

Solar activity was at very low levels. At 17/0530 UTC, a large CME was observed on LASCO imagery off the northeast limb. The CME was not expected to be geoeffective.

No greater than 10 MeV proton events were observed this period.

The greater than 2 MeV electron flux at geosynchronous orbit was at normal levels for the period.

The geomagnetic field ranged from quiet to unsettled at middle latitudes and quiet to minor storm levels at high latitudes. The period began with the solar wind speed around 380 km/s. Wind speed slowly decreased to 300 km/s late on 14 February. During this time the geomagnetic field was quiet. Early on 15 February, The IMF Bz began fluctuating between +/- 10 nT as the solar wind speed increased to around 600 km/s due to the onset of a coronal hole high speed stream. The geomagnetic field responded with minor storm periods on 15 and 16 February at high latitudes while only quiet to unsettled levels were observed at middle latitudes. By 17 February, solar wind speed was decreasing with the IMF Bz not varying much beyond +/- 5 nT. Mostly quiet conditions were observed at middle and high latitudes for the rest of the period. The solar wind speed ended the period around 400 km/s.

Space Weather Outlook
22 February - 20 March 2006

Solar activity is expected to be at very low to low levels during the forecast period.

No greater than 10 MeV proton events are expected.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at high levels on 23 – 27 February and again on 20 March.

The geomagnetic field is expected to range from quiet to minor storm levels. Active to minor storm periods are possible on 22 - 23 February, and again on 19 March due to effects from recurrent coronal hole wind streams. Otherwise, quiet to unsettled conditions are expected.



Daily Solar Data

Date	Radio Flux 10.7 cm	Sun spot No.	Sunspot Area (10 ⁻⁶ hemi.)	X-ray Background	Flares								
					X-ray Flux			Optical					
					C	M	X	S	1	2	3	4	
13 February	76	0	0	<A1.0	0	0	0	0	0	0	0	0	0
14 February	77	0	0	<A1.0	0	0	0	0	0	0	0	0	0
15 February	79	15	30	A1.3	0	0	0	0	0	0	0	0	0
16 February	79	27	50	A1.4	0	0	0	0	0	0	0	0	0
17 February	79	23	20	A1.4	0	0	0	0	0	0	0	0	0
18 February	79	0	0	<A1.0	0	0	0	0	0	0	0	0	0
19 February	77	0	0	<A1.0	0	0	0	0	0	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	>.6 MeV	>2MeV	>4 MeV
	13 February	4.6E+5	1.5E+4	3.6E+3		1.0E+6
14 February	5.3E+5	1.5E+4	3.5E+3		1.1E+6	
15 February	6.2E+5	1.5E+4	3.6E+3		1.0E+6	
16 February	5.0E+5	1.5E+4	3.4E+3		1.5E+6	
17 February	4.2E+5	1.5E+4	3.4E+3		2.1E+6	
18 February	7.9E+5	1.5E+4	3.5E+3		3.1E+6	
19 February	6.3E+5	1.6E+4	3.7E+3		1.4E+6	

