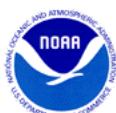


Solar activity ranged from moderate to high levels with Region 2297 (S17, L=196, class/area Dkc/420 on 13 March) responsible for all the M-class and X-class activity. High levels were observed from 09-12 March as Region 2297 produced several greater than M5 flares during this time period including an X2/2b flare at 11/1622 UTC with an associated Tenflare (160 sfu), Type II (1461 km/s) and IV radio sweeps, and a non-Earth directed coronal mass ejection (CME). Also, on 11 March was a 22 degree long filament eruption, centered near N16W30 that lifted off the visible disk between 11/0625-0815 UTC that produced a partially Earth directed CME visible in SOHO/LASCO C2 imagery at 11/0848 UTC. By 13 March through the end of the period, solar activity declined to moderate levels as Region 2297 underwent decay. On 15 March, a sequence of events led to an Earth directed asymmetric halo CME. The events began with a 14 degree long filament eruption, centered near S24W38, lifting off between 15/0045-0200 UTC. This was followed by a C2/Sf flare at 15/0041 UTC and a long duration C9/1f flare at 15/0213 UTC, both from Region 2297. Associated with the C9 flare were low-frequency radio emissions including Type II (745 km/s) and Type IV radio sweeps. WSA/ENLIL modelling showed an approximate arrival time around 17/2000 UTC. Altogether, Region 2297 produced 83 C-flares, 20 M-flares, and 1 X-flare during its transit to date.

A greater than 10 MeV proton enhancement was observed at geosynchronous orbit on 15 March beginning around 15/0300 UTC and reaching a maximum flux level of 4 pfu at 15/0940 UTC before slowly receding to the 1 pfu level by the end of the period. The enhancement was the result of the combination of a filament eruption and C9 flare activity from Region 2297 early on 15 March.

The greater than 2 MeV electron flux at geosynchronous orbit was at high levels on 09 and 10 March reaching a maximum flux level of 1,150 pfu at 09/1840 UTC. Moderate levels were observed from 11-13 March, while normal levels were observed from 14-15 March.

Geomagnetic field activity was mostly quiet to unsettled levels during the period. Solar wind speed was in decline at the beginning of the period from initial values near 570 km/s. By 10 March, solar wind speed was near 400 km/s with total field measurement between 4 and 7 nT. Solar wind conditions continued under a nominal solar wind regime through the rest of the period with only minor enhancements in total field measurements to 11 nT. By late on 14 March, a solar sector boundary crossing was observed at 14/2138 UTC switching from a mostly positive into a negative sector. By 15 March, a brief enhancement of the total field was observed at 15/1727 UTC to 15 nT. This enhancement was possibly a glancing blow that was expected from the 11 March CME. The geomagnetic field was mostly quiet to unsettled throughout with quiet conditions observed on 10 and 14 March.



Space Weather Outlook 16 March - 11 April 2015

Solar activity is expected to continue at moderate levels until 19 March when Region 2297 transits off the visible disk. Conditions are expected to decrease to very low to low levels through 31 March. By 01 April and through the rest of the forecast period, the return of Region 2297 is expected to increase activity to low levels with a chance for M-class activity.

A chance for a greater than 10 MeV proton event exists from 16-21 March due to further potential significant flare activity from Region 2297 as well as a possible enhancement of the proton flux levels when the 15 March CME arrives late on 17 March.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at high levels from 20-25 March, 28-31 March, and again from 03-05 April due to recurrent coronal hole high speed stream (CH HSS) activity.

Geomagnetic field activity is expected to be at unsettled to active levels with minor storm periods likely on 18 March due to a combination of CH HSS effects as well as the arrival of the 15 March CME by mid to late on 17 March. Unsettled to active periods are also likely from 22-24 March, 27-31 March, and 02-04 April with minor storming possible on 28-29 March due to recurrent CH HSS activity.



