

Ref 3848
Jan-Mar 1937

Seismological Bulletin 1937.

Royal Magnetical and Meteorological Observatory

Batavia, Java.

B A T A V I A.

Foundation: River Quaternary.

S. Latitude $6^{\circ} 11' 0''$; E Longitude $7^{\text{h}} 7^{\text{m}} 20.3^{\text{s}}$; $106^{\circ} 50'$; Height above sea-level 8 m.

Wiechert Horizontal Pendulum, 1000 kg., NS and EW components,

Wiechert Vertical Pendulum, 1300 kg.,

Bosch-Omori seismograph, 25 kg., NS and EW components,

Greenwich Civil Time.

M A L A B A R.

Foundation: Volcanic.

S. Latitude $7^{\circ} 13'$; E. Longitude $107^{\circ} 37'$; Height above sea-level 1550 m.
Wiechert Horizontal Pendulum 100 kg., NS and EW components. Since July 1911.
Greenwich Civil Time.

Possession Malabar Estate.

A M B O I N A.

Foundation: Quaternary.

S. Latitude $3^{\circ} 42'$; E. Longitude $128^{\circ} 10'$; Height above sea-level 4 m.
Wiechert Horizontal Pendulum 1000 kg., NS and EW components. Since October 1924.
Greenwich Civil Time.

M E D A N.

Foundation: Quaternary.

N. Latitude $3^{\circ} 35'$; E. Longitude $98^{\circ} 41'$; Height above sea-level 25 m.
Wiechert Horizontal Pendulum 1000 kg., NS and EW components. Since July 24, 1929.
Greenwich Civil Time.

S O E N G E I L A N G K A.

S. Latitude $5^{\circ} 24'$; E. Longitude $105^{\circ} 13'$; Height above sea-level 240 m.
Bosch-Omori, NS component. Since September 5, 1931. Greenwich Civil Time.

Remarks. The Seismograph at Amboina was still out of working order during the first quarter of the year. Time service at the Malabar and Soengei Langka seismographic Stations being inaccurate S - P is given only.
Earthquakes recorded at Soengei Langka have been inserted in this bulletin only when they have been recorded at least at one of the other primary stations.

January - March 1937.

January.

No.	Date	Station	Character	Phase	G.M.C.T.	Distance	Remarks
					h m s	km	
1	Jan. 4	Mal	v	P	21 55	90	iS - P = 11 sec.
2	" 4	Med	Ir	ePNE eSE	22 54 56 23 01 29	4780	
3	" 5	Bat	Ir	P	00 01 50	4070	in strong micros.
		Med	Ir	iSNE ePE ePN iSNE	00 07 43 00 02 14 00 02 25 00 08 18	4240	in micros.
4	" 5	Bat	Ir	S?	04 58 37		in strong micros.
		Med	Ir	PNE SNE	04 53 57 04 59 56	4150	
5	" 5	Med	Ir	PNE iSNE	11 16 50 11 22 53	4230	compare 3
6	" 5	Med	Ir	PNE iSNE	21 45 53 21 52 11	4540	remarkable.
		Bat	Ir	iPZN ePE iSN	21 46 09 21 46 17 21 52 44	4830	remarkable.
7	" 5	Mal	d	iP		190	iS - iP = 22 sec., felt in Priangan and Banjoemas (W. Java.).
		Bat	Iv	iPZ iSE	22 28 50 22 29 33	380	
8	" 6	Med	Ir	ePE ePN iSN?	08 29 16 08 30 04 08 31 19	1100?	
9	" 6	S.L. Bat	v IIIv	iP iPNEZ iSNE	08 24 02 08 24 21	160	
		Mal	v	P			
10	" 6	Mal	v	iP	10 07		
11	" 6	Bat	I	PN PE iNE	09 06 15 09 06 23 09 06 56		in micros.
12	" 7	Med	I	PE PN eLN eLE PNE	06 21 18 06 21 47 06 38 06 40 06 29 12		
13	" 7	Mal	v	P	12 08		felt on M. Papandajan (W. Java).

					h m s	km	
14	Jan. 7	Med	IIIr	iP iE iSNE LE LN	13 27 06 13 27 20 13 32 26 13 36 13 38	3530	strong waves.
		S.L Bat	r IIIr	eP PN PE PZ iPNEZ iNE iSN	13 28 33 13 28 36 13 28 36 13 28 43 13 30 24 13 35 05	4750 4780	iS - eP = 6 ^m 30 ^s .
				LE LZ LN eP	13 41 13 42 13 43		strong waves.
		Mal	r	eP			i - eP = 1 ^m 44 ^s , L.
15	" 7	Med	Iu	ePE eSE	17 55 43 18 02 58	5530	
16	" 8	Mal	v	P	21 47		
17	" 10	Bat	Iv	PE iE ePNE	02 27 10 02 28 29 02 29 40		felt in Palembang and Benkoelen (S. Sumatra).
18	" 10	Mal	v	P	10 00	110	iS - P = 13 sec., felt at Djaja- sana (W. Java).
19	" 10	Mal	v	i	17 27		
20	" 10	Mal	v	i	17 29		
21	" 11	Med	Iv	PNE iSNE	03 31 03 03 31 51	430	
22	" 11	Mal Bat	v Iv	iP iPZ iPNE iSN	16 55 29 16 55 30 16 55 57	110 250	iS - iP = 13 sec.
23	" 11	Mal	v	P	17 34		
24	" 11	Med	Iv	iPNE	18 42 02		
25	" 12	Med	IIv	iPNE iN iN iE	05 07 00 05 08 06 05 08 10 05 08 12		
26	" 14	Mal	d	iP	06 30	40	iS - iP = 5 sec., felt at Malabar (W. Java).
27	" 15	Bat	Ir	PN? PE? SN PE ePN	05 14 40 05 16 09 05 19 42 05 16 36 05 16 52		micros. micros.

						4.							
						h m s	km						
28	Jan.	15	Med	Iv	PN	09 56 24	750?	felt Sum. Westcoast.					
					iN	09 57 28							
					iN	09 57 46							
					iSE?	09 57 51							
					iN	09 57 58							
			Bat	Iv	PN	09 58 43		micros.					
29	"	16	Med	Iv	PNE	02 09 32		micros.					
					iN	02 10 31							
					iE	02 10 39							
30	"	16	Bat	Ir	iPZ	20 18 05	2340	dilatation, felt at Laiwoei (Obi Island).					
					iPE	20 18 06							
					iSN	20 21 59							
31	"	18	Mal	v	i	13 15							
32	"	19	S.L	v	iP		280	iS - iP = 32 sec.					
			Bat	Iv	iPZ	19 25 41	420						
					iPE	19 25 42							
					iSN	19 26 28							
			Mal	v	P		470	iS - P = 52 sec,					
33	"	20	Med	Iv	PE	00 16 43	80						
					iSN	00 16 52							
34	"	22	Med	I	PE	04 35 34							
					PN	04 35 37		micros.					
			Bat	I	PE	04 35 40							
35	"	22	Mal	v	P	06 22							
36	"	22	Mal	v	i	06 24							
37	"	23	Med	Iv	PE	02 45 09							
					iN	02 45 31							
					iE	02 45 35							
38	"	23	Mal	r	iP		4800	iS - iP = 6 ^m 33 ^s					
			Bat	II	ePZ	11 04 18							
					iPZ	11 04 23	5000						
					iPE	11 04 25							
					iN	11 04 48							
					iN	11 09 48							
					iSN	11 11 08							
					iSE	11 11 18							
					L	11 18							
			Med	IIu	ePN	11 05 17	5150						
					PE	11 05 29							
					iE	11 06 13							
					iN	11 06 19							
					iSNE	11 13 10							
					iE	11 13 54							
39	"	24	Mal	d	iP		90	iS - iP = 10 sec., felt in Prian-					
			Bat	Iv	PE	22 16 30		gan (W. Java).					
					iPZ	22 16 32	250	dilatation.					
					PN	22 16 34							
					iSNE	22 17 00							
					iE	22 17 57							

							5.									
							h m s	km								
40	Jan.	25	Bat	IIu	iPZ	06 43 36		compression.								
					iPE	06 43 38										
					eLNZ	07 02										
					LE	07 04										
			Mal	u	P		5960	m s S - P = 7 40 , eL.								
			Med	IIu	PNE	06 44 46										
			S.L	u	eL											
41	"	27	Mal	d	iP		90	iS - iP = 11 sec., felt in Prian-								
			Bat	Iv	iPZ	00 41 58	160	gan (W. Java).								
					iE	00 42 09										
					iS	00 42 16										
42	"	28	Mal	v	eP		260	iS - eP = 30 sec.								
			Bat	Iv	iPN	15 19 17	300									
					iE	15 19 43										
					iSN	15 19 51										
43	"	30	Bat	Iu	iPZ	17 33 56	5070									
					iPE	17 34 00										
					iSNE	17 40 44		remarkable.								
February.																
44	Feb.	1	Med	I	eP	00 03 13										
45	"	1	Bat	IIv	iPZ	00 52 00	230	remarkable.								
					iSNE	00 52 26		remarkable.								
			Mal	v	iP		270	iS - iP = 31 sec.								
			Med	Ir	eP	00 54 26		in micros.								
46	"	2	Mal	v	i	14 00										
47	"	3	Med	I	eP	11 54 08										
48	"	5	Mal	v	i	03 45										
49	"	5	Bat	Iv	iPN	22 35 10	290									
					PZ	22 35 13										
					iSE	22 35 43										
50	"	8	S.L	v	eP		310	iS - eP = 35 sec.								
			Bat	IIv	PZ	08 37 29	580									
					iSN	08 38 36										
					iN	08 39 08										
			Mal	v	eP											
			Med	Ir	PNE	08 38 59	1100									
					eSNE	08 41 03										
51	"	9	Med	Iv	P	01 57		no time eclipses.								
52	"	11	Bat	Iv	PN?	05 09 56	70	traffic disturbance.								
					iSN	05 10 04										
			Mal	v	P		110	iS - P = 13 sec.								
53	"	12	Bat	I	PE	03 45 53		in micros.								
54	"	12	Bat	IIr	PZE	04 59 29		m s								
			Mal	r	P			S? - P = 3 36								

6.

