Space Weather Highlights
12 August - 18 August 2024

SWPC PRF 2555
19 August 2024

Solar activity was at high levels on 14 Aug and moderate (R1-Minor) for the remaining days between 12-18 Aug. Region 3784 (N14, L=115, class/area=Dkc/700 on 14 Aug) produced the strongest event of the period, an X1.1/2b (R3-Strong) flare at 14/0640 UTC. Associated with the flare were Type II (est. 516 km/s) and Type IV radio sweeps, as well as a subsequent CME signature observed in LASCO imagery. Analysis and modeling of the CME suggested an Earth-directed component from 17-18 Aug. The remaining days in the summary period, outside of 14 Aug, observed 16 other R1 (Minor) events. The regions associated with R1 events were 3777 (S09, L=209, class/area=Ekc/460 on 09 Aug), 3780 (S12, L=170, class/area=Fkc/1250 on 08 Aug), 3784, 3785 (S15, L=107, class/area=Dai/100 on 18 Aug), and 3790 (S12, L=024, class/area=Dkc/280 on 18 Aug).

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at low to moderate levels.

Geomagnetic field activity reached G4 (Severe) levels on 12 Aug due to influence of a CME that left the Sun on 08 Aug. An X1.3/2b flare at 08/1935 UTC from Region 3777 produced a Type II (est. 1,026 km/s) and Type IV radio sweep as the CME lifted off of the Sun. Its arrival increased total magnetic field strength to a peak of 21 nT, and Bz reached as far south as -20 nT. Solar wind speeds peak just over 500 km/s. The geomagnetic field responded with a series of G3 (Strong) synoptic periods and an isolated G4 (Severe) during the 12/1200-1500 UTC synoptic period. As the CME waned, G1 (Minor) conditions on 13 Aug decreased to active levels on 14 Aug. Quiet to unsettled conditions characterized 15-16 Aug. The onset of a CME associated with the X-flare (R3-Strong) from Region 3784 arrived with a shock at L1 around 17/1330 UTC. Total magnetic field strength increased from 7 to 25 nT and Bz briefly reached -21 nT shortly after. Solar wind speeds increased from the low 300's to around 475 km/s. The geomagnetic field responded with an isolated G3 (Strong) geomagnetic storm during the 17/1200-1500 UTC synoptic period. Bz turned northward and remained there through the end 18 Aug. This resulted in a drop in subsequent geomagnetic activity to below G1 (Minor) levels on 18 Aug.

Space Weather Outlook
19 August - 14 September 2024

Solar activity is likely to be at moderate levels throughout the outlook period due to multiple complex regions on the visible disk and ones anticipated to return from the Sun's farside. A slight chance for R3 (Strong) activity is forecast over the next week due to the currently analyzed monitored active regions on the Sun's nearside.

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 during the outlook period.

Geomagnetic field activity is expected to be mostly quiet. Unsettled conditions are possible on 22-23 Aug due to coronal hole influence. The long-term forecast only contains recurrent solar wind features like CH HSSs and SSBCs. CMEs will be added as they occur.

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
12 August	272	245	2450	C2.9	8	2	0	29	1	0	0	0
13 August	260	199	2410	C3.9	10	3	0	27	2	0	0	0
14 August	248	194	2250	C4.2	3	3	1	27	0	1	0	0
15 August	227	164	1420	C3.1	7	1	0	22	0	1	0	0
16 August	225	169	1220	C2.9	8	1	0	12	1	0	0	0
17 August	230	170	1440	C3.1	1	4	0	13	2	0	0	0
18 August	231	170	1640	C3.1	5	5	0	11	0	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
12 August	1.0e+06	1.5e+04	1.0e+06
13 August	3.0e+04	1.6e+04	1.1e+06
14 August	4.5e+05	1.6e+04	2.7e+06
15 August	8.4e+05	1.7e+04	5.3e+06
16 August	5.9e+05	1.7e+04	1.6e+06
17 August	3.2e+05	1.7e+04	3.0e+06
18 August	1.4e+05	1.7e+04	9.0e+05

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
12 August	51	5-6-5-5-6-5-4-4	91	5-6-5-7-7-6-7-5	122	6-7-7-7-8-7-6-6
13 August	12	3-3-3-2-2-1-3-3	12	4-3-2-2-1-2-3-3	17	5-3-2-2-2-1-3-4
14 August	11	4-3-2-2-2-2-1-3	16	4-5-3-3-2-2-1-2	12	4-3-2-2-1-1-1-3
15 August	6	2-1-0-2-3-1-2-2	3	1-1-1-0-1-1-1-2	6	2-1-1-1-2-1-2-3
16 August	11	3-2-2-3-4-2-2-1	11	2-2-3-4-3-2-1-1	8	3-2-2-2-3-2-1-1
17 August	24	1-0-1-3-3-6-4-5	30	2-1-1-3-3-7-4-4	31	1-1-1-2-3-7-5-5
18 August	15	3-3-3-3-4-2-2-3	11	2-3-3-3-3-2-2-2	9	2-3-2-4-4-2-2-2

Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
12 Aug 0044	ALERT: Geomagnetic K = 5	
12 Aug 0055	EXTENDED WARNING: Geomagnetic K = 5	11/0745 - 12/1500
12 Aug 0055	EXTENDED WARNING: Geomagnetic K = 4	11/0720 - 12/2359
12 Aug 0055	WARNING: Geomagnetic K = 6	12/0055 - 1200
12 Aug 0056	ALERT: Geomagnetic K = 6	
12 Aug 0321	ALERT: Geomagnetic K = 5	
12 Aug 0412	ALERT: Geomagnetic K = 6	
12 Aug 0506	WARNING: Geomagnetic K>= 7	12/0505 - 0900
12 Aug 0528	ALERT: Geomagnetic K = 7	
12 Aug 0622	ALERT: Geomagnetic K = 5	
12 Aug 0639	ALERT: Geomagnetic K = 6	
12 Aug 0811	ALERT: Geomagnetic K = 7	
12 Aug 0858	EXTENDED WARNING: Geomagnetic K>= 7	12/0505 - 1500
12 Aug 0904	EXTENDED WARNING: Geomagnetic K = 5	11/0745 - 12/2100
12 Aug 0904	EXTENDED WARNING: Geomagnetic K = 6	12/0055 - 1800
12 Aug 0955	ALERT: Geomagnetic K = 5	
12 Aug 1006	ALERT: Geomagnetic K = 6	
12 Aug 1152	ALERT: Geomagnetic K = 7	
12 Aug 1221	ALERT: Geomagnetic K = 5	
12 Aug 1233	ALERT: Geomagnetic K = 6	
12 Aug 1416	ALERT: Geomagnetic K = 7	
12 Aug 1417	EXTENDED WARNING: Geomagnetic K = 5	11/0745 - 13/0000
12 Aug 1418	EXTENDED WARNING: Geomagnetic K = 6	12/0055 - 2100
12 Aug 1419	EXTENDED WARNING: Geomagnetic K>= 7	12/0505 - 1800
12 Aug 1448	ALERT: Geomagnetic K = 8	
12 Aug 1536	ALERT: Geomagnetic K = 6	
12 Aug 1609	WATCH: Geomagnetic Storm Category G2 predicted	
12 Aug 1644	ALERT: Geomagnetic K = 7	
12 Aug 1733	EXTENDED WARNING: Geomagnetic K = 5	11/0745 - 13/0300

