

The astatic seismograph of WIECHERT off to salt at sea sailing time tables  
of Dr. S. W. Visser. See Verhandel: De volksmijn en de universiteit van T...  
is an extract of these tables.

Distance.

S-P

P-O

S-O

Distance.

S-P

P-O

S-O

H

I

# SEISMOLOGICAL BULLETIN 1925.

## BATAVIA OBSERVATORY, JAVA

Foundation: River Quartair.

Greenwich Mean Time. S. Latitude  $6^{\circ} 11' 0''$ . Height above sealevel 8 m.

E. Longitude  $7^{\text{h}} 7^{\text{m}} 20.3^{\text{s}}$ . (1)

WIECHERT Horizontal Pendulum, 1000 kilograms.

### PREFACE.

The astatic seismograph of WIECHERT of 1000 kg. is registering regularly since December 6<sup>th</sup> 1908.

The instrument is mounted on a heavy brick pillar in a room with thick walls (about 70 centimeters), that is protected against the sun's heat by open galleries around it. The components are placed in E-W and N-S direction respectively. The pins are lifted electrically every hour for a period of 10 seconds by the Javanese observer on duty. A lifting of two seconds every minute is given by an electrical clock of PEYER FAVARGER by means of the second-dial passing through a drop of mercury.

For each month the mean constants for that month are applied.  $T_o$  and  $\varepsilon$ , the oscillation period and the coefficient of damping, are determined every week.  $V$ , the magnification for very short waves, is determined occasionally only. It is found by direct measurement, giving the pendulum a displacement by means of the horizontal adjusting screws, the value of which can be determined easily from the pitch (*a*), the angle of displacement of the screws and the height of the screws (*b*) and of the centre of gravity (*c*) above the Cardanic suspension apparatus.

It was found

$$(a) = 1.407 \text{ mm}; (b) = 1225 \text{ mm}; (c) = 895 \text{ mm}.$$

The constants used from January, February and March 1925 are given below

1925.	E-W component.			N-S component.		
	V.	$T_o$ .	$\varepsilon$ .	V.	$T_o$ .	$\varepsilon$ .
January . . . . .	190	7.8	4.1	188	7.6	4.2
February . . . . .	"	7.6	4.3	"	7.2	4.7
March . . . . .	"	7.6	4.2	"	7.3	4.6

(1) For the E. Longitude of the Observatory, see: J. BOEREMA, A New Determination of the Eastern Longitude of Batavia; K. Magn. Met. Observ. Batavia, Verhandelingen No. 12, 1924.



The notation used is that of the Göttingen Geophysical Institute.  
The following abbreviations are employed:

### CHARACTER OF THE EARTHQUAKE

I = perceptible; II = moderately strong; III = strong.

d (terrae motus domesticus) = local.

v (" vicinus) = near (less than 1000 km).

r (" remotus) = distant (1000 to 5000 km).

u (" ultimus) = very distant (over 5000 km).

### PHASES.

P (undae primae) = 1<sup>st</sup> preliminary tremors.

S (" secundae) = 2<sup>nd</sup> " "

L (" longae) = principal phase, long waves.

M (" maxima) = maximum amplitude.

C (coda) = prominent waves among the after tremors.

F (finis) = end of perceptible movement.

PR<sub>1</sub>, PR<sub>2</sub>, . . . SR<sub>1</sub>, SR<sub>2</sub>, . . . = 1<sup>st</sup>, 2<sup>nd</sup> . . . reflected waves of P and S.

PS = waves changed by reflection from longitudinal to transversal oscillation.

### WAVE-ELEMENTS, UNITS.

T = complete period in seconds.

A = amplitude, measured from median position in microns.

A<sub>E</sub> = E.-W. component of A.

A<sub>N</sub> = N.-S.

i (impetus) = abrupt commencement, clearly defined.

e (emersio) = gradual , not clearly defined.

### MALABAR.

July 1911 an astatic WIECHERT pendulum of 100 kg. which is the possession of Mr. K. A. R. BOSSCHA, chief manager of the tea estate Malabar (Preanger, Java; E. Long. 107° 37'; S. Lat. 7° 13') has been erected. Time is controlled since August 12, 1923, by means of the daily time signal of Malabar Radio.

Particulars about the registrations will be found in the tables.

### MARON.

February 1924 an OMORI tachometer has been established on the western slopes of the volcano Merapi (Central Java) at Maron (Kedoe, 110° 25' E; 7° 34' S). Particulars about the registrations will be found in the tables.

### AMBOINA.

October 1924 an astatic WIECHERT Pendulum of 1000 kg. has been established at Amboina (Moluccas; 128° 10' E; 3° 42' S). The time signals not yet working satisfactorily time is given in 1/10 minutes.

The distances given in the Bulletin Batavia are calculated with the time tables of Dr. S. W. Visser. See Verhandelingen Batavia No. 7, 1921. The postponed table is an extract of these tables.

Distance.	S-P		P-O		S-O		Distance.	S-P		P-O		S-O	
1°	m 0	s 13	m 0	s 16	m 0	s 29	56°	m 7	s 46	m 9	s 54	m 17	s 40
2			25		31		57		52	10	1	53	
3			38		46		58		58	8		18	6
4			50		1	1	59		8	4		15	19
5		1	1		17		60		10		22		32
6			12		32		61		15			29	44
7			24		47		62		21			36	57
8			35		2	2	63		26			43	19
9			47		16		64		32			49	21
10			57		31		65		38			55	33
11	2	8			45		66		43	11	2	45	
12			19		59		67		49	8		57	
13			30		3	12	68		55	14		20	9
14			40		26		69		9	1		20	21
15			50		39		70		6			26	32
16	3	0			52		71		11			33	44
17			10		4	4	72		16			39	55
18			19		17		73		21			45	21
19			28		29		74		26			51	17
20			37		41		75		32			57	29
21		46			53		76		37	12	3	40	
22		55		5	4		77		42	9		51	
23	4	3			16	9	78		47	15		22	2
24		11			27		79		53	20		13	
25		19			38	57	80		58	26		24	
26		27			48	10	81	10	4			31	35
27		35			58		82		9			37	46
28		41		6	9	50	83		14			42	56
29		48			19	11	84		19			47	23
30		56			28	24	85		24			52	16
31	5	3			37		86		28			58	26
32		10			46		87		32	13	4	36	
33		17			55	12	88		37	9		46	
34		24		7	4	28	89		41	15		56	
35		30			15	45	90		46	20		24	6
36		36			22		91		50			25	15
37		43			30	13	92		55			30	25
38		50			38		93		59			35	34
39		57			46		94	11	3			40	43
40		6	5		55		95		7			45	52
41			11		8	1	96		11			50	25
42			18		9		97		15			55	10
43			25		17		98		18	14	0	18	
44			32		24		99		22		5		27
45			40		31	15	100		25		10		35
46			47		39		101		27			15	42
47			55		47		102		30			20	50
48		7	0		54		103		32			25	57
49		6		9	2	16	104		34			30	26
50			13		9		105		37			34	11
51			18		17		106		40			39	19
52			24		24		107		42			44	26
53			29		32	17	108		45			48	33
54			35		39	1	109		47			53	40
55			40		47		110		50			52	12

# JANUARY 1925.

Date 1925.	Station.	Character.	Phase.	Time (Greenwich).			Period.	Amplitude (half)	Distance of epi- centrum.	Remarks.	
				A <sub>E</sub>	A <sub>N</sub>	Disp.					
Jan. 1	Bat.	I <sub>v</sub>	P	h	m	s	seconds.	$\mu$	$\mu$	km. 150	Lengkong (W. Preanger).
			iP <sub>N</sub>	13	41	41					
			iS	13	41	42					
			F	13	41	58					
	Mal.		P <sub>E</sub>	15	41	57					
2	Bat.	I <sub>v</sub>	i	18	49	3					
			F	18	51						
	Mal.		i	18	49	52					
2	Bat.	I <sub>v</sub>	P	18	50	52					
			S?	18	51	1					
			i	18	51	3					
			F	18	53						
	Mal.		iP	18	51	56					
			iS	18	51	50					
							120				
5	Amb.		iP	2	56,6						
			iS	2	56,8						
5	Amb.		iP	5	56,4						
			iS	5	56,6						
5	Amb.		iP	7	57,1						
			iS	7	59,1						
5	Amb.		iP <sub>N</sub>	11	50,9						
			iS	11	51,0						
							(50)				
11	Amb.		iP	15	5,5						
			S	15	5,9						
12	Amb.		iP	15	51,0						
			iS	15	51,4						
15	Amb.		P	21	14,5						
			S	21	14,5						
18	Bat.	II <sub>u</sub>	iP	12	16	52					
			i <sub>N</sub>	12	17	53					
			iS	12	25	44					
			eL	12	59	12					
			i	12	48	51					
			F	12	49						
	Mal.		P	12	16	58					
			i	12	25	50					
			eL	12	28	27					
			i	12	45	27					
	Amb.		P	11	58,4						
			S <sub>NS</sub>	12	7,6						
			L	12	11						
							7800				
18	Bat.	II <sub>v</sub>	P <sub>E</sub>	20	18	39					
			iP	20	18	41					
			i	20	19	41					
			S?	20	24	0					
			F	20	57						

