Space Weather Highlights **SWPC PRF 2620**
10 November - 16 November 2025 **17 November 2025**

Solar activity ranged from low to high levels. Region 4274 (N24, L=275, class/area Ekc/1100 on 11 Nov) was the largest and most complex, and responsibile for the majority of the major events during the past week. During the week, Region 4274 produced a total of 72 C-class, 5 M-class and 3 X-class flares. Region 4276 (S17, L=240, class/area Dai/180 on 07 Nov) produced 10 C-class flares. Regions 4277 (S06, L=239, class/area Dai/150 on 09 Nov), 4279 (S13, L=207, class/area Hsx/030 on 11 Nov) and 4281 (S14, L=289, class/area on 14 Nov) all produced 1 C-class flare. Newly numbered Region 4284 (S07, L=177, class/area Dso/060 on 16 Nov) produced three C-class flares late in the period.

On 10 Nov, high levels (R3/Strong) were observed due to a long duration X1.2/2B flare observed from Region 4274 at 10/0919 UTC. Associated with this event was a Castelli U radio event, a 1,311 km/s Type II and a Type IV sweep and a 860 km/s Tenflare. Also associated with this event was an asymmetric-halo CME with the bulk of the ejecta off the NW limb. Modelling of the event indicated an arrival early on 12 Nov.

High activity levels continued on 11 Nov, when Region 4274 produced an X5.1/3B flare at 11/1004 UTC. Associated with this event was a Castelli U radio event, a 1,350 km/s Type II sweep and a 10,000 sfu Tenflare. An associated asymmetric-halo CME was observed with the bulk of the ejecta having a NW bias. Modelling of the CME indicated an arrival time of middle to late on 12 Nov. Low levels were observed on 12-13 Nov.

High solar activity was again observed on 14 Nov following a X4.0/3b flare from Region 4274 at 14/0830 UTC. Associated with this event was a Castelli U radio event, a Type IV sweep and a 1,100 sfu Tenflare. An associated CME was visible in LASCO C2 imagery off the W limb starting at about 14/0800 UTC. Analysis and modelling of the event indicated that the main body of the ejecta should be well ahead of Earth. However, modelling of the halo portion indicated a possible Earth impact late on 15 Nov to early on 16 Nov. As region 4274 exited the NW limb, it produced a parting M3.1 (R1-Minor) flare at 16/0817 UTC.

The greater than 10 Mev at 10 pfu protons at geosynchronous orbit exceeded S1-S3 (Minor-Strong) levels two times during the period. The first 10 Mev event began at 10/1030 UTC, reached a peak of 1,456 pfu at 12/0215 UTC and ended at 12/2100 UTC. The second, smaller 10 pfu event began at 14/0920 UTC, reached a peak of 16.5 pfu at 14/0950 UTC and ended at 14/1325 UTC. The greater than 100 Mev at 1 pfu protons at geosynchronous orbit exceeded event threshold. The greater than 100 Mev event began at 11/1100 UTC, reached a peak of 37 pfu at 12/0150 UTC and ended at 12/0925 UTC. All of these particle events were associated with the previosily described X-class flare events.

The greater than 2 MeV electron flux at geosynchronous orbit reached high levels on 10-13 Nov with a peak of 10,090 pfu exceeded at 11/1220 UTC. Normal to moderate levels were reached on 14-16 Nov.

Geomagnetic field activity was between quiet to G4 (Severe) geomagnetic storm levels. Unsettled to active levels were observed on 10-11 Nov due to enhanced HSS influence on 10 Nov into mid 11 Nov. About midday on 11 Nov, an IP shock passage was observed, likely the arrival of the 09-10 Nov CMEs. On 12-13 Nov, solar wind parameters reflected the onset of a CME that left the Sun on 10 Nov. Total magnetic field strength reached a peak of 63 nT, while the Bz component reached as far south as -55 nT. Solar wind speeds increased to a peak of about 740 km/s late on 11 Nov. Late on 12 Nov, solar wind speeds reached peaks near 1,000 km/s. During 12 Nov, the geomagnetic field was at G1 (Minor) to G4 (Severe) levels while 13 Nov, activity levels decreased to quiet to G3 (Strong) levels. Quiet to unsettled levels were observed on 14-15 Nov. 16 Nov saw unsettled to active levels due to minor enhancements from the 14 Nov CME.

Space Weather Outlook
17 November - 13 December 2025

Solar activity is likely to be at R1 (Minor) levels on 12-27 Nov and 13 Dec. Levels are likely to increase to R1-R3 (Minor-Strong) levels on 28 Nov-30 Nov and 01-12 Dec, primarily due to the flare potential and return of old Region 4274 (N24, L=275).

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at high levels over 18-19, 22-23 and 27-30 Nov and 01-02 and 07-12 Dec, all due to coronal hole influence. The remainder of the outlook period is likely to be at normal to moderate levels.

