Space Weather Highlights
17 June - 23 June 2024

SWPC PRF 2547
24 June 2024

Solar activity ranged from low to high levels. Region 3723 (S18, L=011, class/area=Dao/150 on 23 Jun) produced the strongest event of the period, an impulsive M9.3/1b flare (R2-Moderate) at 23/1301 UTC. Region 3719 (S15, L=067, class/area=Dao/230 on 23 Jun) also produced an R2 event with an impulsive M5.7/1b flare at 20/2316 UTC. 12 other low-level M-class (R1-Minor) events were observed from various regions throughout the week. No Earth-directed CMEs were identified with any of the flare events. Other activity included a Type-II radio sweep on 17 Jun and an additional Type-II radio sweep on 22 Jun. Both radio sweeps were associated with eruptive activity that was not on the Sun-Earth line.

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 summary period.

No significant geomagnetic field activity was observed during the summary period. Quiet to unsettled levels throughout week. Solar wind conditions were influenced by the onset of a postive polarity CH HSS which increased wind speeds to peak near 600 km/s on 18 Jun. Wind speeds then steadily decreased to a low of 300 km/s late on 22 Jun. A weak transient feature was observed on 23 Jun with a southward Bz of -10 nT observed, but combined with the slow wind speeds, only unsettled levels were observed.

Space Weather Outlook
24 June - 20 July 2024

Solar activity is likely to reach moderate on 24-25 Jun due primarily to the flare potential from active regions near the west limb. A decrease to low levels, with a slight chance for M-class activity (R1-R2/Minor-Moderate), is likely from 25 Jun - 20 July.

No proton events are expected at geosynchronous orbit.

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

Geomagnetic field activity is expected to reach unsettled levels on 24 Jun, 14-16 Jul, and 20 Jul due to anticipated influence from multiple, recurrent, CH HSSs. The remainder of the outlook period is likely to be at mostly quiet levels.

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
17 June	180	171	1820	C1.3	9	3	0	23	2	0	0	0
18 June	193	150	1690	C1.6	12	2	0	10	2	0	0	0
19 June	196	181	2070	C2.4	6	1	0	28	0	0	0	0
20 June	203	138	2370	C2.2	7	2	0	10	3	0	0	0
21 June	197	133	2420	C2.5	13	0	0	14	0	0	0	0
22 June	196	139	2550	C2.7	7	3	0	21	3	0	0	0
23 June	196	176	1750	C2.7	8	3	0	17	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
17 June	2.7e+05	1.5e+04	9.2e+05
18 June	2.8e+05	1.7e+04	1.8e+06
19 June	3.2e+05	1.7e+04	9.7e+06
20 June	1.0e+05	1.7e+04	1.7e+07
21 June	9.8e+04	1.8e+04	2.3e+07
22 June	1.6e+05	1.8e+04	2.6e+07
23 June	2.3e+05	1.7e+04	3.2e+06

