



Geodætisk Institut

Proviantgaarden, Copenhagen, Denmark.

Bulletin of the seismological station

SCORESBY-SUND

$\varphi = 70^{\circ}29' N.$ $\lambda = 21^{\circ}57' W.$ $h = 69$ m.

Lithologic foundation: Gneiss

No. 16. Jan.—June 1937

Instruments:

Galitzin-Wilip seismographs.

Constants:

Component	l	A_1	T_1		μ^2	T	k
	cm	cm	sec			sec	
N	12.0	100	11.8	$1/1-21/4$	0.1	11.9	53
				$21/4-30/6$	0.1	11.9	102
E	12.0	100	11.9	$1/1-21/4$	0.0	11.9	50
				$21/4-30/6$	0.0	11.9	101
Z	14.9	100	10.02	$1/1-21/4$	0.0	$8\frac{1}{2}$	58
				$21/4-30/6$	0.0	$8\frac{1}{2}$	106

Time-corrections have been determined daily by means of Nauen scientific time-signals and time is known with an accuracy of about $1/10$ sec.

Scoresby-Sund.

No.	Date	Hour	Forerunners				L	Un-defined	△	Remarks			
			P	S	h m s	m s							
	1937 Jan.		m s	m s	h m s	m s	h m	h m	°				
1	2	23					.2						
2	5	11	i 20	33						Japan. Deep focus.			
3	5	22					.3						
4	7	6	23	15			.8			P quite small, the reading uncertain. Japan.			
5	7	7						35					
6*	7*	13	31	18	40	17	34	0	44.4	68	China.		
7	19	22						53					
8	23	11			25.1		.8						
9	25	7			4.0	10.7	.4						
10	29	17						.8					
	1937 Febr.				h m s	m s	h m	h m	°				
11	1	9			43.0	49.8	.7						
12	1	21					.52						
13	2	16					.59						
14	4	10					.16						
15	5	6					.2						
16	7	5			3.6		.2						
17	10	8					.33						
18	12	5					1.0			Small preceding movement.			
19	17	9					.8						
20	17	23					.9						
21*	21*	7	13	18	22	6	22	18	23	19	30	66	Pacific Ocean.
22*	21*	7	i 37	18							.4		
23	21	11					.8						
24	21	15					1.0						Faint.
25	21	22					.0						Small preceding movement.
26	22	1					.0						Faint.
27	22	2					.0						
28	22	3			13	34	.5						East of Japan.
29	22	4					1.2						Faint preceding movement.
30	22	13			43.6		.9						
31	23	0	58	57	67.7		1.3					66	Pacific Ocean.
32	23	14					.4						
	1937 March												
33	5	23					.9						
34	9	6					.1						
35	9	15	51	50	61	14	66					73	Panama.
36	10	5			15.3			19					
37	12	10					.3						
38	14	2					.8						
39	14	12			20	14	22	47					
40	15	7					.0						
	1937 April												
41	16	15	58	44	69	10	75.1	1.8					
42	17	14			20	39	.5						
43	18	2					25						
44	19	18					1.0						
45	20	15					12						

Scoresby-Sund.

No.	Date	Hour	Forerunners				L	Un-defined	△	Remarks		
			P	S	h m s	m s						
	1937 March		m s	m s	h m s	m s	h m	h m	°			
46	21	16			33	34						
47	21	19					1.1					
48	22	10					47			Small preceding movement.		
49	22	11					11			Small.		
50	22	11					35			»		
51	22	11					51			»		
52	22	13					17			»		
53	23	1			14.4		.5					
54	23	19					.5					
55	24	1					.6					
56	24	14					.6					
57	25	17			7.6		.3					
58	26	10						31				
59	26	21					.6					
60	28	17					22			Small.		
61	28	18					58					
62	29	6					.9					
63	29	8			13	14	19					
64	29	12					.8			Faint.		
	1937 April											
65	1	18					.5					
66	2	6					.1			Faint.		
67	3	1					.3			»		
68	3	4			22.0	28.7	.8					
69	3	22					.1					
70	3	22					.9					
71	4	1					33			Small.		
72*	5*	7	10.9		21	44	24	50	.8			
73	7	18			47	56	51	48	53.0	1.0		
74	13	5					.7					
75*	16*	3	17	2			20	12	22	19		
76	20	23					16					
77	21	21	55	8			56					
78	23	13					4					
79	24	5					.6					
80	25	11					.1					
	1937 May											
81	25	22					23					
82	28	2					.9					
83	28	20					16					
84	28	20					18					
85	28	20					34					
86	29	1					.3					
87*	29*	18	15	5	18	8	15	30	19		17	
88	29	18					56					
89*	29*	19	i 1	45	9	7	4	6	13.9	16	52	
90	29	20			36	44	38	1				

Scoresby-Sund.

