



1915						
Jan. 12	llv	N-S	p i	4: 32: 08		
			S			
			L	4: 32: 38		
			M	4: 32: 45	1	10.25
			C	4: 34: 12		
			F	4: 36: 15		
		E-W	p e	4: 31: 50		
			S			
			L	4: 32: 38		
			M	4: 32: 42	1	10.25
			C	4: 34: 00		
			F	4: 41: 00		
		v	p e	4: 31: 54		
			S			
			L	4: 32: 02		
			M	4: 33: 00	1	2
			C	4: 33: 06		
			F	4: 36: 07		
Mar. 31	ld	N-S	p i	12: 51: 00		
			S			
			L	12: 51: 02		
			M	12: 51: 02	.8	4.37
			C	12: 51: 30		
			F	12: 52: 12		
		E-W	p e	12: 51: 00		
			S			
			L	12: 51: 05		
			M	12: 51: 07	.8	1.5
			C	12: 51: 32		
			F	12. 52: 30		
		v	P	Trace		
			S			
			L			
			M			
			C			
			F			

Distance:— 349 Km. S. E.
(Felt vicinity of Santa Barbara, Cal.)

Mar. 6, Trace of d record bet. 22:21:50 and 22:23:00.

Distance:— 74.85 Km. S. 18° 56' E.
Faint shock felt.

JEROME S. RICARD, S. J., Director
by Albert J. Newlin, Asst.

Jesuit Seismological Service Record

of the

Seismographic Station, Astronomical and Meteorological Observatory
University of Santa Clara, California, U. S. A.

$\phi = 37^{\circ} 26' 36''$ N $\lambda = 121^{\circ} 57' 03'' = 8^{\text{h}} 7^{\text{m}} 50^{\text{s}}$ 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 APRIL 5, 1915, TO MAY 15, 1915

DATE	CHAR.	COMP.	PHASES.	TIME			PERIOD s.	AMP. m. m.	REMARKS
				h.	m.	s.			
Apr. 6	lld	N-S	Pi	16:	28:	22			April 5. Traces bet. 21:40:30 and 21:43; bet. 23:11 and 23:15.
			S						
			L	16:	28:	29			
			M	16:	28:	32	.8	8.5	
			C	16:	29:	24			
			F	16:	33:	00			
		E-W	Pi	16:	28:	22			Distance:— 89.59 Km. W. $41^{\circ} 5'$ N. Light shock felt.
			S						
			L	16:	28:	29			
			M	16:	28:	32	.8	9.75	
			C	16:	29:	00			
			F	16:	33:	36			
		V	Pi	16:	28:	22			April 23. Traces bet. 15:39:03 and 15:50.
			S						
			L	16:	28:	29			
			M	16:	28:	53	.8	2.5	
			C	16:	28:	56			
			F	16:	30:	30			

May 1	lr	N-S	Pe	5: 10: 10		
			S	5: 18: 12		
			L	5: 25: 00		
			M	5: 30: 57	6	.75
			C	6: 00: 10		
			F	7: 00: 00		
		E-W	Pe	5: 10: 10		
			S	5: 18: 12		
			L	5: 25: 00		
			M	5: 30: 50	6	1.87
			C	6: 00: 00		
			F	7: 00: 00		
		v	Pe	5: 10: 10		
			S	5: 18: 12		
			L	5: 27: 00		
			M	5: 29: 30	20	.5
			C	6: 10: 00		
			F	7: 00: 00		
May 6	lld	N-S	Pi	12: 10: 11		
			S			
			L	12: 10: 16		
			M	12: 11: 50	1	11.75
			C	12: 17: 00		
			F	12: 33: 00		
		E-W	Pi	12: 10: 11		
			S			
			L	12: 10: 16		
			M	12: 14: 16	1	9.25
			C	12: 17: 14		
			F	13: 01: 00		
		v	Pi	12: 10: 11		
			S			
			L	12: 10: 13		
			M	12: 10: 13	1	3.15
			C	12: 12: 00		
			F	12: 20: 00		

Distance:— 5096 Km. W. 21° 51' N.

Distance:— 74.85 Km. N. 38° 13' W.

May 15. Trace of d record bet. 5:48:50 and 5:52.

