FEBRUARY 2004 NUMBER 714 - Part II

Solar-Geophysical Data comprehensive reports

Data for August 2003 and Miscellaneous
Explanation of Data Reports Issued as Number 515 (Supplement) July 1987

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

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FEBRUARY 2004 NUMBER 714 - Part II

Solar-Geophysical Data comprehensive reports

Data for August 2003 and Late Data

International Standard Serial Number: 0038-0911
Library of Congress Catalog Number: 79-640375 //r81

NATIONAL GEOPHYSICAL DATA CENTER
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Subscription information is on the inside back cover.

SOLAR-GEOPHYSICAL DATA

Number 714

(Issued in Two Parts)

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

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DATA FOR AUGUST 2003

Hα SOLAR FLARES

AUGUST 2003

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
		01	0923		1300	No Flare Patrol													
		01	2056		2103	No Flare Patrol													
0001	LEAR	02	0043	0046	0047	S18	E77	10424	08	7.9	4	SF		3	E		30		
0002	LEAR	02	0227	0230	0235	S17	E75	10424	08	7.8	8	SF		3	E		18		
0003	LEAR	02	0244	0245	0248	S18	E75	10424	08	7.8	4	SF		3	E		17		
0004	LEAR	02	0327	0339	0344	S18	E74	10424	08	7.8	17	SF		3	E		41		
0005	LEAR	02	0349	0354	0401	S18	E74	10424	08	7.8	12	SF		3	E		73		
0006	LEAR	02	0702	0710	0715	S18	E72	10424	08	7.8	13	SF		3	E		28		
		02	0923		1233	No Flare Patrol													
		02	1342		1352	No Flare Patrol													
		02	1356		1408	No Flare Patrol													
0007	HOLL	02	1533	1534	1553	S17	E71	10424	08	8.0	20	SF		3	E		36		
0008	HOLL	02	1604	1609	1617	S18	E70	10424	08	8.0	13	SF		3	E		15		
0009	HOLL	02	1625	1650	1726	S18	E68	10424	08	7.9	61	SF		3	E		40		
0010	HOLL	02	1730	1734	1759	S17	E68	10424	08	7.9	29	1F		3	E		105		
0011	HOLL	02	1917	1936	2005	S17	E67	10424	08	7.9	48	SF		3	E		33		
		02	2101		2107	No Flare Patrol													
0012	HOLL	02	2116	2132	2156	S17	E66	10424	08	7.9	40	SF		3	E		69		
		02	2215		2240	No Flare Patrol													
		02	2302		2317	No Flare Patrol													
		02	2322		2330	No Flare Patrol													
0013	LEAR	02	2345	2351	2431	S17	E63	10424	08	7.8	46	1F		3	E		157		F
0014	LEAR	03	0135	0141	0153	S18	E62	10424	08	7.8	18	SF		3	E		30		
0015	LEAR	03	0223	0230	0250	S18	E62	10424	08	7.8	27	SF		3	E		75		F
0016	LEAR	03	0258	0305	0315	S18	E62	10424	08	7.8	17	1F		3	E		110		F
0017	LEAR	03	0438	0450	0457	S18	E61	10424	08	7.8	19	SF		3	E		40		F
0018	LEAR	03	0514	0517	0523	S18	E60	10424	08	7.8	9	SF		3	E		41		F
0019	LEAR	03	0531	0531	0534	S18	E60	10424	08	7.8	3	SF		3	E		40		F
0020	SVTO	03	0608	0609	0612	S19	E58	10424	08	7.7	4	SF		3	E		21		
0021	SVTO	03	0701	0702	0705	S18	E59	10424	08	7.8	4	SF		3	E		27		
0022		03	0752	0754	0758	N04	W08	10427	08	2.7	6	SF					55		
	SVTO	03	0752	0754	0758	N04	W07	10427	08	2.8	6	SF		3	E		69		
	LEAR	03	0752	0754	0758	N04	W08	10427	08	2.7	6	SF		3	E		41		
0023	SVTO	03	0810	0811	0814	S18	E58	10424	08	7.7	4	SF		3	E		28		
0024	SVTO	03	0934	0936	0948	S22	E60	10424	08	8.0	14	SF		3	E		27		
		03	1048		1059	No Flare Patrol													
		03	1110		1203	No Flare Patrol													
0025	HOLL	03	1912	1914	1920	S16	E53	10424	08	7.8	8	SF		3	E		25		
		04	0132		0149	No Flare Patrol													
		04	0205		0443	No Flare Patrol													

AUGUST 2003

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
0026	KANZ	04	0919	0923	0927	S08	W24	10421	08	2.6	8	SF		2	E				
		05	0121		0134	No Flare Patrol													
0027		05	09084	09142	0928	S06	W34	10421	08	2.8	20	SF					48		F
	KANZ	05	0908	0914	0928	S06	W33	10421	08	2.9	20	SF		2	E				
	SVTO	05	0912	0916	0927	S05	W34	10421	08	2.8	15	SF		3	E		48		F
0028	SVTO	05	1246	1249	1254	S16	E33	10424	08	8.0	8	SN		3	E		97		Z
0029	HOLL	05	1951	1951	1959	S15	E29	10424	08	8.0	8	SF		3	E		13		F
		05	2053		2116	No Flare Patrol													
		05	2249		2336	No Flare Patrol													
		06	0135		0213	No Flare Patrol													
		06	1755		1801	No Flare Patrol													
		06	1821		2029	No Flare Patrol													
		06	2047		2116	No Flare Patrol													
		06	2120		2219	No Flare Patrol													
0030	KANZ	07	1129	1135	1141	S19	E07	10424	08	8.0	12	SF		2	E				
0031	KANZ	07	1150	1152	1201U	S06	W63	10421	08	2.8	11U	SF		2	E				
0032	HOLL	07	1703	1705	1716	S05	W64	10421	08	2.9	13	SF		3	E		19		
0033	SVTO	08	1634	1635	1639	S10	W14	10425	08	7.6	5	SF		3	E		11		F
0034	HOLL	09	0003	0005	0009	S18	W14	10424	08	7.9	6	SF		3	E		19		F
		09	0410		0425	No Flare Patrol													
		09	2152		2157	No Flare Patrol													
		09	2239		2244	No Flare Patrol													
		09	2256		2304	No Flare Patrol													
		09	2311		2341	No Flare Patrol													
0035	LEAR	10	0126	0127	0133	S14	E64	10431	08	14.9	7	SF		3	E		20		
0036	KANZ	10	0709	0715	0725	S14	W35	10425	08	7.6	16	SF		2	E				
0037	SVTO	10	1016	1021	1024D	S06	W36	10425	08	7.7	8D	SF		3	E		52		F
0038	SVTO	10	1026E	1026	1034	S06	W35	10425	08	7.8	8D	SF		3	E		32		F
		10	1140		1141	No Flare Patrol													
		10	1151		1202	No Flare Patrol													
0039	HOLL	10	2315	2315	2319	S17	W47	10424	08	7.4	4	SF		3	E		16		
		10	2343		2351	No Flare Patrol													
0040	LEAR	12	0217	0220	0236	S10	E35	10431	08	14.7	19	SF		3	E		15		F
0041		12	06331	06342	0642	S17	W58	10424	08	7.9	9	SF					34		F
	LEAR	12	0633	0634	0645	S18	W59	10424	08	7.8	12	SF		3	E		55		F
	KANZ	12	0633	0635	0641	S17	W58	10424	08	7.9	8	SF		2	E				
	SVTO	12	0634	0636	0639	S16	W57	10424	08	7.9	5	SF		3	E		13		F
0042	KANZ	12	1008	1010	1035	S11	E39	10431	08	15.3	27	SF		2	E				
0043	SVTO	12	1009	1012	1020	S14	E32	10431	08	14.8	11	SF		3	E		20		
		12	1720		1940	No Flare Patrol													
		12	2023		2329	No Flare Patrol													
0044	LEAR	13	0046	0046	0053	S16	W72	10424	08	7.6	7	SF		3	E		22		
0045		13	09401	09441	1025	S10	E24	10431	08	15.2	45	SF					63		F
	KANZ	13	0940	0944	1025	S10	E24	10431	08	15.2	45	SF		2	E				
	SVTO	13	0941	0945	1025	S11	E23	10431	08	15.1	44	SF		3	E		63		F

Hα SOLAR FLARES

AUGUST 2003

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
0046	HOLL	13	1413	1415	1429	S12	E19	10431	08	15.0	16	SF		3	E		34		F
0047	HOLL	13	1436	1438	1446	S11	E23	10431	08	15.3	10	SF		3	E		25		F
		13	1711		1721	No Flare Patrol													
		13	1952		1958	No Flare Patrol													
		13	2010		2124	No Flare Patrol													
		13	2137		2331	No Flare Patrol													
0048	LEAR	13	2344	2356	2415	S14	E11	10431	08	14.8	31	SF		3	E		49		F
0049	HOLL	13	2347	2349	2402	S08	E12	10431	08	14.9	15	SF		3	E		19		FH
0050	LEAR	14	0213	0223	0236	S14	E10	10431	08	14.8	23	SF		3	E		35		FH
0051	LEAR	14	0630	0639	0719	S14	E08	10431	08	14.9	49	SF		3	E		33		F
0052	KANZ	14	0721E	0732	0734U	S12	E14	10431	08	15.4	13U	SF		2	E				
		14	1834		1839	No Flare Patrol													
		14	1924		2153	No Flare Patrol													
		14	2217		2255	No Flare Patrol													
		14	2302		2323	No Flare Patrol													
0053		15	06088	06174	0628	S08	W04	10431	08	14.9	20	SF					32		F
	LEAR	15	0608	0621	0633	S08	W05	10431	08	14.9	25	SF		3	E		37		F
	SVTO	15	0616	0617	0624	S08	W04	10431	08	15.0	8	SF		3	E		27		F
0054	LEAR	15	0842	0844	0855	S10	W03	10431	08	15.1	13	SF		3	E		34		F
0055		15	1101	1102	1104	S10	W08	10431	08	14.8	3	SF					12		
	KANZ	15	1058E	1102U	1102D	S09	W07	10431	08	14.9	4D	SF		2	E				
	SVTO	15	1101	1102	1104	S10	W08	10431	08	14.8	3	SF		3	E		12		
0056		15	11242	1127	1138	S08	W08	10431	08	14.9	14	SF					24		H
	KHAR	15	1124		1145	S09	W07	10431	08	14.9	21	SF		2	P				H
	SVTO	15	1126	1127	1131	S08	W09	10431	08	14.8	5	SF		3	E		24		
		15	1602		1612	No Flare Patrol													
0057	HOLL	15	1632	1635	1642	S08	W10	10431	08	14.9	10	SF		3	E		12		F
		15	1948		2352	No Flare Patrol													
0058	KANZ	16	0948	0950	0955	S09	W18	10431	08	15.0	7	SF		2	E				
		16	1508		1522	No Flare Patrol													
		16	1528		1817	No Flare Patrol													
		16	1839		1848	No Flare Patrol													
0059	HOLL	16	1851E	1854U	1906	S14	W26	10431	08	14.8	15D	SF		3	E		12		
		16	2110		2131	No Flare Patrol													
		16	2214		2351	No Flare Patrol													
0060		17	08422	08435	0854	S10	W32	10431	08	14.9	12	SF					32		F
	KANZ	17	0842	0848	0900	S09	W31	10431	08	15.0	18	SF		2	E				
	SVTO	17	0843	0843	0847	S07	W32	10431	08	15.0	4	SF		3	E		10		
	LEAR	17	0844	0844	0856	S14	W34	10431	08	14.8	12	SF		3	E		55		F
		17	1707		1804	No Flare Patrol													
		17	2101		2330	No Flare Patrol													
0061	LEAR	17	2341	2342	2407	S14	W42	10431	08	14.8	26	SF		3	E		36		F
0062	LEAR	18	0240	0240	0251	S14	W44	10431	08	14.8	11	SF		3	E		23		F
0063	LEAR	18	0253	0254	0257	S14	W44	10431	08	14.8	4	SF		3	E		18		F

AUGUST 2003

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
0064		18	09011	09023	0915	S13	W48	10431	08	14.7	14	SF					32		F
	KANZ	18	0901	0905	0915	S13	W48	10431	08	14.7	14	SF		2	E				
	LEAR	18	0902	0902	0917	S14	W47	10431	08	14.8	15	SF		2	E		47		F
	SVTO	18	0902	0905	0914	S11	W49	10431	08	14.7	12	SF		3	E		16		F
		18	1712		2400	No Flare Patrol													
		19	0000		0128	No Flare Patrol													
		19	0249		0253	No Flare Patrol													
		19	0305		0414	No Flare Patrol													
0065		19	07551	07581	0809	S13	W63	10431	08	14.6	14	1N					231		FH
	KANZ	19	0755	0759	0808	S14	W61	10431	08	14.7	13	1N		2	E				
	LEAR	19	0756	0758	0811	S12	W64	10431	08	14.5	15	2B		3	E		260		F
	SVTO	19	0756	0759	0808	S12	W63	10431	08	14.6	12	1N		3	E		202		H
0066	KANZ	19	0848	0849	0853	S15	W60	10431	08	14.8	5	SF		2	E				
0067		19	09482	09571	1045	S10	W58	10431	08	15.0	57	2F					294		F
	KANZ	19	0948	0958	1047	S11	W59	10431	08	15.0	59	2F		2	E				
	SVTO	19	0950	0957	1043	S10	W57	10431	08	15.1	53	2F		3	E		294		F
0068	HOLL	19	1821	1824	1837	N12	E53	10436	08	23.7	16	SF		3	E		56		F
		19	2105		2113	No Flare Patrol													
		19	2200		2207	No Flare Patrol													
		19	2257		2317	No Flare Patrol													
		20	2145		2155	No Flare Patrol													
		20	2230		2247	No Flare Patrol													
		21	0350		0437	No Flare Patrol													
		21	1840		1931	No Flare Patrol													
		21	2219		2236	No Flare Patrol													
		21	2258		2344	No Flare Patrol													
		22	0031		0056	No Flare Patrol													
		22	0117		0144	No Flare Patrol													
		22	0152		0220	No Flare Patrol													
		22	0242		0305	No Flare Patrol													
		22	0312		0436	No Flare Patrol													
0069	HOLL	22	1607	1610	1619	N11	E07	10436	08	23.2	12	SF		3	E		31		H
		22	1848		1908	No Flare Patrol													
		22	1958		2004	No Flare Patrol													
		22	2057		2143	No Flare Patrol													
		22	2215		2325	No Flare Patrol													
0070	LEAR	23	0014	0014	0020	N12	E40	10441	08	26.0	6	SF		3	E		13		F
0071	HOLL	23	0016	0016	0026	N12	E33	10441	08	25.5	10	SF		3	E		40		
		23	2101		2116	No Flare Patrol													
		23	2134		2220	No Flare Patrol													
		24	0217		0245	No Flare Patrol													
0072	LEAR	24	0413	0415	0436	N08	W21	10436	08	22.6	23	1F		3	E		103		F
		24	0544		0552	No Flare Patrol													
		24	1731		1754	No Flare Patrol													
		24	2050		2105	No Flare Patrol													
		24	2116		2323	No Flare Patrol													
0073	LEAR	25	0246	0250	0340	S11	E41	10442	08	28.2	54	1F		3	E		105		FS
0074	KHAR	25	0855E		0912	S07	W85		08	19.0	17D	SF		2	P	0905	30		DHO
		25	1214		1252	No Flare Patrol													
		25	1942		1955	No Flare Patrol													
		25	2010		2315	No Flare Patrol													
		26	0952		0953	No Flare Patrol													
		26	0958		0959	No Flare Patrol													
		26	1029		1030	No Flare Patrol													

