

AUGUST 2004 NUMBER 720 - Part II

Solar-Geophysical Data comprehensive reports



Data for February 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**

NGDC On-Line Addresses:

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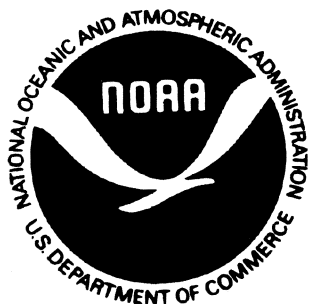
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NATIONAL OCEANIC AND
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NATIONAL ENVIRONMENTAL SATELLITE,
DATA, AND INFORMATION SERVICE

NATIONAL GEOPHYSICAL
DATA CENTER

BOULDER,
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Data for February 2004 and Late Data

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Boulder, Colorado

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SOLAR-GEOPHYSICAL DATA

Number 720

(Issued in Two Parts)

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NEW DATA:

ACE SOLAR WIND, INTERPLANETARY MAGNETIC FIELD AND PARTICLES

-- MONTHLY PLOTS

DETAILED INDEX OF OBSERVATIONS PUBLISHED IN SOLAR-GEOPHYSICAL DATA

CODE	KIND OF OBSERVATION	DEC 03	JAN 04	FEB	MAR	APR	MAY	JUN	JUL
A. SOLAR AND INTERPLANETARY									
A.1	Sunspot Drawings	714A 46	715 44A	716A 46	717A 44	718A 44	719A 42	720A 48	
A.2aa	International Sunspot Numbers	713A 27	714A 26	715A 25	716A 25	717A 22	718A 23	719A 24	720A 25
A.2c	American Sunspot Numbers	713A 27	714A 26	715A 25	716A 25	717A 22	718A 23	719A 24	720A 25
A.3a	Mt. Wilson Magnetograms	714A 46	715A 44	716A 46	717A 44	718A 44	719A 42	720A 48	
A.3b	Sunspot Mag Class and Regions	714A 83	715A 81	716A 80	717A 81	718A 79	719A 79	720A 83	
A.3c	Kitt Peak Magnetograms	714A 46	715A 44	716A 46	717A 44	718A 44	719A 42	720A 48	
A.3d	Mean Solar Magnetic Field (Stanford)	713A 36	714A 36	715A 34	716A 36	717A 34	718A 34	719A 32	720A 38
A.3e	Stanford Magnetograms	714A 46	715A 44	716A 46	717A 44	718A 44	719A 42	720A 48	
A.4	H-alpha Filtergrams	714A 46	715A 44	716A 46	717A 44	718A 44	719A 42	720A 48	
A.5d	Photometric Ca II Faculae San Fernando	Jan 92-Dec 96 - 631B 22; 1997-1998 in 663B 66							
A.6c	Stanford Solar Mag Field Synoptic Map	714A 40	715A 38	716A 40	717A 38	718A 38	719A 36	720A 42	
A.6d	Kitt Peak Solar Mag Field Synoptic Map	714A	715A	716A	717A 43	718A 43	719A 41	-----	
A.6f	Active Prominences and Filaments	718B 24	719B 33	720B 27					
A.6g	Sac Peak Coronal Line Synoptic Maps	714A 42	715A 40	716A 42	717A 40	718A 40	719A 38	720A 44	
A.6h	Photometric White Light San Fernando	Jul-Dec 96 630B 32; 1997-1998 in 663B 51							
A.7h	Coronal Line Emission (Sac Peak)	714A 46	715A 44	716A 46	717A 44	718A 44	719A 42	720A 48	
A.7j	Coronal Hole Daily Maps (NSO/KP)	-----	-----	-----	-----	-----	-----	-----	
A.7k	Coronal Index (Slovak Academy)	1939-1996 -644B 28							
A.7m	Coronal Mass Ejections (CSPSW)	718B 29	719B	720B					
A.8aa	2800 MHz- Solar Flux (Penticton)	713A 27	714A 26	715A 25	716A 25	717A 22	718A 25	719A 24	720A 25
A.8ac	2800 MHz- Adj. Solar Flux (Penticton)	713A 27	714A 26	715A 25	716A 25	717A 22	718A 25	719A 24	720A 25
A.8g	Adjusted Daily Solar Fluxes Sagamore	713A 27	714A 26	715A 25	716A 25	717A 22	718A 25	719A 24	720A 25
A.10g	Nancay Radioheliograph-164&327MHz	-----	-----	-----	717A112	718A103	719A100	720A108	
A.10h	Nobeyama Radioheliograph -17 GHz	714A 77	715A 75	716A 75	717A 75	718A 74	719A 73	720A 78	
A.11g	Solar X-ray GOES (graphs/event table)	718B 15	719B 24	720B 19					
A.11k	Solar UV NOAA-9	May 86-Dec 88 in 566B 84							
A.11l	Solar UV NIMBUS7	Nov 78-Oct 84 in 542B 82							
A.11m	Solar UV SOLSTICE (UARS)	Oct 91-Sep 94 in 607B 46							
A.11o	Solar UV SUSIM (UARS)	Oct 91-Jan 97 in 629B 30							
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A.16c	ERBS, NOAA-9 & -10 Solar Irradiance	ERBS Oct 84-Jun 00 in 671B 36							
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A.16e	VIRGO/SOHO Solar Irradiance	Jan 96-Sep 00 in 678B 46							
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C.1d	Flare Patrol Observations	718B 8	719B 9	720B 9					
C.1h	H-alpha Flare Index (ImpxDur)	Jan 76-Dec 85 in 639B 26; Jan 86-Oct 96 in 635B 24; Jan 96-Dec 98 in 665B 63							
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C.3	Radio Bursts Fixed Frequency Select	713A 34	714A 33	715A 32	716A 35	717A 32	718A 33	719A 31	720A 34
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D.1cb	Monthly Mean aa Indices	714A115	715A115	716A117	717A123	718A114	719A111	720A117	
D.1d	Principal Magnetic Storms	714A119	715A121	716A121	717A127	718A118	719A115	720A121	
D.1f	Sudden Commencements/Flare Effects	714A120	715A122	716A122	717A128	718A119	719A116	720A122	
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F.1b	Cosmic Ray Neutron Cts (Climax)	714A104	715A104	716A106	717A114	718A105	719A102	720A110	
F.1h	Cosmic Ray Neutron Cts (Thule)	714A104	715A104	716A106	717A114	718A105	719A102	720A110	
F.1i	Cosmic Ray Neutron Cts (Kiel)	714A104	715A104	716A106	717A114	718A105	719A102	720A110	
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F.1m	Cosmic Ray Neutron Cts (Haleakala)	714A104	715A104	716A106	717A114	718A105	719A102	720A110	
F.1o	Cosmic Ray Neutron Cts (Moscow)	714A104	715A104	716A106	717A114	718A105	719A102	720A110	
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The entry "714A 46" under Dec 03, for example, means that the sunspot drawings for Dec 03 appear in SOLAR-GEOPHYSICAL DATA No. 714, Part I, and that they begin on page 46. "A" denotes Part I and "B", Part II. Blanks indicate data not yet received and dashes mark unavailable data.

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FEBRUARY 2004

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
															Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0001	LEAR	01	0252	0256	0302	N08	E64	10549	02	5.9	10	SF	3	E		51		
0002	LEAR	01	0601	0605	0607	N11	E70	10549	02	6.5	6	SF	3	E		14		F
		01	1321		1437	No	Flare Patrol											
		01	1440		1504	No	Flare Patrol											
		01	1526		1527	No	Flare Patrol											
		01	1547		1556	No	Flare Patrol											
		01	1621		1656	No	Flare Patrol											
		01	1806		1840	No	Flare Patrol											
		01	1941		1947	No	Flare Patrol											
		01	2037		2047	No	Flare Patrol											
		02	0024		0948	No	Flare Patrol											
		02	0953		0954	No	Flare Patrol											
		02	1031		1048	No	Flare Patrol											
		02	1050		1057	No	Flare Patrol											
		02	1112		1117	No	Flare Patrol											
		02	1148		1158	No	Flare Patrol											
		03	0025		0037	No	Flare Patrol											
		03	0132		0207	No	Flare Patrol											
		03	0613		0720	No	Flare Patrol											
		03	0722		0742	No	Flare Patrol											
		03	0749		0802	No	Flare Patrol											
0003	KANZ	03	1012	1013	1016	N12	E37	10549	02	6.2	4	SF	2	E				
0004	KANZ	03	1338	1341	1346	S06	E55	10551	02	7.7	8	SF	2	E				
		03	1404		2103	No	Flare Patrol											
		03	2108		2127	No	Flare Patrol											
		03	2131		2214	No	Flare Patrol											
		03	2251		2400	No	Flare Patrol											
		04	0000		0613	No	Flare Patrol											
0005	SVTO	04	1115	1119U	1138D	S05	W48	10547	01	31.9	23D	1F	3	E		111		
		04	1151		1701	No	Flare Patrol											
		04	1712		1804	No	Flare Patrol											
		04	1814		1852	No	Flare Patrol											
		04	2025		2041	No	Flare Patrol											
		04	2114		2259	No	Flare Patrol											
0006	LEAR	05	0031	0032	0050	S07	W55	10547	01	31.9	19	SF	3	E		29		F
0007	LEAR	05	0631	0633	0646	N11	E14	10549	02	6.3	15	SF	3	E		38		F
0008		05	07521	07573	0803	S05	W60	10547	01	31.8	11	SF				14		
	KANZ	05	0752	0800	0802	S06	W59	10547	01	31.9	10	SF	2	E				
	SVTO	05	0753	0757	0802	S04	W60	10547	01	31.8	9	SF	3	E		11		
	LEAR	05	0753	0757	0804	S06	W60	10547	01	31.8	11	SF	3	E		17		
		05	1554		1741	No	Flare Patrol											
		05	2137		2248	No	Flare Patrol											
		06	0155		0317	No	Flare Patrol											
		07	0032		0847	No	Flare Patrol											
		07	0851		0852	No	Flare Patrol											
		07	1322		1330	No	Flare Patrol											
		07	1357		1358	No	Flare Patrol											
		07	1727		1745	No	Flare Patrol											
		07	1800		1949	No	Flare Patrol											
		07	2000		2009	No	Flare Patrol											
		07	2036		2044	No	Flare Patrol											
		07	2249		2325	No	Flare Patrol											
		08	0329		0522	No	Flare Patrol											
0009	HOLL	08	2028	2030	2042	S08	E70	10554	02	14.1	14	SF	3	E		25		
0010	HOLL	08	2044	2053	2059	S08	E68	10554	02	14.0	15	SF	3	E		36		

FEBRUARY 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)		
		29	2236		2254			No Flare	Patrol											
		29	2357		2400			No Flare	Patrol											

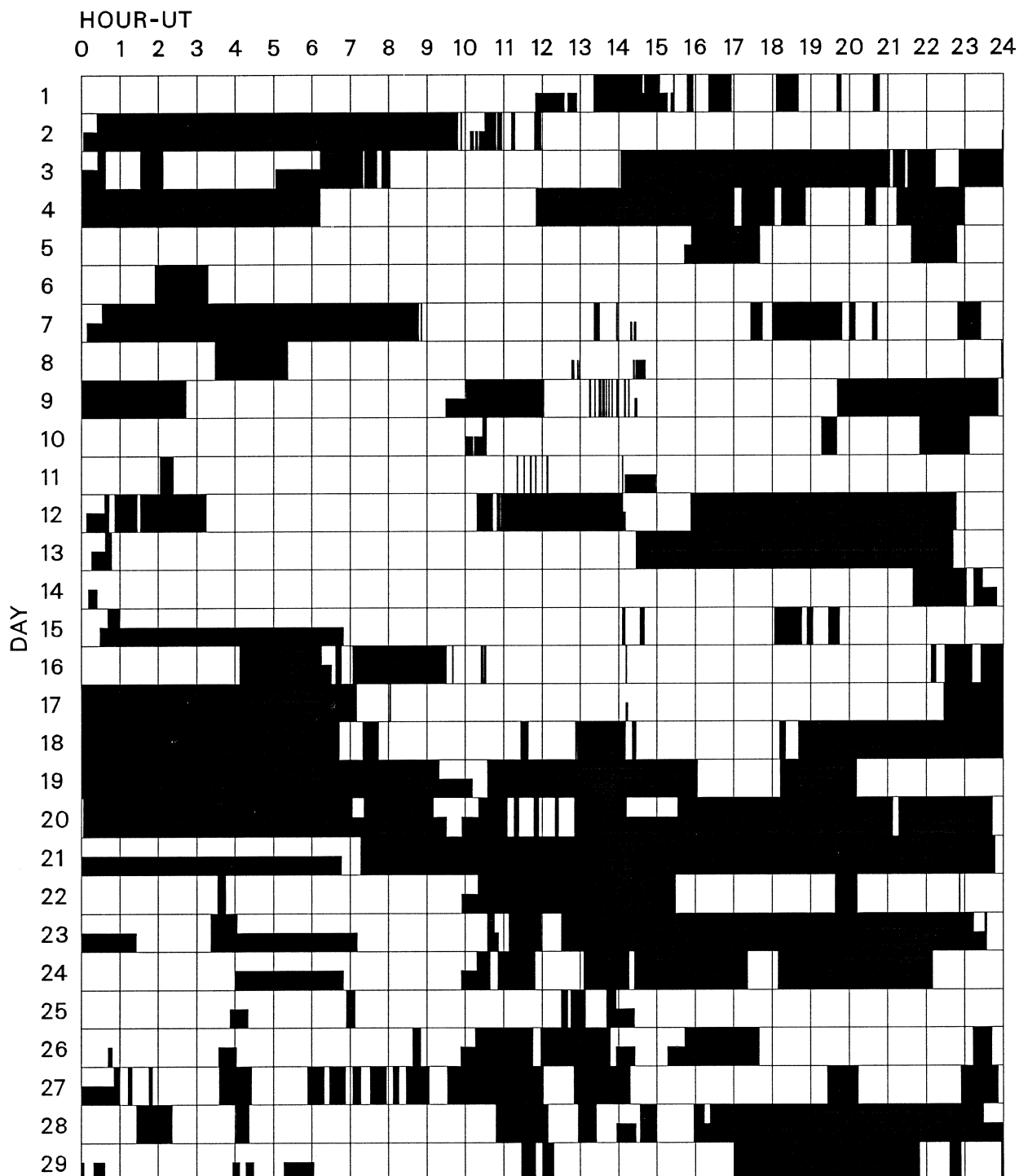
"Remarks"

- | | |
|---|---|
| <p>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.</p> | <p>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.</p> |
|---|---|

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

INTERVALS OF NO FLARE PATROL OBSERVATION FOR PRECEDING SOLAR FLARE TABLE

FEBRUARY 2004



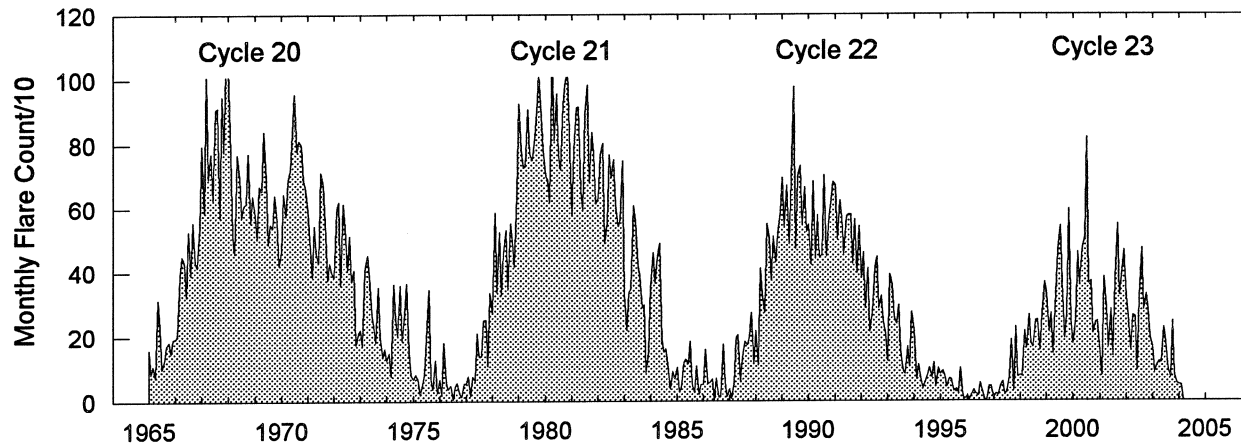
Times of no flare patrol, shown here as shaded areas, combine reports from the stations listed below. Portions of a panel completely shaded mark dates and times of no patrol of any kind (neither visual or cinematographic); portions of a panel with only the bottom half shaded mark times of only visual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

