

Solar activity reached the moderate (R1-minor radio blackout) level this week when Region 2065 (S19, L=150, class/area=Dai/180 on 25 May) produced an M1 flare at 24/1835 UTC. Although this region had been on the visible disk since 15 May, it had not produced a single flare until 23 May when it was responsible for a C1/Sf event at 23/0458 UTC. By May 24th, it was six times larger and had developed a beta-gamma type magnetic configuration. Following the M-class event, Region 2065 continued to grow to become the largest region of the week. It developed an even more complex beta-gamma-delta magnetic configuration but produced only five C-class events on the 25th.

The only radio event of the week was a Tenflare of 229 sfu observed at 24/1830 UTC associated with the M1 flare from Region 2065. The remaining regions on the disk were generally quiet, producing only occasional C-class activity. None of the coronal mass ejections observed during the period were judged to be particularly geoeffective.

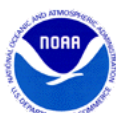
No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at normal for most of the week and reached moderate levels on 25 May.

Geomagnetic field activity was at quiet levels for the first three days of the period. At the end of the day on 22 May, a solar sector boundary crossing from positive to negative occurred. The solar wind magnetic field became increasingly agitated, Bz became increasingly negative, and the geomagnetic field responded with unsettled levels of activity.

Wind speed and temperature at the ACE spacecraft began to rise around midday on the 22nd, and a density jump was also observed. By 23/0000 UTC, Bz had reached its lowest level of -11 nT. Around 0400 UTC, the wind speed rose steadily from the mid-300 to mid-500 km/s range, temperature rose further and Bz had already turned northward. More fluctuations in the magnetic field followed, including a six hour period of Bz near -8 nT between 23/1400-2100 UTC. The geomagnetic field responded to the prolonged negative Bz with active levels between 23/1500-2100 UTC and ended the day with a single period of minor storm [G1-minor storm] conditions. [Note: The Alert for Kp=5 was initially sent with an incorrect time (23/2341 UTC). The actual Kp=5 condition was first observed at 23/2241 UTC and reflected in a subsequent alert correction.] These observations suggest the presence of a transient feature, possibly a glancing blow from an 18 May coronal mass ejection, intermingled with a coronal hole high speed solar wind stream.

Solar wind speed declined over the 24th and 25th ending the week in the upper 300 km/s range. The total magnetic field decreased to around 3 nT by 24 May while Bz was mostly neutral. The geomagnetic field was quiet on 24-25 May.



**Space Weather Outlook**  
**26 May - 21 June 2014**

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

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at moderate levels for the first day of the forecast period, and again from 08-12 June in response to a coronal hole high speed solar wind stream.

Geomagnetic field activity is expected to be at quiet to unsettled levels for most of the period. Unsettled to active levels are possible on 04-08 June in response to a recurrent coronal hole high speed solar wind stream.



### *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
19 May	117	130	340	B3.9	1	0	0	0	0	0	0	0
20 May	117	126	230	B3.4	2	0	0	4	0	0	0	0
21 May	114	100	370	B3.4	2	0	0	10	0	0	0	0
22 May	111	70	280	B2.8	3	0	0	5	0	0	0	0
23 May	116	112	320	B3.3	2	0	0	5	0	0	0	0
24 May	118	130	440	B4.9	8	1	0	9	2	0	0	0
25 May	113	133	560	B4.1	5	0	0	9	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
	19 May	6.4e+04	1.0e+04	2.6e+03		1.3e+06
20 May	6.1e+04	1.0e+04	2.5e+03		1.0e+06	
21 May	8.9e+04	1.0e+04	2.5e+03		1.2e+06	
22 May	2.6e+05	1.0e+04	2.4e+03		8.5e+05	
23 May	1.9e+05	9.4e+03	2.2e+03		2.1e+05	
24 May	2.3e+05	1.0e+04	2.3e+03		2.1e+06	
25 May	2.6e+05	1.1e+04	2.4e+03		8.9e+06	

