IV. SOLAR RADIO NOISE DATA

CO-OPERATING OBSERVATORIES

Details relating to the contributors to the first quarter of 1950 are as follows:-

OBSERVING STATION	ABBREVIATION	FREQUENCIES USED Mc/s	NORMAL OBSERVING PERIOD (Hours U.T.)
Commonwealth Observatory, Canberra, Australia	Can	200	20 - 08
Cavendish Laboratory, Cambridge, England	Cav	80	10 - 14
		175	10 - 14
Radiophysics Laboratory, Sydney, Australia	Syd	62	19 - 08
		98	19 - 08
		600	22 - 07
		1200	22 - 07
Meudon Observatory, Paris, France	Meu	545	06 - 16
National Research Council, Ottawa, Canada	Ott	2800	15 - 22
Laboratoire de Physique, Marcoussis, France	Mar	158	11 - 13
Army Operational Research Group, Byfleet, Surrey	Byf	73	08 - 16

TABULATED QUANTITIES

1. FLUX The unit for this tabulation is 10^{-22} watts metre^{-2}(c/s)$^{-1}$. The values can readily be converted into equivalent temperature T of the sun's visible disc by the relation

$$\text{Flux} = 2.09 \times 10^{-44} \nu^2 T,$$

where ν is the frequency in cycles per second.

2. POLARISATION The radio-electric (not optical) convention is adopted so that for R polarisation the vector in a fixed plane perpendicular to the ray rotates clockwise when viewed in the direction of propagation. The values quoted are percentage polarisation, i.e.

$$100 \frac{I_R - I_L}{I_R + I_L}$$

where I_R and I_L are the intensities.

3. VARIABILITY The variability is described by indices on a scale 0 to 3 as follows:-

0 no observable variability
1 slight variability
2 moderate variability
3 violent variability

4. OUTSTANDING OCCURRENCES

S = Simple rise and fall of intensity.
C = Complex variation of intensity.
A = Appears to be part of general activity.
D = Distinct from (i.e. apparently superimposed upon) the general activity.
P = Sudden or significant change of polarisation.
M = Two or more peaks separated by relatively long periods of quietness.
E = Sudden commencement of activity.

The two maximum intensity columns contain, firstly, the maximum instantaneous value, and secondly, the maximum smoothed value measured above the previous level. The second is thought to be more suitable for comparative purposes. The intensity unit in these columns is 10^{-21} watts metre^{-2}(c/s)$^{-1}$. If an occurrence is observed on two or more frequencies at the same time only one is tabulated in detail, and the others briefly indicated by the station, frequency, and starting time.

1. FLUX

Daily medians of radio-noise flux received from the sun in units of 10^{-22} watts metre^{-2} (c/s)$^{-1}$

	JANUARY 1950									FEBRUARY 1950									MARCH 1950								
	Canberra	Cavendish		Sydney				Ottawa	Marcousis	Canberra	Cavendish		Sydney				Ottawa	Marcousis	Canberra	Cavendish		Sydney				Ottawa	Marcousis
Mc/s	200	80	175	62	98	600	1200	2800	158	200	80	175	62	98	600	1200	2800	158	200	80	175	62	98	600	1200	2800	158
Date																											
1	10	2	-	G	G	-	-	129	-	9	3	3	G	G	59	82	110	7	7	3	7	G	G	52	70	101	4
2	10	-	-	G	G	-	-	-	-	11	3	3	G	G	59	70	108	4	9	2	6	G	G	44	57	99	3
3	9	-	-	G	G	-	-	133	-	10	3	2	G	G	58	75	105	5	9	2	7	G	G	50	59	106	4
4	8	3	-	G	G	-	-	129	-	8	2	3	G	G	49	70	97	5	9	2	8	G	G	-	-	107	5
5	6	3	-	G	G	-	-	131	-	8	2	3	G	G	-	-	97	4	10	2	6	-	-	-	-	-	5
6	5	2	-	G	G	-	-	125	-	11	2	4	G	G	42	-	86	6	9	3	6	G	G	50	58	116	4
7	5	2	-	G	G	-	-	116	-	8	3	4	G	G	42	73	88	-	11	2	5	G	G	53	87	133	5
8	6	2	-	G	G	-	-	112	-	9	2	3	G	G	41	70	88	8	17	15	80	9	39	56	72	131	15
9	8	3	-	G	G	-	-	108	-	10	5	-	G	G	40	63	91	17	10	2	10	G	G	52	54	138	10
10	8	3	-	G	G	58	-	99	-	9	3	4	G	G	44	-	99	14	7	4	11	G	G	53	74	146	6
11	7	2	-	G	G	47	-	-	-	11	2	7	G	G	45	-	-	10	10	3	14	-	-	51	68	138	10
12	7	2	-	G	G	52	-	112	-	38	2	30	G	-	58	-	-	17	13	5	10	-	-	-	59	-	17
13	6	2	3	G	G	57	-	112	-	57	10	-	15	68	74	79	129	52	16	3	9	G	G	>52	81	135	10
14	8	3	-	G	G	-	-	-	-	123	400	110	77	411	76	86	138	138	12	2	7	G	G	48	81	135	9
15	8	3	3	G	G	-	-	-	-	135	75	50	157	524	75	76	161	52	15	3	-	G	G	52	60	133	12
16	6	3	4	G	G	54	91	114	7	69	10	50	17	152	59	84	-	72	23	60	20	G	46	55	59	127	14
17	7	3	3	G	G	57	90	110	5	42	300	15	29	62	100	135	159	14	22	15	240	G	11	55	75	125	15
18	12	-	3	G	G	-	76	-	6	53	40	100	136	206	55	110	168	64	31	80	-	33	108	-	-	114	70
19	14	-	3	7	G	-	69	120	6	26	100	60	185	103	57	100	-	34	24	80	60	46	130	-	-	-	32
20	26	9	6	8	43	-	68	144	13	53	-	-	175	176	61	89	174	94	25	150	15	77	113	49	-	101	19
21	44	-	18	G	89	-	-	146	23	36	90	70	32	62	67	80	157	25	10	35	8	21	32	52	51	105	13
22	61	20	17	9	52	-	-	-	17	202	50	-	1920	3600	545	134	151	46	9	2	-	G	G	43	50	97	13
23	34	35	-	16	28	58	74	157	54	18	18	-	14	26	59	86	140	19	8	2	3	G	G	40	54	-	5
24	82	-	-	19	128	57	75	168	120	17	6	15	G	-	58	85	129	15	9	3	4	G	G	39	54	101	4
25	73	100	8	32	89	59	96	157	50	12	3	9	G	-	61	-	116	7	8	2	10	G	G	-	-	99	7
26	24	14	9	G	G	66	90	142	13	10	10	-	G	-	-	-	-	8	8	2	6	G	G	-	-	-	4
27	12	-	-	G	G	64	95	142	7	8	3	6	G	-	47	68	110	5	8	-	5	G	G	34	74	101	4
28	10	5	3	G	G	63	81	142	8	9	4	3	G	-	56	71	103	4	8	2	5	G	G	40	64	110	4
29	10	4	3	G	G	63	100	-	8										8	2	3	G	G	43	59	116	2
30	10	3	2	G	G	-	-	129	12										7	2	4	G	G	33	79	123	-
31	9	2	6	G	G	58	78	116	7										6	2	3	G	G	-	-	118	5

G = median level below threshold (6 units at 62 Mc/s and 8 units at 98 Mc/s).

2. POLARISATION

Daily medians or means of polarisation sense and percentage

	JANUARY 1950				FEBRUARY 1950				MARCH 1950			
	Canberra	Cavendish		Sydney	Canberra	Cavendish		Sydney	Canberra	Cavendish		Sydney
Mc/s	200	80	175	98	200	80	175	98	200	80	175	98
Date												
1	-	-	-	-	0	0	0	-	-	0	-	-
2	-	-	-	-	-	0	0	-	-	0	-	-
3	0	-	-	-	-	0	0	-	-	0	-	-
4	0	0	-	-	-	0	0	-	-	-	-	-
5	0	0	-	-	-	-	-	-	-	-	-	-
6	0	0	-	-	0	-	-	-	-	-	-	-
7	-	0	-	-	0	0	0	-	-	-	-	L60
8	-	-	-	-	0	0	0	-	-	-	-	L40
9	0	-	-	-	0	0	0	-	L35	-	-	-
10	0	0	-	-	-	0	R20	-	L33	-	-	-
11	R 4	0	-	-	-	-	-	-	-	-	-	-
12	R 6	0	-	-	-	-	-	-	-	-	-	-
13	R 9	0	-	-	L21	-	-	L40	0	-	-	-
14	-	0	0	R15	L44	L50	-	L50	-	-	-	-
15	-	-	-	-	-	-	R20	L50	0	0	-	R70
16	R12	0	0	-	V	-	-	L30	R45	R C	-	R50
17	-	0	0	-	0	R50	-	V	R39	-	R C	R40
18	-	0	L20	0	R40	R C	-	R75	R53	R50	-	R65
19	-	0	0	-	R26	-	R C	R75	R44	R50	R20	R70
20	R55	0	0	R80	R49	-	-	R80	R65	R50	0	R70
21	R50	-	0	R50	R40	-	-	R70	R20	R50	0	R60
22	-	0	L20	R50	V	-	-	L45	-	0	0	-
23	R30	L20	-	R55	0	-	-	V	0	0	0	-
24	R55	-	-	R65	R16	L20	R20	-	-	0	0	-
25	R55	L20	R20	R60	-	-	-	-	-	0	0	-
26	R50	R20	R C	R55	-	0	-	-	-	-	-	-
27	R12	-	-	-	-	-	0	-	-	-	0	-
28	-	-	0	-	-	0	-	-	L13	0	-	-
29	-	0	-	-					0	0	0	-
30	-	0	0	-					-	0	0	-
31	R12	0	0	-					-	0	0	-

V = too variable to quote a median value
C = 100% or complete polarisation

3. VARIABILITY

Daily indices on a scale 0-3 of the variability or activity of the solar noise

	JANUARY 1950								FEBRUARY 1950								MARCH 1950							
	Can-berra	Cavendish		Sydney				Mar-cous-sis	Can-berra	Cavendish		Sydney				Mar-cous-sis	Can-berra	Cavendish		Sydney				Mar-cous-sis
Mc/s	200	80	175	62	98	600	1200	158	200	80	175	62	98	600	1200	158	200	80	175	62	98	600	1200	158
Date																								
1	0	0	-	-	-	-	-	-	0	1	0	-	-	1	1	1	0	1	0	-	-	0	0	0
2	0	-	-	-	-	-	-	-	0	1	1	-	-	0	0	1	1	0	0	-	-	0	0	0
3	0	-	-	-	-	-	-	-	0	1	0	-	-	0	0	1	1	1	0	-	-	0	0	1
4	1	2	-	-	-	-	-	-	0	1	1	-	-	0	0	1	2	1	1	-	-	-	-	1
5	0	0	-	-	-	-	-	-	0	1	0	-	-	0	-	1	1	1	0	-	-	-	-	-
6	0	0	-	-	-	-	-	-	0	1	0	-	-	0	0	0	1	0	0	-	-	0	0	1
7	0	0	-	-	-	-	-	-	0	1	0	-	-	0	0	-	1	0	1	-	-	0	1	-
8	0	1	-	-	-	-	-	-	0	1	1	-	-	0	0	1	2	2	3	0	0	1	0	2
9	0	0	-	-	-	-	-	-	0	3	-	-	-	0	0	2	2	0	1	-	0	0	0	-
10	0	0	-	-	-	1	1	-	0	0	1	-	-	0	-	2	1	0	1	-	0	0	0	2
11	0	0	-	-	-	1	0	-	0	0	1	-	-	0	-	-	1	0	1	-	-	0	0	2
12	0	1	-	-	-	0	0	-	2	1	2	-	-	1	-	2	1	1	1	-	-	0	0	1
13	0	-	0	-	-	0	-	-	3	2	-	3	2	2	0	3	2	1	0	-	0	2	0	1
14	0	1	-	-	-	-	-	-	3	3	2	3	3	2	0	3	1	1	1	0	0	0	0	2
15	0	0	-	-	-	-	-	-	2	3	2	3	3	2	1	3	2	1	-	0	0	0	0	2
16	0	1	1	-	-	0	0	1	2	2	1	2	2	1	0	3	2	2	1	1	2	0	0	2
17	1	1	0	-	-	0	0	-	2	2	1	2	2	3	0	1	3	2	3	1	1	1	0	3
18	2	-	0	-	-	0	0	1	2	2	2	1	2	0	1	2	2	3	-	1	2	-	-	2
19	1	-	0	0	0	0	0	2	1	3	2	1	1	1	1	2	1	3	1	1	1	-	-	2
20	2	2	2	0	1	-	1	2	1	-	-	2	2	-	0	2	1	1	0	1	0	0	-	1
21	2	-	2	2	2	-	-	2	1	2	-	1	2	0	0	2	1	2	0	0	0	0	0	1
22	2	1	1	3	2	-	-	2	1	1	-	1	1	3	0	3	1	0	-	-	-	0	0	1
23	2	2	-	2	2	0	1	2	1	2	-	1	2	0	0	2	0	0	0	-	-	0	0	2
24	1	-	-	3	3	0	0	2	2	1	1	-	-	0	0	1	0	1	0	-	-	0	0	1
25	2	3	2	2	2	0	0	2	1	0	0	-	-	0	-	1	0	0	0	-	-	0	-	-
26	2	1	2	0	1	1	0	2	1	2	-	-	-	-	-	2	1	1	1	-	-	-	-	0
27	1	-	-	-	-	1	1	1	1	1	0	-	-	0	0	2	1	-	1	-	-	0	0	1
28	1	1	1	-	-	1	0	-	1	1	0	-	-	0	0	1	2	1	0	-	-	0	0	1
29	1	1	1	-	-	0	0	1									2	1	0	-	-	0	0	1
30	0	0	0	-	-	-	-	1									0	0	0	-	-	0	0	-
31	0	1	1	-	-	0	0	1									1	1	0	-	-	-	-	1