Holloman
Kanzelhoehe

Learmonth

San Vito

Monthly Counts of Grouped Solar Flares Jan 1965 - Feb 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											96

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

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

11
Feb 04

FEBRUARY 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	204	IZMI	43 NS	0700.0		300.0D		30.0		
			44 NS	0700.0E		450.0D		28.0		V=2
	245	LEAR	8 S	0318.0	0319.0	2.0	450.0			QL=4 ST=2 TYP=3
			49 GB	0319.0	0320.0	1.0	580.0			QL=4 ST=2 TYP=6
	204	IZMI	41 F	0709.6	0710.1	0.8	40.0			
			8 S	1706.0	1707.0	1.0	160.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1805.0	1805.0	U	59.0			QL=4 ST=2 TYP=3
			8 S	1811.0	1811.0	U	270.0			QL=4 ST=2 TYP=3
245	SGMR	8 S	1811.0	1811.0	U	240.0			QL=4 ST=2 TYP=3	
02	127	TORN	43 NS	0950.0		30.0		8.0		V=0
			49 GB	0331.0	0331.0	U	680.0			QL=4 ST=2 TYP=6
	245	LEAR	8 S	0521.0	0521.0	U	100.0			QL=4 ST=2 TYP=3
			5 S	0751.0	0755.2	8.0	12.0			
	600	GORK	46 C	0753.4	0754.0		30.0			
			46 C	0753.4	0753.8	1.4	30.0			
	600	GORK	46 C	0753.4	0753.9		32.0			
			4 S/F	0753.5	0755.1	2.9	12.0			
	9100	GORK	4 S/F	0754.0	0755.0	2.2	13.0			
			20 GRF	0754.2	0754.9	2.0	7.0	2.2		
	900	GORK	8 S	0754.7	0754.8	0.5	340.0U			
8 S			2156.0	2156.0	U	56.0			QL=4 ST=2 TYP=3	
03	127	TORN	44 NS	1230.0E		150.0D		6.0		V=0
			1 S	0047.0	0050.0	7.0	3.3			
	245	PALE	8 S	2113.0	2113.0	U	240.0			QL=4 ST=2 TYP=3
04	127	TORN	43 NS	1204.0		176.0		8.0		V=1
			1 S	0834.4	0834.5	0.3	3.6			
	900	GORK	41 F	0834.5	0834.6	0.6	5.4			
			41 F	0834.5	0834.9		16.0			
	204	IZMI	42 SER	0936.8	0937.5	0.8	19.0			
			48 C	1048.0	1059.0	29.0	570.0			QL=4 ST=2 TYP=8
	610	SVTO	49 GB	1048.0E	1059.0	30.0D	570.0			QL=2 ST=2 TYP=6
			49 GB	1114.0	1116.0	2.0	2700.0			QL=4 ST=2 TYP=6
	245	SVTO	49 GB	1114.0	1116.0	9.0	2700.0			QL=4 ST=2 TYP=6
			49 GB	1114.0	1116.0	3.0	6500.0			QL=4 ST=2 TYP=6
	410	SVTO	49 GB	1114.0	1116.0	7.0	6500.0			QL=4 ST=2 TYP=6
			8 S	1114.0	1116.0	2.0	350.0			QL=4 ST=2 TYP=3
	4995	SVTO	4 S/F	1114.0	1115.0	3.0	150.0			QL=4 ST=2 TYP=3
			4 S/F	1114.0	1115.0	4.0	150.0			QL=4 ST=2 TYP=3
	8800	SVTO	4 S/F	1114.0	1115.0	3.0	220.0			QL=4 ST=2 TYP=3
			4 S/F	1114.0	1115.0	4.0	230.0			QL=4 ST=2 TYP=3
	127	TORN	49 GB	1114.3	1114.9	29.0		620.0		30
			46 C	1114.4	1116.4	4.0	18433.0			
3000	IZMI	45 C	1114.7	1116.3	3.6	120.0	29.0			
		8 S	1115.0	1115.0	1.0	53.0			QL=4 ST=2 TYP=3	
204	IZMI	41 F	1118.5	1121.8	10.0	165.0				
05	2840	PEKG	20 GRF	0626.0	0631.2	18.0	5.6			
			1 S	0629.0	0631.0	5.0	10.0			
	204	IZMI	1 S	0750.0	0753.2	7.0	2.8			
			42 SER	0753.9	0754.4	1.0	148.0			
06	204	IZMI	43 NS	0700.0		300.0D		10.0		
07	500	HIRA	8 S	0055.0	0055.0	1.0	10.0			0
			7 C	0705.9	0706.0	0.2	57.0			
	127	TORN	46 C	1311.0	1316.0	6.0				
			8 S	2331.0	2331.0	1.0	10.0			0
08	245	LEAR	8 S	0114.0	0114.0	U	100.0			QL=4 ST=2 TYP=3
			45 C	0220.0	0223.2	7.0	44.8			
	2800	HIRA	8 S	0223.0	0223.0	1.0	20.0			WR
			8 S	0223.0	0223.0	U	84.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0223.0	0223.0	U	180.0			QL=4 ST=3 TYP=3
			8 S	0223.0	0224.0	1.0	480.0			QL=4 ST=2 TYP=3
	500	HIRA	8 S	0224.0	0224.0	1.0	25.0			0
			8 S	0925.0	0926.0	1.0	120.0			QL=4 ST=2 TYP=3

S O L A R R A D I O E M I S S I O N
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FEBRUARY 2004

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
08	245	SGMR	8 S	1914.0	1914.0	U	64.0			QL=4 ST=2 TYP=3
		PALE	8 S	1915.0	1915.0	U	74.0			QL=4 ST=2 TYP=3
		PALE	8 S	1951.0	1951.0	U	110.0			QL=4 ST=2 TYP=3
09	2840	PEKG	1 S	0546.0	0549.1	8.0	9.8			
		HIRA	1 S	0548.0	0549.0	4.0	10.0			0
	9100	GORK	45 C	0842.8	0843.0		34.0			
		GORK	45 C	0842.8	0842.9	0.5	15.0			
	9100	GORK	46 C	0940.4	0941.7	6.2	24.0			
		GORK	46 C	0940.4	0945.9		9.0			
	9100	GORK	2 S/F	0955.2	0955.6	0.6	30.0			
	9100	GORK	8 S	1000.6	1001.0	0.6	65.0			
	204	IZMI	42 SER	1131.5	1131.9	0.8	32.0			
10	280	CUBA	44 NS	1330.0E		210.0D		10.0		
	245	PALE	48 C	0102.0	0102.0	4.0	63.0			QL=4 ST=2 TYP=8
		PALE	48 C	0109.0	0121.0	14.0	77.0			QL=4 ST=2 TYP=8
	500	HIRA	8 S	0114.0	0114.0	1.0	10.0			0
		PALE	4 S/F	0132.0	0133.0	5.0	94.0			QL=4 ST=2 TYP=3
	245	PALE	48 C	0155.0	0205.0	11.0	220.0			QL=4 ST=2 TYP=8
	410	PALE	48 C	0200.0	0200.0	5.0	88.0			QL=4 ST=2 TYP=8
	3000	IZMI	20 GRF	1002.6	1003.4	1.5	7.0		3.8	
	204	IZMI	41 F	1045.8	1045.9	0.6	64.0			
	204	IZMI	7 C	1123.2	1123.3	0.2	13.0			
	204	IZMI	42 SER	1129.9	1130.4	0.6	71.0			
	127	TORN	46 C	1227.0	1228.5	25.0				
	127	TORN	7 C	1227.3	1229.0	2.1			10.0	
	245	SGMR	8 S	1229.0	1229.0	U	260.0			QL=4 ST=2 TYP=3
	410	SGMR	8 S	1229.0	1229.0	U	160.0			QL=4 ST=2 TYP=3
	610	SGMR	8 S	1229.0	1229.0	U	220.0			QL=4 ST=2 TYP=3
	610	SVTO	49 GB	1229.0	1229.0	U	1600.0			QL=2 ST=2 TYP=6
	245	SVTO	8 S	1229.0	1229.0	U	210.0			QL=4 ST=2 TYP=3
	410	SVTO	8 S	1229.0	1229.0	U	140.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1358.0	1358.0	U	72.0			QL=4 ST=2 TYP=3
	410	SGMR	8 S	1358.0	1358.0	U	29.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1358.0	1358.0	U	58.0			QL=4 ST=2 TYP=3
	410	SVTO	8 S	1358.0	1358.0	U	38.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1522.0	1522.0	U	61.0			QL=4 ST=2 TYP=3
	410	SGMR	8 S	1522.0	1522.0	U	28.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1522.0	1522.0	U	40.0			QL=4 ST=2 TYP=3
	410	SVTO	8 S	1522.0	1522.0	U	24.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1552.0	1552.0	U	59.0			QL=4 ST=2 TYP=3
	410	SGMR	8 S	2009.0	2009.0	U	34.0			QL=4 ST=2 TYP=3
	610	SGMR	8 S	2009.0	2009.0	U	51.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	2041.0	2041.0	U	55.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	2118.0	2119.0	1.0	160.0			QL=4 ST=2 TYP=3
	11	245	SVTO	43 NS	0653.0	0657.0	19.0	95.0			QL=4 ST=2 TYP=1
245		SVTO	43 NS	0653.0	0657.0	1027.0	95.0			QL=4 ST=1 TYP=1
204		IZMI	43 NS	0700.0		300.0D		90.0		
127		TORN	43 NS	1133.0	1400.4	207.0		12.0		V=1, DISTURBED
245		SVTO	43 NS	1200.0	1230.0	235.0	490.0			QL=2 ST=2 TYP=1
245		SGMR	43 NS	1209.0	1225.0	711.0	130.0			QL=4 ST=1 TYP=1
245		SGMR	43 NS	1209.0	1209.0U	711.0	50.0			QL=4 ST=1 TYP=1
235		CUBA	44 NS	1330.0E		150.0D		7.0		
280		CUBA	44 NS	1330.0E		150.0D		19.0		
245		LEAR	43 NS	2249.0	2258.0	695.0	74.0			QL=4 ST=2 TYP=1
500		HIRA	8 S	0001.0	0002.0	1.0	10.0			0
245		LEAR	8 S	0305.0	0305.0	U	140.0			QL=4 ST=2 TYP=3
245		PALE	8 S	0312.0	0312.0	U	61.0			QL=4 ST=2 TYP=3
245		LEAR	8 S	0415.0	0416.0	2.0	160.0			QL=4 ST=2 TYP=3
245		LEAR	8 S	0556.0	0556.0	1.0	350.0			QL=4 ST=2 TYP=3
500		HIRA	8 S	0557.0	0557.0	1.0	20.0			WR
500		HIRA	7 C	0602.0	0606.0	9.0	10.0			WR
245	LEAR	8 S	0603.0	0603.0	U	79.0			QL=4 ST=2 TYP=3	
245	LEAR	8 S	0654.0	0654.0	U	96.0			QL=4 ST=2 TYP=3	
245	LEAR	48 C	0657.0	0657.0	2.0	90.0			QL=4 ST=2 TYP=8	
245	LEAR	8 S	0736.0	0736.0	U	460.0			QL=4 ST=2 TYP=3	
410	LEAR	8 S	0736.0	0736.0	U	250.0			QL=4 ST=2 TYP=3	

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FEBRUARY 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		
11	245	SVTO	49 GB	0736.0	0736.0	U	500.0			QL=4 ST=2 TYP=6
	410	SVTO	49 GB	0736.0	0736.0	U	700.0			QL=4 ST=2 TYP=6
	204	IZMI	45 C	0736.4	0736.6	0.4	495.0			
	500	HIRA	8 S	0737.0	0737.0	1.0	15.0			WR
	410	SVTO	8 S	0746.0	0747.0	1.0	80.0			QL=4 ST=2 TYP=3
	410	LEAR	8 S	0747.0	0747.0	U	82.0			QL=4 ST=2 TYP=3
	600	GORK	46 C	0747.3	0747.5	0.9	6.0			
	600	GORK	46 C	0747.3	0747.6		11.0			
	900	GORK	40 F	0747.3	0747.7	0.7	4.8			
	204	IZMI	41 F	0807.6	0807.7	0.1	49.0			
	245	LEAR	48 C	0826.0	0830.0	4.0	130.0			QL=4 ST=2 TYP=8
	600	GORK	2 S/F	0827.2	0827.4	0.5	13.0			
	900	GORK	2 S/F	0827.9	0828.1	0.4	11.0			
	245	SVTO	8 S	0829.0	0830.0	1.0	130.0			QL=4 ST=2 TYP=3
	245	LEAR	48 C	0848.0	0848.0	4.0	330.0			QL=4 ST=2 TYP=8
	245	SVTO	48 C	0848.0	0848.0	4.0	440.0			QL=4 ST=2 TYP=8
	900	GORK	40 F	0850.0	0851.4	2.0	22.0			
	600	GORK	46 C	0852.4	0852.6	0.6	32.0			
	600	GORK	46 C	0852.4	0852.8		19.0			
	245	LEAR	48 C	0903.0	0906.0	11.0	240.0			QL=4 ST=2 TYP=8
	245	SVTO	48 C	0904.0	0907.0	9.0	220.0			QL=4 ST=2 TYP=8
	410	SVTO	4 S/F	0909.0	0909.0	4.0	60.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1025.0	1025.0	U	56.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1307.0	1307.0	U	250.0			QL=4 ST=2 TYP=3
	410	PALE	8 S	2050.0	2050.0	U	64.0			QL=4 ST=2 TYP=3
	500	HIRA	42 SER	2228.0	2325.0	60.0	105.0			MR
	245	LEAR	8 S	2316.0	2316.0	1.0	190.0			QL=2 ST=2 TYP=3
	245	LEAR	8 S	2316.0	2316.0	1.0	190.0			QL=2 ST=3 TYP=3
	410	LEAR	8 S	2320.0	2320.0	U	72.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	2324.0	2324.0	U	140.0			QL=2 ST=2 TYP=3
410	LEAR	8 S	2324.0	2324.0	U	52.0			QL=4 ST=2 TYP=3	
12	127	TORN	44 NS	0700.0E		240.0D		7.0		V=2
	204	IZMI	44 NS	0700.0E		700.0D		120.0		
	245	SGMR	43 NS	1208.0	1400.0	578.0	470.0			QL=4 ST=2 TYP=1
	245	SGMR	43 NS	1208.0	1400.0U	567.0	470.0			QL=4 ST=2 TYP=1
	245	SGMR	43 NS	1208.0	1240.0U	712.0	59.0			QL=4 ST=1 TYP=1
	245	SGMR	43 NS	1208.0	1245.0U	712.0	100.0			QL=4 ST=1 TYP=1
	245	SGMR	43 NS	1208.0	1250.0U	712.0	140.0			QL=4 ST=1 TYP=1
	245	SGMR	43 NS	1208.0	1400.0U	712.0	470.0			QL=4 ST=1 TYP=1
	235	CUBA	44 NS	1400.0E		100.0D		7.0		
	280	CUBA	44 NS	1400.0E		100.0D		11.0		
	245	PALE	43 NS	1751.0	1822.0	602.0	440.0			QL=4 ST=2 TYP=1
	245	LEAR	48 C	0513.0	0515.0	2.0	280.0			QL=4 ST=2 TYP=8
	500	HIRA	42 SER	0533.0	0550.0	51.0	10.0			WR
	9100	GORK	3 S	0708.1	0708.2	0.4	115.0			
	900	GORK	4 S/F	0737.7	0738.2	0.7	14.0			
	204	IZMI	42 SER	0738.1	0738.7	2.9	114.0			
	600	GORK	46 C	0738.3	0738.4	0.6	23.0			
	600	GORK	46 C	0738.3	0738.7		19.0			
	900	GORK	42 SER	0909.2	0918.0	20.3	5.8			
	900	GORK	42 SER	0909.2	0929.3		17.0			
	600	GORK	42 SER	0909.2	0916.3	18.0	7.3			
	600	GORK	42 SER	0909.2	0925.6		6.0			
	245	LEAR	8 S	0958.0	0958.0	1.0	480.0			QL=4 ST=2 TYP=3
	600	GORK	46 C	0958.6	0959.1		35.0			
	600	GORK	46 C	0958.6	0958.9	1.4	15.0			
	2950	GORK	7 C	0958.7	0959.0	0.8	4.0			
	2950	GORK	7 C	0958.7	0959.2		5.0			
204	IZMI	45 C	0958.8	0959.0	0.3	1604.0				
900	GORK	46 C	0958.9	0959.0	0.6	16.0				
900	GORK	46 C	0958.9	0959.2		25.0				
204	IZMI	45 C	0959.3	0959.6	0.6	633.0				
13	204	IZMI	44 NS	0700.0E		300.0D		35.0		
	127	TORN	44 NS	0850.0E		370.0D		3.0		V=1
	245	SGMR	43 NS	1206.0	1412.0	561.0	200.0			QL=4 ST=2 TYP=1
	245	SGMR	43 NS	1206.0	1333.0	714.0	97.0			QL=4 ST=1 TYP=1
	245	SGMR	43 NS	1206.0	1333.0U	714.0	97.0			QL=4 ST=3 TYP=1