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 March	123	29	260	B5.0	13	2	0	14	6	1	0	0
10 March	121	42	280	B5.4	13	2	0	21	0	1	0	0
11 March	132	42	360	B6.8	14	3	1	8	3	1	0	0
12 March	127	56	360	B9.5	10	5	0	0	0	1	0	0
13 March	119	87	470	B4.8	6	2	0	4	0	0	0	0
14 March	116	56	350	B4.1	12	1	0	13	1	1	0	0
15 March	114	54	390	B4.6	7	2	0	11	2	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 March	3.6e+05	1.1e+04	2.7e+03		5.3e+07
10 March	4.5e+05	1.1e+04	2.6e+03		5.6e+07	
11 March	1.3e+06	1.3e+04	2.6e+03		2.3e+07	
12 March	5.0e+06	1.4e+04	2.3e+03		3.9e+06	
13 March	2.6e+06	1.2e+04	2.5e+03		2.5e+06	
14 March	2.6e+06	1.2e+04	2.5e+03		7.6e+05	
15 March	7.6e+06	1.2e+05	2.5e+03		9.9e+05	

Daily Geomagnetic Data

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



Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
09 Mar 1758	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	08/1455
09 Mar 1815	ALERT: Type II Radio Emission	09/1744
09 Mar 1832	ALERT: Type IV Radio Emission	09/1753
09 Mar 2350	ALERT: X-ray Flux exceeded M5	09/2348
10 Mar 0017	SUMMARY: X-ray Event exceeded M5	09/2329 - 10/0012
10 Mar 0021	ALERT: Type IV Radio Emission	09/2346
10 Mar 0055	SUMMARY: 10cm Radio Burst	10/0009 - 0026
10 Mar 0056	ALERT: Type II Radio Emission	10/0005
10 Mar 0324	ALERT: X-ray Flux exceeded M5	10/0323
10 Mar 0333	SUMMARY: X-ray Event exceeded M5	10/0319 - 0328
10 Mar 0342	SUMMARY: 10cm Radio Burst	10/0321 - 0321
10 Mar 0343	ALERT: Type IV Radio Emission	10/0326
10 Mar 1713	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	08/1455
10 Mar 1805	WATCH: Geomagnetic Storm Category G1 predicted	
11 Mar 0155	ALERT: Type II Radio Emission	11/0003
11 Mar 0155	ALERT: Type IV Radio Emission	11/0005
11 Mar 0157	SUMMARY: 10cm Radio Burst	11/0000 - 0001
11 Mar 0643	WARNING: Geomagnetic K = 4	11/0645 - 1400
11 Mar 1619	ALERT: X-ray Flux exceeded M5	11/1617
11 Mar 1700	ALERT: Type II Radio Emission	11/1623
11 Mar 1701	ALERT: Type IV Radio Emission	11/1638
11 Mar 1704	SUMMARY: 10cm Radio Burst	11/1618 - 1621
11 Mar 1710	SUMMARY: X-ray Event exceeded X1	11/1611 - 1629
12 Mar 0309	ALERT: Type II Radio Emission	12/0221
12 Mar 0516	WARNING: Geomagnetic K = 4	12/0515 - 1400
12 Mar 1422	WATCH: Geomagnetic Storm Category G1 predicted	
12 Mar 1457	ALERT: Type IV Radio Emission	12/1407
12 Mar 1819	SUMMARY: 10cm Radio Burst	12/1208 - 1214

