IV. SOLAR RADIO NOISE DATA

CO-OPERATING OBSERVATORIES

Details relating to the contributors to the first quarter of 1953 are as follows:-

OBSERVING STATION	ABBREVIATION	FREQUENCIES USED	NORMAL OBSERVING PERIOD
		Mc/s	(Hours U.T.)
Cavendish Laboratory, Cambridge, England	Cav	81	10 - 15
		175	10 - 15
Radiophysics Laboratory, Sydney, Australia	Syd	62	19 - 07
		98	19 - 07
		200	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	169	11 - 13
Cornell University, Ithaca, N.Y., U.S.A.	Cor	200	14 - 20
Tokyo Astronomical Observatory, Mitaka, Tokyo	Tok	60	00 - 08
		100	00 - 08
		200	00 - 08
		3000	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 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 a 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)$^{-1}$.

1. FLUX

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

JANUARY 1953																
	CAV	NED	MAR	CAV	SYD	COR	TOK	NED	MEU	MEU	OTT	SYD	TOK	OSA	NAG	SYD
Mc/s	81	140	169	175	200	200	200	200	255	545	2800	3000	3000	3260	3750	9400
Date																
1	1.0	-	3	4	10	8	6	-	-	-	-	-	-	-	86	-
2	6.0	17	4	8	12	8	6	9	-	-	65	68	-	-	88	370
3	1.5	4	3	5	9	7	7	8	-	-	-	-	-	-	88	-
4	0.8	-	-	5	7	7	-	-	-	-	-	-	-	-	-	-
5	-	6	3	-	8	7	7	8	-	-	70	73	-	-	94	326
6	1.0	5	-	4	11	7	7	8	-	-	81	-	-	-	100	-
7	1.0	5	3	4	10	7	6	8	-	-	77	65	101	-	100	304
8	1.5	5	3	4	10	8	-	8	-	-	84	-	102	-	100	-
9	1.1	7	3	4	8	7	6	8	-	-	84	67	102	-	106	329
10	-	6	-	4	8	8	-	8	-	-	-	-	104	-	106	-
11	0.9	-	-	4	8	8	-	-	-	-	-	-	104	-	-	-
12	0.8	5	-	4	9	7	6	-	11	21	87	76	107	-	108	304
13	-	4	3	4	9	7	-	-	12	-	87	-	116	-	108	-
14	0.8	4	3	3	8	8	-	-	12	-	89	81	107	140	108	307
15	1.0	4	3	3	9	7	-	8	12	-	76	-	-	-	104	-
16	0.7	5	3	3	6	-	8	6	12	-	78	71	102	156	102	328
17	0.8	6	3	3	7	7	-	6	12	-	-	-	101	-	98	-
18	-	-	3	3	-	7	7	-	-	-	-	70	98	-	-	346
19	0.9	4	3	3	14	7	7	7	12	-	69	-	87	-	92	-
20	-	4	3	-	6	7	7	7	10	-	67	-	87	114	90	-
21	0.7	4	3	3	7	6	7	7	12	-	65	59	81	-	88	284
22	0.7	4	3	3	6	6	8	7	13	-	65	-	84	-	86	-
23	0.8	4	3	3	6	7	-	7	12	-	65	60	84	-	86	249
24	0.7	4	3	4	5	-	6	7	12	-	-	-	81	-	84	-
25	0.9	-	3	3	6	-	6	-	12	-	63	63	79	-	-	276
26	0.7	5	3	3	6	7	8	7	11	-	64	-	87	-	84	-
27	0.8	5	3	3	8	-	8	7	11	-	64	-	90	-	84	-
28	-	4	3	-	7	7	8	7	10	-	64	71	-	130	84	288
29	0.8	5	3	4	8	7	7	7	12	-	63	-	91	110	84	-
30	1.0	5	3	4	7	7	-	7	11	-	65	67	87	116	84	300
31	1.2	5	3	5	7	7	6	6	11	-	-	-	91	-	86	-

FEBRUARY 1953																		
	CAV	NED	MAR	CAV	SYD	COR	TOK	NED	MEU	MEU	SYD	SYD	OTT	SYD	TOK	OSA	NAG	SYD
Mc/s	81	140	169	175	200	200	200	200	255	545	600	1200	2800	3000	3000	3260	3750	9400
Date																		
1	0.9	-	3	5	7	7	-	-	12	-	-	-	-	72	91	-	-	276
2	0.9	6	3	5	7	7	-	7	11	-	-	-	67	-	86	-	86	-
3	1.0	6	3	5	8	7	8	7	10	-	-	-	68	-	89	92	88	-
4	1.0	6	3	5	7	7	7	7	11	-	-	-	69	68	90	-	90	313
5	1.0	6	3	5	7	7	6	7	12	-	-	-	69	-	89	-	90	-
6	0.9	6	3	5	8	8	7	8	12	25	-	-	69	62	86	-	90	-
7	0.7	6	3	4	7	7	7	8	12	23	-	-	-	-	86	-	88	-
8	0.8	-	-	4	5	7	7	-	-	-	-	-	-	-	83	-	-	-
9	-	6	3	4	6	6	6	7	11	22	-	-	66	-	83	99	88	-
10	-	6	3	4	5	-	6	7	12	24	-	-	67	-	89	-	88	-
11	0.9	5	3	4	-	8	6	7	-	-	-	-	67	68	95	-	86	344
12	0.8	5	3	4	5	7	5	7	11	21	21	-	65	-	85	-	86	-
13	0.9	5	3	4	9	7	5	7	12	20	19	-	65	61	83	-	86	-
14	0.8	5	3	4	6	7	5	7	12	20	18	-	-	-	79	121	84	-
15	-	-	3	8	-	7	5	-	13	20	17	-	-	-	78	-	84	-
16	-	6	3	5	-	6	6	7	12	21	-	-	64	60	80	114	84	-
17	-	7	3	4	-	7	5	7	12	22	18	-	61	-	79	-	82	-
18	-	6	3	-	6	-	5	6	11	22	17	-	58	62	78	110	82	278
19	-	6	3	-	6	7	6	6	10	18	-	-	58	-	76	-	82	-
20	-	6	3	-	8	7	6	7	13	19	-	-	58	56	75	-	80	313
21	-	6	-	-	6	7	-	7	12	19	-	-	-	-	78	-	78	-
22	-	-	3	-	5	7	6	-	12	18	17	27	-	-	79	-	-	-
23	-	6	3	-	4	7	5	7	-	-	-	29	59	59	79	-	78	274
24	-	6	3	-	6	7	5	7	13	20	20	27	55	-	76	-	78	-
25	-	6	3	-	-	7	6	7	-	-	17	28	61	55	76	-	78	289
26	-	6	3	-	-	7	-	7	-	-	19	32	60	-	77	-	78	-
27	-	5	3	-	7	7	5	7	12	20	19	-	60	64	-	-	80	328
28	0.8	6	3	4	6	7	-	7	14	18	-	-	-	-	77	-	80	-

MARCH 1953																	
	CAV	NED	MAR	CAV	SYD	COR	TOK	NED	MEU	MEU	SYD	SYD	OTT	SYD	TOK	OSA	MAG	SYD
Mc/s	81	140	169	175	200	200	200	200	255	545	600	1200	2800	3000	3000	3260	3750	9400
Date																		
1	1.0	-	3	5	8	7	-	-	13	18	18	33	-	-	74	-	-	-
2	0.9	6	3	6	10	7	5	7	13	19	20	33	62	60	76	-	84	374
3	1.2	6	3	-	9	7	5	7	13	20	23	32	61	-	76	-	84	-
4	-	6	3	6	12	7	6	7	-	-	18	32	-	59	77	-	84	277
5	0.8	6	3	6	12	7	6	8	12	21	16	34	63	-	78	110	84	-
6	-	6	3	-	11	7	-	8	12	22	19	34	62	60	-	108	84	332
7	-	6	3	5	8	7	-	8	12	20	18	31	-	-	76	103	82	-
8	-	-	3	5	9	7	-	-	-	-	18	34	-	-	75	-	-	-
9	-	6	3	5	-	6	-	7	12	22	18	31	59	44	74	97	80	309
10	0.8	6	3	5	9	8	5	7	11	20	-	-	60	-	73	103	80	-
11	0.8	6	3	5	8	7	5	7	11	19	18	31	58	57	72	-	80	275
12	0.9	6	3	5	8	7	5	7	9	19	19	31	56	-	73	-	80	-
13	0.8	5	3	6	7	8	5	7	11	21	19	30	59	54	78	106	80	264
14	-	6	3	6	8	7	5	7	-	-	-	30	-	-	79	101	80	-
15	-	-	3	5	-	7	5	-	-	-	-	32	-	-	79	-	-	-
16	-	6	3	5	9	7	5	7	10	21	-	28	56	61	79	-	80	310
17	0.8	6	3	-	9	7	5	7	10	20	-	-	59	-	80	97	80	-
18	-	6	3	6	9	7	5	7	11	21	-	-	58	64	78	-	78	310
19	0.9	6	3	6	8	7	5	7	9	19	-	-	-	-	79	95	78	-
20	0.8	6	3	6	10	7	5	7	9	19	18	28	61	54	81	-	80	313
21	0.9	6	3	5	9	7	5	7	10	20	-	-	-	-	80	-	80	-
22	0.8	-	3	6	10	7	5	-	-	-	-	-	-	-	80	-	80	-
23	-	6	3	6	10	7	-	7	9	20	-	-	56	52	80	-	78	302
24	0.7	6	3	6	10	7	5	7	9	21	-	-	-	-	79	-	78	-
25	0.7	5	3	5	12	7	5	7	9	20	-	-	65	65	81	-	82	295
26	0.9	5	3	5	13	7	5	7	10	20	-	28	59	-	83	99	82	-
27	0.8	5	3	5	12	7	5	7	11	22	-	-	59	-	-	97	84	320
28	1.0	6	3	5	12	7	5	7	10	21	-	-	-	-	85	-	-	-
29	-	-	3	5	12	8	5	-	10	20	-	-	-	62	-	-	88	280
30	-	6	-	5	12	8	6	7	12	22	-	33	68	-	87	-	88	-
31	0.9	6	3	5	12	7	5	8	11	20	-	-	69	-	94	-	92	-

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

Sydney 62 Mc/s, and Sydney 98 Mc/s - G for the whole quarter

Sydney 200 Mc/s, new calibration from the 16th March

2. POLARISATION

Daily medians or means of polarisation sense and percentage

	JANUARY 1953		FEBRUARY 1953		MARCH 1953	
	CAV	CAV	CAV	CAV	CAV	CAV
Mc/s	81	175	81	175	81	175
Date						
1	0	0	0	0	0	0
2	L20	L20	0	0	0	0
3	0	0	0	0	-	-
4	0	0	-	-	-	-
5	-	-	-	-	0	0
6	0	0	-	-	-	-
7	0	0	0	0	-	-
8	0	0	0	0	-	-
9	0	0	-	0	-	-
10	-	0	-	-	0	0
11	0	0	0	0	0	0
12	0	0	0	0	0	0
13	0	0	-	0	0	0
14	0	0	0	0	-	0
15	0	0	-	0	-	0
16	0	0	-	0	-	0
17	0	0	-	-	-	-
18	-	0	-	-	-	-
19	0	0	-	-	0	-
20	0	0	-	-	-	-
21	0	0	-	-	-	-
22	0	0	-	-	0	0
23	-	0	-	-	-	0
24	0	0	-	-	0	0
25	-	-	-	-	0	0
26	-	-	-	-	-	-
27	0	0	-	-	-	-
28	-	-	0	0	0	0
29	-	-			-	-
30	0	0			-	0
31	0	0			-	0

