

Solar activity was at predominantly low levels for the summary period. From 05 - 06 December, two regions dominated the disk in size and solar flare production, Region 1363 (S21, L=108, class/area=Eki/620 on 05 December) and Region 1362 (N08, L=131, class/area=Eso/220 on 03 December). Both regions produced multiple C-class events with Region 1363 responsible for the largest event of the period, a C6/Sf flare at 05/2325 UTC. From 07 - 10 December, Region 1374 (S17, L=352, class/area=Dso/210 on 11 December) and Region 1375 (N08, L=356, class/area=Cso/140 on 11 December) dominated the disk, each producing several small C-class events. The only days of the summary period with activity at very low levels were 06 and 11 December. Multiple coronal mass ejections (CMEs) were observed throughout the week, however, none of them were geoeffective.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at moderate levels from 05 - 09 December. A return to background levels was observed on 10 December.

Geomagnetic activity was at predominantly quiet levels during the summary period. From 05 - 08 December, quiet conditions were observed at all latitudes. On 09 December, an isolated period of active conditions was observed at high latitudes. On 10 December, quiet to unsettled conditions were observed as a coronal hole high speed stream (CH HSS) moved into a geoeffective position. Solar wind speed increased from around 330 km/s to around 500 km/s at the ACE spacecraft and the total IMF rose to around 11 nT. Another isolated period of active conditions was observed at high latitudes on 11 December as a result of the CH HSS effects.

Space Weather Outlook **14 December - 09 January 2012**

Solar activity is expected to be at predominately low levels with a chance for isolated M-class activity from 12 - 22 December. A decrease to predominantly low levels is expected from 23 -24 December as Regions 1374 and 1375 rotate off the disk. An increase to a slight chance for M-class activity is expected on 25 December as Region 1363 returns and remain for the duration of the forecast 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 the entire forecast period (14 December - 09 January).

Geomagnetic field activity is expected to be at mostly quiet levels from 14 - 25 December. Quiet to unsettled conditions are expected on 26 - 29 December due to effects from a recurrent CH HSS. A return to quiet levels is expected from 30 December - 04 January followed by an increase to quiet to unsettled levels on 05 - 06 January due to effects from a second recurrent CH HSS. Mostly quiet conditions are expected for the remainder of the period.



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
05 December	158	185	1175	B5.2	8	0	0	7	0	0	0	0
06 December	151	143	630	B4.7	0	0	0	0	0	0	0	0
07 December	149	122	750	B4.5	3	0	0	3	0	0	0	0
08 December	145	142	720	B4.4	2	0	0	1	0	0	0	0
09 December	144	116	880	B3.8	1	0	0	3	0	0	0	0
10 December	140	112	800	B4.2	3	0	0	1	0	0	0	0
11 December	134	125	910	B4.7	0	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
	05 December	2.0e+05	1.3e+04	3.1e+03		1.9e+07
06 December	3.3e+05	1.3e+04	3.1e+03		1.9e+07	
07 December	4.3e+05	1.3e+04	3.0e+03		1.9e+07	
08 December	6.5e+05	1.3e+04	3.2e+03		1.5e+07	
09 December	4.9e+05	1.3e+04	3.1e+03		6.0e+06	
10 December	1.1e+05	1.3e+04	3.5e+03		2.2e+06	
11 December	1.9e+05	1.3e+04	3.2e+03		2.9e+06	

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
	05 December	4	0-1-0-0-2-2-2-2	0	0-0-0-0-0-0-0-0	1
06 December	0	0-0-0-0-0-0-1-0	0	0-0-0-0-0-1-0-0	0	0-0-0-0-0-0-0-0
07 December	1	0-0-0-0-1-1-0-1	0	0-0-0-0-0-0-0-0	0	0-0-0-0-0-0-0-0
08 December	2	1-1-0-0-2-1-1-0	1	0-0-0-0-2-0-0-0	1	0-0-0-0-0-0-0-0
09 December	3	0-0-1-2-2-1-1-1	6	0-0-1-2-4-2-0-0	1	0-0-0-1-1-1-0-0
10 December	6	2-1-2-2-1-1-2-2	6	1-0-3-3-1-1-1-1	6	2-1-2-2-1-0-1-2
11 December	5	1-0-2-2-2-2-2-1	8	1-0-1-2-4-3-2-0	4	1-0-1-1-2-2-1-0

