Space Weather Highlights **SWPC PRF 2653**
29 June - 05 July 2026 **06 July 2026**

Solar activity was at moderate levels on 29 Jun with one M-class flare (below M5), high levels on 30 Jun-05 Jul with 42 M-class flares below M5, 5 above M5, and 2 X-class flares in total across the six days. Five of the M-flares came from Region 4478 (S05, L=77, class/area=Fki/1550 on 01 Jul), four from Region 4480 (S16, L=100, class/area=Esi/150 on 02 Jul), and three from Region 4475 (S09, L=129, class/area=Eki/250 on 25 Jun). All of the remaining M-flares, plus the X1.1 at 30/2050 UTC, came from Region 4479 (N17, L=96, class/area=Eki/720 on 02 Jul). The largest flare of the period, an X1.3 at 04/2041 UTC, came from Region 4482 (S08, L=302, class/area=Cso/80 on 05 Jul).

The X1.3 was associated with a tenflare (peak of 890 sfu), a Type II radio sweep (estimated velocity 931 km/s), and a Type IV radio sweep; the resulting CME was first observed in GOES/CCOR1 at roughly 04/2245 UTC. Analysis indicated a trajectory behind Earth’s orbit with no impacts at Earth expected. The X1.1 was associated with a tenflare (peak of 410 sfu), a Type II radio sweep (estimated velocity 1496 km/s), and a Type IV radio sweep. This flare produced a full halo CME that became visible in CCOR1 at approximately 30/2145 UTC, and modeling indicated an arrival at Earth early 03 Jul.

Several M-flares were also associated with CMEs. A long duration M4.2/sf at 02/0156 UTC was associated with a tenflare (peak of 410 sfu) and a resulting CME was observed in LASCO C2 at approximately 02/0236 UTC; an M1.3/1n from 01/1008 also produced a CME (first observed in CCOR1 at approximately 01/1400 UTC), but modeling indicated that it would be overtaken by the M4.2 CME, with a joint arrival at Earth late 05 Jul/early 06 Jul. An M6.7 at 03/1811 UTC was associated with a tenflare (peak of 160 sfu) and a Type II radio sweep (estimated velocity 1831 km/s), with a resulting CME observed in C2 at approximately 03/1830 UTC. Modeling indicated that this eruption is likely to miss Earth or produce only a very minor glancing blow on 08 Jul. The following M6.3/2b at 03/1859 UTC was also associated with a tenflare (peak of 780 sfu) and a Type II radio sweep (estimated velocity 387 km/s); however the resulting CME was so close in time and source location to the M6.7 that its structure was difficult to impossible to distinguish separately. Lastly, an M1.4 at 05/1645 UTC was associated with a Type II radio sweep (estimated velocity 959 km/s) and a resulting CME first observed in LASCO C2 at 05/1648 UTC; modeling indicates that the CME should pass well ahead of Earth’s orbit.

An M5.8 at 30/1257 UTC, an M1.1 at 01/1431 UTC, and a M1.8/sf at 01/2022 were also associated with tenflares (peaks of 110 sfu, 230 sfu, and 180 sfu, respectively), but no eruptions were detected in available imagery.

No proton events were observed at geosynchronous orbit; however, the greater than 10 MeV proton flux was elevated (peak of 1.76 pfu at 04/0335 UTC) beginning late on 03 Jul and continuing through 04 Jul.

The greater than 2 MeV electron flux at geosynchronous orbit reached high levels on 28-30 Jun,

with a peak flux of 5,690 pfu at 30/1315 UTC. Flux values were at low/normal to moderate levels on 01-04 Jul.

Geomagnetic field activity was at quiet levels on 29 Jun. An isolated period of G1 (Minor) geomagnetic storming conditions was observed on 30 Jun-01 Jul, due to the arrival of CMEs that left the Sun on 26-27 Jun. Solar wind speeds were slightly elevated though never got above 430 km/s. Bz was mostly northward, but Bt reached eventually reached a max of 19 nT at 01/0124 UTC. The CME’s passage was largely finished by the end of 01 Jul UTC day, and the geomagnetic field activity was quiet throughout 02 Jul and into 03 Jul. At 03/1119 UTC, a CME shock was observed, most likely the X1.1 eruption from 30 Jun, followed by another enhancement at 02/2100 that could either be the main driver of the X1.1 CME or the CMEs from 01-02 Jul. Solar wind speeds initially jumped to around 460 km/s on 03 Jul then gradually increased to around 640 km/s on 04 Jul. Bt followed a similar pattern, initially jumping to 11 nT on 03 Jul and then eventually increasing to a max of 24 nT on 04 Jul. Bz was rather variable or northward throughout 03 Jul, but deflected sharply southward at 04/0105 UTC, reaching a max deflection of -19 nT, which it then slowly rotated out of for the next 8 hours. G1 (Minor) to G3 (Strong) storming conditions were observed throughout the entirety of 04 Jul, returning to unsettled to active levels on 05 Jul.

Space Weather Outlook
06 July - 01 August 2026

Solar activity is expected to be at low levels on 06 Jul - 17 Jul as Regions 4478, 4479, and 4480 rotate beyond the western limb on 05-06 Jul and no high-flaring regions are expected to return. Regions 4478, 4479, and 4480 are anticipated to return 18-20 Jul and increase the chances for M-class activity for the remainder of the outlook period.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is likely to reach high levels on 06-07 Jul, 11-13 Jul, and 24-27 Jul. Increases in the electron flux are expected due to the anticipated influence of several recurrent CH HSSs.

Geomagnetic field activity is expected to be at quiet to unsettled levels on 07-08 Jul, 12-21 Jul, and 24-31 Jul. Active conditions are likely on 06 Jul, 09-11 Jul, 22-23 Jul, and 01 Aug; other than 06 Jul, all enhanced conditions are due to the anticipated effects of several recurrent CH HSSs.

