

OCTOBER 2006 NUMBER 746 - Part II



# Solar-Geophysical Data comprehensive reports

Data for April 2006 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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World-Wide Web <http://www.ngdc.noaa.gov>  
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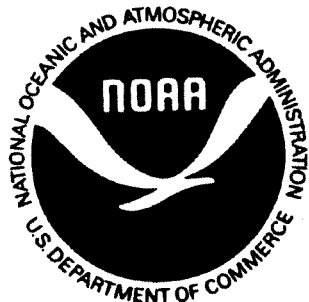
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NATIONAL OCEANIC AND  
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NATIONAL ENVIRONMENTAL SATELLITE,  
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NATIONAL GEOPHYSICAL  
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OCTOBER 2006 NUMBER 746 - Part II

# **Solar-Geophysical Data comprehensive reports**

Data for April 2006 and Late Data

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**NATIONAL GEOPHYSICAL DATA CENTER**

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Boulder, Colorado

Subscription information is on the inside back cover.

# SOLAR-GEOPHYSICAL DATA

Number 746  
(Issued in Two Parts)

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<b>ACE SOLAR WIND, INTERPLANETARY MAGNETIC FIELD AND PARTICLES</b>	
<b>-- MONTHLY PLOTS</b>	

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The entry "740A 40" under Feb, for example, means that the sunspot drawings for Feb appear in SOLAR-GEOPHYSICAL DATA No. 740 Part I, and that they begin on page 40 "A" denotes Part I and "B", Part II. Blanks indicate data not yet received and dashes mark unavailable data.

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6  
Apr 06

H $\alpha$  SOLAR FLARES

APRIL 2006

Grp #	Sta	Start Day (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Imp (Min)	Opt Xray	Obs See	Type	Area Measurement		Remarks
														Time (UT)	Apparent (10-6 Disk)	
0009	HOLL	26	1349	1353	1417	S10 E38	10875	04	29.4	28	SF	3	E	54		EF
0010	HOLL	26	1436	1454	1524	S07 E39	10875	04	29.5	48	SF	3	E	92		EF
0011	HOLL	26	1702	1702	1733	S11 E38	10875	04	29.6	31	1F	3	E	140		EF
		26	1848		1854	No Flare	Patrol									
		26	1922		1927	No Flare	Patrol									
		26	1934		1942	No Flare	Patrol									
		26	1954		2001	No Flare	Patrol									
		27	0046		0107	No Flare	Patrol									
		27	0136		0930	No Flare	Patrol									
		27	0951		1238	No Flare	Patrol									
		27	1511		1539	No Flare	Patrol									
0012	HOLL	27	1547	1550	1653	S11 E21	10875	04	29.2	66	1N	3	E	233		FZ
0013	LEAR	28	0822	0822	0839	S07 E16	10875	04	29.5	17	SF	3	E	11		FU
		28	0951		1307	No Flare	Patrol									
		28	1533		1541	No Flare	Patrol									
		28	1920		1924	No Flare	Patrol									
		28	2058		2109	No Flare	Patrol									
		28	2137		2209	No Flare	Patrol									
		28	2223		2228	No Flare	Patrol									
		28	2236		2249	No Flare	Patrol									
		29	0951		1234	No Flare	Patrol									
		29	1249		1309	No Flare	Patrol									
		29	1339		1454	No Flare	Patrol									
		29	1701		1705	No Flare	Patrol									
0014	HOLL	29	1834	1834	1839	S05 W05	10875	04	29.4	5	SF	3	E	11		F
0015	LEAR	30	0203E	0203U	0209	N15 E71	0878	05	5.5	6D	SF	3	E	37		FH
0016	LEAR	30	0917	0926	0939	S10 E09	10876	05	1.1	22	SF	3	E	42		FU
		30	0950		1234	No Flare	Patrol									

"Remarks"

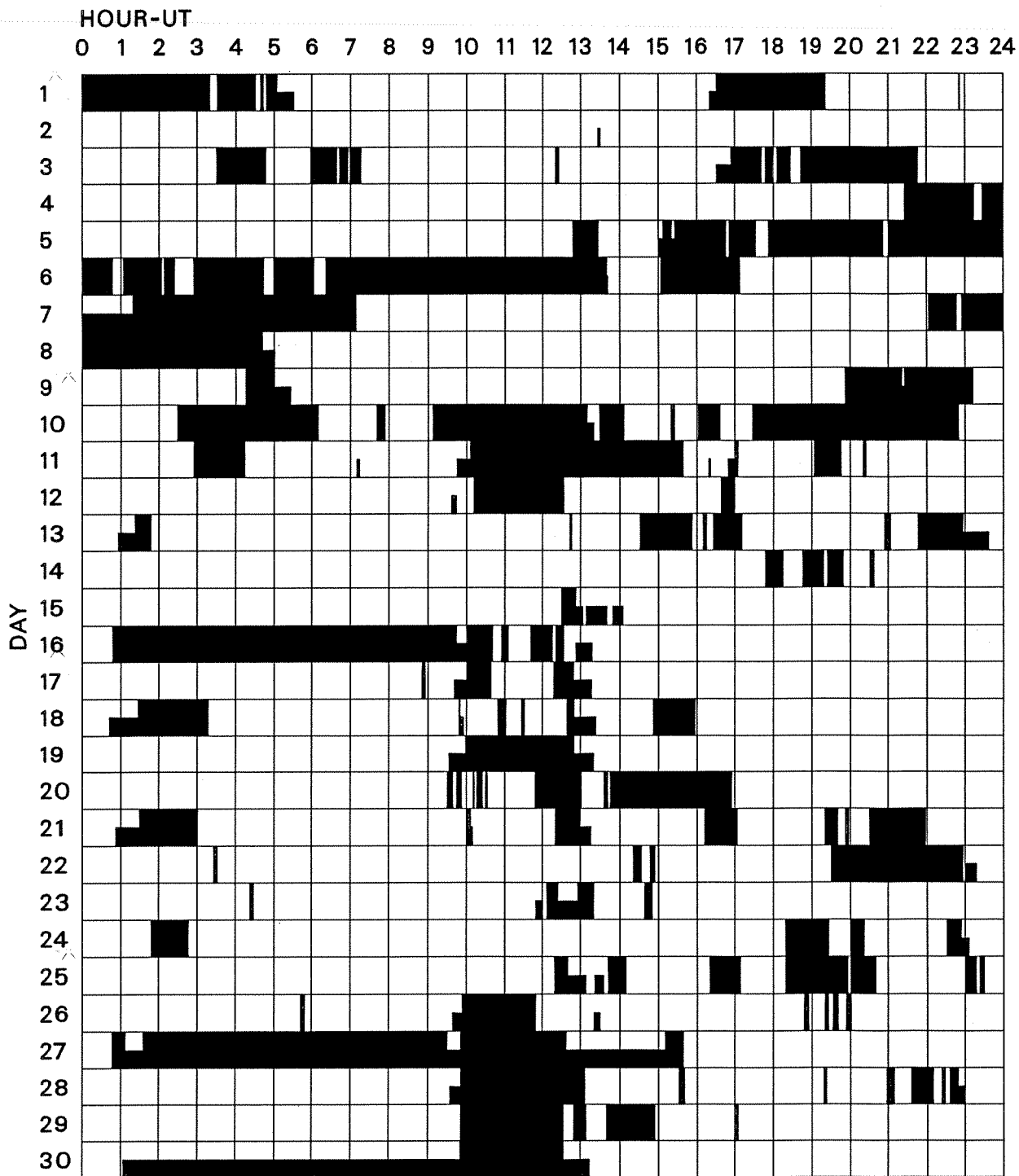
- |   |   |
|---|---|
| <p>A = Eruptive prominence whose base is less than 90 degrees from central meridian.<br/>         B = Probably the end of a more important flare.<br/>         C = Invisible 10 minutes before.<br/>         D = Brilliant point.<br/>         E = Two or more brilliant points.<br/>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

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



# INTERVALS OF NO FLARE PATROL OBSERVATION FOR PRECEDING SOLAR FLARE TABLE

APRIL 2006



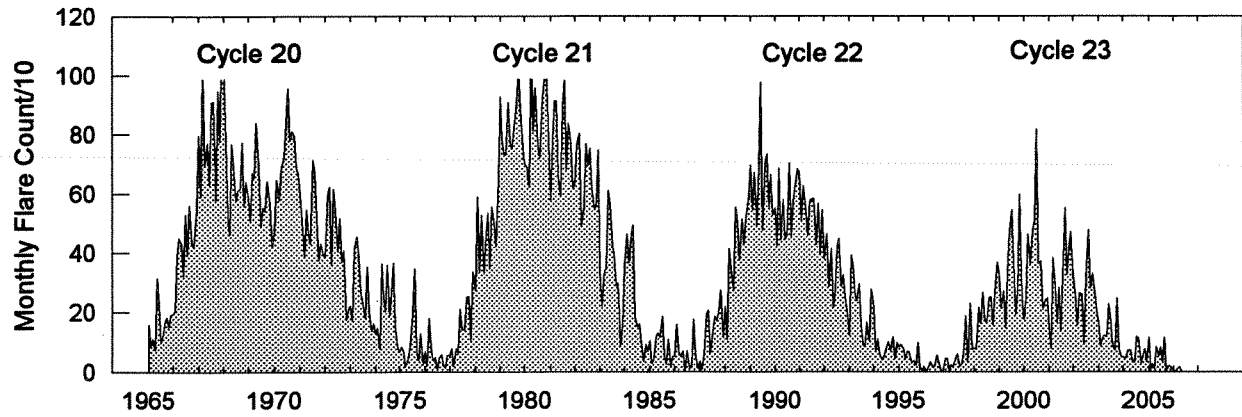
Times of no flare patrol, shown here as shaded areas, combine reports from the stations listed below. Portions of a panel completely shaded mark dates and times of no patrol of any kind (neither visual or cinematographic); portions of a panel with only the bottom half shaded mark times of only visual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

Holloman  
Kanzelhoehe

Learmonth

San Vito

## Monthly Counts of Grouped Solar Flares Jan 1965 - Apr 2006



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1965	158	85	110	74	315	231	99	127	173	184	150	193	1899
1966	194	205	390	449	429	323	528	391	558	432	417	543	4859
1967	796	589	1009	694	771	629	907	911	573	946	775	1109	9709
1968	1037	773	519	460	768	697	573	611	616	772	556	640	8022
1969	581	504	669	655	839	694	489	551	540	643	566	422	7153
1970	466	646	578	688	722	836	954	780	811	797	687	667	8632
1971	598	505	387	546	461	430	713	673	518	375	431	394	6031
1972	384	599	621	361	614	541	404	515	371	408	175	210	5203
1973	221	171	410	453	388	270	232	182	353	201	136	163	3180
1974	127	148	79	364	255	204	360	187	270	366	153	81	2594
1975	68	82	69	19	42	85	196	346	68	38	127	25	1165
1976	69	18	180	60	38	48	6	47	57	23	13	55	614
1977	54	77	18	76	64	210	140	140	250	252	107	336	1724
1978	274	588	338	526	330	460	533	346	554	499	418	648	5514
1979	926	781	731	731	907	772	750	821	901	1018	888	786	10012
1980	703	689	621	1092	811	956	763	720	924	988	1027	838	10132
1981	578	782	914	915	658	592	893	982	680	836	773	615	9218
1982	631	766	803	490	553	769	696	753	615	544	564	748	7932
1983	332	220	337	346	609	561	427	389	289	298	88	152	4048
1984	353	461	366	440	492	185	151	161	95	36	92	69	2901
1985	104	29	38	119	129	116	185	53	25	108	19	50	975
1986	51	158	54	56	68	3	71	12	14	174	56	13	730
1987	36	7	52	192	205	61	132	185	172	198	273	114	1627
1988	217	109	413	328	274	551	502	375	513	429	518	587	4816
1989	695	544	672	488	691	977	474	699	733	547	665	526	7711
1990	550	424	684	442	580	445	454	703	449	574	623	682	6610
1991	672	503	625	570	458	574	582	581	425	565	396	544	6495
1992	380	462	287	412	214	271	413	447	287	325	248	206	3952
1993	123	392	357	262	237	296	154	92	82	167	104	275	2541
1994	217	67	111	60	40	56	81	101	72	117	45	99	1066
1995	82	95	77	42	69	66	29	37	23	99	14	6	639
1996	14	3	15	34	21	16	54	31	3	0	44	45	280
1997	8	22	18	43	59	18	26	75	188	31	228	74	790
1998	78	76	216	161	264	177	164	248	249	155	268	367	2423
1999	330	212	271	145	330	466	544	368	192	264	598	243	3963
2000	175	248	462	362	473	505	818	364	372	208	241	246	4474
2001	147	77	383	284	164	282	137	376	549	325	405	468	3597
2002	318	261	155	263	259	91	318	474	280	329	279	196	3223
2003	164	87	112	122	117	226	181	94	73	245	78	53	1552
2004	49	47	71	72	32	33	118	112	30	54	76	34	728
2005	114	10	28	11	82	56	81	35	114	4	20	16	571
2006	4	0	11	16									31

