

Solar activity was at low to moderate levels during the period. Moderate levels were first observed with an M2/Sf flare at 03/1354 UTC from Region 2152 (S15, L=206, class/area Eki/310 on 04 September). An associated coronal mass ejection (CME) was observed in SOHO/LASCO C2 imagery at 03/1400 UTC but was determined to not contain an Earth-directed component. Moderate levels were again reached with an M1/Sf flare at 06/1709 UTC from Region 2157 (S14, L=98, class/area Ekc/540 on 06 September). The majority of the C-class flare activity during the rest of the period was primarily from Region 2152 and 2157. A 44 degree long filament, centered near N32W14, erupted between 02/1300-1600 UTC and did contain a geoeffective component. WSA/ENLIL modeling of the event showed an arrival time early to midday on 06 September.

The greater than 10 MeV proton flux at geosynchronous orbit was enhanced between 02 September and 07 September as a result of a far-sided event that occurred on 02 September, but remained below alert level thresholds throughout the period. A peak value 9.7 pfu was reached at 06/0740 UTC.

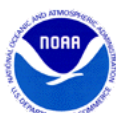
The greater than 2 MeV electron flux at geosynchronous orbit was at high levels on 01-05 September, moderate levels on 06 September, and returned to normal background levels. A peak value of 6,110 pfu was reached at 02/1620 UTC.

The geomagnetic field was at quiet to unsettled levels during the period. Quiet to unsettled levels occurred from 01-04 September as a result of coronal high-speed stream influence that ranged between approximately 400-450 km/s. Quiet conditions returned on 05 September. Solar wind conditions were once again enhanced on 06 September due to a solar sector boundary crossing that was observed at 06/0434 UTC. Total field measurements increased from 5 nT to 11 nT while the Bz component went briefly south to -9 nT. The total field became further enhanced to 12 nT and the Bz component deflected southward to -7 nT for approximately nine hours after midday on 06 September as the 02 September CME began to influence the Earth's magnetic field. A sudden impulse of 63 nT was observed at the College magnetometer at 06/1525 UTC. The geomagnetic field responded with quiet to unsettled conditions for the remainder of the period.

Space Weather Outlook
08 September - 04 October 2014

Solar activity is likely to be moderate (R1-R2/Minor-Moderate) with a chance for X-class flaring (R3-Strong or greater) until 16 Sep when Regions 2157 and 2158 (N16, L=88, class/area Dkc/380 on 07 September) depart the visible disk. For the rest of the period, solar activity is expected to be low with a chance for M-class flares due to the return of old Regions 2146 (N07, L=344), 2149 (N09, L=284), and 2151 (S08, L=253)

There is a chance for a greater than 10 MeV proton event from 08-17 Sep 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 high levels between 11-14 September and again on 27 September through 04 October due to coronal hole high-speed stream effects.

Geomagnetic field activity is expected to reach quiet to unsettled levels on 08, 10-11, 13, and 28-30 September while unsettled to active levels are expected from 25-27 September due to recurrent coronal hole high-speed stream effects.



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
01 September	127	94	640	B4.5	4	0	0	7	0	0	0	0
02 September	136	105	650	C1.2	5	0	0	7	0	0	0	0
03 September	138	92	560	C1.0	5	1	0	1	0	0	0	0
04 September	146	136	1060	C1.0	9	0	0	2	0	0	0	0
05 September	144	124	1350	B9.1	6	0	0	2	1	0	0	0
06 September	157	170	1380	C1.1	6	1	0	9	1	0	0	0
07 September	151	154	1210	B9.8	6	0	0	9	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
	01 September	2.0e+05	1.1e+04	3.1e+03		9.6e+07
02 September	2.8e+05	8.3e+04	3.5e+04		1.5e+08	
03 September	6.1e+05	2.1e+05	4.5e+04		7.9e+07	
04 September	1.1e+06	3.2e+05	3.0e+04		7.3e+07	
05 September	4.7e+06	4.8e+05	1.8e+04		8.6e+07	
06 September	1.2e+07	6.0e+05	9.1e+03		6.9e+06	
07 September	6.3e+06	4.6e+05	2.5e+03		1.5e+06	

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
	01 September	12	3-3-3-3-3-2-2-2	27	3-3-3-6-5-4-2-2	11
02 September	10	2-3-3-2-3-2-2-2	18	2-2-3-4-5-4-2-2	10	2-3-2-2-3-2-2-3
03 September	11	3-3-3-2-3-1-2-2	17	2-3-5-5-2-2-1-1	10	3-3-3-2-2-1-1-2
04 September	7	2-2-1-3-2-2-2-1	16	2-2-5-5-3-1-0-1	7	3-2-2-3-2-1-1-2
05 September	10	1-1-3-3-3-3-1-2	16	1-2-3-5-4-3-2-1	8	2-2-2-2-2-2-2-2
06 September	7	1-2-2-2-3-2-2-1	8	1-2-3-3-1-2-2-1	9	1-2-3-2-2-3-2-2
07 September	10	3-3-3-2-3-2-1-0	4	2-3-2-0-0-0-0-0	8	3-3-3-1-1-1-0-0