3. VARIABILITY

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

	JANUARY 1953														FEBRUARY 1953													MARCH 1953											
	TOK	SYD	CAV	SYD	TOK	NED	MAR	CAV	SYD	COR	TOK	NED	MEU	MEU	TOK	SYD	CAV	SYD	TOK	NED	MAR	CAV	SYD	COR	TOK	NED	MEU	MEU	TOK	SYD	CAV	SYD	TOK	NED	MAR	CAV	SYD	COR	TOK	NED	MEU	MEU
Mc/s	60	62	81	98	100	140	169	175	200	200	200	200	255	545	60	62	81	98	100	140	169	175	200	200	200	200	255	545	60	62	81	98	100	140	169	175	200	200	200	200	255	545
Date																																									
1	0	0	0	0	0	-	0	0	0	0	0	-	-	-	0	0	0	0	0	-	0	0	0	0	0	-	0	-	0	0	0	0	0	-	0	0	0	0	-	0	0	0
2	0	0	1	0	0	1	1	0	0	0	0	1	-	-	0	0	0	0	0	-	0	0	0	0	0	-	0	-	0	0	0	1	0	-	0	0	0	0	-	0	0	0
3	0	0	0	0	0	0	1	0	0	0	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	0	1	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	-	0	0	0	0	-	0	0	0	0	-	-	-	0	0	0	-	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	-	0	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	-	0	-	0	0	0	-	0	-	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	-	0	-	0	0	0	0	0	-	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	-	0	-	0	0	0	0	0	-	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	-	0	-	0	0	0	0	0	-	0	0	0
10	-	0	-	0	-	0	-	0	0	0	-	1	-	-	0	0	-	0	0	0	0	0	0	-	0	0	0	-	-	0	-	0	-	0	0	0	0	0	-	0	0	0
11	0	0	0	0	0	-	-	0	0	0	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	1	-	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0,1	0	1	0	0	0	1	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	1	0	0	0	0	0	0	0	0	0	0
14	1	1,0	0	1,0	0	1	0	0	1	1	1	-	-	-	0	0	0	0	0	0	0	1	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	-	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	-	0	0	0	-	0	0	-	0	0	0	0	0	0	0	0	0	0	-	0	0	-	0	0	0	0	0	0	0	0	0	0	0
17	-	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	-	0	0	0	0	0	0	0	0	0	0	-	0	0	-	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	-	0	0	0	0	0	0	0	0	0	0	-	0	0	-	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	-	0	0	0	0	0	0	0	0	0	0	-	0	0	-	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	-	0	0	0	0	0	0	0	0	0	0	-	0	0	-	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	-	0	-	0	-	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0	0	0	0	0	0	0
22	-	0	1	0	0	0	0	0	0	0	0	0	0	-	-	0	-	0	-	0	-	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0	0	0	0	0	0	0
23	0	0	1	0	0	0	0	0	0	0	0	0	0	-	-	0	-	0	-	0	-	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	1	0	0	0	0	0	-	-	0	-	0	-	0	-	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	-	0	0	0	0	0	-	0	-	-	0	-	0	-	0	-	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0	0	0	0	0	0	0
26	0	0,1	0	0,1	0	0	0	0	0	0	0	0	0	-	-	0	-	0	-	0	-	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0	0	0	0	0	0	0
27	0	0	1	0	0	0	0	1	0	0	0	0	0	-	-	0	-	0	-	0	-	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0	0	0	0	0	0	0
28	0	0	-	0	0	0	0	-	0	0	0	0	0	-	-	0	-	0	-	0	-	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	-	0	-	0	-	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	-	0	0	0	0	0	0	0	0	-	-	0	-	0	-	0	-	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0	0	0	0	0	0	0
31	-	0	0	0	-	0	0	0	0	0	0	0	0	-	-	0	-	0	-	0	-	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0	0	0	0	0	0	0

Two values are given, where these differ significantly, for the two Eastern observing periods (i.e. before sunset and after sunrise) in one day U.T.

4. OUTSTANDING OCCURRENCES

Station and frequency	Date 1953	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	
Ott 2800	Jan 1	1457	55.0	CD	-	2			
Ott 2800	5	1637	20.0	CD	-	1			
Cav 175	7	1232	1.5	SD	3	2	-		
Nag 3750	9	0056	2.0	SD	-	<1			
Syd 200	9	0757	0.3	SD	7	3			
Ott 2800	9	2055	5.0	SD	-	1			
Syd 200	10	0254	2.0	M	10	2			
Syd 200	10	2302	0.4	CD	9	4			
Ott 2800	12	2010	25.0	CD	-	<1			
Ott 2800	13	1950	4.0	SD	-	6			
Syd 98	13	2016	0.3	CD	86	40	-		
Nag 3750	14	0000	5.0	CD	-	1			
Syd 62	14	0111	0.2	CD	52	28		98	
Syd 98	14	0111	0.2	SD	37	19	-	62	
Syd 200	14	0056	0.2	CD	8	4			
Syd 200	14	0159	7.0	M	140	8		62,98	
Syd 98	14	0201	2.5	CD	55	14	0	62,200	
Tok 200	14	0201	1.5	CD	35	20		62,98	
Syd 62	14	0202	0.2	SD	126	63		98,200	
Syd 98	14	0216	2.5	CD	26	14	0		
Syd 200	14	0604	6.0	M	78	6		62,98	
Syd 62	14	0606	0.3	CD	99	35		98,200	
Syd 98	14	0606	6.5	CD	70	16	0	62,200	
Ned 140	14	0904	2.0	CD	>88	>44			
Cav 175	14	1123	2.5	SD	2	2	-		
Ned 200	14	1339	1.6	CD	>30	3		140	
Ned 140	14	1340	0.6	CD	>90	8		200	
Ned 140	14	1512	1.6	CD	>70	>35		200	
Ned 200	14	1512	1.2	CD	>20	>10		140	
Syd 200	14	2043	0.5	CD	14	6			
Ott 2800	16	1838	50.0	CD	-	1			
Ott 2800	17	1735	4.0	SD	-	<1			
Ott 2800	19	1955	65.0	CD	-	2			
Nag 3750	24	0009	1.2	-	-	1			
Cav 81	24	1118	3.0	CD	1	1	-		
Ott 2800	24	1529	4.0	SD	-	<1			
Syd 62	26	2348	0.2	SD	29	16		98	
Syd 98	26	2348	0.3	SD	29	15	-	62	
Cav 81	27	1148	2.0	SD	1	1	-		
Cav 81	27	1236	2.0	SD	2	1	-	175	
Cav 175	27	1236	2.0	SD	2	2	-	81	
Nag 3750	30	0203	0.2	SD	-	<1			
Cav 81	Mar 1	1240	3.0	SD	1	1	-		
Cav 81	11	1208	2.0	SD	2	1	-		
Cav 81	12	1223	3.0	SD	1	<1	-	175	
Cav 175	12	1223	3.0	SD	1	<1	-	81	
Cav 81	24	1247	2.0	SD	2	1	-		
Cor 200	27	1419	0.3	CD	2	1			
Cor 200	27	1733	0.5	CD	4	2			
Cor 200	27	1832	2.0	CD	4	2			
Syd 200	27	2031	0.4	CD	6	3			
Syd 200	28	0003	0.3	CD	4	2			
Cav 81	28	1212	1.0	SD	1	1	-		
Syd 200	28	2129	11.5	M	>8	<1			
Syd 200	29	0112	0.6	CD	>8	4			

Canberra, November 1953

S.F.Smerd

IV. SOLAR RADIO NOISE DATA

CO-OPERATING OBSERVATORIES AND TABULATED QUANTITIES

For details and definitions refer to No.101 of the Quarterly Bulletin; it must be noticed, however, that in the second quarter of 1953 the normal observing period is for Syd 62,98,200: 20^h- 08^h U.T., for Syd 600,1200: 20^h- 07^h U.T., and for Ott 2800: 12^h- 23^h U.T.

1. FLUX

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

APRIL 1953

	SYD	CAV	SYD	NED	MAR	CAV	SYD	COR	TOK	NED	MEU	MEU	SYD	SYD	OTT	SYD	TOK	OSA	NAG	SYD
Mc/s	62	81	98	140	169	175	200	200	200	200	255	545	600	1200	2800	3000	3000	3260	3750	9400
Date																				
1	G	0.9	G	6	3	5	16	9	5	7	-	-	-	-	73	70	97	117	94	293
2	G	0.9	G	6	3	5	16	9	6	7	-	-	-	-	73	-	96	-	96	-
3	G	1.0	G	-	3	6	15	8	5	-	11	22	-	-	76	-	98	-	96	344
4	G	0.9	G	6	3	5	16	8	-	7	-	-	-	-	74	-	100	128	96	-
5	G	-	G	-	3	6	15	8	6	-	-	-	-	-	-	76	-	-	96	-
6	G	-	G	-	3	-	11,15	8	5	-	-	-	-	-	67	-	92	-	96	317
7	G	1.0	G	6	3	6	14	9	6	7	-	-	18	27	67	-	88	-	92	-
8	G	0.9	G	6	3	6	13	8	5	7	-	-	-	-	74	89	88	121	90	320
9	G	0.9	G	6	3	6	12	8	7	7	11	-	-	-	69	-	89	189	92	-
10	G	0.9	G	6	3	6	10	8	6	7	-	-	-	-	-	63	89	-	92	323
11	G	0.8	G	6	-	5	10	8	5	7	-	-	-	-	-	-	85	-	92	-
12	G	0.8	G	-	-	5	9	8	-	-	10	20	-	-	-	-	81	-	88	-
13	G	-	G	5	2	6	9	8	5	6	11	-	-	-	60	59	74		82	296
14	G	0.9	G	6	2	5	9	8	-	7	9	19	-	-	57	-	72	101	80	-
15	G	0.9	G	6	2	6	9	8	6	6	10	20	-	-	58	52	72	-	78	323
16	G	1.0	G	6	2	6	9	8	6	7	11	20	-	-	56	-	72	103	76	-
17	G	0.8	G	6	2	5	9	8	5	7	11	21	-	-	56	59	70	-	76	323
18	G	0.7	G	5	2	6	9	8	6	7	10	20	-	-	-	-	70	-	-	-
19	G	-	G	-	2	6	9	8	6	-	9	19	-	-	-	-	-	-	76	304
20	G	-	G	5	3	6	9	8	5	7	12	22	-	-	56	53	-	97	-	-
21	G	-	-	-	3	6	9	7	5	7	13	23	-	-	60	-	68	103	76	-
22	G	0.8	G	5	3	6	13	7	6	7	10	19	-	-	64	62	70	101	78	298
23	G	0.9	G	6	2	-	11	8	6	7	12	23	18	26	65	71	70	112	82	301
24	G	1.0	G	15	5	-	14	13	10	13	12	23	22	40	74	81	81	126	90	336
25	G	1.2	G	17	6	-	13,150	23	10	17	30	26	24	33	-	77	90	128	96	372
26	G	-	G	-	9	-	87,21	47	26	-	31	29	24	37	76	86	92	-	100	296
27	G	-	G	13	4	-	43,16	11	22	10	27	30	-	-	82	77	97	139	112	392
28	48,G	-	84,G	204	20	-	33,22	96	30	112	66	32	27	37	86	81	98	141	116	336
29	43,G	-	30,G	33	15	-	22,16	30	14	34	38	30	29	35	80	82	97	-	116	384
30	G	-	G	-	4	-	19,61	14	9	-	25	28	-	-	81	83	96	128	112	342

