

Solar activity was low. Activity for the period consisted of numerous C-class flares. The primary contributors were Region 1319 (N11, L=051, class/area Eki/280 on 16 October) and 1314 (N25, L=056, class/area Cho/370 on 12 October). The background solar flux levels and sunspot numbers stayed elevated throughout the week due to the number of active regions on the disk, but most of these were stable and were not flare productive.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at background levels throughout the period.

The geomagnetic field was mostly quiet during the week. A brief substorm interval was observed at high latitudes early on 12 October. There was a modest increase to quiet to unsettled levels with some isolated active periods at high latitudes on 15-16 October. Solar wind observations from the ACE spacecraft indicated an increase in solar wind velocity on 15-16 October which had signatures consistent with a coronal hole driven high speed solar wind stream.

Space Weather Outlook
19 October - 14 November 2011

Solar activity is expected to be predominantly low with a chance for an isolated M-class event for 19 October - 01 November due to the number of active regions as well as the return of old Region 1302 (N12, L=280, class/area Fkc/1300 on 24 September), which produced two X-class flares and numerous M-class flares during its previous disk transit. Though initially very active, old Region 1302 decayed and became much less flare productive by the time it exited the solar disk on 05 October. As of the issue date of this report (18 October) old Region 1302 was just beginning to rotate onto the solar disk and appears to be a likely source for occasional C-class flares and may pose a slight threat for M-class flares. Solar activity is expected to decline to very low to low levels for the remainder of the interval from 02-14 November. As always during this time of the cycle there is also a chance for unexpected flux emergence which could elevate solar activity levels.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at background levels for most of the outlook interval with the exception of 28 October - 01 November when an increase to high levels is expected due to recurrence.

Geomagnetic field activity is expected to be quiet for 19-27 October, generally unsettled for 28-30 October, quiet for 31 October - 02 November, unsettled for 03-05 November, quiet for 06-10 November, unsettled for 11-13 November, and quiet for 14 November. The increases to unsettled levels are expected due to recurrence from coronal hole driven high speed solar wind streams.



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 October	126	87	650	B3.0	4	0	0	2	0	0	0	0
11 October	130	113	840	B3.3	1	0	0	6	0	0	0	0
12 October	134	149	1040	B4.0	11	0	0	9	0	0	0	0
13 October	138	147	1200	B4.1	8	0	0	7	1	0	0	0
14 October	136	157	1250	B3.9	7	0	0	7	0	0	0	0
15 October	138	166	1290	B4.5	10	0	0	5	0	0	0	0
16 October	151	158	1240	B8.6	11	0	0	10	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
	10 October	1.0e+05	1.2e+04	3.0e+03		1.1e+06
11 October	1.3e+05	1.3e+04	3.1e+03		1.4e+06	
12 October	2.3e+05	1.2e+04	3.0e+03		2.2e+06	
13 October	1.4e+05	1.3e+04	2.9e+03		2.4e+06	
14 October	1.7e+05	1.2e+04	3.0e+03		2.5e+06	
15 October	3.8e+05	1.1e+04	2.6e+03		2.1e+06	
16 October	2.1e+05	1.2e+04	3.0e+03		1.7e+06	

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
	10 October	2	0-2-1-0-1-0-0-0	1	0-1-0-0-0-1-1-0	3
11 October	3	0-0-1-0-2-2-1-1	1	0-0-0-0-1-1-1-0	4	0-0-1-0-2-2-1-1
12 October	4	1-2-2-1-1-1-1-0	8	0-0-5-1-1-1-1-1	6	1-2-2-1-2-1-3-1
13 October	3	1-2-1-1-1-0-1-0	4	0-1-3-2-2-1-0-0	5	1-2-0-2-1-2-2-1
14 October	1	0-0-0-0-1-0-1-0	-1	0-0-0-0-0-0-1-0	2	0-0-0-0-2-1-1-1
15 October	4	2-1-0-1-2-2-1-1	8	2-2-0-1-4-3-1-1	8	3-2-0-1-2-3-2-2
16 October	7	2-3-1-0-3-1-1-2	7	1-2-0-2-4-1-1-2	7	2-3-0-1-2-2-2-2

