Space Weather Highlights **SWPC PRF 2559**
09 September - 15 September 2024 **16 September 2024**

Solar activity ranged from low to strong levels. Low levels were observed on 15 Sep, R1 (Minor) levels observed on 09-14 Sep, R2 (Moderate) levels observed on 11-13 Sep and R3 (Strong) levels observed on 12 Sep and 14 Sep. Region 3824 (S04, L=071, class/area Eso/200 on 07 Sep) produced an X1.3/Sf at 12/3824 UTC with no apparent CME observed. The largest event of the period was an X4.5/2b flare at 14/1529 UTC from Region 3825 (S18, L=013, class/area Dac/240 on 14 Sep). This event produced an Earth-directed CME expected to hit Earth midday on 16 Sep.

Numerous R1-R2 (Minor-Moderate) flares were observed from Region 3811 (S09, L=179, class/area Ehi/290 on 06 Sep) including an M1/1f flare at 10/0028 UTC that produced an Earth-directed CME. Region 3814 (N15, L=116, class/area Dhi/300 on 11 Sep) produced a few R1 (Minor) flares during the period. Overall, 33 M-class flares and 2 X-class flares were observed this period.

No proton events were observed at geosynchronous orbit. However, proton flux levels became enhanced on 14-15 Sep, reaching a maximum flux of 6.18 pfu at 15/1455 UTC, likely associated with the X4.5 flare on the 14th.

The greater than 2 MeV electron flux at geosynchronous orbit was at moderate levels on 09-12 Sep and 14 Sep. High levels were reached on 13 and 15 Sep with a peak flux of 1,690 pfu observed on 15/1605 UTC.

Geomagnetic field activity ranged from quiet to R3 (G3-Strong) levels. Quiet to unsettled levels were observed on 09 Sep to early 12 Sep. Early on 12 Sep, activity levels increased to active to G3 (Strong) levels when the 09-10 CME impacted Earth. Levels remained enhanced to active to G2 (Moderate) levels on 13 Sep due to continued CME effects. Quiet to active levels were observed on 14 Sep due to continued weak CME effects coupled with positive polarity CH HSS influence. Quiet to active levels continued on 15 Sep due to continued CH HSS effects.

During the CME influence, total field Bt peaked at about 30 nT, Bz reached a southward extent to about 27 nT and wind speeds peaked at near 610 km/s midday on the 12th.

Space Weather Outlook
16 September - 12 October 2024

Solar activity is likely to be at moderate levels (R1-R2/Minor-Moderate), with a slight chance for x-class events (R3-Strong), throughout the outlook period. This is due to complex regions on the visible disk, as well as the anticipated return of complex regions.

No proton events are expected at geosynchronous orbit.

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

Geomagnetic field activity is expected to range from quiet to G3 (Strong) storm levels. Enhanced activity to G1-G3 (Minor-Strong) storm levels are likely on 16-17 Sep due to anticipated CME activity. Unsettled to G1 (Minor) storm activity is likely on 26-29 Sep, 05-06 Oct and 10-12 Oct due to recurrent, positive polarity CH HSS occurence. Mostly quiet levels are expected on 20-26 Sep, 30 Sep, 01-04 Oct and 07-09 Oct.

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 September	215	213	1025	C3.0	0	7	0	0	0	1	0	0
10 September	205	147	1010	C2.6	4	2	0	4	2	0	0	0
11 September	207	179	1150	C3.1	6	6	0	11	1	1	0	0
12 September	201	160	1020	C4.9	8	6	1	18	1	0	0	0
13 September	186	127	710	C5.2	4	11	0	9	0	0	0	0
14 September	172	136	750	C2.5	3	2	1	6	0	1	0	0
15 September	173	68	290	C1.4	6	0	0	2	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
09 September	5.4e+07	8.0e+05	1.3e+06
10 September	6.1e+07	5.5e+05	1.5e+06
11 September	1.5e+07	6.5e+04	2.5e+06
12 September	7.9e+06	4.5e+04	1.0e+06
13 September	2.5e+06	4.5e+04	1.8e+07
14 September	2.0e+06	6.6e+04	2.4e+07
15 September	3.2e+06	3.4e+05	5.8e+07