4. OUTSTANDING OCCURRENCES

Station and frequency	Date 1950	Starting time	Duration	Type	Maximum intensity		Polar-isation	Obs. on other frequencies			Remarks
					Inst.	Smooth					
Mc/s		U.T.	Minutes		10^{-21} w m^{-2} (c/s)$^{-1}$						
Can 200	Jan 3	0438	2	CD	22	9					
Meu 545	5	1412	18	M	3	3					
Meu 545	5	1505	5	M	4	3					
Meu 545	6	1420	20	M	4	3					
Meu 545	9	1328	10	M	3	3					
Meu 545	9	1342	0.2	SD	3	3					
Meu 545	9	1441	0.5	SD	4	4					
Syd 1200	11	2326	0.2	SD	9	3					
Ott 2800	12	1916	1.5	SD		1					
Syd 600	13	0420	1	CD	8	1					
Syd 98	14	1939	58	CA	60	15	R	Can	200	1935	
Syd 1200	19	2109	9	CD	8	0					
Syd 1200	20	0341	0.2	SD	8	2					
Byf 73	20	1238	2	CD							
Cav 80	20	1244	14	CD		30		Byf	73	1254	
Cav 80	20	1440	60	SD	100	70		Cav	175	1430	
Ott 2800	20	1631	9	SD		1					
Syd 98	20	2354	3.5	CD	>100	50	0	Syd	62	2354	Fade.
								Can	200	2355	
Syd 98	21	0334	7.5	CD	120	15	0	Syd	62	0332	
								Can	200	0340	
Ott 2800	21	1916	2	SD		1					
Syd 62	22	0002	4.2	CD	80	14		Syd	98	0002	
Cav 80	22	1455	5	CD		>60		Cav	175	1458	
Syd 600	23	0254	0.7	CD	9	2		Syd	1200	0254	
Syd 1200	23	0318	0.2	SD	8	1					
Syd 1200	23	2215	7.5	CD	> 12	> 5					
Byf 73	24	1504	15	M		>15					
Ott 2800	24	1707	3	SD		4					
Byf 73	25	1048	1	CA		>15					
Cav 175	25	1230	90	SD		23		Cav	80	1237	
Syd 1200	26	0252	0.2	SD	11	2					Largest of several.
Syd 600	26	0343	10	CD	8	1					
Byf 73	26	0929	8	CD		>15					
Cav 175	28	1235	0.5	SD	14	10					
Meu 545	30	1040	0.5	SD	4	3					
Meu 545	30	1529	0.8	SD	4	4					
Can 200	31	2145	2	CD	26	2					
Syd 98	Feb 1	2204	8.7	CD	>110	>110	O→L	Syd	1200	2147	Flare. Fade.
								Ott	2800	2155	
								Can	200	2157	
								Syd	62	2304	

Ott	2800	2	1957	8	SD		2							
Meu	545	4	1422	1	SD	3	2							
Meu	545	4	1532	1	SD	16	8							
Cav	80	9	1222	30	SD		40							
Cav	80	13	1200	30	SD		50							
Ott	2800	13	1913	40	CD		45							
Syd	98	13	2045	10	P			R→L						
Can	200	13	2252	2	CA	50	32							
Syd	98	14	0005	55	P			L→R						
Syd	98	14	0230	15	P			R→L						
Can	200	14	0449	2	CA	630	46							
Cav	80	14	1411	1.5	SD	2000	1500		Cav	175	1411			
Ott	2800	14	1630	210			8							
Syd	600	15	0258	1	CD	12	3							
Syd	1200	15	0312	25	CD	>14	>3		Syd	600	0307			
Syd	1200	15	0359	0.3	CD	>14	>3							
Syd	1200	15	0614	27.5	CD	13	2							Largest of several.
Syd	600	15	0645	2	CD	34	15							
Byf	73	15	0841	1	SA		>15							
Byf	73	15	0908	45	M		>15							
Byf	73	15	1124	1	CA		>15							
Byf	73	15	1300	2.5	CA		>15							
Byf	73	15	1614	0.8	CA		>15							
Syd	98	15	2025	25	P			R→L						
Syd	600	15	2215	0.1	SD	23	23							Largest of many.
Syd	98	16	0047	5	CD	>175	25	0	Syd	62	0047			
									Syd	1200	0050			
									Syd	600	0049			
Syd	1200	16	0205	0.2	SD	12	3							Largest of several.
Syd	98	16	0217	4	CA	> 95	75	L						
Syd	1200	16	0258	0.2	SD	13	4							
Syd	98	16	0358	30	CD	> 95	10	0.R	Syd	62	0358			
Syd	62	16	0532	30	CD	>110	8		Syd	98	0532			
Syd	98	16	0535		P			L→O						
Syd	98	16	0715		P			O→R						
Syd	98	16	0756	11.5	CD	>115	8	O						
Byf	73	16	1000	2	CA		>15							
Byf	73	16	1053	6	M		>15		Meu	545	1050			
Byf	73	16	1135	3	CA		>15							
Byf	73	16	1420	1.5	CA		>15							
Syd	98	16	2304	1.2	CD	>110	60							
Syd	98	17	0127	35	CD	>150	120	O→R	Syd	1200	0126			Flare. Fade.
									Can	200	0127			
									Syd	62	0128			
									Syd	600	0128			
Can	200	17	0506	28	SD	24	13							
Can	200	17	0418	2	CD	28	9							
Can	200	17	0551	18	SD	15	8							
Can	200	17	0822	> 20	MA	24	8							
Byf	73	17	0846	110	MA		>15							
Ott	2800	17	1651	120			3							
Can	200	18	0145	2	CA	158	51							
Syd	600	18	0215	3	M	> 16	4							
Syd	98	18	0247	15	CD	180	14	0	Syd	62	0247			
Can	200	18	0645	9	CD	25	8							
Byf	73	18	0800	>480	CA		>15							
Ott	2800	18	1508	17	CD		6							
Can	200	18	2306	33	CD	180	14		Syd	98	2216			
									Syd	62	2219			
									Syd	1200	2224			
									Syd	600	2229			
Syd	98	19	0415	8.7	CD	210	35	0	Syd	62	0415			
									Syd	1200	0424			
Syd	600	19	0509	29	CD	10	1							
Syd	1200	19	0645	60	CD	20	3							
Byf	73	19	0800	>480	CA		>15							
Syd	98	19	2121	3.5	CD	90	28	0	Syd	62	2128			
Syd	1200	19	2324	2	CD	10	1							
Syd	98	20	0259	24	CD	150	30	0	Syd	62	0305			
Syd	600	20	0325	3	CD	11	1							
Syd	62	20	0413	5.5	CA	125	50							
Syd	600	20	0457	4.5	CD	11	1							
Byf	73	20	0722	20	MA		> 15							
Byf	73	20	0854	1.5	CA		>15							
Byf	73	20	1008	75	MA		>15							
Ott	2800	20	1518	10	SD		27		Byf	73	1528			
Syd	1200	21	2341	125	CD	6000	2000		Can	200	2340			Flare. Fade.
									Syd	62	2340			
									Syd	98	2340			
									Syd	600	2340			
Syd	98	22	0010	5	P			R→L						
Syd	98	22	0040	3	P			L→R						
Syd	98	22	0105	2	P			R→L						
Byf	73	22	0721	2	SD		> 15							
Byf	73	22	1017	0.8	CA		>15							
Syd	62	23	0140	11	CD	> 85	6							
Syd	62	23	0316	1	CD	250	135							
Syd	600	23	0322	0.3	CD	13	5							
Syd	98	23	0640		P			L→R						
Syd	98	23	0718	5	CD	100	15	0	Syd	62	0718			
									Byf	73	0720			
Meu	545	23	1310	3	SD	4	2							
Syd	600	24	0010	1	CD	23	5							
Syd	1200	24	0408	7	CD	23	2							
Can	200	24	0429		E	17	3							
Syd	600	24	0446	2.5	CD	16	5							
Ott	2800	27	1702	2.5	SD		2							
Can	200	Mar 4	2203	2	CD	10	3							
Can	200	4	2229	11	CDM	190	14							
Can	200	5	0053	3	CDM	22	6							
Byf	73	7	1318	0.8	SD		>15							
Can	200	8	0213	4	CDM	19	3							
Syd	600	8	0231	0.5	CD	7	1							Largest of several.
Syd	600	8	0437	1.5	CD	7	1							
Syd	600	8	0446	10	CD	42	22							

Syd	600	8	0743	0.3	GD	> 8	> 3				
Ott	2800	8	2155	5	SD		3				
Ott	2800	9	2041	20	SD		1				
Ott	2800	10	1648	2	SD		1				
Ott	2800	11	1702	15	SD		1				
Ott	2800	11	1943	1.5	SD		2				
Syd	1200	11	2101	1	GD	14	3				
Syd	600	11	2116	0.5	SD	8	3				
Meu	545	12	1450	55	SD	6	6				
Syd	600	13	0010	0.5	GD	11	6				
Syd	1200	13	0211	1	GD	8	1				
Syd	600	13	0351	51	GD	4	0				
Can	200	13	0515	2	CDM	23	6				
Syd	98	13	0626	47	GD	23	7				
Can	200	15	0156	1	CDM	23	6				
Can	200	16	0749	9	CDM	35	5				
Byf	73	16	1000	2	CA		>>15				
Byf	73	16	1053	6	M		>>15				
Byf	73	16	1135	3	CA		>15				
Cav	80	16	1342	1	SD		200		Cav	175 1342	
Byf	73	16	1420	1.5	CA		>15				
Ott	2800	16	1843	15	SD		9				
Cav	80	17	1428	1.5	SD	200	150				
Syd	98	18	0144	17.5	CA	80	30	R			
Syd	62	18	0351	3	GD	80	15				
Byf	73	18	1006	2	CA		>15				
Byf	73	18	1336	1.5	CA		>15				
Byf	73	19	0640	4.5	CA		>15				
Byf	73	19	0734	2	CA		>15				
Byf	73	19	1014	1.5	CA		>15				
Byf	73	19	1051	5	CA		>15				
Can	200	20	2112	28	CDM	25	3				
Byf	73	21	0816	1	SA		>15				
Meu	545	21	0837	1	SD	10	7				
Cav	80	22	1342	0.5	SD		50				
Meu	545	22	1403	3	MD	5	4				
Meu	545	22	1446	11	MD	3	3				
Syd	1200	23	0056	1	GD	12	2				
Syd	1200	23	0114	0.2	SD	6	1		Syd	600 0114	
Byf	73	23	1341	0.5	SD		>>15				
Syd	600	24	0335	1	GD	> 6	> 1				Larger of two.
Meu	545	24	1411	0.1	SD	1	1				
Meu	545	24	1424	0.2	SD	2	2				
Syd	600	25	0026	1	GD	4	1				
Cav	175	30	1253	1	SD	16	13				

Canberra, January 1951

R.v.d.R. Woolley

IV. SOLAR RADIO NOISE DATA

CO-OPERATING OBSERVATORIES

Details relating to the contributors to the second quarter of 1950 are as follows:-

OBSERVING STATION	ABBREVIATION	FREQUENCIES USED Mc/s	NORMAL OBSERVING PERIOD (Hours U.T.)
Commonwealth Observatory, Canberra, Australia	Can	200	20 - 08
Cavendish Laboratory, Cambridge, England	Cav	80 175	10 - 15 10 - 15
Cornell University, Ithaca, N.Y., U.S.A.	Cor	200	10 - 20
Radiophysics Labotatory, Sydney, Australia	Syd	62 98 600 1200	21 - 06 21 - 06 22 - 07 22 - 07
Meudon Observatory, Paris, France	Meu	255 545	06 - 17 06 - 17
National Research Council, Ottawa, Canada	Ott	2800	14 - 24
Laboratoire de Physique, Marcoussis, France	Mar	158	12 - 14
Army Operational Research Group, Byfleet, Surrey	Byf	73	05 - 19

TABULATED QUANTITIES

1. **FLUX** The unit for this tabulation is 10^{-22} watts metre^{-2}(c/s)$^{-1}$. The values can readily be converted into equivalent temperature T of the sun's visible disc by the relation

$$\text{Flux} = 2.09 \times 10^{-44} \nu^2 T$$

where ν is the frequency in cycles per second.

2. **POLARISATION** The radio-electric (not optical) convention is adopted so that for R polarisation the vector in a fixed plane perpendicular to the ray rotates clockwise when viewed in the direction of propagation. The values quoted are percentage polarisation, i.e.

$$100 \frac{I_R - I_L}{I_R + I_L}$$

where I_R and I_L are the intensities.

3. **VARIABILITY** The variability is described by indices on a scale 0 to 3 as follows:-

0 no observable variability
1 slight variability
2 moderate variability
3 violent variability

4. **OUTSTANDING OCCURRENCES**

S = Simple rise and fall of intensity.
C = Complex variation of intensity.
A = Appears to be part of general activity.
D = Distinct from (i.e. apparently superimposed upon) the general activity.
P = Sudden or significant change of polarisation.
M = Two or more peaks separated by relatively long periods of quietness.
E = Sudden commencement of activity.

