

Solar activity ranged from low to moderate (R1-Minor) activity levels. Low levels were observed on 12-14 and 18 October with moderate levels observed on 15-17 October. Region 2434 (S10, L=163, class/area Dki/260 on 17 Oct) produced a majority of the period's activity with 33 C-class flares and two M1/Sf flares observed on 15/2331 UTC and 16/0616 UTC. M1 flare activity was also observed from Region 2437 (S19, L=096, class/area Hax/060 on 18 Oct) at 17/2023 UTC and 17/2042 UTC. Regions 2435 (S15, L=123, class/area Hax/030 on 17 Oct) and 2436 (N09, L=112, class/area Eai/210 on 18 Oct) also produced a few C-class flares. No Earth-directed coronal mass ejections were observed during the summary period.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at high levels on 12-17 October with moderate levels recorded on 18 October. The high levels were all due to an enhanced solar wind environment caused by coronal hole high speed streams (CH HSS).

Geomagnetic field activity ranged from quiet to minor storm (G1-Minor) levels. Quiet to minor storm levels were observed on 12-14 October as Earth's geomagnetic field was under the influence of a positive polarity CH HSS. During this time frame, solar wind speeds reached a peak of about 615 km/s early on 13 October before declining to about 450 km/s by the end of the 14th. From 15-17 October, quiet to unsettled levels were observed with an isolated active period observed late on the 17th. Winds speeds, during this time frame, further declined to reach a low of about 335 km/s late on the 17th. Field levels increased to unsettled to minor storm levels on 18 October as an equatorial, positive polarity CH HSS moved into a geoeffective position. Wind speed increased to a peak of near 480 km/s by about 18/1800 UTC, total field strength peaked at 12 nT while the Bz component reached a maximum southward extent of -8 nT at about 18/0800 UTC.

Space Weather Outlook

19 October - 14 November 2015

Solar activity is expected to be at low levels with M-class (R1-R2 Minor-Moderate) flares likely through 29 October as Regions 2434 and 2437 transit the disk. Very low to low levels are expected from 30 October to 06 November. Activity levels are expected to be at low levels with M-class flares likely from 07-14 November as old Regions 2434 and 2437 rotate back onto the visible disk.

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 on 19-31 October. Moderate to high levels are expected on 01-14 November as a series of CH HSSs become geoeffective enhancing the solar wind environment.



Geomagnetic field activity is expected to be at mostly quiet to unsettled levels through 02 November with isolated active levels possible on 29 October due to weak positive polarity CH HSS effects. From 03-14 November, activity levels are expected to increase to unsettled to minor to major storm levels (G1-G2 Minor-Moderate) as a large, recurrent, equatorial, positive polarity CH HSS rotates into a geoeffective position. Minor to major storm levels are possible on 03-05 November with minor storm levels possible on 08-10 and 14 November.



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 October	89	51	100	B2.6	1	0	0	1	0	0	0	0
13 October	96	58	120	B2.8	5	0	0	0	0	0	0	0
14 October	101	56	110	B2.9	2	0	0	3	0	0	0	0
15 October	107	49	100	B3.5	14	1	0	7	0	0	0	0
16 October	109	68	200	B4.6	7	1	0	2	0	0	0	0
17 October	117	83	400	B7.1	13	2	0	7	1	0	0	0
18 October	120	81	530	B5.1	3	0	0	2	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	>100 MeV	>0.6 MeV	>2MeV	>4 MeV
	12 October	2.2e+06	1.1e+04	2.7e+03	6.2e+08	
13 October	1.1e+06	1.1e+04	2.6e+03	2.4e+08		
14 October	1.2e+06	1.1e+04	2.6e+03	2.7e+08		
15 October	3.6e+05	1.1e+04	2.6e+03	2.7e+08		
16 October	1.4e+05	1.1e+04	2.7e+03	7.9e+07		
17 October	7.1e+05	1.1e+04	2.9e+03	1.8e+08		
18 October	3.0e+05	1.2e+04	2.9e+03	1.7e+07		

