

Solar activity ranged from low to high levels with R1 (Minor) radio blackouts observed on 28 Oct - 03 Nov, R2 (Moderate) radio blackouts observed on 30 Oct and R3 (Strong) radio blackouts observed on 31 Oct. Regions 3869 (S17, L=195, class/area Eki/460 on 24 Oct), 3876 (S05, L=207, class/area Ekc/340 on 30 Oct) and 3878 (N16, L=138, class/area Eki/400 on 31 Oct) produced a majority of the activity this period. Region 3878 produced an R2 (Moderate) M7.2 flare at 30 Oct/2054 UTC and produced the largest flare of the period, an R3 (Strong) X2.0/3b flare at 31 Oct/2120 UTC with an associated 910 sfu Tenflare. During the period, a total of 41 C-class, 20 M-class and 1 X-class flares were observed.

The greater than 10 MeV proton flux began the period at S1-S2 (Minor-Moderate) flux levels due to X-class activity on 24 and 26 Oct. The proton event began at 26 Oct/1919 UTC, reached a maximum at 28 Oct/1350 UTC with a peak of 364 pfu and ended at 01 Nov/0735 UTC.

The greater than 2 MeV electron flux at geosynchronous orbit was at normal to moderate levels through the highlight period.

Geomagnetic field activity ranged from quiet to active levels, with one (R1-Minor) minor storm period observed early on 28 Oct. Quiet to minor storm levels were observed on 28 Oct with quiet to active levels observed on 29-30 Oct. This activity was due to weak CME influence from significant flare activity observed on 24 and 26 Oct. Quiet to isolated active periods were observed on 31 Oct to 03 Nov. On 28 Oct, a Sudden Impulse was observed early on 28 Oct, due to CME arrival from 26 Oct activity. Total field increased to 24 nT and the Bz component dropped to -19 nT. Wind speeds increased to 616 km/s. By 29 Oct, solar wind parameters gradually declined to more nominal levels and remained mostly nominal for the remainder of the highlight period.

### **Space Weather Outlook** **04 November - 30 November 2024**

Solar activity is expected to be at moderate levels (R1/R2-Minor/Moderate), with a chance for high levels (R3-Strong) from 04-30 Nov. The disk is expected to feature numerous complex regions throughout the outlook period.

No proton events are expected at geosynchronous orbit. However, there is a chance for proton activity following significant solar flare activity during the outlook period.

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 be at unsettled to active periods on 04-05 Nov due to weak CME influence, coupled with positive polarity CH HSS activity. Unsettled to active levels



are likely on 11-13 Nov, 15-16 Nov, 18 Nov, 20 Nov, 15-27 Nov and 30 Nov, all due to influence from recurrent CH HSSs. The remainder of the outlook period is expected to be at mostly quiet levels.



### *Daily Solar Data*

Date	Radio Flux 10.7cm	Sun spot No.	Sunspot Area (10 <sup>-6</sup> hemi.)	X-ray Background Flux	Flares							
					X-ray			Optical				
					C	M	X	S	1	2	3	4
28 October	255	288	1670	C2.7	12	3	0	12	1	0	0	0
29 October	266	220	2130	C2.2	4	1	0	1	1	0	0	0
30 October	270	200	2120	C2.8	5	1	0	10	1	1	0	0
31 October	270	187	2320	C3.0	9	7	1	21	3	1	1	0
01 November	256	210	2290	C2.9	5	4	0	27	3	0	0	0
02 November	251	242	2380	C2.9	1	2	0	19	0	0	0	0
03 November	241	220	2200	C3.3	6	4	0	18	2	0	0	0

### *Daily Particle Data*

Date	Proton Fluence (protons/cm <sup>2</sup> -day -sr)		Electron Fluence (electrons/cm <sup>2</sup> -day -sr)	
	>1 MeV	>10 MeV	>2MeV	
	28 October	1.1e+09	2.3e+07	1.7e+06
29 October	4.1e+08	1.1e+07	2.0e+06	
30 October	1.3e+08	4.1e+06	4.7e+06	
31 October	3.0e+07	1.8e+06	7.3e+06	
01 November	2.4e+07	7.2e+05	4.7e+06	
02 November	1.3e+07	3.1e+05	2.7e+06	
03 November	6.1e+06	1.3e+05	1.2e+06	

### *Daily Geomagnetic Data*

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
	28 October	11	2-4-3-2-3-2-1-2	30	2-3-5-4-6-5-2-2	17
29 October	10	2-1-2-2-3-3-3-2	14	3-2-4-3-3-2-3-2	12	3-2-2-2-2-3-4-3
30 October	10	3-2-3-3-3-2-1-1	18	3-3-3-4-5-3-2-1	15	4-3-3-4-3-2-2-1
31 October	8	1-1-1-1-3-2-3-3	4	1-0-1-1-1-1-2-2	9	1-1-1-2-2-2-3-4
01 November	6	2-1-1-1-3-2-2-0	14	2-1-1-5-5-0-1-0	7	3-1-1-2-3-1-1-0
02 November	9	0-1-1-3-3-3-3-2	22	0-0-2-5-5-5-2-3	13	1-1-2-4-4-3-3-3
03 November	8	2-0-1-1-2-3-3-3	6	2-1-0-0-0-2-3-3	12	3-1-1-1-1-3-3-4



