

Solar activity began the period at low levels, increased to high levels by midweek, and ended the period at moderate levels. In total, 17 solar flares were measured at or above the M1 (Minor) threshold this period, three of which were X-class (R3-Strong) flares.

Region 2087 (S18, L=155, class/area=Eac/220 on 13 Jun) was the most productive region of the period and kicked things off with a pair of X-class flares on 10 Jun. The first event was an impulsive X2/Sf (R3-Strong) flare at 10/1142 UTC with an associated Tenflare (1400 sfu), a Type-II (878 km/s) radio sweep, and with a subsequent coronal mass ejection (CME) visible off the east limb in SOHO/LASCO C2 coronagraph imagery beginning at 10/1200 UTC. The second event was an X1/1f (R3-Strong) flare at 10/1252 with an associated Tenflare (530 sfu), a Type-IV radio sweep, and a subsequent partial halo CME visible off the east limb in C2 coronagraph imagery beginning at 10/1325 UTC. Post-event forecaster analysis and WSA-ENLIL model output suggested that these CMEs would narrowly pass by Earth on or around 14 Jun at 1900 UTC, but were ultimately not observed in ACE solar wind data or at ground-based magnetometer stations.

Region 2087 struck again on 11 Jun, producing an X1/Sf (R3-Strong) flare at 0906 UTC with an associated Tenflare (190 sfu) and a subsequent CME off the east limb first visible in C2 coronagraph imagery at 11/0924 UTC, which was later determined to be directed away from the Sun-Earth line.

In addition to the three X-class flares detailed above, Region 2087 produced an additional seven M-class flares in the R1 (Minor) category.

Regions 2080, 2085, and 2089 were certainly outclassed by Region 2087 but would not go quietly. Region 2080 (S12, L=261, class/area=Dkc/340 on 08 Jun) contributed an M1/Sn flare at 11/0534 UTC, Region 2085 (S20, L=257, class/area=Ekc/490 on 12 Jun) produced an M1/1B flare at 12/0937 UTC and an M3/1f flare at 12/2216 UTC with an associated Tenflare (220 sfu), a Type-II (1679 km/s) radio sweep, and a Type-IV radio sweep. Finally, Region 2089 (N18, L=197, class/area=Dai/150 on 15 Jun) produced an M1/Sf flare at 12/2003 UTC.

No proton events were observed at geosynchronous orbit although the greater than 10 MeV proton flux became slightly enhanced (flux values remained below 1 pfu) early on 13 Jun, likely associated with the M3 flare from Region 2085 at 12/2216 UTC.

The greater than 2 MeV electron flux at geosynchronous orbit was at normal to moderate levels over the past week and reached a maximum flux value of 227 pfu on 13 Jun at 1405 UTC.

Geomagnetic field activity was predominately quiet with isolated periods of unsettled conditions on 11 and 14 Jun.



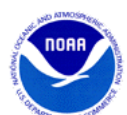
Space Weather Outlook
16 June - 12 July 2014

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

Geomagnetic field activity is expected to be predominately quiet with periods of unsettled conditions likely on 16-18 Jun, 25-26 Jun, and 11 Jul due to coronal hole high speed stream (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
09 June	161	152	1510	B6.6	6	0	0	11	1	0	0	0
10 June	166	149	1240	B9.4	6	0	2	6	1	0	0	0
11 June	168	176	1490	C1.0	10	3	1	19	0	2	0	0
12 June	175	196	1590	C1.1	8	7	0	32	4	0	0	0
13 June	153	276	1800	C1.1	11	1	0	31	3	0	0	0
14 June	144	159	1120	C1.2	4	1	0	14	0	0	0	0
15 June	130	80	500	C1.1	7	2	0	7	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
	09 June	1.2e+05	1.0e+04	2.6e+03		4.6e+04
10 June	1.4e+05	1.0e+04	2.7e+03		1.7e+06	
11 June	3.6e+05	1.1e+04	2.6e+03		2.3e+06	
12 June	3.2e+05	1.0e+04	2.5e+03		6.4e+06	
13 June	1.5e+06	1.9e+04	2.7e+03		9.5e+06	
14 June	5.4e+05	1.2e+04	2.5e+03		7.5e+05	
15 June	2.3e+05	1.1e+04	2.5e+03		4.2e+05	