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
	12 October	16	1-2-3-4-3-4-3-3	40	2-2-4-6-6-6-4-3	22
13 October	18	2-4-4-4-2-3-3-3	41	2-3-6-6-3-6-4-4	25	3-4-4-4-2-4-4-4
14 October	16	4-3-3-4-3-2-2-3	32	4-4-5-6-5-3-2-1	23	5-4-4-5-3-3-3-3
15 October	9	3-2-3-2-2-2-2-2	12	2-2-4-4-3-2-1-1	10	3-3-3-2-2-1-2-3
16 October	8	2-3-3-2-2-2-1-1	8	2-3-3-1-2-3-0-1	8	2-3-3-1-2-1-1-1
17 October	9	2-2-2-2-3-2-3-2	17	1-2-3-4-5-4-2-1	11	2-3-2-2-3-2-4-2
18 October	15	3-3-4-4-3-2-2-2	42	1-4-5-7-5-5-3-2	18	3-3-4-5-4-3-3-2



Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
12 Oct 0500	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	08/0935
12 Oct 1051	WARNING: Geomagnetic K = 4	12/1050 - 1800
12 Oct 1105	ALERT: Geomagnetic K = 4	12/1104
12 Oct 1113	WARNING: Geomagnetic K = 5	12/1112 - 1800
12 Oct 1200	ALERT: Geomagnetic K = 5	12/1159
12 Oct 1713	ALERT: Geomagnetic K = 5	12/1712
12 Oct 1750	EXTENDED WARNING: Geomagnetic K = 4	12/1050 - 13/1300
12 Oct 1750	EXTENDED WARNING: Geomagnetic K = 5	12/1112 - 13/0100
12 Oct 2037	WATCH: Geomagnetic Storm Category G1 predicted	
13 Oct 0500	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	08/0935
13 Oct 1244	WATCH: Geomagnetic Storm Category G1 predicted	
13 Oct 1255	EXTENDED WARNING: Geomagnetic K = 4	12/1050 - 14/1300
13 Oct 1546	WARNING: Geomagnetic K = 5	13/1545 - 14/0100
13 Oct 2053	WATCH: Geomagnetic Storm Category G1 predicted	
14 Oct 0039	EXTENDED WARNING: Geomagnetic K = 5	13/1545 - 14/0600
14 Oct 0259	ALERT: Geomagnetic K = 5	14/0259
14 Oct 0557	EXTENDED WARNING: Geomagnetic K = 4	12/1050 - 14/2300
14 Oct 0557	EXTENDED WARNING: Geomagnetic K = 5	13/1545 - 14/1400
14 Oct 1009	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	08/0935
14 Oct 1202	ALERT: Geomagnetic K = 5	14/1159
14 Oct 1356	EXTENDED WARNING: Geomagnetic K = 5	13/1545 - 14/2300
15 Oct 0500	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	08/0935
15 Oct 0819	WARNING: Geomagnetic K = 4	15/0830 - 1400
16 Oct 0917	SUMMARY: 10cm Radio Burst	16/0859 - 0900
16 Oct 1256	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	08/0935
16 Oct 1442	ALERT: Type II Radio Emission	16/1324