## *Alerts and Warnings Issued*

<b>Date &amp; Time of Issue UTC</b>	<b>Type of Alert or Warning</b>	<b>Date &amp; Time of Event UTC</b>
28 Oct 0424	WARNING: Geomagnetic Sudden Impulse expected	28/0440 - 0540
28 Oct 0428	WARNING: Geomagnetic K = 5	28/0430 - 1500
28 Oct 0428	EXTENDED WARNING: Geomagnetic K = 4	26/1538 - 28/2100
28 Oct 0441	WARNING: Geomagnetic K = 6	28/0440 - 1200
28 Oct 0501	SUMMARY: Geomagnetic Sudden Impulse	28/0446
28 Oct 0559	ALERT: Geomagnetic K = 5	
28 Oct 2230	EXTENDED WARNING: Proton 10MeV Integral Flux > 10pfu	26/1638 - 29/2359
29 Oct 2018	WARNING: Geomagnetic K = 4	29/2018 - 30/0300
29 Oct 2046	ALERT: Geomagnetic K = 4	
29 Oct 2142	EXTENDED WARNING: Proton 10MeV Integral Flux > 10pfu	26/1638 - 30/2359
29 Oct 2142	SUMMARY: Proton Event 10MeV Integral Flux >= 100pfu	27/0835 - 29/1510
30 Oct 0238	EXTENDED WARNING: Geomagnetic K = 4	29/2018 - 30/1200
30 Oct 1139	EXTENDED WARNING: Geomagnetic K = 4	29/2018 - 30/1800
30 Oct 2048	ALERT: X-ray Flux exceeded M5	30/2047
30 Oct 2118	SUMMARY: X-ray Event exceeded M5	30/2029 - 2114
31 Oct 0008	WARNING: Proton 10MeV Integral Flux > 10pfu	31/0000 - 2359
31 Oct 2116	ALERT: X-ray Flux exceeded M5	31/2115
31 Oct 2138	SUMMARY: X-ray Event exceeded X1	31/2112 - 2127
31 Oct 2201	WARNING: Geomagnetic K = 4	31/2200 - 01/0900
31 Oct 2212	SUMMARY: 10cm Radio Burst	31/2110 - 2124
31 Oct 2354	EXTENDED WARNING: Proton 10MeV Integral Flux > 10pfu	31/0000 - 01/2359
01 Nov 0006	ALERT: Geomagnetic K = 4	
01 Nov 1124	ALERT: Type IV Radio Emission	01/1034
01 Nov 1727	CANCELLATION: Proton 10MeV Integral Flux > 10pfu	
01 Nov 1727	SUMMARY: Proton Event 10MeV Integral Flux >= 10pfu	26/1910 - 01/0735
02 Nov 1140	WARNING: Geomagnetic K = 4	02/1138 - 2359
02 Nov 1152	ALERT: Geomagnetic K = 4	



### *Alerts and Warnings Issued*

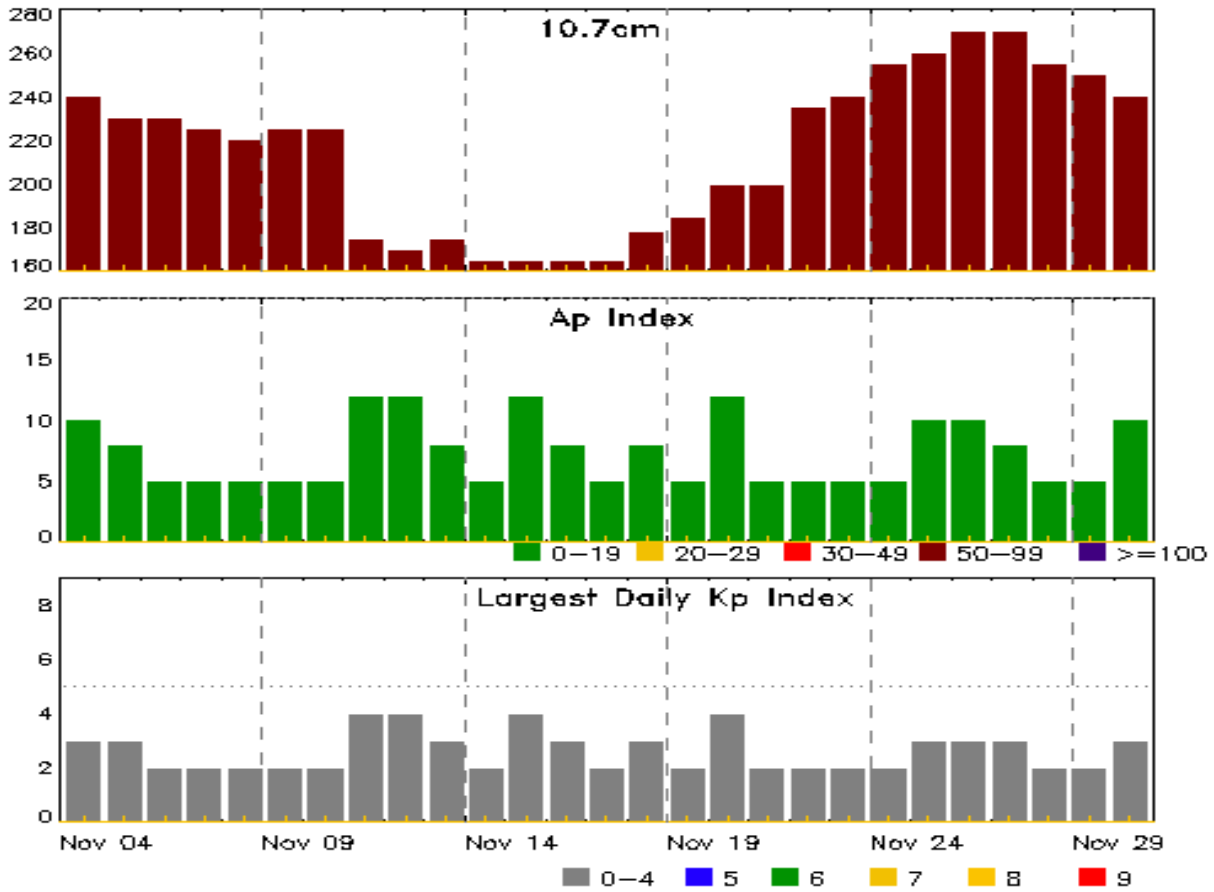
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<b>Date &amp; Time of Issue UTC</b>	<b>Type of Alert or Warning</b>	<b>Date &amp; Time of Event UTC</b>
02 Nov 2306	EXTENDED WARNING: Geomagnetic K = 4	02/1138 - 03/0900
03 Nov 2132	WARNING: Geomagnetic K = 4	03/2130 - 04/0900
03 Nov 2152	ALERT: Geomagnetic K = 4	

