

COMMONWEALTH OF AUSTRALIA
DEPARTMENT OF NATIONAL DEVELOPMENT
BUREAU OF MINERAL RESOURCES, GEOLOGY AND GEOPHYSICS
485 Bourke Street,
MELBOURNE VIC.

Seismological Bulletins.

... The enclosed provisional Seismological Bulletins are the first issued by this Bureau. Future bulletins will be issued at regular monthly intervals.

The operation of the Milne-Shaw Seismograph at Melbourne was taken over from the Geological Department of the University of Melbourne in June, 1951.

The Wood-Anderson Seismograph at Macquarie Island has been operating since June, 1950 and the Wood-Anderson Seismograph at Heard Island since April, 1951.

Records prior to September, 1952 are being analysed and data will be issued when available

Correspondence concerning this seismological data should be addressed to :-

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Bureau of Mineral Resources,
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485 Bourke Street,
MELBOURNE, VIC.
AUSTRALIA.

P. B. Nye
(P.B. NYE.)
Director:
2/12/52.

JUL 15 1953

No. 52/1-8/1

COMMONWEALTH OF AUSTRALIA
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BUREAU OF MINERAL RESOURCES, GEOLOGY AND GEOPHYSICS
485 Bourke Street,
MELBOURNE. VIC.

1953 JUL 15 AM 10 17
PROVISIONAL SEISMOLOGICAL BULLETIN

MELBOURNE



Latitude: $37^{\circ} 49' 53''$ S., Longitude: $144^{\circ} 58' 24''$ E., Height: 28m.
Foundation : Silurian sand - and mudstone
Instrument : Milne Shaw, east-west component
Period : 12 seconds
Damping : 20 : 1
Magnification: 250

No.	Date 1953 2	Phase	Time (G.M.T.)	Remarks
1	Jan. 1st	e L	20 54 30 56 09	
2	" 4th	eP iS i L	05 53 14 57 50 58 19 06 02	U.S.C.G.S.: 22° S., $169\frac{1}{2}^{\circ}$ E., H = 05 47 31
3	" 13th	iS ePS iScS i	04 22 53 23 25 24 14 25 27	U.S.C.G.S.: 22° N., $124\frac{1}{2}^{\circ}$ E., H = 04 03 37
4	Feb. 14th	eP	03 44 55	U.S.C.G.S.: 8° S., 125° E., H = 03 38 06
5	" 25th	eP iPPP i iS	01 24 52 26 55 28 57 31 03	U.S.C.G.S.: 17° S., $173\frac{1}{2}^{\circ}$ W., H = 01 17 00
6	" 26th	i e	11 55 58 12 01 52	U.S.C.G.S.: 15° S., 69° W., H = 11 30 54 h = about 250 km.
7	" 26th	L	16 46	U.S.C.G.S.: $11\frac{1}{2}^{\circ}$ N., $86\frac{1}{2}^{\circ}$ W., H = 15 39 23 h = about 100 km.
8	" 26th	e e	21 22.2 24.0	U.S.C.G.S.: $12\frac{1}{2}^{\circ}$ S., 166° E., H = 21 06 49
9	March 7th	iS eScS L	07 53 52 54 38 08 06.1	U.S.C.G.S.: 36° N., $136\frac{1}{2}^{\circ}$ E., H 07 32 38
10	" 8th	e i i i	13 56 33 57 43 58 03 58 32	

No.	Date 1952	Phase	Time (G.M.T.)	Remarks
11	March 13th	iS i iL	14 16 49 17 44 20.9	U.S.C.G.S.: $28\frac{1}{2}^{\circ}$ N., 127 $^{\circ}$ E., H = 13 57 26 h = about 200 km.
12	" 15th	iS iSS i L	11 32 36 36 02 37 13 37.8	U.S.C.G.S.: $5\frac{1}{2}^{\circ}$ S., 100 $^{\circ}$ E., H = 11 15 46
13	" 19th	iP iS	11 06 09 13 20	U.S.C.G.S.: $9\frac{1}{2}^{\circ}$ N., 127 $^{\circ}$ E., H = 10 57 09
14	" 20th	iS	23 51 02	U.S.C.G.S.: 11° S., 165 $^{\circ}$ E., H = 23 39 08 h = about 60 km.
15	" 21st	iS	16 22 26	U.S.C.G.S.: 11° S., 165 $^{\circ}$ E., H = 16 10 38 h = about 60 km.
16	" 23rd	i	13 30 05	U.S.C.G.S.: 11° S., 165 $^{\circ}$ E., H = 13 13 25
17	" 23rd	i	15 39 37	U.S.C.G.S.: H = 15 21 50
18	" 25th	i	09 41 32	U.S.C.G.S.: $5\frac{1}{2}^{\circ}$ S., 150 $^{\circ}$ E., H = 09 29 42
19	" 28th	eL	02 06.2	
20	April 2nd	e	09 56.8	
21	" 5th	eL	08 52.6	
22	" 8th	eS	10 16 34	U.S.C.G.S.: H = 10 00 06
23	" 14th	iS	07 24 14	West of Macquarie Is.
24	May 4th	eS i eL	06 34 45 35 43 37.0	
25	" 4th	iP e iPP iSS iL	14 22 06 22 12 23 26 30 03 31.2	U.S.C.G.S.: $24\frac{1}{2}^{\circ}$ S., 177 $^{\circ}$ W., H = 14 15 16
26	" 5th	L	01 17	
27	" 8th	iP iS i	21 18 44 25 07 27 23	U.S.C.G.S.: $2\frac{1}{2}^{\circ}$ N., 127 $^{\circ}$ E., H = 21 10 40
28	" 8th	iS i(L)	22 00 57 02 39	U.S.C.G.S.: $5\frac{1}{2}^{\circ}$ S., 145 $^{\circ}$ E., H = 21 49 36

