	08 04	

MT. HAMILTON

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
13	Jan. 6	Id	iPN	08 40 58.2	
			F	08 42	
14	Jan. 6	Iv	ePN	09 23 01	
			ePE	01.5	
			iSE	12.0	
			iSN	18.7	
			F	09 25	
15	Jan. 6	Iv	ePE	13 10 38.3	
			iPN	38.7	
			iSN	11 07.2	
			iSE	08.4	
			F	13 13	
16	Jan. 6	Id	ePN	23 12 24	
			iSE	25.6	
			iSN	26.0	
			F	23 13	
17	Jan. 7	Iv	ePN	08 20 58.5	
			iSN	21 26.3	
			F	08 23	
18	Jan. 7	Id	ePN	18 14 10.5	
			iSNE	13.8	
			F	18 15	
19	Jan. 8	Iu	ePN	15 22 27	Peru
			ePE	29.5	
			F	15 26	
20	Jan. 8	Id	iN	17 33 51.6	
			F	17 35	
21	Jan. 9	Id	$i\bar{P}N$	20 23 23.6	See list, p. 5
			$i\bar{S}NE$	33.2	
			F	20 25	
22	Jan. 11	Iv	ePN	15 57 35	
			iSN	57.6	
			eE	59.5	
			F	15 59	
23	Jan. 14	IIv	$i\bar{P}NE$	09 44 55.1	See list, p. 5
			$i\bar{S}NE$	45 06.0	
			F	09 48	
24	Jan. 15	Id	iSNE	10 11 37.3	
			F	10 12	

MT. HAMILTON

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
25	Jan. 15	Iv	eN	11 48 37	
			iN	49 06.1	
			iE	07.8	
			F	11 51	
26	Jan. 15	Iv	eN	22 41 38	
			iN	42 12.2	
			iNE	13.5	
			F	22 43	
27	Jan. 17	Iv	iPNE	11 59 59.3	
			iNE	00 58.1	
			F	12 02	
28	Jan. 18	IIv	iP̄N	03 04 09.4	See list, p. 5
			iPE	09.8	
			iS̄NE	20.5	
			iN	21.1	
			iN	22.7	
			F	03 07	
29	Jan. 18	Iv	iNE	07 18 18.2	See list, p. 5
			F	07 24	
30	Jan. 18	Id	ePNE	11 33 18.2	
			iSN	19.8	
			iSE	20.2	
			F	11 34	
31	Jan. 18	Iv	iPNE	12 40 59.8	
			iSNE	41 11.6	
			F	12 42	
32	Jan. 18	Iv	eN	17 29 36.6	
			eE	37.3	
			F	17 31	
33	Jan. 19	IId	iP̄NE	02 05 26.0	See list, p. 5
			iS̄NE	31.0	
			F	02 07	
34	Jan. 19	Iv	iPNE	16 48 46.0	San Benito County
			iSE	58.5	
			iSN	59.3	
			F	16 51	
35	Jan. 19	Iv	eN	19 24 27.8	
			eE	29.3	
			F	19 25	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
36	Jan. 20	Ir	ePN	06 30 55.6	USCGS: 17.9°N 105.6°W
			ePE	58.6	
			F	06 55	
37	Jan. 20	Ir	eNE	14 03 12.6	Alaska
			F	14 05	
38	Jan. 20	Iv	iN	16 03 33.1	
			F	16 31	
39	Jan. 20	Iv	ePE	16 33 39.5	
			ePN	40.3	
			iSNE	34 07.7	
			F	16 35	
40	Jan. 21	Id	iP̄NE	19 16 51.2	See list, p. 5
			iS̄NE	58.2	
			F	19 19	
41	Jan. 27	Iu	eE	14 17 18.7	USCGS: 3.9°S 135.3°E
			F	14 50	
42	Jan. 27	Id	iPN	15 57 29.9	
			iSNE	30.9	
			F	15 58	
43	Feb. 1	Iv	eE	15 19 54.4	Pasadena: 34° 24'N
			eN	54.9	116° 55'W
			F	15 24	
44	Feb. 1	Iv	eN	16 05 09.9	Pasadena: 34° 24'N
			eE	11.4	111° 55'W
			F	16 09	
45	Feb. 1	Iv	eN	17 22 23.8	
			iSE	33.9	
			iSN	34.6	
			F	17 23	
46	Feb. 3	Iv	iN	23 39 22.7	
			F	23 40	
47	Feb. 4	Id	ePNE	03 13 35.9	
			iSN	41.0	
			F	03 15	
48	Feb. 4	Iv	iPE	03 20 56.6	
			iPN	57.3	
			iSN	21 25.5	
			iSE	25.9	
			F	03 24	

MT. HAMILTON

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
49	Feb. 4	Iv	ePN	03 25 08.5	Owens Valley
			iSN	37.0	
			iSE	37.7	
			F	03 27	
50	Feb. 4	Iv	iPE	03 32 44.0	Owens Valley
			iPN	44.5	
			iSE	33 14.0	
			iSN	15.4	
			F	03 35	
51	Feb. 4	Iv	ePN	03 47 02.5	
			iSN	23.4	
			iSE	23.8	
			F	03 48	
52	Feb. 4	Id	iPNE	07 12 33.6	
			iSNE	35.3	
			F	07 13	
53	Feb. 4	IId	iPNE	09 08 33.6	Felt in Hollister
			iSN	40.4	
			F	09 12	
54	Feb. 4	Iv	eN	10 48 51.6	
			F	10 50	
55	Feb. 4	Id	ePN	18 57 06.3	
			iSN	13.2	
			F	18 58	
56	Feb. 10	Iv	ePN	09 14 13.1	
			iSE	33.0	
			iSN	34.0	
			F	09 16	
57	Feb. 10	Id	ePE	12 15 38.9	
			ePN	39.4	
			iSE	40.2	
			iSN	40.7	
			F	12 16	
58	Feb. 10	Iv	ePNE	16 05 09	
			iSNE	29.5	
			F	16 07	
59	Feb. 11	Iv	eNE	06 17 32.7	
			F	06 18	

MT. HAMILTON

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
60	Feb. 12	Id	iP̄N	03 03 41.2	See list, p. 5
			iE	41.7	
			iS̄N	47.2	
			iSE	47.6	
			F	03 05	
61	Feb. 12	Id	iP̄E	03 07 44.7	See list, p. 5
			iPN	45.4	
			iNE	51.6	
62	Feb. 12	Id	iPN	04 08 25.3	
			iSNE	31.1	
			F	04 10	
63	Feb. 12	Iv	eNE	07 09 21.6	
			F	07 10	
64	Feb. 14	Id	iPN	22 42 56.1	
			iSNE	56.6	
			F	22 43	
65	Feb. 21	Id	iP̄N	00 57 39.8	
			iS̄E	48.2	
			F	00 57	
66	Feb. 21	Id	eP̄N	01 02 11.0	See list, p. 5
			ePN	11.3	
			iS̄NE	18.5	
			F	01 03	
67	Feb. 21	Iu	eN	07 19 24.6	USCGS: 38.2°N 141.5°E
			eE	27.9	
			F	07 23	
68	Feb. 21	Id	eP̄N	09 35 25.3	See list, p. 5
			iS̄E	32.7	
			iSN	33.2	
			F	09 36	
69	Feb. 22	Id	iP̄NE	08 04 15.1	See list, p. 5
			iS̄N	22.9	
			F	08 05	
70	Feb. 22	Id	iPN	09 46 31.4	
			iSN	39.0	
			F	09 48	
71	Feb. 23	Id	ePE	06 56 28.0	
			ePN	28.5	
			iSN	29.8	
			F	06 57	
72	Feb. 23	Id	iPNE	07 03 20.0	
			iSNE	21.5	
			F	07 04	

MT. HAMILTON

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
73	Feb. 25	Iv	ePN	16 09 10.7	Felt at Hawthorne, Nevada
			iSNE	46.5	
			F	16 11	
74	Feb. 25	Iv	ePN	16 11 54.5	Felt at Hawthorne, Nevada
			iSNE	12 31.3	
			F	16 15	
75	Feb. 26	Iv	eN	08 07 21.2	
			F	08 08	
76	Feb. 27	Iv	ePE	01 23 30.5	Pasadena: 37° 34'N
			iPN	31.5	118° 44'W
			iSN	24 00.2	
			iSE	00.7	
			F	01 26	
77	Feb. 27	Iv	eN	12 41 45.2	
			F	12 42	
78	Feb. 28	Iv	ePN	18 52 14.7	
			eSN	41.9	
			F	18 53	
79	Feb. 28	Id	iN	23 24 39.3	
			F	23 25	
80	Mar. 1	Iv	ePN	01 32 52.7	Pasadena: 37° 34'N
			eSN	33 19.9	118° 44'W
			F	01 34	
81	Mar. 1	Iv	ePN	04 00 01.8	Pasadena: 37° 34'N
			iN	03.1	118° 44'W
			iSE	31.3	
			iSN	32.7	
			F	04 02	
82	Mar. 1	Ir	eNE	09 59 08.9	USCGS: 13°N 91°W
			F	10 40	
83	Mar. 1	Id	iPNE	12 19 15.3	
			iSNE	16.2	
			F	12 20	
84	Mar. 2	Iv	eN	23 41 17.7	
			F	23 42	
85	Mar. 3	Iv	ePN	00 28 16.6	
			iSNE	43.5	
			F	00 30	

MT. HAMILTON

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
86	Mar. 3	Iv	eN	02 04 54.7	
			eE	56.2	
			F	02 10	
87	Mar. 5	Iu	ePN	19 58 59.2	Pasadena: 44.5°N 142.5°E
			ePE	59.7	
			F	19 15	
88	Mar. 6	IId	iP̄NE	02 01 23.7	See list, p. 5
			iS̄NE	30.8	
			F	02 04	
89	Mar. 7	Id	iSNE	10 47 47.7	
			F	10 49	
90	Mar. 8	Iv	ePN	04 47 31.4	Owens Valley
			iSE	48 00.4	
			iSN	01.0	
			F	04 50	
91	Mar. 15	Iv	ePN	08 25 45.6	
			iSNE	26 23.5	
			F	08 28	
92	Mar. 15	Id	ePN	09 10 30.6	
			iSNE	33.2	
			F	09 12	
93	Mar. 15	Id	iSNE	11 26 53.5	
			F	11 28	
94	Mar. 19	Ir	ePN	12 03 00.8	USCGS: 51.2°N 130.0°W
			ePE	03.4	
			F	obscured	
95	Mar. 19	Ir	ePN	12 06 41.3	USCGS: 51.2°N 130.0°W
			ePE	45.8	
			F	12 28	
96	Mar. 20	Ir	ePN	01 20 00.7	USCGS: 52.4°N 167.7°W
			F	obscured	
97	Mar. 20	Ir	ePN	01 27 54.0	USCGS: 52.4°N 167.7°W
			F	01 46	
98	Mar. 21	Iu	ePN	23 33 21.4	Pasadena: 30°N 130°E
			ePE	21.9	
			F	23 36	
99	Mar. 22	Id	iP̄NE	18 32 47.0	See list, p. 5
			iS̄N	54.5	
			F	18 35	

MT. HAMILTON

No.	Date 1942	Character	Phase	Time (U.T.) h. m. s.	Remarks
100	Mar. 22	Id	$i\bar{P}NE$	18 44 09.4	Aftershock
			iE	15.2	
			$i\bar{S}NE$	16.9	
			F	18 46	
101	Mar. 23	Id	iPN	23 55 30.7	
			iE	34.3	
			iSNE	43.4	
			F	23 57	
102	Mar. 29	Id	iPE	12 08 09.7	
			iPN	10.1	
			iSE	11.2	
			iSN	11.7	
			F	12 09	
103	Mar. 31	Iv	eN	13 27 17.0	Pasadena: 36° 15'N 118° 05'W
			eE	19.7	
			iN	28 02.3	
			F	13 29	
104	Mar. 31	Id	$i\bar{P}NE$	14 21 21.4	See list, p. 5
			$i\bar{S}NE$	31.4	
			F	14 23	

PALO ALTO

THE BRANNER STATION, STANFORD UNIVERSITY
PALO ALTO, CALIFORNIA

CONSTANTS

CONSTANTS OF THE STATION

Latitude and longitude:

ϕ = 37° 25!1 N.
λ = 122° 10!8 W.

Time -- All determinations are reduced to Universal time.

Altitude -- 83 meters (272 feet) above mean sea level.

CONSTANTS OF THE SEISMOGRAPHS

Apparatus	Component	V	T_o	ε
Wood-Anderson	E	3000	1	15
	N	3000	1	15

PALO ALTO

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
1	Jan. 1	Iv	iPE	21 57 18.5	Owens Valley
			eN	19	
			eSE	52.5	
			eN	54	
			F	21 59	
2	Jan. 2	Iv	ePE	15 09 54.7	Owens Valley
			eN	55.2.	
			iSE	10 27.2.	
			eN	29.2	
			F	15 13	
3	Jan. 2	II	iPE	18 08 56.0.	
			iN	56.2.	
			iE	56.9.	
			iNE	57.6.	
			iN	58.5	
			iE	58.9.	
			F	18 12	
4	Jan. 2	Id	ePN	23 56 21	
			iSE	26.8.	
			F	23 59	
5	Jan. 8	Id	ePE	21 57 17	
			eE	18.5	
			iSE	20.2.	
			F	21 59	
6	Jan. 9	Iv	e$\bar{P}$N	20 23 28	See list, p. 5
			e$\bar{P}$E	28.5.	
			eE	43.5.	
			eN	44.5.	
			F	20 25	
7	Jan. 11	Id	ePE	01 41 02	
			eSE	07	
			F	01 43	
8	Jan. 14	IIv	iPN	09 44 59.9	See list, p. 5
			iPE	45 01.0	
			iE	12.4	
			eSN	15.5	
			iSE	15.9	
			iN	41.3	
			iE	42.4	
			F	09 49	
9	Jan. 14	Id	iPNE	23 52 33.7	
			iSNE	37.7	
			F	23 54	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
20	Jan. 28	IId	iPNE	22 19 18.1	
			eN	25	
			iE	25.5	
			iSE	28.6	
			eSN	30.5	
			F	32 21	
21	Feb. 10	Iv	ePNE	16 05 13	
			eSE	33.8	
			eE	40.8	
			F	16 06	
22	Feb. 12	Id		03 04	See list, p. 5 S - P = 9.0 sec.
23	Feb. 12	Id		03 08	See list, p. 5 S - P = 8.0 sec.
24	Feb. 13	Id	ePE	17 43 15.8	
			iSE	17.6	
			F	17 45	
25	Feb. 16	Id	ePE	02 56 31	
			iSNE	34.7	
			F	02 58	
26	Feb. 17	Id	iPN	22 59 59.6	
			iPE	23 00 00.1	
			iSE	03.3	
			F	23 02	
27	Feb. 20	Id	ePE	04 42 04	
			eN	05.8	
			eSE	07.5	
			eSN	08.2	
			F	04 45	
28	Feb. 21	Iv	ePE	00 57 45.8	See list, p. 5
			eN	46.3	
			iSNE	57.3	
			F	01 00	
29	Feb. 21	Id	iPNE	01 02 16.3	See list, p. 5
			iSNE	27.3	
			F	01 04	
30	Feb. 21	Id	ePE	09 35 31	See list, p. 5
			ePN	31.5	
			eSE	42.5	
			eN	43.5	
			F	09 37	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
31	Feb. 22	Id	ePNE	08 04 21	
			eSE	31.5	See list, p. 5
			eN	33.5	
			F	08 06	
32	Feb. 23	Id	ePE	22 10 12.5	
			eNE	21.5	
			eN	31.5	
			eE	33.5	
			F	22 12	
33	Feb. 25	Iv	ePN	16 09 49	Felt at Hawthorne, Nevada
			eN	09 57.5	
			eE	10 00	
			eSE	24	
			F	16 12	
34	Feb. 25	Iv	ePE	16 12 06	Felt at Hawthorne, Nevada
			ePN	07.5	
			eSN	40	
			eSE	42	
			F	16 15	
35	Feb. 26	Iv	ePE	18 33 25.5	Owens Valley
			ePN	27.5	
			eN	34	
			eN	36	
			F	18 35	
36	Feb. 27	Iv	ePE	01 23 37	Owens Valley
			eE	43	
			eN	47	
			eSNE	10.5	
			F	01 26	
37	Feb. 27	Id	iPNE	21 05 21.0	
			iSNE	22.0	
			F	21 06	
38	Mar. 1	Iv	ePN	04 00 08	Pasadena: 37° 34'N
			ePE	08.5	118° 41'W
			eE	16.5	
			eSE	40.5	
			F	04 02	
39	Mar. 3	Iv	ePE	01 05 08	
			eE	24.5	
			eSE	47.5	
			eE	06 26.5	
			eN	33.5	
			eE	51	
			F	01 09	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
40	Mar. 5	Id	iPE	08 54 53.8	
			iSNE	55.3	
			F	08 56	
41	Mar. 5	Id	iPNE	09 08 32.8	
			iSNE	33.5	
			F	09 10	
42	Mar. 5	Id	iPNE	22 56 03.2	
			iSNE	06.6	
			F	22 57	
43	Mar. 6	IId	iPE	02 01 28.8	See list, p. 5
			iN	37.4	
			eE	38.2	
			F	02 04	
44	Mar. 17	IId	iPNE	23 13 31.3	
			F	23 15	
45	Mar. 18	IId	iPNE	23 17 38.2	
			eSN	39.8	
			eSE	40.4	
			F	23 19	
46	Mar. 19	Ir	ePN	12 03 08.7	USCGS: 51.2°N 130.0°W
			ePE	14.2	
			eSE	05 54.7	
			eSN	59.7	
			eLE	08 14.7	
			eLN	29.7	
			F	12 30	
47	Mar. 20	Ir	ePE	01 19 58.1	USCGS: 52.4°N 167.7°W
			ePN	59.1	
			F	01 21	
48	Mar. 20	Iv	ePN	12 56 09.1	Owens Valley
			ePE	09.6	
			F	12 58	
49	Mar. 21	Iu	ePNE	23 33 19.5	Pasadena: 30°N 130°E
			F	23 37	
50	Mar. 22	Id	iPE	18 59 14.7	
			iSE	24.9	
			eN	25.9	
			F	19 01	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
51	Mar. 23	I	iPE	23 55 27.1	
			eN	37.1	
			iE	37.5	
			eN	52	
			eE	53.1	
			F	23 57	
52	Mar. 31	Iv	iPNE	14 21 27.0	
			eN	40.4	
			iSE	41.4	
			F	14 23	

SAN FRANCISCO

THE SAN FRANCISCO STATION, UNIVERSITY OF SAN FRANCISCO
SAN FRANCISCO, CALIFORNIA

CONSTANTS

CONSTANTS OF THE STATION

Latitude and longitude:

ϕ = 37° 46!4 N.
λ = 122° 27!2 W.

Time -- All determinations are reduced to Universal Time.

Altitude -- 100 meters (328 feet) above mean sea level.

CONSTANTS OF THE SEISMOGRAPHS

Apparatus	Component	V	T_o	ε
Wood-Anderson	E 15° S	1500	1	15
	N	3000	1	15

SAN FRANCISCO

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
1	Feb. 2	I	ePN	21 59 21	
			F	22 00	
2	Feb. 2	I	ePE	22 31 06.9	
			F	22 32	
3	Feb. 3	Id	ePE	01 03 53.9	
			eSE	04	
			F	01 05	
4	Feb. 3	Iv	ePN	15 58 24.9	
			eSN	38.2	
			F	16 00	
5	Feb. 3	Id	ePE	20 13 30	
			eE	38.5	
			F	20 14	
6	Feb. 4	Iv	ePE	03 20 01.7	
			eSE	31.7	
			F	03 21	
7	Mar. 22	Iv	ePE	18 32 59.5	See list, p. 5
			eSE	33 18.8	
			F	18 34	
8	Mar. 28	Id	ePE	22 55 01.1	
			eSE	08.7	
			F	22 57	

FERNDALE

THE FERNDALE STATION
FERNDALE, CALIFORNIA

CONSTANTS

CONSTANTS OF THE STATION

Latitude and longitude:

φ = 40° 34' N.
λ = 124° 16' W.

Time -- All determinations are reduced to Universal Time.

Altitude -- 17 meters (55 feet) above mean sea level.

CONSTANTS OF THE SEISMOGRAPHS

Apparatus	Component	V	T_o	ε
Bosch-Omori 25 kg.	E	12	11	5
	N	12	8	6

The station is operated by Mr. Joseph Bognuda, of Ferndale, in cooperation with the University of California.

FERNDALE

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
1	Jan. 5	Id	iPNE	21 21 40	
			iSNE	52	
			F	22 22	
2	Jan. 12	Id	iPNE	18 43 24	
			iSNE	32	
			F	18 44	
3	Jan. 18	IId	iP̄N	07 17 32	See list, p. 5
			iN	40	
			iS̄N	43	
			F	07 25	
4	Jan. 24	Id	iPNE	10 21 27	
			iSN	33	
			eE	35	
			F	10 23	
5	Jan. 27	Ir	ePN	14 13	
			ePE	16	
			eSNE	24	
			F	14 34	
6	Jan. 28	Id	iPNE	16 04 43	
			iSNE	48	
			F	16 06 00	
7	Feb. 12	Id	iPNE	17 07 30	
			iSE	39	
			iSN	40	
			F	17 08	
8	Feb. 12	Id	iPNE	18 06 26	
			iSE	33	
			F	18 07	
9	Feb. 16	Id	ePE	20 43 25	
			iPN	26	
			eE	26	
			iSN	28	
			F	20 44	
10	Feb. 19	I	iNE	07 58 38	
			F	07 59	
11	Feb. 27	Id	ePE	01 21 08	
			iSE	13	
			F	01 23	

FERNDALE

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
12	Mar. 3	Id	iPN	17 15 54	
			iPE	55	
			iSN	57	
			F	17 17	
13	Mar. 19	Ir	ePN	12 02 17	USCGS: 51.2°N 130.0°W
			ePE	20	
			eSNE	04 20	
			eLNE	07 00	
			F	13 00	

FRESNO

THE FRESNO STATION, FRESNO STATE COLLEGE
FRESNO, CALIFORNIA

CONSTANTS

CONSTANTS OF THE STATION

Latitude and longitude:

ϕ = 36° 46!1 N.
λ = 119° 47!8 W.

Time -- All determinations are reduced to Universal Time.

Altitude -- 88.4 meters (290 feet) above mean sea level.

CONSTANTS OF THE SEISMOGRAPHS

Apparatus	Component	V	T_o	ε
Wood-Anderson	N	3000	0.9	15

FRESNO

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
1	Jan. 1	IIIv	iPN	03 41 22.1	Owens Valley
			iSN	36.5	
			F	03 48	
2	Jan. 1	Iv	iPN	21 56 52.6	Owens Valley
			iSN	57 07	
			F	22 01	
3	Jan. 2	IIv	iPN	15 09 27.8	Owens Valley
			iSN	45	
			F	15 13	
4	Jan. 3	Iv	ePN	16 00 29.5	
			iSN	43.5	
			F	16 03	
5	Jan. 3	I	iN	16 29 41.9	
			F	16 31	
6	Jan. 6	Iv	iPN	00 09 54.5	
			iSN	10 08.9	
			F	00 12	
7	Jan. 6	Iv	ePN	08 02 07.6	
			iSN	20.7	
			F	08 05	
8	Jan. 6	Iv	iPN	13 10 20.3	
			eSN	35	
			F	13 13	
9	Jan. 14	IIv	iPN	09 45 01.1	See list, p. 5
			iSN	15.9	
			F	09 50	
10	Jan. 18	IIIv	ePN	03 04 15.1	See list, p. 5
			iSN	29.9	
			F	03 09	
11	Jan. 20	Ir	iPN	06 30 43.8	USCGS: 17.9°N 105.6°W
			eSN	35 14	
			F	06 45	
12	Jan. 29	Iu	ePN	09 36 23.2	Wellington: 19°S 169°E
			F	10 30	h = 100 km
13	Jan. 31	Ir	ePN	06 53 46.2	USCGS: 51°N 124°W
			eN	57 31.2	
			F	07 15	
14	Feb. 1	Iv	iPN	15 19 31	Pasadena: 34° 24'N
			iSN	20 14	116° 55'W
			F	15 30	

FRESNO

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
15	Feb. 1	Iv	iPN	16 04 37	Pasadena: 34° 24'N
			iSN	05 20.5	111° 55'W
			F	16 10	
16	Feb. 4	IIv	iPN	03 24 49.1	Owens Valley
			iSN	25 03.7	
			F	03 28	
17	Feb. 4	IIv	iPN	03 20 37.6	Owens Valley
			iSN	52	
			F	03 25	
18	Feb. 4	IIIv	iPN	09 08 46.4	Felt in Hollister
			iSN	09 01.9	
			F	09 16	
19	Mar. 5	Iu	ePN	19 59 10.1	Pasadena: 45.5°N 142.5°E
			iSN	20 08 03.6	
			F	20 20	
20	Mar. 6	Iv	ePN	02 01 43.3	See list, p. 5
			eSN	02 02.3	
			F	02 07	
21	Mar. 8	Iv	ePN	04 47 10.6	Owens Valley
			iSN	26.5	
			F	04 49	
22	Mar. 19	Ir	ePN	12 03 19.3	USCGS: 51.2°N 130.0°W
			eSN	06 07.8	
			eLN	07 52.8	
			F	12 22	
23	Mar. 19	Iv	ePN	15 33 16.6	
			iSN	29.0	
			F	15 35	
24	Mar. 20	Ir	ePN	01 20 16.9	USCGS: 52.4°N 167.7°W
			F	01 30	
25	Mar. 20	Iv	iPN	12 55 36.2	Owens Valley
			iSN	50.6	
			F	12 57	
26	Mar. 22	Iv	eSN	18 33 26.7	See list, p. 5
			F	18 34	
27	Mar. 31	Iv	iSN	14 21 48.4	See list, p. 5
			F	14 26	
28	Mar. 31	Iv	iPN	13 26 46.4	Pasadena: 36° 15'N
			eSN	27 09.4	118° 05'W
			F	13 29	

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EARTHQUAKES IN NORTHERN CALIFORNIA
AND
THE REGISTRATION OF EARTHQUAKES
AT
BERKELEY—MOUNT HAMILTON—PALO ALTO SAN FRANCISCO—FERNDALE—FRESNO

From April 1, 1942, to June 30, 1942

BY
CARL F. ROMNEY
AND
CHARLES HERRICK

UNIVERSITY OF CALIFORNIA PRESS
BERKELEY AND LOS ANGELES
1950

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CONTENTS

EARTHQUAKE INTENSITY SCALE

Intensities are given by Roman numerals in the list of California earthquakes on the following page, when sufficient information on the effects of the shock is available. Criteria of the Modified Mercalli Scale which are used to rate the intensity are:

Intensity	
II	Felt by a few people only. Duration or direction not appreciable.
III	Duration or direction appreciable.
IV	Rattling of doors and windows; swinging of suspended objects.
V	Disturbance of movable objects; plaster cracked.
VI	Overthrow of movable objects; cracking of chimneys and other brickwork.
VII	Fall of some chimneys; some damage to buildings.

EARTHQUAKE MAGNITUDE SCALE

Richter magnitudes given in the list of epicenters on the next page are found from the Wood Anderson amplitudes, using the nomogram by Nordquist, "Bulletin of the Seismological Society of America," 32:164.

Latitude and longitude are given for each epicenter in the following list. Only those earthquakes are given for which epicenters were located. The letter represents the excellence with which the epicenter has been located, a indicating excellent, b good, c fair, d poor.