					h m s	km	
54 (cont.)	Feb.	12	Med	Ir	eP? eP? eSN eSE	05 01 34 05 01 53 05 05.3 05 05.7	in micros. in micros. approximate. approximate.
55	"	12	Med	I	eP	05 49 14	in previous.
56	"	12	Bat	Iv	ePNE iSNE	15 20 16 15 21 16	520 felt in Benkoelen and Palembang (S. Sumatra).
57	"	12	Med	Iv	P	15 22 41	
58	"	13	Med	I	eP	11 16 38	faint
59	"	14	Med	IIIv	iPNE iS iE iN	02 37 37 02 38 05 02 38 42 02 38 45	330 felt at Koetatjane (N. Sumatra)
60	"	15	Mal	v	P	00 53	140 iS - P = 16 sec.
61	"	17	Med	Iv	iP iSNE	19 23 59 19 24 30	270
62	"	18	Mal	d	iP	11 15	90 iS - iP = 10 sec., felt at Malabar(W. Java).
63	"	19	Mal	v	P	03 46	110 iS - P = 13 sec.
64	"	20	Bat	I	PZ PN iE SNE?	06 01 19 06 01 20 06 04 30 06 05 55	
65	"	21	Bat	IIu	iPZ iSNE eLZ eLE eLN	07 13 10 07 21 40 07 30 07 32 07 34	6860
			Mal	u	eP		
			S.L	u	eP		
66	"	21	Bat	IIu	iPZ iSN? P	07 36 59 07 45 33	6930? replica? in previous.
67	"	21	Bat	I	PZ iE	23 51 12 23 57 04	
68	"	22	Med	Iv	P iS	20 36 35 20 36 53	160
69	"	23	Med	I	eP eE iN	00 14 07 00 20 58 00 23 07	
			Bat	I	eE	00 27 54	
70	"	23	Med	Iu	eP SN L	00 58 26 01 06 40 01 22	6570

7.

					h m s	km	
70 (cont.)	Feb.	23	Bat	Iu	iPZ iPN iSNE	00 58 42 00 58 45 01 07 16	6940 compression.
71	"	23	Med	I	eP	01 59.1	
72	"	23	Med	I	ePN PE	09 06 54 09 07 20	
73	"	23	Mal	v	P	17 31	90 iS - P = 10 sec.
74	"	24	Mal	v	P		530 iS - P = 58 sec., felt in East Java.
			Bat	IIv	PNE SN iE	15 49 59 15 51 10 15 51 46	610
75	"	24	Med	Iv	ePE iN iN	19 00 57 19 01 34 19 01 48	felt in Tapanoeli (W. Sumatra).
76	"	25	Mal	v	P	08 27	iS - P = 7 sec.
77	"	25	Med	IIIv	iP iS eP	19 56 01 19 56 31	260 felt in Tapanoeli (W. Sumatra).
			S.L Bat	IIr	PZNE SNE iN iE iE iN	19 58 14 20 00 37 20 01 45 20 01 54 20 02 14 20 03 31	1290
78	"	27	Bat	I	ePZ ePE	01 31 01 31 45	uncertain. in micros.
79	"	28	Mal	v	i	01 17	
					March.		
80	Mar.	1	Mal	v	i	19 21	
81	"	2	Med	Iv	P iS	12 11 14 12 12 20	570 felt Sum. Westcoast
82	"	3	Mal	v	i	17 11	
83	"	3	Med	Iv	P	23 38 47	
84	"	4	Mal	v	iP		290 iS - iP = 33 sec., felt at Java's First Point (W. Java).
			Bat	Iv	iPZ iSE	17 50 21 17 51 02	360 compression from S.
85	"	5	Med	Iv	P iS	04 53 00 04 53 28	250

8.

					h m s	km	
86	Mar	5	Bat	Ir	ePN 13 22 35 ePE 13 22 39 iE 13 23 06 eSN? 13 25 50 SE? 13 25 58	1880?	in micros. in micros.
87	"	6	S.L	v	iP	170	iS - iP = 20 sec.
			Bat	IIv	iPZ 17 41 39 iS 17 42 06	240	felt at Menes (W. Java).
			Mal	v	P	260	iS - P = 29 sec.
88	"	9	Bat	Iv	iPNE 00 10 21		
			Mal	v	P	80	iS - P = 9 sec.
89	"	9	Bat	Iu	PZ 16 00 28 ePN 16 00 47 ePE 16 01 23		in micros. in micros.
			Med	Iu	eP 16 00 32 eL 16 55		
90	"	10	Bat	I	ePN 11 15 26 ePE 11 15 58		faint. in micros.
			Med	I	ePN 11 15 33		
91	"	10	Mal	v	P	23 38	50 S - P = 6 sec.
92	"	11	S.L	v	eP	290	iS - eP 33 sec., felt at Tandjong Keling (S. Sumatra).
			Bat	IIv	iPZ 07 56 39 iPE 07 56 40 iSN 07 57 27 iNE 07 57 38	430	
			Mal	v		490	S - P = 54 sec.
			Med	I	ePN 07 57 52 ePE 07 58 00		
93	"	12	Med	IIIv	eP 09 26 29 iN 09 27 16 iE 09 27 25 iE 09 27 38 iE 09 27 42		felt at Koetatjane (N. Sumatra).
			Bat	Ir	PN 09 31 22 PZ 09 31 25 PE 09 31 30		faint in micros.
94	"	13	Med	Iv	P	11 22 29	felt in Tapanoeli (W. Sumatra).
95	"	14	Bat	I	iPZ 12 15 33		
			Mal	v	P		
			Med	I	ePNE 12 15 50 i 12 16.3		in minute eclipse. iS - iP = 20 sec.
			S.L			170	
96	"	15	Bat	IIIv	iPZE 05 56 14 iSN 05 56 50	320	from W. felt in S. Sumatra.
			Mal	v	iP	360	iS - iP = 41 sec.
			Med	I	eP 05 58 19		
97	"	16	Bat	Iv	iPZ 03 58 44		compression, felt in Benkoelen and Palembang (S. Sumatra).

9.

					h m s	km	
98	Mar.	16	Med	Ir	iP 15 51 11 iPZ 15 51 28 iPN 15 51 30 SN 15 56 02	2560	SW - NE
99	"	16	Mal	r	P	2380	m s S - P = 3 56, felt at Taroena (Sangir Island).
			Bat	IIr	PZ 22 36 02 iPZ 22 36 07 iPE 22 36 08 iSN 22 40 02 iPE 22 37 06 iN 22 37 14	2410	remarkable compression from E.
100	"	17	Mal	v	P	11 39	50 iS - P = 6 sec.
101	"	18	Mal	v	i	10 48	
102	"	20	Med	IIv	P	14 32	in hour mark.
103	"	20	Mal	v	i	21 42	
104	"	21	Med	IIr	iP 16 16 56 iS? 16 20 56 i 16 24 58 ePN 16 18 56 PNE 16 19 14		uncertain faint. also possible.
105	"	21	Bat	I	PE 18 13 21 eSN? 18 24 39		
106	"	21	Med	Iv	P 20 08 30 iS 20 08 48	160	
107	"	22	S.L	v	iP		
			Bat	IIIv	iPZ 05 03 35 iPE 05 03 36 iSNE 05 03 56 iN 05 04 20 iN 05 04 54 iN 05 05 58	180	compression from WSW.
			Mal	v	iP		
			Med	Ir	PE 05 05 59 ePN 05 06 01 iE 05 10 06		
108	"	23	Bat	I	PN 01 07 05 PE 01 07 08		in micros. in micros.
109	"	23	Mal	d	iP	150	iS - iP = 17 sec., felt at Malaba (W. Java).
			Bat	Iv	iP 15 43 02 iSNE 15 43 26	210	
110	"	23	Mal	v	iP	140	iS - iP = 16 sec.
			Bat	Iv	iPZ 18 44 09 iSNE 18 44 33	210	
111	"	23	Med	I	eP 21 23 15		

10.

					h m s	km	
112	Mar	24	Mal	d	iP	110	iS - iP = 13 sec., felt in Priangan (W. Java).
			Bat	Iv	iP	170	
					iSNE	20 26 52	
						20 27 12	
113	"	26	Mal	v	iS	08 24	
114	"	26	Med	I	ePNE	09 56 04	faint.
			Bat	I	ePN	09 56 48	in micros.
					eE	10 04 26	
115	"	26	Bat	Ir	PZ	15 48 07	2510
					S	15 52 14	
			Med	Ir	eP	15 48 38	faint.
116	"	26	Mal	v	i	21 11	
117	"	27	Mal	v	i	10 28	
118	"	27	Med	I	ePNE	22 44 06	extremely faint.
					iE	22 46 16	
					iN	22 46 31	
					iE	22 46 34	
					iN	22 47 00	
			Bat	I	eN	22 51 49	in micros.
					eE	22 52 39	in micros.
119	"	29	Bat	Ir	PE	05 43 36	2780
					PZ	05 43 38	
					NS	05 48 03	
120	"	29	Med	I	eP	19 54 25	
121	"	31	S.L	v	iP	180	iS - iP = 21 sec.
			Bat	Iv	iPE?	13 54 31	uncertain in micros.
					iSN	13 54 49	

CONSTANTS WIECHERT SEISMOGRAPHS.

BATAVIA.

	EW Component			NS Component			Z Component		
1937	V	T ₀	ε	V	T ₀	ε	V	T ₀	ε
January	220	7.2	3.5	190	7.2	3.3	300	4.5	3.7
February	220	7.2	3.5	190	7.3	3.4	300	4.6	3.9
March	220	7.3	3.4	190	7.3	3.4	300	4.6	3.7
	e ₀	r		e ₀	r		e ₀	r	
January	1.09	0.6		1.10	1.2		1.16	0.5	
February	1.08	0.6		1.09	1.2		1.14	0.5	
March	1.09	0.5		1.08	1.2		1.16	0.3	

EW Component

NS Component

V T₀ ε e₀ r
230 5.1 3.5 1.04 1.2

V T₀ ε e₀ r
240 4.4 2.5 1.10 1.3

Seismological Bulletin 1937.

Royal Magnetical and Meteorological Observatory

Batavia, Java.

April - June 1937.

Ref 3851.

Remarks. The seismograph at Amboina was restored and has been in operation satisfactorily since May 23. The same remarks as in the previous Bulletin concerning time service at Malabar and Soengei Langka are still valid.

