

Solar activity reached moderate levels this week with M-class flares observed from Regions 2113 (N07, L=165, class/area=Cao/80 on 07 July) and 2106 (N14, L=264, class/area=Cao/120 on 09 July). The largest was an M6/2B event (R2 - moderate radio blackout) from Region 2113 on 08 July at 1520 UTC. This event was accompanied by Type II (949 km/s) and IV radio emissions but the CME, observed in SOHO/LASCO C2 coronagraph imagery at 1636 UTC, was directed north of the ecliptic and east of the Earth-Sun line.

Approximately eight hours later, this same region produced an M1 (R1 - minor radio blackout) event at 09/0026 UTC, also accompanied by a Type II emission (1187 km/s). A faint CME emerged from the east limb beginning at about 09/0125 UTC in SOHO/LASCO C2 coronagraph imagery. Again, this CME was judged not to be Earth-directed.

Also on the 9th, an approximately 18 degree long filament, centered near S02E11, was observed in SDO AIA/304 imagery erupting between 09/1640-1757 UTC. SOHO/LASCO C2 imagery showed the CME emerging shortly before 09/1900 UTC. The CME was analyzed, modeled, and predicted to arrive at Earth around midday on 13 July.

On the 10th, Region 2106 produced an M1(R1 - minor) flare at 2234 UTC without any accompanying radio emissions.

The remainder of the week was characterized by C-class activity despite the presence of large, complex regions on the visible disk. Region 2108 (S07, L=239, class/area=Ekc/890 on 08 July) was the largest and developed a beta-gamma-delta configuration, yet produced only C-flares.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at low levels throughout the week.

Planetary geomagnetic field activity was mostly quiet during the week with the exception of the last synoptic period of 09 July and the first of 10 July, which were unsettled. At high latitudes, geomagnetic field activity reached active levels, with an isolated minor storm episode, on 12 July. Solar wind speed remained in the 300 km/s to the low 400 km/s range, steadily increasing from 08 July until midday on 10 July, after which it began to decline. Bz never dipped below -10 nT all week. After 13/0830 UTC, Bt began to increase significantly, nearing 11 nT by the end of the day. Phi was generally positive throughout the week, with the exception of a brief rotation to negative territory early on 12 July, which may have contributed to the disturbed conditions at high latitudes.



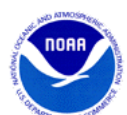
Space Weather Outlook 14 July - 09 August 2014

Solar activity is expected to be at low to moderate levels (R1 - minor) throughout the forecast period, with an increased chance for moderate levels of activity after 24 July as the larger active regions begin to return.

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.

Geomagnetic field activity is expected to be at quiet to unsettled levels in the absence of any transients. Recurrent features are expected to bring unsettled to active conditions from 14-16 July, and on 26 July.



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
07 July	198	197	1980	B9.8	5	0	0	17	0	0	0	0
08 July	201	209	2280	C1.0	4	1	0	15	1	1	0	0
09 July	198	183	2230	C1.0	5	1	0	29	2	0	0	0
10 July	177	159	1790	B9.2	3	1	0	12	1	0	0	0
11 July	166	166	1490	B9.5	3	0	0	16	0	0	0	0
12 July	145	145	1420	B8.0	4	0	0	22	0	0	0	0
13 July	127	102	660	B5.9	5	0	0	3	1	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
	07 July	8.5e+04	1.1e+04	2.5e+03		7.5e+04
08 July	1.6e+05	1.0e+04	2.6e+03		1.1e+05	
09 July	1.5e+05	1.1e+04	2.5e+03		6.1e+04	
10 July	7.9e+04	1.2e+04	2.6e+03		5.4e+04	
11 July	1.1e+05	1.3e+04	2.5e+03		1.5e+05	
12 July	2.0e+05	1.3e+04	2.5e+03		7.3e+04	
13 July	1.5e+05	1.1e+04	2.6e+03		1.5e+05	

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
	07 July	5	2-1-1-2-2-2-1-1	3	1-1-1-1-1-1-1-1	6
08 July	8	1-0-2-2-4-2-2-2	6	1-1-2-1-3-2-1-1	6	1-1-2-1-2-2-2-2
09 July	8	2-1-2-1-2-3-2-3	9	2-2-2-3-3-1-2-2	7	2-2-2-1-1-2-2-3
10 July	11	3-3-3-1-3-2-2-2	9	3-3-3-2-2-2-1-1	8	3-2-2-1-2-2-2-2
11 July	7	1-1-2-1-3-2-2-2	6	1-2-2-3-2-1-1-1	6	2-2-2-2-1-2-2-2
12 July	7	1-2-2-3-2-2-2-0	20	2-4-4-4-5-3-1-1	6	2-2-2-2-2-1-1-1
13 July	6	2-2-1-2-2-1-1-2	3	1-2-1-1-1-0-0-1	5	1-2-1-2-1-1-1-2

