Space Weather Highlights
09 June - 15 June 2025

SWPC PRF 2598
16 June 2025

Solar activity was at low levels over 09-12 Jun, moderate levels on 13 Jun, and high levels on 14-15 Jun. In total, five R1 (Minor) events and two R2 (Moderate) events were observed this period, the largest of which was an M8.4/1b flare at 15/1807 UTC from Region 4114 (N17, L=34, class/area=Ekc/380 on 15 Jun). Associated with the M8.4 flare were multi-frequency radio bursts, Castelli U signature, an 1800 sfu Tenflare, Type II (397 km/s) and IV radio sweeps. Region 4105 (S15, L=131, class/area=Eki/310 on 14 Jun) produced an M6.8/1n flare at 14/2301 UTC.

No proton events were observed at geosynchronous orbit.

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

Geomagnetic field activity reached active levels on 09 Jun in response to the effects of a CME that left the Sun on 03 Jun, in addition to negative polarity CH HSS influences. Negative polarity CH HSS influences persisted over 10-12 Jun, with quiet to unsettled levels observed on 10 Jun, and periods of active conditions and G1 (Minor) geomagnetic storming observed on 11-12 Jun. Sustained G1-G2 (Minor-Moderate) storm periods were observed on 13 Jun following the arrival of a CME that left the Sun on 08 Jun. Periods of G1 (Minor) storming were observed on 14 Jun as CME effects waned and were followed by the onset of positive polarity CH HSS influences. Positive polarity CH HSS influences continued on 15 Jun with quiet to unsettled levels observed.

Space Weather Outlook
16 June - 12 July 2025

Solar activity is likely to range from low to high levels throughout the period. R1-R2 (Minor-Moderate) events are expected, with a chance for R3 (Strong) or greater events, over 16-22 Jun. Region 4114 (N17, L=34, class/area=Ekc/380 on 15 Jun) continues a trend of growth and increasing magnetic complexity, and has the capacity for additional event-level flaring.

The greater than 10 MeV proton flux is likely to become enhanced over 16-18 Jun following the M8.4 flare at 15/1807 UTC. No other proton events are expected during the period.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to reach high levels on 16-22 Jun and 26 Jun-04 Jul. Normal to moderate levels are expected to prevail throughout the remainder of the period.

Geomagnetic field activity is likely to reach G1 (Minor) storm levels on 15 Jun due to positive polarity CH HSS influences, and again on 25-26 Jun due to negative polarity CH HSS influences. Periods of active conditions are likely on 17 Jun due to positive polarity CH HSS influences, and on 18 Jun due to anticipated passage of an interplanetary shock as the 15 Jun

CME (M8.4 flare at 15/1807 UTC) passes in close proximity to Earth. Active conditions are again likely on 24 and 27Jun due to negative polarity CH HSS influences. Additional active periods are likely on 01-03 and 05-07 Jun in response to negative polarity CH HSS effects, and over 11-12 Jul due to positive polarity CH HSS effects. Quiet and quiet to unsettled levels are expected to prevail throughout the remainder of the outlook period.

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
09 June	120	82	160	B4.4	3	0	0	2	0	0	0	0
10 June	129	105	370	B7.1	11	0	0	6	0	0	0	0
11 June	141	133	655	C1.1	11	0	0	7	0	0	0	0
12 June	142	116	905	B8.6	6	0	0	2	1	0	0	0
13 June	143	134	890	B9.8	5	1	0	12	1	0	0	0
14 June	151	136	1150	C1.4	13	2	0	10	1	0	0	0
15 June	161	141	1250	C1.6	12	4	0	20	2	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
09 June	1.5e+05	1.5e+04	1.3e+07
10 June	1.8e+05	1.6e+04	2.0e+07
11 June	3.8e+05	1.6e+04	2.1e+07
12 June	6.1e+05	1.6e+04	1.3e+07
13 June	1.7e+06	1.5e+04	1.4e+07
14 June	1.2e+05	1.6e+04	1.4e+07
15 June	5.6e+04	1.7e+04	2.5e+07