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
09 September	9	2-2-3-2-2-2-2-3	6	2-1-2-2-1-2-2-2	9	3-2-2-2-2-2-2-3
10 September	7	2-1-1-2-2-2-3-1	5	2-2-1-1-2-1-2-1	7	3-2-2-2-1-1-3-2
11 September	8	1-1-2-2-3-2-3-2	4	1-1-0-1-2-2-2-1	8	1-1-1-2-3-3-2-2
12 September	36	1-3-4-5-6-5-5-3	51	2-4-5-5-6-4-7-4	67	2-4-5-6-7-6-7-5
13 September	22	5-4-3-3-3-3-3-4	40	4-5-5-5-5-4-4-5	37	5-5-4-4-3-4-4-6
14 September	22	3-3-2-5-5-3-3-3	44	3-3-3-7-7-2-3-2	21	4-4-3-4-4-2-3-3
15 September	16	2-4-3-3-4-3-3-2	29	3-5-5-4-5-4-3-2	7	2-4-4-3-4-4-3-2

Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
09 Sep 0554	ALERT: Type II Radio Emission	09/0510
09 Sep 0749	WARNING: Proton 10MeV Integral Flux > 10pfu	09/0750 - 2000
09 Sep 1722	ALERT: Proton Event 10MeV Integral Flux >= 10pfu	09/1640
09 Sep 1943	EXTENDED WARNING: Proton 10MeV Integral Flux > 10pfu	09/0750 - 10/1200
10 Sep 0003	ALERT: Type II Radio Emission	09/2345
10 Sep 0041	ALERT: Type IV Radio Emission	09/2353
10 Sep 1154	SUMMARY: Proton Event 10MeV Integral Flux >= 10pfu	09/1640 - 10/0555
10 Sep 1737	WATCH: Geomagnetic Storm Category G2 predicted	
11 Sep 1643	WARNING: Geomagnetic K = 4	11/1642 - 2359
12 Sep 0016	ALERT: X-ray Flux exceeded M5	12/0011
12 Sep 0038	SUMMARY: X-ray Event exceeded M5	11/2349 - 12/0032
12 Sep 0315	WARNING: Geomagnetic Sudden Impulse expected	12/0332 - 0412
12 Sep 0355	WARNING: Geomagnetic K = 4	12/0355 - 1800
12 Sep 0357	ALERT: Geomagnetic K = 4	
12 Sep 0401	SUMMARY: Geomagnetic Sudden Impulse	12/0350
12 Sep 0419	WARNING: Geomagnetic K = 5	12/0419 - 1500
12 Sep 0511	SUMMARY: 10cm Radio Burst	12/0431 - 0431
12 Sep 0755	WARNING: Geomagnetic K = 6	12/0755 - 1500
12 Sep 0755	ALERT: Geomagnetic K = 5	
12 Sep 0945	ALERT: X-ray Flux exceeded M5	12/0939
12 Sep 0956	SUMMARY: 10cm Radio Burst	12/0939 - 0941
12 Sep 1005	SUMMARY: X-ray Event exceeded X1	12/0931 - 0951
12 Sep 1010	ALERT: Geomagnetic K = 5	
12 Sep 1128	ALERT: Geomagnetic K = 6	
12 Sep 1302	EXTENDED WARNING: Geomagnetic K = 6	12/0755 - 2359
12 Sep 1302	EXTENDED WARNING: Geomagnetic K = 5	12/0419 - 13/0300
12 Sep 1302	EXTENDED WARNING: Geomagnetic K = 4	12/0355 - 13/0600
12 Sep 1324	ALERT: Geomagnetic K = 5	

