

Solar activity ranged from low to high levels during the period. Moderate levels were reached on 8, 11, and 14 September with high levels reached on 10 September. Moderate levels were first reached on 09 September at 0029 UTC when active sunspot region 2158 (N16, L=087, class/area Dkc/440 on 11 September) produced a long duration M4/1n flare. This flare had associated Type II (999 km/s estimated shock velocity) and Type IV radio sweeps, a 10cm (370 sfu) radio burst, and an asymmetrical, full-halo coronal mass ejection (CME) which was first observed in LASCO/C2 imagery at 09/0006 UTC. The majority of the ejecta appeared to be heading north and east of the Sun/Earth line, however, it was later determined this event contained an Earth-directed component. On 10 September, conditions reached High levels as Region 2158 produced a X1/2b flare at 1745 UTC. It also had associated Type II (3750 km/s estimated shock velocity) and Type IV radio sweeps, a 10cm (1300 sfu) radio burst, and an Earth-directed full halo CME. On 11 September, Region 2166 (N13, L=352, class/area Dao/60 on 14 September) produced an M2 flare at 1526 and an M1 flare at 2126 UTC, just prior to rotating on to the visible disk. After returning to low levels on 12 and 13 September, conditions again rose to Moderate levels as Region 2157 (S14, L=98, class/area Ekc/540 on 6 September) produced an M1/2n flare at 14/0216 UTC. The coronal mass ejection (CME) associated with this M-flare was observed off the west limb in SOHO/LASCO C2 coronagraph imagery beginning at 14/0248 UTC, but was deemed to be well off the Sun-Earth line. Other activity included a filament eruption observed in SDO/AIA 193 imagery beginning at 12/1749 UTC west of Region 2158 near center-disk. SOHO/LASCO C2 imagery showed a coronal mass ejection (CME) beginning at 12/1936 UTC that was mostly obscured by a larger backsided CME off the NNE limb that preceded it beginning at 12/1836 UTC. WSA-ENLIL modeling of the event indicates a likely CME arrival around midday on 16 Sep.

The greater than 10 MeV proton flux was elevated on 8 and 9 September due to a particle enhancement from an event the week prior. Late on 10 September, levels began a quick rise following the X1/2b flare from Region 2158, mentioned earlier. By 11 September, the greater than 10 MeV levels had reached a peak of 28 pfu (S1 - Minor), but then leveled off for the next 24 hours. Storm levels briefly reached the S2 (Moderate) threshold, in conjunction with the arrival of the CME, and reached a maximum of 126 pfu at 12/1355 UTC. During this time, the greater than 100 MeV proton flux levels began to rise as well, reaching the 1.2 pfu at 11/0425 UTC level before tapering off shortly thereafter.

The greater than 2 MeV electron flux at geosynchronous orbit was at normal levels on 8, 9, 11, 13, and 14 September, and reached moderate levels on 10 and 12 September.

Geomagnetic field activity was at quiet to severe storm levels during the period. Quiet to unsettled levels occurred from 8 to 11 September, with an isolated active period on 11 September. A geomagnetic Sudden Impulse (33 nT) was observed at the Boulder magnetometer at 11/2346 UTC, indicating the arrival of the 09 Sep CME as anticipated. The geomagnetic field responded, pushing geomagnetic field conditions to minor storm levels. Conditions moderated for approximately 9 hours back at quiet to unsettled levels, until the second CME arrived at



Earth. Total field rose to a max of 31 nT and solar wind increased to near 790 km/s by late on 12 September. A geomagnetic sudden impulse of 43 nT was observed at the Boulder magnetometer at 12/1555 UTC. Conditions then increased to minor to severe storm levels for the next 9 hours. Conditions fell to active levels early on 13 September and continued to decline to quiet levels by mid day as the Bz component remained in a northward orientation (not well connected). Quiet conditions remained through 14 September.

Space Weather Outlook 15 September - 11 October 2014

Solar activity is expected to be low with a chance for M-class flares through 27 September due to returning Regions 2149 (N09, L=284) and 2151 (S08, L=253). Activity is then likely to be moderate (R1-R2/Minor-Moderate) with a chance for X-class flaring (R3-Strong or greater) through the remainder of the period due to Regions 2157 and 2158 returning to the visible disk.

There is a chance for a greater than 10 MeV proton event from 29 September through the end of the period due to potential significant flare activity from Regions 2157 and 2158.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at normal to moderate levels from 15 to 18 September, before returning to normal levels through 25 September. Conditions should increase to normal to moderate with a chance for high levels from 26 September through 1 October in response to the recurrent coronal hole high speed stream (CH HSS). Conditions should fall back to normal to moderate levels from 2 - 11 October, with a chance for high levels from 7 to 9 October due to another CH HSS.