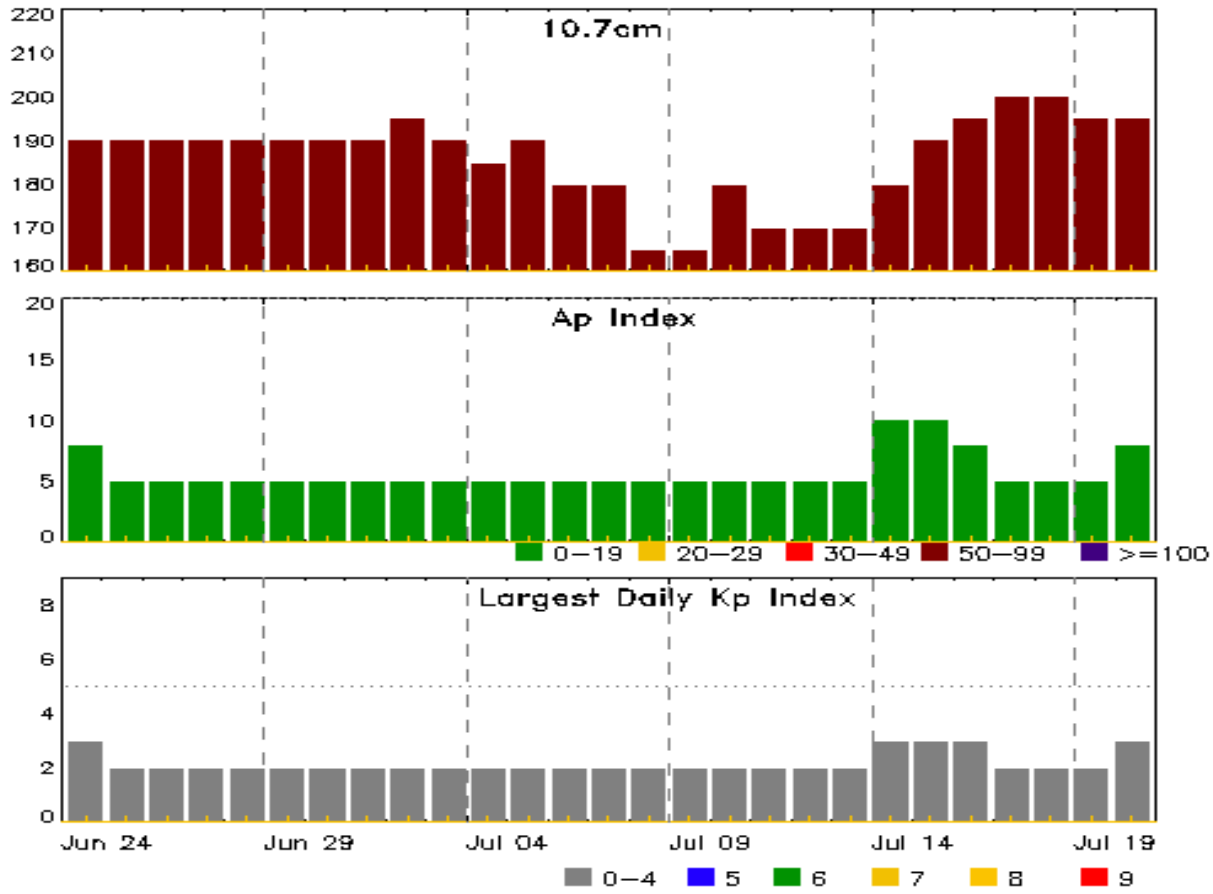
Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
17 June	11	2-3-2-2-2-3-3-3	18	2-3-2-5-3-4-3-2	11	2-3-2-2-2-3-3-3
18 June	11	2-3-3-2-3-3-2-1	23	2-3-4-5-5-4-2-2	10	2-3-3-3-3-3-2-2
19 June	10	3-3-2-2-3-2-2-1	20	3-3-2-3-5-5-2-1	10	3-3-2-2-3-2-2-1
20 June	8	2-2-1-2-3-1-2-3	8	3-2-1-2-3-1-1-2	7	2-2-2-2-2-1-2-2
21 June	4	1-1-1-1-2-1-2-1	2	1-2-1-0-0-0-1-1	5	2-2-2-1-1-1-1-1
22 June	6	2-1-1-2-3-2-1-1	1	1-1-0-0-0-0-0-1	4	2-1-1-1-1-1-1-2
23 June	12	1-2-3-3-4-2-3-2	13	1-2-3-5-3-2-2-1	5	1-2-2-3-3-2-3-2

Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
17 Jun 1133	ALERT: Type II Radio Emission	17/1100
17 Jun 1150	SUMMARY: 10cm Radio Burst	17/1044 - 1044
17 Jun 1659	WARNING: Geomagnetic K = 4	17/1700 - 2200
18 Jun 0457	WARNING: Geomagnetic K = 4	18/0500 - 1500
20 Jun 2320	ALERT: X-ray Flux exceeded M5	20/2316
20 Jun 2342	SUMMARY: X-ray Event exceeded M5	20/2300 - 2320
22 Jun 0004	ALERT: Type II Radio Emission	21/2340
23 Jun 1028	WARNING: Geomagnetic K = 4	23/1030 - 2100
23 Jun 1302	ALERT: X-ray Flux exceeded M5	23/1257
23 Jun 1326	SUMMARY: X-ray Event exceeded M5	23/1251 - 1311
23 Jun 2056	EXTENDED WARNING: Geomagnetic K = 4	23/1030 - 24/0600