Geomagnetic field activity is expected to range from quiet to G2 (Moderate) geomagnetic storm levels. G1 (Minor) conditions are likely on 17 Nov due to anticipated influence both a negative polarity CH HSS and waning remants from a CME. G2 (Moderate) levels are likely on 26 Nov, 03 Dec and 13 Dec due to CH HSS influence. Unsettled to active conditions are likely on 18-19, 21-22, 24-25 and 27-30 Nov and 01-02 and 04-07 Dec, all due to CH HSS influence. Mostly quiet levels are expected on 20 and 23 Nov and 08-12 Dec.

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
10 November	180	128	1410	C1.5	14	1	1	8	1	2	0	0
11 November	168	131	1530	C1.3	12	1	1	20	0	0	1	0
12 November	163	150	1350	C1.0	8	0	0	4	0	0	0	0
13 November	156	104	1050	C1.0	17	0	0	12	0	0	0	0
14 November	145	114	930	C1.3	12	2	1	2	0	0	1	0
15 November	132	97	690	C1.2	14	0	0	1	0	0	0	0
16 November	132	66	100	B9.3	13	1	0	3	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
10 November	2.1e+07	8.3e+05	5.2e+07
11 November	6.4e+07	5.7e+06	2.2e+08
12 November	1.2e+09	4.1e+07	5.5e+07
13 November	1.9e+08	2.3e+06	1.9e+07
14 November	3.5e+07	5.1e+05	1.9e+07
15 November	4.2e+07	2.2e+05	2.1e+07
16 November	6.6e+06	5.3e+04	1.9e+07

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
10 November	9	2-1-1-2-3-3-3-2	24	3-2-1-4-4-6-4-2	14	3-2-1-2-3-4-3-3
11 November	4	2-2-1-1-1-0-0-2	8	1-2-3-4-1-1-0-2	7	2-3-2-2-0-1-1-3
12 November	70	7-7-5-6-5-4-5-4	123	7-7-7-8-6-7-6-4	127	9-8-7-7-5-5-6-5
13 November	43	6-6-5-4-5-4-3-3	69	6-6-7-5-7-5-3-1	59	7-7-6-4-5-4-3-2
14 November	4	2-0-2-1-2-1-1-0	3	1-2-0-1-1-2-1-0	5	2-1-2-2-1-1-1-0
15 November	7	1-1-2-2-2-1-3-2	12	1-2-3-4-3-2-2-3	9	2-1-2-2-2-2-3-3
16 November	13	3-3-3-3-3-2-2-3	25	3-3-3-6-5-3-2-2	22	4-3-3-4-4-3-3-3

Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
10 Nov 0913	ALERT: X-ray Flux exceeded M5	10/0913
10 Nov 0946	ALERT: Type II Radio Emission	10/0911
10 Nov 1001	ALERT: Type IV Radio Emission	10/0918
10 Nov 1016	SUMMARY: 10cm Radio Burst	10/0908 - 0943
10 Nov 1018	WARNING: Proton 10MeV Integral Flux > 10pfu	10/1030 - 11/1200
10 Nov 1023	SUMMARY: X-ray Event exceeded X1	10/0855 - 1018
10 Nov 1142	ALERT: Proton Event 10MeV Integral Flux >= 10pfu	10/1125
10 Nov 1359	ALERT: Electron 2MeV Integral Flux >= 1000pfu	10/1325
10 Nov 1601	WARNING: Geomagnetic K = 4	10/1601 - 2100
10 Nov 1604	ALERT: Geomagnetic K = 4	
10 Nov 2055	EXTENDED WARNING: Geomagnetic K = 4	10/1601 - 11/1200
10 Nov 2117	WATCH: Geomagnetic Storm Category G3 predicted	
11 Nov 1002	ALERT: X-ray Flux exceeded M5	11/1002
11 Nov 1023	SUMMARY: X-ray Event exceeded X1	11/0949 - 1017
11 Nov 1028	WARNING: Proton 100MeV Integral Flux > 1pfu	11/1028 - 2359
11 Nov 1029	ALERT: Proton Event 100MeV Integral Flux > 1pfu	11/1029
11 Nov 1032	CONTINUED ALERT: Electron 2MeV Integral Flux >= 1000pfu	10/1325
11 Nov 1038	ALERT: Type II Radio Emission	11/1001
11 Nov 1156	EXTENDED WARNING: Proton 10MeV Integral Flux > 10pfu	10/1030 - 12/1200
11 Nov 1230	SUMMARY: 10cm Radio Burst	11/0959 - 1044
11 Nov 1232	ALERT: Proton Event 10MeV Integral Flux >= 100pfu	11/1232
11 Nov 1705	WATCH: Geomagnetic Storm Category G4 or greater predicted	
11 Nov 2228	WARNING: Geomagnetic Sudden Impulse expected	11/2255 - 2340
11 Nov 2228	WARNING: Geomagnetic K = 4	11/2230 - 12/2359
11 Nov 2316	SUMMARY: Geomagnetic Sudden Impulse	11/2300
11 Nov 2338	EXTENDED WARNING: Proton 10MeV Integral Flux > 10pfu	10/1030 - 12/2359
11 Nov 2338	EXTENDED WARNING: Proton 100MeV Integral Flux >	11/1028 - 12/1200

Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
-	1pfu	-
11 Nov 2345	WARNING: Geomagnetic K = 5	11/2343 - 12/2359
11 Nov 2345	WARNING: Geomagnetic K = 6	11/2344 - 12/1200
12 Nov 0019	ALERT: Geomagnetic K = 4	
12 Nov 0020	WARNING: Geomagnetic K>= 7	12/0020 - 0900
12 Nov 0021	ALERT: Geomagnetic K = 5	
12 Nov 0030	ALERT: Geomagnetic K = 6	
12 Nov 0045	ALERT: Geomagnetic K = 7	
12 Nov 0122	ALERT: Geomagnetic K = 8	
12 Nov 0155	ALERT: Proton Event 10MeV Integral Flux >= 1000pfu	12/0145
12 Nov 0310	ALERT: Geomagnetic K = 5	
12 Nov 0311	ALERT: Geomagnetic K = 6	
12 Nov 0314	ALERT: Geomagnetic K = 7	
12 Nov 0346	ALERT: Geomagnetic K = 8	
12 Nov 0502	CONTINUED ALERT: Electron 2MeV Integral Flux >= 1000pfu	10/1325
12 Nov 0659	ALERT: Geomagnetic K = 5	
12 Nov 0837	EXTENDED WARNING: Geomagnetic K>= 7	12/0020 - 2100
12 Nov 0837	EXTENDED WARNING: Geomagnetic K = 5	11/2343 - 13/1200
12 Nov 0837	EXTENDED WARNING: Geomagnetic K = 6	11/2344 - 12/2359
12 Nov 0837	ALERT: Geomagnetic K = 6	
12 Nov 0837	EXTENDED WARNING: Geomagnetic K = 4	11/2230 - 13/2359
12 Nov 0859	ALERT: Geomagnetic K = 7	
12 Nov 0919	ALERT: Geomagnetic K = 5	
12 Nov 0935	ALERT: Geomagnetic K = 6	
12 Nov 1038	ALERT: Geomagnetic K = 7	
12 Nov 1151	EXTENDED WARNING: Proton 100MeV Integral Flux > 1pfu	11/1028 - 12/2359
12 Nov 1251	ALERT: Geomagnetic K = 5	
12 Nov 1736	ALERT: Geomagnetic K = 5	