Hα SOLAR FLARES

AUGUST 2003

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
		26	1032		1044	No Flare Patrol														
		26	1101		1102	No Flare Patrol														
		26	1124		1133	No Flare Patrol														
		26	1157		1211	No Flare Patrol														
0075	KANZ	26	1212E	1212E	1214	S14	E24	10442	08	28.3	2D	SF			2	E				
		26	1224		1229	No Flare Patrol														
0076		26	1552	1553	1624	N08	W51	10436	08	22.8	32	1N						201		F
	HOLL	26	1552	1553	1623	N08	W54	10436	08	22.6	31	1N			3	E		201		F
	KANZ	26	1552	1553	1624	N08	W48	10436	08	23.1	32	1N			2	E				
		26	1953		2003	No Flare Patrol														
		26	2010		2055	No Flare Patrol														
		26	2123		2129	No Flare Patrol														
		26	2219		2301	No Flare Patrol														
		27	0109		0333	No Flare Patrol														
0077	LEAR	27	0334E	0338U	0346	N08	W56	10436	08	23.0	12D	SF			3	E		36		F
0078	LEAR	27	0500	0503	0512	N08	W56	10436	08	23.0	12	SF			3	E		43		F
0079	KHAR	27	0850	0853	0859	S10	E90	10449	09	3.1	9	SF			2	P	0856	40		DHO
0080	KANZ	27	0842	0854	0930	N05	E17	10445	08	28.6	48	SF			2	E				
0081	KHAR	27	0902	0920	0935	N06	E17	10445	08	28.6	33	1F			2	P	0924	165		EO
0082	HOLL	27	1436	1437	1454	N18	E52	10448	08	31.6	18	SF			3	E		10		F
		27	1911		2137	No Flare Patrol														
		27	2303		2314	No Flare Patrol														
0083	LEAR	28	0415	0418	0427	N03	E08	10445	08	28.8	12	SF			3	E		19		F
		28	0434		0442	No Flare Patrol														
0084	KANZ	28	0655	0657	0700	S16	E75	10449	09	3.0	5	SF			2	E				
		28	0739		0744	No Flare Patrol														
		28	0747		0754	No Flare Patrol														
		28	0759		0800	No Flare Patrol														
0085		28	08411	08421	0846	S16	E71	10449	09	2.7	5	SF						45		
	KANZ	28	0841	0843	0846	S16	E74	10449	09	3.0	5	SF			2	E				
	LEAR	28	0842	0842	0846	S16	E68	10449	09	2.5	4	SF			3	E		45		
		28	0903		0905	No Flare Patrol														
0086	KANZ	28	1328	1334	1352	N03	E04	10445	08	28.9	24	SF			2	E				
		28	1657		1737	No Flare Patrol														
0087	HOLL	28	1743	1744	1755	N04	E02	10445	08	28.9	12	SF			3	E		16		
		28	2018		2400	No Flare Patrol														
		29	0000		0025	No Flare Patrol														
		29	0117		0217	No Flare Patrol														
		29	0401		0421	No Flare Patrol														
0088	KHAR	29	1009	1011	1015	S11	W78		08	23.5	6	SF			2	P	1010	40		HO
		29	2112		2202	No Flare Patrol														
		29	2300		2400	No Flare Patrol														
		30	0000		0006	No Flare Patrol														
		30	0014		0028	No Flare Patrol														
0089	LEAR	30	0447	0450	0517	S12	W27	10442	08	28.2	30	SF			3	E		28		F

AUGUST 2003

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
0090	KANZ	30	0552E	0552E	0620	S11	W29	10442	08	28.1	28D	SF		2	E				
0091	KANZ	30	1208	1212	1225	N09	W26	10444	08	28.5	17	SF		2	E				
		30	1628		1655	No Flare Patrol													
		30	1701		1714	No Flare Patrol													
0092	HOLL	30	1756	1801	1809	N09	W30	10444	08	28.5	13	SF		3	E		13		F
0093	LEAR	31	0604	0617	0647	S10	W42	10442	08	28.1	43	SF		3	E		32		F
0094	SVTO	31	0615	0630U	0638	S10	W44	10442	08	27.9	23	SF		3	E		22		

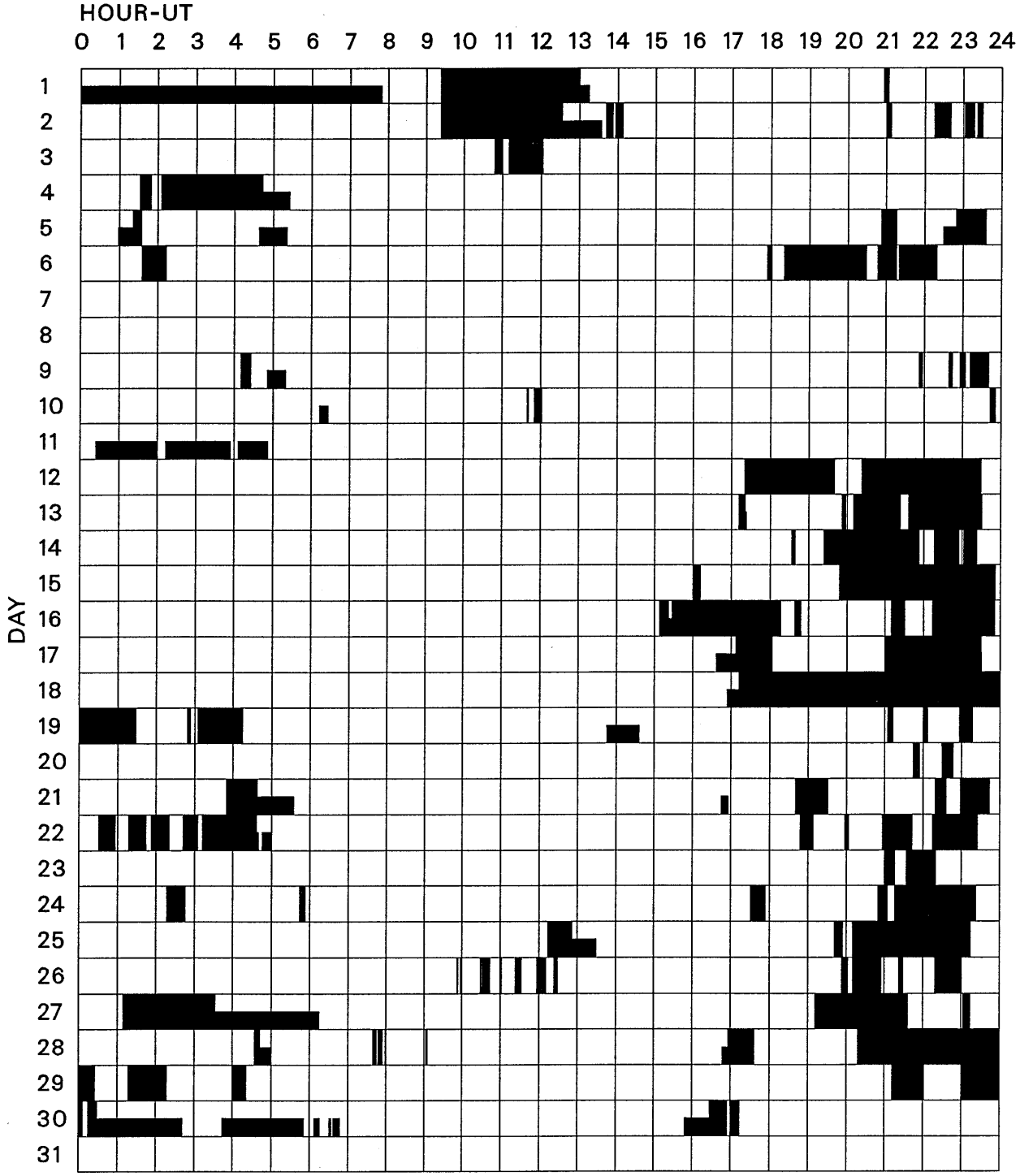
"Remarks"

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

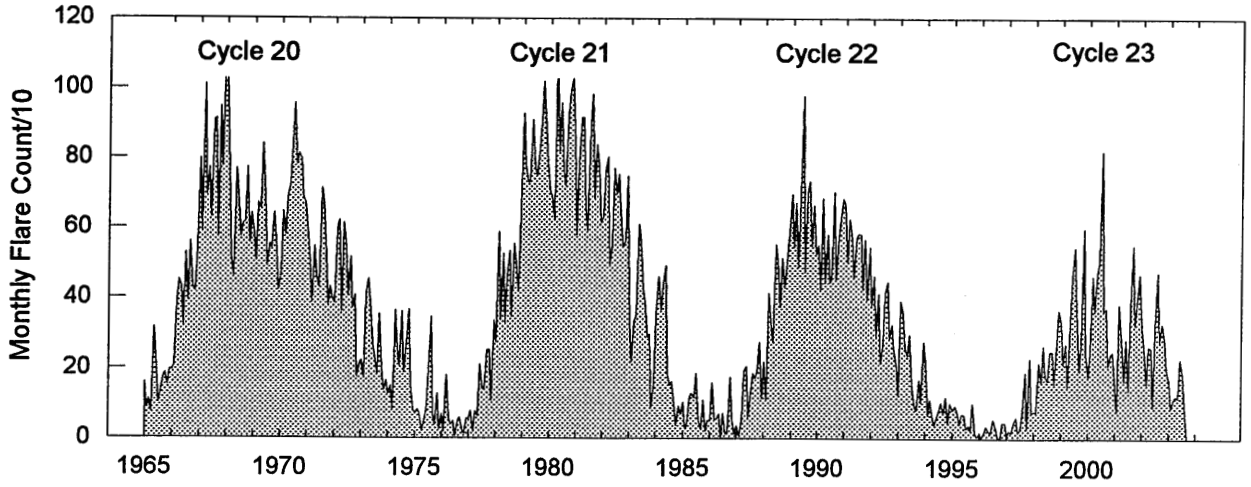
AUGUST 2003



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

Holloman Learmonth San Vito
Kanzelhoehe Kharkov

Monthly Counts of Grouped Solar Flares
Jan 1965 - Aug 2003



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1965	158	85	110	74	315	231	99	127	173	184	150	193	1899
1966	194	205	390	449	429	323	528	391	558	432	417	543	4859
1967	796	589	1009	694	771	629	907	911	573	946	775	1109	9709
1968	1037	773	519	460	768	697	573	611	616	772	556	640	8022
1969	581	504	669	655	839	694	489	551	540	643	566	422	7153
1970	466	646	578	688	722	836	954	780	811	797	687	667	8632
1971	598	505	387	546	461	430	713	673	518	375	431	394	6031
1972	384	599	621	361	614	541	404	515	371	408	175	210	5203
1973	221	171	410	453	388	270	232	182	353	201	136	163	3180
1974	127	148	79	364	255	204	360	187	270	366	153	81	2594
1975	68	82	69	19	42	85	196	346	68	38	127	25	1165
1976	69	18	180	60	38	48	6	47	57	23	13	55	614
1977	54	77	18	76	64	210	140	140	250	252	107	336	1724
1978	274	588	338	526	330	460	533	346	554	499	418	648	5514
1979	926	781	731	731	907	772	750	821	901	1018	888	786	10012
1980	703	689	621	1092	811	956	763	720	924	988	1027	838	10132
1981	578	782	914	915	658	592	893	982	680	836	773	615	9218
1982	631	766	803	490	553	769	696	753	615	544	564	748	7932
1983	332	220	337	346	609	561	427	389	289	298	88	152	4048
1984	353	461	366	440	492	185	151	161	95	36	92	69	2901
1985	104	29	38	119	129	116	185	53	25	108	19	50	975
1986	51	158	54	56	68	3	71	12	14	174	56	13	730
1987	36	7	52	192	205	61	132	185	172	198	273	114	1627
1988	217	109	413	328	274	551	502	375	513	429	518	587	4816
1989	695	544	672	488	691	977	474	699	733	547	665	526	7711
1990	550	424	684	442	580	445	454	703	449	574	623	682	6610
1991	672	503	625	570	458	574	582	581	425	565	396	544	6495
1992	380	462	287	412	214	271	413	447	287	325	248	206	3952
1993	123	392	357	262	237	296	154	92	82	167	104	275	2541
1994	217	67	111	60	40	56	81	101	72	117	45	99	1066
1995	82	95	77	42	69	66	29	37	23	99	14	6	639
1996	14	3	15	34	21	16	54	31	3	0	44	45	280
1997	8	22	18	43	59	18	26	75	188	31	228	74	790
1998	78	76	216	161	264	177	164	248	249	155	268	367	2423
1999	330	212	271	145	330	466	544	368	192	264	598	243	3963
2000	175	248	462	362	473	505	818	364	372	208	241	246	4474
2001	147	77	383	284	164	282	137	376	549	325	405	468	3597
2002	318	261	155	263	259	91	318	474	280	329	279	196	3223
2003	164	87	112	122	117	226	181	94					1103

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

SOLAR RADIO EMISSION
Outstanding Occurrences

AUGUST 2003

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
01	235	CUBA	44	NS	1320.0E		405.0D		5.0		
	280	CUBA	44	NS	1320.0E		405.0D		19.0		
	2800	PEKG	3	S	2348.0	2351.0	10.0	73.4			
02	245	LEAR	43	NS	0541.0	0541.0	100.0	51.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	0541.0	0541.0	1099.0	51.0			QL=4 ST=1 TYP=1
	204	IZMI	43	NS	0746.0		274.0D		10.0		
	127	TORN	44	NS	1240.0E		200.0D		35.0		V=2
	235	CUBA	44	NS	1310.0E		230.0D		7.0		
	280	CUBA	44	NS	1310.0E		230.0D		23.0		
	245	SVTO	8	S	0506.0	0507.0	2.0	54.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0507.0	0507.0	U	53.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	0722.8	0722.9	0.4	25.0			
	900	GORK	40	F	0810.8	0812.0	3.6	9.0			
	600	GORK	2	S/F	0813.5	0813.7	0.5	6.6			
	600	GORK	41	F	0841.3	0852.0		4.4			
	600	GORK	41	F	0841.3	0842.6	11.6	8.8			
	900	GORK	46	C	0850.4	0851.5	2.2	20.0			
	900	GORK	46	C	0850.4	0851.8		10.0			
	245	SGMR	8	S	1653.0	1653.0	2.0	100.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1653.0	1653.0	2.0	54.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1713.0	1714.0	1.0	87.0			QL=4 ST=2 TYP=3
	2800	PENT	21	GRF	1732.0	1751.0	108.0	6.0			
	245	PALE	8	S	1733.0	1733.0	1.0	56.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1839.0	1839.0	U	110.0			QL=4 ST=2 TYP=3
	2800	PENT	1	S	2109.0	2114.0	11.0	2.0			
	245	SGMR	8	S	2114.0	2115.0	2.0	180.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2115.0	2115.0	U	270.0			QL=4 ST=2 TYP=3
	9500	CUBA	20	GRF	2126.0	2132.0	44.0	13.0	6.0		
	2800	PENT	1	S	2346.0	2350.0	8.0	26.0			
	2800	HIRA	8	S	2351.0	2351.0	1.0	35.0			MR
03	204	IZMI	44	NS	0600.0E		360.0D		30.0		
	127	TORN	43	NS	0740.0		490.0		11.0		V=2
	235	CUBA	44	NS	1300.0E		535.0D		9.0		
	280	CUBA	44	NS	1300.0E		535.0D		27.0		
	245	SGMR	43	NS	1522.0	1527.0	5.0	67.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1522.0	1527.0	518.0	67.0			QL=4 ST=1 TYP=1
	245	LEAR	8	S	0423.0	0423.0	U	63.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0543.0	0543.0	1.0	73.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0543.0	0543.0	1.0	58.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0601.5	0602.7	2.7	63.0			
	600	GORK	41	F	0840.1	0843.3	4.6	6.5			
	600	GORK	41	F	0840.1	0844.5		8.9			
	900	GORK	41	F	0840.2	0847.1	8.9	18.0			
	900	GORK	41	F	0840.2	0848.8		20.0			
	245	SGMR	8	S	1157.0	1157.0	U	59.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1157.0	1157.0	U	65.0			QL=4 ST=2 TYP=3
	33	UPIC	46	C	1157.0	1158.0	2.0				
	204	IZMI	42	SER	1157.3	1159.0	2.5	70.0			
	245	SGMR	4	S/F	1420.0	1424.0	8.0	83.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1424.0	1424.0	U	62.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2008.0	2009.0	1.0	150.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2014.0	2014.0	U	190.0			QL=4 ST=2 TYP=3
04	127	TORN	43	NS	0910.0		360.0		6.0		V=1,DISTURBED
	235	CUBA	44	NS	1300.0E		300.0D		7.0		
	280	CUBA	44	NS	1300.0E		300.0D		28.0		
	245	SGMR	43	NS	1312.0	1312.0	60.0	67.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1312.0	1312.0	648.0	67.0			QL=4 ST=1 TYP=1
	204	IZMI	42	SER	0752.1	0753.3	1.5	58.0			
	204	IZMI	41	F	0916.9	0918.6	2.2	65.0			
	33	UPIC	4	S/F	0918.0	0919.0	1.5				
	245	SVTO	8	S	1022.0	1022.0	U	51.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1312.0	1312.0	U	71.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1607.0	1607.0	U	76.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1607.0	1607.0	U	63.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1824.0	1825.0	1.0	91.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1824.0	1824.0	U	63.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