Geomagnetic field activity is expected to be at mostly quiet levels from 15 to 24 September, with isolated unsettled levels on 16 and 17 September, due to a recurrent CH HSS combined with CME activity from 12 September. Another recurrent CH HSS is expected to return on 25 September, making unsettled to active conditions likely through 30 September. Mostly quiet conditions are expected from 1 October to 5 October. A weak positive polarity coronal hole feature is likely to bring conditions up slightly, to the quiet to unsettled levels on 6 - 7 October, before returning to mostly quiet conditions 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
08 September	164	158	1110	B8.8	4	1	0	16	1	0	0	0
09 September	159	162	1120	C1.1	1	0	0	4	1	0	0	0
10 September	160	161	1070	B7.6	1	0	1	12	0	1	0	0
11 September	151	164	870	B8.7	4	2	0	6	0	0	0	0
12 September	152	157	790	B6.9	8	0	0	8	1	0	0	0
13 September	145	165	550	B6.5	9	0	0	12	0	0	0	0
14 September	139	120	550	B7.2	2	1	0	3	0	1	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
	08 September	4.6e+06	3.5e+05	2.9e+03		2.2e+06
09 September	5.3e+06	2.0e+05	3.0e+03		3.5e+06	
10 September	3.7e+06	1.1e+05	4.3e+03		6.8e+06	
11 September	2.4e+07	1.6e+06	3.4e+04		2.5e+06	
12 September	2.3e+08	2.9e+06	6.3e+03		6.8e+06	
13 September	5.3e+06	1.6e+05	2.0e+03		3.1e+05	
14 September	5.9e+05	4.0e+04	2.6e+03		1.0e+05	

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
	08 September	7	0-1-2-2-3-2-2-2	2	0-1-2-0-0-1-1-1	6
09 September	8	2-2-1-2-3-2-2-2	4	2-1-1-2-1-1-1-1	8	3-2-2-2-2-2-2-3
10 September	9	1-0-0-2-2-4-3-3	3	2-0-1-1-0-1-2-1	9	2-1-1-2-1-3-3-3
11 September	16	3-4-3-4-3-2-2-3	20	2-3-5-5-4-1-1-2	12	3-4-3-3-2-1-1-3
12 September	35	5-4-2-4-3-5-4-6	37	4-5-3-4-4-6-4-5	44	5-5-2-3-2-6-5-7
13 September	13	4-2-3-2-3-2-3-2	8	3-2-2-1-2-2-2-2	13	4-3-4-2-2-2-2-2
14 September	3	1-1-1-0-2-1-1-0	1	1-0-0-0-0-1-0-0	3	1-1-1-1-1-1-0-0



Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
09 Sep 0028	SUMMARY: 10cm Radio Burst	08/2349 - 2359
09 Sep 0059	ALERT: Type II Radio Emission	09/0019
09 Sep 0100	ALERT: Type IV Radio Emission	08/2340
09 Sep 1835	WATCH: Geomagnetic Storm Category G2 predicted	
10 Sep 1737	ALERT: X-ray Flux exceeded M5	10/1731
10 Sep 1814	ALERT: Type II Radio Emission	10/1727
10 Sep 1815	ALERT: Type IV Radio Emission	10/1728
10 Sep 1827	SUMMARY: X-ray Event exceeded X1	10/1721 - 1820
10 Sep 1903	SUMMARY: 10cm Radio Burst	10/1723 - 1826
10 Sep 2105	WARNING: Proton 10MeV Integral Flux > 10pfu	10/2115 - 11/2100
10 Sep 2322	WARNING: Proton 100MeV Integral Flux > 1pfu	10/2330 - 11/2100
11 Sep 0247	ALERT: Proton Event 10MeV Integral Flux >= 10pfu	11/0240
11 Sep 0330	WARNING: Geomagnetic K = 4	11/0330 - 1300
11 Sep 0431	ALERT: Proton Event 100MeV Integral Flux > 1pfu	11/0425
11 Sep 0459	WATCH: Geomagnetic Storm Category G3 predicted	
11 Sep 0526	ALERT: Geomagnetic K = 4	11/0522
11 Sep 1124	SUMMARY: Proton Event 100MeV Integral Flux > 1pfu	11/0425 - 0535
11 Sep 1133	CANCELLATION: Proton 100MeV Integral Flux > 1pfu	
11 Sep 1543	SUMMARY: 10cm Radio Burst	11/1523 - 1525
11 Sep 2055	EXTENDED WARNING: Proton 10MeV Integral Flux > 10pfu	10/2115 - 12/2300
11 Sep 2307	WARNING: Geomagnetic Sudden Impulse expected	11/2330 - 12/0030
11 Sep 2317	WARNING: Geomagnetic K = 4	11/2330 - 12/2300
11 Sep 2351	SUMMARY: Geomagnetic Sudden Impulse	11/2346
11 Sep 2355	WARNING: Geomagnetic K = 5	12/0000 - 2300
12 Sep 0110	ALERT: Geomagnetic K = 4	12/0109
12 Sep 0156	ALERT: Geomagnetic K = 5	12/0155
12 Sep 0221	WARNING: Geomagnetic K = 6	12/0220 - 1000