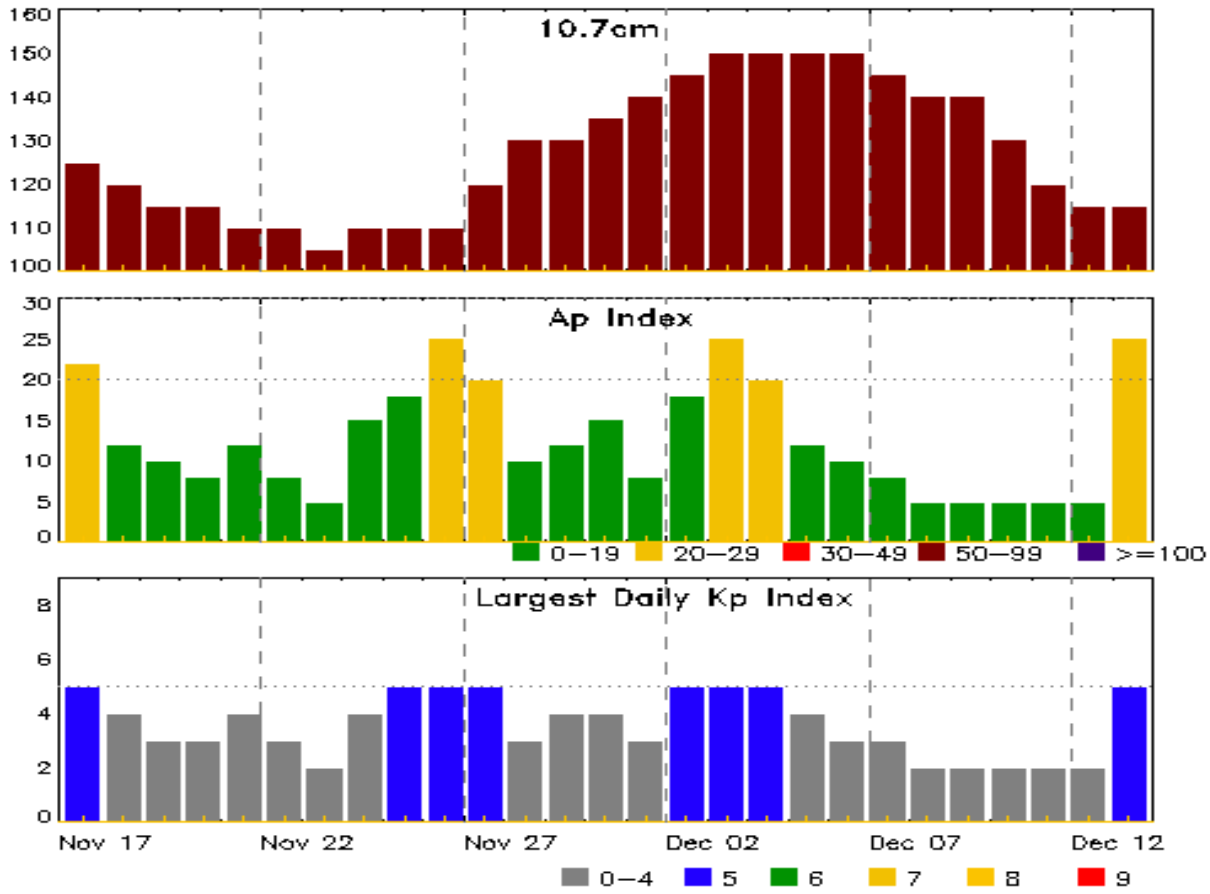
Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
12 Nov 1805	WATCH: Geomagnetic Storm Category G4 or greater predicted	
12 Nov 1904	WARNING: Geomagnetic Sudden Impulse expected	12/1915 - 1945
12 Nov 1938	SUMMARY: Geomagnetic Sudden Impulse	12/1917
12 Nov 2011	ALERT: Geomagnetic K = 5	
12 Nov 2052	ALERT: Geomagnetic K = 6	
12 Nov 2054	EXTENDED WARNING: Geomagnetic K>= 7	12/0020 - 13/0900
12 Nov 2054	EXTENDED WARNING: Geomagnetic K = 6	11/2344 - 13/0900
12 Nov 2338	SUMMARY: Proton Event 10MeV Integral Flux >= 1000pfu	12/0145 - 0310
12 Nov 2354	EXTENDED WARNING: Proton 100MeV Integral Flux > 1pfu	11/1028 - 13/0600
12 Nov 2356	EXTENDED WARNING: Proton 10MeV Integral Flux > 10pfu	10/1030 - 13/1200
13 Nov 0030	ALERT: Geomagnetic K = 5	
13 Nov 0121	ALERT: Geomagnetic K = 6	
13 Nov 0153	ALERT: Geomagnetic K = 7	
13 Nov 0335	ALERT: Geomagnetic K = 5	
13 Nov 0407	ALERT: Geomagnetic K = 6	
13 Nov 0523	ALERT: Geomagnetic K = 7	
13 Nov 0600	SUMMARY: Proton Event 10MeV Integral Flux >= 100pfu	11/1225 - 13/0205
13 Nov 0603	SUMMARY: Proton Event 100MeV Integral Flux > 1pfu	11/1100 - 12/0925
13 Nov 0704	ALERT: Geomagnetic K = 5	
13 Nov 0732	ALERT: Geomagnetic K = 6	
13 Nov 0732	EXTENDED WARNING: Geomagnetic K = 5	11/2343 - 13/2100
13 Nov 0732	EXTENDED WARNING: Geomagnetic K = 6	11/2344 - 13/1500
13 Nov 1145	EXTENDED WARNING: Proton 10MeV Integral Flux > 10pfu	10/1030 - 13/2100
13 Nov 1436	ALERT: Geomagnetic K = 5	
13 Nov 1447	EXTENDED WARNING: Geomagnetic K = 6	11/2344 - 13/2100
13 Nov 1538	WATCH: Geomagnetic Storm Category G3 predicted	
13 Nov 2056	EXTENDED WARNING: Geomagnetic K = 6	11/2344 - 14/0900

Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
13 Nov 2056	EXTENDED WARNING: Geomagnetic K = 5	11/2343 - 14/0900
13 Nov 2058	EXTENDED WARNING: Geomagnetic K = 4	11/2230 - 14/1200
13 Nov 2111	SUMMARY: Proton Event 10MeV Integral Flux >= 10pfu	10/1030 - 13/2100
14 Nov 0826	ALERT: X-ray Flux exceeded M5	14/0823
14 Nov 0841	ALERT: Type II Radio Emission	14/0813
14 Nov 0908	SUMMARY: X-ray Event exceeded X1	14/0744 - 0840
14 Nov 0917	WARNING: Proton 10MeV Integral Flux > 10pfu	14/0917 - 2359
14 Nov 0937	ALERT: Proton Event 10MeV Integral Flux >= 10pfu	14/0920
14 Nov 1145	ALERT: Type IV Radio Emission	14/0837
14 Nov 1209	SUMMARY: 10cm Radio Burst	14/0822 - 0841
14 Nov 1750	WATCH: Geomagnetic Storm Category G1 predicted	
14 Nov 2338	SUMMARY: Proton Event 10MeV Integral Flux >= 10pfu	14/0920 - 1325
15 Nov 2002	WARNING: Geomagnetic K = 4	15/2000 - 16/0300
16 Nov 0219	EXTENDED WARNING: Geomagnetic K = 4	15/2000 - 16/2359
16 Nov 0303	ALERT: Geomagnetic K = 4	
16 Nov 2217	EXTENDED WARNING: Geomagnetic K = 4	15/2000 - 17/1200

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
17 Nov	125	22	5	01 Dec	140	8	3
18	120	12	4	02	145	18	5
19	115	10	3	03	150	25	5
20	115	8	3	04	150	20	5
21	110	12	4	05	150	12	4
22	110	8	3	06	150	10	3
23	105	5	2	07	145	8	3
24	110	15	4	08	140	5	2
25	110	18	5	09	140	5	2
26	110	25	5	10	130	5	2
27	120	20	5	11	120	5	2
28	130	10	3	12	115	5	2
29	130	12	4	13	115	25	5
30	135	15	4				

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
10 Nov	0855	0919	1019	X1.2	0.420	2B	N23W14	4274	9700	860	3	2
10 Nov	1946	1957	2003	M1.5	0.008	2N	N21W20	4274	1400			
11 Nov	0802	0809	0813	M1.4	0.006	SF	N21W31	4274				
11 Nov	0949	1004	1017	X5.1	0.390	3B	N23W24	4274	16000	10000	3	
14 Nov	0744	0830	0840	X4.0	0.370			4274	390	1100	3	2
14 Nov	2004	2012	2016	M1.3	0.005			4274				
14 Nov	2122	2131	2134	M1.3	0.005			4274				
16 Nov	0749	0817	0832	M3.1	0.041			4274				

Flare List

	Time			Optical			
Date	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
10 Nov	0335	0343	0347	C2.6	SF	N21W15	4274
10 Nov	0359	0410	0429	C2.6			4276
10 Nov	0524	0530	0535	C2.3	SF	N21W16	4274
10 Nov	0642	0651	0706	C2.8	SF	N23W12	4274
10 Nov	0855	0919	1019	X1.2	2B	N23W14	4274
10 Nov	1407	1418	1429	C6.0	SF	N23W18	4274
10 Nov	1451	1458	1508	C3.8			4274
10 Nov	1511	1522	1530	C7.8			4274
10 Nov	1615	1623	1626	C2.4			4274
10 Nov	1619	1631	1703	C2.9	SF	N23W18	4274
10 Nov	1637	1642	1645	C3.2			4274
10 Nov	1708	1715	1725	C3.0			4274
10 Nov	1752	1813	1824	C5.3	1F	N22W18	4274
10 Nov	1856	1908	1918	C4.5	SF	N23W20	4274
10 Nov	1946	1957	2240	M1.5	2N	N21W20	4274
10 Nov	2218	2221	2225	C5.8			4274
10 Nov	2241	2241	2255		SF	N22W19	4274
10 Nov	2259	2306	2324		SF	N21W21	4274
11 Nov	0056	0059	0100		SF	N25W26	4274
11 Nov	0101	0101	0113		SF	N25W26	4274
11 Nov	0114	0115	0118		SF	N25W26	4274
11 Nov	0121	0121	0126		SF	N25W26	4274
11 Nov	0216	0223	0228	C4.2	SF	N22W28	4274