Daily Geomagnetic Data

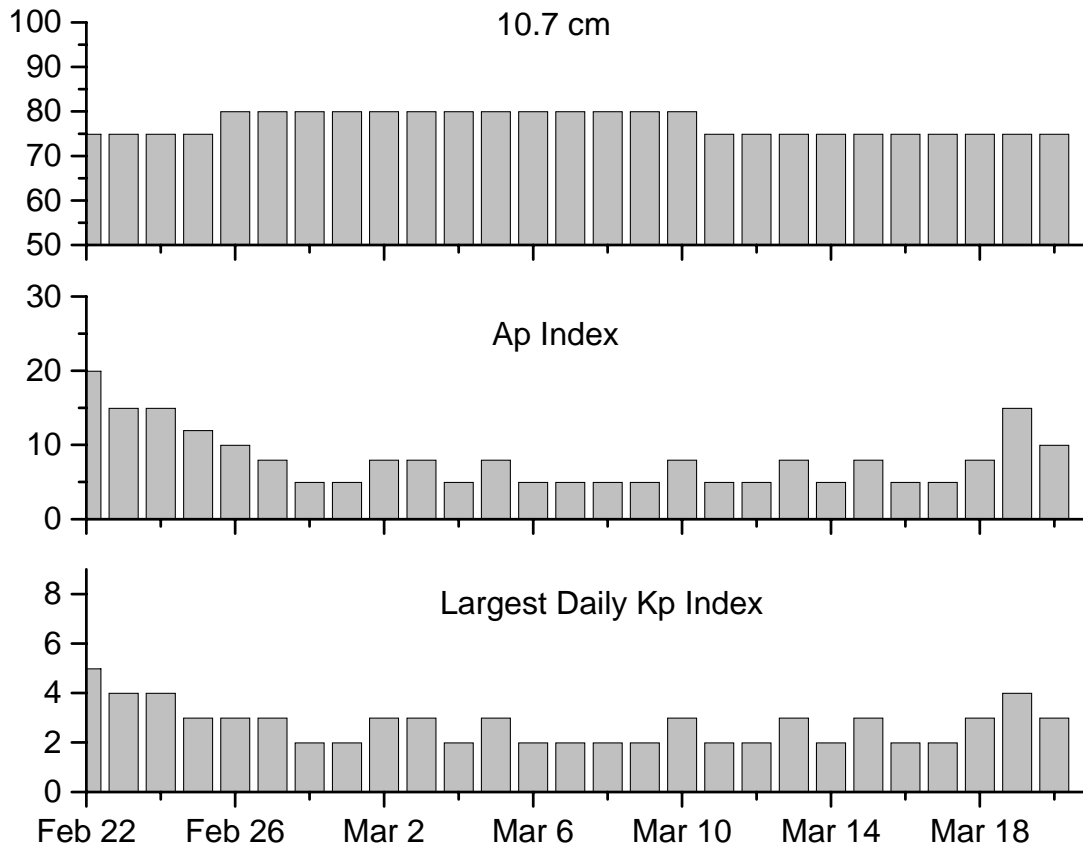
Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
	13 February	2	0-0-0-0-1-2-1-0	1	0-0-0-0-1-1-0-0	2
14 February	1	0-0-0-0-1-0-0-1	0	0-0-0-0-0-0-0-1	1	0-0-0-0-0-0-0-1
15 February	7	0-1-1-3-2-1-3-3	11	1-0-1-5-3-2-2-2	12	0-1-1-3-2-2-4-4
16 February	7	2-2-2-2-2-2-2-1	17	3-2-5-5-3-0-1-1	8	3-2-3-3-1-0-1-2
17 February	2	0-2-1-1-1-1-0-0	5	0-2-2-1-3-2-0-0	4	1-3-2-0-1-0-0-1
18 February	2	0-0-0-1-2-0-1-1	2	0-1-0-1-2-0-0-0	2	0-0-0-0-1-0-0-1
19 February	5	2-2-2-1-1-1-1-1	6	1-1-3-2-2-1-1-1	6	2-2-2-0-0-1-2-2

Alerts and Warnings Issued

Date & Time of Issue	Type of Alert or Warning	Date & Time of Event UTC
15 Feb 1027	ALERT: Geomagnetic K = 4	15 Feb 1026
15 Feb 2045	WARNING: Geomagnetic K= 4	15 Feb 2045 -16 Feb 1600
15 Feb 2046	ALERT: Geomagnetic K = 4	15 Feb 2045
16 Feb 0018	1 – 245 MHz Burst	15 Feb



Twenty-seven Day Outlook



Date	Radio Flux 10.7 cm	Planetary A Index	Largest Kp Index	Date	Radio Flux 10.7 cm	Planetary A Index	Largest Kp Index
22 Feb	75	20	5	08 Mar	80	5	2
23	75	15	4	09	80	5	2
24	75	15	4	10	80	8	3
25	75	12	3	11	75	5	2
26	80	10	3	12	75	5	2
27	80	8	3	13	75	8	3
28	80	5	2	14	75	5	2
01 Mar	80	5	2	15	75	8	3
02	80	8	3	16	75	5	2
03	80	8	3	17	75	5	2
04	80	5	2	18	75	8	3
05	80	8	3	19	75	15	4
06	80	5	2	20	75	10	3
07	80	5	2				



Energetic Events

Date	Time			X-ray		Optical Information			Peak		Sweep Freq	
	Begin	Max	Max	Class	Flux	Imp/	Location	Rgn	Radio Flux		Intensity	
						Brtns	Lat CMD	#	245	2695	II	IV

No Events Observed

Flare List

Date	Time			Optical	Imp /	Location	Rgn
	Begin	Max	End	X-ray			
				Class.	Brtns	Lat CMD	
13 February	No Flares Observed						
14 February	No Flares Observed						
15 February	No Flares Observed						
16 February	No Flares Observed						
17 February	No Flares Observed						
18 February	No Flares Observed						
19 February	No Flares Observed						



Region Summary

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

Region 852

08 Feb	S10W04	087	0010	01	Hsx	002	A									
09 Feb	S11W17	087	0010	01	Axx	003	A									
10 Feb	S11W30	087														
11 Feb	S11W43	087														
12 Feb	S11W56	087														
13 Feb	S11W69	087														
14 Feb	S11W82	087														
15 Feb	S11W95	087														

0 0 0 0 0 0 0 0

Crossed West Limb.

