

Activity was at low to moderate levels. Low levels occurred through 02 August with isolated C-class subflares from a few small- to moderate-sized regions that were undergoing minor changes. Two large filaments erupted from the south-central portion of the disk on 31 July (subsequently affecting the field on 03 August). An increasing trend commenced on 02 August as Region 9563 (N24, L = 241, class/area Eai/380 on 05 August) entered a rapid growth phase. Region 9563 produced isolated M-class flares on 03 August as it continued to rapidly develop including the formation of a delta magnetic structure in the leader portion of the group. Region 9563 continued to grow during the remainder of the period, but at a more gradual pace as it produced isolated C-class subflares. Activity dropped to low levels on 04 August. Region 9557 (S20, L = 288, class/area Dki/560 on 04 August) entered a rapid development phase on 04 August, but produced no flares. Activity returned to moderate levels on the last day of the period as Region 9557 produced a couple M-class flares while it continued to grow at a gradual pace. Most active regions were in gradual growth phases as the period ended.

Data were available from the Advanced Composition Explorer (ACE) spacecraft for most of the period. A coronal hole-related high-speed stream was observed during 30 July - 01 August with peak velocities near 640 km/sec on 01 August. Coronal hole effects subsided during 02 August. Weak CME passages were observed on 02 and 03 August. These CMEs were likely associated with filament disappearances on 31 July. There were no disturbances observed on 04 August. A short-lived high-speed stream associated with a coronal hole was detected on 05 August with peak velocities of 520 km/sec.

There were no proton events during the period.

The greater than 2 MeV electron flux at geosynchronous orbit was at normal to moderate levels.

Intermittent active to minor storm periods occurred during 30 July – 01 August due to coronal hole effects. Brief active periods occurred on 03 August due to a weak CME passage, likely associated with filament eruptions on 31 July. Active to minor storm conditions were observed on 05 August due to coronal hole effects.

Space Weather Outlook **08 August 2001 - 03 September 2001**

Solar activity is expected to be at low to moderate levels. Isolated M-class flares are expected. Region 9557 provides a slight chance for a major flare until it crosses the west limb during 08 - 09 August.

There will be a slight chance for a solar proton event during the period.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at normal to moderate levels during most of the period. However, high flux levels will be possible around 08 - 09, 15 - 17 and 23 - 24 August.

The geomagnetic field is expected to be at quiet to unsettled levels during most of the period, barring an Earth-directed CME. However, active periods will be possible during 12 - 13, 20 - 22, and 27 August; and 01 - 02 September due to coronal hole effects.



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
30 July	115	64	330	B2.4	2	0	0	0	0	0	0	0
31 July	117	85	450	B2.5	3	0	0	5	0	0	0	0
01 August	120	108	380	B2.2	3	0	0	4	0	0	0	0
02 August	121	113	440	B1.9	8	0	0	10	0	0	0	0
03 August	132	140	400	B3.0	8	1	0	14	0	0	0	0
04 August	148	182	790	B4.1	8	0	0	11	0	0	0	0
05 August	156	214	1300	B6.8	19	2	0	27	2	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
30 July	3.0E+5	1.2E+4	2.3E+3		1.9E+7	
31 July	1.0E+5	1.2E+4	2.5E+3		8.7E+4	
01 August	1.1E+6	1.2E+4	2.5E+3		5.9E+6	
02 August	3.0E+5	1.1E+4	2.3E+3		7.4E+6	
03 August	7.3E+4	1.1E+4	2.3E+3		3.5E+5	
04 August	6.0E+4	1.1E+4	2.2E+3		2.4E+5	
05 August	1.1E+5	1.1E+4	2.3E+3		4.5E+5	