Date 1925.	Station.	Character.	Phase.	Time (Greenwich).			Period.	Amplitude half.		Distance of epi- centrum.	Remarks.
				A <sub>E</sub>	A <sub>N</sub>	Disp.		sec.	$\mu$	$\mu$	
Jan. 18	Mal.		P	20	19	7					
			S	20	25	6					
	Amb.		iP	19		57,7					
			iS	19		58,5					
» 20	Amb.		P	12		41,6					
» 20	Amb.		P	12		46,7					
» 21	Mal.		eP	16		58,28					
			i <sub>1</sub>	16		58,58					
			i <sub>2</sub>	16		59,10					
» 21	Bat.	I <sub>v</sub>	P	17		56					
			S	17		2,18					
» 22	Amb.		iP	4		17,4					
» 22	Bat.	I <sub>v</sub>	P <sub>E</sub>	5		16,2					
			iS	5		25					
			F	5		22					
» 23	Bat.	I <sub>v</sub>	P	23		47,37					
			F	23		58					
	Mal.		P	23		47,55					
			S <sub>N</sub>	23		48,52					
» 25	Amb.		iP <sub>N</sub>	8		5,8					
			iS <sub>E</sub>	8		4,0					
» 25	Amb.		iP	8		14,4					
			iS	8		15,5					
» 26	Amb.		iP	7		40,5					
			iS	7		40,6					
» 28	Bat.	I <sub>u</sub>	P	4		15,55					
			iS	4		24,11					
			L	4		38,56					
			F	5		16					
» 30	Bat.	I <sub>v</sub>	eP	15		17,18					
			S	15		17,0					
			F	15		24					
	Mal.		P	15		16,49					
			S	15		17,20					
» 31	Bat.	III <sub>v</sub>	iP <sub>E</sub>	10		12,24					
			i	10		12,44					
			S?	10		14,45					
			F	10		52					
	Mal.		P <sub>E</sub>	10		12,37					
			iS <sub>N</sub>	10		13,29					

# FEBRUARY

Date 1925.	Sta- tion.	Char- acter.	Phase.	Time (Greenwich).	Period.	Amplitude (half).		Distance of epi- centrum.	Remarks.						
						A <sub>E</sub>	A <sub>N</sub>								
Febr. 13	Bat.	I <sub>u</sub>	i	h 14 11	sec.	$\mu$	$\mu$	km.	Tjiletoeh (Pr. Reg. W. Java).						
			L	14 28 29											
			F	14 58											
» 16	Bat.	I <sub>v</sub>	iP <sub>N</sub>	20 29 49				160	Tjiletoeh (Pr. Reg. W. Java).						
			iS <sub>E</sub>	20 30 8											
			F	20 54											
» 20	Mal.		iP	20 29 41				120	Goronggo, Kediri, Blitar.						
			iS	20 29 55											
			i <sub>1</sub>	1 15 2											
	Bat.	I <sub>u</sub>	i <sub>2</sub>	1 21 33											
			eL	1 36											
			F	2											
	Amb.		i <sub>1</sub>	1 11,4				370	Jaff 81						
			i <sub>2</sub>	1 18,8											
			L <sub>E</sub>	1 24,5											
	Amb.		eL <sub>N</sub>	1 29,5											
			iP	0 18,3				100	Bogosumas (G. Jawa). dmA						
			S?	0 18,5											
	Amb.		iP	1 9,0				440	Jaff 81						
			iS	1 9,8											
			I <sub>u</sub>	i <sub>E</sub>											
	Bat.	I <sub>u</sub>	0	11 20				dmA	dmA						
			L	0 55											
			F	1 11											
	Bat.	I	e	22 16 32				III	Jaff 81						
			F	22 32											
			Amb.	i <sub>1</sub>											
			i <sub>2</sub>	22 4,9				M	M						
			i <sub>1</sub>	22 8,1											
			i <sub>2</sub>	22 8,1											
	Amb.		i <sub>1</sub>	22 28,3				Boela (Geram, Moluccas).	dmA						
			e	23 57,9											
			i	23 58,9											
	Amb.		P	7 4,8			260	Boela.	dmA 81						
			S	7 5,3											

Date 1923.	Station	Character	Phase	Time (Greenwich)		Period sec.	Amplitude (half)		Distance of epi- centrum	Remarks
				A <sub>E</sub>	A <sub>N</sub>		μ	μ		
March 12	Amb.		iP	h 15	m 20.4				km. 160	
			iS	15	20.7					
» 13	Amb.		i <sub>1</sub>	5	55.6					
			i <sub>2</sub>	3	56.8					
» 15	Bat.	I	i <sub>E</sub>	15	49	57				Waingapoe, Timor (?).
			i <sub>N</sub>	15	52	41				
			eL	15	57					
			F	14	6					
	Mal.		e	13	49	44				
			i	13	51	49				
	Amb.		i <sub>1</sub>	15	50.8					
» 15	Bat.	I	i <sub>E</sub>	15	44	35				
			i <sub>I</sub>	15	47	0				
			F	16	18					
	Mal.		P	15	44	26				
			S	15	46	27				
	Amb.		i <sub>1</sub>	15	44.9					
			L	15	47.4		15.5			
» 16	Bat.	I	i	8	34	29				Waingapoe (Timor).
			F	8	41					
	Amb.		iP	8	25.5				780	
			iS	8	26.9					
» 16	Bat.	III	P	14	48	46				
			i <sub>E</sub>	14	56	46				
			M	15	2	16	6.4	122	56.6	
			F	15	46					
	Mal.		eP	14	48	55				
			i <sub>1</sub>	14	50	15				
			i <sub>2</sub>	14	50	25				
	Amb.		e	14	52.0					
			i	14	41.4					
» 16	Amb.		iP	17	20.5					
			iS	17	20.7					
» 16	Bat.	I	e	23	31	6				
			i	23	41	10				
			F	23	51					
	Amb.		i <sub>2</sub>	23	51.5					
» 16	Bat.	I	e	23	57	6				other phases disturbed by street traffic.
» 17			F	0	26					
» 17	Bat.	I	i	21	16	36				
			F	21	18					
	Mal.		i	21	16	50				
» 18	Bat.	I	i <sub>E</sub>	14	10	57				
			F	14	27					

Date 1923.	Station	Character	Phase	Time (Greenwich)		Period sec.	Amplitude (half)		Distance of epi- centrum	Remarks
				A <sub>E</sub>	A <sub>N</sub>		μ	μ		
March 18	Amb.		i <sub>1</sub>	h 14	m 0.1				km. 100	
			i <sub>2</sub>	14	4.1					
			L	14	8.8	17.9				
» 19	Bat.	I	e	15	42	1				Atjeh.
			F	16	5					
» 19	Amb.		iP	21	46.4					
			iS	21	46.9					
» 20	Bat.	II <sub>v</sub>	iP	5	45	24			280	Goenoeng Kentjana (Bantam, W. Java).
			i	5	45	33				
			iS	5	45	56				
	Mal.		F	6	10					
» 20	Mal.		i <sub>E</sub>	5	45	30			270	
			iP	5	45	31				
			iS	5	44	2				
» 20	Mal.		P	7	11	54			160	
			S	7	12	2				
» 20	Bat.	I <sub>v</sub>	P	7	50	5			150	Banjoemas (C. Java).
			S	7	50	22				
			F	7	55					
» 20	Bat.	I	P	11	5	11			140	
			S	11	5	28				
			F	11	9					
	Mal.		P	11	5	14			180	
			S	11	5	35				
» 20	Bat.	I <sub>v</sub>	P	14	28	16			180	
			S	14	28	58				
			F	14	34					
	Mal.		P	14	28	14			140	
			S	14	28	30				
» 22	Bat.	I <sub>u</sub>	i <sub>1</sub>	8	52	15				
			i <sub>2</sub>	9	0	24				
			L <sub>E</sub>	9	4	27				
			M	9	17	7	21	10.0	5.0	
			F	9	50					
	Mal.		i <sub>1</sub>	8	52	8				
			i <sub>2</sub>	9	0	21				
			L	9	5	50				
	Amb.		iP	8	50.0				3100	
			iS	8	56.1					
» 22	Bat.	I	i	9	50	45				
			F	10	26					
» 22	Amb.		i	14	8.5					
			L	14	12.8	25				
» 24	Bat.	I <sub>v</sub>	iP	19	47	12			170	
			iS	19	47	52				
			F	19	56					