EARTHQUAKES IN NORTHERN CALIFORNIA

1942 - Pacific Standard Time

No.	Date	Time	Richter Magnitude	Latitude North	Longitude West	Quality
1	Apr. 6	22-09-29	3.1	36° 47'	121° 33'	c
		Depth about 5 km.				
2	7	11-03-18	2.9	37°.0	121°.3	d
3	8	6-20-14	4.0	36° 36'	121° 18'	a
		IV at Greenfield, Pinnacles and Soledad.				
4	9	23-26-30	2.9	36° 56'	121° 26'	c
5	11	00-40-59	4.0	36° 45'	121° 19'	b
		IV at Hollister and Soledad.				
6	13	10-22-26	2.8	37° 23'	121° 45'	c
7	17	17-22-35	3.4	36°.8	121°.2	d
8	21	10-19-00	1.9	37°.9	121°.8	d
9	May 3	10-12-10	3.0	36° 46'	121° 29'	c
10	3	12-22-05	2.5	37° 22'	121° 44'	a
		Depth about 10 km.				
11	31	08-38-07	3.2	37° 58'	121° 40'	b
		IV at Watsonville.				
12	31	15-57-50	2.3	37°.2	121°.7	d
13	June 5	04-33-25	4.2	36° 59'	121° 40'	b
		Felt widely in the Monterey Bay area. Maximum intensity of V at Aptos, Boulder Creek and Watsonville.				
14	18	15-33-02	3.0	37° 28'	121° 41'	c

THE REGISTRATION OF EARTHQUAKES

SYMBOLS AND NOTATIONS EMPLOYED

1. Character of the Seismogram --

I. Perceptible. II. Moderately Strong. III. Strong

d (terrae motus domesticus)	Local shock (origin less than 100 kilometers distant).
v (terrae motus vicinus)	Near shock (origin from 100 to 1,000 kilometers distant).
r (terrae motus remotus)	Distant shock (origin from 1,000 to 5,000 kilometers distant).
u (terrae motus ultimus)	Very distant shock or teleseism (origin more than 5,000 kilometers distant).

2. Nature of the Motion --

i (impetus)	Sudden beginning of the motion.
e (emersio)	Gradual beginning of the motion.

THE BERKELEY STATION, UNIVERSITY OF CALIFORNIA
BERKELEY, CALIFORNIA

CONSTANTS

CONSTANTS OF THE STATION

Latitude and Longitude:
ϕ = 37° 52!3 N.
λ = 122° 15!6 W.

Time -- All determinations are reduced to Universal Time.

Altitude -- 81 meters (266 feet) above mean sea level.

CONSTANTS OF THE SEISMOGRAPHS

Apparatus	Component	V	T_o	ε	$\frac{r}{T_o^2}$
Bosch-Omori 100 kg. ..	E	45	12	10	0.001
	N	45	12	10	0.001
Wiechert 80 kg.	Z	44	4	5	0.005
Wood-Anderson	E	3000	0.9	15	
	N	3000	0.9	15	

		K	T	T_1	μ^2	A_1(cm)	1(cm)
Galitzin	E	112	12	11.8	0.00	115	11.3
	N	122	12	12.4	0.03	119	11.2
	Z	109	12	11.9	0.01	131	14.9

		V	Coupled Period	ε
Benioff	Z		0.7	5

The letter G before a reading designates that the seismogram was from the Galitzin instrument; W, Wiechert, B, Bosch-Omori; A, Wood-Anderson; H, Benioff.

BERKELEY

No.	Date	Character	Phase		Time (U.T.) h.	m.	s.	Remarks
	1942							
1	April 1	Id	iPZ	H	09	44	02.5	
			iSZ	H			03.4	
			F		09	44		
2	April 1	Iv	ePN	A	19	41	19.4	
			iSN	A			40.1	
			F		19	42		
3	April 1	Iv	eN	A	21	59	40.9	
			eN	A			58.4	
			F		22	00		
4	April 1	Id	iPZ	H	22	57	40.7	
			iSZ	H			42.2	
			F		22	58		
5	April 2	Id	iPNZ	AH	00	15	21.4	
			iSN	A			23.0	
			iSZ	H			24.2	
			F		00	16		
6	April 2	Id	iPZ	H	07	52	35.9	
			iSZ	H			38.0	
			F		07	53		
7	April 2	Id	iPNZ	AH	19	03	49.4	
			eE	A			50.9	
			iSZ	H			51.5	
			F		19	04		
8	April 2	Id	ePE	A	22	51	43.8	
			iPZ	H			44.4	
			ePN	A			44.8	
			iSN	A			46.1	
			iSZ	H			46.6	
			F		22	52		
9	April 2	Id	iPEZ	AH	23	45	17.5	
			iPN	A			18.0	
			iSNE	A			19.7	
			F		23	46		
10	April 3	Id	iPZ	H	03	34	20.0	
			iSNZ	AH			22.2	
			F		03	35		
11	April 3	Id	iPZ	H	08	36	08.8	
			ePN	A			09.5	
			iSZ	H			10.7	
			F		08	37		

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
12	April 3	Id	iPZ	H 16 05 26.9	
			iSNZ	AH 28.9	
			F	16 06	
13	April 4	Id	iPZ	H 08 47 15.9	
			iSZ	H 18.1	
			F	08 48	
14	April 4	Id	ePNEZ	AH 17 43 50.2	
			iSNEZ	AH 51.6	
			F	17 44	
15	April 4	I	eLN	G 23 34 29	
			F	00 00	
16	April 5	Id	iPZ	H 23 20 35.7	
			iSZ	H 37.8	
			F	23 21	
17	April 6	Id	iPZ	H 03 21 14.8	
			iSNEZ	AH 16.5	
			F	03 22	
18	April 6	Id	ePN	A 23 37 01.2	
			ePE	A 01.7	
			iPZ	Z 02.0	
			iSNEZ	AH 03.3	
			F	23 38	
19	April 7	I	eLE	G 03 16 45	
			eLN	G 57	
			F	03 46	
20	April 7	Iv	iPNEZ	AH 06 09 50.8	See list, p. 53
			iZ	Z 10 03.2	
			eNE	A 03.7	
			iSZ	H 05.9	
			iZ	H 09.0	
			F	06 11	
21	April 7	Id	iPZ	H 08 00 53.5	
			eNE	A 55.2	
			iZ	H 56.1	
			F	08 01	
22	April 7	Iv	iPNZ	AH 11 03 39.6	See list, p. 53
			eSE	A 54.7	
			eSNZ	AH 55.2	
			iZ	H 04 00.9	
			F	11 05	
23	April 7	Id	iPZ	H 20 45 00.4	
			iSZ	H 02.6	
			F	20 46	

No.	Date	Character	Phase		Time (U.T.) h. m. s.	Remarks
	1942					
24	April 7	Id	iPZ	H	21 15 51.1	
			eSE	A	52.5	
			iSZ	H	53.3	
			F		21 16	
25	April 7	Id	ePE	A	22 39 23.4	
			iPZ	H	24.1	
			iSE	A	25.0	
			iZ	H	26.6	
			F		23 40	
26	April 7	Id	iPEZ	AH	23 51 24.8	
			iSEZ	AH	25.9	
			F		23 52	
27	April 8	Id	iPZ	H	01 20 47.9	
			iSEZ	AH	50.2	
			iZ	H	52.3	
			eZ	H	54.2	
			F		01 21	
28	April 8	Iv	ePZ	H	14 20 40.1	See list, p. 53
			ePE	A	42.1	
			eZ	H	44.0	
			eZ	H	46.8	
			eZ	H	47.6	
			iZ	H	51.1	
			eZ	H	52.5	
			iZ	H	58.6	
			F		14 22	
29	April 8	Iu	ePN	G	15 54 23	U.S.C.G.S.: 12.5°N 120°E
			iPZ	G	24	
			iPE	G	25	
			eE	G	16 05 03	
			eN	G	05	
			eSE	G	06 16	
			eSZ	G	23	
			ePSN	G	07 36	
			ePSE	G	37	
			eLNE	G	20 13	
			eLZ	G	21 13	
			F		20 00	
30	April 8	Iu	eE	G	20 19 43	Aftershock
			eZ	G	20 43	
			eE	G	21 33	
			eN	G	24 53	
			eLE	G	37 58	
			F		21 00	
31	April 9	Iu	eE	G	00 51 43	Aftershock
			F		01 20	

BERKELEY

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
32	April 9	Id	iPEZ	AH 04 19 45.1	
			iSNEZ	AH 47.4	
			F	04 20	
33	April 9	I	eLE	G 05 32 12	
			eNZ	G 32	
			eLZ	G 33 42	
			F	06 00	
34	April 9	Id	ePEZ	AH 23 39 35.8	
			iSNE	A 36.7	
			iSZ	H 37.1	
			F	23 40	
35	April 10	Iv	iPZ	H 07 26 50.7	See list, p. 53
			iNZ	AH 51.5	
			iZ	H 56.6	
			iZ	H 27 03.4	
			eSN	A 06.0	
			iSZ	H 06.6	
			iZ	H 10.1	
			F	07 28	
36	April 10	Iv	ePEZ	AH 19 40 53.0	
			eE	A 54.3	
			iEZ	AH 56.8	
			iSZ	H 41 04.4	
			eSNE	A 04.9	
			iEZ	AH 08.1	
			F	19 42	
37	April 11	IIv	ePNE	A 08 41 23.0	See list, p. 53
			iPZ	H 23.4	
			iE	A 37.3	
			iSNEZ	AH 39.8	
			F	08 43	
38	April 11	Id	iPEZ	AH 08 59 37.0	
			ePN	A 37.5	
			iSNEZ	AH 38.8	
			F	09 00	
39	April 11	Id	ePNEZ	AH 18 24 06.3	
			eSNEZ	AH 06.8	
			F	18 25	
40	April 11	Id	iPZ	H 20 14 19.3	
			eNZ	AH 21.5	
			iE	A 21.9	
			iZ	H 24.1	
			F	20 15	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
41	April 11	Id	iPNEZ	AH 22 10 46.8	
			iSZ	H 47.6	
			eSNE	A 48.7	
			F	22 11	
42	April 11	Id	iPZ	H 23 57 29.8	
			iSZ	H 31.7	
			F	23 58	
43	April 12	Id	iPNEZ	AH 22 08 52.3	
			iSNEZ	AH 53.4	
			iZ	H 56.8	
			F	22 09	
44	April 13	Iu	iPN	G 08 04 10	U.S.C.G.S.: 3°S 14°W
			ePE	G 20	
			eE	G 14 00	
			iSSNEZ	G 19 40	
			iN	G 24 21	
			eLE	G 50	
			eNEZ	G 34 10	
			F	09 30	
45	April 13	Iu	eLNE	G 11 50 40	
			eE	G 12 08 10	
			F	12 30	
46	April 13	Iv	iPNZ	AH 18 22 38.4	See list, p. 53
			iSNEZ	AH 50.3	
			F	18 24	
47	April 13	Id	ePE	A 23 40 14.6	
			iPZ	H 15.0	
			iSNEZ	AH 21.3	
			F	23 41	
48	April 14	Id	iPZ	H 21 22 07.2	
			iSNEZ	AH 08.8	
			F	21 23	
49	April 14	Id	iPZ	H 23 29 01.9	
			eSN	A 03.0	
			iSZ	H 03.6	
			F	23 30	
50	April 15	Id	iPNZ	AH 23 35 04.0	
			iSEZ	AH 05.3	
			F	23 36	
51	April 16	Id	iPZ	H 06 51 54.6	
			iSZ	H 56.4	
			eSN	A 56.9	
			F	06 52	

No.	Date	Char-acter	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
52	April 16	Id	iPEZ	AH 16 48 12.2	
			iSNEZ	AH 12.4	
			F	16 49	
53	April 17	Id	iPZ	H 19 06 42.5	
			eSZ	H 44.5	
			F	19 07	
54	April 18	Id	iPZ	H 04 21 32.5	
			eSZ	H 34.2	
			F	04 22	
55	April 18	Id	iPZ	H 09 56 17.7	
			iSNZ	AH 19.6	
			F	09 57	
56	April 18	Id	iPZ	H 19 29 09.2	
			iSNEZ	AH 10.3	
			F	19 30	
57	April 18	Iv	iPZ	H 19 57 46.8	San Benito County
			iSNZ	AH 58 02.5	
			F	19 59	
58	April 19	I	eE	G 03 03	
			F	03 25	
59	April 19	Id	iPZ	H 05 05 12.5	
			iSZ	H 16.2	
			F	05 06	
60	April 19	Id	iPZ	H 20 12 05.8	
			iSZ	H 06.9	
			F	20 13	
61	April 19	Id	iPZ	H 23 05 22.7	
			eSNZ	AH 25.0	
			iZ	H 26.1	
			iZ	H 27.1	
			F	23 06	
62	April 20	Id	iPZ	H 00 27 44.5	
			eSN	A 50.9	
			iSZ	H 51.3	
			F	00 29	
63	April 20	Iu	ePEZ	AH 08 51 48.9	Japan: 35°N 135°E
			iPEZ	G 50	h = 350 km
			iPN	G 51	
			eSE	G 09 01 16	
			eSNZ	G 26	
			eE	G 03 26	
			eLE	G 11 46	
			eLN	G 12 26	
			eLZ	G 13 06	
			F	09 25	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
64	April 20	Id	iPZ	H 11 44 10.0	
			iSZ	H 16.1	
			eSEN	A 16.5	
			F	11 45	
65	April 20	Id	iPZ	H 11 47 58.1	
			iSEZ	AH 48 00.5	
			F	11 49	
66	April 20	Id	iPNZ	AH 22 38 45.7	
			iSNEZ	AH 46.9	
			F	22 39	
67	April 21	Id	iPZ	H 18 01 32.1	
			iSEZ	AH 33.3	
			F	18 02	
68	April 21	Id	$i\bar{P}Z$	H 18 19 06.8	See list, p. 53
			$i\bar{S}Z$	H 11.8	
			$e\bar{S}EN$	A 12.2	
			F	18 20	
69	April 22	Id	iPZ	H 18 02 31.0	
			iSNEZ	AH 32.2	
			F	18 03	
70	April 22	Id	iPZ	H 23 38 08.7	
			iSZ	H 10.4	
			F	23 39	
71	April 23	Id	iPZ	H 06 36 47.7	
			iZ	H 49.1	
			iSNZ	H 50.4	
			F	06 37	
72	April 23	Id	iPZ	H 23 52 46.1	
			iSNEZ	AH 52.7	
			F	23 53	
73	April 24	Id	iPZ	H 01 26 27.0	
			eSNZ	AH 28.5	
			F	01 27	
74	April 24	Id	iPZ	H 01 56 21.4	
			eN	A 28.5	
			eE	A 31.0	
			F	01 57	
75	April 24	Id	iPZ	H 17 09 49.6	
			iSNZ	H 53.0	
			F	17 10	

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
76	April 24	Id	iPZ	H 22 05 02.2	
			iSZ	H 03.4	
			F	22 06	
77	April 24	Id	iPZ	H 22 54 00.6	
			iSZ	H 01.4	
			F	22 55	
78	April 25	Id	iPZ	H 03 04 59.5	
			iSNZ	AH 05 00.1	
			F	03 05	
79	April 25	Id	iPNZ	AH 05 38 44.4	
			iSNEZ	AH 46.3	
			F	05 39	
80	April 25	Id	iPZ	H 11 44 51.7	
			eSZ	H 53.3	
			F	11 45	
81	April 25	Id	iPZ	H 18 58 23.3	
			iSZ	H 24.5	
			F	18 59	
82	April 26	Id	iPZ	H 05 50 35.6	
			iSNZ	AH 37.5	
			F	05 51	
83	April 26	Id	iPZ	H 19 04 14.9	
			eSZ	H 16.8	
			F	19 05	
84	April 27	Id	iPZ	H 09 31 50.6	
			eNZ	AH 52.3	
			eEZ	AH 52.8	
			F	09 32	
85	April 27	Iu	eE	G 09 51 03	Cartuja: 44°N 29°W
			eN	G 53 03	
			eZ	G 54 53	
			F	10 15	
86	April 27	Id	iPZ	H 13 24 09.9	
			iSZ	H 12.4	
			F	13 25	
87	April 27	Id	iPZ	H 18 08 50.8	
			iSZ	H 51.3	
			F	18 09	
88	April 27	Id	iPZ	H 21 10 52.6	
			iSEZ	AH 53.3	
			F	21 11	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
89	April 28	Id	iPNZ	AH 21 03 34.5	
			ePE	A 35.0	
			iSNEZ	AH 35.9	
			F	21 04	
90	April 28	Id	iPZ	H 21 11 06.6	
			iSNZ	AH 07.9	
			F	21 12	
91	April 28	Id	iPZ	H 23 54 12.9	
			iSNZ	AH 15.1	
			F	23 55	
92	April 29	Id	iPZ	H 01 00 24.0	
			iZ	H 25.6	
			iNZ	AH 26.2	
			F	01 01	
93	April 29	Iu	ePN	G 11 51 57	U.S.C.G.S.: 13.5°S 167°E
			iNEZ	G 12 03 42	
			eLE	18	
			eLN	G 02	
			eLZ	G 19 42	
			F	13 00	
94	April 29	Id	iPNZ	AH 18 54 18.3	
			iSNZ	AH 19.5	
			F	18 55	
95	April 29	Id	iPNZ	AH 19 54 31.2	
			iSNEZ	AH 32.3	
			F	19 55	
96	April 30	Id	ePN	A 02 04 03.9	
			iPZ	H 04.3	
			eSNE	A 11.9	
			F	02 05	
97	April 30	Id	iPZ	H 03 50 39.2	
			iSZ	H 42.5	
			eSN	A 42.9	
			F	03 51	
98	April 30	Id	iPZ	H 22 15 42.1	
			iSEZ	AH 43.1	
			F	22 16	
99	May 1	Id	iPZ	H 21 56 05.7	
			iSNEZ	AH 06.8	
			F	21 57	
100	May 2	Id	iPZ	H 03 21 19.4	
			iSNZ	AH 21.7	
			F	03 22	

No.	Date 1942	Character	Phase	Time (U.T.) h. m. s.	Remarks
101	May 2	Id	iPEZ	AH 20 14 18.8	
			iSNEZ	AH 20.3	
			F	20 15	
102	May 2	Id	ePE	A 22 13 49.6	
			iPZ	H 50.3	
			iSNEZ	AH 51.7	
			F	22 14	
103	May 3	Iv	iPNZ	AH 18 12 33.4	See list, p. 53
			iSNZ	AH 49.7	
			F	18 14	
104	May 3	Id	$i\bar{P}Z$	H 20 22 17.8	See list, p. 53
			$i\bar{S}NE$	A 26.6	
			iZ	H 28.3	
			F	20 23	
105	May 4	Id	iPZ	H 22 10 08.7	
			iSNEZ	AH 12.0	
			F	22 11	
106	May 4	Id	iPEZ	AH 23 04 28.5	
			iSNEZ	AH 29.7	
			F	23 05	
107	May 5	Id	iPZ	H 22 40 48.0	
			iSNEZ	AH 49.7	
			iNZ	AH 51.2	
			F	22 41	
108	May 6	Id	iPN	H 21 35 05.8	
			eSNEZ	AH 06.2	
			F	21 36	
109	May 6	Ir	eLNE	G 23 19 05	U.S.C.G.S.: 11°N 66°W
			F	23 40	
110	May 8	Id	ePN	A 19 39 47.8	
			iSNE	A 50.0	
			F	19 40	
111	May 9	Id	ePN	A 00 38 23.2	
			eSN	A 34.2	
			F	00 39	
112	May 9	Id	ePNE	A 20 47 28.5	
			eSN	A 34.5	
			F	20 48	

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
113	May 13	Iu	iPZ	G 20 43 43	Possibly 2 shocks
			ePE	G 46 03	
			eSN	G 55 57	
			eLN	G 21 07 03	
			eLE	G 10 03	
			eLZ	G 14 03	
			eE	G 27 03	
			eZ	G 33	
			eN	G 30 03	
			eE	G 45 33	
			eE	G 47 03	
			F	22 20	
114	May 14	IIIu	iPEZ	G 02 22 47	U.S.C.G.S.: 0.3°S 80°W
			iPN	G 48	
			ePNE	A 51.2	
			eSN	A 30 27.2	
			iSE	A 27.7	
			iSNZ	G 43	
			iZ	G 45	
			F	07 00	
115	May 14	Iu	iPNZ	G 08 48 15	
			iPE	G 17	
			iSNE	G 55 51	
			eLNE	G 09 04 33	
			F	09 40	
116	May 14	I	iLNE	G 10 40 03	
			F	11 00	
117	May 14	I	iE	G 16 07 50	
			iNE	G 15 28	
			F	16 30	
118	May 14	Id	ePN	A 18 16 30.7	
			iSNEZ	AH 32.9	
			F	18 17	
119	May 15	Iu	eSpE	G 02 41 27	
			eLE	G 55 32	
			eLNZ	G 56 02	
			eN	G 03 22 32	
			eE	G 42	
			eN	G 26 12	
			eZ	G 27 02	
			F	03 40	
120	May 15	Ir	ePE	G 12 00 45	Ecuador
			iPZ	G 50	
			eSN	G 08 21	
			eSE	G 27	
			eSZ	G 28	
			eE	G 10 35	
			eSSE	G 12 19	
			F	13 20	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
121	May 15	Ir	ePNEZ	G 11 00 06	
			eSNE	G 05 39	
			eSSE	G 09 53	
			eE	G 11 12	
			eLN	G 14 18	
			eLE	G 15 01	
			eE	G 31 00	
			F	12 40	
122	May 16	Id	ePN	A 02 22 29.0	
			eSN	A 37.5	
			F	02 23	
123	May 16	Id	ePN	A 18 04 04.4	
			eSNE	A 05.1	
			F	18 05	
124	May 16	I	iSNE	G 19 48 26	
			eLE	G 20 00	
			F	20 18	
125	May 17	Id	iPN	A 00 17 13.6	
			iSNEZ	AH 15.7	
			F	00 18	
126	May 17	Id	ePN	A 00 18 28.1	
			iSNEZ	AH 29.9	
			F	00 19	
127	May 17	Iu	iPZ	G 15 23 41	
			iPNE	G 42	
			iSNEZ	G 31 17	
			eLNEZ	G 40 30	
			F	17 10	
128	May 18	Id	ePN	A 19 47 28.9	
			iSN	A 29.2	
			F	19 48	
129	May 19	Id	ePN	A 00 37 39.7	
			iSN	A 40.3	
			F	00 38	
130	May 20	I	eLNE	G 11 03 21	
			eLZ	G 36	
			F	11 30	
131	May 20	I	eLNEZ	G 12 05 36	
			eE	G 12 56	
			F	12 40	

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
132	May 20	Id	ePN	A 13 23 57.6	
			eSN	A 24 00.6	
			F	13 25	
133	May 20	I	eLE	G 17 47 55	
			eLZ	G 48 25	
			eLN	G 55	
			F	18 20	
134	May 22	Ir	eLNE	G 10 59 54	U.S.C.G.S.: 4.6°N 74.5°W
			F	11 45	
135	May 22	I	eE	G 18 39 54	
			eN	G 40 54	
			F	19 15	
136	May 22	I	eLE	G 19 25 44	
			eLZ	G 54	
			eLN	G 26 04	
			F	20 10	
137	May 22	Id	iSN	A 20 40 16.6	
			F	20 41	
138	May 23	I	ePZ	G 03 28 19	
			eZ	G 32 04	
			eNE	G 59 54	
			F	04 00	
139	May 23	Ir	iSE	G 13 12 58	
			eLEZ	G 32 40	
			F	14 20	
140	May 23	Ir	eN	A 15 49 29.5	Pasadena: 32°59'N
			eN	A 51 00	115°59'W
			ePNEZ	G 04	
			eN	A 20.5	
			F	16 10	
141	May 23	I	eNEZ	G 03 47 14	
			F	05 40	
142	May 23	Id	ePNE	A 23 01 07.2	
			iSNE	A 08.2	
			F	23 02	
143	May 25	Id	ePN	A 04 13 23.1	
			iSN	A 25.1	
			F	04 14	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
144	May 27	IIu	eSKSE	G 06 55 15.1	Wellington: 34°S 177°W
			iSKSN	G 25.1	
			eE	G 07 00 50.1	
			eN	G 01 04.1	
			eE	G 03 00	
			eN	G 00.9	
			eN	G 05 13.1	
			eSSSE	G 07 51.1	
			iSSSN	G 08 07.1	
			eE	A 09 48.9	
			eNE	G 11 19.1	
			eE	G 12 59.1	
			eLN	G 13.8	
			eLE	G 14.1	
			eN	G 18.8	
			eE	G 22.9	
			eME	G 29.3	
			eMN	G 30.4	
			F	08 48	
145	May 27	Id	ePNE	A 22 30 11.0	
			iSN	A 12.5	
			F	22 31	
146	May 28	Iv	ePNE	A 00 40 51.9	U.S.C.G.S.: 40°8N 120°7W
			eSNE	A 41 27.7	
			F	00 55	
147	May 28	Iv	iPNEZ	G 00 41 11	U.S.C.G.S.: 40.8°N 120.7°W
			F	01 00	
148	May 28	Iu	iPZ	G 01 16 08.2	
			eZ	G 19 07.5	
			iPPN	G 20 37.6	
			iPPZ	G 38.7	
			iPPPZ	G 23 23.5	
			eZ	G 27 11.5	
			iE	G 27.6	
			eN	G 36.6	
			eZ	G 29 20	
			eN	G 46.6	
			iE	G 50.6	
			eZ	G 35 18.1	
			eE	G 34.6	
			iN	G 52.6	
			eN	G 39 38.6	
			eZ	G 45 23.5	
			eN	G 55.6	
			eZ	G 51 05	
			eE	G 34.6	
			iE	G 52 50.6	
			eZ	G 53 41.1	
			eLE	G 54.3	
			F	02 48	

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
149	May 28	Id	ePE	A 23 07 32.9	
			ePN	A 33.5	
			iSNE	A 34.0	
			F	23 08	
150	May 29	Ir	eLNE	G 06 10 48	
			F	06 30	
151	May 30	Ir	ePZ	G 07 23 42	U.S.C.G.S.: 23°N 109.5°W
			ePPZ	G 24 02	
			eSNE	G 27 32	
			eZ	G 28 47	
			F	07 50	
152	May 30	Id	iPNE	A 21 31 03.2	
			iSNE	A 04.4	
			F	21 32	
153	May 31	I	eE	G 03 08 46	
			eN	G 10 46	
			eLNE	G 13 16	
			F	03 30	
154	May 31	Ir	iPZ	G 05 28 19	U.S.C.G.S.: 52°N 173°W
			eSN	G 33 30	
			iSE	G 34	
			eSSE	G 36 14	
			eSSN	G 26	
			eLNEZ	G 37 46	
			F	06 40	
155	May 31	I	eNE	G 13 09 45	
			eLNE	G 22 45	
			eNE	G 27 25	
			F	14 30	
156	June 1	I	eE	G 10 05 44	
			eNE	G 09 44	
			eN	G 13 44	
			eLNE	G 19 00	
			F	10 30	
157	June 2	Iu	ePEZ	G 00 51 14	U.S.C.G.S.: South Atlantic
			ESSNE	G 01 10 14	
			eE	G 15 44	
			eLNE	G 30 00	
			F	03 20	
158	June 4	I	eSN	A 21 18 28	
			eSE	A 28.5	
			F	21 19	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
159	June 4	Id	ePN	G 22 44 35	
			eSNE	G 35.8	
			F	22 45	
160	June 5	IIv	iPN	G 12 33 43.2	See list, p. 53
			iPNZ	AG 43.6	
			iPNE	A 43.9	
			iE	G 44.7	
			iSNEZ	G 57.2	
			eSN	A 57.2	
			eSE	A 58.2	
			F	12 39	
161	June 5	I	eE	A 20 01 23.6	
			eN	A 24.6	
			F	20 03	
162	June 5	Id	ePE	A 21 48 48.6	
			eSNE	A 49.5	
			F	21 50	
163	June 5	Id	eNE	A 22 18 17.6	
			F	22 19	
164	June 6	Iu	ePZ	G 15 06 58	Wellington: 6°S 145°E
			eSE	G 16 58	
			eSN	G 17 00	
			ePSE	G 18 40	
			eSSE	G 24 10	
			eSSN	G 40	
			eNE	G 31 40	
			eE	G 47 20	
			F	16 10	
165	June 9	Ir	ePNEZ	G 11 09 48	U.S.C.G.S.: 49.5°N 129°W
			eSNEZ	G 12 25	
			eLE	G 14 23	
			F	12 00	
166	June 10	Iu	iPZ	G 10 36 54	
			eSN	G 45 39	
			iSE	G 46 09	
			eLNE	G 11 04 09	
			F	12 15	
167	June 10	Id	iPE	A 21 35 23.3	
			iSNE	A 24.6	
			F	21 36	
168	June 10	IIv	ePE	A 22 51 21.3	N.W. of Reno
			ePN	A 22.8	
			iSN	A 50.8	
			iSNE	G 51	
			iSE	A 51.4	
			F	23 00	

