

Solar activity has been at very low to low levels. Very low levels were observed on 24 October while low levels dominated the remainder of the summary period. Despite the large size and magnetic complexity (Beta-Gamma) of Region 1330 (N08, L=249, class/area, Eko/560 on 24 October), the region only managed three low level C-flares on 25 and 30 October. Region 1324 (N11, L=305, class/area, Ekc/360 on 20 October) was the largest producer of low level C-class activity with a total of five flares; the largest of the period, a C3 that occurred at 29/1452 UTC. Four relatively slow-moving CMEs were observed in association with disappearing solar filaments beginning at 22/0058 UTC, 26/0800 UTC, and 28/0218 UTC, and finally 28/1652 UTC, observed in SOHO/LASCO imagery. The first event became geoeffective late on 24 October while a glancing blow from the second event arrived early on the 30 October, and third CME is not expected to be geoeffective. The final CME is expected to arrive sometime on 31 October.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at normal levels the entire period.

The geomagnetic field ranged from quiet to severe storm levels. The period began with solar wind speeds, as measured by the ACE Spacecraft, steady near 300 km/s with the total interplanetary magnetic field (IMF Bt) around 6 nT. The geomagnetic field was quiet during these periods. By late on 24 October, an interplanetary shock was observed in ACE data at 24/1748 UTC in association with the CME from 22/0058 UTC. A Sudden Impulse (SI) was observed at the Boulder magnetometer of 13 nT at 24/1832 UTC. Solar wind velocities increased from a steady 350 km/s to about 525 km/s. The IMF Bt increased to above 20 nT from about 24/2000 UTC through 25/1300 UTC and gradually decreased to about 8 nT by late on 25 October. The Bz component of the IMF reached southward values of -20 nT from about 24/2000 UTC through 25/0000 UTC. The geomagnetic field from 24/1800 UTC - 25/1200 UTC responded with active to major storm periods with an isolated severe storm period observed from 24/2100-2400 UTC. By 26 October, solar wind speed declined to around 400 km/s with the IMF Bt around 7 nT. Solar wind speed continued to decline to approximately 300 km/s by the end of the period. The geomagnetic field was mostly quiet the rest of the period.

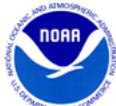
Space Weather Outlook

02 November - 28 November 2011

Solar activity is expected to be at predominately low to moderate levels from 02 November - 15 November as Regions 1338 (S12, L=119, class/area Dao/120 on 01 November) and 1339 (N22, L=117, class/area Dao/180 on 01 November) rotate further onto the visible solar disk. A return to mostly low levels is expected for the remainder of the period.

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 throughout the period.

The geomagnetic field is expected to be generally unsettled on 02 November as the effects of a CME wane. Predominantly quiet conditions are expected from 03-04 November. An increase to unsettled to active conditions is expected from 05-07 November as the combined effects of a coronal hole high speed stream (CH HSS) and another CME are expected. A return to quiet levels is expected from 08-10 November. Another small increase to unsettled conditions is expected from 11-13 November, as another CH HSS becomes geoeffective. A return to predominantly quiet levels is expected from 14 - 25 November. Quiet to unsettled levels are expected for the remainder of the period, as another CH HSS becomes geoeffective.



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
24 October	145	151	1240	B5.4	0	0	0	0	0	0	0	0
25 October	139	147	990	B4.8	1	0	0	1	0	0	0	0
26 October	132	104	690	B4.3	1	0	0	0	0	0	0	0
27 October	132	98	730	B3.4	1	0	0	0	0	0	0	0
28 October	134	104	650	B5.0	3	0	0	2	0	0	0	0
29 October	123	73	530	B4.3	5	0	0	1	0	0	0	0
30 October	127	80	500	B5.0	8	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
	24 October	1.2e+08	2.3e+05	3.3e+03		2.0e+06
25 October	3.8e+07	4.6e+04	2.3e+03		8.3e+05	
26 October	4.9e+06	1.6e+04	3.3e+03		7.0e+05	
27 October	6.5e+05	1.3e+04	3.3e+03		7.0e+05	
28 October	3.1e+05	1.2e+04	3.3e+03		7.9e+05	
29 October	3.9e+05	1.3e+04	3.2e+03		8.5e+05	
30 October	4.5e+05	1.3e+04	3.3e+03		7.8e+05	