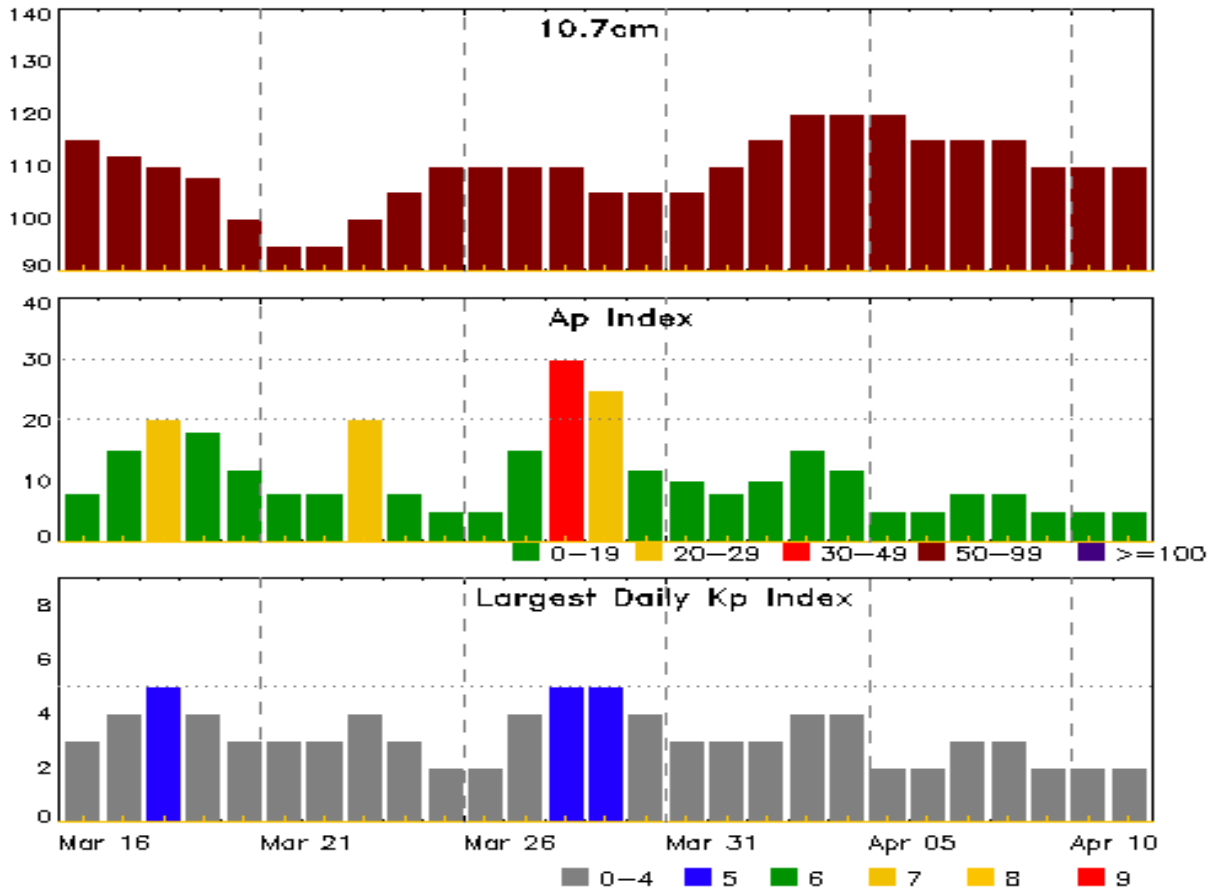


Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
12 Mar 2204	SUMMARY: 10cm Radio Burst	12/2148 - 2149
13 Mar 1310	WARNING: Geomagnetic K = 4	13/1310 - 2200
15 Mar 0206	ALERT: Type II Radio Emission	15/0127
15 Mar 0207	ALERT: Type IV Radio Emission	15/0127
15 Mar 1329	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
16 Mar	115	8	3	30 Mar	105	12	4
17	112	15	4	31	105	10	3
18	110	20	5	01 Apr	110	8	3
19	108	18	4	02	115	10	3
20	100	12	3	03	120	15	4
21	95	8	3	04	120	12	4
22	95	8	3	05	120	5	2
23	100	20	4	06	115	5	2
24	105	8	3	07	115	8	3
25	110	5	2	08	115	8	3
26	110	5	2	09	110	5	2
27	110	15	4	10	110	5	2
28	110	30	5	11	110	5	2
29	105	25	5				

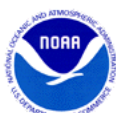


Energetic Events

Date	Time			X-ray		Optical Information			Peak		Sweep Freq	
	Begin	Max	Half	Class	Integ	Imp/ Brtns	Location Lat CMD	Rgn #	Radio Flux		Intensity	
			Max		Flux				245	2695	II	IV
09 Mar	1422	1433	1437	M4.5	0.016	1N	S15E49	2297	130			
09 Mar	2329	2353	0012	M5.8	0.085	2N	S18E45	2297	240	170	2	2
10 Mar	0319	0324	0328	M5.1	0.017	2B	S15E40	2297	910	130	1	1
10 Mar	2346	0002	0006	M2.9	0.010	SF	S16E28	2297			1	
11 Mar	0710	0718	0743	M1.8	0.022	1B	S16E26	2297		57		
11 Mar	0751	0757	0803	M2.6	0.013			2297	590			
11 Mar	1611	1622	1629	X2.1	0.120	2B	S17E21	2297	360	160	2	
11 Mar	1837	1851	1857	M1.0	0.006	1N	S16E18	2297		77		
12 Mar	0441	0446	0450	M3.2	0.011			2297				
12 Mar	1138	1150	1202	M1.6	0.015			2297	130			
12 Mar	1209	1214	1218	M1.4	0.005			2297		220		
12 Mar	1350	1408	1413	M4.2	0.021	2B	S15E06	2297	2300	53		1
12 Mar	2144	2151	2156	M2.7	0.012			2297	530	230	1	
13 Mar	0347	0401	0416	M1.2	0.014			2297				
13 Mar	0549	0607	0612	M1.8	0.013			2297	280			
14 Mar	0423	0440	0454	M1.3	0.014	2N	S14W12	2297				
15 Mar	0936	0940	0946	M1.0	0.004	SN	S20W24	2297				
15 Mar	2242	2322	2338	M1.2	0.027							