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

9  
Apr 06

APRIL 2006

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 -22 W/m 2 Hz)	Mean			
01	127	TORN	43 NS	0830.0		310.0		2.0		V=0	
	245	LEAR	43 NS	2346.0	0239.0	386.0	120.0			QL=4 ST=2 TYP=1	
	245	PALE	8 S	0114.0	0114.0	U	150.0			QL=4 ST=2 TYP=3	
	245	LEAR	8 S	0115.0	0115.0	1.0	140.0			QL=2 ST=2 TYP=3	
	245	LEAR	8 S	0115.0	0115.0U	1.0	140.0			QL=2 ST=2 TYP=3	
	245	LEAR	8 S	0115.0	0115.0U	1.0	140.0			QL=2 ST=3 TYP=3	
02	245	SVTO	8 S	1009.0	1009.0	U	100.0			QL=4 ST=2 TYP=3	
	245	SVTO	8 S	1012.0	1012.0	U	56.0			QL=4 ST=2 TYP=3	
	245	SGMR	8 S	1331.0	1331.0	1.0	190.0			QL=4 ST=2 TYP=3	
	245	SVTO	8 S	1331.0	1332.0	1.0	210.0			QL=4 ST=2 TYP=3	
	410	SGMR	8 S	1332.0	1332.0	U	25.0			QL=4 ST=2 TYP=3	
	610	SGMR	8 S	1332.0	1332.0	U	34.0			QL=4 ST=2 TYP=3	
	410	SVTO	8 S	1332.0	1332.0	U	38.0			QL=4 ST=2 TYP=3	
	245	SGMR	8 S	1410.0	1411.0	1.0	76.0			QL=4 ST=2 TYP=3	
	245	SVTO	8 S	1410.0	1411.0	1.0	88.0			QL=4 ST=2 TYP=3	
	245	SGMR	8 S	1432.0	1432.0	U	130.0			QL=4 ST=2 TYP=3	
	245	SVTO	8 S	1432.0	1432.0	U	120.0			QL=4 ST=2 TYP=3	
	245	PALE	8 S	1844.0	1846.0	2.0	91.0			QL=4 ST=2 TYP=3	
	245	SGMR	8 S	1846.0	1846.0	U	84.0			QL=4 ST=2 TYP=3	
	245	PALE	4 S/F	1951.0	1956.0	5.0	150.0			QL=4 ST=2 TYP=3	
	245	SGMR	8 S	2011.0	2011.0	U	93.0			QL=4 ST=2 TYP=3	
245	LEAR	8 S	2355.0	2355.0	U	89.0			QL=4 ST=2 TYP=3		
03	127	TORN	43 NS	0712.0		468.0		5.0		V=1	
	410	LEAR	8 S	0119.0	0119.0	U	54.0			QL=4 ST=2 TYP=3	
	410	LEAR	8 S	0221.0	0221.0	U	150.0			QL=4 ST=2 TYP=3	
	245	SVTO	8 S	1014.0	1014.0	U	60.0			QL=4 ST=2 TYP=3	
	410	SVTO	8 S	1014.0	1014.0	U	25.0			QL=4 ST=2 TYP=3	
	610	SVTO	8 S	1025.0	1025.0	U	360.0			QL=2 ST=2 TYP=3	
	410	SVTO	4 S/F	1025.0	1025.0	3.0	130.0			QL=4 ST=2 TYP=3	
	245	SVTO	8 S	1027.0	1027.0	U	180.0			QL=4 ST=2 TYP=3	
	245	SGMR	8 S	1201.0	1202.0	1.0	120.0			QL=4 ST=2 TYP=3	
	410	SGMR	8 S	1201.0	1202.0	1.0	140.0			QL=4 ST=2 TYP=3	
	245	SVTO	8 S	1201.0	1202.0	2.0	140.0			QL=4 ST=2 TYP=3	
	410	SVTO	8 S	1201.0	1202.0	1.0	200.0			QL=4 ST=2 TYP=3	
	2695	SGMR	8 S	1202.0	1202.0	U	38.0			QL=4 ST=2 TYP=3	
	4995	SGMR	8 S	1202.0	1202.0	U	33.0			QL=4 ST=2 TYP=3	
	2695	SVTO	8 S	1202.0	1202.0	U	24.0			QL=4 ST=2 TYP=3	
	4995	SVTO	8 S	1202.0	1202.0	U	37.0			QL=4 ST=2 TYP=3	
	245	SGMR	8 S	1222.0	1222.0	1.0	66.0			QL=4 ST=2 TYP=3	
	410	SGMR	8 S	1222.0	1222.0	1.0	160.0			QL=4 ST=2 TYP=3	
	245	SVTO	8 S	1222.0	1222.0	1.0	74.0			QL=4 ST=2 TYP=3	
	410	SVTO	8 S	1222.0	1222.0	1.0	180.0			QL=4 ST=2 TYP=3	
	33	UPIC	45 C	1222.5	1223.5	1.5					
	610	SGMR	8 S	1430.0	1430.0	U	130.0				QL=4 ST=2 TYP=3
	610	SVTO	8 S	1430.0	1430.0	U	140.0				QL=2 ST=2 TYP=3
	610	SVTO	8 S	1623.0	1623.0	U	52.0				QL=2 ST=2 TYP=3
	410	SVTO	49 GB	1624.0	1624.0	U	670.0				QL=4 ST=2 TYP=6
	245	SVTO	8 S	1624.0	1624.0	1.0	370.0				QL=4 ST=2 TYP=3
	2800	PENT	20 GRF	2102.0	2300.0	118.0	7.0				
245	PALE	8 S	2145.0	2145.0	2.0	150.0				QL=4 ST=2 TYP=3	
245	PALE	8 S	2152.0	2152.0	U	390.0				QL=4 ST=2 TYP=3	
04	127	TORN	43 NS	0830.0		390.0		9.0		V=2	
	245	SGMR	43 NS	1911.0	2035.0	104.0	190.0			QL=4 ST=2 TYP=1	
	245	PALE	43 NS	1949.0	2035.0	56.0	180.0			QL=4 ST=2 TYP=1	
	245	PALE	43 NS	2201.0	0400.0	390.0	190.0			QL=4 ST=2 TYP=1	
	245	LEAR	43 NS	2344.0	2344.0	16.0	67.0			QL=4 ST=3 TYP=1	
	245	LEAR	43 NS	2344.0	2344.0	16.0	97.0			QL=4 ST=3 TYP=1	
	245	LEAR	43 NS	2344.0	0351.0	494.0	140.0			QL=4 ST=2 TYP=1	
	245	PALE	8 S	0358.0	0358.0	U	81.0			QL=4 ST=2 TYP=3	
	245	SGMR	8 S	1158.0	1158.0	U	53.0			QL=4 ST=2 TYP=3	
	33	UPIC	45 C	1500.5	1501.0	1.5					
	245	SGMR	8 S	1554.0	1555.0	1.0	490.0				QL=4 ST=2 TYP=3
	410	SGMR	8 S	1555.0	1555.0	U	32.0				QL=4 ST=2 TYP=3
	245	SGMR	8 S	1600.0	1601.0	2.0	100.0				QL=4 ST=2 TYP=3
	245	SGMR	8 S	1832.0	1832.0	U	67.0				QL=4 ST=2 TYP=3
	245	SGMR	8 S	1911.0	1911.0	2.0	75.0				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

APRIL 2006

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 -22 W/m 2 Hz)	Mean			
04	245	SGMR	8 S	1911.0	1911.0	2.0	75.0			QL=4 ST=3 TYP=3	
			8 S	1926.0	1926.0	U	71.0			QL=4 ST=2 TYP=3	
	245	SGMR	8 S	1926.0	1926.0	U	71.0			QL=4 ST=3 TYP=3	
			8 S	1941.0	1942.0	1.0	130.0			QL=4 ST=2 TYP=3	
	245	SGMR	8 S	1941.0	1942.0	1.0	130.0			QL=4 ST=2 TYP=3	
			8 S	1941.0	1942.0	1.0	130.0			QL=4 ST=3 TYP=3	
	245	LEAR	8 S	2255.0	2255.0	U	100.0			QL=4 ST=2 TYP=3	
	245	LEAR	8 S	2317.0	2317.0	U	89.0			QL=4 ST=2 TYP=3	
245	LEAR	8 S	2319.0	2319.0	U	160.0			QL=4 ST=2 TYP=3		
05	127	TORN	44 NS	0650.0E		490.0D		5.0		V=2	
	245	SGMR	43 NS	1322.0	1322.0	54.0	53.0			QL=4 ST=2 TYP=1	
			43 NS	1721.0	1834.0	138.0	150.0			QL=4 ST=2 TYP=1	
	410	LEAR	8 S	0127.0	0127.0	U	64.0			QL=4 ST=2 TYP=3	
	245	SVTO	8 S	0535.0	0535.0	U	65.0			QL=4 ST=2 TYP=3	
	245	SVTO	8 S	0551.0	0551.0	U	56.0			QL=4 ST=2 TYP=3	
	245	SVTO	8 S	0654.0	0654.0	U	55.0			QL=4 ST=2 TYP=3	
	245	LEAR	8 S	0830.0	0830.0	U	54.0			QL=4 ST=2 TYP=3	
	245	LEAR	8 S	0924.0	0924.0	U	63.0			QL=4 ST=2 TYP=3	
			8 S	0924.0	0924.0	U	51.0			QL=4 ST=2 TYP=3	
	245	SVTO	8 S	0937.0	0938.0	2.0	110.0			QL=4 ST=2 TYP=3	
	245	LEAR	8 S	0946.0	0947.0	1.0	90.0			QL=4 ST=2 TYP=3	
	245	SVTO	4 S/F	0946.0	0947.0	3.0	71.0			QL=4 ST=2 TYP=3	
	245	LEAR	8 S	0952.0	0952.0	1.0	52.0			QL=4 ST=2 TYP=3	
	245	LEAR	8 S	0956.0	0956.0	U	63.0			QL=4 ST=2 TYP=3	
	245	SGMR	8 S	1116.0	1118.0	2.0	52.0			QL=4 ST=2 TYP=3	
	245	SVTO	8 S	1118.0	1118.0	U	60.0			QL=4 ST=2 TYP=3	
	245	SVTO	8 S	1203.0	1203.0	U	50.0			QL=4 ST=2 TYP=3	
	245	SVTO	8 S	1236.0	1236.0	U	51.0			QL=4 ST=2 TYP=3	
	245	SGMR	8 S	1245.0	1245.0	U	71.0			QL=4 ST=2 TYP=3	
	245	SVTO	48 C	1259.0	1301.0	5.0	77.0			QL=4 ST=2 TYP=8	
	245	SGMR	8 S	1301.0	1301.0	1.0	69.0			QL=4 ST=2 TYP=3	
	245	SVTO	8 S	1316.0	1316.0	U	61.0			QL=4 ST=2 TYP=3	
	245	SVTO	8 S	1416.0	1416.0	U	72.0			QL=4 ST=2 TYP=3	
	2800	PENT	1 S	1519.0	1519.0	6.0	6.0				
	245	SVTO	8 S	1519.0	1519.0	U	68.0				QL=4 ST=2 TYP=3
	245	SVTO	8 S	1527.0	1527.0	U	82.0				QL=4 ST=2 TYP=3
	245	SGMR	8 S	1541.0	1541.0	U	58.0				QL=4 ST=2 TYP=3
	245	SVTO	8 S	1541.0	1541.0	U	57.0				QL=4 ST=2 TYP=3
	245	SGMR	8 S	1606.0	1606.0	U	50.0				QL=4 ST=2 TYP=3
	245	SVTO	8 S	1606.0	1606.0	U	51.0				QL=4 ST=2 TYP=3
	245	SGMR	8 S	1612.0	1612.0	U	81.0				QL=4 ST=2 TYP=3
	245	SVTO	8 S	1612.0	1612.0	U	70.0				QL=4 ST=2 TYP=3
245	PALE	4 S/F	1721.0	1722.0	4.0	85.0				QL=4 ST=2 TYP=3	
245	PALE	8 S	1727.0	1727.0	U	94.0				QL=4 ST=2 TYP=3	
610	PALE	8 S	1948.0	1948.0	U	380.0				QL=4 ST=2 TYP=3	
610	SGMR	8 S	1948.0	1948.0	U	200.0				QL=4 ST=2 TYP=3	
245	PALE	8 S	2032.0	2032.0	U	63.0				QL=4 ST=2 TYP=3	
245	SGMR	8 S	2032.0	2032.0	U	51.0				QL=4 ST=2 TYP=3	
245	PALE	8 S	2106.0	2106.0	U	58.0				QL=4 ST=2 TYP=3	
610	PALE	8 S	2106.0	2106.0	U	72.0				QL=4 ST=2 TYP=3	
245	SGMR	8 S	2106.0	2106.0	1.0	54.0				QL=4 ST=2 TYP=3	
245	SGMR	8 S	2106.0	2106.0	1.0	54.0				QL=4 ST=3 TYP=3	
610	SGMR	8 S	2106.0	2106.0	1.0	50.0				QL=4 ST=2 TYP=3	
610	SGMR	8 S	2106.0	2106.0	1.0	50.0				QL=4 ST=3 TYP=3	
245	LEAR	49 GB	2341.0	2341.0	1.0	510.0				QL=4 ST=2 TYP=6	
245	PALE	49 GB	2341.0	2342.0	1.0	2500.0				QL=4 ST=2 TYP=6	
06	127	TORN	44 NS	0650.0E		490.0D		4.0		V=1	
	245	SGMR	43 NS	1113.0	1900.0	467.0	81.0			QL=4 ST=2 TYP=1	
			43 NS	1310.0	1315.0	193.0	100.0			QL=4 ST=2 TYP=1	
	245	SGMR	43 NS	1743.0	1743.0	52.0	64.0			QL=4 ST=2 TYP=1	
	245	LEAR	43 NS	2248.0	2257.0	72.0	57.0			QL=4 ST=1 TYP=1	
	245	LEAR	43 NS	2248.0	2303.0	72.0	87.0			QL=4 ST=1 TYP=1	
	245	LEAR	43 NS	2248.0	2347.0	72.0	110.0			QL=4 ST=1 TYP=1	
	245	PALE	8 S	0144.0	0144.0	U	140.0			QL=4 ST=2 TYP=3	
	245	PALE	8 S	0312.0	0312.0	U	100.0			QL=4 ST=2 TYP=3	
	900	GORK	46 C	0526.2	0532.0		12.0				
	900	GORK	46 C	0526.2	0527.1	8.5	168.0				