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
	09 June	3	0-0-0-0-0-1-2-0	11	1-2-3-5-2-1-1-1	5
10 June	7	1-1-2-2-3-2-2-2	4	1-1-1-1-1-1-2-2	7	1-1-2-2-2-2-2-2
11 June	8	2-2-2-3-3-1-2-1	9	2-1-1-4-3-2-2-1	7	2-2-2-3-2-2-2-1
12 June	5	1-2-0-2-2-1-2-1	2	1-2-0-0-0-0-0-1	4	1-2-1-1-1-1-1-1
13 June	6	1-0-1-2-3-2-2-2	2	1-0-0-0-1-1-1-1	5	1-1-1-1-2-2-2-2
14 June	8	2-2-3-2-2-2-2-2	11	3-3-4-3-1-1-0-2	8	3-2-3-2-1-1-2-2
15 June	9	2-1-2-4-2-2-2-1	4	2-1-2-2-1-0-1-0	5	2-1-2-2-1-1-1-1

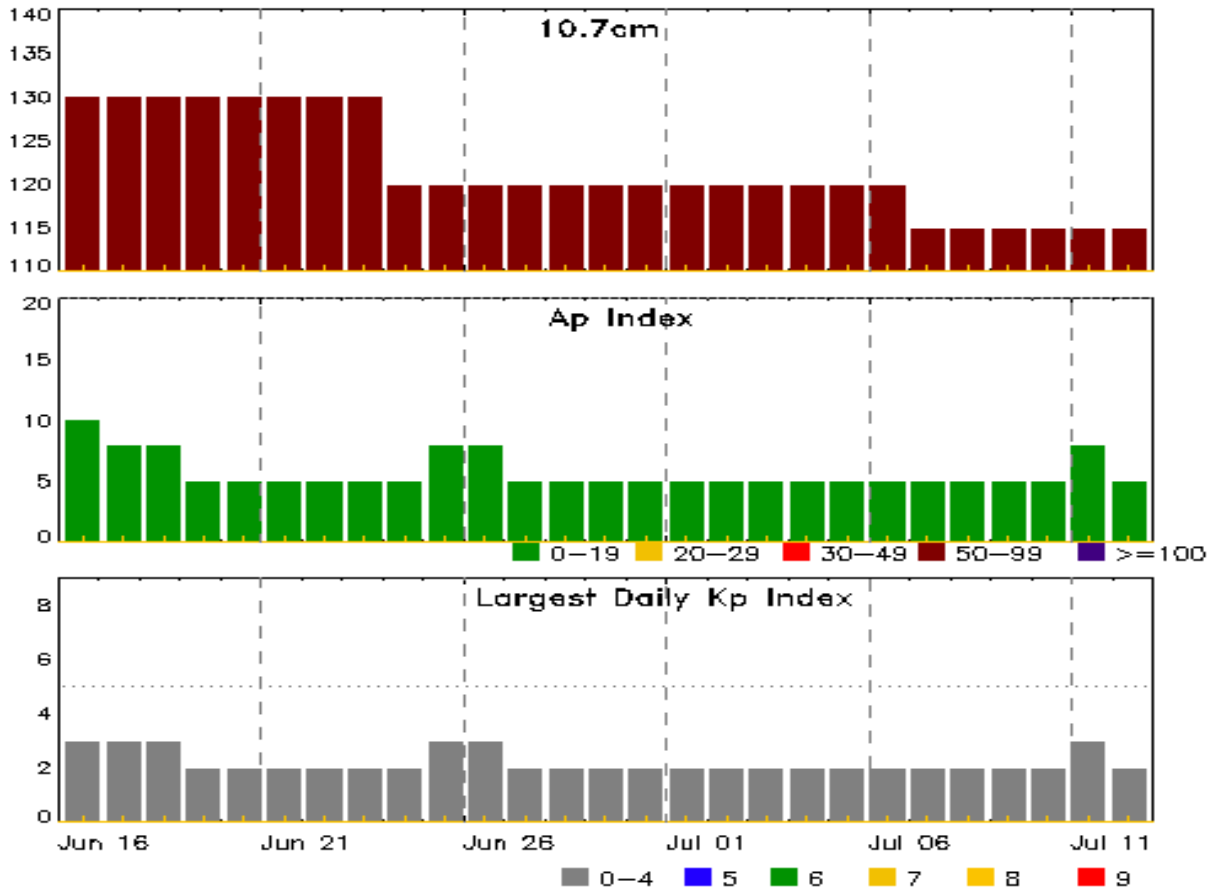


Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
09 Jun 0032	ALERT: Type II Radio Emission	08/2353
10 Jun 1143	ALERT: X-ray Flux exceeded M5	10/1140
10 Jun 1208	SUMMARY: X-ray Event exceeded X1	10/1136 - 1144
10 Jun 1226	SUMMARY: 10cm Radio Burst	10/1139 - 1142
10 Jun 1246	ALERT: X-ray Flux exceeded M5	10/1245
10 Jun 1309	ALERT: Type IV Radio Emission	10/1230
10 Jun 1312	SUMMARY: 10cm Radio Burst	10/1241 - 1259
10 Jun 1327	SUMMARY: X-ray Event exceeded X1	10/1236 - 1303
10 Jun 1554	ALERT: Type II Radio Emission	10/1140
11 Jun 0615	ALERT: Type IV Radio Emission	11/0458
11 Jun 0908	ALERT: X-ray Flux exceeded M5	11/0904
11 Jun 0919	SUMMARY: X-ray Event exceeded X1	11/0859 - 0910
11 Jun 2108	SUMMARY: 10cm Radio Burst	11/2056 - 2057
12 Jun 0928	ALERT: Type IV Radio Emission	12/0738
12 Jun 2204	SUMMARY: 10cm Radio Burst	12/2157 - 2157
12 Jun 2226	ALERT: Type IV Radio Emission	12/2203
12 Jun 2233	ALERT: Type II Radio Emission	12/2200
13 Jun 0827	ALERT: Type II Radio Emission	13/0757
13 Jun 0854	ALERT: Type IV Radio Emission	13/0810
14 Jun 2057	ALERT: Type II Radio Emission	14/1948
15 Jun 1312	ALERT: Type IV Radio Emission	15/1247



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
16 Jun	130	10	3	30 Jun	120	5	2
17	130	8	3	01 Jul	120	5	2
18	130	8	3	02	120	5	2
19	130	5	2	03	120	5	2
20	130	5	2	04	120	5	2
21	130	5	2	05	120	5	2
22	130	5	2	06	120	5	2