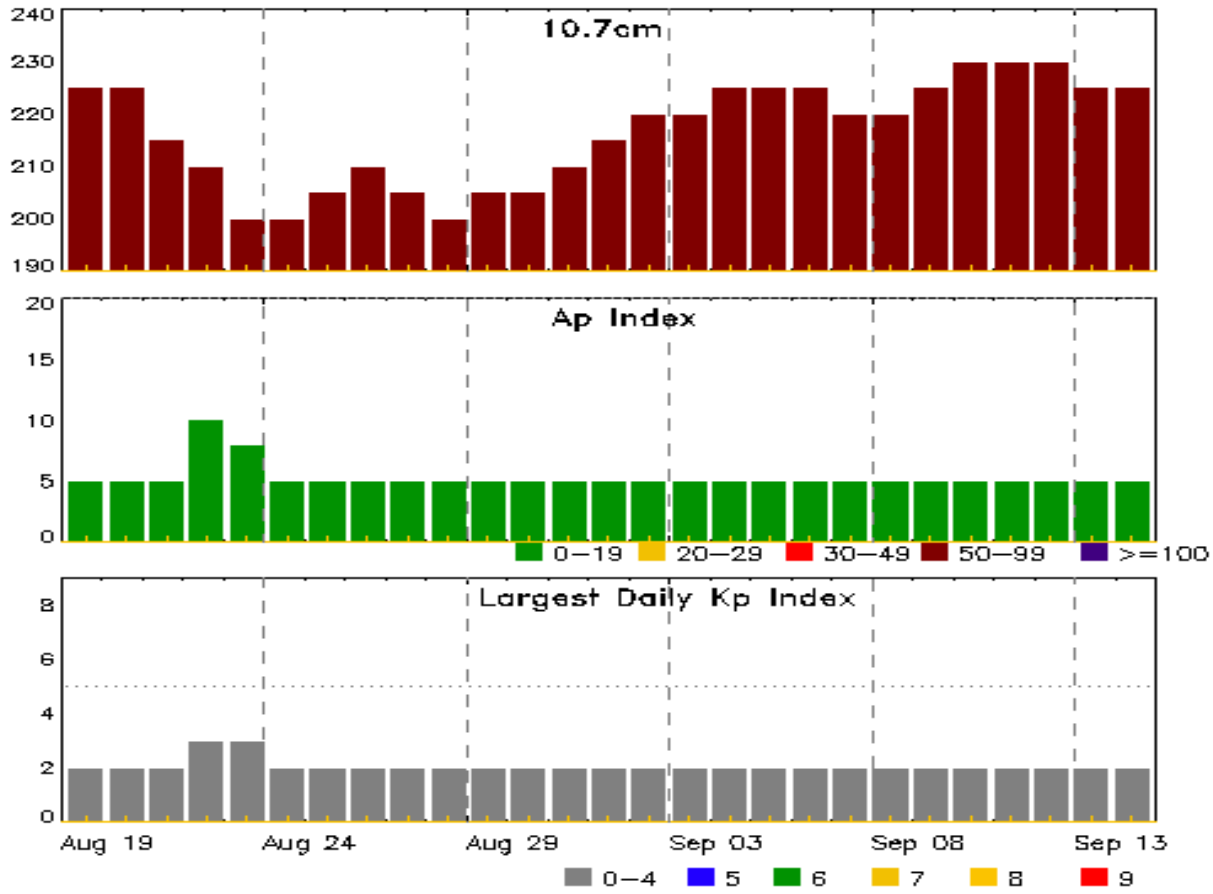
Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
12 Aug 1733	EXTENDED WARNING: Geomagnetic K = 6	12/0055 - 13/0000
12 Aug 1734	EXTENDED WARNING: Geomagnetic K>= 7	12/0505 - 13/0000
12 Aug 1827	EXTENDED WARNING: Geomagnetic K = 4	11/0720 - 13/2100
12 Aug 1830	ALERT: Geomagnetic K = 5	
12 Aug 1945	ALERT: Geomagnetic K = 6	
12 Aug 2236	ALERT: Geomagnetic K = 5	
12 Aug 2302	ALERT: Geomagnetic K = 6	
12 Aug 2349	EXTENDED WARNING: Geomagnetic K = 6	12/0055 - 13/0600
12 Aug 2349	EXTENDED WARNING: Geomagnetic K = 5	11/0745 - 13/0900
13 Aug 0226	ALERT: Geomagnetic K = 5	
13 Aug 0542	EXTENDED WARNING: Geomagnetic K = 5	11/0745 - 13/1200
13 Aug 0542	EXTENDED WARNING: Geomagnetic K = 6	12/0055 - 13/1200
13 Aug 2212	WARNING: Geomagnetic K = 4	13/2211 - 14/0900
13 Aug 2226	ALERT: Geomagnetic K = 4	
13 Aug 2330	WARNING: Geomagnetic K = 5	13/2330 - 14/0600
14 Aug 0630	ALERT: X-ray Flux exceeded M5	14/0626
14 Aug 0704	ALERT: Type IV Radio Emission	14/0639
14 Aug 0709	SUMMARY: 10cm Radio Burst	14/0641 - 0655
14 Aug 0713	ALERT: Type II Radio Emission	14/0649
14 Aug 0716	SUMMARY: X-ray Event exceeded X1	14/0600 - 0708
14 Aug 0730	ALERT: Type II Radio Emission	14/0649
14 Aug 1550	ALERT: X-ray Flux exceeded M5	14/1548
14 Aug 1607	SUMMARY: X-ray Event exceeded M5	14/1539 - 1557
14 Aug 2312	WARNING: Geomagnetic K = 4	14/2312 - 15/0900
15 Aug 1358	WATCH: Geomagnetic Storm Category G1 predicted	
17 Aug 1355	WARNING: Geomagnetic K = 4	17/1354 - 2359
17 Aug 1558	ALERT: Geomagnetic K = 4	
17 Aug 1601	WARNING: Geomagnetic K = 5	17/1600 - 2359
17 Aug 1617	ALERT: Geomagnetic K = 5	

Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
17 Aug 1644	WARNING: Geomagnetic K = 6	17/1644 - 2359
17 Aug 1712	ALERT: Geomagnetic K = 6	
17 Aug 1745	WARNING: Geomagnetic K>= 7	17/1744 - 2100
17 Aug 1746	ALERT: Geomagnetic K = 7	
17 Aug 2101	ALERT: Geomagnetic K = 5	
17 Aug 2154	ALERT: Geomagnetic K = 5	
17 Aug 2355	EXTENDED WARNING: Geomagnetic K = 5	17/1600 - 18/1200
17 Aug 2355	EXTENDED WARNING: Geomagnetic K = 4	17/1354 - 18/1800
18 Aug 1346	CANCELLATION: Geomagnetic Storm Category G1 predicted	
18 Aug 1755	EXTENDED WARNING: Geomagnetic K = 4	17/1354 - 18/2359