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
09 June	13	3-4-2-2-3-3-2-2	19	4-4-4-4-3-3-2-2	15	4-4-3-2-2-3-2-3
10 June	11	2-2-3-2-3-2-3-3	10	3-2-3-3-2-2-2-2	9	3-2-2-2-2-2-2-3
11 June	13	3-3-1-2-2-3-3-4	22	3-3-2-2-4-4-5-4	18	3-3-2-2-2-4-4-5
12 June	24	4-4-4-4-3-3-4-4	44	4-5-5-6-6-4-3-4	33	5-4-4-4-4-3-5-5
13 June	31	4-5-4-4-4-3-4-5	65	5-5-5-6-6-5-7-4	66	6-6-5-5-6-5-6-6
14 June	21	5-4-3-3-4-2-3-3	27	5-5-4-4-3-4-3-2	24	5-5-3-3-3-3-3-3
15 June	10	2-1-2-3-2-3-3-2	23	1-2-2-6-5-4-2-2	7	2-2-2-3-2-3-3-2

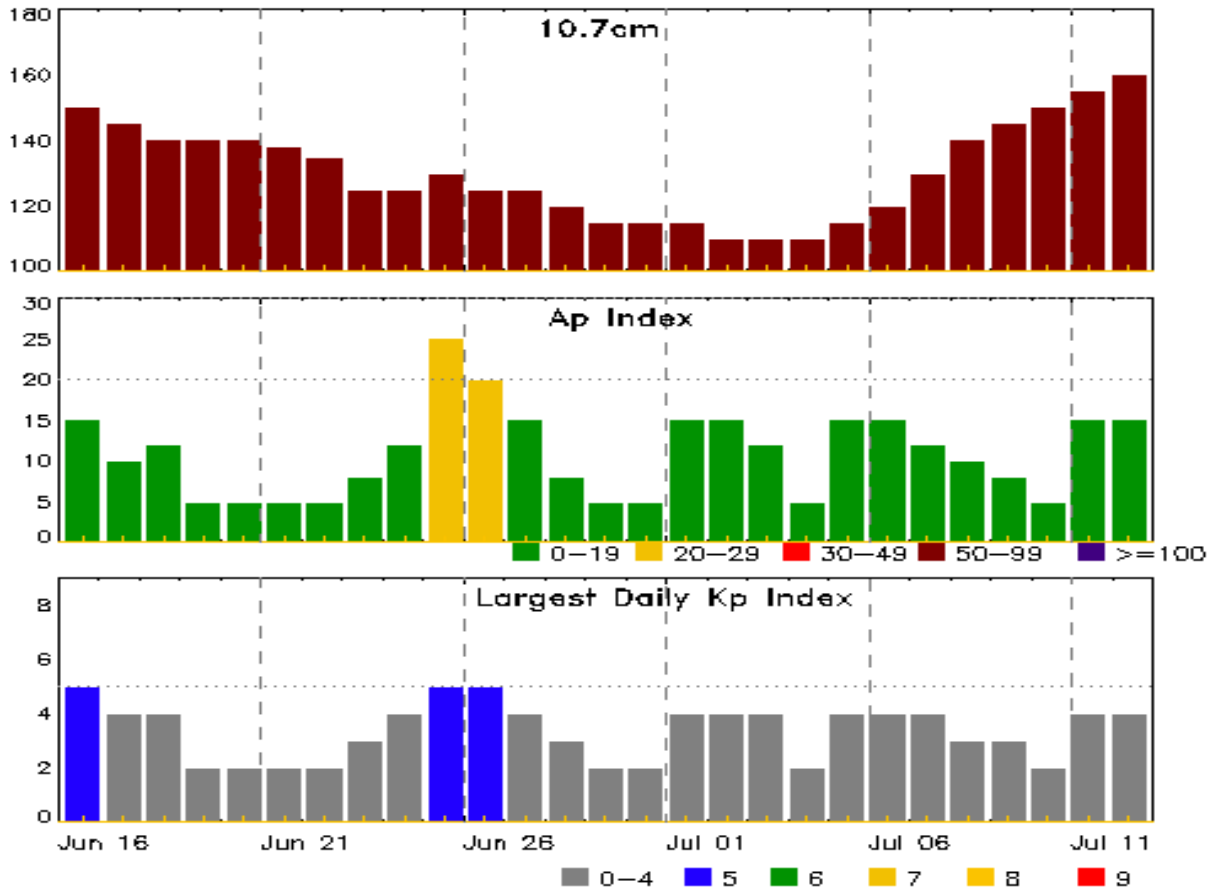
Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
09 Jun 1054	EXTENDED WARNING: Geomagnetic K = 4	07/0843 - 09/2359
11 Jun 0030	WARNING: Geomagnetic K = 4	11/0030 - 0600
11 Jun 1710	WARNING: Geomagnetic K = 4	11/1710 - 12/0100
11 Jun 1801	ALERT: Geomagnetic K = 4	
11 Jun 1926	WATCH: Geomagnetic Storm Category G2 predicted	
11 Jun 2255	WARNING: Geomagnetic K = 5	11/2255 - 12/0600
11 Jun 2259	EXTENDED WARNING: Geomagnetic K = 4	11/1710 - 12/1200
11 Jun 2346	ALERT: Geomagnetic K = 5	
12 Jun 0301	ALERT: Geomagnetic K = 5	
