

Solar Bulletin

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS— SOLAR DIVISION

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



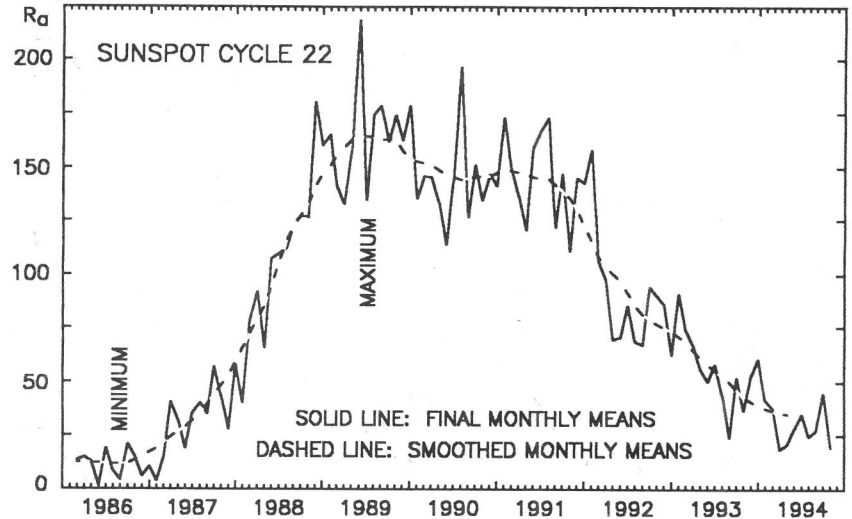
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November 1994

American Relative Sunspot Numbers for November

		R _a Final			
1)	48	11)	14	21)	9
2)	43	12)	15	22)	9
3)	40	13)	7	23)	9
4)	30	14)	6	24)	9
5)	34	15)	0	25)	17
6)	26	16)	10	26)	22
7)	18	17)	19	27)	21
8)	20	18)	18	28)	21
9)	23	19)	12	29)	14
10)	24	20)	8	30)	12

Mean: 18.6
Number of reports: 95



November Summary: Solar activity was mostly in the very low range during the first eleven days of November. Events of note included a filament which disappeared from the Sun's SE hemisphere on the 7th. The geomagnetic field was mainly at quiet to active levels with occasional intervals of storm conditions. The >2 MeV electron fluence was high during the first three days, then declined to normal on the 6th.

The Sun was relatively quiet between the 12th and 25th. A brief increase in activity occurred on the 13th, when an optically uncorrelated, long-duration class C solar flare erupted. A number of small filaments disappeared on the 24th, but little else of importance occurred. The geomagnetic field was quiet to unsettled throughout the period. The >2 MeV electron fluence continued to be normal until the 20th when it increased to moderate, remaining there until the 25th when it again returned to normal.

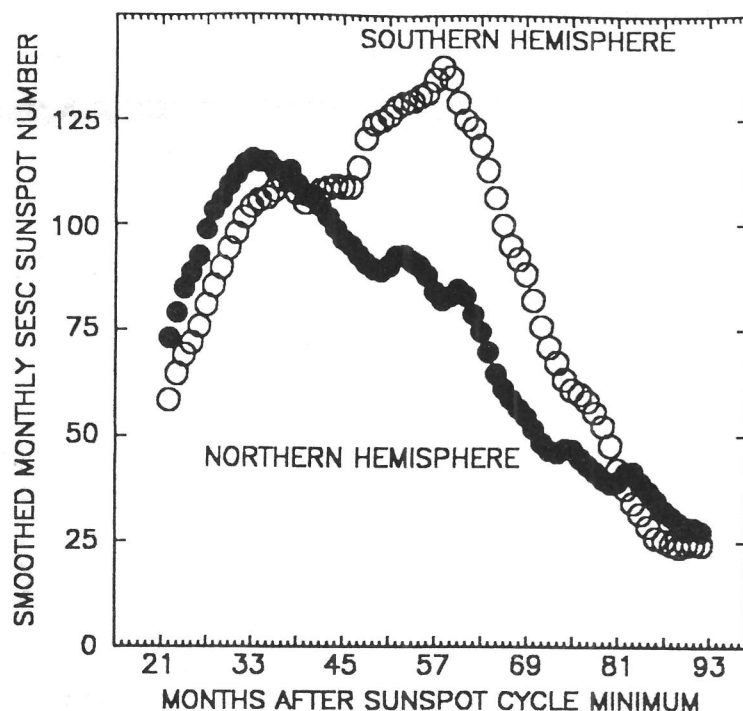
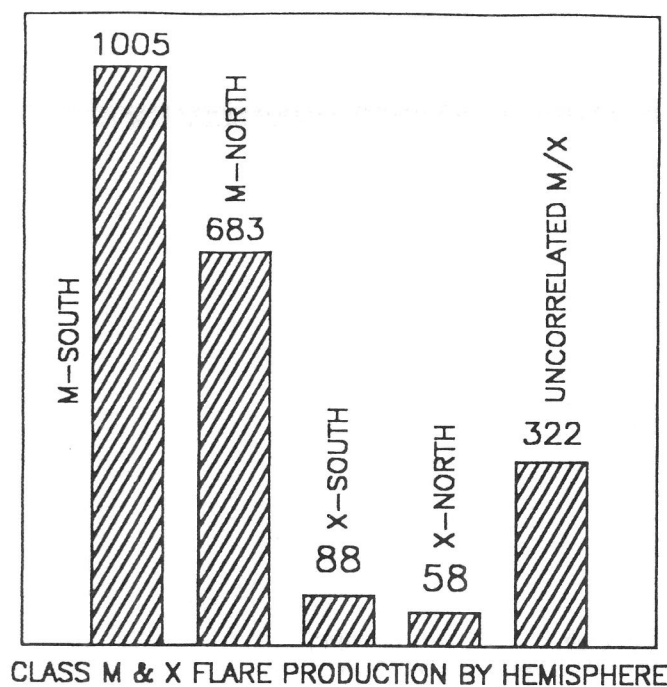
Solar activity was low and very low during the final five days of November. NOAA/USAF Region 7811 (S17, L101, EAI) showed spectacular growth on the 25th/26th, in both optical and magnetic complexity. Several class C solar flares occurred in conjunction with this increase, including an impulsive C2/1N event on the 27th. The group began to decay almost as quickly as it had grown, but then redeveloped into a D-type cluster at month's end and produced eight class B flares.

