JANUARY 2005 NUMBER 725 - Part II

Solar-Geophysical Data comprehensive reports

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

NEW DATA:

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

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JANUARY 2005 NUMBER 725 - Part II

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Data for July 2004 and Late Data

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SOLAR-GEOPHYSICAL DATA

Number 725
(Issued in Two Parts)

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CONTENTS

DETAILED INDEX OF OBSERVATIONS PUBLISHED IN SOLAR-GEOPHYSICAL DATA

CODE	KIND OF OBSERVATION	MAY 04	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A.	SOLAR AND INTERPLANETARY								
A.1	Sunspot Drawings	719A 42	720A 48	721A 46	722A 46	723A 46	724A 46	725A 44	
A.2aa	International Sunspot Numbers	718A 23	719A 24	720A 25	721A 25	722A 23	723A 25	724A 25	725A 25
A.2c	American Sunspot Numbers	718A 23	719A 24	720A 25	721A 25	722A 23	723A 25	724A 25	725A 25
A.3a	Mt. Wilson Magnetograms	719A 42	720A 48	721A 46	722A 46	723A 46	724A 46	725A 44	
A.3b	Sunspot Mag Class and Regions	719A 79	720A 83	721A 83	722A 83	723A 81	724A 83	725A 79	
A.3c	Kitt Peak Magnetograms	719A 42	720A 48	721A 46	722A 46	723A 46	724A 46	725A 44	
A.3d	Mean Solar Magnetic Field (Stanford)	718A 34	719A 32	720A 38	721A 37	722A 31	723A 35	724A 35	725A 33
A.3e	Stanford Magnetograms	719A 42	720A 48	721A 46	722A 46	723A 46	724A 46	725A 44	
A.4	H-alpha Filtergrams	719A 42	720A 48	721A 46	722A 46	723A 46	724A 46	725A 44	
A.5d	PhotometricCa IIFaculaeSanFernando	Jan 92-Dec 96-631B 22; 1997-1998 in 663B 66							
A.6c	Stanford Solar Mag Field SynopticMap	719A 36	720A 42	721A 40	722A 34	723A 40	724A 40	725A 38	
A.6d	Kitt Peak Solar Mag Field SynopticMap	719A 41	-------	721A 45	722A 44	723A 45	724A 45	725A 43	
A.6f	Active Prominences and Filaments	723B 26	724B 26	725B 58					
A.6g	Sac Peak Coronal Line Synoptic Maps	719A 38	720A 44	721A 42	722A 38	723A 42	724A 42	725A 40	
A.6h	Photometric White Light SanFernando	Jul-Dec 96 630B 32; 1997-1998 in 663B 51							
A.7h	Coronal Line Emission (Sac Peak)	719A 42	720A 48	721A 46	722A 46	723A 46	724A 46	725A 44	
A.7j	Coronal Hole Daily Maps (NSO/KP)	---------	---------	---------	---------	---------	----------	----------	
A.7k	Coronal Index (Slovak Academy)	1939-1996 -644B 28							
A.7m	Coronal Mass Ejections (CSPSW)	723B	724B	725B					
A.8aa	2800 MHz- Solar Flux (Penticton)	718A 25	719A 24	720A 25	721A 25	722A 23	723A 25	724A 25	725A 25
A.8ac	2800 MHz- Adj. Solar Flux (Penticton)	718A 25	719A 24	720A 25	721A 25	722A 23	723A 25	724A 25	725A 25
A.8g	Adjusted Daily Solar Fluxes Sagamore	718A 25	719A 24	720A 25	721A 25	722A 23	723A 25	724A 25	725A 25
A.10g	Nancay Radioheliograph164&327MHz	719A100	720A108	721A116	722A112	723A 98	724A113	725A103	
A.10h	Nobeyama Radioheliograph - 17 GHz	719A 73	720A 78	721A 77	722A 77	723A 76	724A 77	725A 74	
A.11g	Solar X-ray GOES (graphs/event table)	723B 17	724B 18	725B 49					
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	723B 27	724B 27	725B 59					
A.12g	Solar Particles (GOES)	718A 4	719A 4	720A 4	721A 4	722A 4	723A 4	724A 4	725A 4
A.12i	Interplanetary Particles (ACE)	723B 30	724B 30	725B 62					
A.13g	Solar Plasma (ACE)	723B 29	724B 29	725B 61					
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	723B 28	724B 28	725B 60					
C.	SOLAR FLARE-ASSOCIATED EVENT								
C.1a	H-alpha Flares	718A 28	719A 27	720A 28	721A 28	722A 26	723A 28	724A 28	725A 28
C.1ba	H-alpha Flare Groups	723B 4	724B 4	725B 4					
C.1d	Flare Patrol Observations	723B 7	724B 8	725B 11					
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	723B 9	724B 9	725B 13					
C.3	Radio Bursts Fixed Frequency Select	718A 33	719A 31	720A 34	721A 34	722A 29	723A 33	724A 33	725A 32
C.4	Radio Bursts Spectral	719A 90	720A 94	721A 97	722A 95	723A 89	724A 95	725A 90	
C.6	Sudden Ionospheric Disturbances	719A 88	720A 92	721A 93	722A 92	723A 87	724A 93	725A 87	
D.	GEOMAGNETIC EVENTS								
D.1a	Geomagnetic Indices	719A108	720A114	721A122	722A120	723A106	724A121	725A111	
D.1ba	27-day Chart of Kp Indices	719A110	720A116	721A124	722A122	723A108	724A123	725A113	
D.1cb	Monthly Mean aa Indices	719A111	720A117	721A125	722A123	723A109	724A124	725A114	
D.1d	Principal Magnetic Storms	719A115	720A121	721A129	722A127	723A113	724A 128	725A118	
D.1f	Sudden Commencements/FlareEffects	719A116	720A122	721A130	722A128	723A114	724A129	725A119	
D.1g	Equatorial Indices Dst	719A113	720A119	721A127	722A125	723A111	724A126	725A116	
D.1l	Polar Cap (PC) Index	719A114	720A120	721A128	722A126	723A112	724A127	725A117	
F.	COSMIC RAYS								
F.1b	Cosmic Ray Neutron Cts (Climax)	719A102	720A110	721A118	722A114	723A100	724A115	725A105	
F.1h	Cosmic Ray Neutron Cts (Thule)	719A102	720A110	721A118	722A114	723A100	724A115	725A105	
F.1l	Cosmic Ray Neutron Cts (Kiel)	719A102	720A110	721A118	722A114	723A100	724A115	725A105	
F.1n	Cosmic Ray Neutron Cts (Beijing)	719A102	720A110	721A118	722A114	723A100	724A115	725A105	
F.1m	Cosmic Ray Neutron Cts (Haleakala)	719A102	720A110	721A118	722A114	723A100	724A115	725A105	
F.1o	Cosmic Ray Neutron Cts (Moscow)	719A102	720A110	721A118	722A114	723A100	724A115	725A105	
F.1p	Cosmic Ray Neutron Cts (Calgary)	719A102	720A110	721A118	722A114	723A100	724A115	725A105	
H.	MISCELLANEOUS								
H.60	ISES Alert Periods	718A 20	719A 19	720A 20	721A 20	722A 19	723A 20	724A 19	725A 20

The entry "719A 42" under May 04, for example, means that the sunspot drawings for May 04 appear in SOLAR-GEOPHYSICAL DATA No. 719, Part I, and that they begin on page 42. "A" denotes Part I and "B", Part II. Blanks indicate data not yet received and dashes mark unavailable data.

CONTENTS

Comprehensive Reports Number 725 Part II

DATA FOR JULY 2004

Hα SOLAR FLARES

JULY 2004

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	Mo	CMP Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
		01	1016		1018	No Flare Patrol													
		01	1027		1246	No Flare Patrol													
		02	0211		0621	No Flare Patrol													
		02	0912		1215	No Flare Patrol													
		03	1033		1036	No Flare Patrol													
		03	1039		1041	No Flare Patrol													
		03	1043		1045	No Flare Patrol													
		03	1047		1048	No Flare Patrol													
		03	1054		1056	No Flare Patrol													
		03	1058		1101	No Flare Patrol													
		03	1103		1155	No Flare Patrol													
		03	1404		1935	No Flare Patrol													
		03	1953		2327	No Flare Patrol													
		04	0000		0643	No Flare Patrol													
		04	0649		0650	No Flare Patrol													
		04	0739		0741	No Flare Patrol													
		04	0743		0749	No Flare Patrol													
		04	0751		0757	No Flare Patrol													
		04	0759		0813	No Flare Patrol													
		04	0819		0822	No Flare Patrol													
		04	0834		0835	No Flare Patrol													
		04	0850		0852	No Flare Patrol													
		04	0906		0912	No Flare Patrol													
		04	0920		0921	No Flare Patrol													
		04	0946		0947	No Flare Patrol													
		04	0953		0955	No Flare Patrol													
		04	1029		1031	No Flare Patrol													
		04	1059		1108	No Flare Patrol													
		04	1116		1117	No Flare Patrol													
		04	1410		1426	No Flare Patrol													
0001	HOLL	05	1553	1554	1558	N07	W34	10639	07	3.1	5	SF		3	E		19		FH
		06	0206		0419	No Flare Patrol													
		06	0431		0515	No Flare Patrol													
		06	1118		1120	No Flare Patrol													
		06	1144		1145	No Flare Patrol													
0002	KANZ	06	1201	1206	1214	N07	W45	10639	07	3.1	13	SF		2	E				
		06	1523		1744	No Flare Patrol													
		07	0013		1100	No Flare Patrol													
		07	1104		1106	No Flare Patrol													
		07	1108		1110	No Flare Patrol													
		07	1114		1115	No Flare Patrol													
		07	1124		1129	No Flare Patrol													
		07	1133		1147	No Flare Patrol													
		07	1149		1153	No Flare Patrol													
		07	1207		1209	No Flare Patrol													
0003		07	17121	1713	1720	N14	E17	10641	07	9.0	8	SF					28		FU
	HOLL	07	1712	1713	1725	N15	E17	10641	07	9.0	13	SF		3	E		35		UF
	SVTO	07	1713	1713	1716	N14	E17	10641	07	9.0	3	SF		3	E		21		
0004	HOLL	08	0014	0016	0025	S05	E65	10642	07	12.9	11	SF		3	E		15		F
		08	0036		0228	No Flare Patrol													
		08	0232		0403	No Flare Patrol													
		09	2226		2339	No Flare Patrol													
		10	2037		2206	No Flare Patrol													
		10	2215		2335	No Flare Patrol													
		11	0126		0251	No Flare Patrol													
		11	0257		0308	No Flare Patrol													
		11	0317		0330	No Flare Patrol													
		11	0952		1106	No Flare Patrol													
		11	1748		2400	No Flare Patrol													
		12	0000		0401	No Flare Patrol													
		12	0516		0601	No Flare Patrol													
		12	1215		1242	No Flare Patrol													

JULY 2004

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0005	HOLL	12	1833	1840	1856	N10	W42	10646	07	9.6	23	SF		3	E		17		H
		12	2117		2216	No Flare Patrol													
		12	2250		2400	No Flare Patrol													
		13	0000		0248	No Flare Patrol													
		13	0301		0413	No Flare Patrol													
0006		13	05243	05322	0549	N14	W49	10646	07	9.5	25	SF					50		F
	SVTO	13	0524	0532	0549	N13	W49	10646	07	9.5	25	SF		3	E		68		F
	KANZ	13	0526	0532	0549	N13	W49	10646	07	9.5	23	SN		2	E				
	LEAR	13	0527	0534	0550	N15	W49	10646	07	9.5	23	SF		3	E		31		F
0007		13	0630	06311	0650	N14	W50	10646	07	9.5	20	SF					50		
	SVTO	13	0630	0631	0650	N13	W51	10646	07	9.4	20	SF		3	E		78		
	LEAR	13	0630	0632	0651	N16	W50	10646	07	9.5	21	SF		3	E		23		
	KANZ	13	0632E	0643U	0651D	N13	W50	10646	07	9.5	19D	SF		2	E				
0008		13	08431	0848	0916	N14	W52	10646	07	9.4	33	1N					166		
	SVTO	13	0843	0852U	0916	N12	W52	10646	07	9.4	33	1N		3	E		225		
	LEAR	13	0844	0848	0915D	N15	W52	10646	07	9.4	31D	1N		3	E		108		
0009	HOLL	13	1655	1700	1705	N14	W56	10646	07	9.5	10	SF		3	E		28		F
0010	HOLL	13	1818	1826	1831	N14	W56	10646	07	9.5	13	SF		3	E		22		F
0011	HOLL	13	1833	1834	1843	N14	W57	10646	07	9.5	10	SF		3	E		20		
0012	HOLL	13	1836	1837	1846	S10	E65	10649	07	18.6	10	1N		3	E		149		FH
0013	HOLL	13	1927	1932	1953	N13	W56	10646	07	9.6	26	1B		3	E		184		EF
0014	HOLL	13	2122	2123	2128	N14	W59	10646	07	9.4	6	SF		3	E		11		
0015	HOLL	13	2203	2206	2212	S11	E64	10649	07	18.7	9	SN		3	E		86		F
		13	2254		2333	No Flare Patrol													
0016	HOLL	14	0040	0043	0052	N14	W61	10646	07	9.4	12	SF		3	E		15		
		14	0237		0448	No Flare Patrol													
0017	SVTO	14	0518	0525	0540D	N12	W62	10646	07	9.5	22D	1N		3	E		219		F
		14	0603		0610	No Flare Patrol													
0018	KANZ	14	0657	0658	0659	S09	E59	10649	07	18.7	2	SF		2	E				
		14	0958		1013	No Flare Patrol													
		14	1021		1037	No Flare Patrol													
0019	HOLL	14	1745	1749	1800	S11	E56	10649	07	18.9	15	SF		3	E		24		F
0020	HOLL	14	1815	1817	1827	S11	E56	10649	07	19.0	12	SF		3	E		32		F
		14	1848		2132	No Flare Patrol													
0021	HOLL	14	2150	2150	2201	N13	W73	10646	07	9.4	11	SF		3	E		16		
		14	2226		2327	No Flare Patrol													
		15	0000		0355	No Flare Patrol													
0022	SVTO	15	0428	0430	0436	N11	W77	10646	07	9.4	8	SF		3	E		39		
		15	1756		2400	No Flare Patrol													
		16	0000		0108	No Flare Patrol													
		16	0128		0457	No Flare Patrol													
0023	SVTO	16	1037	1042	1058	S10	E36	10649	07	19.1	21	1F		3	E		129		F

Hα SOLAR FLARES

JULY 2004

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0024	KANZ	16	1055E	1058U	1128	S09	E34	10649	07	19.0	33D	1F		2	E				
0025	HOLL	16	1329	1330	1338	S10	E33	10649	07	19.0	9	1N		4	E		92		F
0026		16	13502	13543	1515	S09	E32	10649	07	19.0	85	3B					748		EFU
	KANZ	16	1350	1357	1431D	S09	E29	10649	07	18.7	41D	3B		2	E				
	HOLL	16	1350	1357	1532	S11	E35	10649	07	19.2	102	3B		3	E		787		UF
	SVTO	16	1352	1354	1458	S07	E33	10649	07	19.0	66	3B		3	E		710		FE
0027	HOLL	16	1624	1627	1637	S11	E30	10649	07	18.9	13	SF		3	E		26		F
0028	HOLL	16	1928	1933	1943	N10	E91	10652	07	23.6	15	SF		3	E		24		
0029	HOLL	16	2031	2038	2102	S09	E27	10649	07	18.9	31	SF		3	E		48		F
0030	HOLL	16	2114	2115	2119	N11	E89	10652	07	23.6	5	SF		3	E		13		
		17	0203		0409	No Flare Patrol													
0031		17	07541	07587	0840	S10	E23	10649	07	19.0	46	1F					129		F
	KANZ	17	0754	0805	0853	S11	E22	10649	07	19.0	59	1F		2	E				
	SVTO	17	0755	0758	0826	S10	E24	10649	07	19.1	31	1F		3	E		129		F
0032	SVTO	17	1254	1254	1300	S11	E22	10649	07	19.2	6	SF		3	E		23		F
0033		17	13007	1308	1316	S11	E21	10649	07	19.1	16	SF					48		FH
	HOLL	17	1300	1308	1321	S11	E21	10649	07	19.1	21	SF		3	E		84		FH
	SVTO	17	1307	1308	1311	S11	E21	10649	07	19.1	4	SF		3	E		12		F
0034	KANZ	17	1307	1313	1321	S12	E20	10649	07	19.0	14	SF		2	E				
0035	HOLL	17	1550	1551	1608	S11	E19	10649	07	19.1	18	SF		3	E		38		FH
0036		17	16491	16521	1712	S10	E17	10649	07	19.0	23	1N					94		FH
	HOLL	17	1649	1652	1722	S10	E18	10649	07	19.0	33	1N		3	E		139		FH
	SVTO	17	1650	1653	1702	S10	E16	10649	07	18.9	12	SF		3	E		48		F
0037	HOLL	17	1724	1726	1730	S09	E15	10649	07	18.8	6	SF		3	E		18		F
0038	HOLL	17	1917	1920	1923	N08	E71	10652	07	23.1	6	SF		3	E		37		H
0039	HOLL	17	2039	2039	2050	N08	E65	10652	07	22.7	11	SF		3	E		28		
0040	HOLL	17	2042	2059	2112	S09	E14	10649	07	18.9	30	SF		3	E		70		F
0041	HOLL	17	2113	2113	2122	S09	E14	10649	07	18.9	9	SF		3	E		36		
0042	HOLL	17	2124	2134	2203	S09	E13	10649	07	18.9	39	1F		3	E		200		
0043	LEAR	18	0012	0012	0111	S09	E12	10649	07	18.9	59	1F		3	E		112		FZ
0044	HOLL	18	0058	0059	0113	S09	E11	10649	07	18.9	15	SF		3	E		32		
0045	LEAR	18	0254	0258	0324	S12	E12	10649	07	19.0	30	SF		3	E		91		F
0046	LEAR	18	0606	0607	0615	S09	E09	10649	07	18.9	9	SF		3	E		17		F
0047	LEAR	18	0807	0809	0817	N08	E65	10652	07	23.2	10	SF		3	E		43		
0048	KANZ	18	1049	1052	1053	N07	E42		07	21.6	4	1F		2	E				
0049	SVTO	18	1138	1141	1143	N09	E58	10652	07	22.8	5	SF		3	E		15		
0050	SVTO	18	1147	1151	1201	S11	E08	10649	07	19.1	14	SF		3	E		77		F
0051	SVTO	18	1228	1229	1237	S12	E09	10649	07	19.2	9	SF		3	E		13		
0052	SVTO	18	1343	1348	1401	S11	E07	10649	07	19.1	18	SF		3	E		48		F

Hα SOLAR FLARES

JULY 2004

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Day	Dur (Min)	Imp Opt	Xray	See	Obs Type	Area Measurement Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
0053	SVTO	18	1412	1414	1427	S10	E07	10649	07	19.1	15	SF		3	E		63		F
0054	SVTO	18	1709	1711	1731	S11	E05	10649	07	19.1	22	1F		3	E		152		F
		18	1757		1820	No Flare Patrol													
0055	HOLL	18	1845	1847	1855	S10	E03	10649	07	19.0	10	SF		3	E		59		F
0056	HOLL	18	2043	2046	2050	N09	E49	10652	07	22.5	7	SF		3	E		15		H
0057	HOLL	19	0038	0045	0049	S09	W02	10649	07	18.9	11	SF		3	E		21		
		19	0113		0406	No Flare Patrol													
0058	SVTO	19	0527	0530	0543	S12	W02	10649	07	19.1	16	SF		3	E		18		F
0059	SVTO	19	0650	0653	0659	N09	E47	10652	07	22.8	9	SF		3	E		70		F
0060	SVTO	19	1006	1006	1011	S10	W05	10649	07	19.0	5	SF		3	E		15		
0061	SVTO	19	1050	1053	1058	N09	E44	10652	07	22.7	8	1F		3	E		194		F
0062	HOLL	19	1419	1419	1424	S09	W05	10649	07	19.2	5	SF		3	E		11		
0063	SVTO	19	1511	1512	1522	S09	W05	10649	07	19.2	11	SF		3	E		28		F
0064	HOLL	19	1731	1733	1744	S13	E51	10653	07	23.6	13	SF		3	E		27		FH
0065	HOLL	19	2138	2138	2141	N04	E42	10652	07	23.0	3	SF		3	E		17		F
0066	HOLL	19	2143	2144	2149	N08	E38	10652	07	22.7	6	SF		3	E		24		FH
		19	2353		2400	No Flare Patrol													
		20	0000		0101	No Flare Patrol													
0067	LEAR	20	0059E	0059U	0115D	S08	W14	10649	07	19.0	16D	SF		3	E		68		FU
		20	0116		0355	No Flare Patrol													
0068		20	11033	11062	1142	N04	E36	10652	07	23.1	39	SN					50		EHL
	KHAR	20	1103	1106	1115D	N03	E36	10652	07	23.1	12D	SN		2	P	1103	65		LE
	SVTO	20	1106	1108	1142	N05	E35	10652	07	23.1	36	SF		3	E		34		H
0069	KANZ	20	1112	1125	1146	N03	E34	10652	07	23.0	34	SF		2	E				
0070		20	1226	12311	1316	N10	E33	10652	07	23.0	50	3B					744		FH
	KANZ	20	1226	1231	1330	N10	E32	10652	07	22.9	64	3B		2	E				
	SVTO	20	1226	1232	1303	N11	E34	10652	07	23.1	37	3B		3	E		744		FH
0071	HOLL	20	1817	1823	1842	N03	E32	10652	07	23.1	25	SF		3	E		35		FH
0072	HOLL	20	2112	2118	2150	N04	E28	10652	07	23.0	38	SF		3	E		87		FH
		20	2237		2325	No Flare Patrol													
		20	2354		2400	No Flare Patrol													
0073	HOLL	21	0032	0033	0048D	S11	W28	10649	07	18.9	16D	1F		3	E		104		F
		21	0049		0403	No Flare Patrol													
0074	HOLL	21	1756	1759	1809	N07	E21	10652	07	23.3	13	SF		3	E		12		FH
		21	1953		2400	No Flare Patrol													
		22	0000		0403	No Flare Patrol													
0075	KANZ	22	0636	0644	0721	N03	E13	10652	07	23.2	45	SF		2	E				
0076	KANZ	22	0744	0753	0824	N02	E09	10652	07	23.0	40	1N		2	E				

Hα SOLAR FLARES

JULY 2004

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0077		22	11043	11079	1130	N03	E10	10652	07	23.2	26	SN					19		F
	KANZ	22	1104	1116	1130	N02	E09	10652	07	23.1	26	SN		2	E				
	SVTO	22	1107	1107	1129	N04	E11	10652	07	23.3	22	SF		3	E		19		F
0078	HOLL	22	1718	1721	1749	N04	E07	10652	07	23.2	31	SF		3	E		91		
0079	HOLL	22	1756	1800	1836D	N04	E07	10652	07	23.3	40D	SF		3	E		18		
		22	1837		1852	No Flare Patrol													
		22	1942		2034	No Flare Patrol													
		22	2055		2130	No Flare Patrol													
		22	2134		2151	No Flare Patrol													
		22	2206		2233	No Flare Patrol													
0080	HOLL	22	2233	2256	2333D	N05	E04	10652	07	23.2	60D	2N		3	E		254		MZ
		22	2334		2400	No Flare Patrol													
		23	0000		0407	No Flare Patrol													
0081		23	06413	0645*	0701	N02	W04	10652	07	23.0	20	SN					35		F
	KANZ	23	0641	0655	0710	N02	W05	10652	07	22.9	29	SN		2	E				
	SVTO	23	0644	0645	0652	N03	W04	10652	07	23.0	8	SF		3	E		35		F
0082		23	07184	07235	0738	N03	W04	10652	07	23.0	20	SF					34		F
	KANZ	23	0718	0728	0737	N03	W03	10652	07	23.1	19	SF		2	E				
	SVTO	23	0722	0723	0739	N03	W04	10652	07	23.0	17	SF		3	E		34		F
0083	SVTO	23	1723E	1725U	1735D	N03	W04	10652	07	23.4	12D	SF		2	E		161		F
		23	1746		2400	No Flare Patrol													
		24	0000		0424	No Flare Patrol													
0084	SVTO	24	0604	0605	0616	N07	W20	10652	07	22.7	12	1F		3	E		124		F
0085	SVTO	24	0810	0815	0824	N03	W14	10652	07	23.3	14	SF		3	E		17		
0086	SVTO	24	1024	1025	1037	N08	W15	10652	07	23.3	13	SF		3	E		12		F
0087	SVTO	24	1335	1335	1347	N04	W16	10652	07	23.4	12	SF		3	E		40		
		24	1446		1508	No Flare Patrol													
		24	1531		1540	No Flare Patrol													
		24	1555		1650	No Flare Patrol													
		24	1726		1803	No Flare Patrol													
0088	HOLL	24	1827	1827	1836	N08	W22	10652	07	23.1	9	SF		3	E		19		F
		24	1918		2400	No Flare Patrol													
		25	0000		0439	No Flare Patrol													
0089	LEAR	25	0030	0031	0036	N09	W26	10652	07	23.1	6	SF		3	E		52		
		25	0454		0631	No Flare Patrol													
0090	LEAR	25	0543	0548	0623	N10	W31	10652	07	22.9	40	2B		3	E		287		EF
0091		25	0632	0636	0701	N04	W26	10652	07	23.3	29	1F					132		EF
	SVTO	25	0632E	0636	0659D	N04	W25	10652	07	23.4	27D	1F		2	E		148		F
	LEAR	25	0632	0636	0701	N03	W27	10652	07	23.2	29	1F		3	E		115		FE
		25	0700		0717	No Flare Patrol													
0092	LEAR	25	0708	0714	0725	N09	W34	10652	07	22.7	17	SF		3	E		84		EF
		25	0721		0739	No Flare Patrol													
0093	KHAR	25	0828	0829	0835	N11	W34	10652	07	22.8	7	SF		2	P	0831	20		DL
		25	0958		1032	No Flare Patrol													
		25	1038		1358	No Flare Patrol													

JULY 2004

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Day	Dur (Min)	Imp	Opt	Xray	Obs See	Type	Area Measurement Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
		25	1404		1419	No Flare Patrol														
0094	HOLL	25	1433	1448	1643	N08	W33	10652	07	23.1	130	1F			3	E		156		F
		25	1453		1459	No Flare Patrol														
0095	HOLL	25	1625	1627	1634	N08	E54	10654	07	29.7	9	SF			3	E		12		H
		25	1705		2342	No Flare Patrol														
		26	0054		0520	No Flare Patrol														
0096	KANZ	26	0539	0553	0615	N02	W40	10652	07	23.2	36	1N			2	E				
		26	0655		0656	No Flare Patrol														
		26	0658		0702	No Flare Patrol														
		26	0712		0713	No Flare Patrol														
		26	0747		0754	No Flare Patrol														
0097	LEAR	26	0805	0809	0822	N09	W44	10652	07	23.0	17	SF			3	E		14		
		26	0808		0821	No Flare Patrol														
		26	0828		0839	No Flare Patrol														
0098	LEAR	26	0900	0901	0912	N09	W44	10652	07	23.1	12	SF			3	E		20		
		26	0901		0911	No Flare Patrol														
		26	0939		0942	No Flare Patrol														
		26	1106		1116	No Flare Patrol														
		26	1120		1126	No Flare Patrol														
		26	1152		1204	No Flare Patrol														
		26	1214		1215	No Flare Patrol														
		26	1218		1221	No Flare Patrol														
		26	1250		1407	No Flare Patrol														
		26	1450		1720	No Flare Patrol														
0099	HOLL	26	1726	1736	1752	N03	W45	10652	07	23.4	26	2N			3	E		345		EF
0100	HOLL	26	1818	1818	1822	N08	W48	10652	07	23.2	4	SF			3	E		11		
		26	1846		1850	No Flare Patrol														
		26	1909		2138	No Flare Patrol														
		26	2218		2224	No Flare Patrol														
0101	HOLL	26	2238	2239U	2322D	N11	W47	10652	07	23.4	44D	SF			2	E		16		F
		26	2242		2323	No Flare Patrol														
0102	HOLL	26	2349		2511D	N10	W54	10652	07	22.9	82D	1F			3	E		130		FHT
		27	0112		0242	No Flare Patrol														
		27	0247		0505	No Flare Patrol														
0103	SVTO	27	0544	0545	0609	N02	W53	10652	07	23.3	25	1N			3	E		219		F
		27	0842		0857	No Flare Patrol														
0104	KHAR	27	1002	1003	1007	N10	W61	10652	07	22.8	5	SF			2	P				
0105		27	10152	1017	1024	N10	W58	10652	07	23.1	9	SF						44		FH
	KHAR	27	1015	1017	1026	N11	W58	10652	07	23.1	11	SF			2	P	1020	70		H
	SVTO	27	1017	1017	1021	N08	W58	10652	07	23.1	4	SF			3	E		17		F
0106	SVTO	27	1504	1506	1513	N01	W58	10652	07	23.3	9	1F			3	E		116		
0107	SVTO	27	1524	1526	1529	N06	W57	10652	07	23.4	5	SF			3	E		95		
0108	HOLL	27	2003	2017	2112	N09	W65	10652	07	22.9	69	1F			3	E		114		F
		27	2113		2400	No Flare Patrol														
		28	0000		0002	No Flare Patrol														

Hα SOLAR FLARES

JULY 2004

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
		28	0012		0025	No Flare Patrol													
		28	0032		0052	No Flare Patrol													
		28	0106		0529	No Flare Patrol													
0109	SVTO	28	0647	0648	0650	N01	W68	10652	07	23.2	3	SF		3	E		87		
0110	SVTO	28	0806E	0807U	0821D	N06	W70	10652	07	23.1	15D	SF		3	E		33		
		28	0811		0814	No Flare Patrol													
0111	HOLL	28	1337	1338	1341	N04	W68	10652	07	23.5	4	SF		3	E		20		
0112		28	15311	15322	1538	N02	W70	10652	07	23.4	7	SF					60		H
	HOLL	28	1531	1532	1539	N04	W69	10652	07	23.5	8	SF		3	E		82		H
	SVTO	28	1532	1534	1538	N01	W72	10652	07	23.3	6	SF		3	E		39		
0113		28	1624	1625	1631	N02	W66	10652	07	23.7	7	SF					22		F
	SVTO	28	1624	1625	1627	N00	W67	10652	07	23.7	3	SF		3	E		15		F
	HOLL	28	1624	1625	1635	N03	W65	10652	07	23.8	11	SF		3	E		28		F
0114	HOLL	28	1842	1846	1850	N04	W71	10652	07	23.5	8	SF		3	E		64		HR
0115	HOLL	28	2130	2131	2138	N04	W72	10652	07	23.5	8	1F		3	E		107		H
0116	HOLL	28	2233	2233	2237	N07	E13	10654	07	29.9	4	SF		3	E		11		F
		28	2353		2400	No Flare Patrol													
		29	0000		0028	No Flare Patrol													
		29	0044		0206	No Flare Patrol													
0117	KHAR	29	0935	0936	0943D	N11	W82	10652	07	23.2	8D	SN		2	P				
0118	HOLL	29	1631	1631	1636	N03	W86	10652	07	23.3	5	SF		4	E		22		F
		29	2150		2200	No Flare Patrol													
		30	0219		0415	No Flare Patrol													
		31	0151		0157	No Flare Patrol													
		31	0352		0441	No Flare Patrol													
		31	0606		0634	No Flare Patrol													
		31	2311		2322	No Flare Patrol													
		31	2334		2345	No Flare Patrol													

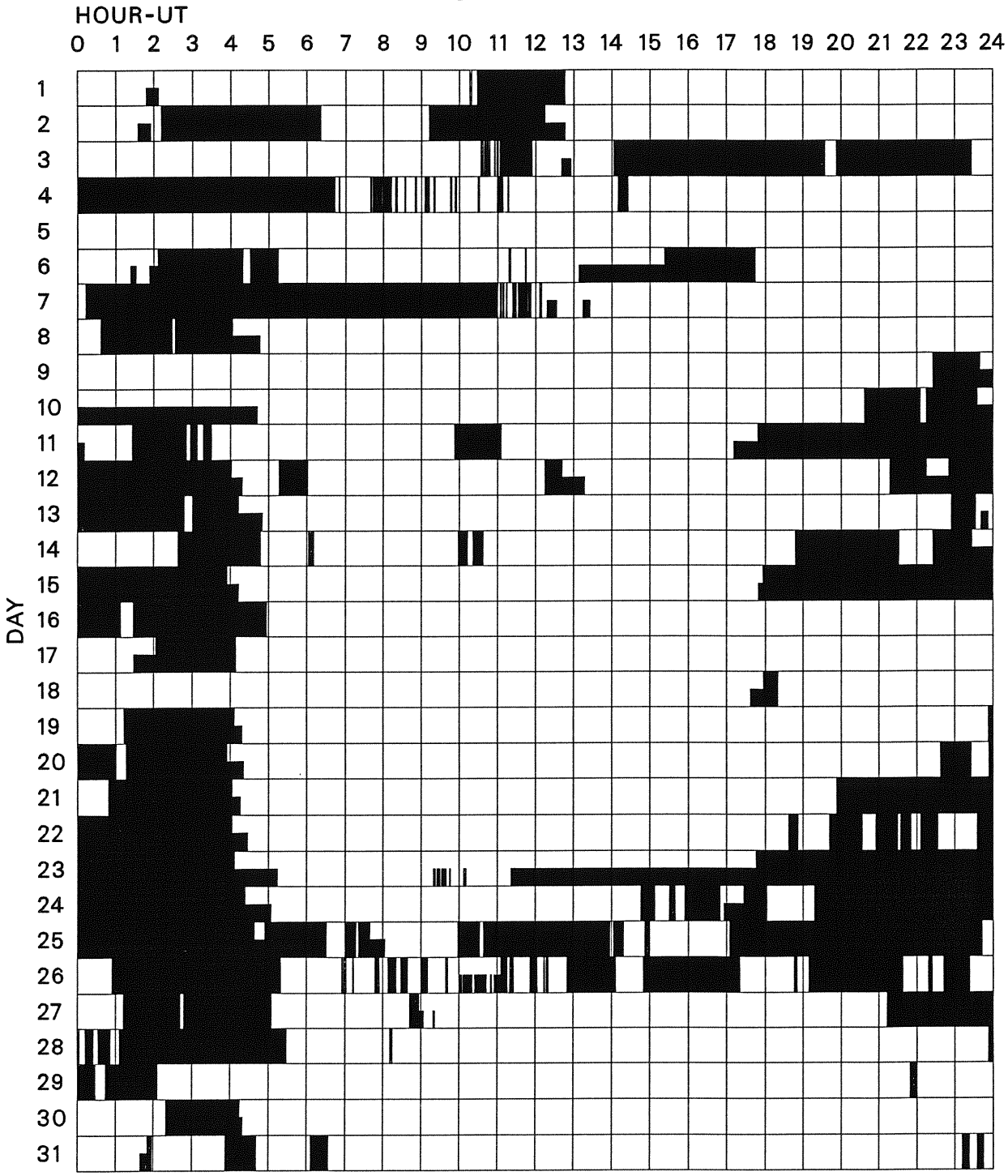
"Remarks"

A = Eruptive prominence whose base is less than 90 degrees from central meridian.
B = Probably the end of a more important flare.
C = Invisible 10 minutes before.
D = Brilliant point.
E = Two or more brilliant points.
F = Several eruptive centers.
G = No visible spots in the neighborhood.
H = Flare accompanied by high-speed dark filament.
I = Active region very extended.
J = Distinct variations of plage intensity before or after the flare.
K = Several intensity maxima.
L = Existing filaments show signs of sudden activity.
M = White-light flare.
N = Continuous spectrum shows effects of polarization.
O = Observations have been made in the H and K lines of Ca II.
P = Flare shows Helium D3 in emission.
Q = Flare shows Balmer continuum in emission.
R = Marked asymmetry in H-alpha line suggests ejection of high-velocity material.
S = Brightness follows disappearance of filament in same position.
T = Region active all day.
U = Two bright branches, parallel or converging.
V = Occurrence of an explosive phase; important, expansion within roughly 1 minute that often includes a significant intensity increase.
W = Great increase in area after time of maximum intensity.
X = Unusually wide H-alpha line.
Y = System of loop-type prominences.
Z = Major sunspot umbra covered by flare.

