

Solar activity was low this period. Low to mid-level C-class flare activity dominated the period and Region 2361 (N16, L=105, class/area=Dai/110 on 06 Jun) was responsible for the bulk of the activity. Region 2361 produced a total of nine C-class flares throughout the week, the largest of which was C8/Sf flare at 0947 UTC on 04 Jun. Region 2360 (N15, L=132, class/area=Eac/140 on 07 Jun) grew in total sunspot count, area, and magnetic complexity late in the week but was only responsible for three low-level C-class flares this period. In addition to the low-level solar activity, multiple disappearing solar filaments and eruptive prominence liftoffs were observed throughout the week, but none resulted in Earth-directed coronal mass ejections.

No proton events were observed at geosynchronous orbit.

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

Geomagnetic field activity was at quiet levels throughout the period under an ambient solar wind environment with unsettled levels observed early on 01 Jun and late on 07 Jun which were attributed to minor perturbations in the solar wind.

### **Space Weather Outlook** **08 June - 04 July 2015**

Solar activity is expected to be at low levels with a slight chance for M-class (R1-Minor) flare activity for 08-16 Jun due to the flare potential from Regions 2360 (N15, L=132), 2361 (N16, L=105), and 2362 (N07, L=100). As Regions 2360, 2361, and 2362 rotate off the visible disk, very low levels of solar activity are expected with a chance for C-class flare activity for 17 Jun-04 Jul.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is anticipated to reach high levels on 10-14 Jun with moderate levels likely on 15-19 Jun in response to an enhanced solar wind environment caused by the influence of coronal hole high speed streams (CH HSSs). Normal levels are expected for the remainder of the period.

Geomagnetic field activity is expected to reach active levels on 08, 10 Jun with G1 (Minor) geomagnetic storm conditions anticipated on 09 Jun in response to a recurrent negative polarity CH HSS. Unsettled geomagnetic field conditions are expected on 11-12 Jun as CH HSS effects subside. A recurrent positive polarity CH HSS is expected to bring about isolated periods of unsettled conditions on 15 Jun. Generally quiet field conditions are expected for 16 Jun-03 Jul with unsettled levels likely again on 04 Jul due to a solar sector boundary crossing ahead of a negative polarity CH HSS.



### *Daily Solar Data*

Date	Radio Flux 10.7cm	Sun spot No.	Sunspot Area (10 <sup>-6</sup> hemi.)	X-ray Background Flux	Flares							
					X-ray			Optical				
					C	M	X	S	1	2	3	4
01 June	100	38	100	B2.2	0	0	0	0	0	0	0	0
02 June	101	39	110	B2.4	1	0	0	2	0	0	0	0
03 June	109	55	140	B3.1	1	0	0	2	0	0	0	0
04 June	118	80	340	B4.4	2	0	0	8	0	0	0	0
05 June	126	105	420	B4.1	5	0	0	5	0	0	0	0
06 June	133	129	580	B4.0	2	0	0	3	0	0	0	0
07 June	137	136	560	B4.4	5	0	0	2	0	0	0	0

### *Daily Particle Data*

Date	Proton Fluence (protons/cm <sup>2</sup> -day -sr)			Electron Fluence (electrons/cm <sup>2</sup> -day -sr)		
	>1 MeV	>10 MeV	>100 MeV	>0.6 MeV	>2MeV	>4 MeV
	01 June	1.4e+05	1.1e+04	2.6e+03		5.2e+05
02 June	1.3e+05	1.1e+04	2.6e+03		5.7e+05	
03 June	1.5e+05	1.1e+04	2.6e+03		4.8e+05	
04 June	1.6e+05	1.1e+04	2.6e+03		5.0e+05	
05 June	1.8e+05	1.1e+04	2.6e+03		5.7e+05	
06 June	1.7e+05	1.1e+04	2.7e+03		2.9e+05	
07 June	7.8e+04	1.1e+04	2.7e+03		5.3e+04	

### *Daily Geomagnetic Data*

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
	01 June	9	2-3-1-3-2-2-2-2	8	2-3-2-4-1-1-1-0	8
02 June	4	0-0-0-1-3-1-2-1	1	1-1-0-0-0-0-0-0	3	1-1-1-1-1-0-1-0
03 June	5	1-0-1-2-3-2-2-0	2	0-1-1-2-1-0-1-0	4	1-1-1-2-2-1-1-0
04 June	4	0-0-1-1-2-3-1-1	0	0-0-0-0-0-0-1-0	3	0-1-0-1-1-1-1-1
05 June	4	1-0-0-2-2-2-2-1	0	0-0-0-0-0-0-0-0	3	0-1-1-1-1-1-1-1
06 June	7	1-3-1-2-3-2-1-1	4	0-3-1-2-2-0-0-1	5	1-2-1-2-2-1-1-1
07 June	8	1-1-1-2-3-2-2-3	5	0-2-1-1-2-1-2-2	7	1-1-1-2-2-1-2-3



