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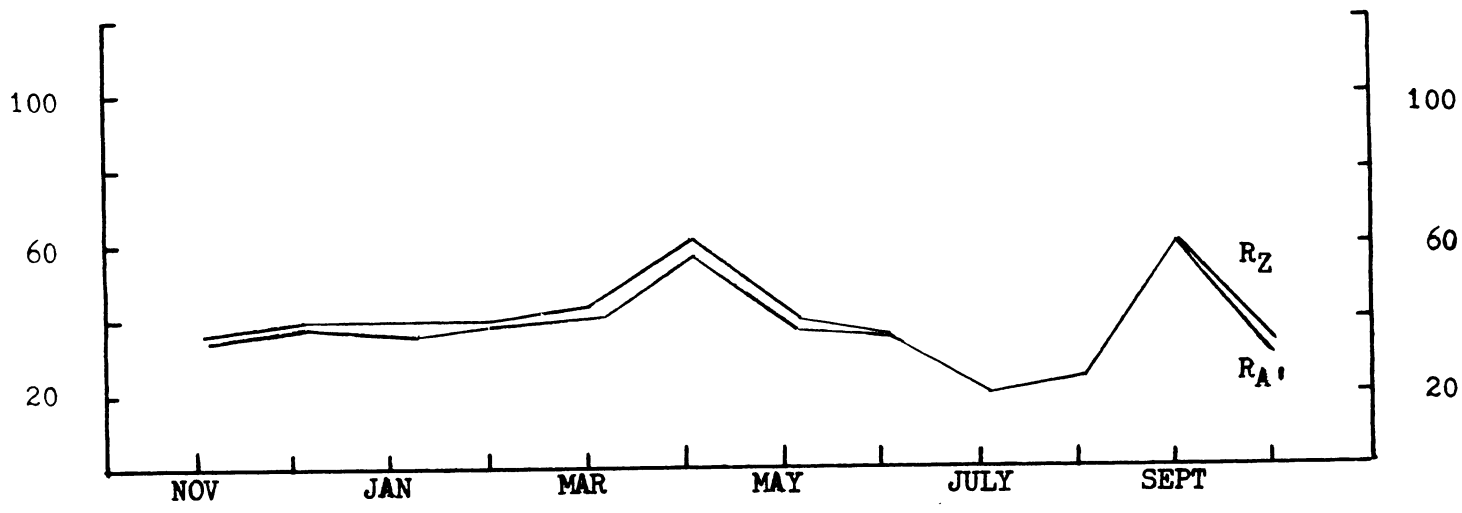
SOLAR ACTIVITY DURING OCTOBER

Only one ionospheric disturbance occurred during October. This is the lowest monthly level of activity for the present cycle and compares with ten in September and three during August. The one event was of considerable intensity though and was widely recorded both as an SES and as an SEA. A very interesting recording as an SES is shown at the bottom of page two. This chart records the signal level of two very-low-frequecy radio stations by a time-sharing system. The upper signal source on 34.5 kHz is about 2400 km west of the receiver and the lower signal on 73.6 kHz about 1700 km northeast. At the time of the ionospheric disturbance the 34.5 kHz signal is enhanced in the normal manner starting a few minutes before 1600 UT and it reaches a maximum at about 1622 UT. The 73.6 signal starts off by being diminished in intensity as sometimes happens with a nearby signal source but then when the disturbance has reached about half intensity, the 73.6 kHz trace reverses its direction and is enhanced in the normal manner until the maximum at 1622 UT. A similar reversal seems to be present in the decay following maximum. Similar reversals have been recorded before by other AAVSO observers but their nature is not clearly understood.

Sunspot activity returned to the level of previous months after the high level of September. The mean of the American sunspot numbers fell to 30.0 from 61.3 last month. There were two periods of spotlessness, both lasting about two days.

RECENT TREND OF RELATIVE SUNSPOT NUMBERS



AMERICAN ($R_{A'}$) AND ZURICH (R_Z) RELATIVE SUNSPOT NUMBERS FOR OCTOBER 1973

DAY	$R_{A'}$	R_Z
1	77	68
2	62	66
3	52	52
4	45	50
5	35	44
6	29	38
7	26	70
8	20	22
9	21	23
10	8	8
11	0	0
12	0	0
13	12	8
14	11	10
15	17	16
16	20	18
17	19	19
18	15	15
19	0	0
20	0	0
21	6	0
22	21	20
23	29	38
24	39	36
25	58	53
26	66	59
27	54	53
28	54	66
29	54	70
30	46	63
31	34	37
Means =	30.0	33.0

SUDDEN IONOSPHERIC DISTURBANCES RECORDED DURING OCTOBER 1973

DAY	MAX	SEA	SES	DEF	OBSERVERS
27	1622	2	2+	5	A19,38,33,32,26,1, 36,31