Daily Solar Data

Date	Radio Flux 10.7cm	Sun spot No.	Sunspot Area (10^{-6} hemi.)	X-ray Background Flux	Flares							
					X-ray			Optical				
					C	M	X	S	1	2	3	4
29 June	195	132	1725	C1.6	17	1	0	21	1	0	0	0
30 June	203	139	1940	C1.6	11	2	1	21	6	1	1	0
01 July	201	146	2310	C2.4	3	11	0	21	3	3	0	0
02 July	203	101	2270	C2.5	4	3	0	19	3	0	0	0
03 July	187	112	1650	C2.9	9	5	0	25	2	1	1	0
04 July	161	97	1290	C4.6	8	15	1	29	6	0	0	0
05 July	139	116	820	C2.9	15	10	0	23	0	0	0	0

Daily Particle Data

Date	Proton Fluence (protons/cm ^{2} -day -sr)		Electron Fluence (electrons/cm^2 -day -sr)
	>1 MeV	>10 MeV	>2MeV
29 June	7.5e+05	1.9e+04	1.7e+08
30 June	2.2e+06	1.8e+04	1.7e+08
01 July	3.2e+05	1.7e+04	1.7e+07
02 July	2.1e+05	1.8e+04	1.8e+07
03 July	3.2e+06	2.1e+04	1.9e+07
04 July	7.7e+06	5.9e+04	1.1e+07
05 July	4.0e+05	1.9e+04	1.6e+07

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
29 June	4	1-1-0-2-2-1-1-2	2	1-1-0-0-0-1-1-1	3	1-1-0-1-1-0-0-1
30 June	17	1-0-0-4-3-3-4-5	13	0-0-0-2-4-4-4-3	17	0-1-1-3-3-4-5-4
01 July	15	4-4-2-3-3-2-3-2	11	4-4-1-1-2-2-2-1	14	5-3-2-2-3-2-3-2
02 July	4	2-0-0-2-2-2-1-1	2	1-1-0-0-1-1-0-0	4	2-1-1-1-1-1-0-1
03 July	11	1-1-1-2-3-3-3-4	8	0-0-1-0-3-3-3-3	10	1-1-1-1-2-3-4-4
04 July	40	4-6-4-3-5-4-5-5	53	5-6-5-5-6-6-4-3	75	6-7-6-5-6-6-5-5
05 July	19	4-3-3-4-4-3-2-3	31	4-4-3-6-4-5-2-3	18	3-3-3-4-3-4-3-3

Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
29 Jun 0502	CONTINUED ALERT: Electron 2MeV Integral Flux >= 1000pfu	26/1345
30 Jun 0459	CONTINUED ALERT: Electron 2MeV Integral Flux >= 1000pfu	26/1345
30 Jun 1210	WARNING: Geomagnetic K = 4	30/1209 - 2359
30 Jun 1252	ALERT: X-ray Flux exceeded M5	30/1251
30 Jun 1332	SUMMARY: X-ray Event exceeded M5	30/1237 - 01/1323
30 Jun 1340	SUMMARY: X-ray Event exceeded M5	30/1237 - 1323
30 Jun 1600	WARNING: Proton 10MeV Integral Flux > 10pfu	30/1600 - 2359
30 Jun 1636	CANCELLATION: Proton 10MeV Integral Flux > 10pfu	
30 Jun 1711	ALERT: Geomagnetic K = 4	30/1711
30 Jun 1943	WARNING: Geomagnetic K = 5	30/1943 - 01/0600
30 Jun 1946	EXTENDED WARNING: Geomagnetic K = 4	30/1209 - 01/0900
30 Jun 2028	ALERT: Geomagnetic K = 5	30/2027
30 Jun 2048	ALERT: X-ray Flux exceeded M5	30/2045
30 Jun 2104	SUMMARY: X-ray Event exceeded X1	30/2034 - 2100
30 Jun 2106	SUMMARY: 10cm Radio Burst	30/2040 - 01/2049
30 Jun 2107	ALERT: Type II Radio Emission	30/2044
30 Jun 2109	ALERT: Type IV Radio Emission	30/2055
01 Jul 0259	ALERT: Geomagnetic K = 5	01/0259
01 Jul 0553	EXTENDED WARNING: Geomagnetic K = 4	30/1209 - 01/2100
01 Jul 0554	EXTENDED WARNING: Geomagnetic K = 5	30/1943 - 01/1800
01 Jul 1240	WATCH: Geomagnetic Storm Category G2 predicted	
01 Jul 2308	ALERT: X-ray Flux exceeded M5	01/2306
01 Jul 2320	SUMMARY: X-ray Event exceeded M5	01/2257 - 02/2313
02 Jul 0935	WATCH: Geomagnetic Storm Category G2 predicted	
03 Jul 1123	WATCH: Geomagnetic Storm Category G2 predicted	
03 Jul 1138	WARNING: Geomagnetic Sudden Impulse expected	03/1157 - 1227
03 Jul 1209	WARNING: Geomagnetic K = 4	03/1209 - 04/0300

