

Solar activity was very low to low during the period. An impressive CME was observed from a region beyond the west limb late on 26 May. Associated with this non-Earth-directed CME were Type II (estimated shock velocity 751 km/s) and Type IV radio sweeps as well as a greater than 10 MeV proton event at geosynchronous orbit. There were five regions numbered during the period with Region 1492 (S14, L=281, class/area Eao/190, on 27 May) being one of the largest and most active. This region produced six C-class flares, including a long duration C3/Sf flare at 27/0552Z associated with a non-Earth-directed CME observed off the southeast limb in LASCO C2/C3 imagery.

A greater than 10 MeV proton event was observed at geosynchronous orbit on 27 May. The event began at 27/0535 UTC, reached a peak of 14 pfu at 27/1045 UTC, and ended at 27/1235 UTC. This event was associated with the CME observed beyond the west limb.

The greater than 2 MeV electron flux at geosynchronous orbit reached high levels during 24 - 27 May.

Geomagnetic field activity ranged from quiet to minor storm levels during the period. Mostly quiet levels occurred on 21 May. Activity increased to quiet to active levels on 22 May. A further increase to quiet to minor storm levels occurred on 23 May. Activity decreased to quiet to unsettled levels during 24 - 25 May with brief active to minor storm periods at high latitudes. Mostly quiet levels occurred during 26 - 27 May. The increased activity during 22 - 25 May was associated with a recurrent coronal hole high-speed stream (CH HSS). ACE solar wind data indicated a co-rotating interaction region (CIR) on 22 May in advance of the CH HSS. Associated with the CIR were increased IMF Bt (peak 14 nT) and intermittent periods of southward IMF Bz (maximum deflections to -11 nT). The CH HSS commenced on 23 May as wind speeds increased to around 700 km/s. The CH HSS began to gradually subside on 24 May.

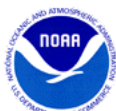
Space Weather Outlook **28 May - 23 June 2012**

Solar activity is expected to be at very low to low levels during the period with a chance for M-class activity during 30 May through 13 June due to the return of old Region 1476 (N10, L=180, class/area Fkc/1050 on 09 May).

A chance for a greater than 10 MeV proton event at geosynchronous orbit exists from 30 May through 13 June due to the return of old Region 1476.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to reach high levels during 28 - 29 May, 06 - 12 June, and 20 - 23 June in response to recurrent CH HSS effects. Normal to moderate levels are expected during the rest of the period.

Geomagnetic field activity is expected to be at quiet to unsettled levels during most of the period. There is a chance for isolated active periods during 4 - 5 June and again during 18 - 19 June due to recurrent 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
21 May	125	120	870	B3.1	0	0	0	3	0	0	0	0
22 May	121	95	780	B3.0	0	0	0	3	0	0	0	0
23 May	117	91	650	B3.1	1	0	0	2	0	0	0	0
24 May	116	96	500	B4.4	3	0	0	3	0	0	0	0
25 May	117	86	530	B4.4	7	0	0	4	0	0	0	0
26 May	110	70	410	B3.6	2	0	0	5	0	0	0	0
27 May	111	83	400	B2.8	1	0	0	2	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
	21 May	5.9e+05	2.0e+04	2.9e+03		7.6e+06
22 May	1.9e+05	1.3e+04	2.8e+03		5.8e+06	
23 May	1.7e+05	1.2e+04	2.8e+03		4.4e+06	
24 May	3.6e+05	1.2e+04	3.0e+03		1.1e+08	
25 May	2.1e+05	1.3e+04	3.0e+03		6.1e+07	
26 May	1.5e+05	1.4e+04	3.1e+03		1.0e+08	
27 May	5.6e+06	5.2e+05	3.1e+03		1.3e+08	

