

Ref 2798

Year 1921, No.1.

January 1st to 19th, 1921.

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 astatic Pendulum (1,000 Kgs.)

	T_0	ξ	$\frac{F}{T_0^2}$
A_N :	6.25	2.906	0.053
A_E :	6.18	2.393	0.042

No.	Date	Char-acter	Phase	Greenwich mean time		Period	Amplitude		Remarks.
				h. m. s.	s.		A_N μ	A_E μ	
1	2	I _v	eP F	4	22 25 24				
2	2	I _r	eP S L M _N M _E F	7	12 02 16 13 17 55 17 59 18 00 57	6 6	41	37	
3	2	I	e F	13	24 57 42				
4	6	I _v	eP L M _N M _E F	4	35 19 36 32 36 39 36 44 54	6 6	62	61	
5	6	I	e F	12	07 46				
6	6	I	e F	23	19 45				
7	7	I _v	eP L? F	1	12 16 13 13 28				
8	7	I _r	e L? F	3	02 08 32 51				
9	7	I _r	e S L M _N M _E F	9	48 26 52 48 57 16 59 07 10 00 04 25	13 12	29	31	
10	13	I	e F	22	06 30 28				
11	14	I	e F	7	17 47 51				
12	16	I	e F	13	20 47				From Omori's seismograph
13	19	I _v	eP L F	4	44 52 45 29 53				Felt at Irosin (SE Luzon).

Year 1921, No.2.

January 19th to February 13th, 1921.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.--Continued.

No.	Date	Char-acter	Phase	Greenwich mean time			Period	Amplitude		Remarks.
				h.	m.	s.		μ _N	μ _E	
14	19	I	e F	15	05	12 58	s			
15	24	I	e F	11	22	33 59				
16	26	I _v	eP L F	10	40	09 28 46				SE Luzon. Isa-rog Volcano.
17	26	I _r	e F	18	00	48 22				
18	30	I	e F	7	45	45 59				
19	30	I	e F	10	48	46 11 04				

FEBRUARY, 1921.

20	3	I	e F	19	19	11 36				
21	4	I _u	e PE PN S L ME MN F	8	42	17 44 50 45 24 59 45 9 36 20 37 10 38 08 10 40	18 19	5	4	Earthquake in Mexico.
22	5	I _v	e F	8	56	16 9 24				Felt at Butuan (N Mindanao).
23	6	I	e F	4	37	11 5 06				
24	9	I _v	eP F	13	11	28 17				
25	10	I	e F	19	55	45 20 36				
26	10 11	II _r	eP L MN F	23	59	25 0 04 39 05 24 1 08	9	73		
27	11	I _v	eP F	20	19	53 26				
28	12	I _v	eP F	2	20	25 27				
29	12	I	e F	6	03	21				
30	13	I	e F	12	33	37 54				

Year 1921, No.3.

February 14th to 28th, 1921.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.--Continued.

No.	Date	Char-acter	Phase	Greenwich mean time			Period	Amplitude		△	Remarks.
				h.	m.	s.		μ_N	μ_E		
31	14	II _r	eP	1	03	46	8	259	145		Felt at Lais and Malita (SE Mindanao).
			S		07	22					
			L		08	32					
			M _N		08	50					
			M _E		09	24					
		F	2	40							
32	14	I _v	e	11	19						
			F		40						
33	15	I _v	eP	10	46	36					
			F		50						
34	16	I	e	9	55						
			F	10	07						
35	19	I _v	eP	0	30	46					
			F		36						
36	19	I _r	eP	14	38	21					From Omori's seismograph.
			L		42	01					
			F	15	30						
37	19	I _r	eP	18	20	30					From Omori's seismograph.
			L		25	03					
			F	19	33						
38	23	I _r	eP	4	15	49					
			F		42						
39	24	I	e	16	58						
			F	17	09						
40	27	I _v	e	8	53	33					Felt in the xxxx southern portion of Panay Island.
			F	9	12						
41	27	II _u	eP	18	35	04					
			PR ₁ N		37	44					
			PR ₁ E		38	25					
			PR ₂ N		40	19					
			PR ₂ E		41	10					
			S		44	35					
			SR ₁ N		48	32					
			SR ₁ E		49	13					
			SR ₂ E		52	20					
			SR ₂ N		52	41					
			L	19	01	12					
			M _{N1}		01	18	20	80			
			ME ₁		01	34	23		99		
			M _{N2}		03	36	22	73			
			ME ₂		04	00	20		42		
C	21	19	00								
F		52									
42	28	I	e	3	20						
			F		47						

Year 1921, No.4.

