

# Solar Bulletin

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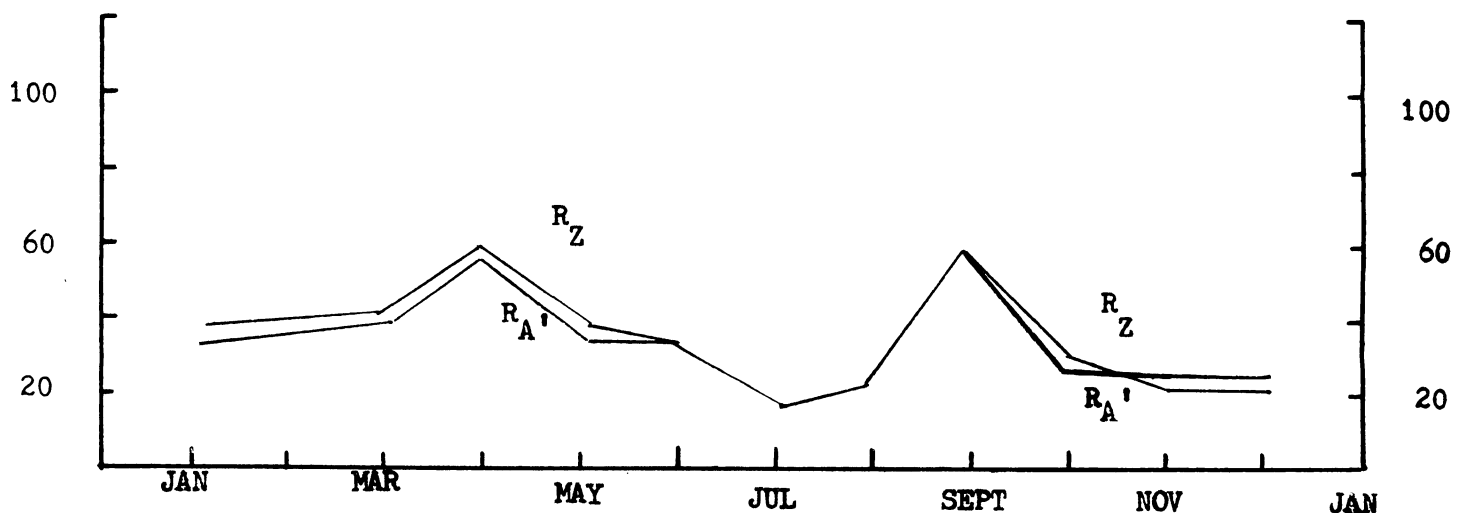
DECEMBER 1973

## SOLAR ACTIVITY DURING DECEMBER

Sunspot activity continued at a low level with the mean of the American sunspot numbers at 20.5 compared to 24.2 in November. There were six spotless days, one less than last month. The only sunspot group of special interest was a southern group on the central meridian on the 21st. This group became visible to the unaided eye. The large leader that developed has a good chance of returning around 12 January.

Four small ionospheric disturbances were recorded during December, all of them at the beginning of the month. Strip-chart recordings of all four are reproduced on page two. The most widely recorded event started at 1515 UT on the 2nd and although it was the most intense this month it was actually a very modest disturbance requiring sensitive equipment to be detected at all. Later that day a very weak disturbance starting at 2006 UT can be seen on several charts recording two different frequencies. The 1515 UT event seems to be preceded by a third tiny event that day but since this one only appears on 24.0 khz recordings there is no way to confirm that it is of ionospheric origin. AAVSO observers were handicapped this month by their favorite station on 34.5 khz being off the air during the early part of the month when the only activity took place. This points up the desirability of not depending so heavily on a single signal source.

## RECENT TREND OF RELATIVE SUNSPOT NUMBERS



AMERICAN (R<sub>A</sub>) AND ZURICH  
(R<sub>Z</sub>) RELATIVE SUNSPOT

SUDDEN IONOSPHERIC DISTURBANCES RECORDED DURING DECEMBER 1973

NUMBERS FOR DECEMBER 1973

DAY MAX SEA SES DEF OBSERVERS

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Day	R <sub>A</sub>	R <sub>Z</sub>
1	35	46
2	24	20
3	16	24
4	0	0
5	0	0
6	0	0
7	7	0
8	9	7
9	9	8
10	9	16
11	13	9
12	10	9
13	9	8
14	9	8
15	16	17
16	22	26
17	31	40
18	34	47
19	36	41
20	45	49
21	42	52
22	41	52
23	54	52
24	44	52
25	53	60
26	48	68
27	16	26
28	3	14
29	0	0
30	0	0
31	0	0
Means	20.5	24.2

2	1519	1	5	A1,19,26,38
2	2010	1-	4	A31,19,26

4	1528	1	3	A19
4	1546	1	5	A19,26,31

