

Space Weather Highlights
26 February – 04 March 2001

SWO PRF 1331
06 March 2001

Solar activity was very low to low. Isolated B- and C-class subflares occurred. By and large, the visible sunspot groups were small and simply structured with only minor changes evident. There were two significant events during the period: a beyond-the-west-limb event on 26 February associated with a >10 MeV proton flux enhancement, and an 11-degree filament disappearance on 28 February associated with a full-halo CME.

Data were available from the Advanced Composition Explorer (ACE) spacecraft for most of the period. Weak coronal hole effects occurred on 26 and 28 February associated with minor increases in velocities, densities, proton temps and IMF intensity. A CME passed the spacecraft beginning at 03/1040 UTC. The CME source was likely the full-halo CME event of 28 February mentioned above. The CME passage was accompanied by abrupt increases in velocity, proton temperatures, density, and IMF intensity. Sustained periods of southward Bz followed the passage with maximum southerly deflections to minus 12 nT (GSM).

No proton events were detected. However, a >10 MeV proton flux enhancement began around 26/0900 UTC following an event from beyond the west limb. The >10 MeV proton flux returned to background levels on 27 February.

The greater than 2 MeV electron flux at geosynchronous orbit was at normal to moderate levels. Activity was at mostly quiet to unsettled levels through 02 March with isolated active periods due to minor changes on the solar wind flow. A geomagnetic disturbance began around 03/1100 UTC due to a CME passage. Unsettled to minor storm levels occurred during this disturbance. The disturbance subsided late on 04 March.

Space Weather Outlook
07 March - 02 April 2001

Activity is expected to be at low to moderate levels. There will be a fair chance for isolated M-class flares during the period.

No proton events are expected. However, chances for a proton event may increase beginning 12 March with the return of active longitudes near old Region 9354 (S09, L = 284, class/area Dao/280 on 24 February).

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at normal to moderate levels during most of the period.

Active levels will be possible around April 1 due to recurrent coronal hole effects. Quiet to unsettled levels are expected during the rest of the period, barring an Earth-directed CME.



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
26 February	135	91	370	B4.1	2	0	0	1	0	0	0	0
27 February	131	90	200	B5.1	2	0	0	1	0	0	0	0
28 February	132	88	180	B2.4	0	0	0	0	0	0	0	0
01 March	131	59	80	B2.3	1	0	0	1	0	0	0	0
02 March	130	77	140	B2.1	0	0	0	0	0	0	0	0
03 March	140	138	330	B3.2	0	0	0	7	0	0	0	0
04 March	141	157	460	B4.5	2	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)		
	>1MeV	>10MeV	>100MeV	>.6MeV	>2MeV	>4Me
26 February	2.4E+6	4.7E+4	2.7E+3		2.5E+6	
27 February	1.1E+6	2.1E+4	2.7E+3		6.0E+5	
28 February	2.7E+5	1.1E+4	2.8E+3		9.3E+5	
01 March	6.8E+4	1.1E+4	2.3E+3		6.8E+5	
02 March	1.1E+5	1.1E+4	2.4E+3		2.1E+6	
03 March	3.5E+5	1.1E+4	2.4E+3		6.4E+6	
04 March	1.9E+5	1.1E+4	2.2E+3		1.1E+7	

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
	26 February	5	1-0-2-1-1-2-2-2	8	0-1-3-3-2-3-1-2	10
27 February	8	3-3-3-3-1-0-0-1	20	3-2-6-4-4-1-1-0	13	3-3-4-3-3-2-1-1
28 February	6	0-0-1-2-3-3-2-1	14	1-0-0-3-5-4-3-1	7	1-0-1-2-3-3-3-2
01 March	6	3-1-1-1-1-3-2-1	*	2-1-**-*-1-2-1	5	3-1-1-1-1-2-2-1
02 March	6	1-1-2-1-2-2-3-1	12	1-0-2-4-4-3-3-1	8	1-1-2-2-2-3-3-3
03 March	14	2-3-2-3-3-4-3-2	*	*-**-*-**-**	14	2-3-1-4-4-3-4-3
04 March	16	3-3-3-3-4-3-3-3	*	*-**-*-**-**	17	3-3-4-3-3-3-4-4

