

SEPTEMBER 2004 NUMBER 721 - Part II



Solar-Geophysical Data comprehensive reports

Data for March 2004 and Miscellaneous
Explanation of Data Reports Issued as Number 515 (Supplement) July 1987

NEW DATA:

**ACE Solar Wind, Interplanetary Magnetic Field and
Particles -- Monthly Plots**

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NATIONAL OCEANIC AND
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NATIONAL ENVIRONMENTAL SATELLITE,
DATA, AND INFORMATION SERVICE

NATIONAL GEOPHYSICAL
DATA CENTER

BOULDER,
COLORADO



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Data for March 2004 and Late Data

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SOLAR-GEOPHYSICAL DATA

Number 721

(Issued in Two Parts)

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NEW DATA:	
ACE SOLAR WIND, INTERPLANETARY MAGNETIC FIELD AND PARTICLES	
-- MONTHLY PLOTS	

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H α SOLAR FLARES

MARCH 2004

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
																Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0004	LEAR	09	0434	0436	0441	S13	E41	10570	03	12.3	7	SF		3	E		13		F
0005	LEAR	09	0644	0648	0658	S16	E43	10570	03	12.5	14	SF		3	E		27		F
		09	0800		0801			No Flare	Patrol										
		09	0820		0822			No Flare	Patrol										
		09	0826		0827			No Flare	Patrol										
		09	0848		0849			No Flare	Patrol										
		09	0904		0907			No Flare	Patrol										
		09	0944		0945			No Flare	Patrol										
		09	1047		1121			No Flare	Patrol										
		09	2017		2037			No Flare	Patrol										
		10	0101		0325			No Flare	Patrol										
0006		10	23011	2302	2306	S12	E17	10570	03	12.2	5	SF					15		
	HOLL	10	2301	2302	2306	S11	E15	10570	03	12.1	5	SF		3	E		19		
	LEAR	10	2302	2302	2305	S13	E19	10570	03	12.4	3	SF		3	E		11		
		11	0034		0922			No Flare	Patrol										
0007	LEAR	11	0214	0217	0225	S17	E15	10570	03	12.2	11	SF		3	E		24		F
		11	1004		2257			No Flare	Patrol										
		12	0125		0235			No Flare	Patrol										
0008	LEAR	12	0237E	0238U	0243	S16	W04	10570	03	11.8	6D	SF		3	E		72		
		12	0310		0450			No Flare	Patrol										
		12	1455		1507			No Flare	Patrol										
		12	1516		2250			No Flare	Patrol										
0009	LEAR	12	2333	2335	2357	S14	W08	10570	03	12.4	24	SF		3	E		30		F
		13	0000		0554			No Flare	Patrol										
		13	0628		0744			No Flare	Patrol										
0010	KANZ	13	1130	1131	1133	S11	W18	10570	03	12.1	3	SF		2	E				
		13	1204		1207			No Flare	Patrol										
0011	KANZ	13	1353	1355	1358	S10	W20	10570	03	12.1	5	SF		2	E				
		13	1418		1420			No Flare	Patrol										
		13	1505		1514			No Flare	Patrol										
		13	1517		1518			No Flare	Patrol										
		13	1520		1524			No Flare	Patrol										
		13	1530		1534			No Flare	Patrol										
		13	1629		1633			No Flare	Patrol										
		13	1658		1804			No Flare	Patrol										
		13	1837		1936			No Flare	Patrol										
		13	2312		2319			No Flare	Patrol										
		13	2326		2333			No Flare	Patrol										
		13	2343		2400			No Flare	Patrol										
		14	0000		0100			No Flare	Patrol										
		14	0531		0624			No Flare	Patrol										
		14	0649		0657			No Flare	Patrol										
		14	1340		1344			No Flare	Patrol										
		14	2024		2029			No Flare	Patrol										
		14	2033		2039			No Flare	Patrol										
		15	0249		0257			No Flare	Patrol										
		16	0055		0634			No Flare	Patrol										
		17	0034		0532			No Flare	Patrol										
0012		17	0753	07591	0814	S04	E64	10574	03	22.1	21	SF					47		
	KANZ	17	0753	0759	0814	S04	E63	10574	03	22.0	21	SF		2	E				
	LEAR	17	0753	0800	0814	S05	E64	10574	03	22.1	21	SF		3	E		47		
0013		17	0831	08331	0843	S04	E63	10574	03	22.1	12	SF					53		
	LEAR	17	0831	0833	0844	S05	E63	10574	03	22.1	13	SF		3	E		53		
	KANZ	17	0831	0834	0842	S04	E63	10574	03	22.1	11	SF		2	E				

8
Mar 04

H α SOLAR FLARES

MARCH 2004

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
																Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0045	LEAR	28	0346	0347	0402	S13	E48	10585	03	31.8	16	SF		3	E		22		
		28	0733		0734	No Flare	Patrol												
		28	0743		0744	No Flare	Patrol												
		28	0748		0837	No Flare	Patrol												
		28	0912		0940	No Flare	Patrol												
		28	0948		0955	No Flare	Patrol												
		28	0957		1000	No Flare	Patrol												
		28	1002		1007	No Flare	Patrol												
		28	1009		1010	No Flare	Patrol												
		28	1020		1021	No Flare	Patrol												
		28	1025		1047	No Flare	Patrol												
		28	1058		1106	No Flare	Patrol												
		28	1108		1114	No Flare	Patrol												
		28	1122		1123	No Flare	Patrol												
		28	1127		1148	No Flare	Patrol												
		28	1151		1156	No Flare	Patrol												
		28	1159		1200	No Flare	Patrol												
		28	1208		1209	No Flare	Patrol												
		28	1211		1222	No Flare	Patrol												
		28	1225		1227	No Flare	Patrol												
		28	1231		1238	No Flare	Patrol												
		28	1256		1259	No Flare	Patrol												
		28	1303		1304	No Flare	Patrol												
		28	1313		1315	No Flare	Patrol												
		29	0000		0001	No Flare	Patrol												
0046	LEAR	29	0419	0419	0426	N15	E25	10582	03	31.1	7	SF		3	E		21		
0047	LEAR	29	0430	0431	0440	N16	E25	10582	03	31.1	10	SF		3	E		25		
		29	0624		0747	No Flare	Patrol												
		29	0948		1111	No Flare	Patrol												
		29	1135		1156	No Flare	Patrol												
0048	KANZ	29	1252	1259	1312	N16	E20	10582	03	31.0	20	SF		2	E				
0049		29	15473	15551	1600	N16	E17	10582	03	30.9	13	SF					31		FH
	KANZ	29	1547	1555	1600	N15	E17	10582	03	30.9	13	SF		2	E				FH
	HOLL	29	1550	1556	1601	N16	E17	10582	03	30.9	11	SF		3	E		31		FH
0050	HOLL	29	1843	1844	1850	N16	E16	10582	03	31.0	7	SF		3	E		39		FH
0051	HOLL	29	1958	1959	2002	N15	E16	10582	03	31.0	4	SF		3	E		53		F
0052	HOLL	29	2006	2006	2012	N15	E15	10582	03	31.0	6	SF		3	E		23		
0053		29	2322	2325	2334	N16	E14	10582	03	31.0	12	1F					95		FH
	HOLL	29	2322	2325	2332	N15	E13	10582	03	30.9	10	SF		3	E		79		FH
	LEAR	29	2326E	2326U	2336	N16	E16	10582	03	31.2	10D	1F		3	E		111		FH
		30	0116		0918	No Flare	Patrol												
0054	LEAR	30	0153	0156	0203	N14	E12	10582	03	31.0	10	SF		3	E		79		FH
0055	LEAR	30	0249	0250	0304	N12	E11	10582	03	30.9	15	SF		3	E		59		F
0056	LEAR	30	0310	0310	0315	N13	E11	10582	03	31.0	5	SF		3	E		38		FH
0057	LEAR	30	0345	0345	0350	N15	E12	10582	03	31.1	5	SF		3	E		10		
0058	LEAR	30	0507	0525	0533	N13	E13	10582	03	31.2	26	SF		3	E		70		FH
0059	LEAR	30	0539	0542	0544	N12	E09	10582	03	30.9	5	SF		3	E		15		FH
		30	0947		1311	No Flare	Patrol												
0060	HOLL	30	1757	1759	1802	N16	E02	10582	03	30.9	5	SF		3	E		21		FH

MARCH 2004

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/USAF Region		CMP Mo	Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement		Remarks	
																	Time (UT)	Apparent (10 ⁻⁶ Disk)		Corr (Sq Deg)
0061	HOLL	30	2136	2136	2141	N16	E00	10582	03	30.9	5	SF			3	E		13		H
0062	HOLL	30	2258	2309	2334	S05	E02	10581	03	31.1	36	SF			3	E		57		
0063	LEAR	30	2311E	2313	2349	S06	E02	10581	03	31.1	38D	SF			3	E		76		
0064		31	0013	0016	0028	N12	W02	10582	03	30.8	15	1F						83		FH
	HOLL	31	0013	0016	0027	N13	W02	10582	03	30.8	14	SF			3	E		66		F
	LEAR	31	0013	0016	0030	N12	W01	10582	03	30.9	17	1F			3	E		100		FH
0065	LEAR	31	0038	0042	0053	N09	E01	10582	03	31.1	15	SF			3	E		22		FH
		31	0116		0859	No Flare Patrol														
0066	LEAR	31	0601	0604	0617	N16	W02	10582	03	31.1	16	SF			3	E		77		FH
0067		31	09298	09345	0959	N11	W06	10582	03	30.9	30	SF						49		FH
	KANZ	31	0929	0934	0959	N11	W06	10582	03	30.9	30	SF			2	E				
	LEAR	31	0937	0939	0944D	N11	W07	10582	03	30.9	7D	SF			2	E		49		FH
0068	KANZ	31	1046	1100	1341U	N10	W09	10582	03	30.8	175U	SF			2	E				
0069	KANZ	31	1359	1405	1417	N11	W09	10582	03	30.9	18	SF			2	E				
0070	HOLL	31	1509	1511	1521	N12	W11	10582	03	30.8	12	SF			3	E		52		FH
0071	HOLL	31	2005	2006	2016	N16	W10	10582	03	31.1	11	SF			3	E		82		

"Remarks"

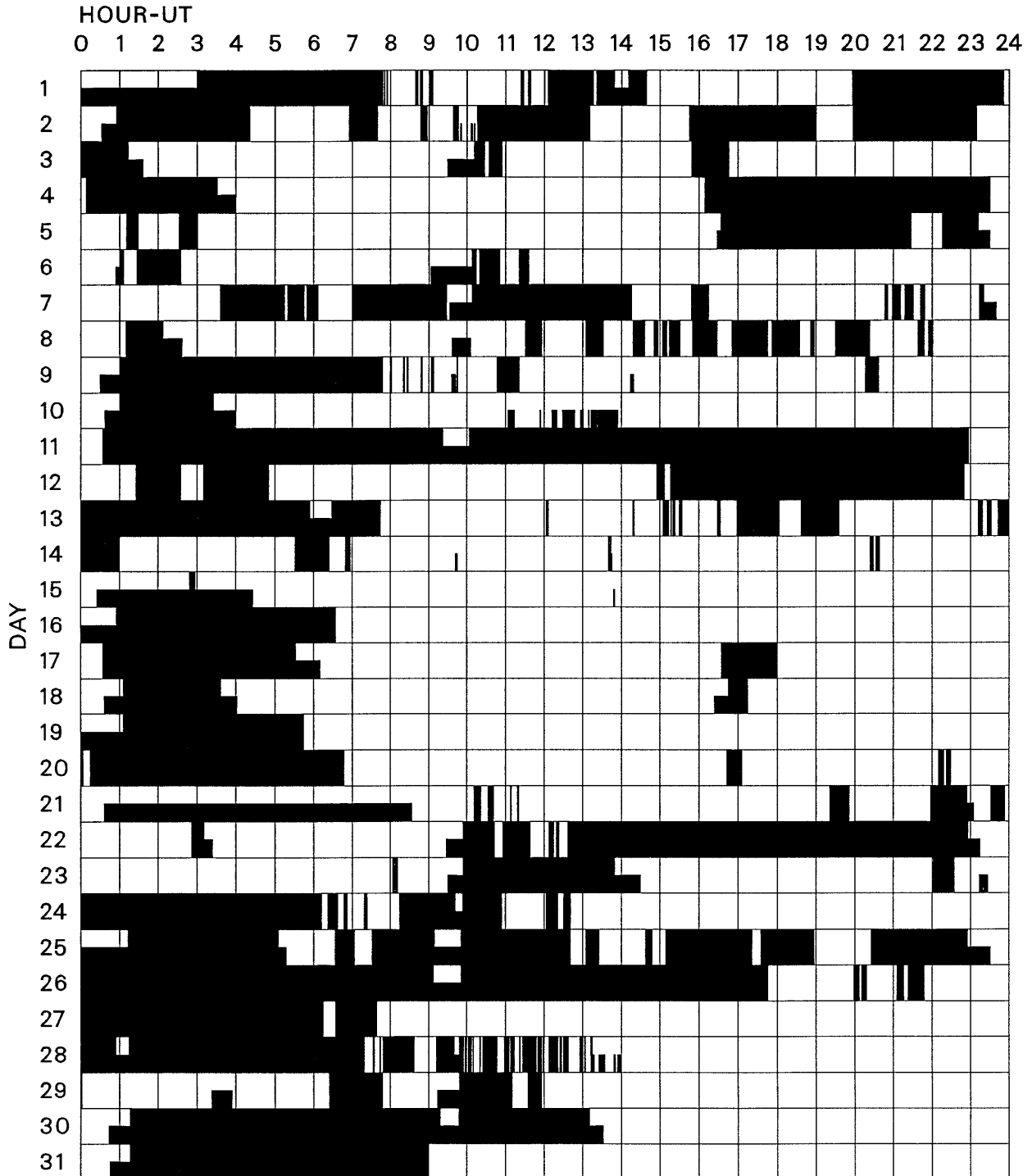
A = Eruptive prominence whose base is less than 90 degrees from central meridian.
 B = Probably the end of a more important flare.
 C = Invisible 10 minutes before.
 D = Brilliant point.
 E = Two or more brilliant points.
 F = Several eruptive centers.
 G = No visible spots in the neighborhood.
 H = Flare accompanied by high-speed dark filament.
 I = Active region very extended.
 J = Distinct variations of plage intensity before or after the flare.
 K = Several intensity maxima.
 L = Existing filaments show signs of sudden activity.
 M = White-light flare.
 N = Continuous spectrum shows effects of polarization.

O = Observations have been made in the H and K lines of Ca II.
 P = Flare shows Helium D3 in emission.
 Q = Flare shows Balmer continuum in emission.
 R = Marked asymmetry in H-alpha line suggests ejection of high-velocity material.
 S = Brightness follows disappearance of filament in same position.
 T = Region active all day.
 U = Two bright branches, parallel or converging.
 V = Occurrence of an explosive phase; important, expansion within roughly 1 minute that often includes a significant intensity increase.
 W = Great increase in area after time of maximum intensity.
 X = Unusually wide H-alpha line.
 Y = System of loop-type prominences.
 Z = Major sunspot umbra covered by flare.

