

# Solar Bulletin

AUG 15 1974

Publisher:

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS — SOLAR DIVISION  
540 NORTH CENTRAL AVENUE  
RAMSEY, NEW JERSEY, U.S.A.



Volume 30 Number 6

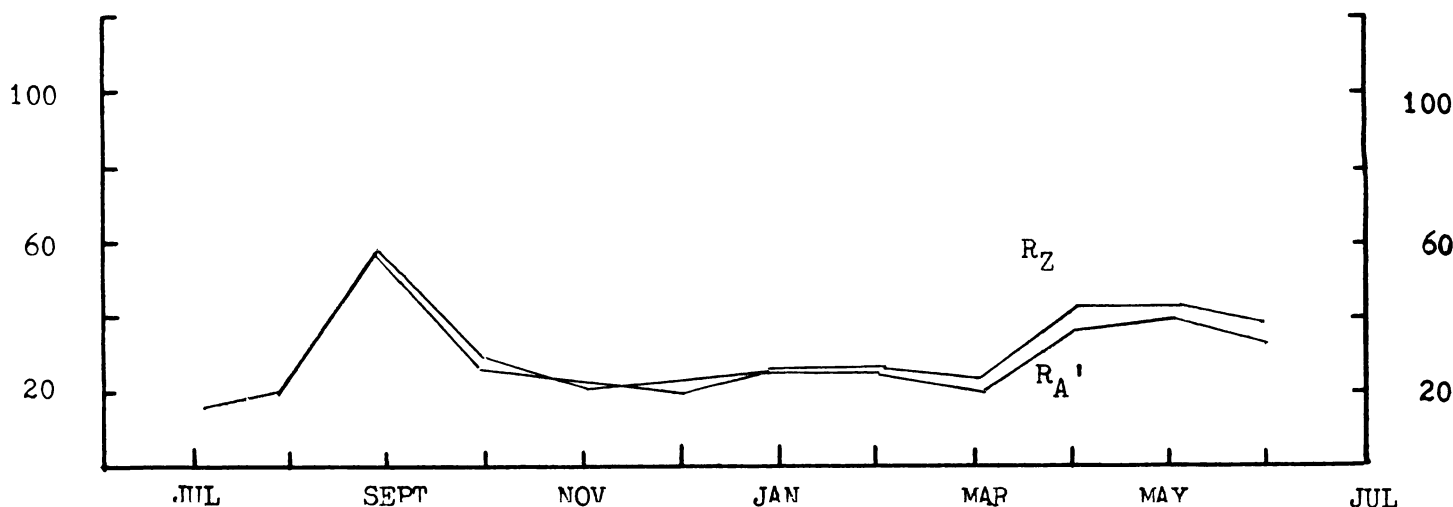
JUNE 1974

## SOLAR ACTIVITY DURING JUNE

Sunspot activity declined somewhat from the level of the previous month. Unlike May, there were no spotless days during June although the mean of the American sunspot numbers fell to 32.6. On 28 June small spots began to develop between two J-type spots in the southeast. By the next day it was apparent these were rapidly developing into a major group. The month ended with this the major source of activity and ionospheric disturbances, several of which are reproduced on page two.

Fourteen ionospheric disturbances were recorded during June which is above the level of last month. Strip chart recordings of some of June's events are reproduced on page two. The uppermost chart shows an inverted SES produced by recording a nearby VLF signal on 37.2 kHz. All SES's recorded by A-30 are inverted like this and often the equipment is highly sensitive to even very small disturbances. A chart made on the 6th of June shows a disturbance recorded as an enhancement in the usual manner of two signals recorded simultaneously. The bottom two charts are both recordings of the 34.5 kHz signal which is the AAVSO's most popular signal and also one of its most sensitive. The upper chart also shows a typical sunrise pattern for a signal source west of the receiver while the lower chart shows a typical sunset pattern for a signal to the east.

## RECENT TREND OF RELATIVE SUNSPOT NUMBERS



SUDDEN IONOSPHERIC DISTURBANCES RECORDED DURING JUNE 1974

AMERICAN (R<sub>A</sub>) AND ZURICH  
(R<sub>Z</sub>) RELATIVE SUNSPOT  
NUMBERS FOR JUNE 1974

DAY	R <sub>A</sub>	R <sub>Z</sub>
1	28	38
2	38	49
3	49	55
4	49	80
5	55	62
6	62	78
7	55	70
8	63	59
9	59	64
10	57	61
11	45	58
12	37	38
13	37	48
14	31	46
15	30	34
16	24	25
17	25	24
18	22	29
19	18	32
20	15	23
21	14	20
22	11	11
23	6	11
24	6	16
25	5	15
26	8	8
27	12	8
28	26	18
29	39	30
30	51	52
Means	32.6	38.7

Day	Max.	SEA	SES	Def.	Observers	Day	Max.	SEA	SES	Def.	Observers
1	15:55		1-	2+	A19,31	14	14:26		1	5	A1,19,29,31
2	00:51		1	5	A31	18	13:58		2	2+	A1,31
2	04:29		1	5	A31	24	20:20		1	4	A1,19,30,36,37
2	22:20		1-	3	A1,19,30,31,37	29	15:13		1	5	A1,19,26,29,31,37
3	20:01		1-	4	A19,30,31,36,37	30	22:31		2	5	A1,30,31,37
4	00:21		1+	5	A30,31,37	30	22:52		1	5	A1,30,31
4	09:42		1+	3+	A31						
6	15:48		1	5	A1,19,29,30,31,36,37						

