

# Solar Bulletin

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS — SOLAR DIVISION

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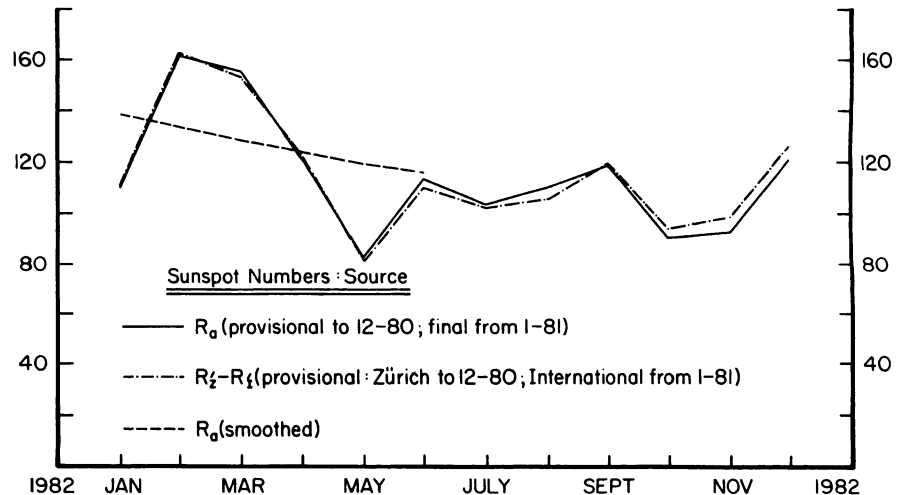
Number 12

December 1982

December 1982		
RELATIVE SUNSPOT NUMBERS (R):		
AAVSO (a), INTERNATIONAL (I)		
Day	R <sub>a</sub>	R <sub>I</sub>
1	88	88
2	118	133
3	123	124
4	129	137
5	133	137
6	163	174
7	163	175
8	177	184
9	158	152
10	165	166
11	172	171
12	184	194
13	161	172
14	159	160
15	153	166
16	130	130
17	105	112
18	96	102
19	71	79
20	57	63
21	78	98
22	83	88
23	93	96
24	102	100
25	123	112
26	117	116
27	114	126
28	113	108
29	96	98
30	82	94
31	66	62
Mean	121.7	126.4

To regain its normal schedule, the Solar Bulletin will limit this and several following issues to data without commentary. Any researcher urgently needing data not yet published should request them directly from the Editor.

The smoothed mean sunspot number is 116.1 for June 1982.



SUDDEN IONOSPHERIC DISTURBANCES (SESs) RECORDED DURING DECEMBER 1982

Records were received from A1, 9, 19, 26, 28, 31, 46, 49, 50, 51, 52, 54, 55, 56, 58