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
19 Aug	225	5	2	02 Sep	220	5	2
20	225	5	2	03	220	5	2
21	215	5	2	04	225	5	2
22	210	10	3	05	225	5	2
23	200	8	3	06	225	5	2
24	200	5	2	07	220	5	2
25	205	5	2	08	220	5	2
26	210	5	2	09	225	5	2
27	205	5	2	10	230	5	2
28	200	5	2	11	230	5	2
29	205	5	2	12	230	5	2
30	205	5	2	13	225	5	2
31	210	5	2	14	225	5	2
01 Sep	215	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
12 Aug	0823	0848	0859	M1.0	0.017			3777				
12 Aug	2247	2257	2304	M1.2	0.008			3784				
13 Aug	1725	1729	1734	M1.0	0.004	SF	N15E11	3784				
13 Aug	2238	2245	2257	M1.3	0.013			3777				
13 Aug	2326	2344	0006	M4.2	0.071	1N	N13E07	3784	100	130		
14 Aug	0333	0402	0427	M4.4	0.095			3774				
14 Aug	0600	0640	0708	X1.1	0.240	2B	N12E05	3784	1000	500	2	1
14 Aug	1316	1324	1338	M1.0	0.013			3784				
14 Aug	1539	1549	1557	M5.3	0.030	SF	N14W01	3784				
15 Aug	0335	0348	0356	M1.1	0.010	SF	S10W62	3780				
16 Aug	1313	1324	1335	M1.3	0.014			3780				
17 Aug	1024	1033	1042	M1.6	0.012	1N	N17W42	3784				
17 Aug	1122	1144	1156	M1.1	0.019	SF	S16W23	3785				
17 Aug	2137	2148	2157	M1.1	0.003	1F	S09E47	3790				
17 Aug	2157	2206	2214	M1.4	0.014			3790				
18 Aug	0150	0204	0212	M2.4	0.018			3784				
18 Aug	0407	0416	0431	M1.1	0.014			3784				
18 Aug	0715	0730	0744	M1.2	0.015	SF	N18W52	3784				
18 Aug	2052	2107	2122	M1.3	0.020							
18 Aug	2346	0000	0013	M1.4	0.015							

Flare List

	Time			Optical			
Date	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
12 Aug	B0000	2347	0102		1F	S11W22	3780
12 Aug	0016	0018	0028		SF	S08W66	3777
12 Aug	0052	0053	0102		SF	N15E37	3784
12 Aug	0427	0434	0438	C4.9			3784
12 Aug	B0450	U0507	A0658		SN	N16E35	3784
12 Aug	0457	0504	0512	C6.6			3784
12 Aug	0532	0538	0549	C4.8	SF	S09W61	3777
12 Aug	0552	0554	0600		SF	N10W27	3783
12 Aug	0626	0640	0653		SF	S10W63	3777
12 Aug	0627	0628	0645		SF	N01E12	3782
12 Aug	0721	0727	0733	C5.4			3780

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
12 Aug	0733	0743	0747	C4.9			3780
12 Aug	0747	0753	0757	C5.2			3774
12 Aug	0823	0848	0859	M1.0			3777
12 Aug	B1001	U1009	1009		SF	N16E32	3784
12 Aug	1028	1038	1111		SF	S17W28	3780
12 Aug	1123	1151	1156		SF	N16E27	3784
12 Aug	1146	1151	1152		SF	S04W29	3780
12 Aug	1228	1232	1235		SF	N15E29	3784
12 Aug	1305	1317	1334	C6.6			3777
12 Aug	1342	1344	1352		SF	S20W06	3786
12 Aug	1528	1528	1532		SF	N16E30	3784
12 Aug	1633	1635	1642		SF	N18E30	3784
12 Aug	1835	1845	1904		SF	S10W30	3780
12 Aug	1912	1913	1919		SF	N15E26	3784
12 Aug	1922	1923	1927		SF	N15E26	3784
12 Aug	1949	1949	1953		SF	S07E53	3788
12 Aug	1950	1950	1958		SF	N16E27	3784
12 Aug	2006	2006	2011		SF	S07E54	3788
12 Aug	2015	2021	2033		SF	N13E22	3784
12 Aug	2047	2052	2056		SF	N13E22	3784
12 Aug	2057	2058	2106		SF	N13E23	3784
12 Aug	2117	2120	2125		SF	N14E22	3784
12 Aug	2146	2154	2201	C6.2	SF	N14E22	3784
12 Aug	2204	2205	2209		SF	N14E22	3784
12 Aug	2207	2209	2216		SF	S13W34	3780
12 Aug	2247	2257	2304	M1.2			3784
12 Aug	2341	2350	2352		SF	N14E21	3784
13 Aug	0136	0143	0149	C5.9	SF	S10W38	3780
13 Aug	0358	0401	0407		SN	N13E19	3784
13 Aug	0412	0413	0425		SF	N13E19	3784
13 Aug	0550	0550	0552		SF	N13E19	3784
13 Aug	0600	0602	0611		SF	S14W36	3780
13 Aug	0602	0603	0609		SF	N13E19	3784
13 Aug	0711	0714	0718	C8.9	SF	S10W38	3780
13 Aug	0730	0737	0750	C6.6	SF	S10W38	3780
13 Aug	0800	0804	0808	C7.3	SF	N13E19	3784
13 Aug	0937	0938	0941		SF	S10W38	3780
13 Aug	0956	0959	1001		SF	N14E15	3784