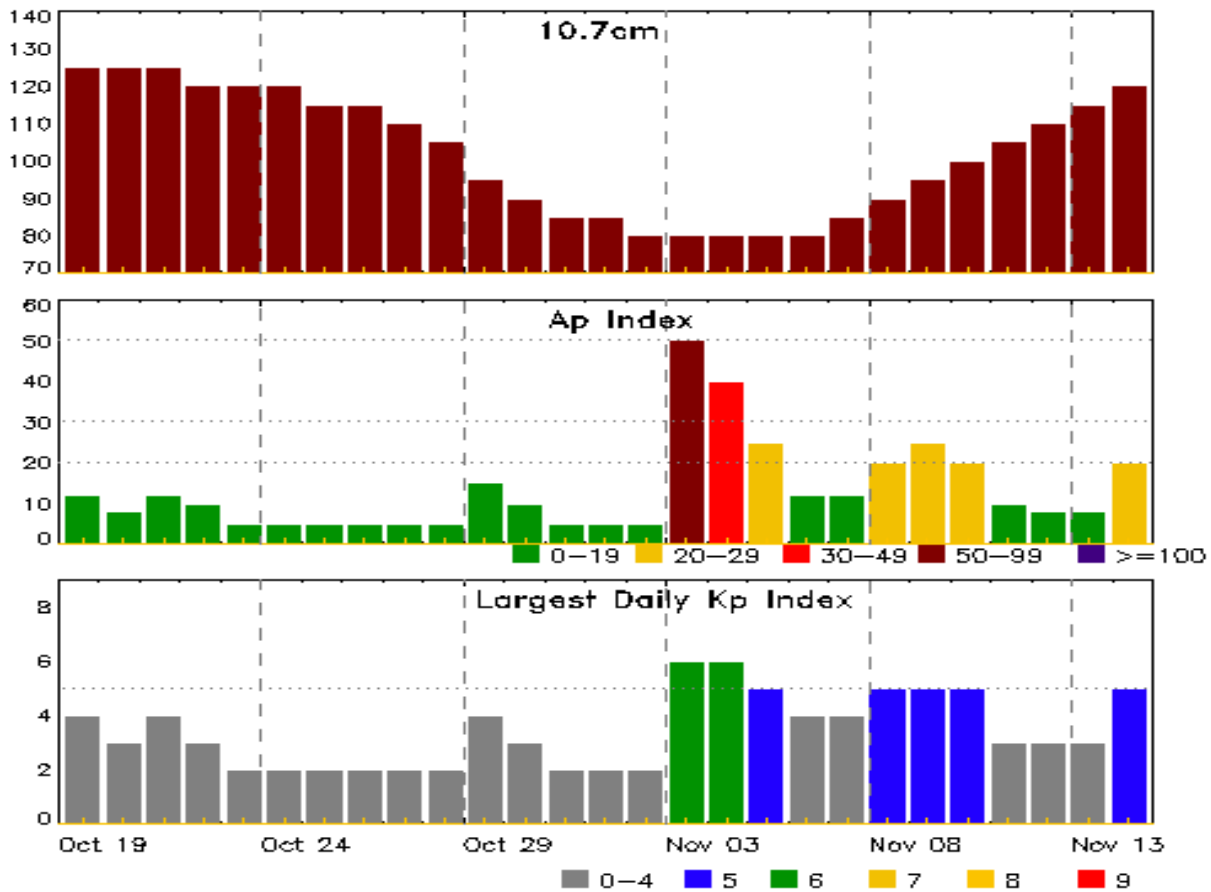


Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
16 Oct 1525	CANCELLATION: Geomagnetic Storm Category G1 predicted	
17 Oct 0820	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	08/0935
17 Oct 1832	WARNING: Geomagnetic K = 4	17/1830 - 18/0000
17 Oct 2100	ALERT: Geomagnetic K = 4	17/2059
17 Oct 2343	EXTENDED WARNING: Geomagnetic K = 4	17/1830 - 18/1000
18 Oct 0828	ALERT: Geomagnetic K = 4	18/0827
18 Oct 0930	WARNING: Geomagnetic K = 5	18/0929 - 1300
18 Oct 0944	EXTENDED WARNING: Geomagnetic K = 4	17/1830 - 18/1600
18 Oct 1020	ALERT: Geomagnetic K = 5	18/1020
18 Oct 1255	EXTENDED WARNING: Geomagnetic K = 4	17/1830 - 18/2100
18 Oct 1255	EXTENDED WARNING: Geomagnetic K = 5	18/0929 - 1800
18 Oct 2056	EXTENDED WARNING: Geomagnetic K = 4	17/1830 - 19/1000



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 Oct	125	12	4	02 Nov	80	5	2
20	125	8	3	03	80	50	6
21	125	12	4	04	80	40	6
22	120	10	3	05	80	25	5
23	120	5	2	06	80	12	4
24	120	5	2	07	85	12	4
25	115	5	2	08	90	20	5
26	115	5	2	09	95	25	5
27	110	5	2	10	100	20	5
28	105	5	2	11	105	10	3
29	95	15	4	12	110	8	3
30	90	10	3	13	115	8	3
31	85	5	2	14	120	20	5
01 Nov	85	5	2				

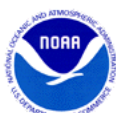


Energetic Events

Date	Time			X-ray	Optical Information				Peak		Sweep Freq	
	Begin	Max	Half	Class	Integ Flux	Imp/ Brtns	Location		Radio Flux		Intensity	
			Max				Lat	CMD	Rgn #	245	2695	II
15 Oct	2327	2331	2337	M1.1	0.005	SF	S11E50		2434			
16 Oct	0611	0616	0620	M1.1	0.004	SF	S11E46		2434	1000	90	
17 Oct	2009	2023	2028	M1.1	0.006				2437			
17 Oct	2035	2042	2046	M1.5	0.006				2437			