The two maximum intensity columns contain, firstly, the maximum instantaneous value, and secondly, the maximum smoothed value measured above the previous level. The second is thought to be more suitable for comparative purposes. The intensity unit in these columns is 10^{-21} watts metre^{-2}(c/s)$^{-1}$. If an occurrence is observed on two or more frequencies at the same time, only one is tabulated in detail, and the others briefly indicated by the station, frequency, and starting time.

1. FLUX

Daily medians of radio-noise flux received from the sun in units of 10^{-22} watts metre^{-2} (c/s)$^{-1}$

	APRIL 1950											MAY 1950												JUNE 1950										
	Canberra	Cavendish		Cornell	Sydney				Ottawa	Marcousis	Meudon	Canberra	Cavendish		Cornell	Sydney				Ottawa	Marcousis	Meudon		Canberra	Cavendish		Cornell	Sydney				Ottawa	Marcousis	Meudon	
Mc/s	200	80	175	200	62	98	600	1200	2800	158	545	200	80	175	200	62	98	600	1200	2800	158	255	545	200	80	175	200	62	98	600	1200	2800	158	255	545
Date																																		
1	7	2	3	8	G	G	40	64	116	4	28	14	3	35	12	G	G	49	99	133	17	-	-	12	2	4	10	G	G	45	68	103	-	16	26
2	7	2	2	8	G	G	-	65	-	4	34	12	3	4	10	G	G	47	84	138	6	-	-	11	2	3	10	G	G	41	62	110	-	10	27
3	8	2	2	8	G	G	-	77	133	6	26	8	2	3	14	2	G	46	93	135	4	-	22	13	3	3	9	G	G	41	-	-	-	10	27
4	18	2	13	11	G	G	40	87	135	22	34	11	2	3	8	G	G	44	80	133	6	-	-	9	3	3	12	G	G	41	-	110	-	11	26
5	8	5	2	8	G	G	42	88	140	6	35	18	7	4	20	24	62	44	90	148	7	-	-	9	-	-	10	G	G	40	63	-	3	12	27
6	9	2	3	8	G	G	38	76	140	7	32	16	-	6	31	6	38	-	-	-	4	-	-	8	2	-	10	G	G	41	60	105	4	10	27
7	12	2	3	-	G	G	37	75	-	5	38	14	-	6	12	G	G	-	-	151	5	-	-	7	3	3	10	G	G	-	69	103	4	12	27
8	14	2	30	-	G	G	36	82	155	17	25	14	3	5	12	G	G	43	-	155	4	-	-	8	3	5	10	G	G	-	-	110	-	8	26
9	12	2	4	-	G	G	40	88	-	4	-	12	3	3	11	G	G	-	98	153	4	-	-	9	3	5	10	G	G	38	66	116	8	10	30
10	10	4	2	-	G	G	44	90	-	4	-	9	3	4	10	G	G	-	-	148	7	16	29	13	2	7	14	G	G	42	73	-	17	16	26
11	9	2	2	10	G	G	46	78	140	4	29	9	2	1	10	G	G	43	89	155	4	16	31	19	-	18	26	G	G	-	-	-	28	16	27
12	9	3	1	12	G	G	52	78	146	4	27	6	2	1	8	G	G	41	79	131	5	11	29	28	8	9	24	G	G	-	-	123	34	11	31
13	8	2	1	8	G	G	45	81	138	5	24	6	2	1	9	G	G	-	-	-	-	11	30	78	1500	55	64	90	-	34	69	116	94	35	34
14	-	2	1	11	G	G	43	81	153	6	24	6	-	1	10	G	G	-	-	-	6	12	30	243	600	540	160	1560	-	-	-	118	196	45	29
15	20	-	1	15	10	17	38	76	-	15	-	6	-	1	10	G	G	41	83	116	5	-	25	314	5000	160	136	4557	9956	-	-	120	250	49	26
16	21	12	1	8	3	38	37	-	-	17	30	7	2	1	10	G	G	42	68	110	10	12	22	289	400	500	152	680	3840	-	-	116	260	47	24
17	7	2	1	8	G	G	39	78	138	5	-	6	2	1	10	G	G	43	67	125	13	12	28	287	1000	300	120	1180	2523	-	-	-	240	67	27
18	8	-	1	8	G	G	46	79	138	6	29	6	3	3	10	G	G	44	63	129	4	-	24	123	2000	500	38	807	2333	-	-	-	250	52	33
19	6	2	1	8	G	G	45	84	131	6	-	6	3	5	10	G	G	-	-	144	6	14	-	60	3	17	19	6	18	-	-	108	22	23	29
20	6	2	1	8	G	G	42	77	118	5	24	16	3	4	10	87	66	-	-	-	5	14	26	18	4	9	14	G	G	-	-	105	13	24	22
21	9	2	1	8	G	G	44	78	116	6	22	13	-	6	13	4	35	-	-	-	15	13	25	86	3	18	13	23	36	-	72	105	12	29	26
22	20	15	17	23	4	G	43	-	-	-	-	13	2	4	18	G	G	46	-	135	8	18	20	23	3	4	10	G	13	56	73	110	12	10	26
23	36	7	50	38	41	18	43	-	-	34	-	8	2	8	9	G	G	-	77	142	-	14	23	10	3	3	8	G	G	-	-	108	8	12	25
24	55	70	60	49	53	35	49	87	146	92	25	19	2	18	29	G	G	41	-	-	-	29	32	15	3	4	10	G	G	-	-	-	9	18	26
25	51	15	50	30	9	43	45	87	151	43	23	45	2	1	30	G	3	48	81	146	15	36	-	21	30	-	104	3	118	-	60	-	90	59	25
26	48	60	120	37	9	181	48	101	161	-	22	286	70	-	37	67	107	49	87	140	22	15	68	21	-	21	14	G	G	50	56	118	16	15	28
27	40	5	50	14	26	25	51	110	161	17	-	89	3	45	23	4	62	64	92	-	17	55	-	16	-	8	10	G	G	43	58	112	-	19	27
28	57	5	30	17	6	47	51	106	151	17	32	14	2	5	10	G	G	49	74	-	17	13	20	10	-	8	8	G	G	50	62	105	6	12	26
29	31	2	4	20	G	G	46	102	-	5	-	18	2	30	11	G	G	49	69	116	-	21	27	13	-	7	8	G	G	52	72	101	9	21	26
30	22	-	-	22	16	8	44	104	-	8	26	13	2	13	12	G	G	50	77	112	17	12	23	11	30	14	9	G	G	-	-	103	-	25	25
31	-	-	-	-	-	-	-	-	-	-	-	11	3	4	10	G	G	49	68	112	-	13	20	-	-	-	-	-	-	-	-	-	-	-	-

G = Median level below threshold (6 units at 62 Mc/s and 8 units at 98 Mc/s).

2. POLARISATION

Daily medians or means of polarisation sense and percentage.

	APRIL 1950				MAY 1950				JUNE 1950			
	Canberra	Cavendish		Sydney	Canberra	Cavendish		Sydney	Canberra	Cavendish		Sydney
Mc/s	200	80	175	98	200	80	175	98	200	80	175	98
Date												
1	-	0	0	-	L 7	0	0	-	-	0	0	-
2	-	-	-	-	R 3	0	-	-	-	0	0	-
3	-	-	-	-	-	0	-	-	-	0	0	-
4	R26	-	-	-	-	0	0	-	-	-	-	-
5	0	-	-	-	R30	0	0	R	-	0	-	-
6	L11	-	-	-	-	-	0	R	-	0	0	-
7	-	-	-	-	-	-	-	-	-	0	0	-
8	-	-	0	-	-	0	0	-	-	0	0	-
9	L33	-	0	-	0	0	0	-	-	0	0	-
10	R20	-	-	-	0	0	0	-	-	0	0	-
11	-	-	-	-	-	0	-	-	-	-	-	-
12	-	0	0	-	-	0	-	-	L43	0	0	-
13	-	0	-	-	-	0	-	-	L64	0	L20	L55
14	-	-	-	-	-	-	-	-	-	L50	L C	L63
15	-	0	-	R	-	-	-	-	L74	L C	-	L83
16	R41	-	-	R51	-	0	-	-	L76	L C	L C	L72
17	-	0	-	-	-	0	-	-	L84	L C	L C	L62
18	-	-	-	-	-	0	0	-	L75	L C	L C	L57
19	-	-	-	-	-	0	0	-	L48	L20	0	-
20	-	-	-	-	L36	0	0	L	L35	0	0	-
21	-	-	-	-	R22	0	0	V	R63	0	0	R45
22	R50	0	0	R	0	0	-	-	R76	-	-	R33
23	R50	R20	R20	R	-	0	0	-	0	0	0	-
24	R60	R20	R C	R32	-	0	R20	-	-	-	-	-
25	R51	0	R30	R59	R48	0	-	V	R82	-	-	V
26	R48	L20	R20	R	L68	L20	-	V	-	-	R20	-
27	V	0	0	R	L30	0	R20	L45	-	-	0	-
28	L25	0	0	V	-	-	-	-	-	-	0	-
29	L22	0	0	-	R15	-	-	-	-	-	0	-
30	R10	-	-	V	R20	0	0	-	R40	L20	0	-
31	-	-	-	-	-	0	0	-	-	-	-	-

V = too variable to quote a median value.
C = 100% or complete polarisation.

3. VARIABILITY

Daily indices on a scale 0-3 of the variability or activity of the solar noise

	APRIL 1950										MAY 1950										JUNE 1950									
	Canberra	Cavendish		Sydney				Cornell	Marcousis	Meudon	Canberra	Cavendish		Sydney			Cornell	Marcousis	Meudon		Canberra	Cavendish		Sydney				Cornell	Marcousis	Meudon	
Mc/s	200	80	175	62	98	600	1200	200	158	545	200	80	175	98	600	1200	200	158	255	545	200	80	175	62	98	600	1200	200	158	255	545
Date																															
1	1	0	0	-	-	0	0	0	1	0	2	1	2	-	0	0	2	2	-	-	1	1	1	-	-	0	0	0	-	0	0
2	0	0	0	-	-	-	0	0	0	0	2	1	1	-	0	0	1	1	-	-	1	0	0	-	-	0	0	1	-	0	0
3	0	0	0	-	-	-	0	0	1	0	2	0	0	-	0	0	1	-	-	0	1	0	0	-	-	0	-	0	-	0	0
4	2	1	2	-	-	0	0	2	3	0	2	0	0	-	0	0	0	1	-	0	1	0	0	-	-	0	-	0	-	0	0
5	2	1	0	-	-	0	0	1	1	1	2	3	1	-	1	0	1	2	-	-	1	-	-	-	-	0	0	0	1	1	0
6	2	0	0	-	-	0	0	1	2	1	1	-	1	1	-	-	1	1	-	-	1	-	-	-	-	0	0	1	1	1	0
7	2	1	0	-	-	1	0	0	-	2	1	-	1	-	-	-	1	1	-	-	1	0	0	-	-	-	0	0	0	0	0
8	2	1	1	-	-	0	0	-	2	-	2	3	0	-	0	-	1	1	-	-	2	1	1	-	-	0	0	0	-	0	0
9	2	0	0	-	-	0	0	-	2	-	2	0	0	-	-	0	1	1	-	-	2	1	1	-	-	-	0	0	1	0	0
10	2	1	0	-	-	0	0	-	1	-	2	1	1	-	-	-	1	2	2	0	2	1	1	-	-	0	0	1	2	0	0
11	1	0	0	-	-	0	0	1	1	1	1	1	-	-	0	0	0	1	1	0	2	0	2	-	-	-	-	2	1	0	0
12	1	1	0	-	-	0	0	1	1	1	0	1	-	-	0	0	0	1	1	0	2	1	1	-	-	0	-	1	1	1	0
13	1	0	0	-	-	0	0	0	1	1	0	0	-	-	-	-	0	-	1	1	1	2	2	-	1	-	0	1	1	1	0
14	-	1	-	-	-	0	0	1	2	0	1	-	-	-	-	-	0	1	-	1	1	3	2	1	-	-	-	1	1	1	0
15	2	-	-	-	-	0	1	1	2	-	0	-	-	-	0	-	0	1	-	1	1	3	1	1	2	-	-	1	1	1	0
16	1	2	-	-	1	0	-	0	2	0	0	1	-	-	0	-	1	1	1	-	1	3	2	1	2	-	-	1	1	1	0
17	0	0	-	-	-	0	0	0	1	-	1	0	1	-	0	-	1	1	-	0	1	3	1	2	2	-	-	1	1	2	0
18	1	-	-	-	-	0	0	0	0	1	1	1	1	-	0	-	0	1	-	0	2	3	2	1	2	-	-	2	1	3	1
19	1	0	-	-	-	0	0	0	1	-	1	0	1	-	-	-	0	1	1	-	1	1	1	1	1	-	-	1	1	2	1
20	1	0	-	-	-	0	0	1	1	0	2	0	0	-	-	-	1	1	1	1	2	1	1	-	-	-	-	1	1	1	0
21	1	1	-	-	-	0	0	1	1	0	2	-	1	1	-	-	1	1	1	-	2	2	2	1	1	-	0	1	1	1	0
22	2	2	1	-	-	0	-	2	-	-	2	0	0	-	0	-	1	1	2	1	2	1	0	-	1	0	0	1	1	2	0
23	2	1	2	-	1	0	-	2	2	-	2	0	1	-	0	-	1	1	1	0	2	2	0	-	-	-	-	2	1	2	0
24	1	2	3	1	1	1	0	1	2	-	2	0	2	-	0	-	2	2	2	0	2	2	1	-	-	-	-	2	2	2	0
25	1	1	2	1	2	1	0	1	2	-	2	1	-	-	0	-	2	1	2	-	2	2	-	-	-	2	2	2	3	2	0
26	2	2	2	1	2	1	0	2	-	1	2	3	-	-	0	-	2	2	-	2	2	-	2	-	-	0	0	1	1	1	0
27	2	2	2	-	-	1	0	2	2	-	2	0	-	1	2	-	2	2	2	0	2	-	2	-	-	0	0	1	1	-	0
28	2	1	1	-	1	1	-	1	2	1	2	0	0	-	0	-	2	0	0	0	2	-	1	-	-	0	0	1	1	1	0
29	3	0	0	-	-	1	-	2	1	-	3	0	1	-	0	-	1	-	1	0	2	-	-	-	-	0	0	1	1	-	0
30	3	-	-	-	1	1	0	2	2	1	2	1	0	-	0	-	0	2	1	0	2	2	2	-	-	-	-	0	0	0	0
31	-	-	-	-	-	-	-	-	-	-	2	1	0	-	0	-	0	-	1	0	-	-	-	-	-	-	-	-	-	-	-