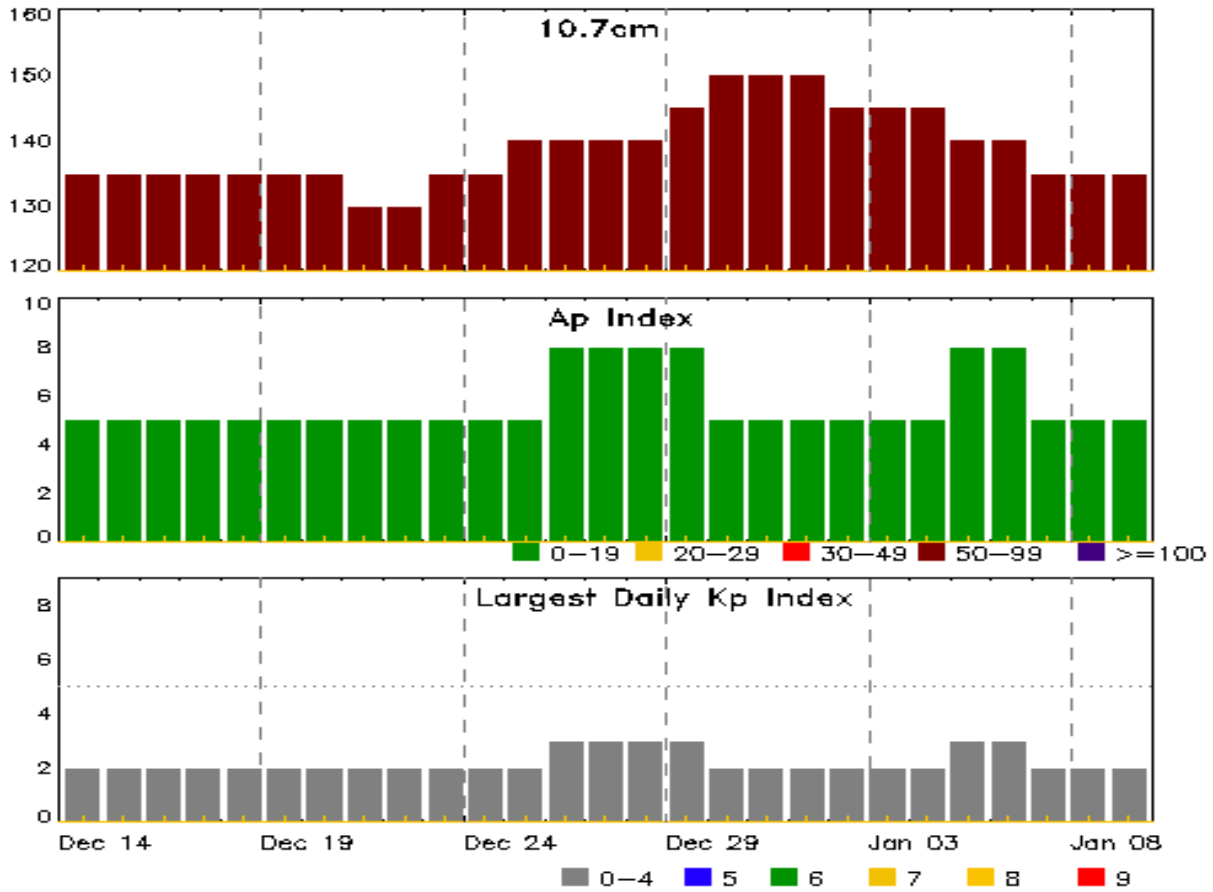


Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
10 Dec 0752	WARNING: Geomagnetic K = 4	10/0751 - 1200



