

During the period, solar activity ranged from low to high levels due to a total of 7 M-class and 2 X-class events. The sharp increase in activity from the previous period originated from two regions; Region 1286 (N20, L=304, class/area Dso/080 on 03 September) and Region 1283 (N14, L=226, class/area Dai/230 on 07 September).

The period began at moderate levels due to two M1 x-ray events observed originating from Region 1286 at 05/0428 UTC and 05/0758 UTC respectively.

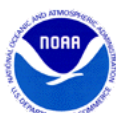
Solar activity increased to high levels on 06 September. Region 1283 produced an M5/1b flare at 06/0150 UTC and an X2/2b at 06/2220 UTC. The M5 flare had associated Types II and IV radio sweeps and an Earth-directed full-halo CME. The CME had an estimated speed of approximately 450 km/s, based upon STEREO-A COR2 data, with the bulk of the ejecta directed north of the ecliptic plane. The X2 flare was associated with Types II and IV radio sweeps, a 740 sfu Tenflare and an Earth-directed halo CME. The CME had an estimated speed of around 800 km/s, based on STEREO-A COR2 images, with the bulk of mass directed north of the ecliptic plane. 07 September saw high levels again as Region 1283 produced more major activity. Another major event was observed near the end of the 7th when Region 1283 produced an X1/3b at 07/2238 UTC with associated weak Types II and IV radio sweeps, a 1300 sfu Tenflare, and a non-Earth-directed CME. High activity levels persisted on 08 September when Region 1283 produced an M6/1n at 08/1546 UTC associated with a weak Type IV radio sweep.

Solar activity decayed to moderate levels on 09 September when Region 1283 produced two M-class flares. The first was an M2/1n at 09/0609 UTC with an associated Type II radio sweep (estimated velocity 717 km/sec) and a non-geoeffective CME. The second was an M1/1f at 09/1249 UTC. On 10 September, a significant filament eruption centered near N10W48 occurred around 10/0300 UTC. Associated with this eruption was a partial-halo CME (plane-of-sky speed of 620 km/s). As it neared the west limb, Region 1283 produced an M1/Sn at 10/0740 UTC with an associated limb-event CME. On 11 September, solar activity further decreased to low levels. A long duration C6/Sf flare was observed at 11/0851 UTC from Region 1283 as it rotated around the west limb.

There were no proton events observed at geosynchronous orbit. However, two separate enhancements, both in the 10 MeV and 100 MeV energy levels, were observed in the wake of the M5 event early on 06 September and the X2 event late on the 6th. The first enhancement saw a peak of 2.4 pfu at 06/1410 UTC at 10 MeVs and 0.15 pfu at 06/0850 UTC at 100 MeVs. The second enhancement saw a peak of 8.8 pfu at 07/0715 UTC at 10 MeVs and 0.4 pfu at 07/0410 UTC at 100 MeVs. Protons at all energy levels declined to background levels by 08/1800 UTC.

The greater than 2 MeV electron flux at geosynchronous orbit was at moderate levels on 05 - 06 September, reached high levels on 07 - 09 September and declined to normal levels on the 10th. Moderate levels were observed again on 11 September.

The geomagnetic field ranged from quiet to severe storm levels. The period began with mostly



quiet conditions from 05 September through midday on 09 September. Brief periods of active to minor storm conditions were observed at high latitudes on 06 September due to extended periods of southward Bz. Midday on 09 September, two sudden impulses (SI) were observed at 09/1243 UTC and 09/1250 UTC (16nT and 28nT respectively, as measured by the Boulder USGS magnetometer). At 09/1150 UTC, ACE data indicated an interplanetary shock arrival preceding the Boulder SIs. Bt reached up to 24nT, Bz dropped to -23nT, density spiked up to 35p/cc, wind speeds peaked at 602km/s, and temperature increased. As a result, geomagnetic activity levels increased to active to isolated high latitude severe storm levels. Activity was due to combined CME effects associated with 06 - 07 September major flare activity. The storm conditions persisted through 10 September. Late on 10 September, solar wind speed increased to around 620 km/s while the total IMF field (Bt) dropped to around 4nT indicating a likely transition into a negative polarity coronal hole high speed stream (CH HSS). Mostly quiet to unsettled levels were seen on 11 September with an isolated minor storm period at high latitudes.

Space Weather Outlook

14 September - 10 October 2011

Solar activity is expected to be at low to moderate levels through 10 October. A slight chance for an X-class event is possible on 18 September through 07 October as old Regions 1286 (N20, L=304) and 1283 (N14, L=226) rotate back on to the visible disk. Chances for major activity will further increase on 24 September through 01 October when both regions are on the visible disk. Activity is expected to decrease to low to moderate levels from 08 October through the remainder of the period.