No.	Date 1952	Phase	Time (G.M.T.)	Remarks
29	May 9th	e(L)	03 44 25	U.S.C.G.S.: H = 03 49 10 h = about 400 km.  International Seismological Centre
30	" 9th	eP i iS	17 54 30 59 21 59 55	
31	" 16th	eL	21 49.8	
32	" 17th	eS iSS iSSS i	06 08 34 10 36 11 05 12 46	U.S.C.G.S.: $4\frac{1}{2}^{\circ}$ S., 155° E. H = 05 56 38
33	" 24th	iS i i	16 23 11 23 47 28 50	B.C.I.S.: 1° S., $98^{\circ}8$ E. H = 16 05 53
34	" 31st	eS	05 04 13	Near Macquarie Is.
35	June 10th	iS L	10 11 58 14.7	U.S.C.G.S.: $15\frac{1}{2}^{\circ}$ S., $178\frac{1}{2}^{\circ}$ W. H = 09 58 27
36	" 11th	e e	01 21 29 22.1	
37	July 17th	iS iSS i i iSS eSSS	16 30 31 31 02 31 52 33 04 35 32 38 18	U.S.C.G.S.: $34\frac{1}{2}^{\circ}$ N., 136° E. H = 16 09 52 h = about 100 km.
38	" 21st	e e eL	12 20 46 28 11 46.0	U.S.C.G.S.: $35^{\circ}1$ N., $118^{\circ}9$ W. H = 11 52 11.5
39	" 25th	iS	14 26 21	SW of Macquarie Is.
40	August 11th	e e	20 39.1 40 00	
41	" 16th	i eL	14 06 41 07.6	U.S.C.G.S.: H = 13 51 35
42	" 17th	iP ePP ePPP e iS i(ScS) eSS eSSS	16 14 50 18 06 19 54 22 13 25 19 26 05 31 33 35 15	U.S.C.G.S.: $30\frac{1}{2}^{\circ}$ N., $91\frac{1}{2}^{\circ}$ E. H = 16 02 05
43	" 19th	i i i e	10 54 57 57 10 11 00 27 02.6	
44	" 20th	eL	16 31.0	
45	" 28th	iS iL	10 50 13 53.7	

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(P. B. NYE)
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PROVISIONAL SEISMOLOGICAL BULLETINMELBOURNE.

Latitude: 37° 49' 53" S. Longitude: 144° 58' 24" E. Height: 28m.
Foundation : Silurian sand - and mudstone
Instrument : Milne-Shaw, east-west component
Period : 12 seconds
Damping : 10 : 1
Magnification : 250

No.	Date 1952	Phase	Time (C.M.T.)	Remarks
			h m s	
1	7th Sept.	Sc	05 43 42	
2	11th Sept.	eP ippp eS L ₂	22 33 13 34 53 38 34 41.1	$\Delta = 33^{\circ} 08'$ H = 22 36 32
3	12th Sept.	i	06 27 30	
4	16th "	e e e	12 46 23 49 15 51 57	
5	20th "	i	13 04 48	Masked by large microseisms

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Instrument : Milne Shaw, east-west component

Period : 12 seconds

Damping : 10 : 1

Magnification: 250

No.	Date 1952	Phase	Time (G.M.T.)	Remarks
1	1st Oct.	e (S) eL	09 06 02 10.1	
2	10th "	eS eL ₂	16 09.6 13.1	
3	10th "	eL	19 36.9	
4	11th "	i	00 28 50	
5	18th "	eP iS	05 28 47 33 45	
6	18th "	eL	20 53.9	
7	24th "	i e i	05 27 23 28 15 29 43	
8	26th "	e e	09 01 00 02 43	
9	29th "	e i e i	19 41 46 44 08 44 30 51 50	
10	31st "	e	17 00 00	
11	31st "	e	18 57.7	

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Instrument : Milne-Shaw, east-west component
Period : 12 seconds
Damping : 20 : 1
Magnification : 250