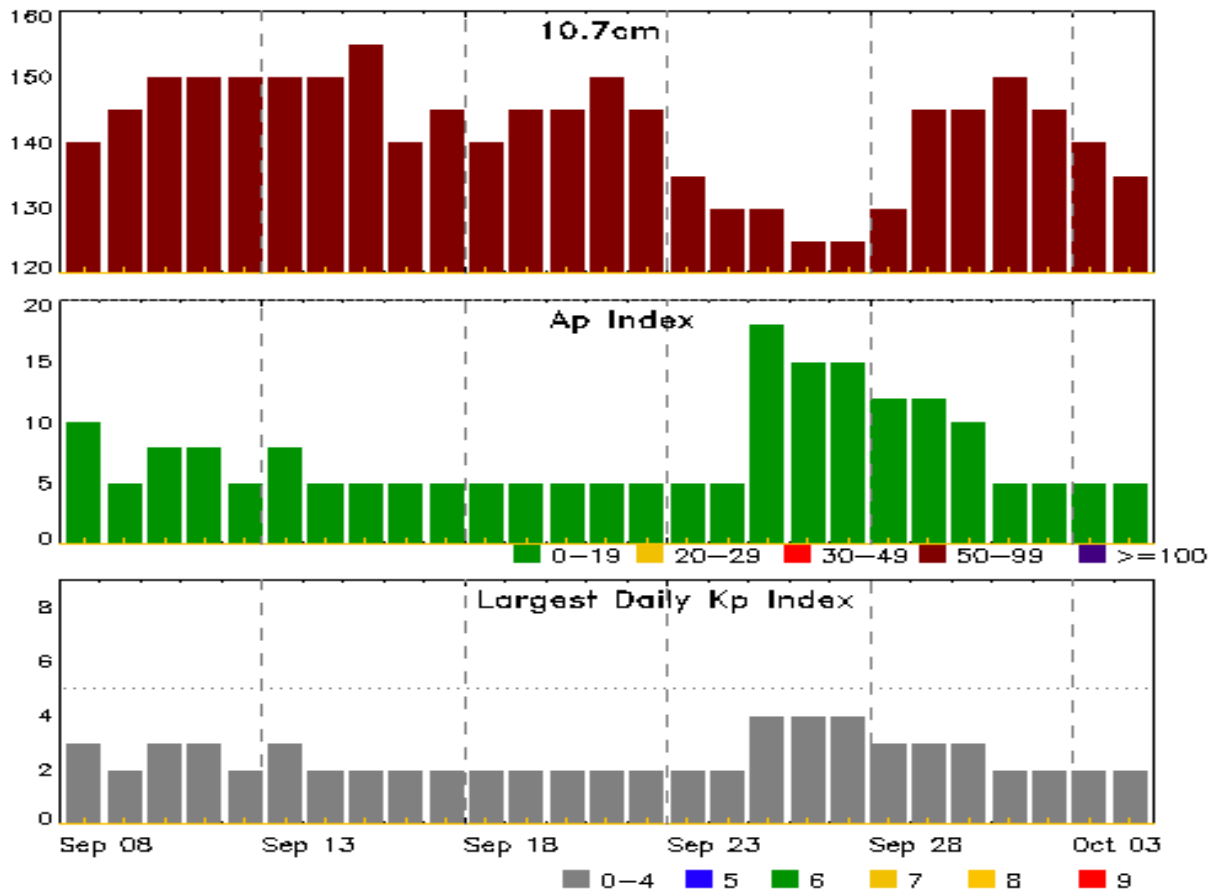


Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
01 Sep 1139	ALERT: Type II Radio Emission	01/1113
01 Sep 1240	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	30/1335
01 Sep 1356	EXTENDED WARNING: Geomagnetic K = 4	27/0330 - 02/0100
01 Sep 2339	ALERT: Type II Radio Emission	01/2211
01 Sep 2340	ALERT: Type IV Radio Emission	01/2250
02 Sep 0946	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	30/1335
03 Sep 0531	WARNING: Geomagnetic K = 4	03/0530 - 1400
03 Sep 1241	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	30/1335
04 Sep 1126	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	30/1335
05 Sep 1116	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	30/1335
05 Sep 1918	WATCH: Geomagnetic Storm Category G1 predicted	
06 Sep 0736	WARNING: Proton 10MeV Integral Flux $>$ 10pfu	06/0736 - 2100
06 Sep 1545	SUMMARY: Geomagnetic Sudden Impulse	06/1525
06 Sep 1702	WARNING: Geomagnetic K = 4	06/1700 - 07/1700
06 Sep 1946	WATCH: Geomagnetic Storm Category G1 predicted	
06 Sep 2055	EXTENDED WARNING: Proton 10MeV Integral Flux $>$ 10pfu	06/0736 - 07/1000
07 Sep 0228	ALERT: Type II Radio Emission	07/0200
07 Sep 0247	ALERT: Type IV Radio Emission	07/0217
07 Sep 1248	CANCELLATION: Geomagnetic Storm Category G1 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
08 Sep	140	10	3	22 Sep	145	5	2
09	145	5	2	23	135	5	2
10	150	8	3	24	130	5	2
11	150	8	3	25	130	18	4
12	150	5	2	26	125	15	4
13	150	8	3	27	125	15	4
14	150	5	2	28	130	12	3
15	155	5	2	29	145	12	3
16	140	5	2	30	145	10	3
17	145	5	2	01 Oct	150	5	2
18	140	5	2	02	145	5	2
19	145	5	2	03	140	5	2
20	145	5	2	04	135	5	2
21	150	5	2				



