

Solar activity reached high levels this period. Region 2173 (S17, L=250, class/area=Dac/160 on 28 Sep) produced an M7/1f flare on 02 Oct at 1901 UTC while crossing the west limb. Associated Type-II (est. speed 714 km/s) and Type-IV radio emissions were observed with this event. Region 2172 (S11, L=239, class/area=Ekc/570 on 23 Sep) produced an M1/Sf flare on 02 Oct at 1744 UTC. Coronal mass ejections (CMEs) were observed off the southwest limb with both of these events, but the proximity of the source regions and event times in addition to incomplete SOHO/LASCO coronagraph imagery made it difficult to differentiate between the two CMEs. Subsequent analysis determined that these CMEs were directed well west of the Sun-Earth line. Regions 2172 and 2173 were the most productive regions this period and were also responsible for additional low to mid-level C-class flare activity. Two filament eruptions were observed on 02 Oct, the first of which was centered near N18W07 and erupted at 0330 UTC and the second was centered near N29W09 and erupted at 0550 UTC. SDO/AIA 193 and 304 imagery indicated that the bulk of the ejecta with the filament eruptions were reabsorbed and no subsequent CME signatures were observed in SOHO/LASCO imagery.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at low to moderate levels on 30 Sep and 03-05 Oct but reached high levels on 29 Sep and 01-02 Oct, reaching a maximum flux value of 1630 pfu on 01 Oct at 1720 UTC.

Geomagnetic field activity was at predominately quiet to unsettled levels under a nominal solar wind regime. Isolated periods of active geomagnetic field activity were observed on 29 Sep (1800-2100 UTC), 30 Sep (0300-0600 UTC and 0900-1200 UTC), and 01 Oct (0000-0300 UTC) due to multiple current sheet crossings and prolonged southward Bz.

Space Weather Outlook **06 October - 01 November 2014**

Solar activity is expected to be at low levels with a slight chance for R1-R2 (Minor-Moderate) flare activity for 15-28 Oct as Regions 2172 (S11, L=239), 2173 (S17, L=250), and 2175 (N17, L=262) return to the visible disk.

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 for 06-11 Oct and 15-25 Oct with a chance for high levels on 12-15 Oct and 26 Oct-01 Nov due an enhanced solar wind environment caused by the influence of several coronal hole high speed streams (CH HSSs).

Geomagnetic field activity is expected to be quiet for 08-10, 12-14, 18, and 30 Oct due to a predominately nominal solar wind regime. Quiet to unsettled activity is expected for 06-07, 11,



15, 17, 19-20, 25-29, 31 Oct, and 01 Nov due to the weak influence of multiple CH HSSs. Active conditions are expected for 16, 22-24 Oct due to the moderate influence of multiple CH HSSs. G1 (Minor) geomagnetic storm conditions are likely on 21 Oct due to strong positive polarity CH HSS 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
29 September	175	160	1560	C1.2	6	0	0	15	0	0	0	0
30 September	162	166	1250	C1.0	1	0	0	11	0	0	0	0
01 October	155	164	770	C1.2	1	0	0	14	0	0	0	0
02 October	149	105	430	C1.0	1	2	0	3	1	0	0	0
03 October	137	128	310	C1.1	8	0	0	3	0	0	0	0
04 October	128	125	370	B4.5	4	0	0	4	0	0	0	0
05 October	128	106	330	B4.1	4	0	0	1	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
	29 September	4.9e+05	1.4e+04	2.7e+03		4.6e+07
30 September	6.4e+05	1.5e+04	2.3e+03		1.7e+07	
01 October	6.3e+05	1.4e+04	2.5e+03		3.7e+07	
02 October	2.5e+05	1.2e+04	2.5e+03		2.9e+07	
03 October	3.0e+05	1.3e+04	2.6e+03		2.3e+07	
04 October	1.4e+05	1.1e+04	2.5e+03		4.3e+06	
05 October	2.1e+05	1.0e+04	2.5e+03		1.3e+07	

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
	29 September	7	2-1-1-2-2-2-3-2	22	1-1-4-6-5-1-2-2	10
30 September	12	2-3-2-4-3-2-2-2	28	2-5-4-6-4-4-1-2	15	3-4-3-4-3-2-2-3
01 October	10	3-3-3-2-2-2-2-2	21	3-2-3-6-3-4-2-1	10	4-3-3-2-2-2-2-2
02 October	13	2-2-2-2-5-2-2-3	10	2-2-2-4-3-2-1-1	8	2-2-2-2-2-2-1-3
03 October	3	2-0-1-1-1-1-0-1	2	1-1-1-1-0-0-0-0	4	2-1-1-1-0-1-1-1
04 October	5	1-1-2-2-1-1-1-2	4	1-2-3-2-0-0-0-1	6	1-2-2-2-1-1-1-2
05 October	5	2-1-2-1-2-1-1-1	2	1-1-0-0-0-1-1-1	6	2-2-2-1-2-1-1-1

