

**Space Weather Highlights
26 January-01 February 1998**

Solar activity was very low to low. Region 8142 (S21, L = 345, class/area Dso/12 on 26 January) produced a C5/SN flare at 26/2235UT with an associated Type II radio sweep and minor discrete centimetric bursts. Another Type II sweep was detected at 27/2214UT, but was not optically correlated. Isolated B- and C-class X-ray bursts occurred during the rest of the period.

Solar wind data were received from the WIND spacecraft a few hours per day. Velocities gradually decreased from 500 -340 km/sec during 25 - 30 January, then increased to 460 km/sec during 31 January - 01 February. Densities varied 03 - 18 p/cc through most of the period, but increased to 27 p/cc during 31 January - 01 February. Bz hovered around zero in the plus to minus 07 nT (GSM) range, but was mostly southerly during 29 - 30 January (max. deflection minus 08 nT). Solar sector orientation was mostly away (phi angle near 135 degrees) during 26 - 29 January, but was not discernible during the rest of the period.

There were no significant proton enhancements observed at geosynchronous altitude.

The greater than 2 MeV electron flux at geosynchronous altitude briefly reached moderate to high levels during 30 January.

The geomagnetic field was at mostly quiet to unsettled levels through 28 January. Activity increased during 29 - 30 January with active to minor storm levels reported at all latitudes and brief, isolated major storm periods at high latitudes. Activity declined to mostly quiet levels early 31 January, but increased to active levels late in the day. Activity returned to mostly quiet levels on 01 February.

**Space Weather Forecast
04 February 1998 - 02 March 1998**

Solar activity is expected to be very low to low. Isolated C-class flare activity is expected.

No significant proton enhancements are expected at geosynchronous altitude.

The greater than 2 MeV electron flux at geosynchronous altitude is expected to be at mostly normal levels.

The geomagnetic field is expected to be quiet to unsettled.



Daily Solar Data

Date	Radio Flux	Sun spot	Sunspot Area	X-ray Background	X-ray Flux			Flares				
	10.7 cm	No. (10 ⁶ hemi.)			C	M	X	S	1	2	3	4
26 January	100	99	420	B1.7	2	0	0	8	0	0	0	0
27 January	101	98	420	B1.5	0	0	0	0	0	0	0	0
28 January	97	89	590	A9.9	1	0	0	0	0	0	0	0
29 January	94	71	230	A9.1	1	0	0	1	0	0	0	0
30 January	91	41	140	B1.2	0	0	0	1	0	0	0	0
31 January	89	37	120	A6.6	0	0	0	0	0	0	0	0
01 February	91	25	120	A5.6	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)		
	>1MeV	>10MeV	>100MeV	>.6MeV	>2MeV	>4MeV
26 January	3.9E+5	1.8E+4	3.9E+3		6.5E+5	
27 January	6.1E+5	2.0E+4	4.0E+3		5.2E+5	
28 January	1.8E+6	1.8E+4	4.2E+3		6.9E+5	
29 January	2.0E+6	1.6E+4	3.8E+3		3.6E+5	
30 January	5.5E+5	1.6E+4	3.9E+3		1.0E+7	
31 January	3.3E+5	1.7E+4	4.0E+3		1.2E+7	
01 February	1.1E+5	1.7E+4	4.3E+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
26 January	2	0-0-1-1-1-0-1-1	*	*_*_*_*_*_*_*-0	3	0-0-1-1-1-2-2-1
27 January	4	0-2-2-2-1-1-1-0	14	1-1-4-5-3-2-1-1	6	1-1-3-3-2-2-2-1
28 January	2	0-0-1-0-0-1-1-1	0	0-0-0-0-0-0-0-1	2	0-0-0-0-0-2-2-1
29 January	6	0-2-0-1-3-2-1-3	10	0-1-1-1-4-4-1-2	8	1-2-2-1-3-3-2-3
30 January	12	2-4-4-2-2-2-1-2	28	3-3-4-6-5-4-2-1	19	3-5-4-4-4-3-2-2
31 January	8	1-1-1-1-0-2-4-3	17	2-1-0-2-5-3-5-2	9	1-1-1-1-1-3-4-3
01 February	*	2-3-3-4-1-0-2-2	8	1-1-2-4-0-0-3-1	7	1-2-3-3-1-1-2-2

