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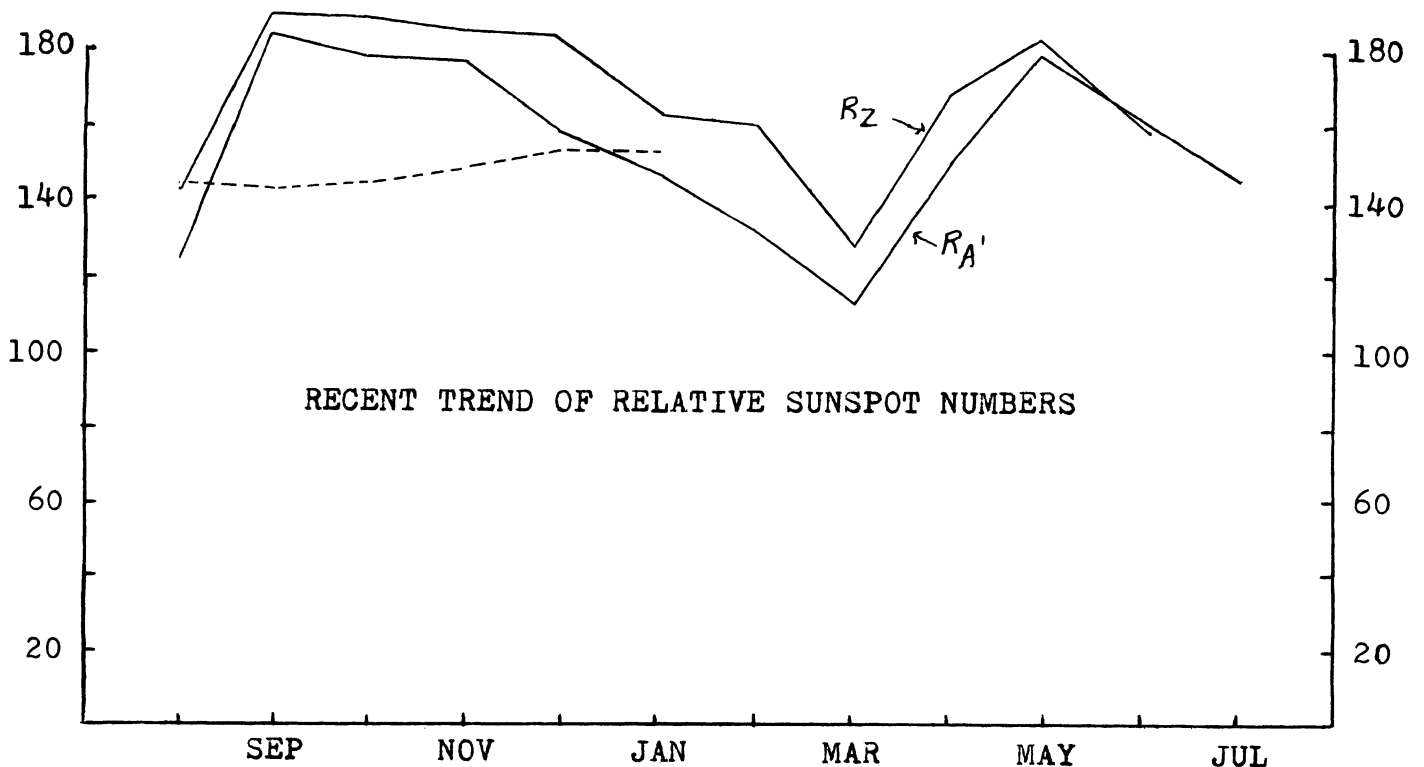
July 1980

SOLAR ACTIVITY DURING JULY

Sunspot activity declined slightly during July. The mean of the american sunspot numbers fell to 144.7 from 158.8 in June. This raised the 12-month smoothed mean only slightly to 153.0 for January.

Ionospheric activity was also downslightly with 40 events being recorded for July. Last month there were 52. Activity was concentrated toward the middle of the month when active longitudes were on the disk. The most active days were the eleventh and twelfth, almost a week prior to the highest sunspot numbers of the month. Charts are reproduced on page two showing some of the activity on the twelfth and thirteenth. These charts show how even tiny events can be detected with confidence when two interference-free charts are available for comparison and especially if they are of different signal sources. The A-32 charts were made using a loop antenna inside an apartment house.

Data from five observers were analyzed to prepare the ionospheric disturbance list this month. The number will increase each month until eventually all are used.



AMERICAN (R_A) AND ZURICH (R_Z) RELATIVE SUNSPOT NUMBERS FOR JULY 1980

Day	R _A	R _Z
1	109	
2	127	
3	127	
4	95	
5	126	
6	116	
7	109	
8	93	
9	100	
10	89	
11	91	
12	109	
13	160	
14	138	
15	178	
16	217	
17	228	
18	225	
19	230	
20	236	
21	242	
22	209	
23	188	
24	160	
25	150	
26	111	
27	117	
28	119	
29	121	
30	97	
31	69	
Mean	144.7	

The Zurich numbers were not received in time so they will be published in the next issue (August) if the Solar Bulletin.

SUDDEN IONOSPHERIC DISTURBANCES RECORDED DURING JULY 1980

DAY	MAX	SEA	SES	DEF	FREQ	OBSERVERS	DAY	MAX	SEA	SES	DEF	FREQ	OBSERVERS
5	1605		2+	5	21.4	A-19,32,48,50,51	12	1348		1-	5	21.4	A-19,32,48,51
5	2246		2+	5	21.4	A-19,32,48,50,51	12	1405		2	5	21.4	A-19,32,48,51
7	1155		2	3	21.4	A-48,51	12	1550		2+	5	17.8	A-19,32,48,50,51
7	1404		2	1	21.4	A-48	12	1742		1+	5	21.4	A-19,32,48,50,51
7	1759		1-	1	21.4	A-48,51	12	1810		1-	2	21.4	A-19,32,48,51
7	2119		1	3	17.8	A-48,51	12	1831		2	5	21.4	A-19,32,48,50,51
8	2015		1+	2	17.8	A-32,48,51	12	1935		2	2	17.8	A-32,48,50
9	1228		1+	3	17.8	A-32,48	12	2048		1-	2	17.8	A-32
9	1518		1+	3	17.8	A-19,32,48	13	1438		1-	4	17.8	A-32,48,51
10	1415		1	2	17.8	A-32,48	13	1510		2	5	17.8	A-32,48,51
10	1540		2+	4	21.4	A-19,32,48,50,51	13	1725		2	5	21.4	A-19,32,48,50,51
11	1301		2+	3	17.8	A-32,48	13	1806		1	4	21.4	A-19,32,48,50,51
11	1417		2+	3	21.4	A-19,32,48,51	13	1925		2	5	21.4	A-19,32,48,50,51
11	1520		1-	1	17.8	A-32,48	14	1715		2	3	21.4	A-19,48,51
11	1647		2+	5	21.4	A-19,32,48,50,51	20	1935		2	5	21.4	A-19,32,48,50,51
11	1904		2+	5	21.4	A-19,32,48,50,51	23	2007		1+	1	17.8	A-32,48,51
11	1948		1-	2	21.4	A-19,32,48	25	1546		1-	4	17.8	A-32,48,51,19
11	2205		3	4	17.8	A-32,48,50,51	25	2103		1+	2	21.4	A-48,51,19
11	2222		2	4	21.4	A-19,32,48,50,51	26	1309		1+	2	17.8	A-32,48,19
12	1125		2	5	17.8	A-32,48,51	27	1227		1-	2	17.8	A-32,48,19