AUGUST 2003

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
04	245	PALE	8	S	1828.0	1828.0	U	52.0			QL=4 ST=2 TYP=3
	245	SGMR	4	S/F	1932.0	1936.0	4.0	70.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1936.0	1937.0	1.0	100.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2105.0	2105.0	U	150.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2105.0	2105.0	U	110.0			QL=4 ST=2 TYP=3
05	127	TORN	44	NS	1010.0E		180.0D		6.0		V=0
	235	CUBA	44	NS	1315.0E		515.0D		8.0		
	280	CUBA	44	NS	1315.0E		515.0D		20.0		
	204	IZMI	42	SER	0635.9	0636.9	2.7	13.0			
	204	IZMI	41	F	0804.7	0805.2	0.8	40.0			
	410	SVTO	8	S	0853.0	0854.0	1.0	69.0			QL=4 ST=2 TYP=3
	2800	PEKG	45	C	0901.0	0911.6	21.0	18.5			
	2950	GORK	4	S/F	0909.8	0912.2	10.2	19.0			
	900	GORK	45	C	0911.2	0912.1		24.0			
	900	GORK	45	C	0911.2	0911.7	2.7	40.0			
	600	GORK	46	C	0911.5	0912.2		15.0			
	600	GORK	46	C	0911.5	0911.7	2.8	25.0			
	204	IZMI	42	SER	0930.5	0931.6	3.5	24.0			
	33	UPIC	42	SER	0932.0	1121.5	156.0				UNCERTN
	245	SVTO	8	S	1046.0	1046.0	U	50.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1046.0	1046.0	U	46.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	1121.1	1121.5	1.4	69.0			
	610	SGMR	8	S	1245.0	1245.0	2.0	85.0			QL=4 ST=2 TYP=3
	1415	SGMR	48	C	1245.0	1245.0	3.0	130.0			QL=4 ST=2 TYP=8
	2695	SGMR	4	S/F	1245.0	1247.0	3.0	44.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1245.0	1247.0	3.0	120.0			QL=4 ST=2 TYP=3
	1415	SVTO	48	C	1245.0	1245.0	3.0	120.0			QL=4 ST=2 TYP=8
	2695	SVTO	4	S/F	1245.0	1247.0	3.0	40.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	1245.0	1247.0	3.0	92.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1245.0	1247.0	3.0	130.0			QL=4 ST=2 TYP=3
	9500	CUBA	4	S/F	1245.2	1247.2	5.6	105.0	52.0		
	4995	SGMR	8	S	1247.0	1247.0	U	65.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1247.0	1247.0	1.0	81.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1247.0	1247.0	U	63.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1303.0	1303.0	1.0	84.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1325.1	1325.4	0.8	13.0	6.0		
	9500	CUBA	2	S/F	1950.0	1951.0	1.4	10.0	5.0		
	2800	PENT	1	S	2107.0	2114.0	14.0	5.0			
06	127	TORN	43	NS	0747.0		433.0		5.0		V=0
	235	CUBA	44	NS	1500.0E		410.0D		7.0		
	280	CUBA	44	NS	1500.0E		410.0D		18.0		
	2950	GORK	3	S	0408.0	0408.3	0.6	7.3			
	900	GORK	8	S	0408.1	0408.1	0.1	10.0			
	600	GORK	41	F	0725.1	0726.5	4.2	6.1			
	600	GORK	41	F	0725.1	0728.7		32.0			
	900	GORK	41	F	0725.3	0728.1		47.0			
	900	GORK	41	F	0725.3	0726.2	3.6	18.0			
	204	IZMI	7	C	0728.4	0728.5	0.3	24.0			
	204	IZMI	42	SER	0744.6	0744.8	0.6	14.0			
	600	GORK	2	S/F	0745.4	0745.5	0.5	11.0			
	204	IZMI	42	SER	0746.8	0747.0	0.8	40.0			
	204	IZMI	42	SER	1053.2	1053.4	0.4	14.0			
	204	IZMI	7	C	1146.5	1146.6	0.2	39.0			
	410	SGMR	4	S/F	1917.0	1917.0	4.0	29.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1918.0	1919.0	1.0	200.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1918.0	1918.0	1.0	120.0			QL=4 ST=2 TYP=3
07	204	IZMI	43	NS	0600.0		360.0D		20.0		
	127	TORN	43	NS	0740.0		330.0		9.0		V=1
	235	CUBA	44	NS	1305.0E		385.0D		6.0		
	280	CUBA	44	NS	1305.0E		385.0D		22.0		
	204	IZMI	41	F	0654.4	0654.7	0.5	118.0			
	245	SVTO	8	S	0735.0	0735.0	2.0	33.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0735.0	0735.0	U	230.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0735.5	0735.7	0.5	83.0			
	204	IZMI	42	SER	1127.5	1128.9	1.9	199.0			
	127	TORN	48	C	1127.8	1131.0U	3.8	280.0	50.0		

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07	3000	IZMI	22	GRF	1130.2	1130.4	0.6	20.0	9.1		
	204	IZMI	45	C	1130.4	1130.6	0.3	424.0			
	204	IZMI	45	C	1130.8	1130.9	0.4	596.0			
	9500	CUBA	1	S	1312.0	1312.3	0.8	18.0	9.0		
	9500	CUBA	1	S	1419.8	1419.9	2.1	8.0	4.0		
	2800	PENT	1	S	1526.0	1532.0	13.0	3.0			
	2800	PENT	41	F	1729.0	1801.0	38.0	7.0			
	1415	PALE	8	S	1752.0	1752.0	1.0	220.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	1752.0	1752.0	U	220.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1758.0	1758.0	U	64.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2025.0	2025.0	U	57.0			QL=4 ST=2 TYP=3
	410	SGMR	4	S/F	2045.0	2046.0	8.0	57.0			QL=4 ST=2 TYP=3
	2800	PENT	21	GRF	2100.0	2112.0	52.0	5.0			
08	235	CUBA	44	NS	1300.0E		530.0D		6.0		
	280	CUBA	44	NS	1300.0E		530.0D		16.0		
	204	IZMI	42	SER	0616.6	0617.8	3.9	24.0			
	204	IZMI	7	C	0740.3	0740.3	0.1	14.0			
	600	GORK	2	S/F	0800.3	0800.5	0.5	6.6			
	900	GORK	46	C	0801.0	0801.4	1.4	8.9			
	900	GORK	46	C	0801.0	0801.6		8.9			
	204	IZMI	42	SER	0945.7	0946.9	1.3	12.0			
	410	SGMR	8	S	1212.0	1212.0	U	60.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1212.0	1212.0	U	140.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	1212.0	1212.0	U	130.0			QL=4 ST=2 TYP=3
	2800	PENT	21	GRF	1400.0	1439.0	130.0	5.0			
	500	HIRA	8	S	2155.0	2155.0	1.0	10.0			0
09	127	TORN	43	NS	0827.0		358.0		8.0		V=0
	235	CUBA	44	NS	1310.0E		370.0D		6.0		
	280	CUBA	44	NS	1310.0E		370.0D		16.0		
	900	GORK	41	F	1006.4	1014.1		85.0			
	600	GORK	41	F	1006.4	1012.8	9.0	17.0			
	600	GORK	41	F	1006.4	1014.9		6.7			
	900	GORK	41	F	1006.4	1008.9	10.8	62.0			
	245	SGMR	8	S	1145.0	1145.0	U	54.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1145.0	1145.0	U	79.0			QL=4 ST=2 TYP=3
	2800	PENT	1	S	1731.0	1739.0	16.0	5.0			
	245	PALE	8	S	1951.0	1951.0	U	55.0			QL=4 ST=2 TYP=3
	245	SGMR	4	S/F	2036.0	2040.0	6.0	86.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2041.0	2041.0	U	110.0			QL=4 ST=2 TYP=3
10	127	TORN	43	NS	0820.0		350.0		7.0		V=0
	204	IZMI	43	NS	0825.0		205.0U		10.0		
	235	CUBA	44	NS	1300.0E		300.0D		6.0		
	280	CUBA	44	NS	1300.0E		300.0D		17.0		
	245	PALE	49	GB	0111.0	0111.0	U	600.0			QL=4 ST=2 TYP=6
	410	PALE	8	S	0111.0	0111.0	U	160.0			QL=4 ST=2 TYP=3
	2800	PEKG	3	S	1005.0	1016.1	27.0	51.6			
	600	GORK	46	C	1011.3	1016.3		6.0			
	600	GORK	46	C	1011.3	1015.4	6.2	6.0			
	900	GORK	46	C	1013.4	1016.4		5.9			
	900	GORK	46	C	1013.4	1015.9	5.7	8.9			
	900	GORK	40	F	1042.3	1043.9	1.8	46.0			
	600	GORK	8	S	1044.3	1044.6	0.7	1.6			
11	127	TORN	43	NS	0816.0		234.0		8.0		V=0,DISTURBED
	235	CUBA	44	NS	1305.0E		350.0D		5.0		
	280	CUBA	44	NS	1305.0E		350.0D		17.0		
	2800	PENT	1	S	1729.0	1748.0	41.0	9.0			
	245	PALE	8	S	1940.0	1940.0	U	110.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1943.0	1943.0	U	69.0			QL=4 ST=2 TYP=3
12	127	TORN	43	NS	0843.0		377.0		6.0		V=1
	204	IZMI	43	NS	1031.0		56.0		10.0		
	235	CUBA	44	NS	1305.0E		525.0D		5.0		
	280	CUBA	44	NS	1305.0E		525.0D		14.0		
	2800	PEKG	5	S	0123.0	0126.5	4.0	13.8			
	2800	HIRA	1	S	0125.0	0127.0	3.0	10.0			0

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12	204	IZMI	42	SER	0649.7	0650.1	1.8	26.0			
	2800	PEKG	3	S	1002.0	1009.3	17.0	18.1			
	2950	GORK	45	C	1004.5	1009.3		21.0			
	2950	GORK	45	C	1004.5	1005.5U	9.4	7.5U			
	3000	IZMI	22	GRF	1004.9	1009.4	5.6	23.0	8.7		
	204	IZMI	41	F	1127.4	1127.6	1.1	18.0			
	245	PALE	8	S	2051.0	2051.0	1.0	230.0			QL=4 ST=2 TYP=3
13	127	TORN	43	NS	0730.0		340.0		7.0		V=0
	235	CUBA	44	NS	1300.0E		530.0D		4.0		
	280	CUBA	44	NS	1300.0E		530.0D		13.0		
	410	PALE	8	S	0020.0	0020.0	U	60.0			QL=4 ST=2 TYP=3
	2800	PEKG	1	S	0056.0	0058.7	7.0	3.4			
	2800	PEKG	20	GRF	0932.0	0940.4	24.0	13.3			
	2950	GORK	21	GRF	0938.7	1043.0	64.3	11.0			
	2950	GORK	5	S	0939.2	0940.2	2.1	8.7			
	3000	IZMI	20	GRF	0939.4	0940.5	5.2	11.0	6.1		
	33	UPIC	46	C	1322.0	1324.0	4.0				UNCERTN
	2800	PENT	20	GRF	1729.0	1740.0	27.0	5.0			
	2800	PENT	29	PBI	1907.0	1927.0	25.0	6.0			
	2800	PENT	20	GRF	2039.0	2101.0	67.0	6.0			
	2800	PENT	20	GRF	2320.0	2401.0	62.0	5.0			
14	127	TORN	43	NS	0700.0		440.0		7.0		V=1
	235	CUBA	44	NS	1400.0E		450.0D		8.0		
	280	CUBA	44	NS	1400.0E		450.0D		19.0		
	500	HIRA	8	S	0609.0	0609.0	1.0	15.0			0
	4995	LEAR	8	S	0634.0	0634.0	U	28.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0634.0	0634.0	U	55.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0634.0	0634.0	U	79.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0634.0	0634.0	U	79.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	0634.0	0634.0	U	89.0			QL=4 ST=2 TYP=3
	2800	PEKG	20	GRF	0639.0	0644.9	18.0	10.7			
	2800	PEKG	3	S	1020.0	1027.2	10.0	11.1			
	204	IZMI	42	SER	1137.6	1137.7	0.2	25.0			
	204	IZMI	42	SER	1140.9	1141.6	0.7	12.0			
	410	SGMR	8	S	1355.0	1355.0	U	170.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1355.0	1355.0	U	75.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1355.0	1355.0	U	60.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	1355.0	1355.0	U	63.0			QL=4 ST=2 TYP=3
	2800	PENT	40	F	1741.0	1837.0	103.0	10.0			
	245	PALE	8	S	1755.0	1755.0	U	91.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1755.0	1755.0	U	79.0			QL=4 ST=2 TYP=3
	410	PALE	4	S/F	1833.0	1837.0	4.0	51.0			QL=4 ST=2 TYP=3
	410	SGMR	4	S/F	1833.0	1838.0	9.0	66.0			QL=4 ST=2 TYP=3
	610	SGMR	4	S/F	1835.0	1838.0	4.0	36.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1836.0	1836.0	1.0	27.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	1836.0	1837.0	1.0	48.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1836.0	1838.0	2.0	23.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1836.0	1837.0	2.0	41.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	1837.0	1837.0	U	24.0			QL=4 ST=2 TYP=3
	2800	PENT	1	S	2123.0	2132.0	18.0	9.0			
	9500	CUBA	2	S/F	2132.1	2132.8	2.7	13.0	6.0		
	2800	PENT	20	GRF	2354.0	2414.0	39.0	5.0			
15	235	CUBA	44	NS	1305.0E		515.0D		6.0		
	280	CUBA	44	NS	1305.0E		515.0D		12.0		
	2800	PEKG	1	S	0122.0	0125.1	7.0	3.7			
	245	LEAR	8	S	0150.0	0150.0	U	290.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0153.0	0154.0	1.0	93.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	0153.0	0154.0	1.0	79.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0154.0	0154.0	1.0	1200.0			QL=4 ST=2 TYP=6
	245	PALE	49	GB	0154.0	0154.0	U	1300.0			QL=4 ST=2 TYP=6
	600	GORK	45	C	0359.0	0359.6	0.9	38.0			
	600	GORK	45	C	0359.0	0359.8		18.0			
	900	GORK	41	F	0550.0	0550.2	3.2	70.0			
	900	GORK	41	F	0550.0	0552.2		19.0			
	204	IZMI	41	F	0626.8	0627.0	0.4	911.0			
	245	LEAR	8	S	0627.0	0627.0	U	160.0			QL=4 ST=2 TYP=3

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15	245	SVTO	8	S	0627.0	0627.0	U	160.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0630.0	0630.0	U	510.0			QL=4 ST=2 TYP=6
	410	LEAR	8	S	0630.0	0630.0	U	150.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0630.0	0630.0	U	420.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0630.0	0630.0	U	140.0			QL=4 ST=2 TYP=3
	204	IZMI	45	C	0630.3	0630.4	0.4	1642.0			
	410	LEAR	8	S	0639.0	0639.0	U	140.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0639.0	0639.0	U	130.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0639.0	0639.7	0.9	25.0			
	600	GORK	42	SER	0704.7	0705.4	2.0	250.0			
	600	GORK	42	SER	0704.7	0706.4		65.0			
	204	IZMI	42	SER	0704.8	0705.5	1.5	906.0			
	245	LEAR	8	S	0705.0	0705.0	U	180.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0705.0	0705.0	U	87.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0705.0	0705.0	U	150.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0705.0	0705.0	U	160.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0705.0	0705.0	U	78.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	0705.0	0705.0	U	130.0			QL=4 ST=2 TYP=3
	900	GORK	45	C	0705.5	0712.0		80.0			
	900	GORK	45	C	0705.5	0711.9	7.0	220.0			
	900	GORK	42	SER	0818.4	0833.4		6.0			
	900	GORK	42	SER	0818.4	0827.9	25.3	15.0			
	600	GORK	42	SER	0826.3	0828.0	7.3	17.0			
	600	GORK	42	SER	0826.3	0832.0		42.0			
	2950	GORK	1	S	0841.0	0842.1	2.0	4.2			
	900	GORK	46	C	0857.2	0958.0	60.8	7.7			
	900	GORK	46	C	0857.2	0958.5		27.0			
	900	GORK	46	C	0924.8	0925.0		11.0			
	900	GORK	46	C	0924.8	0924.9	0.5	35.0			
	600	GORK	45	C	0927.9	0928.0	0.4	3.4			
	600	GORK	45	C	0927.9	0928.1		50.0			
	245	SVTO	49	GB	0928.0	0928.0	U	530.0			QL=4 ST=2 TYP=6
	410	SVTO	8	S	0928.0	0928.0	U	34.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	0928.0	0928.0	U	68.0			QL=4 ST=2 TYP=3
	204	IZMI	45	C	0928.1	0928.1	0.2	2617.0			
	600	GORK	2	S/F	0934.2	0934.5	0.5	7.3			
	204	IZMI	42	SER	1102.4	1104.6	3.5	35.0			
	245	SVTO	8	S	1225.0	1225.0	U	85.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2108.0	2109.0	1.0	68.0			QL=4 ST=2 TYP=3
16	127	TORN	43	NS	0816.0		362.0		7.0		V=0
	410	PALE	8	S	0054.0	0054.0	U	50.0			QL=4 ST=2 TYP=3
	900	GORK	46	C	0442.2	0443.6	2.0	13.0			
	900	GORK	46	C	0442.2	0443.8		20.0			
	127	TORN	45	C	0807.0	0807.5	5.0	240.0	90.0		
	2800	PENT	41	F	1421.0	1524.0	112.0	4.0			
	2800	PENT	21	GRF	1819.0	1847.0	58.0U	5.0			
17	127	TORN	43	NS	0840.0		220.0		7.0		V=1
	235	CUBA	44	NS	1310.0E		465.0D		4.0		
	280	CUBA	44	NS	1310.0E		465.0D		10.0		
	2800	PENT	41	F	0013.0	0048.0	46.0	7.0			
	2800	PEKG	5	S	0045.0	0048.3	6.0	12.3			
	245	PALE	48	C	0410.0	0423.0	13.0	190.0			QL=4 ST=2 TYP=8
	2950	GORK	7	C	0421.0	0421.5	2.4	8.5			
	2950	GORK	7	C	0421.0	0422.8		4.2			
	33	UPIC	46	C	0601.5	0602.5	3.0				
	2800	PEKG	1	S	0840.0	0842.3	5.0	7.2			
	900	GORK	4	S/F	0840.2	0840.3	0.3	25.0			
	2950	GORK	1	S	0841.8	0842.3	0.9	5.7			
	2800	PEKG	5	S	0902.0	0904.4	5.0	10.7			
	600	GORK	2	S/F	0903.3	0903.5	0.3	2.7			
	2950	GORK	1	S	0903.9	0904.6	1.4	7.1			
	900	GORK	41	F	0904.2	0904.3	0.7	220.0			
	900	GORK	41	F	0904.2	0904.7		10.0			
	245	PALE	8	S	2035.0	2035.0	1.0	310.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2035.0	2035.0	U	160.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2035.0	2035.0	1.0	300.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2036.0	2036.0	U	270.0			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