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
	21 May	7	0-1-0-2-2-2-4-2	2	1-1-0-0-0-0-2-1	7
22 May	15	2-4-2-2-4-3-3-3	25	2-4-4-4-5-5-2-2	16	2-4-2-2-3-3-4-3
23 May	13	3-4-3-3-2-2-2-2	25	4-4-5-5-4-2-2-2	18	4-5-4-3-2-2-2-2
24 May	11	2-2-3-1-3-2-3-3	11	2-2-4-3-3-2-1-1	8	2-3-2-2-2-2-2-2
25 May	8	2-1-1-3-3-2-2-1	13	2-2-2-5-3-3-1-1	6	2-2-1-2-2-2-1-1
26 May	5	2-1-1-1-3-1-1-0	4	2-2-1-3-0-0-0-0	4	2-1-1-1-1-1-1-0
27 May	3	1-1-0-1-2-2-1-0	2	1-2-1-0-0-0-0-0	4	1-2-1-1-1-1-1-0

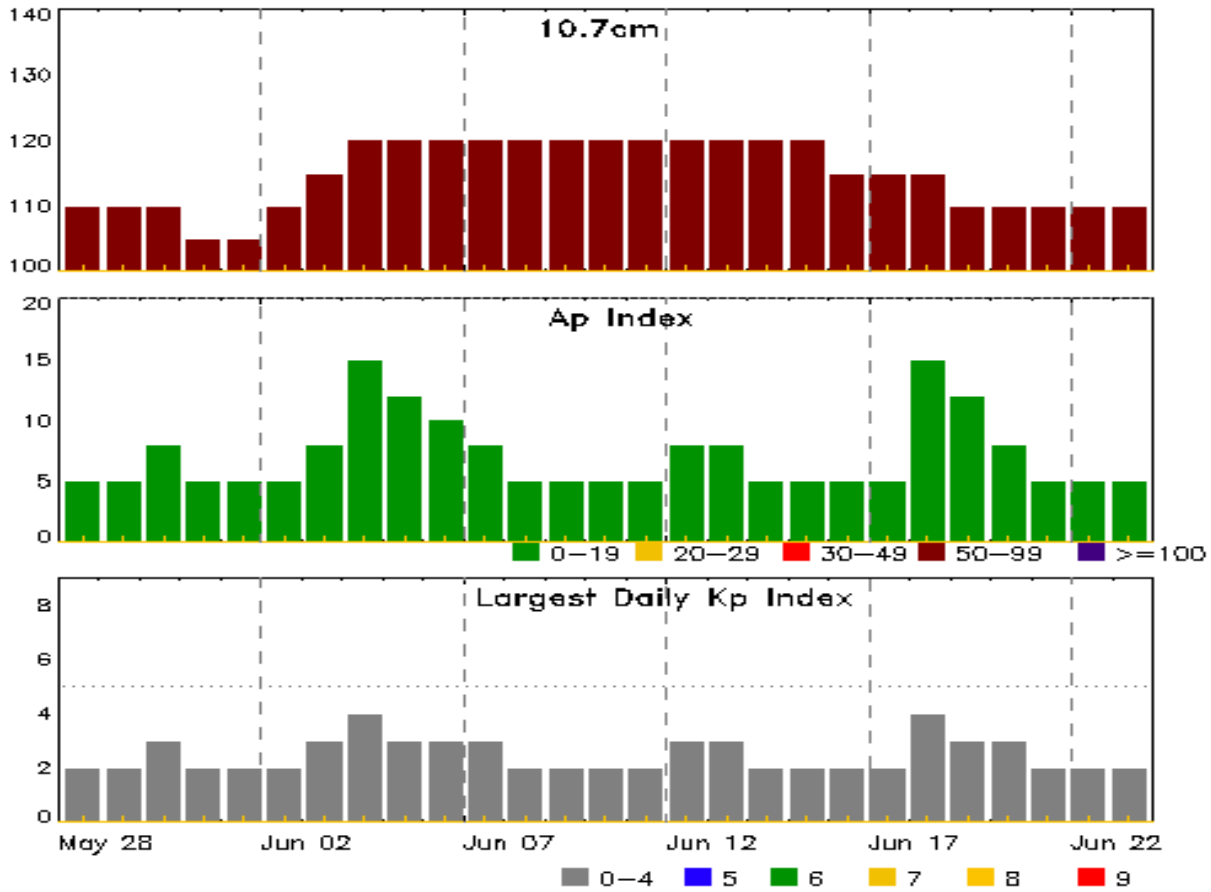


Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
21 May 1855	WARNING: Geomagnetic Sudden Impulse expected	21/1915 - 2015
21 May 1943	WARNING: Geomagnetic K = 4	21/1943 - 22/0400
21 May 1944	SUMMARY: Geomagnetic Sudden Impulse	21/1937
21 May 1948	ALERT: Geomagnetic K = 4	21/1947
22 May 0357	EXTENDED WARNING: Geomagnetic K = 4	21/1943 - 22/1300
22 May 1858	WARNING: Geomagnetic K = 4	22/1857 - 23/0700
22 May 1914	ALERT: Geomagnetic K = 4	22/1912
23 May 0238	WARNING: Geomagnetic K = 5	23/0245 - 0700
23 May 0605	ALERT: Geomagnetic K = 5	23/0600
23 May 0618	EXTENDED WARNING: Geomagnetic K = 4	22/1857 - 23/1500
24 May 1241	ALERT: Electron 2MeV Integral Flux \geq 1000pfu	24/1235
25 May 1457	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	24/1235
25 May 1503	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	24/1235
26 May 1127	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	24/1235
26 May 2123	ALERT: Type II Radio Emission	26/2047
26 May 2212	ALERT: Type IV Radio Emission	26/2102
26 May 2346	WARNING: Proton 10MeV Integral Flux $>$ 10pfu	26/2346 - 27/1200
27 May 0541	ALERT: Proton Event 10MeV Integral Flux \geq 10pfu	27/0505
27 May 0831	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	24/1235
27 May 1155	EXTENDED WARNING: Proton 10MeV Integral Flux $>$ 10pfu	26/2346 - 28/0000
