

Solar Bulletin

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS— SOLAR DIVISION

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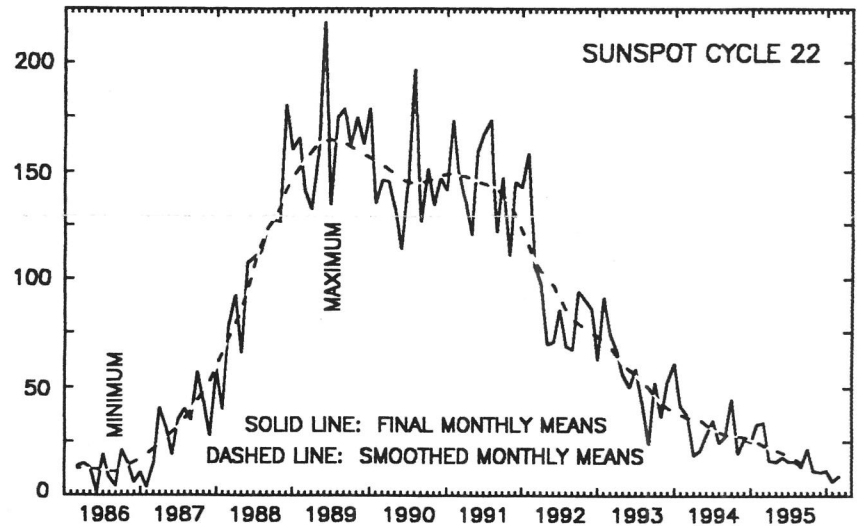
March 1996

American Relative Sunspot Numbers for March

	R _a Final				
1)	4	11	14	21)	11
2)	0	12)	16	22)	15
3)	0	13)	15	23)	14
4)	0	14)	14	24)	13
5)	0	15)	11	25)	13
6)	12	16)	10	26)	22
7)	3	17)	9	27)	21
8)	0	18)	8	28)	15
9)	0	19)	6	29)	11
10)	0	20)	0	30)	0
				31)	0

Mean: 8.3

Number of reports: 91



March Summary: In the last two issues we have provided brief responses to some of the most frequently asked questions that we receive -- the basis for solar activity levels, and the X-ray ratings system for solar flares. Another familiar question concerns the geomagnetic field disturbance classes used in these summaries. These rankings are based on the 'a-index' of geomagnetic activity which is divided into these segments (followed by their associated a-index): quiet (a-index 0-7); unsettled (8-15); active (16-29); minor storm (30-49); major storm (50-99); and severe storm (100-400). The index is measured in near-real time at a strategically located (geographically) group of magnetometer monitoring stations.

The Sun's visible hemisphere was spotless during the first five days of March. Consequently, daily activity levels continued to be very low. Two short-lived spot-groups made a brief appearance on the 6th, but both were unimpressive and dissolved by the following day. The geomagnetic field was mostly in the quiet to unsettled range, while the >2 MeV electron fluence was initially moderate, then declined to normal at mid-week.

Solar activity persisted at very low levels during the second week. The disk was spotless until the 11th, when NOAA/USAF Region 7952 (S04 L321, DAO) made its appearance in the Sun's Eastern Hemisphere. A 22-degree-long northern polar crown filament disappeared from the NW quadrant on the 13th; Yohkoh X-ray data suggest that the filament may have erupted. Beginning on the 11th, the geomagnetic field experienced periods of minor to major storm conditions (the latter confined to high latitude sites), likely related to coronal hole effects. A disturbance on the 14th-17th may have been associated with the filament disappearance cited above. The >2 MeV electron fluence climbed into the high range on the 12th, and remained at that level during the rest of the interval.

