

JANUARY 2004 NUMBER 713 - Part II

Solar-Geophysical Data comprehensive reports



Data for July 2003 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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NATIONAL OCEANIC AND
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NATIONAL ENVIRONMENTAL SATELLITE,
DATA, AND INFORMATION SERVICE

NATIONAL GEOPHYSICAL
DATA CENTER

BOULDER,
COLORADO



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SOLAR-GEOPHYSICAL DATA

Number 713

(Issued in Two Parts)

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CONTENTS

PART I (PROMPT REPORTS)	Page
DETAILED INDEX FOR 2003	2
DATA FOR DECEMBER 2003	3- 37
DATA FOR NOVEMBER 2003	39-130

PART II (COMPREHENSIVE REPORTS)	Page
DETAILED INDEX FOR 2002-2003	2
DATA FOR JULY 2003	3-44
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	MAY 03	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. SOLAR AND INTERPLANETARY									
A.1	Sunspot Drawings	707A 48	708A 48	709A 44	710A 42	711A 50	712A 44	713A 52	
A.2aa	International Sunspot Numbers	706A 25	707A 24	708A 26	709A 26	710A 24	711A 25	712A 24	713A 27
A.2c	American Sunspot Numbers	706A 25	707A 24	708A 26	709A 26	710A 24	711A 25	712A 24	713A 27
A.3a	Mt. Wilson Magnetograms	707A 48	708A 48	709A 44	710A 42	711A 50	712A 44	713A 52	
A.3b	Sunspot Mag Class and Regions	707A 89	708A 88	709A 85	710A 83	711A 88	712A 81	713A 87	
A.3c	Kitt Peak Magnetograms	707A 48	708A 48	709A 44	710A 42	711A 50	712A 44	713A 52	
A.3d	Mean Solar Magnetic Field (Stanford)	706A 36	707A 38	708A 38	709A 34	710A 32	711A 40	712A 34	713A 36
A.3e	Stanford Magnetograms	707A 48	708A 48	709A 44	710A 42	711A 50	712A 44	713A 52	
A.4	H-alpha Filtergrams	707A 48	708A 48	709A 44	710A 42	711A 50	712A 44	713A 52	
A.5d	PhotometricCa II FaculaeSanFernando	Jan 92-Dec 96 - 631B 22; 1997-1998 in 663B 66							
A.6c	Stanford Solar Mag Field Synoptic Map	707A 42	708A 42	709A 38	710A 36	711A 44	712A 38	713A 40	
A.6d	Kitt Peak Solar Mag Field SynopticMap	707A 47	708A 47	709A 43	710A 41	711A 49	712A 43	713A	
A.6f	Active Prominences and Filaments	711B 35	712B 51	713B 40					
A.6g	Sac Peak Coronal Line Synoptic Maps	707A 44	708A 44	709A 40	710A 38	711A 46	712A 40	713A 44	
A.6h	Photometric White Light SanFernando	Jul-Dec 96 630B 32; 1997-1998 in 663B 51							
A.7h	Coronal Line Emission (Sac Peak)	707A 48	708A 48	709A 44	710A 42	711A 50	712A 44	713A 52	
A.7j	Coronal Hole Daily Maps (NSO/KP)	707A 79	708A 78	709A 75	710A 73	711A 80			
A.7k	Coronal Index (Slovak Academy)	1939-1996 -644B 28							
A.7m	Coronal Mass Ejections (CSPSW)								
A.8aa	2800 MHz- Solar Flux (Penticton)	706A 25	707A 24	708A 26	709A 26	710A 24	711A 25	712A 24	713A 27
A.8ac	2800 MHz- Adj. Solar Flux (Penticton)	706A 25	707A 24	708A 26	709A 26	710A 24	711A 25	712A 24	713A 27
A.8g	Adjusted Daily Solar Fluxes Sagamore	706A 25	707A 24	708A 26	709A 26	710A 24	711A 25	712A 24	713A 27
A.10g	Nancay Radioheliograph-164&327MHz	707A117	708A131	709A122	710A114	711A112			
A.10h	Nobeyama Radioheliograph -17 GHz	707A 83	708A 83	709A 79	710A 77	711A 83	712A 75	713A 82	
A.11g	Solar X-ray GOES (graphs/event table)	711B 26	712B 43	713B 30					
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							
A.11p	Solar UV Mg II Daily Index	711B 36	712B 52	713B 41					
A.12g	Solar Particles (GOES-7)	706A 4	707A 4	708A 4	709A 4	710A 4	711A 4	712A 4	713A 4
A.12i	Interplanetary Particles (ACE)	711B 39	712B 55	713B					
A.13g	Solar Plasma (ACE)	711B 38	712B 54	713B					
A.16c	ERBS, NOAA-9 & -10 Solar Irradiance	ERBS Oct 84-Jun 00 in 671B 36							
A.16d	UARS Solar Irradiance	Oct 91-May 2001 684B 26 - Complete Mission							
A.16e	VIRGO/SOHO Solar Irradiance	Jan 96-Sep 00 in 678B 46							
A.17c	Inferred Interplanetary Mag Field	1984-1988 data in 542A168; 1989-Jan 94 in 611A118							
A.17d	ACE Interplanetary Mag Field	711B	712B	713B					
C. SOLAR FLARE-ASSOCIATED EVENT									
C.1a	H-alpha Flares	706A 28	707A 27	708A 29	709A 29	710A 27	711A 28	712A 27	713A 30
C.1ba	H-alpha Flare Groups	711B 4	712B 4	713B 4					
C.1d	Flare Patrol Observations	711B 11	712B 14	713B 12					
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							
C.3	Radio Bursts Fixed Frequency	711B 13	712B 16	713B 14					
C.3	Radio Bursts Fixed Frequency Select	706A 33	707A 35	708A 37	709A 33	710A 31	711A 35	712A 32	713A 34
C.4	Radio Bursts Spectral	707A104	708A107	709A107	710A102	711A102	712A 98	713A101	
C.6	Sudden Ionospheric Disturbances	707A102	708A104	709A105	710A100	711A100	712A 94	713A 98	
D. GEOMAGNETIC EVENTS									
D.1a	Geomagnetic Indices	707A127	708A142	709A133	710A125	711A119	712A120	713A122	
D.1ba	27-day Chart of Kp Indices	707A129	708A144	709A135	710A127	711A121	712A122	713A124	
D.1cb	Monthly Mean aa Indices	707A130	708A145	709A136	710A128	711A122	712A123	713A125	
D.1d	Principal Magnetic Storms	707A134	708A149	709A140	710A132	711A126	712A127	713A129	
D.1f	Sudden Commencements/FlareEffects	707A135	708A150	709A141	710A133	711A127	712A128	713A130	
D.1g	Equatorial Indices Dst	707A132	708A147	709A138	710A130	711A124	712A125	713A	
D.1l	Polar Cap (PC) Index	707A133	708A148	709A139	710A131	711A125	712A126	713A128	
F. COSMIC RAYS									
F.1b	Cosmic Ray Neutron Cts (Climax)	707A119	708A134	709A125	710A117	711A114	712A115	713A117	
F.1h	Cosmic Ray Neutron Cts (Thule)	707A119	708A134	709A125	710A117	711A114	712A115	713A117	
F.1i	Cosmic Ray Neutron Cts (Kiel)	707A119	708A134	709A125	710A117	711A114	712A115	713A117	
F.1n	Cosmic Ray Neutron Cts (Beijing)	707A119	708A134	709A125	710A117	711A114	712A115	713A117	
F.1m	Cosmic Ray Neutron Cts (Haleakala)	707A119	708A134	709A125	710A117	711A114	712A115	713A117	
F.1o	Cosmic Ray Neutron Cts (Moscow)	707A119	708A134	709A125	710A117	711A114	712A115	713A117	
F.1p	Cosmic Ray Neutron Cts (Calgary)	707A119	708A134	709A125	710A117	711A114	712A115	713A117	
H. MISCELLANEOUS									
H.60	ISES Alert Periods	706A 20	707A 19	708A 20	709A 20	710A 20	711A 20	712A 19	713A 20

The entry "707A 48" under May 03, for example, means that the sunspot drawings for May 03 appear in SOLAR-GEOPHYSICAL DATA No. 707, Part I, and that they begin on page 48. "A" denotes Part I and "B", Part II. Blanks indicate data not yet received and dashes mark unavailable data.

CONTENTS

Comprehensive Reports

Number 713 Part II

DATA FOR JULY 2003

	Page
SOLAR FLARES	
H-alpha Solar Flare Groups	4-11
Intervals of No Flare Patrol Observation	12
Number of Solar Flares January 1965-present	13
SOLAR RADIO BURSTS AT FIXED FREQUENCIES	14-29
SOLAR X-RAY RADIATION FROM GOES SATELLITE	
Graphs	30-35
Preliminary Event List	36-38
Preliminary Daily Average Background	39
ACTIVE PROMINENCES AND FILAMENTS	40
SOLAR ULTRAVIOLET DAILY DATA FROM NOAA SATELLITE	
NOAA Mg II Daily Index Version 9.1	41
SOLAR CORONAL MASS EJECTIONS from SOHO/LASCO SATELLITE	
Table of Events (Data unavailable at this time.)	
INTERPLANETARY ENVIRONMENT HOURLY AVERAGE PLOTS	
FROM ADVANCED COMPOSITION EXPLORER (ACE) SATELLITE	
Interplanetary Magnetic Field -- MAG	42
Solar Wind Plasma -- SWEPAM	43
Solar Energetic Particles -- EPAM/SIS (Ions, Electrons, and Carbon)	44



4
Jul 03

H α SOLAR FLARES

JULY 2003

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur (Min)	Imp Opt	Xray	Obs See	Type	Time (UT)	Area Measurement		Remarks
																Apparent (10-6 Disk)	Corr (Sq Deg)	
			01 0137		0251			No Flare Patrol										
0001	HOLL	01	1336	1339	1407	N09	E23	10397	07	3.3	31	SF	3	E		30		F
			02 0000		0000			No Flare Patrol										
0002	LEAR	02	0136	0138	0142	N03	E72	10400	07	7.4	6	SF	3	E		42		
0003	LEAR	02	0249	0250	0302	N10	E35	10397	07	4.7	13	SF	3	E		19		
0004	LEAR	02	0709	0714	0816	N13	E34	10397	07	4.9	67	1N	1	E		200		F
0005	SVTO	02	0711	0714	0806	N13	E25	10397	07	4.2	55	1F	3	E		120		F
0006	SVTO	02	1540	1540	1549	N02	E62	10400	07	7.3	9	SF	3	E		21		
			02 2023		2350			No Flare Patrol										
0007	LEAR	03	0108	0109	0120	N03	E58	10400	07	7.4	12	SF	3	E		31		
0008	LEAR	03	0420	0422	0435	N14	E18	10397	07	4.5	15	SF	3	E		42		
0009	SVTO	03	0422	0423	0428	N14	E11	10397	07	4.0	6	SF	3	E		18		
0010	LEAR	03	0449	0449	0455	N09	E01	10397	07	3.3	6	SF	3	E		14		
0011	LEAR	03	0457	0458	0502	N02	E59	10400	07	7.6	5	SF	3	E		44		
0012	LEAR	03	0555	0600	0614	N13	E23	10397	07	5.0	19	SF	3	E		37		FU
0013	SVTO	03	0559	0600	0609	N14	E15	10397	07	4.4	10	SF	3	E		13		F
0014	SVTO	03	1207	1211	1225	N15	E05	10397	07	3.9	18	SF	3	E		75		F
0015	SVTO	03	1229	1231	1238	N15	E11	10397	07	4.3	9	SF	3	E		15		
0016	HOLL	03	1340	1341	1351	N13	E10	10397	07	4.3	11	SF	3	E		25		F
0017		03	14466	1456	1512	N04	E51	10400	07	7.4	26	SF				40		F
	HOLL	03	1446	1456	1520	N04	E51	10400	07	7.4	34	SF	3	E		48		F
	SVTO	03	1452	1456	1504	N05	E51	10400	07	7.4	12	SF	3	E		32		
			03 2034		2039			No Flare Patrol										
0018	HOLL	03	2103	2107	2112	N09	W08	10397	07	3.3	9	SF	3	E		21		
0019	HOLL	03	2213	2219	2237	N13	E06	10397	07	4.4	24	SF	3	E		29		F
			03 2257		2350			No Flare Patrol										
0020	LEAR	04	0007	0028	0056	N13	E09	10397	07	4.7	49	SF	4	E		79		F
0021	HOLL	04	0009	0029	0053	N09	W10	10397	07	3.2	44	SF	3	E		29		
0022	LEAR	04	0400	0401	0413	N09	W12	10397	07	3.3	13	SF	3	E		28		F
0023	LEAR	04	0539	0548	0552	N09	W13	10397	07	3.2	13	SF	3	E		10		F
0024	LEAR	04	0604	0609	0621	N13	E05	10397	07	4.6	17	SF	3	E		94		F
0025	LEAR	04	0745	0746	0753D	N09	W14	10397	07	3.3	8D	SF	3	E		20		
			04 0754		0814			No Flare Patrol										
			04 0843		0943			No Flare Patrol										
			04 0947		1044			No Flare Patrol										
			04 1048		1203			No Flare Patrol										
0026	SVTO	04	1231E	1232U	1236D	N09	W16	10397	07	3.3	5D	SF	2	E		46		F

H α SOLAR FLARES

5
Jul 03

JULY 2003

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Imp (Min)	Opt	Xray	Obs See	Type	Time (UT)	Area Measurement		Remarks		
																	Apparent (10-6 Disk)	Corr (Sq Deg)			
0027	SVTO	04	1255E	1255U	1309	N14	W10	10397	07	3.8	14D	SF		3	E			34			
0028		04	14353	1442	1554	N06	E31	10400	07	6.9	79	1F						180		FU	
	HOLL	04	1435	1442	1553	N05	E32	10400	07	7.0	78	1F		3	E			190		FU	
	SVTO	04	1438	1503U	1554	N06	E30	10400	07	6.8	76	1F		3	E			169		F	
0029	HOLL	04	1737	1738	1742	N09	W19	10397	07	3.3	5	SF		3	E			12		F	
0030	HOLL	04	1745	1753	1814	N09	W20	10397	07	3.2	29	SF		3	E			15			
0031	SVTO	05	0911	0913	0924	N13	W17	10397	07	4.1	13	SF		3	E			21		F	
0032	SVTO	05	1239	1246	1249	N13	W20	10397	07	4.0	10	SF		3	E			15			
0033		05	16573	17002	1716	N13	W22	10397	07	4.0	19	SF						54		F	
	HOLL	05	1657	1700	1721	N14	W22	10397	07	4.0	24	SF		3	E			64		F	
	SVTO	05	1700	1702	1712	N12	W23	10397	07	4.0	12	SF		3	E			44		F	
0034	HOLL	05	1940	1944	2018	N11	W26	10397	07	3.9	38	SF		3	E			50		FH	
		05	2220		2233	No Flare Patrol															
0035	HOLL	05	2333	2333	2339	N05	E20	10400	07	7.5	6	SF		3	E			10		F	
0036	HOLL	06	0009	0011	0019	N04	E18	10400	07	7.3	10	SF		3	E			20			
0037	HOLL	06	0023	0025	0025D	N05	E18	10400	07	7.4	2D	SF		3	E			92			
		06	0026		0102	No Flare Patrol															
0038	LEAR	06	0059E	0100	0122D	N05	E25	10400	07	7.9	23D	SF		3	E			33		F	
		06	0106		0120	No Flare Patrol															
		06	0127		0133	No Flare Patrol															
0039	LEAR	06	0332	0338	0345	N05	E24	10400	07	7.9	13	SF		3	E			17		F	
0040	SVTO	06	0434	0437	0450	N12	W30	10397	07	3.9	16	SF		3	E			97			
0041	HOLL	06	1806	1812	1819	N15	W31	10397	07	4.4	13	SF		3	E			18		F	
0042	HOLL	06	1830	1832	1850	N15	W32	10397	07	4.3	20	SF		3	E			40		F	
0043	HOLL	06	2003	2003	2011	N12	W35	10397	07	4.2	8	SF		3	E			17		F	
0044	HOLL	06	2036	2036	2043	N17	W31	10397	07	4.5	7	SF		3	E			14			
		07	0053		0112	No Flare Patrol															
0045	KANZ	07	1128	1130	1132	N10	W48	10397	07	3.9	4	SF		2	E						
0046	HOLL	07	1908	1910	1921	N16	W42	10397	07	4.6	13	SF		3	E			13		FH	
0047		08	0101	0102	0106	N12	W63	10397	07	3.3	5	SF						29		FH	
	HOLL	08	0101	0102	0106	N12	W60	10397	07	3.5	5	SF		3	E			28		FH	
	LEAR	08	0101	0102	0107	N13	W66	10397	07	3.1	6	SF		4	E			30		F	
0048	LEAR	08	0228	0228	0231	N13	W66	10397	07	3.1	3	SF		3	E			50		F	
		08	0306		0446	No Flare Patrol															
0049		08	0551	0557	0623	S10	W49	10402	07	4.6	32	SF						22		F	
	LEAR	08	0551	0557	0623	S11	W48	10402	07	4.6	32	SF		3	E			31		F	
	SVTO	08	0554E	0602U	0614D	S10	W50	10402	07	4.5	20D	SF		3	E			13			
0050		08	0724	07272	0746	S10	W48	10402	07	4.7	22	1F						92		F	
	LEAR	08	0724	0727	0743	S11	W48	10402	07	4.7	19	1F		3	E			100		F	
	SVTO	08	0724	0729	0748	S10	W49	10402	07	4.6	24	SF		3	E			85			

H α SOLAR FLARES

7
Jul 03

JULY 2003

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Imp (Min)	Xray	Obs See	Type	Time (UT)	Area Measurement		Remarks					
																Apparent (10-6 Disk)	Corr (Sq Deg)						
0075	LEAR	13	0121	0125	0130	S11	W01	10404	07	13.0	9	SF	3	E		39		U					
0076	KANZ	13	0825	0826	0828	N14	E33	10408	07	15.8	3	SF	2	E									
0077	KANZ	13	1223E	1223U	1223D	S09	W25	10401	07	11.6	3D	SF	2	E									
0078		13	1620	16201	1626	N19	E66	10409	07	18.7	6	SF				27		F					
	HOLL	13	1620	1620	1627	N22	E68	10409	07	18.9	7	SF	3	E		34		F					
	SVTO	13	1620	1621	1626	N16	E65	10409	07	18.6	6	SF	3	E		20							
0079	HOLL	13	2211	2213	2220	N15	E75	10409	07	19.6	9	SF	3	E		19		H					
0080	HOLL	13	2308	2310	2314	N16	E73	10409	07	19.5	6	SF	3	E		43							
0081	HOLL	13	2351	2356	2413	N14	E22	10408	07	15.6	22	SF	3	E		47		F					
0082	LEAR	13	2355	2355	2402	N14	E31	10408	07	16.3	7	SF	3	E		13		F					
																			14	0036		0127	No Flare Patrol
																			14	0416		0503	No Flare Patrol
																			14	0514		0524	No Flare Patrol
																			14	0916		1006	No Flare Patrol
																			14	1033		1220	No Flare Patrol
0083	HOLL	14	1506	1507	1509	N18	E56	10409	07	18.9	3	SF	3	E		11		H					
0084	HOLL	14	1711	1712	1723	N18	E55	10409	07	18.9	12	SF	3	E		18		F					
0085	HOLL	14	2054	2057	2102	N16	E62	10409	07	19.6	8	SF	3	E		17		FH					
																			14	2149		2153	No Flare Patrol
																			14	2200		2226	No Flare Patrol
0086	HOLL	14	2304	2304	2309	N16	E63	10409	07	19.7	5	SF	3	E		27							
																			14	2310		2332	No Flare Patrol
																			15	0428		0439	No Flare Patrol
																			15	0638		0639	No Flare Patrol
																			15	0646		0648	No Flare Patrol
																			15	0654		0713	No Flare Patrol
																			15	0926		0946	No Flare Patrol
																			15	1911		1919	No Flare Patrol
																			15	1923		2119	No Flare Patrol
																			15	2135		2152	No Flare Patrol
																			15	2156		2229	No Flare Patrol
																			15	2256		2306	No Flare Patrol
																			15	2326		2340	No Flare Patrol
																			16	0016		0036	No Flare Patrol
																			0087		16	1220	12235
SVTO	16	1220	1223	1240	S15	E29	10410	07	18.7	20	SF	3	E		27		F						
KANZ	16	1220	1228	1241	S12	E29	10410	07	18.7	21	SF	2	E										
0088	HOLL	16	1342	1344	1402	S11	E31	10410	07	18.9	20	SF	3	E		17		F					
0089	HOLL	16	1604	1609	1625	S11	E30	10410	07	18.9	21	SF	3	E		31		F					
																			16	1733		1742	No Flare Patrol
																			16	1748		1758	No Flare Patrol
																			16	1854		1903	No Flare Patrol
0090	LEAR	17	0819	0821	0857	N15	E21	10412	07	18.9	38	1N	3	E		149		EF					
0091	KANZ	17	0819	0822	0859	N15	E13	10412	07	18.3	40	1N	2	E									
0092	HOLL	17	1530E	1530U	1545	S14	E15	10410	07	18.8	15D	SF	3	E		29		F					
0093	HOLL	17	1651	1651	1700	S12	E18	10410	07	19.0	9	SF	3	E		16		F					

8
Jul 03

H α SOLAR FLARES

JULY 2003

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF/ Region	CMP Mo	Dur (Min)	Imp Opt	Xray	Obs See	Type	Time (UT)	Area Measurement		Remarks	
																Apparent (10-6 Disk)	Corr (Sq Deg)		
0094	HOLL	17	1742	1743	1755	S12	E18	10410	07	19.1	13	SF			3	E	32		F
0095	HOLL	17	1753	1818	1834	N16	E10	10412	07	18.5	41	SF			3	E	47		FH
0096	HOLL	17	1838	1840	1849	S12	E17	10410	07	19.0	11	SF			3	E	48		F
			17 2136		2207	No Flare Patrol													
			17 2212		2332	No Flare Patrol													
0097		17	2352	2409	2436	S10	E14	10410	07	19.0	44	1N					120		EFH
	LEAR	17	2352	2409	2434	S11	E13	10410	07	19.0	42	1N			3	E	173		FE
	HOLL	18	0010E	0010U	0037	S10	E15	10410	07	19.1	27D	SF			3	E	67		FH
0098	LEAR	18	0408	0418	0423	S11	E11	10410	07	19.0	15	SF			3	E	30		F
0099		18	0535	0536	0544	N15	E02	10412	07	18.4	9	SF					36		
	SVTO	18	0535	0536	0543	N16	E02	10412	07	18.4	8	SF			3	E	24		
	LEAR	18	0535	0536	0546	N14	E02	10412	07	18.4	11	SF			3	E	48		
0100	SVTO	18	0722	0723	0727	S11	E09	10410	07	19.0	5	SF			3	E	18		
0101		18	0738	0740	0753	S14	E07	10410	07	18.8	15	SF					22		F
	LEAR	18	0738	0740	0748	S12	E09	10410	07	19.0	10	SF			3	E	16		
	SVTO	18	0738	0740	0758	S15	E05	10410	07	18.7	20	SF			3	E	29		F
0102	HOLL	18	1337	1338	1342	S14	E06	10410	07	19.0	5	SF			3	E	22		F
0103	HOLL	18	1349	1350	1356	N16	E02	10412	07	18.7	7	SF			3	E	13		F
0104	HOLL	18	1447	1450	1518	S13	E05	10410	07	19.0	31	SF			3	E	23		F
0105	HOLL	18	1523	1523	1527	N16	W02	10412	07	18.5	4	SF			3	E	12		
0106	HOLL	18	1826	1827	1843	S12	E04	10410	07	19.1	17	SF			3	E	56		F
			18 1929		1936	No Flare Patrol													
0107	HOLL	18	1951	1953	2009	N14	W06	10412	07	18.4	18	SF			3	E	16		F
0108	HOLL	18	2236	2242	2249	N16	W05	10412	07	18.6	13	SF			3	E	16		
			18 2259		2333	No Flare Patrol													
0109	LEAR	19	0130	0134	0156	N14	W09	10412	07	18.4	26	SF			3	E	36		F
0110	LEAR	19	0320	0321	0326	S12	E00	10410	07	19.1	6	SF			3	E	22		F
0111		19	0929I	0930I	0938	S12	W06	10410	07	18.9	9	1F					107		
	KANZ	19	0929	0931	0938	S12	W05	10410	07	19.0	9	1F			2	E			
	SVTO	19	0930	0930	0938	S12	W06	10410	07	18.9	8	1F			3	E	107		
0112		19	1523	15252	1530	S14	W06	10410	07	19.2	7	SF					10		F
	HOLL	19	1523	1525	1531	S14	W07	10410	07	19.1	8	SF			3	E	10		F
	KANZ	19	1523	1527	1529	S13	W06	10410	07	19.2	6	SF			2	E			
0113		19	1552	1554I	1555	S11	W08	10410	07	19.0	3	SF					11		
	HOLL	19	1552	1554	1555	S11	W09	10410	07	19.0	3	SF			3	E	11		
	KANZ	19	1552	1555	1555	S11	W08	10410	07	19.0	3	SF			2	E			
0114	HOLL	19	1733	1733	1738	N13	E33	10415	07	22.2	5	SF			3	E	10		
			19 1834		1858	No Flare Patrol													
0115	HOLL	19	2016	2018	2032	S11	W13	10410	07	18.9	16	SF			3	E	23		FH
			19 2204		2211	No Flare Patrol													
			19 2221		2347	No Flare Patrol													
0116	LEAR	19	2358	2401U	2409	N12	E30	10415	07	22.2	11	SF			2	E	21		F

