

Solar activity ranged from low to high levels. Activity was high during 22 - 23 October due to two major flares from Region 1598 (S11, L=113, class/area Dki/420 on 23 October). The first was an impulsive M5/1f at 22/1851 UTC and the second was an impulsive X1 at 23/0317 UTC associated with a Type II radio sweep and a 620 sfu Tenflare. Region 1598 displayed a delta magnetic configuration within its trailer spots during 23 - 27 October. It showed gradual trailer spot decay beginning 24 October. Activity dropped to low levels during 24 - 28 with low-level C-class flares, most of which were from Regions 1598 and 1594 (S26, L=200, class/area Dao/090 on 16 October). Two Earth-directed coronal mass ejections (CMEs) occurred on 27 October. The CMEs were closely spaced in time and appeared to be associated with a B9/Sf flare at 27/1235 UTC from Region 1598.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at high levels during most of the period with moderate levels observed on 27 October.

Geomagnetic field activity was at quiet levels throughout the period.

Space Weather Outlook **29 October - 24 November 2012**

Solar activity is expected to be low during the period with a slight chance for M-class flares during 29 October - 02 November and 15 - 24 November.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at normal to moderate levels during 29 October - 04 November. High flux levels are expected during 05 - 24 November.

Geomagnetic field activity is expected to be at quiet levels during 29 - 30 October. An increase to quiet to unsettled levels is expected late on 31 October, with a chance for active levels, due to the arrival of the CMEs observed on 27 October. A further increase to active levels is expected on 01 November, with a chance for minor storm periods, as CME effects continue. Field activity is expected to decrease to unsettled to active levels on 02 November as CME effects gradually subside and a coronal hole high-speed stream (CH HSS) begins to disturb the field. Activity is expected to decrease to quiet to unsettled levels on 03 November as CH HSS effects subside. Quiet conditions are expected during 04 - 07 November. An increase to unsettled levels is predicted for 08 November, due to a solar sector boundary crossing followed by a co-rotating interaction region in advance of a CH HSS. A further increase to active levels is expected on 09 November, with a chance for minor storm periods, due to a CH HSS. Activity is expected to decrease to quiet to active levels on 10 November as CH HSS effects subside. Quiet levels are expected during 11 - 24 November.



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
22 October	156	86	800	B5.8	4	1	0	2	1	0	0	0
23 October	142	84	910	B5.8	6	0	1	4	0	0	0	0
24 October	136	78	880	B4.7	7	0	0	5	0	0	0	0
25 October	130	58	700	B3.8	2	0	0	6	0	0	0	0
26 October	131	71	730	B5.1	8	0	0	4	0	0	0	0
27 October	122	59	630	B3.9	1	0	0	1	0	0	0	0
28 October	117	55	460	B3.2	1	0	0	1	0	0	0	0

Daily Particle Data

Date	Proton Fluence (protons/cm ² -day -sr)			Electron Fluence (electrons/cm ² -day -sr)		
	>1 MeV	>10 MeV	>100 MeV	>0.6 MeV	>2MeV	>4 MeV
	22 October	2.1e+06	1.2e+04	2.7e+03		4.2e+08
23 October	1.0e+06	1.2e+04	2.8e+03		1.7e+08	
24 October	3.1e+05	1.2e+04	2.8e+03		9.7e+07	
25 October	3.1e+05	1.1e+04	2.8e+03		9.4e+07	
26 October	4.7e+05	1.1e+04	2.7e+03		1.1e+08	
27 October	1.2e+05	1.1e+04	2.7e+03		2.7e+07	
28 October	1.9e+05	1.2e+04	2.8e+03		4.7e+07	

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
	22 October	2	1-0-0-0-1-1-2-1	0	0-0-0-0-0-0-0-1	3
23 October	9	2-3-2-1-3-2-2-2	13	1-2-2-5-3-2-2-2	7	2-2-2-2-2-2-2-2
24 October	3	1-2-1-1-1-1-0-0	5	1-1-2-3-2-1-0-0	4	1-2-1-1-1-1-0-0
25 October	3	1-1-1-1-2-1-0-1	2	0-0-1-3-0-0-0-0	4	1-1-1-1-1-1-1-1
26 October	4	0-0-2-1-2-2-1-1	2	0-0-2-1-0-2-0-0	4	0-0-2-1-1-2-1-1
27 October	3	1-1-1-1-1-0-1-1	3	1-0-2-2-0-1-0-0	4	1-1-1-1-1-1-0-1
28 October	3	0-0-2-1-2-1-1-0	5	0-0-2-3-3-1-0-0	3	0-0-2-1-1-1-1-0