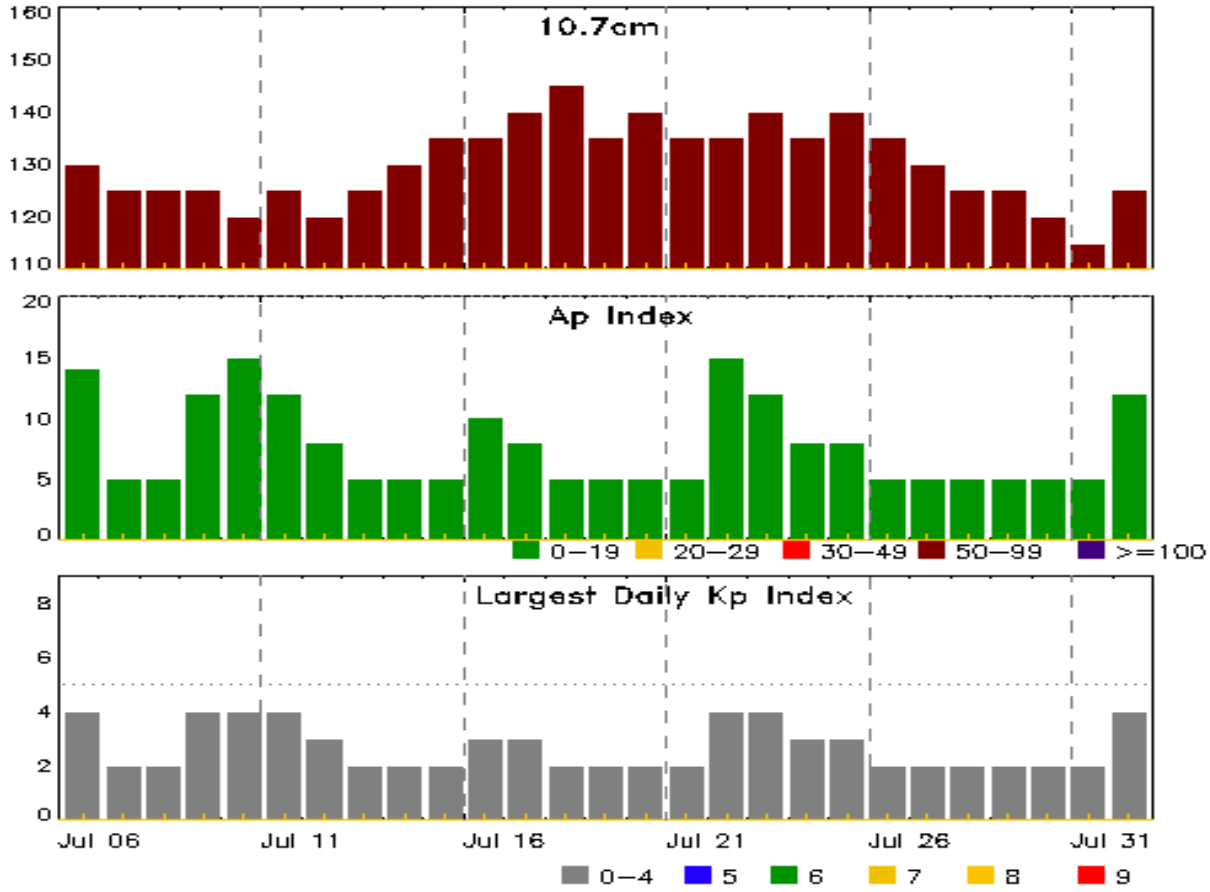
Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
03 Jul 1810	ALERT: X-ray Flux exceeded M5	03/1807
03 Jul 1818	SUMMARY: 10cm Radio Burst	03/1806 - 04/1809
03 Jul 1847	ALERT: Type II Radio Emission	03/1805
03 Jul 1859	SUMMARY: X-ray Event exceeded M5	03/1749 - 04/1832
03 Jul 1900	ALERT: X-ray Flux exceeded M5	03/1856
03 Jul 1911	SUMMARY: X-ray Event exceeded M5	03/1857 - 04/1903
03 Jul 1939	ALERT: Type II Radio Emission	03/1900
03 Jul 2020	SUMMARY: 10cm Radio Burst	03/1856 - 04/1859
03 Jul 2054	ALERT: Geomagnetic K = 4	03/2049
04 Jul 0101	WARNING: Geomagnetic K = 5	04/0100 - 05/0600
04 Jul 0124	EXTENDED WARNING: Geomagnetic K = 4	03/1209 - 04/1200
04 Jul 0125	WARNING: Geomagnetic K = 5	04/0100 - 0600
04 Jul 0205	ALERT: Geomagnetic K = 5	04/0206
04 Jul 0228	WARNING: Geomagnetic K = 6	04/0227 - 0600
04 Jul 0250	ALERT: Geomagnetic K = 6	04/0248
04 Jul 0254	EXTENDED WARNING: Geomagnetic K = 6	04/0227 - 1200
04 Jul 0255	EXTENDED WARNING: Geomagnetic K = 5	04/0100 - 1500
04 Jul 0256	EXTENDED WARNING: Geomagnetic K = 4	03/1209 - 04/1800
04 Jul 0423	ALERT: Geomagnetic K = 5	04/0423
04 Jul 0450	ALERT: Geomagnetic K = 6	04/0450
04 Jul 0501	WARNING: Geomagnetic K>= 7	04/0500 - 05/1200
04 Jul 0509	ALERT: Geomagnetic K = 7	04/0509
04 Jul 0715	ALERT: Geomagnetic K = 5	04/0715
04 Jul 0839	ALERT: Geomagnetic K = 6	04/0839
04 Jul 1043	ALERT: Geomagnetic K = 5	04/1043
04 Jul 1321	ALERT: Geomagnetic K = 5	04/1319
04 Jul 1357	WARNING: Geomagnetic K = 6	04/1356 - 05/2100
04 Jul 1358	ALERT: Geomagnetic K = 6	04/1358
04 Jul 1412	EXTENDED WARNING: Geomagnetic K = 5	04/0100 - 2359

Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
04 Jul 1421	EXTENDED WARNING: Geomagnetic K = 4	03/1209 - 05/0300
04 Jul 1614	ALERT: Geomagnetic K = 5	04/1610
04 Jul 1700	ALERT: Geomagnetic K = 6	04/1655
04 Jul 2022	ALERT: Geomagnetic K = 5	04/2018
04 Jul 2043	ALERT: X-ray Flux exceeded M5	04/2040
04 Jul 2112	ALERT: Type II Radio Emission	04/2043
04 Jul 2115	SUMMARY: 10cm Radio Burst	04/2040 - 2047
04 Jul 2116	SUMMARY: X-ray Event exceeded X1	04/2029 - 2047
04 Jul 2300	ALERT: Geomagnetic K = 5	04/2301
05 Jul 0005	CANCELLATION: Geomagnetic K = 6	
05 Jul 0027	CANCELLATION: Geomagnetic K>= 7	
05 Jul 0256	EXTENDED WARNING: Geomagnetic K = 4	03/1209 - 05/1500
05 Jul 1659	WARNING: Geomagnetic K = 4	05/1658 - 06/0300
05 Jul 1800	ALERT: X-ray Flux exceeded M5	05/1758
05 Jul 1802	ALERT: Geomagnetic K = 4	05/1759
05 Jul 1809	SUMMARY: X-ray Event exceeded M5	05/1751 - 1802
05 Jul 1822	ALERT: Type II Radio Emission	05/1626