No proton events are expected at geosynchronous orbit through 17 September and again from 08 - 10 October. There is a slight chance for a proton enhancement from 18 September through 07 October due to potential flare activity from Regions 1283 and 1286.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at high levels from 14 - 17 September and normal to moderate levels 18 - 25 September. High levels are expected on 26 - 27 September due to effects from a geoeffective CH HSS. Normal to moderate levels are expected from 28 September - 01 October. High levels are expected again on 02 - 03 October due to another CH HSS. Normal to moderate levels are expected from 04 - 09 October followed by another period of high levels on 10 October due to a third CH HSS.

The geomagnetic field is expected to be mostly quiet through the period. Unsettled conditions are possible on 18 - 19 and 24 - 25 September due to recurrent CH HSS rotating into a geoeffective position. Unsettled conditions with isolated active periods possible are expected on 30 September as a positive polarity CH HSS becomes geoeffective. Unsettled conditions will continue into 01 October. Mostly quiet conditions are expected from 02 through 07 October until another recurrent CH HSS becomes geoeffective. Mostly unsettled conditions are then expected from 08 - 10 October with isolated active periods possible on 09 October.



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 September	119	102	440	C1.6	1	2	0	2	0	0	0	0
06 September	112	93	560	B5.7	0	1	1	1	1	1	0	0
07 September	113	60	620	B3.8	2	0	1	0	1	0	1	0
08 September	110	47	630	B3.6	3	1	0	4	1	0	0	0
09 September	112	65	680	B4.2	3	2	0	7	2	0	0	0
10 September	116	77	780	B4.7	1	1	0	2	0	0	0	0
11 September	121	94	750	B4.8	4	0	0	3	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 September	1.5e+05	1.3e+04	3.1e+03		3.3e+06
06 September	4.5e+05	9.6e+04	5.0e+03		1.8e+07	
07 September	1.5e+06	3.6e+05	1.3e+04		4.8e+07	
08 September	9.0e+05	1.0e+05	3.8e+03		8.3e+07	
09 September	2.0e+06	3.2e+04	2.8e+03		5.1e+07	
10 September	5.1e+05	1.6e+04	2.6e+03		2.8e+06	
11 September	3.5e+05	1.3e+04	2.8e+03		9.7e+06	

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
	05 September	4	1-0-1-1-1-2-2-1	5	1-0-2-1-2-2-2-1	6
06 September	5	1-2-2-2-1-1-1-2	18	2-3-5-4-4-2-1-2	7	1-2-2-2-2-1-1-2
07 September	5	3-1-1-1-1-1-1-1	6	2-1-1-3-3-1-1-1	6	3-1-1-1-2-1-1-2
08 September	2	1-1-1-1-0-0-0-0	3	1-2-1-0-0-2-0-0	4	1-2-0-0-0-1-1-1
09 September	13	0-1-0-1-4-4-3-4	22	0-0-0-1-3-6-5-4	36	1-1-0-0-5-7-5-5
10 September	20	4-3-3-3-2-3-3-5	28	5-4-5-4-3-4-3-3	33	5-5-4-4-3-4-3-5
11 September	8	3-2-1-1-3-1-1-3	14	3-2-1-2-5-3-2-2	9	3-2-1-1-3-2-1-3



Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
06 Sep 0150	ALERT: X-ray Flux exceeded M5	06/0149
06 Sep 0159	ALERT: Type II Radio Emission	06/0145
06 Sep 0215	SUMMARY: X-ray Event exceeded M5	06/0135 - 0205
06 Sep 0346	ALERT: Type IV Radio Emission	06/0227
06 Sep 2220	ALERT: X-ray Flux exceeded M5	06/2220
06 Sep 2236	ALERT: Type II Radio Emission	06/2219
06 Sep 2242	SUMMARY: 10cm Radio Burst	06/2220 - 2225
06 Sep 2247	SUMMARY: X-ray Event exceeded X1	06/2212 - 2224
06 Sep 2305	SUMMARY: 10cm Radio Burst	06/2236 - 2237
06 Sep 2306	ALERT: Type IV Radio Emission	06/2245
07 Sep 0020	ALERT: Type II Radio Emission	06/2236
07 Sep 0442	WARNING: Proton 10MeV Integral Flux > 10pfu	07/0500 - 08/0600
07 Sep 1415	ALERT: Electron 2MeV Integral Flux >= 1000pfu	07/1400
07 Sep 1526	CANCELLATION: Proton 10MeV Integral Flux > 10pfu	
07 Sep 2121	WATCH: Geomagnetic A >= 20	10/
07 Sep 2238	ALERT: X-ray Flux exceeded M5	07/2237
07 Sep 2249	SUMMARY: 10cm Radio Burst	07/2238 - 2240
07 Sep 2254	SUMMARY: X-ray Event exceeded X1	07/2232 - 2244
07 Sep 2304	ALERT: Type IV Radio Emission	07/2238
08 Sep 0008	ALERT: Type II Radio Emission	07/2238
08 Sep 1153	CONTINUED ALERT: Electron 2MeV Integral Flux >= 1000pfu	07/1400
08 Sep 1544	ALERT: X-ray Flux exceeded M5	08/1543
08 Sep 1613	ALERT: Type IV Radio Emission	08/1538
08 Sep 1704	SUMMARY: X-ray Event exceeded M5	08/1532 - 1552
09 Sep 0652	ALERT: Type II Radio Emission	09/0618
09 Sep 1123	CONTINUED ALERT: Electron 2MeV Integral Flux >= 1000pfu	07/1400
09 Sep 1202	WARNING: Geomagnetic Sudden Impulse expected	09/1240 - 1310