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

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Apr 06

APRIL 2006

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak	Mean		
							(10 -22 W/m <sup>2</sup> Hz)			
06	15400	SVTO	4 S/F	0528.0	0531.0	4.0	120.0			QL=4 ST=2 TYP=3
	2695	SVTO	4 S/F	0529.0	0532.0	3.0	60.0			QL=4 ST=2 TYP=3
	2695	LEAR	8 S	0531.0	0532.0	1.0	65.0			QL=4 ST=2 TYP=3
	2695	LEAR	8 S	0531.0	0532.0	1.0	65.0			QL=4 ST=3 TYP=3
	8800	LEAR	8 S	0531.0	0532.0	1.0	96.0			QL=4 ST=2 TYP=3
	15400	LEAR	8 S	0531.0	0532.0	1.0	140.0			QL=4 ST=2 TYP=3
	4995	SVTO	8 S	0531.0	0531.0	1.0	47.0			QL=4 ST=2 TYP=3
	8800	SVTO	8 S	0531.0	0531.0	1.0	77.0			QL=4 ST=2 TYP=3
	4995	LEAR	8 S	0532.0	0532.0	U	56.0			QL=4 ST=2 TYP=3
	4995	LEAR	8 S	0532.0	0532.0	U	56.0			QL=4 ST=3 TYP=3
	245	SGMR	8 S	1240.0	1240.0	U	110.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1244.0	1244.0	U	53.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1257.0	1257.0	U	55.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1907.0	1907.0	U	59.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1938.0	1938.0	U	78.0			QL=4 ST=2 TYP=3
	4995	SGMR	8 S	2037.0	2038.0	2.0	110.0			QL=4 ST=2 TYP=3
	2695	PALE	8 S	2038.0	2038.0	1.0	100.0			QL=4 ST=2 TYP=3
	4995	PALE	8 S	2038.0	2038.0	1.0	110.0			QL=4 ST=2 TYP=3
	8800	PALE	8 S	2038.0	2038.0	U	52.0			QL=4 ST=2 TYP=3
	1415	SGMR	8 S	2038.0	2038.0	U	21.0			QL=4 ST=2 TYP=3
	2695	SGMR	8 S	2038.0	2038.0	1.0	99.0			QL=4 ST=2 TYP=3
	8800	SGMR	8 S	2038.0	2038.0	1.0	53.0			QL=4 ST=2 TYP=3
	15400	SGMR	8 S	2038.0	2038.0	U	33.0			QL=4 ST=2 TYP=3
	2800	PENT	1 S	2038.0	2204.0	90.0	92.0			
	245	PALE	8 S	2058.0	2058.0	U	62.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	2058.0	2058.0	U	54.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	2224.0	2224.0	U	99.0			QL=4 ST=2 TYP=3
	410	PALE	8 S	2237.0	2237.0	U	63.0			QL=4 ST=2 TYP=3
	410	PALE	8 S	2313.0	2313.0	U	280.0			QL=4 ST=2 TYP=3
	410	PALE	8 S	2339.0	2339.0	1.0	110.0			QL=4 ST=2 TYP=3
07	127	TORN	43 NS	0850.0		370.0		6.0		V=2
	245	LEAR	43 NS	2248.0	2347.0	567.0	120.0			QL=4 ST=2 TYP=1
	245	SVTO	8 S	0615.0	0615.0	1.0	53.0			QL=4 ST=2 TYP=3
	33	UPIC	45 C	1204.0	1205.0	1.5				
	245	SGMR	8 S	1853.0	1853.0	U	58.0			QL=4 ST=2 TYP=3
	245	PALE	49 GB	2001.0	2001.0	U	520.0			QL=4 ST=2 TYP=6
	245	SGMR	8 S	2001.0	2001.0	U	380.0			QL=4 ST=2 TYP=3
245	PALE	49 GB	2042.0	2043.0	1.0	550.0			QL=4 ST=2 TYP=6	
08	127	TORN	43 NS	0755.0		420.0		4.0		V=1
	245	LEAR	8 S	0317.0	0317.0	U	94.0			QL=4 ST=2 TYP=3
10	127	TORN	43 NS	1005.0		215.0		2.0		V=1
11	610	LEAR	8 S	0437.0	0437.0	1.0	220.0			QL=4 ST=2 TYP=3
	610	LEAR	8 S	0437.0	0437.0	1.0	220.0			QL=4 ST=3 TYP=3
	1415	LEAR	8 S	0438.0	0438.0	U	150.0			QL=4 ST=2 TYP=3
	1415	LEAR	8 S	0438.0	0438.0	U	150.0			QL=4 ST=3 TYP=3
	2695	LEAR	8 S	0438.0	0438.0	U	69.0			QL=4 ST=2 TYP=3
	2695	LEAR	8 S	0438.0	0438.0	U	69.0			QL=4 ST=3 TYP=3
	2800	PENT	20 GRF	1818.0	1849.0	214.0	16.0			
12	33	UPIC	2 S/F	1432.5	1433.0	1.5				
18	15400	SGMR	8 S	1305.0	1305.0	U	22.0			QL=4 ST=2 TYP=3
21	245	LEAR	8 S	0734.0	0734.0	U	72.0			QL=4 ST=2 TYP=3
	410	LEAR	48 C	0753.0	0815.0	35.0	98.0			QL=4 ST=2 TYP=8
	410	LEAR	48 C	0753.0	0815.0	967.0	98.0			QL=4 ST=1 TYP=8
24	4995	LEAR	8 S	0701.0	0701.0	U	64.0			QL=4 ST=2 TYP=3
25	900	GORK	46 C	0631.0	0641.0	44.0	64.0			
	900	GORK	46 C	0631.0	0641.5		70.0			
	900	GORK	46 C	0631.0	0644.8		32.0			
	9100	GORK	7 C	0640.0	0641.5		8.0			
	9100	GORK	7 C	0640.0	0640.7	2.0	11.0			

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

APRIL 2006

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
26	245	LEAR	8 S	0558.0	0558.0	U	68.0			QL=4 ST=2 TYP=3
	9500	CUBA	22 GRF	1341.0	1453.0	113.0	28.0	14.0		
	6700	CUBA	42 SER	1344.3	1355.0	84.7	28.0	14.0		
	6700	CUBA	21 GRF	1652.0	1704.0	44.0	28.0	14.0		
	9500	CUBA	21 GRF	1653.0	1717.0	35.0	13.0	6.0		
	6700	CUBA	4 S/F	1653.6	1658.1	8.4	70.0	35.0		
	9500	CUBA	4 S/F	1653.8	1658.1	19.7	26.0	13.0		
	4995	PALE	4 S/F	1655.0	1656.0	4.0	64.0			QL=4 ST=2 TYP=3
	6700	CUBA	20 GRF	1817.0	1823.0	29.0	10.0	5.0		
	9500	CUBA	20 GRF	1818.0	1823.0	34.0	10.0	5.0		
	2800	PENT	20 GRF	2046.0	2059.0	72.0	16.0			
	6700	CUBA	2 S/F	2057.9	2059.5	4.1	29.0	14.0		
9500	CUBA	1 S	2058.4	2059.5	1.6	18.0	9.0			
27	245	LEAR	8 S	0909.0	0909.0	U	80.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0909.0	0909.0	U	80.0			QL=4 ST=3 TYP=3
	6700	CUBA	28 PRE	1522.9	1544.9	22.0	17.0	8.0		
	2800	PENT	20 GRF	1533.0	1547.0	93.0	25.0			
	6700	CUBA	46 C	1545.1	1547.2	17.2	158.0	79.0		
	9500	CUBA	46 C	1545.3	1559.1	13.8	67.0	33.0		
	4995	SVTO	4 S/F	1546.0	1547.0	8.0	98.0			QL=4 ST=2 TYP=3
	8800	SVTO	4 S/F	1546.0	1547.0	9.0	82.0			QL=4 ST=2 TYP=3
	33	UPIC	32 ABS	1549.0	1551.0	11.0				
	9500	CUBA	29 PBI	1559.9	1559.9	31.4	84.0	42.0		
	6700	CUBA	29 PBI	1602.3	1602.3	64.9	43.0	21.0		
	28	127	TORN	44 NS	0630.0E		510.0D		3.0	
245		SVTO	8 S	0858.0	0858.0	U	53.0			QL=4 ST=2 TYP=3
245		LEAR	8 S	0859.0	0859.0	U	62.0			QL=4 ST=2 TYP=3
33		UPIC	46 C	0953.0	0954.5	3.0				
245		SVTO	8 S	1219.0	1219.0	U	75.0			QL=4 ST=2 TYP=3
410		LEAR	8 S	2328.0	2329.0	1.0	74.0			QL=4 ST=2 TYP=3
245		PALE	8 S	2328.0	2329.0	1.0	65.0			QL=4 ST=2 TYP=3
410		PALE	8 S	2328.0	2328.0	U	84.0			QL=4 ST=2 TYP=3
245		LEAR	8 S	2329.0	2330.0	1.0	100.0			QL=4 ST=2 TYP=3
2800		PENT	8 S	2330.0	2330.0	10.0	43.0			
610		LEAR	4 S/F	2332.0	2334.0	3.0	80.0			QL=4 ST=2 TYP=3
610		PALE	8 S	2333.0	2333.0	1.0	67.0			QL=4 ST=2 TYP=3
410		PALE	8 S	2334.0	2334.0	U	65.0			QL=4 ST=2 TYP=3
410		LEAR	8 S	2335.0	2335.0	U	56.0			QL=4 ST=2 TYP=3
610		LEAR	8 S	2340.0	2341.0	1.0	88.0			QL=4 ST=2 TYP=3
610		PALE	8 S	2340.0	2341.0	1.0	84.0			QL=4 ST=2 TYP=3
410		LEAR	8 S	2341.0	2341.0	U	52.0			QL=4 ST=2 TYP=3
410		PALE	8 S	2341.0	2341.0	U	56.0			QL=4 ST=2 TYP=3
29	245	LEAR	43 NS	0130.0	0510.0	379.0	210.0			QL=4 ST=2 TYP=1
	127	TORN	43 NS	0700.0		480.0		20.0		V=2
	245	LEAR	43 NS	2357.0	0000.0	3.0	30.0			QL=2 ST=3 TYP=1
	245	PALE	8 S	0040.0	0041.0	1.0	110.0			QL=4 ST=2 TYP=3
	610	PALE	8 S	0040.0	0040.0	U	87.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0041.0	0041.0	1.0	220.0			QL=4 ST=2 TYP=3
	610	LEAR	8 S	0041.0	0041.0	U	75.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0115.0	0115.0	U	63.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0122.0	0122.0	1.0	58.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0416.0	0416.0	U	120.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0509.0	0510.0	1.0	190.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0509.0	0509.0	U	120.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0558.0	0559.0	2.0	100.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0609.0	0609.0	U	67.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0640.0	0640.0	U	68.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0913.0	0913.0	U	65.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0914.0	0914.0	U	110.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0929.0	0929.0	U	100.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0929.0	0929.0	U	77.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0946.0	0946.0	1.0	86.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1032.0	1032.0	U	97.0			QL=4 ST=2 TYP=3
245	SVTO	8 S	1037.0	1037.0	U	57.0			QL=4 ST=2 TYP=3	
245	SGMR	8 S	1256.0	1256.0	U	55.0			QL=4 ST=2 TYP=3	
245	SVTO	8 S	1256.0	1256.0	U	62.0			QL=4 ST=2 TYP=3	