27 May 2104	SUMMARY: Proton Event 10MeV Integral Flux \geq 10pfu	27/0535 - 1235



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
28 May	110	5	2	11 Jun	120	5	2
29	110	5	2	12	120	8	3
30	110	8	3	13	120	8	3
31	105	5	2	14	120	5	2
01 Jun	105	5	2	15	120	5	2
02	110	5	2	16	115	5	2
03	115	8	3	17	115	5	2
04	120	15	4	18	115	15	4
05	120	12	3	19	110	12	3
06	120	10	3	20	110	8	3
07	120	8	3	21	110	5	2
08	120	5	2	22	110	5	2
09	120	5	2	23	110	5	2
10	120	5	2				



Energetic Events

Date	Time			X-ray	Optical Information			Peak		Sweep Freq		
	Begin	Max	Half Max	Class	Integ Flux	Imp/ Brtns	Location Lat CMD	Rgn #	Radio Flux		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				
21 May	1442	1444	1457		SF	N12W23	1484
21 May	1533	1533	1536		SF	N19E32	1486
21 May	1630	1633	1639		SF	N12W23	1484
22 May	0400	0404	0410	B4.8			1485
22 May	0527	0532	0534		SF	N09W34	1484
22 May	0731	0735	0738	B5.9			1484
22 May	1411	1411	1419		SF	S24W64	1483
22 May	2338	2339	2352		SF	N12W43	1484
23 May	0015	0027	0035	C1.2	SF	N11W42	1484
23 May	0140	0145	0149	B9.7	SF	N12E54	1488
23 May	1102	1108	1115	B7.1			1484
24 May	0751	0751	0754		SF	S24W87	1483
24 May	1133	1137	1143	C1.1			
24 May	1447	1456	1506		SF	N22W11	1486
24 May	1607	1611	1615	B9.0			
24 May	1733	1737	1739	B9.8			
24 May	1841	1845	1849	C1.3			
24 May	1956	1958	2014	C3.9	SF	N11E30	1488
25 May	0156	0201	0205	C1.5			
25 May	1009	1014	1022	C1.6			
25 May	1054	1101	1108	C1.2			
25 May	1124	1127	1133	B9.5			
25 May	1549	1555	1605	C1.4	SF	S16E81	
25 May	1829	1830	1832		SF	S15E82	
25 May	1953	1958	2000	C2.0			1492
25 May	2002	2007	2009	C2.0	SF	S14E80	1492
25 May	2304	2308	2320	C1.1	SF	S13E80	1492
26 May	0136	0139	0219	B8.6			
26 May	0438	0442	0444	B8.2			1492
26 May	0459	0501	0503		SF	N21W31	1491
26 May	0539	0542	0544	B5.7			