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## 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
04 Nov	240	10	3	18 Nov	178	8	3
05	230	8	3	19	185	5	2
06	230	5	2	20	200	12	4
07	225	5	2	21	200	5	2
08	220	5	2	22	235	5	2
09	225	5	2	23	240	5	2
10	225	5	2	24	255	5	2
11	175	12	4	25	260	10	3
12	170	12	4	26	270	10	3
13	175	8	3	27	270	8	3
14	165	5	2	28	255	5	2
15	165	12	4	29	250	5	2
16	165	8	3	30	240	10	3
17	165	5	2				



### *Energetic Events*

Date	Time			X-ray	Optical Information				Peak		Sweep Freq	
	Begin	Max	Half Max	Class	Integ Flux	Imp/ Brtns	Location	Rgn #	Radio Flux 245	Radio Flux 2695	Intensity II	Intensity IV
28 Oct	0359	0409	0416	M1.3	0.010					3878		
28 Oct	1441	1444	1448	M1.2	0.004					3869		
28 Oct	1613	1628	1644	M4.2	0.002	1F	N16E67			3878		
29 Oct	1621	1633	1641	M1.1	0.011	1F	S09E09			3873		
30 Oct	2029	2053	2114	M7.2	0.110					3878		
31 Oct	0216	0252	0323	M1.0	0.030	SF	N15E36			3878		
31 Oct	0323	0330	0337	M1.0	0.009	SF	N15E36			3878		
31 Oct	0922	0937	0956	M1.3	0.020	SF	N17E36			3878		
31 Oct	1241	1254	1303	M2.4	0.018	1N	N27W35			3875		
31 Oct	1346	1359	1411	M1.2	0.014	SF	S09W38			3876		
31 Oct	1857	1907	1918	M1.0	0.010	2N	S11W44			3876		
31 Oct	2103	2110	2112	M4.6	0.035					3878		
31 Oct	2112	2120	2127	X2.0	0.120	3B	N18E24			3878	100	910
01 Nov	0205	0216	0220	M1.3	0.007	SF	N17E27			3878		
01 Nov	0946	1014	1108	M1.0	0.043					3876		
01 Nov	1239	1252	1300	M1.3	0.014					3876		
01 Nov	1418	1431	1442	M2.0	0.003	1N	N16E16			3878		
02 Nov	0727	0738	0753	M1.0	0.013	SN	S20W50			3869		120
02 Nov	0813	0831	0845	M1.2	0.019	SF	S14W62			3876		
03 Nov	0302	0311	0316	M1.1	0.005	SF	S15W61			3869		
03 Nov	0839	0849	0911	M1.1	0.018	1F	N15W06			3878		
03 Nov	1511	1524	1529	M1.4	0.013					3869		
03 Nov	1738	1753	1758	M1.3	0.009					3883	1300	