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
	30 July	8	2-1-1-1-2-1-2-4	9	2-1-4-3-1-1-2-2	9
31 July	20	3-4-3-3-4-4-3-3	23	2-4-4-2-4-5-4-3	23	3-4-4-3-4-4-3-3
01 August	10	3-2-2-3-2-3-2-2	23	3-2-2-6-5-2-3-1	12	3-2-3-3-3-3-2-2
02 August	7	2-1-3-1-2-3-1-2	9	1-2-3-3-3-2-1-1	8	1-1-3-2-2-3-3-2
03 August	11	3-2-4-2-2-2-2-2	13	1-2-4-4-4-2-1-1	14	2-2-4-3-3-3-3-3
04 August	7	1-2-2-2-2-2-2-2	19	1-1-3-5-5-4-1-1	9	2-2-2-2-3-3-3-2
05 August	13	2-1-3-2-4-3-3-3	37	2-2-4-6-6-6-2-2	23	2-1-4-5-5-4-3-3

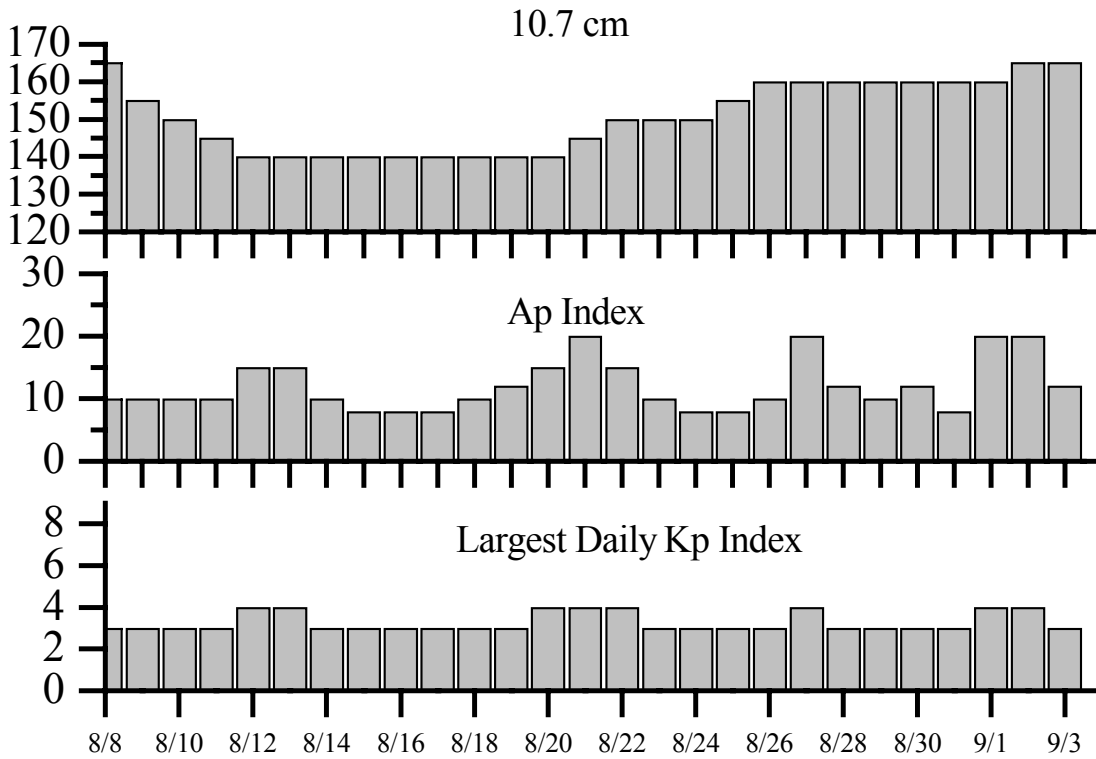


Alerts and Warnings Issued

Date & Time of Issue	Type of Alert or Warning	Date & Time of Event UT
30 Jul 2115	Type II Radio Emission	30 Jul 2045
31 Jul 0000	K= 4 Observed	30 Jul 2100 – 0000
31 Jul 0022	1 - 245 MHz Bursts	30 Jul
31 Jul 0509	K= 4 Warning	31 Jul 0515 - 1500
31 Jul 0559	K= 4 Observed	31 Jul 0300 - 0600
31 Jul 1445	EXTENDED K= 4 Warning	31 Jul 0515 – 01 Aug 1500
31 Jul 1835	A \geq 20 Observed	31 Jul 1800
01 Aug 0003	ENDED A \geq 20 Observed	31 Jul 2400
01 Aug 0100	2 - 245 MHz Bursts	31 Jul
01 Aug 1200	K= 4 Observed	01 Aug 0900 - 1200
01 Aug 2043	A \geq 20 Watch	04 Aug
02 Aug 0100	2 - 245 MHz Bursts	01 Aug
02 Aug 1312	Type II Radio Emission	02 Aug 1233
02 Aug 1619	A \geq 20 Watch	03 Aug
02 Aug 1642	Type II Radio Emission	02 Aug 1615
03 Aug 0100	12 - 245 MHz Bursts	02 Aug
03 Aug 0727	K= 4 Warning	03/0730 – 04/0000 Aug
03 Aug 1206	K= 4 Observed	03 Aug 0600 - 0900
04 Aug 0100	6 - 245 MHz Bursts	03 Aug
04 Aug 0100	1 - 245 MHz Noise Storms	03 Aug
05 Aug 0900	K= 4 Observed	05 Aug 0600 - 0900
05 Aug 1117	K= 4 Warning	05 Aug 1120 - 2359
05 Aug 1140	K= 5 Warning	05 Aug 1145 - 2100
05 Aug 1154	K= 5 Observed	05 Aug 0900 - 1200
05 Aug 1800	A \geq 20 Observed	05 Aug 1800
05 Aug 2254	EXTENDED K= 4 Warning	05 /1120 – 06/1500 Aug



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