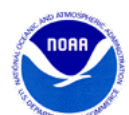
Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
	24 October	16	2-0-1-1-1-1-4-6	9	0-0-1-2-0-0-3-5	23
25 October	27	4-5-6-4-3-2-2-2	26	5-4-6-4-3-2-1-1	33	6-6-5-3-3-2-2-1
26 October	4	1-1-1-1-2-2-1-1	3	1-1-1-2-0-1-1-1	3	1-0-0-0-1-1-1-1
27 October	4	1-2-2-1-2-1-1-0	4	1-1-2-2-2-1-0-0	4	1-2-2-1-1-1-0-1
28 October	1	0-0-0-1-1-0-1-0	0	0-0-0-0-0-0-0-0	2	0-0-0-0-0-1-1-1
29 October	2	0-0-0-1-2-1-1-0	0	0-0-0-0-0-0-0-0	2	0-0-0-0-0-1-1-1
30 October	4	0-0-0-2-2-2-2-2	17	0-1-0-5-4-5-1-1	6	1-0-0-1-2-3-1-2

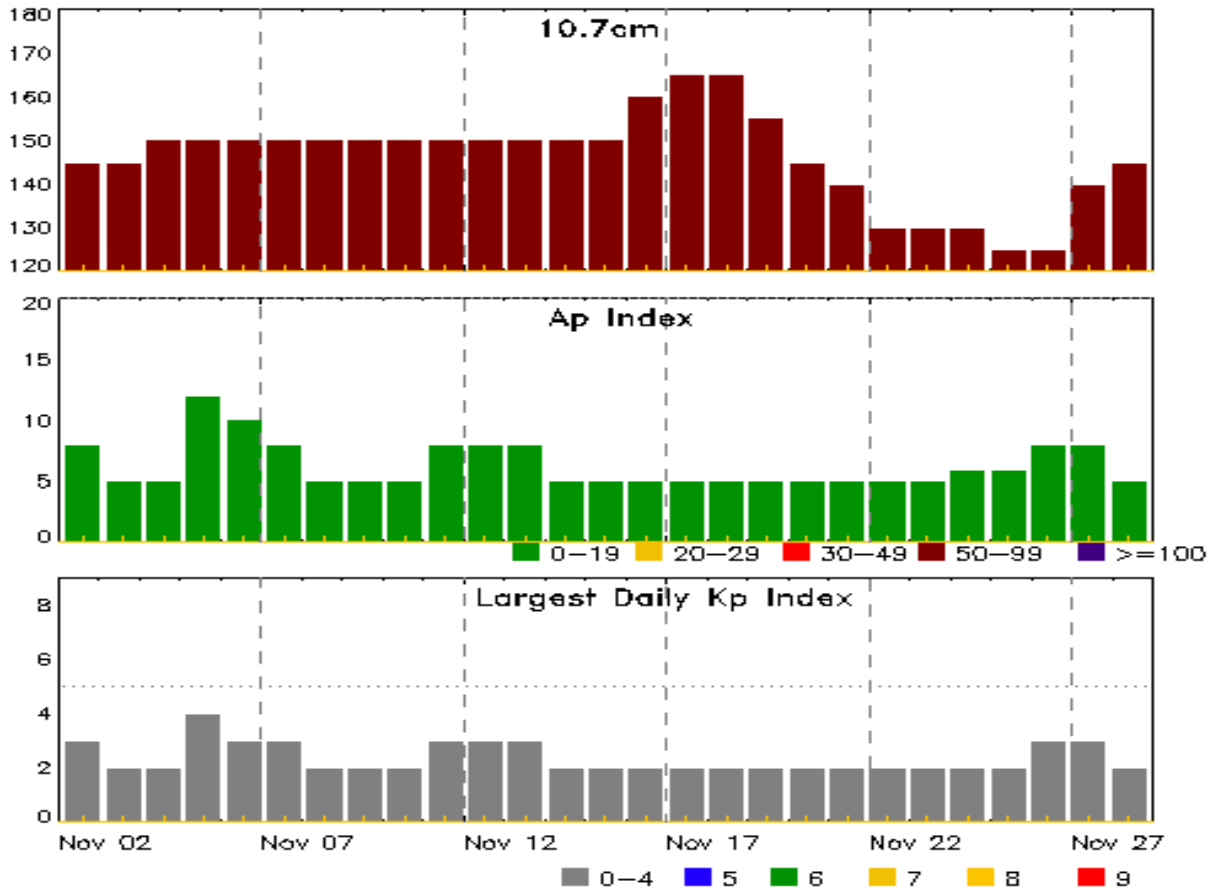


Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
24 Oct 1207	SUMMARY: Proton Event 10MeV Integral Flux \geq 10pfu	23/1500 - 1605
24 Oct 1759	WARNING: Geomagnetic Sudden Impulse expected	24/1830 - 1850
24 Oct 1816	WARNING: Geomagnetic K = 4	24/1830 - 25/0600
24 Oct 1836	SUMMARY: Geomagnetic Sudden Impulse	24/1832
24 Oct 1917	ALERT: Geomagnetic K = 4	24/1916
24 Oct 2301	WARNING: Geomagnetic K = 5	24/2305 - 25/0600
24 Oct 2314	ALERT: Geomagnetic K = 5	24/2314
24 Oct 2321	WARNING: Geomagnetic K = 6	24/2325 - 25/0300
24 Oct 2328	ALERT: Geomagnetic K = 6	24/2327
25 Oct 0545	EXTENDED WARNING: Geomagnetic K = 4	24/1830 - 25/1200
25 Oct 0549	EXTENDED WARNING: Geomagnetic K = 5	24/2305 - 25/0900
25 Oct 0740	WARNING: Geomagnetic K = 6	25/0740 - 0900
25 Oct 0848	EXTENDED WARNING: Geomagnetic K = 5	24/2305 - 25/1200
25 Oct 1151	EXTENDED WARNING: Geomagnetic K = 4	24/1830 - 25/2100
30 Oct 1607	WARNING: Geomagnetic K = 4	30/1610 - 31/0000
30 Oct 1657	ALERT: Geomagnetic K = 4	30/1654



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
02 Nov	145	8	3	16 Nov	160	5	2
03	145	5	2	17	165	5	2
04	150	5	2	18	165	5	2
05	150	12	4	19	155	5	2
