

Solar activity was at low levels this period with only C-class flares observed. Region 2085 (S20, L=257, class/area=Ekc/490 on 12 Jun), which was very active last period, produced a long duration C8 flare from behind the west limb which was the largest event of the period.

Among regions that were in transit across the visible disk this period, Regions 2087 (S18, L=155, class/area=Eac/220 on 13 Jun), 2089 (N18, L=197, class/area=Dkc/270 on 16 Jun), and 2093 (S12, L=083, class/area=Dso/70 on 16 Jun) were the most productive.

Early in the period Regions 2087 and 2089 were the most active. Region 2087 produced seven C-class flares this period with a C4 flare at 17/0510 UTC being the largest. Region 2089 also produced seven C-class flares, the largest of which was a C2/Sf flare at 16/0734 UTC. Later in the period Region 2093 became the primary solar flare producer, totaling nine C-class flares with a C5/In flare at 20/1120 UTC being the largest.

On 19 Jun a large (~24 degree) and dynamic filament eruption centered near S01E12 lifted off between 1530-1655 UTC, as seen in SDO AIA/304 and 193 imagery. A subsequent partial halo coronal mass ejection (CME) off the east limb became visible in LASCO C2 coronagraph imagery beginning at 19/1924 UTC. Forecaster analysis and WSA-ENLIL model output suggested this CME had an Earth-directed component with an estimated arrival predicted late in the period (UTC) on 22 Jun.

Another filament eruption (~28 degree) centered near N26E09 was observed in SDO AIA/193 imagery lifting off between 0330-0600 UTC on 21 Jun. A subsequent CME was observed off the north-northwest limb in LASCO C2 in coronagraph imagery beginning at 21/0536 UTC. Analysis of this event indicated a possible glancing blow midday on 24 Jun.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at normal levels to begin the period (16-19 Jun) with an increase to normal to moderate levels later in the period (20-22 Jun). The 2 MeV electron flux reached a peak value of 487 pfu at 20/1440 UTC.

Geomagnetic field activity was predominately at quiet to unsettled levels throughout the period with the exception of an isolated active period (18/1800-2100 UTC) and an isolated period of G1 (Minor) geomagnetic storm conditions (18/2100-2359 UTC) due to a negative polarity coronal hole high speed stream (CH HSS) and prolonged southward Bz.

A G1 (Minor) geomagnetic storm watch was issued for 22 Jun for the anticipated arrival of the 19 Jun CME (detailed above), however, the transient did not arrive as predicted and G1 conditions were not observed on the 22nd. This is likely due in part to a minor deviation in one of the many variables that transient features encounter during the 93-million mile journey to the Earth.



Space Weather Outlook 23 June - 19 July 2014

Solar activity is expected to increase throughout the outlook period due to the return of a few active regions that were relatively productive last rotation. Solar activity is likely to be low with a slight chance for M-class (R1-R2 (Minor-Moderate)) flare activity for 23-25 Jun. As Regions 2080 (S11, L=263) and 2085 (S20, L=256) return to the visible disk, solar activity is expected to be low with a chance for M-class (R1-R2) flare activity for 26 Jun-05 Jul. Region 2080 produced two M-class flares and Region 2085 produced three M-class flares last rotation. Solar activity is likely to be moderate (R1-R2) with a chance for X-class (R3 or greater) flare activity for 06-11 Jul with the return of Region 2087 (S18, L=155) which produced eight M-class flares and three X-class flares last rotation. Solar activity is expected to be low with a chance for M-class (R1-R2) and a slight chance for X-class (R3 or greater) flare activity for 12-19 Jul as Regions 2080 and 2085 rotate around the west limb and Region 2087 continues its transit across the disk.

There is a slight chance for S1 (Minor) solar radiation storm conditions for 06 Jun-19 Jul due to the return of old Region 2087 .

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at normal levels with a chance for moderate levels throughout the outlook period.

