Space Weather Highlights **SWPC PRF 2541**
06 May - 12 May 2024 **13 May 2024**

Solar activity was high. The bulk of the activity came from Region 3664 (S17, L=347, Fkc/BGD on 10 May). This region was resonsible for 41 M-class and 9 X-class flares accounting for approximately 72% of the 74 energetic events observed during the week. It was also responsible for several CMEs, On Monday, 6 May the region had grown to an Ekc/BGD group, having been a numbered region since 01 May. By the 8th, it had more than doubled in size to 1200 microhemispheres.and had produced its first three X-class flares. By 10 May, it had doubled again in size to 2400 microhemispheres and produced a total of 6 X-class flares.

Flares and CMEs noted included the following from Region 3664, with flare maximum time and particulars followed by the time the CME was first visible in C2 imagery:

08/0509 X1.0 - 08/0600

To be determined, 08/1224

08/1753 M7.9/2N, 08/1912

08/2236 X1.0, 2140

09/0913, X2.2/3B; 09/0948.

These CMEs were all modeled in a 09/1300 Enlil run which prompted the dissemination of a G4 geomagnetic storm watch (See alerts listing). Additional flares and CMEs prior to the onset of the geomagnetic storm occurred at:

09/1744 X1.1/2B, 09/1912

10/0654 X3.9, 09/0748

11/0123 X5.8/2B, 11/0136

Note: The flare/CME associations are provisional at this point and may need revision. Please see the Energetic Events list for information regarding radio emissions associated with the flare described above, and for information regarding the remainder of the flares not described above. Additonal CMEs occurred in conjunction with the remaining flares but are not described here.

Proton events were observed at geosynchronous orbit. A 10 Mev at 10 pfu event, associated with an X3.9 flare from region 3664, began on 10 May at 1335, peaked at 207 pfu on 10/1745, and ended at 12/1235. A 100 MeV proton event, associated with an X5.8 flare from Region 3664, began on 11 May at 0210, reached a peak of 7 pfu at 11/0715, and ended at 12/0030.

The greater than 2 MeV electron flux at geosynchronous orbit was at normal to moderate levels.

Geomagnetic field activity reached extreme levels, and saw the largest geomagnetic storm since

the 2003 Halloween superstorms. DST dipped to -412 on 11 May at 0300 UT. The week began with a relatively benign solar wind environment, indicative of a relatively unremarkable high speed stream that may have included a weak transient passage. With the exception of one active period, the geomagnetic field remained at quiet to unsettled levels until the arrival of a barrage of CMEs described above on 10 May.

Interplanetary shock passage was observed at 10/1639 and followed by a sudden impulse at 1645 of 108 nT at the Boulder magnetometer. Over the remainder of the 10th, the total interplanetary magnetic field strength at L1 increased to 75 nT and Bz remained southward, dipping to -50 nT at times. The solar wind speed jumped from around 450 km/s to 700 km/s with the arrival of the shock, eventually reaching a peak near 1000 km/s on 12/0057. The geomagnetic field responded promptly, and had reached a Kp=7 by 10/1718, Kp=8 by 11/0338, and Kp=9o by 10/2334. The Kp remained at 9o through the 11/00-03 synoptic period, and at 8+ or above for the next 15 hours. A third period of 9o was again observed during the 11/09-12 synoptic period. The Oulu, Finland cosmic ray detector indicated a Forbush decrease of 10% between the 10th and 11th. From 11/1800 to 12/0600 the Kp remained between 7+ and 7- before dropping below minor storm levels through the 12/21 synoptic period. An extremely weak shock was observed at 13/0900 followed by a decrease in density and a jump in temperature. The signature had the hallmarks of a fast stream becoming geoeffective. By 13/1900, the temperature began dropping and the density began rising. This was followed by an increase in geomagnetic activity to moderate (Kp between 6- and 6+) levels.

Space Weather Outlook
13 May - 08 June 2024

Solar activity is expected to remain at moderate to high levels through the forecast period. Region 3664 will rotate off the visible disk by 14-15 May, and another 10 regions will depart the visible disk between 16 and 23 May. This will lead to a relative lull in activity compared to the past week. However, a couple of regions rotating on will maintain the potential for at least moderate activity. Region 3663 is expected to return on the 23rd and Region 3664 on the 28th of May, with a significant increase in the threat of high activity.

There is a chance for proton events at geosynchronous orbit, particularly with the return of Region 3664. This doesn't preclude the possiblity of an event in the days leading up to the 23rd, but the risk will increase with each day Region 3664 moves across the visible disk.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at moderate levels throughout the period.

Geomagnetic field activity is expected to be at minor storm levels to being the period, with a lingering chance of moderate to strong levels through the 14th. A relatively quiet period follows, interupted by coronal hole high speed stream activity between 23 May and 3 June.

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
06 May	171	148	1470	C2.4	15	5	1	10	4	3	2	0
07 May	204	144	1350	C3.8	2	11	0	21	2	1	0	0
08 May	227	142	1890	C6.1	3	11	4	11	5	2	2	0
09 May	233	170	1680	C5.1	0	12	2	15	6	1	1	0
10 May	223	156	3110	C5.2	3	10	1	10	2	3	0	0
11 May	214	148	2530	C5.7	4	5	2	11	1	4	0	0
12 May	222	186	2460	C4.9	5	9	1	24	1	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
06 May	3.3e+05	1.8e+04	1.4e+06
07 May	6.8e+04	1.8e+04	1.7e+06
08 May	8.9e+04	1.9e+04	2.7e+06
09 May	1.5e+06	3.8e+04	4.6e+06
10 May	4.9e+08	1.2e+06	2.1e+06
11 May	1.8e+08	5.0e+06	2.3e+06
12 May	1.6e+08	1.3e+06	4.5e+06