Observation Type: C=Cinematographic, E=Electronic, P=Photographic, V=Visual

INTERVALS OF NO FLARE PATROL OBSERVATION FOR PRECEDING SOLAR FLARE TABLE

MARCH 2004



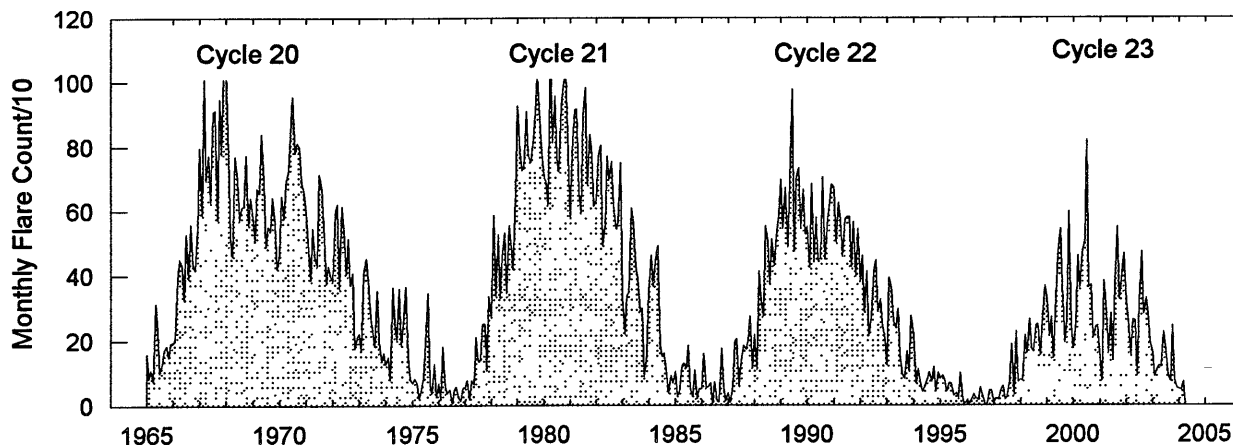
Times of no flare patrol, shown here as shaded areas, combine reports from the stations listed below. Portions of a panel completely shaded mark dates and times of no patrol of any kind (neither visual or cinematographic); portions of a panel with only the bottom half shaded mark times of only visual patrol.

Holloman
Kanzelhoehe

Learmonth

San Vito

Monthly Counts of Grouped Solar Flares Jan 1965 - Mar 2004



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1965	158	85	110	74	315	231	99	127	173	184	150	193	1899
1966	194	205	390	449	429	323	528	391	558	432	417	543	4859
1967	796	589	1009	694	771	629	907	911	573	946	775	1109	9709
1968	1037	773	519	460	768	697	573	611	616	772	556	640	8022
1969	581	504	669	655	839	694	489	551	540	643	566	422	7153
1970	466	646	578	688	722	836	954	780	811	797	687	667	8632
1971	598	505	387	546	461	430	713	673	518	375	431	394	6031
1972	384	599	621	361	614	541	404	515	371	408	175	210	5203
1973	221	171	410	453	388	270	232	182	353	201	136	163	3180
1974	127	148	79	364	255	204	360	187	270	366	153	81	2594
1975	68	82	69	19	42	85	196	346	68	38	127	25	1165
1976	69	18	180	60	38	48	6	47	57	23	13	55	614
1977	54	77	18	76	64	210	140	140	250	252	107	336	1724
1978	274	588	338	526	330	460	533	346	554	499	418	648	5514
1979	926	781	731	731	907	772	750	821	901	1018	888	786	10012
1980	703	689	621	1092	811	956	763	720	924	988	1027	838	10132
1981	578	782	914	915	658	592	893	982	680	836	773	615	9218
1982	631	766	803	490	553	769	696	753	615	544	564	748	7932
1983	332	220	337	346	609	561	427	389	289	298	88	152	4048
1984	353	461	366	440	492	185	151	161	95	36	92	69	2901
1985	104	29	38	119	129	116	185	53	25	108	19	50	975
1986	51	158	54	56	68	3	71	12	14	174	56	13	730
1987	36	7	52	192	205	61	132	185	172	198	273	114	1627
1988	217	109	413	328	274	551	502	375	513	429	518	587	4816
1989	695	544	672	488	691	977	474	699	733	547	665	526	7711
1990	550	424	684	442	580	445	454	703	449	574	623	682	6610
1991	672	503	625	570	458	574	582	581	425	565	396	544	6495
1992	380	462	287	412	214	271	413	447	287	325	248	206	3952
1993	123	392	357	262	237	296	154	92	82	167	104	275	2541
1994	217	67	111	60	40	56	81	101	72	117	45	99	1066
1995	82	95	77	42	69	66	29	37	23	99	14	6	639
1996	14	3	15	34	21	16	54	31	3	0	44	45	280
1997	8	22	18	43	59	18	26	75	188	31	228	74	790
1998	78	76	216	161	264	177	164	248	249	155	268	367	2423
1999	330	212	271	145	330	466	544	368	192	264	598	243	3963
2000	175	248	462	362	473	505	818	364	372	208	241	246	4474
2001	147	77	383	284	164	282	137	376	549	325	405	468	3597
2002	318	261	155	263	259	91	318	474	280	329	279	196	3223
2003	164	87	112	122	117	226	181	94	73	245	78	53	1552
2004	49	47	71										167

The term 'grouped' means observations of the same event by different sites were lumped together and counted as one.

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S O L A R R A D I O E M I S S I O N
Outstanding Occurrences

MARCH 2004

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
01	127	TORN	44 NS	1110.0E		90.0D		7.0		V=1
	280	CUBA	44 NS	1400.0E		360.0D		16.0		
02	127	TORN	43 NS	0903.0	1140.3	357.0	50.0	10.0		V=0
	280	CUBA	44 NS	1320.0E		490.0D		13.0		
	2800	PENT	29 PBI	2127.0	2145.0	65.0U	10.0			
03	204	IZMI	43 NS	0700.0		300.0D		20.0		UNCERTN UNCERTN
	280	CUBA	44 NS	1330.0E		450.0D		17.0		
	33	UPIC	45 C	0830.5	0831.0	1.5				
	33	UPIC	45 C	0937.5	0938.0	1.5				
04	204	IZMI	44 NS	0700.0E		300.0D		15.0		V=1
	127	TORN	44 NS	0830.0E		390.0D		11.0		
	280	CUBA	44 NS	1330.0E		270.0D		18.0		
	3000	IZMI	20 GRF	1002.8	1003.6	4.4	9.0	4.8		
	204	IZMI	42 SER	1157.4	1158.3	1.1	22.0			
	9500	CUBA	1 S	1713.6	1714.3	1.4	11.0	5.0		
05	204	IZMI	44 NS	0700.0E		300.0D		20.0		V=1
	127	TORN	44 NS	0700.0E		480.0D		25.0		
	280	CUBA	44 NS	1330.0E		330.0D		19.0		
	2840	PEKG	5 S	0210.0	0213.9	7.0	16.4			
	9100	GORK	7 C	0655.6	0655.7	0.3	11.0			
	9100	GORK	7 C	0655.6	0655.8		15.0			
	2840	PEKG	20 GRF	0904.0	0913.3	16.0	8.9			
	9100	GORK	2 S/F	0907.8	0908.3	1.3	11.0			
	9100	GORK	20 GRF	1026.8	1032.0	8.5	10.0			
	2800	PENT	29 PBI	1830.0	1847.0	62.0U	23.0			
06	127	TORN	44 NS	0700.0E		270.0D		8.0		V=0
	204	IZMI	44 NS	0700.0E		300.0D		10.0		
	280	CUBA	44 NS	1330.0E		480.0D		15.0		
	2804	VORO	40 F	0226.4	0228.3	3.3	4.8			
	2840	PEKG	1 S	0510.0	0511.5	9.0	5.6			
	2840	PEKG	3 S	0656.0	0700.0	19.0	29.0			
	2950	GORK	3 S	0659.2	0700.0	2.1	19.0			
	600	GORK	46 C	0659.3	0700.1		27.0			
	600	GORK	46 C	0659.3	0659.4	2.0	10.0			
	9100	GORK	46 C	0659.4	0700.0		37.0			
	9100	GORK	46 C	0659.4	0659.9	1.3	15.0			
	3000	IZMI	20 GRF	0659.6	0700.0	0.6	24.0	12.0		
	900	GORK	1 S	0659.6	0700.1	3.4	9.0			
	2950	GORK	30 PBI	0701.3	0706.2	4.9	2.8			
	2950	GORK	1 S	0701.5	0702.4	2.5	2.1			
	2950	GORK	1 S	0705.8	0706.0	0.4	4.2			
	204	IZMI	41 F	0705.8	0706.0	0.5	178.0			
	204	IZMI	42 SER	0836.8	0836.9	2.8	53.0			
	204	IZMI	42 SER	1027.4	1028.2	1.0	20.0			
	204	IZMI	7 C	1121.4	1121.5	0.2	76.0			
204	IZMI	7 C	1156.5	1156.5	0.1	31.0				
9500	CUBA	20 GRF	1258.0E	1258.0	83.0D	11.0	5.0		SUNRISE	
2800	PENT	20 GRF	2152.0	2206.0	28.0	4.0				
08	127	TORN	44 NS	0850.0E		370.0D		9.0		V=1
	280	CUBA	44 NS	1320.0E		510.0D		21.0		
	2840	PEKG	1 S	0723.0	0728.1	9.0	4.1			
	9100	GORK	3 S	0727.7	0728.1	1.1	5.9			
	900	GORK	42 SER	0727.9	0728.0	24.3	17.0			
	2950	GORK	3 S	0727.9	0728.1	1.0	5.6			
	900	GORK	42 SER	0727.9	0739.2		5.8			
	600	GORK	41 F	0737.8	0739.2	2.2	7.3			
	600	GORK	41 F	0737.8	0739.8		3.6			
	9100	GORK	2 S/F	0738.5	0738.7	0.9	9.4			
09	204	IZMI	43 NS	0700.0		300.0D		40.0		V=1
	127	TORN	44 NS	0700.0E		480.0D		62.0		
	280	CUBA	44 NS	1400.0E		465.0D		23.0		
	600	GORK	40 F	0624.0U	1026.0		110.0			

S O L A R R A D I O E M I S S I O N
Outstanding Occurrences

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MARCH 2004

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 ⁻²² W/m ² Hz)	Mean (2 Hz)		
09	600	GORK	40 F	0624.0U	0742.0	267.0D	760.0			
	900	GORK	40 F	0636.0	1026.0		50.0			
	900	GORK	40 F	0636.0	0742.0	255.0D	140.0			
10	204	IZMI	44 NS	0700.0E		300.0D		110.0		
	127	TORN	44 NS	0700.0E		480.0D		160.0		V=1
	280	CUBA	44 NS	1400.0E		470.0D		47.0		
	600	GORK	46 C	0717.3	0718.0	3.1	10.0			
	600	GORK	46 C	0717.3	0719.3		6.0			
	9100	GORK	2 S/F	0720.4	0723.0	3.7	8.0			
	600	GORK	46 C	0733.8	0739.3	13.1	6.1			
	600	GORK	46 C	0733.8	0743.4		4.9			
	900	GORK	40 F	0736.8	0739.9	4.5	18.0			
	900	GORK	46 C	0751.5	0754.3		5.1			
	900	GORK	46 C	0751.5	0752.7	3.1	12.0			
	600	GORK	45 C	0752.7	0752.8	0.4	12.0			
	600	GORK	45 C	0752.7	0752.9		19.0			
	2800	HIRA	7 C	2301.0	2303.0	4.0	75.0			MR
500	HIRA	7 C	2301.0	2302.0	4.0	305.0			SR	
11	204	IZMI	44 NS	0700.0E		300.0D		130.0		
	127	TORN	44 NS	0700.0E		480.0D		280.0		V=1
	280	CUBA	44 NS	1300.0E		530.0D		63.0		
	2804	VORO	40 F	0212.8	0213.8	2.1	12.5			
	2800	HIRA	1 S	0214.0	0214.0	1.0	10.0			0
	500	HIRA	8 S	0721.0	0721.0	1.0	45.0			
	33	UPIC	46 C	1240.0	1241.5	2.0				
	2800	PENT	29 PBI	2258.0	2302.0	6.0U	67.0			
	500	HIRA	8 S	2311.0	2311.0	1.0	20.0			0
12	127	TORN	44 NS	0640.0E		20.0D		38.0		V=1
	204	IZMI	44 NS	0700.0E		300.0D		80.0		
	280	CUBA	44 NS	1315.0E		515.0D		32.0		
	2840	PEKG	5 S	0022.0	0024.1	3.0	13.6			
	500	HIRA	42 SER	0028.0	0040.0	14.0	30.0			WR
	2840	PEKG	3 S	0230.0	0236.1	18.0	136.2			
	500	HIRA	4 S/F	0234.0	0236.0	7.0	130.0			0
	2800	HIRA	3 S	0235.0	0236.0	6.0	130.0			0
	2804	VORO	4 S/F	0235.0	0236.5	8.1	25.1			
	2840	PEKG	3 S	0700.0	0704.1	12.0	11.2			
	2950	GORK	46 C	0703.5	0704.2		9.0			
	2950	GORK	46 C	0703.5	0703.9	1.4	6.0			
	9100	GORK	40 F	0703.7	0704.1	3.1D	6.0			
	3000	IZMI	20 GRF	0704.1	0704.2	0.3	4.0	2.8		
	3000	IZMI	7 C	0709.4	0709.4	0.1	74.0	33.8		
	204	IZMI	42 SER	0812.5	0813.1	0.7	92.0			
	204	IZMI	42 SER	1012.0	1015.6	6.5	85.0			
	33	UPIC	2 S/F	1240.5	1241.2	1.0				
	9500	CUBA	20 GRF	1303.0E	1303.0	98.0D	10.0	5.0		SUNRISE
2804	VORO	21 GRF	2325.0	2337.0	75.0	18.1				
2800	PENT	4 S/F	2328.0	2333.0	84.0	17.0				
2800	HIRA	23 GRF	2329.0	2334.0	19.0	25.0			0	
2804	VORO	8 S	2335.5	2335.8	0.6	16.2				
13	204	IZMI	44 NS	0700.0E		300.0D		20.0		
	280	CUBA	44 NS	1400.0E		470.0D		17.0		
	204	IZMI	42 SER	1128.2	1130.1	2.4	138.0			
	280	CUBA	7 C	1352.6	1353.5	1.4	128.0	64.0		
	9500	CUBA	3 S	1353.5	1353.8	0.5	51.0	25.0		
	33	UPIC	46 C	1418.0	1420.5	3.5				
14	280	CUBA	44 NS	1320.0E		510.0D		16.0		
	900	GORK	41 F	0818.3	0822.2		53.0			
	900	GORK	41 F	0818.3	0818.4	5.0	35.0			
	600	GORK	2 S/F	0822.9	0823.1	0.4	3.6			
	2800	PENT	8 S	2030.0	2035.0	10.0	90.0			
15	127	TORN	44 NS	0910.0E		290.0D		16.0		V=1
	280	CUBA	44 NS	1330.0E		500.0D		14.0		