06	150	10	3	20	145	5	2
07	150	8	3	21	140	5	2
08	150	5	2	22	130	5	2
09	150	5	2	23	130	5	2
10	150	5	2	24	130	6	2
11	150	8	3	25	125	6	2
12	150	8	3	26	125	8	3
13	150	8	3	27	140	8	3
14	150	5	2	28	145	5	2
15	150	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 245	Radio Flux 2695	Intensity II

No Events Observed

Flare List

Date	Time			X-ray Class	Imp/ Brtns	Optical Location Lat CMD	Rgn #
	Begin	Max	End				
25 Oct	0049	0050	0053		SF	N09W73	1331
25 Oct	0336	0341	0350	B9.5			1321
25 Oct	2001	2019	2035	C1.7			1330
25 Oct	2230	2235	2241	B7.3			
26 Oct	0502	0506	0512	B8.6			
26 Oct	0908	1001	1022	C1.2			1324
27 Oct	0053	0102	0110	B6.9			1330
27 Oct	1838	1844	1849	C2.6			1333
28 Oct	0607	0614	0620	C1.0			1333
28 Oct	0701	0704	0707	C1.0	SF	N11W55	1324
28 Oct	0812	0816	0818	B9.3			1324
28 Oct	0919	0931	0941	B8.7			1324
28 Oct	1148	1217	1242	C1.7	SF	N10W59	1324
29 Oct	0208	0215	0228	C1.4			1324
29 Oct	0917	0922	0926	C1.9	SF	N17W41	1325
29 Oct	1423	1429	1434	C1.0			
29 Oct	1444	1452	1501	C3.0			1324
29 Oct	2042	2048	2052	C1.2			
30 Oct	0924	0939	0954	C2.4	SF	N06W26	1330
30 Oct	1006	1010	1013	C2.1	SF	N12E34	1334
30 Oct	1444	1449	1457	C1.5			1334
30 Oct	1709	1712	1715	C1.9			1330
30 Oct	2044	2052	2102	C1.5			1334
30 Oct	2107	2116	2131	C1.5			1334
30 Oct	2141	2143	2149	C1.4			1334
30 Oct	2233	2250	2307	C1.2			1334



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	4		
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						
17 Oct	N27W30		56	230	5	Cso	1	B										
18 Oct	N27W42		55	240	6	Cso	4	B										
19 Oct	N28W58		57	260	3	Hhx	1	A	1			2						
20 Oct	N29W69		55	210	4	Hsx	1	A										
21 Oct	N29W83		56	180	3	Hsx	1	A										
22 Oct	N29W93		53	90	4	Hsx	1	A		1		2						
									9	1	0	11	1	0	0	0	0	

Crossed West Limb.