H α SOLAR FLARES

9
Jul 03

JULY 2003

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Imp (Min)	Opt	Xray	Obs See	Type	Time (UT)	Area Measurement		Remarks
																	Apparent (10-6 Disk)	Corr (Sq Deg)	
0117	LEAR	20	0009	0010	0013	S11	W13	10410	07	19.0	4	SF		2	E		19		F
0118	LEAR	20	0026	0029	0046	S11	W13	10410	07	19.0	20	SF		2	E		33		F
0119	LEAR	20	0057	0116	0129	S11	W13	10410	07	19.1	32	SF		2	E		50		F
0120	LEAR	20	0338	0339	0351	N12	E28	10415	07	22.3	13	SF		2	E		12		
0121	LEAR	20	0349	0351	0416	S12	W15	10410	07	19.0	27	SF		2	E		87		F
0122	LEAR	20	0835	0836	0840	S22	W27	10417	07	18.3	5	SF		2	E		18		F
0123	KANZ	20	1154	1155	1157	S20	W31	10417	07	18.1	3	SF		2	E				
0124	HOLL	20	1401	1401	1408	S12	W21	10410	07	19.0	7	SF		3	E		35		F
0125	HOLL	20	1414	1414	1422	S12	W21	10410	07	19.0	8	SF		3	E		13		
0126		20	1448	14515	1458	S12	W22	10410	07	18.9	10	SF					28		
	SVTO	20	1448	1451	1456	S12	W22	10410	07	18.9	8	SF		3	E		28		
	KANZ	20	1448	1456	1459	S12	W21	10410	07	19.0	11	SF		2	E				
0127	HOLL	20	1553	1554	1557	S12	W33	10410	07	18.2	4	SF		3	E		16		
0128		20	15494	15541	1556	S12	W22	10410	07	19.0	7	SF					17		
	KANZ	20	1549	1555	1556	S12	W21	10410	07	19.1	7	SF		2	E				
	SVTO	20	1553	1554	1557	S12	W23	10410	07	18.9	4	SF		3	E		17		
0129		20	16015	16102	1626	S12	W22	10410	07	19.0	25	SF					30		F
	KANZ	20	1601	1610	1630	S12	W22	10410	07	19.0	29	SF		2	E				F
	HOLL	20	1605	1611	1627	S11	W22	10410	07	19.0	22	SF		3	E		37		F
	SVTO	20	1606	1612	1620	S12	W23	10410	07	18.9	14	SF		3	E		24		F
0130		20	16441	16463	1656	S12	W23	10410	07	19.0	12	SF					32		F
	KANZ	20	1644	1649	1655	S11	W23	10410	07	19.0	11	SF		2	E				F
	HOLL	20	1645	1646	1656	S12	W23	10410	07	19.0	11	SF		3	E		32		F
0131		20	1725	1726	1737	S12	W22	10410	07	19.1	12	SF					34		F
	SVTO	20	1725	1726	1730	S12	W23	10410	07	19.0	5	SF		2	E		37		
	HOLL	20	1725	1726	1744	S11	W22	10410	07	19.1	19	SF		3	E		32		F
0132	HOLL	20	1756	1758	1803	S11	W24	10410	07	18.9	7	SF		3	E		46		
0133	HOLL	20	1858	1911	1934	S11	W24	10410	07	19.0	36	SF		3	E		26		F
0134	HOLL	20	1906	1910	1921	S21	W34	10417	07	18.2	15	SF		3	E		19		
0135	HOLL	20	2106	2108	2115	S11	W27	10410	07	18.8	9	SF		3	E		19		
0136		21	00041	00052	0016	S22	W36	10417	07	18.2	12	SF					19		F
	HOLL	21	0004	0007	0010	S22	W37	10417	07	18.1	6	SF		3	E		13		
	LEAR	21	0005	0005	0021	S22	W36	10417	07	18.2	16	SF		2	E		25		F
0137		21	0031	00331	0056	S12	W26	10410	07	19.1	25	SF					42		F
	HOLL	21	0031	0033	0055	S11	W27	10410	07	19.0	24	SF		3	E		24		
	LEAR	21	0031	0034	0057	S12	W26	10410	07	19.1	26	SF		2	E		60		F
0138	LEAR	21	0057	0059	0105	S12	W26	10410	07	19.1	8	SF		2	E		19		F
0139	LEAR	21	0227	0227	0232	S12	W30	10410	07	18.8	5	SF		3	E		16		F
0140	SVTO	21	0454	0454	0500	S12	W29	10410	07	19.0	6	SF		3	E		12		
0141		21	07211	07275	0734	S12	W31	10410	07	19.0	13	SF					26		
	KANZ	21	0721	0732	0734	S11	W31	10410	07	19.0	13	SF		2	E				
	SVTO	21	0722	0727	0734	S12	W31	10410	07	19.0	12	SF		3	E		26		
0142	KANZ	21	0736	0741	0742	S11	W31	10410	07	19.0	6	SF		2	E				

10
Jul 03

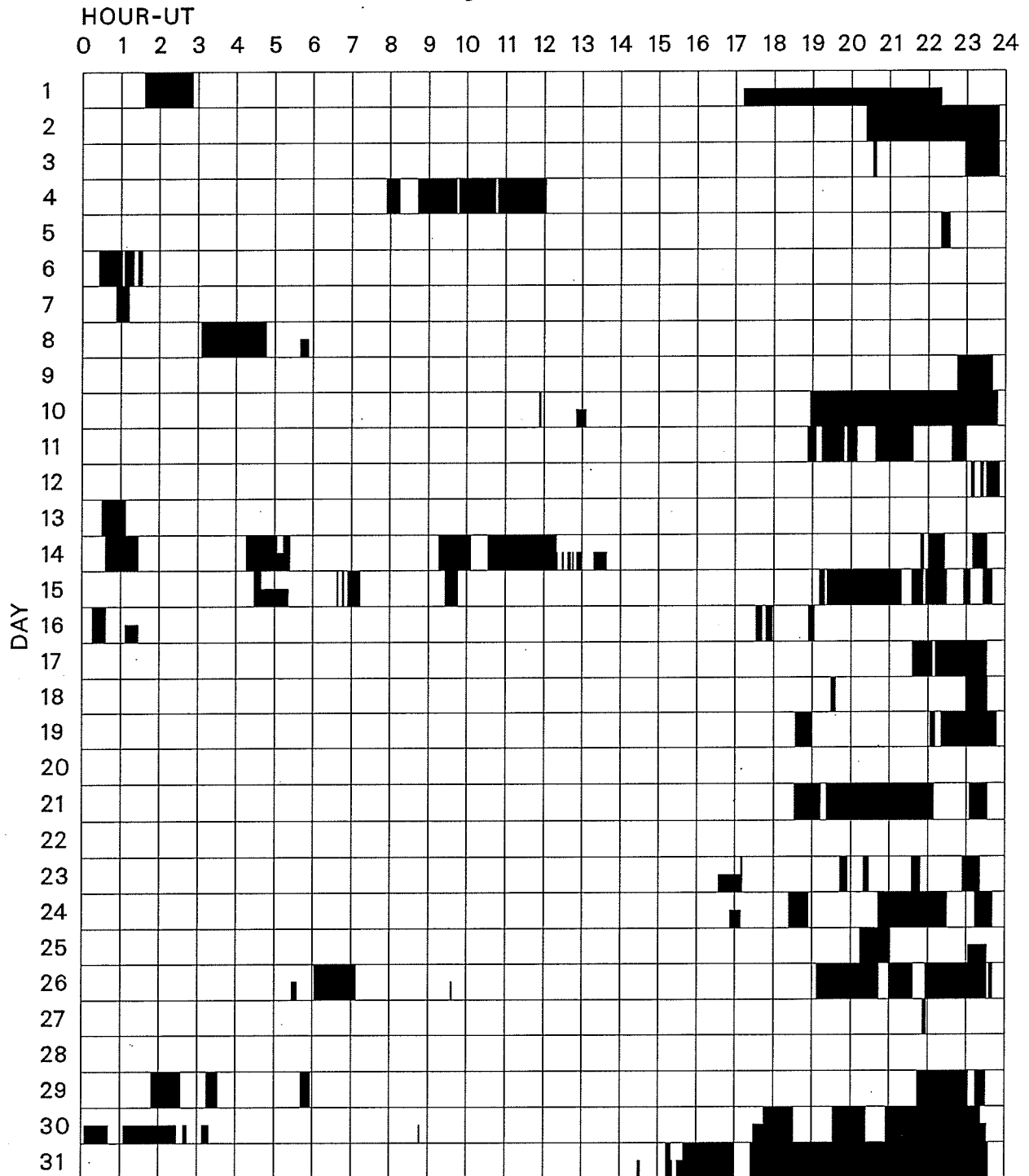
H α SOLAR FLARES

JULY 2003

Grp #	Sta	Start Day	Max (UT)	End (UT)	Lat	CMD	NOAA/USAF		CMP Mo	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
							Region	Day							Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0143		21 0959	1001	1005	S12	W32	10410	07	19.0	6	SF					17		
	KANZ	21 0959	1001	1005	S11	W32	10410	07	19.0	6	SF		2	E				
	SVTO	21 1000	1001	1005	S12	W33	10410	07	18.9	5	SF		3	E		17		
0144	HOLL	21 1359E	1359U	1403	S12	W45	10410	07	18.2	4D	SF		3	E		14		
0145	SVTO	21 1705	1708	1713	S21	W43	10417	07	18.4	8	SF		3	E		26		
		21 1832		1913	No Flare Patrol													
		21 1922		2209	No Flare Patrol													
0146	HOLL	21 2200E	2211U	2215	S21	W47	10417	07	18.3	15D	SF		3	E		61	F	
0147	HOLL	21 2231	2232	2237	N15	W37	10409	07	19.1	6	SF		3	E		44		
		21 2305		2333	No Flare Patrol													
0148	LEAR	21 2357	2451	2540	S21	W56	10417	07	17.7	103	SF		3	E		43	T	
0149	HOLL	21 2359	2401	2430	S21	W49	10417	07	18.2	31	SF		3	E		35		
0150	LEAR	22 0158	0206	0243	N17	W54	10412	07	18.0	45	SF		3	E		59		
0151	LEAR	22 0338	0338	0345	S22	W52	10417	07	18.1	7	SF		3	E		27		
0152	SVTO	22 0612	0613	0616	S20	W55	10417	07	18.0	4	SF		3	E		28		
0153	SVTO	22 0625	0625	0635	S19	W52	10417	07	18.3	10	SF		3	E		27		
0154		22 0709	0715	0744	S20	W54	10417	07	18.2	35	1F					136	F	
	LEAR	22 0709	0715	0747	S21	W53	10417	07	18.2	38	1F		3	E		125	F	
	SVTO	22 0710	0718	0740	S20	W56	10417	07	18.0	30	1F		3	E		147	F	
0155		22 0818	0819	0833	S20	W55	10417	07	18.1	15	SF					80	FH	
	LEAR	22 0818	0819	0837	S21	W54	10417	07	18.2	19	SF		3	E		67	FH	
	SVTO	22 0819	0822	0828	S19	W56	10417	07	18.1	9	SF		3	E		94	F	
	KANZ	22 0829U	0829U	0835	S21	W54	10417	07	18.2	6U	SF		2	E				
0156	KANZ	22 1057	1100	1107	S21	W57	10417	07	18.1	10	SF		2	E				
0157	HOLL	22 1322	1333	1337	S22	W59	10417	07	18.0	15	SF		3	E		30	F	
0158	HOLL	22 1418	1419	1430	S22	W58	10417	07	18.1	12	SF		3	E		19	F	
0159		22 1518	1521	1530	S21	W57	10417	07	18.3	12	SF					23	F	
	KANZ	22 1518	1521	1531D	S21	W57	10417	07	18.3	13D	SF		2	E				
	HOLL	22 1518	1523	1535	S22	W58	10417	07	18.2	17	SF		3	E		35	F	
	SVTO	22 1519	1522	1526	S21	W57	10417	07	18.3	7	SF		3	E		11		
0160	HOLL	22 1743	1746	1751	N21	W46	10409	07	19.2	8	SF		3	E		14	F	
0161	HOLL	22 2123	2125	2129	S21	W63	10417	07	18.1	6	SF		3	E		24		
0162	HOLL	23 0020	0020	0024	S21	W62	10417	07	18.3	4	SF		3	E		22		
0163	LEAR	23 0131	0142	0152	S21	W65	10417	07	18.1	21	SF		3	E		29	F	
0164	LEAR	23 0206	0208	0216	S21	W66	10417	07	18.0	10	SF		3	E		25		
0165	LEAR	23 0436	0438	0442	S21	W66	10417	07	18.1	6	SF		3	E		26		
0166		23 0549	0601	0616	S20	W68	10417	07	18.0	27	1F					114	FH	
	LEAR	23 0549	0601	0616	S21	W67	10417	07	18.1	27	SF		3	E		93	FH	
	SVTO	23 0552	0601	0617	S19	W70	10417	07	17.9	25	1F		3	E		136	FH	
0167		23 0939	0940	0942	N16	W58	10409	07	19.0	3	SF					11		
	SVTO	23 0939	0940	0942	N17	W57	10409	07	19.1	3	SF		3	E		11		
	KANZ	23 0940	0940	0942	N15	W58	10409	07	19.0	2	SF		2	E				

INTERVALS OF NO FLARE PATROL OBSERVATION FOR PRECEDING SOLAR FLARE TABLE

JULY 2003



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.

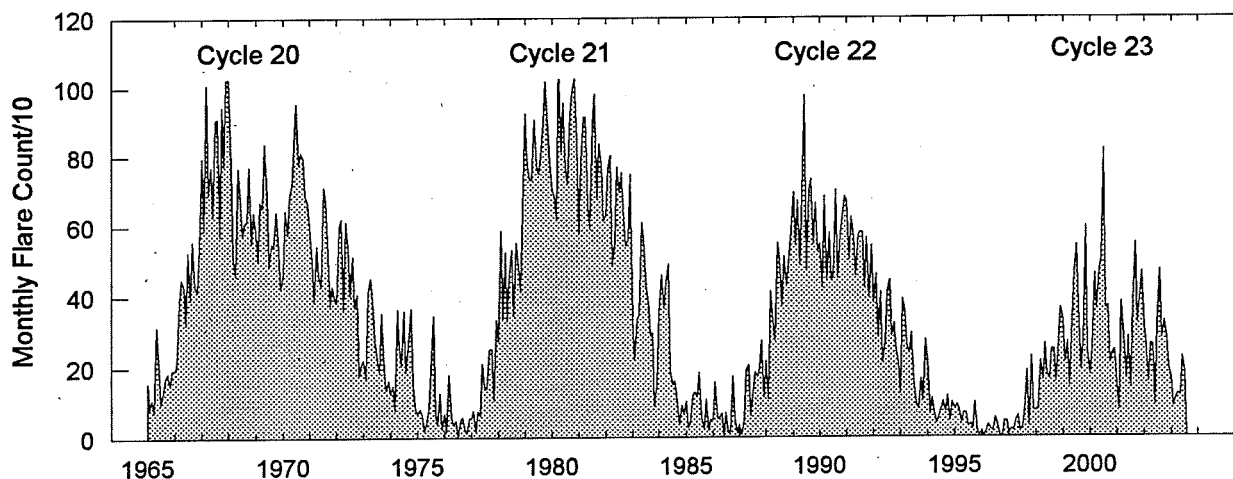
Holloman
Kanzelhoehe

Learmonth
Mitaka

San Vito
Kharkov

Monthly Counts of Grouped Solar Flares

Jan 1965 - Jul 2003



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						1009

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

14
Jul 03

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

JULY 2003

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	44 NS	0600.0E		360.0D		20.0		
	127	TORN	44 NS	0600.0E		600.0D		30.0		V=2
	245	SVTO	43 NS	0916.0	0944.0	31.0	80.0			QL=4 ST=2 TYP=1
	245	SVTO	43 NS	0916.0	0916.0	884.0	64.0			QL=4 ST=1 TYP=1
	245	SVTO	43 NS	0916.0	0944.0	884.0	80.0			QL=4 ST=1 TYP=1
	245	SGMR	43 NS	1255.0	1734.0	470.0	240.0			QL=4 ST=2 TYP=1
	245	SGMR	43 NS	1255.0	1301.0	665.0	65.0			QL=4 ST=4 TYP=1
	245	SGMR	43 NS	1255.0	1301.0	665.0	65.0			QL=4 ST=1 TYP=1
	245	SGMR	43 NS	1255.0	1727.0	665.0	87.0			QL=4 ST=1 TYP=1
	245	SGMR	43 NS	1255.0	1731.0	665.0	160.0			QL=4 ST=1 TYP=1
	245	SGMR	43 NS	1255.0	1734.0	665.0	240.0			QL=4 ST=1 TYP=1
	235	CUBA	44 NS	1300.0E		420.0D		17.0		
	280	CUBA	44 NS	1300.0E		420.0D		30.0		
	245	PALE	43 NS	1726.0	1734.0	199.0	220.0			QL=4 ST=2 TYP=1
	245	PALE	43 NS	1726.0	1734.0	394.0	220.0			QL=4 ST=1 TYP=1
	245	LEAR	8 S	0040.0	0040.0	U	74.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0040.0	0040.0	U	85.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0220.0	0220.0	2.0	130.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0221.0	0221.0	1.0	140.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0432.0	0432.0	U	130.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0449.0	0449.0	U	72.0			QL=4 ST=2 TYP=3
	204	IZMI	42 SER	0649.7	0649.9	0.4	21.0			
	245	SVTO	8 S	0908.0	0908.0	U	71.0			QL=4 ST=2 TYP=3
	8800	SVTO	8 S	1117.0	1117.0	U	190.0			QL=4 ST=2 TYP=3
	410	SGMR	8 S	1202.0	1202.0	U	62.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1253.0	1253.0	U	67.0			QL=4 ST=2 TYP=3
	8800	SGMR	8 S	1317.0	1317.0	U	22.0			QL=4 ST=3 TYP=3
	245	SVTO	8 S	1504.0	1504.0	U	51.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1535.0	1535.0	U	52.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1540.0	1540.0	U	52.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1630.0	1630.0	U	70.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1643.0	1643.0	U	69.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1649.0	1649.0	U	58.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	1700.0	1700.0	U	62.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1700.0	1700.0	U	85.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	2226.0	2226.0	2.0	73.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	2227.0	2227.0	U	65.0			QL=4 ST=4 TYP=3
	245	PALE	8 S	2227.0	2227.0	U	65.0			QL=4 ST=3 TYP=3
	245	PALE	8 S	2227.0	2227.0	U	65.0			QL=4 ST=2 TYP=3
	245	SGMR	4 S/F	2232.0	2233.0	3.0	120.0			QL=4 ST=4 TYP=3
245	SGMR	4 S/F	2232.0	2233.0	3.0	120.0			QL=4 ST=3 TYP=3	
245	SGMR	4 S/F	2232.0	2233.0	3.0	120.0			QL=4 ST=2 TYP=3	
245	PALE	8 S	2234.0	2234.0	U	130.0			QL=4 ST=4 TYP=3	
245	PALE	8 S	2234.0	2234.0	U	130.0			QL=4 ST=3 TYP=3	
245	PALE	8 S	2234.0	2234.0	U	130.0			QL=4 ST=2 TYP=3	
245	PALE	8 S	2255.0	2255.0	2.0	300.0			QL=4 ST=2 TYP=3	
2840	PEKG	1 S	2300.0	2303.5	7.0	2.8				
245	PALE	8 S	2305.0	2305.0	U	59.0			QL=4 ST=2 TYP=3	
02	204	IZMI	44 NS	0600.0E		360.0D		10.0		
	127	TORN	44 NS	0600.0E		600.0D		140.0		V=1
	235	CUBA	44 NS	1305.0E		495.0D		10.0		
	280	CUBA	44 NS	1305.0E		495.0D		22.0		
	245	LEAR	8 S	0129.0	0129.0	U	66.0			QL=4 ST=2 TYP=3
	2840	PEKG	1 S	0325.0	0329.5	8.0	3.0			
	2840	PEKG	3 S	0655.0	0713.5	57.0	247.5			
	9100	GORK	21 GRF	0705.7	0734.3	228.0D	50.0			
	2950	GORK	21 GRF	0706.0	0730.0	228.0D	24.0			
	2800	HIRA	3 S	0707.0	0714.0	15.0	220.0			0
	900	GORK	46 C	0708.8	0714.1		80.0			
	900	GORK	46 C	0708.8	0711.8	13.0	310.0U			
	2950	GORK	4 S/F	0709.8	0713.3	14.9	210.0			
	500	HIRA	1 S	0710.0	0713.0	7.0	10.0			0
	1415	SVTO	4 S/F	0710.0	0714.0	9.0	160.0			QL=4 ST=2 TYP=3
	4995	SVTO	4 S/F	0710.0	0714.0	22.0	200.0			QL=4 ST=3 TYP=3
	4995	SVTO	20 GRF	0710.0	0714.0	22.0	200.0			QL=4 ST=2 TYP=2
	1415	SVTO	4 S/F	0710.0	0712.0	1010.0	92.0			QL=4 ST=1 TYP=3
	1415	SVTO	4 S/F	0710.0	0714.0	1010.0	160.0			QL=4 ST=1 TYP=3
	4995	SVTO	4 S/F	0710.0	0712.0	1010.0	120.0			QL=4 ST=1 TYP=3

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

15
Jul 03

JULY 2003

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
02	4995	SVTO	4 S/F	0710.0	0714.0	1010.0	200.0			QL=4 ST=1 TYP=3
	600	GORK	4 S/F	0710.1	0713.5	7.9	23.0			
	3000	IZMI	45 C	0710.4	0713.3	19.4	267.6	62.2		
	1415	LEAR	4 S/F	0711.0	0714.0	5.0	160.0			QL=4 ST=2 TYP=3
	2695	SVTO	4 S/F	0711.0	0713.0	11.0	200.0			QL=4 ST=2 TYP=3
	1415	LEAR	4 S/F	0711.0	0712.0	1009.0	110.0			QL=4 ST=1 TYP=3
	2695	SVTO	4 S/F	0711.0	0712.0	1009.0	120.0			QL=4 ST=1 TYP=3
	2695	SVTO	4 S/F	0711.0	0713.0	1009.0	200.0			QL=4 ST=1 TYP=3
	9100	GORK	4 S/F	0711.1	0714.2	10.7	35.0			
	2695	LEAR	4 S/F	0712.0	0713.0	5.0	230.0			QL=4 ST=2 TYP=3
	4995	LEAR	4 S/F	0712.0	0714.0	5.0	100.0			QL=4 ST=2 TYP=3
	8800	SVTO	4 S/F	0712.0	0713.0	10.0	58.0			QL=4 ST=2 TYP=3
	2695	LEAR	4 S/F	0712.0	0712.0	1008.0	180.0			QL=4 ST=1 TYP=3
	4995	LEAR	4 S/F	0712.0	0712.0	1008.0	79.0			QL=4 ST=1 TYP=3
	8800	SVTO	4 S/F	0712.0	0712.0	1008.0	30.0			QL=4 ST=1 TYP=3
	8800	SVTO	4 S/F	0712.0	0713.0	1008.0	58.0			QL=4 ST=1 TYP=3
	15400	SVTO	4 S/F	0716.0	0720.0	4.0	24.0			QL=4 ST=2 TYP=3
	15400	SVTO	4 S/F	0716.0	0720.0	1004.0	24.0			QL=4 ST=1 TYP=3
	204	IZMI	42 SER	0947.9	0956.7	12.8	58.0			
	245	SGMR	8 S	1503.0	1503.0	U	110.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1503.0	1503.0	1.0	110.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1519.0	1519.0	U	100.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1519.0	1519.0	1.0	100.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1608.0	1608.0	U	63.0			QL=4 ST=2 TYP=3
	2800	PENT	29 PBI	2128.0	2213.0	59.0U				
	500	HIRA	7 C	2214.0	2219.0	8.0	10.0			0
	410	PALE	8 S	2344.0	2344.0	U	87.0			QL=4 ST=4 TYP=3
410	PALE	8 S	2344.0	2344.0	U	87.0			QL=4 ST=2 TYP=3	
03	204	IZMI	44 NS	0600.0E		360.0D		20.0		
	127	TORN	44 NS	0600.0E		600.0D		66.0		V=2
	235	CUBA	44 NS	1310.0E		500.0D		6.0		
	280	CUBA	44 NS	1310.0E		500.0D		18.0		
	245	SGMR	43 NS	2243.0	2251.0	8.0	73.0			QL=4 ST=2 TYP=1
	245	SGMR	43 NS	2243.0	2243.0	77.0	58.0			QL=4 ST=1 TYP=1
	245	SGMR	43 NS	2243.0	2251.0	77.0	73.0			QL=4 ST=1 TYP=1
	500	HIRA	8 S	0111.0	0111.0	1.0	10.0			0
	245	LEAR	8 S	0139.0	0140.0	2.0	130.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0140.0	0140.0	2.0	160.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0149.0	0150.0	1.0	70.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0150.0	0150.0	U	67.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0155.0	0156.0	1.0	100.0			QL=4 ST=3 TYP=3
	245	LEAR	8 S	0155.0	0156.0	1.0	100.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0155.0	0156.0	1.0	100.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0218.0	0219.0	1.0	220.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0218.0	0219.0	1.0	210.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0222.0	0223.0	1.0	72.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0223.0	0223.0	U	76.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0237.0	0237.0	U	71.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0237.0	0237.0	U	88.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0402.0	0402.0	U	65.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0407.0	0407.0	U	110.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0458.0	0458.0	U	61.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0458.0	0458.0	U	52.0			QL=4 ST=2 TYP=3
	2840	PEKG	1 S	0533.0	0536.5	9.0	3.7			
	900	GORK	40 F	0535.1	0536.8	2.4	35.0			
	2950	GORK	5 S	0535.4	0536.5	5.4	21.0			
	600	GORK	2 S/F	0535.6	0536.8	2.5	3.1			
	2950	GORK	1 S	0556.7	0557.2	1.4	21.0			
	204	IZMI	41 F	0719.8	0719.9	0.3	47.0	13.8		
	245	LEAR	8 S	0822.0	0822.0	U	51.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0832.0	0832.0	U	74.0			QL=4 ST=2 TYP=3
245	SVTO	8 S	0832.0	0832.0	1.0	92.0			QL=4 ST=2 TYP=3	
204	IZMI	7 C	0925.9	0926.1	0.3	16.0				
245	SGMR	8 S	2008.0	2008.0	U	180.0			QL=4 ST=2 TYP=3	
245	SGMR	8 S	2009.0	2009.0	U	140.0			QL=4 ST=2 TYP=3	
245	PALE	8 S	2011.0	2011.0	1.0	340.0			QL=4 ST=2 TYP=3	
410	PALE	8 S	2038.0	2039.0	1.0	66.0			QL=4 ST=2 TYP=3	
410	SGMR	8 S	2038.0	2038.0	U	54.0			QL=4 ST=2 TYP=3	