4. OUTSTANDING OCCURRENCES

Station and frequency	Date 1950	Starting time	Duration	Type	Maximum intensity		Polarisation	Obs. on other frequencies			Remarks
					Inst.	Smooth					
Mc/s		U.T.	Minutes		10^{-21} w m^{-2} $(c/s)^{-1}$						
Syd 600	Apr 3	0122	5	CD	4	0		Syd	1200	0123	Largest of several.
Ott 2800	3	1947	1.2	SD		2					
Can 200	4	0345		E							
Ott 2800	4	2013	26	M		> 1					
Syd 600	5	0208	6	CD	5	0					Largest of several.
Can 200	5	0633	8	CD	34	6		Syd	1200	0640	
Syd 600	7	0108	109	CD	7	2					
Meu 545	7	1132	0.1	SD	6	4					
Syd 600	8	0325	3	CD	9	1					
Syd 62	8	0525	7	CD	100	30					Followed by activity.
Cav 80	8	1148	1.5	SD		> 50					
Syd 600	9	0555	0.1	SD	8	8					
Can 200	9	2328	2	CA	91	6		Syd	600	2331	
Byf 73	10	0944	2.2	CD		> 15					
Byf 73	10	1856	0.8	SD		> 15					
Syd 600	10	2212	3	CD	6	0					Largest of several.
Syd 1200	11	0422	0.5	CD	10	1		Syd	600	0419	
Ott 2800	11	2003	6	SD		8					
Syd 62	12	0408	35	M	> 100	20		Syd	1200	0440	Fade.
Byf 73	12	1712	2.2	CD		> 15					
Ott 2800	12	1847	240	SD		9					
Cor 200	12	1917	15	CD	> 5	2					
Syd 1200	13	0046	0.3	CD	12	2					
Syd 600	13	0105	3	CD	6	0					Largest of several.
Syd 62	13	0225	14.5	M	> 100	20					
Byf 73	13	0753	5	M		> 15					
Ott 2800	13	1724	5	SD		8					
Syd 1200	14	0414	1.0	CD	11	2					
Cor 200	14	1730	180	CD	> 5	M					
Syd 1200	14	2218	2.0	CD	24	16		Syd	600	2214	
								Ott	2800	2220	
Syd 1200	15	0006	0.5	CD	15	1					
Syd 600	15	0152	0.1	SD	7	7					
Syd 1200	15	0537	0.5	CD	60	28					
Byf 73	15	0615	0.5	SD		> 15					
Byf 73	15	1631	3	M		> 15					
Syd 62	16	0412	15.5	M	> 100	25					
Byf 73	16	0614	0.5	SD		> 15					
Cor 200	17	1540	110	CD	> 3	M					
Ott 2800	17	1911	55	SD		1					
Ott 2800	18	1904	2	SD		2					
Syd 600	20	0331	2	CD	6	0					
Syd 600	22	2340	1	CD	7	1					Largest of several.
Syd 600	24	0400	6	CD	6	1					Largest of several.
Syd 98	24	2204	23	M	> 100	15	0	Syd	62	2204	
Syd 62	25	0130	6.5	CD	100	20		Syd	98	0130	
Syd 98	25	0451	2.5	CD	> 200	> 200	0	Syd	600	0439	
								Syd	62	0451	
								Can	200	0452	
								Syd	1200	0459	

Syd	600	26	0445	3	CD	14	3					
Byf	73	26	0537	0.5	SD		>15					
Byf	73	26	0626	1.5	CD		>15		Syd	62	0626	
									Syd	98	0626	
Meu	545	26	0644	0.3	SD	4	3		Byf	73	0644	
									Syd	1200	0646	
Byf	73	26	0921	0.8	SD		>15					
Meu	545	26	0934	1.3	SD	5	3		Byf	73	0938	
Byf	73	26	1155	1	CD		>15					
Byf	73	26	1632	1	CD		>15					
Ott	2800	26	1749	2.5	SD		37		Byf	73	1750	
Syd	600	26	2119	>5	CD	8	1					
Syd	600	26	2259	0.7	CD	10	2					
Syd	62	27	0035	3	CD	100	10		Syd	600	0017	Fade.
									Syd	98	0035	
Syd	98	27	0143	1	CD	300	60	O	Syd	600	0142	
									Syd	62	0143	
Ott	2800	27	1619	40	SD		2					
Syd	600	27	2141	1	CD	6	0					Largest of several.
Meu	545	28	1057	1	SD	5	4					
Ott	2800	28	1917	2	SD		1					
Ott	2800	28	2213	3.5	SD		2					
Cor	200	29	1423	1.2	SA	> 6	3					
Syd	98	29	2148	>1	CD	140			Syd	62	2148	Obs. commenced 2148.
Can	200	29	2331	1	CA	90	17					
Syd	62	30	0121	10	CD	>120	35		Syd	600	0118	Followed by activity.
									Can	200	0121	
									Syd	98	0121	
									Syd	1200	0130	
Meu	545	30	1030	52	CD	4	4					
Cor	200	30	1410	5	CD	8	3					
Syd	600	May 1	0022	3	CD	7	1					
Byf	73	1	1141	1	SD		>15					
Ott	2800	1	1834	2.5	SD		0					
Ott	2800	2	2015	1	SD		3					
Cor	200	4	1225	3	CD	6	1					
Cor	200	4	1408	0.5	CD	6	3					
Cor	200	4	1442	1	CD	6	1					
Cor	200	4	1920	1	CD	6	1					
Can	200	4	2204	2	CA	182	4		Ott	2800	2203	
Syd	98	5	0025	2.5	CD	>140	50	O	Syd	62	0025	Fade.
Syd	600	5	0114	12	CD	8	6					
Syd	62	5	0548	3	CD	120	25		Syd	98	0548	Fade. Flare.
									Byf	73	0548	
Syd	600	5	0604	17	CD	75	8		Syd	1200	0610	
Byf	73	5	0842	1	SD		>15					
Ott	2800	5	1733	5	SD		1					
Ott	2800	5	1945	35	SD		7					
Ott	2800	5	2104	3	SD		3					
Byf	73	6	1619	0.5	SD		>15					
Syd	98	6	2352	1	CD	>120	80	O	Syd	62	2352	
Syd	62	7	0142	1	CD	>120	100		Syd	98	0142	
Can	200	7	0335	5	CDM	28	2		Syd	62	0324	
									Syd	98	0335	
Byf	73	7	0711	7	M		>15					
Byf	73	7	0816	22	M		>15					
Cor	200	7	2011	4	CD	> 4	2		Ott	2800	2010	
Ott	2800	7	2311	6	M		7		Can	200	2312	
Syd	98	7	2357	18.5	M	>120	15	O	Syd	62	2357	
Syd	600	8	0053	0.5	CD	6	1					
Syd	98	8	0159	16.5	M	>120	15	O				
Syd	62	8	0204	11	M	>120	35					
Syd	62	8	0257	35	M	>1400	80		Syd	98	0257	
Can	200	8	0328	5	CD	24	3		Syd	600	0329	
Byf	73	8	0806	0.8	SD		>15					
Cav	80	8	0916	2	SD		>100		Byf	73	0918	
Byf	73	8	1003	0.8	SD		>15					
Cor	200	8	1235	70	CD	> 3	M					
Cor	200	8	1838	1	SD	>3	> 3					
Cor	200	8	2035	5	CD	>3	1					
Syd	98	8	2315	0.5	SD	250	250					
Ott	2800	10	1535	1.5	SD		2					
Can	200	11	0016	3	CD	141	9					
Ott	2800	12	2150	70			1					
Cor	200	13	1848	3	CD	> 3	2					
Ott	2800	16	2006	3	SD		1					
Can	200	17	2338	2	SD	24	5					
Ott	2800	19	2101	7	SD		2					
Syd	98	20	0020	50	CD	>120	100	O-L	Ott	2800	0013	Fade.
									Can	200	0016	
									Syd	62	0020	
Cor	200	20	1830	210	E	18	4					
Cav	175	21	1149	60	SD		14					
Syd	62	21	2353	4.5	CD	110	20		Syd	98	2355	
									Can	200	2343	
Meu	255	22	0712	8	M	9	5		Meu	545	0715	
									Byf	73	0730	
Ott	2800	22	1356	2.5	SD		27	O	Meu	545	1400	
Ott	2800	22	1852	1	SD		1					
Ott	2800	22	2040	3	SD		1					
Ott	2800	22	2216	2.5	SD		7	O				
Meu	255	23	0622	0.5	SD	15	8					
Meu	545	23	0722	0.5	SD	12	7					
Meu	545	23	1258	0.3	SD	13	4					
Meu	255	23	1305	0.1	SD	20	8					
Byf	73	23	1352	4	CD		>15					
Meu	255	23	1503	12	M	22	9		Byf	73	1502	
Byf	73	23	1628	1	CD		>15					
Syd	98	23	2155	6.5	CD	>100	20	O	Can	200	2151	
									Syd	62	2155	
Syd	62	24	0453	3	CD	>100	40		Syd	98	0453	
Byf	73	24	1225	0.5	SD		>15					
Meu	255	24	1244	1	SD	17	8					
Byf	73	24	1258	1	SD		>15					
Syd	1200	25	0520	0.1	SD	10	10					
Byf	73	25	0706	1.5	M		>15					
Byf	73	25	0939	3.5	CD		>15					
Syd	98	26	0109	0.5	CD	140	100	O	Syd	62	0109	
Syd	62	26	0250	1	CD	300	100		Syd	98	0250	
Syd	98	26	0556	42.5	M	>100	5		Syd	62	0556	
									Byf	73	0556	
Byf	73	26	0620	18	M		>15					
Byf	73	26	0806	23	M		>15		Meu	545	0820	
Meu	545	26	1029	0.5	SD	22	14					
Meu	545	26	1109	0.5	SD	22	14					
Ott	2800	26	1448	15	CD		16					
Syd	98	26	2205	95	CA	150	60	L	Ott	2800	2152	
									Syd	62	2205	
Syd	62	27	0114	1	CD	>100	100					
Syd	600	27		>50	CD	3130	1200					Missed start.
Syd	600	27	0215	90	CD	13	5					
Syd	98	27	0315		P			L>O				Intensity fell.
Syd	98	27	0445		P			O<R				Intensity rose again.
Meu	255	27	0522	1	SD	18	11					
Meu	255	27	1324	3	M	18	12					
Syd	1200	27	2153	126	CD	984	413					Minimum values.