S O L A R R A D I O E M I S S I O N
Outstanding Occurrences

MARCH 2004

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
							Peak	Mean		
15	204	IZMI	7 C	0917.6	0917.7	0.1	9.0			
16	127	TORN	43 NS	0830.0		32.0D		25.0	V=1	
	280	CUBA	44 NS	1320.0E		510.0D		17.0		
	204	IZMI	42 SER	0822.0	0822.4	0.9	22.0			
	204	IZMI	42 SER	1121.9	1122.5	1.1	29.0			
	204	IZMI	41 F	1132.6	1133.0	1.7	107.0			
17	204	IZMI	43 NS	0700.0		300.0D		15.0		
	127	TORN	43 NS	0804.0		34.0		19.0	V=1	
	280	CUBA	44 NS	1330.0E		490.0D		74.0		
	204	IZMI	41 F	0737.6	0737.8	0.5	20.0			
	2840	PEKG	1 S	0804.0	0807.3	6.0	3.0			
	900	GORK	42 SER	0908.4	0928.4		24.0			
	900	GORK	42 SER	0908.4	0919.8	21.8	9.0			
	2840	PEKG	3 S	0917.0	0922.6	16.0	25.0			
	600	GORK	40 F	0919.7	0922.2	4.8	2.4			
	3000	IZMI	22 GRF	0922.0	0922.6	2.7	15.0	3.5		
	33	UPIC	46 C	0930.5	0931.0	2.0				
204	IZMI	42 SER	1134.2	1134.3	0.2	18.0				
500	HIRA	7 C	2322.0	2329.0	7.0	10.0			0	
18	204	IZMI	44 NS	0700.0E		300.0D		25.0		
	127	TORN	44 NS	0900.0E		293.0D		15.0	V=1, DISTURBED	
	280	CUBA	44 NS	1310.0E		515.0D		17.0		
	2840	PEKG	5 S	0513.0	0515.2	7.0	39.5			
	2804	VORO	2 S/F	0513.1	0515.0	4.3	32.0			
	2800	HIRA	1 S	0514.0	0515.0	4.0	35.0			0
	2840	PEKG	1 S	0559.0	0602.4	7.0	3.4			
	2804	VORO	1 S	0601.2	0602.2	2.5	3.7			
	9100	GORK	2 S/F	0946.3	0947.8	3.3	7.0			
	2950	GORK	1 S	0946.5	0947.7	1.9	5.0			
	9100	GORK	45 C	1004.6	1004.8	0.5	30.0			
	9100	GORK	45 C	1004.6	1004.9		34.0			
	19	204	IZMI	44 NS	0700.0E		300.0D		15.0	
127		TORN	43 NS	0830.0		322.0		11.0	V=0	
280		CUBA	44 NS	1330.0E		495.0D		15.0		
9100		GORK	4 S/F	1030.5	1030.9	1.0	16.0			
20	204	IZMI	44 NS	0700.0E		300.0D		10.0		
	127	TORN	43 NS	0805.0		335.0		10.0	V=0	
	204	IZMI	5 S	0808.4	0808.4	0.1	52.0	19.3		
	33	UPIC	4 S/F	1450.0	1450.3	1.5				
21	280	CUBA	44 NS	1400.0E		235.0D		11.0		
	500	HIRA	8 S	0648.0	0649.0	1.0	30.0			0
	900	GORK	21 GRF	0827.3	0954.0	107.9	6.8			
	900	GORK	41 F	0903.4	0904.2	6.4	19.0			
	900	GORK	41 F	0903.4	0908.7		15.0			
	600	GORK	41 F	0942.0	0950.0		13.0			
	600	GORK	41 F	0942.0	0945.7	9.7	7.0			
	900	GORK	41 F	0942.2	0951.5		77.0			
	900	GORK	41 F	0942.2	0945.7	11.8	24.0			
	204	IZMI	42 SER	0943.7	0949.2	8.4	16.0			
9100	GORK	20 GRF	0945.0	0951.7	32.6	9.5				
22	280	CUBA	44 NS	1400.0E		235.0D		16.0		
	2840	PEKG	45 C	0604.0	0610.4	10.0	12.4			
	2950	GORK	20 GRF	0937.9	0947.0	76.0D	5.0			
	900	GORK	46 C	0945.8	0946.1	2.0	12.0			
	900	GORK	46 C	0945.8	0946.4		10.0			
33	UPIC	41 F	1329.0	1334.5	17.0				UNCERTN	
23	127	TORN	43 NS	0900.0		265.0		8.0	V=0	
	280	CUBA	44 NS	1300.0E		415.0D		15.0		
	2950	GORK	1 S	0909.1	0909.4	0.4	4.0			
	9100	GORK	2 S/F	0909.3	0909.4	0.4	8.1			
	33	UPIC	45 C	1223.0	1223.2	1.0				

S O L A R R A D I O E M I S S I O N
Outstanding Occurrences

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MARCH 2004

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
24	127	TORN	44 NS	0820.0E		330.0D		7.0	V=0	
		280	CUBA	44 NS	1330.0E		330.0D	14.0		
	204	IZMI	41 F	0752.7	0752.8	0.2	62.0			
		IZMI	7 C	1103.1	1103.1	0.1	42.0			
	280	CUBA	7 C	1420.2	1424.0	10.8	25.0U	13.0		
		9500	CUBA	40 F	1420.4	1424.0	13.6	59.0		29.0
		2800	PENT	20 GRF	2059.0	2131.0	77.0	9.0		
25	127	TORN	43 NS	0900.0		290.0		10.0	V=0	
		280	CUBA	44 NS	1325.0E		445.0D	18.0		
	204	IZMI	41 F	0850.1	0850.2	0.3	62.0			
		2800	PENT	24 R	1757.0	1831.0	95.0U	10.0		
	280	CUBA	6 S	1829.1	1830.0	5.8D	31.0U	16.0		
26	127	TORN	43 NS	0835.0		385.0		10.0	V=0	
		280	CUBA	44 NS	1300.0E		535.0D	16.0		
	204	IZMI	42 SER	0830.0	0832.6	3.0	32.0			
		127	TORN	45 C	0830.7	0832.7	3.7	290.0		60.0
	127	TORN	45 C	1011.4	1012.1	2.8	360.0	160.0		
		33	UPIC	46 C	1011.5	1012.8	3.0			
	204	IZMI	41 F	1012.3	1013.5	2.3	56.0			
27	127	TORN	43 NS	0820.0		270.0		10.0	V=0	
		280	CUBA	44 NS	1325.0E		450.0D	16.0		
	900	GORK	41 F	0639.7	0650.6		20.0			
		GORK	41 F	0639.7	0647.8	11.2	13.0			
	9100	GORK	1 S	0653.7	0654.7	5.6	8.5			
	900	GORK	41 F	0937.1	0938.0U	12.6	190.0U			
		GORK	41 F	0937.1	0941.8		14.0			
	9100	GORK	1 S	0939.0	0939.4	0.8	6.0			
	9100	GORK	1 S	0943.1	0943.5	1.1	7.2			
		2950	GORK	1 S	0943.1	0943.5	1.1	7.2		
	600	GORK	2 S/F	0948.0	0949.0	2.1	3.4			
28	127	TORN	43 NS	0900.0		250.0		11.0	V=2	
		280	CUBA	44 NS	1300.0E		180.0D	17.0		
	2840	PEKG	20 GRF	0340.0	0344.8	34.0	10.8			
		2804	VORO	45 C	0344.0	0344.7	3.9	6.9		
	500	HIRA	7 C	0345.0	0349.0	17.0	205.0	0		
	600	GORK	41 F	0647.5	0651.6		2.9			
		GORK	41 F	0647.5	0647.7	4.5	13.0			
	900	GORK	41 F	0649.6	0654.3		22.0			
	900	GORK	41 F	0649.6	0649.9	5.4	10.0			
	9100	GORK	20 GRF	0721.5	0807.5	65.7	9.4			
	2950	GORK	20 GRF	0721.9	0723.5	10.1	3.0			
	204	IZMI	42 SER	1037.2	1037.4	0.3	7.0			
	204	IZMI	42 SER	1045.2	1047.2	5.6	23.0			
2800	PENT	20 GRF	2130.0	2156.0	53.0	4.0				
29	127	TORN	43 NS	0825.0		395.0		34.0	V=2	
		280	CUBA	44 NS	1900.0E		150.0D	23.0		
	500	HIRA	8 S	0157.0	0157.0	1.0	10.0	0		
	2840	PEKG	1 S	0427.0	0430.1	6.0	7.1			
	2840	PEKG	1 S	0600.0	0602.9	7.0	5.1			
		204	IZMI	41 F	0602.7	0602.9	0.4	15.0		
	204	IZMI	41 F	0608.9	0609.2	0.7	38.0			
	204	IZMI	42 SER	0630.6	0630.9	0.4	11.0			
	9100	GORK	21 GRF	0746.7	0854.0	181.0D	17.0			
	204	IZMI	42 SER	0754.5	0755.4	1.2	37.0			
	600	GORK	7 C	0756.2	0757.5		1.6			
	600	GORK	7 C	0756.2	0756.6	2.0	5.3			
	900	GORK	7 C	0756.3	0757.0	1.7	13.0			
	900	GORK	7 C	0756.3	0757.5		11.0			
	500	HIRA	8 S	0757.0	0758.0	1.0	15.0	0		
	204	IZMI	42 SER	0944.5	0947.5	3.6	28.0			
	600	GORK	46 C	0945.9	0947.0	2.2	3.6			
900	GORK	40 F	0945.9	0947.5	2.3	13.0				
600	GORK	46 C	0945.9	0947.6		8.5				
2950	GORK	21 GRF	1030.6	1034.6	17.0D	6.3				

S O L A R R A D I O E M I S S I O N
Outstanding Occurrences

MARCH 2004

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 -22 W/m ² Hz)	Mean			
29	9100	GORK	1 S	1030.7	1032.9	6.9	7.0				
	2950	GORK	41 F	1031.4	1032.4		22.0				
	2950	GORK	41 F	1031.4	1031.6	1.4	7.7				
	204	IZMI	42 SER	1031.5	1032.7	1.4	8.0				
	3000	IZMI	5 S	1032.3	1032.4	0.3	15.0	6.2			
	2950	GORK	1 S	1041.9	1042.4	1.0	3.8				
	127	TORN	4 S/F	1106.4	1106.7	1.0	1500.0	380.0			
	204	IZMI	42 SER	1127.9	1129.4	3.0	34.0				
	204	IZMI	42 SER	1146.6	1146.7	3.4	45.0				
	33	UPIC	4 S/F	1244.5	1245.0	0.7					
	2800	PENT	1 S	1533.0	1548.0	51.0	92.0				
	33	UPIC	4 S/F	1548.0	1549.2	1.5					
	2800	PENT	40 F	1728.0	1733.0	19.0	7.0				
	2800	PENT	41 F	1821.0	1843.0	33.0	26.0				
	2800	PENT	8 S	2054.0	2059.0	11.0	10.0				
	2800	PENT	1 S	2126.0	2131.0	13.0	6.0				
	500	HIRA	8 S	2146.0	2146.0	1.0	50.0			ML	
	2800	PENT	40 F	2221.0	2227.0	11.0U	9.0				
	500	HIRA	4 S/F	2226.0	2228.0	7.0	205.0			ML	
	2800	HIRA	1 S	2227.0	2228.0	5.0	10.0			0	
	500	HIRA	8 S	2309.0	2310.0	3.0	225.0			ML	
	2804	VORO	3 S	2309.0	2309.8	2.5	8.8				
	2840	PEKG	3 S	2319.0	2326.7	22.0	32.6				
	500	HIRA	47 GB	2321.0	2333.0	12.0	1285.0			ML	
	2804	VORO	46 C	2321.6	2329.1	13.8	34.3				
	2800	HIRA	7 C	2322.0	2329.0	11.0	35.0			0	
	30	204	IZMI	43 NS	0600.0		360.0D	20.0			
		127	TORN	44 NS	0700.0E		480.0D	17.0			V=1
		33	UPIC	43 NS	0854.0		401.0				
280		CUBA	44 NS	1300.0E		300.0D	17.0				
500		HIRA	1 S	0032.0	0034.0	3.0	15.0			WL	
2804		VORO	23 GRF	0039.0	0259.0	180.0	8.4				
2840		PEKG	1 S	0045.0	0048.5	7.0	6.9				
500		HIRA	8 S	0047.0	0049.0	3.0	100.0			WL	
2804		VORO	46 C	0048.1	0048.3	1.9	4.7				
500		HIRA	7 C	0127.0	0128.0	6.0	80.0			WL	
500		HIRA	8 S	0138.0	0138.0	1.0	20.0			0	
2840		PEKG	45 C	0140.0	0158.5	30.0	61.3				
2804		VORO	45 C	0152.5	0153.0	3.2	26.3				
2804		VORO	45 C	0152.5	0158.4	8.5	45.6				
2800		HIRA	7 C	0153.0	0158.0	5.0	50.0			0	
2840		PEKG	45 C	0343.0	0346.3	5.0	5.6				
2804		VORO	40 F	0345.0	0350.8	8.8	11.7				
2840		PEKG	1 S	0349.0	0352.8	9.0	4.3				
2840		PEKG	3 S	0503.0	0507.0	13.0	25.6				
9100		GORK	21 GRF	0503.7	0543.9	65.0D	9.3				
2950		GORK	4 S/F	0506.0	0507.0	2.2	23.0				
2800		HIRA	1 S	0506.0	0507.0	3.0	20.0			0	
500		HIRA	8 S	0506.0	0506.0	1.0	85.0			0	
9100		GORK	46 C	0506.7	0507.0	1.2	11.0				
9100		GORK	46 C	0506.7	0507.3		10.0				
2840		PEKG	3 S	0517.0	0524.5	19.0	41.8				
2950		GORK	3 S	0518.3	0518.5	0.8	15.0				
500		HIRA	47 GB	0519.0	0526.0	8.0	590.0			ML	
600		GORK	46 C	0520.8	0524.0		40.0				
600		GORK	46 C	0520.8	0526.2		28.0				
600		GORK	46 C	0520.8	0521.6	7.6	17.0				
2950		GORK	46 C	0521.0	0524.4	8.6	40.0				
2950	GORK	46 C	0521.0	0526.4		34.0					
2800	HIRA	7 C	0522.0	0525.0	7.0	30.0			0		
9100	GORK	46 C	0523.2	0525.2		58.0					
9100	GORK	46 C	0523.2	0526.4		30.0					
9100	GORK	46 C	0523.2	0524.5	7.3	120.0					
900	GORK	46 C	0524.1	0526.4		14.0					
900	GORK	46 C	0524.1	0525.6	4.4	15.0					
900	GORK	46 C	0524.1	0527.8		10.0					
500	HIRA	8 S	0543.0	0543.0	2.0	70.0			ML		
500	HIRA	8 S	0548.0	0548.0	1.0	345.0			SL		