Jesuit Seismological Service Record

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$\phi = 37^{\circ} 26' 36''$ N $\lambda = 121^{\circ} 57' 03'' = 8^{\text{h}} 7^{\text{m}} 50^{\text{s}}$ 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 MAY 29, 1915, TO JUNE 6, 1915

DATE	CHAR.	COMP.	PHASES.	TIME			PERIOD s.	AMP. m. m.	REMARKS
				h.	m.	s.			
May 29	Illv	N-S	Pi	6:	46:	50			Distance:— 465.5 Km. S. E. (Felt vicinity of Fresno, Calif.)
			S	6:	47:	33			
			L	6:	47:	48			
			M	6:	48:	25	1	21.10	
			C	6:	49:	15			
			F	6:	56:	00			
		E-W	Pi	6:	46:	50			
			S	6:	47:	33			
			L	6:	47:	48			
			M	6:	48:	12	1	21.10	
			C	6:	49:	20			
			F	7:	01:	00			
		V	Pe	6:	46:	50			
			S	6:	47:	33			
			L	6:	47:	48			
			M	6:	48:	19	1	6.5	
			C	6:	48:	44			
			F	6:	51:	00			

May 29	lv	N-S	Pe	20: 31: 00		
			S			
			L	20: 31: 46		
			M	20: 32: 30	1	3.75
			C	20: 33: 06		
			F	20: 36: 15		
		E-W	Pe	20: 31: 00		
			S	20: 31: 40		
			L	20: 32: 00		
			M	20: 22: 06	1	4.12
			C	20: 32: 36		
			F	20: 36: 00		
		v	Pe	20: 31: 00		
			S	20: 31: 40		
			L	20: 32: 03		
			M	20: 32: 26	1	1.25
			C	20: 32: 55		
			F	20: 33: 30		
June 6	ld	N-S	Pi	17: 50: 49		
			S			
			L	17: 50: 56		
			M	17: 51: 24	.8	5.5
			C	17: 51: 48		
			F	17: 53: 20		
		E-W	Pi	17: 50: 49		
			S			
			L	17: 50: 56		
			M	17: 50: 58	.8	3.5
			C	17: 51: 26		
			F	17: 53: 20		
		v	P	Trace		
			S			
			L			
			M			
			C			
			F			

Distance:— 474. Km. E. 42° 18' S.
(Felt vicinity of Fresno, Calif.)

Distance:— 89.5 Km. S. 31° 28' E.
Very light shock felt.

JEROME S. RICARD, S. J., Director
by Albert J. Newlin, Asst.

Jesuit Seismological Service Record

of the

Seismographic Station, Astronomical and Meteorological Observatory

University of Santa Clara, California, U. S. A.

$\phi = 37^{\circ} 26' 36''$ N $\lambda = 121^{\circ} 57' 03'' = 8^{\text{h}} 7^{\text{m}} 50^{\text{s}}$ 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 10, 1915, TO JUNE 23, 1915

DATE	CHAR.	COMP.	PHASES.	TIME			PERIOD s.	AMP. m. m.	REMARKS
				h.	m.	s.			
June 10	lld	N-S	pi	16:	11:	41			Distance:— 89.5 Km. N. W. Faint shock felt.
			S						
			L	16:	11:	48			
			M	16:	12:	06	.8	8.75	
			C	16:	12:	45			
			F	16:	15:	00			
		E-W	pi	16:	11:	41			
			S						
			L	16:	11:	48			
			M	16:	11:	50	.8	8	
			C	16:	13:	00			
			F	16:	14:	30			
		V	pi	16:	11:	41			
			S						
			L	16:	11:	48			
M	16:		11:	50	.8	3			
C	16:		11:	56					
F	16:		12:	06					

June 23, Trace bet. 1:22:00 and 1:24:40



June 23	Ilv	N-S	pe	4: 00: 30		
			S			
			L	4: 02: 20		
			M	4: 02: 38	1.5	9.12
			C	4: 04: 00		
			F	4: 14: 00		
		E-W	pe	4: 00: 23		
			S			
			L	4: 02: 19		
			M	4: 03: 13	1.5	5
			C	4: 04: 00		
			F	4: 15: 00		
		V	P	Trace		
			S			
			L			
			M			
			C			
			F			
June 23	Ilv	N-S	pe	4: 57: 37		
			S			
			L	4: 59: 18		
			M	4: 59: 26	1.5	5.5
			C	5: 02: 00		
			F	5: 08: 00		
		E-W	pe	4: 57: 37		
			S			
			L	4: 59: 22		
			M	5: 00: 00	1.5	4.6
			C	5: 02: 00		
			F	5: 11: 00		
		V	P	Trace		
			S			
			L			
			M			
			C			
			F			

Distance:— 881 Km. S. 28° 44' E.
(Felt vicinity of Calif.-Mexico border.)

Distance:— 801 Km. S. 39° 54' E.
(Felt vicinity of Calif.-Mexico border.)

JEROME S. RICARD, S. J., Director
by Albert J. Newlin, Asst.

