

APRIL 2008 NUMBER 764 - Part II

Solar-Geophysical Data comprehensive reports



Data for October 2007 and Miscellaneous
Explanation of Data Reports Issued as Number 515 (Supplement) July 1987

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NATIONAL OCEANIC AND
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NATIONAL ENVIRONMENTAL SATELLITE,
DATA, AND INFORMATION SERVICE

NATIONAL GEOPHYSICAL
DATA CENTER

BOULDER,
COLORADO



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APRIL 2008 NUMBER 764 - Part II

Solar-Geophysical Data comprehensive reports

Data for October 2007

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NATIONAL GEOPHYSICAL DATA CENTER

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SOLAR-GEOPHYSICAL DATA

Number 764

(Issued in Two Parts)

Editor: Edward H. Erwin

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Solar-Terrestrial Physics Division

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A.	SOLAR AND INTERPLANETARY								
A.1	Sunspot Drawings	758A 40	759A 40	760A 40	761A 44	762A 40	763A 40	764A 46	
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A.2c	American Sunspot Numbers	757A 24	758A 23	759A 24	760A 23	761A 24	762A 24	763A 23	764A 22
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A.3d	Mean Solar Mag Field (Stanford)	757A 31	758A 29	759A 31	760A 30	761A 34	762A 31	763A 30	764A 31
A.3e	Stanford Magnetograms	758A 40	759A 40	760A 40	761A 44	762A 40	763A 40	764A 46	
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A.6c	Stanford Solar Mag Field Map	758A 34	759A 34	760A 34	761A 38	762A 34	763A 34	764A 34	
A.6d	Kitt Peak Mag Field Synoptic Map	758A 39	759A 39	760A 39	761A 43	762A 39	763A 39	764A 45	
A.6f	Active Prominences and Filaments	762B 16	763B 15	764B 16					
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A.7k	Coronal Index (Slovak Academy)	1939-1996 - 644B 28							
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A.8ac	2800 MHz Adj Solar Flux (Pent.)	757A 24	758A 23	759A 24	760A 23	761A 24	762A 24	763A 23	764A 22
A.8g	Adjusted Daily Solar Flux SGMR	757A 24	758A 23	759A 24	760A 23	761A 24	762A 24	763A 23	764A 22
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A.11g	Solar X-ray GOES (event table)	757A 28	758A 27	759A 28	760A 27	761A 29	762A 28	763A 27	764A 28
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A.16e	VIRGO/SOHO Solar Irradiance	Jan 96-Sep 00 in 678B 46							
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C.3	Radio Bursts Fixed Freq Selected	757A 29	758A 28	759A 29	760A 28	761A 32	762A 29	763A 28	764A 29
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The entry "748A 48" under Oct, for example, means the sunspot drawings for Oct appear in SOLAR-GEOPHYSICAL DATA No 748, Part I, and that they begin on page 48, "A" denotes Part I and "B", Part II. Blanks indicate data not yet received and dashes mark unavailable data.

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H A S O L A R F L A R E S
O C T O B E R 2 0 0 7

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF		Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
								Region	Mo Day						Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
	24	1135			1212	No	Flare	Patrol										
	24	1227			1240	No	Flare	Patrol										
	24	1254			1258	No	Flare	Patrol										
	24	1315			1332	No	Flare	Patrol										
	25	1201			1206	No	Flare	Patrol										
	25	1209			1210	No	Flare	Patrol										
	25	1213			1220	No	Flare	Patrol										
	25	1226			1232	No	Flare	Patrol										
	25	1234			1333	No	Flare	Patrol										
	25	1636			1642	No	Flare	Patrol										
	25	1950			2221	No	Flare	Patrol										
	26	1022			1334	No	Flare	Patrol										
	27	0125			0228	No	Flare	Patrol										
	27	0324			0343	No	Flare	Patrol										
	27	1026			1030	No	Flare	Patrol										
	27	1043			1047	No	Flare	Patrol										
	27	1106			1108	No	Flare	Patrol										
	27	1223			1335	No	Flare	Patrol										
	28	1131			1336	No	Flare	Patrol										
	30	0007			0109	No	Flare	Patrol										
	30	1024			1212	No	Flare	Patrol										
	30	1231			1337	No	Flare	Patrol										
	31	1024			1025	No	Flare	Patrol										
	31	1058			1105	No	Flare	Patrol										
	31	1108			1109	No	Flare	Patrol										
	31	1112			1141	No	Flare	Patrol										
	31	1214			1222	No	Flare	Patrol										
	31	1318			1335	No	Flare	Patrol										
	31	1409			1413	No	Flare	Patrol										
	31	1421			1432	No	Flare	Patrol										
	31	1639			1734	No	Flare	Patrol										
	31	1747			1755	No	Flare	Patrol										
	31	2008			2014	No	Flare	Patrol										
	31	2026			2052	No	Flare	Patrol										
	31	2116			2140	No	Flare	Patrol										
	31	2159			2200	No	Flare	Patrol										