### *Daily Geomagnetic Data*

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
	19 May	4	0-2-1-1-2-1-1-2	4	1-2-2-1-2-1-0-1	4
20 May	4	1-1-1-1-2-2-1-1	3	1-1-2-2-2-0-0-0	4	1-1-2-1-1-1-0-0
21 May	3	0-0-1-1-2-1-1-1	2	1-1-1-1-1-0-0-0	3	1-1-1-1-1-0-0-1
22 May	9	2-1-1-0-0-0-3-3	7	1-1-1-2-2-3-2-2	9	1-1-2-1-2-3-2-3
23 May	17	3-3-1-1-2-3-4-5	12	3-2-2-1-1-3-3-4	19	3-2-1-1-2-4-4-5
24 May	0	2-2-2-1-0-0-0-0	6	2-2-2-1-3-2-0-1	6	2-2-2-1-1-1-1-2
25 May	0	0-0-0-0-0-0-0-0	4	2-2-1-1-1-1-1-0	4	2-2-1-0-1-1-0-1

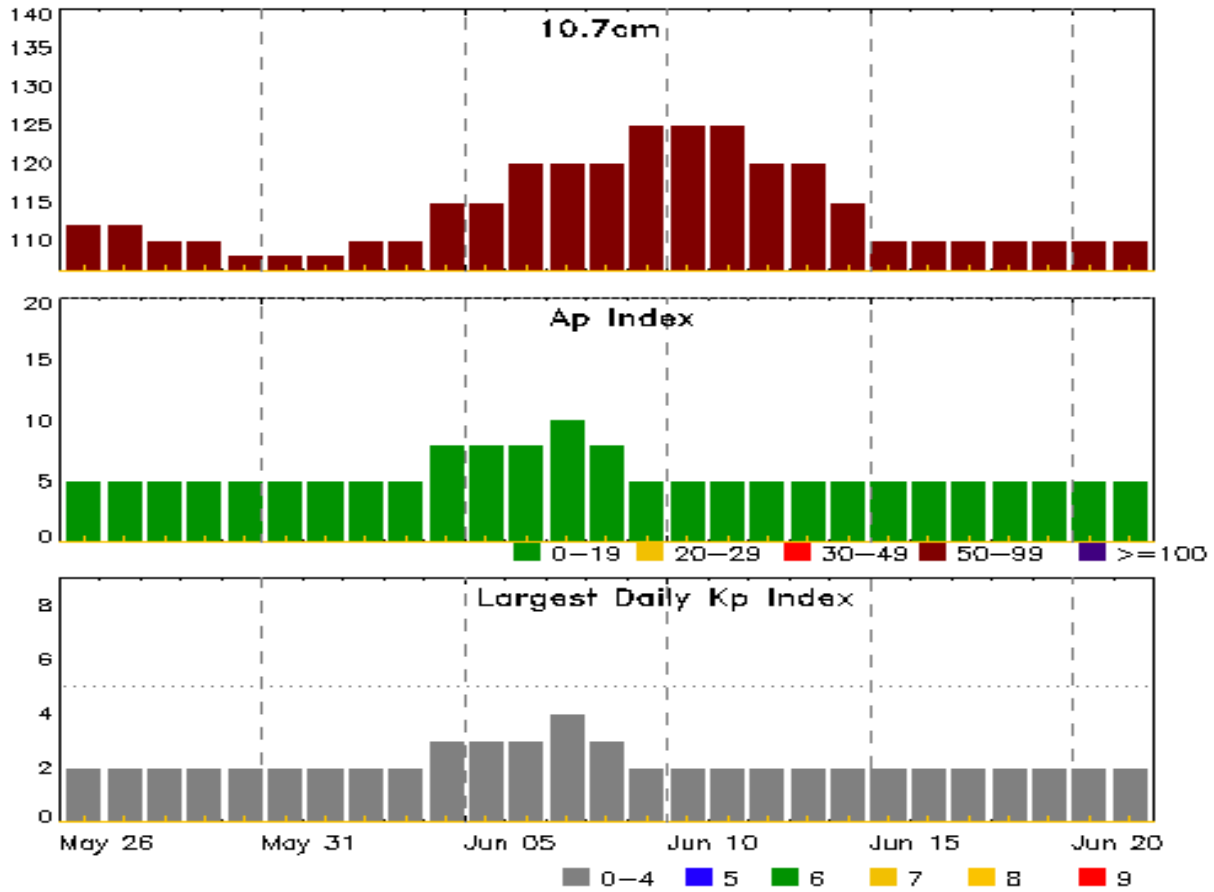


### *Alerts and Warnings Issued*

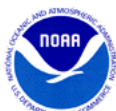
<b>Date &amp; Time of Issue UTC</b>	<b>Type of Alert or Warning</b>	<b>Date &amp; Time of Event UTC</b>
22 May 1549	WARNING: Geomagnetic K = 4	22/1548 - 2300
22 May 2255	EXTENDED WARNING: Geomagnetic K = 4	22/1548 - 23/0700
23 May 1606	WARNING: Geomagnetic K = 4	23/1605 - 2300
23 May 1722	ALERT: Geomagnetic K = 4	23/1721
23 May 2211	EXTENDED WARNING: Geomagnetic K = 4	23/1605 - 24/0700
23 May 2236	WARNING: Geomagnetic K = 5	23/2235 - 24/0400
23 May 2241	ALERT: Geomagnetic K = 5	23/2341
23 May 2247	ALERT: Geomagnetic K = 5	23/2241
24 May 0159	CANCELLATION: Geomagnetic K = 5	
24 May 0159	CANCELLATION: Geomagnetic K = 5	
24 May 1849	SUMMARY: 10cm Radio Burst	24/1829 - 1832



## 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
26 May	112	5	2	09 Jun	125	5	2
27	112	5	2	10	125	5	2
28	110	5	2	11	125	5	2
29	110	5	2	12	120	5	2
30	108	5	2	13	120	5	2
31	108	5	2	14	115	5	2
01 Jun	108	5	2	15	110	5	2
02	110	5	2	16	110	5	2
03	110	5	2	17	110	5	2
