

Solar Bulletin

Publisher:

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



EDITOR: C. H. HOSSFELD

Volume 25 Number 1

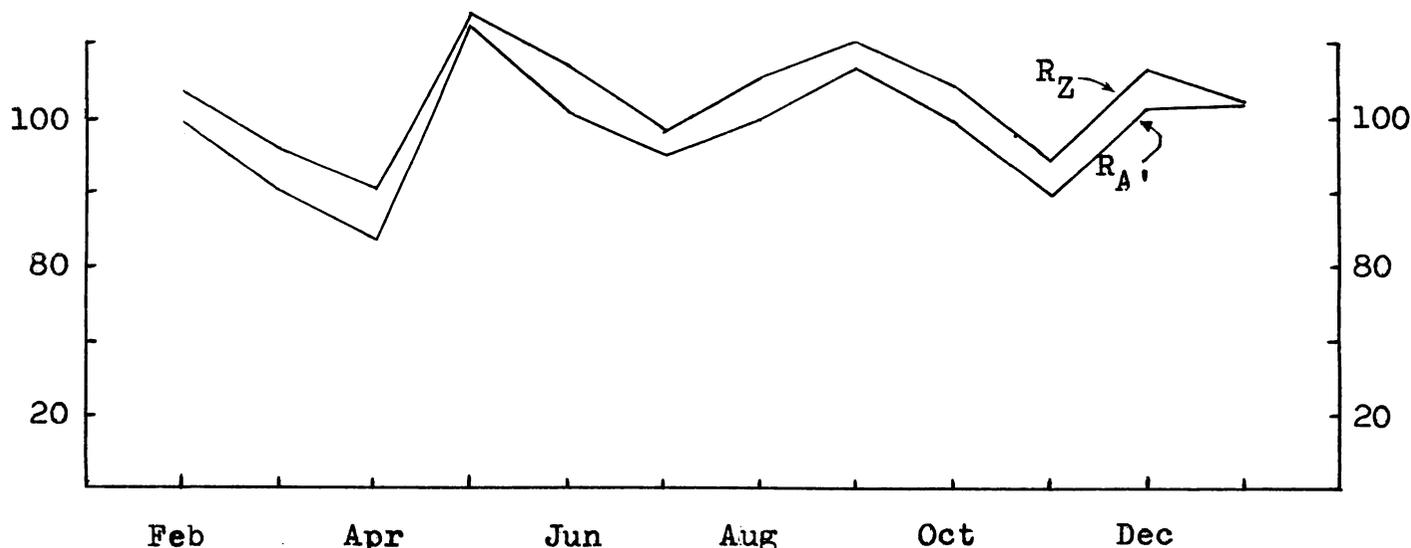
January 1969

SOLAR ACTIVITY DURING JANUARY

Flare activity caused very few sudden ionospheric disturbances compared to recent months. Of the six events recorded by Solar Division observers, none exceeded moderate intensity. Half of the events of January occurred on the 9th. A recording of these three events is shown on page two where they appear as sudden enhancements of the signal strength (SES) of very-low-frequency station NBA (24 kHz) in Panama. The sudden drops near the hours are caused by interruptions of the normal code transmission of NBA.

Sunspot activity remained at about the same level of the previous month. The January mean of the American sunspot numbers was 103.5 compared to 102.4 in December. The highest number, 154, occurred on the 10th.

New reduction constants, k_i and w_i , were recently computed for Solar Division sunspot observers. Richard H. Davis computed these using the computer facilities now available to AAVSO headquarters at Cambridge, Massachusetts. Despite the speed and efficiency of the computer, it still requires a lot of work to punch all of the sunspot observations on cards suitable for computer input. This work, covering a 12-month period, was done by Mr. Davis himself. These new more up-to-date constants were used to compute the January American sunspot numbers. It was found that some sunspot observers show a drift in their scale factor, k_i , which is used to reduce sunspot counts to the Wolf scale. Most all of this drift was toward higher values indicating that recent American sunspot numbers were lower than they would otherwise have been if more up-to-date reduction constants had been used.



AMERICAN (R_A) AND ZURICH (R_Z) RELATIVE SUNSPOT NUMBERS, JANUARY 1969

day	R_A	R_Z	day	R_A	R_Z
1	74	68	16	117	116
2	77	75	17	105	100
3	65	72	18	92	85
4	104	98	19	83	73
5	119	117	20	83	76
6	121	128	21	92	85
7	143	146	22	115	105
8	131	150	23	82	88
9	143	152	24	80	103
10	154	154	25	92	102
11	142	138	26	90	99
12	123	137	27	75	78
13	125	124	28	73	79
14	133	119	29	81	82
15	118	116	30	82	80
			31	95	95

January mean R_A = 103.5

January mean R_Z = 104.5

SUDDEN IONOSPHERIC DISTURBANCES RECORDED DURING JANUARY

DAY	MAX.	SEA	SES	DEF.	OBSERVERS	DAY	MAX.	SEA	SES	DEF.	OBSERVERS
8	2043		2	5	A-20	9	2019		1	3	A-20
9	1350		2	4	A-20	16	1326		1+	5	A-20
9	1843	1-	2	5	A-20, 6	18	1228		2	4	A-20

21 20 19 18 17 16 15 14 13

A-20, West Nyack, N.Y.
9 January 1969

