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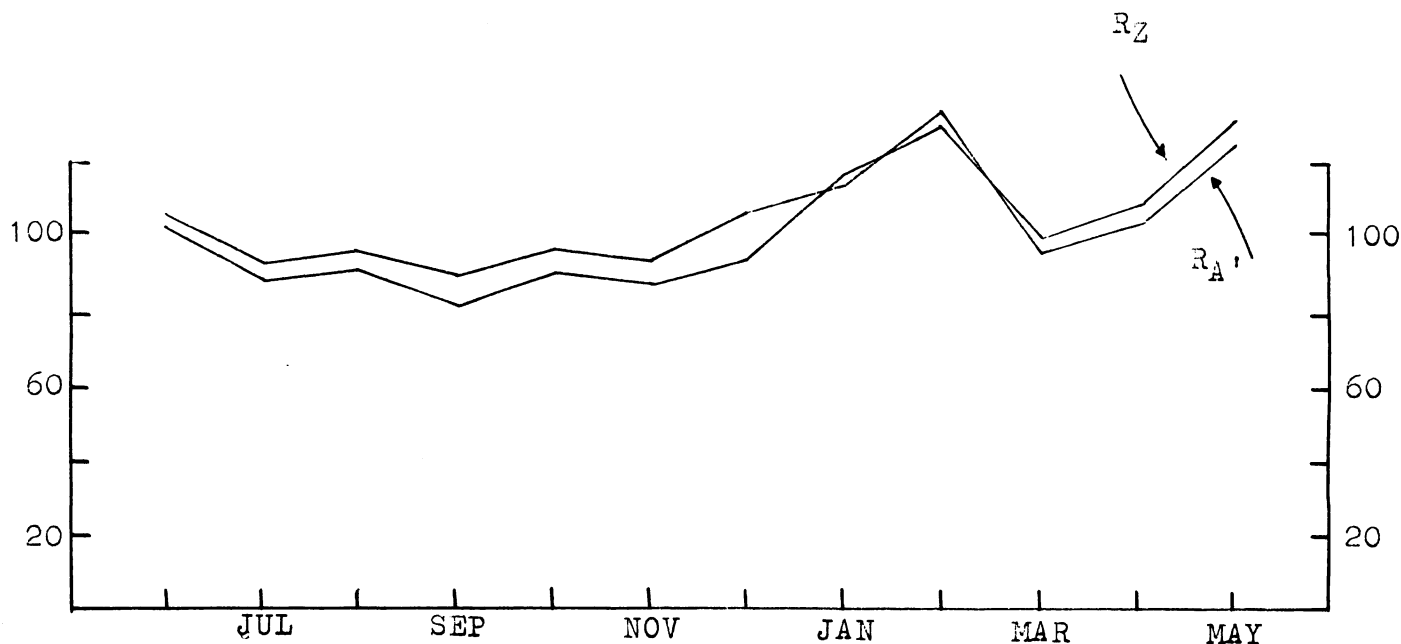
May 1970

A record number of forty-one separate ionospheric disturbances were recorded by the Solar Division observers during May. Ionospheric disturbances were recorded on nineteen of the thirty-one days of May.

Two typical events are reproduced on page two. Both events display the characteristics of having moderately fast "rise times" followed by uninterrupted decay in the amplitude. Some of the events of the month occurred very close together, with a new event starting before the decay of the first was complete. This decay time is related to the disturbance of the ionosphere and should not be confused with the length of the solar activity of the solar flare on the sun. The generally accepted theory is that the violent activity during a solar flare on the sun causes emission of X-rays which disturb the ionized layers in the earth's atmosphere, this effect is in turn detected by either SEA (Sudden Enhancement of Atmospherics) or SES (Sudden Enhancement of Signal). The exact mechanics of this phenomena is somewhat controversial in theory.

The monthly mean of the American sunspot numbers rose to 124.3 from 104.1 as recorded for April. This is only slightly lower than the peak of 132.7 recorded in February 1970.