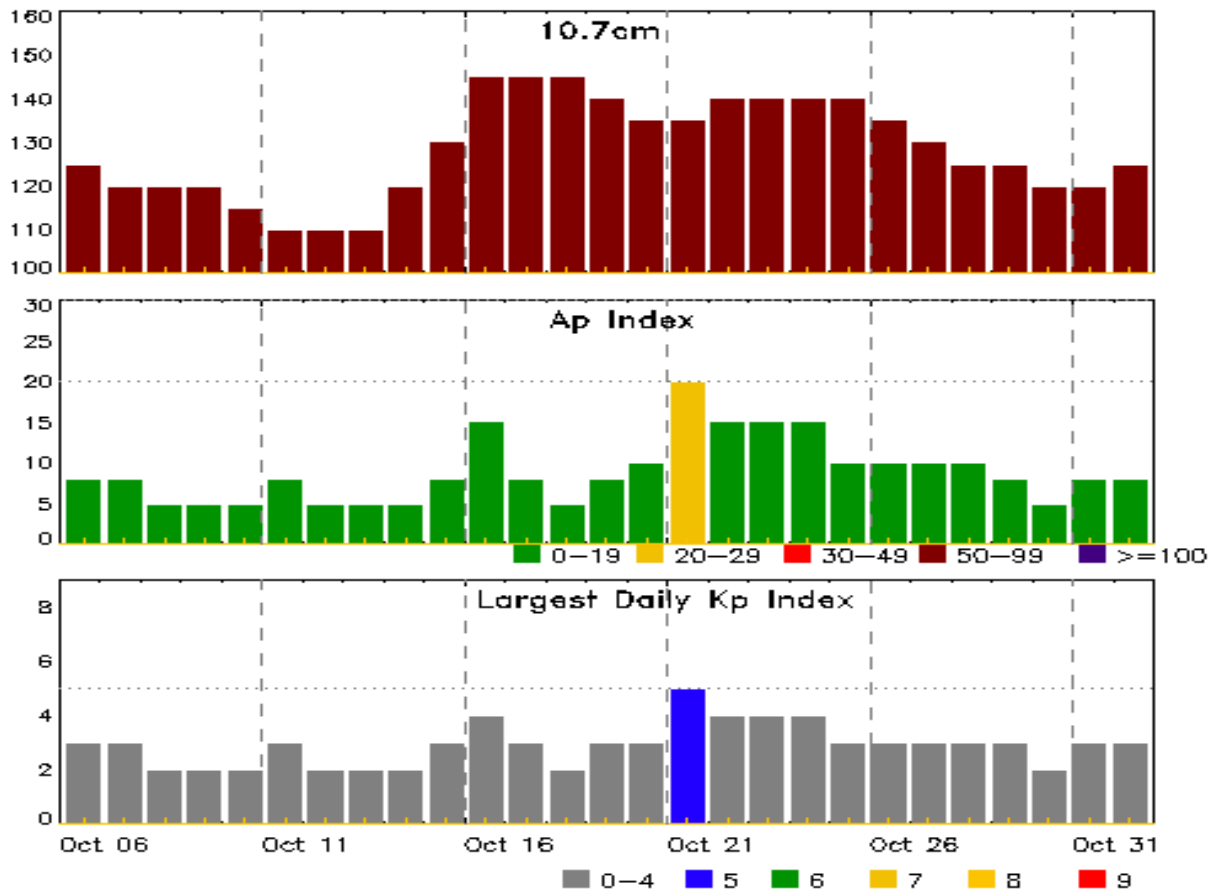


Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
29 Sep 1325	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	26/1355
29 Sep 1947	WARNING: Geomagnetic K = 4	29/1947 - 30/0700
29 Sep 2103	ALERT: Geomagnetic K = 4	29/2059
30 Sep 0553	EXTENDED WARNING: Geomagnetic K = 4	29/1947 - 30/1300
30 Sep 1255	EXTENDED WARNING: Geomagnetic K = 4	29/1947 - 30/1900
01 Oct 0044	WARNING: Geomagnetic K = 4	01/0045 - 1300
01 Oct 0140	ALERT: Geomagnetic K = 4	01/0140
01 Oct 1455	ALERT: Electron 2MeV Integral Flux \geq 1000pfu	01/1435
02 Oct 1858	ALERT: X-ray Flux exceeded M5	02/1857
02 Oct 1928	ALERT: Type II Radio Emission	02/1858
02 Oct 1928	ALERT: Type IV Radio Emission	02/1859
02 Oct 2011	ALERT: Type II Radio Emission	02/1931
02 Oct 2013	SUMMARY: X-ray Event exceeded M5	02/1849 - 1914



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
06 Oct	125	8	3	20 Oct	135	10	3
07	120	8	3	21	135	20	5
08	120	5	2	22	140	15	4
09	120	5	2	23	140	15	4
10	115	5	2	24	140	15	4
11	110	8	3	25	140	10	3
12	110	5	2	26	135	10	3
13	110	5	2	27	130	10	3
14	120	5	2	28	125	10	3
15	130	8	3	29	125	8	3
16	145	15	4	30	120	5	2
17	145	8	3	31	120	8	3
18	145	5	2	01 Nov	125	8	3
19	140	8	3				



Energetic Events

Date	Time			X-ray	Optical Information			Peak		Sweep Freq		
	Begin	Max	Half Max	Class	Integ Flux	Imp/ Brtns	Location Lat CMD	Rgn #	Radio Flux 245	Radio Flux 2695	Intensity II	Intensity IV
02 Oct	1710	1744	1815	M1.5	0.038	SF	S18W76	2172				
02 Oct	1849	1901	1914	M7.3	0.074	1F	S17W82	2173			1	1

