1911. No. 1.

Jesuit Seismological Service
Record
of the
Earthquake Station, St. Louis University
St. Louis, Mo., U. S. A.

LATITUDE: 38° 38′ 17″ N.
LONGITUDE: 90° 13′ 58″.5 or $6^h\ 0^m\ 55^s.9$ W. Gr.
TIME: Mean Greenwich, midnight to midnight.
INSTRUMENT: Wiechert 80 kg., astatic, horizontal pendulum.
NOMENCLATURE: Goettingen.

1911

From January 1st to January 31st

DATE.	CHAR.	PHASE.	TIME. h. m. s.	PERIOD. T. s.	AMPLITUDE. AE μ	AMPLITUDE. AN μ	REMARKS.
Jan. 3-4	III_u	S_E	23 50				P, if present on either component, cannot be recognized on account of microseismic disturbances. The waves in S and first part of L are too irregular for accurate determination of amplitude or period; the earth motion was apparently very complicated. A short train of large, irregular waves appeared on N-S component at $23^h\ 57^m.7$ between time for RS_1 and RS_2; cannot identify them.
		S_N	23 50.6				
		L_E	0 12				
		L_N	0 13.4				
		M_E	0 16	34	847		
		M_N	0 27.9	21		488	
		F_E	2				
		F_N	2				
Jan. 8							Days of unusual microseismic motion.
Jan. 10							
Jan. 21							

J. B. Macelwane, S. J.

1911. No. 2.

Jesuit Seismological Service
Record
of the
Earthquake Station, St. Louis University
St. Louis, Mo., U. S. A.

LATITUDE: 38° 38′ 17″ N.
LONGITUDE: 90° 13′ 58″.5 or 6h 0m 55s.9 W. Gr.
TIME: Mean Greenwich, midnight to midnight.
INSTRUMENT: Wiechert 80 kg., astatic, horizontal pendulum.
NOMENCLATURE: Goettingen.

From *February 1st* to *February 16th*

DATE.	CHAR.	PHASE.	TIME.	PERIOD. T	AMPLITUDE.		REMARKS.
					AE	AN	
			h. m. s.	s.	μ	μ	
Feb. 4	I	eL_N	4 29.7				
		M_N	5 06.5	30		6	E-W component shows no distinct M.
		eL_E	5 38.6				
		F_N	7 24 1				
		F_E	8 24.6				
Feb. 4	I	eL_N	8 51.6				
		M_N	9 07.8	12		1	No decided M on E-W.
		eL_E	9 22.6				
		F_N	9 46.6				
		F_E	9 48.6				
Feb. 5	Ir	iP_N	4 29.4	3		5	No trace of P on E-W component. The train of waves at 4:31.5 seems to be PS.
		i_N	4 29.6	3.9		4	
		RP_N	4 29.7				
		PS?	4 31.5				
		iS_N	4 33.7	4		6	
		eS_E	4 33.7				
		i_E	4 34.1				Distance calculated 2690 km.
		i_N	4 34.6	6		6	Co-ordinates of the epicenter, as determined from data supplied by Ottawa, Harvard, St. Boniface and St. Louis, were $\lambda = 89°$, $\varphi = 14°, 23'$, near San Salvador, Central America.
		eL_E	4 35				
		M_N	4 39.7	6		9	
		M_E	4 39.7	5.1	13		
		C_E	4 42.7				
		F_N	4 51.2				
		F_E	4 54				

19 11. No. 3.

Jesuit Seismological Service
Record
of the
Earthquake Station, St. Louis University
St. Louis, Mo., U. S. A.

LATITUDE: 38° 38′ 17″ N.
LONGITUDE: 90° 13′ 58″.5 or 6^h 0^m $55^s.9$ W. Gr.
TIME: Mean Greenwich, midnight to midnight.
INSTRUMENT: Wiechert 80 kg., astatic, horizontal pendulum.
NOMENCLATURE: Goettingen.

