

# Solar Bulletin

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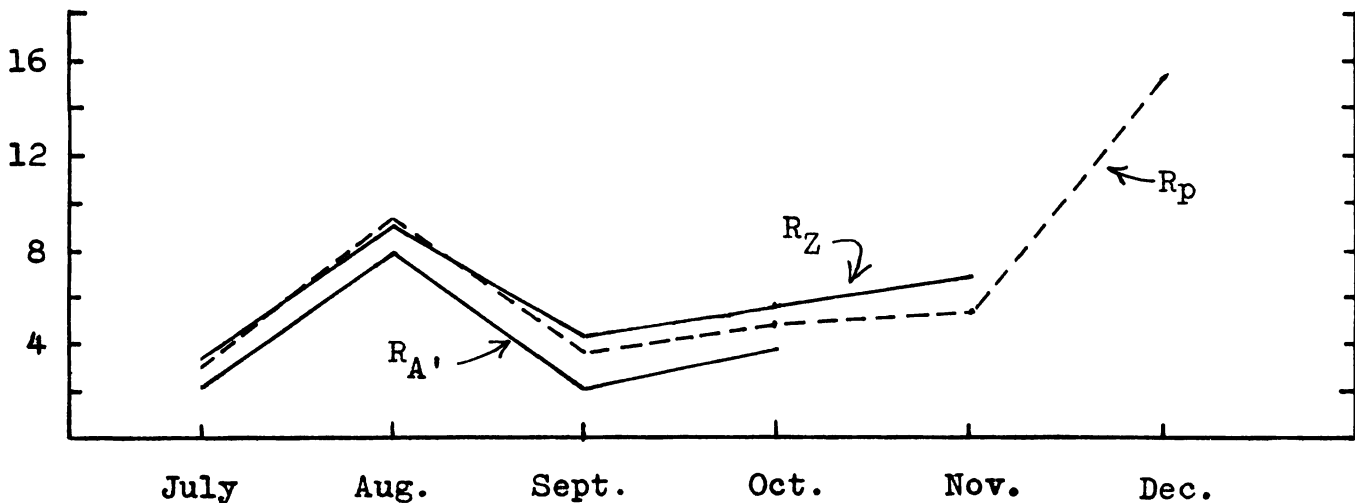
December, 1964

## SOLAR ACTIVITY DURING DECEMBER

Sunspot activity increased markedly in December making it one of the top months of 1964 for sunspot counts. The provisional sunspot number rose to a monthly mean of 15.2 compared to 5.3 for November. In spite of the many sunspots, Solar Division observers did not record any SEA's in December.

The first 9 days of December were spotless except for a single small spot near the east limb on the 5th. On the 10th a southern old-cycle group rotated onto the disk and faded from view on the 14th. On 17 December a northern new-cycle group came over the east limb while two other groups were also visible. This group crossed the entire disk disappearing over the west limb on the 30th. A southern group formed on the 20th and lasted through the 22nd. A new group formed near the equator on the 27th. Another group formed on the 28th and by the 29th there were four groups visible making the highest count for the month. The year ended with a single group of about 8 spots near the center of the disk.

## RECENT TREND OF RELATIVE SUNSPOT NUMBERS



AMERICAN RELATIVE SUNSPOT NUMBERS ( $R_A$ ) FOR OCTOBER, 1964

October mean = 3.7

1	10	11	0	21	0
2	5	12	0	22	0
3	1	13	1	23	0
4	0	14	1	24	1
5	1	15	1	25	6
6	12	16	0	26	0
7	17	17	0	27	0
8	14	18	14	28	0
9	7	19	9	29	0
10	0	20	3	30	1
				31	12

ZURICH RELATIVE SUNSPOT NUMBERS ( $R_Z$ ) FOR OCTOBER, 1964

October mean = 5.6

1	16	11	0	21	0
2	11	12	0	22	0
3	0	13	0	23	0
4	0	14	0	24	7
5	0	15	0	25	8
6	14	16	0	26	7
7	20	17	0	27	8
8	16	18	12	28	0
9	11	19	11	29	0
10	0	20	10	30	16
				31	7

PROVISIONAL RELATIVE SUNSPOT NUMBERS ( $R_p$ ) FOR DECEMBER, 1964

December mean = 15.2

1	2	11	14	21	25
2	0	12	12	22	23
3	0	13	15	23	12
4	0	14	11	24	12
5	11	15	11	25	12
6	0	16	17	26	11
7	0	17	28	27	23
8	0	18	30	28	37
9	0	19	36	29	41
10	13	20	34	30	25
				31	18

Note:

The above provisional relative sunspot numbers ( $R_p$ ) have been computed from some of the early reports received from Solar Division sunspot observers. They are not meant to be used for definitive purposes.