"Remarks"

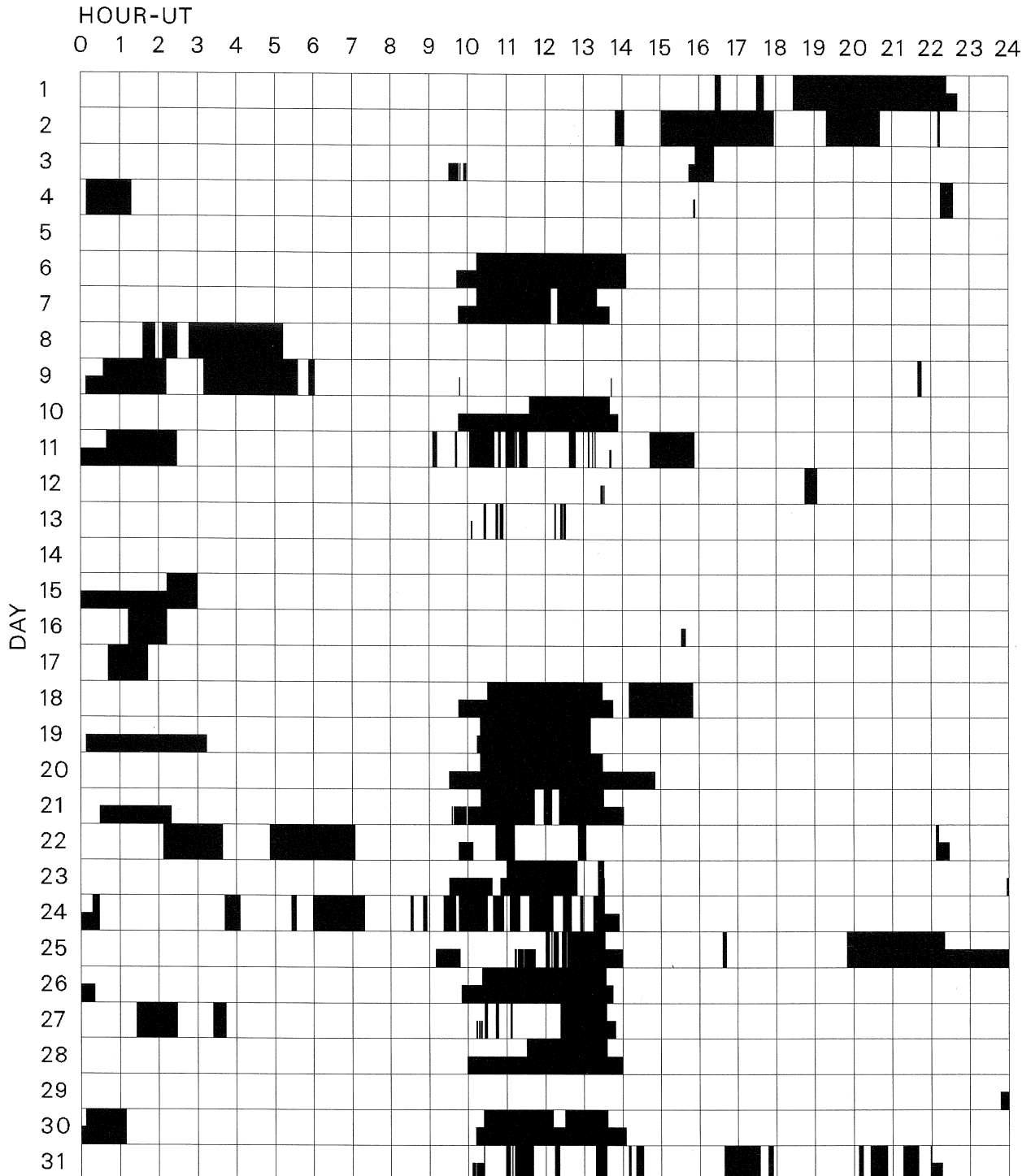
A = Eruptive prominence whose base is less than 90 degrees from central meridian.
 B = Probably the end of a more important flare.
 C = Invisible 10 minutes before.
 D = Brilliant point.
 E = Two or more brilliant points.
 F = Several eruptive centers.
 G = No visible spots in the neighborhood.
 H = Flare accompanied by high-speed dark filament.
 I = Active region very extended.
 J = Distinct variations of plage intensity before or after the flare.
 K = Several intensity maxima.
 L = Existing filaments show signs of sudden activity.
 M = White-light flare.
 N = Continuous spectrum shows effects of polarization.