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

INTERVALS OF NO FLARE PATROL OBSERVATION
FOR PRECEDING SOLAR FLARE TABLE

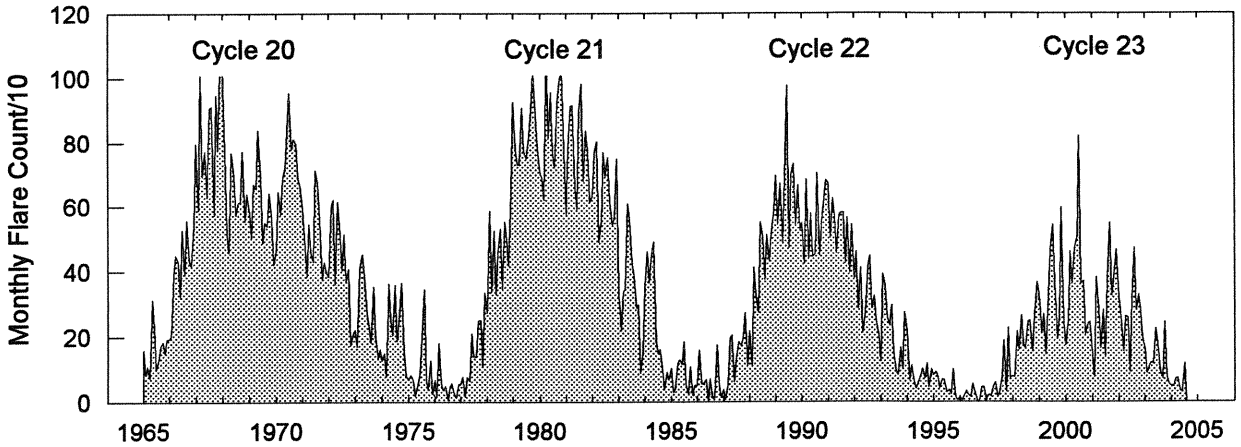
JULY 2004



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

Holloman
Kanzelhoehe
Learmonth
Kharkov
San Vito

Monthly Counts of Grouped Solar Flares
Jan 1965 - Jul 2004



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1965	158	85	110	74	315	231	99	127	173	184	150	193	1899
1966	194	205	390	449	429	323	528	391	558	432	417	543	4859
1967	796	589	1009	694	771	629	907	911	573	946	775	1109	9709
1968	1037	773	519	460	768	697	573	611	616	772	556	640	8022
1969	581	504	669	655	839	694	489	551	540	643	566	422	7153
1970	466	646	578	688	722	836	954	780	811	797	687	667	8632
1971	598	505	387	546	461	430	713	673	518	375	431	394	6031
1972	384	599	621	361	614	541	404	515	371	408	175	210	5203
1973	221	171	410	453	388	270	232	182	353	201	136	163	3180
1974	127	148	79	364	255	204	360	187	270	366	153	81	2594
1975	68	82	69	19	42	85	196	346	68	38	127	25	1165
1976	69	18	180	60	38	48	6	47	57	23	13	55	614
1977	54	77	18	76	64	210	140	140	250	252	107	336	1724
1978	274	588	338	526	330	460	533	346	554	499	418	648	5514
1979	926	781	731	731	907	772	750	821	901	1018	888	786	10012
1980	703	689	621	1092	811	956	763	720	924	988	1027	838	10132
1981	578	782	914	915	658	592	893	982	680	836	773	615	9218
1982	631	766	803	490	553	769	696	753	615	544	564	748	7932
1983	332	220	337	346	609	561	427	389	289	298	88	152	4048
1984	353	461	366	440	492	185	151	161	95	36	92	69	2901
1985	104	29	38	119	129	116	185	53	25	108	19	50	975
1986	51	158	54	56	68	3	71	12	14	174	56	13	730
1987	36	7	52	192	205	61	132	185	172	198	273	114	1627
1988	217	109	413	328	274	551	502	375	513	429	518	587	4816
1989	695	544	672	488	691	977	474	699	733	547	665	526	7711
1990	550	424	684	442	580	445	454	703	449	574	623	682	6610
1991	672	503	625	570	458	574	582	581	425	565	396	544	6495
1992	380	462	287	412	214	271	413	447	287	325	248	206	3952
1993	123	392	357	262	237	296	154	92	82	167	104	275	2541
1994	217	67	111	60	40	56	81	101	72	117	45	99	1066
1995	82	95	77	42	69	66	29	37	23	99	14	6	639
1996	14	3	15	34	21	16	54	31	3	0	44	45	280
1997	8	22	18	43	59	18	26	75	188	31	228	74	790
1998	78	76	216	161	264	177	164	248	249	155	268	367	2423
1999	330	212	271	145	330	466	544	368	192	264	598	243	3963
2000	175	248	462	362	473	505	818	364	372	208	241	246	4474
2001	147	77	383	284	164	282	137	376	549	325	405	468	3597
2002	318	261	155	263	259	91	318	474	280	329	279	196	3223
2003	164	87	112	122	117	226	181	94	73	245	78	53	1552
2004	49	47	71	72	32	33	118						422

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

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

Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
03	204	IZMI	42	SER	0721.2	0721.5	0.5	11.0			
04	245	LEAR	4	S/F	0246.0	0247.0	3.0	76.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0247.0	0247.0	U	64.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1953.0	1953.0	U	100.0			QL=4 ST=2 TYP=3
05	410	SVTO	4	S/F	1550.0	1552.0	3.0	67.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1551.0	1552.0	1.0	110.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1551.0	1552.0	1.0	35.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1551.0	1552.0	1.0	96.0			QL=4 ST=2 TYP=3
	245	SGMR	49	GB	1858.0	1858.0	1.0	660.0			QL=4 ST=2 TYP=6
	410	SGMR	8	S	1858.0	1858.0	U	22.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	1859.0	1859.0	1.0	590.0			QL=4 ST=2 TYP=6
06	204	IZMI	41	F	1148.6	1149.0	0.8	88.0			
	610	SVTO	8	S	1431.0	1431.0	U	50.0			QL=2 ST=2 TYP=3
	245	SGMR	4	S/F	1946.0	1947.0	3.0	68.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1949.0	1949.0	U	61.0			QL=4 ST=2 TYP=3
07	500	HIRA	8	S	0802.0	0802.0	1.0	5.0			0
	204	IZMI	42	SER	0847.6	0848.0	1.0	5.0			
	500	HIRA	8	S	0848.0	0848.0	1.0	5.0			0
	33	UPIC	45	C	1502.0	1503.0	1.5				
08	600	GORK	40	F	0652.2	0652.5	0.7	6.2			
	900	GORK	2	S/F	0652.4	0652.6	0.6	11.0			
	600	GORK	2	S/F	0727.6	0727.7	0.5	15.0			
	900	GORK	40	F	0728.4	0729.3	1.4	50.0			
	245	SVTO	4	S/F	0835.0	0838.0	3.0	95.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	0837.0	0837.0	U	32.0			QL=4 ST=2 TYP=3
09	9100	GORK	3	S	0537.8	0538.1	0.5	21.0			
	600	GORK	2	S/F	0659.0	0659.4	0.8	6.1			
	9100	GORK	45	C	0705.0	0705.2	0.8	44.0			
	9100	GORK	45	C	0705.0	0705.5		35.0			
	600	GORK	2	S/F	0833.0	0833.5	1.0	9.2			
	600	GORK	1	S	0834.5	0834.6	0.4	6.1			
	9100	GORK	4	S/F	0856.0	0856.4	0.6	34.0			
10	9100	GORK	3	S	0446.0	0446.2	0.5	27.0			
	9100	GORK	40	F	0754.6	0755.1	0.8	14.0			
	9100	GORK	2	S/F	1038.8	1039.1	0.6	26.0			
11	204	IZMI	43	NS	0600.0		360.0D		10.0		
	127	TORN	44	NS	0910.0E		250.0D		5.0		V=0,DISTURBED
	900	GORK	41	F	0603.8	0607.3		47.0			
	900	GORK	41	F	0603.8	0604.4	5.6	20.0			
	2840	PEKG	3	S	0734.0	0738.2	15.0	52.5			
	2800	HIRA	7	C	0737.0	0739.0	6.0	45.0			0
	4995	SVTO	8	S	0737.0	0738.0	1.0	110.0			QL=4 ST=2 TYP=3
	2950	GORK	46	C	0737.3	0738.3		70.0			
	2950	GORK	46	C	0737.3	0740.6		19.0			
	2950	GORK	46	C	0737.3	0737.7	8.4	19.0			
	9100	GORK	46	C	0737.4	0738.2	6.0	45.0			
	9100	GORK	46	C	0737.4	0740.7		13.0			
	3000	IZMI	7	C	0737.6	0738.3	3.5	41.0	7.6		
	900	GORK	41	F	0738.0	0743.0		29.0			
	4995	LEAR	8	S	0738.0	0738.0	U	76.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0738.0	0738.0	U	49.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0738.0	0738.0	U	46.0			QL=4 ST=2 TYP=3
	900	GORK	41	F	0738.0	0738.2	5.2	6.8			
	900	GORK	41	F	0738.0	0740.4		5.1			
	600	GORK	3	S	0738.1	0738.2	0.3	15.0			
	2840	PEKG	5	S	0937.0	0939.2	6.0	12.8			
	2950	GORK	5	S	0938.1	0939.1	3.3	13.0			
	9100	GORK	4	S/F	0938.2	0938.8	3.4	33.0			
	3000	IZMI	20	GRF	0938.5	0939.1	1.2	13.0	7.2		
	2950	GORK	5	S	1019.8	1020.4	2.7	15.0			
	3000	IZMI	20	GRF	1019.9	1020.4	1.2	13.0	7.3		

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
11	9100	GORK	2	S/F	1020.1	1020.7	1.6	11.0			
	204	IZMI	41	F	1114.0	1114.4	0.8	33.0			
12	204	IZMI	44	NS	0600.0E		360.0D		5.0		
	127	TORN	43	NS	0807.0		343.0		23.0		V=1,DISTURBED
	2800	PENT	29	PBI	0055.0	0103.0	45.0	12.0			
	2840	PEKG	3	S	0059.0	0103.0	13.0	16.0			
	2800	HIRA	1	S	0101.0	0103.0	4.0	10.0			0
	2804	VORO	3	S	0101.2	0103.0	5.0	12.1			
	4995	LEAR	8	S	0102.0	0102.0	1.0	57.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	0102.0	0102.0	1.0	66.0			QL=4 ST=2 TYP=3
	2950	GORK	7	C	0430.6	0431.6	3.1	6.4			
	2950	GORK	7	C	0430.6	0432.9		6.4			
	9100	GORK	4	S/F	0430.7	0432.8	3.8	24.0			
	900	GORK	41	F	0446.5	0446.6	4.7	10.0			
	900	GORK	41	F	0446.5	0449.9		6.8			
	9100	GORK	5	S	0713.4	0714.4	6.8	7.6			
	2950	GORK	5	S	0713.6	0714.3	2.3	5.0			
	900	GORK	41	F	0725.3	0736.0		8.4			
	900	GORK	41	F	0725.3	0729.2	12.8	12.0			
	2840	PEKG	3	S	0734.0	0755.7	41.0	55.5			
	2950	GORK	1	S	0736.2	0736.7	1.0	5.0			
	2950	GORK	21	GRF	0738.1	0924.0	115.0D	20.0			
	9100	GORK	21	GRF	0738.4	0814.1	115.0D	27.0			
	600	GORK	2	S/F	0739.8	0741.7	7.7	4.9			
	245	LEAR	8	S	0741.0	0741.0	1.0	120.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0741.0	0741.0	1.0	97.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	0741.0	0741.0	U	35.0			QL=4 ST=2 TYP=3
	2800	HIRA	7	C	0741.0	0756.0	24.0	45.0			0
	900	GORK	46	C	0741.3	0755.2		25.0			
	900	GORK	46	C	0741.3	0753.2	22.9	21.0			
	2950	GORK	4	S/F	0741.3	0742.3	2.4	17.0			
	900	GORK	46	C	0741.3	0759.7		44.0			
	3000	IZMI	45	C	0741.6	0755.7	22.1	45.0			
	204	IZMI	25	R	0743.0		53.3		10.0		
	245	LEAR	8	S	0743.0	0744.0	1.0	100.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0744.0	0744.0	U	88.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0748.0	0748.0	U	22.0			QL=4 ST=2 TYP=3
	2950	GORK	46	C	0748.9	0755.7		52.0			
	2950	GORK	46	C	0748.9	0750.7	14.2	30.0			
	2950	GORK	46	C	0748.9	0752.8		48.0			
	600	GORK	46	C	0749.1	0757.3		11.0			
	600	GORK	46	C	0749.1	0755.7	12.3	9.7			
	9100	GORK	46	C	0750.0	0751.0	16.6	25.0			
	4995	SVTO	4	S/F	0750.0	0755.0	13.0	150.0			QL=4 ST=2 TYP=3
	9100	GORK	46	C	0750.0	0753.8		47.0			
	9100	GORK	46	C	0750.0	0755.8		72.0			
	4995	LEAR	4	S/F	0752.0	0755.0	8.0	78.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0752.0	0755.0	7.0	87.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0755.0	0756.0	1.0	55.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0755.0	0755.0	1.0	52.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	1806.0	1833.0	86.0U	24.0			
13	127	TORN	43	NS	0907.0		103.0		110.0		V=0
	204	IZMI	43	NS	0959.0		60.0U		10.0		
	235	CUBA	44	NS	1300.0E		510.0D		6.0		
	280	CUBA	44	NS	1300.0E		510.0D		18.0		
	2800	PENT	29	PBI	0000.0	0015.0	47.0U	359.0			
	2840	PEKG	45	C	0009.0	0015.2	36.0	327.6			
	2804	VORO	45	C	0012.5	0015.0	23.0	316.0			
	2804	VORO	45	C	0012.5	0016.8		305.0			
	4995	LEAR	48	C	0013.0	0017.0	9.0	470.0			QL=4 ST=2 TYP=8
	15400	LEAR	48	C	0013.0	0016.0	9.0	920.0			QL=4 ST=2 TYP=8
	8800	LEAR	49	GB	0013.0	0017.0	9.0	820.0			QL=4 ST=2 TYP=6
	2695	LEAR	4	S/F	0013.0	0015.0	6.0	350.0			QL=4 ST=2 TYP=3
	4995	PALE	48	C	0013.0	0016.0	9.0	540.0			QL=4 ST=2 TYP=8
	8800	PALE	49	GB	0013.0	0016.0	9.0	870.0			QL=4 ST=2 TYP=6
	15400	PALE	49	GB	0013.0	0015.0	8.0	970.0			QL=4 ST=2 TYP=6
	2695	PALE	4	S/F	0013.0	0015.0	6.0	400.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
13	245	LEAR	48	C	0013.0	0017.0	12.0	7800.0			QL=4 ST=2 TYP=8
	2800	HIRA	7	C	0013.0	0015.0	21.0	335.0			0
	15400	LEAR	48	C	0013.0	0016.0	1427.0	920.0			QL=4 ST=1 TYP=8
	8800	LEAR	49	GB	0013.0	0017.0	1427.0	820.0			QL=4 ST=1 TYP=6
	410	LEAR	48	C	0014.0	0018.0	8.0	100.0			QL=4 ST=2 TYP=8
	610	LEAR	4	S/F	0014.0	0016.0	8.0	270.0			QL=4 ST=2 TYP=3
	1415	LEAR	4	S/F	0014.0	0015.0	6.0	240.0			QL=4 ST=2 TYP=3
	245	PALE	48	C	0014.0	0017.0	8.0	7000.0			QL=4 ST=2 TYP=8
	410	PALE	48	C	0014.0	0018.0	8.0	100.0			QL=4 ST=2 TYP=8
	1415	PALE	4	S/F	0014.0	0015.0	5.0	220.0			QL=4 ST=2 TYP=3
	500	HIRA	7	C	0014.0	0017.0	21.0	95.0			0
	410	LEAR	4	S/F	0014.0	0014.0	1426.0	95.0			QL=4 ST=1 TYP=3
	610	PALE	4	S/F	0015.0	0016.0	7.0	210.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0032.0	0033.0	1.0	340.0			QL=4 ST=2 TYP=3
	9100	GORK	4	S/F	0435.5	0438.7	6.5	35.0			
	9100	GORK	28	PRE	0521.8	0522.5	3.7	10.0			
	2840	PEKG	20	GRF	0525.0	0528.5	15.0	13.4			
	9100	GORK	46	C	0525.5	0528.0	11.8	52.0			
	9100	GORK	46	C	0525.5	0531.1		25.0			
	2800	HIRA	1	S	0527.0	0529.0	6.0	10.0			0
	2950	GORK	46	C	0527.0	0528.2	7.7	12.0			
	2950	GORK	46	C	0527.0	0531.2		10.0			
	900	GORK	4	S/F	0528.6	0531.1	3.5	21.0			
	600	GORK	7	C	0530.7	0531.1	3.6	9.3			
	600	GORK	7	C	0530.7	0532.2		12.0			
	900	GORK	4	S/F	0537.8	0537.9	0.2	42.0			
	600	GORK	1	S	0538.5	0538.8	0.5	4.0			
	245	LEAR	49	GB	0614.0	0615.0	2.0	690.0			QL=4 ST=2 TYP=6
	204	IZMI	45	C	0614.8	0615.0	0.5	750.0			
	245	SVTO	49	GB	0615.0	0615.0	U	590.0			QL=4 ST=2 TYP=6
	9100	GORK	46	C	0628.8	0631.0		43.0			
	9100	GORK	46	C	0628.8	0630.5	6.2	50.0			
	15400	LEAR	8	S	0630.0	0630.0	U	61.0			QL=4 ST=2 TYP=3
	245	SVTO	49	GB	0630.0	0630.0	U	3800.0			QL=4 ST=2 TYP=6
	4995	SVTO	8	S	0630.0	0630.0	1.0	25.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0630.0	0630.0	1.0	48.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	0630.0	0630.0	1.0	52.0			QL=4 ST=2 TYP=3
	9100	GORK	7	C	0636.9	0637.2	5.1	7.8			
	9100	GORK	7	C	0636.9	0640.5		7.8			
	9100	GORK	4	S/F	0826.2	0827.4	3.8	10.0			
	9100	GORK	21	GRF	0839.0	0857.0	66.0	16.0			
	2840	PEKG	3	S	0842.0	0847.5	23.0	89.8			
	9100	GORK	46	C	0842.9	0845.2	12.2	60.0			
	9100	GORK	46	C	0842.9	0847.5		150.0			
	2950	GORK	46	C	0843.8	0845.2	9.2	56.0			
	2950	GORK	46	C	0843.8	0847.5		88.0			
	2800	HIRA	7	C	0844.0	0848.0	6.0	70.0			0
	2695	LEAR	4	S/F	0844.0	0847.0	4.0	87.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	0844.0	0847.0	5.0	89.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	0844.0	0847.0	8.0	110.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0844.0	0847.0	7.0	140.0			QL=4 ST=2 TYP=3
	33	UPIC	32	ABS	0844.0	0849.0	35.0				
	3000	IZMI	45	C	0844.6	0847.6	6.6	63.0			
	15400	SVTO	4	S/F	0845.0	0847.0	3.0	170.0			QL=4 ST=2 TYP=3
	900	GORK	46	C	0845.3	0847.4	20.3	95.0			
	900	GORK	46	C	0845.3	0903.7		300.0U			
	600	GORK	46	C	0845.8	0858.2		40.0			
	600	GORK	46	C	0845.8	0847.5	20.7	54.0			
	4995	LEAR	8	S	0846.0	0847.0	1.0	75.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0846.0	0847.0	2.0	220.0			QL=4 ST=2 TYP=3
	1415	SVTO	4	S/F	0846.0	0847.0	3.0	52.0			QL=4 ST=2 TYP=3
	500	HIRA	7	C	0846.0	0852.0	19.0	25.0			0
	33	UPIC	42	SER	0846.0	0847.0	25.0				
	204	IZMI	42	SER	0846.4	0848.8	13.4	186.0			
	1415	LEAR	8	S	0847.0	0847.0	U	55.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0847.0	0847.0	U	56.0			QL=4 ST=2 TYP=3
	410	SVTO	49	GB	0847.0	0848.0	6.0	1500.0			QL=4 ST=2 TYP=6
	245	LEAR	8	S	0848.0	0848.0	U	67.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0848.0	0848.0	U	450.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
13	245	SVTO	4	S/F	0848.0	0848.0	5.0	67.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0851.0	0851.0	U	56.0			QL=4 ST=2 TYP=3
	127	TORN	47	GB	0851.0	0853.5	3.7	1000.0	500.0		
	2950	GORK	30	PBI	0853.0	0853.0	8.2	4.8			
	245	LEAR	8	S	0853.0	0853.0	U	56.0			QL=4 ST=2 TYP=3
	410	SVTO	4	S/F	0856.0	0858.0	6.0	85.0			QL=4 ST=2 TYP=3
	2950	GORK	2	S/F	0857.9	0858.2	1.5	9.7			
	245	LEAR	8	S	0858.0	0858.0	U	75.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0858.0	0858.0	U	58.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0858.0	0858.0	2.0	73.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	0858.0	0858.0	U	21.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0858.0	0858.0	U	21.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	0858.0	0858.0	U	23.0			QL=4 ST=2 TYP=3
	204	IZMI	45	C	0901.2	0938.8	57.3	150.0			
	600	GORK	47	GB	0921.0	0939.2	36.0	780.0			
	600	GORK	47	GB	0921.0	0942.7		700.0			
	900	GORK	47	GB	0924.6	0939.1	30.4	330.0			
	245	SVTO	48	C	0925.0	0938.0	29.0	350.0			QL=4 ST=2 TYP=8
	410	SVTO	48	C	0926.0	0939.0	28.0	550.0			QL=4 ST=2 TYP=8
	500	HIRA	47	GB	0934.0	0943.0		510.0			WR
	610	SVTO	48	C	0937.0	0953.0	17.0	600.0			QL=2 ST=2 TYP=8
	2950	GORK	7	C	0937.3	0939.4	7.7	8.2			
	2950	GORK	7	C	0937.3	0942.4		8.2			
	1415	SVTO	4	S/F	0939.0	0939.0	3.0	66.0			QL=4 ST=2 TYP=3
	9100	GORK	4	S/F	1033.8	1034.1	1.2	12.0			
	2695	SGMR	4	S/F	1202.0	1205.0	11.0	260.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	1202.0	1205.0	13.0	450.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1204.0	1205.0	1.0	210.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1204.0	1205.0	7.0	380.0			QL=4 ST=2 TYP=3
	15400	SGMR	4	S/F	1204.0	1206.0	6.0	190.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	1204.0	1205.0	8.0	450.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1204.0	1205.0	10.0	390.0			QL=4 ST=2 TYP=3
	610	SGMR	4	S/F	1204.0	1205.0	716.0	210.0			QL=4 ST=1 TYP=3
	410	SGMR	8	S	1205.0	1205.0	U	130.0			QL=4 ST=2 TYP=3
	1415	SGMR	4	S/F	1205.0	1206.0	5.0	90.0			QL=4 ST=2 TYP=3
	610	SVTO	48	C	1205.0	1208.0	4.0	700.0			QL=2 ST=2 TYP=8
	410	SVTO	49	GB	1205.0	1205.0	U	780.0			QL=4 ST=2 TYP=6
	15400	SVTO	8	S	1205.0	1206.0	2.0	170.0			QL=4 ST=2 TYP=3
	1415	SVTO	4	S/F	1205.0	1206.0	5.0	88.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1205.0	1205.0	6.0	260.0			QL=4 ST=2 TYP=3
	410	SGMR	4	S/F	1205.0	1205.0	715.0	130.0			QL=4 ST=1 TYP=3
	1415	SGMR	4	S/F	1205.0	1205.0	715.0	49.0			QL=4 ST=1 TYP=3
	4995	PALE	8	S	1836.0	1836.0	U	140.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1836.0	1836.0	2.0	160.0			QL=2 ST=2 TYP=3
	4995	SGMR	8	S	1836.0	1836.0	2.0	160.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1836.0	1836.0	U	77.0			QL=2 ST=2 TYP=3
	8800	SGMR	8	S	1836.0	1836.0	U	77.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	1836.2	1836.5	3.3	66.0	33.0		
	4995	SGMR	48	C	1926.0	1930.0	7.0	310.0			QL=2 ST=2 TYP=8
	9500	CUBA	4	S/F	1926.5	1930.2	7.8	218.0	109.0		
	4995	PALE	48	C	1927.0	1930.0	6.0	350.0			QL=4 ST=2 TYP=8
	8800	PALE	48	C	1927.0	1930.0	5.0	270.0			QL=4 ST=2 TYP=8
	8800	SGMR	48	C	1927.0	1930.0	6.0	230.0			QL=2 ST=2 TYP=8
	15400	SGMR	4	S/F	1927.0	1930.0	9.0	230.0			QL=2 ST=2 TYP=3
	15400	PALE	8	S	1929.0	1930.0	2.0	230.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	1929.0	1930.0	3.0	170.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1929.0	1930.0	4.0	140.0			QL=2 ST=2 TYP=3
	1415	SGMR	4	S/F	1930.0	1931.0	4.0	54.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	1932.0	1932.0	1.0	330.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1932.0	1932.0	1.0	310.0			QL=2 ST=2 TYP=3
	610	SGMR	4	S/F	1932.0	1934.0	3.0	250.0			QL=2 ST=2 TYP=3
	280	CUBA	42	SER	1932.6	2015.8	82.4	46.0	23.0		
	610	PALE	8	S	1933.0	1934.0	2.0	310.0			QL=4 ST=2 TYP=3
	235	CUBA	42	SER	1933.2	2016.2	82.5	18.0	9.0		
	410	SGMR	8	S	1934.0	1934.0	1.0	39.0			QL=2 ST=2 TYP=3
	245	SGMR	4	S/F	2014.0	2015.0	3.0	63.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2015.0	2015.0	2.0	65.0			QL=4 ST=2 TYP=3
	2804	VORO	8	S	2205.5	2205.6	0.6	11.7			

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

Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
14	245	LEAR	8	S	0430.0	0430.0	U	63.0			QL=4 ST=2 TYP=3
	500	HIRA	42	SER	0441.0	0603.0	151.0	10.0			WR
	2840	PEKG	3	S	0515.0	0517.8	20.0	413.4			
	2950	GORK	21	GRF	0517.6	0530.6	195.4	12.0			
	2950	GORK	40	F	0517.7	0517.9	1.4	210.0			
	9100	GORK	46	C	0517.9	0521.0		90.0			
	9100	GORK	46	C	0517.9	0518.2	11.4	17.0			
	9100	GORK	46	C	0517.9	0528.7		15.0			
	2800	HIRA	7	C	0518.0	0518.0	6.0	85.0			0
	2695	LEAR	8	S	0520.0	0521.0	1.0	46.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0520.0	0521.0	1.0	82.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0520.0	0521.0	1.0	94.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0520.0	0521.0	1.0	72.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0520.0	0521.0	1.0	62.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	0520.0	0521.0	3.0	52.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	0520.0	0521.0	4.0	78.0			QL=4 ST=2 TYP=3
	15400	SVTO	4	S/F	0520.0	0521.0	4.0	63.0			QL=4 ST=2 TYP=3
	2950	GORK	4	S/F	0520.2	0521.1	6.5	54.0			
	900	GORK	40	F	0520.8	0522.4	1.9	250.0U			
	1415	LEAR	8	S	0521.0	0521.0	U	72.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	0521.0	0521.0	1.0	68.0			QL=4 ST=2 TYP=3
	2950	GORK	1	S	0528.2	0528.6	1.1	9.1			
	9100	GORK	30	PBI	0529.3	0529.3	93.7	12.0			
	2950	GORK	1	S	0650.8	0651.3	1.4	3.1			
	9100	GORK	1	S	0651.0	0651.4	0.9	8.0			
	600	GORK	40	F	0651.6	0651.8	0.4	70.0			
	9100	GORK	1	S	0654.6	0655.0	1.2	8.0			
	2950	GORK	1	S	0733.7	0734.4	3.0	4.6			
	9100	GORK	22	GRF	0850.8	0923.1	40.2	7.7			
	9100	GORK	22	GRF	0850.8	0928.7		9.0			
	2950	GORK	1	S	0925.4	0925.9	1.8	4.7			
	2950	GORK	40	F	0935.3	0935.3	0.5	7.6			
	2800	PENT	29		2034.0	2038.0		13.0			
	2840	PEKG	1	S	2258.0	2300.9	8.0	6.6			
	410	PALE	8	S	2332.0	2332.0	1.0	61.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	2355.0	2355.0	1.0	10.0			0
	245	LEAR	8	S	2355.0	2355.0	U	130.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2356.0E	2356.0	U	100.0			QL=4 ST=2 TYP=3
15	204	IZMI	43	NS	0600.0		360.0D		15.0		
	127	TORN	44	NS	1213.0E		100.0D		6.0		V=0
	2800	PENT	29	PBI	0109.0	0138.0	44.0U	289.0			
	2840	PEKG	3	S	0120.0	0138.3	40.0	345.2			
	2804	VORO	4	S/F	0132.5	0138.2	10.7	296.8			
	2800	HIRA	7	C	0133.0	0139.0	18.0	310.0			0
	2695	LEAR	4	S/F	0136.0	0138.0	4.0	310.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0136.0	0138.0	1344.0	150.0			QL=4 ST=1 TYP=3
	1415	LEAR	8	S	0137.0	0137.0	1.0	84.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	0137.0	0139.0	3.0	330.0			QL=4 ST=2 TYP=3
	8800	LEAR	49	GB	0137.0	0138.0	11.0	550.0			QL=4 ST=2 TYP=6
	15400	LEAR	49	GB	0137.0	0138.0	13.0	610.0			QL=4 ST=2 TYP=6
	4995	LEAR	4	S/F	0137.0	0138.0	11.0	350.0			QL=4 ST=2 TYP=3
	4995	PALE	4	S/F	0137.0	0139.0	14.0	450.0			QL=4 ST=2 TYP=3
	1415	LEAR	4	S/F	0137.0	0137.0	1343.0	84.0			QL=4 ST=1 TYP=3
	4995	LEAR	4	S/F	0137.0	0138.0	1343.0	150.0			QL=4 ST=1 TYP=3
	8800	LEAR	4	S/F	0137.0	0138.0	1343.0	290.0			QL=4 ST=1 TYP=3
	15400	LEAR	4	S/F	0137.0	0138.0	1343.0	380.0			QL=4 ST=1 TYP=3
	2695	PALE	4	S/F	0137.0	0138.0	1343.0	150.0			QL=4 ST=1 TYP=3
	4995	PALE	4	S/F	0137.0	0138.0	1343.0	170.0			QL=4 ST=1 TYP=3
	610	LEAR	8	S	0138.0	0138.0	U	54.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	0138.0	0138.0	U	77.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	0138.0	0138.0	1.0	77.0			QL=4 ST=2 TYP=3
	8800	PALE	49	GB	0138.0	0139.0	13.0	700.0			QL=4 ST=2 TYP=6
	15400	PALE	49	GB	0138.0	0139.0	13.0	700.0			QL=4 ST=2 TYP=6
	8800	PALE	4	S/F	0138.0	0138.0	1342.0	290.0			QL=4 ST=1 TYP=3
	15400	PALE	4	S/F	0138.0	0138.0	1342.0	340.0			QL=4 ST=1 TYP=3
	2804	VORO	29	PBI	0143.2	0147.9	180.0	18.8			
	15400	LEAR	8	S	0152.0	0152.0	1.0	51.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	0157.0	0157.0	U	53.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
15	500	HIRA	8	S	0244.0	0246.0	3.0	45.0			WL
	204	IZMI	1	S	0816.5	0816.5	0.1	13.0			
	204	IZMI	41	F	0909.0	0909.4	0.7	16.0			
	410	SGMR	8	S	1258.0	1258.0	1.0	67.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1258.0	1258.0	1.0	93.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1623.0	1623.0	U	140.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	1745.0	1823.0	107.0U	652.0			
	8800	SGMR	8	S	1816.0	1817.0	2.0	25.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1816.0	1816.0	2.0	79.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1817.3	1817.9	2.9	18.0	9.0		
	2695	SGMR	49	GB	1821.0	1823.0	9.0	700.0			QL=4 ST=2 TYP=6
	1415	SGMR	4	S/F	1821.0	1822.0	5.0	200.0			QL=4 ST=2 TYP=3
	4995	SGMR	49	GB	1821.0	1822.0	13.0	1000.0			QL=4 ST=2 TYP=6
	8800	SGMR	49	GB	1821.0	1823.0	13.0	970.0			QL=4 ST=2 TYP=6
	15400	SGMR	49	GB	1821.0	1823.0	13.0	1900.0			QL=4 ST=2 TYP=6
	2695	SGMR	49	GB	1821.0	1823.0	339.0	700.0			QL=4 ST=1 TYP=6
	4995	SGMR	49	GB	1821.0	1822.0	339.0	1000.0			QL=4 ST=1 TYP=6
	1415	SGMR	4	S/F	1821.0	1822.0	339.0	200.0			QL=4 ST=1 TYP=3
	9500	CUBA	49	GB	1821.4	1823.1	6.9	366.0U	183.0U		
	2695	PALE	49	GB	1822.0	1824.0	5.0	680.0			QL=4 ST=2 TYP=6
	4995	PALE	49	GB	1822.0	1823.0	5.0	970.0			QL=4 ST=2 TYP=6
	8800	PALE	49	GB	1822.0	1824.0	4.0	900.0			QL=4 ST=2 TYP=6
	15400	PALE	49	GB	1822.0	1823.0	3.0	1600.0			QL=4 ST=2 TYP=6
	1415	PALE	4	S/F	1822.0	1822.0	3.0	220.0			QL=4 ST=2 TYP=3
	9500	CUBA	30	PBI	1828.3	1828.3	84.3	30.0	15.0		
	2800	PENT	21	GRF	2124.0	2148.0	68.0U	12.0			
16	127	TORN	44	NS	1200.0E		210.0D		9.0		V=1
	2840	PEKG	1	S	0027.0	0030.0	7.0	5.8			
	2840	PEKG	3	S	0150.0	0203.5	37.0	443.0			
	2804	VORO	23	GRF	0200.9	0230.1	132.5	16.9			
	2804	VORO	4	S/F	0200.9	0203.5	5.7	357.5			
	2800	HIRA	8	S	0202.0	0204.0	5.0	425.0			0
	4995	LEAR	49	GB	0202.0	0203.0	4.0	690.0			QL=4 ST=2 TYP=6
	8800	LEAR	49	GB	0202.0	0203.0	4.0	1000.0			QL=4 ST=2 TYP=6
	15400	LEAR	49	GB	0202.0	0203.0	8.0	1200.0			QL=4 ST=2 TYP=6
	1415	LEAR	4	S/F	0202.0	0202.0	3.0	230.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0202.0	0203.0	3.0	450.0			QL=4 ST=2 TYP=3
	15400	PALE	49	GB	0202.0	0203.0	4.0	1300.0			QL=4 ST=2 TYP=6
	1415	PALE	4	S/F	0202.0	0202.0	3.0	230.0			QL=4 ST=2 TYP=3
	4995	LEAR	49	GB	0202.0	0203.0	1318.0	690.0			QL=4 ST=1 TYP=6
	8800	LEAR	49	GB	0202.0	0203.0	1318.0	1000.0			QL=4 ST=1 TYP=6
	15400	LEAR	49	GB	0202.0	0202.0	1318.0	910.0			QL=4 ST=1 TYP=6
	15400	LEAR	49	GB	0202.0	0203.0	1318.0	1200.0			QL=4 ST=1 TYP=6
	1415	LEAR	4	S/F	0202.0	0202.0	1318.0	230.0			QL=4 ST=1 TYP=3
	2695	LEAR	4	S/F	0202.0	0202.0	1318.0	200.0			QL=4 ST=1 TYP=3
	2695	LEAR	4	S/F	0202.0	0203.0	1318.0	450.0			QL=4 ST=1 TYP=3
	4995	LEAR	4	S/F	0202.0	0202.0	1318.0	280.0			QL=4 ST=1 TYP=3
	8800	LEAR	4	S/F	0202.0	0202.0	1318.0	500.0			QL=4 ST=1 TYP=3
	4995	PALE	49	GB	0203.0	0203.0	3.0	790.0			QL=4 ST=2 TYP=6
	8800	PALE	49	GB	0203.0	0203.0	3.0	930.0			QL=4 ST=2 TYP=6
	2695	PALE	4	S/F	0203.0	0204.0	3.0	460.0			QL=4 ST=2 TYP=3
	2840	PEKG	1	S	0417.0	0421.2	9.0	8.8			
	204	IZMI	41	F	0553.9	0554.2	1.1	17.0			
	204	IZMI	45	C	0556.4	0556.6	1.0	152.0			
	204	IZMI	41	F	0720.4	0720.5	0.4	37.0			
	204	IZMI	7	C	0803.0	0803.1	0.1	8.0	2.2		
	204	IZMI	42	SER	0855.8	0857.4	5.7	77.0			
	245	SVTO	8	S	0856.0	0857.0	2.0	78.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0857.0	0857.0	U	83.0			QL=4 ST=2 TYP=3
	410	LEAR	4	S/F	0857.0	0858.0	3.0	280.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	0857.0	0858.0	2.0	61.0			QL=2 ST=2 TYP=3
	410	SVTO	4	S/F	0857.0	0858.0	3.0	360.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0858.0	0858.0	1.0	64.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	0926.0	0926.0	5.0	59.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	1037.0	1039.0	7.0	220.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	1037.0	1039.0	4.0	260.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1037.0	1039.0	4.0	220.0			QL=4 ST=2 TYP=3
	15400	SVTO	4	S/F	1037.0	1039.0	4.0	470.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION

Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
16	4995	SGMR	4	S/F	1037.0	1039.0	803.0	220.0			QL=4 ST=1 TYP=3
	4995	SVTO	4	S/F	1037.0	1039.0	803.0	260.0			QL=4 ST=1 TYP=3
	8800	SVTO	4	S/F	1037.0	1039.0	803.0	220.0			QL=4 ST=1 TYP=3
	15400	SVTO	4	S/F	1037.0	1039.0	803.0	470.0			QL=4 ST=1 TYP=3
	3000	IZMI	45	C	1037.1	1040.1	4.6	276.0			
	2695	SGMR	49	GB	1038.0	1040.0	4.0	500.0			QL=4 ST=2 TYP=6
	8800	SGMR	8	S	1038.0	1039.0	2.0	200.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1038.0	1039.0	2.0	380.0			QL=4 ST=2 TYP=3
	1415	SGMR	4	S/F	1038.0	1039.0	3.0	71.0			QL=4 ST=2 TYP=3
	2695	SVTO	49	GB	1038.0	1040.0	3.0	600.0			QL=4 ST=2 TYP=6
	1415	SVTO	4	S/F	1038.0	1039.0	3.0	66.0			QL=4 ST=2 TYP=3
	1415	SGMR	4	S/F	1038.0	1039.0	802.0	71.0			QL=4 ST=1 TYP=3
	2695	SGMR	4	S/F	1038.0	1039.0	802.0	190.0			QL=4 ST=1 TYP=3
	8800	SGMR	4	S/F	1038.0	1039.0	802.0	200.0			QL=4 ST=1 TYP=3
	15400	SGMR	4	S/F	1038.0	1039.0	802.0	380.0			QL=4 ST=1 TYP=3
	1415	SVTO	4	S/F	1038.0	1039.0	802.0	66.0			QL=4 ST=1 TYP=3
	2695	SVTO	4	S/F	1038.0	1039.0	802.0	220.0			QL=4 ST=1 TYP=3
	33	UPIC	45	C	1243.0	1243.8	1.2				
	2800	PENT	29	PBI	1338.0	1354.0	196.0U	1014.0			
	8800	SVTO	49	GB	1352.0	1353.0	17.0	7100.0			QL=4 ST=2 TYP=6
	4995	SVTO	49	GB	1352.0	1354.0	28.0	6900.0			QL=4 ST=2 TYP=6
	9500	CUBA	49	GB	1352.8	1353.9	2.1	1563.0U	781.0U		
	1415	SGMR	4	S/F	1353.0	1354.0	4.0	310.0			QL=4 ST=2 TYP=3
	2695	SVTO	49	GB	1353.0	1354.0	7.0	2900.0			QL=4 ST=2 TYP=6
	1415	SVTO	4	S/F	1353.0	1354.0	4.0	280.0			QL=4 ST=2 TYP=3
	8800	SGMR	49	GB	1353.0	1353.0	15.0	6100.0			QL=4 ST=2 TYP=6
	15400	SVTO	49	GB	1353.0	1353.0	27.0	5500.0			QL=4 ST=2 TYP=6
	2695	SGMR	49	GB	1353.0	1354.0	35.0	2900.0			QL=4 ST=2 TYP=6
	4995	SGMR	49	GB	1353.0	1354.0	35.0	6200.0			QL=4 ST=2 TYP=6
	15400	SGMR	49	GB	1353.0	1353.0	35.0	5600.0			QL=4 ST=2 TYP=6
	9500	CUBA	29	PBI	1354.9	1354.9	97.5	178.0	89.0		
	33	UPIC	45	C	1502.0	1502.2	1.5				
	2800	PENT	8	S	1958.0	2000.0	4.0	7.0			
	245	SGMR	49	GB	1959.0	2000.0	1.0	1900.0			QL=4 ST=2 TYP=6
	245	PALE	49	GB	2000.0	2001.0	1.0	1800.0			QL=4 ST=2 TYP=6
	410	SGMR	8	S	2000.0	2000.0	U	150.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2001.0	2001.0	U	160.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2007.0	2007.0	1.0	160.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2007.0	2007.0	U	54.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2007.0	2007.0	U	210.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2007.0	2007.0	U	61.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2050.0	2050.0	U	50.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2058.0	2058.0	2.0	80.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2059.0	2059.0	U	98.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	2100.0	2100.0	1.0	25.0			
	2800	PENT	8	S	2107.0	2112.0	10.0	18.0			
	500	HIRA	8	S	2112.0	2112.0	1.0	20.0			
	245	SGMR	8	S	2112.0	2112.0	U	440.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2112.0	2112.0	U	47.0			QL=4 ST=2 TYP=3
	610	SGMR	4	S/F	2112.0	2112.0	36.0	28.0			QL=4 ST=2 TYP=3
	2800	HIRA	1	S	2113.0	2113.0	1.0	20.0			
17	127	TORN	44	NS	0750.0E		400.0D		8.0		V=0
	235	CUBA	44	NS	1300.0E		530.0D		22.0		
	280	CUBA	44	NS	1300.0E		530.0D		22.0		
	2804	VORO	22	GRF	0052.8	0115.4	156.0	4.9			
	2804	VORO	40	F	0155.2	0156.1	2.7	8.0			
	2804	VORO	1	S	0208.2	0209.6	2.5	5.3			
	2804	VORO	8	S	0253.6	0254.1	1.0	10.8			
	2840	PEKG	3	S	0343.0	0346.6	14.0	52.9			
	2800	HIRA	1	S	0345.0	0347.0	5.0	50.0			
	410	LEAR	48	C	0345.0	0346.0	3.0	230.0			QL=4 ST=2 TYP=8
	2695	LEAR	4	S/F	0345.0	0346.0	3.0	51.0			QL=4 ST=2 TYP=3
	2804	VORO	3	S	0345.3	0346.6	7.4	44.5			
	900	GORK	46	C	0345.5	0346.2	9.2	54.0			
	900	GORK	46	C	0345.5	0347.3		38.0			
	9100	GORK	46	C	0345.5	0346.5	3.8	50.0			
	9100	GORK	46	C	0345.5	0348.6		6.9			
	600	GORK	46	C	0345.5	0346.7	7.1	62.0			