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks	
13	[	245 PALE	43 NS	1754.0	1920.0	224.0	170.0			QL=4 ST=2 TYP=1	
		245 PALE	43 NS	1754.0	1811.0	366.0	170.0			QL=4 ST=1 TYP=1	
			245 LEAR	8 S	0005.0	0005.0	U	86.0			QL=4 ST=2 TYP=3
			245 LEAR	8 S	0028.0	0028.0	U	100.0			QL=4 ST=2 TYP=3
			245 LEAR	8 S	0105.0	0106.0	1.0	53.0			QL=4 ST=2 TYP=3
			245 LEAR	8 S	0231.0	0231.0	U	71.0			QL=4 ST=2 TYP=3
			245 LEAR	8 S	0430.0	0430.0	1.0	180.0			QL=4 ST=2 TYP=3
			245 LEAR	8 S	0438.0	0438.0	U	150.0			QL=4 ST=2 TYP=3
			245 LEAR	49 GB	0554.0	0554.0	1.0	690.0			QL=4 ST=2 TYP=6
		[	410 LEAR	8 S	0554.0	0554.0	U	370.0			QL=4 ST=2 TYP=3
			500 HIRA	8 S	0555.0	0555.0	1.0	20.0			0
			245 LEAR	8 S	0610.0	0610.0	U	61.0			QL=4 ST=2 TYP=3
			9100 GORK	3 S	0726.2	0726.5	0.7	90.0			
			600 GORK	46 C	0825.2	0825.4	0.6	9.1			
			600 GORK	46 C	0825.2	0825.6		18.0			
			900 GORK	8 S	0825.4	0825.4	0.2	11.0			
			900 GORK	42 SER	0904.5	0919.4		7.7			
			900 GORK	42 SER	0904.5	0905.5	34.0	17.0			
			600 GORK	40 F	0906.0	0929.5	29.0	5.3			
			204 IZMI	42 SER	1105.2	1106.3	5.0	470.0			
14		204 IZMI	44 NS	0700.0E		300.0D		35.0			
		127 TORN	44 NS	0700.0E		480.0D		180.0		V=2	
		[	245 SGMR	43 NS	1205.0	1322.0	566.0	290.0			QL=4 ST=2 TYP=1
			245 PALE	43 NS	1753.0	1753.0	329.0	130.0			QL=4 ST=2 TYP=1
			245 LEAR	43 NS	2229.0	0533.0	627.0	170.0			QL=4 ST=2 TYP=1
			245 LEAR	8 S	0115.0	0115.0	U	87.0			QL=4 ST=2 TYP=3
			245 LEAR	8 S	0124.0	0125.0	1.0	120.0			QL=4 ST=2 TYP=3
		[	245 PALE	8 S	0125.0	0125.0	U	160.0			QL=4 ST=2 TYP=3
			245 PALE	8 S	0258.0	0258.0	1.0	92.0			QL=4 ST=2 TYP=3
			245 LEAR	8 S	0418.0	0418.0	U	63.0			QL=4 ST=2 TYP=3
			245 LEAR	8 S	0432.0	0432.0	U	66.0			QL=4 ST=2 TYP=3
			245 LEAR	8 S	0443.0	0443.0	U	69.0			QL=4 ST=2 TYP=3
			245 LEAR	8 S	0622.0	0622.0	U	98.0			QL=4 ST=2 TYP=3
		[	245 SVTO	48 C	0622.0	0622.0	5.0	100.0			QL=4 ST=2 TYP=8
			245 LEAR	8 S	0627.0	0627.0	U	90.0			QL=4 ST=2 TYP=3
			245 LEAR	8 S	0744.0	0744.0	1.0	270.0			QL=4 ST=2 TYP=3
			245 SVTO	8 S	0744.0	0745.0	1.0	160.0			QL=4 ST=2 TYP=3
		[	204 IZMI	42 SER	0747.6	0749.3	5.6	292.0			
			245 SVTO	48 C	0748.0	0748.0	3.0	84.0			QL=4 ST=2 TYP=8
			410 SVTO	8 S	0748.0	0748.0	1.0	43.0			QL=4 ST=2 TYP=3
			600 GORK	2 S/F	1042.1	1042.3	0.3	13.0			
			204 IZMI	42 SER	1106.2	1106.4	1.3	479.0			
			204 IZMI	41 F	1132.6	1132.6	0.1	75.0			
		204 IZMI	45 C	1136.4	1136.5	0.7	674.0				
		245 PALE	48 C	2325.0	2331.0	6.0	100.0			QL=4 ST=2 TYP=8	
15		245 PALE	43 NS	0132.0	0138.0	101.0	160.0			QL=4 ST=2 TYP=1	
		[	245 PALE	43 NS	0132.0	0138.0	101.0	160.0			QL=4 ST=3 TYP=1
			245 SVTO	43 NS	0606.0	0647.0U	107.0	320.0			QL=4 ST=2 TYP=1
			245 SVTO	43 NS	0606.0	0647.0U	1074.0	320.0			QL=4 ST=1 TYP=1
			204 IZMI	44 NS	0700.0E		300.0D		20.0		
			127 TORN	44 NS	0700.0E		480.0D		21.0		V=2
			235 CUBA	44 NS	1430.0E		90.0D		5.0		
			280 CUBA	44 NS	1430.0E		90.0D		19.0		
			245 PALE	4 S/F	0108.0	0111.0	4.0	79.0			QL=4 ST=2 TYP=3
			245 PALE	49 GB	0245.0	0245.0	1.0	910.0			QL=4 ST=2 TYP=6
			2840 PEKG	20 GRF	0402.0	0407.5	12.0	6.9			
			245 LEAR	8 S	0647.0	0647.0	U	320.0			QL=2 ST=2 TYP=3
			204 IZMI	25 R	0700.0E		116.0D		110.0		
			204 IZMI	42 SER	0752.8	0753.4	2.8	230.0			
			245 LEAR	8 S	0821.0	0821.0	U	200.0			QL=4 ST=2 TYP=3
			245 SVTO	8 S	1134.0	1135.0	1.0	100.0			QL=4 ST=2 TYP=3
			245 SVTO	8 S	1138.0	1138.0	U	71.0			QL=4 ST=2 TYP=3
			245 SGMR	8 S	1440.0	1440.0	2.0	70.0			QL=4 ST=2 TYP=3
		[	245 SVTO	8 S	1440.0	1440.0	U	51.0			QL=4 ST=2 TYP=3
			245 SGMR	8 S	1506.0	1506.0	1.0	130.0			QL=4 ST=2 TYP=3
		245 SVTO	8 S	1506.0	1506.0	U	51.0			QL=4 ST=2 TYP=3	
		245 SGMR	8 S	1509.0	1509.0	U	51.0			QL=4 ST=2 TYP=3	

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

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FEBRUARY 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		
15	245	PALE	8 S	2206.0	2206.0	U	120.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	2357.0	2357.0	1.0	100.0			QL=4 ST=2 TYP=3
16	204	IZMI	44 NS	0700.0E		300.0D		30.0		
	127	TORN	43 NS	0720.0		460.0		8.0		V=1
	245	LEAR	8 S	0235.0	0236.0	1.0	130.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0236.0	0237.0	1.0	160.0			QL=4 ST=2 TYP=3
	410	PALE	8 S	0237.0	0237.0	U	63.0			QL=4 ST=2 TYP=3
	500	HIRA	8 S	0502.0	0502.0	1.0	20.0			0
	245	LEAR	8 S	0551.0	0551.0	U	190.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0725.0	0725.0	U	73.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0725.0	0725.0	U	100.0			QL=4 ST=2 TYP=3
	204	IZMI	41 F	0725.1	0725.2	0.4	238.0			
	245	SVTO	8 S	0815.0	0815.0	U	58.0			QL=4 ST=2 TYP=3
410	SGMR	4 S/F	1311.0	1313.0	4.0	63.0			QL=4 ST=2 TYP=3	
17	235	CUBA	44 NS	1320.0E		400.0D		4.0		
	280	CUBA	44 NS	1320.0E		400.0D		16.0		
18	245	SVTO	8 S	1035.0	1035.0	U	100.0			QL=4 ST=2 TYP=3
19	245	PALE	8 S	2321.0	2322.0	1.0	410.0			QL=4 ST=2 TYP=3
	1415	PALE	8 S	2322.0	2322.0	U	52.0			QL=4 ST=2 TYP=3
21	245	SGMR	8 S	1724.0	1725.0	1.0	130.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	2250.0	2250.0	U	61.0			QL=4 ST=2 TYP=3
22	127	TORN	43 NS	0828.0		392.0		11.0		V=2
	204	IZMI	42 SER	0747.6	0747.7	0.9	33.0			
	245	PALE	8 S	1839.0	1839.0	2.0	170.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	1919.0	1919.0	U	56.0			QL=4 ST=2 TYP=3
	410	SGMR	4 S/F	2000.0	2004.0	6.0	170.0			QL=4 ST=2 TYP=3
	410	PALE	48 C	2002.0	2004.0	9.0	170.0			QL=4 ST=2 TYP=8
	245	PALE	48 C	2004.0	2005.0	6.0	100.0			QL=4 ST=2 TYP=8
	245	SGMR	8 S	2009.0	2009.0	U	54.0			QL=4 ST=2 TYP=3
	410	SGMR	8 S	2009.0	2010.0	2.0	71.0			QL=4 ST=2 TYP=3
	410	PALE	8 S	2021.0	2021.0	U	67.0			QL=4 ST=2 TYP=3
	410	SGMR	8 S	2021.0	2021.0	U	69.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	2116.0	2116.0	U	200.0			QL=4 ST=2 TYP=3
	245	PALE	49 GB	2149.0	2149.0	2.0	740.0			QL=4 ST=2 TYP=6
	410	PALE	8 S	2150.0	2150.0	1.0	85.0			QL=4 ST=2 TYP=3
	500	HIRA	47 GB	2304.0	2310.0	48.0	730.0			
	610	LEAR	49 GB	2308.0	2309.0	3.0	770.0			QL=4 ST=2 TYP=6
	410	LEAR	8 S	2308.0	2309.0	2.0	190.0			QL=4 ST=2 TYP=3
	410	PALE	8 S	2309.0	2309.0	U	240.0			QL=4 ST=2 TYP=3
	610	PALE	8 S	2309.0	2309.0	U	210.0			QL=4 ST=2 TYP=3
	610	LEAR	49 GB	2317.0	2319.0	4.0	760.0			QL=4 ST=2 TYP=6
	610	PALE	49 GB	2318.0	2319.0	4.0	870.0			QL=4 ST=2 TYP=6
	410	LEAR	8 S	2319.0	2319.0	U	51.0			QL=4 ST=2 TYP=3
410	PALE	8 S	2319.0	2320.0	1.0	68.0			QL=4 ST=2 TYP=3	
2804	VORO	2 S/F	2343.5	2343.9	2.0	12.2				
410	LEAR	8 S	2344.0	2344.0	U	270.0			QL=4 ST=2 TYP=3	
410	PALE	8 S	2344.0	2344.0	U	270.0			QL=4 ST=2 TYP=3	
2800	HIRA	1 S	2345.0	2345.0	2.0	20.0				
23	204	IZMI	43 NS	0700.0		300.0D		25.0		
	127	TORN	44 NS	0820.0E		400.0D		20.0		V=1
	280	CUBA	44 NS	1340.0E		140.0D		13.0		
	2840	PEKG	45 C	0043.0	0045.9	8.0	5.7			
	410	LEAR	8 S	0044.0	0044.0	U	340.0			QL=4 ST=2 TYP=3
	610	LEAR	8 S	0044.0	0044.0	1.0	170.0			QL=4 ST=2 TYP=3
	2804	VORO	4 S/F	0044.2	0045.9	2.5	7.7			
	500	HIRA	7 C	0045.0	0045.0	8.0	150.0			
	410	PALE	8 S	0045.0	0045.0	U	300.0			QL=4 ST=2 TYP=3
	610	PALE	8 S	0045.0	0045.0	1.0	220.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0138.0	0138.0	U	56.0			QL=4 ST=2 TYP=3
	410	PALE	8 S	0146.0	0146.0	U	180.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0221.0	0221.0	U	67.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0328.0	0328.0	U	76.0			QL=4 ST=2 TYP=3

S O L A R R A D I O E M I S S I O N
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FEBRUARY 2004