Flare List

Date	Time			X-ray Class	Optical		
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	Rgn #
12 Oct	0638	0657	0707	B4.8			
12 Oct	1113	1133	1156	B5.3			
12 Oct	1351	U1351	A1409		SF	S21E34	2432
12 Oct	1740	1748	1756	C1.2			2434
13 Oct	0112	0116	0126	C4.5			2434
13 Oct	0256	0303	0311	C1.2			2434
13 Oct	0753	0814	0837	C1.0			2434
13 Oct	1312	1316	1321	B4.6			2434
13 Oct	1405	1411	1414	C9.5			2434
13 Oct	1433	1444	1456	C3.3			2434
13 Oct	2126	2129	2133	B3.8			
13 Oct	2334	2340	2346	B6.4			2434
14 Oct	0709	0712	0716	B4.5			2434
14 Oct	0748	0753	0757	B8.8			2434
14 Oct	1320	1338	1345	C1.8	SF	S09E68	2434
14 Oct	1546	1554	1602	B7.6	SF	S22E05	2432
14 Oct	1737	1747	1800	C1.5	SF	S10E73	2434
14 Oct	2333	2339	2344	B8.7			2434
15 Oct	0122	0153	0230	C1.5			2434
15 Oct	0338	0345	0349	B8.0			2434
15 Oct	0622	0630	0640	B9.9			2434
15 Oct	0641	0647	0650	C1.7			2434
15 Oct	0740	0746	0749	C1.1			2434
15 Oct	0829	0904	0907	B5.9			2434
15 Oct	1011	1015	1024	B6.2			2434
15 Oct	1042	1048	1052	C2.7			2434
15 Oct	1222	1228	1231	C1.1			2434



Flare List

Date	Time			X-ray Class	Optical		Rgn #
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	
15 Oct	1312	1325	1328	C1.1			2434
15 Oct	1342	1349	1352	C3.6			2434
15 Oct	1346	1346	1356		SF	S10E55	2434
15 Oct	1609	1617	1621	C2.2	SF	S10E54	2434
15 Oct	1831	1838	1841	C3.9	SF	S11E52	2434
15 Oct	1910	1919	1924	C1.0			2434
15 Oct	1927	1932	1936	C1.1	SF	S11E52	2434
15 Oct	1951	1956	1959	C3.4	SF	S11E52	2434
15 Oct	2135	2141	2149	C3.1	SF	S11E52	2434
15 Oct	2245	2305	2326	C4.9			2434
15 Oct	2327	2331	2337	M1.1	SF	S11E50	2434
16 Oct	0445	0449	0454	B9.4			2434
16 Oct	0611	0616	0620	M1.1	SF	S11E46	2434
16 Oct	0857	0903	0906	C3.4	SF	S12E45	2434
16 Oct	0958	1002	1005	B8.3			2434
16 Oct	1013	1020	1024	C3.1			2434
16 Oct	1244	1307	1319	C3.8			2434
16 Oct	1320	1324	1328	C4.3			2435
16 Oct	1336	1342	1346	C4.2			2434
16 Oct	1754	1759	1802	C1.1			2434
16 Oct	1949	1952	2001	B7.8			2434
16 Oct	2153	2158	2215	C1.1			2434
17 Oct	0121	0140	0156	C3.4			2435
17 Oct	0243	0248	0259	C1.3	SF	S12E45	2434
17 Oct	0413	0417	0422	C2.8	SF	S15E75	2435
17 Oct	0625	0629	0632	C2.5	SF	S10E33	2434
17 Oct	0821	0822	0830		SF	S10E33	2434
17 Oct	1025	1028	1046		SF	S07E29	2434
17 Oct	1231	1235	1239	C4.5	1N	S07E27	2434
17 Oct	1245	1249	1252	C2.3			2434
17 Oct	1253	1255	1300		SF	S12E67	2435
17 Oct	1422	1429	1439	C1.8			2435
17 Oct	1538	1544	1551	C1.5			2435
17 Oct	1653	1656	1700	C1.0	SF	S09E25	2434
17 Oct	1839	1851	1900	C8.6			2437
17 Oct	2009	2023	2028	M1.1			2437
17 Oct	2035	2042	2046	M1.5			2437
17 Oct	2112	2119	2125	C4.7			2434