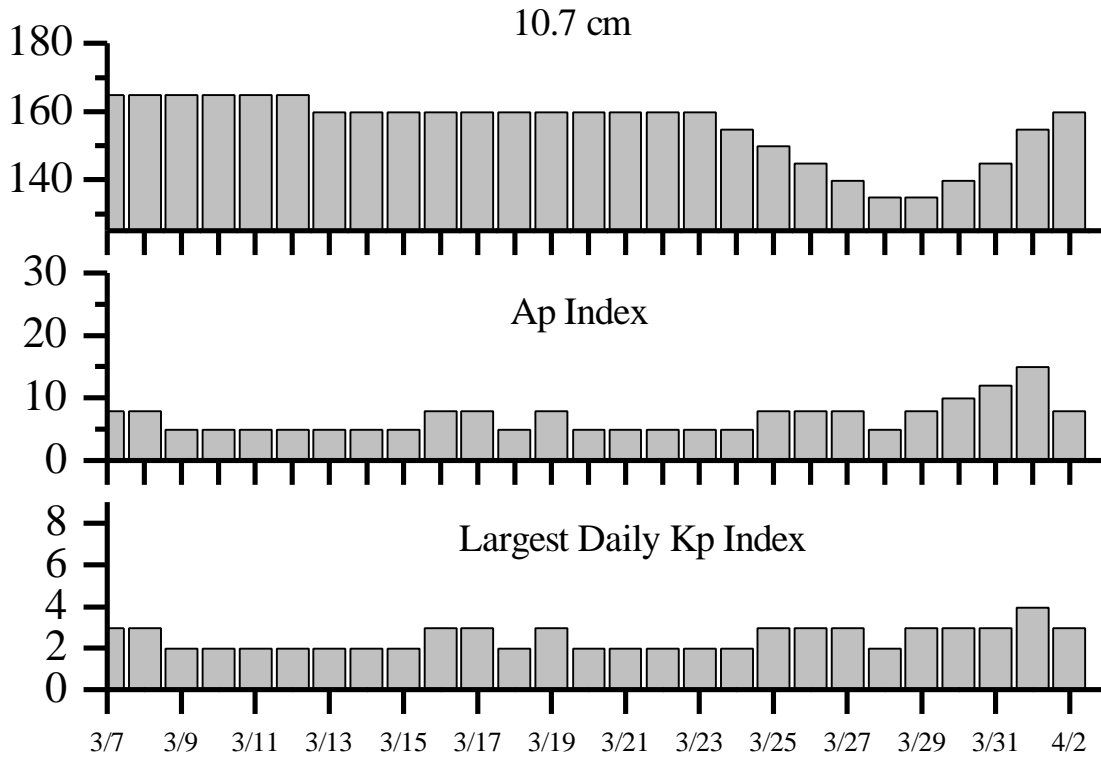


Alerts and Warnings Issued

<u>Date & Time of Issue</u>	<u>Type of Alert or Warning</u>	<u>Date & Time of Event UT</u>
26 Feb 1244	Stratwarm Alert Exists Monday	
26 Feb 1801	K= 4 Observed	26 Feb 1500 - 1800
27 Feb 0850	K= 4 Warning	27 Feb 0855 - 1500
27 Feb 0900	K= 4 Observed	27 Feb 0600 - 0900
27 Feb 1345	Stratwarm Alert Exists Tuesday	
28 Feb 1058	Stratwarm Alert Exists Wednesday	
01 Mar 1413	Stratwarm Alert Exists Thursday	
02 Mar 1244	Stratwarm Alert Exists Friday	
02 Mar 2040	K= 4 Warning	02/2045-03/1500 Mar
02 Mar 2050	K= 4 Observed	02 Mar 1800 - 2100
03 Mar 0249	CANCELLED K= 4 Warning	02/2045 - 03/1500 Mar
03 Mar 1212	K= 4 Observed	03 Mar 0900 - 1200
03 Mar 1339	Stratwarm Alert Exists Saturday	
03 Mar 1342	K= 4 Warning	03 Mar 1345 - 2359
03 Mar 1418	K= 5 Warning	03 Mar 1420 - 1800
03 Mar 1452	K= 5 Observed	03 Mar 1200 - 1500
03 Mar 1651	CANCELLED K= 5 Warning	03 Mar 1420 - 1800
04 Mar 0049	1 - 245 MHz Bursts	03 Mar
04 Mar 0631	K= 4 Warning	04 Mar 0635 - 1500
04 Mar 0859	A \geq 20 Observed	04 Mar 0900
04 Mar 1207	ENDED A \geq 20 Observed	04 Mar 0900
04 Mar 1215	Stratwarm Alert Exists Sunday	
04 Mar 1500	K= 4 Observed	04 Mar 1200 -1500
04 Mar 2137	K= 4 Warning	04/2145 - 05 /0600 Mar



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
07 Mar	165	8	3	21 Mar	160	5	2
08	165	8	3	22	160	5	2
09	165	5	2	23	160	5	2
10	165	5	2	24	155	5	2
11	165	5	2	25	150	8	3
12	165	5	2	26	145	8	3
13	160	5	2	27	140	8	3
14	160	5	2	28	135	5	2
15	160	5	2	29	135	8	3
16	160	8	3	30	140	10	3
17	160	8	3	31	145	12	3
18	160	5	2	01 Apr	155	15	4
19	160	8	3	02	160	8	3
20	160	5	2				



Energetic Events

Date	Time		X-ray		Optical Information			Peak		Sweep Freq		
	Begin	Max	½ Max	Integ	Imp/ Brtns	Location		Rgn	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 February	0046	0046	0050		Sf	S04W88		9354	
	0732	0741	0749	C1.6					
	1225	1229	1232	B8.4					
	2345	2348	2351	B8.1					
	2359	0003	0009	C1.1					
27 February	1007	1008	1012	C1.3	Sf	N12W12		9359	
	1242	1245	1252	B4.8					
	1324	1331	1334	C1.1					
	1731	1742	1752	B7.9					
28 February	No Flares Observed								
01 March	0034	0055	0102	B5.9					
	1439	1442	1445	B5.7					
	1817	1819	1830	C1.2	Sf	S09W27		9364	
	2234	2240	2245	B4.8					
02 March	1434	1437	1439	B3.8					
03 March	0019	0023	0029	B6.6					
	0105	0108	0111	B5.6					
	0436	0438	0440		Sf	S26E38		9366	
	0515	0515	0528		Sf	N16W40		9369	
	0542	0549	0551	B8.1	Sf	N17W41		9369	
	0608	0614	0622	B7.4					
	1126	1129	1157	B5.9	Sf	N17W43		9369	
	1208	1208	1217		Sf	N17W44		9369	
	1306	1314	1319	B7.7	Sf	N17W45		9369	
	1434	1436	1439		Sf	N18W43		9369	
	1807	1812	1816	B8.3					
	04 March	0603	0609	0614	B5.6				
		0935	0953	1002	B7.1				
1153		1202	1209	C1.1					
1849		1849	1855	C1.2	Sf	S26E13		9366	