23	130	5	2	07	115	5	2
24	120	5	2	08	115	5	2
25	120	8	3	09	115	5	2
26	120	8	3	10	115	5	2
27	120	5	2	11	115	8	3
28	120	5	2	12	115	5	2
29	120	5	2				



Energetic Events

Date	Time			X-ray		Optical Information			Peak		Sweep Freq	
	Begin	Max	Half	Class	Integ Flux	Imp/ Brtns	Location Lat CMD	Rgn #	Radio Flux		Intensity	
			Max						245	2695	II	IV
10 Jun	1136	1142	1144	X2.2	0.047	SF	S15E80	2087	4400	1400	1	
10 Jun	1236	1252	1303	X1.5	0.140	1F	S17E82	2087	260	530		2
11 Jun	0530	0534	0536	M1.8	0.003	SN	S12W35	2080	590	100		
11 Jun	0800	0809	0815	M3.0	0.017	2B	S14E68	2087	300	130		1
11 Jun	0859	0906	0910	X1.0	0.033	SF	S18E65	2087	1800	190		
11 Jun	2053	2103	2110	M3.9	0.024	SF	S21E58	2087	3000	420		
12 Jun	0414	0421	0426	M2.0	0.008	SF	S16E55	2087		89		
12 Jun	0923	0937	0942	M1.8	0.008	1B	S25W53	2085	150	87		
12 Jun	1014	1021	1027	M2.7	0.013	1F	S20E52	2087	450			
12 Jun	1803	1813	1823	M1.3	0.011	SF	S19E48	2087	220	31		
12 Jun	1956	2003	2005	M1.1	0.001	SF	N17E05	2089				
12 Jun	2101	2113	2119	M1.0	0.007	SF	S22E49	2087	180			
12 Jun	2134	2216	2252	M3.1	0.095	1F	S20W55	2085				3
13 Jun	0749	0756	0759	M2.6	0.009	1N	S18E40	2087				2
14 Jun	1923	1929	1934	M1.4	0.005							
15 Jun	1110	1139	1150	M1.1	0.018			2085				
15 Jun	2350	0001	0017	M1.0	0.011							

Flare List

Date	Time			X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
	Begin	Max	End				
09 Jun	0018	0023	0026	C1.6			2085
09 Jun	0109	0119	0132	C3.7	SF	S20E00	2085
09 Jun	0416	0422	0427	C4.9			
09 Jun	B0431	U0432	0441		SF	S20W02	2085
09 Jun	0502	0506	0517		SF	S20W07	2085
09 Jun	0605	0607	0611		SF	S19W08	2085
09 Jun	0621	0624	0659		SF	S19W08	2085
09 Jun	0720	0725	0729	C2.2	SN	S12W18	2080
09 Jun	1043	1045	1052		SF	S10W12	2080
09 Jun	1102	1107	1120		SF	S10W13	2080
09 Jun	1208	1209	1213		SF	S19W11	2085
09 Jun	1224	1229	1233	C9.0	1B	S19W12	2085
09 Jun	1354	1358	1408		SF	S11W15	2080
09 Jun	1410	1411	1413		SF	S19W12	2085