Energetic Events

Date	Time			X-ray	Optical Information				Peak		Sweep Freq	
	Begin	Max	Half Max	Class	Integ Flux	Imp/ Brtns	Location Lat CMD	Rgn #	245	2695	Intensity II	IV
03 Sep	1320	1354	1423	M2.5	0.066	SF	S14W18	2152				60
06 Sep	1650	1709	1722	M1.1	0.015	SF	S14E53	2157				

Flare List

Date	Time			X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
	Begin	Max	End				
01 Sep	0441	0445	0448		SF	N09W63	2149
01 Sep	0456	0501	0504		SF	N09W63	2149
01 Sep	0543	0549	0555	B8.3	SF	S14E13	2152
01 Sep	B0600	U0603	0609		SF	S13E13	2152
01 Sep	0625	0635	0637		SF	N09W65	2149
01 Sep	0640	0744	0822	C2.1			2149
01 Sep	0841	0844	0859		SF	N08W68	2149
01 Sep	1020	1026	1036	C1.4			2149
01 Sep	1527	1604	1711	C1.7	SF	S13E05	2152
01 Sep	1803	1826	2000	C1.6			2152
02 Sep	0009	0016	0024	C2.3			
02 Sep	0050	0059	0105	C2.6	SF	S13W01	2152
02 Sep	0433	0435	0441		SF	S14W01	2152
02 Sep	0706	0707	0710		SF	S15W02	2152
02 Sep	0726	0729	0741		SF	S12W05	2152
02 Sep	0936	0937	A1004		SF	S14W04	2152
02 Sep	1204	1209	1216	C2.2			
02 Sep	1310	1315	1323	C3.7	SF	S13W07	2152
02 Sep	1533	1537	1558		SF	S15W08	2152
02 Sep	2056	2100	2104	C2.9			
03 Sep	0131	0137	0140	C2.4			2149
03 Sep	0244	0253	0300	C4.0			
03 Sep	0840	0920	0936	C1.3			
03 Sep	1244	1250	1255	C1.6			2155
03 Sep	1320	1354	1423	M2.5	SF	S14W18	2152
03 Sep	2113	2124	2149	C5.2			2149
04 Sep	0224	0228	0231	C2.4			2149
04 Sep	B0638	U0639	A0715	C1.6	SF	S17W26	2152
04 Sep	1000	1011	1024	C3.1	SF	S10E78	2157



Flare List

Date	Time			X-ray Class	Optical		Rgn #
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	
04 Sep	1110	1122	1126	C2.2			2152
04 Sep	1144	1147	1149	C1.8			2153
04 Sep	1310	1330	1345	C6.3			2152
04 Sep	1445	1449	1453	C1.5			2155
04 Sep	1621	1632	1648	C5.7			2157
04 Sep	1916	1931	1942	C3.9			2157
05 Sep	0144	0150	0152	C3.8			2155
05 Sep	0604	0608	0611	C2.1			2157
05 Sep	0616	0653	0709	C6.7	1N	S14E69	2157
05 Sep	0653	0701	0744		SN	S19E59	2155
05 Sep	0707	0707	0712		SF	S13W45	2152
05 Sep	0928	0933	0938	C3.2			2157
05 Sep	1450	1454	1456	C1.6			2153
05 Sep	1610	1617	1627	C1.8			2157
06 Sep	0000	0003	0006	C2.9	SF	S16E61	2157
06 Sep	B0006	0007	0009		SF	S07W74	2153
06 Sep	0556	0618	0644	C2.4			2157
06 Sep	B0801	U0808	A0905	C8.0	1N	S10E54	2157
06 Sep	B0808	U0816	A0855		SF	S18E71	2159
06 Sep	B0912	U0915	A0915		SF	S10E56	2157
06 Sep	1124	1129	1137	C2.5			2157
06 Sep	1221	1224	1228	C1.7	SF	S19W56	2152
06 Sep	1650	1709	1722	M1.1	SF	S14E53	2157
06 Sep	1744	1748	1753	C4.7	SF	S11E51	2157
06 Sep	1914	1916	1917		SF	S15E51	2157
06 Sep	1958	2000	2003		SF	S11E42	2157
07 Sep	0153	0204	0223	C7.5			2159
07 Sep	B0717	U0717	0722		SF	S12W56	2160
07 Sep	0802	U0804	A0809		SF	N15E51	2158
07 Sep	0946	0947	0951		SF	S11E43	2157
07 Sep	B1000	U1004	A1110	C2.2	SF	S10E42	2157
07 Sep	B1005	U1006	A1022		SF	S12W58	2160
07 Sep	1028	1037	1045	C1.9			2157
07 Sep	B1141	U1145	A1151		SF	S10E42	2157
07 Sep	1201	1210	1228	C2.2	SF	S14E43	2157
07 Sep	1230	U1235	A1242		SF	S10E40	2157
07 Sep	1434	1439	1444	C3.3	SN	S10E36	2157
07 Sep	1929	1943	1952	C7.8			2157