### *Alerts and Warnings Issued*

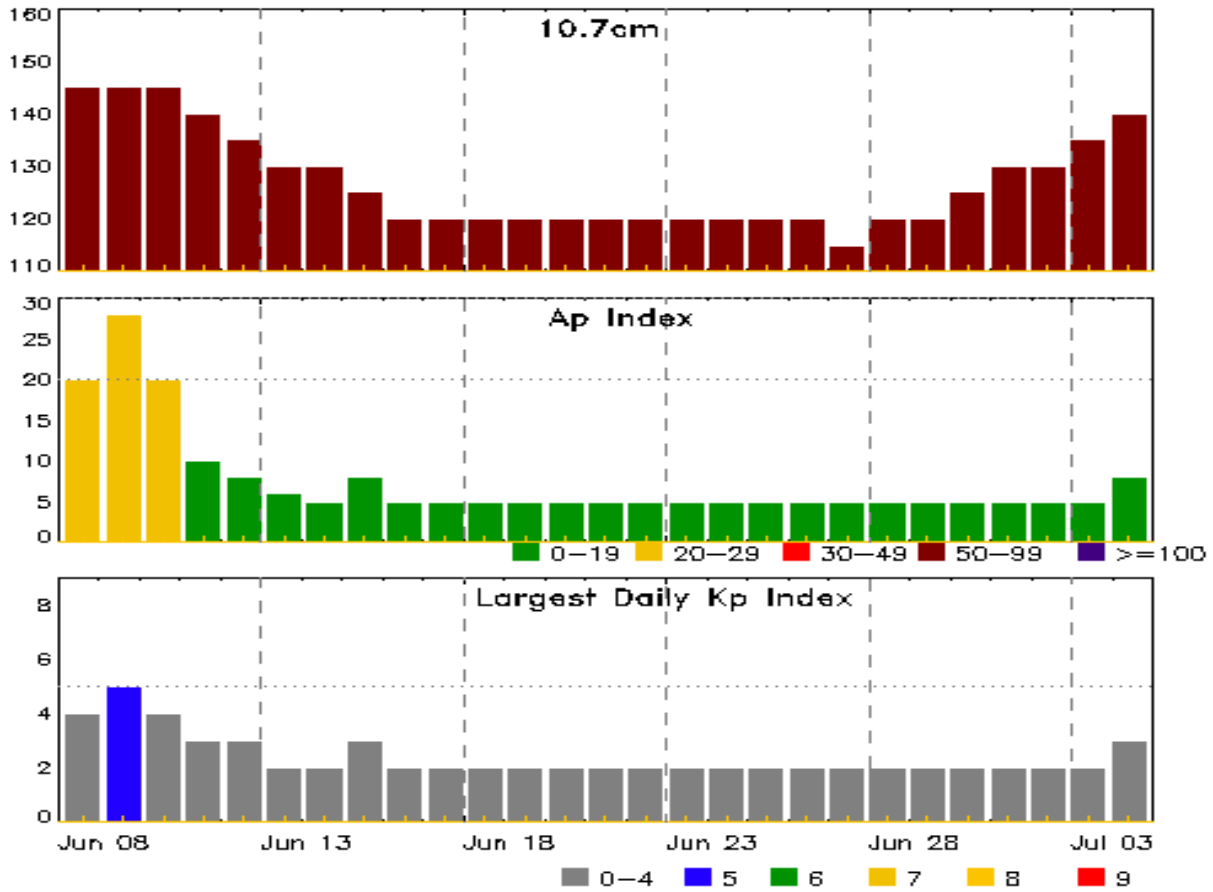
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<b>Date &amp; Time of Issue UTC</b>	<b>Type of Alert or Warning</b>	<b>Date &amp; Time of Event UTC</b>
01 Jun 1415	ALERT: Type II Radio Emission	01/1333
06 Jun 1657	WATCH: Geomagnetic Storm Category G1 predicted	

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## 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 Jun	145	20	4	22 Jun	120	5	2
09	145	28	5	23	120	5	2
10	145	20	4	24	120	5	2
11	140	10	3	25	120	5	2
12	135	8	3	26	120	5	2
13	130	6	2	27	115	5	2
14	130	5	2	28	120	5	2
15	125	8	3	29	120	5	2
16	120	5	2	30	125	5	2
17	120	5	2	01 Jul	130	5	2
18	120	5	2	02	130	5	2
19	120	5	2	03	135	5	2
20	120	5	2	04	140	8	3
21	120	5	2				