Geomagnetic field activity is expected to be at quiet levels to G1 (Minor) geomagnetic storm conditions on 23 Jun due to the arrival of the 19 Jun coronal mass ejection (CME). Quiet to active levels are expected on 24-25 Jun as CME effects subside in conjunction with the onset of a negative polarity coronal hole high speed stream (CH HSS). Quiet to active levels are expected on 26 Jun due to continued negative polarity CH HSS influence. Predominately quiet conditions and a nominal solar wind environment are expected for 27 Jun-10 Jul, 12-13 Jul, and 18-19 Jul. Quiet to unsettled conditions are likely on 11 Jul due to weak positive polarity CH HSS effects. Quiet to unsettled conditions are expected on 14 Jul and 16-17 Jul with quiet to active conditions on 15 Jul due to influence from a negative polarity CH HSS.



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
16 June	117	81	630	B7.0	9	0	0	15	1	0	0	0
17 June	114	87	680	B3.7	6	0	0	4	0	0	0	0
18 June	111	108	690	B4.0	5	0	0	6	1	0	0	0
19 June	111	108	560	B2.5	2	0	0	9	0	0	0	0
20 June	102	75	340	B2.9	4	0	0	5	1	0	0	0
21 June	101	75	310	B2.0	2	0	0	10	1	0	0	0
22 June	94	95	320	B1.6	0	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
	16 June	2.1e+05	1.0e+04	2.3e+03		3.6e+05
17 June	2.4e+05	1.0e+04	2.2e+03		1.7e+05	
18 June	4.0e+05	1.0e+04	2.2e+03		1.5e+05	
19 June	1.2e+05	9.4e+03	2.2e+03		7.0e+05	
20 June	2.7e+05	9.8e+03	2.3e+03		1.4e+07	
21 June	5.5e+04	9.6e+03	2.4e+03		3.4e+06	
22 June	5.6e+04	9.9e+03	2.3e+03		6.2e+06	

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
	16 June	7	1-1-1-2-3-2-2-2	5	1-1-1-0-3-2-1-1	5
17 June	9	2-2-3-1-2-2-2-3	7	2-2-3-2-2-1-1-2	8	2-2-3-2-2-1-2-3
18 June	13	3-1-2-3-2-3-3-4	18	3-3-4-3-3-3-3-4	16	3-2-2-2-2-3-4-5
19 June	10	3-3-3-2-2-2-2-2	13	3-3-4-3-3-2-1-1	8	3-3-2-2-1-2-2-2
20 June	10	1-1-3-3-3-2-2-3	18	2-2-5-5-3-3-1-1	9	1-2-2-2-3-3-2-3
21 June	7	1-2-2-3-2-2-1-1	8	2-2-4-3-1-0-0-1	6	2-2-2-2-1-1-1-1
22 June	7	1-2-1-2-3-2-2-1	2	1-1-0-0-1-1-1-1	4	1-2-1-1-1-1-1-2

