19 11 No. 48-49-50

Jesuit Seismological Service
Record
of the
Seismographic Station, Astronomical and Meteorological Observatory
Santa Clara College, Cal., U. S. A.

ϕ = 37° 26′ 36″ N λ = 121° 57′ 03″ = 8^h 7^m 50^s W; elevation 27.43 M.

TIME: Mean Civil Greenwich, midnight to midnight, 0-24 hrs.

INSTRUMENTS: Wiechert 80 kg., astatic, horizontal and vertical pendulums.

NOMENCLATURE: International.

FROM June 1 TO 11,

DATE.	CHAR.	COMP.	PHASES.	TIME. h. m. s.	PERIOD. s.	AMP. m. m.	REMARKS.
6	I	N-S	P	0:46:36			Small tremors during day.
			S				
			L	0:46:45			
			M	0:47:12	1	.5	
			C				
			F	0:47:36			
		E-W	P	0:46:36			
			S				
			L	0:46:45			Distance:—
			M	0:46:45	1	.55	
			C				
			F	0:47:32			
		V	P				
			S				
			L				
			M				
			C				
			F				
7	III	N-S	P$_i$	11:08:16	1.5	3.5	
			S	11:15:00	12	6.25	
			L	11:17:36	6	13	
			M	11:18:48	6	13.5	
			C	11:21:30	6	4.5	
			F	13:18:48	12	.5	
		E-W	P$_i$	11:08:12	1.5	5.5	
			S	11:15:03	18	14.5	
			L	11:17:36	9	27.5	Distance:— 2968.5 Km. W. 26° 22′ N.
			M	11:21:08	4	30	Simultaneous with Mexico City
			C	11:21:30	12	12	quake. Sinusoid from C to F.
			F	13:31:40	12	.5	
		V	P				
			S				
			L				
			M				
			C				
			F				

11 8 15 0 16 6 44

11	I	N-S	P	23:22:03		
			S			
			L	23:22:06	1	
			M	23:22:08		1
			C			
			F	23:23:15		
		E-W	P	23:22:03		
			S			
			L	23:22:06	1	
			M	23:22:06		1.15
			C			
			F	23:23:00		
		V	P			
			S			
			L			
			M			
			C			
			F			

Distance:—

International Seismological Centre

Jerome S. Record, S.J., Director.

by A. Newlin, asst.

19 11 NO. 51-52

Jesuit Seismological Service
Record
of the
Seismographic Station, Astronomical and Meteorological Observatory
Santa Clara College, Cal., U. S. A.

ϕ = 37° 26′ 36″ N λ = 121° 57′ 03″ = 8^h 7^m 50^s W; elevation 27.43 M.

TIME: Mean Civil Greenwich, midnight to midnight, 0-24 hrs.

INSTRUMENTS: Wiechert 80 kg., astatic, horizontal and vertical pendulums.

NOMENCLATURE: International.

FROM June 15 TO 30

DATE.	CHAR.	COMP.	PHASES.	TIME. h. m. s.	PERIOD. s.	AMP. m. m.	REMARKS.
15	IIIn	N-S	Pi	14:38:22	1.5	1.75	
			S				
			Li	14:48:36	3	.75	
			Mi	14:50:03	4	1	
			Ce	14:51:30	6	.5	
			Fe	15:39:30	10	.1	
		E-W	Pi	14:38:22	1.5	3.75	
			S				
			Li	14:48:36	4	2	Distance:— 3195.56 Km. W. 15° 57′ N.
			Mi	14:50:06	12	3.5	P similar to No. 49.
			Ce	14:51:40	6	.75	
			Fe	16:24:40	10	.25	
		V	P				
			S				
			L				
			M				
			C				
			F				
16	Id	N-S	Pe	Trace			
			S				
			L				
			M				
			C				
			F				
		E-W	Pe	14:39:15	3	.5	
			S				
			Le	14:39:32	1	.75	Distance:—
			Me	14:39:35	1	1	
			C				
			Fi	14:39:50	3	.5	
		V	P				
			S				
			L				
			M				
			C				

		N-S	P			
			S			
			L			
			M			
			C			
			F			
		E-W	P			
			S			
			L			
			M			
			C			
			F			
		V	P			
			S			
			L			
			M			
			C			
			F			

Distance:—

International Seismological Centre

Jerome S. Ricard, S.J., Director,
by E. J. Herlin, asst

19 11 No. 53-54-55

Jesuit Seismological Service
Record
of the
Seismographic Station, Astronomical and Meteorological Observatory
Santa Clara College, Cal., U. S. A.

ϕ = 37° 26′ 36″ N λ = 121° 57′ 03″ = 8h 7m 50s W; elevation 27.43 M.

TIME: Mean Civil Greenwich, midnight to midnight, 0-24 hrs.

