

701

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PERTH, WESTERN AUSTRALIA

SEISMOLOGICAL STATION - PERTH OBSERVATORY

Seismological Bulletin for January - March 1960

Instrument Columbia-Lamont long period seismograph Milne-Shaw No.27
 Symbol A M
 Component Vertical North-South

No.	Date	Inst.	Phase	Time			Amp.	Remarks
				G.M.T.				
				h.	m.	s.	cms	
<u>January 1960</u>								
1.	Jan. 2nd	A	iP	12	33	55	.14	South Atlantic Ocean, west of Bouvet Island.
		A	iS	-	44	25	.19	
		A	M	-	58	27	.88	
		A	M	13	7	26	.78	
2.	Jan. 13th	A	eP	15	56	29	.04	Southern Peru. (h about 200 KM)
		A	eP'	-	59	34	.10	
		A	iPP	16	1	57	.40	
		M	i	-	2	20	.16	
		A	iSPP	-	14	3	1.00	
		M	i	-	19	30	.34	
		A	i	-	19	32	.66	
		A	i	-	19	50	1.95	
		M	M	-	48	39	.58	
		A	M	-	48	50	4.68	
A	M	-	50	51	5.48			
A	M	-	55	38	4.22			
M	M	-	55	43	.72			
3.	Jan. 15	A	iP'	9	49	27	.15	Near coast of Southern Peru (h about 150 KM)
		A	iPP	-	51	57	.20	
		A	iSPP	-	52	55	.33	
		A	M	10	37	42	.84	
		A	M	-	43	15	.65	
		A	M	-	45	55	.78	
		A	M	-	53	30	.66	
4.	Jan. 23	A	iP	4	47	12	.45	
		A	i	-	48	10	.65	
		M	iS	-	52	9	.68	
		A	iS	-	52	11	2.10	
		A	M	-	58	3	2.85	
		A	M	5	1	55	3.00	
5.	Jan. 23rd	A	iP	7	37	30	.35	
		M	i	-	42	25	.54	
		A	iS	-	42	34	2.10	
		M	iS	-	42	35	.88	
		A	M	-	50	38	2.70	
		A	M	-	52	2	3.00	
		M	M	-	52	43	1.01	
		M	M	-	55	10	1.13	
		A	M	-	55	15	2.90	
6.	23rd	A	iP	18	2	52	.22	
		A	iS	-	7	46	1.25	
		M	iS	-	7	46	.47	
		A	M	-	11	32	1.65	
		A	M	-	13	40	2.20	
		A	M	-	16	10	2.40	
7.	Jan. 24th	A	i	4	47	13	.52	
		M	M	-	51	34	.87	
		M	M	-	53	56	.78	
		M	M	-	54	11	.78	
		A	M	-	56	20	3.90	

No.	Date	Inst.	Phase	Time			Amp.	Remarks
				G.M.T.				
				h.	m.	s.	cms	
8	Jan.31st ✓	A	i	5	19	22	.07	Near east coast of Shikoku, Japan.
		A	e	-	28	9	.12	
		A	M	-	45	46	.20	
		A	M	-	54	23	.24	

Tremors and undecipherable disturbances were recorded:-

By instrument "A" on:- 1st (1), 2nd (2), 4th (1), 6th (1), 7th (3), 8th (1), 9th (1), 11th (4), 12th (3), 16th (4), 19th (2), 21st (2), 25th (1), 29th (1), and 30th (1).

By instrument "M" on:- 1st (1), 2nd (2), 6th (1), 7th (1), 12th (1), 15th (1), 16th (2), 21st (1), 25th (1), and 31st (1).

				February 1960				
9.	Feb.4th ✓	A	iP	3	54	47	.97	New Ireland Region.
		M	iP	-	54	47	.14	
		A	i	-	56	52	.76	
		A	i	-	57	48	1.78	
		M	i	4	1	18	.62	
		A	iS	-	1	39	1.12	
		A	i	-	4	26	1.14	
		M	i	-	4	39	.92	
		A	M	-	12	16	13.20	
		M	M	-	12	45	1.80	
M	M	-	12	46	13.28			
M	M	-	13	9	1.54			

10.	Feb.4th ✓	A	iP	9	35	33	.18	New Ireland Region.
		A	i	-	37	57	.28	
		A	eS	-	42	42	.17	
		A	iSS	-	45	25	.32	
		A	M	-	50	30	.50	

11.	Feb.8th ✓	A	i	13	9	56	.16	Drake Passage.
		A	i	-	16	2	.19	
		M	M	-	38	36	.32	
		A	M	-	38	45	1.48	

12.	Feb.9th ✓	A	iP	12	2	25	.18	Banda Sea.
		M	i	-	7	23	.28	
		A	iS	-	7	31	.30	
		A	M	-	12	55	.42	
		A	M	-	15	37	.36	
		A	M	-	18	52	.48	

13.	Feb.10th ✓	A	iP	0	2	3	1.22	Ceram.
		M	iP	-	2	4	.29	
		A	i	-	3	4	1.84	
		M	iS	-	7	12	1.72	
		A	iS	-	7	13	4.77	
		A	i	-	9	16	2.48	
		A	M	-	10	58	4.90	
		M	M	-	12	2	1.80	
		M	M	-	14	15	2.26	
		A	M	-	15	53	5.12	
A	M	-	22	3	5.00			

14.	Feb.11th ✓	A	iP	21	5	14	.15	Santa Cruz Island.
		A	M	-	25	17	.36	

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No.	Date	Inst.	Phase	Time			Amp.	Remarks
				G.M.T.				
				h.	m.	s.	cms	
15.	Feb. 19th ✓	A	iP	10	48	40	.62	Hindu Kush. (h about 200 KM)
		A	iPP	-	49	32	.42	
		A	iSP	-	49	53	.38	
		A	e	-	58	25	.19	
		A	i	-	59	2	.32	
		A	e	-	59	45	.26	
		A	eSSS	11	7	26	.27	
16.	Feb. 23rd ✓	A	i	16	14	51	.11	Solomon Islands.
		M	i	-	19	38	.12	
		M	iS	-	19	41	.15	
		A	iS	-	19	42	.10	
		A	eSS	-	22	46	.14	
		M	i	-	23	1	.17	
		M	M	-	28	40	.24	
		A	M	-	32	29	1.05	
17.	Feb. 24th ✓	A	iP	21	45	20	.15	Solomon Islands.
		M	i	-	51	55	.22	
		A	iS	-	52	0	.36	
		A	iSS	-	54	58	.34	
		M	i	-	55	14	.22	
		M	M	22	1	8	.78	
		A	M	--	3	39	5.88	
18.	Feb. 26th ✓	A	iP	2	15	48	.18	New Guinea.
		A	iS	-	21	39	.14	
		M	M	-	32	45	.62	
		A	M	-	32	50	1.30	

Tremors and undecipherable disturbances were recorded:-

By instrument "A" on:- 2nd (1), 3rd (3), 4th (2), 5th (1), 7th (1), 8th (1), 9th (1), 10th (1), 13th (1), 14th (2), 16th (1), 17th (2), 21st (1), 26th (1), 27th (3), and 28th (1).

By instrument "M" on:- 4th (1), 10th (1), 17th (1), 27th (1), and 28th (1).

No.	Date	Inst.	Phase	Time			Amp.	Remarks
				G.M.T.				
				h.	m.	s.	cms	
19.	Mar. 5th ✓	A	iP	13	56	12	.28	Halmahera.
		M	i	-	56	29	.22	
		A	i	-	57	20	.63	
		A	i	-	57	55	.53	
		M	i	14	1	32	.30	
		A	i	-	1	34	.47	
		A	iS	-	1	51	.68	
		M	iS	-	1	52	.14	
		A	M	-	7	5	3.15	
		M	M	-	8	25	1.14	
		M	M	-	9	40	1.10	
		A	M	-	13	28	2.99	
		20.	Mar. 8th ✓	A	iP	16	42	
A	iSP			-	43	30	1.06	
A	iPP			-	44	16	.78	
A	i			-	45	22	.75	
A	iS			-	49	0	1.60	
M	iS			-	49	1	.80	
A	eSS			-	52	52	.87	
A	i			-	54	25	2.07	
M	i			-	54	43	1.42	
M	M			-	57	50	1.72	
M	M			-	59	57	1.88	
A	M			17	1	23	2.50	
M	M			-	3	36	1.34	

No.	Date	Inst.	Phase	Time			Amp.	Remarks
				G.M.T.				
				h.	m.	s.	cms	
21.	Mar.10th ✓	A	ISS	10	4	0	.27	Solomon Islands.
		A	eG	-	4	22	.25	
		A	e	-	10	1	.18	
		M	M	-	10	55	.28	
		A	M	-	13	44	1.18	
22.	Mar.12th ✓	A	iP	20	38	41	.31	New Britain.
		M	i	-	45	5	.32	
		A	iS	-	45	10	.29	
		A	i	-	45	42	.58	
		M	i	-	47	59	.58	
		A	iSS	-	48	8	.64	
		M	M	-	54	32	1.19	
A	M	-	56	37	2.32			
23.	Mar.16th ✓	A	eP	17	50	9	.12	Samoa Island Region.
		A	M	18	20	19	.64	
		A	M	-	24	32	.55	
24.	Mar.19th ✓	A	i	19	24	21	.19	New Guinea.
		A	e	-	30	33	.20	
		A	M	-	38	21	1.94	
25.	Mar.20th ✓	A	iP	17	19	17	.18	Off N.E. coast of Honshu, Japan. (h about 60 KM)
		A	i	-	19	27	1.14	
		A	iS	-	29	9	1.20	
		A	i	-	33	40	1.45	
		A	M	-	53	27	5.42	
		A	M	-	56	10	5.23	
26.	Mar.22nd ✓	A	iP	2	38	54	.13	About 400 miles NE of Balleny Islands.
		A	iS	-	44	53	.32	
		A	eSS	-	47	37	.61	
		A	M	-	50	58	6.48	
27.	Mar.23 ✓	A	iP	0	35	16	.24	Near east coast of Honshu, Japan.
		A	iS	-	45	7	.23	
		A	iSS	-	50	36	.62	
		A	M	1	9	22	.86	
		A	M	-	10	55	1.02	
28.	Mar.27th ✓	A	i	4	0	10	.32	New Hebrides Island.
		A	i	-	4	35	.39	
		A	iSS	-	8	13	.68	
		M	M	-	17	20	1.04	
		A	M	-	17	57	3.18	
		M	M	-	18	55	.92	
A	M	-	20	2	3.76			
29.	Mar.27th ✓	A	iP	9	6	53	.40	New Hebrides Island.
		A	iPP	-	8	50	.44	
		A	i	-	9	42	.38	
		A	iS	-	14	1	.63	
		A	iS	-	14	2	.45	
		A	iSS	-	17	37	.62	
		A	i	-	17	47	2.04	
		A	M	-	25	42	4.20	
		M	M	-	26	26	1.60	
30.	Mar.28th ✓	A	eS	6	55	47	.36	New Hebrides Island.
		M	M	7	4	45	.52	
		M	M	-	5	42	.62	
		A	M	-	5	53	1.08	

