

Solar activity ranged from very low levels on 02 and 05 June, to low levels on 04, 07 and 08 June to moderate levels on 03 and 06 June. On 03 June, an impulsive M1/2n flare was observed at 03/0409 UTC from Region 2077 (S06, L=300, class/area Dai/110 on 01 Jun). This event was followed by weak C-class activity early on 04 June, also from Region 2077. Between 04/0900 - 1300 UTC, a 22 degree long filament, centered near S24E63, erupted. An asymmetric, full halo coronal mass ejection (CME) was first observed in Lasco C2 imagery at 04/1325 UTC. Initial analysis of Lasco C2/C3 coronagraph and STEREO B imagery indicated an approximate speed of 521 km/s. Subsequent WSA-Enlil model output suggested the resultant CME would move well south of the ecliptic plane.

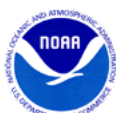
Low to moderate levels returned on 06 June with numerous low-level C-class flares observed from Region 2080 (S12, L=261, class/area Dkc/340 on 08 Jun) including an M1/Sf observed at 06/1931 UTC. At 06/1237 UTC, a Type II (637 km/s shock velocity) radio sweep was recorded from enhanced brightenings observed on STEREO-B EUVI imagery from an active region behind the SE limb. On 07 June, Region 2083 (S12, L=353, class/area Bxo/010 on 05 Jun) contributed a pair of weak C-class events. The period ended on 08 June with C-class activity observed off and behind the SE limb in the vicinity of old Region 2065 (S19, L=151). The largest of these events was a C5 X-ray flare at 08/2354 UTC with an associated Type II (890 km/s shock velocity) radio emission.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was normal levels through the period.

Geomagnetic field activity was at predominately quiet to isolated unsettled levels through 07/1500 UTC. During this period, a nominal solar wind environment was present with speeds ranging from about 260 km/s to near 400 km/s. IMF total field strength averaged about 6 nT while the Bz component varied between +6 to -8 nT. Phi was predominately in a positive (away) orientation through about 04/0445 UTC when a switch to a more negative (towards) sector was observed. This orientation was mostly prominent through the remainder of the summary period.

Midday to late on 07 June, solar wind parameters suggested the arrival of a transient perhaps compounded by the presence of a high speed stream. At 07/1609 UTC an interplanetary shock was observed at the ACE spacecraft. Total field measurements increased from 4 nT to 13 nT while wind speed increased from 335 km/s to 457 km/s. The Bz component initially went north near +8 nT before a brief maximum southward deflection of -13 nT occurred at 07/1849 UTC. This shock arrival was attributed to the 04 June SE quadrant filament eruption. Phi remained mostly negative and temperature slowly rose in the wake of the shock. Beginning around 08/0100 UTC, the total field began oscillating, Bz became predominantly southward and solar wind speed began a gradual rise. Wind speed reached 577 km/s by 08/0507 UTC, Bt peaked at 29 nT at 08/0653 UTC while Bz reached a low near -17 nT at 08/0426 UTC. Phi rotated between



negative and positive between 07/2300-08/0400 UTC. Around 08/0730 UTC, Bt dropped abruptly and remained below 22 nT afterwards while the oscillations in Bz slowly subsided. By 08/1930 UTC, Bt was steady at about 4 nT while Bz averaged about +1 nT. Wind speeds remained elevated at 600 to 625 km/s through the end of the period.

Space Weather Outlook

09 June - 05 July 2014

Solar activity is expected to be at predominately low levels with a chance for moderate activity through the outlook period.

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 on 09 - 12 June and 21 - 23 June. Normal levels are expected for the remainder of the outlook period.

Geomagnetic field activity is expected to be at predominately quiet levels. Quiet to isolated active levels are expected on 09 June due to lingering CME/coronal hole high speed stream (CH HSS) effects. Quiet to unsettled levels are expected on 08, 18-19 and 25-26 June due to recurrent CH HSSs.



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
02 June	105	56	210	B2.4	0	0	0	0	0	0	0	0
03 June	107	61	200	B2.8	0	1	0	2	0	1	0	0
04 June	105	70	220	B2.3	2	0	0	4	1	0	0	0
05 June	111	102	330	B2.7	0	0	0	10	0	0	0	0
06 June	133	132	550	B3.7	6	1	0	8	0	0	0	0
07 June	137	155	950	B4.3	2	0	0	8	0	0	0	0
08 June	149	144	1130	B5.1	4	0	0	4	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
	02 June	2.9e+05	1.0e+04	2.7e+03		2.1e+05
03 June	8.8e+04	1.0e+04	2.7e+03		4.8e+04	
04 June	8.9e+04	1.1e+04	2.8e+03		3.0e+04	
05 June	8.8e+04	1.0e+04	2.5e+03		3.4e+04	
06 June	8.4e+05	1.2e+04	2.6e+03		3.3e+04	
07 June	3.6e+06	1.2e+04	2.5e+03		4.2e+04	
08 June	1.2e+06	9.7e+03	2.3e+03		2.6e+04	

