Space Weather Highlights
10 June - 16 June 2024

SWPC PRF 2546
17 June 2024

Solar activity ranged from low to high levels. Region 3697 (S18, L=350, class/area=Fkc/410 on 03 Jun) produced the strongest flare of the period, an X1.5/Sf flare (R3 - Strong) at 10/1108 UTC. The region also produced two R2 (Moderate) and three R1 (Minor) events before it rotated around the W limb on 10 Jun. Region 3712 (S26, L=169, class/area=Ekc/1000 on 16 Jun) developed into the most complex region currently on the visible disk. Only R1 events have been produced by this region at the time of this report.

Other activity included filament channel eruption centered near S38E55 which began around 12/1100 UTC. Later that day, an M1.2/1n flare (R1) was observed from Region 3711 (S08, L=211, class/area=Dao/060 on 10 Jun) at 12/2246 UTC. Ejecta from these two events were analyzed. The results suggested potential for CME influence at Earth with onset over 14-15 Jun.

No proton events above the S1 (Minor) threshold were observed at geosynchronous orbit. However, an enhancement was observed which peaked just below S1 levels over 12-13 Jun due to activity on the Sun's farside late on 11 Jun.

The greater than 2 MeV electron flux at geosynchronous orbit was remained at background levels.

Geomagnetic field activity was elevated to active levels on 10-11 Jun, likely due to CME activity that occurred on the Sun over 08 Jun. Quiet conditions were observed from 12-14 Jun. Geomagnetic activity increased to G1 (Minor) geomagnetic storm levels on 15 Jun and active conditions on 16 Jun, likely due to multiple eruptive events on the Sun over 12 Jun.

Space Weather Outlook
17 June - 13 July 2024

Solar activity is likely to reach moderate levels over 17-24 Jun, primarily due to the flare potential of Region 3712 (S26, L=169, class/area=Ekc/1000 on 16 Jun). A chance for R1-R2 (Minor-Moderate) activity is likely to remain throughout the outlook period due to the anticipated return of multiple complex regions from the farside of the Sun.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to remain at normal to moderate levels.

Geomagnetic field activity is expected to range from quiet to active levels. Multiple, recurrent CH HSSs are likely to cause active conditions on 18 Jun and unsettled conditions over 17 Jun, 19-20 Jun, 22-23 Jun, and 30 Jun - 01 Jul. The remainder of the outlook period is likely to be mostly quiet.

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
10 June	178	146	840	C2.3	3	5	1	4	0	0	0	0
11 June	165	95	420	C1.7	5	0	0	4	0	0	0	0
12 June	165	145	620	C1.4	5	1	0	10	1	0	0	0
13 June	170	124	700	C1.4	5	1	0	11	2	0	0	0
14 June	169	117	660	C1.7	13	1	0	6	1	0	0	0
15 June	171	134	1290	C1.9	25	1	0	35	1	0	0	0
16 June	167	152	1440	C1.4	26	0	0	21	5	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
10 June	4.6e+07	3.8e+05	1.1e+06
11 June	6.0e+06	1.0e+05	1.1e+06
12 June	5.2e+06	5.7e+05	1.2e+06
13 June	5.8e+06	4.2e+05	1.2e+06
14 June	4.2e+06	1.1e+05	1.2e+06
15 June	3.9e+06	2.3e+04	1.0e+06
16 June	2.1e+06	1.6e+04	1.0e+06