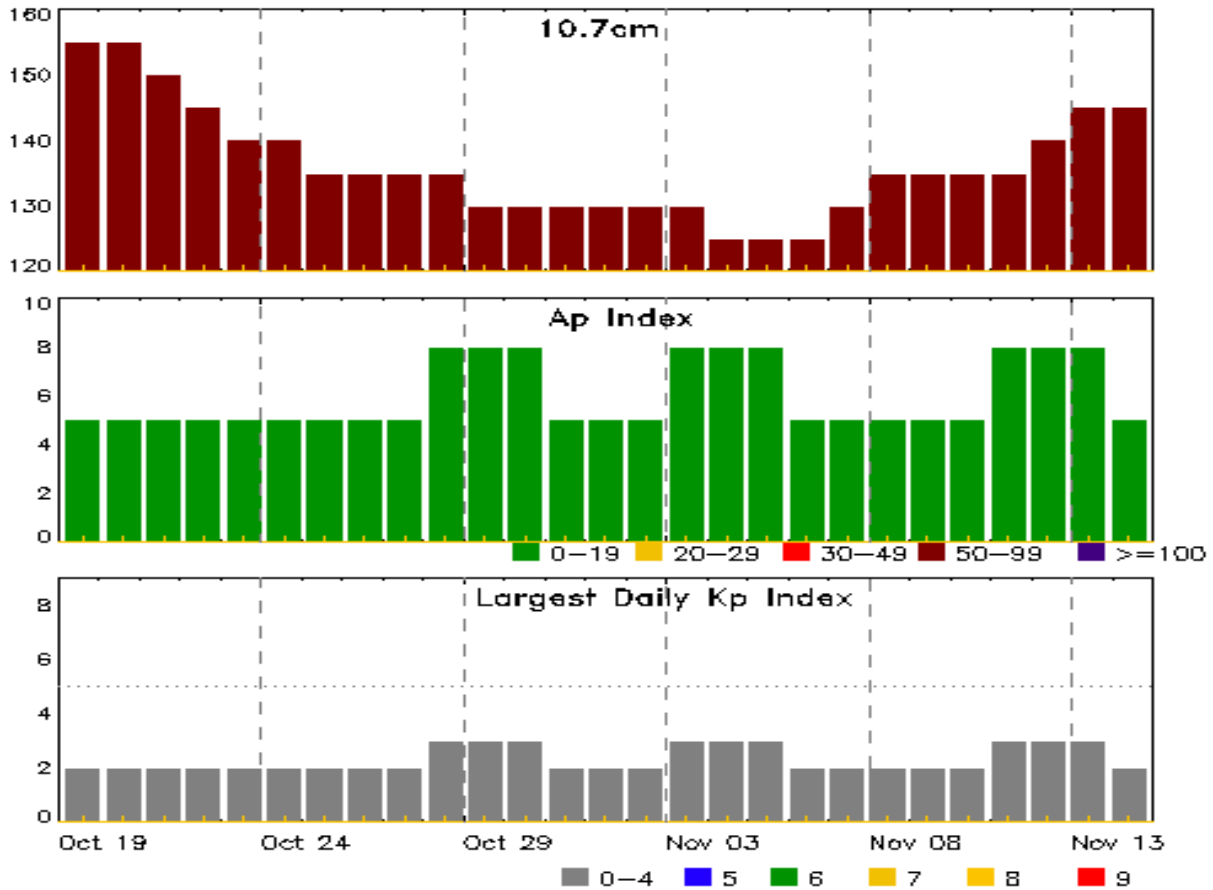


Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
16 Oct 1434	ALERT: Type II Radio Emission	16/1357
16 Oct 1434	ALERT: Type IV Radio Emission	16/1409



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	155	5	2	02 Nov	130	5	2
20	155	5	2	03	130	8	3
21	150	5	2	04	125	8	3
22	145	5	2	05	125	8	3
23	140	5	2	06	125	5	2
24	140	5	2	07	130	5	2
25	135	5	2	08	135	5	2
26	135	5	2	09	135	5	2
27	135	5	2	10	135	5	2
28	135	8	3	11	135	8	3
29	130	8	3	12	140	8	3
30	130	8	3	13	145	8	3
31	130	5	2	14	145	5	2
01 Nov	130	5	2				



