Ref 2794

Year 1916, No.1. January 1st to ~~5~~th, 1916.
4

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.

ϕ=14° 34' 41" N.)=120° 58' 33" E. h=2.40 ms. Alluvium.

Instrument: Wiechert's static Pendulum (1,000 Kgs.)

	T_o	ε	$\frac{r}{T_o^2}$
A_N:	6.1	3.89	0.023
A_E:	6.6	2.32	0.050

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks.
				h. m. s.					
1	1	II_V	eP	6 22 24					
			L	22 40					
			M_E	22 45	4		398		
			M_N	23 07	3	259			
			F	33					
2	1	I_V	eP	7 24 55					Batangas (S Luzon).
			L	25 10					
			M_E	25 14	4		300		
			M_N	25 34	3	193			
			F	35					
3	1	II_r	eP	13 27 54					
			iS	36 27	6-8				
			iL	46 00	7-9				
			M_N	49 41	13	247			
			M_E	52 12	11		235		
			M_E	53 03	13		234		
			M_N	54 22	13	313			
			F	16 48					
4	2	I_V	eP	8 11 52					
			L	12 17					
			M_E	12 26	2		13		
			F	15					
5	3	I_V	eP	8 26 50					
			F	30					
6	4	II_V	eP	3 12 54					Panay Island.
			L	13 42					
			M_E	14 28	7		699		
			M_N	15 14	7	627			
			F	52					
7	4	I_V	eP	12 11 55					
			F	14					
8	4	I_V	eP	12 56 22					
			F	59					

International Seismological Centre From the ISC collection scanned by SISMOS

Year 1916, No.2. January 5th to 16th, 1916.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks.
				h. m. s.					
9	7	I_v	eP	17 38 12					Bolinao (W Luzon).
			L	38 40					
			F	40					
10	9	I_v	eP	8 02 28					
			F	06					
11	9	I_v	eP	16 24 05					
			F	26					
12	10	I_v	eP	7 04 38					
			F	07					
13	10	I_v	eP	13 28 54					
			F	31					
14	13	II_r	eP	6 23 34					New Guinea? Felt in the eastern coasts of Samar and Mindanao. The maxima are difficult to be measured on account of the superimposed following earthquake.
			S	27 49					
			L	32 00					
			M_1	33 22	7	349			
			M_2	35 08	8	345			
			F	8 01					
15	13	II_r	eP	8 25 46					New Guinea? Felt in the eastern coasts of Samar and Mindanao. L and maxima in N-S component lost by the force of the shock and the same phases in E-W component hidden by the preceding quake.
			S	30 00					
			F	10 25					
16	13	I_r	e(PS)	21 52 13					
16	13	I_r	eP	10 56 02					New Guinea?
			S	11 00 07					
			L	04 12					
			L_E	05 22	7		43		
			L_N	06 01	6	39			
			F	46					
17	13	I_r	e(PS)	21 52 13					
			L	56 15					
			M_N	56 27	6	32			
			M_E	56 42	7		20		
			F	22 17					
18	14	I_v	eP	11 11 19					
			F	13					

International Seismological Centre From the ISC collection scanned by SISMOS

Year 1916, No.3. January 17th to 26th, 1916.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.

No.	Date.	Character.	Phase.	Greenwich mean time.	Period.	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks.
				h. m. s.					
19	17	I_v	eP	19 05 53					
			F	08					
20	17	I_v	eP	19 17 23					
			F	19					
21	18	I	e	14 06					
			F	22					
22	19	I_r	e	19 04					
			S	10 20					
			L	17 20					
			M_E	21 56	11		11		
			M_N	22 37	19	13			
			F	54					
23	21	I_v	eP	14 39 53					
			L	40 52					
			M_E	41 42	3		8		
			M_N	41 43	3	9			
			F	44					
24	22	I_v	eP	12 51 54					
			F	54					
25	24	I_u	e	7 07 07					
			S?	15 18					
			L?	39 12					
			M_E	46 28	15		18		
			M_N	46 52	15	32			
			F	8 30					
26	25	I_v	eP	6 11 24					
			F	13					
27	25	I_v	eP	11 43 06					
			S	44 53					
			L	47 06					
			M_E	47 12	6		41		
			M_N	48 44	6	24			
			F	58					
28	25	I_v	eP	14 29 36					
			L	30 41					
			M_N	31 36	5	13			
			M_E	32 12	5		9		
			F	37					
29	26	I_r	e	8 25					
			M_E	29 50	20		5		
			M_N	31 42	15	6			
			F	47					

International Seismological Centre From the ISC collection scanned by SISMOS

Year 1916, No.4. January 26th to 31st, 1916.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks.
				h. m. s.					
30	26	I	e	12 36					
			F	13 31					
31	26	I_v	eP	20 26 48					
			L	27 24					
			F	33					
32	27	I_v	eP	17 24 12					Nueva Caceres (SE Luzon).
			L	24 40					
			M_N	24 52	3	27			
			F	29					
33	28	I_v	eP	19 08 24					
			F	13					
34	30	I_v	eP	18 37 29					
			F	40					
35	30	I	e	20 48					
			L	57 40					
			M_E	21 01 23	6		5		
			L_N	02 56	7	7			
			F	24					
36	31	I_u	e	18 19					
			F	19 17					
37	31	I_v	eP	23 01 55					
			F	05					

Miguel Saderra Masó,

Assistant Director of the Weather Bureau.

International Seismological Centre From the ISC collection scanned by SISMOS

Year 1916, No. 5. February 1st to 3rd, 1916.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.

ϕ=14° 34' 41" N. λ=120° 58' 33" E. h=2.40 ms. Alluvium.

Instrument: Wiechert's static Pendulum (1,000 Kgs.)

	T_0	ε	$\frac{r}{T_0^2}$
A_N:	6.1	3.89	0.023
A_E:	6.6	2.32	0.050

Ref 2595

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks.
				h. m. s.					
38	1	I_r	eP	2 25 48					
			S	28 30					
			L	31 15					
			M_E	35 08	10		4		
			M_N	35 20	8	6			
			F	3 01					
39	1	II_r	e	7 40 33					
			S	44 00	5-7				
			L	48 24	6-8				
			M_N	51 38	10	227			
			M_E	51 44	10		332		
			F	9 52					
40	1	I_r	eP	21 50 32					
			S	53 48					
			L	57 00					
			M_N	58 22	7	13			
			M_E	22 01 06	7		9		
			F	41					
41	2	I	e	14 53					
			F	15 08					
42	2	I_v	e	19 42					
			F	20 01					
43	2	I_r	eP	21 28 33					
			S	31 18					
			L	33 05					
			M_E	34 38	8		39		
			M_N	36 03	13	27			
			F	22 17					
	3	I_v	eP	2 56 08					
			F	3 02					

International Seismological Centre From the ISC collection scanned by SISMOS

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.-Continued.

