Space Weather Highlights **SWPC PRF 2508**
18 September - 24 September 2023 **25 September 2023**

Solar activity was at low levels on 18 Sep, moderate levels on 19, 22-24 Sep, and high levels on 20-21 Sep. In total, ten R1 (Minor) events and two R2 (Moderate) events were registered throughout the period. Region 3435 (N10, L=102, class/area=Dki/300 on 24 Sep) produced two M8 flares at 20/1419 UTC and at 21/1254 UTC, along with four R1 events over 19-22 Sep. CMEs associated with flare activity on 20-21 Sep were predicted to arrive on 23 Sep, but ultimately missed. A CME associated with a long-duration M1.2 flare at 22/0336 UTC from Region 3435 resulted in an Earth-directed CME that arrived on 24 Sep. A CME associated with a filament eruption centered near N36W05 at 22/0645 UTC was modelled and was predicted to arrive on 24-25 Sep. Region 3443 (N28, L=147, class/area=Dki/260 on 23 Sep) produced four R1 events on 22 and 24 Sep. A CME associated with flare activity from Region 3435 at 22/2233 UTC was modelled and is likely to arrive on 26 Sep.

No proton events were observed at geosynchronous orbit, though a minor enhancement was observed on 24 Sep.

The greater than 2 MeV electron flux at geosynchronous orbit reached moderate levels on 18 Sep, and high levels on 19-24 Sep.

Geomagnetic field activity reached G1 (Minor) storm levels on 18 Sep due to residual effects of a CME from 14 Sep. G3 (Strong) storm levels were observed on 19 Sep, and active conditions were observed on 20 Sep, due to the passage of a CME from 16 Sep. Quiet to unsettled conditions were observed over 21-23 Sep. G2 (Moderate) storms were observed on 24 Sep due to the arrival of a CME from 22 Sep.

Space Weather Outlook
25 September - 21 October 2023

Solar activity is expected to be low to moderate with M-class flare activity likely through much of the period.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to reach high levels on 25-28 Sep, and moderate levels throughout the remainder of the outlook period.

Geomagnetic field activity is expected to reach G1-G2 (Minor-Moderate) storm levels on 25 Sep due to the passage of a CME from early on 22 Sep. Active levels are expected on 26 Sep due to residual CME effects in addition to the predicted glancing-blow arrival of a CME from late on 22 Sep. Quiet conditions are expected to prevail throughout the remainder of the 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
18 September	155	139	800	C1.0	15	0	0	7	0	0	0	0
19 September	166	143	970	C1.2	11	3	0	3	0	0	0	0
20 September	156	159	1190	B9.4	9	1	0	5	0	0	0	0
21 September	168	159	910	C1.2	6	1	0	1	0	0	0	0
22 September	176	184	930	C1.6	7	4	0	23	1	0	0	0
23 September	173	198	970	C1.2	17	1	0	6	1	0	0	0
24 September	174	172	950	C1.5	17	2	0	11	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
18 September	4.2e+07	3.9e+04	7.8e+06
19 September	5.4e+05	1.7e+04	3.3e+07
20 September	1.2e+05	1.7e+04	7.1e+07
21 September	8.2e+04	1.7e+04	3.0e+07
22 September	9.0e+04	1.7e+04	8.0e+07
23 September	1.1e+05	1.9e+04	7.6e+07
24 September	2.9e+07	4.5e+04	1.4e+07

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
18 September	21	4-3-2-2-4-4-4-4	49	3-4-5-4-4-7-6-4	30	5-4-3-2-4-5-5-4
19 September	38	5-6-4-5-5-4-3-2	61	4-6-5-6-6-7-3-3	49	6-7-4-4-5-5-4-3
20 September	15	3-3-4-3-3-2-2-3	28	2-3-5-6-4-3-3-3	16	4-3-4-3-2-2-3-4
21 September	10	3-2-2-2-3-2-2-3	17	2-2-2-2-5-5-1-2	10	3-3-2-2-2-3-2-2
22 September	7	1-1-3-2-2-2-2-2	23	2-2-4-6-4-4-1-2	8	2-1-3-2-2-3-2-2
23 September	9	3-2-2-3-2-2-2-2	24	2-3-3-6-5-3-2-1	10	3-3-2-3-2-1-2-2
24 September	17	2-2-2-2-2-1-5-5	16	1-2-3-4-3-1-4-4	7	2-2-2-2-1-0-6-6