12 Jun 0509	EXTENDED WARNING: Geomagnetic K = 5	11/2255 - 12/1200
12 Jun 1136	EXTENDED WARNING: Geomagnetic K = 4	11/1710 - 12/1800
12 Jun 1751	EXTENDED WARNING: Geomagnetic K = 4	11/1710 - 13/0600
12 Jun 2021	WARNING: Geomagnetic K = 5	12/2020 - 13/0300
12 Jun 2034	ALERT: Geomagnetic K = 5	
12 Jun 2205	EXTENDED WARNING: Geomagnetic K = 5	12/2020 - 13/0900
12 Jun 2205	EXTENDED WARNING: Geomagnetic K = 4	11/1710 - 13/1200
12 Jun 2206	WARNING: Geomagnetic K = 6	12/2206 - 13/0600
12 Jun 2313	ALERT: Geomagnetic K = 5	
13 Jun 0025	ALERT: Geomagnetic K = 5	
13 Jun 0038	ALERT: Geomagnetic K = 6	
13 Jun 0048	WARNING: Geomagnetic K>= 7	13/0048 - 0600
13 Jun 0346	ALERT: Geomagnetic K = 5	
13 Jun 0554	EXTENDED WARNING: Geomagnetic K = 6	12/2206 - 13/1200
13 Jun 0555	EXTENDED WARNING: Geomagnetic K = 5	12/2020 - 13/1200
13 Jun 0608	ALERT: Geomagnetic K = 6	
13 Jun 0609	EXTENDED WARNING: Geomagnetic K = 4	11/1710 - 13/1800
13 Jun 0827	ALERT: Geomagnetic K = 5	
13 Jun 1132	EXTENDED WARNING: Geomagnetic K = 5	12/2020 - 13/1800
13 Jun 1133	EXTENDED WARNING: Geomagnetic K = 4	11/1710 - 13/2359

Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
13 Jun 1300	ALERT: Geomagnetic K = 5	
13 Jun 1331	WARNING: Geomagnetic K = 6	13/1331 - 2100
13 Jun 1332	EXTENDED WARNING: Geomagnetic K = 5	12/2020 - 13/2359
13 Jun 1356	ALERT: Geomagnetic K = 6	
13 Jun 1656	ALERT: Geomagnetic K = 5	
13 Jun 1916	ALERT: Geomagnetic K = 5	
13 Jun 2014	ALERT: Geomagnetic K = 6	
13 Jun 2054	WATCH: Geomagnetic Storm Category G1 predicted	
13 Jun 2054	EXTENDED WARNING: Geomagnetic K = 6	13/1331 - 14/0900
13 Jun 2054	EXTENDED WARNING: Geomagnetic K = 4	11/1710 - 14/1800
13 Jun 2054	EXTENDED WARNING: Geomagnetic K = 5	12/2020 - 14/1200
13 Jun 2223	ALERT: Geomagnetic K = 5	
13 Jun 2330	ALERT: Geomagnetic K = 6	
14 Jun 0302	ALERT: Geomagnetic K = 5	
14 Jun 0453	ALERT: Geomagnetic K = 5	
14 Jun 1723	EXTENDED WARNING: Geomagnetic K = 4	11/1710 - 15/0900
14 Jun 2259	ALERT: X-ray Flux exceeded M5	14/2258
14 Jun 2329	SUMMARY: X-ray Event exceeded M5	14/2251 - 2309
15 Jun 0823	ALERT: Type II Radio Emission	15/0756
15 Jun 1803	ALERT: X-ray Flux exceeded M5	15/1800
15 Jun 1805	ALERT: X-ray Flux exceeded M5	15/1800
15 Jun 1825	SUMMARY: 10cm Radio Burst	15/1755 - 1810
15 Jun 1840	SUMMARY: X-ray Event exceeded M5	15/1745 - 1825
15 Jun 1841	ALERT: Type II Radio Emission	15/1819
15 Jun 1841	ALERT: Type IV Radio Emission	15/1800

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
16 Jun	150	15	5	30 Jun	115	5	2
17	145	10	4	01 Jul	115	15	4
18	140	12	4	02	110	15	4
19	140	5	2	03	110	12	4
20	140	5	2	04	110	5	2
21	138	5	2	05	115	15	4
22	135	5	2	06	120	15	4
23	125	8	3	07	130	12	4
24	125	12	4	08	140	10	3
25	130	25	5	09	145	8	3
26	125	20	5	10	150	5	2
27	125	15	4	11	155	15	4
28	120	8	3	12	160	15	4
29	115	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
13 Jun	2049	2110	2121	M1.2	0.014	1F	S16W60	4105				
14 Jun	1752	1804	1813	M1.0	0.008			4105				
14 Jun	2251	2301	2309	M6.8	0.044	1N	S16W74	4105				
15 Jun	0745	0756	0802	M2.2	0.014	1N	S14W67	4105	2100		2	
15 Jun	1032	1047	1053	M1.9	0.012			4105				
15 Jun	1745	1807	1825	M8.4	0.120	1B	N18E16	4114	330	630	3	1
15 Jun	2343	2357	0005	M1.2	0.012	SF	N18E17	4114				

Flare List

	Time			Optical			
Date	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
09 Jun	1058	1116	1123	C1.1			
09 Jun	1554	1602	1614	B9.5			
09 Jun	1640	1650	1652	C2.0	SF	S14E00	4105
09 Jun	1859	1910	1929	C1.2	SF	S15W23	4107
10 Jun	0130	0144	0201	C1.4			
10 Jun	0308	0314	0320	C3.5	SF	S16W28	4107
10 Jun	0439	0448	0505	C1.2			4107
10 Jun	0505	0534	0541	C2.2			4107
10 Jun	0518	0519	0530		SF	N14E61	4111
10 Jun	0528	0530	0542		SF	S14W28	4107
10 Jun	0745	0756	0802	C2.4	SF	S15W30	4107
10 Jun	1042	1052	1056	C5.5	SN	S16W32	4107
10 Jun	1559	1603	1607	B9.6			4105
10 Jun	1617	1628	1634	C1.6			
10 Jun	1634	1642	1647	C1.7			
10 Jun	1748	1751	1758	C1.9			
10 Jun	1837	1849	1855	C2.0			
10 Jun	1906	1906	1909		SF	S16W14	4105
10 Jun	2148	2158	2202	C3.0			
11 Jun	0209	0219	0226	C1.8	SF	S15W40	4107
11 Jun	0536	0541	0545		SF	S16W42	4107
11 Jun	0541	0541	0544		SF	S19W20	4105
11 Jun	0838	0844	0848	C2.1			4107
11 Jun	0857	0905	0911	C1.5			4107