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_T μ	Amplitude A_E μ	Δ	Remarks.
				h. m. s.					
45	3	I_V	eP	10 06 14					
			L	10 28					
			M_E	12 02	7		12		
			M_N	12 13	6	15			
			F	32					
46	3	I_r	eP	19 08 10					
			S	10 13					
			L	12 16					
			M_E	12 58	6		22		
			M_N	12 02	6	11			
			F	27					
47	4	I_V	e	19 04 28					Eastern Mindanao.
			F	12					
48	5	I_V	eP	4 31 22					
			L	32 53					
			M_E	33 20	5		49		
			M_N	33 38	5	39			
			F	44					
49	5	I_V	eP	8 09 40					Aparri (NE Luzon).
			L	10 33					
			M_N	12 30	6	79			
			M_E	13 13	5		60		
			F	20					
50	5	I_V	eP	9 15 52					
			L	16 16					
			M_N	16 19	2	30			
			F	23					
51	5	I_r	eP	14 35 16					
			S	38 12					
			L	40 31					
			M_E	47 42	17		3		
			F	15 18					
52	6	I_r	e	11 00 00					
			S	03 27					
			L	06 44					
			M_N	07 43	6	29			
			M_E	08 05	7		33		
			F	46					
53	6	I_V	e	12 43					
			F	13 08					
54	6	I_u	e	22 01 34					
			S	09 39					
			L	17 06					
			M_E	20 26	16		10		
			M_N	20 50	15	10			
	7		F	0 08					

International Seismological Centre From the ISC collection scanned by SISMOS

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.-Continued.

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks.
				h. m. s.					
55	7	I_V	eP	0 26 00					
			F	33					
56	8	I	e	0 31					
			F	1 02					
57	8	I	e	15 54					
			F	16 21					
58	10	I_r	eP	2 10 40					
			S	14 27					
			L	19 15					
			M_L	20 19	14	21			
			M_E	20 27	12		14		
			F	56					
59	10	I_r	eP	11 01 18					
			S	05 32					
			L	09 53					
			M_E	16 00	13		4		
			F	39					
60	11	I	e	8 49 37					
			F	9 21					
61	11	I_V	eP	16 42 19					
			F	45					
62	14	II_r	eP	10 04 37					Butuan (N Mindanao).
			S	07 18	4-5				
			L	09 38	5-6				
			M_L	12 04	15	178			
			M_E	12 49	11		76		
			F	11 32					
63	14	I_r	e	17 54					
			M_E	18 06 02	10		17		
			M_N	06 02	12	15			
			F	35					
64	15	I_V	eP	8 49 48					
			F	52					
65	15	I_r	e	11 56					
			F	12 49					
66	16	I_V	eP	3 56 00					Catbalogan (W Samar).
			L	57 14					
			M_N	59 17	6	7			
			F	4 08					
67	16	I_V	eP	12 29 37					
			F	31					

International Seismological Centre From the ISC collection scanned by SISMOS

Year 1916, No. 8. February 18th to 29th, 1916.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.-Continued.

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks.
				h. m. s.					
68	18	I_v	eP	15 36 17					
			F	38					
69	20	I_u	eP	17 58 54					
			S	18 07 39					
			L	16 26	8-9				
			M_E	39 44	18		9		
			M_N	39 50	18	6			
			F	19 33					
70	21	I_r	e	13 59 00					Sumatra.
			F	14 35					
71	22	I_r	e	9 17					
			L	22 06					
			M_E	22 44	6		7		
			F	46					
72	22	I	e	15 39					
			F	51					
73	25	I_v	eP	7 00 05					
			L	00 22					
			M_N	00 24	3	21			
			F	06					
74	25	I_v	eP	7 07 41					
			F	09					
75	25	I_v	eP	15 27 24					
			F	31					
76	26	I_v	eP	2 13 50					Iba (W Luzon).
			L	14 07					
			M_N	14 19	1	76			
			F	19					
77	26	I_v	eP	4 13 50					
			L	14 07					
			M_N	14 16	1	24			
			F	17					
78	26	I_v	eP	13 24 24					
			F	27					
79	27	I_v	eP	5 57 23					
			F	59					
80	27	I_v	eP	6 19 16					
			F	21					
81	27	I_u	e	20 40 49					
			M_{E1}	21 39 51	22		7		
			M_{N1}	44 56	21	8			
			M_{N2}	58 49	19	7			
			M_{E2}	59 00	20		7		
			F	22 56					
82	28	I_v	eP	15 14 57					
			F	17					
83	28	I_v	eP	23 08 10					
			F	10					

Miguel Saderra Masó

Asst. Director, Weather Bureau.

International Seismological Centre From the ISC collection scanned by SISMOS

Year 1916, No. 9. March 1st to 7th, 1916.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.

ϕ=14° 34' 41" N. λ=120° 58' 33" E. h=2.40 ms. Alluvium.

Instrument: Wiechert's static Pendulum (1,000 Kgs.)

	T_0	ε	$\frac{1}{T_0^2}$
A_N:	6.1	3.89	0.023
A_E:	6.6	2.32	0.050

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks.
				h. m. s.					
84	1	II_V	eP	9 11 07					
			L	11 22					
			M_E	11 31	2		413		
			F	17					
85	1	I_r	eP	18 05 38					
			S	09 05					
			L	11 24					
			M_N	12 17	7	11			
			F	24					
86	4	I_V	e	1 00 08					
			L	03 19					
			M_N	03 30	5	16			
			F	09					
87	4	I_r	eP	7 17 31					
			S	21 48					
			L	27 04					
			M_N	31 45	18	7			
			M_E	32 36	16		7		
			F	8 01					
88	5	I_V	eP	4 51 31					
			F	54					
89	5	I_V	eP	15 05 34					Iba (W Luzon).
			L	05 46					
			M_E	05 54	2		18		
			F	10					
90	6	I_V	eP	8 24 08					
			F	30					
91	6	I_V	eP	9 16 11					
			F	23					
92	6	I	e	22 13					
			F	31					
93	7	I_V	eP	18 56 30					
			F	19 08					

International Seismological Centre From the ISC collection scanned by SISMOS

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.-Continued.

