

Solar Bulletin

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS— SOLAR DIVISION

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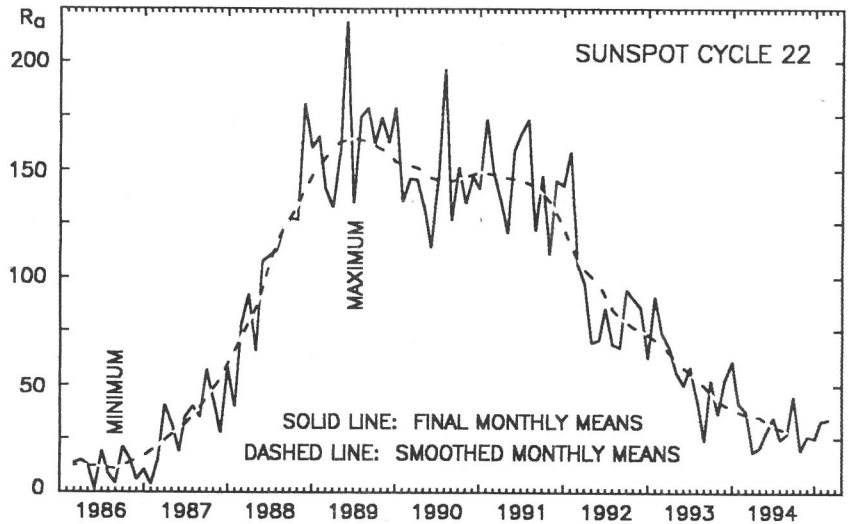
Volume 51 Number 3

March 1995

American Relative Sunspot Numbers for March

		R _a Final			
1)	55	11)	9	21)	45
2)	57	12)	10	22)	49
3)	59	13)	12	23)	50
4)	75	14)	11	24)	44
5)	52	15)	15	25)	41
6)	31	16)	16	26)	44
7)	37	17)	20	27)	30
8)	21	18)	45	28)	22
9)	10	19)	40	29)	28
10)	0	20)	42	30)	28
				31)	20

Mean: 32.8
Number of reports: 95



March Summary: Solar activity was very low and low during the first week of March; the Sun's Northern Hemisphere was spotless throughout the period. The geomagnetic field was mostly quiet to unsettled with intervals of minor storm conditions. The >2 MeV electron fluence was high during most of the week, declining to normal on the 6th and 7th.

The Sun's Northern Hemisphere remained spotless until the 13th, when a small spot-group emerged in the NW hemisphere. Two class C and twenty class B flares were recorded on the 8th-10th, during which time the Sun's visible hemisphere was virtually spotless. The geomagnetic field was quiet to active until the 10th, when a period of storm conditions began that lasted well into the 14th. A recurrent coronal hole is cited as the storm's source. The >2 MeV electron fluence climbed into the high and very high range on the 11th, remaining at that level until the 21st.

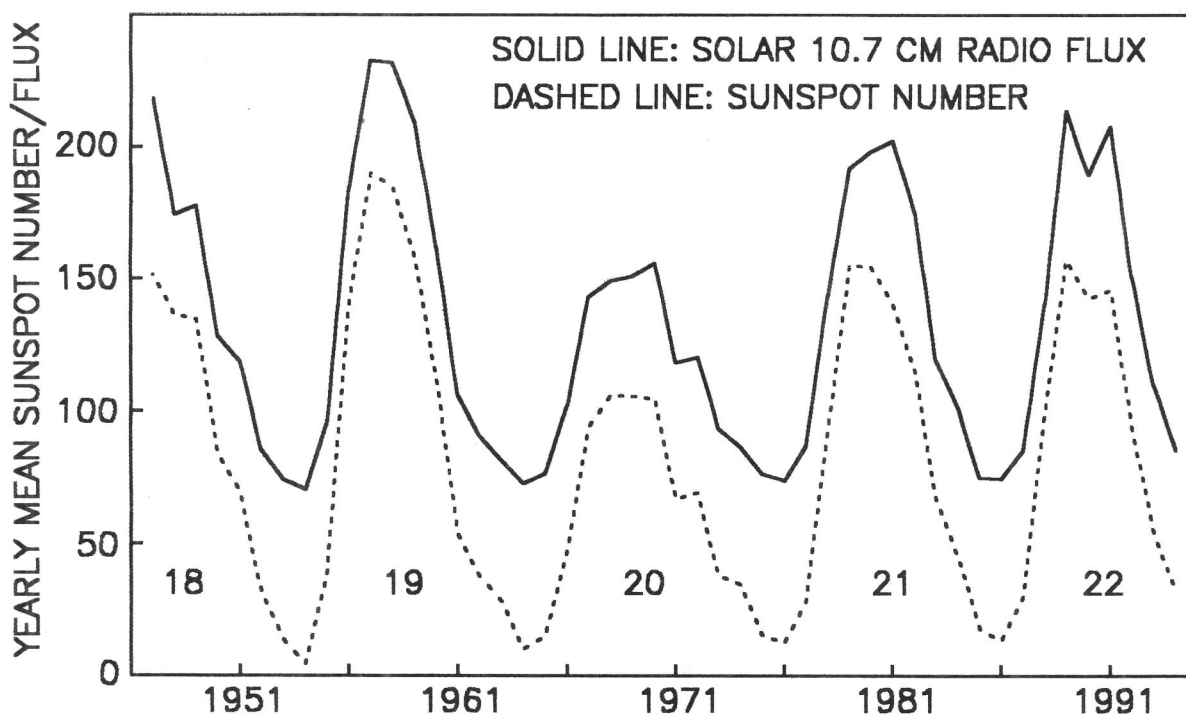
Activity continued to be very low until the 22nd when the month's first and only class M flare -- a M2.4 X-ray event without optical correlation -- occurred. Other noteworthy activity during the period extending from the 17th through 23rd included a 12-degree filament which disappeared from the Sun's SE quadrant on the 18/19th, possibly in conjunction with a parallel ribbon flare in NOAA/USAF Region 7854 (S16, L029, EAO). A second filament associated with a class C flare in the same group erupted on the 20th. The geomagnetic field was quiet to unsettled throughout the interval; however, a sudden impulse (15 Nt at Boulder) was recorded a little before noon on the 23rd.