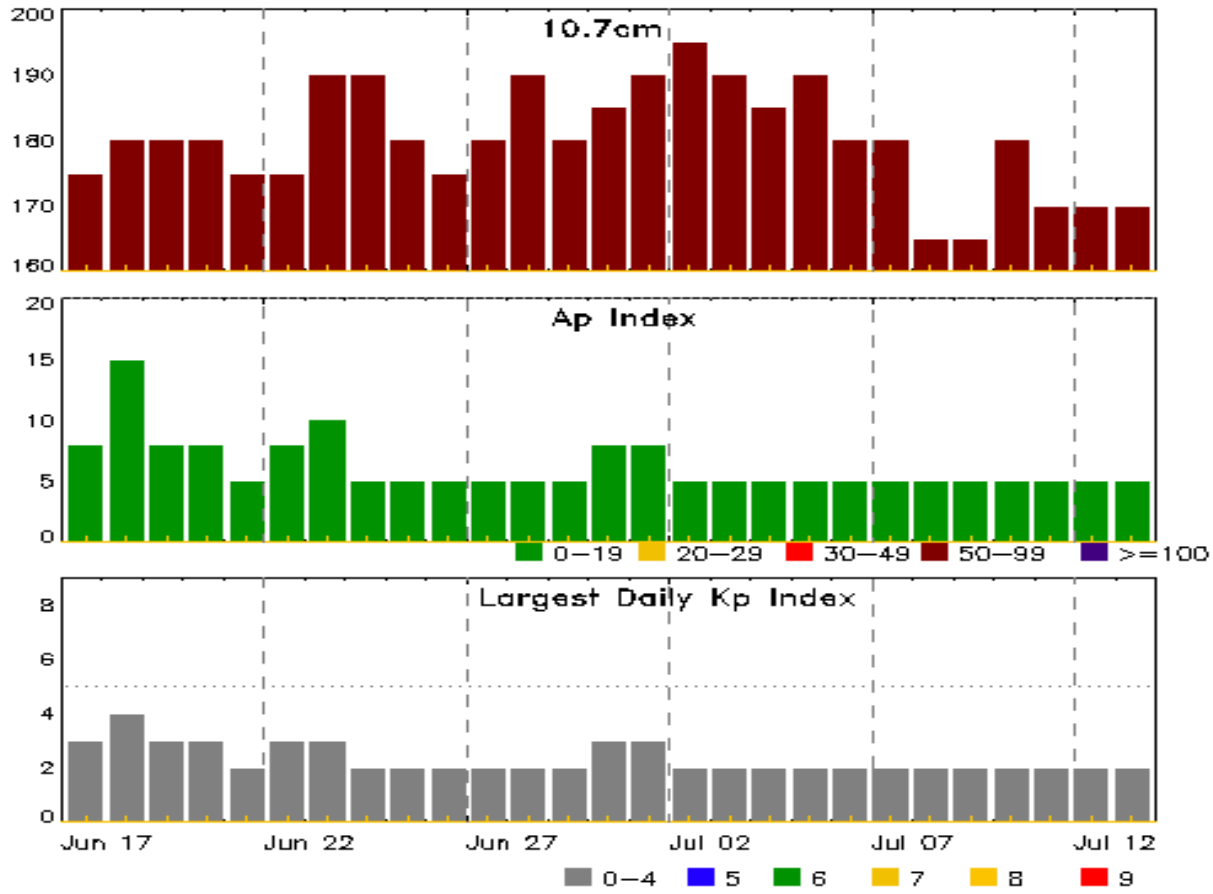
Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
10 June	11	1-1-1-2-2-4-4-2	7	1-1-1-3-0-2-3-2	11	2-1-1-1-1-4-4-2
11 June	13	4-3-2-3-2-3-2-2	18	5-5-3-3-2-1-1-1	12	4-4-3-2-2-2-1-2
12 June	6	1-1-1-2-3-1-2-2	8	1-1-2-2-3-4-1-0	5	1-1-1-1-2-2-1-2
13 June	5	1-0-1-2-2-3-2-0	2	1-0-0-0-1-1-1-0	4	1-0-1-1-1-1-1-1
14 June	8	1-1-2-3-3-1-2-2	12	0-2-4-4-3-1-2-2	6	1-1-2-2-1-1-2-2
15 June	18	2-2-2-3-5-3-3-4	26	1-3-3-5-6-4-2-3	19	2-2-2-3-5-3-3-4
16 June	9	3-0-0-2-3-2-3-3	17	3-1-0-4-5-2-4-2	15	3-1-0-3-3-3-4-2

Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
10 Jun 0535	SUMMARY: Proton Event 10MeV Integral Flux >= 10pfu	08/0255 - 09/2140
10 Jun 1057	ALERT: X-ray Flux exceeded M5	10/1053
10 Jun 1134	SUMMARY: X-ray Event exceeded X1	10/1018 - 1118
10 Jun 1651	WARNING: Geomagnetic Sudden Impulse expected	10/1705 - 1805
10 Jun 1653	WARNING: Geomagnetic K = 4	10/1705 - 2200
10 Jun 1745	SUMMARY: Geomagnetic Sudden Impulse	10/1725
10 Jun 1746	ALERT: Geomagnetic K = 4	
10 Jun 1834	ALERT: X-ray Flux exceeded M5	10/1828
10 Jun 1934	ALERT: Type II Radio Emission	10/1829
10 Jun 1938	SUMMARY: X-ray Event exceeded M5	10/1811 - 1918
10 Jun 2155	EXTENDED WARNING: Geomagnetic K = 4	10/1705 - 11/0300
11 Jun 0239	EXTENDED WARNING: Geomagnetic K = 4	10/1705 - 11/1500
11 Jun 2310	ALERT: Type IV Radio Emission	11/1638
11 Jun 2311	ALERT: Type II Radio Emission	11/2251
12 Jun 0308	WARNING: Proton 10MeV Integral Flux > 10pfu	12/0310 - 1500
12 Jun 1410	EXTENDED WARNING: Proton 10MeV Integral Flux > 10pfu	12/0310 - 2359
12 Jun 2356	EXTENDED WARNING: Proton 10MeV Integral Flux > 10pfu	12/0310 - 13/1500
15 Jun 1111	WARNING: Geomagnetic Sudden Impulse expected	15/1145 - 1215
15 Jun 1148	WARNING: Geomagnetic K = 4	15/1200 - 2100
15 Jun 1216	SUMMARY: Geomagnetic Sudden Impulse	15/1157
15 Jun 1310	ALERT: Geomagnetic K = 4	
15 Jun 1323	WARNING: Geomagnetic K = 5	15/1323 - 2100
15 Jun 1330	ALERT: Geomagnetic K = 5	
15 Jun 1410	WARNING: Geomagnetic K = 6	15/1409 - 2100
15 Jun 2052	EXTENDED WARNING: Geomagnetic K = 4	15/1200 - 16/0900
16 Jun 1200	WARNING: Geomagnetic K = 4	16/1200 - 2100
16 Jun 1926	ALERT: Geomagnetic K = 4	
16 Jun 2055	EXTENDED WARNING: Geomagnetic K = 4	16/1200 - 17/0300

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
17 Jun	175	8	3	01 Jul	190	8	3
18	180	15	4	02	195	5	2
19	180	8	3	03	190	5	2
20	180	8	3	04	185	5	2
21	175	5	2	05	190	5	2
22	175	8	3	06	180	5	2
23	190	10	3	07	180	5	2
24	190	5	2	08	165	5	2
25	180	5	2	09	165	5	2
26	175	5	2	10	180	5	2
27	180	5	2	11	170	5	2
28	190	5	2	12	170	5	2
29	180	5	2	13	170	5	2
30	185	8	3				

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
10 Jun	0558	0609	0616	M3.3	0.021				3697				
10 Jun	0938	1006	1018	M2.2	0.039				3697				
10 Jun	1018	1058	1103	M5.3	0.110				3697				
10 Jun	1018	1108	1118	X1.5	0.110	SF	S19	W85	3697				
10 Jun	1320	1329	1335	M1.3	0.009				3697				
10 Jun	1811	1840	1918	M9.5	0.250				3697				1
12 Jun	2224	2246	2335	M1.2	0.035	1N	S09	E14	3711				
13 Jun	1634	1645	1655	M3.2	0.024	1N	S16	E59	3713				
14 Jun	0414	0432	0443	M2.4	0.023				3712		110		
15 Jun	0600	0627	0643	M1.3	0.026				3712				