INSTRUMENTS: Wiechert 80 kg., astatic, horizontal and vertical pendulums.

NOMENCLATURE: International.

FROM July 1 TO 2

DATE.	CHAR.	COMP.	PHASES.	TIME. h. m. s.	PERIOD. s.	AMP. m. m.	REMARKS.
1	IIIδ	N-S	Pi	None			Most severe shock since April 18, 1906. Pracers thrown off drums but quickly replaced. Apparently little damage in this vicinity. Pulsatory oscillations since June 26.
			S				
			Li	22:00:07	.5(?)	55(?)	
			M	22:03:40	.5	41.25	
			C	22:05:50	1	17.75	
			F	22:33:30	1.5	.1	
		E-W	P				
			S				
			Li	22:00:07	.5(?)	55(?)	Distance:—Santa Clara epicenter. No preliminaries. First shock from S.E. Many traces following.
			M				
			C	22:09:14	1.5	4.25	
			F	22:34:24	1	.5	
		V	P				
			S				
			Li	22:00:07	.5(?)	70(?)	
			M				
			C	22:04:12	2	.5	
			F	22:05:10			
2	Iδ	N-S	Pi	2:59:56	.5	.75	
			Si	3:00:03	.5	6.75	
			L	3:00:06	.75	10	
			M	3:00:24	1	15.75	
			C				
			F	3:01:17	1	.25	
		E-W	Pi	2:59:56	.5	1.75	
			Si	3:00:01	.5	5	
			L	3:00:06	.75	11	Distance:—110.7 Km. E 38° 55′ S. Light shock felt. Trace from 2:05 to 2:05:18.
			M	3:00:24	1	19.5	
			C	3:01:03	1	2.5	
			F	3:04:30	2	.5	
		V	P	2:59:56	.5	1.75	
			S				
			L	3:00:03	.5	5	
			M	3:00:23	.5	6.75	
			C	3:00:50	.75	1.5	
			F	3:01:42	1	.25	

			F	3:04:30	2	.5
		V	P	2:59:56	.5	1.75
			S			
			L	3:00:03	.5	5
			M	3:00:23	.5	6.75
			C	3:00:50	.75	1.5
			F	3:01:42	1	.25
2	I δ	N-S	P i	6:19:48	1	.1
			S			
			L	6:19:54	1	.75
			M	6:20:00	1	1.75
			C	6:20:30	1	.75
			F	6:21:18	1	.2
		E-W	P	6:19:48	.5	.25
			S			
			L	6:19:54	1	.5
			M	6:20:00	1	1
			C	6:20:18	1	.5
			F	6:21:00	1	.25
		V	P			
			S			
			L			
			M			
			C			
			F			

Distance:— 81.62 Km. S. 29° 46' E.

Jerome S. Ricard, S.J., Director,
by A. J. Neuhin, asst.

19 11 NO. 56-57-

Jesuit Seismological Service
Record
of the
Seismographic Station, Astronomical and Meteorological Observatory
Santa Clara College, Cal., U. S. A.

ϕ = 37″ 26′ 36″ N λ = 121° 57′ 03″ = 8h 7m 50s W; elevation 27.43 M.

TIME: Mean Civil Greenwich, midnight to midnight, 0-24 hrs.

INSTRUMENTS: Wiechert 80 kg., astatic, horizontal and vertical pendulums.

NOMENCLATURE: International.

FROM July 2 TO 8

DATE.	CHAR.	COMP.	PHASES.	TIME. h. m. s.	PERIOD. s.	AMP. m. m.	REMARKS.
2	I δ	N-S	Pe	20:00:22	.5	.1	Trace at 1.3 of July 3. Pulsatory oscillations continue.
			S				
			L	20:00:28	.5	.5	
			M	20:00:33	.5	.75	
			C				
			F	20:00:39	1	.25	
		E-W	Pe	20:00:22	.5	.2	
			S				
			L	20:00:28	.75	1	Distance:— 81:62 Kms. E 36° 52′ S.
			M	20:00:33	1	2.25	
			C	20:01:00	1	1.75	
			F	20:03:00	1	.2	
		V	P				
			S				
			L				
			M				
			C				
			F				
5	I δ	N-S	Pi	8:33:52			
			S				
			L	8:33:57			
			M	8:33:57		.12	
			C				
			F	8:34:09			
		E-W	Pi	8:33:52	1	.3	
			S				
			L	8:33:57	1	.75	Distance:— 74:35 Kms. E 5° 29′ S.
			M	8:34:02	1	1.25	
			C	8:34:21	1	.5	
			F	8:35:00	1.5	.1	
		V	P				
			S				
			L				
			M				

			C			
			F			
8	I 8	N-S	P			
			S			
			L			
			M			
			C			
			F			
		E-W	P e	9:39:03		
			S			
			L	9:39:09		
			M	9:39:30	1	2.25
			C	9:39:34		
			F	9:40:12		
		V	P			
			S			
			L			
			M			
			C			
			F			

Distance:—

Jerome S. Ricard, S.J. Director
by
A.J. Newlan Asst.