MAY 1953

	CAV	NED	MAR	CAV	SYD	COR	TOK	NED	MEU	MEU	SYD	SYD	OTT	SYD	TOK	OSA	NAG	SYD
Mc/s	81	140	169	175	200	200	200	200	255	545	600	1200	2800	3000	3000	3260	3750	9400
Date																		
1	1.6	7	3	-	66,21	8	15	9	14	26	-	-	70	68	-	117	112	274
2	0.8	21	20	-	18,12	15	9	21	16	24	-	-	-	71	81	114	106	279
3	0.8	-	3	-	13,53	9	8	-	14	23	-	31	-	72	83	-	100	268
4	0.8	6	4	-	13	8	6	7	13	22	25	32	68	51	81	128	94	258
5	0.7	6	-	-	13	8	7	7	12	22	24	34	65	65	-	-	90	246
6	-	6	-	6	12	7	6	7	12	22	26	-	65	53	74	123	82	314
7	-	6	-	-	12	7	6	7	12	20	-	-	60	-	-	-	82	-
8	-	5	-	-	12	7	5	6	12	22	-	-	61	-	68	93	78	-
9	-	5	-	-	12	7	6	6	11	23	-	-	-	-	-	93	78	-
10	-	-	-	-	12	7	5	-	-	-	-	-	-	-	65	-	-	-
11	-	5	-	-	12	7	5	6	12	25	-	-	57	48	66	88	76	404
12	-	5	-	-	11	7	5	6	10	22	23	-	58	-	68	110	76	-
13	0.8	5	-	-	12	7	5	6	10	21	21	-	57	51	67	101	76	256
14	0.8	-	-	-	13	7	5	-	10	20	17	-	57	44	70	99	76	312
15	0.9	5	-	-	14	7	6	6	12	22	21	-	56	49	-	106	76	320
16	-	5	4	-	12	7	5	6	11	21	-	-	-	-	67	119	76	-
17	-	-	4	-	11	7	5	-	-	-	-	-	61	-	75	-	-	-
18	0.9	5	4	-	13	7	5	6	11	23	-	-	-	47	76	101	78	209
19	0.8	5	3	-	13	7	5	6	12	22	-	-	62	56	74	101	78	207
20	-	5	4	6	12	7	5	6	12	20	-	35	63	54	75	103	80	344
21	-	5	4	-	13	7	6	7	11	21	24	-	63	47	74	97	82	242
22	-	5	4	-	13	7	6	7	12	22	-	-	62	52	72	112	84	238
23	-	6	4	-	12	7	5	7	-	-	-	-	-	-	80	93	84	-
24	-	-	4	-	12	7	6	-	-	-	20	31	63	-	77	-	84	-
25	1.0	-	-	6	14	7	5	-	-	-	21	31	64	57	-	110	82	265
26	-	8	5	6	16,13	8	7	8	11	21	21	-	59	-	79	117	82	-
27	0.8	6	4	6	12	7	7	7	12	24	23	27	59	64	81	117	82	-
28	0.8	5	4	6	12	7	5	7	11	22	21	30	61	-	81	103	82	-
29	0.8	5	4	6	12	7	5	7	10	22	-	-	62	-	79	101	82	-
30	1.0	6	4	6	12	-	5	6	11	22	-	-	-	-	76	108	82	-
31	0.9	-	4	6	12	7	5	-	10	20	-	-	61	-	76	-	-	-

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

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

JUNE 1953																	
	CAV	MED	MAR	CAV	SYD	COR	TOK	NED	MEU	MEU	SYD	SYD	OTT	SYD	TOK	OSA	NAG	SYD
Mc/s	81	140	169	175	200	200	200	200	255	545	600	1200	2800	3000	3000	3260	3750	9400
Date																		
1	0.8	5	4	6	12,16	13	6	7	12	23	19	-	61	-	78	117	80	-
2	1.0	6	5	9	16	14	7	11	-	22	-	-	-	-	75	103	84	-
3	1.1	6	5	7	14	8	6	10	14	22	22	30	63	-	76	106	86	-
4	1.3	6	4	7	12	11	5	8	-	-	17	29	65	-	82	110	86	-
5	1.0	6	5	7	12	8	6	8	-	23	-	-	61	-	-	103	88	-
6	0.9	5	4	6	12	8	5	7	12	23	-	-	-	-	80	95	82	-
7	1.0	-	4	6	12	-	6	-	-	-	-	-	62	-	84	-	-	-
8	0.8	5	4	6	13	8	6	7	13	25	-	-	61	-	76	110	82	-
9	0.8	6	4	6	12	8	-	7	-	23	-	-	61	56	79	114	82	-
10	0.8	6	4	6	13	8	5	6	13	22	-	-	59	-	78	101	82	-
11	0.9	6	4	6	13	8	5	6	12	22	-	-	61	56	78	103	80	-
12	0.8	6	4	6	12	7	5	6	13	21	-	-	57	58	-	97	80	-
13	1.0	6	4	6	13	9	5	7	13	22	-	-	-	-	79	106	80	-
14	1.0	-	4	6	13	8	5	-	-	-	-	-	63	-	78	-	82	-
15	1.0	6	4	7	13	8	6	7	14	20	21	30	62	66	75	101	82	-
16	1.0	8	4	6	13	14	5	8	-	20	-	27	74	-	87	110	84	-
17	1.1	6	4	7	11	8	6	7	-	-	-	-	64	63	88	106	86	-
18	1.0	6	4	6	11	-	5	7	15	23	-	-	62	-	-	117	86	-
19	1.1	6	4	6	14	9	6	7	15	23	-	-	63	66	-	112	84	258
20	1.0	7	-	6	13	8	6	7	14	22	-	-	-	-	82	114	84	-
21	0.8	-	4	6	12	8	6	-	-	-	-	-	62	-	85	-	-	-
22	0.9	6	4	6	13	8	6	6	14	-	-	-	61	74	83	112	82	278
23	0.8	6	4	6	14	-	5	6	14	-	-	-	61	61	79	92	82	266
24	1.0	6	4	6	13	8	5	6	14	-	-	-	61	-	76	90	82	-
25	1.0	6	4	6	15	8	6	6	12	-	-	-	61	51	78	101	82	271
26	0.9	6	4	6	15	8	6	7	-	-	-	-	61	-	78	99	82	-
27	-	6	4	6	15	8	5	7	-	-	-	-	-	-	77	99	80	-
28	-	-	4	6	16	8	5	-	-	-	-	-	59	-	-	-	-	-
29	-	6	4	-	17	8	5	6	-	-	-	-	60	44	76	101	78	185
30	-	6	3	-	14	8	5	6	-	-	-	-	58	36	78	97	78	218

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

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

Two values are given, where these differ significantly, for the two Eastern observing periods (i.e. before sunset and after sunrise) in one day U.T.

2. POLARISATION

Daily medians or means of polarisation sense and percentage

	APRIL 1953			MAY 1953		JUNE 1953	
	CAV	SYD	CAV	CAV	CAV	CAV	CAV
Mc/s	81	98	175	81	175	81	175
Date							
1	0	-	0	-	-	0	0
2	0	-	0	0	-	-	-
3	0	-	0	0	-	0	0
4	0	-	0	0	-	-	0
5	0	-	0	0	-	0	0
6	-	-	0	-	-	0	0
7	0	-	0	-	-	0	0
8	0	-	0	-	-	0	0
9	0	-	0	-	-	0	0
10	0	-	0	-	-	0	0
11	0	-	0	-	-	0	0
12	0	-	0	-	-	0	0
13	-	-	0	-	-	0	0
14	-	-	0	-	-	0	0
15	0	-	0	0	-	0	0
16	0	-	0	-	-	0	0
17	0	-	0	-	-	0	R20
18	0	-	0	0	-	0	0
19	-	-	-	0	-	0	-
20	-	-	0	-	-	0	0
21	-	-	0	-	-	0	0
22	0	-	0	-	-	0	0
23	0	-	-	-	-	-	-
24	0	-	-	-	-	0	0
25	0	-	-	-	-	0	0
26	-	-	-	-	0	0	-
27	-	-	-	0	0	-	-
28	-	R47	-	0	0	-	-
29	-	R50	-	0	0	-	-
30	-	-	-	0	0	-	-
31				-	-		

3. VARIABILITY

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

	APRIL 1953														MAY 1953														JUNE 1953											
	TOK	SYD	CAV	SYD	TOK	NED	MAR	CAV	SYD	COR	TOK	NED	MEU	MEU	TOK	SYD	CAV	SYD	TOK	NED	MAR	CAV	SYD	COR	TOK	NED	MEU	MEU	TOK	SYD	CAV	SYD	NED	MAR	CAV	SYD	COR	TOK	NED	MEU	MEU
Mc/s	60	62	81	98	100	140	169	175	200	200	200	200	255	545	60	62	81	98	100	140	169	175	200	200	200	200	255	545	60	62	81	98	140	169	175	200	200	200	200	255	545
Date																																								
1	0	0	0	0	0	1	0	0	1,0	0	0	1	-	-	0	0	2	1,0	0	0	0	-	1	0	2	1	1	0	0	0	0	0	0	0	0	0,1	2	0	0	0	0
2	1	0	0	1,0	1	0	0	0	2,0	0	0	1	0	-	0	0	0	0,1	0	2	2	-	1	2	0	2	1	0	0	0	0	0	0	1	1	1	3	0	2	0	0
3	0	0	2	0	0	-	0	0	0	0	0	0	-	0	1	1,0	0	1,0	0	-	0	-	1	1	0	-	1	0	0	0	0	0	0	1	1	1	1	1	0	1	0
4	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	1,0	0	0	0	-	1	0	1	0	0	0	0	0	0	0	0	0	0	1	2	0	0	-	-
5	0	0	-	0	0	-	0	0	0	0	0	-	-	-	1	1,0	0	0	1	0	-	-	1,0	0	1	0	0	0	1	1,0	0	1,0	1	1	0	1,0	1	1	0	-	0
6	0	1,0	-	1,0	0	-	0	-	0,1	0	0	-	-	-	0	0	-	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	-	0	0	0	-	-	0	0	0	0	0	0	1	1,0	1	0	0	1	0	1	1	1	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	-	0	0	0	-	-	0	0	0	0	0	0	0	0	1	0	0	0	0	1,0	1	0	0	0	0
9	1	1,0	0	1,0	1	0	0	0	1,0	0	1	0	0	-	0	0	-	0	0	0	-	-	0	0	0	0	0	0	0	1,0	0	1,0	0	0	0	1,0	1	0	0	0	0
10	0	0	1	0	0	0	0	0	0	0	0	0	-	-	0	0	-	0	0	-	-	-	0	0	0	-	-	-	0	0	0	0	0	0	0	0	0	1	0	1	0	0
11	0	0	0	0	0	0	-	0	0	0	0	0	-	-	0	0	-	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0,1	0	0,1	0	-	-	0	0	0	0	0	-	0	0	0	-	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	-	0	0	0	0	1	0	0	0	0	-	-	0	0	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	-	0	0	0	-	-	0	0	0	-	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0,1	0	0	0	0	-	-	0	0	0	0	0	0	1	1,0	1	0	0	0	0	1	0	1	0	0	0
16	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	-	-	0	0	0	0	0	0	1	0	1	0	1	0	0	1	0	1	0	-	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	-	-	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	-	-	0	0	0	-	0	0	1	0	0	0,1	0	0	0	1	0	0	0	0	0
19	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	-	-	0	0	0	-	0	0	1	1	1	1	0	0	0	1	0	1	0	0	0
20	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	-	0	0	0	0	0	0	0
21	0	0	-	-	0	-	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	-	0	0	0	0	0	0	1	0	0	0	-	0	0	0	0	0	-	-	-
22	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0,1	-	0,1	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	1	1	1	1	1	1	0	-	1,2	1	1	0	0	0	0	0	-	0	0	0	0	-	1,0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0
24	1	2,1	1	2,0	1	2	2	-	2	2	1	2	0	0	0	0	-	0,1	0	0	0	-	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0
25	1	1	2	1	1	1	2	-	2	3	1	2	3	1	0	0,1	1	0	0	-	-	0	0	1	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0
26	1	1	-	1,0	1	-	2	-	3	3	3	-	3	1	0	0	-	1,0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
27	1	1	-	1	1	1	1	-	3	1	3	1	3	1	0	0	0	0	0	0	0	0	1,0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	-	-	-
28	2	1	-	2,1	2	3	2	-	3,2	1	3	2	3	2	0	0,1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	-	-	-
29	2	1,2	-	1,2	2	2	2	-	1	1	1	2	2	1	0	0	0	0	0	0	0	0	0,1	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	-	-	-
30	1	1,0	-	1,0	1	-	1	-	1,2	2	1	-	2	0	0	0	0	0	0	-	0	0	1	-	0	0	0	0	0	0	-	0	0	0	0	0	0	0	-	-	-
31															0	0	0	0	0	-	0	0	0	0	0	-	0	0													