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
24 Jun	190	8	3	08 Jul	165	5	2
25	190	5	2	09	165	5	2
26	190	5	2	10	180	5	2
27	190	5	2	11	170	5	2
28	190	5	2	12	170	5	2
29	190	5	2	13	170	5	2
30	190	5	2	14	180	10	3
01 Jul	190	5	2	15	190	10	3
02	195	5	2	16	195	8	3
03	190	5	2	17	200	5	2
04	185	5	2	18	200	5	2
05	190	5	2	19	195	5	2
06	180	5	2	20	195	8	3
07	180	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
17 Jun	0754	0804	0816	M1.5	0.016	SN	S25W01		3712				
17 Jun	1042	1046	1050	M1.5	0.004	1B	S26W13		3712	410	290	2	
17 Jun	1957	2035	2056	M1.3	0.034	1F	S10W52		3711				
18 Jun	1114	1123	1133	M2.4	0.017	1N	S28W20		3712				
18 Jun	1211	1220	1226	M1.1	0.009				3712				
19 Jun	0615	0638	0658	M1.1	0.021				3711				
20 Jun	1509	1518	1522	M1.1	0.005				3719				
20 Jun	2300	2316	2320	M5.7	0.015	1B	S14E57		3719				
22 Jun	0422	0438	0447	M1.2	0.015								
22 Jun	0843	0855	0908	M2.8	0.026	1F	N10W62		3716				
22 Jun	1100	1106	1110	M1.0	0.005	SF	S05E46		3720				
23 Jun	0616	0630	0648	M2.4	0.032	1N	N09W72		3716				
23 Jun	1126	1137	1150	M1.2	0.014	SF	S25W84		3712				
23 Jun	1251	1301	1311	M9.3	0.062	1N	S17E74		3723		110		

Flare List

	Time			Optical			
Date	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
17 Jun	0011	0049	0139	C2.2	SN	S24W04	3712
17 Jun	0040	0049	0053	C6.2			3712
17 Jun	0059	0106	0113	C5.8			3712
17 Jun	0202	0206	0210	C1.9			3712
17 Jun	0302	0308	0316	C1.8			3709
17 Jun	0328	0337	0351	C4.2			3712
17 Jun	B0448	U0449	0600		SF	S25W01	3712
17 Jun	0501	0504	0505		SF	S13E15	3713
17 Jun	0535	0535	0539		SF	N09E07	3716
17 Jun	0623	0623	0635		SF	S25E03	3712
17 Jun	0716	0717	0719		SF	S26W00	3712
17 Jun	0754	0804	0816	M1.5	SN	S25W01	3712
17 Jun	0824	0824	0837		SF	S14E13	3713
17 Jun	0930	0937	0944	C3.1	SF	S14E13	3713
17 Jun	1042	1046	1050	M1.5	1B	S26W13	3712
17 Jun	1145	1145	1150		SF	S25W03	3712
17 Jun	1157	1200	1207		SF	S24W02	3712