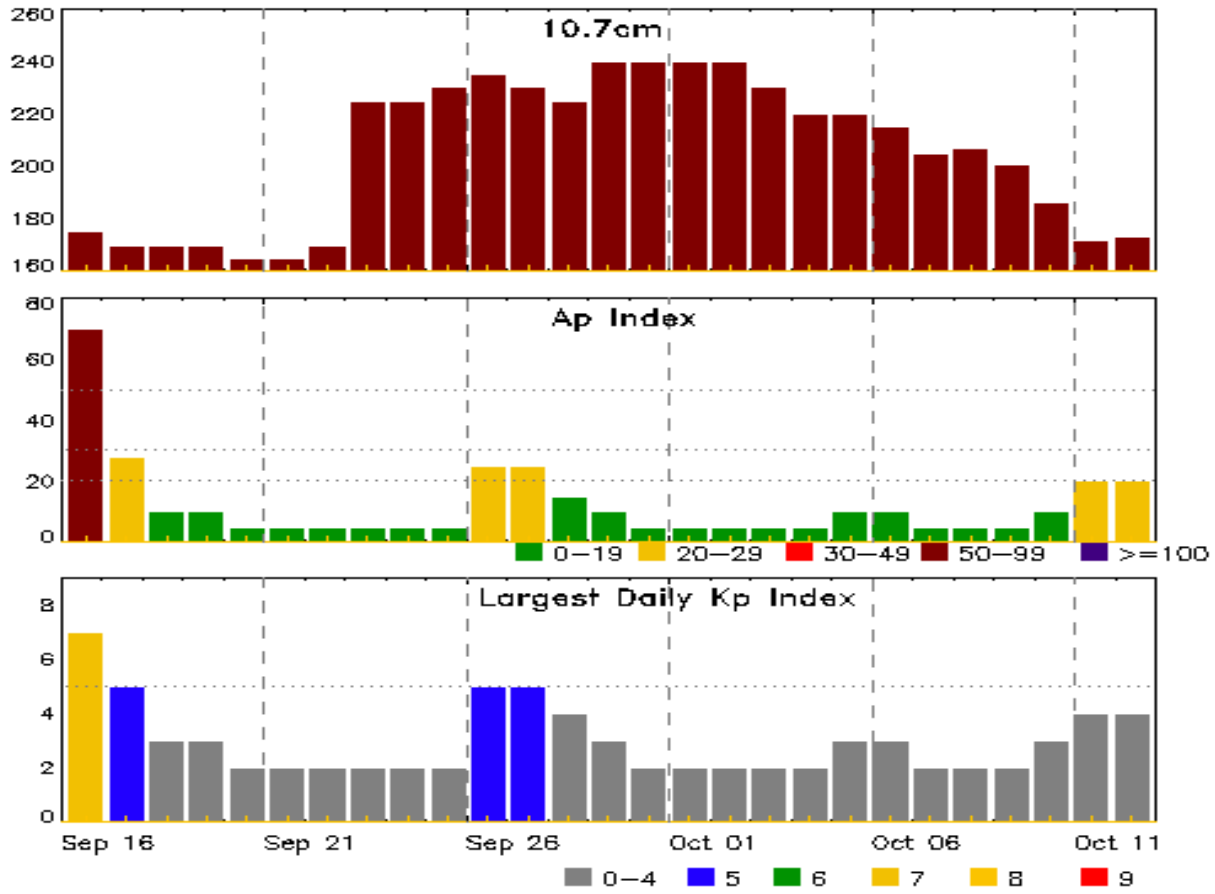
Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
12 Sep 1333	WARNING: Geomagnetic K>= 7	12/1332 - 2100
12 Sep 1348	ALERT: Geomagnetic K = 6	
12 Sep 1445	ALERT: X-ray Flux exceeded M5	12/1442
12 Sep 1446	ALERT: Geomagnetic K = 7	
12 Sep 1509	SUMMARY: X-ray Event exceeded M5	12/1431 - 1447
12 Sep 1548	ALERT: Geomagnetic K = 5	
12 Sep 1628	ALERT: Geomagnetic K = 6	
12 Sep 1844	ALERT: Geomagnetic K = 5	
12 Sep 1905	ALERT: Geomagnetic K = 6	
12 Sep 1953	ALERT: Geomagnetic K = 7	
12 Sep 2211	ALERT: Geomagnetic K = 4	
12 Sep 2349	ALERT: Geomagnetic K = 5	
13 Sep 0041	ALERT: Geomagnetic K = 4	
13 Sep 0208	ALERT: Geomagnetic K = 5	
13 Sep 0229	EXTENDED WARNING: Geomagnetic K = 5	12/0419 - 13/0600
13 Sep 0230	EXTENDED WARNING: Geomagnetic K = 4	12/0355 - 13/0900
13 Sep 0501	ALERT: Geomagnetic K = 5	
13 Sep 0528	EXTENDED WARNING: Geomagnetic K = 4	12/0355 - 13/1500
13 Sep 0529	EXTENDED WARNING: Geomagnetic K = 5	12/0419 - 13/1200
13 Sep 0656	ALERT: X-ray Flux exceeded M5	13/0652
13 Sep 0738	SUMMARY: X-ray Event exceeded M5	13/0638 - 0734
13 Sep 1455	EXTENDED WARNING: Geomagnetic K = 4	12/0355 - 13/2359
13 Sep 1701	ALERT: Electron 2MeV Integral Flux >= 1000pfu	13/1645
13 Sep 1707	WATCH: Geomagnetic Storm Category G1 predicted	
13 Sep 2158	WARNING: Geomagnetic K = 5	13/2158 - 14/2359
13 Sep 2159	EXTENDED WARNING: Geomagnetic K = 4	12/0355 - 14/2359
13 Sep 2214	ALERT: Geomagnetic K = 5	
13 Sep 2241	WARNING: Geomagnetic K = 6	13/2240 - 14/1200
13 Sep 2244	ALERT: Geomagnetic K = 6	

Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
14 Sep 0133	ALERT: Geomagnetic K = 4	
14 Sep 1521	ALERT: X-ray Flux exceeded M5	14/1518
14 Sep 1553	SUMMARY: X-ray Event exceeded X1	14/1513 - 1547
14 Sep 1630	SUMMARY: 10cm Radio Burst	14/1517 - 1555
14 Sep 2104	WATCH: Geomagnetic Storm Category G3 predicted	
14 Sep 2258	EXTENDED WARNING: Geomagnetic K = 4	12/0355 - 15/1200
15 Sep 1127	EXTENDED WARNING: Geomagnetic K = 4	12/0355 - 15/1800
15 Sep 1230	ALERT: Electron 2MeV Integral Flux >= 1000pfu	15/1215
15 Sep 1755	EXTENDED WARNING: Geomagnetic K = 4	12/0355 - 16/0300

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
16 Sep	175	70	7	30 Sep	240	5	2
17	170	28	5	01 Oct	240	5	2
18	170	10	3	02	240	5	2
19	170	10	3	03	230	5	2
20	165	5	2	04	220	5	2
21	165	5	2	05	220	10	3
22	170	5	2	06	215	10	3
23	225	5	2	07	205	5	2
24	225	5	2	08	207	5	2
25	230	5	2	09	201	5	2
26	235	25	5	10	186	10	3
27	230	25	5	11	172	20	4
28	225	15	4	12	173	20	4
29	240	10	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
09 Sep	0057	0332	0502	M1.0	0.095			3806				
09 Sep	0540	0545	0558	M1.8	0.019			3806				
09 Sep	0841	0850	0902	M1.5	0.018			3806				
09 Sep	0957	1027	1048	M1.7	0.043			3806				
09 Sep	1211	1217	1224	M1.0	0.007			3811				
09 Sep	1658	1708	1716	M3.4	0.024	2N	N15E15	3814		170		
09 Sep	2347	0028	0103	M1.2	0.051	1F	N14E09	3814	100		2	1
10 Sep	1534	1547	1602	M1.6	0.018			3813				
10 Sep	2338	2350	2357	M1.0	0.007	1N	N14W01	3814	100			
11 Sep	1227	1236	1247	M1.8	0.002	2N	N16W07	3814				
11 Sep	1509	1518	1524	M1.4	0.003	SF	S14W75	3811				
11 Sep	1524	1530	1716	M1.8	0.003			3811				
11 Sep	1716	1726	1732	M1.6	0.003			3811				
11 Sep	1744	1752	1800	M2.0	0.014	1F	N14W12	3814		110		
11 Sep	2349	0012	0032	M5.0	0.073			3811				
12 Sep	0355	0404	0411	M1.0	0.008			3811				
12 Sep	0426	0432	0439	M1.2	0.007	1N	N13W01	3814		230		
12 Sep	0604	0618	0629	M2.7	0.024	SF	S15W87	3811	180			
12 Sep	0931	0943	0951	X1.3	0.076			3824		240		
12 Sep	1313	1321	1332	M1.2	0.012			3824				
12 Sep	1431	1443	1447	M6.8	0.021	SF	S15W84	3811				
12 Sep	1456	1506	1520	M1.6	0.022			3825				
13 Sep	0046	0056	0105	M1.5	0.016			3811				
13 Sep	0129	0137	0153	M1.6	0.020			3811				
13 Sep	0233	0239	0244	M1.3	0.009			3811				
13 Sep	0437	0440	0446	M2.1	0.013	SF	S25W54	3815	160			
13 Sep	0458	0500	0507	M2.3	0.013			3811				
13 Sep	0638	0656	0734	M5.4	0.069			3811				
13 Sep	0703	0708	0712	M5.2	0.031			3811				
13 Sep	0814	0837	0850	M2.9	0.055	SF	N13W29	3814				
13 Sep	1456	1508	1533	M1.2	0.024	SF	S15E67	3825				
13 Sep	1749	1756	1803	M1.4	0.009	SF	S14E63	3825				
13 Sep	2041	2049	2055	M1.1	0.008	SF	S14E64	3825				
14 Sep	0310	0431	0722	M1.0	0.110			3825				
14 Sep	0726	0741	0753	M3.0	0.030			3825				
14 Sep	1513	1529	1547	X4.5	0.580	2B	S15E56	3825		1000		

