

Ref 2797

Year 1920, No.20.

September 1st to 16th, 1920.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.

$\phi=14^{\circ} 34' 41''$ N $\lambda=120^{\circ} 53' 33''$ E $h=2.40$ ms. Alluvium.

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

	T_0	ξ	$\frac{-\xi}{T_0^2}$
A_{IV} :	6.25	2.906	0.053
A_{II} :	6.18	2.292	0.042

No.	Date	Character	Phase	Greenwich mean time			Period	Amplitude		Δ	Remarks.
				h.	m.	s.		A_{IV} u	A_{II} u		
260	1	Iv	eP	12	05	25	s.				End lost by pulsatory oscillations during the day.
261	2	Iv	eP F	18	16	21 19					
262	3	I	e	19	24						End lost by pulsatory oscillations during the day.
263	5	Iv	eP F	14	41	34 45					
264	6	Iv	eP F	17	42	25 44					
265	7	Iu	e? F	6	22	7	35				Italian earthquake.
266	8	II	e F	1	57	04 53					Very distant.
267	8	Iv	eP F	9	31	02 35					
268	9	IIr	e F	19	05	35 54					
269	9	Iv	eP F	22	01	24 04					
270	14	I	e	23	29	47					End overtaken by following earthquake.
271	14	I	e	23	41	22					
	16		F	0	11						
272	16	Iv	eP F	9	09	35 18					
273	16	Iv	eP F	11	05	26 16					

Year 1920, No. 21.

September 16th to 23rd, 1920.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.---Continued.

No.	Date	Char-acter	Phase	Greenwich mean time			Period	Amplitude		Δ	Remarks.
				h.	m.	s.		μ	μ		
274	16	I _r	e F	15	15	22 44					
275	17	I _v	eP F	0	46	50 04					
276	19	I _v	eP F	6	45	04 48					
277	20	II _r	e 1E 1E 1E 1N 1N 1E 1N 1E 1N 1E 1E S 1E 1N 1E 1E 1N 1E 1E L L L C1 C2	14	48	57 50 09 50 36 52 02 52 12 52 20 52 49 53 44 54 35 54 52 55 31 56 02 57 27 57 32 57 49 57 56 59 15 00 52 01 12 05 55 08 53 09 03 09 09 17 20 12 36 00					End overtaken by following earthquake.
								171	179		
278	20	I	e	17	38	00					End overtaken by following earthquake.
279	20	I _v	eP F	18	06	06 10					
280	21	I _r	e F	2	44	11 30					
281	21	I	e F	5	12	49 37					
282	21	I _r	e F	17	49	54 22					
283	23	I _r	e L L F	6	41	14 32 38 24	7		11		

Year 1920, No.22.

September 23rd to October 8th, 1920.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.---Continued.

No.	Date	Char-acter	Phase	Greenwich mean time			Period	Amplitude		△	Remarks.
				h.	m.	s.		μ^L	μ^E		
284	23	I _r	e	19	41	30	8	13	21		
			S		44	08					
			L		45	46					
			M _{NE}		46	05					
			M _{NE}		46	35					
		F	20	31	14						
285	24	I _r	e	4	24	33					
			F		42						
286	24	I _v	eP	5	44	48					
			F		48						
287	27	I _v	eP	7	06	26					
			F		08						
288	27	I _v	eP	7	09	15					
			F		31						
289	27	I	e	13	20	51					
			F		32						
290	28	I _v	eP	1	04	50					
			F		07						
291	30	I	e	14	19						
			F		48						

OCTOBER, 1920.

2	I _v	eP	9	20	24					
		F		34						
293	3	I _v	eP	21	28	05				
		L		28	19					
		M _{NE}		28	21	2	100			
		F		31						
294	4	I	e	3	25					
			F	4	15					
295	4	I _v	e(PS)	4	26	28				
		L		27	33					
		M _{NE}		27	52	5	42			
		M _{NE}		28	02	5		24		
		F		42						
296	4	I _v	eP	5	18	09				
			F		22					
297	8	III _d	eP	7	34	31				
			L		34	56				

Baguio (W Luzon).
 Maxima lost by the
 force of the shock.
 End overtaken by fol-
 lowing earthquake.