## *Energetic Events*

Date	Time			X-ray	Optical Information			Peak		Sweep Freq	
	Begin	Max	Half	Class	Integ Flux	Imp/ Brtns	Location	Rgn #	Radio Flux		Intensity
			Max						245	2695	II

**No Events Observed**

## *Flare List*

Date	Time			X-ray Class	Imp/ Brtns	Location	Rgn #
	Begin	Max	End				
01 Jun	0333	0340	0346	B6.9			
02 Jun	0555	0558	0602	B4.4			
02 Jun	0649	0702	0719	C1.9			
02 Jun	1012	1017	1028	B6.4	SF	S02E55	2358
02 Jun	1214	1219	1222	B7.6			
02 Jun	1622	1623	1625		SF	S16E02	2356
03 Jun	0507	0507	0515		SF	S17W13	2359
03 Jun	2041	2148	2159	C1.3	SF	N15E53	2360
04 Jun	0131	0132	0138		SF	N14E49	2360
04 Jun	0543	0546	0551		SF	N14E49	2360
04 Jun	0639	0646	0650		SF	S01E32	2358
04 Jun	0729	0734	0738		SF	N15E49	2360
04 Jun	0936	0947	0956	C8.1	SF	N18E73	2361
04 Jun	0959	1002	1004		SF	N18E71	2361
04 Jun	1330	1331	1332		SF	N18E70	2361
04 Jun	1443	1519	1537	C2.7	SF	N18E67	2361
04 Jun	2352	2356	0001	B7.6			
05 Jun	0442	0506	0518	C1.3			2361
05 Jun	0530	0536	0541	C1.6	SF	N15E63	2361
05 Jun	0700	0717	0739	C1.6	SF	N13E62	2361
05 Jun	0819	0820	0840		SF	N18E59	2361
05 Jun	0925	0938	0948	C2.1	SF	N17E57	2361
05 Jun	1724	1734	1745	C3.5	SF	N15E55	2361
06 Jun	0101	0136	0156	B9.3			2361
06 Jun	0640	0712	0742	C1.0	SF	N18E48	2361
06 Jun	0803	0807	0808		SF	N14E47	2361
06 Jun	0817	0821	0825		SF	S07E76	2364
06 Jun	1913	1922	1927	B5.7			2364
06 Jun	2226	2234	2240	C2.2			2365
07 Jun	0210	0215	0219	C1.0			2361
07 Jun	0727	0730	0737	B8.9			2364



## *Flare List*

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
07 Jun	1023	1036	1058	C1.6	SF	N08E37	2362
07 Jun	1145	1149	1153	C1.3	SF	N16E01	2360
07 Jun	1436	1449	1510	C1.0			2362
07 Jun	1749	1800	1812	C1.3			2360



## Region Summary

Date	Location		Sunspot Characteristics				Flares										
	Lat CMD	Helio Lon	Area 10 <sup>6</sup> hemi.	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical						
								C	M	X	S	1	2	3	4		
<b>Region 2355</b>																	
24 May	S10E41	272	30	4	Cao	5	B										
25 May	S10E28	272	30	3	Bxo	2	B										
26 May	S09E14	271	10	2	Hax	1	A										
27 May	S09W00	273	plage														
28 May	S09W14	274	plage														
29 May	S09W28	275	plage														
30 May	S09W42	275	plage														
31 May	S09W54	274	10	1	Bxo	2	B										
01 Jun	S09W68	275	plage														
02 Jun	S09W82	276	plage														
								0	0	0	0	0	0	0	0	0	

Crossed West Limb.

Absolute heliographic longitude: 273

<b>Region 2356</b>																	
27 May	S15E75	199	plage														
28 May	S15E61	199	60	2	Hax	1	A										
29 May	S15E47	200	60	2	Hsx	1	A										
30 May	S16E34	199	70	2	Cso	3	B										
31 May	S16E20	200	60	3	Cao	3	B										
01 Jun	S16E07	200	50	2	Hax	2	A										
02 Jun	S16W07	201	60	2	Cao	3	B							1			
03 Jun	S16W20	199	50	2	Hax	1	A										
04 Jun	S15W33	199	50	1	Hax	1	A										
05 Jun	S16W46	199	70	3	Hsx	3	A										
06 Jun	S16W59	200	70	2	Hsx	1	A										
07 Jun	S16W72	200	70	2	Hsx	1	A										
								1	0	0	1	0	0	0	0	0	

Still on Disk.