No.	Date	Hour	Forerunners				L	Un-defined	△	Remarks
			P	S						
			m s	m s	h m s	m s	h m	h m	°	
	1937									
	May									
91	1	13					.4			
92	1	16					.7			
93	2	0					.0			
94	4	5		23 55	27.1		.31		Alaska.	
95	5	0					.54		Small.	
96	5	6					.22			
97	5	14					.5		Faint.	
98	5	21			38 56	40.1				
99	5	22					.8		Small.	
100	6	15					.3		Faint.	
101	7	14			27.7		.6			
102	7	22						45		
103	8	20					.6		Faint.	
104	9	3					.51		Small.	
105	9	14	57 24	66 3	67.2	69.8	.76		65	
106	10	15			46 21	47 23			South of Kurile Islands. e 49 ^m 38 ^s .	
107	15	11					.4		No records 11 ^d 15 ^h —14 ^d 14 ^h .	
108	16	7					.0		Faint.	
109	16	12			1.8		.8			
	June									
110	15	5					.36		No records 16 ^d 17 ^h —18 ^d 13 ^h . No records May20 ^d 13 ^h —June 14 ^d 16 ^h . Small.	
111	16	20					.0			
112	17	23					.1			
113	18	9					.6			
114	19	17			25 33	28 6			e 31 ^m .4; 32 ^m 32 ^s . 45 ^m .1.	
115	20	19					.4		Faint.*	
116	21	2					.4			
117*	21*	15	i25 51	36 35	36 12	37 31			Peru.	
118	21	22					.8			
119	22	6						.0	Faint.	
120	24	3					1.0		Faint preceding movement.	
121	24	13					.74		Recording interrupted 13 ^h 2 ^m — [14 ^h 14 ^m .	
122	24	20	7 1	12 44	8 22	9 7	.16		36	
123	24	23					.21		e 15 ^m 30 ^s . Atlantic Ocean.	
124	25	17					.51			
125	25	20							41	
126	25	21							29	
127	26	15					.1		Faint.	
128	26	18			30.6					
129	26	19					.7			
130	28	20					.4			
131	29	23					.42		Small.	
132	30	11					.29			
133	30	14					.8		Faint preceding movement.	
134	30	17					.58		Small.	

Scoresby-Sund.