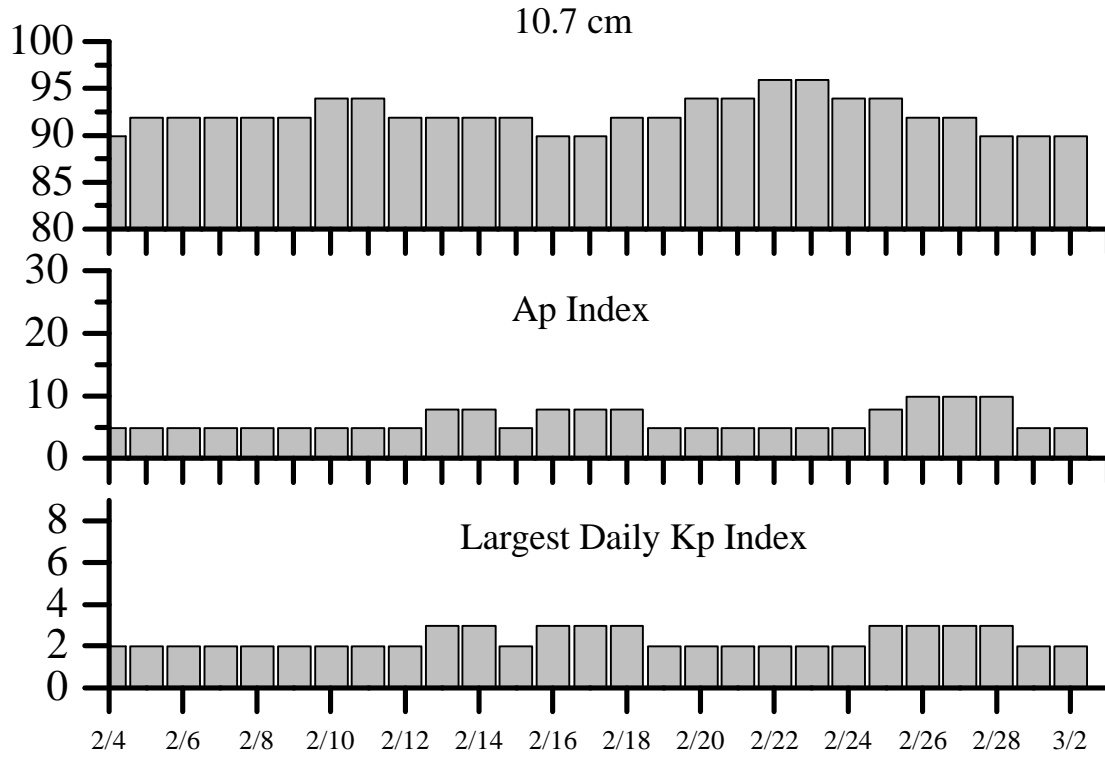


Alerts and Warnings Issued

Date and Time of Issue (UT)	Type of Alert or Warning	Date and Time of Event (UT)
26 Jan 1913	A \geq 20 Watch	29 Jan
26 Jan 2250	Type II Radio Emission	26 Jan 2227
27 Jan 0013	7- 245 MHz Bursts	26 Jan
27 Jan 2310	Type II Radio Emission	27 Jan 2214
28 Jan 0008	1-245 MHz Burst	27 Jan
29 Jan 0011	6-245 MHz Bursts	28 Jan
30 Jan 0601	K= 5 Observed	30 Jan 03-06
31 Jan 1827	>2MeV Electron Event \geq 1000pfu	31 Jan 1801
31 Jan 2108	K= 4 Observed	31 Jan 18-21
31 Jan 2345	K= 4 Observed	31 Jan 21-24



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
04 Feb	90	5	2	18	92	8	3
05	92	5	2	19	92	5	2
06	92	5	2	20	94	5	2
07	92	5	2	21	94	5	2
08	92	5	2	22	96	5	2
09	92	5	2	23	96	5	2
10	94	5	2	24	94	5	2
11	94	5	2	25	94	8	3
12	92	5	2	26	92	10	3
13	92	8	3	27	92	10	3
14	92	8	3	28	90	10	3
15	92	5	2	01 Mar	90	5	2
16	90	8	3	02	90	5	2
17	90	8	3				



Energetic Events

Date	Time (UT)		X-ray		Optical Information			Peak		Sweep Freq		
	Begin	Max	½ Max	Class	Integ Flux	Imp Brtns	Location		Radio Flux		Intensity	
							Lat	CMD	245	2695	II	IV

No Events Observed

Flare List

Date	Time			X-ray Class.	Imp / Brtns	Optical		Rgn #
	Begin	Max	End			Lat	CMD	
26 January	0259	0303	0307	B3.1				
	0351	0352	0402	B7.1	SF	N25E45	8145	
	0652	0657	0705	B2.6	SF	S36E30	8143	
	0949	0949	0953	B5.7	SF	S36E28	8143	
	1338	1354	1415	B6.9				
	1427	1430	1432	B7.6				
	1439	1444	1500	C1.3	SF	N22E42	8145	
	1543	1546	1548	B2.9				
	1615	1615	1620	B4.8	SF	S18W42	8142	
	1754	1755	1758	B7.8	SF	S18W42	8142	
	1909	1912	1914	B2.0				
	2008	2012	2014	B2.8				
	2107	2108	2110	B3.4	SF	S17W44	8142	
	2224	2227	2254	C5.4	SN	S17W55	8142	
27 January	0121	0136	0142	B2.5				
	0913	0916	0921	B4.4				
	1039	1051	1056	B2.2				
	1525	1528	1532	B2.9				
	2143	2148	2157	B2.0				
28 January	0249	0253	0255	C1.1				
29 January	0147	0150	0207	C1.8	SF	S33W05	8143	
	0338	0352	0403	B3.2				
	0908	0912	0917	B2.6				
30 January	1219	1227	1234	B5.0				
	0105	0106	0110	B3.4	SF	S35W20	8143	
	0349	0419	0446	B2.2				
	0833	0837	0840	B1.6				
	0905	0910	0914	B2.2				
31 January	1905	1909	1912	B1.7				
	1005	1009	1012	B1.1				
	1935	1940	1946	B1.2				
01 February	0937	0945	0953	B1.3				



Region Summary

Date	Location		Sunspot Characteristics					Flares												
	(° Lat ° CMD)	Helio	Area (10 ⁶ hemi)	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical									
		Lon						C	M	X	S	1	2	3	4					
<i>Region 8139</i>																				
17 Jan	N14E37	022	0010	03	AXX	003	A													
18 Jan	N13E24	021	0020	03	BXO	005	B													
19 Jan	N14E12	020	0010	03	BXO	005	B													
20 Jan	N14W02	021	0010	01	BXO	003	B													
21 Jan	N19W10	016																		
22 Jan	N19W23	016																		
23 Jan	N19W36	016																		
24 Jan	N19W49	016																		
25 Jan	N19W62	016																		
26 Jan	N19W75	016																		
											0	0	0	0	0	0	0	0	0	0

Died on Disk.