Twenty-seven Day Outlook



Date	Radio Flux 10.7cm	Planetary A Index	Largest Kp Index	Date	Radio Flux 10.7cm	Planetary A Index	Largest Kp Index
06 Jul	130	14	4	20 Jul	140	5	2
07	125	5	2	21	135	5	2
08	125	5	2	22	135	15	4
09	125	12	4	23	140	12	4
10	120	15	4	24	135	8	3
11	125	12	4	25	140	8	3
12	120	8	3	26	135	5	2
13	125	5	2	27	130	5	2
14	130	5	2	28	125	5	2
15	135	5	2	29	125	5	2
16	135	10	3	30	120	5	2
17	140	8	3	31	115	5	2
18	145	5	2	01 Aug	125	12	4
19	135	5	2				

Energetic Events

	Time			X-ray		Optical Information			Peak Radio Flux		Sweep Freq Intensity	
Date	Begin	Max	Half Max	Class	Integ Flux	Imp/ Brtns	Location Lat CMD	Rgn #	245	2695	II	IV
29 Jun	2113	2140	2152	M1.4	0.022			4479				
30 Jun	0039	0116	0136	M1.3	0.029			4475				
30 Jun	1237	1257	1323	M5.8	0.110	3N	S08W54	4475		110		
30 Jun	2034	2050	2100	X1.1	0.089	2B	N14W19	4479	1600	410	3	3
01 Jul	0619	0627	0630	M1.1	0.005	SF	N17W21	4479	120			
01 Jul	0637	0643	0647	M1.0	0.005	1N	N19W24	4479				
01 Jul	0728	0735	0738	M1.5	0.005	SN	N17W21	4479				
01 Jul	0807	0817	0820	M2.5	0.008	SB	N17W21	4479				
01 Jul	1004	1008	1011	M1.3	0.004	1N	N19W24	4479	110			
01 Jul	1422	1431	1436	M1.1	0.008			4479		230		
01 Jul	1439	1454	1512	M2.6	0.042	2N	N15W27	4479				
01 Jul	1844	1943	1955	M3.5	0.064	2B	N15W32	4479	480			
01 Jul	2015	2022	2028	M1.8	0.011	SF	S10W75	4475		180		
01 Jul	2257	2309	2313	M8.5	0.037	2B	S10W25	4478	280			
01 Jul	2349	0002	0016	M1.1	0.014	SF	S07W16	4478				
02 Jul	0137	0156	0204	M4.2	0.035	SF	N16W30	4479	3500	410		
02 Jul	1021	1026	1028	M2.8	0.007	SN	S19W49	4480	1600			
02 Jul	2303	2312	2316	M1.2	0.007			4479				
03 Jul	1303	1313	1316	M1.4	0.007	1F	S16W64	4480				
03 Jul	1749	1811	1832	M6.7	0.099			4479	90	160	2	
03 Jul	1857	1859	1903	M6.3	0.023	2B	S07W51	4478	20000	780	2	
03 Jul	1959	2008	2019	M1.5	0.017	SF	S01W40	4478				
03 Jul	2350	0000	0005	M2.0	0.010	1F	S18W69	4480	110			
04 Jul	0013	0023	0032	M2.3	0.018	SF	N16W71	4479				
04 Jul	0059	0113	0121	M2.1	0.020	SF	N16W71	4479				
04 Jul	0152	0201	0208	M1.2	0.011				110			
04 Jul	0321	0332	0340	M3.7	0.026			4479				
04 Jul	0341	0342	0343	M4.0	0.007	1N	N15W76	4479				
04 Jul	0504	0515	0522	M1.3	0.011	SF	N14W74	4479				
04 Jul	0748	0807	0814	M1.8	0.017			4479				
04 Jul	0841	0852	0856	M1.0	0.007	SF	N14W80	4479				
04 Jul	1104	1112	1119	M3.2	0.021	1N	N14W83	4479				
04 Jul	1341	1351	1358	M3.2	0.021	1N	N14W83	4479				
04 Jul	1602	1606	1611	M1.1	0.005	SF	N14W82	4479				
04 Jul	1836	1848	1903	M1.9	0.021	1N	N13W81	4479				
04 Jul	1923	1936	1940	M1.5	0.011			4478				
04 Jul	2029	2041	2047	X1.3	0.050			4482		890	1	
04 Jul	2216	2224	2229	M1.1	0.009	1F	N13W81	4479				

Energetic Events

	Time			X-ray		Optical Information			Peak Radio Flux		Sweep Freq Intensity	
Date	Begin	Max	Half Max	Class	Integ Flux	Imp/ Brtns	Location Lat CMD	Rgn #	245	2695	II	IV
04 Jul	2346	2348	2353	M1.0	0.004			4479				
05 Jul	0024	0031	0036	M1.3	0.007	SF	N16W83	4479				
05 Jul	0419	0432	0439	M1.3	0.010	SF	N18W78	4479				
05 Jul	0441	0447	0452	M1.0	0.007			4479				
05 Jul	0521	0539	0549	M2.7	0.030	SF	N18W80	4479				
05 Jul	1056	1100	1102	M1.4	0.005			4479				
05 Jul	1104	1110	1130	M1.0	0.019	SF	N14W84	4479				
05 Jul	1641	1645	1648	M1.4	0.007	SF	N13W87	4479	270		1	
05 Jul	1751	1757	1802	M5.3	0.021			4479				
05 Jul	1856	1907	1911	M1.4	0.009			4479				
05 Jul	2114	2122	2138	M1.0	0.012			4479				

Flare List

	Time			Optical			
Date	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
29 Jun	0032	0041	0049	C5.1	SF	N17E07	4479
29 Jun	0226	0232	0235	C3.1			4479
29 Jun	0243	0250	0256	C3.0			4475
29 Jun	0307	0317	0322	C4.8	SF	N17E06	4479
29 Jun	0322	0340	0351	C4.1			4478
29 Jun	0441	0538	0714		SF	N15E02	4479
29 Jun	0740	0758	0806	C6.5	SF	N17E06	4479
29 Jun	0806	0828	0834	C8.1			4479
29 Jun	B0915	U0927	0945		SF	N18E03	4479
29 Jun	B0917	U0918	0922		SF	S11W41	4475
29 Jun	0953	1005	1010	C3.0			
29 Jun	1017	1021	1030		SF	S06E18	4478
29 Jun	1028	1033	1049		SF	N18E02	4479
29 Jun	1120	1125	1132	C2.2	SF	N14W03	4479
29 Jun	1208	1212	1223	C1.9			4479
29 Jun	1229	1234	1237	C2.5	SF	N15W07	4479
29 Jun	1410	1442	1535		SF	N18W01	4479
29 Jun	1518	1520	1526		SF	S10W41	4475
29 Jun	1554	1555	1557		SF	S07E15	4478
29 Jun	1606	1617	1624		SF	S07W43	4475