Jesuit Seismological Service Record

of the

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$\phi = 37^{\circ} 26' 36''$ N $\lambda = 121^{\circ} 57' 03'' = 8^{\text{h}} 7^{\text{m}} 50^{\text{s}}$ 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 19, 1915, TO AUGUST 6, 1915

DATE	CHAR.	COMP.	PHASES.	TIME			PERIOD s.	AMP. m. m.	REMARKS
				h.	m.	s.			
July 19	Id	N-S	P i	22:	10:	14			Distance:— 111.7 Km. N. W. Very light shock felt.
			S						
			L	22:	10:	21			
			M	22:	10:	45	.8	2.75	
			C	22:	11:	03			
			F	22:	12:	15			
		E-W	P i	22:	10:	14			
			S						
			L	22:	10:	24			
			M	22:	10:	33	.8	2.37	
			C	22:	11:	00			
			F	22:	12:	30			
		V	P i	22:	10:	14			
			S						
			L	22:	10:	21			
M	22:		10:	33	.8	1.12			
C	22:		10:	39					
F	22:		11:	10					

July 31	Ir	N-S	Pe	1: 40: 35		
			S			
			L	1: 56: 30		
			M	1: 59: 03	15	.62
			C	2: 00: 00		
			F	2: 22: 30		
		E-W	Pe	1: 40: 45		
			S			
			L	1: 56: 30		
			M	1: 58: 37	10	1
			C	2: 00: 00		
			F	3: 00: 00		
		V	P	Trace		
			S			
			L			
			M			
			C			
			F			
Aug. 6	Id	N-S	Pe	6: 31: 33		
			S			
			L	6: 31: 47		
			M	6: 31: 50	1	2.20
			C	6: 32: 08		
			F	6: 33: 10		
		E-W	Pe	6: 31: 30		
			S			
			L	6: 31: 47		
			M	6: 31: 54	1	2.20
			C	6: 32: 27		
			F	6: 34: 20		
		V	P	Trace		
			S			
			L			
			M			
			C			
			F			

Distance:— 5525 Km. W. 31° 48' N.

Distance:— 163 Km. S. E.

JEROME S. RICARD, S. J., Director
by Albert J. Newlin, Asst.

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$\phi = 37^{\circ} 26' 36''$ N $\lambda = 121^{\circ} 57' 03'' = 8^{\text{h}} 7^{\text{m}} 50^{\text{s}}$ 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 SEPTEMBER 7, 1915, TO OCTOBER 2, 1915

DATE	CHAR.	COMP.	PHASES.	TIME			PERIOD s.	AMP. m. m.	REMARKS
				h.	m.	s.			
Sept. 7	llr	N-S	Pe	1:	28:	00			
			S						
			L	1:	39:	00			
			M	1:	40:	25	15	1.5	
			C	1:	46:	00			
			F	2:	00:	00			
		E-W	Pe	1:	28:	00			
			S						
			L	1:	39:	00			
			M	1:	42:	36	12	4.5	
			C	1:	54:	00			
			F	2:	20:	00			
		V	Pe	1:	28:	00			
			S						
			L	1:	41:	24			
			M	1:	42:	06	12	1	
			C	1:	48:	00			
			F	1:	48:	30			

Distance:— 3596 Km. W. $18^{\circ} 26'$ N.

Oct. 1	ld	N-S	Pi	15: 26: 20		
			S			
			L	15: 26: 26		
			M	15: 27: 03	.8	7.12
			C	15: 28: 00		
			F	15: 29: 00		
		E-W	Pi	15: 26: 20		
			S			
			L	15: 26: 26		
			M	15: 26: 48	.8	5
			C	15: 28: 00		
			F	15: 30: 00		
		V	Pi	15: 26: 20		
			S			
			L	15: 26: 26		
			M	15: 26: 28	.8	1.5
			C	15: 26: 37		
			F	15: 26: 40		
Oct. 2	lv	N-S	Pe	23: 41: 20		
			S			
			L	23: 42: 30		
			M	23: 42: 33	1	5.75
			C	23: 43: 08		
			F	23: 49: 00		
		E-W	Pe	23: 41: 20		
			S			
			L	23: 42: 20		
			M	23: 42: 36	1	6.5
			C	23: 43: 30		
			F	23: 50: 00		
		V	P	Trace		
			S			
			L			
			M			
			C			
			F			

Distance:— 81.5 Km. N. 30° 5' W.
Faint shock felt.

Distance:— 547 Km. E. 41° 30' S.

JEROME S. RICARD, S. J., Director
by Albert J. Newlin, Asst.