## *Flare List*

Date	Time			X-ray Class	Optical		Rgn #
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	
28 Oct	0023	0030	0046	C5.0			3876
28 Oct	0256	0302	0315	C3.8			3878
28 Oct	0359	0409	0416	M1.3			3878
28 Oct	0611	0615	0619	C3.8			3869
28 Oct	0643	0701	0724	C8.0	SF	N16E75	3878
28 Oct	0809	0813	0817	C3.9			3878
28 Oct	0901	0913	0925	C7.1	SF	N24W12	3874
28 Oct	0906	U0909	0928		SF	N15E73	3878
28 Oct	B0957	U1000	1017		SF	S13W29	3866
28 Oct	1003	1007	1011	C4.5	SF	S07E02	3876
28 Oct	B1121	U1121	A1151		SF	N22W14	3874
28 Oct	B1213	U1300	A1325		SF	N22W14	3874
28 Oct	1441	1444	1448	M1.2			3869
28 Oct	1500	1508	1515	C9.4	SF	N16E69	3878
28 Oct	1522	1540	1612		SF	S07E00	3876
28 Oct	1613	1628	1644	M4.2	1F	N16E67	3878
28 Oct	1706	1707	1711		SF	N27W11	3874
28 Oct	1824	1832	1840	C7.3	SF	N16E68	3878
28 Oct	2137	2143	2152	C5.2			3878
28 Oct	2201	2207	2219	C7.6			3878
28 Oct	2219	2229	2234	C7.6	SF	N15E64	3878
29 Oct	0926	0939	0952	C3.9			3878
29 Oct	0952	0957	1001	C3.6			3878
29 Oct	1158	1204	1210	C4.0			3878
29 Oct	1258	1302	1309	C2.8			3878
29 Oct	1435	1437	1447		SF	N16E56	3878
29 Oct	1621	1633	1641	M1.1	1F	S09E09	3873
30 Oct	0045	0050	0054		SF	S17W03	3872
30 Oct	0047	0047	0052		SF	N15E52	3878
30 Oct	0416	0416	0418		SF	N15E49	3878
30 Oct	0746	U0746	0800		SF	N16E48	3878
30 Oct	0802	U0802	A0818		SF	N28W19	3875
30 Oct	0809	0813	0820		SF	N15E48	3878
30 Oct	0910	1017	1107	C7.1			3876
30 Oct	0937	0937	0940		SF	N28W21	3875
30 Oct	0940	U0943	A1033		SF	S10W21	3876
30 Oct	0945	U0955	A1000		1F	S01W24	3876
30 Oct	1157	1204	1215	C4.6			3876





## *Flare List*

Date	Time			X-ray Class	Optical		Rgn #
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	
30 Oct	1546	1550	1556	C5.0			3878
30 Oct	1852	1855	1911	C5.0	SF	S09W29	3876
30 Oct	2014	2022	2029	C5.4	2N	N16E37	3878
30 Oct	2029	2053	2114	M7.2			3878
30 Oct	2127	2130	2134		SF	S09W31	3876
31 Oct	0042	0051	0100	C9.3	SF	S09W31	3876
31 Oct	0216	0252	0323	M1.0	SF	N15E36	3878
31 Oct	0323	0330	0337	M1.0	SF	N15E36	3878
31 Oct	0503	0511	0518	C5.6			3876
31 Oct	B0747	U0811	A0815		SF	N27W32	3875
31 Oct	0824	0831	0837	C6.2			3876
31 Oct	0837	0845	0849	C5.5			3878
31 Oct	B0837	U0843	A0852		SF	N25W31	3875
31 Oct	B0839	U0941	A1149		1F	N18E37	3878
31 Oct	B0842	U0844	0852		SF	S15W12	3872
31 Oct	0856	0904	0912	C7.6			3876
31 Oct	0857	0859	0913		SF	S09W38	3876
31 Oct	B0858	U0859	A0925		SF	S06W20	3876
31 Oct	B0859	U0905	A0925		SF	N27W33	3875
31 Oct	0922	0937	0956	M1.3	SF	N17E36	3878
31 Oct	1019	1023	1054	C6.4			3878
31 Oct	B1240	U1303	1356	M2.4	1N	N27W35	3875
31 Oct	1346	1359	1411	M1.2	SF	S09W38	3876
31 Oct	1352	1352	1420		SF	S03W40	3876
31 Oct	1430	U1434	A1448		SF	S10W40	3876
31 Oct	B1434	U1434	A1450		SF	N27W35	3875
31 Oct	1600	1615	1615		SF	S09W42	3876
31 Oct	1714	1717	1725		SF	N19E33	3878
31 Oct	1758	1903	1933		2N	S11W44	3876
31 Oct	1821	1829	1831	C4.7			3876
31 Oct	1831	1836	1840	C4.8			3876
31 Oct	1857	1907	1918	M1.0			3876
31 Oct	1939	1940	1945		SF	N17E30	3878
31 Oct	2014	2025	2032	C6.3			3876
31 Oct	2103	2110	2112	M4.6			3878
31 Oct	B2109	2115	2259		3B	N18E24	3878
31 Oct	2110	2111	2124		SF	S05W45	3876
31 Oct	2112	2120	2127	X2.0			3878