Absolute heliographic longitude: 021

<i>Region 8141</i>																				
19 Jan	N26E48	344	0000	00	AXX	001	A													
20 Jan	N25E36	343	0010	05	BXO	003	B													
21 Jan	N26E22	344	0010	05	BXO	003	B													
22 Jan	N26E06	347	0010	00	AXX	001	A													
23 Jan	N26W07	346	0000	00	AXX	001	A													
24 Jan	N25W20	346	0000	00	AXX	001	A													
25 Jan	N26W34	347	0000	00	AXX	001	A													
26 Jan	N26W47	347																		
27 Jan	N26W60	347																		
28 Jan	N26W73	347																		
29 Jan	N26W86	347																		
											0	0	0	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 347



Region Summary- continued.

Date	Location		Sunspot Characteristics					Flares										
	(° Lat ° CMD)	Helio	Area (10 ⁶ hemi)	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical							
		Lon						C	M	X	S	1	2	3	4			
<i>Region 8142</i>																		
22 Jan	S21E07	346	0010	03	BXO	005	B											
23 Jan	S21W06	345	0020	04	CRO	007	B											
24 Jan	S21W20	346	0050	07	DSI	010	B											
25 Jan	S21W35	348	0090	07	CAO	008	B	1				1						
26 Jan	S22W49	349	0120	08	DSO	008	B	1				4						
27 Jan	S21W65	352	0110	08	DSO	010	B											
28 Jan	S22W78	352	0080	07	CAO	003	B											
29 Jan	S21W94	354	0030	03	HAX	001	A											
								2	0	0	5	0	0	0	0	0		

Crossed West Limb.

Absolute heliographic longitude: 345

<i>Region 8143</i>																		
22 Jan	S35E72	281	0010	00	AXX	001	A					3						
23 Jan	S35E59	280	0080	07	CAO	008	B					2						
24 Jan	S34E47	279	0180	14	CAO	010	B											
25 Jan	S35E36	277	0200	15	ESO	014	BG											
26 Jan	S36E23	277	0250	17	FSI	017	BG					2						
27 Jan	S36E10	277	0260	17	FAI	021	BG											
28 Jan	S36W04	278	0460	18	FAI	017	BG											
29 Jan	S36W16	276	0170	18	FHO	010	BG	1				1						
30 Jan	S33W34	281	0100	02	HSX	003	A					1						
31 Jan	S35W51	285	0090	02	HSX	003	A											
01 Feb	S35W64	286	0110	02	HSX	002	A											
								1	0	0	9	0	0	0	0	0		

Still on Disk.

Absolute heliographic longitude: 278



Region Summary- continued.

Date	Location		Sunspot Characteristics				Flares														
	(° Lat ° CMD)	Helio	Area (10 ⁶ hemi)	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical										
		Lon						C	M	X	S	1	2	3	4						
<i>Region 8144</i>																					
23 Jan	N12E64	275	0000	00	AXX	001	A														
24 Jan	N13E49	277	0000	00	AXX	001	A														
25 Jan	N13E37	276	0010	04	BXO	002	B														
26 Jan	N13E23	277	0000	00	AXX	001	A														
27 Jan	N13E19	268	0010	02	AXX	003	A														
28 Jan	N14E04	270	0010	02	BXO	005	B														
29 Jan	N14W07	267	0010	01	AXX	002	A														
30 Jan	N14W20	267																			
31 Jan	N14W33	267																			
01 Feb	N14W46	267																			

0 0 0 0 0 0 0 0

Still on Disk.

Absolute heliographic longitude: 270

<i>Region 8145</i>																					
24 Jan	N28E59	267	0020	04	BXO	005	B														
25 Jan	N29E48	265	0030	06	BXO	003	B		1				1								
26 Jan	N28E35	265	0020	06	BXO	005	B	1					2								
27 Jan	N28E24	263	0020	04	BXO	006	B														
28 Jan	N28E11	263	0020	04	BXO	007	B														
29 Jan	N28W02	262	0010	04	BXO	004	B														
30 Jan	N28W14	261	0010	04	BXO	004	B														
31 Jan	N28W27	261	0030	01	AXX	002	A														
01 Feb	N28W41	263	0010	04	BXO	003	B														

1 1 0 2 1 0 0 0

Still on Disk.

Absolute heliographic longitude: 262



Region Summary- continued.

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

Region 8146

24 Jan	N15E62	264	0000	00	AXX	001	A											
25 Jan	N15E49	264	0020	06	BXO	005	B											
26 Jan	N15E34	266	0030	06	BXO	007	B											
27 Jan	N16E24	263	0020	04	BXO	008	B											
28 Jan	N15E09	265	0020	03	BXO	007	B											
29 Jan	N16W03	263	0010	03	BXO	004	B											
30 Jan	N16W17	264	0030	02	AXX	004	A											
31 Jan	N16W31	265	0000	01	AXX	002	A											
01 Feb	N16W44	265																

0 0 0 0 0 0 0 0

Still on Disk.

Absolute heliographic longitude: 263

Region 8147

25 Jan	S23E02	311	0000	00	AXX	001	A											
26 Jan	S24W10	310	0000	00	AXX	001	A											
27 Jan	S24W23	310																
28 Jan	S24W36	310																
29 Jan	S24W49	310																
30 Jan	S24W62	310																
31 Jan	S24W75	310																

0 0 0 0 0 0 0 0

Died on Disk.