Day	Max	Imp	Def	Observers	Day	Max	Imp	Def	Observers	Day	Max	Imp	Def	Observers
1	07:00	1+	5	A52	9	08:50	1-	5	A52	15	02:06	2	5	A31,52,55,56
2	17:57	1	5	A1,19,26,31,55,56	9	09:51	2	5	A52	15	16:37	2	5	A1,19,26,31,49,50,51,55,56,58
2	21:22	1	5	A31,55,56	9	10:49	1+	5	A52	15	20:51	1	5	A19,31,49,50,55,56
3	01:21	1	5	A31,52,55,56	9	11:38	1+	5	A52	15	22:00	1+	5	A19,31,50,55,56
3	03:32	1-	4	A31	9	16:06	1	5	A1,19,26,31,50,55,56	16	10:15	1+	5	A52,55
3	06:30	1	5	A31,52	9	16:41	1-	5	A1,19,31,50,55	16	15:12	2	5	A1,19,26,31,50,51,56
3	09:15	2	5	A31,52,56	9	18:00	2	5	A1,19,26,31,55,56	16	19:44	1+	5	A19,31,55
3	10:07	1-	5	A52	9	19:08	1	5	A1,19,26,28,31,49,55,56	17	01:52	1	5	A31,55,56
3	23:08	1+	5	A1,31,55,56	9	21:03	1-	5	A31	17	04:30	1-	5	A31,52,56
4	05:32	1-	5	A52	9	21:16	1-	5	A31,55,56	17	04:53	1-	5	A31,52
4	09:23	1	5	A52,56	9	21:59	2	5	A19,31,55,56	17	08:15	1-	5	A31,52,56
4	10:46	1	5	A52	9	23:09	1	5	A31,55,56	17	10:14	2	5	A52
4	10:31	1+	5	A52	9	23:24	1+	5	A31,55,56	17	17:07	1+	5	A1,19,26,31,49,50,51,55,56
4	14:45	1	4	A49	10	00:30	1	5	A31,55,56	17	18:59	3	5	A1,19,26,31,49,50,51,55,56
4	17:30	1	5	A1,9,19,26,31,49,50,55,56	10	01:23	1-	5	A31,52,56	17	20:36	1-	5	A55
4	20:04	1-	5	A50,56	10	02:26	1	5	A52	17	21:16	1+	5	A19,31,49,50,55,56
4	20:35	1-	5	A50	10	02:50	1+	5	A31,52,55,56	17	21:53	1	5	A19,31,50,55,56
4	21:30	1+	5	A50	10	04:17	1+	5	A31,52,55,56	17	22:58	2	5	A31,50,55,56
5	04:42	1+	5	A31,52,56	10	08:16	2	5	A31,52,55,56	17	08:30	2	5	A31,52,55,56
5	06:26	1-	5	A31,52	10	16:26	1-	5	A1,19,26,31,50	17	10:03	1	5	A52
5	08:19	1-	5	A31,52	10	18:00	1-	5	A1,19,26,31,55,56	18	15:12	1+	5	A1,19,26,31,50,51,56
5	15:19	1+	5	A19,49	10	18:22	1	5	A1,19,26,31,55,56	18	21:24	1-	5	A31,55
5	16:37	1-	5	A19,31,50	11	03:51	1-	5	A52	19	00:58	1-	5	A31,55,56
5	20:23	2+	5	A31,50,51,55,56	11	04:12	1-	5	A52	19	01:42	1+	5	A31,55,56
6	08:22	1	5	A52,55,56	11	06:29	1-	5	A52	19	02:32	1-	5	A31,56
6	19:23	1-	5	A31,55	11	07:36	1-	5	A52	19	09:15	1	5	A52
6	20:38	1	5	A31,55	11	09:56	1-	5	A52	19	09:57	1-	5	A52
6	21:17	2	5	A19,31,49,55,56	11	16:29	1	5	A19,49	19	16:45	3+	5	A1,19,26,31,51,55,56
6	23:55	1	5	A31,55	11	18:35	1-	4	A31,55	19	22:36	1-	5	A31,50,55,56
7	05:00	1-	5	A31	11	20:05	1-	5	A31,56	20	02:20	2	4	A46
7	10:08	1+	5	A52	11	21:30	1+	5	A31	20	09:11	1-	5	A52
7	14:02	2	5	A1,19	11	23:48	1	5	A31,56	20	16:08	1	5	A1,19,26,31,50,51,55,56
7	17:10	1+	5	A19,31,50,56	12	02:59	1-	5	A31,52,56	20	17:14	1+	5	A1,19,26,31,50,51,55,56
7	17:52	1-	5	A19,31,50,55,56	12	06:53	1	5	A31,52	21	05:14	2+	5	A31,52,56
7	18:17	1	5	A1,19,31,50,55,56,58	12	14:52	1-	4	A58	21	06:53	1-	5	A31,52,56
7	23:49	2+	5	A19,31,52,55,56	12	16:30	1	5	A31,51,55	21	18:50	1-	5	A55
8	01:00	1-	4	A31	12	17:15	1+	5	A19,31,51,55	21	20:45	1-	5	A55
8	02:29	1-	4	A31,56	12	21:53	1-	5	A55	21	21:31	1	5	A55
8	08:43	2	5	A31,52,56	13	08:16	3	5	A52,56	22	01:45	1-	5	A31
8	11:23	1-	5	A52	13	18:26	1-	5	A31,50,55	22	02:15	1-	5	A31
8	15:00	2+	5	A1,19	13	19:00	1-	5	A31,55,56	22	02:55	1-	4	A31
8	19:46	1-	5	A19,26,31,51,55,56	13	20:03	1	5	A19,26,31,55,56	22	06:30	1+	4	A31
9	03:02	2	5	A31,52,56	13	21:23	1	5	A31,55,56	22	08:33	2+	5	A31,52,55
9	04:39	1	5	A52	14	04:02	1-	5	A31,56					
9	04:56	1+	5	A31,52,56	14	07:55	1	5	A52					
9	05:25	1-	5	A52	14	16:13	1-	5	A31					
9	06:47	1	5	A52	14	20:26	1-	5	A55					
9	08:32	1	5	A52										