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

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Apr 06

APRIL      2006

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m <sup>2</sup> Hz)	Mean		
29	33	UPIC	45 C	1256.0	1257.0	2.5				
	245	SGMR	8 S	1452.0	1452.0	U	110.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1452.0	1452.0	U	91.0			QL=4 ST=2 TYP=3
	2695	SVTO	4 S/F	1621.0	1622.0	9.0	80.0			QL=4 ST=2 TYP=3
	2695	SGMR	8 S	1622.0	1622.0	U	55.0			QL=4 ST=2 TYP=3
	2695	SGMR	8 S	1622.0	1622.0	U	55.0			QL=4 ST=3 TYP=3
	245	SVTO	4 S/F	1622.0	1627.0	7.0	99.0			QL=4 ST=2 TYP=3
	410	SVTO	4 S/F	1622.0	1625.0	8.0	110.0			QL=4 ST=2 TYP=3
	9500	CUBA	4 S/F	1622.5	1633.4	10.9	11.0	6.0		
	6700	CUBA	4 S/F	1622.7	1626.0	11.4	16.0	8.0		
	610	SVTO	4 S/F	1623.0	1627.0	7.0	120.0			QL=4 ST=2 TYP=3
	245	SGMR	4 S/F	1624.0	1627.0	4.0	77.0			QL=4 ST=2 TYP=3
	245	SGMR	4 S/F	1624.0	1627.0	4.0	77.0			QL=4 ST=3 TYP=3
	410	SGMR	4 S/F	1624.0	1625.0	4.0	97.0			QL=4 ST=2 TYP=3
	410	SGMR	4 S/F	1624.0	1625.0	4.0	97.0			QL=4 ST=3 TYP=3
	1415	SVTO	8 S	1625.0	1625.0	1.0	36.0			QL=4 ST=2 TYP=3
	4995	SVTO	4 S/F	1625.0	1625.0	3.0	25.0			QL=4 ST=2 TYP=3
	610	SGMR	8 S	1626.0	1627.0	2.0	64.0			QL=4 ST=2 TYP=3
	610	SGMR	8 S	1626.0	1627.0	2.0	64.0			QL=4 ST=3 TYP=3
	245	PALE	8 S	1721.0	1721.0	U	78.0			QL=4 ST=2 TYP=3
245	SGMR	8 S	1721.0	1721.0	U	57.0			QL=4 ST=2 TYP=3	
245	SGMR	8 S	1822.0	1823.0	1.0	80.0			QL=4 ST=2 TYP=3	
245	SGMR	8 S	1826.0	1826.0	U	68.0			QL=4 ST=2 TYP=3	
245	PALE	8 S	1829.0	1829.0	U	120.0			QL=4 ST=2 TYP=3	
245	SGMR	8 S	1829.0	1829.0	U	100.0			QL=4 ST=2 TYP=3	
245	PALE	8 S	1856.0	1856.0	U	360.0			QL=4 ST=2 TYP=3	
245	SGMR	8 S	1856.0	1856.0	U	350.0			QL=4 ST=2 TYP=3	
245	PALE	8 S	2032.0	2032.0	U	200.0			QL=4 ST=2 TYP=3	
245	SGMR	8 S	2032.0	2032.0	U	190.0			QL=4 ST=2 TYP=3	
410	PALE	8 S	2039.0	2039.0	U	61.0			QL=4 ST=2 TYP=3	
245	SGMR	8 S	2059.0	2059.0	U	63.0			QL=4 ST=2 TYP=3	
30	245	LEAR	43 NS	0113.0	0129.0	227.0	40.0			QL=4 ST=3 TYP=1
	127	TORN	43 NS	0637.0		473.0		12.0		V=2
	245	LEAR		0113.0	0129.0	227.0	40.0			QL=4 ST=2 TYP=/
	245	PALE	8 S	0128.0	0128.0	U	60.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0129.0	0129.0	U	120.0			QL=4 ST=2 TYP=3
	245	PALE	49 GB	0137.0	0138.0	7.0	3100.0			QL=4 ST=2 TYP=6
	245	LEAR	49 GB	0138.0	0138.0	9.0	4900.0			QL=4 ST=2 TYP=6
	1415	PALE	4 S/F	0153.0	0154.0	4.0	140.0			QL=4 ST=2 TYP=3
	1415	LEAR	48 C	0153.0	0154.0	10.0	230.0			QL=4 ST=2 TYP=8
	1415	LEAR	48 C	0153.0	0154.0	10.0	230.0			QL=4 ST=3 TYP=8
	245	PALE	48 C	0153.0	0156.0	10.0	320.0			QL=4 ST=2 TYP=8
	410	PALE	48 C	0153.0	0202.0	10.0	180.0			QL=4 ST=2 TYP=8
	610	PALE	48 C	0153.0	0155.0	11.0	370.0			QL=4 ST=2 TYP=8
	245	LEAR	48 C	0153.0	0157.0	1327.0	520.0			QL=4 ST=3 TYP=8
	610	LEAR	4 S/F	0153.0	0156.0	1327.0	310.0			QL=4 ST=1 TYP=3
	610	LEAR	4 S/F	0153.0	0156.0	1327.0	310.0			QL=4 ST=3 TYP=3
	410	LEAR	48 C	0154.0	0202.0	9.0	180.0			QL=4 ST=2 TYP=8
	410	LEAR	48 C	0154.0	0202.0	9.0	180.0			QL=4 ST=3 TYP=8
	2695	LEAR	4 S/F	0154.0	0156.0	4.0	110.0			QL=4 ST=2 TYP=3
	2695	LEAR	4 S/F	0154.0	0156.0	4.0	110.0			QL=4 ST=3 TYP=3
	2695	PALE	4 S/F	0154.0	0156.0	4.0	100.0			QL=4 ST=2 TYP=3
	4995	PALE	4 S/F	0154.0	0156.0	4.0	120.0			QL=4 ST=2 TYP=3
	4995	LEAR	8 S	0155.0	0156.0	2.0	98.0			QL=4 ST=2 TYP=3
	4995	LEAR	8 S	0155.0	0156.0	2.0	98.0			QL=4 ST=3 TYP=3
	245	LEAR	8 S	0214.0	0214.0	U	54.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0214.0	0214.0	U	54.0			QL=4 ST=3 TYP=3
	245	LEAR	8 S	0238.0	0238.0	1.0	73.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0245.0	0245.0	U	54.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0245.0	0245.0	U	54.0			QL=4 ST=3 TYP=3
	245	LEAR	48 C	0327.0	0328.0	5.0	110.0			QL=4 ST=2 TYP=8
	410	PALE	8 S	0327.0	0327.0	U	52.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0328.0	0328.0	U	66.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0339.0	0340.0	2.0	84.0			QL=4 ST=2 TYP=3
245	SVTO	8 S	0445.0	0445.0	U	88.0			QL=4 ST=2 TYP=3	
245	LEAR	8 S	0446.0	0446.0	U	170.0			QL=4 ST=2 TYP=3	
245	LEAR	8 S	0649.0	0649.0	U	60.0			QL=4 ST=2 TYP=3	
127	TORN	48 C	0825.7	0828.5	4.3	1470.0	810.0			

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

APRIL 2006

Day	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
						Peak (10 -22 W/m 2 Hz)	Mean		
30	33 UPIC	45 C	0829.0	0829.5U	3.0				
	127 TORN	5 S	0918.7	0919.4	1.7	810.0	410.0		
	245 SVTO	8 S	0919.0	0919.0	U	67.0			QL=4 ST=2 TYP=3
	245 LEAR	8 S	0920.0	0920.0	U	99.0			QL=4 ST=2 TYP=3
	33 UPIC	2 S/F	0920.0	0920.3	1.5				

Reports are received routinely from the following observatories:

LEAR = Learmonth

PALE = Palehua

SGMR = Sagamore Hill

SVTO = San Vito

Explanation of Type Code:

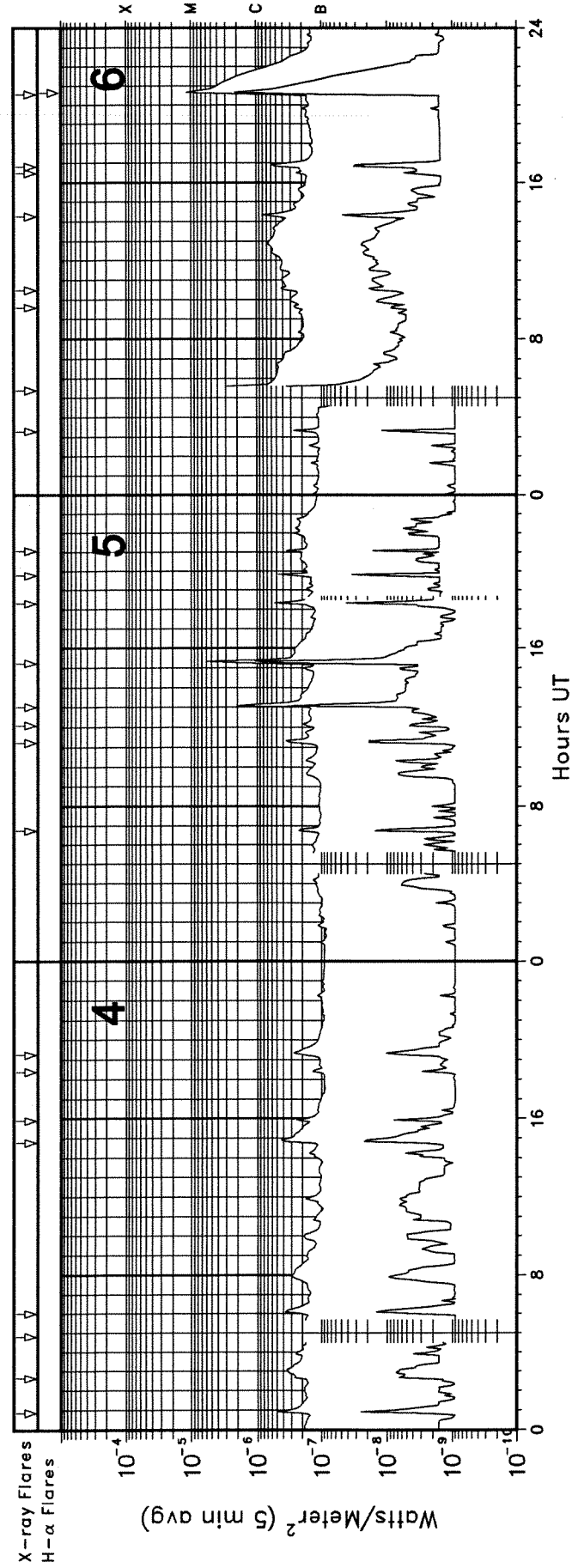
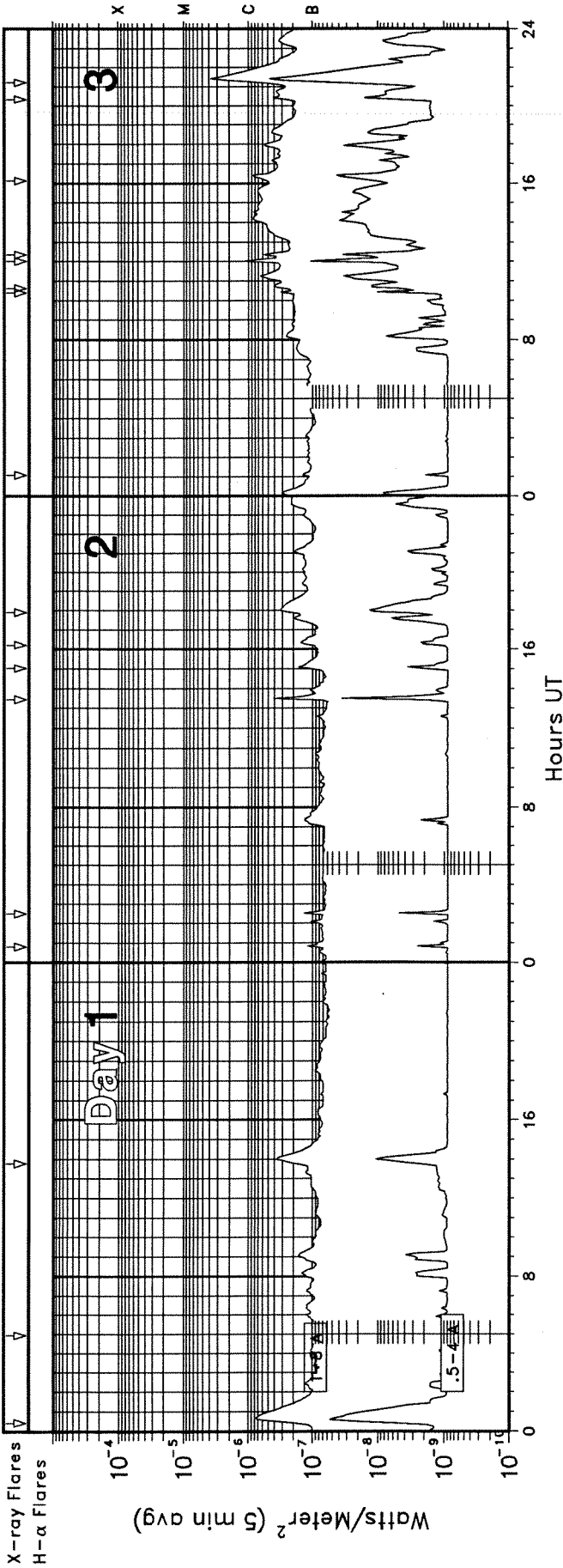
1 Simple 1	7 Minor +	24 Rise	30 Post Burst Increase A	43 Onset of Noise Storm
2 Simple 1F	8 Spike	25 Rise A	31 Post Burst Decrease	44 Noise Storm in Progress
3 Simple 2	20 Simple 3	26 Fall	33 Absorption	45 Complex
4 Simple 2F	21 Simple 3A	27 Rise and Fall	40 Fluctuation	46 Complex F
5 Simple	22 Simple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

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



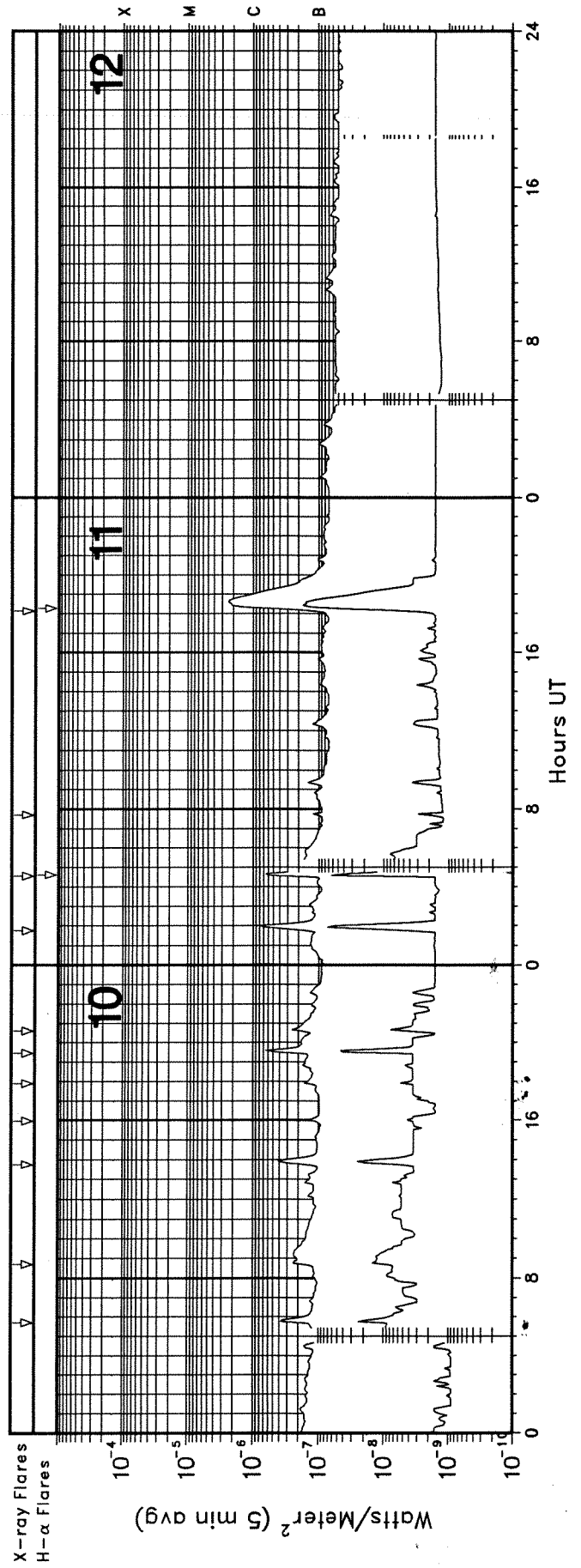
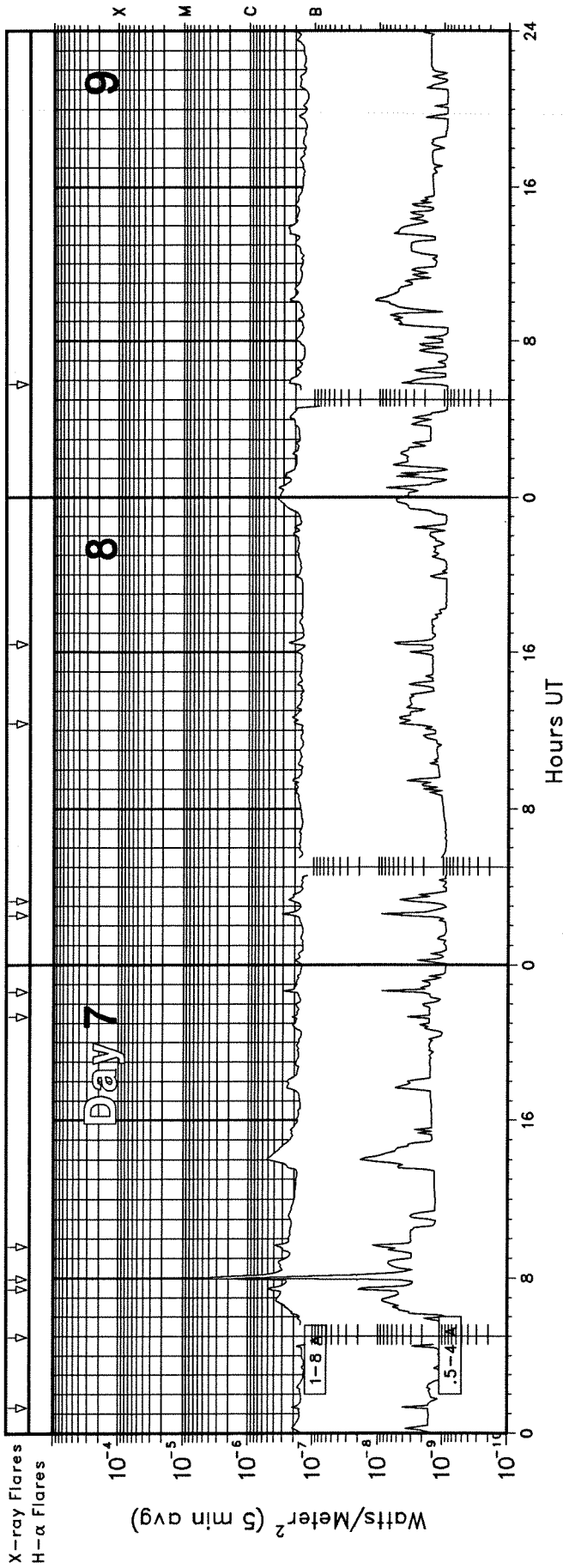
# GOES X-RAY DETECTOR