AUGUST 2003

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	2800	PENT	1	S	2359.0	2403.0	8.0	6.0			
18	127	TORN	44	NS	0950.0E		310.0D		7.0		V=0,DISTURBED
	2800	PEKG	1	S	0001.0	0003.2	4.0	6.2			
	610	LEAR	8	S	0002.0	0002.0	U	120.0			QL=4 ST=2 TYP=3
	2800	PEKG	5	S	0156.0	0159.3	8.0	11.5			
	500	HIRA	7	C	0234.0	0234.0	9.0	10.0			0
	2800	PEKG	1	S	0236.0	0240.1	8.0	7.0			
	2800	PEKG	1	S	0456.0	0458.1	5.0	6.8			
	2800	PEKG	1	S	0530.0	0532.6	7.0	5.3			
	2800	PEKG	3	S	0857.0	0902.1	16.0	51.9			
	204	IZMI	41	F	0859.9	0901.8	2.4	13.0U			
	3000	IZMI	20	GRF	0900.6	0902.0	3.0	51.0	18.3		
	900	GORK	4	S/F	0900.9	0902.1	4.0	12.0			
	410	LEAR	8	S	0901.0	0901.0	1.0	440.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0901.0	0901.0	1.0	110.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0901.0	0902.0	1.0	100.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	0901.0	0902.0	2.0	160.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0901.0	0902.0	1.0	79.0			QL=4 ST=2 TYP=3
	600	GORK	46	C	0901.1	0902.5	5.4	30.0			
	600	GORK	46	C	0901.1	0905.5		20.0			
	33	UPIC	46	C	0901.5	0902.0	2.5				
	2800	PENT	41	F	1448.0	1506.0	96.0	6.0			
	2800	PENT	40	F	1728.0	1742.0	35.0	7.0			
	2800	PEKG	3	S	2246.0	2249.9	11.0	11.5			
19	127	TORN	43	NS	0812.0		408.0		32.0		V=1
	245	SVTO	43	NS	1201.0	1206.0	719.0	120.0			QL=4 ST=1 TYP=1
	410	SVTO	43	NS	1201.0	1211.0	719.0	120.0			QL=4 ST=1 TYP=1
	235	CUBA	44	NS	1305.0E		530.0D		4.0		
	280	CUBA	44	NS	1305.0E		530.0D		9.0		
	2800	PENT	1	S	0047.0	0055.0	17.0	5.0			
	2800	PEKG	1	S	0052.0	0055.7	8.0	4.9			
	2800	PEKG	1	S	0422.0	0424.5	6.0	5.4			
	204	IZMI	45	C	0752.9	0755.8	6.6	327.0			
	610	SVTO	4	S/F	0753.0	0755.0	3.0	36.0			QL=4 ST=2 TYP=3
	127	TORN	49	GB	0753.0U	0759.0U	11.0D	5000.0U	1600.0		DISTURBED
	2800	PEKG	45	C	0753.0	0755.9	15.0	43.6			
	245	LEAR	8	S	0754.0	0755.0	2.0	160.0			QL=4 ST=2 TYP=3
	245	SVTO	48	C	0754.0E	0801.0	7.0D	580.0			QL=4 ST=3 TYP=8
	2800	HIRA	7	C	0755.0	0756.0	6.0	40.0			0
	500	HIRA	7	C	0755.0	0801.0	8.0	30.0			WR
	410	SVTO	4	S/F	0755.0	0800.0	6.0	150.0			QL=4 ST=3 TYP=3
	410	SVTO	4	S/F	0755.0	0800.0	6.0	150.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0755.0	0755.0	1.0	39.0			QL=4 ST=3 TYP=3
	2695	SVTO	8	S	0755.0	0755.0	1.0	39.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	0755.0	0755.0	3.0	35.0			QL=4 ST=3 TYP=3
	4995	SVTO	4	S/F	0755.0	0755.0	3.0	35.0			QL=4 ST=2 TYP=3
	245	SVTO	48	C	0755.0	0805.0	10.0	620.0			QL=2 ST=2 TYP=8
	900	GORK	46	C	0755.3	0757.0	10.4	17.0			
	900	GORK	46	C	0755.3	0800.5		15.0			
	600	GORK	46	C	0755.5	0757.0	9.2	7.3			
	600	GORK	46	C	0755.5	0800.6		11.0			
	3000	IZMI	42	SER	0755.5	0755.8	5.8	33.0			
	33	UPIC	46	C	0756.0	0756.5	17.0				
	204	IZMI	45	C	0759.6	0800.5	5.7	1127.0			
	245	LEAR	4	S/F	0800.0	0800.0	3.0	480.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0800.0	0800.0	1.0	140.0			QL=4 ST=2 TYP=3
	2800	PEKG	20	GRF	0906.0	0913.0	16.0	9.8			
	204	IZMI	41	F	0928.0	0928.2	0.6	8.0			
	204	IZMI	41	F	0938.1	0938.5	0.7	6.0			
	2800	PEKG	45	C	0939.0	0952.5	59.0	263.9			
	610	SVTO	48	C	0944.0E	0952.0	22.0D	350.0			QL=2 ST=2 TYP=8
	610	SVTO	4	S/F	0944.0	0952.0	856.0	350.0			QL=2 ST=1 TYP=3
	610	SVTO	4	S/F	0944.0	0950.0	856.0	140.0			QL=2 ST=1 TYP=3
	610	SVTO	4	S/F	0944.0	0952.0	856.0	350.0			QL=2 ST=1 TYP=3
	3000	IZMI	45	C	0946.6	0952.4	40.3	239.0	64.9		
	2695	SVTO	4	S/F	0947.0	0952.0	32.0	230.0			QL=4 ST=2 TYP=3
	4995	SVTO	48	C	0947.0	0952.0	32.0	280.0			QL=4 ST=2 TYP=8

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

AUGUST 2003

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	4	S/F	0947.0	0952.0	853.0	230.0			QL=4 ST=1 TYP=3
	2695	SVTO	4	S/F	0947.0	0950.0	853.0	130.0			QL=4 ST=1 TYP=3
	2695	SVTO	4	S/F	0947.0	0952.0	853.0	230.0			QL=4 ST=1 TYP=3
	4995	SVTO	48	C	0947.0	0952.0	853.0	280.0			QL=4 ST=1 TYP=8
	4995	SVTO	4	S/F	0947.0	0950.0	853.0	130.0			QL=4 ST=1 TYP=3
	4995	SVTO	48	C	0947.0	0952.0	853.0	280.0			QL=4 ST=1 TYP=8
	1415	SVTO	20	GRF	0948.0	0951.0	31.0	120.0			QL=4 ST=2 TYP=2
	1415	SVTO	4	S/F	0948.0	0951.0	852.0	120.0			QL=4 ST=1 TYP=3
	1415	SVTO	4	S/F	0948.0	0950.0	852.0	67.0			QL=4 ST=1 TYP=3
	1415	SVTO	4	S/F	0948.0	0951.0	852.0	120.0			QL=4 ST=1 TYP=3
	900	GORK	46	C	0948.5	0957.5		90.0			
	900	GORK	46	C	0948.5	0954.5	20.9	75.0			
	600	GORK	46	C	0949.8	0958.0		110.0			
	600	GORK	46	C	0949.8	0952.0	17.0	240.0U			
	8800	SVTO	4	S/F	0950.0	0952.0	9.0	55.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0950.0	0952.0	850.0	55.0			QL=4 ST=1 TYP=3
	410	SVTO	48	C	0951.0	0958.0	27.0	120.0			QL=4 ST=2 TYP=8
	410	SVTO	4	S/F	0951.0	0957.0	849.0	94.0			QL=4 ST=1 TYP=3
	15400	SVTO	20	GRF	0952.0	1007.0	27.0	37.0			QL=4 ST=2 TYP=2
	15400	SVTO	4	S/F	0952.0	0954.0	848.0	33.0			QL=4 ST=1 TYP=3
	204	IZMI	28	PRE	0954.5	1000.8	21.6	113.0			
	245	SVTO	48	C	0957.0	1000.0	21.0	170.0			QL=4 ST=2 TYP=8
	245	SVTO	4	S/F	0957.0	0957.0	843.0	26.0			QL=4 ST=1 TYP=3
	127	TORN	27	RF	1000.0U		69.0D		65.0		
	33	UPIC	46	C	1002.0	1002.5	10.0				
	600	GORK	46	C	1012.1	1014.3		25.0			
	600	GORK	46	C	1012.1	1013.9	3.4	24.0			
	900	GORK	7	C	1012.4	1014.2		6.8			
	900	GORK	7	C	1012.4	1013.3	2.8	5.1			
	204	IZMI	45	C	1016.8	1024.6	18.8	152.0			
	900	GORK	46	C	1017.5	1018.2	21.3	27.0			
	900	GORK	46	C	1017.5	1024.6		24.0			
	600	GORK	46	C	1017.6	1023.0		14.0			
	600	GORK	46	C	1017.6	1018.5	18.4	25.0			
	33	UPIC	46	C	1025.0	1027.5	3.5				
	204	IZMI	46	C	1047.3	1108.9	79.2	137.0			
	245	SGMR	48	C	1103.0	1132.0	42.0	170.0			QL=4 ST=2 TYP=8
	410	SGMR	48	C	1103.0	1111.0	42.0	280.0			QL=4 ST=2 TYP=8
	245	SGMR	4	S/F	1103.0	1108.0	777.0	150.0			QL=4 ST=1 TYP=3
	410	SGMR	4	S/F	1103.0	1109.0	777.0	260.0			QL=4 ST=1 TYP=3
	410	SGMR	4	S/F	1103.0	1111.0	777.0	280.0			QL=4 ST=1 TYP=3
	610	SGMR	4	S/F	1106.0	1110.0	33.0	150.0			QL=4 ST=2 TYP=3
	1415	SGMR	4	S/F	1106.0	1111.0	35.0	70.0			QL=4 ST=2 TYP=3
	610	SGMR	4	S/F	1106.0	1108.0	774.0	120.0			QL=4 ST=1 TYP=3
	610	SGMR	4	S/F	1106.0	1110.0	774.0	150.0			QL=4 ST=1 TYP=3
	1415	SGMR	4	S/F	1106.0	1108.0	774.0	64.0			QL=4 ST=1 TYP=3
	1415	SGMR	4	S/F	1106.0	1111.0	774.0	70.0			QL=4 ST=1 TYP=3
	3000	IZMI	20	GRF	1106.8	1111.5	43.6	27.0	8.1		
	2695	SGMR	4	S/F	1107.0	1112.0	29.0	50.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1107.0	1108.0	773.0	43.0			QL=4 ST=1 TYP=3
	2695	SGMR	4	S/F	1107.0	1112.0	773.0	50.0			QL=4 ST=1 TYP=3
	4995	SGMR	8	S	1108.0	1108.0	1.0	21.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	1108.0	1117.0	32.0	40.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	1108.0	1114.0	772.0	32.0			QL=4 ST=1 TYP=3
	1415	SVTO	20	GRF	1111.0E	1111.0U	21.0D	60.0			QL=4 ST=2 TYP=2
	2695	SVTO	20	GRF	1111.0E	1115.0U	20.0D	50.0			QL=4 ST=2 TYP=2
	245	SVTO	48	C	1111.0E	1129.0U	38.0D	190.0			QL=4 ST=2 TYP=8
	410	SVTO	48	C	1111.0E	1111.0U	36.0D	300.0			QL=4 ST=2 TYP=8
	610	SVTO	48	C	1111.0E	1118.0U	40.0D	340.0			QL=2 ST=2 TYP=8
	245	SVTO	4	S/F	1111.0E	1111.0U	769.0D	170.0			QL=4 ST=1 TYP=3
	410	SVTO	4	S/F	1111.0E	1111.0U	769.0D	300.0			QL=4 ST=1 TYP=3
	610	SVTO	48	C	1111.0E	1118.0U	769.0D	340.0			QL=2 ST=1 TYP=8
	1415	SVTO	4	S/F	1111.0E	1111.0U	769.0D	60.0			QL=4 ST=1 TYP=3
	2695	SVTO	4	S/F	1111.0E	1115.0U	769.0D	50.0			QL=4 ST=1 TYP=3
	245	SGMR	4	S/F	1201.0	1210.0	25.0	100.0			QL=4 ST=2 TYP=3
	245	SVTO	48	C	1201.0	1206.0	40.0	120.0			QL=4 ST=2 TYP=8
	410	SVTO	4	S/F	1201.0	1211.0	42.0	120.0			QL=4 ST=2 TYP=3
	127	TORN	27	RF	1202.0U		39.0D		50.0		
	410	SGMR	4	S/F	1204.0	1211.0	15.0	99.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

AUGUST 2003

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	2800	PENT	40	F	1444.0	1528.0	70.0	4.0			
	245	SVTO	8	S	1547.0	1549.0	2.0	200.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	1809.0	1825.0	81.0U	29.0			
	9500	CUBA	21	GRF	1821.0	1827.0	12.0	14.0	7.0		
	2800	PENT	29	PBI	2332.0	2338.0	63.0	5.0			
20	127	TORN	43	NS	0700.0		480.0		10.0		V=0
	204	IZMI	45	C	0609.7	0610.1	1.0	640.0			
	245	LEAR	8	S	0610.0	0610.0	U	62.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0610.0	0610.0	U	56.0			QL=4 ST=2 TYP=3
	204	IZMI	7	C	0612.1	0612.2	0.3	20.0			
	204	IZMI	7	C	0836.1	0836.1	0.1	16.0			
	2800	PENT	1	S	1825.0	1833.0	15.0	3.0			
	245	PALE	8	S	1946.0	1946.0	1.0	95.0			QL=4 ST=2 TYP=3
21	127	TORN	43	NS	0710.0		430.0		9.0		V=0
	204	IZMI	42	SER	0746.2	0748.6	2.8	17.0			
	204	IZMI	45	C	1004.3	1004.4	0.3	321.0			
	204	IZMI	42	SER	1004.7	1004.8	0.3	42.0			
	245	SVTO	8	S	1009.0	1009.0	U	190.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	1009.0	1009.1	0.4	311.0			
	2800	PENT	29	PBI	1500.0	1519.0	82.0	90.0			
	2695	SGMR	4	S/F	1517.0	1519.0	8.0	110.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1517.0	1519.0	523.0	110.0			QL=4 ST=1 TYP=3
	235	CUBA	7	C	1517.0	1519.5	4.8	20.0	10.0		
	280	CUBA	7	C	1517.0	1519.5	4.8	38.0	19.0		
	410	SGMR	4	S/F	1518.0	1518.0	7.0	240.0			QL=4 ST=2 TYP=3
	610	SGMR	4	S/F	1518.0	1518.0	7.0	48.0			QL=4 ST=2 TYP=3
	1415	SGMR	4	S/F	1518.0	1519.0	7.0	73.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	1518.0	1519.0	4.0	27.0			QL=4 ST=2 TYP=3
	410	SVTO	4	S/F	1518.0	1519.0	3.0	180.0			QL=4 ST=2 TYP=3
	1415	SVTO	4	S/F	1518.0	1519.0	3.0	67.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1518.0	1519.0	3.0	110.0			QL=4 ST=2 TYP=3
	410	SGMR	4	S/F	1518.0	1518.0	522.0	240.0			QL=4 ST=1 TYP=3
	610	SGMR	4	S/F	1518.0	1518.0	522.0	48.0			QL=4 ST=1 TYP=3
	1415	SGMR	4	S/F	1518.0	1519.0	522.0	73.0			QL=4 ST=1 TYP=3
	4995	SGMR	4	S/F	1518.0	1519.0	522.0	27.0			QL=4 ST=1 TYP=3
	9500	CUBA	1	S	1519.3	1519.6	1.5	7.0	3.0		
	245	SGMR	4	S/F	1520.0	1521.0	5.0	96.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1520.0	1521.0	1.0	76.0			QL=4 ST=2 TYP=3
	2800	PENT	41	F	1728.0	1730.0	12.0	12.0			
	410	SGMR	8	S	1729.0	1730.0	1.0	50.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1729.0	1729.0	2.0	50.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1730.0	1730.0	U	83.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1730.0	1730.0	U	22.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2041.0	2041.0	U	150.0			QL=4 ST=2 TYP=3
22	127	TORN	44	NS	0600.0E		560.0D		16.0		V=1
	235	CUBA	44	NS	1600.0E		240.0D		8.0		
	280	CUBA	44	NS	1600.0E		240.0D		23.0		
	2800	PEKG	1	S	0958.0	1002.0	7.0	5.6			
	2800	PEKG	1	S	1009.0	1011.6	9.0	6.1			
	2800	PENT	29	PBI	1558.0	1615.0	34.0U	38.0			
	245	SGMR	8	S	1615.0	1615.0	U	69.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1615.0	1615.0	U	23.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1615.0	1615.0	1.0	41.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1615.0	1615.0	2.0	50.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1615.0	1615.0	U	59.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1615.0	1615.0	U	26.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	1615.0	1615.0	1.0	40.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1615.0	1615.0	1.0	49.0			QL=4 ST=2 TYP=3
23	204	IZMI	43	NS	0600.0		360.0D		35.0		
	127	TORN	44	NS	0600.0E		420.0D		15.0		V=2,DISTURBED
	235	CUBA	44	NS	1305.0E		485.0D		9.0		
	280	CUBA	44	NS	1305.0E		525.0D		22.0		
	245	LEAR	43	NS	2329.0	2330.0	31.0	60.0			QL=4 ST=1 TYP=1
	245	LEAR	43	NS	2329.0	2330.0	418.0	60.0			QL=4 ST=2 TYP=1
	33	UPIC	45	C	0936.0	0936.5	1.5				