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
06 May	13	4-2-2-2-4-3-2-2	19	5-2-2-5-3-3-2-2	15	5-2-2-3-4-2-2-2
07 May	6	1-1-1-2-3-2-2-1	8	2-2-1-3-3-2-1-2	7	2-2-1-2-2-2-2-2
08 May	10	1-1-1-3-3-3-3-2	5	1-1-2-3-1-1-0-1	7	1-2-2-3-2-2-1-1
09 May	7	1-1-1-2-2-3-2-2	4	1-2-0-2-1-0-2-1	7	1-2-1-2-1-1-2-2
10 May	80	3-3-2-1-3-5-7-9	146	2-3-5-4-4-8-9-9	118	3-3-3-2-3-8-9-9
11 May	175	9-8-7-8-7-6-6-6	208	8-6-9-9-0-0-6-5	273	9-8-9-9-9-8-7-7
12 May	31	5-6-3-3-3-3-3-5	45	6-6-5-5-3-4-3-5	111	7-7-4-4-3-3-4-6

Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
06 May 0118	WARNING: Geomagnetic K = 6	06/0118 - 0900
06 May 0118	ALERT: Geomagnetic K = 5	
06 May 0610	ALERT: X-ray Flux exceeded M5	06/0608
06 May 0701	SUMMARY: X-ray Event exceeded X1	06/0538 - 0647
06 May 0855	EXTENDED WARNING: Geomagnetic K = 5	05/2335 - 06/1800
06 May 0900	EXTENDED WARNING: Geomagnetic K = 4	05/1930 - 06/2100
07 May 0618	ALERT: X-ray Flux exceeded M5	07/0615
07 May 0655	SUMMARY: X-ray Event exceeded M5	07/0558 - 0627
07 May 1633	ALERT: X-ray Flux exceeded M5	07/1630
07 May 1642	SUMMARY: X-ray Event exceeded M5	07/1621 - 1636
08 May 0141	ALERT: X-ray Flux exceeded M5	08/0140
08 May 0154	SUMMARY: X-ray Event exceeded X1	08/0133 - 0148
08 May 0451	ALERT: X-ray Flux exceeded M5	08/0449
08 May 0524	ALERT: Type II Radio Emission	08/0501
08 May 0529	ALERT: Type IV Radio Emission	08/0508
08 May 0539	SUMMARY: X-ray Event exceeded X1	08/0437 - 0532
08 May 0648	SUMMARY: 10cm Radio Burst	08/0454 - 0516
08 May 0652	ALERT: X-ray Flux exceeded M5	08/0650
08 May 0709	SUMMARY: X-ray Event exceeded M5	08/0644 - 0703
08 May 1149	ALERT: X-ray Flux exceeded M5	08/1147
08 May 1236	SUMMARY: X-ray Event exceeded M5	08/1126 - 1217
08 May 1603	WATCH: Geomagnetic Storm Category G2 predicted	
08 May 1750	ALERT: X-ray Flux exceeded M5	08/1743
08 May 1814	SUMMARY: X-ray Event exceeded M5	08/1732 - 1800
08 May 2129	ALERT: X-ray Flux exceeded M5	08/2128
08 May 2337	SUMMARY: X-ray Event exceeded X1	08/2108 - 2310
09 May 0020	SUMMARY: 10cm Radio Burst	08/2134 - 2309
09 May 0834	WATCH: Geomagnetic Storm Category G3 predicted	
09 May 0855	ALERT: X-ray Flux exceeded M5	09/0853

Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
09 May 0934	ALERT: Type II Radio Emission	09/0902
09 May 0936	ALERT: Type IV Radio Emission	09/0910
09 May 0952	SUMMARY: X-ray Event exceeded X1	09/0845 - 0936
09 May 1251	SUMMARY: 10cm Radio Burst	09/0852 - 0942
09 May 1722	WATCH: Geomagnetic Storm Category G4 or greater predicted	
09 May 1734	ALERT: X-ray Flux exceeded M5	09/1733
09 May 1744	ALERT: Type II Radio Emission	09/1732
09 May 1801	ALERT: Type IV Radio Emission	09/1745
09 May 1809	SUMMARY: X-ray Event exceeded X1	09/1723 - 1800
09 May 1810	SUMMARY: 10cm Radio Burst	09/1731 - 1752
10 May 0644	ALERT: X-ray Flux exceeded M5	10/0641
10 May 0716	SUMMARY: 10cm Radio Burst	10/0638 - 0654
10 May 0730	ALERT: Type II Radio Emission	10/0646
10 May 0731	ALERT: Type IV Radio Emission	10/0651
10 May 0740	SUMMARY: X-ray Event exceeded X1	10/0627 - 0706
10 May 1303	WARNING: Proton 10MeV Integral Flux > 10pfu	10/1305 - 2359
10 May 1351	ALERT: Proton Event 10MeV Integral Flux >= 10pfu	10/1335
10 May 1411	ALERT: X-ray Flux exceeded M5	10/1407
10 May 1647	WARNING: Geomagnetic Sudden Impulse expected	10/1700 - 1730
10 May 1650	WARNING: Geomagnetic K = 4	10/1700 - 11/1500
10 May 1651	WARNING: Geomagnetic K = 5	10/1700 - 11/1200
10 May 1711	ALERT: Geomagnetic K = 4	
10 May 1714	ALERT: Geomagnetic K = 5	
10 May 1715	WARNING: Geomagnetic K = 6	10/1714 - 11/0900
10 May 1716	WARNING: Geomagnetic K>= 7	10/1715 - 2359
10 May 1717	ALERT: Geomagnetic K = 6	
10 May 1718	ALERT: Geomagnetic K = 7	
10 May 1729	SUMMARY: Geomagnetic Sudden Impulse	10/1645

Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
10 May 1744	ALERT: Geomagnetic K = 8	
10 May 1754	ALERT: Proton Event 10MeV Integral Flux >= 100pfu	10/1745
10 May 1814	ALERT: Geomagnetic K = 5	
10 May 1822	ALERT: Geomagnetic K = 6	
10 May 1831	ALERT: Geomagnetic K = 7	
10 May 1904	ALERT: Geomagnetic K = 8	
10 May 2115	ALERT: Geomagnetic K = 5	
10 May 2115	ALERT: Geomagnetic K = 6	
10 May 2126	ALERT: Geomagnetic K = 7	
10 May 2145	ALERT: Geomagnetic K = 8	
10 May 2330	EXTENDED WARNING: Proton 10MeV Integral Flux > 10pfu	10/1305 - 11/1200
10 May 2334	ALERT: Geomagnetic K = 9	
10 May 2348	EXTENDED WARNING: Geomagnetic K>= 7	10/1715 - 11/1200
10 May 2357	EXTENDED WARNING: Geomagnetic K = 6	10/1714 - 11/1800
10 May 2357	EXTENDED WARNING: Geomagnetic K = 5	10/1700 - 11/2100
10 May 2357	EXTENDED WARNING: Geomagnetic K = 4	10/1700 - 12/0000
11 May 0021	ALERT: Geomagnetic K = 5	
11 May 0031	ALERT: Geomagnetic K = 6	
11 May 0036	ALERT: Geomagnetic K = 7	
11 May 0102	ALERT: Geomagnetic K = 8	
11 May 0120	ALERT: X-ray Flux exceeded M5	11/0115
11 May 0134	ALERT: Type IV Radio Emission	11/0124
11 May 0144	SUMMARY: X-ray Event exceeded X1	11/0110 - 0139
11 May 0152	ALERT: Type II Radio Emission	11/0113
11 May 0202	SUMMARY: 10cm Radio Burst	11/0114 - 0137
11 May 0206	WARNING: Proton 100MeV Integral Flux > 1pfu	11/0205 - 1200
11 May 0227	ALERT: Proton Event 100MeV Integral Flux > 1pfu	11/0210
11 May 0246	ALERT: Geomagnetic K = 9	

Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
11 May 0312	ALERT: Geomagnetic K = 5	
11 May 0316	ALERT: Geomagnetic K = 6	
11 May 0322	ALERT: Geomagnetic K = 7	
11 May 0338	ALERT: Geomagnetic K = 8	
11 May 0519	ALERT: Type IV Radio Emission	11/0420
11 May 0619	ALERT: Geomagnetic K = 5	
11 May 0633	ALERT: Geomagnetic K = 6	
11 May 0649	ALERT: Geomagnetic K = 7	
11 May 0709	ALERT: Geomagnetic K = 8	
11 May 0916	ALERT: Geomagnetic K = 5	
11 May 0928	ALERT: Geomagnetic K = 6	
11 May 0941	ALERT: Geomagnetic K = 7	
11 May 0944	ALERT: Geomagnetic K = 8	
11 May 1113	EXTENDED WARNING: Proton 100MeV Integral Flux > 1pfu	11/0205 - 12/1200
11 May 1120	WATCH: Geomagnetic Storm Category G3 predicted	
11 May 1120	EXTENDED WARNING: Geomagnetic K = 4	10/1700 - 13/2359
11 May 1120	EXTENDED WARNING: Geomagnetic K = 5	10/1700 - 12/1500
11 May 1120	EXTENDED WARNING: Geomagnetic K>= 7	10/1715 - 11/2359
11 May 1120	EXTENDED WARNING: Proton 10MeV Integral Flux > 10pfu	10/1305 - 12/2359
11 May 1120	EXTENDED WARNING: Geomagnetic K = 6	10/1714 - 12/0900
11 May 1120	EXTENDED WARNING: Proton 100MeV Integral Flux > 1pfu	11/0205 - 12/1200
11 May 1138	ALERT: X-ray Flux exceeded M5	11/1131
11 May 1139	ALERT: Geomagnetic K = 9	
11 May 1215	ALERT: Geomagnetic K = 5	
11 May 1221	ALERT: Geomagnetic K = 6	
11 May 1230	SUMMARY: X-ray Event exceeded X1	11/1115 - 1205
11 May 1236	ALERT: Geomagnetic K = 7	

