COMMONWEALTH OF AUSTRALIA

Department of National Development

Bureau of Mineral Resources, Geology and Geophysics,

MUNDARING GEOPHYSICAL OBSERVATORY

MUNDARING - WESTERN AUSTRALIA

SEISMOLOGICAL BULLETIN

MUNDARING - KALGOORLIE - MEEKATHARRA

JANUARY 1970

MUNDARING (MUN)

Latitude: 31°58.7' S Longitude: 116°12.5' E

Height: 253 Metres

Foundation: Precambrian granite

Instruments: World Wide Standardized Seismograph System No. 44

Nominal Magnificiaion - S.P. 25000; L.P. 375

KALGOORLIE (KLG)

Latitude: 30°47' 01.2" S Longitude: 121°27' 28.9" E

Height: 350 Metres.

Foundation: Alluvium-covered Precambrian basic metasediments

Instruments: Galvanometers: T = 1/4 sec.

Seismometers: Vertical - Willmore, T = 0.8 sec.
2 Horizontals - Benioff, T = 1.0 sec.

Magnification: Vertical 5800 at T = 1.0 sec.
Horizontal 6400 at T = 1.0 sec.

MEEKATHARRA (MEK)

Latitude: 26°36' 46" S Longitude: 118°32' 42" E

Height: 515 Metres

Foundation: Archean Sedimentary rock

Instruments: Galvanometer: T = 1/4 sec.

Seismometer: Vertical - Willmore MK II, T = 1.0 sec.

Magnification: Vertical approx. 8000 at T = 1.0 sec.

KUNUNURRA (KNA)

Latitude: 15° 45.0' S Longitude: 128° 46.0' E

Height: 55 Metres

Foundation: Unweathered Upper Devonian Sandstone

Instruments: Galvanometer: T = 1/4 sec.

Seismometer: Vertical - Willmore MK1
T = 1.0 secs.

International Seismological Centre

International Seismological Centre

Date. 1970	Phase	G.M.T.	Dir.		Per. (sec.)	Amp		LogA/T	
MUNDARING (MUN)									
January.									
01	iP	02 03 34.1	C		1.0	28.0	mu	1.4	
01	iP	22 17 06.0	D		0.8	18.0	mu	1.4	
02	eP	05 26 04							
02	iP	10 50 15.2	D						
03	eP	14 57 44							
03	iP	16 48 47.5	D						
03	iP	22 59 25.0	D						
04	iP	08 05 50.5	C						
04	iP	08 37 39.4	C		1.0	110	mu	2.1	
04	eP	17 10 28		LZ	20.0	191	u		
				LN	20.0	103	u		
				LE	20.0	120	u		
05	iP	00 29 13.0	C						
05	eP	14 00 25							
06	iP	05 43 25.2	D		1.0	60.0	mu	1.8	
				LZ	20.0	129	u		
				LN	20.0	40	u		
				LE	20.0	88	u		
06	eP	23 32 09							
07	iP	03 39 48.4	D		0.5	117	mu	2.4	local
	iS	39 57.8							
07	eP	09 02 14							
07	iP	21 28 10.0	D						
07	eP	23 59 23							
08	iP	17 21 27.1	C						
09	eP	04 52 14							
09	eP	20 08 15							
09	iP	21 15 35.3	D						
09	iP	23 21 16.3	D						
10	iP	12 14 36.8	C	LZ	20.0	251	u		
				LN	20.0	120	u		
10	eP	12 43 57							
10	iP	12 52 30.5	C						
10	iP	12 57 13.0	C						
10	iP	12 58 27.5	C						
10	iP	13 09 29.1	C						
10	iP	13 16 56.6	D						
10	iP	13 20 29.0	D						
10	iP	13 24 23.0	D						
10	eP	13 36 45							
10	iP	14 07 06.7	C						
10	iP	14 23 58.0	C						
10	eP	14 53 27							
10	iP	15 01 39.5	C						
10	eP	15 19 40							
10	iP	15 21 33.5	D						
10	iP	15 26 24.6	D						
10	iP	15 34 16.7	C						
10	eP	15 46 24							
10	eP	16 07 56							
10	iP	16 26 05.4	C						
10	iP	16 36 23.7	C						
10	iP	16 38 22.4	C						
10	iP	17 20 07.2	C						
10	iP	17 47 54.1	C						
10	eP	19 25 42							
10	eP	20 32 42							

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)		Amp		LogA/T

MUNDARING (MUN) Cont.

January.								
10	iP	21 26 15.7	D					
10	eP	21 40 08						
11	eP	01 37 44						
11	eP	03 11 11						
11	iP	03 25 21.0	D					
11	iP	03 49 07.8	D					
11	iP	05 09 39.0	C					
11	iP	05 24 12.3	D	0.8		105	mu	2.1
11	iP	05 28 24.8	C					
11	iP	11 02 04.7	C	1.2		180	mu	2.2
11	iP	12 01 49.9	D					
11	eP	12 27 20						
11	iP	21 09 48.1	C					
12	iP	02 28 53.2	C					
12	eP	03 44 38						
12	iP	04 32 30.1	C					
12	iP	05 07 07.7	D					
12	iP	06 07 29.8	C					
12	eP	06 32 05						
12	eP	14 59 13						
12	iP	15 44 00.0	D					
12	eP$_D$	18 43 31						
12	eP	23 58 15						
	eS	59 50						local
13	iP	04 21 38.8	C					
13	iP	14 40 09.6	C					
13	iP	17 03 03.2	D	0.9		70.0	mu	1.9
13	iP	20 55 57.5	C	0.8		75.0	mu	2.0
13	iP	21 04 14.4	D					
13	iP	22 41 48.0	D					
14	iP	02 27 31.1	C					
14	iP	14 27 57.0	D					
14	iP	20 52 09.2	C					
15	iP	17 12 31.3	D					
15	iP	18 00 59.9	D					
16	iP	08 24 14.2	D					
16	eP	10 55 27						
16	iP	12 19 06.2	C	0.7		27.0	mu	1.6
17	iP	15 37 22.5	C					
18	eP	00 28 33						
18	iP	01 46 55.2	C					
18	iP	06 30 21.8	D					
18	iP	12 48 32.1	C					
19	eP	00 06 55						
19	iP	04 23 24.2	D					
	eS	23 35.8						local
20	iP	07 29 34.9	C		0.9	315	mu	2.5
				LZ	20.0	180	u	
				LN	20.0	157	u	
				LE	20.0	140	u	
20	eP	08 47 17						
20	iP	15 20 42.1	C		1.0	400	mu	2.6
20	iP	17 17 12.4	D					
20	iP	17 45 00.9	C					
21	eP	04 18 51						
21	iP	14 58 28.4	D					
21	eP	18 10 42						
21	iP	23 53 52.0	D					
22	eP	09 19 15						
22	eP	15 34 06						

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Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)		Amp	LogA/T	
MUNDARING(MUN) Cont.								
January.								
22	iP	16 24 15.5	D					
23	iP	12 13 14.8	D					
24	iP	02 39 35.3	D					
24	iP	03 56 28.2	C	0.6		38.0 mu	1.8	
24	iP	07 34 41.9	D					
24	iP	18 14 14.8	D					
24	eP	19 08 43						
25	iP	11 24 37.3	D	1.0		40.0 mu	1.6	
26	iP	00 22 56.5	D	0.8		45.0 mu	1.8	
	iX	23 04.0	D					
26	iP	10 10 09.5	C	1.0		240 mu	2.4	
					LZ	20.0 105 u		
					LN	20.0 0 u		
					LE	20.0 71 u		
27	iP	09 11 45.0	C	1.2		120 mu	2.0	
27	eP	18 30 27						
28	eP	14 28 35						
28	iP	18 46 00.7	D	0.3		110 mu	2.5	local
	eS	10.5						
28	iP	18 57 29.2	C					
28	iP	23 15 02.9	D	0.8		420 mu	2.7	
29	iP	07 15 50.9	D					
29	eP	19 08 03						
29	iP	23 26 12.8	C					
30	iP	08 36 56.6	C	1.1		400 mu	2.6	
30	iP	13 45 10.0	D					
30	eP	15 19 14						
30	iP	18 11 19.0	C	0.4		82.0 mu	2.3	local
	eS	11 32						
31	iP	08 03 13.1	C					
31	iP	11 49 30.8	C					
31	iP	22 43 30.5	D					
KALGOORLIE (KLG)								
January.								
01	iP	22 16 31.3	C					
02		Nil						
03	iP	00 22 21.2	D					
03	iP	14 57 29.4	D					
03	iP	22 58 59.2	D					
04	iP	08 05 20.0	D					
04	iP	08 37 24.8	C					
04	eP	17 10 29						
05	iP	00 29 01.9	C	0.5		88 mu	2.3	
05	iP	09 14 16.7	D	0.6		10.2 mu	1.3	
05	eP	14 00 12						
06	iP	05 42 47.1	D					
06	eP	23 32 18						
07	eP	03 40 44						
	eS	41 32						local
07	iP	09 01 39.8	D					
07	iP	21 27 52.4	C					
08	iP	17 20 59.8	D					
	iS	27 39.1	C					
09	iP	04 51 46.0	C					
09	iP	20 07 43.3	D					

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Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T

KALGOORLIE (KLG) Cont.

January.

09	iP	23 21 07.2	C	0.5	30.0 mu	1.8
10	iP	11 35 12.3	C			
10	iP	12 14 18.3	C	0.7	66.0 mu	2.0
10	iP	13 16 39.2	D			
10	iP	14 06 48.4	C	0.8	85.0 mu	2.0
10	iP	14 23 39.4	C			
10	iP	15 01 21.3	D			
10	iP	15 33 58.4	D			
10	iP	17 19 49.3	D			
10	iP	17 47 34.5	C			
11	iP	05 09 20.4	C			
11	iP	05 27 50.2	C			
11	iP	08 58 57.6	C			
11	iP	21 09 29.0	C			
12	iP	02 28 34.4	D			
12	iP	04 32 11.6	C			
12	iP	14 58 55.2	D			
12	iP	18 43 04.7	D			
12	iP	23 58 23.0	D			
	iS	00 01.3				
13	iP	04 20 53.8	C			
13	iP	17 02 45.2	D	0.7	42.0 mu	1.7
13	iP	20 55 39.1	C			
14	iP	02 27 09.4	C			
14	iP	07 14 35.4	C			
14	iP	08 18 14.4	C			
14	iP	08 33 06.0	C			
15		Nil				
16	iP	10 54 56.6	D			
16	iP	12 18 47.0	C			
17	iP	21 54 34.1	D			
18	iP	00 28 09.0	D	0.7	66.0 mu	2.0
18	iP	12 48 14.9	D			
18	iP	21 22 00.3	C			
19		Nil				
20	iP	07 29 03.8	C			
20	iP	08 46 48.0	D			
20	iP	15 20 05.9	D			
20	iP	16 59 06.4	C			
20	iP	17 16 39.6	C			
20	iP	17 44 46.5	C			
21	eP	04 18 38				
21	iP	23 53 21.4	D			
22	iP	09 19 05.6	C			
22	iP	15 34 00.1	C			
23	iP	09 40 52.5	D			
23	iP	12 13 21.7	C			
24	iP	01 24 08.8	D			
24	iP	02 39 17.1	C	0.9	130 mu	2.2
24	iP	03 56 07.6	D			
24	iP	16 23 38.0	D			
24	iP	18 13 54.5	D			
24	iP	19 08 31.8	C	0.6	57.0 mu	2.0
25	iP	11 24 01.0	D			
26	iP	00 22 55.4	C			
26	iP	10 09 34.5	D			
27	iP	18 30 15.6	C			
28	iP	18 46 57.0	C			
28	iP	23 14 32.4	D	0.7	360 mu	2.7 local

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Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	

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KALGOORLIE (KLG) Cont.

January.							
29		Nil					
30	iP	08	36	21.3		C	
30	iP	18	12	12.5			Local
31	iP	11	49	43.6		C	

MEEKATHARRA (MEK)

January.							
01	iP	17	20	33.8		C	
01	iP	22	16	32.0		D	
02	iP	05	25	13.1		C	
03	iP	14	56	50.6		C	
04	iP	08	36	50.1		D	
04	eP	17	09	54			
05	iP	00	28	30.4		D	
05	iP	13	59	33.2		D	
06	iP	05	42	51.7		D	
06	iP	10	25	26.9		C	
06	iP	23	31	31.4		C	
07	iP	03	40	51.7		C	Local
	eS		41	50			
07	iP	09	01	35.8		C	
07	iP	21	26	56.1		D	Local
	eS		27	25			
08	iP	17	21	28.6		D	
09	iP	04	52	14.8		D	
09	iP	23	20	16.0		D	
10	iP	11	35	41.3		D	
10	iP	12	13	48.0		D	
10	iP	13	16	08.9		D	
10	iP	14	06	17.8		D	
10	iP	14	23	09.1		D	
10	iP	15	00	51.0		C	
10	iP	15	33	27.9		D	
10	iP	16	25	16.4		D	
10	iP	16	37	34.2		C	
10	iP	17	19	18.6		D	
10	iP	17	47	05.2		D	
11	iP	05	08	50.2		D	
11	iP	05	28	13.0		D	
11	iP	21	08	58.8		D	
12	iP	04	31	41.4		D	
12	iP	18	42	35.1		D	
12	iP	23	57	19.4		C	Local
13	iP	00	19	27.2		C	
13	iP	04	21	10.3		D	
13	iP	17	02	15.3		C	
13	iP	20	55	08.6		D	
14	iP	02	26	24.8		D	
14	iP	07	14	35.0		C	
14	iP	08	17	28.5		D	
14	iP	08	33	24.9		D	
14	iP	20	50	58.6		D	Local
	eS		52	01			
15	iP	18	00	11.1		D	
16	iP	12	18	17.3		D	
17	iP	15	36	32.9		C	
18	iP	00	27	53.0		D	

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	

MEEKATHARRA (MEK) Cont.

January.							
18	iP	01 46 06.7	D				
19	iP	04 24 23.4	D				Local
20	iP	04 53 57.2	D				
20	iP	07 29 29.1	D				
20	iP	08 47 12.7	C				
20	iP	15 20 07.9	C				
20	iP	17 44 27.9	D				
21	iP	04 17 53.4	D				
22	iP	09 18 16.9	D				
22	iP	15 34 10.8	D				
22	iP	16 23 26.8	D				
23	iP	12 12 50.8	C				
23	iP	18 18 47.7	C				
24	iP	01 23 39.2	D				
24	iP	02 38 47.4	C				
24	iP	03 55 38.1	D				
24	iP	11 05 54.4	C				
24	iP	14 59 45.1	C				
24	iP	18 13 25.3	C				
24	iP	19 08 00.4	C				
24	iP	22 04 02.5	C				
25	iP	11 24 03.8	C				
26	iP	00 21 59.9	C				
26	iP	10 09 49.3	C				
27	iP	09 11 22.1	D				
28	iP	18 47 04.8	D				Local
28	iP	23 14 52.3	C				
29		Nil					
30	iP	08 36 37.3	D				
30	eP	18 12 13					
31	iP	08 02 24.5	C				
31	eP	11 49 04					

KUNUNURRA (KNA)

January.							
15	eP	17 12 23					
15	eP	17 58 32					
16	eP	10 54 34	D				
16	eP	12 16 39					
17	ep	01 43 48					
17	eP	15 35 56	D				
17	eP	19 12 45					
	eS	14 24					
18	eP	12 46 10					
19		Nil					
20	eP	13 55 19					
20	eP	15 18 33	D				
20	eP	16 56 40					
20	eP	17 16 42	C				
20	eP	17 43 21	D				
20	eP	18 13 03					
20	eP	20 24 06					
	eS	25 44					
21	eP	04 16 54					
21	eP	05 02 20					
	eS	03 56					

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Late 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T
KUNUNURRA (KNA) Cont.						
January.						
21	eP	06 35 32				
21	eP	07 53 27				
	eS	54 57				
22		Nil (No record).				
23		Nil (No record).				
24		Nil (No record).				
25	eP	18 14 46			C	
	eS	15 07				
26	eP	00 22 10				
26	eP	05 43 42				
	eS	45 14				
26	eP	14 50 19				
	eS	53 06				
27	eP	06 45 28				
	eS	47 03				
28	eP	03 01 57				
	eS	03 20				
28	eP	22 48 57				
	eS	50 27				
29	eP	06 12 57				
29	eP	13 06 42				
30	eP	08 35 53				
31		Nil				

P.J. Gregson,
Observer-in-Charge.

International Seismological Centre

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MUNDARING GEOPHYSICAL OBSERVATORY
MUNDARING - WESTERN AUSTRALIA

SEISMOLOGICAL BULLETIN
MUNDARING - KALGOORLIE - MEEKATHARRA

FEBRUARY 1970

MUNDARING (MUN)

Latitude: 31°58.7' S Longitude: 116°12.5' E
Height: 253 Metres
Foundation: Precambrian granite
Instruments: World Wide Standardized Seismograph System No. 44
Nominal Magnificiaion - S.P. 25000; L.P. 375

KALGOORLIE (KLG)

Latitude: 30°47' 01.2" S Longitude: 121°27' 28.9" E
Height: 350 Metres.
Foundation: Alluvium-covered Precambrian basic metasediments
Instruments: Galvanometers: T = 1/4 sec.
Seismometers: Vertical - Willmore, T = 0.8 sec.
2 Horizontals - Benioff, T = 1.0 sec.
Magnification: Vertical 5800 at T = 1.0 sec.
Horizontal 6400 at T = 1.0 sec.

MEEKATHARRA (MEK)

Latitude: 26°36' 46" S Longitude: 118°32' 42" E
Height: 515 Metres
Foundation: Archean Sedimentary rock
Instruments: Galvanometer: T = 1/4 sec.
Seismometer: Vertical - Willmore MK II, T = 1.0 sec.
Magnification: Vertical approx. 8000 at T = 1.0 sec.

KUNUNURRA (KNA)

Latitude: 150° 45.0' S Longitude: 128° 46.0' E
Height: 55 Metres
Foundation: Unweathered upper devonian sandstone
Instruments: Galvanometer: T = 1/4 sec.
Seismometer: Vertical - Willmore MKI
T = 1.0 secs.

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	Log A/T	
MUNDARING (MUN)							
February.							
01	iP	13 29 52.6	C				
01	iP	18 43 18.7	D				Regional
	iS	45 18.5					
	Lg	46 25.9					
01	iP	22 14 42.5	C				Local
	eS	14 53.2					
02	iP	00 20 16.3	D				
02	eP	13 52 26					
03	eP	19 03 50					
03	iP	21 06 48.0	D				
04	iP	05 28 20.2	C				
04	iP	12 40 40.9	D				
04	iP	22 54 45.0	D				
05	iP	03 49 51.1	C	0.9	28 mu	1.5	
05	eP	12 59 20					
05	iP	22 14 12.7	C				
06	eP	02 25 46					
06	eP	12 29 58					
06	iP	18 56 34.0	C				
06	eP	21 22 48					
06	iP	22 20 22.9	D				
07	iP	11 38 54.4	D				
07	iP	11 46 47.7	C				
08	eP	08 57 37					
08	iP	16 33 34.9	D	0.5	004 mu	0.9	regional
	eS	35 07					
08	iP	22 16 14.0	D				
09	iP	20 34 01.3	D	0.3	250 mu	2.9	Local
	eS	34 09.9					
10	eP	09 07 55					
10	iP	14 14 12.4	D				
10	iP	19 39 55.9	C				
10	eP	21 08 40					
10	iP	21 44 50.8	C				
11	iP	02 10 15.0	D				
12	iP	14 25 01.0	D				
13	iP	03 22 46.8	C				
13	iP	06 31 58.2	D				
13	iP	15 48 14.2	C	0.6	750 mu	3.1	
13	iP	16 [illegible]4 54.0	C	0.6	40 mu	1.8	
14	iP	04 26 24.5	C				
14	iP	11 36 28.3	C				
15	iP	12 42 51.8	C	0.9	105 mu	2.1	
16	iP	16 01 38.6	D				
16	iP	21 23 17.8	C	0.6	62 mu	2.0	Regional
	iS	25 30.7					
16	iP	21 44 55.6	C				
17	iP	05 53 52.6	D				
17	iP	19 23 04.7	C				
18	iP	15 33 15.6	C				
18	iP	16 33 32.0	D				
19	iP	01 53 23.1	D				
19	eP	07 20 26					
19	iP	10 57 10.0	C				
19	iP	17 17 25.2	C	0.4	33 mu	1.9	
19	eP	23 02 01					
20	iP	02 17 15.5	C				
20	eP	06 06 31					
20	eP	10 43 46					
20	iP	19 00 37.1	C				