Flare List

	Time			Optical			
Date	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
10 Jun	0344	0353	0403	C4.4			3697
10 Jun	0410	0432	0504	C5.9			
10 Jun	0558	0609	0616	M3.3			3697
10 Jun	0849	0857	0905	C2.8			3697
10 Jun	0938	1006	1018	M2.2			3697
10 Jun	1018	1058	1103	M5.3			3697
10 Jun	1018	1108	1118	X1.5	SF	S19W85	3697
10 Jun	B1307	U1310	1337		SF	S10E37	3709
10 Jun	1320	1329	1335	M1.3			3697
10 Jun	1437	1438	1441		SF	S13E11	3707
10 Jun	1517	1517	1521		SF	S17W86	3697
10 Jun	1811	1840	1918	M9.5			3697
11 Jun	0306	0329	0351	C9.0			3697
11 Jun	0429	0443	0459	C9.1			3697
11 Jun	1303	1303	1305		SF	S16W02	3707
11 Jun	1351	1416	1424	C2.7			3697
11 Jun	1424	1440	2145	C3.5			3697
11 Jun	1745	1746	1754		SF	S12E29	3711
11 Jun	2145	2201	2218	C2.7	SF	S11E27	3711
11 Jun	2315	2318	2328		SF	S15W06	3707
12 Jun	B0507	U0510	A0530		SF	S10E24	3711

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
12 Jun	0514	0521	0526	C3.6			3713
12 Jun	0547	0553	0558	C2.3	SF	S10E37	3709
12 Jun	0639	0639	0644		SF	S21E63	
12 Jun	0723	0725	0728	C2.7	SF	S23E64	3712
12 Jun	B1034	U1035	A1043		SF	S23E64	3712
12 Jun	1253	1307	1317	C4.4	SF	S07E75	3713
12 Jun	1454	1455	1457		SF	S25E63	3712
12 Jun	1517	1524	1533	C3.3	SF	S10E09	3709
12 Jun	1729	1731	1733		SF	S20E56	3712
12 Jun	2045	2050	2100		SF	S10E09	3709
12 Jun	2224	2246	2335	M1.2	1N	S09E14	3711
13 Jun	B0000	2244	0029		SF	S09E14	3711
13 Jun	B0719	U0719	A0739		SF	S23E50	3712
13 Jun	1311	1317	1321	C3.7	SF	N15E19	3714
13 Jun	1322	1323	1324		SF	S24E48	3712
13 Jun	1353	1404	1414		SF	S23E48	3712
13 Jun	1415	1417	1420		SF	S10E24	3711
13 Jun	1503	U1512	A1516		SF	S25E49	3712
13 Jun	B1521	U1522	A1543	C4.6	SF	S24E46	3712
13 Jun	1634	1645	1655	M3.2	1N	S16E59	3713
13 Jun	1840	1854	1901	C9.0	1N	S10W07	3709
13 Jun	1936	1938	1946		SF	S24E43	3712
13 Jun	1936	1945	1946		SF	S24E45	3712
13 Jun	1938	1950	1959	C7.8	SF	S15E56	3713
13 Jun	2211	2218	2230	C2.8			3713
14 Jun	0035	0043	0048	C2.6			3713
14 Jun	0136	0141	0145	C2.6			3712
14 Jun	0315	0321	0327	C1.9			3712
14 Jun	0327	0331	0335	C1.9			3712
14 Jun	0359	0405	0414	C2.4			3712
14 Jun	0414	0432	0443	M2.4			3712
14 Jun	0416	0428	0557		1N	S25E48	3712
14 Jun	0444	0445	0449		SF	S17E50	3713
14 Jun	0824	0833	0851	C3.8			3712
14 Jun	B0951	U0958	A0958		SF	S26E40	3712
14 Jun	B1016	U1044	A1050		SF	S23W28	3708
14 Jun	1059	1105	1111	C6.3	SF	S25E38	3712
14 Jun	1453	1453	1504		SF	S14E50	3713