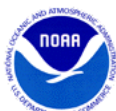
## Flare List

Date	Time			X-ray Class	Imp/ Brtns	Optical		Rgn #
	Begin	Max	End			Location Lat CMD		
31 Oct	2203	2207	2221		SF	S10W48		3876
31 Oct	2221	2221	2230		SF	N28W41		3875
31 Oct	2237	2248	A2346		1N	S08W49		3876
31 Oct	2241	2249	2324		SF	S08W46		3876
01 Nov	0205	0216	0220	M1.3	SF	N17E27		3878
01 Nov	0711	0713	0717		SF	S09W54		3876
01 Nov	0711	0715	0724		SF	N15E21		3878
01 Nov	0732	U0733	A0741		SF	N15E21		3878
01 Nov	0741	U0745	0748		SF	S09W54		3876
01 Nov	B0744	U0747	A0753		SF	N15E21		3878
01 Nov	0804	0810	0820	C5.4	SF	S09W51		3876
01 Nov	0902	0903	0904		SF	S09W53		3868
01 Nov	B0936	U0936	A0955		SF	N18E23		3878
01 Nov	0946	1014	1108	M1.0				3876
01 Nov	B0952	U0956	A1114		1F	S09W51		3876
01 Nov	B1003	U1009	A1013		SF	N27W47		3875
01 Nov	B1032	U1032	A1036		SF	N16E17		3878
01 Nov	B1101	U1102	A1111		SF	S12W28		3872
01 Nov	B1121	U1133	A1135		SF	S09W53		3876
01 Nov	1219	1227	1239	C8.4				3876
01 Nov	1239	1252	1300	M1.3				3876
01 Nov	B1242	U1321	A1348		SF	S09W55		3876
01 Nov	1418	1431	1442	M2.0	1N	N16E16		3878
01 Nov	1453	1455	1457		SF	N27W50		3875
01 Nov	1505	1635	1746		1F	S09W59		3876
01 Nov	1521	1529	1535		SF	N21E37		3879
01 Nov	1600	1606	1609		SF	N27W49		3875
01 Nov	1624	1633	1641	C6.3				3876
01 Nov	1719	1730	1738	C6.1				3877
01 Nov	1755	1802	1846		SF	S08W59		3876
01 Nov	1915	1915	1918		SF	N16E13		3878
01 Nov	1925	1928	1929		SF	S08W60		3876
01 Nov	1940	1940	1943		SF	S08W60		3876
01 Nov	1957	2011	2036	C4.6	SF	S08W60		3876
01 Nov	2042	2042	2110		SF	S08W60		3876
01 Nov	2119	2119	2121		SF	S10W56		3876
01 Nov	2200	2214	2236		SF	S09W60		3876
01 Nov	2242	2242	2249		SF	S09W61		3876



## *Flare List*

Date	Time			X-ray Class	Imp/ Brtns	Optical	
	Begin	Max	End			Location Lat CMD	Rgn #
01 Nov	2313	2325	2334		SF	S09W61	3876
02 Nov	0114	0114	0115		SF	S18W56	3869
02 Nov	0141	0142	0147		SF	S08W62	3876
02 Nov	0151	0151	0153		SF	S08W64	3876
02 Nov	0203	0204	0209		SF	S15W51	3869
02 Nov	0229	0229	0231		SF	S08W64	3876
02 Nov	0250	0250	0252		SF	S08W64	3876
02 Nov	0337	0337	0341		SF	S08W64	3876
02 Nov	0727	0738	0753	M1.0	SN	S20W50	3869
02 Nov	0733	0748	0759		SF	N15E10	3878
02 Nov	0813	0831	0845	M1.2	SF	S14W62	3876
02 Nov	0902	0902	0907		SF	S09E22	3881
02 Nov	0928	0937	0940		SF	S09E21	3881
02 Nov	1028	1030	1039		SF	S06E68	
02 Nov	1222	U1226	1309		SF	N16E06	3878
02 Nov	1434	1434	1442		SF	S09W69	3876
02 Nov	1452	1452	1455		SF	S10W66	3876
02 Nov	1457	U1501	A1510		SF	S16W51	3872
02 Nov	1909	1916	1922	C5.1	SF	N16E04	3878
02 Nov	2324	2324	2329		SF	N29W69	3875
02 Nov	2334	2334	2340		SF	N29W66	3875
03 Nov	0302	0311	0316	M1.1	SF	S15W61	3869
03 Nov	0337	0346	0412	C7.2	SF	S09E10	3881
03 Nov	0403	0405	0405		SF	S07E58	3883
03 Nov	0406	0406	0409		SF	S07E58	3883
03 Nov	0613	0614	0619		SF	S09E10	3881
03 Nov	0625	0636	0651	C8.1	SF	S10E09	3881
03 Nov	0715	0734	0741		SF	N15W04	3878
03 Nov	0727	0731	0736		SF	S07E56	3883
03 Nov	0746	0746	0753		SF	N14W03	3878
03 Nov	0803	0803	0805		SF	N27W67	3875
03 Nov	0805	0810	0820	C5.3	SF	S09E10	3881
03 Nov	0839	0849	0911	M1.1	1F	N15W06	3878
03 Nov	B0947	U0957	A1032		1F	N15W05	3878
03 Nov	B1118	U1133	A1141		SF	S10W37	
03 Nov	1212	1216	1220	C5.8	SN	N16W03	3878
03 Nov	1239	U1246	A1254		SF	S10E04	3881
03 Nov	1246	U1247	A1257		SF	N13W07	3878



## *Flare List*

Date	Time			X-ray Class	Imp/ Brtns	Optical		Rgn #
	Begin	Max	End			Location Lat CMD		
03 Nov	B1310	U1329	A1402	C7.6	SN	S08E52		3883
03 Nov	B1401	U1403	A1406		SF	S09W80		3871
03 Nov	B1428	U1430	A1432		SF	S11W40		
03 Nov	1511	1524	1529	M1.4				3869
03 Nov	1738	1753	1758	M1.3				3883
03 Nov	2018	2030	2035	C6.8				3875