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
09 Sep	0057	0332	0502	M1.0			3806
09 Sep	0540	0545	0558	M1.8			3806
09 Sep	0841	0850	0902	M1.5			3806
09 Sep	0957	1027	1048	M1.7			3806
09 Sep	1211	1217	1224	M1.0			3811
09 Sep	1658	1708	1716	M3.4	2N	N15E15	3814
09 Sep	2347	0028	0103	M1.2	1F	N14E09	3814
10 Sep	0536	0546	0556	C6.1			3811
10 Sep	1057	1119	1145	C5.6			
10 Sep	1514	1515	1525		SF	S20W42	3813
10 Sep	1534	1547	1602	M1.6			3813
10 Sep	1753	1801	1808	C3.9	SF	S20W44	3823
10 Sep	2048	2051	2056	C4.3	SF	S18W46	3823
10 Sep	2338	2350	2357	M1.0			3814
10 Sep	2339	2347	2350		SF	S18W47	3813
10 Sep	2345	2345	2359		1N	N14W01	3814
11 Sep	0628	0634	0641	C5.6			3823
11 Sep	0822	0829	0837	C4.5			
11 Sep	0930	0945	0951	C4.5	SF	S19W53	3823
11 Sep	0951	0953	1009	C5.9	SF	N12W06	3814
11 Sep	1106	1117	1126	C4.6			
11 Sep	1155	1158	1205		SF	N12W06	3814
11 Sep	1215	1217	1221		SF	N15W08	3814
11 Sep	1227	1236	1247	M1.8	2N	N16W07	3814
11 Sep	1256	1304	1328		SF	N12W08	3814
11 Sep	1509	1518	1524	M1.4	SF	S14W75	3811
11 Sep	1524	1530	1716	M1.8			3811
11 Sep	1542	1544	1551		SF	S05E37	3824
11 Sep	1716	1726	1732	M1.6			3811
11 Sep	1744	1752	1800	M2.0	1F	N14W12	3814
11 Sep	1814	1826	1840		SF	S04E35	3824
11 Sep	1942	1949	1953	C6.7	SF	S04E35	3824
11 Sep	2049	2127	2137		SF	S16W72	3811
11 Sep	2349	0012	0032	M5.0			3811
11 Sep	2356	2356	A2359		SF	N13W01	3814
12 Sep	0027	0028	0035		SF	N13W01	3814
12 Sep	0238	0243	0248	C9.9	SF	S19W58	3823
12 Sep	0301	0305	0309	C7.5			3811

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
12 Sep	0355	0404	0411	M1.0			3811
12 Sep	0426	0432	0439	M1.2	1N	N13W01	3814
12 Sep	0432	0434	0436		SF	S25W51	3813
12 Sep	0515	0522	0526	C6.6			3811
12 Sep	0534	0538	0549		SF	S05E22	3824
12 Sep	0604	0618	0629	M2.7	SF	S15W87	3811
12 Sep	0827	0843	0850	C9.7			3824
12 Sep	0856	0859	0918		SF	S05E24	3824
12 Sep	0908	0910	0911		SF	S27W47	3813
12 Sep	0931	0943	0951	X1.3			3824
12 Sep	0933	0934	0947		SF	S05E19	3824
12 Sep	1016	1017	1023		SF	N16W21	3814
12 Sep	1033	U1042	1050		SF	N13W20	3814
12 Sep	1207	U1213	1222		SF	S31W51	3813
12 Sep	1209	U1213	A1248		SF	N14W09	3822
12 Sep	1215	1222	1228	C8.2			3813
12 Sep	B1251	U1254	A1308		SF	N16W13	3822
12 Sep	1313	1321	1332	M1.2			3824
12 Sep	1344	1345	1351		SF	S05E23	3824
12 Sep	B1431	1432	1438	M6.8	SF	S15W84	3811
12 Sep	1456	1506	1520	M1.6			3825
12 Sep	1539	1546	1606		SF	S06E18	3824
12 Sep	1720	1721	1723		SF	S02E15	3824
12 Sep	1823	1831	1837	C7.4	SF	S14W84	3811
12 Sep	1846	1859	1916	C9.7			3811
12 Sep	2104	2111	2118	C8.9			3814
13 Sep	0046	0056	0105	M1.5			3811
13 Sep	0129	0137	0153	M1.6			3811
13 Sep	0233	0239	0244	M1.3			3811
13 Sep	0427	0430	0445		SF	S25W54	3815
13 Sep	0428	0430	0444		SF	S25W65	3813
13 Sep	0437	0440	0446	M2.1			3815
13 Sep	0458	0500	0507	M2.3			3811
13 Sep	0638	0656	0734	M5.2			3811
13 Sep	0814	0837	0850	M2.9	SF	N13W29	3814
13 Sep	0912	0912	0923		SF	N13W31	3814
13 Sep	0912	0913	0930		SF	N15W26	3822
13 Sep	0953	U1001	1008		SF	N15W36	3814