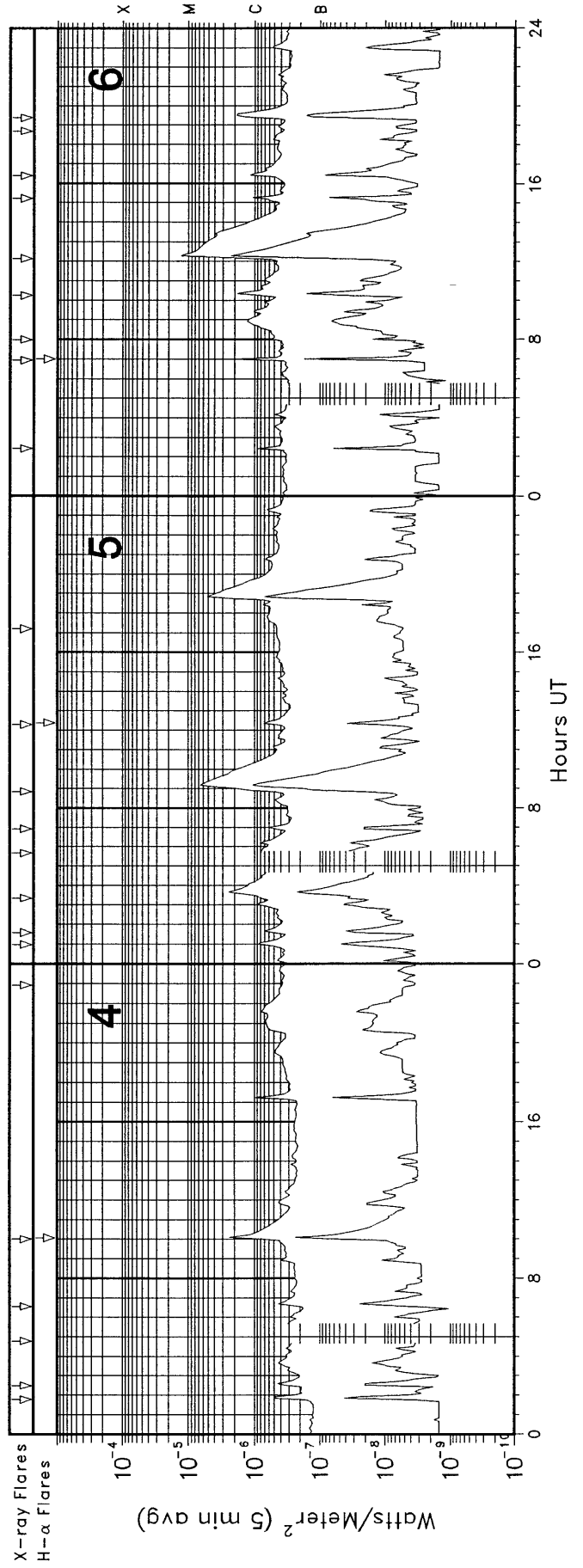
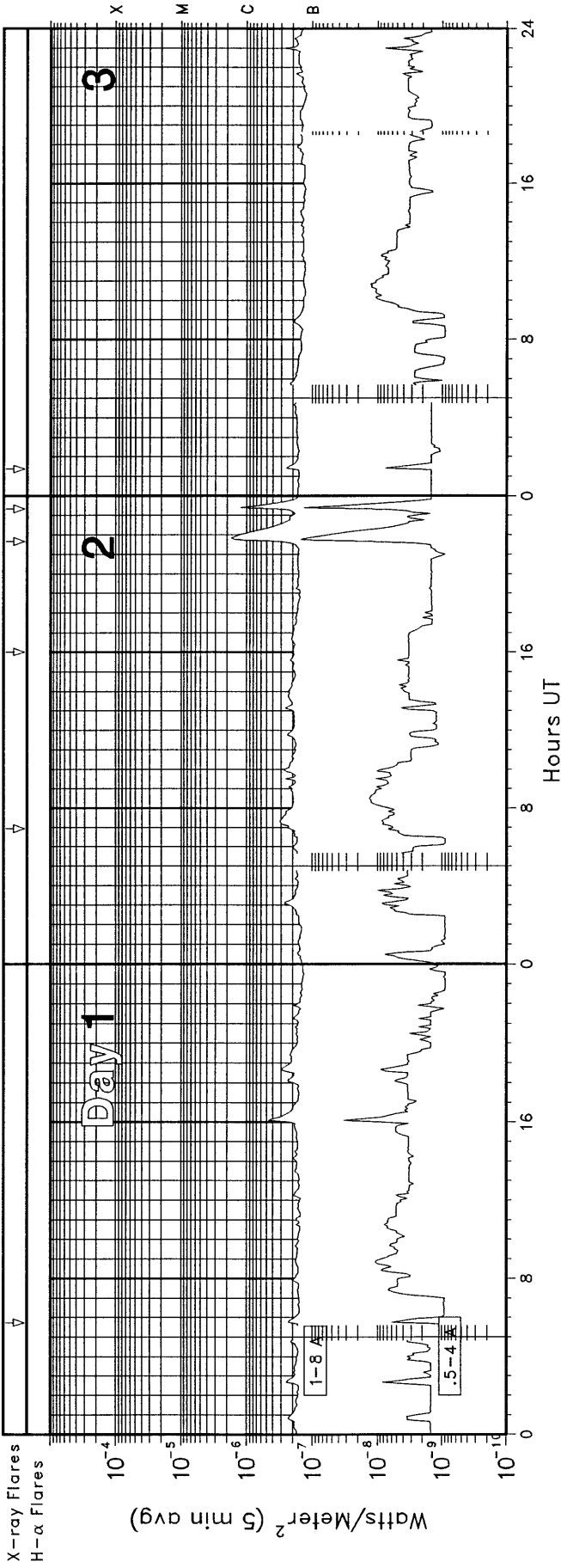
S O L A R R A D I O E M I S S I O N
Outstanding Occurrences

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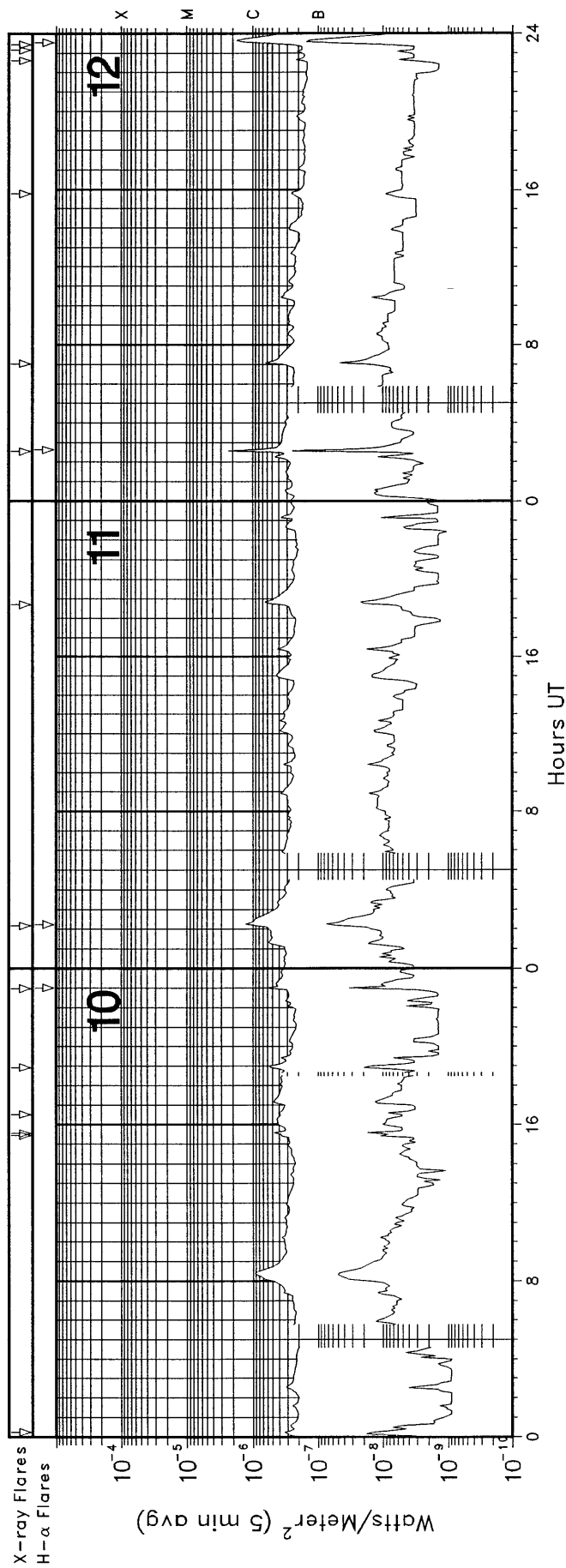
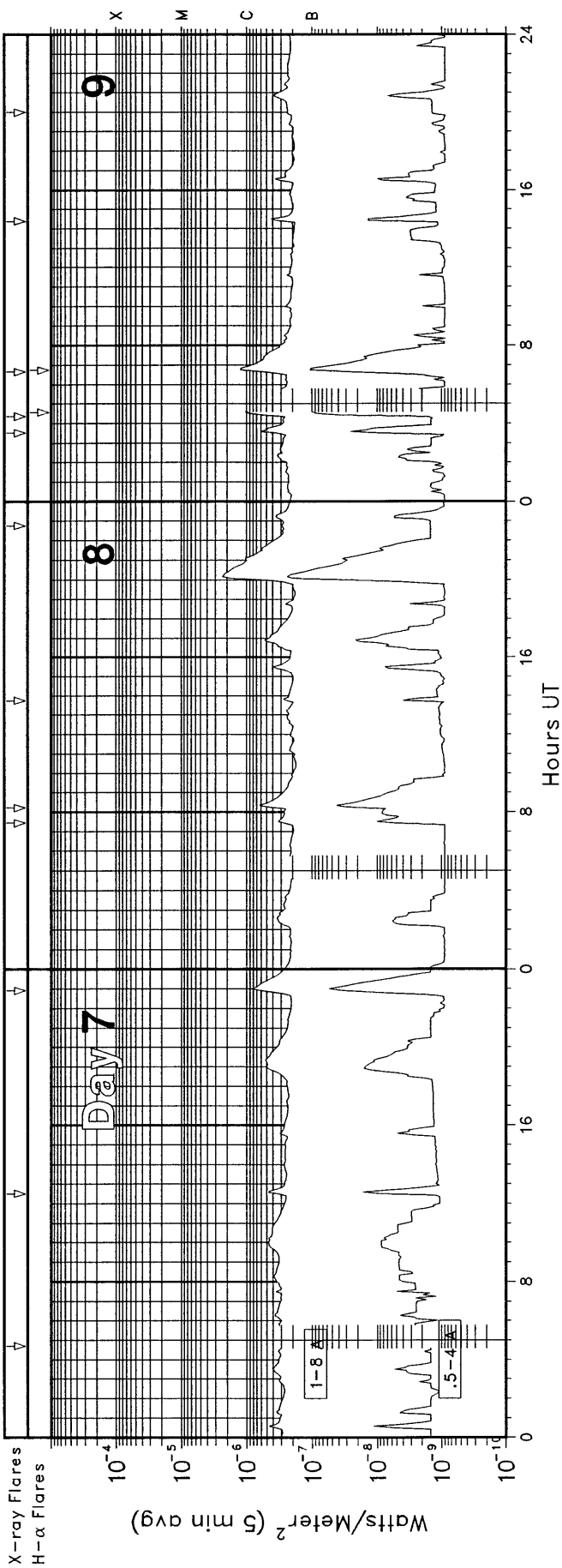
Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 -22	Mean W/m 2 Hz)			
30	600	GORK	42	SER	0548.1	0548.2	11.9	4.0			
	600	GORK	42	SER	0548.1	0600.8		8.0			
	900	GORK	42	SER	0550.3	0603.4		6.0			
	900	GORK	42	SER	0550.3	0550.5	13.3	18.0			
	204	IZMI	45	C	0559.8	0600.2	0.8	205.0			
	204	IZMI	42	SER	0656.4	0658.1	1.8	46.0			
	500	HIRA	8	S	0711.0	0711.0	1.0	25.0		WL	
	500	HIRA	7	C	0733.0	0734.0	3.0	20.0		WL	
	500	HIRA	8	S	0746.0	0746.0	3.0	45.0		ML	
	204	IZMI	42	SER	0921.2	0921.2	0.4	553.0			
	127	TORN	42	SER	0942.3	0950.8	19.0	830.0			
	33	UPIC	48	C	0943.0	0944.8	11.0				
	204	IZMI	46	C	0944.3	0944.9	3.2	7286.0			
	3000	IZMI	20	GRF	0944.6	0945.1	2.1	57.0	19.3		
	204	IZMI	42	SER	0948.2	0951.7	6.9	650.0			
	3000	IZMI	22	GRF	0948.5	0951.9	7.3	44.0	15.5		
	204	IZMI	42	SER	0957.4	0957.7	0.8	59.0			
	204	IZMI	42	SER	1000.2	1000.4	0.5	28.0			
	33	UPIC	46	C	1256.0	1258.0	7.5				
	127	TORN	48	C	1259.6	1300.9	4.0	500.0	170.0		
	2800	PENT	1	S	1548.0	1551.0	6.0	5.0			
	2800	PENT	4	S/F	1752.0	1800.0	15.0	17.0			
	2800	PENT	41	F	2113.0	2137.0	34.0	5.0			
	500	HIRA	8	S	2137.0	2138.0	2.0	85.0		WL	
	2800	PENT	29	PBI	2214.0	2219.0	18.0U	3.0			
	2804	VORO	23	GRF	2248.2	2310.0	240.0	10.0			
	500	HIRA	7	C	2249.0	2305.0	26.0	280.0		0	
	31	204	IZMI	44	NS	0600.0E		360.0D	45.0		
		127	TORN	44	NS	0700.0E		480.0D	105.0		V=1
		280	CUBA	44	NS	1720.0E		215.0D	35.0		
		2800	PENT	29	PBI	0000.0	0014.0	53.0	59.0		
2840		PEKG	3	S	0008.0	0015.0	22.0	68.0			
2804		VORO	46	C	0011.2	0015.0	14.0	56.5			
2800		HIRA	7	C	0012.0	0015.0	4.0	55.0		0	
2804		VORO	40	F	0345.8	0346.7	2.5	4.7			
900		GORK	42	SER	0509.5	0717.6		45.0			
900		GORK	42	SER	0509.5	0601.7	73.2	310.0U			
600		GORK	46	C	0600.2	0600.6	1.5	95.0			
600		GORK	46	C	0600.2	0600.9		85.0			
2950		GORK	4	S/F	0600.6	0601.6	3.4	17.0			
204		IZMI	41	F	0600.8	0600.9	1.3	217.0			
9100		GORK	4	S/F	0600.9	0601.7	2.1	20.0			
2800		HIRA	1	S	0601.0	0601.0	3.0	15.0		0	
500		HIRA	8	S	0601.0	0601.0	1.0	70.0		0	
2950		GORK	2	S/F	0632.1	0632.6	0.7	6.4			
2950		GORK	2	S/F	0634.0	0634.8	2.5	7.7			
9100		GORK	3	S	0844.7	0844.9	0.4	10.0			
2950		GORK	46	C	0928.6	0940.8		11.0			
2950		GORK	46	C	0928.6	0932.8	14.2	25.0			
9100		GORK	23	GRF	0931.4	0940.7		8.1			
9100		GORK	23	GRF	0931.4	0933.7	12.0	13.0			
3000		IZMI	22	GRF	0932.2	0932.8	9.0	12.0			
9100		GORK	4	S/F	0932.6	0932.9	0.8	13.0			
900		GORK	2	S/F	0933.2	0934.9	2.4	5.2			
204		IZMI	45	C	1121.3	1121.4	0.4	181.0			
33		UPIC	42	SER	1151.0	1152.5	110.0				
204		IZMI	45	C	1159.9	1200.0	0.4	200.0			
2800		PENT	29	PBI	1459.0	1508.0	93.0	8.0			
2800	PENT	1	S	1808.0	1814.0	12.0	4.0				
280	CUBA	7	C	1814.3	1815.8	1.7	83.0	42.0			
280	CUBA	7	C	2005.2U	2005.7	1.4D	64.0U	32.0U			