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks	
23	L	245 PALE	8 S	0328.0	0328.0	1.0	100.0			QL=4 ST=2 TYP=3	
		245 LEAR	8 S	0503.0	0503.0	U	54.0			QL=4 ST=2 TYP=3	
		245 LEAR	8 S	0516.0	0516.0	U	120.0			QL=4 ST=2 TYP=3	
		245 SVTO	8 S	0813.0	0813.0	U	62.0			QL=4 ST=2 TYP=3	
		245 SVTO	8 S	0851.0	0851.0	U	54.0			QL=4 ST=2 TYP=3	
		245 SVTO	8 S	0911.0	0911.0	U	53.0			QL=4 ST=2 TYP=3	
		900 GORK	21 GRF	0918.8	0926.0	15.5	5.0				
		600 GORK	46 C	0921.7	0923.1	8.5	44.0				
		600 GORK	46 C	0921.7	0929.1		22.0				
		900 GORK	46 C	0921.7	0922.5		25.0				
		600 GORK	46 C	0921.7	0926.7		60.0				
		900 GORK	46 C	0921.7	0921.9	1.1	47.0				
		900 GORK	46 C	0922.8	0923.0	1.0	42.0				
		900 GORK	46 C	0922.8	0923.5		15.0				
		245 LEAR	8 S	0925.0	0925.0	U	54.0				QL=4 ST=2 TYP=3
		245 SVTO	8 S	0925.0	0925.0	U	65.0				QL=4 ST=2 TYP=3
		900 GORK	2 S/F	0925.3	0925.5	0.4	12.0				
		900 GORK	8 S	0929.3	0929.4	0.2	37.0				
		204 IZMI	41 F	1114.8	1114.8	0.3	42.0				
		245 SVTO	8 S	1125.0	1125.0	U	86.0				QL=4 ST=2 TYP=3
		204 IZMI	41 F	1125.6	1125.8	0.6	614.0				
		410 SVTO	8 S	1126.0	1126.0	U	24.0				QL=4 ST=2 TYP=3
		204 IZMI	41 F	1127.6	1127.7	0.3	112.0				
		245 SGMR	8 S	1535.0	1535.0	U	57.0				QL=4 ST=2 TYP=3
		245 SGMR	8 S	1614.0	1614.0	2.0	69.0				QL=4 ST=2 TYP=3
		245 PALE	8 S	1718.0	1718.0	U	69.0				QL=4 ST=2 TYP=3
		245 SGMR	8 S	1718.0	1718.0	U	100.0				QL=4 ST=2 TYP=3
		245 SGMR	8 S	1814.0	1815.0	1.0	94.0				QL=4 ST=2 TYP=3
		245 PALE	8 S	1815.0	1815.0	U	83.0				QL=4 ST=2 TYP=3
		245 PALE	8 S	2043.0	2043.0	U	51.0				QL=4 ST=2 TYP=3
		245 SGMR	8 S	2047.0	2047.0	U	61.0				QL=4 ST=2 TYP=3
245 SGMR	8 S	2116.0	2116.0	U	59.0				QL=4 ST=2 TYP=3		
24	L	245 LEAR	43 NS	0514.0	0648.0	1126.0	290.0			QL=4 ST=1 TYP=1	
		245 LEAR	43 NS	0514.0	0648.0U	202.0	290.0			QL=4 ST=2 TYP=1	
		245 LEAR	43 NS	0514.0	0515.0U	1126.0	120.0			QL=4 ST=1 TYP=1	
		245 SVTO	43 NS	0622.0	0649.0	150.0	340.0			QL=4 ST=2 TYP=1	
		245 SVTO	43 NS	0622.0	0649.0	150.0	340.0			QL=4 ST=3 TYP=1	
		245 SVTO	43 NS	0622.0	0649.0	150.0	3400.0			QL=4 ST=3 TYP=1	
		245 SVTO	43 NS	0622.0	0623.0	1058.0	220.0			QL=4 ST=1 TYP=1	
		245 SVTO	43 NS	0622.0	0649.0	1058.0	340.0			QL=4 ST=1 TYP=1	
		245 SVTO	43 NS	0622.0	0649.0	1058.0	3400.0			QL=4 ST=1 TYP=1	
		127 TORN	44 NS	0700.0E		250.0D		16.0			V=1
		204 IZMI	44 NS	0700.0E		300.0D		70.0			
		245 SGMR	43 NS	1602.0	1821.0	360.0	270.0				QL=4 ST=2 TYP=1
		245 PALE	8 S	0235.0	0235.0	U	63.0				QL=4 ST=2 TYP=3
		245 PALE	4 S/F	0324.0	0326.0	3.0	170.0				QL=4 ST=2 TYP=3
		245 PALE	8 S	0349.0	0349.0	U	61.0				QL=4 ST=2 TYP=3
		2840 PEKG	1 S	0615.0	0617.2	7.0	2.2				
		204 IZMI	25 R	0700.0E		190.0D		130.0			
		1415 SVTO	8 S	1227.0	1227.0	U	55.0				QL=4 ST=2 TYP=3
		245 SGMR	8 S	1526.0	1526.0	U	61.0				QL=4 ST=2 TYP=3
		245 SGMR	8 S	1544.0	1544.0	U	85.0				QL=4 ST=2 TYP=3
		245 SVTO	8 S	1544.0	1544.0	U	83.0				QL=4 ST=2 TYP=3
		245 SGMR	8 S	1555.0	1556.0	1.0	72.0				QL=4 ST=2 TYP=3
		245 SGMR	8 S	1606.0	1606.0	1.0	84.0				QL=4 ST=2 TYP=3
245 SGMR	8 S	1610.0	1611.0	1.0	71.0				QL=4 ST=2 TYP=3		
245 SGMR	8 S	1617.0	1617.0	2.0	82.0				QL=4 ST=2 TYP=3		
245 PALE	8 S	1716.0	1717.0	1.0	170.0				QL=4 ST=2 TYP=3		
25	L	245 LEAR	43 NS	0217.0	0232.0	64.0	150.0			QL=4 ST=2 TYP=1	
		204 IZMI	44 NS	0700.0E		300.0D		25.0			
		127 TORN	43 NS	0845.0		375.0		8.0			V=1
		245 PALE	43 NS	1716.0	1821.0	661.0	220.0				QL=4 ST=2 TYP=1
		245 SGMR	43 NS	1756.0	1759.0	3.0	140.0				QL=4 ST=2 TYP=1
		245 LEAR	8 S	0123.0	0123.0	U	220.0				QL=4 ST=2 TYP=3
		245 LEAR	8 S	0205.0	0206.0	1.0	82.0				QL=4 ST=2 TYP=3
		245 LEAR	49 GB	0211.0	0211.0	U	580.0				QL=4 ST=2 TYP=6
245 PALE	49 GB	0211.0	0211.0	6.0	710.0				QL=4 ST=2 TYP=6		

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m ² Hz)	Flux Density Mean	Int	Remarks
25	245	PALE	48 C	0403.0	0404.0	3.0	180.0			QL=4 ST=2 TYP=8
	2840	PEKG	1 S	0439.0	0441.5	6.0	3.4			
	410	LEAR	49 GB	0441.0	0441.0	U	1600.0			QL=4 ST=2 TYP=6
	245	LEAR	8 S	0841.0	0841.0	U	63.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0841.0	0841.0	U	60.0			QL=4 ST=2 TYP=3
	204	IZMI	45 C	1029.8	1029.9	0.1	186.0			
	245	SGMR	8 S	1603.0	1603.0	U	76.0			QL=4 ST=2 TYP=3
26	245	LEAR	43 NS	0434.0	0556.0	136.0	120.0			QL=4 ST=2 TYP=1
	245	LEAR	43 NS	0434.0	0434.0	1166.0	89.0			QL=4 ST=1 TYP=1
	245	LEAR	43 NS	0434.0	0548.0	1166.0	110.0			QL=4 ST=1 TYP=1
	245	SVTO	43 NS	0619.0	0634.0	53.0	61.0			QL=4 ST=3 TYP=1
	245	SVTO	43 NS	0619.0	0634.0	1061.0	61.0			QL=4 ST=3 TYP=1
	204	IZMI	44 NS	0700.0E		300.0D		30.0		
	127	TORN	44 NS	0700.0E		480.0D		14.0		V=1
	245	SGMR	43 NS	1325.0	1325.0	21.0	100.0			QL=4 ST=2 TYP=1
	245	SGMR	43 NS	1325.0	1325.0	635.0	63.0			QL=4 ST=1 TYP=1
	245	SGMR	43 NS	1325.0	1346.0	635.0	100.0			QL=4 ST=1 TYP=1
	2840	PEKG	3 S	0150.0	0154.9	24.0	43.9			
	2804	VORO	4 S/F	0153.1	0155.2	11.0	39.5			
	4995	LEAR	4 S/F	0154.0	0154.0	6.0	440.0			QL=4 ST=2 TYP=3
	4995	PALE	49 GB	0154.0	0155.0	5.0	510.0			QL=4 ST=2 TYP=6
	8800	LEAR	49 GB	0154.0	0154.0	18.0	530.0			QL=4 ST=2 TYP=6
	15400	LEAR	4 S/F	0154.0	0154.0	29.0	220.0			QL=4 ST=2 TYP=3
	8800	PALE	49 GB	0154.0	0155.0	21.0	560.0			QL=4 ST=2 TYP=6
	2800	HIRA	3 S	0155.0	0156.0	9.0	40.0			
	15400	PALE	4 S/F	0155.0	0155.0	10.0	190.0			QL=4 ST=2 TYP=3
	500	HIRA	8 S	0200.0	0200.0	1.0	10.0			
	2804	VORO	29 PBI	0204.1	0222.5	66.0	9.6			
	245	SVTO	8 S	0556.0	0556.0	1.0	87.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0846.0	0846.0	U	57.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1346.0	1346.0	U	67.0			QL=4 ST=2 TYP=3
	9500	CUBA	20 GRF	1410.0	1417.0	23.0	16.0	8.0		
	245	SGMR	8 S	1544.0	1544.0	U	100.0			QL=4 ST=2 TYP=3
	9500	CUBA	21 GRF	1958.0	2016.0	59.0	25.0	12.0		
	9500	CUBA	1 S	1959.0	1959.5	1.8	16.0	8.0		
	9500	CUBA	1 S	2010.8	2012.0	3.0	46.0	23.0		
	4995	SGMR	8 S	2011.0	2012.0	1.0	36.0			QL=4 ST=2 TYP=3
	8800	SGMR	4 S/F	2011.0	2012.0	11.0	72.0			QL=4 ST=2 TYP=3
	4995	PALE	8 S	2012.0	2012.0	U	40.0			QL=4 ST=2 TYP=3
8800	PALE	8 S	2012.0	2012.0	1.0	69.0			QL=4 ST=2 TYP=3	
9500	CUBA	49 GB	2216.0	2217.1	9.8	863.0	431.0			
2800	HIRA	3 S	2218.0	2219.0	4.0	20.0			0	
4995	PALE	8 S	2218.0	2219.0	2.0	190.0			QL=4 ST=2 TYP=3	
8800	PALE	8 S	2218.0	2219.0	2.0	390.0			QL=4 ST=2 TYP=3	
15400	PALE	8 S	2218.0	2219.0	1.0	180.0			QL=4 ST=2 TYP=3	
8800	PALE	4 S/F	2224.0	2225.0	7.0	160.0			QL=4 ST=2 TYP=3	
15400	PALE	4 S/F	2224.0	2225.0	8.0	120.0			QL=4 ST=2 TYP=3	
9500	CUBA	29 PBI	2225.8	2225.8	23.2D	70.0	35.0			
27	204	IZMI	44 NS	0700.0E		300.0D		30.0		
	127	TORN	43 NS	0740.0		440.0		15.0		V=1
	235	CUBA	44 NS	1850.0E		175.0D		12.0		
	280	CUBA	44 NS	1850.0E		175.0D		32.0		
	127	TORN	4 S/F	0653.5	0654.0	1.3	930.0	250.0		V=1
	245	LEAR	8 S	0654.0	0654.0	1.0	180.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0654.0	0654.0	1.0	140.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0704.0	0704.0	1.0	65.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0704.0	0704.0	U	53.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0711.0	0711.0	U	84.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0711.0	0711.0	U	68.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0732.0	0732.0	U	99.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0732.0	0732.0	U	71.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0741.0	0741.0	1.0	92.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0741.0	0741.0	2.0	61.0			QL=4 ST=2 TYP=3
	9100	GORK	4 S/F	0848.3	0848.8	5.1	18.0			
	245	LEAR	8 S	0856.0	0856.0	U	53.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0856.0	0856.0	U	56.0			QL=4 ST=2 TYP=3
	9100	GORK	1 S	0911.4	0911.7	0.6	8.0			

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m ² Hz)	Mean		
27	245	SVTO	8 S	1155.0	1155.0	U	100.0			QL=4 ST=2 TYP=3
	410	SVTO	8 S	1345.0	1346.0	1.0	60.0			QL=4 ST=2 TYP=3
	9500	CUBA	1 S	1728.2	1728.6	1.0	8.0	4.0		
28	204	IZMI	44 NS	0700.0E		120.0D		10.0		V=1
	127	TORN	44 NS	0700.0E		480.0D		14.0		
	235	CUBA	44 NS	1400.0E		180.0D		4.0		QL=4 ST=2 TYP=6
	280	CUBA	44 NS	1430.0E		180.0D		20.0		
	2840	PEKG	1 S	0122.0	0125.2	5.0	5.5			
	2840	PEKG	45 C	0322.0	0324.3	4.0	6.1			
	245	LEAR	49 GB	0323.0	0323.0	1.0	580.0			
	127	TORN	48 C	1047.8	1050.8	3.5	320.0	70.0		
	9500	CUBA	2 S/F	1723.4	1725.3	3.6	25.0	12.0		
	245	PALE	8 S	1958.0	1958.0	U	78.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1958.0	1958.0	U	63.0			QL=4 ST=2 TYP=3
245	SGMR	8 S	2019.0	2019.0	U	53.0			QL=4 ST=2 TYP=3	
29	204	IZMI	44 NS	0700.0E		120.0D		10.0		V=0
	127	TORN	43 NS	0837.0		323.0		12.0		
	235	CUBA	44 NS	1310.0E		520.0D		6.0		QL=4 ST=2 TYP=3
	280	CUBA	44 NS	1310.0E		520.0D		20.0		
	2840	PEKG	1 S	0612.0	0615.7	9.0	4.0			
	9100	GORK	4 S/F	0732.4	0732.7	0.7	18.0			
	204	IZMI	25 R	0822.0		43.5		50.0		
	245	SVTO	8 S	0928.0	0928.0	U	59.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1232.0	1232.0	U	52.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1236.0	1236.0	U	52.0			QL=4 ST=2 TYP=3

Reports are received routinely from the following observatories:

BERN = Berne	HUMN = Humain	ONDR = Ondrejov	SVTO = San Vito
CRIM = Crimea	IZMI = IZMIRAN	PEKG = Peking	TORN = Torun
CUBA = Havana	KISV = Kislovodsk	PALE = Palehua	TRST = Trieste
GORK = Gorky	KRAK = Krakow	PENT = Penticton	TYKW = Toyokawa
HIRA = Hiraíso	LEAR = Learmonth	POTS = Potsdam	UPIC = Upice
HUAN = Huancayo	NOBE = Nobeyama	SGMR = Sagamore Hill	