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
13 Aug	1004	1021	1026	C8.3	SF	N14E15	3784
13 Aug	1102	1104	1114		SF	S14W36	3780
13 Aug	1251	1259	1308		SF	N11W37	3781
13 Aug	1329	1511	1600		SF	N11E13	3784
13 Aug	1430	1430	1439		SF	N13E13	3784
13 Aug	1601	1608	1611		SF	N14E11	3784
13 Aug	1610	1610	1613		SF	S08W52	3780
13 Aug	1617	1626	1630	C6.0	SF	N14E12	3784
13 Aug	1630	1634	1638	C7.3			3784
13 Aug	1649	1651	1653		SF	N13E12	3784
13 Aug	1700	1710	1719		SF	N15E11	3784
13 Aug	1720	1721	1724		SF	N14E11	3784
13 Aug	1725	1729	1734	M1.0	SF	N15E11	3784
13 Aug	1733	1736	1749		SF	S07W53	3780
13 Aug	1801	1802	2225		1F	N15E11	3784
13 Aug	1805	1810	1818	C6.6			3784
13 Aug	1834	1835	1852		SF	S13W46	3780
13 Aug	1932	1939	1952	C5.7			3784
13 Aug	2108	2111	2113		SF	S18W44	3780
13 Aug	2119	2122	2135		SF	S05W45	3780
13 Aug	2131	2138	2146	C7.7			3784
13 Aug	2238	2245	2257	M1.3			3777
13 Aug	2323	2339	A2359	M4.2	1N	N13E07	3784
14 Aug	0309	0316	0321	C9.2	SF	N13E07	3784
14 Aug	0323	0329	0331		SF	N14E04	3784
14 Aug	0333	0402	0427	M4.4			3774
14 Aug	0336	0337	0355		SF	N14E05	3784
14 Aug	0411	0412	0417		SF	N14E03	3784
14 Aug	0440	0442	0447		SF	N14E04	3784
14 Aug	0442	0442	0443		SF	S09W85	3777
14 Aug	0456	0458	0459		SF	N14E04	3784
14 Aug	0500	0500	0502		SF	N14E04	3784
14 Aug	0504	U0636	0907		2B	N12E05	3784
14 Aug	0512	0512	0515		SF	N14E04	3784
14 Aug	0512	0514	0518		SF	S07W49	3780
14 Aug	0524	0528	0538		SF	S10E20	3785
14 Aug	0527	0527	0535		SF	N14E04	3784
14 Aug	0600	0640	0708	X1.1			3784

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
14 Aug	0815	0815	0821		SF	N14E02	3784
14 Aug	0823	0825	0830		SF	N14E02	3784
14 Aug	0907	0908	0918		SF	N12E05	3784
14 Aug	0957	0958	1009		SF	N12E04	3784
14 Aug	1012	1017	1023		SF	N12E04	3784
14 Aug	1131	1144	1157		SF	N14E02	3784
14 Aug	1233	1233	1236		SF	N13E01	3784
14 Aug	1258	1259	1302		SF	N13E01	3784
14 Aug	1316	1324	1338	M1.0			3784
14 Aug	1539	1551	1611	M5.3	SF	N14W01	3784
14 Aug	1545	1608	1622		SF	S13W58	3780
14 Aug	1606	1610	1623		SF	S14W58	3780
14 Aug	1714	1715	1753		SF	N15W02	3784
14 Aug	1800	1806	1811	C8.6	SF	S11W56	3780
14 Aug	1944	1945	1958		SF	N15W04	3784
14 Aug	2132	2139	2144	C5.7			3780
14 Aug	2330	2333	2338		SF	N14W08	3784
15 Aug	0020	0020	0030		SF	N13W05	3784
15 Aug	0119	0124	0131	C6.9	SF	N14W08	3784
15 Aug	0200	0209	0217	C6.8	SF	N11W07	3784
15 Aug	0335	0348	0356	M1.1	SF	S10W62	3780
15 Aug	0419	0420	0429		SF	S11W63	3780
15 Aug	B0510	U0523	A0625	C5.6	SF	N13W08	3784
15 Aug	0524	0525	0539		SF	S23W40	3786
15 Aug	0547	0554	0600	C5.8	SF	N15W10	3784
15 Aug	0616	0618	0620		SF	S10E07	3785
15 Aug	0620	U0622	A0625		SF	S23W40	3786
15 Aug	0622	0622	0625		SF	S10E07	3785
15 Aug	0622	0622	0624		SF	S22W43	3786
15 Aug	0856	0856	0900		SF	N16W13	3784
15 Aug	0906	0911	0916	C5.7	SF	S22W43	3786
15 Aug	1057	1059	1118		SF	N11W11	3784
15 Aug	1144	1150	1155	C7.7	SF	S24W44	3786
15 Aug	1306	1308	1324		SF	N15W16	3784
15 Aug	1347	1348	1358		SF	S23W44	3786
15 Aug	1400	1407	1414	C5.5	SF	S24W45	3786
15 Aug	1550	1553	1603		SF	N12W15	3784
15 Aug	2110	2110	2113		2F	N15W16	3784