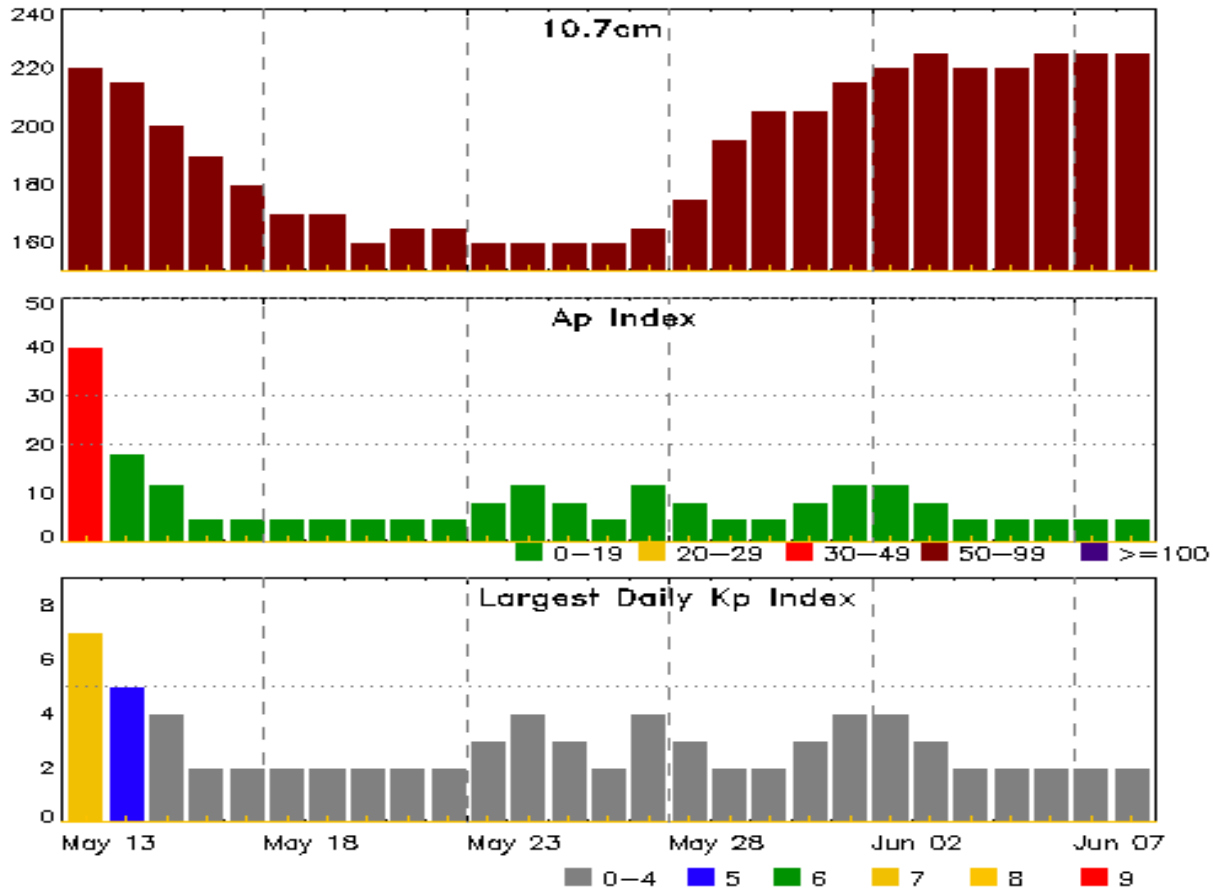
Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
11 May 1240	ALERT: Geomagnetic K = 8	
11 May 1515	ALERT: Geomagnetic K = 5	
11 May 1522	ALERT: Geomagnetic K = 6	
11 May 1548	ALERT: Geomagnetic K = 7	
11 May 1650	ALERT: Geomagnetic K = 8	
11 May 1658	SUMMARY: X-ray Event exceeded M5	11/1446 - 1552
11 May 1753	EXTENDED WARNING: Geomagnetic K = 5	10/1700 - 13/1500
11 May 1753	EXTENDED WARNING: Geomagnetic K = 6	10/1714 - 13/1200
11 May 1753	EXTENDED WARNING: Geomagnetic K>= 7	10/1715 - 12/2359
11 May 1753	WATCH: Geomagnetic Storm Category G4 or greater predicted	
11 May 1803	ALERT: Type IV Radio Emission	11/1706
11 May 1825	ALERT: Geomagnetic K = 5	
11 May 1831	ALERT: Geomagnetic K = 6	
11 May 1942	ALERT: Geomagnetic K = 7	
11 May 2114	ALERT: Geomagnetic K = 5	
11 May 2116	ALERT: Geomagnetic K = 6	
11 May 2144	ALERT: Geomagnetic K = 7	
12 May 0117	ALERT: Geomagnetic K = 5	
12 May 0134	ALERT: Geomagnetic K = 6	
12 May 0301	ALERT: Geomagnetic K = 7	
12 May 0346	ALERT: Geomagnetic K = 5	
12 May 0421	ALERT: Geomagnetic K = 6	
12 May 0437	ALERT: Geomagnetic K = 7	
12 May 1103	SUMMARY: Proton Event 10MeV Integral Flux >= 100pfu	10/1754 - 11/1440
12 May 1613	SUMMARY: Proton Event 100MeV Integral Flux > 1pfu	11/0210 - 12/0030
12 May 1623	ALERT: X-ray Flux exceeded M5	12/1620
12 May 1646	SUMMARY: X-ray Event exceeded X1	12/1611 - 1638
12 May 2221	ALERT: Geomagnetic K = 5	

Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
12 May 2238	ALERT: Geomagnetic K = 6	
12 May 2243	EXTENDED WARNING: Geomagnetic K>= 7	10/1715 - 13/0600

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
13 May	220	40	7	27 May	165	12	4
14	215	18	5	28	175	8	3
15	200	12	4	29	195	5	2
16	190	5	2	30	205	5	2
17	180	5	2	31	205	8	3
18	170	5	2	01 Jun	215	12	4
19	170	5	2	02	220	12	4
20	160	5	2	03	225	8	3
21	165	5	2	04	220	5	2
22	165	5	2	05	220	5	2
23	160	8	3	06	225	5	2
24	160	12	4	07	225	5	2
25	160	8	3	08	225	5	2
26	160	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
06 May	0047	0106	0114	M1.6	0.016	2F	N24W32	3663				
06 May	0509	0528	0538	M1.3	0.020			3663				
06 May	0538	0635	0647	X4.5	0.540	3B	N24W32	3663		140		
06 May	0949	0959	1004	M1.5	0.009			3663				
06 May	2137	2148	2158	M1.2	0.013	2N	N25W42	3663				
06 May	2158	2227	2307	M4.3	0.120			3663				
07 May	0041	0058	0123	M2.6	0.056	SF	N27W40	3663	170			
07 May	0558	0616	0627	M5.1	0.002			3663	120			
07 May	0818	0823	0840	M1.3	0.015	SN	S19E06	3664	110			
07 May	1140	1150	1201	M2.4	0.003	2N	S18E03	3664		110		
07 May	1243	1254	1259	M1.5	0.005	SF	N27W53	3663				
07 May	1316	1325	1332	M1.0	0.011			3663				
07 May	1332	1335	1339	M1.0	0.005			3664				
07 May	1621	1630	1636	M8.2	0.030	SF	S19W13	3663				
07 May	1958	2022	2034	M2.1	0.006			3664	340			
07 May	2113	2126	2142	M3.3	0.007			3663				
07 May	2142	2153	2208	M3.2	0.050			3663				
08 May	0133	0141	0148	X1.0	0.047	1B	N26W58	3663				
08 May	0216	0227	0236	M3.4	0.029			3664				
08 May	0319	0327	0338	M1.8	0.004			3664	160			
08 May	0437	0509	0532	X1.0	0.006	3B	S18W17	3664	160	570	3	2
08 May	0729	0741	0753	M4.5	0.051	1F	N28W59	3663				
08 May	0931	0937	0942	M1.8	0.012			3663	1300			1
08 May	0943	0948	0956	M2.1	0.016	SF	N26W66	3663				
08 May	1109	1122	1126	M4.1	0.014	SF	S17W06	3663	3600	730		
08 May	1732	1753	1800	M7.9	0.058	2N	S18W18	3664				
08 May	1814	1836	1851	M2.9	0.007	1F	N28W72	3663	590			
08 May	1915	1921	1929	M2.0	0.016			3664				
08 May	2027	2034	2039	M1.7	0.012			3664				
08 May	2108	2140	2310	X1.0	0.530			3664		1000		
08 May	2108	2140	0307	X1.0	0.200			3664				3
08 May	2205	2227	2312	M9.8	0.320			3664				
09 May	0307	0317	0323	M4.0	0.009	1B	S19W24	3664				
09 May	0323	0332	0345	M4.5	0.053			3664				
09 May	0444	0449	0455	M1.7	0.005	SF	S19W24	3664				
09 May	0603	0613	0624	M2.3	0.005			3664	360			
09 May	0845	0913	0936	X2.2	0.440	3B	S20W26	3664	6e+05	2500	2	3
09 May	1152	1156	1202	M3.1	0.014			3664				

