OCTOBER 2004 NUMBER 722 - Part II

Solar-Geophysical Data comprehensive reports

Data for April 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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OCTOBER 2004 NUMBER 722 - Part II

Solar-Geophysical Data comprehensive reports

Data for April 2004 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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Boulder, Colorado

Subscription information is on the inside back cover.

SOLAR-GEOPHYSICAL DATA

Number 722

(Issued in Two Parts)

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Hα SOLAR FLARES

APRIL 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
		01	0945		1317	No Flare Patrol													
		01	1323		1357	No Flare Patrol													
		01	1557		1634	No Flare Patrol													
		01	1647		1701	No Flare Patrol													
		01	1729		1755	No Flare Patrol													
		01	1810		2106	No Flare Patrol													
		01	2254		2301	No Flare Patrol													
		02	0944		1314	No Flare Patrol													
		02	1319		1323	No Flare Patrol													
		02	1325		1333	No Flare Patrol													
		02	1337		1338	No Flare Patrol													
		02	1342		1344	No Flare Patrol													
		02	1346		1357	No Flare Patrol													
		02	1403		1644	No Flare Patrol													
		02	1804		2001	No Flare Patrol													
		02	2153		2202	No Flare Patrol													
		02	2254		2300	No Flare Patrol													
0001	KANZ	03	1031	1039	1041	S17	E58	10588	04	7.8	10	SF		2	E				
		03	1525		1559	No Flare Patrol													
		03	1608		1829	No Flare Patrol													
		03	1955		2228	No Flare Patrol													
		04	1247		1254	No Flare Patrol													
		04	1341		1348	No Flare Patrol													
		04	1603		2241	No Flare Patrol													
		04	2258		2305	No Flare Patrol													
		05	0156		0403	No Flare Patrol													
0002	LEAR	05	0535	0545	0642D	S18	E35	10588	04	7.9	67D	1F		3	E		64		EF
		05	0936		0945	No Flare Patrol													
		05	1040		1103	No Flare Patrol													
		05	1223		1229	No Flare Patrol													
		05	1247		1306	No Flare Patrol													
		05	1621		2310	No Flare Patrol													
		05	2337		2344	No Flare Patrol													
		05	2357		2400	No Flare Patrol													
		06	0000		0237	No Flare Patrol													
0003	LEAR	06	0535	0535	0547	S19	E24	10588	04	8.1	12	SF		3	E		40		F
0004	LEAR	06	0723	0724	0729	S18	E21	10588	04	7.9	6	SF		3	E		13		
		06	1133		1148	No Flare Patrol													
0005	HOLL	06	1315E	1331U	1416D	S15	E24	10588	04	8.4	61D	1F		3	E		128		FU
0006	SVTO	06	1318	1324	1405	S18	E15	10588	04	7.7	47	SF		3	E		79		FU
		07	0253		0508	No Flare Patrol													
		07	1527		1622	No Flare Patrol													
		07	1630		1637	No Flare Patrol													
		08	0152		0308	No Flare Patrol													
0007	KANZ	08	0818	0827	0835	S16	W06	10588	04	7.9	17	SF		2	E				
		08	0910		0920	No Flare Patrol													
0008	SVTO	08	1003	1005	1024	S15	W11	10588	04	7.6	21	SF		3	E		18		F
0009	KANZ	08	1007	1021	1117	S16	W09	10588	04	7.7	70	1F		2	E				
		08	1537		1542	No Flare Patrol													
		08	1611		1636	No Flare Patrol													
		08	1908		1925	No Flare Patrol													
		08	1941		1947	No Flare Patrol													
		08	2021		2040	No Flare Patrol													
		08	2044		2122	No Flare Patrol													
		08	2216		2224	No Flare Patrol													

APRIL 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
		09	0015		0026	No Flare Patrol													
		09	0035		0049	No Flare Patrol													
		09	0056		0109	No Flare Patrol													
		09	0243		0307	No Flare Patrol													
		09	0329		0351	No Flare Patrol													
		09	0425		0435	No Flare Patrol													
		09	0514		0526	No Flare Patrol													
		09	0801		0813	No Flare Patrol													
		09	0938		1300	No Flare Patrol													
		09	1423		1436	No Flare Patrol													
		09	1515		1639	No Flare Patrol													
0010	HOLL	09	2019	2028	2101	S17	W29	10588	04	7.6	42	SF		3	E		44		FU
		09	2313		2334	No Flare Patrol													
0011	LEAR	10	0128	0128	0146	N10	E01	10589	04	10.1	18	SF		3	E		10		
		10	0937		1840	No Flare Patrol													
		10	1855		1908	No Flare Patrol													
		10	2000		2014	No Flare Patrol													
		10	2038		2045	No Flare Patrol													
		10	2122		2337	No Flare Patrol													
		11	0117		0200	No Flare Patrol													
		11	0238		0245	No Flare Patrol													
0012	LEAR	11	0400	0421	0451	S14	W47	10588	04	7.6	51	1F		3	E		194		EF
		11	0935		2400	No Flare Patrol													
		12	0000		0012	No Flare Patrol													
		12	0023		0045	No Flare Patrol													
		12	0205		0222	No Flare Patrol													
0013	LEAR	12	0224E	0225	0235	S17	W54	10588	04	8.0	11D	SF		3	E		42		F
		12	0235		0312	No Flare Patrol													
		12	0324		0723	No Flare Patrol													
		12	0730		0750	No Flare Patrol													
		12	0754		0757	No Flare Patrol													
		12	0800		0802	No Flare Patrol													
		12	0804		0805	No Flare Patrol													
		12	0808		0816	No Flare Patrol													
		12	0818		0819	No Flare Patrol													
		12	0822		0823	No Flare Patrol													
		12	0825		0826	No Flare Patrol													
		12	0831		0834	No Flare Patrol													
		12	0847		0923	No Flare Patrol													
		12	0929		0930	No Flare Patrol													
		12	0934		0953	No Flare Patrol													
		12	1003		1007	No Flare Patrol													
		12	1212		1243	No Flare Patrol													
		13	1151		1206	No Flare Patrol													
		13	1252		1256	No Flare Patrol													
		13	1417		1427	No Flare Patrol													
0014	LEAR	14	0744	0744	0747	S16	W20	10591	04	12.8	3	SF		3	E		11		
		14	1005		1254	No Flare Patrol													
		14	1341		1631	No Flare Patrol													
		14	1956		2009	No Flare Patrol													
		14	2031		2109	No Flare Patrol													
0015		15	1642	16424	1659	S14	W39	10591	04	12.7	17	SF					28		FZ
	SVTO	15	1642	1642	1700D	S13	W40	10591	04	12.7	18D	SF		3	E		27		ZF
	HOLL	15	1642	1646	1659	S15	W38	10591	04	12.8	17	SF		3	E		29		ZF
0016	HOLL	15	2204	2204	2208	S15	W42	10591	04	12.7	4	SF		3	E		13		H
		16	0931		0946	No Flare Patrol													
		16	0952		1005	No Flare Patrol													

Hα SOLAR FLARES

APRIL 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
		16	1008		1009	No Flare Patrol													
		16	1011		1251	No Flare Patrol													
		17	0931		1918	No Flare Patrol													
		17	1927		2312	No Flare Patrol													
		18	0723		0727	No Flare Patrol													
		18	0735		0758	No Flare Patrol													
		18	0931		0936	No Flare Patrol													
		18	0940		0943	No Flare Patrol													
		18	1011		1429	No Flare Patrol													
		18	1442		1520	No Flare Patrol													
		18	1723		1836	No Flare Patrol													
0017	LEAR	19	0037	0038	0042	S08	E60	10596	04	23.5	5	SF		3	E		18		F
		19	0130		0418	No Flare Patrol													
		19	0706		0730	No Flare Patrol													
		19	0859		1229	No Flare Patrol													
		19	1645		1743	No Flare Patrol													
0018	HOLL	19	2225	2225	2230	S10	E47	10596	04	23.5	5	SF		3	E		14		
		20	0000		0001	No Flare Patrol													
		20	0350		0434	No Flare Patrol													
		20	0915		0937	No Flare Patrol													
		20	1518		1553	No Flare Patrol													
0019	HOLL	20	1608	1619	1648	S07	E37	10596	04	23.4	40	SF		3	E		17		F
		20	2009		2150	No Flare Patrol													
		20	2205		2212	No Flare Patrol													
		20	2233		2238	No Flare Patrol													
		20	2310		2311	No Flare Patrol													
0020	LEAR	21	0251	0257	0304	S08	E30	10596	04	23.4	13	SF		3	E		27		F
0021		21	14512	14532	1502	S08	E24	10596	04	23.4	11	SF					36		FH
	KANZ	21	1451	1453	1506D	S07	E24	10596	04	23.4	15D	SF		2	E				
	HOLL	21	1452	1455	1508	S07	E24	10596	04	23.4	16	SF		3	E		55		FH
	SVTO	21	1453	1454	1457	S10	E23	10596	04	23.3	4	SF		3	E		17		F
0022	HOLL	21	1509	1515	1544	S09	E25	10596	04	23.5	35	SF		3	E		17		F
0023	HOLL	21	1605	1611	1637	S08	E24	10596	04	23.5	32	SF		3	E		36		FH
0024	HOLL	21	2012	2012	2026	S07	E22	10596	04	23.5	14	SF		3	E		31		F
0025	HOLL	22	0006E	0006U	0006	S06	W73	10597	04	16.5	14D	SF		3	E		13		
0026	HOLL	22	0010	0011	0018	S07	E14	10596	04	23.0	8	SF		3	E		17		H
0027	HOLL	22	0020	0023	0033	S04	W03	10595	04	21.8	13	SF		3	E		18		F
0028	LEAR	22	0207	0209	0211	S09	E19	10596	04	23.5	4	SF		3	E		20		
0029	LEAR	22	0215	0218	0246	S09	E19	10596	04	23.5	31	1N		3	E		110		
0030	HOLL	22	1429	1430	1433	S09	W75	10597	04	17.0	4	SF		3	E		20		
0031	HOLL	22	1434	1436	1439	S09	W75	10597	04	17.0	5	SF		3	E		28		H
0032	HOLL	22	1600	1601	1606	S07	E11	10596	04	23.5	6	SF		3	E		15		F
0033	HOLL	22	1637	1638	1644	S05	E07	10596	04	23.2	7	SF		3	E		13		
0034	HOLL	22	1645	1648	1659	S06	E09	10596	04	23.4	14	SF		3	E		53		F
		22	1717		1733	No Flare Patrol													
0035	HOLL	22	1746	1750	1753	S07	E10	10596	04	23.5	7	SF		3	E		18		

APRIL 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
0036	HOLL	22	1754	1756	1758	S09	E10	10596	04	23.5	4	SF		3	E		10		
0037	HOLL	22	1750	1910	2018	S09	W73	10597	04	17.3	148	1F		3	E		108		FH
0038	HOLL	22	1821	1822	1837	S09	E10	10596	04	23.5	16	SF		3	E		24		F
0039	HOLL	22	1925	1927	1933	S06	E06	10596	04	23.2	8	SF		3	E		32		F
0040	HOLL	22	2019	2024	2041	S09	W77	10597	04	17.1	22	SF		3	E		86		F
0041	HOLL	22	2041	2045	2051	S09	W74	10597	04	17.3	10	SF		3	E		61		
0042	HOLL	22	2218	2219	2227	S09	E08	10596	04	23.5	9	SF		3	E		29		F
0043	HOLL	22	2323	2325	2331	S04	E02	10596	04	23.1	8	SF		3	E		17		FH
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0045	HOLL	23	1452	1453	1457	S08	W81	10597	04	17.5	5	SF		3	E		19		
0046	HOLL	23	1500	1503	1507	S08	W80	10597	04	17.6	7	SF		3	E		16		
0047	HOLL	23	1602	1603	1608	S08	W79	10597	04	17.7	6	SF		3	E		37		
0048	HOLL	23	1726	1730	1736	S07	W83	10597	04	17.5	10	SF		3	E		62		
0049	HOLL	23	1903	1906	1909	S08	W83	10597	04	17.6	6	SF		3	E		23		
0050	HOLL	23	1942	1943	1947	S08	W80	10597	04	17.8	5	SF		3	E		29		
0051	HOLL	23	1955	1959	2007	S07	W80	10597	04	17.8	12	SF		3	E		45		Y
0052	HOLL	23	2021	2022	2034	S07	W81	10597	04	17.8	13	SF		3	E		27		Y
0053	HOLL	23	2059	2124	2133	S08	W83	10597	04	17.6	34	SF		3	E		85		Y
0054	HOLL	23	2137	2139	2140	S08	W78	10597	04	18.0	3	SF		3	E		11		Y
0055	HOLL	23	2211	2213	2217	S08	W79	10597	04	18.0	6	SF		3	E		21		
		24	0132		0258	No Flare Patrol													
0056	LEAR	24	0547	0549	0550	S06	W90	10597	04	17.5	3	SF		3	E		20		
0057	LEAR	24	0901	0902	0904	S06	W90	10597	04	17.6	3	SF		3	E		24		
		24	0925		1242	No Flare Patrol													
0058	HOLL	24	1339	1925	2027	N18	E43	10599	04	27.8	408	SF		3	E		89		FT
0059	HOLL	24	2031	2047	2104	N16	E41	10599	04	28.0	33	SF		3	E		47		F
0060	HOLL	24	2147	2148	2206	N15	E39	10599	04	27.9	19	SF		3	E		27		
0061	HOLL	24	2207	2210	2315	N14	E41	10599	04	28.0	68	SF		3	E		75		
0062	LEAR	25	0140	0143	0217	N13	E42	10599	04	28.2	37	SF		3	E		59		
0063	LEAR	25	0350	0352	0400	N13	E40	10599	04	28.2	10	SF		3	E		16		
0064	LEAR	25	0528	0537	0558	N13	E38	10599	04	28.1	30	1N		3	E		114		EF
		25	0924		1245	No Flare Patrol													
0065	HOLL	25	1429	1439	1512	N15	E31	10599	04	27.9	43	SF		3	E		40		F
0066	HOLL	25	1558	1609	1655	N15	E31	10599	04	28.0	57	SF		3	E		89		FH
0067	HOLL	25	1822	1829	1856	N17	E30	10599	04	28.0	34	SF		3	E		28		F