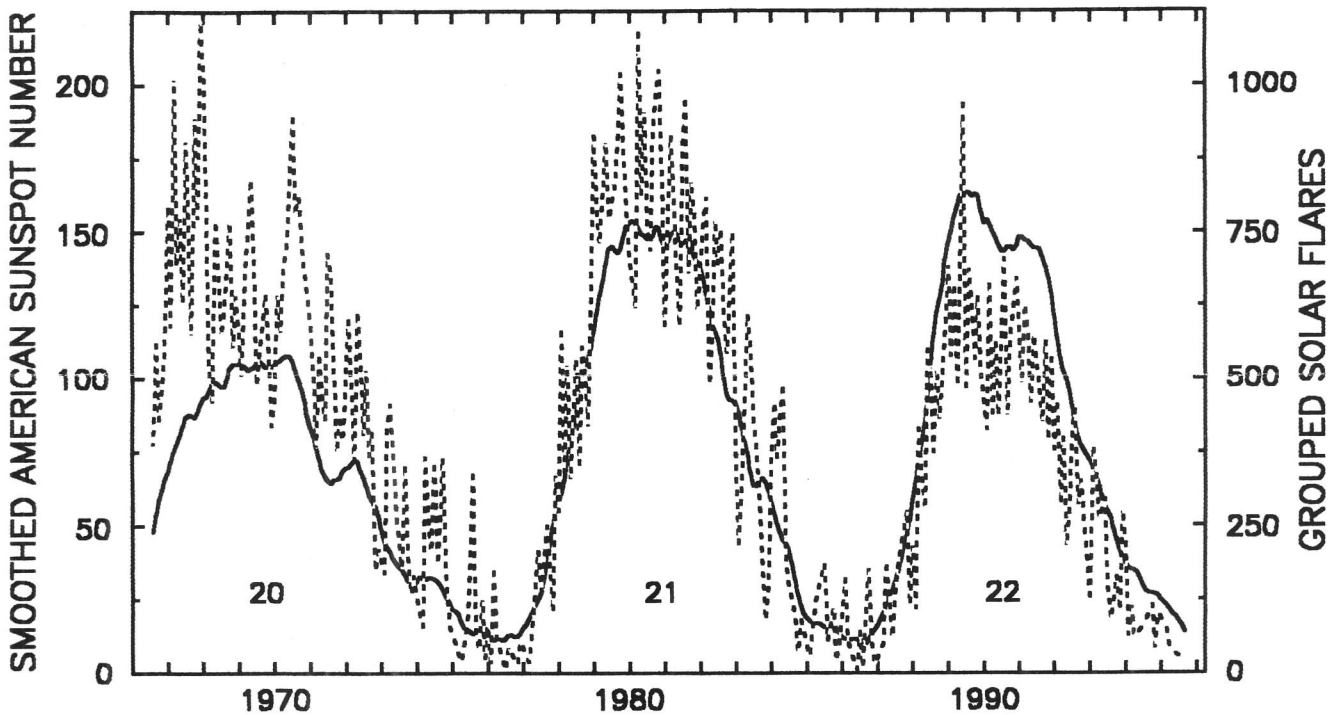
Activity continued to be very low between the 15th and 21st. Active to minor storm conditions began late in the period, and the daily >2 MeV electron fluence persisted at a predominately high level.

The eruption of a class C1 flare in Region 7953 (N07, L200, DSO) on the 23rd caused the solar activity level to climb into the low range; otherwise, very low daily activity levels were recorded during the remainder of March. The geomagnetic field experienced isolated storm conditions around the 25th, possibly associated with a coronal hole stream. The >2 MeV electron fluence continued to be mainly in the high range. The smoothed mean American Relative Sunspot Number for September 1995 is 14.0.

The estimated mean American Sunspot Number for 1-11 April is 4. Region 7955, a small type-B spot-group, emerged on April 1st and skirted the solar equator during the first four days of the month, but otherwise the Sun's visible hemisphere was spotless through the 11th. The geomagnetic field was mostly quiet to unsettled or active.

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

Updated Grouped Solar Flare Count -- Solar Cycles 20-22



The term 'grouped' means observations of the same flare by different sites are lumped together and counted as one event. Dashed line: grouped solar flare count (Source: [Solar-Geophysical Data](#)). Solid line: smoothed monthly-mean American Relative Sunspot Number (through September 1995).

-- the editor --

Sudden Ionospheric Disturbances (SES) Recorded During February 1996

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

The international monitoring network of the *AAVSO Solar Division* recorded no sudden ionospheric disturbances during February.

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

Frequencies recorded (kHz): 16.8; 18.3; 19.6; 20.3; 21.4; 23.4; 24.0; 24.8; 30.6; 48.5; 51.6.