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 9354</i>																					
16 Feb	S09E34	284	0000	01	Axx	001	A														
17 Feb	S08E20	285	0050	04	Dao	008	B														
18 Feb	S09E07	285	0110	07	Dao	014	B														
19 Feb	S09W06	284	0150	07	Dai	017	B											2			
20 Feb	S08W20	285	0150	09	Dao	018	B	2										3			
21 Feb	S08W32	284	0180	08	Dai	015	B	2										3			
22 Feb	S09W45	284	0200	08	Dao	018	B											4			
23 Feb	S09W59	285	0250	10	Dao	018	B														
24 Feb	S09W72	284	0280	09	Dao	015	B														
25 Feb	S09W83	282	0200	10	Dao	005	B														
26 Feb	S09W97	283	0120	02	Hsx	001	A											1			
													4	0	0	13	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 284

<i>Region 9357</i>																					
18 Feb	S26E35	257	0040	02	Hsx	003	A														
19 Feb	S25E19	259	0020	04	Cro	003	B														
20 Feb	S26E06	259	0020	03	Cso	002	B														
21 Feb	S26W07	259	0020	05	Cso	004	B														
22 Feb	S26W20	259	0010	05	Bxo	003	B														
23 Feb	S25W33	259	0020	07	Bxo	008	B											1			
24 Feb	S25W46	258	0020	06	Cro	005	B														
25 Feb	S25W57	256	0060	07	Cso	008	B											1			
26 Feb	S24W71	257	0060	08	Dso	008	B														
27 Feb	S24W84	257																			
													0	0	0	2	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 259



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 9358</i>																		
18 Feb	S08E46	246	0010	03	Bxo	002	B											
19 Feb	S08E33	245	0040	04	Cro	006	B											
20 Feb	S08E20	245	0050	07	Dao	009	B											
21 Feb	S18E07	245	0050	07	Dso	009	B											
22 Feb	S08W05	244	0010	05	Cso	005	B											
23 Feb	S04W22	248	0010	08	Bxo	006	B											
24 Feb	S07W34	246	0010	01	Hsx	001	A											
25 Feb	S10W43	242	0010	01	Axx	001	A											
26 Feb	S11W59	245	0020	04	Cro	003	B											
27 Feb	S10W75	248	0020	03	Cso	003	B											
28 Feb	S10W86	246	0020	00	Hrx	001	A											

0 0 0 0 0 0 0 0

Crossed West Limb.
 Absolute heliographic longitude: 244

<i>Region 9359</i>																		
20 Feb	N10E74	191	0080	03	Cso	003	B											
21 Feb	N10E64	188	0120	06	Dao	005	B											
22 Feb	N12E52	187	0190	08	Dao	010	B											
23 Feb	N12E34	192	0200	12	Eao	015	B	1				1						
24 Feb	N13E23	189	0240	11	Eao	016	B											
25 Feb	N13E10	189	0170	10	Dai	022	B											
26 Feb	N12W04	190	0160	10	Dso	027	B											
27 Feb	N13W18	191	0160	12	Eai	040	B	1				1						
28 Feb	N13W31	191	0110	09	Dai	020	B											
01 Mar	N12W46	193	0050	04	Dso	009	B											
02 Mar	N11W61	194	0030	05	Cro	004	B											
03 Mar	N12W70	190	0050	06	Cso	004	B											
04 Mar	N15W83	190	0030	02	Axx	003	A											

2 0 0 2 0 0 0 0

Still on Disk.
 Absolute heliographic longitude: 190



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 9360

21 Feb	S11E58	194	0020	01	Hsx	001	A											
22 Feb	S10E45	194	0030	01	Hsx	001	A											
23 Feb	S10E31	195	0030	01	Hrx	001	A											
24 Feb	S10E17	195	0020	01	Hsx	001	A											
25 Feb	S11E04	195	0020	03	Cso	003	B											
26 Feb	S11W09	195	0010	02	Hsx	002	A											
27 Feb	S10W23	196	0010	03	Cro	003	B											
28 Feb	S11W37	197	0020	00	Hrx	001	A											
01 Mar	S10W51	198	0010	01	Hsx	001	A											
02 Mar	S11W63	196	0020	01	Hrx	001	A											
03 Mar	S11W76	196																

0 0 0 0 0 0 0 0

Still on Disk.

Absolute heliographic longitude: 195

Region 9361

22 Feb	S17E07	232	0000	03	Bxo	002	B											
23 Feb	S12W06	232	0010	02	Bxo	003	B											
24 Feb	S16W18	230	0010	01	Axx	001	A											
25 Feb	S15W36	235	0010	01	Axx	001	A											
26 Feb	S15W49	235																
27 Feb	S15W62	235																
28 Feb	S15W75	235																
01 Mar	S15W88	235																

0 0 0 0 0 0 0 0

Crossed West Limb.