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks.
				h. m. s.					
94	8	I_V	eP	3 09 22					
			L	11 27					
			M_E	12 28	5		10		
			F	22					
95	8	I_V	eP	23 27 07					Eastern Mindanao.
			L	28 39					
			M_N	30 18	7	8			
			F	39					
96	10	I_V	eP	21 45 10					N Luzon.
			L	45 52					
			M_N	45 56	3	7			
			F	51					
97	11	I_V	eP	19 02 00					
			F	04					
98	12	I_V	eP	2 00 45					
			F	04					
99	12	I_V	eP	6 24 47					
			F	27					
100	12	I_V	eP	7 46 53					Aparri (NE Luzon).
			L	47 38					
			F	50					
101	12	I	e	11 22					
			F	37					
102	17	I_V	eP	19 33 22					
			F	35					
103	18	I_r	eP	1 02 43					
			S	07 50					
			L	12 28					
			M_N	14 57	9	12			
			M_E	15 27	10		5		
			F	32					
104	19	I_V	eP	8 33 43					
			L	34 03					
			M_N	34 26	4	86			
			M_E	34 33	5		87		
			F	52					
105	19	I	e	12 08					
			F	39					
106	19	I_V	eP	17 29 18					
			F	31					
107	19	I_V	eP	18 55 41					
			F	57					
108	19	I_V	eP	23 58 56					
			L	59 31					
	20		F	0 03					
109	21	I_V	eP	2 37 00					
			L	37 45					
			M_E	38 08	2		33		
			F	46					
110	21	I_V	eP	7 44 04					
			F	46					
111	21	I_V	eP	10 14 49					
			F	18					

International Seismological Centre From the ISC collection scanned by SISMOS

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.-Continued.

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks.
				h. m. s.					
112	22	I_v	eP	9 58 00					
			F	10 00					
113	22	II_v	eP	19 45 14					
			L	45 39					
			M_N	47 33	7	243			
			M_E	47 34	7		283		
			F	20 12					
114	25	I_r	e	23 54 55					
			S	56 57					
			L	59 49					
	26		M_{E1}	0 03 45	10		41		
			M_{N1}	04 06	9	34			
			M_{N2}	09 18	9	46			
			M_{E2}	09 42	9		91		
			F	1 09					
115	26	I_v	eP	18 41 32					End overtaken by following earthquake.
			L	41 52					
			M_E	41 54	2		100		
			M_N	41 55	2	86			
116	26	I_v	eP	18 47 31					
			L	47 45					
			M_E	47 48	2		17		
			F	56					
117	27	I	e	12 33					
			F	44					
118	27	I_v	eP	18 20 40					
			L	21 16					
			M_N	22 19	5	11			
			F	37					
119	27	I_v	e	22 46					
			F	23 00					
120	28	I_v	eP	16 24 44					Laoag (NW Luzon).
			L	25 24					
			F	32					
121	28	I_v	eP	22 42 24					
			F	44					
122	29	I_v	e(PS)	1 50 26					Butuan (N Mindanao).
			L	53 29					
			F	2 08					
123	30	I_r	e	1 48 00					
			S	51 18					
			L	55 00					
			M_E	58 36	11		8		
			M_N	59 20	10	8			
			F	2 39					
124	30	I_v	eP	21 49 26					S Samar and NE Mindanao.
			S	50 48					
			L	52 00					
			M_N	52 45	7	20			
			M_E	52 53	6		12		
			F	22 22					
125	30	I_v	eP	23 18 54					
			L	20 28					
			F	30					
126	31	I_v	eP	1 46 22					
			L	46 58					
			F	52					

International Seismological Centre From the ISC collection scanned by SISMOS

Ref 2795

Year 1916, No. 12. April 1st to 11th, 1916.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.

$\phi = 14^\circ\ 34'\ 41''$ N. $\lambda = 120^\circ\ 58'\ 33''$ E. $h = 2.40$ ms. Alluvium.

Instrument: Wiechert's static Pendulum (1,000 Kgs.)

	T_0	ε	$\frac{1}{T_0^2}$
A_N:	6.1	3.89	0.023
A_E:	6.6	2.32	0.050

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks.
				h. m. s.					
127	1	I_V	eP	5 15 35					
			L	16 32					
			M_E	18 15	4		17		
			F	31					
128	3	I_V	e	10 36 46					End overtaken by following earthquake.
			M_E	40 09	6		11		
129	3	I_V	e	10 44					
			F	11 03					
130	6	I_V	eP	1 38 11					
			F	41					
131	7	I_u	eP	9 38 12					
			S	48 07					
			L	59 24					
			M_{N1}	10 08 51	16	13			
			M_{E1}	09 00	19		21		
			M_{E2}	14 18	15		20		
			M_{N2}	18 32	16	12			
			F	11 04					
132	9	I_V	eP	18 32 55					
			F	36					
133	10	I_V	eP	1 06 42					
			F	09					
134	10	I_V	eP	20 40 42					
			L	41 00					
			M_E	41 10	1		28		
			F	45					
135	11	I_V	eP	16 00 21					
			F	02					
136	11	I_V	eP	17 14 03					
			L	14 26					
			M_N	14 28	1	33			
			F	18					

International Seismological Centre From the ISC collection scanned by SISMOS

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.-Continued.

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks
				h. m. s.					
137	12	I_r	eP	9 23 17					
			F	53					
138	12	I_v	eP	17 00 29					
			F	15					
139	14	I	e	2 17					
			F	33					
140	14	I	e	2 38 06					
			F	54					
141	14	II_v	eP	12 16 53					Central Luzon.
			L	17 13					
			M_N	17 30	1	145			
			M_E	17 32	1		174		
			F	35					
142	14	II_v	eP	16 40 42					
			L	40 58					
			M_N	41 12	1	329			
			M_E	41 12	1		435		
			F	55					
143	15	I_v	eP	2 12 23					
			L	12 41					
			M_N	12 42	2	92			
			M_E	12 43	1		84		
			F	20					
144	15	I_r	e	9 25					
			M_E	36 36	16		4		
			F	56					
145	15	II_r	eP	12 37 16					
			S	41 47					
			L	47 06					
			M_N	55 08	17	34			
			M_E	55 43	17		28		
			F	13 42					
146	15	I_r	eP	15 02 00					
			S	04 22					
			L	07 00					
			M_E	08 32	6		63		
			M_N	08 43	7	77			
			F	16 08					
147	16	I_v	eP	0 58 49					
			L	59 04					
			M_E	1 00 16	3		24		
			F	06					
148.	16	I_v	eP	16 54 54.					
			F	57					

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MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.-Continued.