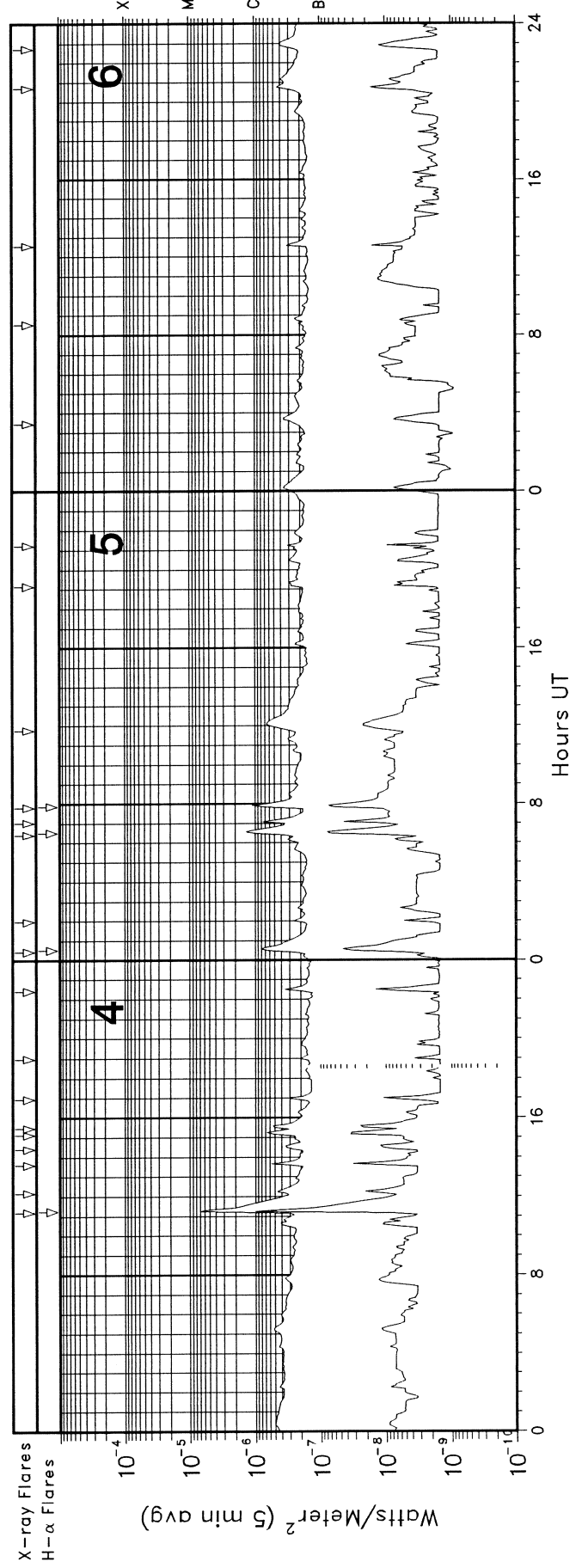
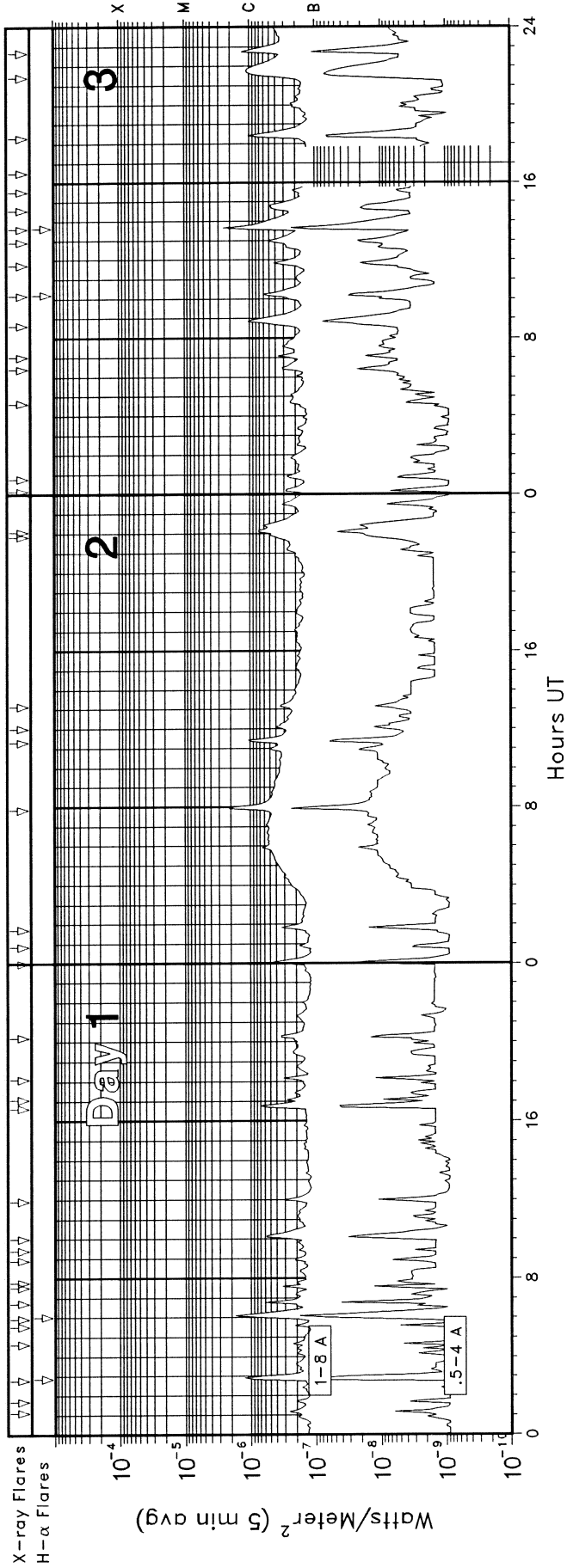
Explanation of Type Code:

1 Simple 1	7 Minor +	24 Rise	30 Post Burst Increase A	43 Onset of Noise Storm
2 Simple 1F	8 Spike	25 Rise A	31 Post Burst Decrease	44 Noise Storm in Progress
3 Simple 2	20 Simple 3	26 Fall	33 Absorption	45 Complex
4 Simple 2F	21 Simple 3A	27 Rise and Fall	40 Fluctuation	46 Complex F
5 Simple	22 Simple 3F	28 Precursor	41 Group of Bursts	47 Great Burst
6 Minor	23 Simple 3AF	29 Post Burst Increase	42 Series of Bursts	48 Major
1A Simple 1A	4A Simple 2AF	24PF Post Rise F	27F Rise and Fall F	
3A Simple 2A	40 Rise Only	16A Fall A	27AF Rise and Fall AF	
21A Simple 3A GRF	40F Rise Only F	260 Fall Only	31A Post Burst Decrease A	
2A Simple 1AF	4P Post Rise	26F Fall F	32A Absorption A	

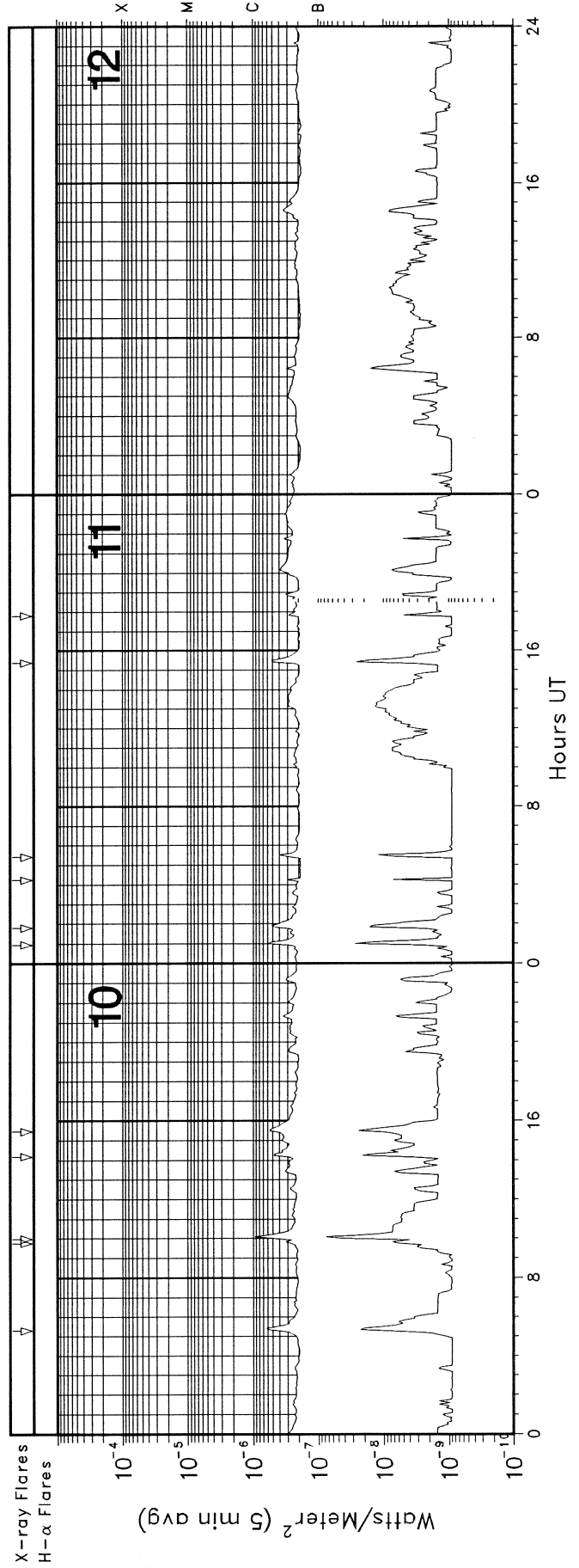
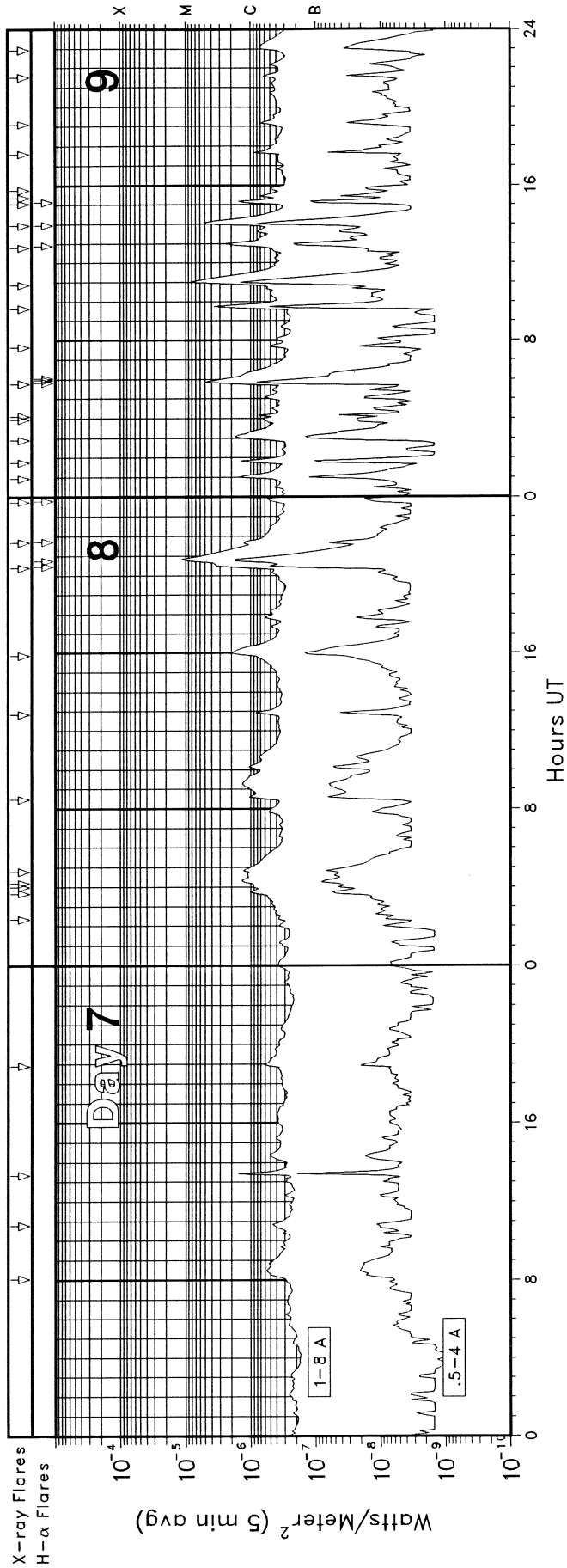
RSTN Site Information: Beginning in April 1986, the RSTN sites LEAR, PALE, SGMR, and SVTO fixed frequency solar radio data are periodically adjusted to several world standard stations. These world standard stations include: Kislovodsk, USSR 15,500 MHz; Penticton, Canada 2800 MHz; and Hiraíso, Japan 500 and 200 MHz.

GOES X-RAY DETECTOR

February 2004

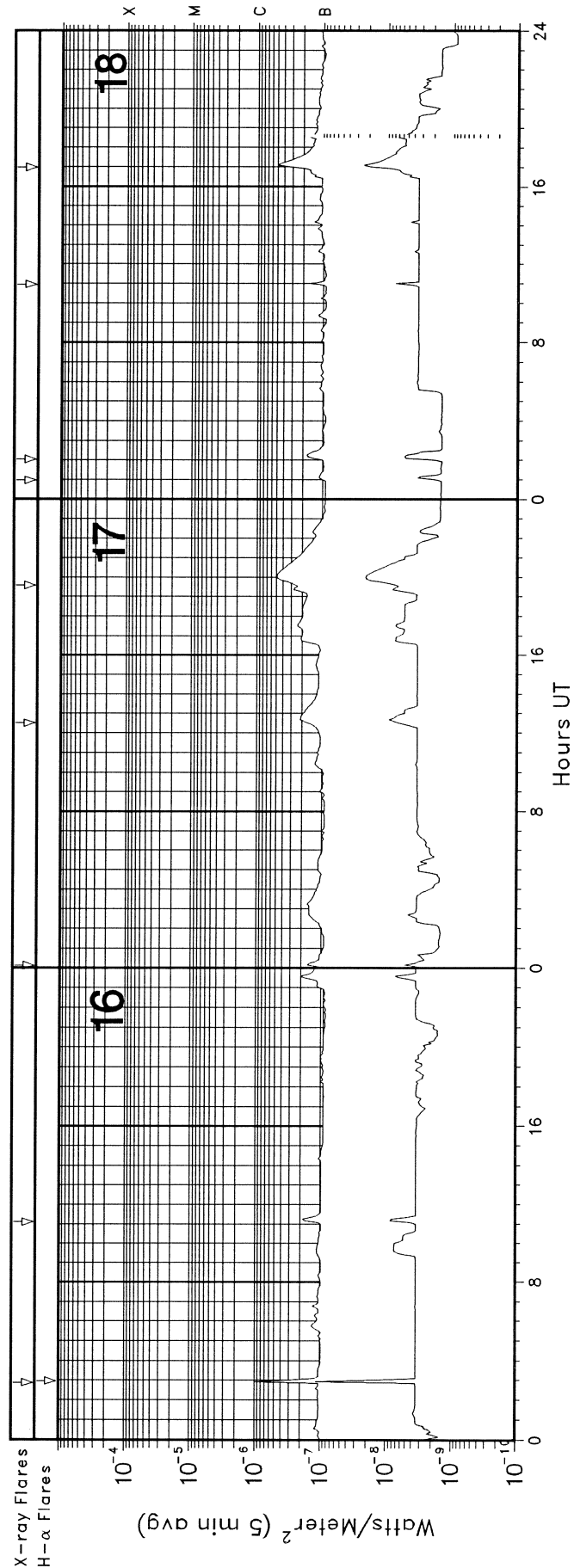
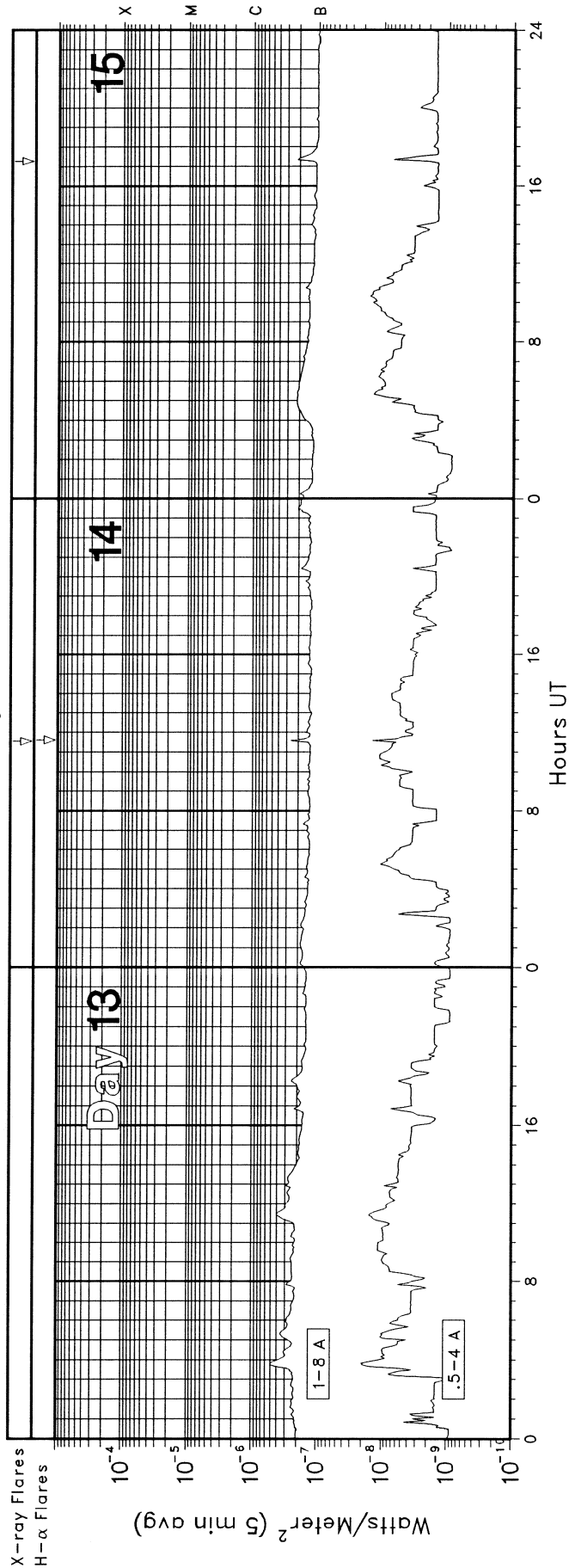