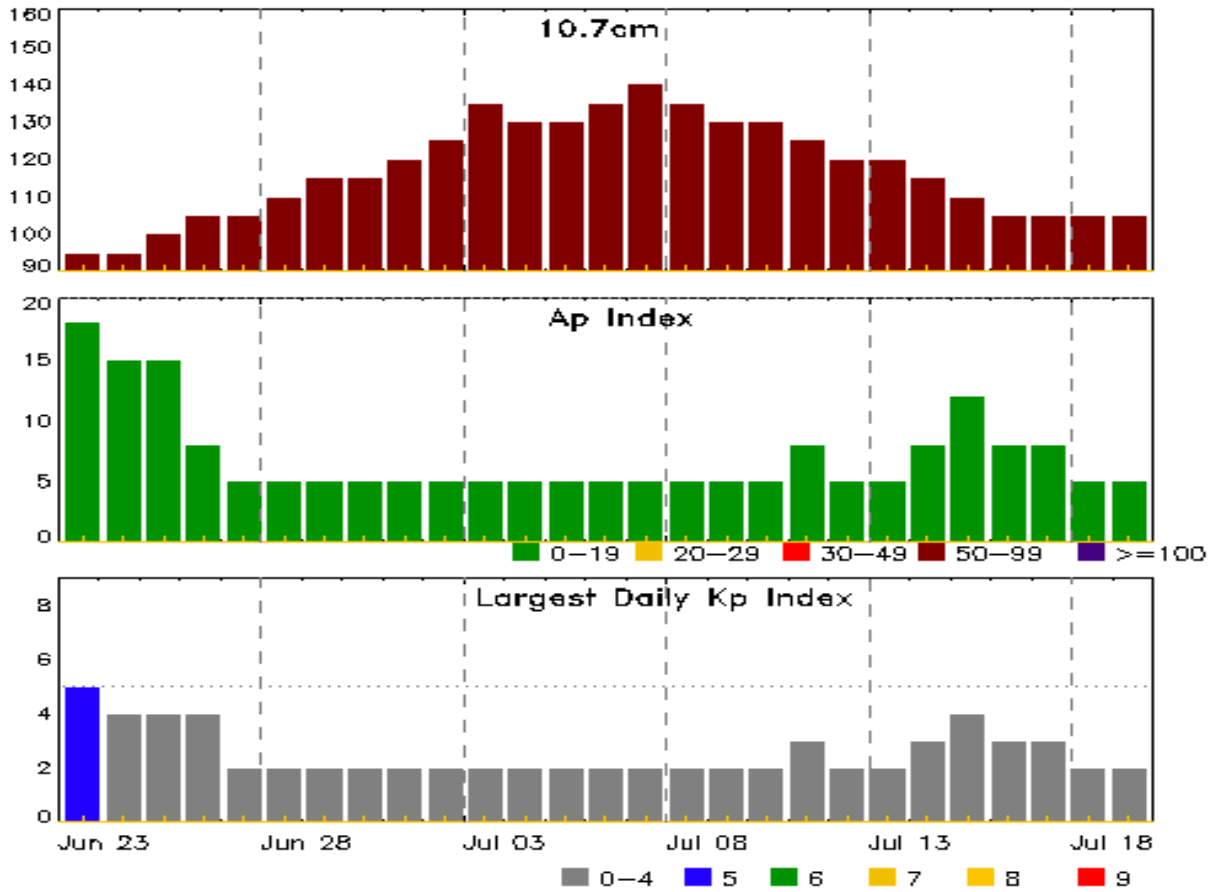


Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
18 Jun 1732	ALERT: Type II Radio Emission	18/1626
18 Jun 2050	WARNING: Geomagnetic K = 4	18/2049 - 19/0300
18 Jun 2106	ALERT: Geomagnetic K = 4	18/2059
18 Jun 2332	WARNING: Geomagnetic K = 5	18/2331 - 19/0300
18 Jun 2334	ALERT: Geomagnetic K = 5	18/2333
19 Jun 0256	EXTENDED WARNING: Geomagnetic K = 4	18/2049 - 19/1300
20 Jun 2108	WATCH: Geomagnetic Storm Category G1 predicted	
21 Jun 2112	WATCH: 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
23 Jun	95	18	5	07 Jul	140	5	2
24	95	15	4	08	135	5	2
25	100	15	4	09	130	5	2
26	105	8	4	10	130	5	2
27	105	5	2	11	125	8	3
28	110	5	2	12	120	5	2
29	115	5	2	13	120	5	2
30	115	5	2	14	115	8	3
01 Jul	120	5	2	15	110	12	4
02	125	5	2	16	105	8	3
03	135	5	2	17	105	8	3
04	130	5	2	18	105	5	2
05	130	5	2	19	105	5	2
06	135	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		Intensity	
									245	2695	II	IV