Flare List

Date	Time			X-ray Class	Optical		Rgn #
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	
09 Jun	1703	1708	1714	C8.8			2087
10 Jun	0619	0628	0636	C2.4	SF	S15W26	2080
10 Jun	0817	0825	0832	C3.9			2087
10 Jun	0917	0931	0940	C5.1			2087
10 Jun	1004	1017	1025	C5.0			2087
10 Jun	1022	1024	1027		SF	S12W27	2080
10 Jun	1136	1142	1144	X2.2	SF	S15E80	2087
10 Jun	1236	1252	1303	X1.5	1F	S17E82	2087
10 Jun	1351	1359	1410		SF	N14W22	2082
10 Jun	1505	1507	1511		SF	S18W26	2085
10 Jun	1635	1638	1642	C1.5			2085
10 Jun	1654	1654	1657		SF	S14E72	2087
10 Jun	2346	0007	0014	C2.1			2087
11 Jun	0016	0017	0022		SF	S17E73	2087
11 Jun	0122	0128	0130	C3.9	SF	N17E30	2089
11 Jun	0213	0214	0217		SF	S18W35	2085
11 Jun	0224	0225	0233		SF	S16W35	2085
11 Jun	0256	0302	0310	C2.3	SF	N13W28	2082
11 Jun	0410	0415	0420		SF	S17E71	2087
11 Jun	0439	0444	0518	C5.0	2N	S17E71	2087
11 Jun	0506	0508	0511		SF	S12E71	2087
11 Jun	0530	0534	0536	M1.8	SN	S12W35	2080
11 Jun	0626	0632	0637	C3.4	SF	S13E69	2087
11 Jun	0708	0712	0720	C2.8	SF	S13W35	2080
11 Jun	0800	0805	0952	M3.0	2B	S14E68	2087
11 Jun	0859	0906	0910	X1.0	SF	S18E65	2087
11 Jun	0911	0914	0916		SF	N16W35	2082
11 Jun	0932	0937	0948		SF	N20E25	2089
11 Jun	1137	1142	1147	C2.3	SF	S12E62	2087
11 Jun	1245	1248	1250	C1.8	SF	S13W39	2080
11 Jun	1515	1519	1523	C1.7			2087
11 Jun	1623	1628	1631	C2.6	SF	N18E22	2089
11 Jun	1839	1845	1850	C3.6	SF	S16E64	2087
11 Jun	2053	2103	2110	M3.9	SF	S21E58	2087
11 Jun	2120	2123	2130		SF	N17E18	2089
12 Jun	0037	0042	0049	C3.6	SF	S18W44	2085
12 Jun	0118	0128	0134	C4.4	SF	S17E60	2087
12 Jun	0152	0155	0156		SF	N19W72	2079



Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/Brtns	Location Lat CMD	Rgn #
12 Jun	0414	0421	0426	M2.0	SF	S16E55	2087
12 Jun	0451	0507	0520	C4.5	SF	S21E58	2087
12 Jun	0534	0539	0551		SF	S21W47	2085
12 Jun	0535	0536	0539		SF	S24E58	2087
12 Jun	0625	0642	0650	C3.7	SF	S14E53	2087
12 Jun	0700	0707	0710		SF	S17E53	2087
12 Jun	0713	0713	0715		SF	N16W45	2082
12 Jun	0713	0715	0716		SF	S17E53	2087
12 Jun	0716	0716	0722		SF	N16W45	2082
12 Jun	0717	0717	0730		SF	S17E53	2087
12 Jun	0736	0737	0746		SF	N12W44	2082
12 Jun	0847	0855	0905		SF	S14E55	2087
12 Jun	0911	0912	0915		SF	S17E53	2087
12 Jun	0917	0918	0923		SF	N13W46	2082
12 Jun	0923	0937	0942	M1.8			2085
12 Jun	0928	0928	0932		SF	N14W45	2082
12 Jun	0934	0936	1005		1B	S25W53	2085
12 Jun	0951	0954	0956		SF	S16E54	2087
12 Jun	1014	1021	1027	M2.7	1F	S20E52	2087
12 Jun	1314	1320	1328	C3.8	SF	S16W58	2080
12 Jun	1526	1527	1531		SF	S16E51	2087
12 Jun	1557	1603	1609	C7.8	1N	S20W51	2085
12 Jun	1621	1625	1628	C3.5	SF	S19W52	2085
12 Jun	1652	1659	1709		SF	S16E50	2087
12 Jun	1715	1719	1723		SF	S16E49	2087
12 Jun	1728	1735	1740	C6.1	SF	S24W57	2085
12 Jun	1803	1813	1823	M1.3	SF	S19E48	2087
12 Jun	1956	2003	2005	M1.1	SF	N17E05	2089
12 Jun	2047	2112	2120		SF	S23W59	2085
12 Jun	2101	2113	2119	M1.0	SF	S22E49	2087
12 Jun	2134	2216	2252	M3.1	1F	S20W55	2085
12 Jun	2203	2215	2320		SF	S15W60	2080
12 Jun	2241	2242	2320		SF	S18E45	2087
12 Jun	2348	2349	2352		SF	S11W58	2080
13 Jun	B0000	0016	0105		SF	S18W51	2085
13 Jun	0029	0033	0044		SF	S22E63	2092
13 Jun	0030	0034	0041	C8.5	1F	S19E45	2087
13 Jun	0251	0253	0310		SF	S20E42	2087



Flare List

Date	Time			X-ray Class	Optical		Rgn #
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	
13 Jun	0315	0317	0318		SF	S12W66	2080
13 Jun	0317	0322	0403		SN	S19W62	2085
13 Jun	0331	0339	0343	C9.9			
13 Jun	0546	0546	0549		SF	S12W67	2080
13 Jun	0607	0609	0611		SF	S12W67	2080
13 Jun	0643	0647	0651	C2.0	SF	N18W01	2089
13 Jun	0705	0712	0715		SF	S12W67	2080
13 Jun	0742	0746	0749		SF	S12W68	2080
13 Jun	0744	0753	0818	M2.6	1N	S18E40	2087
13 Jun	0749	0749	0756		SF	S19W63	2085
13 Jun	0750	0821	0845		SF	S12W68	2080
13 Jun	0753	0755	0803		SF	N18W01	2089
13 Jun	B0805	U0806	0823		SF	S18E41	2087
13 Jun	B0805	U0805	0811		SF	N18W02	2089
13 Jun	0808	0808	0823		SF	S16W68	2080
13 Jun	0818	0908	0914		SF	S19W63	2085
13 Jun	0830	0836	0840		SF	S18E41	2087
13 Jun	0910	0911	0913		SF	S21E54	2092
13 Jun	0910	0917	0927		SF	S17E41	2087
13 Jun	0914	0918	0920	C3.8			2087
13 Jun	1039	1051	1056	C3.7	1N	S18E39	2087
13 Jun	1117	1119	1125		SF	N17W04	2089
13 Jun	1157	1202	1212	C2.5	SF	N12W59	2082
13 Jun	1304	1304	1312		SF	S15E52	2092
13 Jun	1402	1403	1409		SF	S23W60	2085
13 Jun	1521	1524	1527	C2.4	SF	S19E38	2087
13 Jun	1615	1619	1622	C2.1	SF	S13W77	2080
13 Jun	1649	1655	1703	C3.3	SF	S19E55	2092
13 Jun	1815	1817	1819		SF	S20E35	2087
13 Jun	1857	1900	1906		SF	S20E54	2092
13 Jun	2013	2017	2020	C9.0	SF	S20E34	2087
13 Jun	2055	2101	2109	C4.1	SF	S19E38	2087
14 Jun	0029	0030	0034		SF	S15W74	2080
14 Jun	0036	0059	0116		SF	S19W72	2085
14 Jun	0038	0044	0046		SF	S15W74	2080
14 Jun	0125	0128	0132		SF	S19W72	2085
14 Jun	0212	0220	0237		SF	S19W73	2085
14 Jun	0258	0259	0301		SF	S12W79	2080