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
	02 June	5	1-1-1-1-2-1-2-2	2	1-1-0-0-0-0-1-1	5
03 June	5	2-0-0-0-1-2-2-1	5	3-2-1-1-0-1-1-1	7	3-2-1-1-1-1-2-1
04 June	6	1-2-2-1-2-2-2-1	5	2-2-1-3-0-1-1-1	5	1-2-2-1-1-2-1-2
05 June	7	1-2-0-0-1-2-2-3	8	1-2-1-4-2-1-2-2	7	2-2-1-2-1-1-2-3
06 June	5	2-1-0-1-2-2-2-2	3	2-2-0-0-0-1-1-2	6	2-2-0-1-1-2-2-2
07 June	14	2-2-2-1-3-3-4-4	11	2-2-2-4-2-2-3-2	13	2-2-2-2-2-4-4-4
08 June	0	4-5-5-0-0-0-0-0	36	4-5-5-6-5-3-3-2	39	3-6-6-5-5-4-3-2

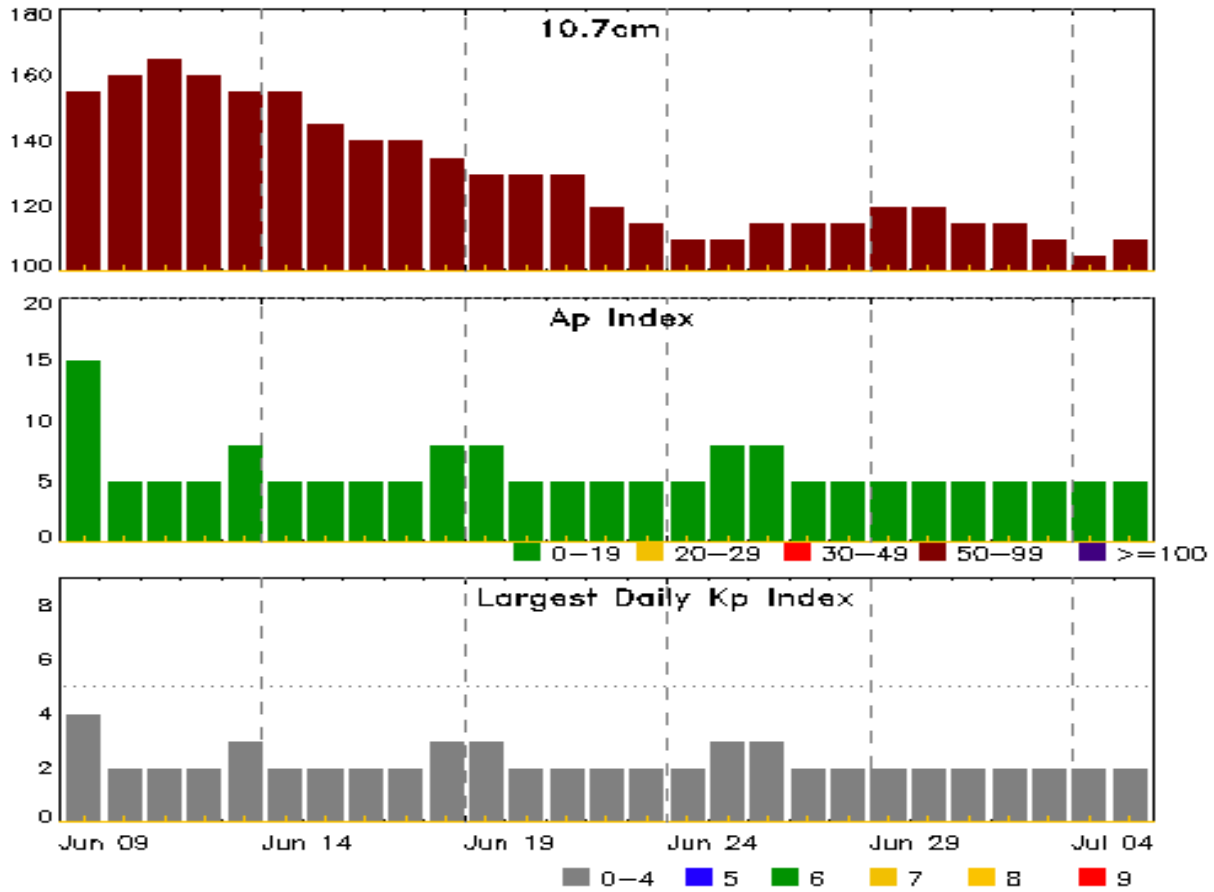


Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
03 Jun 0240	WARNING: Geomagnetic K = 4	03/0239 - 1300
06 Jun 1329	ALERT: Type II Radio Emission	06/1238
07 Jun 1619	WARNING: Geomagnetic Sudden Impulse expected	07/1650 - 1720
07 Jun 1700	WARNING: Geomagnetic K = 4	07/1700 - 2200
07 Jun 1709	SUMMARY: Geomagnetic Sudden Impulse	07/1657
07 Jun 1732	ALERT: Geomagnetic K = 4	07/1731
07 Jun 2146	EXTENDED WARNING: Geomagnetic K = 4	07/1700 - 08/0100
08 Jun 0055	EXTENDED WARNING: Geomagnetic K = 4	07/1700 - 08/0700
08 Jun 0447	WARNING: Geomagnetic K = 5	08/0447 - 1000
08 Jun 0451	ALERT: Geomagnetic K = 5	08/0448
08 Jun 0618	ALERT: Geomagnetic K = 6	08/0600
08 Jun 0618	WARNING: Geomagnetic K = 6	08/0616 - 0915
08 Jun 0655	EXTENDED WARNING: Geomagnetic K = 4	07/1700 - 08/1300
08 Jun 0738	WARNING: Geomagnetic K >= 7	08/0737 - 0915
08 Jun 0900	ALERT: Geomagnetic K = 6	08/0900
08 Jun 0900	EXTENDED WARNING: Geomagnetic K = 4	07/1700 - 08/2200
08 Jun 0900	EXTENDED WARNING: Geomagnetic K = 5	08/0447 - 1600
08 Jun 2133	EXTENDED WARNING: Geomagnetic K = 4	07/1700 - 09/1300



