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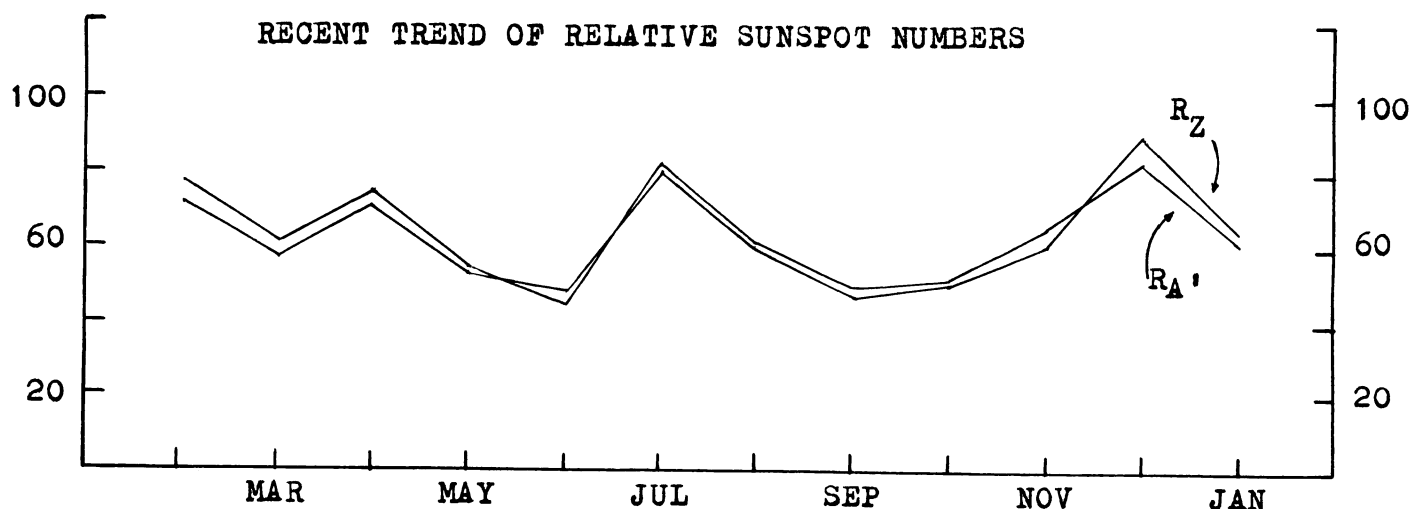
January 1972

Thirteen ionospheric disturbances were recorded by the Solar Division observers. Eight of the events were rated above a minor, however, none were considered to be extremely large.

Two events which occurred on the 13th appeared to be among the largest recorded during the month. On page two is a reproduction of these two events as recorded using a relatively "short path" signal source.

Observers detecting solar flares by the SES (Sudden Enhancement of Signal) method sometimes find that instead of the signal being enhanced or increased, the signal strength decreases. This type of recording is sometimes called an "Inverted" SES. This "Inverted" SES may be a complete reversal effect in all respects or it may be reversed only at the start of the event and then change to a normal enhancement or other combinations which include both enhancement and reversed effects. During the last four months, there has been an increasing number of events being recorded as "Inverted" or partly "Inverted". This effect is not caused by the solar flare, but is probably related to factors such as: frequencies used; length and direction of signal path; and general conditions of the ionosphere through which the electromagnetic wave is propagated. During the month, ten of the thirteen events were recorded by at least one observer in the "Inverted" position. On page two is shown an event recorded on 14th in which 34.5 kHz was a normal SES while the 74 kHz recording started out as "Inverted", changing to normal and then again becoming "Inverted" as the decay of the event progressed. The event of the 22nd shows both signals as being normal except for a very small tendency of the 74 kHz recording to be "Inverted" for the first two minutes.

The monthly mean of the American sunspot number fell to 60.9



AMERICAN (R_{A'}) AND ZURICH (R_Z) RELATIVE SUNSPOT NUMBERS, JANUARY 1972

DAY	R _{A'}	R _Z		DAY	R _{A'}	R _Z
1	47	49		16	45	47
2	51	52		17	52	50
3	54	55		18	62	60
4	54	50		19	54	61
5	56	54		20	72	69
6	44	57	Monthly Means	21	77	78
7	50	59		22	91	89
8	40	50	R _{A'} = 60.9	23	110	107
9	31	39		24	118	135
10	27	25	R _Z = 64.6	25	104	112
11	32	22		26	87	92
12	39	25		27	82	96
13	35	29		28	94	108
14	44	45		29	77	115
15	42	46		30	63	70
				31	54	56

SUDDEN IONOSPHERIC DISTURBANCES RECORDED DURING JANUARY 1972

DAY	MAX	SEA	SES	DEF	OBSERVERS	DAY	MAX	SEA	SES	DEF	OBSERVERS
9	1424	1	1-	5	A18,26,27	18	2009	1-	1-	5	A1,21,26,27,30,31
13	1818	1+	1	5	A1,18,19,21,22,27,31	19	1648	1	1	5	A1,18,21,23,26,27,30,31
13	2139	1	1+	5	A1,21,31	22	1445	1	1	5	A1,18,19,22,26,27,31
14	1532	1+	1	5	A1,18,19,21,22,26,27,31	23	2057		1-	5	A19,21,27,30,31
15	1845	1	1+	5	A1,19,21,23,26,27,31	25	2134		1-	5	A21,30
16	1538	1	1	5	A1,19,21,26,27,31	31	1552		1-	5	A1,27
						31	1713		1-	5	A1,21,27

