

Solar Bulletin

SEP 28 1970

Publisher:

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



*had no rec'd since
26 Nov*

Nov 3 & 4 rec'd '71

Volume 26 Number 7

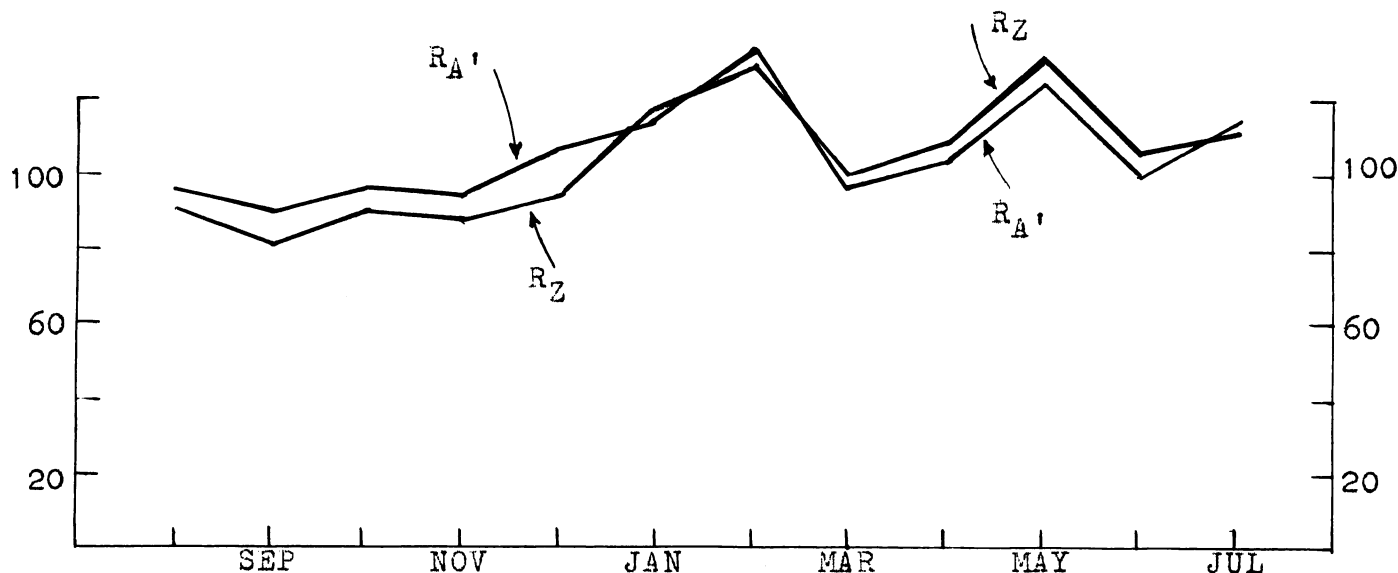
July 1970

SOLAR ACTIVITY DURING JULY

Fourteen separate ionospheric disturbances were recorded by the Solar Division observers during July. Most of these were recorded as sudden enhancements of signal (SES). The events of 6, 7, 20, and 23 July were also recorded as sudden enhancements of atmospheric noise (SEA) by observers at widely separated locations. Local thunderstorms masked enhancements of atmospheric noise for many observers as can happen during some of the days of the summer months. Reproduction of the three most widely recorded events are on page two. The event of the 6th was recorded using enhancements of atmospherics at 27 kHz. The event of the 7th was recorded using an unlisted Low Frequency radio station operating at 34.5 kHz. The event of the 23rd was recorded using a Very Low Frequency Navy radio station, NBA, operating at 24 kHz located at Balboa, Canal Zone. The two "notches" in the trace that start 10 minutes before 1800 UT and 2000 UT are due to the regular transmission being interrupted to send special signals for which the transmitter is off a larger part of the time. Normally, this "notch" appears before each "even" UT hour except before 2400 UT hours.

Sunspot activity during July was up considerably from the June level. The monthly mean of the American sunspot numbers rose to 114.0 from 101.3 in June.

A large southern gamma group which crossed the central meridian on the 4th was visible to the unaided eye during the first five days of July. A large northern group was similarly visible the 20th through the 25th.



AMERICAN (R_{A'}) AND ZURICH (R_Z) RELATIVE SUNSPOT NUMBERS, JULY 1970

DAY	R _{A'}	R _Z	DAY	R _{A'}	R _Z
1	150	137	16	59	61
2	171	153	17	58	59
3	162	155	18	56	56
4	186	159	19	81	92
5	175	165	20	106	92
6	171	161	21	111	120
7	126	125	22	102	122
8	109	115	23	109	106
9	94	104	24	109	110
10	86	90	25	131	122
11	82	81	26	150	138
12	79	74	27	151	153
13	71	79	28	155	146
14	67	68	29	162	153
15	60	61	30	120	122
			31	84	108

Monthly Means

R_{A'} = 114.0

R_Z = 112.5

SUDDEN IONOSPHERIC DISTURBANCES RECORDED DURING JULY 1970

DAY	MAX.	SEA	SES	DEF.	OBSERVERS	DAY	MAX.	SEA	SES	DEF.	OBSERVERS
1	1953		2	5	A-21	17	1558		2+	5	A-21
3	1938		2	5	A-21	18	1807		2+	5	A-21
4	1905		1+	3	A-21	18	1902		1	5	A-21
4	2015		3	4	A-21	20	1702	1+	1+	4	A-21, 4
6	2147	3	3	5	A-21, 1, 23, 19, 8	20	1912		1+	5	A-21
7	1653	3	3	5	A-21, 1, 8, 24, 23	21	1608		2	4	A-21, 23
						23	1845	2+	2+	5	A-21, 24, 1
						28	2034		2+	5	A-21

