IV. SOLAR RADIO NOISE DATA

CO-OPERATING OBSERVATORIES

Details relating to the contributors to the first quarter of 1951 are as follows:-

OBSERVING STATION	ABBREVIATION	FREQUENCIES USED	NORMAL OBSERVING PERIOD
		Mc/s	(Hours U.T.)
Commonwealth Observatory, Canberra, Australia	Can	200	21 - 09
Cavendish Laboratory, Cambridge, England	Cav	81	10 - 15
		175	10 - 15
Radiophysics Laboratory, Sydney, Australia	Syd	62	23 - 07
		98	23 - 07
		600	23 - 06
		1200	23 - 06
Meudon Observatory, Paris, France	Meu	255	08 - 14
		545	08 - 14
National Research Council, Ottawa, Canada	Ott	2800	14 - 23
Laboratoire de Physique, Marcoussis, France	Mar	158	11 - 13
Army Operational Research Group, Byfleet, Surrey	Byf	73	06 - 17
Cornell University, Ithaca, N.Y., U.S.A.	Cor	200	14 - 20
Tokyo Astronomical Observatory, Mitaka, Tokyo	Tok	200	22 - 07
		100	22 - 07
		60	22 - 07

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.

$$100(I_R - I_L) / (I_R + I_L)$$

where I_R and I_L are the intensities.

3. VARIABILITY The variability is described by indices on a scale 0 - 3 where 0 = quiet, and 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.
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 other frequencies on which it has been observed are recorded.

1. FLUX

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

	JANUARY 1951													FEBRUARY 1951												MARCH 1951										
	CAN	CAV	CAV	SYD	SYD	SYD	SYD	OTT	MAR	MEU	MEU	COR	TOK	CAN	CAV	CAV	SYD	SYD	SYD	OTT	MAR	MEU	MNU	COR	TOK	CAN	CAV	CAV	SYD	SYD	OTT	MAR	MEU	MEU	COR	TOK
Mc/s	200	81	175	62	98	600	1200	2800	158	255	545	200	200	200	81	175	62	98	600	1200	2800	158	255	545	200	200	200	81	175	600	1200	2800	158	255	545	200	200
Date																																				
1	9	2	4	G	G	-	44	-	7	10	22	-	-	9	3	6	G	G	-	59	108	8	20	38	9	10	7	2	6	-	37	88	3	12	24	7	2
2	8	2	3	G	G	29	45	84	7	10	17	9	-	28	4	18	G	G	28	-	112	25	30	25	23	-	8	2	6	-	35	84	6	9	9	8	4
3	8	2	3	G	G	30	44	76	9	10	20	7	-	21	6	11	G	G	27	53	-	7	15	21	14	12	7	2	5	-	35	-	4	15	27	7	10
4	8	2	3	G	G	29	45	88	10	11	21	9	-	13	2	5	G	G	27	53	-	9	11	19	11	22	7	2	5	-	36	-	4	-	-	7	10
5	8	2	4	G	G	29	45	97	7	12	22	14	-	10	2	8	G	G	25	48	86	-	10	23	9	10	7	2	5	24	35	75	4	11	22	8	6
6	8	2	5	G	G	29	44	-	9	-	21	9	-	11	3	4	G	G	26	41	84	-	10	23	7	2	7	2	6	23	33	80	4	11	23	7	2
7	7	2	4	G	G	29	45	-	9	-	24	7	-	10	4	5	G	G	25	34	75	8	7	20	8	8	7	2	6	23	35	73	3	11	24	8	2
8	7	3	5	G	G	29	44	97	7	-	22	7	-	10	3	5	G	G	22	37	75	7	8	20	8	4	7	1	6	22	31	73	3	12	22	7	-
9	7	3	5	G	G	28	44	97	4	-	-	7	-	10	2	4	G	G	23	36	73	-	10	20	8	4	6	2	6	22	35	75	4	-	24	7	-
10	6	2	3	G	G	-	41	96	-	-	-	8	-	10	2	4	G	G	21	40	86	8	11	21	8	6	6	1	6	24	34	-	3	-	19	7	6
11	5	2	2	G	G	26	40	80	4	-	-	8	-	-	2	4	G	G	26	40	-	7	11	19	8	8	7	2	9	23	35	-	5	-	9	12	
12	5	2	3	G	G	24	39	77	4	-	-	-	-	10	2	4	G	G	26	39	77	9	13	19	8	6	10	2	8	23	30	75	5	-	24	8	18
13	5	1	3	G	G	31	38	-	7	-	-	8	6	8	-	4	G	G	21	36	73	7	10	21	8	8	10	2	6	24	32	75	5	13	23	7	12
14	5	2	3	G	G	25	35	-	7	-	-	9	8	8	2	3	G	G	23	37	80	6	10	20	7	8	8	2	7	23	34	75	4	11	23	10	10
15	6	3	3	G	G	21	31	71	7	-	-	9	10	8	2	3	G	G	-	-	77	5	11	20	7	-	8	2	6	22	34	75	4	10	20	7	-
16	8	2	3	G	G	21	35	73	5	-	-	9	6	8	2	3	G	G	22	29	77	4	13	21	7	8	7	1	5	23	33	77	5	11	24	8	10
17	-	2	3	G	G	25	33	73	5	-	-	9	8	8	2	3	G	G	-	-	-	5	11	21	7	8	7	1	7	25	36	-	5	9	23	7	12
18	8	2	5	-	G	-	33	77	4	-	-	8	10	7	2	4	G	G	-	-	-	5	11	21	7	8	7	-	-	-	36	-	5	11	22	7	10
19	6	2	5	G	G	-	38	75	4	-	-	10	6	8	6	5	G	G	22	37	88	6	11	21	7	8	8	1	6	25	34	92	6	12	23	7	12
20	6	3	4	G	G	-	31	-	10	-	-	9	6	8	2	4	G	G	25	41	86	8	12	22	7	8	10	3	9	24	38	95	7	14	21	10	10
21	6	2	5	G	G	-	37	-	-	-	-	9	12	8	2	5	G	G	24	40	90	5	11	20	7	8	14	3	24	26	43	112	12	19	21	16	14
22	6	2	3	G	G	25	41	88	4	-	-	10	8	8	2	3	G	G	32	39	92	5	11	20	-	-	19	6	27	25	38	108	14	18	25	19	20
23	6	3	4	G	G	-	-	97	6	-	-	9	8	8	2	5	G	G	24	38	92	6	11	21	-	-	16	3	15	27	39	-	8	16	23	13	18
24	8	2	3	G	G	28	44	92	-	-	-	7	6	8	2	9	G	G	22	38	-	12	14	25	10	8	24	15	18	29	43	127	6	14	21	22	30
25	10	3	8	G	G	23	49	114	9	-	-	10	10	39	250	20	720	811	23	42	-	25	16	21	56	20	20	3	16	27	37	-	4	16	22	16	18
26	10	4	8	G	G	28	53	120	12	-	-	17	8	18	40	40	54	171	24	43	108	18	11	24	11	30	10	-	8	31	35	-	3	15	22	10	14
27	14	4	7	11	G	32	49	-	8	13	21	11	10	8	8	7	G	G	24	42	101	6	11	25	8	10	9	2	6	26	45	107	3	13	20	8	8
28	32	10	50	G	79	34	53	-	-	45	32	25	20	7	2	6	G	G	25	39	101	5	10	25	7	6	8	2	-	27	34	101	4	11	22	8	2
29	24	7	9	G	20	35	53	129	5	28	31	43	14														10	2	7	25	38	92	6	15	20	10	6
30	34	3	8	G	G	31	-	127	15	-	30	18	32														11	-	7	27	39	93	3	-	-	11	6
31	8	3	7	G	G	32	51	120	8	-	31	9	8														11	1	7	-	33	-	-	-	-	9	8

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

2. POLARISATION

Daily medians or means of polarisation sense and percentage

	JANUARY 1951				FEBRUARY 1951				MARCH 1951			
	CAN	CAV	CAV	SYD	CAN	CAV	CAV	SYD	CAN	CAV	CAV	SYD
Mc/s	200	81	175	98	200	81	175	98	200	81	175	98
Date												
1	-	-	-	-	V	0	0	-	-	0	0	-
2	-	-	-	-	0	0	0	-	-	0	0	-
3	-	0	0	-	V	R20	0	-	-	0	0	-
4	-	0	0	-	-	0	0	-	-	0	0	-
5	-	0	0	-	-	0	0	-	-	0	0	-
6	-	0	0	-	-	0	0	-	-	0	0	-
7	-	0	0	-	-	0	0	-	-	0	0	-
8	-	0	0	-	-	0	0	-	-	0	0	-
9	-	0	0	-	-	0	0	-	-	0	0	-
10	-	0	0	-	-	0	0	-	-	0	0	-
11	-	0	0	-	-	0	0	-	-	R20	R20	-
12	-	0	0	-	-	0	0	-	R23	R20	R50	-
13	-	0	0	-	-	0	0	-	V	0	0	-
14	-	0	0	-	-	-	0	-	-	L20	R20	-
15	-	0	0	-	-	0	0	-	R 9	0	0	-
16	-	0	0	-	-	0	0	-	-	0	0	-
17	-	-	-	-	-	-	0	-	-	0	0	-
18	-	-	0	-	-	0	0	-	-	-	-	-
19	-	0	0	-	-	0	R20?	-	-	0	0	-
20	-	0	0	-	-	0	0	-	-	-	R20	-
21	-	0	0	-	-	0	0	-	R40	-	R50	-
22	-	-	0	-	-	0	0	-	R39	R20	R20	-
23	-	-	0	-	-	0	0	-	R50	0	R20	-
24	-	-	-	-	-	0	0	-	R62	-	-	R
25	-	R20	R20	-	R51	R C	R C	R70	R54	R20	R20	R84
26	-	R20	R20	-	R55	R C	R C	R54	-	-	0	R
27	R18	R20	R20	-	-	0	R20	-	-	0	0	R
28	R47	R50	R50	R39	-	0	R20	-	-	0	-	-
29	R40	0	R20	R33					-	0	0	-
30	R56	0	0	-					-	-	-	-
31	0	0	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 of the solar noise

	JANUARY 1951											FEBRUARY 1951											MARCH 1951									
	CAN	CAV	CAV	SYD	MAR	MEU	MEU	COR	TOK	TOK	TOK	CAN	CAV	CAV	SYD	MAR	MEU	MEU	COR	TOK	TOK	TOK	CAN	CAV	CAV	MAR	MEU	MEU	COR	TOK	TOK	TOK
Mc/s	200	81	175	98	158	255	545	200	200	100	60	200	81	175	98	158	255	545	200	200	100	60	200	81	175	158	255	545	200	200	100	60
Date																																
1	0	0	0	-	1	2	1	-	0	-	0	2	2	2	-	1	3	1	2	1	-	1	2	1	1	1	1	0	1	1	1	-
2	0	0	0	-	0	2	0	0	0	-	0	2	2	2	-	1	2	1	2	1	-	0	1	0	1	1	0	0	2	0	-	-
3	0	0	0	-	1	0	0	1	0	-	0	2	2	1	-	1	1	2	2	1	-	1	1	1	1	1	0	-	0	1	-	-
4	1	0	0	-	1	0	0	1	0	-	0	1	0	1	-	1	0	2	2	1	-	0	0	2	1	1	0	-	1	1	-	-
5	1	0	0	-	1	0	0	1	0	-	0	1	0	1	-	-	1	2	1	1	-	0	1	0	0	1	0	0	0	1	1	-
6	-	0	0	-	1	-	0	1	0	-	0	1	1	1	-	-	0	1	0	1	-	0	0	0	1	1	0	0	-	1	1	-
7	0	1	1	-	0	-	0	0	0	-	0	1	1	1	-	1	0	1	0	0	-	0	0	0	0	1	1	0	1	1	-	-
8	0	0	1	-	1	-	0	0	0	-	0	1	0	1	-	0	0	0	0	0	-	0	1	0	0	1	1	0	0	0	-	-
9	0	0	1	-	1	-	-	1	0	-	0	0	1	1	-	-	1	0	0	0	-	0	0	0	0	0	0	1	0	0	-	-
10	0	-	1	-	-	-	-	0	0	-	0	1	1	2	-	1	1	0	1	0	-	0	0	0	0	0	0	0	0	0	0	-
11	0	0	0	-	1	-	-	0	1	-	0	0	0	1	-	1	1	0	0	0	-	0	1	0	1	1	-	-	2	1	0	-
12	2	0	0	-	0	-	-	-	-	-	1	1	1	2	-	1	0	0	1	0	-	0	2	1	2	1	1	0	2	1	1	-
13	0	1	1	-	0	-	-	0	1	-	1	1	0	-	-	0	0	0	0	0	-	0	2	1	1	1	3	0	0	1	1	-
14	-	1	1	-	0	-	-	0	0	-	1	1	0	1	-	0	0	0	1	0	-	0	2	1	2	1	3	0	2	1	1	-
15	-	1	1	-	0	-	-	0	0	-	0	0	1	2	-	0	1	0	1	0	-	-	2	0	0	1	1	0	1	-	0	-
16	1	0	1	-	1	-	-	0	1	-	1	0	0	1	-	0	1	0	1	0	-	1	1	0	0	1	0	0	1	1	1	-
17	-	1	1	-	0	-	-	0	0	-	0	0	1	1	-	1	0	0	1	0	-	1	1	0	0	1	0	0	1	0	1	-
18	0	1	1	-	0	-	-	0	0	-	0	1	1	1	-	1	0	0	1	0	-	1	2	0	0	1	1	0	0	1	1	-
19	1	0	1	-	0	-	-	1	0	-	0	0	2	2	-	1	1	1	1	0	-	1	1	0	0	1	2	0	1	1	0	-
20	0	1	2	-	1	-	-	0	1	-	1	0	2	0	-	1	0	1	0	1	-	0	1	1	1	0	1	0	0	2	0	-
21	1	0	1	-	0	-	-	1	0	-	0	0	1	1	-	0	0	0	0	1	-	0	1	2	2	2	2	1	2	1	0	1
22	1	0	1	-	0	-	-	1	0	-	0	0	1	1	-	0	0	0	0	-	-	0	2	2	3	2	2	0	1	1	0	1
23	1	0	1	-	0	-	-	0	0	-	0	1	1	2	-	1	1	0	0	-	-	0	2	3	3	2	2	0	1	1	0	1
24	1	0	1	-	0	-	-	1	1	-	0	2	1	1	-	2	2	0	0	1	-	0	2	3	3	2	2	0	1	1	0	1
25	1	1	2	-	1	-	-	2	0	-	1	1	2	2	-	2	2	0	2	1	-	0	2	3	1	1	1	0	2	1	2	1
26	2	1	2	-	1	-	-	2	1	-	0	1	2	2	0	1	1	0	2	1	1	1	1	-	1	0	2	0	1	0	1	1
27	2	1	2	-	1	1	0	2	1	-	1	1	2	2	-	2	1	0	1	1	1	1	2	0	0	0	0	0	1	1	0	-
28	2	2	2	0	-	2	1	2	-	-	1	2	2	2	-	1	0	0	1	1	2	1	1	0	-	0	1	1	1	1	0	-
29	2	2	2	0	1	2	1	2	2	-	2												1	0	1	0	2	1	2	1	0	-
30	2	2	2	-	1	-	1	2	2	1	2												1	-	0	0	1	-	-	-	-	-
31	2	1	1	-	1	-	1	2	1	-	1												2	0	0	-	-	-	-	-	1	0