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
09 Jun	155	15	4	23 Jun	115	5	2
10	160	5	2	24	110	5	2
11	165	5	2	25	110	8	3
12	160	5	2	26	115	8	3
13	155	8	3	27	115	5	2
14	155	5	2	28	115	5	2
15	145	5	2	29	120	5	2
16	140	5	2	30	120	5	2
17	140	5	2	01 Jul	115	5	2
18	135	8	3	02	115	5	2
19	130	8	3	03	110	5	2
20	130	5	2	04	105	5	2
21	130	5	2	05	110	5	2
22	120	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	Radio Flux 2695	Intensity II	Intensity IV
03 Jun	0358	0409	0417	M1.3	0.009	2N	S05E30	2077				
06 Jun	1926	1931	1933	M1.4	0.003	SF	S12E25	2080	150			

Flare List

Date	Time			X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
	Begin	Max	End				
02 Jun	0727	0731	0734	B3.9			2077
02 Jun	2329	2332	2335	B4.5			
03 Jun	0358	0409	0417	M1.3	2N	S05E30	2077
03 Jun	B0442	U0442	A0459		SF	S06E29	2077
03 Jun	0612	0612	0618		SF	S06E29	2077
03 Jun	1755	1802	1807	B7.6			2077
03 Jun	2058	2103	2107	B5.7			2077
04 Jun	0127	0136	0141	C2.1			2077
04 Jun	0511	0514	0523		SF	N16E35	2079
04 Jun	0539	0544	0553		SF	S07E18	2077
04 Jun	0603	0606	0610	B8.5			2080
04 Jun	0629	0636	0641	C1.3	1F	S08E16	2077
04 Jun	0707	0710	0716	B3.9			2080
04 Jun	0740	0744	0750	B4.0			2080
04 Jun	1518	1522	1531		SF	S06E13	2077
04 Jun	1652	1656	1702	B4.3	SF	S11E51	2080
04 Jun	2044	2048	2055	B6.9			2080
05 Jun	0129	0139	0155		SF	N16E53	2082
05 Jun	0202	0234	0249		SF	N16E53	2082
05 Jun	0255	0259	0316		SF	N16E52	2082
05 Jun	0308	0314	0319		SF	S14E47	2080
05 Jun	0324	0335	0353		SF	N16E52	2082
05 Jun	0346	0348	0352		SF	S14E45	2080
05 Jun	0353	0355	0400		SF	N16E52	2082
05 Jun	0429	0451	0454		SF	S10E45	2080
05 Jun	1257	1312	1319	B5.5			2082
05 Jun	1305	1306	1310		SF	S10E42	2080
05 Jun	1316	1320	1327		SF	S11E40	2080
05 Jun	1359	1409	1416	B4.8			2082



Flare List

Date	Time			X-ray Class	Imp/ Brtns	Optical	
	Begin	Max	End			Location Lat CMD	Rgn #
06 Jun	0609	0610	0623		SF	S10E32	2080
06 Jun	0720	0725	0733		SF	S12E32	2080
06 Jun	1019	1024	1028	C1.1	SF	S10E29	2080
06 Jun	1306	1311	1315	C3.6	SF	S12E25	2080
06 Jun	1320	1327	1332	C2.0			2080
06 Jun	1356	1409	1431		SF	S12E25	2080
06 Jun	1405	1408	1411	C1.0			2080
06 Jun	1500	1504	1507	C1.2	SF	S10E26	2080
06 Jun	1926	1931	1933	M1.4	SF	S12E25	2080
06 Jun	2219	2225	2227	C3.4	SF	S13E23	2080
07 Jun	0210	0215	0220	B9.1			2080
07 Jun	0326	0327	0330		SF	S12W78	2083
07 Jun	0459	0459	0501		SF	S12W79	2083
07 Jun	0504	0509	0514	B8.9	SF	S11E16	2080
07 Jun	0608	0612	0615	B7.5			2083
07 Jun	0616	0625	0632	C3.0			2083
07 Jun	0703	0704	0706		SF	S20E23	2085
07 Jun	0705	0706	0707		SF	S13E19	2080
07 Jun	0816	0816	0818		SF	S12E19	2080
07 Jun	1016	1020	1025	C1.1			2083
07 Jun	1243	1244	1246		SF	S10E12	2080
07 Jun	1607	1608	1616		SF	S18E17	2085
08 Jun	0135	0146	0200	B9.9	SF	S12E04	2080
08 Jun	0834	1002	1049	C1.9			
08 Jun	1652	1655	1657	C1.4	SF	S13W01	2080
08 Jun	2302	2318	2331	C1.6			2085
08 Jun	2307	2311	2315		SF	N13W26	2079
08 Jun	2315	2316	2355		SF	S19E02	2085
08 Jun	2346	2354	0001	C5.2			