No Events Observed

Flare List

Date	Time			X-ray Class	Imp/ Brtns	Optical Location Lat CMD	Rgn #
	Begin	Max	End				
16 Jun	0133	0215	0301	C8.3			2085
16 Jun	0133	0135	0139		SF		2085
16 Jun	0250	0319	0412		SF	N18W38	2089
16 Jun	0431	0438	0440		SF	N18W40	2089
16 Jun	0443	0443	0454		SF	N18W40	2089
16 Jun	0512	0513	0520		SF	S20E15	2092
16 Jun	0539	0539	0612		SF	N17W39	2089
16 Jun	B0613	U0741	A0815		1F	N16W42	2089
16 Jun	0730	0734	0819	C2.8	SF	N18W42	2089
16 Jun	1126	1129	1132	C1.5			2089
16 Jun	1218	1221	1235	C1.1			2089
16 Jun	B1406	U1408	A1414		SF	N15W45	2089
16 Jun	1448	1452	1456	C1.9	SF	N17W45	2089
16 Jun	1759	1807	1812	C2.3	SF	S20W02	2087
16 Jun	1833	1834	1838		SF	N17W47	2089
16 Jun	1843	1843	1849		SF	N17W48	2089
16 Jun	1909	1918	1924	C2.9	SF	S20W02	2087
16 Jun	2004	2008	2021	C3.2	SF	S20W02	2087
16 Jun	2144	2151	2157	C2.3	SF	N17W50	2089
17 Jun	0010	0016	0032		SF	N18W51	2089
17 Jun	0040	0040	0046		SF	S19W06	2087
17 Jun	0129	0132	0135	B9.3			2093
17 Jun	0253	U0319	A0344	C1.3	SF	S11E61	2093
17 Jun	0458	0510	0523	C4.7			2087
17 Jun	B0532	U0535	A0627		SF	S20W07	2087
17 Jun	0736	0741	0746	B8.9			
17 Jun	0813	0819	0849	C3.0			2093
17 Jun	0959	1002	1005	B8.4			
17 Jun	1313	1319	1324	C1.0			2089
17 Jun	1404	1409	1414	B7.3			
17 Jun	1745	1752	1801	C1.4			



Flare List

Date	Time			X-ray Class	Optical		Rgn #
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	
17 Jun	2354	0014	0021	C1.4			
18 Jun	0312	0331	0350	C4.0			2087
18 Jun	0602	0603	0622		SF	N14W69	2089
18 Jun	0604	0614	0626	C2.2	1F	S09E46	2093
18 Jun	0645	0652	0705		SF	N17W67	2089
18 Jun	0735	0748	0758	C1.0	SF	S25W80	
18 Jun	B0857	U0857	A0908		SF	S21W22	2087
18 Jun	1358	1403	1409	B7.4			2089
18 Jun	1540	1547	1554	C1.1	SF	N17W71	2089
18 Jun	1620	1625	1628	C1.8	SF	S16W34	2087
19 Jun	0001	0007	0009		SF	S21W31	2087
19 Jun	0117	0124	0133	C1.5	SF	N05W71	2095
19 Jun	0331	0332	0335		SF	S15W40	2087
19 Jun	0526	0529	0533		SF	N06W73	2095
19 Jun	0535	0538	0549		SF	N06W73	2095
19 Jun	0726	0728	0734		SF	N06W75	2095
19 Jun	0736	0743	0749		SF	N06W75	2095
19 Jun	B1522	U1522	A1524		SF	S07E25	2093
19 Jun	1836	1924	1946	C4.0	SF	S09E23	2093
20 Jun	0352	0427	0502	C1.6	SF	S09E17	2093
20 Jun	0847	0851	0858		SF	S12E18	2093
20 Jun	0939	0939	0944		SF	S10E18	2093
20 Jun	1049	1120	1142	C5.0	1N	S09E15	2093
20 Jun	1147	1149	1155		SF	S20E29	2094
20 Jun	1639	1648	1658	C1.0	SF	S10E11	2093
20 Jun	1823	1833	1846	C1.6			2087
21 Jun	0239	0313	0332	B6.7	SF	S08E04	2093
21 Jun	0451	0508	0516		SF	S09E05	2093
21 Jun	0452	0456	0503	B7.6	SF	S08E05	2093
21 Jun	1000	1019	1022		SF	S09E03	2093
21 Jun	1103	1117	1140	C2.1	1F	S09E01	2093
21 Jun	1334	1356	1409	B4.8	SF	S11E03	2093
21 Jun	1519	1520	1532		SF	S11E03	2093
21 Jun	1540	1546	1552	B5.1	SF	S11E03	2093
21 Jun	1616	1621	1629		SF	S11E02	2093
21 Jun	1639	1644	1701		SF	S11E01	2093
21 Jun	1907	1946	2015	C1.0	SF	S10W04	2093
21 Jun	2152	2157	2200	B3.6			2093