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

AUGUST 2003

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	204	IZMI	44	NS	0600.0E		360.0D		35.0		
	127	TORN	44	NS	0600.0E		540.0D		14.0		V=2
	2800	PEKG	3	S	0408.0	0413.4	11.0	18.8			
	2800	HIRA	1	S	0412.0	0413.0	7.0	15.0			
	2800	PENT	1	S	2331.0	2336.0	10.0	9.0			
	2800	PEKG	1	S	2332.0	2336.8	7.0	9.8			
25	204	IZMI	44	NS	0600.0E		360.0D		15.0		
	127	TORN	44	NS	0600.0E		390.0D		40.0		V=2
	500	HIRA	7	C	0225.0	0312.0	50.0	70.0			
	2800	PEKG	1	S	0225.0	0230.9	9.0	8.7			
	2800	PEKG	3	S	0245.0	0250.4	18.0	18.1			
	410	LEAR	8	S	0249.0	0250.0	2.0	37.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0249.0	0250.0	2.0	51.0			QL=4 ST=2 TYP=3
	1415	LEAR	4	S/F	0249.0	0250.0	6.0	56.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0249.0	0250.0	2.0	26.0			QL=4 ST=2 TYP=3
	2800	HIRA	1	S	0249.0	0250.0	13.0	15.0			
	245	LEAR	8	S	0250.0	0250.0	U	53.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0306.0	0306.0	1.0	180.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	0306.0	0306.0	1.0	130.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	0306.0	0307.0	1.0	180.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	0306.0	0307.0	1.0	140.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0310.0	0311.0	2.0	180.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	0310.0	0310.0	U	54.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	0310.0	0310.0	U	58.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0311.0	0311.0	1.0	62.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0311.0	0312.0	1.0	59.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0311.0	0312.0	1.0	71.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	0311.0	0312.0	1.0	170.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0312.0	0312.0	U	77.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0658.1	0658.4	0.3	37.0			
	204	IZMI	42	SER	0708.4	0708.7	0.6	23.0			
	245	LEAR	48	C	0852.0	0855.0	3.0	100.0			QL=4 ST=2 TYP=8
	2800	PENT	29	PBI	1450.0	1513.0	102.0U	16.0			
	245	PALE	8	S	1953.0	1953.0	U	65.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2341.0	2341.0	U	56.0			QL=4 ST=2 TYP=3
26	235	CUBA	44	NS	1315.0E		225.0D		6.0		
	280	CUBA	44	NS	1315.0E		225.0D		17.0		
	2800	PENT	29	PBI	1541.0	1552.0	51.0	32.0			
	245	SGMR	8	S	1550.0	1550.0	U	100.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1550.0	1552.0	5.0	130.0			QL=2 ST=2 TYP=3
	15400	SVTO	4	S/F	1550.0	1550.0	5.0	36.0			QL=2 ST=2 TYP=3
	4995	SVTO	4	S/F	1551.0	1553.0	3.0	300.0			QL=2 ST=2 TYP=3
	2695	SGMR	8	S	1552.0	1552.0	1.0	31.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1552.0	1552.0	1.0	320.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1552.0	1552.0	1.0	140.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1552.0	1552.0	1.0	29.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1552.0	1553.0	1.0	38.0			QL=2 ST=2 TYP=3
	9500	CUBA	4	S/F	1552.4	1552.8	1.6	118.0	59.0		
	245	SGMR	8	S	1622.0	1622.0	U	140.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1722.0	1722.0	U	89.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1722.0	1722.0	U	74.0			QL=4 ST=2 TYP=3
	2800	PENT	1	S	1845.0	1854.0	17.0	3.0			
	245	LEAR	8	S	2349.0	2349.0	U	53.0			QL=4 ST=2 TYP=3
27	204	IZMI	43	NS	0600.0		360.0D		10.0		
	127	TORN	43	NS	0712.0		248.0		9.0		V=1,DISTURBED
	235	CUBA	44	NS	1300.0E		415.0D		7.0		
	280	CUBA	44	NS	1300.0E		415.0D		18.0		
	245	PALE	8	S	0000.0	0000.0	U	52.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0004.0	0004.0	U	52.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0022.0	0022.0	U	68.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0059.0	0059.0	1.0	35.0			0
	204	IZMI	7	C	0921.8	0921.9	0.2	30.0			
	204	IZMI	42	SER	1050.2	1050.3	0.2	18.0			
	204	IZMI	7	C	1121.8	1121.9	0.2	22.0			
	204	IZMI	7	C	1124.1	1124.2	0.2	24.0			
	245	SGMR	8	S	1208.0	1208.0	U	52.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

AUGUST 2003

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	245	SVTO	8	S	1208.0	1208.0	U	56.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1436.0	1436.0	U	93.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1436.0	1436.0	U	93.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	1847.0	1906.0	45.0U	3.0			
	500	HIRA	7	C	2242.0	2244.0	4.0	110.0			0
28	127	TORN	43	NS	0707.0		270.3		8.0		V=0,DISTURBED
	2800	PEKG	1	S	0413.0	0416.6	8.0	3.2			
	204	IZMI	42	SER	0651.3	0655.9	5.1	33.0			
	500	HIRA	8	S	0656.0	0657.0	2.0	35.0			0
	245	LEAR	8	S	0656.0	0656.0	1.0	230.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0656.7	0656.9	0.6	177.0			
	410	LEAR	8	S	0657.0	0657.0	U	61.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0657.0	0657.0	U	190.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0657.0	0657.0	U	78.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0802.0	0803.0	2.0	65.0			0
	245	LEAR	8	S	0802.0	0802.0	U	80.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0802.0	0802.0	U	72.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0802.0	0802.0	U	73.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0802.0	0802.0	U	85.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	0802.0	0802.0	U	36.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0802.2	0802.7	1.4	117.0			
	245	SVTO	49	GB	0837.0	0837.0	U	1300.0			QL=4 ST=2 TYP=6
	204	IZMI	41	F	0837.8	0838.2	0.9	237.0			
	245	LEAR	8	S	0838.0	0838.0	U	420.0			QL=4 ST=2 TYP=3
	127	TORN	4	S/F	0838.4	0838.8	1.0	1380.0	120.0		
	500	HIRA	8	S	0840.0	0841.0	2.0	40.0			0
	245	LEAR	8	S	0840.0	0840.0	1.0	74.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0840.0	0840.0	1.0	64.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0840.0	0841.0	2.0	88.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0840.0	0841.0	1.0	86.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	0840.0	0841.0	1.0	42.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0840.0	0840.2	1.9	248.0			
	127	TORN	47	GB	0840.8	0841.3	1.7	2700.0	570.0		
	204	IZMI	41	F	0909.6	0909.7	0.3	57.0			
	204	IZMI	7	C	1006.4	1006.5	0.4	31.0			
	204	IZMI	7	C	1124.8	1125.1	0.6	20.0			
	245	SGMR	8	S	1127.0	1128.0	1.0	390.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1127.0	1128.0	1.0	340.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	1127.2	1127.6	0.7	107.0			
	127	TORN	45	C	1127.5	1128.5	2.0	440.0	60.0		
	204	IZMI	42	SER	1128.2	1128.3	1.0	150.0			
	204	IZMI	42	SER	1130.5	1131.4	1.6	104.0			
	245	SGMR	8	S	1245.0	1245.0	U	65.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2034.0	2035.0	1.0	110.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2034.0	2035.0	1.0	98.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2343.0	2344.0	1.0	61.0			QL=4 ST=2 TYP=3
29	245	PALE	43	NS	0022.0	0044.0	23.0	110.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	0022.0	0024.0	1418.0	55.0			QL=4 ST=1 TYP=1
	245	PALE	43	NS	0022.0	0024.0	1418.0	64.0			QL=4 ST=1 TYP=1
	245	PALE	43	NS	0022.0	0030.0	1418.0	72.0			QL=4 ST=1 TYP=1
	245	PALE	43	NS	0022.0	0041.0	1418.0	77.0			QL=4 ST=1 TYP=1
	127	TORN	43	NS	0705.0		475.0		8.0		V=0
	245	LEAR	8	S	0004.0	0005.0	1.0	72.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0105.0	0105.0	1.0	93.0			QL=4 ST=2 TYP=3
	245	PALE	48	C	0109.0	0114.0	11.0	230.0			QL=4 ST=4 TYP=8
	410	PALE	48	C	0109.0	0114.0	10.0	110.0			QL=4 ST=4 TYP=8
	245	LEAR	8	S	0821.0	0821.0	U	220.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0821.0	0821.0	U	200.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0900.0	0901.0	1.0	150.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0900.0	0900.0	1.0	270.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0900.9	0900.9	0.7	132.0			
	127	TORN	4	S/F	0901.0	0901.1	0.8	530.0	270.0		DISTURBED
	204	IZMI	7	C	0902.0	0902.1	0.2	22.0			
	245	PALE	48	C	2347.0	2354.0	29.0	190.0			QL=4 ST=2 TYP=8
	410	PALE	8	S	2354.0	2354.0	U	60.0			QL=4 ST=2 TYP=3
30	127	TORN	44	NS	0600.0E		540.0D		12.0		V=1

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

AUGUST 2003

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	235	CUBA	43 NS	1722.0		16.0		6.0		
	280	CUBA	43 NS	1722.0		16.0		15.0		
	500	HIRA	7 C	0438.0	0452.0	31.0	10.0			WL
	410	SVTO	8 S	0954.0	0954.0	U	160.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0955.0	0955.0	U	26.0			QL=4 ST=2 TYP=3

Reports are received routinely from the following observatories:

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

Explanation of Type Code:

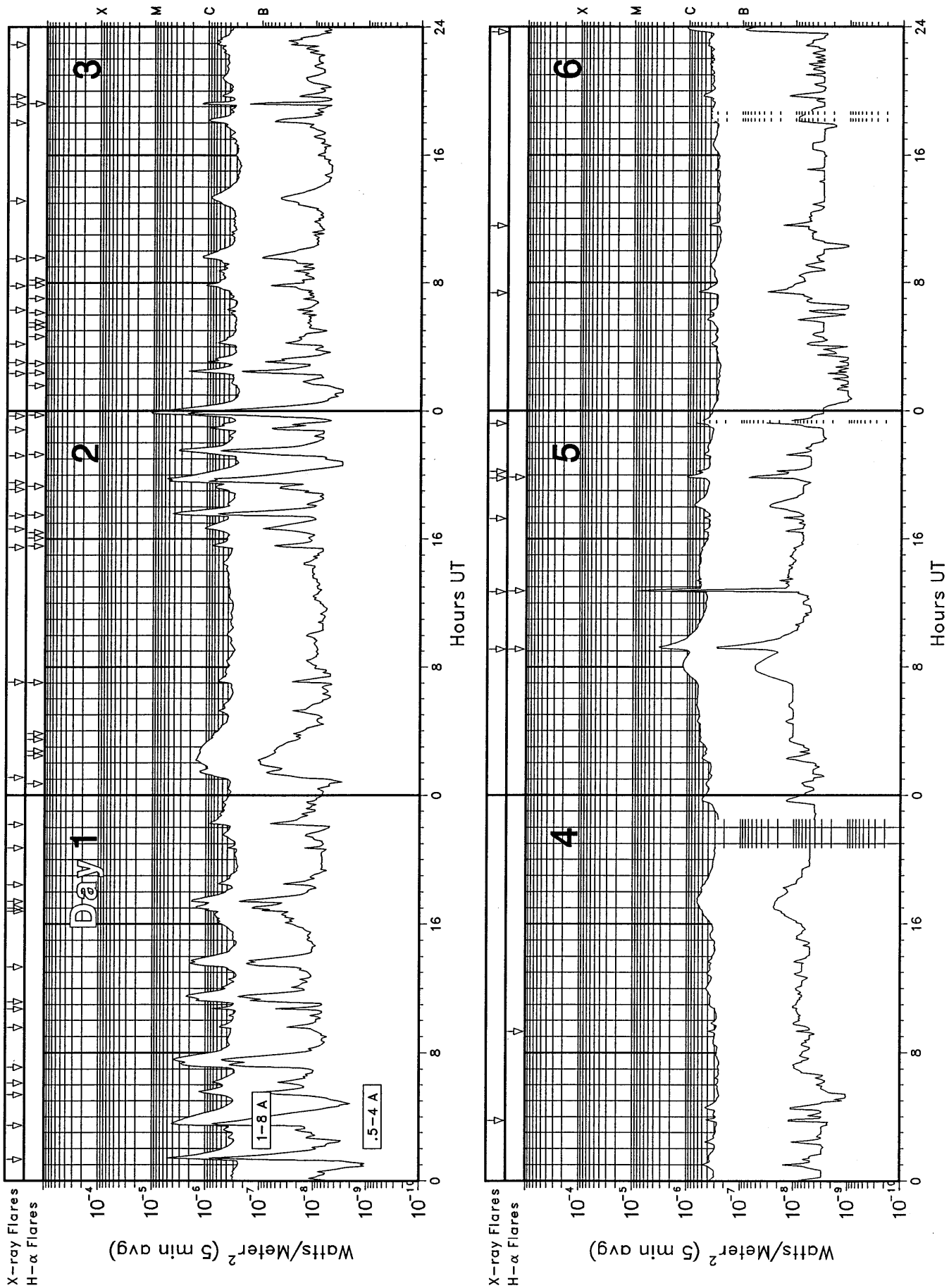
1 Simple 1	7 Minor +	24 Rise	30 Post Burst Increase A	43 Onset of Noise Storm
2 Simple 1F	8 Spike	25 Rise A	31 Post Burst Decrease	44 Noise Storm in Progress
3 Simple 2	20 Simple 3	26 Fall	33 Absorption	45 Complex
4 Simple 2F	21 Simple 3A	27 Rise and Fall	40 Fluctuation	46 Complex F
5 Simple	22 Simple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