No.	Date	Station	Character	Phase	G.M.C.T.	Distance	Remarks
<u>April.</u>							
					h m s	km	
122	Apr. 1	Med	Iv	iP i iS	15 40 59 15 41 08 15 41 43	390	
123	" 2	Med	Iu	PE? PN?	05 40 27 05 41 35	7080	faint. faint.
		Bat	Iu	PE iPZ iSN	05 40 58 05 41 00 05 49 40		in micros.
124	" 3	Mal	I	P			dilatation from E.
		Bat		iPZ	07 05 20		
				iPE	07 05 22		
				iN	07 05 49		
125	" 3	Med	I	eP	11 34 34		faint.
126	" 3	Med	Ir	eP iP iSNE	21 15 47 21 15 52 21 20 29	2970	dilatation.
		Bat	Ir	iPZNE SNE? SE?	21 16 02 21 20 22 21 21 07		
127	" 4	Med	Iv	PE iSN	04 10 23 04 11 03	350	
128	" 4	Mal	d	iP		150	iS - iP = 17 sec., felt in W. Java.
		Bat	Iv	iPZNE	04 37 31		remarkable dilatation from E.
129	" 5	Mal	r	P		3100	m s S - P = 4 50, felt in NW New Guinea.
		Bat	IIIr	iPZ PE iE iSZN eLZNE	07 02 20 07 02 22 07 04 33 07 07 40 07 13	3530	compression from E.

		13.				h m s		km	m s	
129	Apr. 5	S.L	r	P		07 03 32		3690	S - P = 5 30 .	
(cont.)		Med	IIIr	iP		07 09 12		3850		
				iSN						
130	" 5	Mal	v	P		13 56		90	iS - P = 11 sec.	
131	" 5	Bat	I	PZ		23 44 59			in micros.	
132	" 6	Med	I	PN		10 13 40				
				iE		10 13 52				
133	" 6	Mal	v	P		16 11		110	iS - P = 13 sec.	
134	" 8	Mal	v	P		19 05		90	iS - P = 11 sec.	
135	" 9	S.L	v	iP				150	iS - iP = 17 sec.	
		Bat	Iv	PE		05 04 51		230		
				iPZ		05 04 54				
				iSNE		05 05 17				
136	" 9	Mal	v	P		20 19		100	iS - P = 12 sec.	
137	" 10	Bat	IIv	iPZ		02 09 06		150	dilatation, felt at Tjiastana (W. Java).	
				iSZNE		02 09 23				
		Mal	v	iP				180	iS - iP = 21 sec.	
138	" 12	Mal	v	P		13 07		120	iS - P = 14 sec.	
139	" 12	Med	I	P		13 39 00				
140	" 14	Med	I	P		21 29			in micros.	
141	" 15	Med	IIIv	P		20 13 12				
				iSN?		20 14 12				
				iSE?		20 14 17				
		Bat	Ir	ePE		20 15 55			in micros.	
				ePN		20 16 08			in micros.	
				iNE		20 18 34				
142	" 15	Med	IIv	P		21 11 24		620		
				iS		21 12 36				
		Bat	Ir	ePE		21 14 34				
				PZ		21 15 30				
143	" 16	Mal	u	P				7440	m	
		Bat	IIIu	iPZ		03 12 39		7670	iS - P = 9 00, eL.	
				iPNE		03 12 40			dilatation from ESE.	
				iSNE		03 21 50				
				eL		03 27			extremely strong.	
		Med	IIIu	P		03 13 37		8720		
				iN		03 13 50				
				iE		03 13 52				
				iS		03 23 37			remarkable.	
				eL		03 39				
144	" 16	Bat	I	iSZ?		03 42 18			in previous, replica?	
		Med	I	i		03 43 11				
145	" 16	Bat	I	iPZ		03 58 59			in previous, replica?	
		Med	I	P		04 00 37				

		14.				h m s		km		
146	Apr. 16	Bat	Iv	PEZ					in micros, felt at Lebongtanda (S. Sumatra).	
147	" 16	Med	Iv	P		21 33 59				
				iE		21 35 26				
				iN		21 36 38				
148	" 17	Med	Iv	P		08 42 07				
149	" 18	Mal	d	iP				100	iS - iP = 12 sec., felt in Priangan (W. Java).	
		Bat	Iv	PZ		06 40 03				
150	" 18	Mal	v	P				340	iS - iP = 39 sec. felt in Central and East Java.	
		Bat	IIv	PZ		10 07 06		420		
				iPN		10 07 08				
				iSN		10 07 53				
		Med	Ir	ePE		10 09 51			faint.	
				ePN		10 09 53			faint.	
151	" 18	Med	IIv	iP		20 20 55		160	felt at Tapatoean (N. Sumatra)	
				iS		20 21 13				
152	" 19	S.L	v	iP				130	iS - iP = 15 sec.	
		Bat	IIv	iPZ		04 00 56		280	dilatation from W.	
				iPNE		04 00 58				
				iSNE		04 01 28				
		Mal	v	P				330	iS - P = 38 sec.	
153	" 19	Bat	Iv	iPZ		07 56 07		180		
				iSN		07 56 28				
154	" 19	Med	Iv	eP		09 59 14			felt Sum. Westcoast.	
155	" 21	S.L	v	iP						
		Bat	IIIv	iPE		19 05 46		180	dilatation from W.	
				iPZ		19 05 48				
				iSN		19 06 07				
		Mal	v	iP						
		Med	Ir	P		19 11 29				
156	" 21	Mal	v	i		22 35				
157	" 23	Mal	d	iP				90	iS - iP = 11 sec., felt in Priangan (W. Java).	
		Bat	Iv	iPZ		06 23 55		150		
				iSNE		06 24 12				
158	" 24	Bat	I	iPZ		05 09 46				
159	" 27	Mal	v	i		23 14				
160	" 29	Med	Iv	P		14 21 34		400	felt in Tapanceli (N. Sumatra)	
				i		14 21 43				
				iS		14 22 19				
				i		14 22 25				

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					15.	km
					h m s	
161	Apr. 29	Med	Iu	eP	19 05 52	9330
				S	19 16 19	
				eL	19 36	
		Bat	Iu	PZ	19 05 58	
				eL	19 58	
162	" 29	Med	I	P	20 29 04	
		Bat	I	PNE	20 29 30	
				PZ	20 29 33	

in micros.
in micros.

May.						
163	May. 1	Bat	Ir	iP	00 18 05	3270
				SE	00 23 07	
164	" 1	Med	Iv	P	16 36 20	
				S?	16 36 54	
				iSN?	16 37 00	
165	" 3	Bat	Iv	P	05 57 25	
166	" 3	Bat	I	ePNE	09 33 23	
				ePZ	09 33 49	
167	" 4	Med	I	eL	05 59	
168	" 4	Med	Ir	eP	15 49 50	1910
				S	15 53 08	
				iN	15 53 21	
169	" 6	Med	I	PN	10 38 25	
				PE	10 39 37	
170	" 7	Med	Iv	P	01 14 53	
171	" 7	Med	Iv	P	12 31 55	
172	" 9	Med	I	eP	15 05 15	
				eL	15 17	
173	" 10	Bat	I	PZ	10 17 01	
				PE	10 17 04	
174	" 10	Mal	u	iP		
		Bat	Iu	PE	15 35 55	6810
				iPZ	15 35 56	
				SE	15 44 06	
				iSNE	15 44 22	
		Med	Iu	eP	15 36 49	8190
				SE	15 46 22	
				iSNE	15 46 25	
175	" 11	Med	Iv	P	15 05 35	
176	" 12	Mal	r	P		
		Bat	IIr	ePN	02 51 49	
				ePE	02 51 54	
				iNEZ	02 53 35	
		S.L	r	eP		
		Med	Ir	eP	02 53 17	4740
				iSNE	02 59 47	

dilatation.

in micros.
in micros.

in micros.
in micros.

dilatation.

in micros.
in micros.

					16.	km
					h m s	
177	May 12	Med	Iv	eP	10 00 58	
178	" 12	Med	IIIv	eP	13 07 48	
				iSN?	13 10 12	
				iSE?	13 10 27	
				iNE	13 10 38	
				ePE?	13 10 22	
				PNE	13 10 41	
		Bat	II			
179	" 12	Med	Iv	PNE	15 52 19	890
				iSN	15 54 00	
180	" 13	Med	Iv	P	09 34 49	330
				iS	09 35 27	
181	" 13	Bat	I	iPZ	18 51 50	
		Med	I	P	18 53 07	
182	" 14	Bat	I	PZ	15 40 00	
				iSE	15 41 45	
		Mal		eP		
183	" 15	Bat	Iv	P	12 23 01	230
				iS	12 23 27	
		S.L	v	iP		
184	" 15	Bat	Iv	iPZ	21 59 07	160
				iS	21 59 26	
185	" 16	Mal	v	i	09 05	
186	" 16	Med	I	eP	21 58 47	
187	" 18	Bat	Iv	PNE	11 31 06	540
				iSE	11 32 05	
188	" 21	Med	IIv	P	03 14 01	
				iE	03 14 17	
				iN	03 14 26	
				iE	03 14 28	
189	" 22	Bat	Iv	P	04 13	
190	" 23	Med	Iv	eP	13 00 56	
191	" 25	Bat	Ir	PZ	07 32 08	
				PE	07 32 09	
		Med	Ir	iP	07 33 22	2530
				S	07 37 31	
192	" 26	Amb	Iv	P	05 57 13	
193	" 26	Amb	Iv	P	11 14 03	
194	" 26	Mal	v	P		180
195	" 27	Bat	Iv	PZ	04 05 12	
196	" 27	Med	Iv	P	09 46 29	
				iS	09 46 58	

felt at Java's First Point
(W. Java).

in micros.

iS - P = 21 sec.