Flare List

Date	Time			Optical			Rgn #
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	
22 Jun	0030	0038	0104	B5.1			2093
22 Jun	1051	1059	1123	B3.3			2096
22 Jun	1301	1313	1348	B7.9	SF	S10W12	2093
22 Jun	1353	1357	1403	B6.1			2087
22 Jun	1713	1740	1752	B3.4			2093
22 Jun	2113	2124	2134	B3.3			2096



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 2087																				
10 Jun	S18E71		154	100	8	Dai	5	BD	4		2	2	1							
11 Jun	S18E56		156	180	7	Dsc	10	BG	5	2	1	8		2						
12 Jun	S18E43		156	200	10	Dac	14	BGD	3	4		17	1							
13 Jun	S18E30		155	220	11	Eac	27	BGD	6	1		8	3							
14 Jun	S18E16		155	180	8	Dai	24	BG	1			1								
15 Jun	S18E03		156	150	7	Dso	5	B	2	1		1								
16 Jun	S18W08		153	110	6	Csi	9	B	3			3								
17 Jun	S19W22		154	150	7	Dsc	8	BG	1			2								
18 Jun	S20W35		155	150	6	Dsc	9	B	2			2								
19 Jun	S20W49		155	130	7	Dso	8	B				2								
20 Jun	S20W62		155	90	5	Dso	3	B	1											
21 Jun	S19W76		156	80	3	Cao	2	B												
22 Jun	S18W90		157	60	3	Cso	2	B												
									29	8	3	46	5	2	0	0				

Still on Disk.

Absolute heliographic longitude: 156

Region 2088

11 Jun	S11W33		245	20	4	Cro	6	B										
12 Jun	S11W46		245	40	4	Cao	5	B										
13 Jun	S10W60		244	70	6	Dao	11	B										
14 Jun	S09W74		247	20	4	Hrx	1	A										
15 Jun	S09W88		247	plage														
									0	0	0	0	0	0	0	0	0	

Crossed West Limb.

Absolute heliographic longitude: 245



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 2089																							
11 Jun	N18E16	196	20	3	Cro	6	B	2				3											
12 Jun	N18E03	196	50	6	Dai	9	B		1			1											
13 Jun	N17W11	196	60	7	Dai	11	B	1				4											
14 Jun	N18W25	198	100	8	Dai	10	BG	1				1											
15 Jun	N18W38	197	150	8	Dai	16	BGD					4											
16 Jun	N18W52	197	270	8	Dkc	15	BGD	5				10	1										
17 Jun	N17W62	194	260	8	Dkc	7	BG	1				1											
18 Jun	N17W77	197	260	8	Dki	11	BG	1				3											
19 Jun	N18W92	198	120	8	Dao	6	B																
								11	1	0	27	1	0	0	0	0							