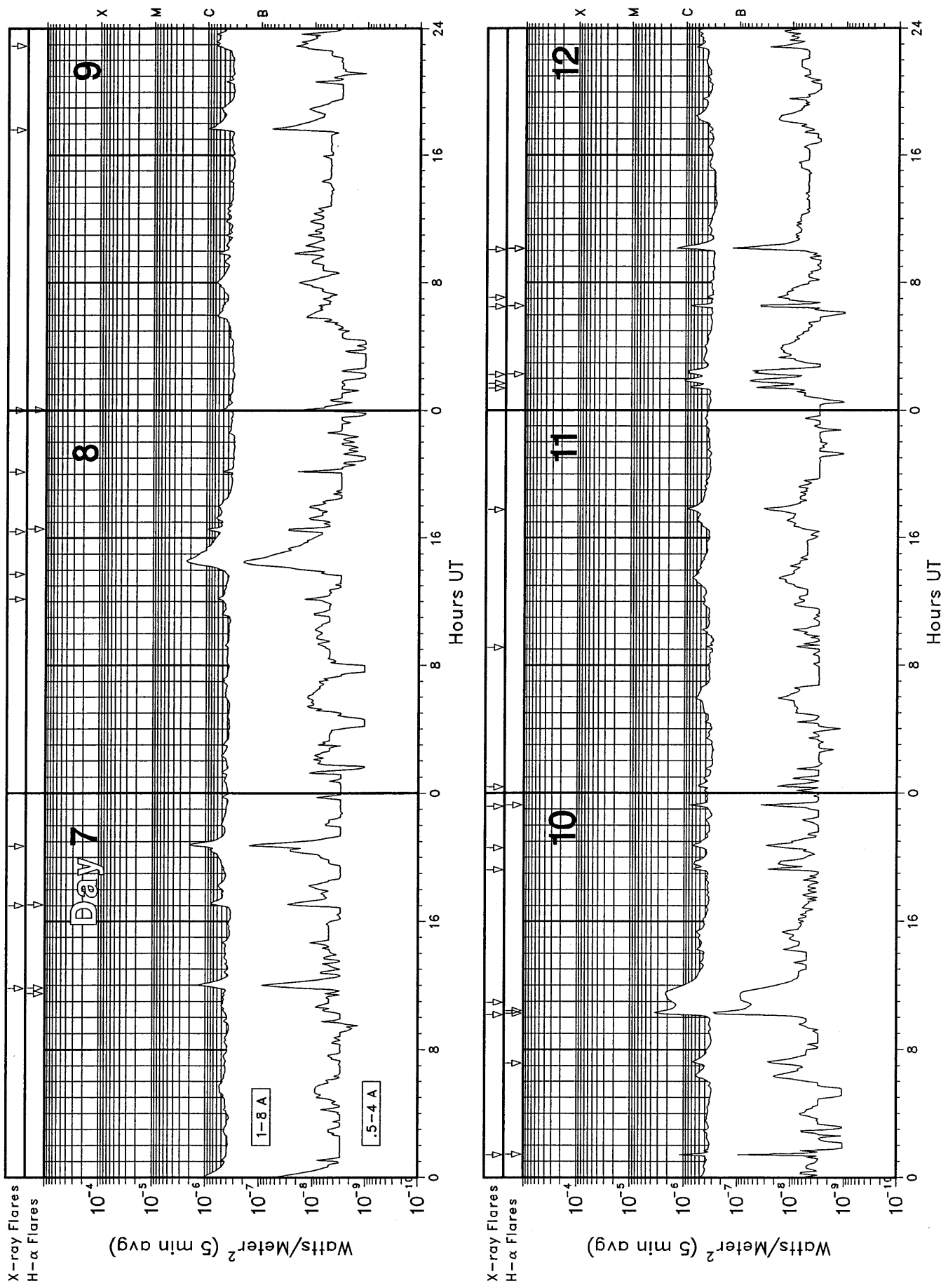
1A Simple 1A	4A Simple 2AF	24PF Post Rise F	27F Rise and Fall F
3A Simple 2A	4O Rise Only	16A Fall A	27AF Rise and Fall AF
21A Simple 3A GRF	4OF Rise Only F	26O Fall Only	31A Post Burst Decrease A
2A Simple 1AF	4P Post Rise	26F Fall F	32A Absorption A

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

GOES X-RAY DETECTOR

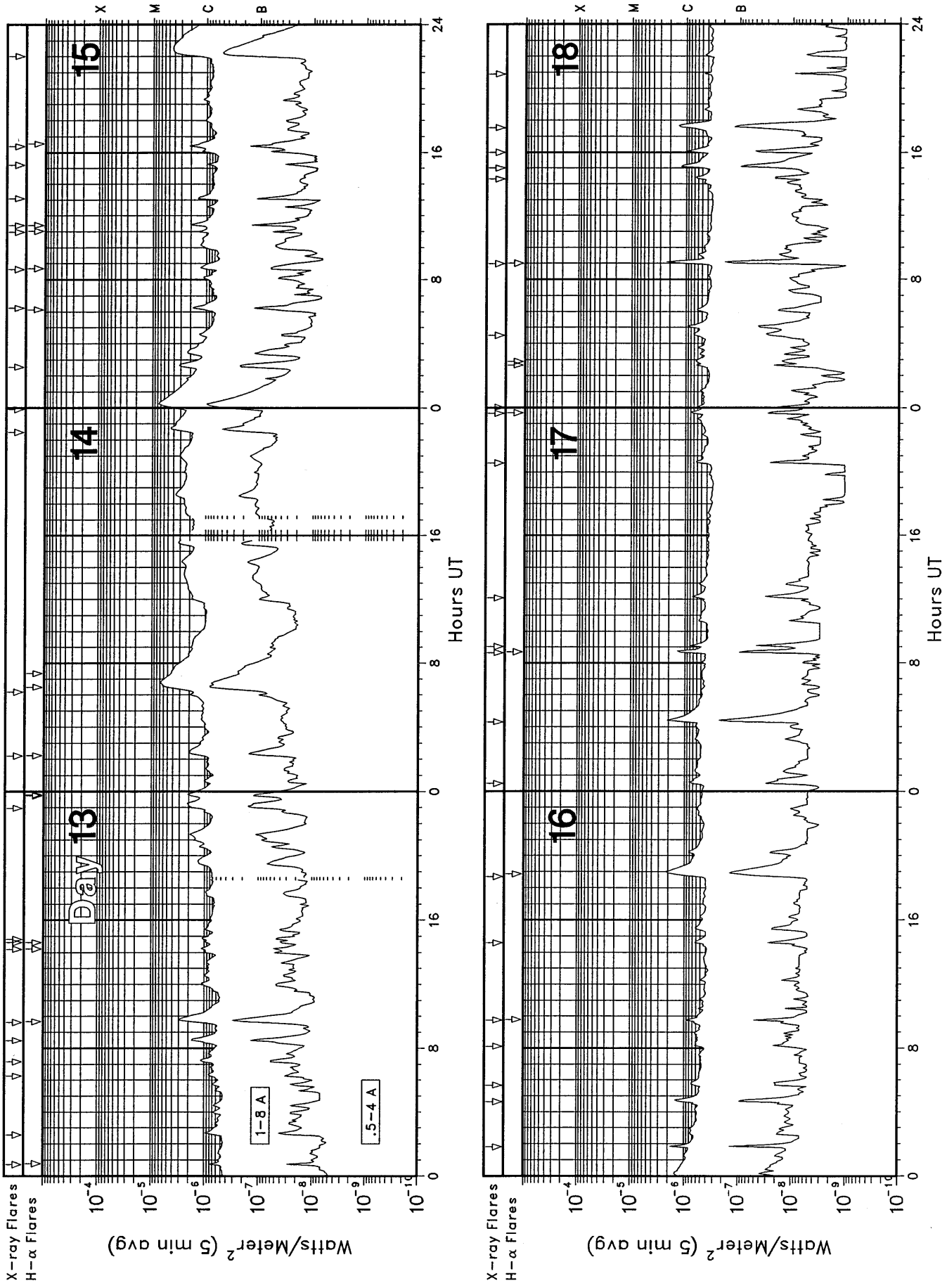
August 2003

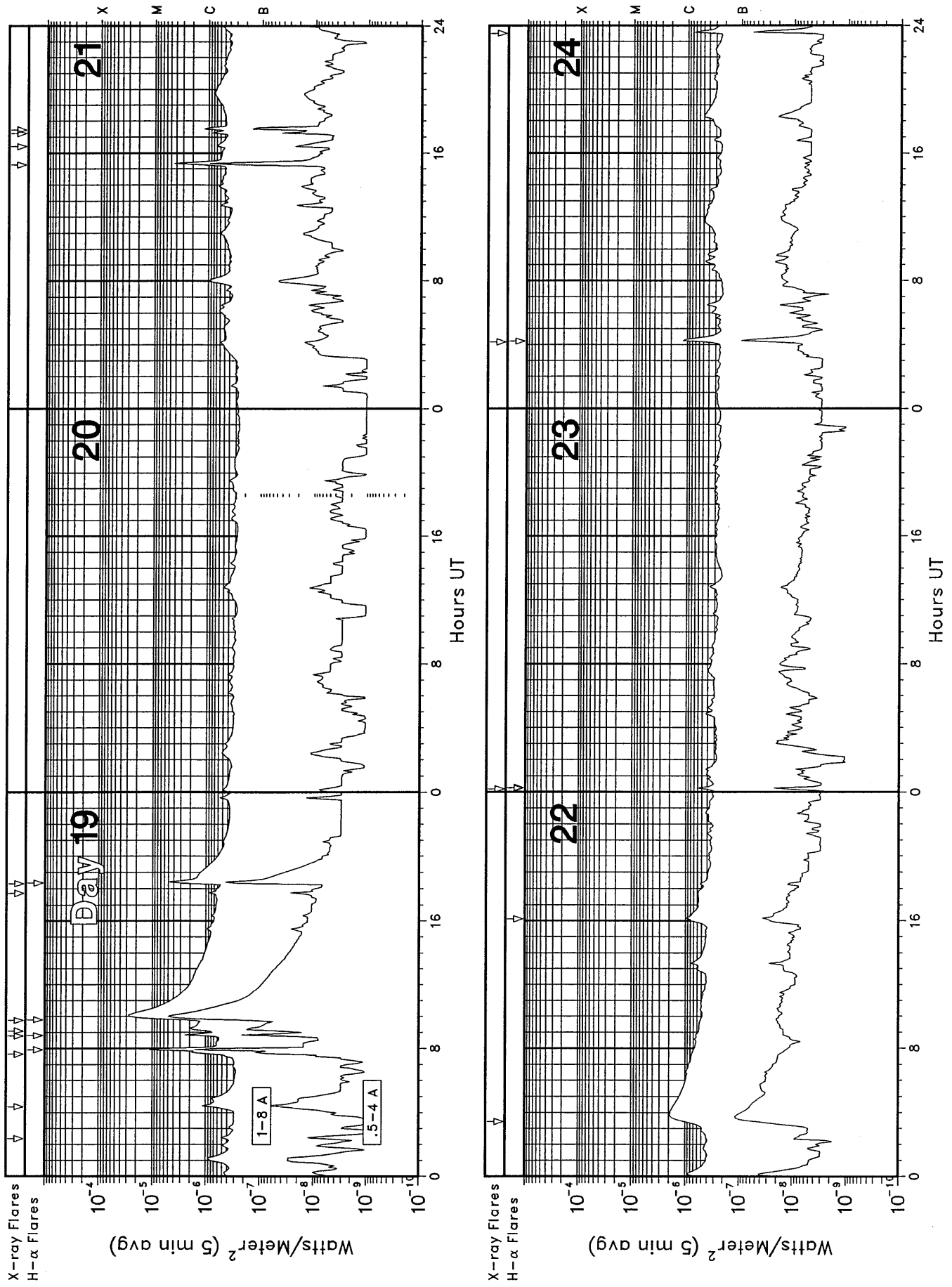



GOES X-RAY DETECTOR
August 2003
Day 7
8
9
10
11
12
1-8 A
.5-4 A
X
M
C
B
X-ray Flares
H-α Flares
Watts/Meter² (5 min avg)
Hours UT
0
8
16
24

GOES X-RAY DETECTOR

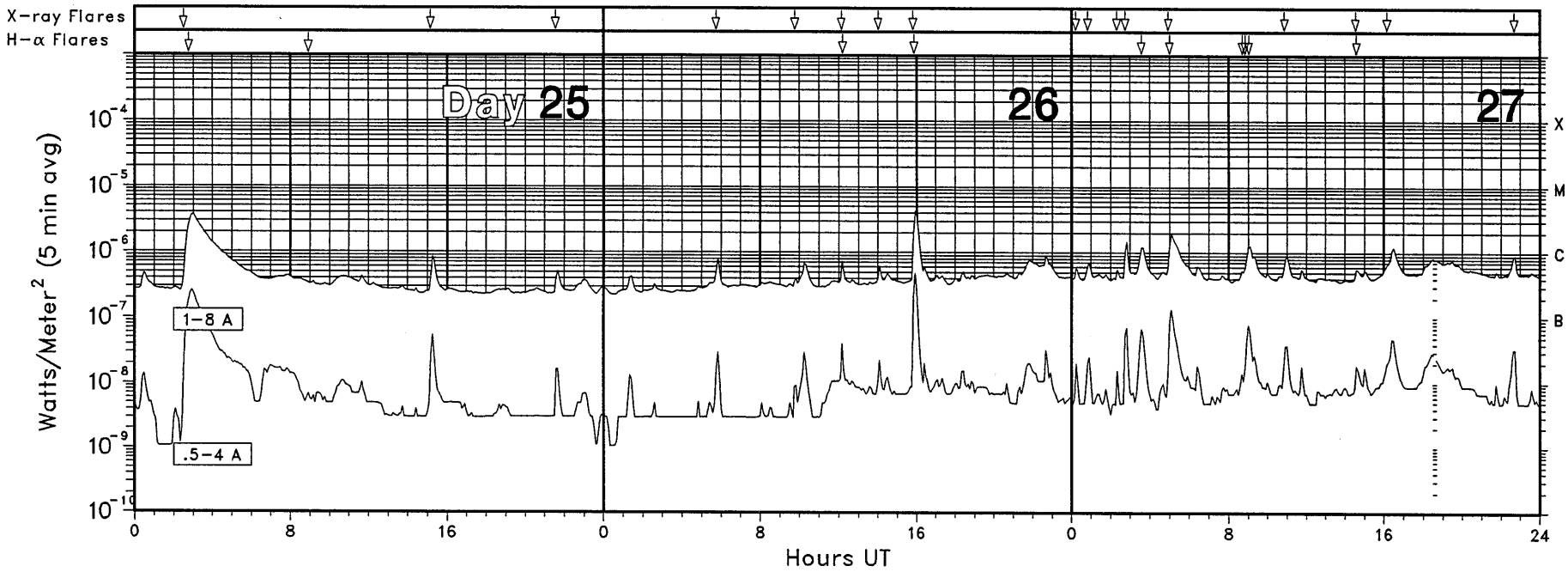
August 2003

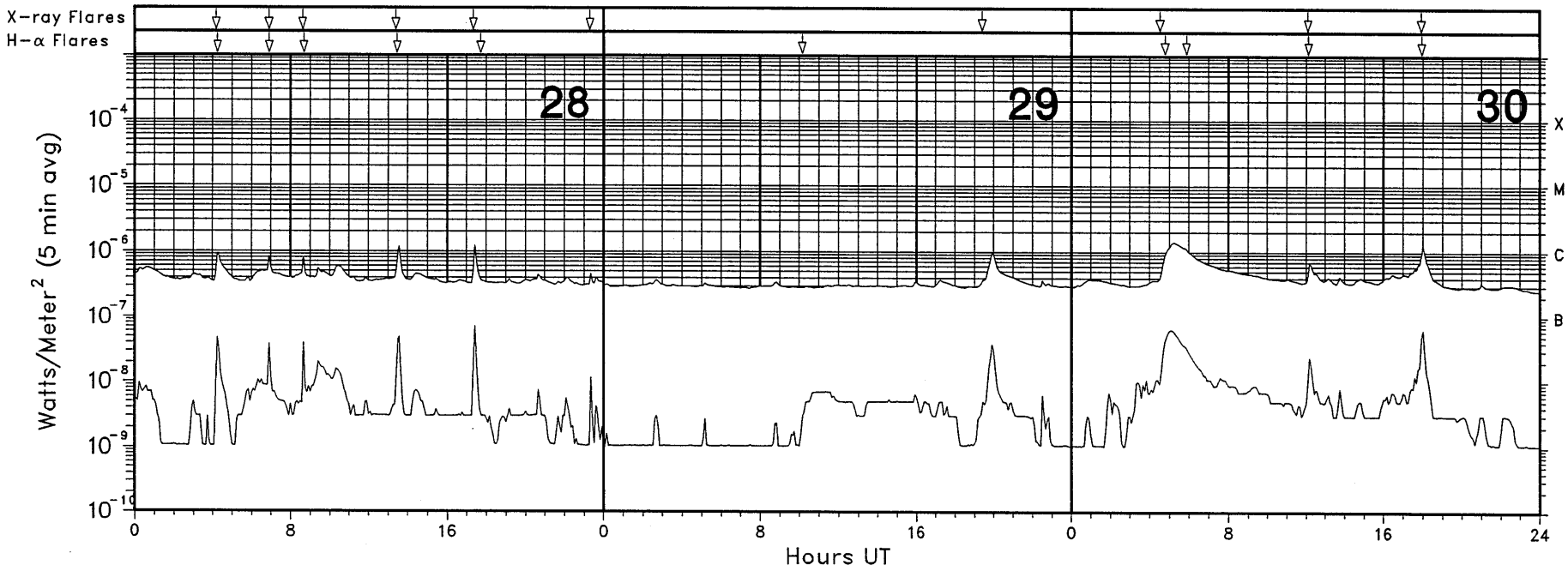



GOES X-RAY DETECTOR
August 2003
Day 19
20
21
22
23
24
1-8 A
.5-4 A
X-ray Flares
H-α Flares
Watts/Meter² (5 min avg)
Hours UT
X
M
C
B