No.	Date	Inst.	Phase	Time			Amp.	Remarks
				G.M.T.				
				h.	m.	s.	cms	
31.	Mar.29th ✓	A	iP	6	39	54	.53	New Hebrides Island.
		A	iPP	-	41	50	.98	
		A	iS	-	46	53	1.32	
		M	iS	-	46	54	.69	
		A	iSS	-	50	23	1.46	
		M	M	-	56	10	2.38	
		M	M	-	57	48	5.70	
		A	M	7	0	3	12.06	
		A	M	-	0	32	12.04	
M	M	-	2	25	2.35			
32.	Mar.29 ✓	A	iP	22	18	6	.21	East coast of New Guinea.
		M	iS	-	23	59	.30	
		A	iS	-	24	0	.32	
		A	i	-	26	42	.28	
		M	M	-	33	13	.38	
		A	M	-	35	41	1.40	
33.	Mar.30th ✓	A	iP	10	58	55	.16	New Hebrides Island.
		A	ePP	11	0	42	.19	
		A	eS	-	5	57	.28	
		A	eSS	-	9	32	.55	
		M	M	-	18	34	1.10	
		A	M	-	19	23	1.90	
		A	M	-	20	32	1.98	
		M	M	-	20	36	.95	
34.	Mar.30th ✗	A	M	15	48	26.	.36	Loyalty Island Region.
		M	M	-	50	10	.28	
		M	M	-	50	13	.40	

Tremors and undecipherable disturbances were recorded:-

By instrument "A" on:- 1st (2), 4th (1), 7th (3), 8th (1),
10th (2), 15th (1), 21st (1), 22nd (1),
23rd (1), 28th (1), and 31st (1).

By instrument "M" On:- 6th (1).

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PERTH, WESTERN AUSTRALIA

SEISMOLOGICAL STATION - PERTH OBSERVATORY

Seismological Bulletin for April - June 1960

Instrument
Columbia-Lamont long
period seismograph
Milne-Shaw No.27

Symbol
A

Component
Vertical

M

North-South

No.	Date	Inst.	Phase	Time G.M.T.			Amp. cms	Remarks
				h.	m.	s.		
<u>APRIL 1960</u>								
35	Apr. 5th ✓	A	e	7	40	26	.12	Sandwich Island.
		A	e	-	41	28	.21	
		A	eSS	-	45	42	.13	
		A	M	-	57	31	.37	
36	Apr. 15th ✓	A	iP	22	14	1	.18	New Hebrides
		A	iPP	-	15	54	.27	
		A	iPP	-	16	54	.22	
		A	iS	-	21	11	.18	
		A	i	-	21	23	.42	
		A	iSS	-	24	46	.40	
		M	M	-	33	46	1.87	
A	M	-	35	34	3.30			
37	Apr. 24th ✓	A	iP	3	27	16	2.73	Java Sea. (h about 600 KM)
		A	i	-	29	10	.61	
		A	i	-	29	52	.80	
		A	iS	-	30	3	1.16	
		M	i	-	31	12	.52	
		A	i	-	33	58	.60	
		A	i	-	37	42	.42	
		M	M	-	41	22	.92	
A	M	-	41	27	2.47			
38	Apr. 29th ✓	A	iP	19	38	55	.28	Celebes.
		A	e	-	42	49	.35	
		M	iS	-	43	57	.25	
		A	iS	-	43	58		
		M	M	-	49	48	1.48	
A	M	-	51	4	.46	Amp. lost in min. gap.		
39	Apr. 30th ✓	A	e	4	14	20	.28	Celebes.
		A	M	-	19	36	.63	

Tremors and undecipherable disturbances were recorded:-

By instrument "A" on:- 4th (2), 8th (2), 15th (1), 17th (1), 18th (1),
19th (1), 20th (1), 22nd (1), 24th (1), 27th (1),
28th (2), 29th (2), and 30th (3).

By instrument "M" on:- 4th (1), 15th (1), 28th (1), 29th (1), and
30th (3).

<u>MAY</u>								
40	May 11th ✓	A	iP	18	42	30	.12	Ceram Sea.
		A	iS	-	47	50	.22	
		M	iS	-	47	50	.28	
		M	M	-	57	42	.56	
		A	M	-	58	27	2.10	
		A	M	19	0	53	2.13	
y 18th ✓		A	iP	6	45	32	.20	Ryukyu Islands. (h about 100 KM.)
		A	iS	-	53	56	.26	
		A	M	7	6	59	.60	
		A	M	-	12	6	.70	

No.	Date	Inst.	Phase	Time			Amp.	Remarks
				G.M.T.				
				h.	m.	s.	cms	
42	May 19th ✓	A	i	10	20	55	.18	Mascarene Island Region.
		A	i	-	21	7	.39	
		A	i	-	27	28	.26	
		A	i	-	28	14	.50	
		A	M	-	36	47	1.18	
43	May 20th ✓	A	iP	11	20	50	.58	Norfolk Island.
		A	iPP	-	22	42	.80	
		A	iPPP	-	23	22	.51	
		A	iS	-	27	36	1.60	
		A	iSS	-	30	50	1.00	
		M	iSS	-	30	52	.40	
		A	M	-	36	50	7.50	
		M	M	-	37	10	2.12	
		A	M	-	39	48	7.82	
		M	M	-	40	2	2.12	
		A	M	-	43	7	7.56	
M	M	-	46	11	2.00			
44	May 21st ✓	A	eP	10	17	32	.42	Chile
		A	iPP	-	22	8	.30	
		M	i	-	28	0	.10	
		M	i	-	31	30	.75	
		A	i	-	31	36	.98	
		A	i	-	32	40	2.16	
		M	i	-	36	8	.39	
		M	i	-	38	0	.49	
		A	i	-	38	34	2.02	
		A	M	11	2	46	7.68	
		M	M	-	7	49	9.50	
M	M	-	7	58	1.12			
A	M	-	18	58	9.77			
								2nd quake lost in overlapping
45	May 22nd ✓	A	eP	10	47	18	.28	Chile.
		A	iPP	-	51	58	.46	
		M	iPP	-	51	59	.23	
		A	iS	11	1	8	.77	
		M	i	-	7	47	.28	
		A	i	-	7	57	1.09	
		M	M	-	29	55	.49	
		M	M	-	35	27	.90	
		A	M	-	35	40	4.98	
		M	M	-	38	15	.86	
A	M	-	38	28	5.10			
46	May 22nd ✓	A	iP	19	10	30	.36	Chile.
		A	iPP	-	15	6	1.03	
		M	i	-	15	13	.21	
		A	iS	-	24	18	1.18	
		M	iS	-	24	20	.29	
		M	i	-	30	35	.68	
		M	M	20	5	40	7.68	
		M	M	-	8	37	7.40	
		A	M	-	28	58	9.60	
		A	M	-	30	53	10.30	
		A	M	-	46	39	12.00	
A	M	-	47	38	12.00			
								2 quakes following, but lost in overlapping
47	May 24th ✓	A	iP	14	54	27	.14	South Island, New Zealand.
		A	iPP	-	56	9	.21	
		A	i	15	0	44	.19	
		A	i	-	1	4	.32	
		M	i	-	1	4	.26	
		M	M	-	11	55	1.25	
		A	M	-	13	12	2.90	

No.	Date	Inst.	Phase	Time			Amp.	Remarks
				G.M.T.				
				h.	m.	s.	cms	
48	May 25th ✓	A	i	9	3	35	.19	Chile
		A	i	-	8	30	.22	
		A	e	-	24	0		Amp. not visible.
		A	i	-	29	35	.38	
		A	M	-	39	5	.58	
		A	M	-	41	52	.60	

Tremors and undecipherable disturbances were recorded:-

By instrument "A" on:- 2nd (1), 3rd (1), 5th (1), 9th (1), 12th (1), 19th (1), 23rd (9), 24th (2), 25th(3), 28th (1), 29th (1), 31st (3).

By instrument "M" on:- 2nd (1), 4th (1), 18th (1), 19th (1), 23rd (6), 25th (1), 29th (1), and 31st (1).

JUNE 1960								
No.	Date	Inst.	Phase	h.	m.	s.	Amp.	Remarks
49	June 2nd ✓	A	iP	7	55	18	.30	
		A	i	-	57	8	.30	
		A	i	8	0	52	.37	
		A	iS	-	1	30	.40	
		M	iS	-	1	30	.26	
		A	i	-	4	28	.50	
		M	i	-	4	28	.41	
		M	M	-	11	18	.60	
		A	M	-	12	50	2.10	
50	June 6th ✓	A	iP	6	10	22	.26	Near coast of Chile.
		M	iPP	-	14	39	.40	
		A	iPP	-	14	41	1.85	
		A	iPPP	-	16	51	1.55	
		A	iS	-	22	22	1.12	
		A	iPPS	-	24	32	1.60	
		A	i	-	29	54	2.74	
		A	M	-	47	33	>16.50	
		M	M	-	48	30	1.33	
		M	M	-	49	33	1.74	
		M	M	-	50	38	1.67	
		A	M	-	54	29	>16.50	
		51	June 9th ✓	A	iP	11	32	
A	i			-	39	44	.21	
A	iS			-	39	58	.24	
A	i			-	43	22	.46	
M	M			-	53	12	.38	
M	M			-	54	40	.40	
A	M			-	54	40	3.23	
52	June 11th ✓	A	iP	15	21	55	1.13	D'Entrecasteaux Island.
		A	iPP	-	23	30	2.05	
		A	iS	-	28	19	3.75	
		A	iSS	-	31	7	2.05	
		A	M	-	36	56	>10.50	
		A	M	-	38	55	>10.50	
53	June 20th ✓	A	iP	2	15	45	.20	Near coast of Chile.
		A	iPP	-	20	25	.50	
		A	i	-	29	33	.79	
		M	i	-	36	24	.30	
		A	i	-	36	28	.68	
		M	M	3	8	39	1.00	
		A	M	-	8	45	5.55	
		A	M	-	9	20	5.05	

No.	Date	Inst.	Phase	Time			Amp.	Remarks	
				G.M.T.					
				h.	m.	s.	cms		
54	June 20th	A	iP	13	14	25	.14	Chile	
		A	iPP	-	18	42	.36		
		A	i	-	27	42	.24		
		A	i	-	34	35	.32		
		A	M	14	2	4	2.14		
		A	M	-	4	47	2.52		
		M	M	-	4	55	.42		
		M	M	-	9	16	2.25		
		M	M	-	9	24	.42		
55	June 25th	A	iP	14	51	38	.24	Kermadec Island.	
		A	iS	-	59	41	.15		
		A	i	15	3	43	.34		
		A	M	-	11	34	1.74		
		M	M	-	13	29	.44		
		A	M	-	14	50	2.55		
		M	M	-	16	7	.34		

Tremors and undecipherable disturbances were recorded:-

By instrument "A" on:- 1st (1), 2nd (1), 3rd (1), 4th (1), 5th (1),
 6th (2), 10th (1), 12th (2), 14th (1), 15th (2),
 16th (3), 17th (1), 18th (1), 19th (1), 21st (1),
 24th (1), 25th (1), 27th (1), and 29th (2).