Flare List

Date	Time			X-ray Class	Imp/ Brtns	Optical		Rgn #
	Begin	Max	End			Location Lat CMD		
14 Jun	0345	0348	0350	C2.4	SF	S20W70		2085
14 Jun	0504	0506	0513		SF	S17E48		2092
14 Jun	0515	0517	0520		SF	S20W74		2085
14 Jun	0728	0737	0751		SF	S17E47		2092
14 Jun	0817	0819	0824		SF	N14W71		2082
14 Jun	0911	0946	1016	C3.6	SF	S17E30		2087
14 Jun	1415	1416	1420		SF	N12W74		2082
14 Jun	1739	1747	1754	C3.3				2089
14 Jun	1923	1929	1934	M1.4				
14 Jun	2049	2052	2057		SF	N17W23		2089
14 Jun	2306	2310	2321	C2.1				2080
15 Jun	0400	0400	0405		SF	N20W28		2089
15 Jun	0453	0513	0528	C2.9				2082
15 Jun	0600	0605	0609	C7.5				2082
15 Jun	0632	0645	0649		SF	N18W29		2089
15 Jun	0650	0653	0705		SF	N19W27		2089
15 Jun	0707	0713	0714		SF	N19W27		2089
15 Jun	0750	0809	0855	C7.0				2085
15 Jun	B0834	U0840	A0840		SF	S19E18		2087
15 Jun	0848	0903	0907		SF	N18E86		2085
15 Jun	1110	1139	1150	M1.1				2085
15 Jun	1251	1321	1342	C5.4	SF	S18E27		2092
15 Jun	1512	1524	1535	C2.6				2087
15 Jun	1541	1559	1610	C3.5				2087
15 Jun	1706	1725	1811	C3.2				
15 Jun	2350	0001	0017	M1.0				



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 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												
09 Jun	S03W66	304	30	2	Hax	1	A												
10 Jun	S04W80	305	20	1	Hrx	1	A												
								3	1	0	5	1	1	0	0				

Crossed West Limb.
 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			

Crossed West Limb.
 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	4							
Region 2079																							
31 May	N12E77		282		plage								1										
01 Jun	N12E63		282	120	2	Hsx	1	A					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								
09 Jun	N13W42		281	110	4	Dao	6	B															
10 Jun	N13W56		281	110	5	Dso	6	B															
11 Jun	N13W69		281	120	7	Dao	8	B															
12 Jun	N13W83		282	80	4	Dso	4	B							1								
13 Jun	N12W94		279	90	1	Hsx	1	A															
													2	0	0	4	0	0	0	0	0		

Crossed West Limb.
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								
09 Jun	S12W23		262	300	11	Ekc	26	BGD	1						4								
10 Jun	S12W36		261	320	10	Dkc	26	BGD	1						2								
11 Jun	S11W50		262	360	10	Dkc	14	BGD	2	1					3								
12 Jun	S11W64		263	320	10	Dki	14	BGD	1						3								
13 Jun	S11W78		263	400	11	Ekc	27	BGD	1						8								
14 Jun	S11W91		264	350	8	Dki	8	BGD	1						3								
													14	2	0	43	0	0	0	0	0		

Crossed West Limb.
Absolute heliographic longitude: 261



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 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														
09 Jun	N05W41	280	plage														
10 Jun	N05W56	281	plage														
11 Jun	N05W71	283	plage														
12 Jun	N05W86	285	plage														
								0	0	0	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 274

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										
09 Jun	N16W14	252	210	8	Dai	9	B										
10 Jun	N15W28	253	220	8	Dai	14	B						1				
11 Jun	N15W42	254	220	8	Dai	14	B	1					2				
12 Jun	N15W54	253	200	7	Dai	12	B						5				
13 Jun	N15W67	251	240	9	Dai	21	B	1					1				
14 Jun	N15W80	253	140	4	Cao	2	B						2				
15 Jun	N15W93	252	60	8	Cao	2	B	2									
								4	0	0	16	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 254

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										
09 Jun	S12W56	295	10	5	Bxo	5	B										
10 Jun	S12W70	295	10	6	Bxo	3	B										
11 Jun	S13W81	293	10	3	Axx	2	A										
								0	0	0	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 291



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 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										
09 Jun	S20W16	254	840	14	Ekc	32	BGD	3					7	1									
10 Jun	S20W30	255	460	14	Ekc	24	BG	1					1										
11 Jun	S20W43	255	480	13	Ekc	25	BG						2										
12 Jun	S20W58	257	490	14	Ekc	23	BGD	4	2				5	3									
13 Jun	S20W71	256	490	16	Fki	47	BG						5										
14 Jun	S19W84	257	200	15	Eai	13	BG	1					5										
								10	2	0			28	4	0	0	0	0					