Absolute heliographic longitude: 311



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 8142

22 Jan	S21E07	346	0010	03	BXO	005	B											
23 Jan	S21W06	345	0020	04	CRO	007	B											
24 Jan	S21W20	346	0050	07	DSI	010	B											
25 Jan	S21W35	348	0090	07	CAO	008	B	1				1						
									1	0	0	1	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 345

Region 8143

22 Jan	S35E72	281	0010	00	AXX	001	A					3						
23 Jan	S35E59	280	0080	07	CAO	008	B					2						
24 Jan	S34E47	279	0180	14	CAO	010	B											
25 Jan	S35E36	277	0200	15	ESO	014	BG											
									0	0	0	5	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 277

Region 8144

23 Jan	N12E64	275	0000	00	AXX	001	A											
24 Jan	N13E49	277	0000	00	AXX	001	A											
25 Jan	N13E37	276	0010	04	BXO	002	B											
									0	0	0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 276



Region Summary- continued.

Date	Location		Sunspot Characteristics				Flares										
	(° Lat ° CMD)	Helio	Area (10 ⁶ hemi)	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical						
		Lon						C	M	X	S	1	2	3	4		
<i>Region 8145</i>																	
24 Jan	N28E59	267	0020	04	BXO	005	B										
25 Jan	N29E48	265	0030	06	BXO	003	B	1				1					
								0	1	0	0	0	1	0	0	0	0
Still on Disk.																	
Absolute heliographic longitude: 265																	
<i>Region 8146</i>																	
24 Jan	N15E62	264	0000	00	AXX	001	A										
25 Jan	N15E49	264	0020	06	BXO	005	B										
								0	0	0	0	0	0	0	0	0	0
Still on Disk.																	
Absolute heliographic longitude: 264																	
<i>Region 8147</i>																	
25 Jan	S23E02	311	0000	00	AXX	001	A										
								0	0	0	0	0	0	0	0	0	0
Still on Disk.																	
Absolute heliographic longitude: 311																	



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

Month	Sunspot Numbers					Radio Flux		Geomagnetic	
	Observed values SWO	RI	Ratio RI/SWO	Smooth values SWO	RI	**Penticton 10.7 cm	Smooth Value	Planetary Ap	Smooth Value
1996									
February	09.1	04.4	0.48	16.2	10.1	71.5	72.2	10	09.8
March	12.1	09.2	0.76	15.4	09.7	72.7	72.1	11	09.9
April	08.5	04.8	0.56	13.6	08.5	69.3	71.6	11	09.7
May	11.8	05.5	0.47	12.9	08.0	72.1	71.4	07	09.5
June	18.8	11.8	0.63	13.5	08.5	69.6	71.8	05	09.4
July	13.2	08.2	0.62	13.4	08.4	71.2	72.0	07	09.3
August	20.5	14.4	0.70	13.1	08.3	72.4	72.1	09	09.4
September	02.9	01.6	0.55	13.3	08.4	69.4	72.3	15	09.3
October	02.3	00.9	0.39	14.0	08.8	69.2	72.6	13	09.1
November	26.7	17.9	0.67	15.4	09.8	78.7	73.0	08	09.1
December	21.1	13.3	0.63	16.2	10.4	77.8	73.3	07	09.3
1997									
January	09.0	05.7	0.63	16.5	10.5*	74.0	73.4	09	09.3*
February	11.3	07.6	0.67	17.4	11.0*	73.8	73.7	11	09.2*
March	14.4	08.7	0.60	20.4	13.5*	73.5	75.1*	08	09.0*
April	24.5	15.5	0.63	24.0	16.5*	74.5	76.8*	10	08.6*
May	28.6	18.5	0.65	26.4	18.4*	74.6	78.4*	08	08.6*
June	22.1	12.7	0.57	29.0	20.4	71.7	80.1*	07	08.6*
July	17.0	10.5*	0.62*	32.4	22.7*	71.1	81.8*	06*	08.4*
August	36.7	24.7*	0.67*			79.0		08*	
September	52.8	51.3*	0.88*			96.2*		10*	
October	33.6	23.3*	0.69*			85.0*		10*	
November	53.5	39.3*	0.73*			99.5*		10*	
December	57.9	41.5*	0.72*			98.8*		05*	
1998									
January	51.8	32.3*	0.62*			93.5*		07*	

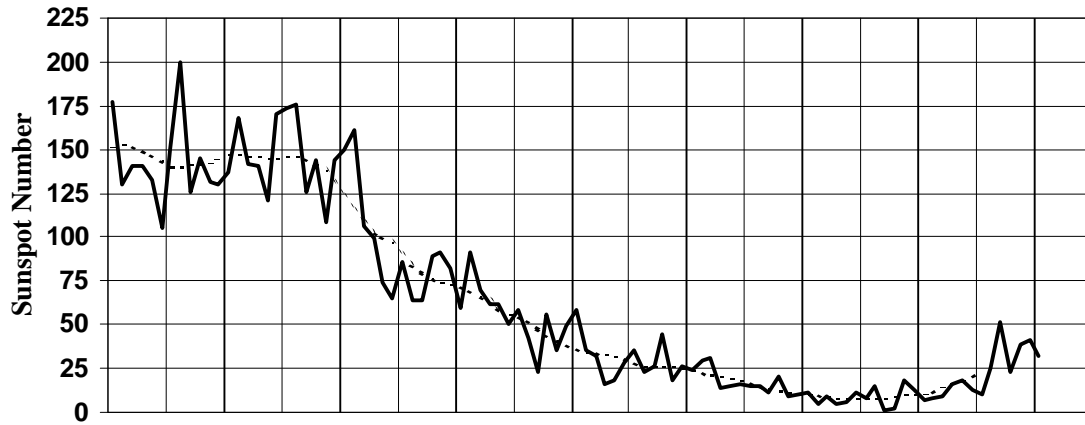
*Preliminary estimates.

The lowest smoothed sunspot indices number for Cycle 22, RI = 8.0, occurred in May 1996. The highest smoothed sunspot number for Cycle 22, RI=158.5, occurred July 1989.