GOES X-RAY DETECTOR March 2004

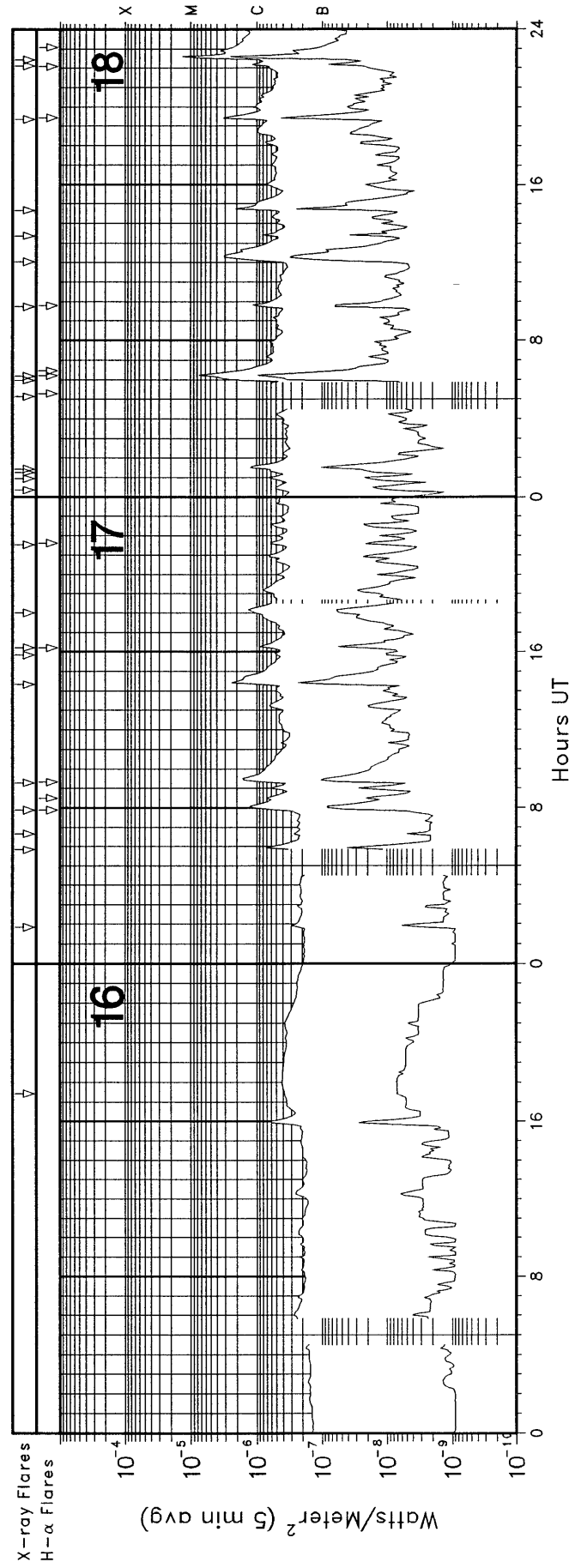
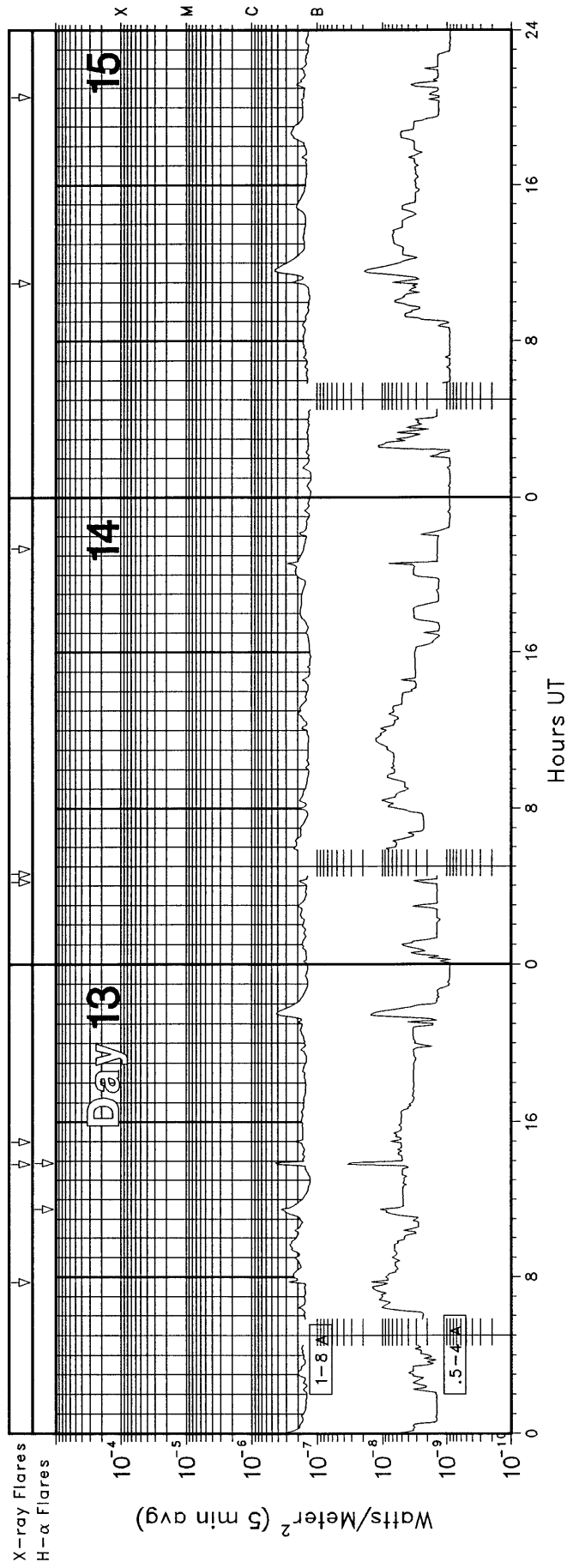


GOES X-RAY DETECTOR

March 2004

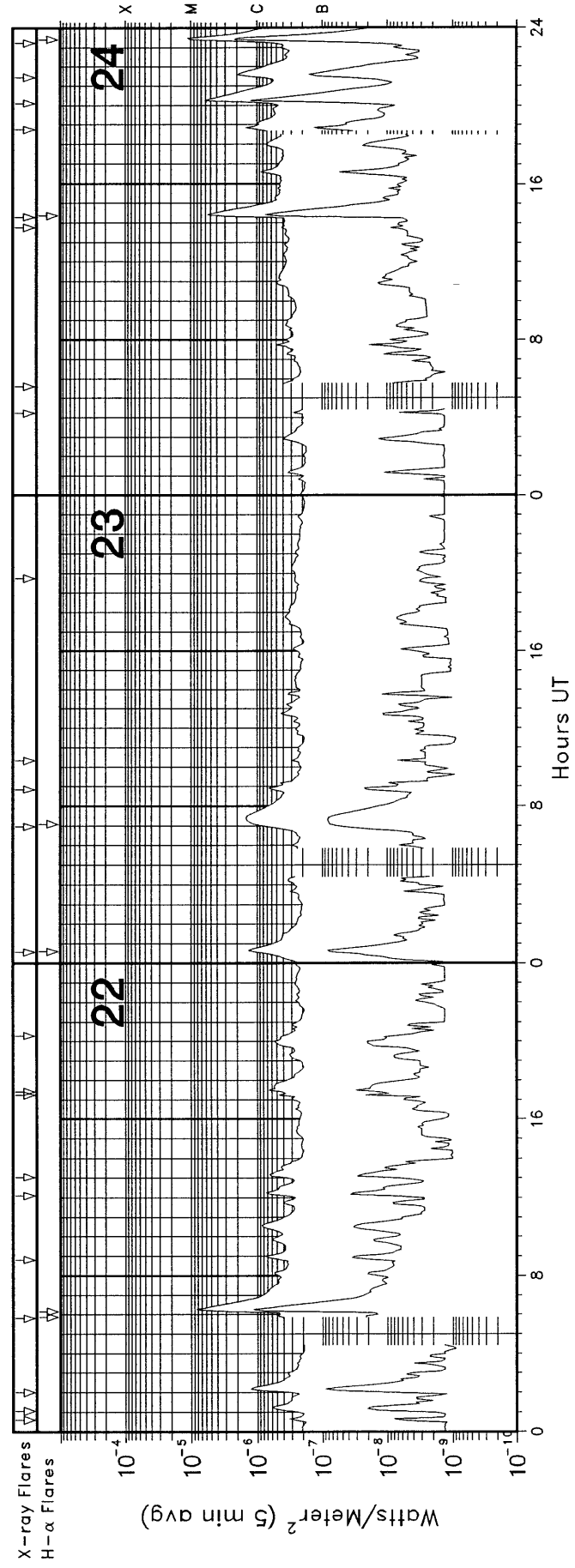
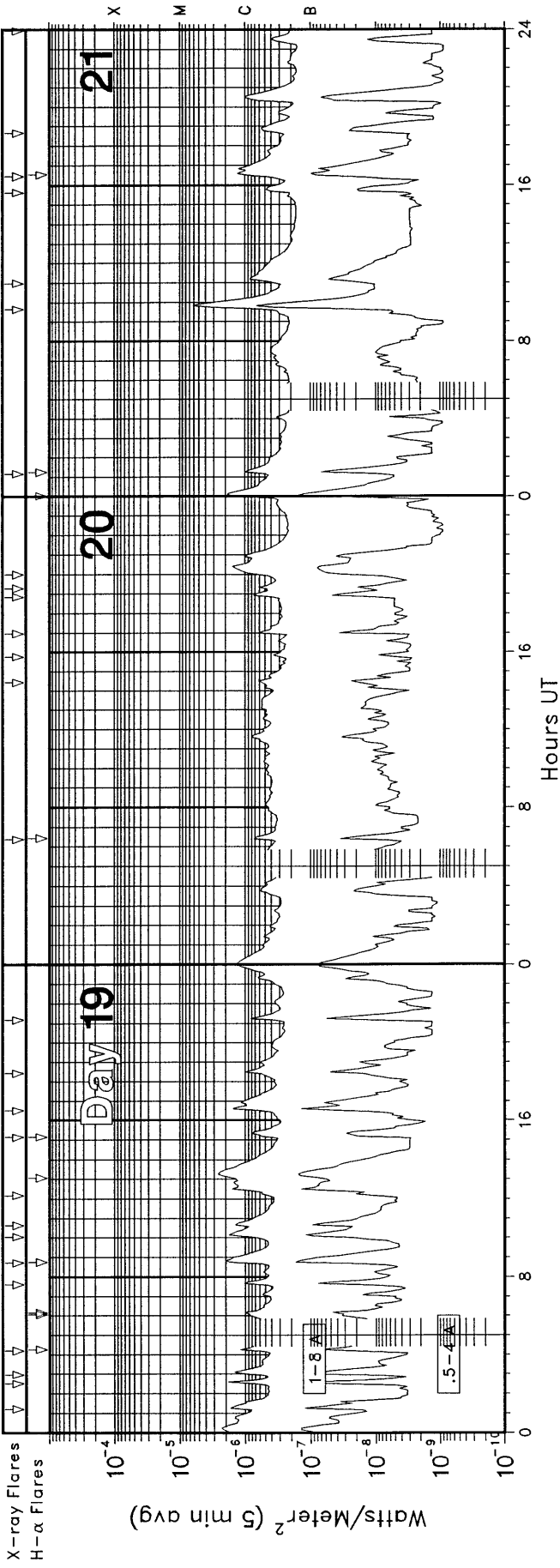