Crossed West Limb.
Absolute heliographic longitude: 255

Region 2086																							
09 Jun	N03E21	217	10	4	Bxo	3	B																
10 Jun	N03E06	219	plage																				
11 Jun	N03W09	221	plage																				
12 Jun	N03W24	223	plage																				
13 Jun	N01W32	220	10	3	Bxo	2	B																
14 Jun	N01W47	220	plage																				
15 Jun	N01W62	221	plage																				
								0	0	0			0	0	0	0	0	0	0	0	0	0	

Still on Disk.
Absolute heliographic longitude: 219

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												
								22	7	3	37	5	2	0	0								

Still on Disk.
Absolute heliographic longitude: 156



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 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	0		

Still on Disk.
 Absolute heliographic longitude: 245

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							
								4	1	0	13	0	0	0	0	0	0		

Still on Disk.
 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												
								0	0	0	0	0	0	0	0	0	0		

Still on Disk.
 Absolute heliographic longitude: 141

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																
								0	0	0	0	0	0	0	0	0	0		

Still on Disk.
 Absolute heliographic longitude: 203



Region Summary - continued

Date	Location		Sunspot Characteristics				Flares											
	Lat CMD	Lon	Heli 10 ⁻⁶ hemi.	Area	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical						
									C	M	X	S	1	2	3	4		
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						
								2	0	0		8	0	0	0	0	0	

Still on Disk.

Absolute heliographic longitude: 140

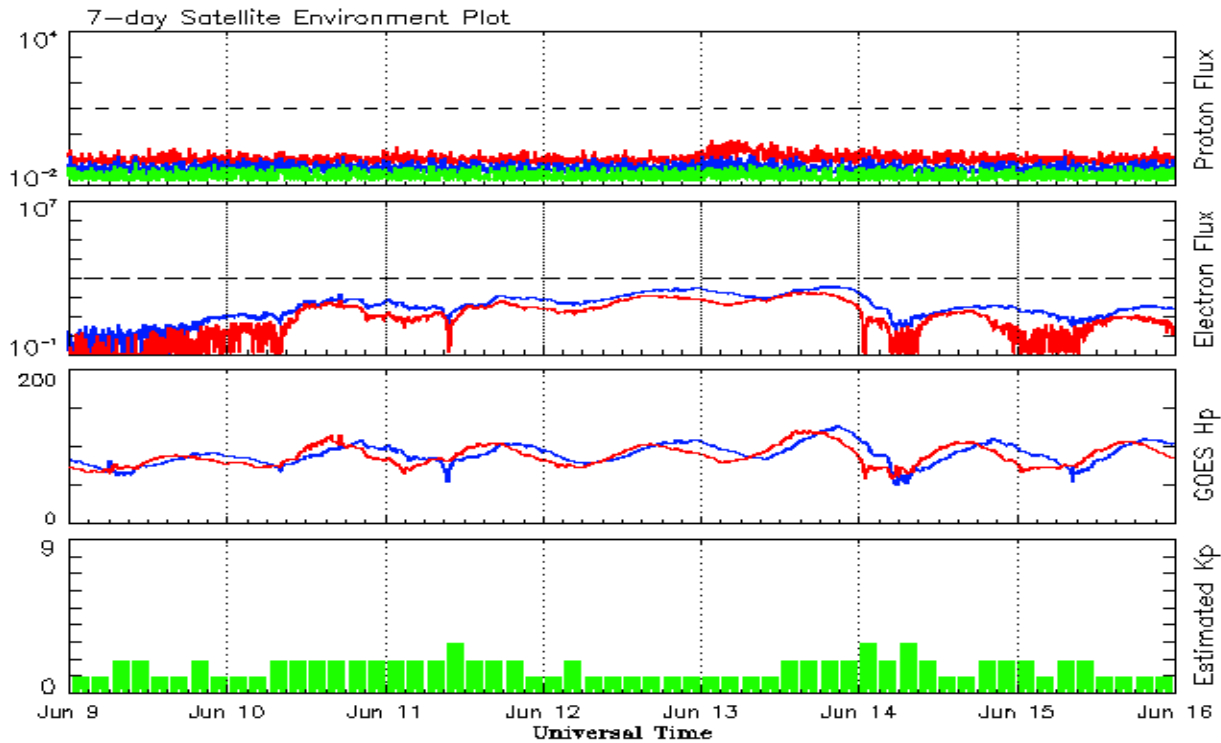


Recent Solar Indices (preliminary)
Observed monthly mean values

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 09 June 2014*

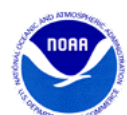
The proton flux plot contains the five-minute averaged integral proton flux (protons/cm²-sec -sr) as measured by the SWPC Primary GOES satellite, near West 75, for each of three energy thresholds: greater than 10, 50, and 100 MeV.

