## THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS

# Solar Bulletin

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#### SOLAR ACTIVITY DURING JULY

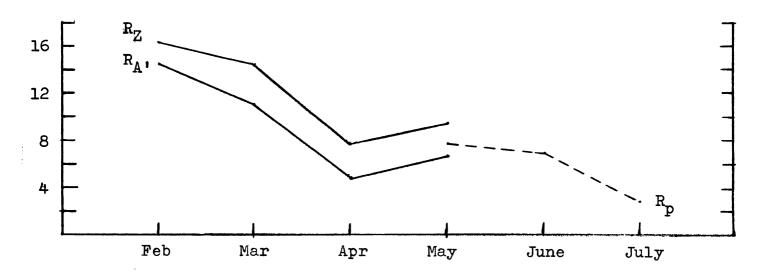
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Solar activity remained at a very low level during July. A preliminary examination of SEA and SES records does not disclose any ionospheric disturbances that might be associated with solar flares.

Sunspot activity for July was somewhat less than the previous month. There were 4 sunspot groups visible this month as compared to six for June and the mean provisional monthly sunspot number dropped from 7 to 3. There were 23 spotless days in July but only 14 in June.

On 1 July a single spot was visible near the equator and about 3 days east of the central meridian. This was the spot that appeared near the East limb on 29 June. The disc was spotless on 2 and 3 July but on 4 July a new cycle group formed near the East limb at about 25 degrees North latitude. This bipolar group was still visible on 5 July but was gone the next day. The sun was then spotless until another northern high latitude group formed on 14 July about 3 days East of the central meridian. This B type new cycle group had faded to a single spot by 17 July. The disc then remained spotless from 18 to 30 July. On 31 July a single spot formed in the northern hemisphere about 3 days past the central meridian.

## RECENT TREND OF RELATIVE SUNSPOT NUMBERS



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

		May mean =	6.8		
12345678910	0 0 0 11 14 9 10 10 9	11 12 13 14 15 16 17 18 19 20	0 0 0 0 5 16 14 9 3	21 22 23 24 25 26 27 28 29 33	1 10 13 10 3 1 10 11 11 11

# ZURICH RELATIVE SUNSPOT NUMBERS (R $_{ m Z}$ ) FOR MAY 1964

	May mean $\mathtt{R}_{\mathtt{Z}}$	= 9.4		
1 7 2 0 3 0 4 10 5 14 6 11 7 10 8 9 7	11 12 13 14 15 16 17 18 19 20	7 0 0 9 17 17 23 11 9	21 22 23 24 25 26 27 28 29 30 31	7 18 13 11 14 8 8 9 9

# PROVISIONAL SUNSPOT NUMBERS ( $R_p$ ) FOR JULY 1964

		July mean $R_{\mathbf{p}} = 3.0$		
12345678910	11 0 0 12 12 0 0 0 0	11 0 12 0 13 0 14 13 15 12 16 12 17 11 18 0 19 0 20 0	21 22 23 24 25 27 28 29 31	0 0 0 0 0 0 0 0

### Note:

The above provisional sunspot numbers (R<sub>b</sub>) have been computed from some of the early reports received from Solar Division sunspot observers. They are not meant to be used for definitive work.