Absolute heliographic longitude: 56

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										
17 Oct	S12W25		50	150	8	Dao	6	B				2						
18 Oct	S12W37		49	140	8	Dao	7	B										
19 Oct	S12W49		49	110	8	Dai	7	B										
20 Oct	S12W62		48	60	9	Dso	6	B										
21 Oct	S11W77		50	10	5	Bxo	2	B										
									6	0	0	11	0	0	0	0	0	

Died on Disk.

Absolute heliographic longitude: 49



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 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										
17 Oct	S27W11	37	50	2	Hsx	1	A																
18 Oct	S27W25	37	50	2	Hsx	1	A																
19 Oct	S27W37	36	80	2	Hsx	1	A																
20 Oct	S26W51	37	60	2	Hsx	1	A																
21 Oct	S26W65	38	70	2	Hsx	1	A																
22 Oct	S25W77	37	50	2	Hsx	1	A																
								1	0	0	3	0	0	0	0	0							

Died on Disk.

Absolute heliographic longitude: 38

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								
17 Oct	N10W26	51	420	12	Eki	32	BG						1								
18 Oct	N11W39	51	280	12	Eki	19	BG														
19 Oct	N10W53	52	330	12	Eki	16	BG						1								
20 Oct	N11W66	52	330	11	Eho	10	BG														
21 Oct	N12W79	52	330	12	Eho	7	BG	2	1				1								
22 Oct	N13W89	49	40	1	Cso	5	B														
								24	1	0	19	0	0	0	0	0					

Crossed West Limb.

Absolute heliographic longitude: 51



Region Summary - continued

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

Region 1321

15 Oct	S14E50	1	10	3	Bxo	2	B										
16 Oct	S14E37	2	10	4	Bxo	2	B										
17 Oct	S15E22	4	20	5	Cro	3	B										
18 Oct	S14E09	3	30	5	Cao	6	B										
19 Oct	S14W03	2	20	6	Cro	6	B										
20 Oct	S14W18	4	10	6	Bxo	4	B										
21 Oct	S16W34	7	10	1	Hrx	2	A										
22 Oct	S16W48	8	plage														
23 Oct	S16W62	9	plage														
24 Oct	S16W76	10	plage														
25 Oct	S16W90	11	plage														
									0	0	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 2

Region 1323

17 Oct	N23E52	333	10	1	Axx	2	A										
18 Oct	N24E41	331	20	7	Cso	2	B										
19 Oct	N24E27	333	plage														
20 Oct	N24E14	333	plage														
21 Oct	N24W00	334	plage														
22 Oct	N25W11	331	10	1	Axx	1	A										
23 Oct	N25W25	332	plage														
24 Oct	N25W39	333	plage														
25 Oct	N25W53	334	plage														
26 Oct	N25W67	335	plage														
27 Oct	N25W81	335	plage														
									0	0	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 334



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 1324																							
17 Oct	N11E80		306	90	3	Hax	2	A	1														
18 Oct	N11E64		308	110	12	Eai	12	B															
19 Oct	N12E55		305	340	16	Fkc	26	BG	4				6										
20 Oct	N11E40		305	360	14	Ekc	27	BG	1				2										
21 Oct	N10E27		306	290	12	Eac	34	BG	1				1										
22 Oct	N10E14		306	280	15	Eac	28	BG	1				1										
23 Oct	N12W00		307	150	15	Eai	26	BG	1				2										
24 Oct	N12W13		307	140	15	Eai	31	BG															
25 Oct	N12W26		307	140	14	Eai	30	BG															
26 Oct	N12W38		306	30	7	Dso	16	B	1														
27 Oct	N12W52		306	50	6	Cso	3	B															
28 Oct	N12W62		303	70	6	Dso	7	B	2				2										
29 Oct	N12W72		300	70	3	Hsx	1	A	2														
30 Oct	N13W83		297	20	3	Cso	2	B															
									14	0	0	14	0	0	0	0	0						

Still on Disk.