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
17	600	GORK	46	C	0345.5	0348.8		22.0			
	500	HIRA	7	C	0346.0	0347.0	6.0	30.0			
	245	LEAR	49	GB	0346.0	0346.0	U	830.0			QL=4 ST=2 TYP=6
	610	LEAR	8	S	0346.0	0346.0	U	60.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0346.0	0346.0	U	59.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0346.0	0346.0	U	67.0			QL=4 ST=2 TYP=3
	410	PALE	48	C	0346.0	0347.0	3.0	420.0			QL=4 ST=2 TYP=8
	245	PALE	49	GB	0347.0	0347.0	U	700.0			QL=4 ST=2 TYP=6
	610	PALE	8	S	0347.0	0347.0	U	55.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	0347.0	0347.0	U	55.0			QL=4 ST=2 TYP=3
	9100	GORK	4	S/F	0525.0	0525.2	0.5	25.0			
	410	SVTO	8	S	0602.0	0602.0	U	75.0			QL=4 ST=2 TYP=3
	9100	GORK	4	S/F	0649.3	0649.5	0.5	125.0			
	900	GORK	40	F	0729.4	0730.4	1.4	4.8			
	204	IZMI	7	C	0730.1	0730.2	0.1	15.0			
	600	GORK	4	S/F	0730.2	0730.4	0.6	12.0			
	9100	GORK	5	S	0731.2	0738.8	7.6	6.6			
	2950	GORK	5	S	0731.6	0735.3	6.7	5.3			
	204	IZMI	42	SER	0732.0	0732.4	0.6	82.0			
	500	HIRA	8	S	0735.0	0737.0	2.0	100.0			
	410	SVTO	8	S	0735.0	0736.0	1.0	79.0			QL=4 ST=2 TYP=3
	600	GORK	40	F	0735.4	0736.1	2.5	24.0			
	900	GORK	40	F	0735.5	0736.2	2.4	13.0			
	204	IZMI	7	C	0735.8	0735.8	0.1	22.0			
	410	LEAR	8	S	0736.0	0736.0	U	52.0			QL=4 ST=2 TYP=3
	2840	PEKG	47	GB	0749.0	0756.5	27.0	626.3			
	900	GORK	21	GRF	0751.5	0756.8	18.0	12.0			
	15400	LEAR	49	GB	0754.0	0756.0	5.0	860.0			QL=4 ST=2 TYP=6
	15400	SVTO	49	GB	0754.0	0756.0	11.0	840.0			QL=4 ST=2 TYP=6
	9100	GORK	21	GRF	0754.0	0815.0	186.0D	26.0			
	15400	LEAR	49	GB	0754.0	0755.0	966.0	530.0			QL=4 ST=1 TYP=6
	15400	SVTO	49	GB	0754.0	0755.0	966.0	500.0			QL=4 ST=1 TYP=6
	9100	GORK	4	S/F	0754.5	0756.6	13.1	460.0			
	2950	GORK	46	C	0754.6	0756.6		880.0			
	2950	GORK	46	C	0754.6	0755.8	11.8	780.0			
	2800	HIRA	47	GB	0755.0	0757.0	7.0	560.0			
	2695	LEAR	49	GB	0755.0	0756.0	4.0	580.0			QL=4 ST=2 TYP=6
	4995	LEAR	49	GB	0755.0	0755.0	4.0	600.0			QL=4 ST=2 TYP=6
	1415	LEAR	8	S	0755.0	0755.0	2.0	110.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	0755.0	0756.0	4.0	380.0			QL=4 ST=2 TYP=3
	1415	SVTO	4	S/F	0755.0	0755.0	3.0	100.0			QL=4 ST=2 TYP=3
	2695	SVTO	49	GB	0755.0	0756.0	10.0	670.0			QL=4 ST=2 TYP=6
	4995	SVTO	49	GB	0755.0	0755.0	10.0	820.0			QL=4 ST=2 TYP=6
	8800	SVTO	4	S/F	0755.0	0756.0	10.0	470.0			QL=4 ST=2 TYP=3
	1415	LEAR	4	S/F	0755.0	0755.0	965.0	110.0			QL=4 ST=1 TYP=3
	1415	SVTO	4	S/F	0755.0	0755.0	965.0	39.0			QL=4 ST=1 TYP=3
	2695	SVTO	4	S/F	0755.0	0755.0	965.0	270.0			QL=4 ST=1 TYP=3
	4995	SVTO	4	S/F	0755.0	0755.0	965.0	370.0			QL=4 ST=1 TYP=3
	8800	SVTO	4	S/F	0755.0	0755.0	965.0	320.0			QL=4 ST=1 TYP=3
	3000	IZMI	45	C	0755.1	0756.5	10.4	671.0	129.7		
	900	GORK	46	C	0757.5	0757.6	0.3	35.0			
	900	GORK	46	C	0757.5	0757.7		54.0			
	8800	LEAR	8	S	0803.0	0803.0	U	57.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0803.0	0803.0	1.0	74.0			QL=4 ST=2 TYP=3
	2950	GORK	29	PBI	0806.4	0806.4	53.4	16.0			
	9100	GORK	4	S/F	0821.8	0822.8	1.9	12.0			
	245	LEAR	8	S	0822.0	0822.0	U	63.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0822.0	0822.0	U	92.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0822.0	0822.0	U	51.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0822.0	0822.0	1.0	110.0			QL=4 ST=2 TYP=3
	900	GORK	40	F	0822.5	0822.7	1.5	15.0			
	600	GORK	4	S/F	0822.5	0822.8	1.1	9.7			
	204	IZMI	42	SER	0822.6	0822.6	1.1	15.0			
	500	HIRA	8	S	0823.0	0823.0	1.0	15.0			
	410	SGMR	8	S	1126.0	1127.0	1.0	160.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1126.0	1127.0	1.0	370.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1127.0	1127.0	U	220.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1127.0	1127.0	U	150.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1133.0	1133.0	U	450.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION

Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
17	410	SGMR	8	S	1133.0	1133.0	1.0	270.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1133.0	1133.0	U	360.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1133.0	1133.0	U	420.0			QL=2 ST=2 TYP=3
	204	IZMI	41	F	1133.6	1133.7	0.3	22.0			
	2695	SGMR	8	S	1253.0	1253.0	U	43.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1253.0	1253.0	1.0	130.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1253.0	1253.0	1.0	90.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1253.0	1253.0	U	53.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1253.0	1253.0	1.0	110.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1253.0	1253.0	1.0	80.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1253.0	1253.0	U	54.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1253.3	1253.9	1.4	74.0	37.0		
	2695	SVTO	8	S	1254.0	1254.0	U	36.0			QL=4 ST=2 TYP=3
	2800	PENT	40	F	1521.0	1550.0	32.0	7.0			
	2695	PALE	8	S	1649.0	1649.0	U	61.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	1649.0	1649.0	U	86.0			QL=4 ST=2 TYP=3
	15400	PALE	8	S	1649.0	1649.0	1.0	150.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	1649.0	1649.0	3.0	120.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1649.0	1649.0	1.0	90.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1649.0	1649.0	U	52.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1649.0	1650.0	1.0	79.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1649.0	1649.0	1.0	110.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	1649.0	1649.0	3.0	80.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	1649.0	1649.0	U	80.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1649.0	1649.0	1.0	51.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1649.0	1649.0	2.0	45.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1649.0	1650.0	4.0	72.0			QL=4 ST=2 TYP=3
	15400	SVTO	4	S/F	1649.0	1649.0	3.0	110.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	1649.2	1650.2	5.1	58.0	29.0		
	410	PALE	8	S	1705.0	1705.0	U	120.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1705.0	1705.0	U	170.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	1849.0	1917.0	43.0U	147.0			
	9500	CUBA	4	S/F	1916.9	1917.3	1.9	147.0	73.0		
	410	PALE	48	C	1917.0	1917.0	2.0	500.0			QL=4 ST=2 TYP=8
	1415	PALE	8	S	1917.0	1917.0	U	55.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	1917.0	1917.0	1.0	160.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	1917.0	1917.0	1.0	200.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	1917.0	1917.0	1.0	240.0			QL=4 ST=2 TYP=3
	15400	PALE	8	S	1917.0	1917.0	U	140.0			QL=4 ST=2 TYP=3
	245	SGMR	49	GB	1917.0	1920.0	4.0	1500.0			QL=4 ST=2 TYP=6
	410	SGMR	8	S	1917.0	1917.0	2.0	470.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1917.0	1917.0	U	21.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1917.0	1917.0	1.0	65.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1917.0	1917.0	1.0	140.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1917.0	1917.0	1.0	180.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1917.0	1917.0	U	200.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1917.0	1917.0	U	150.0			QL=4 ST=2 TYP=3
	280	CUBA	7	C	1917.2	1917.3	4.6	61.0	30.0		
	245	PALE	49	GB	1919.0	1920.0	2.0	1000.0			QL=4 ST=2 TYP=6
	2800	PENT	40	F	2032.0	2129.0	105.0	39.0			
	9500	CUBA	1	S	2057.4	2057.6	1.1	15.0	7.0		
	500	HIRA	8	S	2109.0	2109.0	1.0	25.0			
	2800	HIRA	7	C	2126.0	2129.0	4.0	40.0			
	9500	CUBA	2	S/F	2126.2	2128.2	2.8	23.0	11.0		
	500	HIRA	8	S	2129.0	2129.0	1.0	10.0			
	410	PALE	8	S	2129.0	2129.0	U	81.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2129.0	2129.0	U	110.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2141.0	2141.0	U	68.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2202.0	2204.0	2.0	150.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2204.0	2204.0	U	130.0			QL=4 ST=2 TYP=3
	2804	VORO	20	GRF	2255.1	2320.4	50.0	9.9			
	610	PALE	8	S	2334.0	2334.0	U	58.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	2359.0	2359.0	1.0	10.0			
18	245	LEAR	43	NS	0232.0	0238.0	16.0	130.0			QL=4 ST=2 TYP=1
	204	IZMI	43	NS	0600.0		360.0D		50.0		
	245	LEAR	43	NS	0801.0	0803.0	3.0	93.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1203.0	2003.0	658.0	470.0			QL=4 ST=2 TYP=1
	235	CUBA	44	NS	1330.0E		480.0D		22.0		

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

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
18	280	CUBA	44	NS	1330.0E		480.0D		38.0		
	245	PALE	43	NS	1859.0	2003.0	81.0	380.0			QL=4 ST=2 TYP=1
	2840	PEKG	5	S	0006.0	0009.8	8.0	26.9			
	2804	VORO	4	S/F	0008.9	0009.5	2.8	20.1			
	2800	HIRA	1	S	0009.0	0010.0	2.0	15.0			
	2804	VORO	20	GRF	0013.0	0033.4	79.3	7.4			
	15400	LEAR	8	S	0033.0	0033.0	U	65.0			QL=4 ST=2 TYP=3
	15400	PALE	8	S	0033.0	0033.0	U	66.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0045.0	0045.0	U	63.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0205.0	0205.0	U	55.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0205.0	0205.0	U	54.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0210.0	0210.0	U	60.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0210.0	0210.0	U	56.0			QL=4 ST=2 TYP=3
	245	PALE	48	C	0234.0	0239.0	5.0	120.0			QL=4 ST=2 TYP=8
	245	PALE	8	S	0242.0	0242.0	1.0	91.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0246.0	0247.0	2.0	69.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0252.0	0254.2	8.0	50.7			
	2800	HIRA	8	S	0254.0	0254.0	1.0	40.0			
	4995	LEAR	8	S	0254.0	0254.0	U	78.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	0254.0	0254.0	U	100.0			QL=4 ST=2 TYP=3
	2804	VORO	4	S/F	0254.0	0254.3	1.9	34.7			
	245	LEAR	8	S	0312.0	0312.0	1.0	99.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0313.0	0313.0	U	83.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0319.0	0319.0	2.0	10.0			
	245	PALE	4	S/F	0350.0	0352.0	4.0	130.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0352.0E	0353.0U	2.0D	130.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0359.0	0359.0	2.0	100.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0359.0	0359.0	U	80.0			QL=4 ST=2 TYP=3
	245	LEAR	48	C	0406.0	0406.0	2.0	86.0			QL=4 ST=2 TYP=8
	245	PALE	8	S	0406.0	0406.0	U	53.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0429.0	0429.0	U	150.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	0429.0	0429.0	1.0	190.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0528.0	0528.0	1.0	98.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0529.0	0529.0	U	75.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0543.0	0543.0	U	55.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0546.0	0546.0	1.0	60.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	0651.0	0657.0	14.0	89.0			QL=4 ST=2 TYP=3
	410	LEAR	4	S/F	0653.0	0700.0	10.0	58.0			QL=4 ST=2 TYP=3
	410	SVTO	4	S/F	0658.0	0705.0	7.0	64.0			QL=4 ST=2 TYP=3
	610	SVTO	48	C	0748.0	0748.0	3.0	68.0			QL=4 ST=2 TYP=8
	610	LEAR	8	S	0751.0	0751.0	U	77.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0755.0	0755.0	1.0	530.0			QL=4 ST=2 TYP=6
	245	SVTO	8	S	0755.0	0755.0	1.0	440.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	0755.8	0755.9	0.4	164.0			
	33	UPIC	4	S/F	1004.0	1004.2	1.0				
	245	SVTO	8	S	1045.0	1045.0	U	75.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	1045.3	1045.4	0.3	76.0			
	204	IZMI	42	SER	1134.7	1135.6	5.1	394.0			
	245	SVTO	8	S	1135.0	1135.0	U	69.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1135.0	1135.0	1.0	64.0			QL=2 ST=2 TYP=3
	245	SGMR	4	S/F	1135.0	1135.0	15.0	85.0			QL=4 ST=2 TYP=3
	410	SGMR	4	S/F	1135.0	1135.0	10.0	66.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1137.0	1137.0	1.0	44.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1146.0	1146.0	U	25.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1146.0	1146.0	1.0	360.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	1146.0	1146.0	3.0	370.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1146.0	1146.0	3.0	380.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1146.0	1146.0	U	59.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1146.0	1146.0	1.0	340.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1146.0	1146.0	1.0	360.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1146.0	1146.0	1.0	350.0			QL=4 ST=2 TYP=3
	3000	IZMI	20	GRF	1146.4	1146.8	1.1	90.0	30.4		
	245	SVTO	8	S	1242.0	1242.0	U	52.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	1358.0	1412.0	127.0U	30.0			
	245	SVTO	8	S	1409.0	1409.0	U	55.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	1411.8	1412.6	2.1	57.0	28.0		
	2695	SGMR	8	S	1412.0	1413.0	1.0	39.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1412.0	1412.0	U	39.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1412.0	1412.0	1.0	48.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION

Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
18	15400	SGMR	8	S	1412.0	1412.0	1.0	95.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1412.0	1412.0	U	52.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1412.0	1412.0	U	86.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1656.0	1657.0	1.0	81.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1656.0	1656.0	1.0	91.0			QL=4 ST=2 TYP=3
	245	PALE	48	C	1741.0	1744.0	5.0	150.0			QL=4 ST=2 TYP=8
	1415	PALE	8	S	1745.0	1745.0	U	53.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1827.0	1827.0	U	150.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1847.0	1847.0	U	250.0			QL=4 ST=2 TYP=3
	235	CUBA	6	S	2003.7	2003.9	0.6	60.0U	30.0U		
	280	CUBA	6	S	2003.7	2003.9	0.6	152.0	76.0U		
	500	HIRA	8	S	2204.0	2204.0	1.0	15.0			
	410	SGMR	8	S	2207.0	2207.0	U	53.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2230.0	2230.0	U	58.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	2256.0	2256.0	U	54.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2359.0	2359.0	U	56.0			QL=4 ST=2 TYP=3
19	245	SVTO	43	NS	0435.0	0708.0	457.0	260.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	0435.0	0454.0	1165.0	51.0			QL=4 ST=1 TYP=1
	245	SVTO	43	NS	0435.0	0505.0	1165.0	67.0			QL=4 ST=1 TYP=1
	245	SVTO	43	NS	0435.0	0543.0	1165.0	130.0			QL=4 ST=1 TYP=1
	245	SVTO	43	NS	0435.0	0549.0	1165.0	140.0			QL=4 ST=1 TYP=1
	245	SVTO	43	NS	0435.0	0552.0	1165.0	170.0			QL=4 ST=1 TYP=1
	245	SVTO	43	NS	0435.0	0708.0	1165.0	260.0			QL=4 ST=1 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D		75.0		
	127	TORN	44	NS	0840.0E		410.0D		160.0		V=1
	245	SGMR	43	NS	0945.0	1848.0	795.0	740.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	0945.0	1608.0U	855.0	240.0			QL=4 ST=1 TYP=1
	245	SGMR	44	NS	0945.0E	1056.0U	855.0D	170.0			QL=4 ST=1 TYP=1
	235	CUBA	44	NS	1300.0E		530.0D		16.0		
	280	CUBA	44	NS	1300.0E		530.0D		43.0		
	245	PALE	43	NS	1736.0	1736.0	351.0	220.0			QL=2 ST=2 TYP=1
	245	PALE	43	NS	1736.0	1736.0	384.0	52.0			QL=4 ST=1 TYP=1
	245	PALE	43	NS	1736.0	1743.0	384.0	100.0			QL=2 ST=1 TYP=1
	245	PALE	43	NS	1736.0	1759.0	384.0	130.0			QL=2 ST=1 TYP=1
	245	PALE	43	NS	1736.0	1829.0	384.0	220.0			QL=2 ST=1 TYP=1
	245	PALE	43	NS	2317.0	0202.0	320.0	240.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	2357.0	0917.0	3.0	980.0			QL=4 ST=2 TYP=1
	410	LEAR	8	S	0208.0	0208.0	U	95.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0208.0	0208.0	U	100.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0321.0	0321.0	U	72.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0321.0	0321.0	U	67.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0346.0	0347.0	1.0	80.0			QL=4 ST=2 TYP=3
	600	GORK	41	F	0351.8	0352.5	1.0	23.0			
	600	GORK	41	F	0351.8	0352.7		50.0			
	410	LEAR	8	S	0641.0	0641.0	U	90.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0641.0	0642.0	1.0	120.0			QL=4 ST=2 TYP=3
	900	GORK	42	SER	0645.7	0648.7	17.1	24.0			
	900	GORK	42	SER	0645.7	0701.9		50.0			
	2840	PEKG	3	S	0646.0	0652.3	32.0	52.6			
	410	LEAR	8	S	0647.0	0648.0	1.0	120.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0647.0	0648.0	1.0	88.0			QL=2 ST=2 TYP=3
	600	GORK	41	F	0648.2	0648.3	3.8	18.0			
	600	GORK	41	F	0648.2	0651.5		57.0			
	2950	GORK	28	PRE	0648.5	0650.0	3.6	13.0			
	9100	GORK	4	S/F	0651.6	0652.3	2.8	45.0			
	2800	HIRA	8	S	0652.0	0653.0	3.0	45.0			
	500	HIRA	47	GB	0652.0	0652.0	2.0	525.0			
	245	LEAR	49	GB	0652.0	0652.0	U	1600.0			QL=4 ST=2 TYP=6
	410	LEAR	49	GB	0652.0	0652.0	U	1500.0			QL=4 ST=2 TYP=6
	610	LEAR	49	GB	0652.0	0652.0	U	830.0			QL=4 ST=2 TYP=6
	1415	LEAR	8	S	0652.0	0652.0	1.0	220.0			QL=4 ST=2 TYP=3
	245	SVTO	49	GB	0652.0	0652.0	U	1700.0			QL=2 ST=3 TYP=6
	245	SVTO	49	GB	0652.0	0652.0	U	1700.0			QL=4 ST=2 TYP=6
	410	SVTO	49	GB	0652.0	0652.0	U	2100.0			QL=2 ST=3 TYP=6
	410	SVTO	49	GB	0652.0	0652.0	U	2100.0			QL=4 ST=2 TYP=6
	610	SVTO	49	GB	0652.0	0652.0	U	830.0			QL=2 ST=3 TYP=6
	610	SVTO	49	GB	0652.0	0652.0	U	830.0			QL=4 ST=2 TYP=6
	1415	SVTO	8	S	0652.0	0652.0	1.0	200.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
19	2695	SVTO	8	S	0652.0	0652.0	1.0	58.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	0652.0	0652.0	1.0	100.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0652.0	0652.0	U	62.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	0652.0	0652.0	U	49.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0652.0	0652.0	1028.0	1600.0			QL=4 ST=1 TYP=6
	1415	LEAR	4	S/F	0652.0	0652.0	1028.0	220.0			QL=4 ST=1 TYP=3
	600	GORK	46	C	0652.1	0652.2	4.6	220.0			
	900	GORK	46	C	0652.1	0652.3	6.2	300.0			
	2950	GORK	4	S/F	0652.1	0652.4	6.7	65.0			
	3000	IZMI	22	GRF	0652.1	0652.4	1.2	53.0	23.0		
	900	GORK	46	C	0652.1	0652.6		55.0			
	600	GORK	46	C	0652.1	0652.6		90.0			
	204	IZMI	41	F	0652.2	0652.4	0.6	117.0			
	245	SVTO	8	S	0811.0	0811.0	U	190.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0901.0	0901.0	U	120.0			QL=2 ST=2 TYP=3
	410	SVTO	8	S	0901.0	0901.0	U	68.0			QL=2 ST=2 TYP=3
	245	LEAR	49	GB	0904.0	0905.0	1.0	980.0			QL=4 ST=2 TYP=6
	410	LEAR	49	GB	0904.0	0905.0	1.0	580.0			QL=4 ST=2 TYP=6
	245	SVTO	49	GB	0904.0	0905.0	1.0	1000.0			QL=2 ST=2 TYP=6
	410	SVTO	49	GB	0904.0	0905.0	1.0	760.0			QL=2 ST=2 TYP=6
	204	IZMI	42	SER	0904.8	0905.1	0.8	320.0			
	245	SVTO	49	GB	1012.0	1012.0	U	1200.0			QL=2 ST=2 TYP=6
	410	SVTO	8	S	1012.0	1012.0	U	150.0			QL=2 ST=2 TYP=3
	204	IZMI	41	F	1012.6	1012.8	0.7	1241.0			
	600	GORK	40	F	1049.2	1050.5	1.8	82.0			
	900	GORK	40	F	1049.5	1050.4	1.5	95.0			
	33	UPIC	45	C	1258.0	1258.2	1.5				
	245	SVTO	8	S	1312.0	1312.0	U	54.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	1333.0	1333.0	2.0	52.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	1339.0	1339.0	U	59.0			QL=2 ST=2 TYP=3
	245	SGMR	49	GB	1423.0	1423.0	1.0	4500.0			QL=4 ST=2 TYP=6
	245	SVTO	49	GB	1423.0	1423.0	1.0	5100.0			QL=2 ST=2 TYP=6
	410	SGMR	8	S	1426.0	1426.0	U	59.0			QL=4 ST=1 TYP=3
	410	SGMR	8	S	1426.0	1427.0	1.0	73.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1426.0	1427.0	2.0	86.0			QL=2 ST=2 TYP=3
	410	SVTO	8	S	1426.0	1426.0	U	170.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	1512.0	1512.0	U	59.0			QL=2 ST=2 TYP=3
	33	UPIC	3	S	1604.0	1604.2	1.0				
	245	SVTO	8	S	1607.0	1608.0	1.0	190.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	1643.0	1643.0	1.0	85.0			QL=2 ST=2 TYP=3
	410	SVTO	8	S	1657.0	1658.0	1.0	79.0			QL=2 ST=2 TYP=3
	410	PALE	8	S	1659.0	1659.0	U	110.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1712.0	1712.0	U	240.0			QL=2 ST=2 TYP=3
	610	SVTO	8	S	1712.0	1712.0	U	61.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1713.0	1713.0	U	400.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	1713.0	1713.0	U	110.0			QL=4 ST=2 TYP=3
	2800	PENT	40	F	1739.0	1812.0	100.0	8.0			
	610	SGMR	8	S	1809.0	1809.0	U	52.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1826.0	1826.0	U	34.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1826.0	1826.0	U	25.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1827.0	1827.0	U	66.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1828.0	1828.0	U	280.0			QL=4 ST=2 TYP=3
	410	SGMR	49	GB	1847.0	1847.0	1.0	550.0			QL=4 ST=2 TYP=6
	410	PALE	49	GB	1848.0	1848.0	1.0	940.0			QL=2 ST=2 TYP=6
	245	SGMR	49	GB	1848.0	1848.0	U	740.0			QL=4 ST=2 TYP=6
	245	PALE	49	GB	1849.0	1849.0	U	590.0			QL=2 ST=2 TYP=6
	610	SGMR	8	S	1908.0	1908.0	U	150.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	1909.0	1909.0	U	190.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1916.0	1916.0	U	150.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1916.0	1916.0	U	30.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	2034.0	2057.0	56.0	40.0			
	4995	SGMR	8	S	2056.0	2057.0	1.0	140.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	2056.0	2057.0	1.0	170.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	2056.0	2057.0	1.0	94.0			QL=4 ST=2 TYP=3
	9500	CUBA	4	S/F	2056.7	2057.1	1.8	158.0	79.0		
	2800	HIRA	8	S	2057.0	2057.0	1.0	40.0			
	4995	PALE	8	S	2057.0	2058.0	1.0	140.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	2057.0	2058.0	1.0	160.0			QL=4 ST=2 TYP=3
	15400	PALE	8	S	2057.0	2057.0	1.0	140.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
19	410	SGMR	8	S	2057.0	2057.0	U	58.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	2057.0	2057.0	U	30.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	2057.0	2057.0	U	24.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	2134.0	2138.0	58.0U	51.0			
	2800	HIRA	7	C	2137.0	2138.0	3.0	55.0			
	500	HIRA	7	C	2137.0	2138.0	2.0	15.0			
	2695	SGMR	8	S	2137.0	2138.0	1.0	41.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	2137.0	2138.0	1.0	50.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	2137.0	2138.0	1.0	37.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	2138.0	2138.0	U	21.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	2138.0	2138.0	U	29.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	2150.0	2150.0	1.0	50.0			
	245	SGMR	8	S	2150.0	2150.0	U	160.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2150.0	2150.0	U	160.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2151.0	2151.0	U	160.0			QL=4 ST=2 TYP=3
20	245	LEAR	43	NS	0009.0	0457.0	548.0	500.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	0009.0	0009.0	1431.0	58.0			QL=4 ST=1 TYP=1
	245	PALE	43	NS	0415.0	0415.0	44.0	89.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	0415.0	0415.0	1152.0	89.0			QL=4 ST=2 TYP=1
	410	LEAR	43	NS	0429.0	0439.0	1171.0	71.0			QL=4 ST=2 TYP=1
	410	SVTO	43	NS	0456.0	1445.0	714.0	430.0			QL=4 ST=2 TYP=1
	410	SVTO	43	NS	0456.0	0456.0	1144.0	78.0			QL=4 ST=1 TYP=1
	410	SVTO	43	NS	0456.0	0616.0	1144.0	86.0			QL=4 ST=1 TYP=1
	410	SVTO	43	NS	0456.0	0642.0	1144.0	93.0			QL=4 ST=1 TYP=1
	410	SVTO	43	NS	0456.0	0702.0	1144.0	100.0			QL=4 ST=1 TYP=1
	410	SVTO	43	NS	0456.0	0747.0	1144.0	340.0			QL=2 ST=1 TYP=1
	410	SVTO	43	NS	0456.0	1445.0	1144.0	430.0			QL=4 ST=1 TYP=1
	245	SVTO	43	NS	0502.0	1319.0	762.0	770.0			QL=4 ST=2 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D		130.0		
	127	TORN	44	NS	0630.0E		540.0D		440.0		V=1
	410	LEAR	43	NS	0642.0	0807.0	155.0	83.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1034.0	2107.0	750.0	740.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1034.0	1038.0U	806.0	72.0			QL=4 ST=1 TYP=1
	245	SGMR	43	NS	1034.0	1140.0U	806.0	340.0			QL=4 ST=1 TYP=1
	33	UPIC	43	NS	1044.0	1236.0	230.0				
	410	SGMR	43	NS	1053.0	1445.0	401.0	130.0			QL=4 ST=2 TYP=1
	410	SGMR	43	NS	1053.0	1054.0U	787.0	79.0			QL=4 ST=1 TYP=1
	410	SGMR	43	NS	1053.0	1210.0U	787.0	85.0			QL=4 ST=1 TYP=1
	235	CUBA	44	NS	1300.0E		530.0D		86.0		
	610	SGMR	43	NS	1350.0	1350.0U	32.0	420.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	1736.0	1736.0	351.0	220.0			QL=4 ST=2 TYP=1
	410	PALE	43	NS	2303.0	2314.0	52.0	82.0			QL=2 ST=2 TYP=1
	245	LEAR	43	NS	2350.0	0816.0	568.0	890.0			QL=4 ST=2 TYP=1
	245	LEAR	49	GB	0026.0	0027.0	2.0	1500.0			QL=4 ST=2 TYP=6
	245	LEAR	49	GB	0026.0	0027.0	3.0	1500.0			QL=4 ST=2 TYP=6
	410	LEAR	8	S	0026.0	0027.0	1.0	240.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0027.0	0028.0	2.0	190.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	0028.0	0028.0	1.0	1400.0			QL=4 ST=2 TYP=6
	2800	PENT	29	PBI	0038.0	0058.0	75.0U	99.0			
	15400	PALE	4	S/F	0052.0	0053.0	6.0	68.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	0055.0	0058.5	10.0	163.9			
	2804	VORO	4	S/F	0056.9	0058.4	3.8	118.2			
	500	HIRA	8	S	0057.0	0059.0	3.0	80.0			
	2800	HIRA	7	C	0058.0	0059.0	2.0	100.0			
	245	LEAR	8	S	0058.0	0058.0	U	100.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0058.0	0058.0	U	62.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0058.0	0058.0	1.0	86.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0059.0	0059.0	U	83.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0059.0	0059.0	U	77.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	0059.0	0059.0	1.0	100.0			QL=4 ST=2 TYP=3
	500	HIRA	7	C	0204.0	0206.0	3.0	20.0			
	610	LEAR	8	S	0205.0	0205.0	U	64.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	0206.0	0206.0	U	53.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0314.0	0314.0	U	76.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0345.0	0345.0	U	59.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0350.0	0350.0	U	61.0			QL=4 ST=2 TYP=3
	900	GORK	2	S/F	0350.3	0350.7	1.0	2.2			
	600	GORK	2	S/F	0350.3	0350.7	0.7	7.9			

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
20	245	LEAR	8	S	0357.0	0357.0	U	130.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0406.0	0407.0	1.0	73.0			QL=4 ST=2 TYP=3
	500	HIRA	42	SER	0409.0	0450.0	92.0	45.0			
	2950	GORK	21	GRF	0409.8	0423.2	21.1	12.0			
	9100	GORK	46	C	0411.1	0417.7	21.4	20.0			
	9100	GORK	46	C	0411.1	0423.8		20.0			
	2950	GORK	1	S	0414.0	0414.3	1.2	8.4			
	2950	GORK	1	S	0416.7	0417.7	1.4	6.7			
	410	PALE	8	S	0419.0	0419.0	U	51.0			QL=4 ST=2 TYP=3
	9100	GORK	20	GRF	0437.0	0440.0	10.9	15.0			
	410	PALE	8	S	0440.0	0440.0	U	55.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0456.0	0457.0	1.0	340.0			QL=2 ST=2 TYP=3
	9100	GORK	5	S	0603.0	0605.4	2.4	9.2			
	2950	GORK	1	S	0620.1	0620.5	0.9	12.0			
	900	GORK	41	F	0620.3	0620.6	2.7	33.0			
	900	GORK	41	F	0620.3	0622.9		5.8			
	600	GORK	40	F	0621.1	0622.0	2.0	42.0			
	9100	GORK	21	GRF	0628.0	0653.7	146.0	20.0			
	600	GORK	41	F	0632.2	0644.8		16.0			
	600	GORK	41	F	0632.2	0636.9	18.2	19.0			
	9100	GORK	46	C	0632.7	0637.2		12.0			
	9100	GORK	46	C	0632.7	0634.7	6.3	12.0			
	245	SVTO	48	C	0633.0	0634.0	5.0	150.0			QL=2 ST=2 TYP=8
	2950	GORK	42	SER	0633.5	0637.1	21.4	6.7			
	2950	GORK	42	SER	0633.5	0650.8		5.0			
	410	SVTO	4	S/F	0634.0	0637.0	3.0	52.0			QL=2 ST=2 TYP=3
	900	GORK	40	F	0636.8	0643.8	14.0	330.0U			
	9100	GORK	5	S	0642.9	0645.1	3.9	9.2			
	2800	HIRA	7	C	0646.0	0646.0	8.0	15.0			
	500	HIRA	7	C	0646.0	0646.0	11.0	180.0			
	9100	GORK	2	S/F	0825.3	0827.6	6.1	9.1			
	600	GORK	46	C	0834.0	0835.0	1.8	42.0			
	600	GORK	46	C	0834.0	0835.2		37.0			
	900	GORK	7	C	0834.6	0834.7	0.7	5.7			
	900	GORK	7	C	0834.6	0834.9		7.6			
	600	GORK	4	S/F	0920.3	0920.9	1.6	12.0			
	900	GORK	7	C	0920.7	0921.1		5.7			
	900	GORK	7	C	0920.7	0920.8	1.4	7.6			
	900	GORK	40	F	0924.7	0929.0	10.3	40.0			
	600	GORK	40	F	0926.9	0929.0	3.5	65.0			
	2950	GORK	5	S	1000.2	1000.8	2.8	6.8			
	9100	GORK	4	S/F	1000.2	1000.9	1.1	17.0			
	9100	GORK	29	PBI	1001.3	1001.3	6.2	10.0			
	245	SGMR	4	S/F	1053.0	1104.0U	18.0	340.0			QL=4 ST=2 TYP=3
	410	SGMR	4	S/F	1053.0	1110.0U	18.0	110.0			QL=4 ST=2 TYP=3
	610	SGMR	4	S/F	1104.0	1106.0	4.0	450.0			QL=4 ST=2 TYP=3
	3000	IZMI	22	GRF	1105.2	1107.1	3.3	97.0	26.7		
	1415	SGMR	8	S	1106.0	1107.0	2.0	46.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1106.0	1107.0	2.0	90.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1106.0	1107.0	2.0	150.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1106.0	1107.0	1.0	80.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1106.0	1107.0	1.0	46.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	1111.4	1127.4	17.3	574.0			
	3000	IZMI	40	F	1123.7	1125.4	2.9	14.0			
	4995	SGMR	8	S	1124.0	1125.0	1.0	31.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1125.0	1125.0	U	420.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1125.0	1125.0	U	100.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1125.0	1125.0	1.0	26.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1125.0	1125.0	U	27.0			QL=4 ST=2 TYP=3
	4995	SVTO	49	GB	1224.0	1228.0	47.0	3800.0			QL=4 ST=2 TYP=6
	4995	SVTO	49	GB	1224.0	1228.0	51.0	3800.0			QL=4 ST=2 TYP=6
	4995	SVTO	49	GB	1224.0	1228.0	51.0	3800.0			QL=4 ST=3 TYP=6
	4995	SGMR	49	GB	1224.0	1229.0	83.0	3300.0			QL=4 ST=2 TYP=6
	15400	SVTO	49	GB	1226.0	1228.0	25.0	8200.0			QL=4 ST=2 TYP=6
	15400	SVTO	48	C	1226.0	1230.0	35.0	3900.0			QL=4 ST=2 TYP=8
	15400	SVTO	48	C	1226.0	1230.0	35.0	3900.0			QL=4 ST=3 TYP=8
	8800	SVTO	49	GB	1226.0	1228.0	37.0	4900.0			QL=4 ST=2 TYP=6
	1415	SVTO	48	C	1226.0	1230.0	49.0	1100.0			QL=4 ST=2 TYP=8
	1415	SVTO	48	C	1226.0	1230.0	49.0	1100.0			QL=4 ST=3 TYP=8

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
20	2695	SVTO	49	GB	1226.0	1228.0	45.0	3000.0			QL=4 ST=2 TYP=6
	2695	SVTO	49	GB	1226.0	1228.0	49.0	3000.0			QL=4 ST=2 TYP=6
	2695	SVTO	49	GB	1226.0	1228.0	49.0	3000.0			QL=4 ST=3 TYP=6
	8800	SVTO	49	GB	1226.0	1228.0	42.0	4900.0			QL=4 ST=2 TYP=6
	8800	SVTO	49	GB	1226.0	1228.0	42.0	4900.0			QL=4 ST=3 TYP=6
	8800	SGMR	49	GB	1226.0	1229.0	51.0	4700.0			QL=4 ST=2 TYP=6
	15400	SGMR	49	GB	1226.0	1229.0	63.0	7500.0			QL=4 ST=2 TYP=6
	1415	SGMR	49	GB	1226.0	1230.0	81.0	1300.0			QL=4 ST=2 TYP=6
	2695	SGMR	49	GB	1226.0	1229.0	81.0	2800.0			QL=4 ST=2 TYP=6
	610	SGMR	49	GB	1227.0	1305.0	81.0	1500.0			QL=4 ST=2 TYP=6
	410	SGMR	49	GB	1229.0	1301.0	74.0	10000.0			QL=4 ST=2 TYP=6
	245	SGMR	49	GB	1230.0	1321.0	78.0	1000.0			QL=4 ST=2 TYP=6
	33	UPIC	46	C	1234.0	1236.0	12.0				
	410	SVTO	48	C	1254.0	1303.0	21.0	4300.0			QL=2 ST=2 TYP=8
	245	SVTO	4	S/F	1623.0	1624.0	3.0	190.0			QL=2 ST=2 TYP=3
	410	SVTO	8	S	1624.0	1624.0	1.0	280.0			QL=2 ST=2 TYP=3
	2800	PENT	29	PBI	1756.0	1817.0	96.0U	15.0			
	15400	SGMR	4	S/F	1814.0	1817.0	5.0	90.0			QL=4 ST=2 TYP=3
	9500	CUBA	21	GRF	1815.0	1819.0	14.0	14.0	7.0		
	410	SGMR	8	S	1816.0	1817.0	1.0	73.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	1816.4	1817.9	2.7	21.0	10.0		
	245	PALE	8	S	1817.0	1817.0	U	4700.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1818.0	1818.0	U	65.0			QL=4 ST=2 TYP=3
	15400	PALE	8	S	1818.0	1818.0	U	55.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1955.0	1956.0	1.0	180.0			QL=2 ST=2 TYP=3
	2800	PENT	29	PBI	2058.0	2113.0	94.0U	24.0			
	9500	CUBA	21	GRF	2106.0	2114.0	22.0D	50.0	25.0		
	245	PALE	48	C	2108.0	2110.0	2.0	2000.0			QL=4 ST=2 TYP=8
	245	PALE	48	C	2108.0	2110.0	3.0	2000.0			QL=4 ST=2 TYP=8
	2800	HIRA	7	C	2108.0	2114.0	14.0	30.0			0
	8800	SGMR	4	S/F	2109.0	2110.0	3.0	53.0			QL=4 ST=2 TYP=3
	15400	SGMR	4	S/F	2109.0	2110.0	3.0	62.0			QL=4 ST=2 TYP=3
	500	HIRA	7	C	2109.0	2118.0	17.0	30.0			0
	9500	CUBA	1	S	2109.1	2110.4	3.4	32.0	16.0		
	410	SGMR	8	S	2110.0	2110.0	U	65.0			QL=4 ST=2 TYP=3
	15400	PALE	8	S	2111.0	2111.0	U	71.0			QL=2 ST=2 TYP=3
	8800	SGMR	4	S/F	2112.0	2116.0	6.0	66.0			QL=4 ST=2 TYP=3
	15400	SGMR	4	S/F	2112.0	2116.0	6.0	75.0			QL=4 ST=2 TYP=3
	610	SGMR	4	S/F	2113.0	2115.0	3.0	54.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	2113.0	2116.0	3.0	53.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	2114.0	2114.0	U	510.0			QL=4 ST=2 TYP=6
	4995	PALE	4	S/F	2114.0	2115.0	4.0	61.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	2114.0	2117.0	4.0	66.0			QL=4 ST=2 TYP=3
	15400	PALE	4	S/F	2114.0	2118.0	5.0	89.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2121.0	2121.0	1.0	180.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2216.0	2217.0	1.0	53.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2243.0	2243.0	U	62.0			QL=4 ST=2 TYP=3
	500	HIRA	7	C	2251.0	2253.0	11.0	25.0			0
	410	SGMR	4	S/F	2252.0	2257.0	6.0	73.0			QL=4 ST=2 TYP=3
	2804	VORO	45	C	2252.3	2252.5	2.9	10.1			
	2804	VORO	45	C	2252.3	2253.9		10.9			
	410	PALE	8	S	2253.0	2253.0	1.0	54.0			QL=2 ST=2 TYP=3
	610	PALE	8	S	2254.0	2254.0	U	53.0			QL=2 ST=2 TYP=3
	1415	PALE	8	S	2254.0	2254.0	U	54.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2257.0	2259.0	2.0	73.0			QL=4 ST=2 TYP=3
21	245	SVTO	43	NS	0450.0	0959.0	549.0	1700.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	0450.0	0450.0	1150.0	52.0			QL=4 ST=1 TYP=1
	245	SVTO	43	NS	0450.0	0453.0	1150.0	88.0			QL=4 ST=1 TYP=1
	245	SVTO	43	NS	0450.0	0525.0	1150.0	140.0			QL=4 ST=1 TYP=1
	245	SVTO	43	NS	0450.0	0619.0	1150.0	680.0			QL=4 ST=1 TYP=1
	245	SVTO	43	NS	0450.0	0816.0	1150.0	770.0			QL=4 ST=1 TYP=1
	245	SVTO	43	NS	0450.0	0959.0	1150.0	1700.0			QL=4 ST=1 TYP=1
	410	SVTO	43	NS	0522.0	1023.0	431.0	500.0			QL=4 ST=2 TYP=1
	410	LEAR	43	NS	0537.0	0820.0	221.0	170.0			QL=4 ST=2 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D		230.0		
	127	TORN	44	NS	0630.0E		570.0D		350.0		V=1
	33	UPIC	43	NS	0659.0	0758.2	356.0				
	245	SGMR	43	NS	0945.0	2216.0	796.0	290.0			QL=4 ST=2 TYP=1