Solar activity remained in the very low and low range during the final week of March. According to Big Bear Solar Observatory, Region 7858 (S15, L276, DAI) experienced a surge of new negative polarity west of its positive polarity leader. The nature of this growth -- within a common penumbra with the positive leader -- transformed this sunspot into a reversed-polarity delta magnetic configuration for a short time (decay began after a day or so). Other interesting activity during the week included a 15-degree long filament that disappeared from the Sun's SE quadrant on the 27th. The geomagnetic field was relatively quiet for the first few days, then conditions deteriorated between the 26th and 28th due to the effects of a southern coronal hole. Quiet conditions prevailed at month's end. The >2 MeV electron fluence was normal at the beginning of the period, moderate thereafter. The smoothed mean American Relative Sunspot Number for September 1994 is 27.1.

The mean estimated American Relative Sunspot Number for 1-15 April is 14. The Sun's Northern Hemisphere was spotless from the 28th of March until April 13th when a type-B group emerged in the NE quadrant. Several small filaments disappeared during the first two weeks of April, but otherwise little of note occurred and activity was in the very low and low range. Occasional intervals of geomagnetic storm conditions were recorded, mainly at high latitudes.

[A Portion of the above information was obtained from SELDADS]

**Annual American Relative Sunspot Numbers
and Solar 10.7 Centimeter Radio Flux
1947 - 1994**



Note the excellent agreement between these two indices of solar activity.

Radio flux values (adjusted to 1AU) courtesy of [Solar-Geophysical Data.](#)

Sudden Ionospheric Disturbances (SES) Recorded During February 1995

Records were received from A9,40,50,59,61,62,63,65,68,69,70,71,72,73,74,75,76,77,78,80,81,82,83,84,85

Day	Max	Imp	Def	Day	Max	Imp	Def	Day	Max	Imp	Def	Day	Max	Imp	Def
1	0825	1	5	2	1415	1-	5	5	1555	1	5	18	1458	1-	5
1	0904	1+	5	2	1653	1-	5	6	0915	1-	5	19	1404	1	5
1	0935	1	5	2	1742	1-	5	6	1315	1	5	19	1653	1	5
1	1154	1-	5	2	2122	1-	5	6	1405	1+	5	19	1846	1	5
1	1358	1-	5	3	0151	1+	5	8	1902	1-	5	19	1945	1	5
1	1427	1-	5	3	1225	1	5	8	2028	1-	5	19	2139	1+	5
1	2001	1-	5	3	1653	1	5	10	0802	1-	5	19	2344	1	5
2	0156	1-	5	4	1545	2+	5	10	1230	1+	5	20	1630	1	5
2	1304	2	5	5	1351	1+	5	18	1200	1-	5	20	1730	1-	5
								18	1221	2+	5	21	0725	2	5

Analysts: J. Ellerbe; S. Hansen; M. Hayden; P. King; A. Landry; R. Papp; G. Rosenberg; A. Stokes; M. Taylor; P. Taylor; L. Witkowski

Frequencies recorded (kHz): 16.8; 18.3; 19.6; 21.4; 23.4; 24.0; 24.8; 28.5; 30.6; 48.5; 51.6; 73.6; 77.15

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