Absolute heliographic longitude: 200



### *Region Summary - continued*

Date	Location		Sunspot Characteristics				Flares								
	Lat CMD	Lon	Helio 10 <sup>-6</sup> hemi.	Area	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical			
									C	M	X	S	1	2	3

#### *Region 2357*

29 May	N09E45	202	10	3	Bxo	2	B										
30 May	N09E33	200	20	3	Cro	4	B										
31 May	N09E21	199	10	1	Axx	1	A										
01 Jun	N09E08	199	plage														
02 Jun	N09W06	200	plage														
03 Jun	N09W20	201	plage														
04 Jun	N09W34	201	plage														
05 Jun	N09W48	202	plage														
06 Jun	N09W62	203	plage														
07 Jun	N09W76	204	plage														
										0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 200

#### *Region 2358*

31 May	S03E71	149	60	2	Hsx	1	A										
01 Jun	S03E58	149	40	2	Hax	2	A										
02 Jun	S03E43	151	40	2	Hax	2	A				1						
03 Jun	S03E30	149	30	3	Cso	4	B										
04 Jun	S03E20	146	10	3	Bxo	2	B				1						
05 Jun	S04E09	145	10	1	Axx	2	A										
06 Jun	S04W06	147	10	2	Axx	3	A										
07 Jun	S03W21	149	0	2	Axx	2	A										
										0	0	0	2	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 147

#### *Region 2359*

01 Jun	S14W02	208	10	5	Bxo	4	B										
02 Jun	S14W16	210	10	5	Bxo	4	B										
03 Jun	S16W26	207	10	3	Bxo	5	B				1						
04 Jun	S14W41	207	10	4	Bxo	2	B										
05 Jun	S13W55	209	10	1	Axx	1	A										
06 Jun	S13W69	210	plage														
07 Jun	S13W83	211	plage														
										0	0	0	1	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 208





### *Region Summary - continued*

Date	Location		Sunspot Characteristics					Flares							
	Lat	CMD	Helio	Area	Extent	Spot	Spot	Mag	X-ray			Optical			
			Lon	10 <sup>6</sup>	hemi.	(helio)	Class	Count	Class	C	M	X	S	1	2

#### ***Region 2360***

03 Jun	N12E52	127	50	7	Dao	5	B	1				1					
04 Jun	N13E39	128	100	9	Dai	9	B					3					
05 Jun	N14E23	131	80	8	Dao	10	B										
06 Jun	N15E09	132	90	10	Dai	10	B										
07 Jun	N15W04	132	140	11	Eac	13	BG	2				1					
								3	0	0		5	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 132

#### ***Region 2361***

04 Jun	N16E64	101	80	4	Dai	3	B	2				4					
05 Jun	N16E51	103	90	5	Dai	9	B	5				5					
06 Jun	N16E36	105	110	5	Dai	16	B	1				2					
07 Jun	N16E22	106	80	5	Dai	7	B	1									
								9	0	0		11	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 106

#### ***Region 2362***

04 Jun	N07E69	98	90	6	Dao	3	B										
05 Jun	N07E55	99	150	4	Dao	7	B										
06 Jun	N07E41	100	210	8	Dai	10	B										
07 Jun	N05E27	101	140	8	Dao	8	B	2				1					
								2	0	0		1	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 101

#### ***Region 2363***

05 Jun	N04W16	170	10	3	Bxo	3	B										
06 Jun	N04W30	171	10	3	Bxo	3	B										
07 Jun	N04W45	173	10	2	Axx	2	A										
								0	0	0		0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 170



### *Region Summary - continued*

Date	Location		Sunspot Characteristics				Flares								
	Lat CMD	Lon	Helio 10 <sup>-6</sup> hemi.	Area	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical			
									C	M	X	S	1	2	3

#### ***Region 2364***

06 Jun	S05E64	77	10	2	Bxo	3	B								
07 Jun	S06E49	79	10	3	Bxo	5	B								
								0	0	0	1	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 79

#### ***Region 2365***

06 Jun	S13E64	77	70	4	Cso	3	B	1							
07 Jun	S13E48	80	90	6	Cso	5	B								
								1	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 80