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
21	245	SGMR	43	NS	0945.0	2005.0	855.0	260.0			QL=4 ST=1 TYP=1
	245	SGMR	43	NS	0945.0	2049.0	855.0	280.0			QL=4 ST=1 TYP=1
	245	SGMR	43	NS	0945.0	2216.0	855.0	290.0			QL=4 ST=1 TYP=1
	410	SGMR	43	NS	0945.0	1215.0U	217.0	100.0			QL=4 ST=2 TYP=1
	245	SGMR	44	NS	0945.0E	1043.0U	855.0D	170.0			QL=4 ST=1 TYP=1
	410	SGMR	43	NS	0945.0	1215.0U	855.0	100.0			QL=4 ST=1 TYP=1
	245	PALE	43	NS	1638.0	0455.0	740.0	450.0			QL=4 ST=2 TYP=1
	235	CUBA	44	NS	1800.0E		210.0D		6.0		
	410	SGMR	43	NS	2211.0	2211.0	109.0	61.0			QL=4 ST=2 TYP=1
	410	SGMR	43	NS	2212.0	2242.0	49.0	92.0			QL=4 ST=2 TYP=1
	410	LEAR	43	NS	2342.0	0024.0	154.0	190.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	2342.0	2350.0	576.0	320.0			QL=4 ST=2 TYP=1
	500	HIRA	7	C	0018.0	0035.0	17.0	20.0			0
	2800	PENT	29	PBI	0021.0	0032.0	86.0	36.0			
	2840	PEKG	5	S	0030.0	0032.9	8.0	42.8			
	2800	HIRA	1	S	0032.0	0033.0	3.0	35.0			0
	4995	LEAR	8	S	0032.0	0032.0	U	150.0			QL=2 ST=2 TYP=3
	8800	LEAR	8	S	0032.0	0032.0	U	180.0			QL=2 ST=2 TYP=3
	2804	VORO	3	S	0032.2	0032.8	4.6	35.7			
	4995	PALE	8	S	0033.0	0033.0	U	180.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	0033.0	0033.0	U	210.0			QL=4 ST=2 TYP=3
	15400	PALE	8	S	0033.0	0033.0	U	120.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0038.0	0038.0	U	54.0			QL=4 ST=2 TYP=3
	245	LEAR	48	C	0130.0	0130.0	2.0	190.0			QL=2 ST=2 TYP=8
	500	HIRA	7	C	0137.0	0142.0	7.0	20.0			0
	245	LEAR	8	S	0225.0	0225.0	U	420.0			QL=2 ST=2 TYP=3
	1415	PALE	8	S	0442.0	0442.0	U	73.0			QL=4 ST=2 TYP=3
	600	GORK	4	S/F	0451.2	0454.1	7.3	70.0			
	500	HIRA	7	C	0452.0	0454.0	4.0	20.0			0
	900	GORK	2	S/F	0453.6	0454.2	1.0	9.6			
	610	LEAR	8	S	0454.0	0454.0	U	59.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0504.0	0504.0	1.0	230.0			QL=4 ST=2 TYP=3
	245	SVTO	48	C	0504.0	0514.0	13.0	710.0			QL=2 ST=2 TYP=8
	2840	PEKG	45	C	0504.0	0516.0	32.0	257.6			
	9100	GORK	46	C	0504.2	0516.0		160.0			
	9100	GORK	46	C	0504.2	0515.0	38.7	170.0			
	2804	VORO	28	PRE	0504.4	0510.8	6.8	16.2			
	600	GORK	46	C	0504.6	0508.6		14.0			
	600	GORK	46	C	0504.6	0507.7	6.7	75.0			
	500	HIRA	7	C	0505.0	0516.0	15.0	95.0			WL
	410	SVTO	48	C	0505.0	0514.0	13.0	2700.0			QL=4 ST=2 TYP=8
	8800	SVTO	4	S/F	0505.0	0516.0	14.0	200.0			QL=4 ST=2 TYP=3
	410	SVTO	48	C	0505.0	0514.0	1135.0	2700.0			QL=4 ST=1 TYP=8
	8800	SVTO	4	S/F	0505.0	0514.0	1135.0	190.0			QL=4 ST=1 TYP=3
	900	GORK	4	S/F	0505.6	0507.7	4.2	63.0			
	2695	SVTO	4	S/F	0506.0	0516.0	13.0	320.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	0506.0	0516.0	13.0	280.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	0506.0	0515.0	1134.0	190.0			QL=4 ST=1 TYP=3
	4995	SVTO	4	S/F	0506.0	0515.0	1134.0	230.0			QL=4 ST=1 TYP=3
	410	LEAR	8	S	0507.0	0507.0	2.0	180.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0507.0	0507.0	U	59.0			QL=4 ST=2 TYP=3
	15400	SVTO	4	S/F	0507.0	0514.0	12.0	150.0			QL=4 ST=2 TYP=3
	15400	SVTO	4	S/F	0507.0	0514.0	1133.0	150.0			QL=4 ST=1 TYP=3
	900	GORK	46	C	0509.8	0513.1		350.0U			
	900	GORK	46	C	0509.8	0512.1	11.2	350.0U			
	2800	HIRA	4	S/F	0510.0	0516.0	11.0	240.0			0
	2950	GORK	46	C	0510.5	0516.0		270.0			
	2950	GORK	46	C	0510.5	0515.0	10.1	190.0			
	410	LEAR	49	GB	0511.0	0514.0	6.0	1500.0			QL=4 ST=2 TYP=6
	15400	LEAR	4	S/F	0511.0	0515.0	8.0	180.0			QL=4 ST=2 TYP=3
	610	SVTO	4	S/F	0511.0	0516.0	8.0	170.0			QL=4 ST=2 TYP=3
	15400	LEAR	4	S/F	0511.0	0515.0	1129.0	180.0			QL=4 ST=1 TYP=3
	610	SVTO	4	S/F	0511.0	0514.0	1129.0	68.0			QL=4 ST=1 TYP=3
	600	GORK	46	C	0511.1	0516.3		225.0U			
	600	GORK	46	C	0511.1	0515.4	10.1	200.0			
	2804	VORO	4	S/F	0511.2	0516.0	9.2	421.4			
	245	LEAR	48	C	0512.0	0515.0	4.0	1000.0			QL=2 ST=2 TYP=8
	610	LEAR	4	S/F	0512.0	0516.0	5.0	220.0			QL=4 ST=2 TYP=3
	1415	LEAR	4	S/F	0512.0	0516.0	5.0	420.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
21	8800	LEAR	4	S/F	0512.0	0514.0	7.0	190.0			QL=4 ST=2 TYP=3
	1415	SVTO	4	S/F	0512.0	0516.0	6.0	380.0			QL=4 ST=2 TYP=3
	1415	LEAR	4	S/F	0512.0	0514.0	1128.0	170.0			QL=4 ST=1 TYP=3
	1415	SVTO	4	S/F	0512.0	0514.0	1128.0	150.0			QL=4 ST=1 TYP=3
	4995	LEAR	4	S/F	0513.0	0516.0	6.0	260.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0514.0	0516.0	3.0	250.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0514.0	0515.0	1126.0	170.0			QL=4 ST=1 TYP=3
	2950	GORK	30	PBI	0520.6	0520.6	99.4	5.2			
	2804	VORO	29	PBI	0524.0	0524.0	28.7	26.5			
	410	LEAR	8	S	0532.0	0532.0	U	62.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0619.0	0619.0	U	640.0			QL=4 ST=2 TYP=6
	600	GORK	2	S/F	0623.5	0624.3	2.0	4.0			
	900	GORK	40	F	0630.0	0630.5	0.9	17.0			
	9100	GORK	20	GRF	0633.0	0640.4	12.6	9.6			
	2950	GORK	2	S/F	0637.4	0637.7	3.5	8.8			
	2840	PEKG	20	GRF	0756.0	0758.8	28.0	17.7			
	900	GORK	40	F	0757.3	0758.7	4.1	35.0			
	9100	GORK	46	C	0757.5	0758.6	23.5	40.0			
	9100	GORK	46	C	0757.5	0804.9		24.0			
	3000	IZMI	22	GRF	0757.6	0758.7	3.1	26.0	11.7		
	2950	GORK	46	C	0757.7	0805.0		23.0			
	2950	GORK	46	C	0757.7	0758.8	9.5	27.0			
	600	GORK	40	F	0757.7	0759.8	11.3	23.0			
	2800	HIRA	1	S	0758.0	0759.0	4.0	20.0			0
	8800	SVTO	8	S	0758.0	0758.0	1.0	42.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	0758.0	0758.0	5.0	57.0			QL=4 ST=2 TYP=3
	245	SVTO	48	C	0759.0	0801.0	4.0	280.0			QL=2 ST=2 TYP=8
	1415	SVTO	8	S	0800.0	0800.0	U	51.0			QL=4 ST=2 TYP=3
	410	SVTO	4	S/F	0800.0	0800.0	3.0	82.0			QL=2 ST=2 TYP=3
	204	IZMI	45	C	0814.9	0815.0	0.2	547.0			
	9100	GORK	30	PBI	0821.0	0821.0	138.0	15.0			
	245	LEAR	49	GB	0829.0	0829.0	3.0	1600.0			QL=4 ST=2 TYP=6
	410	LEAR	8	S	0829.0	0829.0	U	240.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0829.0	0829.0	U	87.0			QL=4 ST=2 TYP=3
	245	SVTO	49	GB	0829.0	0829.0	U	2000.0			QL=2 ST=2 TYP=6
	410	SVTO	8	S	0829.0	0829.0	U	400.0			QL=2 ST=2 TYP=3
	610	SVTO	8	S	0829.0	0829.0	U	53.0			QL=2 ST=2 TYP=3
	204	IZMI	41	F	0829.6	0829.7	0.3	433.0			
	2950	GORK	4	S/F	0932.4	0934.0	3.0	12.0			
	9100	GORK	20	GRF	0932.4	0933.1	39.2	15.0			
	245	SGMR	4	S/F	1125.0	1126.0U	4.0	130.0			QL=4 ST=2 TYP=3
	245	SGMR	4	S/F	1130.0	1132.0U	3.0	140.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1211.0	1211.0U	U	120.0			QL=4 ST=2 TYP=3
	245	SGMR	48	C	1344.0	1345.0U	5.0	150.0			QL=4 ST=2 TYP=8
	245	SGMR	8	S	1359.0	1359.0U	U	140.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1655.0	1655.0	U	110.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1655.0	1655.0U	U	140.0			QL=4 ST=2 TYP=3
	245	PALE	48	C	1744.0	1744.0	2.0	63.0			QL=2 ST=2 TYP=8
	2800	PENT	29	PBI	1834.0	1851.0	58.0U	11.0			
	410	PALE	8	S	1852.0	1852.0	U	78.0			QL=2 ST=2 TYP=3
	410	SGMR	8	S	1852.0	1852.0	U	80.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1857.0	1857.0U	U	170.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1910.0	1910.0	U	52.0			QL=4 ST=2 TYP=3
	410	PALE	48	C	1913.0	1914.0	5.0	79.0			QL=2 ST=2 TYP=8
	410	SGMR	48	C	1913.0	1916.0	5.0	97.0			QL=4 ST=2 TYP=8
	410	SGMR	8	S	1920.0	1920.0	1.0	73.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2005.0	2005.0	1.0	59.0			QL=2 ST=2 TYP=3
	410	SGMR	8	S	2005.0	2005.0	1.0	83.0			QL=4 ST=2 TYP=3
	610	SGMR	4	S/F	2005.0	2011.0	6.0	90.0			QL=4 ST=2 TYP=3
	245	SGMR	48	C	2005.0	2006.0U	6.0	760.0			QL=4 ST=2 TYP=8
	610	PALE	8	S	2011.0	2011.0	U	81.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	2104.0	2105.0U	1.0	140.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2106.0	2106.0	U	57.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2106.0	2107.0	1.0	200.0			QL=4 ST=2 TYP=3
	245	SGMR	4	S/F	2106.0	2109.0U	5.0	150.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2113.0	2113.0U	2.0	150.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	2115.0	2115.0	1.0	50.0			0
	610	SGMR	49	GB	2115.0	2115.0	U	1600.0			QL=4 ST=2 TYP=6
	410	SGMR	8	S	2115.0	2115.0	U	260.0			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 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
21	410	SGMR	8	S	2124.0	2124.0	U	67.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2128.0	2128.0U	U	150.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2129.0	2129.0	U	57.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2134.0	2135.0	1.0	56.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2154.0	2154.0	U	52.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2207.0	2207.0	1.0	55.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	2321.0	2322.0	2.0	20.0			0
	2800	PENT	29	PBI	2341.0	2427.0	131.0U	306.0			
	2840	PEKG	3	S	2352.0	2355.1	19.0	36.3			
	2800	HIRA	3	S	2353.0	2355.0	8.0	35.0			0
	2804	VORO	28	PRE	2353.1	2355.0	21.7	32.4			
	2695	PALE	4	S/F	2354.0	2355.0	3.0	37.0			QL=4 ST=2 TYP=3
	4995	PALE	4	S/F	2354.0	2355.0	5.0	60.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	2354.0	2355.0	5.0	40.0			QL=4 ST=2 TYP=3
22	245	SVTO	43	NS	0444.0	0548.0	769.0	360.0			QL=4 ST=3 TYP=1
	245	SVTO	43	NS	0444.0	0548.0	1156.0	360.0			QL=4 ST=1 TYP=1
	410	SVTO	43	NS	0457.0	0731.0	756.0	490.0			QL=4 ST=3 TYP=1
	410	SVTO	43	NS	0457.0	0503.0	1143.0	63.0			QL=4 ST=1 TYP=1
	410	SVTO	43	NS	0457.0	0552.0	1143.0	220.0			QL=4 ST=1 TYP=1
	410	SVTO	43	NS	0457.0	0601.0	1143.0	340.0			QL=4 ST=1 TYP=1
	410	SVTO	43	NS	0457.0	0704.0	1143.0	440.0			QL=4 ST=1 TYP=1
	410	SVTO	43	NS	0457.0	0731.0	1143.0	490.0			QL=4 ST=1 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D		140.0		
	127	TORN	44	NS	0630.0E				420.0		V=0
	33	UPIC	43	NS	0726.0	1104.5	604.0				
	410	SGMR	43	NS	0948.0	1051.0	451.0	120.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	0948.0	1051.0	793.0	290.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	0948.0	1051.0	852.0	290.0			QL=4 ST=1 TYP=1
	410	SGMR	43	NS	0948.0	1051.0	852.0	120.0			QL=4 ST=1 TYP=1
	410	SGMR	44	NS	0948.0E	1051.0U	852.0D	120.0			QL=4 ST=1 TYP=1
	235	CUBA	44	NS	1300.0E		500.0D		53.0		
	280	CUBA	44	NS	1300.0E		500.0D		71.0		
	245	PALE	43	NS	1639.0	1702.0	227.0	280.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	1744.0	2252.0	674.0	550.0			QL=4 ST=2 TYP=1
	410	PALE	43	NS	2207.0	0015.0	250.0	340.0			QL=4 ST=2 TYP=1
	2840	PEKG	3	S	0014.0	0027.2	70.0	334.3			
	2804	VORO	4	S/F	0014.8	0027.3	19.3	275.6			
	410	LEAR	49	GB	0015.0	0015.0	1.0	590.0			QL=4 ST=2 TYP=6
	500	HIRA	42	SER	0015.0	0016.0	21.0	100.0			0
	4995	PALE	48	C	0015.0	0027.0	54.0	400.0			QL=4 ST=2 TYP=8
	2800	HIRA	4	S/F	0016.0	0028.0	19.0	290.0			0
	15400	LEAR	48	C	0017.0	0031.0	69.0	320.0			QL=4 ST=2 TYP=8
	15400	LEAR	4	S/F	0017.0	0026.0	1423.0	200.0			QL=4 ST=1 TYP=3
	245	LEAR	48	C	0018.0	0031.0	24.0	2600.0			QL=4 ST=2 TYP=8
	8800	PALE	48	C	0018.0	0031.0	51.0	360.0			QL=4 ST=2 TYP=8
	15400	PALE	48	C	0018.0	0031.0	51.0	320.0			QL=4 ST=2 TYP=8
	8800	LEAR	48	C	0018.0	0031.0	66.0	360.0			QL=4 ST=2 TYP=8
	4995	LEAR	48	C	0018.0	0027.0	70.0	330.0			QL=4 ST=2 TYP=8
	4995	LEAR	4	S/F	0018.0	0026.0	1422.0	310.0			QL=4 ST=1 TYP=3
	8800	LEAR	4	S/F	0018.0	0026.0	1422.0	290.0			QL=4 ST=1 TYP=3
	2695	PALE	4	S/F	0021.0	0027.0	48.0	360.0			QL=4 ST=2 TYP=3
	2695	LEAR	48	C	0021.0	0027.0	54.0	300.0			QL=4 ST=2 TYP=8
	2695	LEAR	4	S/F	0021.0	0026.0	1419.0	230.0			QL=4 ST=1 TYP=3
	1415	LEAR	48	C	0024.0	0026.0	7.0	210.0			QL=4 ST=2 TYP=8
	1415	PALE	48	C	0024.0	0026.0	7.0	200.0			QL=4 ST=2 TYP=8
	410	PALE	8	S	0024.0	0024.0	U	210.0			QL=4 ST=2 TYP=3
	410	PALE	48	C	0024.0	0031.0	31.0	310.0			QL=4 ST=2 TYP=8
	245	PALE	49	GB	0030.0	0031.0	1.0	2900.0			QL=4 ST=2 TYP=6
	410	LEAR	48	C	0031.0	0031.0	U	260.0			QL=4 ST=2 TYP=8
	610	PALE	8	S	0032.0	0032.0	U	59.0			QL=4 ST=2 TYP=3
	610	LEAR	48	C	0032.0	0032.0	51.0	81.0			QL=4 ST=2 TYP=8
	2804	VORO	30	PBI	0034.1	0042.7	217.0	49.6			
	2800	HIRA	3	S	0109.0	0111.0	6.0	65.0			0
	500	HIRA	7	C	0109.0	0110.0	3.0	35.0			WL
	15400	PALE	8	S	0109.0	0110.0	1.0	64.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	0109.0	0110.0	7.0	120.0			QL=4 ST=2 TYP=3
	4995	PALE	4	S/F	0109.0	0110.0	15.0	190.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	0109.0	0110.0	16.0	130.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
22	2804	VORO	2	S/F	0109.1	0110.3	4.7	55.0			
	500	HIRA	8	S	0122.0	0122.0	1.0	35.0			WL
	410	LEAR	8	S	0130.0	0130.0	U	230.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0130.0	0130.0	U	100.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0130.0	0130.0	U	260.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	0130.0	0130.0	U	80.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0131.0	0131.0	1.0	85.0			WL
	610	LEAR	8	S	0158.0	0158.0	U	83.0			QL=4 ST=2 TYP=3
	2840	PEKG	45	C	0204.0	0215.7	24.0	112.0			
	2804	VORO	8	S	0206.6	0206.8	0.5	39.8			
	2800	HIRA	8	S	0207.0	0207.0	1.0	40.0			0
	410	LEAR	8	S	0207.0	0207.0	U	210.0			QL=4 ST=2 TYP=3
	2800	HIRA	4	S/F	0212.0	0216.0	8.0	90.0			0
	2804	VORO	4	S/F	0212.1	0215.6	9.4	77.3			
	2695	LEAR	8	S	0214.0	0215.0	2.0	100.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	0214.0	0215.0	3.0	120.0			QL=4 ST=2 TYP=3
	4995	PALE	4	S/F	0214.0	0215.0	4.0	170.0			QL=4 ST=2 TYP=3
	500	HIRA	4	S/F	0215.0	0216.0	2.0	15.0			0
	4995	LEAR	8	S	0215.0	0215.0	1.0	110.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0215.0	0215.0	1.0	80.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	0215.0	0215.0	1.0	87.0			QL=4 ST=2 TYP=3
	2804	VORO	30	PBI	0221.8	0221.8	160.0	21.6			
	2804	VORO	2	S/F	0252.3	0252.7	1.2	11.7			
	2800	HIRA	1	S	0253.0	0253.0	1.0	15.0			0
	500	HIRA	8	S	0332.0	0332.0	1.0	25.0			0
	9100	GORK	46	C	0348.6	0351.0		19.0			
	9100	GORK	46	C	0348.6	0349.4	3.3	13.0			
	245	LEAR	49	GB	0355.0E	0357.0U	3.0D	800.0			QL=4 ST=2 TYP=6
	2840	PEKG	5	S	0355.0	0357.8	7.0	28.1			
	245	PALE	49	GB	0357.0	0357.0	U	820.0			QL=4 ST=2 TYP=6
	2950	GORK	4	S/F	0357.4	0357.9	1.5	23.0			
	2804	VORO	40	F	0357.5	0357.8	1.4	13.3			
	900	GORK	4	S/F	0357.6	0357.9	1.4	27.0			
	600	GORK	1	S	0357.7	0358.2	1.4	2.6			
	2800	HIRA	1	S	0358.0	0358.0	1.0	20.0			0
	9100	GORK	4	S/F	0536.6	0537.8	6.0	16.0			
	2950	GORK	1	S	0536.9	0537.9	1.8	5.1			
	900	GORK	46	C	0547.7	0548.1	1.4	36.0			
	900	GORK	46	C	0547.7	0548.9		30.0			
	600	GORK	7	C	0547.8	0548.1		7.9			
	600	GORK	7	C	0547.8	0547.9	1.5	13.0			
	2840	PEKG	1	S	0633.0	0636.0	7.0	7.9			
	9100	GORK	46	C	0634.3	0635.2	4.7	41.0			
	9100	GORK	46	C	0634.3	0635.9		67.0			
	8800	LEAR	8	S	0635.0	0636.0	1.0	72.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0635.0	0636.0	1.0	63.0			QL=4 ST=2 TYP=3
	600	GORK	2	S/F	0635.7	0635.8	0.8	7.8			
	2950	GORK	1	S	0635.7	0635.9	0.7	8.7			
	900	GORK	46	C	0635.8	0636.0		12.0			
	900	GORK	46	C	0635.8	0635.8	0.7	100.0			
	204	IZMI	41	F	0636.1	0636.2	0.2	135.0			
	9100	GORK	29	PBI	0639.0	0639.0	10.2	14.0			
	600	GORK	21	GRF	0653.5	1054.0	396.5	320.0			
	9100	GORK	4	S/F	0655.2	0658.4	7.9	30.0			
	2950	GORK	1	S	0657.9	0658.4	0.8	5.2			
	900	GORK	21	GRF	0703.5	1037.3	326.5D	290.0			
	2840	PEKG	45	C	0738.0	0744.6	32.0	191.8			
	204	IZMI	42	SER	0741.1	0744.1	4.5	538.0			
	4995	SVTO	48	C	0742.0	0755.0	21.0	560.0			QL=4 ST=2 TYP=8
	4995	SVTO	48	C	0742.0	0755.0	978.0	560.0			QL=4 ST=1 TYP=8
	4995	SVTO	4	S/F	0742.0	0744.0	978.0	400.0			QL=4 ST=1 TYP=3
	9100	GORK	47	GB	0742.0	0856.3		360.0U			
	9100	GORK	47	GB	0742.0	0844.5	62.5	260.0			
	2950	GORK	46	C	0742.4	0844.5	62.1	222.0			
	2950	GORK	46	C	0742.4	0855.6		140.0			
	3000	IZMI	22	GRF	0742.8	0744.5	2.8	190.0	54.5		
	600	GORK	46	C	0742.8	0744.6	5.0	200.0			
	600	GORK	46	C	0742.8	0744.8		80.0			
	2800	HIRA	3	S	0743.0	0745.0	5.0	55.0			0

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
22	4995	LEAR	4	S/F	0743.0	0744.0	6.0	290.0			QL=4 ST=2 TYP=3
	15400	SVTO	48	C	0743.0	0755.0	17.0	260.0			QL=4 ST=2 TYP=8
	1415	SVTO	4	S/F	0743.0	0744.0	14.0	89.0			QL=4 ST=2 TYP=3
	2695	SVTO	48	C	0743.0	0744.0	20.0	180.0			QL=4 ST=2 TYP=8
	8800	SVTO	48	C	0743.0	0755.0	20.0	680.0			QL=4 ST=2 TYP=8
	2695	SVTO	48	C	0743.0	0744.0	977.0	180.0			QL=4 ST=1 TYP=8
	15400	SVTO	48	C	0743.0	0755.0	977.0	260.0			QL=4 ST=1 TYP=8
	1415	SVTO	4	S/F	0743.0	0744.0	977.0	89.0			QL=4 ST=1 TYP=3
	2695	SVTO	4	S/F	0743.0	0744.0	977.0	180.0			QL=4 ST=1 TYP=3
	15400	SVTO	4	S/F	0743.0	0744.0	977.0	190.0			QL=4 ST=1 TYP=3
	900	GORK	46	C	0743.3	0744.1	5.2	16.0			
	900	GORK	46	C	0743.3	0744.7		67.0			
	245	LEAR	48	C	0744.0	0744.0	3.0	2400.0			QL=2 ST=2 TYP=8
	410	LEAR	49	GB	0744.0	0744.0	1.0	3500.0			QL=4 ST=2 TYP=6
	1415	LEAR	8	S	0744.0	0744.0	U	100.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0744.0	0744.0	1.0	150.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0744.0	0744.0	U	230.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0744.0	0744.0	U	170.0			QL=4 ST=2 TYP=3
	610	LEAR	4	S/F	0744.0	0744.0	3.0	150.0			QL=4 ST=2 TYP=3
	245	SVTO	49	GB	0744.0	0744.0	3.0	4600.0			QL=2 ST=2 TYP=6
	410	SVTO	49	GB	0744.0	0744.0	U	8600.0			QL=2 ST=2 TYP=6
	204	IZMI	45	C	0744.2	0744.5	0.6	10947.0			
	500	HIRA	47	GB	0745.0	0745.0	2.0	730.0			WR
	204	IZMI	42	SER	0746.4	0746.9	1.0	873.0			
	610	SVTO	8	S	0747.0	0747.0	1.0	82.0			QL=2 ST=2 TYP=3
	610	SVTO	4	S/F	0747.0	0747.0	973.0	82.0			QL=4 ST=1 TYP=3
	900	GORK	5	S	0751.0	0751.6	2.0	7.7			
	600	GORK	41	F	0751.9	0754.3	6.9	21.0			
	600	GORK	41	F	0751.9	0754.6		24.0			
	3000	IZMI	22	GRF	0754.3	0755.7	1.5	123.0	44.7		
	2800	HIRA	3	S	0755.0	0756.0	4.0	80.0			0
	8800	LEAR	48	C	0755.0	0755.0	4.0	400.0			QL=4 ST=2 TYP=8
	410	LEAR	8	S	0755.0	0755.0	U	82.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0755.0	0755.0	2.0	110.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0755.0	0755.0	2.0	270.0			QL=4 ST=2 TYP=3
	4995	LEAR	4	S/F	0755.0	0755.0	5.0	390.0			QL=4 ST=2 TYP=3
	900	GORK	46	C	0755.0	0755.4	3.2	21.0			
	900	GORK	46	C	0755.0	0755.7		19.0			
	245	LEAR	8	S	0756.0	0756.0	U	210.0			QL=2 ST=2 TYP=3
	2950	GORK	30	PBI	0800.0	0800.0	270.0D	12.0			
	9100	GORK	30	PBI	0806.0	0806.0	264.0D	22.0			
	500	HIRA	8	S	0827.0	0827.0	1.0	20.0			0
	9100	GORK	21	GRF	0830.0	1023.9	300.0D	39.0			
	2950	GORK	21	GRF	0849.0	1100.0	221.0	105.0			
	2840	PEKG	3	S	0905.0	0909.5	10.0	40.0			
	2695	LEAR	4	S/F	0907.0	0909.0	6.0	76.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0908.0	0909.0	2.0	94.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	0908.0	0909.0	2.0	77.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	0908.0	0909.0	4.0	100.0			QL=4 ST=2 TYP=3
	2950	GORK	4	S/F	0908.6	0909.4	2.5	37.0			
	600	GORK	4	S/F	0908.8	0909.3	1.7	80.0			
	900	GORK	4	S/F	0908.8	0909.4	2.0	29.0			
	204	IZMI	41	F	0908.9	0909.2	1.5	4271.0			
	9100	GORK	4	S/F	0908.9	0909.4	4.1	87.0			
	245	LEAR	49	GB	0909.0	0909.0	U	620.0			QL=2 ST=2 TYP=6
	410	LEAR	49	GB	0909.0	0909.0	6.0	870.0			QL=4 ST=2 TYP=6
	4995	LEAR	8	S	0909.0	0909.0	U	94.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0909.0	0909.0	U	79.0			QL=4 ST=2 TYP=3
	610	LEAR	4	S/F	0909.0	0915.0	6.0	80.0			QL=4 ST=2 TYP=3
	1415	LEAR	4	S/F	0909.0	0909.0	3.0	61.0			QL=4 ST=2 TYP=3
	245	SVTO	49	GB	0909.0	0909.0	U	560.0			QL=2 ST=2 TYP=6
	410	SVTO	49	GB	0909.0	0909.0	U	1700.0			QL=2 ST=2 TYP=6
	1415	SVTO	8	S	0909.0	0909.0	U	24.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	0909.0	0909.0	3.0	42.0			QL=4 ST=2 TYP=3
	3000	IZMI	20	GRF	0909.3	0909.4	0.3	25.0	16.2		
	500	HIRA	8	S	0910.0	0910.0	1.0	70.0			0
	3000	IZMI	20	GRF	0920.1	1008.8	128.7	51.0	33.3		
	8800	SGMR	4	S/F	1003.0	1005.0	13.0	71.0			QL=4 ST=2 TYP=3
	4995	SGMR	48	C	1003.0	1006.0	55.0	160.0			QL=4 ST=2 TYP=8

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
22	2695	SGMR	4	S/F	1003.0	1009.0	55.0	210.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1003.0	1009.0	837.0	210.0			QL=4 ST=1 TYP=3
	4995	SGMR	4	S/F	1003.0	1006.0	837.0	160.0			QL=4 ST=1 TYP=3
	8800	SGMR	4	S/F	1003.0	1005.0	837.0	71.0			QL=4 ST=1 TYP=3
	1415	SGMR	4	S/F	1004.0	1012.0	54.0	170.0			QL=4 ST=2 TYP=3
	1415	SGMR	4	S/F	1004.0	1012.0	836.0	170.0			QL=4 ST=1 TYP=3
	9100	GORK	46	C	1005.5	1008.1	12.9	14.0			
	9100	GORK	46	C	1005.5	1012.8		26.0			
	204	IZMI	42	SER	1011.8	1011.9	0.9	504.0			
	8800	SGMR	49	GB	1103.0E	1105.0U	12.0D	700.0			QL=4 ST=2 TYP=6
	9100	GORK	47	GB	1103.5	1105.4	33.5	590.0			
	2950	GORK	4	S/F	1103.8	1105.6	7.9	340.0			
	2695	SGMR	4	S/F	1104.0E	1105.0U	6.0D	200.0			QL=4 ST=2 TYP=3
	4995	SGMR	49	GB	1104.0E	1105.0U	14.0D	570.0			QL=4 ST=2 TYP=6
	15400	SGMR	4	S/F	1104.0E	1105.0U	11.0D	410.0			QL=4 ST=2 TYP=3
	3000	IZMI	22	GRF	1104.0	1105.6	6.7	194.0	47.7		
	204	IZMI	42	SER	1104.5	1105.6	2.4	2618.0			
	245	SGMR	49	GB	1105.0	1105.0	U	3100.0			QL=4 ST=2 TYP=6
	245	SGMR	48	C	1105.0E	1105.0	10.0D	3100.0			QL=4 ST=2 TYP=8
	1415	SGMR	8	S	1105.0E	1106.0U	2.0D	67.0			QL=4 ST=2 TYP=3
	245	SGMR	48	C	1105.0	1105.0U	10.0	3100.0			QL=4 ST=2 TYP=8
	410	SGMR	49	GB	1106.0	1106.0	1.0	620.0			QL=4 ST=2 TYP=6
	410	SGMR	49	GB	1106.0E	1106.0	1.0D	620.0			QL=4 ST=2 TYP=6
	610	SGMR	8	S	1106.0	1106.0	1.0	43.0			QL=4 ST=2 TYP=3
	610	SGMR	4	S/F	1106.0	1106.0	774.0	43.0			QL=4 ST=1 TYP=3
	410	SGMR	49	GB	1106.0	1106.0U	1.0	620.0			QL=4 ST=2 TYP=6
	204	IZMI	42	SER	1115.4	1115.4	1.5	3028.0			
	9100	GORK	29	PBI	1130.0	1130.0	60.0D	35.0			
	204	IZMI	41	F	1134.5	1134.5	0.2	68.0			
	245	SGMR	4	S/F	1157.0	1158.0U	4.0	300.0			QL=4 ST=2 TYP=3
	410	SGMR	4	S/F	1157.0	1158.0U	4.0	110.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	1158.6	1158.8	0.3	140.0			
	245	SVTO	8	S	1203.0	1204.0	2.0	190.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1204.0	1204.0U	1.0	370.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1224.0	1224.0	1.0	70.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1224.0	1225.0U	2.0	400.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1438.0	1438.0	1.0	390.0			QL=2 ST=2 TYP=3
	410	SGMR	8	S	1439.0	1439.0	U	200.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1439.0	1440.0	1.0	93.0			QL=2 ST=2 TYP=3
	9500	CUBA	3	S	1538.3	1539.8	7.2	189.0	94.0		
	245	SGMR	49	GB	1539.0	1539.0	1.0	1100.0			QL=4 ST=2 TYP=6
	410	SGMR	8	S	1539.0	1539.0	U	100.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1539.0	1539.0	1.0	240.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1539.0	1539.0	1.0	100.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1539.0	1539.0	1.0	140.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1539.0	1539.0	1.0	82.0			QL=4 ST=2 TYP=3
	245	SVTO	49	GB	1539.0	1539.0	1.0	910.0			QL=2 ST=2 TYP=6
	410	SVTO	8	S	1539.0	1540.0	1.0	130.0			QL=2 ST=2 TYP=3
	610	SVTO	8	S	1539.0	1539.0	1.0	200.0			QL=2 ST=2 TYP=3
	2695	SVTO	8	S	1539.0	1539.0	U	31.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1539.0	1539.0	1.0	97.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1539.0	1539.0	1.0	130.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1539.0	1539.0	U	72.0			QL=4 ST=2 TYP=3
	9500	CUBA	21	GRF	1715.0	1725.0	29.0	16.0	8.0		
	9500	CUBA	2	S/F	1717.7	1720.1	7.2	40.0	20.0		
	8800	PALE	8	S	1719.0	1719.0	1.0	58.0			QL=4 ST=2 TYP=3
	15400	PALE	8	S	1719.0	1719.0	U	53.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1811.0	1811.0U	U	290.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2205.0	2207.0	2.0	150.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2205.0	2207.0	2.0	150.0			QL=4 ST=3 TYP=3
	245	SGMR	8	S	2226.0	2226.0U	U	240.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	2239.0	2243.1	47.0	67.3			
	2800	HIRA	23	GRF	2240.0	2243.0	43.0	55.0			0
	2804	VORO	46	C	2241.0	2246.1		53.8			
	2804	VORO	46	C	2241.0	2243.2	22.2	54.6			
	2804	VORO	23	GRF	2241.0	2310.6	142.7	36.5			
	245	PALE	48	C	2243.0	2246.0	18.0	550.0			QL=4 ST=2 TYP=8
	245	PALE	48	C	2243.0	2302.0	45.0	690.0			QL=4 ST=2 TYP=8
	4995	PALE	20	GRF	2243.0	2255.0	44.0	130.0			QL=4 ST=2 TYP=2