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Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
MUNDARING (MUN) Cont.							
February.							
21	iP	16 05 17.5	C	0.3	35 mu	2.1	Local
	iS	05 30.5					
21	iP	16 57 11.1	D	0.7	27 mu	1.6	
22	eP	22 38 55					
23	iP	09 13 24.0	C	1.0	40 mu	1.6	
23	iP	11 34 53.5	C				
23	iP	16 50 30.2	D	1.0	120 mu	2.1	
23	eP	20 57 17		1.0	40 mu	1.6	
24	iP	00 46 38.7	D	1.0	80 mu	1.9	
24	iP	02 18 05.5	C	1.0	100 mu	2.0	
24	eP	15 16 42		0.8	14 mu	1.2	
25	iP	20 03 06.5	D				
26	iP	15 58 23.7	D	1.1	76 mu	1.8	
26	eP	19 40 54					
26	iP	23 18 15.4	D	1.2	60 mu	1.7	
27	iP	07 21 42.2	C	1.0	40 mu	1.6	
27	iP	10 52 51.8	C	0.9	165 mu	2.3	
27	iP	11 52 13.4	D	0.9	49 mu	1.7	
27	iP	13 10 56.9	C				
28	iP	05 08 58.7	C	1.0	56 mu	1.7	
28	iP	11 06 14.0	D				
28	iP	20 11 07.8	C				
KALGOORLIE (KLG)							
February.							
01	iP	18 43 18.6	D				Regional
	eS	45 20					
	Lg	46 33					Local
01	eP	22 15 37					
	eS	16 19					
02	iP	00 19 59.2	D				
03	eP	19 03 11					
03	iP	19 29 11.4	D				
03	eP	21 06 29					
04	iP	05 28 17.4	D				
04	iP	22 54 08.3	D				
05	iP	12 59 00.4	C				
05	iP	14 54 03.9	D				
05	iP	22 14 00.6	C	0.7	35 mu	1.7	
05	iP	22 53 39.4	C				
06	iP	02 25 30.8	C				
06	iP	18 55 57.7	D	0.5	17 mu	1.5	
06	iP	21 22 38.2	D				
06	iP	22 20 27.5	D				
07	iP	11 46 29.0	C				
07	eP	12 19 57					
08	iP	16 32 38.0	D				Regional
	eS	33 27					
09	eP	20 34 47					Local
	eS	35 32					
10	iP	14 13 53.6	D				
10	iP	19 39 28.1	C				
10	iP	21 44 14.9	D				
11	iP	02 10 44.4	D				
12	iP	14 24 44.1	C				
13	eP	03 22 27					
13	iP	15 48 12.9	C				
13	iP	16 02 53.3	C				
14		Nil					
15	iP	12 57 35.3	C	0.8	24 mu	1.5	

International Seismological Centre

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.O	Amp.	Log A/T	
KALGOORLIE (KLG) CONT.							
February.							
16	iP	21 23 34.4	D	0.3	24 mu	1.9	Regional
	eS	26 00					
17	iP	09 53 37.0	C				
17	iP	19 28 35.0	C	0.5	13 mu	1.4	
18	iP	07 08 26.6	C	0.9	35 mu	1.6	
18	iP	15 33 45.2	D	0.5	52 mu	2,0	
18	iP	16 33 01.2	C	1.0	80 mu	1.9	
19	iP	10 56 41.4	C	0.5	60 mu	1.1	
19	iP	23 01 25.6	C				
20	iP	19 00 34.5	D				
21	iP	16 56 49.5	D	0.7	41 mu	1.7	
22	iP	22 38 43.2	C	0.5	80 mu	2.2	
23	iP	09 12 53.5	C	0.8	49 mu	1.8	
23	iP	11 35 08.5	C				
23	iP	17 50 00.0	D	0.7	200 mu	2.5	
23	iP	20 57 06.3	D	0.6	69 mu	2.1	
23	iP	22 49 42.7	C	0.8	73	2.0	
24	iP	02 18 05.5	C				
24	eP	15 16 06					
25	iP	10 30 23.2	C	1.2	62 mu	1.7	
26	iP	15 58 08.2	C				
27	iP	10 52 39.0	C				
28	eP	11 05 58					
MEEKATHARRA (MEK)							
February.							
01	iP	18 42 14.2	C				Regional
	eS	43 18.5					
	eLg	44 05					
01	eP	22 15 57					Regional
02		Nil					
03	iP	19 03 29.5	D				
03	iP	21 05 59.0	C				
04	eP	05 28 14					
04	iP	22 54 32.0	C				
05	iP	19 16 00.1	D				
05	iP	22 13 27.9	D				
05	iP	22 53 07.0	D				
06	iP	02 24 57.8	D				
06	iP	12 28 51.4	D				
06	iP	18 55 54.4	D				
06	iP	21 21 39.4	C				
06	iP	22 19 52.2	C				
07	iP	11 38 05.4	D				
07	iP	11 45 58.5	D				
08	iP	08 56 43.0	D				
08	iP	16 32 56.1	C				Local
08	iP	22 19 52.1	C				
09	iP	08 37 56.9	D				
09	eP	20 35 04					Local
10	iP	19 39 05.0	D				
11		Nil					
12	iP	04 47 16.2	D				
12	iP	14 24 13.1	D				
13	iP	03 22 06.7	D				
13	iP	15 47 31.3	D				
13	iP	16 02 11.3	D				
13	eP	22 40 46					Local
14		Nil					
15	iP	12 42 02.0	D				

International Seismological Centre

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp	Loc'n
MEEKATHARRA (MEK) Cont.						
February.						
16	iP	16 00 48.0	D			
16	iP	21 22 31.5	C			Regional
	eS	24 10				
16	iP	21 44 48.8	D			
17	iP	03 24 39.5	D			
17	iP	05 53 05.5	C			
17	iP	19 22 51.5	C			
18	iP	15 33 06.2	D			
18	iP	16 33 25.0	C			
19	iP	07 19 59.0	C			
19	iP	10 57 08.1	C			
19	iP	17 16 34.5	D			
19	iP	23 01 13.1	C			
20	iP	18 59 33.0	C			
21	iP	16 56 12.0	D			
22	iP	22 38 14.2	D			
23	iP	11 34 45.4	D			
23	iP	17 50 19.0	C			
23	iP	20 56 34.7	D			
23	iP	22 49 17.6	D			
24	iP	02 17 32.8	D			
24	iP	06 00 06.0	C			
25	iP	10 29 52.8	C			
26	iP	04 14 06.3	D			
26	iP	15 57 39.0	D			
26	iP	23 34 09.7	C			
27	iP	07 21 14.6	D			
27	iP	10 51 56.6	D			
27	iP	10 59 35.0	C			
28	iP	05 08 48.8	D			
28	iP	11 05 47.8	C			
KUNUNURRA (KNA)						
February.						
01		Nil				
02	eP	07 13 35				
02	eP	12 45 42				
02	eP	18 44 24				
03	eP	13 49 54				
03	eP	16 10 13				
04		No time marks.				
05		Nil				
06	eP	17 23 56				
06	eP	18 05 18				Local
	eS	05 35				
06	eP	22 20 46				
07		No time marks.				
08		No time marks.				
09		No time marks.				
10- 23		No record				
24 - 28		No chronometer correction.				

P.J. Gregson,
Observer-in-Charge.

International Seismological Centre

COMMONWEALTH OF AUSTRALIA
Department of National Development
Bureau of Mineral Resources, Geology and Geophysics,

MUNDARING GEOPHYSICAL OBSERVATORY
MUNDARING - WESTERN AUSTRALIA

SEISMOLOGICAL BULLETIN
MUNDARING - KALGOORLIE - MEEKATHARRA

-- MAR 1970

International Seismological Centre

MUNDARING (MUN)

Latitude: 31°58.7' S Longitude: 116°12.5' E
Height: 253 Metres
Foundation: Precambrian granite
Instruments: World Wide Standardized Seismograph System No. 44
Nominal Magnificiaion - S.P. 25000; L.P. 375

KALGOORLIE (KLG)

Latitude: 30°47' 01.2" S Longitude: 121°27' 28.9" E
Height: 350 Metres.
Foundation: Alluvium-covered Precambrian basic metasediments
Instruments: Galvanometers: T = 1/4 sec.
Seismometers: Vertical - Willmore, T = 0.8 sec.
2 Horizontals - Benioff, T = 1.0 sec.
Magnification: Vertical 5800 at T = 1.0 sec.
Horizontal 6400 at T = 1.0 sec.

MEEKATHARRA (MEK)

Latitude: 26°36' 46" S Longitude: 118°32' 42" E
Height: 515 Metres
Foundation: Archean Sedimentary rock
Instruments: Galvanometer: T = 1/4 sec.
Seismometer: Vertical - Willmore MK II, T = 1.0 sec.
Magnification: Vertical approx. 8000 at T = 1.0 sec.

KUNUNURRA (KNA)

Latitude: 150° 45.0' S Longitude: 128° 46.0' E
Height: 55 Metres
Foundation: Unweathered upper devonian sandstone
Instruments: Galvanometer: T = 1/4 sec.
Seismometer: Vertical - Willmore MKI
T = 1.0 secs.

International Seismological Centre

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
MUNDARING (MUN)							
March.							
01	iP	21 30 15.5	C				
02	iP	00 11 56.9	D				
02	iP	01 05 48.2	C				
02	iP	02 01 14.3	C				
03	eP	16 45 16					
04	iP	03 39 37.9	D	1.0	480mu	2.7	
04	iP	06 40 59.8	D	0.5	130mu	2.4	
04	iP	14 35 23.2	C	0.5	65mu	2.1	
04	iP	16 10 37.0	D				
04	iP	16 44 06.5	D				
04	iP	19 50 26.4	D				
04	iP	21 20 29.5	C				
05	iP	01 50 44.3	D				
05	iP	02 20 57.6	D				
05	iP	04 15 02.0	D				
05	iP	04 36 40.1	C				
06		Nil					
07	iP	02 50 35.5	D				Local
08	iP	11 58 11.0	C				
08	iP	18 10 47.5	C				
08	iP	19 39 14.3	C				
09	iP	03 03 46.0	C				
09	iP	03 56 01.1	D				
09	iP	16 09 51.1	D	LZ 20.0	44 u		
				LN 20.0	340 u		
				LE 20.0	123 u		
09	iP	18 39 35.1	C				
10	iP	02 18 40.2	C				
10	iP	05 10 42.2	C				
10	iP	05 30 23.6	D				
10	iP	06 20 08.9	C				
10	iP	10 45 54.2	C				
10	iP	17 15 27.3	D	2.5	300 ,000mu	5.1	Local
	iS	15 38.9					Calingiri
10	iP	17 47 48.0	D				
10	iP	18 15 46.8	D				
11	iP	22 57 14.5	C	1.0	60mu	1.7	
12	iP	16 39 38.1					
13	iP	07 56 27.6	D				Local
13	iP	08 33 30.0	D				Local
13	iP	09 08 33.0	D				Local
13	iP	11 51 28.0	D				Local
13	iP	18 07 51.5	D				Local
14	iP	01 23 14.2	D				
14	iP	02 42 21.3	C				
14	iP	20 58 53.8	C	0.7	8mu	2.1	
15	eP	12 57 54					
16	eP	16 34 06		LPZ 20.0	2 u		
				LPE 20.0	4 u		
17	iP	17 33 55.5	C				
18	iP	12 41 11.0	C				
18	iP	23 37 44.6	C				
18	eP	23 51 54.7	D				
19		Nil					
20	eP	06 09 16					
20	iP	11 14 46.5	C	0.7	620mu	2.9	

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	Log A/T	
MUNDARING (MUN) (continued)							
March.							
21	iP	12 03 35.0	C	0.6	135 mu	2.3	
21	iP	22 42 45.3	C				
22	iP	08 34 44.0	C	1.0	64mu	1.8	
22	eP	20 56 12					
22	iP	23 04 05.1	D				
	eX	07 15					
23	iP	00 32 21.5	C				
23	iP	02 03 58.7	C				
23	iP	09 15 41.7	C	0.7	38 mu	1.7	
23	iP	12 25 02.3	C				
23	iP	21 37 13.6	D				
24	iP	10 38 26.5	C	1.0	1200 mu	3.1	Regional
	iX	38 28.0	D				
	eS	40 49					
	eLg	42 22					
24	iP	11 21 51.0	C	0.9	10 mu	1.0	Regional
	eS	24 11					
	eLg	25 40					
24	eP	11 37 21		0.9	7 mu	0.9	Regional
	eS	39 40					
	eLg	41 09					
24	eP	12 13 48		0.9	4 mu	0.6	Regional
	eS	16 07					
	eLg	17 35					
24	iP	12 28 57.5	C				
24	eP	13 11 21					Regional
	eS	13 43					
	eLg	15 10					
24	eP	14 17 50					Regional
	eS	20 10					
24	eP	14 29 13					Regional
	eS	31 32					
24	e(P)	15 04 39					Regional
	eS	06 57					
24	eP	16 12 59		0.9	3 mu	0.6	Regional
	eS	15 17					
24	eP	17 18 20					Regional
	eS	20 39					
24	eP	20 05 57					Regional
	eS	08 14					
24	eP	20 26 24		0.9	2 mu	0.4	Regional
	eS	28 45					
24	eP	23 35 53		0.9	2 mu	0.4	Regional
	eS	38 12					
	eLg	39 40					
25	eP	00 35 01		0.9	2 mu	0.4	Regional
	eS	37 19					
25	eP	05 12 03					Regional
	eS	14 18					
25	eP	06 35 48					Regional
	eS	38 06					
26	eP	02 38 20					Regional
	eS	40 38					
26	iP	11 41 23.0	C	0.7	13 mu	1.3	Regional
	iS	43 47.0	C				
	eLg	45 13					
26	iP	12 22 30.2	C	0.7	7 mu	1.0	Regional
	iS	24 50.5					
	eLg	26 20					

International Seismological Centre

International Seismological Centre

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T
MUNDARING (MUN) (continued)						
March.						
26	eP	13 12 59.0	C			Regional
	eS	15 18				
26	eP	19 19 23				
26	iP	23 10 04.3	D			
27	eP	00 54 30				
	eS	57 35				
27	eP	04 46 28				
27	eP	18 43 16		0.9	210 mu	2.4
				LPZ 20.0	90 u	
				LPN 20.0	70 u	
				LPE 20.0	100 u	
27	PKP	18 58 47.0	D			
27	PKP	18 58 53.7	C			
28	iP	05 10 05.5	D			
	eS	11 22				
28	eP	05 25 20		1.0	16 mu	1.2
28	iP	07 54 03.1	C	1.0	640 mu	2.8
				LPZ 20.0	43 u	
				LPN 20.0	9 u	
				LPE 20.0	29 u	
28	iP	08 45 02.3	C			
28	iP	11 30 16.0	D			
28	eP	21 20 50		LPZ 20.0	31 u	
				LPN 20.0	14 u	
				LPE 20.0	43 u	
29	iP	10 16 48.0	D			
	eX	17 35				
29	iP	12 05 16.5	D			
29	eP	17 18 39				
29	iP	22 09 36.5	C			
30	iP	04 48 12.3	C	0.5	78mu	2.2
30	iP	16 54 12.7	C	0.6	620 mu	3.0
30	iP	20 49 12.5	C			
31	iP	13 06 23.4	D			

International Seismological Centre

Date 1970	phase.	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
KALGOORLIE (KLG)							
March.							
01		Nil					
02	iP	00 11 34.3	C	0.9	44mu	1.7	
03		Nil					
04	iP	03 39 11.0	D				
04	iP	06 40 29.5	D				
04	iP	14 35 04.7	C				
05	iP	04 36 22.1	D				
05	iP	19 04 43.0	D				
06		Nil					
07		Nil					
08	iP	11 57 51.4	C	1.0	120mu	2.1	
08	iP	18 10 22.1	D	0.6	45mu	1.9	
08	iP	19 38 48.5	C				
09	iP	16 09 15.8	D				
10	iP	02 18 22.4	C				
10	iP	05 10 28.0	C				
10	iP	06 08 21.0	C				
10	iP	06 19 56.0	C				
10	iP	10 45 29.8	C				
10	iP	15 19 55.4	D				
10	iP	17 16 14.0	C	0.2	1240mu	3.8	Local
11	iP	17 41 09.0	D	0.2	78mu	1.6	Local
12		Nil					
13		Nil					
14	iP	20 58 23.2	C	0.6	34mu	1.8	
15		Nil					
16	iP	05 27 26.0	C	0.5	20mu	1.6	
16	iP	16 33 30.5	C				
17	iP	17 17 24.2	C	0.7	33mu	1.7	
18	iP	22 13 03.2	C	0.7	11mu	1.3	
19		Nil					
20	iP	11 14 29.0	C	0.7	500mu	2.9	
21	iP	10 19 47.0	C				
21	iP	12 03 14.8	C	0.8	146mu	2.3	
21	iP	14 56 25.4	D	0.5	25mu	1.7	
22	iP	08 34 13.3	C				
22	iP	10 52 41.8	D				
23	iP	00 32 07.2	C				
23	iP	02 04 13.3	C	1.0	23mu	1.4	
23	iP	09 15 23.5	C				
23	iP	12 24 49.7	C				
23	iP	21 37 29.0	D	0.5	25mu	1.6	
24	iP	10 37 38.4	D	(0.4)	900mu	3.4	Regional
	eS	39 22					
24	iP	11 21 02.4	D	(0.4)	13mu	1.5	Regional
	eS	22 46					
24	iP	11 36 33.4	D				Regional
	eS	38 15					
24	eP	12 13 01					Regional
	eS	14 44					
24	eP	13 10 34					Regional
	eS	12 19					
24	eP	14 17 03					Regional
	eS	18 46					
24	eP	14 28 26					Regional
	eS	30 08					
24	eP	15 03 48					Regional
	eS	05 30					

International Seismological Centre

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	Log A/T	
KALGOORLIE (KLG) cont.							
March.							
24	eP	16 12 11					Regional
	eS	13 53					
24	eP	17 17 34					Regional
	eS	19 15					
24	eP	20 05 06					Regional
	eS	06 48					
24	iP	20 25 36.0	D				Regional
	iS	27 22.0					
24	eP	23 35 06					Regional
	eS	36 47					
25	eP	00 34 12					Regional
	eS	35 56					
25	eP	06 34 58					Regional
	eS	36 41					
25	eP	10 32 48					Regional
	eS	33 30					
26	eP	03 38 33					Regional
	eS	40 18					
26	iP	11 40 34.0	C				Regional
26	eP	12 20 36					Regional
27	eP	18 43 05.3	C				
28	eP	07 53 26					
29	iP	10 16 12.5	D				
29	iP	12 05 03.1	D				
29	iP	22 09 17.8	C				
30	iP	16 53 55.3	D				
31	iP	13 05 46.0	D	0.5	13mu	1.4	
MEEKATHARRA (MEK)							
March.							
01	iP	05 30 20.5	D				
01	iP	21 29 25.8	C				
01	iP	23 30 39.4	D				
02	iP	00 10 50.2	D				
02	iP	01 05 29.6	D				
02	iP	11 00 06.0	D				
03	iP	16 44 25.4	D				
03	iP	01 25 14.0	D				
04		No Record					
05		No Record					
06		Nil					
07	iP	22 35 37.5	D				
08	iP	11 57 20.3	D				
08	iP	18 10 36.5	C				
08	iP	19 38 22.1	D				
09	iP	16 09 35.8	C				
09	iP	18 39 20.6	C				
09	iP	18 45 17.5	D				
10	iP	02 17 51.8	D				
10	iP	05 10 11.0	D				
10	iP	05 29 55.0	D				
10	iP	06 08 49.5	D				
10	iP	10 45 00.1	D				
10	iP	17 16 22.2	D	0.2	194mu	2.9	Local Calingiri
10	iP	23 13 04.1	C				
11		Nil					

Date 1970	Phase.	G.M.T.	Dir.	Per. (sec.)	Amp	LogA/T	
MEEKATHARRA (MEK) cont.							
March.							
12	iP	06 59 03.3	D				
12	iP	21 29 29.0	C				
13		Nil					
14	iP	02 41 32.0	C				
14	iP	11 14 34.0	D				
14	iP	20 58 43.0	D				
15		Nil					
16	iP	05 27 22.6	D				
16	iP	16 33 50.4	C				
17	iP	17 17 00.0	D				
18	iP	23 51 19.2	C				
19	iP	23 46 35.1	C				
20	iP	11 14 57.3	D				
21	iP	12 02 45.0	D				
23	iP	00 31 47.7	D				
23	iP	02 03 44.3	C				
23	iP	09 14 53.1	D				
23	iP	09 44 56.8	C				
23	iP	12 24 24.4	D				
24	iP	04 27 48.0	C				
24	iP	10 37 22.4	D				Regional
24	eP	11 20 46					Regional
	eS	37 47					
24	eP	12 12 43.5					Regional
24	iP	12 28 14.3	C				
24	eP	16 11 48					Regional
24	eP	20 25 20					Regional
24	eP	23 34 48					Regional
25	eP	00 33 56					
25	eP	05 10 57					Regional
	eS	12 27					
25	eP	06 34 43					Regional
	eS	36 15					
25	eP	10 32 32					Regional
	eS	34 04					
25	eP	12 41 39					Regional
	eS	43 10					
25	eP	16 23 33					Regional
	eS	25 04					
26	iP	00 44 33.8	D				
26	eP	00 51 02					Regional
	eS	52 33					
26	eP	02 37 12					Regional
26	eP	02 44 57					Regional
	eS	46 27					
26	eP	11 40 19					Regional
	eS	41 50					
26	iP	12 21 26.0	D				Regional
	eS	22 58					
26	eP	13 11 56					Regional
	eS	13 27					
26	i(P)	19 19 16.5	C				
26	iP	23 09 10.2	C				
27	eP	00 54 09					Regional
	eS	55 39					
27	iP	01 18 29.2					

International Seismological Centre

International Seismological Centre

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
MEEKATHARRA (MEK) cont.							
March.							
27	eP	22 43 59					Regional
	eS	45 29					
28	iP	07 53 29.0	D				
28	iP	08 44 12.7	D				
28	ePKP	21 16 30					
29	iP	02 25 28.2	D				
29	iP	10 16 31.0	C				
29	iP	12 04 27.1	C				
29	iP	22 08 47.8	D				
30	eP	01 08 49					Regional
	eS	10 20					
30	iP	04 47 23.2	D				
30	iP	16 53 24.0	D				
31	iP	13 05 34.2	C				
31	iP	18 27 32.8	C				

P.J. Gregson,
Observer-in-Charge.