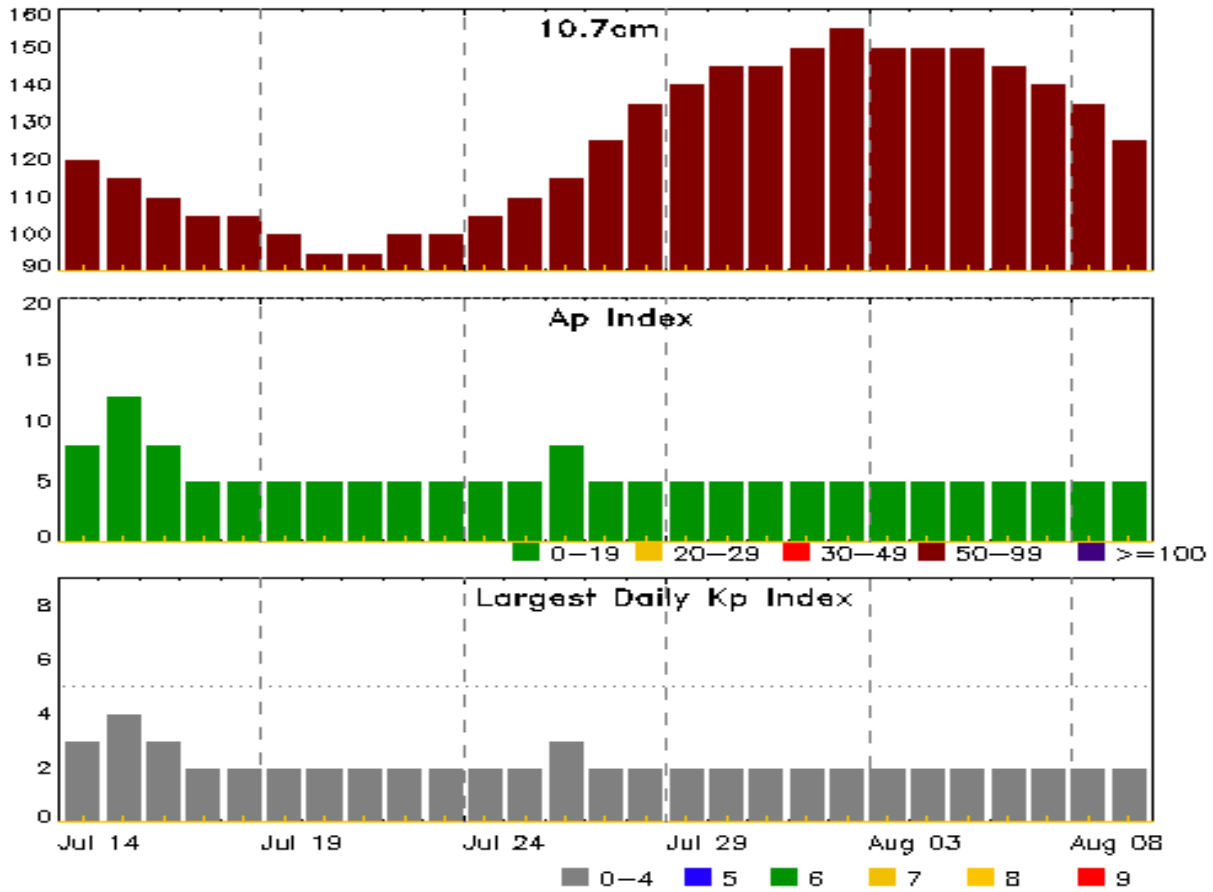


Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
08 Jul 1616	ALERT: X-ray Flux exceeded M5	08/1615
08 Jul 1629	ALERT: Type IV Radio Emission	08/1604
08 Jul 1653	SUMMARY: X-ray Event exceeded M5	08/1606 - 1630
08 Jul 1822	ALERT: Type II Radio Emission	08/1614
09 Jul 0121	ALERT: Type II Radio Emission	09/0029



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 Jul	120	8	3	28 Jul	135	5	2
15	115	12	4	29	140	5	2
16	110	8	3	30	145	5	2
17	105	5	2	31	145	5	2
18	105	5	2	01 Aug	150	5	2
19	100	5	2	02	155	5	2
20	95	5	2	03	150	5	2
21	95	5	2	04	150	5	2
22	100	5	2	05	150	5	2
23	100	5	2	06	145	5	2
24	105	5	2	07	140	5	2
25	110	5	2	08	135	5	2
26	115	8	3	09	125	5	2
27	125	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	2695	Intensity II	IV
08 Jul	1606	1620	1630	M6.5	0.059	2B	N12E56	2113	3100	150	2	1
09 Jul	0020	0026	0033	M1.2	0.006			2113	690		1	
10 Jul	2229	2234	2237	M1.5	0.004			2106	140			

