

M A N I L A , P . I .

SEISMOLOGICAL BULLETIN OF THE OBSERVATORY.

 $\phi=14^{\circ} 34' 42''$ N. $\lambda=120^{\circ} 58' 41''$ E.

h=3 m.

Alluvium.

International
Seismological
Centre

INSTRUMENTS.

Galitzin-Wilip, three components.

Wiechert Inverted Pendulum, 955 Kg.

Horizontal Pendulums, two components, 118 Kg. each.

Data taken from the Galitzin-Wilip, unless otherwise stated.

No.	Date	Phase.	Greenwich Time h. m. s.	Dist. Km.	Remarks.
	Feb. 1941				
88	3rd	iPNZ ePE S?NE F	0 12 55 55 18 38 57	4,100?	
89	3	iPZ iSNEZ F	8 02 03 03 41 9 02	920	Compression.
91	4	iPZ iPNE iSNE F	14 04 54 54 06 17 16 15	755	Compression from SE. $10^{\circ} 25'N$: $126^{\circ} 33'E$. h=200 Km. by Butuan, Manila, Baguio, Ambulong and Tagaytay. Felt at Butuan, Hinatuan, Jagna, Borongan, Atimonan and Baguio. S from the Wiechert and Horizontals.
92	4	PNEZ SNE F	17 06 13 08 38 18 05	1,400	
94	5	iPZ ePNE SNE LN iMN F	23 07 48 48 10 32 12 18ca 14 08 0 50	1,580	Dilatation.
97	7	iPZ ePN SNE LNE MN F	15 22 47 47 30 17 38 30ca 43 50ca 17 15	5,940	Compression (?).
98	7	ePEZ SN LNE ME F	18 25 58 30 30 32 ca 35 05ca 19 25	2,845	

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No.	Date	Phase.	Greenwich Time h. m. s.	Dist. Km.	Remarks.
	Feb. 1941				
99	8	iPNEZ iSNEZ iLNE F	18 49 21 52 27 54 05ca 20 35	1,820	Dilatation from SE.
100	9	iPN ePEZ iSN ME F	4 22 12 12 27 56 36 10ca 5 25	4,120	
101	9	iPZ ePNE SNEZ F	9 00 53 53 01 10 08	135	13° 42'N: 120° 13'E by Manila, Am- bulong and Tagaytay. h=50 Km.?
102	9	PEZ PPZ SKS SKKS PSNE PPS SS LNEZ MNE F	9 57 45 10 01 35 08 24 08 47 10 19 11 00 15 44 30 30ca 38 00ca 12 15 ca	10,830	40°9N: 125.4°W by USCGS. H=9:43:52.
103	9	iPEZ SNE LNE F	19 26 39 32 41 38 25ca 21 20	4,450	Compression. Near 0°: 158°E by Riverview and Manila.
104	9	iPEZ ePN SNEZ F	22 11 17 17 44 24	210	Compression. Felt at Daet.
105	10	ePNEZ SN F	7 04 23 06 29 20	1,210	Felt at Butuan.
107	10	ePNEZ iSNE F	23 04 49 05 07 14	140	
109	11	P'Z SKP SS SSSN LNE M F	14 54 51 58 18 15 15 09 20 15 39 30ca 50 ca 17 23	14,980	Provisional epicenter 14.5°N: 94°W by USCGS.
111	12	ePNE SNE F	0 21 13 23 15 49	1,170	

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No.	Date	Phase.	Greenwich Time h. m. s.	Dist. Km.	Remarks.
	Feb. 1941				
112	12	ePNEZ SNE F	1 12 42 13 28 28	310	
113	12	iPNZ ePE SNE F	1 30 51 51 31 29 44	270	
115	12	iPZ ePNE SNE iLE F	18 09 32 32 12 05 13 15 45	1,480	
117	13	iPZ ePNE iSNEZ F	0 42 21 21 43 26 1 35	560	
118	13	iPN ePEZ SNZ LNE	12 57 01 01 13 00 13 01 50ca	1,900	
120	14	iPZ ePNE iSNEZ F	7 04 22 22 05 27 8 30	540	Compression?. In region of 19° 30'N; 120° 30'E by Baguio and Manila.
122	14	ePNEZ SEZ F	18 27 27 29 28 43	1,165	
123	14	P?NEZ F	19 15 05 21 15		More than 100°.
126	16	iPZ ePNE SNE LNE F	10 44 06 07 48 25 51 30ca 11 20	2,810	Compression.
128	16	iPZ ePN iPE iSNE MN F	16 49 05 05 06 57 15 17 12 30ca 18 20	6,620	Dilatation.
130	17	iPNZ ePE iSNEZ F	18 05 42 42 06 59 30	135	Dilatation from NW. Felt in western Luzon and Manila. 15° 17'N: 120° 03'E, h=75 Km. ca. by Manila, Ba- guio, and Ambulong.

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No.	Date	Phase.	Greenwich Time h. m. s.	Dist. Km.	Remarks.
	Feb. 1941				
131	17	iFNEZ iSNEZ F	21 18 54 19 15 22 05	165	Compression from SW. 13°15'N: 120° 15' E by Manila, Ambulong, and Ta- gaytay. Felt at Manila. S from the Wiechert.
132	18	ePEZ SNE? LNE? F	4 36 30 40 06 41 55ca 6 05	2,190?	
135	19	ePNEZ SE F	19 47 42 50 10 20 11	1,420	
136	20	ePNEZ SNE F	15 38 10 43 22 16 20	3,610	
137	21	ePNEZ SNEZ iLE F	13 02 05 05 32 07 22 18	2,080	
138	22	PE SNE F	4 18 09 22 15 32	2,500	
139	22	iPZ ePNE iSN F	19 25 13 13 33 38 20 25	6,780	Dilatation.
140	23	iPZ ePNE SN F	1 23 29 29 30 17 46	5,200	
141	23	ePNEZ SNE F	5 49 20 53 33 6 43	2,720	
142	23	ePNEZ SNEZ LNE ME F	10 02 17 08 23 13 ca 16 30ca 42	4,480	
144	23	iPNEZ iSNEZ F	22 35 35 39 28 23 30	2,345	Dilatation from SE. Distance subject to correction for depth.
145	24	ePNEZ SN L?NE F	12 55 27 13 05 01 19 50ca 45	8,010	



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	Feb. 1941				
147	25	iPZ PNE iSNE LNE MN F	5 42 52 53 47 33 50 20ca 53 10ca 7 40	3,100	Compression.
149	25	ePNEZ S?NE LN F	19 11 22 16 13 19 10ca 42	3,220?	
152	27	iPZ ePNE iSNEZ F	9 47 03 03 49 21 11 53	1,330	Compression from SE.
153	27	ePNEZ SN F	16 32 27 36 50 17 05	2,860	

Twenty-three insignificant or undecipherable disturbances on the following days of February: 4th, 5th, 7th(2), 10th, 11th(2), 12th(2), 13th, 14th, 15th(2), 16th, 17th, 18th, 19th, 23rd, 24th, 25th, 26th(2), and 28th.