Energetic Events

Date	Time			X-ray	Optical Information			Peak		Sweep Freq		
	Begin	Max	Half Max	Class	Integ Flux	Imp/ Brtns	Location Lat CMD	Rgn #	Radio Flux		Intensity	
									245	2695	II	IV

No Events Observed

Flare List

Date	Time			X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
	Begin	Max	End				
10 Oct	0439	0445	0450	B8.8			1314
10 Oct	0506	0511	0513	B6.5			
10 Oct	0707	0719	0727	C3.8	SF	S13E10	1313
10 Oct	0910	0917	0929	C1.0			1313
10 Oct	1133	1142	1153	C1.4			1313
10 Oct	1359	1402	1404	B5.3			
10 Oct	1430	1435	1437	C4.5	SF	S13E03	1313
10 Oct	2220	2223	2226	B6.2			1315
11 Oct	0030	0035	0037	B5.8			
11 Oct	1419	1428	1444		SF	S12E63	
11 Oct	1445	1446	1450		SF	S12E63	
11 Oct	1456	1457	1500		SF	N24E52	1314
11 Oct	1921	1925	1939	B6.1			1316
11 Oct	2206	2209	2216		SF	S11E58	1316
11 Oct	2243	2323	2341		SF	S11E58	1316
11 Oct	2257	2258	2318		SF	S13E58	1316
11 Oct	2319	2323	2325	C1.1	SF	S14E57	1316
11 Oct	2357	0001	A0002		SF	S10E57	1316
12 Oct	0005	0006	0009		SF	N28E48	1314
12 Oct	0031	0047	0059		SF	S13E57	1316
12 Oct	0612	0618	0623	C4.4			1314
12 Oct	0742	0757	0811	C1.4	SF	N09E54	1314
12 Oct	0841	0843	0847		SF	N09E53	
12 Oct	0923	0931	0939		SF	N10E50	
12 Oct	0946	0951	0955	C1.7	SF	S12E54	1316
12 Oct	1033	1040	1048	C1.7			1314
12 Oct	1130	1137	1144	C5.3	SF	N10E51	1319
12 Oct	1413	1420	1432	C4.3	SF	N10E51	1319
12 Oct	1518	1522	1524	C1.1	SF	N24E38	1314
12 Oct	1627	1631	1635	C1.3			1319
12 Oct	1637	1644	1651	C2.7			1319



Flare List

Date	Time			X-ray Class	Optical		Rgn #
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	
12 Oct	1825	1830	1837	B7.5			1319
12 Oct	1839	1846	1852	C1.0			1319
12 Oct	1943	1950	2004	C1.4			1314
12 Oct	2158	2202	2207	B6.4			1315
13 Oct	0025	0031	0035	C2.0	SF	N10E45	1319
13 Oct	0300	0305	0312	C1.3	SF	N10E43	1319
13 Oct	0707	0711	0714	C1.2	1F	N23E31	1314
13 Oct	0937	0946	0958	C1.0	SF	S12W27	1313
13 Oct	1129	1223	1255	C2.2			1313
13 Oct	1137	1138	1155		SF	N11E37	1319
13 Oct	1449	1453	1455	B8.6	SF	N26E23	1314
13 Oct	1505	1518	1522	C1.6			
13 Oct	1816	1850	1900	C2.0			1319
13 Oct	1819	1819	1822		SF	N11E31	1319
13 Oct	1847	1849	1900		SF	N10E33	1319
13 Oct	2359	0003	0014	C1.5			
14 Oct	0402	0403	0409		SF	S27E42	1317
14 Oct	0516	0520	0522	B6.8			
14 Oct	0626	0629	0631	C1.0	SF	S13E24	1316
14 Oct	0823	0830	0832	B7.1	SF	N25W46	1312
14 Oct	0851	0855	0858	C1.1	SF	S13E24	1316
14 Oct	1509	1513	1516	C1.1	SF	S12E20	1316
14 Oct	1824	1824	1830		SF	S23E32	1317
14 Oct	1930	1943	1954	C1.1			
14 Oct	2039	2046	2053	C1.3			1319
14 Oct	2131	2137	2143	C1.3	SF	N11E18	1319
14 Oct	2313	2316	2320	C1.1			1319
15 Oct	0107	0112	0121	C1.3			1319
15 Oct	0419	0500	0504	C2.3	SF	N28E06	1318
15 Oct	1107	1124	1148	C1.1			1313
15 Oct	1236	1239	1241	C1.6			1314
15 Oct	1318	1325	1333	C2.0	SF	N09E08	1319
15 Oct	1356	1413	1420	C5.0	SF	N13E07	1319
15 Oct	1610	1621	1626	C2.3	SF	N10E07	1319
15 Oct	1724	1730	1743	C1.3			
15 Oct	1813	1819	1825	C1.5	SF	S10E08	1316
15 Oct	2035	2047	2056	C3.9			
16 Oct	0135	0140	0147	C1.8			1319



Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/Brtns	Location Lat CMD	Rgn #
16 Oct	0328	0334	0339	C1.9	SF	N11E01	1319
16 Oct	0427	0441	0451	C1.3			1319
16 Oct	0641	0701	0728	C2.8			1319
16 Oct	0652	0702	0714		SF	N23W02	1314
16 Oct	0658	0701	0719		SF	N11W05	1319
16 Oct	0931	0942	0954	C2.0			1319
16 Oct	0938	0941	0950		SF	N12W05	1314
16 Oct	0940	0941	0957		SF	N13W04	1319
16 Oct	1034	1036	1046		SF	N11W07	1319
16 Oct	1153	1219	1234	C1.8			
16 Oct	1351	1355	1357	C1.4	SF	S24E11	1317
16 Oct	1416	1421	1429		SF	N29W14	1314
16 Oct	1428	1435	1449	C3.7	SF	N11W09	1319
16 Oct	1459	1509	1529	C6.3	SF	N13W08	1319
16 Oct	1553	1557	1559	C4.4			
16 Oct	1728	1737	1748	C1.9			



Region Summary

Date	Location		Sunspot Characteristics				Flares										
	Lat CMD	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 1307																	
28 Sep	N14E75	201	10	4	Bxo	2	B										
29 Sep	N16E65	198	10	11	Bxo	4	B										
30 Sep	N14E48	201	30	10	Cso	3	B	1									
01 Oct	N14E37	199	30	10	Dro	4	B					1					
02 Oct	N15E22	200	30	12	Ero	5	B										
03 Oct	N13E05	205	15	1	Hrx	1	A										
04 Oct	N15W01	198	10	7	Bxo	4	B										
05 Oct	N17W11	194	10	4	Bxo	3	B										
06 Oct	N17W25	196	plage														
07 Oct	N17W39	197	plage														
08 Oct	N17W53	198	plage														
09 Oct	N17W67	199	plage														
10 Oct	N17W81	200	plage														
								1	0	0		1	0	0	0	0	0

Crossed West Limb.
 Absolute heliographic longitude: 198

Region 1308																	
01 Oct	S25E55	181	30	1	Hsx	1	A										
02 Oct	S25E43	180	30	1	Hrx	1	A										
03 Oct	S25E29	182	plage														
04 Oct	S25E15	183	plage														
05 Oct	S25E01	184	plage														
06 Oct	S25W13	184	plage														
07 Oct	S25W27	185	plage														
08 Oct	S25W41	186	plage														
09 Oct	S25W55	187	plage														
10 Oct	S25W69	188	plage														
11 Oct	S25W83	188	plage														
								0	0	0		0	0	0	0	0	0

Crossed West Limb.
 Absolute heliographic longitude: 184



Region Summary - continued

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	4							
Region 1309																							
02 Oct	N23E67		156	80	4	Dso	2	B															
03 Oct	N24E55		155	160	4	Dao	3	B															
04 Oct	N24E42		156	160	4	Dao	6	B															
05 Oct	N24E28		156	160	3	Dso	3	B															
06 Oct	N22E14		156	170	3	Cso	5	B															
07 Oct	N23E02		156	80	3	Dso	4	B															
08 Oct	N22W11		155	70	4	Dso	3	B	1														
09 Oct	N23W24		155	70	1	Hsx	1	A															
10 Oct	N23W38		156	40	2	Hsx	2	A															
11 Oct	N23W51		155	40	1	Hsx	1	A															
12 Oct	N23W62		153	40	1	Cso	1	B															
13 Oct	N23W75		153	70	1	Hsx	1	A															
14 Oct	N24W86		151	60	3	Hsx	1	A															
									1	0	0	0	0	0	0	0	0	0	0	0	0	0	