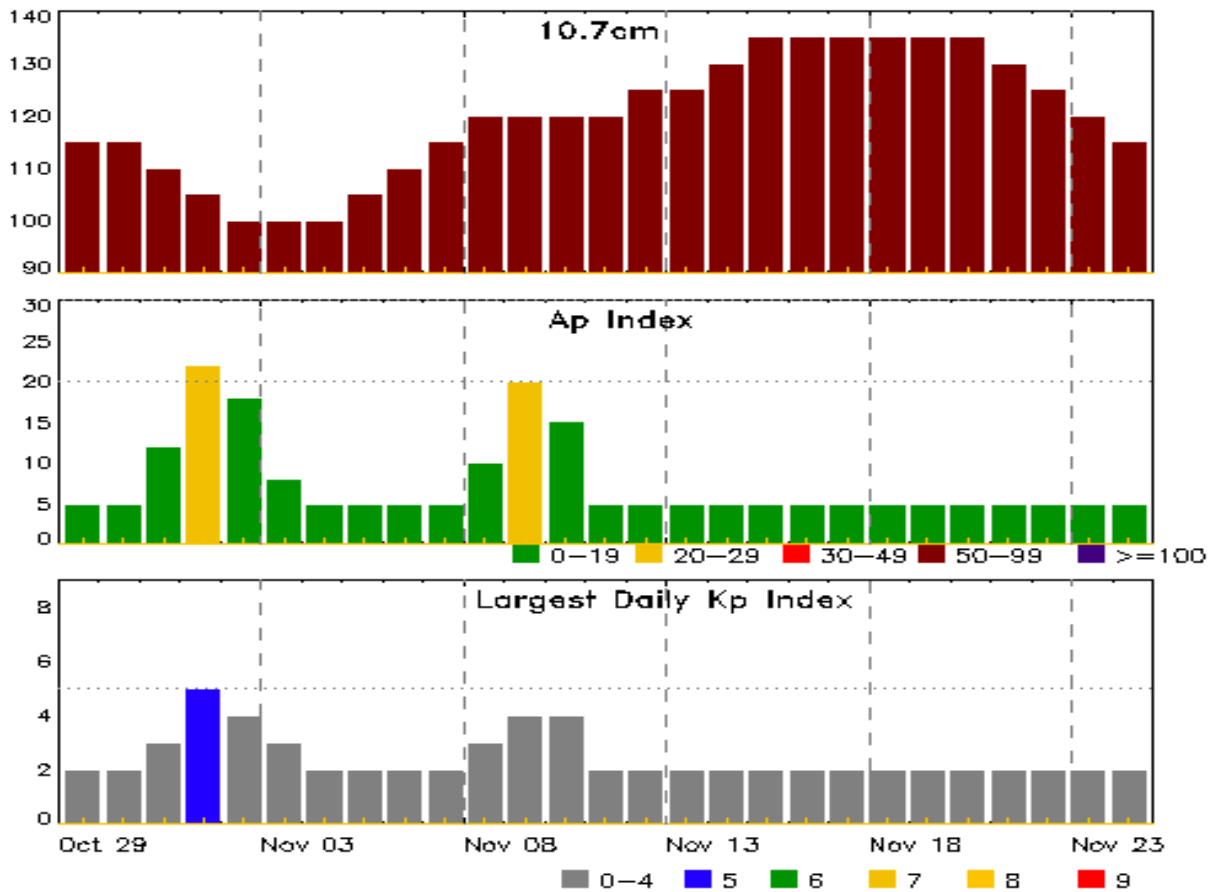


Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
22 Oct 0509	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	09/1015
22 Oct 1852	ALERT: X-ray Flux exceeded M5	22/1851
22 Oct 1911	SUMMARY: X-ray Event exceeded M5	22/1838 - 1901
23 Oct 0318	ALERT: X-ray Flux exceeded M5	23/0318
23 Oct 0331	SUMMARY: 10cm Radio Burst	23/0315 - 0318
23 Oct 0336	SUMMARY: X-ray Event exceeded X1	23/0313 - 0321
23 Oct 0501	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	09/1015
23 Oct 1409	ALERT: Type II Radio Emission	23/0317
24 Oct 0946	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	09/1015
25 Oct 0937	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	09/1015
26 Oct 0805	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	09/1015
28 Oct 1436	ALERT: Electron 2MeV Integral Flux \geq 1000pfu	28/1415