16
Jul 03

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

JULY 2003

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
							Peak	Mean		
03	245	PALE	8 S	2214.0	2214.0	2.0	120.0			QL=4 ST=2 TYP=3
	410	PALE	8 S	2215.0	2215.0	U	22.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	2215.0	2215.0	U	86.0			QL=4 ST=2 TYP=3
	500	HIRA	8 S	2223.0	2223.0	1.0	10.0			0
	2800	PENT	41 F	2354.0	2426.0	58.0	6.0			
04	245	LEAR	43 NS	0315.0	0315.0	40.0	51.0			QL=4 ST=2 TYP=1
	245	LEAR	43 NS	0315.0	0315.0	1245.0	51.0			QL=4 ST=1 TYP=1
	204	IZMI	44 NS	0600.0E		360.0D		15.0		
	127	TORN	43 NS	0630.0		570.0D		40.0		V=2
	245	LEAR	43 NS	0640.0	0644.0	4.0	69.0			QL=4 ST=2 TYP=1
	245	LEAR	43 NS	0640.0	0644.0	1040.0	69.0			QL=4 ST=1 TYP=1
	235	CUBA	44 NS	1310.0E		250.0D		9.0		
	280	CUBA	44 NS	1310.0E		250.0D		30.0		
	245	SGMR	43 NS	1853.0	2125.0	168.0	130.0			QL=4 ST=2 TYP=1
	245	SGMR	43 NS	1853.0	2053.0	307.0	110.0			QL=4 ST=1 TYP=1
	245	SGMR	43 NS	1853.0	1853.0	307.0	94.0			QL=4 ST=1 TYP=1
	245	PALE	43 NS	1940.0	1945.0	260.0	110.0			QL=4 ST=1 TYP=1
	245	LEAR	43 NS	2344.0	2350.0	16.0	87.0			QL=4 ST=1 TYP=1
	245	LEAR	43 NS	2344.0	0031.0	16.0	100.0			QL=4 ST=1 TYP=1
	245	LEAR	43 NS	2344.0	0035.0	162.0	140.0			QL=4 ST=3 TYP=1
	245	LEAR	43 NS	2344.0	0035.0	162.0	140.0			QL=4 ST=2 TYP=1
	9100	GORK	2 S/F	0406.8	0407.9	1.9	8.7			
	245	SVTO	8 S	0644.0	0644.0	U	57.0			QL=4 ST=2 TYP=3
	2840	PEKG	1 S	0650.0	0653.6	7.0	4.5			
	204	IZMI	7 C	0709.6	0709.7	0.3	102.0			
	900	GORK	40 F	0727.6	0728.1	0.6	50.0			
	9100	GORK	4 S/F	0744.4	0745.3	2.5	27.0			
	245	LEAR	8 S	0815.0	0815.0	U	140.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0815.0	0815.0	U	100.0			QL=4 ST=2 TYP=3
	900	GORK	42 SER	0843.8	0856.4		10.0			
	900	GORK	42 SER	0843.8	0851.9	16.2	12.0			
	245	SVTO	8 S	0904.0	0904.0	U	89.0			QL=4 ST=2 TYP=3
	204	IZMI	42 SER	0952.6	0953.6	1.3	23.0			
	600	GORK	41 F	0953.3	0958.2		6.3			
	600	GORK	41 F	0953.3	0957.6	5.0	4.1			
	900	GORK	40 F	0955.2	0957.1	4.2	27.0			
	204	IZMI	42 SER	1001.9	1004.4	8.0	68.0			
	245	SVTO	8 S	1004.0	1004.0	2.0	170.0			QL=4 ST=2 TYP=3
	33	UPIC	45 C	1109.0	1109.8	2.0				
	33	UPIC	46 C	1126.5	1127.0	2.0				
	127	TORN	7 C	1127.6	1128.2	1.0	500.0	250.0		
	245	SGMR	4 S/F	1232.0	1235.0	3.0	84.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1235.0	1235.0	U	89.0			QL=4 ST=2 TYP=3
	2800	PENT	29 PBI	1330.0	1440.0	164.0U	59.0			
	33	UPIC	45 C	1339.7	1340.0	0.5				
	245	SVTO	8 S	1426.0	1426.0	U	63.0			QL=4 ST=2 TYP=3
33	UPIC	46 C	1437.0	1437.8	9.0					
245	SGMR	8 S	1438.0	1439.0	1.0	32.0			QL=4 ST=2 TYP=3	
410	SGMR	8 S	1438.0	1438.0	U	21.0			QL=4 ST=2 TYP=3	
2695	SGMR	4 S/F	1438.0	1440.0	5.0	71.0			QL=4 ST=2 TYP=3	
1415	SGMR	4 S/F	1439.0	1441.0	4.0	78.0			QL=4 ST=2 TYP=3	
245	SVTO	8 S	1439.0	1439.0	U	22.0			QL=4 ST=2 TYP=3	
610	SVTO	8 S	1439.0	1440.0	1.0	43.0			QL=4 ST=2 TYP=3	
1415	SVTO	4 S/F	1439.0	1441.0	4.0	68.0			QL=4 ST=2 TYP=3	
2695	SVTO	4 S/F	1439.0	1440.0	4.0	59.0			QL=4 ST=2 TYP=3	
4995	SGMR	8 S	1440.0	1440.0	1.0	23.0			QL=4 ST=2 TYP=3	
4995	SVTO	8 S	1440.0	1441.0	2.0	29.0			QL=4 ST=2 TYP=3	
2695	SGMR	20 GRF	1453.0	1455.0	49.0	24.0			QL=4 ST=2 TYP=2	
235	CUBA	27 RF	1456.0	1514.0	56.0	35.0	18.0			
280	CUBA	27 RF	1456.0	1514.0	56.0	63.0	32.0			
33	UPIC	46 C	1459.2	1502.0	8.8					
245	SGMR	20 GRF	1500.0	1511.0	43.0	66.0			QL=4 ST=2 TYP=2	
9500	CUBA	20 GRF	1505.0	1507.0	32.0	22.0	11.0			
410	SGMR	4 S/F	1525.0	1542.0	21.0	120.0			QL=4 ST=2 TYP=3	
4995	SGMR	4 S/F	1538.0	1544.0	7.0	36.0			QL=4 ST=2 TYP=3	
610	SGMR	8 S	1541.0	1541.0	U	270.0			QL=4 ST=2 TYP=3	
410	SVTO	8 S	1541.0	1542.0	1.0	130.0			QL=4 ST=2 TYP=3	
610	SVTO	8 S	1541.0	1541.0	U	160.0			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

17
Jul 03

JULY 2003

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 -22 W/m 2 Hz)	Mean			
04	245	SGMR	8 S	1550.0	1551.0	1.0	250.0			QL=4 ST=2 TYP=3	
	245	SVTO	8 S	1551.0	1551.0	U	210.0			QL=4 ST=2 TYP=3	
	245	SGMR	49 GB	1637.0	1638.0	3.0	500.0			QL=4 ST=2 TYP=6	
	245	SVTO	4 S/F	1637.0	1638.0	3.0	490.0			QL=4 ST=2 TYP=3	
	1415	SGMR	8 S	1638.0	1638.0	1.0	30.0			QL=4 ST=2 TYP=3	
	1415	SVTO	8 S	1638.0	1638.0	U	28.0			QL=4 ST=2 TYP=3	
	245	PALE	48 C	1818.0	1836.0	21.0	140.0			QL=4 ST=2 TYP=8	
	245	SGMR	48 C	1831.0	1835.0	4.0	100.0			QL=4 ST=2 TYP=8	
	245	SGMR	8 S	1839.0	1839.0	U	66.0			QL=4 ST=2 TYP=3	
	500	HIRA	8 S	2137.0	2137.0	1.0	75.0			SR	
05	204	IZMI	44 NS	0600.0E		360.0D					
	127	TORN	44 NS	1000.0E		360.0D		180.0		V=2	
	235	CUBA	44 NS	1300.0E		530.0D		37.0			
	280	CUBA	44 NS	1300.0E		530.0D		64.0			
	245	SVTO	43 NS	1530.0	1531.0	121.0	150.0			QL=4 ST=3 TYP=1	
	245	SGMR	43 NS	1536.0	1602.0	283.0	190.0			QL=4 ST=2 TYP=1	
	245	SGMR	43 NS	1536.0	1538.0	504.0	72.0			QL=4 ST=1 TYP=1	
	245	SGMR	43 NS	1536.0	1541.0	504.0	140.0			QL=4 ST=1 TYP=1	
	245	PALE	43 NS	1612.0	1739.0	275.0	220.0			QL=4 ST=2 TYP=1	
	245	PALE	43 NS	1612.0	1701.0	468.0	76.0			QL=4 ST=1 TYP=1	
	245	PALE	43 NS	1612.0	1739.0	468.0	220.0			QL=4 ST=1 TYP=1	
	245	PALE	43 NS	1940.0	2325.0	383.0	260.0			QL=4 ST=2 TYP=1	
	245	LEAR	43 NS	2344.0	0013.0	16.0	59.0			QL=4 ST=1 TYP=1	
	245	LEAR	43 NS	2344.0	0030.0	16.0	140.0			QL=4 ST=1 TYP=1	
	245	LEAR	43 NS	2344.0	0035.0	162.0	140.0			QL=4 ST=4 TYP=1	
	245	LEAR	43 NS	2344.0	0035.0	162.0	140.0			QL=4 ST=2 TYP=1	
	245	LEAR	43 NS	2344.0	0030.0	171.0	140.0			QL=4 ST=2 TYP=1	
	2840	PEKG	1 S	0326.0	0328.8	8.0	4.8				
	2840	PEKG	1 S	0549.0	0552.2	7.0	4.4				
	9100	GORK	2 S/F	0551.3	0552.1	2.8	10.0				
	2950	GORK	1 S	0551.7	0552.2	1.1	7.0				
	204	IZMI	42 SER	0644.0	0650.9	17.3	165.0	15.0			
	245	SGMR	8 S	1116.0	1116.0	U	70.0				QL=4 ST=2 TYP=3
245	SVTO	8 S	1116.0	1116.0	U	69.0				QL=4 ST=2 TYP=3	
245	SVTO	8 S	1507.0	1508.0	2.0	92.0				QL=4 ST=2 TYP=3	
245	SGMR	8 S	1508.0	1508.0	U	63.0				QL=4 ST=2 TYP=3	
245	SVTO	4 S/F	1530.0	1531.0	5.0	150.0				QL=4 ST=2 TYP=3	
245	SGMR	8 S	1531.0	1531.0	1.0	180.0				QL=4 ST=2 TYP=3	
2800	PENT	45 C	2344.0	0111.0	124.0U	18.0					
06	204	IZMI	44 NS	0600.0E		360.0D		30.0			
	127	TORN	44 NS	0600.0E		600.0D		30.0		V=2	
	245	SVTO	43 NS	0821.0	0821.0	38.0	74.0			QL=4 ST=2 TYP=1	
	245	SVTO	43 NS	0821.0	0821.0	939.0	74.0			QL=4 ST=1 TYP=1	
	245	SGMR	43 NS	1237.0	1237.0	683.0	55.0			QL=4 ST=4 TYP=1	
	245	SGMR	43 NS	1237.0	1237.0	683.0	55.0			QL=4 ST=1 TYP=1	
	235	CUBA	44 NS	1320.0E		325.0D		11.0			
	280	CUBA	44 NS	1320.0E		325.0D		26.0			
	2840	PEKG	20 GRF	0021.0	0030.2	19.0	14.0				
	500	HIRA	7 C	0025.0	0114.0	52.0	40.0				
	2840	PEKG	45 C	0103.0	0113.9	17.0	13.2				
	600	GORK	46 C	0324.5	0328.9	7.4	45.0				
	600	GORK	46 C	0324.5	0330.9		20.0				
	900	GORK	46 C	0325.7	0330.9		30.0				
	900	GORK	46 C	0325.7	0328.9	10.0	50.0				
	9100	GORK	2 S/F	0406.6	0407.4	1.8	9.0				
	2840	PEKG	3 S	0430.0	0434.2	15.0	35.3				
	2950	GORK	4 S/F	0431.4	0434.1	4.1	36.0				
	2800	HIRA	1 S	0433.0	0434.0	1.0	30.0				
	9100	GORK	2 S/F	0433.2	0434.1	1.7	22.0				
	600	GORK	41 F	0433.2	0434.1		17.0				
	9100	GORK	21 GRF	0433.2	0440.5	26.4	9.0				
	600	GORK	41 F	0433.2	0433.7	1.1	8.0				
900	GORK	4 S/F	0433.4	0434.1	1.8	70.0					
2840	PEKG	5 S	0447.0	0450.6	7.0	19.7					
610	SVTO	4 S/F	0448.0	0453.0	5.0	43.0				QL=4 ST=2 TYP=3	
245	LEAR	8 S	0450.0	0450.0	U	260.0				QL=4 ST=2 TYP=3	
245	SVTO	8 S	0450.0	0450.0	1.0	230.0				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

JULY 2003

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
06	1415	SVTO	8 S	0450.0	0450.0	U	23.0			QL=4 ST=2 TYP=3
	33	UPIC	45 C	0450.5	0451.0	1.0				
	410	SVTO	8 S	0451.0	0451.0	2.0	36.0			QL=4 ST=2 TYP=3
	900	GORK	1 S	0524.7	0524.8	0.7	6.0			
	600	GORK	1 S	0524.7	0524.9	0.8	3.0			
	204	IZMI	42 SER	0727.6	0729.8	3.8	41.0			
	245	SVTO	8 S	0751.0	0751.0	U	75.0			QL=4 ST=3 TYP=3
	245	SVTO	8 S	0751.0	0751.0	U	75.0			QL=4 ST=2 TYP=3
	204	IZMI	25 R	0755.0		69.0		80.0		
	245	LEAR	8 S	0812.0	0812.0	U	100.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0812.0	0812.0	U	66.0			QL=4 ST=2 TYP=3
	204	IZMI	42 SER	0818.3	0820.5	4.6	217.0			
	245	LEAR	8 S	0858.0	0859.0	1.0	100.0			QL=4 ST=2 TYP=3
	204	IZMI	41 F	1059.6	1059.7	0.2	28.0			
	204	IZMI	42 SER	1101.3	1106.9	10.9	199.0			
	127	TORN	8 S	1103.8	1104.5	1.4	300.0	150.0		
	33	UPIC	46 C	1104.0	1105.5	2.0				
	245	SGMR	8 S	1237.0	1237.0	U	55.0			QL=4 ST=3 TYP=3
	245	SVTO	8 S	1237.0	1237.0	U	53.0			QL=4 ST=2 TYP=3
	127	TORN	4 S/F	1310.3	1311.5	2.8	130.0	60.0		
	9500	CUBA	1 S	1410.1	1410.3	1.4	10.0	5.0		
	33	UPIC	46 C	1503.0	1503.7	2.5				
	33	UPIC	46 C	1608.5	1610.3	3.5				
	2800	PENT	41 F	1752.0	1806.0	82.0	14.0			
	245	PALE	8 S	1821.0	1821.0	1.0	190.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1821.0	1821.0	U	120.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	1843.0	1843.0	U	62.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	1900.0	1900.0	U	190.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1900.0	1900.0	U	140.0			QL=4 ST=2 TYP=3
	4995	PALE	8 S	2002.0	2002.0	1.0	48.0			QL=4 ST=2 TYP=3
	8800	PALE	8 S	2002.0	2002.0	1.0	93.0			QL=4 ST=2 TYP=3
	15400	PALE	8 S	2002.0	2002.0	1.0	51.0			QL=4 ST=2 TYP=3
4995	SGMR	8 S	2002.0	2002.0	U	44.0			QL=4 ST=2 TYP=3	
8800	SGMR	8 S	2002.0	2002.0	1.0	93.0			QL=4 ST=2 TYP=3	
15400	SGMR	8 S	2002.0	2002.0	U	37.0			QL=4 ST=2 TYP=3	
245	PALE	8 S	2030.0	2030.0	U	61.0			QL=4 ST=2 TYP=3	
245	PALE	8 S	2323.0	2323.0	1.0	450.0			QL=4 ST=2 TYP=3	
07	245	LEAR	43 NS	0354.0	0422.0	117.0	79.0			QL=4 ST=2 TYP=1
	245	LEAR	43 NS	0354.0	0422.0	1206.0	79.0			QL=4 ST=1 TYP=1
	204	IZMI	44 NS	0600.0E		360.0D		15.0		
	127	TORN	44 NS	0740.0E		500.0D		23.0		V=2
	245	SGMR	43 NS	1149.0	1644.0	340.0	150.0			QL=4 ST=2 TYP=1
	245	SGMR	43 NS	1149.0	1149.0	731.0	51.0			QL=4 ST=1 TYP=1
	245	SGMR	43 NS	1149.0	1230.0	731.0	60.0			QL=4 ST=1 TYP=1
	245	SGMR	43 NS	1149.0	1304.0	731.0	81.0			QL=4 ST=1 TYP=1
	245	SGMR	43 NS	1149.0	1444.0	731.0	86.0			QL=4 ST=1 TYP=1
	245	SGMR	43 NS	1149.0	1520.0	731.0	110.0			QL=4 ST=1 TYP=1
	245	SVTO	43 NS	1304.0	1644.0	267.0	150.0			QL=4 ST=2 TYP=1
	245	SVTO	43 NS	1304.0	1644.0	656.0	150.0			QL=4 ST=1 TYP=1
	245	SVTO	43 NS	1304.0	1307.0	656.0	100.0			QL=4 ST=1 TYP=1
	245	SVTO	43 NS	1304.0	1515.0	656.0	110.0			QL=4 ST=1 TYP=1
	235	CUBA	44 NS	1305.0E		525.0D		10.0		
	280	CUBA	44 NS	1305.0E		525.0D		31.0		
	245	PALE	43 NS	1709.0	1715.0	107.0	140.0			QL=4 ST=2 TYP=1
	245	PALE	43 NS	1709.0	1715.0	411.0	140.0			QL=4 ST=4 TYP=1
	245	PALE	43 NS	1709.0	1715.0	411.0	140.0			QL=4 ST=1 TYP=1
	245	LEAR	8 S	0011.0	0011.0	U	98.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0012.0	0012.0	U	110.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0157.0	0157.0	U	83.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0408.0	0408.0	U	170.0			QL=4 ST=2 TYP=3
	9100	GORK	2 S/F	0413.8	0414.6	2.1	9.0			
	245	PALE	48 C	0414.0	0422.0	10.0	94.0			QL=4 ST=2 TYP=8
	410	PALE	8 S	0424.0	0424.0	U	52.0			QL=4 ST=2 TYP=3
	33	UPIC	45 C	0604.5	0605.5	1.5				
	245	SVTO	8 S	0639.0	0641.0	2.0	100.0			QL=4 ST=2 TYP=3
610	SVTO	8 S	0643.0	0644.0	2.0	48.0			QL=4 ST=4 TYP=3	
610	SVTO	8 S	0643.0	0644.0	2.0	48.0			QL=4 ST=2 TYP=3	
900	GORK	2 S/F	0704.3	0704.8	1.0	4.5				

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

19
Jul 03

JULY 2003

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m ² Hz)	Mean		
07	600	GORK	7 C	0704.7	0705.2			2.2		
	600	GORK	7 C	0704.7	0704.8	0.8		2.2		
	204	IZMI	42 SER	0705.0	0705.1	1.4		40.0		
	600	GORK	2 S/F	0924.4	0924.5	0.3		8.8		
	900	GORK	40 F	0924.5	0925.9	1.4		9.0		
	600	GORK	46 C	1024.0	1024.2	1.6		19.0		
	600	GORK	46 C	1024.0	1024.8			18.0		
	204	IZMI	25 R	1109.0		51.0D			50.0	
	245	SGMR	8 S	1129.0	1129.0		U	63.0		QL=4 ST=2 TYP=3
	245	SVTO	8 S	1129.0	1129.0		U	88.0		QL=4 ST=2 TYP=3
204	IZMI	41 F	1150.9	1152.3	1.9		130.0			
2800	PENT	1 S	2038.0	2049.0	28.0		4.0			
08	127	TORN	44 NS	1120.0E		220.0D		8.0		V=1
	235	CUBA	44 NS	1300.0E		525.0D		6.0		
	280	CUBA	44 NS	1300.0E		525.0D		20.0		
	2840	PEKG	45 C	0055.0	0059.8	10.0		7.4		
	2800	PENT	1 S	0056.0	0059.0	7.0		6.0		
	2840	PEKG	1 S	0223.0	0226.7	8.0		4.2		
	2840	PEKG	1 S	0243.0	0246.5	10.0		6.0		
	245	LEAR	8 S	0403.0	0403.0		U	67.0		QL=4 ST=2 TYP=3
	600	GORK	41 F	0458.2	0458.3	1.6		6.6		
	600	GORK	41 F	0458.2	0458.6			10.0		
	900	GORK	41 F	0722.0	0731.4			32.0		
	900	GORK	41 F	0722.0	0730.8	13.1		57.0		
	600	GORK	46 C	0724.0	0736.0			43.0		
	600	GORK	46 C	0724.0	0734.2	13.3		18.0		
	2840	PEKG	1 S	0724.0	0728.3	6.0		8.6		
	2950	GORK	21 GRF	0724.0	0726.5	14.0		6.2		
	3000	IZMI	20 GRF	0726.5	0727.9	2.1		15.0	3.8	
	245	LEAR	8 S	0727.0	0727.0		U	120.0		QL=4 ST=2 TYP=3
	245	SVTO	8 S	0727.0	0727.0		U	100.0		QL=4 ST=2 TYP=3
	2950	GORK	2 S/F	0727.2	0728.0	1.8		9.4		
	204	IZMI	42 SER	0727.4	0727.6	0.5		308.0		
	204	IZMI	42 SER	0839.6	0839.8	1.1		26.0		
	2840	PEKG	20 GRF	0900.0	0902.3	12.0		3.4		
	204	IZMI	42 SER	0923.2	0923.2	0.4		108.0		
	204	IZMI	42 SER	0933.5	0934.0	1.5		190.0		
	204	IZMI	42 SER	0937.7	0938.4	1.8		111.0		
	204	IZMI	42 SER	1050.3	1050.7	0.6		17.0		
	204	IZMI	46 C	1116.7	1117.5	1.2		878.0		
	245	SGMR	49 GB	1117.0	1117.0	1.0		670.0		QL=4 ST=2 TYP=6
	245	SVTO	49 GB	1117.0	1117.0	1.0		650.0		QL=4 ST=2 TYP=6
	410	SVTO	8 S	1117.0	1117.0		U	22.0		QL=4 ST=2 TYP=3
	204	IZMI	46 C	1118.5	1118.7	0.5		865.0		
	204	IZMI	41 F	1142.3	1142.3	0.1		112.0		
204	IZMI	42 SER	1145.2	1145.3	0.7		26.0			
245	SGMR	8 S	1216.0	1216.0		U	58.0		QL=4 ST=2 TYP=3	
33	UPIC	45 C	1321.3	1321.5	1.0					
245	PALE	49 GB	1737.0	1738.0	2.0		3500.0		QL=4 ST=2 TYP=6	
245	PALE	49 GB	1737.0	1738.0	383.0		3500.0		QL=4 ST=1 TYP=6	
09	127	TORN	44 NS	1130.0E		150.0D		7.0		V=1
	235	CUBA	44 NS	1330.0E		500.0D		6.0		
	280	CUBA	44 NS	1330.0E		500.0D		22.0		
	600	GORK	40 F	0715.5	0717.9	2.9		8.0		
	2840	PEKG	1 S	0720.0	0723.4	8.0		6.0		
	2950	GORK	1 S	0722.6	0723.4	1.3		5.7		
	204	IZMI	42 SER	1049.3	1051.2	2.5		33.0		
	33	UPIC	46 C	1311.8	1312.5	2.2				
	245	SGMR	8 S	1321.0	1322.0	1.0		75.0		QL=4 ST=2 TYP=3
	245	SVTO	8 S	1321.0	1322.0	1.0		66.0		QL=4 ST=2 TYP=3
	2800	PENT	21 GRF	1421.0	1626.0	131.0U		44.0		
	245	SGMR	8 S	1625.0	1626.0	2.0		100.0		QL=4 ST=2 TYP=3
	245	SVTO	8 S	1625.0	1626.0	2.0		89.0		QL=4 ST=2 TYP=3
	2695	SGMR	4 S/F	1626.0	1626.0	4.0		42.0		QL=4 ST=2 TYP=3
	4995	SGMR	8 S	1626.0	1626.0	1.0		37.0		QL=4 ST=2 TYP=3
2695	SVTO	4 S/F	1626.0	1626.0	11.0		54.0		QL=4 ST=2 TYP=3	
4995	SVTO	48 C	1626.0	1626.0	14.0		58.0		QL=4 ST=2 TYP=8	

20
Jul 03

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

JULY 2003

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
09	33	UPIC	46 C	1626.5	1626.8	3.5				
	8800	SVTO	8 S	1636.0	1636.0	2.0	26.0			QL=4 ST=2 TYP=3
	15400	SVTO	4 S/F	1637.0	1637.0	3.0	31.0			QL=4 ST=2 TYP=3
	2800	PENT	29 PBI	1917.0	1928.0	15.0U	8.0			
	2800	PENT	20 GRF	2040.0	2117.0	75.0	6.0			
	2800	PENT	21 GRF	2151.0		159.0U				
	2800	HIRA	8 S	2207.0	2208.0	3.0	100.0			0
	2695	SGMR	8 S	2207.0	2207.0	1.0	53.0			QL=4 ST=2 TYP=3
	2695	PALE	8 S	2208.0	2208.0	U	67.0			QL=4 ST=2 TYP=3
	2840	PEKG	3 S	2232.0	2237.7	10.0	17.5			
	9500	CUBA	2 S/F	2234.7	2235.3	2.5	50.0	25.0		
10	127	TORN	44 NS	1110.0E		240.0D		8.0		V=1,ATM.STORM
	235	CUBA	44 NS	1305.0E		510.0D		6.0		
	280	CUBA	44 NS	1305.0E		510.0D		20.0		
	2800	PENT	1 S	0051.0	0055.0	9.0	5.0			
	2840	PEKG	1 S	0053.0	0055.9	6.0	5.3			
	2840	PEKG	45 C	0241.0	0243.5	9.0	15.1			
	600	GORK	7 C	0633.2	0633.3	0.3	7.3			
	600	GORK	7 C	0633.2	0633.4		11.0			
	900	GORK	46 C	0636.3	0638.2		23.0			
	900	GORK	46 C	0636.3	0636.7	2.3	23.0			
	33	UPIC	46 C	0729.0	0729.5	2.5				
	900	GORK	40 F	0840.8	0844.4	4.7	50.0			
	245	SVTO	8 S	1036.0	1036.0	U	390.0			QL=4 ST=2 TYP=3
	204	IZMI	45 C	1036.6	1036.7	0.2	242.0			
	2800	PENT	29 PBI	1343.0	1400.0	87.0	146.0			
	235	CUBA	7 C	1354.1	1359.1	8.2	128.0	64.0		
	280	CUBA	7 C	1354.1	1356.1	2.5	124.0	62.0		
	245	SVTO	48 C	1356.0	1400.0	4.0	570.0			QL=4 ST=2 TYP=8
	245	SGMR	48 C	1356.0	1400.0	11.0	640.0			QL=4 ST=2 TYP=8
	245	SGMR	4 S/F	1356.0	1357.0	604.0	85.0			QL=4 ST=1 TYP=3
	245	SVTO	4 S/F	1356.0	1357.0	604.0	78.0			QL=4 ST=1 TYP=3
	9500	CUBA	46 C	1356.7	1359.3	7.3	326.0	163.0		
	410	SGMR	4 S/F	1357.0	1357.0	3.0	280.0			QL=4 ST=2 TYP=3
	1415	SGMR	4 S/F	1357.0	1359.0	5.0	83.0			QL=4 ST=2 TYP=3
	410	SVTO	49 GB	1357.0	1357.0	U	820.0			QL=4 ST=2 TYP=6
	1415	SVTO	4 S/F	1357.0	1359.0	4.0	83.0			QL=4 ST=2 TYP=3
	2695	SVTO	4 S/F	1357.0	1359.0	4.0	130.0			QL=4 ST=2 TYP=3
	4995	SVTO	4 S/F	1357.0	1359.0	6.0	350.0			QL=4 ST=2 TYP=3
	8800	SVTO	4 S/F	1357.0	1359.0	5.0	270.0			QL=4 ST=2 TYP=3
	15400	SVTO	4 S/F	1357.0	1359.0	6.0	200.0			QL=4 ST=2 TYP=3
	2695	SGMR	4 S/F	1357.0	1400.0	10.0	140.0			QL=4 ST=2 TYP=3
	4995	SGMR	4 S/F	1357.0	1359.0	10.0	480.0			QL=4 ST=2 TYP=3
	8800	SGMR	49 GB	1357.0	1359.0	10.0	500.0			QL=4 ST=2 TYP=6
	15400	SGMR	4 S/F	1357.0	1359.0	10.0	250.0			QL=4 ST=2 TYP=3
	410	SGMR	4 S/F	1357.0	1357.0	603.0	280.0			QL=4 ST=1 TYP=3
	1415	SGMR	4 S/F	1357.0	1359.0	603.0	75.0			QL=4 ST=1 TYP=3
	2695	SGMR	4 S/F	1357.0	1359.0	603.0	140.0			QL=4 ST=1 TYP=3
	4995	SGMR	4 S/F	1357.0	1359.0	603.0	480.0			QL=4 ST=1 TYP=3
	8800	SGMR	49 GB	1357.0	1359.0	603.0	500.0			QL=4 ST=1 TYP=6
	15400	SGMR	4 S/F	1357.0	1359.0	603.0	250.0			QL=4 ST=1 TYP=3
	1415	SVTO	4 S/F	1357.0	1359.0	603.0	79.0			QL=4 ST=1 TYP=3
	2695	SVTO	4 S/F	1357.0	1359.0	603.0	130.0			QL=4 ST=1 TYP=3
	4995	SVTO	4 S/F	1357.0	1359.0	603.0	350.0			QL=4 ST=1 TYP=3
	8800	SVTO	4 S/F	1357.0	1359.0	603.0	270.0			QL=4 ST=1 TYP=3
	15400	SVTO	4 S/F	1357.0	1359.0	603.0	200.0			QL=4 ST=1 TYP=3
	33	UPIC	47 GB	1357.0	1359.5U	6.0				
	610	SGMR	4 S/F	1358.0	1400.0	9.0	35.0			QL=4 ST=2 TYP=3
	610	SVTO	48 C	1358.0	1401.0	4.0	180.0			QL=2 ST=3 TYP=8
	610	SVTO	48 C	1358.0	1401.0	4.0	180.0			QL=4 ST=2 TYP=8
	610	SGMR	4 S/F	1358.0	1359.0	602.0	25.0			QL=4 ST=1 TYP=3
	610	SVTO	4 S/F	1358.0	1358.0	602.0	140.0			QL=4 ST=1 TYP=3
127	TORN	49 GB	1401.1	1405.8	10.7	10600.0	3000.0			
33	UPIC	29 PBI	1403.0	1409.0	30.0					
9500	CUBA	30 PBI	1404.0	1404.0	21.7	18.0	9.0			
9500	CUBA	2 S/F	1404.0	1406.5	4.9	50.0	25.0			
9500	CUBA	2 S/F	1412.9	1413.5	6.5	20.0	10.0			