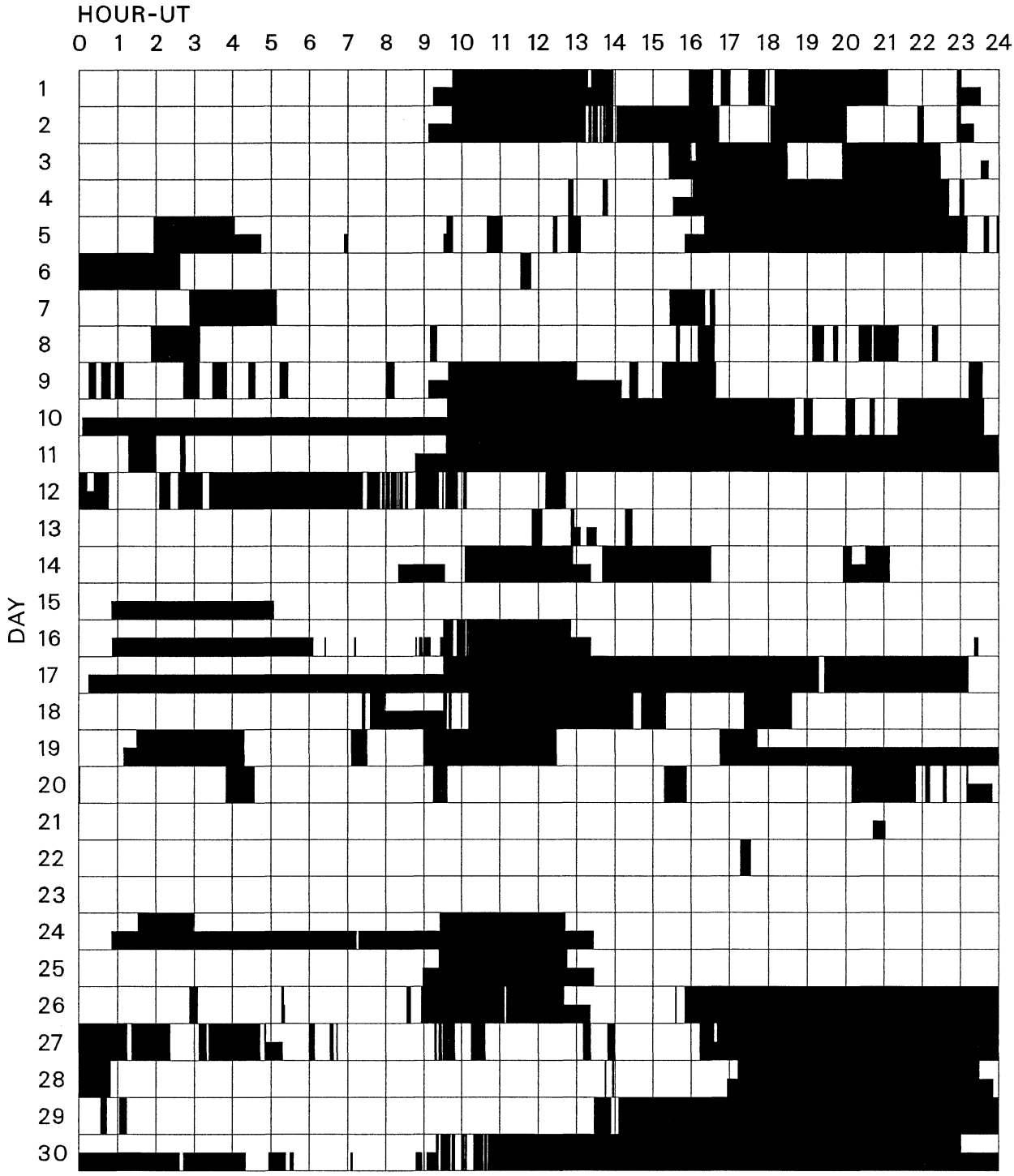
Hα SOLAR FLARES

APRIL 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
0068	HOLL	25	2154	2154	2206	N13	E32	10599	04	28.3	12	SF		3	E		13		
0069	LEAR	26	0055	0055	0101	N13	E29	10599	04	28.2	6	SF		3	E		10		
0070	LEAR	26	0236	0238	0250	N13	E28	10599	04	28.2	14	SF		3	E		33		
		26	0253		0305	No Flare Patrol													
		26	0517		0520	No Flare Patrol													
		26	0833		0839	No Flare Patrol													
		26	0856		1107	No Flare Patrol													
		26	1111		1240	No Flare Patrol													
		26	1536		1537	No Flare Patrol													
		26	1551		2400	No Flare Patrol													
		27	0000		0115	No Flare Patrol													
		27	0122		0222	No Flare Patrol													
		27	0307		0319	No Flare Patrol													
		27	0323		0443	No Flare Patrol													
		27	0450		0452	No Flare Patrol													
		27	0601		0608	No Flare Patrol													
		27	0632		0637	No Flare Patrol													
		27	0643		0644	No Flare Patrol													
0071	KANZ	27	0711	0720	0750	N15	E05	10599	04	27.7	39	1F		2	E				
		27	0917		0920	No Flare Patrol													
		27	0924		0928	No Flare Patrol													
		27	0930		0949	No Flare Patrol													
		27	1015		1037	No Flare Patrol													
		27	1311		1322	No Flare Patrol													
		27	1349		1359	No Flare Patrol													
		27	1614		1636	No Flare Patrol													
		27	1641		2400	No Flare Patrol													
		28	0000		0049	No Flare Patrol													
		28	1345		1346	No Flare Patrol													
		28	1356		1358	No Flare Patrol													
		28	1713		2329	No Flare Patrol													
		29	0034		0043	No Flare Patrol													
		29	0103		0114	No Flare Patrol													
		29	1328		1354	No Flare Patrol													
		29	1406		2400	No Flare Patrol													
0072	KANZ	30	0544	0548	0553	S14	W42	0602	04	27.1	9	SF		2	E				
		30	0920		0923	No Flare Patrol													
		30	0927		0931	No Flare Patrol													
		30	0933		0939	No Flare Patrol													
		30	0941		0942	No Flare Patrol													
		30	0945		0949	No Flare Patrol													
		30	1001		1004	No Flare Patrol													
		30	1006		1008	No Flare Patrol													
		30	1019		1020	No Flare Patrol													
		30	1022		1034	No Flare Patrol													
		30	1036		1040	No Flare Patrol													
		30	1042		2301	No Flare Patrol													

INTERVALS OF NO FLARE PATROL OBSERVATION
FOR PRECEDING SOLAR FLARE TABLE

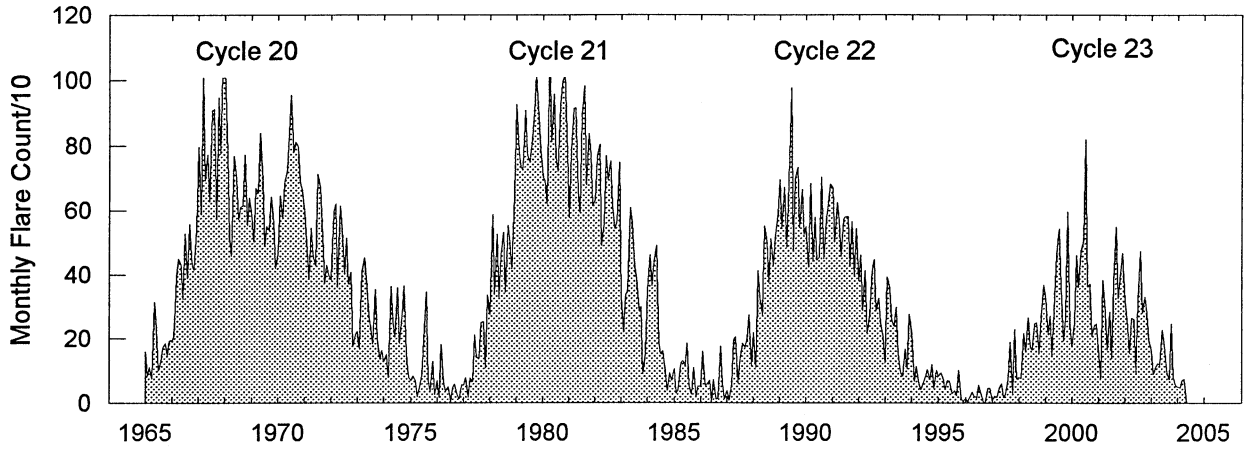
APRIL 2004



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 Learmonth San Vito
Kanzelhoehe

Monthly Counts of Grouped Solar Flares
Jan 1965 - Apr 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									239

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

APRIL 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
01	204	IZMI	44	NS	0600.0E		360.0D		15.0		
	235	CUBA	44	NS	1330.0E		472.0D		7.0		
	280	CUBA	44	NS	1330.0E		472.0D		21.0		
	245	PALE	43	NS	1844.0	0105.0	316.0	220.0			QL=4 ST=1 TYP=1
	245	PALE	43	NS	1844.0	0105.0	465.0	220.0			QL=4 ST=2 TYP=1
	245	LEAR	8	S	0103.0	0103.0	U	53.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0231.0	0233.5	4.0	19.7			
	2804	VORO	40	F	0232.6	0233.2	1.8	18.4			
	2800	HIRA	8	S	0233.0	0233.0	1.0	20.0			0
	2840	PEKG	5	S	0337.0	0341.5	9.0	76.6			
	2804	VORO	40	F	0340.8	0341.4	1.2	64.0			
	2800	HIRA	8	S	0341.0	0341.0	1.0	50.0			0
	500	HIRA	8	S	0341.0	0342.0	1.0	15.0			0
	2695	PALE	8	S	0341.0	0341.0	U	56.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0520.0	0520.0	U	610.0			QL=4 ST=2 TYP=6
	245	SVTO	49	GB	0520.0	0520.0	U	510.0			QL=4 ST=2 TYP=6
	900	GORK	40	F	0756.8	0757.9	2.8	62.0			
	600	GORK	3	S	0758.5	0758.9	0.7	6.5			
	900	GORK	41	F	0818.4	0820.1		33.0			
	900	GORK	41	F	0818.4	0819.7	1.9	21.0			
	600	GORK	1	S	0819.2	0819.5	3.4	4.9			
	2800	PENT	1	S	1542.0	1546.0	9.0	3.0			
	245	SGMR	8	S	1614.0	1614.0	2.0	100.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1614.0	1614.0	2.0	110.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1752.0	1752.0	U	82.0			QL=4 ST=2 TYP=3
	2800	PENT	41	F	1821.0	1845.0	35.0	35.0			
	2800	PENT	29	PBI	2056.0	2111.0	96.0U	9.0			
	2800	PENT	8	S	2258.0	2300.0	5.0	21.0			
	2804	VORO	4	S/F	2259.4	2300.8	1.8	28.7			
02	280	CUBA	44	NS	1310.0E		510.0D		21.0		
	235	CUBA	44	NS	1310.0E		540.0D		6.0		
	245	LEAR	8	S	0030.0	0032.0	2.0	220.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0032.0	0032.0	1.0	10.0			0
	500	HIRA	8	S	0529.0	0529.0	1.0	35.0			0
	600	GORK	41	F	0651.6	0652.1	3.2	15.0			
	600	GORK	41	F	0651.6	0654.7		2.6			
	204	IZMI	42	SER	0651.9	0652.1	0.7	138.0			
	500	HIRA	7	C	0652.0	0655.0	3.0	45.0			0
	245	LEAR	8	S	0652.0	0652.0	U	82.0			QL=4 ST=2 TYP=3
	245	SVTO	48	C	0652.0	0652.0	2.0	81.0			QL=4 ST=2 TYP=8
	410	SVTO	48	C	0652.0	0652.0	2.0	150.0			QL=4 ST=2 TYP=8
	900	GORK	41	F	0652.0	0652.1	1.6	3.4			
	900	GORK	41	F	0652.0	0653.4		5.1			
	204	IZMI	42	SER	0653.5	0653.5	0.2	33.0			
	204	IZMI	42	SER	0653.8	0654.2	1.3	86.0			
	245	LEAR	8	S	0654.0	0654.0	U	62.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	1605.0	1612.0	27.0U	8.0			
	245	PALE	8	S	1902.0	1902.0	U	69.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2030.0	2030.0	1.0	320.0			QL=4 ST=2 TYP=3
	2800	PENT	20	GRF	2111.0	2133.0	50.0	3.0			
03	235	CUBA	44	NS	1310.0E		520.0D		5.0		
	280	CUBA	44	NS	1310.0E		520.0D		17.0		
	204	IZMI	42	SER	1026.9	1027.2	1.5	96.0			
	245	SVTO	8	S	1027.0	1027.0	U	59.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1027.0	1027.0	1.0	36.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	1029.7	1030.2	1.9	42.0			
	204	IZMI	42	SER	1151.5	1151.8	0.5	35.0			
	2800	PENT	21	GRF	1739.0	1754.0	107.0	9.0			
	245	SGMR	8	S	1750.0	1750.0	U	58.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1750.0	1750.0	U	64.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1751.0	1751.0	U	81.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	1751.0	1751.0	U	99.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2008.0	2008.0	U	69.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2242.0	2242.0	U	310.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	2326.0	2329.0	8.0	17.1			
	2800	HIRA	1	S	2327.0	2329.0	5.0	20.0			0
	2804	VORO	4	S/F	2327.4	2328.7	4.3	16.7			