17.						km	
h m s							
197	May 27	Mal	v	i	11 36		
198	" 27	Amb	Iv	eP eS	17 37 45 17 38 53		
199	" 28	Amb	Ir	iP iS	20 01 41 20 06 06	2740	Rabaul?
		Bat	IIr	iPZ	20 03 42	4280	remarkable compression from ENE.
				iS	20 09 48		remarkable.
		Med	Ir	iP iS	20 03 49 20 10 00	4590	
200	" 30	Amb	Iv	i	00 37 36		
201	" 30	Med	Iv	P iS?	12 14 13 12 14 17	30?	remarkable.
202	" 31	Amb	Iv	P iS	02 11 24 02 11 28	30	
203	" 31	Mal	d	iP		120	iS - iP = 14 sec., felt in W. Java.
		Bat	Iv	PZ iS	03 52 46 03 53 30		uncertain.
204	" 31	Amb	Iv	iP	10 39 40	2390	
		Bat	Ir	iPZ	10 43 30		
				iS	10 47 28		
		Med	Ir	eP iSE? iSN? iSE?	10 45 37 10 49 11 10 49 25 10 49 39		
205	" 31	Amb	Iv	i	12 16 08		
206	" 31	Amb	Ir	eP S	15 36 42 15 42 12	3700	
		Bat	Ir	iPZ SNE	15 40 22 15 47 06	4970	compression.
		Med	Iu	eP	15 41 49		

June.							
207	Jun. 1	Med	Iv	P	06 46 09		
208	" 1	Bat	Iv	P	14 23 24	160	
				iS	14 23 42		
		Mal	v	P		170	iS - P = 20 sec.
209	" 3	Med	IIv	P	07 32		
				i	07 32 34		
				iSN	07 33 05		
				iSE	07 33 11		in hour eclipse, felt in Atjeh (N. Sumatra).
210	" 3	Mal	v	P	21 06	110	iS - P = 13 sec.
211	" 4	Mal	v	P	17 01	110	iS - P = 13 sec.

18.							km	
h m s								
212	Jun. 4	S.L Bat	v v	iP iP iS i	20 25 21 20 25 42	150 180	iS - iP = 17 sec. from WSW.	
213	" 5	Amb	Iv	iP	04 06 43			
214	" 7	Med	I	ePN ePE	11 52 06 11 52 16		in micros. in micros.	
215	" 8	Amb	Iv	P	09 35 13			
216	" 8	Amb	Iv	P	13 11 46			
217	" 9	Med	IIv	iP iSE	02 46 25 02 46 54	260		
218	" 10	Mal	v	i	19 39			
219	" 10	Mal	v	P		90	iS - P = 11 sec.	
220	" 12	Amb	Iv	iP	07 49 23			
221	" 14	Amb	Iv	iP			no time signals.	
222	" 14	Bat	I	PZ	13 20 50			
223	" 14	Mal	v	i	17 32			
224	" 17	Med	Iv	P	10 04 29			
225	" 19	Bat	Iu	iPZ PNE iSNE i	17 17 40 17 17 42 17 26 05	6770	dilatation.	
226	" 21	Bat	Iv	iPZ iSE	07 46 49 07 48 00	610		
		Med	I	eP	07 48 42		in micros.	
227	" 21	Amb	Iu	P iP i iPZ iN eLN eLE	15 32 38 15 32 44 15 33 45 15 33 06 15 33 42 16 29 16 36		compression from E.	
		Med	Iu	P iN iE iN eL	15 32 06 15 37 37 15 37 47 15 44 37 16 30			
228	" 23	Amb	Iv	P	13 53 09			
229	" 24	Bat	Iv	PZ iS	07 27 02 07 27 26	210	felt in Cheribon(W. Java), volcanic.	
230	" 24	Bat	I	iPZ iN iE P	14 17 01 14 17 33 14 18 12	240	iS - P = 27 sec.	
		Mal	v					

					19.			km	
					h	m	s		
231	Jun.24	Mal	d	iP				100	iS - iP = 12 sec, felt at Malabar (W. Java).
232	" 25	Bat	IIv	iPZ iSNE	07 04 13 07 04 36			200	dilatation, felt in Priangan (W. Java).
233	" 27	Mal	v	iP				110	iS - iP = 13 sec., felt in Priangan (W. Java).
		Bat	IIIv	iPZ iSNE	07 04 14 07 04 31			150	compression.
234	" 28	Amb	Iv	P	00 57 56				
235	" 28	Amb	Iv	iPN iPE	21 47 24 21 47 26				
236	" 28	Mal	v	P	22 58			50	iS - P = 6 sec.
237	" 29	Mal	d	iP				100	iS - iP = 12 sec., felt in Priangan (W. Java).
		Bat	IIv	iPZ iSNE	07 54 17 07 54 42			220	
238	" 30	Mal	v	P	01 16			120	iS - P = 14 sec., felt in Priangan (W. Java).
239	" 30	Bat	Ir	iPZ PNE SE	14 03 44 14 03 45 14 08 02			2660	
		Med	Ir	eP	14 04 31				

CONSTANTS WIECHERT SEISMOGRAPHS.

BATAVIA.

	EW Component			NS Component			Z Component		
1937	V	T ₀	ε	V	T ₀	ε	V	T ₀	ε
April	220	7.3	3.6	190	7.3	3.5	300	4.6	3.9
May	220	7.2	3.6	190	7.3	3.4	300	4.6	3.8
June	220	7.3	3.6	190	7.5	3.4	300	4.6	3.8
	e ₀	r		e ₀	r		e ₀	r	
April	1.09	0.6		1.09	1.3		1.15	0.4	
May	1.10	0.7		1.10	1.3		1.18	0.3	
June	1.11	0.6		1.09	1.2		1.15	0.4	

MEDAN.

EW Component					NS Component				
V	T ₀	ε	e ₀	r	V	T ₀	ε	e ₀	r
230	5.1	3.5	1.04	1.2	240	4.5	2.5	1.10	1.3

AMBOINA.

Not yet redetermined.

Seismological Bulletin 1937.

Royal Magnetical and Meteorological Observatory

Batavia, Java.July - September 1937.

Ref 3854.

Remarks. The same remarks as in the previous Bulletin concerning time service at Malabar are still valid. Reports of Soengei Langka have not been inserted in this Bulletin.

No.	Date	Station	Character	Phase	G.M.C.T.	Distance	Remarks
<u>July.</u>							
					h m s	km	
240	Jul. 1	Med	Iv	PNE SNE	11 45 30 11 46 09	330	
241	" 1	Med	IIIv	PE	11 50 34		Azimuth 259 ⁰ , felt in N. Sumatra. strong.
		Bat	IIIr	iPNE ePN iPZ iE iN	11 50 35 11 52 57 11 53 06 11 56 47 11 57 35		
		Amb	Ir	PN SN eLN	11 56 06 12 01 20 12 05	3440	
242	" 2	Amb	Ir	PNE SNE eLNE	02 44 16 02 50 20 02 53	4240	
		Bat	Iu	iPZ SN iE eLZN eLE	02 47 17 02 55 28 02 56 22 03 04 03 09	6510	
		Med	Iu	PNE iN iN iN SN eLNE	02 48 27 02 48 35 02 49 07 02 49 17 02 57 54 03 10	8010	compression from E.
343	" 2	Med	Iv	ePE ePN	09 21 53 09 22 20		
244	" 2	Amb	Iv	PNE iN iE	22 07 54 22 07 57 22 08 04		felt at Sinabang (Simeuloë).

21.										22.									
					h m s	km							h m s	km					
245	Jul. 3	Bat	I	PZ	04 01 41					257	Jul. 10	Amb	Iv	PNE	20 44 42	710		felt in N.Celebes.	
				PE	04 01 42							Bat	Ir	SNE	20 46 04	2060			
				iE	04 06 53									PZ	20 47 23				
		Med	I	iN	04 07 12									PE	20 47 24				
				PNE	04 02 27									iSN	20 50 53				
246	" 3	Amb	I	PNE	11 16 31									iE	20 52 24				
				iN	11 16 39									iE	20 54 16				
				iE	11 16 49									iN	20 54 29				
												Med	Ir	PNE	20 48 37	2630			
														SNE	20 52 54				
247	" 3	Med	Iv	ePN	18 18 45	340	felt at Padang Sidempoean (W.Sumatra).			258	" 11	Amb	IIIv	iPNE	05 50 57			uncertain.	
				iN	18 19 03									iS					
				S?NE	18 19 24														
				iNE	18 19 35														
248	" 4	Amb	I	PE	06 02 47		in micros.			259	" 11	Amb	Iv	PN	13 42 22	1820		faint.	
				PN	06 03 07							Bat	Ir	PE	13 43 53				
				eLNE	06 16									PZ	13 43 55				
		Bat	I	PE	06 05 41									SE	13 47 04				
				eLZ	06 28														
		Med	I	ePN	06 07 26														
249	" 4	Amb	I	PN	06 46 45		in micros.			260	" 11	Amb	Iv	iPE	17 07 54			aftershock 258.	
				iPE	06 46 51									PN	17 07 58				
				eLE	06 58														
				eLN	07 00														
		Bat	I	PZ	06 48 17		in previous.			261	" 11	Amb	Iv	PNE	19 01 12	90		aftershock 258.	
				eLZ	07 12									iSNE	19 01 23				
		Med	I	ePN	06 50 12		in previous.												
250	" 4	Amb	I	PE	07 34 01					262	" 12	Med	IIIv	PNE	00 03 24			felt in Atjeh (N.Sumatra).	
				PN	07 34 03									iPNE	00 03 34				
				eLNE	07 45							Bat	IIr	PN	00 06 27				
		Bat	I	PZ	07 35 25		in previous.							PZ	00 06 30				
				eLZ	07 54									iE	00 11 05				
		Med	I	ePN	07 38 40		in previous.							iN	00 11 11				
				eLN	08 03														
251	" 5	Med	I	ePN	11 23 47		in strong micros.			263	" 12	Amb	Iv	PNE	02 54 19				
				ePE	11 23 50		in strong micros.												
				iN	11 24 28					264	" 12	Med	Iv	PNE	04 48 22	330		felt at Sinabang (Simeuloeë).	
				iN	11 24 49									iSNE	04 48 59				
				iE	11 25 06														
252	" 5	Bat	I	PN	17 01 00	660				265	" 12	Amb	IIv	iPNE	08 06 31	200			
				PZ	17 01 01									iSNE	08 06 54				
				iS	17 02 15														
253	" 6	Med	Iv	PNE	01 44 31	170				266	" 12	Amb	Iv	iPNE	08 13 00			aftershock 265.	
				iSNE	01 44 51														
254	" 6	Med	II v	PN	07 54 27	460				267	" 12	Amb	Iv	iPNE	08 19 56			aftershock 265.	
				iE	07 54 42														
				iSNE	07 55 18					268	" 13	Amb	Iv	PNE	00 53 51				
		Bat	Ir		07 56		traces.												
255	" 6	Amb	Iv	iPNE	13 29 27	50				269	" 13	Bat	Iv	P	20 07 25	80			
				iSE	13 29 33									iS	20 07 34				
256	" 7	Med	IIv	ePNE	07 50 53	400				270	" 14	Bat	Iv	iP	14 20 08	160		felt at Panjaïran (W.Java).	
				iSNE	07 51 38							Mal	v	iS	14 20 27	160		iS - P = 19 sec.	
										271	" 16	Mal	v	iNE					
										272	" 17	Amb	Iv	iSNE	12 31 32				
										273	" 18	Med	Iv	ePNE	23 35 52				
										274	" 19	Mal	v			160		iS - P = 19 sec., felt at Tjimiring (C.Java).	