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 2149																	
21 Aug	N12E77	276	70	3	Cso	4	B	1	1		2						
22 Aug	N12E63	277	180	12	Eac	9	BG	7	1		5	3	1				
23 Aug	N11E49	277	120	12	Eac	10	BG	5			11	2					
24 Aug	N11E35	278	190	13	Eac	16	BGD	3			6	1					
25 Aug	N10E21	277	190	14	Eai	14	BG	2			4						
26 Aug	N10E08	277	190	14	Eai	16	B				1						
27 Aug	N10W04	277	160	13	Eai	13	B	1			4						
28 Aug	N10W21	281	180	7	Cso	7	B										
29 Aug	N09W36	283	240	5	Dsi	12	B	3			2						
30 Aug	N09W50	284	280	5	Dhc	11	B	4			7						
31 Aug	N09W63	284	280	6	Dkc	8	B	7			7	1					
01 Sep	N09W77	284	230	7	Dac	5	B	2			4						
02 Sep	N09W89	283	170	6	Dao	4	B										
								35	2	0	53	7	1	0	0		

Crossed West Limb.
 Absolute heliographic longitude: 277

Region 2150																	
22 Aug	S13E73	267	60	2	Hsx	1	A										
23 Aug	S13E59	266	130	2	Hsx	1	A										
24 Aug	S13E46	267	120	2	Hsx	1	A				1						
25 Aug	S14E34	266	110	2	Cso	1	B	1			3						
26 Aug	S14E19	267	100	2	Hsx	1	A										
27 Aug	S14E08	265	120	4	Cao	8	B										
28 Aug	S13W05	265	80	2	Hsx	1	A										
29 Aug	S13W20	267	80	2	Hsx	1	A										
30 Aug	S14W32	266	90	2	Hsx	1	A										
31 Aug	S14W46	267	70	2	Hsx	1	A										
01 Sep	S13W60	267	60	2	Hsx	1	A										
02 Sep	S13W73	267	60	2	Hax	1	A										
03 Sep	S12W85	265	30	2	Hax	1	A										
								1	0	0	4	0	0	0	0	0	

Crossed West Limb.
 Absolute heliographic longitude: 265



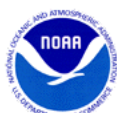
Region Summary - continued

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 2151																		
23 Aug	S07E71	255	90	2	Hsx	1	A											
24 Aug	S07E58	255	110	2	Hax	1	A		1		1		1					
25 Aug	S08E47	253	140	5	Cso	2	B											
26 Aug	S08E32	254	110	2	Hsx	1	A											
27 Aug	S08E19	253	140	2	Hax	1	A	1			2							
28 Aug	S07E06	254	120	3	Hsx	1	A				5							
29 Aug	S07W07	254	120	3	Hsx	1	A				1							
30 Aug	S07W21	255	120	3	Hsx	1	A											
31 Aug	S07W34	255	110	8	Cso	3	B											
01 Sep	S07W48	255	100	2	Hsx	1	A											
02 Sep	S08W62	255	80	2	Hax	2	A											
03 Sep	S07W74	254	80	3	Hax	2	A											
04 Sep	S08W88	256	60	2	Hax	2	A											
								1	1	0	9	0	1	0	0			

Crossed West Limb.
 Absolute heliographic longitude: 254

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											
								15	0	0	36	0	0	0	0			

Still on Disk.
 Absolute heliographic longitude: 206



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 2153																		
29 Aug	S11E18	229	10	2	Axx	3	A											
30 Aug	S10E03	231	plage															
31 Aug	S11W12	233	20	3	Cro	4	B											
01 Sep	S10W24	231	30	3	Cao	5	B											
02 Sep	S10W38	232	90	7	Dao	8	B											
03 Sep	S10W52	232	90	8	Dao	10	B											
04 Sep	S09W65	233	190	9	Dai	9	B	1										
05 Sep	S09W78	233	150	9	Dso	4	B	1										
06 Sep	S09W92	234	140	9	Dso	2	B					1						
								2	0	0		1	0	0	0	0	0	

Crossed West Limb.
 Absolute heliographic longitude: 231

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															
								0	0	0		0	0	0	0	0	0	0

Still on Disk.
 Absolute heliographic longitude: 159

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											
								3	1	0		1	0	0	0	0	0	0

Still on Disk.
 Absolute heliographic longitude: 109



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 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															
										0	0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 114

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							
								17	1	0	13	2	0	0	0	0		

Still on Disk.

Absolute heliographic longitude: 97

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							
								0	0	0	1	0	0	0	0	0		

Still on Disk.

Absolute heliographic longitude: 88

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										
								1	0	0	1	0	0	0	0	0		

Still on Disk.

Absolute heliographic longitude: 79



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 2160

06 Sep	S09W55	197	10	1	Cro	5	B											
07 Sep	S10W68	196	70	6	Dao	5	B					2						
								0	0	0	2	0	0	0	0			

Still on Disk.

Absolute heliographic longitude: 197

Region 2161

06 Sep	S16W07	149	30	2	Dao	8	B											
07 Sep	S15W22	150	20	4	Dao	3	B											
								0	0	0	0	0	0	0	0			

Still on Disk.

Absolute heliographic longitude: 149

Region 2162

06 Sep	N08W04	146	10	4	Cao	3	B											
07 Sep	N08W20	148	10	1	Hrx	1	A											
								0	0	0	0	0	0	0	0			

Still on Disk.