Date 1925.	Station.	Character.	Phase	Time (Greenwich).	Period.	Amplitude (half)		Distance of epi- centrum	Remarks.
						A <sub>E</sub>	A <sub>N</sub>		
March 24	Mal.		P S	h m s 19 47 29 19 47 42	sec.	μ	μ	km. 290	dmA 01 dense
				iP iS F	19 59 37 19 59 58 20 17			180	
» 24	Bat.	II,	Mal.	P iS <sub>N</sub>	19 59 54 20 0 20			230	dmA 01
				P F	5 42 24 5 47				
				eP S	5 42 5 5 42 28			200	
» 25	Bat.	I	Mal.	iP S F	10 29 55 10 33 46 10 32			2420	dmA 02
				iP i i <sub>E</sub>	10 29 4 10 30 34 10 34 42				
				iP iS	10 27,4 10 29,0			890	
» 26	Bat.	I <sub>r</sub>	Mal.	P i F	4 24 8 4 30 48 4 36				dmA 02
				iP iS	10 30,1 10 30,7				
				iP	12 30,3				
» 27	Amb.		Amb.	iP iS	15 24,3				dmA 02
				iP	21 33 49				
				F	21 56				
» 29	Bat.	I	Amb.		0.2 0.01				dmA 02
					0.01				
					0.01				
16	Bat.	I	Amb.		0.2 0.01				dmA 02
					0.01				
					0.01				
16	Bat.	I	Amb.		0.2 0.01				dmA 02
					0.01				
					0.01				
16	Bat.	I	Amb.		0.2 0.01				dmA 02
					0.01				
					0.01				
16	Bat.	I	Amb.		0.2 0.01				dmA 02
					0.01				
					0.01				
16	Bat.	I	Amb.		0.2 0.01				dmA 02
					0.01				
					0.01				

# SEISMOLOGICAL BULLETIN.

BATAVIA OBSERVATORY.

APRIL - DECEMBER 1925

1925.	E-W component.			N-S component.		
	V.	T <sub>o.</sub>	$\epsilon.$	V.	T <sub>o.</sub>	$\epsilon.$
April . . . . .	190	7.8	4.0	188	7.4	4.2
May. . . . .	"	7.8	3.6	"	7.3	4.2
June . . . . .	"	7.8	3.0	"	8.0	3.3
July. . . . .	"	7.4	3.0	"	8.1	3.3
August . . . . .	"	7.8	3.0	"	8.2	3.3
September . . . . .	"	7.7	3.1	"	7.9	3.4
October. . . . .	"	7.9	3.1	"	8.1	3.4
November . . . . .	"	7.9	3.9	"	8.2	3.7
December. . . . .	"	8.2	3.7	"	8.4	3.5

## APRIL.

Nº.	Date 1925.	Sta- tions.	Char- acter.	Phase.	Time (Greenwich).	Period	Amplitude (half).		Distance of epi- centre.	Remarks.
							A <sub>E</sub>	A <sub>N</sub>		
					h m s	sec.	$\mu$	$\mu$	km.	Amboina seismograms lacking till April 7th. Time corrections not known.
50	April 2	Bat.	I	P	12 56 55					
				F	12 59					
51	» 7	Bat.	II <sub>r</sub>	i P	18 10 58				2620	MARON: S — P = 5m. 0 s. $\Delta = 3400$ .
				i	18 11 15					
				S	18 15 5					
				F	18 48					
				P	18 10 57					
				i P	18 8.0					
				i S	18 10.0					
				i	18 11 2					
				L	18 48					
	» 8	Amb.		i P	6 54 4					
52	» 8	Bat.	I	P?	15 13 15					
				F	15 16					
				P	15 12 41					
				i	15 12 46					
53	» 9	Bat.	I <sub>v</sub>	P	4 55 14				170	Tjiratjap (Preanger, W. Java).
				i S	4 55 54					
				F	5 1					
				P	4 55 13				110	
				i S	4 55 26					
	» 10	Amb.	—	P	1 4					



No.	Date 1925.	Station.	Char- acter.	Phase.	Time (Greenwich).		Period.	Amplitude half.		Distance of epi- centre.	Remarks.		
					A <sub>E</sub>	A <sub>N</sub>		sec.	$\mu$	$\mu$			
54	April 11	Bat.	II <sub>u</sub>	P	h	m	s	sec.	$\mu$	$\mu$	5860	MARON: S — P = 7 <sup>m</sup> . 7 <sup>s</sup> ; $\Delta$ = 5470.	
				i	10	51	24						
				i	10	52	10						
				i	10	52	54						
			Mal.	S	10	58	51				6050		
				F	12	21							
				P	10	1	22						
				T	10	58	59						
—	" 15	Amb.	I <sub>r</sub>	S	10	55	24				150		
				P	25	56.2							
			I <sub>v</sub>	iP	25	56.4							
				iS	25	56.4							
—	" 15	Amb.	I <sub>r</sub>	P	2	12.2					160		
				S	2	12.5							
			I <sub>v</sub>	P	6	50.6							
				F	10	51							
55	" 15	Bat.	I <sub>r</sub>	eP	10	28	21						
56	" 16	Bat.	I <sub>r</sub>	eP	5	50	16						
57	" 16	Bat.	I <sub>v</sub>	eP	5	56							
58	" 16	Bat.	II <sub>r</sub>	iP	15	9	9				180	Azimuth $\pm$ NS	
				iS	15	9	50						
				F	15	15							
				iP	15	9	2						
			Mal.	iS	15	9	18						
				P	19	59	0						
				i	20	0	21						
				eS	20	4	11						
59	" 16	Amb.	I <sub>r</sub>	L	20	9		14			5580	MARON:	
				F	20	55							
				P	19	59	7						
				eS	20	4	6						
			I <sub>v</sub>	iP	19	56.8							
				S	20	2.4							
				P	22	57	15						
				S	22	58	9						
60	" 17	Bat.	I <sub>r</sub>	P	25	54	12				490		
				F	25	40							
				P	25	55	0						
				P	25	30.2							
			Mal.	S	25	32.6							
				P	11	9	58						
				F	11	26							
				P	11	9	59						
61	" 18	Bat.	I <sub>r</sub>	P	11	7.7					490		
				F	22	24	14						
			I <sub>v</sub>	iP	22	28							
				F	22	28							
62	" 19	Amb.	I <sub>r</sub>	P	0	18.5					4940		
				iS	16	1	28						
			Mal.	F	16	9							
				P	15	55	5						
				e	16	1	40						
(4940)													

No.	Date 1925.	Station.	Char- acter.	Phase.	Time (Greenwich).		Period.	Amplitude half.		Distance of epi- centre	Remarks.	
					A <sub>E</sub>	A <sub>N</sub>		sec.	$\mu$	$\mu$		
63	April 20	Bat.	I	P	10	26	4				2630	Halmahera. MARON: S — P = 3 <sup>m</sup> 29 <sup>s</sup> $\Delta$ + 2150.
				F	10	40						
				P	10	25	32					
				i	10	55	24					
			Mal.	P	10	22.5						
				P	11	40						
				F	11	44						
				P	25	15	41					
64	" 21	Bat.	I	eP	11	40						

No.	Date 1925.	Station.	Char- acter.	Phase.	Time (Greenwich).			Period.	Amplitude (half).		Distance of epi- centre.	Remarks.
					A <sub>E</sub>	A <sub>N</sub>	sec.		μ	μ		
72	May 2	Amb.	I <sub>v</sub>	iP	5	55,4		120			km.	
				iS	5	56,0						2160
				P	5	51	51					
				iS	5	52	5					
				F	5	54						
		Mal.	I <sub>v</sub>	P	5	52	0	160				
				eP <sub>N</sub>	7	53	5					
				eP <sub>E</sub>	7	53	10					
				i	7	54	4					
				F	7	58						
73	» 2	Bat.	I <sub>v</sub>	P	7	52	52	150				
				S	7	53	9					
				T	7	56						
				F	8	57	27					
				F	8	40						
		Mal.	I <sub>v</sub>	P	8	56	46	20				
				S	8	57	5					
				F	8	40						
				P	17	26	53					
				iP	17	26	57					
74	» 2	Mal.	I <sub>v</sub>	i <sub>1</sub>	17	27	45	2550				
				i <sub>2N</sub>	17	30	9					
				S	17	30	54					
				L	17	54						
				F	18	15						
		Amb.	I <sub>r</sub>	eP	17	26	53	2580				
				S	17	50	24					
				L	17	52						
				F	17	55						
				P	17	21,0						
75	» 3	Bat.	III <sub>r</sub>	S <sub>E</sub>	17	22,0		520				
				eP	23	8	24					
				F	0	11						
				P	25	8	24					
				F	25	40						
		Mal.	I <sub>r</sub>	P	23	17,0		2760				
				S <sub>N</sub>	4	10	2					
				L	4	15						
				F	4	24						
				P	4	5	10					
76	» 3	Mal.	I <sub>r</sub>	P	4	1,6		630				
				S	4	5,8						
				L	4	15						
				F	4	24						
				P	4	5	10					
		Amb.	I <sub>r</sub>	P	23	17,0		2760				
				S <sub>N</sub>	4	10	2					
				L	4	15						
				F	4	24						
				P	4	5	10					
77	» 4	Mal.	I <sub>r</sub>	eP	4	5	45	20				
				S <sub>N</sub>	4	10	2					
				L	4	15						
				F	4	24						
				P	4	5	10					
		Amb.	I <sub>r</sub>	P	4	1,6		1210				
				S	4	5,8						
				L	4	15						
				F	4	24						
				P	4	5	10					
78	» 4	Mal.	I <sub>r</sub>	eP	9	47,4		20				
				F	9	59						
				P	9	47,5						
				P	9	44,0						
				S <sub>N</sub>	9	55	51					
		Amb.	I <sub>r</sub>	P	11	55	51	89				
				S <sub>N</sub>	11	54						
				P	11	53	44					
				P	11	52,7						
				S <sub>N</sub>	13	29,7						
79	» 4	Mal.	I <sub>r</sub>	P	13	29,8		89				
				S <sub>N</sub>	13	29,8						
				P	11	55	51					
				S <sub>N</sub>	11	54						
				P	11	53	44					