Flare List

Date	Time			X-ray Class	Optical		Rgn #
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	
17 Oct	2152	2159	2202	C4.8			2437
17 Oct	2318	2335	2348	C6.6			2437
18 Oct	0508	0511	0513	C1.5			2436
18 Oct	0724	0730	0750	C1.3			2436
18 Oct	B0849	U0852	A0902		SF	N12E73	2436
18 Oct	0853	0854	0856		SF	S20W21	2431
18 Oct	2002	2008	2013	C1.4			2437



Region Summary

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

Region 2428

28 Sep	S05W64	138	10	3	Bxo	4	B						1				
29 Sep	S04W76	136	20	2	Cro	4	B	1					1				
30 Sep	S04W92	139	10	1	Hrx	1	A										
								1	0	0	2	0	0	0	0	0	

Crossed West Limb.
Absolute heliographic longitude: 138

Region 2429

06 Oct	S17E56	272	10	2	Bxo	2	B										
07 Oct	S19E42	273	10	4	Bxo	3	B										
08 Oct	S19E32	270	10	5	Bxo	3	B										
09 Oct	S19E18	270	plage										1				
10 Oct	S19E04	271	plage														
11 Oct	S19W10	272	plage														
12 Oct	S19W24	273	plage														
13 Oct	S19W38	274	plage														
14 Oct	S19W52	274	plage														
15 Oct	S19W66	275	plage														
16 Oct	S19W80	276	plage														
								0	0	0	1	0	0	0	0	0	

Crossed West Limb.
Absolute heliographic longitude: 271

Region 2430

08 Oct	S17E60	242	30	1	Hrx	1	A										
09 Oct	S17E47	241	30	1	Hsx	1	A										
10 Oct	S17E33	242	20	1	Hrx	1	A										
11 Oct	S17E19	243	10	1	Hrx	1	A										
12 Oct	S17E08	241	0	1	Axx	1	A										
13 Oct	S17W06	242	plage														
14 Oct	S17W20	242	plage														
15 Oct	S17W34	243	plage														
16 Oct	S17W48	244	plage														
17 Oct	S17W62	245	plage														
18 Oct	S17W76	246	plage														
								0	0	0	0	0	0	0	0	0	

Still on Disk.
Absolute heliographic longitude: 242



Region Summary - continued

Date	Location		Sunspot Characteristics				Flares										
	Lat CMD	Helio Lon	Area 10 ⁶ hemi.	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical						
								C	M	X	S	1	2	3	4		
Region 2431																	
10 Oct	S17E75	200	30	1	Hax	1	A										
11 Oct	S18E61	201	50	1	Hax	1	A										
12 Oct	S17E46	203	50	1	Hsx	1	A										
13 Oct	S17E34	202	30	1	Hsx	1	A										
14 Oct	S17E20	202	30	1	Hsx	1	A										
15 Oct	S17E07	202	30	1	Hsx	1	A										
16 Oct	S18W07	203	20	1	Hsx	1	A										
17 Oct	S18W19	202	20	2	Cso	3	B										
18 Oct	S19W30	200	10	2	Cao	2	B					1					
								0	0	0		1	0	0	0	0	

Still on Disk.

Absolute heliographic longitude: 202

Region 2432																	
11 Oct	S23E43	219	20	3	Cro	4	B										
12 Oct	S22E30	219	20	4	Cro	5	B					1					
13 Oct	S21E17	219	20	4	Cro	7	B										
14 Oct	S21E03	219	20	6	Dro	5	B					1					
15 Oct	S21W11	220	20	6	Dro	6	B										
16 Oct	S21W23	219	10	7	Bxo	4	B										
17 Oct	S21W38	221	10	7	Bxo	3	B										
18 Oct	S21W52	222	plage														
								0	0	0		2	0	0	0	0	

Still on Disk.

Absolute heliographic longitude: 219

Region 2433																	
12 Oct	N19W55	304	30	4	Dri	4	B										
13 Oct	N19W69	305	30	4	Dri	6	B										
14 Oct	N19W83	305	10	3	Axx	2	A										
								0	0	0		0	0	0	0	0	

Crossed West Limb.