Twenty-seven Day Outlook



Date	Radio Flux 10.7cm	Planetary A Index	Largest Kp Index	Date	Radio Flux 10.7cm	Planetary A Index	Largest Kp Index
14 Dec	135	5	2	28 Dec	140	8	3
15	135	5	2	29	145	8	3
16	135	5	2	30	150	5	2
17	135	5	2	31	150	5	2
18	135	5	2	01 Jan	150	5	2
19	135	5	2	02	145	5	2
20	135	5	2	03	145	5	2
21	130	5	2	04	145	5	2
22	130	5	2	05	140	8	3
23	135	5	2	06	140	8	3
24	135	5	2	07	135	5	2
25	140	5	2	08	135	5	2
26	140	8	3	09	135	5	2
27	140	8	3				



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	Location Lat CMD	Rgn #
	Begin	Max	End				
05 Dec	0309	0316	0332	C1.9	SF	N19E55	1366
05 Dec	0325	0326	0330		SF	N18W60	1361
05 Dec	0447	0452	0457	C1.2			1367
05 Dec	0613	0613	0616		SF	S17E64	
05 Dec	0635	0654	0720	C1.4			1362
05 Dec	0638	0639	0646		SF	N18W62	1361
05 Dec	0652	0701	0722		SF	N07W21	1362
05 Dec	0749	0753	0756	C2.9	SF	S16E64	1368
05 Dec	1235	1239	1242	B8.9			
05 Dec	1340	1345	1349	C3.7			1362
05 Dec	1514	1518	1520	C4.7			1363
05 Dec	1806	1809	1812	B9.6			1361
05 Dec	1904	1907	1911	C2.5			1363
05 Dec	2320	2325	2334	C6.9	SF	S20W09	1363
07 Dec	0539	0539	0542		SF	N10E27	
07 Dec	0555	0605	0620	C1.9			
07 Dec	0906	0912	0917	B8.8			
07 Dec	1534	1539	1545	C1.3	SF	N17W22	1364
07 Dec	1620	1621	1626		SF	N17W24	1364
07 Dec	2007	2013	2018	C2.7			1375
08 Dec	0005	0010	0018	C1.0			1374
08 Dec	0154	0159	0205	C1.2			1375
08 Dec	1443	1444	1451		SF	N17W70	
09 Dec	0805	0805	0807		SF	S14E65	1374
09 Dec	1305	1320	1331	C3.1	SF	S16E66	1374
09 Dec	1344	1345	1352		SF	N10E60	1375
10 Dec	0624	0631	0643	C1.2			1375
10 Dec	2235	2238	2242	B8.6			
10 Dec	2300	2304	2308	C1.0	SF	S17E44	1374
10 Dec	2357	0002	0007	C1.6	SF	S16E44	1374
11 Dec	0320	0323	0327	B8.6	SF	S17E39	1374



Flare List

Date	Time			Optical			Rgn #
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	
11 Dec	1129	1137	1146	B9.7			1366
11 Dec	1543	1546	1549	B7.9			



Region Summary

Date	Location		Sunspot Characteristics					Flares															
	Lat CMD	Lon	Helio 10 ⁶ hemi.	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical												
								C	M	X	S	1	2	3	4								
Region 1356																							
19 Nov	N14E81	229	60	5	Hsx	1	A																
20 Nov	N14E63	234	110	2	Hsx	1	A	1					1										
21 Nov	N15E55	230	400	11	Ehc	6	B	1						3									
22 Nov	N15E42	230	340	17	Fki	9	BG	7					10										
23 Nov	N15E28	230	300	13	Eao	11	BG	1					3										
24 Nov	N15E16	229	310	13	Ehi	16	BG																
25 Nov	N16E03	228	220	14	Esi	23	B	1															
26 Nov	N16W10	228	190	12	Eso	5	B																
27 Nov	N16W23	228	170	13	Eso	7	B	1					2										
28 Nov	N16W38	228	80	12	Eso	3	B	1					1										
29 Nov	N16W50	228	80	12	Eso	4	B	1					1										
30 Nov	N17W62	227	60	11	Eso	4	B	1					1										
01 Dec	N17W76	229	50	11	Cso	3	B						1										
								15	0	0	0	23	0	0	0	0	0						

Died on Disk.