No.	Date	Character	Phase	Greenwich mean time h. m. s.	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks
149	17	I_v	eP	16 52 28					
			L	52 44					
			M_E	52 48	2		34		
			F	55					
150	18	II_r	e	4 12 19					
			S	17 32					
			F?	5 22					
151	21	II_r	eP	11 36 57					
			S	41 32					
			L	46 07					
			M_N	47 05	8	113			
			M_E	47 19	8		134		
			F	12 12					
152	21	I	e	14 05					
			F	24					
153	22	I	e	9 54					
			F	10 08					
154	24	I_v	e	4 46 14					
			L	49 03					
			F	5 22					
155	24	I_u	e	8 21 43					
			S?	35 16					
			L?	52 24					
			M_{N1}	9 00 19	18	6			
			M_{N2}	35 50	20	7			
			M_{N3}	42 45	18	12			
			F	10 17					
156	24	I_v	eP	20 50 56					
			F	53					
157	24	I_v	eP	21 46 32					
			F	49					
158	25	I_v	eP	23 33 39					N Luzon. End overtaken by following earthquake.
			L	34 23					
159	25	I_v	eP	23 48 03					
			F	52					
160	26	I_r	e	2 41 13					
			F	3 15					
161	27	I_v	eP	19 19 29					
			F	22					
162	28	I_v	eP	10 13 32					Camarines (SE Luzon).
			F	20					
163	28	I_v	eP	20 21 07					NW Luzon.
			L	21 44					
			L_E	22 29	3		21		
			F	29					
164	28	I_v	eP	21 45 44					NW Luzon.
			F	49					

International Seismological Centre From the ISC collection scanned by SISMOS

Year 1916, No. 15. May 1st to 8th, 1916.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.

ϕ=14° 34' 41" N.)=120° 58' 33" E. h=2.40 ms. Alluvium.

	T_o	δ	$\frac{r}{T_o^2}$
A_N:	6.1	3.89	0.023
A_E:	6.6	2.32	0.050

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks
				h. m. s.					
165	2	I_v	eP	8 59 52					
			F	9 02					
166	2	I	e	22 53 32					
			M_N	59 00	7	11			
			M_E	23 00 48	10		8		
			F	12					
167	3	I_v	e	2 29					
			F	42					
168	3	I_r	eP	4 38 16					
			S	41 07					
			L	44 06					
			M_N	45 54	10	11			
			M_E	46 42	9		10		
			F	5 08					
169	3	I_v	eP	6 14 03					
			F	16					
170	5	I_v	eP	18 55 40					
			M_N	19 00 44	9	7			
			F	08					
171	6	I_v	eP	7 30 22					
			M_E	31 46	5		10		
			F	44					
172	6	I_v	eP	14 58 18					
			F	15 04					
173	7	II_v	eP	11 15 10					
			L	16 10					Aparri (NE Luzon).
			M_N	17 46	4	191			
			M_E	18 26	4		266		
			F	51					
174	8	I_v	eP	11 58 03					
			F	12 01					
175	8	II_v	eP	12 56 13					
			L	56 28					S Luzon and N Mindoro.
			M_N	56 30	2	125			
			M_E	56 38	2		299		
			F	13 06					
176	8	I_v	eP	14 54 18					
			F	56					
177	8	I_v	eP	15 23 30					
			F	29					
178	8	I_v	eP	17 25 58					
			F	29					

International Seismological Centre From the ISC collection scanned by SISMOS

Year 1916, No. 16. May 8th to 24th, 1916.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.-Continued.

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks
				h. m. s.					
179	8	I_v	eP	17 29 51					
			F	33					
180	9	I_v	e	0 47					
			F	1 01					
181	9	I_v	eP	1 54 23					
			F	57					
182	9	I_r	eP	14 40 42					
			S	46 40					
			L	53 54					
			M_E	58 11	13		4		
			M_N	58 14	14	5			
			F	15 22					
183	10	I_v	eP	14 48 53					
			F	51					
184	10	I_v	e	21 56					
			F	22 05					
185	11	I_v	eP	18 39 17					
			F	43					
186	13	I_v	eP	0 49 11					
			F	52					
187	15	I_v	e	0 02					
			F	18					
188	18	I_r	eP	7 36 20					
			S	38 29					
			L	40 28					
			M_N	42 06	7	5			
			F	53					
189	20	I_r	eP	7 17 10					
			S	19 37					
			L	22 28					
			M_N	23 38	9	6			
			F	46					
190	21	I_v	e(PS)	11 55 29					
			L	58 00					
			M_N	58 53	4	39			
			M_E	59 00	5		49		
			F	12 17					
191	23	I_v	eP	3 56 24					
			F	4 10					
192	23	I_v	eP	22 09 42					Butuan (N Mindanao).
			F	18					

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Year 1916, No. 17. May 25th to 31st, 1916.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.-Continued.

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks
				h. m. s.					
193	25	I	e	22 49					
			F	23 28					
194	26	I_V	eP	20 23 23					Cuyo Island.
			L	24 16					
			M_E	24 42	3		11		
			F	30					
195	26	I	e	21 01					
			F	26					
196	27	I_V	eP	16 17 03					
			L	17 20					
			M_E	17 23	2		49		
			F	22					
197	28	I_V	eP	12 12 00					
			L	12 34					
			M_E	12 44	2		9		
			F	18					
198	30	I_V	e	13 47					
			F	56					
199	30	I_V	eP	21 06 08					
			F	11					
200	31	I_V	e	8 32					
			F	43					
201	31	I_V	eP	15 21 37					
			L	21 56					
			F	24					

Miguel Saderra Masó
Asst. Director, Weather Bureau.

International Seismological Centre From the ISC collection scanned by SISMOS

Year, 1916, No. 18. June 1st to 9th, 1916.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.

ϕ=14° 34' 41" N. λ=120° 58' 33" E. h=2.40 ms. Alluvium.

Instrument: Wiechert's static Pendulum (1,000 Kgs.)