~~February~~ March 1st to 21st, 1921.

MANILA, P.I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.--Continued.

No.	Date	Char-acter	Phase	Greenwich mean time			Period	Amplitude		△	Remarks.
				h.	m.	s.		A _N μ	A _E μ		
43	1	I _r	e	6	41	20					
			F	8	06						
44	2	I	e	21	14						
			F		42						
45	3	I _r	eP	3	08	23					
	03		L		15	32					
			ME		15	41	6			41	
			MN		17	07	7	56			
			F	4	48						
46	3	I _r	iP	8	26	18					
			L		31	08					
			MN		31	40	6	114			
			ME		31	52	7			74	
			F	9	57						
47	4	I _r	eP	12	55	20					
			S		59	18					
			L	13	00	46					
			MN		01	03	8	29			
			ME		01	44	9			32	
			F	14	03						
48	5	I _v	eP	0	55	09					
			F		59						
49	5	II _r	eP	6	30	16					
			S		35	32					
			L		38	40					
			ME		40	16	9			101	
			MN		41	38	11	284			
			F	7	36						
50	6	I	eL	8	22						
			F		45						
51	10	I _r	eP	20	02	18					
			L		10	29					
			F		52						
52	11	I	e	16	57						
			F	17	19						
53	11	I _r	eP	19	12	00					
			L		15	29					
			F		32						
54	11	I _v	eP	22	13	21					Felt in south-eastern Luzon, Masbate and Cebu Islands.
			F		20						Felt at Talacogon (E Mindanao).
55	13	I	e	0	15	00					
			F		30						
56	13	I _r	eP	2	47	00					
			L		50	10					
			ME		50	36	7			40	
			MN		50	41	10	82			
			F	3	52						
7	14	I	e	23	05	14					Felt at Guam (Mariana Islands)
			F		17						
8	15	I	eP	21	29	59					
			F		32						
9	16	I	e	11	43	28					
			F	12	04						
0	19	I	e	8	22	20					From Omori's seismograph.
			F	9	04						
1	20	I	e	22	34						
			F	23	10						
2	21	I _v	eP	6	02	29					
			F		07						

Year 1921, No.5.

March 22nd to 31st, 1921.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY,--Continued.

No.	Date	Char-acter	Phase	Greenwich mean time			Period	Amplitude		Remarks.
				h.	m.	s.		μ _N	μ _E	
63	22	I	e	12	19					
			F		45					
64	23	II _r	eP	22	49	32				
			L		53	34				
			M _E		53	41	10		178	
			M _N		53	51	11	227		
	24		F	0	10					
65	24	II _r	eP	1	30	45				
			L		34	51				
			M _E		34	58	9		128	
			M _N		35	06	9	173		
			F	2	42					
66	24	I	e	2	50	29				
			F	3	23					
67	24	I	e	9	29					
			F	10	38					
68	24	I	eP	14	50	29				
			F	16	16					
69	24	I _v	eP	19	18	21				
			F		25					
70	28	I	e	8	09	00				
			L?		53	45				
			F	10	02					
71	28	I	e	12	40	52				
			F	13	00					
72	28	I _v	eP	16	44	13				
			L		44	27				
			M _N		44	51	2	285		
			M _E		45	09	2		256	
			F		58					
73	28	I _v	eP	17	19	37				
			F		22					
74	28	I _v	eP	17	24	35				
			F		28					
75	28	I _v	eP	19	12	00				
			F		15					
76	28	I _v	eP	20	39	28				
			F		42					
77	29	I	e	22	21	23				
			F	23	02					
78	30	I	e	10	32	38				
			F	11	12					
79	30	II _r	eP	15	07	08				
			S		10	19				
			L		11	20				
			M _E		11	23	8		545	
			M _N		11	32	9	782		
			F	16	42					

Southern part of Luzon.