Absolute heliographic longitude: 228

Region 1358

22 Nov	N20E80	192	50	1	Hsx	1	A															
23 Nov	N19E63	195	90	2	Hsx	1	A	1					1									
24 Nov	N19E53	192	120	8	Dsi	7	B															
25 Nov	N20E41	190	170	11	Eai	19	B						3									
26 Nov	N20E28	190	220	11	Eao	9	B	1					1									
27 Nov	N20E15	190	210	11	Eai	16	B	1					1									
28 Nov	N20W00	192	80	7	Dso	9	B															
29 Nov	N20W12	190	130	9	Dsi	12	B															
30 Nov	N22W24	189	120	10	Cso	8	B															
01 Dec	N21W38	190	90	11	Cso	3	B															
02 Dec	N20W54	193	90	5	Cso	3	B															
03 Dec	N19W68	194	50	3	Cso	3	B															
04 Dec	N20W82	195	40	1	Cso	3	B						1									
								3	0	0	0	7	0	0	0	0	0					

Crossed West Limb.

Absolute heliographic longitude: 192



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 1360																	
25 Nov	N17E17	213	50	2	Cao	6	B										
26 Nov	N17E03	215	20	4	Cro	4	B										
27 Nov	N17W10	215	10	5	Cro	3	B										
28 Nov	N17W32	215	30	3	Dso	3	B										
29 Nov	N17W45	223	plage														
30 Nov	N17W59	225	plage														
01 Dec	N17W73	226	plage														
02 Dec	N17W87	227	plage														
								0	0	0	0	0	0	0	0	0	0

Crossed West Limb.
 Absolute heliographic longitude: 215

Region 1361																	
25 Nov	N19E59	172	5		Axx	1	A										
26 Nov	N19E46	172	10	3	Cao	2	B										
27 Nov	N19E34	171	30	2	Dao	7	B						1				
28 Nov	N18E21	171	40	4	Dso	5	B	1					1				
29 Nov	N18E07	171	80	5	Dso	9	BG	1					1				
30 Nov	N18W06	171	80	8	Dsi	17	B										
01 Dec	N19W18	170	60	8	Dsi	7	B	1					1				
02 Dec	N20W32	171	60	6	Dso	7	B										
03 Dec	N19W45	171	90	8	Dai	11	B										
04 Dec	N19W58	171	60	7	Dao	7	B										
05 Dec	N18W71	170	90	8	Dai	10	B							2			
06 Dec	N18W81	167	10	5	Bxo	2	B										
								3	0	0	6	0	0	0	0	0	0

Crossed West Limb.
 Absolute heliographic longitude: 171



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 1362																							
27 Nov	N08E76	130	90	2	Cso	3	B						2										
28 Nov	N07E60	132	70	8	Cao	9	B	1					3	1									
29 Nov	N08E49	129	110	8	Dso	8	B	1					2										
30 Nov	N07E36	129	130	7	Dsi	7	B	1															
01 Dec	N08E22	130	180	9	Dai	10	B																
02 Dec	N08E08	130	170	10	Dsi	12	B																
03 Dec	N08W06	131	220	11	Eso	16	B																
04 Dec	N08W18	131	180	11	Eso	17	B	1															
05 Dec	N07W32	130	170	10	Dso	19	B	2					1										
06 Dec	N06W46	132	110	11	Eso	7	BG																
07 Dec	N06W59	132	180	11	Eso	3	B																
08 Dec	N07W72	131	60	9	Cso	3	B																
09 Dec	N07W85	131	60	7	Hsx	1	A																
										6	0	0	8	1	0	0	0	0					

Crossed West Limb.