	T_o	δ	$\frac{r}{T_o^2}$
A_N:	6.1	3.89	0.023
A_E:	6.6	2.32	0.050

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks.
				h. m. s.					
202	1	I	e	2 43					
			F	52					
203	1	I_v	eP	14 12 22					
			L	12 41					
			M_N	12 47	2	79			
			M_E	12 48	2		125		
			F	21					
204	1	I_v	eP	20 25 15					
			F	27					
205	2	I_v	eP	14 18 31					
			F	37					
206	3	I	e	5 18					
			F	37					
207	5	I_v	eP	3 06 28					Catbalogan (W Samar).
			S	07 30					
			L	08 22					
			M_N	09 53	7	21			
			F	28					
208	8	I_v	eP	6 27 12					
			S	28 36					
			L	30 00					
			M_N	30 15	6	43			
			M_E	30 31	5		49		
			F	52					
209	9	I_v	eP	3 01 38					
			F	04					
210	9	II_r	eP	21 26 58					SE Mindanao.
			S	29 09					
			L	31 16					
			M_N	32 09	7	92			
			M_E	32 35	7		92		
			F	22 54					

International Seismological Centre From the ISC collection scanned by SISMOS

Year 1916, No. 19. June 10th to 21st, 1916.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY. (Continued).

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks.
				h. m. s.					
211	10	I_r	eP	21 21 33					SE Mindanao.
			M_E	25 38	5		7		
			F	34					
212	11	I_v	eP	0 14 23					
			L	15 14					
			M_E	16 03	5		22		
			F	26					
213	12	I_v	eP	22 40 39					
			L	40 53					
			M_N	40 57	2	26			
			F	45					
214	14	I_v	eP	12 44 55					
			L	46 42					
			M_E	46 54	3		28		
			F	13 01					
215	15	I_r	e	11 24 44					
			F	12 08					
216	15	I_v	e	23 47 41					Butuan (Mindanao).
			F	59					
217	16	I	e	4 30 22					
			F	49					
218	16	I_v	eP	16 51 42					
			L	52 11					
			M_E	52 15	2		32		
			F	59					
219	19	I_v	eP	2 25 12					
			S	25 34					
			M_E	25 38	2		18		
			M_N	25 47	3	39			
			F	30					
220	21	I_r	eP	1 02 54					
			S	06 05					
			L	09 08					
			M_E	10 09	9		25		
			M_N	10 15	10	16			
			F	44					

International Seismological Centre From the ISC collection scanned by SISMOS

Year 1916, No. 20. June 21st to 30th, 1916.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY. (Continued).

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks.
				h. m. s.					
221	21	I	e	7 16					
			F	32					
222	21	I_u	e	21 51 53					
			S	22 03 03					
			L	16 23					
			M_E	19 07	15		10		
			F	23 11					
223	22	I_v	eP	6 15 24					
			L	16 26					
			M_N	17 42	2	12			
			F	23					
224	26	I_r	eP	6 49 23					
			S	51 16					
			L	53 04					
			M_E	53 08	8		7		
			F	7 06					
5	27	I_v	eP	11 43 48					
			L	44 06					
			F	47					
226	29	II_r	eP	10 49 42					
			S	51 43					SE Mindanao.
			L	53 41					
			M_E	54 18	6		92		
			M_N	54 57	6	79			
			F	11 43					
227	29	I_r	eP	13 17 36					
			S	20 07					
			L	22 55					
			M_E	23 55	7		14		
			F	42					
228	29	I_v	eP	19 43 00					
			L	43 17					
			F	45					
229	30	I_u	e	3 20					
			L	58 42					
			F	5 13					

International Seismological Centre From the ISC collection scanned by SISMOS

Year 1916, No.21. July 1st to 9th, 1916.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.

ϕ=14° 34' 41" N. λ=120° 58' 33" E. h=2.40 ms. Alluvium.

Instrument: Wiechert's static pendulum (1,000 Kgs.)

	T_o	ϵ	$\frac{r}{T_o^2}$
A_N:	6.1	1.93	0.050
A_E:	6.1	2.89	0.035

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks
				h. m. s.					
230	3	I_V	e	19 05 44					
			L	08 26					
			M_N	08 41	4	8			
			F	17					
231	3	I	e	22 53 00					
			M_N	59 04	13	4			Butuan (N Mindanao).
			F	23 09					
232	5	I_V	eP	8 39 39					
			L	40 19					Ambos Camarines (SE Luzon). End overtaken by following earthquake.
			M_N	40 28	4	29			
			M_E	40 31	4		26		
233	5	I_V	eP	8 48 33					
			L	48 53					
			F	57					
2[illegible]	6	II_V	eP	8 16 00					
			L	16 45					Ambos Camarines, Albay and Sorsogon (SE Luzon).
			M_N	17 21	3	283			
			M_E	17 32	4		310		
			F	9 09					
235	6	I_V	eP	9 19 54					
			F	23					
236	6	I_V	eP	9 42 04					
			L	42 49					Albay (SE Luzon).
			M_E	43 06	2		60		
			F	54					
237	6	I_V	eP	10 00 40					
			L	01 23					Albay (SE Luzon).
			F	12					
238	6	I_V	eP	16 50 16					
			F	54					
239	8	I_r	e	9 44 29					
			L	52 42					
			M_N	53 23	5	69			
			M_E	53 42	6		35		
			F	10 21					

International Seismological Centre From the ISC collection scanned by SISMOS

Year 1916, No. 22. July 10th to 22nd, 1916.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.- Continued.

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks
				h. m. s.					
240	10	II_V	eP	1 03 45					S Luzon.
			L	04 01					
			M_N	04 26	3	974			
			M_E	04 27	3		624		
			F	21					
241	11	I_V	eP	7 26 17					
			F	28					
242	13	II_V	eP	15 01 02					Sulu Sea.
			L	02 13					
			M_N	05 06	9	336			
			M_E	05 14	7		141		
			F	56					
243	13	I_V	eP	18 59 05					
			F	19 01					
244	14	I_V	eP	9 41 14					
			F	43					
245	14	I_V	eP	14 47 25					Sulu Sea.
			S	48 34					
			L	30 46					
			M_N	32 25	7	105			
			M_E	34 18	9		37		
			F	15 38					
246	16	I_V	eP	5 25 43					
			F	28					
247	17	I_V	eP	0 59 42					
			L	1 00 16					End overtaken by following earthquake.
			M_N	02 22	4	11			
248	17	I_V	eP	1 08 23					
			F	24					
249	17	I_V	eP	8 39 56					
			L	40 35					NW Luzon.
			M_N	41 29	3	79			
			M_E	41 34	3		42		
			F	53					
250	20	I_r	e	8 09 51					
			L	15 13					
			M_N	18 11	8	3			
			F	47					
251	21	I	e	12 37					
			F	13 08					
252	21	I	e	21 53					
			F	22 04					

International Seismological Centre From the ISC collection scanned by SISMOS

Year 1916, No. 23. July 23rd to August 5th, 1916.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.- Continued.