23.									
					h m s	km			
275	Jul.19	Bat	Ir	PZ	19 55 14	4050			
				iZ	19 56 04				
				iZ	19 56 42				
				SN	20 01 07				
		Med	Ir	ePNE	19 55 45	4800			
				iSNE	20 02 18				
				iNE	20 07 13				
276	" 19	Bat	Iv	PZ	23 16 02	180			
		Mal	v	iSNE	23 16 23				
				iNE					
277	" 20	Amb	Iv	iPNE	01 16 40	40			
				iSNE	01 16 45				
278	" 21	Mal	v						
		Bat	IIIv	iPZNE	14 59 05				
				iN	14 59 24				
				iE	14 59 26				
				iE	15 00 19				
				iN	15 00 22				
		Med	Ir	iE	15 05 11				
				iN	15 05 23				
				iE	15 05 41				
				iN	15 06 03				
279	" 21	Med			16 11				
280	" 21	Med	IIv	PNE	16 31 44	520			
				iPNE	16 31 54				
				iSNE	16 32 46				
281	" 21	Amb	Iv	iSNE	18 29 50				
282	" 22	Bat	Ir	PZ	07 39 07	2480			
				SN	07 43 11				
283	" 22	Bat	I	ePZ	17 27 47				
				PN	17 27 53				
				eN	17 35 04				
				eN	17 42 28				
				eLN	17 56				
				eLZE	17 59				
		Med	I	ePN	17 27 53				
				PE	17 28 05				
				iN	17 33 33				
				eLE	17 54				
				eLN	17 57				
				LE	18 00				
				LN	18 02				
284	" 23	Amb	Iv	iSNE	00 29 36				
285	" 24	Med	Iv	PNE	10 38 02	530			
				iPNE	10 38 09				
				SNE	10 39 00				
286	" 24	Med	Iv	iPNE	11 28 05	440			
				iSE	11 28 54				

24.						
				h m s	km	
287	Jul.26	Bat	I	iPZ iPNE iZ	04 06 56 04 06 58 04 07 17	Dilatation. Deep focus?
		Med	I	PNE iNE	04 06 59 04 07 20	
288	" 26	Med	Iu	iPE iN iSNE eLNE	20 05 55 20 06 12 20 13 11 20 22	5380
		Bat	Iu	iPZ iPNE iSNE eLZNE	20 06 05 20 06 08 20 13 42 20 27	5910
289	" 28	Bat	I		08 49	traces.
290	" 29	Bat	I	PZN P?E	08 26 08 26 48	faint in micros;
		Med	I		08 30	traces.
291	" 29	Amb	Iv	iPNE iSN iSE	17 48 24 17 49 08 17 49 29	time-correction inaccurate.
292	" 30	Amb	IIv	iPNE iSNE	02 20 20 02 20 45	220 time-correction inaccurate.
293	" 30	Amb	Iv	PNE	02 34 20	aftershock, time-correc- tion inaccurate.
294	" 30	Amb	Iv	PNE	02 41 33	time-correction inaccurate.
295	" 30	Amb	Iv	PNE	03 43 06	time-correction inaccurate.
296	" 31	Med	Iv	PNE iNE iNE	13 04 51 13 05 08 13 05 13	felt at Sinabang(Simeuloeë).
297	" 31	Med	II	iPN iNE iNE	20 42 44 20 48 17 20 53 01	
		Bat	I	iPZN ePE iSE iSN iN iZE iZ LE LZ eLN	20 43 41 20 50 01 20 50 04 20 54 39 20 55 04 20 55 17 20 59 21 00 21 01	4560 compression. faint.
August.						
298	Aug. 1	Med	Ir	ePNE SNE eNE eN	10 47 52 10 53 34 10 59 11 00	3880

298 (cont.)	Aug. 1	Bat	Ir	iPN SE 1LE	25. h m s 10 48 59 10 55 19 11 04 59	km 4910		316 (cont.)	Aug. 11	Bat	IIIr	1PZNE 1SZL 1SN 1NE	h m s 00 58 07 00 59 55 00 59 59 01 00 00	km	Focal depth 650 km + from E., felt Java to Roti probable epicentre 116.5° E, 6.5°S. pens off.
299	" 1	Med	Iv	PNE	15 17 56					Amb	IIIr	PNE 1SNE 1ScS	00 58 26 01 00 40 01 09 38		
300	" 2	Amb	Iv	PNE	01 01 19					Med	IIIr	PE iE 1SNE	00 59 51 01 02 32 01 03 06		
301	" 3	Mal	Iv			30	iS - P = 4 sec.								
302	" 4	Amb	Iv	PNE 1SNE	19 42 27 19 42 50	200				Mal Mal	d v			50	iS - P = 6 sec.
303	" 4	Med	IIIv	PNE	23 36 21	420	from WNW, Azimuth 287°, felt in Atjeh (N.Sumatra).	317	" 11						
				iPNE 1SN iPNE PE 1SNE	23 36 24 23 37 08 23 39 05 23 41 37 23 47 10	3740		318	" 12	Bat	I	PZNE	03 47 46		
		Bat Amb	IIr Ir					319	" 12	Amb	Iv	ePNE 1SNE	04 17 09 04 17 17	70	
304	" 5	Amb	Iv	PNE 1SNE	09 08 04 09 08 09	40		320	" 14	Amb	IIIv	iP		200	iS - iP = 23 sec., no time marks, felt on Ceram.
										Bat	Ir	PZNE	10 54 03		
305	" 5	Med	Iv	iPNE 1SE	12 05 54 12 06 28	300	felt in Atjeh(N.Sumatra).	321	" 14	Amb	Iv				aftershock, no time marks.
								322	" 14	Med	Iv	PNE 1SN	16 25 32 16 26 19	420	felt at Lahewa (Nias).
306	" 5	Amb Bat	Ir Ir	ePNE ePE 1SN	14 48 34 14 51 43 14 58 09	4680		323	" 15	Bat	I	P	01 05		traces.
		Med	Iu	ePE 1SN 1E	14 53 37 15 01 28 15 01 54	6160	in micros.	324	" 15	Med Bat	I I	PNE iPZ PN	04 32 58 04 33 13 04 33 15		felt at Napal Poetih (S.Sumatra).
307	" 7	Amb	I	PNE	06 39 52			325	" 15	Mal	v			110	iS - iP = 13 sec.
308	" 7	Amb	Iv	PNE iPNE 1SNE	20 22 05 20 22 10 20 22 30	220		326	" 15	Med	I	PN ePE	11 47 34 11 48 01		
309	" 7	Amb	Iv	PNE 1SNE	20 26 20 27 14		in previous.	327	" 15	Amb	Iv	P		110	iS - P = 13 sec., no time marks.
310	" 7	Med	Iv	PNE 1SN	23 40 08 23 40 48	350		328	" 16	Amb	Iv	P			aftershock 320 ?
								329	" 16	Amb	Iv	P			no time marks.
311	" 8	Bat	Ir	PZ S?E	15 26 02 15 30 50	3070?	felt in Sangir and Talaud Islands.	330	" 16	Bat	Iv	iPN iSE	13 51 39 13 52 28	440	felt in Benkoelen (S. Sumatra).
312	" 8	Amb	Iv	1SNE	18 37 00			331	" 16	Bat	Iv	P?E 1NE	15 42 58 15 43 16		South Sumatra.
313	" 8	Amb	IIv	PNE	20 58 55			332	" 16	Bat	Iv	PNE S?E	16 19 42 16 20 44	570?	South Sumatra.
314	" 9	Amb	Iv	1NE	08 44 01			333	" 16	Bat	Iv	PNE	18 18 08		South Sumatra.
315	" 9	Amb	Iv	PNE 1SNE	18 00 55 18 01 54			334	" 16	Med	Iv	PNE	22 50 59		
316	" 11	Mal	d				m s iS - iP = 1 53		" 17						Several shocks of South Sumatra swarm.

27.

h m s

km

felt in W. Java.

335	Aug. 17	Mal Bat	d IIv	iPNE iPZ iSNE	15 08 05 15 08 23	160	
336	" 17	Amb	Iv	iNE	16 48 24		
337	" 17	Bat	Iv	PNE SNE	21 39 11 21 39 49	330	
	18						Several shocks of South Sumatra swarm.
338	" 18	Amb	Iv	iPNE iSNE	04 57 35 04 58.7	600	in minute eclipse.
339	" 18	Amb	Iv	PNE iSNE	21 48.8 21 49 01	100	in minute eclipse.
	19						Several shocks of South Sumatra swarm.
340	" 19	Bat	I	PE	13 30 01		
341	" 19	Bat	Iv	P iSNE	13 31 11	350	in previous, felt in Preanger (W. Java). iS - P = 40 sec.
342	" 19	Med	Iv	ePNE iSNE	19 58 47 19 59 03	140	
343	" 19	Med	Iv	PNE	21 29 51		felt at Kampong Air (Simeuloe).
	20						Several shocks of South Sumatra swarm.
344	" 20	Bat	I	iPZ iPNE	06 45 52 06 45 55		compression.
345	" 20	Amb	IIr	PNE iPNE iE LNE	12 03 37 12 03 40 12 04 50 12 07		
		Med	IIIr	PNE iPNE iE iE	12 04 49 12 04 53 12 09 19 12 10 45		from ENE
		Mal Bat	r IIIr	3210 PNE iPNE iE iSN LZNE	12 04 50 12 04 57 12 09 29 12 10 00 12 12	3210 3280	iS - P = 4 ^m 58 ^s , L
346	" 21	Mal	v			100	iS - P = 12 sec., felt in Preanger (W. Java).
347	" 21	Mal	v			200	iS - P = 23 sec.
348	" 22	Bat	IIv	ePNE PZ SNE iN	02 13 55 02 13 58 02 15 13 02 15 35	680	felt in Benkoelen (S. Sum.).