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

21
Jul 03

J U L Y 2 0 0 3

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	204	IZMI	43 NS	0628.0		90.0D		15.0		
	127	TORN	43 NS	0640.0		430.0		17.0		V=1
	235	CUBA	44 NS	1305.0E		505.0D		6.0		
	280	CUBA	44 NS	1305.0E		505.0D		21.0		
	2950	GORK	20 GRF	0635.6	0708.9			13.0		
	900	GORK	46 C	0642.4	0708.2			44.0		
	900	GORK	46 C	0642.4	0711.4			42.0		
	900	GORK	46 C	0642.4	0653.5	31.3		18.0		
	600	GORK	46 C	0645.9	0709.2			25.0		
	600	GORK	46 C	0645.9	0653.5	31.0		18.0		
	600	GORK	46 C	0645.9	0712.9			22.0		
	2840	PEKG	20 GRF	0706.0	0709.1	10.0		3.2		
	204	IZMI	41 F	0706.8	0709.3	18.2		93.0		
	500	HIRA	4 S/F	0707.0	0710.0	7.0		70.0		ML
	245	LEAR	4 S/F	0707.0	0709.0	5.0		170.0		QL=4 ST=2 TYP=3
	410	LEAR	48 C	0707.0	0709.0	5.0		260.0		QL=4 ST=2 TYP=8
	245	SVTO	4 S/F	0707.0	0709.0	6.0		150.0		QL=4 ST=2 TYP=3
	410	SVTO	48 C	0707.0	0709.0	5.0		350.0		QL=4 ST=2 TYP=8
	610	SVTO	4 S/F	0707.0	0709.0	6.0		56.0		QL=4 ST=2 TYP=3
	1415	SVTO	8 S	0708.0	0708.0	2.0		31.0		QL=4 ST=2 TYP=3
245	SGMR	8 S	1756.0	1756.0		U	68.0		QL=4 ST=4 TYP=3	
245	SGMR	8 S	1756.0	1756.0		U	68.0		QL=4 ST=2 TYP=3	
12	127	TORN	44 NS	0600.0E		540.0D		12.0		V=2
	235	CUBA	44 NS	1300.0E		525.0D		6.0		
	280	CUBA	44 NS	1300.0E		525.0D		19.0		
	245	LEAR	8 S	0544.0	0544.0		U	68.0		QL=4 ST=2 TYP=3
	245	SVTO	8 S	0544.0	0544.0		U	60.0		QL=4 ST=2 TYP=3
	410	SVTO	8 S	0544.0	0544.0		U	23.0		QL=4 ST=2 TYP=3
	204	IZMI	42 SER	0615.2	0615.8	1.1		20.0		
	204	IZMI	42 SER	0629.0	0629.4	3.3		31.0		
	204	IZMI	42 SER	0734.9	0735.6	1.1		108.0		
	204	IZMI	7 C	0916.1	0916.2	0.2		25.0		
	245	SVTO	8 S	0950.0	0950.0	1.0		79.0		QL=4 ST=2 TYP=3
	204	IZMI	42 SER	0950.6	0951.1	2.2		101.0		
	245	SGMR	8 S	1222.0	1222.0		U	65.0		QL=4 ST=2 TYP=3
	245	SVTO	8 S	1222.0	1222.0		U	64.0		QL=4 ST=2 TYP=3
	410	SVTO	8 S	1222.0	1222.0		U	24.0		QL=4 ST=2 TYP=3
	245	SGMR	49 GB	1342.0	1343.0	1.0		530.0		QL=4 ST=2 TYP=6
	245	SVTO	8 S	1342.0	1343.0	1.0		480.0		QL=4 ST=2 TYP=3
	410	SVTO	8 S	1342.0	1343.0	1.0		88.0		QL=4 ST=2 TYP=3
	410	SGMR	8 S	1343.0	1343.0		U	28.0		QL=4 ST=2 TYP=3
	4995	SGMR	8 S	1343.0	1343.0		U	26.0		QL=4 ST=2 TYP=3
	2800	PENT	20 GRF	1344.0	1408.0	102.0		4.0		
	2800	PENT	29 PBI	1849.0	1903.0	43.0U		62.0		
	245	PALE	48 C	1859.0	1902.0	9.0		430.0		QL=4 ST=2 TYP=8
	4995	SGMR	4 S/F	1859.0	1903.0	8.0		99.0		QL=4 ST=2 TYP=3
	610	PALE	4 S/F	1859.0	1909.0	10.0		93.0		QL=4 ST=2 TYP=3
	235	CUBA	7 C	1859.5	1905.3E	9.4		51.0	26.0	
	280	CUBA	7 C	1859.5	1907.8	9.4		29.0	14.0	
	410	PALE	8 S	1900.0	1900.0		U	63.0		QL=4 ST=2 TYP=3
	410	SGMR	4 S/F	1900.0	1900.0	7.0		36.0		QL=4 ST=2 TYP=3
	2695	SGMR	4 S/F	1901.0	1903.0	3.0		55.0		QL=4 ST=2 TYP=3
9500	CUBA	2 S/F	1901.9	1903.1	3.4		28.0	14.0		
4995	PALE	8 S	1902.0	1903.0	2.0		90.0		QL=4 ST=2 TYP=3	
245	SGMR	48 C	1902.0	1905.0	6.0		270.0		QL=4 ST=2 TYP=8	
8800	SGMR	8 S	1902.0	1903.0	2.0		39.0		QL=4 ST=2 TYP=3	
2695	PALE	8 S	1903.0	1903.0		U	58.0		QL=4 ST=2 TYP=3	
15400	SGMR	8 S	1903.0	1903.0		U	25.0		QL=4 ST=2 TYP=3	
610	SGMR	8 S	1908.0	1909.0	1.0		52.0		QL=4 ST=2 TYP=3	
13	127	TORN	43 NS	0828.0		332.0		5.0		V=1
	235	CUBA	44 NS	1310.0E		364.0D		71.0		
	280	CUBA	44 NS	1310.0E		364.0D		21.0		
	204	IZMI	41 F	0706.2	0706.4	0.4		91.0		
	900	GORK	40 F	0710.0	0711.0	2.0		24.0		
	127	TORN	45 C	0750.0	0759.8	21.0		110.0	30.0	
	204	IZMI	42 SER	0810.4	0810.7	0.6		31.0	7.8	
	204	IZMI	42 SER	0811.5	0811.7	1.3		59.0		

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

JULY 2003

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
13	900	GORK	41 F	0819.0	0822.3	9.8	12.0			
		GORK	41 F	0819.0	0828.3		15.0			
	204	IZMI	42 SER	0822.4	0833.5	11.2	36.0			
		IZMI	41 F	0900.3	0900.4		0.2	109.0		
	204	IZMI	42 SER	0925.9	0927.9	2.5	45.0			
	204	IZMI	42 SER	0935.8	0936.2	0.5	24.0			
	204	IZMI	42 SER	0942.3	0942.4	0.3	24.0			
	900	GORK	40 F	1037.0	1043.7	6.7	13.0			
	600	GORK	46 C	1043.5	1043.6	1.3	19.0			
		GORK	46 C	1043.5	1043.8		16.0			
	1415	SGMR	48 C	1145.0	1146.0	5.0	190.0			QL=4 ST=4 TYP=8
	1415	SGMR	48 C	1145.0	1146.0	5.0	190.0			QL=4 ST=2 TYP=8
	2695	SGMR	8 S	1149.0	1149.0	U	28.0			QL=4 ST=4 TYP=3
2695	SGMR	8 S	1149.0	1149.0	U	28.0			QL=4 ST=2 TYP=3	
14	127	TORN	43 NS	0840.0	1218.6	290.0D	250.0	4.0		V=0
	235	CUBA	44 NS	1300.0E		530.0D		5.0		
	280	CUBA	44 NS	1300.0E		530.0D		18.0		
	600	GORK	2 S/F	0519.5	0520.6	1.9	5.3			
	600	GORK	2 S/F	0534.6	0535.8	1.6	4.0			
	245	SVTO	8 S	0622.0	0622.0	U	67.0			QL=4 ST=2 TYP=3
	2840	PEKG	1 S	1012.0	1018.1	8.0	4.3			
	33	UPIC	42 SER	1121.0	1129.0	9.0				
	204	IZMI	41 F	1128.5	1128.8	0.6	140.0			
	245	PALE	48 C	1629.0	1632.0	7.0	140.0			QL=4 ST=2 TYP=8
	410	PALE	8 S	1633.0	1634.0	1.0	440.0			QL=4 ST=2 TYP=3
	245	PALE	4 S/F	1722.0	1724.0	3.0	140.0			QL=4 ST=2 TYP=3
	235	CUBA	6 S	1915.8	1919.4	3.6	10.0	5.0		
	280	CUBA	6 S	1915.8	1919.4	3.6	37.0	19.0		
	245	PALE	8 S	1919.0	1919.0	U	210.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1919.0	1919.0	U	160.0			QL=4 ST=2 TYP=3
	15	127	TORN	43 NS	0737.0		383.0		4.0	
235		CUBA	44 NS	1300.0E		480.0D		5.0		
280		CUBA	44 NS	1300.0E		480.0D		19.0		
245		LEAR	8 S	0320.0	0320.0	U	93.0			QL=4 ST=2 TYP=3
600		GORK	46 C	0439.0	0450.6	30.0	26.0			
600		GORK	46 C	0439.0	0451.7		28.0			
900		GORK	40 F	0501.8	0502.2	0.7	20.0			
2840		PEKG	20 GRF	0542.0	0549.4	18.0	5.8			
204		IZMI	7 C	0725.6	0725.8	0.2	16.0			
600		GORK	2 S/F	0811.7	0812.4	1.6	6.7			
900		GORK	40 F	0811.8	0827.5	20.2	27.0			
204		IZMI	42 SER	0829.4	0829.4	0.4	8.0			
204		IZMI	7 C	0916.3	0916.3	0.1	13.0			
204		IZMI	42 SER	0928.4	0928.7	0.4	26.0			
2840		PEKG	20 GRF	1010.0	1013.1	14.0	9.1			
16	235	CUBA	44 NS	1305.0E		405.0D		5.0		
	280	CUBA	44 NS	1305.0E		405.0D		18.0		
	2840	PEKG	1 S	0526.0	0529.5	8.0	5.5			
	204	IZMI	42 SER	1017.1	1017.2	2.2	20.0			
	410	SVTO	8 S	1220.0	1222.0	2.0	390.0			QL=2 ST=2 TYP=3
	410	SGMR	8 S	1222.0	1222.0	U	200.0			QL=4 ST=2 TYP=3
	2800	PENT	20 GRF	1845.0	1905.0	38.0	4.0			
	2840	PEKG	1 S	2227.0	2229.9	6.0	4.2			
17	127	TORN	43 NS	0832.0		448.0		16.0		V=2
	235	CUBA	44 NS	1315.0E		405.0D		8.0		
	280	CUBA	44 NS	1315.0E		405.0D		26.0		
	245	LEAR	8 S	0124.0	0124.0	U	140.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0157.0	0157.0	1.0	230.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0456.0	0456.0	U	73.0			QL=4 ST=2 TYP=3
	204	IZMI	42 SER	0607.9	0609.5	4.0	18.0			
	500	HIRA	8 S	0609.0	0610.0	1.0	20.0			WL
	245	LEAR	8 S	0617.0	0617.0	U	200.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0617.0	0617.0	U	160.0			QL=4 ST=2 TYP=3
	204	IZMI	41 F	0617.1	0617.4	0.7	72.0			
	204	IZMI	42 SER	0626.8	0627.0	0.6	13.0			

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

23
Jul 03

JULY 2003

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
17	204	IZMI	42 SER	0717.6	0718.1	0.8	28.0			
	500	HIRA	8 S	0748.0	0748.0	1.0	30.0		0	
	500	HIRA	7 C	0801.0	0819.0	27.0	100.0		WL	
	2840	PEKG	3 S	0815.0	0821.3	37.0	158.8			
	127	TORN	49 GB	0815.5	0822.3	13.2	1960.0	930.0		
	2800	HIRA	8 S	0817.0	0821.0	9.0	290.0		0	
	1415	SVTO	4 S/F	0817.0	0821.0	6.0	110.0		QL=4 ST=2 TYP=3	
	204	IZMI	46 C	0817.2	0821.2	11.4	371.0			
	3000	IZMI	45 C	0817.5	0821.2	7.9	360.0	114.0		
	410	LEAR	4 S/F	0818.0	0819.0	5.0	150.0		QL=4 ST=2 TYP=3	
	410	SVTO	4 S/F	0818.0	0819.0	5.0	150.0		QL=2 ST=2 TYP=3	
	410	SVTO	4 S/F	0818.0	0819.0	5.0	150.0		QL=4 ST=2 TYP=3	
	2695	SVTO	4 S/F	0818.0	0821.0	5.0	280.0		QL=4 ST=2 TYP=3	
	245	SVTO	49 GB	0818.0	0819.0	13.0	1300.0		QL=4 ST=2 TYP=6	
	4995	SVTO	49 GB	0818.0	0820.0	14.0	900.0		QL=4 ST=2 TYP=6	
	410	LEAR	4 S/F	0818.0	0819.0	942.0	150.0		QL=4 ST=1 TYP=3	
	33	UPIC	47 GB	0818.5	0819.5	44.0				
	245	LEAR	49 GB	0819.0	0819.0	3.0	1200.0		QL=4 ST=2 TYP=6	
	610	LEAR	4 S/F	0819.0	0819.0	3.0	100.0		QL=4 ST=2 TYP=3	
	1415	LEAR	4 S/F	0819.0	0821.0	3.0	120.0		QL=4 ST=2 TYP=3	
	2695	LEAR	4 S/F	0819.0	0821.0	4.0	280.0		QL=4 ST=2 TYP=3	
	4995	LEAR	49 GB	0819.0	0820.0	4.0	660.0		QL=4 ST=2 TYP=6	
	8800	LEAR	49 GB	0819.0	0820.0	5.0	720.0		QL=4 ST=2 TYP=6	
	15400	LEAR	4 S/F	0819.0	0820.0	4.0	340.0		QL=4 ST=2 TYP=3	
	610	SVTO	4 S/F	0819.0	0819.0	6.0	100.0		QL=4 ST=2 TYP=3	
	8800	SVTO	49 GB	0819.0	0820.0	7.0	710.0		QL=4 ST=2 TYP=6	
	15400	SVTO	4 S/F	0819.0	0820.0	8.0	400.0		QL=4 ST=2 TYP=3	
	610	LEAR	4 S/F	0819.0	0819.0	941.0	100.0		QL=4 ST=1 TYP=3	
	1415	LEAR	4 S/F	0819.0	0820.0	941.0	100.0		QL=4 ST=1 TYP=3	
	8800	LEAR	49 GB	0819.0	0820.0	941.0	720.0		QL=4 ST=1 TYP=6	
	15400	LEAR	4 S/F	0819.0	0820.0	941.0	340.0		QL=4 ST=1 TYP=3	
	204	IZMI	29 PBI	0828.8	0834.4	17.6	39.0			
	2840	PEKG	20 GRF	0901.0	0908.5	20.0	10.8			
	204	IZMI	42 SER	0904.1	0904.2	0.5	18.0			
	245	SVTO	8 S	0937.0	0938.0	1.0	140.0		QL=4 ST=2 TYP=3	
	204	IZMI	45 C	0937.4	0938.1	1.5	254.0			
	2840	PEKG	1 S	0938.0	0941.3	6.0	3.5			
	127	TORN	46 C	0938.6	0941.9	5.3	340.0	60.0		
	204	IZMI	42 SER	0939.2	0940.4	4.0	63.0			
	33	UPIC	46 C	0941.0	0941.5	3.0				
	204	IZMI	42 SER	1003.0	1003.9	0.9	12.0			
	204	IZMI	41 F	1035.0	1035.3	0.6	50.0			
	204	IZMI	42 SER	1037.9	1038.8	3.9	131.0			
	245	SVTO	8 S	1038.0	1038.0	1.0	120.0		QL=4 ST=2 TYP=3	
	410	SVTO	8 S	1038.0	1038.0	U	24.0		QL=4 ST=2 TYP=3	
	127	TORN	46 C	1038.6	1040.0U	3.2	140.0	60.0		
	245	SGMR	8 S	1102.0	1102.0	U	55.0		QL=4 ST=2 TYP=3	
	204	IZMI	45 C	1102.6	1102.8	0.5	174.0			
	33	UPIC	46 C	1149.0	1150.5	3.0				
	235	CUBA	7 C	1338.8	1344.5	6.2	26.0U	13.0U		
280	CUBA	7 C	1338.8	1344.5	6.2	52.0U	26.0U			
127	TORN	48 C	1341.8	1344.1	3.0	730.0	230.0			
245	SVTO	4 S/F	1342.0	1343.0	3.0	370.0		QL=4 ST=2 TYP=3		
2800	PENT	29 PBI	1507.0	1522.0	85.0U	9.0				
2800	PENT	3 S	1736.0	1816.0	67.0	8.0				
235	CUBA	7 C	1751.8	1754.4	5.2	26.0	13.0			
280	CUBA	7 C	1751.8	1754.4	5.2	54.0	27.0			
410	PALE	8 S	1752.0	1753.0	2.0	170.0		QL=4 ST=2 TYP=3		
610	PALE	8 S	1752.0	1753.0	2.0	81.0		QL=4 ST=2 TYP=3		
245	SGMR	4 S/F	1752.0	1754.0	4.0	120.0		QL=4 ST=2 TYP=3		
410	SGMR	8 S	1752.0	1753.0	2.0	69.0		QL=4 ST=2 TYP=3		
610	SGMR	4 S/F	1752.0	1753.0	3.0	63.0		QL=4 ST=2 TYP=3		
245	PALE	8 S	1753.0	1754.0	1.0	180.0		QL=4 ST=2 TYP=3		
1415	PALE	8 S	1753.0	1754.0	1.0	84.0		QL=4 ST=2 TYP=3		
1415	SGMR	8 S	1753.0	1754.0	1.0	74.0		QL=4 ST=2 TYP=3		
410	PALE	8 S	1816.0	1817.0	2.0	340.0		QL=4 ST=2 TYP=3		
610	PALE	8 S	1816.0	1817.0	2.0	320.0		QL=4 ST=2 TYP=3		
410	SGMR	4 S/F	1816.0	1817.0	3.0	300.0		QL=4 ST=2 TYP=3		
610	SGMR	8 S	1816.0	1817.0	2.0	240.0		QL=4 ST=2 TYP=3		

24
Jul 03

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

JULY 2003

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
17	235	CUBA	6 S	1816.2	1817.1	1.6	26.0	13.0		
	280	CUBA	6 S	1816.2	1817.1	1.6	50.0U	25.0U		
	245	PALE	49 GB	1817.0	1817.0	1.0	560.0			QL=4 ST=2 TYP=6
	245	SGMR	8 S	1817.0	1817.0	2.0	450.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1935.0	1935.0	2.0	71.0			QL=4 ST=2 TYP=3
	2800	PENT	1 S	2040.0	2044.0	9.0	6.0			
	500	HIRA	8 S	2044.0	2044.0	1.0	205.0			0
	245	PALE	49 GB	2044.0	2044.0	U	2000.0			QL=4 ST=3 TYP=6
	245	PALE	49 GB	2044.0	2044.0	U	2000.0			QL=4 ST=2 TYP=6
	410	PALE	8 S	2044.0	2044.0	U	110.0			QL=4 ST=2 TYP=3
	610	PALE	8 S	2044.0	2044.0	U	120.0			QL=4 ST=3 TYP=3
	610	PALE	8 S	2044.0	2044.0	U	120.0			QL=4 ST=2 TYP=3
	245	SGMR	49 GB	2044.0	2044.0	U	1500.0			QL=4 ST=2 TYP=6
	410	SGMR	8 S	2044.0	2044.0	U	56.0			QL=4 ST=2 TYP=3
	610	SGMR	8 S	2044.0	2044.0	U	87.0			QL=4 ST=2 TYP=3
500	HIRA	7 C	2244.0	2247.0	5.0	10.0			0	
18	204	IZMI	43 NS	0930.0		150.0D		20.0		
	245	SGMR	43 NS	1211.0	1212.0	162.0	85.0			QL=4 ST=2 TYP=1
	245	SGMR	43 NS	1211.0	1212.0	709.0	85.0			QL=4 ST=1 TYP=1
	235	CUBA	44 NS	1305.0E		480.0D		9.0		
	280	CUBA	44 NS	1305.0E		480.0D		22.0		
	2840	PEKG	1 S	0415.0	0417.3	4.0	5.1			
	245	SVTO	49 GB	0444.0	0444.0	U	870.0			QL=4 ST=2 TYP=6
	410	SVTO	48 C	0533.0	0534.0	6.0	370.0			QL=2 ST=2 TYP=8
	245	LEAR	48 C	0534.0	0535.0	3.0	1000.0			QL=4 ST=2 TYP=8
	410	LEAR	8 S	0534.0	0534.0	1.0	170.0			QL=4 ST=2 TYP=3
	245	SVTO	48 C	0534.0	0534.0	5.0	830.0			QL=4 ST=2 TYP=8
	500	HIRA	8 S	0535.0	0535.0	1.0	20.0			0
	245	SVTO	49 GB	0600.0	0600.0	U	660.0			QL=4 ST=2 TYP=6
	245	SGMR	8 S	1141.0	1141.0	U	220.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1141.0	1141.0	U	200.0			QL=4 ST=2 TYP=3
	204	IZMI	41 F	1141.1	1141.8	0.9	146.0			
	245	SVTO	8 S	1212.0	1212.0	U	85.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1309.0	1310.0	1.0	88.0			QL=4 ST=2 TYP=3
	245	SVTO	49 GB	1315.0	1315.0	U	1300.0			QL=4 ST=2 TYP=6
	610	SVTO	8 S	1332.0	1333.0	1.0	220.0			QL=2 ST=2 TYP=3
	245	SVTO	8 S	1333.0	1333.0	U	54.0			QL=4 ST=2 TYP=3
	410	SVTO	8 S	1333.0	1333.0	U	68.0			QL=4 ST=2 TYP=3
	2800	PENT	20 GRF	1408.0	1520.0	144.0U	10.0			
	245	SGMR	8 S	1555.0	1555.0	U	55.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1555.0	1555.0	U	51.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1612.0	1612.0	U	58.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1612.0	1612.0	U	56.0			QL=4 ST=2 TYP=3
	2800	PENT	29 PBI	1812.0	1826.0	75.0	10.0			
	245	SGMR	8 S	1945.0	1945.0	1.0	100.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	1955.0	1955.0	U	69.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1955.0	1955.0	U	58.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	2033.0	2033.0	U	51.0			QL=4 ST=2 TYP=3
245	PALE	8 S	2112.0	2112.0	U	80.0			QL=4 ST=2 TYP=3	
245	SGMR	8 S	2112.0	2112.0	U	58.0			QL=4 ST=2 TYP=3	
245	PALE	8 S	2123.0	2123.0	U	64.0			QL=4 ST=2 TYP=3	
245	SGMR	8 S	2123.0	2123.0	U	51.0			QL=4 ST=2 TYP=3	
19	204	IZMI	44 NS	0600.0E		200.0D		30.0		
	127	TORN	44 NS	1130.0E		210.0D		9.0		V=1
	235	CUBA	44 NS	1310.0E		350.0D		6.0		
	280	CUBA	44 NS	1310.0E		350.0D		22.0		
	245	SGMR	43 NS	1939.0	2150.0	140.0	320.0			QL=4 ST=2 TYP=1
	245	SGMR	43 NS	1939.0	2011.0	261.0	100.0			QL=4 ST=1 TYP=1
	245	SGMR	43 NS	1939.0	2019.0	261.0	140.0			QL=4 ST=1 TYP=1
	245	SGMR	43 NS	1939.0	2025.0	261.0	270.0			QL=4 ST=1 TYP=1
	245	SGMR	43 NS	1939.0	1940.0	261.0	71.0			QL=4 ST=1 TYP=1
	245	PALE	43 NS	1948.0	1948.0	252.0	130.0			QL=4 ST=1 TYP=1
	245	PALE	43 NS	1948.0	2012.0	252.0	160.0			QL=4 ST=1 TYP=1
	245	PALE	43 NS	1948.0	2019.0	252.0	890.0			QL=4 ST=1 TYP=1
	245	PALE	43 NS	1948.0	2042.0	252.0	360.0			QL=4 ST=1 TYP=1
	245	LEAR	43 NS	2357.0	0123.0	560.0	180.0			QL=4 ST=2 TYP=1
	245	LEAR	43 NS	2357.0	2358.0U	3.0	89.0			QL=4 ST=1 TYP=1