Flare List

Date	Time			X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
	Begin	Max	End				
09 Mar	0000	0014	0040		1B	S16E58	2297
09 Mar	0003	0006	0009	C1.1			2297
09 Mar	0012	0015	0017	C3.0			2297
09 Mar	0055	U0114	0131	C1.8	1F	S16E58	2297
09 Mar	0231	0231	0231		SF	S16E57	2297
09 Mar	0235	0253	0309	C1.5	SF	S16E57	2297
09 Mar	0310	0321	0333		SF	S16E57	2297
09 Mar	0336	0338	0340		SF	S16E55	2297
09 Mar	0402	0403	0407		SF	S16E55	2297
09 Mar	0416	0420	0424	C1.3			
09 Mar	0417	0421	0441	C2.7	SF	S17E53	2297
09 Mar	0448	0455	0456		SF	S17E53	2297
09 Mar	0517	0527	0529		SF	S16E55	2297



Flare List

Date	Time			X-ray Class	Imp/ Brtns	Optical		Rgn #
	Begin	Max	End			Location Lat CMD		
09 Mar	0543	0602	0627	C2.9	1F	S15E48		2297
09 Mar	0729	0730	0732		SF	S15E53		2297
09 Mar	1002	1008	1016	C4.0	1N	S14E50		2297
09 Mar	1113	1117	1121	C1.1	SF	S14E51		2297
09 Mar	1213	U1237	1247	B7.9	SF	S14E50		2297
09 Mar	1342	1348	1406		SF	S14E49		2297
09 Mar	1418	1434	1455	M4.5	1N	S15E49		2297
09 Mar	1736	1742	1752	C9.1	1N	S13E46		2297
09 Mar	1815	1819	1821	B8.2				
09 Mar	1848	1901	1905	B7.3	SF	S17E44		2297
09 Mar	2205	2211	2215	C1.3				
09 Mar	2219	2225	2237	C1.2				
09 Mar	2300	2311	2314	C1.6	SF	S16E43		2297
09 Mar	2329	2353	0012	M5.8	2N	S18E45		2297
10 Mar	0319	0324	0328	M5.1	2B	S15E40		2297
10 Mar	0408	0413	0419	C1.3	SF	S16E41		2297
10 Mar	0421	0425	0428	C4.5	SF	S16E42		2297
10 Mar	0556	0557	0601		SF	S16E41		2297
10 Mar	0628	0637	0642	C1.4	SF	S16E40		2297
10 Mar	0647	0650	0653	C1.4	SF	S16E39		2297
10 Mar	0718	0727	0729	C2.7	SF	S15E37		2297
10 Mar	0846	0852	0858	C1.5	SF	S15E37		2297
10 Mar	0927	0927	0930		SF	S15E38		2297
10 Mar	0948	0949	1029		SF	S18E34		2297
10 Mar	1151	1155	1158	B8.0	SF	S15E35		2297
10 Mar	1241	1245	1251	B7.9	SF	S17E34		2297
10 Mar	B1256	U1257	A1304		SF	S16E34		2297
10 Mar	1305	1310	1314	C1.0				2297
10 Mar	1344	1351	1356	B9.7	SF	S15E35		2297
10 Mar	1421	1422	1425		SF	S15E34		2297
10 Mar	B1455	U1524	A1527	C1.2	SF	S18E33		2297
10 Mar	1530	1530	1534		SF	S18E34		2297
10 Mar	1715	1718	1721	C1.1				2297
10 Mar	1914	1918	1921	B9.4				2297
10 Mar	2038	2056	2111	C4.7	SF	S17E31		2297
10 Mar	2214	2219	2222	C1.3	SF	S20E29		2297
10 Mar	2300	2312	2318	C2.3	SF	S16E28		2297
10 Mar	2319	2327	2332	C3.3	SF	S17E31		2297