SOLAR RADIO EMISSION
Outstanding Occurrences

APRIL 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
04	204	IZMI	43	NS	0600.0		360.0D		5.0		
	235	CUBA	44	NS	1314.0E		466.0D		5.0		
	280	CUBA	44	NS	1314.0E		466.0D		18.0		
	2840	PEKG	45	C	0042.0	0046.6	8.0	4.5			
	2804	VORO	45	C	0043.0	0044.0	2.0	4.0			
	2804	VORO	45	C	0043.0	0046.7	3.7	3.7			
	245	SVTO	8	S	0702.0	0702.0	1.0	130.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0706.0	0707.0	1.0	150.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1340.0	1340.0	U	64.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1340.0	1340.0	U	72.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	1547.0	1604.0	45.0U	15.0			
	2800	PENT	1	S	2102.0	2107.0	11.0	5.0			
05	2840	PEKG	3	S	0530.0	0546.5	30.0	134.2			
	9100	GORK	21	GRF	0538.5	0601.3	62.7	25.0			
	2800	HIRA	7	C	0539.0	0547.0	14.0	115.0			0
	9100	GORK	46	C	0539.3	0541.2	12.7	60.0			
	9100	GORK	46	C	0539.3	0546.5		70.0			
	9100	GORK	46	C	0539.3	0543.7		65.0			
	2950	GORK	46	C	0539.4	0541.2	13.9	42.0			
	2950	GORK	46	C	0539.4	0546.6		110.0			
	2950	GORK	46	C	0539.4	0543.7		60.0			
	2695	SVTO	4	S/F	0540.0	0546.0	11.0	120.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	0540.0	0546.0	12.0	160.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0540.0	0546.0	12.0	110.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	0540.0	0546.0	1100.0	120.0			QL=4 ST=1 TYP=3
	4995	SVTO	4	S/F	0540.0	0546.0	1100.0	160.0			QL=4 ST=1 TYP=3
	8800	SVTO	4	S/F	0540.0	0546.0	1100.0	110.0			QL=4 ST=1 TYP=3
	600	GORK	46	C	0540.4	0546.1		27.0			
	600	GORK	46	C	0540.4	0541.1	16.9	29.0			
	600	GORK	46	C	0540.4	0554.7		23.0			
	4995	LEAR	4	S/F	0541.0	0546.0	7.0	150.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	0541.0	0546.0	5.0	74.0			QL=4 ST=2 TYP=3
	500	HIRA	7	C	0541.0	0549.0	16.0	20.0			0
	15400	SVTO	4	S/F	0541.0	0546.0	10.0	37.0			QL=4 ST=2 TYP=3
	4995	LEAR	4	S/F	0541.0	0546.0	1099.0	150.0			QL=4 ST=1 TYP=3
	15400	SVTO	4	S/F	0541.0	0546.0	1099.0	37.0			QL=4 ST=1 TYP=3
	245	LEAR	8	S	0543.0	0544.0	1.0	180.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0543.0	0546.0	4.0	110.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	0543.0	0544.0	4.0	150.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	0543.0	0544.0	1097.0	150.0			QL=4 ST=1 TYP=3
	1415	SVTO	8	S	0545.0	0546.0	2.0	39.0			QL=4 ST=2 TYP=3
	1415	SVTO	4	S/F	0545.0	0546.0	1095.0	39.0			QL=4 ST=1 TYP=3
	410	SVTO	8	S	0550.0	0550.0	1.0	23.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0902.5	0903.5	3.2	17.0			
	410	SVTO	8	S	0954.0	0954.0	U	78.0			QL=4 ST=2 TYP=3
	2800	PENT	1	S	1845.0	1851.0	13.0	5.0			
	2804	VORO	2	S/F	2240.6	2241.3	1.9	9.0			
	2800	HIRA	1	S	2241.0	2241.0	1.0	10.0			0
	500	HIRA	42	SER	2241.0	2242.0	4.0	70.0			0
	245	PALE	8	S	2241.0	2242.0	1.0	110.0			QL=4 ST=2 TYP=3
06	900	GORK	42	SER	0527.9	0543.6		32.0			
	600	GORK	42	SER	0527.9	0543.6		32.0			
	900	GORK	42	SER	0527.9	0536.6	16.0	70.0			
	600	GORK	42	SER	0527.9	0536.6	16.0	70.0			
	2840	PEKG	1	S	0534.0	0535.7	4.0	5.9			
	2950	GORK	7	C	0534.4	0534.5	1.4	6.9			
	2950	GORK	7	C	0534.4	0535.6		5.6			
	9100	GORK	2	S/F	0534.5	0535.5	1.5	12.0			
	610	LEAR	8	S	0535.0	0535.0	U	99.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0554.1	0559.4	6.0	13.0			
	204	IZMI	42	SER	0608.3	0610.3	2.5	17.0			
	245	SVTO	8	S	0656.0	0657.0	1.0	130.0			QL=4 ST=2 TYP=3
	245	SVTO	48	C	0714.0	0719.0	8.0	240.0			QL=4 ST=2 TYP=8
	410	SVTO	48	C	0714.0	0721.0	7.0	270.0			QL=4 ST=2 TYP=8
	2950	GORK	1	S	0907.9	0908.2	0.6	5.1			
	33	UPIC	46	C	1232.0	1235.5	15.0				
	245	SGMR	8	S	1234.0	1234.0	1.0	65.0			QL=4 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
06	245	SVTO	8	S	1234.0	1234.0	1.0	74.0			QL=4 ST=2 TYP=3
	610	SGMR	4	S/F	1306.0	1308.0	7.0	120.0			QL=4 ST=2 TYP=3
	1415	SGMR	4	S/F	1306.0	1310.0	7.0	72.0			QL=4 ST=2 TYP=3
	1415	SVTO	4	S/F	1309.0	1310.0	4.0	69.0			QL=4 ST=2 TYP=3
	33	UPIC	47	GB	1314.0	1318.0	13.0				
	610	SGMR	48	C	1315.0	1320.0	17.0	21000.0			QL=4 ST=2 TYP=8
	410	SGMR	48	C	1316.0	1323.0	16.0	950.0			QL=4 ST=2 TYP=8
	1415	SGMR	48	C	1316.0	1321.0	16.0	17000.0			QL=4 ST=2 TYP=8
	2695	SGMR	48	C	1316.0	1323.0	16.0	720.0			QL=4 ST=2 TYP=8
	410	SVTO	48	C	1316.0	1322.0	10.0	1500.0			QL=4 ST=2 TYP=8
	2695	SVTO	48	C	1316.0	1323.0	15.0	690.0			QL=4 ST=2 TYP=8
	1415	SVTO	48	C	1316.0	1321.0	22.0	14000.0			QL=4 ST=2 TYP=8
	4995	SVTO	48	C	1316.0	1323.0	29.0	1000.0			QL=4 ST=2 TYP=8
	2695	SGMR	48	C	1316.0	1323.0	644.0	720.0			QL=4 ST=1 TYP=8
	2695	SVTO	4	S/F	1316.0	1317.0	644.0	74.0			QL=4 ST=1 TYP=3
	4995	SVTO	4	S/F	1316.0	1317.0	644.0	65.0			QL=4 ST=1 TYP=3
	245	SGMR	8	S	1317.0	1317.0	1.0	54.0			QL=4 ST=2 TYP=3
	245	SVTO	48	C	1317.0	1323.0	8.0	300.0			QL=4 ST=2 TYP=8
	245	SGMR	48	C	1317.0	1323.0	15.0	310.0			QL=4 ST=2 TYP=8
	4995	SGMR	48	C	1317.0	1323.0	15.0	1000.0			QL=4 ST=2 TYP=8
	8800	SGMR	48	C	1317.0	1323.0	15.0	620.0			QL=4 ST=2 TYP=8
	15400	SGMR	4	S/F	1317.0	1323.0	15.0	290.0			QL=4 ST=2 TYP=3
	8800	SVTO	48	C	1317.0	1323.0	28.0	670.0			QL=4 ST=2 TYP=8
	15400	SVTO	4	S/F	1317.0	1323.0	21.0	260.0			QL=4 ST=2 TYP=3
	4995	SGMR	48	C	1317.0	1323.0	643.0	1000.0			QL=4 ST=1 TYP=8
	8800	SGMR	48	C	1317.0	1323.0	643.0	620.0			QL=4 ST=1 TYP=8
	4995	SGMR	4	S/F	1317.0	1317.0	643.0	89.0			QL=4 ST=1 TYP=3
	8800	SGMR	4	S/F	1317.0	1317.0	643.0	42.0			QL=4 ST=1 TYP=3
	15400	SGMR	4	S/F	1317.0	1318.0	643.0	67.0			QL=4 ST=1 TYP=3
	15400	SGMR	4	S/F	1317.0	1318.0	643.0	83.0			QL=4 ST=1 TYP=3
	15400	SGMR	4	S/F	1317.0	1323.0	643.0	290.0			QL=4 ST=1 TYP=3
	8800	SVTO	4	S/F	1317.0	1317.0	643.0	37.0			QL=4 ST=1 TYP=3
	15400	SVTO	4	S/F	1317.0	1318.0	643.0	62.0			QL=4 ST=1 TYP=3
	235	CUBA	7	C	1317.4	1323.2	9.6	9.0	5.0		
	280	CUBA	7	C	1317.4	1323.2	9.6	119.0	59.0		
	610	SGMR	8	S	1344.0	1344.0	1.0	110.0			QL=4 ST=2 TYP=3
	610	SGMR	4	S/F	1354.0	1354.0	3.0	110.0			QL=4 ST=2 TYP=3
	2800	PENT	1	S	1458.0	1503.0	10.0	4.0			
	245	SGMR	8	S	1640.0	1640.0	U	50.0			QL=4 ST=2 TYP=3
	2800	PENT	1	S	1753.0	1800.0	12.0	5.0			
	610	SGMR	8	S	1759.0	1759.0	1.0	130.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	1800.0	1800.0	1.0	120.0			QL=4 ST=2 TYP=3
	245	SGMR	49	GB	1800.0	1800.0	U	840.0			QL=4 ST=2 TYP=6
	245	PALE	49	GB	1801.0	1801.0	U	830.0			QL=4 ST=2 TYP=6
07	410	SVTO	48	C	1316.0	1322.0	10.0	1500.0			QL=4 ST=2 TYP=8
	610	SVTO	48	C	1316.0	1320.0	17.0	16000.0			QL=4 ST=2 TYP=8
	2695	SVTO	48	C	1316.0	1323.0	15.0	680.0			QL=4 ST=2 TYP=8
	1415	SVTO	48	C	1316.0	1321.0	22.0	14000.0			QL=4 ST=2 TYP=8
	245	SVTO	48	C	1317.0	1323.0	8.0	300.0			QL=4 ST=2 TYP=8
	4995	SVTO	48	C	1317.0	1323.0	17.0	1000.0			QL=4 ST=2 TYP=8
	8800	SVTO	48	C	1317.0	1323.0	28.0	660.0			QL=4 ST=2 TYP=8
	15400	SVTO	4	S/F	1317.0	1323.0	28.0	270.0			QL=4 ST=2 TYP=3
08	235	CUBA	44	NS	1335.0E		440.0D		5.0		
	280	CUBA	44	NS	1335.0E		440.0D		18.0		
	900	GORK	40	F	0700.0	0847.1	168.0	20.0			
	2950	GORK	46	C	0949.0U	1001.0	29.0D	220.0			
	2950	GORK	46	C	0949.0U	1010.5		200.0			
	2950	GORK	46	C	0949.0U	1005.6		70.0			
	204	IZMI	42	SER	0950.3	0954.6	10.5	318.0			
	900	GORK	47	GB	0951.0	1013.2	56.4	8200.0			
	33	UPIC	46	C	0952.0	1004.5	24.0				
	600	GORK	47	GB	0952.7	1013.2	46.0	6100.0			
	3000	IZMI	22	GRF	0957.9	1010.4	16.3	72.0	22.4		
	245	SVTO	8	S	0959.0	0959.0	1.0	32.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	0959.0	1001.0	11.0	190.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	0959.0	0959.0	841.0	32.0			QL=4 ST=1 TYP=3
	9100	GORK	20	GRF	0959.2	1009.9	60.0D	21.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
08	410	SVTO	48	C	1000.0	1007.0	13.0	100.0			QL=4 ST=2 TYP=8
	410	SVTO	4	S/F	1000.0	1000.0	840.0	69.0			QL=4 ST=1 TYP=3
	3000	IZMI	42	SER	1000.5	1001.0	1.9	115.0			
	204	IZMI	41	F	1001.1	1012.2	21.4				
	4995	SVTO	4	S/F	1002.0	1005.0	4.0	41.0			QL=4 ST=2 TYP=3
	1415	SVTO	48	C	1003.0	1012.0	11.0	330.0			QL=4 ST=2 TYP=8
	610	SGMR	8	S	1300.0	1301.0	2.0	110.0			QL=4 ST=2 TYP=3
	33	UPIC	46	C	1304.0	1305.5	4.5				
	410	SVTO	8	S	1305.0	1305.0	U	78.0			QL=4 ST=2 TYP=3
09	235	CUBA	44	NS	1300.0E		530.0D		5.0		
	280	CUBA	44	NS	1300.0E		530.0D		17.0		
	2840	PEKG	5	S	0954.0	0955.1	3.0	10.3			
	204	IZMI	7	C	0957.8	0957.8	0.1	4.0			
	610	SGMR	48	C	2024.0	2033.0	10.0	130.0			QL=4 ST=2 TYP=8
	610	SGMR	4	S/F	2024.0	2028.0	216.0	91.0			QL=4 ST=1 TYP=3
	1415	SGMR	4	S/F	2025.0	2030.0	9.0	39.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	2029.0	2029.0	1.0	90.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	2033.0	2034.0	1.0	130.0			QL=4 ST=2 TYP=3
10	235	CUBA	44	NS	1320.0E		510.0D		5.0		
	280	CUBA	44	NS	1320.0E		510.0D		17.0		
11	235	CUBA	44	NS	1300.0E		420.0D		5.0		
	280	CUBA	44	NS	1300.0E		511.0D		17.0		
	2840	PEKG	47	GB	0332.0	0414.8	83.0	588.2			
	2804	VORO	4	S/F	0352.2	0410.8	34.3	213.5			
	2800	HIRA	47	GB	0357.0	0415.0	31.0	825.0			0
	610	LEAR	4	S/F	0400.0	0402.0	4.0	160.0			QL=4 ST=2 TYP=3
	610	PALE	4	S/F	0401.0	0403.0	3.0	140.0			QL=4 ST=2 TYP=3
	245	LEAR	48	C	0407.0	0410.0	3.0	110.0			QL=4 ST=2 TYP=8
	245	LEAR	48	C	0407.0	0410.0	9.0	110.0			QL=4 ST=2 TYP=8
	245	LEAR	48	C	0407.0	0410.0	14.0	110.0			QL=4 ST=2 TYP=8
	1415	LEAR	48	C	0407.0	0407.0	17.0	240.0			QL=4 ST=2 TYP=8
	2695	LEAR	48	C	0407.0	0414.0	21.0	920.0			QL=4 ST=2 TYP=8
	1415	LEAR	48	C	0407.0	0407.0	1193.0	240.0			QL=4 ST=1 TYP=8
	2695	LEAR	48	C	0407.0	0414.0	1193.0	920.0			QL=4 ST=1 TYP=8
	1415	LEAR	4	S/F	0407.0	0407.0	1193.0	240.0			QL=4 ST=1 TYP=3
	2695	LEAR	4	S/F	0407.0	0411.0	1193.0	280.0			QL=4 ST=1 TYP=3
	245	PALE	48	C	0408.0	0410.0	3.0	140.0			QL=4 ST=2 TYP=8
	1415	PALE	4	S/F	0408.0	0408.0	3.0	240.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	0408.0	0411.0	1192.0	310.0			QL=4 ST=1 TYP=3
	410	LEAR	48	C	0410.0	0412.0	6.0	560.0			QL=4 ST=2 TYP=8
	410	LEAR	48	C	0410.0	0412.0	9.0	560.0			QL=4 ST=2 TYP=8
	245	PALE	48	C	0410.0	0410.0	3.0	140.0			QL=4 ST=2 TYP=8
	2695	PALE	48	C	0410.0	0415.0	14.0	970.0			QL=4 ST=2 TYP=8
	410	LEAR	4	S/F	0410.0	0410.0	1190.0	100.0			QL=4 ST=1 TYP=3
	410	PALE	48	C	0411.0	0413.0	4.0	580.0			QL=4 ST=2 TYP=8
	4995	LEAR	49	GB	0411.0	0415.0	17.0	570.0			QL=4 ST=2 TYP=6
	8800	LEAR	4	S/F	0411.0	0415.0	17.0	460.0			QL=4 ST=2 TYP=3
	1415	PALE	48	C	0411.0	0416.0	10.0	160.0			QL=4 ST=2 TYP=8
	4995	PALE	48	C	0411.0	0416.0	14.0	650.0			QL=4 ST=2 TYP=8
	4995	LEAR	49	GB	0411.0	0415.0	1189.0	570.0			QL=4 ST=1 TYP=6
	8800	LEAR	4	S/F	0411.0	0415.0	1189.0	460.0			QL=4 ST=1 TYP=3
	410	PALE	4	S/F	0411.0	0411.0	1189.0	91.0			QL=4 ST=1 TYP=3
	4995	PALE	4	S/F	0411.0	0411.0	1189.0	57.0			QL=4 ST=1 TYP=3
	610	LEAR	4	S/F	0412.0	0412.0	4.0	94.0			QL=4 ST=2 TYP=3
	15400	LEAR	4	S/F	0412.0	0415.0	16.0	220.0			QL=4 ST=2 TYP=3
	8800	PALE	48	C	0413.0	0416.0	9.0	400.0			QL=4 ST=2 TYP=8
	610	PALE	8	S	0413.0	0413.0	U	88.0			QL=4 ST=2 TYP=3
	15400	PALE	48	C	0416.0	0416.0	2.0	140.0			QL=4 ST=2 TYP=8
	245	LEAR	8	S	0624.0	0624.0	U	71.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0624.0	0624.0	1.0	68.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0624.8	0625.0	0.4	9.0			
	245	SGMR	8	S	1947.0	1947.0	U	57.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1948.0	1948.0	U	75.0			QL=4 ST=2 TYP=3
	245	SGMR	49	GB	1949.0	1949.0	U	860.0			QL=4 ST=2 TYP=6
	410	SGMR	8	S	1949.0	1949.0	U	69.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	1950.0	1950.0	U	1400.0			QL=4 ST=2 TYP=6