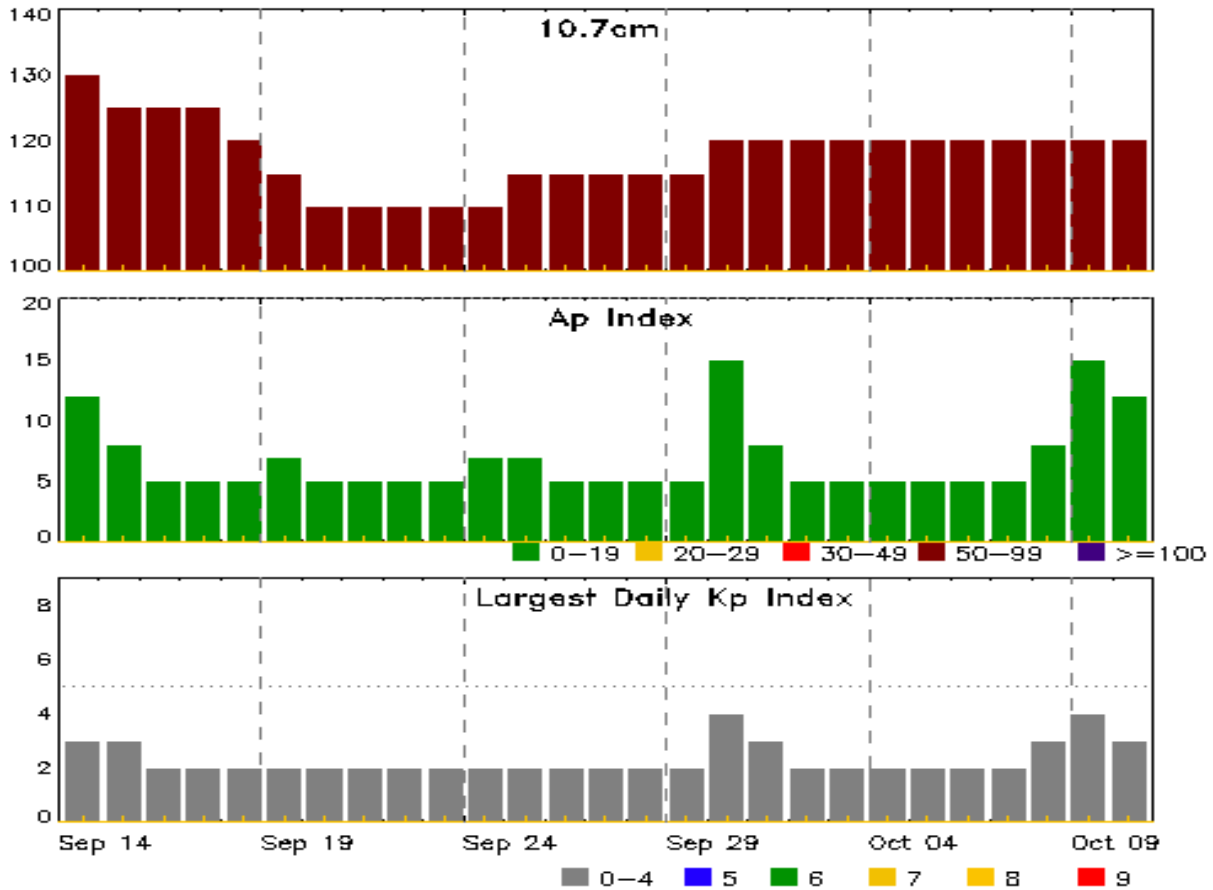


Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
09 Sep 1230	WARNING: Geomagnetic K = 4	09/1230 - 2359
09 Sep 1243	SUMMARY: Geomagnetic Sudden Impulse	09/1243
09 Sep 1247	WARNING: Geomagnetic K = 5	09/1247 - 1800
09 Sep 1249	ALERT: Geomagnetic K = 4	09/1247
09 Sep 1257	SUMMARY: Geomagnetic Sudden Impulse	09/1250
09 Sep 1410	ALERT: Geomagnetic K = 5	09/1410
09 Sep 1632	EXTENDED WARNING: Geomagnetic K = 5	09/1247 - 2359
09 Sep 1633	WARNING: Geomagnetic K = 6	09/1633 - 2100
09 Sep 1701	ALERT: Geomagnetic K = 6	09/1700
09 Sep 2354	EXTENDED WARNING: Geomagnetic K = 4	09/1230 - 10/1600
09 Sep 2358	EXTENDED WARNING: Geomagnetic K = 5	09/1247 - 10/1300
10 Sep 1451	EXTENDED WARNING: Geomagnetic K = 4	09/1230 - 10/2359
10 Sep 1551	WARNING: Geomagnetic K = 5	10/1551 - 2100
10 Sep 1620	ALERT: Geomagnetic K = 5	10/1620
10 Sep 2221	WARNING: Geomagnetic K = 5	10/2221 - 11/1300
10 Sep 2222	EXTENDED WARNING: Geomagnetic K = 4	09/1230 - 11/1600
10 Sep 2242	ALERT: Geomagnetic K = 5	10/2242
11 Sep 0932	CANCELLATION: Geomagnetic K = 5	
11 Sep 0952	ALERT: Type II Radio Emission	11/0904



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 Sep	130	12	3	28 Sep	115	5	2
15	125	8	3	29	115	5	2
16	125	5	2	30	120	15	4
17	125	5	2	01 Oct	120	8	3
18	120	5	2	02	120	5	2
19	115	7	2	03	120	5	2
20	110	5	2	04	120	5	2
21	110	5	2	05	120	5	2
22	110	5	2	06	120	5	2
23	110	5	2	07	120	5	2
24	110	7	2	08	120	8	3
25	115	7	2	09	120	15	4
26	115	5	2	10	120	12	3
27	115	5	2				



Energetic Events

Date	Time			X-ray		Optical Information			Peak		Sweep Freq	
	Begin	Max	Half	Class	Integ Flux	Imp/ Brtns	Location	Rgn #	Radio Flux		Intensity	
			Max						245	2695	II	IV
05 Sep	0408	0428	0432	M1.6	0.022	SF	N15E74	1193				
05 Sep	0727	0758	0806	M1.2	0.017	SF	N15E71	1193				
06 Sep	0135	0150	0205	M5.3	0.054	1B	N14W07	1283	54000		3	1
06 Sep	2212	2220	2224	X2.1	0.058	2B	N14W18	1283	64000	740	2	3
07 Sep	2232	2238	2244	X1.8	0.069	3B	N14W28	1283	180	1300	1	1
08 Sep	1532	1546	1552	M6.7	0.042	1N	N14W40	1283	130	91		1
09 Sep	0601	0611	0617	M2.7	0.015	1N	N16W47	1283	120	62	1	
09 Sep	1239	1249	1256	M1.2	0.008	1F	N13W52	1283	150			
10 Sep	0718	0740	0756	M1.1	0.019	SN	N12W61	1283	2300			

Flare List

Date	Time			X-ray Class	Optical		
	Begin	Max	End		Imp/ Brtns	Location	Rgn #
05 Sep	0408	0428	0432	M1.6			1286
05 Sep	0650	0654	0657	C2.8			
05 Sep	0727	0758	0806	M1.2			1286
05 Sep	2213	2220	2224		SF	N13W06	1283
05 Sep	2330	2330	2333		SF	N14W06	1283
06 Sep	0135	0150	0205	M5.3	1B	N14W07	1283
06 Sep	2203	2203	2209		SF	N14W19	1283
06 Sep	2212	2220	2224	X2.1	2B	N14W18	1283
07 Sep	1445	1448	1451	B7.9			
07 Sep	1824	1828	1833	B9.1			
07 Sep	1955	2006	2019	C3.0			
07 Sep	2213	2218	2226	C1.6			1283
07 Sep	2215	2238	A2348	X1.8	3B	N14W28	1283
07 Sep	2309	2310	2343		1F	N15W28	1283
08 Sep	1040	1050	1057	C1.7	SF	N14W37	1283
08 Sep	1532	1546	1552	M6.7	1N	N14W40	1283
08 Sep	1826	1846	1856	C2.5	SF	N22E59	1289
08 Sep	2252	2258	2321	C1.1	SF	N17W45	1283
08 Sep	2351	0008	0033		SF	N16W44	1283
09 Sep	0146	0203	0212	C1.2			1283
09 Sep	0149	0152	0158		SF	S31W01	1287
09 Sep	0202	0204	0214		SF	N16W47	1283