4. OUTSTANDING OCCURRENCES

Station and frequency	Date 1951	Starting time	Duration	Type	Maximum intensity		Polarisation	Other frequencies on which occurrence is observed.	Remarks
					Inst.	Smooth			
Mc/s		U.T.	Minutes		10^{-21} w $m^{-2}(c/s)^{-1}$			Mc/s	
Cor 200	Jan 5	2046	12	CD	> 5	> 5			
Syd 98	8	0434	0.1	SD	>60	30	0		
Syd 98	10	0350	0.3	SD	>64	31	0		
Ott 2800	12	1919	21	SD		2			
Syd 98	15	2346	3.2	CD	60	10			
Syd 62	16	0250	14.5	M	78	4			
Tok 60	16	0701	1	CD	>40	1			
Syd 62	22	0119	6.4	M	50	3			
Ott 2800	22	1625	25	CD		106		200	
Ott 2800	23	1851	2	SD		0			
Syd 62	24	2132	0.5	SD	72	15			
Ott 2800	25	2036	3.5	SD		1			
Ott 2800	26	1651	6	CD		6			
Can 200	27	0228	2	CA	68	5			
Cor 200	27	1925	>110	E	> 5	1			
Syd 62	28	0638	0.3	SA	54	21			
Meu 255	28	1005				80			
Syd 62	29	0329	14.1	M	58	2		98	
Syd 98	29	0715	0.5	CD	>1400	670		62	
Meu 255	29	1410				80			
Syd 62	29	2305	15	M	57	3			
Syd 62	30	0334	10.5	M	54	4			
Tok 200	30	0553	2	CD	140	50		60,62,98,100.	Flare. Fade.
Tok 60	30	0555	2	CD	40	10			
Cav 81	30	1215	60	SD	2	1			
Byf 73	30	1429	5	CD		> 15			
Cav 175	30	1458	8	SD		> 2			
Tok 60	31	0302	3	CD	35	10			
Syd 98	31	2322	2	CD	35	9		62,200.	
Syd 600	Feb 1	0117	5	CD	5	0			
Cor 200	1	2000	>100	E	> 5	1			
Syd 98	7	0002	15.7	M	60	4			
Cav 175	13	1045	30	SD		3		73,255,545.	
Meu 255	13	1115	9	M		40		545.	
Syd 98	16	0420	0.1	CD	> 64	40			
Syd 62	16	0541	0.8	CD	68	9			
Syd 98	16	0824	2	CD	54	14	0	73.	
Syd 62	16	2328	5.6	CD	40	4			
Syd 62	17	0312	1.9	CD	228	42		60,98.	Flare.
Byf 73	17	1157	3	CD		>15			
Tok 60	18	0019	0.3	CD	> 40	6			
Byf 73	18	1505	5	M		>15			
Cor 200	19	1405	35	CD	> 14	> 3		73,81,175,255,545,2800.	
Byf 73	21	1648	1	CD		>15			
Syd 98	22	0750	1	CD	430	160	0		

Syd	98	23	2118	1	CD	150	33			
Tok	60	24	0139	0.2	SD	40	6		62.	
Syd	62	24	0250	1	CD	1370	260		60,98.	
Tok	200	24	0630	0.5	CD	150	30		60,62,98.	
Cor	200	24	1432	7.5	CA	>14	7			
Syd	98	24	2235	26.2	CD	270	10	0	62,200.	
Tok	60	25	0000	>490	CA	>40	>40			
Tok	100	25	0700	> 60	CA	18	13			
Byf	73	25	1011	1	CD		>15			
Meu	545	25	1402				160		255.	
Byf	73	25	1733	1	CD		>15			
Tok	60	25	2200	>580	CA	>40	>40		100.	
Tok	100	26	0203	4	CD	>30	?			Flare.
Syd	62	26	0204	14.8	CA	>80	43		60,98,100.	Flare.
Can	200	26	0230	22	CD	135	12	R	100.	Fade. Flare.
Cor	200	26	1548	12	CD	14	7		73.	
Meu	545	27	0811	3	M		80			
Cav	175	27	1125	120	CD	2	1		73,81.	
Meu	255	27	1320	17	M		160		545.	
Cor	200	27	1400	180	SD	3	M			
Cor	200	27	1755	15	SD	3	M			
Cor	200	27	1907	25	CD	3	1			
Can	200	27	2037	2	CD	10	2			
Syd	98	28	0229	1	CD	>65	34	0	62,100.	
Syd	62	28	0336	0.2	SD	70	34		98.	
Tok	100	28	0512	2	CD	>30	8			
Cav	81	28	1140	5	SD	1	1		175,255.	
Cor	200	28	2008	11	CD	3	1			
Ott	2800	28	2144	8	SD		3		62,98	
Syd	98	28	2252	9	M	>67	8	0	62.	
Syd	62	Mar 1	0059	0.2	SD	53	2			
Syd	98	1	0208	1	CD	60	14		100	
Meu	255	1	1157				80			
Cor	200	1	1606	6	CD	> 4	1			
Ott	2800	1	1740	7	SD		0			
Cor	200	1	1940	2	CD	21	10			
Syd	98	1	2041	5.2	M	55	4			
Syd	98	2	0109	2	CD	>70	23			Flare.
Syd	62	2	0702	0.5	CD	72	18			Flare.
Ott	2800	2	1856	6	CD		3			
Syd	98	2	2054	12.2	CD	>1500	230	0	62,200,2800.	
Can	200	2	2154	8	CD	570	8			
Syd	62	3	0258	0.5	SD	76	38		98.	
Meu	545	3	1136				80		255.	
Can	200	4	0324	4	CD	16	2		100.	
Cor	200	4	1546	7	CD	> 4	2			
Tok	100	5	0418	1	CD	30	2			
Syd	600	5	0608	7	CD	4	0		62,98.	
Syd	98	5	0648	0.3	SD	410	150			
Syd	600	5	0713	0.1	SD	4	4			
Byf	73	5	1537	1.5	CD		>15			
Cor	200	5	1946	5	CD	> 4	1			
Syd	62	5	2314	28	M	>72	2			
Tok	100	6	0131	0.5	M	23	0		98	
Syd	62	7	2108	0.3	CD	51	19			
Syd	600	12	0621	12	CD	3	0			
Cor	200	15	1554	14	CD	>35	M			
Cor	200	15	2032	22	CD	> 4	M		62,2800.	
Syd	62	16	0520	0.6	SD	970	340		98,600.	
Syd	62	18	0456	0.8	CD	32	11			
Tok	200	18	0604	1	SD	100	60		62,98.	
Meu	255	18	1121							
Can	200	19	0041	1	CD	17	2			
Tok	200	19	0211	1	CD	40	10			
Cav	81	20	1128	4	SD		1			
Cav	81	20	1508		CD		>3		175.	
Cor	200	21	1848	15	CD	> 7	1			
Syd	98	24	2020	99	CD	>34	11	R78	1200.	
Tok	60	25	0248	120	CD	25	15		100,200,600,1200.	
Syd	62	25	0520	21.4	M	970	37		60,100,200,600,1200.	
Byf	73	25	1010	1.5	CD		>15			
Cor	200	25	1850	30	CD	6	3			
Syd	62	25	2113	0.4	SA	57	19			
Syd	600	25	2200	100	CD	5	2		98,1200.	
Syd	98	26	0216	0.2	SD	55	30		600.	
Syd	98	26	0526	16.6	M	60	2	0	62.	
Syd	1200	26	0637	3	CD	4	0			
Syd	600	26	0700	30	CD	3	0			
Byf	73	26	1000	0.8	CD		>15			
Cor	200	26	1459	40	CD	10	M			
Syd	600	26	2253	20	CD	4	0		62.	
Syd	98	27	0033	1.6	M	> 66	5		62.	
Syd	98	27	0252	23.5	M	>1300	13		62,600	
Syd	600	27	0400	200	CD	3	0			
Ott	2800	27	2058	8	CD		1			
Syd	62	27	2253	47	M	42	1		2800.	
Syd	62	28	0458	1.2	CD	56	18			
Syd	62	29	0414	0.7	CD	42	12			
Byf	73	30	1430	4.2	CD		>15		200.	
Syd	62	30	2025	1.2	CD	560	280		98.	
Syd	98	30	2212	0.7	CA	43	12		62.	
Syd	1200	31	0615	30	CD	3	0			

Canberra, Octobre 1951

C.W. Allen

IV. SOLAR RADIO NOISE DATA

CO-OPERATING OBSERVATORIES

Details relating to the contributors to the second quarter of 1951 are as follows:-

OBSERVING STATION	ABBREVIATION	FREQUENCIES USED Mc/s	NORMAL OBSERVING PERIOD (Hours U.T.)
Commonwealth Observatory, Canberra, Australia	Can	200	21 - 06
Cavendish Laboratory, Cambridge, England	Cav	81	10 - 15
		175	10 - 15
Radiophysics Laboratory, Sydney, Australia	Syd	62	19 - 07
		98	19 - 07
		600	20 - 06
		1200	20 - 06
Meudon Observatory, Paris, France	Meu	255	08 - 14
		545	08 - 14
National Research Council, Ottawa, Canada	Ott	2800	14 - 23
Laboratoire de Physique, Marcoussis, France	Mar	158	11 - 13
Army Operational Research Group, Byfleet, Surrey	Byf	73	04 - 20
Tokyo Astronomical Observatory, Mitaka, Tokyo	Tok	200	00 - 08
		100	00 - 08
		60	00 - 08
Radio Astronomical Observatory, Osaka City University, Osaka, Japan	Osa	3260	23 - 08
Research Institute of Atmospherics, Nagoya University, Toyo Kawa, Japan	Nag	3750	23 - 08

TABULATED QUANTITIES

For definitions of the tabulated quantities refer to No. 93 of the Quarterly Bulletin.

1. FLUX

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

APRIL 1951

	CAN	CAV	CAV	SYD	SYD	SYD	SYD	OTT	MAR	MEU	MEU	TOK	NAG
Mc/s	200	81	175	62	98	600	1200	2800	158	255	545	200	3750
Date													
1	7	-	6	G	G	24	32	-	6	10	18	10	-
2	7	2	6	G	G	23	34	77	3	9	17	6	-
3	8	2	7	G	G	22	38	75	4	8	16	2	-
4	7	2	6	G	G	21	32	71	5	-	-	2	-
5	7	3	8	G	G	19	30	73	-	9	20	6	-
6	8	2	6	G	G	21	33	80	-	11	24	4	-
7	7	1	8	G	G	20	28	-	-	10	20	4	-
8	10	2	13	G	G	22	33	-	-	-	-	10	-
9	13	2	8	G	G	21	33	84	6	10	22	12	-
10	10	2	7	G	G	21	33	90	7	10	20	10	-
11	8	2	6	G	G	25	36	92	3	10	23	24	-
12	7	1	8	G	G	22	38	112	5	-	-	16	-
13	8	1	6	G	G	24	41	120	5	11	25	12	-
14	8	2	10	G	G	-	44	120	5	11	21	16	-
15	7	1	8	G	G	22	42	144	8	-	-	10	-
16	6	1	6	G	G	23	43	129	4	10	23	6	-
17	6	2	8	G	G	26	45	131	4	14	23	10	-
18	16	2	30	G	17	25	47	140	13	19	24	36	260
19	19	4	50	G	G	26	41	135	30	22	30	24	260
20	7	2	6	G	G	25	46	132	3	12	23	14	240
21	19	2	6	111	441	26	42	-	4	12	24	75	220
22	6	2	5	G	G	24	45	-	5	10	20	6	190
23	5	1	5	G	G	21	42	125	4	10	21	12	200
24	5	1	5	G	G	24	41	124	4	11	21	20	190
25	6	1	7	G	G	24	41	123	5	12	21	20	190
26	7	1	7	G	G	21	41	-	4	13	25	20	-
27	8	1	7	G	G	-	-	120	4	14	25	16	-
28	8	2	8	G	G	-	41	-	3	22	22	14	-
29	8	1	5	G	G	-	41	-	4	14	23	20	-
30	14	4	11	G	G	-	41	97	10	-	-	20	-
31													

MAY 1951

	CAN	CAV	CAV	SYD	SYD	SYD	SYD	OTT	MAR	MEU	MEU	TOK	NAG	OSA
Mc/s	200	81	175	62	98	600	1200	2800	158	255	545	200	3750	3260
Date														
1	12	2	7	G	G	-	-	92	-	11	22	18	-	-
2	13	2	9	G	G	-	-	90	9	13	23	33	-	86
3	8	1	6	G	G	-	32	84	6	10	24	10	-	-
4	7	1	6	G	G	-	-	82	5	10	20	9	-	67
5	7	1	5	G	G	25	31	-	5	12	18	9	-	-
6	7	1	5	G	G	25	30	-	7	11	20	14	-	-
7	7	1	6	G	G	25	33	77	5	10	15	10	-	-
8	8	2	14	G	G	24	32	86	4	13	18	5	-	-
9	26	2	16	G	G	27	37	97	7	24	22	30	-	82
10	10	3	10	G	G	27	36	118	3	14	23	20	-	90
11	8	1	10	G	G	29	40	133	3	10	22	8	-	110
12	8	1	7	G	G	29	41	-	3	12	20	10	-	146
13	7	1	6	G	G	28	47	178	-	11	20	15	260	141
14	8	2	7	G	G	31	52	200	-	11	20	12	270	189
15	11	2	7	G	G	33	49	209	20	32	28	10	280	202
16	11	2	8	G	G	36	56	210	3	15	29	10	290	215
17	32	5	40	G	19	39	54	210	14	34	28	50	290	208
18	20	50	30	G	58	-	-	218	12	-	-	25	300	222
19	27	3	16	G	G	39	54	216	4	28	29	40	290	217
20	18	3	10	G	G	-	-	207	3	22	26	20	-	-
21	40	4	60	G	24	20	52	213	12	32	25	50	270	209
22	21	4	10	G	15	-	50	204	12	45	38	10	280	-
23	117	15	45	1469	1397	39	52	176	20	41	32	50	240	178
24	14	5	28	G	49	38	50	159	10	32	22	12	220	162
25	19	2	9	G	G	-	-	148	5	15	20	40	210	158
26	8	2	10	-	G	32	46	135	-	11	17	10	190	132
27	-	1	7	-	G	29	39	-	-	12	18	10	-	-
28	10	1	10	-	G	28	39	102	7	-	-	8	-	112
29	9	1	7	G	G	27	38	95	3	14	18	10	-	97
30	7	1	7	G	G	27	37	92	3	11	23	5	-	95
31	7	1	8	G	G	25	34	88	4	12	18	5	-	-

JUNE 1951

	CAN	CAV	CAV	SYD	SYD	SYD	SYD	OTT	MAR	MEU	MEU	TOK	NAG	OSA
Mc/s	200	81	175	62	98	600	1200	2800	158	255	545	200	3750	3260
Date														
1	6	2	6	G	G	26	34	84	4	12	19	10	-	85
2	7	1	6	G	G	27	33	-	3	10	17	10	120	87
3	6	1	7	G	G	27	35	-	3	-	18	2	-	-
4	8	1	7	G	G	26	34	-	3	10	17	4	-	86
5	8	1	7	G	G	28	36	112	3	11	17	8	140	101
6	8	1	8	G	G	27	37	132	3	11	16	10	200	120
7	9	2	17	G	G	30	43	161	4	18	19	15	200	146
8	12	2	9	G	G	-	-	172	3	14	23	6	230	159
9	18	80	37	G	41	31	47	172	12	36	21	10	230	171
10	20	400	18	3280	528	31	49	163	7	-	-	25	220	-
11	11	60	15	596	124	31	49	170	9	16	19	10	230	187
12	16	8	16	235	65	33	52	172	10	20	17	10	230	178
13	34	25	14	G	30	33	61	176	10	18	25	16	250	174
14	29	5	38	G	23	33	63	178	15	26	25	17	240	160
15	46	30	60	G	39	-	-	174	20	40	38	23	250	80
16	179	60	160	G	1012	38	56	-	90	82	35	60	260	186
17	204	120	400	147	1281	39	50	-	200	81	26	300	250	178
18	50	16	90	G	47	40	48	172	45	31	29	50	260	189
19	34	2	23	G	G	44	51	163	18	26	27	40	250	176
20	20	2	45	G	G	39	47	156	20	25	26	10	240	165
21	11	2	12	G	G	36	43	142	6	15	24	-	240	160
22	13	4	16	G	G	33	40	133	-	19	25	4	240	155
23	10	1	12	G	G	31	36	-	-	13	23	2	200	139
24	10	1	16	G	G	29	38	-	-	15	18	10	180	-
25	9	1	10	G	G	29	31	101	-	12	19	8	150	115
26	8	1	15	G	G	34	22	86	-	12	19	8	130	100
27	8	1	11	G	G	33	39	80	-	14	20	2	130	95
28	13	1	9	G	G	30	38	77	-	12	21	2	120	-
29	9	1	9	G	20	31	37	75	-	12	19	5	120	86
30	6	1	8	G	G	32	33	-	-	-	-	5	120	65