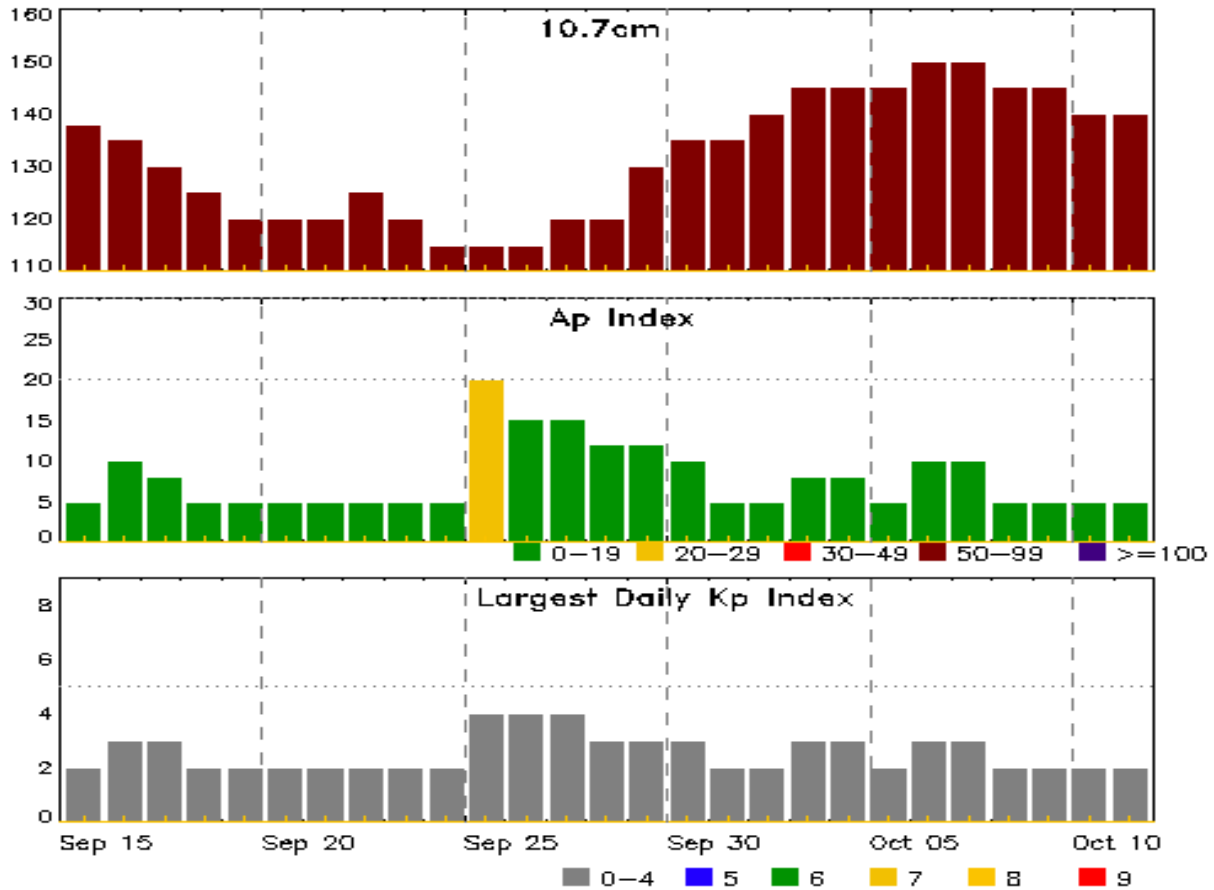


Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
12 Sep 1526	EXTENDED WARNING: Proton 10MeV Integral Flux > 10pfu	10/2115 - 13/0500
12 Sep 1533	WARNING: Geomagnetic Sudden Impulse expected	12/1545 - 1645
12 Sep 1535	WARNING: Geomagnetic K = 6	12/1545 - 13/0900
12 Sep 1556	ALERT: Proton Event 10MeV Integral Flux >= 100pfu	12/1550
12 Sep 1603	SUMMARY: Geomagnetic Sudden Impulse	12/1555
12 Sep 1748	ALERT: Geomagnetic K = 6	12/1741
12 Sep 2022	EXTENDED WARNING: Proton 10MeV Integral Flux > 10pfu	10/2115 - 13/0700
12 Sep 2022	SUMMARY: Proton Event 10MeV Integral Flux >= 100pfu	12/1550 - 1620
12 Sep 2238	ALERT: Geomagnetic K = 6	12/2225
12 Sep 2256	EXTENDED WARNING: Geomagnetic K = 5	12/0000 - 13/2300
12 Sep 2256	EXTENDED WARNING: Geomagnetic K = 4	11/2330 - 13/2300
12 Sep 2307	WARNING: Geomagnetic K >= 7	12/2306 - 13/0700
12 Sep 2309	ALERT: Geomagnetic K = 7	12/2302
13 Sep 0648	EXTENDED WARNING: Geomagnetic K >= 7	12/2306 - 13/1600
13 Sep 0648	EXTENDED WARNING: Geomagnetic K = 6	12/1545 - 13/1600
13 Sep 0700	SUMMARY: Proton Event 10MeV Integral Flux >= 10pfu	11/0240 - 12/2310
14 Sep 0544	ALERT: Type IV Radio Emission	14/0430
14 Sep 0909	CANCELLATION: Geomagnetic Storm Category G3 predicted	



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
15 Sep	138	5	2	29 Sep	130	12	3
16	135	10	3	30	135	10	3
17	130	8	3	01 Oct	135	5	2
18	125	5	2	02	140	5	2
19	120	5	2	03	145	8	3
20	120	5	2	04	145	8	3
21	120	5	2	05	145	5	2
22	125	5	2	06	150	10	3
23	120	5	2	07	150	10	3
24	115	5	2	08	145	5	2
25	115	20	4	09	145	5	2
26	115	15	4	10	140	5	2
27	120	15	4	11	140	5	2
28	120	12	3				