Flare List

Date	Time			X-ray Class	Imp/ Brtns	Optical		Rgn #
	Begin	Max	End			Location Lat CMD		
09 Sep	0354	0414	0419	B7.1	SF	N16W47		1283
09 Sep	0601	0609	0633	M2.7	1N	N16W47		1283
09 Sep	1229	1230	1232		SF	N15W48		1283
09 Sep	1239	1249	1256	M1.2	1F	N13W52		1283
09 Sep	1313	1314	1316		SF	N22E43		1289
09 Sep	1442	1459	1524	C3.2				1283
09 Sep	2004	2008	2010	B8.7				1289
09 Sep	2114	2114	2121		SF	N15W58		1283
09 Sep	2305	2309	2320	C1.1	SF	N17W55		1283
10 Sep	0150	0156	0209	B6.5				1289
10 Sep	0718	0740	0756	M1.1	SN	N12W61		1283
10 Sep	1517	1518	1521		SF	N14W67		1283
10 Sep	1716	1719	1721	B8.1				1291
10 Sep	1721	1726	1731	C1.7				1289
11 Sep	0707	0709	0714		SF	N15W77		1283
11 Sep	0841	0851	0927	C6.6	SF	N15W75		1283
11 Sep	1318	1326	1336	C1.9				1283
11 Sep	1407	1410	1412		SF	N09E73		
11 Sep	1945	1949	1952	C1.7				1283
11 Sep	2038	2042	2045	B9.7				1283
11 Sep	2119	2125	2135	C1.1				1283



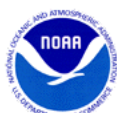
Region Summary

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 1277																							
25 Aug	N17E62		304	50	2	Hsx	1	A															
26 Aug	N17E50		303	80	2	Hsx	1	A															
27 Aug	N17E38		302	80	1	Hsx	1	A															
28 Aug	N17E25		300	40	1	Hsx	1	A															
29 Aug	N17E12		299	50	1	Hsx	1	A															
30 Aug	N18W00		299	50	2	Hsx	2	A															
31 Aug	N18W14		300	60	1	Hsx	1	A															
01 Sep	N18W27		300	60	2	Hsx	1	A					1										
02 Sep	N19W40		300	30	1	Hsx	1	A															
03 Sep	N18W53		300	20	1	Hax	2	A															
04 Sep	N18W66		300	20	1	Hsx	1	A															
05 Sep	N18W80		300	10	1	Axx	1	A															
06 Sep	N18W93		299	60	2	Hsx	1	A															
													0	0	0	1	0	0	0	0	0		

Crossed West Limb.
Absolute heliographic longitude: 299

Region 1279																							
25 Aug	N14E75		291	120	5	Hsx	1	A															
26 Aug	N13E61		292	90	2	Hsx	1	A					1										
27 Aug	N13E47		291	120	2	Hsx	3	A															
28 Aug	N13E34		291	80	3	Cso	3	B															
29 Aug	N13E22		290	100	4	Cso	6	B															
30 Aug	N13E07		291	80	1	Hsx	2	A					1										
31 Aug	N13W06		292	80	1	Hsx	1	A															
01 Sep	N13W19		292	60	2	Hax	3	A															
02 Sep	N14W32		292	60	2	Hsx	4	A															
03 Sep	N13W45		292	30	1	Hsx	4	A															
04 Sep	N13W59		293	plage																			
05 Sep	N13W73		294	plage																			
06 Sep	N13W87		294	plage																			
													0	0	0	2	0	0	0	0	0		