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
11 Jun	1106	1118	1125	C1.6			4107
11 Jun	1125	1134	1136	C1.6			4107
11 Jun	1223	1232	1244	C2.5	SF	S16W26	4105
11 Jun	1534	1545	1637	C6.3	SF	S15W26	4105
11 Jun	1616	1616	1622		SF	S15W48	4107
11 Jun	1743	1750	1800		SF	S16W24	4105
11 Jun	1907	1911	1913	C8.5			4115
11 Jun	2033	2041	2048	C3.4			4107
11 Jun	2243	2251	2257	C3.2			
11 Jun	2338	2346	2348	C3.2			4107
12 Jun	0141	0201	0218	C2.9			4105
12 Jun	1041	1058	1104	C2.8	SF	S18W36	4105
12 Jun	1104	1113	1117	C2.8			4115
12 Jun	1244	1247	1250	C1.6			4115
12 Jun	1739	1748	1751	C5.8	1F	N21E74	4115
12 Jun	2325	2346	0047	C3.9	SF	S14W48	4105
13 Jun	0541	0547	0613	C2.0	SF	N02W40	4110
13 Jun	0638	0645	0653	C2.4	SF	N04W38	4110
13 Jun	1345	1400	1415	C3.1	SF	S17W55	4105
13 Jun	1555	1556	1558		SF	S12E45	
13 Jun	1600	1601	1604		SF	N05W37	4110
13 Jun	1615	1625	1631		SF	S12E45	
13 Jun	1707	1711	1714	C2.9	SF	N18E41	4114
13 Jun	1840	1840	1845		SF	S17W58	4105
13 Jun	1927	1932	1936	C1.7	SF	N19E40	4114
13 Jun	2049	2110	2121	M1.2	1F	S16W60	4105
13 Jun	2225	2235	2241		SF	N18E43	4114
13 Jun	2305	2319	2323		SF	N18E43	4114
13 Jun	2339	2340	2348		SF	S10E43	
14 Jun	0033	0039	0043	C1.5			4105
14 Jun	0103	0107	0115	C1.9			4114
14 Jun	0229	0243	0252	C5.0			4114
14 Jun	0303	0307	0315	C2.8			4105
14 Jun	0504	0512	0516		SF	N04W50	4110
14 Jun	0525	0530	0541	C2.3	SF	N18E37	4114
14 Jun	0537	0537	0541		SF	S13E35	4116
14 Jun	0545	0552	0556	C2.5			4114
14 Jun	0847	0854	0905	C3.3			4105

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
14 Jun	0934	0935	0938		SF	N19E35	4114
14 Jun	1130	1130	1133		SF	N16E36	4114
14 Jun	1151	1158	1204	C2.4	SF	S12E33	4116
14 Jun	1321	1328	1330	C2.7	SF	N23E43	4115
14 Jun	1434	1502	1532	C4.9			4114
14 Jun	1536	1537	1542		SF	N19E32	4114
14 Jun	1704	1712	1721	C3.4			4105
14 Jun	1752	1804	1813	M1.0			4105
14 Jun	1824	1826	1828		SF	N06W53	4110
14 Jun	1846	1904	1916	C4.3			4113
14 Jun	1903	1905	1909		SF	N12E24	4113
14 Jun	2112	2137	2152	C8.3			4114
14 Jun	2251	2301	2309	M6.8	1N	S16W74	4105
15 Jun	0258	0331	0412	C7.5	SF	N17E24	4114
15 Jun	0417	0435	0445	C6.5	SF	N19E23	4114
15 Jun	B0433	U0449	0515		SF	S15W63	4109
15 Jun	0437	0443	0448		SF	N17E24	4114
15 Jun	0438	0515	0535		SF	N06W60	4110
15 Jun	0448	0448	0454		SF	N17E24	4114
15 Jun	0611	0619	0623	C2.9	SF	N17W04	4111
15 Jun	0745	0756	0802	M2.2	1N	S14W67	4105
15 Jun	0846	0847	0852		SF	N19E23	4114
15 Jun	0918	0919	0922		SF	N19E23	4114
15 Jun	1032	1047	1053	M1.9			4105
15 Jun	1104	1104	1107		SF	S14W70	4105
15 Jun	1137	1138	1142	C3.0	SF	N19E22	4114
15 Jun	1248	1255	1308	C2.9	SF	S14W70	4105
15 Jun	1306	1316	1324	C5.0			
15 Jun	1311	1316	1332		SF	N18E21	4114
15 Jun	B1317	1317	1328		SF	N15E20	4114
15 Jun	1356	1358	1500	C3.1	SF	N18E20	4114
15 Jun	1703	1706	A1735	C4.7	SF	N18E19	4114
15 Jun	1715	1724	1740		SF	N16E19	4114
15 Jun	1745	1807	1825	M8.4	1B	N18E16	4114
15 Jun	1801	1802	1807		SF	S13W82	4105
15 Jun	1923	1931	1935	C7.9			4114
15 Jun	1939	1950	2003	C9.8			4114
15 Jun	2032	2038	2044	C7.9			4114

