

Solar Bulletin

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS — SOLAR DIVISION

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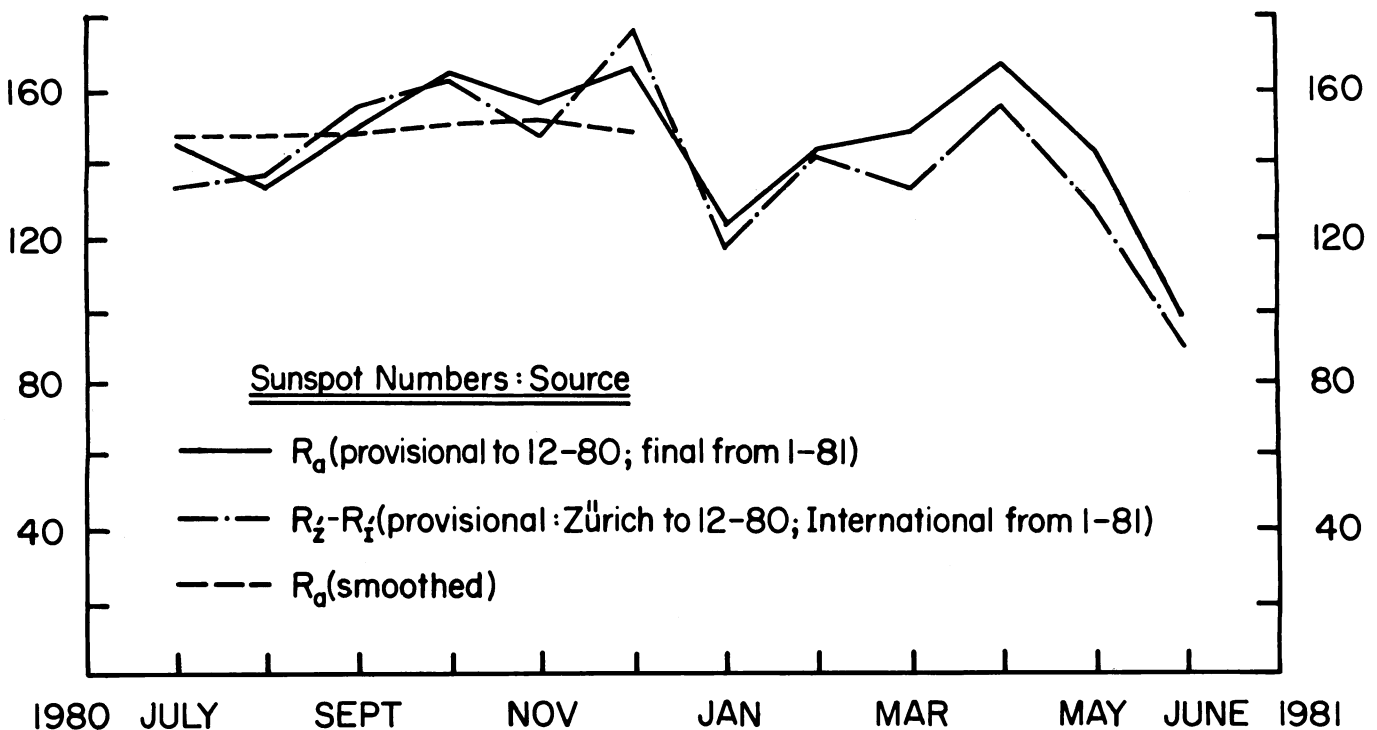
June 1981

SOLAR ACTIVITY DURING JUNE 1981

Sunspot data are summarized in the graph at the bottom of this page and in the table of daily numbers on page 2. Overall solar activity decreased precipitously during June 1981. The smoothed mean of AAVSO sunspot numbers fell from 150.9 for November 1980 to 147.0 for December 1980, and the monthly mean dropped from 141.3 for May 1981 to 99.0 for June 1981. Final daily AAVSO numbers varied from 46 (June 3) to 170 (June 30). Sunspot activity remained quite low for the first third of the month, increased to a peak on June 15, dropped again, then remained at a moderate level for the last third of the month.

The 82 high-certainty Sudden Enhancements of Signal (SEs) detected during the month of June by the 15 participants in the AAVSO Indirect Solar Flare Patrol contributing records for cross-analysis are listed on page 2. Although the total number of SEs for June is almost as large as that for May (84), fewer observers detected the events. For example, in May there were 29 SEs detected by more than 6 observers, in June there were only 8 so detected. Three-fourths of the SEs were detected between June 22 and June 30, 15 of them on June 23 alone.

As solar activity decreases in the next few years, it will be increasingly important for the Solar Bulletin to receive timely reports of high-quality sunspot and radio observations. On page 2 is a multiple-trace VLF radio recording received from David Warshaw, SES and SEA observer A1. This format allows immediate comparisons across records for different VLF radio signal sources.