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	4			
Region 2071																		
19 May	S11E80		76	10	8	Bxo	3	B	1									
20 May	S12E64		79	30	5	Cro	4	B	1			1						
21 May	S12E48		80	150	7	Dac	10	B	1			6						
22 May	S12E35		82	100	7	Dai	9	BG	1			1						
23 May	S12E21		82	120	9	Dao	17	BG										
24 May	S12E08		82	140	10	Dao	19	B										
25 May	S11W04		81	70	10	Dao	13	B										
26 May	S11W18		82	50	10	Cso	9	B										
27 May	S09W33		83	30	7	Cso	8	B	1			2						
28 May	S09W47		84	10	1	Axx	1	A										
29 May	S10W61		85	10	1	Axx	1	A	1			1						
30 May	S10W75		86	plage														
31 May	S10W89		87	plage														
									6	0	0	11	0	0	0	0	0	

Crossed West Limb.

Absolute heliographic longitude: 81

Region 2073																		
21 May	S11E62		66	50	1	Hsx	1	A				1						
22 May	S11E49		68	50	2	Hsx	1	A				1						
23 May	S12E39		64	70	8	Dso	5	BG										
24 May	S12E26		64	120	10	Dsi	17	BG										
25 May	S10E13		64	100	10	Dai	26	BG				1						
26 May	S11W01		65	90	10	Dai	18	B										
27 May	S13W15		65	20	11	Bxi	21	B				3						
28 May	S13W29		66	20	12	Cri	11	B										
29 May	S13W43		67	30	10	Cri	9	B										
30 May	S14W53		64	30	6	Dro	7	B				1						
31 May	S13W66		63	10	7	Bxo	3	B										
01 Jun	S12W80		65	0	1	Axx	1	A				1						
									0	0	0	8	0	0	0	0	0	

Crossed West Limb.

Absolute heliographic longitude: 65



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 2075																					
23 May	S11E78		25	30	2	Hax	1	A													
24 May	S11E64		26	60	3	Hax	1	A													
25 May	S08E50		27	90	1	Hax	1	A													
26 May	S08E36		28	80	2	Hax	1	A													
27 May	S09E24		26	70	2	Hax	1	A													
28 May	S09E10		27	60	2	Hsx	2	A													
29 May	S09W04		28	40	2	Hsx	2	A													
30 May	S09W14		25	40	6	Cso	4	B													
31 May	S10W28		25	20	4	Cao	7	B													
01 Jun	S09W41		26	10	1	Axx	3	A													
02 Jun	S09W55		26	10	1	Axx	1	A													
03 Jun	S09W69		27	10	1	Axx	1	A													
04 Jun	S09W83		28	plage																	
										0	0	0	0	0	0	0	0	0	0	0	

Crossed West Limb.
Absolute heliographic longitude: 28

Region 2076																					
28 May	S19W14		51	50	5	Dao	7	B													
29 May	S19W28		52	20	6	Cro	3	B													
30 May	S19W44		54	10	1	Axx	1	A													
31 May	S20W59		56	10		Axx	1	A	1				2								
01 Jun	S20W73		58	plage																	
02 Jun	S20W87		58	plage																	
										1	0	0	2	0	0	0	0	0	0	0	

Crossed West Limb.
Absolute heliographic longitude: 51



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 2077																							
30 May	S05E74	297	30	1	Cao	4	B																
31 May	S05E57	300	90	2	Cao	4	B																
01 Jun	S06E45	300	110	4	Dai	8	BG	1				1											
02 Jun	S05E31	300	90	5	Cso	12	B																
03 Jun	S08E17	301	80	4	Cso	6	B		1			2		1									
04 Jun	S05E03	302	80	4	Cso	6	B	2				2	1										
05 Jun	S05W10	303	70	3	Cso	5	B																
06 Jun	S04W24	302	90	5	Dso	7	B																
07 Jun	S04W38	303	80	6	Dso	8	B																
08 Jun	S04W52	304	80	6	Cso	3	B																
								3	1	0	5	1	1	0	0								

Still on Disk.
Absolute heliographic longitude: 302

Region 2078																							
01 Jun	S19E15	330	20	4	Cro	5	B																
02 Jun	S19E01	330	10	1	Axx	1	A																
03 Jun	S19W13	331	10	1	Axx	1	A																
04 Jun	S19W27	332	10	4	Bxo	2	B																
05 Jun	S20W43	334	0	1	Axx	1	A																
06 Jun	S20W57	335	0	1	Axx	1	A																
07 Jun	S20W71	336	plage																				
08 Jun	S20W85	337	plage																				
								0	0	0	0	0	0	0	0	0	0	0	0	0	0		