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
29 Oct	115	5	2	12 Nov	125	5	2
30	115	5	2	13	125	5	2
31	110	12	3	14	130	5	2
01 Nov	105	22	5	15	135	5	2
02	100	18	4	16	135	5	2
03	100	8	3	17	135	5	2
04	100	5	2	18	135	5	2
05	105	5	2	19	135	5	2
06	110	5	2	20	135	5	2
07	115	5	2	21	130	5	2
08	120	10	3	22	125	5	2
09	120	20	4	23	120	5	2
10	120	15	4	24	115	5	2
11	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 245	2695	Intensity II	IV
22 Oct	1838	1851	1901	M5.0	0.037	1F	S12E61	1598				
23 Oct	0313	0317	0321	X1.8	0.049			1598	620		1	

Flare List

Date	Time			X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
	Begin	Max	End				
22 Oct	0021	0026	0036	C3.4			1598
22 Oct	0137	0140	0142	C1.6			1598
22 Oct	0904	0907	0911	B9.4			
22 Oct	1412	1414	1427		SF	N14W12	1593
22 Oct	1552	1603	1610	C6.3			1593
22 Oct	1655	1658	1703		SF	S08E56	1598
22 Oct	1838	1851	1901	M5.0	1F	S12E61	1598
22 Oct	2235	2239	2244	C1.3			1593
23 Oct	0313	0317	0321	X1.8			1598
23 Oct	0603	0610	0615	C1.6			1598
23 Oct	0740	0821	0856	C3.0	SF	N11W19	1593
23 Oct	1026	U1039	A1040		SF	S10E55	1598
23 Oct	1259	U1306	1307		SF	N07E15	1596
23 Oct	1310	1315	1318	C2.3			1598
23 Oct	1457	1500	1505	C2.8	SF	S13E54	1598
23 Oct	1826	1839	1845	C1.9			1598
23 Oct	1954	1958	2004	C1.1			1598
24 Oct	0111	0126	0152	C2.4			1593
24 Oct	0526	0538	0546	C4.2			1598
24 Oct	0705	0710	0715	C1.7			1598
24 Oct	0906	0928	0934	C2.9	SF	S11E42	1598
24 Oct	B0926	U0927	A0935		SF	S11E42	1598
24 Oct	B1051	U1052	A1101		SF	S12E40	1598
24 Oct	B1103	U1105	A1118		SF	S12E40	1598
24 Oct	B1235	U1236	A1237		SF	S07E37	1598
24 Oct	1318	1323	1328	C1.3			1598
24 Oct	1414	1419	1427	C1.4			1598
24 Oct	1522	1526	1536	C1.0			1598
24 Oct	1827	1832	1841	B8.9			



Flare List

Date	Time			X-ray Class	Optical		Rgn #
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	
24 Oct	2051	2054	2100	B7.2			1598
25 Oct	0336	0342	0347	B9.0			1598
25 Oct	0404	0422	0432	C2.5			1593
25 Oct	0730	0734	0737	C1.0			1594
25 Oct	B0915	U0916	A0930		SF	S11E30	1598
25 Oct	0932	0935	0937	B7.9			1594
25 Oct	1014	1021	1030	B7.4	SF	S11E28	1598
25 Oct	B1112	U1112	A1117		SF	S09E26	1598
25 Oct	B1118	1119	1121		SF	S09E26	1598
25 Oct	1326	1331	1336		SF	N06W12	1596
25 Oct	1432	1451	1511	B9.0			1596
25 Oct	1635	1637	1655		SF	S09E23	1598
26 Oct	0354	0400	0410	C1.3			1596
26 Oct	0600	0604	0610	B7.3			
26 Oct	0636	0643	0703	C1.5			1593
26 Oct	1023	1032	1039	C1.5	SF	N04W25	1596
26 Oct	1050	1104	1120	C1.8			1593
26 Oct	1130	1143	1155	C1.8	SF	S27W79	1594
26 Oct	B1232	U1233	A1241	C1.6	SF	S26W81	1594
26 Oct	1549	1607	1644	C1.1	SF	S14E13	1598
26 Oct	2132	2159	2234	C1.0			1594
27 Oct	0343	0411	0443	C1.1			1594
27 Oct	0725	0748	0814	B7.2			1594
27 Oct	1138	1235	1256	B9.7	SF	S16E03	1598
27 Oct	1646	1651	1657	B7.3			1594
28 Oct	0626	0805	1048	C1.7			
28 Oct	1404	U1407	1411		SF	N07W35	1600