Absolute heliographic longitude: 146

Region 2163

07 Sep	S16E65	63	50	7	Cao	5	B											
								0	0	0	0	0	0	0	0			

Still on Disk.

Absolute heliographic longitude: 63

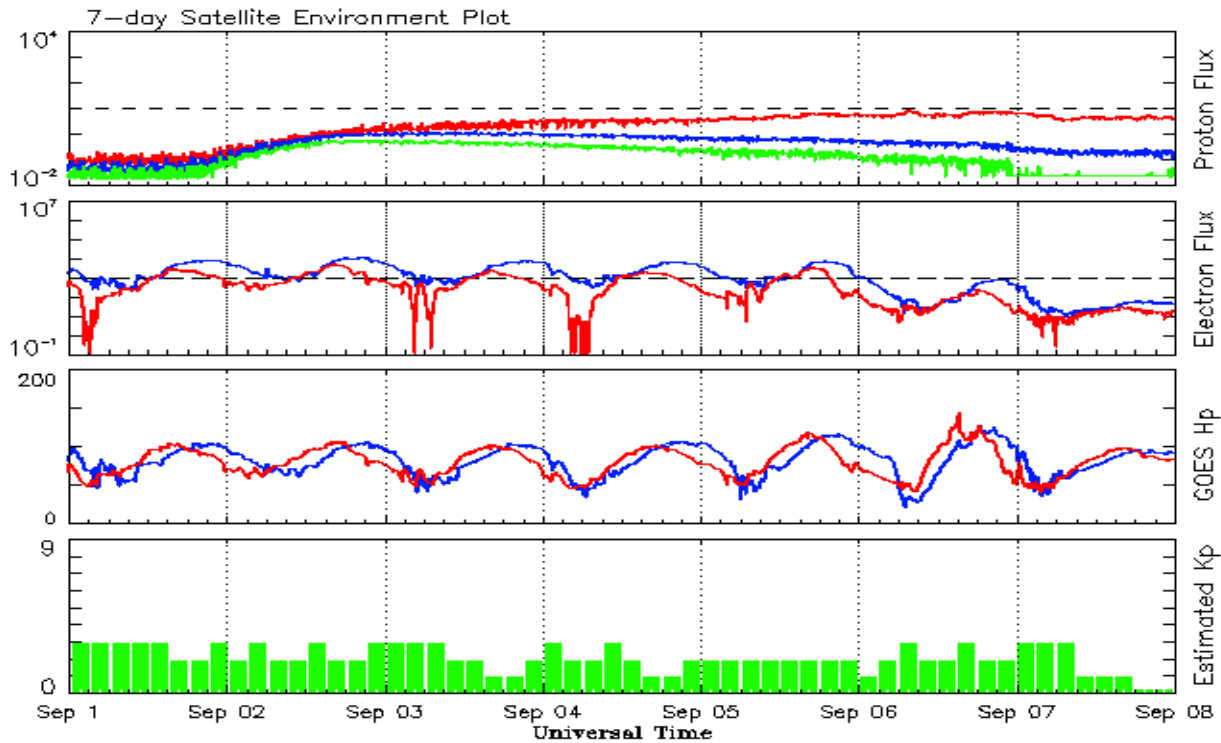


Recent Solar Indices (preliminary)
Observed monthly mean values

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 01 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.

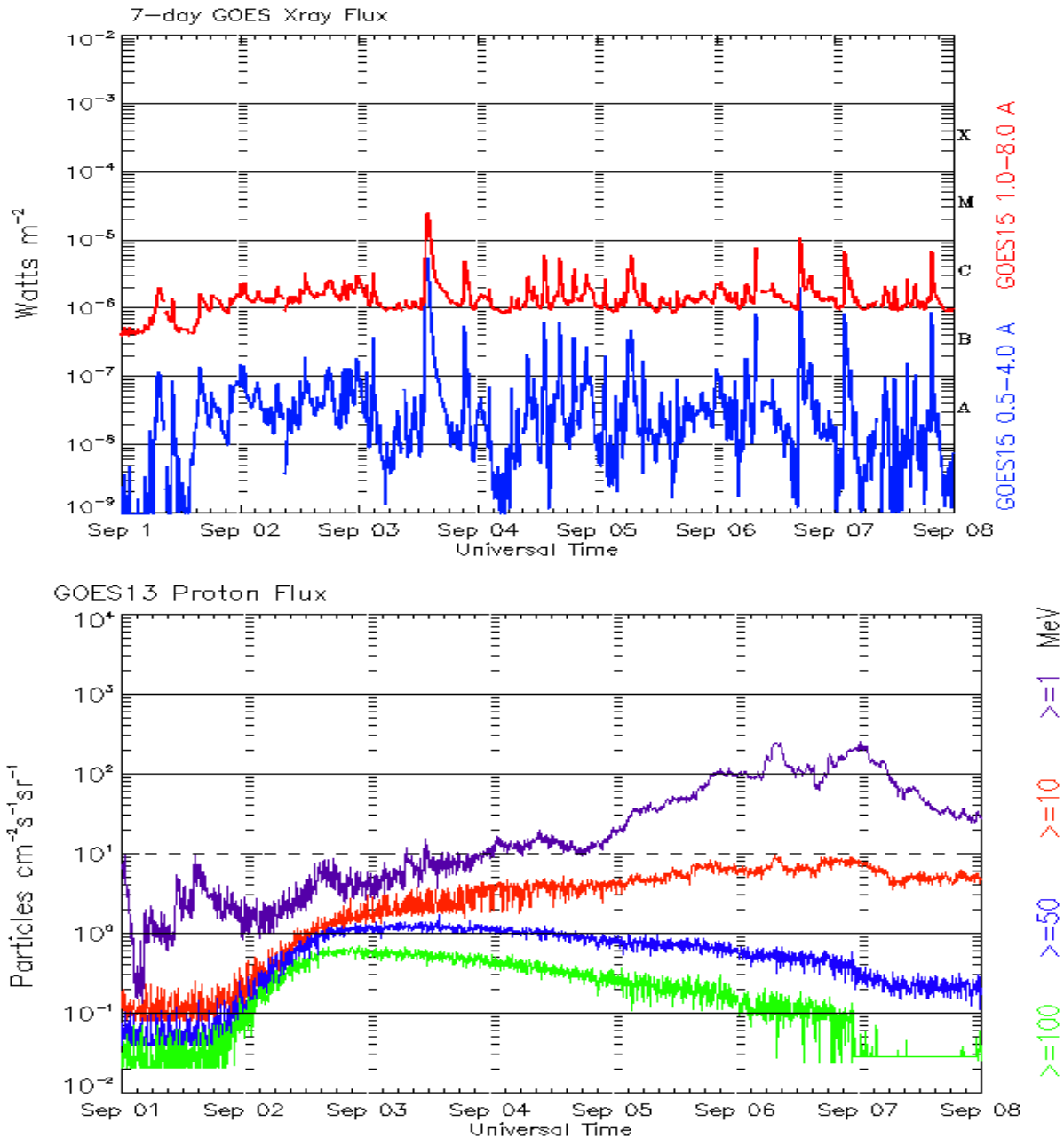
The electron flux plot contains the five-minute averaged integral electron flux (electrons/cm²-sec -sr) with energies greater than 2 MeV by the SWPC Primary GOES satellite.