International Seismological Centre

19 11 No. 59-60-61.

Jesuit Seismological Service Record

of the

Seismographic Station, Astronomical and Meteorological Observatory

Santa Clara College, Cal., U. S. A.

ϕ = 37° 26′ 36″ N λ = 121° 57′ 03″ = 8h 7m 50s W; elevation 27.43 M.

TIME: Mean Civil Greenwich, midnight to midnight, 0-24 hrs.

INSTRUMENTS: Wiechert 80 kg., astatic, horizontal and vertical pendulums.

NOMENCLATURE: International.

FROM July 8 TO 14

DATE.	CHAR.	COMP.	PHASES.	TIME. h. m. s.	PERIOD. s.	AMP. m. m.	REMARKS.
8	Fδ	N-S	P				
			S				
			L				
			M				
			C				
			F				
		E-W	P e	11:47:56			
			S	11:48:02			
			L	11:48:06			Distance:—
			M	11:48:24	1	1.75	
			C	11:48:30			
			F	11:49:15			
		V	P				
			S				
			L				
			M				
			C				
			F				
12	Iw	N-S	P e	4:26:00	Trace		
			S				
			L	4:55:00	Trace of Sinusoid.		
			M				
			C				
			F	5:04:00			
		E-W	P e	4:25:52	4	.5	
			S				
			L	4:54:24	20	.75	Distance:— 10529 Km. W. (S.)
			M	4:56:50	20	1	Sinusoid from L to F.
			C	5:04:10	20	.25	
			F	5:52:00	20	.2	
		V	P				
			S				
			L				
			M				
			C				
			F				

			S			
			L			
			M			
			C			
			F			
14	IS	N-S	P e	14:21:21		
			S			
			L	14:21:29		
			M	14:21:30	1	.5
			C	14:21:45		
			F	14:22:21		
		E-W	P e	14:21:24		
			S			
			L	14:21:29		
			M	14:21:39	1	.4
			C			
			F	14:22:18		
		V	P			
			S			
			L			
			M			
			C			
			F			

Distance:—

Jerome S. Ricard, S.J., Director,
by A. J. Merlin, asst.

International Seismological Centre

19 11 No. 62-63-64.

Jesuit Seismological Service Record

of the

Seismographic Station, Astronomical and Meteorological Observatory

Santa Clara College, Cal., U. S. A.

ϕ = 37″ 26′ 36″ N λ = 121° 57′ 03″ = 8^h 7^m 50^s W; elevation 27.43 M.

TIME: Mean Civil Greenwich, midnight to midnight, 0-24 hrs.

INSTRUMENTS: Wiechert 80 kg., astatic, horizontal and vertical pendulums.

NOMENCLATURE: International.

FROM July 18 TO

DATE.	CHAR.	COMP.	PHASES.	TIME. h. m. s.	PERIOD. s.	AMP. m. m.	REMARKS.
18	Eδ	N-S	Pe	21:55:30			Traces July 18-19.
			S				
			L	21:55:33			
			M	21:55:45	1.5	.62	
			C	21:56:40			
			F	21:57:00			
		E-W	Pe	21:55:33			
			S				
			L	21:55:36			Distance:—
			M	21:55:52	1	.75	
			C	21:56:00			
			F	21:56:14			
		V	P				
			S				
			L				
			M				
			C				
			F				
21	Eδ	N-S	Pe	0:09:29			Traces July 24.
			S				
			L	0:09:35			
			M	0:09:53	1.5	1.25	
			C	0:10:40			
			F	0:11:30			
		E-W	Pe	0:09:29			
			S				
			L	0:09:36			Distance:—
			M	0:09:50	1.5	1	
			C	0:10:20			
			F	0:11:36			
		V	P				
			S				
			L				
			M				
			C				
			F				

			L			
			M			
			C			
			F			
31	I8	N-S	P	13:12:40		
			S			
			L	13:12:50		
			M	13:12:56	1	.87
			C	13:13:12		
			F	13:14:06		
		E-W	P	13:12:40		
			S			
			L	13:12:50		
			M	13:12:50	1	1
			C	13:13:03		
			F	13:13:45		
		V	P			
			S			
			L			
			M			
			C			
			F			

Distance:—

Jerome S. Ricard, S.J., Director,
by A. J. Merlin, asst.

19 11

No. 65-66-67.

Jesuit Seismological Service Record

of the

Seismographic Station, Astronomical and Meteorological Observatory

Santa Clara College, Cal., U. S. A.