Absolute heliographic longitude: 304



Region Summary - continued

Date	Location		Sunspot Characteristics					Flares															
	Lat CMD	Helio Lon	Area 10 ⁶ hemi.	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical												
								C	M	X	S	1	2	3	4								
Region 2434																							
12 Oct	S08E88	162	plage																				
13 Oct	S08E74	162	40	1	Cao	4	B																
14 Oct	S08E60	162	50	7	Cai	8	BG						2										
15 Oct	S10E48	163	50	8	Dao	12	BG	14	1				7										
16 Oct	S10E34	162	150	7	Dai	22	BG	6	1				2										
17 Oct	S10E20	163	260	7	Dki	20	BGD	6					5	1									
18 Oct	S10E06	164	220	8	Dai	11	B																
								34	2	0		16	1	0	0	0	0						

Still on Disk.
 Absolute heliographic longitude: 164

Region 2435																							
16 Oct	S17E74	122	20	2	Hax	1	A	1															
17 Oct	S15E60	123	30	1	Hax	1	A	4					2										
18 Oct	S15E45	125	30	1	Hax	1	A																
								5	0	0		2	0	0	0	0	0						

Still on Disk.
 Absolute heliographic longitude: 125

Region 2436																							
17 Oct	N09E71	112	80	9	Dai	6	BG																
18 Oct	N09E58	112	210	12	Eai	16	BG	2					1										
								2	0	0		1	0	0	0	0	0						

Still on Disk.
 Absolute heliographic longitude: 112

Region 2437																							
17 Oct	S19E88	96	plage					3	2														
18 Oct	S19E74	96	60	2	Hax	1	A	1															
								4	2	0		0	0	0	0	0	0	0					