08 Aug	165	10	3	22 Aug	150	15	4
09	155	10	3	23	150	10	3
10	150	10	3	24	150	8	3
11	145	10	3	25	155	8	3
12	140	15	4	26	160	10	3
13	140	15	4	27	160	20	4
14	140	10	3	28	160	12	3
15	140	8	3	29	160	10	3
16	140	8	3	30	160	12	3
17	140	8	3	31	160	8	3
18	140	10	3	01 Sep	160	20	4
19	140	12	3	02	165	20	4
20	140	15	4	03	165	12	3
21	145	20	4				



Energetic Events

Date	Time		X-ray		Optical Information			Peak		Sweep Freq		
	Begin	Max	½ Max	Class	Integ Flux	Imp/Location		Rgn #	Radio Flux		Intensity	
						Brtns	Lat CMD		245	2695	II	IV
03 Aug	0302	0307	0309	M1.5	.002	SN	N22E27	9563	6300			
05 Aug	1522	1531	1536	M1.7	.007	SF	S21W46	9557	50			
05 Aug	2216	2224	2229	M4.9	.022	1N	S20W49	9557				

Flare List

Date	Time			X-ray Class.	Optical Imp / Brtns	Location Lat CMD	Rgn
	Begin	Max	End				
30 July	0820	0834	0840	C4.5			
	2036	2043	2049	C6.0			
31 July	0116	0116	0121	B7.3	SF	S22E26	9557
	0153	0157	0201	B5.6			
	0357	0407	0416	C6.0			
	0901	0907	0915	B6.5			
	1201	1211	1222	C1.8	SF	S12E58	9561
	1652	1653	1655		SF	S20E13	9557
	1713	1719	1731	C2.6	SF	S12E53	9561
	1810	1816	1825		SF	N03E56	9562
01 August	0105	0114	0124	C1.2			
	0329	0358	0428	C2.4	SF	S14E49	9561
	0509	0515	0520	B5.8			
	1005	1012	1017	B5.4			
	1308	1309	1316	B6.4	SF	S12E44	9561
	1728	1737	1746	B4.8	SF	S14E43	9561
	2222	U2224	2250	C3.3	SF	S13E40	9561
02 August	0351	0356	0400	B3.9			
	0822	0825	0829	B2.8			
	0944	0950	0952	B3.7			
	1059	1114	1118	B8.2			
	1204	1205	1214	C2.4	SF	N24E34	9563
	1233	1234	1254	C2.1	SF	N17E52	9566
	1333	1406	1414		SF	S18W02	9557
	1457	1458	1514	C3.1	SF	N23E35	9563
	1546	1558	1607		SF	S12E29	9561
	1557	1557	1602		SF	N23E34	9563
	1610	1613	1624	C4.8	SF	N22E34	9563
	1723	1727	1737		SF	N23E33	9563
	1744	1746	1755	C2.8	SF	N23E32	9563
	1853	1901	1908	C2.1	SF	N24E31	9563
	2001	2009	2012	C1.8			
	2013	2017	2021	C3.3			