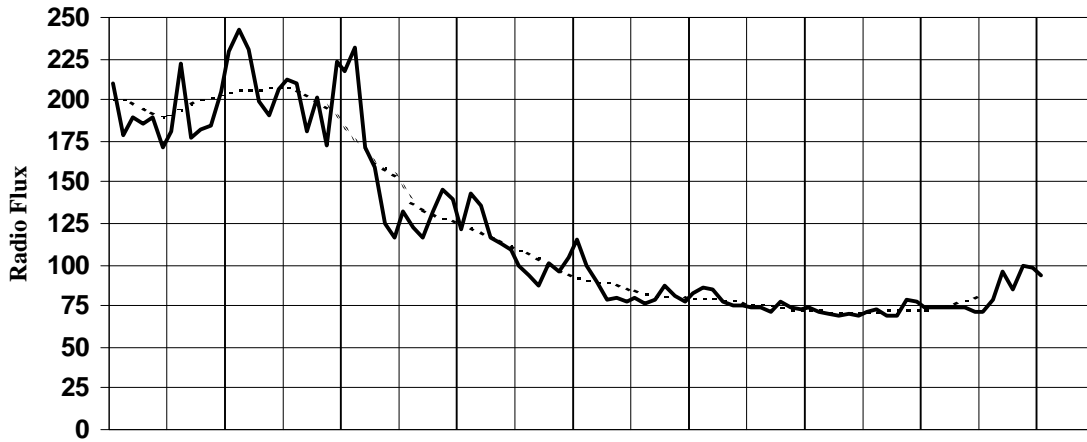
** From June 1991 onward, the 10.7 cm radio flux data source is Penticton, B.C. Canada. Prior to that, it was Ottawa.



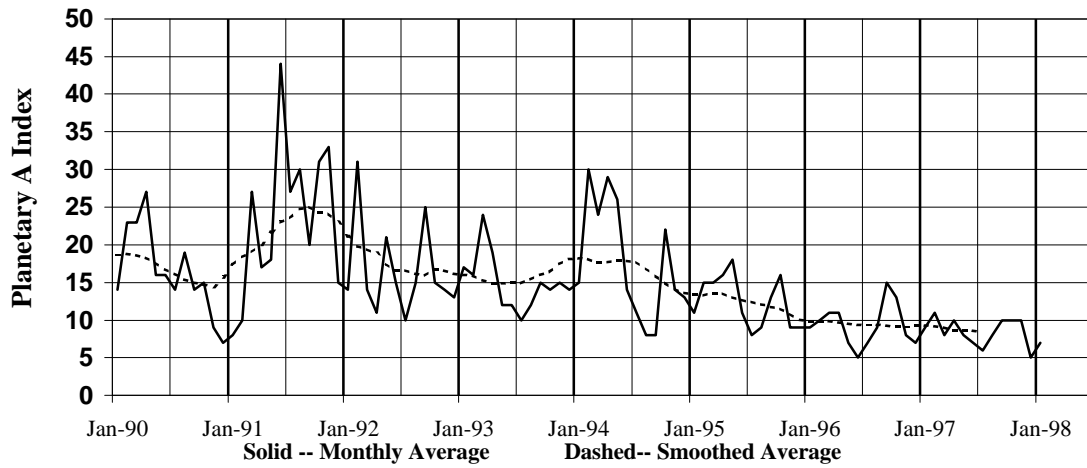
International Sunspot Number

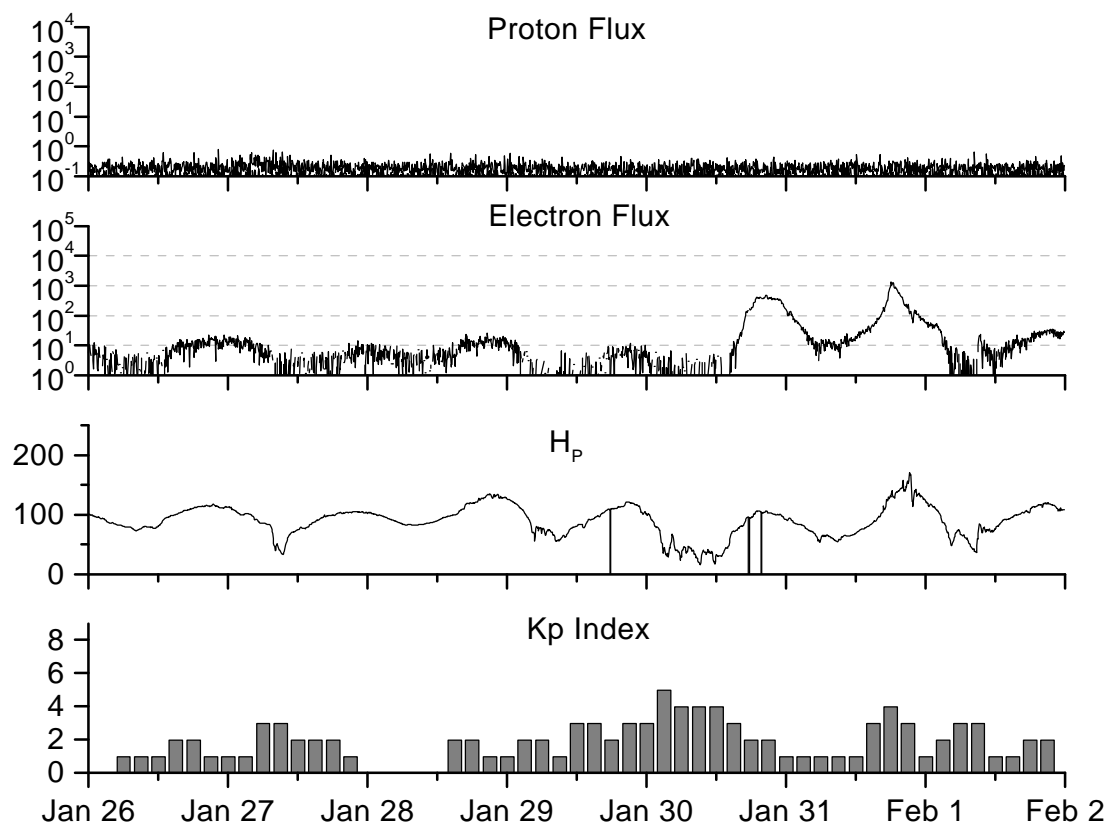


Penticton (DRAO) Radio Flux 2800MHz (10.7cm)