Crossed West Limb.
 Absolute heliographic longitude: 156

Region 1310																							
03 Oct	S33E16		194	10	2	Bxo	3	B															
04 Oct	S33E02		195	45	6	Dao	8	B															
05 Oct	S32W10		194	30	8	Dro	3	B															
06 Oct	S33W23		194	30	10	Cro	4	B															
07 Oct	S34W38		196	10	2	Hrx	1	A															
08 Oct	S34W51		196	10	1	Axx	1	A															
09 Oct	S33W66		197	10		Axx	1	A															
10 Oct	S33W80		199	plage																			
									0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Crossed West Limb.
 Absolute heliographic longitude: 195



Region Summary - continued

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	4		
<i>Region 1311</i>																		
04 Oct	S12E20	176	70	12	Dai	12	B											
05 Oct	S11E07	176	90	6	Dso	4	B											
06 Oct	S12W07	177	60	3	Cso	3	B											
07 Oct	S11W22	179	50	4	Cso	2	B											
08 Oct	S13W36	180	50	1	Hsx	1	A											
09 Oct	S11W50	180	40	1	Hsx	1	A											
10 Oct	S12W63	181	40	1	Hsx	1	A											
11 Oct	S12W77	182	30	1	Hsx	1	A											
										0	0	0	0	0	0	0	0	0

Died on Disk.

Absolute heliographic longitude: 176

<i>Region 1312</i>																		
04 Oct	N22E74	122	210	4	Hsx	1	A											
05 Oct	N23E60	123	210	2	Hsx	1	A											
06 Oct	N22E48	122	210	2	Hsx	1	A											
07 Oct	N22E35	123	320	3	Hhx	1	A											
08 Oct	N23E21	122	200	3	Hsx	1	A											
09 Oct	N23E10	121	210	3	Hsx	1	A											
10 Oct	N22W03	121	210	7	Hsx	1	A											
11 Oct	N22W16	121	210	7	Hsx	1	A											
12 Oct	N23W29	120	210	3	Cso	3	B											
13 Oct	N23W42	120	190	3	Hsx	1	A											
14 Oct	N23W55	120	270	3	Hhx	1	A						1					
15 Oct	N23W68	121	180	3	Hsx	1	A											
16 Oct	N22W81	120	180	2	Hsx	1	A											
										0	0	0	1	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 121



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 1313																	
05 Oct	S13E65	118	90	5	Dai	4	B	4			4						
06 Oct	S15E52	118	180	8	Dai	10	B	1									
07 Oct	S16E39	118	140	6	Dsi	6	B	1			1						
08 Oct	S15E28	116	120	10	Dso	5	B										
09 Oct	S15E13	117	90	9	Dso	6	B										
10 Oct	S15E01	117	90	9	Dai	15	B	4			2						
11 Oct	S15W13	118	120	9	Dai	18	B										
12 Oct	S14W25	116	140	10	Dso	20	BG										
13 Oct	S14W38	116	110	9	Cso	10	BG	2			1						
14 Oct	S16W52	117	80	5	Dso	5	B										
15 Oct	S16W64	117	70	5	Dso	5	B	1									
16 Oct	S16W78	117	10	1	Axx	2	A										
								13	0	0	8	0	0	0	0		

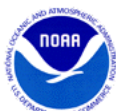
Still on Disk.
Absolute heliographic longitude: 117

Region 1314																	
09 Oct	N26E72	58	180	6	Hsx	1	A	1									
10 Oct	N27E59	59	230	3	Hsx	2	A										
11 Oct	N27E45	60	250	3	Cho	2	B				1						
12 Oct	N25E33	58	370	7	Cho	4	B	5			2						
13 Oct	N27E21	57	300	5	Cko	3	B	1			1	1					
14 Oct	N26E09	56	280	6	Cho	6	B										
15 Oct	N28W04	56	330	5	Cho	4	B	1									
16 Oct	N28W18	57	310	5	Cho	4	B				3						
								8	0	0	7	1	0	0	0		

Still on Disk.
Absolute heliographic longitude: 56

Region 1315																	
10 Oct	N20E08	111	40	4	Dao	6	B										
11 Oct	N20W06	111	40	4	Dao	6	B										
12 Oct	N19W19	110	10	3	Bxo	4	B										
13 Oct	N19W31	109	10	3	Bxo	3	B										
14 Oct	N20W44	110	10	2	Bxo	3	B										
								0	0	0	0	0	0	0	0		

