

Solar Bulletin

Publisher:

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



Volume 29 Number 7

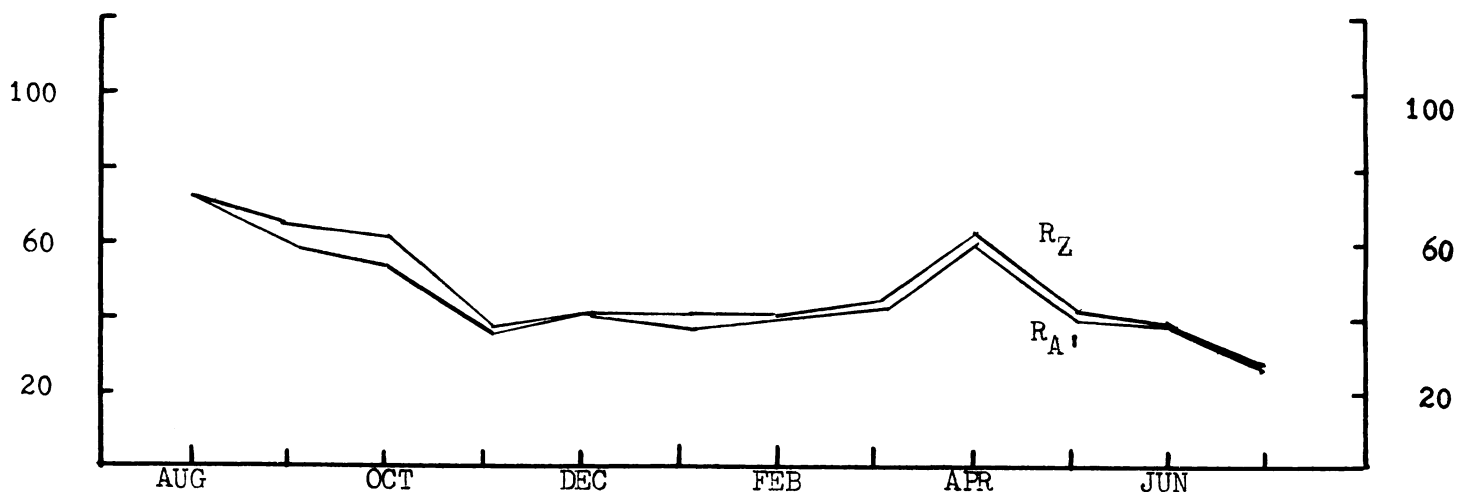
JULY 1973

SOLAR ACTIVITY DURING JULY

The level of solar activity continued to decline during July. The mean of the American sunspot numbers fell to 20.8 from 37.9 in June. There were many days when only a single sunspot group was present. The sun was spotless for most of the 23rd but late in the day a small A-type group formed near the center of the solar disk.

Despite the low level of solar activity, ten ionospheric disturbances were recorded by AAVSO observers. All of these were of low intensity except one on the 29th. A recording of this more intense event is reproduced on page two. Small events recorded on the 7th and 8th are also reproduced and at the bottom of the page four interesting recordings of two small disturbances on the 30th. In each case the event was recorded as an inverted SES on 34.5 kHz and as a normal enhancement SES on 17.8 kHz. Both traces are of high quality and free of interference so it is hard to believe these are not true ionospheric disturbances even though other observers tuned to the same frequencies did not record them. The fact that one frequency is diminished in intensity and the other enhanced lends further confidence that these events are real. A similar set of recordings was made on the 26th of another small disturbance that also did not show on other charts. This wide variation in the sensitivity of stations tuned to the same frequency has been noted before and is a good reason for having several observers tuned to the same signal source.

RECENT TREND OF RELATIVE SUNSPOT NUMBERS



AMERICAN (R_A) AND ZURICH
(R_Z) RELATIVE SUNSPOT
NUMBERS FOR JULY 1973

DAY	R_A	R_Z
1	28	26
2	30	25
3	33	29
4	32	24
5	44	32
6	55	44
7	56	46
8	44	44
9	37	34
10	23	30
11	20	23
12	6	14
13	8	15
14	9	9
15	11	16
16	12	9
17	22	22
18	37	36
19	15	23
20	6	8
21	12	8
22	6	14
23	1	0
24	11	9
25	12	14
26	9	8
27	10	9
28	11	10
29	13	17
30	15	11
31	17	22

Means = 20.8 20.4

SUDDEN IONOSPHERIC DISTURBANCES RECORDED DURING JULY 1973

DAY	MAX	SEA	SES	DEF	OBSERVERS	DAY	MAX	SEA	SES	DEF	OBSERVERS
7	1615		1	4	A1,19,21,31,37,38	21	1628		1	2	A38
8	1917		1-	2	A1,19,21,31,37	25	1703		1-	1	A21,38
8	2009	1-	1-	4	A1,19,21,31,34,37,39	29	1340	2	3	5	A1,19,21,31,17,33,37,38
9	1630U		1	3	A1,19,21,31,30,37	30	1226		1-	4	A33
						30	2230		2	4	A33
						26	2138		1	5	A33