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
11 Nov	0248	0255	0258	C2.9	SF	S08E41	4279
11 Nov	0305	0305	0308		SF	N22W28	4274
11 Nov	0315	0325	0330	C3.7	SF	N22W28	4274
11 Nov	0330	0331	0333		SF	S08E41	
11 Nov	0346	0354	0404	C2.8	SF	N22W28	4274
11 Nov	0422	0435	0438	C3.5	SF	N22W23	4274
11 Nov	0623	0628	0632	C4.6	SF	N23W26	4274
11 Nov	0639	0645	0650	C3.8	SF	N23E20	4274
11 Nov	0732	0741	0747	C4.8	SF	N22W24	4274
11 Nov	0802	0809	0813	M1.4	SF	N21W31	4274
11 Nov	0833	0838	0843	C6.8	SF	N21W32	4274
11 Nov	0949	1001	1251	X5.1	3B	N23W24	4274
11 Nov	1322	1322	1325		SF	N23W24	4274
11 Nov	1337	1338	1341		SF	N21W27	4274
11 Nov	1450	1453	1457		SF	N21W29	4274
11 Nov	1532	1536	1540	C2.7			4277
11 Nov	1651	1658	1704	C4.2	SF	N21W36	4274
11 Nov	2215	2221	2225	C2.9			4274
12 Nov	0132	0148	0156	C1.9			4274
12 Nov	0235	0240	0242	C1.8			4274
12 Nov	0249	0256	0303	C2.4			4274
12 Nov	0459	0507	0512	C1.9			4276
12 Nov	0840	0855	0903	C3.1	SF	N20W44	4274
12 Nov	1056	1056	1108		SF	N27W36	4274
12 Nov	1611	1639	1706	C4.5	SF	N21W44	4274
12 Nov	1814	1820	1826	C1.7			4274
12 Nov	2058	2106	2114	C1.7	SF	N23W45	4274
13 Nov	0002	0010	0018	C4.3	SF	N25W48	4274
13 Nov	0048	0057	0101	C4.0	SF	N28W45	4274
13 Nov	0243	0334	0407	C6.1			4274
13 Nov	0253	0304	0412		SF	N25W48	4274
13 Nov	0504	0508	0510	C3.1			4274
13 Nov	0628	0636	0643	C2.1			4276
13 Nov	0726	0733	0738	C1.6	SF	N25W47	4274
13 Nov	1022	1028	1030	C1.6			4276
13 Nov	1042	1042	1045		SF	S17W25	4276
13 Nov	1103	1107	1111	C1.9	SF	S17W23	4276
13 Nov	1221	1222	1228		SF	N28W51	4274

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
13 Nov	1230	1233	1237		SF	N28W50	4274
13 Nov	1310	1310	1312		SF	N22W61	4274
13 Nov	1317	1326	1330	C5.0	SN	S17W26	4276
13 Nov	1423	1424	1444	C2.4	SF	N22W61	4274
13 Nov	1457	1506	1515	C2.3			
13 Nov	1528	1531	1533	C2.0			4276
13 Nov	1544	1556	1633	C3.5			4276
13 Nov	1633	1639	1641	C3.9			4276
13 Nov	1720	1725	1728	C3.3	SF	S17W29	4276
13 Nov	1932	1939	1946	C2.2			4274
13 Nov	1958	2004	2012	C1.7			4274
14 Nov	0226	0232	0236	C1.5			4274
14 Nov	0347	0351	0353	C1.4			
14 Nov	0727	0830	0931		3B	N22W61	4274
14 Nov	0744	0830	0840	X4.0			4274
14 Nov	1114	1114	1119		SF	N23W74	4274
14 Nov	B1413	1415	1417		SF	S14W77	4281
14 Nov	1458	1503	1507	C3.0			4274
14 Nov	1604	1610	1614	C1.6			4274
14 Nov	1622	1631	1635	C2.7			4274
14 Nov	1636	1641	1645	C3.2			4274
14 Nov	1659	1702	1704	C2.6			4274
14 Nov	1708	1716	1723	C2.5			4274
14 Nov	1748	1755	1804	C3.8			4274
14 Nov	1841	1845	1848	C2.4			4274
14 Nov	1859	1908	1919	C2.3			4274
14 Nov	2004	2012	2016	M1.3			4274
14 Nov	2051	2059	2106	C4.7			4281
14 Nov	2122	2131	2134	M1.3			4274
15 Nov	0131	0137	0140	C2.0			4274
15 Nov	0241	0249	0252	C4.7			4274
15 Nov	0524	0528	0531	C6.2	SF	N25W78	4274
15 Nov	1252	1257	1303	C2.1			4274
15 Nov	1315	1321	1324	C2.2			4274
15 Nov	1410	1424	1429	C2.2			4274
15 Nov	1509	1517	1526	C1.6			4274
15 Nov	1715	1721	1725	C1.8			4274
15 Nov	1857	1902	1904	C1.7			4274

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
15 Nov	2020	2038	2050	C2.4			4274
15 Nov	2050	2114	2128	C3.5			4274
15 Nov	2242	2251	2255	C8.7			4274
15 Nov	2306	2309	2312	C3.7			4274
15 Nov	2324	2329	2334	C2.8			4274
16 Nov	0007	0020	0032	C2.9			4274
16 Nov	0032	0107	0123	C7.2			4274
16 Nov	0240	0245	0250	C3.6			4274
16 Nov	0350	0358	0403	C1.4			4274
16 Nov	0409	0417	0422	C1.5			4274
16 Nov	0436	0447	0452	C2.1			4274
16 Nov	0506	0512	0517	C1.4			4274
16 Nov	0749	0817	0832	M3.1			4274
16 Nov	1508	1525	1537	C2.8	SF	S06E01	4284
16 Nov	1624	1637	1640	C3.7			4274
16 Nov	1640	1646	1651	C4.0			4274
16 Nov	1852	1905	1913	C3.9	SF	S06W02	4284
16 Nov	1940	1947	2004	C4.4	SF	S06W02	4284
16 Nov	2136	2151	2214	C3.8			4274