Aftershock of the No. 72.
Aftershock of the No. 72.
Aftershock of the No. 72.
Aftershock of the No. 72.

Year 1921, No.6.

April 1st to 19th, 1921

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 astatic Pendulum (1,000 Kgs.)

	T_0	S	$\frac{r}{T_0^2}$
A_N :	6.25	2.906	0.053
A_E :	6.18	2.393	0.042

o.	Date	Char-acter	Phase	Greenwich mean time		Period	Amplitude		Remarks.
				h. m. s.	s.		μ_N	μ_E	
80	1	IIr	e	4	12	14			
			S		16	44			
			L		18	44			
			M _N		19	00	7	282	
			M _E		20	40	8		156
		F	5	55					
81	1	I	e	12	09	38			
			F	13	13				
82	1	Iv	eP	12	16	58			
			F		20				
83	2	IIIr	e	9	39	03			
			S		41	06			
			L		41	30			
			M _{N1}		45	32	11	1,042	
			M _{E1}		43	47	11		734
			M _{E2}		45	08	10		901
			M _{N2}		45	21	10	1,091	
			M _{N3}		47	09	10	898	
			M _{E3}		47	17	10		844
			M _{E4}		49	10	9		612
			M _{N4}		49	51	10	880	
		C	11	18					
		F		52					
84	6	Iv	eP	1	35	15			
			F		38				
85	6	Iv	e	12	24	00			
			F		36				Felt at Lais (SE Mindanao).
86	10	I	eP	14	02	00			
			F		10				
87	12	Ir	e	9	48	34			
			L		54	41			
			F	10	22				
88	15	Ir	e	21	19	00			
			L?		28	58			
			F	22	03				
89	17	Iv	eP	15	59	10			
			F	16	02				

Year, 1921, No. 7

April 20th to May 6th, 1921.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY-CONTINUED.--

No.	Date	Char-acter	Phase	Greenwich		Period	Amplitude		△	Remarks
				mean time	s.		μ_N	μ_E		
90	20	Iv	eP F	h. m. s.						
				16 04 52						
				12						
91	21	Iv	eP F	8 18 20						
				27						
92	21	Iv	eP F	16 15 35						
				18						
93	22	I	e F	6 33 14						
				7 52						
94	22	I	e F	20 58						
				21 23						
95	23	Iv	eP F	23 33 09						
				37						
96	24	Iv	eP F	22 04 13						
				10						
97	25	I	e F	17 44 44						
				18 42						
98	28	I	e F	16 37						
				17 23						
99	28	I	e F	19 55						
				20 52						

MAY, 1921

100	1	Iv	eP F	0 17 26					
				20					
101	1	I	e F	3 35					
				4 02					
102	1	I	e M F	7 00					
				08 00	16		4		
				42					
103	1	Iv	eP F	11 39 35					
				46					
104	1	Iv	eP F	19 50 15					
				58					
105	2	Iv	eP F	7 58 14					
				8 00					
106	4	I	e F	5 04 44					
				44					
107	4	Iv	eP F	21 31 36					
				43					
108	6	Iv	eP F	3 32 53					
				44					

Year 1921, No. 8

May 6th to 14th, 1921.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.---Continued.

No.	Date	Char-acter	Phase	Greenwich mean time			Period	Amplitude		Remarks.
				h.	m.	s.		A _N u	A _E u	
109	6	Iv	eP F	16	02	48 05				
110	8	Iv	eP F	18	16	48 22				
111	9	I	e F	20	37	40 47				
112	9	Iv	eP F	22	53	06 23 00				
113	11	Iv	eP F	4	02	18 06				
114	11	Iv	eP L MN ME F	6	50	47 51 10 51 12 51 16 7 01	2 2	182	87	Felt at Atimonan (E Luzon).
115	12	I _r	e MN F	3	47	39 4 01 28 55	15	20		Felt at Lais (SE Mindanao).
116	13	I _r	e L MN F	12	45	40 50 15 51 02 13 30	16	18		
117	13	I _r	e L ME MN	20	04	37 07 29 08 06 08 13	8 6	25	18	End overtaken by following earth quake.
118	13	I _r	e L F	20	40	14 43 12 21 09				
119	13	I _r	e L MN ME F	21	12	34 17 52 18 02 18 31 22 06	16 16	23	18	
120	14	Iv	eP F	1	02	13 12				Felt at Paracale (SE Luzon).
121	14	II _r	eP L ME MN F	11	21	12 26 00 26 44 27 02 13 08	11 12	122	126	
122	14	I	e F	20	30	21 56				