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
29 Jun	1721	1730	1732	C3.5			4479
29 Jun	1732	1737	1809	C6.1	1F	S08W44	4475
29 Jun	1735	1737	1807		SF	N13W05	4479
29 Jun	1817	1818	1824		SF	S10W45	4475
29 Jun	1905	1908	1916		SF	S11W45	4475
29 Jun	1927	1947	1954		SF	S11W46	4475
29 Jun	1928	1933	1938	C3.0			4475
29 Jun	1943	1947	1949	C4.4			4475
29 Jun	1951	1952	1955		SF	S07E18	4478
29 Jun	2024	2034	2049	C3.7	SN	N14W05	4479
29 Jun	2113	2140	2152	M1.4			4479
29 Jun	2223	2224	2234		SF	S09W48	4475
29 Jun	2347	2353	2356	C2.8			4475
30 Jun	0039	0116	0136	M1.3			4475
30 Jun	0311	0319	0332	C3.2			4475
30 Jun	0538	0541	0544		SF	N18W09	4479
30 Jun	0611	0612	0613		SF	S05E01	4478
30 Jun	0614	0616	0620		SF	S05E01	4478
30 Jun	0617	0633	0652	C3.8	SF	S16W20	4480
30 Jun	0709	0710	0711		SF	S08W50	4475
30 Jun	0720	0722	0740		SF	S08W50	4475
30 Jun	0906	0907	0912		SF	N15W12	4479
30 Jun	0911	0920	0932	C2.8	SF	S08W52	4475
30 Jun	0932	0936	0938	C3.3	SF	S10W53	4475
30 Jun	1026	1029	1030		SF	N15W12	4479
30 Jun	1104	1111	1124		SF	N15W12	4479
30 Jun	1121	1121	1129		SF	S05E01	4478
30 Jun	1133	1138	1225		SF	S04E01	4478
30 Jun	1220	1234	1237	C4.3	1F	S10W20	4477
30 Jun	1237	1257	1323	M5.8			4475
30 Jun	1259	1309	1358		1N	N17W12	4479
30 Jun	1302	1304	1354		3N	S08W54	4475
30 Jun	1325	1327	1337		SF	S05W00	4478
30 Jun	1432	1437	1442		SF	S14W26	4480
30 Jun	1505	1506	1508		SF	S06W03	4478
30 Jun	1515	1516	1518		SF	S06W02	4478
30 Jun	1533	1534	A1537		SF	N18W15	4479
30 Jun	1618	1626	1641	C3.2	SF	S06W02	4478

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
30 Jun	1639	1647	1653	C5.7	1N	S16W21	4477
30 Jun	1714	1726	1731	C5.0	1N	N12W18	4479
30 Jun	1831	1848	1900	C4.9			4475
30 Jun	1949	1958	2003	C9.1			4478
30 Jun	1950	1954	2035		1N	S13W60	4475
30 Jun	2001	2001	2013		SF	S10W07	4478
30 Jun	2033	2034	2037		SF	N14W19	4479
30 Jun	2034	2050	2100	X1.1	2B	N14W19	4479
30 Jun	2306	2318	2326	C5.1			4475
30 Jun	B2341	2341	2348		1F	S13W61	4475
01 Jul	0359	0402	0414		SF	N17W21	4479
01 Jul	0441	0456	0517	C7.6	SF	S06W07	4478
01 Jul	B0515	U0643	A0727		1N	N19W24	4479
01 Jul	0619	0627	0630	M1.1	SF	N17W21	4479
01 Jul	0637	0643	0647	M1.0			4479
01 Jul	0728	0735	0738	M1.5	SN	N17W21	4479
01 Jul	0807	0817	0820	M2.5	SB	N17W21	4479
01 Jul	0845	0854	0927	C4.3			4478
01 Jul	0848	0909	0910		SF	N19W24	4479
01 Jul	0849	0850	A0918		SF	S07W10	4478
01 Jul	0930	1007	1049	M1.3	1N	N19W24	4479
01 Jul	1014	1014	1018		SF	S11W70	4475
01 Jul	1051	1211	1545		1N	N13W27	4479
01 Jul	1147	1147	1150		SF	S03W11	4478
01 Jul	1243	1245	1249		SF	S02W11	4478
01 Jul	1249	1251	1350		SF	N15W34	4479
01 Jul	1335	1335	1346		SF	S03W12	4478
01 Jul	1351	1351	1355		SF	S03W12	4478
01 Jul	1422	1431	1436	M1.1			4479
01 Jul	1439	1454	1512	M2.6	2N	N15W27	4479
01 Jul	1547	1547	1548		SF	S16W41	4480
01 Jul	1621	1622	1624		SF	S18W37	4480
01 Jul	1632	1632	1638		SF	N12W30	4479
01 Jul	1704	1704	1708		SF	S18W37	4480
01 Jul	1705	1712	1715	C8.2	SF	S11W75	4475
01 Jul	1818	1818	1820		SF	S15W41	4480
01 Jul	1833	1836	1840		SF	N13W40	4479
01 Jul	1844	1943	1955	M3.5	2B	N15W32	4479