Two values are given, where these differ significantly, for the two Eastern observing periods (i.e. before sunset and after sunrise) in one day U.T.

4. OUTSTANDING OCCURRENCES

Station and frequency	Date 1953	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	
Cor 200	Apr 1	1635	1.3	CD	5	3			
Syd 200	2	0443	3.0	CD	>1807	405			
Tok 60	2	0444	1.6	CD	7	2			
Tok 200	2	0444	1.6	CD	12	5			
Syd 200	2	0657	0.5	CD	7	4			
Ned 200	2	1025	1.6	CD	15	2			
Ott 2800	4	1835	120.0	CD		0.9			
Ott 2800	4	1852	8.0	SA		3			Fade,Flare
Ott 2800	4	1946	15.0	SA		0.6			Flare
Syd 62	6	0625	1.0	CD	92	32			
Syd 98	6	0625	0.7	CD	85	38	-		
Syd 200	6	0625	1.0	CD	>9	8			
Syd 98	9	0132	1.8	CD	65	21	0	Syd 62	
Syd 200	9	0132	29.0	M	7	1			
Syd 98	9	0141	0.7	CD	17	8	-		
Syd 98	9	0201	1.0	CD	>65	25	-	Syd 62	
Tok 60	9	0418	1.0	SD	6	3			
Syd 62	9	0418	1.0	CD	923	254			
Syd 98	9	0418	1.0	CD	>67	33	-		
Tok 100	9	0418	1.5	CD	14	8			
Syd 200	9	0416	0.7	CD	4	2			
Syd 98	9	0618	9.0	CD	21	5	-		
Cav 81	11	1300	1.0	SD	0.7	0.6			
Cav 175	11	1300	1.0	SD	1.6	1			
Syd 62	12	2208	1.0	CD	460	92			
Syd 98	12	2208	0.9	CD	49	19	-		
Ott 2800	16	2056	4.0	SD		0.6			
Meu 255	17	0845	15.0	M		3			
Meu 255	17	1240	19.0	M		3			
Cav 81	17	1356	1.0	SD	1	0.7			
Meu 255	17	1515	9.0	M		6			
Cav 81	22	1032	4.0	CD	1.2	0.8			
Cav 175	22	1039	2.0	SD	0.7	0.5			
Syd 98	23	0327	1.8	CD	48	13	-		
Tok 200	23	0349	2.5	CA	13	3			
Tok 60	23	0543	1.2	M	20	6			
Tok 100	23	0543	1.0	M	13	3			
Syd 62	23	0544	0.2	CD	126	47			
Syd 98	23	0544	1.0	CD	64	14	-		
Syd 62	23	0625	0.4	CD	70	26			
Syd 62	23	2123	2.0	M	423	44			
Syd 98	23	2123	2.0	CD	>74	23	0		
Syd 200	23	2123	0.7	CD	1070	300			
Syd 98	24	0014	8.5	M	74	5	-		
Syd 62	24	0016	8.0	CD	101	12			
Syd 200	24	0017	4.0	M	8	3			
Tok 60	24	0018	1.5	CD	20	2			
Tok 100	24	0018	1.5	CD	15	2			
Tok 60	24	0022	1.5	CD	6	3			
Tok 100	24	0022	0.6	CD	11	2			
Tok 60	24	0112	1.0	CD	30	6			
Syd 98	24	0112	0.5	CD	>74	33	-		
Tok 100	24	0112	1.0	CD	24	6			
Syd 62	24	0113	0.4	CD	101	35			
Syd 62	24	0213	0.3	CD	52	22		Syd 98,Syd 200	
Syd 62	24	0359	2.5	CD	71	4			
Syd 98	24	0402	0.4	SD	74	27	-	Syd 200	
Syd 200	24	0418	1.0	CA	>8	3			
Syd 200	24	0424	0.6	CA	4	2			
Tok 60	24	0439	1.0	CD	>35	30			
Syd 98	24	0439	0.6	SD	>74	52	-		
Tok 100	24	0439	1.0	SD	35	20			
Tok 200	24	0439	0.6	CD	120	10			
Syd 62	24	0633	0.2	CD	28	15			
Syd 98	24	0637	1.5	CD	39	12	0		
Syd 62	24	0643	4.3	M	66	2			
Tok 60	25	0137	0.6	SD	25	10			
Syd 62	25	0137	0.4	CD	>1880	1175			
Syd 98	25	0137	0.5	SD	>74	45	-		
Tok 100	25	0137	0.6	SD	23	15			
Syd 200	25	0137	0.3	SA	>8	5			
Syd 98	25	0420	0.3	SD	>74	32	-	Syd 62,Syd 200	
Syd 62	25	0633	0.3	CD	35	19			
Ned 200	25	0953	82.0	CA	90	3			
Ned 200	25	1407	55.0	CA	>100	>100			
Syd 98	25	2135	22.8	CD	52	7			
Syd 62	25	2226	0.2	SA	38	21			
Syd 62	26	0240	0.2	SA	61	30			
Syd 200	26	2126	0.2	CA	>8	5			
Syd 62	26	2251	0.6	CA	39	16			
Syd 62	27	0053	0.2	CA	53	27			
Syd 62	27	0124	0.2	CA	119	40			
Syd 98	27	0129	0.3	CD	74	28	-		
Syd 98	27	0453	0.4	SD	>74	46	-		
Syd 98	27	0517	0.2	CD	24	11	-	Syd 62	Flare
Ned 200	27	0916	72.0	CA	28	3			
Syd 62	27	2117	0.2	SA	97	41		Syd 98	
Syd 62	28	0217	2.5	CA	38	13			
Syd 62	28	0551	0.5	SD	>103	82			
Meu 545	28	0735	20.0	SD		6			
Meu 255	28	1035	44.0	M		12			
Meu 255	28	1343	19.0	SD		6			
Meu 255	28	1410	24.0	SD		12			
Meu 255	28	1445	30.0	SD		12			
Syd 98	28	2119	0.3	CA	32	16	-		
Syd 98	28	2216	0.3	CA	30	12	-		
Ott 2800	28	2223	11.0	CD		1.1			
Syd 98	28	2311	13.3	M	27	1	-		
Syd 62	29	0106	0.2	SA	63	38			
Syd 98	29	0450	0.2	CA	45	21		Syd 62	

Meu	255	Apr 29	0735	17.0	M		6			
Meu	255	29	1230	30.0	CD		6			
Meu	545	29	1230	30.0	SD		3			
Ned	200	29	1234	16.0	CA	26	4			
Syd	62	29	2125	0.2	CD	66	26		Syd 98,	Flare
Syd	62	29	2332	0.2	SD	38	18			
Syd	98	29	2337	0.2	CD	65	27	-		
Nag	3750	30	0041	5.0	SD		0.4			
Syd	98	30	0135	0.3	CD	>64	36	-		
Tok	200	30	0135	1.0	CD	35	23			
Syd	62	30	0136	0.2	CD	580	168			
Syd	98	30	0236	0.2	SD	>64	31	-	Syd 62	
Nag	3750	30	0239	6.5	SD		0.8			
Syd	62	30	0451	0.3	SD	>94	50		Syd 98	
Syd	98	May 1	0033	99.0	CD	68	6	R.H.		
Ned	200	1	0606	13.0	CA	22	0.6			
Meu	255	1	0923	3.0	SA		3			
Meu	255	1	0948	2.0	SA		3			
Meu	255	1	1025	5.0	SA		3			
Cav	81	2	1323	3.0	CA	2	0.8			
Syd	200	3	0034	0.8	CA	4	2			
Syd	98	3	0246	0.2	SD	72	28	-	Syd 62, Syd 200	
Syd	200	3	0435	0.2	SA	5	2			
Syd	200	3	0508	2.2	M	6	2			
Meu	255	3	0925	113.0	M		3			
Meu	255	3	1317	9.0	M		3			
Ned	200	4	1128	0.5	SD	7				
Syd	200	4	2331	0.2	CD	13	6			
Syd	62	5	0454	13.0	CD	1029	71			
Syd	98	5	0454	10.8	CD	91	11			
Syd	200	5	0454	4.3	CD	58	17			
Tok	60	5	0455	13.0	CD	>30	25			
Tok	200	5	0455	2.0	CD	15	5			
Tok	100	5	0516	3.0	CD	5	3			
Syd	62	5	0634	0.3	CD	38	18			
Ott	2800	18	2014	120.0	CD		0.9			
Cav	175	19	1053	1.0	SD	0.7	0.5			
Ott	2800	19	1916	165.0	CD		1.7			
Syd	98	22	2141	0.4	CD	20	10	-		
Syd	98	22	2317	0.2	SD	24	12	-	Syd 62	
Syd	62	23	2218	0.3	CD	70	28		Syd 98	
Syd	98	25	2135	0.3	CD	19	8	-	Syd 62	
Syd	98	26	0039	56.0	CD	44	8	-		
Syd	62	28	2113	0.2	SD	150	44			
Syd	62	28	2309	0.2	SD	57	24			
Cav	175	29	1215	3.0	SD	2.6	1.2			
Cor	200	29	1653	1.0	CD	>5	>5			
Ned	200	29	1653	7.0	SD	27	3			
Syd	200	29	2206	0.9	CD	4	2			
Syd	200	29	2303	1.0	CD	5	3			
Syd	200	30	0201	0.8	CD	4	2			
Syd	200	30	0239	0.5	CD	4	3			
Syd	200	30	2240	1.0	CD	4	2			
Syd	200	30	2304	14.0	CD	4	2			
Syd	200	June 3	2235	0.2	CA	7	3			
Nag	3750	4	0322	2.0	SD		0.2			
Syd	200	4	0332	1.0	CA	5	3			
Syd	200	4	0344	0.2	CA	>7	3			
Syd	200	4	0554	0.7	CA	5	3			
Cav	175	4	1430	5.0	CA	3	2			
Syd	200	4	2137	0.3	CA	7	4			
Syd	200	4	2240	0.2	CA	6	3			
Tok	60	5	0131	1.0	CD	18	6			
Syd	62	5	0323	0.3	CD	28	14			
Syd	98	5	0323	0.3	SD	24	12	-		
Syd	200	5	0323	3.0	CA	>7	3			
Cav	81	5	1125	2.0	SD	1	0.6			
Osa	3260	6	0259	3.0	SD		5			
Syd	200	6	2222	2.5	CD	4	2			
Syd	200	6	2248	0.2	SD	4	2			
Syd	200	6	2306	1.5	CD	4	2			
Syd	200	6	2334	17.5	CD	6	2			
Syd	200	7	0024	0.3	CD	5	3			
Syd	200	7	0037	0.3	CD	4	2			
Syd	62	7	0108	0.2	CD	35	18			
Syd	200	7	0140	5.5	CD	37	2			
Syd	200	7	0626	4.0	CD	5	2			
Cav	81	7	1346	4.0	CA	3	0.9			
Osa	3260	8	0156	4.0	SD		5			
Syd	200	9	0011	0.5	CD	4	3			
Syd	200	9	0020	3.5	CD	6	3			
Syd	98	9	0025	0.2	SD	27	13	-	Syd 62	
Syd	200	9	0154	0.2	CD	5	3			
Cor	200	12	1909	0.5	CD	>5	>5			
Cor	200	13	1340	0.7	CD	>4	>4			
Cor	200	14	1915	0.5	CD	>4	>4			
Nag	3750	14	0221	26.0	SD		0.3			
Tok	60	15	0030	1.3	SD	16	6			
Syd	62	15	0030	0.4	SD	62	25			
Tok	60	15	0336	0.5	CD	12	7			
Cav	81	15	1412	2.0	CA	1.8	1			
Cav	175	15	1412	2.0	CA	2.2	0.9			
Cav	81	16	1354	30.0	CD	1.3	0.9			
Tok	60	18	0401	2.0	CD	9	3			
Syd	98	18	2152	0.2	SD	24	12	-		
Syd	200	19	0431	7.5	CD	>5	1			
Tok	60	19	0432	3.0	CD	>35	35			
Syd	62	19	0432	8.0	CD	1175	98			
Syd	98	19	0432	15.0	CD	67		-		
Tok	60	19	0437	3.0	CD	35	25			
Syd	62	19	0448	2.0	CD	20	9			
Syd	62	19	2142	0.2	SD	104	33			
Syd	98	19	2142	0.5	CD	43	17	-		
Syd	200	19	2143	1.0	CD	7	4			
Tok	60	20	0249	0.5	CD	16	10			
Ned	200	20	0632	7.0	M	10	4			
Tok	60	21	0422	2.5	M	18	4			
Cav	175	25	1126	1.5	SD	2.3	1.2			