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.--Continued.

No.	Date	Char-acter	Phase	Greenwich mean time			Period	Amplitude		△	Remarks.
				h.	m.	s.		A _N u	A _E u		
123	15	I _v	eP	2	27	58					
			L		28	46					
			MN		29	12	5	80			
			ME F		29	42	4		54		
			F		47						
124	15	I	e	14	54						
			F	15	13						
125	16	I	e	15	23	36					
			F	16	14						
126	17	I _v	eP	8	21	08					Felt at Baguio (W Luzon).
			F		26						
127	17	I _v	eP	10	19	18					
			F		24						
128	17	I	e	23	19	53					End overtaken by following earth- quake.
129	17	I	e	23	31						
			F	0	50						
130	18	I	e	8	23						
			F	9	12						
131	18	I _v	eP	16	36	18					
			F		42						
132	20	I	e?	0	51						From Vicentini's seismograph.
			F	1	13						
133	20	I	e	13	26	33					
			F	14	32						
134	21	II _v	eP	6	43	54					Northeastern off Samar.
			F	7	12						
135	21	III _d	eP	8	43	21					Northeastern off Samar. Maxima lost by the for- ce of the shock. End overtaken by following earth- quake.
			L		44	21					
136	21	I _v	eP	10	58	48					Aftershock of the No. 135.
			F	11	10						
137	21	II _v	eP	11	25	00					Aftershock of the No. 135. End overtaken by following earth- quake.
			L		26	00					
			ME		26	14	5				
			MN		26	22	5	204	101		
138	21	I _v	eP	11	59	45					Aftershock of the No. 135.
			F	12	12						

Year 1921, No 10.

May 21st to 22nd, 1921.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.--Continued.

No.	Date	Char-acter	Phase	Greenwich mean time			Period	Amplitude		△	Remarks.
				h.	m.	s.		A _N	A _E		
139	21	II _v	eP	12	24	53	6	155	79		Aftershock of the No. 135.
			L		25	54					
			MN		26	11					
			ME		26	26					
			F		51						
140	21	I _v	eP	13	56	47					Aftershock of the No. 135
			F		14	04					
141	21	I _v	eP	14	33	16					Aftershock of the No. 135
			F			44					
142	21	I _v	eP	15	42	04					Aftershock of the No. 135
			F			52					
143	21	II _v	eP	16	29	44	6	155	92		Aftershock of the No. 135
			L		30	44					
			MN		31	11					
			ME		31	18					
			F		51						
144	21	I _v	eP	16	56	48					Aftershock of the No. 135.
			F		17	12					
145	21	I _v	eP	17	26	37					Aftershock of the No. 135.
			F			34					
146	21	II _v	eP	19	48	48	5	170	117		Aftershock of the No. 135.
			L		49	47					
			ME		50	10					
			MN		50	11					
			F		20 16						
147	21	I _v	eP	20	26	30					Felt at Baguio (W Luzon).
			F			35					
148	21	I _r	e	22	34	14					End overtaken by following earth quake.
149	21	III _v	eP	23	38	39	6	1,182			Northeastern off Samar.
			L		39	45					
			MN		40	20					
			F		1	27					
150	22	I _v	eP	2	46	00					Aftershock of the No. 135.
			F			55					
151	22	I _v	eP	8	35	08					Aftershock of the No. 135.
			F			43					
152	22	I _v	eP	13	37	22					Aftershock of the No. 135.
			F			48					
153	22	I _v	eP	13	58	30					Aftershock of the No. 135.
			F		14	05					
154	22	I _v	eP	16	01	22					Aftershock of the No. 135.
			F			10					