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
169	June 12	Ir	eE	G 02 15 15	U.S.C.G.S: 61.5°N 137.5°W
			eE	G 16 50	
			eZ	G 17 20	
			eN	G 40	
			F	02 35	
170	June 12	Iu	ePN	G 10 36 05	U.S.C.G.S: 20°S 76.9°W
			iPPZ	G 39 38	
			ePPNE	G 40	
			eSNEZ	G 43 40	
			eZ	G 50 30	
			eN	G 40	
			F	12 00	
171	June 13	Id	ePNE	A 03 22 08.9	U.S.C.G.S.: 15°N 143.8°E
			eN	A 11.9	Pasadena: 15°N 145°E
			F	03 26	h = 80 km
172	June 13	I	eN	G 16 47 39	
			eZ	G 52 39	
			F	18 00	
173	June 13	Iu	iPZ	G 19 26 24	
			eSN	G 36 04	
			eLNE	G 47 09	
			F	21 00	
174	June 14	Iu	iPZ	G 03 22 07	U.S.C.G.S.: 15°N 143.8°E
			ePNE	G 09	
			eSNEZ	G 32 14	
			eN	G 42 39	
			eLNE	G 43 39	
			F	06 00	
175	June 15	Ir	iPNZ	G 16 46 39	
			iSN	G 50 59	
			eLEZ	G 54 26	
			eLN	G 29	
			F	17 30	
176	June 15	Id	ePNE	A 22 08 07.4	
			iSNE	A 08.3	
			F	22 09	
177	June 16	I	eLNE	G 06 34 44	
			F	07 00	
178	June 16	Iu	iPNEZ	G 21 14 38	U.S.C.G.S.: 0.5°N 80.9°W
			iSNEZ	G 22 13	
			eLNE	G 31 38	
			F	22 20	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
179	June 17	Id	ePNE	A 20 23 50	
			eSE	A 51	
			eSN	A 52	
			F	20 25	
180	June 18	IIu	ePE	G 09 43 53.1	U.S.C.G.S.: 9.5°N 138.9°E
			iPZ	G 58.6	
			ePN	G 44 07.1	
			iPPE	G 46 46.1	
			iPPZ	G 47 29.6	
			ePPPZ	G 48 56.4	
			ePPPN	G 49 15.6	
			iZ	G 51 32.6	
			eZ	G 53 46.8	
			eSKSN	G 54 23.6	
			eSKSE	G 36.1	
			iSN	G 51	
			iSE	G 55 06.1	
			eSZ	G 34.3	
			ePSE	G 56 03.0	
			iSSN	G 59 39.1	
			iE	G 10 03 19.1	
			iN	G 25.1	
			iZ	G 04 02.3	
			iE	G 31.1	
			eSSSE	G 06 53.1	
			eSSSN	G 07 21.1	
			iZ	G 09 19.8	
			eGN	G 09.6	
			eZ	G 11 30.8	
			eLEZ	G 15.6	
			eME	G 22.6	
			eZ	G 24.9	
			eE	G 27.1	
			F	12 27.6	
181	June 18	Id	ePE	A 22 07 23.2	
			ePN	A 23.7	
			eSNE	A 25.0	
			F	22 08	
182	June 18	Id	$\underline{e}$PE	A 23 33 15.1	See list, p. 53
			$\underline{e}$PN	A 15.6	
			$\underline{i}$SNE	A 25.0	
			F	23 35	
183	June 20	Ir	iPN	G 10 06 33	U.S.C.G.S.: 19.0°N 100.7°W
			iZ	G 07 33	
			eSNE	G 12 23	
			eLE	G 14 33	
			F	11 15	
184	June 22	I	eLE	G 20 09 33	
			F	20 40	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
185	June 24	IIu	iPNEZ	G 11 29 54	
			iPPNEZ	G 34 01	
			iPPPZ	G 37 28	
			iSNE	G 40 31	
			iPSNE	G 41 26	
			iSSN	G 48 01	
			iSSEZ	G 19	
			eNE	G 56 31	
			eLZ	G 59 31	
			eLNE	G 12 00 31	
			eN	G 13 42 31	
			F	15 00	
186	June 24	I	eNEZ	G 18 20 01	
			F	18 40	
187	June 24	Id	eN	A 21 14 52.5	
			eN	A 53.6	
			F	21 16	
188	June 27	Id	ePNEZ	AH 00 35 19	
			iSNEZ	AH 20.6	
			F	00 37	
189	June 29	Iu	iPNEZ	G 06 39 08	U.S.C.G.S.: 33.5°S 70.5°W
			iPN	A 08.5	
			eE	A 40 30	
			iSNEZ	G 44 27	
			eLE	G 07 02 00	
			F	08 00	
190	June 30	Id	iPZ	H 22 40 10.5	
			ePNE	A 10.9	
			iSN	A 11.5	
			eSE	A 12	
			F	22 41	

MOUNT HAMILTON
THE LICK OBSERVATORY STATION, UNIVERSITY OF CALIFORNIA
MOUNT HAMILTON, CALIFORNIA

CONSTANTS

CONSTANTS OF THE STATION

Latitude and longitude:

ϕ = 37° 2014 N.
λ = 121° 3816 W.

Time -- All determinations are reduced to Universal Time.

Altitude -- 1281.7 meters (4205 feet) above mean sea level.

CONSTANTS OF THE SEISMOGRAPHS

Apparatus	Component	V	T_o	ε
Wood-Anderson	E	3000	1	15
	N	3000	1	15

No.	Date 1942	Character	Phase	Time (U.T.) h. m. s.	Remarks
1	April 1	Id	iPNE	18 41 07.3	
			iSNE	12.4	
			E	18 43	
2	April 5	Id	iPNE	07 29 37.8	
			iSE	48.7	
			iSN	49.5	
			F	07 31	
3	April 7	Id	iPNE	06 09 39.6	See list, p. 53
			iSE	47.0	
			iSN	47.5	
			F	06 11	
4	April 7	Id	ePN	11 03 26.0	See list, p. 53
			ePE	27.5	
			iSN	32.0	
			iSE	34.2	
			F	11 04	
5	April 8	IIv	iPNE	14 20 30.1	See list, p. 53
			iSNE	41.3	
			F	14 22	
6	April 10	Id	iPNE	07 26 38.3	See list, p. 53
			iSN	44.4	
			iSE	44.9	
			F	07 28	
7	April 11	IId	iPE	08 41 11.6	See list, p. 53
			iPN	12.2	
			iSN	21.6	
			F	08 45	
8	April 13	IId	iPNE	18 22 27.2	See list, p. 53
			F	18 24	
9	April 17	Iv	ePE	13 35 17.7	
			ePN	22.8	
			eSN	36.8	
			eSE	37.2	
			F	13 37	
10	April 18	Id	ePNE	01 22 48.7	See list, p. 53
			eN	52.4	
			eSE	57.4	
			F	01 24	
11	April 18	Id	ePE	04 35 33.8	
			ePN	34.8	
			eSE	38.8	
			eSN	40.1	
			F	04 37	

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
12	April 18	Iv	eSNE	05 49 57.7	U.S.C.G.S.: 41.5°N 112.3°W
			F	05 51	
13	April 18	Id	iP̄N	19 57 35.8	San Benito County
			ePE	36.8	
			iS̄NE	43.1	
			F	19 58	
14	April 19	Iv	ePNE	16 38 17.7	
			eSN	29.2	
			iSE	30.0	
			F	16 40	
15	April 20	Iu	ePNE	08 51 54.2	Japan: 35°N 135°E
			F	08 56	h = 350 km
16	April 21	Id	eP̄NE	18 19 11.3	See list, p. 53
			eS̄E	19.9	
			eSN	23.1	
			F	18 20	
17	April 30	IId	iPE	12 03 52.0	
			iSE	54.3	
			F	12 04	
18	May 3	Id	eP̄NE	18 12 21.6	See list, p. 53
			iS̄NE	27.1	
			F	18 14	
19	May 3	IId	iP̄NE	20 22 07.0	See list, p. 53
			iS̄E	08.7	
			F	20 24	
20	May 6	Id	ePE	10 55 55.4	
			eSE	57.4	
			F	10 57	
21	May 6	I	ePE	22 36.8	
			ePN	41.2	
			F	22 48	
22	May 12	Iv	ePN	01 14 31.0	
			ePE	31.6	
			iSN	55.3	
			eSE	56.2	
			F	01 16	
23	May 15	I	ePE	19 39 22.0	
			F	19 41	
24	May 20	Id	eP̄NE	13 38 28.5	San Benito County
			iS̄NE	38.4	
			F	13 40	

MT. HAMILTON

No.	Date 1942	Character	Phase	Time (U.T.) h. m. s.	Remarks
25	May 22	Iv	ePE	15 20 40	
			eSNE	21 09.6	
			F	15 22	
26	May 23	Iv	ePE	15 49 12.0	Pasadena: 32°59'N 115°59'W
			iSNE	13.5	
			F	15 55	
27	May 26	IId	i$\bar{P}$NE	02 39 16.1	Monterey Bay
			e$\bar{S}$NE	25.7	
			F	02 41	
28	May 26	Id	iPNE	08 45 43.5	
			iSN	44.9	
			F	08 46	
29	May 26	IId	iPNE	08 46 37.0	
			iSNE	38.7	
			F	00 47	
30	May 28	Iv	ePE	00 41 00.1	U.S.C.G.S.: 40.8°N 120.7°W
			iSE	47.1	
			eSN	50.0	
			F	00 49	
31	May 29	Id	iPNE	14 14 31.5	
			iSNE	33.0	
			F	14 15	
32	May 31	Id	i$\bar{P}$NE	16 38 14.1	See list, p. 53
			i$\bar{S}$NE	19.3	
			F	16 40	
33	May 31	IId	i$\bar{P}$NE	23 57 50.0	See list, p. 53
			i$\bar{S}$NE	51.6	
			F	23 59	
34	June 5	Iv	ePE	03 20 18.4	Pasadena: 37°34'N 118°44'W
			ePN	19.1	
			iSNE	48.2	
			F	03 23	
35	June 5	I	ePN	03 09 01.1	
36	June 5	IId	i$\bar{P}$NE	12 33 32.0	See list, p. 53
			e$\bar{S}$E	37.8	
			F	12 38	
37	June 10	IIv	ePNE	22 51 22.4	N.W. of Reno
			iSNE	56.8	
			F	22 54	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
38	June 12	Id	iPE	14 34 21.6	
			ePN	22.4	
			iSNE	22.8	
			F	14 35	
39	June 14	Ir	ePN	03 22 11.6	U.S.C.G.S.: 15°N 143.8°E
			ePE	12.0	Pasadena: 15°N 145°E
			eSNE	32 21.7	h = 80 km
			F	03 26	
40	June 17	Id	ePNE	08 40 06.7	
			eSNE	09.0	
			F	08 41	
41	June 18	IId	iPNE	23 33 04.4	See list, p. 53
			eSNE	06.0	
			F	23 35	
42	June 19	Id	iPNE	00 03 53.4	
			iSNE	55.0	
			F	00 04	
43	June 19	Id	iPNE	09 35 50.4	
			iSNE	52.0	
			F	09 36	
44	June 20	Ir	ePNE	10 07 36.8	U.S.C.G.S.: 19°N 100.7°W
			F	10 11	h = 65 km
45	June 20	Id	iPNE	13 25 14.1	
			iSNE	15.6	
			F	13 26	
46	June 22	Iv	ePN	23 51 56.4	Pasadena: 36°15'N 117°58'W
			ePE	52 00.4	
			iSN	37.9	
			F	23 54	
47	June 24	Id	iPNE	20 19 55.8	
			iSNE	59.4	
			F	20 21	
48	June 27	Iu	ePN	02 55 15.9	Japan
			ePE	16.3	
			F	02 57	
49	June 29	Iu	ePNE	06 39 08.7	U.S.C.G.S.: 33.5°S 70.5°W
			F	06 43	
50	June 29	Iv	ePNE	21 08 17.9	Pasadena: 35.6°N 120.8°W
			eSN	44.3	
			eSE	44.9	
			F	21 10	

PALO ALTO

THE BRANNER STATION, STANFORD UNIVERSITY
PALO ALTO, CALIFORNIA

CONSTANTS

CONSTANTS OF THE STATION

Latitude and longitude:

ϕ = 37° 25.1 N.
λ = 122° 10.8 W.

Time -- All determinations are reduced to Universal Time.

Altitude -- 83 meters (272 feet) above mean sea level.

CONSTANTS OF THE SEISMOGRAPHS

Apparatus	Component	V	T_o	ξ
Wood-Anderson	E	3000	1	15
	N	3000	1	15

No.	Date 1942	Character	Phase	Time (U.T.) h. m. s.	Remarks
1	April 1	Id	ePE	18 41 17.2	
			eN	17.7	
			eSE	27.6	
			eN	48	
			F	18 42	
2	April 2	Id	ePNE	19 00 51	
			eSN	53.4	
			eSE	53.8	
			F	19 02	
3	April 8	IIv	iPNE	14 20 34.8	See list, p. 53
			iSN	49.5	
			iSE	50.1	
			F	14 23	
4	April 8	Iu	eE	15 54 56.4	U.S.C.G.S.: 12.5°N 120°E
			ePN	58.9	
			eP'N	58 26.4	
			ePPE	49.4	
			ePPN	50.9	
			eE	16 04 56.4	
			eLE	26 24.4	
			F	17 00	
5	April 10	Iv	iPNE	07 26 44.2	See list, p. 53
			eSE	55.2	
			eSN	55.6	
			F	07 28	
6	April 11	IIv	iPNE	08 41 17.7	
			iSE	30.2	
			iSN	30.7	
			F	08 44	
7	April 13	Id	iPE	18 22 32.8	See list, p. 53
			iE	39.4	
			F	18 24	
8	April 15	IId	iPN	01 38 57.1	
			iPE	57.6	
			iSN	39 00.3	
			iSE	00.7	
			F	01 40	
9	April 18	Iv		01 23	See list, p. 53 S - P = 13.5 sec.
10	April 19	IId	iPN	20 09 29.6	
			iSN	30.7	
			F	20 11	

PALO ALTO

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
22	April 23	Iv	ePE	15 49 30.6	Pasadena: 32°59'N 115°59'W
			ePN	36.6	
			eSE	51 09.6	
			F	15 54	
23	April 26	Id	iP̄NE	02 39 16.0	Monterey Bay
			iS̄NE	26.1	
			F	02 41	
24	May 28	Iv	iPE	00 40 55.2	U.S.C.G.S.: 40°08'N 120°07'W
			ePN	56.3	
			eE	41 28.3	
			eSE	38.3	
			eSN	41.4	
			F	00 50	
25	May 31	Id	iP̄E	16 38 19.0	See list, p. 53
			ePN	20	
			iS̄NE	28.5	
			F	16 40	
26	May 31	Id	iP̄NE	23 57 58.0	See list, p. 53
			eN	03.5	
			iE	04.0	
			F	23 59	
27	June 3	Id	ePN	23 36 40.4	
			ePE	40.9	
			eSN	43.4	
			iSE	43.8	
			F	23 38	
28	June 5	Iv	ePN	03 20 24.2	Pasadena: 37°34'N 118°44'W
			ePE	24.6	
			eE	31.6	
			eSNE	57	
			F	03 23	
29	June 5	IId	eP̄N	12 33 36.7	See list, p. 53
			iP̄NE	37.1	
			F	12 38	
30	June 5	Id	ePNE	23 17 11.2	
			iSNE	12.7	
			F	23 18	
31	June 10	Iv	ePE	22 51 24.5	N.W. Reno
			ePN	25	
			iSN	59.0	
			iSE	59.5	
			F	22 54	

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
32	June 13	Id	iPNE	17 08 57.7	
			eSN	58.8	
			F	17 08	
33	June 14	Iv	ePE	03 22 09.3	U.S.C.G.S.: 15.0°N 143.8°E
			ePN	09.8	Pasadena: 15.0°N 145.0°E
			F	03 29	h = 80 km
34	June 18	Id	iP̄NE	23 33 10.0	See list, p. 53
			eS̄E	15	
			F	23 35	
35	June 29	Iu	eN	06 39 00	U.S.C.G.S.: 33.5°S 70.5°W
			eE	08.1	
			F	06 43	
36	June 29	Iv	iPE	21 08 19.9	Pasadena: 35.6°N 120.8°W
			eSN	51.5	
			eSE	52.5	
			F	21 10	

SAN FRANCISCO

THE SAN FRANCISCO STATION, UNIVERSITY OF SAN FRANCISCO
SAN FRANCISCO, CALIFORNIA

CONSTANTS

CONSTANTS OF THE STATION

Latitude and longitude:

ϕ = 37° 46!4 N.
λ = 122° 27!2 W.

Time -- All determinations are reduced to Universal Time.

Altitude -- 100 meters (328 feet) above mean sea level.

CONSTANTS OF THE SEISMOGRAPHS

Apparatus	Component	V	T_o	ε
Wood-Anderson	E 15° S	1500	1	15
	N	3000	1	15

SAN FRANCISCO

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
1	June 5	Iv		12 33	See list, p. 53 S - P = 14 Sec.
					Radio time signals were not received during this quarter.

FERNDALE

THE FERNDALE STATION
FERNDALE, CALIFORNIA

CONSTANTS

CONSTANTS OF THE STATION

Latitude and longitude:

ϕ = 40° 34' N.
λ = 124° 16' W.

Time -- All determinations are reduced to Universal Time.

Altitude -- 17 meters (55 feet) above mean sea level.

CONSTANTS OF THE SEISMOGRAPHS

Apparatus	Component	V	T_o	ε
Bosch-Omori 25 kg.	E	12	11	5
	N	12	8	6

The station is operated by Mr. Joseph Bognuda, of Ferndale, in cooperation with the University of California.

FERNDALE

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
1	April 8	Iu	ePNE	15 58 21	U.S.C.G.S.: 12.5°N 120°E
			iSNE	16 08 22	
			iLNE	27 00	
			F	18 27	
2	May 14	Iu	iPNE	02 23 34	U.S.C.G.S.: 3°S 80°W
			eSNE	31 11.5	
			iLNE	42 00	
			F	03 27	
3	May 27	Iu	eE	07 08 17.5	Wellington: 34°S 177°W
			F	08 00	
4	June 9	Id	eE	11 12 06	
			iEN	13 10	
			F	11 29	
5	June 18	Iu	ePNE	09 44 26	U.S.C.G.S.: 9.5°N 138.9°E
			iSN	54 36.5	
			eSE	45	
			eLN	10 08 27	
			F	11 21	
6	June 20	Ir	ePNE	11 14 04	
			eSNE	18 04	
			eNE	20 44	
			eNE	22 03	
			F	11 25	
7	June 24	Iu	eN	12 02.3	Wellington: 40.9°S 175.9°E
			eE	05.0	
			F	12 48	
8	June 24	Iu	ePE	18 18 34	
			eE	19 29	
			F	18 28	

FRESNO

THE FRESNO STATION, FRESNO STATE COLLEGE
FRESNO, CALIFORNIA

CONSTANTS

CONSTANTS OF THE STATION

Latitude and longitude:

ϕ = 36° 46!1 N.
λ = 119° 47!8 W.

Time -- All determinations are reduced to Universal Time.

Altitude -- 88.4 meters (290 feet) above mean sea level.

CONSTANTS OF THE SEISMOGRAPHS

Apparatus	Component	V	T_o	ε
Wood-Anderson	N	3000	0.9	15

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
1	April 3	Iv	iPN	04 01 01.1	
			iSN	15.9	
			F	04 03	
2	April 3	I	eN	16 32 57.4	
			F	16 35	
3	April 5	Iv	eN	09 22 05.1	
			F	09 23	
4	April 5	I	eN	07 29 51.9	
			F	07 31	
5	April 7	Iv	eN	06 09 59	See list, p. 53
			eSN	10 18.5	
			F	06 12	
6	April 7	Iv	ePN	11 03 43	See list, p. 53
			eSN	04 00.5	
			iSN	01.2	
			F	11 05	
7	April 8	Iv	iPN	14 20 36.9	See list, p. 53
			eSN	51.3	
			eN	22 53	
			F	14 26	
8	April 8	Iu	eN	15 58 19	U.S.C.G.S.: 12.5°N 120°E
			eN	51	
			F	16 15	
9	April 11	Iv	ePN	08 41 22.2	See list, p. 53
			eN	22.7	
			iSN	38.8	
			F	08 46	
10	April 13	I	eN	18 23 12.3	
			F	18 24	
11	April 14	I	eN	03 18 09.8	
			F	03 18	
12	April 18	Iv	ePN	01 22 58.4	See list, p. 53
			ePN	59.4	
			iSN	23 13.4	
			F	01 24	
13	April 18	Iv	ePN	05 47 56.5	U.S.C.G.S.: 41.5°N 112.3°W
			eSN	49 32	
			F	05 51	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
14	April 20	Iu	ePN	08 52 02.5	Japan: 35°N 135°E
			eSN	09 01 28.5	h = 350 km
			F	09 21	
15	April 30	Iv	iPN	01 27 12.5	
			iSN	35.0	
			F	01 29	
16	May 2	Iv	ePN	08 29 28.5	
			eSN	42.3	
			F	08 31	
17	May 3	Iv	ePN	18 12 38.4	See list, p. 53
			iSN	52.9	
			F	18 14	
18	May 6	Iv	iPN	22 46 20.4	Pasadena: 37.6°W 118.7°W
			iSN	34.9	
			F	22 49	
19	May 14	Iu	ePN	02 22 35.4	U.S.C.G.S.: 0.3°S 80°W
			eSN	29 54.9	
			F	03 17	
20	May 16	Iv	iPN	00 42 09.1	
			eSN	29.6	
			eN	37.6	
			F	00 45	
21	May 20	Iv	iSN	13 38 56.8	San Benito County
			F	13 40	
22	May 22	Iv	ePN	15 19 34.3	Pasadena: 34°27'N 116°47'W.
			eSE	20 15.7	
			F	15 22	
23	May 23	Iv	iPN	15 48 51.5	Pasadena: 32°59'N 115°59'W
			eN	49 02.8	
			eSN	54	
			F	15 57	
24	May 26	Iv	eN	02 39 40.5	Monterey Bay
			F	02 40	
25	May 28	Iv	iPN	00 41 22.9	U.S.C.G.S.: 40°8N 120°7W
			iSN	42 20.7	
			F	00 52	
26	May 28	Iu	eN	01 20 30	U.S.C.G.S.: 0.4°S 122°6E
			eSN	29 30	
			F	01 46	
27	May 30	Ir	ePN	07 23 41.3	U.S.C.G.S.: 23°N 109°5 W
			F	08 00	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
28	May 31	Iv	ePN	16 38 40.3	See list, p. 53
			eSN	51.7	
			iSN	53.6	
			F	16 41	
29	June 5	Iv	iPN	03 19 59.3	Pasadena: 37°34'N 118°44'W
			eN	20 11.5	
			eN	16.5	
			F	03 26	
30	June 5	Iv	ePN	09 14 40	Pasadena: 37°34'N 118°44'W
			iSN	54.5	
			F	09 16	
31	June 5	IId	iPN	12 33 51.1	See list, p. 53
			iN	53.0	
			iSN	34 08.2	
			F	12 41	
32	June 9	Iv	eN	05 07 53.4	Pasadena: 3°20'N 116°44'W
			ePN	55.4	
			iSN	08 53.4	
			F	05 12	
33	June 10	Iv	iPN	00 05 32.7	Pasadena: 37.6°N 118.7°W
			iSN	48.1	
			F	00 08	
34	June 10	IIv	iPN	22 51 24.2	N.W. of Reno
			iSN	58.9	
			F	22 56	
35	June 14	Iu	iPN	03 22 20.9	U.S.C.G.S.: 15.0°N 143.8°E
			F	03 32 09	Pasadena: 15°N 145°E
					h = 80 km
36	June 18	Iv	ePN	23 33 37	See list, p. 53
			iSN	52.3	
			iN	53.6	
			eN	34 03.9	
			F	23 34	
37	June 20	Iu	iPN	10 07 27.1	U.S.C.G.S.: 19°0N 100°7W
			eN	15 44.6	
			F	10 25	
38	June 22	Iv	iPN	23 51 30.1	Pasadena: 36°15'N 117°58'W
			iSN	50.1	
			F	23 55	
39	June 22	Iv	ePN	23 53 55.6	Pasadena: 36°15'N 117°58'W
			iSN	54 15.1	
			F	23 56	

FRESNO

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
40	June 22	IIv	iPN	22 14 19	Pasadena: 36°15'N 117°58'W
			iSN	38.2	
			F	22 18	
41	June 23	Iv	ePN	10 40 35.2	
			iSN	54.4	
			F	10 43	
42	June 23	Iv	ePN	08 16 25.4	
			iSN	44.9	
			F	08 18	
43	June 29	Iv	ePN	21 08 05.1	Pasadena: 35.6°N 120.8°W
			eSN	26.6	
			F	21 10	

BULLETIN OF THE SEISMOGRAPHIC STATIONS

EARTHQUAKES IN NORTHERN CALIFORNIA
AND
THE REGISTRATION OF EARTHQUAKES
AT
BERKELEY--MOUNT HAMILTON--PALO ALTO
SAN FRANCISCO--FERNDALE--FRESNO

From July 1, 1942 to September 30, 1942

By
Charles Herrick
and
Carolyn H. Pendery

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CONTENTS

EARTHQUAKE INTENSITY SCALE

Intensities are given by Roman numerals in the list of California earthquakes on the following page, when sufficient information on the effects of the quake is available. Criteria of the Modified Mercalli Scale which are used to rate the intensity are:

Intensity

II	Felt by a few people only. Duration or direction not appreciable.
III	Duration or direction appreciable.
IV	Rattling of doors and windows; swinging of suspended objects.
V	Disturbance of movable objects; plaster cracked.
VI	Overthrow of movable objects; cracking of chimneys and other brickwork.
VII	Fall of some chimneys; some damage to buildings.

EARTHQUAKE MAGNITUDE SCALE

Richter magnitudes given in the list of epicenters on the next page are found from the Wood-Anderson amplitudes, using the nomogram by Nordquist, "Bulletin of the Seismological Society of America", 32: 164.

Latitude and longitude are given for each epicenter in the following list. Only those earthquakes are given for which the epicenters were located. The letter represents the excellence with which the epicenter has been located, a indicating excellent, b good, c fair, d poor.

EARTHQUAKES IN NORTHERN CALIFORNIA

1942 - Pacific Standard Time

No.	Date	Time	Richter Magnitude	North Latitude	West Longitude	Quality
1	July 8	02-05-50	3.8	37° 18'	118° 41'	c
2	16	01-26-30	2.8	37° 11'	122° 13'	b
3	19	02-42-07	1.6	36°.4	121°.1	d
4	Aug. 3	17-02-05	2.7	37° 09'	121° 24'	c
		Foreshock of following quake.				
5	4	13-05-53	2.9	37° 09'	121° 24'	b
6	6	18-02-26	2.5	37° 34'	121° 40'	b
7	8	14-30-27	3.5	36° 54'	121° 17'	c
		IV at Hollister.				
8	8	17-17-47	2.2	36° 54'	121° 17'	b
		Aftershock of previous quake. III in Hollister. Depth about 10 km.				
9	10	03-50-46	2.8	37° 54'	122° 34'	c
		IV in Mill Valley, III in San Francisco.				
10	14	07-14-13	3.6	37° 59'	121° 53'	a
		IV at Antioch.				
11	27	22-13-33	2.9	37° 57'	121° 44'	b
12	30	21-27-52	3.2	36°.9	121°.7	d
		Felt in Pajaro Valley.				
13	Sept. 12	09-49-09	3.4	36° 47'	121° 28'	b
		IV at Hollister.				
14	15	08-36-33	3.0	36° 08'	122° 11'	b
15	18	16-13-50	2.5	37° 28'	121° 45'	b
16	23	00-06-22	1.7	37° 16'	121° 45'	c

THE REGISTRATION OF EARTHQUAKES

SYMBOLS AND NOTATIONS EMPLOYED

1. Character of the Earthquake --

I. Perceptible II. Moderately Strong III. Strong

d (terrae motus domesticus)	Local shock (origin less than 100 kilometers distant).
v (terrae motus vicinus)	Near shock (origin from 100 to 1,000 kilometers distant).
r (terrae motus remotus)	Distant shock (origin from 1,000 to 5,000 kilometers distant).
u (terrae motus ultimus)	Very distant shock or teleseism (origin more than 5,000 kilometers distant).