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

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
22	2695	PALE	4	S/F	2244.0	2247.0	11.0	68.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	2244.0	2255.0	43.0	380.0			QL=4 ST=2 TYP=3
	410	PALE	4	S/F	2245.0	2255.0	13.0	330.0			QL=4 ST=2 TYP=3
	410	PALE	48	C	2245.0	2255.0	36.0	330.0			QL=4 ST=2 TYP=8
	15400	PALE	48	C	2246.0	2255.0	31.0	500.0			QL=4 ST=2 TYP=8
	500	HIRA	7	C	2251.0	2253.0	32.0	120.0			0
	410	SGMR	8	S	2252.0	2254.0	2.0	250.0			QL=4 ST=2 TYP=3
	610	PALE	48	C	2253.0	2254.0	8.0	320.0			QL=4 ST=2 TYP=8
	610	PALE	8	S	2253.0	2254.0	1.0	320.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	2253.0	2253.0	U	140.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2253.0	2253.0U	1.0	280.0			QL=4 ST=2 TYP=3
23	245	PALE	43	NS	0049.0	0047.0	249.0	170.0			QL=4 ST=2 TYP=1
	410	SVTO	43	NS	0426.0	0548.0U	177.0	250.0			QL=2 ST=2 TYP=1
	245	SVTO	43	NS	0426.0	0439.0U	345.0	110.0			QL=2 ST=2 TYP=1
	245	SVTO	43	NS	0426.0	0439.0U	1174.0	110.0			QL=4 ST=1 TYP=1
	410	SVTO	43	NS	0426.0	0457.0U	1174.0	78.0			QL=4 ST=1 TYP=1
	410	SVTO	43	NS	0426.0	0529.0U	1174.0	100.0			QL=4 ST=1 TYP=1
	410	SVTO	43	NS	0426.0	0548.0U	1174.0	250.0			QL=2 ST=1 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D		75.0		
	33	UPIC	43	NS	0642.0	0645.0	397.0				
	245	LEAR	43	NS	0723.0	0731.0	68.0	190.0			QL=2 ST=2 TYP=1
	245	SVTO	43	NS	1215.0	1717.0	330.0	340.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1218.0	1926.0	644.0	660.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1218.0	1219.0	702.0	61.0			QL=4 ST=1 TYP=1
	245	SGMR	43	NS	1218.0	1258.0	702.0	84.0			QL=4 ST=1 TYP=1
	245	SGMR	43	NS	1218.0	1732.0	702.0	160.0			QL=4 ST=1 TYP=1
	245	SGMR	43	NS	1218.0	1807.0	702.0	170.0			QL=4 ST=1 TYP=1
	245	SGMR	43	NS	1218.0	1820.0	702.0	330.0			QL=4 ST=1 TYP=1
	245	SGMR	43	NS	1218.0	1926.0	702.0	660.0			QL=4 ST=1 TYP=1
	235	CUBA	44	NS	1300.0E		530.0D		74.0		
	280	CUBA	44	NS	1300.0E		530.0D		74.0		
	410	SGMR	43	NS	1818.0	1925.0	67.0	71.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	2338.0	0022.0	444.0	640.0			QL=2 ST=2 TYP=1
	245	PALE	8	S	0029.0	0029.0	U	100.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0045.0	0045.0	U	340.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0045.0	0045.0	U	87.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0046.0	0046.0	1.0	15.0			0
	245	PALE	8	S	0046.0	0046.0	U	300.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0046.0	0046.0	U	90.0			QL=4 ST=2 TYP=3
	2804	VORO	20	GRF	0301.1	0342.3	132.0	12.7			
	900	GORK	40	F	0358.5	0400.2	2.1	350.0U			
	2950	GORK	30	PBI	0403.0U	0403.0U	55.5U	20.0			
	9100	GORK	30	PBI	0410.6U	0410.6U	52.4U	14.0			
	900	GORK	41	F	0436.1	0436.3	4.4	11.0			
	900	GORK	41	F	0436.1	0439.8		140.0			
	245	SVTO	8	S	0439.0	0439.0	U	79.0			QL=2 ST=2 TYP=3
	2950	GORK	1	S	0439.3	0439.6	1.1	5.2			
	600	GORK	3	S	0439.5	0439.7	0.7	21.0			
	9100	GORK	4	S/F	0448.6	0449.2	1.7	23.0			
	204	IZMI	41	F	0555.3	0555.4	0.3	117.0			
	4995	SVTO	4	S/F	0635.0	0644.0	18.0	140.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	0637.0	0644.4	14.0	57.4			
	9100	GORK	46	C	0637.4	0644.3	12.6	70.0			
	9100	GORK	46	C	0637.4	0644.8		55.0			
	2950	GORK	4	S/F	0640.5	0644.4	21.5	90.0			
	2800	HIRA	3	S	0642.0	0644.0	7.0	70.0			0
	204	IZMI	42	SER	0642.8	0643.5	2.4	307.0			
	600	GORK	4	S/F	0642.9	0644.1	5.5	500.0			
	410	LEAR	8	S	0643.0	0643.0	1.0	120.0			QL=2 ST=2 TYP=3
	4995	LEAR	8	S	0643.0	0644.0	2.0	100.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0643.0	0644.0	2.0	88.0			QL=4 ST=2 TYP=3
	410	SVTO	49	GB	0643.0	0643.0	2.0	700.0			QL=2 ST=2 TYP=6
	245	SVTO	8	S	0643.0	0644.0	2.0	100.0			QL=2 ST=2 TYP=3
	1415	SVTO	8	S	0643.0	0644.0	2.0	130.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	0643.0	0644.0	3.0	83.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0643.0	0644.0	3.0	79.0			QL=4 ST=2 TYP=3
	610	SVTO	4	S/F	0643.0	0644.0	10.0	330.0			QL=2 ST=2 TYP=3
	3000	IZMI	22	GRF	0643.0	0644.3	4.1	78.0	26.3		

SOLAR RADIO EMISSION

Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
23	900	GORK	46	C	0643.1	0643.1	2.9	110.0			
	204	IZMI	45	C	0643.1	0643.1	0.2	4482.0			
	900	GORK	46	C	0643.1	0644.2		350.0			
	900	GORK	46	C	0643.1	0644.8		34.0			
	610	LEAR	8	S	0644.0	0644.0	U	87.0			QL=2 ST=2 TYP=3
	1415	LEAR	8	S	0644.0	0644.0	U	130.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0644.0	0644.0	U	65.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0644.0	0644.0	10.0	120.0			0
	900	GORK	29	PBI	0646.0	0646.0	5.5	12.0			
	9100	GORK	29	PBI	0650.0	0650.0	19.4	15.0			
	600	GORK	4	S/F	0702.6	0702.9	0.4	17.0			
	2695	SVTO	48	C	0707.0	0731.0	26.0	110.0			QL=4 ST=2 TYP=8
	9100	GORK	46	C	0717.3	0723.3	18.7	35.0			
	9100	GORK	46	C	0717.3	0724.5		34.0			
	9100	GORK	46	C	0717.3	0731.5		82.0			
	2950	GORK	46	C	0717.8	0731.3		145.0			
	2950	GORK	46	C	0717.8	0723.4	21.7	33.0			
	2950	GORK	46	C	0717.8	0724.5		37.0			
	2800	HIRA	7	C	0718.0	0732.0	18.0	100.0			0
	4995	SVTO	4	S/F	0718.0	0731.0	22.0	210.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	0720.0	0731.3	19.0	122.1			
	245	LEAR	8	S	0721.0	0721.0	U	70.0			QL=4 ST=2 TYP=3
	245	SVTO	48	C	0721.0	0730.0	15.0	200.0			QL=2 ST=2 TYP=8
	8800	SVTO	4	S/F	0722.0	0731.0	11.0	78.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0723.4	0724.7	3.1	116.0			
	900	GORK	46	C	0728.1	0736.3		27.0			
	900	GORK	46	C	0728.1	0730.4	10.1	83.0			
	900	GORK	46	C	0728.1	0731.9		24.0			
	600	GORK	46	C	0730.2	0730.4	0.4	34.0			
	600	GORK	46	C	0730.2	0730.5		80.0			
	204	IZMI	42	SER	0730.2	0730.5	6.3	640.0			
	3000	IZMI	22	GRF	0730.5	0731.3	3.4	132.0	47.6		
	600	GORK	46	C	0730.9	0731.6	2.3	8.8			
	600	GORK	46	C	0730.9	0731.7		13.0			
	245	LEAR	8	S	0731.0	0731.0	U	190.0			QL=2 ST=2 TYP=3
	2695	LEAR	8	S	0731.0	0731.0	U	83.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0731.0	0731.0	1.0	130.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0731.0	0731.0	U	64.0			QL=4 ST=2 TYP=3
	600	GORK	46	C	0735.7	0736.4		55.0			
	600	GORK	46	C	0735.7	0735.9	1.2	11.0			
	9100	GORK	29	PBI	0736.0	0736.0	9.0	17.0			
	410	SVTO	8	S	0736.0	0736.0	U	65.0			QL=2 ST=2 TYP=3
	900	GORK	42	SER	0743.5	0759.4		290.0			
	900	GORK	42	SER	0743.5	0747.9	16.5	8.4			
	204	IZMI	7	C	1031.3	1031.4	0.2	59.0			
	245	SVTO	8	S	1245.0	1245.0	U	100.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1245.0	1245.0U	1.0	170.0			QL=4 ST=2 TYP=3
	235	CUBA	6	S	1258.1	1258.1	1.0	407.0U	204.0U		
	235	CUBA	6	S	1400.0	1400.0	2.9	174.0	87.0		
	610	SGMR	49	GB	1410.0	1410.0	U	2200.0			QL=4 ST=2 TYP=6
	410	SGMR	8	S	1410.0	1410.0	U	91.0			QL=4 ST=2 TYP=3
	610	SVTO	49	GB	1410.0	1410.0	1.0	720.0			QL=2 ST=2 TYP=6
	410	SVTO	8	S	1410.0	1410.0	U	210.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1410.0	1410.0U	U	87.0			QL=4 ST=2 TYP=3
	280	CUBA	6	S	1410.0	1410.2	0.8	269.0	135.0		
	280	CUBA	6	S	1430.7	1430.8	0.2	240.0	120.0		
	245	SVTO	49	GB	1559.0	1604.0	6.0	5900.0			QL=2 ST=2 TYP=6
	9500	CUBA	2	S/F	1603.0	1604.9	2.6	23.0	11.0		
	8800	SGMR	8	S	1604.0	1604.0	1.0	35.0			QL=4 ST=2 TYP=3
	245	SGMR	49	GB	1604.0	1604.0U	1.0	3600.0			QL=4 ST=2 TYP=6
	235	CUBA	6	S	1604.1	1604.9	1.3	407.0U	204.0U		
	280	CUBA	6	S	1604.3	1605.0	0.8	363.0	182.0		
	245	PALE	49	GB	1709.0	1710.0	2.0	4400.0			QL=4 ST=2 TYP=6
	245	SVTO	49	GB	1709.0	1710.0	2.0	4800.0			QL=2 ST=2 TYP=6
	15400	SVTO	8	S	1709.0	1710.0	2.0	160.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	1710.0	1710.0	U	70.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	1710.0	1710.0	1.0	160.0			QL=4 ST=2 TYP=3
	15400	PALE	8	S	1710.0	1710.0	U	150.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1710.0	1710.0	U	21.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
23	4995	SVTO	8	S	1710.0	1710.0	1.0	81.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1710.0	1710.0	2.0	170.0			QL=4 ST=2 TYP=3
	33	UPIC	42	SER	1710.0	1719.5	38.0				
	235	CUBA	41	F	1710.5	1720.8	27.6	407.0U	204.0U		
	280	CUBA	41	F	1710.5	1720.8	27.4	364.0	182.0		
	245	PALE	48	C	1714.0	1721.0	15.0	3600.0			QL=4 ST=2 TYP=8
	245	SGMR	48	C	1715.0	1720.0	16.0	3700.0			QL=4 ST=2 TYP=8
	245	SGMR	48	C	1715.0	1720.0	19.0	3700.0			QL=4 ST=2 TYP=8
	245	SVTO	49	GB	1716.0	1720.0	8.0	4000.0			QL=2 ST=2 TYP=6
	15400	SVTO	48	C	1716.0	1720.0	16.0	480.0			QL=2 ST=2 TYP=8
	15400	SVTO	48	C	1716.0	1720.0	404.0	480.0			QL=4 ST=2 TYP=8
	245	SVTO	49	GB	1716.0	1720.0	404.0	4000.0			QL=4 ST=2 TYP=6
	4995	SVTO	48	C	1717.0	1720.0	16.0	960.0			QL=2 ST=2 TYP=8
	610	PALE	8	S	1718.0	1719.0	1.0	130.0			QL=4 ST=2 TYP=3
	610	PALE	4	S/F	1718.0	1719.0	3.0	130.0			QL=4 ST=2 TYP=3
	410	PALE	48	C	1718.0	1728.0	10.0	640.0			QL=4 ST=2 TYP=8
	410	SGMR	48	C	1718.0	1728.0	10.0	500.0			QL=4 ST=2 TYP=8
	610	SGMR	48	C	1718.0	1730.0	12.0	130.0			QL=4 ST=2 TYP=8
	4995	SGMR	48	C	1718.0	1720.0	15.0	790.0			QL=4 ST=2 TYP=8
	410	SVTO	48	C	1718.0	1727.0	10.0	360.0			QL=2 ST=2 TYP=8
	1415	SVTO	48	C	1718.0	1719.0	11.0	280.0			QL=2 ST=2 TYP=8
	2695	SVTO	48	C	1718.0	1720.0	15.0	210.0			QL=2 ST=2 TYP=8
	410	SVTO	48	C	1718.0	1727.0	402.0	360.0			QL=4 ST=2 TYP=8
	1415	SVTO	48	C	1718.0	1719.0	402.0	280.0			QL=4 ST=2 TYP=8
	9500	CUBA	49	GB	1718.1	1720.1	12.4	248.0U	124.0U		
	9500	CUBA	30	PBI	1718.1	1718.1	69.9	43.0	21.0		
	1415	PALE	48	C	1719.0	1720.0	8.0	260.0			QL=4 ST=2 TYP=8
	2695	PALE	48	C	1719.0	1720.0	9.0	170.0			QL=4 ST=2 TYP=8
	8800	PALE	48	C	1719.0	1720.0	9.0	1100.0			QL=4 ST=2 TYP=8
	15400	PALE	8	S	1719.0	1720.0	2.0	420.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1719.0	1720.0	2.0	390.0			QL=4 ST=2 TYP=3
	4995	PALE	48	C	1719.0	1720.0	11.0	850.0			QL=4 ST=2 TYP=8
	1415	SGMR	48	C	1719.0	1720.0	10.0	290.0			QL=4 ST=2 TYP=8
	2695	SGMR	48	C	1719.0	1720.0	11.0	180.0			QL=4 ST=2 TYP=8
	8800	SGMR	48	C	1719.0	1720.0	11.0	1100.0			QL=4 ST=2 TYP=8
	15400	SGMR	48	C	1719.0	1720.0	11.0	390.0			QL=4 ST=2 TYP=8
	8800	SVTO	48	C	1719.0	1720.0	11.0	1400.0			QL=2 ST=2 TYP=8
	2695	PALE	4	S/F	1719.0	1720.0	401.0	170.0			QL=4 ST=1 TYP=3
	8800	SVTO	48	C	1719.0	1720.0	401.0	1400.0			QL=4 ST=2 TYP=8
	9500	CUBA	1	S	1745.3	1745.5	1.6	9.0	4.0		
	280	CUBA	25	R	1750.8	1828.2	218.4	217.0	108.0		
	235	CUBA	25	R	1758.5	1828.5	211.5	183.0	92.0		
	9500	CUBA	2	S/F	1804.5	1807.1	6.8	36.0	18.0		
	2800	PENT	41	F	1838.0	1926.0	54.0U	14.0			
	9500	CUBA	1	S	1923.4	1926.5	8.5	17.0	8.0		
	235	CUBA	7	C	1926.3	1926.7	1.2	374.0	187.0		
	2800	PENT	29	PBI	2058.0	2119.0	93.0U	58.0			
	8800	SGMR	4	S/F	2116.0	2119.0	14.0	340.0			QL=4 ST=2 TYP=3
	15400	SGMR	4	S/F	2116.0	2119.0	12.0	290.0			QL=4 ST=2 TYP=3
	9500	CUBA	46	C	2116.2	2119.6	21.2	254.0	127.0		
	500	HIRA	7	C	2117.0	2121.0	8.0	35.0			0
	2800	HIRA	4	S/F	2117.0	2120.0	13.0	40.0			0
	4995	SGMR	4	S/F	2117.0	2119.0	13.0	160.0			QL=4 ST=2 TYP=3
	410	PALE	48	C	2118.0	2121.0	4.0	970.0			QL=4 ST=2 TYP=8
	8800	PALE	4	S/F	2118.0	2119.0	6.0	290.0			QL=4 ST=2 TYP=3
	15400	PALE	4	S/F	2118.0	2119.0	5.0	340.0			QL=4 ST=2 TYP=3
	410	SGMR	48	C	2118.0	2118.0	5.0	280.0			QL=4 ST=2 TYP=8
	610	SGMR	4	S/F	2118.0	2119.0	3.0	100.0			QL=4 ST=2 TYP=3
	1415	SGMR	4	S/F	2118.0	2119.0	3.0	43.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	2118.0	2119.0	7.0	120.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	2119.0	2119.0	2.0	110.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	2119.0	2119.0	1.0	110.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	2119.0	2119.0	2.0	140.0			QL=4 ST=2 TYP=3
	245	SGMR	4	S/F	2119.0	2121.0	3.0	300.0			QL=4 ST=2 TYP=3
	280	CUBA	6	S	2121.4	2121.4	0.1	364.0	182.0		
	235	CUBA	6	S	2121.4	2121.8	0.9	220.0	110.0		
24	245	LEAR	43	NS	0141.0	0142.0	1339.0	54.0			QL=2 ST=1 TYP=1
	245	LEAR	43	NS	0141.0	0149.0	1339.0	71.0			QL=2 ST=1 TYP=1

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
24	245	LEAR	43	NS	0141.0	0153.0	1339.0	88.0			QL=2 ST=1 TYP=1
	245	LEAR	43	NS	0141.0	0804.0	1339.0	190.0			QL=2 ST=1 TYP=1
	245	LEAR	44	NS	0141.0E	0804.0	1339.0D	190.0			QL=2 ST=2 TYP=1
	245	SVTO	43	NS	0400.0	0450.0U	1200.0	62.0			QL=4 ST=1 TYP=1
	245	SVTO	43	NS	0436.0	0537.0	771.0	110.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	0436.0	0525.0	1164.0	89.0			QL=4 ST=1 TYP=1
	245	SVTO	43	NS	0436.0	0450.0U	1164.0	62.0			QL=4 ST=1 TYP=1
	245	SVTO	43	NS	0436.0	0537.0U	1164.0	110.0			QL=4 ST=1 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D		100.0		
	245	SGMR	43	NS	0950.0	1334.0	850.0	89.0			QL=4 ST=1 TYP=1
	245	SGMR	43	NS	0950.0	1258.0U	188.0	84.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	1619.0	1926.0	740.0	720.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	1650.0	1719.0	293.0	72.0			QL=4 ST=2 TYP=1
	2800	PENT	1	S	0029.0	0036.0	14.0	9.0			
	2840	PEKG	3	S	0034.0	0035.4	10.0	20.4			
	2804	VORO	40	F	0034.9	0035.7	5.2	16.5			
	410	PALE	8	S	0035.0	0035.0	U	59.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	0212.0	0215.7	12.0	59.7			
	2804	VORO	4	S/F	0215.2	0215.8	4.0	54.0			
	2800	HIRA	3	S	0216.0	0216.0	2.0	45.0			0
	2804	VORO	30	PBI	0219.1	0223.7	30.5	6.9			
	2804	VORO	8	S	0235.8	0235.9	0.5	4.5			
	2804	VORO	1	S	0304.5	0304.9	1.0	5.6			
	500	HIRA	8	S	0411.0	0412.0	2.0	190.0			0
	610	LEAR	49	GB	0411.0	0411.0	U	520.0			QL=4 ST=2 TYP=6
	410	LEAR	8	S	0411.0	0412.0	1.0	190.0			QL=2 ST=2 TYP=3
	600	GORK	46	C	0411.0	0411.3	0.6D	240.0D			
	900	GORK	4	S/F	0411.0	0411.4	0.6D	170.0			
	600	GORK	46	C	0411.0	0411.4		155.0			
	2804	VORO	2	S/F	0411.3	0411.6	1.4	6.8			
	610	PALE	49	GB	0412.0	0412.0	U	520.0			QL=4 ST=2 TYP=6
	410	PALE	8	S	0412.0	0412.0	U	100.0			QL=4 ST=2 TYP=3
	600	GORK	42	SER	0419.5	0421.1	32.5	13.0			
	600	GORK	42	SER	0419.5	0451.6		11.0			
	900	GORK	42	SER	0419.7	0451.6		5.8			
	900	GORK	42	SER	0419.7	0420.9	33.6	5.8			
	2840	PEKG	5	S	0450.0	0451.5	3.0	11.3			
	2950	GORK	2	S/F	0451.3	0451.6	1.1	12.0			
	2804	VORO	2	S/F	0451.3	0451.6	1.0	10.1			
	9100	GORK	4	S/F	0533.3	0533.8	2.7	16.0			
	900	GORK	40	F	0540.5	0542.8	3.3	13.0			
	9100	GORK	4	S/F	0545.6	0547.3	25.8	17.0			
	2840	PEKG	3	S	0600.0	0605.0	18.0	219.9			
	2950	GORK	46	C	0602.6	0605.8		160.0			
	2950	GORK	46	C	0602.6	0604.9	22.0	240.0			
	4995	LEAR	4	S/F	0603.0	0604.0	3.0	370.0			QL=4 ST=2 TYP=3
	610	SVTO	48	C	0603.0	0605.0	6.0	220.0			QL=4 ST=2 TYP=8
	2695	SVTO	4	S/F	0603.0	0604.0	6.0	230.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	0603.0	0604.0	5.0	410.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0603.0	0604.0	5.0	380.0			QL=4 ST=2 TYP=3
	4995	LEAR	4	S/F	0603.0	0604.0	1077.0	160.0			QL=4 ST=1 TYP=3
	610	SVTO	4	S/F	0603.0	0604.0	1077.0	100.0			QL=4 ST=1 TYP=3
	2695	SVTO	4	S/F	0603.0	0604.0	1077.0	170.0			QL=4 ST=1 TYP=3
	4995	SVTO	4	S/F	0603.0	0604.0	1077.0	170.0			QL=4 ST=1 TYP=3
	8800	SVTO	4	S/F	0603.0	0604.0	1077.0	160.0			QL=4 ST=1 TYP=3
	3000	IZMI	45	C	0603.4	0604.9	4.8	233.0	79.5		
	9100	GORK	4	S/F	0603.6	0604.0U	14.9	430.0			
	900	GORK	46	C	0603.6	0604.1	6.6	56.0			
	900	GORK	46	C	0603.6	0606.1		110.0			
	600	GORK	46	C	0603.8	0605.4	6.2	240.0U			
	600	GORK	46	C	0603.8	0605.9		127.0			
	2800	HIRA	3	S	0604.0	0605.0	7.0	180.0			0
	410	LEAR	49	GB	0604.0	0604.0	1.0	1200.0			QL=4 ST=2 TYP=6
	245	LEAR	8	S	0604.0	0604.0	1.0	260.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0604.0	0604.0	U	170.0			QL=2 ST=2 TYP=3
	1415	LEAR	8	S	0604.0	0604.0	U	110.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0604.0	0604.0	2.0	170.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0604.0	0604.0	2.0	360.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0604.0	0604.0	2.0	130.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
24	1415	LEAR	4	S/F	0604.0	0604.0	3.0	110.0			QL=4 ST=2 TYP=3
	410	SVTO	49	GB	0604.0	0605.0	5.0	570.0			QL=4 ST=2 TYP=6
	245	SVTO	8	S	0604.0	0604.0	1.0	140.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	0604.0	0604.0	2.0	140.0			QL=4 ST=2 TYP=3
	1415	SVTO	4	S/F	0604.0	0604.0	4.0	99.0			QL=4 ST=2 TYP=3
	500	HIRA	7	C	0604.0	0605.0	11.0	200.0			0
	2695	LEAR	4	S/F	0604.0	0604.0	1076.0	130.0			QL=2 ST=1 TYP=3
	8800	LEAR	4	S/F	0604.0	0604.0	1076.0	170.0			QL=4 ST=1 TYP=3
	1415	SVTO	4	S/F	0604.0	0604.0	1076.0	99.0			QL=4 ST=1 TYP=3
	15400	SVTO	4	S/F	0604.0	0604.0	1076.0	45.0			QL=4 ST=1 TYP=3
	204	IZMI	42	SER	0604.4	0604.8	1.5	391.0			
	610	LEAR	8	S	0605.0	0605.0	U	230.0			QL=4 ST=2 TYP=3
	600	GORK	29	PBI	0610.0	0610.0	9.5	11.0			
	900	GORK	29	PBI	0610.2	0610.2	10.3	25.0			
	600	GORK	8	S	0620.5	0620.5	0.2	11.0			
	900	GORK	41	F	0623.8	0627.0	4.2	188.0			
	900	GORK	41	F	0623.8	0627.7		42.0			
	9100	GORK	5	S	0629.5	0632.4	6.2	9.0			
	600	GORK	40	F	0629.7	0634.3	4.6	6.6			
	600	GORK	46	C	0632.2	0633.1		27.0			
	900	GORK	40	F	0632.2	0633.4	1.6	175.0			
	600	GORK	46	C	0632.2	0632.6	1.5	26.0			
	900	GORK	2	S/F	0645.9	0645.9	0.2	13.0			
	600	GORK	40	F	0657.7	0658.6	1.9	5.3			
	900	GORK	40	F	0659.1	0701.3	2.7	135.0			
	2840	PEKG	1	S	0732.0	0735.0	6.0	9.6			
	2950	GORK	2	S/F	0734.2	0734.9	2.1	10.0			
	9100	GORK	1	S	0751.3	0752.3	1.9	6.3			
	2840	PEKG	3	S	0801.0	0814.6	19.0	46.1			
	245	SVTO	8	S	0802.0	0803.0	1.0	120.0			QL=2 ST=2 TYP=3
	2800	HIRA	42	SER	0802.0	0815.0	17.0	40.0			0
	9100	GORK	21	GRF	0802.0U	0811.8	45.0D	16.0			
	3000	IZMI	42	SER	0802.2	0809.6	9.2	27.0			
	2950	GORK	46	C	0802.4U	0803.2	17.7D	21.0			
	2950	GORK	46	C	0802.4U	0809.5		25.0			
	2950	GORK	46	C	0802.4U	0814.8		57.0			
	9100	GORK	41	F	0802.5	0803.1	8.6	11.0			
	204	IZMI	41	F	0802.5	0803.4	2.4	950.0			
	9100	GORK	41	F	0802.5	0805.5		14.0			
	9100	GORK	41	F	0802.5	0814.5		17.0			
	500	HIRA	42	SER	0803.0	0806.0	14.0	115.0			0
	600	GORK	40	F	0803.0	0805.5	3.2	25.0			
	900	GORK	40	F	0804.0	0805.5	2.2	15.0			
	600	GORK	40	F	0809.8	0810.5	2.2	3.9			
	4995	SVTO	8	S	0813.0	0814.0	2.0	120.0			QL=4 ST=2 TYP=3
	9100	GORK	46	C	0813.0	0814.6	3.7	115.0			
	9100	GORK	46	C	0813.0	0814.8		105.0			
	3000	IZMI	22	GRF	0813.4	0814.8	2.0	56.0	25.4		
	900	GORK	4	S/F	0813.7	0814.8	6.1	195.0			
	4995	LEAR	8	S	0814.0	0814.0	U	60.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	0814.0	0814.0	1.0	25.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0814.0	0814.0	1.0	43.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0814.0	0814.0	1.0	110.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	0814.0	0814.0	U	39.0			QL=4 ST=2 TYP=3
	900	GORK	42	SER	0822.3	0834.3	46.2	52.0			
	900	GORK	42	SER	0822.3	0851.6		62.0			
	9100	GORK	46	C	0911.4	0928.1		35.0			
	9100	GORK	46	C	0911.4	0918.3	31.1	46.0			
	9100	GORK	4	S/F	0937.0	0940.1	7.6	16.0			
	600	GORK	42	SER	0937.8	0938.0	19.7	35.0			
	600	GORK	42	SER	0937.8	0940.7		38.0			
	900	GORK	42	SER	0940.0	0945.1		19.0			
	900	GORK	42	SER	0940.0	0940.2	17.5	27.0			
	2950	GORK	4	S/F	0952.8	0953.6	1.7	11.0			
	410	SVTO	8	S	0954.0	0954.0	U	89.0			QL=2 ST=2 TYP=3
	4995	SVTO	4	S/F	1013.0	1018.0	12.0	110.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	1014.0	1018.5	16.0	39.4			
	2950	GORK	4	S/F	1015.8	1018.4	3.4	43.0			
	3000	IZMI	20	GRF	1016.4	1018.4	9.9	32.0	7.5		

SOLAR RADIO EMISSION

Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
24	2695	SVTO	8	S	1017.0	1018.0	1.0	30.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1017.0	1018.0	1.0	44.0			QL=4 ST=2 TYP=3
	2950	GORK	29	PBI	1019.5	1019.5	10.2	16.0			
	900	GORK	41	F	1058.2	1058.5	4.1	35.0			
	900	GORK	41	F	1058.2	1101.8		25.0			
	245	SGMR	4	S/F	1147.0	1149.0U	5.0	73.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1150.0	1150.0	U	100.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1150.0	1150.0	U	55.0			QL=4 ST=2 TYP=3
	9500	CUBA	49	GB	1333.4	1334.8	6.8	685.0U	342.0U		
	610	SGMR	49	GB	1334.0	1334.0	1.0	520.0			QL=4 ST=2 TYP=6
	410	SGMR	8	S	1334.0	1334.0	1.0	290.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1334.0E	1334.0	1.0D	150.0			QL=2 ST=2 TYP=3
	2695	SGMR	8	S	1334.0E	1334.0	1.0D	140.0			QL=2 ST=2 TYP=3
	4995	SGMR	8	S	1334.0E	1334.0	1.0D	290.0			QL=2 ST=2 TYP=3
	8800	SGMR	8	S	1334.0E	1334.0	U	480.0			QL=2 ST=2 TYP=3
	610	SVTO	48	C	1334.0	1337.0	8.0	1900.0			QL=2 ST=2 TYP=8
	410	SVTO	49	GB	1334.0	1334.0	1.0	510.0			QL=4 ST=2 TYP=6
	4995	SVTO	49	GB	1334.0	1334.0	5.0	500.0			QL=4 ST=2 TYP=6
	8800	SVTO	49	GB	1334.0	1334.0	6.0	1000.0			QL=4 ST=2 TYP=6
	15400	SVTO	49	GB	1334.0	1334.0	3.0	1600.0			QL=4 ST=2 TYP=6
	1415	SVTO	4	S/F	1334.0	1334.0	5.0	140.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1334.0	1334.0	4.0	200.0			QL=4 ST=2 TYP=3
	410	SVTO	49	GB	1334.0	1334.0	626.0	500.0			QL=4 ST=2 TYP=6
	9500	CUBA	29	PBI	1340.2	1340.2	16.7	14.0	7.0		
	9500	CUBA	2	S/F	1446.5	1447.1	2.9	22.0	11.0		
	2800	PENT	24	R	1540.0	1557.0	52.0U	6.0			
	33	UPIC	45	C	1540.0	1540.1	2.0				
	2800	PENT	29	PBI	1830.0	1845.0	62.0U	102.0			
	610	SGMR	48	C	1842.0	1848.0	11.0	170.0			QL=4 ST=2 TYP=8
	4995	SGMR	48	C	1842.0	1845.0	13.0	200.0			QL=4 ST=2 TYP=8
	245	SGMR	4	S/F	1843.0	1849.0	9.0	81.0			QL=4 ST=2 TYP=3
	1415	SGMR	4	S/F	1843.0	1843.0	3.0	100.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1843.0	1844.0	9.0	100.0			QL=4 ST=2 TYP=3
	4995	PALE	48	C	1843.0	1846.0	10.0	220.0			QL=4 ST=2 TYP=8
	8800	PALE	48	C	1843.0	1845.0	13.0	420.0			QL=4 ST=2 TYP=8
	8800	SGMR	48	C	1843.0	1844.0	12.0	370.0			QL=4 ST=2 TYP=8
	610	PALE	48	C	1844.0	1849.0	8.0	200.0			QL=4 ST=2 TYP=8
	1415	PALE	8	S	1844.0	1844.0	U	100.0			QL=4 ST=2 TYP=3
	410	SGMR	4	S/F	1844.0	1845.0	8.0	62.0			QL=4 ST=2 TYP=3
	15400	SGMR	48	C	1844.0	1844.0	10.0	210.0			QL=4 ST=2 TYP=8
	15400	PALE	48	C	1845.0	1845.0	8.0	240.0			QL=4 ST=2 TYP=8
	2695	PALE	8	S	1845.0	1845.0	1.0	110.0			QL=4 ST=2 TYP=3
	410	SGMR	4	S/F	2002.0	2002.0	3.0	59.0			QL=4 ST=2 TYP=3
	2800	HIRA	8	S	2137.0	2137.0	1.0	30.0			0
	2800	PENT	24	R	2149.0	2212.0	43.0U	8.0			
	2840	PEKG	3	S	2311.0	2314.6	19.0	81.3			
	2800	HIRA	4	S/F	2312.0	2314.0	10.0	60.0			0
	2804	VORO	46	C	2312.5	2314.0	5.6	64.2			
	2804	VORO	46	C	2312.5	2314.7		34.5			
	410	PALE	8	S	2314.0	2314.0	U	55.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	2314.0	2314.0	1.0	62.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	2314.0	2314.0	1.0	140.0			QL=4 ST=2 TYP=3
	2804	VORO	29	PBI	2318.1	2320.4	34.5	20.1			
25	245	LEAR	43	NS	0545.0	0625.0	90.0	300.0			QL=4 ST=2 TYP=1
	410	LEAR	43	NS	0546.0	0634.0	89.0	280.0			QL=4 ST=2 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D		50.0		
	245	SVTO	43	NS	0603.0	0625.0	93.0	250.0			QL=4 ST=2 TYP=1
	410	SVTO	43	NS	0604.0	0636.0	92.0	730.0			QL=4 ST=2 TYP=1
	410	SVTO	43	NS	0604.0	0622.0	1076.0	270.0			QL=4 ST=1 TYP=1
	410	SVTO	43	NS	0604.0	0634.0	1076.0	420.0			QL=4 ST=1 TYP=1
	410	SVTO	43	NS	0604.0	0636.0	1076.0	730.0			QL=4 ST=1 TYP=1
	245	SGMR	43	NS	1222.0	1440.0	633.0	1000.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1222.0	1222.0	698.0	120.0			QL=4 ST=3 TYP=1
	245	SGMR	43	NS	1222.0	1413.0	698.0	580.0			QL=4 ST=1 TYP=1
	245	SVTO	43	NS	1249.0	1516.0	168.0	2900.0			QL=4 ST=2 TYP=1
	235	CUBA	44	NS	1300.0E		530.0D		63.0		
	280	CUBA	44	NS	1300.0E		530.0D		124.0		
	410	SGMR	43	NS	1320.0	1432.0	422.0	350.0			QL=4 ST=1 TYP=1

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
25	410	SGMR	43	NS	1320.0	1335.0	640.0	61.0			QL=4 ST=1 TYP=1
	410	SGMR	43	NS	1320.0	1340.0	640.0	64.0			QL=4 ST=1 TYP=1
	410	SGMR	43	NS	1320.0	1354.0	640.0	250.0			QL=4 ST=1 TYP=1
	410	SGMR	43	NS	1320.0	1432.0	640.0	350.0			QL=4 ST=1 TYP=1
	410	SVTO	43	NS	1406.0	1516.0	86.0	590.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	1622.0	1710.0	72.0	100.0			QL=4 ST=2 TYP=1
	410	PALE	43	NS	1644.0	1645.0	348.0	53.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	1644.0	1952.0	350.0	320.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	1644.0	1742.0	436.0	130.0			QL=4 ST=1 TYP=1
	245	PALE	43	NS	1644.0	1811.0	436.0	220.0			QL=4 ST=1 TYP=1
	245	PALE	43	NS	1644.0	1852.0	436.0	260.0			QL=4 ST=1 TYP=1
	245	PALE	43	NS	1644.0	1952.0	436.0	320.0			QL=4 ST=1 TYP=1
	410	PALE	43	NS	1644.0	1645.0	436.0	53.0			QL=4 ST=1 TYP=1
	2800	PENT	29	PBI	0014.0	0029.0	98.0U	204.0			
	2840	PEKG	3	S	0026.0	0029.3	27.0	320.5			
	4995	LEAR	48	C	0028.0	0029.0	3.0	210.0			QL=4 ST=2 TYP=8
	2695	LEAR	8	S	0028.0	0029.0	2.0	200.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	0028.0	0029.0	3.0	290.0			QL=4 ST=2 TYP=3
	2800	HIRA	7	C	0028.0	0029.0	23.0	300.0			0
	2695	LEAR	4	S/F	0028.0	0029.0	1412.0	200.0			QL=4 ST=1 TYP=3
	4995	LEAR	4	S/F	0028.0	0029.0	1412.0	210.0			QL=4 ST=1 TYP=3
	8800	LEAR	4	S/F	0028.0	0029.0	1412.0	290.0			QL=4 ST=1 TYP=3
	2804	VORO	4	S/F	0028.2	0029.2	4.8	254.8			
	1415	LEAR	8	S	0029.0	0029.0	U	81.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0029.0	0029.0	U	110.0			QL=4 ST=2 TYP=3
	4995	PALE	48	C	0029.0	0030.0	3.0	260.0			QL=4 ST=2 TYP=8
	1415	PALE	8	S	0029.0	0030.0	1.0	78.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	0029.0	0030.0	1.0	220.0			QL=4 ST=2 TYP=3
	15400	PALE	8	S	0029.0	0029.0	1.0	110.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	0029.0	0029.0	3.0	250.0			QL=4 ST=2 TYP=3
	1415	LEAR	4	S/F	0029.0	0029.0	1411.0	74.0			QL=4 ST=1 TYP=3
	8800	LEAR	8	S	0033.0	0033.0	U	52.0			QL=4 ST=2 TYP=3
	2804	VORO	29	PBI	0033.0	0034.3	80.9	28.1			
	245	LEAR	8	S	0112.0	0112.0	U	51.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0214.0	0214.0	U	53.0			QL=4 ST=2 TYP=3
	9100	GORK	4	S/F	0521.7	0522.5	1.1	95.0			
	245	LEAR	8	S	0534.0	0534.0	U	65.0			QL=4 ST=2 TYP=3
	2840	PEKG	47	GB	0536.0	0548.8	48.0	709.3			
	2950	GORK	4	S/F	0540.0	0548.2	23.0	1000.0			
	4995	SVTO	49	GB	0542.0	0548.0	16.0	1100.0			QL=4 ST=2 TYP=6
	4995	SVTO	49	GB	0542.0	0547.0	1098.0	1000.0			QL=4 ST=1 TYP=6
	9100	GORK	4	S/F	0542.1	0547.9	17.9	175.0			
	2695	SVTO	48	C	0543.0	0548.0	15.0	810.0			QL=2 ST=2 TYP=8
	8800	SVTO	49	GB	0543.0	0548.0	16.0	1800.0			QL=4 ST=2 TYP=6
	2695	SVTO	48	C	0543.0	0547.0	1097.0	730.0			QL=4 ST=1 TYP=8
	8800	SVTO	49	GB	0543.0	0547.0	1097.0	1700.0			QL=4 ST=1 TYP=6
	900	GORK	4	S/F	0543.4	0548.5	16.6	280.0			
	2800	HIRA	47	GB	0544.0	0549.0	15.0	630.0			0
	15400	SVTO	49	GB	0544.0	0547.0	17.0	2600.0			QL=4 ST=2 TYP=6
	4995	LEAR	49	GB	0544.0	0547.0	48.0	1000.0			QL=4 ST=2 TYP=6
	8800	LEAR	49	GB	0544.0	0547.0	48.0	2100.0			QL=4 ST=2 TYP=6
	8800	LEAR	49	GB	0544.0	0546.0	1096.0	540.0			QL=4 ST=3 TYP=6
	4995	LEAR	4	S/F	0544.0	0546.0	1096.0	290.0			QL=4 ST=3 TYP=3
	15400	SVTO	49	GB	0544.0	0547.0	1096.0	2600.0			QL=4 ST=1 TYP=6
	600	GORK	46	C	0544.5	0548.1	18.5	220.0			
	600	GORK	46	C	0544.5	0550.7		250.0U			
	245	LEAR	8	S	0545.0	0545.0	U	81.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0545.0	0545.0	U	81.0			QL=4 ST=3 TYP=3
	2695	LEAR	49	GB	0545.0	0548.0	10.0	660.0			QL=4 ST=2 TYP=6
	15400	LEAR	49	GB	0545.0	0547.0	18.0	2900.0			QL=4 ST=2 TYP=6
	610	SVTO	48	C	0545.0	0550.0	10.0	240.0			QL=4 ST=2 TYP=8
	1415	SVTO	4	S/F	0545.0	0548.0	10.0	380.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0545.0	0546.0	1095.0	130.0			QL=4 ST=3 TYP=3
	15400	LEAR	4	S/F	0545.0	0546.0	1095.0	390.0			QL=4 ST=3 TYP=3
	610	SVTO	4	S/F	0545.0	0547.0	1095.0	140.0			QL=4 ST=1 TYP=3
	1415	SVTO	4	S/F	0545.0	0547.0	1095.0	350.0			QL=4 ST=1 TYP=3
	410	LEAR	8	S	0546.0	0546.0	U	85.0			QL=4 ST=2 TYP=3
	1415	LEAR	4	S/F	0546.0	0548.0	8.0	420.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	0546.0	0546.0	3.0	26.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
25	1415	LEAR	4	S/F	0546.0	0546.0	1094.0	60.0			QL=4 ST=3 TYP=3
	245	SVTO	4	S/F	0546.0	0546.0	1094.0	26.0			QL=4 ST=1 TYP=3
	610	LEAR	48	C	0547.0	0550.0	6.0	230.0			QL=4 ST=2 TYP=8
	9100	GORK	30	PBI	0600.0	0600.0	291.0D	46.0			
	900	GORK	30	PBI	0600.0	0600.0	291.0D	19.0			
	2950	GORK	30	PBI	0603.0	0603.0	169.0	33.0			
	600	GORK	30	PBI	0603.0	0603.0	288.0D	13.0			
	204	IZMI	25	R	0604.0		111.0		145.0		
	600	GORK	46	C	0607.7	0612.6	9.6	13.0			
	600	GORK	46	C	0607.7	0613.7		14.0			
	900	GORK	41	F	0627.1	0628.5		65.0			
	900	GORK	41	F	0627.1	0627.6	1.5	90.0			
	2840	PEKG	3	S	0628.0	0634.6	32.0	24.8			
	9100	GORK	46	C	0629.3	0636.7		96.0			
	9100	GORK	46	C	0629.3	0635.8		90.0			
	9100	GORK	46	C	0629.3	0633.9	21.5	60.0			
	4995	SVTO	4	S/F	0631.0	0633.0	9.0	76.0			QL=4 ST=2 TYP=3
	2950	GORK	46	C	0631.3	0632.1	16.9	23.0			
	2950	GORK	46	C	0631.3	0644.3		23.0			
	2950	GORK	46	C	0631.3	0634.6		24.0			
	3000	IZMI	40	F	0631.3	0634.7	25.4	26.0			
	900	GORK	46	C	0631.4	0636.1		15.0			
	900	GORK	46	C	0631.4	0640.5		30.0			
	900	GORK	46	C	0631.4	0631.6	16.3	350.0U			
	600	GORK	41	F	0631.8	0645.0		12.0			
	600	GORK	41	F	0631.8	0635.7	16.7	11.0			
	4995	LEAR	20	GRF	0632.0	0633.0	23.0	72.0			QL=4 ST=2 TYP=2
	8800	LEAR	4	S/F	0632.0	0636.0	23.0	150.0			QL=4 ST=2 TYP=3
	2800	HIRA	40	F	0632.0	0713.0	44.0	25.0			0
	8800	SVTO	4	S/F	0633.0	0636.0	6.0	100.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0635.0	0636.0	1.0	66.0			QL=4 ST=2 TYP=3
	9100	GORK	46	C	0651.9	0653.4	7.4	19.0			
	9100	GORK	46	C	0651.9	0654.8		32.0			
	2950	GORK	4	S/F	0651.9	0653.8	5.1	14.0			
	600	GORK	46	C	0653.4	0655.2		62.0			
	600	GORK	46	C	0653.4	0654.9	2.5	230.0U			
	610	LEAR	8	S	0654.0	0654.0	1.0	110.0			QL=4 ST=2 TYP=3
	900	GORK	4	S/F	0706.9	0708.9	2.4	350.0U			
	9100	GORK	46	C	0707.3	0712.5		55.0			
	9100	GORK	46	C	0707.3	0710.6	13.1	40.0			
	2950	GORK	46	C	0707.5	0711.0	8.5	14.0			
	2950	GORK	46	C	0707.5	0712.4		35.0			
	8800	SVTO	4	S/F	0708.0	0712.0	10.0	100.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	0708.0	0712.5	14.0	38.3			
	3000	IZMI	42	SER	0708.1	0712.6	17.3	39.0			
	15400	SVTO	4	S/F	0709.0	0711.0	10.0	67.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0710.0	0710.0	U	130.0			QL=4 ST=2 TYP=3
	410	SVTO	48	C	0710.0	0713.0	4.0	540.0			QL=2 ST=2 TYP=8
	610	SVTO	8	S	0710.0	0710.0	U	160.0			QL=4 ST=2 TYP=3
	900	GORK	46	C	0710.1	0713.3		33.0			
	900	GORK	46	C	0710.1	0711.7	7.0	40.0			
	600	GORK	46	C	0710.3	0710.7	4.2	230.0U			
	600	GORK	46	C	0710.3	0710.9		150.0			
	4995	SVTO	8	S	0711.0	0712.0	2.0	100.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0712.0	0712.0	1.0	89.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0712.0	0712.0	U	63.0			QL=4 ST=2 TYP=3
	900	GORK	40	F	0729.6	0729.8	2.8	15.0			
	9100	GORK	2	S/F	0734.8	0735.5	1.6	8.9			
	2840	PEKG	1	S	0822.0	0824.4	7.0	5.2			
	245	SVTO	8	S	0823.0	0824.0	2.0	64.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0824.0	0824.0	U	88.0			QL=4 ST=2 TYP=3
	2950	GORK	7	C	0824.1	0824.5	2.1	5.2			
	2950	GORK	7	C	0824.1	0825.6		7.0			
	600	GORK	42	SER	0824.2	0832.2		10.0			
	600	GORK	42	SER	0824.2	0824.5	8.6	7.9			
	204	IZMI	41	F	0824.5	0824.8	0.8	108.0			
	900	GORK	41	F	0827.8	0832.3	9.1	7.7			
	900	GORK	41	F	0827.8	0835.7		3.8			
	610	SVTO	48	C	0851.0	0856.0	11.0	140.0			QL=2 ST=2 TYP=8