Absolute heliographic longitude: 232

Region 9362

25 Feb	S07E12	187	0010	01	Axx	001	A											
26 Feb	S07W01	187																
27 Feb	S07W14	187																
28 Feb	S07W27	187																
01 Mar	S07W40	187																
02 Mar	S07W53	187																
03 Mar	S07W66	187																
04 Mar	S07W79	187																

0 0 0 0 0 0 0 0

Still on Disk.

Absolute heliographic longitude: 187



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 9363

27 Feb	S20W15	188	0010	02	Bxo	004	B											
28 Feb	S20W28	188																
01 Mar	S20W41	188																
02 Mar	S20W54	188																
03 Mar	S20W67	188																
04 Mar	S20W80	188																

Still on Disk.

Absolute heliographic longitude: 188

Region 9364

28 Feb	S10W16	176	0010	03	Bxo	009	B											
01 Mar	S10W30	177	0010	03	Bxo	004	B	1			1							
02 Mar	S10W43	177	0000	00		000												
03 Mar	S10W51	171	0020	04	Bxo	004	B											
04 Mar	S11W68	175	0050	10	Dso	005	B											

Still on Disk.

Absolute heliographic longitude: 176

Region 9365

28 Feb	S08E37	123	0020	03	Cro	007	B											
01 Mar	S07E24	123	0010	06	Cso	005	B											
02 Mar	S08E09	124	0020	04	Cso	003	B											
03 Mar	S08W04	124	0040	06	Cao	009	B											
04 Mar	S09W18	125	0010	05	Cso	005	B											

Still on Disk.

Absolute heliographic longitude: 124

Region 9366

02 Mar	S23E38	095	0040	06	Dro	007	B											
03 Mar	S25E25	095	0090	08	Dao	016	B				1							
04 Mar	S24E12	095	0090	10	Dai	023	B	1			1							

Still on Disk.

Absolute heliographic longitude: 095



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 9367</i>																		
02 Mar	N12E48	085	0020	01	Hrx	001	A											
03 Mar	N10E36	084	0020	01	Cso	002	B						1					
04 Mar	N10E22	085	0010	02	Hsx	001	A											
										0	0	0	1	0	0	0	0	0
Still on Disk.																		
Absolute heliographic longitude: 085																		
<i>Region 9368</i>																		
02 Mar	N27E48	085	0010	00	Hsx	001	A											
03 Mar	N26E35	085	0060	06	Dai	012	B											
04 Mar	N25E20	087	0150	09	Dai	016	B											
										0	0	0	0	0	0	0	0	0
Still on Disk.																		
Absolute heliographic longitude: 087																		
<i>Region 9369</i>																		
03 Mar	N18W49	169	0040	04	Dao	008	B						6					
04 Mar	N17W64	171	0110	06	Dao	007	B											
										0	0	0	6	0	0	0	0	0
Still on Disk.																		
Absolute heliographic longitude: 169																		
<i>Region 9370</i>																		
03 Mar	N09E51	069	0010	06	Bxo	003	B											
04 Mar	N10E42	065	0000	00	Axx	001	A											
										0	0	0	0	0	0	0	0	0
Still on Disk.																		
Absolute heliographic longitude: 065																		
<i>Region 9371</i>																		
04 Mar	N21W39	146	0010	06	Cro	006	B											
										0	0	0	0	0	0	0	0	0
Still on Disk.																		
Absolute heliographic longitude: 146																		