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
13 Sep	1221	1233	1244	C9.6			3823
13 Sep	1456	1508	1533	M1.2	SF	S15E67	3825
13 Sep	1749	1756	1803	M1.4	SF	S14E63	3825
13 Sep	1851	1903	1924	C9.4			3825
13 Sep	2041	2049	2055	M1.1	SF	S14E64	3825
13 Sep	2123	2129	2138	C4.8			3825
13 Sep	2314	2332	2359	C6.2			3813
14 Sep	0048	0058	0107	C4.5			3813
14 Sep	0310	0431	0722	M1.0			3825
14 Sep	0622	0626	0632		SF	S15E59	3825
14 Sep	0726	0741	0753	M3.0			3825
14 Sep	1407	1408	1413		SF	S27W12	3826
14 Sep	1417	1428	1441	C5.4	SF	S15E56	3825
14 Sep	1513	1529	1547	X4.5	2B	S15E56	3825
14 Sep	1519	1520	1523		SF	S28W12	3826
14 Sep	1703	1706	1707		SF	S17E52	3825
14 Sep	1846	1848	1850		SF	S25W13	3826
14 Sep	2349	2351	2355	C2.9			3825
15 Sep	0749	0755	0803	C3.0	SF	S05W16	3824
15 Sep	0840	0904	0935	C2.3			3825
15 Sep	1034	1112	1150	C3.7			3825
15 Sep	1523	1528	1534	C4.7	SF	S05W16	3824
15 Sep	2123	2133	2150	C3.9	1F	S13E29	3825
15 Sep	2317	2334	2350	C4.9			3824

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 3806												
28 Aug	S10E68	217	100	5	Dao	3	B	3							
29 Aug	S10E56	216	380	7	Dkc	8	B	2			1				
30 Aug	S11E40	219	450	24	Fkc	11	BGD	2	2		1				
31 Aug	S11E34	212	480	13	Ekc	25	BG	4	3		3				
01 Sep	S11E20	212	380	12	Ekc	22	BG	1			1				
02 Sep	S11E06	213	330	12	Ekc	48	BG				1				
03 Sep	S10W09	214	240	11	Eai	24	BG	2			1				
04 Sep	S12W23	216	250	11	Ekc	34	BGD	2	2		2				
05 Sep	S12W37	217	280	11	Ekc	39	BGD	1	1						
06 Sep	S11W53	219	170	8	Dai	20	BGD	5			2	1			
07 Sep	S08W67	220	90	8	Dsi	10	BG	4			2	1			
08 Sep	S08W81	221	90	8	Cso	10	B								
09 Sep	S11W95	221	70	5	Cai	5	B		4						
								26	12	0	14	2	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 213

			Region 3808												
30 Aug	S08E60	199	60	4	Dao	4	B								
31 Aug	S09E44	202	60	6	Cao	2	B	1							
01 Sep	S10E31	201	90	7	Cao	3	B								
02 Sep	S11E16	203	80	8	Cso	4	B								
03 Sep	S08E02	203	60	4	Cso	4	B								
04 Sep	S10W13	206	80	5	Cso	10	B				1				
05 Sep	S10W27	207	90	5	Dsi	10	B								
06 Sep	S10W44	210	90	3	Dao	8	B								
07 Sep	S09W58	211	60	3	Cao	4	B	1							
08 Sep	S09W72	212	60	3	Cao	4	B								
09 Sep	S11W86	212	plage												
								2	0	0	1	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 203

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 3809												
31 Aug	S20E39	207	20	2	Hsx	1	A								
01 Sep	S21E26	206	10	1	Axx	1	A								
02 Sep	S21E12	207	plage												
03 Sep	S21W02	207	plage												
04 Sep	S21W16	209	plage												
05 Sep	S21W30	210	plage												
06 Sep	S21W44	210	plage												
07 Sep	S21W58	211	plage												
08 Sep	S21W72	212	plage												
09 Sep	S21W86	212	plage												
								0	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 207

			Region 3810												
31 Aug	N16E35	210	10	3	Bxo	3	B								
01 Sep	N16E24	208	20	3	Bxo	3	B								
02 Sep	N16E10	209	10	3	Bxo	3	B								
03 Sep	N16W04	209	10	1	Axx	1	A								
04 Sep	N16W18	211	plage												
05 Sep	N16W32	212	plage												
06 Sep	N16W46	212	plage												
07 Sep	N16W60	213	plage												
08 Sep	N16W74	214	plage												
09 Sep	N16W88	214	plage												
								0	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 209