Flare List

Date	Time			X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
	Begin	Max	End				
07 Jul	0129	0129	0135		SF	S22W13	2107
07 Jul	0131	0131	0138		SF	S07E22	2109
07 Jul	0238	0243	0256		SF	S18W11	2107
07 Jul	0254	0254	0256		SF	S06W54	2103
07 Jul	0330	0332	0336		SF	S06E23	2109
07 Jul	0345	0348	0357		SF	N13W39	2102
07 Jul	0523	0524	0528		SF	S07E22	2109
07 Jul	0713	0734	0747	C2.6	SF	N16W38	2102
07 Jul	0750	0752	0756		SF	S25W14	2107
07 Jul	0758	0802	0804	C4.3	SF	S08E20	2109
07 Jul	0946	0947	0949		SF	S07E21	2109
07 Jul	1158	1216	1230		SF	S14W04	2110
07 Jul	1238	1238	1255		SF	S21W16	2107
07 Jul	1304	1305	1311		SF	S16E04	2110
07 Jul	1614	1615	1617		SF	S13E83	
07 Jul	1622	1622	1630		SF	N12W25	2106
07 Jul	1816	1821	1828	C2.3			2102
07 Jul	2015	2018	2022	C1.4			2108
07 Jul	2140	2144	2150		SF	N11W48	2102
07 Jul	2320	2325	2338	C1.8			2108
08 Jul	0231	0233	0236	C1.2			2114
08 Jul	0253	0300	0303		SF	N10E61	2113
08 Jul	0305	0410	0424	C1.2	SF	N10E61	2113
08 Jul	0352	0352	0402		SF	N15W32	2106
08 Jul	0425	0444	0503		SF	N10E61	2113
08 Jul	0505	0508	0515		SF	N09E60	2113
08 Jul	0516	0519	0523		SF	N09E60	2113
08 Jul	0531	0539	0618		SF	N09E60	2113



Flare List

Date	Time			X-ray Class	Optical		Rgn #
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	
08 Jul	0619	0650	0745		1F	N09E58	2113
08 Jul	0852	0902	0922	C4.0			2113
08 Jul	0916	0916	0919		SF	S07W17	2108
08 Jul	1145	1205	1220		SF	N14E58	2113
08 Jul	1225	1229	1305		SF	N12E56	2113
08 Jul	1239	1241	1247		SF	S06E04	2109
08 Jul	1317	1344	1421		SF	N12E56	2113
08 Jul	1539	1541	1542		SF	S10W21	2108
08 Jul	1604	1620	1716		2B	N12E56	2113
08 Jul	1605	1618	1634		SF	S08E01	2109
08 Jul	1606	1620	1630	M6.5			2113
08 Jul	1845	1846	1853		SF	N10E52	2113
08 Jul	2132	2136	2139	C2.3			2107
09 Jul	0020	0026	0033	M1.2			2113
09 Jul	0029	0030	0034		SF	S15E64	2114
09 Jul	0109	0111	0132		SF	S20W36	2107
09 Jul	0129	0132	0135		SF	S05W05	2109
09 Jul	0214	0214	0225		SF	S13E18	2110
09 Jul	0217	0310	0357		1F	N09E49	2113
09 Jul	0225	0231	0237		SF	S05W06	2109
09 Jul	0239	0242	0249		SF	S05W06	2109
09 Jul	0254	0256	0258		SF	N16W50	2106
09 Jul	0304	0311	0316	C3.1			2113
09 Jul	0353	0353	0356		SF	S05W25	2108
09 Jul	0358	0400	0404		SF	N09E49	2113
09 Jul	0404	0411	0439	C2.2	1F	S06W08	2109
09 Jul	0436	0438	0442	C1.7	SF	S14E60	2114
09 Jul	0452	0511	0518		SF	N09E48	2113
09 Jul	0529	0546	0612	C2.7	SF	N11E48	2113
09 Jul	0544	0545	0549		SF	S28E66	
09 Jul	0728	0728	0734		SF	S24W39	2107
09 Jul	0806	0810	0821		SF	S08W08	2109
09 Jul	0823	0824	0834		SF	N08W43	2115
09 Jul	0843	0848	0915		SF	S06W09	2109
09 Jul	0851	0853	0855		SF	N12W52	2106
09 Jul	0914	0914	0925		SF	N07W44	2115
09 Jul	0916	0924	0944		SF	S06W09	2109
09 Jul	1056	1058	1100		SF	S06W29	2108