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

25
Jul 03

JULY 2003

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)		
19	245	LEAR	43 NS	2357.0	0029.0U	3.0	130.0			QL=4 ST=1 TYP=1
	245	LEAR	43 NS	2357.0	0123.0U	3.0	180.0			QL=4 ST=1 TYP=1
	500	HIRA	7 C	0129.0	0133.0	6.0	10.0			0
	410	PALE	8 S	0134.0	0134.0	U	100.0			QL=4 ST=2 TYP=3
	410	LEAR	8 S	0135.0	0135.0	U	84.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0150.0	0150.0	U	99.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0150.0	0150.0	U	110.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0203.0	0203.0	U	53.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0203.0	0203.0	U	66.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0207.0	0207.0	U	53.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0212.0	0212.0	U	55.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0620.0	0620.0	U	52.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0620.0	0620.0	1.0	59.0			QL=4 ST=2 TYP=3
	204	IZMI	7 C	0727.8	0727.8	0.1	4.0			
	204	IZMI	42 SER	0741.0	0741.2	0.2	12.0			
	245	LEAR	8 S	0830.0	0830.0	U	63.0			QL=4 ST=2 TYP=3
	2840	PEKG	1 S	0927.0	0930.2	7.0	5.7			
	4995	SVTO	8 S	0929.0	0929.0	1.0	70.0			QL=4 ST=2 TYP=3
	8800	SVTO	8 S	0930.0	0930.0	U	27.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1422.0	1422.0	U	120.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1832.0	1834.0	2.0	88.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	1834.0	1834.0	1.0	110.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1853.0	1854.0	1.0	71.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	1854.0	1854.0	U	100.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1857.0	1857.0	1.0	110.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	1858.0	1858.0	U	140.0			QL=4 ST=2 TYP=3
	245	SGMR	4 S/F	1928.0	1928.0	3.0	76.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	1929.0	1929.0	U	91.0			QL=4 ST=3 TYP=3
	245	PALE	8 S	1929.0	1929.0	U	91.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	1941.0	1941.0	U	95.0			QL=4 ST=2 TYP=3
410	PALE	45 C	2002.0	2019.0	19.0				QL=4 ST=2 TYP=8	
245	SGMR	8 S	2039.0	2039.0	U	400.0			QL=4 ST=2 TYP=3	
2840	PEKG	20 GRF	2351.0	2359.9	22.0	5.8				
20	245	SVTO	43 NS	0535.0	1725.0	721.0	240.0			QL=4 ST=2 TYP=1
	245	SVTO	43 NS	0535.0	1725.0	1105.0	240.0			QL=4 ST=1 TYP=1
	245	SVTO	43 NS	0535.0	0535.0	1105.0	51.0			QL=4 ST=1 TYP=1
	245	SVTO	43 NS	0535.0	0542.0	1105.0	86.0			QL=4 ST=1 TYP=1
	245	SVTO	43 NS	0535.0	0615.0	1105.0	120.0			QL=4 ST=1 TYP=1
	245	SVTO	43 NS	0535.0	0927.0	1105.0	220.0			QL=4 ST=1 TYP=1
	204	IZMI	43 NS	0600.0		360.0D		80.0		
	245	SGMR	43 NS	1055.0	1725.0	550.0	400.0			QL=4 ST=2 TYP=1
	245	SGMR	43 NS	1055.0	1725.0	785.0	400.0			QL=4 ST=1 TYP=1
	245	SGMR	43 NS	1055.0	1055.0	785.0	220.0			QL=4 ST=1 TYP=1
	235	CUBA	44 NS	1300.0E		360.0D		17.0		
	280	CUBA	44 NS	1300.0E		360.0D		43.0		
	245	PALE	43 NS	1948.0	1948.0	551.0	360.0			QL=4 ST=2 TYP=1
	245	SGMR	43 NS	2223.0	2223.0	97.0	87.0			QL=4 ST=4 TYP=1
	245	SGMR	43 NS	2223.0	2223.0	97.0	87.0			QL=4 ST=3 TYP=1
	245	SVTO	8 S	0447.0	0447.0	U	98.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0450.0	0450.0	U	56.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0530.0	0530.0	U	69.0			QL=4 ST=2 TYP=3
	900	GORK	40 F	0703.0	0703.0	1.7	4.2			
	600	GORK	41 F	0704.1	0705.0		4.5			
	600	GORK	41 F	0704.1	0704.3	1.1	3.4			
	2840	PEKG	1 S	0805.0	0809.1	8.0	5.1			
	33	UPIC	46 C	1146.5	1147.5	2.0				UNCERTN
	610	SGMR	49 GB	1610.0	1610.0	U	760.0			QL=4 ST=2 TYP=6
	610	SVTO	8 S	1610.0	1610.0	U	440.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	1726.0	1726.0	U	390.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	1859.0	1900.0	2.0	140.0			QL=4 ST=2 TYP=3
9500	CUBA	20 GRF	1901.0	1911.0	34.0	17.0	8.0			
245	SGMR	8 S	2223.0	2223.0	U	87.0			QL=4 ST=4 TYP=3	
245	SGMR	8 S	2223.0	2223.0	U	87.0			QL=4 ST=2 TYP=3	
21	245	LEAR	43 NS	0353.0	0359.0	324.0	150.0			QL=4 ST=2 TYP=1
	245	LEAR	43 NS	0353.0	0353.0	1207.0	66.0			QL=4 ST=1 TYP=1
	245	LEAR	43 NS	0353.0	0355.0	1207.0	90.0			QL=4 ST=1 TYP=1
	245	LEAR	43 NS	0353.0	0359.0	1207.0	150.0			QL=4 ST=1 TYP=1

26
Jul 03

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

JULY 2003

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 -22 W/m 2 Hz)	Mean			
21	245	SVTO	43 NS	0519.0	0532.0	92.0	120.0			QL=4 ST=2 TYP=1	
	245	SVTO	43 NS	0519.0	0519.0	1121.0	78.0			QL=4 ST=1 TYP=1	
	204	IZMI	44 NS	0600.0E		360.0D		95.0			
	127	TORN	44 NS	0930.0E		390.0D		60.0		V=1	
	245	SVTO	43 NS	1105.0	1213.0	68.0	110.0			QL=4 ST=2 TYP=1	
	245	SVTO	43 NS	1105.0	1213.0	70.0	110.0			QL=4 ST=3 TYP=1	
	245	SGMR	43 NS	1105.0	1213.0	101.0	110.0			QL=4 ST=2 TYP=1	
	245	SGMR	43 NS	1105.0	1105.0	775.0	58.0			QL=4 ST=1 TYP=1	
	245	SGMR	43 NS	1105.0	1115.0	775.0	69.0			QL=4 ST=1 TYP=1	
	245	SGMR	43 NS	1105.0	1121.0	775.0	75.0			QL=4 ST=1 TYP=1	
	245	SGMR	43 NS	1105.0	1125.0	775.0	86.0			QL=4 ST=1 TYP=1	
	245	SGMR	43 NS	1105.0	1213.0	775.0	110.0			QL=4 ST=1 TYP=1	
	245	SVTO	43 NS	1105.0	1115.0	775.0	81.0			QL=4 ST=1 TYP=1	
	245	SVTO	43 NS	1105.0	1213.0	775.0	110.0			QL=4 ST=1 TYP=1	
	235	CUBA	44 NS	1305.0E		525.0D			14.0		
	280	CUBA	44 NS	1305.0E		525.0D			45.0		
	245	SGMR	43 NS	1457.0	1457.0		U	50.0			QL=4 ST=2 TYP=1
	245	SGMR	43 NS	1457.0	1650.0		U	430.0			QL=4 ST=2 TYP=1
	245	SGMR	43 NS	1457.0	1650.0	214.0	430.0				QL=4 ST=2 TYP=1
	245	SGMR	43 NS	1457.0	1457.0	543.0	50.0				QL=4 ST=1 TYP=1
	245	SGMR	43 NS	2128.0	2128.0	102.0	65.0				QL=4 ST=2 TYP=1
	245	SGMR	43 NS	2128.0	2129.0	152.0	65.0				QL=4 ST=1 TYP=1
	245	LEAR	8 S	0129.0	0129.0		U	62.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0217.0	0217.0		U	140.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0224.0	0224.0	1.0	130.0				QL=4 ST=2 TYP=3
	245	LEAR	8 S	0321.0	0321.0		U	80.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0508.0	0508.0		U	110.0			QL=4 ST=2 TYP=3
	204	IZMI	41 F	0609.7	0610.0	0.6	845.0				
	204	IZMI	42 SER	0618.9	0620.0	4.6	550.0				
	245	LEAR	49 GB	0619.0	0620.0	2.0	1800.0				QL=4 ST=/ TYP=6
	245	SVTO	49 GB	0619.0	0620.0	2.0	1700.0				QL=4 ST=2 TYP=6
	900	GORK	42 SER	0619.1	0624.5	16.0	15.0				
	900	GORK	42 SER	0619.1	0629.9		9.0				
	410	LEAR	8 S	0621.0	0621.0		U	83.0			QL=4 ST=/ TYP=3
	410	SVTO	8 S	0621.0	0621.0		U	100.0			QL=4 ST=2 TYP=3
	600	GORK	41 F	0621.3	0621.5	5.6	13.0				
	600	GORK	41 F	0621.3	0626.6		7.3				
	500	HIRA	8 S	0622.0	0622.0	1.0	15.0				0
	204	IZMI	41 F	0626.4	0626.6	0.5	443.0				
	2840	PEKG	1 S	0700.0	0703.3	7.0	5.6				
	33	UPIC	45 C	0815.5	0816.0	1.0					UNCERTN
	245	SVTO	8 S	0817.0	0818.0	2.0	65.0				QL=4 ST=2 TYP=3
	204	IZMI	42 SER	0818.2	0818.5	0.6	380.0				
	500	HIRA	8 S	0820.0	0820.0	1.0	10.0				0
	245	SGMR	8 S	1414.0	1414.0		U	64.0			QL=4 ST=2 TYP=3
245	SGMR	8 S	1451.0	1451.0		U	70.0			QL=4 ST=2 TYP=3	
245	SVTO	48 C	1650.0	1650.0	3.0	420.0				QL=4 ST=2 TYP=8	
280	CUBA	6 S	1650.1	1652.7	2.9	168.0		84.0			
235	CUBA	6 S	1650.1	1652.9	2.9	50.0U		25.0U			
245	PALE	8 S	1652.0	1653.0	1.0	290.0				QL=4 ST=2 TYP=3	
245	PALE	8 S	1817.0	1817.0	1.0	370.0				QL=4 ST=2 TYP=3	
245	PALE	8 S	2129.0	2130.0	1.0	69.0				QL=4 ST=2 TYP=3	
245	SGMR	49 GB	2231.0	2231.0	1.0	630.0				QL=4 ST=2 TYP=6	
500	HIRA	7 C	2232.0	2233.0	2.0	15.0				0	
22	245	LEAR	43 NS	0210.0	0537.0	255.0	210.0			QL=4 ST=2 TYP=1	
	245	LEAR	43 NS	0210.0	0210.0	1310.0	89.0			QL=4 ST=1 TYP=1	
	245	LEAR	43 NS	0210.0	0213.0	1310.0	110.0			QL=4 ST=1 TYP=1	
	245	LEAR	43 NS	0210.0	0243.0	1310.0	130.0			QL=4 ST=1 TYP=1	
	245	LEAR	43 NS	0210.0	0537.0	1310.0	210.0			QL=4 ST=1 TYP=1	
	245	PALE	43 NS	0212.0	0345.0	110.0	390.0			QL=4 ST=2 TYP=1	
	245	PALE	43 NS	0212.0	0240.0	1308.0	130.0			QL=4 ST=1 TYP=1	
	204	IZMI	44 NS	0600.0E		360.0D		50.0			
	127	TORN	44 NS	0600.0E		540.0D		30.0		V=1, ATN. STROM	
	245	SGMR	43 NS	1049.0	1417.0	351.0	110.0				QL=4 ST=2 TYP=1
	245	SGMR	43 NS	1049.0	1049.0	791.0	55.0				QL=4 ST=1 TYP=1
	245	SGMR	43 NS	1049.0	1148.0	791.0	58.0				QL=4 ST=1 TYP=1
	245	SGMR	43 NS	1049.0	1417.0	791.0	110.0				QL=4 ST=1 TYP=1
	235	CUBA	44 NS	1325.0E		500.0D			13.0		

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

27
Jul 03

JULY 2003

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
22	280	CUBA	44 NS	1325.0E		500.0D		41.0		
	245	SVTO	43 NS	1411.0	1458.0	198.0	130.0			QL=4 ST=2 TYP=1
	245	SVTO	43 NS	1411.0	1421.0	589.0	81.0			QL=4 ST=1 TYP=1
	245	PALE	43 NS	1619.0	1702.0	133.0	75.0			QL=4 ST=2 TYP=1
	245	PALE	43 NS	1619.0	1702.0	461.0	75.0			QL=4 ST=1 TYP=1
	245	PALE	43 NS	2059.0	2127.0	181.0	200.0			QL=4 ST=1 TYP=1
	245	LEAR	8 S	0004.0	0004.0	1.0	50.0			QL=2 ST=2 TYP=3
	245	LEAR	8 S	0052.0	0052.0	1.0	53.0			QL=2 ST=2 TYP=3
	245	LEAR	8 S	0125.0	0125.0	U	69.0			QL=2 ST=2 TYP=3
	245	LEAR	8 S	0141.0	0142.0	1.0	320.0			QL=2 ST=2 TYP=3
	245	LEAR	8 S	0151.0	0152.0	1.0	52.0			QL=2 ST=2 TYP=3
	2840	PEKG	3 S	0155.0	0200.0	25.0	42.2			
	245	PALE	8 S	0156.0	0156.0	U	62.0			QL=4 ST=2 TYP=3
	500	HIRA	7 C	0159.0	0201.0	5.0	30.0			WR
	245	LEAR	8 S	0206.0	0206.0	U	110.0			QL=2 ST=2 TYP=3
	600	GORK	4 S/F	0406.7	0407.1	0.7	30.0			
	900	GORK	3 S	0536.9	0537.7	0.8	18.0			
	245	LEAR	8 S	0716.0	0716.0	U	50.0			QL=2 ST=2 TYP=3
	245	SVTO	8 S	1011.0	1012.0	1.0	74.0			QL=2 ST=2 TYP=3
	245	SVTO	8 S	1341.0	1341.0	U	57.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	1720.0	1721.0	1.0	120.0			QL=4 ST=2 TYP=3
	23	245	SVTO	43 NS	0444.0	0525.0	163.0	120.0		
245		SVTO	43 NS	0444.0	0507.0	1156.0	78.0			QL=4 ST=1 TYP=1
245		SVTO	43 NS	0444.0	0525.0	1156.0	120.0			QL=4 ST=1 TYP=1
245		LEAR	43 NS	0507.0	0525.0	133.0	100.0			QL=4 ST=2 TYP=1
245		LEAR	43 NS	0507.0	0507.0	1133.0	86.0			QL=4 ST=1 TYP=1
245		LEAR	43 NS	0507.0	0525.0	1133.0	100.0			QL=4 ST=1 TYP=1
204		IZMI	44 NS	0600.0E		360.0D		40.0		
127		TORN	43 NS	0730.0		540.0		10.0		V=2
245		SGMR	43 NS	1153.0	1153.0	32.0	76.0			QL=4 ST=2 TYP=1
245		SGMR	43 NS	1153.0	1153.0	727.0	76.0			QL=4 ST=1 TYP=1
235		CUBA	44 NS	1320.0E		400.0D		11.0		
280		CUBA	44 NS	1320.0E		400.0D		33.0		
500		HIRA	8 S	0135.0	0137.0	2.0	115.0			0
245		LEAR	49 GB	0140.0	0141.0	1.0	1000.0			QL=4 ST=2 TYP=6
600		GORK	20 GRF	0406.0	0417.6	37.6	26.0			
2840		PEKG	1 S	0408.0	0411.3	8.0	9.8			
410		LEAR	49 GB	0410.0	0412.0	3.0	690.0			QL=4 ST=2 TYP=6
900		GORK	46 C	0410.4	0411.7	3.2	7.5			
900		GORK	46 C	0410.4	0412.7		6.0			
500		HIRA	8 S	0412.0	0413.0	1.0	30.0			0
900		GORK	41 F	0423.4	0423.6	0.7	6.0			
900		GORK	41 F	0423.4	0423.9		10.0			
245		LEAR	8 S	0444.0	0444.0	U	60.0			QL=2 ST=2 TYP=3
900		GORK	40 F	0533.3	0533.7	1.1	6.0			
204		IZMI	41 F	0719.4	0719.6	0.3	56.0	20.0		
500		HIRA	42 SER	0731.0	0747.0	28.0	20.0			0
204		IZMI	41 F	0749.2	0749.3	0.3	110.0			
900		GORK	41 F	0806.3	0807.5		9.0			
900		GORK	41 F	0806.3	0806.6	1.4	13.0			
245		LEAR	8 S	0839.0	0839.0	U	140.0			QL=4 ST=2 TYP=3
245		SVTO	8 S	0839.0	0839.0	U	130.0			QL=4 ST=2 TYP=3
600		GORK	4 S/F	0935.2	0936.1	2.0	66.0			
900		GORK	42 SER	0936.4	0944.2		17.0			
900		GORK	42 SER	0936.4	0936.5	23.5	4.5			
410		SVTO	4 S/F	0938.0	0939.0	3.0	75.0			QL=4 ST=2 TYP=3
245		SVTO	8 S	0941.0	0941.0	1.0	130.0			QL=4 ST=2 TYP=3
204		IZMI	41 F	0941.9	0942.1	0.4	103.0			
600		GORK	40 F	0943.6	0943.9	1.0	12.0			
900		GORK	40 F	1009.9	1011.6	2.1	9.0			
600		GORK	40 F	1010.0	1010.2	1.9	15.0			
245	SVTO	8 S	1237.0	1237.0	U	77.0			QL=4 ST=2 TYP=3	
245	SGMR	8 S	1556.0	1557.0	1.0	350.0			QL=4 ST=2 TYP=3	
410	SGMR	8 S	1556.0	1556.0	1.0	29.0			QL=4 ST=2 TYP=3	
245	SVTO	8 S	1556.0	1556.0	1.0	350.0			QL=4 ST=2 TYP=3	
410	SVTO	8 S	1556.0	1556.0	U	50.0			QL=4 ST=2 TYP=3	
245	SGMR	8 S	1742.0	1742.0	U	60.0			QL=4 ST=2 TYP=3	
245	PALE	8 S	1743.0	1743.0	U	88.0			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

JULY 2003

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
23	2800	PENT	29 PBI	1916.0	1923.0	16.0U	10.0			
	245	SGMR	8 S	2136.0	2136.0	U	81.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	2239.0	2239.0	1.0	110.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	2259.0	2300.0	1.0	200.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	2317.0	2317.0	U	65.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	2321.0	2321.0	U	63.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	2328.0	2328.0	U	64.0			QL=4 ST=2 TYP=3
24	245	LEAR	43 NS	0252.0	0252.0	387.0	170.0			QL=4 ST=2 TYP=1
	245	LEAR	43 NS	0252.0	0252.0	1268.0	170.0			QL=4 ST=1 TYP=1
	245	SVTO	43 NS	0517.0	0529.0	12.0	71.0			QL=4 ST=2 TYP=1
	245	SVTO	43 NS	0517.0	0529.0	1123.0	71.0			QL=4 ST=1 TYP=1
	204	IZMI	44 NS	0600.0E		360.0D		30.0		
	127	TORN	43 NS	0700.0		400.0		11.0		V=2
	235	CUBA	44 NS	1305.0E		370.0D		7.0		
	280	CUBA	44 NS	1305.0E		370.0D		21.0		
	245	LEAR	8 S	0025.0	0025.0	U	69.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0110.0	0110.0	U	86.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0155.0	0155.0	U	77.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0241.0	0241.0	U	57.0			QL=4 ST=2 TYP=3
	204	IZMI	42 SER	0619.8	0620.6	1.4	94.0			
	204	IZMI	42 SER	0630.3	0630.9	3.4	127.0			
	900	GORK	41 F	0743.3	0752.0	15.0	7.5			
	900	GORK	41 F	0743.3	0755.3		6.0			
	600	GORK	2 S/F	0752.7	0752.8	0.6	4.4			
	900	GORK	42 SER	0818.5	0828.4		30.0			
	900	GORK	42 SER	0818.5	0827.7	22.1	200.0			
	245	SVTO	8 S	0838.0	0838.0	U	57.0			QL=4 ST=2 TYP=3
245	SVTO	8 S	0919.0	0919.0	U	110.0			QL=4 ST=2 TYP=3	
245	SGMR	8 S	1739.0	1740.0	1.0	74.0			QL=4 ST=2 TYP=3	
25	204	IZMI	44 NS	0600.0E		360.0D		10.0		
	127	TORN	43 NS	0820.0		420.0U		12.0		V=1,ATM.STORM
	235	CUBA	44 NS	1310.0E		350.0D		6.0		
	280	CUBA	44 NS	1310.0E		350.0D		22.0		
	900	GORK	42 SER	0424.3	0442.0		7.5			
	900	GORK	42 SER	0424.3	0424.6	18.3	9.0			
	600	GORK	2 S/F	0439.5	0439.8	0.8	3.3			
	900	GORK	40 F	0550.2	0551.1	2.3	9.0			
	600	GORK	40 F	0551.0	0551.4	1.1	3.3			
	26	127	TORN	43 NS	0807.0		313.0		80.0	
235		CUBA	44 NS	1305.0E		295.0D		5.0		
280		CUBA	44 NS	1305.0E		295.0D		15.0		
600		GORK	2 S/F	0754.7	0756.0	1.3	6.6			
33		UPIC	46 C	1115.2	1115.5	2.3				
27	127	TORN	43 NS	0810.0		307.0U		4.0		V=0,DISTURBED
	600	GORK	40 F	0450.0	0450.5	1.3	8.3			
28	127	TORN	44 NS	0810.0E		230.0D		5.0		V=1,DISTURBED
	33	UPIC	46 C	1108.0	1109.0	5.0				
	204	IZMI	42 SER	1111.9	1112.4	0.7	23.0			
29	127	TORN	44 NS	0730.0E		350.0D		5.0		V=1
	235	CUBA	44 NS	1505.0E		405.0D		6.0		
	280	CUBA	44 NS	1505.0E		405.0D		18.0		
	2840	PEKG	45 C	0131.0	0136.2	11.0	48.8			
	500	HIRA	7 C	0134.0	0136.0	8.0	50.0			0
	2800	HIRA	7 C	0135.0	0136.0	7.0	50.0			WR
	610	LEAR	8 S	0135.0	0136.0	1.0	160.0			QL=4 ST=2 TYP=3
	2695	LEAR	8 S	0136.0	0136.0	U	34.0			QL=4 ST=2 TYP=3
	2840	PEKG	45 C	0532.0	0535.9	7.0	36.6			
	900	GORK	40 F	0534.9	0535.9	3.5	17.0			
	2800	HIRA	7 C	0535.0	0537.0	2.0	20.0			0
	2950	GORK	46 C	0535.1	0536.3		38.0			
	2950	GORK	46 C	0535.1	0535.9	1.4	46.0			
	600	GORK	41 F	0535.2	0535.3	1.3	50.0			
600	GORK	41 F	0535.2	0535.9		40.0				

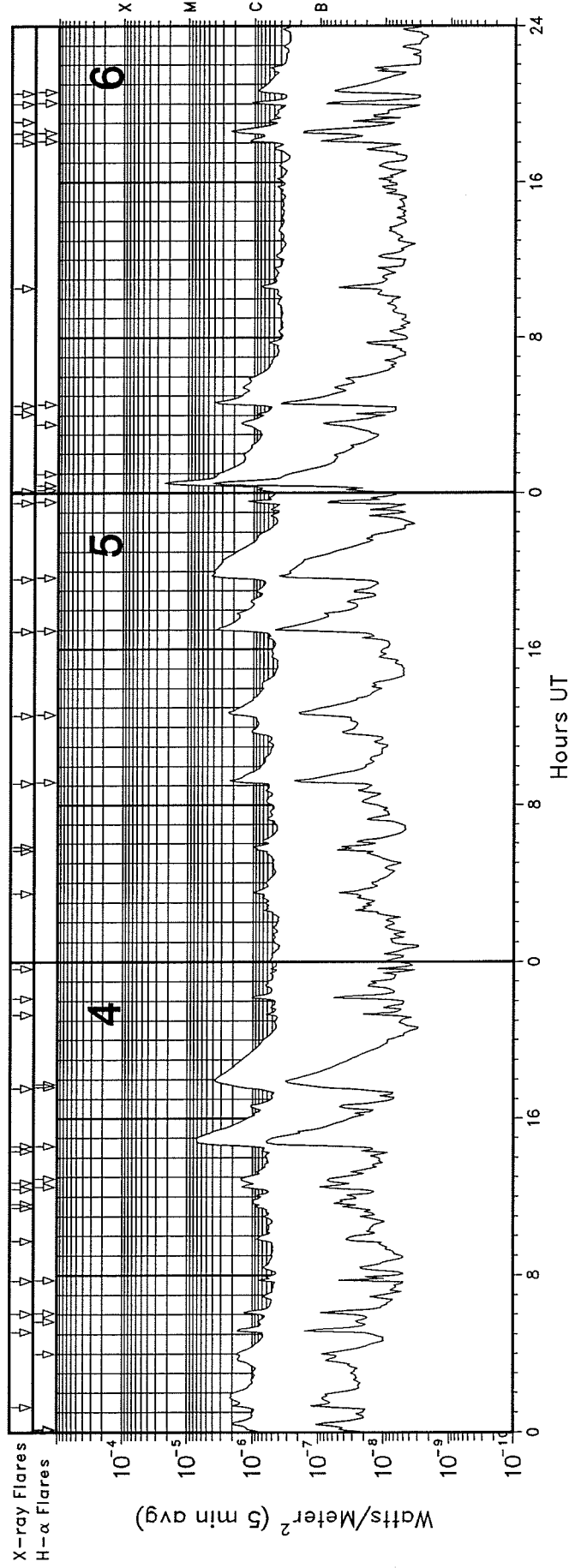
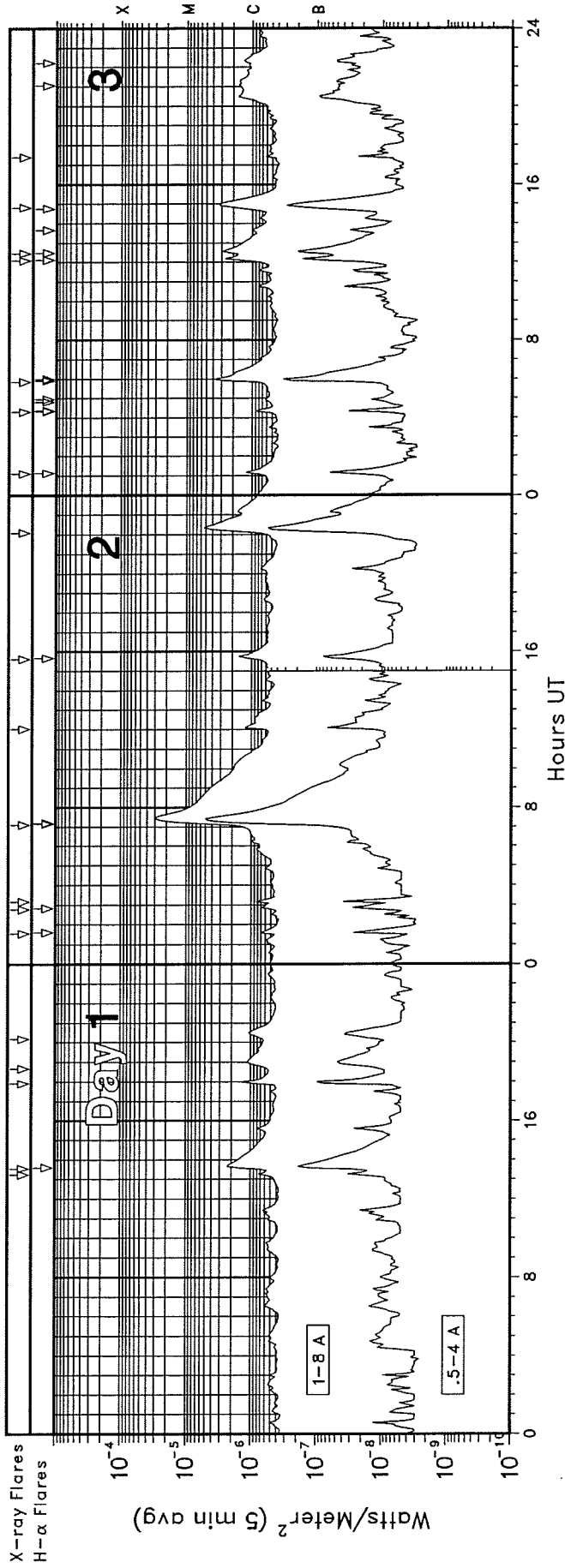
S O L A R R A D I O E M I S S I O N
Outstanding Occurrences