#### ***Region 2366***

07 Jun	N17E45	83	20	5	Cro	3	B								
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 83

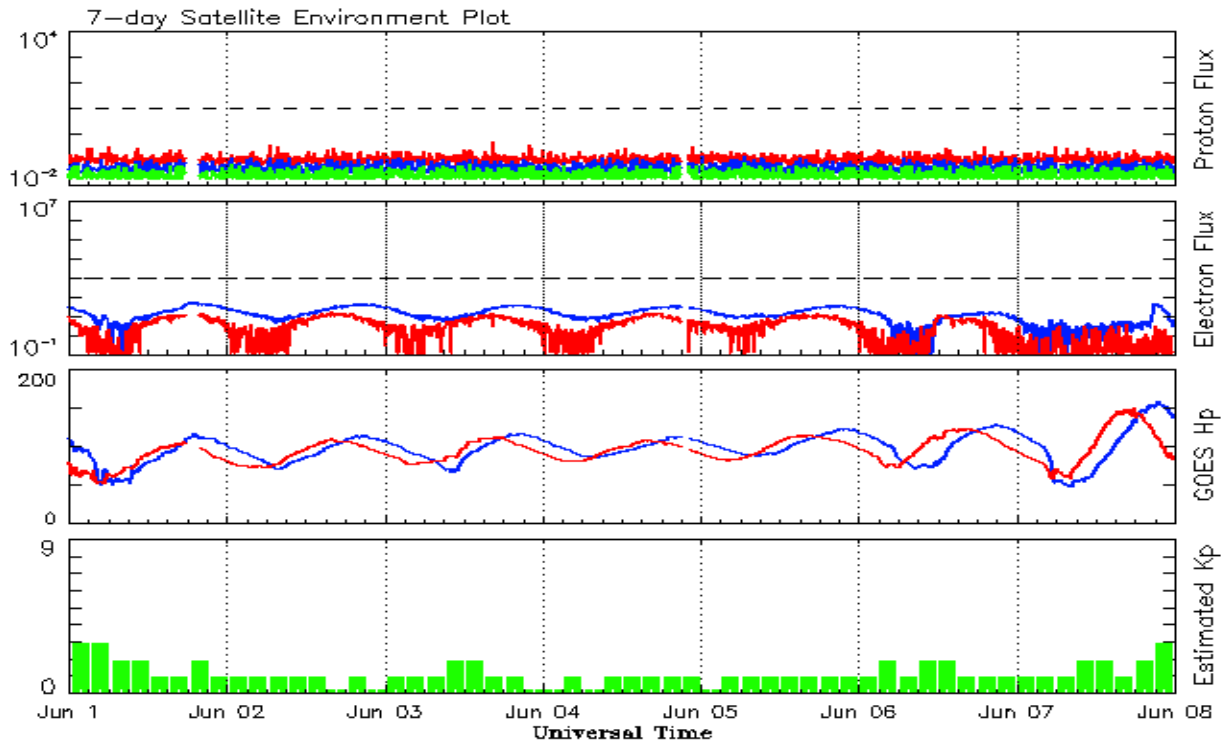


**Recent Solar Indices (preliminary)**  
**Observed monthly mean values**

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
<b>2013</b>									
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
<b>2014</b>									
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	78.3	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	124.8	81.9	144.3	143.5	9	7.5
May	116.8	75.2	0.64	122.3	80.5	130.0	144.7	7	7.9
June	107.7	71.0	0.66	121.4	79.7	122.2	145.5	7	8.4
July	113.6	72.4	0.64	120.4	78.5	137.3	145.2	5	8.8
August	106.2	74.6	0.70	115.1	75.5	124.7	142.8	9	8.9
September	127.4	87.6	0.69	107.4	70.8	146.1	140.1	11	9.3
October	92.0	60.6	0.66	101.7	67.3	153.7	138.4	10	9.9
November	101.8	70.2	0.69	97.9	65.4	155.3	137.4	10	10.1
December	120.0	76.7	0.65			158.7		12	
<b>2015</b>									
January	101.2	67.0	0.66			141.7		10	
February	70.6	44.8	0.63			128.8		10	
March	61.7	38.4	0.62			126.0		17	
April	72.5	54.4	0.75			129.2		12	
May	83.0	58.8	0.71			120.1		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 June 2015*

The proton flux plot contains the five-minute averaged integral proton flux (protons/cm<sup>2</sup>-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.