GOES X-RAY DETECTOR

August 2003

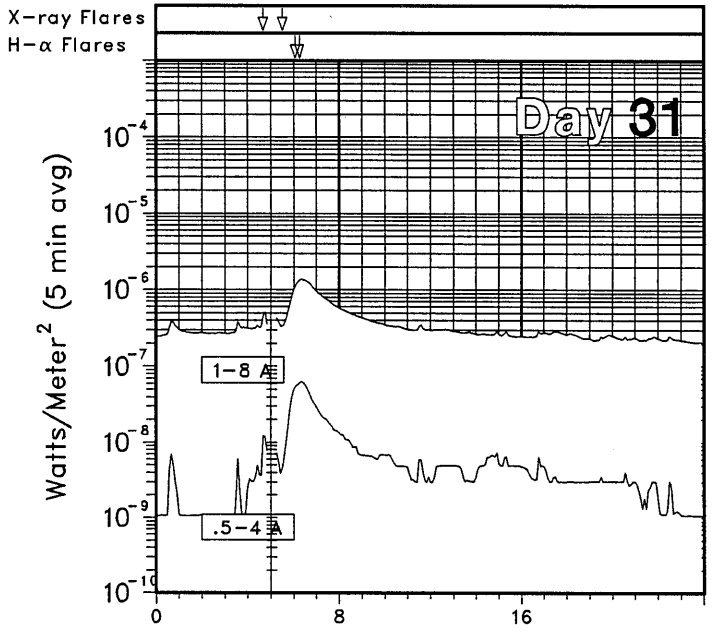




27 Aug 03

GOES X-RAY DETECTOR

August 2003



28
Aug 03

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

August 2003

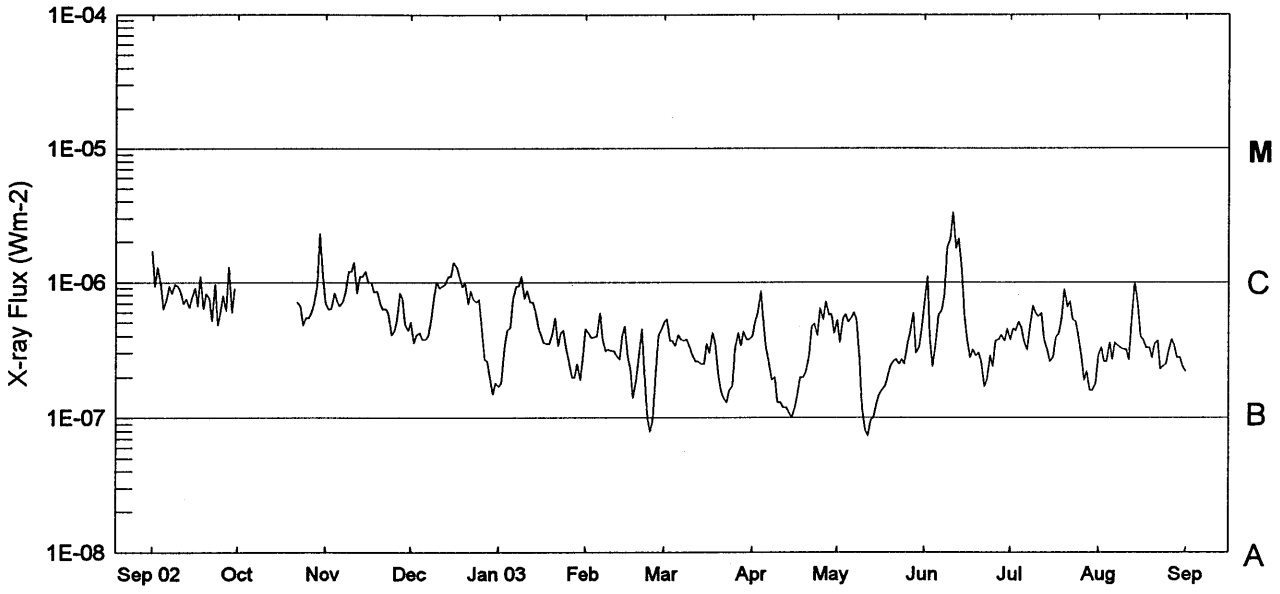
Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp	Xray	NOAA/ USAF Region	Flux
01	0119	0126	0132				C	5.6	10424	2.4E-03
01	0327	0334	0357				C	4.5		5.5E-03
01	0523	0535	0542				C	1.3	10424	1.1E-03
01	0607	0610	0616				B	7.6	10424	3.7E-04
01	0706	0736	0750				C	3.9	10424	7.0E-03
01	0934	0937	0942				B	6.7	10424	2.6E-04
01	1042	1046	1050				B	8.8	10424	2.9E-04
01	1110	1132	1144				C	2.3	10424	3.2E-03
01	1321	1336	1357				C	2.0		3.2E-03
01	1648	1652	1659				C	1.0	10424	6.0E-04
01	1659	1703	1710				C	1.7		9.5E-04
01	1724	1728	1732				C	2.6	10424	8.9E-04
01	1827	1833	1839				B	6.1	10424	3.8E-04
01	2044	2047	2050				B	4.3		1.4E-04
01	2211	2219	2229				B	8.9		7.8E-04
02	0106	0212	0312				C	1.7		9.0E-03
02	0703	0709	0723	S18	E72	SF	B	6.2	10424	6.6E-04
02	1529	1537	1545	S17	E71	SF	B	8.1	10424	6.3E-04
02	1637	1642	1650	S18	E68	SF	C	1.1	10424	7.6E-04
02	1727	1736	1744	S17	E68	1F	C	4.5	10424	3.1E-03
02	1905	1918	1925	S17	E67	SF	B	7.1	10424	7.5E-04
02	1930	1946	1954				C	5.9	10424	5.9E-03
02	2112	2134	2140	S17	E66	SF	C	3.8	10424	3.1E-03
02	2249	2256	2303				B	9.0	10424	5.9E-04
02	2341	2354	2402	S17	E63	1F	M	1.3	10424	8.5E-03
03	0220	0231	0236	S18	E62	SF	C	2.5	10424	1.4E-03
03	0301	0305	0310	S18	E62	1F	C	1.1	10424	4.4E-04
03	0410	0418	0426				B	6.5		5.5E-04
03	0618	0622	0626				B	4.7	10427	2.0E-04
03	0749	0754	0756	N04	W08	SF	C	1.5	10427	4.7E-04
03	0931	0939	0950	S22	E60	SF	C	1.3	10424	1.3E-03
03	1308	1321	1341				B	8.8	10427	4.2E-03
03	1801	1809	1819				C	1.0	10424	9.2E-04
03	1909	1914	1916	S16	E53	SF	C	2.6	10424	5.8E-04
03	1938	1943	1950				B	6.2	10424	3.8E-04
03	2254	2259	2302				B	8.4	10424	3.3E-04
04	0346	0349	0352				B	5.5		1.5E-04
05	0907	0914	0923	S05	W34	SF	C	3.5	10421	2.6E-03
05	1243	1249	1251	S16	E33	SN	M	1.7	10424	3.4E-03
05	1717	1721	1723				B	5.9	10424	1.8E-04
05	1947	1955	2002	S15	E29	SF	C	1.1	10424	7.9E-04
05	2012	2016	2019				B	7.1	10424	2.7E-04
05	2313	2318	2324				B	8.5	10424	4.6E-04
06	0721	0728	0734				B	6.6		4.3E-04
06	1134	1138	1142				B	5.0		2.0E-04
06	2342	2401	2419				C	1.0		2.0E-03
07	1149	1203	1210				C	1.3		1.2E-03
07	1700	1706	1723	S05	W64	SF	B	7.9	10421	9.6E-04
07	2042	2050	2056				C	2.1		1.4E-03
08	1210	1213	1216				B	7.1	10424	2.3E-04
08	1344	1436	1542				C	2.3		8.3E-03
08	1624	1636	1639	S10	W14	SF	C	1.0	10425	7.2E-04
08	2008	2013	2016				B	5.6		2.3E-04
09	0001	0005	0009	S18	W14	SF	B	5.7	10424	2.4E-04
09	1736	1743	1758				B	9.9		1.0E-03
09	2255	2259	2302				B	7.8		2.9E-04
10	0124	0127	0129	S14	E64	SF	C	1.8	10431	3.5E-04
10	1011	1020	1031	S06	W36	SF	C	3.5	10425	2.9E-03
10	1057	1128	1144				C	2.1	10425	5.5E-03
10	1914	1918	1923				B	7.9	10424	3.5E-04
10	2036	2047	2055				B	7.1	10431	6.8E-04
10	2310	2316	2320	S17	W47	SF	B	8.8	10424	4.0E-04
11	0023	0027	0036				B	5.7	10424	4.0E-04
11	0907	0910	0913				B	4.3	10431	1.4E-04
11	1746	1750	1755				B	9.6	10429	4.7E-04
12	0123	0129	0133				C	1.0	10431	4.5E-04
12	0142	0154	0202				C	1.1	10431	1.0E-03
12	0216	0232	0236	S10	E35	SF	B	9.5	10431	1.0E-03
12	0630	0635	0638	S18	W59	SF	C	1.1	10424	3.7E-04
12	0704	0708	0711				B	4.7	10424	1.7E-04
12	1005	1012	1020	S14	E32	SF	C	1.6	10431	9.7E-04
13	0043	0047	0050	S16	W72	SF	B	8.4	10424	3.1E-04
13	0234	0241	0250				C	1.0	10431	7.8E-04
13	0615	0619	0623				B	9.4	10431	3.9E-04
13	0709	0714	0723				C	1.2	10431	9.1E-04
13	0829	0833	0838				C	2.0	10431	9.2E-04
13	0937	0949	1002	S11	E23	SF	C	3.0	10431	3.5E-03
13	1412	1415	1418	S12	E19	SF	C	1.1	10431	3.9E-04
13	1436	1438	1440	S11	E23	SF	B	9.8	10431	2.2E-04
13	1448	1453	1455				C	1.2	10431	4.3E-04
13	2258	2315	2324				C	2.1		3.0E-03
14	0212	0224	0247	S14	E10	SF	C	1.9	10431	3.5E-03
14	0611	0651	0734	S14	E08	SF	C	6.8	10431	2.4E-02
14	2229	2244	2317				C	4.6	10431	1.0E-02
14	2354	2418	2445				C	7.7	10431	1.7E-02
15	0233	0242	0251				C	3.1		3.1E-03
15	0614	0617	0622	S08	W05	SF	C	2.0	10431	8.3E-04
15	0839	0844	0857	S10	W03	SF	C	1.4	10431	1.2E-03
15	1058	1101	1105	S10	W08	SF	C	1.5	10431	5.4E-04
15	1123	1128	1131	S08	W09	SF	C	2.3	10431	8.8E-04
15	1305	1308	1311				C	2.3	10431	5.7E-04
15	1512	1515	1520				C	1.0	10431	4.4E-04
15	1622	1627	1630				C	2.3		9.2E-04
15	2201	2234	2326				C	4.3		1.8E-02
16	0148	0151	0153				C	3.1	10431	5.1E-04
16	0438	0444	0450				C	1.6	10431	9.3E-04
16	0541	0544	0548				B	8.7		3.0E-04
16	0807	0859	0906				B	6.7		2.1E-03
16	0946	0949	0951				C	1.4	10431	3.0E-04
16	1434	1438	1446				B	6.7		4.4E-04
16	1842	1900	1916	S14	W26	SF	C	2.2	10431	3.1E-03
17	0029	0034	0042				B	8.2		5.7E-04
17	0419	0426	0436				C	2.1	10431	1.6E-03
17	0839	0844	0848	S14	W34	SF	C	1.9	10431	7.1E-04
17	0902	0906	0911				B	8.4		3.8E-04
17	1205	1211	1218				B	7.6		5.1E-04
17	2033	2038	2045				B	7.0		4.3E-04
17	2339	2344	2351	S14	W42	SF	B	8.8	10431	5.3E-04
18	0002	0005	0008				B	6.8		2.2E-04
18	0430	0434	0443				B	7.8		5.4E-04
18	0859	0906	0911	S11	W49	SF	C	2.4	10431	1.3E-03
18	1418	1425	1430				B	7.0	10431	4.5E-04

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

August 2003

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp	Xray	NOAA/ USAF Region	Flux
18	1500	1507	1517				C1.3		10431	1.0E-03
18	1559	1605	1611				C1.1		10431	5.9E-04
18	1732	1742	1748				C1.4		10431	1.2E-03
18	2054	2057	2059				B5.4			1.4E-04
19	0222	0225	0232				B5.4			2.9E-04
19	0422	0427	0431				C1.1			5.3E-04
19	0738	0759	0801	S12	W63	1N	M2.0		10431	6.3E-03
19	0846	0852	0855				C2.8			9.6E-04
19	0906	0915	0933				C2.0			2.5E-03
19	0945	1006	1025	S10	W57	2F	M2.7		10431	4.3E-02
19	1743	1746	1748				C1.0			2.6E-04
19	1819	1826	1831	N12	E53	SF	C5.6		10436	2.7E-03
21	1515	1522	1525				C4.9		10431	1.8E-03
21	1624	1628	1637				B7.6		10431	5.2E-04
21	1713	1718	1722				B9.6			4.1E-04
21	1727	1731	1737				C1.4		10431	6.4E-04
22	0326	0350	0458				C1.9		10436	8.9E-03
23	0011	0016	0019	N12	E40	SF	B6.9		10441	2.6E-04
24	0410	0417	0426	N08	W21	1F	C1.2		10436	8.8E-04
24	2332	2337	2339				C1.1		10436	2.6E-04
25	0230	0259	0335	S11	E41	1F	C3.6		10442	9.7E-03
25	1509	1518	1525				B8.5			6.2E-04
25	2133	2140	2147				B5.5		10442	3.7E-04
26	0545	0551	0556				B8.5		10442	4.5E-04
26	0946	0949	0955				B4.2		10436	2.1E-04
26	1208	1213	1215				B9.0		10442	2.8E-04
26	1401	1405	1411				B6.5		10436	3.2E-04
26	1549	1559	1606	N08	W54	1N	C4.6		10436	3.3E-03
27	0013	0017	0022				B6.2			3.0E-04
27	0050	0054	0100				B8.4			4.1E-04
27	0219	0223	0226				B5.9			2.3E-04
27	0244	0250	0255				C1.6		10444	7.9E-04
27	0456	0508	0526	N08	W56	SF	C1.9		10436	2.6E-03
27	1052	1101	1107				B9.3			7.3E-04
27	1433	1436	1449	N18	E52	SF	B5.9			5.1E-04
27	1609E	1632U	1639D				C1.2		10442	1.6E-03
27	2241	2245	2247				C1.1		10436	3.6E-04
28	0411	0417	0428	N03	E08	SF	B9.6		10445	7.8E-04
28	0654	0658	0700				B9.6		10449	2.9E-04
28	0838	0842	0844	S16	E68	SF	C1.0		10449	2.7E-04
28	1324	1335	1340				C1.3			8.5E-04
28	1720	1726	1730				C1.4		10445	5.5E-04
28	2318	2323	2325				B5.2			1.8E-04
29	1924	1959U	2007				C1.0		10450	1.6E-03
30	0432	0514	0616	S12	W27	SF	C1.4		10442	6.8E-03
30	1206	1213	1224				B6.9		10444	6.5E-04
30	1755	1802	1807	N09	W30	SF	C1.2		10444	7.9E-04
31	0440	0444	0450				B5.4			2.9E-04
31	0530	0622	0715	S10	W42	SF	C1.3		10442	6.1E-03

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



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

NOTE: * = Data not available.