28.

h m s

km

348 (cont.)	Aug. 22	Med	IIr	ePNE iN SNE	02 14 56 02 16 52 02 17 04	1140	
349	" 24	Amb	Iv	PNE iSE iSN iE	01 09.6 01 09 49 01 09 52 01 09 55	70	in minute mark.
350	" 24	Bat	Iu	iPZ PNE iSE iN	18 40 04 18 40 07 18 50 07 18 50 51	8790	
351	" 25	Med	Iv	PNE SNE	08 41 18 08 42 10	460	
352	" 27	Mal Bat	d IIv	iPZE iSNE	22 08 33 22 09 54	680 700	m s, iS - P = 1 18, felt in Java, deep focus, dilatation from E.
		Med	Ir	iPNE iE	22 13 14 22 13 58		
353	" 29	Med	Iv	ePNE iN iE	12 00 47 12 01 31 12 01 49		
354	" 30	Bat	Iv	PE iE iSNE	13 04 47 13 05 08 13 05 57	610	
355	" 31	Mal	d			100	iS - iP = 12 sec., felt in Preanger (W. Java).
		Bat	Iv	PNE	11 40 16		
356	" 31	Med	IIIu	PNE iPNE iNE iNE S?N iS?NE	14 20 10 14 20 12 14 25 44 14 26 58 14 27 09 14 27 34		
		Bat	IIIu	iPNE iN iS?E iN	14 21 48 14 23 03 14 33 00 14 33 56		
September.							
357	Sep. 1	Amb	Iu	iPNE iE iE	08 48 27 08 52 00 08 52 21		
		Bat	Iu	iPZNE iZN iZ LZNE	08 50 13 08 53 20 08 54 09 09 14		
		Med	Iu	P eL	09 24		record lost.
358	" 1	Amb	Iv	PE	20 44 30		
359	" 1	Amb	Iv	PE	21 47 08		

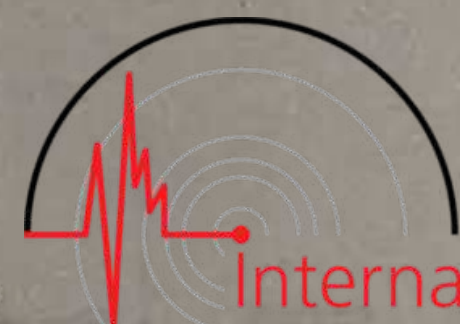
29.

					h m s	km	
360	Sep. 2	Amb	IIv	PN IS?E	18 49 42 18 50 00		
361	" 3	Med	Iu	PNE iNE iNE iSN SE eLNE	19 00 35 19 01 08 19 02 46 19 10 42 19 10 42 19 37	8880	
		Bat	IIu	PZ iPZ PNE SZ iSNE LZ	19 00 47 19 00 48 19 00 49 19 11 06 19 11 09 19 17	9140	
		Amb	Iu	L			no minute marks.
362	" 4	Bat	I	PZ LZNE	06 25 05 06 50		
363	" 5	Bat	I	iPZ iS?NE	20 58 10 21 02 41		
		Med	I	PE iN iS?NE	20 59 47 20 59 56 21 09 55		
364	" 5	Amb	IIv	iPNE			no minute eclipses, from SE, felt on Babar and Kei Islands.
365	" 6	Med	Iv	PE iSN	03 23 20 03 23 29	80	
366	" 7	Med	Iv	ePNE SNE	13 26 33 13 27 24	460	felt in Sum. West coast.
367	" 8	Bat	Iu	PZNE iNE PNE iNE iNE eLE	00 58 31 01 04 37 00 58 56 01 04 56 01 06 08 01 26		
368	" 8	Amb	I	iPN	14 02 06		
369	" 9	Mal	v	i			no time correction.
370	" 9	Med	Ir	PNE iSNE iE iN	23 42 25 23 46 25 23 50 26 23 50 34	2410	
371	" 12	Mal	v	i			no time correction.
372	" 13	Med	IIIv	PNE iPNE iSNE iNE	06 11 22 06 11 26 06 11 56 06 12 01	260	

30.

					h m s	km	
373	Sep. 14	Bat	Ir	PNE iSZ iS?N iSNE	23 48 56 23 52 45 23 52 46 23 52 48		
		Med	I	PNE iE eN iN	23 50 37 23 57 37 23 57 37 23 58 01		
374	" 15	Amb	I	iPNE iE iN S?E S?N eLNE	12 32 13 12 37 29 12 37 32 12 37 41 12 37 55 12 43		
		Bat	IIu	iPZ iPNE iSNE iE eLZ eLN eLE	12 36 54 12 36 56 12 44.5 12 45.5 12 50 12 52 12 54	5900	compression from ESE in minute mark. in minute mark.
		Med	Iu	iPNE iN iE S?E eLE	12 38 06 12 38 15 12 45 27 12 47 13 12 59	7610?	
375	" 15	Bat	I	PZ PNE	13 07 09 13 08 02		in previous. in previous.
376	" 16	Med	Iv	ePNE iSNE	02 07.3 02 07 39	180	in minute mark.
377	" 17	Mal	v	i			no time correction.
378	" 17	Bat	I	PZNE eLNE	09 55.5 10 23		in minute mark and micros.
379	" 18	Mal	v			80	iS - P = 9 sec.
		Bat	IIv	iPZNE iSE	03 18 55 03 19 12	150	felt in W. Java.
380	" 19	Amb	Iv	PNE	15 06 48		
381	" 19	Amb	Iv	PNE iSNE	16 01 53 16 02 01	70	felt at Boela, Ceram.
382	" 19	Amb	Iv	iSNE	22 58 17		
383	" 20	Med	Iv	PNE iSNE	04 39 46 04 40 35	440	felt at Sasak (Sum. West coast).
384	" 21	Med	III	iPN PE iN iE iN iNE	07 50 51 07 50 53 07 55 10 07 55 28 07 55 51 07 56 05		

31.					32.				
				h m s	km			h m s	km
384 cont.)	Sep.21	Med	III	iE 07 56 13 iN 07 56 41 iE 07 56 47 PZ 07 53 31 iE 08 00 52 iS?E 08 01 41 iSNE 08 01 45 iE 08 01 59	6570			19 22 50 19 23 12	190
		Bat	Iu						
385	" 21	Amb	IIv		670	iS - P = 1 12 , no time marks, felt in N.Celebes, Sangir Islands and Hal-maheira.			
		Bat	Ir	PNE 09 44 42 iN 09 45 23 iE 09 48 21 iSNE 09 48 39 LZ 09 53 LNE 09 54 PNE 09 45 42 iN 09 45 52 SE 09 50 30 iE 09 50 50 iN 09 50 58 iN 09 51 33	2390	in micros.			
		Med	Ir		3070				
386	" 22	Amb	Iv			No time marks.			
387	" 22	Bat	Ir	PNE 03 16 29 PZ 03 16 31 SNE 03 21 00 LZ 03 27 PNE 03 16 51 SNE 03 21 22	2830				
		Med	Ir		2830				
388	" 23	Amb	Iv			no time marks.			
389	" 23	Amb	IIr	PNE 13 11 29 iNE 13 11 41 iS?E 13 16 03 iS?N 13 16 08 LNE 13 24					
		Mal	u		5080	iS - P = 6 49 .			
		Bat	IIIu	PNE 13 14.5 iE 13 20 00 iN 13 20 09 iSNE 13 21 25 iE 13 22 01 PNE 13 15 47 iNE 13 15 57 SNE 13 23.6	5190	in minute mark.			
		Med	IIu		6120				
390	" 25	Med	Iv	sPNE 11 00 17 iSNE 11 01 38	700	faint			
391	" 25	Amb	Iv	PNE 17 42 54 iS?NE 17 43 28 iN 17 46 01 iE 17 47 24 PZNE 17 46 56 SN 17 51 10 iE 17 52 26	300?				
		Bat	Ir		2600				
392	Sep.25	Med	IIIv						
393	" 27	Amb	Iv						
394	" 27	Mal	d	1PNE		no time correction, felt on Java, Bali, Lombok. dilatation.			
		Bat	IIIv	1PZNE 08 56 26 iNE 08 56 37 iE 08 56 58 iSN 08 57 17 PNE 08 59 17 iNE 08 59 33 iN 09 00 14 iE 09 00 25 iSN 09 02 33	460				
		Med	IIIr		1880				
		Amb	IIr		1930	iS - iP = 3 20 , no minute marks.			
395	" 27	Mal	v		190	S - P = 22 sec.			
396	" 27	Mal	v		320	S - P = 36 sec.			
397	" 27	Mal	v		280	S - P = 32 sec.			
398	" 27	Amb	IIIv		330	iS - P = 38 sec., felt on Ceram.			
399	" 27	Amb	Iv			no minute marks.			
400	" 27	Mal	v		320	S - P = 36 sec.			
401	" 27	Mal	v		380	S - P = 43 sec. aftershock, felt on Java.			
		Bat	Iv	PZ 19 53 57					
402	" 28	Amb	I			no minute marks, felt in E. Celebes.			
		Bat	I	1PNE 13 21 35 iSNE 13 24 47	1840				
		Med	I	PNE 13 22 50 iSNE 13 26 59 iE 13 30 12 iN 13 30 15	2540				
403	" 28	Amb	Iv			no minute marks.			
404	" 28	Mal	v		280	S - P = 32 sec.			
405	" 28	Mal	v	S		P too faint.			
406	" 28	Mal	v	S		P too faint.			
407	" 29	Amb	Iv	iNE 03 11 39					
408	" 29	Mal	v	S		P too faint.			
409	" 29	Mal	v		160	iS - iP = 18 sec., felt in Preangan (W.Java).			
		Bat	Iv	1PZ 17 29 08 iNE 17 29 31 iSNE 17 29 39	270				



					h m s	km	
410	Sep.30	Mal	v			90	IS - P = 11 sec.
411	" 30	Bat	v	PZ	20 01 12	320	S - P = 36 sec.
		Mal	v				
412	" 30	Mal	v			320	S - P = 36 sec.

CONSTANTS WIECHERT SEISMOGRAPHS.

BATAVIA.

	EW Component			NS Component			Z Component		
1937	V	T ₀	ξ	V	T ₀	ξ	V	T ₀	ξ
July	220	7.2	3.3	190	7.4	3.4	300	4.7	3.8
August	220	7.4	3.4	190	7.5	3.4	300	4.7	3.4
September	220	7.4	3.6	190	7.4	3.4	300	4.7	3.7

	e ₀	r	e ₀	r	e ₀	r
July	1.08	0.5	1.09	1.4	1.16	0.4
August	1.07	0.4	1.10	1.2	1.15	0.4
September	1.07	0.5	1.10	1.1	1.13	0.4

MEDAN.