GOES X-RAY DETECTOR February 2004

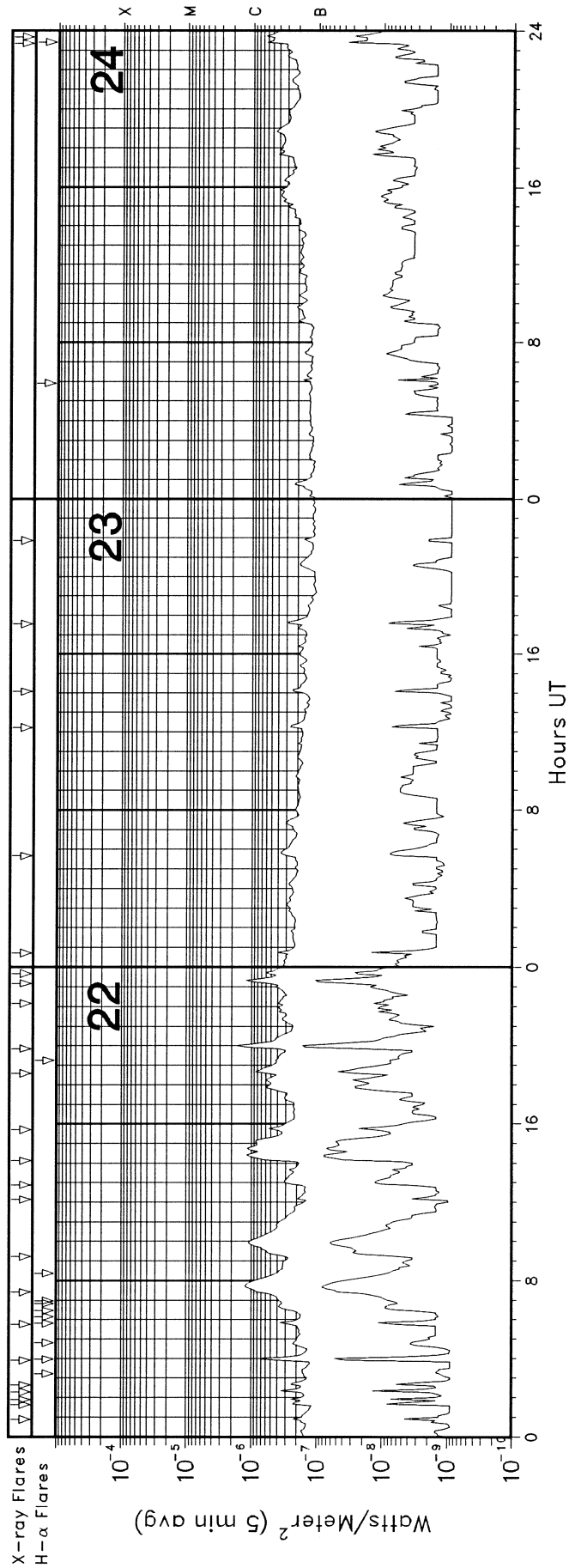
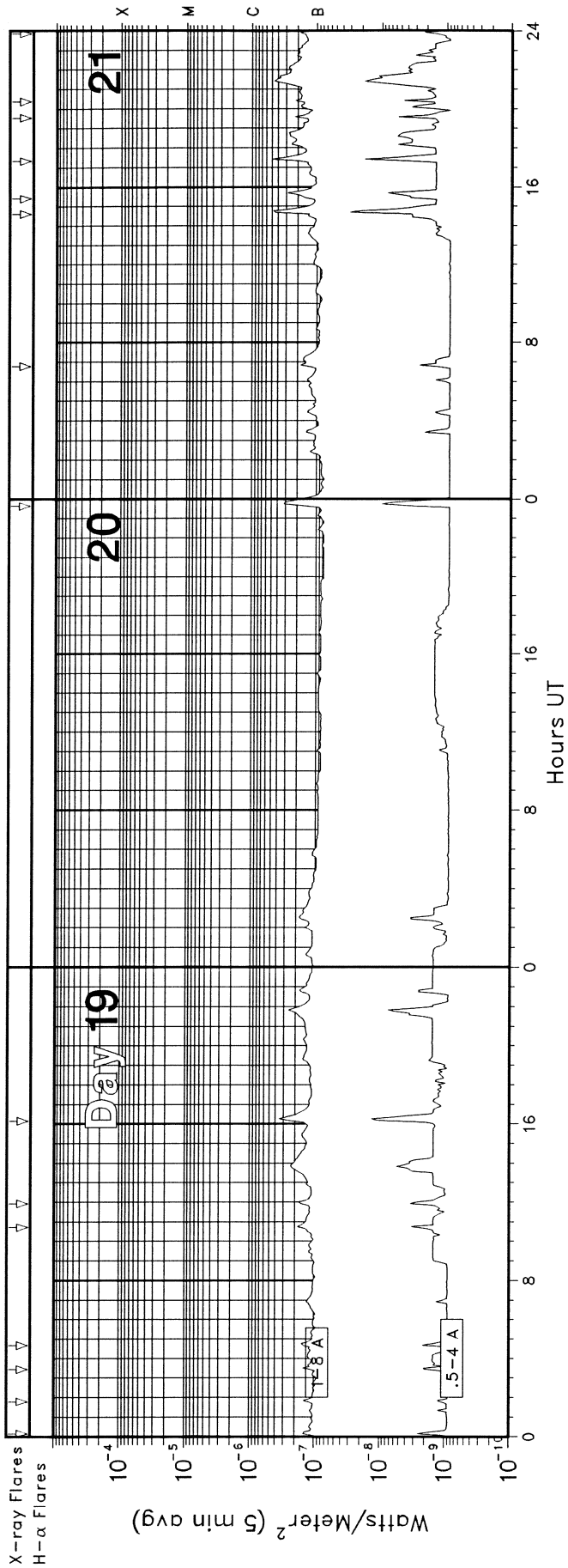


GOES X-RAY DETECTOR

February 2004

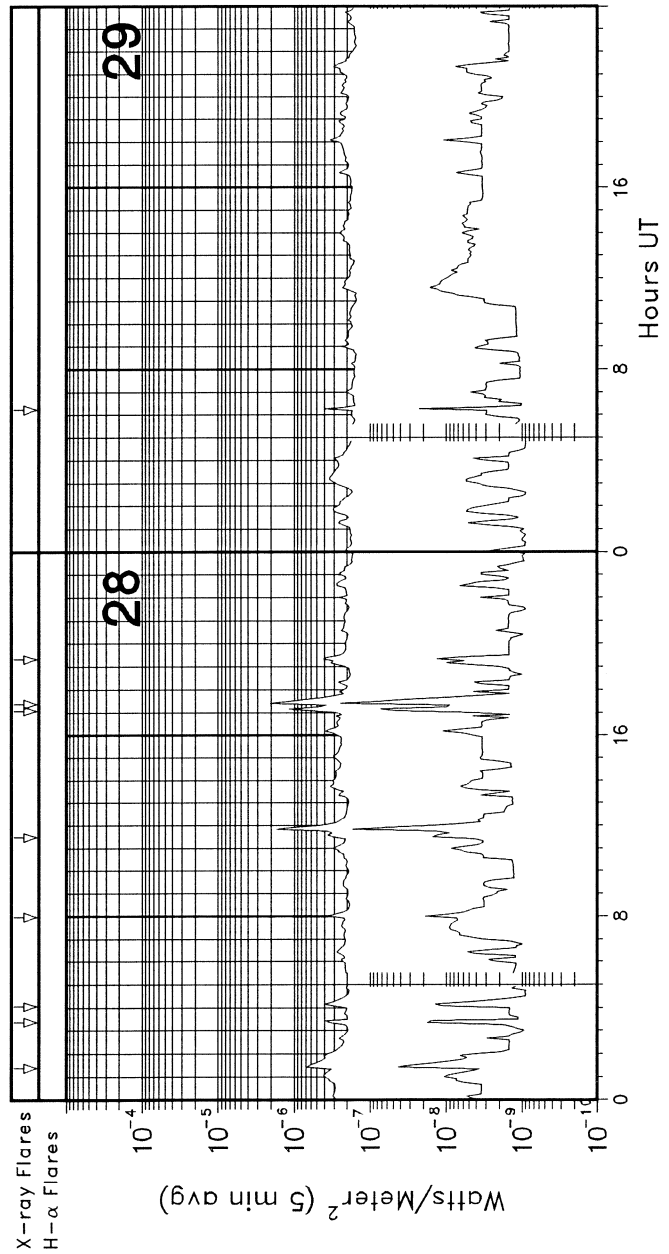
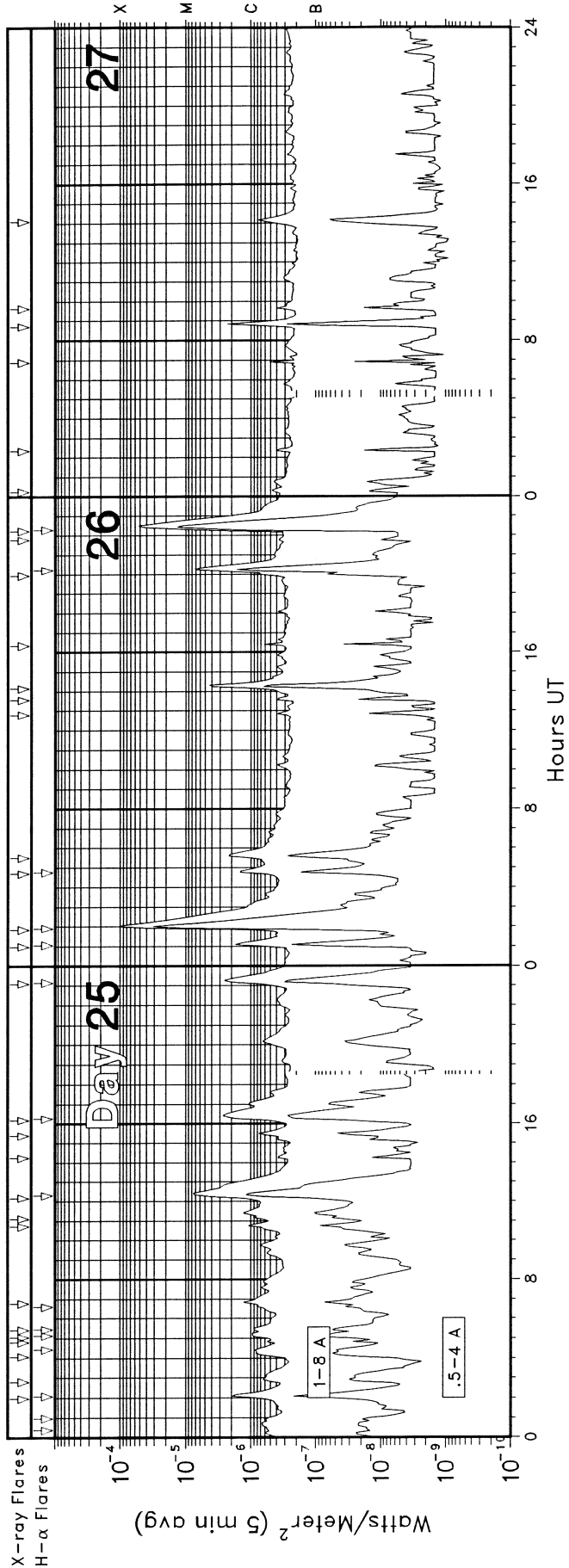


GOES X-RAY DETECTOR February 2004



GOES X-RAY DETECTOR

February 2004



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Feb 04

GOES SOLAR X-RAY FLARES
Preliminary Listing

February 2004

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/ USAF Region	Flux
01	0107	0111	0116				B2.7	10549	1.3E-04
01	0141	0144	0146				B2.6		6.6E-05
01	0248	0254	0258	N08	E64	SF	C1.9	10549	6.1E-04
01	0438	0443	0446				B2.4	10549	1.0E-04
01	0532	0536	0540				B2.3	10549	9.0E-05
01	0556	0607	0612	N11	E70	SF	C1.9	10549	1.0E-03
01	0643	0649	0652				B6.9	10549	2.8E-04
01	0731	0735	0738				B4.1	10549	1.2E-04
01	0746	0749	0751				B2.6	10549	6.7E-05
01	0854	0858	0904				B2.2	10547	1.2E-04
01	0924	0927	0930				B2.0		6.2E-05
01	1000	1009	1020				B6.1	10549	5.6E-04
01	1155	1202	1206				B3.5	10549	1.7E-04
01	1638	1645	1650				B8.4	10549	4.1E-04
01	1704	1707	1710				B3.2	10549	9.8E-05
01	1806	1811	1815				B3.4	10549	1.4E-04
01	2013	2019	2023				B3.8	10549	2.0E-04
01	2359	2405	2412				B4.8	10549	2.8E-04
02	0051	0054	0059				B2.0	10549	8.3E-05
02	0144	0153	0157				B3.6	10549	2.1E-04
02	0751	0759	0804				C2.5	10547	1.3E-03
02	1118	1124	1129				C1.3		6.2E-04
02	1201	1206	1211				B4.2	10549	2.3E-04
02	1309	1314	1318				B3.8	10547	1.9E-04
02	2151	2155	2159				B5.4	10549	2.3E-04
02	2205	2209	2212				B8.6	10549	3.2E-04
03	0009	0013	0018				B3.4		1.5E-04
03	0047	0055	0103				B2.8	10549	2.3E-04
03	0439	0443	0453				B2.6	10551	2.0E-04
03	0624	0629	0634				B3.6	10551	1.8E-04
03	0701	0706	0711				B3.9	10549	1.9E-04
03	0838	0852	0902				C1.1	10551	1.0E-03
03	1009	1014	1019				B7.3	10549	3.3E-04
03	1144	1150	1157				B4.5	10551	2.7E-04
03	1255	1259	1305				B5.7	10551	2.8E-04
03	1336	1340	1345				C3.2	10551	1.1E-03
03	1434	1439	1457				B5.0	10551	6.1E-04
03	1531	1534	1538				B2.4	10551	9.2E-05
03	1630	1635	1651				B3.5		3.5E-04
03	1818	1825	1833				C1.2	10551	7.1E-04
03	2125	2145	2210				C1.1	10549	2.4E-03
03	2241	2246	2256				C1.4	10551	9.0E-04
04	1112	1118	1122	S05	W48	1F	C9.9	10547	3.2E-03
04	1211	1216	1223				B4.8	10551	3.0E-04
04	1336	1341	1345				B6.4	10551	2.5E-04
04	1424	1430	1441				B3.7	10551	3.2E-04
04	1508	1514	1521				B7.6	10551	4.3E-04
04	1528	1536	1540				B5.7	10551	3.5E-04
04	1656	1700	1704				B3.7	10551	1.4E-04
04	1859	1903	1905				B2.3	10551	7.3E-05
04	2225	2231	2236				B3.8	10549	1.9E-04
05	0026	0038	0047	S07	W55	SF	B8.3	10547	7.8E-04
05	0158	0204	0208				B2.6	10552	1.4E-04
05	0625	0636	0646	N11	E14	SF	C1.3	10549	1.2E-03
05	0702	0706	0712				B8.2	10549	3.8E-04
05	0749	0754	0759	S06	W60	SF	C1.5	10547	5.3E-04
05	1146	1206	1227				B6.5		1.3E-03
05	1909	1922	1925				B3.3	10547	2.7E-04
05	2114	2117	2119				B3.7	10551	9.2E-05
06	0327	0345	0355				B3.6	10549	5.1E-04
06	0832	0835	0838				B2.3	10551	7.7E-05