Crossed West Limb.
Absolute heliographic longitude: 292



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 1281																	
28 Aug	S21E65	260	60	6	Cso	2	B					4					
29 Aug	S19E54	258	30	6	Cro	5	B										
30 Aug	S20E40	258	10	5	Bxo	5	B	1				1	1				
31 Aug	S20E28	258	100	4	Csi	11	B					4					
01 Sep	S21E12	261	160	8	Dao	16	B										
02 Sep	S20E01	259	110	7	Dao	10	B	1				5					
03 Sep	S19W10	257	90	3	Dao	8	B	2				4					
04 Sep	S19W24	258	70	3	Cao	5	B										
05 Sep	S18W39	259	50	3	Cso	3	B										
06 Sep	S18W51	258	10	3	Bxo	2	B										
07 Sep	S15W59	253	10	3	Bxo	2	B										
08 Sep	S15W73	254	plage														
09 Sep	S15W87	255	plage														
								4	0	0	18	1	0	0	0		

Crossed West Limb.
 Absolute heliographic longitude: 259

Region 1282																	
30 Aug	N24E01	297	10	3	Bxo	3	B										
31 Aug	N25W13	299	50	5	Dso	9	B										
01 Sep	N25W26	299	50	8	Dso	13	B					2					
02 Sep	N25W40	300	170	11	Eso	12	B					1					
03 Sep	N23W52	299	100	12	Eso	8	BD										
04 Sep	N24W66	300	90	12	Cso	6	B										
05 Sep	N22W86	306	70	2	Hsx	1	A										
								0	0	0	3	0	0	0	0	0	

Crossed West Limb.
 Absolute heliographic longitude: 297



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 1283																							
30 Aug	N12E71	227	60	1	Hsx	1	A																
31 Aug	N12E61	225	100	3	Cso	2	B	1					4										
01 Sep	N12E49	224	200	6	Cso	10	B	2					2										
02 Sep	N13E37	223	200	7	Dso	11	B						6										
03 Sep	N14E24	223	220	9	Dsi	21	B																
04 Sep	N13E11	223	190	9	Dai	21	B																
05 Sep	N14W04	224	220	13	Eai	29	BG						2										
06 Sep	N14W18	224	200	12	Eai	23	BGD		1	1		1	1	1									
07 Sep	N14W32	226	230	10	Dai	14	BGD	1		1			1						1				
08 Sep	N16W42	222	200	12	Cao	12	BGD	2	1			3	1										
09 Sep	N17W55	221	210	12	Eao	12	BG	3	2			5	2										
10 Sep	N13W73	227	200	6	Dso	7	BG		1			2											
11 Sep	N14W87	227	140	4	Dso	2	BG	4				2											
								13	5	2		27	5	1	1	0							

Still on Disk.

Absolute heliographic longitude: 224

Region 1286

03 Sep	N20W57	304	80	9	Dso	8	B	5				9									
04 Sep	N20W75	309	80	7	Cso	6	B	4	1			2									
05 Sep	N20W89	310	plage							2											
								9	3	0		11	0	0	0	0					

Crossed West Limb.

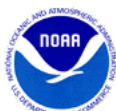
Absolute heliographic longitude: 304

Region 1287

03 Sep	S30E64	183	30	3	Cao	3	B	1													
04 Sep	S32E51	183	80	9	Cso	3	B					1									
05 Sep	S31E38	183	80	9	Cso	5	B														
06 Sep	S31E25	181	100	8	Cso	5	B														
07 Sep	S30E09	185	100	2	Hsx	1	A														
08 Sep	S30W05	186	60	2	Hsx	1	A														
09 Sep	S29W16	183	60	2	Hsx	2	A					1									
10 Sep	S29W28	183	70	1	Hsx	2	A														
11 Sep	S28W42	183	60	1	Hsx	2	A														
								1	0	0		2	0	0	0	0					

Still on Disk.

Absolute heliographic longitude: 186



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 1288																							
05 Sep	N18E34	185	10		3	Bxo	3	B															
06 Sep	N19E20	186	0			Axx	1	A															
07 Sep	N19E06	188	plage																				
08 Sep	N19W08	189	plage																				
09 Sep	N19W22	190	plage																				
10 Sep	N19W36	191	plage																				
11 Sep	N19W50	191	plage																				
												0	0	0	0	0	0	0	0	0	0	0	

Still on Disk.
Absolute heliographic longitude: 188

Region 1289																							
06 Sep	N24E78	129	190		3	Hsx	1	A															
07 Sep	N23E66	128	280		6	Cho	3	B															
08 Sep	N21E51	129	370		6	Cho	4	B	1				1										
09 Sep	N22E37	130	380		5	Dho	6	B					1										
10 Sep	N23E24	129	450		6	Dho	11	B	1														
11 Sep	N22E12	128	430		6	Dko	16	B															
												2	0	0	2	0	0	0	0	0	0	0	