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 precentage

	APRIL 1951				MAY 1951				JUNE 1951			
	CAN	CAV	CAV	SYD	CAN	CAV	CAV	SYD	CAN	CAV	CAV	SYD
Mc/s	200	81	175	98	200	81	175	98	200	81	175	98
Date												
1	-	-	-	-		-	-	-	-	0	0	-
2	-	-	-	-	0	0	0	-	-	0	0	-
3	-	-	-	-	-	0	0	-	-	0	0	-
4	-	-	-	-	-	0	0	-	R14	0	0	-
5	-	-	-	-	-	0	0	-	-	0	0	-
6	-	-	-	-	-	0	0	-	-	0	0	-
7	-	-	-	-	-	0	0	-	-	0	0	-
8	-	-	-	-	R43	0	R20	-	R16	0	0	-
9	R32	0	0	-	R66	0	0	-	-	R50	R50	R52
10	-	0	0	-	R28	L20	L20	-	R53	R50	R50	R88
11	-	0	0	-	-	0	0	-	-	R50	R50	R89
12	-	0	0	-	-	0	0	-	L34	-	0	R66
13	-	0	0	-	-	0	0	-	L57	L20	0	V
14	-	0	R20	-	-	0	0	-	R17	0	0	V
15	-	0	0	-	-	0	0	-	L52	0	0	L39
16	-	0	R20	-	-	0	0	-	L54	0	L50	V
17	-	0	R20	-	R71	0	R20	-	-	L50	RC	R70
18	R40	R20	R50	R37	R40	L20	0	R63	R49	R20	0	V
19	R60	R20	R50	-	R21	0	0	-	L43	0	L20	-
20	R50	0	0	-	R17	0	0	-	0	0	0	-
21	-	0	0	R63	R30	L50	0	R34	-	0	0	-
22	-	0	0	-	R31	0	0	-	L10	0	0	-
23	-	0	0	-	R40	0	R20	R66	L20	0	0	-
24	-	0	0	-	R33	0	0	R62	-	0	0	-
25	-	0	0	-	R25	0	0	-	-	0	0	-
26	-	0	0	-	-	0	0	-	-	0	0	-
27	-	0	0	-	-	0	0	-	-	0	-	-
28	L27	-	0	-	R14	0	0	-	0	0	R20	-
29	0	L20	0	-	-	0	0	-	-	0	-	R46
30	0	0	0	-	-	0	0	-	-	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 of the solar noise

	APRIL 1951											MAY 1951											JUNE 1951										
	CAN	CAV	CAV	SYD	SYD	MAR	MEU	MEU	TOK	TOK	TOK	CAN	CAV	CAV	SYD	SYD	MAR	MEU	MEU	TOK	TOK	TOK	CAN	CAV	CAV	SYD	SYD	MAR	MEU	MEU	TOK	TOK	TOK
Mc/s	200	81	175	62	98	158	255	545	200	100	60	200	81	175	62	98	158	255	545	200	100	60	200	81	175	62	98	158	255	545	200	100	60
Date																																	
1	0	-	0	-	-	1	0	0	0	-	-	1	1	1	-	-	-	1	0	1	1	1	-	0	0	-	-	1	0	0	0	0	0
2	0	0	0	-	-	0	0	0	0	0	1	2	1	1	-	-	-	2	1	0	1	0	0	-	0	0	-	-	1	0	0	0	0
3	0	0	0	-	-	0	1	0	0	0	0	1	0	0	-	-	0	1	1	0	0	0	-	1	0	-	-	1	-	0	0	0	0
4	0	0	0	-	-	1	-	-	0	0	0	1	0	0	-	-	0	0	0	0	0	0	1	0	0	-	-	1	0	0	0	0	0
5	2	1	1	-	-	-	0	0	1	0	1	1	0	0	-	-	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	1
6	1	0	0	-	-	-	0	0	0	0	0	1	0	0	-	-	0	1	0	0	0	0	1	1	1	-	-	1	0	0	0	1	1
7	1	0	0	-	-	-	0	0	-	0	0	1	0	0	-	-	1	0	0	1	1	1	2	0	2	-	-	1	3	1	1	1	1
8	2	1	2	-	-	-	-	-	1	0	1	0	1	2	-	-	1	1	0	0	0	0	2	2	1	-	-	1	2	1	0	0	1
9	1	0	1	-	-	1	1	0	1	0	0	2	2	2	-	-	2	3	0	3	0	0	2	3	3	-	0	1	3	1	0	0	1
10	2	1	1	-	-	1	0	0	1	1	2	2	2	2	-	-	1	2	0	2	0	1	1	2	2	-	0	1	-	-	1	3	3
11	1	1	1	-	-	1	1	0	1	1	1	1	1	1	-	-	1	0	0	0	0	1	2	1	1	0	0	1	2	1	1	1	3
12	-	1	1	-	-	1	-	-	1	0	1	1	0	0	-	-	1	2	0	0	0	0	1	1	1	0	0	1	2	1	0	1	3
13	1	1	1	-	-	1	0	0	1	2	2	1	0	0	-	-	-	1	0	0	0	0	2	2	0	-	0	1	2	1	2	1	3
14	1	2	2	-	-	0	1	0	1	1	1	1	0	1	-	-	-	1	0	0	0	1	2	1	1	-	0	1	2	0	1	0	0
15	1	2	2	-	-	1	-	-	1	1	1	2	1	1	-	-	2	1	1	0	1	1	1	3	2	-	0	1	3	3	1	0	1
16	1	1	1	-	-	1	0	0	0	0	-	1	2	2	-	-	1	1	0	0	0	1	2	3	3	-	0	3	3	1	-	-	-
17	1	1	1	-	-	1	0	0	1	0	1	1	2	1	-	-	1	2	1	2	0	1	1	3	3	0	0	3	3	2	0	3	3
18	2	2	2	-	1	2	2	0	2	1	2	2	3	3	-	0	2	-	-	1	1	3	2	2	2	-	0	2	2	0	1	1	2
19	2	2	3	-	-	3	2	0	2	-	3	3	2	2	-	-	2	3	1	3	0	1	2	2	2	-	-	1	2	0	1	1	2
20	1	1	1	-	-	0	0	0	1	1	1	2	1	1	-	-	1	2	0	0	0	1	2	2	2	-	0	1	1	0	1	1	2
21	2	1	1	0	-	0	0	0	2	2	3	2	2	2	-	0	2	3	1	2	1	2	2	1	1	-	-	1	1	0	-	0	2
22	0	0	0	-	-	0	0	0	1	1	2	2	2	2	-	-	2	2	1	1	1	2	2	2	2	-	-	-	2	1	1	1	3
23	1	0	0	-	-	0	0	0	1	0	0	1	3	2	0	0	2	2	0	2	1	3	2	1	1	-	-	-	1	0	1	0	1
24	1	0	0	-	-	0	1	0	1	0	0	2	2	1	-	0	2	3	0	1	1	2	2	0	1	-	-	-	1	1	0	0	0
25	1	0	0	-	-	1	2	0	1	1	1	2	0	0	-	-	1	1	0	1	1	2	1	0	0	-	-	-	0	1	0	0	0
26	2	0	1	-	-	1	2	1	1	1	1	1	0	0	-	-	-	0	0	1	0	1	1	1	0	-	-	-	0	1	0	0	1
27	2	0	1	-	-	0	2	1	1	1	1	1	0	0	-	-	-	0	0	0	0	1	1	1	0	-	-	-	1	0	1	1	1
28	2	0	1	-	-	0	3	1	1	0	1	1	0	0	-	-	1	-	-	0	0	1	1	0	0	-	-	-	0	0	0	0	0
29	3	-	-	-	-	1	3	1	1	0	1	1	0	0	-	-	0	0	0	0	0	0	1	0	0	-	0	-	0	0	0	0	-
30	2	2	2	-	-	2	-	-	1	1	2	1	1	1	-	-	1	0	0	0	0	0	1	0	0	-	-	-	-	-	-	0	0
31												1	0	0	-	-	1	1	0	0	0	0											

4. OUTSTANDING OCCURRENCES

Station and frequency	Date 1951	Starting time	Duration	Type	Maximum intensity		Polarisation	Other frequencies on which occurrence is observed.	Remarks
					Inst.	Smooth			
Mc/s		U.T.	Minutes		10^{-21} w $m^{-2}(c/s)^{-1}$			Mc/s	
Tok 60	Apr 2	0648	1	CD	18	5			
Ott 2800	2	1708	75	CD		49		73.	
Meu 255	3	1104	30	CD	140	65			
Syd 600	5	0110	10	CD	27	0			
Syd 62	5	0155	10	M	68	3		60.	
Syd 600	5	0205	3	CD	3	0			
Tok 60	8	0110	2	M	17	0			
Tok 60	8	0307	14	CD	6	2			
Syd 1200	10	0529	>20	CD	6	3			
Can 200	10	0544	47	CD	67	8		60,62,73,98,100,200.	
Ott 2800	12	2010	13	SD		16			
Syd 62	12	2220	0.5	SD	>95	45			
Syd 98	13	0032	1.5	CD	>62	>19			
Syd 62	13	0527	0.3	SD	1118	671			
Tok 60	13	0700	19	CD	20	4			Flare.
Ott 2800	13	1559	3	SD		7			
Ott 2800	13	2232	13	CD		2		98,600,1200.	
Syd 98	14	0042	0.2	SD	62	32			
Can 200	14	0443	5	CD	12	4		600.	
Byf 73	14	0820	5	CD		>15			
Cav 81	14	1230	2	SD		>1		175.	
Meu 255	14	1507	1	SD	190	130		545.	
Syd 600	15	0132	3	CD		0			
Tok 60	15	0622	0.2	SD	19	10			
Syd 600	15	0638	0.1	SD	3	3			
Tok 60	16	0122	1	CD	>20	2			
Syd 98	16	2117	3.5	CD	384	73		62.	
Syd 1200	17	0530	15	CD	6	2			
Meu 545	17	0857	1	SD	140	125		255.	
Byf 73	17	1542	2	CD		>15			
Ott 2800	17	1715	300			1			
Syd 62	18	0115	10.2	CA	>103	6		600.	
Syd 62	18	0208	17.5	M	80	2			
Syd 62	18	0244	7.2	CD	>103	6			
Syd 600	18	0250	3	CD	3	0			
Syd 600	18	0507	8	SD	3	3			
Syd 62	18	0537	0.3	CD	71	33			
Ott 2800	18	2043	150	SD		5			
Syd 62	18	2125	0.7	CD	>103	18		98.	
Nag 3750	18	2340	12	CD		15			Fade.
Nag 3750	19	0531	17	CD		15		600,1200.	Fade.
Ott 2800	19	1510	150			3			
Byf 73	19	1728	1.8	CD		>15			
Syd 98	19	2107	1.8	CD	115	40		62.	
Syd 98	19	2139	3.8	M	288	30		62.	
Syd 62	19	2216	2.3	CD	74	5		98.	
Can 200	20	0051	6	CD	11	5		98,100,600,1200,3750.	Fade.
Cav 81	20	1055	5	SD		>2		175.	
Nag 3750	20	2225	15	CD		311		2800.	Fade.
Can 200	20	2320	240	CD	40	50	R	600,1200.	
Tok 100	21	0040	200	CA	>60	15		60,200,600.	
Nag 3750	21	0226	7	CD		3			
Meu 255	21	1433	3	SD	160	115		81,175.	
Nag 3750	21	2311	68	CD		3			Fade.
Syd 62	22	0314	3.3	M	74	4		60,98.	
Tok 60	22	0501	6	CD	>22	5			
Nag 3750	22	2258	2	CD		1			
Nag 3750	22	2330	6	CD		4			Fade.
Nag 3750	23	0317	2	SD		3			
Nag 3750	24	0651	6	SD		1			
Ott 2800	24	1814	25			11			
Ott 2800	24	1845	7			1			
Can 200	25	0203	8	M	15	2		60,3750.	Fade.
Syd 98	25	0215	5	CD	280	37	0	60,100.	
Nag 3750	25	0713	5	CD		15			
Byf 73	25	0838	7	CD		>15		3750.	
Byf 73	25	0854	7	CD		>15			
Syd 98	25	2053	0.1	SD	62	29			
Syd 98	25	2255	0.2	SD	62	26			
Tok 60	26	0108	0.2	SD	21	1		62.	
Syd 98	26	0350	0.2	SD	62	30		100.	
Meu 255	26	0809	1	SD	180	140		73.	
Meu 255	26	0935	0.5	SD	170	70			
Byf 73	26	1008	2.5	CD		>15		255,545.	
Meu 545	26	1100	2	CD	120	105		73,255.	
Byf 73	26	1117	0.5	CD		>15			
Byf 73	26	1119	1.5	CD		>15			
Meu 255	27	1014	0.5	SD	170	85			
Byf 73	27	1135	2	CD		>15		255.	
Cav 175	27	1145	2	SD		>2			
Meu 255	27	1215	0.5	SD	200	90			
Meu 255	27	1236	0.5	SD	190	80			
Ott 2800	27	1949	4	SD		5			
Syd 62	28	0111	0.5	CD	700	162		60,98.	
Syd 98	28	0149	0.1	SD	624	30			
Cav 175	28	1122	135	SD		2		81.	
Meu 255	29	0807	2.5	SD	180	105			
Meu 255	29	1139	1	SD	200	120			
Meu 255	29	1427	0.5	SD	200	130			
Byf 73	29	1523	2	CD		>15			

Byf	73	29	1607	2	CD		>15					
Byf	73	29	1611	1	CD		>15					
Syd	1200	29	2218	50	CD	5	1		600.			
Syd	98	29	2226	3.8	M	86	3		62.			
Syd	62	29	2241	3.5	CD	1120	73					
Tok	60	30	0016	10	CD	>20	20		62.			
Can	200	30	0018	2	CD	18	12		98,600.			
Syd	98	30	0023	2.5	CA	62	19	0				
Tok	60	30	0311	18	M	>2	2					
Syd	62	30	0422	0.2	SD	70	32					
Tok	60	30	0458	8	CD	>20	3					
Syd	62	30	0640	3.5	M	224	43		60,73.			
Tok	60	30	0651	14	CD	>20	3		98.			
Syd	62	30	2241	5.8	M	56	4		98.			
Tok	100	May 1	0227	0.3	CD	16	0					
Syd	62	1	0517	1.2	CD	74	26		60.			
Tok	100	1	0608	5	M	>20	10					
Meu	545	3	1138	0.5	SD	370	200					
Tok	60	6	0358	0.6	SD	>20	20		62.			
Byf	73	6	1939	1.8	CD		>15					
Byf	73	6	1952	1.2	CD		>15					
Tok	60	7	0703	4	CD	>20	5					
Tok	60	7	0735	6	CD	>20	14					
Byf	73	7	1042	1	CD		>15					
Byf	73	8	1227	0.5	CD		>15					
Ott	2800	8	1512	>15			>2					
Syd	600	8	2230	12	CD	3	0					
Syd	600	8	2330	12	SD	3	3					
Tok	200	9	0145	59	CA	44	5					
Tok	200	9	0313	73	CA	48	8					
Tok	200	9	0506	42	CA	45	8					
Tok	200	9	0640	49	CA	53	10					
Syd	98	9	0724	0.2	SD	>62	31					
Syd	98	10	0526	0.2	SD	62	30					
Meu	545	10	0956	10	CD	270	135		81,175,255.			
Meu	255	10	1000	1	SD	180	105		73.			
Byf	73	10	1003	0.5	CD		>15					
Byf	73	10	1132	0.8	CD		>15					
Tok	60	11	0015	1	CD	14	5					
Tok	60	11	0059	1	CD	16	9					
Syd	98	11	0151	0.3	CD	>62	31					
Meu	255	11	0847	1	SD	85	65		545.			
Byf	73	11	1606	1.5	CD		>15					
Ott	2800	11	1629	5	SD		1					
Ott	2800	11	2155	100	SD		1					
Byf	73	12	1909	1.2	CD		>15					
Byf	73	12	1916	1.5	CD		>15					
Syd	1200	12	2147	15	CD	7	1					
Syd	1200	13	0310	.5	CD	7	1					
Byf	73	13	1040	0.5	CD		>15					
Byf	73	13	1155	5.8	CD		>15					
Tok	60	13	2322	1	CD	>20	20					
Tok	60	13	2349	1	SD	>20	>20					
Syd	62	14	0022	0.2	CD	72	32					
Tok	60	14	0058	1	CD	>20	>20					
Syd	62	14	0451	6.2	M	61	33					
Syd	1200	14	0535	5	CD	6	0					
Syd	98	14	0551	3.2	CD	>62	5					
Syd	1200	14	2215	15	CD	6	1					
Syd	98	14	2234	0.2	SD	62	31					
Tok	60	15	0004	7	CD	>20	15		62.			
Can	200	15	0008	9	M	15	2					
Syd	62	15	0428	4	CD	342	79		60.			
Tok	60	15	0602	13	CD	>20	10		62.			
Tok	60	15	0642	2	CD	>20	3					
Cav	81	15	1135	90	SD		>20		158,175.			
Syd	98	15	2315	0.5	CD	192	50					
Syd	98	16	0518	3.7	CD	62	23	0	62.			
Syd	62	16	0543	0.2	CD	61	25		98.			
Byf	73	16	1133	0.5	CD		>15					
Ott	2800	16	1407	111			8					
Ott	2800	16	1558	62			1					
Ott	2800	16	1700	62			1					
Ott	2800	16	2020	140	SD		4					
Nag	3750	16	2313	6	SD		1					
Syd	62	17	0155	0.3	SD	82	32					
Tok	200	17	2311	1	CD	150	100		3750.			
Nag	3750	17	2323	7	SD		4					
Syd	600	18	0040	0.1	SD	4	4					
Tok	100	18	0149	1	CD	22	5					
Can	200	18	0157	1.5	SD	94	37		200.			
Tok	60	18	0203	400	CA	>20	3	RC	3750,3260.			Fade.Flare.
Osa	3260	18	0227	0.5	SA		2					
Nag	3750	18	0308	1	SD		1					
Osa	3260	18	0323	2.5	SA		4		3750.			
Syd	600	18	0330	90	SD	4	4					
Syd	600	18	0520	30	SD	5	5					
Tok	60	18	0615	6	CD	>20	12					
Mar	158	18	1120			>10	6					
Ott	2800	18	1200	>150			>6					
Ott	2800	18	1913	0.5	SD		2					
Tok	600	18	1958	2	CD	>20	20					
Ott	2800	18	2000	80			3					
Syd	600	19	0152	0.1	SD	5	5					
Syd	600	19	0240	0.1	SD	10	10					