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 1589																							
09 Oct	N13E75	265	110	6	Cao	3	B																
10 Oct	N13E61	265	200	8	Dai	12	B	1				1											
11 Oct	N12E49	266	280	10	Dac	20	BG	2				3											
12 Oct	N13E34	266	280	10	Dkc	29	BG	4				3	1										
13 Oct	N13E22	266	270	12	Ekc	27	BGD	1				1											
14 Oct	N13E09	266	240	11	Eac	34	BG																
15 Oct	N14W06	267	130	7	Dri	27	BG	1															
16 Oct	N12W19	267	80	8	Dri	13	B	1					1										
17 Oct	N13W32	267	90	6	Dsi	14	B	1				2											
18 Oct	N12W45	267	20	7	Bxi	13	B																
19 Oct	N12W59	268	30	6	Cro	10	B	2				3											
20 Oct	N12W70	266	90	2	Cso	4	B																
21 Oct	N12W84	267	plage																				
								14	0	0	13	2	0	0	0	0							

Crossed West Limb.
 Absolute heliographic longitude: 267

Region 1590																							
11 Oct	S29E59	256	30	5	Cso	2	B																
12 Oct	S29E46	256	20	2	Hax	1	A	1				1											
13 Oct	S30E31	257	40	2	Cso	2	B																
14 Oct	S30E17	258	40	1	Hsx	1	A																
15 Oct	S30E05	256	30	2	Hrx	1	A																
16 Oct	S30W07	255	20	6	Cro	7	B																
17 Oct	S30W18	253	10	2	Cro	3	B																
18 Oct	S30W29	251	10	2	Bxo	2	B																
19 Oct	S30W42	251	10	4	Bxo	2	B																
20 Oct	S31W53	249	120	10	Cso	6	B																
21 Oct	S31W67	250	plage																				
22 Oct	S31W81	251	plage																				
								1	0	0	1	0	0	0	0	0							

Crossed West Limb.
 Absolute heliographic longitude: 256



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 1591																							
12 Oct	N07E72	228	200	6	Dso	2	B																
13 Oct	N07E59	229	190	5	Dso	3	B																
14 Oct	N07E45	230	220	8	Dsi	5	B	5				4											
15 Oct	N07E32	229	230	6	Dso	12	B	1				2											
16 Oct	N07E20	228	190	5	Dso	6	B	1				2											
17 Oct	N07E07	227	130	6	Dso	6	B																
18 Oct	N08W08	230	170	2	Hsx	1	A																
19 Oct	N08W22	231	150	3	Hsx	1	A																
20 Oct	N07W34	230	110	3	Hsx	1	A																
21 Oct	N07W47	230	120	2	Hsx	1	A																
22 Oct	N06W61	230	100	2	Hsx	1	A																
23 Oct	N06W74	230	110	2	Hsx	1	A																
24 Oct	N06W92	233	120	8	Hsx	1	A																
								7	0	0	8	0	0	0	0	0							

Crossed West Limb.
 Absolute heliographic longitude: 227

Region 1592																							
14 Oct	N23E20	255	20	4	Dro	5	B																
15 Oct	N23E06	255	10	5	Bxo	5	B																
16 Oct	N22W08	256	10	1	Axx	1	A																
17 Oct	N24W20	255	plage																				
18 Oct	N24W34	256	plage																				
19 Oct	N24W48	257	plage																				
20 Oct	N24W62	258	plage																				
21 Oct	N24W76	259	plage																				
22 Oct	N24W90	260	plage																				
								0	0	0	0	0	0	0	0	0							

Crossed West Limb.
 Absolute heliographic longitude: 255



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 1593																							
15 Oct	N17E78	183	60	2	Hsx	1	A	3															
16 Oct	N15E62	186	60	3	Hax	3	A																
17 Oct	N17E49	185	40	2	Hax	1	A																
18 Oct	N18E36	186	30	1	Hax	3	A																
19 Oct	N17E22	187	40	3	Cso	5	B					1											
20 Oct	N15E09	187	70	6	Dso	6	B																
21 Oct	N15W05	188	40	4	Dso	6	B																
22 Oct	N14W18	188	20	5	Cro	4	B	2				1											
23 Oct	N15W33	188	20	3	Hsx	2	A	1				1											
24 Oct	N15W49	191	10	1	Hrx	1	A	1															
25 Oct	N15W63	193	plage					1															
26 Oct	N15W77	194	plage					2															
								10	0	0		3	0	0	0	0	0						

Died on Disk.