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
09 May	1205	1212	1220	M2.9	0.024			3664				
09 May	1316	1323	1329	M3.7	0.019	1N	S21W29	3664				
09 May	1723	1744	1800	X1.1	0.160	2B	S14W28	3664	4500	300		2
09 May	2115	2121	2125	M1.0	0.006	SF	N28W88	3663				
09 May	2208	2215	2224	M1.0	0.002				310			
09 May	2224	2241	2247	M2.6	0.004				1400			
09 May	2304	2308	2313	M1.2	0.003	SF	S17W43	3664				
09 May	2344	2351	2355	M1.5	0.004			3664	550			
10 May	0010	0013	0022	M1.3	0.010			3664	2200			
10 May	0315	0329	0340	M1.4	0.005			3664				
10 May	0627	0654	0706	X3.9	0.440			3664	440	900	3	2
10 May	1010	1014	1019	M2.2	0.010			3664				
10 May	1358	1411	1423	M5.9	0.056	1N	S14W39	3664				
10 May	1826	1832	1838	M1.1	0.003			3664				
10 May	1838	1848	1857	M1.7	0.021	1F	S16W44	3664				
10 May	1857	1905	1910	M2.0	0.005			3664				
10 May	1935	1953	1956	M1.1	0.016			3664	440			
10 May	1956	2003	2018	M1.9	0.022			3664				
10 May	2059	2108	2112	M3.8	0.018			3664	110			
11 May	0110	0123	0139	X5.8	0.640	2B	S15W45	3664	41000	780	3	2
11 May	1003	1018	1034	M3.1	0.046			3664				
11 May	1053	1056	1100	M1.6	0.006			3664				
11 May	1115	1144	1205	X1.5	0.260	2B	S22W44	3664				
11 May	1345	1349	1408	M1.7	0.021	1N	S18W52	3664				
11 May	1446	1525	1552	M8.8	0.200	2N	S15W49	3664		100		
11 May	2032	2041	2047	M1.2	0.008			3664				
12 May	0041	0045	0052	M3.2	0.016	SF	S20W68	3664	220			1
12 May	0537	0552	0606	M2.4	0.029	SF	S20W65	3664				
12 May	1227	1241	1254	M1.6	0.019	SF	S09E78	3664	250			
12 May	1340	1347	1349	M1.0	0.005	SF	S09E78	3679				
12 May	1349	1356	1408	M1.5	0.016	SF	S21W70	3664				
12 May	1611	1626	1638	X1.0	0.096	1F	S18W72	3664				
12 May	2017	2032	2049	M4.8	0.003	SN	S18W74	3664	140			
12 May	2201	2206	2212	M1.1	0.004	SF	S16W80	3664				
12 May	2214	2218	2224	M1.1	0.006	SF	S21E11	3676				
12 May	2300	2310	2314	M1.0	0.005	SF	S18W77	3664				

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
06 May	0000	0000	0031	C3.9	SF	N26W24	3663
06 May	0034	0638	0918		3B	N24W32	3663
06 May	0047	0106	0114	M1.6	2F	N24W32	3663
06 May	0052	0058	0113		SF	S21E11	3664
06 May	0340	0351	0409	C5.8			
06 May	0409	0422	0429	C8.8	SF	S18E13	3664
06 May	B0452	U0635	1311		3B	N26W35	3663
06 May	B0452	U0833	1052		SF	S17E26	3664
06 May	0509	0528	0538	M1.3			3663
06 May	0538	0635	0647	X4.5			3663
06 May	0859	0901	0903		SF	S18E13	3664
06 May	0900	0904	0905		SF	S17E29	3668
06 May	0949	0959	1004	M1.5			3663
06 May	1052	1100	1106	C6.5	SF	S17E26	3664
06 May	1251	1256	1300	C9.3			3663
06 May	1318	1318	1400		1F	N26W37	3663
06 May	1414	1528	1615	C4.4	1F	N24W37	3663
06 May	1523	1534	1548	C6.2	1N	N26W35	3663
06 May	1541	1542	1547		SF	S21E14	3664
06 May	1619	1622	1623		SF	N26W35	3663
06 May	1706	1709	1713	C4.3	SF	N25W44	3663
06 May	1732	1739	1746	C2.7			
06 May	1816	1822	1826	C3.7			
06 May	1833	1842	1849	C2.9			
06 May	1906	1918	1934	C9.4	1F	N24W41	3663
06 May	2015	2022	2025	C2.6			
06 May	2025	2031	2036	C3.4			
06 May	2118	2120	2125	C3.2			
06 May	2137	2148	2158	M1.2	2N	N25W42	3663
06 May	2158	2227	2307	M4.3			3663
06 May	B2324	2358	A2359		2F	N27W39	3663
07 May	B0000	0000	0003		1F	N27W39	3663
07 May	0007	0009	0013		SF	N27W41	3663
07 May	0016	0033	0144		SF	S17E10	3664
07 May	0041	0058	0123	M2.6	SF	N27W40	3663
07 May	0246	0321	0334		SF	S22E03	3664
07 May	0415	0416	0423		SF	S20E08	3664
07 May	0537	0546	0552	C5.7			