Planetary Geomagnetic A Index (Estimated)





Weekly Geosynchronous Satellite Environment Summary
Week Beginning 26 January 1998

Protons plot contains the five-minute averaged integral proton flux (protons/ cm^2 -sec-sr) as measured by GOES-9 (W135) for each of three energy thresholds: greater than 10, 50, and 100 MeV.

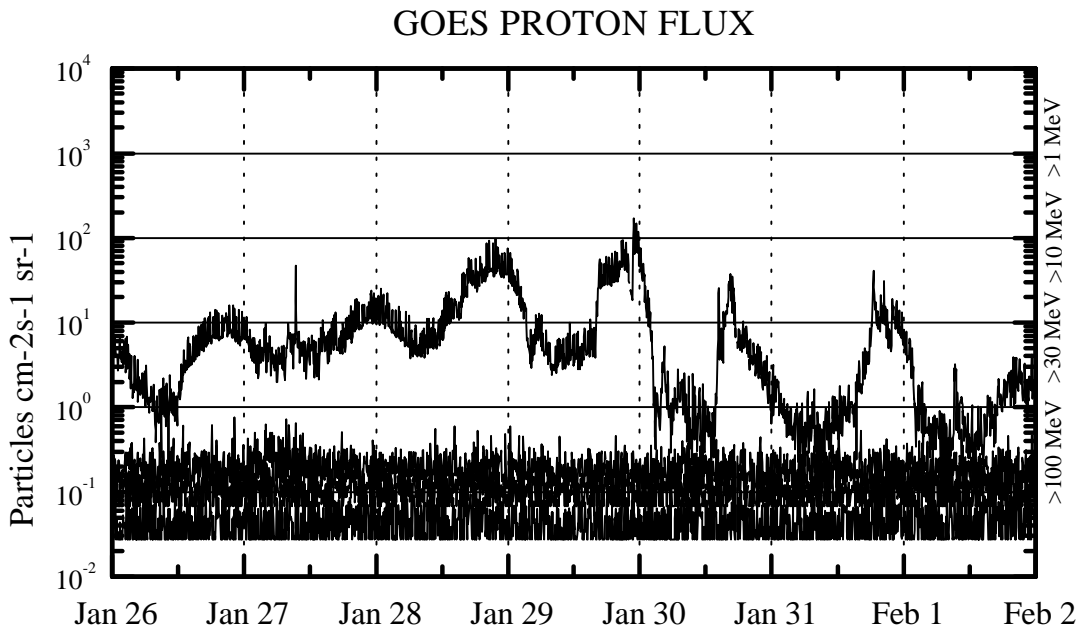
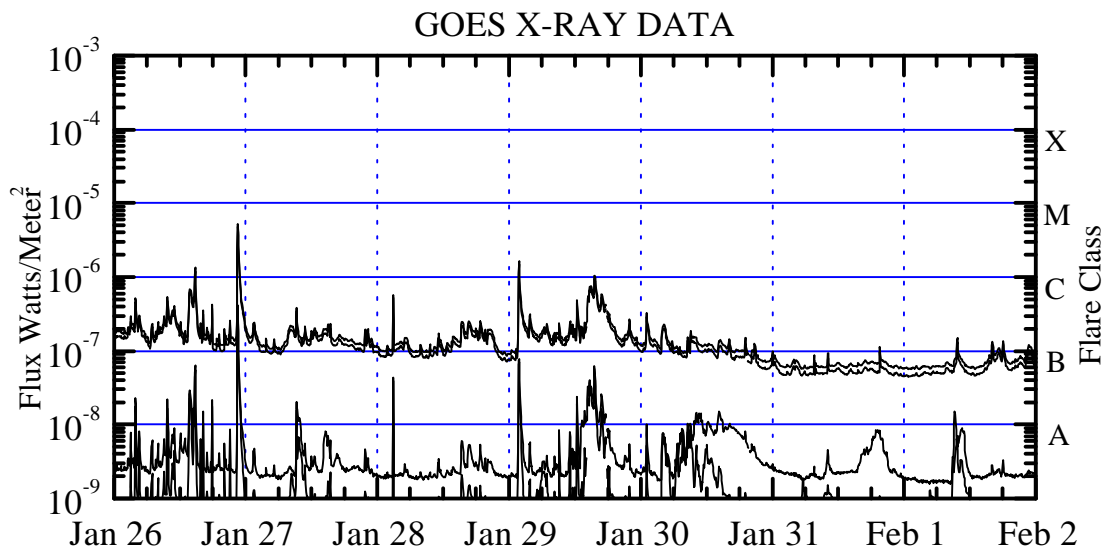
Electrons plot contains the five-minute averaged integral electron flux (electrons/ cm^2 -sec-sr) with energies greater than 2 MeV at GOES-9.