Syd	62	19	0428	4.3	GD	95	12		60.		
Tok	200	19	0505	4	CA	150	60				
Byf	73	19	0551	3.8	GD		>15		60,62.		
Tok	60	19	0628	18	M	>20	3				
Tok	60	19	0708	3	GD	>20	>20		73.		
Byf	73	19	1119	0.5	GD		>15				
Byf	73	19	1126	0.5	GD		>15				
Byf	73	19	1129	0.5	GD		>15				
Ott	2800	19	1347	47			6				
Ott	2800	19	1434	58			1				
Ott	2800	19	1710	100			1				
Ott	2800	19	1952	30	SD		23				
Ott	2800	19	2145	4			1				
Ott	2800	19	2152	3			1				
Byf	73	20	0748	0.8	GD		>15				
Ott	2800	20	1416	25			4				
Ott	2800	20	1506	20			2				
Byf	73	20	1727	1	GD		>15				
Byf	73	20	1803	1.5	GD		>15				
Byf	73	20	1901	0.8	GD		>15				
Ott	2800	20	1956	10	SD		19				
Syd	62	20	2353	0.5	SD	228	107				
Osa	3260	21	0017	7	SD		19		3750.		
Syd	98	21	0018	16	GD	>1428	199	0	100,200.		Fade. Flare
Tok	60	21	0019	21	GD	>20	>20		62.		Fade. Flare
											Flare.
Syd	600	21	0025	20	GD	5	3				
Tok	60	21	0050	142	CA	20	6				
Nag	3750	21	0208	0.5	SD		4				Fade. Flare
Syd	62	21	0337	1.8	GD	>1520	75		60,98.		
Nag	3750	21	0350	2	SD		3		98.		Flare.
Tok	60	21	0411	3	GD	19	10				
Syd	62	21	0450	0.3	SD	342	148				
Tok	200	21	0539	0.5	CA	>150	>150		62,98.		
Nag	3750	21	0638	3	SD		5		3260.		
Tok	200	21	0652	0.5	CA	>150	>150				
Tok	200	21	0726	0.5	CA	150	150				
Tok	60	21	0745	2	GD	>20	>20				
Tok	200	21	0748	0.5	CA	>150	>150				
Tok	60	21	0752	2	GD	>20	>20				
Byf	73	21	1113	2	GD		>15				
Ott	2800	21	1210				>6				
Ott	2800	21	2132	6	SD		4				
Ott	2800	21	2240	45	SD		1				
Syd	98	21	2314	0.2	SA	68	34				
Tok	60	21	2323	93	CA	>20	3				
Nag	3750	22	0004	18	SD		9				
Nag	3750	22	0028	12	SD		4				Fade.
Nag	3750	22	0054	12	SD		104				Fade.
Syd	1200	22	0100	20	GD	7	2				Fade.
Syd	98	22	0127	1.3	GD	68	34				
Syd	98	22	0145	1.3	GD	364	189		60,100,200.		
Syd	1200	22	0230	20	GD	7	2				
Syd	98	22	0428	0.4	GD	68	23				
Syd	200	22	0625	0.1	SD	>150	>150		60,62,73,100.		
Meu	545	22	0912	0.5	GD	220	100				
Byf	73	22	0921	1.5	GD		>15				
Ott	2800	22	1330	790			11				
Mar	158	22	1400			18	12				
Meu	545	22	1414	15	GD	270	195		81.		
Ott	2800	22	1806	3			2				
Ott	2800	22	1824	4			1				
Ott	2800	22	2126	70	SD		5				
Syd	98	22	2233	1.3	CA	68	35				
Syd	98	23	0020	5.5	CA	312	27	0	60,62,100,200,3750.		Fade. Flare
Osa	3260	23	0031	5	SD		3		3750.		Flare.
Can	200	23	0116	13	CA	286	148	R	60,62,98,3260,3750.		Fade.Flare.
Tok	100	23	0122	6	GD	>40	>40				
Tok	60	23	0130	400	CA	>20	>20	R	100,200,3260.		
Tok	100	23	0417	70	GD	>60	12				
Tok	200	23	0601	100	CA	85	25				
Tok	100	23	0635	2	GD	>50	13				
Meu	255	23	1055	2	SA	280	200		73.		
Ott	2800	23	1337	17	SD		3				
Meu	255	23	1458	1	SD	280	160				
Byf	73	23	1500	1	GD		>15				
Ott	2800	23	1808	5	SD		1				
Syd	600	24	0035	8	GD	4	0				
Tok	60	24	0202	28	CA	>20	3				
Tok	200	24	0231	5	M	120	30		60,62,100.		
Tok	200	24	0356	0.3	GD	>150					
Syd	1200	24	0430	4	GD	6	0		3260,3750.		Flare.
Tok	60	24	0534	11	GD	>12	3				
Tok	200	24	0652	0.7	GD	>130	25				
Byf	73	24	1203	0.8	GD		>15				
Nag	3750	24	2145	2	GD		22				
Osa	3260	25	0021	120	GD		94		3750.		
Can	200	25	0038	75	GD	15	3	0	60,62,98,100.		Fade.
Syd	98	25	0258	0.2	SA	65	29		100.		
Syd	62	25	0424	0.4	SD	50	22				
Can	200	25	0514		M	15		R			Flare.
Tok	60	25	0650	22	GD	>20	4				
Byf	73	25	0657	1.5	GD		>15		100.		
Tok	60	25	073.	2	GD	20	>20				
Byf	73	25	1123	1	GD		>15				
Syd	98	25	2351	0.2	SD	62	31				

Syd	62	26	0059	1.0	CD	588	134			60,98,100.	
Syd	600	26	0137	2	CD	4	0				
Tok	60	27	0458	6	CD	>20	8				
Syd	600	28	0030	90	CD	4	1				
Syd	1200	28	0100	>30	CD	5	1				
Osa	3260	28	0105	15	SD		2				
Can	200	28	0137	12	CD	67	5			200,3260.	Fade.
Tok	60	28	0155	80	CA	8	4				
Syd	600	28	0424	10	CD	4	0				
Byf	73	28	0550	0.5	CD		>15				
Syd	600	31	0104	2	CD	7	1				
Can	200	31	0612	3	M	16	3				
Meu	255	31	1458	0.5	SD	160	95				
Byf	73	June 1	1146	1	CD		>15				
Byf	73	3	1905	0.5	CD		>15				
Byf	73	3	1951	0.5	CD		>15				
Byf	73	4	1256	0.5	CD		>15				
Byf	73	4	1349	0.8	CD		>15				
Tok	60	5	0048	13	CD	10	2			3260.	
Ott	2800	5	1603	3	SD		1				
Ott	2800	5	1951	5			2				
Ott	2800	5	1958	9			4				
Ott	2800	5	2007	19			4				
Tok	200	6	0017	0.2	CD	140				60.	
Syd	98	6	2304	0.6	CD	270	140			60,100,200.	
Syd	1200	7	0200	20	CD	11	6				
Syd	98	7	0524	5.5	CD	1260	109		0	60,62,73,100,200,3750.	
Tok	60	7	0624	8	M	>25	1				
Tok	60	7	0640	1	CD	18	4				
Tok	60	7	0743	0.5	SD	20	20				
Byf	73	7	1136	0.5	CD		>15				
Byf	73	7	1203	1.3	CD		>15				
Byf	73	7	1216	0.5	CD		>15				
Byf	73	7	1231	1	CD		>15				
Ott	2800	7	1525	2	SD		1				
Byf	73	7	1825	7.5	CD		>15			2800.	
Syd	62	8	0247	0.3	SD	62	33				
Syd	62	8	0339	1.8	CD	>59	13				
Nag	3750	8	0653	5	SD		3				
Cav	81	8	1327	12	SD		72			158,175.	
Ott	2800	8	1503	36			26				
Ott	2800	8	1539	7			3			73.	
Syd	98	8	2220	0.4	CD	>59	27				
Ott	2800	8	2227	0.8	SD		1				
Tok	200	9	0054	1	CD	90	20			3750.	
Tok	100	9	0131	1	M	30	0				
Tok	60	9	0508	0.2	SD	20	5				
Byf	73	9	1209	1.5	CD		>15				
Byf	73	9	1221	0.5	CD		>15				
Byf	73	9	1238	2	CD		>15				
Byf	73	9	1336	2	CD		>15				
Ott	2800	9	1521	2.5	SD		3				
Byf	73	9	1537	8	CD		>15				
Ott	2800	9	1743	2	SD		3				
Tok	60	9	2300	>630	CA	>20	>20		>R70		
Syd	98	9	2326	2.5	CA	1260	293			100,200,2800,3750.	
Tok	200	9	2339	5	CD	110	20				
Tok	100	10	0034	450	CA	10	7				
Syd	1200	10	0342	8	CD	7	1				
Tok	200	10	0908	0.7	CD	90	20				
Tok	60	10	2000	>810	CA	>20	>20				
Can	200	10	2157	3	CD	10	4				
Ott	2800	10	2243	2.5	SD		1				
Tok	100	11	0054	0.3	CD	20	2				
Syd	600	11	0152	1.5	CD	4	0			200.	
Can	200	11	0303	2	CD	13	7				
Syd	600	11	0312	3	CD	5	1				
Tok	200	11	0733	1	CD	100	10				
Byf	73	11	1125	0.8	CD		>15				
Byf	73	11	1139	0.5	CD		>15				
Ott	2800	11	2000	3.8	SD		4				
Tok	60	11	2000	>750	CA	>20	>20				
Byf	73	12	1129	0.8	CD		>15				
Ott	2800	12	1348	5	SD		1				
Byf	73	12	1449	1.5	CD		>15				
Ott	2800	12	1735	5	SD		2				
Syd	600	13	0130	20	CD	5	1				
Syd	600	13	0240		CD	21	5				
Nag	3750	13	0524	5	SD		7				
Can	200	13	0550	31	CD	133	14		L	60,62,73,100,1200,3750.	Fade. Flare
Tok	60	13	0635	100	CD	20	15		R30		
Byf	73	13	1151	1	CD		>15				
Byf	73	13	1920	0.8	CD		>15				
Tok	100	14	0406	1	CD	12	4				
Syd	98	15	0038	1	CA	61	20				
Syd	98	15	0450	0.2	CA	344	145				
Ott	2800	15	1707	9			5				
Ott	2800	15	1731	46			4			73.	
Syd	98	15	2213	1	CA	61	19				
Meu	255	16	1552	3	CA	220	150				
Meu	255	16	1625		CA	210	180				
Mar	158	16	1640			32	28				
Mar	158	16	1740				150				
Tok	200	16	2300		CA	140	70				
Tok	60	17	0144	>580 2	CD	25	2			60,100.	Flare.

Tok	60	17	0200	23	QA	25	3				
Tok	60	17	0237	3	QD	25	4				
Tok	60	17	0250	300	QA	25	16	R30			
Byf	73	17	0828	1.5	QD		>15		60.		
Meu	255	17	1053	2	SD	220	120				
Byf	73	17	1111	1	QD		>15				
Meu	255	17	1540	1	SD	160	70				
Syd	62	18	0526	0.8	QD	78	41		60,100.		
Tok	60	18	0651	6	QD	>25	>15				
Meu	255	18	0739	1	SD	250	150				
Meu	255	18	0858	2	SD	200	140				
Meu	255	18	0916	1	SD	210	120				
Ott	2800	18	1634	0.5	SD		1				
Meu	255	18	1648	1	SD	190	105				
Syd	98	18	2339	0.4	SD	846	330				
Osa	3260	19	0127	3	SD		1				
Syd	98	19	0249	22.5	QD	>61	24	0	60,62,100,200,600,1200,3260,		Fade.
Can	20C	19	0256	2	QD	590	67	L	62. 3750.		Fade.
Tok	60	19	0312	5	QD	25	15		62.		
Nag	3750	19	0552	1	SD		3				
Cav	81	19	1049	5	SD		1				
Byf	73	19	1104	0.5	QD		>15				
Cav	175	19	1141	5	SA	2	2		81.		
Ott	2800	19	1333	6.5	SD		1				
Byf	73	19	1750	1.3	QD		>15				
Nag	3750	19	2345	2	SD		7		2800.		Flare.
Nag	3750	20	0254	2	SD		5				
Syd	98	20	0257	1.3	QD	395	189		60,62,100.		
Syd	62	20	0320	2	QD	>1640	666		60,98,100,200,3750.		
Meu	255	20	0854	1	SD	160	95				
Meu	255	20	0923	0.5	SD	180	110				
Meu	255	20	1410	1	SD	145	100		73.		
Ott	2800	20	1710	60	SD		1				
Ott	2800	20	2124	3	SD		3				
Ott	2800	20	2206	7	SD		1				
Nag	3750	21	0059	1	SD		3				
Tok	60	21	0131	5	QD	>25	>15		98,100.		
Syd	62	21	0504	0.2	SA	91	35				
Meu	255	21	0909	1	SD	170	105				
Byf	73	21	1158	0.5	QD		>15				
Ott	2800	21	1515	220	SD		1				
Ott	2800	21	2101	5	SD		3				
Syd	1200	22	0351	60	QD	17	17		60,100,200,600,3260,3750.		Fade.
Meu	545	22	0851	0.5	SD	600	360				
Byf	73	22	1138	0.8	QD		>15				
Byf	73	22	1146	1	QD		>15				
Meu	545	22	1149	0.5	SD	480	300				
Ott	2800	22	1653	75	SD		1				
Ott	2800	22	1835	140	SD		1				
Nag	3750	23	0208	2	SD		1				
Tok	100	23	0410	0.2	SD	13	10				
Syd	98	23	0502	0.3	SD	169	92		100.		
Nag	3750	23	0526	7	SD		6				
Nag	3750	23	0746		SD		5				
Cav	81	23	1054	1	SD		1		175.		
Byf	73	23	1147	1	QD		>15				
Syd	1200	24	2120	25	SD				600.		
Nag	3750	26	0544	11	SD		7				Fade.
Tok	60	27	0214	22	SD	3	3				
Byf	73	27	0422	2	QD		>15				
Cav	175	27	1048	2	SD		2		81.		
Syd	1200	28	0100	30	SD	5	1				
Byf	73	28	1152	0.5	QD		>15				
Byf	73	28	1441	1	QD		>15				
Byf	73	28	1918	1.5	QD		>15				
Ott	2800	28	2116	155	QD		1				
Can	200	28	2137	>23	QD	28	6				
Tok	60	29	0031	7	M	20	0				
Byf	73	29	1129	0.5	QD		>15				
Cav	81	29	1302	2	SD		2		175.		
Byf	73	29	1329	2.5	QD		>15				

Canberra, January 1952

S.F. Smerd

IV. SOLAR RADIO NOISE DATA

CO-OPERATING OBSERVATORIES

Details relating to the contributors to the third quarter of 1951 are as follows:-

OBSERVING STATION	ABBREVIATION	FREQUENCIES USED	NORMAL OBSERVING PERIOD
		Mc/s	(Hours U.T.)
Commonwealth Observatory, Canberra, Australia	Can	200	21 - 06
Cavendish Laboratory, Cambridge, England	Cav	81	10 - 15
		175	10 - 15
Radiophysics Laboratory, Sydney, Australia	Syd	62	19 - 07
		98	19 - 07
		600	20 - 06
		1200	20 - 06
		3000	00 - 06
		9400	00 - 06
Meudon Observatory, Paris, France	Meu	255	08 - 14
		545	08 - 14
National Research Council, Ottawa, Canada	Ott	2800	14 - 23
Laboratoire de Physique, Marcoussis, France	Mar	158	11 - 13
Army Operational Research Group, Byfleet, Surrey	Byf	73	04 - 20
Cornell University, Ithaca, N.Y., U.S.A.	Cor	200	14 - 20
Tokyo Astronomical Observatory, Mitaka, Tokyo	Tok	200	00 - 08
		100	00 - 08
		60	00 - 08
Radio Astronomical Observatory, Osaka City University, Osaka, Japan	Osa	3260	23 - 08
Research Institute of Atmospherics, Nagoya University, Toyo Kawa, Japan	Nag	3750	23 - 08
Observing Station Nederhorst, Den Berg - Radio (Nera)	Ner	140	08 - 16

TABULATED QUANTITIES

For definitions of the tabulated quantities refer to No.93 or the Quarterly Bulletin.