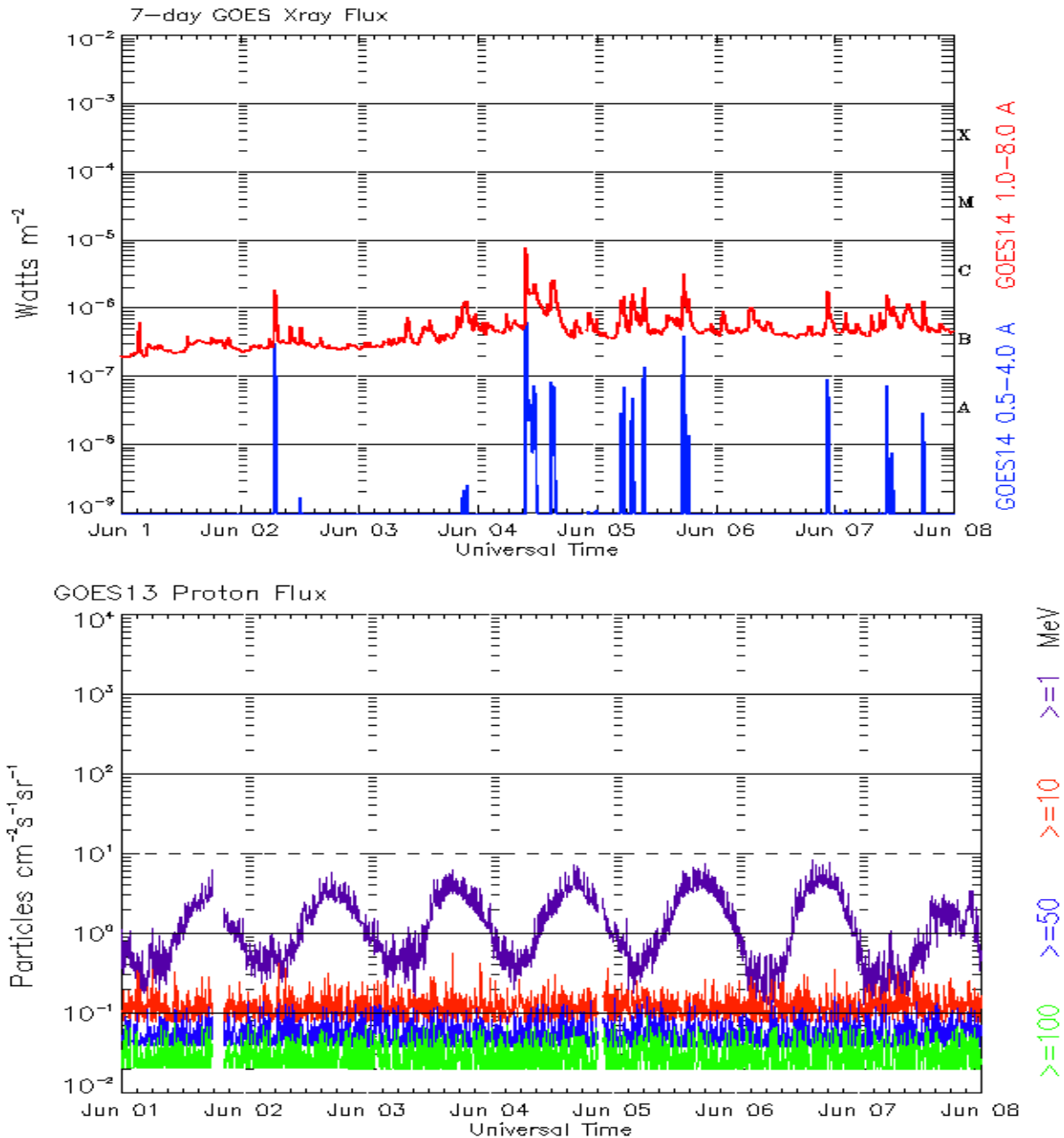
The electron flux plot contains the five-minute averaged integral electron flux (electrons/cm<sup>2</sup>-sec -sr) with energies greater than 2 MeV by the SWPC Primary GOES satellite.

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.