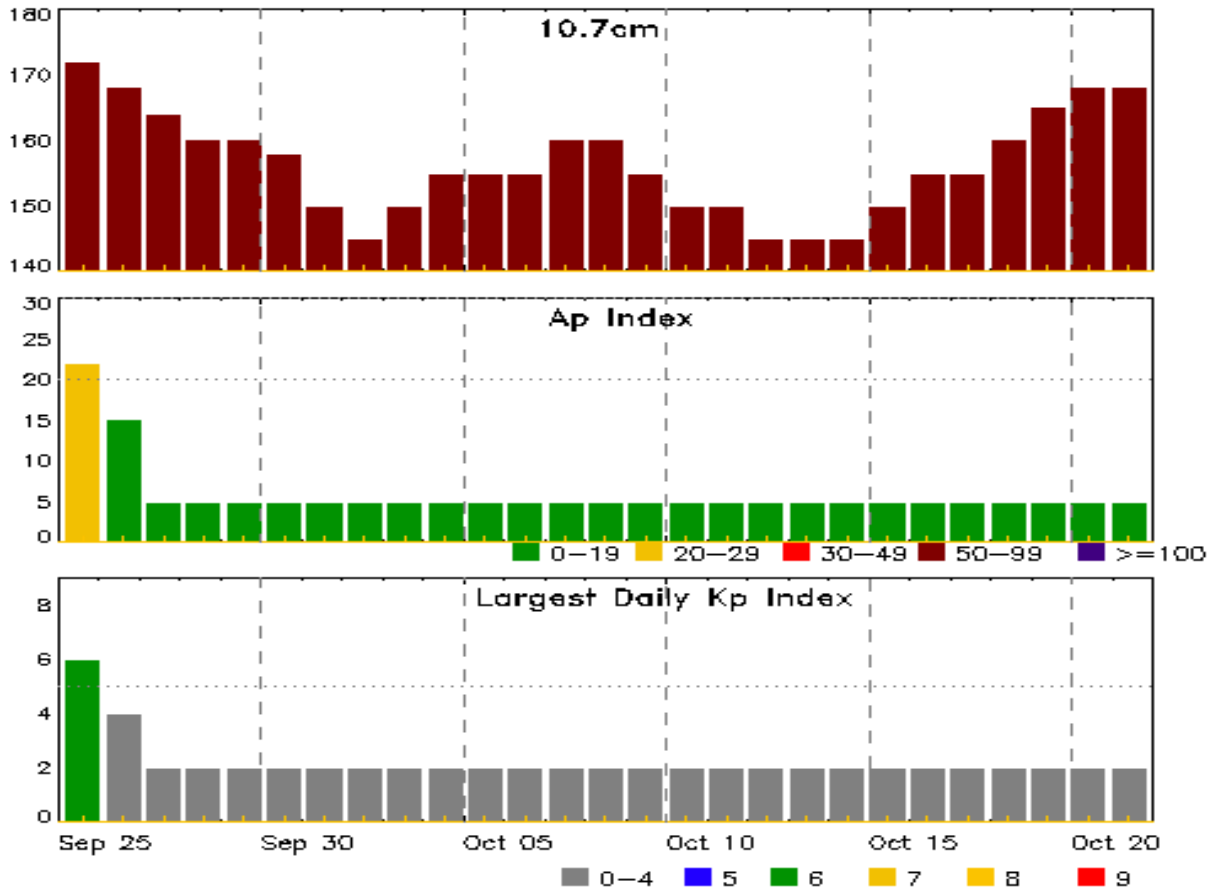
Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
18 Sep 0134	WARNING: Geomagnetic K = 4	18/0130 - 1800
18 Sep 0211	ALERT: Geomagnetic K = 4	18/0210
18 Sep 0255	WARNING: Geomagnetic K = 5	18/0254 - 0900
18 Sep 0300	ALERT: Geomagnetic K = 5	18/0259
18 Sep 1307	WARNING: Geomagnetic Sudden Impulse expected	18/1325 - 1355
18 Sep 1340	WARNING: Geomagnetic K = 5	18/1340 - 2359
18 Sep 1341	EXTENDED WARNING: Geomagnetic K = 4	18/0130 - 19/0600
18 Sep 1350	SUMMARY: Geomagnetic Sudden Impulse	18/1330
18 Sep 1759	ALERT: Geomagnetic K = 5	18/1759
18 Sep 2045	ALERT: Geomagnetic K = 5	18/2044
18 Sep 2344	EXTENDED WARNING: Geomagnetic K = 5	18/1340 - 19/0600
19 Sep 0059	ALERT: Geomagnetic K = 5	19/0058
19 Sep 0107	WARNING: Geomagnetic K = 6	19/0105 - 0600
19 Sep 0107	EXTENDED WARNING: Geomagnetic K = 5	18/1340 - 19/1200
19 Sep 0107	EXTENDED WARNING: Geomagnetic K = 4	18/0130 - 19/1500
19 Sep 0216	ALERT: Geomagnetic K = 6	19/0216
19 Sep 0321	ALERT: Geomagnetic K = 5	19/0321
19 Sep 0336	ALERT: Geomagnetic K = 6	19/0329
19 Sep 0405	WARNING: Geomagnetic K>= 7	19/0404 - 0900
19 Sep 0433	EXTENDED WARNING: Geomagnetic K = 6	19/0105 - 1200
19 Sep 0433	EXTENDED WARNING: Geomagnetic K = 5	18/1340 - 19/1500
19 Sep 0433	EXTENDED WARNING: Geomagnetic K = 4	18/0130 - 19/2100
19 Sep 0559	ALERT: Geomagnetic K = 7	19/0559
19 Sep 1344	ALERT: Geomagnetic K = 5	19/1330
19 Sep 1452	EXTENDED WARNING: Geomagnetic K = 5	18/1340 - 19/2359
19 Sep 1453	EXTENDED WARNING: Geomagnetic K = 4	18/0130 - 20/0900
19 Sep 1650	ALERT: Geomagnetic K = 5	19/1644
19 Sep 1722	ALERT: Electron 2MeV Integral Flux >= 1000pfu	19/1705
19 Sep 2308	ALERT: Type II Radio Emission	19/2236

Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
19 Sep 2311	ALERT: Type IV Radio Emission	19/2237
20 Sep 0804	EXTENDED WARNING: Geomagnetic K = 4	18/0130 - 20/1800
20 Sep 1302	CONTINUED ALERT: Electron 2MeV Integral Flux >= 1000pfu	19/1705
20 Sep 1420	ALERT: X-ray Flux exceeded M5	20/1417
20 Sep 1453	SUMMARY: X-ray Event exceeded M5	20/1411 - 1425
20 Sep 1500	ALERT: Type II Radio Emission	20/1425
20 Sep 2254	WARNING: Geomagnetic K = 4	20/2255 - 21/0600
20 Sep 2312	ALERT: Geomagnetic K = 4	20/2312
21 Sep 0141	ALERT: Type IV Radio Emission	20/2025
21 Sep 1255	ALERT: X-ray Flux exceeded M5	21/1251
21 Sep 1308	SUMMARY: X-ray Event exceeded M5	21/1242 - 1302
21 Sep 1514	CONTINUED ALERT: Electron 2MeV Integral Flux >= 1000pfu	19/1705
21 Sep 2011	WATCH: Geomagnetic Storm Category G1 predicted	
22 Sep 1217	CONTINUED ALERT: Electron 2MeV Integral Flux >= 1000pfu	19/1705
22 Sep 2002	ALERT: Type II Radio Emission	22/1928
23 Sep 1223	CONTINUED ALERT: Electron 2MeV Integral Flux >= 1000pfu	19/1705
24 Sep 1628	ALERT: Type II Radio Emission	24/1507
24 Sep 2011	WARNING: Geomagnetic Sudden Impulse expected	24/2025 - 2105
24 Sep 2013	WARNING: Geomagnetic K = 4	24/2025 - 25/1200
24 Sep 2034	WARNING: Geomagnetic K = 5	24/2035 - 25/0600
24 Sep 2048	ALERT: Geomagnetic K = 4	24/2046
24 Sep 2049	ALERT: Geomagnetic K = 5	24/2048
24 Sep 2049	WARNING: Geomagnetic K = 6	24/2049 - 25/0600
24 Sep 2053	ALERT: Geomagnetic K = 6	24/2052
24 Sep 2123	SUMMARY: Geomagnetic Sudden Impulse	24/2043
24 Sep 2205	ALERT: Geomagnetic K = 5	24/2205
24 Sep 2323	ALERT: Geomagnetic K = 6	24/2320