Crossed West Limb.
 Absolute heliographic longitude: 196

Region 2090																							
11 Jun	N24E65	147	80	2	Hsx	1	A																
12 Jun	N24E56	143	120	10	Dso	2	B																
13 Jun	N24E44	141	170	10	Dso	4	B																
14 Jun	N24E30	143	120	11	Cso	3	B																
15 Jun	N24E18	141	130	11	Cso	3	B																
16 Jun	N24E02	143	120	2	Hsx	1	A																
17 Jun	N24W12	144	110	2	Hsx	1	A																
18 Jun	N24W25	145	110	2	Hsx	1	A																
19 Jun	N25W38	144	90	2	Hsx	1	A																
20 Jun	N25W52	145	90	2	Hsx	1	A																
21 Jun	N25W65	145	60	2	Hsx	1	A																
22 Jun	N25W78	145	80	2	Hsx	1	A																
								0	0	0	0	0	0	0	0	0	0	0	0	0	0		

Still on Disk.
 Absolute heliographic longitude: 143



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 2091																	
12 Jun	S09W04	203	40	3	Dao	5	B										
13 Jun	S09W17	202	20	3	Cro	3	B										
14 Jun	S08W29	202	0	1	Axx	2	A										
15 Jun	S08W43	202	plage														
16 Jun	S08W57	203	plage														
17 Jun	S08W71	204	plage														
18 Jun	S08W84	204	plage														
									0	0	0	0	0	0	0	0	0

Crossed West Limb.
 Absolute heliographic longitude: 203

Region 2092																	
12 Jun	S19E59	140	50	6	Cso	8	B										
13 Jun	S19E46	139	30	6	Dro	12	B	1			5						
14 Jun	S19E33	140	10	5	Bxo	6	B				2						
15 Jun	S20E19	140	10	5	Bxo	4	B	1			1						
16 Jun	S20E05	141	plage								1						
17 Jun	S21W08	140	10	2	Bxi	5	B										
18 Jun	S20W23	143	20	4	Cro	5	B										
19 Jun	S21W35	141	20	5	Cro	6	B										
20 Jun	S18W49	142	20	3	Cro	4	B										
21 Jun	S18W63	143	30	3	Cao	3	B										
22 Jun	S19W74	141	20	2	Cro	3	B										
									2	0	0	9	0	0	0	0	0

Still on Disk.
 Absolute heliographic longitude: 141

Region 2093																	
16 Jun	S12E62	83	70	7	Dso	5	B										
17 Jun	S10E50	81	60	9	Cso	5	B	2			1						
18 Jun	S10E35	85	50	13	Cao	8	B	1				1					
19 Jun	S10E21	85	60	13	Eao	11	B	1			2						
20 Jun	S09E08	85	60	11	Cao	16	BG	3			4	1					
21 Jun	S09W06	86	60	5	Dao	17	BG	2			10	1					
22 Jun	S09W18	85	50	12	Eao	14	BG				1						
									9	0	0	18	3	0	0	0	0

Still on Disk.
 Absolute heliographic longitude: 86



Region Summary - continued

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 2094																		
16 Jun	S18E67	78	60	1	Hsx	1	A											
17 Jun	S19E56	76	90	2	Hsx	1	A											
18 Jun	S18E43	77	90	2	Hsx	1	A											
19 Jun	S18E30	76	90	2	Hsx	2	A											
20 Jun	S18E17	76	80	2	Hax	1	A					1						
21 Jun	S18E02	78	80	2	Hax	2	A											
22 Jun	S18W10	77	20	3	Cro	3	B											
								0	0	0		1	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 78

Region 2095

18 Jun	N05W71	191	10	4	Bxo	3	B											
19 Jun	N05W84	190	50	4	Dao	4	B	1				5						
								1	0	0		5	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 191