Absolute heliographic longitude: 307

Region 1325																							
19 Oct	N16E82		278	90	3	Hax	1	A															
20 Oct	N14E67		279	270	8	Dko	4	B															
21 Oct	N15E54		279	260	7	Dko	6	B															
22 Oct	N15E43		277	180	7	Dai	8	B	2				4										
23 Oct	N15E29		278	180	7	Dao	8	B															
24 Oct	N16E16		278	150	7	Dso	11	B															
25 Oct	N15E03		278	100	8	Dso	11	B															
26 Oct	N17W12		280	30	5	Cso	6	B															
27 Oct	N17W26		280	10	1	Axx	1	A															
28 Oct	N16W40		280	10	1	Axx	1	A															
29 Oct	N17W52		279	10	1	Axx	1	A	1				1										
30 Oct	N17W66		281	plage																			
									3	0	0	5	0	0	0	0	0						

Still on Disk.

Absolute heliographic longitude: 278



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

Region 1326

20 Oct	N16W36	22	10	2	Cso	2	B										
21 Oct	N16W48	22	30	3	Cso	3	B										
22 Oct	N16W62	22	plage														
23 Oct	N16W76	23	plage														
24 Oct	N16W90	24	plage														
								0	0	0	0	0	0	0	0	0	

Crossed West Limb.
Absolute heliographic longitude: 22

Region 1327

20 Oct	S22E10	336	10	4	Bxi	5	B										
21 Oct	S21W03	336	100	6	Dao	8	B										
22 Oct	S21W15	335	130	8	Dao	11	B										
23 Oct	S21W29	336	130	8	Dao	11	B										
24 Oct	S20W41	335	200	8	Dso	5	B										
25 Oct	S21W54	335	80	5	Cso	4	B										
26 Oct	S20W67	335	60	11	Cso	3	B										
27 Oct	S20W81	335	60	5	Hsx	1	A										
								0	0	0	0	0	0	0	0	0	

Crossed West Limb.
Absolute heliographic longitude: 336

Region 1328

20 Oct	N18E23	322	10	1	Bxo	1	B										
21 Oct	N17E07	325	40	4	Dao	6	B										
22 Oct	N17W06	326	10	3	Bxo	3	B										
23 Oct	N17W20	327	plage														
24 Oct	N17W34	328	plage														
25 Oct	N17W48	329	plage														
26 Oct	N17W62	330	plage														
27 Oct	N17W76	330	plage														
								0	0	0	0	0	0	0	0	0	

Died on Disk.
Absolute heliographic longitude: 326



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

Region 1329

21 Oct	S30W42	15	50	3	Cso	4	B										
22 Oct	S29W55	15	10	1	Axx	1	A										
23 Oct	S29W69	16	plage														
24 Oct	S29W83	17	plage														
									0	0	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 15

Region 1330

22 Oct	N04E66	254	210	5	Dso	5	B										
23 Oct	N08E60	247	210	13	Eao	5	B	2									
24 Oct	N08E45	249	560	14	Eko	13	BG										
25 Oct	N08E31	250	450	14	Eho	12	BG	1									
26 Oct	N09E18	250	500	14	Eko	15	BG										
27 Oct	N08E05	249	460	15	Eko	9	BG										
28 Oct	N04W09	249	450	14	Eho	18	BG										
29 Oct	N07W22	249	400	16	Fho	18	BG										
30 Oct	N08W35	249	380	15	Ehi	16	BG	2				1					
								5	0	0	1	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 249

Region 1331

23 Oct	N11W60	7	10	6	Bxo	2	B										
24 Oct	N09W73	7	30	5	Cso	4	B										
25 Oct	N08W86	7	30	5	Cro	3	B					1					
								0	0	0	1	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 7



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 1332																	
24 Oct	N32E77	217	30	2	Hsx	1	A										
25 Oct	N31E62	219	60	2	Hsx	1	A										
26 Oct	N31E49	219	40	2	Hsx	1	A										
27 Oct	N31E35	219	30	2	Hax	1	A										
28 Oct	N31E22	218	40	2	Hsx	2	A										
29 Oct	N31E10	217	30	1	Hsx	1	A										
30 Oct	N30W02	216	20	1	Hsx	1	A										
								0	0	0	0	0	0	0	0	0	

Still on Disk.

