

Solar Bulletin

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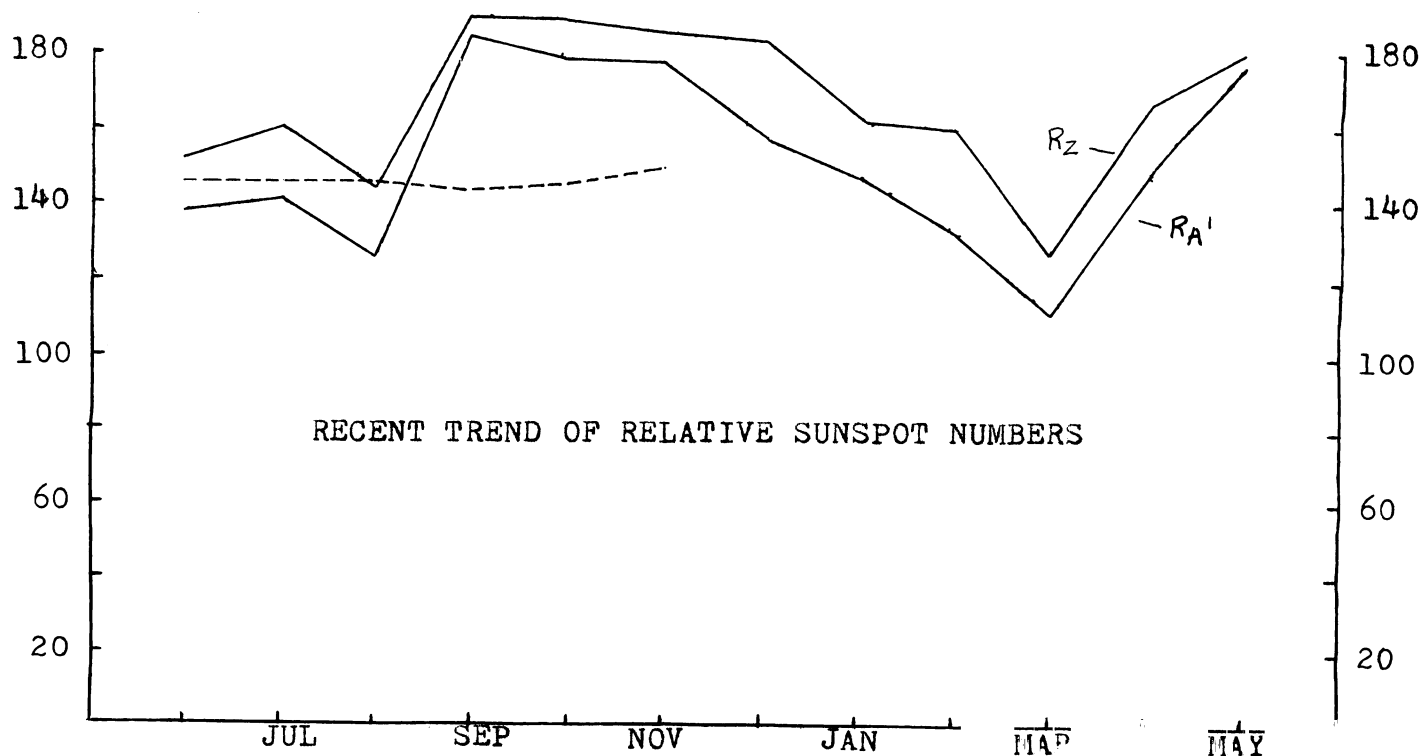
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SOLAR ACTIVITY DURING MAY

Relative sunspot numbers continued their upward trend of last month. The mean of the American sunspot numbers rose to 176.5 for May approaching closely the high for cycle 21 which was 184.0 last September. The high level of activity for the past two months has raised the 12-month smoothed mean for November to 148.7 which exceeds a previous high of 145.1 in July.

Flares associated with the high sunspot numbers produced over one hundred ionospheric disturbances which was down considerably from the previous month. The first day of May was quite active and a chart showing four of the events that day is reproduced at the bottom of page two. The most active day was the 28th and the other six charts show the eight disturbances recorded that day. The second chart from the bottom shows these events on a recording of a new signal source on 29.6 kHz. The location of this new signal is not known at present but it shows promise of being useful for detecting ionospheric disturbances. Immediately above are three additional recordings of the same events using 21.4 kHz in Annapolis as a signal source. Notice how the 21.4 kHz signal gives an inverted response in Cleveland, Ohio but a normal enhancement in nearby Michigan and Pennsylvania. The recording made at Portage, Michigan is by new observer, Joseph Medsker, who recently joined the AAVSO indirect flare patrol group. Charts at the top of the page also show the events of the 28th but using different frequencies as signal sources.



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

Day	R _A	R _Z
1	128	121
2	148	149
3	166	140
4	159	166
5	180	192
6	158	145
7	129	147
8	127	157
9	126	168
10	122	144
11	141	142
12	136	143
13	135	150
14	129	166
15	143	157
16	151	148
17	174	173
18	182	215
19	210	218
20	224	230
21	237	233
22	246	244
23	216	246
24	248	256
25	240	229
26	229	220
27	216	223
28	232	190
29	204	170
30	177	150
31	159	138
Mean	176.5	179.7

ESTERLINE ANGUS

INDIANAPOLIS, IND., U.S.A. CHART NO. 4314-E