COMMONWEALTH OF AUSTRALIA
Department of National Development
Bureau of Mineral Resources, Geology and Geophysics,

MUNDARING GEOPHYSICAL OBSERVATORY
MUNDARING - WESTERN AUSTRALIA

SEISMOLOGICAL BULLETIN
MUNDARING - KALGOORLIE - MEEKATHARRA

APR 1970

International Seismological Centre

MUNDARING (MUN)

Latitude: 31°58.7' S Longitude: 116°12.5' E
Height: 253 Metres
Foundation: Precambrian granite
Instruments: World Wide Standardized Seismograph System No. 44
Nominal Magnificiaion - S.P. 25000; L.P. 375

KALGOORLIE (KLG)

Latitude: 30°47' 01.2" S Longitude: 121°27' 28.9" E
Height: 350 Metres.
Foundation: Alluvium-covered Precambrian basic metasediments
Instruments: Galvanometers: T = 1/4 sec.
Seismometers: Vertical - Willmore, T = 0.8 sec.
2 Horizontals - Benioff, T = 1.0 sec.
Magnification: Vertical 5800 at T = 1.0 sec.
Horizontal 6400 at T = 1.0 sec.

MEEKATHARRA (MEK)

Latitude: 26°36' 46" S Longitude: 118°32' 42" E
Height: 515 Metres
Foundation: Archean Sedimentary rock
Instruments: Galvanometer: T = 1/4 sec.
Seismometer: Vertical - Willmore MK II, T = 1.0 sec.
Magnification: Vertical approx. 8000 at T = 1.0 sec.

KUNUNURRA (KNA)

Latitude: 150° 45.0' S Longitude: 128° 46.0' E
Height: 55 Metres
Foundation: Unweathered upper devonian sandstone
Instruments: Galvanometer: T = 1/4 sec.
Seismometer: Vertical - Willmore MKI
T = 1.0 secs.

International Seismological Centre

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
MUNDARING (MUN)							
April.							
01	iP	07 24 43.6	C				
01	iP	16 15 14.6	D	0.4	17 mu	1.6	Regional
	iS	17 35.0					
	eLg	19 03					
02	iP	11 22 06.5	C				
03	iP	07 02 56.0	C				
03	iP	08 31 20.5	D				
03	iP	21 41 16.2	D				
03	eP	23 45 52					Regional
	eS	48 13					
04	iP	13 06 31.7	C				
04	iP	14 12 49.5	D	1.0	32 mu	1.5	Regional
	eS	15 10					
	eLg	16 38					
05	eP	11 19 07					
06	eP	01 02 46					
06	iP	05 18 05.7	D				
07	iP	00 00 20.7	C				
07	iP	05 42 39.5	C				
			LPN	20.0	263 u		
			LPE	20.0	400 u		
08	iP	14 49 54.0	C				
			LZ	20.0	9 u		
			LN	20.0	3 u		
			LE	20.0	6 u		
08	iP	21 32 30.2	C				
			LZ	20.0	11 u		
			LN	20.0	9 u		
			LE	20.0	11 u		
09	iP	16 44 11.8	D				
09	iP	18 46 41.6	C				
10	iP	14 18 43.2	C				
11	iP	06 31 46.9	D				
			LZ	20.0	11 u		
			LN	20.0	5 u		
			LE	20.0	4 u		
12	iP	04 10 15.2	C	0.9	87 mu	2.0	
			LZ	20.0	46 u		
			LN	20.0	51 u		
			LE	20.0	40 u		
12	eP	04 24 03					
12	eP	04 25 28					
12	iP	04 35 10.0	C				
12	eP	05 26 39					
12	iP	06 38 26.9	C				
12	iP	10 57 14.6	C				
12	iP	14 31 08.8	D				
13	iP	00 00 41.5	D				
14	eP	01 56 39					Regional
	eS	59 00					
14	iP	08 50 43.1	D				
14	iP	13 56 50.8	D				
14	eP	19 20 21					
14	iP	22 12 51.6	D				
15	eP	09 11 04					
15	iP	13 22 53.8	C	0.9	70 mu	1.9	
15	iP	17 42 17.3	D				

International Seismological Centre

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
MUNDARING (MUN) cont.							
April.							
15	eP	19 40 48					
	eS	44 32					
15	eP	22 19 16					
16	eP	05 52 10					
16	eP	18 47 31					Regional
	iS	49 51.5					
16	eP	18 08 34					
17	eP	04 58 56					
17	eP	09 34 02					
18	iP	01 37 54.3	D				
18	iP	09 01 21.3	C				Regional
	eS	03 41					
18	iP	18 23 32.7	C				
19	eP	17 12 11					
20	iP	02 17 44.0	D				
20	iP	10 47 37.8	D	1.0	400 mu	2.6	
20	iP	21 47 51.5	C				
21		Nil					
22	iP	11 42 41.9	C				
	iS	46 17.2	C				
24	iP	12 11 58.6	C				
22	eP	16 49 36					
23	eP	16 38 31					
23	eP	19 53 11					
24	eP	00 25 03					
24	eP	10 06 19					
25	eP	16 16 54					
25	iP	19 44 21.9	C				
25	iP	20 39 57.6	C				
28	iP	15 50 03.6	D				
28	iP	22 02 19.1	D				
28	eP	00 37 33					
28	iP	01 20 25.9	D				
28	iP	23 58 08.5	C				
29	iP	07 50 08.8	D				
29	iP	11 42 17.0	C				
29	iP	14 21 02.0	D				
				LZ	20.0	46 u	
				LN	20.0	31 u	
				LE	20.0	43 u	
29	iP	16 43 42.0	D		0.6	112mu	2.2
29	iP	17 36 54.0	C				
29	iP	18 13 30.1	D				
30	iP	08 52 42.5	C				
				LZ	20.0	9 u	
				LN	20.0	6 u	
				LE	20.0	6 u	
30	eP	13 11 19					
30	iP	14 23 37.2	D				
30	eP	19 23 25					

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Date 1970	Phase.	G.M.T.	Dir.	Per. (sec.)	Amp.	Log A/T	
KALGOORLIE (KLG)							
April.							
01	iP	16 14 26.2	C	0.4	23 mu	1.8	Regional
	eS	16 11					
02	iP	11 21 36.1	C	1.0	86 mu	1.9	
03	iP	21 40 51.2	D				
03	eP	23 45 03					Regional
04	iP	13 06 47.0	C	0.6	34 mu	1.8	
04	iP	14 12 02.0	C	0.5	50 mu	2.0	Regional
	eS	13 49					
	eLg	14 44					
04	iP	22 56 00.4	C	0.7	33 mu	1.7	
05		Nil					
06	iP	01 02 34.0	C				
07	iP	05 42 28.1	C				
08	iP	14 49 17.5	C	0.9	60 mu	1.8	
08	iP	18 02 53.0	D				
08	iP	21 32 18.3	D				
09	iP	16 44 01.0	C				
10	iP	13 26 21.0	D	0.6	11 mu	1.3	
10	iP	14 18 12.6	C	0.5	20 mu	1.6	
10	iP	14 19 21.0	C	0.6	57 mu	2.0	
11	iP	16 27 28.9	C	0.5	10 mu	1.3	
12	iP	04 10 03.1	C	0.6	40 mu	1.8	
12	iP	04 23 51.0	D				
12	iP	04 34 56.8	C				
12	iP	05 26 26.8	C				
12	iP	05 43 10.7	C				
12	iP	06 45 50.0	C				
12	iP	09 10 04.1	C	0.6	11 mu	1.3	
12	iP	10 57 02.2	D	0.6	34 mu		
12	iP	14 03 58.9	C				
12	iP	14 30 55.9	D	1.0	143 mu	2.2	
13	iP	08 36 45.6	C				
13	iP	18 50 12.7	D				
14	iP	19 20 43.1	C				
14	iP	22 12 38.0	C				
15	iP	13 14 16.0	C				
15	iP	13 22 40.7	C				
15	iP	22 13 07.6	D				
16	eP	18 46 48					Regional
	eS	48 27					
16	iP	23 07 45.5	C				
17		Nil					
18	eP	09 00 31					Regional
	eS	02 16					
18	iP	18 23 05.8	D				
19		Nil					
20	iP	10 47 02.1	D				
20	iP	21 47 37.5	C				
21		Nil					
22	iP	11 42 25.0	C				
22	iP	16 49 14.6	C				
23	iP	13 32 39.6	D				
23	iP	16 38 11.9	D				
23	iP	18 14 34.5	C				
23	iP	19 52 34.7	D				
24	iP	00 24 46.9	D				
25	iP	03 52 52.7	D				

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Date. 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
KALGOORLIE (KLG) Cont.							
April.							
25	iP	16 16 38.6	D				
25	i P	20 39 26.7	D				
26	iP	14 33 45.0	C				
26	iP	15 49 33.3	D				
27	iP	17 01 50.3	D				
27	iP	22 01 47.1	C				
28	iP	01 19 47.8	C				
29	iP	14 20 49.3	C				
29	iP	15 07 50.1	D				
29	iP	16 43 27.0	D				
29	iP	17 36 43.7	D				
29	iP	18 13 21.8	D				
30	eP	13 11 07					
30	iP	13 40 34.9	C				
30	iP	14 26 07.2	C				
30	iP	14 50 00.5	C				
30	iP	18 19 29.9	D				
MEEKATHARRA (MEK)							
April.							
01	iP	16 14 10.3	C				Regional
	eS	15 42					
02	iP	01 38 04.6	D				
02	iP	11 21 57.0	C				
03	iP	21 40 19.0	C				
03	eP	23 44 48					Regional
	eS	46 20					
04	eP	14 11 46					
04	iP	22 56 19.7	D				
05	iP	11 18 56.0	C				
06	iP	01 02 01.7	C				
06	iP	05 17 37.0	C				
07	iP	05 41 55.7	D				
07	iP	06 01 32.0	D				
07	iP	06 19 43.6	C				
07	iP	06 42 06.7	C				
08	iP	14 49 33.5	D				
08	iP	18 02 20.0	C				
08	iP	21 31 43.6	D				
09	iP	04 45 56.3	C				
09	iP	16 44 12.5	C				
09	iP	18 04 27.0	C				
09	iP	21 52 14.0	C				
10	iP	13 25 49.3	C				
10	iP	14 18 38.0	C				
10	iP	15 23 24.7	C				
11	iP	16 26 57.8	D				
11	iP	23 40 49.2	C				
12	iP	00 26 02.2	C				
12	iP	04 09 30.3	C				
12	iP	04 18 22.3	D				
12	iP	04 23 19.●	D				
12	iP	04 24 43.9	D				
12	iP	04 33 17.6	D				
12	iP	04 34 25.0	D				

Date 1970	Phase.	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
MEEKATHARRA (MFK) cont.							
April.							
12	iP	04 48 51.8	D				
12	iP	05 18 22.5	D				
12	iP	05 25 52.0	C				
12	iP	05 35 38.2	D				
12	iP	05 42 39.0	D				
12	iP	08 33 23.0	D				
12	iP	09 09 32.0	D				
12	iP	10 50 21.4	D				
12	iP	10 56 30.0	C				
12	iP	14 03 27.3	D				
12	iP	14 30 24.2	C				
12	iP	16 55 47.8	D				
12	iP	17 09 48.0	C				
12	iP	18 15 47.1	D				
13	iP	08 36 11.7	D				
13	iP	18 49 39.6	D				
14	iP	19 20 45.2	C				
14	iP	22 12 01.9	D				
15	iP	13 14 16.8	D				
15	iP	13 22 09.9	C				
15	iP	17 41 32.6	D				
15	eP	19 39 35					
	eS	42 23					
16	eP	18 46 29					Regional
	eS	57 59					
16	iP	23 40 41.8	C				
17	iP	04 54 20.0	C				
17	iP	08 38 50.0	D				
17	iP	13 22 41.0	D				
17	iP	14 41 44.6	C				
17	iP	21 28 14.0	C				
18	eP	09 00 16					
18	iP	11 54 28.3	D				
18	iP	18 22 40.0	C				
19	iP	17 12 00.0	D				
20	iP	02 17 41.5	C				
20	iP	10 47 22.9	C				
20	iP	21 46 45.5	C				
21	iP	03 29 37.8	D				
21	iP	20 04 30.0	C				
22	iP	11 41 31.6	C				
22	iP	12 11 07.0	C				
22	iP	13 56 42.●	C				
22	eP	16 48 24	D				
23	iP	07 18 42.3	D				
23	iP	13 32 08.0	C				
23	iP	19 52 36.5	C				
24	iP	00 24 16.0	D				
24	iP	02 54 28.2	C				
24	iP	06 05 31.0	C				
24	eP	10 05 17					
25	iP	03 52 26.7	C				
25	eP	06 47 55					
25	iP	16 15 57.1	D				
25	iP	19 44 33.4	C				
25	iP	20 39 47.4	C				

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Date 1970	Phase.	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T
MEEKATHARRA (MEK) cont.						
April.						
26	.iP	06 59 26.1	D			
26	iP	14 33 32.5	D			
26	iP	15 49 54.8	C			
26	iP	17 29 30.0	C			
27	eP	12 27 10				
28	iP	00 37 00.3	D			
28	iP	01 19 53.8	D			
28	iP	14 36 54.4	C			
28	iP	20 17 34.0	D			
28	iP	23 57 56.6	C			
29	iP	05 17 39.6	C			
29	iP	07 44 54.6	C			
29	iP	09 05 54.4	C			
29	iP	09 22 57.5	C			
29	iP	11 42 17.8	C			
29	iP	12 02 21.4	D			
29	iP	12 13 49.3	D			
29	iP	14 21 01.4	D			
29	iP	16 42 56.5	C			
29	iP	17 36 55.5	C			
29	iP	18 13 48.0	C			
29	iP	19 01 11.5	C			
30	eP	08 52 44				
30	iP	09 33 18.9	D			
30	iP	13 11 19.9	D			
30	iP	14 25 34.4	D			
30	iP	14 49 33.6	D			
30	iP	18 19 00.3	C			

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MUNDARING GEOPHYSICAL OBSERVATORY
MUNDARING - WESTERN AUSTRALIA

SEISMOLOGICAL BULLETIN

MUNDARING - KALGOORLIE - MEEKATHARRA

MAY 1970

MUNDARING (MUN)

Latitude: 31°58.7' S Longitude: 116°12.5' E
Height: 253 Metres
Foundation: Precambrian granite
Instruments: World Wide Standardized Seismograph System No. 44
Nominal Magnificiaion - S.P. 25000; L.P. 375

KALGOORLIE (KLG)

Latitude: 30°47' 01.2" S Longitude: 121°27' 28.9" E
Height: 350 Metres.
Foundation: Alluvium-covered Precambrian basic metasediments
Instruments: Galvanometers: T = 1/4 sec.
Seismometers: Vertical - Willmore, T = 0.8 sec.
2 Horizontals - Benioff, T = 1.0 sec.
Magnification: Vertical 5800 at T = 1.0 sec.
Horizontal 6400 at T = 1.0 sec.

MEEKATHARRA (MEK)

Latitude: 26°36' 46" S Longitude: 118°32' 42" E
Height: 515 Metres
Foundation: Archean Sedimentary rock
Instruments: Galvanometer: T = 1/4 sec.
Seismometer: Vertical - Willmore MK II, T = 1.0 sec.
Magnification: Vertical approx. 8000 at T = 1.0 sec.

KUNUNURRA (KNA)

Latitude: 150° 45.0' S Longitude: 128° 46.0' E
Height: 55 Metres
Foundation: Unweathered upper devonian sandstone
Instruments: Galvanometer: T = 1/4 sec.
Seismometer: Vertical - Willmore MKI
T = 1.0 secs.

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
MUNDARING (MUN)							
May.							
01		Nil					
02	iP	09 37 02.0	C				
02	iP	11 58 41.5	C				
03	iP	05 19 31.5	C				
03	iP	15 33 38.7	C				
04	iP	11 33 17.8	D	0.9	140	2.2	
04	iP	12 17 24.6	C				
04	eP	18 59 33					
05	iP	00 13 54.0	C				
05	iP	20 56 01.1	C				
06	eP	08 16 16					
06	iP	13 00 48.1	D				
06	iP	15 30 25.8	D				
07	eP	12 15 38					
07	eP	10 07 13					
07	iP	19 23 44.5	C				
08		Nil					
09	iP	05 56 57.0	C				
09	iP	07 53 41.0	D				
09	iP	10 38 55.0	C				
09	eP	13 23 30					
09	iP	18 08 31.0	D	0.8	1100 mu	3.1	
10	eP	18 45 48		0.4	3 mu	0.9	Regional
	eS	48 09					
10	iP	20 14 10.5	C				
11	eP	09 06 49					
11	iP	15 15 31.9	C	0.8	105 mu	2.1	
12	eP	17 08 15					
13	iP	07 21 14.8	C				
13	eP	16 03 15					
14	iP	02 45 00.3	C				
14	iP	08 40 09.9	D				
14	eP	10 15 37					
14	iP	10 50 43.8	C				
14	iP	14 40 27.4	C	0.4	10 mu	1.1	Regional
	eS	42 48					
15	eP	09 35 01		0.5	5 mu	1.0	Regional
	iS	37 22.3					
15	iP	10 49 55.4	D	0.9	35 mu	1.6	
15	iP	17 25 46.0	D				
			LZ	20.0	29 u		
			LN	20.0	14 u		
			LE	20.0	20 u		
15	iP	18 11 03.0	C				
15	iP	19 42 04.0	D				
16		Nil					
17	eP	05 59 10					
17	iP	07 43 52.6	C	1.0	80 mu	1.9	
17	eP	19 29 14					
18	iP	03 16 04.8	C	1.0	150 mu	2.2	
18	iP	18 34 25.6	C				Local
	iS	34 35.3					
19	iP	14 56 29.0	C	1.0	160 mu	2.2	
19	iP	15 15 26.7	D				
20	iP	07 35 26.0	C	0.4	22 mu	1.8	Regional
	eS	37 46.8					

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
MUNDARING (MUN) Cont.							
May.							
20	eP	10 45 48					
	eS	48 10					Regional
20	iP	20 16 21.1	C				
21	iP	00 45 54.8	D				
22	eP	04 29 14					
22	iP	10 45 44.0	C				
22	eP	15 57 17		0.4	5 mu	1.2	Regional
	eS	59 36					
23	iP	16 36 19.8	D	0.9	33 mu	1.5	
23	iP	18 56 56.7	D	0.4	3 mu	0.8	Regional
	eS	59 18					
24	eP	04 53 59					
	eS	56 20					Regional
24	iP	13 42 46.0	C	1.0	24 mu	1.4	
24	iP	21 58 07.1	C	0.8	30 mu	1.6	
24	eP	23 49 16					
25	eP	10 36 36		0.3	1 mu	0.6	Regional
	eS	38 35					
25	iP	12 16 39.2	D	0.4	33 mu	1.9	Local
	iS	16 50.6	C				
25	iP	16 57 08.7	D	1.0	240 mu	2.4	
25	iP	22 58 06.6	C				
26	iP	04 58 43.0	C	0.5	47 mu	1.7	Local
	eS	58 54					
26	eP	10 38 31		0.3	1 mu	0.7	Regional
	eS	40 52					
26	iP	12 36 58.7	D				
27	eP	04 45 51		0.4	3 mu	0.9	Regional
	eS	48 12					
27	iP	12 14 55.9	C				
27	eP	19 17 27					
			LZ	20.0	6 u		
			LN	20.0	4 u		
			LE	20.0	3 u		
28	eP	02 52 59					
28	eP	03 22 18					
28	eP	03 34 29					
	eS	38 00					
29	iP	10 43 58.0	C				
29	iP	19 11 12.5	C	1.0	560 mu	2.8	
			IZ	20.0	23 u		
			LN	20.0	7 u		
			LE	20.0	14 u		
29	iP	20 39 47.9	D				
30	eP	03 01 23					
30	iP	13 24 33.0	C				
31	eP	10 24 04					
31	iP	20 42 34.0	C				

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
KALGOORLIE (KLG)							
May.							
01	iP	15 32 07.6	D				
01	iP	23 39 53.3	D				
02	iP	11 58 10.8	C				
02	iP	17 57 20.6	C				
03	iP	15 33 20.7	D				
04	iP	11 32 42.4	D				
04	iP	19 00 08.0	D				
05	iP	00 13 39.0	D				
05	iP	01 32 42.5	D				
06		20 14 20.8	D				
		Nil					
07	iP	19 23 23.6	C				
08	iP	09 25 15.8	C	0.7	20 mu	1.5	
08	iP	12 46 44.7	D	0.7	16 mu	1.4	
08	iP	13 13 47.2	C	0.7	26 mu	1.6	
09	iP	18 07 55.2	C				
10	iP	18 45 00.5	C	0.4	6 mu	1.2	Regional
	eS	46 47					
10	iP	20 13 47.6	D	0.3	120 mu	2.5	
11	iP	15 15 01.1	C				
12		Nil					
13	iP	15 53 08.9	C				
13	iP	20 32 04.3	C				
14	eP	14 39 39		0.5	15 mu	1.4	Regional
	eS	41 24					
15-17		No time corrections					
18	iP	03 15 27.6	C				
18	eP	18 35 10					Local
19	iP	14 55 52.6	C				
19	iP	15 14 50.2	D	0.6	17 mu	1.4	
20	eP	07 34 37		0.3	63 mu	2.3	Regional
	eS	36 21					
20	eP	10 45 01		0.3	6 mu	1.3	Regional
	eS	46 45					
20	iP	20 16 34.0	C	0.9	392 mu	2.6	
21	iP	00 45 25.5	D	0.5	40 mu	1.9	
21	iP	17 02 47.8	D	0.5	15 mu	1.5	
21	iP	21 13 45.8	D	0.5	15 mu	1.5	
22	iP	10 45 07.0	D				
22	eP	15 56 29		0.3	12 mu	1.6	Regional
	eS	58 11					
23	iP	13 12 52.9	D				
23	iP	16 36 08.5	D	0.9	60 mu	1.9	
23	eP	18 56 08		0.2	15 mu	1.9	Regional
	eS	57 52					
24	iP	13 42 10.1	C				
25	eP	10 35 47		0.2	2 mu	0.9	Regional
	eS	37 29					
25	eP	12 17 16					Local
25	iP	16 56 38.7	C				
25	iP	22 58 19.5	C	0.9	110 mu	2.1	
26	iP	12 36 22.0	D	0.6	30 mu	1.6	
27	iP	12 14 37.5	C	0.7	580 mu	2.9	
28		Nil					
29	iP	10 44 04.1	C				
29	iP	19 10 35.7	C	0.7	49 mu	1.9	
29	iP	20 39 16.5	C	0.5	35 mu	1.9	
30		Nil					
31	eP	20 42 31					