No.	Date 1925.	Station.	Char- acter.	Phase.	Time (Greenwich).			Period.	Amplitude (half)		Distance of epi- centre.	Remarks.
					A <sub>E</sub>		A <sub>N</sub>		A <sub>E</sub>	A <sub>N</sub>		
90	May 6	Bat. Amb.	I <sub>v</sub>	P	9	57		sec.	$\mu$	$\mu$	km.	Traces. Menado.
				P	9	55.0						
				S	9	54.0						
91	» 7	Bat.	II <sub>v</sub>	i <sub>1</sub>	6	4	26	sec.	$\mu$	$\mu$	km.	Azimuth N 54.2 E. Central Java. MARON: S — P = 55 <sup>s</sup> ; $\Delta = 310$ .
				i <sub>2</sub>	6	4	47					
				i <sub>3</sub>	6	5	18					
				i <sub>4</sub>	6	5	44					
				F	6	18						
				iP	6	4	9					
				iS <sub>E?</sub>	6	4	26					
				150?								Needles thrown off.
92	» 7	Bat.	I <sub>v</sub>	iS	10	25	45	sec.	$\mu$	$\mu$	km.	Troubled by street traffic. Central Java.
				F	10	28						
				iP	10	25	2					
				iS	10	25	15					
93	» 7	Bat.	I <sub>v</sub>	eP	12	17	21	sec.	$\mu$	$\mu$	km.	Azimuth E S E.
				F	12	34						
94	» 7	Bat	I <sub>v</sub>	P	14	59	49	sec.	$\mu$	$\mu$	km.	Azimuth E S E.
				L	14	50						
				F	15	8						
				P	15	59	47					
—	» 7	Amb.	i	i	14	51,7		sec.	$\mu$	$\mu$	km.	Azimuth E S E.
				i	15	17,8						
95	» 7	Bat.	I <sub>v</sub>	P	15	47	42	sec.	$\mu$	$\mu$	km.	Azimuth E S E.
				F	15	56						
				i	15	44,7						
				Amb.								
—	» 7	Amb.	P	18	21,1		sec.	$\mu$	$\mu$	km.	Tjibinong (W. Preanger)	
				S	21,7							
96	» 7	Bat.	I <sub>v</sub>	P	18	52	59	sec.	$\mu$	$\mu$	km.	Tjibinong (W. Preanger)
				i <sub>1</sub>	18	53	20					
				i <sub>2</sub>	18	53	52					
				S	18	54	12					
				F	19	2						
				P	18	53	11					
				S?	18	53	59					
				i <sub>N</sub>	18	54	18					
97	» 8	Bat.	I <sub>v</sub>	P	11	45	12	sec.	$\mu$	$\mu$	km.	Maron: S — P = 7 <sup>m</sup> 55 <sup>s</sup> ; $\Delta = 6010$ .
				i	11	47						
98	» 9	Bat.	I <sub>v</sub>	eP	5	42,5		sec.	$\mu$	$\mu$	km.	Maron: S — P = 7 <sup>m</sup> 55 <sup>s</sup> ; $\Delta = 6010$ .
				S	5	46	18					
				F	5	56						
				Mal.	P	5	42					
—	» 9	Amb.	iP	P	5	58,9		sec.	$\mu$	$\mu$	km.	Maron: S — P = 7 <sup>m</sup> 55 <sup>s</sup> ; $\Delta = 6010$ .
				iS	5	40,2						
99	» 9	Bat.	I <sub>v</sub>	P	21	46	48	sec.	$\mu$	$\mu$	km.	Maron: S — P = 7 <sup>m</sup> 55 <sup>s</sup> ; $\Delta = 6010$ .
				F	21	50						
100	» 10	Bat.	I <sub>v</sub>	e	5	8,9		sec.	$\mu$	$\mu$	km.	Maron: S — P = 7 <sup>m</sup> 55 <sup>s</sup> ; $\Delta = 6010$ .
				F	5	17						
				Mal.	P	5	5,28					
				Amb.	P	5	2,1					
				S	5	2,9						
												Minahasa and Ternate.

Nº.	Date 1925.	Station.	Char- acter.	Phase.	Time (Greenwich).			Period.	Amplitude (half)		Distance of epi- centre.	Remarks.
A<sub>E</sub>	A<sub>N</sub>	sec.	$\mu$	$\mu$								

No.	Date 1925.	Sta- tion.	Char- acter.	Phase.	Time (Greenwich).	Periode.	Amplitude (half).		Distance of epi- centre.	Remarks.	
							A <sub>E</sub>	A <sub>N</sub>			
112	May 23	Bat.	I <sub>v</sub>	iP	6 55 57	sec.	51	8	150	W. Preanger.	101
				iS	6 55 54		54	8		Jaff	201
				F	6 42		54	8		Mal	—
		Mal.		P	6 55 44		56	0	150	Centraal Java	—
				S	6 54 1		56	2	Centraal Java	—	
				F	6 58		56	1	Centraal Java	—	
113	» 24	Bat.	I <sub>v</sub>	iP	25 51 49		20	0	200	Vlakte Hoek (Benkoelen). MARON: S — P = 1 <sup>m</sup> ?	101
				iS	25 52 12		20	0		Jaff	201
				F	25 41		18	6		Mal	—
		Mal.		P	25 32 1		20	2	320	Centraal Java	—
				S	25 32 57		22	2	Centraal Java	—	
									Centraal Java	—	
114	» 25	Bat.	II <sub>r</sub>	P	3 48 22		82	0	2890	Azimuth N.E. MARON: S — P = 5 <sup>m</sup> 58 <sup>s</sup> ; △ = 2490.	101
				S	3 52 49		41	6		Jaff	201
				L	3 55		22	1		Mal	—
		Mal.		F	4 21		44	1		Amb	—
				P	3 48 50		84	1		Jaff	201
				i	3 48,7		36	1		Mal	—
115	» 26	Bat.	I	L	3 54,1		44	1	2890	Centraal Java	—
				P	15 53 46		03	1		Jaff	201
				F	15 58		03	0		Mal	—
		Mal.		P	2 58 16		72	0	5100	Jaff	201
				S	2 45 2		24	0		Mal	—
				F	2 55		24	0		Amb	—
116	» 27	Bat.	I <sub>u</sub>	P	2 58 27		002	21	5070	Centraal Java	—
				S	2 45 11		202	21		Jaff	201
				iP	2 58,2		202	21		Mal	—
		Amb.		iS	2 45,6		22	1	5800	Jaff	201
										Mal	—
										Amb	—
117	» 28	Bat.	I <sub>v</sub>	P	4 15		81	22	6140?	Traces. Benkoelen.	101
				F	6 4 44		74	12		Jaff	201
				iS?	6 12 25		74	12		Mal	—
		Mal.		F	6 55		32	1	6270?	Jaff	201
				P	6 4 42		201	8		Mal	—
				S?	6 12 30		202	8		Amb	—
119	» 29	Bat.	I	P	9 44 46		091	8	6140?	Traces. Benkoelen.	101
				F	9 47		74	8		Jaff	201
				P	9 44 57		05	04		Mal	—
		Bat.		P	9 44 57		05	04	6270?	Jaff	201
				F	9 47		74	8		Mal	—
										Amb	—
120	» 30	Mal.	I	P	22 21 22		8	0	6140?	Traces. Benkoelen.	101
				F	22 25		6	6		Jaff	201
				P	22 21 1		5,06	8		Mal	—