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
08 Sep	2312	0029	0131	M4.5	0.220	1N	N12E29	2158	1000	170	1	
10 Sep	1721	1745	1820	X1.6	0.380	2B	N14E02	2158	3800	1300	2	2
11 Sep	1520	1526	1531	M2.1	0.009			2166		210		
11 Sep	2101	2126	2130	M1.4	0.007			2166				
14 Sep	0203	0216	0236	M1.5	0.022	2N	S13W49	2157				

Flare List

Date	Time			X-ray Class	Imp/ Brtns	Optical		Rgn #
	Begin	Max	End			Location	Lat CMD	
08 Sep	0008	0011	0013	C5.1				2157
08 Sep	0126	0127	0132		SF	N15E42		2158
08 Sep	0135	0135	0140		SF	N15E42		2158
08 Sep	0155	0156	0201		SF	N15E42		2158
08 Sep	0156	0208	0220		SF	S18W30		2154
08 Sep	0207	0208	0222		SF	N15E42		2158
08 Sep	0315	0316	0319		SF	N14E40		2158
08 Sep	0320	0321	0327		SF	N15E38		2158
08 Sep	0321	0327	0357	C4.6	SF	S12E51		2157
08 Sep	0601	0603	0609		SF	S09W71		2160
08 Sep	0834	U0840	A0910		SF	N15E35		2158
08 Sep	1005	1006	1013		SF	S17E44		2159
08 Sep	1153	1153	1202		SF	N15E33		2158
08 Sep	1242	1245	1249		SF	S17E42		2159
08 Sep	1507	1507	1521		SF	N19E30		2158
08 Sep	1626	1633	1640	C2.7				2157
08 Sep	1901	1907	1936	C2.1	SF	N15E28		2158
08 Sep	2312	0029	0131	M4.5				2158
08 Sep	2313	2316	0013		SF	S15E18		2157
08 Sep	2340	0038	0159		1N	N12E29		2158
09 Sep	0629	0630	0636		SF	N14E23		2158
09 Sep	0828	0829	0830		SF	N13E22		2158
09 Sep	B1015	U1015	1027		SF	S20W48		2154
09 Sep	1219	1226	1235	C3.2	1N	S08E12		2157
09 Sep	1533	1534	1548		SF	S12E12		2157
10 Sep	0252	0257	0309		SF	S12E04		2157



Flare List

Date	Time			X-ray Class	Optical		Rgn #
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	
10 Sep	0309	0311	0312		SF	S12E04	2157
10 Sep	0313	0316	0329		SF	S14E02	2157
10 Sep	0321	0321	0325		SF	S18W60	2154
10 Sep	0503	0506	0508		SF	S14E01	2157
10 Sep	0512	0524	0532	C2.4	SF	S16E05	2157
10 Sep	0522	0523	0524		SF	S16E05	2157
10 Sep	0730	0731	0751		SF	S14E03	2157
10 Sep	0754	U0802	0805		SF	S14E03	2157
10 Sep	1358	1402	1422		SF	N15E05	2158
10 Sep	1659	1733	2240	X1.6	2B	N14E02	2158
10 Sep	1826	1827	1901		SF	S17W01	2157
10 Sep	2341	2350	2351		SF	N12E01	2158
11 Sep	0014	0015	0022		SF	N12E01	2158
11 Sep	0120	0122	0129		SF	S16W06	2157
11 Sep	0133	0133	0135		SF	S16W06	2157
11 Sep	0335	0349	0402	C4.4			
11 Sep	0519	0521	0525		SF	S08E76	2155
11 Sep	0526	0527	0534		SF	S18W15	2155
11 Sep	0633	0636	0642	C1.9			
11 Sep	0714	0714	0720		SF	S08E75	
11 Sep	1154	1158	1201	C2.0			2163
11 Sep	1430	1434	1450	C2.4			2157
11 Sep	1520	1526	1531	M2.1			2166
11 Sep	2101	2126	2130	M1.4			2166
12 Sep	0207	0224	0232	C9.5	1F	S16W20	2157
12 Sep	0359	0405	0415		SF	S09E61	
12 Sep	0804	0804	0813		SF	S12W71	2161
12 Sep	0811	0815	0817	C1.2	SF	N18W15	2158
12 Sep	0824	0955	1043	C3.2			2158
12 Sep	B0928	U0934	A1105		SF	N12W13	2158
12 Sep	0932	0934	0940		SF	N17W16	2158
12 Sep	B1225	U1232	A1304	C1.5	SF	S16W71	2161
12 Sep	B1232	U1235	A1253		SF	N18W18	2158
12 Sep	1336	1341	1347	C1.5			2161
12 Sep	1501	1507	1510		SF	S16W72	2161
12 Sep	1632	1635	1638	C1.4			2161
12 Sep	1845	1855	1902	C2.5			2157
12 Sep	2005	2012	2014	C3.3			2157