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PERTH, WESTERN AUSTRALIA

SEISMOLOGICAL STATION - PERTH OBSERVATORY

Seismological Bulletin for July - September 1960

Instrument Columbia-Lamont long period seismograph
Milne-Shaw No.27

Symbol A
M

Component Vertical
North-South

No.	Date	Inst.	Phase	Time G.M.T.			Amp. cms	Remarks
				h.	m.	s.		
<u>July 1960</u>								
56	July 3rd	A	iSS	20	53	47	.40	Adreanof Islands.
		A	M	21	9	27	.36	
		A	M	-	12	32	.41	
		A	M	-	15	12	.32	
57	July 4th	A	M	5	31	12	.47	Queen Charlotte Islands.
		M	M	-	50	35	.20	
58	July 10th	A	iP	0	12	40	.31	Off west coast of Sumatra
		A	iS	-	18	18	.34	
		M	iS	-	18	20	.28	
		A	i	-	20	51	.57	
		A	M	-	23	19	2.09	
		M	M	-	27	32	.40	
		A	M	-	29	48	2.08	
		M	M	-	32	38	.55	
59	July 14th	A	iP	10	34	27	.29	Molucca Passage.
		A	iSS	-	42	58	.25	
		M	i	-	43	24	.30	
		A	M	-	47	32	.52	
60	July 18th	A	iS	1	57	48	.18	New Britain Region. (h about 200 KM)
		A	i	2	1	7	.82	
		A	i	-	1	12	.78	
		M	i	-	1	16	.31	
		A	M	-	8	40	1.03	
61	July 20th	A	iSS	21	18	59	.40	New Hebrides Island.
		M	M	-	29	26	.56	
		A	M	-	30	15	2.45	
		M	M	-	30	47	.65	
62	July 25th	A	iP	11	25	42	.39	Kamchatka. (h about 100 KM)
		A	iS	-	37	19	.80	
		A	M	-	46	26	.55	
		A	M	-	50	45	.62	
63	July 29th	A	iP	0	33	15	.41	Loyalty Islands.
		A	iS	-	44	59	.79	
64	July 29th	A	iP	17	43	25	.54	Honshu, Japan.
		A	iS	-	53	7	.37	
		A	iSS	-	58	35	.62	
		A	M	18	17	48	1.55	
65	July 31st	A	iP	3	3	40	.73	New Britain.
		A	iPP	-	5	7	.56	
		M	i	-	9	42	.41	
		A	iS	-	9	55	1.29	
		M	iSS	-	12	41	1.45	
		A	iSS	-	12	41	3.98	
		A	M	-	19	57	9.30	

Tremors and undecipherable disturbances were recorded:-

By instrument "A" on:- 2nd (1), 5th (1), 6th (1), 11th (3), 13th (1), 23rd (1), 25th (2), 27th (2), and 31st (1).

By instrument "M" on:- 3rd (1), 13th (1), 25th (1), 29th (1), and 31st (1).

No.	Date	Inst.	Phase	Time G.M.T.			Amp. cms	Remarks
				h.	m.	s.		
August 1960								
66	Aug. 2nd ✓	A	iP	5	16	10	.24	Loyalty Islands.
		M	iS	-	23	15	.28	
		A	iS	-	23	16	.15	
		A	M	-	34	24	.71	
		M	M	-	35	34	.62	
67	Aug. 4th ✓	A	eS	8	7	29	.20	Aleutian Island. (h about 83 KM)
		A	M	-	33	12	.66	
68	Aug. 9th X	A	M	8	41	45	.38	
		A	M	-	44	24	.94	
69	Aug. 13th ✓	A	iP	14	33	46	.70	
		A	ePPS	-	50	28	.31	
		A	M	15	18	4	2.45	
		A	M	-	23	26	2.72	
		M	M	-	23	29	.63	
70	Aug. 23rd X	A	M	23	22	45	1.34	Fiji Islands Region.

Tremors and undecipherable disturbances were recorded:-

By instrument "A" on:- 2nd (1), 9th (2), 12th (1), 13th (1), 15th (2), 16th (1), 18th (1), 20th (1), 24th (1), and 26th (2).

By instrument "M" on:- 4th (1), 9th (1), 12th (1), 13th (1), and 23rd (1), 26th (1).

September 1960								
71	Sept. 1st ✓	A	iP	9	37	5	.14	New Hebrides Islands.
		A	iS	-	44	22	.31	
		A	iSS	-	47	49	.40	
		M	M	-	57	9	.45	
		A	M	-	58	29	1.78	
72	Sept. 1st ✓	A	iP	10	43	55	.24	New Hebrides Islands.
		A	iS	-	51	5	.34	
		M	M	11	3	37	.36	
73	Sept. 3rd ✓	A	iP	12	49	8	.25	Solomon Islands.
		A	iPP	-	51	2	.51	
		A	iS	-	55	18	.37	
		M	M	13	5	38	.27	
		A	M	-	7	22	1.00	
		M	M	-	8	41	.37	
		A	M	-	10	32	1.21	
74	Sept. 8th ✓	A	iP	11	15	10	.25	Near east coast of Mindanao.
		A	M	-	27	10	.42	
75	Sept. 17th ✓	A	iP	20	6	37	.23	Tonga Islands.
		A	M	-	33	55	.69	

No.	Date	Inst.	Phase	Time			Amp.	Remarks
				G.M.T.				
				h.	m.	s.	cms	
76	Sept. 18th ✓	A	iP	9	46	17	.11	Banda Sea.
		A	iPP	-	46	57	.12	
		A	iS	-	50	50	.19	
		M	iS	-	50	51	.23	
		M	iSS	-	51	37	.36	
		A	iSS	-	51	38	.34	
		A	M	-	59	33	.64	
77	Sept. 22 ✓	A	iP	9	18	24	.20	Belgian Congo. 2 quakes overlapping.
		A	iP	-	27	43	.45	
		A	i	-	38	22	.18	
		A	i	-	39	25	.35	
		A	M	-	48	28	.75	
		A	M	-	58	12	1.55	
78	Sept. 29th ✓	A	iP	11	28	7	.19	
		A	i	-	29	31	.29	
		A	iS	-	35	35	1.23	
		M	iS	-	35	36	.17	
		M	M	-	42	13	.42	
		A	M	-	42	43	.90	

Tremors and undecipherable disturbances were recorded :-

By instrument "A" on:- 1st (5), 2nd (2), 3rd (2), 6th (1), 7th (1),
10th (2), 12th (1), 14th (1), 15th (1), 17th (6),
19th (2), 20th (1), and 22nd (1).

By instrument "M" on:- 1st (1), 17th (2), 19th (1), and 22nd (1).

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PERTH, WESTERN AUSTRALIA

SEISMOLOGICAL STATION - PERTH OBSERVATORY

Seismological Bulletin for October - December 1960.

Instrument
Columbia-Lamont long
period seismograph
Milne-Shaw No. 27

Symbol
A
M

Component
Vertical
North-South

No.	Date	Inst.	Phase	Time G.M.T.			Amp cms	Remarks
				h.	m.	s.		
<u>October 1960</u>								
79	Oct 4th ✓	A	iP	9	59	17	.22	Solomon Islands.
		A	iSS	10	9	1	.23	
		M	M	-	16	5	.35	
		A	M	-	17	14	.91	
		M	M	-	24	22	.30	
		A	M	-	24	56	.93	
		A	M	-	25	52	1.14	
80	Oct 7th ✓	M	iP	15	24	22	.23	Banda Sea
		A	iP	-	24	22	.50	
		M	i	-	24	37	.44	
		A	i	24	37	.75		
		A	i	24	50	2.21		
		A	iPP	25	13	2.18		
		A	iS	29	4	5.05		
		A	M	37	45	10.54		
81	Oct 8th ✓	A	iP	6	3	36	.91	Sea of Japan
		M	iP	-	3	38	.14	
		A	eP	-	6	44	.40	
		A	iS	-	12	18	.42	
82	Oct 8th ✓	A	i	20	59	0	.37	Nicobar Island
		A	M	21	2	3	1.34	
		A	M	-	9	52	1.43	
83	Oct 13th ✓	A	iP	15	6	6	.21	Kamchatka
		A	eS	-	18	32	.28	
		A	M	-	43	43	.32	
		A	M	-	52	28	.50	
84	Oct 14th ✓	A	i	21	37	30	.16	Fox Island Aleutian Islands
		A	eS	-	46	47	.23	
		A	M	22	12	2	.49	
		A	M	-	30	33	.48	
85	Oct 20th ✓	A	iP	11	14	51	.26	Santa Cruz Islands Region
		A	iPP	-	16	53	.30	
		A	iS	-	22	8	.29	
		A	iSS	-	25	20	.52	
		M	M	-	33	10	.50	
		A	M	-	34	43	1.16	
		A	M	-	36	15	1.21	

No.	Date	Inst.	Phase	Time			Amp	Remarks
				G.M.T.				
				h.	m.	s.	cms	
86	Oct 22nd	A	iP	8	30	28	.36	Solomon Islands Region.
		A	iPP	-	32	37	.42	
		A	eS	-	37	20	.12	
		M	iS	-	37	20	.23	
		M	iSS	-	40	50	.22	
		A	iSS	-	40	51	.42	
		M	M	-	48	15	2.24	
		A	M	-	50	32	3.60	
87	Oct 24th	A	i	5	23	26	.16	New Hebrides Islands Region
		A	eSS	-	31	45	.15	
		A	M	-	42	42	.28	
88	Oct 24th	A	eSS	17	26	7	.22	New Britain Region
		A	M	-	33	10	.31	
		A	M	-	34	46	.31	

Tremors and undecipherable disturbances were recorded:-

By instrument "A" on:- 1st (1), 2nd (2), 3rd (2),
8th (1), 9th (1), 11th (2),
28th (1), 29th (1), 30th (2),.