Absolute heliographic longitude: 087

Region 854

15 Feb	S07E23	327	0030	05	Dso	005	B									
16 Feb	S07E10	327	0030	06	Dao	006	B									
17 Feb	S08W09	333	0010	00	Axx	001	A									
18 Feb	S08W22	333														
19 Feb	S08W35	333														

0 0 0 0 0 0 0 0

Still on Disk.

Absolute heliographic longitude: 333

Region 855

16 Feb	N06E28	309	0020	01	Hax	001	A									
17 Feb	N05E15	309	0010	02	Axx	002	A									
18 Feb	N05E02	309														
19 Feb	N05W11	309														

0 0 0 0 0 0 0 0

Still on Disk.

Absolute heliographic longitude: 309

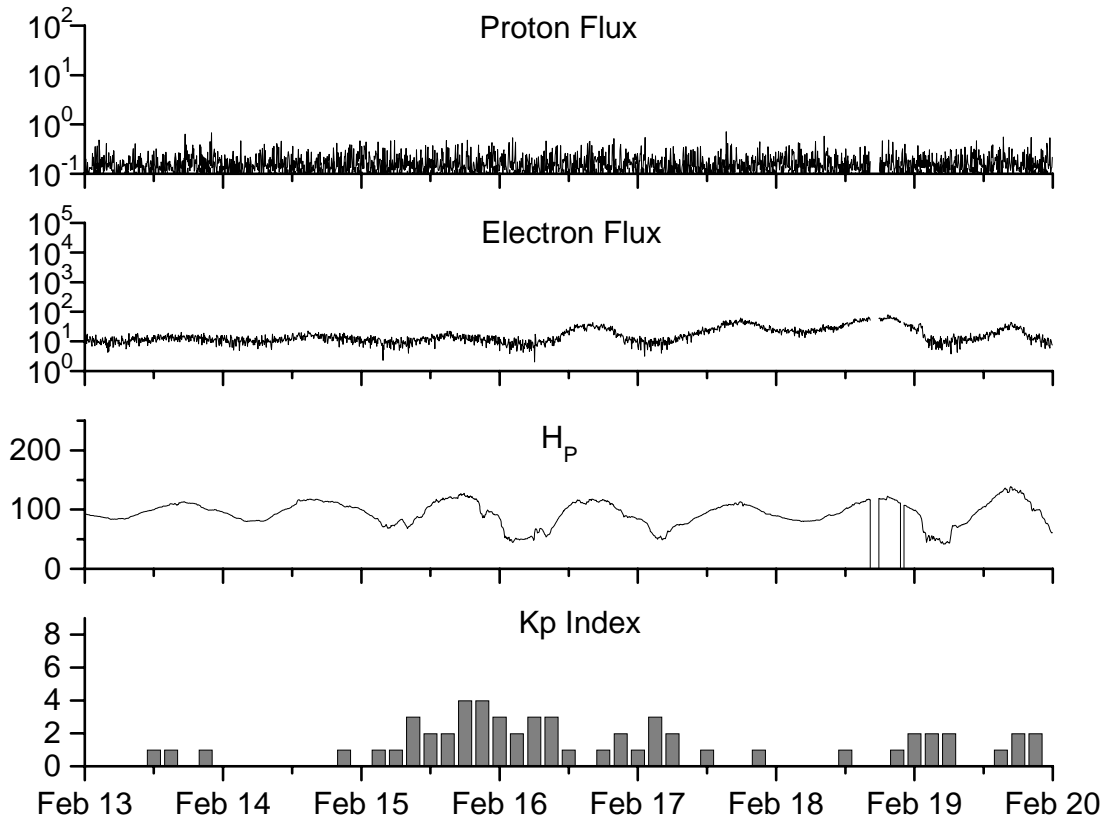


**Recent Solar Indices (preliminary)
of the observed monthly mean values**

Month	Sunspot Numbers			Radio Flux		Geomagnetic			
	Observed SEC	values RI	Ratio RI/SEC	Smooth SEC	values RI	*Penticton 10.7 cm	Smooth Value	Planetary Ap	Smooth Value
2004									
February	75.6	45.8	0.61	84.2	49.4	107.0	115.5	13	17.7
March	81.0	49.1	0.61	80.9	47.2	112.2	114.6	14	16.9
April	59.3	39.3	0.66	77.9	45.6	101.2	112.3	11	15.5
May	77.3	41.5	0.54	74.1	43.9	99.8	109.2	8	14.3
June	78.9	43.2	0.55	70.4	41.7	97.4	107.2	8	14.0
July	87.8	51.0	0.58	68.3	40.2	118.5	105.9	23	13.8
August	69.5	40.9	0.59	66.6	39.3	110.1	105.0	11	13.8
September	50.0	27.7	0.55	63.7	37.6	103.1	103.7	10	13.6
October	77.9	48.4	0.62	61.3	35.9	105.7	102.1	9	13.5