2. Nature of the Motion --

i (impetus)	Sudden beginning of the motion.
e (emersio)	Gradual beginning of the motion.

No.	Date	Char-acter	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
12	July 4	Iu	iPNEZ	G 02 02 30.0	USCGS: 0.7°N 80.7°W
			iPPZ	G 04 34.5	
			eSZ	G 10 03.5	
			eSNE	G 05.0	
			iSSN	G 14 06.0	
			eLE	G 19 28.0	
			eLN	G 59.0	
			eLZ	G 20 11.0	
			F	02 57	
13	July 4	Iu	ePN	G 06 17 52.0	
			ePZ	G 58.0	
			ePE	G 59.0	
			ipPZ	G 18 10.0	
			ipPE	G 11.5	
			iPPZ	G 19 40.0	
			iPPE	G 41.5	
			eSZ	G 25 12.0	
			iSE	G 14.0	
			iN	G 37.5	
			eZ	G 28.9	
			iE	G 29.4	
			eLEZ	G 35.5	
			eLN	G 35.8	
			F	07 27	
14	July 4	Id	ePZ	H 16 26 26.0	
			iSZ	H 26.9	
			F	16 27	
15	July 4	Ir	ePZ	G 18 57 40.0	Pasadena: Aleutian Islands
			iEN	G 59 09.5	
			iSNE	G 19 04 25.5	
			iLNE	G 06 35.5	
			iLZ	G 07 16.5	
			F	21 27	
16	July 4	Id	iPZ	H 23 29 18.9	
			F	23 30	
17	July 5	Iu	iPNEZ	G 10 39 16.0	USCGS: 0.7°N 80.7°W
			eSN	G 46 22.5	
			eE	G 47 12.5	
			iLEZ	G 59.5	
			F	11 25	
18	July 5	Id	ePZ	H 19 15 33.6	
			iSZ	H 34.9	
			F	19 16	
19	July 6	I	iPZ	H 13 15 50.6	
			F	13 16	

No.	Date	Char-acter	Phase		Time (U.T.) h. m. s.	Remarks
	1942					
20	July 6	I	ePZ	H	18 19 28.6	
			iSZ	H	31.3	
			F		18 20	
21	July 6	Iv	iPNEZ	AH	22 12 27.6	Nevada: Earthquake
			iZ	H	38.9	
			iSNE	A	13 03.7	
			eN	A	14	
			eN	A	14.1	
			F		22 16	
22	July 6	Id	ePZ	H	23 21 41.7	
			eSZ	H	43.2	
			F		23 22	
23	July 7	Iu	ePZ	H	03 05 08.5	USCGS: 21.4°S 177.8°W
			iZ	H	12.7	h = 430 km
			eE	A	13.0	
			iPNEZ	G	13.5	
			eN	A	16.0	
			ipPNEZ	G	06 46.0	
			iSNEZ	G	14 37.0	
			iZ	G	17 59	
			iN	G	18 08	
			F		04 57	
24	July 7	Iv	eE	A	03 06 49.5	
			eN	A	56.0	
			eE	A	07 02.0	
			eN	A	02.6	
			F		03 08	
25	July 7	Iu	ePZ	H	12 47 07.8	Ecuador
			iPEZ	G	11.0	
			iPN	G	16.0	
			iSE	G	54 38.0	
			iLNE	G	13 04.4	
			iZ	G	05.9	
			F		13 57	
26	July 7	Id	iPZ	H	13 00 18.4	
			eSZ	H	21.3	
			iZ	H	26.4	
			F		13 01	
27	July 7	Id	iPZ	H	13 05 21.8	
			iSZ	H	25.5	
			F		13 06	
28	July 7	Id	ePZ	H	13 53 35.8	
			iZ	H	44.1	
			F		13 54	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
29	July 7	Id	ePE	A 19 15 57.9	
			ePN	A 58.4	
			iPZ	H 59.5	
			iSZ	H 16 00.1	
			eSNE	A 00.5	
			iZ	H 02.8	
			eN	A 04.9	
			F	19 17	
30	July 7	I	ePNZ	G 21 13 01.0	
			ePE	G 02.0	
			iNE	G 31.0	
			F	21 17	
31	July 8	IIu	ePE	A 07 07 44.0	USCGS: 25°S 69.7°W
			iPN	G 44.0	h = 150 km
			ePN	A 45.0	
			iPEZ	G 45.0	
			ePZ	H 46.0	
			iSNEZ	G 17 43.0	
			eSNE	A 44.5	
			iE	G 22 52	
			iN	G 23 01	
			iLNEZ	G 33.5	
			F	09 57	
32	July 8	Iv	iPZ	H 10 06 35.3	See list, p. 99
			iZ	H 37.3	
			F	10 07	
33	July 8	IId	iPEZ	AH 16 26 23.6	
			ePN	A 24.0	
			iSZ	H 24.8	
			F	16 27	
34	July 8	IIu	iPNEZ	G 22 40 20.5	USCGS: 0.7°N 80.5°W
			iEZ	G 41 19.0	
			iPPZ	G 42 25.0	
			iSZ	G 47 54.0	
			iSEN	G 56.0	
			iSSE	G 51 45.0	
			iN	G 52.0	
			iLE	G 57.4	
			F	23 42	
35	July 9	Iv	iPZ	H 12 22 03.3	
			iZ	H 09.6	
			iE	A 30.9	
			F	12 24	
36	July 9	Id	ePZ	H 15 00 01.4	
			F	15 01	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
37	July 9	Id	iPZ	H 16 55 14.9	
			iSNE	A 15.8	
			eN	A 19.3	
			F	16 56	
38	July 9	Iv	iPZ	H 23 18 50.5	
			eN	A 58.2	
			F	23 20	
39	July 10	Id	ePZ	H 13 56 07.0	
			F	13 57	
40	July 11	IIv	iPE	A 16 42 55.1	Felt in Tonopah and Manhattan, Nevada
			iPZ	G 57.5	
			iE	A 59.7	
			iSEZ	G 43 36.5	
			eSN	G 38.0	
			iSE	G 39.5	
			iLE	G 44 10.5	
			F	16 53	
41	July 12	Iu	ePNZ	AH 05 11 59.0	USCGS: 0.3°N 80.1°W
			iPNEZ	G 14 46.5	
			ipPNEZ	G 54.5	
			iPPZ	G 16 55.0	
			eSN	A 22 25.0	
			iSNE	G 25.0	
			iSZ	G 26.5	
			iSE	A 28.2	
			iSSNE	G 26.3	
			iLE	G 30.7	
			iLN	G 31.4	
			eLNE	A 35.1	
			iMNE	G 35.8	
			F	07 57	
42	July 13	Iu	eZ	G 00 25 58.0	
			eE	G 34 57.0	
			eLE	G 55.1	
			eLN	G 56.2	
			F	01 37	
43	July 13	Id	iPZ	H 03 30 02.6	
			ePN	A 03.0	
			eSN	A 10.0	
			eE	A 12.0	
			F	03 31	
44	July 13	I	ePN	A 08 56 28.3	
			eN	A 48.3	
			F	09 00	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
45	July 14	Id	iPZ	H 16 17 53.0	
			eE	A 54.1	
			iSZ	H 55.7	
			F	16 18.5	
46	July 14	Iv	iPZ	H 16 39 52.0	Mendocino County
			iZ	H 53.8	
			iZ	H 40 03.4	
			eN	A 25.1	
			F	16 43	
47	July 14	Id	iPZ	H 18 53 02.0	
			eE	A 03.1	
			iNZ	AH 03.7	
			F	18 54	
48	July 15	Id	iPZ	H 13 17 26.8	
			iZ	H 28.3	
			eE	A 34.6	
			F	13 18	
49	July 15	Id	iPZ	A 13 24 09.2	
			iZ	H 11.1	
			eN	A 12.6	
			iZ	H 13.2	
			F	13 25	
50	July 16	Id	iPZ	H 05 51 53.7	
			eNEZ	AH 54.6	
			iSZ	H 56.5	
			F	05 52.5	
51	July 16	Id	iP̄Z	H 09 26 49.2	See list, p. 99
			iZ	H 50.4	
			iS̄NEZ	AH 58.7	
			iZ	H 27 00.0	
			F	09 27.5	
52	July 17	Id	iPZ	H 03 03 37.3	
			iZ	H 38.2	
			eN	A 45.0	
			eE	A 47.0	
			F	03 04	
53	July 18	Id	iPZ	H 03 15 29.3	
			F	03 16	
54	July 18	Id	iPZ	H 03 17 32.6	
			iZ	H 33.3	
			eN	A	
			F	03 18	

BERKELEY

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
55	July 20	I	eLNZ	G 16 15.4	
			eLE	G 16.4	
			F	16 57	
56	July 21	I	iZ	H 03 51 17.7	
			F	03 52	
57	July 21	I	iZ	H 07 59 59.4	
			F	08 00.5	
58	July 21	Iu	ePNEZ	G 08 54 54.0	
			eSNE	G 09 03 39.5	
			eLNEZ	G 17.4	
			F	09 49	
59	July 22	Id	iPZ	H 22 11 35.4	
			eSN	A 43.0	
			F	22 12	
60	July 24	Id	ePZ	H 11 55 00.8	
			iSZ	H 04.1	
			F	11 56	
61	July 24	Id	iPZ	H 11 59 20.9	
			iZ	H 22.2	
			eN	A 28.8	
			F	12 00	
62	July 24	Id	ePZ	H 22 38 01.0	
			iEZ	AH 02.3	
			F	22 39	
63	July 25	IIu	ePZ	G 06 36 46.5	USCGS: 11.9°N 125.5°E
			eZ	G 39 12.0	
			iSKSNEZ	G 46 47.0	
			iSN	G 47 18.0	
			iSE	G 24.0	
			iLE	G 07 08.3	
			iLN	G 09.0	
			F	08 17	
64	July 25	Iu	iSNE	G 15 34 07.0	USCGS: 5°S 104°W
			iLN	G 40.5	
			F	15 49	
65	July 25	Id	ePEZ	AH 17 33 21.3	
			iZ	H 22.1	
			eSN	A 28.7	
			eE	A 30.2	
			F	17 34	
66	July 25	IId	iPNEZ	AH 19 58 39.3	
			iSNE	A 41.0	
			F	19 59.5	

BERKELEY

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
67	July 25	IId	iPNEZ	AH 19 59 23.5	
			eN	A 25.6	
			F	20 00.5	
68	July 27	Id	iPNEZ	AH 00 09 50.0	
			iZ	H 50.8	
			iSN	A 57.4	
			iE	A 59.4	
			F	00 10.5	
69	July 28	Id	iPZ	H 17 03 30.5	
			eSE	A 37.7	
			eN	A 39.2	
			F	17 04	
70	July 28	Id	iPNZ	AH 18 05 08.6	
			iZ	H 11.3	
			iZ	H 14.7	
			F	18 06	
71	July 29	IIu	ePE	G 23 03 26.0	USCGS: 2.8°S 127.9°E
			iPZ	G 34.0	
			iPPZ	G 08 02.0	
			iPPNE	G 06.0	
			iE	G 13 46.0	
			iN	G 14 10.0	
			iN	G 15 50.0	
			iE	G 16 11.0	
			iLNEZ	G 46.9	
			iMNEZ	G 50.4	
			F	02 57	
72	July 30	Id	iPZ	H 15 48 07.2	
			iSEZ	AH 08.1	
			F	15 49	
73	July 31	Id	iPZ	H 04 39 34.1	
			iE	A 41.1	
			F	04 40	
74	July 31	Id	iPZ	H 21 52 13.1	
			iZ	H 14.0	
			iZ	H 15.3	
			iSNE	A 16.1	
			F	21 53	
75	July 31	Id	iPZ	H 22 40 35.6	
			iSNEZ	AH 36.7	
			F	22 41	

No.	Date	Char-acter	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
76	Aug. 1	I	eEN	G 05 12 42.5	
			eLNEZ	G 33.5	
			F	06 13	
77	Aug. 1	IIu	iPNEZ	G 12 47 33.0	Wellington: 41.0°S 175.8°E
			iPPZ	G 51 25.0	
			iPPNE	G 27.0	
			iSKSE	G 59 19.0	
			iSKSN	G 26.0	
			iZ	G 00 17.0	
			iE	G 24.0	
			iE	G 19.0	
			iLNEZ	G 24.9	
			F	Runs into next shock	
78	Aug. 1	Iu	eP'Z	G 14 49 52.0	Pasadena: 48°S 99°E
			iN	G 52.8	
			iE	G 53.2	
			iE	G 57.7	
			iN	G 57.9	
			iNEZ	G 15 40.8	
			F	17 27	
79	Aug. 2	Id	iPEZ	AH 00 11 32.3	
			iZ	H 33.1	
			eNE	A 39.5	
			eN	A 45.5	
			F	00 12	
80	Aug. 3	Iu	eN	A 20 21 02.8	USCGS: 25°S 174°W
			eE	A 03.3	
			iPNEZ	G 04.0	
			iPPZ	G 08.0	
			iNE	G 31 12.0	
			iNE	G 32 13.0	
			F	20 44.5	
81	Aug. 4	Iv	iPZ	H 01 02 23.7	See list, p. 99
			iSNZ	AH 37.5	
			F	01 03.5	
82	Aug. 4	Iv	iPZ	H 13 06 12.4	See list, p. 99
			eSZ	H 26.5	
			iSZ	H 26.7	
			F	13 07	
83	Aug. 4	IId	iPNEZ	AH 16 01 28.4	
			F	16 02	
84	Aug. 6	Id	iPZ	H 22 07 08.0	
			iSZ	H 09.5	
			F	22 08	

No.	Date	Char-acter	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
85	Aug. 6	Id	ePN	A 23 28 13.7	
			iPZ	H 14.1	
			eN	A 21.2	
			eE	A 22.7	
			F	23 29	
86	Aug. 6	IIIr	ePNE	A 23 44 05.2	USCGS: 14.1°N 90.9°W
			iPNEZ	G 06.0	h = 100 km
			ePZ	H 09.8	
			iPNZ	AH 15.1	
			iPPZ	G 45 24.5	
			ePPZ	H 46 40.2	
			iSE	G 49 34.5	
			iSN	G 47.5	
			eSN	A 49.2	
			eSE	A 50.7	
			iNE	G 51.2	
			iN	G 51.8	
			eN	A 54.4	
			iNE	G 54.5	
			eLNE	A 58.0	
			F	04 27	
87	Aug. 7	Id	iP̄Z	H 02 02 37.9	See list, p. 99
			iZ	H 41.2	
			F	02 03	
88	Aug. 7	Ir	ePZ	G 06 11 51.5	Central America
			eSNE	G 17 35.5	Aftershock of 8/6/42 - 23^h
			eLNE	G 22.5	
			F	06 47	
89	Aug. 8	Ir	iPNEZ	G 07 26 28.5	
			iSNEZ	G 32 15.5	
			iLNEZ	G 37.5	
			F	08 27	
90	Aug. 8	Iv	iPZ	H 22 30 49.4	See list, p. 99
			iP̄Z	H 50.6	
			F	22 31	
91	Aug. 8	IIr	iPNEZ	G 22 43 40.0	USCGS: 14.0°N 91.0°W
			ePZ	H 42.8	
			iZ	G 45 34.0	
			iSNEZ	G 49 28.0	
			eSNE	A 32.8	
			iLNE	G 56.0	
			eLNE	A 57.5	
			iE	G 58.1	
			iN	G 23 01.7	
			F	01 27	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
92	Aug. 8	Id	iPZ	H 23 59 58.7	
			eN	A 0000 04.3	
			F	00 01	
93	Aug. 8	Iv	ePZ	H 22 30 49.3	
			eN	A 49.8	
			eSNE	A 31 11.8	
			iN	A 14.6	
			F	22 32	
94	Aug. 9	Iv	$iP_{n10}Z$	H 01 18 07.6	See list, p. 99
			iPZ	H 09.3	
			F	01 20	
95	Aug. 9	Id	iPZ	H 16 07 44.0	
			iSNZ	H 46.2	
			F	16 08	
96	Aug. 10	Id	$e\bar{P}NEZ$	AH 11 50 49.9	See list, p. 99
			$e\bar{S}NE$	A 53.2	
			$i\bar{S}Z$	H 53.7	
			F	11 51	
97	Aug. 11	Ir	iPNZ	G 04 55 22.5	Central American aftershock
			iPE	G 27.5	
			iPPZ	G 56 50.5	
			eSNE	G 05 01 10.5	
			iLNE	G 07.5	
			F	05 57	
98	Aug. 11	Ir	ePZ	G 07 18 39.5	Central American aftershock
			iSNE	G 24 27.5	
			iLNE	G 31.0	
			F	07 57	
99	Aug. 13	Id	iPZ	H 15 18 31.0	
			eSEZ	AH 31.7	
			F	15 19	
100	Aug. 13	Iu	iPEZ	G 15 57 34.5	USCGS: 8°S 156.5°E
			eSN	G 16 07 46.5	
			F	17 27	
101	Aug. 14	Id	iPZ	H 01 05 14.6	
			eZ	H 16.5	
			F	01 05	
102	Aug. 14	I	eNE	G 06 48 26.5	
			eNE	G 53.8	
			F	07 12	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
103	Aug. 14	IId	ePE	A 15 14 19.0	See list, p. 99
			iPZ	H 19.4	
			iZ	H 22.0	
			iSNE	A 23.9	
			eSZ	H 24.3	
			F	15 15	
104	Aug. 14	Ir	ePZ	G 20 55 39.0	Pasadena: Mexico
			ePE	G 40.0	
			ePN	G 41.0	
			iPPZ	G 56 12.0	
			iSNE	G 59 54.0	
			iLN	G 21 03 45	
			iLE	G 04 11	
			F	21 57	
105	Aug. 14	Id	iPZ	H 21 30 47.9	
			eE	A 54.2	
			eN	A 54.7	
			eN	A 31 00.7	
			F	21 31	
106	Aug. 15	I	eN	G 15 40.1	Pasadena: New Guinea?
			eZ	G 45.4	
			F	17 27	
107	Aug. 15	Id	ePN	A 18 17 14.0	
			iPZ	H 14.6	
			eZ	H 17.6	
			iZ	H 18.9	
			eN	A 20.1	
			eZ	H 22.1	
			iSZ	H 26.4	
			eSE	A 28.1	
			F	18 18	
108	Aug. 16	I	eEN	G 11 52 38.5	
			eZ	G 49.5	
			iE	G 56 14.5	
			F	12 00	
109	Aug. 16	Ir	iPNEZ	G 20 14 57.0	
			eZ	G 16 37.5	
			iSNE	G 20 43.0	
			iLE	G 25.5	
			iLN	G 25.9	
			F	20 57	
110	Aug. 18	Iv	ePZ	H 07 03 23.0	
			eZ	H 33.0	
			eSNE	A 34.0	
			eSZ	H 34.5	
			iZ	H 36.5	
			F	07 04	

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
111	Aug. 18	IIv	ePNEZ eSNEZ F	AH 21 56 ca AH 57 ca 21 17 ca	Pasadena: 38.6°N 118.5°W
112	Aug. 19	Id		04 46	S - P = 1.3 sec.
113	Aug. 23	Id		22 20	S - P = 1.5 sec.
114	Aug. 24	Id		04 57	S - P = 6.5 sec.
115	Aug. 24	Iu		23 02	Pasadena: 15°S 75°W S - P = 9 minutes ca
116	Aug. 24	Id		23 08	S - P = 5 sec.
117	Aug. 25	Id		20 28	S - P = 1.6 sec.
118	Aug. 28	Id		06 13	$\overline{S} - \overline{P}$ = 6.0 sec. See list, p. 99
119	Aug. 29	Id		22 23	S - P = 6.0 sec.
120	Aug. 31	Iv		05 28	See list, p. 99
121	Sept. 2	Iv		22 02	S - P = 0.9 minutes ca.
122	Sept. 3	Iv		14 07	S - P = 0.9 minutes ca. Pasadena: Ventura County 34° 29'N 118° 59'W
123	Sept. 3	Id		21 12	S - P = 1.7 sec.
124	Sept. 4	Id		00 24	S - P = 9 sec.
125	Sept. 6	Id		03 31	S - P = 5 sec.
126	Sept. 6	Iu		16 05	Chile
127	Sept. 7	Iv		19 51	Tulare County, Near Hot Springs
128	Sept. 8	Id		00 41	S - P = 7 sec.
129	Sept. 9	Ir		01 32	USCGS: 53.0°N 165.7°W
130	Sept. 9	Iv		15 50	S - P = 13 sec.

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
131	Sept. 10	Id		22 46	S - P = 12 sec.
132	Sept. 12	Id		16 22	S - P = 7 sec.
133	Sept. 12	Iv		17 50	S - P = 16.5 sec. See list, p. 99
134	Sept. 12	Id		21 24	S - P = 2.2 sec.
135	Sept. 14	Id		10 00	S - P = 4.5 sec.
136	Sept. 14	Iu		11 44	Pasadena: 22°S 171.5°E h = 130 km
137	Sept. 14	Id		22 18	S - P = 7 sec.
138	Sept. 15	Id	iPZ	H 05 46 29.6	
			eSZ	H 31.7	
			F	05 47	
139	Sept. 15	Id	iPZ	H 06 01 42.6	
			iSZ	H 46.0	
			F	06 02	
140	Sept. 15	Id	iPZ	H 16 36 46.3	See list, p. 99
			iSNZ	AH 56.1	
			F	16 38	
141	Sept. 15	Id	iPZ	H 19 47 07.3	
			iZ	H 08.3	
			iZ	H 09.4	
			F	Runs into next shock	
142	Sept. 15	Id	iPZ	H 19 47 20.2	
			iZ	H 21.1	
			iZ	H 21.9	
			eZ	H 32.4	
			F	19 48	
143	Sept. 16	Iu	eN	G 00 01 18.0	
			iE	G 20.0	
			eN	G 02 35.0	
			eE	G 42.5	
			eLEZ	G 19.3	
			F	01 21	
144	Sept. 16	Id	iPZ	H 17 06 43.8	
			iSNZ	AH 50.3	
			eE	A 53.5	
			F	17 08	

BERKELEY

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
145	Sept. 16	Id	ePZ	H 21 26 33.5	
			iPZ	H 34.2	
			eN	A 41.0	
			eZ	H 42.5	
			F	21 28	
146	Sept. 16	Id	ePN	A 22 44 37.0	
			iPZ	H 37.7	
			iNZ	AH 45.3	
			eE	A 46.0	
			F	22 46	
147	Sept. 17	Id	ePN	A 04 44 19.4	
			iPZ	H 19.8	
			iZ	H 29.2	
			F	04 45	
148	Sept. 17	Id	iPZ	H 05 02 13.9	
			ePNE	A 14.3	
			eSE	A 21.8	
			iSNZ	AH 22.3	
			F	05 03	
149	Sept. 17	Id	iPZ	H 10 17 31.3	
			iSZ	H 34.8	
			F	10 18	
150	Sept. 17	Id	iPZ	H 10 30 16.6	
			iSZ	H 19.6	
			F	10 31	
151	Sept. 17	Id	iPNZ	AH 11 50 06.9	
			iZ	H 11.0	
			F	11 51	
152	Sept. 17	Iu	eE	G 20 37.5	Surface waves
			eN	G 38.6	
			F	21 01	
153	Sept. 17	Id	iPZ	H 21 32 51.8	
			iZ	H 55.4	
			F	21 34	
154	Sept. 18	I	iPZ	H 02 15 57.5	
			F	02 17	
155	Sept. 18	Id	iPZ	H 03 16 07.6	
			eZ	H 14.4	
			F	03 17	
156	Sept. 18	Id	iPZ	H 03 37 47.8	
			iZ	H 51.0	
			F	03 38	

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
157	Sept. 18	Id	iPZ	H 03 38 28.6	
			eZ	H 31.9	
			F	03 39	
158	Sept. 18	I	iPZ	H 03 49 31.1	
			eZ	H 35.8	
			F	03 51	
159	Sept. 18	Id	iPZ	H 05 57 04.2	
			iZ	H 07.4	
			F	05 58	
160	Sept. 18	Id	iPZ	H 11 35 50.8	
			iZ	H 54.3	
			F	11 37	
161	Sept. 18	Id	iPZ	H 11 49 58.4	
			iZ	H 50 01.2	
			F	11 51	
162	Sept. 19	IId	iP̄Z	H 00 14 01.6	See list, p. 99
			iS̄NZ	AH 10.6	
			eE	A 12.6	
			F	00 15	
163	Sept. 19	IId	iPZ	H 04 47 53.3	
			eE	A 57.1	
			iSZ	H 57.6	
			F	04 49	
164	Sept. 19	IId	iPZ	H 11 46 40.4	
			iSEZ	AH 44.4	
			eE	A 49.5	
			eN	A 51.5	
			F	11 48	
165	Sept. 19	Id	iPZ	H 12 05 47.6	
			iSZ	H 50.1	
			F	12 07	
166	Sept. 20	Id	iPZ	H 06 43 56.3	
			iNZ	AH 44 01.2	
			eE	A 04.3	
			F	06 05	
167	Sept. 20	Id	iPZ	H 23 23 50.4	
			iSZ	H 53.6	
			eN	A 58.1	
			eE	A 24 00.6	
			F	23 25	

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
168	Sept. 20	Iu	iPNEZ	G 23 54 54.5	
			iPNEZ	AH 55.1	
			iEZ	G 55 29.5	
			eNE	G 00 04 24.5	
			eN	G 17.2	
			F	01 01	
169	Sept. 22	Iu	ePNZ	AH 00 58 20.5	USCGS: 37.5°S 98.5°W
			ePZ	G 21.5	
			eZ	H 32.3	
			iZ	G 59 20.5	
			iSEZ	G 01 08 11.5	
			iSN	G 13.5	
			eLNEZ	G 22.7	
			F	03 01	
170	Sept. 22	Iu	iPZ	H 05 10 43.7	
			eZ	H 47.2	
			F	05 11	
171	Sept. 23	Id	iPZ	H 08 06 36.5	See list, p. 99
			iSZ	H 46.3	
			F	08 07	
172	Sept. 23	Id	iPZ	H 08 08 29.0	Aftershock
			iSZ	H 38.8	
			F	08 09	
173	Sept. 23	Id	iPZ	H 08 09 22.8	Aftershock
			iSZ	H 32.7	
			F	08 10	
174	Sept. 24	Iu	ePZ	G 03 52 14.5	USCGS: 25°N 123°E
			iSNE	G 04 02 51.0	
			iLNE	G 27.9	
			F	05 51	
175	Sept. 25	IId	iPNEZ	AH 07 20 27.7	Intensity IV in Richmond
			iSNE	A 28.9	
			iZ	H 30.0	
			F	07 21	
176	Sept. 25	Ir	ePNEZ	G 08 21 02.5	USCGS: 53°N 168°W
			iSNE	G 26 33.5	
			iE	G 28 48.5	
			iN	G 54.5	
			iNE	G 30 18.5	
			iLNE	G 32.2	
			F	11 01	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
177	Sept. 26	Ir	iPNEZ	G 04 07 51.0	USCGS: 12.8°N 87.7°W
			eNEZ	G 09 33.0	
			eZ	G 10 05.5	
			iSZ	G 13 41.0	
			iSN	G 46.0	
			iSE	G 49.0	
			iN	G 16 56.5	
			iE	G 17 03.0	
			iLNE	G 20.1	
			iLZ	G 22.3	
			F	06 01	
178	Sept. 26	Id	iPZ	H 22 12 07.7	
			iNEZ	AH 12.6	
			iN	A 15.1	
			F	22 13	
179	Sept. 26	Id	iPZ	H 22 14 40.9	
			eN	A 43.0	
			iZ	H 43.4	
			eE	A 45.0	
			F	22 16	
180	Sept. 27	Iu	ePNZ	G 13 26 11.5	
			eE	G 19.5	
			iN	G 23.5	
			iSN	G 36 17.5	
			iSE	G 22.0	
			iPSN	G 37 20.5	
			iLN	G 55.0	
			iLE	G 56.5	
			F	15 01	
181	Sept. 27	Ir	iPEZ	G 17 09 11.5	
			eEZ	G 10 30.5	
			eE	G 14 45.5	
			eN	G 15 18.5	
			iLNE	G 20.1	
			F	17 41	
182	Sept. 28	Iv	iPZ	H 08 37 00.0	
			iZ	H 04.8	
			eN	A 06.3	
			iZ	H 08.1	
			iN	A 27.8	
			iE	A 29.5	
			F	08 38	
183	Sept. 28	I	iN	G 17 08.3	Surface waves
			iE	G 04.8	
			F	17 26	

BERKELEY

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
184	Sept. 29	I	iN	G 00 20.7	
			iE	G 22.8	
			F	01 41	
185	Sept. 29	IIv	ePEZ	G 08 28 33.0	Strong in Colusa County
			iPNZ	AH 33.4	
			ePN	G 34.5	
			iNZ	AH 40.3	
			iNZ	AH 45.3	
			iSNE	G 53.0	
			iSN	A 53.6	
			iE	G 59.0	
			iNZ	AH 29 01.7	
			iE	A 03.8	
			iE	A 16.8	
			iN	G 19.0	
			F	08 39	
186	Sept. 29	I	eNE	G 13 01 18.5	Pasadena: Panama
			eNE	G 10.1	
			F	13 31	

THE LICK OBSERVATORY STATION, UNIVERSITY OF CALIFORNIA
MOUNT HAMILTON, CALIFORNIA

CONSTANTS

CONSTANTS OF THE STATION

Latitude and longitude:

ϕ = 37° 20!4 N.
λ = 121° 38!6 W.