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 3811												
31 Aug	S09E73	173	120	5	Hsx	1	A								
01 Sep	S10E56	176	220	8	Cso	4	B								
02 Sep	S10E42	177	220	8	Cso	6	B				1				
03 Sep	S10E28	177	220	5	Cao	6	B				1				
04 Sep	S11E18	175	290	4	Dki	11	B	1	1		1	1			
05 Sep	S11E04	176	240	10	Dsi	12	B	1							
06 Sep	S09W13	179	290	11	Ehi	21	BG								
07 Sep	S10W22	175	250	6	Cho	9	BG				4				
08 Sep	S10W36	176	240	6	Dso	9	BG	1	1		1	1			
09 Sep	S11W50	176	230	8	Dsi	19	BG		1						
10 Sep	S12W64	178	240	8	Dsi	8	B	1							
11 Sep	S13W78	178	160	6	Dso	5	B		4		2				
12 Sep	S13W92	179	150	5	Dsi	7	BG	4	3		3				
								8	10	0	13	2	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 176

			Region 3812												
02 Sep	N14E32	186	10	2	Bxo	2	B								
03 Sep	N14E18	187	plage												
04 Sep	N14E04	189	plage												
05 Sep	N14W10	190	plage												
06 Sep	N14W24	190	plage												
07 Sep	N14W38	191	plage												
08 Sep	N14W52	192	plage												
09 Sep	N14W66	192	plage												
10 Sep	N14W80	194	plage												
								0	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 189

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 3813												
01 Sep	S22E72	160	plage						2						
02 Sep	S22E58	160	240	10	Dac	8	BG	1	2						
03 Sep	S22E44	161	270	11	Ekc	13	BG	3	2		3				
04 Sep	S23E35	158	350	12	Ekc	24	BG	3	2		3				
05 Sep	S23E21	159	370	25	Fkc	35	BG	1	1		1				
06 Sep	S24E17	149	490	22	Fki	34	BG	1							
07 Sep	S25E03	150	430	26	Fki	20	BG	1			2				
08 Sep	S22W11	151	220	11	Esi	10	BG				2				
09 Sep	S22W25	151	130	9	Dsi	12	B								
10 Sep	S22W39	152	90	9	Cao	3	B		1		2				
11 Sep	S24W53	153	70	3	Cso	5	B								
12 Sep	S25W66	153	20	2	Hax	3	A	1			3				
13 Sep	S24W80	154	30	1	Hax	1	A	1			1				
								12	10	0	17	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 150

			Region 3814												
04 Sep	N16E75	117	180	2	Hax	1	A								
05 Sep	N16E61	119	180	3	Hsx	1	A	1							
06 Sep	N13E52	114	190	3	Cao	1	B								
07 Sep	N15E38	115	240	3	Cso	5	B				1				
08 Sep	N15E24	116	230	5	Dso	10	BG	1			1				
09 Sep	N16E10	116	250	13	Eho	12	BG		2				1		
10 Sep	N16W02	117	270	8	Dki	15	BGD		1			2			
11 Sep	N15W16	116	300	7	Dhi	13	BGD	1	2		5	1	1		
12 Sep	N16W29	116	280	7	Dhi	13	BGD	1	1		3	1			
13 Sep	N16W43	117	110	7	Cso	6	BG		1		3				
14 Sep	N16W56	117	180	3	Hsx	3	A								
15 Sep	N16W70	118	90	3	Cso	2	B								
								4	7	0	13	4	2	0	0

Still on Disk.
Absolute heliographic longitude: 117

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 3815												
06 Sep	S30E23	143	40	12	Eko	31	BG								
07 Sep	S28E15	138	200	16	Eso	16	BG		1		2	1			
08 Sep	S27E01	139	170	7	Cso	5	B								
09 Sep	S27W13	139	140	3	Hsx	2	A								
10 Sep	S26W27	140	130	2	Hsx	1	A								
11 Sep	S26W41	141	130	2	Hsx	1	A								
12 Sep	S26W55	142	140	2	Hsx	1	A								
13 Sep	S25W69	143	40	2	Hsx	1	A		1		1				
14 Sep	S24W83	144	120	2	Hsx	1	A								
								0	2	0	3	1	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 139

			Region 3816												
06 Sep	S11E20	146	10	2	Bxo	3	B								
07 Sep	S12E04	149	5	1	Axx	1	A								
08 Sep	S12W10	150	5	1	Cro	1	B								
09 Sep	S11W24	150	60	9	Cao	12	B								
10 Sep	S10W38	151	100	8	Dso	8	B								
11 Sep	S10W52	152	60	6	Cso	5	B								
12 Sep	S10W62	149	70	5	Cso	3	B								
13 Sep	S08W76	150	10	1	Axx	1	A								
14 Sep	S08W90	151	10	1	Axx	1	A								
								0	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 149

