

Solar Bulletin

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS— SOLAR DIVISION

Peter O. Taylor, editor
4523 Thurston Lane, #5
Madison, WI 53711-4738 USA



Internet: ptaylor@ngdc.noaa.gov
24270.1516@compuserve.com
Fax: [USA] 608-231-2385

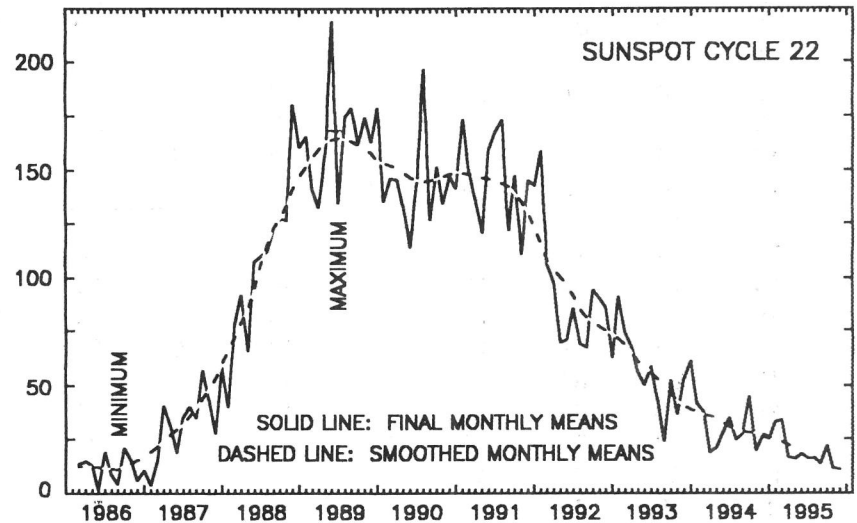
Volume 51 Number 12

December 1995

American Relative Sunspot Numbers for December

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

Mean: 10.0
Number of reports: 94



December Summary: Solar activity was very low during the first week of December. A weak solar flare with faint parallel ribbons on the 2nd may have been accompanied by material eruption. Otherwise, noteworthy events were mainly limited to a 13-degree filament which disappeared from the Sun's NW hemisphere early on the 4th. The geomagnetic field was mostly quiet or unsettled, with a short-lived disturbance on the 1st/2nd -- possibly due to a coronal transient -- and a few brief intervals of minor storm conditions on the 4th. The >2 MeV electron fluence was normal.

Activity continued to be very low between the 8th and 14th. A moderately-sized filament disappeared from the Sun's Southern Hemisphere near the central meridian on the 9th/10th, and a coronal mass ejection may have occurred on the 11th/12th, but little other significant activity occurred. The geomagnetic field was quiet to unsettled.

The Sun remained silent during the third week of December. The geomagnetic field was mainly in the quiet range, although a minor disturbance was recorded on the 15th/17th. This effect may be linked to the possible coronal mass ejection described above. X-ray images indicate that a second such eruption may have developed on the 15th, but any terrestrial impact was minimal at best. The >2 MeV electron fluence continued to be normal.

The remainder of December produced similar daily activity levels. The geomagnetic field was unsettled at mid-latitudes on the 22nd perhaps due to a solar transient, and a favorably positioned coronal hole spawned minor to major storm conditions on the 24th. Otherwise, the field was relatively stable until the 31st when a sudden impulse (38 nT at Boulder) boosted activity into the unsettled range. The >2 MeV electron fluence continued to be normal until the 25th, when it rose to moderate. By the end of the month electron levels were on the decrease. The smoothed mean American Relative Sunspot Number for June 1995 is 18.9.

The mean estimated American Relative Sunspot Number for 1-14 January 1996 is 17. The first two weeks of the new year continued the long string of very low solar activity levels, although the index climbed to low on the 3rd and 5th as a result of two class C1 flares in NOAA/USAF Region 7938 (N12, L187, DSI). Other events of note included a long series of optically-uncorrelated class B X-ray bursts on the 3rd/4th. The geomagnetic field continued to be mostly quiet; intervals of minor storm conditions occurred on the 3rd and again on the 12-14th. The >2 MeV electron fluence was normal throughout the period.

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

American Relative Sunspot Numbers for 1995

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	39	55	17	7	8	29	13	11	0	0	11
2	6	41	57	20	0	9	22	14	9	0	7	11
3	9	40	59	21	0	11	14	15	10	0	0	18
4	16	43	75	9	8	17	16	13	20	0	8	17
5	12	47	52	0	9	35	24	19	11	0	0	12
6	12	32	31	0	9	26	29	23	9	0	9	10
7	8	17	37	0	8	29	30	17	2	9	9	9
8	10	14	21	0	9	34	25	12	0	13	11	9
9	3	18	10	7	10	25	26	9	0	23	11	20
10	8	19	0	10	12	34	20	10	0	30	15	19
11	10	12	9	14	13	23	17	11	0	46	10	17
12	10	11	10	21	25	20	19	7	10	57	10	11
13	9	11	12	31	36	18	13	8	7	54	10	11
14	13	21	11	38	36	10	15	7	0	52	10	9
15	13	24	15	44	39	0	19	17	10	33	24	9
16	18	27	16	48	42	0	17	26	8	40	30	0
17	27	35	20	49	43	9	16	16	0	36	37	0
18	34	38	45	43	40	20	15	0	3	24	26	0
19	42	53	40	38	32	18	24	0	13	20	11	0
20	52	51	42	22	24	14	23	8	24	20	11	9
21	46	46	45	13	14	15	13	0	26	26	10	10
22	56	49	49	9	9	18	9	9	29	28	10	9
23	54	43	50	0	0	17	0	17	34	25	8	7
24	56	34	44	0	0	13	0	30	27	24	0	0
25	48	28	41	0	0	13	0	35	24	23	0	7
26	29	26	44	0	9	13	7	42	27	17	0	11
27	24	36	30	0	0	11	7	31	28	12	6	22
28	27	42	22	0	8	9	0	20	15	10	10	17
29	20		28	5	10	16	0	15	9	8	12	12
30	34		28	0	9	26	0	13	8	0	14	9
31	36		20		8		12	11		0		4
Mean:	23.9	32.0	32.8	15.3	14.8	17.0	14.9	15.1	12.5	20.3	10.6	10.0

Yearly Mean: 18.2

Sudden Ionospheric Disturbances (SES) Recorded During November 1995

Records were received from A5,9,40,50,61,62,63,65,68,69,70,71,72,73,74,75,76,77,78,80,81,82,83,84,85

Day	Max	Imp	Def	Day	Max	Imp	Def	Day	Max	Imp	Def	Day	Max	Imp	Def
5	1235	1-	5	5	1333	1+	5	16	1702	1-	5	16	2154	1-	5
												28	1352	2	4

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; 20.3; 21.4; 23.4; 24.0; 24.8; 30.6; 48.5; 51.6.