

# Solar Bulletin

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS— SOLAR DIVISION

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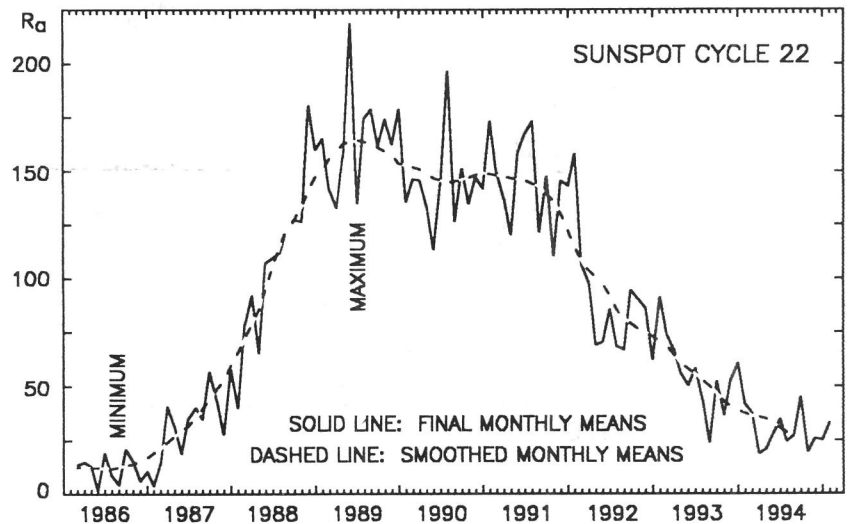
February 1995

## American Relative Sunspot Numbers for February

		R <sub>a</sub> Final			
1)	39	11)	12	21)	46
2)	41	12)	11	22)	49
3)	40	13)	11	23)	43
4)	43	14)	21	24)	34
5)	47	15)	24	25)	28
6)	32	16)	27	26)	26
7)	17	17)	35	27)	36
8)	14	18)	38	28)	42
9)	18	19)	53		
10)	19	20)	51		

Mean: 32.0

Number of reports: 95



**February Summary:** Solar activity was moderate and low during the first week of February. NOAA/USAF Region 7832 (S21, L011, CAO) spawned the first class M flares of 1995 (M1.0/SB, M1.1/SF) on the 1st, and Region 7834 (S13, L244, CSI) contributed M4.3/2B and M2.6/2B events on the 3rd and 4th. A small filament left the Sun in conjunction with the M4 flare, and a coronal mass ejection is suspected to have accompanied the eruption. Additional filaments disappeared on the 1st and 4th/5th. Minor geomagnetic storm conditions (unrelated to the above events) occurred on the 2nd and 4th; a small coronal hole was the most likely source. The >2 MeV electron fluence was moderate and high throughout most of the week, then began to decline late in the period.

Activity was very low during the second week of February. An eruptive prominence was visible on the Sun's SW limb on the 12th, but otherwise little of note occurred. The geomagnetic field experienced storm conditions on the 8th, 11th and 13th; in each instance the source is believed to be a coronal hole. The >2 MeV electron fluence was normal for most of the period, then climbed to moderate and high on the 13th.

