

Solar Bulletin

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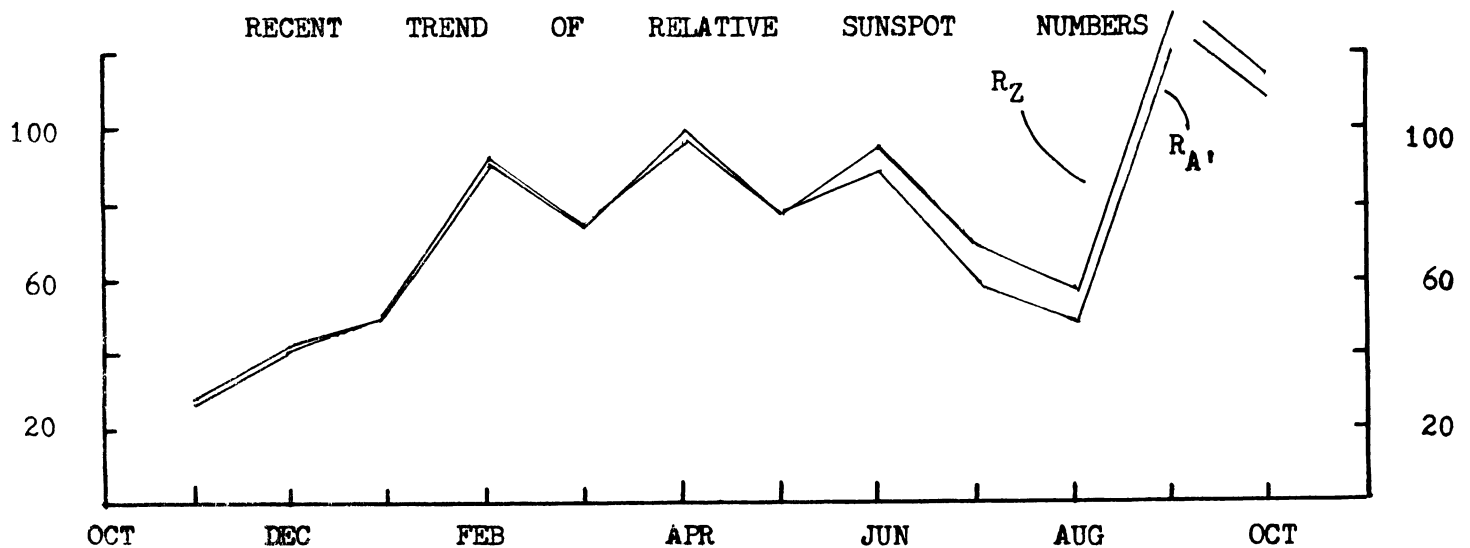
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OCTOBER 1978

SUNSPOT ACTIVITY FOR OCTOBER 1978

Sunspot activity was somewhat lower in October than in September. The mean of the American sunspot numbers fell from 128.1 to 116.0. Although the numbers were above one-hundred for most of the month none of October's sunspots were large enough to be seen with the unaided eye.

Eleven observers sent October ionospheric disturbance recordings for analysis. Two of these are reproduced on page-two. Both show the same response of the ionosphere to a solar flare that started a few minutes before 1600 UT. The lower chart shows the usual enhancement of the 34.5 kHz signal. The upper chart shows a more complicated response to 73.6 kHz signal. Here the first response is a reduced signal level but this suddenly reverts to an enhancement at about 1600 UT. This inverted response is not unusual for the 73.6 kHz signal which is located in Nova Scotia. A-19 who has recorded this station for many years recorded the 28 October event on a new receiver that he recently designed.



SUDDEN IONOSPHERIC DISTURBANCES RECORDED OCTOBER 1978

AMERICAN (R _A) AND ZURICH (R _Z) RELATIVE SUNSPOT NUMBERS FOR OCTOBER 1978			Day	Max.	SEA	SES	Def.	Observers	Day	Max.	SEA	SES	Def.	Observers
DAY	R _A	R _Z	1	1347	1	1	4	A-1,3,19,28,45	14	2115		1	5	A-31
1	73	90	1	2015		1	3	A-1,3,19,31,45	14	2129	1	1	5	A-1,19,26,28,31
2	90	119	1	2052		1-	4	A-1,31,45	14	2340		2+	5	A-31
3	86	107	2	1826		1-	4	A-19,28,31	15	0230		2	5	A-31
4	69	91	3	1811		1	2	A-1,19,26,31	15	0400		2+	5	A-31
5	59	55	3	2215		1+	4	A-19,31	15	0945	2		5	A-42
6	73	71	4	1429		1+	5	A-1,3,19,26,28,31,45	15	1300	1+	1	5	A-1,3,19,26,42,45,46
7	83	95	4	1557		1	3	A-1,3,19,28	15	1615		1-	5	A-3,19,26,28,31,45
8	98	103	4	1915		1-	4	A-1,19,28,45	15	1840	1	1	5	A-1,3,19,26,28,31,45
9	108	121	5	1120	2		5	A-42	15	1956	1+	2	5	A-1,3,19,26,28,31,45
10	131	149	5	1958		1	5	A-19,28,31,45	15	1748		1	5	A-1,19,26,31
11	148	158	5	2032		1-	5	A-19,26,28,31,45	16	1953		1	5	A-1,31
12	145	158	5	2208		1-	5	A-19,28,31	16	2154		2	5	A-1,26,31
13	156	156	5	2237		1+	5	A-31	16	2212		1	5	A-31
14	177	170	6	2309		1	5	A-19,31	18	0414	2	1+	5	A-31,42
15	163	166	6	1651	1	1	5	A-1,3,19,26,28,31,45	19	0755	1		5	A-43
16	151	163	6	1702	1+	2	5	A-1,3,19,26,28,31,42,45	19	1613		1-	5	A-1,3,19,26,28,31
17	148	137	9	1918		1-	5	A-1,3,19,26,28,31,45	19	1622		1-	5	A-1,3,19,26,28,31
18	134	123	9	2015	1+	3	5	A-1,3,19,26,28,31,45,46	19	1712		1-	4	A-3,19,31
19	144	154	9	2206		1-	5	A-19,28,31,45	19	1716		1-	5	A-3,19
20	125	151	12	1512	1+	2	5	A-1,3,19,26,31,45,46	19	1803		1-	5	A-1,4,19,26,28
21	129	144	13	1245	2	1+	5	A-1,3,19,26,28,42,45,46	19	2116		1	5	A-31
22	128	125	13	1652	1	1	5	A-1,3,19,26,28,31,40,45,46	20	1712		1-	5	A-1,19,26,28,31
23	110	116	13	1752		1	5	A-1,3,19,26,28,31,45	20	2029		1	5	A-28,31
24	93	103	13	1836		1-	5	A-3,19,26,28,31	20	2135		1-	5	A-31
25	98	96	13	0701		2+	5	A-31	20	2150		1-	5	A-31
26	99	91	14	1251	2	1	5	A-1,3,19,42,45	20	2150		1-	5	A-31
27	112	115	14	1512	1	1	5	A-1,19,26,28,45,46	21	1405	1+	1	5	A-1,19,26,42,46
28	115	117	14	1922		1	5	A-3,19,26,28,31,45	21	1612	1	1	5	A-1,19,26,28,31,46
29	121	137	14						21	2039	1-	1	5	A-1,19,26,28,31,45
30	127	129	14						28	1606	1+	2	5	A-1,3,19,26,28,31,42,46
31	102	98	14						28	2015		1	5	A-19,31
Mean	116.0	122.8	14						28	2238		1	5	A-31

Charts from the following observers were received and analyzed:

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