Canberra, December 1953

S.F.Smerd

IV. SOLAR RADIO NOISE DATA

CO-OPERATING OBSERVATORIES

Details relating to the contributors to the third quarter of 1953 are as follows:-

OBSERVING STATION	ABBREVIATION	FREQUENCIES USED	NORMAL OBSERVING PERIOD
		Mc/s	(Hours U.T.)
Cavendish Laboratory, Cambridge, England	Cav	38	10 - 15
		81	10 - 15
		175	10 - 15
Radiophysics Laboratory, Sydney, Australia	Syd	62	20 - 08
		98	20 - 08
		200	20 - 08
		600	20 - 07
		1200	20 - 07
		3000	00 - 06
		9400	00 - 06
Meudon Observatory, Paris, France	Meu	255	08 - 14
		545	08 - 14
National Research Council, Ottawa, Canada	Ott	2800	12 - 23
Laboratoire de Physique, Marcoussis, France	Mar	169	11 - 13
Cornell University, Ithaca, N.Y., U.S.A.	Cor	200	14 - 20
Tokyo Astronomical Observatory, Mitaka, Tokyo	Tok	60	00 - 08
		100	00 - 08
		200	00 - 08
		3000	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 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)$^{-1}$.

1. FLUX

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

JULY 1953																	
	CAV	CAV	NED	MAR	CAV	SYD	COR	TOK	NED	MEU	MEU	OTT	SYD	TOK	OSA	NAG	SYD
Mc/s	38	81	140	169	175	200	200	200	200	255	545	2800	3000	3000	3260	3750	9400
Date																	
1	0.25	-	6	3	-	14	8	6	6	-	-	57	58	76	104	76	249
2	-	-	5	3	-	14	8	6	6	-	-	57	-	77	110	76	-
3	-	-	5	4	-	14	-	6	6	11	19	58	48	78	88	78	255
4	0.20	-	5	3	-	14	8	5	6	-	19	-	-	78	-	-	-
5	0.27	-	-	3	-	12	8	5	-	-	-	58	-	-	-	78	-
6	0.27	-	6	3	-	12	8	5	7	11	22	58	-	74	104	78	-
7	-	-	5	4	7	14	9	6	8	14	21	58	-	-	92	78	-
8	-	-	6	4	5	12	10	7	7	13	21	59	-	78	101	78	-
9	-	-	5	4	6	12	12	7	9	14	22	62	-	89	104	80	-
10	-	-	-	6	11	-	14	8	12	15	21	61	-	88	103	80	-
11	-	-	5	4	7	-	11	8	10	-	23	63	-	84	101	-	-
12	-	-	-	6	-	-	12	9	-	-	-	63	-	-	-	80	-
13	-	-	5	2	5	13	8	8	7	-	-	62	52	82	92	82	293
14	-	-	5	2	5	11	8	7	6	-	-	63	-	79	106	82	-
15	-	-	8	6	17	12	19	6	13	16	22	64	-	-	101	-	-
16	-	-	5	2	5	12	8	6	6	15	23	62	48	-	110	82	275
17	-	-	6	2	6	12	8	5	6	12	22	62	59	78	103	82	297
18	-	0.9	5	2	5	13	8	5	6	13	21	62	-	77	95	82	-
19	0.23	0.8	-	2	6	11	8	5	-	15	20	60	-	75	-	-	-
20	0.23	0.8	5	3	6	11	8	5	6	15	19	55	46	-	110	80	278
21	0.23	0.7	6	3	5	11	8	5	6	17	20	59	-	-	95	80	-
22	0.23	1.0	5	3	6	10	8	5	6	16	19	60	-	73	97	80	325
23	0.23	-	5	3	6	9	8	6	6	18	20	59	-	74	-	80	-
24	0.23	-	6	3	5	11	7	5	6	18	20	58	50	73	95	80	243
25	0.23	0.8	5	3	5	10	8	5	6	17	20	-	-	75	97	80	-
26	0.23	0.7	-	3	5	11	7	6	-	16	19	55	-	73	-	78	-
27	0.23	0.7	5	3	6	12	8	5	6	16	19	55	-	73	90	76	-
28	-	0.7	5	3	5	12	7	5	6	16	19	56	-	76	97	78	-
29	-	0.7	5	3	6	9	7	5	6	15	18	56	50	77	-	78	244
30	-	0.6	5	3	6	9	8	5	6	15	18	56	-	79	95	78	-
31	-	0.7	5	-	6	9	9	5	6	15	18	57	43	79	90	78	224

AUGUST 1953																		
	CAV	CAV	NED	MAR	CAV	SYD	COR	TOK	NED	MEU	MEU	SYD	SYD	OTT	SYD	TOK	OSA	NAG	SYD
Mc/s	38	81	140	169	175	200	200	200	200	255	545	600	1200	2800	3000	3000	3260	3750	9400
Date																			
1	-	0.6	5	3	5	9	7	5	6	14	17	-	-	-	-	80	90	78	-
2	-	-	-	3	5	9	7	5	-	13	17	-	-	55	-	81	-	78	-
3	-	-	6	3	5	9	8	6	6	14	17	16	27	58	-	82	97	80	-
4	-	0.7	7	3	5	12,9	8	7	7	13	17	17	-	60	-	85	97	82	-
5	-	0.6	6	-	5	11	7	7	6	14	18	17	-	60	-	84	92	82	-
6	-	0.5	5	3	5	-	7	6	6	14	18	19	31	60	-	84	92	82	-
7	-	0.6	6	3	5	-	7	6	6	-	-	-	31	61	48	82	95	82	261
8	-	0.5	6	3	5	9	7	5	6	15	18	-	-	-	-	82	-	82	-
9	0.20	-	-	3	5	-	7	7	-	16	19	-	-	-	-	89	-	-	-
10	0.20	-	6	3	5	12	8	6	6	18	18	-	35	69	61	98	106	88	271
11	0.20	0.6	6	3	4	10	8	8	7	18	18	-	31	77	67	111	108	96	-
12	0.20	-	9	-	4	12	9	7	8	18	18	29	39	75	64	120	-	104	268
13	0.20	0.7	6	3	5	12	9	6	7	18	21	-	41	76	-	-	108	98	302
14	0.20	0.6	6	3	5	14	10	7	6	18	22	-	35	76	60	123	-	102	-
15	0.19	0.6	7	4	6	19,35	16	6	10	-	-	-	-	76	-	120	123	104	-
16	0.19	0.5	-	-	6	27,14	10	7	-	-	-	-	-	72	-	-	-	98	-
17	0.19	-	7	3	5	18	12	5	8	-	-	-	-	70	50	-	110	92	234
18	0.23	-	6	-	4	20,13	9	6	7	-	-	-	-	64	-	-	101	88	-
19	0.23	0.6	6	-	4	13	8	5	6	-	-	-	-	65	-	98	-	86	-
20	0.20	0.5	6	-	4	10	7	5	6	-	-	23	35	64	52	94	103	86	-
21	0.19	0.5	7	-	4	10	9	5	6	-	-	16	33	65	46	93	101	86	-
22	0.19	0.5	6	-	4	11	7	5	6	-	-	-	-	-	-	91	-	84	-
23	0.19	-	-	-	4	10	-	5	-	-	-	-	-	59	-	86	-	-	-
24	0.19	-	6	-	4	9	-	5	6	-	-	-	32	60	40	82	97	82	-
25	0.20	0.5	6	-	5	10	-	5	6	-	-	-	27	57	-	-	89	80	-
26	0.19	-	5	-	4	9	-	5	6	-	-	-	32	57	-	75	-	78	-
27	0.20	0.5	6	-	4	9	-	5	6	17	22	-	28	58	-	70	90	78	-
28	0.22	0.5	6	-	4	9	7	5	6	15	22	-	31	58	-	69	-	78	-
29	0.22	0.6	6	-	4	10	8	5	6	15	22	-	33	-	-	67	-	78	-
30	0.20	-	-	-	4	9	8	5	-	-	-	-	-	-	-	67	-	-	-
31	0.22	-	6	-	4	11	8	5	6	15	22	-	32	58	-	66	-	78	-

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

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

Two values are given, where these differ significantly, for the two Eastern observing periods (i.e. before sunset and after sunrise) in one day U.T.