## Region Summary

Date	Location		Sunspot Characteristics				Flares										
	Lat CMD	Helio Lon	Area 10 <sup>6</sup> hemi.	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical						
								C	M	X	S	1	2	3	4		
<b>Region 3862</b>																	
18 Oct	S18E71	261	10	1	Axx	1	A										
19 Oct	S18E57	262	10	1	Axx	1	A										
20 Oct	S18E43	263	20	2	Hrx	1	A										
21 Oct	S16E24	269	10	1	Axx	2	A										
22 Oct	S15E11	268	10	1	Axx	1	A										
23 Oct	S15W03	269	plage														
24 Oct	S15W17	270	plage														
25 Oct	S15W31	271	plage														
26 Oct	S15W45	272	plage														
27 Oct	S15W59	272	plage														
28 Oct	S15W73	273	plage														
29 Oct	S15W87	274	plage														
								0	0	0	0	0	0	0	0	0	

Crossed West Limb.  
Absolute heliographic longitude: 269

<b>Region 3863</b>																	
18 Oct	S02E69	263	60	1	Hsx	1	A										
19 Oct	S02E54	265	70	4	Cso	2	B	1									
20 Oct	S02E41	265	120	8	Csi	6	B	2			2						
21 Oct	S08E31	262	220	7	Dai	16	BD										
22 Oct	S09E19	260	130	7	Dai	10	BG	1			1						
23 Oct	S09E07	259	100	8	Dao	6	BG	1				1					
24 Oct	S08W09	262	110	3	Dso	4	B				1						
25 Oct	S08W23	263	90	3	Cso	4	B										
26 Oct	S08W37	263	120	5	Dai	11	B										
27 Oct	S08W49	262	80	5	Dso	5	B										
28 Oct	S08W63	263	60	5	Dso	7	B										
29 Oct	S08W77	264	10	4	Axx	3	A										
								5	0	0	4	1	0	0	0	0	

Died on Disk.  
Absolute heliographic longitude: 259



### *Region Summary - continued*

Date	Location		Sunspot Characteristics				Flares										
	Lat CMD	Helio Lon	Area 10 <sup>6</sup> hemi.	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical						
								C	M	X	S	1	2	3	4		
<b>Region 3864</b>																	
20 Oct	N25E48	258	10	1	Axx	1	A										
21 Oct	N25E33	260	10	1	Axx	1	A										
22 Oct	N25E19	260	plage														
23 Oct	N25E05	261	plage														
24 Oct	N25W09	262	plage														
25 Oct	N25W23	263	plage														
26 Oct	N25W37	264	plage														
27 Oct	N25W51	264	plage														
28 Oct	N25W65	265	plage														
29 Oct	N25W79	266	plage														

Crossed West Limb.  
Absolute heliographic longitude: 261

<b>Region 3865</b>																	
20 Oct	S22E62	244	30	2	Hsx	1	A										
21 Oct	S22E51	242	20	3	Cso	3	B										
22 Oct	S22E38	241	30	3	Cso	4	B										
23 Oct	S22E23	243	10	1	Hsx	1	A										
24 Oct	S22E11	242	20	1	Hax	1	A										
25 Oct	S22W02	242	20	1	Hrx	1	A										
26 Oct	S22W16	242	20	1	Hsx	1	A										
27 Oct	S22W30	243	plage														
28 Oct	S22W44	244	plage														
29 Oct	S22W58	245	plage														
30 Oct	S22W72	246	plage														
31 Oct	S22W86	247	plage														

Crossed West Limb.  
Absolute heliographic longitude: 242



### *Region Summary - continued*

Date	Location		Sunspot Characteristics				Flares											
	Lat CMD	Helio Lon	Area 10 <sup>6</sup> hemi.	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical							
								C	M	X	S	1	2	3	4			
<b>Region 3866</b>																		
21 Oct	S12E58	235	30	5	Cai	6	B											
22 Oct	S12E45	234	40	6	Cao	11	B						1					
23 Oct	S12E32	234	20	7	Bxi	11	B	2					2					
24 Oct	S12E18	235	10	7	Bxo	7	B											
25 Oct	S12E06	234	10	5	Bxo	3	B	1										
26 Oct	S12W08	234	10	4	Bxo	2	B											
27 Oct	S12W22	235	10	2	Bxo	2	B											
28 Oct	S12W36	236	10	2	Bxo	4	B						1					
29 Oct	S12W50	237	plage															
30 Oct	S12W64	238	plage															
31 Oct	S12W78	239	plage															
								3	0	0	4	0	0	0	0	0		

Crossed West Limb.  
 Absolute heliographic longitude: 234

<b>Region 3867</b>																		
21 Oct	S23E32	261	10	3	Bxo	2	B											
22 Oct	S15E18	261	plage															
23 Oct	S15E04	262	plage															
24 Oct	S15W10	263	plage															
25 Oct	S15W24	264	plage															
26 Oct	S15W38	265	plage															
27 Oct	S15W52	265	plage															
28 Oct	S15W66	266	plage															
29 Oct	S15W80	267	plage															
								0	0	0	0	0	0	0	0	0	0	