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T
MEEKATHARRA (MEK)						
May.						
01	iP	03 30 03.0	D			
01	iP	04 27 40.0	C			
01	iP	05 19 47.0	C			
01	iP	08 55 05.9	C			
01	iP	10 35 04.1	C			
01	iP	15 32 42.1	C			
01	iP	23 40 33.2	C			
02	iP	02 26 38.5	C			
02	iP	09 36 50.0	C			
02	iP	11 58 31.9	D			
02	iP	17 56 50.0	D			
03	iP	05 17 40.0	D			
03	iP	15 31 50.0	C			
04	iP	07 49 49.9	C			
04	iP	11 33 04.8	C			
04	iP	12 16 41.5	D			
04	iP	15 39 33.0	D			
04	iP	19 00 09.7	D			
05	iP	00 12 55.0	C			
05	iP	01 20 51.5	C			
05	iP	18 41 57.8	C			
05	iP	20 14 42.0	C			
05	iP	20 55 11.1	D			
06	iP	02 43 06.6	C			
06	iP	15 30 00.0	C			
07	iP	12 14 55.5	D			
07	iP	19 22 54.8	C			
08	iP	12 46 48.7	C			
08	iP	19 28 57.5	C			
	iS	30 28.1				Regional
08	iP	23 14 25.3	C			
09	iP	13 22 38.2	C			
09	iP	18 07 55.0	C			
10	iP	04 09 28.0	D			
10	eP	18 44 44				
	iS	46 17.0				Regional
10	eP	20 13 31				
11	eP	09 05 42				
11	iP	11 58 47.2	C			
11	iP	15 15 21.8	D			
12	iP	07 37 33.1	C			
13	iP	07 20 34.4	C			
13	iP	15 52 37.9	C			
13	iP	20 30 33.3	D			
14	eP	08 39 29				
14	eP	14 39 24				
	eS	40 56				Regional
14	iP	17 04 37.8	D			
15	iP	08 03 58.9	C			
15	eP	09 33 57				
	eS	35 28				Regional
15	iP	10 49 46.5	D			
15	iP	17 25 22.4	D			
15	iP	19 42 04.7	C			
16		Nil				

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Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/t
MEEKATHARRA (MEK) Cont.						
May.						
17	iP	04 18 07.2	D			
17	iP	05 59 10.7	C			
17	iP	07 44 04.1	D			
17	iP	11 38 04.6	D			
17	iP	15 03 26.0	D			
18	iP	01 50 41.0	C			
18	iP	03 15 42.7	D			
18	iP	05 08 11.4	C			
18	iP	07 44 23.5	C			
18	eP	18 25 28				Local
	eS	36 34				
19	iP	07 25 04.1	D			
19	iP	12 03 25.5	C			
19	iP	14 55 53.1	D			
19	iP	15 14 50.5	C			
20	eP	07 34 22				Regional
	eS	35 52				
20	iP	10 44 45.0	C			Regional
	eS	46 15				
20	iP	20 16 49.0	D			
20	iP	20 44 13.8	C			
21	iP	00 45 44.8	C			
22	iP	10 45 10.0	C			
22	eP	15 56 12				Regional
	eS	57 43				
23	iP	13 12 50.1	C			
23	iP	16 36 20.0	D			
23	eP	18 55 52				Regional
	eS	57 23				
23	iP	19 16 34.0	D			
24	eP	04 52 56				Regional
	eS	54 25				
24	iP	13 42 10.0	D			
24	eP	23 48 24				
25	eP	10 35 32.				Regional
	eS	37 02				
25	iP	12 17 38.4	C			Local
	eS	18 35				
25	iP	16 57 05.8	C			
25	iP	18 49 21.0	C			
	eS	51 57				
26	iP	10 27 27.0	C			Regional
	eS	38 56				
26	iP	12 36 20.8	C			
27	iP	04 44 49.8	D			Regional
	eS	46 20				
27	iP	12 14 16.3	D			
28	iP	02 51 57.4	C			
	eS	54 52				
28	eP	03 21 01				
	eS	23 35				
28	iP	03 33 16.3	C			
	eS	35 51				
29	iP	04 26 03.7	D			
29	iP	10 43 31.0	D			

International Seismological Centre

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
MEEKA HARRA (MEK) Cont.							
May.							
29	iP	19 10 50.0	D				
29	iP	20 39 37.3	C				
30	iP	03 00 25.7	C				
30	iP	13 23 45.2	D				
31	eP	10 23 00					Regional
	eS	24 32					
31	eP	20 42 50					
KUNUNURRA (KNA)							
May.							
1 - 3		No time correction					
04	eP	09 09 37					
	eS	11 06					
04	eP	11 39 10					
04	eP	19 02 13					
05	eP	00 10 52					
6 - 8		No time marks					
09	eP	18 06 06					
10 - 23		No record					
24	iP	23 45 34.3	C				
25	iP	05 51 56.4	C				
25	iP	06 04 51.6	D				Local
	eS	06 18					
25	iP	07 39 50.1	D				Local
	eS	41 15					
25	eP	10 35 00					Regional
25	eP	14 11 33					
25	iP	16 56 30.5	C				
25	iP	20 05 40.2	D				
25	iP	21 50 13.2	C				
26	eP	10 17 02					
26	iP	12 34 21.6	C				
26	iP	15 54 21.0	D				
27		No record					
28	eP	03 19 34					
28	iP	03 31 49.4	C				
28	iP	07 08 16.8	D				
	eS	09 43					
28	iP	07 18 43.6	C				
	eS	20 10					
28	eP	12 07 30					
29	eP	00 01 13					
29	iP	04 09 17.4	C				
29	iP	10 43 01.0	C				
29	iP	17 27 30.1	D				
29	iP	18 52 47.8	D				
	eS	54 17					
29	iP	19 09 21.3	C				
29	iP	20 38 44.6	C				
30	eP	02 58 21					
30	eP	13 22 05					
30	iP	18 34 07.0	C				
31	iP	06 58 33.3	C				
31	eP	10 22 28					Regional
	eS	24 20					
31	iP	18 30 34.5	C				
31	iP	19 10 50.1	C				
	eS	12 17					
31	eP	20 42 55					

P.J. Gregson.
Observer-in-Charge.

International Seismological Centre

COMMONWEALTH OF AUSTRALIA

Department of National Development

Bureau of Mineral Resources, Geology and Geophysics

MUNDARING GEOPHYSICAL OBSERVATORY

SEISMOLOGICAL BULLETIN JUNE 1970

Seismograph Stations

Station	Code	Lat. S	Long. E	Elevation (metres)	Foundation
Mundaring	MUN	31° 58.7'	116° 12.5'	253	Precambrian granite
Kalgoorlie	KLG	30° 47.0'	121° 27.5'	350	Alluvium over basic metasediments
Meekatharra	MEK	26° 36.8'	118° 32.7'	515	Archean sedimentary
Kununurra	KNA	15° 45.0'	128° 46.0'	55	Unweathered Sandstone

INSTRUMENTATION

Station	Component	Seismometer	Ts (sec)	Ts (sec)	Magnification	Recording Speed
MUN	Z, N, E.	World Wide Standard Set	1.0	0.75	25000 at 1 s.	60 mm/min
	Z.	" "	15.0	100	750 at 15s.	15
	N, E.	" "	15.0	100	375 at 15s.	15
KLG	Z.	Willmore MkII	1.0	0.75	16000 at 1 s.	60
	NE, SE.	Benioff	1.0	0.25	37000 at 1 s.	60
MEK	Z.	Willmore MkII	1.0	0.25	10000 at 1 s. (approx.)	60
KNA	Z.	Willmore MKI	1.0	0.25	21000 at 1 s.	60

SYMBOLS

M_L - Local earthquake magnitude

M_S - Surface wave magnitude

Copies of Mundaring records can be obtained from the World Data Centre-A. Additional information and copies of seismogram records from all stations can be obtained on request from:

Observer-in-Charge,
Geophysical Observatory,
MUNDARING. W.A. 6073.

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Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T
MUNDARING (MUN)						
June.						
01	iP	08 19 49.8	D			
01	eP	18 03 04				
02	iP	02 51 59.6	C			
02	iP	03 18 06.9	D			
02	iP	08 04 42.4	D			
02	iP	13 54 36.1	C			
02	iP	21 40 00.0	D			
03	iP	14 56 58.6	D			Local
03	iP	22 46 21.2	D			
04	ePKP	04 28 43				
05	iP	05 05 23.5	C			
05	eP	07 07 01				
05	eP	07 37 45				
06		Nil				
07		Nil				
08		Nil				
09	eP	05 16 00				
09	eP	11 05 44				
09	eP	22 23 40				
	eS	26 01				
10	eP	19 51 44				
11	eP	06 21 23				
11	iP	11 31 17.8	D			
11	eP	11 50 38				
11	iP	16 54 03.3	C			
				LZ 20.0	129 u	
				LN 20.0	510 u	
				LE 20.0	430 u	
11	eP	17 31 45				
12	eP	08 13 16				
				LZ 20.0	37 u	
				LN 20.0	29 u	
				LE 20.0	23 u	
13		Nil				
14	eP	00 13 37				
14	eP	21 40 41				
15	iP	07 08 14.5	D	0.9	50mu	1.8
15	iP	09 46 44.4	C	0.8	60mu	1.9
	iS	50 53.5				
15	eP	11 28 07				
				LZ 20.0	34 u	
				LN 20.0	23 u	
				LE 20.0	14 u	
15	iP	15 40 44.3	D	1.0	80mu	1.9
15	iP	16 38 47.9	D			
16	iP	02 41 34.4	C	0.6	62mu	2.0
16	eP	05 30 20				
16	iP	05 57 29.1	D			
17	eP	08 03 33				
18		Nil				
19	iP	10 57 08.1	C			
20	eP	13 11 42				
21	eP	16 16 48				
22	eP	14 50 05				
22	eP	15 18 08				
	eS	21 34				

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
MUNDARING (MUN) Cont.							
June.							
23-24		Nil					
25	iP	05 22 18.5	C	1.0	150mu	2.2	
			LZ	20.0	23 u		
			LN	20.0	10 u		
			LE	20.0	20 u		
26	eP	21 26 54					
26	iP	12 04 10.3	C				Local
	iS	04 29.0	C				
27	iP	13 20 03.2	C	0.6	100mu	2.2	
28	iP	11 18 48.0	D				
29	eP	07 37 32					
30	eP	19 52 43					
KALGOORLIE (KLG)							
June.							
01	iP	08 19 27.0	D	0.6	17mu	1.5	
01	iP	18 03 57.3	D	0.6	39mu	1.9	
02	iP	13 53 58.9	D	0.3	28mu	2.0	
02	iP	21 39 29.0	D	0.9	66mu	1.9	
03	iP	18 10 28.0	D				
04	iP	01 56 36.6	D				
04	iP	20 08 26.5	D	0.6	17mu	1.5	
05	iP	05 05 29.2	C				
05	iP	07 07 40.5	C				
05	iP	07 37 27.7	C				
05	iP	22 53 15.1	C	1.0	29mu	1.5	
06	iP	06 26 33.9	D				
06	iP	13 08 25.9	D	0.4	18mu	1.7	
06	iP	17 52 27.4	C				
07	iP	13 42 15.0	C				
07	iP	17 32 36.6	C				
08	iP	04 04 59.1	C	0.6	68mu	2.1	
08	iP	07 18 16.1	D				
08	iP	12 28 47.2	D	0.4	40mu	2.0	
08	iP	14 16 19.6	D				
09		Nil					
10	iP	15 32 17.8	D				
10	iP	16 29 49.2	C				
10	iP	19 51 13.7	C	0.4	90mu	1.4	
11	iP	16 53 52.0	C	0.6	25mu	1.7	
11	iP	17 52 49.6	C	0.6	45mu	1.9	
12	iP	08 12 44.1	D	1.5	370mu	2.4	
12	iP	21 01 57.4	C				
13		Nil					
14	iP	00 13 38.6	D				
14	iP	21 40 04.5	C				
15	iP	09 46 32.5	C				
15	iP	15 40 08.3	D				
16		Nil					
17	iP	08 03 06.5	D				
18		Nil					
19	iP	12 53 31.3	C				
20		Nil					
21	eP	16 16 36					

International Seismological Centre

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T

KALGOORLIE (KLG) Cont.

June.						
22-24		Nil				
25	iP	05 21 41.0				
26		Nil				
27	eP	13 19 44				
28	eP	01 35 05				
29-30		Nil				

MEEKATHARRA (MEK)

June.						
01	iP	08 18 35.6				C
	eS	21 25				
01	PKP	18 04 09.9				C
02	iP	08 03 51.8				C
02	iP	13 54 59.3				D
02	iP	21 10 36.3				D
02	iP	21 40 49.9				C
03	iP	18 10 13.0				C
03	iP	22 46 00.3				D
04	iP	06 05 57.5				D
04	iP	19 52 51.5				D
05	iP	05 05 03.9				D
05	iP	07 07 36.2				C
05	iP	07 18 16.0				C
05	iP	22 53 02.2				C
06	iP	13 08 09.4				C
07	iP	17 32 06.6				D
08	iP	04 04 40.0				D
08	iP	09 27 26.7				C
09	iP	05 01 21.0				C
09	iP	05 15 08.6				C
09	eP	22 22 35				
	eS	24 06				
10	iP	15 32 34.6				C
10	iP	16 29 33.5				D
11	iP	06 21 51.0				D
11	iP	10 10 10.0				D
11	iP	11 30 54.4				D
11	iP	16 54 32.0				D
11	iP	17 52 24.0				D
12	iP	08 12 31.5				C
12	iP	21 45 14.6				C
13		Nil				
14	iP	15 42 14.6				D
14	iP	21 40 09.4				D
15	iP	07 07 36.3				C
15	iP	09 45 49.9				D
	eS	48 46				
15	iP	15 14 06.9				C
16	iP	05 56 40.5				C
16	iP	08 17 01.5				C
16	iP	09 01 11.6				C
16	iP	23 07 56.3				C
17	iP	00 54 50.7				C
17	eP	08 02 40				

Date 1970	Phase.	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
MEEKATHARRA (MEK) Cont.							
June.							
18	iP	18 43 04.0	C				
19	iP	03 16 48.0	C				
19	iP	04 19 03.0	C				Local
19	iP	12 53 00.9	D				
19	iP	18 10 11.4	C				
20	iP	13 10 58.7	D				
21	iP	16 15 44.1	D				
22	iP	14 49 16.0	C				
	eS	19 31					
23	eP	05 56 52					Regional
	eS	58 28					
24		Nil					
25	iP	05 21 47.5	D				
26	iP	21 26 01.5	D				
27	iP	13 19 14.2	D				
28	iP	01 34 26.8	C				
28	iP	02 10 30.8	D				
28	iP	06 47 14.2	C				
28	eP	09 09 21					
28	iP	11 18 38.2	C				
28	iP	20 30 09.8	D				
28	eP	23 54 44					
29	eP	07 34 17					Regional
	eS	35 49					
30	eP	19 51 27					Regional
	eS	52 56					

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Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T
KUNUNURRA (KNA)						
June.						
01	eP	01 55 27				
01	eP	03 04 35				
01	eP	08 17 17				
01	eP	18 03 54				
01	iP	20 30 04.4	C			
	eS	32 13				
02	iP	01 56 43.2	D			
02	iP	02 50 50.0	C			
02	iP	03 51 44.5	C			
	iS	53 26.1				
02	iP	08 00 53.3	D			
02	eP	13 52 03				
02	eP	14 39 47				
02	iP	17 18 51.9	D			
	eS	20 22				
02	iP	21 08 27.6	D			
02	iP	21 38 58.4	D			
03	iP	08 20 53.8	D			
03	iP	18 08 25.9	C			
04	iP	04 28 57.5	D			
04	iP	06 09 48.5	D			
04	eP	12 55 08				
04	iP	20 06 18.3	C			
05	eP	01 57 24				
05	eP	04 40 47				
05	eP	05 04 33				
05	eP	07 09 21				
05	eP	10 32 36				
05	eP	10 43 55				
05	eP	20 25 41				
06	eP	06 42 33				
06	eP	10 30 31				
06	eP	13 06 21				
06	eP	14 32 18				
06	eP	17 51 55				
06	eP	19 13 48				
7-10		No record				
11	iP	01 57 29.1	D			
11	iP	02 40 44.7	D			
11	eP	06 21 48				
11	iP	06 51 54.7	D			
11	eP	10 07 59				
11	iP	12 04 28.2	D			
11	iP	16 55 16.2	C			
11	iP	17 52 12.1	C			
11	iP	21 55 52.5	C			
12	iP	07 59 54.5	D			
12	eP	08 09 58				
12	eP	09 07 24				
12	iP	11 08 56.3	C			
12	iP	13 40 44.3	C			
12	iP	19 58 51.9	C			
13		Nil				
14	iP	05 11 40.0	C			
14	iP	21 38 23.8	C			
15	eP	07 05 20				

International Seismological Centre

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T
KUNUNURRA (KNA) Cont.						
June.						
15	iP	09 44 25.2	C			
15	iP	14 40 05.5	C			
15	iP	15 35 16.7	D			
15	iP	16 35 08.5	C			
16	iP	05 54 57.8	D			
17	iP	00 52 36.6	C			
17	eP	07 59 45				
18	iP	10 19 33.0	C			
18	iP	10 57 14.6	D			
18	iP	11 32 57.1	D			
18	iP	12 52 46.3	C			
18	eP	16 46 13				
18	iP	18 10 01.2	C			
19	eP	14 26 05				
20		Nil				
21	iP	16 07 45.4	C			
21	iP	18 25 17.1	C			
22	eP	02 17 53				
23	eP	02 56 09				
23	iP	15 39 23.1	C			
23	iP	16 18 04.4	C			
24		Nil				
25	iP	04 20 25.5	C			
25	iP	06 40 38.4	D			
25	iP	12 13 20.6	D			
25	eP	21 31 27				
26		Nil				
27	iP	08 07 17.8	C			
27	eP	13 17 27				
28	iP	01 32 15.7	C			
28	iP	09 07 16.3	C			
28	iP	11 17 57.8	C			
28	iP	12 52 11.1	C			
28	iP	14 07 49.7	D			
28	iP	20 28 24.4	C			
28	iP	23 52 36.4	C			
29	iP	13 57 04.5	C			
30	iP	23 15 22.4	D			

NOTE: KNA timing is not very reliable for June.

P.J. Gregson,
Observer-in-Charge.

International Seismological Centre

COMMONWEALTH OF AUSTRALIA

Department of National Development

Bureau of Mineral Resources, Geology and Geophysics

MUNDARING GEOPHYSICAL OBSERVATORY

SEISMOLOGICAL BULLETIN JULY 197 0

Seismograph Stations

Station	Code	Lat. S	Long. E	Elevation (metres)	Foundation
Mundaring	MUN	31° 58.7'	116° 12.5'	253	Precambrian granite
Kalgoorlie	KLG	30° 47.0'	121° 27.5'	350	Alluvium over basic metasediments
Meekatharra	MEK	26° 36.8'	118° 32.7'	515	Archean sedimentary
Kununurra	KNA	15° 45.0'	128° 46.0'	55	Unweathered Sandstone

INSTRUMENTATION

Station	Component	Seismometer	Ts (sec)	Ts (sec)	Magnification	Recording Speed
MUN	Z, N, E.	World Wide Standard Set	1.0	0.75	25000 at 1 s.	60 mm/min
	Z.	" "	15.0	100	750 at 15s.	15
	N, E.	" "	15.0	100	375 at 15s.	15
KLG	Z.	Willmore MkII	1.0	0.75	16000 at 1 s.	60
	NE, SE.	Benioff	1.0	0.25	37000 at 1 s.	60
MEK	Z.	Willmore MkII	1.0	0.25	10000 at 1 s. (approx.)	60
KNA	Z.	Willmore MKI	1.0	0.25	21000 at 1 s.	60

SYMBOLS

M_L - Local earthquake magnitude
M_S - Surface wave magnitude

Copies of Mundaring records can be obtained from the World Data Centre-A. Additional information and copies of seismogram records from all stations can be obtained on request from:

Observer-in-Charge,
Geophysical Observatory,
MUNDARING. W.A. 6073.