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
17 Jun	1256	1258	1302		SF	S25W03	3712
17 Jun	1430	1432	1437		SF	S13E09	3713
17 Jun	1442	1443	1448		SF	S26W15	3712
17 Jun	1501	1504	1519		SF	S14E09	3713
17 Jun	1522	1525	1532		SF	S25W08	3712
17 Jun	1552	1553	1557		SF	S24W03	3712
17 Jun	1556	1601	1610		SF	S12E08	3713
17 Jun	1637	1637	1640		SF	S24W16	3712
17 Jun	1650	1650	1653		SF	S12W55	3711
17 Jun	1727	1728	1737		SF	S24W17	3712
17 Jun	1800	1807	1813	C1.8			3712
17 Jun	1957	2035	2056	M1.3	1F	S10W52	3711
17 Jun	2024	2024	2029		SF	S26W10	3712
17 Jun	2101	2103	2111		SF	S09E04	3713
17 Jun	2251	2257	2301	C6.0			3711
18 Jun	0302	0308	0316	C3.0			3712
18 Jun	0316	0322	0326	C2.5			3712
18 Jun	0442	0506	0517		SF	S25W13	3712
18 Jun	0533	0541	0552		SF	S15E04	3713
18 Jun	0922	0925	0927		SF	S26W15	3712
18 Jun	0954	1001	1006	C4.0			3712
18 Jun	1009	1015	1020	C5.0			3712
18 Jun	1035	1041	1047	C5.1			3712
18 Jun	1107	1120	1248	M2.4	1N	S28W20	3712
18 Jun	1147	1155	1208	C7.9			3712
18 Jun	1211	1220	1226	M1.1			3712
18 Jun	1317	1325	1330	C3.0			3712
18 Jun	1534	1541	1546	C5.5	SF	S13W70	3709
18 Jun	1538	1542	1547		SF	S12W68	3711
18 Jun	1549	1556	1603	C2.8	SF	S22W17	3712
18 Jun	1720	1721	1726		SF	S13W07	3713
18 Jun	1723	1723	1735		SF	S25W20	3712
18 Jun	1842	1842	1851		SF	S23W21	3712
18 Jun	1935	1938	1942	C2.9			3713
18 Jun	2056	2107	2113	C6.1			
18 Jun	2143	2149	2153	C8.1	SN	S22W24	3712
18 Jun	2223	2238	2250		1F	S15W11	3713
19 Jun	0146	0154	0204	C4.7			3713

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
19 Jun	0316	0323	0330	C3.9			3713
19 Jun	B0405	U0406	0411		SF	S25W20	3712
19 Jun	0451	0723	0832		SF	S14W14	3713
19 Jun	0556	0600	0620		SF	S24W28	3712
19 Jun	0615	0638	0658	M1.1			3711
19 Jun	0624	0626	0627		SF	S13W79	3711
19 Jun	0720	0732	0734		SF	S13W80	3711
19 Jun	0818	0822	0834		SF	N13W21	3716
19 Jun	0835	0845	0854		SF	S14W14	3713
19 Jun	0837	0839	0848		SF	N13W21	3716
19 Jun	0903	0919	0935	C5.9	SN	N18E27	3718
19 Jun	0941	0942	0945		SF	S14W16	3713
19 Jun	0949	0951	0958		SF	N12W21	3716
19 Jun	1021	1023	1051		SF	N11W22	3716
19 Jun	1050	1055	1059		SF	S14W17	3713
19 Jun	1121	1122	1134		SF	S14W17	3713
19 Jun	1122	1129	1139	C3.3	SF	S28W33	3712
19 Jun	1137	1139	1146		SF	N11W22	3716
19 Jun	1151	1153	1158		SF	N11W22	3716
19 Jun	1202	1205	1208		SF	N11W22	3716
19 Jun	1246	1304	1318	C4.6	SF	S13W20	3713
19 Jun	1252	1254	1301		SF	N10W22	3716
19 Jun	1309	1312	1317		SF	N10W22	3716
19 Jun	1335	1337	1340		SF	S13W80	3711
19 Jun	1538	1544	1551		SF	N27W47	3712
19 Jun	1542	1544	1555		SF	S24W33	3712
19 Jun	1620	1623	1625		SF	N10W25	3716
19 Jun	1639	1652	1654		SF	N10W26	3716
19 Jun	1748	1751	1802		SF	S28W36	3712
19 Jun	1913	1913	1917		SF	S29W39	3712
19 Jun	2155	2205	2210	C5.7			3712
20 Jun	0934	0939	0943	C7.1			3719
20 Jun	0934	0936	0939		SF	N10W36	3716
20 Jun	0936	0939	1027		SN	S13E62	3719
20 Jun	0942	0942	0953		SF	S08W34	3713
20 Jun	1211	1217	1221	C5.0	SF	S13W29	3713
20 Jun	1330	1331	1338		SF	S11E61	3719
20 Jun	1343	1344	1356		SF	S23W44	3712