## JUNE.

121	June 2	Bat.	I <sub>v</sub>	iP	1 47 9		108	0	270	Southern Sumatra. Azimuth E S E.	101
				iS	1 47 40		108	0		Jaff	201
				F	1 56		24	1		Mal	—
		Mal.		P	1 47 25		24	1		Jaff	201
				F	1 52		24	1		Mal	—
										Amb	—
122	» 2	Bat.	I <sub>r</sub>	e	5 28,2		84	0	4300?	Sumatra and Celebes.	101
				S	5 36 5		87	1		Jaff	201
				F	5 45		87	1		Mal	—
—	» 3	Amb.	i	4	2,8		81	1			

No.	Date 1925.	Station.	Character.	Phase.	Time (Greenwich).			Period.	Amplitude (half)		Distance of epi- centre.	Remarks.
					h	m	s		sec.	$\mu$		
123	June 3	Bat.	III <sub>r</sub>	P	4	58	59	sec.	$\mu$	$\mu$	km. 2570	Minahasa and Ternate. MARON: S? — iP = 3,8 <sup>m</sup> $\Delta = 2540?$
				i	4	59	32					
				S	4	42	43					
				L	4	47	41					
				F	5	47						
				P	4	58	53					2450
				S	4	42	50					
				i	4	50	8					
				F	5	20						
				iP	4	57,4						2480
				i	4	37,5						
				S	4	58,5						Azimuth S 28,4 E.
124	• 4	Bat.	I	i	7	5	45					
				F	7	15						
				Amb.	i	6	58,9					
—	• 5	Mal.		P	15	45	54					
				iS	15	45	48					
				F	15	46						
125	• 8	Bat.	I	P	0	3						
				M	0	17						
				F	0	37						
—	• 8	Mal		P	15	29	23					
				S	15	29	37					
126	• 9	Bat.	II <sub>r</sub>	P <sub>E</sub>	15	47	12					
				i <sub>1</sub>	15	48	37					
				i <sub>2</sub>	15	49	50					
				S?	15	53	12					
				L	14	2						
				F	15	16						
				P	15	47	21					
				i	15	49	8					
				eL	15	53						
				F	14	20						
				Amb.	P	15	45,3					
					S	15	50,6	17				3620
—	• 9	Mal.		P	21	23	25					
				S	21	23	29					40
127	• 11	Bat.	I	P	16	4	58					
				F	16	19						
128	• 12	Bat.	I <sub>v</sub>	P	11	5	52					
				S	11	6	48					
				F	11	47						
				P <sub>E</sub>	11	4,1						
				i <sub>N</sub>	11	4,8						2340
				S	11	7,9						
				i	11	8,1						
129	• 13	Bat.	I <sub>v</sub>	P <sub>N</sub>	12	30	0					
				iS	12	30	50					
				F	12	33						
130	• 14	Bat.	I	P	16	55	55					
				S?	16	56	1					250?
				F	17	3						

No.	Date 1925.	Sta- tion	Char- acter.	Phase.	Time (Greenwich).			Period.	Amplitude (half).		Distance of epi- centre.	Remarks.
					A <sub>E</sub>		A <sub>N</sub>		A <sub>E</sub>	A <sub>N</sub>		
—	June 16	Mal.		iP?	20	20	50	sec.	μ	μ	km.	
—	* 17	Mal.		P	6	6	52				50	
—				iS	6	6	57					
131	* 17	Bat.	I <sub>v</sub>	iP	21	57	42				150	West Preanger (Java).
				iS	21	57	57					
				F	12	41						
				iP	21	57	52					
				iS	21	58	12					
—	* 19	Mal.		P	22	19	15				90	
—				iS	22	19	24					
132	* 20	Bat.	I	P	13	20	31					
—	* 23	Mal.		eP	17	24	40				200	
—				iS	17	45	3					
—	* 24	Amb.		iP	16	56,7					250	
—				S	16	57,1						
—	* 25	Amb.		P	16	2,2					60	
—				S	16	2,5						
—	* 26	Amb.		P	20	55,6					540	Minahasa.
—				S	20	56,6						
133	* 27	Bat.	I	P	2	20						
134	* 28	Bat.	I <sub>u</sub>	eP	1	43	28					
				L	2	36						
				F	5	7						
135	* 28	Bat.	I	iF	6	28	6					
				F	6	57						
136	* 28	Bat.	I	i	13	47						i in hour mark
				F	14	15						
—	* 50	Mal.		P	21	51	55					

## JULY.

—	July 1	Mal.		P	1	10	16				150	
				iS	1	10	54					
137	* 4	Bat.	I <sub>u</sub>	P	9	18	15				5190	P in minute mark.
				S	9	28	50					
				L	9	34						
				F	9	47						
				P	9	18	54				5160	
				S	9	25	24					
				F	9	51						
				P <sub>E</sub>	9	16,6						
				i	9	17,2						
				i	9	21,2						
				i <sub>N</sub>	9	21,9						
				L	9	28,0						
138	* 4	Bat.	I <sub>r</sub>	eF	22	21	54					Tomohon (Menado).
				F	22	57						

No.	Date 1925.	Sta- tion	Char- acter.	Phase.	Time (Greenwich).			Period.	Amplitude (half).		Distance of epi- centre.	Remarks.
					A <sub>E</sub>		A <sub>N</sub>		μ	μ		
—				eP	22	21	37				2500	
—				S	22	25	36				690	
—				iP	22	18,6						
—				i	22	19,5						
—				S	22	19,9						
139	July 6	Bat.	I	iP	7	15	44					
—				i	7	24	27					
140	* 6	Bat.	I	eP	12	27	23					
—				i	12	39	26					
141	* 6	Bat.	II <sub>v</sub>	iP	21	59	28				260	
—				iS	21	59	57					
—				F	21	52						
—				P	21	59	28				200	
—				S	21	59	51					
142	* 7	Bat.	I <sub>v</sub>	iP	5	50	46				510	
—				S	5	51	42					
—				F	5	55						
143	* 7	Bat.	I	P	8	23	52					
—				F	8	37						
144	* 7	Bat.	I	P	14	51						
—				F	14	41						
—	* 9	Mal.		P	12	25	59				80	Tjikentjreng (E. Preanger).
—				iS	12	25	48					
—				F	12	25						
—	* 12	Amb.		P	4	57,8						
145	* 12	Bat.	I <sub>v</sub>	P	18	56	44				550	
—				S	18	57	42					
—				F	18	59						
—				eP	18	56	54				250	
—				iS	18	57	2					
—				F	18	59						
—	* 12	Mal.		eP	20	51,6					580	
—				S	20	52	18					
—	* 13	Mal.		iP	17	59	9				90	
—				iS	17	59	20					
—	* 14	Amb.		iP	10	29,7					160	
—				iS	10	30,0						
—	* 15	Mal.		iP	8	2	4				40	
—				iS	8	2	9					
—	* 16	Mal.		P								

Nº.	Date 1925.	Sta- tion.	Char- acter.	Phase.	Time (Greenwich).			Period	Amplitude (half)		Distance of epi- centre.	Remarks.
					A <sub>E</sub>		A <sub>N</sub>		A <sub>E</sub>	A <sub>N</sub>		
148	July 17	Mal.	I	iS	17	0	37	sec.	μ	μ	km.	
				i	17	0	52					
				F	17	28						
				P	17	0	10					
				i	17	0	51					
		Amb.	I	i	7	1						
				e	21	14						
				L	21	58						
				F	21	47						
				iP <sub>E</sub>	21	10,1						
149	" 17	Bat.	I	L	21	13,0	36					
				i	21	15,0	16.7					
—	" 18	Mal.	I	eP	22	38,9						
				F	22	57						
150	" 25	Bat.	I	eP	1	0,5						
				iS	1	1	2					
151	" 26	Bat.	I	P	10	9	8					
				F	10	12						
—	" 26	Mal.	I	P	0	50	50					
				i	0	50	53					
—	" 26	Amb.	I	S	0	51	46					
				F	0	57						
—	" 26	Amb.	I	eP	0	50	46					
				i	0	51	11					
—	" 26	Amb.	I	F	0	55						
				P	5	50,1						
—	" 26	Amb.	I	iS	5	50,2						
				iP	13	24,6						
152	" 26	Amb.	I	iS	13	24,8						
				P	4	42	29					
—	" 28	Bat.	I	F	4	58						
				iP	4	38,6						
—	" 28	Amb.	I	iS	4	39,5						
<b>AUGUST.</b>												
153	Aug. 1	Mal.	I	P	0	9	54					
				S	0	10	49					
				F	0	13						
				e	0	9	59					
				i	4	34,6						
		Amb.	I	i	4	56,9						
				P	21	26	41					
				F	21	32						
				i <sub>1</sub>	3	41,9						
				i <sub>2</sub>	3	42,2						
155	" 3	Bat.	I	P	12	20	27					
				i <sub>1</sub>	12	20	37					
				i <sub>2</sub>	12	21	19					
				F	12	23						
				P	12	20	42					
156	" 3	Mal.	I	S	12	20	58					
				i	7	1						
				eP	20	25	0	sec.	μ	μ	km.	S W Salak.
				F	20	26						
				i	21	31	25					
157	" 5	Mal.	II	P	21	31	31					
				iS?	21	31	41					
				i	21	32	21					
				M	21	32	58	6.2	624	560		
				F	21	40						
		Amb.	I	P	21	31	35					
				iS	21	31	48					
				i	21	32	4					
				F	21	36						
				i	3	12	2					
158	" 6	Mal.	I	P	3	12	7					
				i <sub>2</sub>	3	12	58					
				F	3	14						
				P	3	12	10					
				S	3	12	26					
		Amb.	I	P	6	38	44					
				F	6	40						
				iP	14	29	54					
				iS	16	36						
				i	19	49,6						
159	" 6	Amb.	I	iS	19	50,3						
				P	6	38	44					