Flare List

Date	Time			X-ray Class	Imp/ Brtns	Optical		Rgn #
	Begin	Max	End			Location Lat CMD		
09 Jul	1057	1100	1116		SF	N12E47		2113
09 Jul	1131	1132	1135		SF	N12E44		2113
09 Jul	1327	1347	1414		SF	N12E44		2113
09 Jul	1419	1419	1422		SF	S06W32		2108
09 Jul	1610	1612	1613		SF	N11E45		2113
09 Jul	1648	1649	1701		SF	N07E04		2111
09 Jul	1651	1653	1700		SF	N11E41		2113
09 Jul	1835	1839	1844	C5.0	SF	S15W65		2104
10 Jul	0130	0130	0135		SF	N06W53		2115
10 Jul	0158	0158	0200		SF	N14W81		2102
10 Jul	0204	0206	0213		SF	S04W18		2109
10 Jul	0247	0253	0259	C5.7	1N	N17W65		2106
10 Jul	0317	0318	0322		SF	S28E55		
10 Jul	0352	0352	0356		SF	S14E60		2114
10 Jul	0458	0459	0502		SF	N10E34		2113
10 Jul	0544	0544	0548		SF	N08W57		2115
10 Jul	0550	0552	0557		SF	S03W40		2108
10 Jul	0915	0917	0918		SF	N10E30		2113
10 Jul	1043	1056	1059		SF	N05W58		2115
10 Jul	1132	1133	1136		SF	S10W22		2109
10 Jul	1312	1312	1317		SF	S08W24		2109
10 Jul	1738	1742	1747	C1.4				2108
10 Jul	2100	2113	2137	C7.4				2113
10 Jul	2229	2234	2237	M1.5				2106
11 Jul	0014	0016	0022		SF	S06W32		2109
11 Jul	0039	0044	0048	C4.6	SN	S06W32		2109
11 Jul	0126	0131	0135		SF	N14W77		2106
11 Jul	0257	0257	0302		SF	S05W47		2108
11 Jul	0337	0339	0346		SF	S08W33		2109
11 Jul	0418	0422	0424		SF	N09E21		2113
11 Jul	0502	0504	0507		SF	N14W77		2106
11 Jul	0503	0503	0506		SF	N05W58		2115
11 Jul	0507	0520	0532		SF	S08W24		2109
11 Jul	0730	0731	0734		SF	S11W34		2109
11 Jul	0824	0827	0838		SF	S11W35		2109
11 Jul	1018	U1030	A1041		SF	S24W13		
11 Jul	1547	1548	1550		SF	S10W54		2108
11 Jul	1547	1551	1614		SF	N09E14		2113



Flare List

Date	Time			Optical			Rgn #
	Begin	Max	End	X-ray Class	Imp/Brtns	Location Lat CMD	
11 Jul	1709	1709	1713		SF	S11W39	2109
11 Jul	2305	2313	2331	C2.5	SF	N10E42	2113
11 Jul	2335	2347	2352	C2.3			2117
12 Jul	0019	0054	0100		SF	S05W60	2108
12 Jul	0102	0107	0109		SF	S05W60	2108
12 Jul	0118	0122	0146		SF	S06W63	2108
12 Jul	0146	0146	0212		SF	S06W63	2108
12 Jul	0213	0214	0216		SF	S06W63	2108
12 Jul	0218	0227	0231		SF	S06W63	2108
12 Jul	0259	0303	0308		SF	S06W63	2108
12 Jul	0314	0314	0320		SF	S06W63	2108
12 Jul	0322	0327	0341		SF	S06W63	2108
12 Jul	0341	0343	0346		SF	S07W66	2108
12 Jul	0353	0353	0355		SF	S07W66	2108
12 Jul	0436	0439	0448		SF	S07W66	2108
12 Jul	0451	0502	0512		SF	S07W66	2108
12 Jul	0529	0532	0535	C1.2			2109
12 Jul	0538	0538	0545		SF	S07W47	2109
12 Jul	0548	0548	0553		SF	S23W80	2107
12 Jul	0710	0714	0717	C2.5	SF	S09W47	2109
12 Jul	0913	0913	0919		SF	S16E26	2114
12 Jul	1017	1017	1020		SF	S10W48	2109
12 Jul	1201	1203	1213		SF	S10W50	2109
12 Jul	1222	1237	1321		SF	S10W50	2109
12 Jul	1242	1244	1253		SF	N10E01	2113
12 Jul	1322	1325	1329	C1.7			
12 Jul	1401	1408	1420	C4.6	SF	S09W72	2108
13 Jul	0702	0707	0724		SF	N07W09	2113
13 Jul	0816	0820	0822	C1.7	SF	S05W83	2108
13 Jul	0842	0858	0933	C6.4	1F	S08W61	2109
13 Jul	0950	0951	0952	C1.8	SF	N09W06	2113
13 Jul	1431	1438	1442	C1.2			2108
13 Jul	2049	2052	2055	C1.3			2109



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 2100																							
27 Jun	N10E52	308	10	7	Bxo	3	B																
28 Jun	N11E39	308	10	8	Bxo	5	B	2				1											
29 Jun	N11E25	309	10	8	Bxo	5	B	1				3											
30 Jun	N09E11	310	60	9	Dai	12	B	1				1											
01 Jul	N09W02	309	20	6	Dai	11	B																
02 Jul	N10W14	308	40	7	Cai	16	B	1				3	1										
03 Jul	N11W27	308	30	8	Dao	14	B					1											
04 Jul	N11W40	308	30	5	Cro	9	B																
05 Jul	N10W54	309	20	3	Cro	4	B																
06 Jul	N10W68	309	plage																				
07 Jul	N10W82	310	plage																				
								5	0	0	9	1	0	0	0								