Flare List

Date	Time			X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
	Begin	Max	End				
29 Sep	0131	0133	0140		SF	N14W52	2175
29 Sep	0347	0350	0355	C2.2	SF	N07E00	2176
29 Sep	0429	0429	0432		SF	N11E41	2177
29 Sep	0433	0438	0444		SF	S04E57	2178
29 Sep	0433	0433	0449		SF	N11E41	2177
29 Sep	0534	0554	0605	C5.4	SF	N13E42	2177
29 Sep	0558	0558	0606		SF	S14W40	2173
29 Sep	0609	0610	0618		SF	N11E39	2177
29 Sep	0736	0737	0750		SF	N07W00	2176
29 Sep	0816	1102	1126	C2.1			
29 Sep	0831	0834	0842		SF	N06W00	2176
29 Sep	0833	0839	0853		SF	N12E40	2177
29 Sep	1055	1100	1109		SF	S16W39	2172
29 Sep	1207	1219	1300		SF	S17W40	2172
29 Sep	1502	1538	1630	C2.1	SF	S16W45	2173
29 Sep	1744	1810	1918	C2.2			2173
29 Sep	1942	2132	2255	C3.3	SF	S16W44	2173
30 Sep	0410	0444	0510	C2.6	SF	S15W56	2173
30 Sep	0542	0547	0555		SF	N11E26	2177
30 Sep	0606	0607	0615		SF	N16W64	2175
30 Sep	0621	0622	0626		SF	S16E57	2179
30 Sep	0634	0637	0643		SF	S12W68	2171
30 Sep	0702	0705	0708		SF	S12W48	2173
30 Sep	0748	0805	0808		SF	S15W45	2172
30 Sep	1106	1116	1122		SF	S15E55	2179
30 Sep	1254	1254	1256		SF	S11E50	2179
30 Sep	1332	1337	1340		SF	N05W18	2176
30 Sep	1701	1701	1706		SF	N06W20	2176
01 Oct	0045	0046	0049		SF	S15W56	2172



Flare List

Date	Time			X-ray Class	Imp/ Brtns	Optical	
	Begin	Max	End			Location Lat CMD	Rgn #
01 Oct	0215	0215	0223		SF	S15W57	2173
01 Oct	0240	0306	0348	C6.7	SF	S12W64	2172
01 Oct	0510	0540	0627		SF	S15W71	2173
01 Oct	0631	0633	0638		SF	N20W82	2175
01 Oct	0649	0652	0654		SF	S15W71	2173
01 Oct	0717	0717	0721		SF	S14W69	2173
01 Oct	B0824	U0824	0830		SF	S16W66	2173
01 Oct	B0839	U0849	0851		SF	S16W66	2173
01 Oct	0900	0901	0913		SF	S00E31	2178
01 Oct	1026	1026	1029		SF	S17W67	2173
01 Oct	1247	1247	1251		SF	S19W70	2173
01 Oct	1256	U1256	1359		SF	S18W76	2173
01 Oct	1439	1441	1448		SF	S20W77	2173
02 Oct	0307	0308	0310		SF	S14W69	2173
02 Oct	1710	1744	1815	M1.5	SF	S18W76	2172
02 Oct	1849	1901	1914	M7.3	1F	S17W82	2173
02 Oct	2251	2254	2256	C3.6	SF	N18E89	2173
03 Oct	0005	0008	0012	C3.2			2172
03 Oct	0257	0304	0315	C5.7			2173
03 Oct	0358	0420	0437	C5.7			2172
03 Oct	0636	0648	0714	C9.0			2173
03 Oct	0731	0736	0752		SF	S03E05	2178
03 Oct	B0757	U0800	A0806		SF	S03E06	2178
03 Oct	0817	0929	1023	C1.3			2172
03 Oct	1041	1046	1053	C2.2			2181
03 Oct	1141	1148	1158	C2.5			2172
03 Oct	1747	1748	1807		SF	S12E32	2182
03 Oct	2207	2215	2220	C1.9			2172
04 Oct	0054	0102	0111	C1.7	SF	S03W04	2178
04 Oct	0100	0105	0113		SF	S03W04	2178
04 Oct	0210	0224	0240	C1.4			2178
04 Oct	0648	0658	0708	C1.0	SF	N11E26	2177
04 Oct	1016	1021	1024	C1.4			2178
04 Oct	2316	2317	2323		SF	N01W19	2178
05 Oct	0932	0954	1016	C1.0	SF	S01W23	2178
05 Oct	1211	1235	1311	C1.0			2181
05 Oct	1319	1335	1344	C1.2			
05 Oct	1633	1656	1705	C1.5			2177



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 2169																		
17 Sep	N05E66	290	60	2	Cso	1	B											
18 Sep	N05E53	289	50	6	Cao	2	B	2	1			3						
19 Sep	N05E42	288	30	8	Cso	2	B											
20 Sep	N05E26	291	30	2	Hax	2	A											
21 Sep	N05E14	289	40	7	Cao	2	B											
22 Sep	N05W02	291	30	1	Hsx	2	A											
23 Sep	N05W15	292	20	1	Hsx	2	A											
24 Sep	N05W28	292	10	1	Axx	1	A											
25 Sep	N06W43	294	10	1	Axx	1	A											
26 Sep	N07W56	293	0	1	Axx	1	A											
27 Sep	N07W71	295	plage															
28 Sep	N07W86	297	plage															
								2	1	0	3	0	0	0	0	0		

Crossed West Limb.
 Absolute heliographic longitude: 291

Region 2170																		
17 Sep	N07E64	290	60	3	Hsx	2	A											
18 Sep	N10E51	291	40	1	Hax	1	A											
19 Sep	N09E40	290	30	2	Hax	1	A											
20 Sep	N11E27	290	50	2	Hax	2	A											
21 Sep	N11E13	290	50	2	Hax	1	A											
22 Sep	N11W01	290	40	1	Hax	1	A											
23 Sep	N11W13	290	50	2	Hax	2	A											
24 Sep	N11W26	290	30	2	Hax	2	A											
25 Sep	N11W40	291	10	1	Axx	1	A											
26 Sep	N12W52	289	10	2	Axx	2	A											
27 Sep	N12W66	290	plage															
28 Sep	N12W80	291	plage															
								0	0	0	0	0	0	0	0	0	0	