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
25 Sep	172	22	6	09 Oct	155	5	2
26	168	15	4	10	150	5	2
27	164	5	2	11	150	5	2
28	160	5	2	12	145	5	2
29	160	5	2	13	145	5	2
30	158	5	2	14	145	5	2
01 Oct	150	5	2	15	150	5	2
02	145	5	2	16	155	5	2
03	150	5	2	17	155	5	2
04	155	5	2	18	160	5	2
05	155	5	2	19	165	5	2
06	155	5	2	20	168	5	2
07	160	5	2	21	168	5	2
08	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
19 Sep	0345	0355	0401	M1.1	0.007	SF	N07	E54	3435	140		
19 Sep	0923	0938	0944	M1.8	0.001				3435			
19 Sep	2001	2014	2021	M4.0	0.024				3435			
20 Sep	1411	1419	1425	M8.2	0.036				3435			
21 Sep	1242	1254	1302	M8.7	0.046				3435			
22 Sep	0225	0336	0656	M1.2	0.002	SF	N15	E17	3435	1300		
22 Sep	1553	1623	1646	M1.4	0.004				3443	2400		
22 Sep	1706	1715	1720	M1.5	0.010				3443	2900		
22 Sep	2225	2300	2313	M1.9	0.025				3443	1300		
23 Sep	2014	2043	2100	M1.5	0.027				3436			
24 Sep	0317	0328	0336	M4.4	0.039	1N	S12	E22	3445	120		
24 Sep	1451	1500	1505	M1.0	0.005				3443	360		1

Flare List

	Time			Optical			
Date	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
18 Sep	0056	0104	0109	C1.5			3430
18 Sep	0927	0935	0943	C1.6			3425
18 Sep	1031	1041	1049	C2.6			3435
18 Sep	1251	1259	1321	C1.4			3429
18 Sep	1320	1338	1359	C1.5			
18 Sep	1321	1338	1359	C1.5			
18 Sep	1444	1452	1501	C2.3			3435
18 Sep	1502	1502	1510		SF	N15E56	3435
18 Sep	1542	1554	1610	C1.8			3436
18 Sep	1725	1725	1734		SF	N20W33	3436
18 Sep	1735	1743	1753	C2.0	SF	N20W33	3436
18 Sep	1756	1759	1805		SF	N20W33	3436
18 Sep	1810	1820	1827	C1.8			3436
18 Sep	1827	1832	1836	C1.9			3436
18 Sep	1935	1946	1954	C2.4	SF	N19W36	3436
18 Sep	2022	2035	2050	C3.8	SF	N19W36	3436
18 Sep	2028	2032	2052		SF	N09E56	3435
18 Sep	2159	2206	2213	C3.3			3436
18 Sep	2320	2325	2329	C4.9			3436

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
19 Sep	0016	0016	0018	C2.1	SF	S17W16	3437
19 Sep	0143	0153	0157	C2.8	SF	N21W39	3436
19 Sep	0228	0243	0301	C3.9			3436
19 Sep	0301	0308	0312	C3.5			3429
19 Sep	0345	0355	0401	M1.1	SF	N07E54	3435
19 Sep	0923	0938	0944	M1.8			3435
19 Sep	1025	1050	1107	C5.0			3436
19 Sep	1308	1317	1324	C3.1			3435
19 Sep	1539	1552	1608	C4.2			3436
19 Sep	1716	1725	1742	C2.7			3438
19 Sep	2001	2014	2021	M4.0			3435
19 Sep	2059	2109	2115	C2.7			3436
19 Sep	2142	2147	2151	C2.0			3436
19 Sep	2221	2237	2247	C9.7			3435
20 Sep	0427	0437	0446	C3.0			
20 Sep	0638	0652	0708	C2.3			3429
20 Sep	0818	0820	0826		SF	S10E68	3442
20 Sep	0903	0910	0915	C3.1			3437
20 Sep	1209	1212	1217	C3.4			3438
20 Sep	1339	1339	1341		SF	N11W76	3429
20 Sep	1411	1419	1425	M8.2			3435
20 Sep	1550	1551	1555		SF	S10E67	3442
20 Sep	1734	1802	1824	C4.2	SF	S10E67	3442
20 Sep	1836	1840	1844	C5.5			3438
20 Sep	1847	1848	1852		SF	N09E25	3438
20 Sep	2029	2038	2044	C1.3			
20 Sep	2127	2138	2148	C4.7			3442
20 Sep	2317	2321	2325	C2.3			3438
21 Sep	0132	0143	0206	C2.2			3442
21 Sep	0551	0557	0605	C1.6			3438
21 Sep	0929	0929	0933	C2.1	SF	N28W18	3443
21 Sep	1009	1020	1026	C2.5			3435
21 Sep	1242	1254	1302	M8.7			3435
21 Sep	1443	1453	1505	C2.4			3438
21 Sep	1559	1607	1615	C3.2			3443
22 Sep	0225	0336	0656	M1.2	SF	N15E17	3435
22 Sep	0540	0541	0551		SF	N27W35	3443
22 Sep	0656	0700	0704	C6.5	SF	N07E04	3438

