

Solar Bulletin

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EDITOR: C. H. HOSSFELD

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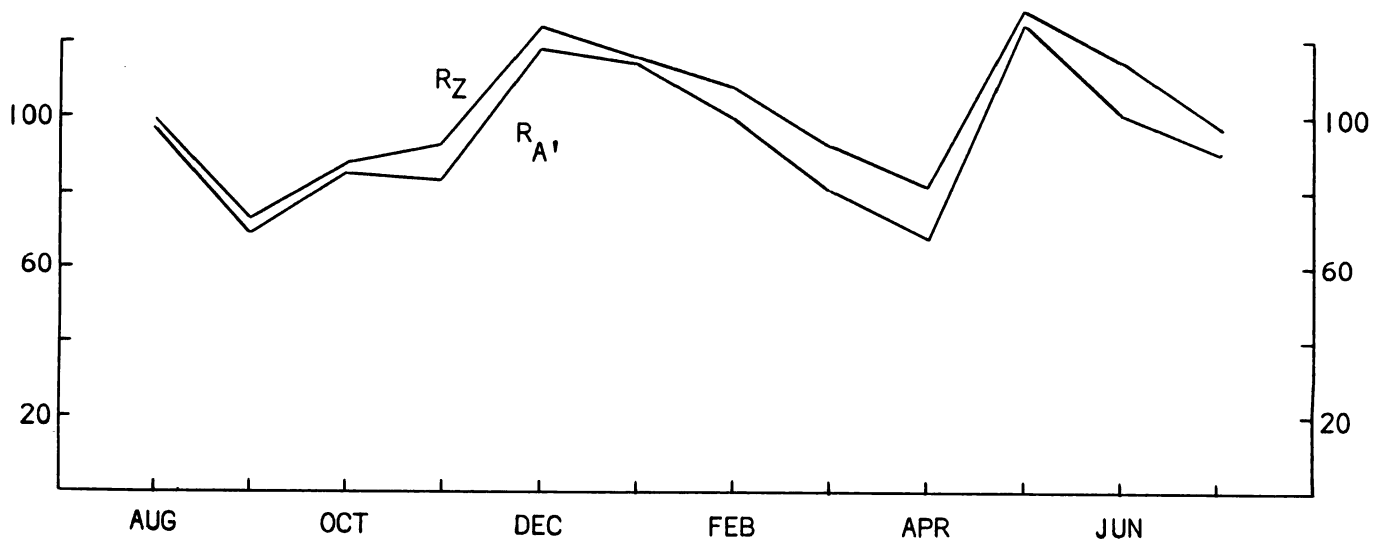
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SOLAR ACTIVITY DURING JULY

Solar activity as judged by disturbances of the ionosphere showed an increase over the level of last month. The most intense disturbance of recent months occurred on the 8th and in most cases recording apparatus was driven off scale at the time of maximum. A recording of another widely observed event of the 30th is reproduced on page two. A total of eleven separate disturbances were recorded by Solar Division observers. A complete listing of these appears on page two.

Sunspot activity declined from the level of June. The monthly mean of the American sunspot number fell to 90.2 compared to 101.8 last month. The numbers reached a remarkably low level during the first week of July but soon began to rise rapidly to reach their highest point of the month on the 12th when ten sunspot groups were visible on the sun's disk.

RECENT TREND OF RELATIVE SUNSPOT NUMBERS



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

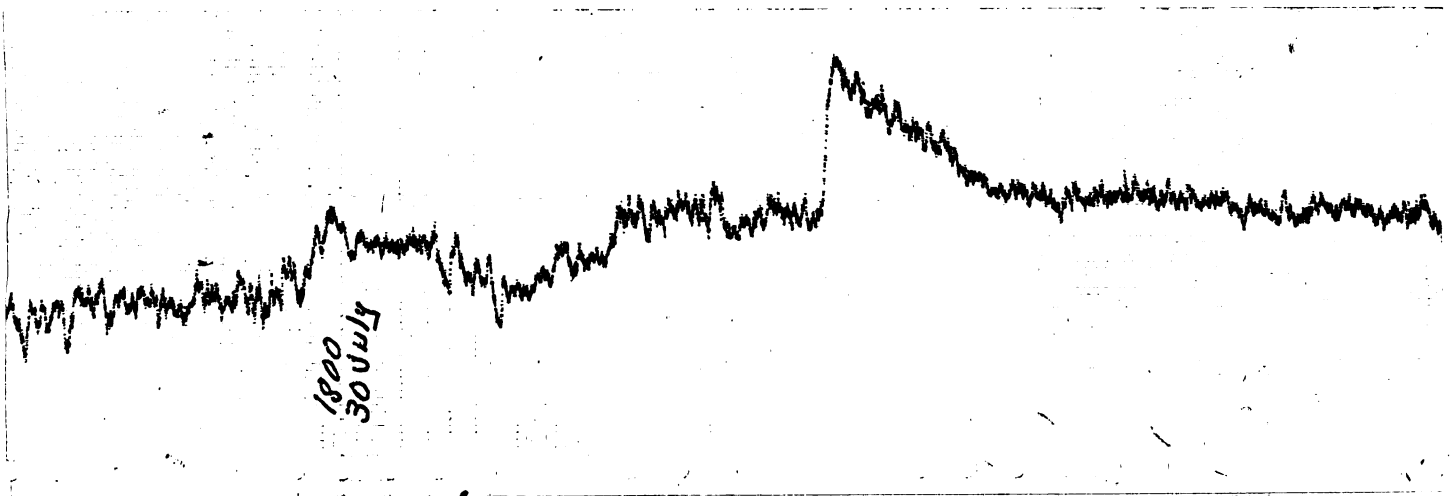
day	R_A	R_Z	day	R_A	R_Z
1	43	55	16	125	149
2	30	37	17	92	117
3	33	30	18	94	96
4	27	26	19	90	102
5	29	28	20	105	93
6	42	41	21	95	93
7	62	54	22	89	86
8	82	89	23	94	93
9	83	91	24	96	101
10	88	99	25	113	120
11	122	124	26	123	134
12	151	152	27	117	131
13	143	151	28	110	118
14	119	147	29	116	129
15	101	123	30	97	115
			31	86	93

July mean R_A = 90.2

July mean R_Z = 97.3

SUDDEN IONOSPHERIC DISTURBANCES RECORDED DURING JULY

DAY	MAX.	SEA	SES	DEF.	OBSERVERS	DAY	MAX.	SEA	SES	DEF.	OBSERVERS
3	2334		1	4	A-21	17	2118		2	3	A-21
5	2245		1	3	A-21	27	1219	2		1	A-17
7	1738		3	4	A-1,20,21	28	0725	3		4	A-17
8	1640	1	1+	3	A-20,1,22	30	0656	2		2	A-17
8	1712	3+	3+	5	A-1,20,21,22,830	2033		3+	3	5	A-20,21,22,18,6
9	1825		2+	5	A-20,21						



Above is shown a recording of the integrated signal strength of very-low-frequency station NPM operating on a frequency of 23.5 kHz and located in Hawaii. It was made by observer A-21 at Littleton, Colorado and shows a sudden enhancement of signal strength (SES) starting at 2030 UT.