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
11	410	PALE	8	S	1950.0	1950.0	U	82.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2120.0	2122.0	2.0	420.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	2121.0	2122.0	2.0	670.0			QL=4 ST=2 TYP=6
	410	SGMR	8	S	2122.0	2122.0	U	27.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2123.0	2123.0	1.0	320.0			QL=4 ST=2 TYP=3
	2804	VORO	1	S	2221.7	2222.5	1.5	2.9			
	2804	VORO	1	S	2302.8	2305.6	4.7	2.9			
12	235	CUBA	44	NS	1500.0E		412.0D		5.0		
	280	CUBA	44	NS	1500.0E		410.0D		16.0		
	2840	PEKG	1	S	0222.0	0224.1	5.0	5.8			
	500	HIRA	7	C	0223.0	0224.0	3.0	30.0			0
	2804	VORO	8	S	0223.4	0223.7	0.9	7.0			
	204	IZMI	42	SER	0623.8	0625.4	2.4	23.0			
	204	IZMI	41	F	0627.3	0627.5	0.3	72.0			
	900	GORK	42	SER	0643.2	0711.3	64.4	18.0			
	900	GORK	42	SER	0643.2	0718.4		10.0			
	600	GORK	1	S	0721.0	0721.4	0.8	2.4			
	900	GORK	40	F	0912.3	0917.3	11.2	30.0			
	600	GORK	40	F	0912.9	0913.4	1.2	6.1			
	204	IZMI	7	C	0913.6	0913.6	0.2	8.0			
	900	GORK	40	F	0945.4	0946.2	1.8	24.0			
	245	SVTO	49	GB	0951.0	0951.0	U	900.0			QL=4 ST=2 TYP=6
	410	SVTO	8	S	0951.0	0951.0	U	64.0			QL=4 ST=2 TYP=3
	600	GORK	41	F	0951.0	0951.1	0.5	10.0			
	600	GORK	41	F	0951.0	0951.4		4.5			
	204	IZMI	42	SER	0951.1	0951.1	0.4	603.0			
	900	GORK	8	S	0953.9	0954.0	0.2	58.0			
	900	GORK	40	F	0959.5	1001.6	2.5	12.0			
	600	GORK	40	F	1012.0	1012.9	1.4	7.7			
	204	IZMI	41	F	1050.8	1050.9	0.4	66.0			
	204	IZMI	41	F	1103.2	1103.2	0.3	64.0			
	204	IZMI	41	F	1117.5	1117.7	0.3	109.0			
	245	SGMR	4	S/F	1223.0	1226.0	3.0	89.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	1223.0	1226.0	3.0	94.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1225.0	1226.0	1.0	29.0			QL=4 ST=2 TYP=3
	33	UPIC	45	C	1226.5	1227.0	1.5				
	33	UPIC	46	C	1401.0	1402.0	2.5				
	245	SGMR	8	S	1402.0	1402.0	U	65.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1402.0	1402.0	U	74.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1708.0	1708.0	U	84.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1836.0	1836.0	U	94.0			QL=4 ST=2 TYP=3
13	235	CUBA	44	NS	1730.0E		240.0D		6.0		
	280	CUBA	44	NS	1730.0E		510.0D		14.0		
	900	GORK	40	F	0616.6	0617.5	1.8	12.0			
	600	GORK	1	S	0617.3	0617.4	0.3	3.6			
	600	GORK	2	S/F	0645.7	0645.9	0.4	9.7			
	900	GORK	2	S/F	0645.8	0645.9	0.3	5.4			
	900	GORK	4	S/F	1035.6	1035.7	0.4	8.1			
	600	GORK	2	S/F	1035.9	1036.0	0.3	1.7			
	245	SGMR	8	S	2232.0	2232.0	U	70.0			QL=4 ST=2 TYP=3
14	235	CUBA	44	NS	1300.0E		482.0D		5.0		
	280	CUBA	44	NS	1300.0E		480.0D		15.0		
	2840	PEKG	1	S	0230.0	0232.7	5.0	3.5			
	1415	LEAR	8	S	0232.0	0232.0	U	65.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0233.0	0233.0	1.0	10.0			0
	900	GORK	40	F	0643.1	0643.1	1.4	2.3			
	600	GORK	2	S/F	0643.2	0643.3	0.8	4.5			
	900	GORK	1	S	0810.0	0810.2	0.3	3.3			
	600	GORK	2	S/F	0810.2	0810.8	1.2	3.4			
	900	GORK	40	F	1018.5	1019.4	2.3	5.5			
	600	GORK	3	S	1018.6	1018.8	0.4	6.1			
	500	HIRA	8	S	2120.0	2121.0	3.0	30.0			0
	410	SGMR	8	S	2120.0	2120.0	U	57.0			QL=4 ST=2 TYP=3
15	235	CUBA	44	NS	1305.0E		525.0D		7.0		
	280	CUBA	44	NS	1305.0E		525.0D		16.0		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
15	245	SGMR	43	NS	1352.0	1439.0	63.0	75.0			QL=4 ST=2 TYP=1
	410	PALE	8	S	0143.0	0144.0	1.0	150.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	0550.0	0550.0	3.0	170.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	0608.0	0611.0	3.0	150.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0613.9	0616.1	3.2	192.0			
	245	SVTO	8	S	0615.0	0616.0	1.0	54.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0626.0	0626.0	1.0	300.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	0626.7	0626.9	0.3	11.0			
	900	GORK	42	SER	0642.5	0707.1		11.0			
	900	GORK	42	SER	0642.5	0642.7	24.9	6.8			
	600	GORK	41	F	0647.8	0657.4		2.6			
	600	GORK	41	F	0647.8	0648.8	9.9	2.6			
	9100	GORK	4	S/F	0652.6	0653.3	0.9	16.0			
	500	HIRA	8	S	0706.0	0706.0	1.0	20.0			0
	900	GORK	41	F	0726.3	0726.5	0.7	4.4			
	900	GORK	41	F	0726.3	0726.8		5.6			
	9100	GORK	46	C	0726.4	0727.0	1.1	74.0			
	9100	GORK	46	C	0726.4	0727.1		76.0			
	204	IZMI	42	SER	0732.2	0732.3	0.5	37.0			
	600	GORK	41	F	0732.3	0733.0		2.7			
	600	GORK	41	F	0732.3	0732.6	0.9	4.0			
	500	HIRA	8	S	0733.0	0733.0	1.0	105.0			0
	900	GORK	42	SER	0821.2	0821.7	26.8	16.0			
	900	GORK	42	SER	0821.2	0829.8		27.0			
	900	GORK	42	SER	0821.2	0836.8		60.0			
	600	GORK	41	F	0829.6	0829.7	6.8	52.0			
	600	GORK	41	F	0829.6	0830.9		15.0			
	204	IZMI	41	F	0829.7	0829.8	0.5	391.0			
	500	HIRA	8	S	0830.0	0830.0	1.0	270.0			0
	245	SVTO	8	S	0903.0	0904.0	1.0	79.0			QL=4 ST=2 TYP=3
	900	GORK	41	F	0921.7	0925.4	6.1	15.0			
	900	GORK	41	F	0921.7	0927.4		17.0			
	410	SVTO	49	GB	0939.0	0939.0	1.0	520.0			QL=4 ST=2 TYP=6
	245	SVTO	4	S/F	0939.0	0943.0	7.0	160.0			QL=4 ST=2 TYP=3
	900	GORK	41	F	0939.3	0941.1	4.3	25.0			
	900	GORK	41	F	0939.3	0942.5		10.0			
	600	GORK	40	F	0939.4	0939.5	4.7	52.0			
	204	IZMI	42	SER	0939.6	0939.6	2.9	55.0			
	2840	PEKG	5	S	0940.0	0942.3	7.0	28.9			
	9100	GORK	46	C	0941.6	0944.1		56.0			
	9100	GORK	46	C	0941.6	0942.4	2.7	10.0			
	2950	GORK	46	C	0941.9	0942.2	1.7	26.0			
	2950	GORK	46	C	0941.9	0942.4		8.0			
	2695	SVTO	8	S	0942.0	0942.0	U	49.0			QL=4 ST=2 TYP=3
	3000	IZMI	20	GRF	0942.1	0942.2	0.2	12.0	2.7		
	204	IZMI	41	F	0943.1	0943.3	0.5	154.0			
	204	IZMI	42	SER	0945.3	0946.6	2.0	169.0			
	410	SVTO	4	S/F	1120.0	1123.0	3.0	100.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1123.0	1123.0	U	49.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1123.0	1123.0	U	70.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1123.0	1123.0	U	52.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	1123.3	1126.6	7.3	71.0			
	245	SVTO	8	S	1352.0	1353.0	1.0	65.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1610.0	1610.0	U	69.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1619.0	1620.0	1.0	130.0			QL=4 ST=2 TYP=3
	410	SGMR	4	S/F	1640.0	1641.0	3.0	480.0			QL=4 ST=2 TYP=3
	235	CUBA	7	C	1640.1	1642.7	4.6	8.0	4.0		
	280	CUBA	7	C	1640.1	1642.7	4.6	21.0	11.0		
	610	SGMR	8	S	1641.0	1642.0	2.0	230.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1641.0	1642.0	2.0	160.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1641.0	1642.0	2.0	70.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1641.0	1642.0	2.0	330.0			QL=4 ST=2 TYP=3
	245	SGMR	4	S/F	1641.0	1643.0	3.0	410.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1641.0	1642.0	3.0	180.0			QL=4 ST=2 TYP=3
	410	SVTO	49	GB	1641.0	1641.0	2.0	720.0			QL=4 ST=2 TYP=6
	1415	SVTO	8	S	1641.0	1641.0	2.0	120.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1641.0	1642.0	2.0	53.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1641.0	1642.0	2.0	280.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	1641.0	1642.0	3.0	480.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
15	610	SVTO	4	S/F	1641.0	1642.0	6.0	200.0			QL=2 ST=2 TYP=3
	9500	CUBA	4	S/F	1641.2	1642.7	3.9	195.0	97.0		
	410	PALE	8	S	1642.0	1642.0	1.0	480.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	1642.0	1642.0	1.0	120.0			QL=4 ST=2 TYP=3
	245	PALE	4	S/F	1642.0	1643.0	3.0	390.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1642.0	1642.0	1.0	70.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1642.0	1642.0	U	57.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1642.0	1642.0	1.0	140.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	1643.0	1643.0	U	170.0			QL=4 ST=2 TYP=3
	410	PALE	48	C	1839.0	1844.0	8.0	700.0			QL=4 ST=2 TYP=8
	1415	PALE	4	S/F	1842.0	1843.0	3.0	170.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	1844.0	1844.0	1.0	260.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	1844.0	1844.0	2.0	260.0			QL=4 ST=2 TYP=3
	500	HIRA	42	SER	2159.0	2203.0	5.0	10.0			0
16	235	CUBA	44	NS	1330.0E		330.0D		5.0		
	280	CUBA	44	NS	1330.0E		330.0D		14.0		
	245	SVTO	8	S	0558.0	0558.0	1.0	130.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0558.0	0558.0	1.0	440.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0558.0	0558.8	2.1	53.0			
	204	IZMI	42	SER	1024.0	1024.3	1.5	132.0			
	204	IZMI	42	SER	1026.2	1026.5	0.7	53.0			
	204	IZMI	42	SER	1027.7	1027.9	1.1	26.0			
17	235	CUBA	44	NS	1400.0E		300.0D		5.0		
	280	CUBA	44	NS	1400.0E		300.0D		14.0		
	410	PALE	8	S	0020.0	0020.0	U	52.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0026.0	0026.0	U	110.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0130.0	0131.0	1.0	87.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	0705.8	0705.8	0.2	49.0			
	204	IZMI	41	F	0817.3	0817.7	0.4	65.0			
	204	IZMI	7	C	0837.9	0838.1	0.3	12.0			
	204	IZMI	41	F	0905.4	0906.1	0.9	26.0			
	204	IZMI	42	SER	0918.4	0919.5	1.4	58.0			
	245	SVTO	8	S	0919.0	0919.0	U	54.0			QL=4 ST=2 TYP=3
	900	GORK	40	F	0950.1	0950.5	0.7	3.4			
	600	GORK	2	S/F	0950.3	0950.7	0.8	11.0			
	204	IZMI	42	SER	1001.5	1001.7	0.3	36.0			
	204	IZMI	42	SER	1026.7	1027.6	2.1	39.0			
	245	SVTO	8	S	1525.0	1526.0	1.0	53.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1526.0	1526.0	U	52.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1830.0	1830.0	U	63.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1831.0	1831.0	U	57.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1835.0	1836.0	1.0	97.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1836.0	1836.0	U	85.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1919.0	1920.0	1.0	95.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1920.0	1920.0	U	96.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2025.0	2025.0	U	61.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2111.0	2111.0	U	92.0			QL=4 ST=2 TYP=3
18	235	CUBA	44	NS	1310.0E		470.0D		5.0		
	280	CUBA	44	NS	1310.0E		470.0D		13.0		
	204	IZMI	41	F	0609.2	0609.3	0.2	59.0			
	204	IZMI	41	F	0717.1	0717.3	0.4	71.0			
	204	IZMI	41	F	0911.1	0911.4	0.5	100.0			
	900	GORK	41	F	0933.3	0936.1		18.0			
	900	GORK	41	F	0933.3	0933.6	3.5	15.0			
	600	GORK	46	C	0937.9	0938.2	0.7	21.0			
	600	GORK	46	C	0937.9	0938.4		7.3			
	204	IZMI	42	SER	1119.4	1119.6	0.3	32.0			
	245	SGMR	8	S	1200.0	1200.0	U	61.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1200.0	1200.0	U	25.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1200.0	1200.0	U	56.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1200.0	1200.0	U	37.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1417.0	1417.0	U	67.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1417.0	1417.0	U	58.0			QL=4 ST=2 TYP=3
	2800	PENT	8	S	1457.0	1458.0	2.0	6.0			
	410	SGMR	8	S	1458.0	1458.0	U	410.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1458.0	1458.0	U	410.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

APRIL 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	235	CUBA	44	NS	1430.0E		385.0D		5.0		
	280	CUBA	44	NS	1430.0E		385.0D		15.0		
	2800	PENT	4	S/F	0026.0	0034.0	16.0	6.0			
	2840	PEKG	45	C	0029.0	0034.5	10.0	10.0			
	2804	VORO	23	GRF	0030.1	0129.4	177.5	6.7			
	2804	VORO	45	C	0030.1	0033.9	5.2	7.2			
	2800	HIRA	1	S	0032.0	0035.0	5.0	10.0			0
	2800	PENT	29	PBI	1806.0	1828.0	86.0U	34.0			
	9500	CUBA	21	GRF	1825.8	1833.6	56.0	10.0	5.0		
	9500	CUBA	1	S	1827.4	1828.2	3.9	16.0	8.0		
	245	SGMR	8	S	1907.0	1907.0	U	57.0			QL=4 ST=2 TYP=3
20	235	CUBA	44	NS	1305.0E		525.0D		5.0		
	280	CUBA	44	NS	1305.0E		525.0D		16.0		
	245	LEAR	8	S	0546.0	0546.0	1.0	73.0			QL=4 ST=2 TYP=3
	900	GORK	41	F	0752.9	0753.3	3.0	35.0			
	900	GORK	41	F	0752.9	0754.4		7.7			
	600	GORK	7	C	0757.4	0757.5	0.6	3.6			
	600	GORK	7	C	0757.4	0757.7		4.7			
	204	IZMI	7	C	0824.9	0825.3	0.6	10.0			
	900	GORK	3	S	0906.9	0907.0	0.2	5.4			
	600	GORK	41	F	0907.1	0907.4	2.9	11.0			
	600	GORK	41	F	0907.1	0909.7		7.3			
21	235	CUBA	44	NS	1303.0E		417.0D		10.0		
	280	CUBA	44	NS	1303.0E		417.0D		15.0		
	245	SGMR	43	NS	1634.0	1737.0	81.0	73.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	1733.0	1738.0	117.0	96.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	1733.0	1735.0	387.0	58.0			QL=4 ST=1 TYP=1
	245	PALE	43	NS	1733.0	1738.0	387.0	96.0			QL=4 ST=1 TYP=1
	410	SGMR	43	NS	1744.0	1744.0	6.0	62.0			QL=4 ST=3 TYP=1
	410	PALE	43	NS	1746.0	1746.0	33.0	51.0			QL=4 ST=2 TYP=1
	410	PALE	8	S	0027.0	0027.0	U	52.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0507.0	0508.0	1.0	10.0			0
	410	LEAR	8	S	0507.0	0507.0	U	160.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0507.0	0507.0	U	68.0			QL=4 ST=2 TYP=3
	900	GORK	40	F	0539.2	0539.6	5.6	3.9			
	900	GORK	40	F	0539.2	0544.6		5.8			
	2840	PEKG	1	S	0905.0	0907.1	4.0	9.1			
	600	GORK	40	F	0939.9	0940.3	0.7	3.3			
	900	GORK	1	S	0940.1	0940.3	0.4	2.0			
	600	GORK	41	F	1026.6	1028.3		3.3			
	600	GORK	41	F	1026.6	1026.9	2.0	3.3			
	245	SGMR	4	S/F	1618.0	1624.0	6.0	56.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1621.0	1621.0	U	23.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1623.0	1623.0	U	21.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1628.0	1628.0	U	77.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	2114.0	2114.0	1.0	15.0			
	500	HIRA	42	SER	2338.0	2339.0	3.0	35.0			
	410	LEAR	8	S	2338.0	2339.0	1.0	350.0			QL=4 ST=2 TYP=3
	2804	VORO	8	S	2351.0	2351.2	0.5	10.0			
22	204	IZMI	43	NS	0600.0		360.0D		30.0		
	245	SGMR	43	NS	1129.0	1152.0	224.0	280.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1129.0	1129.0	751.0	61.0			QL=4 ST=1 TYP=1
	245	SGMR	43	NS	1129.0	1137.0	751.0	100.0			QL=4 ST=1 TYP=1
	245	SGMR	43	NS	1129.0	1152.0	751.0	280.0			QL=4 ST=1 TYP=1
	245	SVTO	43	NS	1134.0	1152.0	59.0	240.0			QL=4 ST=2 TYP=1
	235	CUBA	44	NS	1320.0E		510.0D		5.0		
	280	CUBA	44	NS	1320.0E		510.0D		17.0		
	245	SVTO	43	NS	1346.0	1400.0	15.0	110.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1953.0	2047.0	54.0	100.0			QL=4 ST=2 TYP=1
	2840	PEKG	1	S	0010.0	0012.7	5.0	9.9			
	500	HIRA	47	GB	0012.0	0012.0	1.0	580.0			
	410	LEAR	49	GB	0012.0	0012.0	U	2400.0			QL=4 ST=2 TYP=6
	610	LEAR	8	S	0012.0	0012.0	U	390.0			QL=4 ST=2 TYP=3
	2804	VORO	1	S	0021.0	0021.6	1.3	2.4			
	410	PALE	8	S	0039.0	0041.0	2.0	180.0			QL=4 ST=2 TYP=3
	500	HIRA	7	C	0040.0	0041.0	2.0	75.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
22	410	LEAR	8	S	0040.0	0040.0	U	97.0			QL=4 ST=2 TYP=3
	2804	VORO	1	S	0152.5	0154.0	2.6	3.6			
	2804	VORO	4	S/F	0203.3	0205.7	5.0	33.2			
	2804	VORO	29	PBI	0208.3	0210.9	23.3	4.6			
	500	HIRA	8	S	0209.0	0209.0	1.0	15.0			
	2840	PEKG	5	S	0215.0	0217.7	5.0	40.3			
	2800	HIRA	3	S	0217.0	0218.0	3.0	40.0			
	4995	PALE	8	S	0218.0	0218.0	U	54.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0445.0	0445.0	1.0	65.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0445.0	0445.0	1.0	93.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0458.0	0458.0	U	65.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0644.0	0644.0	1.0	10.0			
	245	LEAR	8	S	0839.0	0839.0	U	55.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0850.0	0850.0	U	58.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0903.0	0903.0	U	67.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0907.0	0907.0	U	100.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0919.0	0920.0	1.0	65.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0936.0	0936.0	U	150.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1129.0	1129.0	U	73.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1324.0	1324.0	U	70.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1613.0	1613.0	U	76.0			QL=4 ST=2 TYP=3
	2800	PENT	8	S	1922.0	1926.0	7.0	40.0			
	2695	SGMR	8	S	1924.0	1926.0	2.0	67.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1925.0	1925.0	U	31.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1925.0	1926.0	1.0	35.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	1926.0	1926.0	U	69.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1954.0	1954.0	U	89.0			QL=4 ST=2 TYP=3
23	235	CUBA	44	NS	1300.0E		420.0D		7.0		
	280	CUBA	44	NS	1300.0E		420.0D		13.0		
	245	PALE	43	NS	1958.0	2044.0	52.0	73.0			QL=4 ST=2 TYP=1
	245	LEAR	8	S	0120.0	0120.0	1.0	62.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0121.0	0121.0	U	86.0			QL=4 ST=2 TYP=3
	2840	PEKG	1	S	0451.0	0454.2	8.0	8.3			
	9100	GORK	46	C	0749.8	0752.3		11.0			
	9100	GORK	46	C	0749.8	0751.7	3.9	10.0			
	2950	GORK	7	C	0751.4	0752.1		6.3			
	2950	GORK	7	C	0751.4	0751.7	1.2	3.8			
	9100	GORK	46	C	0754.2	0757.0		24.0			
	9100	GORK	46	C	0754.2	0755.2	7.0	10.0			
	2840	PEKG	45	C	0755.0	0757.1	8.0	5.7			
	600	GORK	40	F	0756.0	0757.3	1.7	8.3			
	900	GORK	46	C	0756.5	0757.4		20.0			
	900	GORK	46	C	0756.5	0756.7	1.3	18.0			
	2950	GORK	46	C	0756.6	0757.5	5.8	9.0			
	2950	GORK	46	C	0756.6	0800.8		7.6			
	900	GORK	41	F	0800.0	0800.1	1.2	5.6			
	600	GORK	7	C	0800.0	0800.1	1.2	5.5			
	900	GORK	41	F	0800.0	0800.8		21.0			
	600	GORK	7	C	0800.0	0800.8		8.3			
	900	GORK	41	F	1039.4	1039.5	1.5	19.0			
	900	GORK	41	F	1039.4	1040.7		6.7			
	9100	GORK	46	C	1040.5	1043.5	8.5	11.0			
	9100	GORK	46	C	1040.5	1046.9		10.0			
	600	GORK	41	F	1041.6	1043.0	2.5	7.0			
	600	GORK	41	F	1041.6	1043.4		8.3			
	900	GORK	40	F	1042.6	1043.9	4.3	30.0			
	2950	GORK	41	F	1043.1	1043.8	4.5	10.0			
	2950	GORK	41	F	1043.1	1046.8		3.7			
	3000	IZMI	20	GRF	1149.8	1150.2	1.3	10.0	5.0		
	2800	PENT	1	S	1558.0	1605.0	14.0	13.0			
	9500	CUBA	2	S/F	1605.2	1605.5	1.4	14.0	7.0		
	245	PALE	8	S	1821.0	1822.0	1.0	68.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1822.0	1822.0	U	55.0			QL=4 ST=3 TYP=3
	2800	PENT	29	PBI	2102.0	2109.0	56.0	143.0			
	2800	HIRA	3	S	2109.0	2110.0	8.0	135.0			0
	2695	PALE	8	S	2109.0	2109.0	1.0	150.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	2109.0	2109.0	1.0	260.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	2109.0	2109.0	1.0	220.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