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
14 Jun	1609	1612	1623		SF	S24E31	3712
14 Jun	1704	1708	1713	C2.1			3712
14 Jun	1721	1731	1742	C2.4			3712
14 Jun	1912	1916	1922	C2.9			3712
14 Jun	2058	2107	2126	C4.0			3712
14 Jun	2147	2153	2203	C3.5			3712
14 Jun	2205	2211	2216	C5.1			3712
15 Jun	0126	0135	0139	C9.2			3712
15 Jun	0335	0346	0350	C2.6			3712
15 Jun	0417	0421	0444	C2.4	SF	S24E26	3712
15 Jun	0450	0457	0502	C3.5			3712
15 Jun	0454	0510	0513		SF	S24E26	3712
15 Jun	0455	0509	0511		SF	N10E34	3716
15 Jun	0502	0512	0520	C4.4			3712
15 Jun	0515	0515	0714		SF	N10E34	3716
15 Jun	0520	0535	0545	C6.5			3712
15 Jun	0600	0627	0643	M1.3			3712
15 Jun	0715	0755	0818	C5.8	SF	S24E26	3712
15 Jun	0718	0811	0837		1F	S11E38	3713
15 Jun	0740	0746	0750	C6.1			3713
15 Jun	0750	0757	0802	C6.4			3712
15 Jun	0752	0755	0812		SF	N10E32	3716
15 Jun	0819	0821	0830		SF	S24E26	3712
15 Jun	0820	0823	0825		SF	N10E32	3716
15 Jun	0855	0859	0908		SF	S24E26	3712
15 Jun	0910	0912	0917		SF	S24E24	3712
15 Jun	0932	0949	0957	C3.8	SF	S25E23	3712
15 Jun	1029	1034	1042	C3.6	SF	S24E22	3712
15 Jun	1050	1056	1136		SF	S10W18	3711
15 Jun	1055	1105	1112	C4.9	SF	S25E23	3712
15 Jun	B1210	U1213	1215		SF	S24E25	3712
15 Jun	1227	1236	1243	C5.7			3712
15 Jun	1259	1302	1306	C2.8	SF	S25E22	3712
15 Jun	1317	1322	1328	C2.8	SF	S23E21	3712
15 Jun	1319	1321	1324		SF	S13E33	3713
15 Jun	1337	1344	1348	C3.4	SF	S23E21	3712
15 Jun	1403	1410	1423	C3.2	SF	S25E22	3712
15 Jun	1427	1430	1435		SF	S25E22	3712

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
15 Jun	1508	1531	1540	C5.0	SF	S24E19	3712
15 Jun	1626	1632	1637	C2.9	SF	S24E19	3712
15 Jun	1654	1700	1704	C5.1	SF	S24E20	3712
15 Jun	1716	1716	1719		SF	S24E20	3712
15 Jun	1721	1725	1728		SF	S24E20	3712
15 Jun	1745	1749	1755	C3.7	SF	S23E15	3712
15 Jun	1804	1813	1817	C5.8	SF	S23E20	3712
15 Jun	1825	1838	1846		SF	S23E20	3712
15 Jun	1848	1900	1915		SF	S24E19	3712
15 Jun	1924	1929	1938		SF	S25E21	3712
15 Jun	1953	2035	2043		SF	S24E17	3712
15 Jun	2051	2109	2123	C4.2	SN	S24E18	3712
15 Jun	2135	2140	2146	C3.9			
15 Jun	2222	2222	2249		SF	S24E16	3712
15 Jun	2315	2323	2334	C7.1	SF	S24E10	3712
16 Jun	0052	0052	0056		SF	S24E17	3712
16 Jun	0103	0111	0117	C3.2	SF	S24E10	3712
16 Jun	0152	0201	0207	C3.7			3712
16 Jun	0215	0220	0229	C2.9			3712
16 Jun	0255	0304	0313	C2.9			3713
16 Jun	0400	0409	0415	C2.3			3712
16 Jun	0448	0454	0458	C2.6			3712
16 Jun	0512	0521	0525	C3.3			3712
16 Jun	0525	0531	0535	C3.2			3712
16 Jun	B0654	U0710	A0716		1N	S26E15	3712
16 Jun	0755	0759	0801		SF	S26E15	3712
16 Jun	0803	0806	0808		SF	S26E15	3712
16 Jun	0810	0812	0826		SN	S26E15	3712
16 Jun	0827	0829	0832		SF	S26E15	3712
16 Jun	0831	0832	0845		SF	N10E29	3716
16 Jun	0853	U0901	0917		SF	S26E15	3712
16 Jun	1012	1013	1018		SF	S13E26	3713
16 Jun	1124	1128	1134	C2.8			
16 Jun	1140	1147	1151	C2.3	SF	S25E12	3712
16 Jun	1233	1239	1246	C3.1	SF	S24E09	3712
16 Jun	1251	1257	1302	C4.0	SF	S25E12	3712
16 Jun	1347	1355	1416		SF	N10E15	3716
16 Jun	1418	1421	1427		SF	S24E07	3712