Still on Disk.
Absolute heliographic longitude: 330



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

Region 2079

31 May	N12E77	282	plage							1							
01 Jun	N12E63	282	120	2	Hsx	1	A	1				1					
02 Jun	N12E49	282	100	3	Hsx	2	A										
03 Jun	N12E40	278	90	2	Hsx	1	A										
04 Jun	N12E26	279	90	3	Hsx	1	A					1					
05 Jun	N12E13	278	110	2	Hsx	1	A										
06 Jun	N12W00	278	90	2	Hsx	1	A										
07 Jun	N12W13	278	100	2	Hsx	1	A										
08 Jun	N13W28	280	120	4	Dso	6	B					1					
								2	0	0		3	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 278

Region 2080

03 Jun	S13E57	261	10	6	Bxo	2	B										
04 Jun	S12E43	262	30	9	Cri	10	B					1					
05 Jun	S13E31	260	120	8	Dao	14	BG					5					
06 Jun	S12E18	260	160	8	Dai	15	BGD	6	1			8					
07 Jun	S12E04	261	230	10	Dac	33	BGD					4					
08 Jun	S12W09	261	340	10	Dkc	26	BGD	1				2					
								7	1	0		20	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 261

Region 2081

04 Jun	N04E32	273	10	1	Axx	1	A										
05 Jun	N05E19	272	0		Axx	1	A										
06 Jun	N05E04	274	plage														
07 Jun	N05W11	276	plage														
08 Jun	N05W26	278	plage														
								0	0	0		0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 274



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 2082

05 Jun	N17E39	252	20	4	Cri	5	B					5					
06 Jun	N17E26	252	170	6	Dac	18	BG										
07 Jun	N16E12	253	320	7	Dki	13	BG										
08 Jun	N16W02	254	280	8	Dki	14	B										
										0	0	0	5	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 254

Region 2083

05 Jun	S12W62	353	10	4	Bxo	5	B										
06 Jun	S12W76	354	10	4	Bxo	2	B										
07 Jun	S12W91	356	10	1	Axx	1	A	2				2					
								2	0	0	2	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 353

Region 2084

06 Jun	S12W13	291	10	3	Bxo	2	B										
07 Jun	S12W28	293	30	5	Dro	5	B										
08 Jun	S12W42	294	10	5	Bxo	3	B										
										0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 291

Region 2085

06 Jun	S21E24	254	20	4	Dri	6	BG										
07 Jun	S21E10	255	180	9	Dai	24	BG					2					
08 Jun	S20W03	255	300	11	Ekc	32	BG	1				1					
								1	0	0	3	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 255