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
25	9100	GORK	2	S/F	1000.6	1001.6	1.7	7.7			
	33	UPIC	42	SER	1114.5	1335.5	161.5				
	245	SVTO	8	S	1222.0	1222.0	U	78.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	1231.0	1233.0	3.0	130.0			QL=4 ST=2 TYP=3
	410	SVTO	49	GB	1318.0	1322.0	5.0	1100.0			QL=2 ST=2 TYP=6
	245	SVTO	48	C	1319.0	1322.0	4.0	61.0			QL=2 ST=2 TYP=8
	4995	SVTO	4	S/F	1320.0	1322.0	4.0	61.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1320.0	1322.0	5.0	120.0			QL=4 ST=2 TYP=3
	410	SGMR	49	GB	1322.0	1322.0	2.0	860.0			QL=4 ST=2 TYP=6
	245	SGMR	8	S	1322.0	1322.0	U	150.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1322.0	1322.0	1.0	42.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1322.0	1322.0	1.0	33.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1322.0	1322.0	3.0	110.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1322.0	1322.0	U	30.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1322.5	1322.9	1.1	63.0	31.0		
	9500	CUBA	40	F	1335.5	1354.9	23.0	122.0	61.0		
	8800	SGMR	48	C	1339.0	1354.0	18.0	140.0			QL=4 ST=2 TYP=8
	410	SGMR	48	C	1340.0	1354.0	24.0	250.0			QL=4 ST=2 TYP=8
	245	SGMR	49	GB	1340.0	1354.0	23.0	620.0			QL=4 ST=2 TYP=6
	4995	SGMR	48	C	1342.0	1354.0	13.0	130.0			QL=4 ST=2 TYP=8
	8800	SVTO	48	C	1342.0	1354.0	13.0	150.0			QL=4 ST=2 TYP=8
	610	SGMR	4	S/F	1343.0	1354.0	21.0	100.0			QL=4 ST=2 TYP=3
	15400	SGMR	4	S/F	1344.0	1354.0	13.0	38.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	1344.0	1354.0	11.0	150.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1348.0	1349.0	1.0	26.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1349.0	1354.0	6.0	65.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	1349.0	1349.0	U	21.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1349.0	1355.0	6.0	69.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1354.0	1354.0	1.0	220.0			QL=2 ST=2 TYP=3
	245	SVTO	4	S/F	1354.0	1354.0	4.0	450.0			QL=2 ST=2 TYP=3
	245	SGMR	48	C	1424.0	1520.0	70.0	2100.0			QL=4 ST=2 TYP=8
	410	SGMR	48	C	1424.0	1505.0	87.0	490.0			QL=4 ST=2 TYP=8
	2695	SGMR	20	GRF	1424.0	1506.0	99.0	120.0			QL=4 ST=2 TYP=2
	610	SGMR	48	C	1424.0	1521.0	102.0	600.0			QL=4 ST=2 TYP=8
	2695	SVTO	20	GRF	1424.0	1506.0	143.0	110.0			QL=4 ST=2 TYP=2
	33	UPIC	40	F	1433.0	1515.0	127.0				
	1415	SVTO	20	GRF	1434.0	1509.0	56.0	130.0			QL=4 ST=2 TYP=2
	1415	SGMR	20	GRF	1434.0	1509.0	89.0	130.0			QL=4 ST=2 TYP=2
	9500	CUBA	20	GRF	1434.0	1504.0	96.0	55.0	27.0		
	4995	SGMR	20	GRF	1435.0	1543.0	88.0	120.0			QL=4 ST=2 TYP=2
	8800	SGMR	20	GRF	1436.0	1543.0	87.0	76.0			QL=4 ST=2 TYP=2
	4995	SVTO	20	GRF	1441.0	1543.0	113.0	110.0			QL=4 ST=2 TYP=2
	8800	SVTO	48	C	1441.0	1519.0	126.0	88.0			QL=4 ST=2 TYP=8
	15400	SVTO	4	S/F	1442.0	1442.0	9.0	25.0			QL=4 ST=2 TYP=3
	15400	SGMR	20	GRF	1447.0	1521.0	76.0	50.0			QL=4 ST=2 TYP=2
	9500	CUBA	1	S	1543.5	1543.8	1.9	16.0	8.0		
	4995	PALE	48	C	1637.0	1641.0	9.0	150.0			QL=4 ST=2 TYP=8
	2695	PALE	4	S/F	1638.0	1639.0	8.0	170.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	1641.0	1642.0	2.0	91.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	1641.0	1641.0	U	78.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	1657.0	1658.0	1.0	55.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	1658.0	1658.0	U	53.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	1703.0	1704.0	1.0	62.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	1704.0	1704.0	U	53.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	1704.0	1704.0	U	59.0			QL=4 ST=2 TYP=3
	9500	CUBA	45	C	1955.0	1956.0	5.0	131.0			
	4995	SGMR	8	S	1955.0	1955.0	2.0	100.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1955.0	1956.0	2.0	86.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1955.0	1956.0	3.0	140.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1955.0	1955.0U	U	220.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	1956.0	1957.0	1.0	63.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	1956.0	1957.0	2.0	110.0			QL=4 ST=2 TYP=3
	15400	PALE	8	S	1956.0	1957.0	2.0	92.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	1956.0	1957.0	3.0	150.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1956.0	1957.0U	1.0	110.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	1957.0	1957.0	U	68.0			QL=4 ST=2 TYP=3
	410	PALE	4	S/F	1957.0	1958.0	3.0	130.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2148.0	2148.0	U	79.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	2304.0	2307.8	8.0	19.4			

SOLAR RADIO EMISSION

Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
25	410	PALE	8	S	2338.0	2338.0	U	110.0			QL=4 ST=2 TYP=3
26	245	LEAR	43	NS	0538.0	0539.0	127.0	270.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	0539.0	0611.0	110.0	270.0			QL=4 ST=2 TYP=1
	204	IZMI	44	NS	0600.0E		120.0D		150.0		
	127	TORN	44	NS	0840.0E		310.0D		8.0		V=1
	2840	PEKG	1	S	0237.0	0240.3	9.0	8.3			
	2800	HIRA	1	S	0239.0	0241.0	3.0	10.0			0
	2804	VORO	2	S/F	0239.5	0240.7	2.6	6.8			
	9100	GORK	41	F	0357.7	0358.2	6.7	7.9			
	9100	GORK	41	F	0357.7	0401.3		14.0			
	600	GORK	40	F	0408.2	0408.5	2.0	11.0			
	500	HIRA	8	S	0438.0	0439.0	3.0	30.0			0
	9100	GORK	2	S/F	0438.0	0438.7	6.4	13.0			
	2950	GORK	1	S	0438.2	0439.0	1.6	4.8			
	600	GORK	2	S/F	0448.2	0448.4	0.5	6.5			
	245	LEAR	8	S	0527.0	0527.0	2.0	62.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0527.0	0527.0	2.0	71.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0534.0	0535.0	1.0	61.0			QL=4 ST=2 TYP=3
	2840	PEKG	45	C	0537.0	0550.9	37.0	81.2			
	600	GORK	46	C	0538.1	0542.1		21.0			
	9100	GORK	46	C	0538.1	0551.2		185.0			
	9100	GORK	46	C	0538.1	0540.2	27.9	64.0			
	600	GORK	46	C	0538.1	0539.6	3.0	26.0			
	9100	GORK	46	C	0538.1	0547.8		77.0			
	2950	GORK	46	C	0538.6	0539.3	21.4	22.0			
	2950	GORK	46	C	0538.6	0548.9		45.0			
	2800	HIRA	7	C	0539.0	0551.0	15.0	65.0			0
	8800	LEAR	4	S/F	0539.0	0551.0	13.0	230.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	0539.0	0551.0	15.0	210.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0539.0	0551.0	15.0	220.0			QL=4 ST=2 TYP=3
	900	GORK	46	C	0539.0	0540.6		44.0			
	900	GORK	46	C	0539.0	0539.7	3.8	70.0			
	2695	SVTO	4	S/F	0546.0	0551.0	5.0	65.0			QL=4 ST=2 TYP=3
	900	GORK	46	C	0546.5	0551.0		42.0			
	900	GORK	46	C	0546.5	0548.5	6.0	40.0			
	600	GORK	28	PRE	0546.5	0549.6	4.3	5.2			
	4995	LEAR	4	S/F	0547.0	0551.0	4.0	170.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	0547.0	0548.0	2.0	49.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0550.0	0551.0	1.0	61.0			QL=4 ST=2 TYP=3
	600	GORK	46	C	0550.8	0551.0	0.8	52.0			
	600	GORK	46	C	0550.8	0551.2		9.1			
	2950	GORK	30	PBI	0600.0	0600.0	84.0	12.0			
	9100	GORK	29	PBI	0606.0	0606.0	33.0	17.0			
	33	UPIC	42	SER	0624.0	1056.5	696.0				
	9100	GORK	20	GRF	0642.8	0654.3	48.2	12.0			
	245	LEAR	8	S	0647.0	0647.0	U	460.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0647.0	0647.0	1.0	420.0			QL=2 ST=2 TYP=3
	900	GORK	4	S/F	0653.2	0653.9	2.2	12.0			
	2950	GORK	1	S	0653.7	0653.9	1.5	3.4			
	600	GORK	3	S	0701.2	0701.5	0.6	5.2			
	2950	GORK	20	GRF	0754.8	0802.7	18.8	10.0			
	600	GORK	7	C	0800.1	0800.2	0.6	10.0			
	600	GORK	7	C	0800.1	0800.3		10.0			
	9100	GORK	5	S	0800.9	0804.8	4.7	7.7			
	900	GORK	7	C	0801.1	0801.2	0.4	7.6			
	900	GORK	7	C	0801.1	0801.4		7.6			
	9100	GORK	46	C	0900.6	0902.2		10.0			
	9100	GORK	46	C	0900.6	0901.3	2.4	14.0			
	2950	GORK	7	C	0900.7	0901.2	2.1	5.2			
	2950	GORK	7	C	0900.7	0902.2		3.5			
	600	GORK	3	S	0900.7	0900.8	0.3	6.5			
	900	GORK	2	S/F	0901.9	0902.2	0.6	5.7			
	9100	GORK	29	PBI	0903.0	0903.0	17.1	7.6			
	600	GORK	46	C	0949.9	0950.2	0.6	26.0			
	600	GORK	46	C	0949.9	0950.3		13.0			
	900	GORK	4	S/F	0956.8	0957.0	0.4	50.0			
	2950	GORK	20	GRF	1009.0	1018.0	22.5	8.9			
	127	TORN	4	S/F	1111.7	1112.2	1.0	500.0	250.0		

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

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
26	9500	CUBA	1	S	1448.8	1449.6	1.2	8.0	4.0		
	4995	SGMR	4	S/F	1651.0	1654.0	3.0	55.0			QL=4 ST=2 TYP=3
	15400	PALE	4	S/F	1652.0	1655.0	4.0	58.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1652.0	1652.0	U	39.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	1652.1	1653.1	4.7	26.0	13.0		
	4995	PALE	8	S	1655.0	1655.0	1.0	63.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	1655.0	1655.0	1.0	58.0			QL=4 ST=2 TYP=3
	410	SGMR	48	C	1725.0	1725.0	4.0	110.0			QL=4 ST=2 TYP=8
	610	SGMR	4	S/F	1725.0	1725.0	4.0	40.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1725.0	1729.0	5.0	180.0			QL=4 ST=2 TYP=3
	9500	CUBA	4	S/F	1725.5	1729.4	7.0	162.0	81.0		
	410	PALE	48	C	1726.0	1726.0	2.0	90.0			QL=4 ST=2 TYP=8
	4995	PALE	4	S/F	1726.0	1728.0	5.0	120.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	1726.0	1730.0	5.0	190.0			QL=4 ST=2 TYP=3
	1415	SGMR	4	S/F	1726.0	1730.0	4.0	26.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1727.0	1728.0	2.0	38.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	1727.0	1727.0	3.0	110.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1729.0	1729.0	1.0	65.0			QL=4 ST=2 TYP=3
	15400	PALE	8	S	1730.0	1730.0	U	72.0			QL=4 ST=2 TYP=3
	9500	CUBA	29	PBI	1732.5	1732.5	12.7	20.0	10.0		
	245	PALE	8	S	1758.0	1758.0	1.0	110.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1813.0	1813.0	U	73.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1813.0	1813.0	U	38.0			QL=4 ST=2 TYP=3
	235	CUBA	6	S	1813.7	1813.8	0.9	23.0	12.0		
	280	CUBA	6	S	1813.7	1813.8	0.9	135.0	68.0		
	245	PALE	8	S	1814.0	1814.0	U	58.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	2118.0	2202.0	74.0U	8.0			
	2800	PENT	29	PBI	2334.0	2355.0	137.0U	178.0			
	2840	PEKG	3	S	2346.0	2355.7	38.0	171.7			
	2804	VORO	28	PRE	2347.8	2349.3	5.6	6.8			
	2804	VORO	4	S/F	2353.5	2355.9	10.9	160.4			
	2800	HIRA	3	S	2354.0	2356.0	14.0	160.0			WL
27	127	TORN	44	NS	1020.0E		250.0D		10.0		V=1,DISTURBED
	204	IZMI	43	NS	1024.0		96.0D		10.0		
	245	SGMR	43	NS	1215.0	1329.0	80.0	200.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	1313.0	1329.0	23.0	110.0			QL=4 ST=2 TYP=1
	235	CUBA	44	NS	1409.0E		461.0D		7.0		
	2804	VORO	29	PBI	0004.5	0004.9	202.0	21.0			
	245	LEAR	8	S	0135.0	0135.0	U	63.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0138.0	0138.0	U	73.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0204.0	0204.0	U	57.0			QL=4 ST=2 TYP=3
	600	GORK	4	S/F	0355.0	0420.2	44.0	80.0			
	2950	GORK	4	S/F	0515.2	0516.9	6.3	12.0			
	245	LEAR	8	S	0523.0	0523.0	U	130.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0523.0	0523.0	U	140.0			QL=4 ST=2 TYP=3
	900	GORK	20	GRF	0530.5	0534.0	8.0	7.7			
	600	GORK	2	S/F	0535.8	0536.8	1.4	9.2			
	2840	PEKG	45	C	0541.0	0544.4	18.0	125.2			
	33	UPIC	46	C	0542.5	0544.0	3.5				
	900	GORK	46	C	0542.6	0545.3	5.4	115.0			
	900	GORK	46	C	0542.6	0546.4		100.0			
	9100	GORK	46	C	0542.9	0545.0U	7.2	265.0U			
	9100	GORK	46	C	0542.9	0545.6		150.0			
	2950	GORK	46	C	0543.8	0545.0		130.0			
	2950	GORK	46	C	0543.8	0544.4	4.2	115.0			
	600	GORK	46	C	0543.9	0546.3	4.8	69.0			
	600	GORK	46	C	0543.9	0546.9		54.0			
	2800	HIRA	3	S	0544.0	0545.0	7.0	95.0			0
	410	LEAR	49	GB	0544.0	0544.0	1.0	670.0			QL=4 ST=2 TYP=6
	245	LEAR	8	S	0544.0	0544.0	1.0	320.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	0544.0	0545.0	2.0	94.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0544.0	0545.0	2.0	100.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0544.0	0544.0	2.0	240.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0544.0	0544.0	2.0	400.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0544.0	0544.0	1.0	340.0			QL=4 ST=2 TYP=3
	410	SVTO	49	GB	0544.0	0544.0	2.0	1300.0			QL=4 ST=2 TYP=6
	245	SVTO	8	S	0544.0	0544.0	1.0	270.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0544.0	0545.0	2.0	340.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
27	15400	SVTO	8	S	0544.0	0545.0	1.0	280.0			QL=4 ST=2 TYP=3
	1415	SVTO	4	S/F	0544.0	0545.0	3.0	79.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	0544.0	0545.0	3.0	120.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	0544.0	0545.0	3.0	260.0			QL=4 ST=2 TYP=3
	500	HIRA	4	S/F	0545.0	0545.0	8.0	25.0			0
	900	GORK	30	PBI	0548.0	0548.0	14.0	25.0			
	2950	GORK	30	PBI	0548.0	0548.0	14.5	15.0			
	600	GORK	30	PBI	0548.7	0548.7	10.5	12.0			
	245	SVTO	8	S	0550.0	0550.0	U	66.0			QL=4 ST=2 TYP=3
	9100	GORK	30	PBI	0550.1	0550.1	15.9	10.0			
	245	LEAR	49	GB	0556.0	0556.0	U	930.0			QL=4 ST=2 TYP=6
	245	SVTO	49	GB	0556.0	0556.0	U	950.0			QL=4 ST=2 TYP=6
	600	GORK	1	S	0556.3	0557.1	1.6	2.6			
	9100	GORK	4	S/F	0556.3	0556.5	0.7	10.0			
	2950	GORK	2	S/F	0556.3	0556.8	1.8	10.0			
	900	GORK	1	S	0556.4	0556.7	1.4	3.8			
	9100	GORK	5	S	0624.0	0625.6	2.6	6.5			
	2950	GORK	3	S	0717.8	0718.1	2.2	11.0			
	2950	GORK	5	S	0915.6	0916.4	2.9	5.5			
	2950	GORK	41	F	0944.7	0945.0	1.3	5.6			
	2950	GORK	41	F	0944.7	0945.6		9.3			
	245	SVTO	8	S	0958.0	0958.0	U	62.0			QL=4 ST=2 TYP=3
	9100	GORK	4	S/F	1016.2	1017.1	3.7	14.0			
	2950	GORK	4	S/F	1016.3	1016.7	1.3	11.0			
	33	UPIC	46	C	1026.0	1029.5	7.0				UNCERTN
	2950	GORK	5	S	1028.2	1029.1	2.5	4.6			
	9100	GORK	2	S/F	1028.4	1029.0	1.6	7.6			
	245	SGMR	8	S	1127.0	1127.0	1.0	75.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1127.0	1128.0	1.0	100.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1138.0	1138.0	U	55.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1254.0	1254.0	1.0	76.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1306.0	1306.0	U	53.0			QL=4 ST=2 TYP=3
	33	UPIC	46	C	1328.5	1330.5	3.5				
	235	CUBA	6	S	1413.5	1415.0	1.9	34.0	17.0		
	2800	PENT	40	F	1442.0	1504.0	95.0	12.0			
	33	UPIC	46	C	1459.0	1504.5	7.0				
	9500	CUBA	1	S	1503.9	1504.3	1.6	29.0	14.0		
	235	CUBA	6	S	1516.9	1517.0	0.9	38.0	19.0		
	235	CUBA	6	S	1559.5	1559.5	0.6	38.0	19.0		
	2800	PENT	20	GRF	1837.0	1850.0	38.0	3.0			
	2800	PENT	1	S	1916.0	1922.0	10.0	9.0			
	235	CUBA	6	S	1934.8	1934.9	0.7	31.0	16.0		
	245	SGMR	8	S	1942.0	1942.0	1.0	63.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1944.0	1944.0	U	51.0			QL=4 ST=2 TYP=3
	9500	CUBA	21	GRF	2004.0	2022.0	39.0	18.0	9.0		
	4995	SGMR	4	S/F	2013.0	2016.0	3.0	50.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	2013.0	2016.0	3.0	53.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	2014.2	2016.5	8.1	32.0	16.0		
	245	SGMR	8	S	2040.0	2040.0	U	64.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2041.0	2041.0	U	61.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	2229.0	2229.0	1.0	20.0			0
	2804	VORO	40	F	2229.7	2233.2	4.2	3.9			
	410	SGMR	8	S	2232.0	2233.0	1.0	140.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	2233.0	2233.0	1.0	10.0			0
	410	PALE	8	S	2233.0	2233.0	1.0	250.0			QL=4 ST=2 TYP=3
	2804	VORO	40	F	2253.0	2253.7	6.0	4.8			
	8800	LEAR	4	S/F	2353.0	2355.0	6.0	190.0			QL=4 ST=2 TYP=3
	4995	LEAR	4	S/F	2354.0	2355.0	5.0	240.0			QL=4 ST=2 TYP=3
	4995	PALE	4	S/F	2354.0	2356.0	5.0	250.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	2354.0	2356.0	4.0	190.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	2355.0	2356.0	2.0	65.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	2355.0	2355.0	1.0	66.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	2355.0	2356.0	3.0	170.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	2355.0	2356.0	4.0	190.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	2356.0	2357.0	2.0	67.0			QL=4 ST=2 TYP=3
28	245	LEAR	43	NS	0253.0	0410.0	169.0	330.0			QL=2 ST=2 TYP=1
	245	PALE	43	NS	0400.0	0410.0	56.0	220.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	0437.0	0448.0U	1163.0	79.0			QL=4 ST=1 TYP=1

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
28	410	LEAR	43	NS	0449.0	0451.0	53.0	76.0			QL=2 ST=2 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D		50.0		
	127	TORN	44	NS	0650.0E		325.0D		10.0		V=2
	245	SVTO	43	NS	0925.0	0954.0	82.0	240.0			QL=4 ST=2 TYP=1
	245	SGMR	44	NS	0953.0E	1104.0U	71.0D	63.0			QL=4 ST=2 TYP=1
	245	SGMR	44	NS	0953.0E	1059.0U	847.0D	53.0			QL=4 ST=1 TYP=1
	235	CUBA	44	NS	1300.0E		370.0D		6.0		
	280	CUBA	44	NS	1300.0E		370.0D		10.0		
	245	LEAR	8	S	0244.0	0244.0	U	52.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0248.0	0248.0	U	53.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0257.0	0258.9	8.0	14.2			
	2804	VORO	4	S/F	0258.2	0259.1	2.5	12.0			
	2800	HIRA	1	S	0259.0	0259.0	2.0	10.0			0
	500	HIRA	8	S	0259.0	0259.0	1.0	60.0			0
	500	HIRA	7	C	0332.0	0439.0	170.0	100.0			MR
	245	PALE	8	S	0339.0	0339.0	U	68.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0343.0	0343.0	U	60.0			QL=4 ST=2 TYP=3
	600	GORK	46	C	0357.6	0409.0		21.0			
	600	GORK	46	C	0357.6	0408.7	19.4	22.0			
	600	GORK	46	C	0417.0	0439.2		200.0			
	600	GORK	46	C	0417.0	0425.2	49.0	150.0			
	600	GORK	46	C	0417.0	0444.3		130.0			
	600	GORK	46	C	0417.0	0451.3		120.0			
	410	LEAR	4	S/F	0422.0	0423.0	5.0	88.0			QL=4 ST=2 TYP=3
	410	PALE	4	S/F	0422.0	0423.0	4.0	100.0			QL=4 ST=2 TYP=3
	610	PALE	4	S/F	0423.0	0425.0	3.0	65.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0424.0	0425.0	1.0	60.0			QL=4 ST=2 TYP=3
	900	GORK	42	SER	0424.8	0445.5		11.0			
	900	GORK	42	SER	0424.8	0435.5	27.0	9.4			
	410	PALE	4	S/F	0434.0	0438.0	6.0	90.0			QL=4 ST=2 TYP=3
	410	LEAR	4	S/F	0437.0	0439.0	3.0	86.0			QL=2 ST=2 TYP=3
	610	LEAR	8	S	0438.0	0439.0	1.0	82.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	0438.0	0439.0	1.0	72.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0444.0	0444.0	U	53.0			QL=4 ST=2 TYP=3
	410	SVTO	4	S/F	0447.0	0451.0	11.0	69.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	0448.0	0448.0	7.0	79.0			QL=4 ST=2 TYP=3
	610	SVTO	4	S/F	0451.0	0452.0	3.0	35.0			QL=2 ST=2 TYP=3
	410	SVTO	4	S/F	0512.0	0513.0	10.0	110.0			QL=4 ST=2 TYP=3
	600	GORK	46	C	0512.0U	0520.4	31.2U	70.0			
	245	SVTO	8	S	0528.0	0528.0	U	52.0			QL=2 ST=2 TYP=3
	600	GORK	42	SER	0557.1	0557.4	17.6	5.6			
	600	GORK	42	SER	0557.1	0607.8		5.6			
	610	SVTO	8	S	0605.0	0605.0	U	58.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	0612.0	0612.0	U	85.0			QL=4 ST=3 TYP=3
	245	LEAR	8	S	0630.0	0630.0	U	58.0			QL=2 ST=2 TYP=3
	245	SVTO	4	S/F	0630.0	0630.0	4.0	61.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0634.0	0634.0	U	58.0			QL=2 ST=2 TYP=3
	2840	PEKG	3	S	0803.0	0805.9	14.0	24.3			
	900	GORK	40	F	0803.5	0804.4	2.3	57.0			
	2950	GORK	46	C	0803.5	0806.5		25.0			
	900	GORK	21	GRF	0803.5	0806.6	7.8	7.5			
	2950	GORK	46	C	0803.5	0808.8		16.0			
	2950	GORK	46	C	0803.5	0805.8	13.7	30.0			
	600	GORK	40	F	0804.0	0805.3U	3.2	220.0U			
	2800	HIRA	4	S/F	0805.0	0806.0	7.0	20.0			0
	500	HIRA	8	S	0805.0	0805.0	1.0	40.0			0
	610	LEAR	8	S	0805.0	0805.0	U	110.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	0805.0	0805.0	U	310.0			QL=2 ST=2 TYP=3
	2695	SVTO	8	S	0805.0	0805.0	1.0	25.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	0805.0	0806.0	3.0	36.0			QL=4 ST=2 TYP=3
	3000	IZMI	22	GRF	0805.4	0805.9	5.3	22.0	6.6		
	8800	SVTO	8	S	0806.0	0806.0	U	27.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0811.0	0813.0	2.0	95.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0812.0	0812.0	U	66.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0825.0	0825.0	U	57.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0829.0	0829.0	U	52.0			QL=2 ST=2 TYP=3
	245	SVTO	48	C	0905.0	0911.0	6.0	100.0			QL=2 ST=2 TYP=8
	245	LEAR	8	S	0906.0	0906.0	U	54.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0910.0	0911.0	1.0	79.0			QL=2 ST=2 TYP=3

SOLAR RADIO EMISSION

Outstanding Occurrences

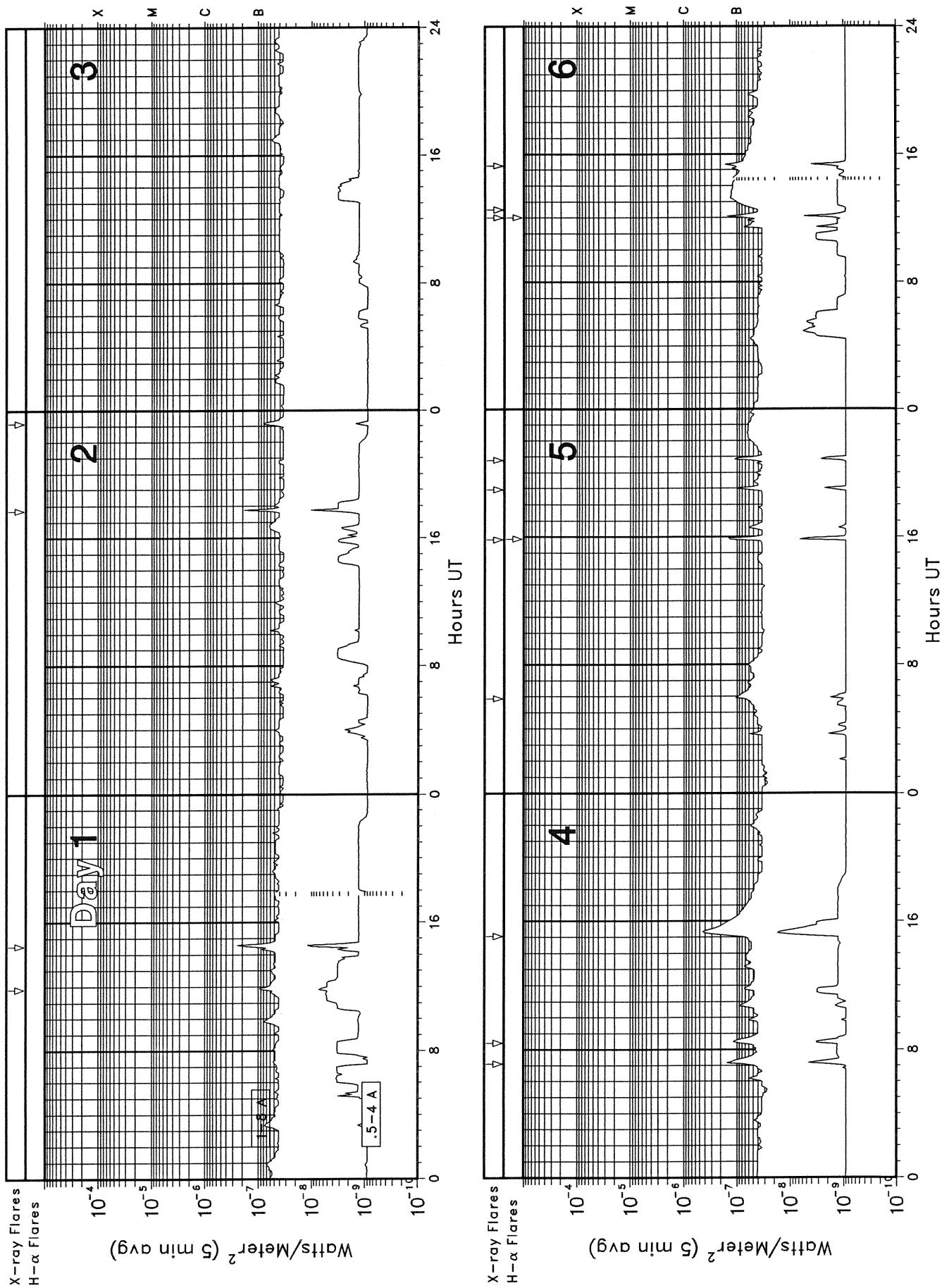
JULY 2004

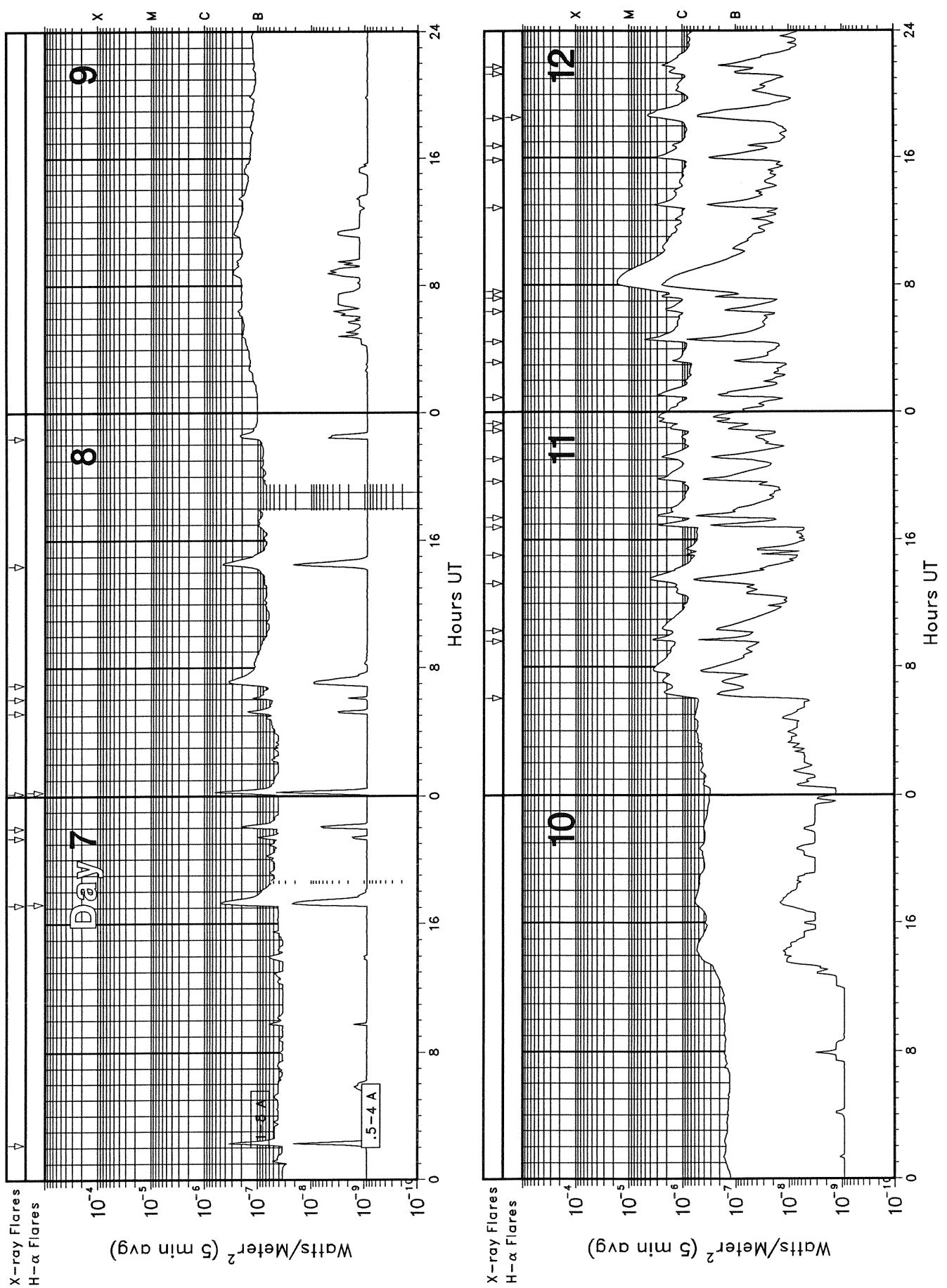
Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
28	245	SVTO	8	S	0915.0	0916.0	2.0	79.0			QL=2 ST=2 TYP=3
	245	SVTO	49	GB	1030.0	1030.0	U	780.0			QL=2 ST=2 TYP=6
	245	SGMR	8	S	1037.0E	1037.0U	1.0D	59.0			QL=2 ST=2 TYP=3
	2800	PENT	40	F	1451.0	1610.0	101.0U	6.0			
	245	SGMR	8	S	1534.0	1534.0	U	93.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1534.0	1534.0	U	71.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1534.0	1534.0	U	85.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1534.0	1534.0	U	180.0			QL=4 ST=2 TYP=3
	235	CUBA	6	S	1534.3	1534.4	0.3	21.0	10.0		
	280	CUBA	6	S	1534.3	1534.4	0.3	40.0	20.0		
	9500	CUBA	2	S/F	1621.9	1625.1	8.6	14.0	7.0		
	2800	PENT	29	PBI	2335.0	2358.0	137.0U	49.0			
	2840	PEKG	45	C	2347.0	2358.1	29.0	50.6			
	2804	VORO	28	PRE	2347.9	2352.9	8.6	13.0			
	2800	HIRA	3	S	2348.0	2358.0	14.0	45.0			0
	2804	VORO	4	S/F	2356.9	2358.0	5.6	36.0			
29	204	IZMI	43	NS	0958.0		122.0D	18.0	15.0		
	127	TORN	43	NS	1000.0		150.0		30.0		V=1
	235	CUBA	43	NS	1315.0		109.0D		6.0		
	280	CUBA	43	NS	1315.0		109.0D		15.0		
	2804	VORO	29	PBI	0002.6	0002.9	56.8	12.3			
	600	GORK	40	F	0341.6	0343.2		115.0			
	600	GORK	40	F	0341.6	0342.9	3.1	95.0			
	900	GORK	40	F	0342.7	0343.5	1.2	14.0			
	600	GORK	40	F	0505.4	0507.4	2.5	43.0			
	410	SVTO	8	S	0512.0	0514.0	2.0	92.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0635.0	0635.0	U	70.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0635.0	0635.0	U	51.0			QL=4 ST=2 TYP=3
	204	IZMI	7	C	0641.5	0641.6	0.2	9.0			
	9100	GORK	46	C	0700.8	0701.6	8.3	10.0			
	9100	GORK	46	C	0700.8	0702.8		15.0			
	204	IZMI	42	SER	0737.1	0737.2	0.1	12.0			
	3000	IZMI	20	GRF	0955.8	0957.9	5.3	8.0	3.3		
	2950	GORK	2	S/F	0956.0	0957.7	7.4	11.0			
	245	SGMR	8	S	1152.0	1152.0	U	60.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1152.0	1152.0	U	57.0			QL=2 ST=2 TYP=3
	33	UPIC	40	F	1155.0	1342.0	107.0				
	245	SVTO	4	S/F	1205.0	1211.0	6.0	100.0			QL=2 ST=2 TYP=3
	245	SGMR	4	S/F	1208.0	1210.0	3.0	120.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1346.0	1346.0	U	51.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	1509.0	1520.0	49.0	5.0			
	33	UPIC	3	S	1619.0	1620.0	2.0				
	9500	CUBA	2	S/F	1630.9	1632.2	2.2	25.0	12.0		
	4995	SGMR	8	S	1631.0	1632.0	2.0	56.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1631.0	1632.0	2.0	53.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1632.0	1632.0	U	25.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1632.0	1632.0	U	24.0			QL=4 ST=2 TYP=3
	2800	PENT	41	F	2128.0	2144.0	46.0	5.0			
	2800	PENT	29	PBI	2340.0	2356.0	96.0	82.0			
	2840	PEKG	3	S	2351.0	2356.0	15.0	99.3			
	2800	HIRA	8	S	2353.0	2356.0	7.0	85.0			0
	2804	VORO	4	S/F	2355.7	2356.0	1.7	97.2			
	2695	LEAR	8	S	2356.0	2356.0	U	80.0			QL=2 ST=2 TYP=3
	4995	LEAR	8	S	2356.0	2356.0	U	81.0			QL=2 ST=2 TYP=3
	8800	LEAR	8	S	2356.0	2356.0	U	53.0			QL=2 ST=2 TYP=3
	2695	PALE	8	S	2356.0	2356.0	U	97.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	2356.0	2356.0	U	130.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	2356.0	2356.0	U	92.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	2358.0	2358.0	1.0	53.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	2358.0	2358.0	2.0	81.0			QL=4 ST=2 TYP=3
30	204	IZMI	44	NS	0600.0E		360.0D		10.0		
	235	CUBA	44	NS	1300.0E		330.0D		9.0		
	280	CUBA	44	NS	1300.0E		330.0D		13.0		
	245	PALE	8	S	0110.0	0110.0	U	72.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0128.0	0128.0	U	67.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	0727.0	0729.7	17.0	18.3			
	2950	GORK	4	S/F	0728.3	0728.8	2.5	17.0			