Crossed West Limb.  
 Absolute heliographic longitude: 262







### *Region Summary - continued*

Date	Location		Sunspot Characteristics				Flares										
	Lat CMD	Heli Lon	Area 10 <sup>6</sup> hemi.	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical						
								C	M	X	S	1	2	3	4		
<b>Region 3870</b>																	
24 Oct	S22W38	291	10	1	Axx	1	A										
25 Oct	S22W52	292	plage														
26 Oct	S22W66	292	40	7	Cao	5	B				1						
27 Oct	S19W78	291	40	7	Dao	2	B										
28 Oct	S19W92	292	60	5	Cao	2	B										
								0	0	0	1	0	0	0	0	0	

Crossed West Limb.  
Absolute heliographic longitude: 291

<b>Region 3871</b>																	
24 Oct	S10E46	207	10	1	Hax	1	A										
25 Oct	S09E33	207	10	1	Axx	1	A										
26 Oct	S09E19	208	plage														
27 Oct	S09E05	208	plage														
28 Oct	S09W09	209	plage														
29 Oct	S09W23	210	plage														
30 Oct	S09W37	211	plage														
31 Oct	S09W51	212	plage														
01 Nov	S09W62	209	180	8	Dsi	10	B										
02 Nov	S09W76	210	180	9	Dao	8	BG										
03 Nov	S09W89	210	180	9	Dao	2	BG				1						
								0	0	0	1	0	0	0	0	0	

Still on Disk.  
Absolute heliographic longitude: 208



### *Region Summary - continued*

Date	Location		Sunspot Characteristics				Flares											
	Lat CMD	Helio Lon	Area 10 <sup>6</sup> hemi.	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical							
								C	M	X	S	1	2	3	4			
<b>Region 3872</b>																		
24 Oct	S15E58	195	280	9	Dhi	7	BG											
25 Oct	S15E44	196	280	9	Dki	10	BGD	1										
26 Oct	S18E40	186	280	9	Dki	10	BGD	1				4						
27 Oct	S17E28	185	300	9	Dki	12	BGD	1										
28 Oct	S17E14	186	390	12	Eko	16	BGD											
29 Oct	S16E02	185	380	5	Dko	6	B											
30 Oct	S16W12	186	320	5	Dko	4	B					1						
31 Oct	S17W24	185	270	6	Dko	6	B					1						
01 Nov	S17W36	183	220	5	Hax	2	A					1						
02 Nov	S17W51	185	180	3	Hax	5	A											
03 Nov	S16W62	183	130	3	Hax	4	A											
								3	0	0	7	0	0	0	0	0		

Still on Disk.

Absolute heliographic longitude: 185

<b>Region 3873</b>																		
24 Oct	S10E77	176	240	5	Dai	3	B											
25 Oct	S10E63	177	120	6	Dai	5	B	1	1			1						
26 Oct	S10E49	177	120	6	Dai	5	BG	1	1	1		1					1	
27 Oct	S10E36	177	90	6	Cao	5	B											
28 Oct	S12E22	178	100	7	Cai	15	B											
29 Oct	S12E10	177	70	5	Hrx	10	A		1			1						
30 Oct	S11W04	178	40	6	Hax	9	A											
31 Oct	S12W15	176	40	3	Cao	4	B											
01 Nov	S10W30	177	30	2	Hax	1	A											
02 Nov	S10W45	179	20	1	Hax	1	A											
03 Nov	S10W56	177	20	1	Hax	2	A											
								2	3	1	2	1	0	1	0			

Still on Disk.

Absolute heliographic longitude: 178



### *Region Summary - continued*

Date	Location		Sunspot Characteristics				Flares										
	Lat CMD	Helio Lon	Area 10 <sup>6</sup> hemi.	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical						
								C	M	X	S	1	2	3	4		
<b>Region 3874</b>																	
25 Oct	N27E20	220	20	3	Cro	6	B						1				
26 Oct	N27E06	220	30	4	Cao	10	B							1			
27 Oct	N27W06	219	70	7	Dai	10	B	1						2			
28 Oct	N24W20	220	160	9	Dai	25	BGD	1						4			
29 Oct	N27W31	218	190	10	Dac	25	BG										
30 Oct	N25W46	220	140	12	Eai	12	BG										
31 Oct	N25W60	221	200	11	Eai	7	B										
01 Nov	N25W72	219	180	11	Eao	7	B										
02 Nov	N26W86	220	140	11	Eao	5	B										
								2	0	0	8	0	0	0	0	0	

Crossed West Limb.

Absolute heliographic longitude: 220

<b>Region 3875</b>																	
25 Oct	N29E31	209	10	3	Bxo	3	B										
26 Oct	N29E17	209	20	4	Cao	6	B										
27 Oct	N28E04	209	30	6	Cro	7	B										
28 Oct	N27W10	210	20	6	Cro	7	B										
29 Oct	N29W19	207	10	3	Bxo	3	B										
30 Oct	N28W29	203	30	5	Cri	13	B						2				
31 Oct	N28W41	202	150	7	Dai	15	B		1				5	1			
01 Nov	N28W53	200	170	9	Dai	13	BG						3				
02 Nov	N27W69	203	130	11	Dsi	12	B						2				
03 Nov	N28W85	206	110	11	Eso	6	B	1					1				
								1	1	0	13	1	0	0	0	0	

Still on Disk.