By instrument "M" on:- 3rd (1), 8th (1), 13th (1),
14th (1), 24th (1), 30th (1).

November 1960

89	Nov 1st	A	eP	9	0	32	.11	Near Coast of Chile
		A	i	-	0	53	.10	
		A	iPP	-	5	12	.25	
		A	e	-	14	15	.21	
		A	eSS	-	21	2	.21	
		A	e	-	25	16	.21	
		A	eG	-	33	17	.41	
		A	i	-	38	21	.39	
		A	M	-	52	15	.83	
		A	M	-	56	46	.98	
90	Nov 2nd	A	iP	17	23	44	.44	
		A	i	-	23	46	.98	
		A	i	-	23	54	.60	
		A	iPP	-	25	44	.50	
		A	i	-	25	49	.58	
		A	iPPP	-	26	40	.42	
		M	i	-	26	47	.28	
		A	iS	-	31	2	1.24	
		M	i	-	33	40	.41	
		M	i	-	34	28	.54	
		A	iSS	-	34	30	.72	
		A	i	-	34	42	1.91	
		M	i	-	35	56	.48	
		A	i	-	37	44	.92	
		M	M	-	42	3	2.70	
M	M	-	42	19	1.97			
A	M	-	43	44	7.33			
A	M	-	48	53	4.42			

No.	Date	Inst.	Phase	Time			Amp cms	Remarks.
				G.M.T.				
				h.	m.	s.		
91	Nov 6th	A	eP	6	24	30	.22	Kermadec Island Region
		A	eS	-	32	18	.15	
		A	e	-	33	48	.19	
		A	M	-	47	23	1.10	
		A	M	-	51	56	1.18	
92	Nov 9th	A	eP	3	30	22	.27	Sandwich Islands
		M	iPP	-	33	38	.24	
		M	iS	-	40	45	.19	
		A	iS	-	40	47	.44	
		M	iSS	-	46	21	.28	
		A	iSS	-	46	22	.58	
		A	M	-	57	38	1.30	
		M	M	-	58	22	.19	
		M	M	4	1	34	.22	
		M	M	-	2	52	.81	
M	M	-	6	9	.50			
93	Nov 9th	A	eP	10	54	28	.8	Szechivan Province -China
		A	eS	11	3	12	.9	
		A	e	-	14	28	.18	
		A	M	-	21	54	.68	
94	Nov 10th	A	iP	14	51	57	.20	Near Coast of New Guinea
		M	iPP	-	53	14	.18	
		A	iPP	-	53	16	.67	
		M	i	-	53	50	.17	
		M	iS	-	57	33	.27	
		A	iS	-	57	34	.77	
		A	i	-	57	38	1.28	
		M	i	-	57	42	.40	
		A	i	-	58	10	1.21	
		M	i	-	59	35	.62	
		A	i	-	59	40	1.08	
		A	iSS	15	0	11	.91	
		A	M	-	1	42	5.48	
		A	M	-	6	17	6.62	
		A	M	-	7	58	9.14	
M	M	-	8	30	1.42			
M	M	-	9	24	1.90			
95	Nov 13th	A	iP	6	43	58	.57	Molucca Passage.
		A	i	-	44	33	.27	
		A	i	-	45	22	.54	
		M	iS	-	49	20	.45	
		A	iS	-	49	22	.86	
		A	i	-	51	45	.81	
		M	i	-	52	11	.70	
		A	M	-	53	15	1.25	
		M	M	-	54	2	1.40	
		M	M	-	56	15	1.10	
A	M	-	58	42	.88			
96	Nov 13th	A	e	9	34	46	.14	Fox Islands Aleutian Islands
		A	e	-	38	35	.17	
		M	i	-	45	25	.29	
		A	e	-	48	20	.30	
		M	e	-	48	25	.39	
		M	M	-	50	45	.50	
		M	M	10	18	43	.51	
		A	M	-	18	43	2.34	

No.	Date	Inst.	Phase	Time			Amp	Remarks.	
				G.M.T.					
				h.	m.	s.	cms		
97	Nov 15th	A	e	6	41	56	.11	Antarctic Ocean SE of New Zealand	
		A	e	-	50	59	.27		
		A	M	-	51	23	.48		
		A	M	-	53	53	.42		
98	Nov 20th	A	iP	22	21	44	.37	Near coast of Peru	
		A	e	-	24	22	.21		
		M	e	-	24	58	.16		
		A	i	-	25	32	.62		
		A	i	-	27	42	.31		
		A	i	-	36	28	.65		
		M	i	-	41	10	.32		
		A	M	23	9	40	2.41		
		M	M	-	10	39	.38		
		M	M	-	19	12	.48		
		M	M	-	28	13	.62		
		A	M	-	28	25	3.28		
A	M	-	31	14	2.88				
99	Nov 22nd	A	eP	3	42	32	.16	Tonga Islands Region.	
		A	eS	-	51	25	.22		
		A	M	4	9	12	.51		
100	Nov 22nd	A	eP	6	30	58	.16	Indian Ocean North of Croset Islands	
		A	eS	-	38	9	.8		
		A	M	-	46	35	.63		
101	Nov 23rd	A	iP	14	22	33	.19	South of Tonga Islands Region.	
		A	i	-	22	37	.34		
		A	iPP	-	24	54	.44		
		A	e	-	30	48	.32		
		M	e	-	31	40	.38		
		A	e	-	32	12	.30		
		A	i	-	37	25	.32		
		M	i	-	38	29	.30		
		M	i	-	43	21	.96		
		M	M	-	46	8	1.66		
A	M	-	47	1	3.55				
A	M	-	50	10	3.44				
102	Nov 24th	A	eP	4	58	20	.16	New Britain Region	
		M	iS	5	4	52	.27		
		A	iS	5	4	54	.41		
		M	i	-	8	12	.32		
		A	i	-	8	18	.35		
		A	M	-	14	14	.66		
		M	M	-	16	16	.31		
A	M	-	16	32	.62				
103	Nov 24th	A	iP	7	2	45	.23	South of Tonga Islands Region	
		A	iPP	-	5	10	.79		
		A	iPPP	-	6	35	.86		
		M	i	-	10	48	.21		
		A	iS	-	11	18	1.12		
		A	i	-	15	8	1.37		
		M	i	-	15	16	.40		
A	iSS	-	15	43	.98				

PERTH

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No.	Date	Inst.	Phase	Time			Amp	Remarks
				G.M.T.				
				h.	m.	s.	cms	
103	Nov 24th	M	e	7	17	49	.53	
		M	i	-	17	55	1.40	
		M	i	-	20	1	.63	
		A	M	-	22	41	6.00	
		M	M	-	25	32	3.50	
		M	M	-	26	16	4.00	
		A	M	-	27	19	7.34	
		A	M	-	28	35	8.60	
		A	M	-	32	49	5.88	

Tremors and undecipherable disturbances were recorded:-

- By instrument "A" on:- 1st (1), 3rd (1), 5th (1),
 6th (1), 7th (2), 8th (2),
 9th (2), 15th (1), 17th (2),
 22nd (1), 23rd (3), 26th (1),
 27th (1), 29th (1).
- By instrument "M" on:- 1st (1), 6th (1), 7th (1),
 9th (1), 15th (1), 22nd (3),
 23rd (2), 26th (1).

December, 1960

104	Dec 1st	A	e	21	39	47	.10	
		A	e	-	51	8	.12	
		A	e	-	54	52	.10	
		A	M	22	1	9	.32	
		A	M	-	1	45	.38	
105	Dec 2nd	A	i	9	30	3	.17	Near coast of Chile
		A	i	-	31	41	.46	
		A	i	-	37	3	.25	
		A	i	-	41	29	.34	
		A	i	-	47	15	.42	
		A	i	-	53	51	1.46	
		A	i	10	10	9	.66	
		A	M	-	14	43	1.75	
		A	M	-	21	49	3.44	
106	Dec 3rd	A	iP	4	36	2	.43	Outer Mongolia
		A	i	-	36	10	.58	
		A	iPP	-	38	49	.29	
		A	eS	-	45	22	.18	
		A	e	-	54	46	.34	
		A	e	-	58	32	.46	
		A	M	5	6	7	1.42	
		A	M	-	9	28	1.66	
107	Dec 6th	A	i	9	17	12	.11	
		A	e	-	32	6	.14	
		A	e	-	57	29	.14	
		A	M	10	07	13	.36	
108	Dec 11th	A	i	0	10	30	.12	Loyalty Islands
		A	e	-	26	21	.10	
		A	M	-	28	55	.23	
		A	M	-	29	59	.24	

6.

No.	Date	Inst	Phase	Time			Amp	Remarks
				G. M. T.				
				h.	m.	s.	cms	
109	Dec 11th ✓	A	e	3	25	12	.11	Molucca Passage
		A	i	-	35	52	.18	
		A	M	-	40	20	.26	
110	Dec 11th ✓	A	iP	19	1	53	.28	New Hebrides Islands Region
		A	iSP	-	3	53	.19	
		M	i	-	8	53	.20	
		A	iS	-	9	4	.37	
		A	iSS	-	12	36	.93	
		A	i	-	16	32	.38	
		M	i	-	20	20	.20	
		M	M	-	23	10	2.64	
M	M	-	24	49	.40			
111	Dec 17th ✓	A	iP	10	42	26	.26	Java Sea.
		A	i	-	42	37	.15	
		A	i	-	43	45	.15	
		A	eS	-	46	41	.19	
		A	i	-	48	6	.62	
112	Dec 21st ✗	A	e	22	48	42	.10	North of Balleny Islands
		A	M	-	51	22	.51	
113	Dec 22nd ✓	A	iP	21	10	15	.32	Solomon Islands
		A	i	-	11	38	.28	
		A	i	-	12	6	.43	
		A	i	-	14	9	.28	
		A	G	-	19	52	.65	
		A	i	-	27	21	1.11	
114	Dec 29th ✓	A	iP	6	12	39	.14	Tonga Islands
		A	e	-	25	49	.10	
		A	M	-	36	12	.27	
		A	M	-	38	42	.31	
115	Dec 31st ✗	A	e	16	14	53	.9	Flores Sea
		A	M	-	22	47	.17	
		A	M	-	23	44	.16	