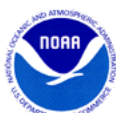




*Weekly GOES Satellite X-ray and Proton Plots  
Week Beginning 01 June 2015*

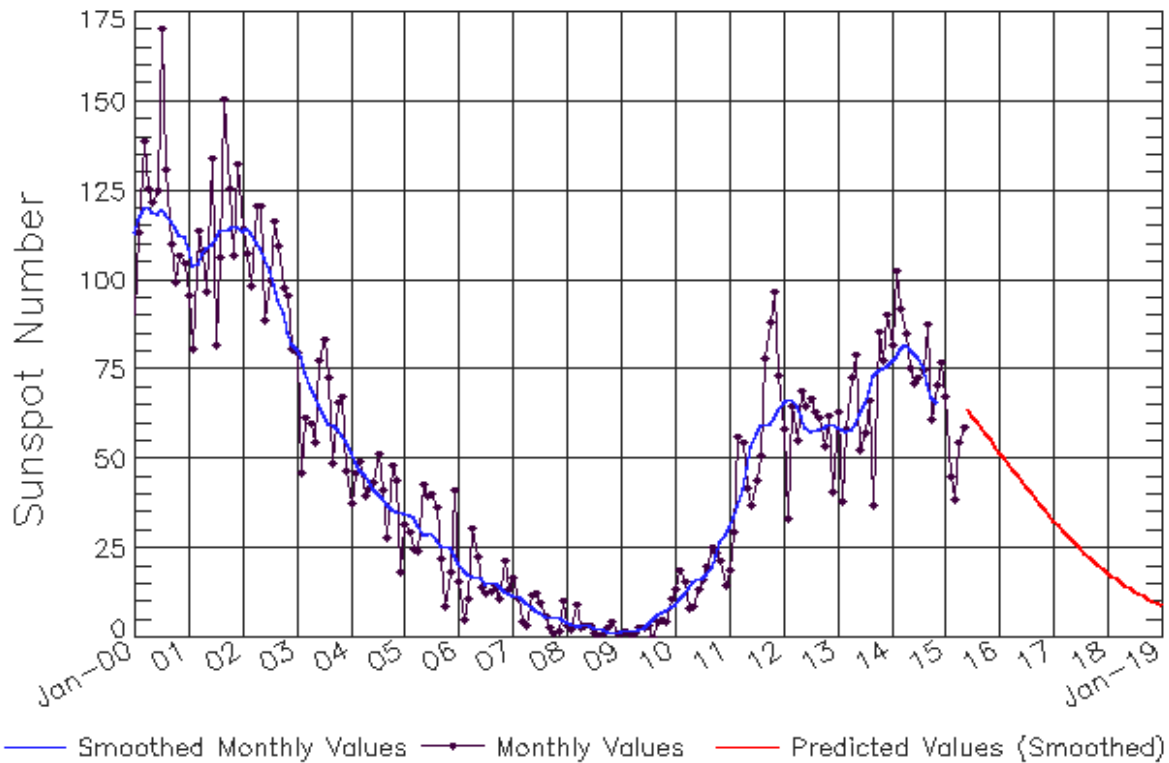
The x-ray plots contains five-minute averages x-ray flux (Watt/m<sup>2</sup>) as measure by the SWPC primary GOES X-ray satellite, usually at West 105 longitude, in two wavelength bands, 0.05 - 0.4 and 0.1 - 0.8 nm. The letters A, B, C, M and X refer to x-ray event levels for the 0.1 - 0.8 nm band.

The proton plot contains the five-minute averaged intergral flux units (pfu = protons/cm<sup>2</sup> -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 May 2015