Died on Disk.
Absolute heliographic longitude: 111



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 1316																
11 Oct	S12E56	48	60	3	Dai	3	B	1			3					
12 Oct	S14E42	48	160	8	Dsi	12	B	1			2					
13 Oct	S12E28	49	310	7	Dko	10	B									
14 Oct	S12E15	49	330	8	Dhc	9	B	3			3					
15 Oct	S12E03	49	340	8	Dhi	11	B	1			1					
16 Oct	S12W11	50	340	8	Dhi	11	B									
								6	0	0	9	0	0	0	0	

Still on Disk.
 Absolute heliographic longitude: 49

Region 1317																
11 Oct	S26E68	37	90	2	Hsx	1	A									
12 Oct	S27E54	37	70	2	Hsx	1	A									
13 Oct	S27E41	36	70	1	Hsx	1	A									
14 Oct	S26E28	37	70	2	Hsx	1	A				2					
15 Oct	S26E15	37	80	2	Hsx	1	A									
16 Oct	S26E01	38	80	2	Hsx	1	A	1			1					
								1	0	0	3	0	0	0	0	

Still on Disk.
 Absolute heliographic longitude: 38

Region 1318																
12 Oct	N21W03	94	10	2	Dao	3	B									
13 Oct	N20W18	96	50	4	Dso	4	B									
14 Oct	N20W31	96	40	5	Cso	7	B									
15 Oct	N25W46	98	20	2	Cso	4	B	1			1					
16 Oct	N21W58	97	10	1	Axx	1	A									
								1	0	0	1	0	0	0	0	

Still on Disk.
 Absolute heliographic longitude: 94



Region Summary - continued

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	4							
Region 1319																							
12 Oct	N08E42		49	30	5	Dai	11	B	5				1										
13 Oct	N10E29		48	80	7	Cso	11	B	3				5										
14 Oct	N09E16		48	80	12	Esi	20	B	3				1										
15 Oct	N11E01		51	240	11	Eai	30	B	4				3										
16 Oct	N11W13		52	280	12	Eki	30	BG	7				6										
									22	0	0	0	16	0	0	0	0	0	0	0	0	0	

Still on Disk.

Absolute heliographic longitude: 51

Region 1320

13 Oct	S22W39		117	10	3	Bxo	3	B														
14 Oct	S21W51		117	30	5	Cro	4	B														
15 Oct	S21W65		118	10	5	Axx	4	A														
16 Oct	S21W76		115	10	2	Axx	2	A														
									0	0	0	0	0	0	0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 117

Region 1321

15 Oct	S14E50		1	10	3	Bxo	2	B														
16 Oct	S14E37		2	10	4	Bxo	2	B														
									0	0	0	0	0	0	0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 2

Region 1322

15 Oct	S27W51		104	10	5	Bxo	4	B														
16 Oct	S27W64		103	10	5	Bxo	4	B														
									0	0	0	0	0	0	0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 104