Flare List

Date	Time			X-ray Class	Optical		
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	Rgn #
26 May	0604	0607	0609	B6.6			
26 May	0905	0914	0918	C1.5			1492
26 May	1110	1114	1118	B6.8			
26 May	1604	1610	1613	C2.7	SF	S13E69	1492
26 May	1826	1829	1832	B5.7	SF	N23W39	1491
26 May	1848	1856	1903	B6.3			
26 May	1912	1912	1912		SF	S15E63	1492
26 May	2126	2129	2132	B5.5	SF	S12E38	1490
26 May	2258	2301	2303	B5.7			
27 May	0250	0258	0305	B8.3			
27 May	0442	0552	0632	C3.1	SF	S13E57	1492
27 May	0619	0624	0635		SF	S13E57	1492



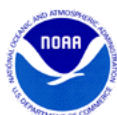
Region Summary

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 1477																		
08 May	S22E73	144	60	3	Hsx	1	A											
09 May	S24E62	140	150	11	Dso	2	B						2					
10 May	S22E47	144	100	2	Hsx	1	A											
11 May	S22E31	145	80	2	Hsx	1	A											
12 May	S21E19	143	40	1	Hsx	1	A											
13 May	S23E07	142	50	2	Hsx	1	A											
14 May	S22W05	142	40	6	Hsx	4	A											
15 May	S22W19	143	30	1	Hsx	1	A											
16 May	S21W32	143	10	2	Axx	1	A											
17 May	S20W45	143	20	1	Hrx	1	A											
18 May	S21W59	144	20	1	Hrx	1	A											
19 May	S22W72	144	20	1	Hrx	1	A											
20 May	S17W85	143	30	2	Hsx	1	A											
								0	0	0	2	0	0	0	0	0		

Crossed West Limb.
 Absolute heliographic longitude: 142

Region 1478																		
10 May	S24E55	135	90	3	Hsx	1	A											
11 May	S24E42	135	60	2	Hsx	1	A											
12 May	S24E30	133	60	2	Hsx	1	A											
13 May	S24E16	134	60	2	Hsx	1	A											
14 May	S24E04	133	70	6	Hsx	4	A											
15 May	S24W10	134	80	2	Hsx	1	A											
16 May	S22W23	134	60	2	Hsx	1	A											
17 May	S22W36	134	60	2	Hsx	1	A											
18 May	S22W50	135	50	2	Hsx	1	A											
19 May	S23W62	134	50	2	Hsx	1	A											
20 May	S24W75	133	60	3	Hsx	1	A											
21 May	S23W88	133	60	2	Hsx	1	A											
								0	0	0	0	0	0	0	0	0	0	

Crossed West Limb.
 Absolute heliographic longitude: 133



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 1479																		
11 May	N15E65	111	90	4	Hsx	1	A											
12 May	N15E57	105	130	10	Dso	3	B											
13 May	N15E40	109	40	3	Hsx	1	A											
14 May	N14E26	110	50	2	Hsx	1	A											
15 May	N13E13	111	50	1	Hsx	1	A											
16 May	N10E01	110	50	3	Cso	3	B											
17 May	N14W12	110	50	2	Hsx	1	A											
18 May	N15W26	111	70	4	Cso	4	B						1					
19 May	N15W39	111	50	1	Hsx	1	A	2					2					
20 May	N14W53	111	50	2	Hsx	2	A											
21 May	N14W66	111	30	1	Hsx	1	A											
22 May	N13W80	112	30	1	Hsx	1	A											
								2	0	0	3	0	0	0	0	0		

Crossed West Limb.
Absolute heliographic longitude: 110

Region 1480

11 May	S16W10	187	10	2	Axx	2	A											
12 May	S16W24	188	plage															
13 May	S16W38	189	plage															
								0	0	0	0	0	0	0	0	0		