H_p plot contains the five minute averaged magnetic field H component in nanoteslas (nT) as measured by GOES-9. 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 USAF 55th Space Weather Squadron) 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 Heartland, UK. These data are made available through cooperation from the Geological Survey of Canada (GSC) 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 SWO 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 a more localized phenomena and the measurements generally are applicable to within a few degrees of longitude of the measuring satellite.



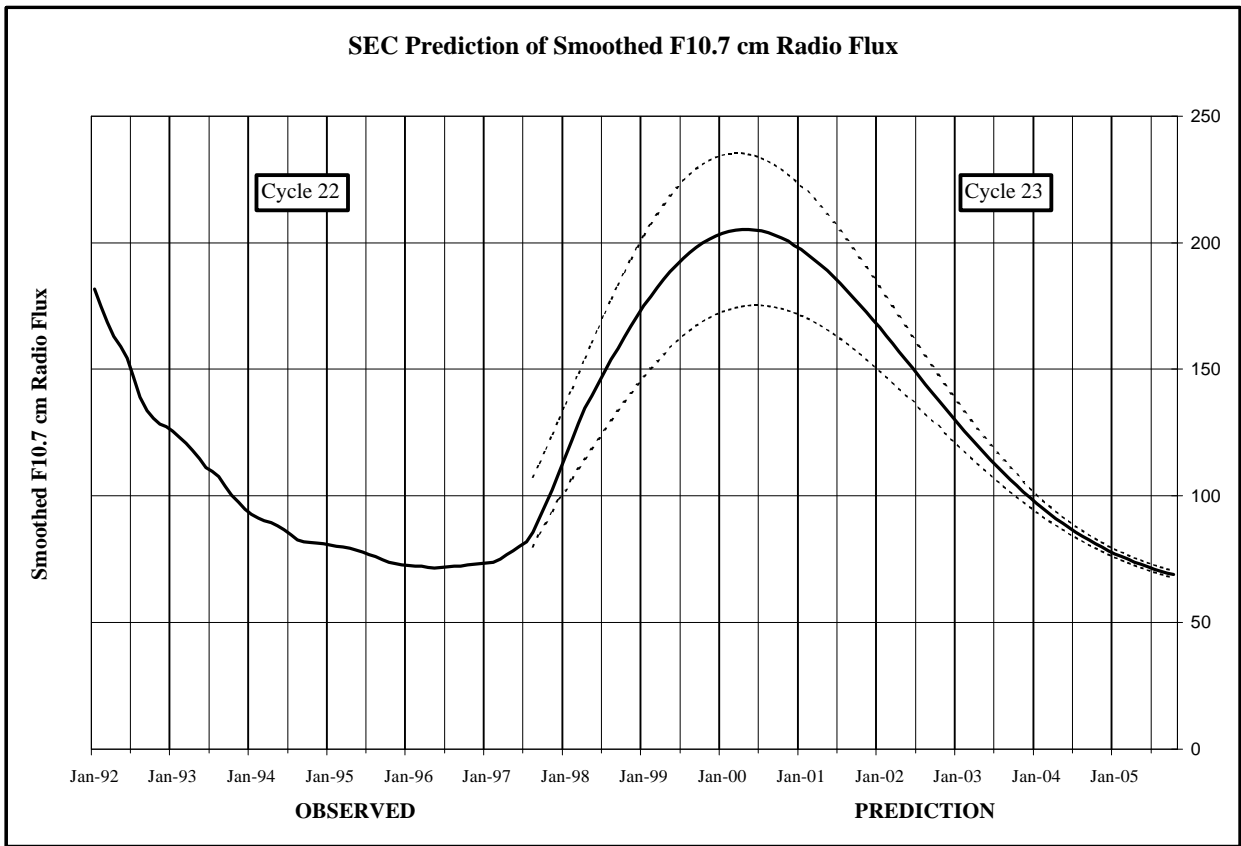


Weekly GOES Satellite X-ray and Proton Plots

Proton plot contains the five minute averaged integral proton flux (protons/cm²-sec-sr) as measured by GOES-9 (W135) 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.

X-ray plot contains five minute averaged x-ray flux (watts/m²) as measured by GOES 8 and 9 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.