Flare List- continued

Date	Time			X-ray Brtns Lat CMD	Optical		Rgn
	Begin	Max	End		Class	Imp /	
03 August	2213	2217	2222	B6.1			
	2253	2257	2259	B7.3			
	0110	0115	0117	C1.3			
	0131	0134	0138	B4.6			
	0303	0306	0313	M1.5	SN	N22E27	9563
	0427	0434	0449	C1.1	SF	N16E41	9566
	0534	0534	0542	C1.2	SF	S15E06	
	0744	0745	0757	B9.6	SF	N24E28	9563
	0858	0858	0913	C1.1	SF	S13E18	9561
	0900	0902	0911		SF	S15E04	9561
	1001	1003	1016	C1.7	SF	N25E26	9563
	1138	1144	1148	C1.6			
	1504	1504	1513		SF	N14W63	9564
	1637	1640	1704	C1.0	SF	S22W20	9557
	1739	1739	1746		SF	N25E24	9563
	1857	1901	1905		SF	S22W21	9557
	2141	2144	2152	C1.1	SF	S15W03	9567
	2232	2239	2250	B6.1			
	2333	2335	2340		SF	S21W23	9557
	2345	2348	2359		SF	S21W23	9557
04 August	0207	0209	0214	C2.7	SF	N22E13	9563
	0300	0303	0305		SF	N17E32	9566
	0404	0405	0409		SF	N22E12	9563
	0901	0903	0908		SF	S17W57	9568
	0949	0950	0954	C7.9	SF	N24E08	9563
	1221	1235	1250	C9.6			
	1754	1758	1818		SF	N17E25	9566
	1839	U1840	A1942	C2.3	SF	N16E24	9566
	B1941	U1943	A2018	C2.8	SF	S22W34	9557
	B2013	U2016	A2101	C1.0	SF	N21E05	9563
	2253	2257	2259	C1.5			
	2340	2344	2350		SF	S22W36	9557
	2351	2351	0005	C1.2	SF	N25E08	9563
05 August	0050	0052	0104	C1.4	SF	S20W44	9557
	0113	0113	0127	C1.1	SF	N16E19	9566
	0340	0343	0349	C1.2	SF	N24E03	9563
	0352	0353	0401		SF	N23E02	9563
	0405	0408	0417	C2.3	SF	S15W20	9567
	0405	0408	0419		SF	N16E18	9566
	0514	0514	0518	C1.0	SF	N20W01	9563



Flare List- continued

Date	Begin	Time		X-ray Brtns	Optical		Rgn
		Max	End		Class.	Imp / Lat CMD	
05 August	0535	0541	0556	C1.0	SF	S13W22	9567
	0952	0952	0958	C1.5	SF	N17E15	9566
	1039	1047	1054	C2.4			
	1200	1203	1207	C1.2			
	1253	1254	1257	C4.1	SF	N17E14	9566
	1257	1258	A1309		SF	S20W73	9568
	B1326	1326	1339	C2.2	SF	S23W46	9557
	1427	1439	1455	C2.0	SF	S19W44	9557
	1455	1455	1501		SF	S18W73	9568
	1503	1504	1517	C3.5	SF	S20W46	9557
	1526	1527	1544		SF	N17E13	9566
	1526	1533	1555	M1.7	SF	S21W46	9557
	1611	1614	1616	C1.1			
	1812	1828	1841		SF	S13W29	9567
	1829	1829	1839	C3.3	SF	S20W49	9557
	1853	1904	1911		SF	S20W49	9557
	1914	1919	1933		SF	S19W48	9557
	1953	1953	2007	C1.6	SF	N18E09	9566
	2050	2054	2104	C1.2	SF	N17E09	9566
	2119	2123	2158	C7.1	1N	S14W30	9567
	2127	2128	2144		SF	S19W50	9557
	2148	2154	2200		SF	S17W76	9568
	2155	2156	2159		SF	N17E08	9566
	2220	2224	2250	M4.9	1N	S20W49	9557
	2339	2340	2351	C3.8	SF	N17E08	9566



