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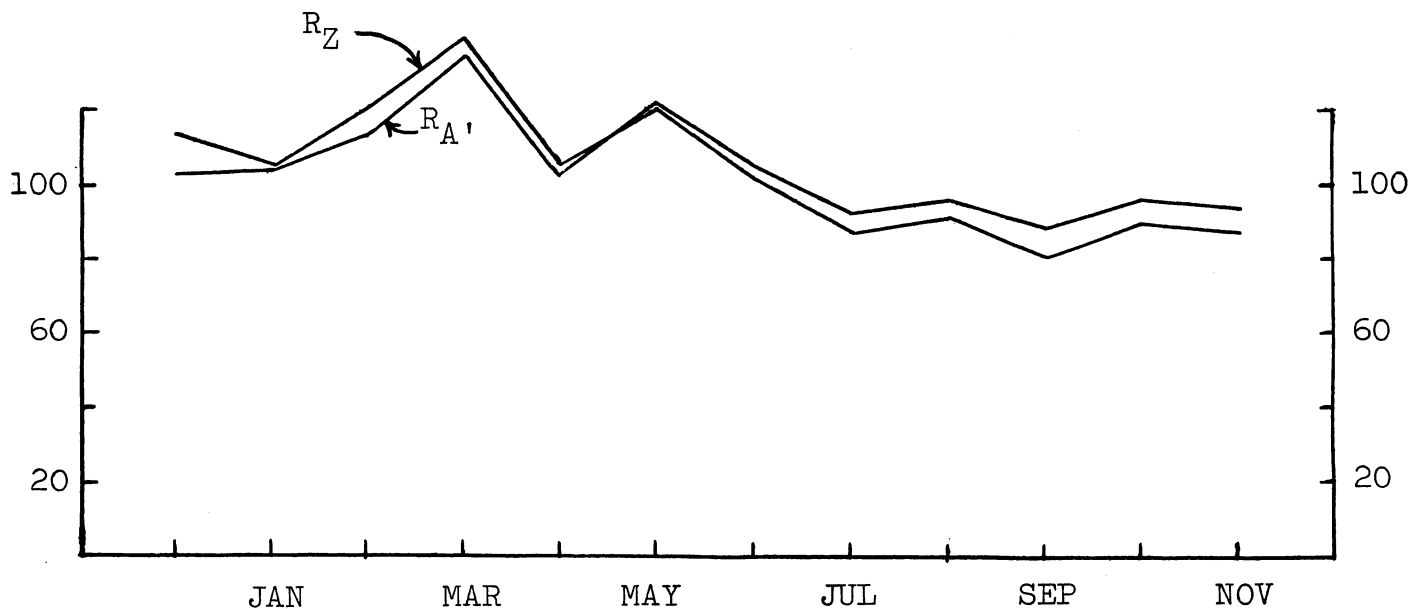
November 1969

SOLAR ACTIVITY DURING NOVEMBER

An unusually high number of ionospheric disturbances were recorded by Solar Division observers during November, more than during any previous month of the present solar cycle maximum. Many of these were of above average intensity and one on the 27th at 1935 UT was exceptionally strong. Of these many events, a surprising number were unusual in that their rise times exceeded the usual three to six minutes. Chart recordings are reproduced on page two which show two disturbances on the 28th having rise times of almost one-half hour. Such slow rises make them indistinguishable from the normal fluctuations in the atmospheric noise level. They are only recognizable by the fact that they occur on all usable charts that day including the SES records. Fortunately such atypical events are rare and it is almost always possible to pick out real disturbances by their fast rise time — usually about four minutes.

The mean of relative sunspot numbers fell very slightly from last month. Sunspot counts were above average during the last ten days of the month with the second appearance of the great group of last month (CMP 26 Oct.) contributing heavily. This region, actually two groups, although it resembled one giant F group, was surprisingly large considering this was its second time around.

RECENT TREND OF RELATIVE SUNSPOT NUMBERS



AMERICAN (R_A) AND ZURICH (R_Z) RELATIVE SUNSPOT NUMBERS, NOVEMBER 1969

day	R _A	R _Z	day	R _A	R _Z	
1	62	78	16	61	67	
2	59	60	17	75	69	
3	81	78	18	101	80	
4	87	79	19	111	91	
5	112	83	20	121	120	
6	101	95	21	131	121	
7	97	86	22	121	130	
8	85	79	23	130	117	
9	78	89	24	124	103	
10	85	66	25	126	118	
11	94	75	26	121	112	
12	68	68	27	119	109	
13	64	61	28	92	102	
14	68	60	29	97	85	
15	67	68	30	102	85	
November mean R _A = 94.7						
November mean R _Z = 87.8						
SUDDEN IONOSPHERIC DISTURBANCES RECORDED DURING NOVEMBER 1969						
DAY MAX. SEA SPS DEF. OBSERVERS						
4	2028	1	A-21, 19, 20	5	1+	1545
47	2133	2+	A-21, 20	5	5	0922
5	1805	2	A-22, 21, 1, 20	5	2	2233
16	1753	1	A-22	4	2	1442
16	2150	2+	A-21	5	1-	1942
16	2230	1+	A-21	5	1-	2006
18	1650	2+	A-22, 20, 19, 1	5	1-	1529
19	1906	1+	A-22, 20, 1, 21	5	3+	1935
20	1626	3+	A-19, 22, 21, 20	5	2+	1508
21	1735	1	A-22, 21, 19	5	3	2028
18	2128	3	A-21, 20	5	2+	1717
4	2028	1	A-21, 19, 20	5	1+	1545
5	1805	2	A-22, 21, 1, 20	5	2	2233
16	1753	1	A-22	4	2	1442
16	2150	2+	A-21	5	1-	1942
16	2230	1+	A-21	5	1-	2006
18	1650	2+	A-22, 20, 19, 1	5	1-	1529
19	1906	1+	A-22, 20, 1, 21	5	3+	1935
20	1626	3+	A-19, 22, 21, 20	5	2+	1508
21	1735	1	A-22, 21, 19	5	3	2028
18	2128	3	A-21, 20	5	2+	1717