Absolute heliographic longitude: 131

Region 1363																							
29 Nov	S18E67	111	40	2	Hsx	1	A	1															
30 Nov	S19E55	111	110	6	Dso	3	B	2					2										
01 Dec	S20E42	110	120	8	Dsi	5	B																
02 Dec	S20E29	110	250	11	Ehi	15	B																
03 Dec	S22E16	109	330	11	Ehi	29	BG	2					2										
04 Dec	S21E04	108	430	11	Eki	30	BGD																
05 Dec	S21W09	108	620	11	Eki	35	BG	3					1										
06 Dec	S22W20	106	340	11	Ehi	19	BG																
07 Dec	S22W32	105	400	11	Ehi	12	B																
08 Dec	S21W47	107	270	10	Dho	7	B																
09 Dec	S20W62	109	280	8	Dho	3	B																
10 Dec	S20W74	108	250	6	Hhx	1	A																
11 Dec	S24W85	106	250	3	Hhx	3	A																
										8	0	0	5	0	0	0	0	0					

Still on Disk.

Absolute heliographic longitude: 108



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 1364																		
29 Nov	N17E73	106	30	2	Hsx	1	A											
30 Nov	N18E60	105	60	2	Hsx	1	A	1				1						
01 Dec	N18E48	104	40	2	Hsx	1	A											
02 Dec	N19E34	104	40	2	Cso	4	B											
03 Dec	N18E20	105	60	2	Cso	1	B											
04 Dec	N18E08	105	50	1	Hsx	1	A											
05 Dec	N18W05	104	60	2	Hsx	1	A											
06 Dec	N19W15	102	40	1	Hsx	1	A											
07 Dec	N18W30	103	60	2	Hsx	1	A	1				2						
08 Dec	N17W43	103	60	4	Dso	5	B											
09 Dec	N17W57	104	80	4	Cso	3	B											
10 Dec	N18W71	105	50	4	Cso	2	B											
11 Dec	N18W82	103	50	2	Hsx	1	A											
								2	0	0	3	0	0	0	0	0		

Still on Disk.

Absolute heliographic longitude: 104

Region 1365																		
02 Dec	N20E13	125	20	2	Cso	5	B											
03 Dec	N20E01	124	60	5	Dai	7	B					1						
04 Dec	N20W12	125	120	7	Dai	12	B											
05 Dec	N19W26	125	110	6	Dai	16	B											
06 Dec	N21W38	124	20	7	Cso	13	B											
07 Dec	N17W48	121	10	1	Axx	1	A											
08 Dec	N16W77	124	70	2	Cso	2	B											
09 Dec	N16W91	138	120	10	Hsx	1	A											
								0	0	0	1	0	0	0	0	0		

Crossed West Limb.

Absolute heliographic longitude: 124



Region Summary - continued

Date	Location		Sunspot Characteristics				Flares											
	Lat CMD	Lon	Helio 10 ⁶ hemi.	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical							
								C	M	X	S	1	2	3	4			
Region 1366																		
03 Dec	N17E65		60	60	2	Hsx	1	A										
04 Dec	N17E51		61	80	2	Hsx	1	A										
05 Dec	N18E38		61	70	2	Hsx	1	A	1				1					
06 Dec	N18E25		61	80	5	Dso	2	B										
07 Dec	N17E13		60	70	5	Cso	2	B										
08 Dec	N18E01		59	40	5	Cso	2	B										
09 Dec	N18W13		60	50	7	Cso	2	B										
10 Dec	N18W27		61	50	3	Hsx	1	A										
11 Dec	N18W40		61	60	3	Hsx	1	A										
									1	0	0		1	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 59

Region 1367																		
04 Dec	S18E36		77	0		Bxo	3	B	1									
05 Dec	S18E22		77	15	2	Dao	4	B	1									
06 Dec	S18E09		77	10	5	Bxo	3	B										
07 Dec	S26W03		76	10	4	Bxo	4	B										
08 Dec	S26W15		75	30	5	Cso	3	B										
09 Dec	S18W33		80	plage														
10 Dec	S18W47		81	10	2	Hsx	1	A										
11 Dec	S18W61		82	10	4	Bxo	4	B										
									2	0	0		0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 76