NOTES

- No. 6. Jan. 7. 13^h. China. P 31^m18^s, dilatation. PP 34^m0^s; PPP 35^m.7. eS 40^m17^s; iS_E 40^m23^s. S_eS_N 41^m26^s. SS 44^m.4; SSS 48^m, immediately followed by L.
- No. 21. Febr. 21. 7^h. Pacific Ocean. eP 13^m18^s, small, masked by microseisms; i_N 13^m27^s; i_Z 13^m46^s; followed by several oscillations, but no clearly marked phases. e_N (P_eS) 17^m37^s; e_N 18^m.0. eS_E 22^m6^s; e_{N,E} 22^m18^s, large on E; i_N 22^m50^s, large. e_E 23^m19^s; e_{N,E} 23^m33^s, large. SS_N 26^m.0. e_EL_Q 29^m.7. L_R 37^m.
- No. 21. Febr. 21. 7^h. Pacific Ocean. Superposed on preceding shock. P, as read, large and well defined, but possibly a small beginning a few seconds earlier. S in large L waves of preceding shock, not readable.
- No. 72. April 5. 7^h. New Guinea; △ = ca. 110°. P small, 10^m.9. P' 14^m.5, quite small; increase of movement 15^m.2. PP 15^m45^s; PPP 17^m.5. SKS_N 21^m44^s; e_E 21^m53^s. PS 24^m50^s, large on N; PPS 26^m1^s. e_N 30^m.4; SS 30^m.8. e_E 34^m.9; SSS_N 35^m.4.
- No. 75. April 16. 3^h. Pacific Ocean. Deep focus. Phases clearly marked. P 17^m2^s, quite small. P' 20^m3^s; 12^s, rather large on Z. e_Z 21^m.7; 21^m53^s. PP 22^m19^s, large. 22^m58^s large on Z. e 23^m36^s, very large on N and large on E. e_N 25^m10^s; 26^m.9; 28^m42^s; 32^m25^s. e_Z 33^m31^s. e_N 34^m.3. e_Z 34^m52^s. e 39^m6^s, large on N and E. e 41^m.5.
- No. 87. April 29. 18^h. Atlantic Ocean. P_Z 15^m5^s small; i 15^m25^s, i 15^m30^s larger. e 16^m.2. S_E 18^m8^s, clearly marked; S_N 18^m13^s smaller. e_N 18^m30^s, movement of long period. e_E 19^m1^s. iL_E 19^m46^s; iL_N 20^m48^s.
- No. 89. April 29. 19^h. Alaska. Superposed on preceding shock. Possibly slightly deeper than normal. iP, dilatation, well defined. iPP 4^m6^s. iS_E 9^m7^s. e_N 9^m33^s. eS_eS_N 11^m.3; e_E 11^m36^s; e_E 11^m59^s. eSS_N 13^m.1; e_E 13^m.9. L not very large.
- No. 117. June 21. 15^h. Peru; △ = ca. 88°. iP (-2.1, -3.3, -5.8; +2.7, +3.7, +8.7). e_Z 26^m4^s. e_N 27^m3^s. e_Z 28^m51^s. e_N 29^m13^s; e_Z 29^m26^s; e_{N,E} 29^m35^s. e_Z 31^m.1. e_N 32^m33^s. e_{N,E} 35^m15^s. SKS 36^m12^s; e_Z 36^m19^s. S_{N,E} 36^m35^s, very large on N. PS_{E,Z} 37^m31^s, large. SS_{N,E} 42^m.2; e_Z 42^m.9. Large oscillations follow SS; the beginning of L not clear.

Seismometric readings: Notation

- P — normal first preliminary tremors, longitudinal waves.
 P+ — first wave condensational (away from the epicentre).
 P- — first wave dilatational (towards the epicentre).
 P (± a, ± b, ± c) — a, b and c are trace amplitudes in mm. of first swing on NS, EW and vertical component Galitzin records respectively. + indicates ground motion directed to N, to E or up, — indicates ground motion to S, to W or down. When a second set of amplitudes is given it refers to the second swing. If an amplitude is not measurable the number is replaced by x.
 PP... — longitudinal waves reflected at the earth's surface.
 S — normal second preliminary tremors, transverse waves.
 SS... — transverse waves reflected at the earth's surface.
 PS; PPS; ... — waves reflected at the earth's surface which travel partly as longitudinal, partly as transverse waves.
 SKS — waves which traverse the mantle as transverse waves but are refracted through the core with longitudinal oscillation.
 PKS — waves which pass the mantle on one side of the core as longitudinal waves, on the other side as transverse waves and are refracted through the core with longitudinal oscillation.
 SKKS — waves which traverse the mantle as transverse waves, are refracted through the core with longitudinal vibration and are reflected on its inner boundary.
 L — long, or surface, waves; main phase.
 M — waves of greatest amplitude in the surface waves.
 i — sharply defined beginning of a phase.
 e — gradual beginning of a phase.
 △ — arcual distance from the station to the epicentre.
 *) affixed to time of phase indicates that the beginning is in a time-mark.
 *) affixed to number and date refers to Notes.



No. 17.

1937.

Geodætisk Institut

Proviantgaarden, Copenhagen, Denmark.

Bulletin of the seismological station

SCORESBYSUND

$\varphi = 70^{\circ}29' N.$ $\lambda = 21^{\circ}57' W.$ $h = 69$ m.

Lithologic foundation: Gneiss

No. 17. July—Dec. 1937

Instruments:

Galitzin-Wilip seismographs.

Constants:

Component	l	A_1	T_1		μ^2	T	k
N	cm	cm	sec			sec	
	12.0	100	11.8	$1/7-12/10$	0.1	11.9	102
				$12/10-27/11$	0.0	12.5	102
E	12.0	100	11.9	$27/11-31/12$	0.0	11.8	50
				$1/7-12/10$	0.0	12.0	101
				$12/10-27/11$	0.0	11.5	101
Z	14.9	100	10.02	$27/11-31/12$	0.0	11.7	50
				$1/7-26/11$	0.0	$8\frac{1}{2}$	105
				$26/11-31/12$	0.0	$8\frac{1}{2}$	60

Time-corrections have been determined daily by means of Nauen scientific time-signals and time is known with an accuracy of about $1/10$ sec.



