# Solar Bulletin

Publisher:

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

## Volume 26 Number 3

March 1970

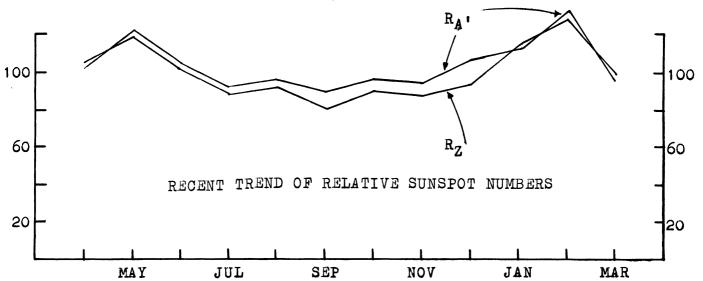
#### SOLAR ACTIVITY DURING MARCH

Thirty separate ionospheric disturbances were recorded by the Solar Division observers during March. This increase in activity was peaked at the first of the month and again toward the end.

On the first day of March, four events were noted. A reproduction of these events is shown on page two. Both of the larger events were of the fast rise time "type" with a fast decay until about one half the decay amplitude was reached, then there appears to be another slight surge. This second "burst" was evident in most of the recordings made by other observers.

At about 10:00 p.m. EST on the 9th, (0300 UT, 10th March) there was a unusual recording by SEA observers in eastern United States. Often separate observers record similar "humps" but close analysis shows lack of real correlation. Violent storms do give general correlative data, and these thunderstorms can be traced as they cross the continent, passing the various observers. The event reproduced on page two, covered an area about 700 miles long, from Kentucky to Connecticut. A1, Valley Cottage, New york (Repro not shown) also recorded this event on SEA at 27 kHz which drove the trace off scale but did not effect the SES recording of NBA at 24 kHz. SEA observers in Massachusetts, Wisconsin, Missouri, and Durban, S. Africa did not note this disturbance. No SES observer recorded this event. While the recordings all have characteristics of interference of man made type, which is the most probable explanation, the possibility that it may have originated from other than man made signals can not be entirely dismissed until the source is identified.

The monthly mean of the American sunspot numbers dropped to 98.3 from a peak of 132.2 for February



# AMERICAN ( $R_A$ ,) AND ZURICH ( $R_Z$ ) RELATIVE SUNSPOT NUMBERS, MARCH 1970

DAY	R <sub>A</sub>	$^{ m R}{_{ m Z}}$		DAY	R <sub>A</sub> 1	$\mathbf{R}_{\mathbf{Z}_{+}}$
1 2 3 4 5	127 134 111 112 106	134 126 113 101 107		16 17 18 19 20	43 29 37 47 95	46 29 41 48 93
6 7 8 9	103 112 112 119 120	100 108 116 119 123	Monthly Means $R_{A} = 98.3$ $R_{Z} = 101.7$	21 22 23 24 25	108 124 146 147 130	115 122 131 140 142
11 12 13 14 15	91 86 82 67 56	100 84 104 84 65		26 27 28 29 30 31	110 110 101 106 93 83	122 115 110 103 111 101

## SUDDEN IONOSPHERIC DISTURBANCES RECORDED DURING MARCH 1970

DAY		SEA	SES		OBSERVERS	DAY		SEA	SES		OBSERVERS
1	1409	1	1	5	A1,8,19,22,26	17	1449		1	2	A21
1	1533	2	2			17	2255		1	2	A21
	1758	1	1	4	A19,21,22	18	1645	1	1	5	A1,8,21,22
	2005	2	2	5	A1,8,19,21,22,26	20	1720	2	2		A19,21
	0018		2	5	A21	21	1620		1	4	A1,21
	1405	1+		4	A8,19	22	2046		1	4	A21
	1720	2	2	5	A6,8,19,21,22	23	1555	1		4	A8,19,22
3	2040	2	2	5	A19,21	24	1645	2	2	5	A1,19,21,26
	1712	1	1+	5	A8,19,21,22,26	26	1456	1+	1+	5	A8,21,26
	1834	1+	2	5	A1,8,19,21,26	26	1731	2	2	5	A1,21,26
5	1628	2	2	5	A1,19,21,22,26	26	2010	2	2	5	A1,21,22,26
5	1916	2	2	5	A1,8,19,21,22,26	29	0053		2+	5	A21
	0155		2	3	A21	31	1815	2	2	5	A19,21,22
7	1621	1+	2	5	A1,19,21,26	31	2025		1	3	A21
8	1940	1+	1 +	5	A19,21,26	31	2228		2	5	A21