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
07 May	0558	0616	0627	M5.1			3663
07 May	0809	0811	0816		SF	S24E00	3664
07 May	0818	0823	0840	M1.3	SN	S19E06	3664
07 May	B1006	U1024	A1039	C9.5	1F	S18E03	3664
07 May	B1106	U1110	A1117		SF	S18E03	3664
07 May	B1120	U1147	A1218	M2.4	2N	S18E03	3664
07 May	1149	1150	1152		SF	N28W48	3663
07 May	1243	1254	1259	M1.5			3663
07 May	B1254	U1317	A1338		SF	S18E01	3664
07 May	B1254	U1322	A1401		SF	N27W53	3663
07 May	1310	1329	1410		SF	N26W49	3663
07 May	1316	1325	1332	M1.0			3663
07 May	1332	1335	1339	M1.0			3664
07 May	1352	1353	1418		SF	S19W02	3664
07 May	B1401	U1401	1414		SF	S17W00	3664
07 May	B1421	U1421	A1433		SF	S17W00	3664
07 May	B1458	U1458	A1504		SF	S18E01	3664
07 May	1535	1613	1615		SF	S19W02	3664
07 May	1621	1630	1636	M8.2	SF	S19W13	3663
07 May	1851	1853	1855		SF	S20W03	3664
07 May	1958	2022	2034	M2.1			3664
07 May	2051	2106	2109		SF	S21W06	3664
07 May	2113	2126	2142	M3.3			3663
07 May	2142	2153	2208	M3.2			3663
07 May	2321	2330	2344		SF	S21W08	3664
08 May	0044	0051	0055	C9.3	SF	S20W09	3664
08 May	0133	0141	0148	X1.0	1B	N26W58	3663
08 May	0216	0227	0236	M3.4			3664
08 May	0319	0327	0338	M1.8			3664
08 May	0319	0410	0414		SF	S21W10	3664
08 May	0424	U0652	1552		3B	S18W17	3664
08 May	0437	0509	0532	X1.0	3B	S18W17	3664
08 May	0555	U0619	0631		SF	N28W58	3663
08 May	0729	0741	0753	M4.5	1F	N28W59	3663
08 May	0807	U0838	0930		SF	S16W02	3664
08 May	0931	0937	0942	M1.8			3663
08 May	0943	0948	0956	M2.1	SF	N26W66	3663
08 May	0957	0959	1005		SF	N25W65	3663

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
08 May	1048	1049	1100		SF	N26W63	3663
08 May	1107	1154	1231	M4.1	SF	S17W06	3663
08 May	1113	1119	1233		1N	N27W64	3663
08 May	1246	1256	1545		1F	S20W15	3664
08 May	1434	1441	1455		SF	N28W66	3663
08 May	1553	1559	1613	C6.6	SF	S20W15	3664
08 May	1613	1622	1627	C6.6			
08 May	1732	1753	1800	M7.9	2N	S18W18	3664
08 May	1811	1834	1926	M2.9	1F	N28W72	3663
08 May	1915	1921	1929	M2.0			3664
08 May	1931	1932	1935		SF	N27W72	3663
08 May	2027	2034	2039	M1.7			3664
08 May	2108	2140	2310	X1.0			3664
08 May	2108	2140	0307	X1.0			3664
08 May	2205	2227	2312	M9.8			3664
08 May	B2308	U2329	A2359		2N	S18W23	3664
09 May	B0000	U0000	0050		1N	S18W23	3664
09 May	0058	0101	A0142		1F	S18W23	3664
09 May	0104	0104	0107		SF	N28W74	3663
09 May	B0151	U0151	0229		1F	S18W23	3664
09 May	0231	0232	0235		SF	S18W23	3664
09 May	0237	0242	0249		SF	S18W23	3664
09 May	0307	0317	0323	M4.0	1B	S19W24	3664
09 May	0323	0332	0345	M4.5			3664
09 May	0444	0449	0455	M1.7	SF	S19W24	3664
09 May	0529	0529	0533		SF	N29W77	3663
09 May	0603	0613	0624	M2.3			3664
09 May	0709	0709	0712		SF	S17W26	3664
09 May	0747	0751	0753		SF	S19W26	3664
09 May	0754	0802	0806		SF	S19W26	3664
09 May	0809	0813	0819		SF	S21W27	3664
09 May	0831	U0905	A0934	X2.2	3B	S20W26	3664
09 May	B1043	U1320	A1455		1N	S21W29	3664
09 May	1152	1156	1202	M3.1			3664
09 May	1205	1212	1220	M2.9			3664
09 May	B1251	1322	1345		1N	S18W30	3664
09 May	1316	1323	1329	M3.7			3664
09 May	1328	1331	1333		SF	N26W76	3663

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
09 May	B1338	U1338	A1353		SF	N26W76	3663
09 May	1348	1422	1501		SF	S18W30	3664
09 May	1545	1547	1549		SF	S15W40	3664
09 May	1723	1744	1800	X1.1	2B	S14W28	3664
09 May	2115	2121	2125	M1.0	SF	N28W88	3663
09 May	2208	2215	2224	M1.0			
09 May	2224	2241	2247	M2.6			
09 May	2254	2256	2257	M1.2	SF	S17W43	3664
09 May	2344	2351	2355	M1.5			3664
10 May	0010	0013	0022	M1.3			3664
10 May	0203	0209	0216	C9.8	SF	S20W26	3664
10 May	0224	0225	0232		SF	S20W26	3664
10 May	0315	0329	0340	M1.4			3664
10 May	0401	0407	0413		SF	S20W26	3664
10 May	0426	0426	0431		SF	S20W26	3664
10 May	0438	0444	0458		SF	S20W26	3664
10 May	0610	0651	1007		2B	S15W36	3664
10 May	0623	0648	0857		2B	S20W26	3664
10 May	0627	0654	0706	X3.9			3664
10 May	1010	1014	1019	M2.2			3664
10 May	1026	1029	1059		SF	S15W38	3664
10 May	1140	1146	1148		SF	S20W42	3664
10 May	1319	1415	A1534		2N	S16W39	3664
10 May	1346	1346	1348		SF	N14E22	3670
10 May	1358	1411	1423	M5.9	1N	S14W39	3664
10 May	1532	1535	1541	C6.9	SF	S15W36	3664
10 May	1815	1825	1826	C9.1			3664
10 May	1826	1832	1838	M1.1			3664
10 May	1838	1848	1857	M1.7	1F	S16W44	3664
10 May	1857	1905	1910	M2.0			3664
10 May	1935	1953	1956	M1.1			3664
10 May	1956	2003	2018	M1.9			3664
10 May	2059	2108	2112	M3.8			3664
10 May	2236	2246	2307		SF	S20W49	3664
11 May	B0101	0119	A0123	X5.8	2B	S15W45	3664
11 May	B0430	U0549	0614		SF	S22W44	3664
11 May	0719	0759	0814		SF	S22W44	3664
11 May	0815	0819	0835		SF	S22W44	3664