November	70.5	43.7	0.62	60.0	35.4	113.2	101.5	26	14.1
December	34.7	17.9	0.52	58.8	35.3	94.6	101.3	11	14.8
2005									
January	52.0	31.3	0.60	57.3	34.7	102.4	100.3	22	14.7
February	45.4	29.1	0.64	56.4	34.0	97.3	98.5	11	14.6
March	41.0	24.8	0.60	55.8	33.6	90.0	97.2	12	15.3
April	41.5	24.4	0.59	52.6	31.7	85.9	95.5	12	15.7
May	65.4	42.6	0.65	48.3	29.0	99.5	93.2	20	14.8
June	59.8	39.6	0.66	47.9	28.9	93.7	91.9	13	13.9
July	71.0	39.9	0.56			96.6		16	
August	65.6	36.4	0.55			90.7		16	
September	39.2	22.1	0.56			90.8		21	
October	13.0	8.5	0.65			76.7		7	
November	32.2	18.0	0.56			86.3		8	
December	62.6	41.2	0.66			90.8		7	
2005									
January	28.0	15.4	0.55			83.8		6	

NOTE: All smoothed values after September 2002 and monthly values after March 2003 are preliminary estimates. The lowest smoothed sunspot index number for Cycle 22, RI = 8.0, occurred in May 1996. The highest smoothed sunspot number for Cycle 23, RI= 120.8, occurred April 2000. *After June 1991, the 10.7 cm radio flux data source is Penticton, B.C. Canada. Prior to that, it was Ottawa.





*Weekly Geosynchronous Satellite Environment Summary
Week Beginning 13 February 2006*

Protons plot contains the five-minute averaged integral proton flux (protons/cm²-sec -sr) as measured by GOES-11 (W107) for each of three energy thresholds: greater than 10, 50, and 100 MeV.