Absolute heliographic longitude: 209



### *Region Summary - continued*

Date	Location		Sunspot Characteristics				Flares											
	Lat CMD	Helio Lon	Area 10 <sup>6</sup> hemi.	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical							
								C	M	X	S	1	2	3	4			
<b>Region 3876</b>																		
25 Oct	S01E35	205	20	4	Cro	5	B											
26 Oct	S01E20	206	20	4	Dai	5	B											
27 Oct	S01E08	205	120	7	Dsi	14	B	1				3						
28 Oct	S05W06	206	240	9	Dai	30	BG	2				2						
29 Oct	S05W18	205	290	9	Dkc	25	BGD											
30 Oct	S05W33	207	340	11	Ekc	25	BG	3				3	1					
31 Oct	S06W46	207	260	10	Dki	18	BG	7	2			10	1	1				
01 Nov	S06W60	207	180	9	Dao	7	BG	4	2			14	2					
02 Nov	S05W75	209	130	9	Dao	5	B		1			8						
03 Nov	S04W90	211	120	9	Dao	2	B											
								17	5	0	40	4	1	0	0			

Still on Disk.  
Absolute heliographic longitude: 206

<b>Region 3877</b>																		
27 Oct	S15E52	161	10	1	Axx	1	A											
28 Oct	S65E38	162	10	1	Axx	1	A											
29 Oct	S15E23	164	10	1	Axx	1	A											
30 Oct	S16E09	165	10	1	Axx	1	A											
31 Oct	S16W04	165	10	1	Axx	1	A											
01 Nov	S17W18	165	10	1	Axx	1	A	1										
02 Nov	S17W32	166	plage															
03 Nov	S17W46	167	plage															
								1	0	0	0	0	0	0	0	0	0	

Still on Disk.  
Absolute heliographic longitude: 165

<b>Region 3878</b>																		
27 Oct	N18E72	141	80	3	Dso	4	B	2	1									
28 Oct	N17E58	142	200	13	Eai	15	BG	8	2			4	1					
29 Oct	N16E51	136	290	13	Eki	8	BG	4				1						
30 Oct	N16E37	137	350	12	Eki	15	BGD	2	1			4		1				
31 Oct	N16E23	138	400	11	Eki	11	BGD	2	4	1		5	1			1		
01 Nov	N16E10	137	400	13	Eko	16	BG		2			7	1					
02 Nov	N16W03	137	400	13	Eko	15	BGD	1				3						
03 Nov	N16W16	137	320	12	Eko	18	BGD	1	1			4	2					
								20	11	1	28	5	1	1	0			

Still on Disk.  
Absolute heliographic longitude: 137



**Region Summary - continued**

Date	Location		Sunspot Characteristics				Flares											
	Lat CMD	Lon	Helio 10 <sup>6</sup> hemi.	Area	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical						
									C	M	X	S	1	2	3	4		
<b>Region 3879</b>																		
29 Oct	N14E74	113	450	5	Hkx	1	A											
30 Oct	N15E60	114	450	5	Hhx	1	A											
31 Oct	N15E50	111	570	4	Hhx	1	A											
01 Nov	N15E36	111	480	5	Hhx	1	A					1						
02 Nov	N15E23	111	500	5	Hhx	1	A											
03 Nov	N15E10	111	500	6	Hhx	1	A											
										0	0	0	1	0	0	0	0	0

Still on Disk.  
Absolute heliographic longitude: 111

<b>Region 3880</b>																		
31 Oct	S13E55	106	10	1	Axx	1	A											
01 Nov	S13E41	106	10	1	Axx	2	A											
02 Nov	S14E30	104	20	3	Bxo	4	B											
03 Nov	S14E16	105	plage															
										0	0	0	0	0	0	0	0	0

Still on Disk.  
Absolute heliographic longitude: 105

<b>Region 3881</b>																		
01 Nov	S09E26	121	50	4	Dai	5	B											
02 Nov	S09E12	122	200	7	Dao	12	B					2						
03 Nov	S09W01	122	240	8	Dai	15	BG	3				5						
								3	0	0	7	0	0	0	0	0	0	0

Still on Disk.  
Absolute heliographic longitude: 122

<b>Region 3882</b>																		
02 Nov	N23W55	189	20	2	Bxo	4	B											
03 Nov	N23W69	190	plage															
										0	0	0	0	0	0	0	0	0

Still on Disk.  
Absolute heliographic longitude: 189



### *Region Summary - continued*

Date	Location		Sunspot Characteristics					Flares							
	Lat CMD	Lon	Helio 10 <sup>-6</sup> hemi.	Area	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical			
									C	M	X	S	1	2	3

#### ***Region 3883***

02 Nov	S06E66	68	60	7	Cao	6	B										
03 Nov	S06E51	70	160	12	Eai	20	BGD	1	1			4					
								1	1	0		4	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 70

#### ***Region 3884***

02 Nov	S06E76	58	60	2	Hsx	1	A										
03 Nov	S06E65	56	70	3	Cso	2	B										
								0	0	0		0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 56

#### ***Region 3885***

03 Nov	S10W43	169	50	5	Dro	6	B										
								0	0	0		0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 169

#### ***Region 3886***

03 Nov	S05E76	45	90	6	Dao	2	B										
								0	0	0		0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 45



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

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