EW Component					NS Component				
V	T ₀	ξ	e ₀	r	V	T ₀	ξ	e ₀	r
230	5.1	3.7	1.07	0.7	235	4.5	2.2	1.09	0.9

AMBOINA.

Not yet redetermined.

Seismological Bulletin 1937

Royal Magnetical and Meteorological Observatory

Batavia, Java.October - December 1937.

Remarks. The same remarks as in the previous Bulletin concerning time service at Malabar are still valid. Reports of Soengei Langka have not been inserted in this Bulletin.

No.	Date	Station	Character	Phase	G.M.C.T.	Distance	Remarks
<u>October.</u>							
					h m s	km	
413	Oct. 1	Bat			19 35.3		traces.
414	" 2	Amb	Iv	iE	08 42 49		
415	" 2	Amb	Iv	iSNE	08 44 19		
416	" 2	Amb	Iv	PNE iSNE	09 49 12 09 49 15	20	
417	" 2	Mal	v			80	iS - P = 9 sec.
418	" 4	Med	IIr	PNE iSNE	04 04 17 04 06 15	1040	
		Bat	Ir	ePNE SN SE iE	04 05.3 04 09 02 04 09 05 04 10 30	2220	in minute eclipse.
419	" 4	Bat	Ir	ePNE	12 18 25		
		Med	Ir	PN iSNE	12 19 51 12 23 42	2310	
420	" 4	Bat	I	ePNE	14 16 04		
421	" 4	Amb	Iv				no minute eclipses, felt at Wahai, Ceram
422	" 5	Med	Iv				no minute eclipses, felt at Koetetjané, N. Sumatra
423	" 5	Mal	v			550?	S? - eP = 60 sec.
		Bat	Iv	PNE SNE iNE	14 05 02 14 06.3 14 08 38	700	Felt in E. Java, Bali and Lombok. in minute eclipse
424	" 5	Med	Iv				no minute eclipses.

					35.			
					h	m	s	km
425	Oct. 5	Mal	v					90
		Bat	Iv	iPZN	23	13	49	160?
				iS?E	23	14	08	
				iN	23	14	30	
426	" 6	Bat	Iv	PZ	10	07	01	
		Med	Iv	ePE	10	07.2		
				iE	10	08	15	
427	" 6	Amb	Ir	PE	17	10	15	2970
				PN	17	10.3		
				SNE	17	14	56	
		Bat	Iu	PZ	17	13	15	5180
				PE	17	13.3		
				SN	17	20	10	
				eLZNE	17	27		
		Med	Iu	ePNE	17	14	29	
				iE	17	22	15	
428	" 7	Bat	Iv	PZ	08	11	00	
429	" 8	Mal	v	i				
		Bat	Iv	ePZ	18	00	16	350
				iSZNE	18	00	56	
430	" 8	Amb	Iv					
431	" 10	Amb	Iv					
432	" 10	Med	Iv	ePNE	03	12.6		260
				iSNE	03	13	06	
433	" 11	Med		L?	09	36		
434	" 12	Amb	I	PNE	02	41.1		
435	" 12	Med	Iv	ePNE	05	20	56	111?
				iS?E	05	21	09	
436	" 12	Amb	Iv	iN	16	29	03	
437	" 12	Amb	I	eP?E	21	10	08	
		Bat	I	PZ	21	10	29	
				iPZ	21	10	33	
				ePNE	21	10	34	
				iZ	21	11	03	
				iNE	21	11	25	
438	" 12	Amb	Iv	PE	21	51.2		650
				SNE	21	52	22	
439	" 15	Med	Iv	ePE	09	36	10	320
				iSNE	09	36	46	
440	" 15	Mal	d					150
		Bat	IIv	iPZNE	21	27	06	210
				iN	21	27	22	
				iS?NE	21	27	30	

iS - P = 11 sec., felt in Priangan W.Java.

faint in minute eclipse.

in minute eclipse.

in minute eclipse.

faint.

uncertain

no minute eclipses.

no minute eclipses.

in minute eclipse.

in minute eclipse.

in minute eclipse, felt in N. N.Guinee.

felt at Kampong Air, N.Sumatra

iS - iP = 17 sec., felt in Priangan, W.Java

					36.			
					h	m	s	km
441	Oct.16	Bat	Iv	PNE	01	31	33	
		Mal	v					
442	" 16	Mal	d					80
		Bat	Iv	PNE	12	06	26	111
				iSNE	12	06	39	
				iN	12	07	31	
				iE	12	07	38	
443	" 16	Bat	Iv	iPNE	18	17	48	
		Mal	v	i				
444	" 17	Amb	Ir	PNE	04	52	44	
				iE	04	53	58	
				iNE	04	58.8		
		Med	Iu	ePE	04	56	10	5320
				SE	05	03	13	
				eLE	05	10		
		Bat	Iu	PNE	04	56	16	5500
				SNE	05	03	39	
445	" 19	Amb	Iv					690
446	" 20	Mal	v					140
		Bat	Iv	iPZ	03	09	38	
				PNE	03	09	41	
447	" 20	Bat	I	ePNE	11	57	47	
		Med	I	eE	12	02	46	
				iE	12	04	27	
448	" 22	Bat	IIv	iPZE	05	11	46	500?
				iS?NE	05	12	41	
				iE	05	13	13	
		Mal	v	i				
		Med	Iv	ePNE	05	13	18	
				iNE	05	14	38	
				iE	05	15	27	
449	" 22	Med	IIIv	PN	16	15	08	330
				iPNE	16	15	10	
				SNE	16	15	46	
		Bat	Ir	ePE	16	17	44	
450	" 22	Mal	d					130
		Bat	Iv	iPZ	16	33	45	
				PN	16	33	48	
451	" 23	Amb	IIv					450+
		Bat	Ir	ePZ	14	45	07	
				ePE	14	46	01	
				iN	14	54	13	
452	" 26	Mal	d					50
		Bat	Iv	PZNE	01	10	51	
				iNE	01	11	07	
				iZE	01	11	38	

Uncertain. traces.

iS - P = 10 sec., felt in Priangan W.Java.

faint.

S - P = 1^m14^s; no minute eclipses.

S - eP = 16 sec.

faint.

dilatation, felt in Palembang and Benkoelen S.Sumatra.

felt in Tapanoeli and Sum. West Coast.

uncertain.

iS - P = 15 sec., felt in Priangan W.Java. in previous.

S - P = 46 sec., no minute eclipses, felt in N.Celebes (Kopandakan).

S - P = 6 sec., felt in Priangan (W.Java).

					h m s	km	
453	Oct.27	Amb Bat	Iv Ir	1PZ ePE iSN S?E	18 56 47 18 56 49 19 00 45 19 00 51	2400	no minute eclipses.
454	" 28	Bat	I	1PNE iN iE	04 36 05 04 37 35 04 38 06		
455	" 28	Amb	Ir	PNE S?NE	09 39 54 09 44.2	2650?	in minute eclipses.
456	" 28	Amb	Iv	ePN	15 13 43		time correction unexact, felt in Sangir and Talaud Islands.
457	" 29	Bat			07 42.4		traces.
458	" 29	Amb	IIv	PNE SNE	09 15 02 09 15 31	250	felt at Wahai (Ceram).
459	" 30	Med	Iv	ePE iE	01 09 58 01 11 11		faint.
November.							
460	Nov. 3	Med	Iv	ePE	06 50 11		faint.
461	" 3	Mal Bat	v Iv	ePE ePZ S?E	07 40 55 07 40 58 07 41 36	360?	traces.
462	" 4	Mal	v	P			
463	" 4	Mal	v			110	iS - eP = 13 sec.
464	" 5	Amb	Iv	PNE iSNE PZE iS?N PE	09 29 34 09 30 19 09 34 12 09 38 28 09 34.7	400 2630?	felt in W. N. Guinee and Pandjang Island.
465	" 5	Amb	IIv	PN PE iSNE	10 45 47 10 45 49 10 45 58	90	in hour mark.
466	" 6	Amb	Iv	ePNE iNE	05 16 05 05 16 07		
467	" 7	Mal Bat	v Iv	P ePNE iN	17 41 36 17 42 19		felt at Tandjong Keling (S.Sum.).
468	" 9	Amb	Iv	PNE iSE	13 51 04 13 51 20	140	

					h m s	km	
469	Nov.10	Mal	v			80	iS - P = 10 sec.
470	" 11	Mal	v	i			
471	" 11	Amb	Iv				no minute eclipses.
472	" 11	Med	Iv	P iS?NE	16 51 00		too faint.
473	" 13	Med	Iu	eP?NE eINE	10 06.5 10 39 10 15		extremely faint, in minute eclipse.
474	" 13	Amb	Iv				traces.
475	" 13	Med	Iv	ePN	22 52 47		no minute eclipses.
476	" 14	Amb	Iv				faint.
477	" 14	Med	IIIr	PNE iSNE PNE iE iN iS?E L?E PE iSE	11 05 41 11 11 36 11 07 17 11 10 55 11 11 14 11 14 35 11 20 11 08 39 11 17.2	4100 5590 6920	no minute eclipses.
478	" 14	Mal	v	i			
479	" 15	Med	Ir	PN? ePE iN iE iE iN L?E ePN iN	21 44.4 21 45 04 21 50 09 21 50 16 21 50 54 21 51 14 21 54 21 44 46 21 53 16		faint, perhaps earlier.
480	" 17	Mal	d			80	iS - P = 9 sec., felt at Soekanegara (W. Java).
481	" 17	Bat	Iv	iPZ ePNE iE iS?NE	01 41 58 01 42 01 01 42 58 01 43 49	980?	faint in micros.
482	" 17	Bat	Iv	PNE	13 48 00		
483	" 17	Bat	Iv	PNE	13 57 29		
484	" 17	Bat	Iv	PNE	14 14 20		
485	" 18	Amb Bat	Ir I	PE Pz iE eL?E ePNE eSE iN	02 55 38 02 55 40 02 57 16 03 13 02 56 53 03 03 55 03 04 36	2040 5300	S - iP = 3 ^m 30 ^s ., no minute eclipses.