Region 1368																		
05 Dec	S18E58		42	20	2	Cao	5	B	1									
06 Dec	S16E41		45	10	3	Bxo	3	B										
07 Dec	S16E27		47	plage														
08 Dec	S16E13		48	plage														
09 Dec	S16W01		49	plage														
10 Dec	S16W15		49	plage														
11 Dec	S16W29		50	plage														
									1	0	0		0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 49



Region Summary - continued

Date	Location		Sunspot Characteristics				Flares								
	Lat CMD	Lon	Helio	Area	Extent	Spot	Spot	Mag	X-ray			Optical			
			10 ⁶	hemi.	(helio)	Class	Count	Class	C	M	X	S	1	2	3
Region 1369															
05 Dec	N22E43	57	20	2	Cao	4	B								
06 Dec	N22E29	58	10	3	Bxo	3	B								
07 Dec	N22E15	59	plage												
08 Dec	N22E01	60	plage												
09 Dec	N22W13	61	plage												
10 Dec	N22W27	61	plage												
11 Dec	N22W41	62	plage												
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 60

Region 1370															
07 Dec	S24W03	76	10	3	Bxo	6	B								
08 Dec	S24W17	78	plage												
09 Dec	S24W31	79	plage												
10 Dec	S24W45	79	plage												
11 Dec	S24W59	80	plage												
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 76

Region 1371															
07 Dec	N09E13	60	10		Hrx	1	A								
08 Dec	N09W01	62	10		Hrx	1	A								
09 Dec	N09W15	63	plage												
10 Dec	N09W29	63	plage												
11 Dec	N09W43	64	plage												
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 62



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 1372

07 Dec	N10E28	45	0	9	Bxo	2	B										
08 Dec	N10E14	47	0	9	Bxo	2	B										
09 Dec	N08E03	43	40	4	Dso	6	B										
10 Dec	N08W10	44	40	6	Dso	9	B										
11 Dec	N08W22	43	10	7	Bxo	6	B										

0 0 0 0 0 0 0 0

Still on Disk.

Absolute heliographic longitude: 43

Region 1373

08 Dec	S30W39	99	20	4	Dro	2	B										
09 Dec	S31W51	98	20	6	Bxo	5	B										
10 Dec	S31W65	99	plage														
11 Dec	S31W79	100	plage														

0 0 0 0 0 0 0 0

Still on Disk.

Absolute heliographic longitude: 99

Region 1374

08 Dec	S16E68	351	150	3	Cso	2	B	1									
09 Dec	S17E54	353	160	3	Hsx	2	A	1			2						
10 Dec	S17E41	353	140	3	Hsx	2	A	2			1						
11 Dec	S17E29	352	210	3	Dso	9	B				2						
								4	0	0	5	0	0	0	0		

Still on Disk.

Absolute heliographic longitude: 352

Region 1375

07 Dec	N08E84	354	plage					1									
08 Dec	N08E70	354	10	3	Bxo	3	B	1									
09 Dec	N09E52	356	70	6	Cso	3	B				1						
10 Dec	N09E39	355	80	7	Cso	4	B	1									
11 Dec	N09E25	356	140	5	Cso	9	B										
								3	0	0	1	0	0	0	0		

Still on Disk.

