Solar Bulletin

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS— SOLAR DIVISION

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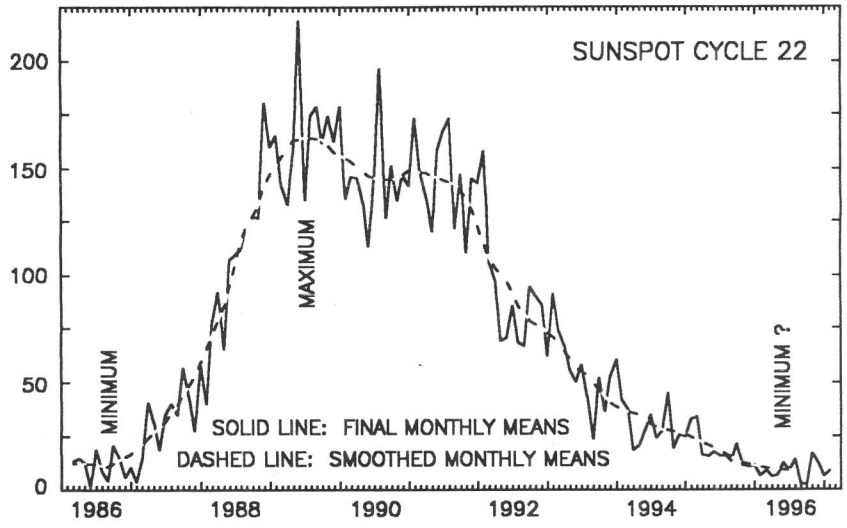
American Relative Sunspot Numbers for February

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

Mean: 7.9
Number of reports: 88



February Summary: Solar activity was very low and low during the first six days of February. The latter higher activity level resulted from single class-C flares in new cycle NOAA/USAF Region 8016 (S21, L324, CSO) on the 2nd and 4th. Otherwise, the disk was relatively quiet. The geomagnetic field was mainly in the quiet to unsettled range, with short bursts of active conditions on the 2nd and 6th. The >2 MeV electron fluence -- high and very high at the beginning of the month -- gradually declined.