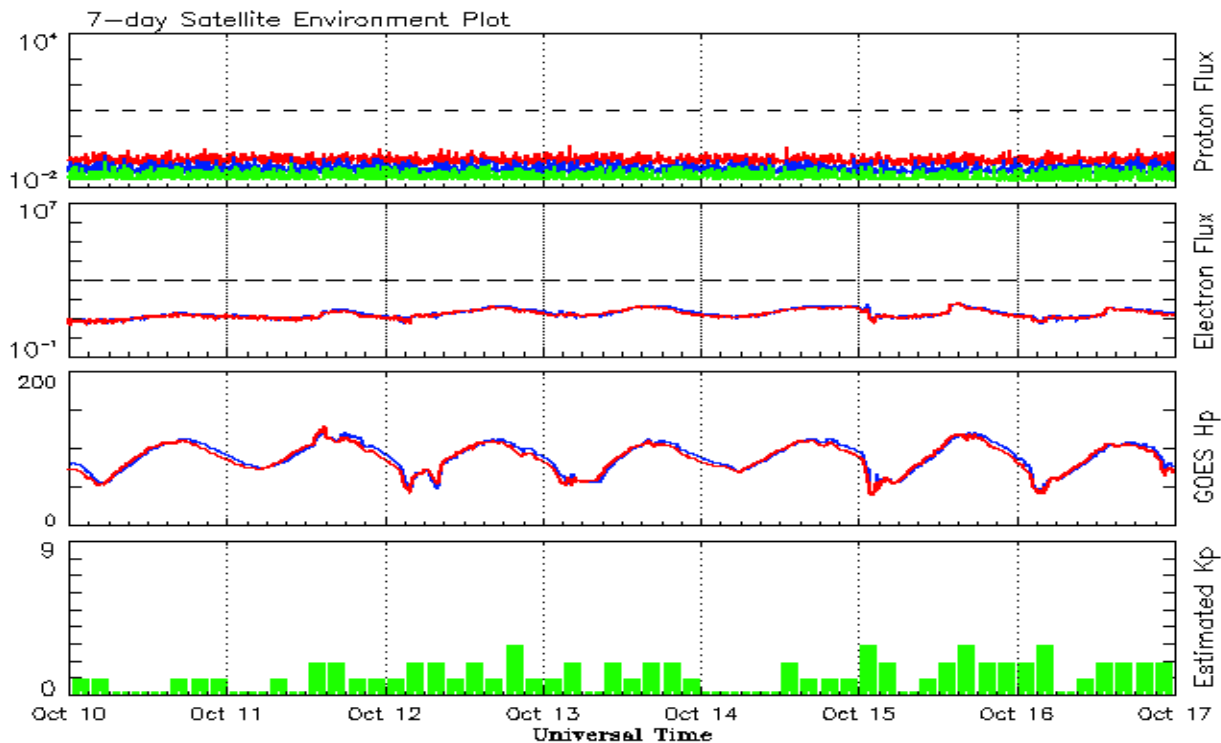


Recent Solar Indices (preliminary)
Observed monthly mean values

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
2009									
October	7.0	4.8	0.66	11.3	7.1	72.3	74.1	3	4.1
November	7.7	4.1	0.55	12.4	7.6	73.6	74.5	3	4.5
December	15.7	10.8	0.68	13.6	8.3	76.8	74.9	2	4.8
2010									
January	21.3	13.2	0.62	14.8	9.3	81.1	75.5	3	5.0
February	31.0	18.8	0.60	16.7	10.6	84.7	76.5	5	5.1
March	24.7	15.4	0.62	19.1	12.3	83.3	77.5	5	5.3
April	11.2	8.0	0.71	21.4	14.0	75.9	78.3	10	5.5
May	19.9	8.7	0.44	23.8	15.5	73.8	79.0	8	5.7
June	17.9	13.6	0.75	25.2	16.4	72.6	79.7	7	5.8
July	23.1	16.1	0.70	25.9	16.7	79.9	80.1	5	6.0
August	28.2	19.6	0.70	27.3	17.4	79.7	80.7	8	6.2
September	35.6	25.2	0.71	30.6	19.6	81.1	82.4	5	6.3
October	35.0	23.5	0.67	35.9	23.2	81.6	85.3	6	6.4
November	36.1	21.5	0.60	40.5	26.5	82.5	87.7	5	6.4
December	22.0	14.4	0.66	43.8	28.8	84.3	89.6	4	6.5
2011									
January	32.1	18.8	0.59	47.2	31.0	83.7	91.2	6	6.7
February	53.2	29.6	0.55	50.6	33.4	94.5	92.7	6	6.8
March	81.0	55.8	0.69	55.2	36.9	115.3	95.8	7	7.2
April	81.7	54.4	0.67			112.6		9	
May	61.4	41.6	0.68			95.9		9	
June	55.5	37.0	0.67			95.8		8	
July	67.0	43.9	0.66			94.2		9	
August	66.1	50.6	0.77			101.7		8	
September	106.4	78.0	0.73			134.5		13	

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 10 October 2011*

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.