Flare List

Date	Time			X-ray Class	Imp/ Brtns	Optical		Rgn #
	Begin	Max	End			Location Lat CMD		
10 Mar	2346	0002	0006	M2.9	SF	S16E28		2297
11 Mar	0116	0119	0123	C1.1				2297
11 Mar	0212	0219	0225	C2.8	SF	S17E29		2297
11 Mar	0426	0428	0429		SF	S16E27		2297
11 Mar	0447	0503	0511	C4.5	SF	S16E26		2297
11 Mar	0511	0515	0518	C4.0				
11 Mar	0545	0607	0619	C1.3	SF	S16E25		2297
11 Mar	0605	0609	0614	C2.7				2297
11 Mar	0645	0648	0651	C1.0	SF	S20E25		2297
11 Mar	0710	0718	0743	M1.8	1B	S16E26		2297
11 Mar	0751	0757	0803	M2.6				2297
11 Mar	B0813	U0813	A0816		SF	S14E26		2297
11 Mar	B0917	U0923	A0946	C1.8	SF	S15E25		2297
11 Mar	1121	1134	1201	C5.8	1F	S15E25		2297
11 Mar	1305	1316	1323	C2.3	SF	S16E24		2297
11 Mar	1401	1620	1809		2B	S17E21		2297
11 Mar	1430	1438	1446	C2.0				
11 Mar	1515	1526	1538	C1.7				2297
11 Mar	1611	1622	1629	X2.1				2297
11 Mar	1837	1851	1857	M1.0	1N	S16E18		2297
11 Mar	2208	2219	2237	C7.8				2297
11 Mar	2332	2345	2355	C6.7				2297
12 Mar	0210	0218	0225	C7.1				2299
12 Mar	0318	0323	0339	C5.7				2297
12 Mar	0441	0446	0450	M3.2				2297
12 Mar	0726	0733	0741	C2.7				2297
12 Mar	0809	0815	0825	C4.3				2297
12 Mar	0859	0914	0946	C8.4				2297
12 Mar	1138	1150	1202	M1.6				2297
12 Mar	1209	1214	1218	M1.4				2297
12 Mar	1345	1404	1433	M4.2	2B	S15E06		2297
12 Mar	1759	1803	1813	B9.0				2297
12 Mar	1948	1951	1953	C1.6				2299
12 Mar	2024	2034	2048	C4.8				2297
12 Mar	2144	2151	2156	M2.7				2297
12 Mar	2233	2238	2244	C3.6				2297
12 Mar	2254	2258	2302	C3.4				2297
12 Mar	2324	2331	2339	C1.9				2297



Flare List

Date	Time			X-ray Class	Optical		Rgn #
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	
13 Mar	0102	0107	0113	C2.0			2297
13 Mar	0347	0401	0416	M1.2			2297
13 Mar	0549	0607	0612	M1.8			2297
13 Mar	0732	0737	0740	C6.9	SF	S16W01	2297
13 Mar	0800	U0803	0820		SF	S16W01	2297
13 Mar	1050	1054	1059	C1.6	SF	S15W05	2297
13 Mar	1107	1123	1147	C1.9			2297
13 Mar	1543	1549	1621		SF	S17W04	2297
13 Mar	2036	2046	2055	C6.2			2297
13 Mar	2207	2219	2231	C2.0			2297
14 Mar	0144	0153	0206	C2.3			2297
14 Mar	0404	0410	0417	C1.3			2297
14 Mar	0423	0440	0454	M1.3	2N	S14W12	2297
14 Mar	0603	0608	0613	C1.4	SF	S17W14	2297
14 Mar	0629	0631	0636		SF	S19W09	2297
14 Mar	0756	0802	0806	C1.3	SF	S17W15	2297
14 Mar	0811	0824	0835	C2.1			2297
14 Mar	1144	1155	1224	C2.6	SF	S21W20	2297
14 Mar	1321	1326	1330	C1.7	SF	S16W19	2297
14 Mar	1517	1521	1526	B7.3	SF	S20W14	2297
14 Mar	1625	1629	1632	B5.7	SF	S20W15	2297
14 Mar	1725	1726	1732		SF	S15W19	2297
14 Mar	1733	1736	1742		SF	S15W19	2297
14 Mar	1749	1754	1757		SF	S16W19	2297
14 Mar	1806	1808	1830		SF	S23W17	2297
14 Mar	1835	1845	2126	C5.3	1F	S23W17	2297
14 Mar	1912	1916	1921	C1.4			2297
14 Mar	2041	2048	2056	C1.6			2297
14 Mar	2215	2219	2222	C1.1			2297
14 Mar	2307	2314	2324	C1.9	SF	S16W25	2297
14 Mar	2333	2333	2338		SF	S16W26	2297
15 Mar	0035	0038	0049	C2.4	SF	S16W26	2297
15 Mar	0115	0213	0320	C9.1	1F	S22W25	2297
15 Mar	0329	0332	0336		SF	S16W23	2297
15 Mar	0412	0422	0442		SF	S15W26	2297
15 Mar	0442	0442	0448		SF	S17W22	2297
15 Mar	0716	0720	0803		SF	S17W27	2297
15 Mar	0920	0930	0935	B9.3			2297



Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/Brtns	Location Lat CMD	Rgn #
15 Mar	0936	0940	0946	M1.0	SN	S20W24	2297
15 Mar	1017	1023	1027	C1.3	SF	S19W25	2297
15 Mar	1131	1203	1220	C6.8	1N	S21W25	2297
15 Mar	1303	1306	1309	C2.4	SF	S18W32	2297
15 Mar	1401	1406	1409	C1.2	SF	S17W33	2297
15 Mar	1643	1646	1659		SF	S19W06	2301
15 Mar	2144	2149	2153	C1.0	SF	S17W39	2297
15 Mar	2242	2322	2338	M1.2			



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

Region 2296

06 Mar	S11E24	252	10	2	Bxo	2	B											
07 Mar	S11E10	253	plage															
08 Mar	S11W04	254	plage															
09 Mar	S11W18	255	plage															
10 Mar	S11W32	255	plage															
11 Mar	S12W45	255	plage															
12 Mar	S12W59	256	plage															
13 Mar	S12W73	256	plage															
14 Mar	S12W87	258	plage															
										0	0	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 254

Region 2297

05 Mar	S17E95	195	plage					3	1									
06 Mar	S17E81	195	30	3	Hrx	1	A	6	2		1							
07 Mar	S17E66	197	180	9	Dsi	10	BG	4	1		2							
08 Mar	S17E52	198	260	10	Dhc	13	BGD	2			5	2						
09 Mar	S16E39	196	260	10	Dac	19	BD	10	2		14	6	1					
10 Mar	S16E26	197	280	10	Dkc	32	BGD	13	2		21		1					
11 Mar	S16E14	196	350	8	Dkc	19	BGD	12	3	1	8	3	1					
12 Mar	S16W00	197	340	9	Dkc	20	BGD	8	5				1					
13 Mar	S17W13	196	420	10	Dkc	23	BGD	6	2		4							
14 Mar	S17W25	196	320	13	Ekc	21	BGD	12	1		13	1	1					
15 Mar	S18W38	195	370	13	Ekc	21	BGD	7	1		10	2						
										83	20	1	78	14	5	0	0	

Still on Disk.

Absolute heliographic longitude: 197

Region 2298

11 Mar	S11W38	248	10	3	Bxo	3	B											
12 Mar	S11W52	249	10	4	Cro	3	B											
13 Mar	S11W66	249	10	5	Axx	3	A											
14 Mar	S11W80	251	plage															
										0	0	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 248



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

Region 2299

12 Mar	S07E60	137	10	2	Cro	3	B	2									
13 Mar	S07E47	136	10	5	Bxo	4	B										
14 Mar	S05E32	139	10	1	Axx	1	A										
15 Mar	S05E19	138	10	1	Axx	1	A										
								2	0	0	0	0	0	0	0	0	

Still on Disk.

Absolute heliographic longitude: 138

Region 2300

13 Mar	N13W51	234	10	3	Bxo	3	B										
14 Mar	N13W63	234	plage														
15 Mar	N13W77	234	plage														
								0	0	0	0	0	0	0	0	0	

Still on Disk.

Absolute heliographic longitude: 234

Region 2301

13 Mar	S16E13	170	20	3	Cro	4	B										
14 Mar	S16W00	171	20	3	Cro	4	B										
15 Mar	S17W13	170	10	2	Bxo	2	B				1						
								0	0	0	1	0	0	0	0	0	

Still on Disk.