Time -- All determinations are reduced to Universal Time.

Altitude -- 1281.7 meters (4205 feet) above mean sea level.

CONSTANTS OF THE SEISMOGRAPHS

Apparatus	Component	V	T_o	ε
Wood-Anderson	E	3000	1	15
	N	3000	1	15

MT. HAMILTON

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
1	July 2	IId	iPN	19 24 59.8	
			iSN	25 01.1	
			F	19 26	
2	July 3	Id	iSN	04 40 04.7	
			F	04 41	
3	July 3	Id	eSZ	05 06 01.7	
			F	05 07	
4	July 3	Id	iPN	05 51 15.8	
			iSN	21.8	
			F	05 53	
5	July 4	Iv	ePN	02 02 26.0	
			eN	40.0	
			F	02 04	
6	July 4	Iv	ePN	06 18 05.0	
			eN	19.0	
			F	06 19	
7	July 4	Iv	ePN	08 53 26	
			eSN	55	
			F	08 55	
8	July 4	IId	ePN	11 59 16.0	
			iSN	17.0	
			F	12 00	
9	July 6	Iv	iPE	22 12 22.2	Nevada earthquake
			iPN	23.2	
			eE	27.0	
			iSN	51.5	
			F	22 16	
10	July 8	Iu	ePN	07 07 41	USCGS: 25°S 69.7°W
			eSN	17 36	h = 150 km
			F	07 25	
11	July 8	Iv	iPE	10 06 28.7	See list, p. 99
			iSE	58	
			F	10 09	
12	July 8	Iv	iPN	10 06 29.4	
			iSN	58.3	
			F	10 09	
13	July 8	Iu	ePN	22 40 13	USCGS: 0.7°N 80.5°W
			ePE	14	
			eN	17.0	
			eE	18.5	
			F	22 45	

MT. HAMILTON

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
14	July 9	Iv	ePN	02 10 59	
			eN	11 32	
			F	02 15	
15	July 9	Iv	ePN	12 22 27	
			ePE	30	
			eSN	23 02	
			F	12 25	
16	July 9	Id	ePN	22 47 59	
			eSN	48 08	
			F	22 49	
17	July 11	IIv	ePE	16 42 45	Felt at Tonopah and Manhattan, Nevada
			ePN	46	
			iSE	43 34.7	
			iSN	35.2	
			F	16 50	
18	July 12	Iu	ePN	05 12 11	USCGS: 0.3°N 80.1°W
			ePE	23	
			eE	13 24	
			eN	30	
			eN	14 35	
			eE	45	
			eSNE	22 14	
			F	05 41	
19	July 14	Iv	ePN	16 40 03	Mendocino County
			ePE	08	
			eN	41 27	
			eE	32	
			F	16 43	
20	July 16	Id	ePE	09 26 46.5	See list, p. 99
			ePN	47.5	
			iSNE	55.9	
			F	09 28	
21	July 16	Id	ePN	11 46 23.5	
			ePE	24.0	
			eSNE	25.0	
			F	11 47	
22	July 19	Iv	ePN	03 33 04	
			eSE	26	
			iSN	26.5	
			F	03 35	
23	July 19	Id	ePN	09 53 21.0	
			iSNE	43.6	
			F	09 54	

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
24	July 19	Id	eSNE	09 54 22.5	
			F	09 55	
25	July 19	Id	ePN	10 42 22.5	See list, p. 99
			eSN	33.5	
			eSE	34.3	
			F	10 43	
26	July 19	Id	iSN	12 14 15.6	
			eSE	16.0	
27	July 19	Id	eSNE	13 32 45.5	
28	July 19	Id	eSN	13 38 59.0	
			eSE	59.5	
29	July 19	Id	ePN	14 20 24.0	
			eSE	34.5	
			eSN	35.0	
			F	14 22	
30	July 19	Id	eSE	14 53 10	
			eSN	20.5	
31	July 19	Iv	ePN	17 59 07	
			ePE	13	
			eSN	20.5	
			eSE	21.5	
			F	18 00	
32	July 19	Id	ePN	21 00 47	
			eSNE	59.0	
			F	21 02	
33	July 19	Id	ePN	21 02 29	
			ePE	30	
			eSNE	32	
			F	21 03	
34	July 19	Id	eSN	21 24 14.0	
			eN	36	
35	July 21	Id	eN	21 14 16	
			eN	19.0	
			F	21 15	
36	July 21	Id	ePN	22 14 27	
			eSE	32	
			eSN	33	
			F	22 15	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
37	July 24	Id	ePN	22 28 05	
			eSN	17.5	
			eSE	18.5	
			F	22 30	
38	July 27	Id	iPNE	19 26 49.1	
			eSNE	50	
			F	19 28	
39	July 28	Iv	ePN	08 05 58	
			eN	06 36	
			eE	39	
			F	08 08	
40	Aug. 1	Iv	eE	14 49 58	
			eN	50 05	
			eN	18	
			F	14 57	
41	Aug. 4	Id	ePNE	01 02 10.2	See list, p. 99
			iSNE	14.1	
			F	02 04	
42	Aug. 4	Id	iPNE	14 05 59.1	See list, p. 99
			iSNE	06 03.1	
			F	14 08	
43	Aug. 5	Id	iPNE	13 15 49.8	
			iSNE	52.5	
			F	13 18	
44	Aug. 6	IIr	iPN	23 43 58.8	USCGS: 141.°N 90.9°W
			ePE	59.5	h = 100 km
			eSN	49 47.5	
			eSE	50.0	
			F	00 50	
45	Aug. 7	Ir	eSE	01 16 31	Pasadena: 34° 18'N
			eSN	32	116° 25'W
			F	01 21	
46	Aug. 7	Id	iPNE	02 02 30.6	See list, p. 99
			iSNE	33.7	
			F	02 04	
47	Aug. 8	Id	ePNE	22 30 38.6	See list, p. 99
			eE	43.0	
			iSE	47.0	
			iSN	48.0	
			F	22 32	
48	Aug. 8	Ir	eSN	22 43 31	USCGS: 14.0°N 91.0°W
			eE	35	
			F	22 45	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
49	Aug. 9	Id	ePN	01 17 56	See list, p. 99
			ePE	57	
			eSNE	18 04	
			F	01 22	
50	Aug. 10	Id	ePN	11 51 47.5	See list, p. 99
			eSN	52 01.0	
			F	11 53	
51	Aug. 13	Id	ePE	01 09 36.0	
			ePN	37.0	
			eSN	45.5	
			iSE	46.7	
			F	01 13	
52	Aug. 14	Id	ePE	15 14 25.5	See list, p. 99
			iPN	26.1	
			eSE	35.5	
			F	15 16	
53	Aug. 15	Iv	iPE	18 17 24.6	
			eSE	45.5	
			F	18 19	
54	Aug. 18	IIv	eSE	07 00 38	
			F	07 02	
55	Aug. 18	IIv	ePE	21 56 21	Pasadena: 38.6°N 118.5°W
			ePN	27	
			eSE	57 03	
			F	22 03	
56	Aug. 20	Iv	ePE	12 10 20.0	Near Hot Springs, Tulare County
			iPN	21.0	
			eSNE	50.0	
			iSNE	51.0	
			F	12 13	
57	Aug. 20	Iv	ePN	12 17 23	
			eSN	49	
			eSE	52	
			F	12 19	
58	Aug. 20	Iv	ePE	15 27 13	Near Hot Springs, Tulare County
			ePN	14	
			eSE	47	
			F	15 29	
59	Aug. 21	Iv	ePE	23 37 23.0	Aftershock
			ePN	23.5	
			eSNE	54	
			F	23 40	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
60	Aug. 22	Iv	eN	19 59 16	
			eE	17	
			F	20 01	
61	Aug. 23	Ir	eN	06 44 34	USCGS: 54.8°N 164.8°E
			eE	35	h = 150 km
			F	06 36	
62	Aug. 24	Iu	ePN	23 01 30	Pasadena: 15°S 75°W
			ePE	31	
			eSN	10 29	
			eSE	42	
			F	01 40	
63	Aug. 25	Id	ePE	10 56 52	
			eSE	53	
			eSN	54	
			F	10 58	
64	Aug. 28	Id	ēPE	05 13 38	See list, p.
			ēSE	48	
			F	05 59	
65	Aug. 29	Id		07 12	S - P = 10 sec. ca.
66	Aug. 31	Id	iP̄NE	05 28 00.5	See list, p. 99
			eS̄E	06.5	
			F	05 30	
67	Sept. 2	Ir	eN	03 24 17	USCGS: 52.4°N 169.6°W
			eE	18	
			F	03 27	
68	Sept. 4	Iv	ePNE	06 35 26	Esmeralda County, Nevada
			eE	31.5	
			eN	32.5	
			iN	57.3	
			iE	36 03.8	
			eSE	10.8	
			eSN	12.6	
			F	06 40	
69	Sept. 4	Iv	ePE	12 57 54	
			ePN	58 15.4	
			iSE	20.6	
			iSN	21.0	
			F	12 59	
70	Sept. 6	Iu	ePNE	16 05 32	Chile
			eSN	45	
			eSE	47	
			F	16 07	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
71	Sept. 7	Iv	ePNE	19 50 53.0	Tulare County. Near Hot Springs
			iSN	51 22.3	
			eSE	24.5	
			F	19 52	
72	Sept. 9	Ir	ePN	01 32 08.0	USCGS: 53.0°N 165.7°W
			ePE	08.5	
			eSE	37 37.0	
			eSN	37.5	
			F	02 04	
73	Sept. 9	Iv	ePN	05 16 55	
			ePE	56	
			F	05 18	
74	Sept. 11	Id	ePN	22 31 15.0	
			ePE	15.5	
			eN	16.5	
			eSE	17.0	
			F	22 32	
75	Sept. 12	Id	iPNE	14 14 07.0	
			eSE	08.0	
			eSN	08.5	
			F	14 15	
76	Sept. 12	I	eSNE	16 22 03.5	
			F	16 24	
77	Sept. 12	Id	ePE	16 22 59.5	
			ePN	23 01	
			eSE	02	
			eSN	03	
			F	16 24	
78	Sept. 13	Id	iPNE	17 49 19.9	See list, p. 99
			iSNE	27.6	
			F	17 50	
79	Sept. 13	Id	ePE	01 57 12	
			ePN	13	
			ePNE	14	
			F	01 59	
80	Sept. 14	Iu	ePN	11 43 35	Pasadena: 22°S 171.5°E h = 130 km
			ePE	37	
			eN	44 14.5	
			eE	18	
			F	11 45	
81	Sept. 15	Id	ePNE	16 36 42.8	See list, p. 99
			iSNE	50.4	
			F	16 38	

MT. HAMILTON

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
82	Sept. 15	Iv	ePN	03 18 31	
			ePE	33	
			eN	57.5	
			eE	58.5	
			F	03 20	
83	Sept. 17	I	eN	11 50 12.5	
			eE	13.5	
			F	11 52	
84	Sept. 17	Id	ePNE	13 03 15.0	
			eSNE	16.5	
			F	13 04	
85	Sept. 17	Id	iPE	13 31 33.5	
			iPN	35.0	
			eSE	35.0	
			eSN	35.5	
			F	13 32	
86	Sept. 19	IId	$i\bar{P}NE$	00 13 53.0	See list, p. 99
			$e\bar{S}NE$	55	
			F	00 15	
87	Sept. 20	Iv	eN	16 15 26	
			eE	29	
			F	16 18	
88	Sept. 20	Iu	ePN	23 54 57	
			ePE	58	
			F	23 56	
89	Sept. 21	Id	ePE	01 13 06	
			ePN	07.3	
			eSN	11.5	
			eSE	12.6	
			F	01 14	
90	Sept. 21	Iv	ePE	17 50 03.5	
			ePN	04	
			eSN	34	
			eSE	38	
			F	17 52	
91	Sept. 21	I	eN	19 00 10	
			eE	14	
			F	19 01	
92	Sept. 23	Id	iPNE	07 08 03.3	
			eSNE	04.5	
			F	07 11	

MT. HAMILTON

No.	Date 1942	Character	Phase	Time (U.T.) h. m. s.	Remarks
93	Sept. 23	IId	iP̄NE	08 06 23.9	See list, p. 99
			eS̄NE	25.5	
			F	08 07	
94	Sept. 23	IId	iP̄NE	08 08 07.3	Aftershock
			eS̄N	08.5	
			eS̄E	09.0	
			F	08 09	
95	Sept. 23	Id	iP̄NE	08 37 16.8	Aftershock
			eS̄NE	18.5	
			F	08 38	
96	Sept. 25	Iv	ePN	11 21 56	
			eSE	22 35	
			eSN	37	
			F	11 23	
97	Sept. 27	Iu	eN	17 09 06.0	Central America
			F	17 13	
98	Sept. 28	Iv	eN	08 37 13	
			F	08 40	
99	Sept. 29	IIv	ePNE	08 28 43.1	Strong in Colusa County
			eSNE	29 00.0	
			eN	06.9	
			iE	08.0	
			eE	17.4	
			F	08 36	

PALO ALTO

THE BRANNER STATION, STANFORD UNIVERSITY
PALO ALTO, CALIFORNIA

CONSTANTS

CONSTANTS OF THE STATION

Latitude and longitude:

φ = 37° 25.1 N.
λ = 122° 10.8 W.

Time -- All determinations are reduced to Universal Time.

Altitude -- 83 meters (272 feet) above mean sea level.

CONSTANTS OF THE SEISMOGRAPHS

Apparatus	Component	V	T_o	ε
Wood-Anderson	E	3000	1	15
	N	3000	1	15

No.	Date	Char-acter	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
1	July 4	Iu	ePNE	06 18 10	USCGS: 0.7°N 80.7°W
			F	06 27	
2	July 5	IId	iPNE	18 46 24.4	
			iSNE	25.8	
			F	18 47	
3	July 6	IIv	iPNE	22 12 27.8	Nevada earthquake
			iE	35.4	
			iN	36.0	
			iSE	59.0	
			iSN	13 02.8	
			F	22 24	
4	July 7	Iu	iPE	03 05 12.5	USCGS: 21.4°S 177.8°W
			iPN	12.9	h = 430 km
			iN	52.5	
			F	03 07	
5	July 8	Iv	iPN	10 06 34.0	See list, p. 99
			iPE	34.5	
			iSNE	07 07.7	
			F	10 09	
6	July 8	Id	iPN	16 26 36.9	Blast
			iPE	38.2	
			F	16 28	
7	July 8	Iu	ePNE	22 40 26	USCGS: 0.7°N 80.5°W
			F	22 42	
8	July 9	Iv	ePN	12 22 13.2	
			ePE	15.2	
			eSN	34.2	
			eSE	42.2	
			F	12 39	
9	July 9	IId	iPN	22 47 54.3	
			iPE	54.8	
			iSN	57.3	
			iSE	57.8	
			F	22 49	
10	July 11	Id	ePE	13 04 54	
			ePN	58.4	
			F	13 06	
11	July 11	IIv	ePE	16 42 53.8	Felt in Tonopah and Manhattan, Nevada
			eN	59.8	
			iSNE	43 45.1	
			F	16 50	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
12	July 11	Iv	ePN	16 47 10	
			F	16 49	
13	July 12	Iu	ePNE	05 12 11.0	USCGS: 0.3°N 80.1°W
			eE	39.5	
			eN	42.5	
			F	05 14	
14	July 13	Id	ePNE	03 30 07.8	
			F	03 31	
15	July 14	Iv	ePNE	16 40 02.1	Mendocino County
			eSNE	33	
			F	16 43	
16	July 16	IId	$i\bar{P}NE$	09 26 42.3	See list, p. 99
			$i\bar{S}NE$	46.7	
			F	09 28	
17	July 17	Id	ePE	03 03 42	
			ePN	44	
			F	03 05	
18	July 19	Id	iPNE	02 18 49.6	
			iSNE	51.2	
			F	02 20	
19	July 19	Id	ePE	03 33 31	
			ePN	33	
			F	03 35	
20	July 19	Id	ePNE	09 53 40	
			F	09 55	
21	July 19	Id	$i\bar{S}E$	10 42 34.5	See list, p. 99
			eS*N	37.0	
			iS*E	38.0	
			F	10 44	
22	July 19	Id	ePNE	12 14 24	
			F	12 15	
23	July 19	Id	ePE	14 20 28	
			ePN	30	
			F	14 22	
24	July 19	Id	ePE	17 59 13.5	
			ePN	14	
			F	18 01	
25	July 19	Id	ePNE	21 00 52	
			F	21 02	

PALO ALTO

No.	Date	Character	Char-	Time (U.T.)	Remarks
	1942			h. m. s.	
26	July 20	Id	ePN	11 05 35	
			ePE	36	
			F	11 07	
27	July 21	IId	iPNE	19 07 51.7	
			iSN	53.5	
			F	19 09	
28	July 22	Id	ePNE	18 05 16	
			F	18 07	
29	July 24	IId	iPN	00 29 38.1	
			iPE	39.7	
			iSN	41	
			F	00 31	
30	July 24	Id	iPN	22 21 36.3	
			iSN	37.8	
			F	22 22	
31	July 25	Id	iPNE	23 21 09.0	
			eSN	16.7	
			F	23 22	
32	July 27	Id	ePN	00 39 58.0	
			F	00 41	
33	July 27	Id	ePN	21 48 27.3	
			F	21 49	
34	July 28	Iv	iPN	08 06 14	
			F	08 08	
35	July 30	Id	iPN	00 26 26.8	
			F	00 27	
36	July 30	Id	ePN	00 38 47.3	
			eSN	53.3	
			F	00 40	
37	July 30	Id	ePN	00 42 27	
			F	00 43	
38	July 30	Id	ePN	00 43 40.3	
			F	00 44	
39	Aug. 1	Id	ePE	03 45 20.9	
			ePN	21.4	
			eSE	29.9	
			eSN	31.9	
			F	03 46	

No.	Date 1942	Character	Phase	Time (U.T.) h. m. s.	Remarks
40	Aug. 1	IId	iPE	22 23 58.1	
			iPN	59.1	
			iSE	59.7	
			iSN	24 00.7	
			F	22 25	
41	Aug. 1	Iv	ePNE	23 56 37.9	
			iSNE	48.4	
			F	23 58	
42	Aug. 2	Id	ePNE	09 57 54.4	
			iSNE	57.4	
			F	09 59	
43	Aug. 2	Id	iPNE	23 00 41.7	
			iSNE	43.4	
			F	23 01	
44	Aug. 4	Id	iP̄NE	01 02 17.9	See list, p. 99
			iS̄E	28.4	
			F	01 04	
45	Aug. 4	Id	iP̄E	13 06 06.6	See list, p. 99
			eN	10.6	
			iS̄NE	16.9	
			F	13 07	
46	Aug. 4	Id	ePE	14 20 47.6	
			ePN	50.6	
			F	14 21	
47	Aug. 4	Id	ePNE	22 30 16.6	
			F	22 31	
48	Aug. 5	Id	ePNE	17 15 56.2	
			eSNE	16 00.2	
			F	17 17	
49	Aug. 6	Id	ePE	23 28 19	
			ePN	21	
			eSE	30	
			eSN	31	
			F	23 30	
50	Aug. 6	IIr	iPNE	23 44 03.4	USCGS: 14.1°N 90.9°W
			iN	13	h = 100 km
			iE	25	
			iSE	50 47	
			iSN	49	
			iLNE	56 07	
			F	00 19	

No.	Date 1942	Character	Phase	Time (U.T.) h. m. s.	Remarks
51	Aug. 7	Ir	ePNE	01 17 07.4	Pasadena: 34° 18'N 116° 25'W
			eSN	18 30.9	
			eSE	44.9	
			F	01 21	
52	Aug. 7	Id	ePE	02 02 38.4	See list, p. 99
			ePN	39.4	
			eSNE	41.5	
			F	02 04	
53	Aug. 7	Id	iPNE	18 19 15.3	
			iSE	20.8	
			iSN	22.4	
			F	18 21	
54	Aug. 7	Id	ePN	23 01 58.3	
			ePE	58.9	
			iSNE	02 01.4	
			F	23 03	
55	Aug. 8	Iv	ePN	22 30 44.7	See list, p. 99
			iPE	45.4	
			iSE	00.1	
			eSN	00.5	
			F	22 33	
56	Aug. 9	Id	ePE	00 00 04.7	
			ePN	05.3	
			eSNE	15	
			F	00 01	
57	Aug. 9	Id	ePN	01 18 02.0	See list, p. 99
			eP_{n10^E}	02.5	
			eE	13.5	
			eSE	15.0	
			eSN	16.5	
			F	01 19	
58	Aug. 10	Id	ePE	11 50 58.0	See list, p. 99
			eSE	51 06.0	
			eSN	06.5	
			F	12 07	
59	Aug. 10	Id	ePE	22 18 22.7	
			ePN	24.2	
			eSN	30.2	
			eSE	32.2	
			F	22 19	
60	Aug. 12	Id	ePE	18 58 07.5	
			ePN	08.5	
			eSNE	16.5	
			F	18 59	

No.	Date 1942	Character	Phase	Time (U.T.) h. m. s.	Remarks
61	Aug. 13	Id	ePNE	00 11 09.8	
			eSN	17.5	
			eSE	19.0	
			F	00 12	
62	Aug. 13	Iv	ePNE	01 09 38.0	
			eSNE	54.0	
			F	01 11	
63	Aug. 13	Iv	ePNE	17 46 03	
			eSN	46	
			eSE	48	
			F	17 48	
64	Aug. 14	Id	ePNE	09 42 36	
			F	09 44	
65	Aug. 14	Id	iPNE	15 14 25.4	See list, p. 99
			iSNE	34.1	
			F	15 18	
66	Aug. 14	IId	iPNE	18 18 20.0	
			iSNE	21.6	
			F	18 19	
67	Aug. 15	Iv	ePE	18 17 17.6	
			ePN	18.1	
			iPE	18.6	
			eSNE	34.0	
			F	18 21	
68	Aug. 15	Id	iPNE	22 29 04.8	
			iSNE	14.3	
			F	22 31	
69	Aug. 16	Id	iPNE	00 33 37.3	
			iSN	42.3	
			iSE	44.3	
			F	00 35	
70	Aug. 18	IIv	ePNE	21 56 30.1	Pasadena: 38.6°N 118.5°W
			eSNE	57 13.1	
			F	22 03	
71	Aug. 19	Id	iPNE	07 00 45.4	
			iSNE	51.6	
			F	07 03	
72	Aug. 19	IId	iPE	19 13 23.1	
			iPN	24.3	
			iSE	25.0	
			iSN	25.8	
			F	19 14	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
73	Aug. 20	Iv	ePNE	11 12 35.5	
			eSN	13 13.5	
			eSE	19.0	
			F	11 16	
74	Aug. 20	Iv	ePNE	12 10 32.5	Tulare County, Near Hot Springs
			eSNE	11 06.5	
			F	12 73	
75	Aug. 21	Id	ePNE	00 50 06.0	
			F	00 52	
76	Aug. 21	Iv	ePNE	15 27 20.0	Tulare County, Near Hot Springs
			eE	27.5	
			eN	30.0	
			F	15	
77	Aug. 21	Iv	iPE	23 37 28.2	Aftershock
			iPN	30.7	
			iSN	39 11.7	
			iN	18.9	
			F	23 41	
78	Aug. 23	Id	ePNE	01 26 25.3	
			eSE	33	
			eSN	35	
			F	01 28	
79	Aug. 24	IIu	ePE	23 01 33.4	Pasadena: 15°S 75°W
			ePN	35.3	
			iE	51.6	
			iN	02 02.6	
			iE	28.4	
			iN	37.6	
			eSN	10 34.1	
			iSE	42.9	
			eN	11 15.9	
			eE	18.1	
			eLNE	20.5	
			eNE	26.5	
			F	01 00	
80	Aug. 27	IId	iPNE	16 23 10.5	
			iSNE	12.0	
			F	16 24	
81	Aug. 28	Id	ePE	06 13 45.0	See list, p. 99
			eSNE	53.6	
			F	06 29	
82	Aug. 28	Id	iPNE	17 17 18.6	
			iSE	20.0	
			F	17 18	