SUDDEN IONOSPHERIC DISTURBANCES (SEs) RECORDED DURING JUNE 1981

Records were received from A1, 9, 19, 26, 28, 31, 37, 43, 50, 51, 52, 54, 55, 56, 57

JUNE 1981		
RELATIVE SUNSPOT NUMBERS (R):		
AAVSO (a), INTERNATIONAL (I)		
DAY	R _a (final)	R _i (prov)
1	64	62
2	57	59
3	46	44
4	54	62
5	58	55
6	57	57
7	64	61
8	54	52
9	59	58
10	63	55
11	65	66
12	91	79
13	94	86
14	105	99
15	134	104
16	126	109
17	118	119
18	120	104
19	86	85
20	77	71
21	93	87
22	126	106
23	121	119
24	110	109
25	146	127
26	148	127
27	147	133
28	156	112
29	161	138
30	170	148
Mean	99.0	89.8

Day	Max	Imp	Def	Observers	Day	Max	Imp	Def	Observers
4	18:45	3	4	A19,31,55,56	24	13:13	1+	5	A55
8	01:37	1+	5	A43	24	14:35	1	5	A55
8	08:00	3	5	A52	24	15:22	1-	4	A19,50,55
9	14:41	1-	5	A1,31,37,50,55	24	15:37	1	5	A1,19,31,50,55
9	16:40	1-	5	A54	24	17:36	1+	5	A1,19,31,55,56
9	18:45	1-	5	A54	24	19:46	1	5	A1,19,31,54,55,56
9	19:54	1-	5	A1,9,19,31,50,54,55	24	20:37	1+	5	A1,19,31,55,56
10	06:30	1+	5	A31,52	25	01:03	2+	5	A31,52,55
11	20:18	3+	5	A19,31,55	25	01:52	1-	4	A31
12	00:21	1-	4	A31	25	02:46	1-	5	A31,55
16	18:00	1-	4	A55,56	25	07:56	1-	5	A52
16	20:14	1-	4	A31	25	16:17	3+	5	A9,19,31,54,55,56
16	21:25	1-	5	A31,50,55	25	17:52	2	5	A1,9,19,31,54,55,56
17	00:12	2	5	A31,55	25	20:23	1-	4	A31,55
17	09:53	1+	5	A52	25	21:01	1+	5	A31,55,56
18	09:45	1+	5	A52	25	22:09	4	5	A9,19,31,54,55,56
18	15:41	1-	5	A19	25	23:48	1-	5	A31,54
20	16:57	1-	4	A19,31,56	26	00:31	1	5	A31,55
20	18:22	1-	5	A1,9,19,31,50,55	26	06:35	2+	5	A31,52,55,56
21	00:45	1-	4	A31	26	08:49	1-	5	A52
22	15:13	4	5	A1,9,19,31,37,50,51,54,55,56	26	13:45	1-	5	A19,54
22	20:23	1-	5	A31,50,55	26	17:50	1	5	A1,9,19,31,54,55,56
22	21:01	1-	5	A9,19,31,50,54,55,56	26	18:11	2+	5	A1,9,19,31,51,54,55,56
23	09:07	1-	5	A52	26	20:28	1+	5	A19,31,50,55
23	11:07	3+	5	A52,55	26	22:03	2	5	A1,9,19,31,54,55,56
23	11:14	1+	5	A1,19,54,55	26	23:43	1	5	A19,31,55,56
23	12:17	1	5	A19,54	27	00:22	1	5	A43
23	12:28	1	5	A1,19,54	27	02:00	2	5	A43
23	15:22	1-	5	A1,19,54	27	03:23	1-	5	A43,52
23	15:46	1	5	A19,54,55	27	05:36	1	5	A43
23	16:01	1	5	A54,55	27	08:27	1+	5	A52
23	17:38	3+	5	A1,19,31,51,54,55,56	27	08:47	3	5	A52
23	19:07	1+	5	A19,31,54,55,56	27	12:59	3	5	A1,19,26,54
23	19:43	1+	5	A19,31,55,56	28	04:02	1-	5	A31,43
23	20:03	1+	5	A1,31,55,56	28	06:58	1-	5	A52
23	20:59	2+	5	A1,19,31,54,55,56	28	15:00	1-	5	A1,19,31,50,54,56
23	21:57	1-	5	A31,54,55,56	29	00:46	3	5	A9,19,31,55,56
23	23:42	1-	5	A31,55	29	16:10	1+	5	A1,19,26,31,50,55
24	11:25	1+	5	A1,19,54	29	20:07	1-	5	A19,31,37,55
24	06:45	2	5	A31,52,55	30	15:49	1+	5	A1,19,31,50,55,56
24	11:25	1	5	A52	30	20:44	1-	5	A31,55

MULTIPLE-SOURCE RECORDING