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
22 Sep	0729	0841	1010		1N	N28W34	3443
22 Sep	0734	0734	0737		SF	N30W33	3443
22 Sep	0744	0814	0826		SF	N08E10	3435
22 Sep	0801	0802	0829		SF	N05E02	3438
22 Sep	0838	0841	0846	C5.3			3443
22 Sep	1004	1004	1010		SF	S14E43	3442
22 Sep	1010	1011	1013		SF	N19W85	3436
22 Sep	1014	1029	1033		SF	N19W85	3436
22 Sep	1044	1049	1128		SF	N28W34	3443
22 Sep	1049	1050	1053		SF	N19W85	3436
22 Sep	1113	1114	1117		SF	N19W85	3436
22 Sep	1126	1144	1154	C7.3	SF	N07E09	3435
22 Sep	1141	1142	1146		SF	N19W85	3436
22 Sep	1238	1245	1252		SF	S14E40	3442
22 Sep	1249	1250	1256		SF	N28W35	3443
22 Sep	1258	1259	1304		SF	N29W36	3443
22 Sep	1343	1343	1345		SF	N29W37	3443
22 Sep	1347	1348	1350		SF	S15E40	3442
22 Sep	1407	1408	1418		SF	S15E40	3442
22 Sep	1553	1623	1646	M1.4			3443
22 Sep	1706	1715	1720	M1.5			3443
22 Sep	1920	1929	1933	C9.8			3437
22 Sep	2018	2031	2037	C3.3			3443
22 Sep	2116	2123	2130	C2.7			3443
22 Sep	2225	2300	2313	M1.9			3443
22 Sep	2235	2238	2257		SF	N02W03	3435
22 Sep	2308	2309	2316		SF	N28W40	3443
22 Sep	2308	2311	2326		SF	N10E03	3435
22 Sep	2341	2354	0012	C8.6			3443
23 Sep	0256	0303	0309	C2.7			3443
23 Sep	0409	0421	0435	C2.3			3443
23 Sep	0435	0439	0444	C2.4			3445
23 Sep	0527	0540	0556	C3.6			3443
23 Sep	0658	0702	0712		SF	N28W46	3443
23 Sep	0700	0716	0726	C3.8	SF	S13E32	3445
23 Sep	0855	0913	0926	C7.6			3445
23 Sep	0902	0904	0928		SF	N28W47	3443
23 Sep	0908	0912	0929		1F	S12E29	3445