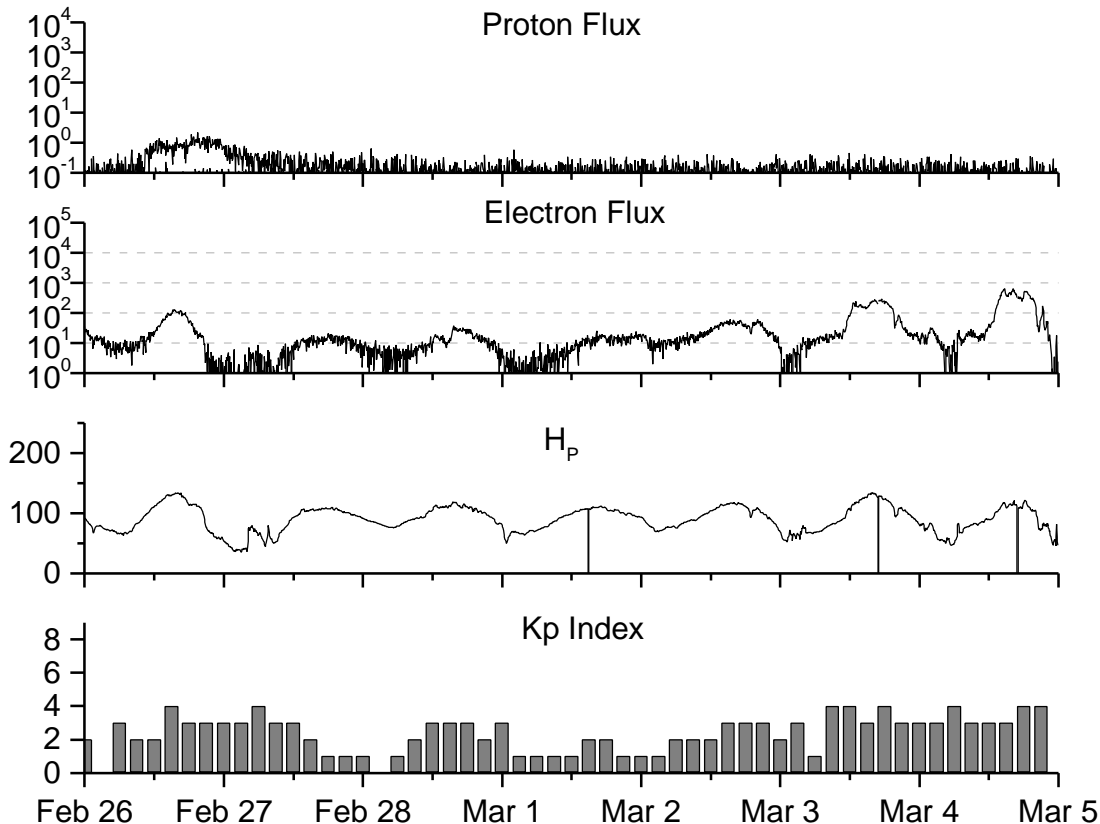


**Recent Solar Indices (preliminary)
of the observed monthly mean values**

Month	Sunspot Numbers			Radio Flux		Geomagnetic			
	Observed values SWO	Ratio RI	Ratio RI/SWO	Smooth values SWO	Smooth values RI	*Penticton 10.7 cm	Smooth Value	Planetary Ap	Smooth Value
1999									
March	100.5	68.8	0.68	120.5	83.8	126.3	144.0	14	11.7
April	92.9	63.7	0.69	123.8	85.5	117.2	145.8	12	12.2
May	140.5	106.4	0.76	131.7	90.5	148.6	149.9	08	12.4
June	208.3	137.7	0.66	136.0	93.1	169.8	152.9	07	12.4
July	169.2	113.5	0.67	138.0	94.3	165.6	154.4	10	12.6
August	136.1	93.7	0.69	142.8	97.5	170.8	156.3	15	12.9
September	107.4	71.5	0.67	150.0	102.3	135.7	161.0	19	12.8
October	167.7	116.7	0.70	158.5	107.8	164.8	167.2	19	12.7
November	199.3	133.2	0.67	164.7	110.0	191.5	171.5	14	13.1
December	123.5	86.4	0.69	165.9	111.1	169.8	173.4	10	13.8
2000									
January	140.8	90.1	0.64	168.0	112.9	158.1	175.5	13	14.5
February	161.9	112.9	0.70	172.1	116.7	173.2	176.8	15	15.0
March	203.6	138.5	0.68	175.4	119.9	208.2	178.4	09	15.0
April	193.4	125.5	0.65	176.3	120.8	184.2	180.5	15	15.0
May	188.8	121.6	0.64	173.1	119.0	184.5	180.0	15	15.0
June	190.3	124.9	0.66	172.0	118.7	179.8	179.7	15	15.1
July	236.7	169.1	0.71	173.0	119.7	204.7	180.2	21	14.8
August	166.6	130.5	0.78	171.8	118.6	163.1	179.5	16	14.2
September	157.9	109.9	0.70			182.1		18	
October	138.9	100.1	0.72			167.7		18	
November	149.9	106.5	0.71			178.8		17	
December	146.4	104.5	0.71			173.6		08	
2001									
January	142.7	95.1	0.67			166.7		08	
February	131.0	80.1	0.61			147.3		06	

NOTE: All smoothed values after December 1999 and monthly values after June 2000 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 22, RI= 158.5, occurred July 1989. *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 26 February 2001

Protons plot contains the five-minute averaged integral proton flux (protons/cm²-sec -sr) as measured by GOES-8 (W75) for each of three energy thresholds: greater than 10, 50, and 100 MeV.