April 2006



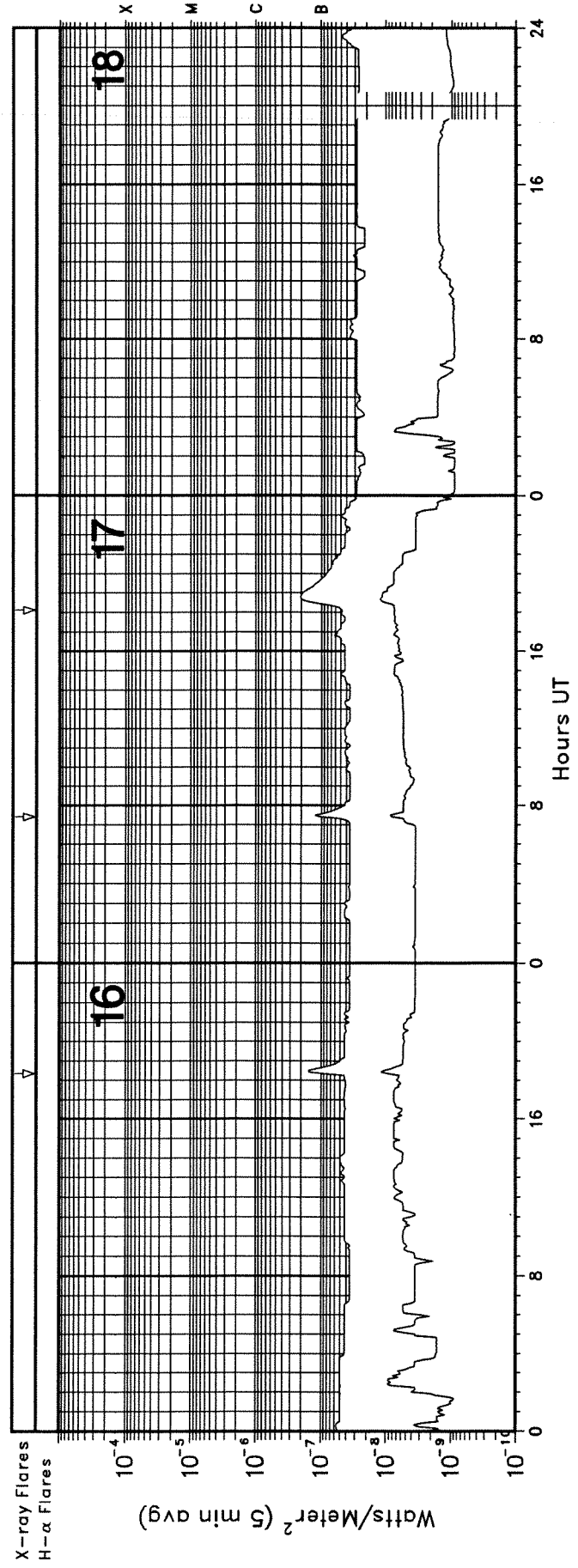
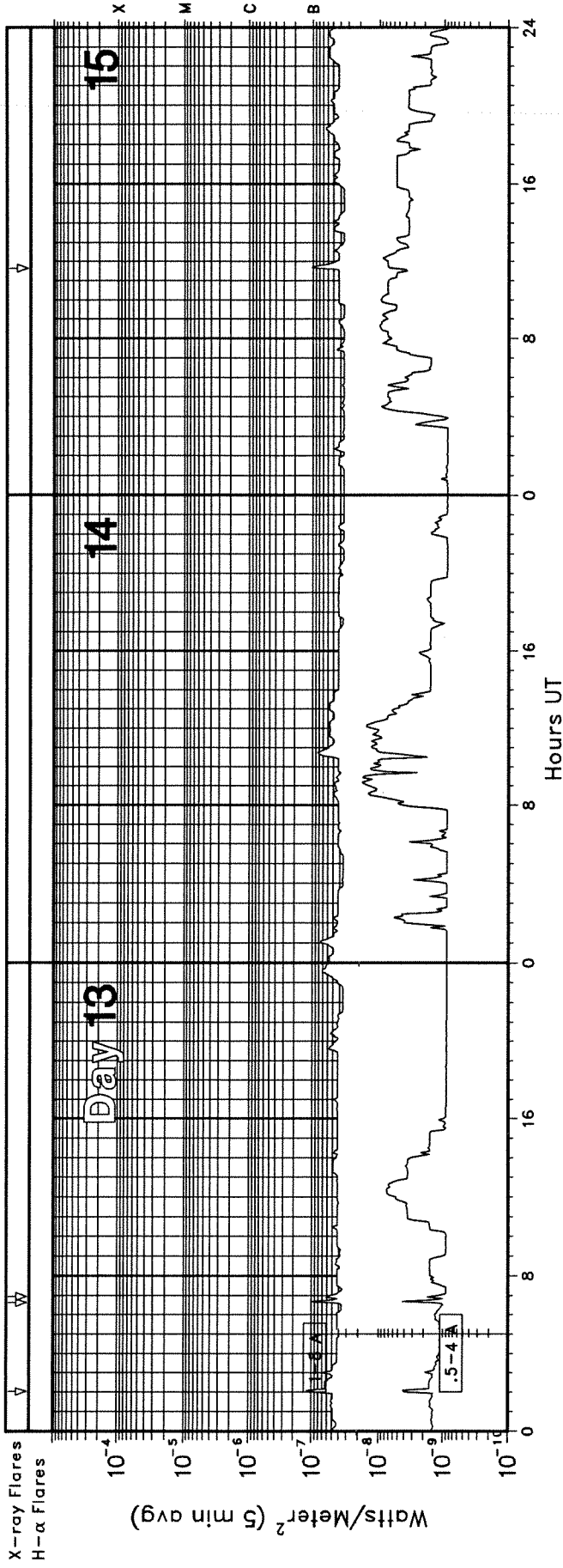
# GOES X-RAY DETECTOR

April 2006

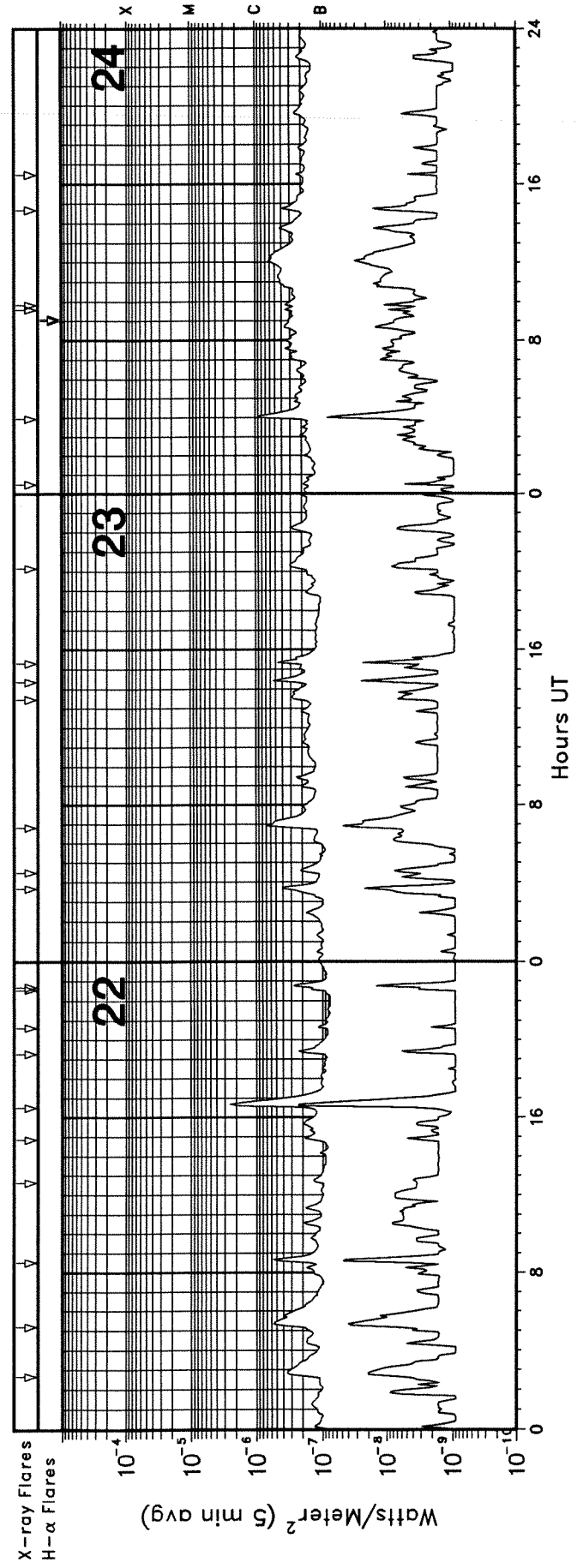
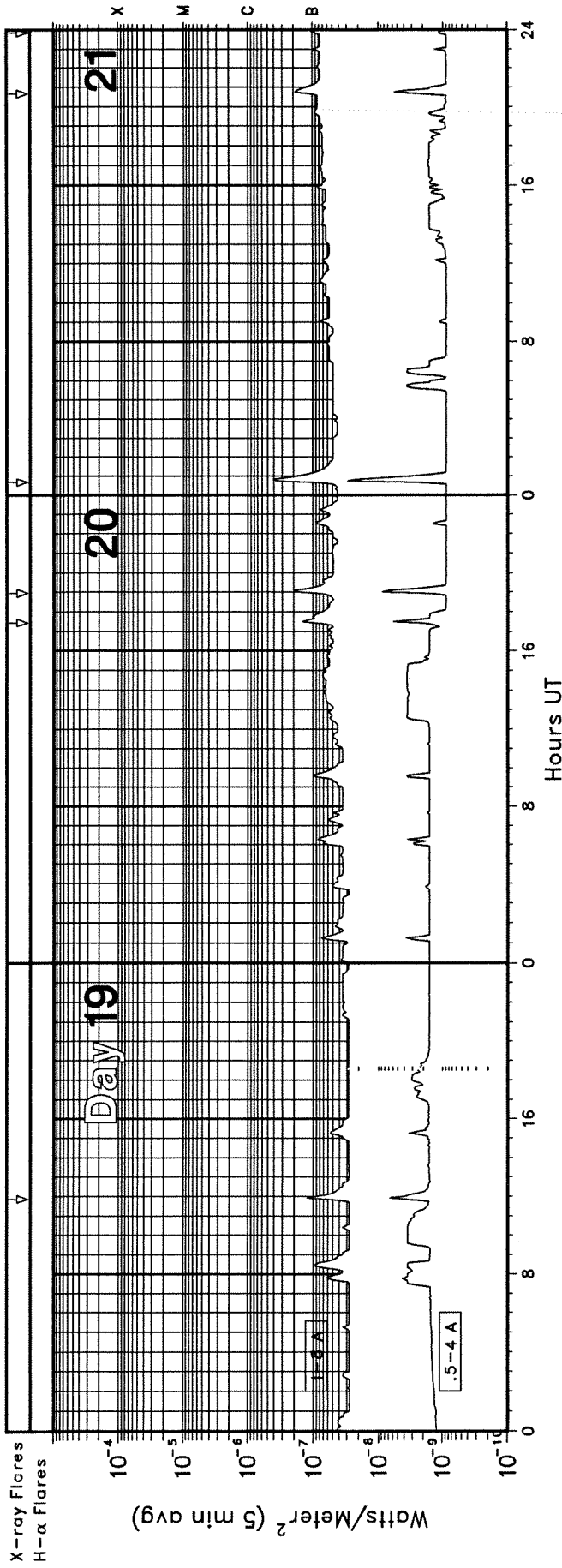