Tremors and undeceipherable disturbances were recorded:-

By instrument "A" on:-

1st (2),	2nd (1),	4th (1),
6th (1),	7th (1),	10th (1),
12th (1),	14th (1),	16th (1),
18th (1),	19th (2),	22nd (3),
24th (1),	25th (2),	26th (3),
27th (1),	29th (2),	31st (1)

1960

GER ✓

PERTH, WESTERN AUSTRALIA

SEISMOLOGICAL STATION - PERTH OBSERVATORY



Seismological Bulletin for January - March

Instrument: Columbia-Lamont long period seismograph
 Milne-Shaw No.27
 Symbol: A, M
 Component: Vertical, North-South

No.	Date	Inst.	Phase	Time G.M.T.			Amp. cms	Remarks
				h.	m.	s.		
January 1960								
1.	Jan.2nd	A	iP	12	33	55	.14	South Atlantic Ocean, west of Bouvet Island.
		A	iS	-	44	25	.19	
		A	M	-	58	27	.88	
		A	M	13	7	26	.78	
2.	Jan.13th	A	eP	15	56	29	.04	Southern Peru. (h about 200 KM)
		A	eP'	-	59	34	.10	
		A	iPP	16	1	57	.40	
		M	1	-	2	20	.16	
		A	iSPP	-	14	3	1.00	
		M	i	-	19	30	.34	
		A	i	-	19	32	.66	
		A	i	-	19	50	1.95	
		M	M	-	48	39	.58	
		A	M	-	48	50	4.68	
		A	M	-	50	51	5.48	
3	Jan.15	A	iP'	9	49	27	.15	Near coast of Southern Peru (h about 150 KM)
		A	iPP	-	51	57	.20	
		A	iSPP	-	52	55	.33	
		A	M	10	37	42	.84	
		A	M	-	43	15	.65	
		A	M	-	45	55	.78	
		A	M	-	53	30	.66	
4.	Jan.23	A	iP	4	47	12	.45	
		A	i	-	48	10	.65	
		M	iS	-	52	9	.68	
		A	iS	-	52	11	2.10	
		A	M	-	58	3	2.85	
		A	M	5	1	55	3.00	
5.	Jan.23rd	A	iP	7	37	30	.35	
		M	i	-	42	25	.54	
		A	iS	-	42	34	2.10	
		M	iS	-	42	35	.88	
		A	M	-	50	38	2.70	
		A	M	-	52	2	3.00	
		M	M	-	52	43	1.01	
		M	M	-	55	10	1.13	
		A	M	-	55	15	2.90	
6.	23rd	A	iP	18	2	52	.22	
		A	iS	-	7	46	1.25	
		M	iS	-	7	46	.47	
		A	M	-	11	32	1.65	
		A	M	-	13	40	2.20	
		A	M	-	16	10	2.40	
7.	Jan.24th	A	i	4	47	13	.52	
		M	M	-	51	34	.87	
		M	M	-	53	56	.78	
		M	M	-	54	11	.78	
		A	M	-	56	20	3.90	



No.	Date	Inst.	Phase	Time			Amp.	Remarks
				G.M.T.				
				h.	m.	s.	cms	
8	Jan.31st	A	i	5	19	22	.07	Near east coast of Shikoku, Japan.
		A	e	-	28	9	.12	
		A	M	-	45	46	.20	
		A	M	-	54	23	.24	

Tremors and undecipherable disturbances were recorded:-

By instrument "A" on:- 1st (1), 2nd (2), 4th (1), 6th (1), 7th (3), 8th (1), 9th (1), 11th (4), 12th (3), 16th (4), 19th (2), 21st (2), 25th (1), 29th (1), and 30th (1).

By instrument "M" on:- 1st (1), 2nd (2), 6th (1), 7th (1), 12th (1), 15th (1), 16th (2), 21st (1), 25th (1), and 31st (1).

February 1960

9.	Feb.4th	A	iP	3	54	47	.97	New Ireland Region.
		M	iP	-	54	47	.14	
		A	i	-	56	52	.76	
		A	i	-	57	48	1.78	
		M	i	4	1	18	.62	
		A	iS	-	1	39	1.12	
		A	i	-	4	26	1.14	
		M	i	-	4	39	.92	
		A	M	-	12	16	13.20	
		M	M	-	12	45	1.80	
		A	M	-	12	46	13.28	
M	M	-	13	9	1.54			
10.	Feb.4th	A	iP	9	35	33	.18	New Ireland Region.
		A	i	-	37	57	.28	
		A	eS	-	42	42	.17	
		A	iSS	-	45	25	.32	
		A	M	-	50	30	.50	
11.	Feb.8th	A	i	13	9	56	.16	Drake Passage.
		A	i	-	16	2	.19	
		M	M	-	38	36	.32	
		A	M	-	38	45	1.48	
12.	Feb.9th	A	iP	12	2	25	.18	Banda Sea.
		M	i	-	7	23	.28	
		A	iS	-	7	31	.30	
		A	M	-	12	55	.42	
		A	M	-	15	37	.36	
		A	M	-	18	52	.48	
13.	Feb.10th	A	iP	0	2	3	1.22	Ceram.
		M	iP	-	2	4	.29	
		A	i	-	3	4	1.84	
		M	iS	-	7	12	1.72	
		A	iS	-	7	13	4.77	
		A	i	-	9	16	2.48	
		A	M	-	10	58	4.90	
		M	M	-	12	2	1.80	
		M	M	-	14	15	2.26	
		A	M	-	15	53	5.12	
A	M	-	22	3	5.00			
14.	Feb.11th	A	iP	21	5	14	.15	Santa Cruz Island.
		A	M	-	25	17	.36	

No.	Date	Inst.	Phase	Time G.M.T.			Amp. cms	Remarks
				h.	m.	s.		
15.	Feb.19th	A	iP	10	48	40	.62	Hindu Kush. (h about 200 KM)
		A	iPP	-	49	32	.42	
		A	iSP	-	49	53	.38	
		A	e	-	58	25	.19	
		A	i	-	59	2	.32	
		A	e	-	59	45	.26	
		A	eSSS	11	7	26	.27	
16.	Feb.23rd	A	i	16	14	51	.11	Solomon Islands.
		M	i	-	19	38	.12	
		M	iS	-	19	41	.15	
		A	iS	-	19	42	.10	
		A	eSS	-	22	46	.14	
		M	i	-	23	1	.17	
		M	M	-	28	40	.24	
		A	M	-	32	29	1.05	
17.	Feb.24th	A	iP	21	45	20	.15	Solomon Islands.
		M	i	-	51	55	.22	
		A	iS	-	52	0	.36	
		A	iSS	-	54	58	.34	
		M	i	-	55	14	.22	
		M	M	22	1	8	.78	
		A	M	--	3	39	5.88	
18	Feb.26th	A	iP	2	15	48	.18	New Guinea.
		A	iS	-	21	39	.14	
		M	M	-	32	45	.62	
		A	M	-	32	50	1.30	

Tremors and undecipherable disturbances were recorded:-

By instrument "A" on:- 2nd (1), 3rd (3), 4th (2), 5th (1), 7th (1), 8th (1), 9th (1), 10th (1), 13th (1), 14th (2), 16th (1), 17th (2), 21st (1), 26th (1), 27th (3), and 28th (1).

By instrument "M" on:- 4th (1), 10th (1), 17th (1), 27th (1), and 28th (1).

				March 1960				
19.	Mar.5th	A	iP	13	56	12	.28	Halmahera.
		M	i	-	56	29	.22	
		A	i	-	57	20	.63	
		A	i	-	57	55	.53	
		M	i	14	1	32	.30	
		A	i	-	1	34	.47	
		A	iS	-	1	51	.68	
		M	iS	-	1	52	.14	
		A	M	-	7	5	3.15	
		M	M	-	8	25	1.14	
		M	M	-	9	40	1.10	
		A	M	-	13	28	2.99	
		20.	Mar.8th	A	iP	16	42	
A	iSP			-	43	30	1.06	
A	iPP			-	44	16	.78	
A	i			-	45	22	.75	
A	iS			-	49	0	1.60	
M	iS			-	49	1	.80	
A	eSS			-	52	52	.87	
A	i			-	54	25	2.07	
M	i			-	54	43	1.42	
M	M			-	57	50	1.72	
M	M			-	59	57	1.88	
A	M			17	1	23	2.50	
M	M			-	3	36	1.34	

No.	Date	Inst.	Phase	Time			Amp.	Remarks
				G.M.T.				
			h.	m.	s.	cms		
21.	Mar.10th	A	ISS	10	4	0	.27	Solomon Islands.
		A	eG	-	4	22	.25	
		A	e	-	10	1	.18	
		M	M	-	10	55	.28	
		A	M	-	13	44	1.18	
22.	Mar.12th	A	iP	20	38	41	.31	New Britain.
		M	i	-	45	5	.32	
		A	iS	-	45	10	.29	
		A	i	-	45	42	.58	
		M	i	-	47	59	.58	
		A	iSS	-	48	8	.64	
		M	M	-	54	32	1.19	
		A	M	-	56	37	2.32	
23.	Mar.16th	A	eP	17	50	9	.12	Samoa Island Region.
		A	M	18	20	19	.64	
		A	M	-	24	32	.55	
24.	Mar.19th	A	i	19	24	21	.19	New Guinea.
		A	e	-	30	33	.20	
		A	M	-	38	21	1.94	
25.	Mar.20th	A	iP	17	19	17	.18	Off N.E. coast of Honshu, Japan.(h about 60 KM)
		A	i	-	19	27	1.14	
		A	iS	-	29	9	1.20	
		A	i	-	33	40	1.45	
		A	M	-	53	27	5.42	
		A	M	-	56	10	5.23	
26.	Mar.22nd	A	iP	2	38	54	.13	About 400 miles NE of Balleny Islands.
		A	iS	-	44	53	.32	
		A	eSS	-	47	37	.61	
		A	M	-	50	58	6.48	
27.	Mar.23	A	iP	0	35	16	.24	Near east coast of Honshu, Japan.
		A	iS	-	45	7	.23	
		A	iSS	-	50	36	.62	
		A	M	1	9	22	.86	
		A	M	-	10	55	1.02	
28.	Mar.27th	A	i	4	0	10	.32	New Hebrides Island.
		A	i	-	4	35	.39	
		A	iSS	-	8	13	.68	
		M	M	-	17	20	1.04	
		A	M	-	17	57	3.18	
		M	M	-	18	55	.92	
		A	M	-	20	2	3.76	
29.	Mar.27th	A	iP	9	6	53	.40	New Hebrides Island.
		A	iPP	-	8	50	.44	
		A	i	-	9	42	.38	
		A	iS	-	14	1	.63	
		A	iS	-	14	2	.45	
		A	iSS	-	17	37	.62	
		A	i	-	17	47	2.04	
		M	M	-	25	42	4.20	
		M	-	26	26	1.60		
30.	Mar.28th	A	eS	6	55	47	.36	New Hebrides Island.
		M	M	7	4	45	.52	
		M	M	-	5	42	.62	
		A	M	-	5	53	1.08	