Crossed West Limb.
 Absolute heliographic longitude: 309

Region 2102																							
28 Jun	N11E65	282	20	1	Hax	1	A																
29 Jun	N11E51	283	10	1	Axx	1	A																
30 Jun	N12E41	280	20	6	Cro	3	B																
01 Jul	N13E30	277	50	8	Dsi	8	B																
02 Jul	N12E17	277	70	8	Dsi	15	B					3											
03 Jul	N13E04	277	60	8	Dai	19	B					1											
04 Jul	N12W09	277	70	8	Dai	13	B					1											
05 Jul	N11W24	279	30	5	Cao	7	B																
06 Jul	N11W38	279	20	3	Cao	6	B																
07 Jul	N11W51	279	0	1	Axx	2	A	2				3											
08 Jul	N11W65	280	plage																				
09 Jul	N11W79	281	plage																				
								2	0	0	8	0	0	0	0								

Crossed West Limb.
 Absolute heliographic longitude: 277



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 2103																	
28 Jun	S10E52	295	10	2	Axx	2	A										
29 Jun	S10E38	296	plage														
30 Jun	S10E24	297	plage														
01 Jul	S10E10	297	plage														
02 Jul	S10W04	298	plage														
03 Jul	S10W18	299	plage														
04 Jul	S10W32	300	plage														
05 Jul	S10W46	301	plage														
06 Jul	S13W58	299	10	2	Bxo	5	B										
07 Jul	S08W68	296	10	5	Bxo	3	B					1					
08 Jul	S08W82	297	plage														
								0	0	0	1	0	0	0	0	0	

Crossed West Limb.

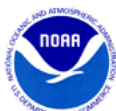
Absolute heliographic longitude: 298

Region 2104

28 Jun	S10E78	269	80	4	Dao	4	B	4									
29 Jun	S10E64	270	260	7	Dki	7	B	5				4					
30 Jun	S11E51	270	350	7	Dkc	7	BGD	1				5					
01 Jul	S11E39	268	410	7	Dkc	16	BGD	1				5					
02 Jul	S12E25	269	470	10	Dkc	23	BGD					4					
03 Jul	S11E12	269	400	8	Dkc	23	BG					6					
04 Jul	S12W01	269	470	7	Dkc	21	BG					1					
05 Jul	S12W14	269	390	7	Dkc	21	BG	1				2					
06 Jul	S12W28	269	280	8	Dkc	26	BG										
07 Jul	S12W40	268	190	5	Dso	9	BG										
08 Jul	S12W54	268	160	4	Dso	8	B										
09 Jul	S12W67	269	130	5	Dso	5	B	1				1					
10 Jul	S11W80	268	70	6	Dso	2	B										
11 Jul	S12W92	267	50	3	Dso	2	B										
								13	0	0	28	0	0	0	0	0	

Crossed West Limb.

Absolute heliographic longitude: 269



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 2105																		
29 Jun	S07E24	310	10	3	Cro	3	B											
30 Jun	S06E11	310	10	3	Cai	6	B					1						
01 Jul	S06W04	311	10	3	Bxo	3	B											
02 Jul	S05W12	308	10	1	Axx	1	A											
03 Jul	S05W27	308	plage															
04 Jul	S05W42	310	plage															
05 Jul	S05W57	312	plage															
06 Jul	S05W72	313	plage															
07 Jul	S05W87	315	plage															
								0	0	0	1	0	0	0	0			

Crossed West Limb.

Absolute heliographic longitude: 311

Region 2106																		
29 Jun	N15E73	261	20	3	Cro	4	B	2										
30 Jun	N15E60	261	20	5	Dai	4	B	4				1						
01 Jul	N15E46	261	50	7	Dao	9	B	2	1			5	1					
02 Jul	N14E34	260	70	6	Dao	9	B					3						
03 Jul	N15E22	259	120	6	Dso	12	B					1						
04 Jul	N14E08	260	140	8	Dao	12	BG					4						
05 Jul	N15W06	261	120	6	Dao	5	B					1						
06 Jul	N15W21	262	120	9	Cao	5	B					1						
07 Jul	N14W33	261	80	4	Hax	4	A					1						
08 Jul	N15W48	262	90	2	Hsx	3	A					1						
09 Jul	N14W62	264	120	4	Cao	3	B					2						
10 Jul	N16W75	263	60	3	Cao	2	B	1	1				1					
11 Jul	N14W90	265	30	2	Cao	2	B					2						
								9	2	0	22	2	0	0	0			

Crossed West Limb.