# GOES X-RAY DETECTOR

## April 2006

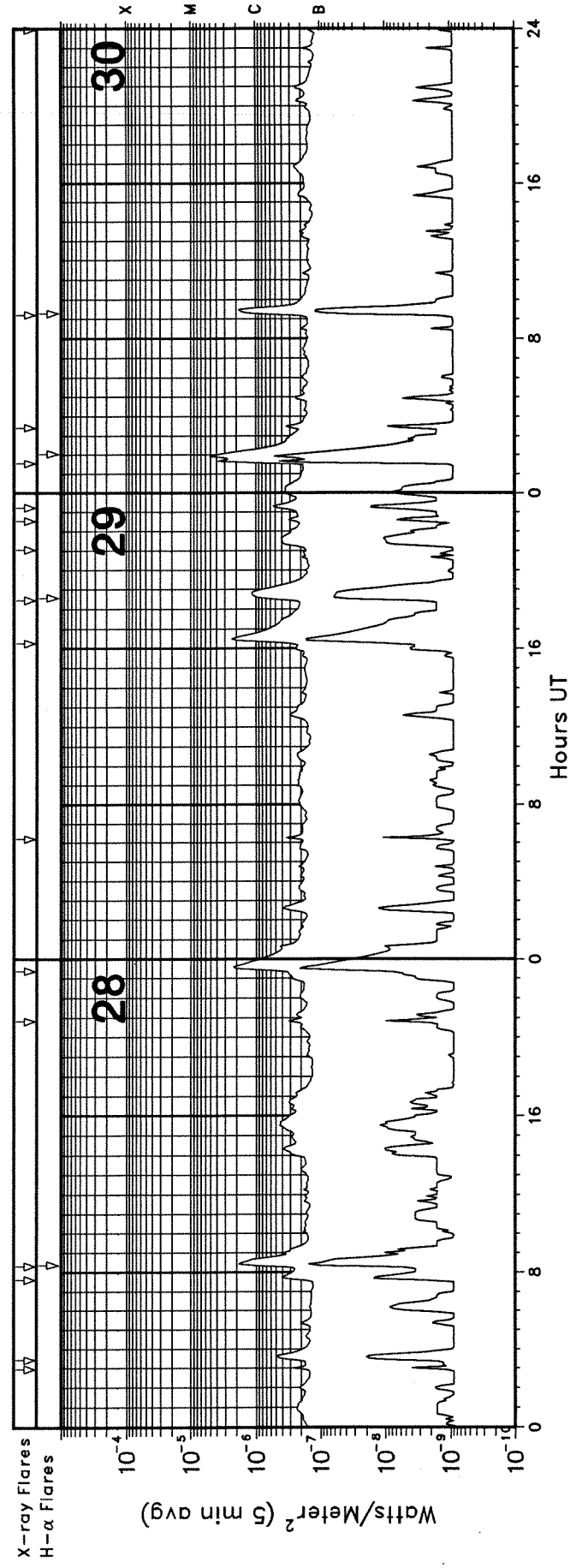
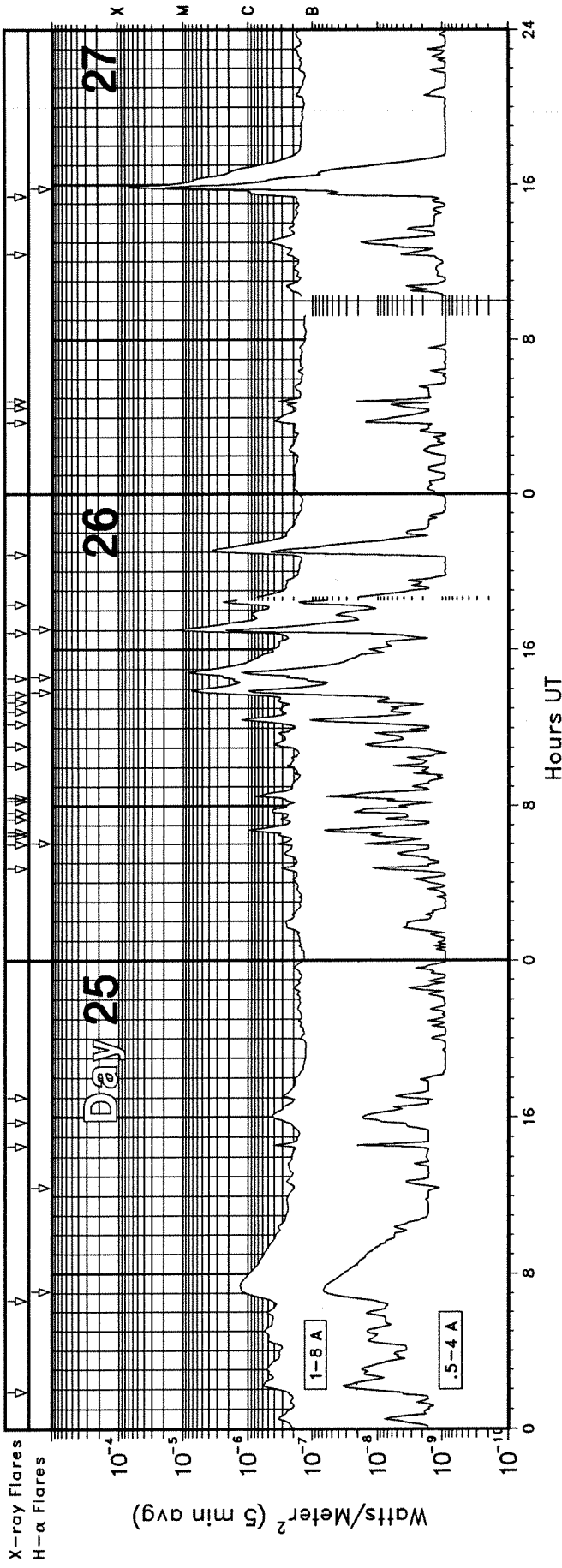


# GOES X-RAY DETECTOR April 2006

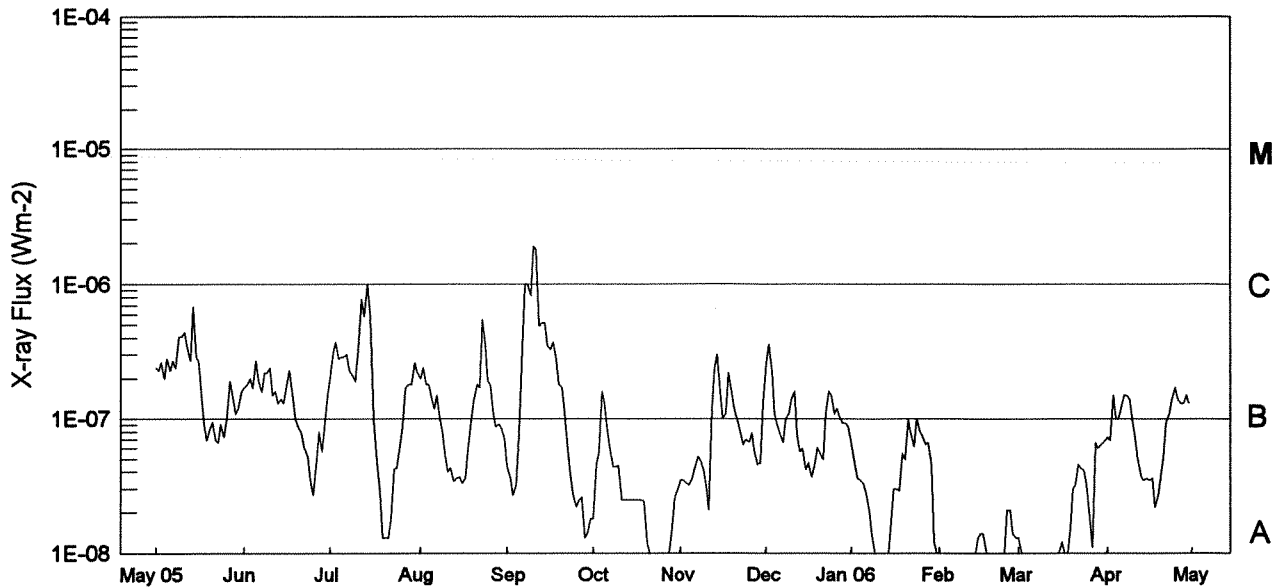


# GOES X-RAY DETECTOR

## April 2006



## Preliminary GOES Satellite Daily X-Ray Background May 2005 - Apr 2006



Day	May 05	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 06	Feb	Mar	Apr
1	B2.4	B1.7	B2.0	B2.0	A4.4	A1.8	A3.5	B2.6	A5.8	<A1.0	A1.3	A7.3
2	B2.3	B1.8	B3.1	B2.4	A3.7	A4.6	A3.5	B3.6	A4.9	<A1.0	<A1.0	A6.9
3	B2.6	B2.0	B3.7	B1.8	A2.7	A5.5	A3.3	B2.3	A3.6	<A1.0	<A1.0	B1.5
4	B2.0	B1.7	B2.8	B1.8	A3.2	B1.6	A3.2	B1.1	A3.5	<A1.0	<A1.0	B1.0
5	B2.8	B2.7	B2.9	B1.4	A7.6	B1.3	A3.6	A8.9	A3.3	<A1.0	<A1.0	B1.0
6	B2.3	B1.9	B2.9	B1.2	B3.4	A8.0	A4.3	A7.7	A2.8	<A1.0	<A1.0	B1.2
7	B2.7	B1.6	B3.0	B1.5	C1.0	A5.9	A5.2	A6.7	A2.1	<A1.0	<A1.0	B1.5
8	B2.4	B2.2	B2.3	B1.0	C1.0	A4.4	A4.9	B1.0	A1.4	<A1.0	<A1.0	B1.5
9	B4.1	B2.2	B2.1	A8.1	B8.3	A4.4	A4.1	B1.1	<A1.0	<A1.0	<A1.0	B1.4
10	B4.1	B2.4	B1.9	A5.5	C1.9	A4.5	A3.1	B1.4	<A1.0	<A1.0	<A1.0	B1.0
11	B4.4	B1.5	B3.2	A4.0	C1.8	A2.5	A2.1	B1.6	<A1.0	<A1.0	<A1.0	A7.1
12	B3.4	B1.6	B7.8	A4.3	B4.9	A2.5	B1.2	A7.5	<A1.0	<A1.0	<A1.0	A5.0
13	B2.7	B1.3	B5.8	A3.4	B5.2	A2.5	B2.4	A5.7	<A1.0	<A1.0	<A1.0	A3.8
14	B6.8	B1.4	C1.0	A3.6	B5.2	A2.5	B3.0	A6.0	<A1.0	<A1.0	<A1.0	A3.5
15	B2.9	B1.3	B5.9	A3.7	B3.5	A2.5	B1.6	A4.2	A1.7	A1.3	<A1.0	A3.6
16	B2.7	B1.8	B1.0	A3.3	B3.3	A2.5	B1.0	A4.7	A3.0	A1.4	A1.2	A3.5
17	B1.4	B2.3	A5.4	A3.6	B3.7	A2.5	B1.1	A3.7	A3.0	A1.4	<A1.0	A3.6
18	A8.8	B1.5	A2.9	A6.1	B2.8	A2.5	B2.2	A4.4	A2.9	<A1.0	<A1.0	A2.2
19	A6.9	B1.0	A1.3	B1.0	B1.8	A2.4	B1.6	A6.1	A5.5	<A1.0	A1.5	A2.7
20	A8.4	A8.8	A1.3	B1.4	B1.7	A1.2	B1.2	A5.5	A5.0	<A1.0	A3.0	A3.5
21	A9.4	A7.8	A1.3	B1.8	B1.1	<A1.0	A9.8	A5.0	A9.8	<A1.0	A3.2	A5.3
22	A6.9	A6.1	A1.8	B1.7	A5.9	<A1.0	A8.2	B1.1	A7.8	<A1.0	A4.6	A9.5
23	A6.6	A5.3	A4.2	B5.5	A3.8	<A1.0	A6.4	B1.6	A6.2	<A1.0	A4.3	B1.1
24	A9.1	A3.4	A4.3	B3.5	A2.7	<A1.0	A7.0	B1.5	B1.0	<A1.0	A4.1	B1.4
25	A7.3	A2.7	A6.3	B1.9	A2.2	<A1.0	A6.7	B1.1	A8.2	A2.1	A3.2	B1.7
26	A9.9	A4.8	A8.9	B1.8	A2.5	<A1.0	A7.8	B1.2	A7.4	A2.1	A1.8	B1.4
27	B1.9	A8.0	B1.7	B1.1	A2.6	<A1.0	A5.7	B1.0	A6.5	A1.4	A1.1	B1.3
28	B1.5	A5.7	B1.8	A8.7	A1.3	<A1.0	A4.6	A9.3	A6.6	A1.3	A6.6	B1.3
29	B1.1	A8.6	B1.8	A9.1	A1.4	A1.4	A4.7	A9.3	A4.6		A6.1	B1.5
30	B1.2	B1.5	B2.6	A8.5	A1.8	A2.6	B1.3	A8.8	A1.2		A6.5	B1.3
31	B1.6		B2.2	A7.1		A2.9		A6.5	<A1.0		A6.8	

Levels below B1.0 are unreliable.