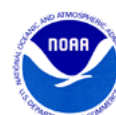
Still on Disk.
Absolute heliographic longitude: 128

Region 1290																							
09 Sep	S15E29	137	30		3	Cro	5	B															
10 Sep	S15E16	137	50		5	Dro	5	B															
11 Sep	S15E03	138	70		7	Dso	10	B															
												0	0	0	0	0	0	0	0	0	0	0	

Still on Disk.
Absolute heliographic longitude: 138

Region 1291																							
10 Sep	N23W03	156	10		3	Dro	2	B															
11 Sep	N23W15	156	10		4	Bxo	2	B															
												0	0	0	0	0	0	0	0	0	0	0	

Still on Disk.
Absolute heliographic longitude: 156



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	
<i>Region 1292</i>																	
11 Sep	N08E66		74	40	4	Bxo	2	B	0	0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 74

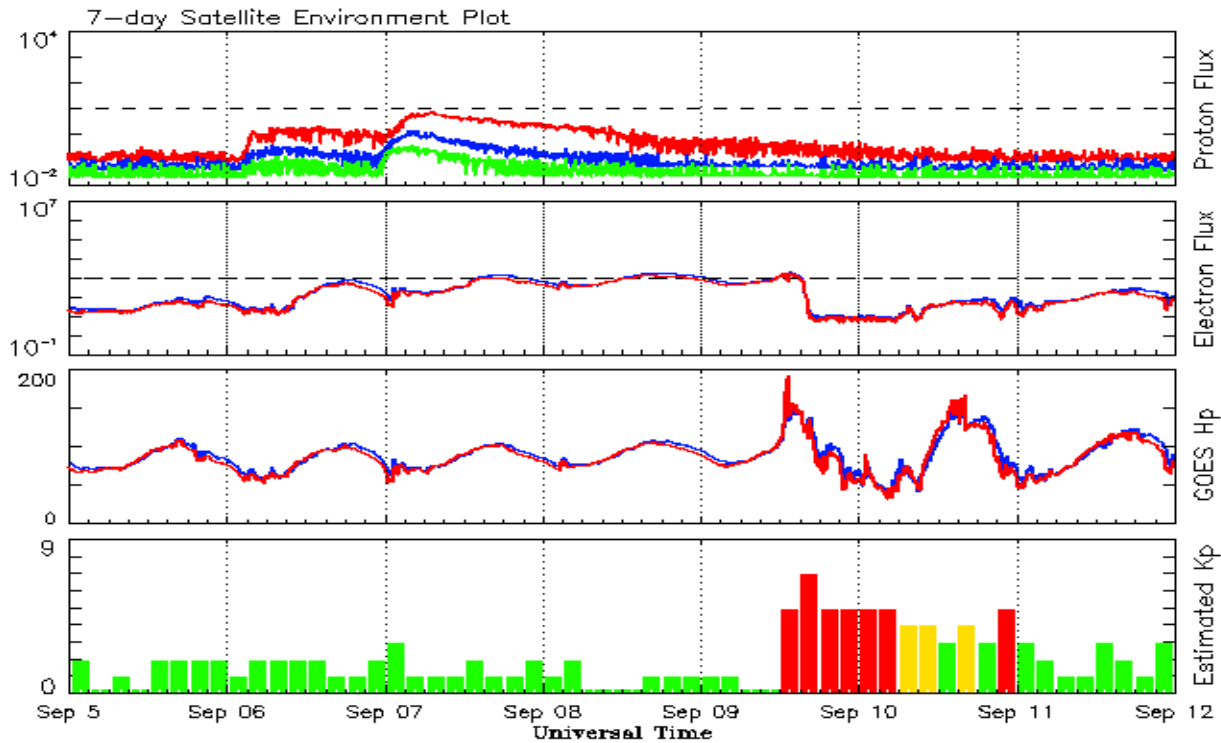


Recent Solar Indices (preliminary)
Observed monthly mean values

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									
September	6.6	4.3	0.64	9.9	6.2	70.5	73.3	4	3.8
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			115.3		7	
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	

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 September 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.