No.	Date	Inst.	Phase	Time			Amp.	Remarks
				G.M.T.				
			h.	m.	s.	cms		
31.	Mar.29th	A	iP	6	39	54	.53	New Hebrides Island.
		A	iPP	-	41	50	.98	
		A	iS	-	46	53	1.32	
		M	iS	-	46	54	.69	
		A	iSS	-	50	23	1.46	
		M	M	-	56	10	2.38	
		M	M	-	57	48	5.70	
		A	M	7	0	3	12.06	
		A	M	-	0	32	12.04	
M	M	-	2	25	2.35			
32.	Mar.29	A	iP	22	18	6	.21	East coast of New Guinea.
		M	iS	-	23	59	.30	
		A	iS	-	24	0	.32	
		A	i	-	26	42	.28	
		M	M	-	33	13	.38	
		A	M	-	35	41	1.40	
33.	Mar.30th	A	iP	10	58	55	.16	New Hebrides Island.
		A	ePP	11	0	42	.19	
		A	eS	-	5	57	.28	
		A	eSS	-	9	32	.55	
		M	M	-	18	34	1.10	
		A	M	-	19	23	1.90	
		A	M	-	20	32	1.98	
		M	M	-	20	36	.95	
34.	Mar.30th	A	M	15	48	26.	.36	Loyalty Island Region.
		M	M	-	50	10	.28	
		M	M	-	50	13	.40	

Tremors and undecipherable disturbances were recorded:-

By instrument "A" on:- 1st (2), 4th (1), 7th (3), 8th (1),
 10th (2), 15th (1), 21st (1), 22nd (1),
 23rd (1), 28th (1), and 31st (1).

By instrument "M" On:- 6th (1).

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PERTH, WESTERN AUSTRALIA

SEISMOLOGICAL STATION - PERTH OBSERVATORY

Seismological Bulletin for April - June 1960

Instrument: Columbia-Lamont long period seismograph
 Milne-Shaw No.27
 Symbol: A
 Component: Vertical
 North-South

No.	Date	Inst.	Phase	Time G.M.T.			Amp. cms	Remarks
				h.	m.	s.		
APRIL 1960								
35	Apr.5th	A	e	7	40	26	.12	Sandwich Island.
		A	e	-	41	28	.21	
		A	eSS	-	45	42	.13	
		A	M	-	57	31	.37	
36	Apr.15th	A	iP	22	14	1	.18	New Hebrides
		A	iPP	-	15	54	.27	
		A	iPP	-	16	54	.22	
		A	iS	-	21	11	.18	
		A	i	-	21	23	.42	
		A	iSS	-	24	46	.40	
		M	M	-	33	46	1.87	
A	M	-	35	34	3.30			
37	Apr.24th	A	iP	3	27	16	2.73	Java Sea. (h about 600 KM)
		A	i	-	29	10	.61	
		A	i	-	29	52	.80	
		A	iS	-	30	3	1.16	
		M	i	-	31	12	.52	
		A	i	-	33	58	.60	
		A	i	-	37	42	.42	
		M	M	-	41	22	.92	
A	M	-	41	27	2.47			
38	Apr.29th	A	iP	19	38	55	.28	Celebes. Amp.lost in min.gap.
		A	e	-	42	49	.35	
		M	iS	-	43	57	.25	
		A	iS	-	43	58	1.48	
		M	M	-	51	4	.46	
39	Apr.30th	A	e	4	14	20	.28	Celebes.
		A	M	-	19	36	.63	

Tremors and undecipherable disturbances were recorded:-

By instrument "A" on:- 4th (2), 8th (2), 15th (1), 17th (1), 18th (1), 19th (1), 20th (1), 22nd (1), 24th (1), 27th (1), 28th (2), 29th (2), and 30th (3).

By instrument "M" on:- 4th (1), 15th (1), 28th (1), 29th (1), and 30th (3).

MAY								
40	May 11th	A	iP	18	42	30	.12	Ceram Sea.
		A	iS	-	47	50	.22	
		M	iS	-	47	50	.28	
		M	M	-	57	42	.56	
		A	M	-	58	27	2.10	
		A	M	19	0	53	2.13	
41	May 18th	A	iP	6	45	32	.20	Ryukyu Islands. (h about 100 KM.)
		A	iS	-	53	56	.26	
		A	M	7	6	59	.60	
		A	M	-	12	6	.70	

No.	Date	Inst.	Phase	Time			Amp.	Remarks
				G.M.T.				
				h.	m.	s.	cms	
42	May 19th	A	i	10	20	55	.18	Mascarene Island Region.
		A	i	-	21	7	.39	
		A	i	-	27	28	.26	
		A	i	-	28	14	.50	
		A	M	-	36	47	1.18	
43	May 20th	A	iP	11	20	50	.58	Norfolk Island.
		A	iPP	-	22	42	.80	
		A	iPPP	-	23	22	.51	
		A	iS	-	27	36	1.60	
		A	iSS	-	30	50	1.00	
		M	iSS	-	30	52	.40	
		A	M	-	36	50	7.50	
		M	M	-	37	10	2.12	
		A	M	-	39	48	7.82	
		M	M	-	40	2	2.12	
		A	M	-	43	7	7.56	
M	M	-	46	11	2.00			
44	May 21st	A	eP	10	17	32	.42	Chile
		A	iPP	-	22	8	.30	
		M	i	-	28	0	.10	
		M	i	-	31	30	.75	
		A	i	-	31	36	.98	
		A	i	-	32	40	2.16	
		M	i	-	36	8	.39	
		M	i	-	38	0	.49	
		A	i	-	38	34	2.02	
		A	M	11	2	46	7.68	
		A	M	-	7	49	9.50	
		M	M	-	7	58	1.12	
A	M	-	18	58	9.77			
45	May 22nd	A	eP	10	47	18	.28	2nd quake lost in overlapping Chile.
		A	iPP	-	51	58	.46	
		M	iPP	-	51	59	.23	
		A	iS	11	1	8	.77	
		M	i	-	7	47	.28	
		A	i	-	7	57	1.09	
		M	M	-	29	55	.49	
		M	M	-	35	27	.90	
		A	M	-	35	40	4.98	
		M	M	-	38	15	.86	
		A	M	-	38	28	5.10	
46	May 22nd	A	iP	19	10	30	.36	Chile.
		A	iPP	-	15	6	1.03	
		M	i	-	15	13	.21	
		A	iS	-	24	18	1.18	
		M	iS	-	24	20	.29	
		M	i	-	30	35	.68	
		M	M	20	5	40	7.68	
		M	M	-	8	37	7.40	
		A	M	-	28	58	9.60	
		A	M	-	30	53	10.30	
		A	M	-	46	39	12.00	
A	M	-	47	38	12.00			
47	May 24th	A	iP	14	54	27	.14	2 quakes following, but lost in overlapping South Island, New Zealand.
		A	iPP	-	56	9	.21	
		A	i	15	0	44	.19	
		A	i	-	1	4	.32	
		M	i	-	1	4	.26	
		M	M	-	11	55	1.25	
		A	M	-	13	12	2.90	

No.	Date	Inst.	Phase	Time			Amp.	Remarks
				G.M.T.				
				h.	m.	s.	cms	
48	May 25th.	A	i	9	3	35	.19	Chile
		A	i	-	8	30	.22	
		A	e	-	24	0		Amp. not visible.
		A	i	-	29	35	.38	
		A	M	-	39	5	.58	
		A	M	-	41	52	.60	

Tremors and undecipherable disturbances were recorded:-

By instrument "A" on:- 2nd (1), 3rd (1), 5th (1), 9th (1), 12th (1), 19th (1), 23rd (9), 24th (2), 25th(3), 28th (1), 29th (1), 31st (3).

By instrument "M" on:- 2nd (1), 4th (1), 18th (1), 19th (1), 23rd (6), 25th (1), 29th (1), and 31st (1).

JUNE 1960								
No.	Date	Inst.	Phase	h.	m.	s.	Amp.	Remarks
49	June 2nd	A	iP	7	55	18	.30	
		A	i	-	57	8	.30	
		A	i	8	0	52	.37	
		A	iS	-	1	30	.40	
		M	iS	-	1	30	.26	
		A	i	-	4	28	.50	
		M	i	-	4	28	.41	
		M	M	-	11	18	.60	
A	M	-	12	50	2.10			
50	June 6th	A	iP	6	10	22	.26	Near coast of Chile.
		M	iPP	-	14	39	.40	
		A	iPP	-	14	41	1.85	
		A	iPPP	-	16	51	1.55	
		A	iS	-	22	22	1.12	
		A	iPPS	-	24	32	1.60	
		A	i	-	29	54	2.74	
		A	M	-	47	33	>16.50	
		M	M	-	48	30	1.33	
		M	M	-	49	33	1.74	
		M	M	-	50	38	1.67	
A	M	-	54	29	>16.50			
51	June 9th	A	iP	11	32	53	.20	New Hebrides.
		A	i	-	39	44	.21	
		A	iS	-	39	58	.24	
		A	i	-	43	22	.46	
		M	M	-	53	12	.38	
		M	M	-	54	40	.40	
		A	M	-	54	40	3.23	
52	June 11th	A	iP	15	21	55	1.13	D'Entrecasteaux Island.
		A	iPP	-	23	30	2.05	
		A	iS	-	28	19	3.75	
		A	iSS	-	31	7	2.05	
		A	M	-	36	56	>10.50	
		A	M	-	38	55	>10.50	
53	June 20th	A	iP	2	15	45	.20	Near coast of Chile.
		A	iPP	-	20	25	.50	
		A	i	-	29	33	.79	
		M	i	-	36	24	.30	
		A	i	-	36	28	.68	
		M	M	3	8	39	1.00	
		A	M	-	8	45	5.55	
		A	M	-	9	20	5.05	

No.	Date	Inst.	Phase	Time			Amp.	Remarks	
				G.M.T.					
				h.	m.	s.	cms		
54	June 20th	A	iP	13	14	25	.14	Chile	
		A	iPP	-	18	42	.36		
		A	i	-	27	42	.24		
		A	i	-	34	35	.32		
		A	M	14	2	4	2.14		
		A	M	-	4	47	2.52		
		M	M	-	4	55	.42		
		A	M	-	9	16	2.25		
M	M	-	9	24	.42				
55	June 25th	A	iP	14	51	38	.24	Kermadec Island.	
		A	iS	-	59	41	.15		
		A	i	15	3	43	.34		
		A	M	-	11	34	1.74		
		M	M	-	13	29	.44		
		A	M	-	14	50	2.55		
		M	M	-	16	7	.34		

Tremors and undecipherable disturbances were recorded:-

By instrument "A" on:- 1st (1), 2nd (1), 3rd (1), 4th (1), 5th (1),
 6th (2), 10th (1), 12th (2), 14th (1), 15th (2),
 16th (3), 17th (1), 18th (1), 19th (1), 21st (1),
 24th (1), 25th (1), 27th (1), and 29th (2).

