

No. 44.

1937.

Geodætisk Institut

Proviantgaarden, Copenhagen, Denmark.

Bulletin of the seismological station

KØBENHAVN

$\varphi = 55^{\circ}41' N.$ $\lambda = 12^{\circ}27' E.$ $h = 13 m.$

Lithologic foundation: chalk.

No. 44. Oct.—Dec. 1937.

Instruments:

Galitzin-Wilip seismographs.

Constants:

Component	l	A_1	T_1		μ^2	T	k
N	12.5	100	12.61	$1/10-20/10$	-0.1	13.0	103
				$20/12-31/12$	-0.04	12.6	104
E	12.5	100	12.65		0.1	12.8	103
Z	14.5	100	11.55	$1/10-20/12$	0.3	7	93
				$20/12-31/12$	0.0	$9\frac{1}{2}$	96

Wiechert 1000 kg. horizontal seismograph.

Wiechert 1300 kg. vertical seismograph.

Constants:

Component	T	ν	ρ	V
N	sec 9.5	4.4	mm 0.3	220
E	9.5	4.1	0.5	190
Z	5.5	3.9	0.2	160

Milne-Shaw seismograph, E component, with the approximate constants $T = 12^s$ $\nu = 20$ $V = 300$.

Benioff vertical seismograph, $T_1 = 1/4^s$ $T = 1^s$.

No. 44.

— 3 —

1937.

København.

No.	Date	Hour	Forerunners				L	Un-defined	△	Remarks
			P		S					
			m s	m s	h m s	m s	h m	h m	°	
46*	1937 Nov. 14*	11	5 53	i 12 7	7 41	14 58			43	Afghanistan.
47	15	0					.6			
48	15	21	46 3*	53 10	48 4	56.7		59	51	Kashmir. Deeper than normal.
49	16	23						4		
50	17	14			58 26					On Benioff Z only.
51	18	4					.0			
52	18	5					.1			Faint.
53	21	20		41 2				44		Azores.
54	22	18					.3			Faint.
55	23	14			12 21		1.0			
56	24	3					.0			
57	24	12			23 24	23 29				Seismic?
58	25	5					1.1			Faint preceding movement.
59	25	9					.3			Faint.
60	26	10	57 22	67.5			1.4		81	East of Formosa.
61	27	14					.6			
62	27	20	14 6					20		The reading of P not quite [certain. Greenland Sea.
63	28	5	36 53		47 33	48 18				P—. West of Sumatra.
64*	30*	0	i 52 31	62 28	55 41	67.7	1.3		79	West of Sumatra.
65	30	13	7 21	14 54	17.1			21	54	Abessinia.
66	Dec. 1	13							.5	Faint.
67	2	11			19 17					Seismic?
68	2	18					.1			Faint.
69	5	16					.7			Small preceding movement.
70	6	4		56 22				76		East of Japan.
71	6	22					.4			
72	7	9						46		
73	7	18					.8			
74	8	2			47 47		1.0			
75	8	8	44 25	54 33	47 30	60.3		71	81	e _N 54 ^m 48 ^s . Formosa.
76	8	17					.8			
77	8	21			1.3			19		
78	9	0					.3			
79	9	3					.9			
80	10	13			51 3			70		
81	10	18						9		Italy.
82	11	6					.6			
83	12	9					.5			Masked by microseisms.
84	13	11			4 30					Seismic?
85	13	19	6 16	16 24	9 28	17 20	1.5		81	Formosa.
86	13	23	7 42	14 58				20	51	Atlantic Ocean.
87	14	17					.4			
88	15	21						33		
89	16	8			36 43					Seismic?
90	16	17	i 40 15	44 4	40 34	44 19		47		e _Z 44 ^m 31 ^s . Ionian Sea. Deep [focus.

*redtaget. Kuwait
F. Lehmanns Kunder*

No. 44.

— 4 —

1937.

København.

No.	Date	Hour	Forerunners				L	Un-defined	△	Remarks							
			P		S												
			m	s	m	s	h	m	s	m	s	h	m	h	m	°	
	1937 Dec.																
91	16	19										.2					
92	17	5										.5					Faint.
93	17	9	44	30	54	39	54	52	60.3			70				81	P+. Formosa.
94	17	19										.7					
95*	18*	13	25	31	31	41	27	2*								41	Turkestan.
96	18	21										.5					
97	20	4										.7					
98	20	5										.5					
99	21	13					0	14									Seismic?
100*	22*	3					61	3*	62	22							Off Mexico.
101	22	8										.4					
102*	23*	13	30	47			34	11					55				Mexico.
103	23	23					44	57	50	54	1.1						»
104	24	6			45	48	45	5	45	53	1.1						Peru.
105	25	1					38				1.2						
106	25	10	4	54	12	30							20			54	Siberia. Masked by microseisms; [the readings uncertain.
107	25	22										.5					
108	27	0										.4					
109	27	16										.0					Faint.
110	28	4										.2					
111	28	6	30	3*	38	48	39	10	40	14		46				66	P-. e_E 42 ^m 2 ^s . Atlantic Ocean.
112	30	2										17					
113	30	11										.8					Faint.
114	30	12										.4					
115*	31*	17	54	16			57	41	64	44		83					Mexico.