Updated 2015 Jun B

NOAA/SWPC Boulder, CO USA

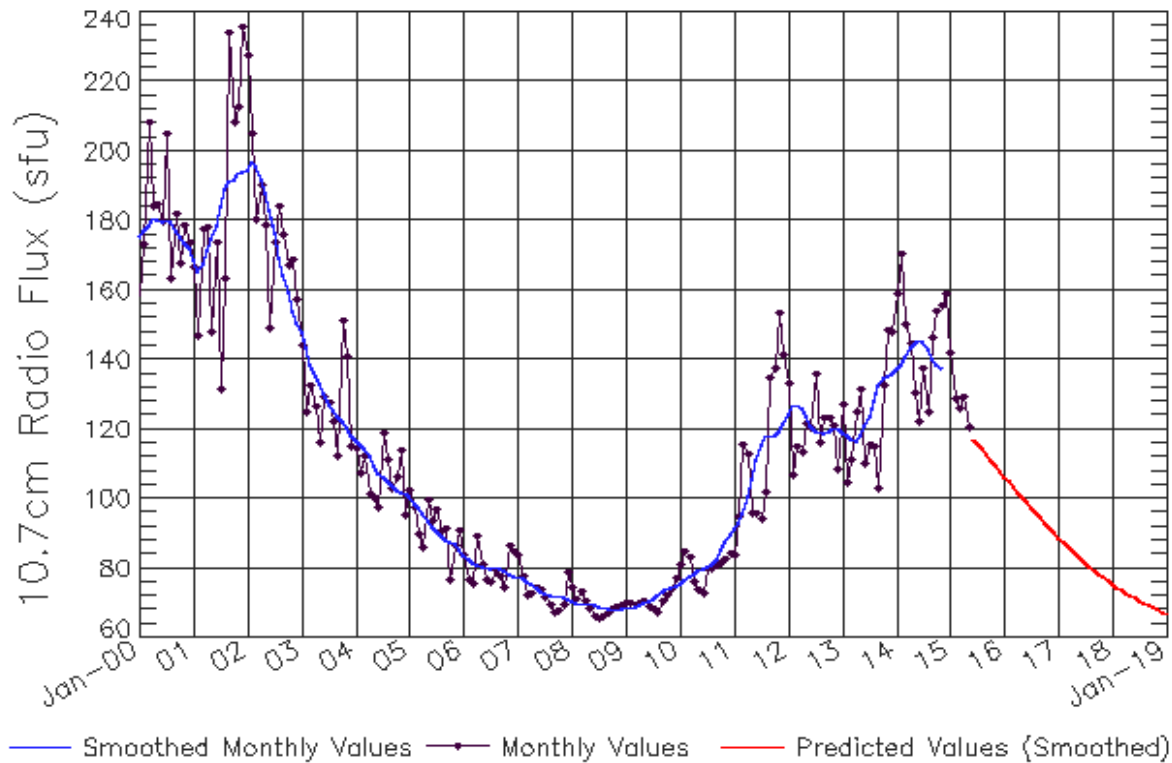
## Smoothed Sunspot Number Prediction

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 (***)	82 (***)	81 (***)	80 (***)	79 (***)	76 (***)	71 (***)	67 (***)	65 (***)	64 (1)
2015	64 (2)	63 (3)	61 (5)	60 (5)	59 (6)	57 (7)	56 (7)	55 (8)	56 (9)	56 (9)	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 May 2015

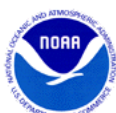


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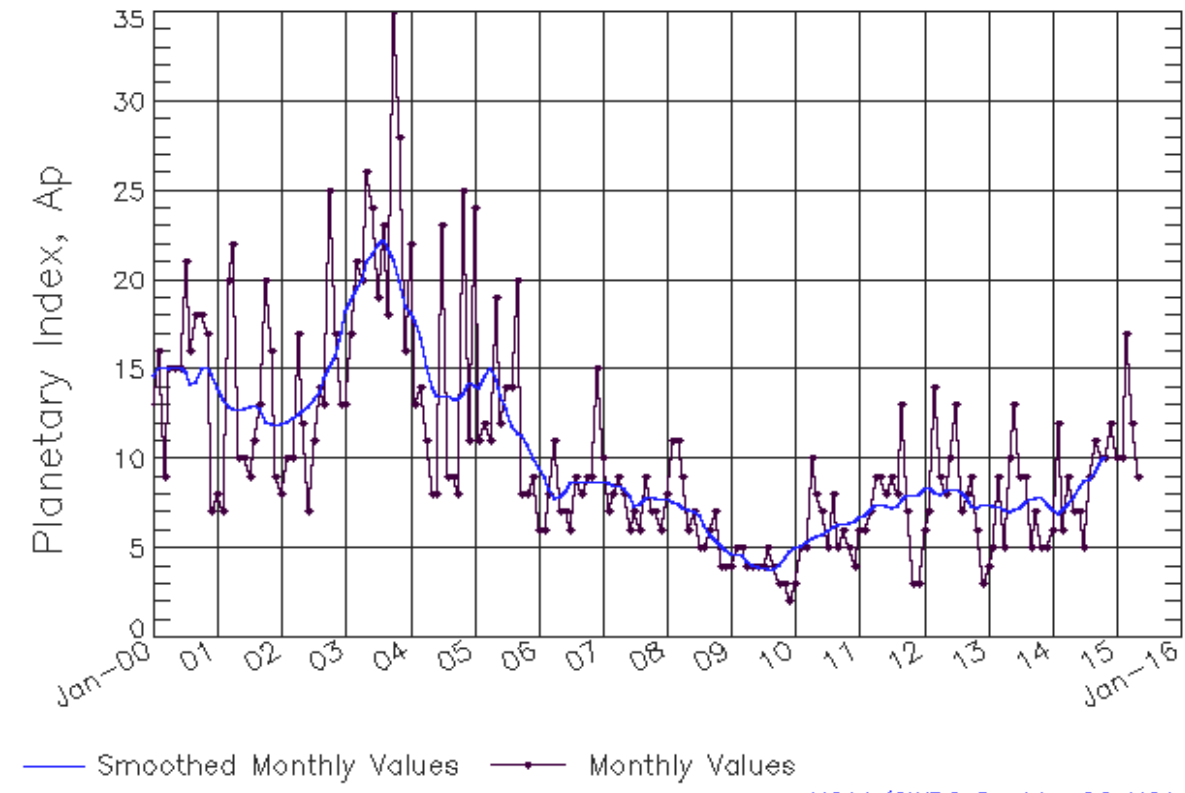
## *Smoothed F10.7cm Radio Flux Prediction*

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 (**)	141 (**)	144 (**)	145 (**)	146 (**)	145 (**)	143 (**)	140 (**)	138 (**)	137 (**)	137 (1)
2015	136 (1)	134 (2)	133 (3)	129 (4)	126 (4)	122 (5)	118 (6)	116 (7)	114 (8)	112 (8)	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 May 2015



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*Solar Cycle Comparison charts are temporarily unavailable.*





## ***Preliminary Report and Forecast of Solar Geophysical Data (The Weekly)***

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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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