SEPTEMBER 1953																	
	CAV	CAV	NED	MAR	CAV	SYD	COR	TOK	NED	MEU	MEU	SYD	SYD	OTT	SYD	TOK	OBA	NAG
Mc/s	38	81	140	169	175	200	200	200	200	255	545	600	1200	2800	3000	3000	3260	3750
Date																		
1	0.20	0.5	5	-	4	11	8	5	6	13	22	-	32	60	49	67	92	80
2	0.20	0.7	5	3	4	10	7	5	6	12	23	-	-	59	-	67	90	80
3	0.19	-	5	3	-	9	8	5	6	12	21	-	32	59	52	70	95	80
4	0.20	-	5	3	4	11	8	5	6	13	21	-	30	59	-	75	-	80
5	0.20	-	5	3	-	10	-	-	6	12	21	-	-	-	-	71	-	82
6	0.20	-	-	3	-	11	-	5	-	-	-	-	-	63	-	71	-	-
7	0.22	-	6	3	4	12	-	-	6	12	23	-	-	64	-	68	-	86
8	0.20	-	5	4	4	10,18	-	5	6	12	21	-	-	64	46	71	92	86
9	0.20	0.6	5	3	4	19,12	-	5	6	12	21	-	-	64	55	83	-	86
10	0.22	-	17	18	-	13	9	6	13	30	19	-	-	68	50	86	101	86
11	0.20	-	6	4	-	12,18	-	7	8	30	18	-	-	66	-	86	97	86
12	0.19	0.6	6	4	5	18	-	8	8	24	20	-	-	-	-	86	101	88
13	0.19	0.5	-	3	5	-	8	6	-	-	-	-	-	66	-	79	-	-
14	-	-	6	4	5	12	7	5	6	19	21	-	-	68	42	79	112	90
15	0.19	0.5	6	3	4	12	8	6	6	17	21	-	-	69	-	82	115	92
16	-	0.7	6	3	5	12	-	5	6	12	21	-	-	69	57	85	106	92
17	-	0.8	5	3	5	12	-	5	6	13	22	-	-	67	50	86	103	90
18	-	0.5	6	3	5	11	7	5	6	12	22	-	-	67	55	90	97	90
19	-	0.5	5	3	4	11	7	6	6	11	23	-	-	64	-	88	101	-
20	-	0.5	-	-	4	13,20	12	5	-	12	23	-	-	62	-	80	-	86
21	-	-	5	3	5	16,13	8	6	6	13	22	-	-	64	-	73	99	84
22	-	-	5	2	5	16	-	6	6	13	23	-	-	64	-	-	106	84
23	-	0.5	5	2	4	14	8	6	6	12	22	21	-	63	53	-	-	86
24	-	0.6	5	2	4	14	7	5	6	13	22	-	36	65	62	69	97	88
25	-	0.9	5	2	5	14	7	6	6	12	22	-	37	65	55	69	-	88
26	-	0.8	5	3	5	14	7	6	6	12	23	-	-	-	-	-	-	88
27	-	0.7	-	3	5	14	7	6	-	-	-	-	-	-	-	-	-	88
28	-	0.6	5	2	5	14	7	5	6	12	22	17	37	62	-	-	-	88
29	-	0.9	5	3	9	14	8	5	6	13	20	17	37	61	53	80	-	88
30	-	0.7	5	3	8	13	9	5	6	12	18	18	-	65	49	87	99	86

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

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

Two values are given, where these differ significantly, for the two Eastern observing periods (i.e. before sunset and after sunrise) in one day U.T.

2. POLARISATION

Daily medians or means of polarisation and percentage

	JULY 1953		AUGUST 1953		SEPTEMBER 1953	
	CAV	CAV	CAV	CAV	CAV	CAV
Mc/s	81	175	81	175	81	175
Date						
1	-	-	0	0	-	-
2	-	-	-	0	-	-
3	-	-	-	0	-	-
4	-	-	-	0	-	-
5	-	-	0	0	-	-
6	-	-	0	0	-	-
7	-	-	0	0	-	-
8	-	-	0	0	-	-
9	-	-	-	0	-	-
10	-	0	-	0	-	-
11	-	0	-	0	-	-
12	-	-	0	0	-	-
13	-	-	-	-	-	-
14	-	-	0	0	-	-
15	-	0	0	0	-	-
16	-	0	-	-	-	-
17	-	0	-	0	-	-
18	0	0	-	0	0	0
19	-	-	0	0	0	0
20	-	-	0	0	0	0
21	0	0	0	R20	0	0
22	0	0	0	0	-	0
23	-	0	-	-	-	0
24	-	0	-	0	0	0
25	-	-	-	-	0	0
26	-	-	-	-	-	-
27	0	0	-	-	-	-
28	-	-	-	-	0	0
29	0	0	-	-	R20	-
30	0	0	-	-	0	0
31	0	0	-	-		

3. VARIABILITY

Daily indices on a scale 0 - 5 of the variability of the solar noise

	JULY 1953													AUGUST 1953												SEPTEMBER 1953											
	TOK	SYD	CAV	SYD	NED	MAR	CAV	SYD	COR	TOK	NED	MEU	MEU	TOK	SYD	CAV	SYD	NED	MAR	CAV	SYD	COR	TOK	NED	MEU	MEU	TOK	SYD	CAV	SYD	TOK	NED	MAR	CAV	SYD	COR	TOK	NED	MEU	MEU
Mc/s	60	62	81	98	140	169	175	200	200	200	200	255	545	60	62	81	98	140	169	175	200	200	200	200	255	545	60	62	81	98	100	140	169	175	200	200	200	200	255	545
Date																																							
1	0	0	-	0	0	0	-	0	0	0	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	-	0	0	0	0	0	0	0
2	0	0	-	0	0	0	-	0	0	0	0	-	-	0	0	-	0	-	0	0	0	0	0	-	0	0	0	0	0	-	-	0	-	0	0	0	0	0	0	0	0
3	0	0	-	0	0	0	-	0	-	0	0	0	0	-	0	-	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	-	0	-	0	0	0	0	0	0
4	0	0	-	0	0	0	-	0	0	0	0	-	0	0	0	-	0	0	0	0	1,0	0	1	0	0	0	0	0	-	-	-	0	-	0	-	0	0	0	0	0	0
5	0	0	-	0	-	0	-	0	0	0	-	-	-	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	-	-	0	-	0	0	-	0	-	0	0	0	0
6	0	0	-	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	0	-	0	-	0	0	-	-
7	0	0	-	0	0	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	-	-	-	0	0	0	0	-	0	0	-	0
8	0	0	-	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	-	-	-	0	1	0	0	-	0	0	-	0
9	0	1,0	-	1,0	0	1	0	1	1	0	1	0	0	0	0	-	0	0	0	0	0	0	0	-	0	0	0	0	-	-	-	0	0	0	1,0	-	0	0	0	0
10	0	0	-	0	-	3	3	-	2	0	1	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	-	0,1	0	2	2	-	1,0	0	0	1	2	0
11	0	0	-	0	0	1	1	-	2	1	1	-	0	0	0	0	0	0	0	0	0,1	0	0	0	0	0	0	0	-	0	0	0	1	-	1,0	-	0	1	2	0
12	0	0	-	0	-	2	-	-	2	1	-	-	-	0	0	-	0	0	0	0	1,0	-	0	1	0	0	0	0	-	0	0	1	1	1	0	-	1	1	1	0
13	0	1,0	-	0	0	0	0	1	0	0	0	-	-	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	-	0	0	-	1	0	0	0	-	0	-	0
14	1	1,0	-	1,0	0	0	0	1,0	1	1	0	-	-	0	0,1	0	0,1	0	0	1	1	1	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	1	0	0
15	0	0	-	0	2	2	2	0	2	0	2	0	0	1	1,0	0	0,1	1	1	1	1	1	1	1	-	-	0	0	-	0	0,1	0	0	0	0	0	0	0	0	0
16	1	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	2,1	1	1	-	-	-	0	0	0	0	0	0	0	0	0,1	-	0	0	0	0
17	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	-	0	1	0	2	1	2	0	1	-	-	0	0	0	0	0	0	0	0	1,0	0	0	0	0	0
18	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	-	0	1,0	2	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	0	-	-	0	1,0	0	0	-	-	-	0	0	0	0	0	0	-	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	1,0	0	0	0	-	-	0	0	0	0	0	-	-	0	0	0	0	-	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	-	0	0	0	0	0	-	-	0	0	-	1,0	0	0	0	0	1,0	1	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	-	-	0	0	-	0	0	0	0	0	0	-	0	0	0	0
23	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	-	0	-	-	0	0	-	0	0	-	-	0	0	-	0	0	0	0	0	0	-	0	0	0	0
24	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	-	0	0	-	0	0	-	-	0	0	-	0	0	0	0	0	0	-	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	-	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	-	0	0	0	0	1	-	0	0	0	0	-	0	0	-	0	0	-	0	0	-	-	-	0	0	0	-	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	-	0	0	-	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	-	0	0	1	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	-	-	0	0	0	0	0	0	0	0	1	0	0	0	0	0
30	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	-	-	0	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	-	0	0	0	0	0	-	0	0													

Two values are given, where these differ significantly, for the two Eastern observing periods (i.e. before sunset and after sunrise) in one day U.T.