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
01 Jul	2015	2022	2028	M1.8	SF	S10W75	4475
01 Jul	2257	2309	2313	M8.5	2B	S10W25	4478
01 Jul	2349	0002	0016	M1.1	SF	S07W16	4478
02 Jul	0137	0156	0204	M4.2	SF	N16W30	4479
02 Jul	0407	0415	0422	C8.6	SF	N20W36	4479
02 Jul	0455	0501	0506	C8.5	SF	N19W36	4479
02 Jul	0540	0540	0547		SF	S17W47	4480
02 Jul	0549	0550	0556		SF	S16W52	4480
02 Jul	0602	0609	0613	C5.6	SF	N16W37	4479
02 Jul	0653	0724	0826	C6.3	SF	S16W50	4480
02 Jul	0736	0927	1214		1F	N15W41	4479
02 Jul	1021	1026	1028	M2.8	SN	S19W49	4480
02 Jul	1138	1139	1149		SF	S09W33	4478
02 Jul	1217	1227	1232		1F	N16W41	4479
02 Jul	1302	1309	1357		SF	N16W41	4479
02 Jul	1852	1905	1913		SF	N15W49	4479
02 Jul	1916	1943	2127		1F	N15W49	4479
02 Jul	2010	2012	2017		SF	S16W51	4480
02 Jul	2104	2105	2112		SF	S08W35	4478
02 Jul	2127	2127	2134		SF	N15W49	4479
02 Jul	2141	2143	2158		SF	N14W52	4479
02 Jul	2239	2240	2243		SF	S17W53	4480
02 Jul	2250	2252	2339		SF	S08W35	4478
02 Jul	2303	2312	2316	M1.2			4479
02 Jul	2339	2340	2345		SF	S19W54	4480
03 Jul	0000	0004	0027		SF	N14W52	4479
03 Jul	0041	0047	0050	C4.3	SF	S16W58	4480
03 Jul	0126	0126	0129		SF	S18W55	4480
03 Jul	0152	0154	0157		SF	S17W58	4480
03 Jul	0221	0235	0241	C4.1			4479
03 Jul	0241	0248	0251	C4.3			4479
03 Jul	0316	0320	0324		SF	S00W32	4478
03 Jul	0434	0441	0446		SF	S06W39	4478
03 Jul	0638	0647	0653		SF	S05W39	4478
03 Jul	0645	0646	0648		SF	S06W39	4478
03 Jul	B0802	U0804	A0824		SF	S03W39	4478
03 Jul	0857	0951	1017	C9.2	1F	N14W61	4479
03 Jul	1103	U1107	1116		SF	S06W49	4478

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
03 Jul	1125	1125	1129		SF	N14W61	4479
03 Jul	1143	1143	1148		SN	S08W32	4478
03 Jul	1151	1152	1157		SF	N15W66	4479
03 Jul	1208	1209	1214		SF	N15W66	4479
03 Jul	1212	1212	1235		SF	S15W63	4480
03 Jul	1216	1222	1228		SF	S08W46	4478
03 Jul	1246	1247	1250		SF	N15W66	4479
03 Jul	1253	1254	1256		SF	S15W63	4480
03 Jul	1303	1313	1316	M1.4	1F	S16W64	4480
03 Jul	1321	1321	1324		SF	S06W39	4478
03 Jul	1426	1433	1435	C6.3	SF	S07W33	4478
03 Jul	1453	1500	1535	C5.8	SF	N15W69	4479
03 Jul	1550	1551	1603		SF	S03W45	4478
03 Jul	1602	1808	2318		3B	N14W58	4479
03 Jul	1630	1630	1636	C6.5	SF	S00W40	4479
03 Jul	1731	1736	1741	C6.3			4479
03 Jul	1749	1811	1832	M6.7			4479
03 Jul	1856	1857	1920	M6.3	2B	S07W51	4478
03 Jul	1921	1922	1929		SF	S17W65	4480
03 Jul	1959	2008	2019	M1.5	SF	S01W40	4478
03 Jul	2227	2235	2240	C8.4			4479
03 Jul	2350	0000	0005	M2.0	1F	S18W69	4480
04 Jul	0000	2359	0005		SF	S05W49	4478
04 Jul	0013	0023	0032	M2.3	SF	N16W71	4479
04 Jul	0023	0027	0031		SF	S18W69	4480
04 Jul	0049	0049	0053		SF	S18W69	4480
04 Jul	0059	0113	0121	M2.1	SF	N16W71	4479
04 Jul	0152	0201	0208	M1.2			
04 Jul	0225	0225	0228		SF	N16W71	4479
04 Jul	0305	0309	0311		SF	N16W74	4479
04 Jul	0321	0332	0340	M3.7			4479
04 Jul	0328	0342	0350	M4.0	1N	N15W76	4479
04 Jul	0433	0512	0700	M1.3	SF	N14W74	4479
04 Jul	0543	0552	0559	C9.5			4479
04 Jul	0612	0620	0635	C7.4			4479
04 Jul	0709	0716	0725		SF	N15W77	4479
04 Jul	0724	0726	0733		SF	S17W80	4480
04 Jul	0726	0742	0748	C5.3	SF	N13W84	4479

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
04 Jul	0741	0741	0747		SF	S18W80	4480
04 Jul	0748	0807	0814	M1.8			4479
04 Jul	0835	0835	0847		SF	S17W82	4480
04 Jul	0841	0852	0856	M1.0	SF	N14W80	4479
04 Jul	0902	0903	0907		SF	N16W72	4479
04 Jul	0952	0954	1013		SF	N16W72	4479
04 Jul	1040	1041	1042		SF	N13W87	4479
04 Jul	1104	1112	1119	M3.2	1N	N14W83	4479
04 Jul	1111	1112	1122		SF	S03W56	4478
04 Jul	1126	1132	1141		SF	N15W83	4479
04 Jul	1224	1225	1241		SF	N15W82	4479
04 Jul	1300	1301	1304		SF	N15W82	4479
04 Jul	1312	1349	1406	M3.2	1N	N14W83	4479
04 Jul	1426	1430	1435	C8.3	SF	N14W83	4479
04 Jul	1435	1438	1441	C8.5			4482
04 Jul	1526	1534	1550	C8.0	SF	N15W81	4479
04 Jul	1554	1555	1556		SF	N15W82	4479
04 Jul	1602	1605	1615	M1.1	SF	N14W82	4479
04 Jul	1656	1702	1704	C7.5	SF	N14W82	4479
04 Jul	1720	1722	1725		SF	N14W82	4479
04 Jul	1836	1848	1903	M1.9	1N	N13W81	4479
04 Jul	1923	1936	1940	M1.5			4478
04 Jul	2029	2041	2047	X1.3			4482
04 Jul	2216	2224	2229	M1.1	1F	N13W81	4479
04 Jul	2245	2258	2320		SF	N13W81	4479
04 Jul	2332	2341	2344	C9.3	SF	N13W81	4479
04 Jul	2346	2348	2353	M1.0			4479
05 Jul	0024	0031	0036	M1.3	SF	N16W83	4479
05 Jul	0109	0121	0130	C8.3			4479
05 Jul	0316	0324	0332	C4.1			4479
05 Jul	0419	0432	0439	M1.3	SF	N18W78	4479
05 Jul	0441	0447	0452	M1.0			4479
05 Jul	0521	0539	0549	M2.7			4479
05 Jul	0522	0523	0526		SF	N18W80	4479
05 Jul	0528	0528	0624		SF	N18W80	4479
05 Jul	0610	0619	0624	C7.8			4479
05 Jul	0629	0630	0633		SF	N14W84	4479
05 Jul	0711	0715	0717	C7.7			4479