Crossed West Limb.
 Absolute heliographic longitude: 290



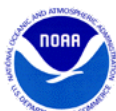
Region Summary - continued

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 2171																		
19 Sep	S09E65	263	80	6	Dso	2	B	1										
20 Sep	S10E53	264	160	8	Dao	7	B	1										
21 Sep	S10E39	264	160	11	Eai	8	BG											
22 Sep	S10E25	264	150	11	Eao	11	B					1						
23 Sep	S10E11	264	150	12	Eac	7	B											
24 Sep	S11W01	264	80	13	Eso	6	B											
25 Sep	S12W15	266	100	13	Eao	11	B	1										
26 Sep	S11W28	265	130	15	Eao	10	B						1					
27 Sep	S10W41	265	90	15	Eso	9	B											
28 Sep	S11W54	265	100	14	Cao	12	B					1						
29 Sep	S10W66	264	30	14	Cso	5	B											
30 Sep	S06W83	267	40	1	Hsx	1	A					1						
								3	0	0	3	1	0	0	0			

Crossed West Limb.
 Absolute heliographic longitude: 264

Region 2172																		
20 Sep	S09E75	242	30	1	Hrx	1	A	1										
21 Sep	S11E63	240	320	11	Ekc	10	BD	2										
22 Sep	S11E50	239	430	11	Ekc	11	B	1										
23 Sep	S11E36	239	570	12	Ekc	17	BG	1	1		4			1				
24 Sep	S10E24	239	440	12	Ekc	16	BG	2			4	1						
25 Sep	S11E09	242	450	13	Ekc	29	BG				7							
26 Sep	S11W05	242	500	15	Ekc	55	BG	2			7	1						
27 Sep	S11W17	241	460	15	Ekc	40	BG	2			3							
28 Sep	S12W31	242	490	17	Fkc	56	BG	2			7	1						
29 Sep	S12W43	241	510	16	Fhc	28	BG				2							
30 Sep	S10W57	242	320	16	Fkc	14	BG				1							
01 Oct	S09W69	240	200	16	Fao	13	BG	1			2							
02 Oct	S08W82	239	150	14	Eso	4	B		1		1							
03 Oct	S08W91	236	10	1	Axx	1	A	5										
								19	2	0	38	3	1	0	0			

Crossed West Limb.
 Absolute heliographic longitude: 242



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 2173																							
20 Sep	S15E65	252	20	1	Hrx	1	A																
21 Sep	S15E51	252	20	1	Hrx	1	A																
22 Sep	S15E37	252	10	1	Hrx	1	A																
23 Sep	S15E24	251	10		Hrx	1	A																
24 Sep	S15E10	254	plage																				
25 Sep	S15W00	250	plage																				
26 Sep	S17W10	247	50	7	Cao	16	B																
27 Sep	S17W26	250	130	8	Dac	23	B	2				8											
28 Sep	S17W39	250	160	8	Dac	22	BG	2	2			5			1								
29 Sep	S16W54	251	150	12	Eac	11	BG	3				3											
30 Sep	S14W66	251	100	13	Eai	9	BG	1				2											
01 Oct	S14W79	250	100	9	Dai	12	BG					10											
02 Oct	S13W85	247	50	2	Hax	1	A	1	1			2	1										
								9	3	0		30	1	1	0	0							

Crossed West Limb.
 Absolute heliographic longitude: 250

Region 2175																							
25 Sep	N15W12	263	80	8	Cai	25	BG	2				12											
26 Sep	N16W25	262	240	9	Dac	30	BGD	1				12											
27 Sep	N15W38	262	360	10	Dkc	19	BGD					1											
28 Sep	N16W51	262	390	10	Dkc	23	BGD					5											
29 Sep	N17W64	262	500	11	Ekc	11	BGD					1											
30 Sep	N17W79	264	450	11	Ekc	11	BG					1											
01 Oct	N18W90	261	140	9	Dao	3	BG					1											
								3	0	0		33	0	0	0	0							

Crossed West Limb.
 Absolute heliographic longitude: 263



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 2176																							
25 Sep	N06E41	210	10	1	Axx	1	A																
26 Sep	N07E28	209	10	5	Bxo	4	B																
27 Sep	N07E13	211	plage																				
28 Sep	N07W02	213	plage																				
29 Sep	N08W13	211	10	3	Bxo	4	B	1				3											
30 Sep	N08W25	210	30	5	Dro	3	B					2											
01 Oct	N09W39	210	20	6	Cro	7	B																
02 Oct	N09W52	209	30	6	Dro	6	B																
03 Oct	N08W66	211	40	8	Cao	5	B																
04 Oct	N19W79	211	30	7	Cao	2	B																
05 Oct	N09W92	211	20	9	Cao	3	B																
								1	0	0		5	0	0	0	0	0						

Still on Disk.
 Absolute heliographic longitude: 213

Region 2177																							
24 Sep	N12E89	176	plage									1											
25 Sep	N12E75	176	30	1	Hsx	1	A																
26 Sep	N12E67	170	80	5	Dao	5	B	2				3											
27 Sep	N11E56	168	110	15	Eai	7	B																
28 Sep	N12E43	168	120	11	Eai	12	BG																
29 Sep	N11E31	167	200	12	Eac	17	BG	1				5											
30 Sep	N12E16	169	140	13	Eac	19	BG					1											
01 Oct	N12E03	168	70	9	Dao	19	BG																
02 Oct	N12W11	168	30	6	Cso	9	B																
03 Oct	N13W27	172	10	2	Axx	6	A																
04 Oct	N15W38	170	10	7	Bxo	8	B	1				1											
05 Oct	N13W54	173	10	1	Axx	1	A	1															
								6	0	0		10	0	0	0	0	0						