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

Region 9553

23 Jul	N13E34	010	0030	04	CSO	003	B												
24 Jul	N12E21	010	0020	05	CSO	008	B												1
25 Jul	N13E08	010	0100	06	DAI	013	B												
26 Jul	N13W05	009	0190	08	DAI	015	B												
27 Jul	N12W18	009	0110	08	DAO	021	B												
28 Jul	N13W33	011	0030	10	CRO	013	B												
29 Jul	N14W46	011	0010	04	BXO	003	B												
30 Jul	N14W59	011																	
31 Jul	N14W72	011																	
01 Aug	N14W85	011																	

0 0 0 1 0 0 0 0

Crossed West Limb.

Absolute heliographic longitude: 009

Region 9555

24 Jul	S09E55	336	0000	03	BXO	002	B												
25 Jul	S09E38	340	0010	03	CRO	002	B												
26 Jul	S09E28	336	0010	03	BXO	002	B												
27 Jul	S09E15	336																	
28 Jul	S09E01	337	0000	01	HRX	001	A												
29 Jul	S09W12	337																	
30 Jul	S09W25	337																	
31 Jul	S09W38	337																	
01 Aug	S09W51	337																	
02 Aug	S09W64	337																	
03 Aug	S09W77	337																	
04 Aug	S09W90	337																	

0 0 0 0 0 0 0 0

Crossed West Limb.

Absolute heliographic longitude: 337



Region Summary - continued.

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

Region 9557

26 Jul	S18E72	292	0080	04	HSX	001	A										
27 Jul	S18E58	293	0070	02	HSX	001	A										
28 Jul	S20E48	290	0090	12	ESO	004	B										
29 Jul	S20E36	289	0130	16	FAO	009	B	1			1						
30 Jul	S19E22	290	0110	15	EAO	014	B										
31 Jul	S20E08	291	0120	14	EAI	015	B					2					
01 Aug	S19W03	288	0080	14	EAO	012	B										
02 Aug	S20W15	287	0090	14	ESO	015	B					1					
03 Aug	S21W26	285	0050	12	EAO	014	B	1				4					
04 Aug	S21W37	283	0280	07	DKI	019	B	1				2					
05 Aug	S21W51	284	0560	08	DKI	021	BG	5	2		9	1					
								8	2	0	19	1	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 288

Region 9558

26 Jul	N18W30	034	0010	02	BXO	002	B										
27 Jul	N18W43	034															
28 Jul	N18W56	034															
29 Jul	N18W69	034															
30 Jul	N18W82	034															
								0	0	0	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 034

Region 9559

27 Jul	S25E14	337	0010	03	DSO	005	B										
28 Jul	S24E00	338	0030	07	CRO	008	B										
29 Jul	S24W14	339	0040	07	DRO	006	B										
30 Jul	S24W23	335	0010	05	CRO	003	B										
31 Jul	S22W38	337	0010	02	BXO	002	B										
01 Aug	S22W51	337															
02 Aug	S22W64	337															
03 Aug	S22W77	337															
04 Aug	S22W90	337															
								0	0	0	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 338