GOES X-RAY DETECTOR March 2004

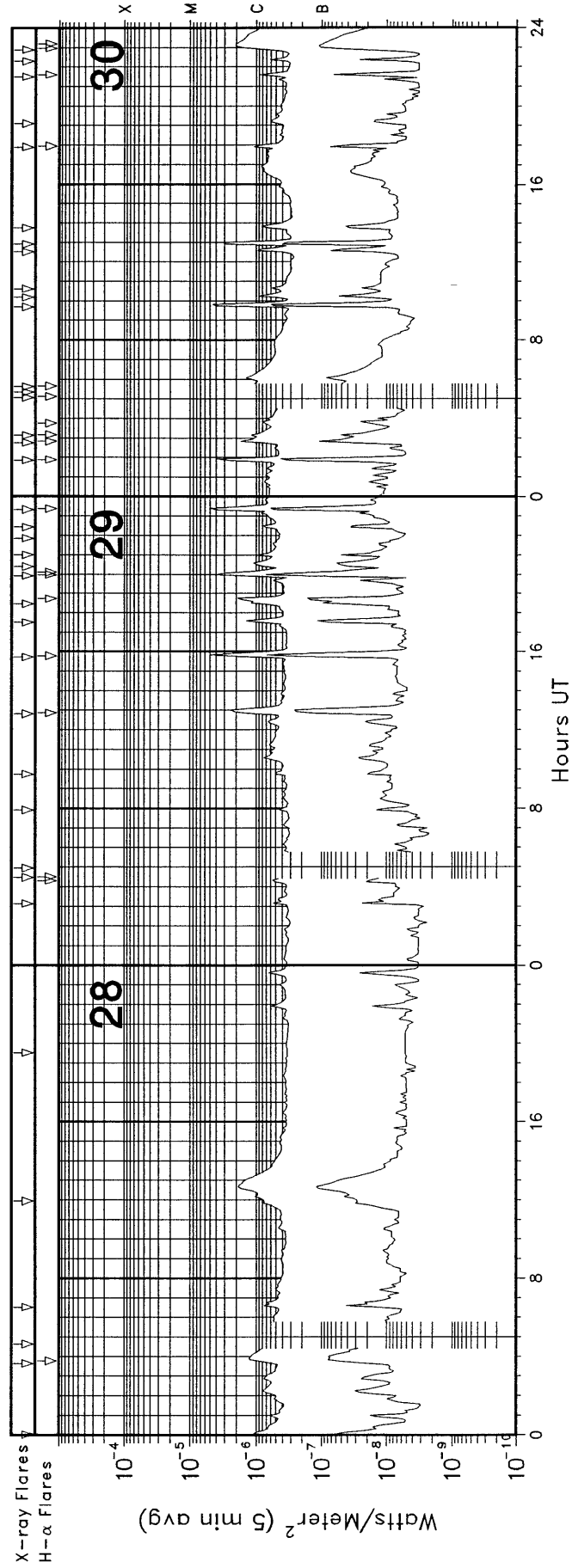
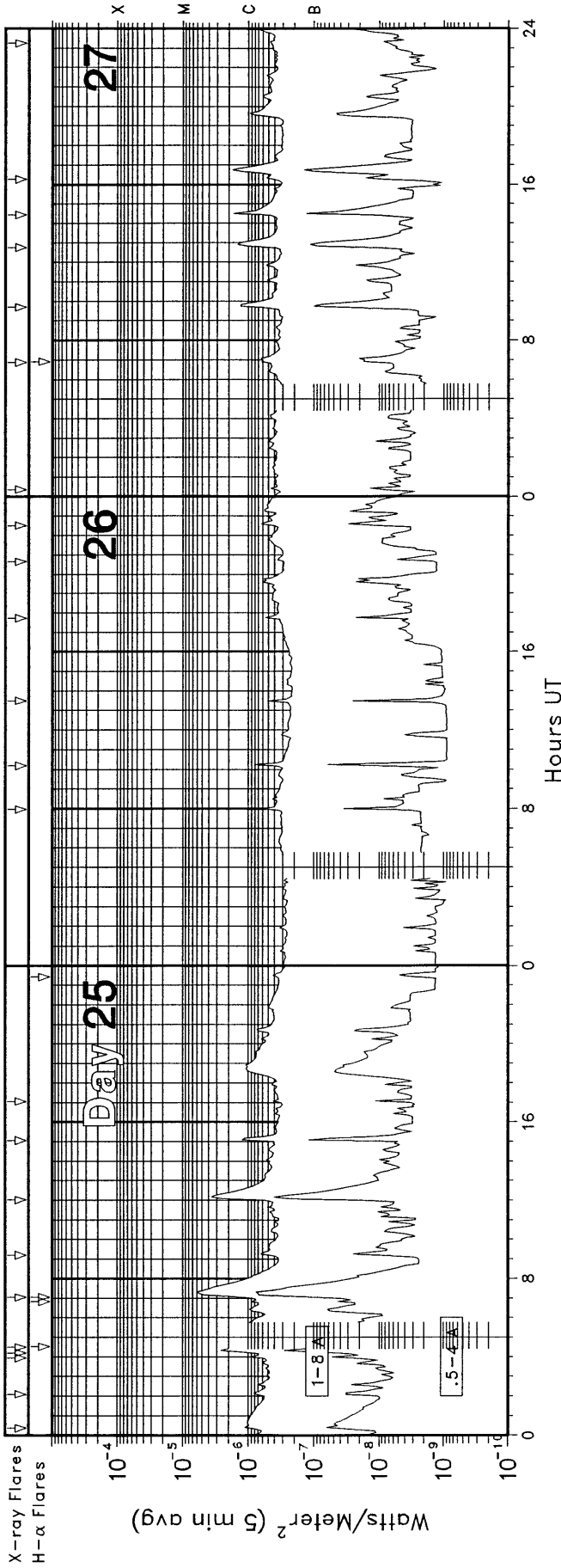


GOES X-RAY DETECTOR

March 2004

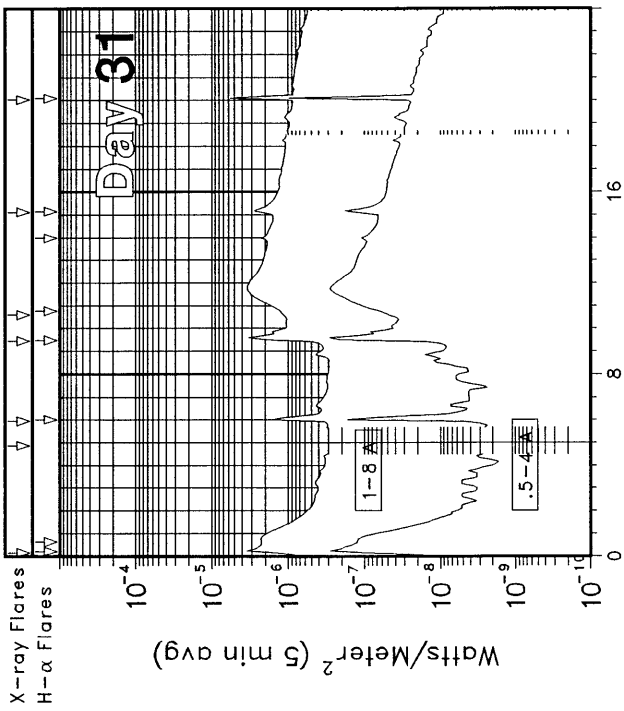


GOES X-RAY DETECTOR March 2004



GOES X-RAY DETECTOR

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GOES SOLAR X-RAY FLARES
Preliminary Listing

March 2004

Start Day	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	Flux	NOAA/USAF Region	
01	0544	0547	0558			B2.3	1.9E-04	10564	
02	1601	1608	1616			B4.8	3.5E-04	10564	
02	0656	0659	0702			B2.8	8.6E-05	10564	
02	2140	2149	2208	S12	E00	SF	C1.7	2.1E-03	10567
02	2321	2327	2330	S09	W06	SF	C1.7	4.7E-04	10567
03	0123	0127	0134			B2.7	1.5E-04	10567	
04	2256	2301	2304			B2.8	1.1E-04	10567	
04	0146	0154	0158			B6.9	3.1E-04	10567	
04	0229	0235	0242			B4.8	3.0E-04	10567	
04	0447	0455	0513			B9.6	1.1E-03		
04	0633	0642	0655			B4.6	4.5E-04	10567	
04	1000	1007	1014			C2.5	1.5E-03	10567	
05	1711	1716	1721			C1.0	4.3E-04	10567	
05	0059	0103	0107			B9.6	4.1E-04	10567	
05	0135	0140	0148			B7.3	4.8E-04	10570	
05	0320	0341	0353			C2.4	3.0E-03	10570	
05	0540	0547	0605			B8.0	1.0E-03		
05	0655	0700	0705			B6.3	3.3E-04	10567	
05	0851	0912	0937			C6.6	1.1E-02	10570	
05	1217	1223	1230			B7.5	4.9E-04	10567	
06	1841	1851	1910			C5.2	6.1E-03	10570	
06	0225	0229	0231			C1.6	3.6E-04	10567	
06	0656	0701	0703	S12	W43	SF	C2.7	5.9E-04	10567
06	0759	0803	0806			B6.1	2.3E-04	10570	
06	1014	1023	1028			C1.9	1.1E-03	10570	
06	1208	1217	1241			M1.3	1.6E-02	10570	
06	1512	1516	1518			C1.2	3.5E-04	10570	
06	1622	1628	1633			C1.4	6.6E-04	10570	
06	1922	1935	1942			C2.0	1.8E-03	10570	
07	2255	2300	2316			B5.3	5.9E-04	10570	
07	0442	0448	0455			B5.5	3.6E-04		
07	1231	1237	1244			B4.7	3.3E-04	10567	
08	2246	2301	2323			B8.4	1.3E-03	10570	
08	0726	0730	0745			B3.3	3.5E-04	10570	
08	0813	0820	0832			B6.6	6.0E-04	10570	
08	1345	1349	1354			B3.0	1.4E-04	10567	
09	1959	2011	2046			C2.3	4.9E-03	10570	
09	0331	0336	0350			B6.4	5.7E-04		
09	0422	0435	0439	S13	E41	SF	C1.1	7.8E-04	10570
09	0639	0648	0702	S16	E43	SF	C1.3	1.4E-03	10570
09	1424	1429	1434			B5.4	2.3E-04	10570	
10	1631	1635	1637			B4.8	1.4E-04		
10	0015	0018	0020			B4.0	1.0E-04	10570	
10	1526	1529	1531			B4.7	1.2E-04		
10	1533	1536	1539			B5.6	1.7E-04		
10	1856	1859	1903			B6.4	2.4E-04	10570	
10	2259	2302	2305			B8.4	2.1E-04		
11	0210	0215	0225	S17	E15	SF	C1.3	9.9E-04	10570
11	1842	1852	1901			B6.8	6.2E-04		
12	2309	2313	2317			B4.3	1.7E-04	10570	
12	0232	0237	0240	S16	W04	SF	C3.1	8.2E-04	10570
12	0702	0707	0712			B6.8	3.3E-04	10570	
12	1546	1549	1552			B3.1	9.9E-05		
12	2237	2240	2244			B2.5	8.9E-05	10570	
12	2326	2341	2350	S14	W08	SF	C1.8	1.6E-03	10570

Start Day	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	Flux	NOAA/USAF Region	
13	0743	0747	0749			B3.4	9.2E-05	10570	
13	1350	1354	1356			C1.0	2.0E-04	10570	
13	1459	1502	1504			B2.5	6.3E-05		
14	2121	2132	2147			B4.1	5.7E-04	10570	
14	0411	0414	0418			B2.1	8.0E-05	10570	
14	0436	0440	0445			B2.0	9.9E-05	10570	
15	2032	2035	2037			B3.8	8.6E-05	10570	
15	1059	1103	1107			B2.6	1.1E-04		
16	1725	1728	1731			B2.0	6.3E-05		
17	1550	1559	1606			B7.2	5.0E-04	10573	
17	0150	0156	0201			B3.1	1.8E-04	10572	
17	0550	0558	0604			B7.8	4.7E-04	10574	
17	0640	0643	0645			B3.1	8.3E-05	10576	
17	0753	0809	0813	S05	E64	SF	C1.5	1.2E-03	10574
17	0918	0931	0944			C1.6	1.9E-03	10572	
17	1419	1427	1448			C2.5	2.9E-03	10574	
17	1613	1617	1621			B9.8	4.0E-04	10574	
17	1800	1812	1818			C1.3	1.3E-03	10574	
17	2132	2140	2145	S04	E57	SF	B6.4	4.4E-04	10574
18	0021	0031	0038			B5.4	4.9E-04	10574	
18	0056	0100	0105			B6.8	3.3E-04	10574	
18	0116	0120	0124			B6.9	2.8E-04	10574	
18	0126	0133	0139			C1.4	8.2E-04	10578	
18	0508	0517	0527	S03	E51	2B	M1.6	1.0E-02	10574
18	0558	0605	0611			C3.7	2.0E-03	10578	
18	0611	0615	0621	S06	E50	SF	C8.0	3.8E-03	10574
18	0944	0950	0956			C1.2	6.7E-04	10574	
18	1202	1222	1234			C3.1	4.0E-03	10578	
18	1322	1327	1330			B8.6	3.4E-04	10578	
18	1441	1446	1450			C2.7	8.1E-04	10578	
18	1921	1927	1934	N18	E83	SF	C3.7	1.9E-03	10578
18	2207	2211	2218	N12	E79	SF	C1.2	6.6E-04	10578
18	2226	2236	2240	N16	E78	1F	M1.5	6.6E-03	10578
19	0112	0117	0127			C1.8	1.3E-03	10578	
19	0230	0236	0240			C2.0	8.1E-04	10578	
19	0258	0306	0314			C1.4	1.1E-03	10578	
19	0411	0416	0424	S06	E37	SF	C1.2	7.2E-04	10574
19	0736	0744	0749			C1.1	6.7E-04	10578	
19	0843	0848	0903	S05	E37	SF	C2.4	2.0E-03	10574
19	1003	1012	1024			C1.7	1.8E-03	10578	
19	1038	1042	1051			C1.4	1.0E-03	10578	
19	1211	1317	1339			C2.5	8.0E-03	10578	
19	1508	1524	1531			B8.3	9.0E-04	10577	
19	1630	1637	1645			C1.6	1.1E-03	10578	
19	1826	1832	1838			C1.0	6.0E-04	10578	
19	2111	2117	2124	N13	E59	SF	B8.7	5.0E-04	10578
20	0622	0630	0637	N14	E56	SF	B7.5	5.7E-04	10578
20	1426	1429	1433			B7.0	2.6E-04	10578	
20	1546	1550	1556			B3.9	2.1E-04	10578	
20	1658	1702	1707			B8.5	3.0E-04	10578	
20	1851	1858	1908			B7.7	6.4E-04	10578	
20	1917	1921	1925			B6.1	2.7E-04	10578	
20	1959	2025	2035			C1.7	2.5E-03	10578	
21	2356	2409	2421	N15	E46	SF	C2.0	2.0E-03	10578
21	0111	0117	0128	N15	E48	SF	C1.0	8.4E-04	10578
21	0939	0952	1002			C6.3	5.1E-03	10576	
21	1059	1113	1138			B8.7	1.5E-03	10578	
21	1538	1546	1601			B4.8	5.9E-04	10578	