Year 1920, No.23.

October 8th to 12th, 1920.

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		
298	8	II _v	eP	7	43	08				Baguio (W Luzon). Epd overtaken by fol- lowing earthquake.	
299	8	III _d	eP L M _N F	8	01	37 02 02 15 46	3	1,364		Baguio (W Luzon).	
300	8	I _v	eP F	8	49	54 56				Baguio (W Luzon).	
301	8	I _v	eP F	9	48	57 52				Baguio (W Luzon).	
302	8	I _v	eP F	9	58	43 10 01				Baguio (W Luzon).	
303	8	II _v	eP L M _N M _E F	11	52	17 52 52 54 12 07	3 3	176	109	Baguio (W Luzon).	
304	8	III _d	eP L M _N F	13	23	10 23 35 23 48 45	3	581		Baguio (W Luzon).	
	8	I _v	eP F	14	03	31 14				Baguio (W Luzon).	
	8	II _v	eP L M _N F	14	28	02 28 27 28 44 39	3	104		Baguio (W Luzon).	
307	9	I _v	eP F	5	06	49 17				Baguio (W Luzon).	
308	9	I _v	eP F	8	12	48 22				Baguio (W Luzon).	
309	9	I _v	eP F	11	05	00 11					
310	10	I _v	eP F	18	19	00 25				N Luzon. From Vicen- tini.	
311	12	I	e F	7	03	51					
312	12	I	e F	7	58	8 24					
313	12	I	e F	8	19	9 05					

Year 1920, No.24.

October 13th to 22nd, 1920.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY. -- Continued.

No.	Date	Character	Phase	Greenwich mean time			Period	Amplitude		△	Remarks.
				h.	m.	s.		A _{IN}	A _{IG}		
314	13	I _r	e F	4	05	55				Felt at Sunay (Mariana Islands).	
315	13	I _v	eP L F	15	29	53 31 08 43					
316	13	I _v	eP F	22	57	04 59				Calatagan (SW Luzon).	
317	15	I	e F	14	23	45					
318	16	I _v	eP F	10	57	21 59					
319	18	II _r	eP S IN IE IN IE IL MN ME F	8	19	02 24 58 25 21 25 46 26 32 27 09 29 00 29 06 29 07 9 02					
	19	I _v	eP F	18	51	26 56					Iba (W Luzon).
321	20	II _r	eP S IN L ME MN F	10	04	49 08 18 08 30 09 57 10 14 11 55 11 08					
322	20	I _r	eP S L MN ME F	19	18	35 21 39 22 21 24 40 24 59 20 18					
323	21	I _v	eP F	22	22	10 27					
324	22	I	e F	3	48	4 18					
325	22	I _r	eP S L MN ME F	10	58	36 11 02 31 04 00 04 57 05 11 46					

Year 1920, No.25.

October 22nd to 31st, 1920.

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		
326	22	I	e F	12	29	58					
				13	27						
327	22	I _u	M F	13	37						
				14	18						
328	22	I	e F	20	21	57				Felt at Sunay (Ma- riana Islands),	
					44						
329	23	I _v	eP F	7	38	44					
					43						
330	23	I _r	e L F	13	32	30					
					37	43					
				14	15						
331	24	I	e F	1	52	55					
				2	30						
332	24	I _v	eP L M M M F	8	31	02					
					31	18	2	109	73		
					31	20	2				
					31	20					
					42						
333	25	I _r	e L F	8	09	00					
					12	30					
					42						
34	27	I _r	e F	5	22	37				Felt at Guiuan (SE Samar).	
					37						
335	28	I	e F	7	33	49					
				8	22						
336	28	I	e F	11	25	52					
					51						
337	28	I	e F	13	10	17					
				15	02						
338	29	I _v	eP F	5	05	55					
					08						

Year 1920, No.26.