Absolute heliographic longitude: 261



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 2107																							
29 Jun	S20E75	259	250	7	Dhi	6	B	1				1											
30 Jun	S20E59	262	250	10	Dhi	9	BG																
01 Jul	S20E46	261	260	10	Dhc	8	BD	1				1											
02 Jul	S20E34	261	340	9	Dko	7	B					5											
03 Jul	S20E22	259	310	7	Dko	7	BG	1				3											
04 Jul	S20E10	258	290	11	Eho	9	BG					2											
05 Jul	S21W03	258	260	11	Ehi	14	BG	1				2											
06 Jul	S20W16	257	250	12	Ehi	9	BG	1				1											
07 Jul	S20W30	258	210	6	Cso	6	B					4											
08 Jul	S18W41	255	200	5	Cso	3	B	1															
09 Jul	S20W53	255	220	4	Hsx	2	A					2											
10 Jul	S18W68	256	150	3	Hax	1	A																
11 Jul	S19W80	255	130	3	Hsx	1	A																
12 Jul	S19W93	255	90	2	Hsx	1	A					1											
								6	0	0	22	0	0	0	0								

Crossed West Limb.

Absolute heliographic longitude: 258

Region 2108																							
01 Jul	S08E68	239	30	6	Dao	5	B	1															
02 Jul	S09E53	241	90	5	Dao	6	B					6											
03 Jul	S09E40	241	90	6	Dao	7	B					2											
04 Jul	S08E28	240	120	9	Dai	16	BG	1				11	1										
05 Jul	S08E16	239	350	9	Dki	27	BG	1				5											
06 Jul	S08E02	239	620	12	Eki	36	BGD	2				5											
07 Jul	S08W12	240	720	11	Ekc	29	BGD	2															
08 Jul	S07W25	239	890	11	Ekc	26	BGD					2											
09 Jul	S07W39	241	830	12	Ekc	22	BGD					3											
10 Jul	S07W52	240	690	12	Ekc	14	BG	1				1											
11 Jul	S07W64	239	560	13	Ekc	15	BG					2											
12 Jul	S07W77	239	600	13	Ekc	15	BG	1				14											
13 Jul	S07W89	238	200	11	Eai	9	BG	2				1											
								11	0	0	52	1	0	0	0								

Still on Disk.

Absolute heliographic longitude: 239



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 2109																		
02 Jul	S08E74	220	150	6	Hsx	1	A											
03 Jul	S08E61	220	410	10	Dkc	15	B						8					
04 Jul	S08E49	219	630	11	Ekc	20	BG	1					8					
05 Jul	S08E36	219	830	13	Ekc	23	BG						1					
06 Jul	S08E21	220	800	13	Ekc	47	BGD	2					6					
07 Jul	S10E09	219	620	11	Ekc	22	BGD	1					5					
08 Jul	S08W04	218	710	10	Dkc	22	BGD						2					
09 Jul	S08W17	219	620	11	Eki	27	BD	1					6	1				
10 Jul	S07W32	220	600	8	Dkc	17	B						3					
11 Jul	S08W47	222	530	7	Dkc	12	B	1					7					
12 Jul	S08W60	222	540	6	Dhc	19	B	2					5					
13 Jul	S08W72	221	310	6	Dho	9	B	2						1				
								10	0	0		51	2	0	0	0		

Still on Disk.
 Absolute heliographic longitude: 218

Region 2110																		
03 Jul	S16E48	233	10	5	Bxo	2	B											
04 Jul	S17E35	233	10	6	Bxo	5	B											
05 Jul	S16E22	233	10	6	Dro	6	B											
06 Jul	S16E07	234	10	8	Bxo	6	B						1					
07 Jul	S18W06	234	10	5	Bxo	4	B						2					
08 Jul	S15W21	235	10	5	Bxo	4	B											
09 Jul	S15W33	235	plage										1					
10 Jul	S15W47	235	plage															
11 Jul	S15W61	236	plage															
12 Jul	S15W75	237	plage															
13 Jul	S15W89	238	plage															
								0	0	0		4	0	0	0	0		

Still on Disk.
 Absolute heliographic longitude: 234



Region Summary - continued

Date	Location		Sunspot Characteristics				Flares										
	Lat CMD	Lon	Area 10 ⁶ hemi.	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical						
								C	M	X	S	1	2	3	4		
Region 2111																	
04 Jul	N05E65	203	70	5	Cao	4	B										
05 Jul	N06E54	201	70	9	Dao	4	B										
06 Jul	N06E39	202	70	9	Cao	4	B										
07 Jul	N06E24	203	60	2	Hsx	4	A										
08 Jul	N07E09	204	40	2	Hsx	2	A										
09 Jul	N06W02	203	70	4	Dso	5	B				1						
10 Jul	N05W16	204	80	5	Dsi	8	B										
11 Jul	N06W30	205	50	5	Cao	9	B										
12 Jul	N06W45	207	50	5	Dao	9	B										
13 Jul	N06W57	206	20	6	Cao	5	B										
								0	0	0	1	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 203

Region 2112																	
05 Jul	S19W42	297	10	3	Bxo	2	B										
06 Jul	S19W57	298	0	1	Axx	1	A										
07 Jul	S15W71	298	0	4	Bxo	2	B										
08 Jul	S16W85	299	0	1	Axx	1	A										
								0	0	0	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 297