1. FLUX

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

JULY 1951

	CAN	CAV	CAV	SYD	SYD	SYD	SYD	SYD	OTT	MAR	MEU	MEU	COR	TOK	NAG	OSA	NER
Mc/s	200	81	175	98	600	1200	3000	9400	2800	158	255	545	200	200	3750	3260	140
Date																	
1	7	1	8	G	32	-	-	-	80	-	11	18	9	2	100	-	-
2	7	1	9	G	-	35	79	289	-	8	13	20	10	4	100	-	1
3	7	1	8	G	-	34	88	260	86	7	11	20	10	5	100	72	1
4	7	1	8	G	-	37	90	296	86	5	10	21	11	5	105	73	1
5	7	1	8	G	34	39	88	306	88	5	12	18	10	4	105	72	1
6	7	1	8	G	33	40	97	289	92	6	10	25	9	3	110	74	1
7	7	1	8	G	35	40	-	-	-	5	10	20	10	3	120	80	1
8	7	1	8	G	38	40	-	-	-	6	10	24	10	6	140	-	-
9	-	2	8	G	39	54	129	330	116	6	12	21	9	7	150	101	1
10	7	1	7	G	36	50	125	373	127	5	12	28	9	10	170	102	1
11	7	2	8	6	-	-	129	337	135	5	10	24	10	5	190	100	1
12	8	2	9	G	37	51	145	293	131	9	11	25	10	5	210	-	1
13	7	2	10	G	-	-	138	357	129	7	12	22	11	6	190	98	1
14	7	2	10	G	-	-	-	-	-	-	11	20	10	6	190	99	1
15	8	2	14	G	-	-	-	-	-	-	14	20	10	8	190	-	-
16	17	1	11	27	-	-	121	357	120	4	16	23	10	16	190	105	1
17	9	1	8	G	-	-	125	282	-	4	-	-	10	4	170	100	1
18	7	1	8	G	34	-	98	287	105	4	12	22	9	5	150	94	1
19	7	1	10	G	-	-	115	240	99	5	-	-	10	5	130	90	1
20	8	1	9	G	33	40	-	-	90	4	-	-	10	4	120	80	1
21	9	1	11	G	-	-	-	-	-	4	-	-	9	7	120	71	1
22	7	1	10	G	-	-	-	-	-	4	-	-	9	2	120	-	-
23	7	1	7	G	-	-	75	274	80	4	-	-	8	3	-	68	1
24	7	1	9	G	-	-	84	255	82	4	-	-	8	2	-	63	1
25	7	1	8	G	-	-	86	236	-	4	-	-	8	2	-	63	1
26	7	1	9	G	-	-	89	248	84	4	-	-	19	4	-	65	1
27	8	1	11	G	-	-	86	261	82	-	10	18	10	5	-	64	1
28	8	1	10	G	-	-	-	-	-	-	10	21	8	6	-	66	1
29	7	1	10	G	-	-	-	-	-	-	10	21	9	2	-	-	1
30	7	1	8	G	-	-	98	242	86	-	12	21	10	2	-	68	1
31	7	1	8	G	-	-	82	-	90	4	11	20	10	2	-	70	1

AUGUST 1951

	CAN	CAV	CAV	STD	SYD	SYD	SYD	SYD	OTT	MEU	MEU	COR	TOK	OSA	NER
Mc/s	200	81	175	62	98	600	1200	3000	9400	2800	255	545	200	3260	140
1	7	1	9	G	G	G	-	-	84	-	92	16	22	10	8	70	1
2	7	1	8	G	G	G	31	40	78	253	87	13	19	12	4	73	1
3	8	1	8	G	G	G	-	-	109	259	88	11	20	9	4	-	-
4	7	1	8	G	G	G	-	-	-	-	-	9	16	9	2	78	1
5	8	2	10	G	G	G	-	-	-	-	10	18	-	2	-	-	-
6	9	1	8	G	G	G	-	-	118	353	-	14	17	13	2	80	1
7	11	1	6	G	G	G	-	-	105	329	112	12	17	14	2	85	-
8	13	1	10	G	G	G	-	-	125	347	123	11	19	10	2	94	-
9	10	1	10	G	G	G	-	-	134	326	121	12	20	10	2	97	1
10	10	5	21	G	G	G	-	-	123	364	133	15	17	44	2	96	2
11	12	2	20	G	G	G	-	-	-	-	-	13	18	19	2	96	1
12	14	20	50	23	31	-	-	-	-	-	-	-	-	22	-	-	-
13	17	3	14	45	G	-	-	101	313	105	10	17	12	4	85	1
14	11	5	10	6	31	-	-	90	315	101	13	16	10	2	81	1
15	7	2	23	G	G	-	-	103	324	100	12	-	10	2	77	1
16	6	1	9	G	G	26	41	92	308	96	9	16	9	2	-	1
17	7	2	6	G	G	26	36	89	333	88	10	22	7	3	70	-
18	6	2	7	G	G	-	-	-	-	-	10	-	8	3	70	1
19	7	1	8	G	G	-	-	-	-	8	-	10	2	-	-	-
20	7	1	5	G	G	27	38	91	280	86	-	-	8	2	70	1
21	9	1	4	G	G	25	34	89	295	84	-	-	8	2	67	1
22	7	2	5	G	G	25	35	81	302	84	11	-	9	2	65	1
23	7	2	5	G	G	27	34	84	366	86	10	-	14	2	-	-
24	7	2	5	G	G	26	34	88	278	84	10	22	8	2	65	1
25	7	1	6	G	G	-	-	-	-	84	9	20	8	3	65	1
26	7	1	6	G	G	-	-	-	-	10	21	7	2	-	-
27	6	1	6	G	G	30	34	75	282	79	10	22	7	2	-	1
28	7	-	6	G	G	-	-	69	295	82	10	21	8	6	63	1
29	8	2	7	8	G	30	40	84	293	82	10	22	8	2	65	-
30	8	-	8	G	G	28	39	81	286	84	9	22	8	2	-	1
31	7	-	6	G	G	30	38	83	307	86	11	22	9	2	68	1

SEPTEMBER 1951

	CAN	CAV	CAV	SYD	SYD	SYD	SYD	OTT	MAR	MEU	MEU	COR	TOK	OSA	NER
Mc/s	200	81	175	600	1200	3000	9400	2800	158	255	545	200	200	3260	140
1	8	-	-	29	37	84	311	90	-	10	21	9	3	70	1
2	9	-	-	31	43	91	336	-	-	11	21	9	4	-	1
3	10	-	-	-	-	81	326	-	-	36	28	17	4	-	1
4	11	1	7	36	40	104	318	92	-	12	25	12	2	77	1
5	14	1	9	34	45	98	294	99	3	12	22	13	2	79	1
6	16	1	8	37	41	89	304	99	3	11	25	12	8	-	1
7	13	2	8	-	41	101	298	108	4	10	21	13	2	78	1
8	12	2	8	36	43	-	-	-	-	10	22	12	3	-	1
9	13	2	12	38	40	-	-	-	-	12	20	-	3	-	-
10	12	2	7	30	43	111	348	108	3	10	22	11	5	79	1
11	14	1	8	30	43	116	317	110	-	10	22	12	6	-	1
12	12	1	7	30	43	119	278	113	3	12	22	10	5	81	1
13	11	1	7	30	42	95	313	105	6	10	21	10	7	-	0
14	12	1	6	30	42	122	304	105	6	13	23	10	5	77	0
15	11	1	6	32	44	-	-	-	3	12	24	10	6	-	0
16	8	2	6	29	42	-	-	-	-	10	21	7	5	75	-
17	8	1	6	32	41	106	335	97	4	-	22	8	6	71	0
18	8	1	6	-	-	107	293	99	4	-	21	7	4	-	0
19	9	1	6	-	-	104	317	106	3	-	21	8	5	75	0
20	10	1	6	38	39	116	298	110	3	-	20	10	4	-	0
21	10	1	6	-	-	118	300	116	9	-	21	17	4	-	1
22	9	1	6	27	38	-	-	-	3	-	20	8	2	-	0
23	12	2	9	27	37	-	-	-	4	-	20	10	10	-	-
24	10	3	9	-	-	84	344	106	4	-	20	9	3	-	0
25	15	4	16	26	39	108	338	96	6	-	19	15	3	-	1
26	12	2	11	-	-	136	289	97	4	-	20	8	5	68	0
27	10	1	8	26	34	100	336	97	4	-	21	9	5	-	0
28	10	2	8	26	35	92	249	91	-	-	22	9	4	66	1
29	10	2	6	30	29	-	-	-	-	-	23	9	5	-	1
30	10	3	6	31	-	-	-	-	-	-	21	10	2	61	-

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

Sydney 62 Mc/s, July - G for whole month, Sydney 62 Mc/s and 98 Mc/s, September - G for whole month

2. POLARISATION

Daily medians or means of polarisation sense and percentage

	JULY 1951				AUGUST 1951				SEPTEMBER 1951			
	CAN	CAV	CAV	SYD	CAN	CAV	CAV	SYD	CAN	CAV	CAV	SYD
Mc/s	200	81	175	98	200	81	175	98	200	81	175	98
Date												
1	-	0	0	-	-	0	0	-	-	-	-	-
2	-	0	0	-	-	0	0	-	-	-	-	-
3	-	0	0	-	-	0	0	-	-	-	-	-
4	-	-	-	-	-	0	0	-	R19	-	-	-
5	-	0	0	-	0	L20	0	-	L7	0	0	-
6	-	-	-	-	-	0	0	-	L18	-	0	-
7	-	0	0	-	-	R20	0	-	L5	0	-	-
8	-	0	0	-	-	0	0	-	-	-	-	-
9	-	0	0	-	-	0	0	-	-	-	-	-
10	-	0	0	-	-	R20	0	-	L40	0	0	-
11	-	0	0	-	L25	0	0	-	-	L20	0	-
12	-	0	0	-	-	L20	R20	R49	L13	0	0	-
13	-	0	0	-	0	0	0	-	0	0	0	-
14	-	0	0	-	-	R20	R20	L39	-	0	0	-
15	L12	0	0	-	R15	R20	0	-	L17	0	0	-
16	-	0	0	V	-	0	0	-	-	0	0	-
17	-	0	0	-	-	0	-	-	-	0	0	-
18	-	0	0	-	-	0	0	-	-	0	0	-
19	-	0	0	-	-	0	0	-	-	0	0	-
20	-	0	0	-	-	-	-	-	0	0	0	-
21	-	0	0	-	-	0	0	-	-	0	0	-
22	-	0	0	-	-	0	0	-	-	0	0	-
23	-	0	0	-	-	0	0	-	-	R20	R20	-
24	-	-	0	-	-	0	0	-	0	-	0	-
25	-	-	0	-	-	0	0	-	R33	0	R20	-
26	-	0	0	-	-	-	-	-	-	0	0	-
27	-	0	0	-	-	-	0	-	-	0	0	-
28	-	0	0	-	-	-	0	-	-	0	0	-
29	-	0	0	-	-	-	-	-	-	0	0	-
30	-	0	0	-	-	-	-	-	-	-	-	-
31	-	0	0	-	-	-	-	-				

V = too variable to quote a median value

3. VARIABILITY

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

	JULY 1951												AUGUST 1951										SEPTEMBER 1951										
	CAN	CAV	CAV	SYD	MAR	MEU	MEU	COR	TOK	TOK	TOK	NER	CAN	CAV	CAV	MEU	MEU	COR	TOK	TOK	TOK	NER	CAN	CAV	CAV	MAR	MEU	MEU	COR	TOK	TOK	TOK	NER
Mc/s	200	81	175	98	158	255	545	200	200	100	60	140	200	81	175	255	545	200	200	100	60	140	200	81	175	158	255	545	200	200	100	60	140
Date																																	
1	0	2	1	-	-	0	0	0	0	0	0	-	1	1	1	0	0	1	1	0	1	1	1	-	-	-	1	0	0	0	0	0	0
2	1	0	0	-	1	0	0	0	0	0	0	1	2	0	0	1	0	2	0	1	1	1	1	-	-	-	0	0	0	0	0	0	1
3	1	0	0	-	0	0	0	0	0	1	0	1	1	0	0	0	0	0	1	1	0	1	1	-	-	-	2	0	0	0	0	0	1
4	1	0	0	-	0	0	1	0	0	0	1	-	1	0	0	0	0	2	0	1	1	-	2	-	-	-	2	1	0	0	0	0	1
5	0	0	0	-	1	0	1	0	0	0	0	1	1	0	0	0	0	1	0	0	1	-	2	-	2	0	2	2	1	0	0	1	1
6	0	0	0	-	1	0	0	-	0	0	0	1	2	0	0	2	0	2	1	0	0	0	2	1	1	1	2	0	0	-	0	0	1
7	0	0	0	-	1	0	0	-	0	0	0	0	2	0	0	1	0	2	0	1	0	-	1	0	1	2	0	0	1	0	0	0	1
8	1	0	0	-	0	0	0	-	0	0	1	-	2	1	1	1	0	1	0	0	1	-	1	0	1	1	2	0	1	0	0	0	1
9	1	0	0	-	1	0	0	-	0	0	0	1	1	0	1	1	0	0	1	0	1	2	2	1	2	-	2	0	2	0	0	0	1
10	0	0	0	-	1	0	0	-	0	0	1	1	1	2	1	1	0	3	1	1	1	2	2	1	2	1	1	0	0	0	0	0	2
11	1	2	1	-	1	0	0	1	0	0	0	1	2	2	2	2	0	3	1	1	1	2	2	1	2	-	0	0	2	1	0	1	1
12	1	0	1	-	1	0	0	1	0	0	1	1	2	3	1	1	0	2	1	1	1	2	2	1	0	1	0	0	2	1	0	1	2
13	1	0	1	-	0	0	0	1	0	0	0	1	1	1	1	1	0	2	1	1	1	2	1	1	0	0	0	0	2	1	0	1	2
14	2	0	0	-	-	0	1	1	0	0	1	-	2	1	1	1	0	2	1	1	1	2	1	1	0	0	0	0	2	2	0	1	2
15	1	2	2	-	-	1	1	1	1	-	1	-	1	2	2	1	0	2	1	0	0	2	2	1	0	0	0	1	1	1	0	0	1
16	1	0	1	1	1	1	1	0	0	-	2	1	1	0	0	0	0	1	0	0	1	0	1	0	1	-	0	0	1	0	0	1	-
17	1	0	0	-	1	1	1	0	0	0	1	1	1	0	0	0	0	1	0	0	0	0	1	0	1	-	0	0	1	0	0	1	0
18	1	0	0	-	1	1	1	0	0	0	1	1	1	0	0	0	0	1	0	0	0	1	1	0	1	-	0	0	1	0	0	1	1
19	1	0	0	-	1	1	1	0	0	0	1	1	1	0	0	0	0	1	0	0	0	1	1	0	0	-	0	0	1	0	0	1	1
20	1	0	0	-	1	1	1	0	0	1	1	0	1	0	0	0	0	1	0	0	0	1	1	0	0	-	0	0	1	0	0	1	1
21	2	1	1	-	1	-	-	2	1	1	1	1	1	1	1	-	-	1	0	0	0	0	1	0	0	1	1	0	0	0	0	0	2
22	1	1	1	-	1	-	-	1	1	0	1	-	1	0	0	-	-	0	0	0	0	0	1	0	0	2	1	1	0	0	0	0	1
23	1	0	0	-	1	-	-	0	1	0	1	-	1	0	1	0	-	0	0	0	0	1	1	0	0	2	1	1	2	0	0	0	2
24	1	0	0	-	1	-	-	0	0	0	0	1	1	0	0	0	-	0	0	0	0	0	1	0	0	2	1	1	2	0	0	0	2
25	0	0	0	-	1	-	-	0	0	0	1	1	0	0	0	0	-	0	0	0	0	0	1	0	0	2	1	1	2	0	0	0	3
26	1	0	0	-	1	-	-	1	0	0	1	2	0	0	0	0	0	0	0	0	0	-	1	0	0	1	-	-	1	0	0	0	1
27	1	1	1	-	-	-	-	2	0	0	1	1	0	0	0	0	0	0	0	0	0	-	1	0	0	1	-	-	1	0	0	0	1
28	1	1	1	-	-	-	-	1	0	0	1	1	0	0	0	0	0	0	0	0	0	-	1	0	0	1	-	-	1	0	0	0	1
29	1	1	1	-	-	-	-	2	0	0	1	1	0	0	0	0	0	0	0	0	0	-	1	0	0	1	-	-	1	0	0	0	1
30	1	1	1	-	-	-	-	2	0	0	1	1	0	0	0	0	0	0	0	0	0	-	1	0	0	1	-	-	1	0	0	0	1
31	1	0	0	-	1	0	0	2	0	0	1	1	1	-	0	0	0	0	0	0	0	-	1	0	0	1	-	-	1	0	0	0	1