## ACTIVE PROMINENCES AND FILAMENTIS

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Apr 06

APRIL 2006

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/USAF Reg#	Remarks
01	EPL	2230	1012	N90	E26	04	4.4	2		9	8	E	LEAR		
02	DSF	1013U	2235U	S16	W06	04	2.0		11	0	0	E	LEAR		
02	DSF	1013U	2235U	S16	W06	04	2.0		11	0	0	E	LEAR		
03	EPL	0223E	1001	N29	E90	04	10.1	2		9	9	E	LEAR		
13	DSF	0055U	1333U	S06	W04	04	12.7	3	05	0	0	E	HOLL	0870	
18	DSF	0939U	0556U	S05	W28	04	16.3		06	0	0	E	LEAR	0871	
23	DSF	1537U	0453U	S12	E57	04	27.9		11	0	0	E	SVTO		
27	DSF	0936U	2316U	N04	E10	04	28.1		07	0	0	E	LEAR		
29	DSF	0051U	1504U	S29	W21	04	27.4	3	06	0	0	E	HOLL		
30	DSF	0917U	2346U	S10	W23	04	28.6		03	0	0	E	LEAR		
30	DSF	0917U	2346U	S27	W23	04	28.6		05	0	0	E	LEAR		

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

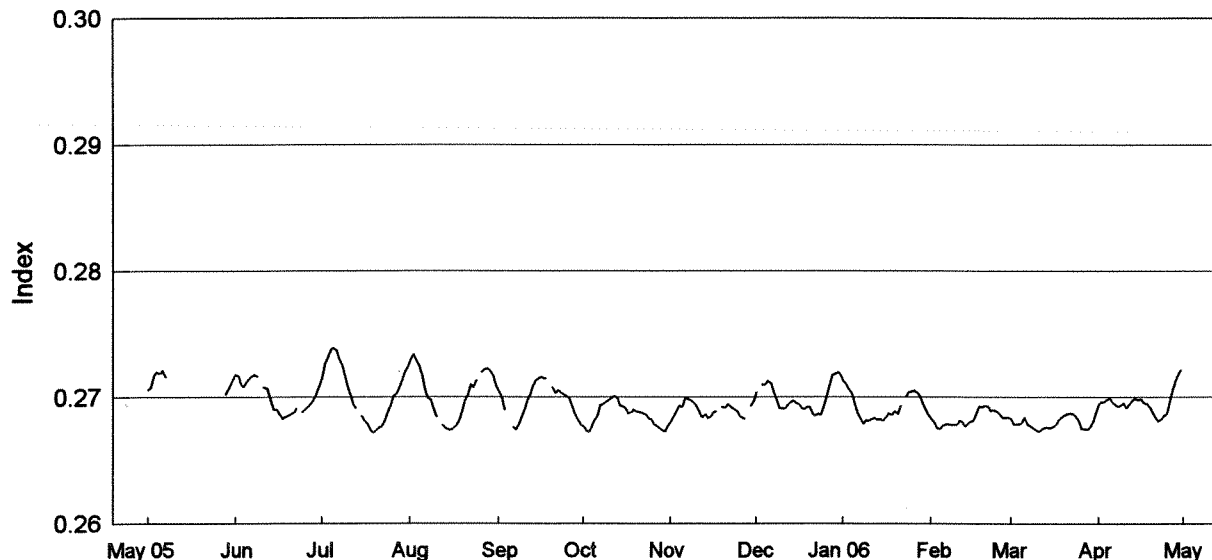
RAMY = Ramey  
SVTO = San Vito  
VORO = Voroshilov  
VALA = Valasske Mezirici  
WROC = Wroclaw

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 2005 - Apr 2006

Version 9.1

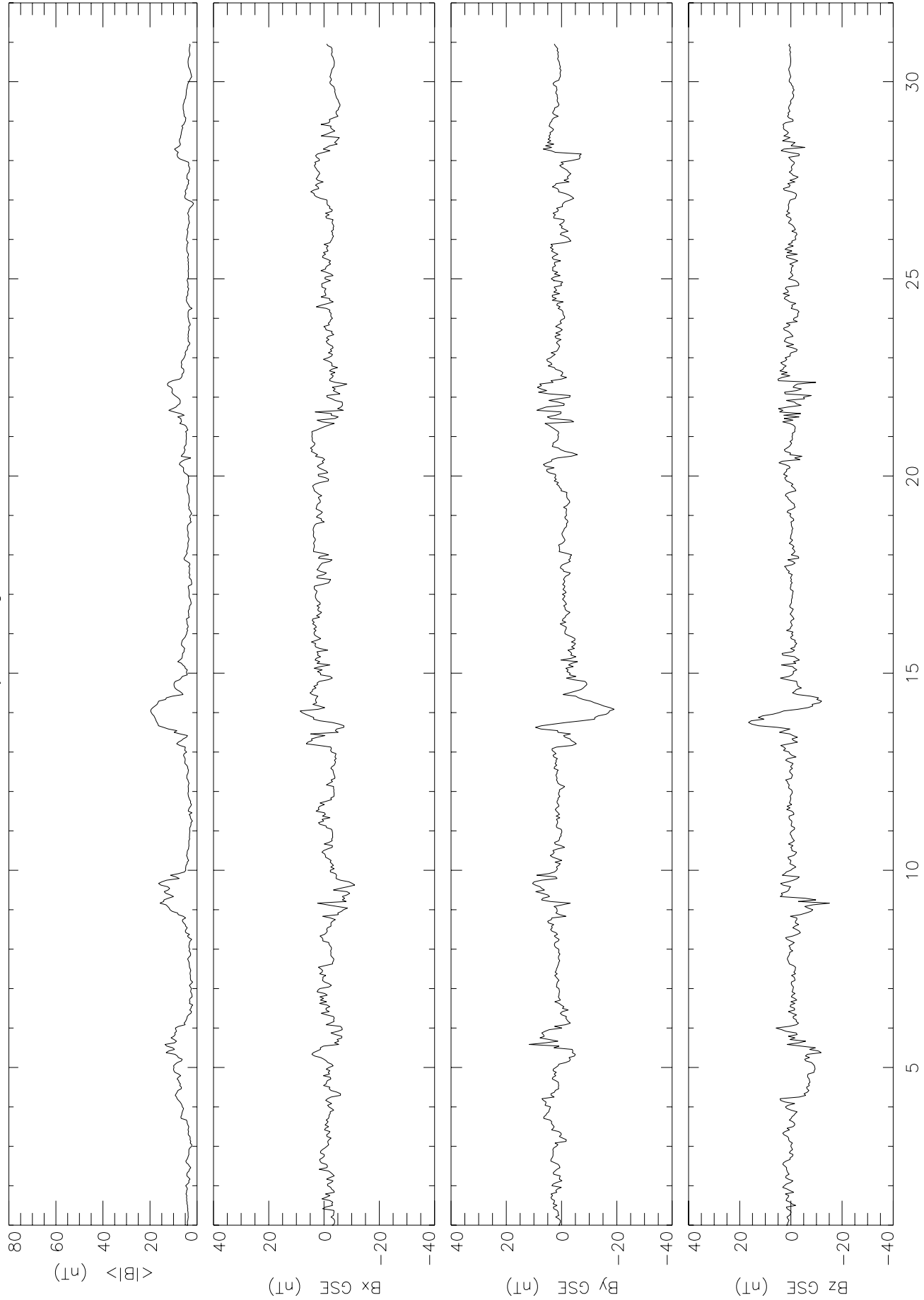


Day	May 05	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 06	Feb	Mar	Apr
1	0.2706	0.2718	0.2715	0.2729	0.2704	0.2677	0.2680	0.2704	0.2713	0.2683	0.2683	0.2695
2	0.2707	0.2716	0.2726	0.2733	0.2699	0.2674	0.2684	—	0.2710	0.2680	0.2679	0.2696
3	0.2718	0.2710	0.2732	0.2729	0.2689	0.2673	0.2689	0.2710	0.2706	0.2676	0.2679	0.2696
4	0.2720	0.2708	0.2738	0.2725	—	0.2677	0.2694	0.2710	0.2702	0.2675	0.2679	0.2698
5	0.2719	0.2712	0.2739	0.2717	—	0.2683	0.2692	0.2713	0.2695	0.2677	0.2680	0.2699
6	0.2721	0.2715	0.2737	0.2706	0.2676	0.2686	0.2699	0.2711	0.2687	0.2679	0.2684	0.2696
7	0.2715	0.2717	0.2730	0.2700	0.2674	0.2694	0.2699	0.2704	0.2683	0.2679	0.2678	0.2695
8	—	0.2718	0.2726	0.2698	0.2678	0.2694	0.2697	0.2697	0.2679	0.2678	0.2678	0.2693
9	—	0.2716	0.2718	0.2691	0.2684	0.2696	0.2695	0.2692	0.2682	0.2678	0.2676	0.2693
10	—	—	0.2708	0.2684	0.2690	0.2697	0.2693	0.2691	0.2681	0.2678	0.2674	0.2695
11	—	0.2708	0.2702	—	0.2697	0.2699	0.2688	0.2691	0.2683	0.2681	0.2673	0.2692
12	—	0.2707	0.2694	0.2678	0.2702	0.2701	0.2684	0.2693	0.2684	0.2681	0.2675	0.2694
13	—	0.2699	0.2691	0.2676	0.2709	0.2699	0.2686	0.2695	0.2682	0.2677	0.2676	0.2697
14	—	0.2690	—	0.2675	0.2714	0.2693	0.2683	0.2697	0.2683	0.2679	0.2676	0.2699
15	—	0.2690	0.2685	0.2674	0.2715	0.2693	0.2685	0.2696	0.2681	0.2681	0.2676	0.2698
16	—	0.2686	0.2681	0.2675	0.2716	0.2691	0.2688	0.2695	0.2684	0.2681	0.2677	0.2698
17	—	0.2683	0.2679	0.2678	0.2715	0.2687	0.2689	0.2692	0.2687	0.2686	0.2678	0.2696
18	—	0.2685	0.2674	0.2681	0.2715	0.2688	—	0.2690	0.2686	0.2693	0.2682	0.2695
19	—	0.2685	0.2672	0.2689	—	0.2690	0.2692	0.2692	0.2689	0.2693	0.2684	0.2692
20	—	0.2687	0.2674	0.2697	0.2708	0.2688	0.2692	0.2692	0.2686	0.2693	0.2686	0.2689
21	—	0.2688	0.2676	0.2702	0.2703	0.2688	0.2694	0.2687	0.2694	0.2693	0.2687	0.2684
22	—	0.2691	0.2677	0.2710	0.2705	0.2687	0.2692	0.2685	—	0.2689	0.2687	0.2681
23	—	—	0.2682	0.2707	0.2704	0.2686	0.2691	0.2687	0.2700	0.2690	0.2687	0.2682
24	—	0.2688	0.2688	0.2714	0.2702	0.2683	0.2689	0.2686	0.2704	0.2689	0.2685	0.2685
25	—	0.2690	0.2694	—	0.2701	0.2682	0.2685	0.2693	0.2704	0.2686	0.2681	0.2687
26	—	0.2692	0.2701	0.2720	0.2699	0.2679	0.2684	0.2700	0.2705	0.2684	0.2675	0.2695
27	—	0.2694	0.2702	0.2722	0.2692	0.2677	0.2683	0.2710	0.2703	0.2684	0.2675	0.2704
28	0.2702	0.2698	0.2707	0.2723	0.2686	0.2676	—	0.2717	0.2700	0.2684	0.2675	0.2712
29	0.2706	0.2702	0.2714	0.2720	0.2682	0.2674	0.2693	0.2718	0.2696	—	0.2676	0.2717
30	0.2710	0.2709	0.2720	0.2717	0.2679	0.2673	0.2697	0.2719	0.2690	—	0.2680	0.2721
31	0.2715	—	0.2724	0.2708	—	0.2677	—	0.2717	0.2686	—	0.2687	—
Mean	0.2712	0.2700	0.2703	0.2703	0.2698	0.2686	0.2690	0.2699	0.2692	0.2630	0.2679	0.2695