November 1st to 20th, 1920.

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		$\frac{-\bar{r}}{T_0^2}$
AN:	6.25	2.906	0.053
AE:	6.18	2.393	0.042

No.	Date	Char-acter	Phase	Greenwich mean time		Period	Amplitude		Remarks.
				h. m. s.	s.		AN μ	AE μ	
339	1	I	e F	8 53 16 9 32					Felt at Lais (SE Min- danao).
340	1	I	e F	17 00 45 44					
341	3	II _r	eP S L MN1 MN1 MN2 MN2 MN3 MN3 F	15 38 00 39 58 40 27 41 02 41 19 42 20 43 00 44 03 44 04 16 42		7 8 9 8 8 9	306 318 300 234 318		Sulu Island and W Mindanao.
	4	Iv	eP L MN ME F	22 30 09 30 32 30 37 30 37 34		3 4	93 82		
343	5	Iv	eP L MN ME F	3 54 12 54 28 54 29 54 34 58		4 4	173 95		Felt at Iba (V Luzon)
344	16	I	e F	8 43 9 15					
345	17	II _v	eP L ME ME F	7 24 53 25 38 25 51 26 09 39		3 4	68 204		SE Luzon and Samar.
346	20	Iv	eP F	11 03 21 10					

Year 1920, No.27.

November 20th to December 7th, 1920.

MANILA, P. I.

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.--Continued.

No.	Date	Char-acter	Phase	Greenwich mean time			Period	Amplitude		Remarks.
				h.	m.	s.		μ	μ	
347	20	I	e F	13	01	55 40				
348	21	I _v	eP L F	6	58	25 59 26 7 07			Lacag (NW Luzon).	
349	23	I	e F	6	52	19 7 10				
350	24	I	e F	12	11	49				
351	29	I	e F	4	57	07 5 09				
352	29	I	e F	8	20	9 02				
353	30	I	e L? F	11	11	56 16 42 38				

DECEMBER, 1920.

	1	I _v	eP L M ₁ M ₂ F	9	36	05 35 22 35 25 35 25 39		3 3	68	71	
356	2	I	e F	6	01	29					
356	4	I _r	eP S L M ₁ M ₂ F	23	11	11 14 39 15 48 16 42 16 44		16 12	23	26	
	5		F	0	08						
357	5	I	e F	22	04	52 43					
358	6	I	e F	1	30	50 2 49					
359	7	I _v	eP F	11	57	00 59					

Year 1920, No.28.

December 7th to 31st, 1920.

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	
360	7	I	e	15	23	56				
			F		51					
361	10	Iv	eP?	4	50				Time signal not working, figures approximate.	
			F?		54					
362	10	Iu	e?	5	08				Tepelanti, Albania? Time signal not working, figures approximate.	
			F?	6	52					
363	11	Iv	eP	7	33	20				
			F		35					
364	15	IIv	(PS)	12	08	42			Calatagan (SW Luzon).	
			L		09	02				
			MN		09	04	2	333		
			ME		09	04	2			
			F		17			211		
365	16	IIIr	eP	12	11	29			Kan-su, China.	
			S		15	40				
			L		17	42				
			MN		18	04	7	1,260		
			F	13	48					
366	17	Iv	eP	3	40	08				
			F		50					
367	18	Ir	e	10	07	14				
			S		09	57				
			L		10	37				
			MN		11	48	6	59		
			ME		12	42	7	41		
	19	Ir	e	20	17	19				
			S		21	17				
			L		22	50				
			ME		24	33	6	42		
			MN		20	49	6	38		
			F		41					
369	25	IIr	e	11	39	00				
			S		43	02				
			L		48	45				
			MN		48	58	12	338		
			ME		49	13	15	209		
			F	12	54					
370	27	Iv	eP	14	29	34				
			F		32					
371	28	Ir	e	3	22	26				
			S		27	42				
			L		31	20				
			MN		32	10	13	20		
			ME		32	27	14	17		
			F		59					
372	30	Iv	eP	0	32	53				
			F		35					