Absolute heliographic longitude: 356

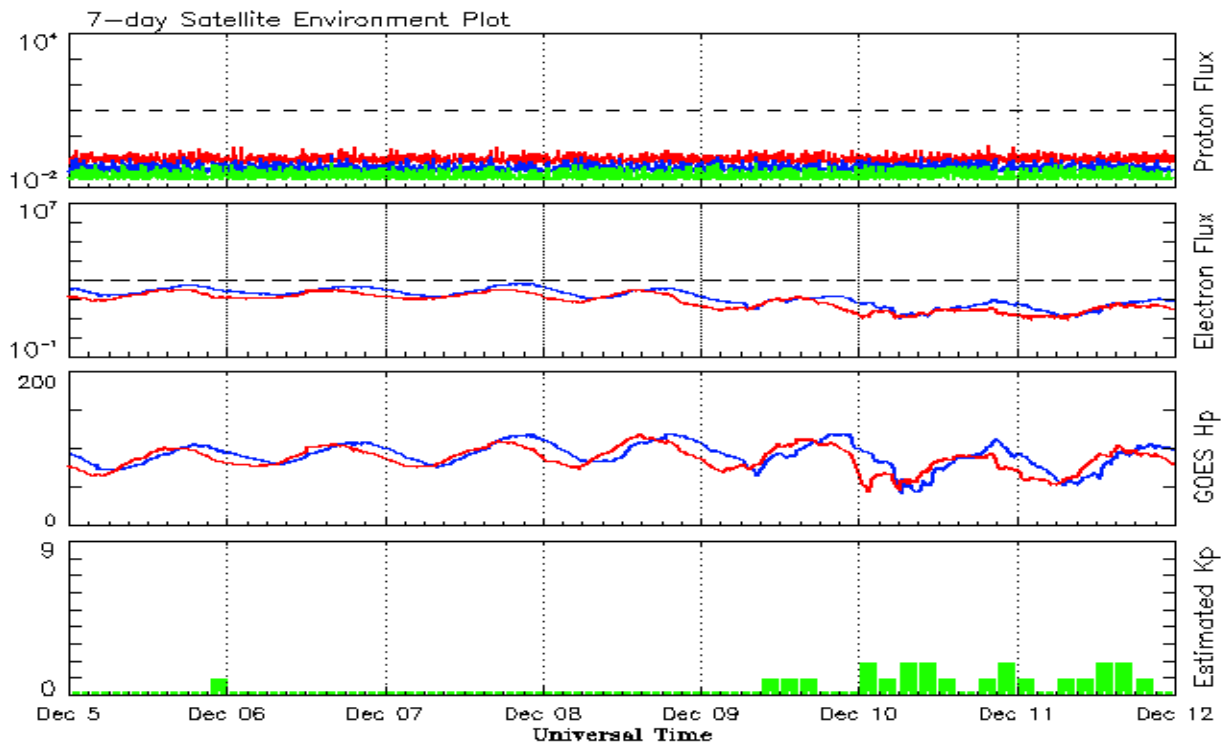


Recent Solar Indices (preliminary)
Observed monthly mean values

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									
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	61.5	41.8	112.6	100.4	9	7.5
May	61.4	41.5	0.68	69.2	47.6	95.9	105.6	9	7.5
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	116.8	88.0	0.75			137.2		7	
November	137.4	96.7	0.70			153.1		3	

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 05 December 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.