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 9561</i>																		
30 Jul	S13E63	249	0070	07	DAO	005	B											
31 Jul	S12E49	250	0100	10	DAO	011	B	2				2						
01 Aug	S12E37	248	0110	11	EAO	009	B	2				4						
02 Aug	S13E24	248	0100	11	ESO	013	B					1						
03 Aug	S13E10	249	0040	10	DSO	006	B	1				2						
04 Aug	S13W03	249	0040	11	CSO	008	B											
05 Aug	S13W19	252	0040	08	CSO	004	B											
								5	0	0	0	9	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 249

<i>Region 9562</i>																		
30 Jul	N05E70	242	0140	09	DAO	002	B											
31 Jul	N06E58	241	0210	11	EAO	006	B					1						
01 Aug	N05E44	241	0120	10	DAO	007	B											
02 Aug	N05E31	241	0110	08	DAO	006	B											
03 Aug	N04E16	243	0060	08	DSO	005	B											
04 Aug	N05E03	243	0040	07	DAO	005	B											
05 Aug	N05W11	244	0040	09	DSO	007	B											
								0	0	0	0	1	0	0	0	0	0	

Still on Disk.

Absolute heliographic longitude: 243

<i>Region 9563</i>																		
31 Jul	N24E57	242	0010	01	AXX	001	A											
01 Aug	N24E44	241	0000	01	AXX	001	A											
02 Aug	N25E31	241	0050	05	CSO	008	B	5				7						
03 Aug	N24E18	241	0100	08	DAI	015	B	1	1			4						
04 Aug	N23E05	241	0210	09	DAI	025	B	4				5						
05 Aug	N23W07	240	0320	11	EAI	038	BG	2				3						
								12	1	0	19	0	0	0	0	0	0	

Still on Disk.

Absolute heliographic longitude: 241

<i>Region 9564</i>																		
01 Aug	N14W40	325	0020	03	CRO	002	B											
02 Aug	N14W54	326	0040	04	DSO	006	B											
03 Aug	N14W67	326	0060	06	DSO	007	B					1						
04 Aug	N14W81	327	0080	07	DAO	004	B											
								0	0	0	0	1	0	0	0	0	0	

Still on Disk.

Absolute heliographic longitude: 325



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 9565</i>																									
01 Aug	N04E22	263	0010	03	BXO	003	B																		
02 Aug	N04E09	263	0000	00		000																			
03 Aug	N04W04	263	0000	00		000																			
04 Aug	N03W19	265	0010	03	BXO	004	B																		
05 Aug	N03W34	267	0000	00	AXX	001	A																		
Still on Disk.																									
Absolute heliographic longitude: 263																									
<i>Region 9566</i>																									
01 Aug	N17E63	222	0040	05	DSO	004	B																		
02 Aug	N16E50	222	0050	06	CRO	005	B	1				1													
03 Aug	N18E34	225	0020	03	BXO	005	B	1				1													
04 Aug	N17E22	224	0070	08	DSO	016	B	1				3													
05 Aug	N17E08	225	0130	09	DAI	022	BG	6				9													
Still on Disk.																									
Absolute heliographic longitude: 225																									
<i>Region 9567</i>																									
03 Aug	S15W02	261	0050	04	DSO	007	B	1				1													
04 Aug	S15W16	262	0040	04	DAO	008	B																		
05 Aug	S15W31	264	0060	06	DAO	014	B	3				3	1												
Still on Disk.																									
Absolute heliographic longitude: 261																									
<i>Region 9568</i>																									
03 Aug	S19W50	309	0020	01	AXX	001	A																		
04 Aug	S18W61	307	0020	05	BXO	003	B					1													
05 Aug	S18W78	311	0030	08	BXO	003	B					3													
Still on Disk.																									
Absolute heliographic longitude: 309																									
<i>Region 9569</i>																									
05 Aug	S18E10	223	0020	04	BXO	003	B																		
Still on Disk.																									
Absolute heliographic longitude: 223																									