Scoresby-Sund.

No.	Date	Hour	Forerunners				L	Un-defined	△	Remarks
			P	S						
	1937 July		m s	m s	h m s	m s	h m	h m	°	
1	1	6			21.1	25.4	35			
2	1	10			0 33		6			
3*	1*	12	i 3 15		7.1	13 49				West of Sumatra.
4*	2*	2			56 9	57 49				Coral Sea.
5	2	21					52			Faint.
6	3	2			33		40			
7	3	4					.8			
8	3	11						48		
9	3	16					.1			
10*	4*	6			15.8	25 39	44			Coral Sea.
11	4	6			59 34					Coral Sea. Superposed on preceding [shock].
12	4	7			47 8					Coral Sea. Superposed on preceding [shock].
13	4	18					.5			
14	5	1			53.0		58			
15	6	6					34			Small.
16	6	16					18			
17	7	17						5		
18	8	7						1		
19	8	13					.5			Preceding movement disturbed.
20	8	23					.7			
21	9	17			50 44*	51 11	.6			Peru. e 41 ^m 39 ^s , not quite certain. Celebes.
22	10	21			8		1.3		89	East of Japan.
23	11	13	51 23	61 11	53 49					West of Mexico.
24	11	17		39 48	44 11	47.4	52			Small preceding movement.
25	12	0			33.7		.8			Faint.
26	13	4					.0			
27	14	4						52		
28	14	22	40 7	49 53	43.0	54.9	1.1		77	The reading of <i>P</i> not quite certain. [East of Japan.]
29	15	3					.7			<i>P</i> —, Sea of Okhotsk. Deep focus.
30	15	19	i 12 52	i 20 44						
31	16	10	30 20	40 5			.9		77	East of Japan. <i>P</i> small, the reading [not quite certain.]
32	16	23					.7			
33	17	0						40		
34	17	15					33			Small.
35	17	15					37			
36	17	19			2 19		.3			
37	17	21						5		
38	18	1			18		.4			
39	19	3			13.5	23.0	.8			e_N 30 ^m .2.
40	19	9			18.1		1.6			No <i>Z</i> record; beginning indefinite.
41*	19*	19	47 21	57 11	48 4	62.6			77	Ecuador.
42	20	7					.5		16	
43	21	0					.8			
44	21	12								
45	21	16						.7		Faint.
46*	22*	17	i 17 6		i 18 39	26.2				Alaska.
47	23	0					.2			Some preceding movement.

Scoresby-Sund.

No.	Date	Hour	Forerunners				L	Un-defined	△	Remarks
			P	S						
	1937 July		m s	m s	h m s	m s	h m	h m	°	
48	23	7			25.6		29			
49	23	21						2		
50	24	0					.2			
51	24	2						9		
52	24	6						58		
53	24	9			18.5		23			Alaska.
54	24	16					45			Faint.
55	24	22						21		
56	25	11					.9			
57	25	13	21 14	27 55	22.9	31.3			45	Alaska.
58*	26*	3	i 58 1	66 46	i 58 25				68	Mexico. Deep focus.
59	26	8						.8		One or two shocks?
60	26	9					.1			
61*	26*	20	7 47	17 1	i 7 54	10.4	30		71	Japan.
62	27	8					16			
63	28	9					.7			
64	28	11					5			
65	30	14			.4		1.1			
66	30	18					11			
67	31	11			11 5		.5			
68	31	20	47 2	56 19	51 22	57 2	1.2		71	<i>P</i> —, SS 61 ^m .2. China. No <i>E</i> record.
	Aug.									
69	1	10	52 18	61 35	62 17		1.3		71	<i>P</i> —, China. No <i>E</i> record.
70	2	10					45			Faint.
71	2	15	55 57	64.2			1.2			<i>P</i> and <i>S</i> small, uncertain. Kurile [Islands.]
72	3	5					.2			
73	3	6						55		No records 13 ^h —19 ^h .
	3									
74	3	22					.5			
75	4	4					.9			Faint.
76	4	22					18			
77	4	23	48 30	59 34	52 19	60.8	63		92	<i>P</i> —, SS 66 ^m . Sumatra.
78*	5*	15			3 15		.5			
79	6	9					.5			
80	7	22						30		
81	8	5					.5			
82	8	10			35 15	35 37	.3			
83	8	16								
84	9	14	51 52		62 0		1.4			
85	10	16					.6			
86*	11*	1	9 29		14 8	19 12				Off Java.
87	12	1					1.0			
88	12	6					33			
89	15	4	39.9	50 22	56.3		68			<i>P</i> small, uncertain. Luzon.
90	15	12					17			Recording interrupted 11 ^m —17 ^m .
91	16	11					.9			
92	17	13		31 50			.8			Recording interrupted 13 ^m —25 ^m .
93	17	20					.6			[Pacific Ocean.]

