Solar Bulletin

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS— SOLAR DIVISION

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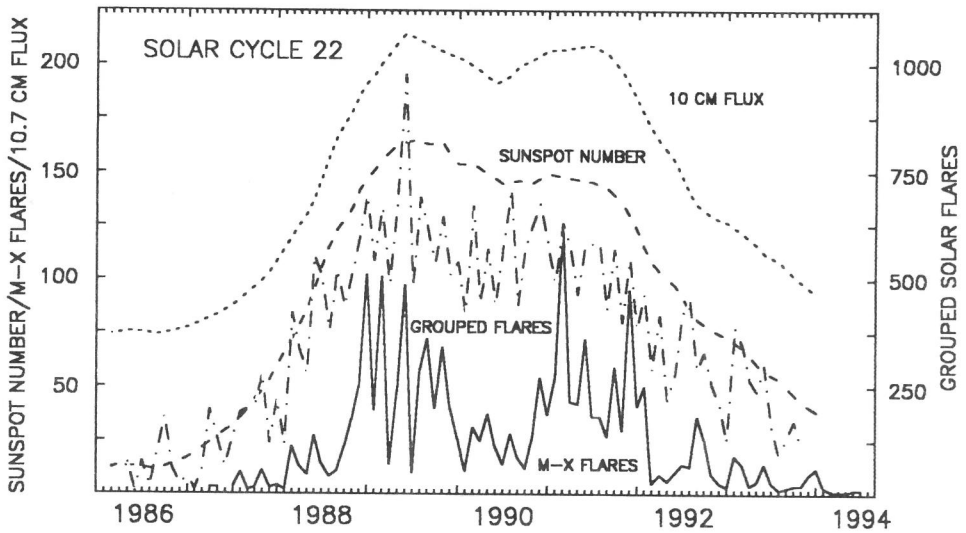
American Relative Sunspot Numbers for July

	R_a Final				
1)	34	11)	72	21)	24
2)	41	12)	67	22)	15
3)	34	13)	58	23)	14
4)	34	14)	55	24)	15
5)	28	15)	35	25)	11
6)	31	16)	46	26)	13
7)	57	17)	47	27)	11
8)	58	18)	43	28)	12
9)	49	19)	26	29)	7
10)	61	20)	25	30)	12
				31)	12

Mean: 33.8
Number of reports: 98



July Summary: July began with solar activity in the low and very low range, but temporarily increased to moderate early on the 7th after NOAA/USAF Region 7746 (N11, L155, CAI) spawned the month's only class M flare (M1.3\1N). Other events of interest during the first week included a filament which disappeared on the 1st, and two which lifted-off on the 2nd/3rd. Minor to major geomagnetic storm conditions linked to a coronal hole occurred during the first three days. The >2 MeV electron fluence was mostly moderate (E+08).

The second week of July saw a continuation of the low and very low activity that has become common in recent months. On the other hand, sunspot activity increased, with as many as seven groups present on one day. The strongest flare during the period was a C6.0/SF on the 12th in Region 7746, the largest spot-cluster on the visible hemisphere during week two. The flare was accompanied by a Type II radio burst with an outward speed of 4000 kilometers per second. Geomagnetic field conditions were in the quiet to unsettled range, and the >2 MeV electron fluence was normal (E+06).

Solar activity was low and very low during the third week of July. The geomagnetic field was mostly quiet to active, although a minor storm disturbance occurred on the 15th/16th. The >2 MeV electron fluence climbed to moderate, and then to high (E+09) during the second half of the period. Both of these conditions were related to a favorably-positioned coronal hole.

Activity continued to be very low during the remainder of July. The geomagnetic field was quiet to unsettled with a brief period of minor storm conditions on the 27th. The >2 MeV electron fluence declined to normal, then rose to moderate at month's end. The smoothed monthly-mean American Relative Sunspot Number for January 1994 decreased to 37.6.

The mean estimated American Relative Sunspot Number for 1-14 August is 20. Activity has been very low during nearly all of this interval. A filament left the Sun's NE quadrant on the 2nd, but little else of note occurred until the 14th when fast-growing Region 7765 (S10, L034, EAC) spawned the month's first class M flare - a M3.9/1N Tenflare - along with six class C events. The geomagnetic field was quiet for the most part, with brief intervals of minor storm conditions related to a recurrent coronal hole beginning on the 10th, and a later interval of similar conditions with unknown origin. The >2 MeV electron fluence was in the normal range for most of the month, then rose to moderate and high at the end of the period.

