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SOLAR ACTIVITY DURING JANUARY

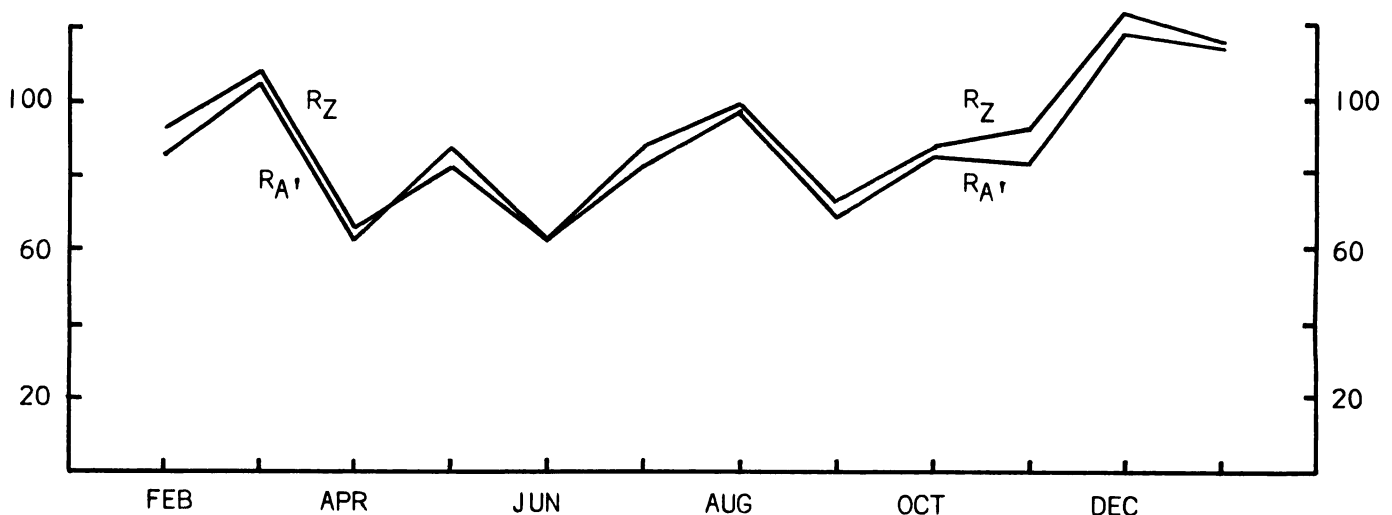
Solar activity continued through January at the high level of December. There were many sudden ionospheric disturbances during the first half of the month and again at the end. A complete list of the 18 disturbances recorded by Solar Division observers appears on page two. Also shown are reproductions of actual recordings of outstanding events. The SES record made by A-21 at Littleton, Colorado shows an ionospheric event recorded after sunset. This was made possible by recording the signal strength of very-low-frequency station NPM in Hawaii which operates on a frequency of 23.5 kHz. The propagation path of this station was still partly in sunlight and it can be seen that the normal sunset rise does not start until 0300 UT, almost three hours after sunset in Colorado.

Sunspot activity reached a rather low level right after the middle of the month. The low point occurred on the 19th when only two groups, one of them rather faint, were visible. The high point of the month was the 31st when 13 groups were visible. The monthly mean of the American sunspot numbers fell only slightly to 113.5 from 117.2 in December, the highest mean so far.

The maximum of the present cycle has been predicted for May 1968 by Prof. M. Waldmeier of the Swiss Federal Observatory in Zurich.

Several large and very interesting sunspot groups were seen in January. Thomas Cragg, of Mount Wilson Observatory, has kindly supplied drawings which show the daily development of three of the most interesting of these groups. These drawings are reproduced as a supplement to this issue of the Solar Bulletin.

RECENT TREND OF RELATIVE SUNSPOT NUMBERS



AMERICAN (R_A) AND ZURICH (R_Z) RELATIVE SUNSPOT NUMBERS, JANUARY 1968

day	R _A	R _Z	day	R _A	R _Z
1	123	119	16	57	70
2	156	117	17	41	56
3	139	128	18	41	48
4	150	128	19	41	50
5	149	147	20	34	53
6	188	129	21	24	53
7	192	150	22	40	69
8	192	166	23	32	73
9	189	182	24	44	93
10	135	198	25	89	78
11	146	150	26	67	60
12	144	144	27	82	86
13	138	138	28	140	140
14	112	93	29	160	175
15	93	86	30	188	185
			31	194	209

January mean R_A = 113.5

January mean R_Z = 115.3

SUDDEN IONOSPHERIC DISTURBANCES RECORDED DURING JANUARY

DAY	MAX.	SEA	SES	DEF.	OBSERVERS	DAY	MAX.	SEA	SES	DEF.	OBSERVERS
2	0526	2		5	A-17	8	2356		1+	5	A-21
4	1800		1+	2	A-1	9	0019		3+	5	A-21
4	2248		2+	5	A-21,1	9	0505	1+		3	A-17
5	0505	1-		2	A-17	11	1705	1*	2	3	A-21,6*
6	2007		3+	5	A-1	12	1814	1*	2+	5	A-21,6*
6	2135		3	4	A-1	14	2016	2*	3	5	A-21,6*
7	2202		3+	4	A-21	15	0011		3+	5	A-21
7	2348		3	5	A-21	17	1928		1+	5	A-21,1
8	2223		1+	3	A-21	31	2142		3+	4	A-21

A-21
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8-9 JANUARY 1968