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
23 Sep	1006	1012	1020	C3.0	SF	N28W49	3443
23 Sep	1100	1104	1108	C2.7	SF	N27W42	3443
23 Sep	1128	1134	1138	C2.3			3445
23 Sep	1240	1254	1303	C3.4			3445
23 Sep	1311	1314	1321	C3.2			3445
23 Sep	1338	1345	1353	C2.8			3443
23 Sep	1452	1500	1508	C2.3			3443
23 Sep	1507	1518	1527	C8.7			3445
23 Sep	1857	1907	1914	C2.5			3445
23 Sep	1929	1938	1946	C2.8			3445
23 Sep	2014	2043	2100	M1.5			3436
23 Sep	2300	2305	2309	C2.6	SF	S14E22	3445
24 Sep	0107	0125	0142	C4.7	SF	S12E22	3445
24 Sep	0259	0324	0416	M4.4	1N	S12E22	3445
24 Sep	0548	0549	0652		SF	N27W55	3435
24 Sep	0603	0617	0640	C4.5	SF	S17E14	3445
24 Sep	0800	0807	0811	C2.2			3443
24 Sep	0908	0916	0930	C2.6	SF	S14E18	3445
24 Sep	0936	0938	A0943	C6.9	SF	S16E14	3445
24 Sep	0950	0951	0954		SF	N27W58	3443
24 Sep	1003	1012	1016	C9.7			3445
24 Sep	1020	1024	1028	C8.6			3445
24 Sep	1027	1027	1038		SF	N27W54	3443
24 Sep	1038	U1038	1043		SF	N11W13	3435
24 Sep	1145	1153	1157	C2.8			3445
24 Sep	1157	1209	1214	C4.3			3445
24 Sep	1251	1254	1301		SF	N26W55	3443
24 Sep	1451	1500	1505	M1.0			3443
24 Sep	1612	1617	1623	C3.0			3445
24 Sep	1710	1719	1724	C3.4			3445
24 Sep	1724	1736	1740	C3.1			3445
24 Sep	1728	1737	1758		SF	S15E08	3445
24 Sep	1743	1743	1746		SF	N10W17	3435
24 Sep	1957	2004	2008	C3.5			3435
24 Sep	2010	2024	2033	C6.6			3445
24 Sep	2053	2058	2104	C3.7			3445
24 Sep	2214	2223	2225	C5.2			3445
24 Sep	2225	2231	2235	C6.0			3445

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 3424												
05 Sep	N16E74	256	10	1	Bxo	2	B	1							
06 Sep	N17E61	255	40	2	Cso	2	B								
07 Sep	N17E48	255	30	3	Cro	3	B								
08 Sep	N16E35	255	10	4	Cro	2	B								
09 Sep	N17E22	255	plage												
10 Sep	N17E08	256	plage												
11 Sep	N17W06	257	plage												
12 Sep	N17W20	258	plage												
13 Sep	N17W34	259	plage												
14 Sep	N17W48	259	plage												
15 Sep	N17W62	260	plage												
16 Sep	N17W76	261	plage								1				
17 Sep	N17W90	262	plage												
								1	0	0	1	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 257

			Region 3425												
06 Sep	N23E70	247	40	5	Cso	7	B				2				
07 Sep	N23E56	248	60	7	Dao	8	B	2	1		5	1			
08 Sep	N23E43	246	140	8	Dai	15	BG	6			7				
09 Sep	N20E27	249	120	10	Dai	13	B				2				
10 Sep	N23E14	250	110	11	Eai	13	B	1			4				
11 Sep	N25E01	250	100	12	Eai	24	B	2			5				
12 Sep	N24W13	251	90	12	Eai	24	BG	2	1		6	1			
13 Sep	N23W27	252	70	11	Eao	17	B								
14 Sep	N23W41	252	70	11	Eao	16	B	1			1				
15 Sep	N23W53	251	40	10	Cso	8	B				1				
16 Sep	N24W65	250	30	9	Cro	6	B								
17 Sep	N23W75	247	20	10	Cao	6	B				1				
18 Sep	N23W83	242	80	9	Dao	3	B	1							
19 Sep	N24W88	239	60	2	Hsx	1	A								
20 Sep	N24W99	238	60	2	Hsx	1	A								
								15	2	0	34	2	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 250

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 3427												
09 Sep	S28E32	246	10	4	Bxo	4	B								
10 Sep	S28E16	248	10	5	Cro	4	B								
11 Sep	S27E02	249	10	7	Bxo	3	B								
12 Sep	S27W12	250	5	1	Axx	1	A								
13 Sep	S27W26	251	plage												
14 Sep	S27W40	251	plage												
15 Sep	S27W54	252	plage												
16 Sep	S27W68	253	plage												
17 Sep	S27W82	254	plage												
								0	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 249