04	115	8	3	18	110	5	2
05	115	8	3	19	110	5	2
06	120	8	3	20	110	5	2
07	120	10	4	21	110	5	2
08	120	8	3				



### *Energetic Events*

Date	Time			X-ray		Optical Information			Peak		Sweep Freq	
	Begin	Max	Half Max	Class	Integ Flux	Imp/ Brtns	Location	Rgn #	245	2695	II	IV
24 May	1826	1835	1844	M1.3	0.008			2065				229

### *Flare List*

Date	Time			X-ray Class	Imp/ Brtns	Optical		Rgn #
	Begin	Max	End			Location	Lat CMD	
19 May	2037	2110	2127	C1.2				2071
20 May	0111	0148	0237	C1.9				2060
20 May	1309	1311	1319		SF	S19E16		2072
20 May	1330	1332	1343		SF	S18E16		2072
20 May	1500	1501	1509		SF	S18E15		2072
20 May	1642	1651	1701	B9.2				
20 May	2101	2135	2201	C1.0				2071
20 May	B2320	2321	2331		SF	S12E64		2071
21 May	0059	0138	0206	C2.3	SF	S12E64		2071
21 May	0429	0434	0442		SF	S17E24		2069
21 May	0508	0516	0538		SF	S10E63		2071
21 May	0709	0723	0731	C1.6	SF	S22W63		2066
21 May	0825	0829	0832	B7.8	SF	S20W61		2066
21 May	1056	1056	1059		SF	S07E70		2073
21 May	1104	1107	1110		SF	S10E60		2071
21 May	1211	1217	1219		SF	S10E60		2071
21 May	1404	1405	1407		SF	S10E59		2071
21 May	1457	1502	1505		SF	S10E58		2071
21 May	1928	1934	1939	B7.7				2069
22 May	0304	0310	0314	C6.4	SN	S19W07		2072
22 May	0341	0348	0359	B9.2				2073
22 May	0500	0500	0514		SF	S09E66		2073
22 May	1313	1326	1333	C1.4	SF	N00E00		2066
22 May	1538	1540	1559		SF	S19W13		2072
22 May	2214	2219	2223	C1.1	SF	S13E38		2071
23 May	0251	0259	0307		SF	S19W33		2065
23 May	0451	0458	0504	C1.5	SF	S19W35		2065
23 May	0756	0801	0811		SF	S20W35		2065
23 May	0814	0820	0826		SF	S20W35		2065
23 May	1034	1149	1228	C1.1				2068