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 01 September 2014*

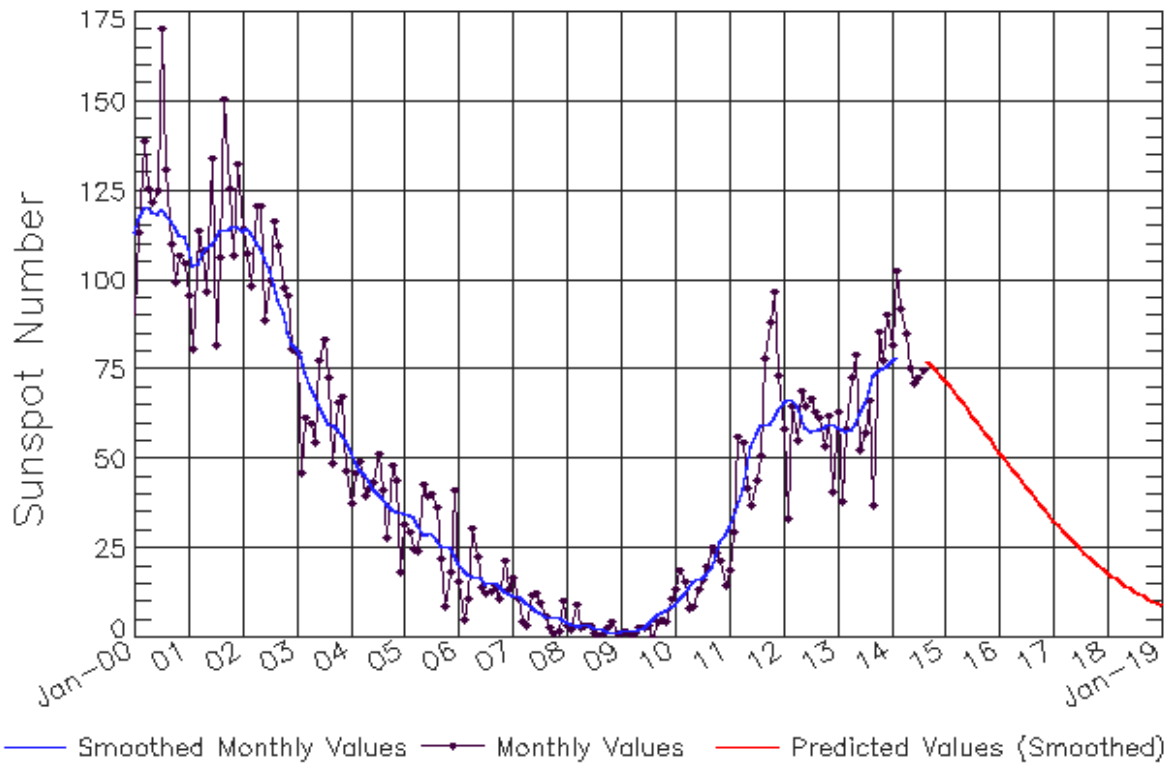
The x-ray plots contains five-minute averages x-ray flux (Watt/m²) as measure by the SWPC primary GOES X-ray satellite, usually at West 105 longitude, in two wavelength bands, 0.05 - 0.4 and 0.1 - 0.8 nm. The letters A, B, C, M and X refer to x-ray event levels for the 0.1 - 0.8 nm band.