Flare List

Date	Time			X-ray Class	Imp/ Brtns	Optical		Rgn #
	Begin	Max	End			Location Lat CMD		
13 Sep	0000	0009	0015	C2.3	SF	S11W79		2161
13 Sep	0213	0215	0217		SF	S12W78		2161
13 Sep	0326	0329	0348		SF	S14W78		2161
13 Sep	0427	0510	0546		SF	S12W82		2161
13 Sep	0429	0447	0458	C1.7				2166
13 Sep	0634	0641	0653		SF	S13E10		2164
13 Sep	0640	0642	0647		SF	S11W80		2161
13 Sep	0746	0755	0757		SF	S11W80		2161
13 Sep	0903	0905	0907		SF	S11W82		2161
13 Sep	1022	1031	1059		SF	S15W42		2155
13 Sep	1241	1244	1246	C1.2				2161
13 Sep	1250	1254	1256	C3.7	SF	S19W37		2157
13 Sep	1610	1616	1619	C1.1				2157
13 Sep	1711	1714	1716	C1.6				2157
13 Sep	2228	2233	2236	C1.1				
13 Sep	2310	2313	2315	C1.2	SF	S15W45		2157
13 Sep	2316	2318	2326	C1.5	SF	N20W39		2158
14 Sep	0012	0017	0021	C1.9				
14 Sep	0203	0216	0236	M1.5	2N	S13W49		2157
14 Sep	0229	0229	0232		SF	N14E61		2166
14 Sep	0401	0401	0404		SF	N14E61		2166
14 Sep	1408	1412	1415	C1.6	SF	S16W52		2157



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

Region 1257

17 Jul	N19W56	217	50	4	Dai	12	B					19					
18 Jul	N20W69	217	120	4	Dsi	12	B					1					
19 Jul	N20W83	218	240	10	Dso	3	B										
								0	0	0	20	0	0	0	0	0	

Crossed West Limb.
Absolute heliographic longitude: 217

Region 2152

28 Aug	S18E55	205	30	2	Cro	4	B	1				5					
29 Aug	S18E41	206	20	4	Cro	6	B										
30 Aug	S17E27	207	70	6	Dai	11	BG	4				15					
31 Aug	S16E15	206	200	9	Dac	24	BG	2				2					
01 Sep	S16E01	206	220	8	Dac	32	BG	2				3					
02 Sep	S16W12	206	230	11	Eac	27	BG	2				7					
03 Sep	S15W26	206	240	12	Eac	27	BG					1					
04 Sep	S15W38	206	310	11	Eki	16	BG	3				1					
05 Sep	S15W51	206	190	12	Eao	11	BG					1					
06 Sep	S15W65	207	180	12	Eao	15	BG	1				1					
07 Sep	S15W83	211	120	5	Cao	2	B										
08 Sep	S15W92	207	30	1	Hsx	1	A										
								15	0	0	36	0	0	0	0	0	

Crossed West Limb.
Absolute heliographic longitude: 206

Region 2154

02 Sep	S18E36	157	20	1	Cro	3	B										
03 Sep	S19E22	158	30	4	Cro	2	B										
04 Sep	S18E09	159	20	5	Cri	10	B										
05 Sep	S18W05	159	40	5	Cao	9	B										
06 Sep	S18W19	161	10	5	Bxo	3	B										
07 Sep	S16W30	158	plage														
08 Sep	S16W44	159	plage									1					
09 Sep	S16W58	160	plage									1					
10 Sep	S16W72	161	plage									1					
11 Sep	S16W86	161	plage														
								0	0	0	3	0	0	0	0	0	

Crossed West Limb.
Absolute heliographic longitude: 159



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 2155																							
03 Sep	S20E75	116	90	2	Hax			A	1	1													
04 Sep	S20E59	109	170	4	Dao	3		B	1														
05 Sep	S20E47	108	120	2	Dao	6		B	1				1										
06 Sep	S20E33	109	120	3	Dao	5		B															
07 Sep	S20E19	109	120	3	Cao	6		B															
08 Sep	S19E06	109	100	3	Cao	4		B															
09 Sep	S21W08	110	60	5	Dac	9		B															
10 Sep	S21W22	111	60	5	Cai	10		B															
11 Sep	S19W34	109	30	4	Bxo	5		B						2									
12 Sep	S19W48	108	10	3	Bxo	3		B															
13 Sep	S19W61	110	10	5	Bxo	2		B							1								
14 Sep	S19W75	111	plage																				
									3	1	0	4	0	0	0	0	0						

Still on Disk.

Absolute heliographic longitude: 109

Region 2156																							
04 Sep	N15E56	112	10	4	Bxo	2		B															
05 Sep	N15E42	113	plage																				
06 Sep	N15E28	114	plage																				
07 Sep	N15E14	114	plage																				
08 Sep	N15W00	115	plage																				
09 Sep	N15W14	116	plage																				
10 Sep	N15W28	117	plage																				
11 Sep	N15W42	117	plage																				
12 Sep	N15W56	118	plage																				
13 Sep	N15W70	119	plage																				
14 Sep	N15W84	120	plage																				
									0	0	0	0	0	0	0	0	0						

Still on Disk.