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PERTH, WESTERN AUSTRALIA

SEISMOLOGICAL STATION - PERTH OBSERVATORY

Seismological Bulletin for July - September 1960

Instrument: Columbia-Lamont long period seismograph
Milne-Shaw No.27
Symbol: A, M
Component: Vertical, North-South

No.	Date	Inst.	Phase	Time			Amp.	Remarks	
				G.M.T.					
				h.	m.	s.	cms		
July 1960									
56	July 3rd	A	iSS	20	53	47	.40	Adreanof Islands.	
		A	M	21	9	27	.36		
		A	M	-	12	32	.41		
		A	M	-	15	12	.32		
57	July 4th	A	M	5	31	12	.47	Queen Charlotte Islands.	
		M	M	-	50	35	.20		
58	July 10th	A	iP	0	12	40	.31	Off west coast of Sumatra	
		A	iS	-	18	18	.34		
		M	iS	-	18	20	.28		
		A	i	-	20	51	.57		
		A	M	-	23	19	2.09		
		M	M	-	27	32	.40		
		A	M	-	29	48	2.08		
		M	M	-	32	38	.55		
59	July 14th	A	iP	10	34	27	.29	Molucca Passage.	
		A	iSS	-	42	58	.25		
		M	i	-	43	24	.30		
		A	M	-	47	32	.52		
60	July 18th	A	iS	1	57	48	.18	New Britain Region. (h about 200 KM)	
		A	i	2	1	7	.82		
		A	i	-	1	12	.78		
		M	1	-	1	16	.31		
		A	M	-	8	40	1.03		
61	July 20th	A	iSS	21	18	59	.40	New Hebrides Island.	
		M	M	-	29	26	.56		
		A	M	-	30	15	2.45		
		M	M	-	30	47	.65		
62	July 25th	A	iP	11	25	42	.39	Kamchatka, (h about 100 KM)	
		A	iS	-	37	19	.80		
		A	M	-	46	26	.55		
		A	M	-	50	45	.62		
63	July 29th	A	iP	0	33	15	.41	Loyalty Islands.	
		A	iS	-	44	59	.79		
64	July 29th	A	iP	17	43	25	.54	Honshu, Japan.	
		A	iS	-	53	7	.37		
		A	iSS	-	58	35	.62		
		A	M	18	17	48	1.55		
65	July 31st	A	iP	3	3	40	.73	New Britain.	
		A	iPP	-	5	7	.56		
		M	i	-	9	42	.41		
		A	iS	-	9	55	1.29		
		M	iSS	-	12	41	1.45		
		A	iSS	-	12	41	3.98		
		A	M	-	19	57	9.30		

Tremors and undecipherable disturbances were recorded:-

By instrument "A" on:- 2nd (1), 5th (1), 6th (1), 11th (3), 13th (1),
23rd (1), 25th (2), 27th (2), and 31st (1).

By instrument "M" on:- 3rd (1), 13th (1), 25th (1), 29th (1), and
31st (1).

No.	Date	Inst.	Phase	Time G.M.T.			Amp. cms	Remarks
				h.	m.	s.		
<u>August 1960</u>								
66	Aug. 2nd	A	iP	5	16	10	.24	Loyalty Islands.
		M	iS	-	23	15	.28	
		A	iS	-	23	16	.15	
		A	M	-	34	24	.71	
		M	M	-	35	34	.62	
67	Aug. 4th	A	eS	8	7	29	.20	Aleutian Island. (h about 83 KM)
		A	M	-	33	12	.66	
68	Aug. 9th	A	M	8	41	45	.38	
		A	M	-	44	24	.94	
69	Aug. 13th	A	iP	14	33	46	.70	
		A	ePPS	-	50	28	.31	
		A	M	15	18	4	2.45	
		A	M	-	23	26	2.72	
		M	M	-	23	29	.63	
70	Aug. 23rd	A	M	23	22	45	1.34	Fiji Islands Region.

Tremors and undecipherable disturbances were recorded:-

By instrument "A" on:- 2nd (1), 9th (2), 12th (1), 13th (1), 15th (2),
16th (1), 18th (1), 20th (1), 24th (1), and
26th (2).

By instrument "M" on:- 4th (1), 9th (1), 12th (1), 13th (1), and
23rd (1), 26th (1).

<u>September 1960</u>								
71	Sept. 1st	A	iP	9	37	5	.14	New Hebrides Islands.
		A	iS	-	44	22	.31	
		A	iSS	-	47	49	.40	
		M	M	-	57	9	.45	
		A	M	-	58	29	1.78	
72	Sept. 1st	A	iP	10	43	55	.24	New Hebrides Islands.
		A	iS	-	51	5	.34	
		M	M	11	3	37	.36	
73	Sept. 3rd	A	iP	12	49	8	.25	Solomon Islands.
		A	iPP	-	51	2	.51	
		A	iS	-	55	18	.37	
		M	M	13	5	38	.27	
		A	M	-	7	22	1.00	
		M	M	-	8	41	.37	
		A	M	-	10	32	1.21	
74.	Sept. 8th	A	iP	11	15	10	.25	Near east coast of Mindanao.
		A	M	-	27	10	.42	
75.	Sept. 17th	A	iP	20	6	37	.23	Tonga Islands.
		A	M	-	33	55	.69	

No.	Date	Inst.	Phase	Time			Amp.	Remarks	
				G.M.T.					
				h.	m.	s.	cms		
76	Sept.18th	A	iP	9	46	17	.11	Banda Sea.	
		A	iPP	-	46	57	.12		
		A	iS	-	50	50	.19		
		M	iS	-	50	51	.23		
		M	iSS	-	51	37	.36		
		A	iSS	-	51	38	.34		
		A	M	-	59	33	.64		
77	Sept.22	A	iP	9	18	24	.20	Belgian Congo. 2 quakes overlapping.	
		A	iP	-	27	43	.45		
		A	i	-	38	22	.18		
		A	i	-	39	25	.35		
		A	M	-	48	28	.75		
		A	M	-	58	12	1.55		
78	Sept.29th	A	iP	11	28	7	.19		
		A	i	-	29	31	.29		
		A	iS	-	35	35	1.23		
		M	iS	-	35	36	.17		
		M	M	-	42	13	.42		
		A	M	-	42	43	.90		

Tremors and undecipherable disturbances were recorded :-

By instrument "A" on:- 1st (5), 2nd (2), 3rd (2), 6th (1), 7th (1),
10th (2), 12th (1), 14th (1), 15th (1), 17th (6),
19th (2), 20th (1), and 22nd (1).

By instrument "M" on:-1st (1), 17th (2), 19th (1), and 22nd (1).

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PERTH, WESTERN AUSTRALIA

SEISMOLOGICAL STATION - PERTH OBSERVATORY



Seismological Bulletin for October - December 1960

Instrument: Columbia-Lamont long period seismograph
 Symbol: A (Vertical), M (North-South)
 Milne-Shaw No. 27

No.	Date	Inst.	Phase	Time G.M.T.			Amp cms	Remarks
				h.	m.	s.		
October 1960								
79	Oct 4th	A	iP	9	59	17	.22	Solomon Islands.
		A	iSS	10	9	1	.23	
		M	M	-	16	5	.35	
		A	M	-	17	14	.91	
		M	M	-	24	22	.30	
		A	M	-	24	56	.93	
A	M	-	25	52	1.14			
80	Oct 7th	M	iP	15	24	22	.23	Banda Sea
		A	iP	-	24	22	.50	
		M	i	-	24	37	.44	
		A	i	24	37	.75		
		A	i	24	50	2.21		
		A	iPP	25	13	2.18		
		A	iS	29	4	5.05		
		A	M	37	45	10.54		
81	Oct 8th	A	iP	6	3	36	.91	Sea of Japan
		M	iP	-	3	38	.14	
		A	ePP	-	6	44	.40	
		A	iS	-	12	18	.42	
82	Oct 8th	A	i	20	59	0	.37	Nicobar Island
		A	M	21	9	3	1.34	
		A	M	-	9	52	1.43	
83	Oct 13th	A	iP	15	6	6	.21	Kamchatka
		A	eS	-	18	32	.28	
		A	M	-	43	43	.32	
		A	M	-	52	28	.50	
84	Oct 14th	A	i	21	37	30	.16	Fox Island Aleutian Islands
		A	eS	-	46	47	.23	
		A	M	22	12	2	.49	
		A	M	-	30	-33	.48	
85	Oct 20th	A	iP	11	14	51	.26	Santa Cruz Islands Region
		A	iPP	-	16	53	.30	
		A	iS	-	22	8	.29	
		A	iSS	-	25	20	.52	
		M	M	-	33	10	.50	
		A	M	-	34	43	1.16	
		A	M	-	36	15	1.21	

No.	Date	Inst.	Phase	Time			Amp	Remarks
				G.M.T.				
				h.	m.	s.	cms	
86	Oct 22nd	A	iP	8	30	28	.36	Solomon Islands Region.
		A	iPP	-	32	37	.42	
		A	eS	-	37	20	.12	
		M	iS	-	37	20	.23	
		M	iSS	-	40	50	.22	
		A	iSS	-	40	51	.42	
		M	M	-	48	15	2.24	
		A	M	-	50	32	3.60	
87	Oct 24th	A	i	5	23	26	.16	New Hebrides Islands Region
		A	eSS	-	31	45	.15	
		A	M	-	42	42	.28	
88	Oct 24th	A	eSS	17	26	7	.22	New Britain Region
		A	M	-	33	10	.31	
		A	M	-	34	46	.31	

Tremors and undecipherable disturbances were recorded:-

By instrument "A" on:- 1st (1), 2nd (2), 3rd (2),
8th (1), 9th (1), 11th (2),
28th (1), 29th (1), 30th (2),.