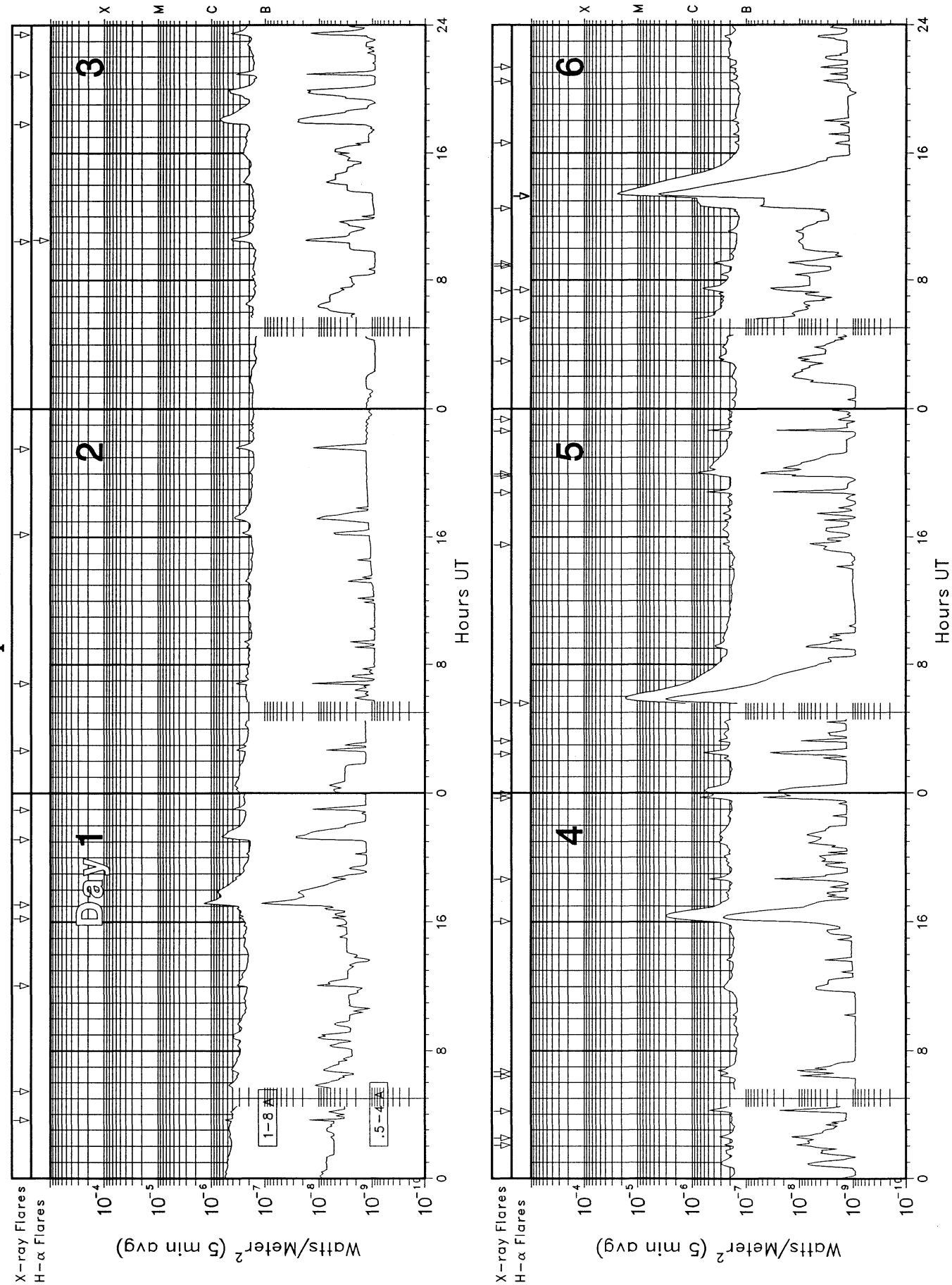
APRIL 2004

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	15400	PALE	8	S	2109.0	2109.0	U	310.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2109.0	2109.0	U	43.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	2109.0	2109.0	U	38.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	2109.0	2109.0	1.0	38.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	2109.0	2109.0	1.0	250.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	2109.0	2109.0	1.0	290.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	2109.0	2109.0	4.0	140.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	2109.0	2109.0	4.0	270.0			QL=4 ST=2 TYP=3
	9500	CUBA	3	S	2109.1	2109.5	6.2	222.0	111.0		
24	204	IZMI	43	NS	0600.0		360.0D		20.0		
	235	CUBA	44	NS	1305.0E		415.0D		5.0		
	280	CUBA	44	NS	1305.0E		415.0D		12.0		
	2840	PEKG	5	S	0513.0	0514.5	4.0	21.7			
	2800	HIRA	1	S	0514.0	0515.0	4.0	15.0			0
	2950	GORK	1	S	0555.2	0555.6	0.8	3.9			
	600	GORK	42	SER	0812.0	0812.1	38.7	6.7			
	600	GORK	42	SER	0812.0	0833.6		4.1			
	900	GORK	42	SER	0812.5	0833.4		125.0			
	900	GORK	42	SER	0812.5	0812.5	38.5	160.0U			
	204	IZMI	42	SER	0830.4	0831.4	2.8	66.0			
	2800	PENT	1	S	1521.0	1525.0	8.0	4.0			
	8800	SGMR	8	S	1525.0	1525.0	U	32.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1525.0	1525.0	U	72.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1525.0	1525.0	U	34.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1525.0	1525.0	U	85.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1525.1	1525.5	4.1	31.0	15.0		
	2800	PENT	1	S	1621.0	1625.0	8.0	5.0			
	1415	PALE	8	S	1716.0	1717.0	1.0	78.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1716.0	1717.0	1.0	64.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2041.0	2041.0	U	150.0			QL=4 ST=2 TYP=3
25	204	IZMI	44	NS	0600.0E		135.0D		10.0		
	280	CUBA	44	NS	1400.0E		420.0D		17.0		
	235	CUBA	44	NS	1400.0E		450.0D		6.0		
	2804	VORO	1	S	0128.1	0128.9	1.8	5.7			
	2840	PEKG	5	S	0140.0	0143.3	6.0	12.2			
	9100	GORK	21	GRF	0529.3	0537.8	81.7	20.0			
	2840	PEKG	20	GRF	0532.0	0537.8	14.0	6.6			
	9100	GORK	3	S	0537.4	0537.5	0.3	8.1			
	2950	GORK	1	S	0537.5	0537.7	0.7	4.0			
	900	GORK	8	S	0538.1	0538.2	0.2	175.0U			
	204	IZMI	7	C	0826.3	0826.3	0.1	101.0			
	204	IZMI	42	SER	0845.3	0846.6	2.5	62.0			
	245	LEAR	49	GB	0909.0	0909.0	U	1400.0			QL=4 ST=2 TYP=6
	245	SVTO	49	GB	0909.0	0909.0	1.0	2900.0			QL=4 ST=2 TYP=6
	410	SVTO	8	S	0909.0	0909.0	U	140.0			QL=4 ST=2 TYP=3
	204	IZMI	45	C	0909.4	0909.5	0.6	527.0	19.3		
	204	IZMI	7	C	0932.3	0932.4	0.2	47.0			
	900	GORK	42	SER	1000.8	1002.6	23.6	140.0			
	900	GORK	42	SER	1000.8	1015.7		37.0			
	600	GORK	42	SER	1003.7	1024.8		42.0			
	600	GORK	42	SER	1003.7	1003.8	20.7	45.0			
	2950	GORK	20	GRF	1009.0	1054.0	45.0D	3.7			
	9100	GORK	20	GRF	1011.0	1014.4	35.0	10.0			
	204	IZMI	41	F	1015.1	1015.2	0.3	15.0			
	2800	PENT	20	GRF	1408.0	1452.0	84.0	5.0			
26	235	CUBA	44	NS	1325.0E		505.0D		6.0		
	280	CUBA	44	NS	1325.0E		525.0D		15.0		
27	204	IZMI	43	NS	0805.0		235.0D		25.0		
	245	SGMR	43	NS	1106.0	1106.0	49.0	61.0			QL=4 ST=2 TYP=1
	9100	GORK	7	C	0644.1	0644.4	0.8	9.0			
	9100	GORK	7	C	0644.1	0644.6		13.0			
	600	GORK	46	C	0708.5	0734.3		35.0			
	600	GORK	46	C	0708.5	0715.5		110.0			
	600	GORK	46	C	0708.5	0712.5	31.9	65.0			
	2800	HIRA	20	GRF	0709.0	0728.0	57.0	10.0			0