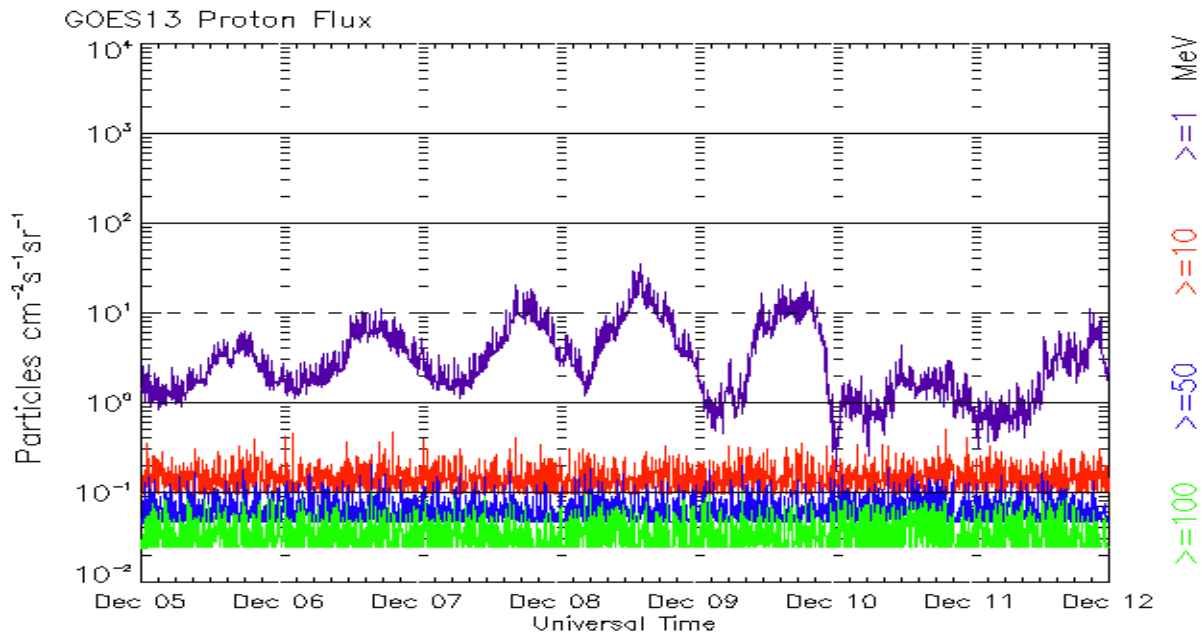
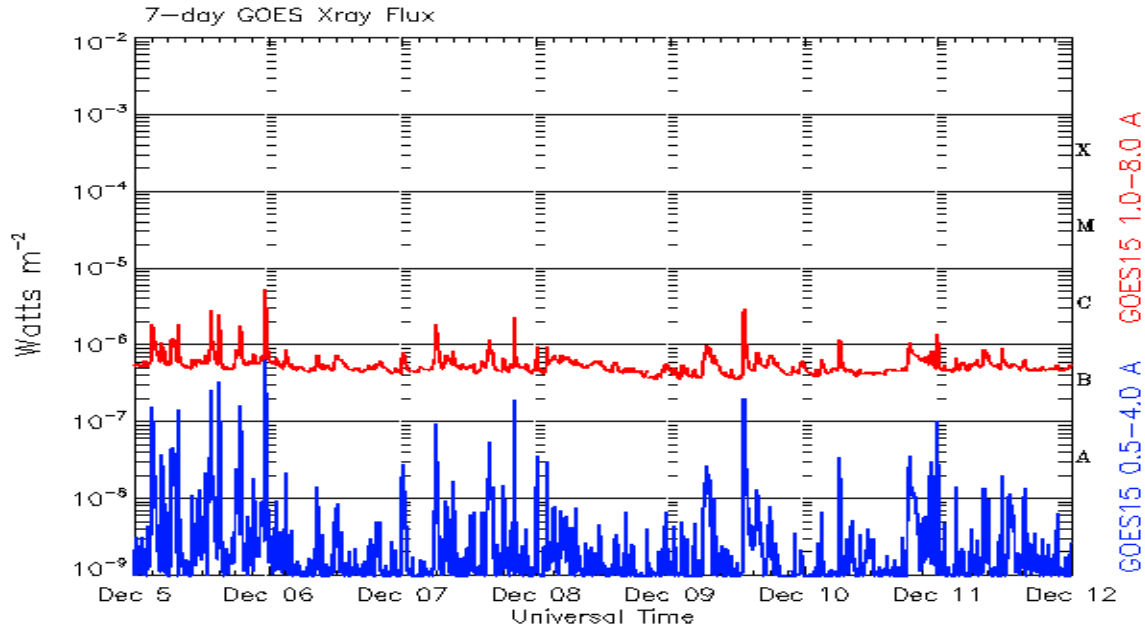
The electron flux plot contains the five-minute averaged integral electron flux (electrons/cm²-sec -sr) with energies greater than 2 MeV by the SWPC Primary GOES satellite.

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 05 December 2011*

The x-ray plots contains five-minute averages x-ray flux (Watt/ m^2) 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/ cm^2 -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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