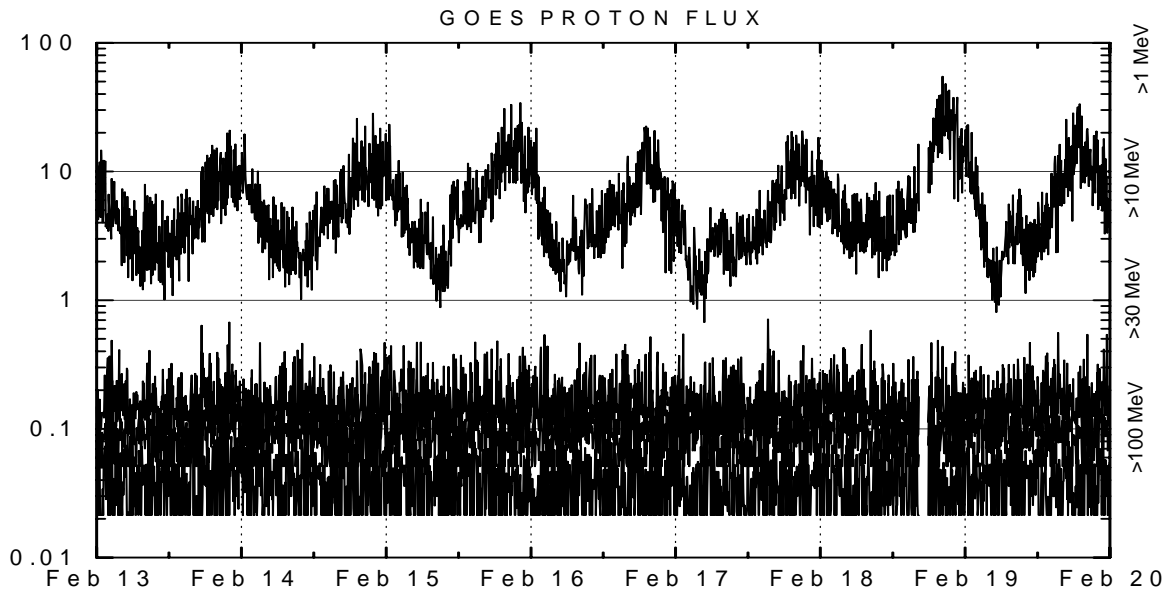
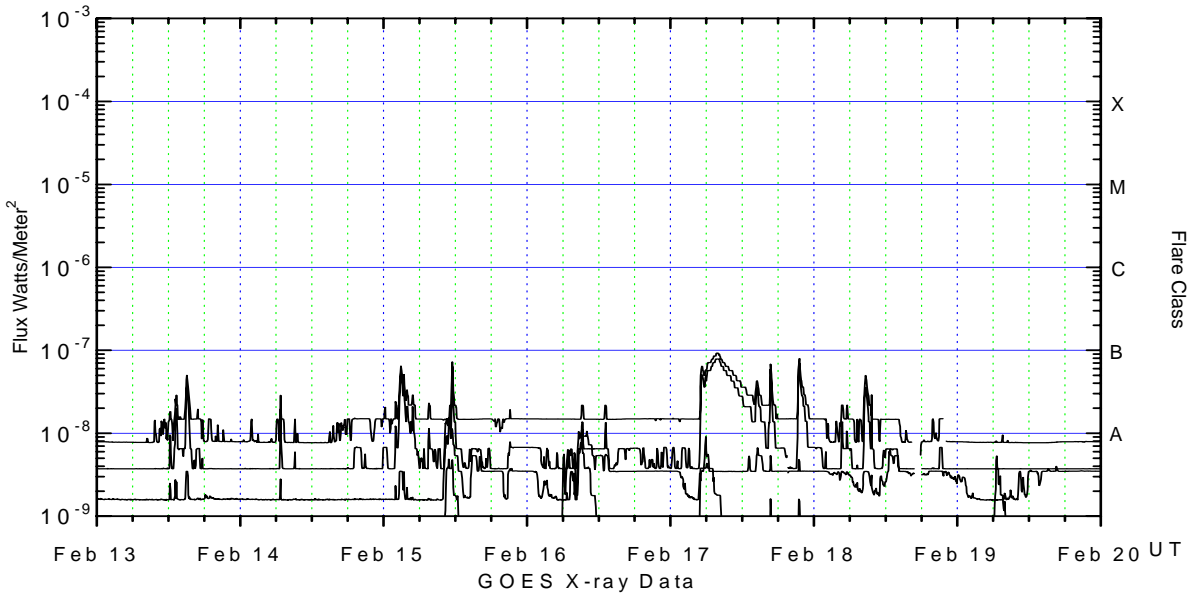
Electrons plot contains the five-minute averaged integral electron flux (electrons/cm²-sec -sr) with energies greater than 2 MeV at GOES-12 (W75).

H_p plot contains the five minute averaged magnetic field H - component in nanoteslas (nT) as measured by GOES-12. The H component is parallel to the spin axis of the satellite, which is nearly parallel to the Earth's rotation axis.

K_p plot contains the estimated planetary 3-hour K-index (derived by the Air Force Weather Agency) in real time from magnetometers at Meanook, Canada; Sitka, AK; Glenlea, Canada; St. Johns, Canada; Ottawa, Canada; Newport, WA; Fredericksburg, VA; Boulder, CO; Fresno, CA and Hartland, UK. These data are made available through cooperation from the Geological Survey of Canada (GSC), British Geological Survey (BGS) and the US Geological Survey. These may differ from the final K_p values derived from a more extensive network of magnetometers.

The data included here are those now available in real time at the SEC 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 K_p 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

X-ray plot contains five-minute averaged x-ray flux (watts/m²) as measured by GOES 12 (W75) and GOES 10 (W135) in two wavelength bands, .05 - .4 and .1 - .8 nm. The letters A, B, C, M and X refer to x-ray event levels for the .1 - .8 nm band.

Proton plot contains the five-minute averaged integral proton flux (protons/cm²-sec-sr) as measured by GOES-11 (W107) for each of the energy thresholds: >1, >10, >30 and >100 MeV. P10 event threshold is 10 pfu (protons/cm²-sec-sr) at greater than 10 MeV.