Absolute heliographic longitude: 188

Region 1594

15 Oct	S26E61	199	30	3	Dro	2	B														
16 Oct	S26E47	200	90	5	Dao	6	B	1													
17 Oct	S27E33	201	50	7	Dao	4	B	1				1									
18 Oct	S27E23	199	40	7	Cro	4	B														
19 Oct	S27E11	198	10	2	Bxo	2	B	1					1								
20 Oct	S27W03	199	10	2	Bxo	2	B														
21 Oct	S27W17	200	plage																		
22 Oct	S27W31	201	plage																		
23 Oct	S27W45	201	plage																		
24 Oct	S27W59	202	plage																		
25 Oct	S27W73	203	plage					1													
26 Oct	S27W87	204	plage					3				2									
								7	0	0		3	1	0	0	0	0				

Crossed West Limb.

Absolute heliographic longitude: 199



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 1596																							
17 Oct	N11E85	150	plage																				
18 Oct	N11E73	149	300	16	Eao	4	B																
19 Oct	N08E60	149	330	12	Eko	5	BG																
20 Oct	N06E46	150	280	11	Eko	6	BG	1															
21 Oct	N07E33	150	460	11	Eho	9	BG	2					1										
22 Oct	N07E20	149	310	10	Dki	31	BG																
23 Oct	N07E06	149	300	11	Eko	14	B							1									
24 Oct	N08W08	150	290	12	Eko	13	B																
25 Oct	N07W21	151	230	11	Eao	10	B								1								
26 Oct	N08W35	152	230	11	Eao	9	B	2						1									
27 Oct	N08W48	152	170	10	Dao	5	BG																
28 Oct	N06W65	155	150	5	Dao	5	B																
									8	0	0		4	0	0	0	0	0					

Still on Disk.

Absolute heliographic longitude: 149

Region 1597

18 Oct	S21W30	252	20	4	Dro	4	B															
19 Oct	S21W43	252	60	6	Dao	4	B							1								
20 Oct	S22W58	254	90	6	Dso	6	B															
21 Oct	S22W69	252	40	8	Dso	5	B															
22 Oct	S22W83	253	plage																			
									0	0	0		1	0	0	0	0	0				

Crossed West Limb.

Absolute heliographic longitude: 252



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 1598																							
19 Oct	S09E96	286	plage									1											
20 Oct	S09E82	114	100	2	Hsx	1	A	2	1														
21 Oct	S12E70	113	270	7	Dhi	4	B	7	1			1											
22 Oct	S10E56	113	370	8	Dhi	10	B	2	1			1	1										
23 Oct	S12E44	111	420	8	Dki	16	BD	5		1		2											
24 Oct	S12E29	113	360	9	Dki	12	BD	6				5											
25 Oct	S12E18	112	370	9	Dko	17	BD					5											
26 Oct	S12E04	113	340	7	Dko	17	BD	1				1											
27 Oct	S11W10	114	330	5	Dkc	11	BD					1											
28 Oct	S11W23	113	240	4	Dac	7	B																
								24	3	1	16	1	0	0	0	0							

Still on Disk.

Absolute heliographic longitude: 113

Region 1599

23 Oct	S09E73	83	60	2	Hsx	1	A															
24 Oct	S10E58	84	100	2	Hsx	1	A															
25 Oct	S10E43	87	100	2	Hsx	1	A															
26 Oct	S11E30	87	120	2	Hsx	1	A															
27 Oct	S11E16	88	110	2	Hsx	1	A															
28 Oct	S11E04	86	60	2	Hsx	1	A															
								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 86

Region 1600

26 Oct	N09W14	131	40	4	Dso	4	B															
27 Oct	N09W28	132	20	5	Cro	2	B															
28 Oct	N09W42	132	10	5	Axx	2	A					1										
								0	0	0	1	0	0	0	0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 131