International Seismological Centre

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
MUNDARING (MUN)							
July.							
01	iP	04 32 10.0	C	0.6	75mu	2.1	
01	eP	06 34 05					
02	ePKP	01 01 38					
02	iP	07 27 17.5	D				
02	eP	19 21 35					
03		Nil					
04	eP	19 07 47					
05	iP	14 19 50.1	C	1.0	200mu	2.3	
05	iP	23 59 50.0	C				
06		Nil					
07		Nil					
08	iPKP	05 08 59.0	D				
09	eP	02 34 59					
09	eP	04 27 43					
09	eP	16 56 21					
10	iP	09 34 07.7	C	0.9	100mu	2.1	
10	iP	21 14 53.0	D	1.0	190mu	2.3	
11	eP	05 24 35					
	eS	29 39					
11	iP	05 35 35.4					Local
11	iP	11 33 12.7	D				
	eS	37 30					
11	iP	15 15 58.3	D				Local
	iS	16 08.1					
11	iP	16 41 55.0	C				Local
	iS	43 16.4					
12	iP	03 44 41.5	D				
12	iP	09 26 00.6	C				
12	iP	11 13 13.3	D				
13	iP	06 22 48.0	C				
14	eP	07 21 25					
14	iP	07 49 53.3	D	.35	88mu	2.3	Local
	eS	50 03.1					
14	iP	18 21 27.4	D				Local
	eS	21 36.7					
15	iP	04 03 06.5	C				
15	iP	19 02 46.8	C				
16	eP	06 11 44					
	eS	15 43					
16	iP	07 47 25.5	C				
16	iP	21 28 15.4	D				
17	eP	02 58 07					
17	iPKP	18 09 13.5	C				
17	iP	20 15 01.8	C				
18	iP	20 18 23.1	C				
19	iP	06 38 18.2	D	0.3	850mu	3.4	Local
	iS	38 29.6					
19	iP	09 30 46.5	D	0.9	16 mu	1.3	
19	iP	15 53 23.6	D				
19	iP	23 30 48.3	C				
20	iP	16 04 54.5	C	0.6	50mu	1.9	Regional
	iS	07 14.2					
21	iP	03 15 51.6	D				
21	iP	06 32 17.1	D				
21	eP	18 54 53					
21	eP	21 11 09					

International Seismological Centre

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp	LogA/T	
MUNDARING (MUN) Cont.							
July.							
21	eP	24 35 49					Regional
	eS	38 09					
22	iP	13 16 55.1	C				
23	iP	15 55 45.7	D				
24		Nil					
25	eP	06 11 29					
25	eP	11 14 33					
25	iP	14 03 40.0	D				
25	iP	22 51 52.4	D				
26		Nil					
27	iP	12 40 05.1	C	1.0	200mu	2.3	
28	iP	00 46 54.4	C	1.0	150mu	2.2	
28	eP	08 17 35					
29	eP	05 27 31					
29	iP	06 03 10.0	C				
29	iP	10 26 27.6	C	1.0	2080mu	3.3	
	iX	31 03.7	C				
	iS	34 40.0	C				
	iScS	36 10.5	D				
			LZ	20.0	14 u		
			LN	20.0	43 u		
			LE	20.0	80 u		
29	iP	10 40 58.9	C	0.7	108mu	2.2	
29	iP	10 55 47.0	C				
30	iP	01 05 15.8	D				
30	eP	05 10 41					
30	eP	05 22 13					
30	iP	08 59 48.2	D	0.5	104mu	2.3	
30	iP	18 54 45.6	D				
30	iP	23 24 44.9	C				
31	iP	17 26 32.8	D	0.9	1650mu	3.3	
KALGOORLIE (KLG)							
July.							
01	iP	04 31 47.0	C				
	eS	35 45					
02	iP	01 01 30.2	C				
03		Nil					
04		Nil					
05	iP	14 19 33.2	D				
06-08		Nil					
09	iP	12 23 56.5	C				
10	iP	09 33 31.7	C				
10	iP	21 14 42.1	D				
11	iP	05 24 16.4	D				
11	iP	11 32 05.1	C				
11	eP	15 16 44					Local
11	iP	21 26 32.3	C				
12	iP	09 25 43.7	C				
12	iP	11 12 54.8	C				
13		Nil					
14		Nil					
15	iP	01 01 56.3	C				
16	iP	15 52 32.2	C				
17	iPKP	18 09 04.0	C				

date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
KALGOORLIE (KLG) Cont.							
July.							
17	iP	20 14 31.8	C				
18		Nil					
19	iP	06 39 02.3	D				Local
	eS	40 07					
19	eP	09 30 10					
20	iP	16 04 05.6	C				Regional
	eS	05 47					
21	iP	01 30 03.8	D				
21	iP	06 31 47.2	D				
21	iP	06 35 40.7	C				
21	iP	08 52 07.3	D				
22		No record					
23		Nil					
24		Nil					
25	iP	14 03 27.2	C				
25	iP	22 51 38.1	D				
26		Nil					
27	iP	12 39 38.2	C				
28	iP	06 45 51.7	C				
29		Nil					
30	iP	09 59 13.8	D				
31	iP	17 26 32.3	D				
MEEKATHARRA (MEK)							
July.							
01	iP	04 31 10.7	D				
	eS	34 20					
01	iP	06 33 15.1	C				
02	iP	00 02 12.6	C				
02	iP	04 43 24.5	D				
02	iP	07 27 08.5	D				
02	iP	19 21 09.1	C				
03	iP	05 00 32.2	C				
03	iP	10 02 10.7	D				
03	iP	10 30 59.0	C				
03	iP	16 28 26.2	D				
03	iP	21 35 26.1	D				
04	iP	19 06 54.4	C				
05-09		Nil					
10	iP	09 33 45.6	C				
10	iP	21 14 08.7	D				
11	iP	05 23 40.7	D				
11	eP	05 36 38					Local
11	iP	11 32 16.2	C				
11	iP	15 17 00.8	D				Local
11	eP	16 43 10					
12	iP	03 44 21.3	C				
12	eP	09 25 13					
12	iP	11 12 18.9	D				
12	eP	18 25 02					Regional
13		Nil					
14	eP	07 50 56					Local
14	iP	13 27 15.8	C				
14	eP	18 22 31					Local
15	iP	01 01 25.9	D				
16	iP	06 10 21.4	C				
	eS	13 37					

International Seismological Centre

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T
MEEKATHARRA (MEK) Cont.						
July.						
16	iP	07 47 18.6	D			
17	iP	02 56 05.3	C			
17	eP	08 26 23				Regional
	eS	27 54				
17	iPKP	18 09 24.6	D			
18	iP	02 01 58.1	C			
18	eP	08 26 16				Local
	eS	27 17				
19		Nil				
20	iP	16 04 49.5	D			Regional
	eS	06 22				
21	iP	01 29 38.0	C			
22	eP	00 34 45				Regional
	eS	36 15				
22	iP	13 16 13.6	D			
22	eP	19 02 09				Regional
	eS	03 41				
23	iP	15 55 34.5	D			
24		Nil				
25	iP	06 06 14.8	C			
25	iP	06 55 03.1	C			
25	iP	11 13 55.5	D			
25	iP	14 02 41.5	C			
	iS	05 39.0	C			
25	iP	22 51 14.5	D			
26	eP	07 20 41				
27	iP	07 02 32.1	C			
27	iP	12 40 08.7	C			
27	eP	18 57 10				
28	iP	00 47 21.0	C			
28	eP	08 14 50				Local
28	eP	20 47 02				
29	iP	06 02 46.0	D			
29	iP	10 25 59.6	C			
29	iP	10 40 31.2	C			
30	iP	01 05 03.5	C			
30	iP	08 59 05.5	D			
30	iP	23 24 34.4	D			
31	iP	17 26 40.4	D			
KUNUNURRA (KNA)						
July.						
01	iP	01 20 44.9	C			
01	iP	04 28 54.0	D			
01	iP	06 31 19.0	C			
01	eP	18 07 00				
02	iP	00 42 23.6	D			
02	eP	04 42 23				
02	iP	07 26 17.7	C			
02	iP	07 44 37.2	C			
02	iP	08 41 37.0	C			
02	iP	16 28 24.7	D			
03	iP	04 57 42.1	D			
03	iP	12 44 20.7	C			
03	iP	20 20 57.0	D			
03	iP	21 33 44.9	D			

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Date 1970	Phase.	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T
KUNUNURRA. (KNA) Cont.						
July.						
03	iP	22 13 54.8	C			
04	iP	19 04 23.3	C			
05-12		No record				
13		Nil				
14	eP	13 25 57				
14	eP	23 42 31				
15	eP	06 26 15				
15	eP	11 38 22				
16	eP	03 47 40				
16	iP	05 26 07.8	C			
16	iP	06 09 01.5	D			
16	iP	07 46 36.8	C			
16	iP	15 52 17.1	C			
17	eP	02 55 50				
17	eP	08 25 56				
17	iPKP	18 09 27.7	D			
17	iP	20 14 05.5	C			
18		Nil				
19	iP	09 28 13.4	C			
19	iP	12 33 44.1	D			
19	iP	15 35 26.6	D			
19	iP	16 21 03.2	C			
20	iP	10 37 27.0	C			
20	iP	13 37 12.3	C			
20	eP	16 03 24				
21-31		No record				

P.J. Gregson,
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International Seismological Centre

COMMONWEALTH OF AUSTRALIA

Department of National Development

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MUNDARING GEOPHYSICAL OBSERVATORY

SEISMOLOGICAL BULLETIN AUGUST 1970

Seismograph Stations

Station	Code	Lat. S	Long. E	Elevation (metres)	Foundation
Mundaring	MUN	31° 58.7'	116° 12.5'	253	Precambrian granite
Kalgoorlie	KLG	30° 47.0'	121° 27.5'	350	Alluvium over basic metasediments
Meekatharra	MEK	26° 36.8'	118° 32.7'	515	Archean sedimentary
Kununurra	KNA	15° 45.0'	128° 46.0'	55	Unweathered Sandstone

INSTRUMENTATION

Station	Component	Seismometer	Ts (sec)	Ts (sec)	Magnification	Recording Speed
MUN	Z, N, E.	World Wide Standard Set	1.0	0.75	25000 at 1 s.	60 mm/min
	Z.	" "	15.0	100	750 at 15s.	15
	N, E.	" "	15.0	100	375 at 15s.	15
KLG	Z.	Willmore MkII	1.0	0.75	16000 at 1 s.	60
	NE, SE.	Benioff	1.0	0.25	37000 at 1 s.	60
MEK	Z.	Willmore MkII	1.0	0.25	10000 at 1 s. (approx.)	60
KNA	Z.	Willmore MKI	1.0	0.25	21000 at 1 s.	60

SYMBOLS

M_L - Local earthquake magnitude

M_S - Surface wave magnitude

Copies of Mundaring records can be obtained from the World Data Centre-A. Additional information and copies of seismogram records from all stations can be obtained on request from:

Observer-in-Charge,
Geophysical Observatory,
MUNDARING. W.A. 6073.

International Seismological Centre

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
MUNDARING (MUN)							
August.							
01	iP	01 24 09.0	C	0.9	165mu	2.3	
01	iP	01 30 30.0	C				
01	iP	06 33 22.2	D	0.9	50mu	1.7	
01	iP	11 57 37.2	D	0.7	27mu	1.6	
01	eP	13 37 57					
01	eP	17 22 19					
02	iP	02 08 34.5	D	0.8	60mu	1.9	
03	iP	00 44 21.8	C	1.0	100mu	2.0	
03	iP	07 09 30.8	C	1.0	135mu	2.1	
03	iP	22 37 24.5	D	0.9	700mu	2.9	
04	eP	00 38 30					
04	eP	12 06 25					
04	eP	19 45 02					
04	eP	21 24 14					Regional
04	eP	22 13 45					Regional
05	iP	09 03 06.9	D	0.6	25mu	1.6	Regional
	eS	05 30					Regional
06		Nil					
07	iP	08 00 28.7	D	0.8	39mu	1.7	
07	eP	08 20 44.5					
	eS	23 03.6					
07	iP	13 37 00.0	D				
07	iP	16 44 02.0	C				
08	iP	01 29 41.4	D				
08	iP	08 02 52.0	C				
08	iP	11 58 50.7	C	0.5	13mu	1.4	
08	iP	21 10 52.4	D	0.8	120mu	2.2	
09	iP	16 53 32.9					MeckeringML=2.7
10	iP	11 44 27.4	D	0.7	38mu	1.7	
10	iP	11 57 05.1	C	0.9	32mu	1.5	
10	iP	15 24 07.3	C	0.7	73mu	2.0	
			LZ	20.0	134 u		
			LN	20.0	60 u		
			LE	20.0	91 u		
11	iP	04 50 06.8	C				
11	eP	06 13 31					
11	eP	10 18 17					
11	iP	10 31 06.9	D				
			LZ	20.0	83 u		
			LN	20.0	34 u		
			LE	20.0	49 u		
11	iP	13 18 28.0	D				
11	iP	13 59 35.0	C				
11	iP	16 25 07.9	C				
11	iP	20 23 12.8	D	1.0	400mu	2.6	
12	iP	00 49 29.1	C	0.8	150mu	2.3	
12	iP	01 48 22.3	C	1.1	400mu	2.6	
12	eP	08 18 33					
12	eP	08 30 12					
12	iP	09 14 35.5	C	0.9	36mu	1.6	
12	ePKP	09 43 57					
12	eP	10 44 09					
12	iP	12 43 37.3	C	1.0	80mu	1.9	
12	eP	14 33 38					

International Seismological Centre

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
MUNDARING (MUN) Cont.							
August.							
13	iP	04 27 30.1	D	1.0	140mu	2.1	.
	eS	31 33					
			LZ	20.0	9 u		
			LN	20.0	9 u		
			LE	20.0	14 u		
14	eP	01 24 49					
14	iP	18 24 54.0	C				
15	iP	00 50 50.9	C				
15	eP	11 36 44					
			LZ	20.0	2 u		
			LN	20.0	0 u		
			LE	20.0	1 u		
15	iP	21 12 29.0	D	0.7	27mu	1.6	
16		Nil					
17		Nil					
18	iP	16 58 48.2	D				
19	iP	02 19 38.2	D				
20	iP	13 01 55.0	C	1.0	80mu	1.9	
20	iP	15 54 19.0	C				
20	iP	18 23 40.6	C				
21	iP	03 57 06.3	C	0.9	70mu	1.9	
21	eP	15 38 05					
21	iP	22 35 27.1	D				
22	iP	21 53 00.5	C				
23	iP	05 07 45.1	C				
23	eP	20 53 40					Regional
24	eP	01 01 56					
24	iP	14 00 46.9					Mockoring
	eS	00 57					ML = 2.2
24	iP	16 53 46.2					Cundordin
	eS	53 58					ML = 2.5
24	eP	12 41 27					
			LZ	20.0	29 u		
			LN	20.0	14 u		
			LE	20.0	11 u		
24	iP	13 00 35.7	C				
25		Nil					
26	iP	03 41 17.8	D				
	eS	44 49					
26	iP	10 11 49					Meckering
	eS	11 58					ML = 2.6
26	iP	15 20 43.3	C				
			LZ	20.0	3 u		
			LN	20.0	0 u		
			LE	20.0	3 u		
27	iP	16 33 09.3	C				
27	iP	20 04 20.4	D	1.0	64mu	1.8	
27	iP	22 02 20.4	D	0.3	330mu	3.1	Meckering
	iS	02 31.0					ML = 3.3
28	iP	01 10 48.0	D				
28	iP	04 30 27.7	C				Regional
28	iP	10 15 16.2	C				
			LZ	20.0	.5 u		
			LN	20.0	3 u		
			LE	20.0	3 u		
28	iP	16 08 01.0	C				
28	eP	18 31 01					
28	iP	22 56 57.9	C				

International Seismological Centre

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
MUNDARING (MUN)							
August.							
29	iP	01 54 01.2	D				
29	eP	15 11 52					
29	iP	19 48 25.1	C				
29	eP	20 32 53					
29	iP	21 41 04.4	D				
30	iP	00 54 42.5	D				
30	iP	13 47 28.8	D				Calingiri
		47 40					ML = 2.2
30	eP	15 11 48					Calingiri
		11 59					ML = 2.0
30	iP	17 57 58.2	D	0.9	1400mu	3.2	
31	eP	04 39 45					
31	iP	04 50 46.0					Calingiri
	eS	50 58					ML = 2.2
KALGOORLIE (KLG)							
August.							
01	iP	01 24 20.4	D				
02	iP	02 08 08.7	D				
03	iP	00 43 51.4	C				
03	iP	07 08 54.2	C	0.7	66mu	2.0	
03	iP	22 37 35.7	D	0.7	90mu	2.1	
04	iP	00 38 00.8	D	1.0	57mu	1.8	
05	eP	09 02 18		0.5	15mu	1.5	Regional
	eS	04 02					
06		Nil					
07	iP	07 59 58.2	D				
07	iP	13 36 25.2	D				
08	iP	21 10 33.2	C				
09		Nil					
10	iP	11 43 57.5	C				
10	iP	11 56 57.0	D				
10	iP	15 23 31.2	C				
11	iP	04 49 41.6	C				
11	iP	10 30 30.8	C				
11	iP	20 23 25.5	D				
12	iP	00 48 52.9	C				
12	iP	01 47 47.0	C				
12	iP	09 13 59.1	C				
12	iP	09 43 52.3	D				
12	iP	14 33 10.0	D				
12	iP	18 52 41.5	C				
13	iP	04 27 20.1	D				
	eS	31 09					
14		Nil					
15	iP	21 12 10.8	D				
16		Nil					
17		Nil					
18	iP	16 58 33.3	C				
19		Nil					
20	iP	13 01 20.9	C				
21		Nil					
22	iP	13 04 59.6	C				
23	iP	05 07 14.5	D				
24	iP	12 41 16.8	D				
24	iP	13 00 19.0	D				
25		Nil					

International Seismological Centre

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
KALGOORLIE (KLG)							
August.							
26		Nil					
27	iP	22 03 03.0	C				Meckering
28	iP	01 10 12.1	C				
28	iP	10 14 48.8	C				
28	iP	18 30 49.0	D				
29		Nil					
30	iP	17 57 47.6	D				
31		Nil					
MEEKATHARRA (MEK)							
August.							
01	iP	01 23 38.2	C				
01	iP	11 56 48.5	C				
02	iP	02 07 52.3	C				
03		Nil					
04	eP	21 23 07					Regional
04	eP	22 12 42					Regional
05	iP	00 27 16.4	D				
05	iP	09 02 02.6	C				Regional
	eS	03 33					
06	iP	22 14 18.2	C				
07	iP	08 00 17.6	C				
07	iP	08 19 40.8	C				Regional
	eS	21 10					
07	iP	13 36 27.0	C				
08	eP	01 28 53					
08	iP	03 58 14.0	C				
08	iP	08 02 02.1	C				
08	iP	09 10 47.6	D				
08	iP	21 10 02.0	C				
09		Nil					
10	iP	11 56 13.3	C				
	eS	59 46					
10	iP	15 23 46.8	D				
11	eP	10 30 46					
11	iP	13 18 07.4	C				
11	iP	20 23 41.3	C				
11	iP	21 02 20.0	C				
12	iP	00 49 08.5	D				
12	iP	01 48 02.0	C				
12	iP	08 29 51.0	D				
12	iP	09 14 14.9	D				
12	ePKP	09 44 00					
12	iP	12 43 16.6	C				
13	iP	04 26 31.5	C				
14		Nil					
15	iP	21 11 40.3	D				
16		Nil					
17	iP	23 04 06.2	C				
18	iP	16 58 01.0	C				
19	iP	02 19 10.7	C				
19	iP	05 54 48.7	C				
20	iP	13 01 43.4	D				
20	iP	15 53 58.4	D				
20	iP	18 23 20.3	D				
21	iP	03 56 29.1	C				
21	iP	15 37 49.6	C				

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
MEEKATHARRA (MEK) Cont.							
August.							
21	eP	12 51 56					
21	eP	13 04 54					
22	iP	21 52 09.6	D				
23	iP	05 07 33.3	C				
23	eP	20 52 36					Regional
	eS	54 06					
24	iP	12 59 47.1	C				
25	iP	11 55 22.8	C				
26	iP	03 40 04.1	C				
	eS	42 40					
26	iP	08 27 05.2	C				
26	iP	15 20 00.9	C				
27	iPKP	20 04 20.1	D				
27	iP	22 03 21.5	C				Mockering
	eS	04 17					
28	iP	01 10 13.5	D				
28	eP	04 29 16					Regional
28	iP	10 15 17.5	D				
28	iP	16 07 10.6	D				
28	iP	18 30 17.3	D				
29	iP	01 53 26.0	D				
29	iP	15 11 23.3	C				
29	eP	19 45 01					Regional
29	iP	21 40 15.4	D				
30	iP	04 41 26.4	C				
30	iP	13 48 23.0	C				Calingiri
30	iP	15 12 42.2	C				
30	iP	17 57 32.4	C				
31	iP	22 57 23.0	D				
KUNUNURRA (KNA)							
August.							
1-11		No record					
12		No timemarks.					
13	iP	04 25 27.2	D				
13	iP	10 41 10.1	C				
	eS	42 38					
13	eP	15 56 48					
	eS	58 00					
13	iP	23 32 51.8	D				
14	iP	04 25 26.4	D				
15	iP	21 09 53.2	C				
16	iP	08 03 37.3	D				
	eS	05 03					
16	iP	12 05 13.6	D				
	eS	06 39					
17		Nil					
18	iP	16 55 30.3	C				
19-21		Time corrections uncertain					
22	iP	12 49 39.8	C				
22	eP	13 02 45	-				
23	iP	05 06 37.8	D				
24	iP	12 42 05.9	C				
24	iP	12 58 05.6	C				
25-31		No records.					