Died on Disk.
Absolute heliographic longitude: 187



Region Summary - continued

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

Region 1481

13 May	S10E61	88	40	2	Hsx	1	A										
14 May	S11E47	89	20	1	Hsx	1	A										
15 May	S10E33	90	30	1	Hsx	1	A										
16 May	S10E19	91	10	1	Axx	1	A										
17 May	S10E06	92	10	1	Axx	1	A										
18 May	S10W08	93	plage														
19 May	S10W22	94	plage														
20 May	S10W36	94	plage														
21 May	S10W50	95	plage														
22 May	S10W64	96	plage														
23 May	S10W78	97	plage														
									0	0	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 92

Region 1482

13 May	N14E51	100	80	5	Dso	2	B										
14 May	N14E35	101	50	4	Cso	4	B										
15 May	N14E20	103	70	3	Dai	4	B				4						
16 May	N13E10	101	130	6	Cao	9	B										
17 May	N14W03	101	190	7	Dai	10	B										
18 May	N15W17	102	230	8	Dai	18	B										
19 May	N15W30	102	280	8	Dki	14	B										
20 May	N14W44	102	260	7	Dho	8	B										
21 May	N15W57	102	260	7	Dho	7	B										
22 May	N14W71	103	240	6	Dso	4	B										
23 May	N15W84	103	190	5	Cso	3	B										
									0	0	0	4	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 101



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 1483																		
13 May	S27E51	100	10	1	Bxo	7	B											
14 May	S27E37	101	10	1	Bxo	7	B	2				1						
15 May	S27E23	102	10	1	Axx	7	A											
16 May	S26E13	99	10		Axx	1	A											
17 May	S26W01	99	plage															
18 May	S26W15	100	plage															
19 May	S24W29	101	10	3	Bxo	4	B											
20 May	S25W43	101	50	6	Dso	6	B											
21 May	S25W56	101	30	6	Dro	7	B											
22 May	S25W67	99	10	6	Bxo	4	B					1						
23 May	S24W79	98	30	2	Cro	3	B											
24 May	S25W93	97	10	8	Bxo	5	B					1						
								2	0	0		3	0	0	0	0	0	

Crossed West Limb.
Absolute heliographic longitude: 99

Region 1484																		
13 May	N10E75	75	20	1	Hsx	1	A											
14 May	N10E65	73	10	7	Bxo	2	B											
15 May	N10E50	73	10	8	Bxo	6	B					1						
16 May	N09E38	72	120	8	Dao	9	B	1				2						
17 May	N09E24	74	230	9	Dai	15	B											
18 May	N10E11	74	200	9	Dsi	19	B					2						
19 May	N10W03	75	230	10	Dac	16	B											
20 May	N10W17	75	280	9	Dkc	17	B					2						
21 May	N10W30	75	240	10	Dsi	19	B					2						
22 May	N10W43	75	290	11	Eai	19	B					2						
23 May	N11W56	75	240	11	Eai	13	B	1				1						
24 May	N09W68	72	150	8	Dso	8	B											
25 May	N10W80	72	190	7	Dso	6	B											
								2	0	0		12	0	0	0	0	0	

Crossed West Limb.
Absolute heliographic longitude: 75



Region Summary - continued

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

Region 1485

15 May	S19E65	59	10	4	Axx	2	A					2					
16 May	S20E51	60	10	4	Bxo	4	B										
17 May	S19E37	61	10	5	Bxo	3	B										
18 May	S20E27	58	10	3	Axx	3	A										
19 May	S20E13	59	plage														
20 May	S20W01	59	plage														
21 May	S20W15	60	plage														
22 May	S20W29	61	plage														
23 May	S20W43	62	plage														
24 May	S20W57	63	plage														
25 May	S20W71	63	plage														
									0	0	0	2	0	0	0	0	0

Died on Disk.