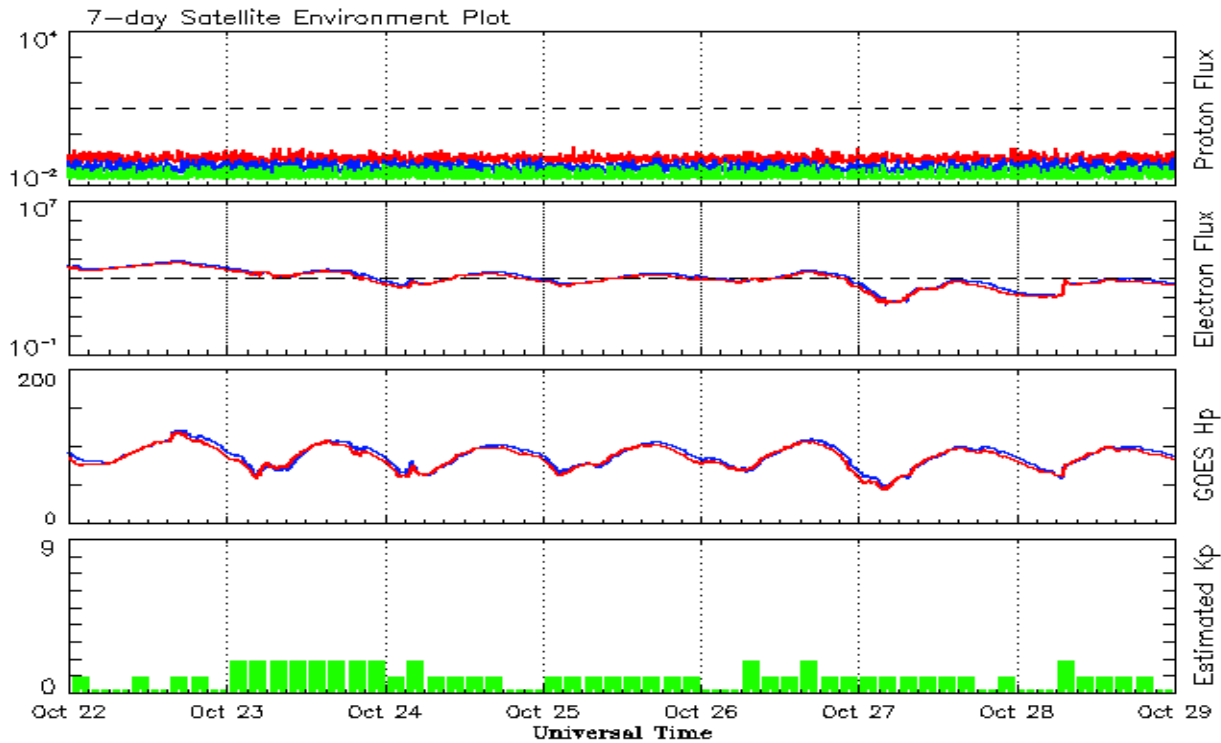


Recent Solar Indices (preliminary)
Observed monthly mean values

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									
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	86.3	61.1	153.1	119.5	3	8.0
December	106.3	73.0	0.69	89.2	63.4	141.2	121.6	3	8.0
2012									
January	91.3	58.3	0.64	92.0	65.5	133.1	124.4	6	8.3
February	50.1	32.9	0.66	94.2	66.9	106.7	126.7	7	8.4
March	77.9	64.3	0.82	94.1	66.8	115.1	126.8	14	8.1
April	84.4	55.2	0.65			113.1		9	
May	99.5	69.0	0.69			121.5		8	
June	88.6	64.5	0.73			120.5		10	
July	99.6	66.5	0.67			135.6		13	
August	85.8	63.1	0.74			115.7		7	
September	84.0	61.5	0.73			123.2		8	

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 22 October 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.