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks
				h. m. s.					
253	23	I_r	eP	10 18 53					
			S	23 11					
			L	25 52					
			M_N	28 08	12	9			
			M_E	28 12	11		4		
			F	11 13					
254	25	I_v	eP	10 16 09					
			F	18					
255	26	I_v	eP	6 53 00					
			F	55					
256	27	I_r	eP	11 58 00					Malacca Peninsula.
			S	12 02 21					
			L	05 41					
			M_E	06 22	15		4		
			M_N	07 26	11	8			
			F	36					
257	28	I_v	eP	13 19 17					
			F	22					
258	29	I_v	eP	22 40 42					
			F	44					
259	30	I_v	eP	5 19 02					
			F	21					
260	31	I_v	eP	3 38 08					
			F	41					

August, 1916.

261	2	I_v	eP	1 33 55					
			F	36					
262	3	II_r	eP	1 36 39					
			S	41 36					
			L	46 22					
			M_N	48 07	7	142			
			M_E	48 09	7		87		
			F	2 58					
263	3	I_v	eP	15 14 29					
			F	17					
264	5	I_v	eP	3 55 09					Butuan (N Mindanao).
			L	57 40					
			M_N	58 56	6	30			
			M_E	59 02	7		14		
			F	4 22					
265	5	I_v	eP	4 29 18					
			F	31					

International Seismological Centre From the ISC collection scanned by SISMOS

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.--Continued.

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks.
				h. m. s.					
266	7	I_V	eP	7 08 40					Samar and Leyte Islands.
			L	09 53					
			M_N	10 30	3	9			
			F	19					
267	7	I_V	eP	11 23 38					Samar and Leyte Islands.
			S	25 00					
			L	26 18					
			M_N	27 05	7	89			
			F	12 25					
268	8	I_r	e	4 30 28					
			F	5 02					
269	8	II_V	eP	18 54 15					N Luzon. Maximum and end in both components lost by the pens thrown off through the force of shock.
			L	55 09					
270	8	I_V	eP	23 03 32					Vicentini seismograph
			L	03 56					
			F	08					
271	11	I_V	eP	21 31 44					
			L	32 07					
			M_N	32 16	2	16			
			F	34					
272	14	II_V	eP	23 38 53					SE Luzon. End overtaken by the following earthquake.
			L	39 29					
			M_E	40 47	6		241		
			M_N	41 36	6	353			
273	14	I_V	eP	23 51 01					SE Luzon.
			L	51 37					
			M_E	52 53	6		129		
			M_N	53 21	6	171			
	15		F	0 22					
274	15	I_V	eP	17 31 11					SE Luzon.
			F	34					
275	15	I_V	eP	21 00 32					
			F	03					
276	16	I_V	eP	11 39 53					Aparri (NE Luzon).
			L	40 42					
			M_N	41 46	5	7			
			F	46					
277	16	I_V	eP	22 16 25					
			F	19					

International Seismological Centre From the ISC collection scanned by SISMOS

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.--Continued.

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks.
				h. m. s.					
278	17	I_v	eP	1 48 17					NW Luzon.
			L	48 50					
			M_N	49 42	4	15			
			F	53					
279	22	I_v	eP	20 37 20					
			L	37 32					
			M_N	38 00	4	22			
			F	40					
280	25	I_v	eP	8 03 53					
			F	06					
281	25	I_u	e	10 04 49					
			S	18 16					
			L	19 55					
			M_N	24 18	15	6			
			F	51					
282	26	II_v	eP	23 43 38					N Luzon.
			L	44 27					
			M_E	44 51	5		94		
			M_N	45 03	5	105			
			F	57					
283	27	I_r	e	22 48 46					
			M_N	57 10	7	11			
			F	23 27					
284	28	II_r	e	6h 47 17					End overtaken by following earthquake.
			M_N	7 09 06	13	46			
			M_E	09 17	16		21		
285	28	II_r	eP	7 29 52					
			L	31 43					
			M_E	33 13	5		421		
			M_N	33 17	6	368			
			F	9 01					
286	28	I_v	eP	12 14 10					
			F	16					
287	29	I_v	eP	18 50 55					
			L	51 56					
			M_N	52 53	5	46			
			F	19 25					
288	30	I	e	23 15 11					
			M_N	21 30	8	4			
			F	28					

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International Seismological Centre

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.

Ø=14° 34' 41" N.)=120° 58' 33" E. h=2.40 ms. Alluvium.

Instrument: Wiechert's static Pendulum (1,000 Kgs.)

.	T_0	ε	$\frac{r}{T_0^2}$
A_N	6.1	1.93	0.050
A_E	6.1	2.89	0.035

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks.
				h. m. s.					
289	3	I_r	eP	7 21 12					
			S	27 17					
			L	32 45					
			M_E	39 01	16		5		
			M_N	39 34	16	7			
			F	8 12					
290	3	I_v	eP	10 17 18					Laoag (NW Luzon).
			L	18 11					
			M_N	18 28	4	39			
			M_E	18 48	4		44		
			F	26					
291	3	I_v	eP	15 36 20					
			L	36 42					
			M_E	36 52	2		68		
			M_N	36 57	3	72			
			F	44					
292	5	I_r	e	22 21 29					
			S	26 56					
			L	31 22					
			M_N	34 25	10	14			
			F	23 12					
293	6	I_r	e	8 17 43					
			S	23 36					
			L	26 40					
			M_N	29 01	12	4			
			F	53					
294	7	I_v	eP	11 08 52					S Luzon. End overtaken by following earthquake.
			L	09 06					
			M_E	09 08	3		76		
			M_N	09 14	2	58			
295	7	II_v	eP	11 10 19					S Luzon, a second shock.
			L	10 33					
			M_E	10 37	4		279		
			M_N	11 09	4	132			
			F	19					

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.--Continued.