From February 17th to February 28th

DATE.	CHAR.	PHASE.	TIME.	PERIOD. T.	AMPLITUDE.		REMARKS.
					AE	AN	
			h. m. s.	s.	μ	μ	
Feb. 17	I	eP_E	14 28.8				
		eP_N	14 29.8				
		eS_E	14 32.8				
		L	14 33.8				
		M_E	14 34.9	6	12		
		M_N	14 35.6	7.8		18	
		F	15 01				
Feb. 18	I	eL_N	2 03				
		eL_E	2 04.5				
		M	2 06.4	9.6	14	16	
		F_E	2 16				
		F_N	2 20				
Feb. 18	IIu	e_E	19 22.1				Macedonian Earthquake.
		e_N	19 25.6				Up to 19^h 43^m the motion on both components was very complicated and irregular.
		S_E	19 27.4				
		L_E	19 34.1				
		eL_N	19 36.1				
		M_E	19 38.6	18	102		
		M_N	19 45.1	18		211	
		F	20 10				
Feb. 28	I	eL_E	4 24.6				
		F	6 00.6				

J. B. Macelwane S. J.

19 11 No. 4

Jesuit Seismological Service
Record
of the
Earthquake Station, St. Louis University
St. Louis, Mo., U. S. A.

LATITUDE: 38° 38′ 17″ N.
LONGITUDE: 90° 13′ 58″.5 or 6h 0m 55s.9 W. Gr.
TIME: Mean Greenwich, midnight to midnight.
INSTRUMENT: Wiechert 80 kg., astatic, horizontal pendulum.
NOMENCLATURE: Goettingen.

From MAR 1. to MAR 31

DATE.	CHAR.	PHASE.	TIME.	PERIOD. T	AMPLITUDE.		REMARKS.
					AE	AN	
			h. m. s.	s.	μ	μ	
Mar. 10	I	eL N	1 28				
		M N	1 34.4	17		6	
		F N	3 18				
Mar. 10	I	eL E	11 2.7				
		F E	11 45				
Mar. 22	I	eL N	7 02				
		F N	8 37				

J. B. Macelwane, S. J.

1911 No. 5

Jesuit Seismological Service Record

of the

Earthquake Station, St. Louis University

St. Louis, Mo., U. S. A.

LATITUDE: 38° 38′ 17″ N.
LONGITUDE: 90° 13′ 58″.5 or 6h 0m 55s.9 W. Gr.
TIME: Mean Greenwich, midnight to midnight.
INSTRUMENT: Wiechert 80 kg., astatic, horizontal pendulum.
NOMENCLATURE: Goettingen.

From April 1st to April 30th

DATE.	CHAR.	PHASE.	TIME.	PERIOD. T.	AMPLITUDE. AE	AMPLITUDE. AN	REMARKS.
			h. m. s.	s.	μ	μ	
April 10	Ir	P	18 49.2				Distance 3660 km. According to reports received from northern Colombia by the Jesuit Observatory of Havana, the epicenter of the earthquake was between Bogota and Cartagena. The macroseismic data furnished by Havana, Ottawa, Trieste and St. Louis, place the epicenter at: Long. 75° 50′ W., Lat. 8° 36′ N.
		S_E	54.6	7	8		
		S_N	54.6	9		11	
		L	57.2				
		M_E	19 3.5	14	22		
		M_N	4.2	15		34	
		F	23				
April 28	IIr	P	10 0.4				
		L_N	7				
		L_E	7.1				
		M_E	7.2	6	13		
		M_N	7.2	5.5		15	
		F_E	22				
		F_N	51				

J. B. Macelwane S.J.

19 11 No. 6

Jesuit Seismological Service
Record
of the
Earthquake Station, St. Louis University
St. Louis, Mo., U. S. A.

LATITUDE: 38° 38′ 17″ N.
LONGITUDE: 90° 13′ 58″.5 or 6h 0m 55s.9 W. Gr.
TIME: Mean Greenwich, midnight to midnight.
INSTRUMENT: Wiechert 80 kg., astatic, horizontal pendulum.
NOMENCLATURE: Goettingen.

From May 1st to May 31st

DATE.	CHAR.	PHASE.	TIME.	PERIOD. T.	AMPLITUDE. AE	AMPLITUDE. AN	REMARKS.
			h. m. s.	s.	μ	μ	
May 4	IIu	P	23 17.1				
		iS_N	26.5	6		25	$(S-P)_N = 9^m\ 31^s$ Distance 8200 km.
		iS_E	27.1	6	8		$(S-P)_E = 10^m\ 6^s$ Distance 8900 km.
		L	39.6				The coordinates of the epicenter, calculated from data furnished by Darmstadt, Vienna and St. Louis, are: Long. 152° 30′E. Lat. 51°N
		M_E	40.6	24	105		
		M_N	41.2	21		95	
		F_E	43				
		F_N	48				

J. B. Goesse, S. J.

19 11 No. 7 and 8

Jesuit Seismological Service Record

of the

Earthquake Station, St. Louis University

St. Louis, Mo., U. S. A.