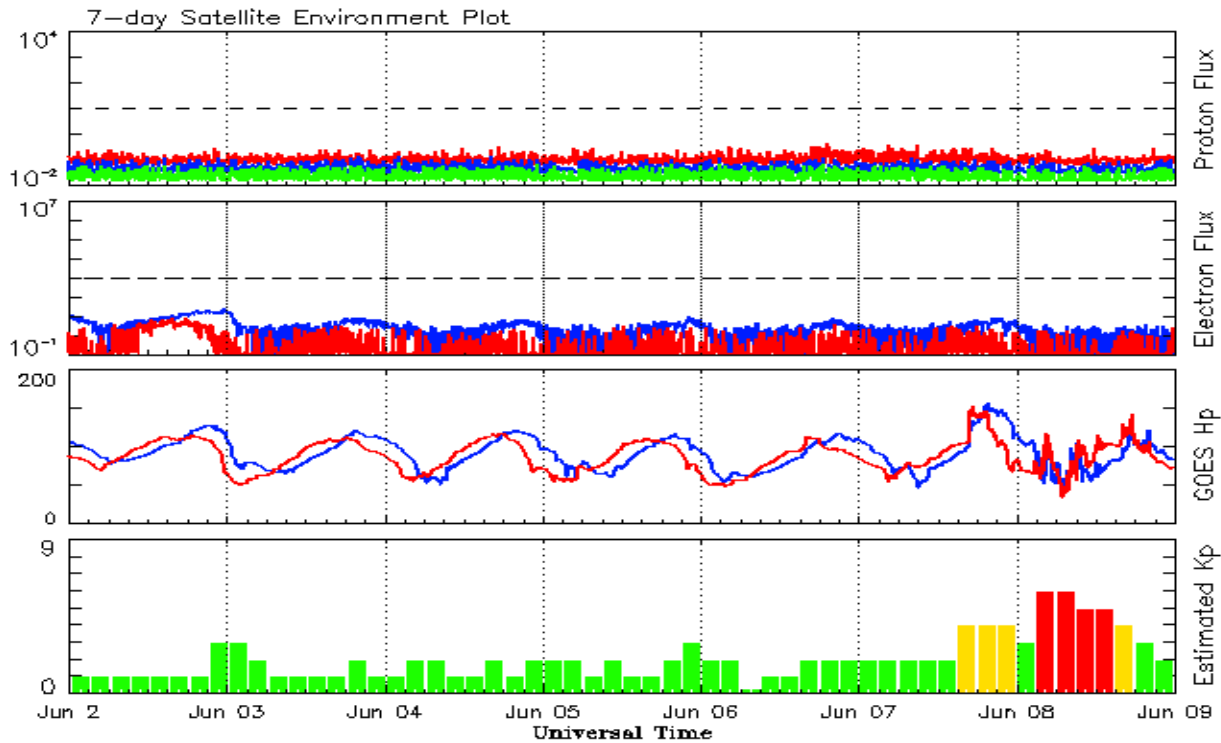


Recent Solar Indices (preliminary)
Observed monthly mean values

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									
June	88.6	64.5	0.73	83.9	58.9	120.5	121.1	10	8.3
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	69.0	114.7	127.9	9	7.6
September	55.0	37.0	0.67	111.0	73.1	102.7	132.3	5	7.8
October	127.1	85.6	0.67	114.3	75.0	132.3	134.7	7	7.8
November	125.7	77.6	0.62	114.6	75.4	148.4	135.4	5	7.9
December	118.2	90.3	0.76			147.7		5	
2014									
January	125.9	82.0	0.65			158.6		6	
February	174.6	102.8	0.59			170.3		12	
March	141.1	92.2	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	

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 02 June 2014*

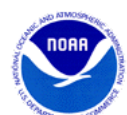
The proton flux plot contains the five-minute averaged integral proton flux (protons/cm²-sec -sr) as measured by the SWPC Primary GOES satellite, near West 75, for each of three energy thresholds: greater than 10, 50, and 100 MeV.

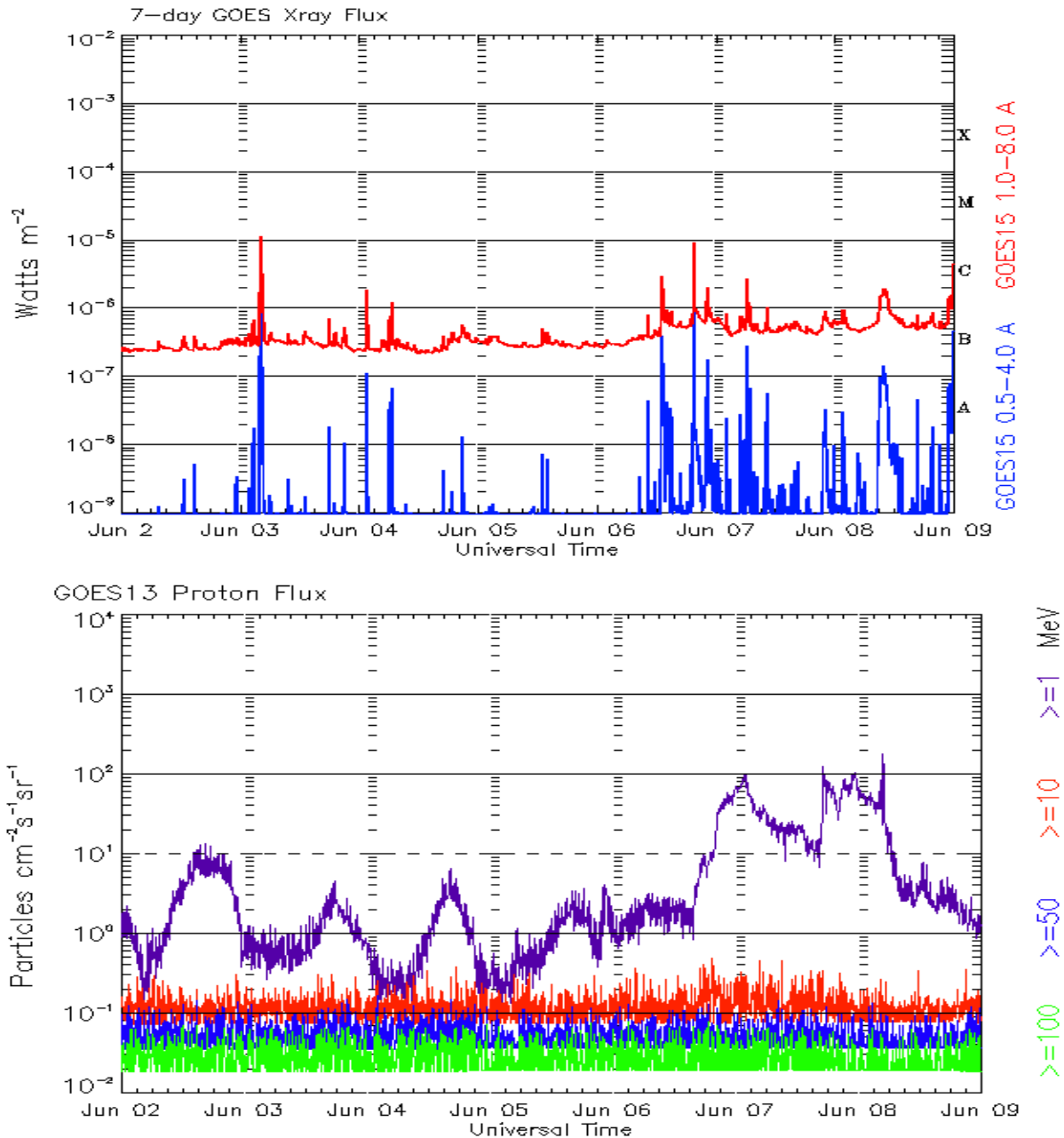
The electron flux plot contains the five-minute averaged integral electron flux (electrons/cm²-sec -sr) with energies greater than 2 MeV by the SWPC Primary GOES satellite.