Absolute heliographic longitude: 59

Region 1486

18 May	N15E67	17	190	8	Dao	2	B										
19 May	N16E54	18	200	8	Cso	3	B										
20 May	N16E40	18	140	8	Cso	4	B										
21 May	N16E26	19	210	3	Hsx	3	A					1					
22 May	N17E13	19	200	3	Hsx	2	A										
23 May	N16E02	17	180	7	Cso	6	B										
24 May	N18W14	19	110	6	Dso	2	B					1					
25 May	N17W26	18	110	4	Cso	3	B										
26 May	N22W33	18	90	3	Cso	1	B										
27 May	N16W53	18	80	2	Hsx	1	A										
									0	0	0	2	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 17



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 1487																							
20 May	N19W05	63	10	3	Bxo	5	B																
21 May	N18W19	64	10	1	Axx	1	A																
22 May	N18W33	65	plage																				
23 May	N18W47	66	plage																				
24 May	N18W61	67	plage																				
25 May	N18W75	67	plage																				
26 May	N18W89	68	plage																				

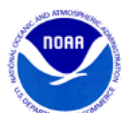
Crossed West Limb.
Absolute heliographic longitude: 63

Region 1488																							
22 May	N12E55	337	10	4	Bxo	5	B																
23 May	N11E41	338	10	6	Bxo	5	B						1										
24 May	N11E27	337	10	4	Bxo	4	B						1										
25 May	N12E13	338	50	6	Dso	5	B																
26 May	N12W00	337	60	6	Dso	6	B																
27 May	N11W13	338	10	5	Bxo	3	B																

Still on Disk.
Absolute heliographic longitude: 337

Region 1489																							
23 May	S30E40	339	0	1	Axx	1	A																
24 May	S30E26	340	0	1	Axx	1	A																
25 May	S30E12	340	plage																				
26 May	S30W02	341	plage																				
27 May	S08E15	341	10	1	Bxo	3	B																

Still on Disk.
Absolute heliographic longitude: 341



Region Summary - continued

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

Region 1490

24 May	S12E58	307	30	5	Cro	3	B										
25 May	S12E45	306	40	5	Dso	3	B										
26 May	S26E15	309	40	4	Dso	4	B					1					
27 May	S12E17	308	70	6	Dso	6	B										
								0	0	0	1	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 309

Region 1491

25 May	N23W29	21	50	4	Dso	6	B										
26 May	N27W38	22	60	5	Dso	4	B					2					
27 May	N22W56	21	40	5	Dso	3	B										
								0	0	0	2	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 21

Region 1492

25 May	S13E65	286	90	6	Cso	3	B	3				2					
26 May	S40E31	283	160	9	Dso	5	B	2				2					
27 May	S14E43	281	190	11	Eao	7	B	1				2					
								6	0	0	6	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 283