Absolute heliographic longitude: 216

Region 1333																	
27 Oct	N16E12	242	90	6	Dai	10	B	1									
28 Oct	N15W02	243	50	6	Dso	13	B	1									
29 Oct	N15W17	244	20	3	Cro	2	B										
30 Oct	N15W32	246	10	2	Cro	2	B										
								2	0	0	0	0	0	0	0	0	

Still on Disk.

Absolute heliographic longitude: 243

Region 1334																	
30 Oct	N13E25	188	70	6	Cso	9	B	6			1						
								6	0	0	1	0	0	0	0	0	

Still on Disk.

Absolute heliographic longitude: 188

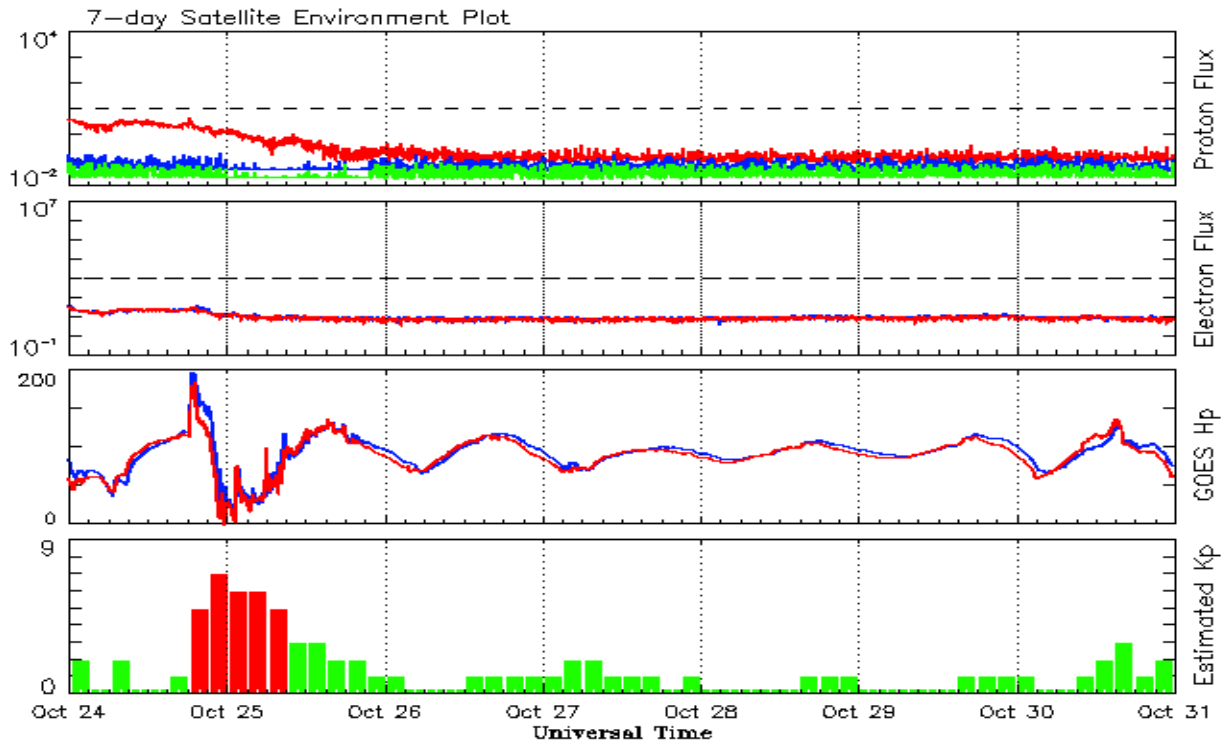


Recent Solar Indices (preliminary)
Observed monthly mean values

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									
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	30.9	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	61.8	41.8	112.6	100.4	9	7.5
May	61.4	41.5	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	
October	123.5	88.0	0.71			137.2		7	

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 24 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.