RECENT TREND OF RELATIVE SUNSPOT NUMBERS



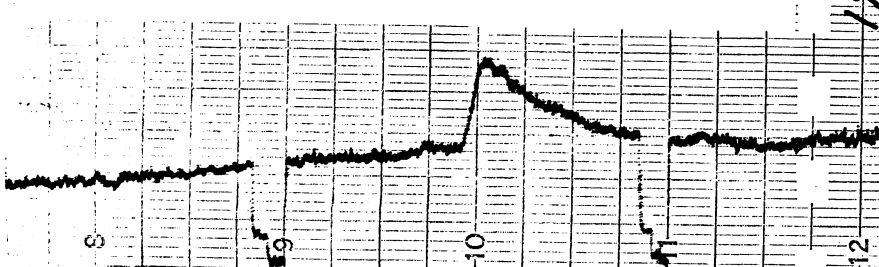
AMERICAN (R_A) AND ZURICH (R_Z) RELATIVE SUNSPOT NUMBERS, MAY 1970

DAY	R_A	R_Z		DAY	R_A	R_Z
1	121	128		16	142	164
2	115	120		17	177	172
3	133	124		18	161	176
4	112	121		19	154	179
5	119	115		20	165	149
6	107	117	Monthly Means	21	126	159
7	100	100		22	120	127
8	83	88	$R_A = 124.3$	23	118	108
9	84	91		24	118	124
10	131	113	$R_Z = 131.1$	25	104	112
11	127	137		26	117	127
12	120	148		27	115	128
13	123	151		28	110	108
14	134	148		29	128	120
15	135	162		30	125	118
				31	130	129

SUDDEN IONOSPHERIC DISTURBANCES RECORDED DURING MAY 1970

DAY	MAX.	SEA	SES	DEF.	OBSERVERS	DAY	MAX.	SEA	SES	DEF.	OBSERVERS
1	1432	1	-1	2	A-17, 21, 22	13	1701	1	2	4	A-8, 21, 22
4	1820	-1	1	4	A-19, 21	14	1314	-1	1+	5	A-8, 21, 22, 27
4	1937		2	4	A-21	14	1505		1	4	A-21
5	1437		2+	5	A-21	14	2246	2	2	3	A-8, 21, 27
5	1715		-1	2	A-21	15	1505	1+	2+	5	A-1, 21, 22
5	1834		1+	4	A-21	15	1800		-1	2	A-21
5	2002		2+	5	A-21	15	1916	2	2	5	A-1, 21, 22, 27
5	2103	1	2+	5	A-1, 8, 19, 21	15	2000		1+	2	A-21
6	1230	1		3	A-1, 8, 17, 27	15	2211	2	2+	5	A-1, 21, 22, 27
6	1759	1+	2+	4	A-8, 19, 21	16	1200	1		3	A-17
7	2038	1+	2	4	A-8, 21	16	1452	1+	2+	4	A-1, 17, 21
8	0714	1		1	A-17	16	1651		1	5	A-21
8	1718		1	4	A-21	16	1909		2	5	A-21
8	1900	1+	1+	4	A-8, 21	16	2138		3	5	A-21
9	1604	1+	3	5	A-1, 17, 21, 27	20	0847	2		4	A-17
10	1941		2+	5	A-21	21	0650	1		3	A-17
10	2310	1	2+	4	A-21, 27	22	1907	1	2	4	A-21, 22
11	1402	1		4	A-1, 8, 17, 22, 27	26	0822	1		4	A-17
12	1502	2	1+	5	A-1, 6, 8, 21, 22, 27	26	1125	1		5	A-17
12	1939		1+	5	A-21	26	1743	1	1+	3	A-21, 22, 27
						29	1722	2	2+	5	A-8, 21, 22, 27

13 May 1970
 SES starts 9:55 a.m. = 1655 UT
 Signal Source, NBA, Canal Zone, 24 kHz
 A21, Littleton, Colorado



A22, Wellesley, Massachusetts
 SEA starts 5:07 p.m. = 2207 UT
 15 MAY 1970