SOLAR RADIO EMISSION
Outstanding Occurrences

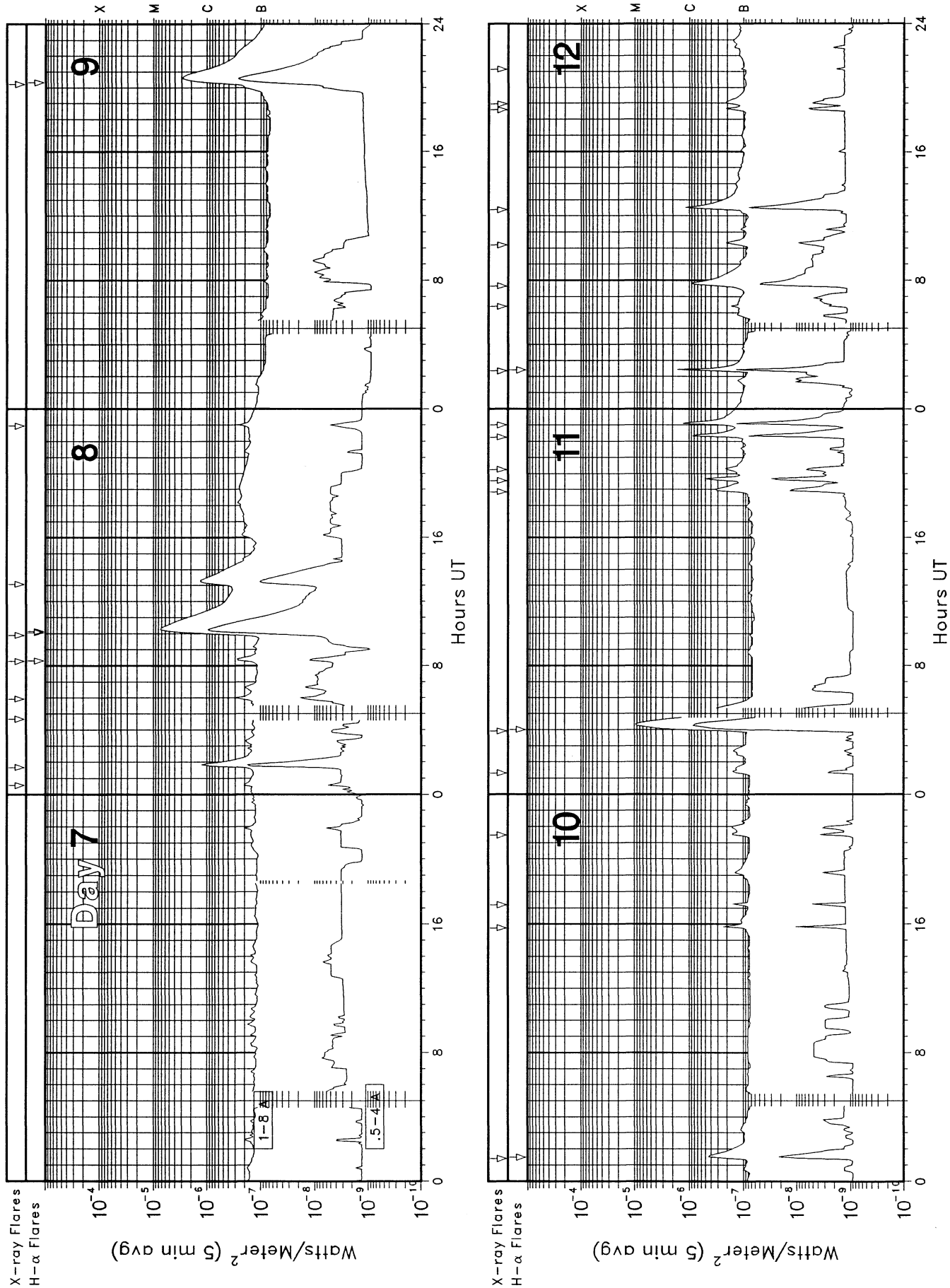
APRIL 2004

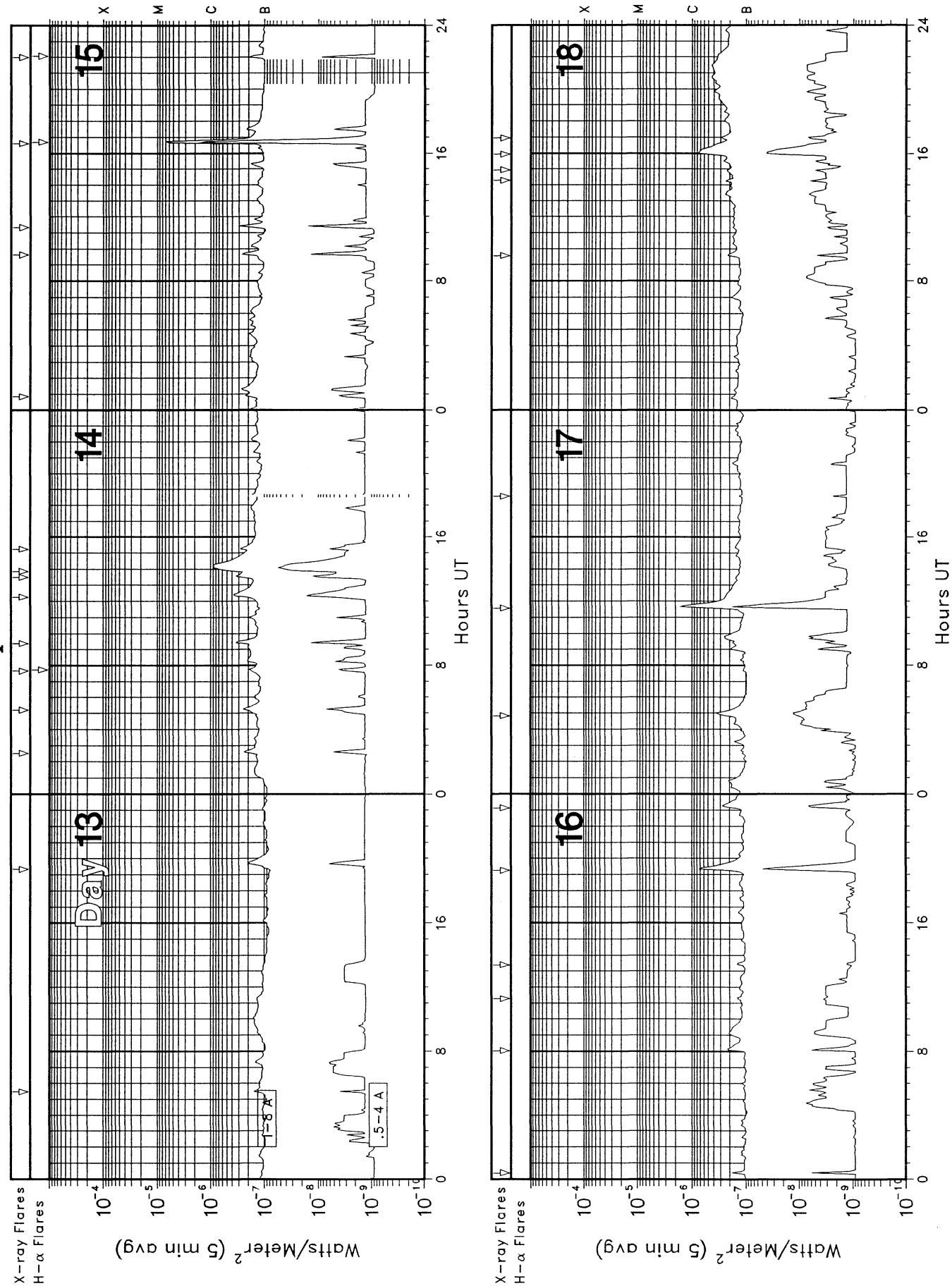
Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
27	900	GORK	46	C	0709.0	0734.1		50.0			
	900	GORK	46	C	0709.0	0728.3		42.0			
	900	GORK	46	C	0709.0	0712.5	30.4	42.0			
	2950	GORK	21	GRF	0709.6	0727.5	96.8	17.0			
	500	HIRA	7	C	0711.0	0716.0	25.0	35.0			0
	204	IZMI	41	F	0711.9	0712.2	1.0	30.0			
	245	SVTO	4	S/F	0712.0	0717.0	7.0	120.0			QL=4 ST=2 TYP=3
	410	SVTO	4	S/F	0712.0	0717.0	7.0	45.0			QL=4 ST=2 TYP=3
	610	SVTO	4	S/F	0712.0	0715.0	5.0	83.0			QL=2 ST=2 TYP=3
	3000	IZMI	20	GRF	0712.0	0733.6	39.8	23.0			
	204	IZMI	42	SER	0714.1	0714.6	1.1	24.0			
	610	LEAR	8	S	0715.0	0715.0	U	79.0			QL=4 ST=2 TYP=3
	204	IZMI	45	C	0715.9	0717.2	6.4	862.0			
	245	LEAR	8	S	0717.0	0717.0	1.0	120.0			QL=4 ST=2 TYP=3
	33	UPIC	48	C	0718.0	0724.0	9.0				
	2950	GORK	2	S/F	0718.8	0719.9	1.8	6.6			
	9100	GORK	20	GRF	0719.3	0734.6	30.5	9.1			
	245	SVTO	8	S	0722.0	0722.0	U	51.0			QL=4 ST=2 TYP=3
	900	GORK	42	SER	0802.2	0808.0	29.6	37.0			
	900	GORK	42	SER	0802.2	0809.2		11.0			
	245	SVTO	4	S/F	0806.0	0808.0	6.0	54.0			QL=4 ST=2 TYP=3
	410	SVTO	4	S/F	0806.0	0812.0	6.0	52.0			QL=4 ST=2 TYP=3
	600	GORK	41	F	0807.7	0808.0	2.6	13.0			
	600	GORK	41	F	0807.7	0809.5		19.0			
	500	HIRA	7	C	0808.0	0810.0	9.0	15.0			WR
	245	SVTO	4	S/F	0909.0	0915.0	11.0	120.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1048.0	1048.0	U	52.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1056.0	1056.0	U	61.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1106.0	1106.0	U	63.0			QL=2 ST=2 TYP=3
28	900	GORK	40	F	0832.0	0832.4	0.8	4.4			
	600	GORK	40	F	0832.3	0832.5	0.6	7.6			
	9100	GORK	5	S	0852.0	0855.4	5.3	7.0			
	600	GORK	2	S/F	0905.1	0905.4	0.6	18.0			
	900	GORK	2	S/F	0935.2	0935.4	0.4	3.5			
30	2950	GORK	2	S/F	0543.1	0545.4	4.2	5.6			
	900	GORK	46	C	0543.2	0544.3		7.7			
	900	GORK	46	C	0543.2	0543.4	3.7	19.0			
	9100	GORK	2	S/F	0544.3	0548.0	7.2	3.9			
	600	GORK	7	C	0544.6	0545.0	2.4	5.3			
	600	GORK	7	C	0544.6	0546.3		7.9			
	500	HIRA	7	C	0545.0	0547.0	7.0	20.0			0
	900	GORK	41	F	1002.8	1003.0	1.5	10.0			
	900	GORK	41	F	1002.8	1004.2		11.0			
	600	GORK	4	S/F	1004.3	1004.6	0.5	32.0			
	410	PALE	8	S	1637.0	1637.0	U	70.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1637.0	1637.0	U	62.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1637.0	1637.0	U	100.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1813.0	1813.0	U	50.0			QL=4 ST=2 TYP=3


GOES X-RAY DETECTOR
April 2004
Day 1
1
2
3
4
5
6
X
M
C
B
1-8 Å
.5-4 Å
Watts/Meter² (5 min avg)
Hours UT
X-ray Flares
H-α Flares

GOES X-RAY DETECTOR

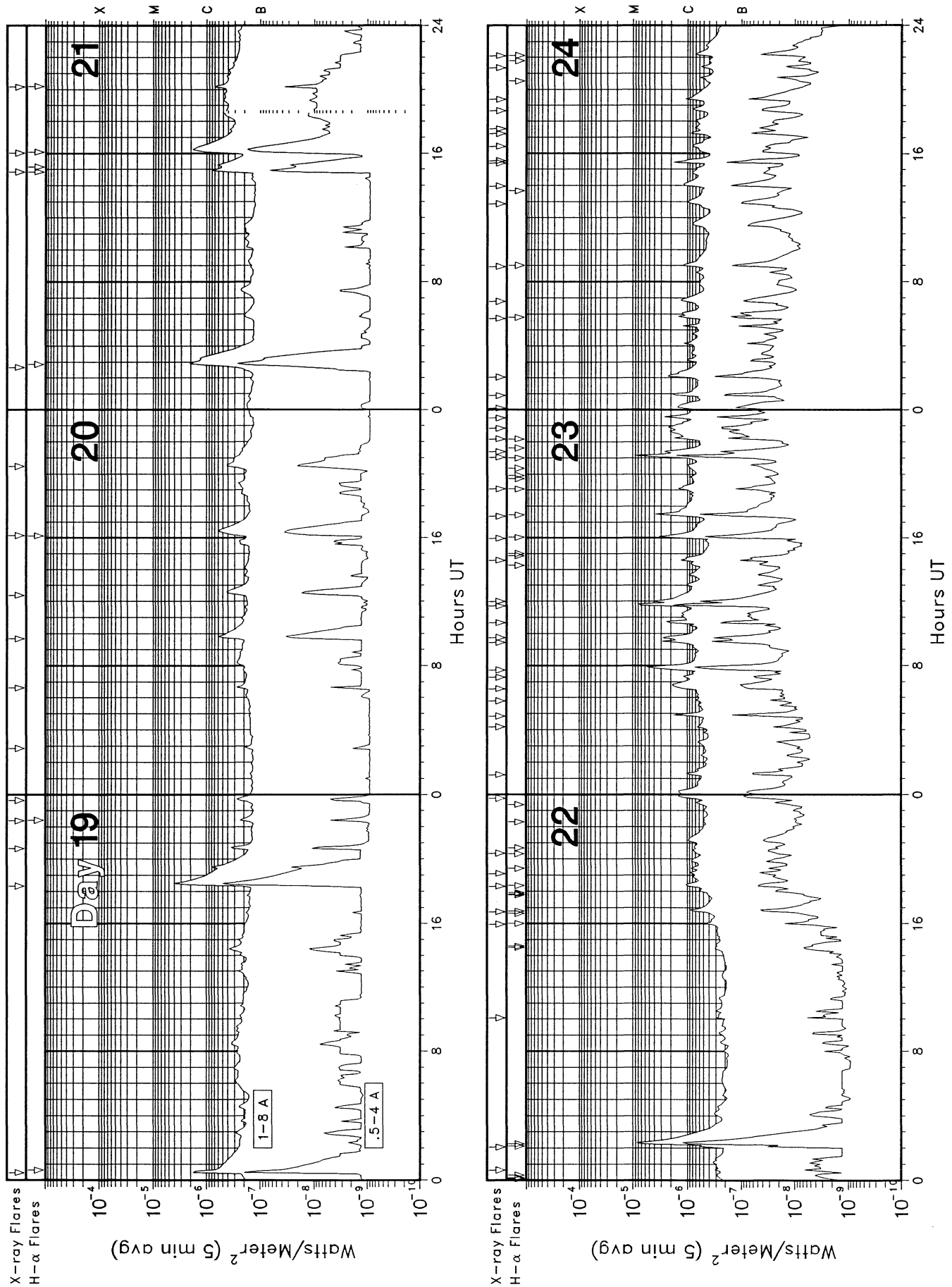
April 2004

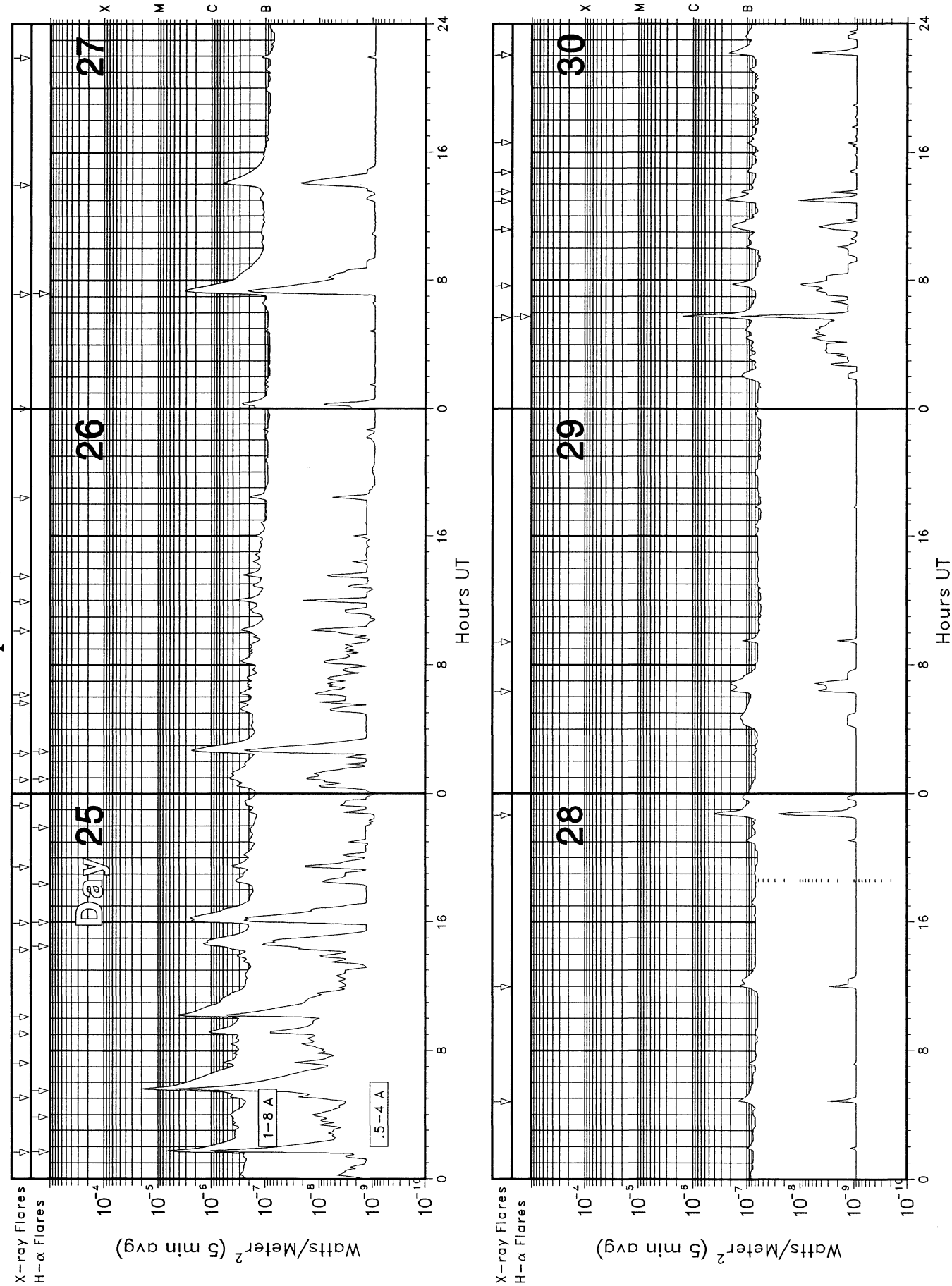



GOES X-RAY DETECTOR
April 2004
Day 13
13
14
15
16
17
18
X-ray Flares
H-α Flares
Watts/Meter² (5 min avg)
Hours UT
1-8 A
.5-4 A
X
M
C
B