Syd	600	29	0517	0.3	CD	7	1						
Cor	200	29	1705	1	CD	>7	1						
Syd	1200	30	0007	0.1	SD	11	11						
Syd	62	30	0119	0.5	CD	150	50		Syd	98	0119		
Meu	255	30	1317	0.5	SD	8	5						
Meu	255	30	1410	0.1	SD	9	6						
Cor	200	30	1461	6	CD	>6	M						
Syd	1200	30	2248	0.1	SD	10	10		Syd	600	2248		
Syd	600	31	0146	5	CD	11	4						
Syd	1200	31	0256	6	CD	10	2						
Syd	98	31	0419	6.5	CD	>100	>100	O	Syd	600	0413	Fade.	
									Syd	62	0419		
									Byf	73	0426		
Meu	255	31	1314	2	SD	11	6						
Meu	255	June 1	0650	60	CD	2	2						
Cor	200	1	1450	1.5	CD	>6	1						
Syd	600	2	0414	0.1	SD	8	8						
Can	200	3	0027	2	CD	89	4						
Meu	255	7	0859	1	SD	11	7						
Syd	98	7	2143	0.5	CD	>100	44		Syd	62	2143		
Can	200	8	0049	3	SD	71	1		Syd	98	0049		
									Syd	62	0050		
Syd	98	8	0559	0.5	CD	>100	44						
Can	200	8	0624	2	CD	38	1						
Byf	73	8	0711	1	SD		>15						
Cav	80	8	1412	3	CA		>10						
Ott	2800	8	1502	3	SD		2						
Ott	2800	8	1541	3	SD		3						
Syd	62	8	2309	39	M	>84	7		Syd	98	2314		
Syd	98	9	0120	0.5	SD	>>100	>100						
Syd	98	9	0325	23	M	>>100	3		Syd	62	0326		
Syd	98	9	0502	1	CD	>100	40		Can	200	0502		
Can	200	9	0602	5	CD	24	2M		Syd	98	0602		
Byf	73	9	0706	0.5	SD		>15						
Byf	73	9	0946	0.5	SD		>>15						
Byf	73	9	1039	1.2	SD		>>15						
Byf	73	9	1559	0.8	CD		>15						
Byf	73	9	1916	0.5	SD		>15						
Byf	73	9	1948	0.8	CD		>15		Ott	2800	1947		
Syd	62	9	2158	48.5	M	>84	5		Syd	98	2158		
									Ott	2800	2158		
									Can	200	2159		
Syd	600	10	0104	3	CD	5	0						
Byf	73	10	0511	1	CD		>15		Syd	62	0511		
									Syd	98	0511		
Meu	255	10	1153	50	CD	6	4						
Byf	73	10	1702	0.8	SD		>15						
Syd	600	10	2159	10	CD	11	4						
Can	200	10	2240	3	CA	38	4						
Syd	62	11	0503	0.5	CD	>84	36		Syd	98	0504		
Meu	255	11	0855	0.3	SD	29	24						
Meu	255	11	1302	5	SD	29	18						
Byf	73	11	1849	1	CD		>15						
Meu	545	12	0710	20	SD	6	5		Meu	255	0713		
Syd	1200	13	0556	1	CD	8	1						
Meu	255	13	0945	2	SD	29	18		Byf	73	0944		
									Meu	545	0945		
Meu	255	13	1335	138	CD	23	11		Meu	545	1357		
									Byf	73	1440		
Byf	73	13	1541	2	CD		>15						
Byf	73	13	1718	6	CD		>>15						
Byf	73	13	1753	7	CD		>>15						
Byf	73	13	1844	1.2	CD		>>15						
Byf	73	13	1902	8	M		>15		Ott	2800	1901		
									Cor	200	1902		
Syd	98	13	2108	2	CA	>100	80						
Syd	1200	14	0219	3	CD	7	0						
Meu	255	14	1124	4	SD	18	10						
Meu	255	14	1202	5	SD	20	10						
Meu	255	14	1305	0.3	SD	17	14						
Meu	255	14	1457	6	M	18	16						
Syd	600	14	2259	5	CD	5	1						
Ott	2800	15	1733	6	SD		7						
Can	200	16	2236	1	SA	676	11	L					
Can	200	17	0308	2	CD	603	13	L					
Syd	62	17	2213	1.5	CA	>210	199						
Can	200	18	0252	1	CA	158	4M	L					
Meu	545	18	0905	0.1	SD	8	8						
Meu	255	18	0940	380	CD	16	11						
Meu	545	18	1317	0.1		7	7						
Syd	62	19	0338	7	CA	>84	32						
Meu	255	19	0930	1.5	SD	29	25						
Syd	62	20	0054	0.2	SD	80	80						
Byf	73	20	1151	0.8	SD		>15						
Cor	200	20	1221	10	CD	>6	M		Byf	73	1222		
Byf	73	20	1836	1.2	CD		>15						
Byf	73	20	1840	2.5	CD		>15						
Cor	200	20	2020	1.5	CD	>6	2		Ott	2800	2020		
Syd	62	21	0132	0.5	CA	>84	26						
Byf	73	22	0653	1.5	CD		>15						
Syd	98	23	0048	0.2	SD	88	88						
Syd	98	23	0401	0.5	SD	>100	>100						
Syd	62	24	0109	0.5	SD	84	84						
Syd	98	24	0355	1.5	CD	100	32		Can	200	0354		
									Syd	62	0355		
Syd	1200	25	0107	4	CD	22	8						
Syd	1200	25	0235	1.5	CD	10	2						
Syd	1200	25	0305	3	CD	11	2						
Meu	255	25	0500	300	CD	15	12						
Syd	62	25	0516	0.3	SD	>84	>84						
Byf	73	25	1006	6	CD		>>15						
Byf	73	25	1104	1	CD		>15						
Meu	255	25	1248	0.1	SD	15	12						
Meu	255	25	1400	240	CD	12	8						
Syd	600	26	0134	1	CD	6	2						
Ott	2800	27	0039	>4			>6						
Syd	600	28	0018	1	CD	6	1						
Ott	2800	28	2230	100	SD		2	V					
Syd	62	29	0133	30	M	>84	14		Syd	98	0135	Fade.	
Syd	600	29	0154	30	CD	7	1						
Cor	200	29	1801	1	CD	6	2						

Canberra, April 1951

R.v.d.R. Woolley

IV. SOLAR RADIO NOISE DATA

CO-OPERATING OBSERVATORIES

Details relating to the contributors to the third quarter of 1950 are as follows:-

OBSERVING STATION	ABBREVIATION	FREQUENCIES USED Mc/s	NORMAL OBSERVING PERIOD (Hours U.T.)
Commonwealth Observatory, Canberra, Australia	Can	200	21 - 07
Cavendish Laboratory, Cambridge, England	Cav	80 175	10 - 15 10 - 15
Radiophysics Laboratory, Sydney, Australia	Syd	62 98 600 1200	21 - 06 21 - 06 00 - 06 00 - 06
Meudon Observatory, Paris, France	Meu	255 545	06 - 18 06 - 18
National Research Council, Ottawa, Canada	Ott	2800	14 - 24
Laboratoire de Physique, Marcoussis, France	Mar	158	12 - 14
Army Operational Research Group, Byfleet, Surrey	Byf	73	04 - 20
Cornell University, Ithaca, N.Y., U.S.A.	Cor	200	10 - 20

TABULATED QUANTITIES

1. FLUX The unit for this tabulation is 10^{-22} watts metre^{-2}(c/s)$^{-1}$. The values can readily be converted into equivalent temperature T of the sun's disc by the relation

$$\text{Flux} = 2.09 \times 10^{-44} \nu^2 T$$

where ν is the frequency in cycles per second.

2. POLARISATION The radio-electric (not optical) convention is adopted so that for R polarisation the vector in a fixed plane perpendicular to the ray rotates clockwise when viewed in the direction of propagation. The values quoted are percentage polarisation, i.e.

$$100 \frac{I_R - I_L}{I_R + I_L}$$

where I_R and I_L are the intensities.

3. VARIABILITY The variability is described by indices on a scale 0 - 3 as follows:-

0 no observable variability
1 slight variability
2 moderate variability
3 violent variability

4. OUTSTANDING OCCURRENCES

S = Simple rise and fall of intensity.
C = Complex variation of intensity.
A = Appears to be part of general activity.
D = Distinct from (i.e. apparently superimposed upon) the general activity.
P = Sudden or significant change of polarisation.
M = Two or more peaks separated by relatively long periods of quietness.
E = Sudden commencement of activity.

The two maximum intensity columns contain, firstly, the maximum instantaneous value, and secondly, the maximum smoothed value measured above the previous level. The second is thought to be more suitable for comparative purposes. The intensity unit in these columns is 10^{-21} watts metre^{-2}(c/s)$^{-1}$. If an occurrence is observed on two or more frequencies at the same time, only one is tabulated in detail and the others briefly indicated by the station, frequency, and starting time.

CONSTANTS AND CORRECTIONS

In the April - June quarter of 1950 the following corrections are to be applied to the dates of Outstanding Occurrences:-

Syd 600 and Syd 1200 all occurrences between 2000 and 2359 decrease date by one day.

and the following corrections to times:-

Syd 62 and Syd 98 Apr. 4 2148 to read 2118
Syd 62 and Syd 98 May 7 2357 to read 2257
Syd 62 and Syd 98 May 30 0119 to read 0019

1. FLUX

Daily medians of radio-noise flux received from the sun in units of 10^{-22} watts metre^{-2} (c/s)$^{-1}$

	JULY 1950											AUGUST 1950											SEPTEMBER 1950										
	Canberra	Cavendish	Sydney					Ottawa	Marcoussis	Meudon		Cornell	Canberra	Cavendish	Sydney					Ottawa	Marcoussis	Meudon		Cornell	Canberra	Cavendish	Sydney					Ottawa	Marcoussis	Meudon		Cornell
Mc/s	200	80	175	62	98	600	1200	2800	158	255	545	200	200	80	175	62	98	600	1200	2800	158	255	545	200	200	80	175	62	98	600	1200	2800	158	255	545	200
Date																																			
1	7	2	3	G	G	-	-	-	4	10	22	8	15	2	4	G	G	40	50	108	3	14	23	14	9	-	2	G	G	28	44	84	-	12	25	-
2	7	-	3	G	G	-	-	-	-	10	22	8	32	50	50	14	40	39	52	116	12	55	22	56	10	2	2	G	G	29	-	80	-	12	23	9
3	8	-	3	G	G	45	43	95	-	-	-	8	48	40	30	G	14	-	-	125	17	19	26	12	8	2	2	G	G	-	-	75	-	11	22	8
4	8	2	3	G	G	46	50	101	8	12	24	8	12	-	50	G	G	38	58	116	4	13	24	10	8	2	4	G	G	27	37	82	5	12	20	10
5	10	2	4	G	G	46	50	-	6	-	-	8	24	3	10	61	G	42	56	-	14	17	24	28	9	2	4	G	G	30	39	82	5	12	22	10
6	10	-	4	G	G	48	-	-	5	12	26	8	15	2	5	G	G	40	52	-	10	15	22	15	8	2	3	G	G	32	39	80	4	12	20	8
7	9	-	3	G	G	47	54	116	4	11	28	8	11	2	3	G	G	38	54	-	4	13	21	10	8	4	4	G	G	30	36	80	4	12	22	8
8	10	-	4	G	G	-	58	-	4	9	28	8	8	-	-	G	G	36	54	103	5	11	21	9	8	2	3	G	G	26	34	77	5	12	22	8
9	9	2	4	G	G	-	-	-	5	9	26	8	9	-	3	G	G	36	46	99	6	11	22	9	8	2	2	G	G	-	-	77	3	11	21	8
10	8	-	4	G	G	52	58	118	6	7	-	8	8	2	3	G	G	35	50	97	4	11	21	8	8	2	2	G	G	-	-	-	3	12	22	8
11	10	-	8	G	G	52	49	106	12	11	27	10	8	2	-	G	G	6	34	51	98	4	12	23	10	8	2	3	G	G	27	38	82	3	12	22	8
12	15	2	12	-	G	-	-	103	10	15	30	12	17	2	4	2	72	-	50	-	-	15	23	15	9	2	3	G	G	28	37	84	4	12	20	10
13	13	10	10	G	5	48	50	103	12	11	26	10	15	-	8	G	15	-	-	-	-	14	22	17	14	2	7	G	G	30	37	92	12	18	24	10
14	9	2	8	G	G	48	54	105	-	9	22	9	9	6	-	G	7	-	-	101	-	14	22	10	15	2	10	G	G	33	38	97	6	19	21	48
15	7	2	8	G	G	-	-	-	-	9	-	8	8	-	-	G	G	-	-	103	-	10	22	18	15	3	8	G	G	32	42	97	6	19	24	8
16	8	4	4	G	G	-	-	-	-	9	22	9	9	12	-	G	G	32	51	97	-	15	24	10	12	4	7	G	G	-	-	-	5	17	23	-
17	9	2	10	G	G	53	54	110	5	8	24	8	9	-	3	G	G	-	52	112	-	13	23	8	8	2	7	G	G	-	-	-	4	12	-	8
18	8	2	7	G	G	58	57	127	4	12	-	9	7	2	4	G	G	32	50	114	-	13	23	10	8	2	5	G	G	-	-	101	4	13	20	-
19	8	2	6	G	G	-	67	129	4	10	24	11	9	8	9	G	G	-	-	-	-	17	24	10	9	3	-	G	G	30	34	95	5	15	-	-
20	10	2	-	G	G	-	64	131	6	12	20	8	8	-	8	G	G	34	-	-	-	12	22	8	12	2	-	G	G	-	42	93	9	15	22	10
21	12	2	11	G	G	-	65	135	7	12	26	14	8	-	7	G	G	-	47	114	-	12	21	9	10	2	-	G	G	30	42	95	4	13	20	9
22	12	4	30	G	G	-	66	-	8	9	19	12	8	-	-	G	G	33	-	109	-	12	21	8	8	4	-	G	G	27	41	88	3	13	20	9
23	10	-	8	G	G	-	-	-	-	10	24	8	8	-	4	G	G	34	53	112	-	12	22	9	8	-	3	G	G	-	-	-	-	11	20	9
24	9	2	5	G	G	36	53	-	4	9	22	8	8	-	4	G	G	34	53	110	-	14	22	9	7	-	-	G	G	-	-	-	4	11	20	9
25	10	-	8	G	G	-	60	120	13	11	27	17	9	2	5	G	G	32	58	110	-	16	25	13	8	2	3	G	G	27	37	82	5	11	20	8
26	9	2	5	G	G	40	-	120	5	11	24	8	13	2	6	G	G	32	49	-	-	21	23	22	8	2	3	G	G	26	37	83	4	10	20	8
27	8	12	4	G	G	38	57	118	5	11	23	-	13	2	3	G	G	-	-	-	-	16	23	8	7	2	4	G	G	28	48	82	6	10	20	9
28	9	2	4	G	G	35	53	114	6	12	24	-	8	2	4	G	G	-	-	91	-	13	23	8	6	2	-	G	G	-	-	82	5	11	20	9
29	8	2	-	G	G	-	-	-	4	11	22	-	8	2	4	G	G	32	45	88	-	12	23	8	8	2	-	G	G	26	35	80	5	11	20	9
30	9	2	-	G	G	-	-	-	6	11	-	-	9	2	3	G	G	32	47	86	-	12	23	8	8	2	-	G	G	-	-	-	7	12	21	-
31	9	-	-	G	G	34	-	118	5	13	25	-	-	-	2	G	G	31	46	88	-	11	25	8	-	-	-	-	-	-	-	-	-	-	-	-

G = Median level below threshold (6 units at 62 Mc/s and 8 units at 98 Mc/s).