ϕ = 37″ 26′ 36″ N λ = 121° 57′ 03″ = 8h 7m 50s W; elevation 27.43 M.

TIME: Mean Civil Greenwich, midnight to midnight, 0-24 hrs.

INSTRUMENTS: Wiechert 80 kg., astatic, horizontal and vertical pendulums.

NOMENCLATURE: International.

FROM Aug. 1 TO 14.

DATE.	CHAR.	COMP.	PHASES.	TIME. h. m. s.	PERIOD. s.	AMP. m. m.	REMARKS.
1	IδI	N-S	Pe	10:23:24			
			S				
			L	10:23:30			
			M	10:23:40	1	1	
			C	10:24:10			
			F	10:24:36			
		E-W	Pe	10:23:24			
			S				
			L	10:23:30			Distance:—
			M	10:23:45	1	.66	
			C	10:23:55			
			F	10:24:18			
		V	P				
			S				
			L				
			M				
			C				
			F				
6	IIδ	N-S	Pi	19:51:30			
			S				
			L	19:51:40			
			M	19:52:10	.8	13.75	
			C	19:52:36			
			F	19:56:45			
		E-W	Pi	19:51:30			
			S				
			L	19:51:40			Distance:— 110.7 Km. E. 35° 53′ S.
			M	19:57:57	.8	19	Faint shock felt.
			C	19:52:24			
			F	19:57:00			
		V	Pi	19:51:30			
			S				
			L	19:51:36			
			M	19:51:58	.8	5.75	
			C	19:52:15			
			F	19:52:45			

			F	19:57:00		
		V	Pi	19:51:30		
			S			
			L	19:51:36		
			M	19:51:58	.8	5.75
			C	19:52:15		
			F	19:52:45		
14	E8	N-S	Pi	13:51:48		
			S			
			L	13:51:53		
			M	13:52:06	1	1.87
			C	13:52:35		
			F	13:54:00		
		E-W	P	13:51:48		
			S			
			L	13:51:53		
			M	13:52:15	.75	1.87
			C	13:52:27		
			F	13:53:54		
		V	P			
			S			
			L			
			M			
			C			
			F			

Distance:—
Small records during days.

Jerome S. Ricard, S.J., Director,
by A. J. Newlin, asst.

19 11

No. 68-69-70

Jesuit Seismological Service
Record
of the
Seismographic Station, Astronomical and Meteorological Observatory
Santa Clara College, Cal., U. S. A.

ϕ = 37″ 26′ 36″ N λ = 121° 57′ 03″ = 8^h 7^m 50^s W; elevation 27.43 M.

TIME: Mean Civil Greenwich, midnight to midnight, 0-24 hrs.

INSTRUMENTS: Wiechert 80 kg., astatic, horizontal and vertical pendulums.

NOMENCLATURE: International.

FROM AUGUST 16, 1911 TO SEPTEMBER 12, 1911

DATE.	CHAR.	COMP.	PHASES.	TIME. h. m. s.	PERIOD. s.	AMP. m. m.	REMARKS.
16		N-S	P e	22: 54: 36			Small records Aug. 15.
			S				
			L	23: 20: 50			
			M	23: 39: 45	15	.25	
			C				
			F	00: 18: 30			
		E-W	P i	22: 54: 36			
			S				
			L	23: 25: 54			Distance:— 6982 mi. E. (Lisbon Quake).
			M	23: 38: 45	10	1.25	Sinusoid from L to F.
			C	00: 30: 00			
			F	00: 47: 00			
		V	P				
			S				
			L				
			M				
			C				
			F				
28		N-S	P i	3: 05: 07			
			S				
			L	3: 05: 20			
			M	3: 05: 34	1	16.5	
			C	3: 06: 33			
			F	3: 09: 00			
		E-W	P i	3: 05: 06			
			S				
			L	3: 05: 19			Distance:— 132.5 Km. N. 34° 52′ E.
			M	3: 05: 27	1	11.5	
			C	3: 06: 12			
			F	3: 08: 24			
		V	P	Trace			
			S				
			L				
			M				
			C				
			F				

			L			
			M			
			C			
			F			
Sept. 12		N-S	P i	2: 53: 57		
			S			
			L	2: 54: 03		
			M	2: 54: 28	.8	4.25
			C	2: 54: 44		
			F	2: 58: 00		
		E-W	P i	2: 53: 57		
			S			
			L	2: 54: 11		
			M	2: 54: 15	.8	4.25
			C	2: 54: 43		
			F	2: 58: 00		
		V	P			
			S			
			L	2: 53: 54		
			M	2: 53: 54	2	1.25
			C	2: 53: 57		
			F	2: 54: 35		

Distance:—

Small tremors during day.

JEROME S. RICARD, S. J., Director
by A. J. NEWLIN, Asst.