Region 2113																	
06 Jul	N12E80	161	50	2	Hax	1	A										
07 Jul	N07E62	165	80	3	Cao	2	B										
08 Jul	N10E48	166	60	6	Csi	12	BG	2	1		10	1	1				
09 Jul	N09E35	167	60	8	Dai	17	BG	2	1		8	1					
10 Jul	N09E20	168	40	8	Cao	6	B	1			2						
11 Jul	N07E12	163	30	15	Cro	10	B	1			3						
12 Jul	N07W04	166	60	10	Cso	8	B				1						
13 Jul	N07W18	167	70	11	Eao	9	B	1			2						
								7	2	0	26	2	1	0	0		

Still on Disk.

Absolute heliographic longitude: 166



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 2114																	
08 Jul	S19E62	151	80	5	Dai	7	B	1									
09 Jul	S20E52	150	140	4	Dai	6	B	1				2					
10 Jul	S20E39	149	70	3	Dao	4	B					1					
11 Jul	S21E26	149	80	4	Dao	7	B										
12 Jul	S20E13	149	70	5	Csi	8	B					1					
13 Jul	S20W00	149	50	6	Cao	8	B										
								2	0	0	4	0	0	0	0	0	

Still on Disk.

Absolute heliographic longitude: 149

Region 2115																	
08 Jul	N08W38	252	40	4	Dao	11	B										
09 Jul	N08W53	255	40	5	Dao	6	B					2					
10 Jul	N08W63	251	10	2	Axx	2	A					3					
11 Jul	N08W77	252	plage									1					
								0	0	0	6	0	0	0	0	0	

Died on Disk.

Absolute heliographic longitude: 252

Region 2116																	
10 Jul	S28E43	145	20	6	Bxo	3	B										
11 Jul	S29E29	146	10	1	Axx	1	A										
12 Jul	S28E18	144	0	1	Axx	1	A										
13 Jul	S28E04	145	plage														
								0	0	0	0	0	0	0	0	0	

Still on Disk.

Absolute heliographic longitude: 145

Region 2117																	
11 Jul	N10E17	158	20	4	Cao	7	B	1									
12 Jul	N09E05	157	10	2	Cao	4	B										
13 Jul	N08W09	158	10	4	Bxo	2	B										
								1	0	0	0	0	0	0	0	0	

Still on Disk.