LATITUDE: 38° 38′ 17″ N.
LONGITUDE: 90° 13′ 58″.5 or 6h 0m 55s.9 W. Gr.
TIME: Mean Greenwich, midnight to midnight.
INSTRUMENT: Wiechert 80 kg., astatic, horizontal pendulum.
NOMENCLATURE: Goettingen.

From June 1st to July 31st

DATE.	CHAR.	PHASE.	TIME.	PERIOD. T.	AMPLITUDE.		REMARKS.
					AE	*AN*	
			h. m. s.	s.	μ	μ	
June 15	II	i_{1E}	14 47.1	7.8	75		Phases are doubtful.
		i_{1N}	47.1	8.4		90	
		i_{2}	53.2	6	42	36	
		F	15 33				
July 1	Ir	eP_{E}	22 9.9				Epicenter near San Francisco.
		L	16.5				
		M	16.6	10.8	55	60	
		F_{E}	47.1				
		F_{N}	55.5				
July 4	I	e_{N}	13 56.2				
		e_{E}	56.3				
		F_{E}	14 42.4				
		F_{N}	47.2				
July 12	I	i_{1}	4 28.3				
		i_{2E}	38.1				
		i_{2N}	38.2	12	77		
		F_{N}	5 54.6				
		F_{E}	5 54.8				

J. B. Macelwane, S. J.

19 11 — No. 8 and 9

Jesuit Seismological Service Record

of the

Earthquake Station, St. Louis University

St. Louis, Mo., U. S. A.

LATITUDE: 38° 38′ 17″ N.
LONGITUDE: 90° 13′ 58″.5 or 6h 0m 55s.9 W. Gr.
TIME: Mean Greenwich, midnight to midnight.
INSTRUMENT: Wiechert 80 kg., astatic, horizontal pendulum.
NOMENCLATURE: Goettingen.

From August 1st to September 30th

DATE.	CHAR.	PHASE.	TIME. h.	m.	s.	PERIOD. T. s.	AMPLITUDE. AE μ	AN μ	REMARKS.
Aug. 16	Iu	eP	22	57	42				
		S	23	10	12				
		L		33	36				
		M E	0	01	09	19	90		M_N indistinct.
		F	1	11	00				
Aug. 21	I	i	16	52	12				
		F	17	10	00				
Aug. 27	I	e	11	02	50				P and S too doubtful for determination.
		eL		08	08				
		F		37	00				
Sept. 15	Iu	P	13	28	35				(S—P)=7m 10s Distance 5550 km.
		S		35	45				
		eL E		41	18				
		eL N		42	18				
		M N		45	08	27		81	
		M E		47	38	18	32		
		F	15	30					
Sept. 17	Iu	iP	3	40	23				$(S—P)_N$=8m 30s Distance 7000 km.
		S N		48	53				
		S E		49	11				
		eL N		59	23				
		eL E	4	00	53				
		M E		01	17	15	49		
		M N		06	20	17		78	
		F		42					
Sept. 22	Iu	eP N	5	15	29				(S—P)=7m Distance 5300 km.
		eP E		15	35				
		eS N		22	29				
		eS E		22	35				
		L N		27	59				
		L E		38	53				
		M N		29	08	8		1mm	
		M E		29	09	9	1mm		
		F		53					

J. B. Macelwane

CORRECTION: To the time set down in our record for May 4th, 1911, add 31m., i. e., instead of 23h 17.1m, write 23h 48.1m.

19 11 No.

Jesuit Seismological Service
Record
of the
Earthquake Station, St. Louis University
St. Louis, Mo., U. S. A.

LATITUDE: 38° 38′ 17″ N.
LONGITUDE: 90° 13′ 58″.5 or 6h 0m 55s.9 W. Gr.
TIME: Mean Greenwich, midnight to midnight.
INSTRUMENT: Wiechert 80 kg., astatic, horizontal pendulum.
NOMENCLATURE: Goettingen.