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
16 Jun	1432	1439	1449	C3.2	1F	S24E09	3712
16 Jun	1506	1515	1519	C4.9			
16 Jun	1534	1546	1554	C6.7	1F	S25E05	3712
16 Jun	1607	1611	1615	C4.7			
16 Jun	1637	1638	1641		SF	S23E06	3712
16 Jun	1649	1701	1703	C3.3			
16 Jun	1700	1706	1727	C4.0	SF	N10E13	3716
16 Jun	1727	1727	1727		SF	S23E05	3712
16 Jun	1825	1832	1843	C2.0			3712
16 Jun	1831	1832	1837		SF	N10E12	3716
16 Jun	1834	1843	1858		SF	S24E05	3712
16 Jun	1900	1915	1926	C3.5	1F	S25W05	3712
16 Jun	2003	2010	2017	C1.8			
16 Jun	2017	2020	2025	C5.2			
16 Jun	2036	2044	2049	C2.3	SF	S24E03	3712
16 Jun	2115	2124	2131	C6.6	1N	S25W00	3712
16 Jun	2155	2158	2202	C2.2			
16 Jun	2221	2228	2235	C4.4	SF	S24E01	3712

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 3697												
28 May	S18E69	353	250	11	Eho	5	BG	24			1				
29 May	S18E56	353	400	14	Eki	6	BGD	3	3	1	6	1	1	1	
30 May	S18E49	350	420	14	Eki	14	BGD	2			1				
31 May	S18E35	348	380	13	Eki	18	BGD	5	1	1	3	1	1		
01 Jun	S18E21	348	380	13	Ekc	26	BGD	5	1	2	1		1		
02 Jun	S18E07	349	410	13	Ekc	33	BGD	11	2		10				
03 Jun	S18W07	350	410	16	Fkc	33	BGD	8	3		6	3			
04 Jun	S18W20	350	240	18	Fac	42	BGD	3	2		7	1			
05 Jun	S18W33	349	250	16	Ekc	32	BGD	1	2		3	3			
06 Jun	S17W46	348	280	10	Dkc	20	BGD	5	1		7		1		
07 Jun	S17W58	348	320	10	Dkc	19	BGD	6	1		9				
08 Jun	S17W72	349	360	15	Ekc	19	BGD	2	5		3	2			
09 Jun	S19W86	349	270	12	Ekc	13	BGD	4	2		1				
10 Jun	S19W99	349	250	12	Ekc	13	BGD	2	5	1	2				
								82	28	6	60	11	4	1	0

Crossed West Limb.
Absolute heliographic longitude: 349

			Region 3701												
01 Jun	S04E30	339	60	3	Cai	9	B								
02 Jun	S04E15	341	40	3	Cao	5	B				1				
03 Jun	S04W00	343	40	5	Dao	9	B								
04 Jun	S05W10	340	50	6	Dao	14	B	1			2				
05 Jun	S05W25	341	60	6	Dai	8	B	1							
06 Jun	S06W39	341	50	7	Dao	7	B								
07 Jun	S06W53	343	50	8	Cao	4	B								
08 Jun	S06W68	345	40	8	Cao	3	B								
09 Jun	S06W83	347	10	1	Hsx	1	A								
								2	0	0	3	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 343