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
15 Aug	B2139	2136	2149		SF	N13W17	3784
15 Aug	2348	2348	A2359		SF	N13W17	3784
16 Aug	B0000	0000	0041		SF	N18W23	3784
16 Aug	0037	0037	0050		SF	S10W06	3785
16 Aug	0252	0258	0303	C4.1			3790
16 Aug	0402	0427	0501	C6.3			3780
16 Aug	0503	0510	0523	C5.7	SF	S11E69	3790
16 Aug	0536	0558	0609	C6.2			3780
16 Aug	0956	1003	1009	C6.7	SF	S11E70	3790
16 Aug	1105	1107	1118		SF	N20W23	3784
16 Aug	1149	1150	1155		SF	S13W86	3780
16 Aug	1208	1214	1228		SF	N17W26	3784
16 Aug	1313	1324	1335	M1.3			3780
16 Aug	1359	1407	1438		SF	N27E05	3789
16 Aug	1426	1427	1433		SF	S09E64	3790
16 Aug	1525	1525	1536		SF	N15W26	3784
16 Aug	1537	1539	1555	C8.1	1F	S10E67	3790
16 Aug	1554	1556	1608		SF	N19W25	3784
16 Aug	1813	1821	1827	C4.7			3786
16 Aug	B2013	2013	2016		SF	S09E60	3790
16 Aug	2208	2218	2249	C8.9			3790
17 Aug	0356	0408	0426	C5.0			3790
17 Aug	0526	0529	0534		SF	S11E59	3790
17 Aug	0607	0611	0612		SF	S11E58	3790
17 Aug	0623	0627	0629		SF	S11E58	3790
17 Aug	0631	0632	0633		SF	S11E58	3790
17 Aug	0635	0638	0644		SF	S11E58	3790
17 Aug	0707	0709	0709		SF	S11E54	3790
17 Aug	0710	0713	0725		SF	S11E54	3790
17 Aug	0942	0943	0947		SF	N19E41	
17 Aug	0955	1004	1014		SF	S10E56	3790
17 Aug	1024	1033	1042	M1.6	1N	N17W42	3784
17 Aug	1122	1144	1156	M1.1	SF	S16W23	3785
17 Aug	1133	1140	1141		SF	N18W71	3787
17 Aug	1146	1146	1149		SF	S17E76	3792
17 Aug	1315	1316	1347		SF	S10E51	3790
17 Aug	2137	2148	2157	M1.1			3790
17 Aug	2157	2206	2214	M1.4			3790

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
17 Aug	2201	2201	2324		1F	S09E47	3790
18 Aug	0006	0013	0018	C4.6			3784
18 Aug	0150	0204	0212	M2.4			3784
18 Aug	0340	0350	0401	C8.3			3790
18 Aug	0407	0416	0431	M1.1			3784
18 Aug	0715	0730	0744	M1.2	SF	N18W52	3784
18 Aug	1155	1155	1158		SF	N19W47	3784
18 Aug	1206	1209	1212		SF	S14E44	3790
18 Aug	1301	1304	1307		SF	N19W48	3784
18 Aug	1310	1310	1314	C5.0	SF	N19W48	3784
18 Aug	1340	1341	1343		SF	S10E40	3790
18 Aug	1618	1620	1621		SF	N17W51	3784
18 Aug	1705	1709	1723		SF	S11W41	3785
18 Aug	1729	1729	1732		SF	N17W51	3784
18 Aug	1733	1736	1741	C4.5	SF	S09E35	3790
18 Aug	2013	2014	2020		SF	S11E50	3792
18 Aug	2052	2107	2122	M1.3			
18 Aug	2233	2238	2242	C5.6			
18 Aug	2346	0000	0013	M1.4			

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 3774												
31 Jul	S06E70	225	250	12	Eki	2	BG		4		1				
01 Aug	S06E55	227	250	12	Eki	2	BG	1	4		7				
02 Aug	S06E40	229	250	12	Eki	2	BG	1			3				
03 Aug	S05E27	229	350	11	Ekc	19	BG	1	1		1		1		
04 Aug	S10E14	228	370	14	Ekc	31	BGD								
05 Aug	S07E03	226	400	14	Ekc	28	BG	1			5				
06 Aug	S07W10	226	440	14	Ekc	46	BG	2			5				
07 Aug	S07W24	227	450	13	Ekc	47	BGD	1	2		6	2			
08 Aug	S07W38	228	400	12	Ekc	47	BGD	1			2				
09 Aug	S07W53	229	260	12	Eki	51	BG		1		3				
10 Aug	S76W64	227	170	10	Dai	24	B				1				
11 Aug	S06W76	226	140	10	Cao	8	B	1			2				
12 Aug	S06W88	225	90	5	Cao	7	B	1							
								10	12	0	36	2	1	0	0

Crossed West Limb.
Absolute heliographic longitude: 226

			Region 3775												
31 Jul	N17E60	234	40	4	Cso	4	B								
01 Aug	N17E46	236	40	4	Cso	4	B								
02 Aug	N17E32	237	40	6	Dac	6	BG		1		1				
03 Aug	N17E18	238	120	8	Dai	12	BG		1						
04 Aug	N18E05	237	120	8	Dai	10	BG								
05 Aug	N18W07	236	60	9	Dai	15	BG								
06 Aug	N18W21	237	40	9	Cso	6	BG	1			1				
07 Aug	N18W34	236	40	9	Cso	8	B				1				
08 Aug	N17W48	238	70	4	Csi	10	B								
09 Aug	N17W62	238	30	3	Cao	4	B								
10 Aug	N18W72	235	10	1	Axx	1	A								
11 Aug	N18W86	236	plage												
								1	2	0	3	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 237