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
83	Aug. 29	Iv	eE	09 26 56.6	
			eE	27 21.2	
			F	09 29	
84	Aug. 29	Id	ePE	22 22 42	
			eSE	51.2	
			eNE	54.6	
			F	22 24	
85	Aug. 30	Id	ePNE	21 32 49.6	
			iSNE	51.1	
			F	21 34	
86	Aug. 31	Id	ePNE	05 28 03.8	See list, p. 99
			iSNE	40.7	
			F	05 30	
87	Aug. 31	Id	ePNE	20 34 32.0	
			iSNE	34.2	
			F	20 36	
88	Sept. 2	Ir	ePNE	03 24 16.0	USCGS: 52.4°N 169.6°W
			eE	28 51.5	
			F	03 30	
89	Sept. 2	Id	ePE	22 02 53	
			iE	03 32.3	
			F	22 06	
90	Sept. 3	Iv	ePNE	14 07 00.2	Pasadena: 34°29' N
			iSN	08 13.1	118° 59'W
			iSE	13.8	Ventura County
			F	14 12	
91	Sept. 4	Id	ePNE	00 24 26.3	
			iSNE	38.3	
			F	00 26	
92	Sept. 4	Iv	iPE	06 35 22.1	Esmeralda County, Nevada
			ePN	33	
			iE	51	
			iSN	36 36.4	
			iNE	45.6	
			F	06 39	
93	Sept. 4	Iv	eE	12 58 22	
			eN	24	
			iE	26.0	
			F	13 00	
94	Sept. 4	Ir	eNE	17 53 14.6	USCGS: 52.5°N 170°W
			F	17 56	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
95	Sept. 6	Iu	eNE	16 05 57.4	Chile
			F	16 08	
96	Sept. 7	Iv	eE	19 51 01	Tulare County, Near Hot Springs
			iSE	07	
			F	19 53	
97	Sept. 8	Id	ePNE	00 40 42.4	
			eSNE	54	
			F	00 42	
98	Sept. 8	Iu	eE	16 19 00	USCGS: 36.5°N 139.5°E
			eE	10	
			eN	14	
			F	16 20	
99	Sept. 9	Ir	ePNE	01 32 04.4	USCGS: 53°N 165.7°W
			iPNE	05.3	
			eSNE	37 29.3	
			eLNE	41.4	
			F	01 54	
100	Sept. 9	Iv	ePNE	15 49 39.4	
			iSNE	50 12.6	
			F	15 51	
101	Sept. 10	IId	iPNE	18 13 20.7	
			iMNE	24.6	
			F	18 15	
102	Sept. 10	Id	iPNE	18 58 20.9	
			iSE	23.8	
			F	18 59	
103	Sept. 10	Iv	eE	22 45 45.9	
			eN	49	
			F	22 46.5	
104	Sept. 12	Iv	eSNE	16 21 58.7	2 quakes
			iSNE	22 45.3	
			F	16 24	
105	Sept. 12	Id	$e\bar{P}N$	17 49 25.5	See list, p. 99
			iPE	26.0	
			$i\bar{S}NE$	38.5	
			F	17 51	
106	Sept. 12	Id	ePNE	18 25 50	
			F	18 27	
107	Sept. 12	Id	eE	16 52 34	
			F	16 53	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
108	Sept. 13	Id	ePNE	01 02 32	
			iSNE	37.7	
			iN	42	
			F	01 04	
109	Sept. 14	Iu	eNE	11 43 37	Pasadena: 22°S 171.5°E h = 130 km
			F	11 46	
110	Sept. 14	I	eNE	17 10 35.3	
			F	17 11	
111	Sept. 15	Id	iPNE	16 36 38.7	See list, p. 99
			iSNE	43.4	
			F	16 38	
112	Sept. 15	IId	iPNE	18 01 42.2	
			iSN	43.6	
			F	18 02	
113	Sept. 15	Id	ePNE	22 14 04	
			eSNE	12	
			F	22 15	
114	Sept. 16	I	eE	20 32 54	
			eNE	33 03	
			iE	12	
			iNE	15.5	
			F	20 34	
115	Sept. 16	I	eNE	20 53 18.5	
			eN	51	
			iE	55	
			F	20 55	
116	Sept. 16	I	eNE	21 29 17	
			F	21 30	
117	Sept. 16	I	eE	22 44 44	
			eNE	56	
			F	22 45	
118	Sept. 18	I	eE	02 16 24.8	
			eNE	36.8	
			F	02 17	
119	Sept. 18	I	eE	03 49 36	
			eNE	46.7	
			F	03 51	
120	Sept. 18	IId	iPNE	19 07 58.1	
			iNE	59.6	
			iMNE	08 02.7	
			F	19 09	

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
121	Sept. 18	I	eE	22 31 09	
			eNE	26.5	
			eNE	51	
			F	22 33	
122	Sept. 18	I	eNE	22 33 58	
			F	22 35	
123	Sept. 19	Id	iPNE	00 13 57.4	See list, p. 99
			iSNE	14 02.4	
			iE	12.8	
			F	00 16	
124	Sept. 19	Id	ePNE	15 46 52.6	
			iNE	54	
			iE	55.9	
			F	15 48	
125	Sept. 20	Iv	eNE	16 17 04.1	
			eNE	13.0	
			F	16 18	
126	Sept. 20	Id	ePNE	22 21 22.0	
			iSNE	24.4	
			F	22 22	
127	Sept. 20	Id	eN	23 23 59.7	
			eN	24 06.9	
			F	23 25	
128	Sept. 21	I	eNE	00 54 54.8	
			eNE	55 30.0	
			F	00 56	
129	Sept. 21	Id	ePE	01 13 12.9	
			iSNE	21.0	
			F	01 14	
130	Sept. 21	Iv	ePNE	11 17 33.2	
			eNE	47.3	
			iNE	48.5	
			F	11 19	
131	Sept. 21	Iv	ePE	17 50 09.3	
			iSNE	43.4	
			F	17 53	
132	Sept. 21	IId	iPNE	22 06 22.4	
			iSNE	23.7	
			iME	25.3	
			F	22 07	

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
133	Sept. 22	Iu	eN	00 58 51	USCGS: 37.5°S 98.5°W
			F	01 01	
134	Sept. 22	Id	ePE	01 37 31.0	
			iSNE	32.4	
			F	01 38	
135	Sept. 22	Id	ePE	03 51 54.8	
			iSNE	56.9	
			F	03 53	
136	Sept. 22	Id	ePE	20 30 28.4	
			iSNE	29.5	
			F	20 31	
137	Sept. 23	Id	eE	08 08 13.9	
			eNE	17	
			F	08 09	
138	Sept. 23	Id	eE	08 08 13.9	See list, p. 99
			eNE	17	
			F	08 09	
139	Sept. 23	Id	eNE	08 09 17.4	See list, p. 99
			eNE	28.8	
			F	08 10	
140	Sept. 24	I	eNE	22 14 47.2	
			F	22 15	
141	Sept. 25	I	eN	01 21 39.4	
			F	01 22	
142	Sept. 25	Id	eNE	08 21 07	
			eE	14	
			F	08 22	
143	Sept. 25	Iv	ePNE	19 16 23.7	
			eSNE	37.2	
			F	19 17	
144	Sept. 25	I	ePNE	19 28 36.4	
			eNE	49.8	
			F	19 30	
145	Sept. 26	Ir	ePNE	04 07 39.8	USCGS: 12.8°N 87.7°W
			eE	13 36	
			eN	47	
			F	04 15	
146	Sept. 27	Iu	ePNE	17 09 08.0	Central America
			eNE	10.0	
			F	17 13	

PALO ALTO

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
147	Sept. 28	Iv	ePE	08 37 09.0	
			iE	40.7	
			iNE	49	
			F	08 40	
148	Sept. 28	Iv	ePNE	11 42 32.9	
			eNE	36.1	
			F	11 45	
149	Sept. 29	IIv	ePN	08 28 41.0	Strong in Colusa County
			ePE	41.7	
			iE	51.4	
			iN	52.7	
			iE	29 12.1	
			iE	13.9	
			F	08 35	
150	Sept. 30	Id	ePE	01 18 54.7	
			iNE	55.0	
			iE	19 00.3	
			F	01 20	

SAN FRANCISCO

THE SAN FRANCISCO STATION, UNIVERSITY OF SAN FRANCISCO
SAN FRANCISCO, CALIFORNIA

CONSTANTS

CONSTANTS OF THE STATION

Latitude and longitude:

ϕ = 37° 46!4 N.
λ = 122° 27!2 W.

Time -- All determinations are reduced to Universal Time.

Altitude -- 100 meters (328 feet) above mean sea level.

CONSTANTS OF THE SEISMOGRAPHS

Apparatus	Component	V	T_o	ε
Wood-Anderson	E 15° S	1500	1	15
	N	3000	1	15

SAN FRANCISCO

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
1	Aug. 18	IIr		21 57	S - P = 42 sec.
2	Aug. 29	Id		06 26	S - P = 1.5 sec.
3	Aug. 29	Id		22 04	S - P = 2.5 sec.
4	Aug. 31	Id		05 09	S - P = 12.5 sec.
5	Aug. 31	Id		20 54	S - P = 1 sec.
6	Sept. 24	Id		10 43	S - P = 1.5 sec.
7	Sept. 29	Iv		08 40	Strong in Colusa County

FERNDALE

THE FERNDALE STATION
FERNDALE, CALIFORNIA

CONSTANTS

CONSTANTS OF THE STATION

Latitude and longitude:

φ = 40° 34' N.
λ = 124° 16' W.

Time -- All determinations are reduced to Universal Time.

Altitude -- 17 meters (55 feet) above mean sea level.

CONSTANTS OF THE SEISMOGRAPHS

Apparatus	Component	V	T_o	ε
Bosch-Omori 25 kg.	E	12	11	5
	N	12	8	6

The station is operated by Mr. Joseph Bognuda, of Ferndale, in cooperation with the University of California.

FERNDALE

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
1	July 3	Iv	iPE	18 46 50	
			iPN	53	
			iSE	47 23	
			F	18 48	
2	July 8	Iu	ePN	07 08 16	USCGS: 25.0°S 69.7°W
			eSE	18 16	h = 150 km
			eSN	20	
			F	07 26	
3	July 11	Iv	ePE	16 44 35	Felt at Tonopah and
			ePN	37	Manhattan, Nevada
			iPN	52	
			F	16 47	
4	Aug. 6	IIr	iPE	23 44 34	USCGS: 14.1°N 90.9°W
			eSE	50 32	JSA: h = 100 km
			eE	57	
			F	01 20	
5	Aug. 8	Ir	eNE	23 50 10	USCGS: 14.0°N 91.0°W
			F	23 26	
6	Aug. 13	Id	iPN	17 45 16	
			iSN	21	
			iSE	23	
			F	17 47	
7	Aug. 18	Iv	iPE	21 58 16	Pasadena: 38.6°N 118.5°W
			iPN	22	
			F	22 06	
8	Aug. 24	Iu	iPE	23 01 52	Pasadena: 15°S 75°W
			iPN	56	
			iSN	11 07	
			eSE	27	
			eN	28 34	
			F	23 57	
9	Aug. 29	Id	iPNE	18 27 52	
			iSN	54	
			F	18 29	
10	Aug. 30	Id	iPE	08 48 34	
			iSNE	39	
			F	08 50	

FERNDALE

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
11	Sept. 9	Ir	ePE	01 31 52	USCGS: 53.0°N 165.7°W
			ePN	32 05	
			eSE	35 40	
			F	03 47	
12	Sept. 12	Id	iPN	21 10 49	
			iSE	52	
			iSN	54	
			F	21 12	

FRESNO

THE FRESNO STATION, FRESNO STATE COLLEGE FRESNO, CALIFORNIA

CONSTANTS

CONSTANTS OF THE STATION

Latitude and longitude:

ϕ = 36° 46.1 N.
λ = 119° 47.8 W.

Time -- All determinations are reduced to Universal Time.

Altitude -- 88.4 meters (290 feet) above mean sea level.

CONSTANTS OF THE SEISMOGRAPHS

Apparatus	Component	V	T_o	ε
Wood-Anderson	N	3000	0.9	15

FRESNO

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
1	July 4	Iv	iPN	08 52 54.0	
			iSN	53 13.5	
			F	08 55	
2	July 5	Iv	ePN	06 47 15.6	
			iSN	27.2	
			F	06 48	
3	July 6	IIv	iPN	22 12 01.7	Nevada earthquake
			iSN	17.2	
			F	22 19	
4	July 7	Iu	ePN	03 05 17.2	USCGS: 21.4°S 177.8°W
			epPN	06 57	h = 430 km
			eSN	14 48	
			F	03 19	
5	July 8	Iu	ePN	07 07 34.2	USCGS: 25.0°S 69.7°W
			eN	11 23.3	h = 150 km
			F	07 23	
6	July 8	IIv	iPN	10 06 09.0	See list, p. 99
			eSN	22.9	
			F	10 08	
7	July 8	Iu	ePN	22 40 04.2	USCGS: 0.7°N 80.5°W
			F	22 47	
8	July 9	Iv	eN	12 23 19.5	
			eN	33.0	
			F	12 24	
9	July 11	Iv	ePN	16 42 34.3	Felt at Tonopah and
			iPN	36.8	Manhattan, Nevada
			iSN	43 08.1	
			F	16 51	
10	July 12	Iv	ePN	05 12 35.9	
			iSN	13 12.9	
			F	05 14	
11	July 13	I	eN	08 57 06.3	
			iN	33.8	
			F	09 00	
12	July 14	Iv	ePN	16 40 29.5	Mendocino County
			iSN	41 15.3	
			F	16 43	
13	July 19	Iu	iPN	03 33 12.6	
			eN	34 44.4	
			F	03 36	

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
14	July 19	Iv	iP̄N	10 42 45.4	See list, p. 99
			iS*N	43 08.2	
			F	10 44	
15	July 21	Id	ePN	22 14 15.4	
			iSN	22.3	
			F	22 16	
16	July 24	Iv	ePN	11 04 22.2	
			iSN	41.9	
			F	11 05	
17	July 27	Iv	iPN	21 07 06.1	
			iSN	19.9	
			F	21 08	
18	July 28	Iv	ePN	08 06 20.4	
			iSN	07 01.4	
			F	08 08	
19	July 29	I	eN	22 53 32.3	
			F	23 01	
20	Aug. 3	Iu	ePN	20 21 08.3	USCGS: 25°S 174°W
			F	20 27	
21	Aug. 6	Iv	ePN	20 03 52.8	
			iSN	04 16.7	
			F	20 05	
22	Aug. 6	Iu	iPN	23 43 45.0	USCGS: 14.1°N 90.9°W
			eN	48 26.5	
			eLN	54 11	
			F	00 45	
23	Aug. 7	Id	ePN	01 16 32.6	
			iSN	41.6	
			F	Lost in following shock	
24	Aug. 7	Iv	iSN	01 17 29.0	Pasadena: 34° 18'N
			F	01 23	116° 25'W
25	Aug. 8	Iv	eP̄N	22 30 49.0	See list, p. 99
			iSN	31 06.0	
			F	22 51	
26	Aug. 8	Ir	ePN	22 43 25.2	USCGS: 14.0°N 91.0°W
			eSN	49 49.1	
			F	23 08	
27	Aug. 9	Id	ePN	01 18 17.6	See list, p. 99
			iS_{n10}^{N}	22.9	
			eN	19 43.6	
			F	01 20	

No.	Date	Char-acter	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
28	Aug. 11	I	ePN	04 58 03.6	Pasadena: Central America
			F	05 05	
29	Aug. 16	I	ePN	20 14 36.5	
			F	20 22	
30	Aug. 18	IIv	ePN	21 56 04.3	Pasadena: 38.6°N 118.5°W
			iPN	05.5	
			iP̄N	10.2	
			iSN	33.0	
			F	22 09	
31	Aug. 20	Iv	iPN	11 12 10.8	
			iSN	29.6	
			F	11 13	
32	Aug. 20	Iv	ePN	11 13 25.4	
			iSN	45.1	
			F	11 15	
33	Aug. 20	Iv	iPN	12 10 02.1	Tulare County, Near Hot Springs
			iSN	17.6	
			F	12 12	
34	Aug. 20	Iv	iPN	15 26 54.2	Aftershock
			iSN	27 10.7	
			F	15 29	
35	Aug. 20	Iv	iPN	17 28 30.6	Aftershock
			iSN	46.4	
			F	17 30	
36	Aug. 20	Iv	ePN	20 16 49.7	Aftershock
			iPN	17 34.6	
			iSN	50.2	
			F	20 20	
37	Aug. 21	Iv	iPN	23 37 04.2	Aftershock
			iSN	20.0	
			F	23 40	
38	Aug. 23	Ir	ePN	06 44 47.3	USCGS: 54.8°N 164.8°E
			F	06 55	h = 150 km
39	Aug. 23	Id	ePN	20 57 55.1	
			eSN	58 03.5	
			F	20 59	
40	Aug. 23	Iv	ePN	23 51 16.8	
			iSN	32.7	
			F	23 52	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
41	Aug. 29	Iv	ePN	04 56 55.3	
			iPN	56.0	
			iSN	57 22.2	
			F	05 00	
42	Sept. 2	I	eN	13 13 27.6	
			F	13 18	
43	Sept. 2	I	ePN	21 47 33.2	
			iPN	35.8	
			iSN	48 10.0	
			F	21 50	
44	Sept. 3	I	iPN	03 51 41.5	
			F	03 52	
45	Sept. 3	Iv	iPN	14 06 39.2	Pasadena: 34° 29'N
			iSN	07 17.8	118° 59'W
			F	14 13	Ventura County
46	Sept. 4	IIv	iPN	06 35 11.7	Esmeralda County, Nevada
			eSN	41.1	
			iSN	41.8	
			F	06 43	
47	Sept. 6	Iu	eN	16 05 45.1	Chile
			F	16 09	
48	Sept. 7	Iv	ePN	19 50 31.9	Tulare County, Near Hot
			iSN	46.4	Springs
			F	19 54	
49	Sept. 9	Ir	eN	01 32 22.3	USCGS: 53.0°N 165.7°W
			F	Runs into train	
50	Sept. 9	Iv	eN	05 16 10.0	
			F	05 19	
51	Sept. 12	Iv	ePN	17 49 35.0	See list, p. 99
			iSN	50.8	
			F	17 52	
52	Sept. 14	Iv	ePN	04 17 51.5	
			iSN	18 05.8	
			F	04 19	
53	Sept. 14	Iv	ePN	17 05 23.4	
			iSN	42.1	
			F	17 08	
54	Sept. 14	Id	ePN	17 27 31.1	
			iSN	37.1	
			F	Runs into train	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
55	Sept. 16	Iv	iPN	03 18 12.2	
			iSN	26.3	
			F	03 20	
56	Sept. 20	Iv	iPN	16 15 15.2	
			iSN	16 02.4	
			F	16 17	
57	Sept. 21	Iv	iPN	17 49 44.4	
			iSN	50 00.9	
			F	17 52	
58	Sept. 24	Id	iPN	23 46 38.5	
			iSN	45.2	
			F	23 47	
59	Sept. 25	Iv	ePN	02 19 42.0	
			iSN	56.2	
			F	02 20	
60	Sept. 25	Iv	ePN	05 08 25.0	
			iSN	38.5	
			F	05 09	
61	Sept. 25	Iv	iPN	14 14 02.5	
			iSN	30.3	
			F	14 15	
62	Sept. 29	Iv	ePN	08 29 01.5	Strong in Colusa County
			eN	09.6	
			iSN	49.5	
			F	08 39	

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EARTHQUAKES IN NORTHERN CALIFORNIA
AND
THE REGISTRATION OF EARTHQUAKES
AT
BERKELEY—MOUNT HAMILTON—PALO ALTO
SAN FRANCISCO—FERNDALE—FRESNO

From October 1, 1942, to December 31, 1942

BY
CHARLES E. HERRICK
AND
CAROLYN H. PENDERY

UNIVERSITY OF CALIFORNIA PRESS
BERKELEY AND LOS ANGELES
1950

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CONTENTS

EARTHQUAKE INTENSITY SCALE

Intensities are given by Roman numerals in the list of California earthquakes on the following page, when sufficient information on the effects of the quake is available. Criteria of the Modified Mercalli Scale which are used to rate the intensity are:

Intensity	
II	Felt by a few people only. Duration or direction not appreciable.
III	Duration or direction appreciable.
IV	Rattling of doors and windows; swinging of suspended objects.
V	Disturbance of movable objects; plaster cracked.
VI	Overthrow of movable objects; cracking of chimneys and other brickwork.
VII	Fall of some chimneys; some damage to buildings.

EARTHQUAKE MAGNITUDE SCALE

Richter magnitudes given in the list of epicenters on the next page are found from the Wood-Anderson amplitudes, using the nomogram by Nordquist, "Bulletin of the Seismological Society of America," 32: 164.

Latitude and longitude are given for each epicenter in the following list. Only those earthquakes are given for which epicenters were located. The letter represents the excellence with which the epicenter has been located, a indicating excellent, b good, c fair, d poor.

EARTHQUAKES IN NORTHERN CALIFORNIA

1942 - Pacific Standard Time

No.	Date	Time	Richter Magnitude	Latitude North	Longitude West	Quality
1	Oct. 4	09-49-54	3.8	38° 04'	120° 16'	c
2	4	15-24-13	2.1	36° 56'	121° 47'	c
3	7	18-30-45	3.5	36° 52'	120° 39'	c
4	11	15-48-23	1.9	37° 29'	122° 24'	c
		Foreshock of the quake following.				
5	15	05-53-56	4.3	37° 29'	122° 24'	b
		IV at Big Sur, Gonzales, Greenfield, Hollister, Salinas and Soledad.				
6	21	18-28-10	3.3	36° 55'	121° 32'	c
7	25	17-09-01	1.8	36°.4	121°.6	d
		Depth about 12 km.				
8	31	04-14-37	3.1	36° 34'	121° 18'	c
		Foreshock of the quake following.				
9	31	04-56-10	3.7	36° 34'	121° 18'	b
10	Nov. 13	12-00-10	2.6	37° 46'	121° 45'	c
		Probably a blast.				
11	20	19-35-47	2.5	37.9°	122.6°	d
12	Dec. 6	16-06-45	2.4	36.9°	122.0°	d
13	14	03-26-42	2.3	37° 26'	121° 35'	b
14	14	04-13-51	4.0	38.7°	119.6°	d
		IV at Markleeville and Minden, Nevada.				
15	17	07-08-43	5.1	38° 52'	119° 54'	c
		V at Bridgeport, Markleeville and Topaz. IV at Grizzly Flats, Jackson and Sonora.				
16	17	16-14-45	3.4	36° 50'	121° 32'	b
		IV at Hollister.				
17	18	16-47-56	2.9	38° 56'	119° 54'	c
		Felt at Markleeville.				
18	19	21-47-39	4.5	38° 43'	119° 44'	b
		Felt at Markleeville.				
19	27	15-26-24	3.4	36° 47'	120° 47'	c
20	29	10-18-14	4.3	37° 43'	122° 07'	a
		Felt widely in the San Francisco Bay Area. V at Berkeley and San Leandro, IV at Oakland. III at San Francisco, II at Sebastopol and Sunnyvale.				

THE REGISTRATION OF EARTHQUAKES

SYMBOLS AND NOTATIONS EMPLOYED

1. Character of the Earthquake --

I. Perceptible II. Moderately Strong III. Strong

d (terrae motus domesticus)	Local shock (origin less than 100 kilometers distant).
v (terrae motus vicinus)	Near shock (origin from 100 to 1,000 kilometers distant).
r (terrae motus remotus)	Distant shock (origin from 1,000 to 5,000 kilometers distant).
u (terrae motus ultimus)	Very distant shock or teleseism (origin more than 5,000 kilometers distant).

2. Nature of the Motion --

i (impetus)	Sudden beginning of the motion.
e (emersio)	Gradual beginning of the motion.

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BERKELEY, CALIFORNIA

CONSTANTS

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Latitude and Longitude:

ϕ = 37° 52.3 N.
λ = 122° 15.6 W.

Time -- All determinations are reduced to Universal Time.

Altitude -- 81 meters (266 feet) above mean sea level.

CONSTANTS OF THE SEISMOGRAPHS

Apparatus	Component	V	T_o	ε	$\frac{r}{T_o^2}$
Bosch-Omori 100 kg. ..	E	45	12	10	0.001
	N	45	12	10	0.001
Wiechert 80 kg.	Z	44	4	5	0.005
Wood-Anderson	E	3000	0.9	15	
	N	3000	0.9	15	

		K	T	T_1	μ^2	A_1(cm)	l(cm)
Galitzin	E	112	12	11.8	0.00	115	11.3
	N	122	12	12.4	0.03	119	11.2
	Z	109	12	11.9	0.01	131	14.9

		V	Coupled Period	ε
Benioff	Z		0.7	5

The letter G before a reading designates that the seismogram was from the Galitzin instrument; W, Wiechert; B, Bosch-Omori; A, Wood-Anderson; H, Benioff.

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
1	Oct. 3	Id	iPZ	H 19 04 17.4	
			iSZ	H 18.0	
			F	19 05	
2	Oct. 4	Iv	ePZ	H 17 50 29.2	See list, p. 161
			eN	A 31.8	
			iZ	H 32.9	
			eSE	A 47.4	
			F	17 53	
3	Oct. 4	Iv	iPZ	H 23 24 32.1	See list, p. 161
			eN	A 46.2	
			eSZ	H 47.8	
			F	23 25	
4	Oct. 6	IIv	ePNEZ	AH 02 59 56.4	U.S.C.G.S.: 43.5°N 126.8°W
			iPZ	G 58	
			ePE	G 03 00 00	
			ePN	G 01	
			eSN	G 25	
			eSZ	G 35	
			eSE	G 45	
			eLN	G 46	
			eLE	G 01 56	
			eLZ	G 02 00	
			eZ	H 50.5	
			F	03 15	
5	Oct. 6	I	ePZ	G 12 03 08	
			eLE	G 29 29	
			F	12 52	
6	Oct. 6	Iv	iPNZ	AH 22 26 25.5	
			iSN	A 45.7	
			F	22 27	
7	Oct. 7	Id	iPZ	H 21 54 20.2	
			iSN	A 21.3	
			iSZ	H 22.1	
			iE	A 37.4	
			F	21 56	
8	Oct. 8	Id	iPNZ	AH 01 07 15.1	
			iSE	A 16.9	
			iSNZ	AH 17.4	
			F	01 09	
9	Oct. 8	Iv	iPZ	H 02 31 13.0	See list, p. 161
			eP*Z	H 15.5	
			F	02 32	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
10	Oct. 8	Iu	ePZ	G 03 11 25	
			ePE	G 28.5	
			eSZ	G 18 23	
			eSN	G 30.5	
			eSE	G 31.5	
			eE	G 21 54.5	
			eN	G 23 38.5	
			eLE	G 26.9	
			eLZ	G 27.7	
			eLN	G 28.2	
			F	04 06	
11	Oct. 8	I	eZ	G 20 41 02	
			eE	G 08	
			eN	G 42 38	
			F	21 03	
12	Oct. 9	I	iPN	G 16 05 50	
			ePN	G 51	
			ePE	G 54	
			eLZ	G 17 01 24	
			eLE	G 29	
			F	17 59	
13	Oct. 9	Id	iPNZ	AH 19 01 05.9	
			iE	A 06.9	
			iSN	A 07.9	
			F	19 02	
14	Oct. 11	Id	iP̄NZ	AH 23 48 31.6	See list, p. 161
			F	23 49	
15	Oct. 12	Id	iPZ	H 23 16 29.6	
			iSZ	H 32.8	
			F	23 17	
16	Oct. 13	Id	iPN	A 23 00 06.2	
			iPZ	H 06.8	
			iSNEZ	AH 07.8	
			F	23 01	
17	Oct. 17	Id	iPNZ	AH 06 07 34.9	
			iSNE	A 46.0	
			F	06 09	
18	Oct. 17	Id	iPNZ	AH 22 55 32.4	
			iSNE	A 33.6	
			F	22 56	
19	Oct. 18	Id	iPZ	H 00 59 07.8	
			iSNEZ	AH 08.9	
			F	01 00	

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
20	Oct. 18	Ir	eZ	G 05 29 16	U.S.C.G.S.: 22.5°N 108.5°W
			eN	A 29.3	
			eE	A 30	
			eNE	G 32 57	
			eZ	G 35 05	
			F	05 49	
21	Oct. 18	Iv	ePZ	H 12 02 34.8	Felt at Cambria, Calif.
			F	12 03	
22	Oct. 19	Id	iPNZ	AH 00 30 47.3	
			eSN	A 50.5	
			eSE	A 50.9	
			F	00 32	
23	Oct. 20	Id	$i\bar{P}Z$	H 18 16 52.3	
			$i\bar{S}Z$	H 54.7	
			F	18 18	
24	Oct. 20	IId	$i\bar{P}Z$	H 21 45 02.5	
			$i\bar{S}Z$	H 04.3	
			F	21 46	
25	Oct. 20	Id	$i\bar{P}Z$	H 22 13 14	
			$i\bar{S}Z$	H 16.3	
			F	22 14	
26	Oct. 20	IIu	ePZ	G 23 35 54	
			iPZ	G 58	
			ePE	G 36 05	
			iP'Z	G 38 46	
			eP'E	G 39 08	
			eP'N	G 23	
			iPPZ	G 40 21	
			iN	G 41 19	
			iZ	G 44 09	
			iSKSZ	G 46 12	
			eSZ	G 49 32	
			iZ	G 50 02	
			iZ	G 00 08 18	
			eZ	G 11	
				02 31	
27	Oct. 21	IIIv	ePZ	H 16 23 58.9	Pasadena: 33°58'N 116°00'W
			ePN	A 24 00.6	
			ePE	G 02	
			ePZ	G 02.5	
			ePE	A 04.1	
			ePN	G 05.5	
			iN	A 12.7	
			iZ	H 13.1	
			iZ	G 15	
			iE	AG 22	
			iN	A 23.8	

(cont.)