O = Observations have been made in the H and K lines of Ca II.
 P = Flare shows Helium D3 in emission.
 Q = Flare shows Balmer continuum in emission.
 R = Marked asymmetry in H-alpha line suggests ejection of high-velocity material.
 S = Brightness follows disappearance of filament in same position.
 T = Region active all day.
 U = Two bright branches, parallel or converging.
 V = Occurrence of an explosive phase; important, expansion within roughly 1 minute that often includes a significant intensity increase.
 W = Great increase in area after time of maximum intensity.
 X = Unusually wide H-alpha line.
 Y = System of loop-type prominences.
 Z = Major sunspot umbra covered by flare.

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

INTERVALS OF NO FLARE PATROL OBSERVATION FOR PRECEDING SOLAR FLARE TABLE

OCTOBER 2007



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

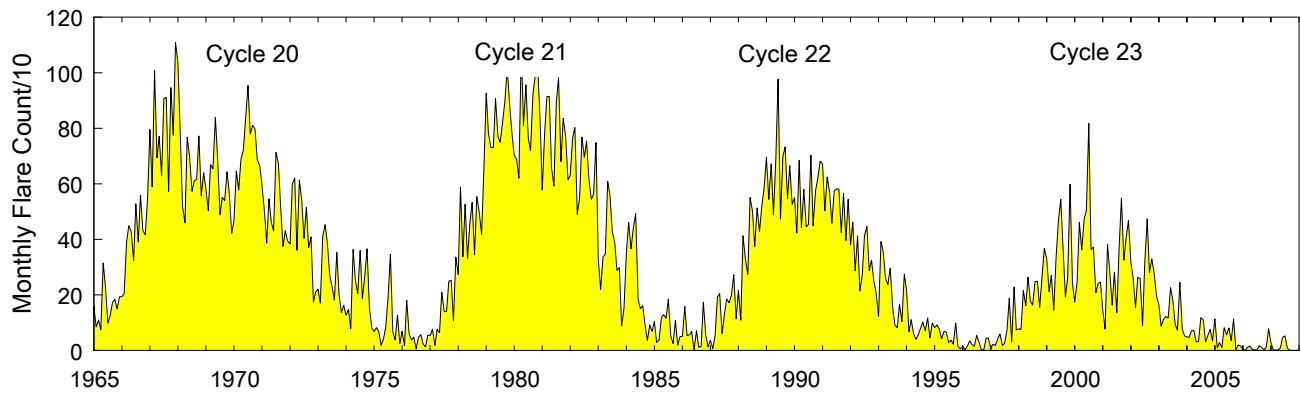
Holloman
Kanzelhoehe

Learmonth
Kharkov

San Vito

Monthly Counts of Grouped Solar Flares

Jan 1965 - Oct 2007



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	4	2	1	17	11	3	12	78	159
2007	29	2	1	2	9	47	53	9	0	0			152

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

8
Oct 07

S O L A R R A D I O E M I S S I O N
Outstanding Occurrences
OCTOBER 2007

Day	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
						Peak (10 -22 W/m ² Hz)	Mean		
16	410 PALE	8 S	1758.0	1758.0	U	150.0			QL=4 ST=2 TYP=3

Reports are received routinely from the following observatories:

CUBA = Havana	LEAR = Learmonth	SGMR = Sagamore Hill
GORK = Gorky	PEKG = Peking	SVTO = San Vito
HIRA = Hiraiso	PALE = Palehua	TORN = Torun
IZMI = IZMIRAN	PENT = Penticton	UPIC = Upice

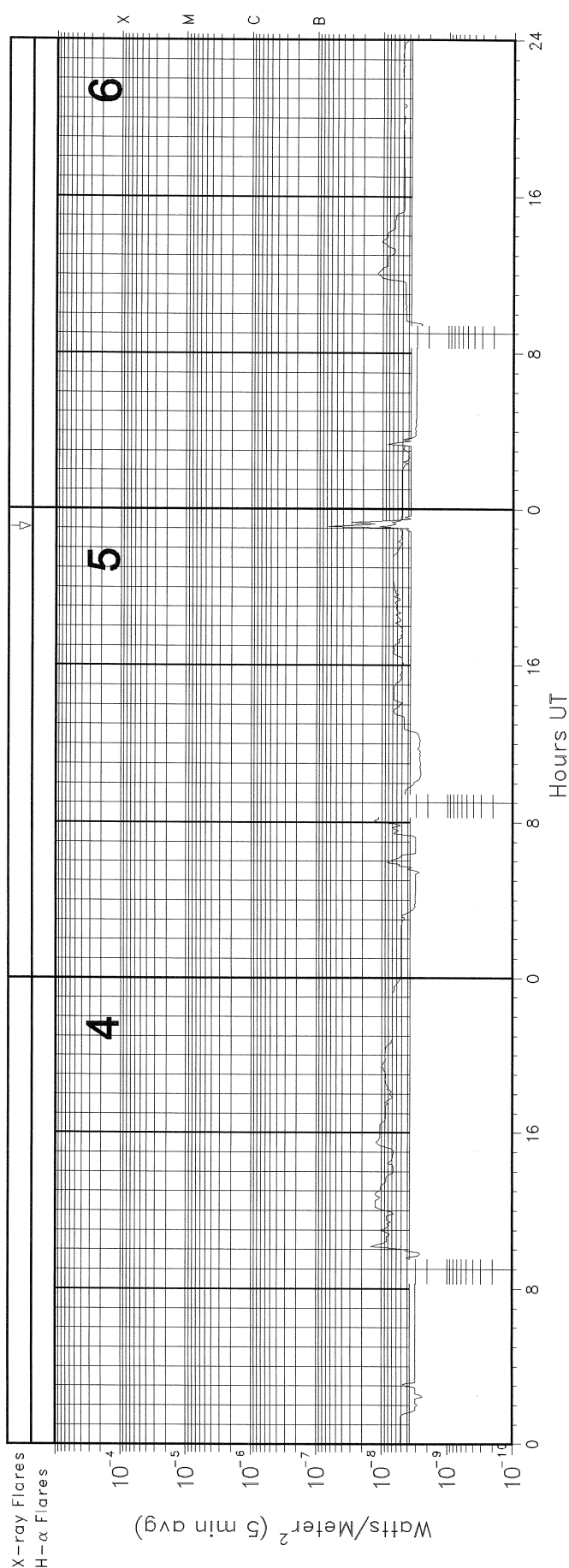
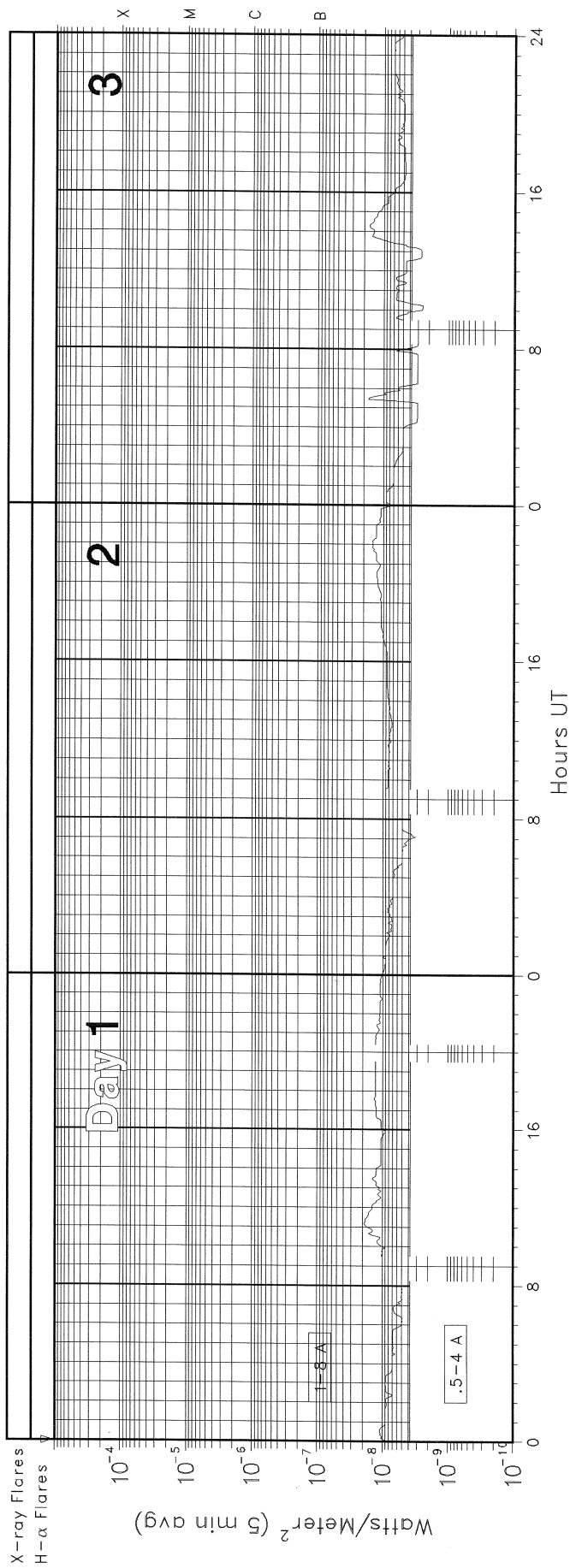
Explanation of Type Code:

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 Hiraiso, Japan 500 and 200 MHz.

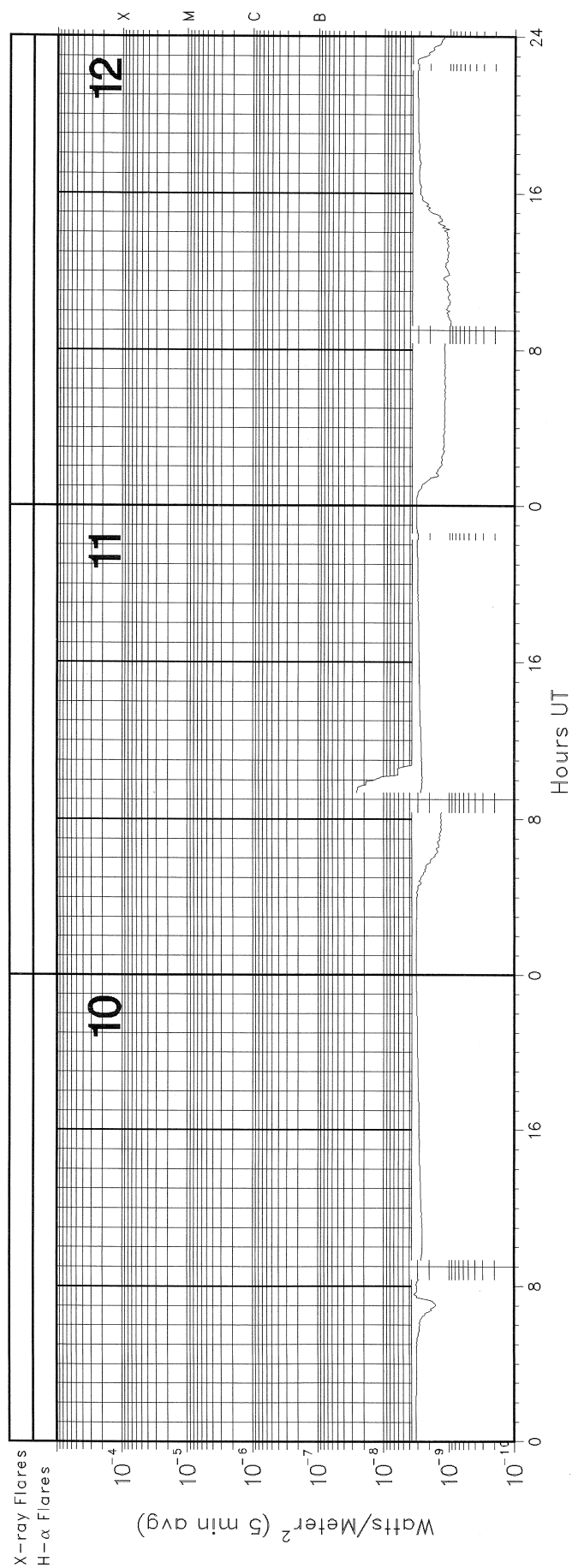
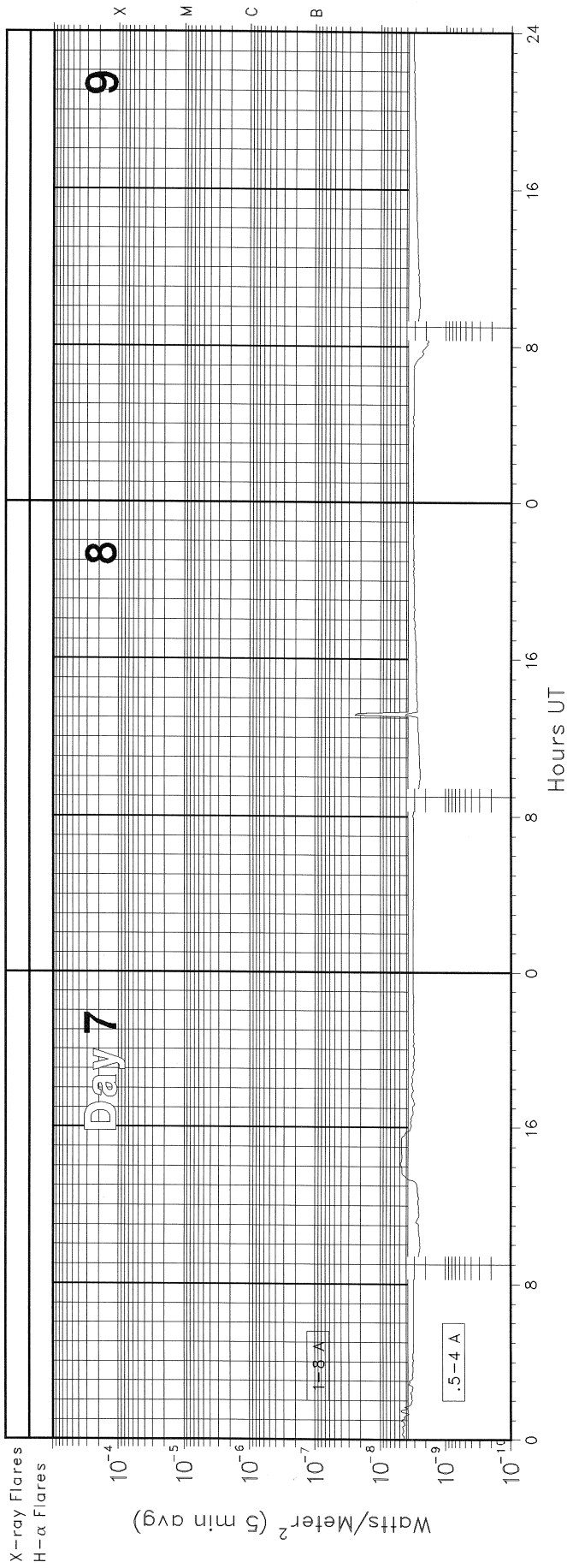
GOES X-RAY DETECTOR