P.J. Gregson,
Observer-in-Charge.

International Seismological Centre

COMMONWEALTH OF AUSTRALIA

Department of National Development

Bureau of Mineral Resources, Geology and Geophysics

MUNDARING GEOPHYSICAL OBSERVATORY

SEISMOLOGICAL BULLETIN SEPTEMBER 1970

Seismograph Stations

Station	Code	Lat. S	Long. E	Elevation (metres)	Foundation
Mundaring	MUN	31° 58.7'	116° 12.5'	253	Precambrian granite
Kalgoorlie	KLG	30° 47.0'	121° 27.5'	350	Alluvium over basic metasediments
Meekatharra	MEK	26° 36.8'	118° 32.7'	515	Archean sedimentary
Kununurra	KNA	15° 45.0'	128° 46.0'	55	Unweathered Sandstone

INSTRUMENTATION

Station	Component	Seismometer	Ts (sec)	Ts (sec)	Magnification	Recording Speed
MUN	Z, N, E.	World Wide Standard Set	1.0	0.75	25000 at 1 s.	60 mm/min
	Z.	" "	15.0	100	750 at 15s.	15
	N, E.	" "	15.0	100	375 at 15s.	15
KLG	Z.	Willmore MkII	1.0	0.75	16000 at 1 s.	60
	NE, SE.	Benioff	1.0	0.25	37000 at 1 s.	60
MEK	Z.	Willmore MkII	1.0	0.25	10000 at 1 s. (approx.)	60
KNA	Z.	Willmore MKI	1.0	0.25	21000 at 1 s.	60

SYMBOLS

M_L - Local earthquake magnitude

M_S - Surface wave magnitude

Copies of Mundaring records can be obtained from the World Data Centre-A. Additional information and copies of seismogram records from all stations can be obtained on request from:

Observer-in-Charge,
Geophysical Observatory,
MUNDARING. W.A. 6073.

Date 1970	Phase	G.M.T.	Dir.		Per. (sec.)	Amp.	LogA/T	
MUNDARING (MUN)								
September.								
01	iP	05 21 05.8	C		0.8	600mu	2.9	
				LZ	20.0	18 u		
				LN	20.0	12 u		
				LE	20.0	12 u		
02	eP	04 50 54						Calingiri
	eS	51 05						ML = 1.9
02	eP	10 12 50						SW Calingiri
	eS	13 00						ML = 2.2
03	iP	04 00 24.0						W Mawson
	eS	00 33						ML = 2.0
03	eP	06 31 44						
03	iP	09 41 06.8	C					
04	iP	13 23 43.1	D					
04	eP	18 26 47						
05	iP	08 04 22.4	D					
05	eP	11 50 30						
05	iP	13 48 16.0	C					
05	iP	17 18 35.4	D					
05	iP	17 26 00.3	C					
05	iP	19 38 25.1	C					
06	eP	02 02 38						
06	iP	02 59 17.2	C					
06	iP	04 15 50.9	D					
06	iP	07 45 39.3						S Meckering
	eS	45 49						ML = 2.5
06	eP	19 34 23						
06	iP	21 04 37.5	D					
07	eP	18 46 17						
08	eP	12 12 28						
09		Nil						
10	eP	00 43 07						
10	eP	03 26 53						
11		Nil						
12	iP	11 50 40.5	D					
12	iP	13 27 58.7	C		0.9	88mu	2.0	
12	iP	18 43 13.7	C					
13	eP	02 53 06						
	eS	56 51						
13	iP	05 12 31.1	C					
13	iP	07 09 30.7	D					
13	iP	08 19 30.0	D					
	eS	24 50						
13	iP	08 35 43.5	C		0.3	150mu	2.7	
13	iP	23 40 32.3						
	iS	44 20.5						
14	eP	00 59 27						
14	eP	09 56 28						
14	eP	18 58 00						
	eS	19 01 32						
15	iP	11 03 07.7	D					
15	iP	20 52 34.2	D					
16	iP	01 58 29.3	D		0.6	156mu	2.5	
				LZ	20.0	9 u		
				LN	20.0	6 u		
				LE	20.0	6 u		
16	iP	03 14 28.8	D					

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)		Amp.	LogA/T	
MUNDARING (MUN)	Cont.							
September.								
16	iP	04 06 14.0	D					
	iX	06 43.4						
17	iP	01 00 49.6	D					Calingiri
	iS	01 00.2						ML = 2.8
17	iP	01 16 30.3	D					Calingiri
	iS	16 42.2						ML = 2.2
17	iP	07 04 03.3	C					
18	iP	00 13 12.0	D					S of Meckering
	eS	13 22						ML = 1.8
18	iP	01 46 56.3	D					Calingiri
	iS	47 08.1						ML = 2.6
18	iP	06 43 31.2	D					Meckering
	iS	43 41.6						ML = 2.2
18	iP	16 02 13.4	C					
18	ePKP	16 31 48						
18	iP	19 51 52.0	C					
18	iP	20 31 22.9	D					
18	eP	23 10 33						
18	eP	23 13 58						
19		Nil						
20	eP	05 35 58						
20	iP	06 05 25.5	C					
20	ePKP	17 22 19						
21	eP	04 20 20						
21	eP	09 44 43						
21	eP	15 48 52						
22		Nil						
23	iP	12 12 58.7	C					
	iS	14 46.8						
	iX	18 37.9		LZ	20.0	92 u		
				LN	20.0	26 u		
				LE	20.0	60 u		
23	iPKP	12 25 01.4	D					
23	ePKP	23 08 11						
23	iP	23 20 02.2	C					
				LZ	20.0	37 u		
				LN	20.0	9 u		
				LE	20.0	26 u		
24	iPKP	00 17 32.4	D					
25	iP	07 22 20.1						Meckering
	eS	22 30						ML = 1.7
25	iP	13 38 21.0						Calingiri
	eS	38 32						ML = 1.8
26	iPKP	12 22 18.8	C					
26	iPKP	15 16 51						
27	iPKP	03 58 26.2	C					
27	iP	04 02 49.0						W Calingiri
	eS	03 01						ML = 2.2
27	iP	20 22 04.0	D					
28	iP	07 13 39.3	C		0.9	85mu	2.0	
29	iPKP	05 02 12.9	C					
29	iP	06 12 11.0	C	LZ	20.0	54 u		
				LN	20.0	23 u		
				LE	20.0	46 u		
29	eP	19 58 52						
29	iP	23 17 06.5	C					
30	iP	10 15 31.3	C		0.9	105mu	2.1	
30 /	iP	19 09 07.1	C		0.3	300mu	3.0	S Meckering
	iS	09 15.6						ML = 2.8

International Seismological Centre

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	Log A/T
KALGOORLIE (KLG)						
September.						
01	iP	05 20 40.7	D			
02-06		Seismograph modifications				
07	iP	18 45 22.3	D			
08		Nil				
09		Nil				
10	eP	03 26 23				
11		Nil				
12	eP	13 27 49				
12	iP	18 43 09.8	C			
13		Nil				
14	eP	00 59 17				
15	iP	11 02 51.0	D			
15	iP	20 52 05.8	C			
16	iP	01 58 04.0	D			
16	iP	03 14 19.2	D			
16	eP	04 05 48				
17	eP	07 03 38				
18	iP	04 22 20.0	D			
19-22		Nil				
23	iP	12 12 23.7	C			
24		Nil				
25		Nil				
26	iP	12 22 22.0	D			
27	iPKP	03 58 27.5	D			
28	iP	07 13 52.4	C			
29	iP	06 11 36.9	D			
30	iP	19 10 05.2				Meckering
MEEKATHARRA (MEK)						
September.						
01	iP	05 20 25.4	D			
01	iP	08 05 55.1	D			
01	iP	21 03 11.3	C			
02	iP	06 55 00.9	C			
02	iP	07 49 54.5	C			
02	iP	23 51 31.7	C			
03	iP	09 40 48.0	D			
04	iP	13 23 27.8	D			
04	iP	18 27 02.3	C			
05	iP	08 03 55.6	D			
05	iP	17 18 26.0	D			
05	iP	17 25 50.8	C			
05	iP	19 38 09.0	C			
06	iP	02 58 23.9	C			
06	iP	04 15 31.0	D			
06	iP	10 54 45.0	C			
06	iP	23 29 18.6	C			
07	iP	18 45 25.2	D			
08	eP	12 11 16				
09-11		Nil				
12	iP	13 27 18.7	D			
12	iP	16 29 26.5	C			
12	eP	18 42 26				
13	iP	05 11 41.4	C			
13	iP	23 39 20.6	C			
	iS	42 11.1				

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T
MEEKATHARRA (MEK) Cont.						
September.						
14	iP	00 58 36.4	C			
14	eP	09 55 53				
14	iP	18 56 47.2	C			
15	eP	04 24 49				
15	iP	11 02 20.2	D			
16	iP	01 57 47.4	D			
16	iP	03 13 47.5	D			
16	eP	04 05 23				
17	iP	04 51 53.8	C			
18	iP	16 01 21.1	C			
18	iP	20 30 46.7	D			
19		Nil				
20	eP	05 35 08				
20	iP	06 05 13.8	D			
21		Nil				
22		Nil				
23	eP	12 12 25				
23	iP	23 19 28.2				
24		Nil				
25		Nil				
26	eP	12 22 24				
26	eP	17 04 41				
27	ePKP	03 58 39				
27	eP	09 02 32				
27	iP	20 21 05.1	D			
28		Nil				
29	iP	06 11 51.0	D			
29	iP	19 57 51.4	C			
	eS	20 00 45				
29	iP	23 16 39.2	D			
30	iP	10 15 10.5	C			
30	iP	19 10 14.5	C			
KUNUNURRA (KNA)						
September.						
01	iP	05 18 34.5	C			
01	iP	07 36 58.2	D			
02	iP	06 52 26.7	D			
02	iP	14 51 23.9	C			
02	eP	17 17 59				
02	iP	21 42 00.6	D			
02	iP	23 49 22.9	D			
03	iP	09 39 33.2	D			
03	iP	18 12 32.4	C			
04	iP	13 03 18.6	D			
04	iP	14 36 05.9	D			
05	iP	04 51 12.8	D			
05	iP	08 02 46.0	D			
06-30		No Record				

Meckering

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COMMONWEALTH OF AUSTRALIA

Department of National Development

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MUNDARING GEOPHYSICAL OBSERVATORY

SEISMOLOGICAL BULLETIN OCTOBER 1970

Seismograph Stations

Station	Code	Lat. S	Long. E	Elevation (metres)	Foundation
Mundaring	MUN	31° 58.7'	116° 12.5'	253	Precambrian granite
Kalgoorlie	KLG	30° 47.0'	121° 27.5'	350	Alluvium over basic metasediments
Meekatharra	MEK	26° 36.8'	118° 32.7'	515	Archean sedimentary
Kununurra	KNA	15° 45.0'	128° 46.0'	55	Unweathered Sandstone

INSTRUMENTATION

Station	Component	Seismometer	Ts (sec)	Ts (sec)	Magnification	Recording Speed
MUN	Z, N, E.	World Wide Standard Set	1.0	0.75	25000 at 1 s.	60 mm/min
	Z.	" "	15.0	100	750 at 15s.	15
	N, E.	" "	15.0	100	375 at 15s.	15
KLG	Z.	Willmore MkII	1.0	0.75	16000 at 1 s.	60
	NE, SE.	Benioff	1.0	0.25	37000 at 1 s.	60
MEK	Z.	Willmore MkII	1.0	0.25	10000 at 1 s. (approx.)	60
KNA	Z.	Willmore MKI	1.0	0.25	21000 at 1 s.	60

SYMBOLS

M_L - Local earthquake magnitude

M_S - Surface wave magnitude

Copies of Mundaring records can be obtained from the World Data Centre-A. Additional information and copies of seismogram records from all stations can be obtained on request from:

Observer-in-Charge,
Geophysical Observatory,
MUNDARING. W.A. 6073.

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
MUNDARING (MUN)							
October							
01	iP	05 49 09.4	C	0.3	20mu	1.8	Watteing E
	iS	49 18.8					ML = 2.1
01	iP	15 15 53.1	D	0.3	35mu	2.1	SSE Meckering
	iS	16 02.5					ML = 2.3
02	iP	06 09 09.6	D	0.3	250mu	2.9	S Meckering
	iS	19.0					ML = 3.1
02	iP	11 03 38.5	C				
03	iP	02 22 00.5	C				
	iS	24 21.3					
03	iP	10 41 53.4	C	0.8	70mu	1.9	
				LZ 20.0	0 u		
				LN 20.0	17 u		
				LE 20.0	12 u		
03	ePKP	14 36 49					
04	iP	16 03 47.0	D	0.7	220mu	2.5	S Meckering
	eS	03 56.8					ML 3.2 Felt
04	eP	17 02 41					
05	iP	11 35 29.0	D	0.3	300mu	2.4	NE Meckering
	eS	35 39.3					ML = 2.6
05	iP	13 30 50.9	C	0.3	300mu	2.7	Calingiri
	eS	31 01.3					ML = 3.1
05	eP	15 56 14					
	eS	16 00 43					
05	eP	20 12 37					
06	ePKP	21 45 13					
07	eP	14 47 44					
08	eP	03 04 35					
08	eP	03 58 43					
08	iP	07 08 10.4	D	1.0	48mu	1.7	
08	iP	23 48 22.9	C				
09	iP	04 36 04.8	D				
09	iP	10 24 10.3	D	0.7	40mu	1.8	
09	iP	17 50 56.8	D				
10	eP	03 13 33					
10	eP	09 00 38					
10	iP	22 09 12.3	C				
				LZ 20.0	20 u		
				LN 20.0	17 u		
				LE 20.0	18 u		
11	iP	03 26 17.7	C				
				LZ 20.0	32 u		
				LN 20.0	23 u		
				LE 20.0	32 u		
11	eP	05 47 36					
12	eP	08 58 25					
12	iP	09 44 25.1	D				
13	iP	02 46 24.8	D	0.3	100mu	2.5	Meckering
	iS	46 34.3					ML = 2.6
13	eP	19 00 34					
13	iP	23 41 22.4	D				
14	iP	06 14 40.5	D				
14	iP	06 18 35.2	C	0.9	150mu	2.3	
14	eP	06 29 24					
14	iP	07 50 38.5	C	0.9	90mu	2.0	

International Seismological Centre

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
MUNDARING (MUN) Cont.							
October.							
14	iP	10 50 08.9	C				
14	iP	17 01 21.2	C	0.7	37mu	1.8	
14	eP	18 27 48					
14	eP	21 26 08					
15	iP	12 22 36.1	C				
15	eP	22 24 32					
16	eP	05 37 50					
17		Nil					
18	eP	09 30 19					
18	iP	18 37 46.5	D				
18	iP	20 40 10.2	C	1.1	320mu	2.3	
18	eP	21 29 04					
19	eP	00 14 55					
19	eP	0 17 15					
19	iP	06 54 03.1	D				
19	iP	17 10 40.0	D				
19	eP	18 36 28					
20	iP	08 34 23.9	C	1.1	700mu	2.8	
			LZ	20.0	3 u		
			LN	20.0	0 u		
			LE	20.0	2 u		
20	iP	16 46 32.6	D				
21	iP	08 10 04.7	C				
21	eP	16 09 43					
22	eP	03 07 45					
	eS	11 16					
22	eP	06 22 40					
23		Nil					
24	iP	02 36 07.3	C	0.3	150mu	2.7	Quellington ML = 3.5 Felt Meckering. Double event
	iS	36 15.4					
24	eP	03 45 35					
24	iP	16 12 36.8	D				
25	eP	05 22 54					
25	iP	06 31 00.8	D				Meckering ML = 1.8
25	iP	07 52 45.3	C				
			LZ	20.0	2 u		
			LN	20.0	1 u		
			LE	20.0	1 u		
25	eP	10 13 49					
			LZ	20.0	2 u		
			LN	20.0	1 u		
			LE	20.0	1 u		
25	eP	10 23 31					
25	iP	12 09 21.6	C				
			LZ	20.0	11 u		
			LN	20.0	6 u		
			LE	20.0	11 u		
25	eP	15 18 11					
			LZ	20.0	40 u		
			LN	20.0	23 u		
			LE	20.0	18 u		

International Seismological Centre

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
MUNDARING (MUN) Cont.							
October.							
25	iP	15 30 10.2	C				
25	iP	15 50 52.4	C				
25	eP	22 16 36					
25	eP	22 29 10					
25	iP	23 16 33.0	D				
26	iP	08 22 11.0	C	0.9	220mu	2.4	
26	iP	09 05 17.8	C				
26	iP	09 59 50.0	D				
26	iP	17 33 49.8	C				
27	iP	22 06 32.5	C				
28	eP	04 32 27					
28	iPKP	12 16 42.1	C				
29	eP	02 29 30					
30	eP	06 19 16					
30	iP	14 37 14.7	D	0.9	140mu	2.2	
31	iP	18 00 28.4	C	1.0	800mu	2.9	Madang N.G. MS = 7.2
	eS	06 26					
			LZ	20.0	280 u		
			LN	20.0	320 u		
			LE	20.0	400 u		
31	eP	19 14 22					
KALGOORLIE (KLG)							
October.							
01		Nil					
02	eP	06 10 06					Meckering
	eS	10 57					
02	iP	06 23 00.7	D				
03	eP	02 22 56					
03	iP	10 41 16.3	D	0.8	73mu	1.9	
04	eP	16 04 32					Meckering
04	iP	17 02 13.1	D	1.0	404mu	2.6	
05	eP	11 36 12					Calingiri
	eS	36 55					
05	eP	13 31 39					Meckering
05	eP	15 56 22					
05	iP	20 12 23.0	D				
06	eP	07 56 27					
06	eP	21 45 10					
07	eP	14 47 19					
08	eP	03 04 10					
08	iP	05 06 20.0	D				
08	iP	07 07 39.9	D	1.0	50mu	1.7	
09	iP	10 23 53.0	D				
10	iP	09 01 02.6	C				
10	iP	22 08 42.4	C				
11	iP	03 25 48.0	C				
11	iP	03 39 51.7	D				
11	iP	05 47 06.0	C				
12	iP	07 08 57.8	C				
12	eP	07 19 35					
13	eP	02 47 19					Meckering
13	iP	18 59 59.8	D				
14	eP	18 27 32					

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
KALGOORLIE (KLG) Cont.							
October.							
14	iP	21 25 53.2	C				
15	iP	12 22 05.1	C				
16	iP	05 37 34.9	C				
17		Nil					
18	iP	09 29 49.8	D				
18	iP	20 39 33.4	C				
19	eP	17 10 13					
20	iP	08 33 47.3	C	1.0	400mu	2.6	
21	iP	09 50 08.5	C				Koolyanoobing
	eS	50 30					blast
22	eP	02 31 15					
22	eP	06 22 03					
23		Nil					
24	eP	02 37 04					Quellington
24	iP	03 45 06.3	C				
24	iP	16 12 08.0	C				
25	iP	10 14 00.0	C				
25	iP	12 09 52.7	C				
25	iP	15 18 21.0	C				
25	iP	23 15 57.9	D	0.8	340mu	2.6	
26	iP	08 21 39.7	D	0.9	208mu	2.4	
26	iP	11 55 33.1	C				
27	iP	22 06 12.6	C	0.9	47mu	1.7	
28	iP	12 19 34.2	C				
29	iP	02 30 09,0	D				
30	eP	06 22 58					
30	iP	14 36 38.9	D				
31	iP	09 13 39.6	D				
31	iP	17 59 51.6	C				
MEEKATHARRA (MEK)							
October.							
01	eP	15 16 58					
	eS	17 54					Meckering
02	iP	06 10 13.5	C				
02	eP	06 23 03					Meckering
02	iP	11 02 48.1	D				
03	iP	02 20 57.0	C				
	eS	22 28					Lake McKay
03	iP	10 41 16.0	C				
04	iP	16 04 49.4	C				
	eS	05 44					Meckering
04	iP	17 01 48.1	C				
04	eP	19 44 13					
	eS	45 44					Lake McKay
05	eP	11 36 31					
	eS	37 25					Calingiri
05	iP	15 55 32.8	D				
	eS	59 14					
05	iP	20 11 35.1	D				
	eS	14 22					
06	iP	23 50 29.5	C				
	eS	53 46					
07		Nil					