Absolute heliographic longitude: 171

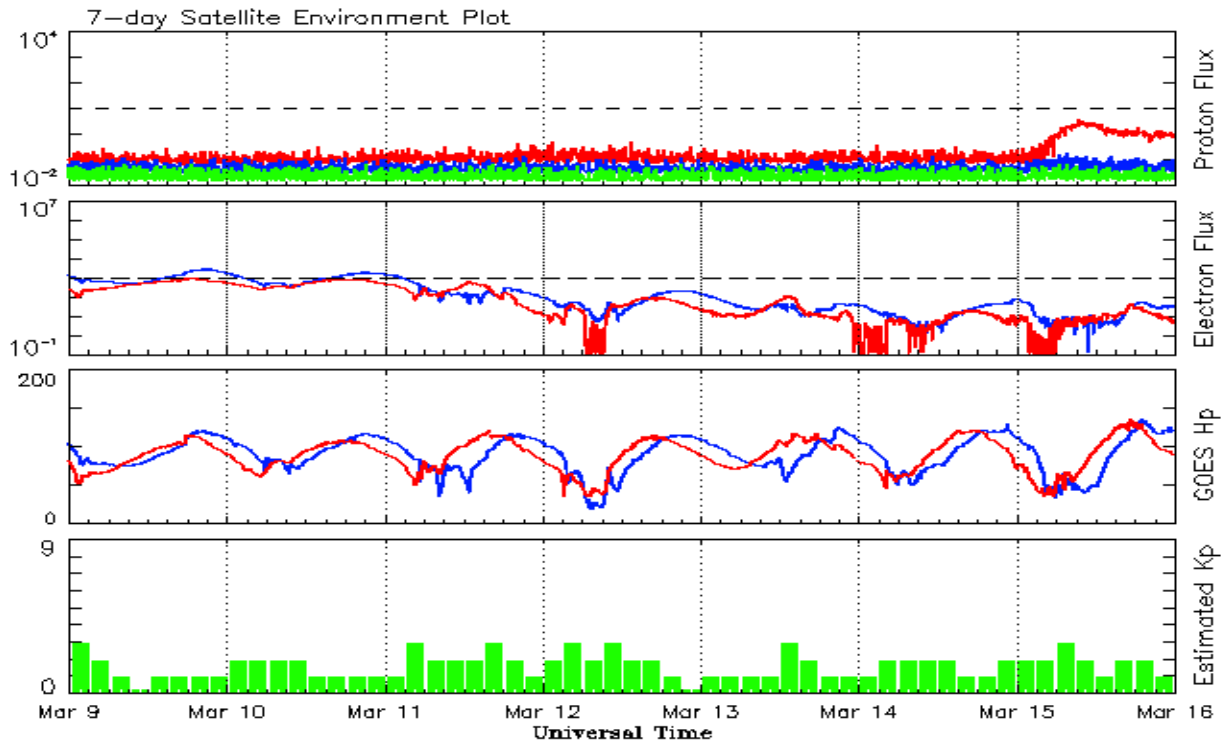


Recent Solar Indices (preliminary)
Observed monthly mean values

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
2013									
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	68.9	114.7	127.9	9	7.6
September	55.0	37.0	0.67	111.0	73.0	102.7	132.3	5	7.8
October	127.1	85.6	0.67	114.3	74.9	132.3	134.7	7	7.8
November	125.7	77.6	0.62	114.6	75.3	148.4	135.4	5	7.9
December	118.2	90.3	0.76	115.4	75.9	147.7	135.9	5	7.5
2014									
January	125.9	81.8	0.65	117.7	77.3	158.6	137.3	6	7.1
February	174.6	102.3	0.59	119.5	78.3	170.3	138.6	12	6.9
March	141.1	91.9	0.65	123.2	80.8	149.9	140.8	6	7.2
April	130.5	84.7	0.65	124.8	81.9	144.3	143.5	9	7.5
May	116.8	75.2	0.64	122.3	80.5	130.0	144.7	7	7.9
June	107.7	71.0	0.66	121.4	79.7	122.2	145.5	7	8.4
July	113.6	72.4	0.64	120.4	78.6	137.3	145.2	5	8.8
August	106.2	74.6	0.70	115.1	75.6	124.7	142.8	9	8.9
September	127.4	87.6	0.69			146.1		11	
October	92.0	60.6	0.66			153.7		10	
November	101.8	70.1	0.69			155.3		10	
December	120.0	78.0	0.65			158.7		12	
2015									
January	101.2	67.0	0.66			141.7		10	
February	70.6	44.8	0.63			128.8		10	

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 March 2015*

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.