29
Jul 03

JULY 2003

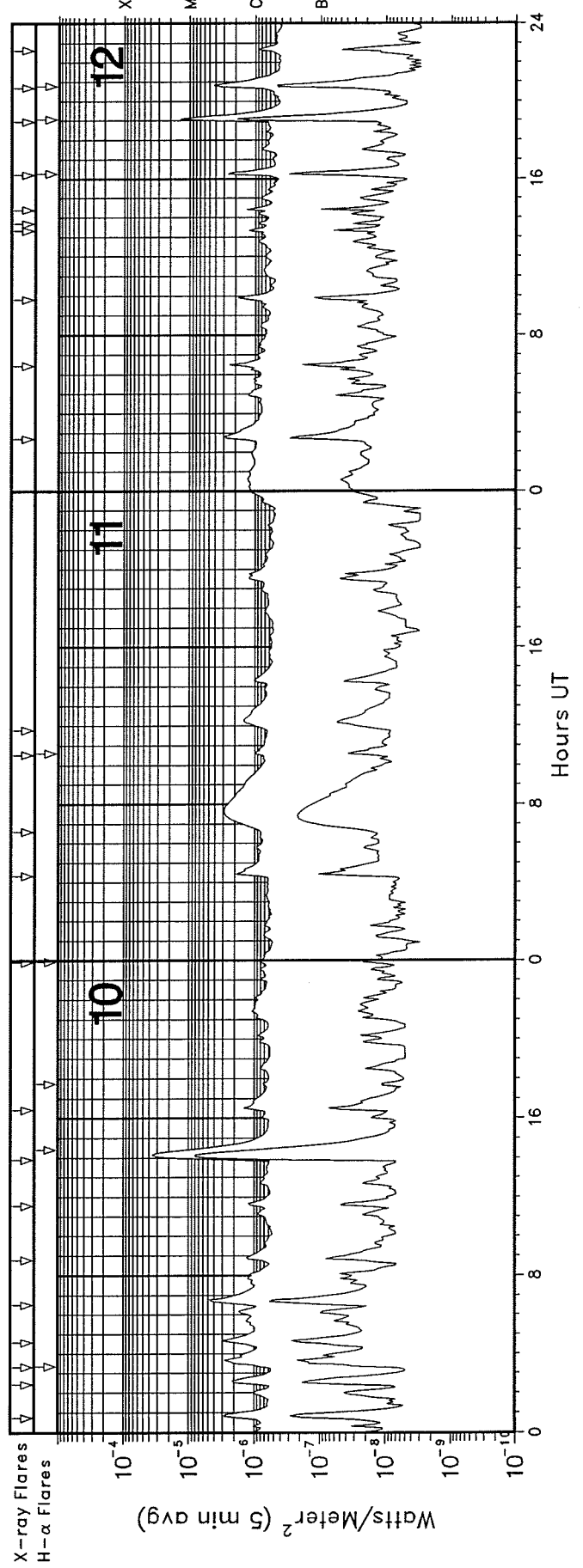
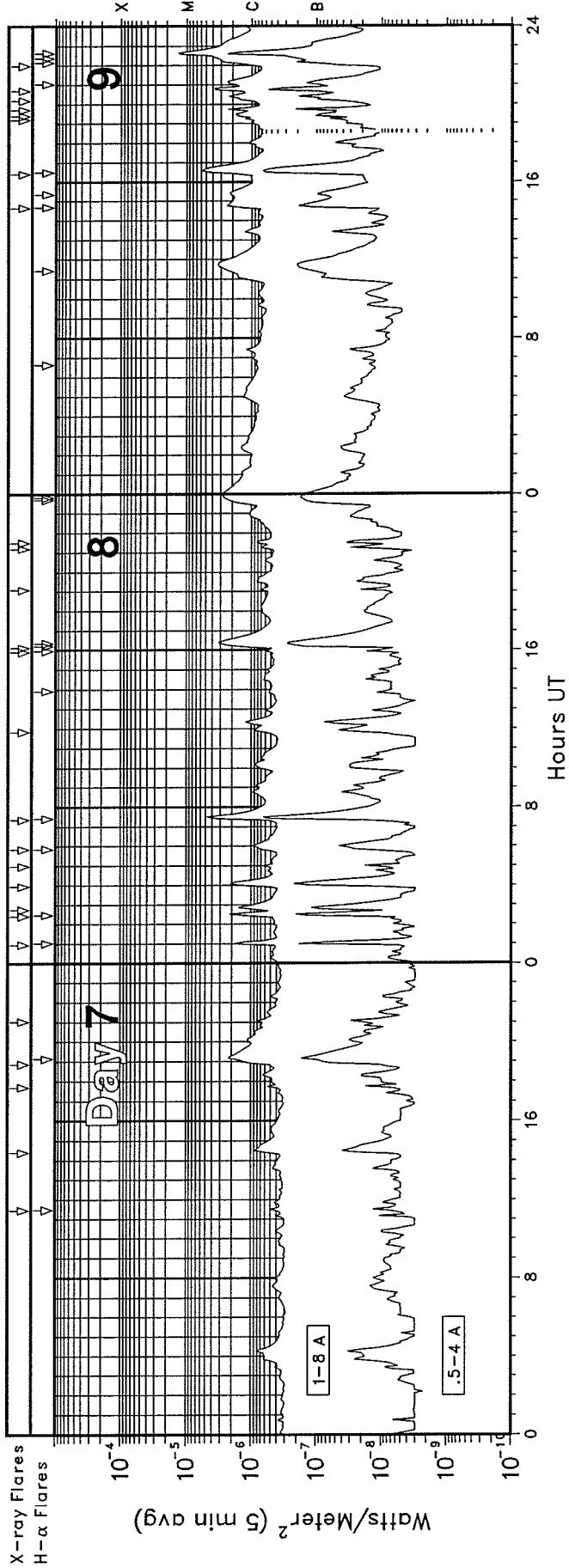
Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m ² Hz)	Mean		
29	2840	PEKG	5 S	0706.0	0709.0	6.0	10.9			
	2800	PENT	29 PBI	1436.0	1451.0	50.0	5.0			
30	245	LEAR	8 S	0101.0	0102.0	1.0	130.0			QL=4 ST=2 TYP=3
	2800	HIRA	8 S	0408.0	0410.0	4.0	200.0			0
	2840	PEKG	3 S	0408.0	0409.7E	20.0	208.1			
	2950	GORK	3 S	0408.3	0409.5	3.7	225.0			QL=4 ST=2 TYP=3
	1415	LEAR	8 S	0409.0	0409.0	1.0	28.0			QL=4 ST=2 TYP=3
	2695	LEAR	8 S	0409.0	0409.0	1.0	190.0			QL=4 ST=2 TYP=3
	4995	LEAR	8 S	0409.0	0409.0	1.0	160.0			QL=4 ST=2 TYP=3
	8800	LEAR	8 S	0409.0	0409.0	1.0	130.0			QL=4 ST=2 TYP=3
	15400	LEAR	8 S	0409.0	0409.0	1.0	200.0			QL=4 ST=2 TYP=3
	2695	PALE	8 S	0409.0	0409.0	1.0	210.0			QL=4 ST=2 TYP=3
	4995	PALE	8 S	0409.0	0409.0	1.0	170.0			QL=4 ST=2 TYP=3
	8800	PALE	8 S	0409.0	0409.0	1.0	120.0			QL=4 ST=2 TYP=3
	15400	PALE	8 S	0409.0	0409.0	1.0	280.0			QL=4 ST=2 TYP=3
	1415	SVTO	8 S	0409.0	0409.0		22.0			QL=2 ST=2 TYP=3
	2695	SVTO	8 S	0409.0	0409.0	2.0	230.0			QL=2 ST=2 TYP=3
	4995	SVTO	8 S	0409.0	0409.0	1.0	210.0			QL=2 ST=2 TYP=3
	8800	SVTO	4 S/F	0409.0	0409.0	5.0	170.0			QL=2 ST=2 TYP=3
	15400	SVTO	8 S	0409.0	0409.0		53.0			QL=2 ST=2 TYP=3
	1415	LEAR	4 S/F	0409.0	0409.0	1191.0	28.0			QL=4 ST=1 TYP=3
	2695	LEAR	4 S/F	0409.0	0409.0	1191.0	190.0			QL=4 ST=1 TYP=3
	4995	LEAR	4 S/F	0409.0	0409.0	1191.0	160.0			QL=4 ST=1 TYP=3
	8800	LEAR	4 S/F	0409.0	0409.0	1191.0	130.0			QL=4 ST=1 TYP=3
	15400	LEAR	4 S/F	0409.0	0409.0	1191.0	200.0			QL=4 ST=1 TYP=3
	2695	PALE	4 S/F	0409.0	0409.0	1191.0	160.0			QL=4 ST=1 TYP=3
	4995	PALE	4 S/F	0409.0	0409.0	1191.0	160.0			QL=4 ST=1 TYP=3
	8800	PALE	4 S/F	0409.0	0409.0	1191.0	120.0			QL=4 ST=1 TYP=3
	15400	PALE	4 S/F	0409.0	0409.0	1191.0	240.0			QL=4 ST=1 TYP=3
	1415	SVTO	4 S/F	0409.0	0409.0	1191.0	22.0			QL=4 ST=1 TYP=3
	1415	SVTO	4 S/F	0409.0	0409.0	1191.0	22.0			QL=2 ST=1 TYP=3
	2695	SVTO	4 S/F	0409.0	0409.0	1191.0	230.0			QL=4 ST=1 TYP=3
2695	SVTO	4 S/F	0409.0	0409.0	1191.0	230.0			QL=2 ST=1 TYP=3	
4995	SVTO	4 S/F	0409.0	0409.0	1191.0	200.0			QL=4 ST=1 TYP=3	
4995	SVTO	4 S/F	0409.0	0409.0	1191.0	200.0			QL=2 ST=1 TYP=3	
8800	SVTO	4 S/F	0409.0	0409.0	1191.0	130.0			QL=4 ST=1 TYP=3	
8800	SVTO	4 S/F	0409.0	0409.0	1191.0	130.0			QL=2 ST=1 TYP=3	
2950	GORK	29 PBI	0412.0	0412.0	34.5	9.1				
31	127	TORN	43 NS	0855.0		245.0		4.0		V=0
	235	CUBA	44 NS	1310.0E		520.0D		5.0		
	280	CUBA	44 NS	1310.0E		520.0D		19.0		
	600	GORK	46 C	0421.8	0422.3	1.4	11.0			
	600	GORK	46 C	0421.8	0422.8		3.6			
	900	GORK	41 F	0439.1	0440.1	2.9	12.0			
	900	GORK	41 F	0439.1	0440.5		18.0			
	600	GORK	46 C	0439.9	0440.5	1.9	19.0			
	600	GORK	46 C	0439.9	0441.5		3.6			
	500	HIRA	8 S	0440.0	0441.0	1.0	10.0			0
	610	LEAR	8 S	0440.0	0440.0		42.0			QL=4 ST=2 TYP=3
	1415	LEAR	8 S	0440.0	0440.0		66.0			QL=4 ST=2 TYP=3
	1415	SVTO	8 S	0440.0	0440.0	1.0	64.0			QL=4 ST=2 TYP=3
	2950	GORK	7 C	0440.2	0440.5	1.6	4.3			
	2950	GORK	7 C	0440.2	0441.5		2.3			
	600	GORK	46 C	0716.3	0717.3	3.2	9.6			
	600	GORK	46 C	0716.3	0718.5		12.0			
900	GORK	40 F	0717.6	0717.8	1.1	13.0				
245	PALE	8 S	1706.0	1706.0	1.0	240.0			QL=4 ST=4 TYP=3	
245	PALE	8 S	1706.0	1706.0	1.0	240.0			QL=4 ST=2 TYP=3	

GOES X-RAY DETECTOR July 2003



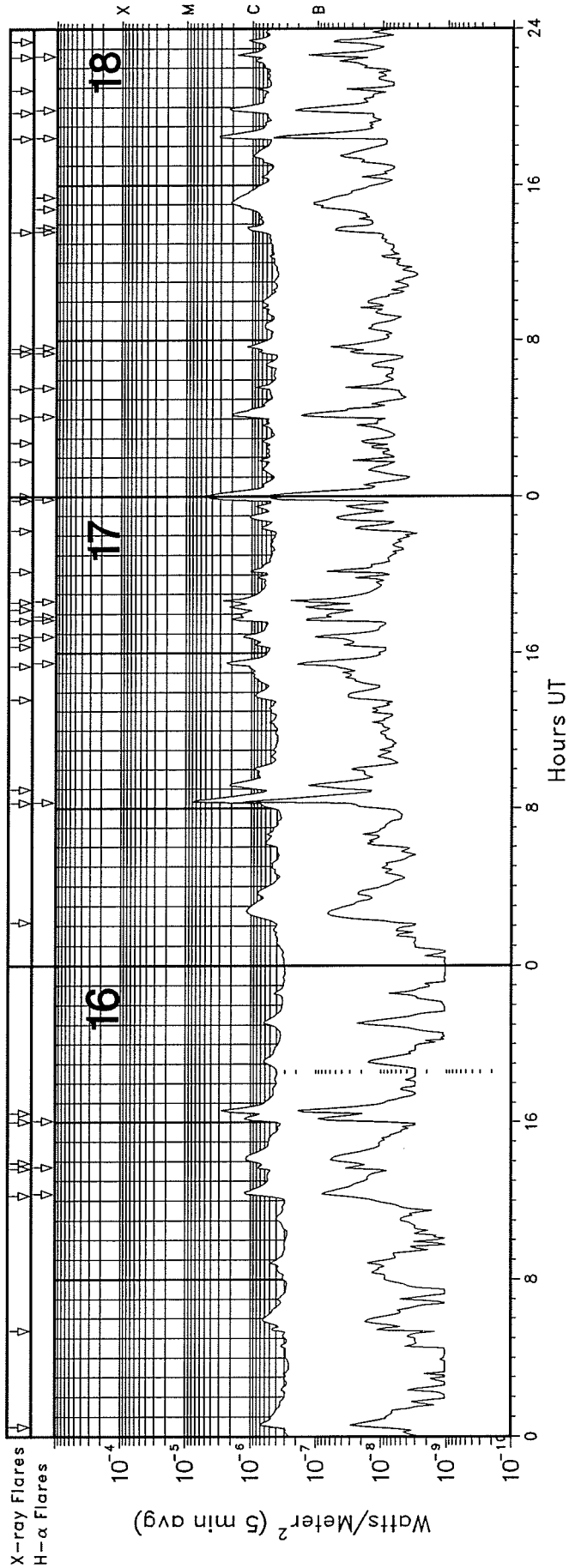
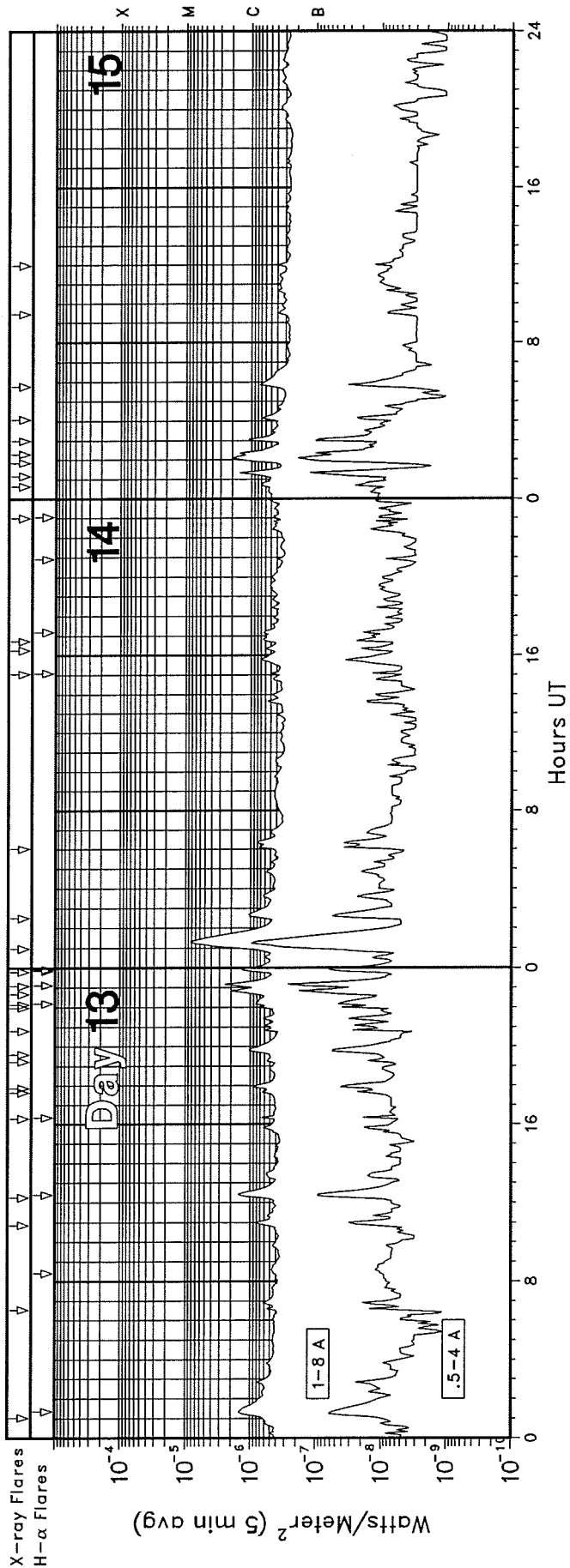
GOES X-RAY DETECTOR

July 2003



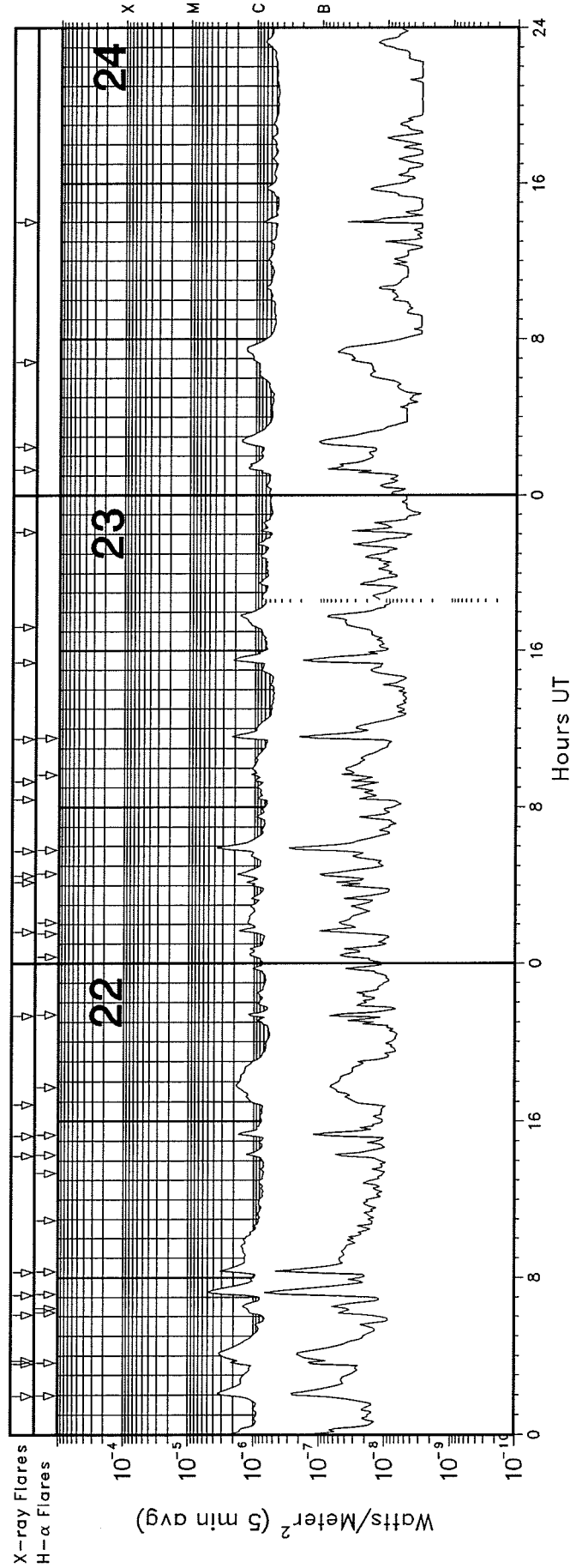
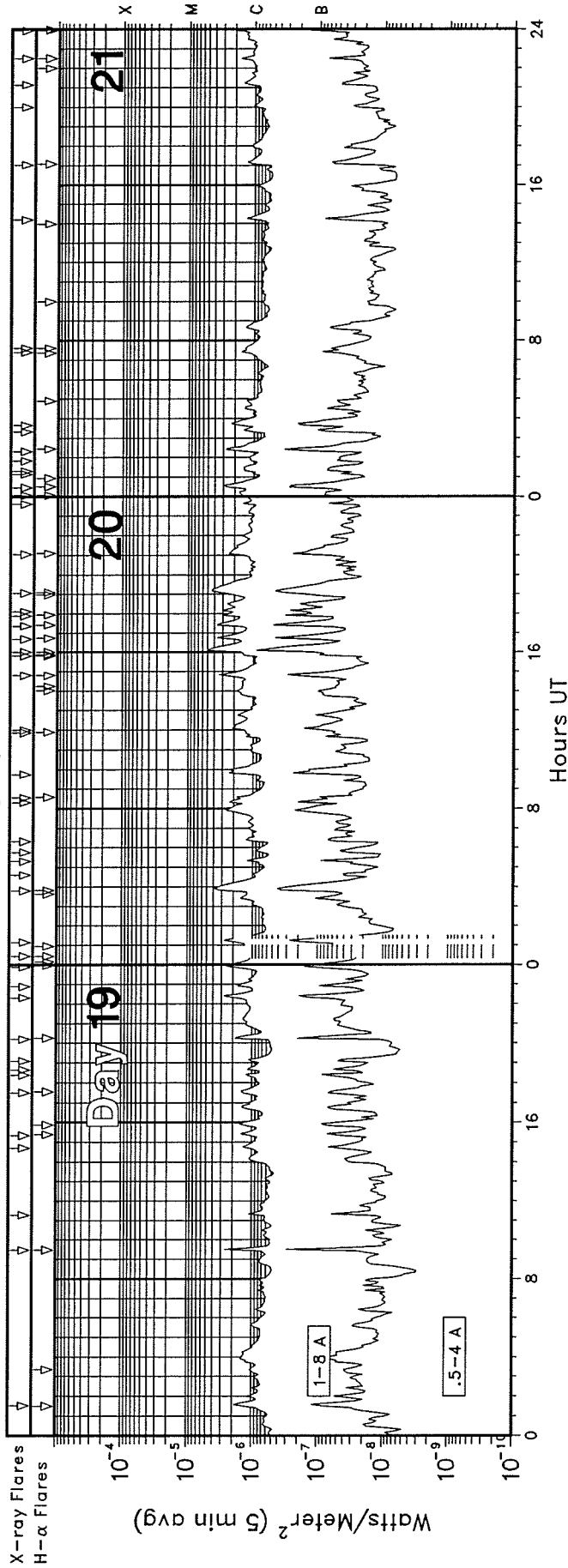
GOES X-RAY DETECTOR