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
MEEKATHARRA (MEK) Cont.							
October.							
08	eP	03 03 44					
08	iP	05 06 06.0	D				
08	iP	07 08 01.0	C				
09	iP	04 35 16.4	C				
09	iP	10 23 23.1	C				
09	iP	17 50 10.4	C				
10	iP	04 17 52.5	C				
10	iP	09 00 26.0	C				
10	eP	20 31 03					
	eS	34 10					
10	iP	22 09 11.0	C				
11	eP	03 26 17					
11	eP	05 47 34					
11	iP	12 06 41.1	C				
12	eP	08 57 09					
13	iP	02 47 28.0	D				Meckering
	eS	48 21					
13	eP	07 02 45					
13	iP	08 22 10.5	D				
13	eP	18 59 52					
14	iP	06 14 20.0	D				
14	iP	06 18 26.9	D				
14	iP	07 49 50.2	C				
14	iP	09 06 56.5	D				
14	iP	11 49 57.5	D				
15	eP	14 01 39					Lake McKay
	eS	03 25					
15	eP	22 23 41					
16	iP	05 37 15.0	D				
16	iP	12 21 03.0	C				
16	iP	16 36 52.6	C				
17		Nil					
18	iP	18 37 46.1	C				
18	iP	20 39 34.2	D				
18	iP	21 28 38.5	D				
19	iP	06 53 13.1	C				
20	iP	08 34 04.9	C				
20	iP	16 45 42.7	D				
21	iP	01 36 31.4	C				
21	iP	16 09 56.3	D				
22	eP	03 06 32					
	eS	09 08					
22	iP	06 22 18.8	D				
22	iP	09 17 02.4	C				
22	iP	15 58 40.6	D				
22	iP	19 56 29.9	C				
23	iP	00 43 15.3	D				
23	eP	03 48 02					
	eS	49 32					Lake McKay
23	iP	07 03 30.7	D				Mt. Newman
	eS	04 11					blast.
24	iP	02 37 13.5	D				Quellington
	eS	38 12					

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Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
MEEKATHARRA (MEK) Cont.							
October.							
24	eP	03 44 44					
24	iP	16 11 45.0	D				
24	iP	20 42 28.9	D				
25	iP	12 09 31.9	D				
25	eP	15 17 43					
25	iP	23 15 59.2	C				
26	iP	07 21 59.0	D				
26	eP	08 04 25					
26	iP	08 59 00.6	C				
26	iP	10 55 01.9	D				
26	iP	16 33 01.9	D				
27	eP	22 05 45					
28	eP	04 29 37					
29	eP	02 30 10					
29	eP	02 38 28					Lake McKay
	eS	39 59					
30	iP	06 18 09.3	D				
	eS	21 08					
30	iP	14 36 38.1	D				
31	iP	17 59 46.9	C				
KUNUNURRA (KNA)							
October.							
01	iP	00 23 28.3	D				
01	iP	03 48 16.5	D				
01	iP	10 43 58.6	D				
02	eP	06 21 13					
02	iP	12 11 46.2	D				
02	iP	17 08 54.1	C				
03	eP	02 20 29					
03	iP	03 52 10.8	D				
03	iP	10 39 17.6	C				
03	iP	18 53 43.7	C				
03	iP	20 01 40.0	C				
03	iP	21 22 14.7	C				
04	iP	16 59 00.9	D				
05	iP	15 55 39.2	D				
05	iP	20 10 15.3	D				
06	iP	07 55 55.5	C				
07	iP	00 55 33.9	C				
07	eP	14 44 15					
08	iP	03 01 09.9	C				
08	iP	03 57 43.1	D				
08	iP	05 04 55.3	C				
08	iP	07 07 11.9	C				
08	iP	23 39 16.0	D				
09	iP	08 32 08.8	D				
10	iP	06 32 01.4	C				
	iS	33 37.3					
10	iP	06 22 01.5	C				
10	iP	09 01 07.1	C				
10	iP	09 36 04.5	C				
10	iP	22 08 42.5	D				
11	iP	03 25 47.5	D				
11	iP	03 37 54.8	D				

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T
KUNUNURRA (KNA) Cont.						
October.						
11	eP	05 47 05				
12-18		No record				
19	eP	18 48 18				
	eS	49 48				
20	iP	08 32 47.6	C			
21	eP	09 35 08				
21	iP	10 30 25.2	C			
22	iP	15 56 02.4	D			
22	iP	20 50 26.7	C			
23	iP	00 05 14.1	C			
23	iP	17 59 07.8	D			
24	iP	01 25 14.9	D			
	eS	26 45				
24	iP	03 42 01.0	C			
	eS	43 43				
24	iP	16 09 05.2	D			
	eS	11 11				
24	iP	20 40 38.3	C			
25	iP	12 10 43.0	C			
25	eP	15 17 42				
26	iP	07 52 29.6	C			
26	iP	08 21 05.1	D			
26	iP	09 01 41.6	D			
26	eP	11 33 17				
26	eP	17 31 19				
27	iP	20 55 55.3	D			
	eS	57 15				
28	iP	12 17 08.6	D			
28	iP	21 41 40.6	D			
	eS	42 43				
29	iP	02 32 06.7	C			
29	iP	23 23 51.0	C			
30	iP	11 01 59.2	D			
30	iP	14 34 41.7	D			
31	eP	09 12 04				
31	eP	13 06 53				
	eS	08 37				
31	iP	17 57 35.7	C			

P.J. Gregson,
Observer-in-Charge.

International Seismological Centre

International Seismological Centre

COMMONWEALTH OF AUSTRALIA

Department of National Development

Bureau of Mineral Resources, Geology and Geophysics

MUNDARING GEOPHYSICAL OBSERVATORY

SEISMOLOGICAL BULLETIN NOVEMBER 1970

Seismograph Stations

Station	Code	Lat. S	Long. E	Elevation (metres)	Foundation
Mundaring	MUN	31° 58.7'	116° 12.5'	253	Precambrian granite
Kalgoorlie	KLG	30° 47.0'	121° 27.5'	350	Alluvium over basic metasediments
Meekatharra	MEK	26° 36.8'	118° 32.7'	515	Archean sedimentary
Kununurra	KNA	15° 45.0'	128° 46.0'	55	Unweathered Sandstone

INSTRUMENTATION

Station	Component	Seismometer	Ts (sec)	Ts (sec)	Magnification	Recording Speed
MUN	Z, N, E.	World Wide Standard Set	1.0	0.75	25000 at 1 s.	60 mm/min
	Z.	" "	15.0	100	750 at 15s.	15
	N, E.	" "	15.0	100	375 at 15s.	15
KLG	Z.	Willmore MkII	1.0	0.75	16000 at 1 s.	60
	NE, SE.	Benioff	1.0	0.25	37000 at 1 s.	60
MEK	Z.	Willmore MkII	1.0	0.25	10000 at 1 s. (approx.)	60
KNA	Z.	Willmore MKI	1.0	0.25	21000 at 1 s.	60

SYMBOLS

M_L - Local earthquake magnitude

M_S - Surface wave magnitude

Copies of Mundaring records can be obtained from the World Data Centre-A. Additional information and copies of seismogram records from all stations can be obtained on request from:

Observer-in-Charge,
Geophysical Observatory,
MUNDARING. W.A. 6073.

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
MUNDARING (MUN)							
November.							
01	iP	05 37 36.7	D	0.6	125mu	2.3	Meckering
	eS	37 45.9					ML = 3.2
01	iP	11 15 02.9	D	1.0	60mu	1.8	
01	iP	13 26 40.3	C	1.0	140mu	2.2	
01	eP	21 49 47					
02	iP	14 10 35.1	C				
			LZ	20.0	9 u		
			LN	20.0	6 u		
			LE	20.0	6 u		
03	iP	02 48 51.6	D				
03	iP	15 33 47.1	D				Meckering
	eS	33 56.2					ML = 2.6
04	eP	04 11 11					
04	iP	06 13 34.0	D				
05	iPKP	- 08 42 38.5	D				
05	eP	13 31 41					
06	eP	08 26 27					
06	eP	09 21 08					
06	eP	19 03 17					
06	iP	21 55 26.5	C				
07	eP	05 06 18					
07	iP	07 54 01.6	C	0.4	60mu	1.9	
07	iP	23 27 16.1	C				
08	iP	04 45 15.9	C				
08	iP	06 09 20.4	C				
08	eP	09 15 24					
08	iP	09 26 34.4	D				
08	iP	15 06 45.7	C	0.9	560mu	2.8	
			LZ	20.0	4 u		
			LN	20.0	5 u		
			LE	20.0	5 u		
08	iP	22 42 27.0	C	2.5	4200mu	3.2	
	eS	48 00					
			LZ	20.0	186 u		
			LN	20.0	254 u		
			LE	20.0	400 u		
09	eP	01 27 29					
09	iP	03 52 56.8	D				Calingiri
	eS	53 08					ML = 2.0
09	iP	05 18 44.6	D	0.8	16mu	1.3	
09	iP	09 26 52.7	D	0.8	16mu	1.3	
09	iP	12 25 37.1	C	0.8	14mu	1.2	
09	iP	13 38 23.1	C				
09	eP	14 07 29					
09	iP	15 37 47.1	D				
09	iP	17 33 06.3	D	0.8	24mu	1.5	
09	iP	17 53 56.9	C	0.6	18mu	1.5	
09	iP	19 32 44.5	D				
09	iP	21 04 15.5	C	0.5	13mu	1.4	
10	iP	00 36 51.2	D	0.6	40mu	1.7	
10	iP	01 24 35.2	C				
10	iP	02 52 57.9	D				
10	eP	06 36 49					
10	ePKP	10 59 16					
11	iP	23 57 13.1	D				
	eS	57 22.9					Meckering
							ML = 2.3

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Date 1970	Phase	G.M.T.	Dir.	Por. (sec.)	Amp.	LogA/T	
MUNDARING (MUN) Cont.							
November.							
12	iP	02 28 50.5	D				
12	eP	06 14 32					
				LZ	20.0	171 u	
				LN	20.0	59 u	
				LE	20.0	97 u	
12	iP	07 40 06.7	C				
12	iP	17 16 18.0	C				
12	iP	23 26 14.6	C				
13	iP	02 59 40.9	C				
13	iP	08 53 53.2	D				
13	iP	14 24 26.6	C	1.0	52mu	1.7	
13	eP	17 42 04					
14	iP	00 03 00.2	D				
14	iP	01 04 10.8	C				
14	iP	05 00 34.1	D				
14	iP	08 07 48.0	D				
15	iP	03 22 40.0	C	0.9	80mu	2.0	
16	iP	05 09 49.1	D	1.0	32mu	1.5	
16	iP	06 51 47.5	C	1.0	220mu	2.4	
16	iP	20 11 22.7	D				
	iS	11 31.8					W Mawson ML = 2.0
16	eP	21 39 29					
17	iP	08 03 07.8	D				
18	eP	02 05 40					
18	eP	02 19 23					
				LZ	20.0	11 u	
				LN	20.0	5 u	
				LE	20.0	8 u	
18	iP	06 25 16.0	D				
18	eP	09 53 14					
18	iP	16 51 40.2	D	1.0	560mu	2.7	
18	iP	22 38 36.0	C				
19	eP	04 18 07					
19	iP	10 22 07.8	D				
20	eP	04 09 14					
21	iP	00 38 36.6	C				
21	iP	06 06 32.9	C	0.9	45mu	1.7	
21	iP	12 28 05.5	D	1.0	100mu	2.0	
21	iP	17 59 46.0	C	0.9	35mu	1.6	
22	iP	12 03 41.1	D				
22	iP	20 13 17.6	D				
	eS	13 27.4					Meckering ML = 2.2
22	eP	20 43 19					
23		Nil					
24	iP	16 29 29.1	D				
24	eP	20 24 47					
25	eP	07 27 28					
25	iP	19 04 31.3	C				
25	iP	20 19 42.1	C				
26	iP	20 41 20.1	D	0.3	225mu	2.9	
	iS	41 29.7					Meckering ML = 3.3
27	iP	09 48 57.9	C				
27	eP	20 35 31					
28	iP	01 02 33.9	C				
28	iP	11 27 44.2	C				
28	eP	20 29 53					
29	eP	12 59 58					

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Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
MUNDARING (MUN) Cont.							
November.							
29	iP	20 20 31.3	D				
30	iP	00 35 53.7					SSE Borrorly
	eS	36 06					ML = 2.6
30	iP	07 28 27.9	D				Meckering
	eS	29 38.6					ML = 2.3
30	iP	20 27 00.0	D				
KALGOORLIE (KLG)							
November.							
01	iP	05 38 32.4	C				Meckering
	eS	39 32					
01	iP	11 14 26.9	D	1.0	170mu	2.2	
01	iP	13 26 52.7	D				
01	iP	21 49 19.6	D				
02	iP	14 09 59.6	D				
03	iP	09 35 41.8	C				
03	iP	15 20 53.9	C				
04		Nil					
05	eP	13 31 34					
06		Nil					
07	iP	07 53 33.7	C				
08	iP	09 26 34.9	C				
08	iP	15 06 28.3	C	1.2	600mu	2.8	
08	iP	22 41 56.0	C	1.0	1550mu	3.2	
09	iP	13 37 53.2	C				
09	iP	17 54 10.8	C				
10	iP	00 36 36.3	C				
10	eP	01 24 19					
10	eP	06 36 17					
10	iP	13 56 30.4	D				
11		Nil					
12	iP	06 13 56.2	C				
12	eP	07 39 39					
13	eP	02 20 21					
13	iP	14 24 11.9	C				
13	iP	17 42 14.3	C				
14	eP	00 02 24					
14	iP	01 03 50.2	C				
14	iP	05 00 08.2	D				
14	iP	08 07 35.8	C	0.8	195mu	2.4	
15	eP	03 22 09					
16	iP	06 51 10.7	C	0.7	190mu	2.4	
16	eP	21 39 06					
17		Nil					
18	iP	02 18 59.4	C				
18	iP	16 51 08.0	D	1.0	1100mu	3.1	
18	iP	22 38 15.2	D				
19	iP	10 21 50.4	C				
19	iP	18 18 37.7	C				
20	iP	04 08 40.0	D				
21	iP	02 57 30.9	C				
21	iP	06 05 57.1	C				
21	iP	12 27 54.8	D	0.6	48mu	1.9	
21	iP	17 59 50.6	D	0.9	104mu	2.1	

International Seismological Centre

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
KALGOORLIE (KLG) Cont.							
November.							
22	iP	12 03 17.7	C				
22	iP	20 43 23.7	D				
23		Nil					
24	eP	11 43 46					
24	eP	20 24 25					
25	eP	07 27 22					
25	iP	19 04 02.2	C	0.8	72mu	2.0	
26	iP	20 42 05.0	C	0.3	14mu	1.7	Meckering
	eS	42 04					
27	iP	09 48 47.0	C	0.6	72mu	2.1	
27	eP	20 35 15					
28	eP	01 02 13					
28	iP	20 29 19.9	D	1.0	373mu	2.6	
29	eP	12 59 33					
29	eP	13 44 06					
29	iP	20 20 20.3	D	1.0	210mu	2.3	
30		Nil					
MEEKATHARRA (MEK)							
November.							
01	iP	01 39 46.2	D				
01	iP	05 38 40.8					Meckering
	eS	39 35					
01	iP	11 14 21.2	D				
01	iP	13 27 09,0	D				
01	iP	13 58 10.1	C				
01	iP	21 48 50.3	C				
02	iP	14 09 53.1	C				
03	iP	15 20 22.0	C				
03	iP	15 34 52.3					Meckering
	eS	35 50					
04	iP	06 12 54.6	D				
04	eP	07 20 47					
04	iP	17 51 37.2	C				
04	iP	21 54 28.9	C				
	eS	57 37					
05		Nil					
06	eP	08 23 34					
06	iP	19 02 23.6	D				
06	iP	21 54 36.6	C				
07	iP	05 05 21.7	C				
	eS	08 12					
07	iP	07 54 02.8	D				
07	iP	23 26 33.1	C				
08	iP	15 05 57.7	C				
08	iP	22 41 38.2	C				
09	iP	05 17 56.9	C				
09	eP	13 37 34					
09	iP	15 36 56.5	C				
09	iP	17 53 47.2	C				
09	iP	21 03 25.6	D				
10	iP	00 36 14.6	D				
10	eP	01 23 47					
10	eP	06 36 00					
11		Nil					
12	eP	06 13 50					

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T

MEEKATHARRA (MEK) Cont.

November.						
12	iP	14 29 05.3	C			
	eS	31 54				
13	iP	02 58 58.2	C			
13	iP	08 53 05.0	D			
13	iP	14 23 40.6	C			
13	iP	17 41 48.6	C			
14	iP	00 02 18.8	D			
14	iP	01 03 20.8	C			
14	iP	01 28 02.2	D			
	iS	31 06.9				
14	eP	04 59 51				
14	iP	08 07 05.4	C			
15	eP	03 22 32				
15	iPKP	19 56 13.9	D			
16	iP	05 09 28.6	C			
16	iP	06 51 09.1	C			
16	iP	21 38 35.7	C			
17		Nil				
18	iP	02 05 00.0	C			
18	iP	02 18 26.8	D			
18	iP	06 24 25.5	C			
18	iP	09 52 33.2	C			
18	iP	16 51 29.1	D			
18	iP	22 37 46.6	D			
19	iP	10 20 56.0	D			
	eS	22 47				
19	iP	18 18 15.7	D			
20		Nil				
21	iP	06 05 57.1	D			
21	iP	12 27 21.3	C			
21	iP	17 58 57.9	D			
22	iP	12 03 01.0	D			
22	iP	20 42 31.7	D			
23		Nil				
24	iP	11 43 12.2	C			
24	iP	20 23 51.6	D			
25	iP	07 26 21.3	C			
	iS	28 59.3				
25	iP	07 27 10.0	D			
	iS	29 57.3				
25	iP	18 20 09,0	C			
26	iP	20 42 23.1	C			
	eS	43 19				
27	iP	09 48 17.0	C			
27	iP	22 52 19.4	D			
28	iP	01 01 42.8	D			
28	iP	20 29 10.2	D			
29	iP	12 59 06.0	D			
29	eP	13 44 01				
29	iP	20 20 30.8	D			
30	iP	07 52 42.1	D			

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Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T
KUNUNURRA (KNA)						
November.						
01	iP	00 06 02.0	C			
01	iP	11 12 11.2	C			
01	iP	11 56 17.5	D			
	eS	57 55				
01	iP	13 56 18.7	C			
01	iP	15 40 19.5	D			
01	iP	21 42 21.2	C			
	eS	46 13				
02	iP	14 07 41.9	C			
03	iP	00 26 10.1	C			
03	iP	04 13 02.0	D			
03	eP	12 55 35				
04	iP	02 33 43.2	C			
	eS	35 09				
04	eP	04 07 18				
04	eP	06 10 49				
04	iP	17 50 32.0	D			
05		No Record				
06	iP	01 39 22.9	D			
	eS	40 48				
06	iP	18 59 47.2	D			
07	iP	23 25 10.9	C			
08	iP	09 12 02.0				
	eS	13 14				
08	iP	15 04 15.8	C			
08	iP	16 01 54.0	D			
	eS	03 25				
08	iP	22 39 01.0	C			
09	iP	00 10 57.1	D			
09	iP	01 23 16.0	D			
09	eP	02 01 21				
09	eP	05 16 15				
09	iP	05 30 12.9	D			
09	iP	13 34 58.0	D			
	eS	37 27				
09	iP	21 17 36.9	D			
10	iP	00 34 47.5	C			
10	eP	01 22 06				
10	iP	06 33 22.7	D			
10	iP	07 26 28.7	C			
	eS	28 11				
10	iP	07 32 28.1	D			
10	eP	10 52 11				
10	iP	19 12 16.1	C			
10	eP	21 10 47				
11	iP	18 52 00.0	D			
12	iP	02 32 15.2	D			
12	iP	06 11 38.3	C			
12	iP	07 03 06.7	C			
12	iP	07 26 02.4	C			
12	iP	16 37 40.1	D			
	eS	39 12				
12	iP	17 15 11.2	D			
12	iP	17 46 16.3	C			
12	iP	20 06 55.5	D			
	eS	08 25				

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Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T
KUNUNURRA (KNA) Cont.						
November.						
13	iP	01 08 06.5	C			
13	iP	14 22 10.3	C			
13	iP	17 41 37.7	D			
13	iP	19 58 21.6	C			
14	iP	00 00 10.5	C			
14	iP	01 01 23.9	C			
14	iP	04 57 53.9	C			
14	iP	08 05 43.4	C			
14	iP	12 35 04.2	C			
	eS	36 36				
14	iP	22 57 47.6	D			
15	iP	01 12 38.2	C			
	eS	14 10				
15	iP	03 21 44.4	C			
15	iP	11 01 36.3	C			
	eS	03 06				
15	iPKP	19 56 16.6	D			
16	iP	00 12 09.7	C			
	eS	14 40				
16	iP	05 09 03.8	D			
16	iP	06 49 06.3	C			
16	iPKP	12 41 48.1	D			
16	iP	19 26 14.5	C			
	eS	27 23				
16	iP	21 36 24.4	C			
16	iP	23 38 32.8	D			
17	iP	05 00 25.7	C			
17	iP	19 59 45.3	C			
18	iP	02 16 00.2	D			
18	iP	05 21 09.2	D			
	eS	22 43				
18	iP	06 22 35.3	C			
18	iP	09 50 33.2	D			
18	iP	16 50 35.9	D			
18	iP	19 15 07.4	D			
	eS	16 32				
18	iP	20 26 57.0	D			
19		No Record				
20	eP	04 06 07				
20	iP	13 55 11.2	D			
20	iP	18 42 25.5	C			
21		No Record				
22	iP	03 19 24.0	C			
22	iP	12 01 10.2	D			
22	iP	17 53 09.2	C			
22	iP	20 42 36.6	C			
23		No record before 2300				
23	iP	23 42 20.0	D			
24	iP	11 40 45.6	D			
25	iP	08 53 53.1	C			
25	iP	16 12 54.3	C			
25	iP	16 38 05.2	D			
25	iP	18 18 43.8	D			
25	iP	19 01 09.3	C			
26	iP	09 12 01.3	C			
26	iP	15 01 20.9	D			

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T
KUNUNURRA (KNA) Cont.						
November.						
26	iP	16 24 28.4	D			
26	iP	19 11 07.8	D			
27	iP	01 09 00.8	D			
	eS	10 32				
27	eP	09 05 22				
27	iP	09 46 55.3	C			
27	iP	16 00 45.5	D			
28	iP	00 59 33.2	C			
28	iP	03 00 24.2	C			
	eS	01 53				
28	iP	20 26 55.2	C			
29	iP	12 56 23.1	D			
	eS	57 51				
30	iP	01 39 52.0	C			
30	eP	20 26 02				

P.J. Gregson,
Observer-in-Charge.