Still on Disk.
 Absolute heliographic longitude: 168



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 2178																		
27 Sep	S01E75	149	30	5	Hsx	1	A		1									
28 Sep	S03E60	151	50	2	Cao	4	B						1					
29 Sep	S03E45	153	120	4	Cso	3	B						1					
30 Sep	S03E32	153	120	6	Dao	5	BG											
01 Oct	S02E19	152	180	6	Dac	12	BG						1					
02 Oct	S02E05	152	140	6	Dai	12	BG											
03 Oct	S01W08	153	160	7	Cai	10	B							2				
04 Oct	S01W23	155	130	7	Cai	13	B	3					3					
05 Oct	S01W37	156	110	3	Cao	4	B	1					1					
								4	1	0	9	0	0	0	0	0		

Still on Disk.

Absolute heliographic longitude: 152

Region 2179																		
28 Sep	S11E71	140	60	2	Hsx	1	A											
29 Sep	S10E56	141	40	1	Hsx	1	A											
30 Sep	S11E41	144	30	2	Hax	1	A						3					
01 Oct	S11E29	142	40	2	Hax	1	A											
02 Oct	S10E15	142	20	1	Hax	1	A											
03 Oct	S11E04	141	20	1	Hax	2	A											
04 Oct	S09W10	142	10	1	Axx	1	A											
05 Oct	S10W24	143	10	1	Axx	1	A											
								0	0	0	3	0	0	0	0	0		

Still on Disk.

Absolute heliographic longitude: 141

Region 2180																		
30 Sep	N12W13	197	10	2	Bxo	2	B											
01 Oct	N13W27	198	10	3	Bxo	2	B											
02 Oct	N13W41	199	plage															
03 Oct	N13W55	200	plage															
04 Oct	N13W69	201	plage															
05 Oct	N13W83	202	plage															
								0	0	0	0	0	0	0	0	0		

Still on Disk.

Absolute heliographic longitude: 197



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 2181																							
30 Sep	S09E23		160	10	1	Hrx	1	A															
01 Oct	S12E10		161	10	5	Bxo	5	B															
02 Oct	S11W05		162	10	5	Bxo	2	B															
03 Oct	S11W17		162	30	6	Dro	7	BG	1														
04 Oct	S11W30		162	80	7	Dao	14	B															
05 Oct	S12W45		164	70	9	Dai	9	BG	1														
									2	0	0	0	0	0	0	0	0	0	0	0	0	0	

Still on Disk.
Absolute heliographic longitude: 162

Region 2182																							
03 Oct	S13E25		120	20	5	Cso	5	B					1										
04 Oct	S14E11		121	80	6	Cao	5	B															
05 Oct	S15W02		121	90	5	Csi	6	B															
									0	0	0	1	0	0	0	0	0	0	0	0	0	0	

Still on Disk.
Absolute heliographic longitude: 121

Region 2183																							
03 Oct	N13E54		91	10	1	Axx	1	A															
04 Oct	N11E42		90	20	1	Hrx	1	A															
05 Oct	N13E29		89	10	1	Axx	1	A															
									0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Still on Disk.
Absolute heliographic longitude: 89

Region 2184																							
03 Oct	S18E66		79	10	1	Hrx	1	A															
04 Oct	S20E50		82	10	1	Axx	1	A															
05 Oct	S17E39		79	10	1	Axx	1	A															
									0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Still on Disk.
Absolute heliographic longitude: 79