Flare List

	Time			Optical			
Date	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
15 Jun	2220	2240	2252	C7.2	SF	N18E15	4114
15 Jun	2343	2357	0005	M1.2	SF	N18E17	4114

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 4104													
30 May	N06E42	216	80	4	Dso	3	B	3	1		2				
31 May	N06E27	218	80	4	Dso	3	B								
01 Jun	N06E15	217	40	5	Dao	3	B								
02 Jun	N06E01	218	30	4	Dao	4	B								
03 Jun	N06W12	217	10	1	Axx	2	A								
04 Jun	N06W27	219	plage												
05 Jun	N06W42	221	plage												
06 Jun	N06W57	223	plage												
07 Jun	N06W72	224	plage												
08 Jun	N06W87	226	plage												
								3	1	0	2	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 218

		Region 4105													
03 Jun	S14E73	132	30	5	Dai	5	B	5	1						
04 Jun	S14E60	132	110	10	Dai	10	BD								
05 Jun	S15E49	130	130	12	Eai	15	B	6			3				
06 Jun	S14E34	133	110	11	Eai	13	BG	9			8				
07 Jun	S15E21	131	110	11	Eai	24	BG	2			2				
08 Jun	S15E09	130	90	12	Eai	27	BG	3			3				
09 Jun	S15W04	129	80	13	Eai	21	BG	1			1				
10 Jun	S15W17	130	140	13	Eai	24	BG				1				
11 Jun	S14W32	131	250	13	Ekc	15	BG	2			4				
12 Jun	S15W46	132	260	13	Ekc	15	BG	3			2				
13 Jun	S15W59	132	270	11	Eki	13	B	1	1		2	1			
14 Jun	S15W71	131	310	12	Eki	9	B	4	2			1			
15 Jun	S14W84	130	240	7	Dso	9	B	1	2		3	1			
								40	6	0	29	3	0	0	0

Still on Disk.
Absolute heliographic longitude: 129

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 4106												
04 Jun	N12E11	181	20	5	Cro	5	B								
05 Jun	N13W01	180	40	4	Dao	8	B								
06 Jun	N13W15	181	30	5	Dro	5	B								
07 Jun	N12W27	179	10	1	Axx	2	A								
08 Jun	N13W41	180	10	1	Axx	1	A								
09 Jun	N13W55	181	plage												
10 Jun	N13W69	182	plage												
11 Jun	N13W83	182	plage												
								0	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 180

			Region 4107												
06 Jun	S17E10	156	10	1	Cro	2	B								
07 Jun	S18W03	155	30	4	Cro	7	B								
08 Jun	S18W15	154	20	4	Cro	3	B								
09 Jun	S18W31	156	10	1	Axx	1	A	1			1				
10 Jun	S14W39	152	60	4	Dai	8	BG	5			4				
11 Jun	S14W54	153	180	5	Dao	8	BD	7			3				
12 Jun	S15W67	153	220	3	Dao	3	BD								
13 Jun	S15W80	154	170	5	Dao	4	B								
14 Jun	S15W93	153	90	2	Cao	3	B								
								13	0	0	8	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 155