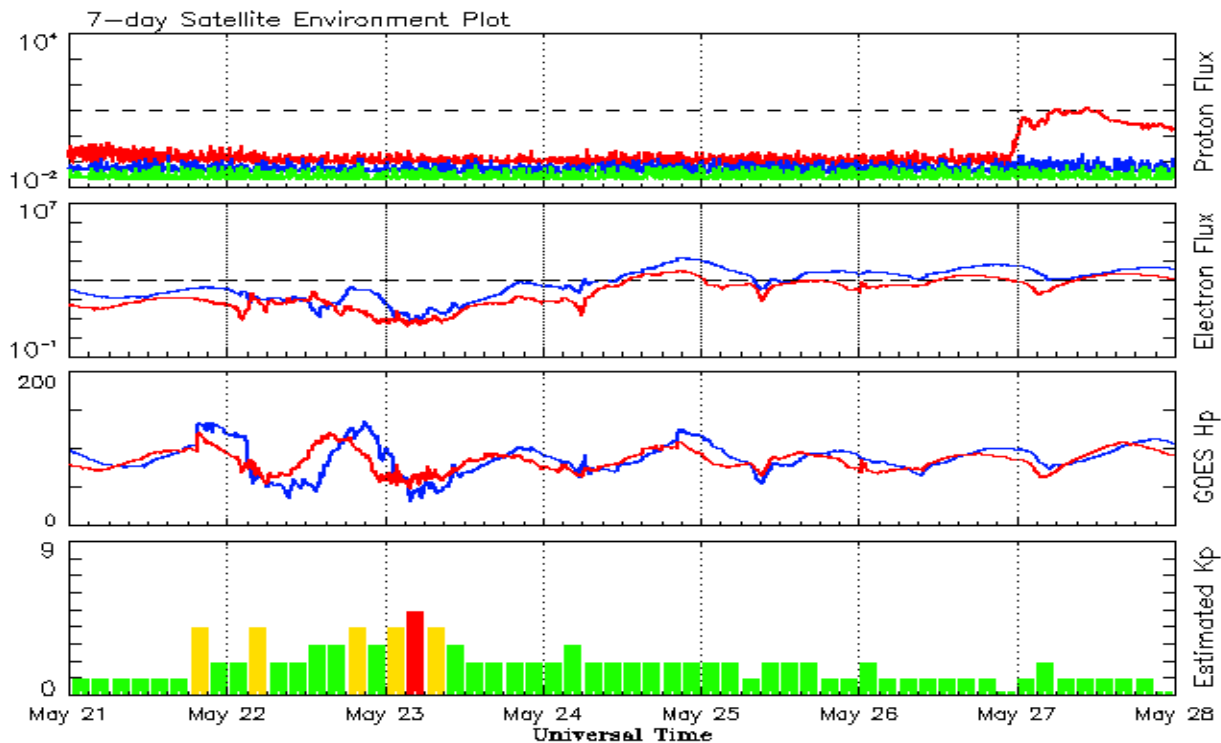


Recent Solar Indices (preliminary)
Observed monthly mean values

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
2010									
May	19.9	8.7	0.44	23.8	15.5	73.8	79.0	8	5.7
June	17.9	13.6	0.75	25.2	16.4	72.6	79.7	7	5.8
July	23.1	16.1	0.70	25.9	16.7	79.9	80.1	5	6.0
August	28.2	19.6	0.70	27.3	17.4	79.7	80.7	8	6.2
September	35.6	25.2	0.71	30.6	19.6	81.1	82.4	5	6.3
October	35.0	23.5	0.67	35.9	23.2	81.6	85.3	6	6.4
November	36.1	21.5	0.60	40.5	26.5	82.5	87.7	5	6.4
December	22.0	14.4	0.66	43.8	28.8	84.3	89.6	4	6.5
2011									
January	32.1	18.8	0.59	47.2	30.9	83.7	91.2	6	6.7
February	53.2	29.6	0.55	50.6	33.4	94.5	92.7	6	6.8
March	81.0	55.8	0.69	55.2	36.9	115.3	95.8	7	7.2
April	81.7	54.4	0.67	61.5	41.8	112.6	100.4	9	7.5
May	61.4	41.5	0.68	69.0	47.6	95.9	105.6	9	7.5
June	55.5	37.0	0.67	76.5	53.2	95.8	110.9	8	7.4
July	67.0	43.8	0.66	82.5	57.2	94.2	115.4	9	7.3
August	66.1	50.6	0.77	84.9	59.0	101.7	117.9	8	7.4
September	106.4	78.0	0.73	84.6	59.5	134.5	118.4	13	7.7
October	116.8	88.0	0.75	84.6	59.9	137.2	118.4	7	8.0
November	133.1	96.7	0.73			153.1		3	
December	106.3	73.0	0.69			141.2		3	
2012									
January	91.3	58.3	0.64			133.1		6	
February	50.1	33.1	0.66			106.7		7	
March	77.9	64.2	0.82			115.1		14	
April	84.4	55.2	0.65			113.1		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 21 May 2012*

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.