4. OUTSTANDING OCCURRENCES

Station and frequency	Date 1951	Starting time	Duration	Type	Maximum intensity Inst.	Maximum intensity Smooth	Polarisation	Other frequencies on which occurrence is observed	Remarks
Mc/s		U.T.	Minutes		10^{-21} w $m^{-2}(c/s)^{-1}$			Mc/s	
Ott 2800	July 3	1840	0.5	SD		1			
Byf 73	4	1910	1	CD		>15			
Meu 545	5	0956	0.5	SD	280	180		255	
Syd 62	6	0539	0.3	CD	22	10			
Syd 62	7	0220	2	CD	20	7			
Ner 140	7	1334	1	SD	30	15			
Byf 73	7	1558	0.8	CD		>15			
Byf 73	8	1058	1	CD		>15			
Byf 73	8	1429	0.5	CD		>15			
Ott 2800	9	1505	13	SD		1			
Ott 2800	9	2101	18	CD		1			
Nag 3750	10	0331	3	SD		3			
Osa 3260	10	0414	2	SD		1		3750	
Nag 3750	10	0419	1.5	SD		2		3260	
Nag 3750	10	0548	6	SD		2			
Cor 200	10	1623	1.5	CD	>3	2		2800	
Ott 2800	11	1645	20	SD		0			
Syd 98	12	0043	15	CD	31	3	0	60,62	
Nag 3750	12	0305	2	SD		1			
Byf 73	12	1141	1	CD		>15			
Byf 73	14	1100	0.5	CD		>15			
Syd 62	14	2217	0.2	SD	63	27			
Nag 3750	14	2308	3	SD		5			
Nag 3750	14	2329	3	SD		1			
Nag 3750	15	0250	2.5	CD		12			
Tok 200	15	0650	11	CD	>140	20			
Nag 3750	15	0655	1	SD		3			
Tok 60	15	0700	3	CD	> 20	10			
Nag 3750	15	0718	0.5	SD		1			
Nag 3750	15	0726	0.5	SD		1			
Can 200	15	2316	6	E	>710	130	L	60,62,98,3750	Fade
Tok 60	15	2316	70	CD	>20	>20	0	62,98,200,3750	Fade
Nag 3750	15	2316	7	CD		112		60,62,98,200	Fade
Syd 98	15	2317	9	CD	1274	448	0	60,62,200,3750	Fade
Tok 200	16	0608	2	M	110	0		60,62,98,3750	
Syd 98	17	0532	0.2	CD	44	22			
Nag 3750	17	0801	1	SD		4		60,200	
Nag 3750	17	2313	2	SD		1			
Byf 73	19	1924	1.3	CD		>15			
Ott 2800	19	1957	7	SD		0			
Ott 2800	19	2240	3	SD		1			
Byf 73	20	1038	2	CD		>15			
Byf 73	20	1103	1	CD		>15			
Byf 73	20	1207	0.5	CD		>15			
Byf 73	20	1921	0.5	CD		>15			
Syd 98	21	0208	0.3	SD	>62	30			
Cav 175	21	1127	3	SD		>2		81	
Cor 200	21	1408	1	CD	>3	2			
Byf 73	21	1912	1.5	CD		>15			
Syd 62	21	2247	0.3	SD	>84	35		98	
Syd 98	23	0051	0.5	CD	61	29		62	
Tok 60	23	0055	2	CD	15	2			
Byf 73	23	1929	4	CD		>15			
Byf 73	23	1934	3	CD		>15			
Osa 3260	25	0223	0.6	SD		1			
Osa 3260	25	0227	0.5	SD		1			
Cav 175	26	1330	75	SD		>1	LC		
Cav 81	26	1338	3	SD	1	1			
Cav 81	26	1342	4	SD	1	1			
Cav 81	26	1410	1.5	SD		1		175	
Osa 3260	27	0242	2	CD		1			
Byf 73	27	1916	0.8	CD		>15			
Byf 73	27	1948	1	CD		>15			
Syd 62	27	2302	0.3	CD	96	42		98	
Tok 60	27	2355	0.6	CD	15	1			
Syd 98	28	0232	5.8	CD	48	19	0	60,62,200,3260	Fade
Syd 62	28	0412	0.2	SD	52	24		60,100,200	Fade
Tok 100	28	0415	5	CD	13	1		60,98,200	Fade
Tok 60	28	0434	0.2	SD	20	1			
Byf 73	29	1224	0.8	CD		>15			

Byf	73	29	1924	0.5	CD		>15				
Byf	73	29	1949	0.5	CD		>15				
Osa	3260	30	0213	1	CD		1				
Osa	3260	30	0240	0.5	SD		2	0			
Osa	3260	30	0329	2.5	SD		1				
Osa	3260	30	0404	6	SD		1				
Osa	3260	30	0422	7	SD		1				
Byf	73	30	1101	0.8	CD		>15				
Ott	2800	30	2046	15	SD		1				
Syd	98	31	0055	4.5	CD	19	5				
Tok	60	31	0229	1	CD	12	1				
Syd	98	31	2127	1.5	CD	34	11				
Syd	62	Aug 1	0542	0.3	SD	19	10				
Tok	60	1	0546	2	CD	15	2				
Byf	73	2	1210	0.5	CD		>15				
Cor	200	2	1633	2.8	CA	>3	1				
Syd	98	3	0207	5.5	M	58	4				
Syd	3000	3	0248	7	SD	137	28				
Syd	62	3	2211	0.3	SD	20	10				
Cav	81	5	1214	3	SD		2		175		
Byf	73	5	1910	0.5	CD		>15				
Cor	200	7	1904	1.5	CD	>3	1				
Syd	62	7	2235	5.3	CD	112	16		98		
Syd	98	7	2235	1.5	CD	173	98				
Byf	73	9	1256	1	CD		>15				
Cor	200	9	1906	1	CA	>2	1				
Tok	60	10	0157	3	CD	>25	1		62,98		
Syd	98	10	0158	1.3	CD	53	21		60,62		
Syd	62	10	0200	0.5	CD	264	88		60,98		
Can	200	10	0638	7	CD	16	2				
Byf	73	10	0831	2.5	CD		>15		140		
Ner	140	10	0832	1	SD	19	10		73		
Byf	73	10	0943	4	CD		>15		140		
Ner	140	10	0943	3	CD	90	70		73		
Byf	73	10	1249	2	CD		>15				
Cav	81	10	1254	60	SD		2				
Meu	255	10	1456	1	SD	200	130				
Syd	98	11	0205	8.8	CD	1056	200	0	60,62,100,200,3260		
Tok	200	11	0205	6	CD	75	4		60,62,98,100,3260		
Byf	73	11	0711	1	CD		>15				
Cor	200	11	1747	1.5	CA	>8	3				
Syd	98	11	2157	9	CD	>2144	262	0	62		
Tok	60	12	0012	3	CD	>25	3				
Syd	62	12	0043	1.8	CD	72	20		98		
Syd	98	12	0106	0.2	SA	58	27				
Syd	62	12	0306	1.8	CD	48	17		62		
Can	200	12	0343	6	CD	>17	7		62,98		
Syd	98	12	0344	2	CA	>2144	1352	0	62,200		
Syd	62	12	0442	4.8	M	1360	35				
Syd	98	12	0446	1.5	CA	2144	275				
Syd	62	12	0522	2.3	CA	>1600	780		98,200		
Syd	62	13	0140	0.2	SD	44	21				
Osa	3260	13	0355	0.2	SD		3				
Syd	98	13	0356	13	CD	>2144	81	0	60,62,100,200		
Tok	200	13	0642	12	CD	>150	>150				
Ner	140	13	1022	10	CD	58	30				
Byf	73	13	1030	1.5	CD		>15				
Cav	81	13	1207	3	SD		2		175		
Ner	140	13	1317	10	CD	>90	>90		73,200		
Cav	175	14	1028	7	SD		1				
Cav	81	16	1253	60	SD		1				
Ott	2800	16	2151	2.5	SD		2				
Cav	175	19	1208	90	SD		2				
Cav	81	19	1220	90	SD		2				
Syd	62	21	2159	0.8	CD	41	9				
Osa	3260	24	0210	0.5	SD		1				
Tok	60	26	0623	8	CD	>15	6				
Ott	2800	30	1945	3	SD		0				
Ott	2800	Sept 1	1413	2	SD		1				
Cor	200	1	1429	0.5	SD	>3	2				
Tok	60	2	0227	1	CD	10	6				
Cor	200	3	1210	0.5	SD	>3	2				
Meu	255	3	1238	30	CA	350	180		200,545		
Cor	200	3	1246	13.5	CD	>12	>10		140		Fade
Cor	200	3	1332	88	CD	5	M				
Can	200	5	0601	10	CD	9	3		60		
Syd	62	5	0606	1.3	CD	684	125				
Cor	200	5	1239	2	CD	>9	5				
Ott	2800	5	1715	5	CD		2				
Syd	98	5	2257	0.3	CD	41	18		60,2800		

Syd	98	6	0219	0.3	CD	47	26			
Syd	62	6	0659	0.4	CD	38	11			
Tok	200	6	0751	5	CD	20	2			
Cor	200	6	2002	0.5	CA	3	1			
Tok	60	6	2347	1	SD	>20	10		62,98,100,200	
Cor	200	8	2039	1	SD	>3	2			
Cor	200	8	2041	1	CD	>3	2			
Ner	140	10	1155	1.3	SD	50	50		73	
Tok	60	11	0248	1	SD	>20	10			
Syd	62	11	0320	0.8	CD	456	188		60,98	
Tok	60	12	0144	2	CD	4	2			
Tok	60	12	0416	2	CD	12	7			
Ner	140	12	1511	0.6	SD	20	20			
Syd	98	13	0117	2.5	CD	205	21		62	
Syd	62	13	0454	0.3	SD	34	17			
Tok	60	13	0507	0.5	SD	15	8			
Syd	62	13	0533	0.5	CD	205	67		60,98	
Can	200	13	0546	1.5	CD	19	11		98,200	
Cav	81	13	0914	12	CD	2	1		178	
Cor	200	13	1444	1.5	CA	>3	2			
Ott	2800	14	1336	22	CD		9			
Ner	140	14	1344	10	CD	>75	>75		200,255,545	Fade
Meu	545	14	1346	4	SA	350	250		140,200,255	
Meu	545	14	1354	5	CA	380	260		73	
Meu	255	15	1510	5	CD	110	80		73,140,200,545,2800	Fade
Cor	200	15	1536	35	CD	>3	M			
Syd	98	16	0238	0.5	CD	74	21			
Syd	98	16	0354	0.3	SD	45	22			
Cor	200	16	1436	3.5	CD	>3	2			
Byf	73	16	1551	1.3	CD		>15			
Ott	2800	16	2041	4	SD		1			
Syd	62	16	2323	2	CD	190	52		98	
Can	200	17	0543	9	CD	18	6		60,62,73,98,100,200	
Ott	2800	17	2056	4	CD		4		62,98,200	
Syd	98	17	2058	2.3	CD	>1148	437	0	62,200,2800	
Byf	73	18	1231	1.3	CD		>15		81,175	
Cor	200	18	1743	1.8	CD	>3	2			
Cor	200	18	1813	1.5	CD	2	0		2800	
Syd	62	18	2032	0.1	SD	42	20			
Syd	98	18	2034	0.2	SD	49	25			
Syd	98	18	2040	0.3	CD	369	160		62	
Syd	62	18	2118	0.5	CD	91	30		98	
Tok	60	19	0009	0.8	CD	>15	5			
Syd	98	19	0047	0.2	SA	53	26		62	
Ner	140	19	1512	1.5	CD	60	30			
Ott	2800	19	2158	0.5	SD		1			
Cav	175	21	1200	120	CA		>2		81	
Syd	98	23	0448	0.2	CA	>49	21			
Tok	60	23	0710	0.8	SD	15	5		62,98	
Cor	200	23	1420	1.5	CA	8	3			
Syd	62	23	2240	20	CD	>76	10		98	
Syd	98	24	0346	0.3	CD	>53	25			
Cor	200	25	1333	1.5	CA	>3	2			
Ott	2800	25	1740	3	SD		0			

Canberra, April 1952

S.F.Smerd

IV. SOLAR RADIO NOISE DATA

CO-OPERATING OBSERVATORIES

Details relating to the contributors to the fourth quarter of 1951 are as follows:-

OBSERVING STATION	ABBREVIATION	FREQUENCIES USED Mc/s	NORMAL OBSERVING PERIOD (Hours U.T.)
Commonwealth Observatory, Canberra, Australia	Can	200	21 - 06
Cavendish Laboratory, Cambridge, England	Cav	81	10 - 15
		175	10 - 15
Radiophysics Laboratory, Sydney, Australia	Syd	62	19 - 07
		98	19 - 07
		600	20 - 06
		1200	20 - 06
		3000	00 - 06
		9400	00 - 06
National Research Council, Ottawa, Canada	Ott	2800	14 - 23
Laboratoire de Physique, Marcoussis, France	Mar	158	11 - 13
Army Operational Research Group, Byfleet, Surrey	Byf	73	04 - 20
Cornell University, Ithaca, N.Y., U.S.A.	Cor	200	14 - 20
Tokyo Astronomical Observatory, Mitaka, Tokyo	Tok	200	00 - 08
		100	00 - 08
		60	00 - 08
Radio Astronomical Observatory, Osaka City University, Osaka, Japan	Osa	3260	23 - 08
Research Institute of Atmospherics, Nagoya University, Toyokawa, Japan	Nag	3750	23 - 08
Observing Station Nederhorst, Den Berg - Radio (Nera)	Ned	140	08 - 16
		200	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 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.

$$100(I_R - I_L) / (I_R + I_L)$$

where I_R and I_L are the intensities.

3. VARIABILITY The variability is described by indices on a scale 0 - 3 where 0 = quiet, and 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.
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)$^{-1}$.

CONSTANTS AND CORRECTIONS Corrections for the whole of 1951 are as follows:-

CO-OPERATING OBSERVATORIES In the address of the Research Institute of Atmospherics, Nagoya University, it should read "Toyokawa" for "Toyo Kawa".

1. FLUX The following corrections have been submitted by authors: All values for Ned 140 (Ner 140 in the third quarter) before 8th October should be multiplied by 6. The values for Nag 3750 for the second quarter should be reduced by 20. All Japanese data refer to one component of polarisation only.

Additional correction factors (less than 0.7 and greater than 1.5) which emerge from a statistical comparison of the data. The flux for Ned 140 should be multiplied by 0.4 in November and by 0.2 in December. Low values of the flux for Tok 200 should be multiplied by 3 throughout the year. The flux for Nag 3750 should be multiplied by 2 for November and December.

The relative readings from Cor 200 have been multiplied by 8 throughout 1951.

4. OUTSTANDING OCCURRENCES The following corrections to durations and intensities should be applied in the second quarter:

Ott	2800	18th May	1913	for 0.5 read 3, for 2 read 24
Ott	2800	11th June	2000	for 3.8 read 225
Cor	81	8th June	1327	for 72 read >2.

All intensities for the Japanese Observing Stations refer to one component of polarisation only.

The relative intensities for Cor 200 have been multiplied by 0.8 throughout 1951.