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No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks.
				h. m. s.					
296	8	I_v	eP	16 07 29					Camarines and Albay (SE Luzon).
			L	08 08					
			F	14					
297	8	II_v	eP	19 10 00					Iba (W Luzon). End overtaken by following earthquake.
			L	10 17					
			M_E	10 27	4		165		
			M_N	10 33	4	141			
298	8	I_v	eP	19 20 12					Iba (W Luzon), a light repetition.
			L	20 23					
			F	23					
299	8	I_v	eP	22 34 07					
			L	34 18					
			F	37					
300	9	I_v	eP	8 22 28					S Luzon.
			L	22 44					
			M_N	22 53	2	158			
			F	30					
301	9	I_v	eP	12 22 45					
			L	23 01					
			M_N	23 16	2	66			
			F	29					
302	9	I	e	12 31 49					End overtaken by following earthquake.
			M_N	38 16	9	4			
303	9	I	e	12 46 12					
			M_N	53 47	9	5			
			F	13 21					
304	9	I_r	eP	16 42 53					Butuan (N Mindanao).
			S	44 45					
			L	46 07					
			M_N	47 00	7	6			
			F	57					
305	11	I_v	eP	5 33 24					S Luzon, foreshock.
			F	37					
306	11	II_v	eP	5 37 46					S Luzon.
			L	38 00					
			M_N	38 17	2	158			
			F	48					
307	11	II_r	eP	6 35 55					
			S	38 07					
			L	40 15					
			M_N	42 14	10	197			
			F	7 40					

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MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.--Continued.

	T_0	ε	$\frac{r}{T_0^2}$
A_N	6.19	1.966	0.053
A_E	5.96	2.267	0.056

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks.
				h. m. s.					
308	12	II_v	eP	17 11 53					N Luzon.
			L	12 36					
			M_N	12 48	3	381			
			M_E	12 50	5		370		
			F	29					
309	12	I_v	eP	19 44 25					N Luzon, aftershock.
			F	48					
310	13	I_v	eP	10 58 13					
			F	11 00					
311	13	I_v	eP	19 32 42					Iba (W Luzon).
			L	33 02					
			F	36					
312	13	I_v	eP	19 37 24					
			F	39					
313	14	III_d	eP	1 36 58					W Luzon. Maxima and end lost by the pens thrown off by the force of the shock.
			L	37 16					
314	15	II_r	e	7 06 47					Hachijioshima Islands (Japan).
			S	11 50					
			L	15 55					
			M_N	21 00	11	42			
			M_E	21 21	12		14		
			F	8 17					
315	16	I_v	eP	6 51 44					Laoag (NW Luzon).
			L	52 26					
			M_N	53 43	4	18			
			F	7 03					
316	18	II_v	eP	17 06 18					Iba (W Luzon). Maxima and end lost by the force of the shock.
			L	06 34					
317	18	I_v	eP	20 47 35					
			F	51					
318	19	I_v	eP	0 51 14					
			F	54					
319	30	I	e	16 38 31					
			F	53					

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SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.

ϕ=14° 34' 41" N. λ=120° 58' 33" E. h=2.40 ms. Alluvium.

Instrument: Wiechert's static Pendulum (1,000 Kgs.)

	T_o	ε	$\frac{r}{T_o^2}$
A_N	6.19	1.966	0.053
A_E	5.96	2.267	0.056

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks.
				h. m. s.					
320	2	I	e	7 33 28					
			F	41					
321	2	I	e	8 02 36					
			F	11					
322	2	I_v	eP	10 16 33					
			F	20					
323	3	I_u	e	1 46 47					End overtaken by following earthquake.
			S	2 07 19					
			L	29 06					
			M_E	45 52	23		3		
			M_N	49 35	23	4			
324	3	I_v	eP	3 08 59					New earthquake.
			L	09 24					
			M_E	09 36	3		37		
			F	15					
			F	50					This end belongs to the former one.
325	3	I_v	eP	5 28 20					
			F	31					
326	4	I	e	11 51 11					Butuan (I. Mindanao).
			F	12 04					
327	5	I_v	eP	16 37 36					Baguio (W Luzon).
			F	40					
328	6	I_v	eP	4 43 17					
			F	45					
329	8	I_v	eP	11 49 19					
			F	52					
330	10	I_v	eP	14 31 49					Panay Island.
			L	32 42					
			M_E	32 53	3	6			
			F	38					
331	11	I_r	e	18 16 56					
			F	51					

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MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.--Continued.

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks.
				h. m. s.					
332	13	I_v	eP	8 19 15					
			F	23					
333	14	I_v	eP	9 37 39					
			F	40					
334	14	I_v	eP	15 59 20					
			F	16 02					
335	18	I_v	eP	9 48 38					
			F	51					
336	19	I_v	eP	17 08 32					Laoag (NW Luzon).
			L	09 25					
			M_N	09 42	3	36			
			F	16					
337	19	I	e	17 50 52					
			F	18 06					
338	20	II_v	eP	8 34 23					Maxima and end in both components lost by the pens thrown off by the force of the shock.
			L	34 41					
339	20	I_v	eP	17 16 24					
			L	16 54					
			M_N	17 12	3	15			
			F	23					
340	21	I	e	10 11 48					
			F	37					
341	21	III_d	eP	17 31 43					S Luzon. Maxima and end in both components lost by the pens thrown off by the force of shock.
			L	31 59					
			F	45					
342	21	II_v	eP	18 27 48					S Luzon, second earthquake.
			L	28 04					
			M_E	29 28	4		361		
			M_N	29 30	4	349			
			F	36					
343	21	I_r	e	19 31 25					
			S	35 55					
			L	40 23					
			M_N	43 35	14	7			
			F	20 16					
344	22	I_v	eP	0 32 29					
			L	32 54					
			F	36					

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SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.--Continued.

No.	Date	Character	Phase	Greenwich mean time h. m. s.	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks.
345	23	I_v	eP	0 24 11					
			L	24 23					
			M_E	25 26	6		25		
			M_N	25 27	6	23			
			F	31					
346	24	I_r	e	23 36 21					
			S	38 43					
			L	40 42					
			M_N	41 34	11	18			
			M_E	41 38	12		15		
	25		F	0 16					
347	25	I_v	eP	18 19 12					
			F	21					
348	26	I_v	eP	1 38 31					NE Mindanao.
			S	39 43					
			L	40 54					
			M_N	41 10	5	7			
			F	52					
349	26	I_r	eP	3 20 39					
			S	23 26					
			L	25 23					
			M_N	26 11	5	67			
			M_E	26 38	7		41		
			F	4 02					
350	26	I_r	e	5 51 29					
			F	6 12					
351	26	I_v	eP	18 25 19					
			S	26 58					
			L	29 18					
			M_N	30 21	6	10			
			F	19 03					
352	26	I_v	eP	22 03 41					
			F	06					

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SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.--Continued.