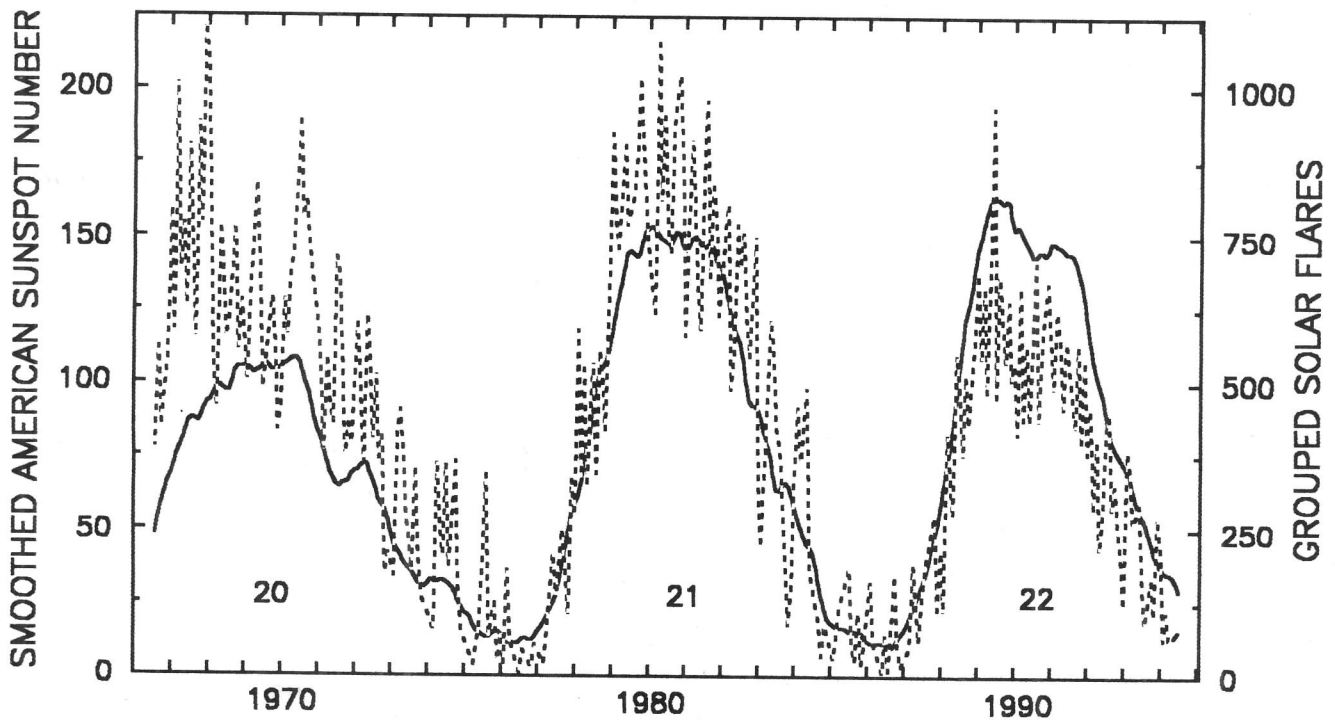
The third week of February began with solar activity at a very low level. However, on the 18th Region 7843 (S13, L032, DAO) began to produce a daily series of class C flares, moving activity to the low level. Then, on the 20th, rapidly developing Region 7844 (N11, L022, CSO) spawned the fifth class M flare of the month, an M1.1/1N event which may have been associated with a low-speed coronal mass ejection. A disappearing filament occurred in conjunction with a class C3 flare in Region 7844 on the 21st. The geomagnetic field was mostly quiet to unsettled, and the >2 MeV electron fluence was moderate and high throughout most of the week, then began to decline on the 21st.

Solar activity was very low during the final week of February. Small filaments disappeared from the Sun's Southern Hemisphere on the 26th and 28th. The geomagnetic field was mostly quiet with some intervals of active conditions. Storm levels occurred on the 28th, possibly associated with the filament eruption on the 26th. The >2 MeV electron fluence was normal with a slight upturn at the end of the week. The final smoothed-mean American Relative Sunspot Number for August 1994 decreased to 27.7.

The mean estimated American Relative Sunspot Number for 1-14 March is 29. Activity was very low and low during the first two weeks of March. The Sun's Northern Hemisphere was spotless until the 13th, when a small region emerged in the NW hemisphere. The geomagnetic field was mostly quiet to unsettled with intervals of minor to severe storm conditions, generally due to coronal hole activity. The >2 MeV electron fluence was high during most of the first week, declined to normal for several days, then rose to high after the 11th.

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

**Grouped Solar Flare Counts -- Solar Cycles 20-22**



The term 'grouped' means observations of the same event by different sites are lumped together and counted as one. Dashed line: grouped flare counts. Solid line: Smoothed American Sunspot Number.

**Sudden Ionospheric Disturbances (SES) Recorded During January 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
2	2003	1-	5	19	1308	1	5	21	1940	2	5	29	2354	1-	5
3	0015	1-	5	19	1906	1-	5	21	2044	1-	5	30	1200	1-	5
4	1139	1-	5	19	1930	2	5	23	0014	1-	5	30	1234	1-	5
13	1842	1-	5	20	0730	1-	5	23	1315	2	5	30	1425	1	5
15	1120	1-	5	20	1412	1-	5	23	1339	1-	5	30	1637	2	5
15	1836	1+	5	20	1643	1-	5	25	1743	1-	5	30	1902	2+	5
15	2139	1-	5	20	1758	1-	5	26	1644	1-	5	30	2115	1	5
16	1702	1-	5	21	0800	1-	5	26	1850	2	5	30	2307	1+	5
16	2223	1-	5	21	1332	1-	5	27	1546	1-	5	31	1001	1	5
18	0935	1-	5	21	1512	1	5	27	1915	1+	5	31	1344	2	5
18	1100	1-	5	21	1551	1-	5	27	2006	1	5	31	1554	1	5
18	1640	1-	5	21	1634	1-	5	29	1610	1-	5	31	1921	1-	5
18	1736	2	5	21	1715	1-	5	29	1658	1-	5	31	2059	1-	5
								29	1751	1+	5	31	2245	1+	5

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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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Note: Network contributors are urged to submit their reports via these media whenever possible.