			Region 4108												
07 Jun	S21W17	169	10	3	Bxo	3	B								
08 Jun	S22W33	172	10	1	Axx	1	A								
09 Jun	S22W47	173	plage												
10 Jun	S22W61	174	plage												
11 Jun	S21W71	170	10	1	Axx	1	A								
12 Jun	S21W85	171	plage												
								0	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 169

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 4109												
07 Jun	S16E40	112	10	5	Cro	3	B								
08 Jun	S16E26	113	20	6	Cro	5	B								
09 Jun	S16E09	116	20	5	Cro	3	B								
10 Jun	S17W04	117	10	7	Cro	3	B								
11 Jun	S17W18	117	10	7	Cro	3	B								
12 Jun	S17W32	118	plage												
13 Jun	S17W46	119	plage												
14 Jun	S17W60	120	plage												
15 Jun	S17W76	122	20	3	Cao	2	B				1				
								0	0	0	1	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 117

			Region 4110												
09 Jun	N05E12	113	20	4	Dro	6	B								
10 Jun	N04W02	115	10	6	Cro	6	B								
11 Jun	N05W16	115	10	6	Cro	4	B								
12 Jun	N06W30	116	30	4	Dao	5	B								
13 Jun	N05W44	117	80	10	Dai	13	BG	2			3				
14 Jun	N06W58	118	120	11	Eai	12	B				2				
15 Jun	N05W72	118	180	9	Dai	8	B				1				
								2	0	0	6	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 115

			Region 4111												
09 Jun	N14E62	63	30	1	Hsx	1	A								
10 Jun	N14E50	63	140	3	Hsx	2	A				1				
11 Jun	N16E41	58	140	3	Hsx	2	A								
12 Jun	N15E27	59	120	3	Hsx	1	A								
13 Jun	N14E13	60	100	2	Hsx	2	A								
14 Jun	N14W00	60	100	2	Hsx	1	A								
15 Jun	N15W14	60	110	3	Cso	4	B	1			1				
								1	0	0	2	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 60

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 4112												
10 Jun	S09E32	79	10	3	Bxo	2	B								
11 Jun	S09E25	74	5	1	Axx	1	A								
12 Jun	S06E11	75	5	1	Axx	1	A								
13 Jun	S09W05	78	10	3	Bxo	4	B								
14 Jun	S09W19	79	plage												
15 Jun	S09W33	79	plage												
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 78

			Region 4113												
11 Jun	N12E65	34	20	3	Cao	3	B								
12 Jun	N10E50	36	20	3	Hsx	2	A								
13 Jun	N10E32	41	30	1	Hsx	1	A								
14 Jun	N10E18	42	20	1	Hsx	1	A	1			1				
15 Jun	N10E05	41	30	1	Hsx	1	A								
								1	0	0	1	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 41

			Region 4114												
11 Jun	N17E63	36	30	4	Cro	6	B								
12 Jun	N18E57	33	70	5	Cai	5	B								
13 Jun	N18E39	34	80	7	Dai	14	B	2			4				
14 Jun	N17E26	34	270	10	Dki	19	BG	6			4				
15 Jun	N17E12	34	380	11	Ekc	27	BGD	9	2		14	1			
								17	2	0	22	1	0	0	0

Still on Disk.
Absolute heliographic longitude: 34

			Region 4115												
11 Jun	N21E81	19	plage					1							
12 Jun	N21E67	19	180	10	Dso	4	B	3				1			
13 Jun	N21E53	20	150	10	Dso	3	B								
14 Jun	N21E40	20	160	12	Eso	3	B	1			1				
15 Jun	N21E26	20	150	12	Eso	4	B								
								5	0	0	1	1	0	0	0

Still on Disk.
Absolute heliographic longitude: 20

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 4116													
14 Jun	S12E26	34	80	7	Dao	8	B	1			2				
15 Jun	S12E12	34	140	7	Dao	6	B								
								1	0	0	2	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 34

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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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