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

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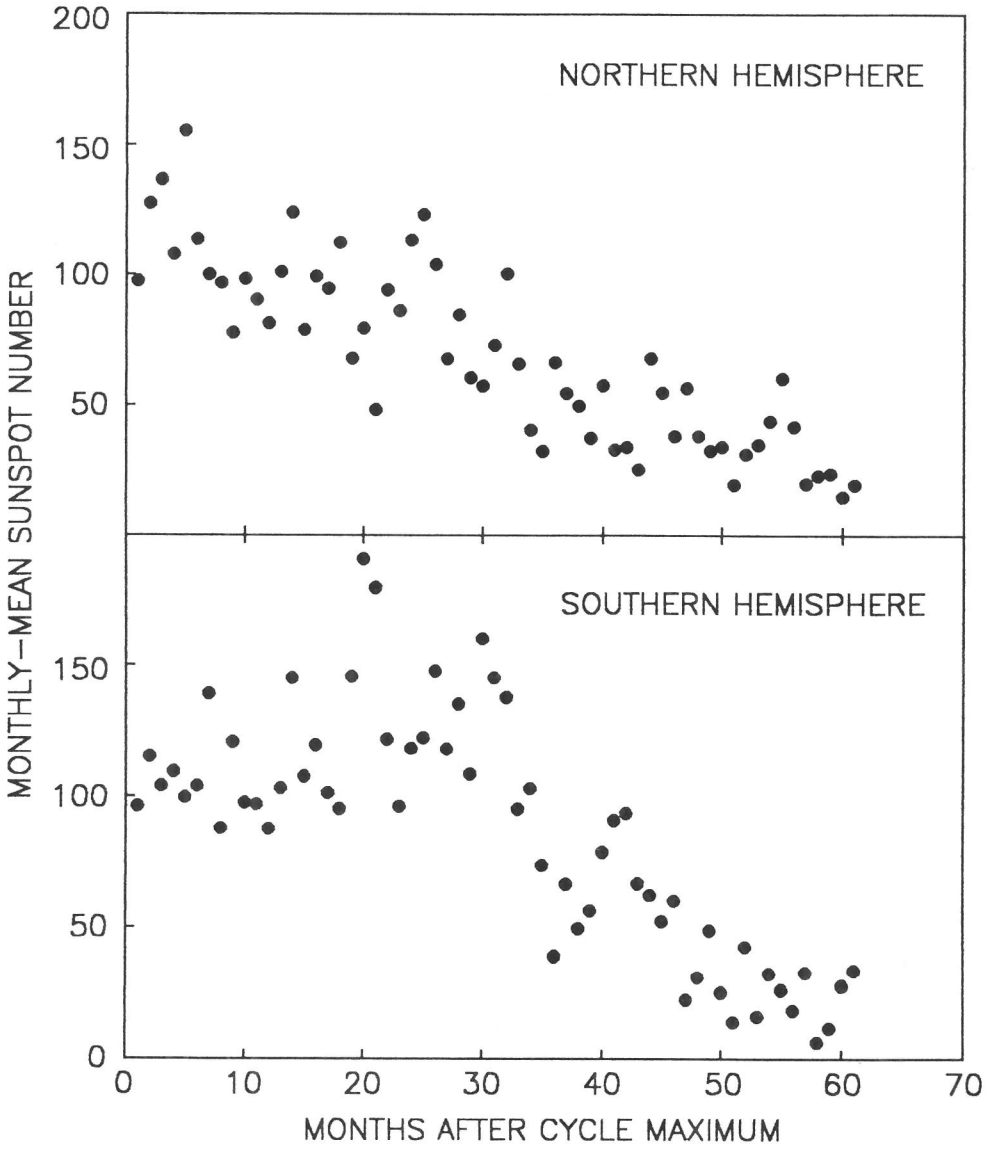
Post-Maximum Hemispherical Sunspot Activity During Cycle 22



Sudden Ionospheric Disturbances (SES) Recorded During June 1994

Records were received from A9,40,50,59,61,62,63,65,66,67,68,69,70,71,72,73,74,75,76,77,78,80,81,82,83,84

Day	Max	Imp	Def	Day	Max	Imp	Def	Day	Max	Imp	Def	Day	Max	Imp	De
6	1210	1-	3	13	1530	1-	5	17	1147	1-	5	29	1440	2	5
6	1226	1-	5	13	1745	1-	5	17	1622	1-	5	29	1618	1-	5
6	1256	1+	5	14	2202	1-	5	18	1217	1-	5	29	2146	1+	5
6	1350	1-	5	15	1347	1-	5	24	1027	1-	5	30	0809	1+	5
7	0644	1-	5	15	1522	1-	5	26	1134	2	5	30	1342	1	5
7	2113	1-	5	15	1802	1-	5	27	1536	1	5	30	1626	1+	5
9	1013	1	5	15	2006	1-	5	27	2133	1-	5	30	2122	2+	5
12	1053	1	5	16	2204	1-	5	29	1321	1+	5				

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