No.	Date	Char-acter	Phase	Greenwich mean time		Period	Amplitude		△	Remarks.
				h. m. s.	s.		AN u	AE u		
155	23	II _v	eP L MN ME F	2 40 18 41 18 41 22 41 36 57		5 6	155	95	Aftershock of the No. 135.	
156	23	II _v	eP L ME MN F	2 57 33 58 28 58 46 58 50 3 24		5 5	82	55	Aftershock of the No. 135.	
157	23	I _v	eP F	3 43 28 51					Aftershock of the No. 135.	
158	23	II _v	eP L MN ME F	3 55 35 56 32 56 38 56 42 4 07		5 4	58	57	Aftershock of the No. 135.	
159	23	III _v	eP L MN ME F	4 14 38 15 44 16 13 16 16 6 04		6 6	1,164	834	Aftershock of the No. 135.	
160	23	I _v	eP F	8 33 00 41					Aftershock of the No. 135.	
161	23	I _v	eP F	12 57 58 13 11					Aftershock of the No. 135.	
162	23	II _v	eP F	14 28 55 48					Aftershock of the No. 135.	
163	23	II _v	eP L MN ME F	21 55 54 56 56 57 10 57 11 22 21		5 5	145	107	NW Luzon.	
164	24	I _v	eP F	11 07 00 23					Aftershock of the No. 135.	
165	25	II _v	eP L MN F	1 53 00 59 00 59 34 3 02		6	245		Aftershock of the No. 135.	
166	25	III _v	eP L MN1 ME1 ME2 MN2 F	9 22 28 23 28 23 31 23 31 24 45 24 50 10 59		6 6 6 6	418	267 323	Aftershock of the No. 135.	
167	25	I _v	eP F	15 53 15 16 12					Aftershock of the No. 135.	

Year 1921, No. 12.

May 25th to June 1st, 1921.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY; --Continued.

No.	Date	Char-acter	Phase	Greenwich mean time			Period	Amplitude		△	Remarks.
				h.	m.	s.		A _N u	A _E u		
168	25	Iv	eP F	16	53	45				Aftershock of the No. 135.	
169	25	Iv	eP F	17	45	45				Aftershock of the No. 135.	
170	26	Iv	eP F	0	28	00				Aftershock of the No. 135.	
171	26	Iv	eP F	23	32	40				Aftershock of the No. 135.	
172	27	Iv	eP F	6	13	29				Aftershock of the No. 135.	
173	27	Iv	eP F	21	59	00				Aftershock of the No. 135.	
174	28	II _r	eP L M _N M _E F	19	22	09				SE Mindanao.	
					26	00					
					26	16	8	182			
					27	18	10		154		
					21	16					
175	29	I	e F	21	50						
				22	17						
176	30	II _v	eP L M _E M _N F	4	05	18				Aftershock of the No. 135.	
					06	19					
					07	48	8		228		
					08	10	7	440			
					5	48					
177	30	I	e F	18	28						
				19	04						
178	31	I	e F	11	03						
					24						
179	31	I	e F	22	21						
					40						

JUNE, 1921.

180	1	I	e F	8	57					
					9	12				
181	1	I	e F	12	21					
				13	00					
182	1	Iv	eP F	16	25	00				
					33					
183	1	I	e F	19	44					
				20	12					