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.



ISES Solar Cycle Sunspot Number Progression

Observed data through Aug 2014



Updated 2014 Sep 8

NOAA/SWPC Boulder, CO USA

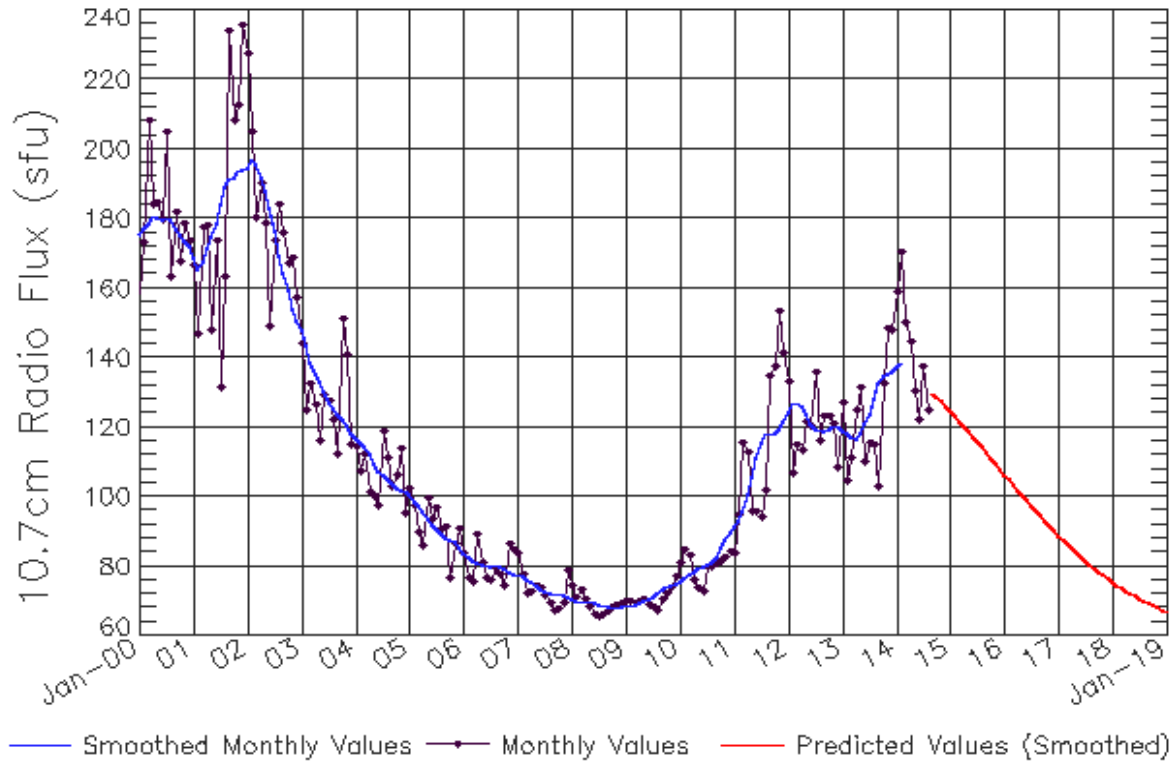
Smoothed Sunspot Number Prediction

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2010	9 (***)	11 (***)	12 (***)	14 (***)	16 (***)	16 (***)	17 (***)	17 (***)	20 (***)	23 (***)	27 (***)	29 (***)
2011	31 (***)	33 (***)	37 (***)	42 (***)	48 (***)	53 (***)	57 (***)	59 (***)	60 (***)	60 (***)	61 (***)	63 (***)
2012	66 (***)	67 (***)	67 (***)	65 (***)	62 (***)	59 (***)	58 (***)	58 (***)	58 (***)	59 (***)	60 (***)	60 (***)
2013	59 (***)	58 (***)	58 (***)	58 (***)	60 (***)	63 (***)	66 (***)	69 (***)	73 (***)	75 (***)	75 (***)	76 (***)
2014	77 (***)	78 (***)	80 (1)	82 (2)	81 (3)	80 (5)	79 (5)	78 (6)	75 (7)	74 (7)	72 (8)	72 (9)
2015	71 (9)	70 (10)	69 (10)	67 (10)	65 (10)	64 (10)	62 (10)	60 (10)	59 (10)	57 (10)	55 (10)	54 (10)
2016	52 (10)	50 (10)	49 (10)	47 (10)	45 (10)	44 (10)	42 (10)	40 (10)	39 (10)	37 (10)	36 (10)	34 (10)
2017	33 (10)	31 (10)	30 (10)	29 (10)	27 (10)	26 (10)	25 (10)	24 (10)	23 (10)	21 (10)	20 (10)	19 (10)
2018	18 (10)	17 (10)	16 (10)	15 (10)	15 (10)	14 (10)	13 (10)	12 (10)	12 (10)	11 (10)	10 (10)	10 (10)
2019	9 (10)	8 (10)	8 (10)	7 (10)	7 (10)	6 (10)	6 (10)	6 (10)	5 (10)	5 (10)	4 (10)	4 (10)