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 4250												
11 Oct	N07E31	255	40	5	Dai	8	B								
12 Oct	N06E20	254	40	4	Dso	4	B	1							
13 Oct	N07E06	254	20	4	Cro	3	B								
14 Oct	N07W07	254	20	4	Cro	2	B								
15 Oct	N07W21	255	10	1	Hrx	1	A								
16 Oct	N05W34	255	10	1	Axx	1	A								
17 Oct	N04W45	253	10	1	Axx	1	A								
								1	0	0	0	0	0	0	0

Died on Disk.
Absolute heliographic longitude: 254

			Region 4271												
30 Oct	S09E54	342	10	1	Axx	1	A								
31 Oct	S09E40	343	plage					1			1				
01 Nov	S09E26	344	plage												
02 Nov	S09E12	345	plage												
03 Nov	S09W02	346	plage												
04 Nov	S09W16	346	plage												
05 Nov	S09W30	347	plage												
06 Nov	S09W44	348	plage												
07 Nov	S09W58	349	plage												
08 Nov	S09W72	349	plage												
09 Nov	S09W86	350	plage												
								1	0	0	1	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 346

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 4272												
01 Nov	N22E76	293	50	3	Hax	1	A								
02 Nov	N22E63	294	70	3	Cso	2	B	1							
03 Nov	N23E48	295	90	3	Cso	4	B	2			1				
04 Nov	N22E36	294	70	3	Cso	2	B		1			1			
05 Nov	N22E23	294	60	2	Hsx	2	A								
06 Nov	N22E10	294	60	2	Hsx	2	A	1			1				
07 Nov	N22W02	293	40	2	Hsx	2	A								
08 Nov	N22W16	294	40	2	Hsx	1	A								
09 Nov	N22W28	292	40	2	Hsx	1	A								
10 Nov	N22W42	293	40	1	Hsx	1	A								
11 Nov	N22W55	293	20	1	Hrx	1	A								
12 Nov	N22W67	292	10	1	Axx	1	A								
13 Nov	N22W81	293	plage												
								4	1	0	2	1	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 293

			Region 4273												
02 Nov	S12E27	330	30	4	Dri	9	B								
03 Nov	S12E11	332	110	7	Dsi	18	BG								
04 Nov	S12W01	331	100	9	Dsi	12	BG	1			1				
05 Nov	S12W15	332	50	7	Dso	6	B	1			1				
06 Nov	S12W28	332	30	6	Cso	3	B	1			1				
07 Nov	S12W38	329	30	1	Hsx	1	A								
08 Nov	S14W50	327	plage												
09 Nov	S14W64	328	plage												
10 Nov	S14W78	329	plage												
								3	0	0	3	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 331

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 4274													
02 Nov	N24E77	280	plage					2							
03 Nov	N24E63	280	260	11	Ekc	10	BG	6	5		2				
04 Nov	N24E53	277	300	11	Ekc	18	BGD	5	1	1	5	2			
05 Nov	N24E40	277	420	11	Ekc	20	BGD	7	2		8	1	2		
06 Nov	N24E26	278	670	12	Ekc	34	BGD	8			4				
07 Nov	N24E15	276	670	11	Ekc	34	BGD	15	1		17	1			
08 Nov	N24E02	276	850	12	Ekc	20	BGD	10			5				
09 Nov	N25W11	275	900	11	Ekc	25	BGD	5		1	3		1		
10 Nov	N24W24	275	920	12	Ekc	28	BGD	13	1	1	8	1	2		
11 Nov	N24W37	275	1100	12	Ekc	20	BGD	10	1	1	18			1	
12 Nov	N24W51	276	1000	13	Ekc	35	BGD	7			4				
13 Nov	N24W64	276	800	12	Ekc	15	BGD	8			8				
14 Nov	N24W78	276	700	12	Ekc	13	BGD	10	2	1	1			1	
15 Nov	N25W88	273	570	11	Ekc	6	BGD	14			1				
								120	13	5	84	5	5	2	0