Scoresby-Sund.

No.	Date	Hour	Forerunners				L	Un- defined	△	Remarks
			P	S						
	1937 Aug.		<i>m s</i>	<i>m s</i>	<i>h m s</i>	<i>m s</i>	<i>h m</i>	<i>h m</i>	°	
94	18	9					6			
95	18	15					.6			
96	20	2					47			
97*	20*	6			57 42*	67 20				Indian Ocean. Luzon.
98*	20*	12	i 12 25		22 59	23 42				P small, uncertain. East of Japan.
99	21	23	14 3	23 59			.7		78	
100	22	3					.2			
101	22	11			42 15	51.0				Forerunners small, readings uncer- tain. Atlantic Ocean.
102	23	16			59.9		.7			
103	24	18			48.8		1.5			
104	24	20					46			
105	24	23						.4		
106	26	19			15.9		.5			
107	26	23			53.0		55			
108	31	3					.4			
109	31	14	26 54	36 25			52		74	P possibly some seconds earlier. Burma.
110*	Sept. 1*	8			57 58	58 11	1.6			Northeast of New Zealand.
111	1	22					.8			
112*	3*	18	57 48	65 29	58 18	58 44			56	Aleutian Islands.
113	3	23					.1			
114	4	6			35.4		1.2			
115*	8*	0			1.2	2 44	.5			South Atlantic. Masked by microseisms.
116	9	6					.2			
117*	15*	12			47 41	57.5	1.3			Solomon Islands region. The reading of P uncertain. Off
118	16	0	0 8	9 10	9 30	13.7			69	[Guatemala.
119	17	9			52.0	60 3	1.5		70	Off Mexico.
120	20	7	15 7	24 18			36			
121	21	8					.5			
122*	21*	9			58 15	64 34	1.5			Celebes.
123	21	21					.5			
124	22	3			35 39	42.0	1.0			
125	23	7					37			
126*	23*	13	21 5	33 49	24 52	25 52	53		2	Solomon Islands.
127	25	0								
128	25	4			40 2		41			Atlantic Ocean.
129	25	8					10			
130*	27*	9			14 31	20 25				Java.
131	28	2					.8			
132	28	6	32.2	41.4			.8			Guatemala.
133	28	18					.9			
134	Oct. 1	20					.4			
135	2	5						.8		
136	5	6					56			Very strong microseisms.
137	6	9	58 16	67 15	58 38	68 9	21		68	P+. Mexico. Deep focus.

Scoresby-Sund.

No.	Date	Hour	Forerunners				L	Un- defined	△	Remarks
			P	S						
	1937 Oct.		<i>m s</i>	<i>m s</i>	<i>h m s</i>	<i>m s</i>	<i>h m</i>	<i>h m</i>	°	
138*	6*	17			24 39	34 14	60			Solomon Islands.
139	6	22						21		
140	7	8			i 11 2	14 31	1.0			
141	9	18			.7		1.4			
142	11	1					55			
143	11	21			53.6		1.2			
144*	12*	21			15 7	16 58	.6			Chile. Forerunners masked by microseisms.
145	17	4					1.4		13	
146	21	5					.2			
147	22	17					1.0			
148	23	17			12 50		57		41	Alaska.
149	24	11	i 44 33	50 48	46 17	54.3	.9			
150	25	11					.9			
151	25	23					.9			
152*	29*	7	i 35 59	43 40	37 14	45 2	.2		58	
153	29	20								
154	Nov. 7	19					.7			
155	10	7					.7			
156	13	10			13		1.1			
157	13	19					.2			
158*	14*	11	i 7 39	i 15 20	i 8 56	16 40	.6		59	Afghanistan.
159	15	0					.6			No Z record. Kashmir.
160	15	21		55 58	51.8	61.8				
161	21	20					.8			
162	23	8					.1			Faint.
163	25	5					.9			
164	26	10	i 57 28							P—. Time not certain, no time- marks. No time-marks.
165	27	20					.2			
166	28	5			42.3	56.9	1.3			
167*	30*	0	53.8		64 41	65.9	.5			West of Sumatra. Small preceding movement. Abessinia.
168	30	13		19 19	24.2					
169	Dec. 5	6					.3			
170	5	16					.7			Faint.
171	6	5					.3			
172	6	21					.7			
173	6	22					.3			
174	7	18					.5			
175	8	2					.9			
176*	8*	8	i 44 38		47 52	54 47	1.2			Formosa.
177	8	21					.3			
178	10	13			50.1		1.2			
179	10	18					21			
180	12	8					1.2			Small preceding movement.