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
20 Jun	1459	1500	1505		SF	S15W33	3713
20 Jun	1509	1518	1522	M1.1			3719
20 Jun	1530	1535	1625		SF	N10W39	3716
20 Jun	1533	1515	1536	C8.2	SB	S14E60	3719
20 Jun	1631	1644	1722		SF	S27W50	3712
20 Jun	1927	1941	2002	C6.5	1F	S15E58	3719
20 Jun	2101	2109	2114	C3.8			3716
20 Jun	2114	2120	2125	C3.8			
20 Jun	2155	2202	2207	C4.3			3716
20 Jun	2252	2314	2332		1F	S27W53	3712
20 Jun	2300	2316	2320	M5.7	1B	S14E57	3719
21 Jun	0156	0206	0214	C4.3			
21 Jun	0223	0232	0239	C5.7			3713
21 Jun	0336	0432	0434	C4.3			3713
21 Jun	0456	0507	0542	C5.3			3712
21 Jun	B0618	U0620	0628		SF	N11W45	3716
21 Jun	B0619	U0620	0626		SF	S23W44	3712
21 Jun	0627	0633	0639	C5.1			3713
21 Jun	0627	0633	0645		SF	S13W29	3713
21 Jun	0630	0632	0633		SF	N11W45	3716
21 Jun	0641	0642	0646		SF	S24W49	3712
21 Jun	0754	0755	0802		SF	N09W52	3716
21 Jun	0814	0818	0821		SF	S12W42	3713
21 Jun	1056	1056	1101		SF	S14W45	3713
21 Jun	1102	1110	1116	C3.9			3713
21 Jun	1211	1211	1218		SF	N12W56	3716
21 Jun	1235	1240	1246	C4.2	SF	N11W50	3716
21 Jun	1250	1251	1254		SF	S04E60	3720
21 Jun	1316	1316	1321		SF	S14W46	3713
21 Jun	1316	1320	1324		SF	S04E59	3720
21 Jun	1400	1408	1414	C3.6			
21 Jun	1416	1416	1423		SF	S04E61	3720
21 Jun	1453	1458	1508	C4.6			3712
21 Jun	1554	1557	1601	C4.6			3713
21 Jun	1823	1829	1838	C5.1			3720
21 Jun	1914	1918	1929	C3.4			3720
21 Jun	2334	2350	0012	C6.6			
22 Jun	0012	0025	0030	C7.3			3716

Flare List

Date	Time			X-ray	Optical		
	Begin	Max	End	Class	Imp/ Brtns	Location Lat CMD	Rgn #
22 Jun	0422	0438	0447	M1.2			
22 Jun	0523	0528	0530		SF	S04E50	3720
22 Jun	0533	0557	0727		SF	S04E50	3720
22 Jun	0535	0535	0550		SF	N11W59	3716
22 Jun	0536	0557	0608		SF	S13W54	3713
22 Jun	0553	0556	0559		SF	S12E76	3720
22 Jun	0609	0610	0611		SF	N09W59	3716
22 Jun	0623	0629	0633	C5.1	SN	S08W62	3713
22 Jun	0843	0855	0908	M2.8	1F	N10W62	3716
22 Jun	0920	0926	0931		SF	S05E47	3720
22 Jun	1003	1004	1009		SF	S28W69	3712
22 Jun	1027	1034	1044		SF	S28W69	3712
22 Jun	1034	1035	1039		SF	S05E47	3720
22 Jun	1044	1046	1057		SF	S05E46	3720
22 Jun	1100	1106	1110	M1.0	SF	S05E46	3720
22 Jun	1208	1213	1217	C6.0	SF	S28W69	3712
22 Jun	1214	1215	1216		SF	N10W64	3716
22 Jun	1235	1240	1245	C5.0	SF	S28W69	3712
22 Jun	1316	1325	1330		SF	S05E45	3720
22 Jun	1607	1628	1649		1F	S05E43	3720
22 Jun	1717	1718	1725		SF	S05E43	3720
22 Jun	1738	1748	1754	C4.4			3722
22 Jun	1754	1800	1810	C5.9			3712
22 Jun	1929	1929	1931		SF	S06E41	3720
22 Jun	1934	1949	2004	C8.7	1F	S05E45	3720
22 Jun	2211	2212	2215		SF	S13W64	3713
22 Jun	2220	2234	2318		SF	S05E39	3720
23 Jun	0111	0119	0131	C3.9	SF	N21E55	3721
23 Jun	B0202	0206	A0207		SF	N21E53	
23 Jun	0207	0215	0222	C6.3			3722
23 Jun	0240	0250	0259	C4.9			3719
23 Jun	0616	0625	0700	M2.4	1N	N09W72	3716
23 Jun	0753	0754	0757		SF	N22E48	
23 Jun	0914	0916	0921		SF	S15E21	3719
23 Jun	1021	1022	1024		SF	S15W69	3713
23 Jun	1122	1123	1128		SF	S15E20	3719
23 Jun	1126	1137	1150	M1.2			3712
23 Jun	1128	1130	1132		SF	S15W70	3713