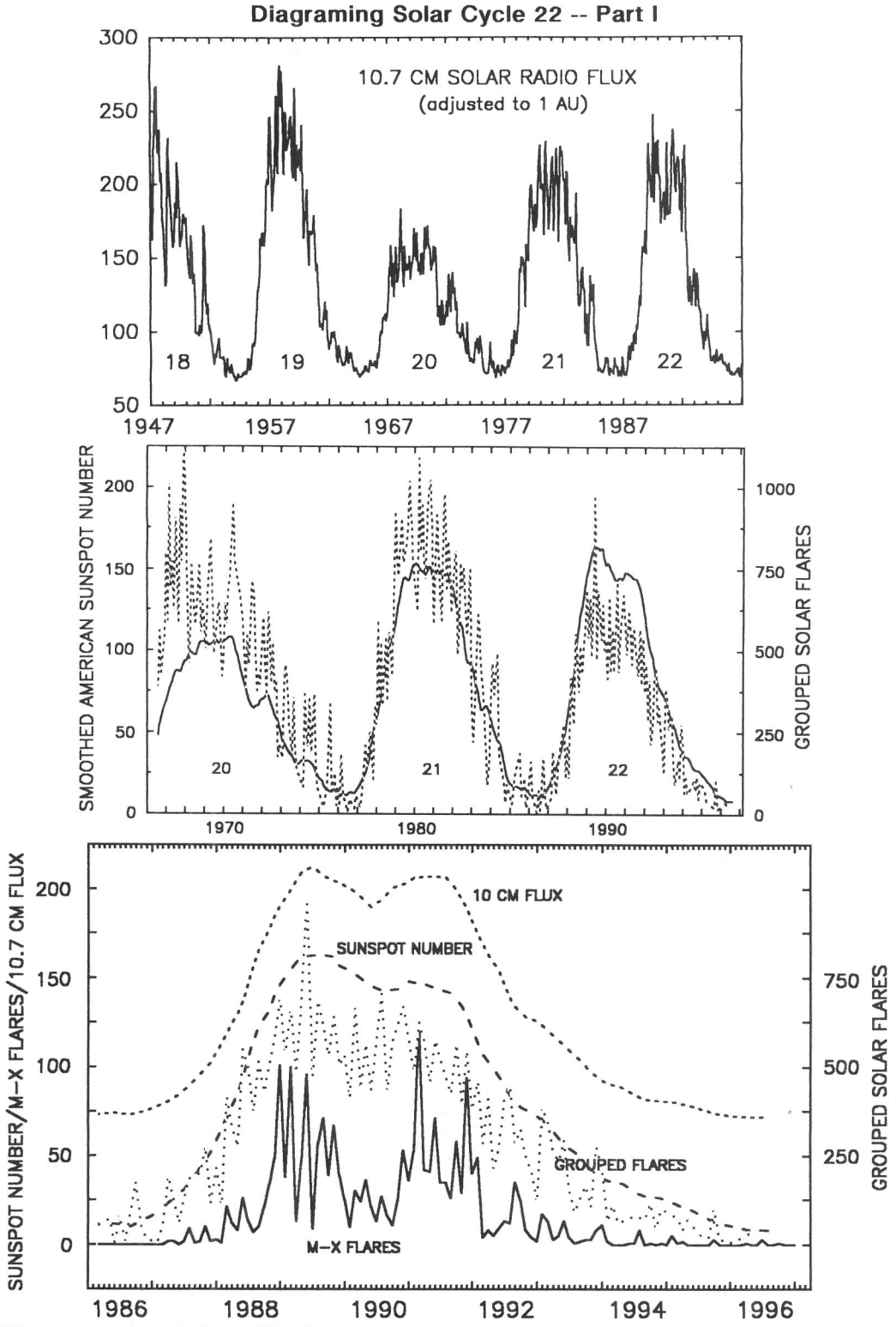
Very low activity was recorded between the 7th and 13th; the disk was spotless from the 10th on. However, the highlight of the period was a large coronal mass ejection which occurred early on the 7th. The magnetic plasma cloud associated with this event passed by the Earth several days later, resulting in reports of minor to major geomagnetic storming particularly at high latitudes. The daily >2 MeV electron fluence rose accordingly, reaching high and very high levels throughout most of the period.

The Sun produced little additional noteworthy activity until late on the 19th when Region 8018 (N05, L198, AXX) spawned the first of a short series of four class-C flares as the region rotated around the west limb. An 18-degree-long filament also disappeared early on the 20th. The geomagnetic field was quiet at the beginning and end of the period, and disturbed on the 16th-17th. With the exception of a short-lived rise on the 16th, the initially high >2 MeV electron flux levels gradually declined.

The solar activity index remained in the very low range between the 21st and 28th. The geomagnetic field was predominately quiet to unsettled until midday on the 26th, when brief intervals of active to major storm conditions began. Some sites reported severe disturbance levels late on the final day. The >2 MeV electron fluence was normal before rising sharply as the month ended. As it did last month, the smoothed monthly-mean American Relative Sunspot Number for August 1996 declined slightly to a value of 8.1, still a bit above the previous low for Cycle 22 which occurred for May 1996 (8.0).

The estimated American Relative Sunspot Number for 1-15 March is 9. Solar activity remained in the very low range during the first half of March.

[A Portion of the above information was obtained from **Space Environment Center**]



Sudden Ionospheric Disturbances (SES) Recorded During January 1997

Records were received from A9,50,52,61,62,63,69,70,71,72,73,74,75,76,77,78,80,81,82,83,84,85,86.

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

Analysts: J. Ellerbe; S. Hansen; M. Hayden; P. King; A. Landry; D. Overbeek; G. Rosenberg; A. Stokes; 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.