Scoresby-Sund.

No.	Date	Hour	Forerunners				L	Un-defined	Δ	Remarks
			P	S						
			m s	m s	h m s	m s	h m	h m	°	
181	1937 Dec. 13	19	6 23	16 38	9 43	16 58	.5		82	P not clearly marked. SS 22 ^m .0. Formosa.
182	13	23		14 5			20			Atlantic Ocean.
183	14	10					14			Small.
184	14	13					17			"
185	14	17					25			Small.
186	14	18					7			
187	16	17						50		
188	17	9	44 46		55.3	60.3				P small, uncertain. Formosa.
189	18	13	27 19				.6			P not clearly marked. Turkestan.
190	18	21					.3			
191	20	4					.6			Faint.
192	21	15						36		
193	22	3	49.1	58 3	62.6		70		68	Off Mexico.
194	22	8					9			
195*	23*	13	29 10	38.3	31 44	33 36			70	Mexico.
196	24	0					.0			
197	24	6			44.4	50.3	1.0			
198	25	10					.4			
199	27	0					.2			
200	28	6	30 44	39 57	40 49		.8			P quite small, uncertain. Atlantic Ocean.
201	30	11					.5			
202	30	12			4.9		.3			
203*	31*	17	52 36	61.9	54 54	62 18	1.3		72	Mexico.

Scoresby-Sund.