The geomagnetic field was at severe storm levels on the 26th and 27th due to a geoeffective coronal hole; thereafter the field declined to quiet or unsettled until the 30th, when a brief interval of storm conditions occurred. The latter storm may be the result of a coronal mass ejection suspected to have accompanied the C2 flare mentioned above. The >2 MeV electron was normal until midday on the 27th, when it rapidly climbed into the moderate and high range, where it remained throughout the rest of November. The smoothed mean American Relative Sunspot Number for May 1994 is 34.0.

The mean estimated American Relative Sunspot Number for 1-13 December is 23. Solar activity was very low and low during the first thirteen days of December. As of the 13th, no sunspots had appeared in the Sun's Northern Hemisphere for seventeen consecutive days. No class M or greater-intensity solar flares were recorded during this interval. The geomagnetic field was mostly quiet to unsettled with brief periods of isolated storm conditions. The latter disturbances are attributed to coronal hole effects.

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

Updating Hemispherical Flare and Sunspot Activity



Solar activity according to the hemisphere where it occurred during solar cycle 22, through May 1994. Left: Class M and X solar flare eruption as determined by the world-wide NOAA/USAF SOON network. Right: Relative sunspot numbers (unadjusted SOON network estimates). Note the sudden flattening of the smoothed hemispherical sunspot number which has developed during the last several months.

Sudden Ionospheric Disturbances (SES) Recorded During October 1994

Records were received from A9,40,50,59,61,62,63,65,67,68,69,70,71,72,73,74,75,76,77,78,80,81,82,83,84,85

Day	Max	Imp	Def	Day	Max	Imp	Def	Day	Max	Imp	Def	Day	Max	Imp	Def
4	2315	1-	5	9	1622	2+	5	14	2016	1-	5	23	1135	1-	5
5	1138	1	5	10	1434	1-	5	14	2345	1	5	23	2044	1-	5
5	1348	1-	5	11	0625	1	5	15	1019	1+	5	23	2302	1+	5
6	0931	1-	5	11	0909	1+	5	19	1339	1-	5	25	1004	2+	5
6	1912	2+	5	12	0915	1-	5	19	1520	1-	5	26	0853	1	5
7	0945	1-	5	12	1214	1-	5	19	1731	2+	5	28	1847	1-	5
7	1530	2+	5	12	1450	1-	5	19	2112	2+	5	29	1730	1-	5
7	1852	1	5	13	1510	2	5	22	1403	1-	5	29	1815	1-	5
9	1230	1	5	14	1130	1	5	23	0645	1-	5	30	1851	1-	5
9	1359	1-	5	14	1944	1-	5								

Analysts: J. Ellerbe; S. Hansen; M. Hayden; J. Knight; A. Landry; R. Papp; C. Ranft; 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

DECnet: 34367::ptaylor **INTERNET:** ptaylor@selvax.sel.bldrdoc.gov **FAX:** [USA] 608-231-2385
TELEX: [3762848] TO: EASYPLEX:74270.1516; **COMPUSERVE:** 74270.1516

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