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 3702												
02 Jun	N17E71	285	50	2	Hsx	1	A								
03 Jun	N17E57	285	20	2	Hsx	1	A	1							
04 Jun	N17E43	287	20	2	Hsx	1	A								
05 Jun	N17E28	287	20	3	Hsx	1	A								
06 Jun	N17E15	287	30	2	Hsx	1	A								
07 Jun	N17E03	287	80	2	Hsx	1	A								
08 Jun	N16W08	285	100	7	Cso	4	B								
09 Jun	N16W22	286	110	7	Cso	2	B								
10 Jun	N17W35	285	80	5	Cso	3	B								
11 Jun	N16W49	286	70	5	Cso	3	B								
12 Jun	N17W63	287	50	3	Cso	2	B								
13 Jun	N17W77	288	50	3	Hsx	1	A								
14 Jun	N17W90	286	30	2	Hrx	1	A								
								1	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 287

			Region 3703												
03 Jun	S08E18	325	40	4	Dao	7	B				1				
04 Jun	S07E04	326	90	6	Dai	8	B				4				
05 Jun	S07W09	325	150	7	Dai	8	B	1			4	1			
06 Jun	S07W25	327	110	7	Dac	14	BG				1				
07 Jun	S08W37	327	200	8	Dac	13	BG								
08 Jun	S08W52	329	160	9	Dac	7	BG		1		2				
09 Jun	S08W66	330	100	9	Dao	5	BG								
10 Jun	S07W74	324	70	8	Dao	2	B								
11 Jun	S07W91	328	30	8	Cro	2	B								
								1	1	0	12	1	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 326

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 3704													
03 Jun	S18E65	278	20	3	Cao	3	B								
04 Jun	S18E50	280	20	1	Cro	1	B								
05 Jun	S17E34	282	30	1	Hsx	1	A								
06 Jun	S18E19	282	20	1	Hsx	1	A								
07 Jun	S18E08	282	30	1	Hrx	1	A								
08 Jun	S18W06	283	10	1	Axx	1	A								
09 Jun	S18W20	284	10	1	Axx	1	A								
10 Jun	S18W32	282	10	1	Axx	1	A								
11 Jun	S18W46	283	plage												
12 Jun	S18W60	284	plage												
13 Jun	S18W74	285	plage												
14 Jun	S18W88	285	plage												
								0	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 283

		Region 3706													
04 Jun	S11E26	304	10	4	Bxo	4	B								
05 Jun	S12E15	301	20	6	Bxo	5	B								
06 Jun	S12E01	302	plage												
07 Jun	S12W13	303	plage												
08 Jun	S12W27	304	plage												
09 Jun	S12W41	304	plage												
10 Jun	S12W55	305	plage												
11 Jun	S12W69	306	plage												
12 Jun	S12W83	307	plage												
								0	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 302

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 3707												
06 Jun	S15E57	245	40	6	Cso	2	B								
07 Jun	S15E46	244	80	7	Dai	10	B				1				
08 Jun	S15E32	245	80	7	Dai	6	B								
09 Jun	S15E18	246	80	7	Cao	6	B								
10 Jun	S15E03	247	40	9	Cso	5	B				1				
11 Jun	S15W07	244	20	3	Cso	4	B				2				
12 Jun	S14W19	243	10	3	Cao	4	B								
13 Jun	S14W33	244	10	1	Axx	1	A								
14 Jun	S14W47	244	plage												
15 Jun	S14W61	245	plage												
16 Jun	S14W75	246	plage												
								0	0	0	4	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 247

			Region 3708												
06 Jun	S22E73	230	100	3	Hsx	1	A								
07 Jun	S23E59	231	60	2	Hsx	1	A	1							
08 Jun	S23E45	232	50	2	Cao	3	B								
09 Jun	S23E31	233	50	2	Cao	2	B								
10 Jun	S22E18	232	60	2	Hsx	2	A								
11 Jun	S22E07	230	40	2	Hax	2	A								
12 Jun	S21W05	229	40	2	Hax	2	A								
13 Jun	S21W19	230	40	2	Hax	1	A								
14 Jun	S21W36	232	40	2	Hax	2	A				1				
15 Jun	S21W45	229	40	2	Hsx	1	A								
16 Jun	S21W58	228	20	1	Hsx	1	A								
								1	0	0	1	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 229