No.	Date 1925.	Station.	Character	Phase.	Time (Greenwich).	Period.	Amplitude (half).		Distance of epi- centre	Remarks.
							A <sub>E</sub>	A <sub>N</sub>		
—	Aug. 17	Amb.		P	h 8 26.7	sec.	μ	μ	km.	
				i S	8 28.5		88	88	1000	Sept. 10
179	» 17	Bat.	I	i	9 29 9		88	88		
				F	9 34		88	88		Sept. 01
—	» 19	Mal.		P	11 57 56		88	88		
				F	12 0		88	88		
180	» 19	Bat.	I <sub>u</sub>	P	12 20 40		88	88	7570	Sept. 11
				S	12 29 55		88	88		Sept. 11
				L	12 45		88	88		Sept. 11
				F	13 34		88	88		Sept. 11
		Mal.		L	12 34		88	88		Sept. 11
		Amb.		e	12 11.2		88	88	7100	Sept. 21
				i S	12 19.7		88	88		Sept. 21
				L	12 28		88	88		Sept. 21
—	» 20	Amb.		i P	16 55.2		88	88	2920	Sept. 31
				S	16 54.9		88	88		Sept. 31
—	» 24	Mal.		i P	7 41 52		88	88		
181	» 28	Bat.	I <sub>v</sub>	P	5 14 1		88	88	420	Sept. 31
				S	5 14 48		88	88		Sept. 31
				F	5 17		88	88		Sept. 31
		Mal.		i P	5 14 21		88	88	110	Sept. 31
				i S	5 14 54		88	88		Sept. 31
				F	5 18		88	88		Sept. 31
182	» 31	Bat.	I	L	10 21		88	88		
<b>SEPTEMBER.</b>										
—	Sept. 1	Amb.		P	17 4.1		88	88	90	
				i S	17 4.5		88	88		
183	» 1	Bat.	I <sub>v</sub>	P	15 41 54		88	88		
				i S	15 44 52		88	88	160	
				F	15 44		88	88		
184	» 1	Bat.	I <sub>v</sub>	P	15 57 22		88	88		
				S	15 58 7		88	88	400	Benkoelen (S. Sumatra).
				F	16 5		88	88		
185	» 2	Bat.	I <sub>v</sub>	P	14 17 59		88	88	150	Preanger and Banjoeemas (W. Java).
				S	14 18 16		88	88		
				F	14 21		88	88		
		Mal.		i P	14 17 31		88	88	110	
				i S	14 17 44		88	88		
				F	14 52		88	88		
—	» 3	Amb.		P	7 56.4		88	88	250	
				i S	7 56.9		88	88		
—	» 9	Amb.		i P	21 26.7		88	88		
				i S	21 26.8		88	88		
186	» 10	Bat.	I	e	13 6.4		88	88	15?	Amboina.
				F	13 25		88	88		

No.	Date 1923	Sta- tion.	Char- acter.	Phase.	Time (Greenwich).	Period.	Amplitude (half).		Distance of epi- centre.	Remarks.
							A <sub>E</sub>	A <sub>N</sub>		
—	Sept. 26	Amb.		e P i S	h 11 0.7 11 2.7	sec.	p 08	p 12	km. 1110	
192	» 26	Bat.	I	i P F	11 44 54 11 48		08	08		
193	» 29	Bat.	I <sub>v</sub>	P S F	12 17 6 12 17 27 12 21		08	08	180	Jaff

## OCTOBER.

194	Oct. 1	Bat.	I	P F P F	6 50 0 6 54 6 29 24 6 50 0		00	00		Jaff
		Mal.		P F P F	6 29 24 6 50 0		00	00		
195	» 2	Bat.	I <sub>r</sub>	P S F P F P F i i S	4 40 41 4 44 11 4 54 4 40 51 4 48 4 57.5 4 57.6 4 58.5		08	08	2140	Ternate, Minabasa.
		Mal					08	08		
		Amb.		P F P F i i S	4 40 51 4 48 4 57.5 4 57.6 4 58.5		08	08	680	Jaff
—	» 2	Amb.		P S	10 2.3 10 5.6		00	00		640
196	» 5	Bat.	I	P F	11 21 14 11 25		00	00		
197	» 5	Bat.	I	P i <sub>1</sub> i <sub>2</sub> i <sub>3</sub> F e P i F P S	4 28 57 4 29 12 4 50 15 4 40 57 5 7 4 29 4 4 40 20 4 46 4 25.1 4 25.5		00	00		
		Mal.					00	00		
		Amb.					00	00	200	
—	» 6	Mal.		P F	17 55 47 17 55		00	00		
198	» 7	Bat.	I <sub>v</sub>	i P i S F i P i S	20 6 46 20 7 9 20 13 20 7 0 20 7 55		00	00	200	Java's 1ste Punt and Vlakke Hoek (S. Sumatra).
		Mal.					00	00	510	
—	» 8	Amb.		P i	11 41.5 11 41.9		00	00		
—	» 9	Amb.		e i <sub>1</sub> i <sub>2</sub>	6 41.6 6 45.0 6 55.6		00	00		
—	» 9	Mal.		P F	14 51 54 14 52		00	00		

No.	Date 1925.	Station.	Character.	Phase.	Magnitude			Time (Greenwich).	Period	Amplitude half.		Distance of epi- centre.	Remarks.
					A <sub>E</sub>	A <sub>N</sub>	sec.			$\mu$	$\mu$	km.	
199	Oct. 12	Bat.	I <sub>v</sub>	iP	1	21	27	Benkoelen (S. Sumatra).	km.	$\mu$	$\mu$	sec.	Disturbed by street traffic.
				i <sub>1</sub>	1	21	59						
		Mal.	I <sub>v</sub>	i <sub>2</sub>	1	22	25						
				i <sub>3</sub>	1	23	2						
				F	1	28							
	» 12	Bat.	I <sub>u</sub>	eP	1	21	46						
				F	1	26							
				P	5	54	0						
				S <sub>E</sub>	6	1	24						
				S <sub>N</sub>	6	1	32						
200	» 12	Mal.	I <sub>v</sub>	F	6	55		3790	Disturbed by street traffic.	$\mu$	$\mu$	sec.	3790
				P	5	54	0						
				S	6	0	36						
				F	6	50							
				P	5	54	0						
	» 13	Bat.	I <sub>u</sub>	S <sub>E</sub>	6	1	24	4950	4950	$\mu$	$\mu$	sec.	4950
				S <sub>N</sub>	6	1	32						
				F	6	55							
				P	5	54	0						
				S	6	0	36						
201	» 13	Mal.	I <sub>v</sub>	F	6	50		618	618	$\mu$	$\mu$	sec.	618
				P	18	0	28						
				L	18	51	55						
				M <sub>E</sub>	18	55	41						
				M <sub>E</sub>	19	2	51						
	» 14	Amb.	I <sub>v</sub>	M <sub>N</sub>	19	7	16	Traces.	Traces.	$\mu$	$\mu$	sec.	Traces.
				F	19	40							
				P	18	0	34						
				F	19	50							
				i <sub>1</sub>	18	0.1							
202	» 14	Bat.	I <sub>v</sub>	i <sub>2</sub>	18	5.5		880	880	$\mu$	$\mu$	sec.	880
				L	18	26							
				P	8	47	57						
				F	8	50							
				iP	11	59	11						
205	» 14	Bat.	I <sub>v</sub>	F	11	42		760	760	$\mu$	$\mu$	sec.	760
				e	17	23	38						
				F	17	52							
				P	21	47.2		1650	1650	$\mu$	$\mu$	sec.	1650
				iS	21	47.8							
204	» 14	Amb.	I <sub>v</sub>	iP	7	16.3		500	500	$\mu$	$\mu$	sec.	500
				iS	7	16.8							
				P	21	47.2							
				iS	21	47.8							
				iP	7	16.3							
206	» 15	Amb.	I <sub>v</sub>	iS	7	16.8		260	260	$\mu$	$\mu$	sec.	260
				P	12	45	6						
				i <sub>E</sub>	12	55	6						
				i <sub>N</sub>	12	55	25						
				F	13	16							
	» 15	Mal.	I <sub>v</sub>	eL	12	45	58	180	180	$\mu$	$\mu$	sec.	180
				F	12	56							
				iP	15	5							