No. 44.

— 5 —

1937.

København.

NOTES

- No. 6. Oct. 6. 17^h. Solomon Islands; $\Delta = \text{ca. } 120^\circ$. PP 25^m15^s. $SKKS$ 32^m19^s. PS 35^m.3; PPS 36^m.3. SS 42^m.0.
- No. 15. Oct. 12. 21^h. Chile; $\Delta = \text{ca. } 110^\circ$. e 5^m.5. PP 9^m36^s. SKS 15^m32^s. $SKKS$ 16^m19^s. PS 18^m.4. L small.
- - Oct. 20. Small groups of waves, possibly not of seismic origin, recorded on Benioff Z : 8^h44^m49^s; 9^h9^m35^s; 9^h31^m12^s; 9^h52^m15^s; 10^h31^m0^s; 10^h53^m1^s; 12^h8^m59^s; 13^h7^m15^s; 13^h41^m45^s; 14^h5^m40^s; 14^h35^m9^s; 15^h7^m53^s.
- No. 29. Oct. 29. 7^h. 38° 5' N 70° 0' E according to $RSSU$; $\Delta = \text{ca. } 42^\circ$. $h = \text{ca. } 220$ km. iP 34^m15^s ($x, -1.4, +1.8$), very large on Benioff Z . pP 35^m3^s; sP 35^m24^s. PP 35^m57^s; pPP 36^m.6; sPP 37^m2^s. iS_N 40^m23^s. (sS) 41^m46^s, well defined. SS 43^m.7. L small.
- No. 46. Nov. 14. 11^h. Afghanistan; $\Delta = \text{ca. } 43^\circ$. $h = \text{ca. } 220$ km. Large earthquake. Galitzin records not readable. eP_Z 5^m53^s; $iP_{E,Z}$ 5^m55^s ($x, -34.9, +14.6$). pP 6^m48^s; sP 7^m10^s. PP 7^m41^s; pPP_E 8^m22^s; $isPP$ 8^m51^s. e_E 11^m33^s; iS 12^m7^s large on N . sS 13^m26^s. eSS 14^m58^s; i_E 15^m22^s. $i(S_cS)_{N,E}$ 15^m37^s, very large; i_E 15^m42^s, an exceptionally large oscillation.
- No. 64. Nov. 30. 0^h. West of Sumatra. iP 52^m31^s on Benioff Z ; beginning quite small in other records. e 52^m40^s. PP 55^m41^s, PPP 57^m26^s. S 62^m28^s. $e_{N,E}$ 62^m42^s; e_E 63^m12^s, 25^s. SS 67^m.7; SSS 71^m.2. L not large.
- No. 95. Dec. 18. 13^h. Turkestan. iP ($x, -1.3, +1.4$). $e_{E,Z}$ 25^m39^s, larger. PP 27^m2^s, large. S_N 31^m41^s, e_E 31^m47^s.
- No. 100. Dec. 22. 3^h. Off Mexico; $\Delta = \text{ca. } 90^\circ$. No GZ record. PP_E 54^m.3. SKS 61^m3^s; PS 62^m22^s. SS 67^m.3. $e(L)$ 74^m.
- No. 102. Dec. 23. 13^h. Mexico; $\Delta = \text{ca. } 87^\circ$. Large earthquake. No GZ record. The beginning of P small, 30^m47^s or 48^s; i 52^s large. PP 34^m11^s large. $e(SK)_{N,E}$ 41^m0^s; e 41^m27^s, 50^s very large. $PS_{E,Z}$ 42^m40^s. SS 47^m0^s. SSS_E 51^m.2. L_Q 55^m.
- No. 115. Dec. 31. 17^h. Mexico; $\Delta = \text{ca. } 88^\circ$. The beginning of P quite small, the reading not certain. PP 57^m41^s. SKS 64^m44^s. ($SKKS$) 65^m5^s. PS_N 66^m15^s. SS 71^m.0. SSS 74^m.7.