Absolute heliographic longitude: 115



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 2157																								
04 Sep	S13E68		100	200	5	Dai	12	B	3				1											
05 Sep	S14E58		97	520	10	Dkc	14	BGD	4					1										
06 Sep	S14E44		98	540	12	Ekc	17	BGD	5	1			6	1										
07 Sep	S14E31		97	420	14	Ekc	27	BGD	5				6											
08 Sep	S14E17		98	450	12	Ekc	37	BGD	3				2											
09 Sep	S14E03		99	480	13	Ekc	39	BGD	1				1	1										
10 Sep	S14W11		100	460	13	Ekc	45	BGD	1				9											
11 Sep	S14W24		99	260	13	Ekc	34	BGD	1				2											
12 Sep	S14W38		99	250	13	Ekc	53	BG	3						1									
13 Sep	S14W51		100	220	13	Eai	26	BG	4				2											
14 Sep	S15W63		99	180	9	Dai	17	BG	1	1			1			1								
									31	2	0		30	4	1	0	0							

Still on Disk.

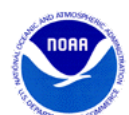
Absolute heliographic longitude: 99

Region 2158

04 Sep	N16E83		85	100	3	Hax	2	A																
05 Sep	N15E68		87	300	5	Cko	4	B																
06 Sep	N15E54		88	310	5	Dkc	7	BD																
07 Sep	N16E40		88	380	7	Dkc	10	BD					1											
08 Sep	N15E28		87	380	7	Dkc	10	BGD	1	1			10	1										
09 Sep	N15E14		88	420	7	Dkc	25	BGD					2											
10 Sep	N15W00		89	400	7	Dkc	22	BG				1	2		1									
11 Sep	N16W12		87	440	6	Dkc	23	BG					1											
12 Sep	N16W26		88	400	6	Dkc	20	BG	2				4											
13 Sep	N16W39		88	180	6	Cai	29	B	1				1											
14 Sep	N16W53		89	200	4	Dai	13	BG																
									4	1	1		21	1	1	0	0							

Still on Disk.

Absolute heliographic longitude: 89



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 2159																		
05 Sep	S19E74		81	30	2	Cao	6	B										
06 Sep	S20E60		82	30	2	Cro	5	B					1					
07 Sep	S20E49		79	20	5	Cro	5	B	1									
08 Sep	S21E36		79	30	4	Cro	3	B					2					
09 Sep	S21E22		80	10	4	Bxo	5	B										
10 Sep	S21E08		81	10	2	Axx	3	A										
11 Sep	S21W09		84	10	1	Axx	2	A										
12 Sep	S21W23		85	plage														
13 Sep	S21W37		86	plage														
14 Sep	S21W51		87	plage														
									1	0	0	3	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 81

Region 2160

06 Sep	S09W55		197	10	1	Cro	5	B										
07 Sep	S10W68		196	70	6	Dao	5	B					2					
08 Sep	S09W80		195	40	6	Cro	5	B					1					
									0	0	0	3	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 197

Region 2161

06 Sep	S16W07		149	30	2	Dao	8	B										
07 Sep	S15W22		150	20	4	Dao	3	B										
08 Sep	S14W36		151	20	2	Hsx	2	A										
09 Sep	S13W50		152	10	1	Hsx	1	A										
10 Sep	S13W64		153	10	1	Axx	1	A										
11 Sep	S12W79		154	30	1	Axx	1	A										
13 Sep	S13W94		143	30	10	Cao	2	B	2				7					
									2	0	0	7	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 149



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 2162																		
06 Sep	N08W04	146	10	4	Cao	3	B											
07 Sep	N08W20	148	10	1	Hrx	1	A											
08 Sep	N09W34	149	10	1	Hrx	1	A											
09 Sep	N09W48	150	30	4	Cro	7	B											
10 Sep	N09W62	151	40	5	Cao	4	B											
11 Sep	N10W71	146	10	1	Bxo	2	B											
12 Sep	N10W85	147	plage															
										0	0	0	0	0	0	0	0	0

Crossed West Limb.
 Absolute heliographic longitude: 146

Region 2163																		
07 Sep	S16E65	63	50	7	Cao	5	B											
08 Sep	S17E51	64	50	7	Cao	5	B											
09 Sep	S17E37	65	110	8	Dao	6	B											
10 Sep	S17E23	66	90	9	Dao	6	B											
11 Sep	S17E10	65	50	5	Cao	2	B	1										
12 Sep	S16W02	64	60	8	Cao	2	B											
13 Sep	S16W17	66	30	5	Hax	3	A											
14 Sep	S16W32	68	10	2	Hrx	3	A											
										1	0	0	0	0	0	0	0	0

Still on Disk.
 Absolute heliographic longitude: 64

Region 2164																			
11 Sep	S13E28	47	20	1	Cro	2	B												
12 Sep	S13E14	48	20	1	Cro	3	B												
13 Sep	S13E02	47	40	8	Dsi	16	B					1							
14 Sep	S14W13	49	90	9	Dai	15	BG												
												0	0	0	1	0	0	0	0

Still on Disk.
 Absolute heliographic longitude: 47



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 2165

11 Sep	S08E63	12	20	4	Cao	3	B										
12 Sep	S08E49	13	20	9	Cro	4	B										
13 Sep	S08E37	12	10	9	Bxo	2	B										
14 Sep	S08E19	12	plage														
									0	0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 12