ISES Solar Cycle F10.7cm Radio Flux Progression

Observed data through Aug 2014

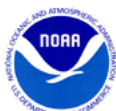


Updated 2014 Sep 8

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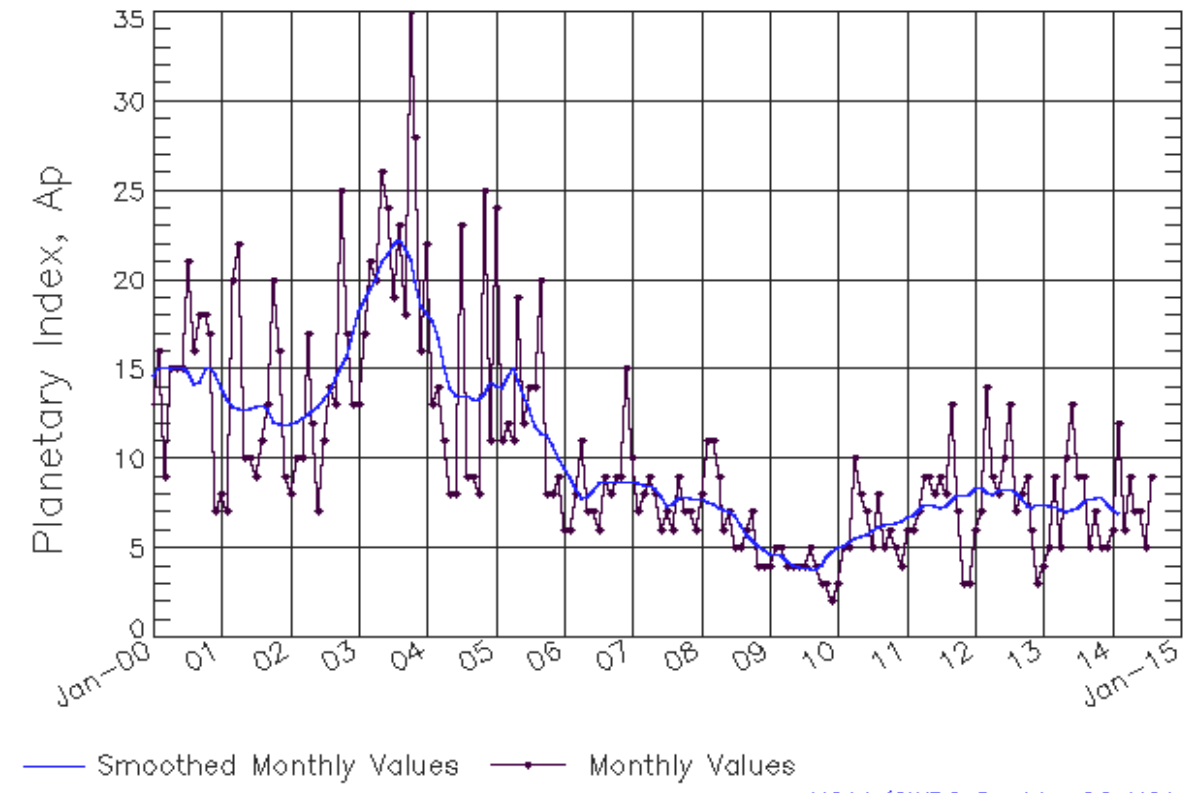
Smoothed F10.7cm Radio Flux Prediction

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2010	76 (**)	77 (**)	78 (**)	78 (**)	79 (**)	80 (**)	80 (**)	81 (**)	82 (**)	85 (**)	88 (**)	90 (**)
2011	91 (**)	93 (**)	96 (**)	100 (**)	106 (**)	111 (**)	115 (**)	118 (**)	118 (**)	118 (**)	120 (**)	122 (**)
2012	124 (**)	127 (**)	127 (**)	126 (**)	124 (**)	121 (**)	120 (**)	119 (**)	119 (**)	119 (**)	120 (**)	120 (**)
2013	119 (**)	118 (**)	117 (**)	117 (**)	118 (**)	121 (**)	124 (**)	128 (**)	132 (**)	135 (**)	135 (**)	136 (**)
2014	137 (**)	139 (**)	140 (1)	141 (1)	140 (2)	138 (3)	136 (4)	133 (4)	130 (5)	127 (6)	126 (7)	125 (8)
2015	124 (8)	123 (9)	122 (9)	120 (9)	119 (9)	117 (9)	116 (9)	114 (9)	113 (9)	111 (9)	110 (9)	108 (9)
2016	106 (9)	105 (9)	103 (9)	102 (9)	100 (9)	99 (9)	97 (9)	96 (9)	94 (9)	93 (9)	92 (9)	90 (9)
2017	89 (9)	88 (9)	86 (9)	85 (9)	84 (9)	83 (9)	82 (9)	80 (9)	79 (9)	78 (9)	77 (9)	76 (9)
2018	75 (9)	75 (9)	74 (9)	73 (9)	72 (9)	71 (9)	71 (9)	70 (9)	69 (9)	69 (9)	68 (9)	67 (9)
2019	67 (9)	66 (9)	66 (9)	65 (9)	65 (9)	65 (9)	64 (9)	64 (9)	63 (9)	63 (9)	63 (9)	63 (9)



ISES Solar Cycle Ap Progression

Observed data through Aug 2014



Updated 2014 Sep 8

NOAA/SWPC Boulder, CO USA

Solar Cycle Comparison charts are temporarily unavailable.



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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

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

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

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

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

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