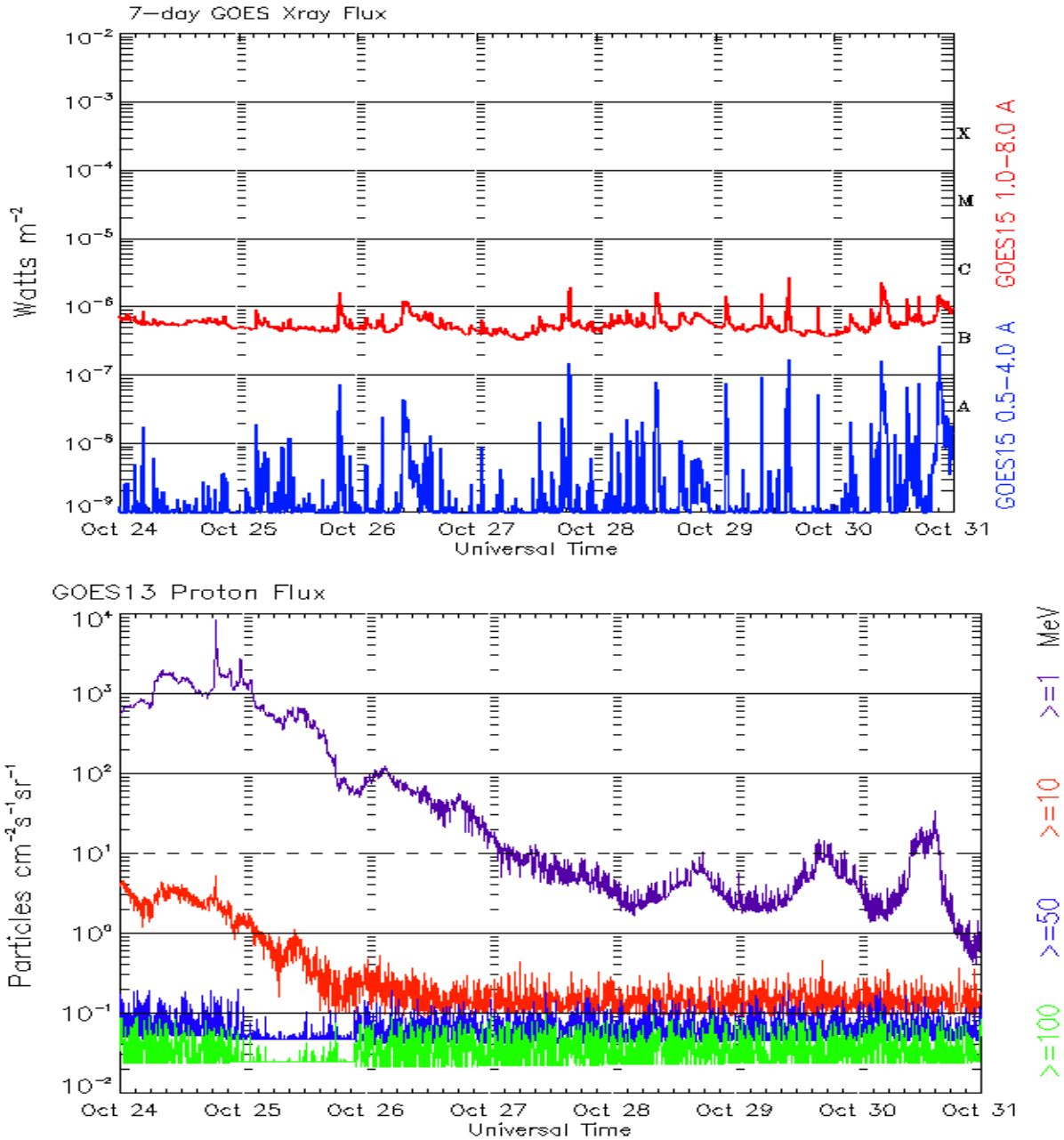
The electron flux plot contains the five-minute averaged integral electron flux (electrons/cm²-sec -sr) with energies greater than 2 MeV by the SWPC Primary GOES satellite.

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 24 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.



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

Published every Tuesday by the Space Weather Prediction Center.

U.S. Department of Commerce
NOAA / National Weather Service
Space Weather Prediction Center
325 Broadway, Boulder CO 80305

Notice: The 27-day Outlook, Satellite Environment, X-ray and Proton plots have been redesigned. Comments and suggestions are welcome SWPC.Webmaster@noaa.gov

The Weekly has been published continuously since 1951 and is available online since 1997.

<http://spaceweather.gov/weekly/> -- Current and previous year

<http://spaceweather.gov/ftpmenu/warehouse.html> -- Online archive from 1997

<http://spaceweather.gov/ftpmenu/> -- Some content as ascii text

<http://spaceweather.gov/SolarCycle/> -- Solar Cycle Progression web site

<http://spaceweather.gov/contacts.html> -- Contact and Copyright information

http://spaceweather.gov/weekly/Usr_guide.pdf -- User Guide