1. FLUX

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

	OCTOBER 1951													NOVEMBER 1951														DECEMBER 1951														
	CAV	NED	MAR	CAV	CAN	COR	TOK	NED	SYD	SYD	OTT	SYD	OSA	SYD	SYD	CAV	SYD	NED	MAR	CAV	CAN	COR	TOK	NED	SYD	SYD	OTT	SYD	OSA	NAG	SYD	SYD	CAV	SYD	NED	MAR	CAV	CAN	COR	TOK	NED
Mc/s	81	140	158	175	200	200	200	200	600	1200	2800	3000	3260	9400	62	81	98	140	158	175	200	200	200	200	600	1200	2800	3000	3260	3750	9400	62	81	98	140	158	175	200	200	200	200	600
Date																																										
1	2	4	6	8	10	9	2	-	32	-	62	-	61	-	0	9	0	35	-	-	19	18	<2	17	-	-	92	110	86	-	342	0	2	0	14	2	-	9	10	-	8	26
2	2	5	4	8	11	9	2	-	-	-	80	-	64	-	0	3	0	33	6	-	13	18	<2	15	24	41	90	115	86	-	-	0	1	0	-	3	-	9	9	-	-	26
3	2	6	5	8	11	10	2	-	30	-	88	101	63	284	0	1	14	14	3	-	11	14	<2	12	25	44	-	-	-	-	-	0	1	0	15	2	-	9	8	-	9	27
4	2	5	6	8	11	10	2	-	30	-	90	101	-	311	0	1	0	-	-	-	9	6	5	-	26	41	92	-	-	-	-	0	1	0	14	2	-	9	-	-	9	21
5	2	3	-	8	10	10	2	-	33	-	86	93	-	324	0	1	0	8	-	-	7	9	<2	8	25	46	99	-	87	-	346	0	2	0	15	3	-	7	9	-	9	20
6	2	3	-	9	11	9	3	-	32	-	-	-	-	-	0	2	0	9	-	-	9	8	<2	8	24	44	99	122	90	58	362	0	1	0	16	-	-	8	7	-	8	25
7	2	-	-	7	9	8	3	-	33	-	86	-	-	-	0	1	0	8	-	-	8	9	6	8	23	41	-	123	94	59	378	0	1	0	18	-	-	7	9	-	9	25
8	1	-	-	8	9	8	2	-	33	-	-	86	-	268	0	1	0	9	-	-	7	9	<2	8	23	41	99	113	94	60	348	0	1	0	15	-	-	7	8	-	7	-
9	2	-	-	8	9	8	2	-	30	-	88	88	-	331	0	1	0	10	4	-	9	8	<2	8	23	42	99	117	90	58	340	0	1	0	-	-	-	8	8	-	-	-
10	1	3	-	8	9	9	2	8	30	32	-	90	-	357	0	2	0	9	3	-	8	8	<2	8	25	51	-	-	89	-	-	0	1	0	17	-	-	10	7	-	9	20
11	2	5	4	7	10	8	2	8	-	-	96	98	-	311	0	1	0	-	3	-	7	8	<2	-	24	50	97	-	-	57	-	0	1	0	22	-	-	9	8	-	11	22
12	3	13	6	16	18	15	2	8	-	-	104	118	-	381	0	1	0	9	3	-	7	-	4	6	22	43	90	118	84	54	356	0	1	0	24	3	-	7	8	-	12	24
13	2	4	6	6	8	8	-	-	-	-	-	-	-	-	0	1	0	9	3	-	7	7	<2	8	23	44	86	108	80	54	338	0	1	0	22	3	-	8	8	-	10	21
14	2	-	6	5	7	7	2	-	-	33	-	-	-	-	0	1	0	9	3	-	8	7	<2	7	-	-	86	99	78	53	336	0	2	0	27	3	-	10	8	-	12	23
15	2	8	7	4	9	-	-	9	-	-	103	-	84	-	0	1	0	10	3	-	8	8	<2	8	23	42	88	129	-	56	397	0	1	0	25	4	-	-	10	3	11	20
16	2	8	6	5	8	9	2	9	27	46	108	-	91	-	0	1	0	-	4	5	8	8	-	9	23	41	86	101	78	-	389	0	1	0	-	4	-	-	8	4	-	23
17	1	8	6	5	8	10	3	9	27	35	105	99	97	404	0	1	0	10	2	-	7	8	-	8	25	42	88	-	76	-	-	0	1	0	24	2	5	7	7	4	11	21
18	1	8	6	5	8	8	3	9	33	34	105	-	-	357	0	1	0	-	2	-	7	7	-	8	24	42	86	-	-	53	-	0	1	0	24	2	5	7	7	4	11	21
19	1	9	7	5	7	9	3	8	30	40	108	122	100	389	0	1	0	9	2	-	7	8	-	8	21	37	84	109	77	53	346	0	1	0	25	3	5	8	8	-	11	23
20	2	8	-	-	8	15	20	8	-	36	97	-	-	-	0	1	0	10	3	-	7	9	<2	7	-	-	86	-	77	52	-	0	1	0	26	4	5	9	9	5	12	23
21	2	-	-	-	9	11	2	-	-	-	90	-	-	-	0	1	0	10	3	-	7	9	<2	8	22	39	84	-	75	52	-	0	1	0	26	4	7	7	9	5	20	23
22	2	7	6	-	8	9	2	15	24	29	88	91	71	348	0	1	0	10	3	-	7	-	-	8	22	39	86	-	78	52	-	0	2	12	28	-	6	25	45	3	13	23
23	1	9	4	-	8	9	2	8	25	31	77	90	-	340	0	1	0	11	3	-	8	9	<2	8	25	41	88	-	-	53	-	0	-	0	-	-	-	22	22	5	-	-
24	1	8	-	-	10	9	2	8	-	28	80	100	76	339	-	2	0	12	3	-	10	8	<2	9	26	41	-	-	80	54	-	0	-	0	-	-	-	12	-	4	-	25
25	1	6	-	-	10	9	3	7	-	-	80	98	72	346	-	1	0	-	3	-	9	8	<2	-	27	43	88	-	-	56	-	0	7	0	-	-	-	10	-	5	-	25
26	2	8	-	-	9	7	2	7	23	-	88	103	78	346	0	2	0	14	3	-	10	9	<2	9	25	44	88	96	82	55	412	0	-	0	-	-	-	8	-	3	-	25
27	1	8	-	-	9	9	2	8	29	-	90	-	76	-	0	1	0	14	3	-	9	9	<2	9	26	41	90	-	89	55	-	0	-	0	18	-	-	5	9	3	-	-
28	-	-	-	-	10	10	2	-	-	-	99	-	-	-	0	1	0	13	3	-	8	10	<2	8	25	40	92	-	90	55	-	0	-	0	25	-	-	6	9	4	11	23
29	-	8	-	-	9	8	2	7	-	-	95	101	87	392	0	1	0	13	2	-	8	9	-	9	26	47	90	-	-	58	-	0	-	0	23	-	-	6	8	5	11	-
30	2	9	-	-	8	10	2	8	-	-	95	116	89	344	0	1	0	14	3	-	8	9	<2	10	27	50	97	-	90	59	-	0	-	0	-	-	-	5	7	3	-	22
31	3	15	-	-	11	11	2	10	-	-	97	106	89	393	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	-	-	6	8	3	-	-

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

Sydney 62 Mc/s and 98 Mc/s, October - 0 for whole month

2. POLARISATION

Daily medians or means of polarisation sense and percentage

	OCTOBER 1951			NOVEMBER 1951			DECEMBER 1951		
	CAV	CAV	CAN	CAV	SYD	CAN	CAV	SYD	CAN
Mc/s	81	175	200	81	98	200	81	98	200
Date									
1	0	0	-	0	L60	L25	0	-	-
2	0	0	L14	0	L61	-	0	-	-
3	0	0	-	0	-	-	0	-	-
4	0	0	-	0	-	-	0	-	-
5	0	0	-	0	-	-	0	-	-
6	R20	R20	-	0	-	-	0	-	-
7	0	0	-	0	-	-	0	-	-
8	-	0	-	0	-	-	0	-	-
9	0	0	-	0	-	-	0	-	-
10	0	0	-	0	-	-	0	-	-
11	0	0	R2	-	-	-	0	-	-
12	0	0	V	0	-	-	0	-	-
13	0	0	-	0	-	-	0	-	-
14	0	0	-	0	-	-	0	-	-
15	0	0	L35	0	-	-	0	-	-
16	0	0	-	0	-	-	0	-	-
17	0	0	-	0	-	-	-	-	-
18	0	0	-	0	-	-	0	-	-
19	0	0	-	0	-	-	0	-	-
20	0	-	-	0	-	-	0	-	-
21	0	-	-	0	-	-	-	-	-
22	0	-	-	0	-	-	-	L61	-
23	0	-	-	0	-	-	-	L33	L13
24	0	-	-	0	-	-	-	-	L11
25	0	-	-	0	-	-	-	L60	-
26	0	-	-	0	-	-	-	L50	-
27	-	-	-	0	-	-	-	-	-
28	-	-	-	0	-	-	-	-	-
29	-	-	-	0	-	-	-	-	-
30	-	-	-	0	-	-	-	-	-
31	0	-	L60				-	-	-

V = too variable to quote a median value

3. VARIABILITY

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

	OCTOBER 1951										NOVEMBER 1951										DECEMBER 1951									
	TOK	CAV	TOK	NED	MAR	CAV	CAN	COR	TOK	NED	TOK	CAV	SYD	TOK	NED	MAR	CAV	CAN	TOK	COR	NED	TOK	CAV	SYD	TOK	NED	MAR	CAV	CAN	COR	TOK	NED
Mc/s	60	81	100	140	158	175	200	200	200	200	60	81	98	100	140	158	175	200	200	200	200	60	81	98	100	140	158	175	200	200	200	200
Date																																
1	0	0	0	0	1	0	1	1	0	-	0	3	-	0	2	-	-	2	-	1	2	0	1	-	0	2	0	-	1	1	0	1
2	0	0	0	0	1	1	1	0	0	-	0	2	0	0	3	2	-	1	0	1	3	0	0	-	0	-	0	-	1	0	0	-
3	0	0	0	0	2	0	1	0	0	-	0	0	0	0	2	1	-	1	1	2	2	0	0	-	0	1	0	-	0	0	0	0
4	0	0	0	0	0	0	1	0	0	-	0	0	-	0	-	-	-	1	0	2	-	0	0	-	0	0	0	-	1	-	0	0
5	0	0	0	0	-	0	1	0	0	-	0	0	-	0	1	-	-	1	1	0	0	0	1	-	0	1	0	-	1	0	0	0
6	0	0	0	0	-	1	1	0	0	-	0	0	-	0	1	-	-	1	0	0	0	0	1	-	0	0	-	-	1	0	0	0
7	0	0	0	-	-	1	1	0	0	-	0	1	-	0	2	-	-	1	0	1	1	1	1	-	0	2	-	-	1	0	0	0
8	0	0	0	-	-	0	1	0	0	-	1	0	-	1	1	-	-	1	0	0	1	0	0	-	0	0	-	-	1	0	0	0
9	0	0	0	-	-	0	1	1	0	-	0	1	-	0	0	-	-	0	0	0	0	-	0	-	0	-	-	-	-	0	-	-
10	0	1	0	1	-	0	1	1	0	2	1	1	-	0	0	1	-	0	0	0	0	0	0	-	-	0	-	-	1	0	-	1
11	-	1	-	1	0	0	2	1	-	2	0	0	-	0	-	1	-	1	0	0	-	0	0	-	-	0	-	-	1	1	0	1
12	-	1	-	2	1	1	2	1	-	2	0	1	-	0	-	0	-	0	0	-	0	0	1	-	-	0	0	-	1	0	0	1
13	-	0	-	0	0	0	1	1	-	-	0	0	-	0	0	0	-	0	0	0	0	0	0	-	-	1	0	-	1	0	-	0
14	0	0	0	-	1	0	1	1	-	-	0	0	-	0	0	0	-	0	0	0	0	0	0	-	-	0	0	-	1	0	-	0
15	-	0	-	1	1	0	2	-	-	1	0	0	-	0	0	0	-	0	0	0	0	0	0	-	-	1	0	-	-	1	0	0
16	1	0	1	0	0	0	1	1	0	0	0	1	-	0	-	0	0	0	-	0	0	0	1	-	-	-	1	-	-	0	0	-
17	0	0	0	1	0	0	1	2	0	1	0	0	-	0	1	0	-	0	-	0	0	0	0	-	-	0	0	-	1	0	0	-
18	1	0	0	1	1	0	1	0	1	0	0	0	-	0	0	0	-	0	-	0	0	0	0	-	-	1	0	-	1	0	0	-
19	0	0	0	1	1	0	1	1	0	1	0	0	-	0	1	0	-	0	-	0	0	0	0	-	-	1	0	-	1	0	0	0
20	0	0	0	2	-	-	1	2	0	1	1	1	-	0	0	0	-	1	-	1	0	0	0	-	-	0	0	0	0	0	0	0
21	0	0	0	-	-	-	1	0	0	-	0	1	-	0	0	1	-	0	0	0	0	0	0	-	0	1	0	0	1	0	0	2
22	0	0	0	1	-	-	1	0	0	0	-	-	-	-	1	0	-	1	0	0	0	0	0	-	0	1	-	-	1	2	0	3
23	0	0	0	0	0	-	1	0	0	0	0	0	-	0	0	0	-	1	0	0	0	0	0	-	0	0	-	-	2	2	0	-
24	0	0	0	0	-	-	1	0	0	0	0	0	-	0	0	1	-	1	0	0	1	0	0	-	0	0	-	-	1	-	0	-
25	0	0	0	0	-	-	1	0	0	0	0	0	-	0	0	0	-	1	0	0	-	0	-	-	0	0	-	-	1	-	0	-
26	0	0	0	0	-	-	1	0	0	0	0	0	-	0	0	0	-	0	0	0	0	0	-	-	0	0	-	-	1	-	0	-
27	-	0	-	0	-	-	1	0	-	1	0	0	-	0	1	0	-	1	0	1	0	1	-	-	-	0	-	-	1	-	0	-
28	1	-	0	-	-	-	1	1	0	-	0	0	-	0	1	0	-	1	0	0	0	1	-	-	-	1	0	-	1	0	0	1
29	2	-	1	0	-	-	1	1	0	0	-	-	-	-	-	0	-	-	-	-	1	1	-	-	-	0	1	-	1	0	1	1
30	1	0	0	1	-	0	1	1	0	1	0	1	-	0	0	1	-	-	0	0	1	0	-	-	1	0	-	-	1	0	0	-
31	0	2	0	2	-	-	2	1	0	2	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	0	0	0	-

4. OUTSTANDING OCCURRENCES

Station and frequency	Date 1951	Starting time	Duration	Type	Maximum intensity		Polarisation	Other frequencies on which occurrence is observed	Remarks
					Inst.	Smooth			
Mc/s		U.T.	Minutes		10^{-21} wm^{-2}(c/s)$^{-1}$			Mc/s	
Osa 3260	Oct 3	0237	0.5	SD		1			
Cav 175	10	1200	5	SD		2	-	81	
Cav 81	11	1312	4	SD		2	-	175	
Syd 98	12	0036	0.5	CD	700	284	-	62	
Syd 62	12	0036	0.5	CD	137	69		98	
Ned 140	12	1008	2	CA	11	11			
Cor 200	12	1937	0.5	CD	9	8			
Syd 62	12	2113	0.2	SD	53	24		98	
Syd 98	12	2113	0.2	SA	41	19	-	62	
Ott 2800	13	1700	4	SD		1			
Can 200	14	0608	2	CD	10	9		98	
Syd 98	14	0609	1	CD	175	58	-	200	
Byf 73	14	1109	0.5	CD		15			
Cor 200	14	1902	1.5	CA	3	1			
Syd 62	15	0457	0.2	SD	38	20		98	
Syd 98	15	0457	0.5	CD	46	23	-	62	
Syd 62	15	0704	0.2	CD	23	13			
Syd 62	15	0721	0.5	CD	30	15			
Syd 62	15	0726	0.5	CD	19	9			
Ned 200	15	0827	3.2	CD	2	1		140	
Ned 140	15	0828	1.6	CD	3	3		200	
Syd 98	16	0201	0.2	SD	34	17	-		
Osa 3260	16	0503	0.3	SD		1			
Osa 3260	16	0507	0.5	SD		3			
Osa 3260	16	0511	0.5	SD		1			
Ned 200	16	1114	0.4	SD	5	2			
Ned 140	16	1152	0.8	CD	6	4		200	
Ned 200	17	1007	2.8	CD	24	10		140	
Ned 140	17	1013	2	SD	7	4			
Ned 200	17	1517	0.8	SD	7	3			
Cor 200	17	1517	0.8	CA	2	1			
Ned 140	17	1518	0.8	SD	14	7			
Ott 2800	17	1652	2	SD		1			
Cor 200	17	1802	15	CD	2	1			
Tok 200	18	0227	0.3	SD	13	13			
Tok 60	18	0311	0.5	SD	15	10		62,98	
Syd 62	18	0311	0.2	SD	46	22		60,98	
Syd 98	18	0311	0.2	SD	34	18	-	60,62	
Ned 140	18	0757	3.2	SD	5	2		200	
Can 200	18	2251	1	SD	10	6			