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
05 Jul	0721	0726	0731	C9.9	SF	N14W84	4479
05 Jul	0749	0753	0755		SF	N14W84	4479
05 Jul	0820	0826	0831	C4.2			4479
05 Jul	0849	0859	0904	C5.7	SF	N14W84	4479
05 Jul	0930	0932	0936		SF	N14W84	4479
05 Jul	0946	0948	0953		SF	S04W70	4478
05 Jul	1007	1007	1008		SF	N14W84	4479
05 Jul	1007	1012	1019		SF	S04W70	4478
05 Jul	1042	1053	1056	C5.2	SF	N14W84	4479
05 Jul	1056	1100	1102	M1.4			4479
05 Jul	1104	1110	1130	M1.0	SF	N14W84	4479
05 Jul	1153	1201	1208	C9.5	SF	N14W84	4479
05 Jul	1252	1258	1311	C8.1	SF	N14W84	4479
05 Jul	1325	1328	1330		SF	S08W84	4478
05 Jul	1342	1343	1345		SF	N12W88	4479
05 Jul	1417	1423	1428	C4.1	SF	N15W84	4479
05 Jul	1440	1443	1451		SF	N13W87	4479
05 Jul	1505	1520	1533	C6.9	SF	N13W87	4479
05 Jul	1603	1606	1610		SF	N13W87	4479
05 Jul	1627	1644	1710	M1.4	SF	N13W87	4479
05 Jul	1735	1740	1750	C5.0			4479
05 Jul	1751	1757	1802	M5.3			4479
05 Jul	1856	1907	1911	M1.4			4479
05 Jul	2007	2017	2023	C7.3			4479
05 Jul	2114	2122	2138	M1.0			4479
05 Jul	2138	2142	2146	C9.5			

Region Summary

	Location		Sunspot Characteristics					Flares							
		Helio	Area	Extent	Spot	Spot	Mag	X-ray			Optical				
Date	Lat CMD	Lon	10^{-6} hemi.	(helio)	Class	Count	Class	C	M	X	S	1	2	3	4
			Region 4472												
18 Jun	S13E82	148	plage					1							
19 Jun	S13E68	148	80	3	Hax	2	A								
20 Jun	S14E54	149	100	4	Dao	7	B		1						
21 Jun	S14E42	148	60	3	Dao	6	B								
22 Jun	S14E28	148	60	5	Dao	9	B								
23 Jun	S14E15	148	25	4	Cri	8	B								
24 Jun	S15E02	147	5	4	Axx	8	A								
25 Jun	S15W12	148	plage												
26 Jun	S15W26	149	plage												
27 Jun	S15W40	150	plage												
28 Jun	S15W54	151	plage												
29 Jun	S15W68	152	plage												
30 Jun	S15W82	152	plage												
								1	1	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 147

			Region 4473												
20 Jun	S08E69	133	270	11	Eko	9	B	2	1		1				
21 Jun	S08E56	134	200	11	Eai	12	BG	4	2		2		1		
22 Jun	S09E40	137	70	3	Dai	7	BG								
23 Jun	S09E26	137	30	3	Hrx	4	A								
24 Jun	S09E13	137	10	3	Bxo	4	B	1			1				
25 Jun	S07W04	140	10	2	Bxo	2	B				1				
26 Jun	S07W19	142	plage												
27 Jun	S07W34	144	plage					1			1				
28 Jun	S07W49	146	plage												
29 Jun	S07W63	147	plage												
30 Jun	S07W78	148	plage												
								8	3	0	6	0	1	0	0

Crossed West Limb.
Absolute heliographic longitude: 140

Region Summary - continued

	Location		Sunspot Characteristics					Flares							
		Helio	Area	Extent	Spot	Spot	Mag	X-ray			Optical				
Date	Lat CMD	Lon	10^{-6} hemi.	(helio)	Class	Count	Class	C	M	X	S	1	2	3	4
			Region 4475												
22 Jun	S09E51	126	130	9	Cao	5	BG								
23 Jun	S09E38	125	140	9	Cso	6	BG				2				
24 Jun	S09E21	128	200	5	Cai	6	BG	6			6	1			
25 Jun	S09E07	129	250	12	Eki	16	BG	2			1				
26 Jun	S09W06	129	220	9	Dai	12	BG	2			3				
27 Jun	S10W19	129	150	6	Dai	17	BG	5			10				
28 Jun	S10W33	130	110	7	Dai	17	BG	3			3	1			
29 Jun	S09W49	132	80	9	Dai	12	BGD	5			7	1			
30 Jun	S09W63	133	90	10	Dai	17	B	5	2		4	2		1	
01 Jul	S09W74	131	20	8	Cri	9	B	1	1		3				
02 Jul	S09W87	130	plage												
								29	3	0	39	5	0	1	0

Crossed West Limb.
Absolute heliographic longitude: 129

			Region 4476												
23 Jun	N08E11	152	45	5	Dai	9	B								
24 Jun	N08W03	153	50	5	Dao	8	B								
25 Jun	N08W16	153	30	5	Dro	6	B								
26 Jun	N08W29	152	20	5	Cso	6	B								
27 Jun	N08W44	154	10	1	Axx	2	A								
28 Jun	N08W58	155	10	1	Axx	1	A								
29 Jun	N08W72	156	plage												
30 Jun	N08W86	156	plage												
								0	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 153