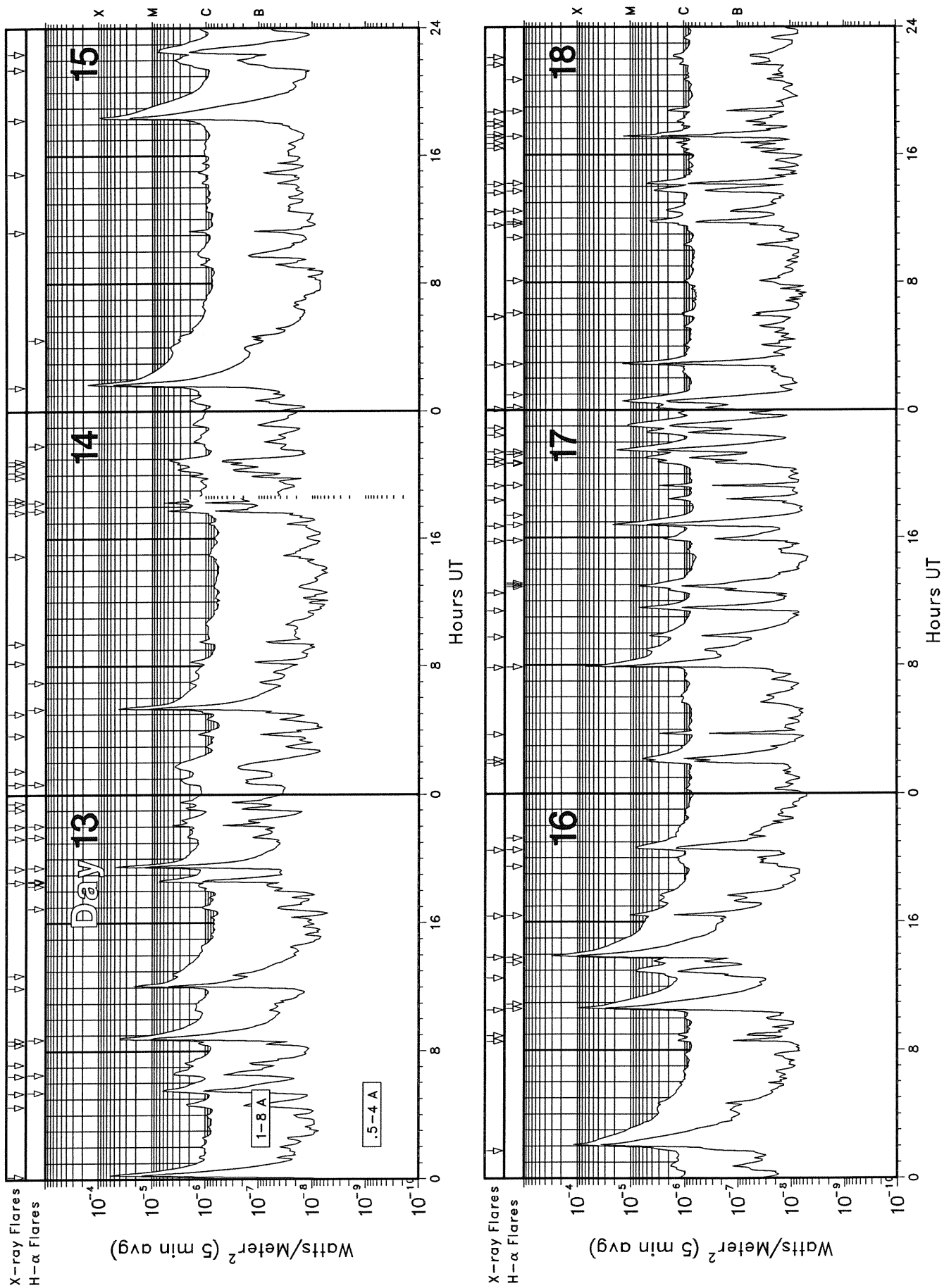
S O L A R R A D I O E M I S S I O N
Outstanding Occurrences

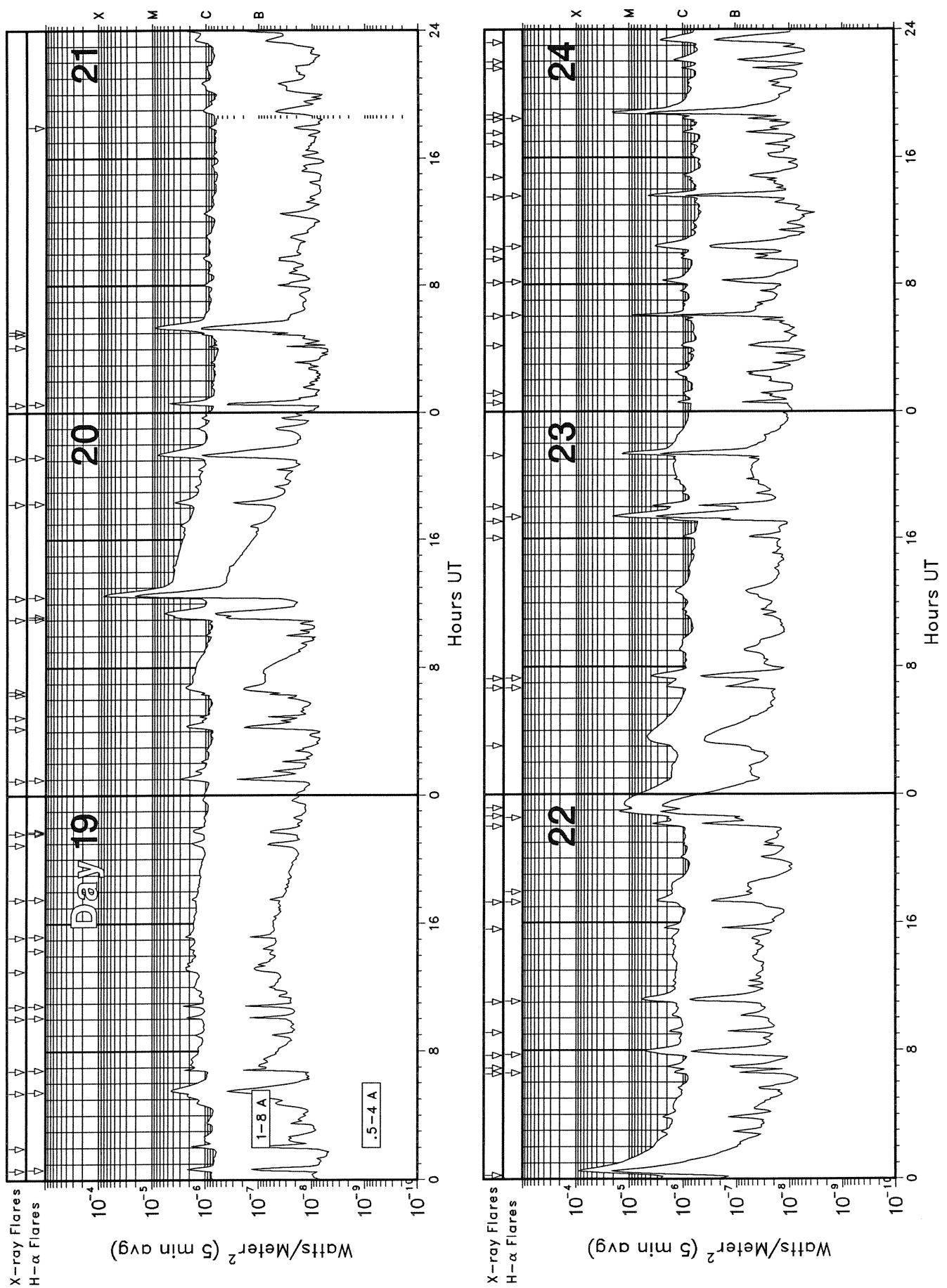
JULY 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
30	610	LEAR	8	S	0729.0	0729.0	U	160.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	0729.0	0729.0	1.0	180.0			QL=2 ST=2 TYP=3
	3000	IZMI	5	S	0729.6	0729.8	0.8	16.0	9.5		
	2800	HIRA	1	S	0730.0	0730.0	3.0	15.0			0
	245	LEAR	8	S	0748.0	0748.0	U	65.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0748.0	0748.0	U	59.0			QL=2 ST=2 TYP=3
	600	GORK	40	F	0821.1	0821.3	0.8	14.0			
	600	GORK	2	S/F	0850.8	0851.1	1.0	10.0			
	610	SVTO	8	S	0901.0	0901.0	U	100.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1922.0	1922.0	U	120.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2000.0	2000.0	U	56.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2001.0	2001.0	U	35.0			QL=4 ST=2 TYP=3
31	204	IZMI	44	NS	0600.0E		150.0D		25.0		
	127	TORN	44	NS	0600.0E		330.0D		8.0		V=1
	500	HIRA	1	S	0010.0	0010.0	1.0	10.0			0
	2800	PENT	29	PBI	0029.0	0050.0	83.0	174.0			
	2840	PEKG	3	S	0036.0	0050.7	30.0	159.8			
	2804	VORO	4	S/F	0046.9	0050.8	7.3	151.4			
	2800	HIRA	4	S/F	0047.0	0051.0	12.0	155.0			0
	2695	LEAR	8	S	0050.0	0050.0	2.0	150.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0050.0	0050.0	1.0	65.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	0050.0	0051.0	3.0	170.0			QL=2 ST=2 TYP=3
	2695	LEAR	4	S/F	0050.0	0050.0	1390.0	130.0			QL=4 ST=1 TYP=3
	2695	PALE	4	S/F	0050.0	0051.0	1390.0	120.0			QL=4 ST=1 TYP=3
	4995	PALE	8	S	0051.0	0051.0	1.0	92.0			QL=4 ST=2 TYP=3
	4995	PALE	4	S/F	0051.0	0051.0	1389.0	57.0			QL=4 ST=1 TYP=3
	2804	VORO	29	PBI	0054.3	0054.3	111.5	37.3			
	245	LEAR	8	S	0139.0	0139.0	U	64.0			QL=2 ST=2 TYP=3
	204	IZMI	42	SER	0742.4	0742.7	1.6	32.0			
	600	GORK	41	F	0821.4	0821.5	0.4	60.0			
	600	GORK	41	F	0821.4	0821.7		27.0			
	2840	PEKG	3	S	1030.0	1039.5	18.0	223.2			
	2950	GORK	46	C	1033.5	1039.0		210.0			
	2950	GORK	46	C	1033.5	1039.6		250.0			
	2950	GORK	46	C	1033.5	1037.7	23.5D	46.0			
	900	GORK	46	C	1033.8	1035.1		28.0			
	900	GORK	46	C	1033.8	1034.7	1.7	63.0			
	3000	IZMI	20	GRF	1034.4	1034.9	2.5	17.0	7.6		
	2695	SGMR	4	S/F	1037.0	1039.0	8.0	220.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	1037.0	1039.0	7.0	120.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1037.0	1038.0	803.0	130.0			QL=4 ST=1 TYP=3
	4995	SGMR	4	S/F	1037.0	1038.0	803.0	70.0			QL=4 ST=1 TYP=3
	3000	IZMI	45	C	1037.1	1039.5	6.1	190.0	63.0		
	1415	SGMR	4	S/F	1038.0	1039.0	3.0	51.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1038.0	1039.0	6.0	220.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	1038.0	1039.0	4.0	140.0			QL=4 ST=2 TYP=3
	1415	SGMR	4	S/F	1038.0	1038.0	802.0	28.0			QL=4 ST=1 TYP=3
	2695	SVTO	4	S/F	1038.0	1038.0	802.0	130.0			QL=4 ST=1 TYP=3
	4995	SVTO	4	S/F	1038.0	1038.0	802.0	63.0			QL=4 ST=1 TYP=3
	9100	GORK	4	S/F	1038.1	1039.6	3.9	33.0			
	1415	SVTO	8	S	1039.0	1039.0	2.0	47.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1039.0	1040.0	2.0	36.0			QL=4 ST=2 TYP=3
	15400	SVTO	4	S/F	1039.0	1039.0	4.0	49.0			QL=4 ST=2 TYP=3
	9100	GORK	29	PBI	1042.0	1042.0	6.8	12.0			
	245	PALE	8	S	2308.0	2308.0	U	62.0			QL=4 ST=2 TYP=3


GOES X-RAY DETECTOR
July 2004
Day 1
1
2
3
4
5
6
X
M
C
B
X-ray Flares
H-α Flares
Watts/Meter² (5 min avg)
Hours UT
1-8 A
.5-4 A
0
8
16
24
10⁻⁴
10⁻⁵
10⁻⁶
10⁻⁷
10⁻⁸
10⁻⁹
10⁻¹⁰

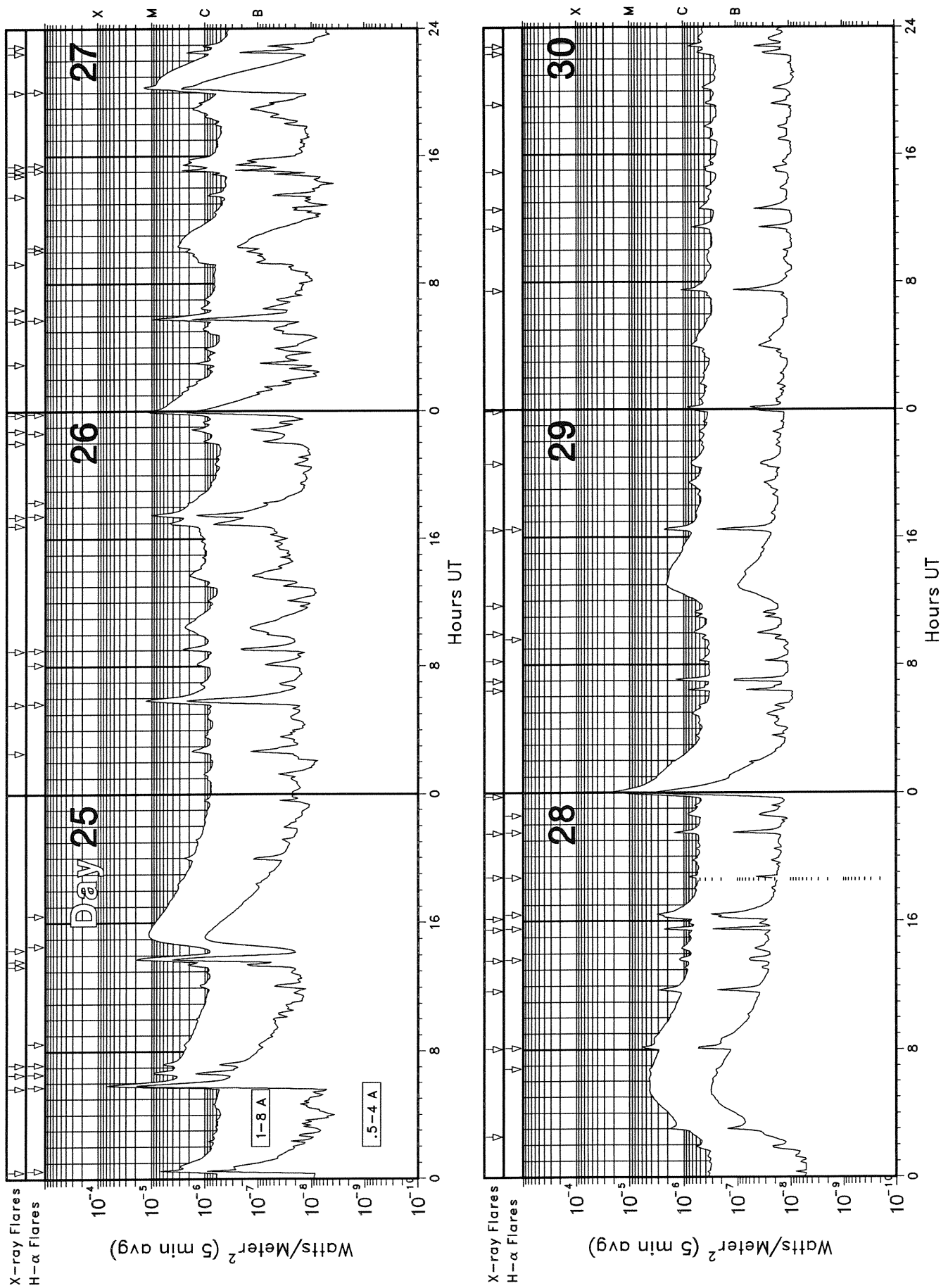

GOES X-RAY DETECTOR
July 2004
DAY
7
8
9
10
11
12
X-ray Flares
H-α Flares
Watts/Meter² (5 min avg)
.5-4 A
1-8 A
Hours UT
X
M
C
B


GOES X-RAY DETECTOR
July 2004
Day 13
14
15
16
17
18
1-8 A
.5-4 A
X-ray Flares
H-α Flares
Watts/Meter² (5 min avg)
Hours UT
X
M
C
B


GOES X-RAY DETECTOR
July 2004
Day
19
20
21
22
23
24
1-8 A
.5-4 A
X
M
C
B
Watts/Meter^2 (5 min avg)
Hours UT
X-ray Flares
H-α Flares

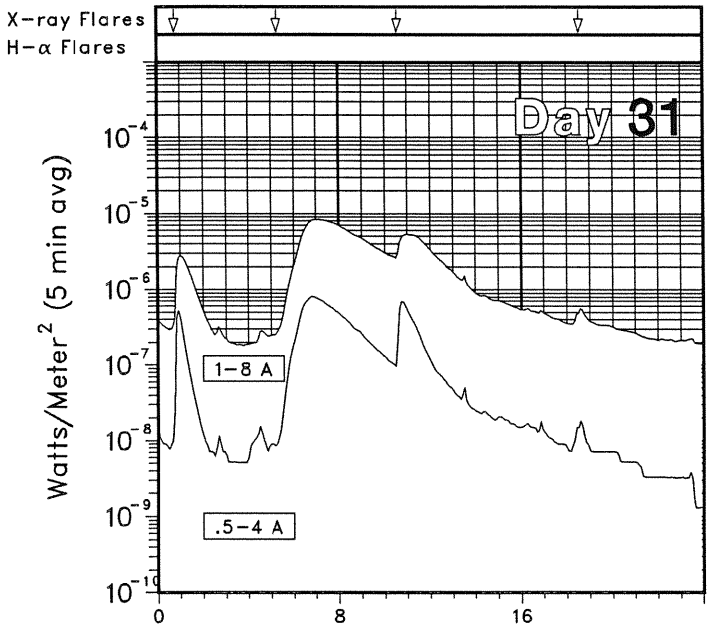
GOES X-RAY DETECTOR

July 2004



GOES X-RAY DETECTOR

July 2004



GOES S O L A R X-RAY F L A R E S
Preliminary Listing

July 2004

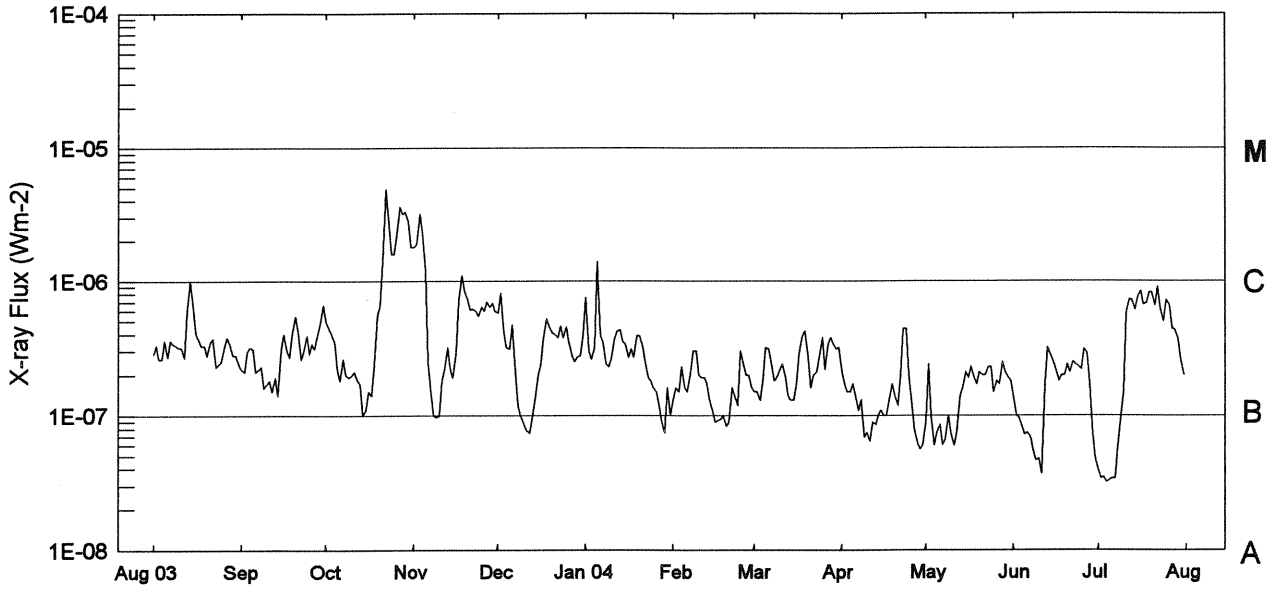
Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	Flux	NOAA/ USAF Region
01	1150	1154	1158				B1.2	4.7E-05	
01	1430	1435	1438				B3.7	1.1E-04	
02	1742	1746	1749				B2.6	6.5E-05	
02	2311	2314	2316				B1.0	2.6E-05	
04	0706	0711	0723				B1.6	1.3E-04	
04	0825	0831	0837				B1.1	7.6E-05	
04	1503	1520	1536				B4.5	6.1E-04	10641
05	0553	0557	0603				B1.1	6.0E-05	10639
05	1550	1554	1557	N07	W34	SF	B2.6	7.0E-05	10639
05	1856	1900	1904				B1.2	4.6E-05	10639
05	2047	2054	2059				B1.3	7.0E-05	10639
06	1201	1206	1210				B1.7	6.8E-05	
06	1231	1320	1531				B1.3	1.1E-03	
06	1516	1520	1524				B1.9	7.2E-05	
07	0211	0217	0222				B3.8	1.7E-04	10639
07	1709	1719	1732	N15	E17	SF	B4.9	5.1E-04	10641
07	2121	2126	2129				B1.1	4.5E-05	10642
07	2158	2206	2213				B2.1	1.4E-04	10642
08	0009	0017	0022	S05	E65	SF	B7.1	3.1E-04	10642
08	0509	0515	0519				B1.8	8.4E-05	10642
08	0602	0606	0610				B1.3	5.2E-05	10639
08	0654	0710	0725				B3.6	5.1E-04	10642
08	1425	1433	1442				B4.8	3.9E-04	10642
08	2223	2229	2244				B2.2	2.4E-04	10642
11	0603	0753	0834				C3.6	2.1E-02	
11	0937	0944	0951				C4.2	2.7E-03	
11	1017	1029	1046				C2.4	3.8E-03	
11	1316	1335	1350				C4.2	6.2E-03	
11	1503	1508	1511				B8.9	3.7E-04	
11	1649	1658	1706				C2.8	2.1E-03	
11	1724	1734	1741				C3.3	2.4E-03	
11	1940	1950	1958				C3.2	2.5E-03	
11	2104	2112	2121				C2.5	2.2E-03	
11	2251	2259	2314				C1.7	2.1E-03	
11	2317	2343	2401				C3.0	6.5E-03	
12	0057	0105	0120				C3.2	3.2E-03	
12	0310	0315	0323				C1.6	1.0E-03	
12	0428	0438	0444				C5.5	3.6E-03	
12	0621	0629	0637				C2.2	1.8E-03	
12	0711	0719	0726				C2.8	1.9E-03	
12	0736	0808	0859				M1.6	6.0E-02	
12	1249	1302	1312				C3.4	3.4E-03	10649
12	1550	1602	1615				C3.2	3.8E-03	10649
12	1645	1648	1650				C1.8	4.7E-04	
12	1831	1843	1854				C4.5	5.5E-03	10649
12	2119	2128	2138				C1.7	1.8E-03	10649
12	2146	2151	2159				C2.5	1.7E-03	10649
13	0009	0017	0023				M6.7	2.9E-02	10646
13	0431	0440	0446				C2.4	1.7E-03	10649
13	0521	0533	0540	N15	W49	SF	C6.7	4.6E-03	10646
13	0626	0633	0648				C4.1	4.2E-03	10649
13	0710	0714	0719				C2.6	1.3E-03	10649
13	0825	0829	0834				C1.5	7.1E-04	10649
13	0840	0848	0855	N12	W52	1N	M5.4	2.5E-02	10646
13	1159	1208	1212				M2.9	1.0E-02	10649
13	1245	1249	1252				C5.0	1.8E-03	10649
13	1833	1838	1842				M1.1	3.6E-03	10649
13	1924	1932	1936	N13	W56	1B	M6.2	1.9E-02	10646
13	2117	2124	2136	N14	W59	SF	C2.2	2.3E-03	10646
13	2201	2206	2209	S11	E64	SN	C5.1	1.6E-03	10649
13	2304	2309	2314				C2.8	1.3E-03	10646
13	2327	2333	2337				C3.2	1.6E-03	10646
14	0039	0058	0105	N14	W61	SF	C3.1	4.0E-03	10646
14	0130	0147	0203				C3.7	6.2E-03	
14	0341	0348	0353				C1.3	8.7E-04	10646
14	0502	0523	0527	N12	W62	1N	M6.2	2.0E-02	10646
14	0811	0816	0822				C1.9	1.1E-03	10646
14	0924	0931	0938				C1.3	9.4E-04	10649
14	1455	1459	1501				C1.0	3.3E-04	10649
14	1739	1746	1751	S11	E56	SF	C5.8	2.5E-03	10649
14	1812	1816	1818	S11	E56	SF	M1.0	1.9E-03	10649
14	1826	1830	1834				C2.8	1.2E-03	10649
14	1950	1955	2001				C2.0	1.1E-03	10646
14	2010	2020	2029				C3.6	3.0E-03	10646
14	2036	2043	2050				C3.5	2.5E-03	10646
14	2051	2054	2058				C6.6	2.1E-03	10646
15	0130	0141	0148				X1.8	8.5E-02	10649
15	1111	1116	1119				C2.5	8.1E-04	10651
15	1451	1456	1504				C1.4	1.0E-03	10649
15	1815	1824	1828				X1.6	4.9E-02	10649
15	2125	2201	2218				C3.9	7.9E-03	10649
15	2224	2233	2252				C7.9	1.1E-02	
16	0143	0206	0212				X1.3	6.2E-02	10649
16	0834	0838	0842				C1.7	6.3E-04	
16	0855	0859	0902				C1.9	6.2E-04	
16	1032	1041	1046	S10	E36	1F	X1.1	4.0E-02	10649
16	1232	1259	1314				C8.2	1.2E-02	
16	1349	1355	1401	S11	E35	3B	X3.6	1.4E-01	10649
16	1622	1628	1631	S11	E30	SF	M1.2	4.7E-03	10649
16	2029	2039	2052	S09	E27	SF	C9.0	8.1E-03	10649
17	0154	0201	0206				C5.7	2.6E-03	10649
17	0207	0213	0216				C6.8	2.9E-03	10649
17	0342	0347	0349				C4.2	9.6E-04	10652
17	0751	0757	0759	S10	E24	1F	X1.0	2.2E-02	10649
17	0946	0953	0957				C5.0	2.4E-03	10649
17	1124	1137	1142				C7.2	4.2E-03	10649
17	1231	1255	1301	S11	E21	SF	C8.8	5.4E-03	10649
17	1548	1557	1603	S11	E19	SF	C2.6	1.8E-03	10649
17	1645	1651	1657	S10	E18	1N	M2.5	9.8E-03	10649
17	1821	1827	1831				C2.2	9.7E-04	
17	1915	1918	1920	N08	E71	SF	C5.3	9.1E-04	10652
17	2036	2045	2051				C3.4	2.2E-03	10649
17	2054	2103	2110				C5.7	4.2E-03	10649
17	2124	2131	2138	S09	E13	1F	M2.0	1.0E-02	10649
17	2228	2239	2246				C5.7	4.0E-03	10649
17	2254	2308	2316				M1.1	1.2E-02	10649
18	0005	0035	0040	S09	E12	1F	M2.0	1.2E-02	10649
18	0251	0257	0303	S12	E12	SF	M1.5	7.2E-03	10649
18	0552	0607	0611	S09	E09	SF	C1.2	1.1E-03	10649
18	1135	1139	1142	N09	E58	SF	C1.6	5.8E-04	10652
18	1225	1229	1233	S12	E09	SF	C2.9	1.0E-03	10649
18	1337	1348	1355	S11	E07	SF	C4.0	2.8E-03	10649
18	1409	1413	1416	S10	E07	SF	C9.4	2.0E-03	10649
18	1625	1629	1632				C1.4	4.9E-04	10649
18	1643	1647	1650				C1.6	5.3E-04	10649
18	1704	1713	1715	S11	E05	1F	M1.9	4.9E-03	10649

GOES S O L A R X-RAY F L A R E S
Preliminary Listing

July 2004

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp	Xray	Flux	NOAA/ USAF Region
18	1717	1720	1722				C	4.1	1.1E-03	10649
18	1749	1754	1757				C	1.2	5.2E-04	10649
18	1805	1809	1811				C	1.7	5.0E-04	10649
18	1843	1847	1853	S10	E03	SF	C	2.3	1.1E-03	10649
18	2139	2142	2149				C	1.3	6.9E-04	10649
18	2208	2215	2218				C	1.7	9.2E-04	10652
19	0034	0039	0047	S09	W02	SF	C	2.3	1.4E-03	10649
19	0158	0208	0211	N08	E48	1F	C	2.1	1.1E-03	
19	0524	0533	0542	S12	W02	SF	C	4.6	4.2E-03	10649
19	0646	0653	0655	N09	E47	SF	C	3.4	1.0E-03	10652
19	1003	1007	1012	S10	W05	SF	C	2.5	1.1E-03	10649
19	1047	1052	1055	N09	E44	1F	C	2.9	1.1E-03	10652
19	1300	1314	1322				C	2.5	2.9E-03	10649
19	1508	1512	1517	S09	W05	SF	C	2.5	1.2E-03	10649
19	1729	1733	1736	S13	E51	SF	C	1.8	7.3E-04	10653
19	2054	2059	2103				C	1.8	9.0E-04	10652
19	2137	2150	2155	N04	E42	SF	C	1.7	1.7E-03	10652
20	0055	0101	0110	S07	W13	1F	C	3.3	2.2E-03	10649
20	0411	0423	0430				C	2.3	2.2E-03	10652
20	0453	0457	0500				C	1.4	5.1E-04	10652
20	0618	0622	0624				C	1.6	4.2E-04	
20	0631	0648	0702				C	2.3	3.7E-03	
20	1101	1126	1137	N05	E35	SF	C	6.0	8.7E-03	10652
20	1222	1232	1245	N11	E34	3B	M	8.6	7.3E-02	10652
20	1815	1821	1828	N03	E32	SF	C	3.8	2.6E-03	10652
20	2109	2123	2134	N04	E28	SF	C	8.1	8.1E-03	10652
21	0029	0034	0039	S11	W27	1F	C	6.6	2.3E-03	10649
21	0407	0412	0414				B	9.9	3.5E-04	10649
21	0453	0458	0503				C	1.3	6.7E-04	10652
21	0505	0521	0533	N05	E24	1F	C	8.9	9.4E-03	10652
22	0014	0032	0043				M	9.1	7.9E-02	10652
22	0633	0638	0644				C	1.6	9.0E-04	10652
22	0654	0700	0707				C	2.0	1.3E-03	10652
22	0741	0759	0808				C	5.3	5.6E-03	10652
22	0907	0912	0919				C	1.8	1.2E-03	10652
22	1102	1111	1124	N04	E11	SF	C	5.8	6.1E-03	10652
22	1537	1543	1549				C	2.3	1.4E-03	10652
22	1717	1724	1737	N04	E07	SF	C	3.2	3.2E-03	10652
22	2201	2212	2218				C	4.1	2.7E-03	10652
22	2240	2258	2307	N05	E04	2N	M	1.6	1.6E-02	10652
22	2310	2324	2343				M	1.2	2.3E-02	
23	0303	0336	0413				C	4.7	1.6E-02	10652
23	0641	0649	0706				C	2.1	2.6E-03	10652
23	0717	0727	0737	N03	W04	SF	C	4.1	3.7E-03	10652
23	1603	1609	1615				C	1.0	6.8E-04	10652
23	1707	1728	1735	N03	W04	SF	M	2.2	1.5E-02	10652
23	1802	1807	1811				C	4.1	1.7E-03	10652
23	2115	2123	2130				M	1.7	9.0E-03	10652
24	0034	0039	0041				C	1.6	5.3E-04	
24	0110	0114	0116				C	1.1	3.7E-04	10649
24	0410	0413	0416				C	1.2	4.0E-04	
24	0601	0606	0610	N07	W20	1F	M	1.0	3.3E-03	10652
24	0807	0817	0821	N03	W14	SF	C	2.5	1.7E-03	10652
24	0937	0941	0949				C	1.1	7.2E-04	
24	1014	1028	1038	N08	W15	SF	C	3.5	3.6E-03	10652
24	1331	1337	1345	N04	W16	SF	C	4.8	2.8E-03	10652
24	1446	1455	1501				B	9.7	8.0E-04	10652
24	1651	1654	1656				B	8.6	2.2E-04	10650
24	1732	1738	1742				C	1.0	5.7E-04	
24	1823	1828	1834	N08	W22	SF	C	1.1	6.3E-04	10652
24	1840	1850	1856				M	2.5	1.4E-02	10652
24	2134	2138	2140				C	1.2	3.6E-04	10652
24	2159	2207	2215				C	1.4	1.2E-03	10652
24	2311	2322	2332				C	2.7	2.4E-03	10652
25	0025	0032	0036	N09	W26	SF	C	7.4	2.9E-03	10652
25	0539	0551	0558	N10	W31	2B	M	7.1	3.8E-02	10652
25	0630	0639	0645	N03	W27	1F	M	1.0	6.8E-03	10652
25	0707	0714	0717	N09	W34	SF	C	6.9	3.2E-03	10652
25	1318	1325	1332				C	2.1	1.5E-03	10652
25	1337	1349	1355				M	2.2	1.3E-02	10652
25	1419	1514	1643	N08	W33	1F	M	1.1	6.5E-02	10652
26	0234	0243	0250				C	1.9	1.5E-03	
26	0536	0552	0601	N02	W41	SF	M	1.3	1.1E-02	10652
26	0857	0905	0912	N09	W44	SF	C	2.9	1.8E-03	10652
26	1650	1659	1711				C	4.7	4.6E-03	10652
26	1723	1730	1737	N03	W45	2N	M	1.1	6.3E-03	10652
26	2200	2207	2216				C	1.0	9.1E-04	10652
26	2245	2251	2255	N11	W47	SF	C	1.8	9.3E-04	10652
26	2346	2401	2411	N10	W54	1F	M	1.2	1.1E-02	10652
27	0256	0302	0307				C	1.5	8.3E-04	10652
27	0541	0545	0552	N02	W53	1N	M	1.1	4.6E-03	10652
27	0623	0629	0638				C	1.2	9.8E-04	10652
27	0914	1018	1105				C	3.7	1.4E-02	10652
27	1327	1332	1340				B	9.0	6.0E-04	
27	1446	1450	1454				B	8.7	3.1E-04	10652
27	1501	1507	1511	N01	W58	1F	C	3.0	1.1E-03	10652
27	1521	1525	1536	N06	W57	SF	C	2.8	1.9E-03	10652
27	1959	2020	2037	N09	W65	1F	M	1.5	1.7E-02	10652
27	2227	2233	2236				C	2.9	9.8E-04	10652
27	2252	2257	2302				C	1.1	5.9E-04	10652
28	0232	0609	0803				C	4.4	6.0E-02	T
28	0803	0811	0815	N06	W70	SF	C	6.3	3.6E-03	10652
28	1141	1147	1153				C	3.0	1.7E-03	10652
28	1335	1338	1346	N04	W68	SF	C	1.2	7.8E-04	10652
28	1528	1534	1536	N01	W72	SF	C	3.6	1.0E-03	10652
28	1608	1627	1633	N03	W65	SF	C	3.3	3.4E-03	10652
28	1843	1847	1849				B	9.6	2.8E-04	10652
28	2127	2133	2136	N04	W72	1F	C	1.6	6.7E-04	10652
28	2345	2406	2416				M	2.0	1.9E-02	10652
29	0622	0626	0628				C	1.1	2.5E-04	10652
29	0658	0705	0709				C	1.7	7.2E-04	10652
29	0813	0817	0820				B	6.2	2.0E-04	10652
29	0956	1004	1015				B	6.8	6.9E-04	10652
29	1142	1304	1402				C	2.1	1.2E-02	10652
29	1628	1633	1638	N03	W86	SF	C	2.8	1.3E-03	10652
29	2036	2039	2041				B	9.0	2.4E-04	
29	2354	2412	2414				C	1.0	8.2E-04	10652
30	0727	0731	0734				C	1.2	3.8E-04	10652
30	1121	1127	1132				B	7.5	3.7E-04	10654
30	1232	1238	1251				B	5.2	5.1E-04	10652
30	1454	1512	1516				B	4.4	5.0E-04	10654
30	1908	1914	1925				B	3.8	3.6E-04	10652
30	2220	2228	2236				B	5.4	4.6E-04	10652
30	2248	2253	2259				B	8.2	4.6E-04	10654
31	0046	0104	0129				C	2.8	5.6E-03	10652
31	0516	0657	0914				C	8.4	7.6E-02	T10652
31	1035	1101	1149				C	5.3	2.1E-02	10652
31	1834	1839	1844				B	5.9	3.3E-04	