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.--Continued,

No.	Date	Char-acter	Phase	Greenwich mean time			Period	Amplitude		△	Remarks.	
				h.	m.	s.		A _N u	A _E u			
184	2	I _r	eP	7	13	23						
			PR ₁ E		14	13						
			PR ₁ N		14	17						
			PR ₂ N		14	55						
			PR ₂ E		15	14						
			S		19	05						
			SR ₁ N		20	53						
			SR ₁ E		21	10						
			SR ₂ N		21	31						
			SR ₂ E		22	04						
			L		23	20						
			ME ₁		25	23	16			17		
			MN ₁		26	49	12	22				
			ME ₂		28	51	12			22		
MN ₂		29	03	12	24							
F		8	21									
185	3	I _r	eP	4	16	35					Felt at Lais (SE Mindanao).	
			L		18	45						
			F		47							
186	4	II _v	eP	16	29	48					NE of Samar. Af- tershock of the No.135.	
			L		30	54						
			ME		31	51	6			267		
			MN		32	06	6	413				
			F		17	48						
187	5	I _v	eP	10	52	02					Iba (W Luzon).	
			L		52	21						
			F		58							
188	7	I	e	4	51	31						
			F		5	08						
189	7	I	e	14	04							
			F		22							
190	7	I _v	eP	16	31	16						
			F		36							
191	9	II _v	eP	10	37	28					Eastern part of Mindanao.	
			L		39	00						
			ME		40	37	6			98		
			MN		41	18	6	125				
			F		11	30						
192	10	I	e	2	48							
			F		3	23						
193	10	II _v	eP	17	51	51					Ilocos Norte (NW Luzon).	
			L		52	56						
			ME		53	50	7			77		
			MN		54	14	6	102				
			F		18	28						
194	10	I _v	eP	19	49	09						
			F		20	08						
195	11	I _v	eP	19	42	44						
			F		58							

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.--Continued.

No.	Date	Char-acter	Phase	Greenwich mean time			Period	Amplitude		△	Remarks.
				h.	m.	s.		AN μ	AE μ		
196	13	I	e	6	45	34					
			F	7	17						
197	13	Iv	eP	16	17	42					
			F		22						
198	13	Iv	eP	16	53	47					
			F	17	05						
199	14	I	e	8	50	02					
			F	10	03						
200	14	I	e	19	59	39					
			F	20	07						
201	15	I	e	9	42						
			F	10	06						
202	16	I	e	9	31						
			F		45						
203	18	Iv	eP	1	15	52					
			L		16	15					
			M _E		16	18	2		95		
			M _N		16	24	2	127			
			F		28						
204	18	Iv	eP	8	25	40				Aftershock of the No. 135.	
			L		26	42					
			F		48						
205	20	I	e	13	21						
			F		52						
206	23	I	e	10	41						
			F	11	14						
207	23	I	e	14	08						
			F		29						
208	23	I	e	15	34						
			F	16	00						
209	23	Ir	eP	18	25	20					
			L		28	25					
			F	19	56						
210	24	Iv	eP	0	19	28				Eastern part of Mindanao.	
			L		21	22					
			F	1	07						
211	25	Ir	eP	15	43	10				Felt at Malita (SE Mindanao).	
			L		46	24					
			F	16	30						
212	28	Ir	eP	14	10	22					
			S		15	58					
			L		19	44					
			M _N		19	50	8	120			
			M _E		19	56	7		133		
			F	15	13						
213	29	I	e	4	00	35					
			F		19						
214	29	I	e	18	08						
			F		45						

Ref 2799

Year 1921, No. 23.

November 1st to 17th, 1921.


MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.--Continued.

No.	Date	Char-acter	Phase	Greenwich mean time			Per-iod	Amplitude		△	Remarks.
				h.	m.	s.		A _N	A _E		
						s.	μ	μ	Kms.		
341	7	III _r	eP S L MN ME F	16	02	04 30 04 16 33 38	8 8	963		749	SE of Mindanao.
342	8	I _v	e F	10	11	23					Aftershock of the No. 341.
343	9	II _v	eP L ME MN F	2	44	55 17 32 40 59	5 5	591		300	Felt at Baguio (W Luzon).
344	11	I	e F	6	12	58 27					From Omori's seismograph. Aftershock of the No. 341. Western Luzon.
345	11	I _v	eP F	16	25	27 31					
346	11	III _r	eP S? L F	18	38	33 41 12 54 21 02					From Omori's seismograph. SE of Mindanao.
347	13	I	e F	13	56	34 40					Aftershock of the No. 346.
348	13	I _v	eP F	16	34	37 40					
349	14	I	e F	7	52	8 12					Aftershock of the No. 346.
350	15	I	e F	2	18	43					
351	15	II _r	eP F	20	45	04 55					Aftershock of the No. 346.
352	16	I _v	eP L F	4	42	00 29 49					
353	16	I _r	e L F	14	43	06 15 37					From Omori's seismograph. Aftershock of the No. 346.
354	17	I _r	eP L F	4	55	51 44 23					
355	17	I	e F	5	45	43 59					
356	17	II _r	eP S L ME MN F	7	52	46 04 43 15 59 28	6 6	191		110	Aftershock of the No. 346.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.--Continued.