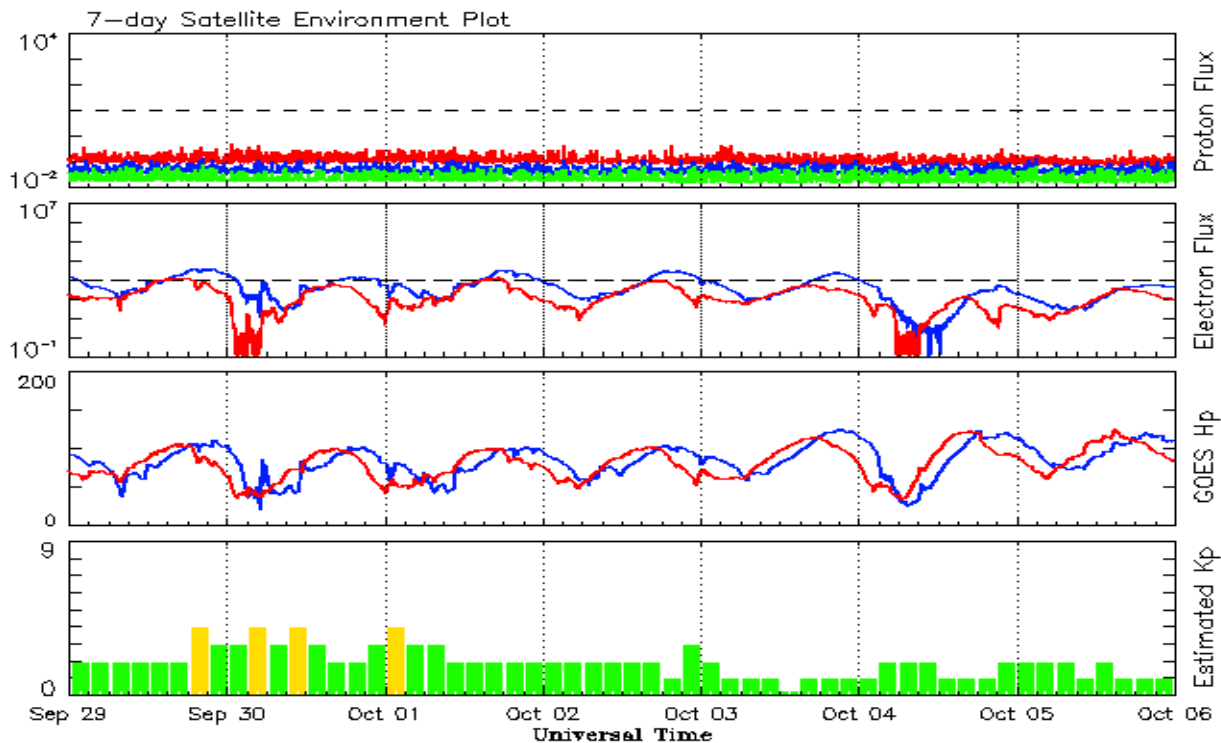


Recent Solar Indices (preliminary)
Observed monthly mean values

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									
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	123.2	80.8	149.9	140.8	6	7.2
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	
September	127.4	87.6	0.69			146.1		11	

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 29 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.

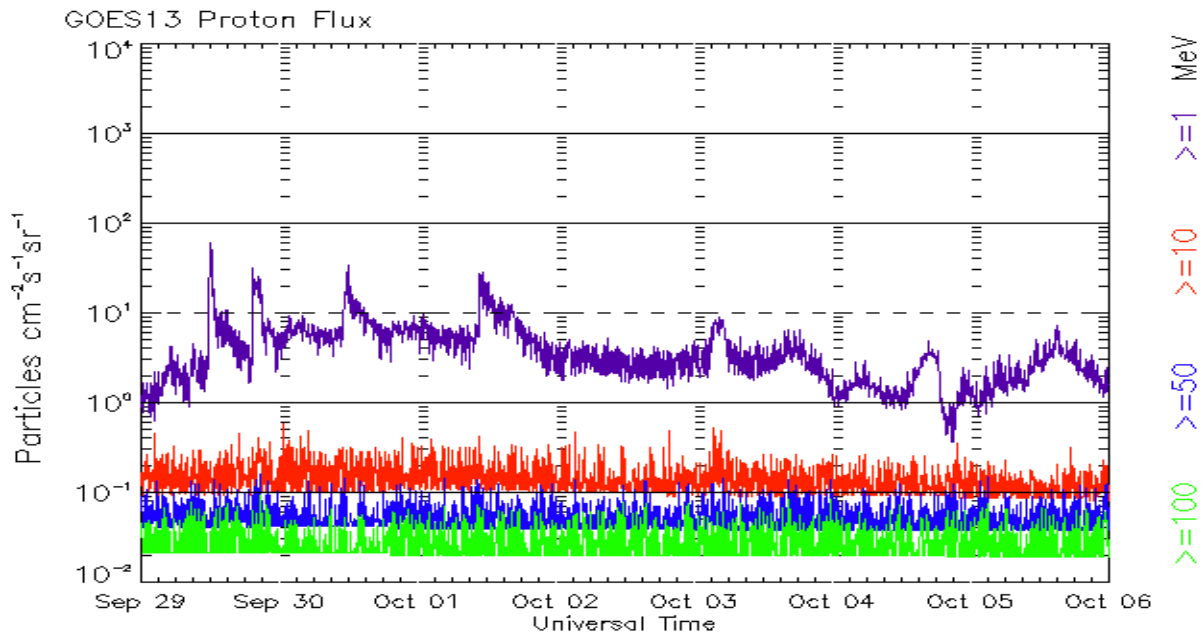
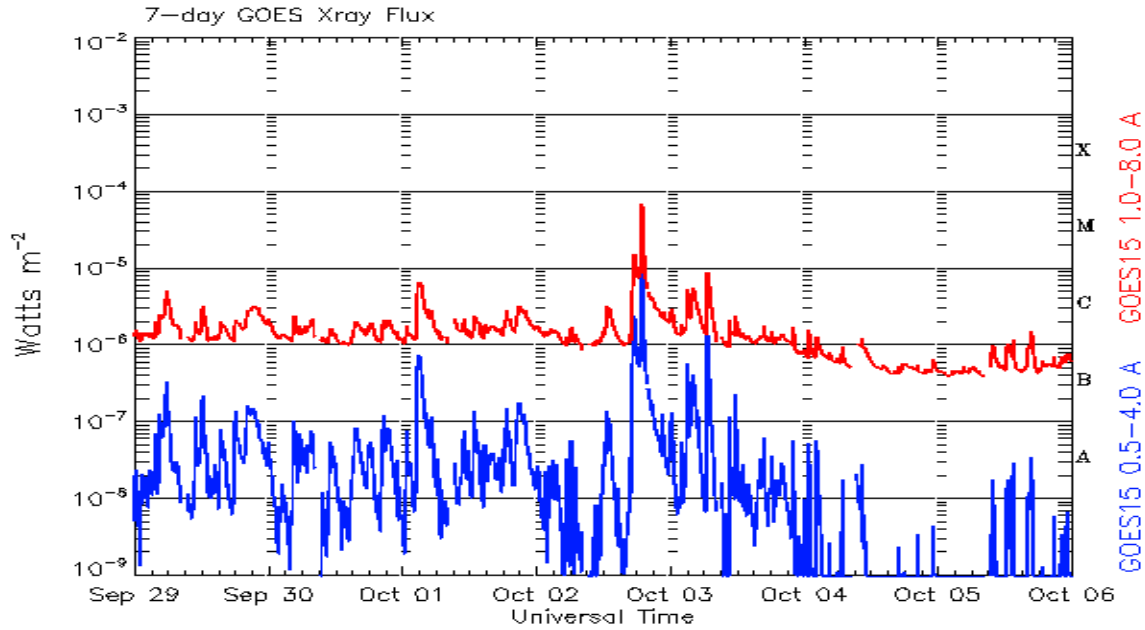
The electron flux plot contains the five-minute averaged integral electron flux (electrons/cm²-sec -sr) with energies greater than 2 MeV by the SWPC Primary GOES satellite.