Ned	140	19	0946	1.4	SD	14	7		200	
Cav	175	19	1131	2	SD		2	-	81	
Cor	200	19	1420	1	CA	2	1			
Ott	2800	19	1704	4	SD		1			
Cor	200	19	2058	1.5	SD	2	1			
Ned	140	20	1325	2.4	M	14	2			
Ned	200	20	1540	0.4	SD	8	4		140	
Ned	140	20	1604	1.6	M	7	3			
Ott	2800	20	1942	85	SD		2			
Cor	200	21	2108	1	CD	2	1			
Syd	62	22	0007	0.2	SD	61	25			
Ned	200	22	1427	2.4	CD	12	7			
Cor	200	22	1429	1	CD	2	1			
Ott	2800	23	1410	9	SD		2			
Ned	140	23	1526	5.6	M	7	4			
Syd	62	27	0214	1.5	CD	76	29			
Ned	200	27	1144	1.2	CD	6	3			
Syd	1200	28	0342	2	CD	10	5		600	
Syd	62	28	0418	2.3	CD	46	9		60	
Syd	3000	29	0106	6	CD	282	181		9400	
Syd	9400	29	0107	5	CD	600	227		3000	
Can	200	29	0305	11	CD	20	3		60,62,98,3260	Fade
Syd	98	29	0305	14.5	CD	504	52	0	60,62,200,3260	Fade
Syd	62	29	0306	22.8	CD	1254	99		60,98,200,3260	Fade
Tok	60	29	0306	24	CD	15	15		62,98,200,3260	Fade
Osa	3260	29	0307	6	CD		35		60,62,98,200	Fade
Tok	100	29	0315	5	CD	4	3			
Ott	2800	19	1729	5	SD		1			
Ned	140	30	1423	0.4	SD	3	3			
Ned	140	31	0953	1.2	CA	8	2			
Ned	140	31	1011	0.8	CA	5	3			
Ned	200	31	1415	0.8	CD	6	3			
Ned	140	31	1504	0.8	CA	9	4			
Ned	140	31	1519	0.6	CA	11	3			
Ned	140	31	1520	1.2	CA	7	2			
Ned	140	31	1536	2	CA	11	3			
Ned	140	31	1541	0.4	SA	7	3		200	
Syd	1200	Nov 1	0200	2	CD	5	1			
Syd	1200	1	0225	1	CD	5	1			
Syd	1200	1	02320	3	CD	5	1			
Osa	3260	1	0557	0.5	SD		4			
Osa	3260	1	0559	1	SD		3			
Ned	200	1	0850	4.3	M	7	3			
Ned	140	1	0921	0.8	CA	13	8			
Ned	140	1	0934	2.9	CA	13	5			
Ned	140	1	1049	0.6	CA	13	7			
Ned	140	1	1118	2.3	CA	13	9			
Ned	140	1	1424	0.4	CA	13	5			
Ned	140	1	1522	0.2	CA	13	9		200	
Ned	140	1	1535	0.9	CA	13	9			
Syd	600	2	0642	10	CD	7	2			
Syd	62	2	0742	2.3	CD	418	89		98	
Syd	98	2	0742	2.3	CD	90	23	-	62	
Ned	140	2	0819	1.3	CA	14	8		200	
Ned	200	2	0824	0.4	CA	6	3			
Ned	140	2	0906	0.8	CA	14	4			
Ned	200	2	0949	0.8	CA	10	4			
Ned	140	2	0951	0.8	CA	14	9			
Ned	200	2	1030	1.5	CA	7	3			
Ned	140	2	1032	0.8	CA	14	9			
Ned	140	2	1118	0.6	CA	14	9		200	
Ned	140	2	1200	0.4	CA	14	7			
Ned	200	2	1353	0.8	CA	10	4			
Ned	140	2	1456	3.1	CA	14	14			
Ned	200	2	1531	2.1	CA	10	6			
Cor	200	3	1455	4	CA	2	1			
Ned	140	3	1521	0.6	CA	11	3			
Cor	200	3	1827	2.5	CA	2	1			
Cor	200	3	1832	0.5	SA	2	1			
Syd	1200	4	0335	0.5	SD	6	1			
Syd	1200	4	0352	0.1	SD	5	5			
Syd	1200	4	0618	5	CD	7	3			
Ned	200	6	0943	1.9	CD	15	15		140	Fade
Ned	140	6	0944	6.2	CD	14	14		200	Fade
Cav	81	6	0950	7	SD		2	-		
Ned	140	7	1110	0.8	CD	13	3		200	
Ned	140	7	1250	3.9	CD	13	4		200	
Ned	200	7	1301	4.7	M	5	3		140	
Ned	140	7	1416	0.4	SD	10	5		140	
Ned	140	7	1416	0.8	SD	13	9		200	
Cor	200	7	1416	0.5	SA	3	2		140	
Cor	200	7	1740	0.5	CA	>3	2			
Syd	98	7	1956	1.3	CD	615	171	-	62, 200	
Cor	200	7	1957	2.0	CD	>3	2		62, 98	
Can	200	7	1957	1.5	CD	16	4		62, 98	

Syd	62	7	1957	2.3	CD	>1520	227			98, 200
Syd	98	7	2248	0.2	SD	29	15	-		
Syd	98	8	0124	0.8	CD	328	128	-		60, 62, 100
Syd	62	8	0124	0.8	CD	>1520	642			60, 98, 100
Tok	60	8	0124	1.0	SD	>15	>15			62, 98, 100
Tok	100	8	0124	1.0	SD	12	6			60, 62, 98
Syd	98	8	0202	0.2	SD	29	15	-		60, 62
Syd	62	8	0202	0.3	CD	152	69			60, 98
Tok	60	8	0202	1.0	CD	10	4			62, 98
Syd	98	8	0226	3.0	CD	287	43	-		60, 62, 100
Syd	62	8	0226	3.5	CD	>1520	128			60, 98, 100
Tok	60	8	0228	2.0	CD	>15	>15			62, 98, 100
Tok	100	8	0229	1.0	CD	8	2			60, 62, 98
Syd	98	8	0355	0.2	SD	30	15	-		60, 62
Syd	62	8	0355	0.2	SD	61	30			60, 98
Tok	60	8	0355	0.2	SD	15	7			62, 98
Syd	62	8	0556	0.2	SD	46	21			60
Tok	60	8	0556	1.0	SD	>12	>12			62
Syd	62	8	0647	0.8	CD	76	35			60
Tok	60	8	0647	1.0	CD	15	5			62
Ned	140	8	1126	0.8	CD	8	4			200
Ott	2800	8	1253	2.0	SD		<1			
Syd	1200	10	0240	2.0	CD	3	1			
Tok	60	10	0313	1.5	CD	8	7			
Syd	600	11	0630	1.0	CD	3	1			
Syd	600	11	0643	2.0	CD	4	1			
Cor	200	11	1935	2.5	CD	>3	2			
Syd	600	12	0553	2.0	CD	4	1			
Ned	140	13	1153	0.4	SD	5	5			200
Syd	600	14	2335	7.0	CD	5	1			
Syd	600	19	0216	4.0	CD	4	1			
Tok	60	20	0044	1.0	CD	12	4			
Byf	73	20	1034		CD		>15			
Ott	2800	20	1422	3.0	SD		< 1			
Byf	73	21	0840	0.8	CD		>15			
Byf	73	21	1041	1.0	CD		>15			
Cor	200	21	2047	4.0	CD	2	1			
Byf	73	22	1034	1.8	CD		>15			
Syd	600	22	2113	5.0	CD	5	2			62, 98
Syd	62	22	2116	11.3	CD	>1565	639			98, 600
Syd	98	22	2116	5.0	CD	>1162	384	0		62, 600
Byf	73	23	1235	1.0	CD		>15			
Byf	73	24	0741	0.8	CD		>15			
Ott	2800	24	1947	15.0	SD		< 1			
Ned	140	27	0850	1.5	CD	13	6			200
Ned	200	27	1402	0.8	CD	7	3			73, 140
Ned	140	27	1402	1.9	M	>12	-			73, 200
Byf	73	27	1402	2.0	CD		>15			140, 200
Ned	200	27	1428	4.3	M	240	>7			73, 140
Ned	140	27	1428	3.9	M	>30	-			73, 200
Byf	73	27	1430	3.8	CD		>15			140, 200
Cor	200	27	1635	0.5	CA	2	1			
Can	200	27	2016	3.0	CD	25	7			62, 98
Syd	98	27	2016	0.2	SD	31	16	-		62, 200
Cor	200	27	2017	3.5	CD	2	1			62, 98
Syd	98	27	2017	0.8	CD	770	320	-		62,200
Syd	62	27	2018	0.8	CD	385	164			98, 200
Ott	2800	27	2055	-	SD	-	>7			
Can	200	27	2313	4.0	CD	24	5			62, 98
Syd	98	27	2313	1.3	CD	1148	405	-		62, 200
Syd	62	27	2314	1.0	CD	>1400	546			98, 200
Byf	73	29	1030	0.5	CD	-	>15			
Cor	200	30	1804	1.0	CD	>3	>2			
Syd	98	30	2027	0.2	SD	25	14	-		
Syd	98	30	2347	0.2	SD	21	11	-		
Nag	3750	Dec 1	0151	1.2	SD		1			
Syd	62	1	0708	0.5	CD	46	26			
Syd	62	1	0805	0.5	CD	36	13			98
Syd	98	1	0805	0.3	CD	22	11	-		62
Ned	140	1	1152	3.3	M	5	3			
Ned	140	1	1444	1.1	CD	10	3			
Byf	73	3	1305	1.0	CD		>15			
Byf	73	4	1114	0.8	CD		>15			
Byf	73	4	1145	0.8	CD		>15			
Syd	62	4	2221	0.3	CD	92	43			
Byf	73	5	0852	0.8	CD		>15			
Byf	73	5	1207	1.3	CD		>15			
Byf	73	5	1216	1.8	CD		>15			
Byf	73	6	1453	1.8	CD		>15			
Cor	200	6	1712	1.5	CD	1	1			
Syd	62	6	2043	0.2	SD	163	77			
Syd	62	6	2242	1.3	CD	>1320	541			98, 200
Syd	98	6	2242	0.5	CD	287	129	-		62, 200
Can	200	6	2242	1.0	CD	19	7			62, 98
Tok	60	7	0019	1.0	CD	18	18			

Syd	98	7	0047	0.4	CD	41	21	-		
Tok	60	7	0159	0.5	SD	>15	>15		62	
Syd	62	7	0159	0.3	CD	462	172		60	
Tok	60	7	0416	1.0	CD	>18	>18		62	
Syd	62	7	0416	1.3	CD	462	189		60	
Tok	60	7	0455	0.5	CD	>20	>20		62	
Syd	62	7	0455	0.3	SD	>50	26		60	
Byf	73	7	0948	1.0	CD		>15		140, 200	
Ned	140	7	0948	1.1	CD	10	4		73, 200	
Ned	200	7	0949	1.1	CD	2	1		73, 140	
Ned	140	7	0953	1.3	CD	6	3			
Ned	140	7	1413	1.7	CD	11	4			
Byf	73	7	1514	2.3	CD		>15			
Syd	62	7	2100	5.0	M	40	6			
Byf	73	8	0824	0.8	CD		>15			
Ned	140	8	0908	0.8	CD	13	4			
Cor	200	8	1811	1.5	CD	2	1			
Byf	73	9	1025	0.8	CD		>15			
Byf	73	9	1048	1.0	CD		>15			
Ned	140	10	1151	0.4	CD	4	3		200	
Byf	73	10	1324	0.8	CD		>15			
Byf	73	12	1547	1.0	CD		>15			
Syd	62	13	0657	1.8	CD	106	34		98	
Syd	98	13	0658	0.8	CD	16	7	-	62	
Ned	200	13	0818	4.5	M	6	3		140	
Ned	140	13	0821	1.1	CD	5	3		200	
Byf	73	13	1156	1.3	CD		>15			
Ned	140	13	1412	0.6	CD	6	3		200	
Syd	98	14	0217	1.5	CD	86	26	-	200	
Can	200	14	0217	2.0	CD	36	7		98	
Syd	98	14	0248	0.2	SD	155	69	-		
Syd	98	15	0355	0.2	SD	25	15	-		
Ned	140	15	1408	1.1	CD	5	3			
Ned	140	18	0913	0.6	CD	20	-			
Ned	140	18	1126	0.9	CD	7	3		200	
Syd	600	21	0118	15.0	CD	12	2		200, 1200, 3000, 3750, 9400	
Syd	1200	21	0119	15.0	CD	6	2		200, 600, 3000, 3750, 9400	
Syd	3000	21	0120	5.0	SD	182	44		200, 600, 1200, 3750, 9400	
Syd	9400	21	0120	5.0	SD	467	77		200, 600, 1200, 3000, 3750	
Can	200	21	0120	13.0	CD	7	2		600, 1200, 3000, 3750, 9400	Flare
Nag	3750	21	0120	1.5	SD		3		200, 600, 1200, 3000, 9400	
Nag	3750	21	0145	2.2	SD		1			
Syd	600	21	0651	5.0	CD	>12	10		1200	
Syd	1200	21	0653	5.0	CD	20	2		600	
Ned	200	21	1151	4.5	CD	68	-		140	
Ned	140	21	1151	1.3	CD	200	-		200	
Ned	140	21	1152	9.0	CD	139	-		200	
Ned	200	21	1156	20	CD	19	5		140	
Ned	140	21	1300	1.9	M	200	-		200	
Ned	200	21	1300	0.4	CD	21	-		140	
Cor	200	21	1332	10.0	CD	>9	6			
Cor	200	21	1351	8.0	CD	>9	8			
Cor	200	21	1402	28.0	CD	>16	>13			
Ned	200	21	1441	4.3	M	13	3		140	
Ned	140	21	1444	0.8	CD	74	20		200	
Ned	140	21	1458	1.5	CD	>200	-		200	
Ned	200	21	1458	1.7	CD	36	12		140	
Cor	200	21	1459	1.0	SD	9	8		140	
Cor	200	21	1603	1.0	CD	4	2			
Syd	62	21	2119	0.3	SD	108	47		98	
Can	200	23	0010	14.0	CA	26	M			
Syd	62	23	0258	0.2	SD	86	47			
Syd	62	23	1926	0.1	SD	35	18		98	
Syd	98	23	2054	0.2	SD	29	16	-		
Syd	98	23	2330	115	CD	32	11	0		
Syd	62	24	0030	0.3	SA	>35	18			
Syd	600	24	0855	20	CD	12	8		1200	
Syd	1200	24	0857	10.0	CD	15	12		600	
Ott	2800	24	1702	5.0	SD		1			
Syd	62	24	1937	1.0	CD	42	18			
Syd	62	24	2117	1.3	CD	980	273			
Syd	98	24	2131	1.0	CD	29	11	-		
Syd	62	24	2331	0.5	CD	>665	236		98	
Syd	98	24	2331	0.2	SD	33	16	-	62	
Syd	62	25	0029	0.2	SD	70	36			
Ott	2800	25	1512	2.0	SD		1			
Ott	2800	25	1711	2.0	SD		<1			
Nag	3750	25	2358	3.5	SD		1			
Syd	98	26	0817	0.2	CD	41	21	-		
Ott	2800	26	1524	4.0	SD		1			
Nag	3750	27	0251	2.5	SD		<1			
Syd	98	27	0309	0.2	SD	34	17	-	62	
Syd	62	27	0309	0.2	SD	280	146		98	
Syd	62	27	0358	0.2	SD	42	23			
Syd	62	27	2341	0.2	SD	35	26			

Ned	200	28	1113	0.8	CD	29	3		140	
Ned	140	28	1138	0.4	SD	22	-			
Syd	62	28	1942	0.2	SD	42	23			
Syd	98	28	2048	0.2	SD	30	17	-		
Syd	98	28	2317	0.3	CD	52	28	-		
Syd	98	29	0347	0.2	SD	26	16	-		
Syd	62	29	0414	0.8	CD	735	146		98	
Syd	98	29	0414	0.3	CD	86	45	-	62	
Syd	62	29	0455	0.2	SD	56	32			
Ned	140	29	1107	0.8	CD	6	3			
Cor	200	30	1511	4.0	CD	>2	2			
Cor	200	30	1906	2.5	CD	>2	1			
Syd	62	30	2116	0.3	CD	49	24		98	
Syd	62	31	0238	0.6	CD	120	59		98	
Cor	200	31	1648	4.0	CD	2	4			

Canberra, September 1952

S.F.Smerd