No.	Date	Char-acter	Phase	Greenwich mean time	Per-iod	Amplitude			Remarks.
						A	E		
				h. m. s.	s.			Kms.	
357	18	II _r	eP L F	2 35 17 38 19 3 47					Aftershock of the No. 346.
358	18	I	e F	5 06 41 40					
359	20	I	e F	6 21 36					
360	20	I	e F	11 57 12 10					From Omori's seis-mograph.
361	22	III _d	iP L	10 22 00 22 30					Felt at Manila and western part of Luzon. The maxima and end lost by the force of the shock.
362	22	II _d	eP L F	21 11 54 12 19 20					From Omori's seis-mograph. Felt at Manila. Aftershock of the No. 361.
363	28	I	e F	2 41 3 04					From Omori's seis-mograph. Aftershock of the No. 346.
364	29	II _r	eP L MN ME F	2 47 27 49 45 50 12 51 05 3 17	5 6	134		124	

DECEMBER, 1921.

365	1	I _r	e L F	10 54 30 11 00 00 46					From Omori's seis-mograph.
366	2	I	e F	5 25 34					
367	7	I _r	eP L F	17 31 00 33 40 18 05					
368	7	I	e F	18 44 09 19 08					
369	8	I	e F	12 36 04 13 05					From Omori's seis-mograph.
370	10	I _v	eP F	1 29 00 32					Felt in Romblon Is-land.
371	15	I _v	eP L F	7 49 20 50 31 57					
372	15	I _v	eP F	11 59 09 12 04					
373	15	I _v	eP F	20 47 16 56					

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY. --Continued.

No.	Date	Char-acter	Phase	Greenwich mean time			Per-iod.	Amplitude		Remarks.
				h.	m.	s.		γ^N	γ^E	
				h. m. s.			s.		Kms.	
374	16	I _r	eP L MN ME F	2	42	40 56 04 03 37	2 5	98	41	Felt in Guam Island
375	18	II _u	eP S L F	15	48	25 55 58 31				
376	19	I _v	eP F	7	29	29 34				
377	19	I _v	eP F	18	28	55 32				
378	20	I _v	eP F	2	42	54 46				
379	21	II _v	eP L MN ME F	7	03	19 35 44 44 17	4 4	166	238	
380	22	I _v	eP F	0	56	21 59				
381	22	II _v	eP L MN ME F	1	56	45 00 48 21 46	9 8	106	79	Origin near S Ley- te Island.
382	22	I _v	eP F	21	32	55 38				Felt at Butuan (N Mindnao).
383	23	II _v	eP L MN ME F	5	13	41 01 05 05 28	3 3	309	439	
384	27	I _v	eP F	4	59	44 02				
385	27	III _d	eP iL	19	19	00 15				Felt at Manila and Iba (W Luzon). Max- ima and end lost by the force of t the shock.
386	27	I	e F	22	18	53 36				From Omori's seis- mograph. Felt in Agusan Valley.
387	28	I _v	eP F	12	01	28 04				From Vicentini's seismograph. Felt at Balanga (W Lu- zon).

Year 1921, No. 26.

December 29th to 31st, 1921.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.---Continued.

No.	Date	Char-acter	Phase	Greenwich mean time.		Per-iod.	Amplitude		△	Remarks.	
				h.	m. s.		μ	μ			
				h.	m.	s.			Kms.		
388	29	Iv	eP F	3	08	36					Felt at Antique and Iloilo (Panay Island).
						14					
389	29	Iv	eP L ME MN F	6	50	22 34 37 40 54					
							2		56		
							2	113			
390	30	Iv	eP L MN ME F	7	47	35 56 12 14 54					
							3	167			
							3		97		
391	30	I	e F	10	50						
				11	44						

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