2. POLARISATION

Daily medians or means of polarisation sense and percentage.

	JULY 1950				AUGUST 1950				SEPTEMBER 1950			
	Canberra	Cavendish		Sydney	Canberra	Cavendish		Sydney	Canberra	Cavendish		Sydney
Mc/s	200	80	175	98	200	80	175	98	200	80	175	98
Date												
1	-	-	-	-	L50	L50	0	-	-	-	0	-
2	-	-	-	-	V	L C	0	V	-	0	0	-
3	-	-	-	-	L33	L C	L C	L	-	0	0	-
4	-	-	-	-	L28	-	-	-	-	0	0	-
5	-	-	-	-	V	L50	0	L	-	0	0	-
6	R20	-	-	-	-	-	0	-	-	0	0	-
7	-	-	-	-	-	-	-	-	-	L20	0	-
8	-	-	-	-	-	L20	0	-	-	0	0	-
9	-	0	0	-	-	L50	0	-	-	0	C	-
10	-	-	0	-	-	0	0	-	-	0	R20	-
11	-	0	-	-	R13	0	0	R	-	0	0	-
12	-	0	0	-	R80	0	0	R66	R18	0	R20	-
13	-	0	0	L	R58	-	-	R41	R 6	0	0	-
14	-	0	0	-	R34	0	0	R	R64	0	0	-
15	-	0	0	-	-	0	-	-	V	0	0	-
16	-	-	-	-	-	0	-	-	0	-	-	-
17	-	0	0	-	-	0	0	-	-	-	-	-
18	-	0	-	-	-	0	R20	-	0	0	-	-
19	-	0	0	-	-	0	0	-	-	-	-	-
20	-	0	0	-	-	-	-	-	R50	-	-	-
21	-	-	0	-	-	0	0	-	R16	-	-	-
22	-	0	R20	-	-	-	0	-	-	-	-	-
23	-	0	0	-	-	-	0	-	-	-	-	-
24	-	0	0	-	-	-	0	-	-	-	-	-
25	-	0	-	-	-	0	C	-	-	0	0	-
26	-	L20	0	-	L 9	0	-	-	-	0	0	-
27	-	L20	0	-	L11	0	R20	-	-	0	0	-
28	-	L50	0	-	-	0	0	-	-	0	0	-
29	-	L50	-	-	-	0	R50	-	-	0	-	-
30	-	-	-	-	0	0	R20	-	-	0	-	-
31	-	L20	-	-	-	0	0	-	-	-	-	-

V = too variable to quote a median value.
C = 100% or complete polarisation.

3. VARIABILITY

Daily indices on a scale 0-3 of the variability or activity of the solar noise

	JULY 1950											AUGUST 1950											SEPTEMBER 1950										
	Can-berra	Caven-dish		Sydney				Mar-cous sis	Meudon		Cor-nell	Can-berra	Caven-dish		Sydney				Mar-cous sis	Meudon		Cor-nell	Can-berra	Caven-dish		Sydney				Mar-cous sis	Meudon		Cor-nell
Mc/s	200	80	175	62	98	600	1200	158	255	545	200	200	80	175	62	98	600	1200	158	255	545	200	200	80	175	62	98	600	1200	158	255	545	200
Date																																	
1	0	0	0	-	-	-	-	1	0	0	0	2	0	0	-	-	1	0	1	1	0	2	1	-	1	-	-	0	0	-	1	0	-
2	1	-	0	-	-	-	-	-	0	0	1	3	2	-	-	-	1	0	2	1	1	2	1	0	0	-	-	0	0	-	0	0	0
3	1	-	0	-	-	0	0	-	-	-	0	2	2	2	-	-	-	-	1	2	2	2	1	0	0	-	-	-	-	-	0	0	0
4	1	-	0	-	-	0	0	1	0	0	0	2	-	2	-	-	0	0	1	2	0	1	1	0	1	-	-	0	0	1	0	0	1
5	1	-	1	-	-	0	0	1	0	-	1	2	1	2	-	-	2	2	1	1	0	1	1	1	1	-	-	0	0	1	0	0	0
6	1	-	0	-	-	0	0	1	0	0	1	1	0	1	-	-	0	0	1	1	0	1	0	0	0	-	-	0	0	0	0	0	0
7	1	-	0	-	-	0	0	0	0	0	0	1	0	0	-	-	1	0	1	1	0	0	0	0	0	-	-	0	0	0	1	0	0
8	1	-	0	-	-	-	0	1	0	0	0	1	-	0	-	-	0	0	0	0	0	0	0	0	0	-	-	0	0	1	1	0	0
9	1	0	0	-	-	-	-	1	1	0	0	1	0	0	-	-	0	0	0	0	0	0	0	0	0	-	-	0	-	-	1	0	0
10	1	-	1	-	-	0	0	1	0	-	0	1	0	0	-	-	1	0	1	0	0	0	0	0	0	-	-	0	-	-	0	0	0
11	1	-	1	-	-	0	0	1	1	0	1	2	0	0	-	-	1	0	1	1	0	1	1	1	1	-	-	0	0	1	2	0	0
12	1	1	2	-	-	-	-	1	1	0	1	3	0	2	-	-	-	-	0	2	0	2	1	1	1	-	-	0	0	1	2	0	2
13	1	2	1	-	1	0	0	2	0	0	1	3	0	2	-	-	2	-	-	2	0	2	2	2	2	-	-	0	0	2	2	0	1
14	1	0	1	-	-	0	0	-	2	1	0	2	0	-	-	-	-	-	-	1	0	1	2	2	2	-	-	0	0	2	2	0	3
15	1	0	0	-	-	-	-	-	2	-	0	1	0	0	-	-	-	-	-	0	0	0	2	0	1	-	-	0	0	1	2	0	1
16	1	1	0	-	-	-	-	1	1	0	1	1	0	0	-	-	1	0	-	1	0	1	2	2	-	-	-	-	-	2	2	0	1
17	1	0	1	-	-	0	0	1	1	0	1	1	0	0	0	1	0	0	-	1	0	1	1	0	2	-	-	-	-	1	2	-	1
18	1	0	0	-	-	0	0	1	1	-	0	1	0	0	1	1	0	0	-	0	0	0	1	0	1	-	-	-	-	1	1	0	-
19	1	0	1	-	-	-	0	1	0	0	2	1	0	-	1	1	0	0	-	0	0	0	2	1	-	-	-	0	0	1	1	-	-
20	1	0	-	-	-	-	0	1	2	0	1	1	-	-	-	-	0	0	-	0	0	0	2	0	-	-	-	0	0	1	2	0	2
21	2	0	2	-	-	-	0	2	2	0	1	1	0	-	-	-	0	0	-	0	0	0	2	0	-	-	-	0	0	0	1	0	1
22	2	-	2	-	-	-	0	2	2	0	2	1	0	-	-	-	0	0	-	0	0	0	1	0	-	-	-	0	0	0	1	0	1
23	1	0	1	-	-	0	-	-	1	0	1	1	-	-	-	-	0	0	-	0	0	0	1	-	0	-	-	-	-	-	0	0	0
24	1	-	0	-	-	-	0	0	0	0	1	1	-	-	-	-	0	0	-	0	0	0	0	-	-	-	-	-	-	0	1	0	1
25	1	0	-	-	-	-	0	2	2	0	1	1	0	-	1	1	0	0	-	2	1	2	1	0	-	-	-	0	0	0	0	0	0
26	1	0	1	-	-	0	-	1	1	0	-	2	-	0	2	2	0	0	-	2	1	2	0	0	0	-	-	0	0	1	0	0	0
27	1	2	1	-	-	0	0	1	2	0	-	2	-	0	1	2	-	-	-	1	0	1	1	0	0	-	-	0	0	0	0	0	0
28	1	0	1	-	-	0	0	1	1	0	-	1	1	-	-	-	-	-	-	0	0	0	1	0	-	-	-	0	-	-	1	0	0
29	1	0	-	-	-	-	-	1	0	1	-	1	1	1	-	-	0	0	-	0	0	0	1	0	-	-	-	0	0	0	0	0	0
30	1	0	-	-	-	-	-	1	0	-	-	1	0	0	-	-	0	0	-	0	1	0	1	0	-	-	-	-	-	-	1	0	1
31	1	-	-	-	-	0	-	1	1	0	-	0	-	0	-	-	0	0	-	0	0	0	-	-	-	-	-	-	-	-	-	-	-

4. OUTSTANDING OCCURRENCES

Station and frequency	Date 1950	Starting time	Duration	Type	Maximum intensity		Polar-isation	Obs. on other frequencies			Remarks
					Inst.	Smooth					
Mc/s		U.T.	Minutes		10^{-21} w m^{-2} (c/s)$^{-1}$						
Syd 600	July 3	0612	1.5	CD	5	1					
Syd 600	4	0413	1.5	CD	5	0					
Syd 600	6	0540	0.4	SD	6	6					
Can 200	6	2309	51	CD	4	1	?→R	Syd 600 2306 Syd 1200 2306			
Meu 545	7	0738	1	SD	15	7					
Opr 200	7	1318	0.5	CD	6	3					
Syd 600	8	0505	3	CD	5	0					
Meu 255	8	0940	1	SD	5	3					
Syd 62	8	2155	0.5	CD	>84	24					
Syd 600	9	0356	26	CD	5	0					
Syd 1200	9	2327	0.1	SD	7	7					
Syd 600	10	0301	1	CD	6	0					Largest of several.
Syd 1200	10	0311	1	CD	8	1					Largest of four.
Syd 600	10	0448	0.2	SD	6	6					Largest of several.
Syd 600	10	0531	3	CD	5	0		Syd 1200 0531			Largest of several.
Syd 62	11	0019	2	CD	58	21					
Syd 600	11	0311	20	CD	8	1					Largest of three.
Cav 175	12	1114	30	SD		25					
Ott 2800	12	1605	9	SD		70	0	Byf 73 1614			
Syd 600	13	0333	5	CD	8	1					Largest of several.
Syd 600	13	0624	1.5	CD	8	1					Largest of several.
Meu 255	14	1130	2	SD	19	4					
Syd 1200	15	0450	7.5	CD	8	8					
Syd 600	17	0453	0.1	SD	6	6					
Cor 200	17	1519	0.5	SD	> 6	3		Meu 255 1523 Byf 73 1594			
Syd 1200	19	0035	2	SD	8	1		Ott 2800 0033			
Ott 2800	19	1500	2.5	SD		6					
Syd 98	20	0051	1.2	CD	>100	36		Can 200 0051 Syd 62 0051			
Meu 255	20	0858	2	SD	11	4					
Meu 255	20	1121	0.5	SD	8	2					
Can 200	21	0048	8	CD	11	1		Syd 1200 0048			
Syd 62	21	0515	6	M	>84	76		Can 200 0508 Byf 73 0515 Syd 98 0515 Syd 600 0515 Meu 255 0515 Syd 1200 0516			
Byf 73	21	0745	1.2	CD		>15					
Cav 175	21	1312	7	SD		>30		Meu 255 1304 Meu 545 1304 Byf 73 1311 Cor 200 1311 Cav 80 1312 Ott 2800 1320			
Syd 62	22	0229	1	CD	>84	28		Syd 98 0229			
Syd 1200	22	0259	1	CD	7	0					
Syd 62	22	0323	0.5	CD	>84	24					
Can 200	22	0526	1	CD	10	2		Syd 62 0526 Syd 98 0526 Byf 73 0527 Syd 1200 0528 Meu 255 0528			
Meu 545	22	0951	4	SD	9	4		Byf 73 0944 Meu 255 0951			
Meu 255	22	1512	1	SD	6	4					
Cor 200	22	1549	5	CA	>13	> 6		Meu 255 1549 Meu 545 1549 Byf 73 1550			