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
11 May	0818	0818	0831		SF	N18E42	3672
11 May	0835	0837	0841		SF	S22W44	3664
11 May	0842	1137	1309		2B	S22W44	3664
11 May	0913	0846	A0913		SF	S20W53	3664
11 May	1003	1018	1034	M3.1			3664
11 May	1053	1056	1100	M1.6			3664
11 May	1115	1144	1205	X1.5			3664
11 May	1301	1302	1314		SF	N16E08	3670
11 May	1320	1349	1429	M1.7	1N	S18W52	3664
11 May	1446	1525	1552	M8.8	2N	S15W49	3664
11 May	1618	U1618	A1634		2N	S18W52	3664
11 May	1941	1947	1956	C7.1	SF	N16E36	3672
11 May	2001	2003	2017		SF	S15W49	3664
11 May	2032	2041	2047	M1.2			3664
11 May	2059	2107	2119	C9.4			3664
11 May	2152	2158	2208	C7.8			
11 May	2318	2319	2325	C6.6	SF	S18W64	3664
11 May	2327	2327	2337		SF	S18W63	3664
12 May	0020	0028	0032	C6.4			3673
12 May	0041	0045	0052	M3.2	SF	S20W68	3664
12 May	0515	0517	0521		SF	S14W33	3675
12 May	0537	0552	0606	M2.4	SF	S20W65	3664
12 May	0933	0951	1008		SF	S18W64	3664
12 May	1014	1022	1032	C9.2	SF	S18W67	3664
12 May	1131	1132	1145		SF	S14W37	3675
12 May	1227	1241	1254	M1.6	SF	S09E78	3664
12 May	1303	1312	1321		SF	S14W37	3675
12 May	1338	1350	1402	M1.0	SF	S09E78	3679
12 May	1346	1349	1358	M1.5	SF	S21W70	3664
12 May	1414	1606	1655		SF	S14W37	3675
12 May	1417	1423	1425		SF	S21W70	3664
12 May	1519	1526	1537	C7.0	SF	S20W75	3664
12 May	1541	1544	1549	C7.3	SF	S21W74	3664
12 May	1550	1550	1600		SF	S22E15	3676
12 May	1611	1626	1638	X1.0	1F	S18W72	3664
12 May	1943	1945	2004		SF	S18W72	3664
12 May	2017	2032	2049	M4.8	SN	S18W74	3664
12 May	2046	2048	2053		SF	S20E11	3676

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
12 May	2141	2142	2147		SF	N22W10	3671
12 May	2201	2206	2212	M1.1	SF	S16W80	3664
12 May	2214	2216	2218	M1.1	SF	S21E11	3676
12 May	2300	2310	2314	M1.0	SF	S18W77	3664
12 May	2327	2339	2349	C9.5	SF	S18W78	3664
12 May	2335	2340	2358		SF	S22E11	3676

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 3660												
27 Apr	N10E62	50	30	1	Hsx	1	A								
28 Apr	N10E50	49	10	3	Bxo	3	B				1				
29 Apr	N11E37	49	10	2	Hrx	2	A								
30 Apr	N11E23	50	plage												
01 May	N11E09	50	plage												
02 May	N11W05	51	plage												
03 May	N11W19	52	plage												
04 May	N11W33	53	plage												
05 May	N11W47	54	plage												
06 May	N11W61	54	plage												
07 May	N11W75	55	plage												
08 May	N11W89	56	plage												
								0	0	0	1	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 51

			Region 3661												
29 Apr	N24E62	24	30	3	Hsx	1	A	1							
30 Apr	N24E50	22	40	2	Hsx	1	A				2				
01 May	N24E39	20	40	2	Hsx	1	A								
02 May	N22E27	19	50	9	Cso	5	B								
03 May	N23E15	18	50	9	Cso	2	B				1				
04 May	N23W01	21	50	1	Hsx	1	A								
05 May	N23W15	21	40	1	Hsx	1	A								
06 May	N23W28	21	20	2	Hrx	1	A								
07 May	N22W42	21	10	1	Axx	1	A								
08 May	N22W56	23	plage												
09 May	N22W70	24	plage												
10 May	N22W84	24	plage												
								1	0	0	3	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 21

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 3662												
29 Apr	N30E39	47	20	1	Cro	3	B								
30 Apr	N30E10	63	30	6	Cro	6	B								
01 May	N30W01	60	70	8	Dao	10	B								
02 May	N30W15	61	90	9	Dao	11	B								
03 May	N30W28	61	100	10	Dao	4	B				1				
04 May	N29W40	60	50	10	Cso	3	B								
05 May	N29W59	65	30	2	Hsx	1	A								
06 May	N27W71	64	10	1	Hsx	1	A								
07 May	N27W85	65	plage												
								0	0	0	1	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 60

			Region 3663												
30 Apr	N25E34	38	10	6	Bxo	7	B				1				
01 May	N26E25	35	60	5	Dso	9	BG	5	1		7	1			
02 May	N26E10	36	230	10	Dac	18	BD	4	1		19	1			
03 May	N26W03	36	480	12	Ekc	28	BGD	5	3	1	17	2			
04 May	N26W16	36	580	13	Ekc	30	BGD	13	6		14	3			
05 May	N26W31	37	580	16	Fkc	27	BGD	7	6	2	11	7	2		
06 May	N25W45	38	600	17	Fkc	18	BGD	6	5	1	3	4	3	2	
07 May	N25W57	37	400	16	Fkc	15	BGD		7		6	1			
08 May	N26W70	36	400	17	Fkc	10	BG		5	1	7	4			
09 May	N25W83	37	300	17	Fkc	10	BG		1		5				
10 May	N27W92	37	300	17	Fkc	10	BG								
								40	35	5	90	23	5	2	0