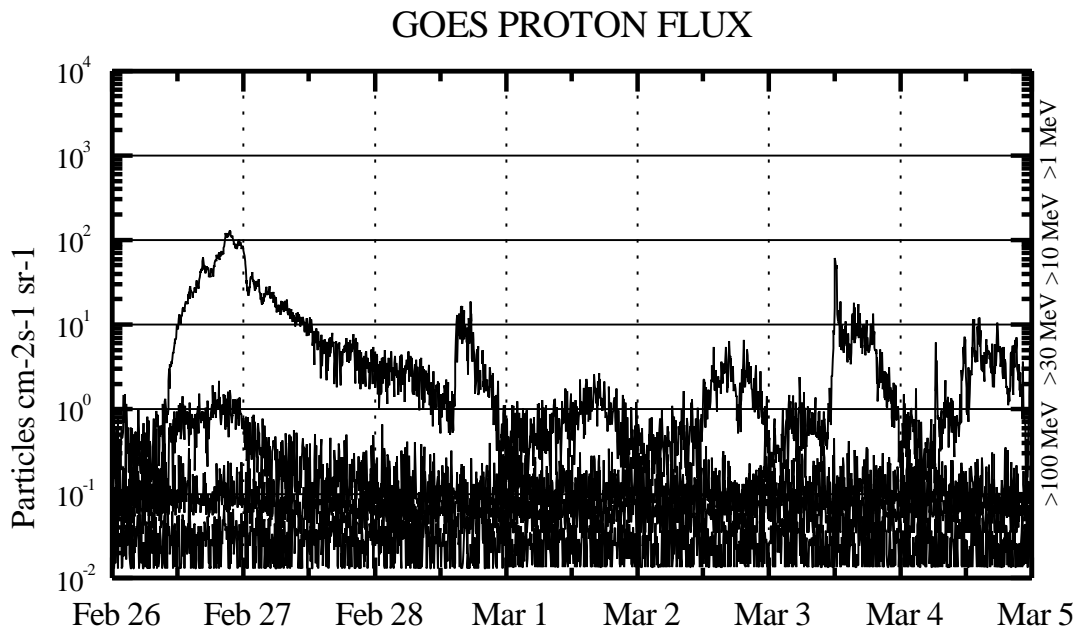
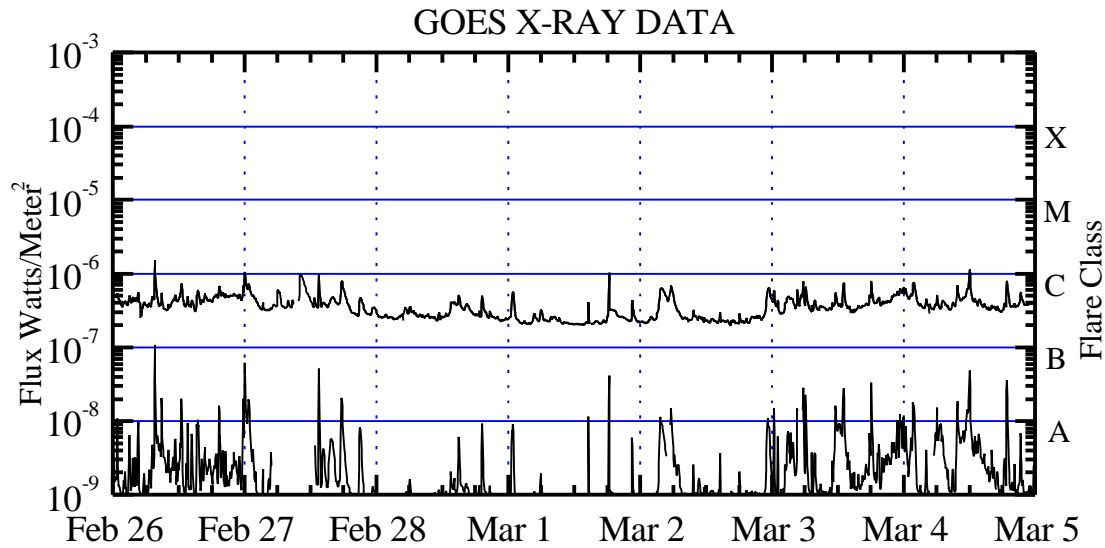
Electrons plot contains the five-minute averaged integral electron flux (electrons/cm² -sec -sr) with energies greater than 2 MeV at GOES-8.

H_p plot contains the five minute averaged magnetic field H - component in nanoteslas (nT) as measured by GOES-8. 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_p is subject to more localized phenomena and the measurements generally are applicable to within a few degrees of longitude of the measuring satellite.