## *Flare List*

Date	Time			X-ray Class	Optical		Rgn #
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	
23 May	1446	1451	1452		SF	S20W39	2065
23 May	1546	1551	1556	B7.9			2065
23 May	1931	1954	2017	B7.3			2068
24 May	0139	0145	0151	B8.2			
24 May	0332	0333	0353		SF	S18W47	2065
24 May	0447	0451	0456	B8.0	SF	S18W47	2065
24 May	0528	0531	0541		SF	S17W48	2065
24 May	0609	0616	0628	B8.0			
24 May	0734	0737	0740	C1.0			2065
24 May	B0813	U0911	1031	C1.0	1F	S21W49	2065
24 May	1156	U1244	1303	C1.1	SF	S21W51	2065
24 May	1304	1343	1457	C1.0	1F	S21W53	2065
24 May	1334	1342	1420		SF	S19W54	2065
24 May	1404	1428	1436	C1.3	SF	S16W40	2074
24 May	1723	1728	1731		SF	S19W56	2065
24 May	1750	1752	1755	C1.0			2065
24 May	1826	1835	1844	M1.3			2065
24 May	B1856	U1908	1910		SF	S19W56	2065
24 May	2002	2002	2014		SF	S17W56	2065
24 May	2016	2024	2032	C1.2			2065
24 May	2232	2257	2307	C1.6			2065
25 May	0158	0158	0250		SF	S18W62	2065
25 May	0409	0428	0446		SF	S19W57	2065
25 May	0723	0728	0732		SF	S15W53	2074
25 May	0753	0800	0806		SF	S18W66	2065
25 May	B0839	U0839	0856		SF	S17W52	2074
25 May	0848	0858	0911		SF	S18W66	2065
25 May	B1157	U1159	A1207		SF	S10E21	2073
25 May	1746	1753	1759	C2.5	SF	S17W70	2065
25 May	2130	2138	2154	C2.1			2065
25 May	2209	2218	2224	C1.7			2065
25 May	2314	2319	2326	C1.2			2065
25 May	2349	0000	0004	C3.8	SF	S17W73	2065



## 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 2056</b>																							
05 May	N05E84	259	plage																				
06 May	N05E70	258	270	10	Dko	4	B																
07 May	N04E56	259	310	10	Dko	9	BG																
08 May	N04E44	258	350	11	Eki	15	BGD	1	1												1		
09 May	N04E31	258	430	11	Eki	17	BG	1				4											
10 May	N05E16	260	350	11	Ehi	14	BG	2				4	1										
11 May	N05E03	259	310	11	Eki	14	BG	4				6											
12 May	N05W09	258	300	11	Eko	17	B	1				2	1										
13 May	N05W23	258	190	12	Esc	11	B	2				2	1										
14 May	N05W37	258	210	13	Eai	13	BG	1					1										
15 May	N06W51	259	200	14	Eai	10	BG	1															
16 May	N06W63	259	140	12	Esi	7	BG	5				1	1										
17 May	N05W78	261	100	11	Esi	6	BG																
18 May	N04W91	260	100	11	Esi	6	BG	1															
								21	1	0	19	5	1	0	0								

Crossed West Limb.  
 Absolute heliographic longitude: 259

<b>Region 2057</b>																							
07 May	N15E65	250	80	1	Hsx	1	A																
08 May	N15E53	249	70	2	Hsx	1	A																
09 May	N15E38	251	120	2	Hsx	1	A																
10 May	N15E26	250	110	2	Hsx	1	A					2											
11 May	N15E12	250	110	2	Hsx	1	A																
12 May	N14W00	248	110	2	Hsx	4	A																
13 May	N15W13	248	80	2	Hax	2	A																
14 May	N15W27	248	90	4	Cao	4	B																
15 May	N16W40	249	60	2	Hax	1	A																
16 May	N16W54	249	60	2	Hax	1	A																
17 May	N16W67	250	30	1	Hax	1	A																
18 May	N16W81	250	10	1	Axx	1	A																
								0	0	0	2	0	0	0	0	0							