October 2007



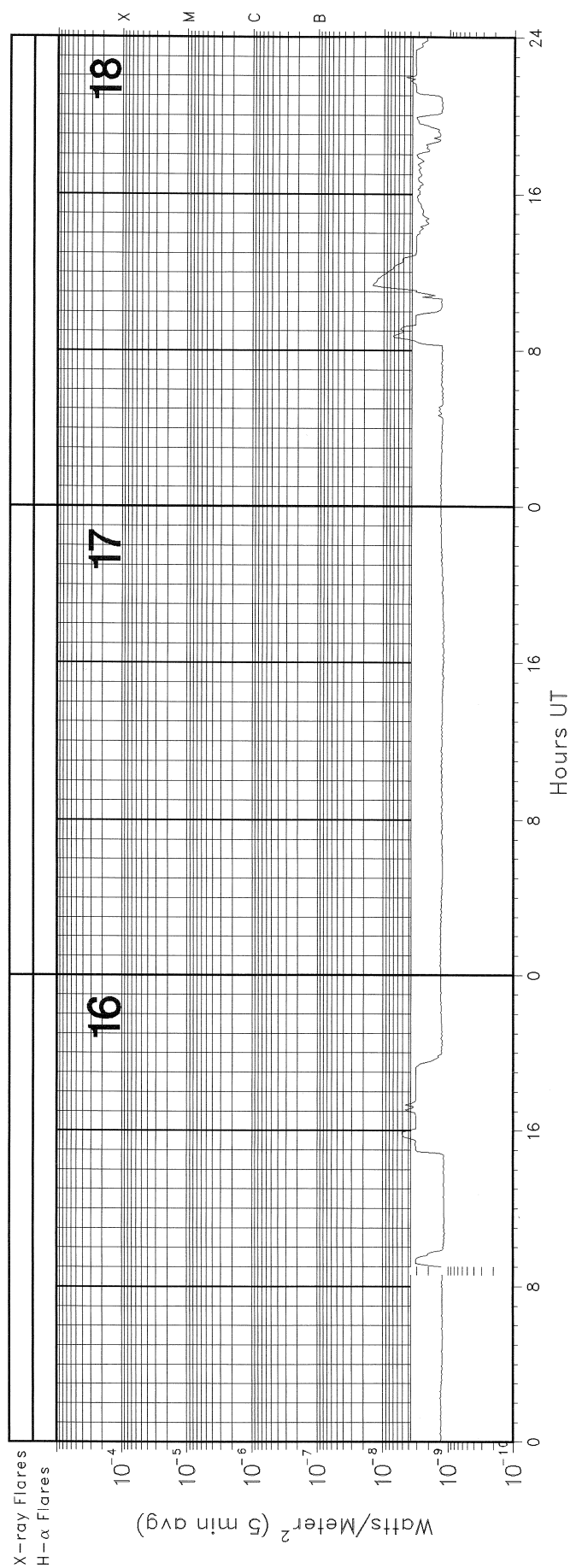
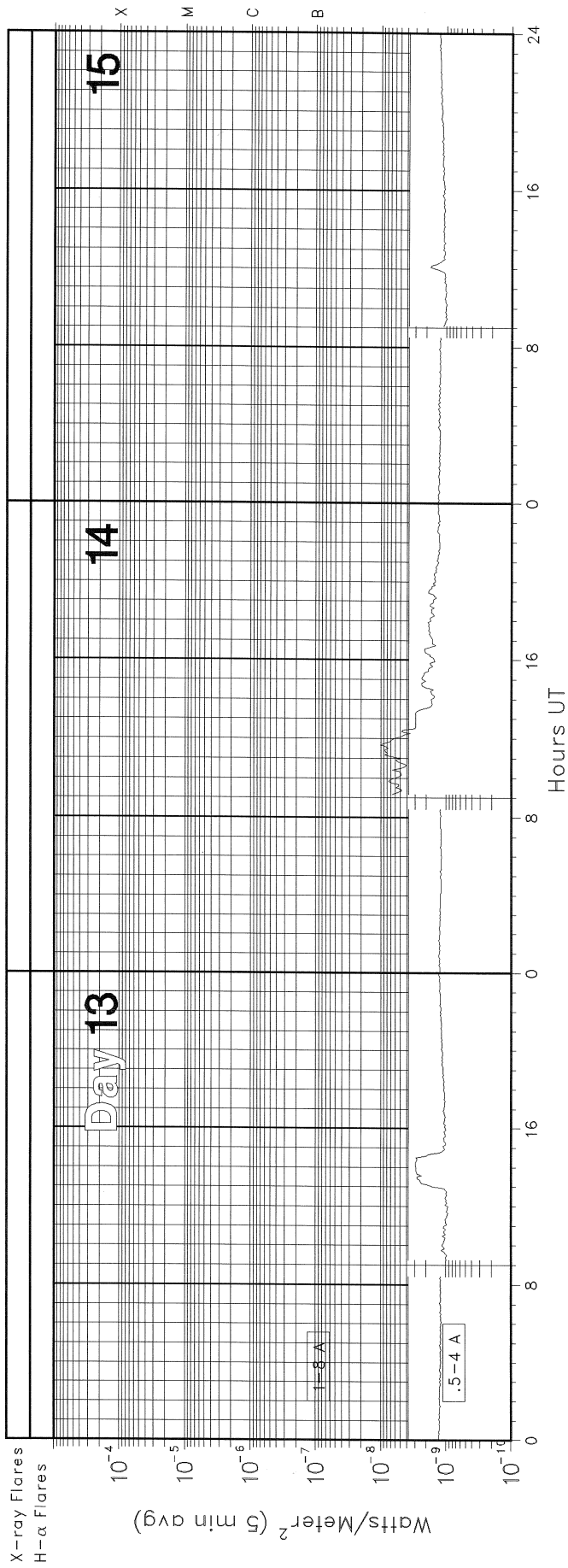
GOES X-RAY DETECTOR