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
27	Oct. 21 (cont.)	IIIv	iN	A 16 24 29.7	
			iN	G 46	
			iE	A 52.6	
			iE	A 25 02.4	
			iN	A 14.6	
			iSE	A 25.4	
			iSN	A 25.6	
			F	18 31	
28	Oct. 21	Iv	eN	A 19 13 20	
			eE	A 14 05	
			F	19 21	
29	Oct. 22	IIv	ePE	G 01 52 18	Pasadena: 33°14'N 115°43'W
			ePN	G 21	
			ePN	A 23.0	
			ePE	A 31.0	
			ePZ	H 32.0	
			eZ	G 43	
			iE	G 47	
			iNE	A 54.2	
			eZ	H 55.0	
			iSZ	G 53 44	
			iSE	G 45	
			iSN	G 51	
			iSN	A 58.3	
			iZ	G 54 06	
			eE	A 15	
			iLN	G 24	
			iN	A 30.0	
			iLZ	G 32	
			iLE	G 34	
			eLN	A 54.8	
			eLE	A 55.6	
			F	03 06	
30	Oct. 22	Iv	iPNZ	AH 02 28 30.4	See list, p. 161
			ePE	A 32.0	
			iSN	A 46.5	
			iSE	A 47.3	
			F	02 30.5	
31	Oct. 23	Id	iPNZ	AH 23 35 55.3	
			iSEZ	AH 57.2	
			iSN	A 58.2	
			F	23 37	
32	Oct. 26	Id	iPZ	H 01 09 14.3	See list, p. 161
			iN	A 18.8	
			eE	A 28.9	
			F	01 10	

No.	Date 1942	Character	Phase	Time (U.T.) h. m. s.	Remarks
33	Oct. 26	IIu	iPZ	G 21 19 23	U.S.C.G.S.: 45.1°N 152.0°E
			ePN	G 29	
			ePE	G 30	
			iSNEZ	G 27 18	
			F	14 36	
34	Oct. 26	Iu	iPZ	H 22 12 44.2	
			eSN	A 19 30.0	
			eSE	A 30.6	
			eNE	A 27 50.0	
			eLN	A 36	
			F	22 46	
35	Oct. 28	Id	iPNZ	AH 00 40 30.7	
			eSE	A 35.3	
			F	00 42	
36	Oct. 28	IIr	iPZ	G 10 51 09	U.S.C.G.S.: 15.4°N 96.0°W
			ePN	G 14	
			ePE	G 16	
			eSNE	G 56 34	
			eLE	G 11 01 11	
			F	03 46	
37	Oct. 28	Id	iPZ	H 16 36 46.2	
			iSZ	H 51.2	
			F	16 38	
38	Oct. 29	Iv	iPZ	H 17 07 09.6	
			eSNE	A 42.5	
			F	17 09	
39	Oct. 29	Id	iPZ	H 19 07 21.2	
			eSNEZ	AH 23.6	
			F	19 08	
40	Oct. 30	Iv	iPZ	H 00 01 20.8	
			iSNE	A 36.7	
			iSZ	H 38.6	
			F	00 03	
41	Oct. 30	Iv	eN	A 00 56 14.0	Northern Owens Valley
			eSN	A 42.4	
			eSE	A 43.5	
			F	00 59	
42	Oct. 31	Iv	iPZ	H 12 51 47.9	
			iPN	A 48.3	
			eSNE	A 52 19.0	
			F	12 54	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
43	Oct. 31	Id	iPZ	H 14 56 37.4	
			ePN	A 37.9	
			eSE	A 48.5	
			eSN	A 49.0	
			F	14 59	
44	Nov. 2	Id	iPNEZ	AH 23 28 40.5	
			eSNE	A 43.2	
			F	23 29	
45	Nov. 3	Iu	ePZ	G 00 11 15	Pasadena: 19°S 173°W
			ePE	G 17	
			F	01 35	
46	Nov. 3	Id	iPNZ	AH 22 15 38.7	
			eSE	A 39.4	
			F	22 16	
47	Nov. 5	Id	iPZ	H 01 29 03.9	
			iSZ	H 05.7	
			F	01 30	
48	Nov. 5	Id	iPZ	H 22 15 42.1	
			eSEZ	AH 44.2	
			eSN	A 45.6	
			F	22 16	
49	Nov. 10	IIu	ePNZ	AH 12 01 28	U.S.C.G.S.: 46.5°S 35.0°E
			ePE	G 28	
			ePN	G 33	
			ePZ	G 42	
			F	14 30	
50	Nov. 12	Ir	ePN	A 05 01 55.4	Pasadena: 17.2°N 94.2°W
			ePEZ	G 56	h = 90 km
			ePN	G 02 06	
			eZ	H 23.5	
			eE	A 24.0	
			eSN	G 07 06	
			eSE	G 18	
			eSN	A 47.1	
			F	05 50	
51	Nov. 12	Iu	ePZ	G 15 35 40	U.S.C.G.S.: 1.0°S 81.0°W
			ePN	G 45	
			ePE	G 52	
			eSE	G 43 21	
			eSZ	G 24	
			eSN	G 26	
			F	16 05	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
52	Nov. 13	Id	ePZ	H 21 00 09.7	See list, p. 161
			eE	A 14.0	
			eN	A 14.5	
			eZ	H 19.4	
			eZ	H 26.6	
			eZ	H 34.2	
			F	21 01	
53	Nov. 15	Iu	iPZ	H 17 23 30.4	U.S.C.G.S.: 35.5°N 142.5°E
			F	17 25	
54	Nov. 18	Iv	iPZ	H 20 20 43.3	Near Stirling City, Calif.
			eSN	A 21 08.9	
			eSE	A 09.2	
			F	20 22	
55	Nov. 18	Iv	iPZ	H 20 35 02.9	Intensity V near Stirling City, Calif.
			eSE	A 26.5	
			eSN	A 28.2	
			F	20 37	
56	Nov. 19	Ir	ePZ	G 09 01 16	U.S.C.G.S.: 0.5°S 81.5°W
			iPZ	H 19.7	
			ePN	A 23.7	
			ePE	G 33	
			eSNZ	G 08 59	
			eSE	G 09 01	
			F	10 10	
57	Nov. 19	Iu	iPZ	H 09 18 13.7	Aftershock
			ePN	A 19.7	
			ePE	A 22.8	
			F	09 20	
58	Nov. 21	Id	iPZ	H 03 35 51.9	See list, p. 161
			iSNZ	AH 55.6	
			iSE	A 56.0	
			F	03 36	
59	Nov. 23	Id	iPZ	H 23 27 19.3	
			iSNEZ	AH 20.1	
			F	23 28	
60	Nov. 24	Id	iPZ	H 00 08 06.4	
			iSZ	H 09.0	
			eSE	A 09.4	
			eSN	A 10.0	
			F	00 10	
61	Nov. 25	IIr	iPNEZ	G 01 24 13	U.S.C.G.S.: 16.6°N 97.8°W
			eSN	G 29 22	
			eN	A 33.0	
			F	02 10	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
62	Nov. 26	Iu	ePZ	G 14 37 42	U.S.C.G.S.: 44°N 147°E
			ePNE	G 50	
			ePNE	A 51.4	
			eSNE	G 46 16	
			eSZ	G 20	
			eLN	G 53 31	
			eLE	G 37	
			F	15 15	
63	Nov. 28	IIu	ePZ	G 10 50 15	U.S.C.G.S.: 7.3°N 36.8°W
			ePE	G 17	
			ePN	G 51 41	
			eSN	G 11 01 43	
			F	12 15	
64	Nov. 30	Id	iPZ	H 22 35 37.4	
			iSNEZ	AH 38.3	
			F	22 36	
65	Nov. 30	Id	iPZ	H 23 20 08.7	
			iSNEZ	AH 10.5	
			F	23 21	
66	Dec. 3	IIv	ePN	A 09 45 31.5	Lake Mead: 39.7°N 119.3°W
			ePE	A 34.4	
			ePE	G 43	
			ePNZ	G 45	
			iE	A 51.9	
			iN	A 58.1	
			iSE	G 46 10	
			eSN	G 17	
			iSE	A 26.5	
			iSN	A 27.7	
			F	09 55	
67	Nov. 3	Iv	ePN	A 10 12 11.4	
			iSNE	A 40.5	
			F	10 14	
68	Nov. 3	Iv	ePN	A 11 12 51.5	
			iSNE	A 13 27.9	
			F	11 15	
69	Nov. 3	Iv	ePN	A 14 03 52.3	
			iSN	A 04 20.7	
			eSE	A 21.3	
			F	14 06	
70	Nov. 4	I	eNE	G 15 49 11	
			eZ	G 41	
			eLE	G 16 06 57	
			F	16 32	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
71	Dec. 5	Ir	ePZ	G 14 34 25	
			ePN	G 27	
			ePE	G 42	
			eSN	G 39 19	
			eSE	G 30	
			eNE	G 56	
			F	15 25	
72	Dec. 5	Iv	ePZ	H 18 52 53.5	Northwest of Hot Springs, Tulare County
			ePN	A 56.5	
			iSN	A 53 31.2	
			F	18 55	
73	Dec. 5	Iv	ePNE	A 18 52 56.7	
			iSNE	A 53 31.9	
			F	18 54	
74	Dec. 6	Id	iPZ	H 04 32 00.4	
			iSNEZ	AH 01.7	
			F	04 32	
75	Dec. 6	Iv	ePZ	H 16 58 25	Mariposa County
			F	16 59	
76	Dec. 7	IId	i$\bar{P}$NEZ	AH 00 06 49.9	See list, p. 161
			i$\bar{S}$NEZ	AH 53.1	
			F	00 08	
77	Dec. 8	Id	iPZ	17 44 15.9	
			iSNZ	17.4	
			F	17 45	
78	Dec. 9	IIr	iPZ	G 22 25 42	U.S.C.G.S.: 53°N 168°W
			ePN	A 46.5	
			ePE	A 53.9	
			ePZ	H 54.6	
			eSNE	A 30 09.1	
			eSN	G 31 07	
			eSE	G 12	
			eN	G 34 11	
			eLEZ	G 38	
			F	00 20	
79	Dec. 14	Id	e$\bar{P}$Z	H 11 26 56.3	See list, p. 161
			iPZ	H 58.2	
			eZ	H 27 06.4	
			iSNZ	AH 08.0	
			eSE	A 08.4	
			F	11 28	
80	Dec. 14	Iv	iPZ	H 12 14 28.9	See list, p. 161
			ePN	A 31.6	
			iSNE	A 56.3	
			F	12 16	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
81	Dec. 15	Ir	ePEZ	G 09 18 36	
			eSN	G 26 12	
			F	10 30	
82	Dec. 17	Iv	iPZ	G 15 08 17	See list, p. 161
			ePN	G 18	
			iPNEZ	AH 18.1	
			ePE	G 19	
			eSN	A 45.5	
			iSE	A 46.5	
			eSNE	G 47	
			F	15 20	
83	Dec. 17	Iv	iPZ	H 19 59 43.4	Aftershock
			iPNZ	AH 45.5	
			iSN	A 20 00 12.0	
			eSE	A 12.6	
			F	20 02	
84	Dec. 17	Iv	iPZ	H 20 03 41.9	Aftershock
			ePN	A 42.3	
			eSE	A 04 10.1	
			iSN	A 10.9	
			F	20 06	
85	Dec. 17	Iv	iPZ	H 21 46 56.4	
			ePN	A 57.6	
			iSN	A 47 24.7	
			F	21 48	
86	Dec. 18	Iv	ePZ	H 00 15 06.5	See list, p. 161
			iPNZ	AH 07.5	
			iSN	A 23.5	
			iSEZ	AH 24.8	
			F	00 16	
87	Dec. 19	Iv	iPZ	H 00 48 32.3	See list, p. 161
			F	00 34	
88	Dec. 19	IIu	ePZ	G 23 22 27	Japan: 31.5°N 142.5°E
			ePE	G 37	h = 75 km
			ePN	G 41	
			eSE	G 32 08	
			eSN	G 10	
			F	01 20	
89	Dec. 20	Iv	iPZ	H 04 10 43.5	Markleeville foreshock
			eSE	A 11 16.6	
			iSZ	H 17.7	
			iSN	A 19.2	
			F	04 12	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
90	Dec. 20	Iv	ePN	A 05 48 14.5	See list, p. 161
			iPEZ	AH 14.9	Near Markleeville, Calif.
			iSNE	A 43.5	
			eSZ	H 44.5	
			F	05 53	
91	Dec. 20	Iv	iPZ	H 11 13 22.8	Markleeville aftershock
			ePN	A 23.2	
			iSE	A 51.6	
			iSZ	H 52.2	
			iSN	A 53.2	
			F	11 16	
92	Dec. 20	IIu	eNZ	G 14 21 02	Central Anatolia
			eE	G 20	
			eSE	G 35 16	
			eN	G 54	
			F	16 40	
93	Dec. 22	Iu	ePZ	G 04 26 11	
			eSN	G 35 43	
			eSE	G 45	
			eE	G 44 51	
			eN	G 45 00	
			F	05 30	
94	Dec. 22	Iv	iPNZ	AH 06 03 12.9	Markleeville aftershock
			iSNE	A 41.2	
			F	06 06	
95	Dec. 26	Iu	ePN	G 12 41 01	U.S.C.G.S.: 9°N 75°W
			iPZ	G 02	
			ePE	G 03	
			eSE	G 48 17	
			eLE	G 49 46	
			iZ	H 55 50.1	
			F	13 30	
96	Dec. 27	Iv	iPNZ	AH 23 26 51.8	See list, p. 161
			eSN	A 27 21.3	
			F	23 28	
97	Dec. 29	IId	$i\bar{P}NEZ$	AH 18 18 16.2	See list, p. 161
			$i\bar{S}E$	A 18.9	
			F	18 22	
98	Dec. 30	Id	iPZ	H 22 56 55.2	
			iSNZ	AH 57.3	
			F	22 58	
99	Dec. 31	Iu	ePZ	G 12 14 42	
			eSE	G 23 45	
			eSN	G 54	
			F	13 20	

MOUNT HAMILTON
THE LICK OBSERVATORY STATION, UNIVERSITY OF CALIFORNIA
MOUNT HAMILTON, CALIFORNIA

CONSTANTS

CONSTANTS OF THE STATION

Latitude and longitude:

φ = 37° 20!4 N.
λ = 121° 38!6 W.

Time -- All determinations are reduced to Universal Time.

Altitude -- 1281.7 meters (4205 feet) above mean sea level.

CONSTANTS OF THE SEISMOGRAPHS

Apparatus	Component	V	T_o	ε
Wood-Anderson	E	3000	1	15
	N	3000	1	15

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
1	Oct. 1	Id	ePNE	13 37 54.8	
			eSNE	58.0	
			F	13 39	
2	Oct. 3	IId	iPNE	11 04 56.7	
			iMNE	57.9	
			F	11 06	
3	Oct. 4	Iv	ePN	14 26 06.6	Foreshock of following
			ePE	07	
			eNE	26 21	
			iSNE	22.7	
			F	14 27	
4	Oct. 4	Iv	iPNE	17 50 18.2	See list, p. 161
			iSNE	31.5	
			F	17 53	
5	Oct. 4	Id	ēPNE	23 24 21.0	See list, p. 161
			iS̄E	26.8	
			iSN	33	
			F	23 25	
6	Oct. 6	Iv	ePE	03 00 07.8	U.S.C.G.S.: 43.5°N 126.8°W
			iPNE	08.1	
			eLNE	03	
			F	03 16	
7	Oct. 6	Id	ePNE	03 02 40.0	
			iSNE	52.9	
			F	03 04	
8	Oct. 6	Iu	eNE	14 28 35	Wellington: 36°S 179°W
			F	14 30	h = 250 km
9	Oct. 8	IIv	ēPN	02 31 03.5	See list, p. 161
			ēPE	03.9	
			eNE	16.2	
			iSN	17.1	
			iSE	18.0	
			iNE	24	
			F	02 36	
10	Oct. 9	Iu	eNE	16 05 54	Pasadena: 10°S 34.5°E
			eNE	57	
			F	16 11	
11	Oct. 11	Id	ēPNE	23 48 37.2	See list, p. 161
			iS̄NE	48.9	
			F	23 50	
12	Oct. 14	Ir	eNE	00 19.7	U.S.C.G.S.: 32.5°N 113.5°W
			F	00 28	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
13	Oct. 15	Id	ePE	05 49 54	
			iSE	57.2	
			F	05 51	
14	Oct. 15	Iv	ePE	12 08 52	
			eSE	09 07	
			F	12 11	
15	Oct. 15	IId	ePE	13 54 14.5	See list, p. 161
			iPE	14.9	
			iSE	26.4	
			iME	30	
			F	13 59	
16	Oct. 15	Id	iPNZ	13 54 24.1	See list, p. 161
			iPZ	26.1	
			iPE	28.0	
			iZ	32.5	
			iSE	48.0	
			iSN	49.0	
			F	13 56	
17	Oct. 15	Id	ePE	16 11 46.8	
			iSE	49.4	
			F	16 13	
18	Oct. 15	Id	ePNE	23 32 07	
			iSNE	19.3	
			F	23 34	
19	Oct. 16	Id	ePNE	05 55 19.8	
			iSE	31.8	
			iSN	32.3	
			F	05 57	
20	Oct. 16	Iv	ePNE	11 08 09	
			iSNE	09 05	
			F	11 11	
21	Oct. 17	Iv	ePE	12 24 03	
			iE	58	
			F	12 26	
22	Oct. 18	Ir	eE	05 36.2	U.S.C.G.S.: 22.5°N 108.5°W
			F	05 46	
23	Oct. 18	Iv	ePN	12 02 19.5	Felt at Cambria, Calif.
			ePE	22	
			eE	32	
			eSE	47.8	
			F	12 05	

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
24	Oct. 20	Iu	eNE	23 40.1	Pasadena: 9°N 122.5°E
			eNE	00 11.1	
			F	00 48	
25	Oct. 21	IIv	ePNE	16 23 50.2	Pasadena: 33°58'N 116°00'W
			iE	23 59.9	
			iN	24 02	
			iE	06	
			iSE	25 49.5	
			iSN	53	
			iLNE	26.8	
			F	17 41	
26	Oct. 21	Iv	eN	19 12 25	
			eE	41	
			eN	13 42	
			eE	39.0	
			F	19 19	
27	Oct. 22	Iv	ePN	01 52 13	Pasadena: 33°14'N 115°43'W
			ePE	15	
			iN	39.8	
			iE	41.1	
			iN	46	
			iE	53 48.8	
			iE	59.4	
			iN	54 05	
			iE	07.1	
			iN	13.3	
			iLNE	54.9	
			F	02 17	
28	Oct. 22	IId	ePN	02 28 18.0	See list, p. 161
			ePNE	19.0	
			iPE	19.2	
			iSE	24.7	
			iNE	25.3	
			iNE	32.3	
			F	02 30	
29	Oct. 24	IId	iPNE	16 33 31.3	
			iSNE	32.6	
			F	16 34	
30	Oct. 26	Id	ePNE	01 09 03.5	See list, p. 161
			eSE	09.0	
			eSN	12	
			F	01 10	
31	Oct. 26	Id	ePNE	03 47 28	
			iSNE	29.6	
			F	03 48	

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
32	Oct. 26	Iu	eE	21 19 35	U.S.C.G.S.: 45.1°N 152.0°E
			eE	28 00	
			F	21 32	
33	Oct. 28	Ir	ePE	10 51 08	U.S.C.G.S.: 15.4°N 96.0°W
			eE	11 01 37	
			F	11 13	
34	Oct. 29	Iv	ePE	19 25 29	
			eSE	26 27.4	
			F	19 27	
35	Oct. 29	Iu	ePE	21 43 57.4	Mariannas Islands
			eE	44 21.2	
			F	21 55	
36	Oct. 30	Id	ePE	00 01 10.3	
			iSE	16.5	
			F	00 02	
37	Oct. 30	Iv	ePE	00 55 59.4	Northern Owens Valley
			iSE	56 29.1	
			F	00 58	
38	Oct. 31	Iv	ePE	10 51 38	U.S.C.G.S.: 35°46'N 120°15'W
			iSE	52 06.6	
			F	10 55	
39	Oct. 31	Id	ePE	11 18 53	
			iSE	54	
			F	11 19	
40	Oct. 31	Id	ePE	12 14 53.6	See list, p. 161
			iSE	15 04.5	
			F	12 15	
41	Oct. 31	Id	ePE	12 32 13	
			iSE	24.4	
			F	12 33	
42	Oct. 31	Id	ePE	12 56 26.2	See list, p. 161
			iSE	37.7	
			F	12 59	
43	Oct. 31	Id	ePE	13 05 33	Aftershock
			iSE	42.9	
			F	13 06	
44	Oct. 31	Id	eSE	13 06 22.9	Aftershock
			F	13 07	
45	Oct. 31	Id	ePE	23 52 40	
			iSE	45.5	
			F	23 53	

No.	Date 1942	Character	Phase	Time (U.T.) h. m. s.	Remarks
46	Nov. 3	Id	iPN	20 11 30.4	
			iSN	32.1	
			F	20 12	
47	Nov. 10	Iu	eP'N	12 01 29	U.S.C.G.S.: 46.5°S 35.0°E
			eP'E	30	
			eNE	13 00	
			F	14 36	
48	Nov. 12	Iu	ePNE	05 01 52	Pasadena: 17.2°N 94.2°W
			eE	02 08	h = 90 km
			eN	10	
			iN	15.6	
			eNE	16 36.1	
			F	05 22	
49	Nov. 13	Id	eSN	21 00 36	See list, p. 161
			eN	46.0	
			F	21 01	
50	Nov. 14	Id	iPNE	03 58 50.0	
			iSNE	51.4	
			F	03 59	
51	Nov. 16	Id	ePN	21 41 54	
			ePE	56	
			iSNE	42 07.2	
			F	21 43	
52	Nov. 16	Id	ePNE	23 22 07	
			iSNE	09.4	
			F	23 23	
53	Nov. 18	Iv	ePN	20 20 51	Near Stirling City, Calif.
			eSN	21 22.5	
			F	20 23	
54	Nov. 18	Iv	ePN	20 35 11	Intensity V near Stirling City, California
			iSN	42	
			F	20 38	
55	Nov. 19	Iu	eN	09 01 14	U.S.C.G.S.: 0.5°S 81.5°W
			eN	31	
			F	09 03	
56	Nov. 19	Iu	ePN	09 18 10	Aftershock
			F	09 22	
57	Nov. 21	Id	ePNE	03 36 03.2	See list, p. 161
			iSNE	14.9	
			F	03 37	

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
58	Nov. 25	Ir	ePN	01 24 05	U.S.C.G.S.: 16.6°N 97.8°W
			ePE	07	
			eE	33.1	
			eN	34.2	
			F	01 47	
59	Nov. 26	Iu	ePNE	14 37 55	U.S.C.G.S.: 44°N 147°E
			eSN	46 19	
			eSE	22	
			F	14 49	
60	Nov. 28	Iu	ePNE	10 51 12	U.S.C.G.S.: 7.3°N 36.8°W
			eSE	11 01 27	
			eSN	30	
			F	11 34	
61	Dec. 3	IIv	ePN	09 45 28	Lake Mead: 39.7°N 119.3°W
			iN	36.4	
			iN	49.9	
			iSN	52.4	
			F	09 58	
62	Dec. 3	Iv	ePN	10 12 06.9	
			iSN	47.8	
			F	10 14	
63	Dec. 3	Iv	ePN	11 12 54	
			iSNE	13 36	
			F	11 15	
64	Dec. 3	Iv	ePNE	14 03 47	
			iSN	04 28	
			iSE	29	
			F	14 06	
65	Dec. 5	Ir	ePNE	14 34 35	Alaska
			eSN	39 30	
			F	14 44	
66	Dec. 5	Iv	ePNE	18 52 48	Northwest of Hot Springs, Tulare County
			iSNE	53 17	
			F	18 56	
67	Dec. 6	Iv	ePN	16 58 15	Mariposa County
			eE	38.5	
			iN	43.8	
			F	17 00	
68	Dec. 7	Id	ePNE	00 06 59	See list, p. 161
			eSNE	07 09	
			F	00 08	

MT. HAMILTON

No.	Date 1942	Character	Phase	Time (U.T.) h. m. s.	Remarks
69	Dec. 9	Ir	ePNE	22 25 52.5	U.S.C.G.S.: 53°N 168°W
			eSE	31 23	
			eSN	24	
			F	22 44	
70	Dec. 14	IId	iPE	11 26 44.7	See list, p. 161
			F	11 27	
71	Dec. 14	IIv	ePE	12 14 26	See list, p. 161
			iSE	55	
			F	12 16	
72	Dec. 15	Iu	eN	08 17 21	U.S.C.G.S.: 0.1°N 81.3°W
			eE	30	
			F	08 19	
73	Dec. 17	IIv	ePNE	15 08 17.5	See list, p. 161
			iPNE	18.0	
			iSE	43.7	
			iME	46	
			F	15 21	
74	Dec. 17	Iv	ePNE	15 21 54	Aftershock
			eSN	22 35.5	
			eSE	36	
			iSNE	37.8	
			F	15 23	
75	Dec. 17	Iv	ePNE	19 59 43.0	Aftershock
			iSNE	20 00 11.3	
			F	20 02	
76	Dec. 17	Iv	ePNE	20 03 41.3	Aftershock
			eN	04 08.0	
			iSE	08.6	
			iN	10.3	
			F	20 06	
77	Dec. 17	Iv	ePNE	21 46 55.3	Aftershock
			eNE	47 21	
			iSNE	23.9	
			F	21 48	
78	Dec. 17	Id	ePNE	21 49 08	
			eNE	34.3	
			iSNE	35.8	
			F	21 50	
79	Dec. 18	Id	ePE	00 14 54.8	See list, p. 161
			iPNE	55.1	
			iSNE	15 02.8	
			F	00 16	

MT. HAMILTON

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
80	Dec. 18	Id	ePNE	09 21 30.0	
			iSNE	31	
			F	09 22	
81	Dec. 19	Iv	eP*NE	00 48 35	See list, p. 161
			eNE	49 01.5	
			iSNE	04.2	
			F	00 50	
82	Dec. 19	Iv	ePN	00 53 28	Aftershock
			ePE	29	
			eE	54.2	
			eN	54.6	
			iSE	56.4	
			iSN	57.2	
			F	00 55	
83	Dec. 19	Id	eN	20 01 53	
			eSE	02 07	
			iSN	08.7	
			F	20 03	
84	Dec. 19	Iu	eN	22 44.0	Pasadena: 31.5°N 142.5°E
			eE	44.2	h = 75 km
			F	00 12	
85	Dec. 20	Id	ePNE	00 05 46	
			iNE	06 14.8	
			F	00 07	
86	Dec. 20	Iv	ePNE	04 10 46	Markleeville foreshock
			eNE	11 14.2	
			iSN	15.0	
			iSE	15.7	
			F	04 13	
87	Dec. 20	IIv	ePNE	05 48 14.1	See list, p. 161
			iSNE	41.5	Near Markleeville
			F	05 52	
88	Dec. 20	Iv	ePNE	11 13 21	Markleeville aftershock
			iSNE	50.7	
			F	11 16	
89	Dec. 20	Iu	eE	14 50.8	Pasadena: Central Anatolia
			eN	53.3	
			F	15 23	
90	Dec. 22	Iv	ePE	05 59 01	Markleeville aftershock
			ePN	10	
			eSNE	29.9	
			F	06 00	

MT. HAMILTON

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
1	Dec. 22	Iv	iPNE	06 03 11.5	Markleeville aftershock
			eE	38.7	
			iSNE	39.2	
			F	06 06	
2	Dec. 22	Id	ePN	23 17 51	
			ePE	52	
			eSNE	18 02	
			F	23 19	
3	Dec. 23	Iv	ePNE	04 48 47.2	
			eSNE	49 02.9	
			F	04 50	
4	Dec. 23	Iv	ePNE	04 58 18	
			eSNE	34.3	
			F	04 59	
5	Dec. 27	Iv	ePNE	23 26 41.6	See list, p. 161
			eNE	43.0	
			iNE	27 00.6	
			F	23 28	
6	Dec. 29	Id	iPNE	16 02 51.3	
			iSNE	52.9	
			F	16 03	
7	Dec. 29	IId	iPNE	18 18 24.2	See list, p. 161
			iSE	31.9	
			iMN	33.7	
			iME	35.7	
			F	18 22	
8	Dec. 30	Iv	ePN	04 47 36	
			ePE	37	
			eSNE	41.8	
			F	04 48	

PALO ALTO

THE BRANNER STATION, STANFORD UNIVERSITY
PALO ALTO, CALIFORNIA

CONSTANTS

CONSTANTS OF THE STATION

Latitude and longitude:

ϕ = 37° 25!1 N.
λ = 122° 10!8 W.