NOTES

- No. 3. July 1. 12^h. West of Sumatra; $\Delta = \text{ca. } 95^\circ$. $iP_Z 3^m15^s$ (a time-mark missing, therefore possibly an error of about 1 sec. in the reading). $PP 7^m.1$. $SKS 13^m49^s$; $SKKS 14^m31^s$. $PS_E 16^m1^s$. $SS 21^m.2$.
- No. 4. July 2. 2^h. Coral Sea; $\Delta = \text{ca. } 125^\circ$. No E record. $P' 56^m9^s$. $PP 57^m49^s$. $e_N 67^m.4$. $PS_Z 67^m.8$; $PPS_N 69^m.4$. $e_Z 73^m.5$.
- No. 10. July 4. 6^h. Coral Sea; $\Delta = \text{ca. } 125^\circ$. $PP_{N,Z} 15^m.8$. $e_Z 16^m18^s$. $PS 25^m39^s$. $SS 32^m.2$. $SSS 37^m.1$. $L_Q 45^m$; $L_R 54^m$.
- No. 41. July 19. 19^h. Ecuador. Depth about 170 km. $iP 47^m21^s$, dilatation. $pP 48^m4^s$ much larger than P . $e_N 49^m27^s$; $e_{N,Z} 50^m9^s$. $iS 57^m11^s$ larger. $i_Z 57^m16^s$. $e_Z 57^m44^s$. $e_{N,E,Z} 58^m.0$. $e_Z 58^m55^s$. $e_N 61^m.9$. $SS 62^m.6$. L small.
- No. 46. July 22. 17^h. Alaska; $\Delta = \text{ca. } 40^\circ$. $iP 17^m6^s$ (-2.9, +2.0, +3.3; +2.7, -1.9, -3.8). $iPP 18^m39^s$, large. (S) 22^m59^s preceded by increase of movement. $e 23^m10^s$; $i 23^m21^s$ very large. $e_E 24^m.9$. $SS 26^m.2$ very large, immediately followed by L .
- No. 58. July 26. 3^h. Mexico. Depth about 80 km. $\Delta = 68^\circ$. $iP 58^m1^s$ (-0.4, -2.0, -3.0; +0.7, +3.8, +6.0). P_eP or $pP i 58^m25^s$; strong movement continues for about 1 minute. $ePP 60^m.9$. $e_E 62^m.2$; $i_Z 62^m32^s$; $i_E e_Z 62^m45^s$. $eS 66^m46^s$, $iS 66^m52^s$ large. $e_Z 67^m26^s$, $e_N 67^m34^s$, $e_{N,E} 67^m.8$, large on E .
- No. 61. July 26. 20^h. Japan. $P 7^m47^s$, small, dilatation; $iP_{N,Z} 7^m54^s$, large. $PP 10^m.4$. $e_N 16^m43^s$. $e_{S,N,E} 17^m1^s$. $e_E 17^m27^s$; $e_N 18^m.1$. $SS_N 21^m.5$. $e_E 25^m.3$. $L_R 30^m$, rather small.
- No. 78. Aug. 5. 15^h. $\Delta = \text{ca. } 110^\circ$. Focus probably deeper than normal. $e_{N,E} 3^m15^s$; 3^m33^s ; 4^m7^s . $e 6^m34^s$. $e_N 9^m.0$. $e_E 12^m.0$. $e_{E,Z} 13^m1^s$. $e_N 13^m22^s$, rather large. $SS 20^m.2$. $SSS 23^m.9$. $L_Q 0^h.5$; $L_R 0^h.6$.
- No. 86. Aug. 11. 1^h. Off Java; $\Delta = \text{ca. } 110^\circ$. Depth about 600 km. $P 9^m29^s$, condensation, clearly marked on Z . $pP 11^m.7$ quite small. $PP 14^m8^s$, 15^s . $pPP 16^m15^s$. $PPP 16^m51^s$. $sPP 17^m18^s$. $e 18^m17^s$. $SKS 19^m12^s$. $e_Z 19^m34^s$; $e_{N,E} 20^m12^s$, rather large. $pSKS 22^m.3$. $SP 22^m.7$ and $PS 23^m54^s$. $sS 24^m43^s$. $sSP 26^m39^s$. $e 27^m.8$. $SS 29^m6^s$. $SSS 32^m57^s$. L small.
- No. 97. Aug. 20. 6^h. Indian Ocean; $\Delta = \text{ca. } 115^\circ$. $PP 57^m42^s$. $PS 67^m20^s$. $e_{N,E} 69^m.1$. $SS 73^m.7$; $SSS 77^m.4$.
- No. 98. Aug. 20. 12^h. Luzon; $\Delta = \text{ca. } 90^\circ$. $iP 12^m25^s$ dilatation. $PP 15^m46^s$. $SKS 22^m59^s$, preceded by increase of movement. $e_E 23^m42^s$; $e 24^m.4$, $24^m.7$; $25^m.5$. $SS 28^m.9$. $e 36^m.1$; $37^m.7$ large oscillation. M large.
- No. 110. Sept. 1. 8^h. Northeast of New Zealand; $\Delta = \text{ca. } 140^\circ$. $PKP_Z 57^m58^s$, quite small; 58^m11^s rather large. $e_E 61^m12^s$, small; $e_{N,E} 61^m49^s$ rather large on N . $SS 79^m.4$.