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks.
				h. m. s.					
353	27	I	e	3 04 04					
			F	15					
354	28	I_v	e	3 29 53					Surigao (NE Mindanao).
			L	31 12					
			F	41					
355	30	I_r	eP	1 54 46					
			S	57 48					
			L	2 00 57					
			M_N	03 08	6	20			
			F	31					
356	31	I_r	eP	0 52 43					
			S	55 03					
			L	57 32					
			M_N	1 01 14	8	12			
			F	18					
357	31	I_v	eP	15 29 17					
			L	29 29					
			F	32					
358	31	II_u	eP	15 39 28					
			S	46 11					
			L	53 14					
			M_{E_1}	54 28	22		10		
			M_{N_1}	54 36	16	13			
			M_{N_2}	58 48	19	20			
			M_{E_2}	59 44	16		12		
			M_{N_3}	16 00 58	20	35			
			M_{E_3}	01 11	19		18		
			F	17 12					

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Year 1916, No.33 November 1st to 15th ,1916.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.

ϕ=14° 34' 41" N. λ=120° 58' 33" E. h=2.40 ms. Alluvium.

Instrument: Wiechert's static Pendulum (1,000 Kgs.)

	T_o	ϵ	$\frac{\epsilon}{T_o^2}$
A_N	6.10	1.966	0.053
A_E	5.96	2.267	0.056

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks.
				h. m. s.					
359	1	I_v	eP	20 32 27					Bolinao (W Luzon).
			L	32 54					
			M_E	32 58	1		47		
			M_N	33 03	1	36			
			F	37					
360	9	I_v	eP	9 25 24					
			F	27					
361	11	I_v	eP	0 59 22					
			F	1 02					
362	11	I_v	eP	1 06 24					
			F	08					
363	13	I_r	e	0 36 00					Guam (Mariana Islands).
			L	42 55					
			F	57					
364	13	I_v	eP	11 54 31					Calapan (NE Mindoro).
			L	54 47					
			F	59					
365	13	I_v	eP	12 02 42					
			F	05					
366	14	I_v	eP	9 53 04					
			L	55 46					
			F	10 04					
367	14	II_r	eP	22 34 06					Formosa
			S	36 02					
			L	38 00					
			M_E	38 25	9		38		
			M_N	39 07	7	60			
			F	23 26					
368	14	I_v	eP	23 59 50					
	15		F	0 03					
369	15	I_v	eP	18 11 09					Samar and Leyte Islands.
			L	12 26					
			M_N	12 38	2	6			
			F	17					

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SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.--Continued.

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks.
				h. m. s.					
370	15	I_v	eP	20 28 18					
			L	28 40					
			M_E	28 48	2		12		
			F	32					
371	18	I_v	eP	11 48 19					
			L	48 31					
			F	52					
372	18	I	e	11 56 19					
			F	12 25					
373	18	I_v	eP	14 11 55					
			F	14					
374	22	I_v	eP	9 27 19					
			F	30					
375	22	I_v	eP	16 32 05					
			F	34					
376	22	I_v	eP	18 12 41					
			F	15					
377	22	I_v	eP	19 52 06					
			L	52 44					
			M_N	53 29	3	10			
			F	20 14					
378	24	I_r	e	4 10 18					
			L	23 45					
			M_N	26 50	16	5			
			F	38					
379	27	I_r	e	6 42 51					
			L	50 27					
			M_N	52 01	8	7			
			F	7 09					
380	29	I_v	eP	14 28 39					
			F	31					

Year 1916, No.35. December 1st to 20th, 1916.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.

ϕ=14° 34' 41" N. λ=120° 58' 33" E. h=2.40 ms. Alluvium.

Instrument: Wiechert's static Pendulum (1,000 Kgs.)

	T_0	ε	$\frac{r}{T_0^2}$
A_N	5.1	2.634	0.048
A_E	5.2	1.968	0.048

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks.
				h. m. s.					
381	3	I_r	eP	19 26 12					
			L	30 15					
			M_N	31 02	7	35			
			F	42					
382	5	I_v	eP	15 21 54					Cape Bojeador (NW Luzon).
			L	22 37					
			F	26					
383	6	I_v	eP	18 35 38					Butuan (N Mindanao).
			L	37 19					
			M_N	37 29	4	146			
			M_E	38 38	6		166		
			F	19 08					
384	9	I_v	eP	23 39 54					
			F	43					
385	12	I_r	eP	14 26 30					Butuan (N Mindanao).
			L	28 44					
			M_N	29 08	4	9			
			F	38					
386	13	I_r	eP	21 31 31					
			L	39 11					
			M_E	41 02	8		7		
			M_N	41 22	8	5			
			F	22 06					
387	14	I_r	e	17 02 33					
			F	26					
388	20	I_r	eP	18 53 51					
			L	19 01 13					
			M_E	01 27	9		9		
			F	36					

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MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.--Continued.

No.	Date	Character	Phase	Greenwich mean time	Period	Amplitude A_N μ	Amplitude A_E μ	Δ	Remarks.
				h. m. s.					
389	23	I_v	eP	9 01 03					
			L	01 11					
			F	04					
390	23	I_r	e	9 44 42					
			L	54 46					
			M_E	56 11	5		8		
			M_N	56 38	6	8			
			F	10 30					
391	24	I_v	eP	13 37 18					Butuan (N Mindanao
			L	40 19					
			M_N	40 33	6	10			
			F	49					
392	25	I_v	eP	2 01 41					
			L	02 12					
			F	05					
393	26	I_r	e	3 43 14					
			F	4 12					
394	26	I_r	eP	20 15 50					
			S	17 47					
			L	19 42					
			M_N	22 27	8	51			
			M_E	22 43	7		65		
			F	21 21					
395	27	I_v	eP	7 49 41					
			L	50 18					
			M_E	50 26	3		44		
			F	54					
396	27	I_r	eP	21 46 42					
			S	48 12					
			L	49 42					
			M_N	53 49	7	18			
			F	22 37					
397	29	I_v	eP	8 35 10					
			L	36 05					
			M_E	36 14	3		17		
			M_N	36 37	3	24			
			F	41					