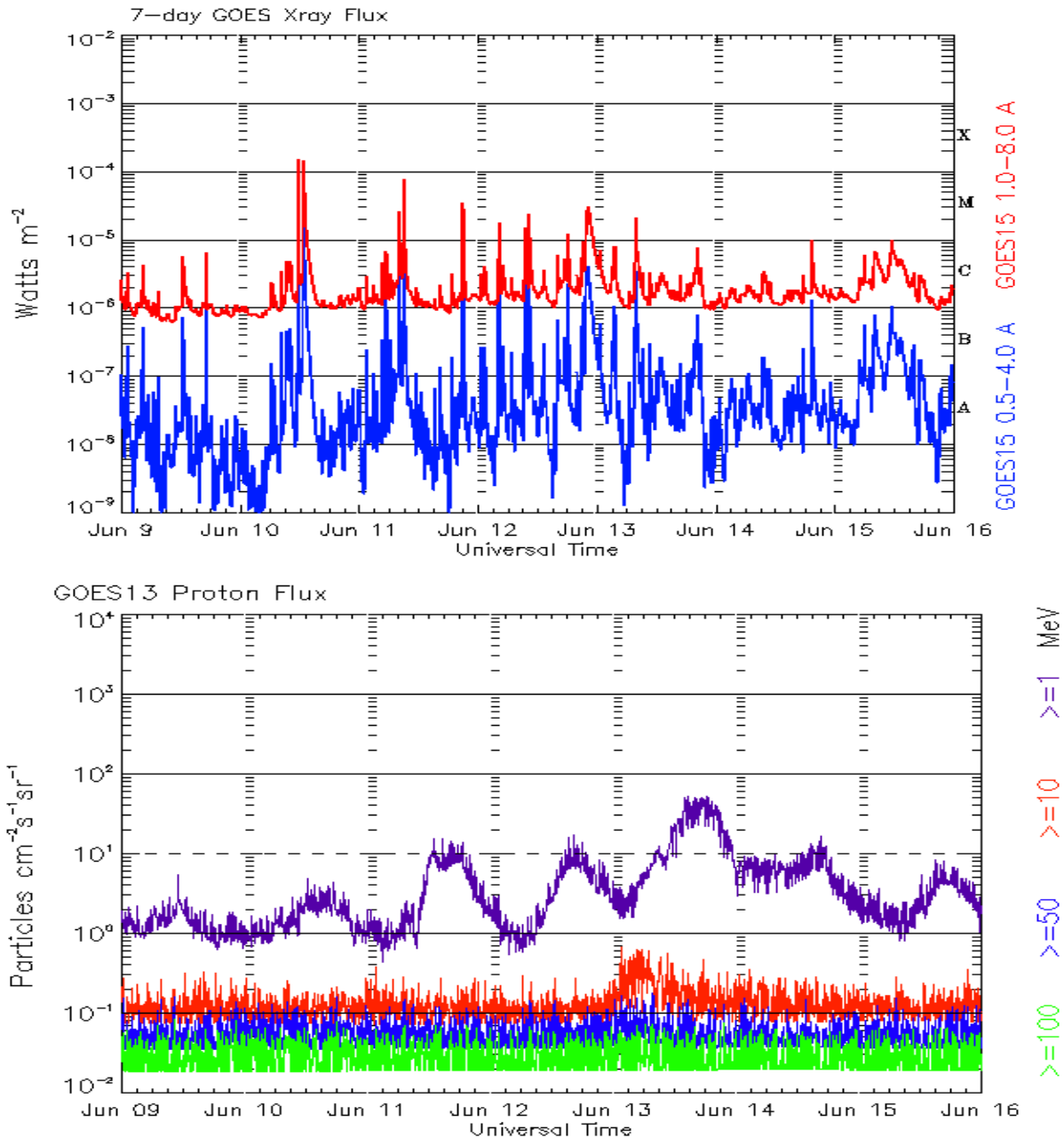
The electron flux plot contains the five-minute averaged integral electron flux (electrons/cm²-sec -sr) with energies greater than 2 MeV by the SWPC Primary GOES satellite.

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 09 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.



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

Published every Monday by the Space Weather Prediction Center.

U.S. Department of Commerce
NOAA / National Weather Service
Space Weather Prediction Center
325 Broadway, Boulder CO 80305

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

<http://spaceweather.gov/ftpmenu/warehouse.html> -- Online archive from 1997

<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