Region Summary - continued

	Location		Sunspot Characteristics					Flares							
		Helio	Area	Extent	Spot	Spot	Mag	X-ray			Optical				
Date	Lat CMD	Lon	10^{-6} hemi.	(helio)	Class	Count	Class	C	M	X	S	1	2	3	4
		Region 4477													
23 Jun	S13E68	95	10	8	Bxo	4	B	1							
24 Jun	S13E56	94	10	9	Bxo	6	B								
25 Jun	S13E41	96	30	8	Cri	20	B	1			1				
26 Jun	S13E27	96	20	7	Cro	8	B				2				
27 Jun	S15E13	97	10	6	Bxo	7	B								
28 Jun	S14W00	97	10	6	Bxo	6	B	1							
29 Jun	S14W15	99	10	5	Bxo	3	B								
30 Jun	S14W31	102	10	4	Bxo	6	B	2				2			
01 Jul	S14W45	102	plage												
02 Jul	S14W59	103	plage												
03 Jul	S14W73	104	plage												
04 Jul	S14W87	104	plage												
								5	0	0	3	2	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 97

		Region 4478													
23 Jun	S06E90	75	plage					1							
24 Jun	S06E75	75	350	17	Fkc	9	BG	4							
25 Jun	S06E63	74	825	19	Fhc	16	BGD	6			3	1			
26 Jun	S06E46	76	920	19	Fkc	19	BGD	2			4				
27 Jun	S06E33	77	1190	18	Fkc	24	BGD	2			7				
28 Jun	S06E20	77	1140	17	Fkc	27	BGD	1			2				
29 Jun	S05E08	76	1200	17	Fko	38	BGD	1			3				
30 Jun	S05W06	76	1280	17	Fki	33	BGD	2			9				
01 Jul	S05W20	77	1550	17	Fki	45	BGD	2	2		6		1		
02 Jul	S05W33	77	1400	17	Fki	35	BGD				4				
03 Jul	S06W46	77	840	18	Fko	36	BG	1	2		13		1		
04 Jul	S06W59	76	660	19	Fko	24	BG		1		2				
05 Jul	S05W74	78	300	12	Eko	13	BG				3				
								22	5	0	56	1	2	0	0

Still on Disk.
Absolute heliographic longitude: 76

Region Summary - continued

	Location		Sunspot Characteristics					Flares							
		Helio	Area	Extent	Spot	Spot	Mag	X-ray			Optical				
Date	Lat CMD	Lon	10^{-6} hemi.	(helio)	Class	Count	Class	C	M	X	S	1	2	3	4
			Region 4479												
24 Jun	N14E58	90	5	3	Axx	2	A	1							
25 Jun	N16E45	91	20	4	Cro	4	B				2				
26 Jun	N16E31	92	30	4	Dao	4	B	1			1				
27 Jun	N15E16	94	90	4	Dai	5	B	1			7				
28 Jun	N16E02	95	160	7	Dai	11	B	2			2	1			
29 Jun	N16W10	94	375	11	Eki	20	BGD	10	1		11				
30 Jun	N16W24	94	520	12	Eki	27	BGD	1		1	6	2	1		
01 Jul	N17W38	95	660	13	Eki	34	BGD		8		8	3	2		
02 Jul	N17W52	96	720	13	Eki	21	BGD	3	2		8	3			
03 Jul	N17W66	97	640	16	Fkc	22	BGD	7	1		6	1		1	
04 Jul	N16W79	96	550	18	Fkc	17	BGD	7	13		22	5			
05 Jul	N16W91	95	380	11	Eki	13	BGD	14	9		20				
								47	34	1	93	15	3	1	0

Still on Disk.
Absolute heliographic longitude: 95

			Region 4480												
27 Jun	S18E07	103	30	5	Dao	4	B								
28 Jun	S18W05	102	70	6	Dao	9	B				1				
29 Jun	S18W17	101	60	8	Dao	9	B								
30 Jun	S18W30	101	40	8	Cso	6	B	1			2				
01 Jul	S16W43	100	80	12	Csi	18	BG				4				
02 Jul	S16W56	100	150	12	Esi	15	BG	1	1		7				
03 Jul	S18W70	101	140	13	Eai	13	BG	1	2		6	1			
04 Jul	S18W83	100	50	6	Dao	4	B				5	1			
05 Jul	S17W94	98	20	1	Hsx	1	A		1						
								3	4	0	25	2	0	0	0

Still on Disk.
Absolute heliographic longitude: 102

			Region 4481												
03 Jul	N14E62	329	30	1	Hsx	1	A								
04 Jul	N14E47	330	10	1	Axx	1	A								
05 Jul	N14E33	331	10	1	Axx	1	A								
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 331

Region Summary - continued

	Location		Sunspot Characteristics					Flares							
		Helio	Area	Extent	Spot	Spot	Mag	X-ray			Optical				
Date	Lat CMD	Lon	10^{-6} hemi.	(helio)	Class	Count	Class	C	M	X	S	1	2	3	4
			Region 4482												
04 Jul	S08E77	300	20	2	Hsx	1	A	1		1					
05 Jul	S08E62	302	80	2	Cso	2	B								
								1	0	1	0	0	0	0	0
Still on Disk. Absolute heliographic longitude: 302															
			Region 4483												
05 Jul	S07W29	33	10	3	Bxo	2	B								
								0	0	0	0	0	0	0	0
Still on Disk. Absolute heliographic longitude: 33															
			Region 4484												
05 Jul	N14E05	359	10	2	Bxo	2	B								
								0	0	0	0	0	0	0	0
Still on Disk. Absolute heliographic longitude: 359															
			Region 4485												
05 Jul	S09E13	351	10	2	Bxo	2	B								
								0	0	0	0	0	0	0	0
Still on Disk. Absolute heliographic longitude: 351															

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Notice: The 27-day Outlook, Satellite Environment, X-ray and Proton plots have been redesigned. Comments and suggestions are welcome SWPC.Webmaster@noaa.gov

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