No.	Date 1925.	Station.	Character.	Phase.	Time (Greenwich).			Period.	Amplitude (half)		Distance of epi- centre.	Remarks.
					A <sub>E</sub>	A <sub>N</sub>			A <sub>E</sub>	A <sub>N</sub>		
199		Mal.		P	h	m	s	sec.	μ	μ	km.	
				S	1	27	47		150			
				F	1	28	2					
217	Oct. 50	Bat.	I <sub>v</sub>	eP	11	7	10					
				S	11	11	14		2570			
				F	11	21						
				P	11	7	24		2590			
				S	11	11	29					
				F	11	14						
		Amb.		i	11	5	9					
218	" 50	Bat.	I	eP	14	51	10					
				S	14	58	42		5950			
				F	15	7						
				P	14	51	5		5710?			
				S?	14	58	23					
				F	15	5						
		Amb.		i	14	50	5					
219	" 50	Bat.	I	P	15	16	51					
				iS	15	17	9		550			
				F	15	21						
				P	15	16	48		310			
				S	15	17	25					
				F	15	20						
220	" 50	Bat.	II <sub>v</sub>	P	19	8	24					
				iS	19	9	7		580			
				F	19	25						
				P	19	8	42		500			
				S	19	9	57					
				F	19	17						

## NOVEMBER.

221	Nov. 1	Bat.	I <sub>v</sub>	P	0	26	44		490	F lost in changing sheets.		
		Mal.		S	0	27	58					
				P	0	26	28					
				F	0	52						
222	" 2	Bat.	I	P	15	25	54					
				F	15	27						
		Mal.		P	15	25	55		140			
				iS	15	25	51					
				F	15	27						
223	" 2	Bat.	II <sub>v</sub>	P	16	58	15		200	Azimuth E S E. Preanger.		
				iS	16	58	58					
				F	17	21						
				P	16	58	50		420?			
				iS?	16	59	17					
				F	17	5						
224	" 5	Bat.	I <sub>v</sub>	P	18	1	56		150	Preanger. MARON: S — P = 42 <sup>s</sup> △ = 370.		
				S	18	1	55					
				F	18	6						
		Mal.		iP	18	1	40		90			
				iS	18	1	50					
				F	18	4						
--	" 5	Mal.		P	20	2	27		80			
				iS	20	2	58					
				F	20	4						

No.	Date 1925.	Station.	Character.	Phase.	Time (Greenwich).			Period.	Amplitude (half)		Distance of epi- centre.	Remarks.
					A <sub>E</sub>	A <sub>N</sub>			A <sub>E</sub>	A <sub>N</sub>		
225	Nov. 6	Bat.	I	P	5	57	44					
		Mal.		F	5	47						
				P	5	57	16					
226	" 7	Amb.		P	16	25,4						
				i	16	24,5						
227	" 8	Mal.	I <sub>v</sub>	eP	5	45	25					
				F	6	9						
228	" 10	Bat.	III <sub>r</sub>	e <sub>E</sub>	15	55	45					
				iP	15	55	51					
		Mal.		S	14	0	18					
				L <sub>1</sub>	14	8	56					
				L <sub>2</sub>	16	49	18	20,5				
				F	17	7						
		Mal.		P	15	55	46					
				S	14	0	2					
				L	14	5						
				F	15	22						
		Amb.		iP	15	55,8						
				S?	15	54,4						
229	" 15	Bat.	I <sub>r</sub>	P	0	27	18					
		Mal.		iS	0	29	17					
				F	0	39						
				P	0	27	8					
				S	0	29	1					
				F	0	52						
230	" 15	Bat.	III <sub>r</sub>	iP	12	20	25					
				S	12	26	11					
				i <sub>E</sub>	12	28	6					
				i <sub>N</sub>	12	28	51					
				L	12	50	48					
				M <sub>E</sub>	12	51	46					
				e	14	6	51					
				L	15	14	6					

No.	Date 1925	Sta- tion.	Char- acter.	Phase.	Time (Greenwich).			Period.	Amplitude (half). A <sub>E</sub>   A <sub>N</sub>	Distance of epi- centre.	Remarks.
					h	m	s				
252	Nov. 14	Bat.	I <sub>r</sub>	P	10	9	9	sec.	μ	μ	km. MARON: S — P = 5 <sup>m</sup> 18 <sup>s</sup> △ = 1990.
				i <sub>E</sub>	10	11	55				
		Mal.	I <sub>v</sub>	i <sub>E</sub>	10	14	47				
				F	10	39					
255	" 14	Bat.	I <sub>r</sub>	eP	14	42	29				In minute mark. Fore shock of No. 258.
				i <sub>E</sub>	14	47	10				
				F	15	25					
				i <sub>1</sub>	19	56	42				
254	" 13	Bat.	I <sub>v</sub>	i <sub>2</sub>	19	56	55	7.4			Fore shock of No. 258.
				i <sub>3</sub>	19	57	55	5.0			
				F	19	59					
				i <sub>1</sub>	19	44	22				
255	" 13	Bat.	I <sub>v</sub>	i <sub>2</sub>	19	44	54	7.4			Fore shock of No. 258.
				i <sub>3</sub>	19	45	17	5.0			
				F	19	46					
				P <sub>E</sub>	21	50	11				
256	" 15	Bat.	I <sub>v</sub>	F	21	52					Fore shock of No. 258.
				i <sub>1</sub>	9	10	14				
				i <sub>2</sub>	9	10	26	7.4			
				i <sub>3</sub>	9	11	8	5.0			
257	" 16	Bat.	I <sub>v</sub>	F	in next.						Buitenzorg and Tjitjoeroeg (W. Java).
				i <sub>1</sub>	9	12	41				
				i <sub>2</sub>	9	12	45				
				i <sub>3</sub>	9	12	55	7.4			
258	" 16	Bat.	I <sub>v</sub>	F	9	16					Aftershock of No. 258.
				i <sub>1</sub>	9	12	41				
				i <sub>2</sub>	9	12	45				
				i <sub>3</sub>	9	12	55				
259	" 16	Bat.	I <sub>v</sub>	F	9	14					Aftershock of No. 258.
				i <sub>1</sub>	9	41	18				
				i <sub>2</sub>	9	41	50	7.4			
				i <sub>3</sub>	9	42	15	5.0			
260	" 16	Bat.	I <sub>v</sub>	F	9	45					Aftershock of No. 258.
				i <sub>1</sub>	9	50	16				
				i <sub>2</sub>	9	50	28	7.4			
				i <sub>3</sub>	9	52					
261	" 16	Bat.	I <sub>v</sub>	F	10	8	47				Aftershock of No. 258.
				i <sub>1</sub>	10	10					
				i <sub>2</sub>	10	14					
				i <sub>3</sub>	10	22	29				
262	" 16	Bat.	I <sub>v</sub>	F	10	22	41	7.4			Aftershock of No. 258.
				i <sub>1</sub>	10	25	24	5.0			
				i <sub>2</sub>	10	26					
				i <sub>3</sub>	10	59	50				
263	" 16	Bat.	I <sub>v</sub>	F	10	42					Aftershock of No. 258.
				i <sub>1</sub>	12	14	57				
				i <sub>2</sub>	12	15	59				
				i <sub>3</sub>	12	19	12				
264	" 16	Bat.	I	F	12	47					Buitenzorg and Tjitjoeroeg (W. Java).
				iP	12	14	57				
				iN	12	15	59				
				iF	12	14	55				
265	" 16	Bat.	I	F	12	20					Aftershock of No. 258.
				iP	13	29					
				iN	13	30					
				iF	13	31					

No.	Date 1925	Sta- tion.	Char- acter.	Phase.	Time (Greenwich).			Period.	Amplitude (half). A <sub>E</sub>   A <sub>N</sub>	Distance of epi- centre.	Remarks.
					h	m	s				
245	Nov. 16	Bat.	I <sub>u</sub>	L	13	29		sec.	μ	μ	km.
246	" 16	Bat.	I <sub>v</sub>	i <sub>1</sub>	18	15	4				Tjitjoeroeg (W. Preanger). Aftershock of No. 258.
247	" 17	Bat.	I <sub>v</sub>	i <sub>2</sub>	18	15	16	7.4			Aftershock of No. 258.
248	" 17	Bat.	I <sub>v</sub>	F	6	20	48				Azimuth S W.
249	" 17	Bat.	I	iP	21	29	31				Azimuth S W.
250	" 19	Bat.	I <sub>r</sub>	F	14	11	17				2050?
251	" 20	Bat.	I <sub>v</sub>	S?	14</						