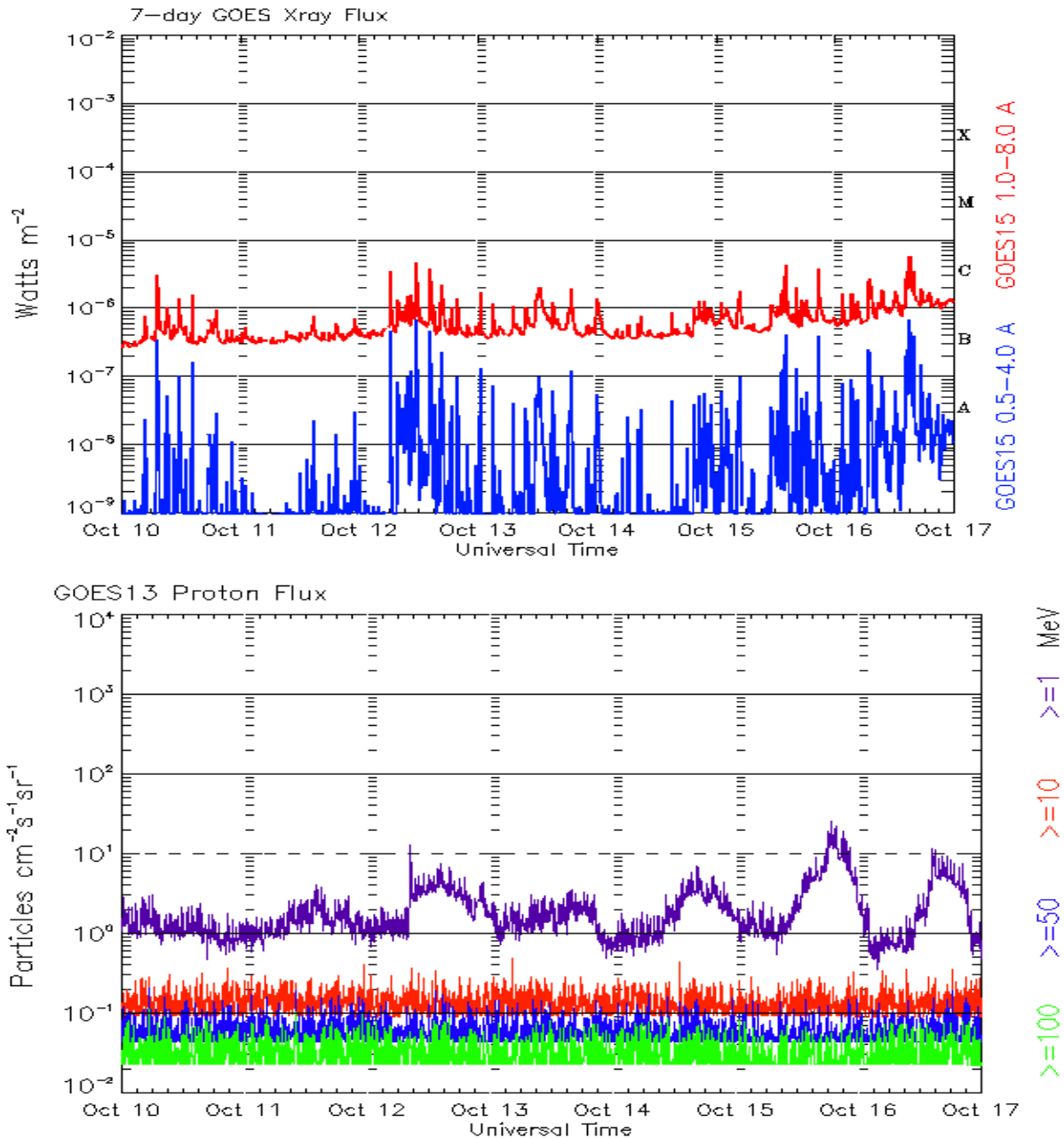
The electron flux plot contains the five-minute averaged integral electron flux (electrons/cm²-sec -sr) with energies greater than 2 MeV by the SWPC Primary GOES satellite.

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.

Kp plot contains the estimated planetary 3-hour K-index (derived by the Air Force Weather Agency) in real time from magnetometers at Meanook, Canada; Sitka, AK; Glenlea, Canada; St. Johns, Canada; Ottawa, Canada; Newport, WA; Fredericksburg, VA; Boulder, CO; Fresno, CA and Hartland, UK. These data are made available through cooperation from the Geological Survey of Canada (GSC), British Geological Survey (BGS) and the US Geological Survey. These may differ from the final Kp values derived from a more extensive network of magnetometers.

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 10 October 2011*

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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