

NOV 2 0 1977

# Solar Bulletin

Publisher:

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



Volume 33 Number 1.0

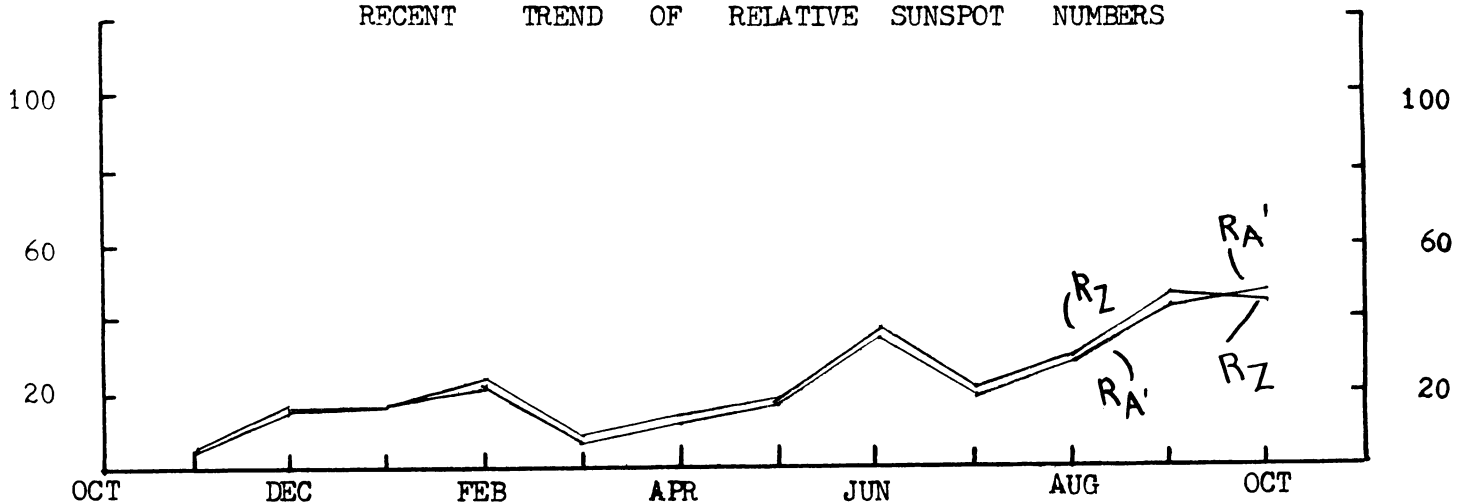
OCTOBER 1977

## SUNSPOT ACTIVITY FOR OCTOBER

Sunspot activity continued at the higher level of last month. The mean of the American sunspot numbers rose slightly to 45.5. There were no spotless days during October.

Thirteen ionospheric disturbances were found in charts received from nine observers this month. Six of these occurred on the sixth which was by far the most disturbed day. The other seven events were scattered throughout the rest of the month occurring singly on separate days. Charts reproduced on page two show a time-shared recording of very-low-frequency stations on 73.6, 21.4 and 17.8 KHz.

RECENT TREND OF RELATIVE SUNSPOT NUMBERS



SUDDEN IONOSPHERIC DISTURBANCES RECORDED DURING OCTOBER 1977

AMERICAN (R<sub>A1</sub>) AND ZURICH

(R<sub>Z</sub>) RELATIVE SUNSPOT

NUMBERS FOR OCTOBER 1977

DAY	R <sub>A1</sub>	R <sub>Z</sub>
1	43	45
2	39	31
3	47	48
4	49	45
5	51	38
6	62	47
7	63	54
8	49	49
9	52	45
10	38	36
11	28	23
12	39	27
13	54	53
14	51	45
15	57	48
16	56	53
17	53	50
18	49	50
19	60	46
20	61	53
21	46	38
22	35	35
23	31	25
24	27	31
25	29	25
26	31	29
27	34	40
28	32	39
29	47	39
30	47	43
31	49	51
M	45.5	41.3

Day Max. SEA SES Def. Observers

Day	Max.	SEA	SES	Def.	Observers
6	00:31	1	1	5	A31,43
6	04:38	1	1	5	A31,43
6	05:10	1	1	5	A31,43
6	08:10		1	5	A43
6	14:29		1	5	A1,31
6	19:57	1	1	5	A1,19,26,31
7	22:17		1-	5	A31,43
8	02:57	1	1	5	A43
9	16:09		1	5	A1,19,28
13	17:18	1-	1	5	A1,19,26,28,30,31
22	19:30		1-	5	A31
27	20:25		1	5	A1,19
29	20:14	1+	1	5	A31

Charts from the following observers were received and analyzed:

A-1,19,26,28,30,31,37,40,43