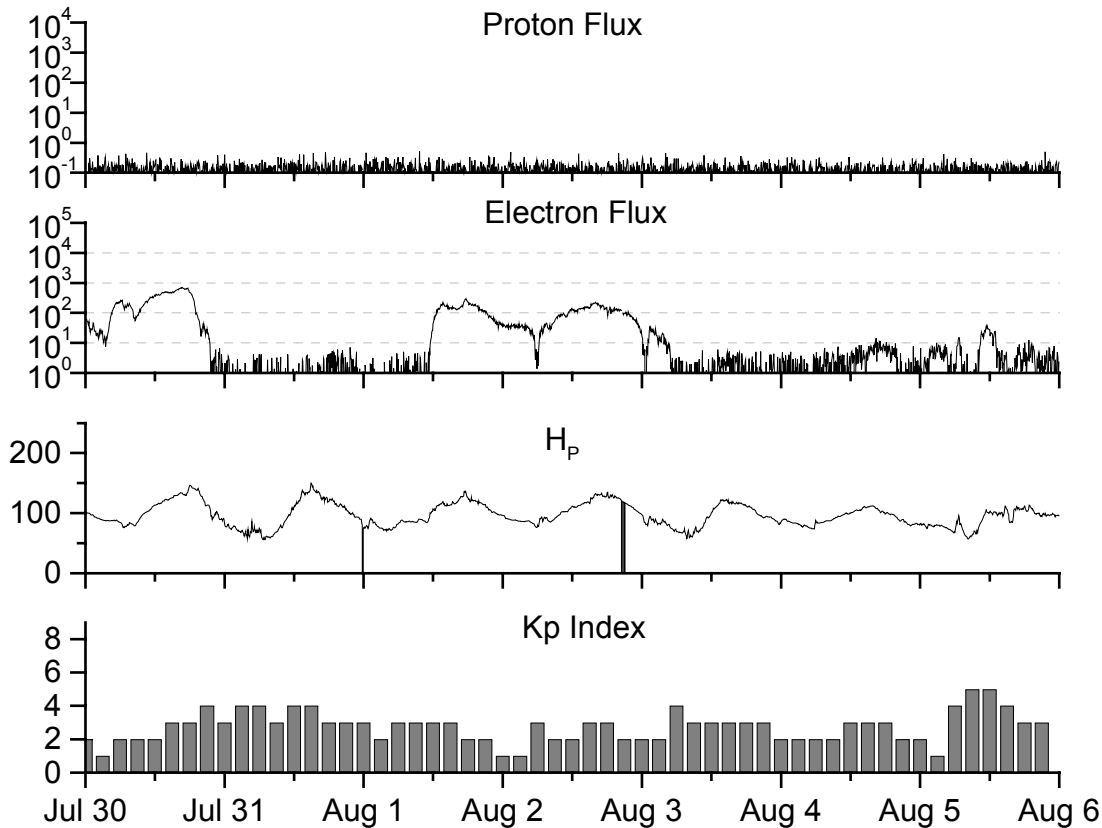


**Recent Solar Indices (preliminary)
of the observed monthly mean values**

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									
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	169.0	116.2	182.1	177.1	18	14.2
October	138.9	100.1	0.72	166.2	114.4	167.7	175.6	18	14.6
November	149.9	106.5	0.71	162.7	112.7	178.8	173.6	17	14.6
December	146.4	104.5	0.71	160.8	112.1	173.6	172.0	08	14.4
2001									
January	142.7	95.1	0.67			166.7		08	
February	131.0	80.1	0.61			147.3		06	
March	166.7	114.2	0.69			177.7		17	
April	163.6	108.2	0.66			178.3		18	
May	135.1	97.3	0.72			148.7		12	
June	196.7	134.0	0.68			173.7		12	

NOTE: All smoothed values after June 1999 and monthly values after December 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 30 July 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.