4. OUTSTANDING OCCURRENCES

Station and frequency	Date 1953	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	
Syd 200	July 7	0634	1.8	M	9	5			
Syd 200	7	2328	0.4	SD	5	3			
Syd 200	8	0054	0.8	CD	6	3			
Syd 200	8	0101	3.0	CD	7	3			
Syd 200	13	0217	0.3	CA	8	4		}	
Syd 62	13	0218	0.2	SD	55	23			
Syd 200	13	0249	0.4	CA	5	3			
Syd 200	13	0258	0.2	CA	4	3			
Syd 200	13	2135	0.4	CA	19	8			
Syd 200	13	2359	2.7	CD	8	3			
Tok 200	14	0145	1.0	CD	110	28			
Syd 200	14	0548	1.5	CD	6	3			
Ned 200	14	0548	4.0	SD	20	15			
Tok 60	14	0549	2.0	CD	12	10			
Syd 62	14	0549	2.0	CD	730	292			
Syd 98	14	0549	9.8	M	69	49	0		
Tok 200	14	0549	2.0	CD	29	8			
Cor 200	15	1915	2.3	CD	>5	>5			
Tok 60	18	0612	1.0	SD	10	8			
Cav 81	18	0850	2.0	SD	1	1	-	}	
Cav 175	18	0850	1.5	SD	1	<1	-		
Cav 81	21	1009	2.0	SD	1	<1	-	}	
Cav 175	21	1009	2.0	SD	2	1	-		
Ott 2800	23	2202	70.0	CD		1			
Osa 3260	24	0153	2.0	SD		2			
Osa 3260	24	0156	2.0	SD		1			
Tok 200	26	0227	2.0	CD	100	15			
Cav 175	29	1149	0.5	SD	2	1	-		
Cav 81	Aug. 5	1055	3.0	SD	2	1	-	}	
Cav 175	5	1056	2.0	SD	2	1	-		
Ott 2800	9	2017	2.0	SD		2			
Osa 3260	11	0221	0.9	SD		5			
Nag 3750	11	0227	3.0	SD		<1			
Cav 81	11	1133	3.0	SD	1	1	-		
Ott 2800	11	1540	3.0	SD		3		}	
Ned 200	11	1540	3.5	CD	30	25			
Ott 2800	11	1630	0.6	SD		<1			
Ott 2800	11	1632	1.0	SD		1			
Syd 200	11	2220	0.5	CA	3	2			
Syd 200	11	2249	0.5	SA	3	2			
Syd 200	12	0011	0.3	CA	3	2			
Syd 200	12	0127	0.2	CD	3	2			
Syd 200	12	0309	0.2	CD	7	3			
Syd 200	12	0403	0.2	SA	4	2			
Ott 2800	13	2210	1.0	SD		1			
Cav 175	14	1326	3.0	CD	1	<1	-		
Ned 200	14	1426	3.3	SD	19	16			
Ott 2800	14	1507	15.0	SD		7			
Syd 200	14	2105	0.8	CD	5	3			
Syd 62	14	2216	0.3	SD	82	42		}	
Syd 98	14	2216	1.8	CD	64	23	-		
Syd 200	14	2216	0.5	CD	17	8			
Syd 200	14	2334	0.2	CA	6	3			
Syd 200	15	0009	0.2	CA	7	4			
Syd 62	15	0648	0.2	SD	30	15			
Ned 200	15	1434		CD	35	17			
Cav 81	15	1454	1.5	SD	3	1	-		
Syd 98	15	2241	100.0	CD	32	7	R.H.		
Nag 3750	17	0318	6.0	SD		1			
Syd 200	17	0422	0.3	CA	8	4			
Syd 200	17	0446	0.3	CA	8	5			
Cav 81	19	0921	2.0	SD	2	1	-		
Syd 200	20	0427	0.3	CD	6	3			
Ott 2800	20	1629	1.5	SD		1			
Cav 175	24	1107	2.0	SD	1	<1	-		
Osa 3260	25	0204	1.3	SD		5			
Osa 3260	25	0214	0.5	SD		9			
Osa 3260	Sept 1	0222	1.2	SD		1			
Osa 3260	3	0152	1.0	SD		7			
Cav 175	4	1329	4.0	SD	2	1	-		
Osa 3260	8	0159	0.5	SD		1			
Syd 98	9	0223	0.2	SD	20	9	-		
Syd 200	9	0416	2.5	CD	6	3		}	
Syd 98	9	0416	0.2	SD	25	12	-		
Syd 200	9	0541	1.5	CD	7	3			
Cav 81	9	1326	2.0	SD	1	1	-		
Cav 175	9	1326	1.5	SD	1	1	-		
Syd 98	10	2113	2.7	CD	69	11	-		
Nag 3750	15	0401	12.5	CD		5			
Syd 98	15	2138	11.5	M	64	2	-		
Osa 3260	16	0159	0.7	SD		3			
Cav 81	17	1110	2.0	SD	2	1	-		
Osa 3260	19	0150	0.5	SD		4			
Osa 3260	19	0152	0.7	SD		3			
Syd 98	21	0338	16.5	M	65	4	-		
Osa 3260	22	0219	0.3	SD		3			
Cav 81	26	1333	2.5	SD	1	<1	-	}	
Cav 175	26	1334	1.5	SD	1	1	-		
Cav 175	26	1352	2.0	SD	1	<1	-	}	
Cav 175	26	1352	2.0	SD	1	1	-		
Cav 81	30	1318	3.0	SD	2	1	-	}	
Cav 175	30	1318	2.0	SD	2	2	-		

Canberra, May 1954

S.F.Smerd

IV. SOLAR RADIO NOISE DATA

CO-OPERATING OBSERVATORIES

Details relating to the contributors to the fourth quarter of 1953 are as follows:-

OBSERVING STATION	ABBREVIATION	FREQUENCIES USED	NORMAL OBSERVING PERIOD
		Mc/s	(Hours U.T.)
Cavendish Laboratory, Cambridge, England	Cav	38	10 - 15
		81	10 - 15
		175	10 - 15
Radiophysics Laboratory, Sydney, Australia	Syd	62	20 - 08
		98	20 - 08
		200	20 - 08
		600	20 - 07
		1200	20 - 07
		3000	00 - 06
		9400	00 - 06
Meudon Observatory, Paris, France	Meu	255	08 - 14
		545	08 - 14
National Research Council, Ottawa, Canada	Ott	2800	12 - 23
Laboratoire de Physique, Marcoussis, France	Mar	169	11 - 13
Cornell University, Ithaca, N.Y., U.S.A.	Cor	200	14 - 20
Tokyo Astronomical Observatory, Mitaka, Tokyo	Tok	60	00 - 08
		100	00 - 08
		200	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 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)$^{-1}$.

CORRECTIONS

1. FLUX The following approximate correction factors emerge from a statistical comparison of the data.

Station and Frequency	Correction Factor	Period in 1953
Ned 140	0.5	Year
Mar 169	1.6	Jan.-Apr., July-Dec.
Syd 200	0.6	Apr.-Oct.
Tok 200	1.2	June-Nov.
Syd 3000	1.5	Year
Nag 3750	1.2	Year

The relative readings from Cor 200 have been multiplied by 7.1 throughout 1953.
Ott 2800 advises that all previous readings should be multiplied by a mean factor 1.18.

4. OUTSTANDING OCCURRENCES
The relative readings from Cor 200 have been multiplied by 0.71 throughout 1953.

1. FLUX

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

	OCTOBER 1953																	
	CAV	CAV	NED	MAR	CAV	SYD	COR	TOK	NED	MEU	MEU	SYD	SYD	OTT	SYD	OSA	NAG	SYD
Mc/s	38	81	140	169	175	200	200	200	200	255	545	600	1200	2800	3000	3260	3750	9400
Date																		
1	-	0.6	6	3	8	14	7	5	6	16	23	18	27	63	55	106	86	-
2	-	0.7	6	3	8	13	7	-	6	15	21	17	36	61	52	92	86	-
3	-	1.0	6	3	7	13	8	5	6	15	17	-	-	-	-	90	88	-
4	-	1.1	-	-	9	13	7	6	-	-	-	-	-	58	-	-	86	-
5	-	-	6	2	8	12	8	5	7	-	-	-	-	60	-	88	84	-
6	-	-	6	-	9	15	9	5	6	14	20	-	-	64	-	95	86	-
7	-	0.9	6	3	7	14	9	5	6	13	22	-	-	63	48	92	86	-
8	0.22	0.8	6	3	8	14	8	5	6	11	-	19	-	62	48	88	84	-
9	0.22	0.8	5	3	8	12	8	5	6	12	-	17	-	61	42	92	84	-
10	-	0.7	5	3	8	12	7	5	6	13	22	19	37	-	48	97	82	-
11	0.22	0.8	-	3	7	12	8	6	-	-	-	-	-	62	-	-	-	-
12	-	-	6	3	7	14	8	5	6	14	24	19	-	63	44	103	84	-
13	-	-	6	3	7	14	9	5	6	14	24	-	-	63	-	90	85	-
14	-	1.0	8	3	8	15	9	5	8	13	24	17	-	69	54	92	90	-
15	-	0.6	9	3	7	16	9	6	8	15	26	18	-	67	49	103	92	-
16	0.29	-	6	-	-	15	9	7	8	16	25	-	-	66	49	95	88	266
17	0.31	0.7	5	-	7	15	8	5	7	13	24	-	33	64	-	95	84	-
18	0.34	-	-	-	7	15	7	5	-	-	-	-	-	62	-	-	84	-
19	0.31	-	7	4	8	14	7	5	7	14	23	-	34	63	45	84	84	-
20	-	-	6	3	7	12	7	5	6	13	22	-	26	62	53	86	84	-
21	0.24	0.6	6	3	7	13	7	5	6	11	20	-	31	62	44	95	82	-
22	-	0.8	6	3	7	13	7	5	7	-	-	21	33	64	-	88	-	-
23	0.22	0.8	6	3	6	9	7	5	7	11	22	19	30	64	51	103	84	-
24	0.22	0.6	6	3	6	-	7	5	6	11	19	21	31	-	-	110	84	-
25	-	-	-	3	5	-	7	5	-	-	-	-	-	61	-	-	84	-
26	-	-	6	3	6	-	7	5	7	11	21	19	37	63	-	95	84	-
27	-	-	6	3	6	-	7	5	6	11	21	22	35	63	43	97	84	-
28	-	-	6	-	6	-	8	5	6	11	23	22	33	61	52	88	84	297
29	0.24	-	6	-	6	-	9	6	6	12	25	23	30	63	56	97	84	-
30	0.22	-	6	-	6	-	8	6	6	14	28	18	33	64	-	95	84	-
31	-	-	6	-	6	-	8	6	7	11	22	-	-	-	-	97	86	-

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

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

	NOVEMBER 1953																
	CAV	CAV	NED	MAR	CAV	SYD	COR	TOK	NED	MEU	MEU	SYD	SYD	OTT	SYD	OSA	NAG
Mc/s	38	81	140	169	175	200	200	200	200	255	545	600	1200	2800	3000	3260	3750
Date																	
1	-	-	-	-	-	-	8	5	-	-	-	-	-	-	-	-	-
2	0.24	-	6	-	6	-	8	6	6	-	-	27	41	65	53	99	86
3	-	-	-	-	6	-	9	5	-	-	-	21	34	63	51	-	84
4	-	-	-	-	6	-	9	6	-	15	31	21	31	64	46	106	84
5	-	-	-	-	6	-	11	6	-	14	28	17	35	63	-	86	84
6	-	-	-	-	6	7	-	6	-	11	26	25	32	64	-	99	82
7	-	-	-	-	6	9	-	5	6	12	25	26	-	-	-	97	82
8	-	-	-	-	6	8	-	5	-	-	-	-	-	63	-	-	84
9	-	-	-	-	6	10	-	6	6	-	26	21	33	63	-	88	82
10	-	-	-	-	-	13	7	5	-	-	24	22	31	62	-	-	82
11	0.22	-	6	-	6	11	8	5	7	-	-	21	38	62	30	86	82
12	0.22	0.7	6	-	6	-	7	5	7	-	-	23	26	61	-	92	80
13	-	1.0	6	-	6	-	7	5	7	-	-	25	-	62	-	-	80
14	-	-	6	2	6	-	8	5	7	-	-	-	-	60	-	92	-
15	-	-	-	2	6	-	7	5	-	-	-	-	-	62	-	-	80
16	-	0.9	5	2	6	-	7	5	7	-	-	26	35	62	-	97	82
17	-	0.8	6	2	6	9	7	5	7	10	20	18	29	63	-	99	80
18	-	0.7	6	2	6	9	7	5	7	10	20	25	34	63	-	99	82
19	-	0.8	7	2	5	9	7	5	7	-	-	22	32	63	-	-	82
20	-	0.9	6	2	6	8	7	5	8	-	-	22	34	63	-	-	82
21	-	0.7	6	2	5	-	7	5	7	-	-	-	-	-	-	101	82
22	-	-	-	-	6	-	7	5	-	-	-	-	-	66	-	-	84
23	-	-	6	2	6	6	7	5	8	-	-	19	35	63	-	-	84
24	-	0.6	6	2	5	7	7	5	8	-	-	19	27	64	44	101	84
25	-	0.7	6	2	5	7	7	5	8	10	22	16	33	61	52	106	84
26	-	0.7	6	2	6	7	-	5	8	10	22	21	31	64	-	103	84
27	-	0.6	6	2	6	8	8	5	7	9	21	17	36	63	-	99	84
28	-	0.7	6	3	6	5	8	-	8	-	21	-	-	62	-	101	84
29	-	0.9	-	-	5	6	8	5	-	-	-	17	28	-	-	-	82
30	-	0.7	6	3	5	8	8	6	8	-	25	18	33	62	51	110	82