No.	Date 1925.	Station.	Char- acter.	Phase.	Time (Greenwich).			Periode.	Amplitude (bali).		Distance of epi- centre	Remarks.	
					h	m	s		sec.	A <sub>E</sub>	A <sub>N</sub>		
254	Nov. 28	Bat.	I	e i <sub>N</sub> F	14	0	26			μ	μ	km.	Benkoelen?
					14	11	22						
255	" 28	Bat.	I <sub>r</sub>	P i <sub>N</sub> i <sub>E</sub> L F	16	25	40						
					16	35	14						
					16	45	34						
				Amb.	i	16	28						
					L	16	21,5						
						16	56	28					

## DECEMBER.

256	Dec. 2	Bat.	I	e P F	11	57	51						After shock.
—	" 2	Amb.		i P i S	12	25,7							
—	" 5	Amb.		i	14	45,7							
—	" 4	Amb.		i P i S	4	25,4						220	Azimuth SSW.
—	" 5	Amb.		i P i S i	7	20,4						220	
					7	20,8							
					7	20,9							
257	" 5	Bat.	I	e i F	7	55,5							Intermediate and Triggering
					7	56	57						
					7	42							
—	" 6	Amb.		i P S <sub>E</sub> ?	0	56,5					580		
					0	57,0							
258	" 6	Bat.	I	P F	1	1	4						After shock of No. 256.
			Mal.	P S	1	9							
				S F	1	0	58				90		
					1	1	9						
					1	2							
259	" 7	Bat.	I <sub>r</sub>	e L F	8	47,4							After shock of No. 256.
					9	5	56						
					9	20							
260	" 8	Bat.	II <sub>r</sub>	e P S?	0	57	18				910?		After shock of No. 256.
			Mal.	F	1	7							
				P?	0	57	52						After shock of No. 256.
				i	0	58	11						
				F	1	0							
261	" 9	Bat.	I	e P F	1	59							Phases lost by street traffic.
		Mal.			1	59	15						
					2	0							
262	" 9	Bat.	I <sub>r</sub>	e P S <sub>N</sub> F	2	40	27				2150		
			Mal.	P	2	45	58						
				F	2	55							
				P	2	58	50						
				F	2	41							
			Amb.	i P i S	2	54,2					520		Azimuth W N W.
					2	54,8							

No.	Date 1925.	Sta- tion.	Char- acter.	Phase.	Time (Greenwich).			Period.	Amplitude (half)		Distance of epi- centrre.	Remarks.
						A <sub>E</sub>	A <sub>N</sub>					
—	Dec. 9	Amb.		P	h 18	m 51.7	s	sec.	μ	μ	km.	
265	» 10	Bat.	I <sub>v</sub>	P	14	53	24					
				iS	14	53	58				90	Tjitjoeroeg (W. Preanger, Java).
				F	14	57						
		Mal.	I <sub>v</sub>	eP	14	55	55				140	
				S	14	55	49					
				F	14	55						
264	» 10	Bat.	I	eL	15	8						
				L	15	51	56	26				
				F	16	32						
265	» 18	Bat.	I <sub>v</sub>	eP	8	42	12				220	In minute mark.
				iS	8	42	57					Azimuth of iS: N.W.
				F	8	46						
		Mal.	I <sub>v</sub>	iP	8	42	8				110	
				iS	8	42	21					
				F	8	45						
266	» 19	Bat.	I <sub>r</sub>	P	5	24	29				4950	
				S	5	51	5					
				F	5	50						
		Mal.	I <sub>r</sub>	P	5	24	5				5190	
				S	5	50	57					
				i	5	55	50					
		Amb.	I <sub>r</sub>	F	5	56						
				iP	5	11.5					3040	
				iS	5	15.9						
—	» 19	Mal.		iP	6	40	11				110	
				iS	6	40	24					
				F	6	41						
267	» 19	Bat.	I <sub>u</sub>	P <sub>N</sub>	16	29	22					
				i	16	32	2					
				L <sub>N</sub>	17	10	15	52				
		Mal.	I <sub>u</sub>	M <sub>N</sub>	17	12						
				F	17	39						
				i	16	29	57					
				L	17	10	55					
				F	17	25						
268	» 20	Bat.	I <sub>v</sub>	P	21	52	14				100	Azimuth about N.S.
				iS	21	52	36					
				F	21	56						
		Mal.	I <sub>v</sub>	iP	21	52	5				120	
				iS	21	52	17					
				F	21	55						
269	» 20	Bat.	I	i	22	24	44					
				F	22	30						
		Mal.	I	i	22	25	52					MARON: i — eP = 15°.
				F	22	28						
270	» 21	Bat.	I <sub>v</sub>	iP	5	55	58				260	Vlakte Hoek (Benkoelen).
				iS	5	56	28					
				F	4	5						
		Mal.	I <sub>v</sub>	P	5	56	6				560	
				iS	5	56	47					
				F	4	1						

No.	Date 1925.	Sta- tions.	Char- acter.	Phase.	Time (Greenwich).			Period.	Amplitude (half).		Distance of epi- centre	Remarks.
					A <sub>E</sub>	A <sub>N</sub>	sec.		$\mu$	$\mu$		
271	Dec. 22	Bat.	III <sub>r</sub>	i P	5	11	20	sec.	18	81	5100	Azimuth SSE.
				S	5	16	0		18	81		Azimuth N.E.
				i <sub>N</sub>	5	16	21		22	81		In minute eclipse.
				i	5	20	42		22	81		
				i <sub>N</sub>	5	25	21		22	81		In minute eclipse.
				F	6	22			22	81		
				P	5	11	32		22	81	5660	MARON i — P = 8 <sup>m</sup> 19 <sup>s</sup> .
				S	5	16	48		22	81		
				i	5	20	56		22	81		
				i <sub>N</sub>	5	21	25		22	81		
				L <sub>E</sub>	5	21	25		22	81		
				L <sub>N</sub>	5	25	19		22	81		
				F	5	41			22	81		
272	» 25	Mal.	I <sub>v</sub>	P	9	20	56	sec.	21	24	8	210 Azimuth about E.W.
				S	9	21	0		21	24	8	
				F	9	50			21	24	8	
				P	9	20	52		21	24	8	
				F	9	25			21	24	8	
273	» 24	Bat.	I	e	9	20,0						
				P	9	50						
274	» 26	Bat.	I <sub>r</sub>	P	18	29	2					
				i <sub>1</sub>	18	51	21					
				i <sub>2</sub>	18	55	55					
				i <sub>3</sub>	18	55	5					
				L	18	46,3						
		Mal.	I <sub>r</sub>	F	18	58						
				P	18	29	5					
				S?	18	55	52					
				F	18	50						
				i	18	23,0						
275	» 27	Bat.	II <sub>r</sub>	P	10	55	0					
				S?	10	57	4					
				i <sub>N</sub>	10	57	55					
				i <sub>E</sub>	10	38	40					
				L	10	41						
		Mal.	I <sub>r</sub>	F	11	14						
				eP	10	55	1					
				L	10	41						
				F	11	0						
				iP	10	51,6						
				S	10	52,8						
							690					Azimuth SSE.
—	» 27	Amb.		i P	11	6,4						
				S	11	7,5						
—	» 28	Amb.		i P	4	15,5						
				S	4	15,7						
276	» 28	Bat.	I	P	19	8	10					
				i <sub>N</sub>	19	12	45					
				F	19	25						
277	» 29	Bat.	I	i P	11	8	53					
				i	11	9	53					
				i <sub>E</sub>	11	10	8					
				i <sub>E</sub>	11	11	18					
				i <sub>E</sub>	11	11	59					
				i <sub>E</sub>	11	12	59					
				F	12	25						

No.	Date 1925.	Sta- tions.	Char- acter.	Phase.	Time (Greenwich).			Period.	Amplitude (half).		Distance of epi- centre	Remarks.
					A <sub>E</sub>	A <sub>N</sub>	sec.		$\mu$	$\mu$		
278	Dec. 29	Mal.	III <sub>r</sub>	P	16	7	58	sec.	11	8	45	MARON: iS — iP = 5 <sup>m</sup> 42 <sup>s</sup> $\Delta = 2290$ . Central and N. Celebes.
				i	16	11	28		11	9	12	
				i <sub>2</sub>	16	12	21		11	15	39	
				i <sub>N</sub>	16	15	39					
				i <sub>E</sub>	16	14	11					
				L?	16	16	12					
				F	16	57						
				P	16	7	56					
				i <sub>1</sub>	16	10	50					
				i <sub>2</sub>	16	11	56					
				Amb.	16	27						1970
				P	16	4,2						
				i <sub>E</sub>	16	4,8						
				i <sub>N</sub>	16	6,5						
				i <sub>E</sub>	16	6,6						
				iS	16	7,4						
				i	16	7,6						
279	» 29	Bat.	I	i P	19	45	26					
				i	19	44	25					
				i <sub>E</sub>	19	44	59					
				i <sub>E</sub>	19	45	49			</td		