GOES X-RAY DETECTOR

April 2004




GOES X-RAY DETECTOR
April 2004
Day 25
26
27
28
29
30
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 S O L A R X-RAY F L A R E S
Preliminary Listing

April 2004

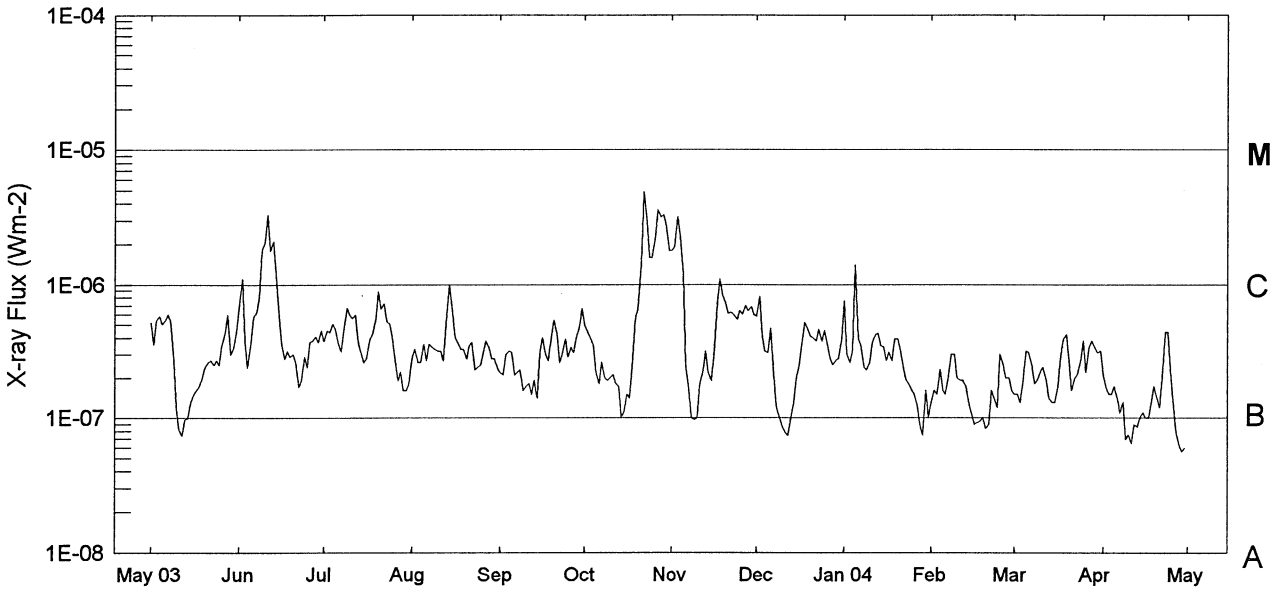
Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp	Xray	Flux	NOAA/ USAF Region
01	0338	0341	0343				B	6.6	1.6E-04	10582
01	0527	0535	0540				B	5.5	3.6E-04	
01	1204	1208	1211				B	4.1	1.4E-04	10582
01	1612	1616	1618				B	3.6	1.1E-04	
01	1704	1711	1724				C	1.4	1.2E-03	10582
01	2108	2120	2145				B	6.6	1.1E-03	10582
01	2258	2303	2308				B	4.2	2.1E-04	10581
02	0239	0243	0247				B	3.7	1.6E-04	10588
02	0649	0654	0656				B	4.6	1.4E-04	10587
02	1610	1614	1619				B	2.9	1.4E-04	10582
02	2131	2137	2144				B	3.5	2.3E-04	10582
03	1026	1034	1043				B	4.6	3.9E-04	10588
03	1747	1808	1823				B	7.2	1.2E-03	10587
03	2053	2057	2102				B	3.8	1.6E-04	
03	2325	2330	2336				B	4.9	2.5E-04	
04	0203	0207	0212				B	2.7	1.3E-04	
04	0231	0236	0242				B	3.2	1.9E-04	
04	0411	0417	0423				B	5.0	2.8E-04	
04	0623	0627	0633				B	3.1	1.7E-04	
04	0641	0646	0650				B	3.5	1.7E-04	
04	1602	1626	1639				C	3.0	4.7E-03	10588
04	1838	1842	1844				B	6.1	1.6E-04	
04	2341	2345	2350	S18	E33	SF	B	7.9	3.0E-04	10588
04	2356	0000	0004				B	5.1	2.2E-04	
05	0225	0230	0237				B	6.3	3.7E-04	10588
05	0314	0318	0322				B	4.0	1.5E-04	
05	0537	0555	0613	S18	E35	1F	M	1.7	2.6E-02	10588
05	1531	1535	1538				B	3.1	1.1E-04	
05	1847	1852	1854				B	7.3	1.9E-04	10588
05	1950	1954	1957				B	4.7	1.5E-04	
05	1958	2004	2010				B	8.4	4.7E-04	10588
05	2238	2242	2244				B	7.9	1.6E-04	
05	2321	2324	2326				B	2.7	6.8E-05	
06	0258	0301	0304				B	3.2	1.0E-04	
06	0532	0535	0540	S19	E24	SF	C	1.0	3.5E-04	10588
06	0720	0731	0736	S18	E21	SF	B	7.1	5.1E-04	10588
06	0853	0856	0859				B	2.9	9.0E-05	
06	0901	0904	0911				B	4.2	2.1E-04	
06	1230	1328	1346	S18	E15	SF	M	2.4	3.2E-02	10588
06	1636	1640	1642				B	2.0	6.0E-05	
06	2027	2030	2032				B	2.2	6.0E-05	
06	2121	2124	2127				B	2.3	7.5E-05	
08	0034	0038	0043				B	2.4	1.1E-04	
08	0141	0151	0159				C	1.2	9.3E-04	
08	0440	0444	0449				B	3.5	1.4E-04	
08	0556	0601	0604				B	3.2	1.3E-04	
08	0816	0821	0832				B	2.9	2.3E-04	
08	0953	1019	1047	S15	W11	SF	C	7.4	1.5E-02	10588
08	1305	1320	1335				C	1.3	2.0E-03	10588
08	2257	2301	2307				B	2.5	1.4E-04	10590
09	2013	2040	2102	S17	W29	SF	C	2.8	5.7E-03	10588
10	0123	0133	0147	N10	E01	SF	B	4.5	4.8E-04	10589
10	1546	1551	1556				B	2.5	1.1E-04	10587
10	1711	1715	1717				B	2.5	5.5E-05	10588
10	2128	2134	2139				B	1.8	1.0E-04	
11	0119	0124	0133				B	1.6	1.2E-04	
11	0354	0419	0435	S14	W47	1F	C	9.6	1.3E-02	10588
11	1851	1859	1912				B	3.3	3.3E-04	
11	1933	1941	1945				B	5.8	2.8E-04	10588
11	2015	2019	2024				B	2.4	1.1E-04	10588
11	2216	2224	2227				C	1.2	4.3E-04	10588
11	2300	2308	2314				C	1.5	7.7E-04	10588
12	0220	0225	0228	S17	W54	SF	C	2.3	5.3E-04	10588
12	0622	0626	0629				B	1.8	6.6E-05	10588
12	0739	0749	0758				C	1.0	7.6E-04	10588
12	1011	1022	1028				B	2.1	1.7E-04	
12	1222	1230	1239				C	1.3	7.5E-04	10588
12	1835	1840	1843				B	2.6	9.2E-05	10588
12	1857	1904	1913				B	2.1	1.9E-04	
12	2109	2112	2114				B	1.2	3.3E-05	
13	0528	0532	0536				B	1.5	6.7E-05	
13	1920	1944	1957				B	2.1	3.1E-04	
14	0231	0238	0244				B	2.4	1.7E-04	10591
14	0512	0517	0523				B	2.5	1.5E-04	
14	0739	0746	0750	S16	W20	SF	B	2.0	1.2E-04	10591
14	0923	0928	0933				B	3.9	1.9E-04	
14	1216	1225	1237				B	3.9	4.1E-04	10591
14	1330	1337	1343				B	3.5	2.4E-04	
14	1352	1417	1428				B	9.1	1.6E-03	10591
14	1514	1517	1522				B	3.0	1.3E-04	
15	0051	0055	0106				B	2.3	1.9E-04	10591
15	0938	0943	0947				B	3.3	1.3E-04	10591
15	1120	1126	1131				B	3.1	1.6E-04	10591
15	1637	1644	1648	S15	W38	SF	M	1.2	3.6E-03	10591
15	2159	2204	2206	S15	W42	SF	B	2.7	8.4E-05	10591
16	0023	0027	0030				B	2.4	7.1E-05	10591
16	0802	0808	0821				B	2.3	2.2E-04	10591
16	1116	1119	1122				B	1.6	5.2E-05	
16	1323	1326	1335				B	1.4	9.4E-05	
16	1915	1923	1930				B	8.6	5.0E-04	10595
16	2308	2317	2330				B	2.7	3.1E-04	10595
17	0449	0501	0506				B	3.7	3.0E-04	10595
17	1134	1142	1151				C	1.8	1.1E-03	
17	1833	1836	1838				B	1.5	3.9E-05	
18	0933	0938	0945				B	2.1	1.4E-04	
18	1416	1419	1421				B	2.9	7.7E-05	
18	1456	1459	1501				B	2.7	7.0E-05	
18	1555	1559	1621				B	9.1	1.0E-03	10596
18	1656	1659	1702				B	3.2	1.0E-04	
19	0028	0034	0037	S08	E60	SF	C	3.3	9.0E-04	10596
19	1820	1830	1840				C	4.7	2.9E-03	10596
19	2039	2043	2049				B	4.1	2.0E-04	10595
19	2223	2227	2233	S10	E47	SF	B	2.4	1.3E-04	10596
19	2339	2345	2349				B	2.6	1.5E-04	10595
20	0251	0254	0300				B	2.1	1.0E-04	10597
20	0637	0641	0645				B	2.9	1.2E-04	10594
20	0940	0951	1007				B	5.8	7.3E-04	10596
20	1223	1235	1249				B	4.2	5.4E-04	
20	1609	1630	1646	S07	E37	SF	B	5.8	1.0E-03	10596
20	2028	2033	2042				B	4.3	3.3E-04	10596
21	0240	0258	0321	S08	E30	SF	C	2.1	3.1E-03	10596
21	1450	1455	1508	S07	E24	SF	B	9.4	6.8E-04	10596
21	1601	1615	1636	S08	E24	SF	C	1.8	2.7E-03	10596
21	2009	2013	2017	S07	E22	SF	B	8.8	3.4E-04	10596

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

April 2004

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp	Xray	Flux	NOAA/ USAF Region
22	0038	0041	0043				B	3.6	9.3E-05	10596
22	0203	0219	0224	S09	E19	1N	M	1.2	4.7E-03	10596
22	1004	1008	1011				B	3.5	1.2E-04	10597
22	1557	1601	1604	S07	E11	SF	B	5.1	1.8E-04	10596
22	1643	1650	1656	S06	E09	SF	B	9.9	6.0E-04	10596
22	1819	1824	1832	S09	E10	SF	C	1.1	7.9E-04	10596
22	1906	1909	1915				B	9.8	4.7E-04	10597
22	2021	2024	2027	S09	W77	SF	B	8.0	2.5E-04	10597
22	2346	0015	0020				C	1.6	2.6E-03	10597
23	0114	0119	0124				C	1.1	5.7E-04	10597
23	0410	0413	0416				B	7.6	2.4E-04	10597
23	0450	0456	0501				C	1.9	8.6E-04	10597
23	0547	0550	0552				B	9.1	2.1E-04	10597
23	0633	0650	0701				C	1.8	2.5E-03	10597
23	0716	0719	0725				C	1.2	6.1E-04	10597
23	0743	0756	0801				C	6.1	3.7E-03	10597
23	0925	0930	0932				C	4.4	9.7E-04	10597
23	0944	0947	0952				C	3.0	1.3E-03	10597
23	1039	1044	1047				C	4.0	1.1E-03	10597
23	1141	1150	1152				M	1.5	4.3E-03	10597
23	1159	1203	1205				C	5.1	1.5E-03	10597
23	1434	1437	1440	S06	W76	SF	C	1.4	4.5E-04	10597
23	1558	1605	1611	S08	W79	SF	C	3.9	1.8E-03	10597
23	1721	1731	1734	S07	W83	SF	C	4.8	1.8E-03	10597
23	1903	1906	1910	S08	W83	SF	C	1.6	5.8E-04	10597
23	2102	2112	2114	S08	W83	SF	M	1.1	4.1E-03	10597
23	2123	2126	2129				C	2.8	8.9E-04	10597
23	2211	2216	2221	S08	W79	SF	C	1.8	8.4E-04	10597
23	2250	2254	2300				C	2.5	1.3E-03	10597
23	2329	2337	2341				C	2.9	1.4E-03	10597
24	0006	0011	0023				C	1.6	1.4E-03	10597
24	0053	0100	0102				C	2.9	9.6E-04	10597
24	0202	0208	0213				C	2.9	1.3E-03	10597
24	0543	0553	0557	S06	W90	SF	C	1.5	9.9E-04	10597
24	0646	0657	0703				C	1.2	1.2E-03	10597
24	0856	0901	0910	S06	W90	SF	C	1.3	8.6E-04	10597
24	1251	1301	1313				C	1.0	1.2E-03	10597
24	1357	1403	1417				C	1.2	1.2E-03	10597
24	1522	1527	1529				C	2.6	5.8E-04	10599
24	1531	1534	1536				C	1.4	3.6E-04	10599
24	1625	1631	1634				B	8.8	4.4E-04	10599
24	1713	1719	1723				B	9.9	4.9E-04	10599
24	1731	1735	1743				B	7.8	5.0E-04	10599
24	1839	1848	1854				B	8.3	6.6E-04	10599
24	1922	1927	1931				C	1.1	5.2E-04	10599
24	2121	2125	2129				B	6.1	2.6E-04	10597
24	2206	2211	2223	N14	E41	SF	B	7.9	6.4E-04	10599
25	0138	0144	0149	N13	E42	SF	C	9.0	3.1E-03	10599
25	0502	0537	0542	N13	E38	1N	M	2.2	1.1E-02	10599
25	0712	0717	0722				B	6.3	3.3E-04	10599
25	0902	0909	0919				C	1.2	9.1E-04	10599
25	1006	1015	1023				C	5.0	2.9E-03	10599
25	1416	1440	1501	N15	E31	SF	C	1.4	2.4E-03	10599
25	1556	1606	1629	N15	E31	SF	C	2.6	3.7E-03	10599
25	1925	1929	1934				B	4.8	2.3E-04	10599
25	2315	2319	2323				B	2.5	1.1E-04	10599
26	0052	0101	0111	N13	E29	SF	B	4.6	4.8E-04	10599
26	0229	0242	0256	N13	E28	SF	C	2.4	2.4E-03	10599
26	0536	0540	0543				B	3.6	1.2E-04	10599
26	0608	0613	0620				B	3.1	2.0E-04	10599
26	1008	1013	1019				B	3.1	1.8E-04	10599
26	1156	1200	1206				B	4.4	2.0E-04	10599
26	1330	1334	1340				B	3.1	1.4E-04	10599
26	1823	1827	1832				B	2.0	9.6E-05	
27	0000	0004	0010				B	1.7	8.9E-05	10599
27	0708	0723	0737				C	3.1	3.4E-03	10599
27	1357	1406	1417				B	6.4	6.0E-04	
27	2153	2157	2202				B	1.2	6.0E-05	
28	0447	0454	0500				B	1.4	1.0E-04	10595
28	1158	1205	1210				B	1.4	9.2E-05	10595
28	2238	2247	2253				B	4.1	3.0E-04	10596
29	0619	0626	0636				B	1.9	1.8E-04	10596
29	0926	0931	0935				B	1.3	5.6E-05	
30	0540	0547	0551				C	1.7	6.5E-04	
30	0739	0746	0751				B	2.0	1.2E-04	
30	1109	1122	1135				B	1.9	2.5E-04	
30	1255	1301	1312				B	2.7	2.1E-04	
30	1330	1333	1337				B	1.5	5.5E-05	
30	1444	1448	1501				B	1.0	9.6E-05	
30	1635	1638	1640				B	1.0	2.7E-05	
30	2203	2212	2222				B	2.2	2.0E-04	10601

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



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

NOTE: * = Data not available.