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 29 September 2014

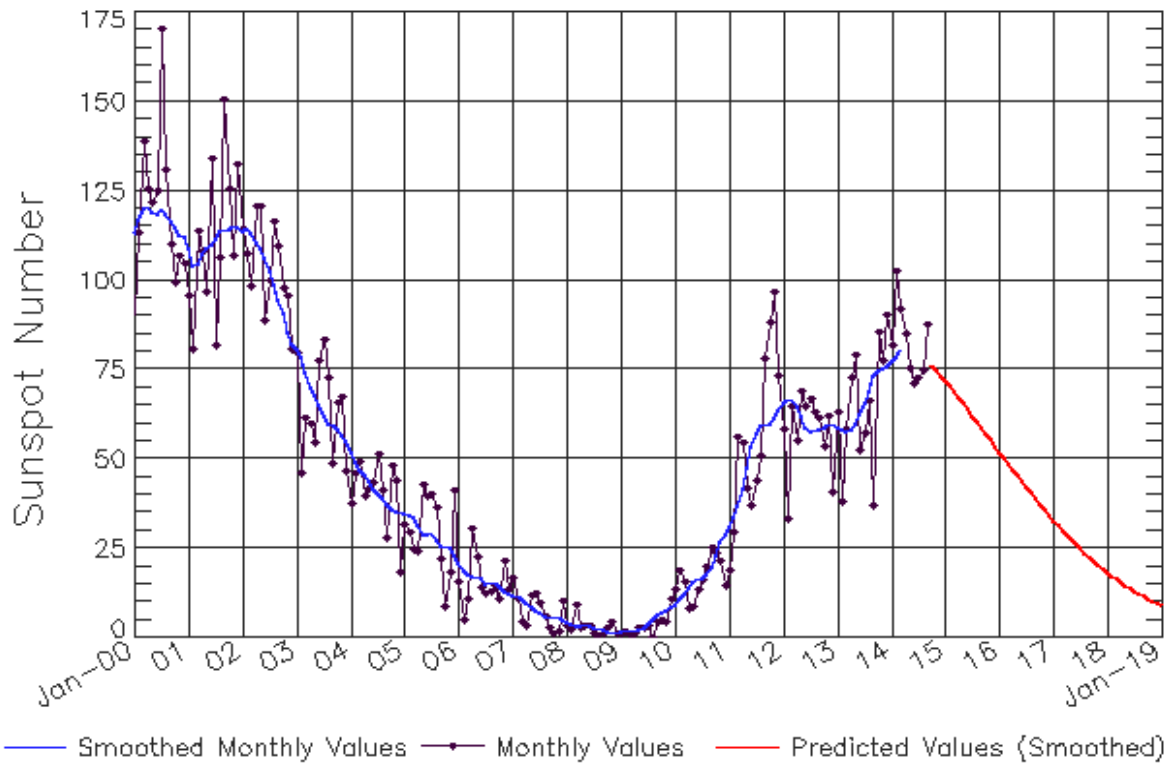
The x-ray plots contains five-minute averages x-ray flux (Watt/ m^2) as measure by the SWPC primary GOES X-ray satellite, usually at West 105 longitude, in two wavelength bands, 0.05 - 0.4 and 0.1 - 0.8 nm. The letters A, B, C, M and X refer to x-ray event levels for the 0.1 - 0.8 nm band.

The proton plot contains the five-minute averaged intergral flux units (pfu = protons/ cm^2 -sec -sr) as measured by the primary SWPC GOES Proton satellite for each of the energy thresholds: >1 , >10 , >30 , and >100 MeV. The P10 event threshold is 10 pfu at greater than 10 MeV.