Crossed West Limb.
Absolute heliographic longitude: 276

		Region 4275													
03 Nov	N07E75	268	180	6	Cao	4	BG								
04 Nov	N07E61	269	200	7	Dao	8	BG	1							
05 Nov	N06E47	270	200	6	Dai	8	BG	3			1	1			
06 Nov	N06E34	270	180	7	Cao	7	B	2			1				
07 Nov	N08E20	271	150	7	Cao	6	BG								
08 Nov	N07E06	272	150	7	Cso	6	B								
09 Nov	N07W09	273	120	5	Cso	3	B								
10 Nov	N08W23	274	130	5	Cso	5	B								
11 Nov	N08W35	273	120	4	Hsx	3	A								
12 Nov	N08W51	276	100	2	Hsx	1	A								
13 Nov	N08W64	276	70	2	Hsx	1	A								
14 Nov	N08W79	277	60	1	Hsx	1	A								
15 Nov	N07W93	278	40	2	Hsx	1	A								
								6	0	0	2	1	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 272

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 4276													
04 Nov	S17E96	237	plage							1					
06 Nov	S17E67	237	40	8	Dai	8	BG	6	1						
07 Nov	S17E51	240	180	10	Dai	7	BG	2			1				
08 Nov	S17E39	239	180	10	Dao	8	BG	1							
09 Nov	S17E28	236	140	10	Dao	10	BG	4			2	1			
10 Nov	S17E13	238	150	10	Dao	12	BG	1							
11 Nov	S17W01	239	110	12	Cao	11	B								
12 Nov	S17W15	240	80	13	Cai	15	BG	1							
13 Nov	S17W29	241	40	13	Cao	6	B	8			4				
14 Nov	S17W45	243	40	10	Cao	6	B								
15 Nov	S16W60	245	10	1	Axx	1	A								
16 Nov	S16W74	246	plage												
								23	1	1	7	1	0	0	0

Still on Disk.
Absolute heliographic longitude: 239

		Region 4277													
06 Nov	S07E64	242	plage					4							
07 Nov	S07E49	242	120	2	Dao	8	B	3							
08 Nov	S06E38	240	120	8	Dai	10	B	4			1				
09 Nov	S06E25	239	150	8	Dsi	12	B	1							
10 Nov	S07E11	240	140	8	Dsi	8	B								
11 Nov	S07W02	240	120	7	Dsi	6	B	1							
12 Nov	S07W15	240	100	7	Dso	8	B								
13 Nov	S07W30	242	70	5	Cso	5	B								
14 Nov	S07W45	242	60	5	Cao	5	B								
15 Nov	S06W58	243	30	3	Cao	3	B								
16 Nov	S06W72	244	10	2	Axx	1	A								
								13	0	0	1	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 240

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 4278												
07 Nov	N11E44	247	50	1	Cao	5	B								
08 Nov	N11E31	247	10	2	Bxo	2	B								
09 Nov	N11E20	244	10	3	Bxo	4	B								
10 Nov	N11E06	245	plage												
11 Nov	N11W08	246	plage												
12 Nov	N11W22	247	plage												
13 Nov	N11W36	248	plage												
14 Nov	N11W50	248	plage												
15 Nov	N11W64	249	plage												
16 Nov	N11W78	250	plage												
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 245

			Region 4279												
09 Nov	S12E57	207	30	1	Hsx	1	A	1							
10 Nov	S14E44	207	20	1	Hsx	1	A								
11 Nov	S13E31	207	30	1	Hsx	1	A	1							
12 Nov	S13E17	208	20	1	Hsx	1	A								
13 Nov	S13E04	208	20	1	Hsx	1	A								
14 Nov	S13W10	208	30	1	Hax	2	A								
15 Nov	S13W22	207	10	1	Hrx	1	A								
16 Nov	S12W35	207	10	1	Hrx	1	A								
								2	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 208

			Region 4280												
10 Nov	S09E61	190	10	4	Bxo	3	B								
11 Nov	S09E49	189	20	4	Bxi	7	B								
12 Nov	S08E35	190	30	5	Cro	5	B								
13 Nov	S08E22	190	30	6	Cro	5	B								
14 Nov	S08E07	191	10	7	Cao	3	B								
15 Nov	S07W06	191	10	2	Bxo	2	B								
16 Nov	S08W22	194	plage												
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 191

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 4281												
11 Nov	S13W49	287	10	3	Bxo	2	B								
12 Nov	S14W64	289	10	6	Bxo	4	B								
13 Nov	S14W78	290	20	2	Hrx	1	A								
14 Nov	S14W92	289	20	6	Hsx	2	A	1			1				
								1	0	0	1	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 287

			Region 4282												
14 Nov	S17W35	233	10	3	Bxo	2	B								
15 Nov	S21W49	234	10	2	Bxo	2	B								
16 Nov	S21W63	235	10	2	Bxo	2	B								
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 233

			Region 4283												
15 Nov	S19E04	181	10	2	Hrx	1	A								
16 Nov	S18W11	183	10	1	Axx	1	A								
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 181

			Region 4284												
16 Nov	S07W05	177	60	4	Dao	11	B	3			2				
								3	0	0	2	0	0	0	0

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Absolute heliographic longitude: 177

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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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