Region 2096

22 Jun	N09E70	357	60	3	Hsx	1	A											
								0	0	0		0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 357

Region 2097

22 Jun	N13E76	351	30	2	Hax	1	A											
								0	0	0		0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 351

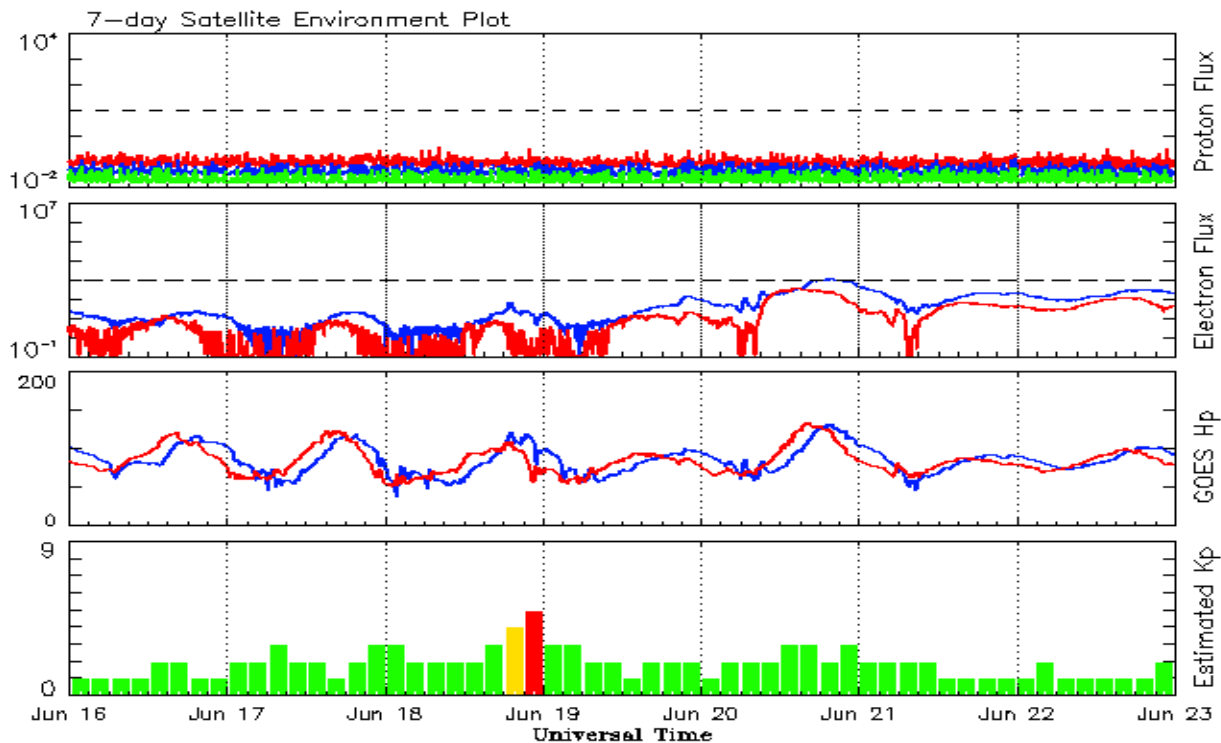


Recent Solar Indices (preliminary)
Observed monthly mean values

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 16 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.