Crossed West Limb.  
 Absolute heliographic longitude: 248





### *Region Summary - continued*

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 2058</b>																							
08 May	S12E69	233	50	2	Hax	1	A	1															
09 May	S14E57	232	100	12	Eao	4	B	6				6	1										
10 May	S15E45	231	140	17	Fao	9	BG					1											
11 May	S11E30	232	50	9	Cao	8	B	1							1								
12 May	S11E15	233	10	2	Axx	5	A																
13 May	S10W00	235	10	5	Bxo	9	B																
14 May	S10W12	234	10	4	Bxo	9	B																
15 May	S11W26	235	0	1	Axx	1	A	1															
16 May	S11W40	236	plage																				
17 May	S11W53	236	plage																				
18 May	S11W67	236	plage																				
19 May	S11W81	238	plage																				
								9	0	0	7	1	1	0	0								

Crossed West Limb.  
Absolute heliographic longitude: 235

<b>Region 2060</b>																							
11 May	S16E37	225	100	7	Dai	16	BG	1				2											
12 May	S16E22	226	180	7	Dac	25	BG	4				11	1										
13 May	S15E08	226	170	9	Dac	21	BG	1															
14 May	S14W05	227	180	10	Dac	23	BG	1				5											
15 May	S15W18	227	160	9	Dai	12	BG	3				1											
16 May	S14W32	228	150	10	Cao	11	BG																
17 May	S13W47	230	140	3	Hax	2	A																
18 May	S13W62	231	140	3	Hax	2	A																
19 May	S13W74	229	80	3	Hax	2	A																
20 May	S13W89	232	60	2	Hax	2	A	1															
								11	0	0	19	1	0	0	0								

Crossed West Limb.  
Absolute heliographic longitude: 227



### *Region Summary - continued*

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 2061</b>																							
11 May	S24E67		195	40	2	Cao	3	B															
12 May	S24E53		195	100	2	Hsx	2	A															
13 May	S25E40		194	90	2	Hsx	1	A															
14 May	S23E27		194	90	2	Hax	1	A															
15 May	S24E16		193	110	2	Hax	2	A															
16 May	S25E03		193	110	2	Hsx	2	A															
17 May	S23W10		193	90	2	Hsx	2	A															
18 May	S24W23		192	80	2	Hsx	1	A															
19 May	S25W36		191	90	2	Hsx	2	A															
20 May	S25W49		192	50	2	Hsx	1	A															
21 May	S24W60		189	80	2	Hsx	1	A															
22 May	S24W74		191	100	2	Hsx	1	A															
23 May	S25W88		191	60	1	Hsx	1	A															
										0	0	0	0	0	0	0	0	0	0	0	0	0	

Crossed West Limb.

Absolute heliographic longitude: 193

<b>Region 2063</b>																							
14 May	N10E41		180	120	6	Dao	5	B	5				8										
15 May	N10E30		179	150	6	Dai	8	BG	1				1										
16 May	N10E17		179	120	6	Dai	11	B	1				3										
17 May	N11E04		179	80	7	Dai	17	B					1										
18 May	N11W10		179	30	8	Cri	10	B	1				3										
19 May	N12W24		179	30	8	Cao	14	B															
20 May	N09W38		181	10	1	Axx	2	A															
21 May	N09W53		182	plage																			
22 May	N09W67		184	plage																			
23 May	N09W81		185	plage																			
										8	0	0	16	0	0	0	0	0	0	0	0	0	

Crossed West Limb.