International Seismological Centre

International Seismological Centre

COMMONWEALTH OF AUSTRALIA

Department of National Development

Bureau of Mineral Resources, Geology and Geophysics

MUNDARING GEOPHYSICAL OBSERVATORY

SEISMOLOGICAL BULLETIN DECEMBER 1970

Seismograph Stations

Station	Code	Lat. S	Long. E	Elevation (metres)	Foundation
Mundaring	MUN	31° 58.7'	116° 12.5'	253	Precambrian granite
Kalgoorlie	KLG	30° 47.0'	121° 27.5'	350	Alluvium over basic metasediments
Meekatharra	MEK	26° 36.8'	118° 32.7'	515	Archean sedimentary
Kununurra	KNA	15° 45.0'	128° 46.0'	55	Unweathered Sandstone

INSTRUMENTATION

Station	Component	Seismometer	Ts (sec)	Ts (sec)	Magnification	Recording Speed
MUN	Z, N, E.	World Wide Standard Set	1.0	0.75	25000 at 1 s.	60 mm/min
	Z.	" "	15.0	100	750 at 15s.	15
	N, E.	" "	15.0	100	375 at 15s.	15
KLG	Z.	Willmore MkII	1.0	0.75	16000 at 1 s.	60
	NE, SE.	Benioff	1.0	0.25	37000 at 1 s.	60
MEK	Z.	Willmore MkII	1.0	0.25	10000 at 1 s. (approx.)	60
KNA	Z.	Willmore MKI	1.0	0.25	21000 at 1 s.	60

SYMBOLS

M_L - Local earthquake magnitude

M_S - Surface wave magnitude

Copies of Mundaring records can be obtained from the World Data Centre-A. Additional information and copies of seismogram records from all stations can be obtained on request from:

Observer-in-Charge,
Geophysical Observatory,
MUNDARING. W.A. 6073.

International Seismological Centre

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T
MUNDARING (MUN)						
December.						
01	eP	09 44 58				
01	iP	12 57 13.6	D			
01	iP	18 23 17.4	C			
	iX	25 10.6				
			LZ	20.0	29 u	
			LN	20.0	23 u	
			LE	20.0	26 u	
01	iP	22 12 37.1	D	1.0	40mu	1.6
01	eP	23 07 02				
02	eP	15 34 26				
02	iP	16 02 57.9	C			
			LZ	20.0	200 u	
			LN	20.0	200 u	
			LE	20.0	240 u	
03	iP	05 19 48.8	D			
03	iP	07 09 15.2	D			
04	eP	17 27 45				
05	iP	09 59 52.4	C			
05	eP	16 43 45				
05	iP	22 09 25.1	D	0.8	90mu	2.0
05	iP	22 36 04.5	C	0.8	60mu	1.9
06	iP	04 16 25.1	C	0.9	245mu	2.4
06	eP	20 32 46				
07	iP	12 34 23.4	C			
07	iP	21 45 46.0	C			
07	iP	22 14 29.9	D			
08	iP	08 18 37.1	C	0.6	12mu	1.3
08	eP	09 06 33				
08	iP	17 27 06.0	C			
08	eP	18 48 47				
09	iP	08 22 45.0	D			
09	eP	11 55 10				
09	iP	16 27 56.1	D			
09	iP	16 47 47.3	D			
10	eP	00 15 07				
10	eP	02 43 27				
10	eP	04 54 04				
10	iP	08 57 53.0	C	1.0	56mu	1.7
10	eP	09 55 44				
10	iP	20 12 17.2	C	0.6	65mu	2.0
11	iP	09 13 02.9	D	0.4	33mu	1.9
11	iP	10 43 59.0	D	0.9	55mu	1.8
12		Nil				
13	iP	12 36 29.0	D			
13	iP	12 52 59.5	D			
14	eP	03 41 32				
14	iP	07 29 54.3	C			
14	iP	20 29 36.4	C			
15	iP	14 28 19.3	C			
15	iP	15 33 11.4	C	1.0	960mu	2.0
15	iP	16 16 50.4	C			
15	eP	21 46 58				
16	eP	01 20 35				
16	iP	19 59 50.4	C			
16	iP	20 57 06.5	C			
17	eP	04 16 48				

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
MUNDARING (MUN) Cont.							
December.							
17	iP	05 36 47.9	D				Meckering
	iS	36 59.0					ML = 2.1
17	iP	07 13 50.4	C				
17	iP	08 54 55.1	C	1.0	360mu	2.6	
17	iP	14 21 23.9	C				Calingiri
	eS	21 36					ML = 2.0
17	iP	15 01 23.9	C				
17	iP	16 26 39.2	D				Meckering
	iS	26 48.7					ML = 1.9
18	iP	04 27 01.8	C				
18	iP	18 28 52.9	C	0.9	31mu	1.5	
18	iP	23 56 43.0	D	1.0	700mu	2.8	
19	eS	00 01 47					
19	iP	02 36 45.7	C				
19	eP	02 43 22					
19	iP	10 44 35.8	C				
	eS	50 06					
			LZ	20.0	29 u		
			LN	20.0	22 u		
			LE	20.0	26 u		
20	iP	01 57 35.9	D				
20	eP	05 28 17					
20	iP	10 48 09.7	D				
	eX	49 26					
20	iP	12 04 57.6	C				
21	eP	05 13 27					
21	iP	13 01 28.1	D				
21	iP	13 34 36.1	C				
21	eP	14 13 32					
21	iP	14 45 38.2	C	0.8	210mu	2.4	
	eS	49 39					
			LZ	20.0	10 u		
			LN	20.0	9 u		
			LE	20.0	6 u		
21	eP	19 29 59					
22	iP	05 46 22.8	D				
23	iP	05 03 41.2	D				
23	iP	11 51 45.1	D				
23	eP	15 10 11					
23	iP	15 43 16.5	D	1.0	200mu	2.3	
23	eP	18 48 16					
23	eP	20 27 10					
23	eP	21 30 36					
24	iP	01 54 50.7	C				
	iS	58 52.0					
			LZ	20.0	1 u		
			LN	20.0	1 u		
			LE	20.0	1 u		
24	iP	04 40 47.2	C				
24	iP	08 20 07.2	D				
24	iP	11 34 34.7	D				
24	iP	13 18 34.5	D				
24	iP	16 29 47.2	C				
25	eP	12 20 49					
25	eP	17 13 10					
25	iP	20 23 42.5					Calingiri
	iS	23 54.8					ML = 2.4

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Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)		Amp.	LogA/T	
MUNDARING (MUN)								
December.								
25	iP	20 46 38.5	C					
25	iP	21 21 10.4	D					
25	iP	23 27 12.1	D					
25	eP	23 41 18						
26	eP	02 26 56						
26	eP	02 35 11						
26	iP	10 11 08.0	C					
26	eP	10 58 57						
26	iP	11 06 46.8	D		0.7	27mu	1.6	
	iS	10 29.0						
26	iP	11 43 36.4	C					
26	eP	13 11 33						
26	iP	15 15 36.2	C					
26	iP	18 26 07.6	D		0.3	200mu	2.8	Calingiri ML = 4.0
	iS	26 19.6						
26	iP	18 32 57.3	D		0.3	80mu	2.4	Calingiri ML = 3.2
	iS	33 09.5						
26	iP	21 58 11.6	D		0.4	93mu	2.4	Calingiri ML = 3.0
	iS	58 23.4						
27	iP	04 58 52.3	D					
27	iP	10 22 49.5	D					
27	eP	11 45 26						
	eS	49 15						
27	eP	12 05 56						
	eS	09 45						
27	iP	12 25 08.7	C					
27	eP	18 28 23						
	eS	32 33						
27	iP	22 52 39.1	D					
27	iP	23 12 11.7	C					
28	iP	00 33 12.2	D					
28	iP	06 07 04.7	C					
28	iP	09 29 10.2	D					
28	eP	17 47 15						
	eS	50 45						
28	iP	20 11 26.8	D		1.0	480mu	2.7	
				LZ	20.0	61 u		
				LN	20.0	42 u		
				LE	20.0	18 u		
29	iP	00 42 18.1	D					
29	iP	02 34 36.1	C		1.0	244mu	2.4	
29	iP	03 38 01.4	C					
29	eP	04 16 32						
29	eP	08 21 19						
29	iP	19 21 54.2	C					
29	iP	22 01 32.6	C					
	eS	06 14						
30	eP	00 54 00						
30	eP	03 49 21						
30	iP	04 15 08.7	D					
30	iP	08 18 13.3	D		0.8	84mu	2.0	
31	eP	02 49 27						
31	eP	07 22 26						
31	iP	08 55 20.0	C					

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Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T
KALGOORLIE (KLG)						
December.						
01	iP	12 56 36.9	D			
01	iP	18 22 39.8	C			
01	eP	23 06 49				
02	eP	15 33 50				
02	eP	16 02 21				
02	eP	19 23 51				
03	iP	05 19 45.3	D			
03	eP	07 08 54				
03	eP	08 05 52				
04		Nil				
05	iP	09 59 18.0	C			
05	iP	22 08 55.0	D			
05	iP	22 35 38.0	C	1.0	410mu	2.6
	eS	40 28				
06	iP	04 15 58.5	C			
06	iP	20 32 29.5	C			
07	iP	21 45 27.0	C			
08	eP	09 06 48				
08	eP	17 26 42				
09	iP	11 54 34.3	C			
09	eP	16 27 31				
09	iP	16 47 43.9	C			
10	eP	04 53 56				
10	iP	08 57 16.9	C			
10	eP	09 55 44				
10	iP	20 11 56.7	C			
11		Nil				
12	eP	01 19 31				
13		Nil				
14	eP	07 29 34				
15-16		Records fogged				
17		No record				
18	iP	23 56 27.5	D			
19	iP	02 42 47.8	C			
19	iP	04 50 30.1	C	1.0	56mu	1.7
19	iP	10 44 58.8	D			
20	eP	05 32 18				
20	eP	10 47 34				
20	iP	12 04 26.9	D			
21	eP	13 01 12				
21	iP	14 13 15.3	C			
21	iP	14 45 30.4	C	1.0	465mu	2.6
	eS	49 20				
22	iP	05 45 47.9	D			
23	iP	07 14 26.4	D			
23	iP	07 40 03.7	D			
23	iP	11 51 19.4	D			
23	eP	15 09 54				
23	iP	15 43 04.3	C			
24	iP	01 54 43.2	C			
	iS	58 35.9				
24	iP	04 40 22.0	C			
24	iP	08 19 59.9	D	1.0	702mu	2.8
24	iP	13 17 59.1	D			
25	eP	17 13 14				
25	iP	20 46 22.7	C			
26	iP	02 34 52.7	C			

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
KALGOORLIE (KLG) Cont.							
December.							
26	eP	10 11 19					
26	iP	10 58 43.9	C				
26	iP	11 06 24.0	D				
26	iP	13 11 14.6	C				
26	iP	15 15 11.0	C				
26	iP	18 26 54.5	D	0.4	53mu	2.1	Calingiri
	iS	27 42.3					
26	iP	18 34 6.7	D	0.3	14mu	1.7	Calingiri
	iS	34 51.7					
26	iP	19 14 59.8	C				
26	iP	21 58 58.8	D				Calingiri
	iS	59 45.5					
27	iP	11 45 10.6	C				
27	iP	12 05 40.4	C				
27	iP	12 24 44.8	D.				
27	iP	18 28 28.2	D				
	eS	31 57					
28	iP	09 28 50.8	D				
28	iP	20 10 50.5	D	1.0	81mu	2.9	
29	iP	02 33 59.4	D				
29	iP	03 37 39.5	D				
29	iP	19 21 29.9	D				
29	iP	22 01 39.9	C				
	eS	06 32					
30	iP	03 48 45.1	D				
30	iP	04 14 51.1	C				
30	iP	05 28 39.9	C				
30	iP	08 18 24.8	C				
31	iP	02 56 29.6	D				
31	iP	07 22 13.0	D				
MEEKATHARRA (MEK)							
December.							
01	iP	12 56 38.1	D				
01	iP	18 22 51.6	C				
01	iP	18 59 33.5	D				
01	iP	22 12 26.0	D				
01	iP	23 06 19.2	D				
02	iP	13 16 48.4	C				
02	eP	15 25 37					
02	iP	15 34 00.5	C				
02	iP	16 02 33.2	C				
02	iP	16 10 22.6	D				
02	iP	16 15 23.5	D				
02	iP	17 15 11.2	D				
03	iP	07 08 23.4	C				
03	iP	08 06 03.9	C				
04		Nil					
05	eP	09 59 11					
05	iP	16 42 54.6	D				
05	iP	22 09 15.0	D				
05	iP	22 35 13.5	C				
05	iP	23 18 12.3	D				
06	iP	04 15 33.9	C				

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Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
MEEKATHARRA (MEK) Cont.							
December.							
07	iP	21 45 07.0	C				
08	iP	00 50 12.7	D				
08	iP	17 26 14.6	C				
08	iP	19 48 55.6	C				
09	iP	16 27 04.4	D				
10	iP	00 23 57.1	D				
	eS	26 29					
10	iP	04 54 10.9	C				
10	iP	08 57 14.0	C				
10	eP	09 53 01					
	eS	55 48					
10	eP	09 54 41					
	eS	57 29					
10	iP	20 11 27.3	C				
11	iP	09 12 14.0	D				
11	iP	10 44 07.3	C				
12	iP	01 19 52.8	C				
12	iP	01 23 07.0					Meekering
	eS	24 04					
12	iP	07 14 05.1	C				
13	iP	12 35 40.1	C				
13	iP	12 52 27.9	D				
14	eP	03 40 41					
14	iP	07 29 04.0	C				
14	eP	20 28 47					
15	iP	14 27 28.2	C				
15	iP	15 32 51.7	C				
15	eP	21 46 06					
16	iP	19 59 00.1	D				
17	iP	07 13 31.2	C				
17	iP	08 55 21.5	C				
18	iP	23 55 55.7	C				
19	iP	02 36 09.9	C				
19	iP	02 42 42.9	C				
19	iP	04 50 27.9	C				
19	iP	10 43 54.2	C				
20	iP	01 56 45.9	D				
20	eP	05 27 23					
20	iP	10 47 27.0	D				
20	iP	12 04 46.0	D				
21	iP	13 00 40.3	D				
21	eP	14 12 44					
21	iP	14 44 39.2	D				
21	eP	19 29 08					
22	iP	05 46 08.9	D				
22	iP	18 18 44.2	D				
23	iP	07 14 04.5	C				
23	iP	11 51 03.5	D				
23	iP	15 43 15.7	D				
23	iP	21 29 33.9					Lake McKay
	iS	31 03.9					
23	iP	22 58 07.1	D				
24	iP	01 53 52.0	D				
	eS	56 49					
24	iP	08 20 10.9	D				
24	iP	13 17 53.5	C				
24	eP	14 48 50					

Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T	
MEEKATHARRA (MEK) Cont.							
December.							
24	iP	16 28 49.0	C				
	eS	31 45					
25	iP	17 12 17.8	D				
25	iP	20 45 32.2	C				
25	eP	21 19 58					
25	eP	23 25 59					
26	iP	02 34 02.3	C				
	eS	36 50					
26	eP	10 57 53					
	eS	11 00 39					
26	iP	11 05 35.3	C				
	eS	08 21					
26	eP	11 42 25					
	eS	45 10					
26	eP	13 10 24					
	eS	13 11					
26	iP	15 14 43.0	D				
	eS	18 35					
26	eP	18 27 01					Calingiri
	eS	27 52					
26	eP	18 33 52					Calingiri
	eS	34 44					
26	iP	21 14 15.2	D				
26	iP	21 59 05.3	C				Calingiri
	eS	59 59					
27	iP	11 44 21.5	D				
	eS	47 07					
27	eP	12 04 50					
	eS	07 36					
27	iP	12 24 28.8	D				
27	iP	18 27 37.5	C				
	eS	30 24					
28	eP	00 32 00					
	eS	34 45					
28	iP	09 28 17.0	D				
28	iP	13 38 37.2	D				
28	eP	17 46 02					
	eS	48 38					
28	iP	20 10 51.7	D				
29	iP	02 34 10.1	D				
29	iP	03 37 01.7	C				
29	iP	08 21 29.6	D				
29	iP	19 21 03.0	C				
29	iP	22 00 54.2	C				
	eS	04 39					
29	eP	23 43 22					
	eS	46 27					
30	eP	00 49 07					
	eS	51 51					
30	eP	01 22 16					
30	eP	03 48 44					
30	iP	04 14 20.4	C				
30	iP	08 17 43.7	C				
30	eP	16 52 28					
31	eP	07 21 23					
	eS	24 13					

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Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T
KUNUNURRA (KNA)						
December.						
01	iP	12 54 44.6	D			
01	eP	18 21 20				
01	iP	23 03 31.2	C			
02	iP	12 01 17.4	D			
03	iP	01 30 47.8	D			
03	iP	01 40 56.1	C			
03	iP	13 15 34.7	C			
03	iP	15 32 27.6	C			
03	iP	16 01 00.7	D			
03	iP	17 36 09.1	D			
04	iP	07 06 13.6	D			
04	iP	08 04 32.5	C			
04	eP	17 27 01				
04	iP	22 08 23.4	D			
05	iP	09 56 04.3	D			
05	iP	16 41 01.0	C			
05	iP	22 08 21.7	D			
05	iP	22 32 31.9	D			
06	iP	04 12 53.1	D			
06	iP	20 30 48.0	D			
07	iP	01 00 48.2	D			
07	iP	04 31 32.1	C			
07	iP	21 43 32.2	D			
08	iP	00 48 40.8	C			
08	iP	17 23 59.4	C			
09	iP	08 21 42.9	D			
09	eP	11 54 02				
09	iP	16 24 22.8	D			
10	eP	00 23 13				
10	eP	02 47 48				
10	iP	04 54 14.4	C			
10	iP	05 46 26.5	C			
10	iP	05 52 22.9	C			
10	iP	08 55 09.3	C			
10	iP	11 57 17.1	C			
10	iP	14 07 11.7	C			
10	iP	17 49 13.9	C			
10	iP	17 55 59.8	C			
10	iP	20 09 30.2	C			
10	iP	22 06 15.2	C			
11	eP	09 10 30.				
11	iP	15 37 34.5	C			
	is	39 08.0				
12	iP	01 19 02.8	C			
12	iP	07 13 59.1	C			
12	iP	19 40 26.1	D			
12	iP	23 59 52.6	C			
13	iP	00 54 02.9	D			
13	iP	04 13 23.0	C			
14-15		Timemarks erratic				
16	iP	19 56 20.4	C			
16	iP	20 55 59.2	D			
16	iP	21 26 10.9	D			
17		Nil				

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Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T
KUNUNURRA (KNA) Cont.						
December.						
18	iP	23 54 25.1	D			
19	iP	02 34 14.5	C			
19	iP	04 48 30.3	D			
19	eP	10 41 44				
19	iP	14 34 07.9	D			
20	iP	01 54 57.3	D			
20	iP	04 24 56.1	C			
20	iP	05 24 47.1	D			
20	iP	07 44 14.0	D			
20	iP	10 45 13.2	D			
20	iP	12 03 49.6	D			
20	iP	16 30 34.8	C			
20	iP	16 39 53.5	D			
21	iP	01 09 21.7	D			
21	iP	07 41 19.5	C			
21	iP	07 52 49.6	C			
21	eP	12 58 56				
21	iP	13 30 24.5	C			
21	iP	14 11 02.8	C			
21	iP	14 43 50.6	D			
21	iP	19 26 26.0	C			
22	iP	02 08 04.3	C			
23-25		No time corrections				
26	iP	11 04 09.7	C			
26	iP	13 09 01.6	D			
26	iP	13 59 26.0	C			
26	iP	15 12 03.3	D			
26	iP	19 14 15.4	C			
26	iP	21 12 42.1	D			
27	iP	06 52 17.9	C			
	eS	53 44				
27	iP	11 42 55.7	D			
27	iP	12 03 25.3	D			
27	iP	12 22 37.7	C			
27	iP	14 15 38.7	C			
27	eP	18 26 14				
28	iP	07 20 42.1	D			
28	iP	09 26 18.2	C			
28	iP	12 26 10.1	C			
28	iP	13 36 40.5	D			
28	iP	20 08 59.0	D			
28	iP	21 51 09.8	D			
29	iP	00 04 01.4	D			
29	eP	00 38 53				
29	iP	02 32 35.4	C			
29	iP	03 34 49.9	C			
29	iP	08 21 32.3	C			
29	iP	19 18 57.0	D			
29	iP	22 00 59.8	C			
30	iP	03 46 47.9	C			
30	iP	04 12 39.2	C			
30	iP	16 49 46.5	C			
31	iP	02 34 14.9	D			
31	eP	02 40 24				
31	eP	02 48 06				
31	iP	07 19 55.1	D			
31	iP	08 52 53.0	D			

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Date 1970	Phase	G.M.T.	Dir.	Per. (sec.)	Amp.	LogA/T
KUNUNURRA (KNA) Cont.						
December.						
31	iP	18 34 35.6	D			
	eS	36 05				

P.J. Grogson,
Observer-in-Charge.

International Seismological Centre