Still on Disk.
 Absolute heliographic longitude: 96

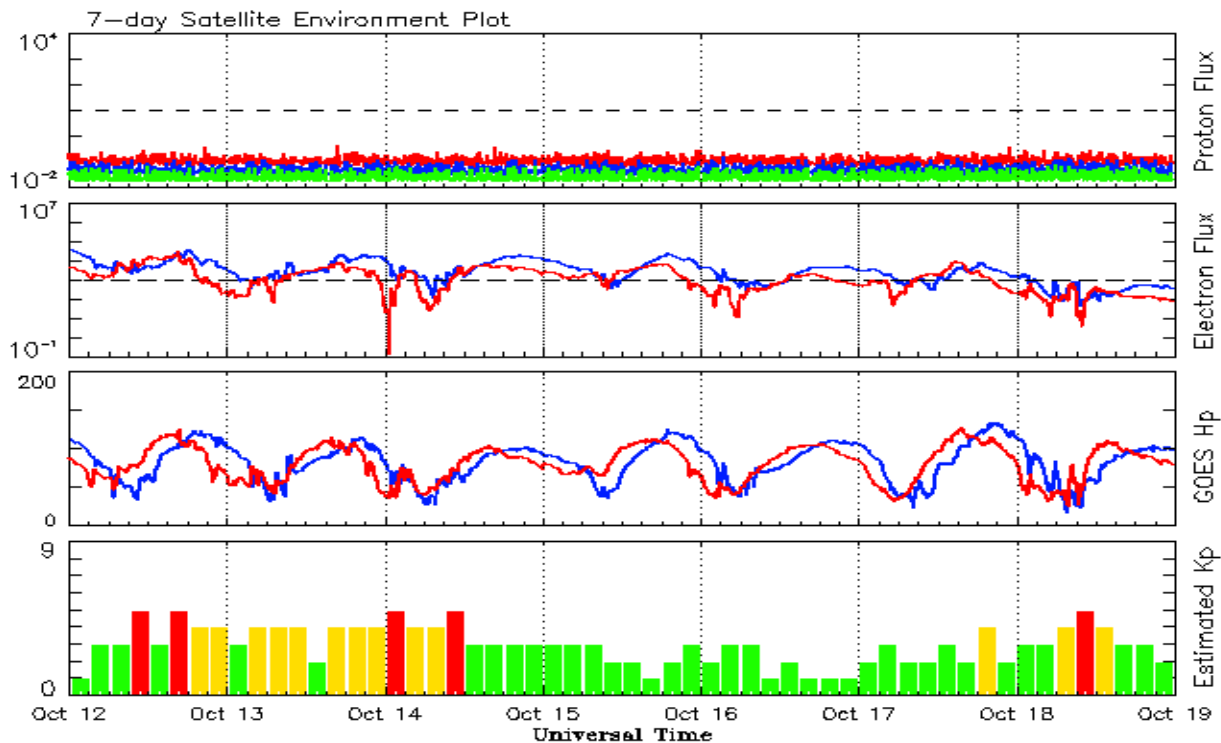


Recent Solar Indices (preliminary)
Observed monthly mean values

Month	Sunspot Numbers					Radio Flux		Geomagnetic	
	Observed values		Ratio	Smooth values		Penticton	Smooth	Planetary	Smooth
	SEC	RI	RI/SEC	SEC	RI	10.7 cm	Value	Ap	Value
2013									
October	127.1	85.6	0.67	114.3	74.9	132.3	134.7	7	7.8
November	125.7	77.6	0.62	114.6	75.3	148.4	135.4	5	7.9
December	118.2	90.3	0.76	115.4	75.9	147.7	135.9	5	7.5
2014									
January	125.9	81.8	0.65	117.7	77.3	158.6	137.3	6	7.1
February	174.6	102.3	0.59	119.5	78.3	170.3	138.6	12	6.9
March	141.1	91.9	0.65	123.2	80.8	149.9	140.8	6	7.2
April	130.5	67.5	0.65	124.8	69.8	144.3	143.5	9	7.5
May	116.8	67.5	0.64	122.3	69.0	130.0	144.7	7	7.9
June	107.7	61.7	0.66	121.4	68.5	122.2	145.5	7	8.4
July	113.6	60.1	0.64	120.4	67.6	137.3	145.2	5	8.8
August	106.2	64.1	0.70	115.1	65.0	124.7	142.8	9	8.9
September	127.4	78.0	0.69	107.4	61.1	146.1	140.1	11	9.3
October	92.0	54.0	0.66	101.7	58.4	153.7	138.4	10	9.9
November	101.8	62.2	0.69	97.9	56.8	155.3	137.4	10	10.1
December	120.0	67.7	0.65	95.2	55.3	158.7	137.0	12	10.5
2015									
January	101.2	55.8	0.66	92.1	53.6	141.7	135.8	10	11.0
February	70.6	40.0	0.63	88.3	51.7	128.8	133.8	10	11.5
March	61.7	32.7	0.62	84.2	49.3	126.0	131.2	17	12.0
April	72.5	45.2	0.75			129.2		12	
May	83.0	53.3	0.71			120.1		9	
June	77.3	39.9	0.53			123.2		14	
July	68.4	39.8	0.58			107.0		10	
August	61.6	38.8	0.63			106.2		16	
September	72.5	46.9	0.65			102.1		16	

Note: Values are final except for the most recent 6 months which are considered preliminary.
Cycle 24 started in Dec 2008 with an RI=1.7.





*Weekly Geosynchronous Satellite Environment Summary
Week Beginning 12 October 2015*

The proton flux plot contains the five-minute averaged integral proton flux (protons/cm²-sec -sr) as measured by the SWPC Primary GOES satellite, near West 75, for each of three energy thresholds: greater than 10, 50, and 100 MeV.