Absolute heliographic longitude: 179



**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							
<b>Region 2064</b>																						
14 May	N08E26	195	10	2	Bxo	4	B															
15 May	N08E13	195	10	4	Bxo	3	B															
16 May	N09W00	196	10	5	Bxo	3	B															
17 May	N09W14	197	plage																			
18 May	N09W28	197	plage																			
19 May	N09W40	195	10	2	Bxo	2	B															
20 May	N09W54	197	plage																			
21 May	N09W68	198	plage																			
22 May	N09W82	199	plage																			

Crossed West Limb.  
 Absolute heliographic longitude: 196

<b>Region 2065</b>																						
15 May	S19E67	142	10		Axx	1	A															
16 May	S19E53	143	10	1	Cro	3	B															
17 May	S18E38	145	10	3	Bxo	4	B															
18 May	S18E24	145	10	3	Bxo	6	B															
19 May	S18E12	143	10	3	Axx	3	A															
20 May	S20E01	141	10	10	Bxo	2	B															
21 May	S18W14	144	10	3	Axx	3	A															
22 May	S18W28	145	plage																			
23 May	S18W46	149	10	6	Dao	9	B	1					5									
24 May	S18W59	149	60	7	Dai	16	BG	8	1				8	2								
25 May	S19W73	150	180	9	Dai	14	BGD	5					6									
								14	1	0			19	2	0	0	0					

Still on Disk.  
 Absolute heliographic longitude: 141



### *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	3	4
<b>Region 2066</b>																
16 May	S16E01		195	20	3	Cao	5	B								
17 May	S15W12		195	40	5	Dao	5	B	1			1				
18 May	S16W26		195	70	4	Dao	7	B								
19 May	S16W39		194	70	3	Dao	7	B								
20 May	S17W53		196	40	5	Dao	5	B								
21 May	S17W65		194	40	6	Dao	3	B	1			2				
22 May	S17W79		196	20	8	Cro	4	B	1			1				
									3	0	0	4	0	0	0	0

Crossed West Limb.  
 Absolute heliographic longitude: 195

<b>Region 2067</b>																
17 May	S08W69		252	10	3	Cro	4	B								
18 May	S09W83		252	10	1	Axx	1	A								
									0	0	0	0	0	0	0	0

Crossed West Limb.  
 Absolute heliographic longitude: 252

<b>Region 2068</b>																
17 May	S17E26		157	20	4	Cro	4	B								
18 May	S18E13		156	10	6	Bxo	3	B								
19 May	S17W04		159	plage												
20 May	S15W16		159	10	3	Bxo	3	B								
21 May	S15W30		160	plage												
22 May	S15W44		161	plage												
23 May	S15W58		161	plage					1							
24 May	S15W72		162	plage												
25 May	S15W86		163	plage												
									1	0	0	0	0	0	0	0

Still on Disk.  
 Absolute heliographic longitude: 159



### *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	3	4
<b>Region 2069</b>																
18 May	S18E52		117	10	1	Axx	1	A								
19 May	S19E39		116	10	1	Axx	1	A								
20 May	S21E26		117	0		Axx	1	A								
21 May	S17E12		117	20	1	Cso	5	B				1				
22 May	S19W01		118	plage												
23 May	S19W15		118	plage												
24 May	S19W29		119	plage												
25 May	S19W43		120	plage												
									0	0	0	1	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 118

<b>Region 2070</b>																
19 May	S16W61		216	30	3	Cro	6	B								
20 May	S18W76		219	10	4	Bxo	4	B								
21 May	S18W90		220	plage												
									0	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 216

<b>Region 2071</b>																
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								
									4	0	0	8	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 81



**Region Summary - continued**

Date	Location		Sunspot Characteristics					Flares															
	Lat CMD	Lon	Helio 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 2072</b>																							
20 May	S20E07	136	10	1	Axx	2	A						3										
21 May	S18W05	134	20	4	Csi	7	B																
22 May	S18W19	136	10	6	Bxo	5	B	1					2										
23 May	S14W34	137	0	2	Axx	1	A																
24 May	S19W44	134	0	3	Bxo	3	B																
25 May	S19W58	135	0	3	Cro	8	B																
								1	0	0		5	0	0	0	0	0						

Still on Disk.  
Absolute heliographic longitude: 134

<b>Region 2073</b>																							
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										
								0	0	0		3	0	0	0	0	0						