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 02 June 2014*

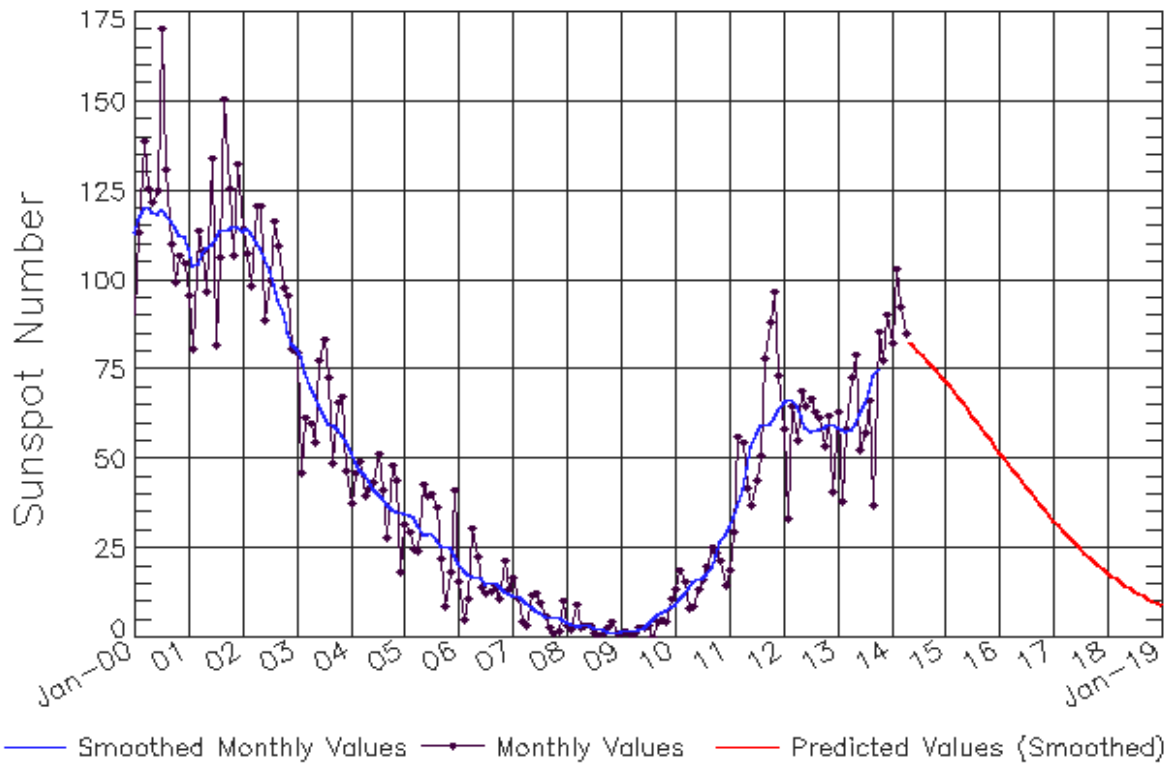
The x-ray plots contains five-minute averages x-ray flux (Watt/m²) as measure by the SWPC primary GOES X-ray satellite, usually at West 105 longitude, in two wavelength bands, 0.05 - 0.4 and 0.1 - 0.8 nm. The letters A, B, C, M and X refer to x-ray event levels for the 0.1 - 0.8 nm band.