Absolute heliographic longitude: 157

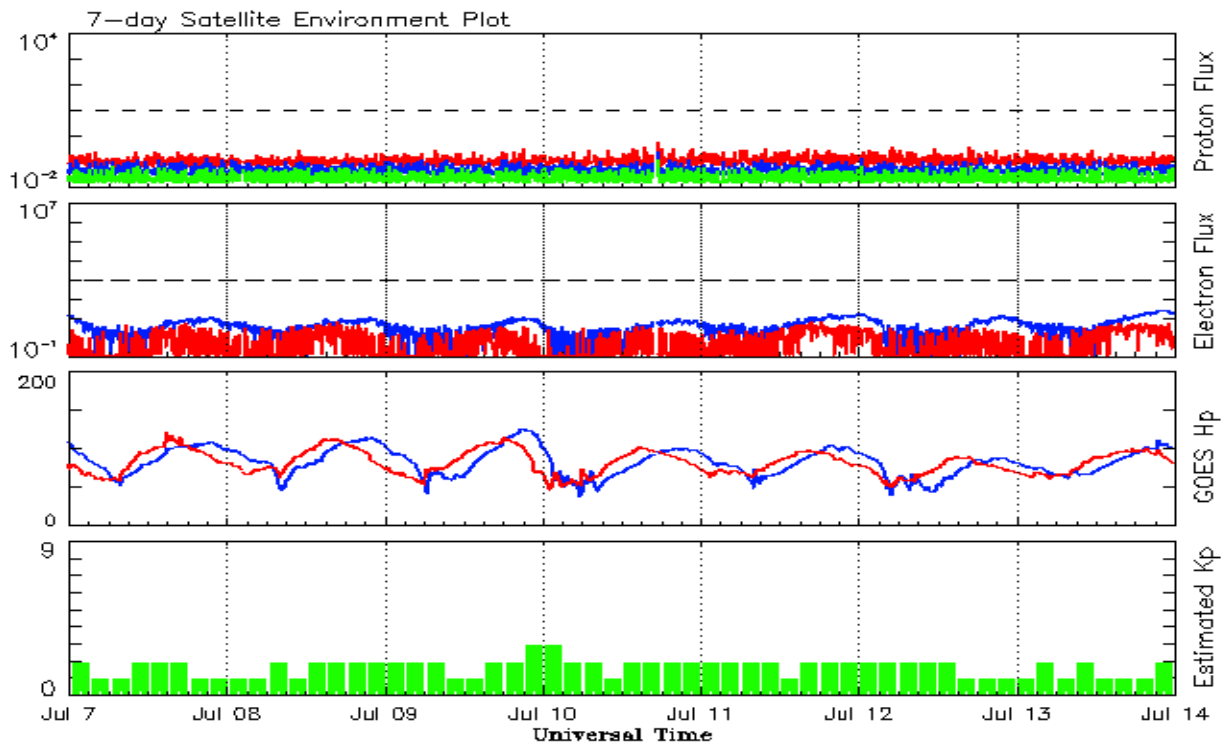


**Recent Solar Indices (preliminary)
Observed monthly mean values**

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									
July	99.6	66.5	0.67	82.4	57.8	135.6	119.5	13	8.3
August	85.8	63.0	0.74	83.1	58.2	115.7	119.2	7	8.1
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			158.6		6	
February	174.6	102.3	0.59			170.3		12	
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	

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 07 July 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.

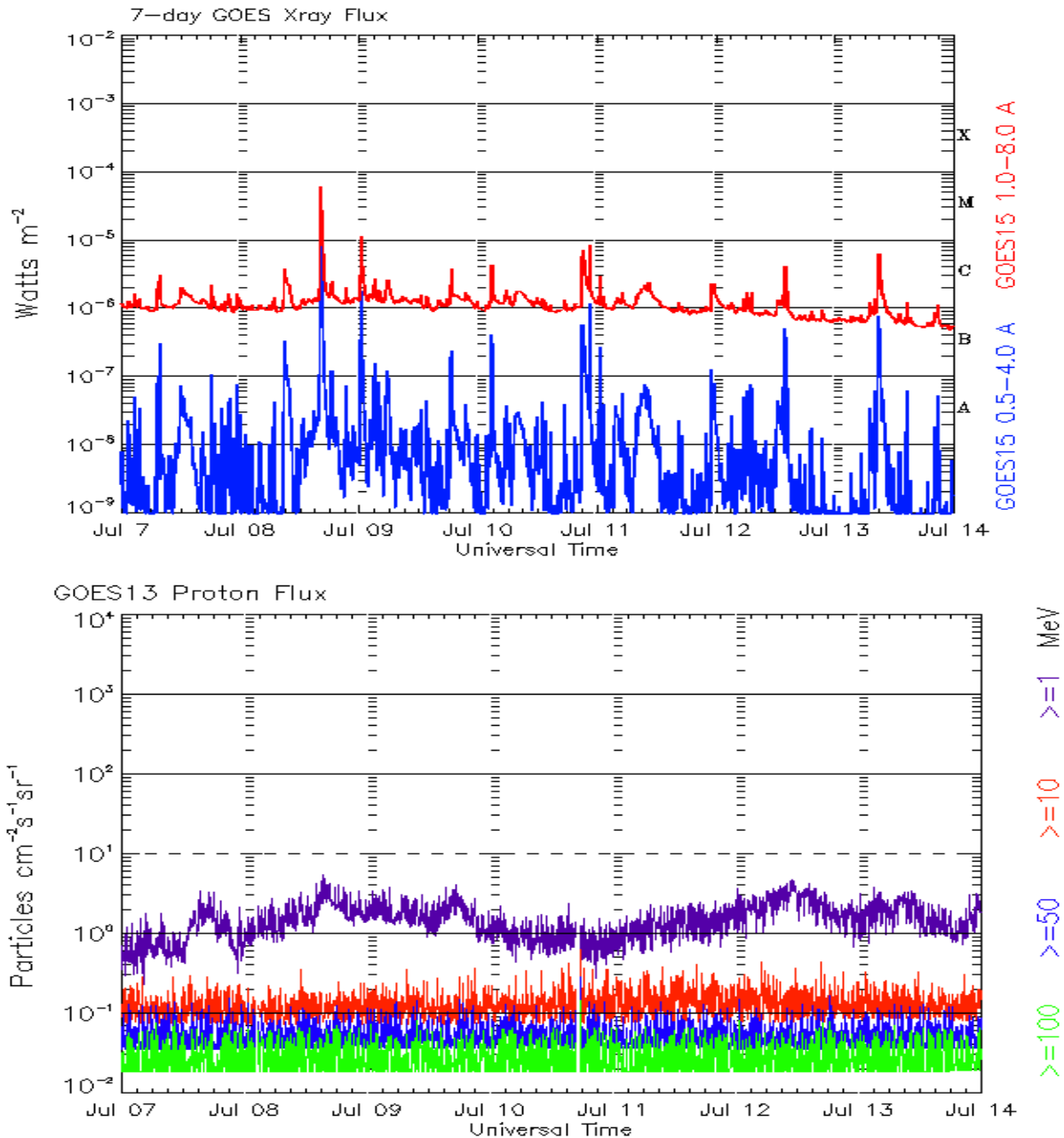
The electron flux plot contains the five-minute averaged integral electron flux (electrons/cm²-sec -sr) with energies greater than 2 MeV by the SWPC Primary GOES satellite.

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 07 July 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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