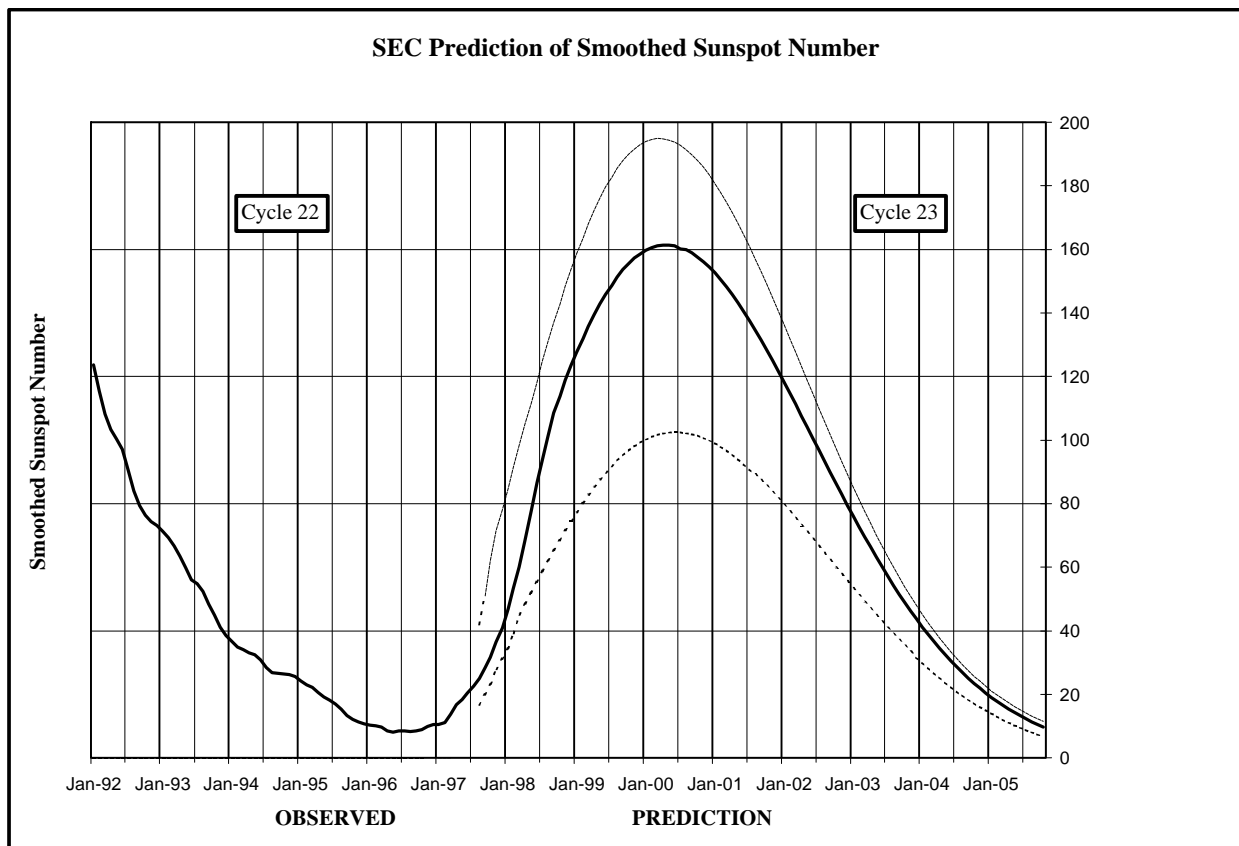




SEC Prediction of Smoothed F10.7cm Radio Flux

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1996	72 (***)	72 (***)	72 (***)	72 (***)	71 (***)	72 (***)	72 (***)	72 (***)	72 (***)	73 (***)	73 (***)	73 (***)
1997	73 (***)	74 (***)	75 (***)	77 (***)	78 (***)	80 (***)	82 (***)	86 (15)	91 (15)	97 (16)	102 (17)	109 (18)
1998	116 (18)	122 (19)	129 (20)	135 (20)	139 (21)	144 (21)	149 (22)	154 (22)	158 (23)	163 (23)	167 (23)	171 (24)
1999	175 (24)	179 (25)	182 (25)	186 (25)	189 (25)	191 (26)	194 (26)	196 (26)	198 (27)	200 (27)	202 (28)	203 (28)
2000	204 (30)	205 (30)	205 (30)	205 (30)	205 (30)	205 (28)	205 (27)	204 (27)	203 (26)	202 (26)	201 (26)	199 (26)
2001	197 (25)	195 (25)	193 (25)	191 (25)	189 (24)	186 (24)	184 (24)	181 (24)	178 (23)	175 (23)	173 (23)	170 (22)
2002	166 (22)	163 (22)	160 (21)	157 (21)	154 (21)	151 (21)	147 (20)	144 (20)	141 (19)	138 (19)	135 (18)	132 (18)
2003	129 (17)	126 (17)	123 (17)	120 (16)	117 (16)	114 (15)	112 (15)	109 (15)	106 (14)	104 (14)	102 (14)	99 (13)
2004	97 (13)	95 (13)	93 (12)	91 (12)	89 (11)	87 (10)	86 (9)	84 (9)	83 (8)	81 (7)	80 (9)	78 (9)
2005	77 (8)	76 (8)	75 (8)	74 (7)	73 (7)	72 (7)	71 (7)	70 (6)	70 (6)	69 (2)	68 (2)	68 (2)





SEC Prediction of Smoothed Sunspot Number

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1996	10 (***)	10 (***)	10 (***)	9 (***)	8 (***)	9 (***)	9 (***)	8 (***)	9 (***)	9 (***)	10 (***)	11 (***)
1997	11 (***)	11 (***)	14 (***)	17 (***)	18 (***)	20 (***)	23 (***)	25 (17)	29 (18)	32 (19)	37 (20)	41 (20)
1998	47 (21)	54 (22)	60 (22)	68 (23)	78 (24)	87 (24)	94 (25)	101 (25)	109 (26)	114 (26)	119 (27)	124 (27)
1999	128 (27)	132 (28)	136 (28)	139 (29)	143 (29)	146 (29)	149 (29)	151 (29)	154 (29)	156 (29)	157 (29)	159 (29)
2000	160 (30)	161 (30)	161 (30)	161 (30)	161 (29)	161 (29)	160 (29)	160 (29)	159 (29)	158 (29)	156 (29)	155 (28)
2001	153 (28)	151 (28)	148 (28)	146 (27)	143 (27)	141 (27)	138 (27)	135 (26)	132 (26)	128 (26)	125 (25)	122 (25)
2002	119 (24)	115 (24)	111 (24)	108 (23)	104 (23)	101 (22)	97 (22)	94 (21)	90 (21)	86 (21)	83 (20)	80 (20)
2003	76 (19)	73 (19)	70 (18)	66 (18)	63 (17)	60 (17)	57 (17)	54 (16)	52 (16)	49 (15)	46 (15)	44 (14)
2004	41 (14)	39 (14)	37 (13)	35 (13)	32 (12)	31 (12)	29 (11)	27 (11)	25 (11)	23 (10)	22 (10)	20 (9)
2005	19 (9)	18 (9)	17 (8)	15 (8)	14 (8)	13 (8)	12 (7)	11 (7)	11 (7)	10 (6)	9 (5)	8 (4)