Region 2166

11 Sep	N12E80	356	plage							2							
12 Sep	N12E66	356	30	1	Axx	2	A										
13 Sep	N13E61	348	30	11	Cro	5	B	1									
14 Sep	N13E44	352	60	10	Dao	11	B				2						
								1	2	0	2	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 352

Region 2167

14 Sep	N07E50	346	10		Axx	1	A										
								0	0	0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 346

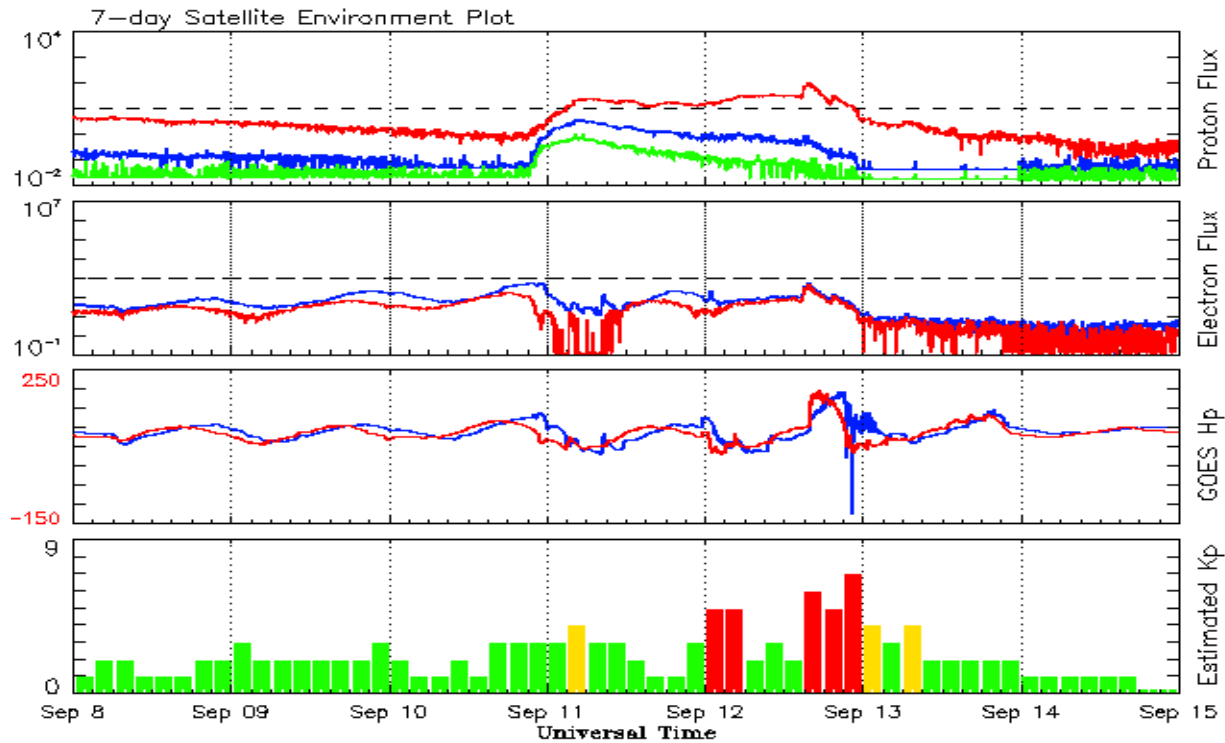


Recent Solar Indices (preliminary)
Observed monthly mean values

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
2012									
September	84.0	61.4	0.73	83.7	58.1	123.2	118.9	8	7.8
October	73.5	53.3	0.73	85.0	58.6	123.3	119.2	9	7.4
November	89.2	61.8	0.69	87.3	59.7	120.9	120.1	6	7.3
December	60.4	40.8	0.68	88.0	59.6	108.4	120.1	3	7.5
2013									
January	99.8	62.9	0.63	87.1	58.7	127.1	118.9	4	7.5
February	60.0	38.1	0.63	86.7	58.4	104.4	118.0	5	7.4
March	81.0	57.9	0.71	85.7	57.6	111.2	117.1	9	7.4
April	112.8	72.4	0.64	86.7	57.9	125.0	116.6	5	7.2
May	125.5	78.7	0.63	90.5	59.9	131.3	118.1	10	7.0
June	80.1	52.5	0.66	94.4	62.6	110.2	120.9	13	7.1
July	86.1	57.0	0.66	97.9	65.5	115.6	123.9	9	7.3
August	90.2	66.0	0.73	103.7	68.9	114.7	127.9	9	7.6
September	55.0	37.0	0.67	111.0	73.0	102.7	132.3	5	7.8
October	127.1	85.6	0.67	114.3	74.9	132.3	134.7	7	7.8
November	125.7	77.6	0.62	114.6	75.3	148.4	135.4	5	7.9
December	118.2	90.3	0.76	115.4	75.9	147.7	135.9	5	7.5
2014									
January	125.9	81.8	0.65	117.7	77.3	158.6	137.3	6	7.1
February	174.6	102.3	0.59	119.5	78.4	170.3	138.6	12	6.9
March	141.1	91.9	0.65			149.9		6	
April	130.5	84.7	0.65			144.3		9	
May	116.8	75.2	0.64			130.0		7	
June	107.7	71.0	0.66			122.2		7	
July	113.6	72.5	0.64			137.3		5	
August	106.2	74.7	0.70			124.7		9	