Still on Disk.  
Absolute heliographic longitude: 64

<b>Region 2074</b>																							
23 May	S14W33	136	30	4	Dro	8	B																
24 May	S14W46	136	60	8	Dai	14	B						1										
25 May	S16W60	137	120	8	Dai	11	BG						2										
								0	0	0		3	0	0	0	0	0						

Still on Disk.  
Absolute heliographic longitude: 136

<b>Region 2075</b>																							
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																
								0	0	0		0	0	0	0	0	0						

Still on Disk.  
Absolute heliographic longitude: 27

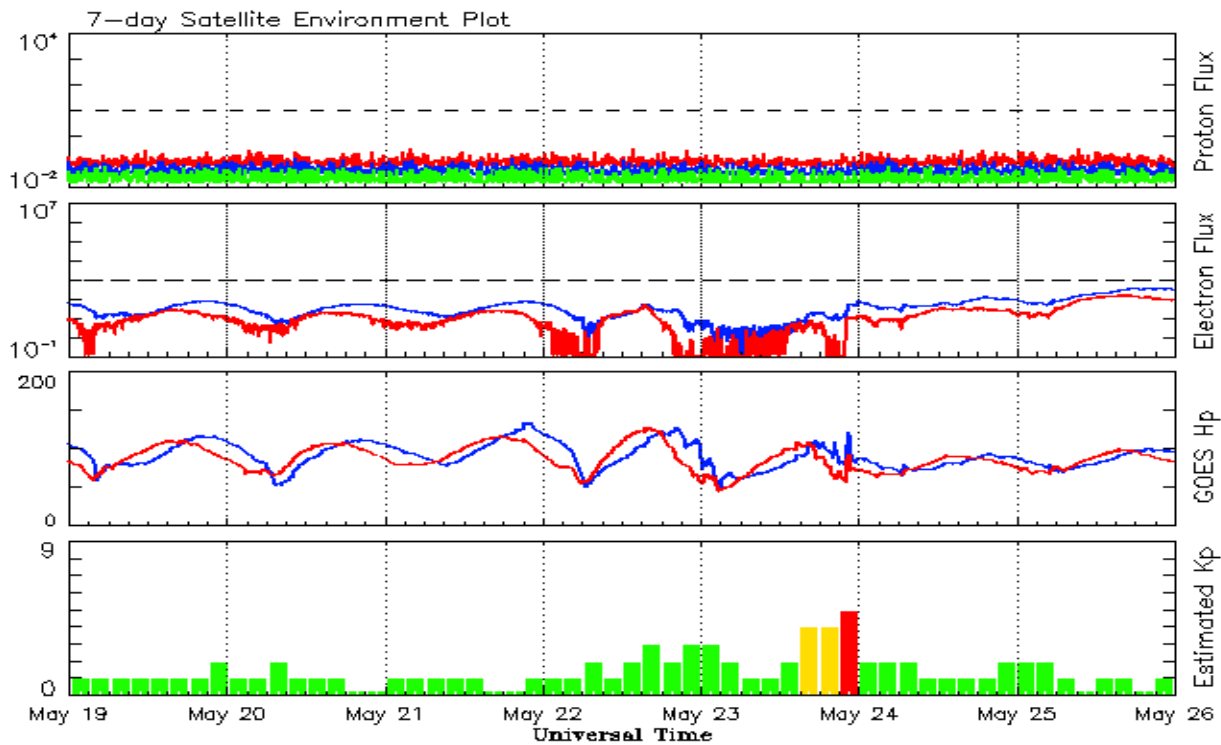


**Recent Solar Indices (preliminary)**  
**Observed monthly mean values**

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>2012</b>									
May	99.5	69.0	0.69	87.7	61.7	121.5	123.8	8	8.2
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
<b>2013</b>									
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			148.4		5	
December	118.2	90.3	0.76			147.7		5	
<b>2014</b>									
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	

**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 19 May 2014*

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.

