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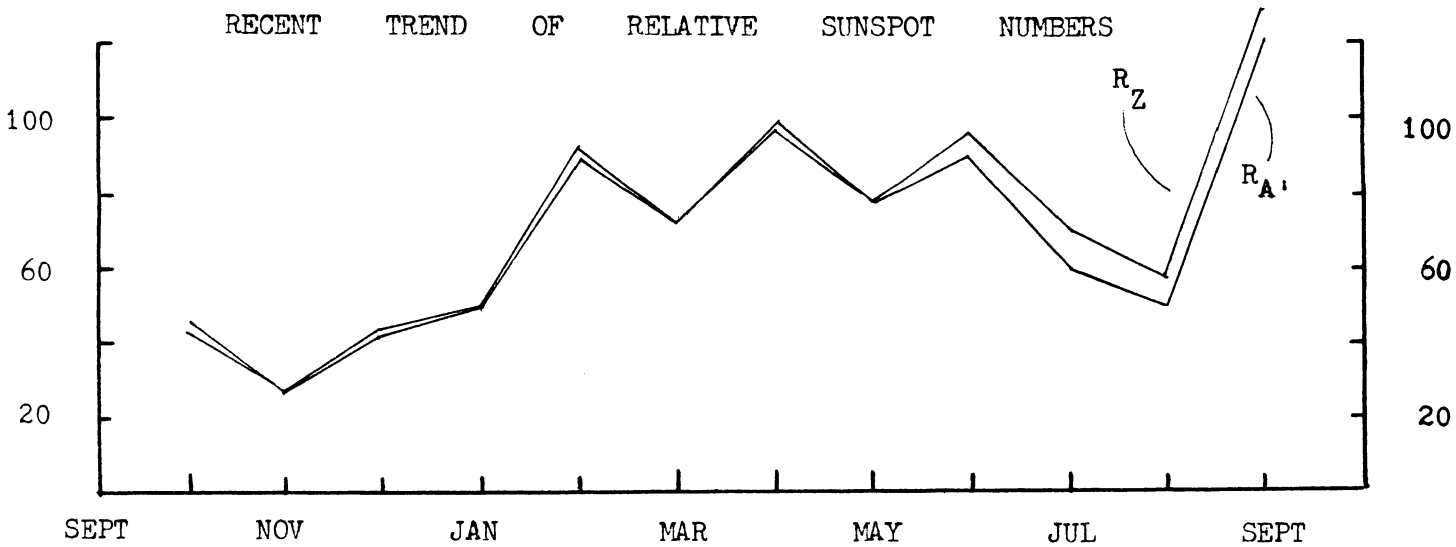
SUNSPOT ACTIVITY FOR SEPTEMBER

Sunspot activity remained at a high level throughout September. There were only six days when the American Sunspot number fell below one-hundred. The monthly means was 128.1

Fifty-seven ionospheric disturbances associated with the many sunspots of September were recorded by fourteen observers who sent charts for analysis. Two charts showing eight of these events are reproduced on page-two. The upper chart, an SES recording using NSS in Annapolis,Maryland as a signal source was made by A-3, and Phil Del Vecchio, or Paterson,New Jersy who has recently become active again in the indirect flare detection network after a long period of inactivity. The lower chart by Bruce Ammons, A-31, is also an SES recording using NWC in Australia as the signal source. It shows disturbances recorded after the sun had set. This is possible because part of the propagation path remains in sunlight long after sunset in Montana where A-31 is located.



AMERICAN (R_A') AND ZURICH (R_Z) RELATIVE SUNSPOT NUMBERS FOR SEPTEMBER 1978

DAY	R_A'	R_Z
1	110	127
2	152	167
3	149	151
4	143	161
5	166	175
6	157	178
7	136	148
8	124	120
9	108	109
10	90	105
11	66	84
12	65	72
13	81	88
14	95	113
15	115	133
16	129	148
17	135	136
18	139	158
19	142	150
20	166	163
21	159	172
22	146	148
23	152	156
24	156	167
25	166	163
26	154	152
27	133	140
28	123	122
29	100	122
30	86	91
Mean	128.1	137.3

Day	Max.	SEA	SES	Def.	Observers
1	1721	1-	1	5	A-1,3,5,19, 28,31,37
1	1954	1	1+	5	A-1,3,19,26, 31,37
1	2143		1	5	A-1,28,31
1	2230		1	5	A-5,19,26,31
2	0015		1+	5	A-31
2	0117		2	5	A-31
2	0554		2	5	A-31
2	1148	1-	1	5	A-1,5
2	1433	1-	1	5	A-1,3,5,19, 26,31,34,37
2	1441	1-	1-	5	A-1,3,5,19, 34
2	1742		1-	5	A-1,19,31,34
2	1823	1-	1	5	A-1,5,19,31, 34
2	1912		1	5	A-5,19,28,31, 34,37
2	2017		1-	4	A-19,31,34
2	2055		1-	4	A-1,5,19,28, 31,34,37
2	2131		1	5	A-19,28,31,34, 37
3	0138		2	5	A-31
3	1600		1+	3	A-1,19,31
3	1850		1-	4	A-1,31,45
3	1934		1	5	A-1,5,19,31, 45
3	1957		1	5	A-1,31
4	0204	1-	1-	5	A-31,37,43
4	0441	1+	1+	5	A-31,43
6	2230		1-	3	A-1,19,31
6	2345		1+	5	A-31,37
8	1900	1-	1+	5	A-1,3,5,19, 28,31,34,45, 46
11	1425	2	2+	5	A-1,19,26,28, 31,34,37,45, 46
12	1421	2	2	5	A-1,3,5,19, 28,31,37,46
13	1806	1	1	5	A-1,3,5,19, 28,31,34,37, 45,46
13	1956		1	5	A-1,3,19,31, 34,45
13	2112	1-	1	5	A-1,3,19,31, 34,45
15	1825		1-	5	A-1,26,34,45
15	1929	1	1	5	A-1,3,19,26, 31,34,37,45, 46
15	2105		1-	5	A-1,3,19,26, 31,34,45
16	1335	1	1+	5	A-1,3,19,26, 31,34,45
16	1802	1	1+	5	A-1,3,19,26, 28,31,34,45
16	2000	1	1	5	A-1,3,19,26, 28,31,34,45
17	0415	1+	2	5	A-31,43
17	0840	1+	3	5	A-31,42,43
17	1309		1	5	A-1,3,19,45
17	1509	2	2+	5	A-1,3,5,19, 26,28,31,34, 42,45,46
17	1959		1	5	A-1,3,5,31, 45
17	2037		1	5	A-1,3,5,19, 26,31,34,45
17	2248	1	1	5	A-31,43,45
17	2348	1	1	5	A-31,43
18	0132	1+	1+	5	A-31,43
20	2327		1	5	A-31
21	0323		1	5	A-31
21	0421		1+	5	A-31
24	1733	2+	2	5	A-1,3,19,31, 42,46
24	2128	2	1+	5	A-19,26,31,34, 46
25	1846	1+	1-	5	A-1,19,26,31, 34,46
25	2034	1	2	3	A-31,46
27	0842		2+	5	A-31
27	1500	2	2+	5	A-1,3,19,26, 28,31,34,46
27	1731	1+	1+	5	A-1,3,19,26, 28,31,34,46
27	1801		1+	5	A-1,3

Charts from the following observers were received and analyzed:

A-1, 3, 5, 19, 26, 28, 31, 34, 37, 40, 42, 43, 45, and 46