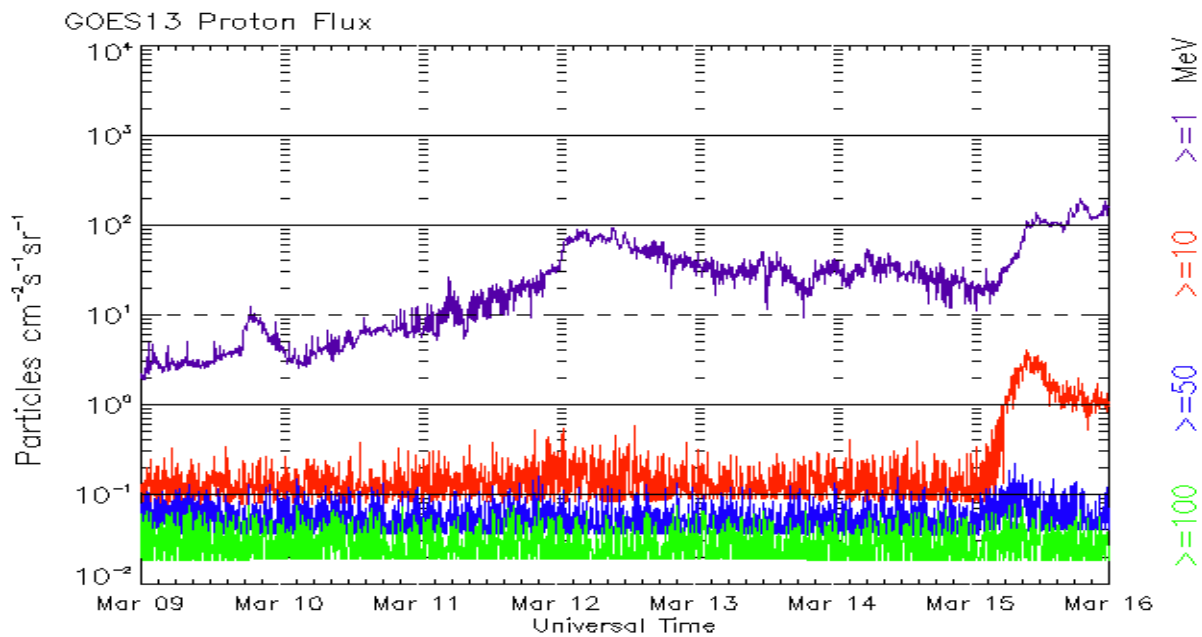
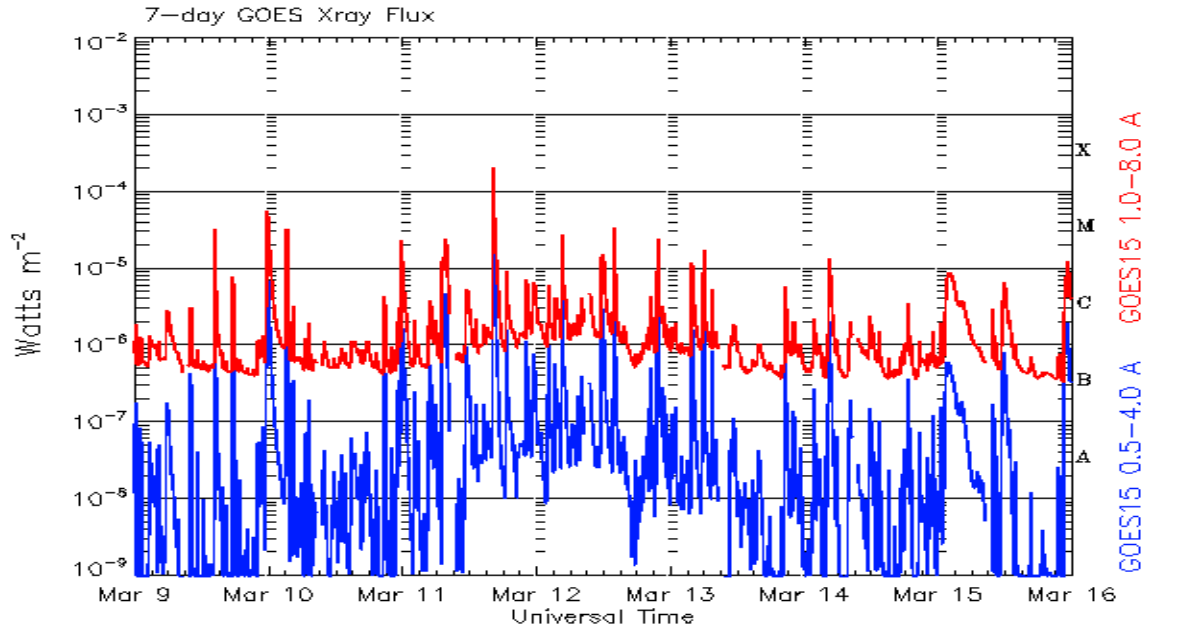
The electron flux plot contains the five-minute averaged integral electron flux (electrons/cm²-sec -sr) with energies greater than 2 MeV by the SWPC Primary GOES satellite.

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 March 2015*

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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