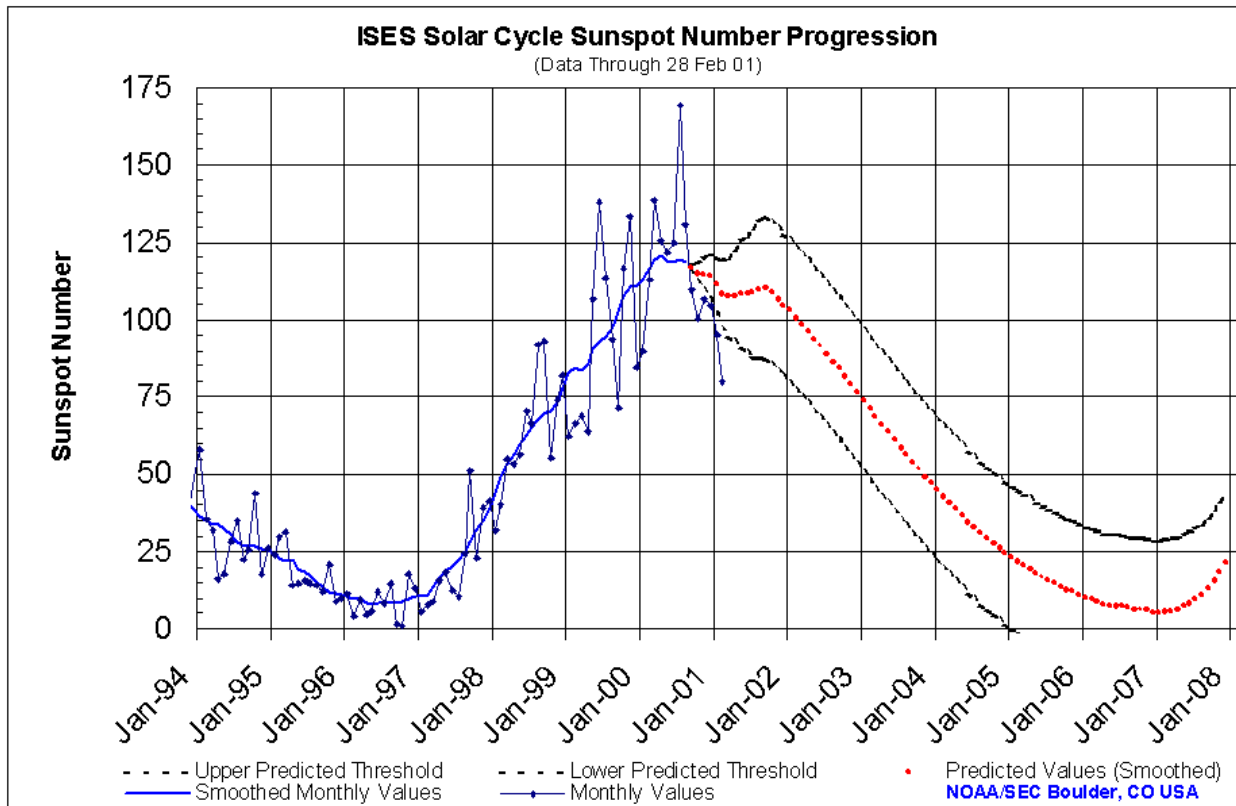


Weekly GOES Satellite X-ray and Proton Plots

X-ray plot contains five-minute averaged x-ray flux (watts/m²) as measured by GOES 8 and 10 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-8 (W75) 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.

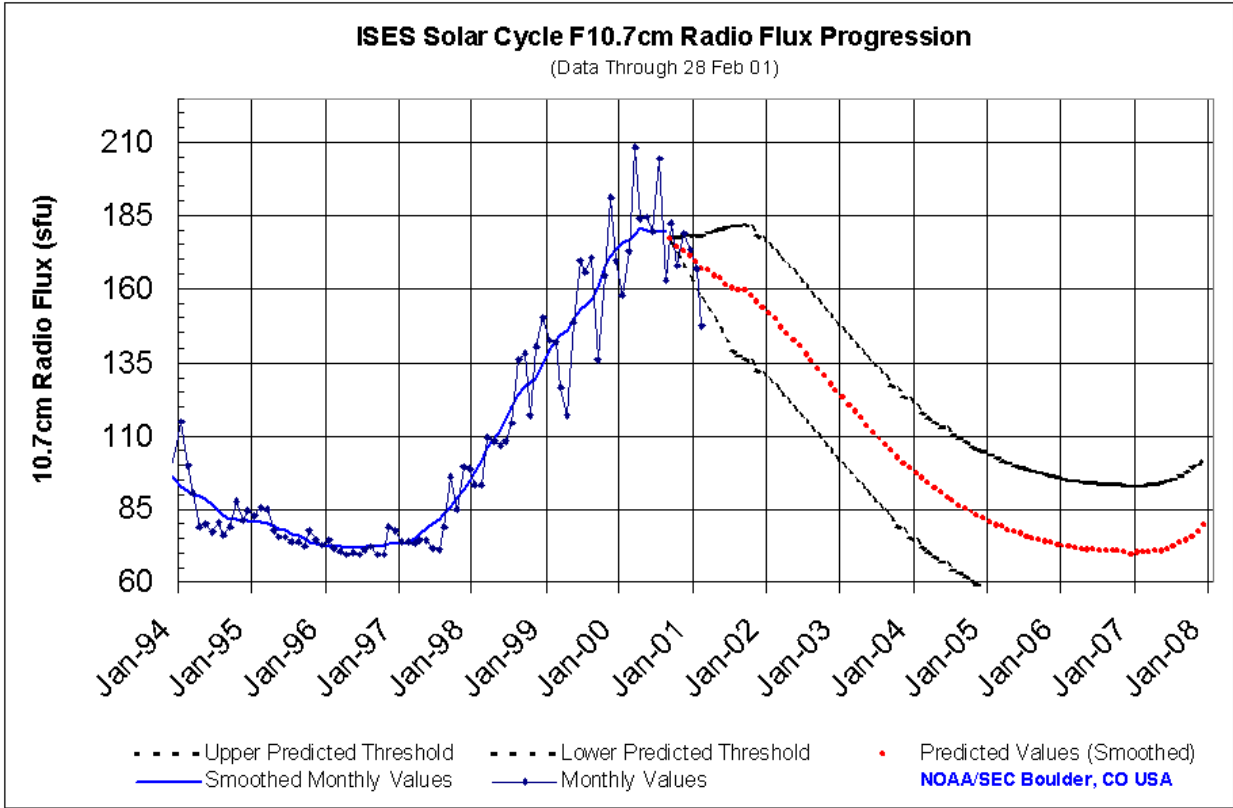




SEC Prediction of Smoothed Sunspot Number

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1998	44	49	53	57	59	63	66	68	70	71	73	78
	(***)	(***)	(***)	(***)	(***)	(***)	(***)	(***)	(***)	(***)	(***)	(***)
1999	83	85	84	86	91	93	94	97	102	108	111	111
	(***)	(***)	(***)	(***)	(***)	(***)	(***)	(***)	(***)	(***)	(***)	(***)
2000	113	117	120	121	119	119	120	119	116	115	115	114
	(***)	(***)	(***)	(***)	(***)	(***)	(***)	(***)	(1)	(3)	(5)	(7)
2001	111	108	107	108	108	108	109	110	110	109	107	105
	(9)	(11)	(13)	(15)	(17)	(19)	(21)	(22)	(23)	(23)	(23)	(23)
2002	103	101	98	96	94	91	89	86	84	81	79	76
	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)
2003	74	71	69	66	64	61	59	56	54	52	49	47
	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)
2004	45	43	41	39	37	35	33	31	29	28	26	25
	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)
2005	23	22	20	19	18	17	16	15	14	13	12	11
	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)
2006	10	9	9	8	8	7	7	7	7	6	6	5
	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)
2007	5	6	6	6	7	8	10	11	13	16	18	21
	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)