Can	200	23	0008	3	CA	13	3						
Meu	255	23	0703	1	SD	5	2						
Meu	255	23	0806	10	M	16	5						
Meu	255	23	1051	1	SD	7	3						
Meu	545	23	1527	8	M	6	3						
Byf	73	24	1058	1	CD		>15						
Meu	255	24	1520	2	SD	4	4						
Byf	73	25	1306	9	M		>>15						
Byf	73	25	1521	0.8	SD		>15						
Cor	200	25	1732	6.5	CA	28	4						
Cor	200	25	1843	1.5	CA	28	8						
Cor	200	25	1957	6	CA	28	5						
Cor	200	25	2012	5	CA	28	2						
Can	200	25	2215	3	CD	12	1						
Syd	600	25	2333	0.3	CD	6	1						
Syd	600	26	0618	5	M	7	7						
Meu	545	26	1343	1	SD	8	5						
Meu	255	26	1531	1	SD	6	4						
Meu	255	27	1156	0.5	SD	9	3						
Meu	255	27	1210	0.5	SD	16	3						
Meu	255	27	1410	2	SD	11	2						
Syd	62	28	0244	4.5	CD	72	28						
Meu	255	28	0439	5	M	14	4						
Syd	62	28	0510	39	M	>84	9						
Ott	2800	28	1735	28	SD		8						
Syd	98	28	2131	0.5	CD	56	30						
Syd	98	28	2213	0.4	CD	80	35						
Syd	62	28	2238	0.5	CD	58	30						
Syd	62	29	0121	1	CD	>84	80						
Meu	255	29	0709	1	SD	22	4						
Meu	545	29	0748	2	SD	16	4						
Byf	73	29	1714	5	SD		>15						
Syd	600	31	0509	1	CD	4	0						
Byf	73	31	1312	1	SD		>>15						
Byf	73	31	1354	0.5	SD		>15						
Ott	2800	31	2322	7	SD		1						
Syd	98	Augt 1	0005	10	M	>100	55	0	Syd	62	0005	Fade.	
									Can	200	0006		
Syd	600	1	0138	0.1	SD	5	5						
Meu	255	1	0715	0.5	SD	20	4						
Meu	255	1	1330	0.5	SD	21	5						
Cor	200	1	1358	65	CD	6	M		Byf	73	1423		
Ott	2800	1	1639	1	SD		1		Byf	73	1639		
Syd	62	1	2319	0.3	SD	>>84	>84						
Syd	62	2	0214	47.5	M	>>>84	14		Syd	98	0255		
Syd	62	2	0334	21	M	>>84	12						
Syd	62	2	0439	43	M	>>84	11		Syd	98	0438		
Syd	98	2	0542	62	M	>100	17		Syd	62	0545		
									Byf	73	0546		
Byf	73	2	0717	6	M		>15						
Cav	175	2	0904	90	SD		100		Byf	73	0902		
									Meu	545	0903		
									Meu	255	0905		
Byf	73	2	1237	8	M		>15		Cor	200	1235		
Byf	73	2	1317	1	SD		>>15						
Cor	200	2	1518	1	SD	>16	>16						
Meu	255	2	1546	10	SD	20	7		Meu	545	1546		
									Cor	200	1547		
									Byf	73	1548		
Syd	98	2	2115	0.7	CD	84	45						
Ott	2800	2	2202	2.5	SD		23	V					
Syd	98	3	0510	9	M	>100	25		Byf	73	0510		
									Meu	255	0510		
									Syd	62	0511		
Syd	98	3	0703	0.5	CD	>100	100		Byf	73	0704		
Meu	255	3	0956	0.5	SD	19	5						
Byf	73	3	1124	2.2	CD		>15		Meu	545	1123		
Meu	255	3	1411	3	SD	10	4		Byf	73	1409		
									Meu	545	1409		
Ott	2800	3	2133	1	SD		4						
Syd	600	4	0510	45	M	8	1					Largest of several.	
Syd	98	4	2121	0.5	CD	60	40						
Syd	98	4	2332	65	CD	>1600	>500	O→R	Ott	2800	2330	Flare. Fade.	
									Syd	62	2332		
									Can	200	2332		
Syd	98	5	0035		P			R→O					
Syd	98	5	0100		P			O→L					
Syd	98	5	2131	65	CD	46	3	L	Syd	62	2219		
Syd	62	5	2304	0.3	SD	>84	>84		Syd	98	2304		
Syd	62	5	2336	1.8	CD	54	36						
Syd	600	5	?	>40	CD	33	?		Syd	1200	?		
Syd	98	6	0425	0.4	SD	58	58						
Byf	73	6	0648	1	SD		>15		Syd	98	0648		
Cor	200	6	2033	1	CD	>6	2						
Syd	62	6	2211	0.5	CD	68	40						
Syd	98	6	2337	10	M	44	44						
Syd	62	7	0251	0.5	SD	>84	>84		Syd	600	0257		
Syd	1200	7	0313	1.5	CD	8	1						
Syd	98	7	2340	0.8	CD	60	32		Syd	62	2340		
Syd	98	8	2132	0.5	CD	88	38						
Syd	98	9	2109	1	CD	56	30						
Syd	98	9	2140	0.5	CD	140	90						
Syd	62	9	2336	5.5	M	>84	35		Syd	98	2336		
Can	200	11	0046	8	CD	9	2	?→R	Syd	98	0030	Flare. Fade.	
									Syd	62	0050		
Syd	62	12	0324	50	M	64	58						
Byf	73	12	1244	0.2	SD		>15						
Meu	255	12	1339	0.5	SD	18	6		Byf	73	1338		
									Meu	545	1338		
Meu	255	13	0823	0.5	SD	12	3						
Syd	98	13	2303	1.5	CD	200	60		Syd	62	2303		
Syd	98	14	2305	0.3	SD	>60	>60						
Syd	1200	15	0333	21	M	8	1		Syd	600	0333		
Meu	545	15	0748	1	SD	15	7		Meu	255	0748		
Meu	255	15	1338	0.5	SD	10	4		Meu	545	1338		
Cor	200	15	1751	37	M	>8	>8		Ott	2800	1751		
Byf	73	15	1802	5.5	CD		>15						
Syd	600	16	0628	18	CD	8	2		Syd	1200	0628		
									Meu	545	0628		
									Meu	255	0636		
									Can	200	0639		
									Byf	73	0639		
Syd	98	16	2108	1.5	CD	200	60						
Syd	98	17	0027	0.5	CD	85	50						
Syd	600	18	2323	1	CD	5	0						
Syd	600	19	0251	0.1	SD	6	6					Largest of three.	
Cor	200	20	2003	0.5	CD	7	1						
Ott	2800	21	2259	1.5	SD		1						
Ott	2800	22	2223	1.7	SD		1						
Cor	200	23	1406	0.2	SA	7	?						
Syd	1200	25	0046	10	CD	11	1						
Syd	62	26	0308	51	M	>1000	40		Syd	98	0307		

Meu	545	26	1540	0.5	SD	> 40	12				
Syd	98	27	0128	0.3	SD	> 60	>60		Syd	62	0127
Meu	255	27	0700	0.5	SD	17	4				
Cor	200	27	1939	1	CA	3	2				
Meu	545	30	1116	3	CD	9	4				
Meu	255	Sept 1	1500	1	SD	17	5				
Syd	62	6	0309	1	CD	450	180		Syd	98	0309
Meu	255	11	1052	2	SD	15	4				
Can	200	12	0609	2	CD	11	3				
Meu	545	12	0649	1	SD	15	5				
Meu	545	14	0855	1	SD	20	5				
Cor	200	17	1432	1	SA	7	3				
Syd	98	18	0231	2	CD	550	160				
Can	200	19	0052	2	CD	14	2				
Ott	2800	19	1704	6	SD		> 29				
Syd	98	20	0227	1.5	CD	160	80				
Syd	62	20	0306	32	CD	>1500	900		Can	200	0259
									Syd	1200	0306
									Syd	98	0306
Byf	75	20	1634	1.2	CD		>15				
Syd	62	21	2032	18	CD	300	40				
Syd	62	22	0123	0.5	SD	> 64	> 64				
Syd	98	24	2336	0.3	SD	>60	>60		Syd	62	2336
Cor	200	25	1642	3	CD	3	0				
Meu	545	28	0628	1	SD	6	4				
Cor	200	29	1540	15	CD	6	M				

Canberra, July 1951

R.v.d.R. Woolley

IV. SOLAR RADIO NOISE DATA

CO-OPERATING OBSERVATORIES

Details relating to the contributors to the fourth quarter of 1950 are as follows:-

OBSERVING STATION	ABBREVIATION	FREQUENCIES USED	NORMAL OBSERVING PERIOD
		Mc/s	(Hours U.T.)
Commonwealth Observatory, Canberra, Australia	Can	200	19 - 06
Cavendish Laboratory, Cambridge, England	Cav	80	10 - 15
		175	10 - 15
Radiophysics Laboratory, Sydney, Australia	Syd	62	20 - 07
		98	20 - 07
		600	20 - 06
		1200	20 - 06
Meudon Observatory, Paris, France	Meu	255	04 - 17
		545	04 - 17
National Research Council, Ottawa, Canada	Ott	2800	14 - 21
Laboratoire de Physique, Marcoussis, France	Mar	158	10 - 12
Army Operational Research Group, Byfleet, Surrey	Byf	73	04 - 20
Cornell University, Ithaca, N.Y., U.S.A.	Cor	200	13 - 21

TABULATED QUANTITIES

1. FLUX The unit for this tabulation is 10^{-22} watts metre^{-2}(c/s)$^{-1}$. The values can readily be converted into equivalent temperature T of the sun's visible disc by the relation

$$\text{Flux} = 2.09 \times 10^{-44} \nu^{2} T.$$

where ν is the frequency in cycles per second.

2. POLARISATION The radio-electric (not optical) convention is adopted so that for R polarisation the vector in a fixed plane perpendicular to the ray rotates clockwise when viewed in the direction of propagation. The values quoted are percentage polarisation, i.e.

$$100 \frac{I_R - I_L}{I_R + I_L}$$

where I_R and I_L are the intensities.

3. VARIABILITY The variability is described by indices on a scale 0 to 3 as follows:-

0 no observable variability
1 slight variability
2 moderate variability
3 violent variability

4. OUTSTANDING OCCURRENCES

S = Simple rise and fall of intensity.
C = Complex variation of intensity.
A = Appears to be part of general activity.
D = Distinct from (i.e. apparently superimposed upon) the general activity.
P = Sudden or significant change of polarisation.
M = Two or more peaks separated by relatively long periods of quietness.
E = Sudden commencement of activity.

The two maximum intensity columns contain, firstly, the maximum instantaneous value, and secondly, the maximum smoothed value measured above the previous level. The second is thought to be more suitable for comparative purposes. When the occurrence consists of well separated peaks (type M) it is not always possible to estimate a smoothed maximum value, and M is inserted in this column.

The intensity unit in these columns is 10^{-21} watts metre^{-2}(c/s)$^{-1}$. If an occurrence is observed on two or more frequencies at the same time, only one is tabulated in detail, and the others briefly indicated by station, frequency and starting time.

CONSTANTS AND CORRECTIONS

Corrections for the whole of 1950 are as follows:-

1. FLUX

No corrections have been submitted by authors. When plotted against frequency, minimum values fall on a smooth curve, except that Cavendish 175 flux is about half the expected value. However, for high flux days this station appears normal.

4. OUTSTANDING OCCURRENCES

The following corrections to dates and times should be applied in the April to June quarter:-

Syd 600 and Syd 1200, all occurrences between 2000 and 2359 decrease date by one day.
Syd 62 and Syd 98, April 4, for 2148 read 2118.
Syd 62 and Syd 98, May 7, for 2357 read 2257.
Syd 62 and Syd 98, May 30, for 0119 read 0019.

The Cavendish Laboratory advises that the quoted maximum intensities for the whole period April to December 1950 on Cav 80 and Cav 175 are ten times too great. However, a statistical comparison shows these intensities to be actually smaller than for other stations at similar wavelengths, and therefore, if the data are to be used for statistical purposes, it is preferable not to make this correction.

1. FLUX

Daily medians of radio-noise flux received from the sun in units of 10^{-22} watts metre^{-2} (c/s)$^{-1}$

	OCTOBER 1950									NOVEMBER 1950										DECEMBER 1950									
	Canberra	Cavendish		Sydney		Ottawa	Marcoussis	Meudon		Cornell	Canberra	Cavendish		Sydney			Ottawa	Marcoussis	Meudon		Cornell	Canberra	Cavendish		Sydney		Ottawa	Marcoussis	Meudon		Cornell
Mc/s	200	80	175	600	1200	2800	158	255	545	200	200	80	175	98	600	1200	2800	158	255	545	200	200	80	175	600	1200	2800	158	255	545	200
Date																															
1	9	5	-	-	-	-	6	13	23	9	8	2	4	G	22	37	84	3	11	20	10	13	3	4	25	46	97	8	11	20	14
2	8	2	-	-	-	86	4	11	21	8	8	2	4	G	27	39	86	4	10	20	10	16	3	-	26	48	-	9	10	-	10
3	8	2	-	26	-	82	5	12	21	10	8	2	4	G	28	39	88	4	9	20	10	10	2	-	26	44	-	9	-	-	10
4	8	-	-	26	-	80	5	13	20	10	8	2	3	G	30	43	-	5	7	17	8	9	5	3	26	43	97	10	10	20	9
5	8	-	-	24	-	82	6	12	21	10	8	-	-	G	30	48	-	6	8	18	10	8	2	3	26	45	95	11	9	18	8
6	8	2	2	27	37	82	6	11	20	-	9	2	4	G	29	48	105	5	14	22	15	8	3	4	25	46	101	11	12	18	11
7	9	-	-	-	-	-	4	12	20	-	9	2	5	G	29	46	99	-	-	-	10	9	2	4	27	42	105	9	12	20	18
8	9	2	-	31	45	-	4	13	21	9	8	2	5	G	29	44	99	6	13	21	9	16	70	6	28	45	110	16	-	-	18
9	9	2	2	30	42	-	7	12	20	8	9	2	10	G	29	44	101	7	14	22	13	16	2	3	31	48	-	-	12	-	10
10	8	-	3	29	45	95	5	13	21	9	14	3	14	24	30	-	99	11	15	21	18	12	2	3	28	50	-	9	-	-	10
11	8	2	6	27	44	99	4	12	20	-	22	-	4	40	31	45	-	6	12	20	8	11	2	3	28	46	118	10	-	-	10
12	7	2	5	28	44	95	6	-	-	8	8	2	3	G	30	45	-	7	13	20	11	12	2	3	27	41	103	10	-	-	11
13	8	-	4	31	48	95	6	13	21	8	15	2	4	20	38	41	90	12	19	21	32	12	3	4	28	46	103	12	-	-	8
14	7	2	6	-	-	-	5	12	23	8	20	4	6	25	37	40	96	10	11	20	14	12	2	4	-	42	90	-	13	28	12
15	7	2	5	-	-	-	4	-	-	9	12	4	7	G	28	45	97	10	13	20	18	9	2	3	28	41	84	6	14	24	11
16	6	3	5	30	44	108	4	11	20	10	24	20	35	12	30	39	95	36	13	20	54	8	3	3	27	41	-	-	14	26	10
17	7	2	4	28	42	105	-	12	21	10	11	4	4	G	28	41	88	11	13	20	14	7	2	3	26	41	75	13	13	26	14
18	7	2	5	25	-	98	5	11	22	9	10	2	5	-	28	37	-	7	13	20	14	7	2	2	28	40	73	-	13	24	10
19	8	2	4	-	-	95	5	11	20	9	8	2	3	-	28	37	-	5	11	18	8	8	3	2	23	35	71	8	12	22	12
20	8	2	4	-	-	84	5	11	20	10	7	2	5	G	27	37	77	5	11	20	8	8	2	3	22	-	73	8	12	23	-
21	7	2	3	-	-	-	6	11	20	10	7	2	5	G	25	30	77	5	11	20	10	8	-	-	-	39	71	7	15	22	14
22	7	2	4	-	-	-	5	12	20	9	7	2	2	G	28	31	77	6	10	22	10	9	2	2	-	35	69	7	14	28	12
23	7	2	4	-	-	75	5	12	20	8	8	2	2	G	25	33	71	5	11	20	10	9	2	3	-	38	71	9	-	-	9
24	6	3	5	-	-	73	6	12	20	10	7	2	2	G	26	32	73	4	10	20	10	8	2	3	28	37	71	8	-	-	10
25	7	2	5	-	-	77	7	10	21	10	8	2	2	G	26	30	-	5	9	19	-	7	2	3	-	44	-	8	-	-	-
26	8	2	4	22	30	77	6	10	20	10	8	2	3	G	26	35	-	7	9	20	16	8	2	3	-	42	-	6	-	-	-
27	8	2	4	22	32	75	7	10	20	10	9	2	3	G	22	39	82	9	-	-	10	8	2	3	26	41	86	5	13	25	8
28	8	2	4	22	34	-	6	11	20	9	10	6	4	G	25	38	90	10	19	23	15	8	2	4	-	43	88	-	15	28	-
29	8	2	5	-	-	-	7	10	20	10	10	2	3	G	-	38	92	12	10	20	12	9	2	3	28	45	86	4	11	25	9
30	8	-	-	24	34	88	7	11	20	10	11	2	3	G	25	36	90	11	11	20	15	9	2	3	-	46	-	7	14	23	8
31	8	2	5	25	36	84	7	10	20	10	-	-	-	-	-	-	-	-	-	-	-	10	2	3	29	44	-	7	11	23	9