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

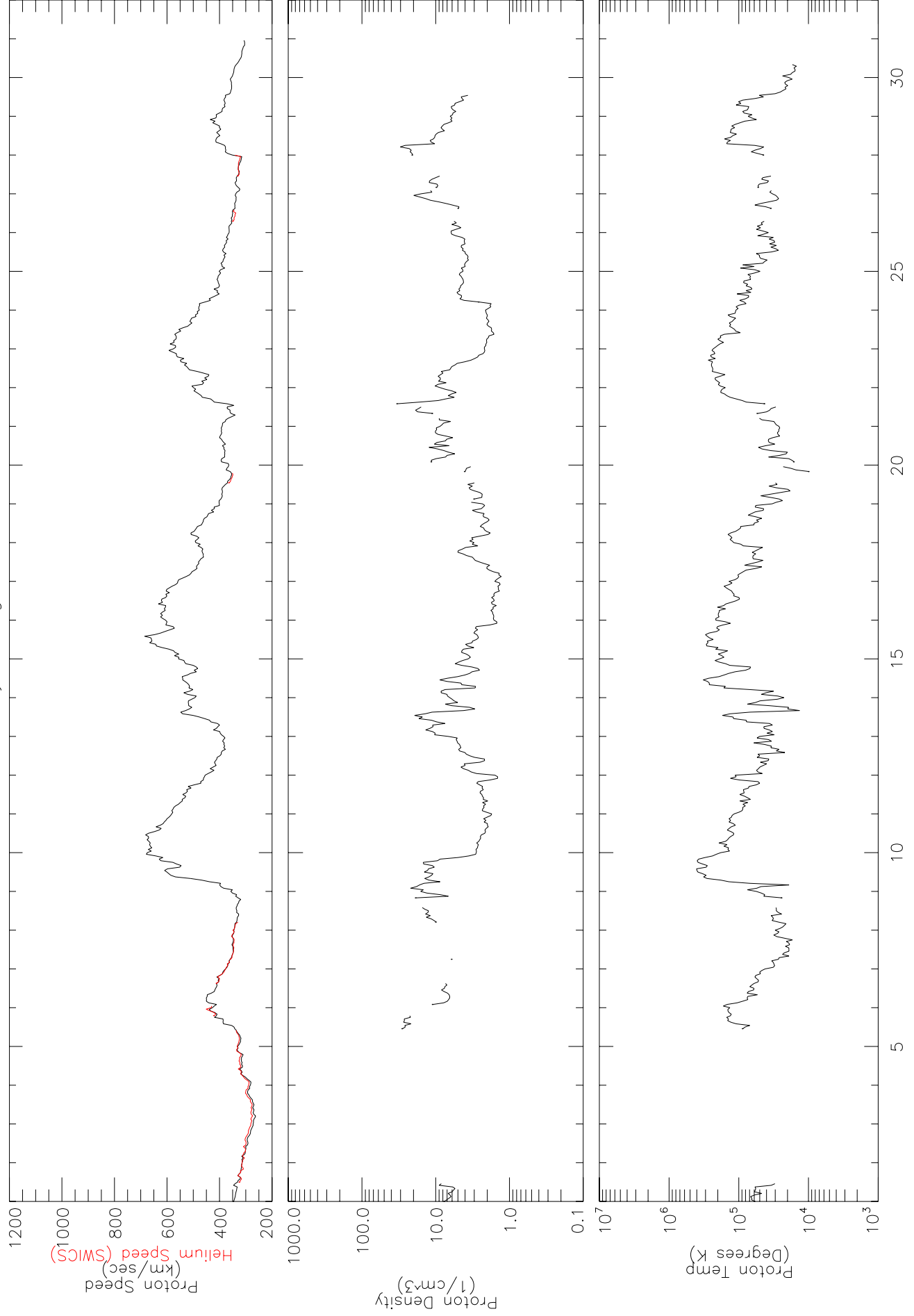


ACE LEVEL2 DATA Hourly Averages for APRIL 2006, from MAG



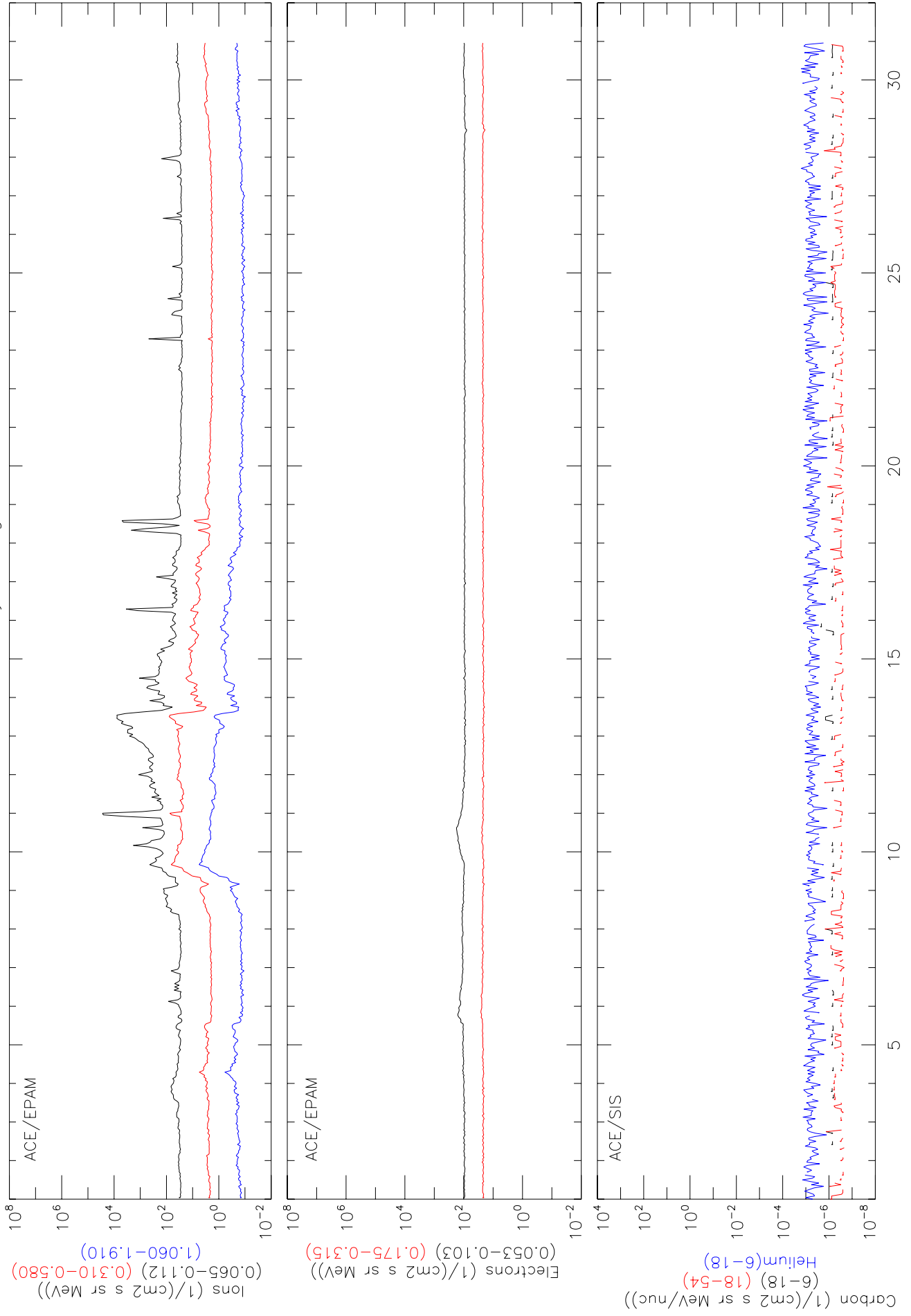
DAYS OF APRIL 2006

ACE LEVEL2 DATA Solar Wind Plasma  
Hourly Averages for APRIL 2006, from SWEPAM



DAYS OF APRIL 2006

# Solar Energetic Particles ACE LEVEL2 DATA Hourly Averages for APRIL 2006



# SOLAR CORONAL MASS EJECTIONS (CMEs) FROM SOHO/LASCO

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

Center for Solar Physics and Space Weather (CSPSW) – The Catholic University of America/NRL/NASA  
APRIL 2006

First C2 Appearance		Central Width			Linear Fit			Measurement		Remarks
Date	Time UT	Position Angle degree	Angular Width degree	Speed km/s	Initial km/s	Final km/s	20R km/s	Accel m/s <sup>2</sup>	Position Angle degree	
2006/04/01	22:06:04	58	21	208	----	----	----	-----	58	Very Poor Event
2006/04/01	22:06:04	273	47	145	0	339	303	4.0	269	
2006/04/02	03:30:10	13	134	396	375	418	411	1.2*	58	Poor Event; Partial Halo
2006/04/02	18:54:20	60	16	222	----	----	----	-----	60	Very Poor Event
2006/04/03	00:30:04	88	11	339	----	----	----	-----	91	Very Poor Event; 3 points;Only C2
2006/04/03	08:30:04	112	13	310	----	----	----	-----	108	Very Poor Event
2006/04/03	12:30:04	109	12	376	327	427	681	15.3*	105	Poor Event
2006/04/03	17:54:19	244	23	335	----	----	----	-----	249	Very Poor;OnlyC2
2006/04/04	03:30:04	271	23	255	170	340	397	5.3*	275	Poor Event
2006/04/04	07:31:44	159	95	276	302	246	228	-1.6*	167	
2006/04/04	13:31:45	254	56	314	343	285	258	-2.1*	273	
2006/04/05	00:30:05	259	39	316	----	----	----	-----	274	Very Poor Event
2006/04/05	15:54:05	267	20	294	----	----	----	-----	272	Very Poor Event
2006/04/05	17:30:04	255	16	185	----	----	----	-----	261	Very Poor Event
2006/04/05	23:54:04	101	12	568	----	----	----	-----	103	Very Poor Event; 3 points;Only C2
2006/04/06	00:54:04	58	37	240	----	----	----	-----	57	Very Poor;OnlyC2
2006/04/06	07:31:43	256	14	173	----	----	----	-----	260	Very Poor Event
2006/04/06	13:31:44	106	36	261	306	212	0	-5.0*	99	Poor Event
2006/04/06	14:30:28	66	14	485	563	408	0	-15.3*	69	Poor Event
2006/04/06	20:06:04	246	29	211	----	----	----	-----	257	Very Poor Event
2006/04/07	06:54:28	183	7	236	----	----	----	-----	186	Very Poor Event; 3 points;Only C2
2006/04/07	11:06:06	286	16	368	289	447	1046	43.8*	281	Poor Event; C2
2006/04/07	19:31:43	46	11	498	318	676	1363	73.5*	49	Poor Event; C2
2006/04/08	05:30:04	103	64	375	465	280	144	-8.8	110	
2006/04/08	06:06:04	267	80	512	504	519	527	1.0	251	
2006/04/08	23:54:04	102	48	221	175	269	522	9.9*	90	Poor Event; C2
2006/04/09	04:06:04	253	52	476	488	462	461	-1.1	242	
2006/04/09	14:54:04	91	50	152	----	----	----	-----	85	Very Poor;OnlyC2
2006/04/09	22:30:05	273	96	480	403	567	525	4.8	276	
2006/04/10	06:06:04	232	251	183	11	312	381	6.5*	313	Partial Halo
2006/04/11	03:08:04	265	25	310	----	----	----	-----	272	Very Poor;OnlyC2
2006/04/11	09:54:04	247	57	188	278	93	0	-19.1*	250	Poor; Only C2
2006/04/11	12:33:14	70	39	38	----	----	----	-----	70	Very Poor Event
2006/04/12	16:54:04	248	147	174	226	126	0	-6.7*	237	Partial Halo
2006/04/12	19:46:29	348	12	206	----	----	----	-----	346	Very Poor Event
2006/04/12	20:37:36	262	51	535	524	545	546	0.9	268	
2006/04/13	13:32:13	71	20	134	----	----	----	-----	74	Very Poor;OnlyC2
2006/04/13	14:06:04	242	48	462	492	435	387	-3.8	248	
2006/04/14	10:30:14	97	30	349	285	412	500	7.1*	105	Poor Event

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Center for Solar Physics and Space Weather (CSPSW) – The Catholic University of America/NRL/NASA  
APRIL 2006

First C2 Appearance		Central Width			Linear Fit			-----2nd order speed-----	Accel	Measurement	Remarks
Date	Time UT	Position Angle degree	Angular Width degree	Speed km/s	Initial km/s	Final km/s	20R km/s	m/s <sup>2</sup>	Position Angle degree		
2006/04/15	07:31:43	252	10	307	----	----	----	-----	252	Very Poor;OnlyC2	
2006/04/15	16:54:05	245	32	553	654	437	474	-8.6	248		
2006/04/15	18:06:04	111	27	485	415	559	609	8.3*	112	Poor Event	
2006/04/15	23:09:00	81	12	334	361	307	226	-3.5*	83	Poor Event	
2006/04/16	22:26:04	307	15	425	----	----	----	-----	300	Very Poor Event; 3 points;Only C2	
2006/04/17	11:50:04	248	16	305	----	----	----	-----	247	Very Poor Event	
2006/04/17	19:31:43	251	57	279	267	292	297	0.7	245		
2006/04/17	23:53:57	245	28	348	208	495	736	20.5*	245		
2006/04/19	09:54:04	71	17	165	----	----	----	-----	76	Very Poor Event	
2006/04/20	06:54:05	238	32	255	221	290	399	4.5*	237	Poor Event	
2006/04/20	14:30:04	241	18	256	----	----	----	-----	241	Very Poor Event	
2006/04/20	23:30:04	311	11	263	----	----	----	-----	308	Very Poor Event; Only 3 points	
2006/04/21	02:06:04	261	23	350	323	378	394	2.3*	256		
2006/04/21	02:06:04	116	72	142	152	133	0	-1.3*	121		
2006/04/21	04:30:04	70	24	317	281	357	346	1.8	74		
2006/04/21	16:54:04	142	62	189	192	187	179	-0.2*	144		
2006/04/21	18:54:04	286	7	296	----	----	----	-----	291	Very Poor Event; 3 points;Only C2	
2006/04/22	05:30:04	95	45	165	----	----	----	-----	97	Very Poor Event	
2006/04/22	15:54:05	73	28	350	347	352	356	0.3*	81		
2006/04/22	19:31:46	226	17	195	----	----	----	-----	225	Very Poor;OnlyC2	
2006/04/23	01:54:21	49	21	585	----	----	----	-----	57	Very Poor Event; 3 points;Only C2	
2006/04/23	08:54:04	306	7	204	----	----	----	-----	300	Very Poor Event	
2006/04/23	12:30:04	221	13	164	----	----	----	-----	223	Very Poor Event	
2006/04/23	14:06:04	62	18	491	615	365	0	-21.8*	67	Poor Event	
2006/04/23	14:30:04	120	55	233	328	137	0	-25.2*	119	Poor; Only C2	
2006/04/24	19:33:31	299	25	265	173	364	824	27.5*	296	Poor; Only C2	
2006/04/25	06:54:04	93	90	658	671	643	652	-1.1	128		
2006/04/25	15:30:04	69	29	195	----	----	----	-----	59	Very Poor;OnlyC2	
2006/04/27	22:30:04	275	21	117	87	148	180	1.0*	273	Poor Event	
2006/04/28	02:30:04	79	17	79	----	----	----	-----	78	Very Poor;OnlyC2	
2006/04/28	17:30:04	357	13	378	----	----	----	-----	356	Very Poor Event; 3 points;Only C2	
2006/04/28	23:54:18	85	97	389	451	320	336	-3.7	65		
2006/04/29	08:30:04	68	45	299	234	362	441	5.8	66		
2006/04/29	12:54:04	272	106	322	454	194	0	-13.2*	250		
2006/04/29	16:54:04	81	125	491	516	462	466	-2.0	57	Partial Halo	
2006/04/29	22:06:04	60	44	180	----	----	----	-----	57	Very Poor Event; 3 points;Only C2	

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Date	Time UT	Position Angle degree	Angular Width degree	Speed km/s	Initial km/s	Final km/s	20R km/s		m/s <sup>2</sup>	Position Angle degree		
2006/04/30	02:06:04	79	101	428	425	431	432		0.2	60		
2006/04/30	04:30:04	257	176	293	263	320	361		2.6*	269	Poor Event; Partial Halo	
2006/04/30	09:54:04	Halo	360	544	533	555	629		4.6*	47	Poor Event	
2006/04/30	17:54:04	219	46	125	----	----	----		-----	220	Very Poor;OnlyC2	
2006/04/30	22:06:04	263	44	210	113	309	565		12.7*	261	Poor Event	

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CME heights are measured at the fastest segment of the leading edge

PA= Position Angle measured from Solar North in degrees (Counter clockwise)

ONLINE -- Click on date to view java script movies -- <http://cdaw.gsfc.nasa.gov/>

ONLINE -- Click on time to see height-time digital files

ONLINE -- Click on speed to view height-time plot

Numbers in 2nd order fit columns correspond to the speed at the last height of measurement and at a distance of 20 solar radii.