

No. 21.

1932.

Geodætisk Institut  
Proviantgaarden, Copenhagen, Denmark.

Bulletin  
of the seismological station

KØBENHAVN

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

Lithologic foundation: chalk.

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Instruments:

Galitzin pendulums with galvanometric registration.

Constants:

Component	<i>l</i>	<i>T</i> <sub>1</sub>	<i>A</i> <sub>1</sub>	$\mu^2$	<i>T</i>	<i>k</i>
<i>N</i>	cm 12.5	sec 12.62	cm 100	0.0	sec 12.4	105
<i>E</i>	12.5	12.62	100	0.0	11.9	102
<i>Z</i>	14.4	11.56	100	— 0.1	10	95

Wiechert 1000 kg. horizontal seismograph.

Wiechert 1300 kg. vertical seismograph.

Constants:

Component	<i>T</i>	$\nu$	$\rho$	<i>V</i>
<i>N</i>	sec 9.6	4.4	mm 0.6	220
<i>E</i>	9.3	4.0	0.7	195
<i>Z</i>	5.3	4	0.2	170

Milne-Shaw seismographs, *N* and *E* components, with the approximate constants  $T = 12\text{s}$   $\nu = 20$   $V = 300$ .

Wood-Anderson seismograph, *E* component,  $T = 2\text{s}.7$ .

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No.	Date	Hour	Forerunners				L	Un-defined	△	Remarks
			P	S	h m s	m s				
	1932 March		<i>m s</i>	<i>m s</i>	<i>h m s</i>	<i>m s</i>	<i>h m</i>	<i>h m</i>	○	
45	26	10			11.0	17.4				Strong microseisms.
46	27	9						.3		Disturbed.
47	28	1			.0					
48	30	16					.1			

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NOTES

- No. 4. Jan. 9. 10<sup>h</sup>. New Guinea;  $\Delta$  = ca. 120°.  $P'$ , 39<sup>m</sup>57<sup>s</sup>, on Z only.  $e_Z$  41<sup>m</sup>20<sup>s</sup>;  $PP$  41<sup>m</sup>36<sup>s</sup>.  $e_E$  43<sup>m</sup>.9.  $PS$  51<sup>m</sup>.6;  $e_Z$  52<sup>m</sup>16<sup>s</sup>.  $SS$  57<sup>m</sup>.5, large.
- No. 17. Febr. 11. 16<sup>h</sup>. Felt in Sweden. Recorded on Wood-Anderson seismograph only.  $i$  33<sup>m</sup>29<sup>s</sup>, followed by movement of quite short period; preceded by a faint movement discernible from about 9 sec. earlier.
- No. 44. March 26. 0<sup>h</sup>. Alaska. The beginning of  $P$  small,  $i$  8<sup>m</sup>53<sup>s</sup>.  $PP$  11<sup>m</sup>.0,  $PPP$  12<sup>m</sup>.7.  $S$  small, the beginning not certain, 17<sup>m</sup>.4 or somewhat earlier.  $SS$  21<sup>m</sup>.0.

Seismometric readings: Notation

$P$  — normal first preliminary tremors, longitudinal waves.

$PP\dots$  — longitudinal waves reflected at the earth's surface.

$S$  — normal second preliminary tremors, transverse waves.

$SS\dots$  — transverse waves reflected at the earth's surface.

$PS; PPS;\dots$  — waves reflected at the earth's surface which travel partly as longitudinal, partly as transverse waves.

$S_cP_cS$  — waves which traverse the mantle as transverse waves but are refracted through the core with longitudinal oscillation.

$P_cP_cS$  — waves which pass the mantle on one side of the core as longitudinal waves, on the other side as transverse waves and are refracted through the core with longitudinal oscillation.

$S_cP_cP_cS$  — waves which traverse the mantle as transverse waves, are refracted through the core with longitudinal vibration and are reflected on its inner boundary.

$L$  — long, or surface, waves; main phase.

$M$  — waves of greatest amplitude in the surface waves.

$i$  — sharply defined beginning of a phase.

$e$  — gradual beginning of a phase.

$\Delta$  — arcual distance from the station to the epicentre.

\*) affixed to time of phase indicates that the beginning is in a time-mark.

\*) affixed to number and date refers to Notes.