GOES SOLAR X-RAY FLARES
 Preliminary Listing

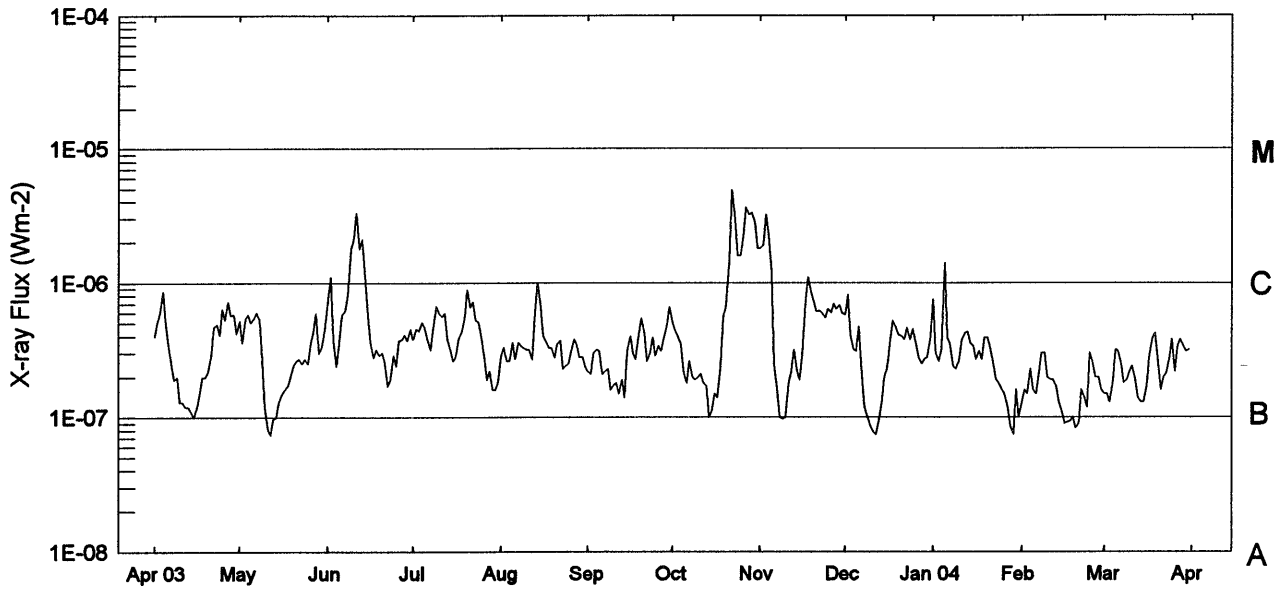
25
 Mar 04

March 2004

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	Flux	NOAA/USAF Region
21	1628	1634	1702	N16	E39	SF	C1.3	2.1E-03	10578
21	1840	1855	1906				B5.8	7.6E-04	10578
22	2018	2033	2044				C1.1	1.2E-03	10578
22	0036	0040	0043				B3.9	1.3E-04	10578
22	0103	0116	0123				B6.4	6.0E-04	10578
22	0200	0213	0224				C1.3	1.3E-03	
22	0548	0616	0628				C8.6	7.2E-03	10574
22	0849	0859	0906				B8.3	6.4E-04	10578
22	1206	1216	1224				B7.7	6.4E-04	10578
22	1303	1308	1321				B7.3	6.4E-04	10578
22	1714	1718	1720				B6.8	1.7E-04	10578
22	1725	1732	1754				B7.0	9.5E-04	10578
23	1944	2000	2021				B5.4	1.0E-03	10578
23	0034	0042	0049	N14	E19	SF	C1.3	1.1E-03	10578
23	0657	0725	0757	S03	W15	SF	C1.4	4.1E-03	10574
23	0851	0855	0859				B7.2	3.1E-04	10578
23	1019	1022	1024				B3.4	8.8E-05	10578
24	1345	1349	1352				B3.9	1.5E-04	10577
24	0413	0416	0420				B2.9	1.1E-04	10578
24	0536	0544	0551				B4.4	3.4E-04	
24	1417	1426	1438	N00	W06	SF	C5.7	4.7E-03	10577
24	1845	1851	1857				C1.5	8.9E-04	10582
24	2007	2018	2028				C7.4	4.8E-03	10582
24	2127	2138	2148				C1.9	2.0E-03	10577
24	2314	2329	2335	N15	E77	SF	M1.5	7.5E-03	10582
25	0022	0027	0055				C1.1	2.0E-03	10582
25	0206	0210	0213				B9.5	3.5E-04	10582
25	0356	0401	0406				B9.9	4.7E-04	10582
25	0412	0423	0427				C3.2	1.6E-03	10582
25	0429	0439	0443	N12	E82	SF	M2.3	1.1E-02	10582
25	0702	0721	0736	N15	E73	SF	C6.1	8.4E-03	10582
25	0912	0918	0925				B6.6	4.6E-04	10574
25	1201	1212	1225				C3.7	3.7E-03	10577
25	1503	1508	1512				C1.8	6.2E-04	10582
25	1703	1706	1709				B4.7	1.4E-04	10582
26	2039	2045	2049				B8.1	4.3E-04	10582
26	0758	0801	0804				B7.7	2.2E-04	10582
26	1011	1016	1019				B9.6	3.1E-04	
26	1330	1333	1335				B7.3	1.6E-04	10582
26	1743	1747	1751				B6.4	2.4E-04	10582
26	2231	2236	2244				B6.4	4.3E-04	10582
27	2314	2319	2326				B6.1	4.0E-04	10582
27	0022	0025	0030				B4.8	2.1E-04	10582
27	0653	0656	0659	N16	E52	SF	B6.7	2.1E-04	10582
27	0942	0949	0959				C1.3	1.1E-03	10586
27	1246	1257	1309				C1.4	1.5E-03	10586

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	Flux	NOAA/USAF Region
27	1427	1432	1436				C1.9	7.2E-04	10586
27	1616	1646	1655				C1.7	2.1E-03	10586
28	1931	1942	1950				C1.0	9.1E-04	10586
28	0002	0008	0015				C1.0	7.7E-04	10582
28	0338	0355	0422	S13	E48	SF	C1.3	2.7E-03	10585
28	0438	0443	0447				C1.2	5.9E-04	
28	0631	0636	0641				B8.0	3.9E-04	10582
28	1157	1244	1307				C1.8	4.2E-03	10582
29	2151	2157	2202				B5.9	3.5E-04	
29	0308	0312	0315				B6.0	2.1E-04	10582
29	0428	0432	0435	N16	E25	SF	B6.9	2.6E-04	10582
29	0457	0501	0504				B6.7	2.1E-04	
29	0755	0758	0801				B5.0	1.6E-04	10587
29	0945	0948	0953				B6.1	2.5E-04	10587
29	1249	1303	1307				C2.7	2.1E-03	10582
29	1543	1551	1556	N16	E17	SF	C5.5	2.3E-03	10582
29	1729	1735	1741				C1.5	7.8E-04	10582
29	1827	1845	1847	N16	E16	SF	C3.4	1.7E-03	10582
29	1955	2003	2008	N15	E16	SF	C4.5	2.3E-03	10582
29	2023	2036	2043				C1.1	1.1E-03	10582
29	2059	2102	2104				C1.4	2.9E-04	10582
29	2225	2230	2232				B9.7	3.4E-04	10582
29	2319	2324	2328	N15	E13	SF	C8.2	2.4E-03	10582
30	0151	0156	0158	N14	E12	SF	C5.7	1.8E-03	10582
30	0245	0252	0258	N12	E11	SF	C1.8	9.9E-04	10582
30	0307	0310	0312	N13	E11	SF	C1.5	3.7E-04	10582
30	0504	0509	0516	N13	E13	SF	C2.2	1.1E-03	10582
30	0520	0525	0528				C3.3	1.2E-03	
30	0537	0541	0546	N12	E09	SF	C1.3	6.1E-04	10582
30	0941	0951	0954				C5.9	2.6E-03	
30	1011	1016	1022				B9.4	4.9E-04	
30	1037	1041	1043				B6.8	2.0E-04	
30	1230	1238	1244				C1.0	6.5E-04	
30	1254	1300	1303				C4.7	1.7E-03	
30	1344	1349	1356				B9.2	5.2E-04	10582
30	1754	1759	1801	N16	E02	SF	C1.4	4.5E-04	10582
30	1906	1915	1925				B6.0	6.3E-04	10577
30	2129	2137	2141	N16	E00	SF	C1.1	4.9E-04	10582
30	2217	2222	2226				B6.4	2.8E-04	10582
30	2253	2308	2345	S05	E02	SF	C2.0	4.8E-03	10581
31	0009	0016	0030	N12	W01	1F	C3.8	3.1E-03	10582
31	0452	0456	0500				B4.9	2.1E-04	
31	0557	0604	0607	N16	W02	SF	C2.2	7.9E-04	10582
31	0927	0935	0943	N11	W07	SF	C3.7	2.1E-03	10582
31	1036	1151	1245				C3.4	1.9E-02	10582
31	1507	1511	1517	N12	W11	SF	C2.8	1.5E-03	10582
31	2002	2008	2010	N16	W10	SF	C7.4	2.0E-03	10582

Preliminary GOES Satellite Daily X-Ray Background Apr 2003 - Mar 2004



Day	Apr 03	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 04	Feb	Mar
1	B4.0	B5.2	B6.8	B3.8	B2.9	B2.2	B5.0	C1.8	B5.8	B7.5	B1.3	B1.5
2	B5.1	B3.6	C1.1	B4.5	B3.3	B2.1	B4.4	C1.9	B8.1	B3.0	B1.6	B1.5
3	B5.9	B5.4	B3.8	B4.4	B2.6	B3.0	B4.0	C3.2	B4.1	B2.6	B1.5	B1.3
4	B8.6	B5.8	B2.4	B5.1	B2.6	B3.2	B3.5	C2.3	B3.2	B3.2	B2.3	B1.8
5	B5.1	B5.1	B3.6	B4.6	B3.6	B3.1	B2.2	C1.2	B3.1	C1.4	B1.6	B3.2
6	B3.3	B5.4	B5.7	B3.7	B2.7	B2.1	B1.8	B2.5	B4.7	B3.9	B1.5	B3.1
7	B2.5	B6.0	B6.2	B3.2	B3.6	B2.2	B2.6	B1.6	B2.1	B3.5	B2.1	B2.5
8	B1.9	B5.3	B7.9	B4.6	B3.4	B2.3	B2.0	B1.0	B1.2	B2.4	B3.0	B1.8
9	B2.0	B2.7	C1.8	B6.7	B3.3	B1.6	B1.9	A9.7	B1.0	B2.3	B3.0	B1.9
10	B1.3	B1.2	C2.1	B5.9	B3.2	B1.7	B2.0	B1.0	A8.7	B2.6	B2.0	B2.2
11	B1.3	A8.2	C3.3	B5.6	B3.2	B1.8	B2.1	B1.8	A7.7	B3.7	B1.9	B2.4
12	B1.2	A7.4	C1.8	B5.9	B2.7	B1.5	B1.8	B2.2	A7.4	B4.2	B1.9	B1.9
13	B1.2	A9.7	C2.1	B3.8	B6.0	B1.9	B1.7	B3.2	A9.7	B4.3	B1.7	B1.4
14	B1.1	B1.0	C1.2	B3.2	C1.0	B1.4	B1.0	B2.2	B1.3	B3.5	B1.3	B1.3
15	B1.0	B1.3	B5.8	B2.6	B6.8	B3.1	B1.1	B1.9	B2.0	B3.4	B1.1	B1.3
16	B1.2	B1.5	B3.6	B2.8	B4.0	B4.0	B1.5	B2.9	B2.4	B2.7	A9.0	B1.7
17	B1.5	B1.6	B2.8	B3.9	B3.7	B3.0	B1.4	B7.2	B3.8	B3.1	A9.2	B2.9
18	B2.0	B1.7	B3.2	B4.2	B3.3	B2.7	B2.4	C1.1	B5.2	B2.7	A9.4	B3.9
19	B2.0	B2.0	B2.9	B5.4	B3.3	B4.1	B5.6	B8.4	B4.6	B3.9	B1.0	B4.2
20	B2.2	B2.4	B3.0	B8.9	B2.8	B5.4	B6.5	B7.3	B4.1	B3.9	A8.3	B2.7
21	B2.9	B2.6	B2.6	B6.6	B3.5	B4.2	C1.4	B6.1	B4.0	B3.3	A8.9	B1.6
22	B4.7	B2.7	B1.7	B7.2	B3.7	B2.6	C4.9	B6.2	B3.8	B2.5	B1.6	B2.0
23	B4.9	B2.5	B1.9	B5.3	B2.3	B3.0	C3.0	B5.9	B4.6	B1.9	B1.4	B2.1
24	B4.1	B2.7	B2.9	B5.1	B2.4	B3.9	C1.6	B5.5	B3.8	B1.8	B1.2	B2.7
25	B6.4	B2.5	B2.4	B4.0	B2.5	B2.9	C1.6	B6.4	B4.5	B1.6	B3.0	B3.8
26	B5.3	B3.5	B3.7	B2.8	B3.1	B3.4	C2.2	B6.0	B3.5	B1.5	B2.5	B2.2
27	B7.2	B4.3	B3.8	B1.9	B3.8	B3.1	C3.6	B7.0	B2.8	B1.2	B2.0	B3.4
28	B5.7	B5.9	B4.1	B2.2	B3.4	B4.0	C3.2	B6.4	B2.5	A8.7	B2.0	B3.8
29	B5.8	B3.0	B3.7	B1.6	B2.8	B4.8	C3.3	B6.8	B2.7	A7.5	B1.6	B3.4
30	B4.2	B3.3	B4.5	B1.6	B2.8	B6.6	C2.8	B5.9	B2.8	B1.6		B3.1
31		B4.5		B1.8	B2.4		C1.8		B3.9	B1.0		B3.2

NOTE: * = Data not available.

ACTIVE PROMINENCES AND FILAMENTS

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Mar 04

MARCH 2004

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/USAF Reg#	Remarks
03	DSF	1244U	0601U	S16	W22	03	1.9		06	0	0	E	SVTO		
04	DSF	0947U	2333U	N14	E00	03	4.4		08	0	0	E	LEAR		
09	EPL	1655	1740	S90	E23	03	11.8	3		9	9	E	HOLL		
15	DSF	0024U	1339U	N22	W28	03	12.9		10	0	0	E	HOLL		
16	EPL	2211	0002	N17	W90	03	10.1	3		5	5	E	HOLL		
17	BSL	0927	0935	S21	E65	03	22.4	3		9	9	E	SVTO	0572	
18	DSF	0033U	1353U	N33	W50	03	14.0		30	0	0	E	HOLL		
27	EPL	1534	0114	S35	E90	04	3.8	3		5	5	E	HOLL		
28	APR	0450E	0730D	S37	E90	04	4.4	1		0	0	E	LEAR		
28	DSF	1848	1913	N23	E33	03	31.3	3	06	0	0	E	HOLL	0582	

ADF = Active Dark Filament	BSL = Bright Surge on Limb	EPL = Eruptive Prominence on Limb
AFS = Arch Filament System	CAP = CAP Prominence (Tandberg-Hanssen)	LPS = Loops
APR = Active Prominence	CRN = Coronal Rain	MDP = Mound Prominence
ASR = Active Surge Region	DSD = Dark Surge on Disk	SDF/DSF = Sudden Disappearing Filament
BSD = Bright Surge on Disk	DSF = Disappearing Solar Filament	SPY = Spray
		SSB = Solar Sector Boundary

For SOLAR SECTOR BOUNDARY REPORTS, the latitude field contains the Carrington longitude of the point where a neutral line crosses the solar equator. The comments field may contain the Carrington longitude and central meridian distance of two more intersection points.

The EXTENT field for limb events is the radial extent above the limb in hundredths of solar radius. For disk events this field contains the heliographic extent in whole degrees.

The remark "Bright Emission 1/3" indicates that bright emission was observed 1/3 of time.
The remark "Normal Emission 1/3" indicates that normal emission was observed 1/3 of time.