Jesuit Seismological Service Record

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$\phi = 37^{\circ} 26' 36''$ N $\lambda = 121^{\circ} 57' 03'' = 8^{\text{h}} 7^{\text{m}} 50^{\text{s}}$ 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 OCTOBER 3, 1915, TO OCTOBER 8, 1915

DATE	CHAR.	COMP.	PHASES.	TIME			PERIOD s.	AMP. m. m.	REMARKS
				h.	m.	s.			
Oct. 3	IIIv	N-S	P i	1:	49:	36			
			S						
			L	1:	50:	35			
			M	1:	51:	03	1	39	
			C	1:	53:	00			
			F	2:	00:	40			
		E-W	P i	1:	49:	33			
			S						
			L	1:	50:	37			Distance:— 503 Km. S. E.
			M	1:	50:	43	1	50	
			C	1:	53:	30			
			F	2:	05:	00			
		V	P	Trace					
			S						
			L						
			M						
			C						
			F						

Oct. 3	Illv	N-S	Pi	6: 54: 25		
			S			
			L	6: 54: 40		
			M	6: 55: 30	.8	50
			C	7: 00: 00		
			F	7: 06: 00		
		E-W	Pi	6: 54: 25		
			S			
			L	6: 54: 40		
			M	6: 55: 30	.8	50
			C	pen dislodged		
			F			
		V	Pi	6: 54: 40		
			S			
			L	6: 55: 48		
			M	6: 56: 05	.8	39
			C	6: 57: 00		
			F	6: 58: 00		
Oct. 8	ld	N-S	Pi	5: 25: 51		
			S			
			L	5: 25: 58		
			M	5: 26: 55	.8	3
			C	5: 27: 00		
			F	5: 29: 30		
		E-W	Pi	5: 25: 51		
			S			
			L	5: 25: 58		
			M	5: 26: 18	.8	3.7
			C	5: 26: 50		
			F	5: 30: 00		
		V	Pi	5: 25: 51		
			S			
			L	5: 25: 58		
			M	5: 26: 06	.8	.87
			C	5: 26: 15		
			F	5: 26: 39		

Distance:— 147 Km. S. E.
Faint shock felt.
(Strong shock along Calif.-Nev. line)

Distance:— 89 Km. W. 39° 2' N.
Faint shock felt.

JEROME S. RICARD, S. J., Director
by Albert J. Newlin, Asst.

Jesuit Seismological Service Record

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$\phi = 37^{\circ} 26' 36''$ N $\lambda = 121^{\circ} 57' 03'' = 8^{\text{h}} 7^{\text{m}} 50^{\text{s}}$ 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 NOVEMBER 21, 1915, TO DECEMBER 31, 1915

DATE	CHAR.	COMP.	PHASES.	TIME			PERIOD s.	AMP. m. m.	REMARKS
				h.	m.	s.			
Nov. 21	Ilv	N-S	P i	1:	15:	45			
			S						
			L	1:	18:	00			
			M	1:	18:	02	1	27.5	
			C	1:	23:	00			
			F	2:	28:	00			
		E-W	P i	1:	15:	45			
			S						
			L	1:	18:	00			
			M	1:	19:	36	1	30	
			C	1:	23:	00			
			F	3:	00:	00			
		V	P	Trace					
			S						
			L						
			M						
			C						
			F						

Distance:— 1081.55 Km. E. $42^{\circ} 30'$ S.
(Felt Calif.-Arizona line)

Dec. 27	lld	N-S	P i	7: 23: 28		
			S			
			L	7: 23: 34		
			M	7: 23: 54	.8	31.75
			C	7: 24: 48		
			F	7: 27: 48		
		E-W	P i	7: 23: 28		
			S			
			L	7: 23: 34		
			M	7: 23: 42	.8	35
			C	7: 24: 48		
			F	7: 30: 00		
		V	P i	7: 23: 29		
			S			
			L	7: 23: 42		
			M	7: 23: 48	1	8.5
			C	7: 24: 07		
			F	7: 25: 00		
Dec. 31	llv	N-S	P e	12: 21: 15		
			S			
			L	12: 22: 30		
			M	12: 23: 24	4	13
			C	12: 28: 15		
			F	12: 40: 40		
		E-W	P e	12: 21: 15		
			S			
			L	12: 22: 30		
			M	12: 24: 34	4	17.75
			C	12: 36: 00		
			F	13: 20: 00		
		V	P	Trace		
			S			
			L			
			M			
			C			
			F			

Distance:— 81.62 Km. E. 42° 12' S.
Slight shock felt.

Distance:— 583.25 Km. W. 36° 13' N.
(Felt Wash.-Oregon Coast)

JEROME S. RICARD, S. J., Director
by Albert J. Newlin, Asst.