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
23 Jun	1136	1139	1142		SF	S25W84	3712
23 Jun	1240	1249	1300		SF	S13W73	3713
23 Jun	1251	1301	1311	M9.3	1N	S17E74	3723
23 Jun	1327	1327	1331		SF	S14E19	3719
23 Jun	1400	1401	1402		SF	S14W71	3713
23 Jun	1413	1413	1415		SF	S24W79	3712
23 Jun	1428	1429	1436		SF	S13W75	3713
23 Jun	1522	1522	1528		SF	N22E48	
23 Jun	1538	1542	1546	C4.7	SF	S18E72	3723
23 Jun	1628	1639	1646	C4.8			3712
23 Jun	1723	1725	1728		SF	S13W75	3713
23 Jun	1729	1737	1748		SF	S12W72	3713
23 Jun	1811	1815	1823	C4.0			3716
23 Jun	2131	2136	2141	C5.3			
23 Jun	2310	2317	2324	C4.9			

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 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												
17 Jun	S14W89	247	plage												
								0	0	0	4	0	0	0	0

Crossed West Limb.
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								
17 Jun	S21W71	228	40	1	Hax	1	A								
18 Jun	S21W85	229	40	1	Hax	1	A								
								1	0	0	1	0	0	0	0

Crossed West Limb.
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								
17 Jun	S08W66	224	30	2	Cao	3	B	1							
18 Jun	S08W80	224	10	1	Axx	1	A	1			1				
								7	3	0	10	1	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 222

			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								
17 Jun	S11W53	211	10	2	Bxo	4	B	1	1		1	1			
18 Jun	S11W67	211	10	2	Bxo	4	B				1				
19 Jun	S11W81	212	10	2	Axx	1	A		1		3				
								2	3	0	11	2	0	0	0

Crossed West Limb.
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	20			16	5			
17 Jun	S26W12	170	1100	14	Ekc	40	BGD	6	2		14	1			
18 Jun	S26W26	170	1150	14	Ekc	40	BGD	9	2		6	1			
19 Jun	S24W39	170	1160	14	Ekc	21	BGD	2			7				
20 Jun	S24W52	170	1050	15	Ekc	15	BGD				2	1			
21 Jun	S26W65	170	750	15	Ekc	9	BG	2			2				
22 Jun	S25W77	168	720	15	Ekc	9	BG	3			4				
23 Jun	S25W90	168	220	11	Eao	4	BG	1	1		2				
								80	7	0	96	9	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				
17 Jun	S16E01	157	150	11	Eso	15	BG	1			7				
18 Jun	S16W13	157	170	11	Esi	20	BG	1			2	1			
19 Jun	S15W27	158	460	12	Ekc	49	BGD	3			6				
20 Jun	S14W39	157	740	11	Ekc	29	BGD	1			3				
21 Jun	S14W53	158	950	11	Ekc	24	BGD	5			4				
22 Jun	S14W65	156	910	11	Ekc	24	BGD	1			2				
23 Jun	S14W78	156	440	13	Ekc	11	BGD				7				
								19	1	0	37	3	0	0	0