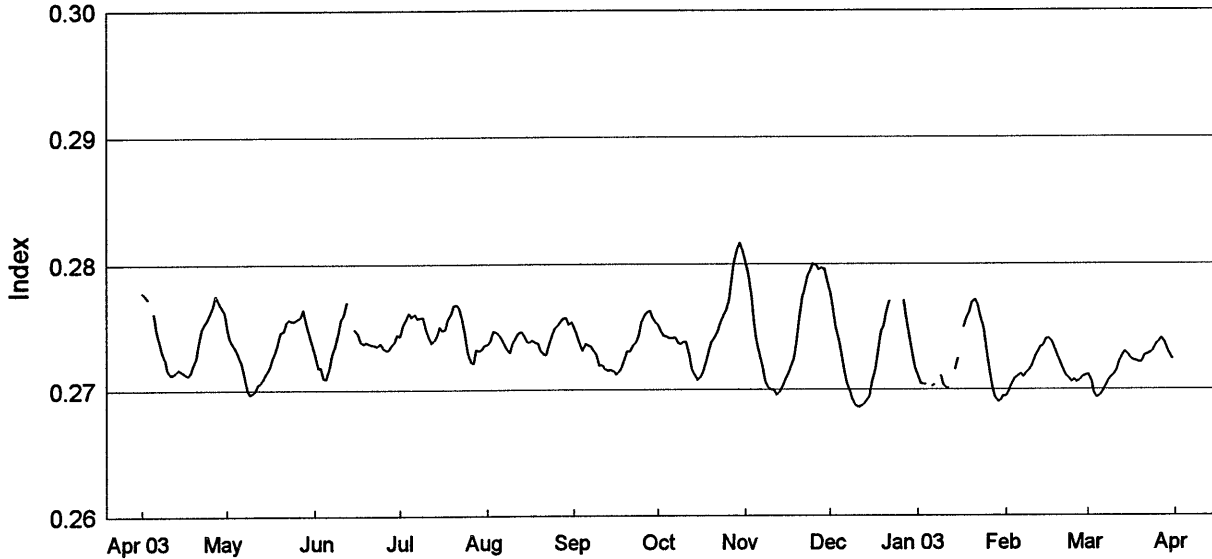
Observation Type: C= Cinematographic, E= Electronic, P= Photographic, V= Visual.

ABST = Abastumani	HOLL = Holloman	RAMY = Ramey
ATHN = Athens	KHAR = Kharkov	SVTO = San Vito
BUCA = Bucharest	LEAR = Learmonth	VORO = Voroshilov
CATA = Catania	PALE = Palehua	VALA = Valasske Mezirici
		WROC = Wroclaw

NOTE: The U.S. Air Force solar observing sites (HOLL, LEAR, RAMY, AND SVTO) have changed operational requirements and will only report the following: BSL, EPL, LPS, SPY, and DSF's.

NOAA Solar Ultraviolet (UV) MgII Core-to-Wing Index

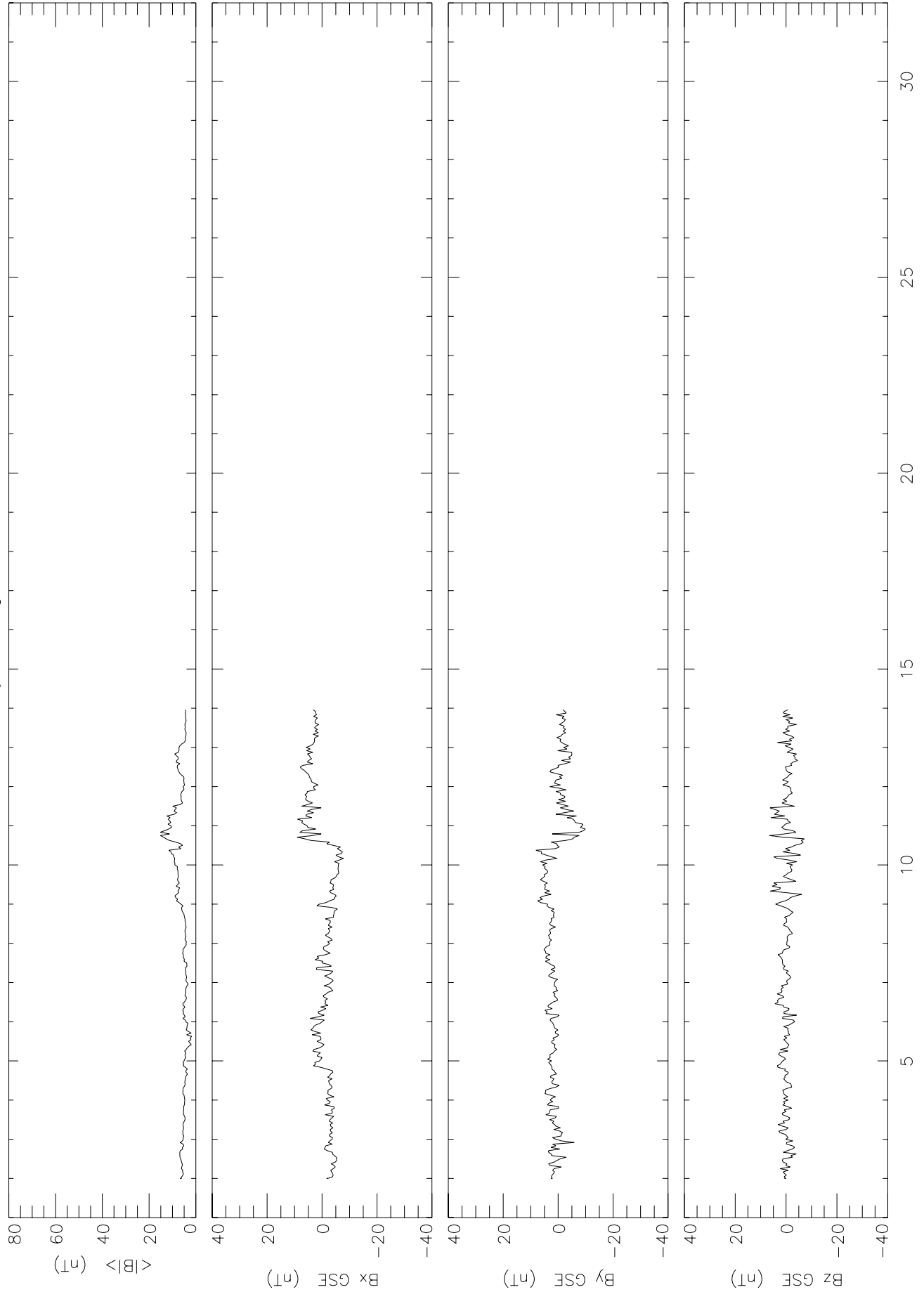
Apr 2003 - Mar 2004
Version 9.1



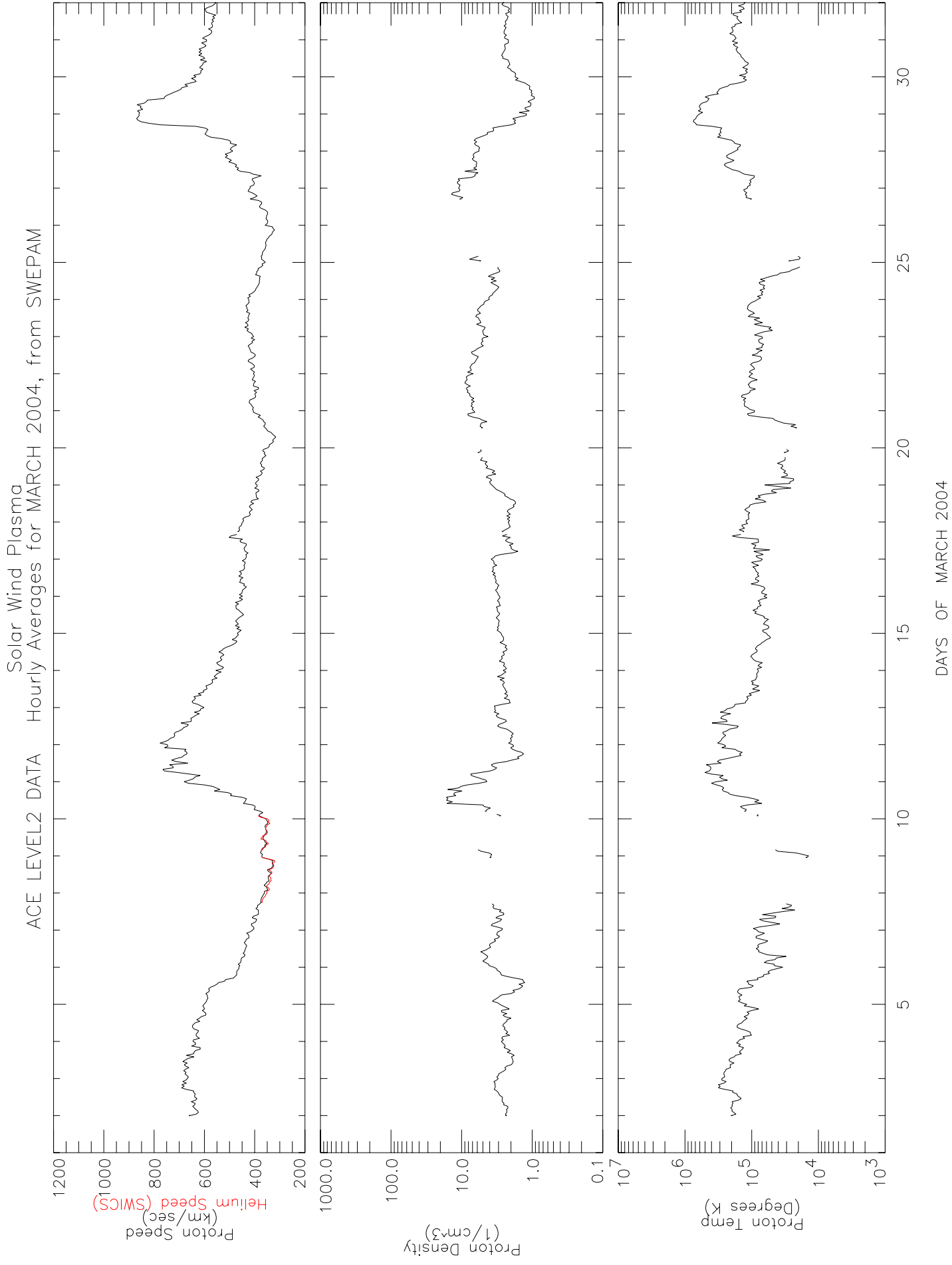
Day	Apr 03	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 04	Feb	Mar
1	0.2778	0.2749	0.2729	0.2743	0.2736	0.2749	0.2751	0.2801	0.2777	0.2711	0.2695	0.2712
2	0.2776	0.2741	0.2718	0.2751	0.2739	0.2744	0.2746	0.2792	0.2764	0.2705	0.2699	0.2707
3	0.2772	0.2736	0.2718	0.2756	0.2747	0.2736	0.2743	0.2774	0.2750	0.2704	0.2705	0.2696
4	—	0.2733	0.2710	0.2761	0.2746	0.2731	0.2743	0.2752	0.2740	0.2704	0.2709	0.2694
5	0.2761	0.2728	0.2709	0.2758	0.2744	0.2737	0.2741	0.2738	0.2730	—	0.2711	0.2695
6	0.2747	0.2722	0.2717	0.2760	0.2741	0.2736	0.2741	0.2727	0.2717	0.2703	0.2713	0.2698
7	0.2738	0.2713	0.2728	0.2757	0.2736	0.2734	0.2742	0.2719	0.2704	0.2705	0.2710	0.2703
8	0.2730	0.2701	0.2735	0.2758	0.2732	0.2730	0.2737	0.2706	0.2699	—	0.2713	0.2707
9	0.2724	0.2697	0.2743	0.2758	0.2730	0.2728	0.2737	0.2702	0.2691	0.2711	0.2715	0.2710
10	0.2716	0.2698	0.2756	0.2749	0.2737	0.2720	0.2738	0.2700	0.2688	0.2703	0.2719	0.2712
11	0.2713	0.2700	0.2759	0.2742	0.2741	0.2719	0.2738	0.2700	0.2686	0.2701	0.2725	0.2715
12	0.2713	0.2705	0.2770	0.2738	0.2745	0.2717	0.2728	0.2696	0.2687	0.2701	0.2730	0.2721
13	0.2715	0.2706	—	0.2740	0.2746	0.2715	0.2717	0.2698	0.2688	—	0.2734	0.2727
14	0.2717	0.2710	—	0.2743	0.2744	0.2716	0.2712	0.2702	0.2691	0.2716	0.2735	0.2730
15	0.2715	0.2714	0.2748	0.2750	0.2739	0.2715	0.2708	0.2707	0.2694	0.2725	0.2740	0.2727
16	0.2714	0.2718	0.2745	0.2747	0.2738	0.2713	0.2710	0.2712	0.2706	—	0.2741	0.2725
17	0.2712	0.2725	0.2739	0.2748	0.2740	0.2714	0.2714	0.2717	0.2716	0.2750	0.2738	0.2723
18	0.2714	0.2731	0.2737	0.2756	0.2738	0.2717	0.2723	0.2724	0.2730	0.2756	0.2733	0.2723
19	0.2720	0.2738	0.2738	0.2760	0.2737	0.2725	0.2732	0.2737	0.2746	0.2762	0.2727	0.2722
20	0.2726	0.2746	0.2737	0.2767	0.2731	0.2731	0.2738	0.2754	0.2706	0.2770	0.2722	0.2721
21	0.2738	0.2747	0.2736	0.2768	0.2729	0.2731	0.2740	0.2773	0.2764	0.2772	0.2716	0.2727
22	0.2748	0.2754	0.2736	0.2765	0.2728	0.2735	0.2746	0.2780	0.2771	0.2767	0.2711	0.2728
23	0.2753	0.2756	0.2735	0.2757	0.2737	0.2737	0.2752	0.2789	—	0.2757	0.2708	0.2729
24	0.2756	0.2755	0.2737	0.2743	0.2743	0.2743	0.2758	0.2795	—	0.2749	0.2706	0.2731
25	0.2762	0.2755	0.2734	0.2729	0.2749	0.2753	0.2762	0.2801	0.2781	0.2732	0.2708	0.2736
26	0.2767	0.2757	0.2732	0.2723	0.2751	0.2759	0.2770	0.2799	—	0.2718	0.2706	0.2738
27	0.2775	0.2758	0.2732	0.2721	0.2754	0.2762	0.2786	0.2795	0.2771	0.2702	0.2708	0.2741
28	0.2770	0.2764	0.2736	0.2732	0.2756	0.2763	0.2802	0.2797	0.2756	0.2694	0.2710	0.2738
29	0.2766	0.2752	0.2738	0.2732	0.2757	0.2757	0.2811	0.2796	0.2741	0.2691	0.2711	0.2732
30	0.2762	0.2745	0.2744	0.2732	0.2752	0.2753	0.2817	0.2786	0.2729	0.2691		0.2727
31		0.2736		0.2735	0.2754		0.2810		0.2717	0.2695		0.2723
Mean	0.2741	0.2732	0.2736	0.2748	0.2742	0.2734	0.2748	0.2749	0.2728	0.2722	0.2717	0.2720

Data at: <http://www.sec.noaa.gov/ftpmenu/sbuw.html>

ACE LEVEL2 DATA Interplanetary Magnetic Field
Hourly Averages for MARCH 2004, from MAG



ACE LEVEL2 DATA Hourly Averages for MARCH 2004, from SWEPAM



Solar Energetic Particles ACE LEVEL2 DATA Hourly Averages for MARCH 2004