ACTIVE PROMINENCES AND FILAMENTS

AUGUST 2003

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
05	DSF	1633	1829	N26	W22	08	4.0		19	0	0	E	HOLL		
07	DSF	1622U	0550U	S20	W21	08	6.1		09	0	0	E	SVTO		
08	BSL	1250	1305	S12	E90	08	15.4	1	02	9	9	V	KHAR		
10	DSF	0022U	1332U	N26	W07	08	9.5		17	0	0	E	HOLL		
11	DSF	0022U	1255U	N18	W45	08	7.6		15	0	0	E	HOLL		
15	DSD	1108	1125	S10	W06	08	15.0	1	02		9	V	KHAR		
15	ADF	1127	1145	S09	W11	08	14.6	1	02		9	V	KHAR		
21	DSF	0820U	2345U	N41	E30	08	23.8		19	0	0	E	LEAR		
21	EPL	1741	1824	S90	W09	08	20.9	3		9	9	E	HOLL	0431	
22	DSF	1606U	0458U	S04	W43	08	19.4		11	0	0	E	SVTO		
22	DSF	2332U	1344U	S34	E00	08	23.0		11	0	0	E	HOLL		
23	DSF	0038U	1347U	S09	W47	08	19.5		15	0	0	E	HOLL		
25	DSF	0242	0302	S09	E38	08	28.0	3	07	0	0	E	LEAR	0442	Flare Associated
25	BSL	0855E	0924	S06	W90	08	18.6	1	02	9	9	V	KHAR		
25	DSD	1005	1012D	N07	W28	08	23.3	1	04	9	9	V	KHAR		
25	DSF	2114U	1348U	S07	E52	08	29.8		13	0	0	E	HOLL	0442	
25	DSF	2114U	1348U	S11	E44	08	29.2		08	0	0	E	HOLL	0442	
26	DSF	1435U	0859U	S13	E62	08	31.3		09	0	0	E	SVTO		
26	DSF	1435U	0859U	S22	E66	08	31.7		08	0	0	E	SVTO		
27	BSL	0835E	0845	S10	E90	09	3.2	1	03	9	9	V	KHAR		
27	DSF	0840U	2347U	S01	E38	08	30.2		19	0	0	E	LEAR		
27	BSL	0850	0912	S10	E90	09	3.2	1	07	9	9	V	KHAR		
27	BSL	0936	1010	S10	E90	09	3.2	1	05	9	9	V	KHAR		
27	BSL	0946	0955	S18	E90	09	3.2	1	04	9	9	V	KHAR		
27	DSF	1637U	0504U	S14	E29	08	29.9		10	0	0	E	SVTO		
27	DSF	1637U	0504U	S24	E40	08	30.8		06	0	0	E	SVTO		
29	DSD	0918	0940	S06	E70	09	3.7	1	05	9	6	V	KHAR		
29	APR	1005U	1038	N02	W90	08	22.6	2	06	9	9	V	KHAR		
29	BSL	1010	1021	S12	W90	08	22.6	1	02	9	9	V	KHAR		

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.

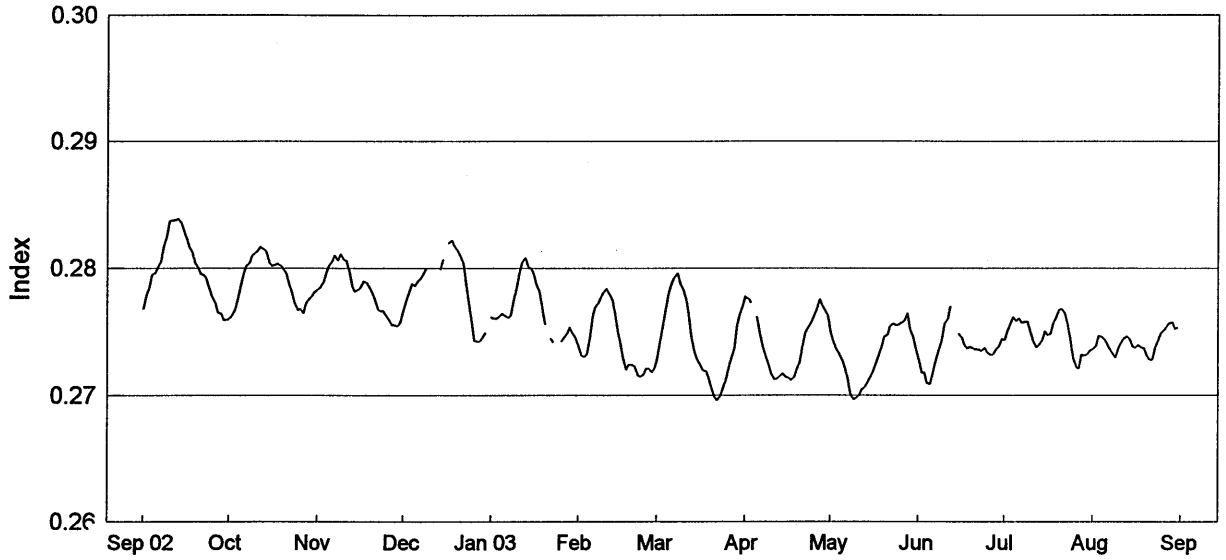
The remark "Bright Emission 1/3" indicates that bright emission was observed 1/3 of time.
The remark "Normal Emission 1/3" indicates that normal emission was observed 1/3 of time.

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

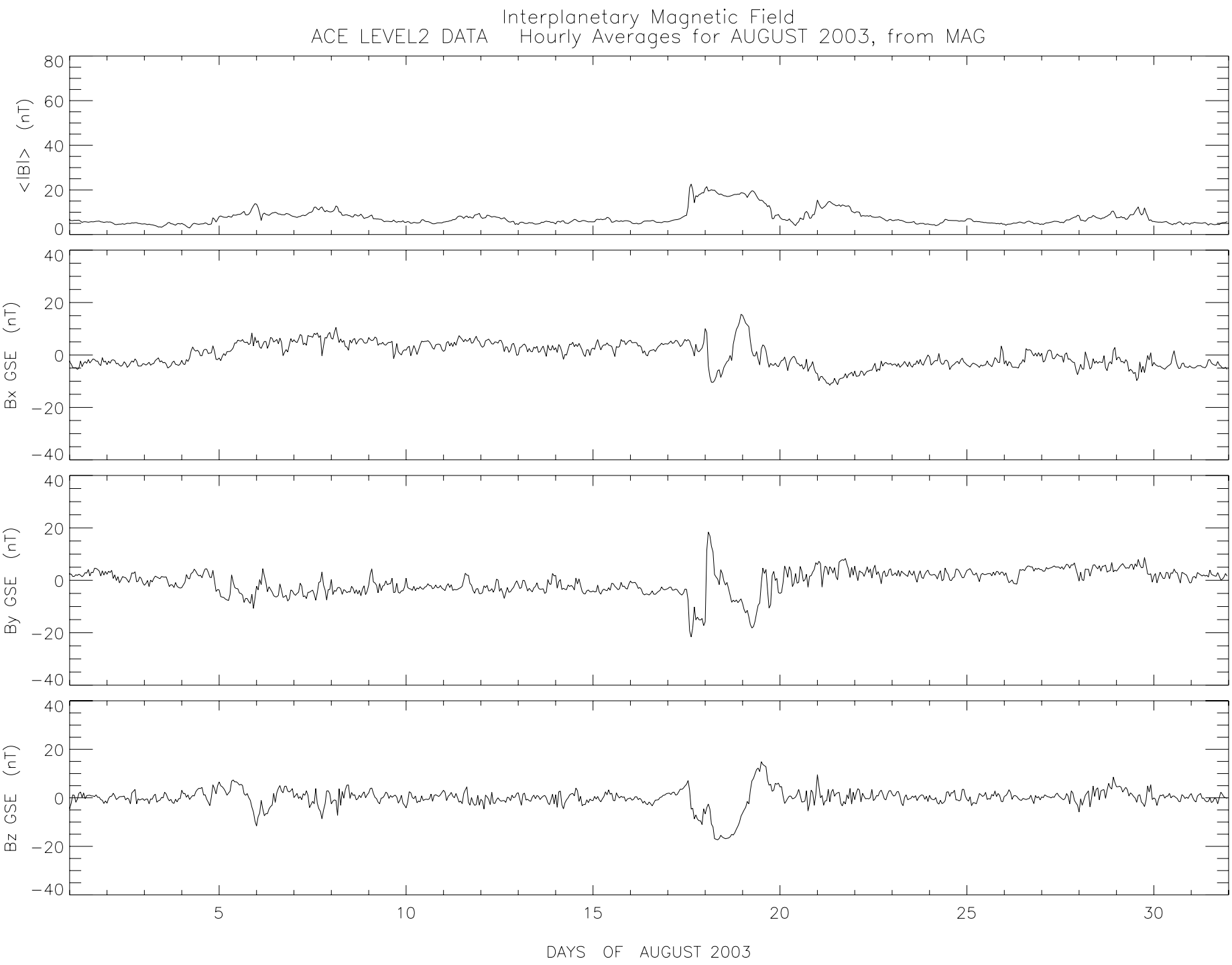
NOTE: The U.S. Air Force solar observing sites (HOLL, LEAR, RAMY, AND SVTO) have changed operational requirements and will only report the following: BSL, EPL, LPS, SPY, and DSF's.

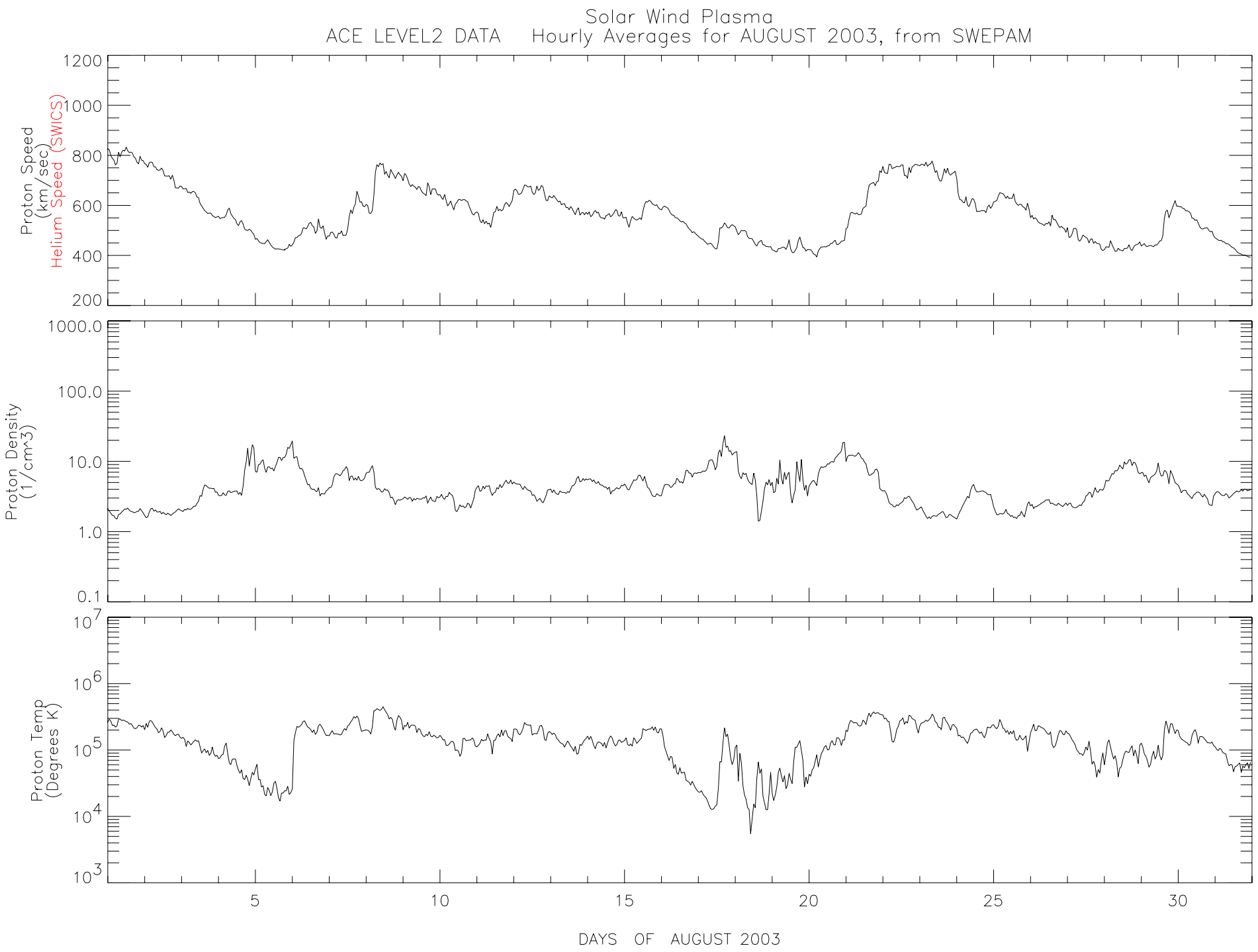
NOAA Solar Ultraviolet (UV) MgII Core-to-Wing Index
Sep 2002 - Aug 2003
Version 9.1

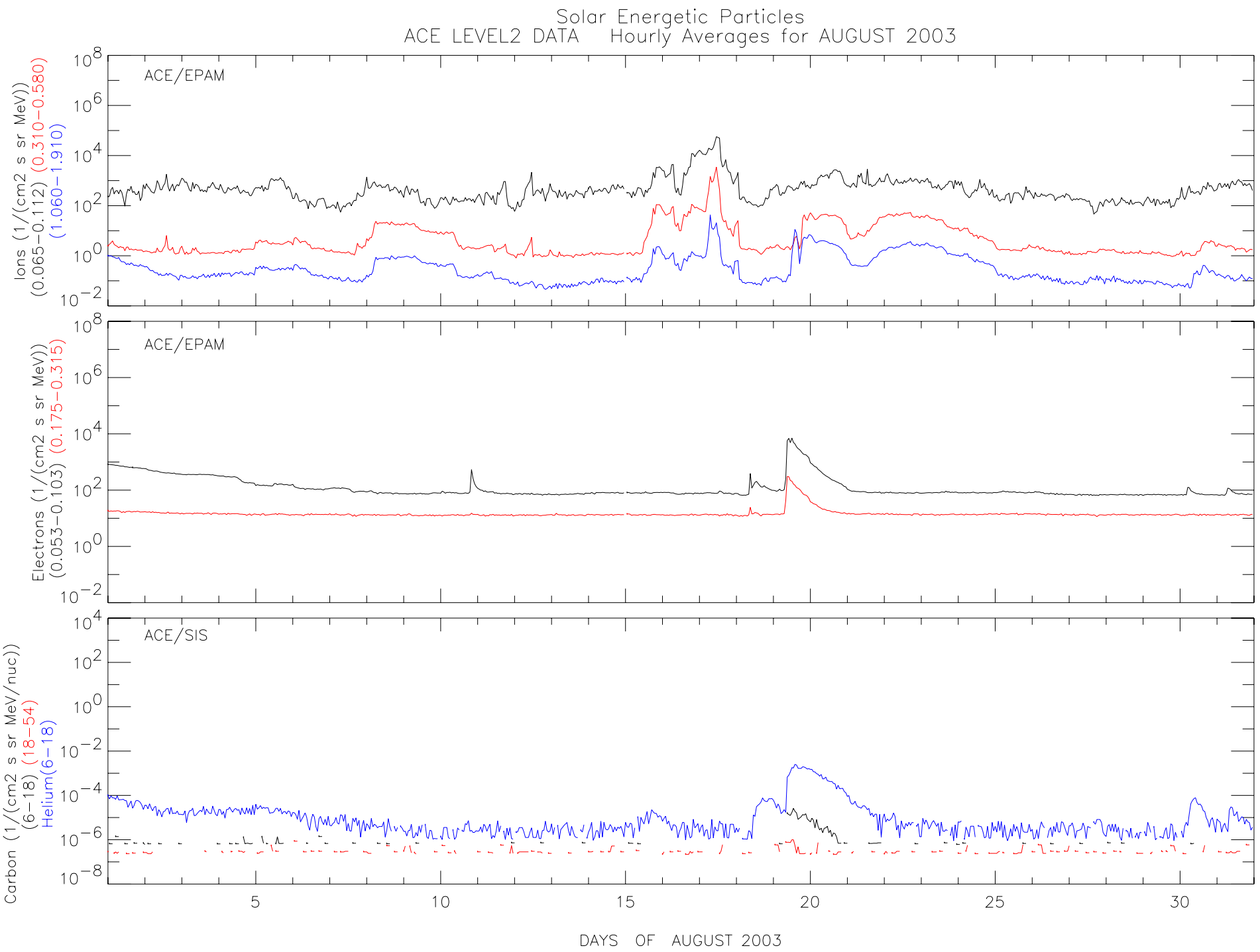


Day	Sep 02	Oct	Nov	Dec	Jan 03	Feb	Mar	Apr	May	Jun	Jul	Aug
1	0.2768	0.2760	0.2783	0.2767	0.2761	0.2738	0.2728	0.2778	0.2749	0.2729	0.2743	0.2736
2	0.2778	0.2762	0.2785	0.2774	0.2760	0.2732	0.2743	0.2776	0.2741	0.2718	0.2751	0.2739
3	0.2785	0.2767	0.2789	0.2782	0.2760	0.2730	0.2754	0.2772	0.2736	0.2718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

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


Interplanetary Magnetic Field
ACE LEVEL2 DATA Hourly Averages for AUGUST 2003, from MAG
<|B|> (nT)
Bx GSE (nT)
By GSE (nT)
Bz GSE (nT)
80
60
40
20
0
40
20
0
−20
−40
5
10
15
20
25
30
DAYS OF AUGUST 2003


Solar Wind Plasma
ACE LEVEL2 DATA Hourly Averages for AUGUST 2003, 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 AUGUST 2003


Solar Energetic Particles
ACE LEVEL2 DATA Hourly Averages for AUGUST 2003
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 AUGUST 2003