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 3777												
02 Aug	S09E61	207	10	1	Axx	1	A				1				
03 Aug	S09E48	208	20	5	Cso	7	B		1		1				
04 Aug	S10E35	207	70	10	Cao	2	B								
05 Aug	S09E21	208	130	10	Dao	10	B								
06 Aug	S09E07	209	210	11	Eai	20	BG				1				
07 Aug	S09W06	209	310	11	Eki	17	BGD		1		3		1		
08 Aug	S09W19	209	400	14	Ekc	45	BGD		4	1	6	1	1		
09 Aug	S09W33	209	460	14	Ekc	56	BG	3	1		4	1			
10 Aug	S08W47	210	320	14	Fkc	26	BG	1			1	1			
11 Aug	S10W60	210	300	11	Ekc	15	BG	5	1		9	1			
12 Aug	S10W74	211	270	9	Dkc	14	BG	2	1		3				
13 Aug	S09W86	209	250	10	Dkc	6	BG		1						
14 Aug	S09W99	209	250	1	Dkc	1	BG				1				
								11	10	1	30	4	2	0	0

Crossed West Limb.
Absolute heliographic longitude: 209

			Region 3779												
04 Aug	S01E24	218	70	2	Dao	4	B								
05 Aug	S15E10	219	60	4	Dao	3	B								
06 Aug	S15W04	220	30	4	Cro	8	B								
07 Aug	S13W21	223	5	2	Axx	1	A								
08 Aug	S13W35	225	plage												
09 Aug	S13W49	225	plage						1						
10 Aug	S13W63	226	plage												
11 Aug	S13W77	227	plage												
								0	1	0	0	0	0	0	0

Died on Disk.
Absolute heliographic longitude: 220

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 3780												
04 Aug	S10E71	171	190	5	Dai	7	B	1	2		2				
05 Aug	S13E58	171	930	22	Fkc	33	BGD	1	3	1	5	2	1		
06 Aug	S13E44	172	1220	22	Fkc	44	BGD	2			5				
07 Aug	S09E27	175	1210	23	Fkc	67	BGD	2			6				
08 Aug	S12E17	172	1250	26	Fkc	103	BGD	3	1		5				
09 Aug	S12E03	173	1280	26	Fkc	128	BG	1	3		8	3			
10 Aug	S10W09	172	1200	26	Fkc	64	BGD	6	4		13		1		
11 Aug	S11W20	170	1100	25	Fki	20	BGD	3	3		6	1			
12 Aug	S10W34	171	1100	25	Fki	40	BGD	2			4	1			
13 Aug	S08W49	172	1170	22	Fkc	30	BGD	3			11				
14 Aug	S08W63	173	930	20	Fkc	26	BGD	2			4				
15 Aug	S09W74	171	410	19	Fki	15	BGD		1		2				
16 Aug	S08W87	170	170	10	Cso	3	BG	2	1		1				
								28	18	1	72	7	2	0	0

Crossed West Limb.
Absolute heliographic longitude: 173

			Region 3781												
04 Aug	N15E80	163	210	3	Hax	2	A	1	2						
05 Aug	N13E67	162	160	6	Dso	2	B								
06 Aug	N13E53	163	160	4	Dao	5	BG	2	1		1				
07 Aug	N13E38	165	170	7	Dso	5	BD	1	1		2	1			
08 Aug	N14E26	164	160	6	Dsc	5	BGD	2	1		5	1			
09 Aug	N14E12	164	220	6	Dso	14	BG	1	1		5				
10 Aug	N14W01	164	160	5	Cso	4	B								
11 Aug	N14W13	163	150	6	Cso	4	B								
12 Aug	N15W28	165	130	3	Hsx	2	A								
13 Aug	N15W44	167	120	4	Cso	3	B				1				
14 Aug	N15W56	166	90	2	Hsx	1	A								
15 Aug	N15W69	166	70	2	Hsx	1	A								
16 Aug	N15W82	166	50	2	Hsx	1	A								
17 Aug	N16W95	166	plage												
								7	6	0	14	2	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 164

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 3782													
07 Aug	N02E64	137	100	16	Fao	3	B								
08 Aug	N03E57	133	260	14	Eki	12	BG								
09 Aug	N03E42	134	220	11	Eai	11	BG								
10 Aug	N03E28	135	190	15	Eai	14	B	1	1		5				
11 Aug	N02E16	134	100	10	Cao	10	B				2				
12 Aug	N03E02	135	80	9	Cao	12	B				1				
13 Aug	N04W14	137	40	5	Cao	6	B								
14 Aug	N03W27	137	30	7	Cao	4	B								
15 Aug	N03W44	140	20	2	Hax	2	A								
16 Aug	N04W57	141	10	1	Axx	1	A								
17 Aug	N04W67	138	plage												
18 Aug	N04W82	139	plage												
								1	1	0	8	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 135

		Region 3783													
08 Aug	N09E17	173	80	5	Dai	11	B								
09 Aug	N09E03	173	110	6	Dai	15	B								
10 Aug	N10W10	173	20	6	Cro	4	B								
11 Aug	N10W23	173	20	6	Cro	3	B								
12 Aug	N11W37	174	10	5	Bxo	2	B				1				
13 Aug	N11W53	176	10	1	Axx	1	A								
14 Aug	N12W67	177	10	1	Axx	1	A								
15 Aug	N11W82	179	10	1	Axx	1	A								
								0	0	0	1	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 173