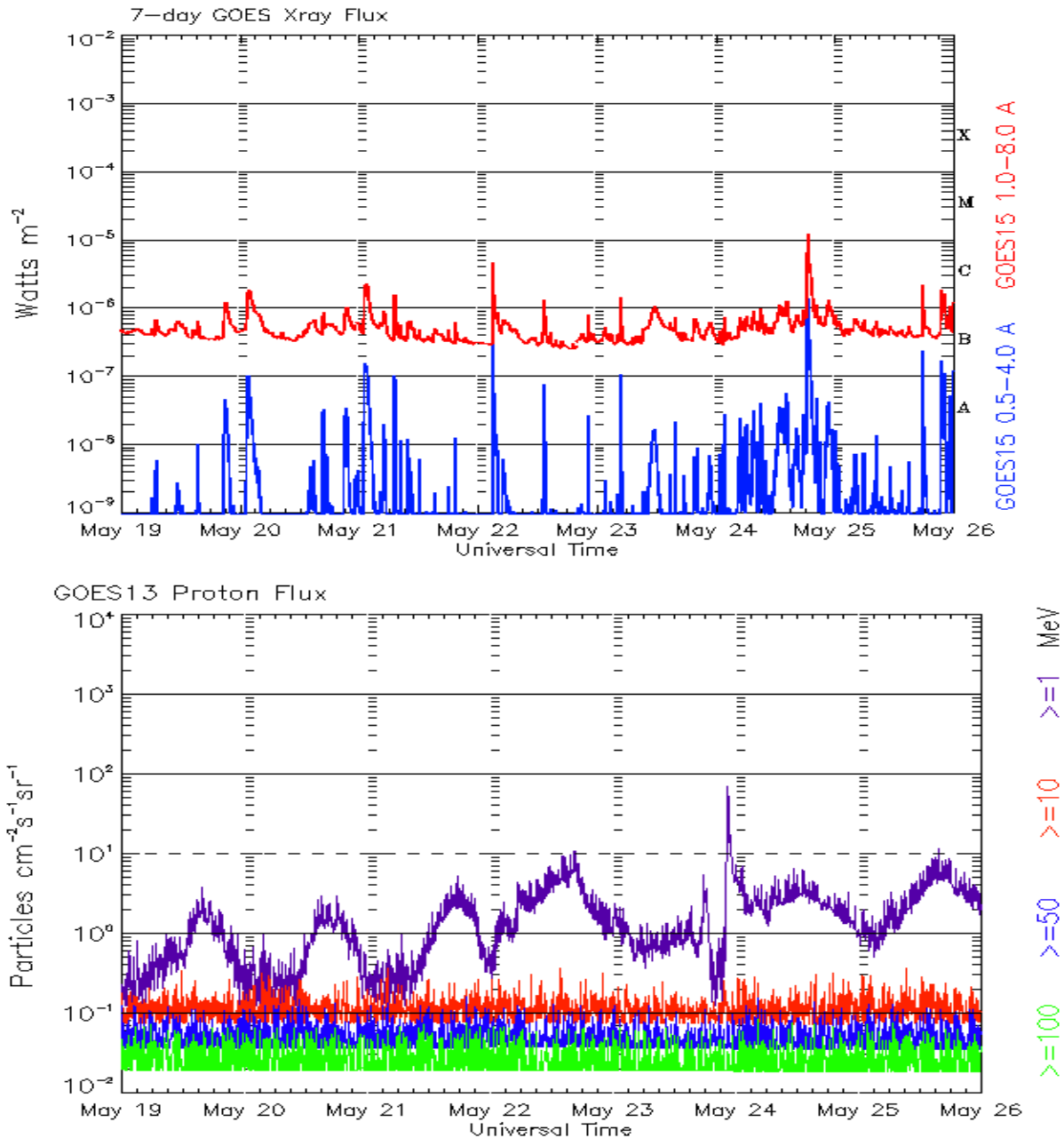
The Hp plot contains the five minute averaged Hp magnetic field component in nanoteslas (nT) as by the SWPC Primary GOES satellite. The Hp component is parallel to the spin axis of the satellite, which is nearly parallel to the Earth's rotation axis.

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 19 May 2014*

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.



## ***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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