By instrument "M" on:- 3rd (1), 8th (1), 13th (1),
14th (1), 24th (1), 30th (1).

November 1960

89	Nov 1st	A	eP	9	0	32	.11	Near Coast of Chile
		A	i	-	0	53	.10	
		A	iPP	-	5	12	.25	
		A	e	-	14	15	.21	
		A	eSS	-	21	2	.21	
		A	e	-	25	16	.21	
		A	eG	-	33	17	.41	
		A	i	-	38	21	.39	
		A	M	-	52	15	.83	
		A	M	-	56	46	.98	
90	Nov 2nd	A	iP	17	23	44	.44	
		A	i	-	23	46	.98	
		A	i	-	23	54	.60	
		A	iPP	-	25	44	.50	
		A	i	-	25	49	.58	
		A	iPPP	-	26	40	.42	
		M	i	-	26	47	.28	
		A	iS	-	31	2	1.24	
		M	i	-	33	40	.41	
		M	i	-	34	28	.54	
		A	iSS	-	34	30	.72	
		A	i	-	34	42	1.91	
		M	i	-	35	56	.48	
		A	i	-	37	44	.92	
		M	M	-	42	3	2.70	
		M	M	-	42	19	1.97	
		A	M	-	43	44	7.33	
A	M	-	48	53	4.42			

No.	Date	Inst.	Phase	Time			Amp cms	Remarks.
				G.M.T.				
				h.	m.	s.		
91	Nov 6th	A	eP	6	24	30	.22	Kermadec Island Region
		A	eS	-	32	18	.15	
		A	e	-	33	48	.19	
		A	M	-	47	23	1.10	
		A	M	-	51	56	1.18	
92	Nov 9th	A	eP	3	30	22	.27	Sandwich Islands
		M	iPP	-	33	38	.24	
		A	iS	-	40	45	.19	
		M	iS	-	40	47	.44	
		A	iSS	-	46	21	.28	
		A	iSS	-	46	22	.58	
		M	M	-	57	38	1.30	
		M	M	-	58	22	.19	
		M	M	4	1	34	.22	
		A	M	-	2	52	.81	
		M	M	-	6	9	.50	
93	Nov 9th	A	eP	10	54	28	.8	Szechivan Province -China
		A	eS	11	3	12	.9	
		A	e	-	14	28	.18	
		A	M	-	21	54	.68	
94	Nov 10th	A	iP	14	51	57	.20	Near Coast of New Guinea
		M	iPP	-	53	14	.18	
		A	iPP	-	53	16	.67	
		M	i	-	53	50	.17	
		M	iS	-	57	33	.27	
		A	iS	-	57	34	.77	
		M	i	-	57	38	1.28	
		A	i	-	57	42	.40	
		M	i	-	58	10	1.21	
		A	i	-	59	35	.62	
		A	i	-	59	40	1.08	
		A	iSS	15	0	11	.91	
		A	M	-	1	42	5.48	
		A	M	-	6	17	6.62	
		M	M	-	7	58	9.14	
M	M	-	8	30	1.42			
M	M	-	9	24	1.90			
95	Nov 13th	A	iP	6	43	58	.57	Molucca Passage.
		A	i	-	44	33	.27	
		A	i	-	45	22	.54	
		M	iS	-	49	20	.45	
		A	iS	-	49	22	.86	
		M	i	-	51	45	.81	
		A	i	-	52	11	.70	
		M	M	-	53	15	1.25	
		M	M	-	54	2	1.40	
		M	M	-	56	15	1.10	
		A	M	-	58	42	.88	
96	Nov 13th	A	e	9	34	46	.14	Fox Islands Aleutian Islands
		A	e	-	38	35	.17	
		M	e	-	45	25	.29	
		A	e	-	48	20	.30	
		M	e	-	48	25	.39	
		M	M	-	50	45	.50	
		M	M	10	18	43	.51	
		A	M	-	18	43	2.34	

No.	Date	Inst.	Phase	Time			Amp	Remarks.
				G.M.T.				
				h.	m.	s.	cms	
97	Nov 15th	A	e	6	41	56	.11	Antarctic Ocean SE of New Zealand
		A	e	-	50	59	.27	
		A	M	-	51	23	.48	
		A	M	-	53	53	.42	
98	Nov 20th	A	iP	22	21	44	.37	Near coast of Peru
		A	e	-	24	22	.21	
		M	e	-	24	58	.16	
		A	i	-	25	32	.62	
		A	i	-	27	42	.31	
		A	i	-	36	28	.65	
		M	i	-	41	10	.32	
		A	M	23	9	40	2.41	
		M	M	-	10	39	.38	
		M	M	-	19	12	.48	
		M	M	-	28	13	.62	
		A	M	-	28	25	3.28	
A	M	-	31	14	2.88			
99	Nov 22nd	A	eP	3	42	32	.16	Tonga Islands Region.
		A	eS	-	51	25	.22	
		A	M	4	9	12	.51	
100	Nov 22nd	A	eP	6	30	58	.16	Indian Ocean North of Croset Islands
		A	eS	-	38	9	.8	
		A	M	-	46	35	.63	
101	Nov 23rd	A	iP	14	22	33	.19	South of Tonga Islands Region.
		A	i	-	22	37	.34	
		A	iPP	-	24	54	.44	
		A	e	-	30	48	.32	
		M	e	-	31	40	.38	
		A	e	-	32	12	.30	
		A	i	-	37	25	.32	
		M	i	-	38	29	.30	
		M	i	-	43	21	.96	
		M	M	-	46	8	1.66	
		A	M	-	47	1	3.55	
A	M	-	50	10	3.44			
102	Nov 24th	A	eP	4	58	20	.16	New Britain Region
		M	iS	5	4	52	.27	
		A	iS	5	4	54	.41	
		M	i	-	8	12	.32	
		A	i	-	8	18	.35	
		A	M	-	14	14	.66	
		M	M	-	16	16	.31	
		A	M	-	16	32	.62	
103	Nov 24th	A	iP	7	2	45	.23	South of Tonga Islands Region
		A	iPP	-	5	10	.79	
		A	iPPP	-	6	35	.86	
		M	i	-	10	48	.21	
		A	iS	-	11	13	1.12	
		A	i	-	15	8	1.37	
		M	i	-	15	16	.40	
		A	iSS	-	15	43	.93	

No.	Date	Inst.	Phase	Time			Amp	Remarks
				G.M.T.				
				h.	m.	s.	cms	
103	Nov 24th	M	e	7	17	49	.53	
		M	i	-	17	55	1.40	
		M	i	-	20	1	.63	
		A	M	-	22	41	6.00	
		M	M	-	25	32	3.50	
		M	M	-	26	16	4.00	
		A	M	-	27	19	7.34	
		A	M	-	28	35	8.60	
A	M	-	32	49	5.88			

Tremors and undecipherable disturbances were recorded:--

By instrument "A" on:-- 1st (1), 3rd (1), 5th (1),
 6th (1), 7th (2), 8th (2),
 9th (2), 15th (1), 17th (2),
 22nd (1), 23rd (3), 26th (1),
 27th (1), 29th (1).

By instrument "M" on:-- 1st (1), 6th (1), 7th (1),
 9th (1), 15th (1), 22nd (3),
 23rd (2), 26th (1).

December, 1960

104	Dec 1st	A	e	21	39	47	.10	
		A	e	-	51	8	.12	
		A	e	-	54	52	.10	
		A	M	22	1	9	.32	
		A	M	-	1	45	.38	
105	Dec 2nd	A	i	9	30	3	.17	Near coast of Chile
		A	i	-	31	41	.46	
		A	i	-	37	3	.25	
		A	i	-	41	29	.34	
		A	i	-	47	15	.42	
		A	i	-	53	51	1.46	
		A	i	10	10	9	.66	
		A	M	-	14	43	1.75	
A	M	-	21	49	3.44			
106	Dec 3rd	A	iP	4	36	2	.43	Outer Mongolia
		A	i	-	36	10	.58	
		A	iPP	-	38	49	.29	
		A	eS	-	45	22	.18	
		A	e	-	54	46	.34	
		A	e	-	58	32	.46	
		A	M	5	6	7	1.42	
		A	M	-	9	28	1.66	
107	Dec 6th	A	i	9	17	12	.11	
		A	e	-	32	6	.14	
		A	e	-	57	29	.14	
		A	M	10	07	13	.36	
108	Dec 11th	A	i	0	10	30	.12	Loyalty Islands
		A	e	-	26	21	.10	
		A	M	-	28	55	.23	
		A	M	-	29	59	.24	

6.

No.	Date	Inst	Phase	Time			Amp	Remarks	
				G.	M.	T.			
				h.	m.	s.			
							cms		
109	Dec 11th	A	e	3	25	12	.11	Molucca Passage	
		A	i	-	35	52	.18		
		A	M	-	40	20	.26		
110	Dec 11th	A	iP	19	1	53	.28	New Hebrides Islands Region	
		A	iPP	-	3	53	.19		
		M	i	-	8	53	.20		
		A	iS	-	9	4	.37		
		A	iSS	-	12	36	.93		
		A	i	-	16	32	.38		
		M	i	-	20	20	.20		
		A	M	-	23	10	2.64		
M	M	-	24	49	.40				
111	Dec 17th	A	iP	10	42	26	.26	Java Sea.	
		A	i	-	42	37	.15		
		A	i	-	43	45	.15		
		A	eS	-	46	41	.19		
		A	i	-	48	6	.62		
112	Dec 21st	A	e	22	48	42	.10	North of Balleny Islands	
		A	M	-	51	22	.51		
113	Dec 22nd	A	iP	21	10	15	.32	Solomon Islands	
		A	i	-	11	38	.28		
		A	i	-	12	6	.43		
		A	i	-	14	9	.28		
		A	G	-	19	52	.65		
		A	i	-	27	21	1.11		
114	Dec 29th	A	iP	6	12	39	.14	Tonga Islands	
		A	e	-	25	49	.10		
		A	M	-	36	12	.27		
		A	M	-	38	42	.31		
115	Dec 31st	A	e	16	14	53	.9	Flores Sea	
		A	M	-	22	47	.17		
		A	M	-	23	44	.16		

Tremors and undeceipherable disturbances were recorded:-

By instrument "A" on:-

1st (2),	2nd (1),	4th (1),
6th (1),	7th (1),	10th (1),
12th (1),	14th (1),	16th (1),
18th (1),	19th (2),	22nd (3),
24th (1),	25th (2),	26th (3),
27th (1),	29th (2),	31st (1)