39.

					h m s	km	
486	Nov.19	Amb	Iv	PNE iSNE	11 20 04 11 20 19	130	
487	" 19	Mal Bat	v Iv	PZNE	19 58.4	310	iS - P = 35 sec. faint in minute eclipse, felt in Central Java.
488	" 20	Med	Iv	PNE	17 20.3		in minute eclipse, felt at Fort de Kock, Sum. W. Coast.
489	" 20	Mal	v	iS			P too faint.
491	" 21	Bat	Iv	ePE	02 49 27		faint.
492	" 22	Bat			19 07.4		traces.
493	" 24	Bat	Ir	PNE iN iSE	15 58 54 16 00 29 16 00 51	1111	
494	" 24	Amb	Iv	PNE	18 58 11		
495	" 25	Bat	IIIv	iPNE iSNE iN	00 52 02 00 52 36 00 52 40	300	compression from SW.
		Mal Med	v Ir	iS eE iN	00 55 44 01 03 06		
496	" 25	Amb	Iv	iPNE iSNE	01 17 12 01 17.4	100	in minute eclipse.
497	" 26	Amb	Iv	ePNE	03 42.5		in minute eclipse.
498	" 26	Med	IIv	PNE iSN	10 10.3 10 10 39	180	in minute eclipse.
499	" 26	Med Bat	Ir Ir	PNE P7	10 51 30 10 51 52		
500	" 27	Bat	Iv	PE iS?E	03 54 37 03 56 05	770?	
501	" 27	Bat	Iv	ePE	14 24 36		in micros., felt at Kroß (S.Sum).
502	" 28	Med	IIIv	iPNE iS?E	05 25 12 05 26 09	520?	
		Bat	IIIr	PZ ePNE iE iS?N iZN iE iNE	05 26 29 05 26 31 05 26 35 05 28 36 05 30 43 05 30 45 05 31 14	1220?	pens off. in micros.
503	" 28	Bat	Iv	PNE iZ iSZN	07 56 01 07 56 03 07 56 17	140	felt at Tjiastana, Priangan.
		Mal	v			150	iS - P = 17 sec. faint.
504	" 28	Bat	I	ePZNE	10 17.4		

40.

					h m s	km	
505	Nov.28	Bat	Iv	P7 iS?NE iZ P	21 19 36 21 30 52 21 51 36	650?	felt in Palembang and Benkoelen (S.Sumatra).
506	" 30	Med	IIIv	PNE iNE iSE iPNE iSZE iSN eLZ iN	00 42 26 00 43 40 00 43 51 00 44 57 00 48 33 00 48 36 00 52 00 56.4	780?	
		Bat	IIr			2120	compression from NW.
507	" 30	Med	Iv	ePE	04 24 02		in minute eclipse.
508	" 30	Bat	Iu	PE iSNE LNE PE LNE	13 08 09 13 18 27 13 32 13 08 11 13 26	9110	

December.

509	Dec. 2	Mal	v			120	iS - eP = 14 sec.
510	" 5	Bat		L?Z L?E	16 01 16 02		
511	" 6	Med	Iu	eP?E iSE eLNE PZ iSNE	04 43 10 04 50 38 05 03 04 43 32 04 51 06	5750	
		Bat	Iu			5850	
512	" 8	Mal	v	i	08 18 35		
513	" 8	Amb Med	Ir IIr	i iPNE iSNE L?E LNE iPZE iN S?E LZ eLNE	08 37 55 08 38.3 08 43 10 08 44 08 53 08 08 38 41 08 39 40 08 43 54 08 48 08 51	3120	in minute eclipse.
		Bat	IIr			3430	
514	" 8	Amb	Iv	P iS	13 57.0 13 57 17	150	faint in minute eclipse.
515	" 8	Med	Ir	eE eE	20 44 57 20 49 10		faint
516	" 9	Med	IIv	iPNE iSNE	08 20 36 08 20 52	140	felt in Tapanoeli, N.Sumatra.

					h m s	km	
517	Dec.10	Med	I	eE	13 45.3		in minute eclipse.
		Bat	I	eLE	13 59		
				iNE	13 45 43		
518	" 10	Med	Iv	PN	14 14 55		
				iE	14 15 03		
519	" 10	Med	IIv	iPNE	19 32 55	390	felt in Sum. W. Coast and
				iSNE	19 33 39		Tapanoeli (N.Sumatra)
		Bat	Ir	eNE	19 36 59		
				eNE	19 37 49		
				iE	19 38 05		
520	" 12	Med	IIv	ePE	21 37 09	680?	felt at Sigli and on Breuëh
				iS?N	21 38 22		Island.
521	" 13	Amb	Ir	PNE	18 59.6		in minute mark.
		Med	Ir	ePE	13 00 02	3090	
				iN	19 00 12		
				iSE	19 04 51		
				iE	19 15 35		
		Bat	Ir	iPZNE	19 00.4		dilatation from NE , in minute
				iN	19 01 46		eclipse.
				i7	19 02 00		
				eL?E	19 08		
				IZ	19 10		
				LN	19 11		
522	" 14	Mal	v	i	02 04 56		
523	" 15	Med	Iv	ePNE	21 30 19	200	
				SNE	21 30 42		
524	" 16	Amb	Iv	iPNE	08 30 20	800	felt in North and Central Celeb
				iSNE	08 31 46		traces.
		Mal	r	iPNE	08 32 09	1720	
		Bat	IIr	iPZ	08 32 10		
				iSN	08 35 20		
		Med	IIr	iPNE	08 33 26	2500	
				iSNE	08 37 32		
525	" 16	Amb	Iv	iPNE	18 33.9	390	in minute eclipse.
		Med	Ir	iSNE	18 34 38		
		Bat	Ir	eE	18 35 54		
					18 36.4		traces.
526	" 17	Mal	v	P	04 27 02		
				i	04 27 29		
		Bat	IIIv	iPZ	04 27 09	610	dilatation
				iPNE	04 27 11		
				iNE	04 27 55		
				iN	04 27 58		
				iSNE	04 28 19		
		Med	I	ePNE	04 29		too faint.
				iN	04 35 26		
				iE	04 35 34		
				iN	04 38 23		

					h m s	km	
527	Dec.17	Med	Ir	iPNE	09 38 22	3100	in minute eclipse.
				iSE	09 43.2		
		Bat	Ir	iPZNE	09 38 46		
				iE	09 44 32		
				eLNE	09 54		
528	" 18	Med	I	ePE	13 26 21		uncertain.
				eLNE	13 46		too faint.
		Bat	I	P			
				eE	13 34 39		
				eLE	13 52		
				eLZN	13 54		
529	" 20	Bat	I	eP7E	03 44.4		in minute eclipse.
				iE	03 46 14		
530	" 20	Amb	Ir	iPNE	22 40 17		
				iNE	22 45 48	3790	
		Bat	Ir	iPZ	22 41 54		
				iSNE	22 47 30		
531	" 21	Med	Iv	iPNE	12 47 31		felt at Sibolga (Tapanoeli).
				iE	12 47 49		
				iN	12 47 54		
				iE	12 48 33		
532	" 21	Bat	Iv	PNE	15 57 03		felt in Palembang and Benkoelen
				eE	15 57.4		(S.Sumatra).
				iN	15 57 29		in minute eclipse.
533	" 22	Bat	Iv	iPZ	03 57 01		
				iN	03 58 02		
534	" 22	Bat	Iv	PNE	12 38.4		in minute mark, felt at Tjias-
							tana (W.Java).
535	" 23	Bat	Iu	iPZ	13 37 54		dilatation.
				eLNE	14 10		
				LE	14 35		strong.
				LN	14 43		strong.
		Med	Iu	ePNE	13 38 00		
				eLNE	14 32		
				iLNE	14 42		
536	" 24	Bat	Iu	iPZ	06 40 47		
537	" 25	Amb	Iv			610*	felt at Serwaroe and on Leti
							Island; S - P = 71 sec., no
							minute eclipses.
		Bat	Ir	PZ	01 14 30		
				iN	01 15 07		
				iN	01 18 32		
				iE	01 18 48		
				iN	01 18 55		
				eL?Z	01 22		
		Med	Ir	eNE	01 16.2		faint in minute eclipse.
539	" 25	Med	I	eE	10 25 20		

					h m s	km	
540	Dec.26	Med	Iv	ePN iS?N	11 05 33 11 06 28	500?	in micros.
541	" 26	Med	Iv	ePNE iE iS?N	21 01 26 21 02 01 21 02.2	410?	felt at Hinako, Nias Island. in minute eclipse.
542	" 27	Bat	Iv	ePNE	01 50 17		
543	" 28	Amb	Iv	iPNE iS?N iN PZ ePNE iN eNE	03 10 36 03 11 34 03 12 35 03 13 47 03 13 48 03 17 18 03 17 53	530?	felt on Timor Island.
544	" 28	Bat	Iu	iE	06 42 37		
545	" 28	Bat	Iv	PE iE iE iS?N iNE e iS	11 18 12 11 18 57 11 19 18 11 19 22 11 20 30 11 18.5 11 19 07	600?	felt in Benkoelen (S.Sumatra)
546	" 28	Amb	Iv	PNE iSNE	13 26 23 13 26 29		
547	" 28	Mal	v	eP iS	20 12 34 20 12 45	90	time-correction uncertain.
548	" 29	Med	IIv	iPNE S	18 33 52		
		Bat	Ir	eP?N iNE iE	18 35 04 18 38 09 18 38 42		in hour mark. faint.
550	" 30	Amb	Iv	ePNE iSNE	05 05 41 05 05 48	60	
551	" 30	Amb	Iv	PNE	07 35.3		in minute eclipse.

CONSTANTS WIECHERT SEISMOGRAPHS.

BATAVIA.

EW Component				NS Component			Z Component		
1937	V	T ₀	ξ	V	T ₀	ξ	V	T ₀	ξ
October	220	7.2	3.5	190	7.2	3.4	300	4.6	3.4
November	220	7.4	3.5	190	7.4	3.4	300	4.5	3.6
December	220	7.4	3.5	190	7.3	3.4	300	4.5	3.5

	e ₀	r	e ₀	r	e ₀	r
October	1.08	0.7	1.09	1.0	1.15	0.5
November	1.09	0.7	1.08	0.6	1.13	0.4
December	1.10	0.6	1.09	0.6	1.14	0.4

MEDAN.

EW Component					NS Component				
V	T ₀	ξ	e ₀	r	V	T ₀	ξ	e ₀	r
230	5.1	3.7	1.07	0.7	235	4.5	2.2	1.09	0.9

666666666666

					h m s	km	
490	Nov.20	Mal	v			90	iS - P = 11 sec
549	Dec.29	Med	Iv	PNE S?NE	20 24.2 20 24 48	320?	in minute eclipse.