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 3784												
08 Aug	N16E73	116	300	4	Hhx	1	A								
09 Aug	N15E61	115	450	4	Cko	5	B				1				
10 Aug	N15E48	115	460	4	Cki	6	BD				1				
11 Aug	N15E35	115	460	4	Dki	5	BGD				1				
12 Aug	N15E21	116	510	9	Dkc	25	BD	3	1		17				
13 Aug	N15E07	116	540	8	Dkc	23	BGD	7	2		15	2			
14 Aug	N14W05	115	700	9	Dkc	30	BGD	1	1	1	21		1		
15 Aug	N15W19	116	680	11	Ekc	23	BGD	4			11		1		
16 Aug	N15W34	118	600	11	Ekc	17	BGD				5				
17 Aug	N15W47	118	680	8	Dkc	16	BGD		1			1			
18 Aug	N16W60	117	650	10	Dkc	14	BGD	2	3		6				
								17	8	1	78	3	2	0	0

Still on Disk.
Absolute heliographic longitude: 115

			Region 3785												
11 Aug	S11E49	101	30	5	Cao	5	B								
12 Aug	S12E34	103	10	4	Bxo	6	B								
13 Aug	S12E20	103	20	4	Bxi	8	B								
14 Aug	S11E07	103	20	6	Bxi	12	B				1				
15 Aug	S12W06	103	10	11	Bxo	10	B				2				
16 Aug	S12W19	103	30	8	Cao	10	B				1				
17 Aug	S13W34	105	90	11	Eai	17	B		1		1				
18 Aug	S15W50	107	100	10	Dai	13	B				1				
								0	1	0	6	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 103

			Region 3786												
11 Aug	S23E01	149	30	5	Cao	4	B								
12 Aug	S22W13	150	60	7	Cai	12	BG				1				
13 Aug	S22W28	151	90	9	Dso	9	B								
14 Aug	S22W41	151	80	8	Cao	9	B								
15 Aug	S22W54	151	80	10	Dsi	13	B	3			7				
16 Aug	S22W67	151	60	10	Cso	6	B	1							
17 Aug	S22W83	154	90	4	Hsx	1	A								
								4	0	0	8	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 3787												
11 Aug	N16W00	150	30	2	Cao	3	B								
12 Aug	N18W14	151	40	3	Dao	3	B								
13 Aug	N17W29	152	10	5	Bxo	2	B								
14 Aug	N17W43	153	plage												
15 Aug	N17W57	154	plage												
16 Aug	N09W68	151	plage												
								0	0	0	0	0	0	0	0

Died on Disk.
Absolute heliographic longitude: 150

			Region 3788												
11 Aug	S06E64	86	140	3	Cao	7	B								
12 Aug	S07E50	86	150	5	Dao	12	B				2				
13 Aug	S08E36	87	160	8	Dao	11	B								
14 Aug	S08E21	89	130	8	Dso	7	B								
15 Aug	S07E09	89	100	9	Cso	4	BG								
16 Aug	S08W04	88	120	7	Cso	3	B								
17 Aug	S08W18	89	130	6	Cso	3	B								
18 Aug	S08W32	89	100	2	Hsx	1	A								
								0	0	0	2	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 88

			Region 3789												
14 Aug	N25E26	84	10	4	Bxo	3	B								
15 Aug	N26E12	85	plage												
16 Aug	N26W01	85	20	5	Cao	7	B				1				
17 Aug	N27W15	86	50	7	Dai	12	B								
18 Aug	N27W27	84	50	6	Cai	7	B								
								0	0	0	1	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 85

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 3790												
15 Aug	S14E72	25	40	4	Cso	5	B								
16 Aug	S13E59	25	70	8	Dsi	6	B	5			4	1			
17 Aug	S13E46	25	120	9	Dsi	12	BG	1	2		9	1			
18 Aug	S12E33	24	280	10	Dkc	13	BG	2			3				
								8	2	0	16	2	0	0	0

Still on Disk.
Absolute heliographic longitude: 24

			Region 3791												
16 Aug	S20E47	37	20	3	Cao	4	B								
17 Aug	S18E34	37	10	2	Bxo	3	B								
18 Aug	S18E21	36	plage												
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 36

			Region 3792												
16 Aug	S17E75	9	70	2	Hsx	1	A								
17 Aug	S16E60	11	220	5	Hsx	1	A				1				
18 Aug	S16E47	10	260	4	Hhx	1	A				1				
								0	0	0	2	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 10

			Region 3793												
17 Aug	N22E47	24	40	3	Dso	4	B								
18 Aug	N22E34	23	80	5	Dao	6	B								
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 23

			Region 3794												
17 Aug	N19E33	38	10	1	Hax	1	A								
18 Aug	N18E17	40	60	6	Cao	8	B								
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 40

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 3795													
18 Aug	N04E69	348	10	1	Axx	1	A	0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 348

		Region 3796													
18 Aug	S05E72	345	50	4	Cao	6	B	0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 345

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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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