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/ USAF Region	Flux
06	1233	1237	1243				B3.6	10549	1.8E-04
06	2041	2048	2058				B4.4	10549	4.1E-04
06	2243	2258	2315				B4.0	10551	6.5E-04
07	0803	0831	0838				B5.7	10554	9.7E-04
07	1046	1052	1055				B4.8	10554	2.4E-04
07	1321	1326	1328				C2.5	10554	4.6E-04
07	1854	1858	1910				B6.6	10554	5.4E-04
08	0220	0224	0226				B4.8	10551	1.4E-04
08	0340	0345	0355				C1.0	10554	8.3E-04
08	0359	0403	0409				C1.0	10554	5.4E-04
08	0411	0420	0430				C1.4	10554	1.4E-03
08	0447	0452	0500				C1.3	10553	9.4E-04
08	0828	0918	0949				C1.3	10554	5.1E-03
08	1251	1256	1303				B8.6	10554	5.2E-04
08	1552	1601	1617				C2.0	10554	2.4E-03
08	2024	2051	2102	S08	E68	SF	M1.2	10554	1.3E-02
08	2141	2144	2147	S07	E67	SF	C1.6	10554	5.0E-04
08	2345	2356	0000	S07	E65	SF	B6.0	10554	4.5E-04
09	0056	0101	0110				C1.6	10554	9.5E-04
09	0145	0150	0154				C1.7	10554	6.5E-04
09	0254	0307	0318				C1.7	10554	1.9E-03
09	0356	0400	0402				B7.8	10554	2.4E-04
09	0407	0411	0414				B9.1	10554	2.8E-04
09	0546	0550	0603	S12	E62	SF	C5.5	10554	4.0E-03
09	0738	0743	0749				B5.5	10554	3.0E-04
09	0938	0946	0951				C4.3	10554	1.8E-03
09	1051	1102	1112				C9.6	10554	6.4E-03
09	1247	1300	1306				C2.7	10554	1.7E-03
09	1356	1403	1414				C5.6	10554	4.2E-03
09	1503	1511	1514	S09	E57	SF	C1.9	10554	8.0E-04
09	1522	1526	1532				B7.7	10554	3.8E-04
09	1546	1550	1553				B5.8	10554	2.1E-04
09	1737	1742	1746				B9.9	10554	3.9E-04
09	1908	1912	1915				B8.2	10554	2.8E-04
09	2132	2135	2143				B6.4	10554	3.8E-04
09	2256	2304	2328				B7.3	10554	1.2E-03
10	0518	0525	0531				B6.7	10555	4.4E-04
10	0946	0950	0953				B3.6	10554	1.3E-04
10	0959	1005	1015				B9.7	10554	6.9E-04
10	1412	1421	1426				B4.9	10551	3.6E-04
10	1528	1533	1541				B5.6		4.1E-04
11	0057	0104	0108				B7.1	10549	3.4E-04
11	0148	0155	0202				B5.6	10549	3.9E-04
11	0414	0417	0419				B3.7	10549	8.9E-05
11	0525	0530	0533				B5.1	10551	1.8E-04
11	1523	1529	1536				B6.0	10551	3.6E-04
11	1749	1754	1757				B3.2	10555	1.3E-04
14	1133	1137	1139				B3.7		8.7E-05
15	1717	1723	1732				B2.2		1.7E-04
16	0253	0258	0300	N16	W43	SF	C1.6	10556	3.5E-04
16	1106	1115	1121				B1.9	10556	1.5E-04
17	0008	0013	0019				B1.6	10554	9.9E-05
17	1230	1243	1246				B2.1	10554	1.8E-04
17	1934	2006	2047				B4.9		1.7E-03
18	0058	0108	0110				B1.1		7.5E-05
18	0202	0215	0219				B1.7		1.5E-04

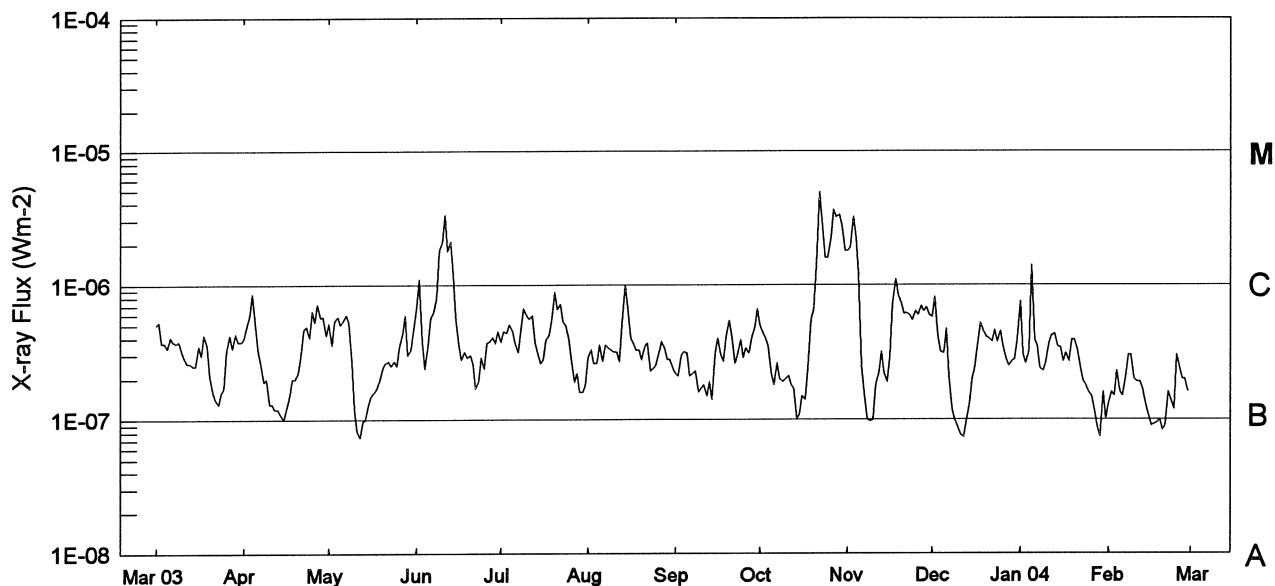
GOES SOLAR X-RAY FLARES
Preliminary Listing

February 2004

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/ USAF Region	Flux
18	1057	1101	1104				B1.7	5.8E-05	
18	1658	1708	1720				B5.0	10556	5.4E-04
19	0010	0014	0017				B1.6	10562	6.4E-05
19	0147	0150	0154				B1.5	10562	5.6E-05
19	0326	0330	0334				B1.6	10562	6.7E-05
19	0440	0443	0448				B1.7	10556	7.4E-05
19	1042	1046	1051				B1.9	10556	9.3E-05
19	1155	1159	1203				B2.0	10556	8.3E-05
19	1609	1616	1623				B3.5	10556	2.5E-04
20	2339	2349	0000				B3.3	10562	3.2E-04
21	0646	0651	0720				B1.8	3.2E-04	
21	1437	1444	1449				B6.2	10564	2.9E-04
21	1525	1540	1546				B3.1	10564	2.6E-04
21	1721	1726	1731				B5.5	10562	2.3E-04
21	1933	1937	1939				B2.6	10564	7.6E-05
21	2023	2026	2028				B2.7	10564	6.4E-05
21	2352	2356	2358				B2.0	10564	6.5E-05
22	0053	0056	0058				B2.5	10564	6.6E-05
22	0138	0143	0148				B2.8	10564	1.3E-04
22	0153	0156	0159				B2.9	10564	8.2E-05
22	0217	0222	0225				B3.9	10564	1.4E-04
22	0238	0241	0247				B2.5	10564	1.2E-04
22	0354	0400	0403	N14	E38	SF	C1.1	10564	3.3E-04
22	0546	0551	0554	N14	E37	SF	B4.1	10564	1.6E-04
22	0724	0746	0803	N12	E34	SF	C1.2	10564	2.4E-03
22	0913	0955	1019				C1.1	3.0E-03	
22	1208	1211	1218				B2.1	10564	1.1E-04
22	1253	1303	1329				B3.1	10564	5.9E-04
22	1407	1426	1516				C1.1	10564	3.7E-03
22	1542	1547	1550				B5.7	10564	2.4E-04
22	1835	1842	1854				B8.8	10564	8.2E-04
22	1951	2000	2006				C1.9	10564	1.1E-03
22	2210	2213	2216				B4.3	1.4E-04	
22	2311	2321	2326				C1.2	10564	8.4E-04
22	2341	2345	2348				B6.8	10564	2.5E-04
23	0043	0047	0049				B4.5	10564	1.4E-04
23	0540	0552	0601				B3.7	4.2E-04	
23	1214	1218	1223				B3.0	1.4E-04	
23	1404	1408	1414				B2.6	10564	1.4E-04
23	1733	1739	1744				B3.3	1.8E-04	
23	2152	2155	2157				B1.9	10564	5.2E-05
24	2322	2326	2331	N13	E02	SF	B7.1	10564	2.9E-04
24	2342	2346	2349				B7.1	10564	2.6E-04

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/ USAF Region	Flux
25	0158	0208	0213	N16	E01	SF	C2.4	10564	1.3E-03
25	0249	0257	0319				B6.4	10564	1.0E-03
25	0405	0426	0437	N13	W03	SF	B8.9	10564	1.4E-03
25	0448	0451	0457				B5.8	2.9E-04	
25	0503	0508	0522	N14	W03	SF	B9.8	10564	1.0E-03
25	0525	0529	0533	N14	W03	SF	C1.0	10564	4.5E-04
25	0646	0652	0656				C1.3	10564	7.1E-04
25	1042	1047	1051				C1.1	10564	5.3E-04
25	1107	1126	1136				C1.3	10564	1.7E-03
25	1211	1225	1237				C8.0	10564	8.5E-03
25	1414	1418	1423				B4.2	10564	2.0E-04
25	1523	1531	1536				B7.8	10564	4.9E-04
25	1611	1627	1642	N13	W09	SF	C2.6	10564	3.7E-03
25	2306	2315	2327	N14	W16	SF	C2.6	10564	2.4E-03
26	0059	0107	0115	N14	W14	SF	C1.8	10564	1.2E-03
26	0150	0203	0210	N14	W15	2N	X1.1	10564	7.0E-02
26	0441	0449	0457	N14	W15	SF	C1.6	10564	1.2E-03
26	0530	0539	0548				C2.4	10564	2.0E-03
26	1248	1252	1257				B4.2	10564	1.9E-04
26	1334	1339	1342				B5.1	10564	1.9E-04
26	1409	1420	1423				C6.5	10564	2.5E-03
26	1621	1626	1628				B7.8	10564	2.2E-04
26	1956	2018	2026	N14	W25	SF	C7.5	10564	5.8E-03
26	2146	2149	2151				B4.5	1.2E-04	
26	2214	2230	2239	N14	W26	1N	M5.7	10564	4.5E-02
27	0015	0018	0025				B5.1	10564	2.7E-04
27	0220	0223	0227				B4.9	10564	1.7E-04
27	0653	0658	0700				B7.1	1.8E-04	
27	0843	0851	0856				C2.5	10564	1.1E-03
27	0938	0942	0945				B4.3	10564	1.5E-04
27	1406	1410	1415				B8.0	10564	3.9E-04
28	0123	0127	0138				B7.4	10567	5.5E-04
28	0323	0324	0327				B6.6	10564	1.2E-04
28	0404	0410	0419				B4.0	10564	3.0E-04
28	0758	0803	0807				B3.6	10564	1.7E-04
28	1129	1153	1157				C2.2	10567	1.1E-03
28	1705	1710	1713				C1.6	10567	4.6E-04
28	1723	1727	1730				C2.9	10564	7.3E-04
28	1920	1924	1926				B5.4	10567	1.6E-04
29	0614	0617	0620				B4.8	10564	1.4E-04

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



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

NOTE: * = Data not available.

ACTIVE PROMINENCES AND FILAMENTS

27
Feb 04

FEBRUARY 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
01	DSF	1741U	1538U	S06	E48	02	5.3		12	0	0	E	HOLL		
03	DSF	1411U	0748U	S11	E90	02	10.4		79	0	0	E	SVTO		
05	DSF	0002U	1432U	S30	W08	02	4.4		05	0	0	E	HOLL		
15	AFS	0250	1023	N17	E43	02	18.4	1	02	9	9	E	LEAR		
18	DSF	1433U	1014U	S30	E67	02	23.9		26	0	0	E	SVTO		
26	DSF	0025U	1426U	N21	W26	02	24.0		08	0	0	E	HOLL	0564	
28	DSF	0801U	2334U	N03	E27	03	1.3		05	0	0	E	LEAR		
28	DSF	2226U	1422U	S02	E28	03	2.0		06	0	0	E	HOLL		

ADF = Active Dark Filament

AFS = Arch Filament System

APR = Active Prominence

ASR = Active Surge Region

BSD = Bright Surge on Disk

BSL = Bright Surge on Limb

CAP = CAP Prominence (Tandberg-Hanssen)

CRN = Coronal Rain

DSD = Dark Surge on Disk

DSF = Disappearing Solar Filament

EPL = Eruptive Prominence on Limb

LPS = Loops

MDP = Mound Prominence

SDF/DSF = Sudden Disappearing 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