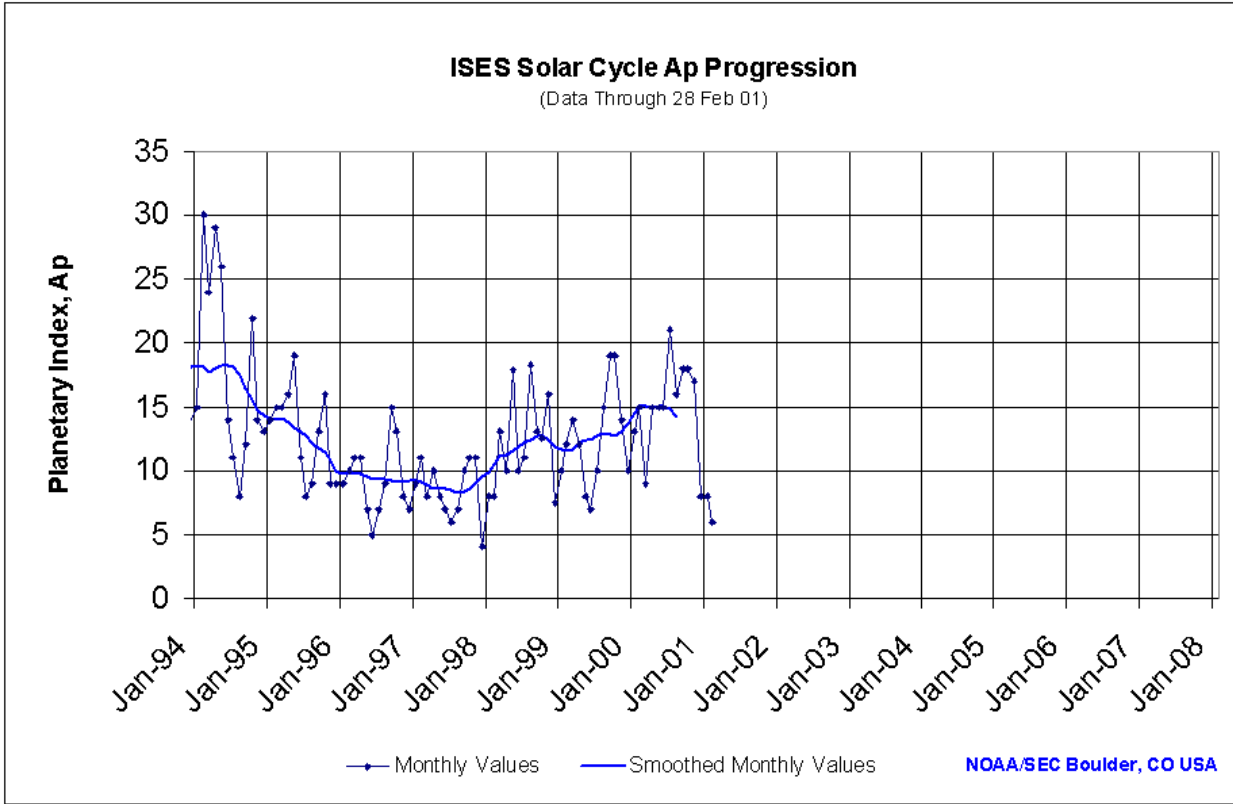




SEC Prediction of Smoothed F10.7cm Radio Flux

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1998	98 (***)	102 (***)	106 (***)	109 (***)	112 (***)	116 (***)	120 (***)	124 (***)	127 (***)	128 (***)	130 (***)	134 (***)
1999	139 (***)	143 (***)	144 (***)	146 (***)	150 (***)	153 (***)	154 (***)	156 (***)	161 (***)	167 (***)	172 (***)	173 (***)
2000	175 (***)	176 (***)	178 (***)	181 (***)	180 (***)	180 (***)	180 (***)	180 (***)	177 (1)	174 (3)	173 (5)	171 (7)
2001	169 (9)	167 (11)	166 (13)	165 (15)	163 (17)	162 (19)	160 (21)	160 (22)	159 (23)	158 (23)	156 (23)	154 (23)
2002	152 (23)	149 (23)	147 (23)	145 (23)	143 (23)	140 (23)	138 (23)	135 (23)	133 (23)	130 (23)	128 (23)	125 (23)
2003	123 (23)	120 (23)	118 (23)	116 (23)	113 (23)	111 (23)	109 (23)	107 (23)	105 (23)	103 (23)	101 (23)	99 (23)
2004	97 (23)	95 (23)	94 (23)	92 (23)	90 (23)	89 (23)	88 (23)	86 (23)	85 (23)	84 (23)	83 (23)	82 (23)
2005	81 (23)	80 (23)	79 (23)	78 (23)	77 (23)	76 (23)	76 (23)	75 (23)	75 (23)	74 (23)	73 (23)	73 (23)
2006	72 (23)	72 (23)	72 (23)	71 (23)	71 (23)	71 (23)	71 (23)	71 (23)	70 (23)	70 (23)	70 (23)	70 (23)
2007	70 (23)	70 (23)	70 (23)	70 (23)	71 (23)	71 (23)	72 (23)	73 (23)	74 (23)	76 (23)	77 (23)	79 (23)






Solar Radio Flux (10.7 cm)



Space Environment Center

February 2001
(Month 53)

 Preliminary data