ISES Solar Cycle Sunspot Number Progression

Observed data through Sep 2014



Updated 2014 Oct 8

NOAA/SWPC Boulder, CO USA

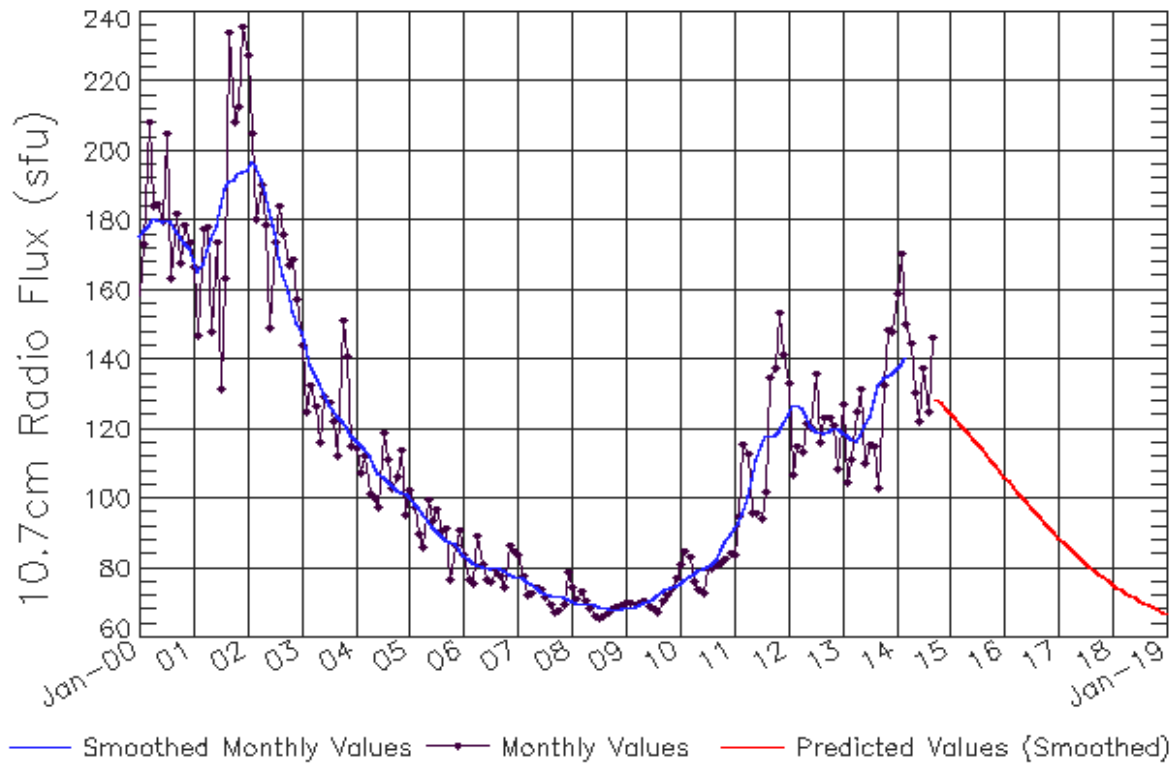
Smoothed Sunspot Number Prediction

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 (***)	81 (***)	83 (1)	82 (2)	81 (3)	80 (5)	78 (5)	76 (6)	74 (7)	73 (7)	73 (8)
2015	72 (9)	71 (9)	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 Sep 2014



Updated 2014 Oct 8

NOAA/SWPC Boulder, CO USA

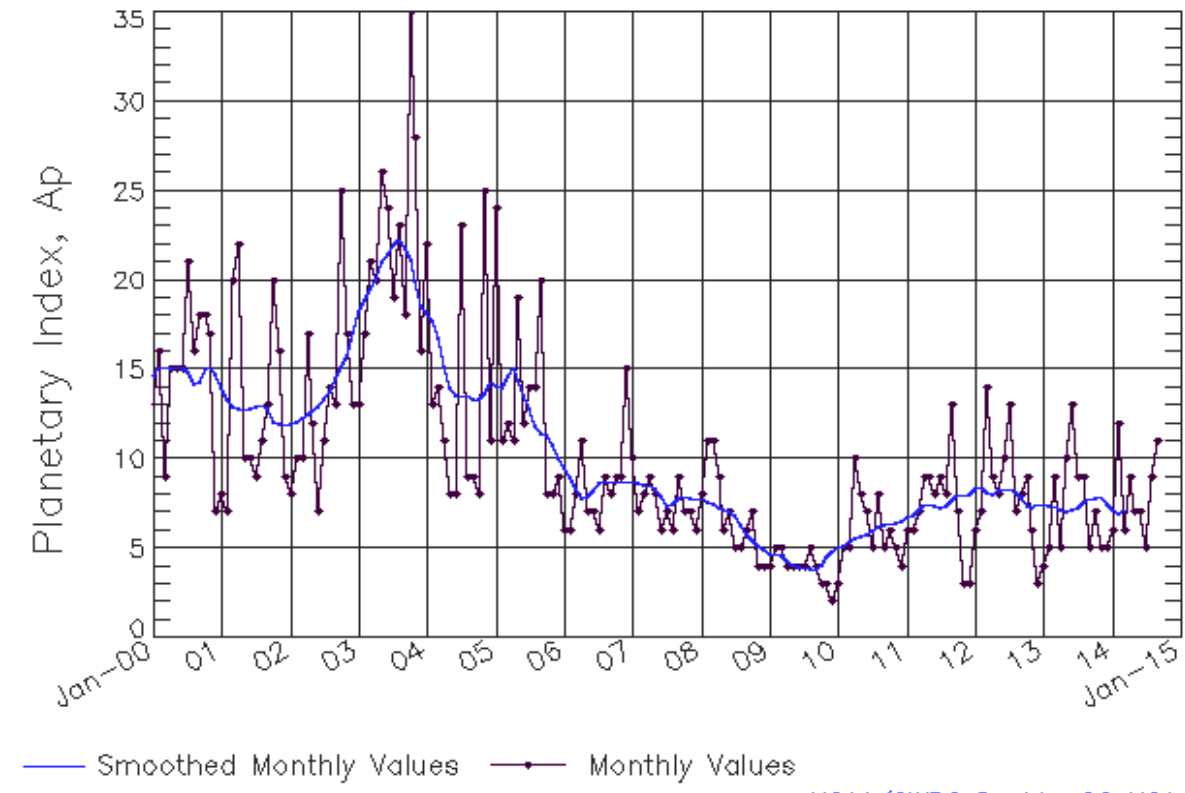
Smoothed F10.7cm Radio Flux Prediction

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 (**)	141 (**)	143 (1)	142 (1)	140 (2)	137 (3)	134 (4)	131 (4)	129 (5)	127 (6)	127 (7)
2015	125 (8)	124 (8)	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 Sep 2014



Updated 2014 Oct 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