			Region 3429												
10 Sep	N09E60	204	30	9	Cso	9	B								
11 Sep	N10E46	205	30	10	Dro	4	BG		1		7	1			
12 Sep	N10E31	206	30	9	Cro	6	B	1							
13 Sep	N10E18	207	50	11	Eai	8	BG	2							
14 Sep	N10E05	205	80	12	Eai	15	B	3	3		3				
15 Sep	N11W09	207	90	9	Dai	13	BGD	9	1		10	1			
16 Sep	N11W22	206	90	8	Dai	16	BG	5	2		6	2			
17 Sep	N11W36	207	60	8	Cao	13	B								
18 Sep	N12W50	209	50	7	Cso	8	B	1							
19 Sep	N12W67	211	80	2	Cao	3	B	1							
20 Sep	N12W81	212	100	3	Cao	3	B	1			1				
								23	7	0	27	4	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 205

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 3430													
10 Sep	S16E09	255	10	3	Bxo	4	B								
11 Sep	S16W05	256	30	3	Cro	7	B								
12 Sep	S17W19	257	30	6	Dro	7	B				1				
13 Sep	S17W33	258	50	8	Dao	10	B								
14 Sep	S17W47	258	50	8	Dso	10	B								
15 Sep	S18W60	258	30	8	Cso	5	B								
16 Sep	S17W74	259	30	1	Hrx	1	A								
17 Sep	S17W88	260	plage												
								0	0	0	1	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 256

		Region 3431													
10 Sep	S08E60	203	30	2	Dao	6	B	1							
11 Sep	S07E47	204	50	3	Dao	5	BD	4	2		6	2			
12 Sep	S07E33	205	30	3	Cro	5	B	1			2				
13 Sep	S08E19	206	20	3	Hrx	4	A								
14 Sep	S08E05	206	20	3	Hrx	2	A								
15 Sep	S08W09	207	plage												
16 Sep	S08W23	208	plage												
17 Sep	S14W38	209	0		Axx	1	A								
18 Sep	S14W52	211	plage												
19 Sep	S14W66	211	plage												
20 Sep	S14W80	212	plage												
								6	2	0	8	2	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 206

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 3433													
12 Sep	N28E67	171	70	2	Hsx	1	A								
13 Sep	N28E53	172	80	2	Hsx	1	A								
14 Sep	N28E40	170	90	2	Hsx	1	A								
15 Sep	N28E28	170	90	2	Hsx	1	A								
16 Sep	N28E10	175	80	2	Hsx	1	A								
17 Sep	N28W04	176	90	3	Cao	3	B								
18 Sep	N28W13	172	70	5	Cso	2	B								
19 Sep	N28W25	170	90	4	Hsx	1	A								
20 Sep	N28W41	173	90	2	Hsx	1	A								
21 Sep	N28W55	174	70	1	Hsx	1	A								
22 Sep	N28W66	172	60	2	Hsx	1	A								
23 Sep	N28W79	172	40	2	Hsx	1	A								
24 Sep	N28W92	171	40	1	Hsx	1	A								
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 176

		Region 3434													
15 Sep	N08W01	199	20	3	Hsx	3	A								
16 Sep	N08W14	199	10	2	Axx	2	A								
17 Sep	N08W28	200	plage												
18 Sep	N08W42	201	plage												
19 Sep	N08W56	201	plage												
20 Sep	N08W70	202	plage												
21 Sep	N08W84	203	plage												
								0	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 199

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 3435												
16 Sep	N10E69	116	90	2	Dso	2	B								
17 Sep	N10E60	113	110	8	Dao	3	B	1							
18 Sep	N09E56	103	280	5	Cko	4	B	2			2				
19 Sep	N09E42	102	280	5	Dko	4	BD	2	3		1				
20 Sep	N09E29	102	300	4	Dki	4	BD		1						
21 Sep	N08E16	103	290	4	Dki	4	BD	1	1						
22 Sep	N09E03	103	280	4	Dki	6	B	1	1		5				
23 Sep	N09W10	103	270	6	Dki	10	B								
24 Sep	N10W23	102	300	6	Dki	16	BD	1			3				
								8	6	0	11	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 103

			Region 3436												
17 Sep	N19W22	194	80	5	Cao	8	B								
18 Sep	N19W36	195	100	6	Dai	14	B	8			5				
19 Sep	N20W49	193	160	6	Dai	12	BG	6			1				
20 Sep	N21W64	195	220	6	Dai	6	B								
21 Sep	N23W78	197	100	5	Dao	3	B								
								14	0	0	6	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 194