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

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

1. FLUX

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

	DECEMBER 1953													
	CAV	NED	MAR	CAV	SYD	COR	TOK	NED	SYD	SYD	OTT	SYD	OSA	NAG
Mc/s	81	140	169	175	200	200	200	200	600	1200	2800	3000	3260	3750
Date														
1	0.9	6	3	5	5	8	5	7	18	-	60	-	105	82
2	0.5	6	3	5	4	7	-	7	18	31	62	-	105	82
3	0.7	6	3	5	4	8	-	7	17	-	62	40	103	82
4	-	6	3	5	6	7	5	7	-	-	62	42	103	82
5	-	6	3	4	5	7	5	7	-	-	-	-	99	82
6	-	-	3	5	6	7	5	-	-	-	63	-	-	82
7	-	5	3	5	7	7	-	7	22	28	64	-	110	84
8	-	-	3	5	6	7	5	7	19	32	64	-	95	82
9	-	5	3	5	6	7	5	7	22	29	63	-	95	82
10	-	5	3	5	6	10	-	6	17	30	61	-	101	82
11	-	6	3	5	9	8	5	6	22	29	62	-	99	82
12	-	6	3	5	6	7	5	6	-	-	-	-	-	82
13	-	-	3	5	3	-	5	-	-	28	-	-	-	82
14	-	6	3	5	9	-	5	7	19	32	60	-	95	82
15	-	6	3	5	7	12	5	7	17	30	61	-	99	82
16	-	6	3	5	6	7	5	7	18	-	61	-	95	80
17	-	5	3	5	9	7	5	7	25	28	60	-	-	80
18	-	5	3	4	10	8	-	7	18	35	61	46	90	80
19	-	6	-	5	8	9	5	7	18	28	-	-	97	82
20	-	-	-	5	4	7	5	-	-	-	-	-	-	82
21	0.7	5	-	5	-	10	5	-	25	30	62	-	93	84
22	0.8	6	-	5	14	9	5	6	-	-	64	-	103	82
23	0.7	6	-	5	13	8	5	-	-	27	61	-	99	84
24	0.8	5	-	5	12	8	5	7	17	28	62	-	97	84
25	0.7	-	-	5	15	-	6	-	-	-	-	-	-	84
26	0.7	-	-	5	12	9	5	-	-	-	64	-	-	82
27	0.8	-	-	5	11	8	5	-	-	-	-	-	-	84
28	0.8	6	-	5	-	7	5	7	-	-	62	-	-	84
29	0.9	6	-	5	14	-	5	7	-	31	63	-	-	84
30	0.7	6	-	5	-	-	5	7	-	28	61	41	-	84
31	0.8	6	-	-	12	-	6	7	-	29	-	-	-	84

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

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

2. POLARISATION

Daily medians or means of polarisation and percentage

	OCTOBER 1953		NOVEMBER 1953		DECEMBER 1953	
	CAV	CAV	CAV	CAV	CAV	CAV
Mc/s	81	175	81	175	81	175
Date						
1	0	-	-	-	0	0
2	0	0	-	-	0	0
3	0	0	-	0	0	0
4	0	0	-	0	0	0
5	-	-	-	0	-	0
6	-	0	-	0	-	-
7	0	0	-	-	-	0
8	0	0	-	-	-	-
9	0	0	-	0	-	-
10	0	0	-	0	-	-
11	-	-	-	0	-	0
12	-	0	0	0	-	0
13	-	0	0	0	-	0
14	0	0	-	0	-	0
15	0	0	-	0	-	0
16	-	-	-	0	-	0
17	0	0	0	0	-	0
18	-	0	0	0	-	0
19	-	0	0	0	-	0
20	-	0	0	0	-	-
21	0	0	-	-	0	0
22	0	0	-	0	0	0
23	0	0	-	0	-	-
24	0	0	0	0	-	-
25	-	0	0	0	-	-
26	-	1	0	0	-	-
27	-	0	0	0	-	-
28	-	0	-	-	-	-
29	-	0	0	0	-	-
30	-	0	0	0	-	-
31	-	0			-	-

3. VARIABILITY

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

	OCTOBER 1953														NOVEMBER 1953														DECEMBER 1953											
	TOK	SYD	CAV	SYD	TOK	NED	MAR	CAV	SYD	COR	TOK	NED	MEU	MEU	TOK	SYD	CAV	SYD	TOK	NED	MAR	CAV	SYD	COR	TOK	NED	MEU	MEU	TOK	SYD	CAV	SYD	TOK	NED	MAR	CAV	SYD	COR	TOK	NED
Mc/s	60	62	81	98	100	140	169	175	200	200	200	200	255	545	60	62	81	98	100	140	169	175	200	200	200	200	255	545	60	62	81	98	100	140	169	175	200	200	200	200
Date																																								
1	0	0	0	0	0	0	0	0	1,0	0	0	0	0	0	0	0	-	0	0	-	-	-	0	0	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	1,0	0	0	0	0	0	0	0	-	0	0	0	-	0	0	0	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	-	-	0	0	0	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	-	-	1	0	0	0	-	-	-	0	0	-	0	0	-	-	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	-	0	0	0	0	1	0	0	0	0	-	-	0	0	-	0	0	-	-	0	0	0	0	-	0	0	0	0	-	0	0	0	0	0	0	0	0	0
6	0	0	-	0	0	0	-	0	0	0	0	0	0	0	0	0	-	0	0	-	-	0	0	-	0	-	0	0	0	0	-	0	0	-	0	0	0	0	0	-
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	-	-	0	0	-	0	-	0	0	0	0	-	0	0	-	0	0	0	0	0	-
8	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	-	0	0	-	-	0	0	-	0	-	-	-	0	0	-	0	0	-	0	0	0	0	0	-
9	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	-	0	0	-	-	0	0	-	0	-	-	0	0	0	-	0	0	-	0	0	0	0	0	-
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	-	-	-	0	0	0	-	-	0	0	0	-	0	0	-	0	0	0	0	0	-
11	0	0	0	0	0	-	0	0	0	0	0	-	-	-	0	0	-	0	0	-	-	0	0	0	0	0	-	-	0	0	-	0	0	-	0	0	0	0	0	-
12	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	-	-	0	0	-	0	0	-	0	0	0	0	0	-
13	-	0	-	0,1	-	0	0	0	0	1	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	-	-	0	0	-	0	0	-	0	0	0	0	0	-
14	1	2,0	1	1	1	1	0	1	1,0	0	0	0	0	0	0	0	-	0	0	-	-	0	0	0	0	0	-	-	0	0	-	0	0	-	0	0	0	0	0	-
15	0	1,0	1	2,0	1	1	0	0	1	1	1	0	0	0	0	0	-	0	-	-	0	0	0	0	0	-	-	-	0	0	-	0	-	0	0	0	0	0	0	0
16	0	0	-	1,0	0	0	-	-	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	-	0	-	0	0	0	0	0	0	0
17	0	0	1	0	0	0	-	0	1,0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	-	0	0	0	0	0	0	0
18	0	0	-	0	0	-	-	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	-	0	0	0	0	0	0	0
19	0	0	-	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	-	0	0	-	-	0	0	0	0	0
20	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	-	0	0	-	-	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	-	0	0	-	-	0	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	-	-	0	0	0	0	0	-	-	0	0	0	0	0	0	-	0	0	0	0	0
24	0	0	0	0	0	0	0	0	-	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	-	0	0	0	0	0
25	0	0	-	0	0	-	0	0	-	0	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	-	0	-
26	0	0	-	0	0	0	0	1	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	-
27	0	0	-	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	-
28	0	0	-	0	0	0	-	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	-	-	0	0	0	0	-
29	0	0	-	0	0	0	-	0	-	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	-	-	1	0	0	0	-
30	0	0	-	0	0	0	-	0	-	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	-	-	0	0	0	0	0	0	-	0	0	0	0	0
31	0	0	-	0	0	0	-	0	-	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0

Two values are given, where these differ significantly, for the two Eastern observing periods (i.e. before sunset and after sunrise) in one day U.T.

4. OUTSTANDING OCCURRENCES

Station and frequency	Date 1953	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	
Ott 2800	Oct 4	1300	2.0	SD		3			
Ott 2800	4	2051	1.0	SD		3			
Ott 2800	4	2209	2.0	SD		2			
Cav 175	7	1154	1.0	SD	1	1			
Cav 81	11	1206	1.5	SD	1	1			
Cav 175	11	1206	2.0	SD	1	1			
Cor 200	13	1607	3.5	CD	>5	3			
Syd 600	14	0133	32.0	CD	4	>1			Flare
Syd 200	14	0326	5.7	CD	35	9			Flare
Syd 600	14	0326	12.0	CD	>6	1			
Nag 3750	14	0331	2.0	CD		3			Flare
Syd 200	14	0544	10.5	CD	9	4			
Syd 600	14	0545	14.0	CD	>6	1			
Syd 62	14	0552	9.0	CD	54	22			
Tok 60	14	0553	10.0	CD	>25	>25			
Tok 100	14	0553	8.0	CD	10	3			
Meu 255	14	0952	35.0	CD		50			
Meu 545	14	0952	35.0	CD		40			Fade
Ned 200	14	0953	37.0	CD	45	20			
Cav 81	14	1010	35.0	CD	2	1			
Cav 175	14	1010	30.0	CD	2	1			
Ott 2800	14	1421	5.0	SD		1			Fade
Meu 255	14	1429	2.0	SD		19			
Meu 545	14	1429	2.0	SD		30			Fade
Ott 2800	14	1430	2.5	SD		1			
Syd 200	15	0000	2.5	CD	34	6			
Tok 100	15	0000	0.5	SD	20	10			
Tok 200	15	0000	1.3	CD	13	5			
Nag 3750	15	0000	1.5	SD		2			
Syd 62	15	0001	2.0	CD	111	59			
Syd 98	15	0018	7.0	CD	41	8	-		
Syd 62	15	0018	0.2	SD	30	14			
Syd 200	15	0019	2.0	CD	46	12			
Syd 200	15	0116	0.3	CA	5	3			
Syd 62	15	0133	0.2	SD	30	14			
Syd 200	15	0133	0.2	SA	7	4			
Syd 62	15	0211	1.0	CD	78	9			
Syd 98	15	0212	0.3	CD	55	19	-		
Syd 200	15	0212	0.2	SA	5	3			
Osa 3260	15	0237	0.3	SD		4			Flare
Nag 3750	15	0258	28.0	CD		<1			
Syd 98	15	0320	1.0	CD	36	6	-		Flare
Syd 200	15	0320	1.0	CA	13	5			
Syd 62	15	0411	6.3	M	37	3			
Syd 98	15	0411	6.5	M	50	5	-		
Syd 200	15	0412	0.2	CA	7	4			
Syd 62	15	0538	6.3	CD	50	25			
Syd 98	15	0538	0.3	CD	47	20	-		
Cav 81	15	1348	5.0	CA	2	1			
Cav 175	18	1116	0.5	SD	1	1			
Cav 175	Nov 14	1418	1.5	SD	2	1			
Cav 175	15	1339	3.0	SD	2	1			
Cav 175	26	1426	2.0	SD	1	1			
Cav 81	27	1115	3.0	SD	1	<1			
Cav 175	27	1115	2.0	SD	1	1			
Cav 81	27	1134	2.0	SD	1	<1			
Cav 175	27	1134	2.0	SD	2	1			
Ott 2800	Dec 10	1824	105.0	CD		1			
Cav 175	20	1252	2.0	SD	1	1			

Canberra June 1954

S.F. Smerd