From October 1st to October 31st

DATE.	CHAR.	PHASE.	TIME. h.	m.	s.	PERIOD. T. s.	AMPLITUDE. AE μ	AMPLITUDE. AN μ	REMARKS.
Oct. 6	IIr	iP	10	21	53				$(iS-iP)_E$ = 4 m 42 s
		iS_N		26	33				Distance 3000 km.
		iS_E		26	35				Haiti
		L_N		29	39				
		L_E		29	44				
		M_N		31	30	15		204	
		M_E		31	30	15	172		
		F	14	14					
Oct. 10	Ir	iP	13	18	03				
		iS		32	27				
		L_N		25	33				
		L_E		26	00				
		M_N		35	00	12		30	
		M_E		35	45	12	25		
		F	14	00					
Oct. 15	I	e	16	587					S and P could not be determined on account of microseismic disturbances.
		L_E	17	09					
		L_N		11.9					
		M_E		12.5		15	25		
		F	18	02					
Oct. 29	Ir	P_N	18	20.9					
		P_E		21					
		S_E		25.9					No distinct Maximum
		S_N		26					
		L_E		28.1					
		L_N		28.9					
		F		16					

J. B. Gosman, S. J.,
Director
George Rueppel, S. J.
Associate

19 ___ No. 11

Jesuit Seismological Service
Record
of the
Earthquake Station, St. Louis University
St. Louis, Mo., U. S. A.

LATITUDE: 38° 38′ 17″ N.
LONGITUDE: 90° 13′ 58″.5 or 6h 0m 55s.9 W. Gr.
TIME: Mean Greenwich, midnight to midnight.
INSTRUMENT: Wiechert 80 kg., astatic, horizontal pendulum.
NOMENCLATURE: Goettingen.

From November 1st *to* November 30th.

DATE.	CHAR.	PHASE.	TIME.	PERIOD. T.	AMPLITUDE. AE	AMPLITUDE. AN	REMARKS.
			h. m. s.	s.	μ	μ	
Nov. 18	I	P_N	7 38.2				
		S_N	43				P_E and S_E not distinct
		L_N	48				
		F	8 06				
Nov. 20	Ir	P_N	13 54.7				Dist. = 3150 km.
		P_E	55.5				
		S_N	58.6				
		L_N	14 05				
		L_E	06.5				
		M_E	08	15	18		
		M_N	08.5	15		44	
		F	16.5				
Nov. 22	E	e	10 20.4				
		L_N	21				E-W too indistinct
		F	27.3				
Nov. 25	E	P_E	19 35.8 ?				
		P_N	37 ?				
		S_E	39.8				
		S_N	42				
		L_E	42.8				
		L_N	43				
		M_N	43.6	12		35	
		M_E	45	12	15		F lost in microseisms

J. B. Coesse, S. J.,
Director
George Tueppel, S. J.
Associate

DATE.	CHAR.	PHASE.	TIME.	PERIOD. T.	AMPLITUDE. AE	AMPLITUDE. AN	REMARKS.
			h. m. s.	s.	μ	μ	
c. 16	IIIr	P_E	19 19.4	6.38	2		
		P_n	19.5	6.38		3	
		S_E	23.8	8.7			$(S-P_N)$= 4 m 20s
		S_N	23.8	8.7			Distance= 2690 km.
		L_E	25.2			49	
		L_N	25.3	14.5		1064	
		M_N	30				
		M_E	30	12	546		
		F_N	21 06.5				
		F_E	12.5				
c. 22	Ir	P	13 00.1				
		S_E	04.6				$(S-P)_N$ = 4m 30s.
		S_N	04.6				Distance = 2830 km.
		L_N	08.1				
		L_E	08.2				
		M_N	20.6	13		45	
		M_E	20.7	13	34		
		F	38				
c. 23rd	I	e	7 57.9				
		L_N	58.8				
		L_E	58.7				F overlapped by following quake
c. 23rd	I	e_N	8 08.6				Microseismic disturbances during the entire day.
		e_E	07.5				
		F	43				

J. B. Goessse, S. J.,
Director
George Rueppel, S. J.,
ASSOCIATE