Still on Disk.
Absolute heliographic longitude: 157

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 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												
17 Jun	N14W46	204	plage												
18 Jun	N14W60	204	plage												
19 Jun	N14W74	205	plage												
20 Jun	N14W88	206	plage												
								1	0	0	1	0	0	0	0

Crossed West Limb.
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												
17 Jun	N17W21	179	plage												
18 Jun	N17W35	179	plage												
19 Jun	N17W49	180	plage												
20 Jun	N17W63	181	plage												
21 Jun	N17W77	182	plage												
								0	0	0	0	0	0	0	0

Died 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				
17 Jun	N10W05	163	480	10	Dkc	35	BG				1				
18 Jun	N10W19	163	310	10	Dki	24	BG								
19 Jun	N10W32	163	370	10	Dki	25	BG				11				
20 Jun	N10W46	164	430	12	Ekc	22	BG	2			2				
21 Jun	N10W59	164	500	12	Ekc	14	BG	1			5				
22 Jun	N10W72	163	450	12	Ekc	10	BG	1	1		3	1			
23 Jun	N10W85	163	230	12	Eao	6	B	1	1			1			
								6	2	0	30	2	0	0	0

Still on Disk.
Absolute heliographic longitude: 163

			Region 3717												
15 Jun	N08W33	217	20	3	Cro	3	B								
16 Jun	N08W47	217	10	3	Bxo	4	B								
17 Jun	N07W63	220	10	2	Bxo	3	B								
18 Jun	N07W78	222	plage												
								0	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 217

			Region 3718												
19 Jun	N15E13	118	20	3	Cro	3	B	1			1				
20 Jun	N14W00	118	20	1	Hrx	1	A								
21 Jun	N12W13	118	plage												
22 Jun	N12W27	118	plage												
23 Jun	N12W41	119	plage												
								1	0	0	1	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 118

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 3719												
19 Jun	S12E68	63	20	3	Cro	7	B								
20 Jun	S13E55	63	70	8	Dao	6	B	3	2		3	2			
21 Jun	S13E41	64	90	8	Dao	5	B								
22 Jun	S14E24	67	150	9	Dso	10	B								
23 Jun	S15E11	67	230	10	Dao	14	B	1			3				
								4	2	0	6	2	0	0	0

Still on Disk.
Absolute heliographic longitude: 67

			Region 3720												
19 Jun	S04E77	54	30	3	Dao	5	B								
20 Jun	S05E62	55	60	9	Dao	5	B								
21 Jun	S05E49	56	80	4	Cao	8	B	2			3				
22 Jun	S05E36	55	120	8	Dai	13	B	1	1		11	2			
23 Jun	S05E23	55	140	9	Dai	13	B								
								3	1	0	14	2	0	0	0

Still on Disk.
Absolute heliographic longitude: 55

			Region 3721												
21 Jun	N27E59	46	20	1	Hsx	1	A								
22 Jun	N26E59	32	90	1	Hsx	1	A								
23 Jun	N26E50	28	100	3	Hsx	1	A	1							
								1	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 28

			Region 3722												
21 Jun	S09E59	162	30	3	Dso	2	B								
22 Jun	S13E62	29	110	4	Dso	2	B	1							
23 Jun	S14E50	28	60	3	Hsx	1	A	1							
								2	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 28

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 3723												
23 Jun	S18E67	11	150	8	Dao	5	B	1	1		1	1			
								1	1	0	1	1	0	0	0
Still on Disk. Absolute heliographic longitude: 11															
			Region 3724												
23 Jun	S11E48	30	60	3	Hsx	1	A								
								0	0	0	0	0	0	0	0
Still on Disk. Absolute heliographic longitude: 30															
			Region 3725												
23 Jun	N18E41	37	90	5	Dai	4	BD								
								0	0	0	0	0	0	0	0
Still on Disk. Absolute heliographic longitude: 37															
			Region 3726												
23 Jun	S02E57	57	30	3	Cao	6	B								
								0	0	0	0	0	0	0	0
Still on Disk. Absolute heliographic longitude: 57															

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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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