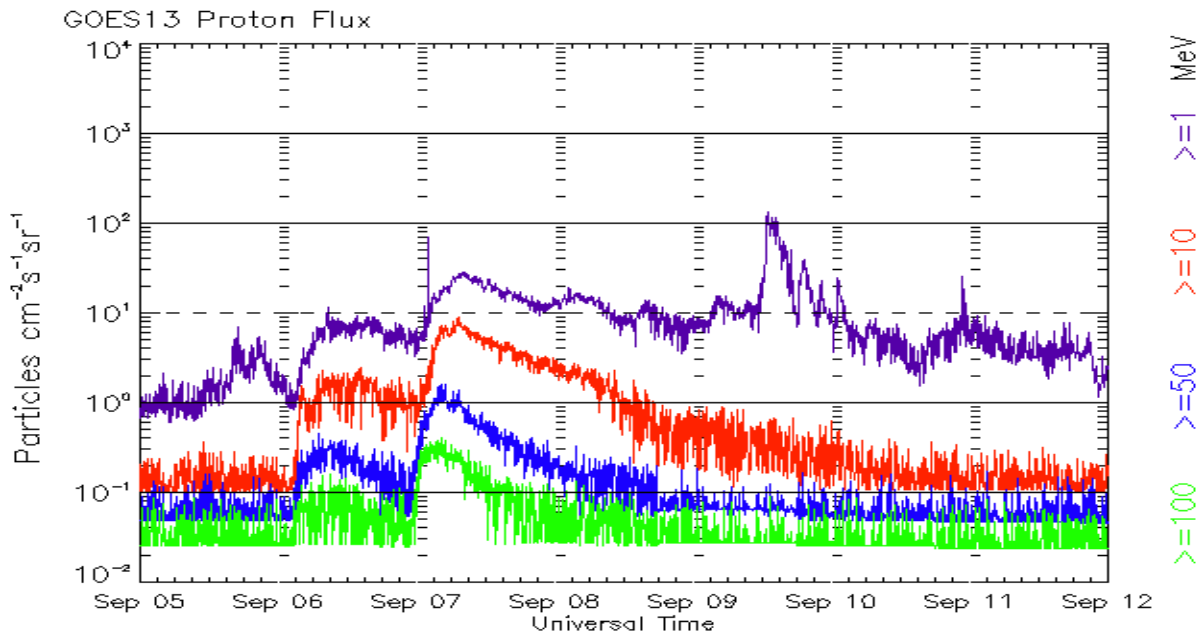
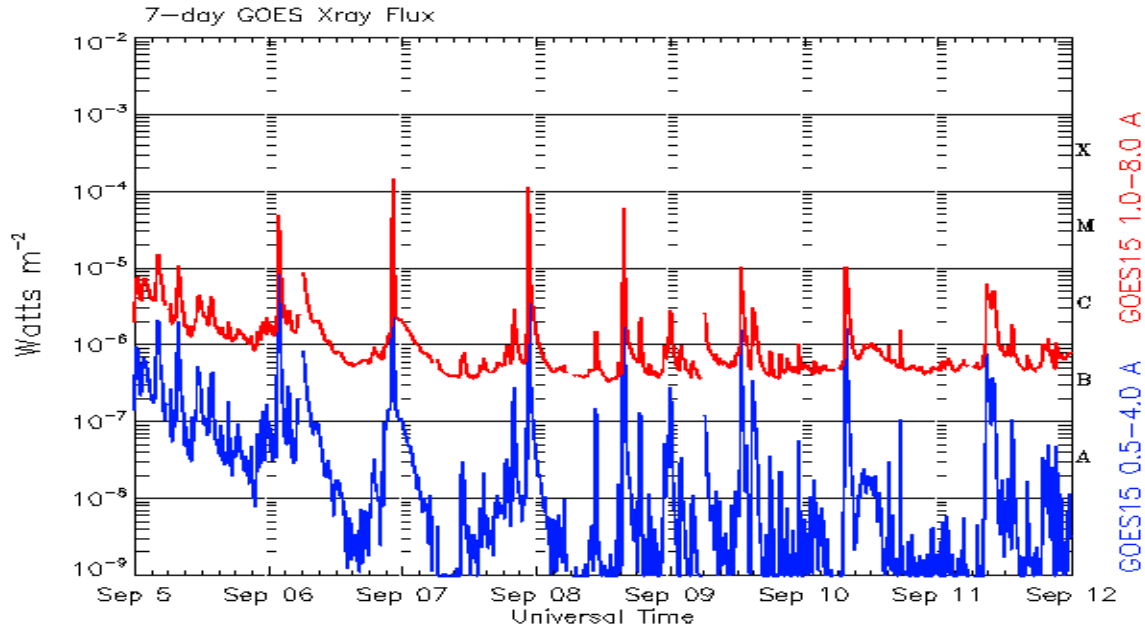
The electron flux plot contains the five-minute averaged integral electron flux (electrons/cm²-sec -sr) with energies greater than 2 MeV by the SWPC Primary GOES satellite.

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 September 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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