Crossed West Limb.
Absolute heliographic longitude: 36

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 3664												
01 May	S18E64	355	40	4	Dao	5	B								
02 May	S18E52	354	120	8	Dai	13	B	6	1		10				
03 May	S18E41	352	240	11	Eai	16	BG	3	1		9	1			
04 May	S19E28	352	310	11	Ekc	20	BD	1			7	1			
05 May	S19E14	352	580	11	Ekc	20	BD	3	3		11	1			
06 May	S19E02	350	560	13	Ekc	22	BGD	2			6				
07 May	S20W09	349	630	16	Fkc	37	BGD	1	4		15	1	1		
08 May	S19W24	350	1200	20	Fkc	62	BGD	2	6	3	4	1	2	2	
09 May	S19W34	348	1090	20	Fkc	81	BGD		9	2	10	6	1	1	
10 May	S17W48	347	2400	20	Fkc	58	BGD	3	10	1	9	2	3		
11 May	S18W62	349	2100	23	Fkc	43	BGD	2	5	2	8	1	4		
12 May	S19W75	349	1920	18	Fkc	28	BGD	4	7	1	14	1			
								27	46	9	103	15	11	3	0

Still on Disk.
Absolute heliographic longitude: 350

			Region 3665												
02 May	S05E71	335	10	1	Axx	1	A								
03 May	S05E57	336	10	1	Hrx	1	A								
04 May	S05E44	336	10	1	Hrx	1	A								
05 May	S05E30	336	10	1	Axx	1	A								
06 May	S05E15	338	plage												
07 May	S05W00	340	plage												
08 May	S05W15	342	plage												
09 May	S05W30	344	plage												
10 May	S05W45	345	plage												
11 May	S05W60	347	plage												
12 May	S05W75	349	plage												
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 340

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 3666												
03 May	N07E16	17	120	6	Cai	10	B				2	1			
04 May	N07E02	18	130	6	Cai	10	B								
05 May	N07W13	19	120	8	Cso	4	B								
06 May	N07W27	20	70	2	Hsx	2	A								
07 May	N07W40	20	80	2	Hsx	2	A								
08 May	N07W52	18	70	2	Hsx	2	A								
09 May	N08W65	19	50	2	Hsx	1	A								
10 May	N08W80	19	50	2	Hsx	1	A								
								0	0	0	2	1	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 18

			Region 3667												
04 May	N28E73	307	80	3	Hsx	1	A								
05 May	N27E59	307	130	3	Hsx	1	A								
06 May	N27E44	308	130	3	Hsx	1	A								
07 May	N26E32	307	150	3	Hsx	1	A								
08 May	N26E20	306	150	3	Hsx	1	A								
09 May	N27E07	307	130	2	Hsx	1	A								
10 May	N28W05	304	140	3	Hsx	1	A								
11 May	N27W18	305	140	3	Hsx	1	A								
12 May	N27W32	306	90	3	Hax	2	A								
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 304

			Region 3668												
05 May	S17E29	337	40	4	Cao	6	B								
06 May	S17E13	339	50	7	Dao	11	B				1				
07 May	S16E01	338	30	6	Cso	6	B								
08 May	S15W13	339	30	4	Cao	5	B								
09 May	S15W27	341	plage												
10 May	S15W41	341	plage												
11 May	S15W55	342	plage												
12 May	S15W69	343	plage												
								0	0	0	1	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 338

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 3669												
05 May	S08E43	323	10	1	Hrx	1	A								
06 May	S08E29	323	10		Axx	1	A								
07 May	S09E15	324	10	1	Axx	1	A								
08 May	S09E01	326	plage												
09 May	S09W13	327	plage												
10 May	S09W27	327	plage												
11 May	S09W41	328	plage												
12 May	S09W55	329	plage												
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 326

			Region 3670												
06 May	N17E66	286	20		Hax	1	A								
07 May	N16E55	284	40	2	Hsx	1	A								
08 May	N16E43	282	40	5	Cso	2	B								
09 May	N16E31	283	40	3	Hsx	1	A								
10 May	N17E14	285	50	3	Hax	6	A				1				
11 May	N18E02	285	30	3	Cso	4	B				1				
12 May	N19W09	283	20	3	Cso	2	B								
								0	0	0	2	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 285

			Region 3671												
09 May	N20E33	281	40	50	Hax	1	A								
10 May	N19E17	281	30	40	Hsx	1	A								
11 May	N24E04	283	30	8	Cro	7	B								
12 May	N24W10	284	30	5	Dro	8	B				1				
								0	0	0	1	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 283

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 3672												
09 May	N18E58	256	30	4	Cro	5	B								
10 May	N18E45	254	140	8	Cai	9	B								
11 May	N18E30	257	90	5	Dao	4	B	1			2				
12 May	N18E17	257	80	6	Cso	4	B								
								1	0	0	2	0	0	0	0
Still on Disk. Absolute heliographic longitude: 257															
			Region 3673												
11 May	S09E54	233	30	2	Hsx	1	A								
12 May	S10E41	233	30	2	Hsx	1	A	1							
								1	0	0	0	0	0	0	0
Still on Disk. Absolute heliographic longitude: 233															
			Region 3674												
11 May	S14E64	223	80	5	Cso	3	B								
12 May	S14E53	221	110	6	Cso	3	B								
								0	0	0	0	0	0	0	0
Still on Disk. Absolute heliographic longitude: 221															
			Region 3675												
11 May	S15W29	316	30	3	Cro	5	B								
12 May	S14W43	317	60	5	Dsi	5	B				4				
								0	0	0	4	0	0	0	0
Still on Disk. Absolute heliographic longitude: 316															
			Region 3676												
12 May	S22E09	265	80	6	Dai	10	BG		1		4				
								0	1	0	4	0	0	0	0
Still on Disk. Absolute heliographic longitude: 265															

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 3677													
12 May	S02W38	312	10	1	Axx	1	A	0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 312

		Region 3678													
12 May	N08E65	209	10	1	Hsx	1	A	0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 209

		Region 3679													
12 May	S09E73	201	20	1	Hsx	1	A	0	1	0	1	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 201

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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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