

# Solar Bulletin

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## SOLAR ACTIVITY DURING JANUARY

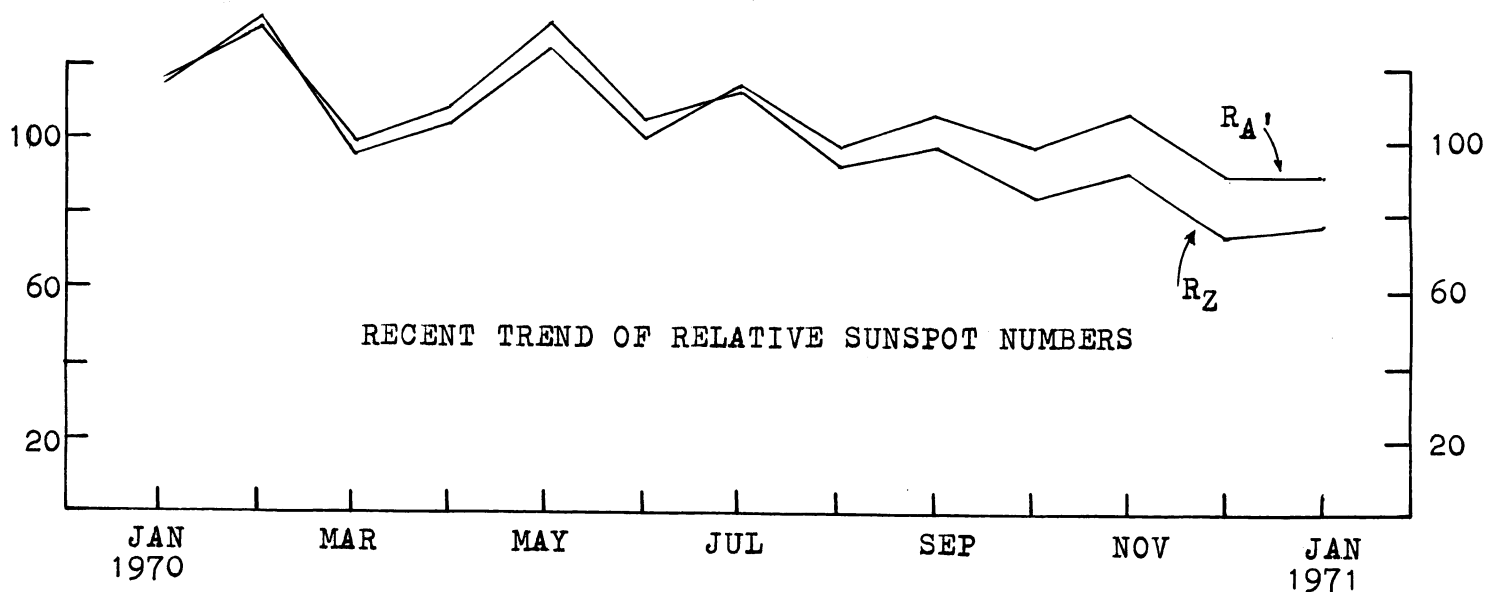
Nineteen separate ionospheric disturbances were recorded by the Solar Division observers during January. This number compares very closely with the sixteen recorded last month, especially if the three additional events recorded by A-17 during December are added, but were not included in last month's Solar Bulletin.

Ionospheric disturbances appeared to be relative few in number and in size for the first one third of the month. From the 10th to the 20th, both the number and the size of the events increased moderately. The 21st appeared to be the start of a very active period that reached a climax on the 24th with five separate events being recorded, and terminated this very active period.

A reproduction on page two shows the event on the 10th as recorded by SEA by observer A-22. The most widely recorded event and also one of the larger events is reproduced as recorded by SEA by observer A-8 on the 14th.

The first three events listed for A-17 as recorded in December were not recorded by other observers since the events occurred before local sunrise for other observers. Enhancement of atmospheric or radio signals does not take place unless all or most of the signal path is subject to direct radiations of the sun during the solar flare.

The mean of the American sunspot numbers for January continued at very nearly the same level as the December count. This correlates well with the ionospheric disturbance data.



AMERICAN (R<sub>A'</sub>) AND ZURICH (R<sub>Z</sub>) RELATIVE SUNSPOT NUMBERS, JANUARY 1971

DAY	R <sub>A'</sub>	R <sub>Z</sub>	DAY	R <sub>A'</sub>	R <sub>Z</sub>
1	68	58	16	57	65
2	68	62	17	67	68
3	63	62	18	102	86
4	63	69	19	107	98
5	68	52	20	126	104
6	69	52	21	137	106
7	67	56	22	124	106
8	80	66	23	120	96
9	94	74	24	129	99
10	69	70	25	112	82
11	66	68	26	106	88
12	86	75	27	121	111
13	78	70	28	112	99
14	77	67	29	114	95
15	68	61	30	94	74
			31	102	76

Monthly Means  
 R<sub>A'</sub> = 90.8  
 R<sub>Z</sub> = 77.9

SUDDEN IONOSPHERIC DISTURBANCES RECORDED DURING JANUARY 1971

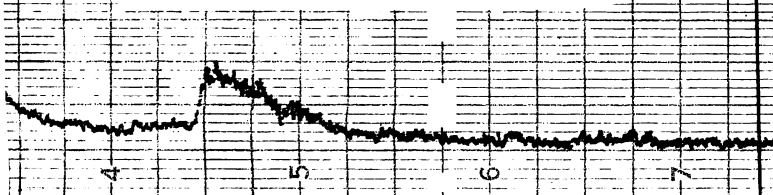
DAY	MAX	SEA	SES	DEF	OBSERVERS	DAY	MAX	SEA	SES	DEF	OBSERVERS
2	2011	1-	1	4	A1,19,27	21	1326	1+	2	5	A1,4,8,19,22
6	2115		1	3	A1	21	1814	1	1	4	A19,22
10	1748	1+	1+	5	A1,8,19,22,27,29	22	1915	1	1	5	A1,19,27
13	1857	1	1	4	A1,8,19,22,27,29	22	1930	2	2	5	A1,19,22,27
13	2108		1	5	A1	24	1716	1+	1+	5	A1,19,22,27
14	2045	2+	2+	5	A1,4,8,19,22,27,28, & 29	24	1825	2	2	5	A1,4,19,22,27,28
15	1554	1	1	5	A19,22,27,29	24	1737	2	2	5	A1,4,19,22,27,28,29
18	1856	1+		4	A8,19,22,27	24	1954	1-	1-	4	A1,19,27
19	1543	1+	1+	5	A1,8,19,22,29	24	2102	2	2+	5	A1,4,19,27
						28	1318	1	1	4	A1,4,28

Below are listed SEA's as recorded by A-17 during month of December 1970, which were delayed, in postal delivery, too late to be included in the December Solar Bulletin.

DAY	MAX	SEA
7	1412	1
8	0430	1+
12	0903	1
22	Est.1519(OS)	2

8 December 1970

A-17, Durban S. Africa  
 SEA MAX 4:30 a.m. local  
 time = 0430 UT



A-22, Wellesley, Massachusetts  
 10 January 1971  
 SEA MAX 12:48 p.m. local time  
 which equals 1748 UT

RUSTRAK

A-8, Haddam, Conn.  
 14 January 1971  
 SEA MAX 3:45 p.m. local  
 time = 2045 UT