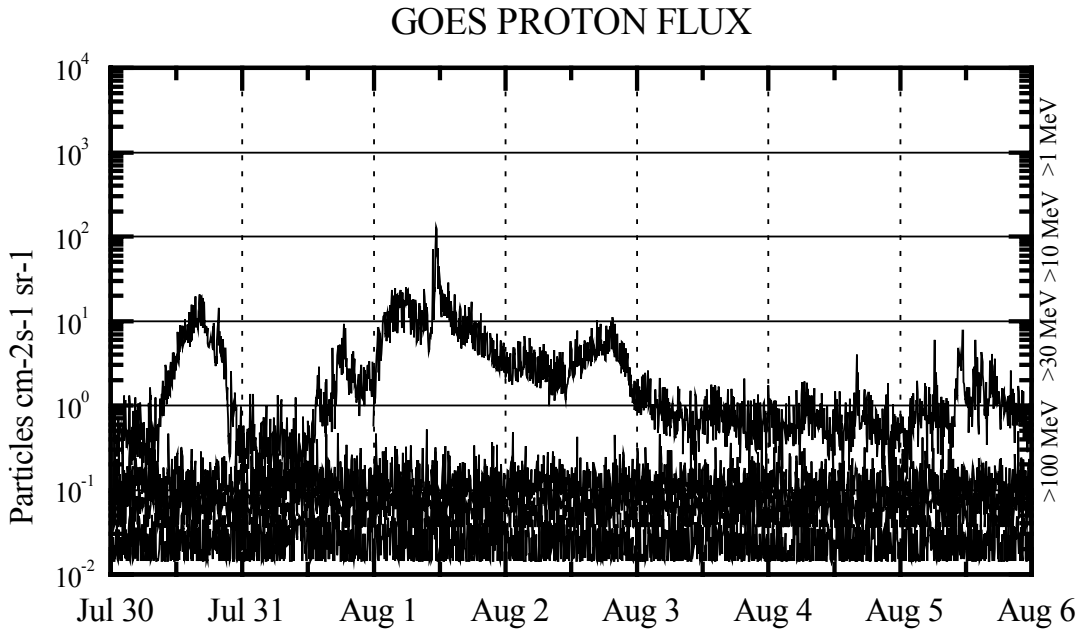
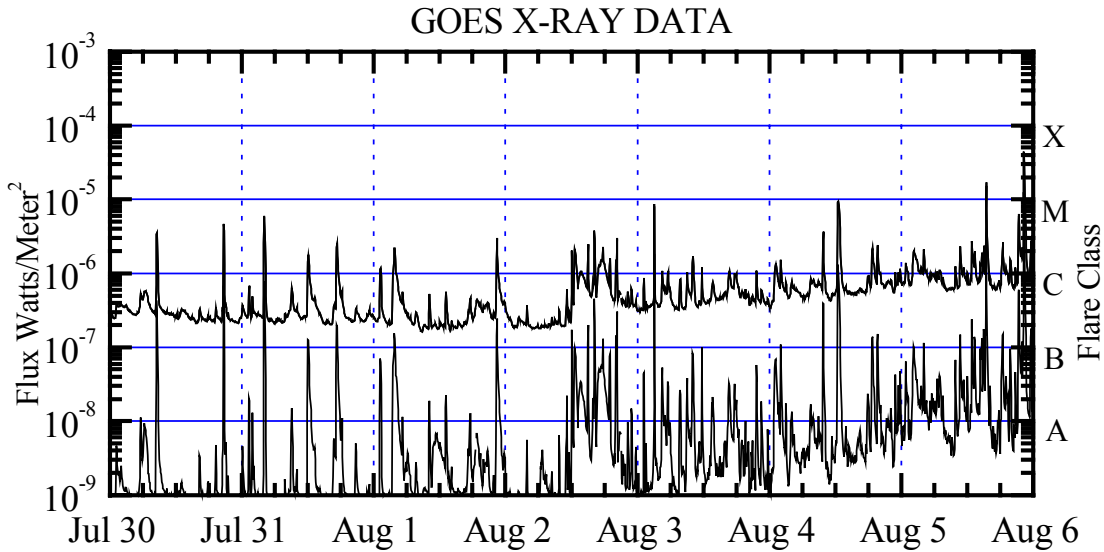
Electrons plot contains the five-minute averaged integral electron flux (electrons/cm²-sec -sr) with energies greater than 2 MeV at GOES-8.

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 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 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.