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 3709												
07 Jun	S10E74	221	80	3	Cai	3	B	1	1		1				
08 Jun	S10E60	219	80	5	Cai	6	B		1		3				
09 Jun	S10E46	218	140	5	Cai	9	B	1	1		1				
10 Jun	S08E28	222	250	6	Dki	23	BG				1				
11 Jun	S09E15	222	230	8	Cai	10	B								
12 Jun	S10E02	222	140	9	Cai	9	B	2			3				
13 Jun	S10W12	223	120	9	Cai	8	B	1				1			
14 Jun	S10W26	222	100	8	Cao	6	B								
15 Jun	S10W37	221	100	8	Cao	8	B								
16 Jun	S08W53	223	10	3	Cao	3	B								
								5	3	0	9	1	0	0	0

Still on Disk.
Absolute heliographic longitude: 222

			Region 3710												
09 Jun	S15W51	315	60	6	Cao	6	B								
10 Jun	S16W64	314	20	2	Cso	4	B								
11 Jun	S16W78	315	10	1	Axx	1	A								
								0	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 315

			Region 3711												
09 Jun	S09E52	212	60	3	Dao	3	B								
10 Jun	S08E39	211	60	3	Dao	3	B								
11 Jun	S08E25	212	20	3	Cro	3	B	1			2				
12 Jun	S09E12	212	10	3	Bxo	3	B		1		1	1			
13 Jun	S09W02	213	10	1	Axx	1	A				2				
14 Jun	S10W14	212	10	2	Bxo	3	B								
15 Jun	S10W27	211	10	3	Bxo	5	B				1				
16 Jun	S11W42	213	20	2	Hrx	5	A								
								1	1	0	6	1	0	0	0

Still on Disk.
Absolute heliographic longitude: 213

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 3712												
12 Jun	S24E52	172	180	6	Dao	11	B	1			4				
13 Jun	S24E38	173	240	9	Dac	18	BG	1			7				
14 Jun	S24E25	171	300	11	Ekc	23	BGD	12	1		3	1			
15 Jun	S25E14	170	850	12	Ekc	18	BGD	23	1		29				
16 Jun	S26E01	169	1000	14	Ekc	31	BGD	17			16	5			
								54	2	0	59	6	0	0	0

Still on Disk.
Absolute heliographic longitude: 169

			Region 3713												
12 Jun	S13E68	156	150	8	Dso	3	B	2			1				
13 Jun	S13E54	157	170	8	Dso	9	B	2	1		1	1			
14 Jun	S11E37	159	100	6	Dso	7	BG	1			2				
15 Jun	S14E29	155	130	10	Dso	10	BG	1			1	1			
16 Jun	S15E15	155	200	11	Eso	18	BG	1			1				
								7	1	0	6	2	0	0	0

Still on Disk.
Absolute heliographic longitude: 155

			Region 3714												
12 Jun	N14E24	200	10	3	Bxo	5	B								
13 Jun	N14E10	201	plage					1			1				
14 Jun	N14W04	201	plage												
15 Jun	N14W18	202	plage												
16 Jun	N14W32	203	plage												
								1	0	0	1	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 201

			Region 3715												
12 Jun	N17E49	175	10	2	Bxo	3	B								
13 Jun	N17E35	176	plage												
14 Jun	N17E21	176	plage												
15 Jun	N17E07	177	plage												
16 Jun	N17W07	178	plage												
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 177

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 3716													
12 Jun	N10E62	162	20	3	Cro	3	B								
13 Jun	N10E48	163	60	3	Dao	5	B								
14 Jun	N11E34	162	80	5	Dso	5	B								
15 Jun	N10E23	161	140	8	Dsi	19	B				4				
16 Jun	N09E09	161	180	9	Dac	20	B	1			4				
								1	0	0	8	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 161

		Region 3717													
15 Jun	N08W33	217	20	3	Cro	3	B								
16 Jun	N08W47	217	10	3	Bxo	4	B								
								0	0	0	0	0	0	0	0

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Absolute heliographic longitude: 217

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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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