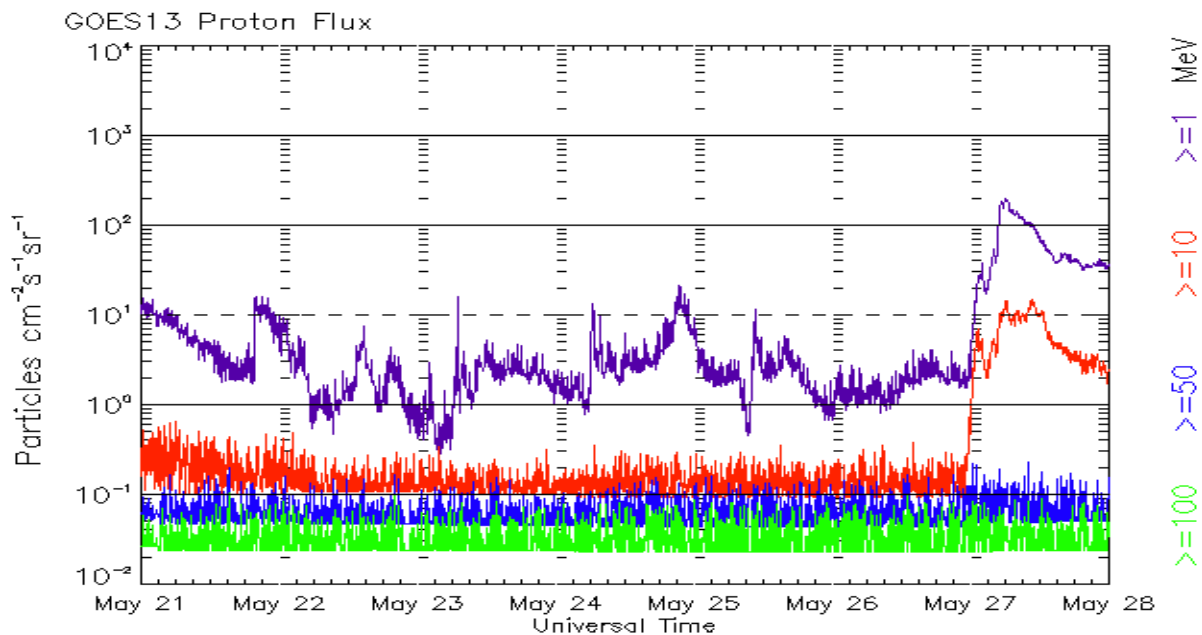
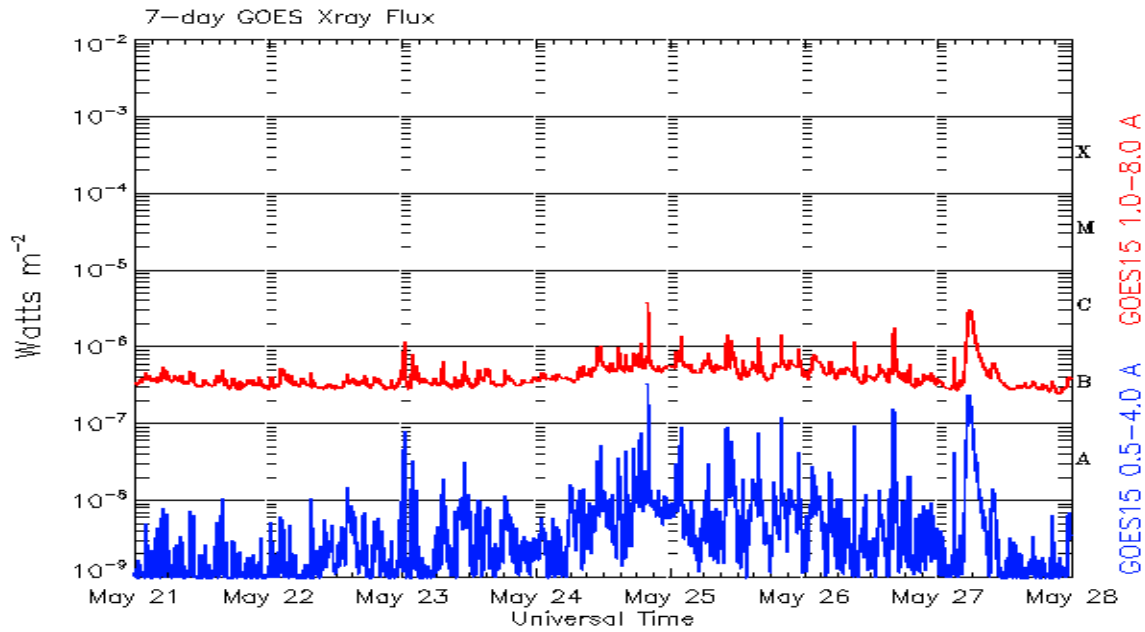
The electron flux plot contains the five-minute averaged integral electron flux (electrons/cm²-sec -sr) with energies greater than 2 MeV by the SWPC Primary GOES satellite.

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 21 May 2012

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.



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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