July 2003



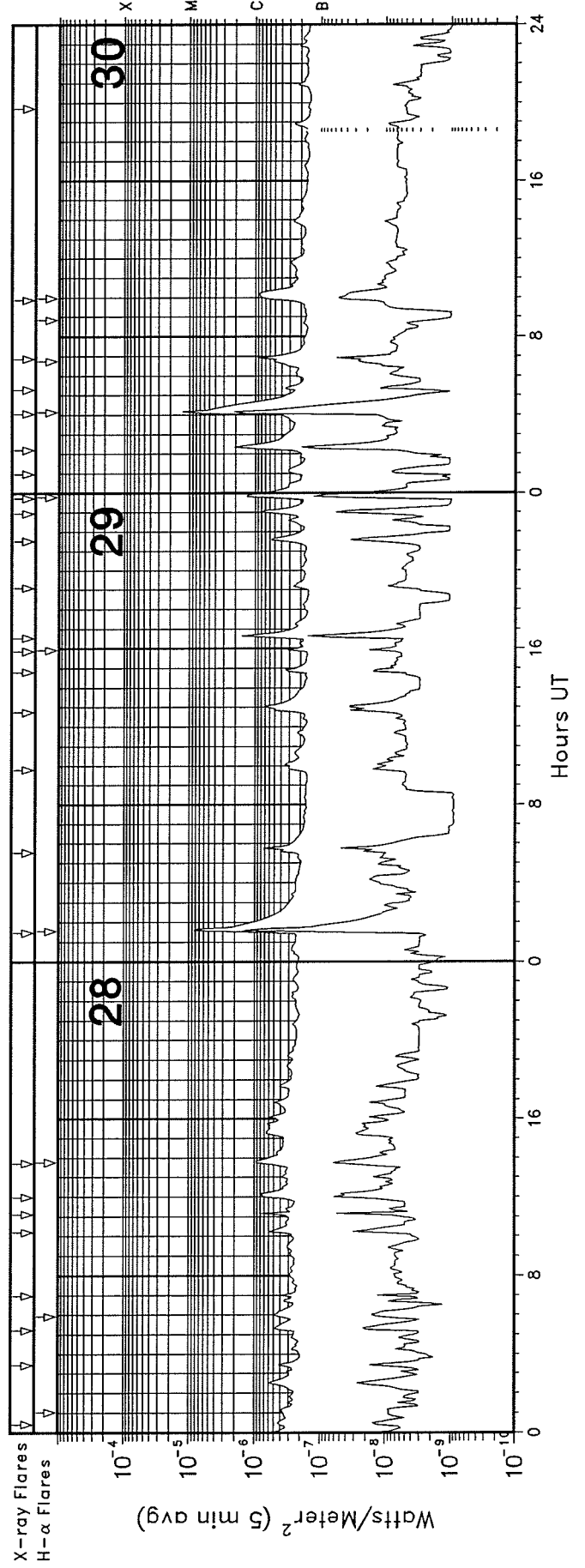
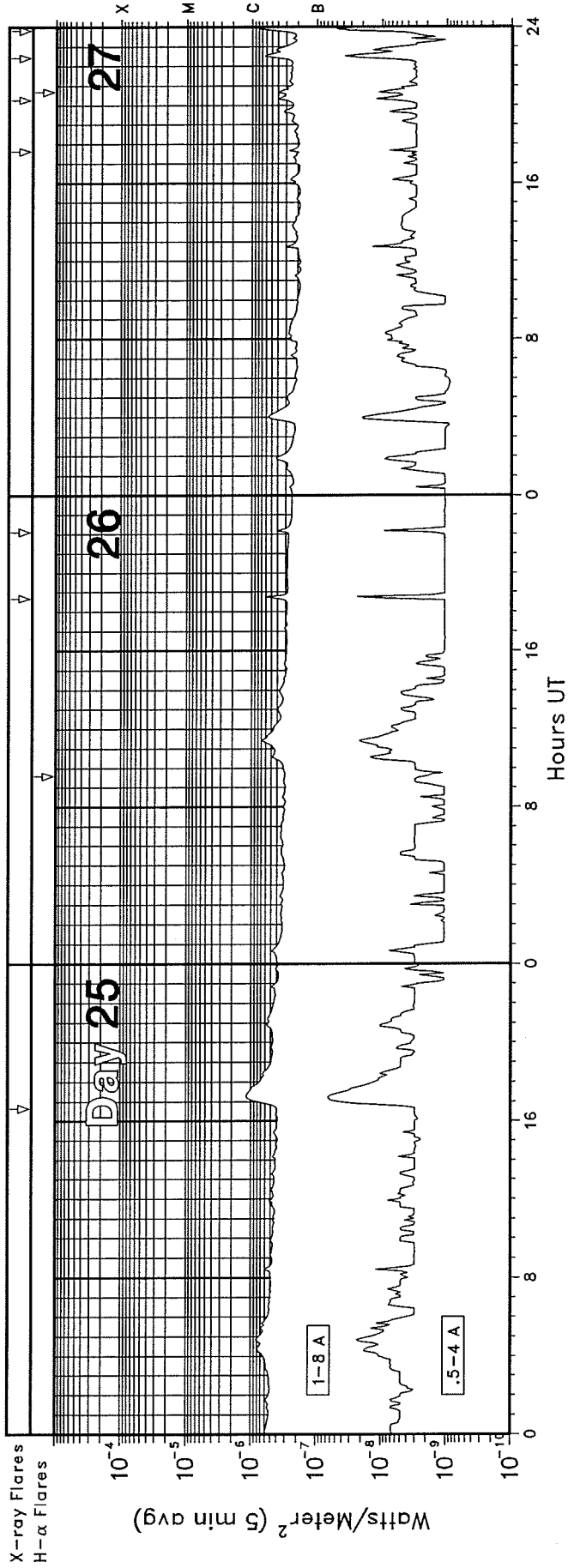
GOES X-RAY DETECTOR

July 2003



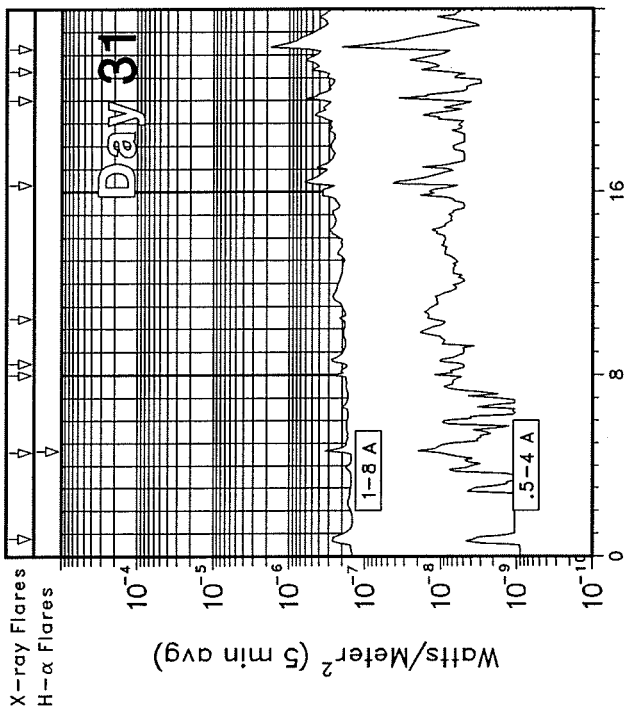
GOES X-RAY DETECTOR

July 2003



GOES X-RAY DETECTOR

July 2003



GOES SOLAR X-RAY FLARES
Preliminary Listing

July 2003

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/	Region	Flux	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/	Region	Flux
								USAF											USAF		
01	1314	1318	1320				B8.4			2.6E-04	08	0057	0103	0108				C2.1	10397		9.5E-04
01	1333	1343	1403	N09	E23	SF	C2.3	10397		3.3E-03	08	0224	0230	0236	N13	W66	SF	C2.3	10397		1.1E-03
01	1754	1802	1806				C1.4	10397		7.8E-04	08	0244	0251	0301				C1.5	10400		1.2E-03
01	1840	1902	1929				C1.1	10397		2.6E-03	08	0356	0408	0415				C2.0	10397		1.8E-03
01	2010	2029	2045				C1.0	10397		1.8E-03	08	0458	0501	0503				B7.7			1.9E-04
02	0133	0138	0142	N03	E72	SF	B8.0	10400		3.6E-04	08	0550	0602	0610	S11	W48	SF	B9.5	10402		9.9E-04
02	0246	0251	0305	N10	E35	SF	B7.2	10397		7.1E-04	08	0721	0730	0737	S11	W48	1F	C5.2	10402		3.1E-03
02	0309	0312	0316				B9.7			3.4E-04	08	1150	1157	1209				B9.3			9.2E-04
02	0706	0728	0746	N13	E25	1F	M3.0	10397		4.7E-02	08	1554	1557	1601	S13	W51	SF	B6.5	10402		2.4E-04
02	1202	1208	1218				C1.3			1.0E-03	08	1607	1626	1640	S12	W52	SF	C3.2	10402		4.6E-03
02	1537	1546	1552	N02	E62	SF	C1.6	10400		1.1E-03	08	1905	1908	1911				B8.2			2.6E-04
02	2206	2222	2240				C5.4	10400		7.2E-03	08	2112	2117	2126				B7.1	10400		5.3E-04
03	0106	0113	0117	N03	E58	SF	C1.2	10400		7.1E-04	08	2130	2135	2138				C1.0	10400		4.1E-04
03	0418	0423	0427	N14	E18	SF	B9.9	10397		4.4E-04	09	1439	1446	1538	S11	W68	SF	C2.4	10402		7.1E-03
03	0551	0602	0611	N13	E23	SF	C3.8	10397		3.2E-03	09	1624	1637	1651	N12	W82	SF	C5.8	10397		6.9E-03
03	1205	1212	1222	N15	E05	SF	C2.7	10397		2.1E-03	09	1912	1918	1921				C1.3	10397		6.7E-04
03	1228	1236	1244	N15	E11	SF	C2.8	10397		2.4E-03	09	1924	1930	1938				C1.8	10397		1.4E-03
03	1449	1458	1509	N04	E51	SF	C3.3	10400		3.3E-03	09	1942	1947	1950				C2.6	10397		9.3E-04
03	1723	1727	1733				B6.4	10397		3.4E-04	09	2011	2027	2033				C2.5	10397		2.3E-03
04	0116	0121	0128				C2.0			1.2E-03	09	2042	2050	2053				C5.4	10397		2.3E-03
04	0507	0513	0519				C1.9			1.1E-03	09	2159	2238	2245				M2.0	10397		1.4E-02
04	0602	0609	0613	N13	E05	SF	C1.4	10397		7.7E-04	10	0044	0051	0101				C2.8	10397		2.4E-03
04	0743	0746	0749	N09	W14	SF	C1.0	10397		2.7E-04	10	0225	0234	0246				C2.1	10397		2.2E-03
04	0945	0949	0953				C1.0			3.8E-04	10	0319	0342	0350	N06	W42	SF	C2.9	10400		3.4E-03
04	1127	1130	1136				B9.8			4.7E-04	10	0434	0441	0447				C3.1			2.0E-03
04	1139	1143	1156				C1.0			9.9E-04	10	0630	0645	0653				C5.2			4.6E-03
04	1223	1232	1239				C1.6			1.1E-03	10	0847	0854	0907				C1.3	10397		1.4E-03
04	1243	1256	1306	N14	W10	SF	C1.1	10397		1.8E-03	10	1133	1140	1146				C1.2	10397		8.8E-04
04	1420	1423	1427	N09	W16	SF	B8.1	10397		3.1E-04	10	1354	1412	1423				M3.6	10397		4.1E-02
04	1435	1455	1520	N05	E32	1F	C7.1	10400		1.5E-02	10	1625	1630	1640				C1.4	10397		1.1E-03
04	1733	1800	1831	N09	W19	SF	C3.8	10397		9.7E-03	10	2354	2357	2358	S10	E13	SF	B8.8	10401		1.9E-04
04	2118	2121	2124				B6.7			2.2E-04	11	0420	0427	0446				C1.9	10397		2.3E-03
04	2208	2213	2218				C1.2			5.9E-04	11	0636	0739	0838				C2.9	10401		1.5E-02
04	2340	2343	2345				B6.6			1.6E-04	11	1032	1039	1042	N16	W90	SF	C1.1	10397		5.7E-04
05	0327	0331	0337				C1.0	10397		5.4E-04	11	1147	1214	1251				C1.5	10397		4.4E-03
05	0539	0544	0548				C1.0	10397		4.7E-04	12	0242	0248	0259				C3.1			2.6E-03
05	0550	0553	0555				C1.1	10397		3.0E-04	12	0626	0630	0634				C2.9			1.0E-03
05	0907	0915	0927	N13	W17	SF	C2.3	10397		2.0E-03	12	0949	0957	1002				C1.9			1.2E-03
05	1236	1245	1255	N13	W20	SF	C2.5	10397		2.3E-03	12	1319	1322	1326				C1.4			5.0E-04
05	1655	1702	1718	N14	W22	SF	C3.9	10397		3.8E-03	12	1341	1344	1346				C1.2			3.0E-04
05	1935	1946	2044	N11	W26	SF	C4.4	10397		1.4E-02	12	1424	1428	1431				C1.5			5.3E-04
05	2330	2335	2338	N05	E20	SF	C1.7	10400		5.4E-04	12	1612	1616	1624	N16	E90	SF	C2.9			1.5E-03
06	0006	0032	0040	N04	E18	SF	M2.3	10400		1.7E-02	12	1857	1906	1913	N16	E79	SF	M1.4			8.2E-03
06	0405	0408	0410				C1.0	10400		2.7E-04	12	2042	2050	2058	N15	E91	SF	C4.6			3.1E-03
06	0431	0440	0449	N12	W30	SF	C4.4	10397		3.1E-03	12	2238	2242	2247				C1.0			4.6E-04
06	1033	1039	1044				B8.9	10397		4.8E-04	13	0102	0120	0142	S11	W01	SF	C1.4	10404		2.8E-03
06	1801	1808	1817	N15	W31	SF	C1.2	10397		9.2E-04	13	0633	0636	0640				B5.8	10409		2.2E-04
06	1828	1835	1843	N15	W32	SF	C2.3	10397		1.6E-03	13	1052	1100	1103				C1.0	10409		4.9E-04
06	1904	1908	1912				B6.6			2.9E-04	13	1215	1226	1236				C1.5	10409		1.5E-03
06	1959	2004	2009	N12	W35	SF	C1.3	10397		5.6E-04	13	1617	1621	1624	N16	E68	SF	B7.8	10409		2.5E-04
06	2032	2042	2105	N17	W31	SF	B9.0	10397		1.4E-03	13	1738	1741	1745				B7.0			2.7E-04
07	1127	1130	1133				B5.7	10397		1.7E-04	13	1752	1756	1805				B9.0			6.3E-04
07	1424	1433	1454				B8.7	10397		1.3E-03	13	1914	1918	1923				B5.9			2.9E-04
07	1742	1746	1749				B6.2	10397		2.1E-04	13	1936	1950	2000				C1.1	10409		1.2E-03
07	1852	1914	1936	N16	W42	SF	C2.3	10397		4.2E-03	13	2048	2051	2053				B7.8			1.7E-04
07	2102	2105	2108				B9.4	10400		2.9E-04	13	2159	2203	2206				B8.6			2.9E-04
											13	2208	2212	2221	N15	E75	SF	B9.0	10409		6.1E-04

GOES SOLAR X-RAY FLARES
 Preliminary Listing

37
 Jul 03

July 2003

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/USAF	
								Region	Flux
13	2240	2252	2256				C2.2	10409	1.4E-03
13	2305	2310	2314	N16	E73	SF	C2.9	10409	1.1E-03
13	2348	2401U	2404	N14	E22	SF	C1.4	10408	1.1E-03
14	0058	0120	0134				C8.7	10409	1.1E-02
14	0230	0240	0253				C1.0	10409	1.3E-03
14	0602	0608	0615				B7.8	10409	5.2E-04
14	1503	1506	1509	N18	E56	SF	B5.5	10409	1.7E-04
14	1616	1620	1625				B6.3	10409	3.1E-04
14	1644	1649	1657				B7.3		4.8E-04
14	2301	2304	2306	N16	E63	SF	B6.3	10409	1.5E-04
15	0038	0042	0053				B7.6		6.1E-04
15	0110	0122	0126				C1.6	10409	1.0E-03
15	0151	0207	0218				C2.0	10409	2.2E-03
15	0218	0221	0224				C1.6	10409	5.2E-04
15	0259	0304	0308				C1.6	10409	5.6E-04
15	0405	0410	0418				B6.9		4.8E-04
15	0546	0553	0605				B7.6		7.6E-04
15	0927	0930	0941				B3.9		3.1E-04
15	1159	1202	1205				B4.4		1.4E-04
16	0029	0039	0053				B7.0		8.4E-04
16	0523	0530	0534				B5.4		2.9E-04
16	1215	1223	1236	S15	E29	SF	C1.3	10410	1.3E-03
16	1338	1343	1353	S11	E31	SF	B8.1	10410	6.5E-04
16	1355	1408	1425				C1.2	10406	1.8E-03
16	1601	1610	1624	S11	E30	SF	C1.2	10410	1.3E-03
16	1628	1635	1642				C2.9	10410	1.8E-03
17	0211	0246	0308				C1.1		3.0E-03
17	0817	0823	0829	N15	E21	1N	C9.8	10412	4.5E-03
17	0858	0914	0923				C2.3	10410	2.4E-03
17	1338	1350	1407				B8.8		1.3E-03
17	1521	1529	1537	S14	E15	SF	C2.6	10410	1.9E-03
17	1620	1628	1635				B9.1		7.2E-04
17	1649	1654	1658	S12	E18	SF	C1.4	10410	7.2E-04
17	1739	1744	1748	S12	E18	SF	C2.8	10410	9.9E-04
17	1814	1822	1829	N16	E10	SF	C2.2	10412	1.6E-03
17	1836	1840	1843	S12	E17	SF	C3.8	10410	1.1E-03
17	2010	2013	2017				C1.3		4.6E-04
17	2215	2224	2230				B8.2		5.9E-04
17	2348	2356	2401	S11	E13	1N	C5.1	10410	2.5E-03
18	0002	0005	0010	S10	E15	SF	C5.4	10410	2.1E-03
18	0148	0152	0155				B9.2		3.0E-04
18	0246	0251	0258				B7.2		4.8E-04
18	0404	0419	0426	S11	E11	SF	C2.0	10410	2.1E-03
18	0533	0537	0541	N14	E02	SF	B9.9	10412	3.9E-04
18	0721	0725	0734	S11	E09	SF	B8.0	10410	5.7E-04
18	0735	0742	0748	S12	E09	SF	C1.2	10410	8.0E-04
18	1335	1350	1354				C1.3	10412	1.2E-03
18	1823	1828	1835	S12	E04	SF	C4.8	10410	2.1E-03
18	1943	1954	2003	N14	W06	SF	C2.4	10412	2.0E-03
18	2052	2055	2058				B9.8		3.0E-04
18	2233	2243	2247	N16	W05	SF	C1.8	10412	1.1E-03
18	2321	2324	2328				C1.4		4.9E-04
19	0131	0136	0142	N14	W09	SF	C1.8	10412	1.1E-03
19	0928	0931	0933	S12	W06	1F	C3.4	10410	7.2E-04
19	1117	1123	1127				C1.1		5.7E-04
19	1442	1446	1452				C1.4		7.6E-04
19	1520	1525	1532	S14	W07	SF	C1.4	10410	9.2E-04
19	1730	1734	1738	N13	E33	SF	C1.7	10415	7.1E-04
19	1823	1826	1828				C1.3		3.6E-04
19	1839	1842	1849				C1.2		6.6E-04
19	1906	1909	1912				C1.3		4.3E-04
19	2012	2018	2022	S11	W13	SF	C2.4	10410	9.3E-04
19	2219	2225	2230				C3.0		1.5E-03
19	2253	2258	2304				C1.7		1.0E-03
19	2353	2401U	2405	N12	E30	SF	C2.7	10415	1.7E-03
20	0026	0030	0034	S11	W13	SF	C1.8	10410	7.7E-04
20	0109	0115	0122	S11	W13	SF	C2.8	10410	1.8E-03
20	0348	0356	0410	S12	W15	SF	C3.9	10410	4.2E-03
20	0436	0439	0443				C1.1		4.2E-04
20	0518	0523	0526				C1.2		5.4E-04
20	0546	0550	0602				B9.0		7.9E-04
20	0619	0625	0635				C1.4		1.1E-03
20	0819	0823	0828				C2.5		1.2E-03
20	0833	0836	0838	S22	W27	SF	C2.0	10417	5.7E-04
20	0945	1002	1008				C2.4		2.6E-03
20	1152	1155	1157				C1.7		4.4E-04
20	1200	1206	1223				C2.1		2.5E-03
20	1448	1452	1454	S12	W22	SF	C3.7	10410	1.1E-03
20	1549	1554	1557	S12	W33	SF	C1.8	10410	7.0E-04
20	1601	1608	1619	S11	W22	SF	C5.6	10410	4.3E-03
20	1641	1647	1653	S12	W23	SF	C3.7	10410	2.1E-03
20	1722	1726	1736	S11	W22	SF	C3.9	10410	2.5E-03
20	1753	1758	1801	S11	W24	SF	C3.6	10410	1.3E-03
20	1806	1811	1817				C3.1		1.8E-03
20	1904	1911	1925	S11	W24	SF	C4.4	10410	4.9E-03
20	2103	2108	2114	S11	W27	SF	C2.7	10410	1.5E-03
20	2337	2341	2344				C1.6		5.6E-04
21	0004	0008	0021	S22	W37	SF	C1.8	10417	1.7E-03
21	0028	0035	0041	S11	W27	SF	C3.2	10410	2.0E-03
21	0109	0112	0115				C1.2		3.9E-04
21	0118	0124	0137				C1.5		1.6E-03
21	0150	0155	0158				C1.3		5.6E-04
21	0219	0228	0234	S12	W30	SF	C3.3	10410	2.0E-03
21	0319	0328	0336				C1.4		1.3E-03
21	0339	0347	0353				C2.3		1.6E-03
21	0724	0727	0731	S12	W31	SF	C1.7	10410	6.5E-04
21	0736	0739	0741				C1.7		4.4E-04
21	1411	1417	1424				C1.3		8.9E-04
21	1702	1709	1729	S21	W43	SF	C1.3	10417	1.7E-03
21	2000	2003	2013				C1.1		7.7E-04
21	2109	2115	2125				C1.5		1.3E-03
21	2230	2233	2235	N15	W37	SF	C2.0	10409	5.0E-04
21	2356	2402	2407	S21	W49	SF	C2.8	10417	1.5E-03
22	0157	0206	0218	N17	W54	SF	C3.5	10412	3.7E-03
22	0335	0340	0343	S22	W52	SF	C2.8	10417	9.9E-04
22	0345	0410	0420				C3.5		5.6E-03
22	0605	0632	0649				C1.5	10417	3.1E-03
22	0706	0718	0730	S21	W53	1F	C5.2	10417	5.1E-03
22	0816	0820	0830	S21	W54	SF	C3.6	10417	2.2E-03
22	1415	1420	1426	S22	W58	SF	C1.3	10417	7.5E-04
22	1515	1523	1530	S22	W58	SF	C1.7	10417	1.3E-03
22	1650	1750	1834	N21	W46	SF	C1.8	10409	8.8E-03
22	2119	2124	2128	S21	W63	SF	C1.5	10417	6.3E-04
23	0137	0142	0147	S21	W65	SF	C1.8	10417	9.1E-04
23	0409	0413	0416				C1.5	10409	5.4E-04
23	0430	0435	0441	S21	W66	SF	C1.9	10417	1.1E-03

GOES SOLAR X-RAY FLARES
Preliminary Listing

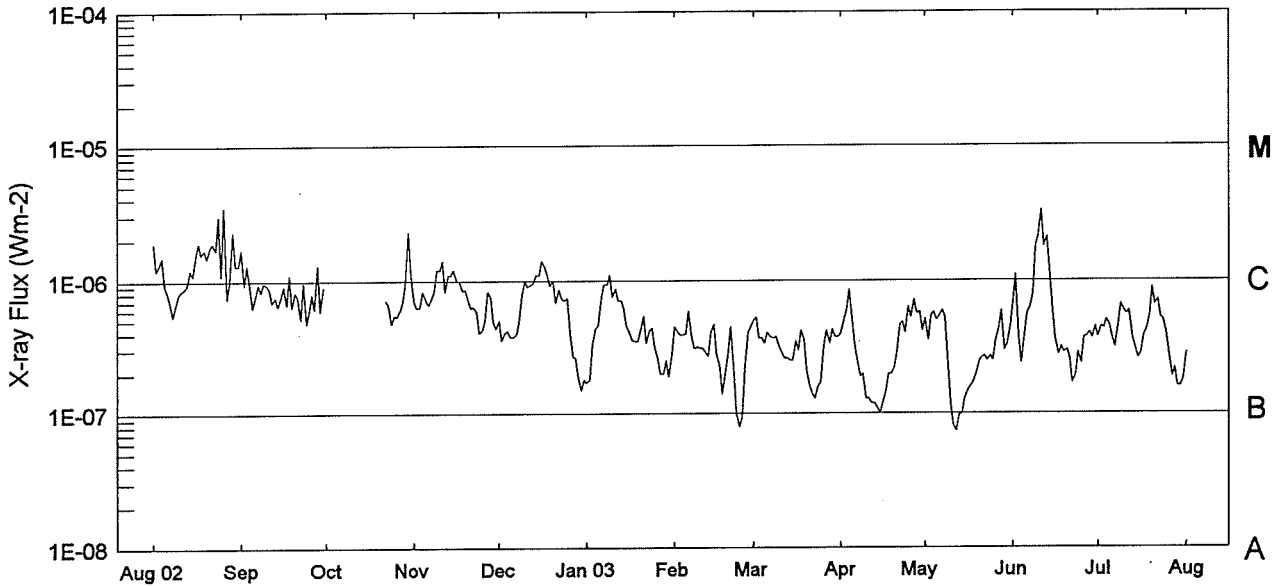
July 2003

Start Day (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/ USAF Region	Flux
23	0546	0557	0603	S19	W70	1F	C3.9 10417	2.8E-03
23	0824	0828	0835				B9.7 10412	5.7E-04
23	0919	0923	0928				C1.0 10419	5.2E-04
23	1128	1137	1146	S19	W73	SF	C2.3 10417	1.9E-03
23	1524	1530	1544				C2.2 10417	2.1E-03
23	1714	1749	1806				C1.8 10417	4.0E-03
23	2207	2211	2218				B8.9 10417	5.1E-04
24	0119	0123	0140				C1.4	1.5E-03
24	0229	0249	0305				C1.6 10417	2.8E-03
24	0649	0734	0743				C1.4 10417	3.9E-03
24	1400	1403	1405				C1.2	2.7E-04
25	1639	1719	1802				C1.1	4.3E-03
26	1841	1846	1849				B7.1 10421	2.6E-04
26	2207	2211	2215				B4.4 10414	1.8E-04
27	1738	1742	1746				B2.8 10409	1.2E-04
27	2017	2020	2023				B4.5 10422	1.3E-04
27	2225	2232	2241				B6.7 10421	5.4E-04
27	2350	2356	2403				B8.1 10422	5.0E-04
28	0025	0028	0039				B4.6 10422	3.6E-04
28	0325	0328	0331				B5.1 10422	1.5E-04
28	0513	0520	0535				B4.9 10421	5.6E-04
28	0658	0702	0704				B4.5 10422	1.3E-04
28	1012	1016	1026				B6.2 10422	4.2E-04
28	1107	1112	1114				C1.2 10421	2.8E-04
28	1159	1203	1216				B9.2 10422	7.6E-04
28	1343	1349	1357	N13	W33	SF	C1.0 10422	7.3E-04

Start Day (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/ USAF Region	Flux
29	0128	0139	0143	S13	E72	1F	M1.3 10421	4.7E-03
29	0532	0548	0550				C1.0 10421	5.1E-04
29	0948	1009	1014				B3.7 10422	4.8E-04
29	1245	1304	1312				B8.0 10422	8.6E-04
29	1449	1454	1459				B4.0 10421	1.9E-04
29	1552	1556	1600	S10	E63	SF	B3.7 10421	1.3E-04
29	1633	1641	1646				C1.7 10422	7.8E-04
29	1906	1910	1920				B2.7 10422	2.0E-04
29	2132	2138	2144				B6.1 10422	3.7E-04
29	2257	2303	2309				B9.0 10422	5.1E-04
29	2344	2354	2403	N15	W55	SF	C1.4 10422	1.1E-03
30	0059	0108	0122				B3.1 10422	4.0E-04
30	0212	0220	0229				C2.2 10422	1.4E-03
30	0404	0410	0412	N14	W55	1B	M2.5 10422	4.9E-03
30	0517	0520	0530				B3.4 10422	2.5E-04
30	0652	0656	0700				B9.5 10422	3.7E-04
30	0952	1014	1024				B9.1 10421	1.4E-03
30	1943	1947	1950				B1.5	6.5E-05
31	0046	0049	0052				B2.7	9.5E-05
31	0436	0441	0446	N13	W67	SF	B3.6 10422	1.6E-04
31	0759	0803	0805				B3.0 10422	9.5E-05
31	0830	0840	0845				B2.9	2.2E-04
31	1027	1029	1030				B2.7	3.9E-05
31	1618	1624	1638				B6.8	6.3E-04
31	2001	2007	2011				B6.5	3.1E-04
31	2117	2123	2129				B5.4	3.4E-04
31	2216	2221	2230				C1.9 10423	1.1E-03