No.	Date 1952	Phase	Time (G.M.T.)	Remarks
1	1st Nov.	iP	h m s 23 52 21	A = $34^{\circ}2$ H = 23 45 49
		i	52 24	
		i	52 58	
		i	53 13	
		e	54 33	
		eS	57 35	
2	4th Nov.	eP	17 11 47	A = $89^{\circ}7$ H = 16 58 51 period $2\frac{1}{2}$ min- utes.
		i	12 10	
		i	13 30	
		i(PPP)	17 00	
		i	18 30	
		i	20 42	
		iS	22 34	
		iL _G	37.0	
		eL(W ₃)	20 07.1	
3	5th Nov.	L	02 56.5	
4	5th Nov.	eS	06 21 14	
		eL	33.8	
5	5th Nov.	eL	10 20.3	
6	5th Nov.	iS	13 30 30	
		e(L)	39.7	
7	5th Nov.	iS	19 32 43	
		eL	55.1	
8	6th Nov.	iP	19 54 06	
		iPP	55 20	
		iPPP	55 37	
		iS	59 22	
9	7th Nov.	eS	14 32 10	
		L	44.2	
10	7th Nov.	iP	23 18 37	
		e	19 32	
		iS	23 25	
11	8th Nov.	iS	19 56 51	
		eL	09 21	

No.	Date 1952	Phase	Time (G.M.T.)			Remarks
			h	m	s	
12	13th Nov.	eS L	08	22	30 36.6	
13	14th Nov.	e e i	03	27	14 29 28 29 53	
14	16th Nov.	i e i(S) i e e(L)	07	46	17 46 38 50 08 50 24 51 14 52.2	
15	18th Nov.	iSg	18	05	37	near Gunning (N.S.W.)
16	19th Nov.	iSg	02	01	41	" "
17	19th Nov.	L	06	11	0	
18	20th Nov.	e eL	16	15	51 37 07	
19	21st Nov.	iSg	07	59	50	near Gunning (N.S.W.)
20	24th Nov.	e i e e eL	20	27	02 27 23 28 08 28 32 30 45	
21	28th Nov.	i i e e(S) i i i	21	10	26 10 56 12 35 13 00 13 24 15 08 15 58	
22	29th Nov.	e(S) (L)	08	46	45 56.3	

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MELBOURNE

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 Foundation: Silurian sand - and mudstone.
 Instrument: Milne Shaw, east-west component.
 Period: 12 seconds
 Damping: 20 : 1
 Magnification: 250

No.	Date	Phase	Time (G.M.T.)	Remarks
	1952			
1	1st Dec.	e L	00 12.8	
2	4th "	e	04 15 56	
		e	16 54	
3	6th "	e P	10 47 50	
		i	48 32	
		i	49 06	
4	6th "	i S	21 02 16	
		i	03 42	
		i LQ	04.1	
		e	06 01	
5	7th "	i S	01 14 42	
		e	21 01	
		e LQ	30.3	
6	7th "	i	11 15 25	
		e	15 39	
		i (L)	16.4	
7	7th "	i	17 28 55	
8	7th "	e	20 34 22	
9	9th "	e	09 22 25	
		i	26 13	
		e	27 30	
		e	27 59	
10	10th "	e	08 16 43	
11	12th "	e	17 38 26	
		(L)	40	
12	18th "	L	00 17 26	
13	18th "	e	08 48 34	
		i	48 49	
		e	49.0	
		e	50.5	

MELBOURNE - CONTINUED

No.	Date	Phase	Time (G.M.T.)	Remarks
14	21st Dec.	e e e e i i	06 03 29 04 07 05 18 06 52 07 53 10 36	
15	24th "	e S i e e e e (L)	08 45 16 45 39 45 56 46 17 46 52 47 43 48.1	
16	24th "	e e S i e L	18 50 16 51 38 51 54 53 42	
17	24th "	e (S) e (L)	21 49 08 51 12	
18	30th "	e e e (L)	13 00 41 03 13 05.9	
19	30th "	e	18 54 22	
20	30th "	e	19 04 23	

MACQUARIE ISLAND

Latitude: $54^{\circ} 29' 55''$ S. Longitude: $158^{\circ} 57' 22''$ E. Height: 14m
 Foundation: Weathered Basaltic Lava.
 Instrument: Wood-Anderson type seismograph, two components.
 Period: 2.75 seconds.
 Damping:
 Magnification: 2900

No.	Date	Phase	Time (G.M.T.)	Remarks
1	3rd Dec.	e Pg NE i Sg NE	15 55 38 40	
2	4th "	e Pg NE i Sg NE	21 42 22 25	
3	6th "	e P NE e S NE	10 49 56 56 52	
4	6th "	i Pg NE i Sg NE	18 49 01 03	
5	7th "	i Pg NE i Sg NE	01 50 59 51 03	
6	7th "	e Pg N i Sg N	01 51 54 58	