Time -- All determinations are reduced to Universal Time.

Altitude -- 83 meters (272 feet) above mean sea level.

CONSTANTS OF THE SEISMOGRAPHS

Apparatus	Component	V	T_o	ε
Wood-Anderson	E	3000	1	15
	N	3000	1	15

PALO ALTO

No.	Date 1942	Character	Phase	Time (U.T.) h. m. s.	Remarks
1	Oct. 1	IId	iPNE	00 06 18.9	
			iNE	20.0	
			iME	21	
			F	00 07	
2	Oct. 4	Iv	ePN	17 50 22.8	See list, p. 161
			ePE	23.4	
			iSE	40.4	
			iSE	41.3	
			F	17 54	
3	Oct. 6	Iv	iPE	02 59 56.8	U.S.C.G.S.: 43.5°N 126.8°W
			iPN	58.7	
			F	03 12	
4	Oct. 6	Iu	iPNE	14 28 34.7	Wellington: 36°S 179°W
			F	14 32	h = 250 km
5	Oct. 6	Id	iPNE	22 01 48.9	
			iSNE	49.4	
			F	22 02	
6	Oct. 6	Id	iPNE	22 25 28.1	
			iSE	33.2	
			iSN	36.7	
			F	22 26	
7	Oct. 8	Iv	iPNE	02 31 09.0	See list, p. 161
			iSE	26.8	
			iSN	28.3	
			F	02 35	
8	Oct. 11	Id	iP̄E	23 48 28.2	See list, p. 161
			eP̄N	29.3	
			iSE	36.4	
			F	23 49	
9	Oct. 13	Id	iPE	23 12 28.3	
			iPN	29.3	
			iSN	32.7	
			iE	39.2	
			F	23 13	
10	Oct. 14	Ir	ePE	00 19 08	U.S.C.G.S.: 32.5°N 113.5°W
			ePN	38	
			F	00 27	
11	Oct. 15	IIv	iPNE	13 54 19.5	See list, p. 161
			iSE	34.8	
			iSN	35.8	
			F	13 59	

PALO ALTO

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
12	Oct. 15	Iv	iPN	22 32 11.2	
			iPE	12.9	
			iSNE	29.2	
			F	22 34	
13	Oct. 16	Iv	iPNE	03 55 24.5	
			iSE	39.9	
			iSN	41.1	
			F	03 57	
14	Oct. 16	Id	iPNE	23 11 17.5	
			iSNE	18.8	
			F	23 12	
15	Oct. 18	Iv	ePNE	12 02 24.0	Felt at Cambria, Calif.
			iPNE	28.5	
			iSE	55.5	
			iSN	56.4	
			F	12 06	
16	Oct. 21	IIv	iPE	16 24 02.0	Pasadena: 33°58°N 116°00'W
			iPN	02.8	
			iSN	25 30.8	
			iSE	31.3	
			F	17 15 (ca)	
17	Oct. 21	Iv	ePNE	17 41 50	
			F	17 44	
18	Oct. 22	IIr	ePE	01 52 29.6	Pasadena: 33°14'N 115°43'W
			iPN	30.4	
			eSN	54 22.6	
			eSE	24.4	
			F	02 15	
19	Oct. 22	Iv	ePN	02 28 23.5	See list, p. 161
			iPE	23.8	
			iSE	36.7	
			iSN	37.0	
			F	02 30	
20	Oct. 22	Id	iPNE	06 28 24.1	
			iSNE	37.6	
			F	06 31	
21	Oct. 26	Id	ePE	01 09 10.2	See list, p. 161
			ePN	12.4	
			iSNE	19.0	
			F	01 11	
22	Oct. 26	Iu	ePNE	21 19 36	U.S.C.G.S.: 45.1°N 152.0°E
			eSNE	27 57	
			eLE	33	
			F	21 47	
23	Oct. 29	Iu	ePNE	21 43 57	Mariannas Islands
			F	21 46	

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
24	Oct. 30	Id	iPE	00 01 15.2	
			ePN	22	
			iSE	28.5	
			iSN	28.9	
			F	00 03	
25	Oct. 30	Iv	ePE	00 56 06.4	Northern Owens Valley
			ePN	07	
			iSE	33.8	
			iN	42.9	
			F	00 58.5	
26	Oct. 31	Iv	ePNE	10 51 43	U.S.C.G.S.: 35°46'N 120°15'W
			iPE	46.3	
			iPN	48.5	
			iSE	52 13.5	
			iSN	14.4	
			F	10 54	
27	Oct. 31	Iv	iPNE	12 14 58.6	See list, p. 161
			iSE	15 13.9	
			iSN	14.3	
			F	12 16.5	
28	Oct. 31	Iv	iPE	12 17 47.9	
			ePN	48	
			iSE	18 03.2	
			iSN	03.9	
			F	12 19.5	
29	Oct. 31	Iv	iPE	12 56 30.7	See list, p. 161
			iPN	31.1	
			iSE	45.4	
			iSN	46.3	
			F	13 00	
30	Oct. 31	Id	iPE	23 52 36.7	
			iSNE	38.8	
			F	23 53.5	
31	Nov. 1	Id	ePNE	18 05 53	
			iSNE	54.5	
			F	18 06.5	
32	Nov. 5	Id	iPE	18 57 30.2	
			iSNE	31.3	
			F	18 58	
33	Nov. 10	Iu	ePNE	12 01 33	U.S.C.G.S.: 46.5°S 35°E
			eSSE	11 18	
			eSSN	20	
			eE	35 00	
			eN	31	
			eNE	13 15	
			F	14 06	

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
34	Nov. 11	Id	iPE	21 10 01.0	
			iPN	01.5	
			iSE	02.2	
			iSN	02.7	
			F	21 10.5	
35	Nov. 12	Ir	ePE	05 01 54	Pasadena: 17.2°N 94.2°W
			ePN	57	h = 90 km
			iE	02 11.9	
			iN	12.8	
			isPE	26.4	
			iE	39.9	
			iE	52.3	
			eScSN	12 48	
			eScSE	13 09	
			F	05 21	
36	Nov. 12	Iu	ePE	15 35 40	U.S.C.G.S.: 0.1°S 81.0°W
			ePN	41	
			F	15 38	
37	Nov. 13	Id	ePN	21 00 22	See list, p. 161
			eE	26	
			eSN	27.5	
			eE	31.5	
			F	21 02	
38	Nov. 18	Iv	ePE	20 20 52.8	Near Stirling City, Calif.
			ePN	21 03.8	
			iSE	21.9	
			iSN	22.5	
			F	20 22	
39	Nov. 18	Iv	ePE	20 35 10	Intensity V near Stirling City, California
			ePN	15	
			iSNE	41.0	
			F	20 36.5	
40	Nov. 21	Id	ePN	21 35 57	See list, p. 161
			ePE	59.0	
			iSN	36 06.3	
			eSE	07.5	
			F	21 37	
41	Nov. 25	Ir	ePNE	01 34 24	U.S.C.G.S.: 16.6°N 97.8°W
			F	01 40	
42	Nov. 26	Iu	iPE	14 37 50.0	U.S.C.G.S.: 44°N 147°E
			iPN	51.7	
			iSE	46 25.4	
			F	14 48	

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
43	Nov. 28	Iu	iPE	10 51 13.2	U.S.C.G.S.: 7.3°N 36.8°W
			iPN	17.2	
			eSE	11 01 29.0	
			eSN	38.2	
			F	11 05	
44	Nov. 30	Id	iPE	10 01 16.0	
			ePN	17	
			iSNE	18.2	
			F	10 02	
45	Dec. 3	IIv	ePNE	09 45 36.8	Lake Mead 39.7°N 119.3°W
			iPNE	57.1	
			iSE	46 12.2	
			iSN	14.1	
			iMN	32.4	
			iME	33.4	
			F	09 56	
46	Dec. 5	Iv	iPNE	18 52 54.3	Northwest of Hot Springs, Tulare County
			iNE	53 02.0	
			iSE	27.9	
			iSN	29.9	
			F	18 56	
47	Dec. 9	I	iPNE	10 25 48.8	
			iE	56.2	
			iN	57.7	
			F	10 39	
48	Dec. 13	Id	iPNE	19 32 03.3	
			iSNE	04.7	
			iE	05.9	
			F	19 32.5	
49	Dec. 14	Id	ePE	11 26 51.9	See list, p. 161
			ePN	54	
			iSE	58.4	
			F	11 27.5	
50	Dec. 14	Iv	ePNE	12 14 32	See list, p. 161
			iSE	15 06.2	
			F	12 16.5	
51	Dec. 17	IIv	iPE	15 08 21.1	See list, p. 161
			iSE	53.6	
			iE	09 31.4	
			iE	10 01.6	
			F	15 18	
52	Dec. 18	Id	iPNE	00 14 59.8	See list, p. 161
			iSE	15 10.9	
			iSN	11.3	
			F	00 16	

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
53	Dec. 19	Iv	eP*E	00 48 39.0	See list, p. 161
			eP*N	40.0	
			eSNE	49 09.6	
			F	00 50	
54	Dec. 19	Iu	ePE	23 22 19	Pasadena: 31.5°N 142.5°E
			eSE	32 06	h = 75 km
			eLNE	46.7	
			F	00 46	
55	Dec. 19	Id	iPE	23 06 42.8	
			iSE	46.1	
			F	23 07	
56	Dec. 20	Iv	iPNE	04 10 46.9	Markleeville foreshock
			iSE	11 15.7	
			iSN	16.7	
			F	04 13	
57	Dec. 20	Iv	ePNE	05 48 11	See list, p. 161
			iPNE	13.2	Near Markleeville
			iSNE	42.4	
			eE	49 17.2	
			F	05 52.5	
58	Dec. 20	Iv	iPE	11 13 22.6	Markleeville aftershock
			iSE	53.2	
			F	11 16	
59	Dec. 20	Iu	eN	14 30 02	Pasadena: Central Anatolia
			eE	04	
			eLNE	50	
			F	15 19	
60	Dec. 21	Id	iPE	20 33 17.8	
			iSE	19.3	
			F	20 33.5	
61	Dec. 22	Iv	iPE	06 03 17.5	Markleeville Aftershock
			iSE	47.4	
			F	06 05.5	
62	Dec. 27	Iv	ePE	23 26 48.5	See list, p. 161
			ePNE	49.0	
			iN	27 13.4	
			iE	15.4	
			F	23 28	
63	Dec. 29	IId	iPNE	18 18 20.2	See list, p. 161
			iE	41.3	
			iE	45.1	
			F	18 21	

SAN FRANCISCO

THE SAN FRANCISCO STATION, UNIVERSITY OF SAN FRANCISCO
SAN FRANCISCO, CALIFORNIA

CONSTANTS

CONSTANTS OF THE STATION

Latitude and longitude:

ϕ = 37° 46.4 N.
λ = 122° 27.2 W.

Time -- All determinations are reduced to Universal Time.

Altitude -- 100 meters (328 feet) above mean sea level.

CONSTANTS OF THE SEISMOGRAPHS

Apparatus	Component	V	T_o	ϵ
Wood-Anderson	E 15° S	1500	1	15
	N	3000	1	15

SAN FRANCISCO

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
1	Oct. 4	Iv	eE	17 50 32	See list, p. 161
			eSE	51	
			F	17 52	
2	Oct. 4	Id	eSE	23 24 46	See list, p. 161
			F	23 26	
3	Oct. 6	Iv	eE	02 59 55	U.S.C.G.S.: 43.5°N 126.8°W
			eE	03 00 05	
			F	03 02	
4	Oct. 8	Id	eE	02 03 48	
			F	02 04	
5	Oct. 8	Iv	ePE	02 31 19	See list, p. 161
			eSE	37	
			F	02 33	
6	Oct. 11	Id	ePN	18 00 24	
			eNE	26	
			iE	28.4	
			F	18 01	
7	Oct. 11	Id	eNE	18 02 16	
			F	18 03	
8	Oct. 11	Id	ePNE	23 48 29	See list, p. 161
			eSN	33.3	
			F	23 49	
9	Oct. 20	Iu	eNE	23 40 10	Pasadena: 9°N 122.5°E
			eNE	00 10.7	
			F	00 28	
10	Oct. 21	Id	eNE	12 32 48	
			iNE	50.6	
			F	12 33	
11	Oct. 21	IIv	ePNE	16 24 09	Pasadena: 33° 58'N 116°00'W
			eNE	29	
			eSNE	25 51.0	
			eLNE	26.6	
			F	16 59	
12	Oct. 21	Id	ePNE	22 24 31	
			iSNE	33.5	
			F	22 25	
13	Oct. 22	Iv	ePNE	01 52 40	Pasadena: 33°14'N 115°43'W
			eSNE	54 32	
			F	02 11	

SAN FRANCISCO

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
14	Oct. 23	Id	ePNE	04 15 18	
			iN	24	
			iSNE	27	
			F	04 16	
15	Oct. 25	Id	eSNE	11 14 58	
			eE	15 02	
			F	11 16	
16	Oct. 25	Id	eSNE	11 45 04	
			eE	39	
			F	11 46	
17	Nov. 2	Iv	ePE	19 08 20	
			eNE	23	
			eNE	36	
			iNE	53	
			eNE	09 18	
			F	19 10	
18	Nov. 2	Id	ePN	23 43 40	
			iSN	44.0	
			F	23 44	
19	Nov. 10	Iu	ePNE	12 01 27	U.S.C.G.S.: 46.5°S 35°E
			eE	02 13	
			eNE	25 41	
			F	14 00	
20	Nov. 12	Ir	ePNE	05 02 13	Pasadena: 17.2°N 94.2°W
			eN	07 40	h = 90 km
			eN	10 07	
			F	05 22	
21	Nov. 13	Id	ēPE	21 00 04.5	See list, p. 161
			ePE	05.3	
			iPE	07.6	
			iE	10.3	
			iE	15	
			iE	26	
			iE	33	
			F	21 03	
22	Nov. 21	Id	iS̄E	03 35 50.4	See list, p. 161
			F	03 36	
23	Nov. 25	Ir	eN	01 34 27	U.S.C.G.S.: 16.6°N 97.8°W
			eN	37.4	
			F	01 41	
24	Nov. 26	Iu	eNE	14 37 50	U.S.C.G.S.: 44°N 147°E
			eNE	55	
			F	14 42	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
25	Nov. 28	Iu	eN	11 01 26	U.S.C.G.S.: 7.3°N 36.8°W
			F	11 34	
26	Dec. 3	IIv	ePNE	09 45 34	Lake Mead: 39.7°N 119.3°W
			iNE	52	
			iNE	54.7	
			iNE	46 11	
			iSNE	31	
			F	09 52	
27	Dec. 5	Ir	eE	18 52 57	Alaska
			eE	53 38	
			F	18 55	
28	Dec. 9	Ir	eNE	22 25 45	U.S.C.G.S.: 53°N 168°W
			eNE	53	
			eSNE	31 08	
			F	22 33	
29	Dec. 14	I	eE	12 15 00	See list, p. 161
			eE	03	
			F	12 17	
30	Dec. 17	IIv	ePNE	15 08 20.5	See list, p. 161
			iPNE	22.2	
			iE	31	
			iSE	58.8	
			F	15 15	
31	Dec. 17	Iv	ePE	19 59 46	Aftershock
			eSE	20 00 16	
			F	20 02	
32	Dec. 17	Iv	ePE	20 03 47	Aftershock
			eSE	04 16	
			F	20 06	
33	Dec. 18	Iv	ePE	00 15 05	Aftershock
			eSE	23	
			F	00 17	
34	Dec. 19	Iu	eN	23 43.5	Pasadena: 31.5°N 142.5°E
			F	00 44	h = 75 km
35	Dec. 20	Iv	ePE	04 10 51	Markleeville foreshock
			eE	11 20	
			iSE	22.1	
			F	04 12	
36	Dec. 20	Iv	ePE	05 48 17	See list, p. 161
			iSEN	47.0	Near Markleeville.
			F	05 51	

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
37	Dec. 20	Iv	ePE	11 13 25	Aftershock
			eE	55.3	
			iSE	57.4	
			F	11 15	
38	Dec. 22	Iv	ePE	06 03 13	Aftershock
			eE	44	
			iSE	46.1	
			F	06 05	
39	Dec. 29	IId	iP̄NE	18 18 17.8	See list, p. 161
			iME	22	
			F	18 22	
40	Dec. 31	Iv	eE	17 47 55	
			eE	48 09	
			F	17 49	

FERNDALE

THE FERNDALE STATION
FERNDALE, CALIFORNIA

CONSTANTS

CONSTANTS OF THE STATION

Latitude and longitude:

φ = 40° 34' N.
λ = 124° 16' W.

Time -- All determinations are reduced to Universal Time.

Altitude -- 17 meters (55 feet) above mean sea level.

CONSTANTS OF THE SEISMOGRAPHS

Apparatus	Component	V	T_o	ε
Bosch-Omori 25 kg.	E N	12 12	11 8	5 6

The station is operated by Mr. Joseph Bognuda, of Ferndale, in cooperation with the University of California.

FERNDALE

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
1	Oct. 2	Id	eE	10 50 42	
			eN	47	
			F	11 51	
2	Oct. 6	Iv	eN	02 57 13	U.S.C.G.S.: 43.5°N 126.8°W
			eN	58 28	
			eE	59 43	
			F	03 10	
3	Oct. 17	Iv	ePE	12 24 18	
			eSE	37	
			F	12 26	
4	Oct. 20	Iu	eE	23 46.5	Pasadena: 9°N 122.5°E
			eN	00 02.0	
			eE	10.1	
			eE	18.7	
			F	01 00	
5	Oct. 21	IIIr	eE	16 25 00	Pasadena: 33°58'N 116°00'W.
			eNE	27 00	
			eNE	47	
			iNE	28 13	
			iN	29 44	
			eN	32 41	
			eN	37 36	
			F	17 25	
6	Oct. 22	IIr	eN	01 54 40	Pasadena: 33°14'N 115°43'W
			eNE	55 09	
			eNE	40	
			F	02 25	
7	Nov. 2	Id	ePNE	06 10 43	Felt in Petrolia
			iSNE	48	
			F	06 11	
8	Nov. 10	Iu	eN	12 01 32	U.S.C.G.S.: 46.8°S 35°E
			eE	40	
			eE	05 24	
			eNE	47.0	
			F	14 30	
9	Nov. 27	I	eE	10 56 52	
			eN	57 20	
			eE	58 14	
			F	11 08	
10	Nov. 28	I	eE	11 01 48	
			eE	20.0	
			eN	23.1	
			F	11 40	

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
11	Dec. 3	Iv	ePNE	09 46 12	Lake Mead: 39.7°N 119.3°W
			iSNE	47 15	
			F	09 50	
12	Dec. 5	Id	ePN	15 11 30	Felt in Ferndale
			iSNE	35	
			F	15 12	
13	Dec. 5	Id	ePN	15 15 39	Felt in Ferndale
			iSNE	44	
			F	15 16	
14	Dec. 9	Ir	eNE	22 25 32	U.S.C.G.S.: 53°N 168°W
			eNE	30 28	
			eNE	33.5	
			F	22 55	
15	Dec. 16	Id	ePN	13 04 32	
			eSNE	34	
			F	13 05	
16	Dec. 17	Iv	ePNE	15 09 02	
			eN	46	
			eSNE	52	
			F	15 15	

FRESNO

THE FRESNO STATION, FRESNO STATE COLLEGE
FRESNO, CALIFORNIA

CONSTANTS

CONSTANTS OF THE STATION

Latitude and longitude:

ϕ = 36° 46.1 N.
λ = 119° 47.8 W.

Time -- All determinations are reduced to Universal Time.

Altitude -- 88.4 meters (290 feet) above mean sea level.

CONSTANTS OF THE SEISMOGRAPHS

Apparatus	Component	V	T_o	ξ
Wood-Anderson	N	3000	0.9	15

FRESNO

No.	Date 1942	Character	Phase	Time (U.T.) h. m. s.	Period s.	Remarks
1	Oct. 4	Iv	ePN	17 50 23.1		See list, p. 161
			iSN	36.1		
			eLN	52 39.5		
			F	17 54		
2	Oct. 8	Id	ePN	02 31 11.3		See list, p. 161
			eSN	22.8		
			eLN	23.8		
			F	02 36		
3	Oct. 14	Ir	ePN	00 17 08.7		U.S.C.G.S.: 32.5°N
			eSN	18 20.6		113.5°W
			F	00 33		
4	Oct. 15	IIv	ePN	13 54 20.2		See list, p. 161
			iSN	34.2		
			eN	56 41.9		
			F	14 02		
5	Oct. 15	Id	ePN	22 33 14.2		
			iSN	26.7		
			eN	35	1.5	
			F	22 36		
6	Oct. 16	Iv	ePN	03 56 22.4		
			iSN	38.8		
			eN	58 22.6	1.5	
			F	04 00		
7	Oct. 16	Iv	iPN	10 08 55.9		
			iSN	09 15.4		
			F	10 11		
8	Oct. 18	Iv	ePN	12 02 26.3		Felt at Cambria, Calif.
			iSN	40.1		
			F	12 07		
9	Oct. 21	IIIv	iPN	16 24 34.0		Pasadena: 33°58'N
			iPN	45.1		116°00'W
			iSN	25 45.8		
			F	16 53		
10	Oct. 21	Iv	ePN	19 12 49.6		
			iSN	13 04.3		
			F	19 24		
11	Oct. 21	Iv	ePN	21 51 55.3		
			eSN	52 01.0		
			F	21 56		

No.	Date	Character	Phase	Time (U.T.) h. m. s.	Remarks
	1942				
12	Oct. 22	IIv	ePN	01 52 00.4	Pasadena: 33°14'N 115°43'W
			iPN	08.0	
			iN	53 13.2	
			F	02 17	
13	Oct. 22	Id	ePN	02 28 38.2	See list, p. 161
			iSN	50.3	
			F	02 32	
14	Oct. 22	Iv	iPN	18 14 56.5	
			iSN	15 59.2	
			F	18 20	
15	Oct. 26	Iu	ePN	21 19 41.3	U.S.C.G.S.: 45.1°N 152.0°E
			eSN	28 29.1	
			F	21 33	
16	Oct. 28	Ir	ePN	10 50 53.8	U.S.C.G.S.: 15.4°N 96.0°W
			eN	11 01 05.4	
			F	11 10	
17	Oct. 29	Id	iPN	15 42 29.1	
			iSN	43 29.9	
			F	15 47	
18	Oct. 29	Id	iPN	16 08 27.8	
			iSN	09 29.9	
			F	16 12	
19	Oct. 29	Iv	iPN	17 06 40.3	
			iSN	54.7	
			F	17 09	
20	Oct. 29	Iv	iPN	19 10 38.8	
			iSN	52.5	
			F	19 12	
21	Oct. 29	Iv	ePN	20 52 34.5	
			eSN	53 34.2	
			F	20 55	
22	Oct. 30	IIv	ePN	00 55 39.6	Northern Owens Valley
			iPN	40.7	
			eSN	53.7	
			iSN	54.6	
			F	00 59	
23	Oct. 30	Iv	ePN	05 37 17.0	
			iSN	38 15.9	
			F	05 41	
24	Oct. 31	IIv	iPN	10 51 27.8	U.S.C.G.S.: 35°46'N 120°15'W
			iSN	40.0	
			F	10 56	

FRESNO

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
25	Oct. 31	Iv	ePN	12 14 59.8	See list, p. 161
			iSN	15 16.4	
			F	12 17	
26	Oct. 31	Id	ePN	12 32 29.5	
			iSN	35.8	
			F	12 33	
27	Oct. 31	IIv	iPN	12 56 33.0	See list, p. 161
			iSN	47.5	
			F	obscured by train trace	
28	Nov. 2	Id	ePN	13 01 12.6	
			eSN	07 20.4	
			F	13 06	
29	Nov. 3	Id	iPN	03 56 45.9	
			iSN	56.4	
			F	03 58	
30	Nov. 3	Iv	ePN	05 08 57.6	
			eSN	10 08.0	
			F	05 13	
31	Nov. 6	Iv	ePN	19 47 56.9	
			iSN	48 11.2	
			F	19 49	
32	Nov. 6	Id	ePN	20 40 34.1	
			iSN	44.9	
			F	20 42	
33	Nov. 9	Iv	ePN	20 51 30.9	
			iSN	52 14.8	
			F	20 54	
34	Nov. 10	Iu	ePN	12 03 21.4	U.S.C.G.S.: 46.5°S 35°E
			eLN	59 13.6	
			F	13 52	
35	Nov. 12	Ir	ePN	05 01 38.1	Pasadena: 17.2°N 94.2°W
			F	05 21	h = 90 km
36	Nov. 18	Iv	ePN	20 21 12.5	Near Stirling City, Calif.
			iSN	58.0	
			F	20 23	
37	Nov. 24	Iu	ePN	20 08 55.4	
			eSN	18 21.7	
			F	20 30	
38	Nov. 26	Iu	ePN	14 38 06.4	U.S.C.G.S.: 44°N 147°E
			F	14 53	

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
39	Dec. 3	IIIv	iPN	09 45 30.7	Lake Mead: 39.7°N 119.3°W
			iSN	51.8	
			F	09 57	
40	Dec. 3	Iv	iPN	10 12 06.9	
			iSN	44.8	
			F	10 14	
41	Dec. 3	Iv	ePN	14 03 32.7	
			iPN	48.1	
			iSN	04 26.1	
			F	obscured by train trace	
42	Dec. 5	Ir	eN	14 34 47.4	Alaska
			F	14 44	
43	Dec. 5	IIv	iPN	18 52 28.5	Northwest of Hot Springs,
			iSN	43.1	Tulare County
			F	18 57	
44	Dec. 6	Id	ePN	16 58 06.1	Mariposa County
			iSN	17.5	
			F	17 02	
45	Dec. 9	Ir	ePN	22 26 04.2	U.S.C.G.S.: 53°N 168°W
			eSN	31 47.1	
			F	22 39	
46	Dec. 14	Iv	iPN	12 14 24.2	See list, p. 161
			iSN	49.4	
			F	12 18	
47	Dec. 17	Iv	ePN	15 37 08.8	Aftershock
			iSN	26.5	
			F	15 38	
48	Dec. 17	Iv	iPN	20 03 40.3	Aftershock
			iSN	04 05.8	
			F	20 05	
49	Dec. 17	Iv	iPN	20 19 38.0	Aftershock
			iSN	58.5	
			F	20 21	
50	Dec. 17	Iv	ePN	21 46 52.3	Aftershock
			iN	48 16.4	
			F	21 49	
51	Dec. 17	Iv	ePN	21 49 04.9	Aftershock
			eSN	29.8	
			F	21 50	

FRESNO

No.	Date	Character	Phase	Time (U.T.)	Remarks
	1942			h. m. s.	
52	Dec. 18	Iv	eS̄N	00 15 28.2	See list, p. 161
			F	00 17	
53	Dec. 19	Iv	ePN	00 48 31.5	See list, p. 161
			iSN	58.1	
			F	00 51	
54	Dec. 19	Iv	ePN	00 53 20.8	Aftershock
			eSN	51.2	
			F	00 54	
55	Dec. 20	Iv	iPN	04 10 42.8	Markleeville foreshock
			iSN	11 11.4	
			F	04 12	
56	Dec. 20	IIv	iPN	05 48 11.7	See list, p. 161
			iSN	37.8	Near Markleeville
			F	obscured by train trace	
57	Dec. 20	Iv	iPN	11 13 23.4	Markleeville Aftershock
			iSN	48.7	
			F	11 18	
58	Dec. 22	Iv	ePN	05 58 59.0	Markleeville Aftershock
			iSN	59 23.9	
			F	06 00	
59	Dec. 22	Iv	iPN	06 03 09.6	Markleeville Aftershock
			iSN	34.2	
			F	06 08	
60	Dec. 27	Id	eP̄N	23 26 39.6	See list, p. 161
			iS̄N	52.0	
			F	23 30	
61	Dec. 29	Ir	ePN	18 18 48.3	See list, p. 161
			F	18 24	