ACTIVE PROMINENCES AND FILAMENTS

APRIL 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
06	EPL	2144E	0118	S07	W90	03	31.2	3		4	4	E	HOLL		
07	DSF	1805U	1335U	S23	W40	04	4.7		22	0	0	E	HOLL		
08	DSF	0057U	1431U	N13	W19	04	6.6		08	0	0	E	HOLL		
08	DSF	1249	1331	S15	W14	04	7.5		06	0	0	E	SVTO	0588	
11	DSF	0307U	0400	S18	W50	04	7.3	3	16	0	0	E	LEAR	0588	
13	DSF	0358U	0143U	S36	W24	04	11.2		14	0	0	E	LEAR		
20	EPL	0611	0706	N11	W90	04	13.5	3		9	9	E	SVTO		
20	EPL	0640E	0706	N11	W90	04	13.5	3		9	9	E	SVTO		
23	LPS	1713	2210	S90	W07	04	23.1	3		6	7	E	HOLL	0597	
30	DSF	0820U	0559U	S26	W22	04	28.6	2	10	0	0	E	SVTO		

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.

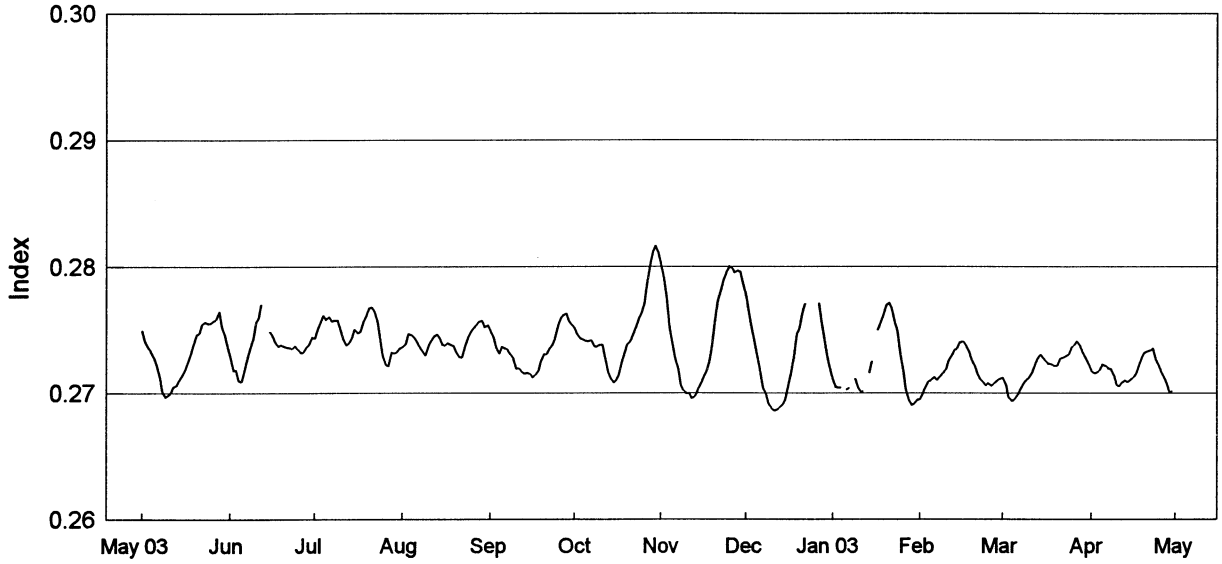
ABST = Abastumani
ATHN = Athens
BUCA = Bucharest
CATA = Catania
HOLL = Holloman
KHAR = Kharkov
LEAR = Learmonth
PALE = Palehua
RAMY = Ramey
SVTO = San Vito
VORO = Voroshilov
VALA = Valasske Mezirici
WROC = Wroclaw

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

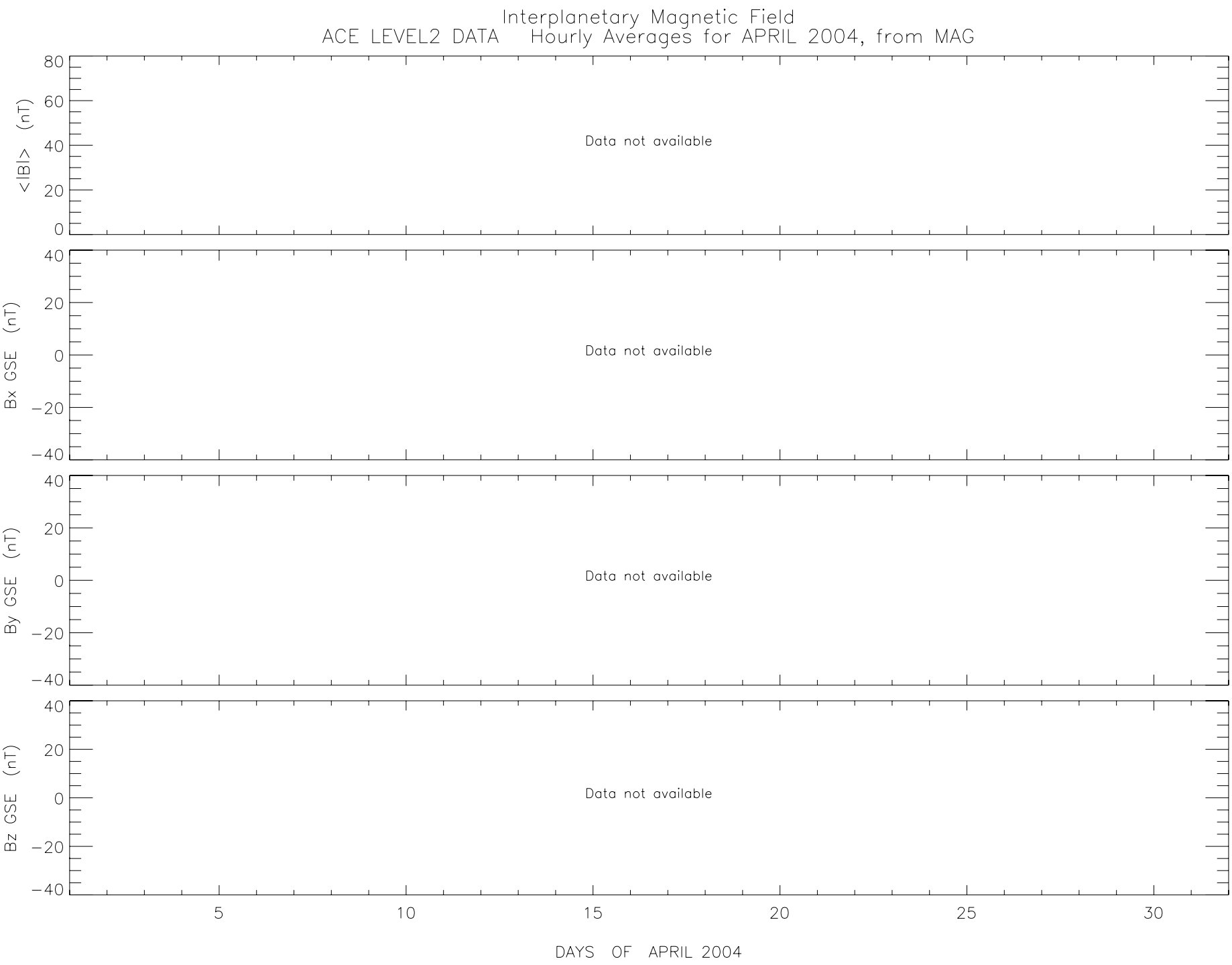
May 2003 - Apr 2004

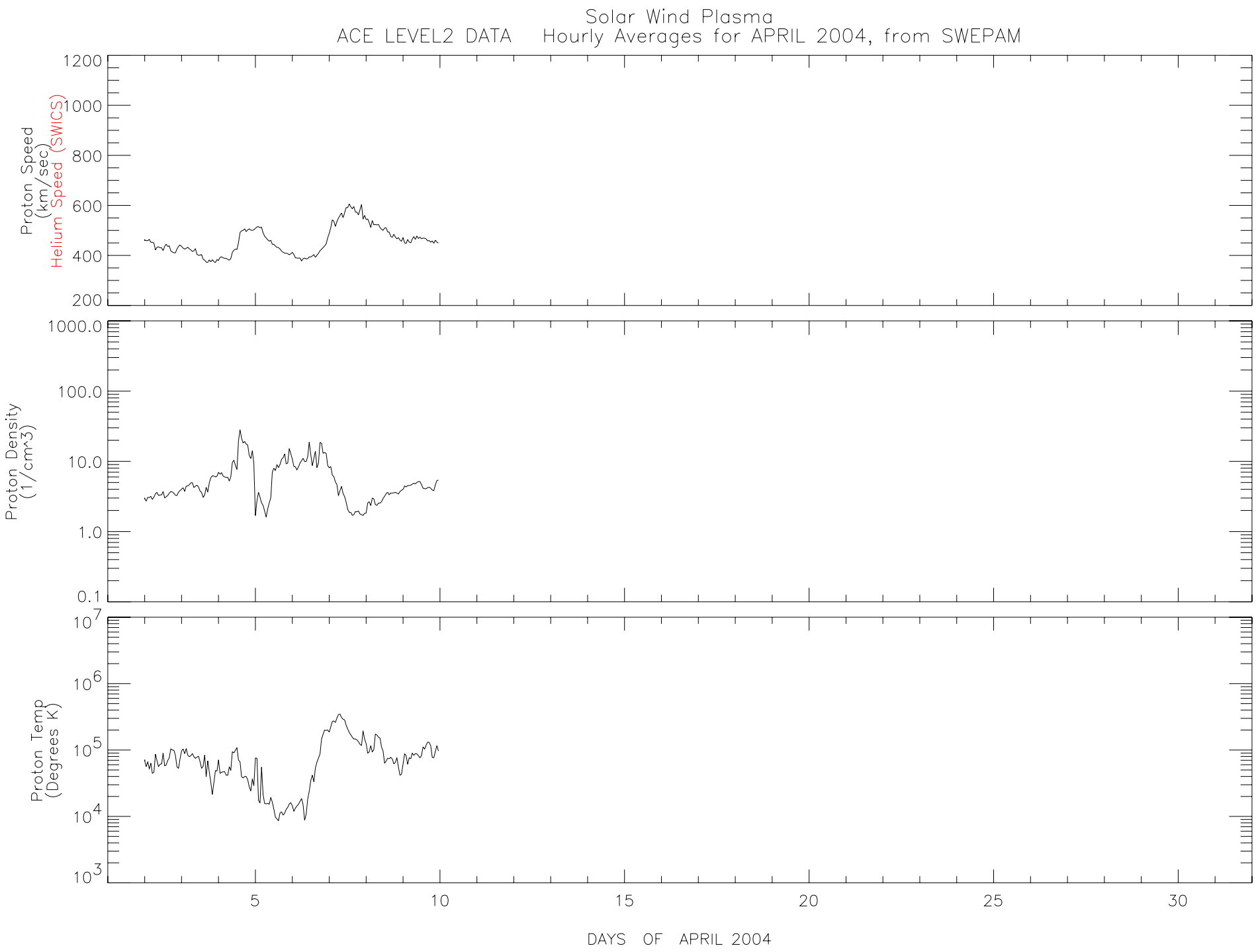
Version 9.1

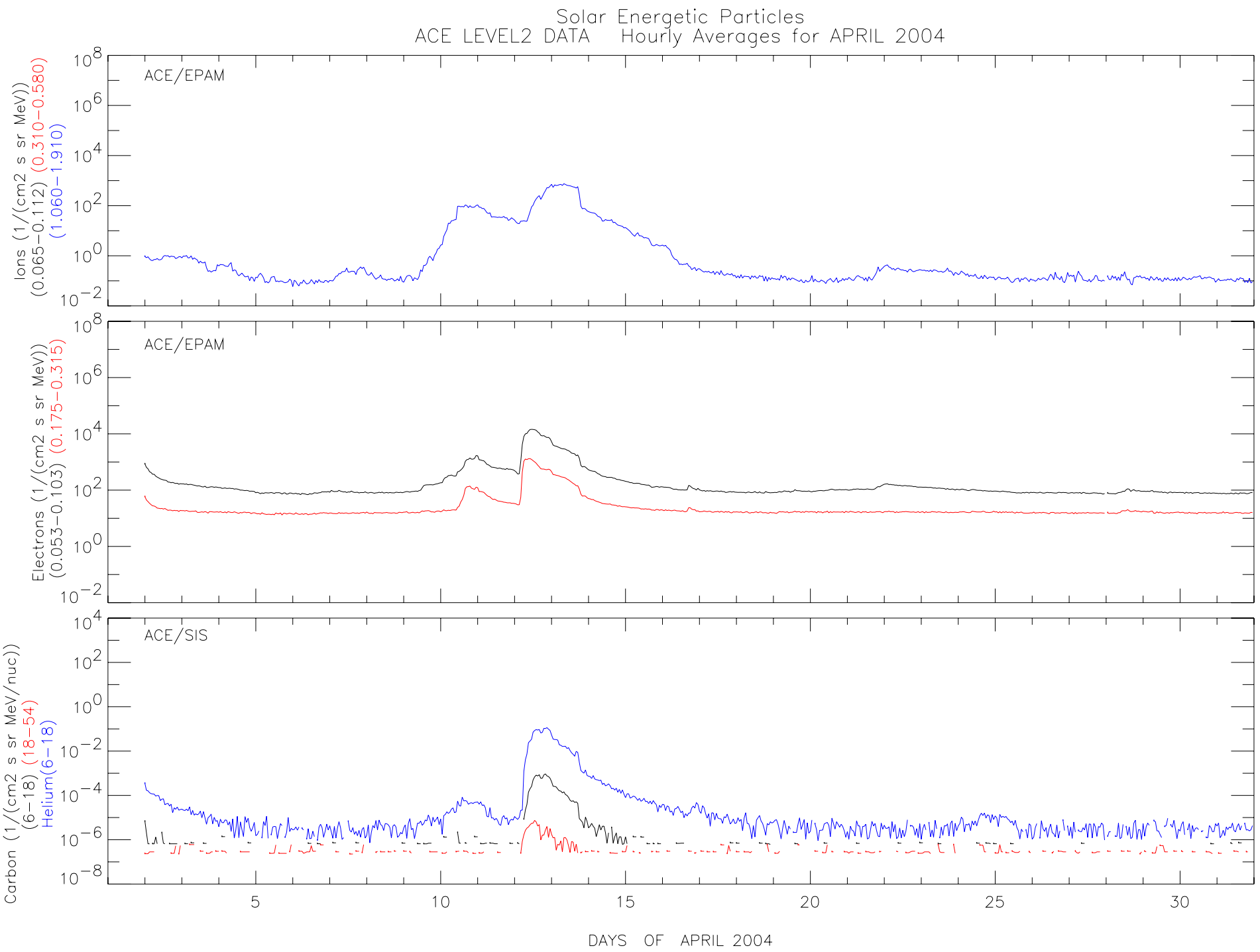


Day	May 03	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 04	Feb	Mar	Apr
1	0.2749	0.2729	0.2743	0.2736	0.2749	0.2751	0.2801	0.2777	0.2711	0.2695	0.2712	0.2717
2	0.2741	0.2718	0.2751	0.2739	0.2744	0.2746	0.2792	0.2764	0.2705	0.2699	0.2707	0.2716
3	0.2736	0.2718	0.2756	0.2747	0.2736	0.2743	0.2774	0.2750	0.2704	0.2705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

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


Interplanetary Magnetic Field
ACE LEVEL2 DATA Hourly Averages for APRIL 2004, from MAG
<|B|> (nT)
Data not available
Bx GSE (nT)
Data not available
By GSE (nT)
Data not available
Bz GSE (nT)
Data not available
80
60
40
20
0
40
20
0
−20
−40
5
10
15
20
25
30
DAYS OF APRIL 2004


Solar Wind Plasma
ACE LEVEL2 DATA Hourly Averages for APRIL 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 APRIL 2004


Solar Energetic Particles
ACE LEVEL2 DATA Hourly Averages for APRIL 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 APRIL 2004