G = median level below threshold (6 units at 62 Mc/s and 8 units at 98 Mc/s).
Sydney 62 Mc/s, Oct:, Nov: and Dec:. Sydney 98 Mc/s Oct: and Dec: - G for whole month.

2. POLARISATION

Daily medians or means of polarisation sense and percentage

	OCTOBER 1950		NOVEMBER 1950				DECEMBER 1950		
	Cavendish		Canberra	Cavendish		Sydney	Canberra	Cavendish	
Mc/s	80	175	200	80	175	98	200	80	175
Date									
1	-	-	-	0	0	-	R20	0	0
2	0	-	-	0	0	-	R 6	0	0
3	0	-	-	0	0	-	-	0	-
4	0	0	-	0	0	-	-	-	-
5	0	-	-	-	-	-	-	-	-
6	0	0	L13	0	0	-	-	-	-
7	-	-	-	L20	0	-	-	0	0
8	0	0	0	-	0	-	-	0	0
9	0	0	R 9	L20	L20	-	L 2	0	0
10	-	0	R 9	L20	0	R	-	L20?	-
11	0	0	R16	-	0	R	-	0	0
12	-	-	-	0	0	-	-	0	0
13	-	-	R70	0	0	R	-	0	L20
14	0	0	R39	0	R20	R	-	0	0
15	-	-	-	0	R20	-	-	0	0
16	0	0	R37	-	R50	R	-	0	0
17	0	0	R27	-	R20	-	-	0	-
18	0	0	-	0	0	-	-	0	0
19	-	-	-	-	-	-	-	0	0
20	0	0	-	0	0	-	-	0	0
21	-	-	-	0	0	-	-	0	0
22	-	-	-	0	0	-	-	0	0
23	0	0	-	-	-	-	-	-	-
24	0	R20	-	-	0	-	-	-	-
25	0	R20	-	0	0	-	-	-	-
26	0	R20	-	0	0	-	-	-	-
27	-	R20	-	-	-	L	-	-	-
28	0	0	-	-	-	-	-	-	-
29	0	0	-	-	-	-	-	-	-
30	-	-	R14	0	0	-	-	-	-
31	0	0	-	-	-	-	-	-	-

3. VARIABILITY

Daily indices on a scale 0-3 of the variability or activity of the solar noise

	OCTOBER 1950									NOVEMBER 1950									DECEMBER 1950								
	Canberra	Cavendish		Sydney		Marcoussis	Meudon		Cornell	Canberra	Cavendish		Sydney		Marcoussis	Meudon		Cornell	Canberra	Cavendish		Sydney		Marcoussis	Meudon		Cornell
Mc/s	200	80	175	600	1200	158	255	545	200	200	80	175	600	1200	158	255	545	200	200	80	175	600	1200	158	255	545	200
Date																											
1	-	1	-	-	-	1	0	0	0	1	0	1	0	0	0	1	0	1	2	1	1	0	0	1	1	0	1
2	0	0	-	-	-	0	0	0	0	1	0	0	0	0	0	0	0	1	2	1	-	0	0	1	1	-	2
3	1	0	-	0	-	1	0	0	1	1	0	0	0	0	1	0	0	0	1	1	-	0	0	0	-	-	0
4	1	-	-	0	-	1	1	0	1	1	0	1	0	0	0	0	0	1	1	2	1	0	0	1	1	0	0
5	1	0	-	0	-	1	2	0	0	0	-	-	0	0	0	0	0	0	1	1	1	0	0	0	1	0	0
6	1	0	0	0	0	0	1	0	-	2	1	1	0	0	1	2	1	3	1	2	1	0	0	0	1	0	0
7	1	-	-	0	-	1	1	0	0	2	2	1	0	0	-	-	-	1	1	0	0	0	0	0	1	-	1
8	1	0	-	0	0	0	1	0	0	2	1	1	0	0	0	2	0	2	2	3	2	0	0	1	-	-	3
9	0	0	0	0	0	1	1	0	0	2	1	3	0	0	1	2	0	3	2	1	2	0	0	-	-	-	1
10	0	-	0	0	0	1	1	0	0	2	2	2	0	-	2	3	0	3	1	0	1	0	0	0	-	-	0
11	0	0	1	0	0	0	0	-	0	2	-	1	0	0	0	2	0	0	1	1	1	0	0	0	-	-	0
12	0	0	1	0	0	0	-	-	0	2	0	1	0	0	1	1	0	2	1	1	1	0	0	0	-	-	0
13	0	-	1	0	0	1	1	1	0	2	1	2	0	0	1	2	0	3	1	1	1	0	0	1	-	-	0
14	0	0	1	-	0	1	0	0	0	2	1	2	0	0	0	1	0	0	1	0	1	0	0	-	1	1	1
15	0	1	0	0	0	0	-	-	0	1	2	2	0	0	1	1	0	2	1	0	0	0	0	0	1	1	0
16	0	1	1	0	0	0	0	0	0	2	2	2	0	0	2	1	0	2	1	0	1	0	0	0	1	0	0
17	0	1	0	0	-	-	0	0	0	1	0	0	0	0	1	1	0	1	0	0	0	0	0	1	1	0	0
18	0	0	1	0	-	0	0	0	0	1	0	0	0	0	1	1	0	1	0	0	0	0	0	-	1	0	0
19	0	0	0	-	-	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0
20	0	0	1	-	-	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	-	0	0	0	0
21	0	0	0	-	-	1	0	0	0	0	1	0	0	0	0	0	0	0	0	-	-	-	0	0	1	0	0
22	0	0	1	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	1	0	0	0
23	0	0	0	-	-	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	-	0	1	0	0	0
24	1	1	1	-	-	1	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	-	0	0	0	0	0
25	1	1	1	-	-	1	0	0	1	-	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0
26	1	1	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	-	0	0	1	0	0	0	0	0	1	0	0
28	0	0	0	0	0	0	0	0	0	1	2	0	0	0	1	2	1	2	1	1	1	0	0	0	1	0	0
29	0	1	0	0	0	0	0	0	1	2	0	1	0	0	1	1	0	2	0	0	1	0	0	0	0	0	0
30	0	-	-	0	0	0	1	0	0	2	0	1	-	0	1	1	0	2	0	0	0	0	0	0	1	1	0
31	0	0	0	0	0	0	1	0	0	-	-	-	-	-	-	-	-	-	0	0	0	0	0	0	1	0	0

4. OUTSTANDING OCCURRENCES

Station and frequency	Date 1950	Starting time	Duration	Type	Maximum intensity		Polarisation	Obs. on other frequencies			Remarks
					Inst.	Smooth					
Mc/s		U.T.	Minutes		10^{-21} w m^{-2} $(c/s)^{-1}$						
Cor 200	Oct 5	1730	60	SD	8	M					
Syd 62	8	0226	0.5	CD	250	48		Can	200	0226	
								Syd	98	0226	
Meu 255	8	0842	30	CD		> 4					
Syd 98	8	2254	0.3	CD	> 60	40					
Cor 200	14	1943	1	CD	>>> 4	1					
Cor 200	16	1912	1	CD	>> 5	1					
Cor 200	17	1806	0.5	CD	>> 4	1					
Syd 98	21	0715	0.5	CD	50	25					
Cav 80	24	1127	2	SD	9	9		Cav	175	1127	
Syd 98	29	2313	0.5	CD	58	28		Syd	62	2313	
Syd 62	30	0430	1.5	CD	>> 70	30					
Syd 62	Nov 8	0135	0.3	SD	>> 70	>70					
Syd 98	10	0021	12	M	34	7		Syd	62	0033	
Syd 98	10	2029	30	M	120	15		Syd	62	2029	
Cor 200	11	1638	0.3	M	> 7	2					
Syd 62	12	2336	4	M	220	110		Syd	98	2336	
Syd 62	13	0103	1	CD	26	12					
Syd 98	13	0214	26.5	M	36	6		Syd	62	0240	
Syd 62	13	0315	1½6	CD	> 70	70		Syd	98	0315	
Can 200	14	2150	18	CD	16	2M					
Syd 98	14	2258	14	CD	40	25	R				
Syd 62	15	2251	2	M	110	20					
Can 200	16	0345	5	CE	21	6	?→R				
Syd 98	17	0512	0.3	SD	60	60					
Cor 200	17	1815	15	CA	9	M					
Can 200	26	2251	11	CD	19	6					
Syd 98	27	0729	0.5	CD	> 70	25					
Ott 2800	27	1639	3.5	SD		1					
Syd 62	29	0310	2.5	CD	550	110		Syd	98	0310	
Syd 98	29	0538	2	CD	65	25		Syd	62	0538	
Syd 62	29	0715	5	M	100	40					
Syd 62	Dec 2	0150	0.3	SD	40	40					
Cav 80	4	1035?	45			40					
Ott 2800	6	1806	1	SD		0					
Can 200	6	2004	10	CD	13	2M		Cor	200	2006	
Syd 62	8	2359	5.5	CD	400	150					
Byf 73	9	1210	5	CD		> 15		Meu	255	1213	
Syd 62	9	2140	0.5	SD	70	70					
Syd 62	9	2220	2	CD	160	70					
Syd 62	9	2312	1.5	CD	450	300					
Syd 62	10	0120	6.5	CD	900	450		Can	200	0118	Fade.
Syd 62	11	2033	0.5	SD	50	50		Cor	200	2025	
								Syd	98	2033	
Can 200	12	0150	6	CD	12	2M					
Syd 98	12	2127	0.4	CD	55	20		Can	200	2127	
								Syd	62	2128	
Can 200	12	2152	10	CD	45	6		Syd	62	2153	
								Syd	98	2153	
Syd 62	12	2200	1	CD	320	75		Syd	98	2200	
Syd 98	13	0231	0.5	CD	46	25					
Syd 98	13	0519	2	CD	250	120		Syd	62	0520	
								Can	200	0520	
Syd 62	13	0703	2.5	CD	> 64	25		Syd	98	0703	
Cor 200	13	1505	8	CD	> 40	16		Ott	2800	1507	
Syd 98	13	1931	0.3	CD	60	40					
Can 200	13	2240	3	CD	23	2		Syd	98	2239	
								Syd	62	2241	
Syd 98	14	0351	1.5	CD	160	100		Syd	62	0353	
Can 200	14	0452	4	CD	68	3					
Cor 200	14	1547	5	CD	>> 8	2					
Cor 200	14	1736	6	CD	>>> 8	2					
Cor 200	15	1726	1.5	CD	> 7	1					
Syd 1200	15	2053	2	CD	6	0					
Syd 1200	15	2137	1	CD	6	1					
Syd 1200	15	2203	1	CD	4	0					
Syd 1200	15	2305	2	CD	4	1					
Syd 62	16	0615	1	CD	360	40		Can	200	0615	
Cor 200	16	1700	5	CD	> 3	1					
Syd 62	19	0451	0.5	CD	750	400		Syd	98	0455	
Syd 62	21	0202	1.5	CD	36	10					
Syd 98	21	2159	0.2	CD	70	50					
Syd 62	24	0653	0.1	CD	70	70					
Syd 1200	27	0006	7	CD	5	1					
Syd 62	28	2258	0.2	SD	80	80		Syd	98	2258	
Syd 62	29	0710	0.5	CD	80	20					
Syd 98	31	0219	1.2	CD	110	30	O	Can	200	0219	

Canberra, July 1951

R.v.d.R. Woolley