- No. 112. Sept. 3. 18^h. Aleutian Islands. Depth about 160 km. No E record. P , dilatation, 57^m48^s ; followed by increasing oscillations: $e_Z 58^m18^s$, 44^s . $e_N 60^m.6$, $61^m.4$; $e_{N,Z} 61^m35^s$. $e_N 63^m25^s$. $eS 65^m29^s$. $e_{N,Z} 66^m14^s$. $SS_N 71^m18^s$.
- No. 115. Sept. 8. 0^h. South Atlantic; $\Delta = \text{ca. } 130^\circ$. Focus deeper than normal. $PP 1^m.2$. $e_N 2^m44^s$. $e_N 5^m49^s$; 7^m35^s . $e_{N,E} 10^m48^s$. $SS 18^m.1$. $e_{N,E} 20^m31^s$, $22^m.2$.
- No. 117. Sept. 15. 12^h. Solomon Islands region; $\Delta = \text{ca. } 120^\circ$. $PP 47^m41^s$. $PS 57^m.5$. $e_N 59^m.6$. $e_N 63^m.6$, $e_E 64^m.0$, $e_N 64^m45^s$.
- No. 122. Sept. 21. 9^h. Celebes; $\Delta = \text{ca. } 105^\circ$. $PP 58^m15^s$. $SKS 64^m34^s$, $SKKS 65^m17^s$; $e_E 65^m48^s$. $PS 67^m.7$. $SS 72^m.3$; $SSS 77^m.1$.
- No. 126. Sept. 23. 13^h. Solomon Islands; $\Delta = \text{ca. } 120^\circ$. $P 21^m5^s$, not very clearly marked. $P_Z 24^m52^s$, small. $PP 25^m52^s$ large on N and Z . $e_E 27^m32^s$. $PPP 28^m.3$. $SKS_N 31^m35^s$. $SKKS 32^m45^s$. $S 33^m49^s$. $PS 35^m30^s$ large on N . $PPS 37^m.0$. $e_N 37^m43^s$. $SS 42^m.2$. $L_Q 53^m$; $L_R 60^m$.
- No. 130. Sept. 27. 9^h. Java; $\Delta = \text{ca. } 115^\circ$. $PP 14^m31^s$. $PPP 16^m56^s$. $SKS 20^m25^s$. $e 22^m.1$. $e 23^m33^s$. $PS 23^m50^s$ large. $SS 30^m.1$.
- No. 138. Oct. 6. 17^h. Solomon Islands; $\Delta = \text{ca. } 115^\circ$. No E record. $PP 24^m39^s$. $SKS 31^m39^s$. $PS 34^m14^s$. $e_N 36^m35^s$, $38^m.4$. (SS) $41^m.6$. $SSS 45^m.1$. $e 47^m.5$.
- No. 144. Oct. 12. 21^h. Chile; $\Delta = \text{ca. } 100^\circ$. (P_Z) $4^m.6$, quite small. $e 15^m7^s$; 16^m58^s ; 21^m56^s .
- No. 152. Oct. 29. 7^h. Felt at Tashkent; $\Delta = \text{ca. } 58^\circ$; $h = \text{ca. } 220$ km. $iP 35^m59^s$, dilatation. $sP 37^m14^s$. $PPP 39^m.5$. $S 43^m40^s$. $sS 45^m2^s$. $SS 47^m.2$; $SSS 49^m.3$.
- No. 158. Nov. 14. 11^h. Afghanistan; $h = \text{ca. } 220$ km. Strong record. $iP 7^m39^s$. $pP_Z 8^m31^s$. $iSP 8^m56^s$. $PP 9^m48^s$. $e 10^m55^s$. $S_eP_E 11^m50^s$; $iP_eS_N 12^m15^s$. $e_E 13^m54^s$. $iS 15^m20^s$. $e_E 16^m.4$. iS_eS or $sS 16^m40^s$. $e_E 18^m.6$. $i(SS)_N 18^m53^s$; $e_E 19^m.2$. $iSS 20^m50^s$; subsequent movement very large, phases not clearly marked. L not large, beginning uncertain.
- No. 167. Nov. 30. 0^h. West of Sumatra; $\Delta = \text{ca. } 95^\circ$. No time-marks on E . P not clearly marked, about $53^m.8$. $PP 57^m29^s$. (SKKS) 64^m41^s . $PS 65^m.9$. $SS 71^m.0$.
- No. 176. Dec. 8. 8^h. Formosa; $\Delta = \text{ca. } 85^\circ$. $iP 44^m38^s$, condensation. $PP 47^m52^s$. (SKS) 54^m47^s . (S) 55^m11^s . $PS 56^m.2$. $e 67^m.2$.
- No. 195. Dec. 23. 13^h. Mexico. Large earthquake. The beginning of P quite small 29^m10^s or 11^s . $iP_{E,Z} 29^m13^s$ ($x, -4.5, -4.0$; $x, +10.2, +12.3$). $e_N 29^m28^s$; $e_Z 30^m22^s$. $e_E 31^m.0$. $PP 31^m44^s$; $iPPP 33^m36^s$. $e_N 34^m.6$. $e_Z 35^m13^s$. $e_Z 36^m.4$. $e_E 36^m42^s$. $e_N 37^m1^s$. $S 38^m.3$ followed by large, increasing oscillations. $PS 38^m51^s$ very large. $SS 43^m.0$.
- No. 203. Dec. 31. 17^h. Mexico. $P 52^m36^s$, dilatation. (PP) 54^m54^s ; $PPP 57^m0^s$. $S 61^m.9$, not clearly marked, possibly earlier. $PS_N 62^m18^s$. $e_E 63^m0^s$. $SS 66^m.4$; $SSS 69^m.6$.