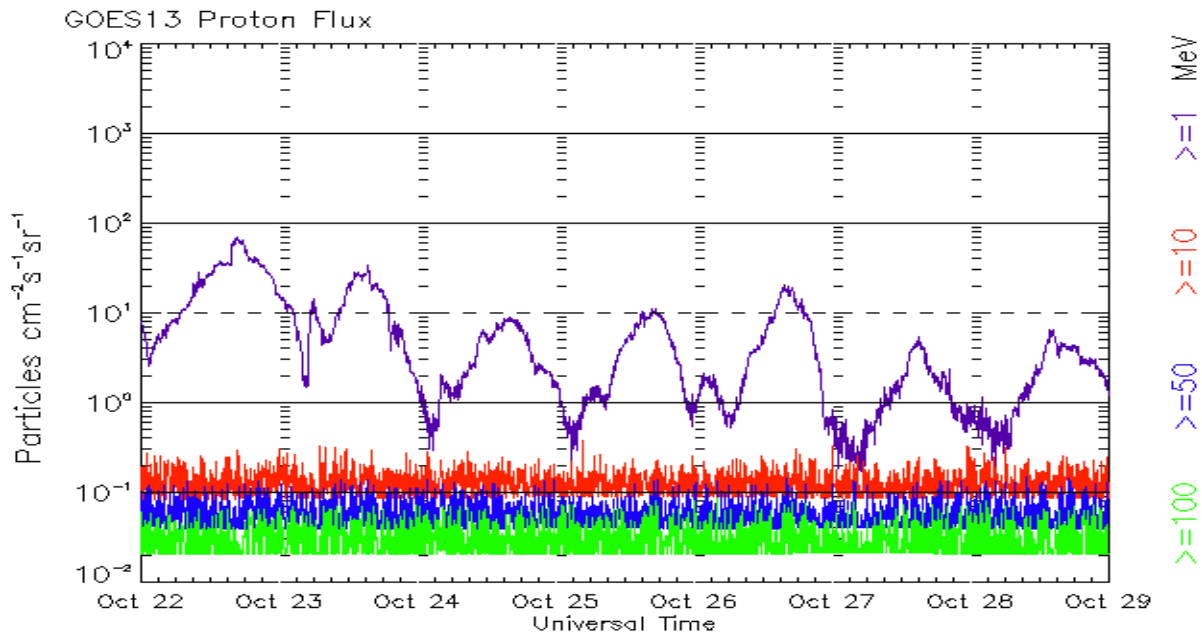
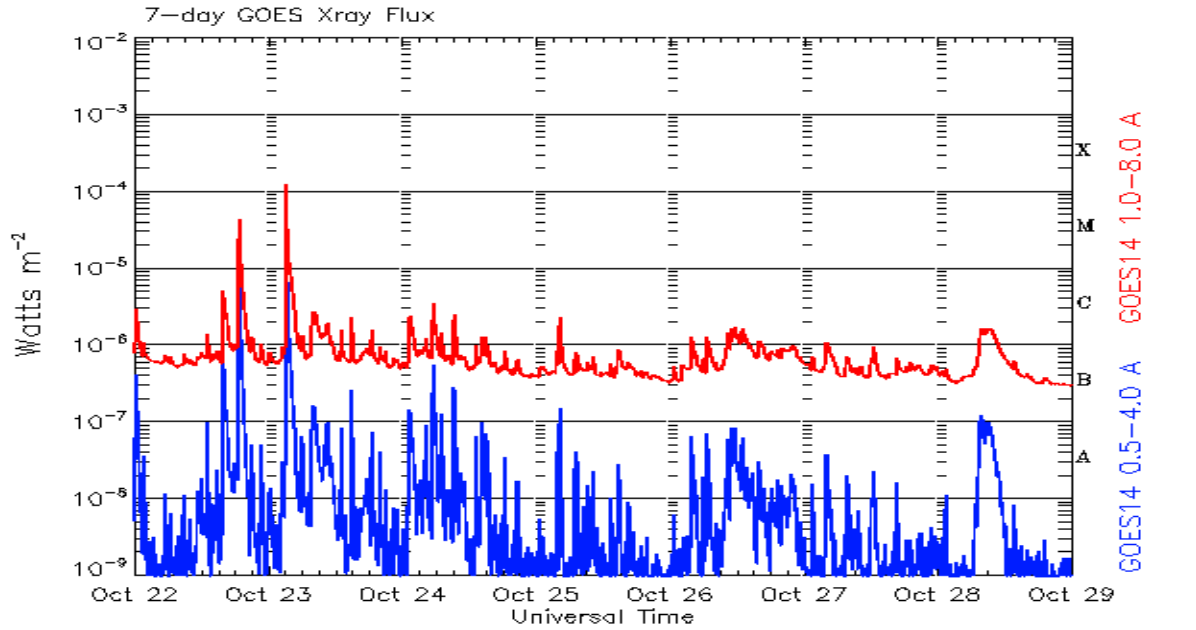
The electron flux plot contains the five-minute averaged integral electron flux (electrons/cm²-sec -sr) with energies greater than 2 MeV by the SWPC Primary GOES satellite.

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 22 October 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 integral 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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