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 Apr 2014



Updated 2014 May 5

NOAA/SWPC Boulder, CO USA

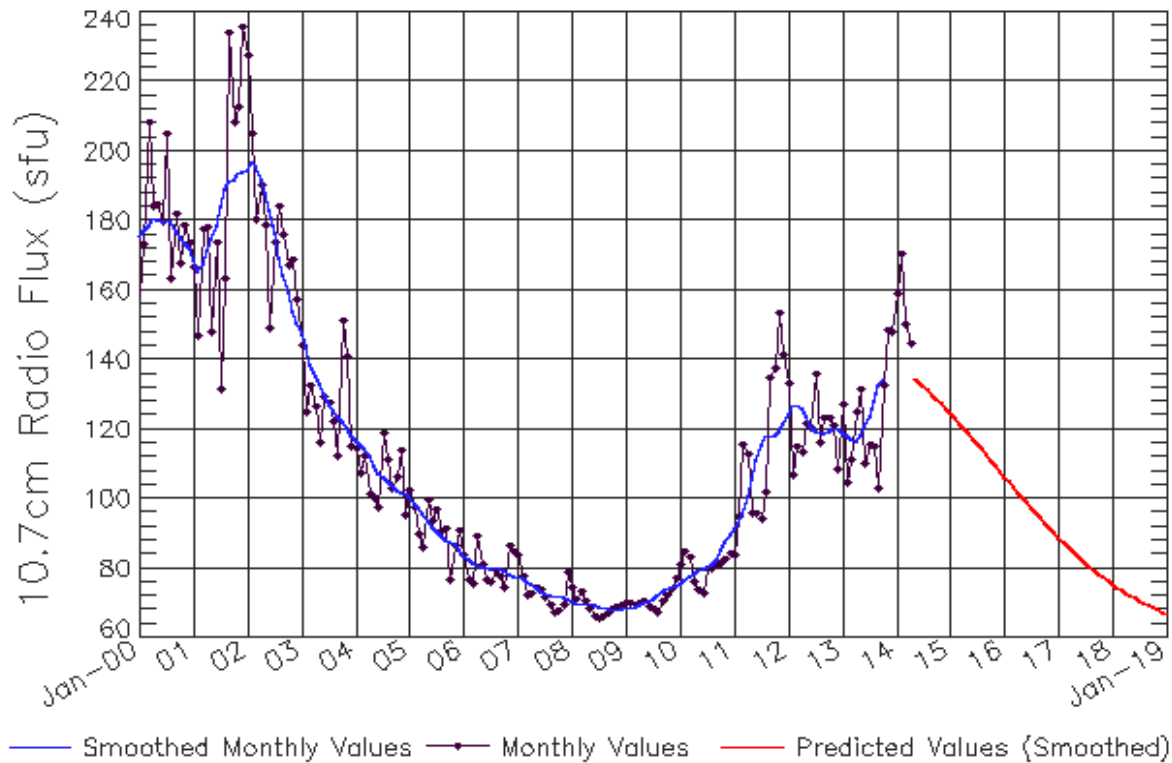
Smoothed Sunspot Number Prediction

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 (1)
2014	79 (2)	80 (3)	82 (5)	84 (5)	83 (6)	82 (7)	81 (7)	79 (8)	77 (9)	75 (9)	74 (10)	73 (10)
2015	72 (10)	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 Apr 2014



Updated 2014 May 5

NOAA/SWPC Boulder, CO USA

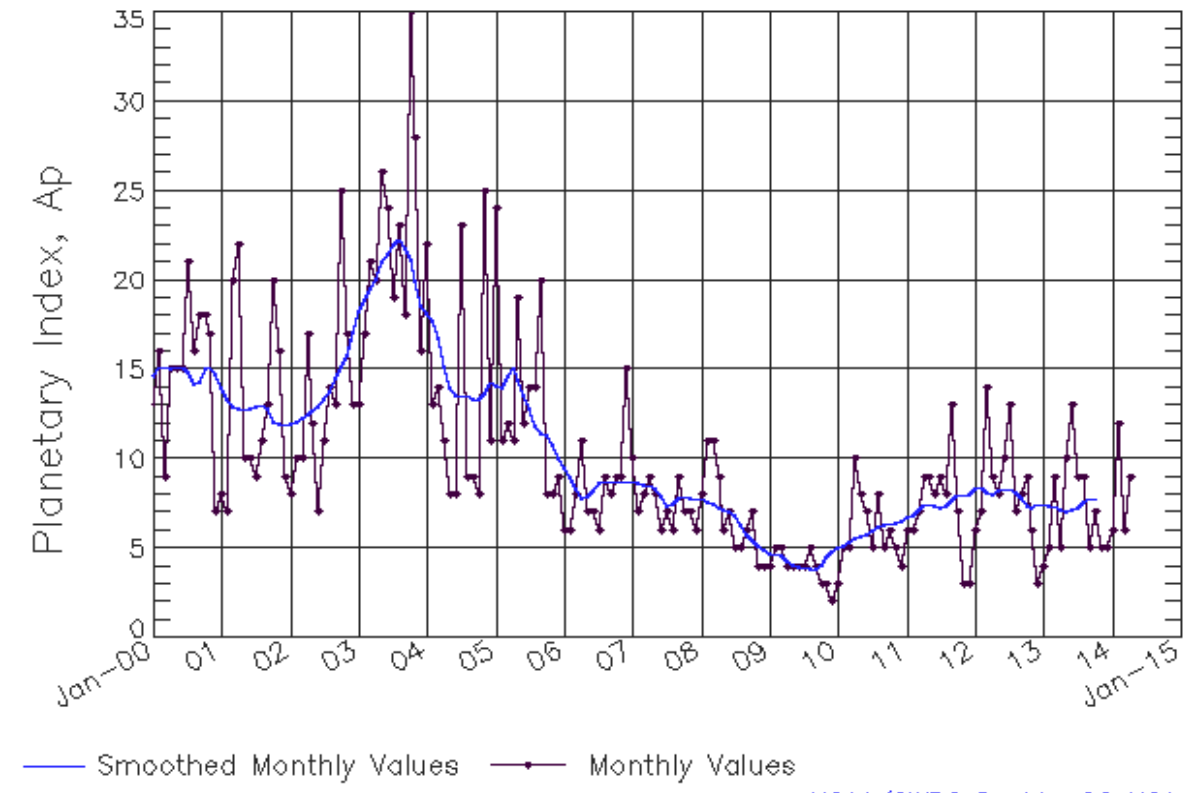
Smoothed F10.7cm Radio Flux Prediction

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 (1)
2014	138 (1)	139 (2)	141 (3)	142 (4)	141 (4)	139 (5)	137 (6)	134 (7)	131 (8)	128 (8)	127 (9)	126 (9)
2015	125 (9)	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 Apr 2014



Updated 2014 May 5

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.

<http://spaceweather.gov/weekly/> -- Current and previous year

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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