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 08 September 2014*

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

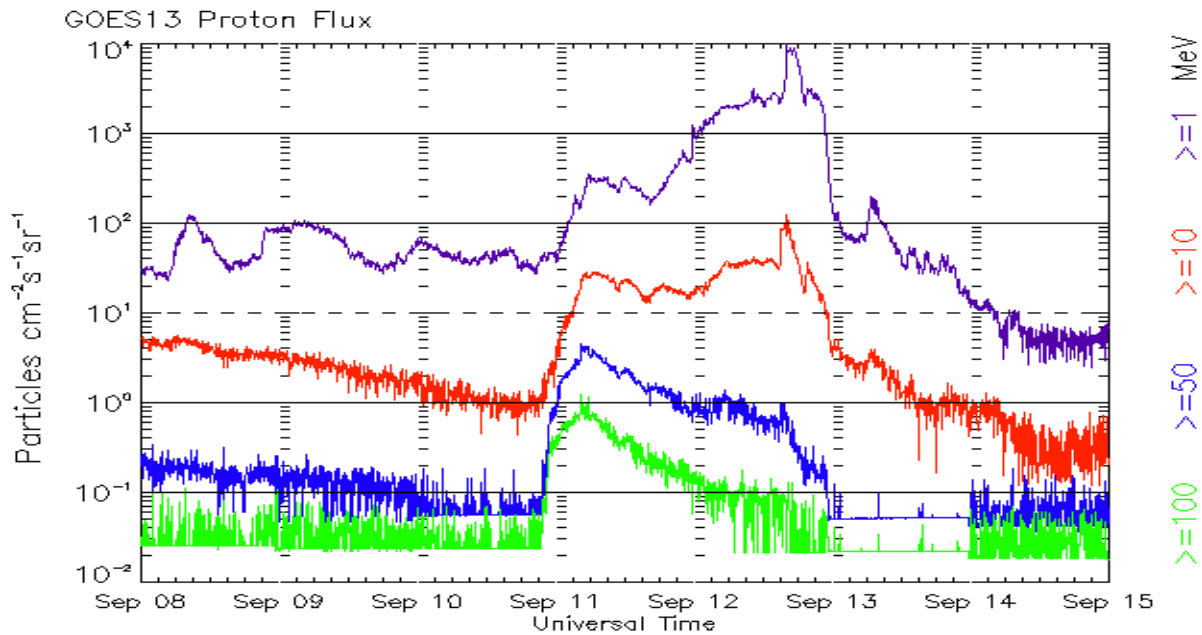
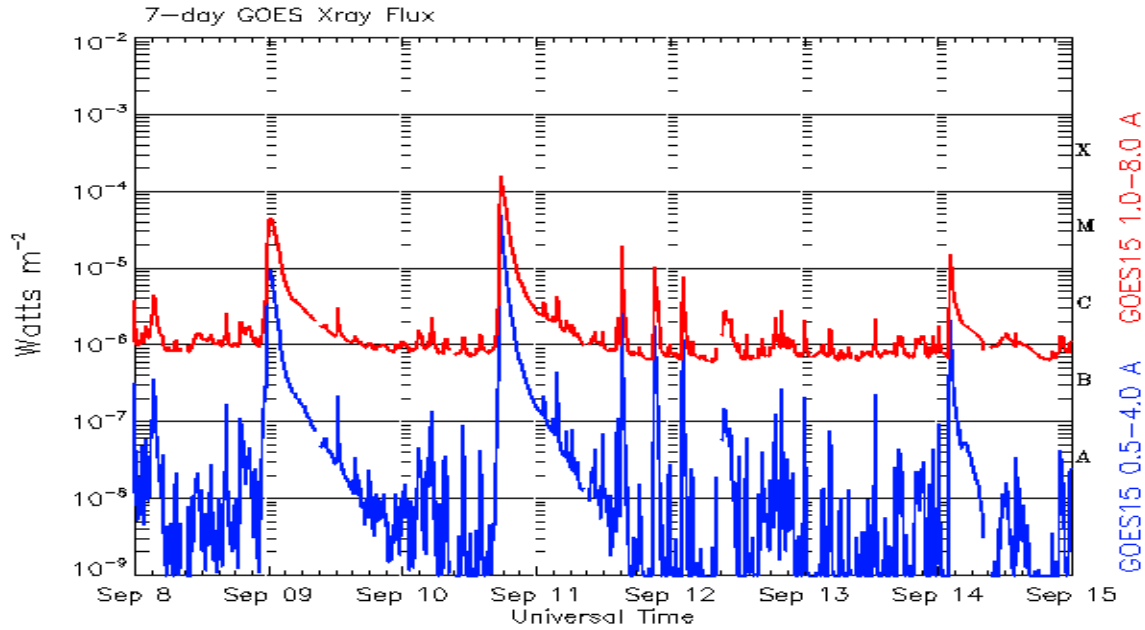
The electron flux plot contains the five-minute averaged integral electron flux (electrons/cm²-sec -sr) with energies greater than 2 MeV by the SWPC Primary GOES satellite.

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

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

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





*Weekly GOES Satellite X-ray and Proton Plots
Week Beginning 08 September 2014*

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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