Preliminary GOES Satellite Daily X-Ray Background Aug 2002 - Jul 2003

39
Jul 03



Day	Aug 02	Sep	Oct	Nov	Dec	Jan 03	Feb	Mar	Apr	May	Jun	Jul
1	C1.9	C1.7	*	B7.0	B5.0	B1.7	B4.5	B5.1	B4.0	B5.2	B6.8	B3.8
2	C1.2	B9.4	*	B6.3	B3.6	B1.8	B4.2	B5.3	B5.1	B3.6	C1.1	B4.5
3	C1.3	C1.3	*	B6.4	B4.1	B3.3	B3.9	B3.7	B5.9	B5.4	B3.8	B4.4
4	C1.5	B9.7	*	B8.3	B4.2	B4.4	B3.9	B3.7	B8.6	B5.8	B2.4	B5.1
5	B9.5	B6.4	*	B7.3	B3.8	B4.6	B4.0	B3.4	B5.1	B5.1	B3.6	B4.6
6	B8.0	B7.5	*	B6.7	B3.8	B7.4	B5.9	B4.1	B3.3	B5.4	B5.7	B3.7
7	B6.8	B9.4	*	B7.2	B4.0	B9.3	B3.8	B3.8	B2.5	B6.0	B6.2	B3.2
8	B5.5	B8.3	*	B8.4	B5.0	B9.4	B3.1	B3.7	B1.9	B5.3	B7.9	B4.6
9	B6.8	B9.6	*	C1.2	B7.7	C1.1	B3.2	B3.8	B2.0	B2.7	C1.8	B6.7
10	B8.0	B9.3	*	C1.2	C1.0	B7.6	B3.1	B3.3	B1.3	B1.2	C2.1	B5.9
11	B8.5	B8.7	*	C1.4	B9.1	B8.7	B3.1	B2.9	B1.3	A8.2	C3.3	B5.6
12	B8.9	B7.0	*	B8.3	B9.4	B7.1	B2.9	B2.6	B1.2	A7.4	C1.8	B5.9
13	B9.3	B7.5	*	C1.1	B9.7	B7.1	B2.7	B2.6	B1.2	A9.7	C2.1	B3.8
14	C1.2	B6.5	*	C1.1	C1.1	B6.2	B4.1	B2.5	B1.1	B1.0	C1.2	B3.2
15	C1.1	B7.7	*	C1.2	C1.1	B4.6	B4.7	B2.5	B1.0	B1.3	B5.8	B2.6
16	C1.6	B9.0	*	C1.0	C1.4	B4.1	B2.8	B3.5	B1.2	B1.5	B3.6	B2.8
17	C1.9	B6.7	*	C1.0	C1.3	B3.6	B2.3	B3.0	B1.5	B1.6	B2.8	B3.9
18	C1.6	C1.1	*	B8.5	C1.1	B3.5	B1.4	B4.2	B2.0	B1.7	B3.2	B4.2
19	C1.7	B6.4	*	B8.6	B9.2	B3.5	B1.9	B3.6	B2.0	B2.0	B2.9	B5.4
20	C1.5	B8.2	*	B7.1	C1.0	B4.2	B2.8	B2.1	B2.2	B2.4	B3.0	B8.9
21	C1.8	B7.6	*	B6.3	B6.9	B5.4	B4.5	B1.6	B2.9	B2.6	B2.6	B6.6
22	C1.9	B5.2	B7.1	B6.4	B8.6	B3.4	B2.2	B1.4	B4.7	B2.7	B1.7	B7.2
23	C1.7	B9.7	B6.7	B5.9	B7.4	B4.2	B1.0	B1.3	B4.9	B2.5	B1.9	B5.3
24	C3.0	B4.8	B4.8	B4.1	B7.1	B4.4	A8.0	B1.6	B4.1	B2.7	B2.9	B5.1
25	C1.1	B6.0	B5.5	B4.3	B7.4	B3.2	A9.4	B1.7	B6.4	B2.5	B2.4	B4.0
26	C3.5	B7.9	B5.4	B5.1	B4.2	B2.6	B2.2	B3.3	B5.3	B3.5	B3.7	B2.8
27	B7.4	B6.2	B6.0	B8.3	B2.7	B2.0	B4.1	B4.2	B7.2	B4.3	B3.8	B1.9
28	C1.0	C1.3	B6.9	B7.6	B2.6	B2.0	B4.5	B3.4	B5.7	B5.9	B4.1	B2.2
29	C2.3	B6.0	B9.4	B4.9	B1.9	B2.5		B4.3	B5.8	B3.0	B3.7	B1.6
30	C1.3	B9.0	C2.3	B4.4	B1.5	B1.9		B3.8	B4.2	B3.3	B4.5	B1.6
31	C1.3		C1.1		B1.8	B2.8		B3.8		B4.5		B1.8

NOTE: * = Data not available.

ACTIVE PROMINENCES AND FILAMENTS

JULY 2003

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
06	DSF	2350	0019	N12	W03	07	6.8		10	0	0	E	HOLL		
07	DSF	0051U	1357U	S36	E67	07	12.4		24	0	0	E	HOLL		
07	DSF	0645	0955U	S30	E45	07	10.8		19	0	0	E	SVTO		
08	DSF	0119U	1312U	N23	E30	07	10.4		10	0	0	E	HOLL		
08	DSF	0119U	1312U	N30	W22	07	6.3		23	0	0	E	HOLL		
08	DSF	1500	1553	N38	W38	07	5.5		21	0	0	E	HOLL		
11	DSF	1639U	0522U	S05	W26	07	9.7		25	0	0	E	SVTO		
11	DSF	1806U	2140U	N06	W29	07	9.6		12	0	0	E	HOLL		
12	BSL	0002	0032	N01	W72	07	6.6			8	6	E	LEAR	0400	
12	DSF	1744U	0422U	N20	W17	07	11.4		21	0	0	E	SVTO		
12	DSF	1744U	0422U	S01	W43	07	9.5		12	0	0	E	SVTO		
12	DSF	2033U	1315U	N32	W17	07	11.5		24	0	0	E	HOLL		
12	DSF	2214U	1315U	S37	W17	07	11.5		20	0	0	E	HOLL		
13	DSF	0029U	1442U	N26	W08	07	12.4		13	0	0	E	HOLL		
15	DSF	1046	1211	N41	E11	07	16.3		07	0	0	E	SVTO		
15	DSF	2306U	1317U	N35	E20	07	17.6		18	0	0	E	HOLL		
16	DSF	0106U	1323U	N44	E25	07	18.1		10	0	0	E	HOLL		
19	DSF	2257U	1420U	S22	E10	07	20.7		13	0	0	E	HOLL		
20	DSF	2217U	1402U	S23	W14	07	19.8		12	0	0	E	HOLL		
21	DSF	0115U	1316U	N00	W02	07	20.9		16	0	0	E	HOLL		
21	DSF	0703	0929	N02	W01	07	21.2	2	16	0	0	E	SVTO		
22	DSF	1702U	0521U	N41	W32	07	20.1		13	0	0	E	SVTO		
24	APR	0930	1005	S16	E90	07	31.2	1	08	9	9	V	KHAR		
26	BSL	0750	0805	S10	W90	07	19.5	1	02	9	9	V	KHAR		
26	BSL	0930	0941	S10	W90	07	19.6	1	02	9	9	V	KHAR		
26	BSL	0935	1004D	N08	E90	08	2.2	2	15	9	9	V	KHAR		
27	DSF	0022U	1334U	S15	W17	07	25.7		14	0	0	E	HOLL		
30	DSD	0850E	0858	S02	E46	08	2.9	1	03	9	5	V	KHAR		
30	DSD	0940	0958	N13	W60	07	25.9	1	03	9		V	KHAR		
30	ADF	0950	1012D	S01	E59	08	3.9	2	07	9	9	V	KHAR		

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.

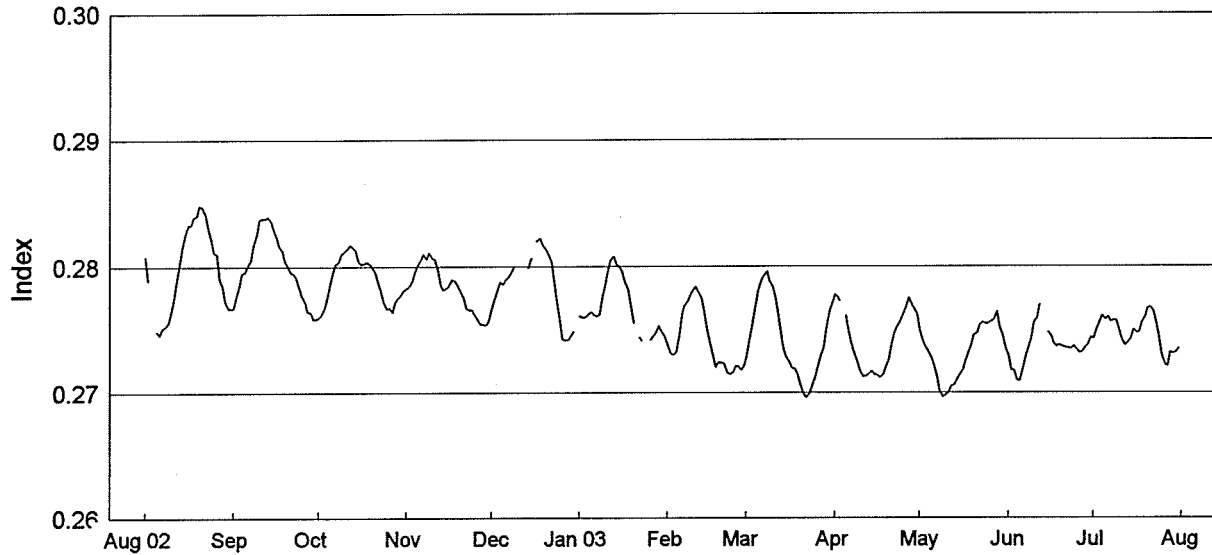
ABST = Abastumani HOLL = Holloman RAMY = Ramey
 ATHN = Athens KHAR = Kharkov SVTO = San Vito
 BUCA = Bucharest LEAR = Learmonth VORO = Voroshilov
 CATA = Catania PALE = Palehua VALA = Valasske Mezirici
 WROC = Wroclaw

NOTE: The U.S. Air Force solar observing sites (HOLL, LEAR, 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

Aug 2002 - Jul 2003

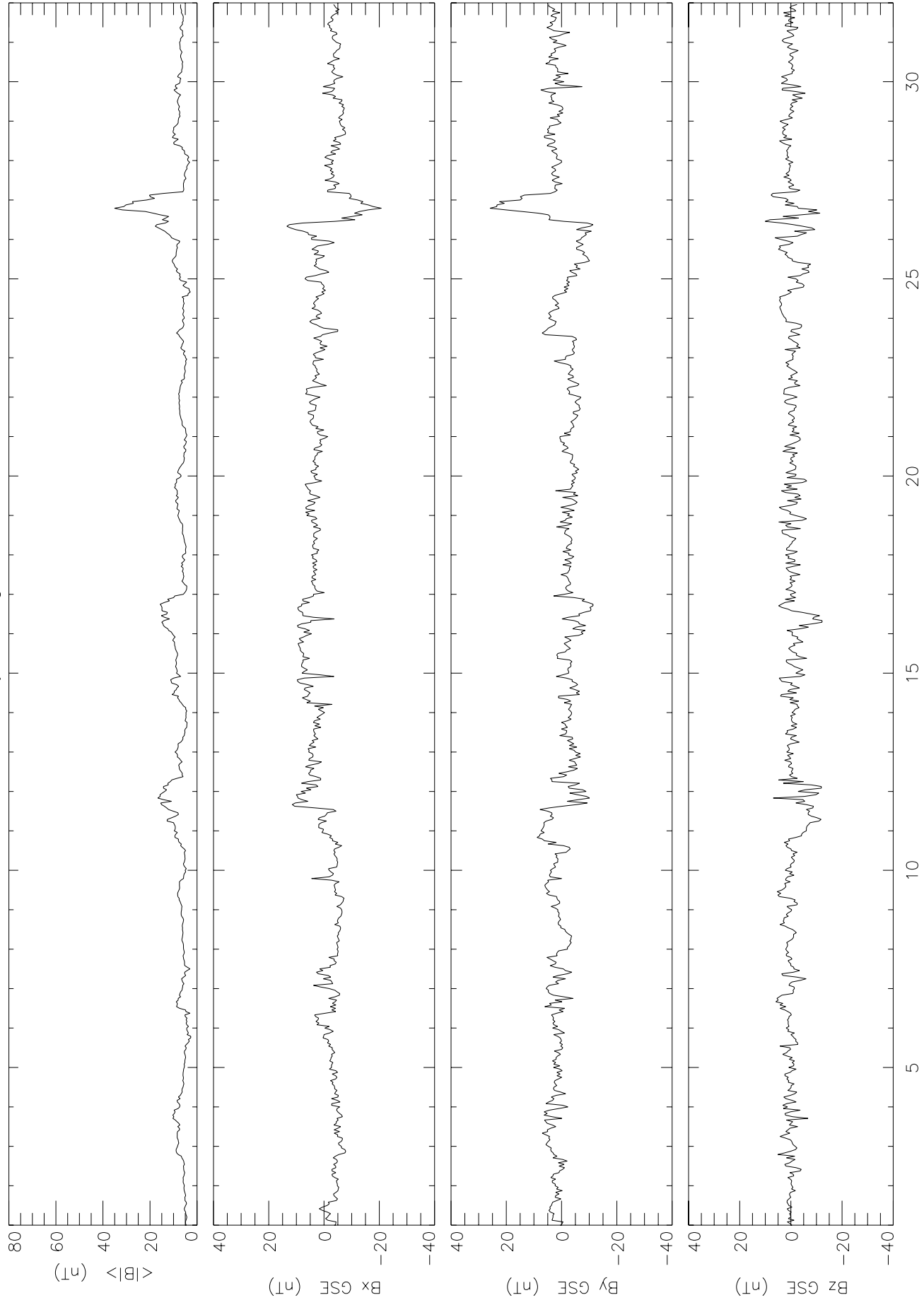
Version 9.1



Day	Aug 02	Sep	Oct	Nov	Dec	Jan 03	Feb	Mar	Apr	May	Jun	Jul
1	0.2808	0.2768	0.2760	0.2783	0.2767	0.2761	0.2738	0.2728	0.2778	0.2749	0.2729	0.2743
2	0.2789	0.2778	0.2762	0.2785	0.2774	0.2760	0.2732	0.2743	0.2776	0.2741	0.2718	0.2751
3	---	0.2785	0.2767	0.2789	0.2782	0.2760	0.2730	0.2754	0.2772	0.2736	0.2718	0.2756
4	---	0.2795	0.2775	0.2796	0.2788	0.2762	0.2732	0.2769	---	0.2733	0.2710	0.2761
5	0.2749	0.2796	0.2785	0.2802	0.2786	0.2764	0.2745	0.2781	0.2761	0.2728	0.2709	0.2758
6	0.2746	0.2801	0.2796	0.2805	0.2790	0.2762	0.2761	0.2789	0.2747	0.2722	0.2717	0.2760
7	0.2752	0.2805	0.2802	0.2810	0.2792	0.2761	0.2769	0.2793	0.2738	0.2713	0.2728	0.2757
8	0.2753	0.2817	0.2804	0.2806	0.2795	0.2762	0.2772	0.2796	0.2730	0.2701	0.2735	0.2758
9	0.2756	0.2825	0.2810	0.2811	0.2800	0.2775	0.2777	0.2788	0.2724	0.2697	0.2743	0.2758
10	0.2764	0.2837	0.2812	0.2807	---	0.2784	0.2781	0.2784	0.2716	0.2698	0.2756	0.2749
11	0.2774	0.2838	0.2814	0.2806	---	0.2797	0.2784	0.2776	0.2713	0.2700	0.2759	0.2742
12	0.2791	0.2838	0.2817	0.2797	0.2785	0.2805	0.2780	0.2763	0.2713	0.2705	0.2770	0.2738
13	0.2802	0.2839	0.2815	0.2786	---	0.2808	0.2775	0.2746	0.2715	0.2706	---	0.2740
14	0.2817	0.2836	0.2813	0.2782	0.2799	0.2802	0.2765	0.2734	0.2717	0.2710	---	0.2743
15	0.2826	0.2830	0.2804	0.2783	0.2807	0.2800	0.2749	0.2728	0.2715	0.2714	0.2748	0.2750
16	0.2833	0.2823	0.2802	0.2785	---	0.2796	0.2740	0.2724	0.2714	0.2718	0.2745	0.2747
17	0.2833	0.2816	0.2803	0.2790	0.2820	0.2788	0.2729	0.2720	0.2712	0.2725	0.2739	0.2748
18	0.2839	0.2813	0.2804	0.2789	0.2822	0.2782	0.2720	0.2719	0.2714	0.2731	0.2737	0.2756
19	0.2840	0.2804	0.2805	0.2785	0.2817	0.2771	0.2724	0.2714	0.2720	0.2738	0.2738	0.2760
20	0.2848	0.2801	0.2806	0.2781	0.2814	0.2755	0.2724	0.2705	0.2726	0.2746	0.2737	0.2767
21	0.2847	0.2796	0.2796	0.2775	0.2810	---	0.2723	0.2699	0.2738	0.2747	0.2736	0.2768
22	0.2842	0.2795	0.2787	0.2768	0.2804	0.2744	0.2716	0.2696	0.2748	0.2754	0.2736	0.2765
23	0.2832	0.2792	0.2781	0.2766	0.2789	0.2741	0.2715	0.2699	0.2753	0.2756	0.2735	0.2757
24	0.2822	0.2784	0.2773	0.2766	0.2774	---	0.2716	0.2705	0.2756	0.2755	0.2737	0.2743
25	0.2812	0.2777	0.2767	0.2762	0.2758	---	0.2721	0.2712	0.2762	0.2755	0.2734	0.2729
26	0.2810	0.2773	0.2768	0.2759	0.2743	0.2742	0.2721	0.2721	0.2767	0.2757	0.2732	0.2723
27	0.2791	0.2765	0.2764	0.2755	0.2742	0.2745	0.2718	0.2730	0.2775	0.2758	0.2732	0.2721
28	0.2784	0.2764	0.2772	0.2755	0.2742	0.2748	0.2721	0.2736	0.2770	0.2764	0.2736	0.2732
29	0.2772	0.2759	0.2776	0.2754	0.2745	0.2753		0.2754	0.2766	0.2752	0.2738	0.2732
30	0.2768	0.2759	0.2778	0.2757	0.2749	0.2748		0.2764	0.2762	0.2745	0.2744	0.2732
31	0.2767		0.2782		---	0.2745		0.2770		0.2736		0.2735
Mean	0.2799	0.2800	0.2790	0.2783	0.2784	0.2768	0.2742	0.2743	0.2741	0.2732	0.2736	0.2748

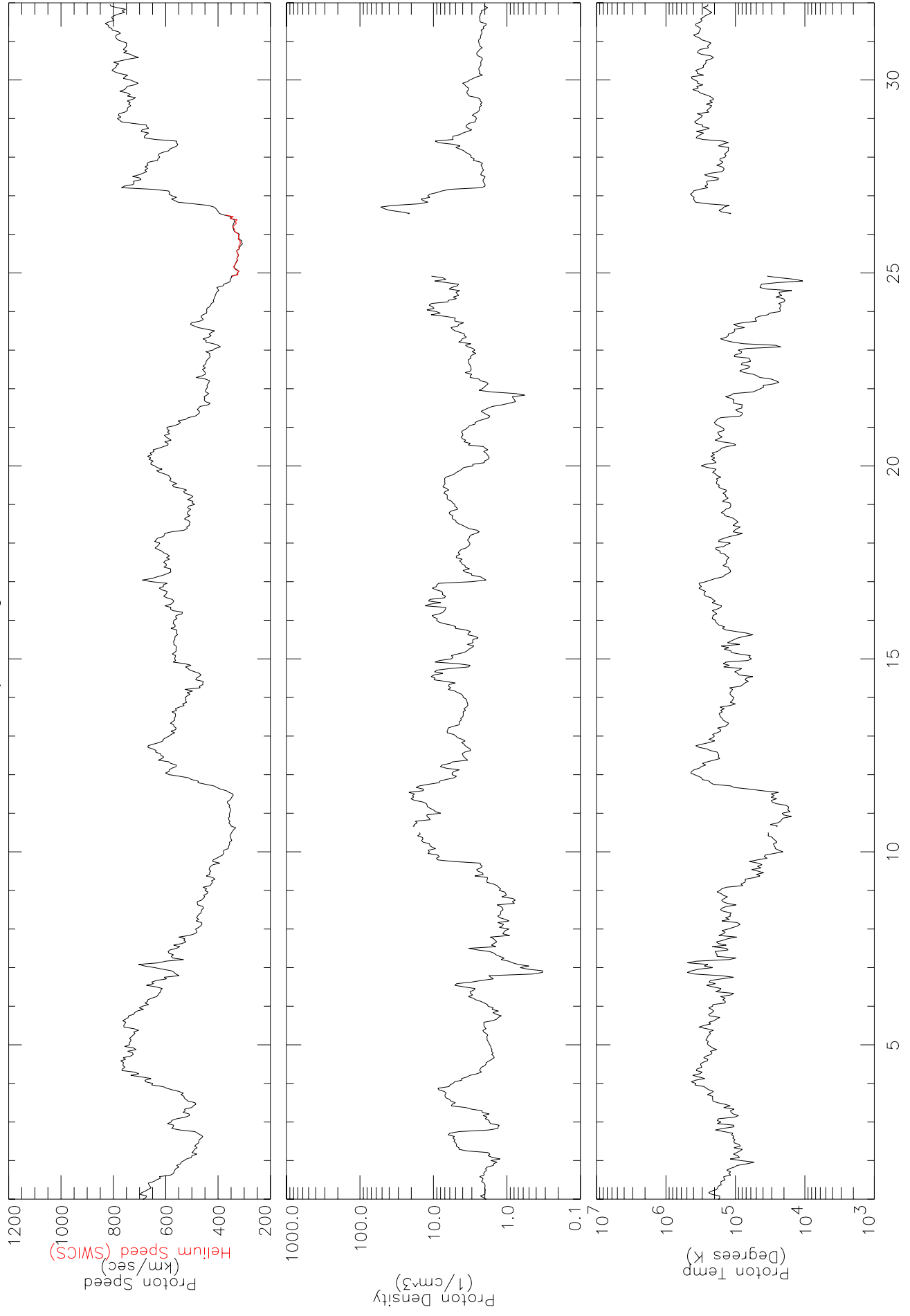
Data at: <http://www.sec.noaa.gov/ftpmenu/sbuw.html>

Interplanetary Magnetic Field
ACE LEVEL2 DATA Hourly Averages for JULY 2003, from MAG



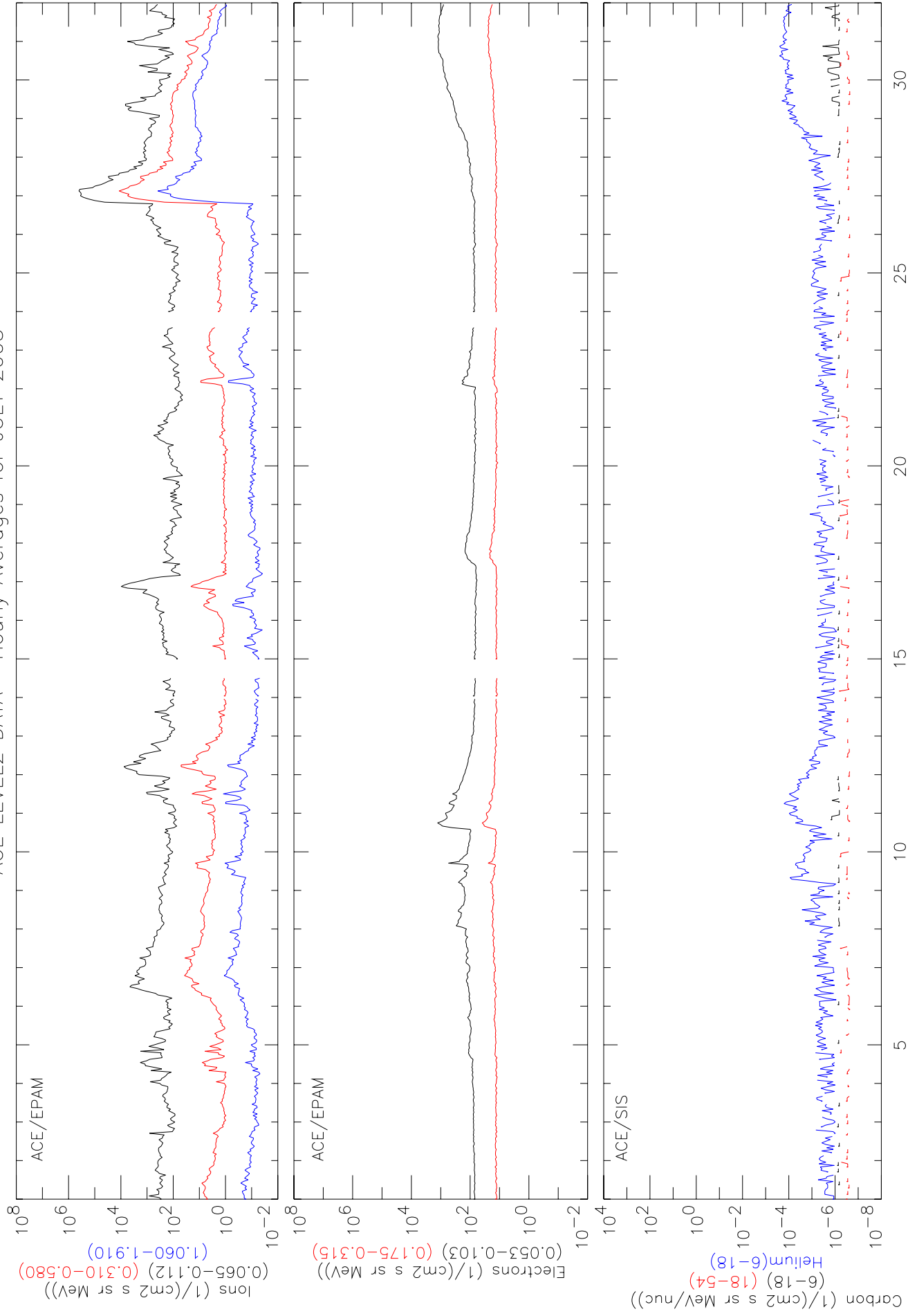
DAYS OF JULY 2003

ACE LEVEL2 DATA Solar Wind Plasma Hourly Averages for JULY 2003, from SWEPPAM



DAYS OF JULY 2003

Solar Energetic Particles
 Hourly Averages for JULY 2003



DAYS OF JULY 2003