Preliminary GOES Satellite Daily X-Ray Background
Aug 2003 - Jul 2004



Day	Aug 03	Sep	Oct	Nov	Dec	Jan 04	Feb	Mar	Apr	May	Jun	Jul
1	B2.9	B2.2	B5.0	C1.8	B5.8	B7.5	B1.3	B1.5	B2.1	A9.1	B1.4	A3.9
2	B3.3	B2.1	B4.4	C1.9	B8.1	B3.0	B1.6	B1.5	B1.7	B2.4	B1.0	A3.4
3	B2.6	B3.0	B4.0	C3.2	B4.1	B2.6	B1.5	B1.3	B1.5	B1.0	A9.7	A3.5
4	B2.6	B3.2	B3.5	C2.3	B3.2	B3.2	B2.3	B1.8	B1.5	A6.0	A8.5	A3.2
5	B3.6	B3.1	B2.2	C1.2	B3.1	C1.4	B1.6	B3.2	B1.7	A7.5	A7.2	A3.3
6	B2.7	B2.1	B1.8	B2.5	B4.7	B3.9	B1.5	B3.1	B1.4	A8.5	A7.5	A3.4
7	B3.6	B2.2	B2.6	B1.6	B2.1	B3.5	B2.1	B2.5	B1.1	A6.1	A6.9	A3.4
8	B3.4	B2.3	B2.0	B1.0	B1.2	B2.4	B3.0	B1.8	B1.3	A6.6	A5.5	A5.9
9	B3.3	B1.6	B1.9	A9.7	B1.0	B2.3	B3.0	B1.9	A6.9	B1.0	A4.7	B1.0
10	B3.2	B1.7	B2.0	B1.0	A8.7	B2.6	B2.0	B2.2	A7.5	A7.3	A4.8	B1.5
11	B3.2	B1.8	B2.1	B1.8	A7.7	B3.7	B1.9	B2.4	A6.5	A6.0	A3.7	B5.7
12	B2.7	B1.5	B1.8	B2.2	A7.4	B4.2	B1.9	B1.9	A8.9	A7.6	B1.7	B7.3
13	B6.0	B1.9	B1.7	B3.2	A9.7	B4.3	B1.7	B1.4	A8.6	B1.4	B3.2	B7.2
14	C1.0	B1.4	B1.0	B2.2	B1.3	B3.5	B1.3	B1.3	B1.0	B1.6	B2.8	B6.1
15	B6.8	B3.1	B1.1	B1.9	B2.0	B3.4	B1.1	B1.3	B1.1	B2.1	B2.5	B7.5
16	B4.0	B4.0	B1.5	B2.9	B2.4	B2.7	A9.0	B1.7	B1.0	B1.9	B2.1	B8.4
17	B3.7	B3.0	B1.4	B7.2	B3.8	B3.1	A9.2	B2.9	B1.0	B2.3	B1.8	B6.7
18	B3.3	B2.7	B2.4	C1.1	B5.2	B2.7	A9.4	B3.9	B1.3	B1.9	B2.0	B6.8
19	B3.3	B4.1	B5.6	B8.4	B4.6	B3.9	B1.0	B4.2	B1.7	B1.7	B2.0	B8.2
20	B2.8	B5.4	B6.5	B7.3	B4.1	B3.9	A8.3	B2.7	B1.4	B2.1	B2.4	B8.2
21	B3.5	B4.2	C1.4	B6.1	B4.0	B3.3	A8.9	B1.6	B1.2	B2.0	B2.1	B6.5
22	B3.7	B2.6	C4.9	B6.2	B3.8	B2.5	B1.6	B2.0	B2.0	B2.0	B2.5	B9.1
23	B2.3	B3.0	C3.0	B5.9	B4.6	B1.9	B1.4	B2.1	B4.4	B2.3	B2.4	B6.2
24	B2.4	B3.9	C1.6	B5.5	B3.8	B1.8	B1.2	B2.7	B4.4	B2.3	B2.3	B5.0
25	B2.5	B2.9	C1.6	B6.4	B4.5	B1.6	B3.0	B3.8	B2.0	B1.5	B2.2	B7.2
26	B3.1	B3.4	C2.2	B6.0	B3.5	B1.5	B2.5	B2.2	B1.2	B1.8	B3.1	B6.6
27	B3.8	B3.1	C3.6	B7.0	B2.8	B1.2	B2.0	B3.4	A7.8	B1.7	B2.9	B4.4
28	B3.4	B4.0	C3.2	B6.4	B2.5	A8.7	B2.0	B3.8	A6.2	B2.5	B1.7	B4.3
29	B2.8	B4.8	C3.3	B6.8	B2.7	A7.5	B1.6	B3.4	A5.6	B2.1	A7.3	B3.7
30	B2.8	B6.6	C2.8	B5.9	B2.8	B1.6		B3.1	A6.0	B1.9	A4.8	B2.6
31	B2.4		C1.8		B3.9	B1.0		B3.2		B1.8		B2.0

Levels below B1.0 are unreliable.

ACTIVE PROMINENCES AND FILAMENTS

JULY 2004

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
01	EPL	1312	1352	S11	E90	07	8.3	3		9	9	E	HOLL		
03	DSF	0127U	1257U	S27	E21	07	4.7		15	0	0	E	HOLL		
07	DSF	0047U	1311U	N27	W16	07	5.8	3	08	0	0	E	HOLL		
08	DSF	0031U	1445U	S16	E21	07	9.6		11	0	0	E	HOLL		
10	DSF	0556	0811	S14	E04	07	10.5	3	11	0	0	E	LEAR		
10	DSF	0621	0811	S13	E04	07	10.6	3	09	0	0	E	SVTO		
12	LPS	0850	1343D	S06	E90	07	19.1			0	0	E	SVTO		
16	LPS	1407	1428	S10	E32	07	19.0	1		0	0	E	HOLL	0649	Flare Associated
17	EPL	1936	1951	N01	E90	07	24.5	3		9	9	E	HOLL	0652	Flare Associated
19	EPL	0910	0926	S12	W90	07	12.6	3		0	0	E	SVTO		
19	DSF	1732U	0423U	S03	E53	07	23.7		09	0	0	E	SVTO	0652	
19	DSF	1732U	0423U	S03	E53	07	23.7		09	0	0	E	SVTO	0652	
20	DSD	0910E	0930D	N08	E29	07	22.5	1	03	9	9	V	KHAR		
20	ADF	1020E	1115D	N10	E25	07	22.3	2	12	9	9	V	KHAR		
20	ADF	1100U	1116D	S03	E35	07	23.1	2	07	9	9	V	KHAR		
20	DSF	1739U	0421U	S06	E19	07	22.1		17	0	0	E	SVTO		
21	DSF	0159U	1400U	N20	W26	07	19.1	3	10	0	0	E	HOLL		
25	ADF	0740E	0840	N12	W45	07	21.9	3	18	9	9	V	KHAR		
26	ADF	1000E	1105D	S04	W43	07	23.2	1	12	9	9	V	KHAR		
26	DSF	1652U	1407U	N16	W50	07	22.9	3	12	0	0	E	HOLL	0652	
27	DSD	0858E	0925	N07	W64	07	22.6	1	05	9	9	V	KHAR		
27	ADF	0858E	0940	S03	W57	07	23.1	1	04	9	9	V	KHAR		
27	DSD	1019	1028D	N13	W57	07	23.1	1	05	9	0	V	KHAR		
29	DSF	0033U	1250U	S13	E37	07	31.8		14	0	0	E	HOLL		
29	BSL	0845E	0925	N03	W90	07	22.6	1	04	9	9	V	KHAR		
30	BSL	0910	0940	N03	W90	07	23.6	1	02	9	9	V	KHAR		
30	APR	0920	0955	N07	W90	07	23.6	1	04	9	9	V	KHAR		
31	DSF	0108U	1329U	N51	W25	07	28.9		23	0	0	E	HOLL		
31	DSF	0108U	1329U	S10	E36	08	2.7		12	0	0	E	HOLL		

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

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

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

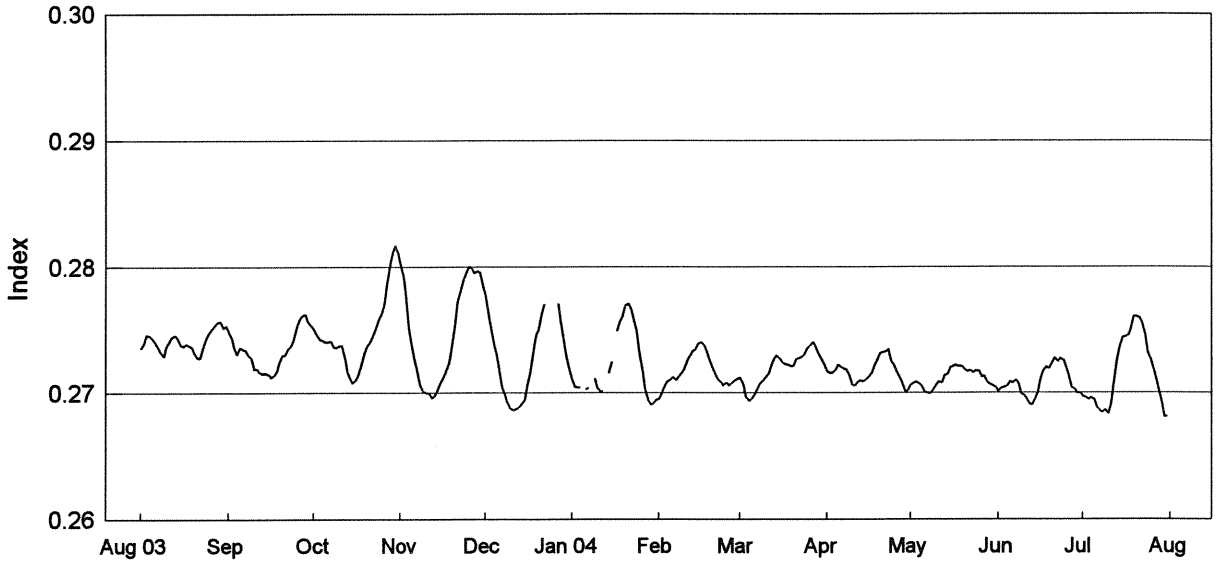
The remark "Bright Emission 1/3" indicates that bright emission was observed 1/3 of time.
The remark "Normal Emission 1/3" indicates that normal emission was observed 1/3 of time.

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

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

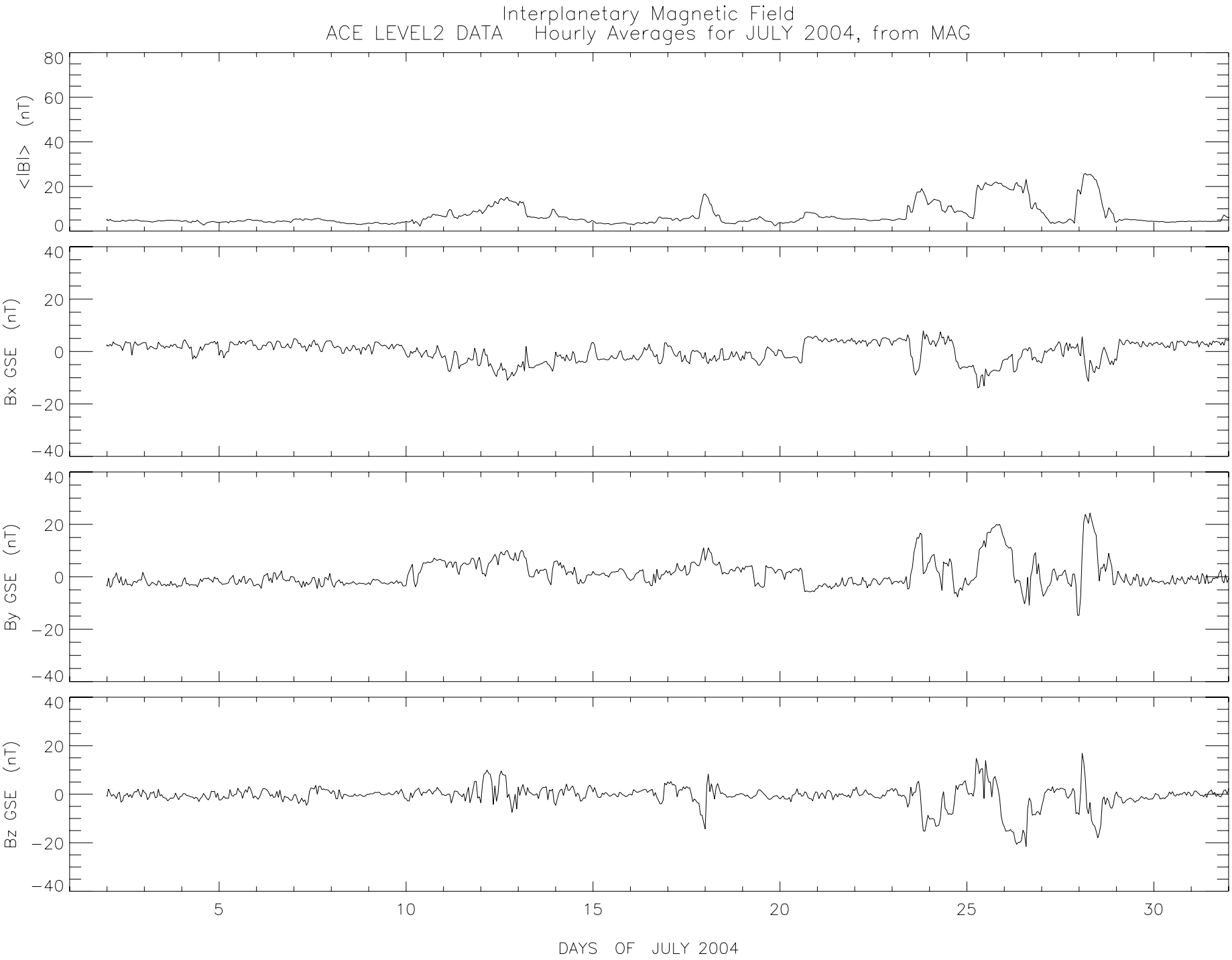
NOTE: The U.S. Air Force solar observing sites (HOLL, LEAR, RAMY, AND SVTO) have changed operational requirements and will only report the following: BSL, EPL, LPS, SPY, and DSF's.

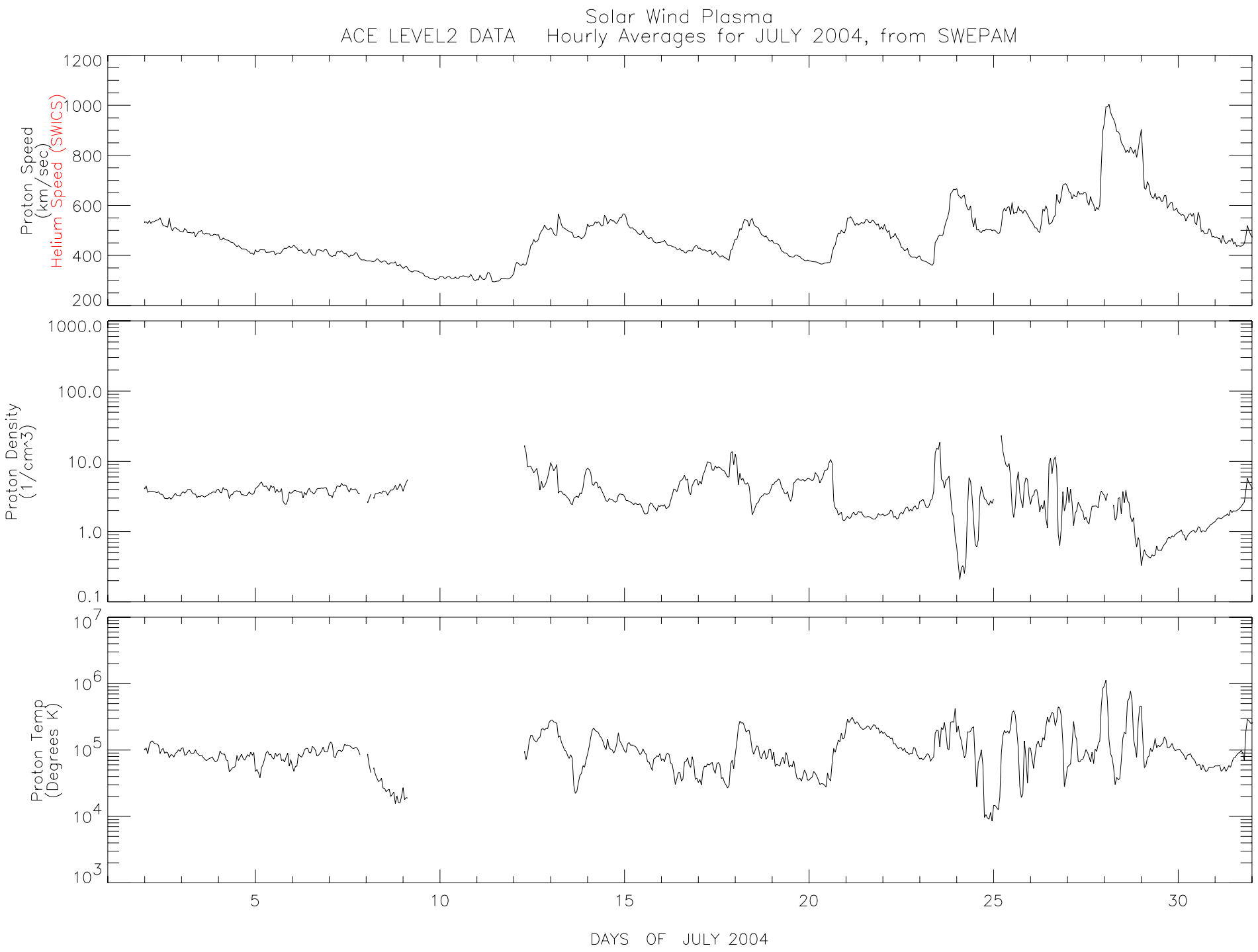
NOAA Solar Ultraviolet (UV) MgII Core-to-Wing Index
Aug 2003 - Jul 2004
Version 9.1

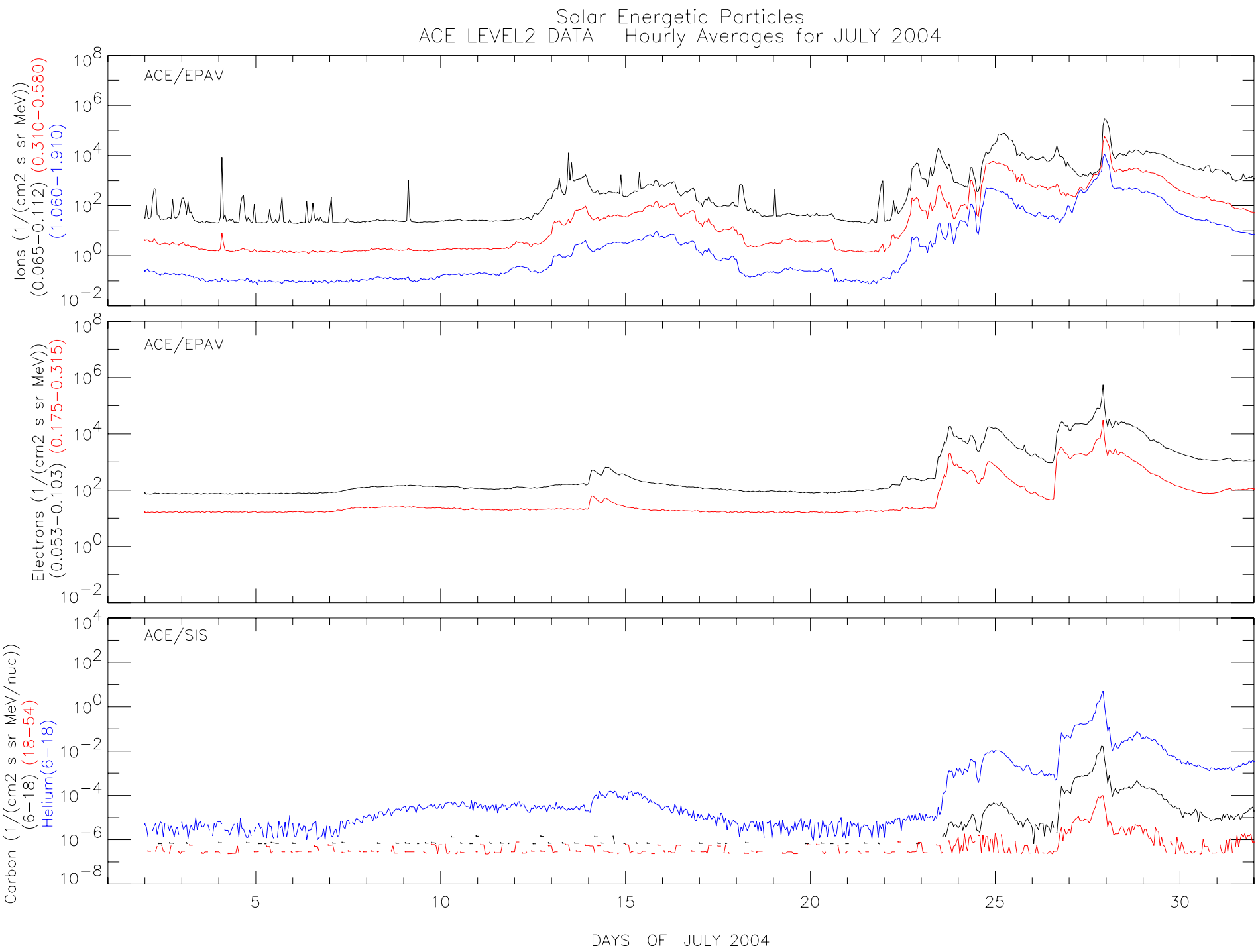


Day	Aug 03	Sep	Oct	Nov	Dec	Jan 04	Feb	Mar	Apr	May	Jun	Jul
1	0.2736	0.2749	0.2751	0.2801	0.2777	0.2711	0.2695	0.2712	0.2717	0.2706	0.2701	0.2697
2	0.2739	0.2744	0.2746	0.2792	0.2764	0.2705	0.2699	0.2707	0.2716	0.2708	0.2704	0.2697
3	0.2747	0.2736	0.2743	0.2774	0.2750	0.2704	0.2705	0.2696	0.2716	0.2709	0.2705	0.2695
4	0.2746	0.2731	0.2743	0.2752	0.2740	0.2704	0.2709	0.2694	0.2718	0.2707	0.2706	0.2696
5	0.2744	0.2737	0.2741	0.2738	0.2730	----	0.2711	0.2695	0.2723	0.2705	0.2709	0.2695
6	0.2741	0.2736	0.2741	0.2727	0.2717	0.2703	0.2713	0.2698	0.2721	0.2701	0.2708	0.2689
7	0.2736	0.2734	0.2742	0.2719	0.2704	0.2705	0.2710	0.2703	0.2719	0.2700	0.2710	0.2686
8	0.2732	0.2730	0.2737	0.2706	0.2699	----	0.2713	0.2707	0.2719	0.2700	0.2707	0.2684
9	0.2730	0.2728	0.2737	0.2702	0.2691	0.2711	0.2715	0.2710	0.2714	0.2702	0.2700	0.2686
10	0.2737	0.2720	0.2738	0.2700	0.2688	0.2703	0.2719	0.2712	0.2707	0.2706	0.2698	0.2683
11	0.2741	0.2719	0.2738	0.2700	0.2686	0.2701	0.2725	0.2715	0.2705	0.2709	0.2695	0.2690
12	0.2745	0.2717	0.2728	0.2696	0.2687	0.2701	0.2730	0.2721	0.2708	0.2708	0.2691	0.2706
13	0.2746	0.2715	0.2717	0.2698	0.2688	----	0.2734	0.2727	0.2710	0.2714	0.2691	0.2726
14	0.2744	0.2716	0.2712	0.2702	0.2691	0.2716	0.2735	0.2730	0.2709	0.2715	0.2696	0.2736
15	0.2739	0.2715	0.2708	0.2707	0.2694	0.2725	0.2740	0.2727	0.2710	0.2720	0.2701	0.2745
16	0.2738	0.2713	0.2710	0.2712	0.2706	----	0.2741	0.2725	0.2712	0.2721	0.2711	0.2745
17	0.2740	0.2714	0.2714	0.2717	0.2716	0.2750	0.2738	0.2723	0.2715	0.2723	0.2718	0.2746
18	0.2738	0.2717	0.2723	0.2724	0.2730	0.2756	0.2733	0.2723	0.2721	0.2722	0.2721	0.2752
19	0.2737	0.2725	0.2732	0.2737	0.2746	0.2762	0.2727	0.2722	0.2727	0.2722	0.2720	0.2761
20	0.2731	0.2731	0.2738	0.2754	0.2706	0.2770	0.2722	0.2721	0.2732	0.2719	0.2724	0.2761
21	0.2729	0.2731	0.2740	0.2773	0.2764	0.2772	0.2716	0.2727	0.2733	0.2717	0.2728	0.2760
22	0.2728	0.2735	0.2746	0.2780	0.2771	0.2767	0.2711	0.2728	0.2734	0.2718	0.2725	0.2756
23	0.2737	0.2737	0.2752	0.2789	----	0.2757	0.2708	0.2729	0.2735	0.2716	0.2728	0.2747
24	0.2743	0.2743	0.2758	0.2795	----	0.2749	0.2706	0.2731	0.2726	0.2718	0.2726	0.2733
25	0.2749	0.2753	0.2762	0.2801	0.2781	0.2732	0.2708	0.2736	0.2722	0.2718	0.2720	0.2727
26	0.2751	0.2759	0.2770	0.2799	----	0.2718	0.2706	0.2738	0.2716	0.2713	0.2714	0.2719
27	0.2754	0.2762	0.2786	0.2795	0.2771	0.2702	0.2708	0.2741	0.2712	0.2713	0.2705	0.2712
28	0.2756	0.2763	0.2802	0.2797	0.2756	0.2694	0.2710	0.2738	0.2707	0.2708	0.2703	0.2701
29	0.2757	0.2757	0.2811	0.2796	0.2741	0.2691	0.2711	0.2732	0.2701	0.2707	0.2700	0.2692
30	0.2752	0.2753	0.2817	0.2786	0.2729	0.2691		0.2727	0.2702	0.2706	0.2700	0.2681
31	0.2754		0.2810		0.2717	0.2695		0.2723		0.2705		0.2681
Mean	0.2742	0.2734	0.2748	0.2749	0.2728	0.2722	0.2717	0.2720	0.2717	0.2711	0.2709	0.2716

Data at: http://www.sec.noaa.gov/ftpmenu/sbuv.html


Interplanetary Magnetic Field
ACE LEVEL2 DATA Hourly Averages for JULY 2004, from MAG
<|B|> (nT)
Bx GSE (nT)
By GSE (nT)
Bz GSE (nT)
80
60
40
20
0
−20
−40
5
10
15
20
25
30
DAYS OF JULY 2004


Solar Wind Plasma
ACE LEVEL2 DATA Hourly Averages for JULY 2004, from SWEPAM
Proton Speed (km/sec)
Helium Speed (SWICS)
1200
1000
800
600
400
200
Proton Density (1/cm^3)
1000.0
100.0
10.0
1.0
0.1
Proton Temp (Degrees K)
10^7
10^6
10^5
10^4
10^3
5
10
15
20
25
30
DAYS OF JULY 2004


Solar Energetic Particles
ACE LEVEL2 DATA Hourly Averages for JULY 2004
ACE/EPAM
Ions (1/(cm2 s sr MeV))
(0.065–0.112) (0.310–0.580)
(1.060–1.910)
ACE/EPAM
Electrons (1/(cm2 s sr MeV))
(0.053–0.103) (0.175–0.315)
ACE/SIS
Carbon (1/(cm2 s sr MeV/nuc))
(6–18) (18–54)
Helium(6–18)
DAYS OF JULY 2004

SOLAR CORONAL MASS EJECTIONS (CMEs)
FROM SOHO/LASCO

http://cdaw.gsfc.nasa.gov/

Center for Solar Physics and Space Weather (CSPSW) – The Catholic University of America/NRL/NASA

JULY 2004

First C2 Appearance		Central Position	Width Angular	Linear Fit	—2nd order speed—			Accel	Measurement Position	Remarks
Date	Time UT	Angle degree	Width degree	Speed km/s	Initial km/s	Final km/s	20R km/s	m/s^2	Angle degree	
2004/07/01	01:00:05	88	59	257	251	263	281	0.7	96	
2004/07/01	05:48:05	268	104	559	636	477	319	-13.2	241	
2004/07/01	11:48:05	114	27	723	812	627	597	-12.9	114	
2004/07/01	20:48:06	64	45	525	649	400	0	-59.7	54	Only C2
2004/07/01	22:12:05	255	79	167	202	133	0	-4.7	263	
2004/07/02	05:00:05	Halo	360	892	1003	772	682	-23.9	109	
2004/07/02	17:24:05	239	19	418	456	380	186	-7.3	243	
2004/07/02	20:00:05	279	16	399	317	478	1004	37.5	278	Only C2
2004/07/02	21:24:05	274	129	478	572	385	0	-45.4	244	Only C2/Part Halo
2004/07/03	05:36:05	85	28	482	432	537	607	7.7	82	
2004/07/03	10:36:07	118	19	636	551	726	860	18.2	117	
2004/07/04	03:36:05	83	17	349	283	410	663	15.2	75	
2004/07/04	07:36:05	128	13	407	391	424	463	2.5	121	
2004/07/04	20:06:05	256	26	151	106	197	684	18.7	252	Only C2
2004/07/05	03:30:05	303	27	318	291	345	585	10.8	300	Only C2
2004/07/05	07:32:04	13	63	153	97	211	267	2.6	18	
2004/07/05	19:31:45	144	69	214	150	282	642	16.6	132	
2004/07/05	23:06:05	Halo	360	1444	1669	1210	1135	-79.2	202	
2004/07/06	12:56:33	271	70	563	498	627	606	4.9	279	
2004/07/06	20:06:06	Halo	360	1307	1501	1113	1042	-68.0	182	Only C3
2004/07/07	00:30:06	41	101	537	428	643	721	14.1	48	
2004/07/07	01:31:47	163	33	283	309	257	213	-2.2	157	
2004/07/07	12:54:05	101	34	343	118	586	1785	130.1	98	Only 3 points/C2
2004/07/07	16:30:06	294	64	242	197	292	332	3.0	294	
2004/07/07	18:30:05	64	83	466	489	442	418	-2.7	51	
2004/07/08	20:30:05	65	53	477	403	551	628	10.0	69	
2004/07/08	21:33:15	221	51	245	180	313	392	5.1	212	
2004/07/09	02:06:05	77	88	382	104	668	622	17.1	88	
2004/07/09	06:30:05	268	50	577	603	550	526	-3.8	266	
2004/07/10	00:54:05	97	74	402	342	457	530	6.8	99	
2004/07/10	08:06:05	330	37	345	482	224	0	-44.8	355	Only 3 points
2004/07/10	13:54:05	270	78	477	514	435	417	-3.7	272	
2004/07/11	09:54:05	354	31	363	291	433	539	8.8	353	
2004/07/11	14:30:06	37	39	470	326	614	784	21.4	39	
2004/07/11	15:30:05	265	44	191	242	141	0	-20.5	267	Only C2
2004/07/12	05:06:05	254	27	323	379	266	0	-12.8	264	
2004/07/12	08:06:05	78	144	610	732	482	504	-11.4	95	Partial Halo
2004/07/12	11:06:05	228	17	312	410	218	0	-20.8	228	
2004/07/12	12:30:05	236	22	415	349	481	555	7.7	241	
2004/07/13	00:54:05	313	88	607	618	596	576	-2.2	213	
2004/07/13	00:54:05	253	201	409	443	375	380	-2.2	294	Partial Halo
2004/07/13	06:06:05	252	19	624	614	634	659	2.4	254	
2004/07/13	09:30:05	302	>80	594	520	672	628	5.3	278	
2004/07/13	09:30:05	Halo	360	747	786	713	607	-11.0	222	

SOLAR CORONAL MASS EJECTIONS (CMEs) FROM SOHO/LASCO

http://cdaw.gsfc.nasa.gov/

Center for Solar Physics and Space Weather (CSPSW) – The Catholic University of America/NRL/NASA

JULY 2004

First C2 Appearance		Central Position	Width Angular	Linear Fit	2nd order speed			Accel	Measurement Position	Remarks
Date	Time UT	Angle degree	Width degree	Speed km/s	Initial km/s	Final km/s	20R km/s	m/s^2	Angle degree	
2004/07/13	20:58:42	305	68	433	276	596	555	10.0	295	
2004/07/14	05:30:05	84	84	329	327	331	350	0.7	56	Only C2
2004/07/15	02:06:05	101	113	584	724	440	0	-75.2	123	Only C2
2004/07/15	03:54:05	252	14	361	700	49	0	-130.3	259	
2004/07/15	11:30:05	234	7	523	621	436	0	-23.3	236	Only 3 points
2004/07/15	15:54:05	333	49	292	332	245	0	-9.8	337	
2004/07/15	16:54:05	97	97	219	192	244	249	1.5	111	Only C3
2004/07/16	01:54:05	281	15	341	269	414	580	11.0	281	
2004/07/16	09:54:05	74	57	238	271	208	0	-29.0	65	Only 3 points/C2
2004/07/16	10:30:21	253	26	516	----	----	----	------	260	Only 2 points/C2
2004/07/16	20:54:05	82	69	223	206	241	272	1.3	84	
2004/07/17	04:30:07	96	75	216	0	394	585	14.5	106	
2004/07/17	18:30:05	292	43	395	342	450	626	11.3	280	
2004/07/18	01:54:29	231	10	541	371	708	1134	49.2	232	
2004/07/18	19:31:52	264	28	433	351	514	607	10.6	274	
2004/07/19	01:54:28	101	100	215	99	337	336	4.3	122	
2004/07/19	09:30:05	286	90	790	772	808	798	1.7	268	
2004/07/19	11:30:05	84	>166	286	147	424	454	7.9	74	Partial Halo
2004/07/20	00:54:05	86	68	245	332	162	0	-11.7	94	
2004/07/20	04:30:05	87	74	279	290	268	242	-1.0	79	
2004/07/20	13:31:52	Halo	360	710	542	906	831	16.6	334	
2004/07/20	22:06:05	149	43	470	450	492	571	5.3	152	
2004/07/21	06:06:31	165	66	419	344	493	622	11.4	169	
2004/07/22	01:31:48	184	83	492	489	496	496	0.3	180	
2004/07/22	07:31:49	66	151	700	677	725	749	4.8	31	Partial Halo
2004/07/22	08:30:05	193	132	899	982	809	846	-12.6	210	Partial Halo
2004/07/22	11:54:05	189	45	574	646	495	365	-12.7	191	
2004/07/22	23:54:05	194	46	448	575	306	0	-25.8	200	
2004/07/23	07:31:50	255	138	459	374	545	713	17.1	218	Partial Halo
2004/07/23	16:06:06	Halo	360	824	920	728	0	-43.9	278	
2004/07/23	17:54:23	260	142	569	619	517	441	-8.1	256	Partial Halo
2004/07/23	19:31:47	209	100	874	549	1210	1121	44.2	187	
2004/07/24	00:54:05	300	37	333	169	514	533	11.0	298	
2004/07/24	01:31:51	335	15	450	487	418	283	-6.9	330	
2004/07/24	01:54:05	96	69	182	173	191	281	2.0	107	
2004/07/24	11:30:05	107	18	413	318	508	740	18.7	97	
2004/07/24	22:30:05	298	31	233	200	267	595	12.9	297	Only C2
2004/07/24	23:54:05	217	78	555	619	483	468	-6.9	215	
2004/07/25	06:54:05	297	31	299	196	401	712	19.4	296	
2004/07/25	13:31:52	245	16	556	613	499	0	-26.2	242	
2004/07/25	14:30:05	228	45	450	----	----	----	------	229	Only 2 points/C2
2004/07/25	14:54:05	Halo	360	1333	1302	1366	1359	7.0	204	
2004/07/26	00:30:05	217	64	474	349	598	676	13.7	205	

SOLAR CORONAL MASS EJECTIONS (CMEs)
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Center for Solar Physics and Space Weather (CSPSW) – The Catholic University of America/NRL/NASA

JULY 2004

First C2 Appearance		Central Position	Width Angular	Linear Fit	—2nd order speed—			Accel	Measurement Position	Remarks
Date	Time UT	Angle degree	Width degree	Speed km/s	Initial km/s	Final km/s	20R km/s	m/s^2	Angle degree	
2004/07/26	18:30:05	218	58	401	153	634	983	39.5	221	
2004/07/26	21:08:06	302	59	248	264	232	0	-3.9	294	Only C2
2004/07/27	00:30:05	308	71	263	244	282	324	2.2	322	Only C3
2004/07/27	04:30:05	220	36	401	----	----	----	------	231	Only 2 points/C2
2004/07/27	06:06:05	233	82	436	519	353	324	-6.7	236	
2004/07/27	12:30:06	30	60	186	46	301	548	12.8	41	
2004/07/27	14:06:05	236	41	381	365	396	444	2.6	238	
2004/07/27	15:54:05	228	74	406	419	392	391	-1.0	225	
2004/07/27	16:06:05	67	47	349	232	467	634	14.3	70	
2004/07/27	23:30:05	246	72	313	339	284	255	-2.2	232	
2004/07/28	03:30:05	221	>201	754	446	1094	979	31.0	284	Partial Halo
2004/07/28	14:06:05	223	24	557	682	431	277	-16.3	228	
2004/07/28	15:54:05	226	28	590	776	381	180	-23.7	231	
2004/07/28	22:06:05	234	20	609	738	477	0	-34.2	227	
2004/07/28	23:30:05	132	38	321	317	325	346	0.8	132	
2004/07/29	09:30:05	246	48	275	0	547	1035	45.3	241	
2004/07/29	12:06:05	Halo	360	1180	929	1468	1326	38.0	245	
2004/07/30	09:54:05	2	99	171	111	237	272	2.5	0	
2004/07/31	05:54:05	259	>197	1192	853	1568	1356	46.4	287	Partial Halo

If you use data from this catalog, please acknowledge as follows:
"This CME catalog is generated and maintained by the Center for Solar Physics and Space Weather, The Catholic University of America in cooperation with the Naval Research Laboratory and NASA. SOHO is a project of international cooperation between ESA and NASA."

CME heights are measured at the fastest segment of the leading edge
PA= Postion Angle measured from Solar North in degrees (Counter clockwise)
ONLINE -- Click on date to view java script movies
ONLINE -- Click on time to see height-time digital files
ONLINE -- Click on speed to view height-time plot
Numbers in 2nd order fit columns correspond to the speed at the last height of measurement and at a distance of 20 solar radii.