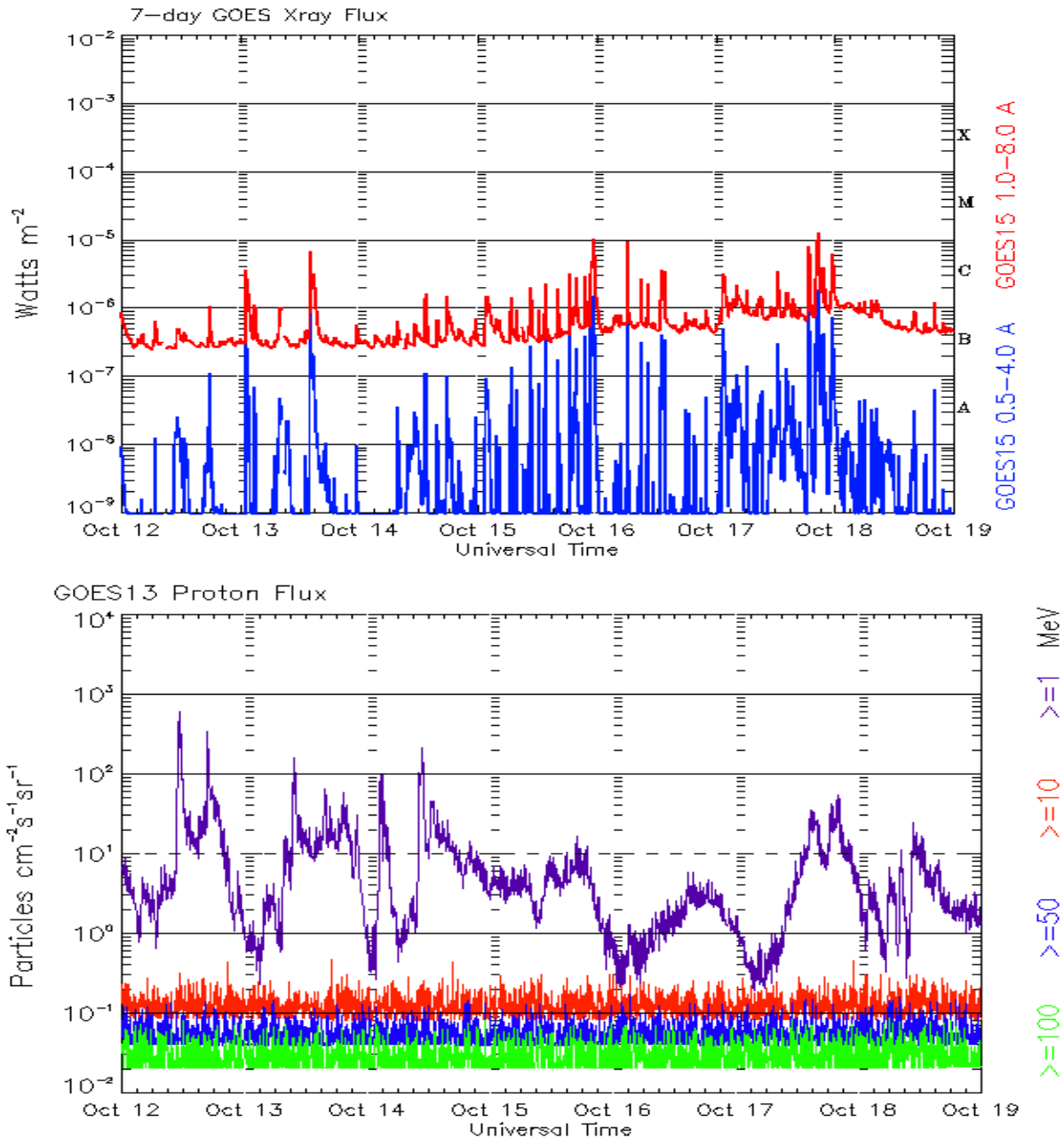
The electron flux plot contains the five-minute averaged integral electron flux (electrons/cm²-sec -sr) with energies greater than 2 MeV by the SWPC Primary GOES satellite.

The Hp plot contains the five minute averaged Hp magnetic field component in nanoteslas (nT) as by the SWPC Primary GOES satellite. The Hp component is parallel to the spin axis of the satellite, which is nearly parallel to the Earth's rotation axis.

The Estimated 3-hour Planetary Kp-index is derived at the NOAA Space Weather Prediction Center using data from the following ground-based magnetometers: Boulder, Colorado; Chambon la Foret, France; Fredericksburg, Virginia; Fresno, California; Hartland, UK; Newport, Washington; Sitka, Alaska. These data are made available thanks to the cooperative efforts between SWPC and data providers around the world, which currently includes the U.S. Geological Survey, the British Geological Survey, and the Institut de Physique du Globe de Paris.

The data included here are those now available in real time at the SWPC and are incomplete in that they do not include the full set of parameters and energy ranges known to cause satellite operating anomalies. The proton and electron fluxes and Kp are 'global' parameters that are applicable to a first order approximation over large areas. H parallel is subject to more localized phenomena and the measurements generally are applicable to within a few degrees of longitude of the measuring satellite.

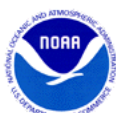




*Weekly GOES Satellite X-ray and Proton Plots
Week Beginning 12 October 2015*

The x-ray plots contains five-minute averages x-ray flux (Watt/m²) as measure by the SWPC primary GOES X-ray satellite, usually at West 105 longitude, in two wavelength bands, 0.05 - 0.4 and 0.1 - 0.8 nm. The letters A, B, C, M and X refer to x-ray event levels for the 0.1 - 0.8 nm band.

The proton plot contains the five-minute averaged intergral flux units (pfu = protons/cm² -sec -sr) as measured by the primary SWPC GOES Proton satellite for each of the energy thresholds: >1, >10, >30, and >100 MeV. The P10 event threshold is 10 pfu at greater than 10 MeV.



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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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