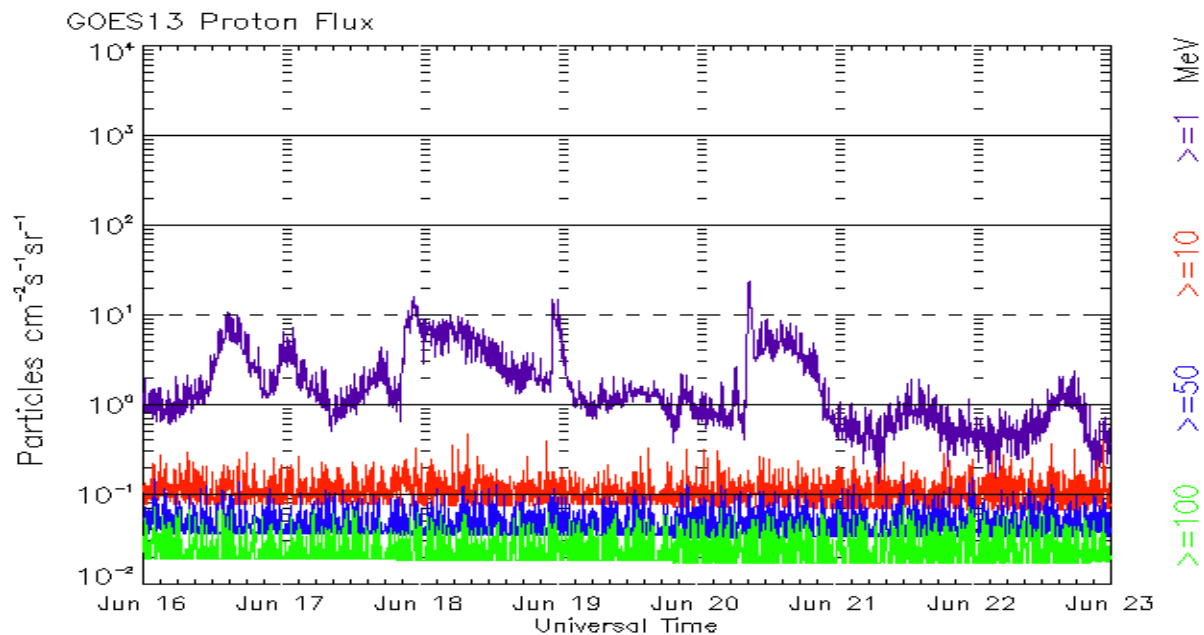
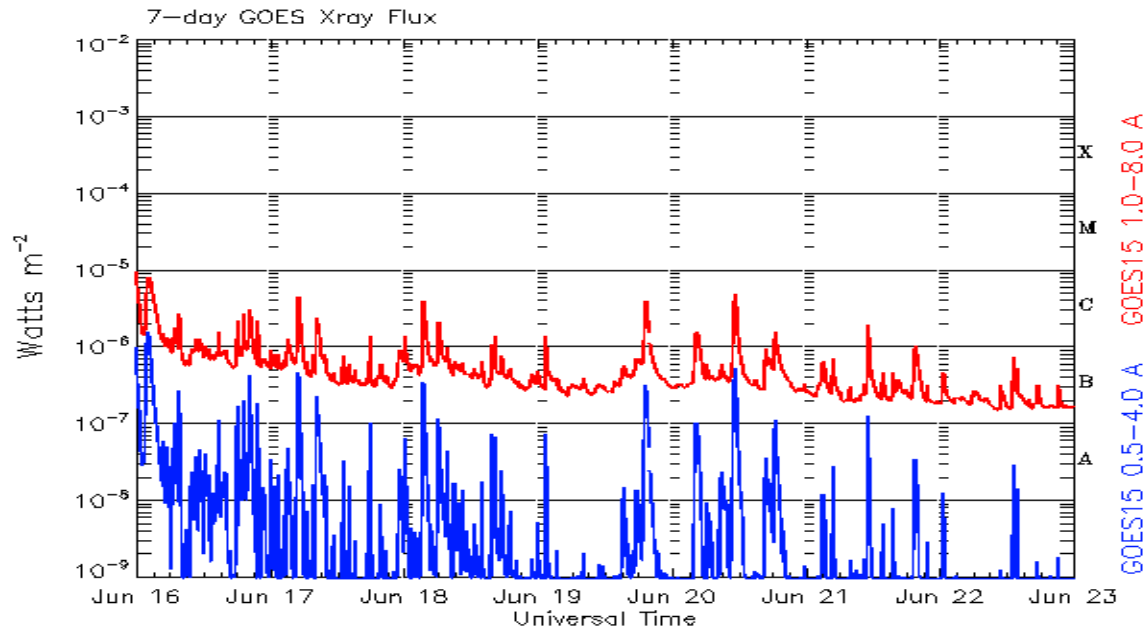
The electron flux plot contains the five-minute averaged integral electron flux (electrons/cm²-sec -sr) with energies greater than 2 MeV by the SWPC Primary GOES satellite.

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 16 June 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.



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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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