			Region 3437												
18 Sep	S18W15	174	70	5	Dso	8	B								
19 Sep	S17W29	173	100	7	Dao	6	B	1			1				
20 Sep	S18W43	174	190	3	Dai	11	B	1							
21 Sep	S18W57	176	140	8	Dso	7	B								
22 Sep	S18W69	175	120	10	Dso	5	B	1							
23 Sep	S19W83	176	30	12	Cso	2	B								
								3	0	0	1	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 174

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 3438												
18 Sep	N11E49	109	30	1	Hsx	1	A								
19 Sep	N10E34	110	60	1	Csi	8	BG	1							
20 Sep	N10E20	111	70	5	Cai	11	B	3			1				
21 Sep	N11E09	112	80	5	Dai	9	B	2							
22 Sep	N11W05	111	50	5	Bxi	12	B	1			2				
23 Sep	N12W19	112	10	4	Bxo	5	B								
24 Sep	N13W33	112	10	2	Bxo	6	B								
								7	0	0	3	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 111

			Region 3439												
18 Sep	S23E57	101	60	5	Dao	7	B								
19 Sep	S24E43	101	50	2	Cao	3	B								
20 Sep	S25E32	100	30	3	Cao	2	B								
21 Sep	S25E18	101	40	1	Hsx	1	A								
22 Sep	S24E05	98	30	3	Cao	2	B								
23 Sep	S24W08	101	20	1	Hrx	2	A								
24 Sep	S24W21	100	20	1	Hrx	1	A								
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 98

			Region 3440												
18 Sep	N17E74	84	60	2	Hsx	2	A								
19 Sep	N17E60	84	70	8	Cso	2	B								
20 Sep	N17E46	85	60	1	Hsx	1	A								
21 Sep	N17E33	86	60	1	Hsx	1	A								
22 Sep	N18E21	85	60	2	Hsx	1	A								
23 Sep	N18E07	86	60	2	Hsx	1	A								
24 Sep	N18W05	84	60	2	Hsx	1	A								
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 84

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 3441												
19 Sep	N09E11	133	20	2	Cro	3	B								
20 Sep	N08W03	134	20	3	Cro	4	B								
21 Sep	N08W16	135	50	4	Dri	6	BG								
22 Sep	N08W30	136	30	8	Cri	8	B								
23 Sep	N07W47	140	50	7	Dri	14	BG								
24 Sep	N07W61	140	40	8	Cai	12	B								
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 134

			Region 3442												
20 Sep	S11E52	79	50	1	Csi	5	B	2			3				
21 Sep	S10E39	80	30	3	Csi	7	BG	1							
22 Sep	S09E25	81	30	2	Hsx	1	A				4				
23 Sep	S09E12	81	30	1	Hsx	1	A								
24 Sep	S09W00	79	20	1	Hrx	1	A								
								3	0	0	7	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 79

			Region 3443												
21 Sep	N27W26	145	40	7	Dao	7	B	2			1				
22 Sep	N28W40	146	150	10	Dai	15	BG	4	3		7	1			
23 Sep	N28W54	147	260	10	Dki	15	BD	7			4				
24 Sep	N28W68	148	250	11	Eko	8	BG	1	1		3				
								14	4	0	15	1	0	0	0

Still on Disk.
Absolute heliographic longitude: 145

			Region 3444												
21 Sep	N24E37	82	10	6	Bxo	3	B								
22 Sep	N24E28	78	10	1	Axx	1	A								
23 Sep	N24E14	79	10	1	Axx	1	A								
24 Sep	N24W00	79	plage												
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 79

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 3445													
22 Sep	S15E33	73	100	6	Dai	9	B								
23 Sep	S15E19	74	180	7	Dri	24	B	10			2	1			
24 Sep	S14E05	74	200	8	Dai	24	BD	15	1		5	1			
								25	1	0	7	2	0	0	0

Still on Disk.
Absolute heliographic longitude: 74

		Region 3446													
22 Sep	N23E63	43	10	5	Bxo	3	B								
23 Sep	N23E47	46	10	1	Axx	2	A								
24 Sep	N23E34	45	10	1	Axx	2	A								
								0	0	0	0	0	0	0	0

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Absolute heliographic longitude: 45

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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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