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 3817												
07 Sep	S14E37	116	5	1	Axx	1	A								
08 Sep	S14E23	117	plage												
09 Sep	S14E09	117	plage												
10 Sep	S14W05	119	plage												
11 Sep	S14W19	119	plage												
12 Sep	S14W33	120	plage												
13 Sep	S14W47	121	plage												
14 Sep	S14W61	122	plage												
15 Sep	S14W75	123	plage												
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 119

			Region 3818												
07 Sep	S13W34	187	20	5	Cao	3	B								
08 Sep	S12W49	189	20	2	Cro	3	B								
09 Sep	S13W63	189	5	3	Bxo	2	B								
10 Sep	S13W77	191	plage												
								0	0	0	0	0	0	0	0

Died on Disk.
Absolute heliographic longitude: 187

			Region 3819												
07 Sep	S12E41	112	40	6	Cao	10	B								
08 Sep	S30E06	134	10	3	Csi	8	B								
09 Sep	S27W08	134	20	12	Bxi	17	B								
10 Sep	S27W22	135	10	1	Axx	1	A								
11 Sep	S27W36	136	10	1	Axx	1	A								
12 Sep	S27W50	137	plage												
13 Sep	S27W64	138	plage												
14 Sep	S27W78	139	plage												
								0	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 134

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 3820												
08 Sep	S22W10	150	20	1	Hsx	1	A								
09 Sep	S19W24	150	20	7	Hsx	4	A								
10 Sep	S18W38	151	10	1	Hax	1	A								
11 Sep	S21W52	152	10	1	Axx	1	A								
12 Sep	S21W62	149	10	3	Axx	4	A								
13 Sep	S21W76	150	plage												
								0	0	0	0	0	0	0	0

Died on Disk.
Absolute heliographic longitude: 150

			Region 3821												
08 Sep	N14W37	177	30	4	Cso	5	B								
09 Sep	N13W51	177	40	4	Dso	6	B								
10 Sep	N14W65	178	60	4	Dsi	5	B								
11 Sep	N14W79	179	plage												
								0	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 177

			Region 3822												
09 Sep	N14E23	104	60	3	Dao	12	B								
10 Sep	N14E09	104	100	5	Dai	15	B								
11 Sep	N14W05	105	120	6	Dac	20	B								
12 Sep	N14W17	104	130	6	Dai	13	B				2				
13 Sep	N14W31	105	140	7	Dai	13	B				1				
14 Sep	N15W45	106	30	4	Dai	9	B								
15 Sep	N14W56	104	10	2	Cro	2	B								
								0	0	0	3	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 105

			Region 3823												
10 Sep	S19W51	165	plage					2			2				
11 Sep	S19W65	165	150	6	Dai	13	B	2			1				
12 Sep	S19W79	166	50	6	Cro	6	B	1			1				
								5	0	0	4	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 165

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 3824												
11 Sep	S04E30	70	140	6	Dai	15	B	1			3				
12 Sep	S04E16	71	170	8	Dai	20	BG	1	1	1	6				
13 Sep	S05E01	73	110	10	Dsi	13	BG								
14 Sep	S05W13	74	120	10	Cai	19	B								
15 Sep	S04W26	73	40	11	Csi	2	BG	3			2				
								5	1	1	11	0	0	0	0
Still on Disk. Absolute heliographic longitude: 73															
			Region 3825												
12 Sep	S18E77	11	plage						1						
13 Sep	S18E63	11	240	6	Dac	6	BG	2	3		3				
14 Sep	S18E48	13	240	6	Dac	23	BGD	2	2	1	3		1		
15 Sep	S15E35	13	140	12	Eai	10	BG	3				1			
								7	6	1	6	1	1	0	0
Still on Disk. Absolute heliographic longitude: 13															
			Region 3826												
14 Sep	S28W17	78	50	4	Dsi	10	B				3				
15 Sep	S28W31	79	10	4	Dri	2	B								
								0	0	0	3	0	0	0	0
Still on Disk. Absolute heliographic longitude: 78															

Preliminary Report and Forecast of Solar Geophysical Data (The Weekly)

Published every Monday by the Space Weather Prediction Center.

U.S. Department of Commerce
NOAA / National Weather Service
Space Weather Prediction Center
325 Broadway, Boulder CO 80305

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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