ATHN = Athens

BUCA = Bucharest

CATA = Catania

HOLL = Holloman

KHAR = Kharkov

LEAR = Learmonth

PALE = Palehua

RAMY = Ramey

SVTO = San Vito

VORO = Voroshilov

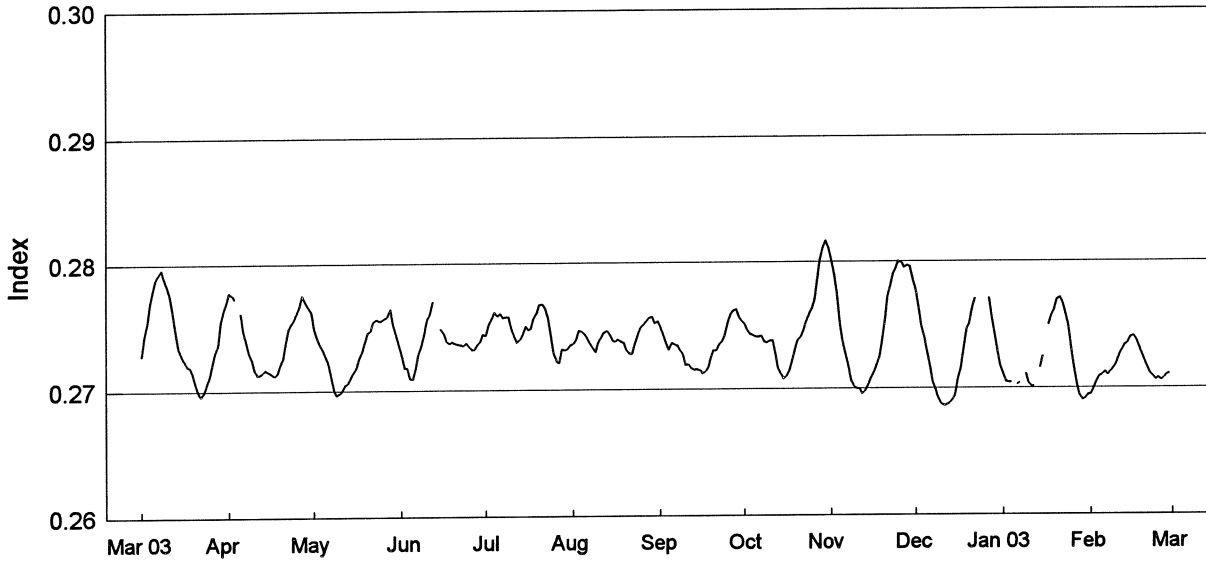
VALA = Valasske Mezirici

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

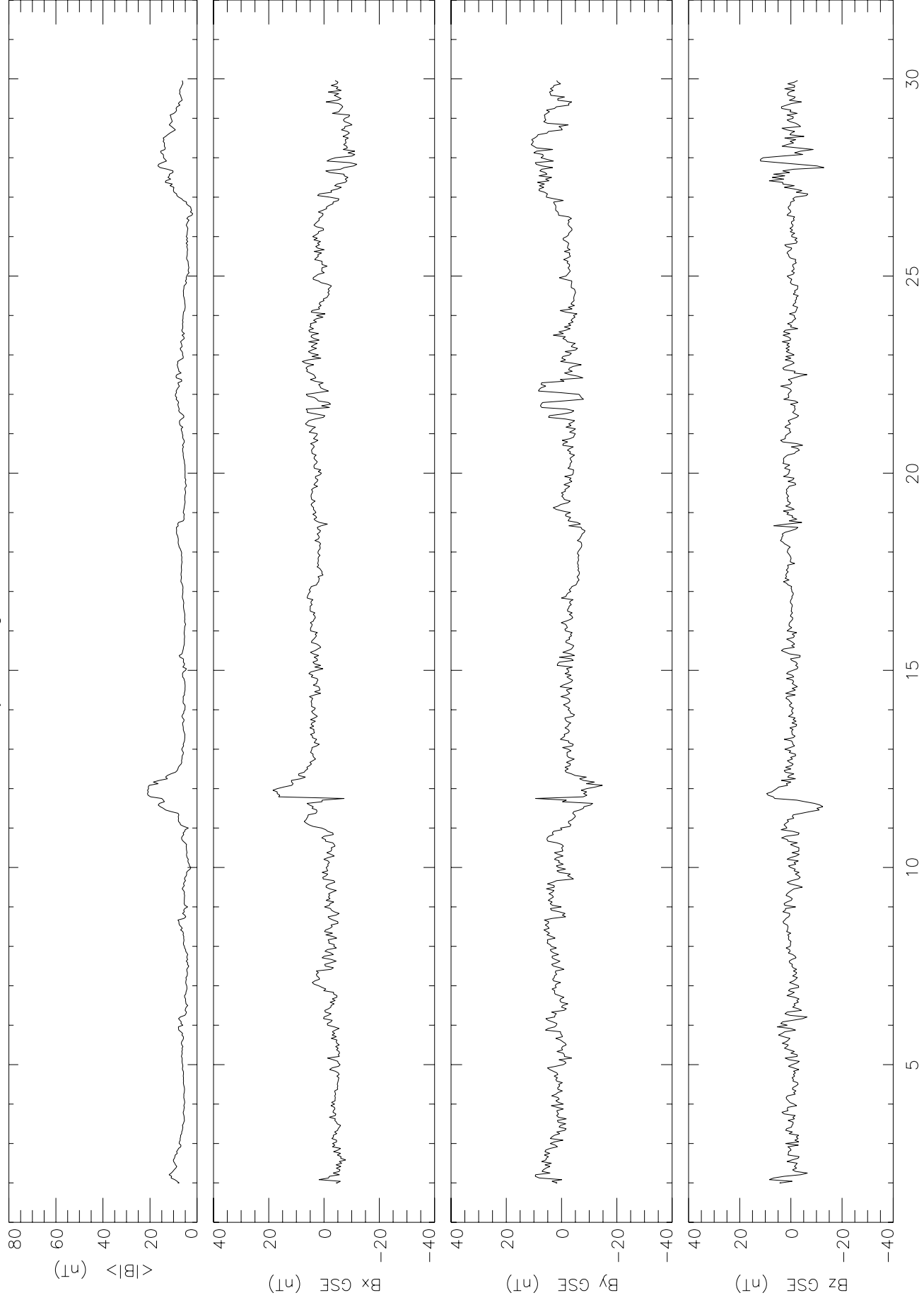
Mar 2003 - Feb 2004
Version 9.1



Day	Mar 03	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 04	Feb
1	0.2728	0.2778	0.2749	0.2729	0.2743	0.2736	0.2749	0.2751	0.2801	0.2777	0.2711	0.2695
2	0.2743	0.2776	0.2741	0.2718	0.2751	0.2739	0.2744	0.2746	0.2792	0.2764	0.2705	0.2699
3	0.2754	0.2772	0.2736	0.2718	0.2756	0.2747	0.2736	0.2743	0.2774	0.2750	0.2704	0.2705
4	0.2769	---	0.2733	0.2710	0.2761	0.2746	0.2731	0.2743	0.2752	0.2740	0.2704	0.2709
5	0.2781	0.2761	0.2728	0.2709	0.2758	0.2744	0.2737	0.2741	0.2738	0.2730	---	0.2711
6	0.2789	0.2747	0.2722	0.2717	0.2760	0.2741	0.2736	0.2741	0.2727	0.2717	0.2703	0.2713
7	0.2793	0.2738	0.2713	0.2728	0.2757	0.2736	0.2734	0.2742	0.2719	0.2704	0.2705	0.2710
8	0.2796	0.2730	0.2701	0.2735	0.2758	0.2732	0.2730	0.2737	0.2706	0.2699	---	0.2713
9	0.2788	0.2724	0.2697	0.2743	0.2758	0.2730	0.2728	0.2737	0.2702	0.2691	0.2711	0.2715
10	0.2784	0.2716	0.2698	0.2756	0.2749	0.2737	0.2720	0.2738	0.2700	0.2688	0.2703	0.2719
11	0.2776	0.2713	0.2700	0.2759	0.2742	0.2741	0.2719	0.2738	0.2700	0.2686	0.2701	0.2725
12	0.2763	0.2713	0.2705	0.2770	0.2738	0.2745	0.2717	0.2728	0.2696	0.2687	0.2701	0.2730
13	0.2746	0.2715	0.2706	---	0.2740	0.2746	0.2715	0.2717	0.2698	0.2688	---	0.2734
14	0.2734	0.2717	0.2710	---	0.2743	0.2744	0.2716	0.2712	0.2702	0.2691	0.2716	0.2735
15	0.2728	0.2715	0.2714	0.2748	0.2750	0.2739	0.2715	0.2708	0.2707	0.2694	0.2725	0.2740
16	0.2724	0.2714	0.2718	0.2745	0.2747	0.2738	0.2713	0.2710	0.2712	0.2706	---	0.2741
17	0.2720	0.2712	0.2725	0.2739	0.2748	0.2740	0.2714	0.2714	0.2717	0.2716	0.2750	0.2738
18	0.2719	0.2714	0.2731	0.2737	0.2756	0.2738	0.2717	0.2723	0.2724	0.2730	0.2756	0.2733
19	0.2714	0.2720	0.2738	0.2738	0.2760	0.2737	0.2725	0.2732	0.2737	0.2746	0.2762	0.2727
20	0.2705	0.2726	0.2746	0.2737	0.2767	0.2731	0.2731	0.2738	0.2754	0.2706	0.2770	0.2722
21	0.2699	0.2738	0.2747	0.2736	0.2768	0.2729	0.2731	0.2740	0.2773	0.2764	0.2772	0.2716
22	0.2696	0.2748	0.2754	0.2736	0.2765	0.2728	0.2735	0.2746	0.2780	0.2771	0.2767	0.2711
23	0.2699	0.2753	0.2756	0.2735	0.2757	0.2737	0.2737	0.2752	0.2789	---	0.2757	0.2708
24	0.2705	0.2756	0.2755	0.2737	0.2743	0.2743	0.2743	0.2758	0.2795	---	0.2749	0.2706
25	0.2712	0.2762	0.2755	0.2734	0.2729	0.2749	0.2753	0.2762	0.2801	0.2781	0.2732	0.2708
26	0.2721	0.2767	0.2757	0.2732	0.2723	0.2751	0.2759	0.2770	0.2799	---	0.2718	0.2706
27	0.2730	0.2775	0.2758	0.2732	0.2721	0.2754	0.2762	0.2786	0.2795	0.2771	0.2702	0.2708
28	0.2736	0.2770	0.2764	0.2736	0.2732	0.2756	0.2763	0.2802	0.2797	0.2756	0.2694	0.2710
29	0.2754	0.2766	0.2752	0.2738	0.2732	0.2757	0.2757	0.2811	0.2796	0.2741	0.2691	0.2711
30	0.2764	0.2762	0.2745	0.2744	0.2732	0.2752	0.2753	0.2817	0.2786	0.2729	0.2691	
31	0.2770		0.2736		0.2735	0.2754		0.2810		0.2717	0.2695	
Mean	0.2743	0.2741	0.2732	0.2736	0.2748	0.2742	0.2734	0.2748	0.2749	0.2728	0.2722	0.2717

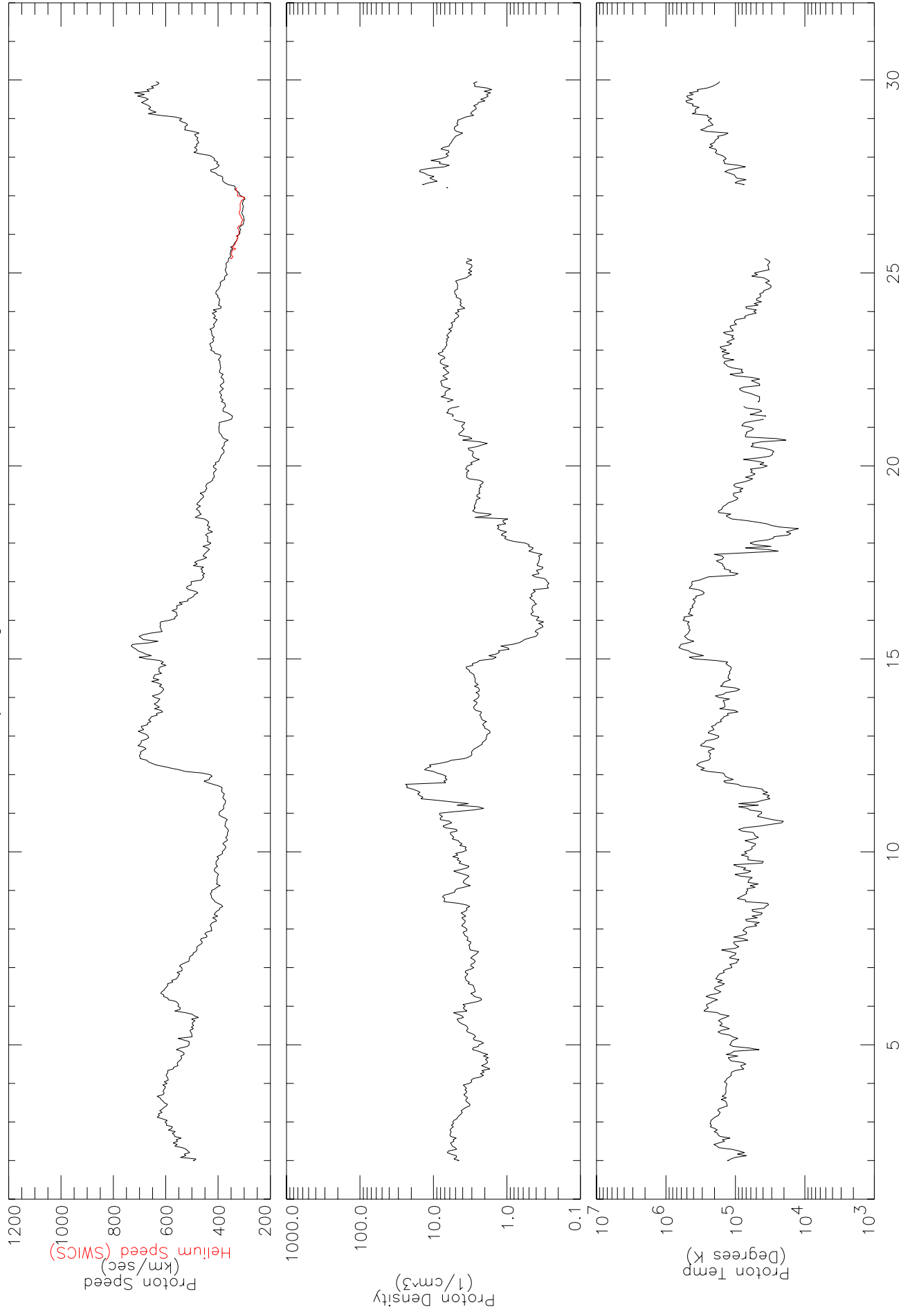
Data at: <http://www.sec.noaa.gov/ftpmenu/sbuw.html>

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

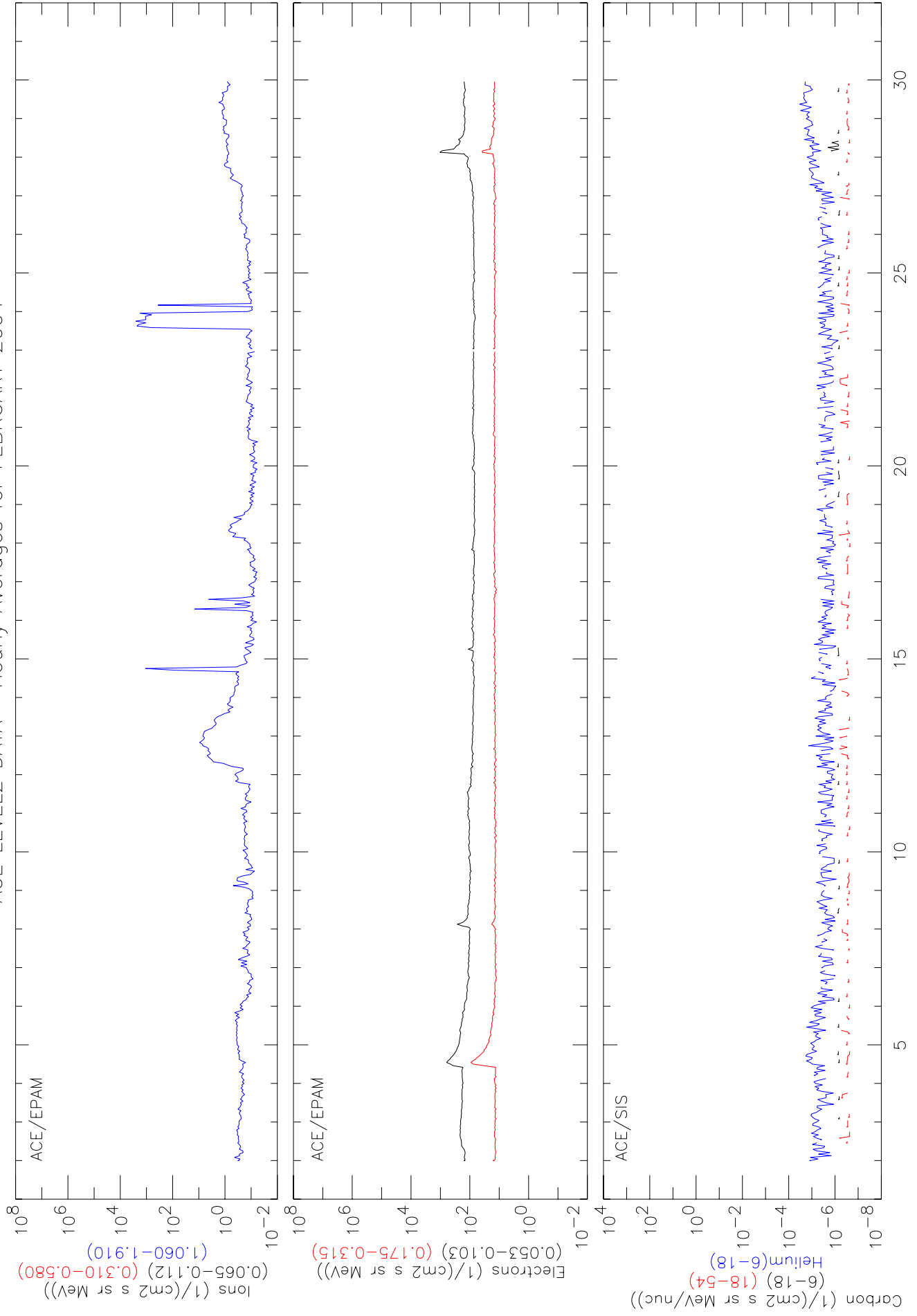


DAYS OF FEBRUARY 2004

ACE LEVEL2 DATA Solar Wind Plasma Hourly Averages for FEBRUARY 2004, from SWEPAM



Solar Energetic Particles ACE LEVEL2 DATA Hourly Averages for FEBRUARY 2004



DAYS OF FEBRUARY 2004