October 2007



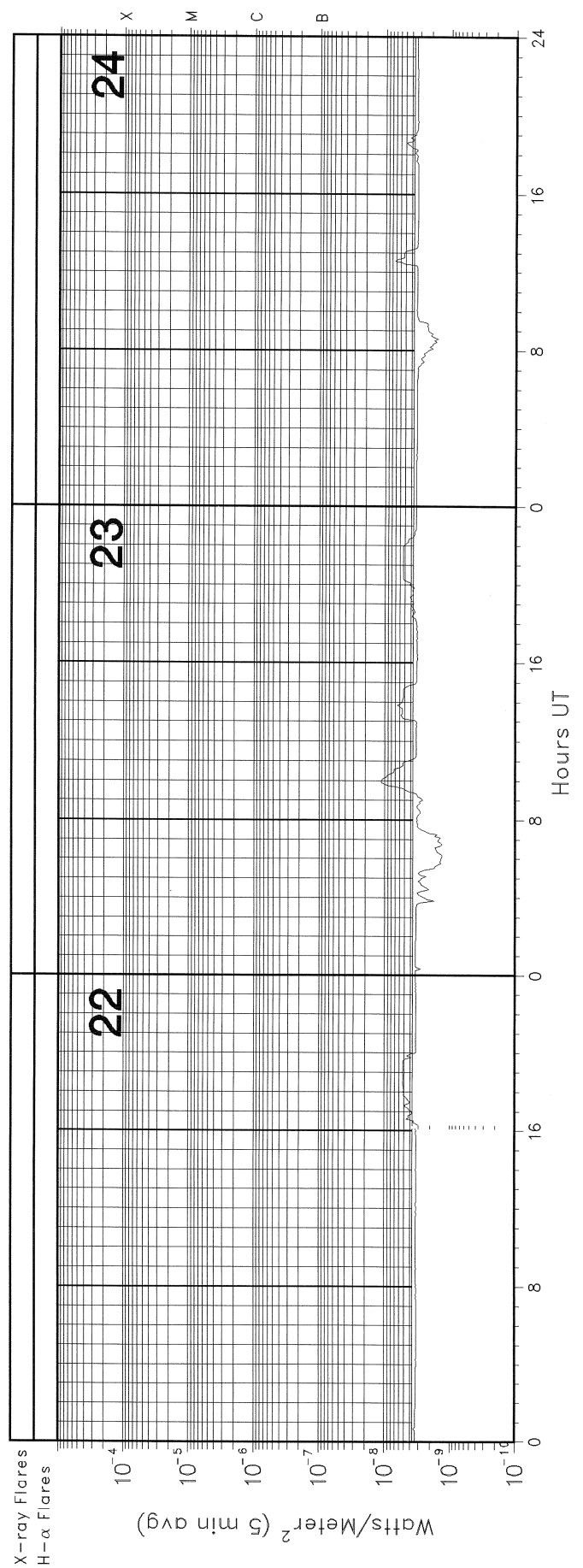
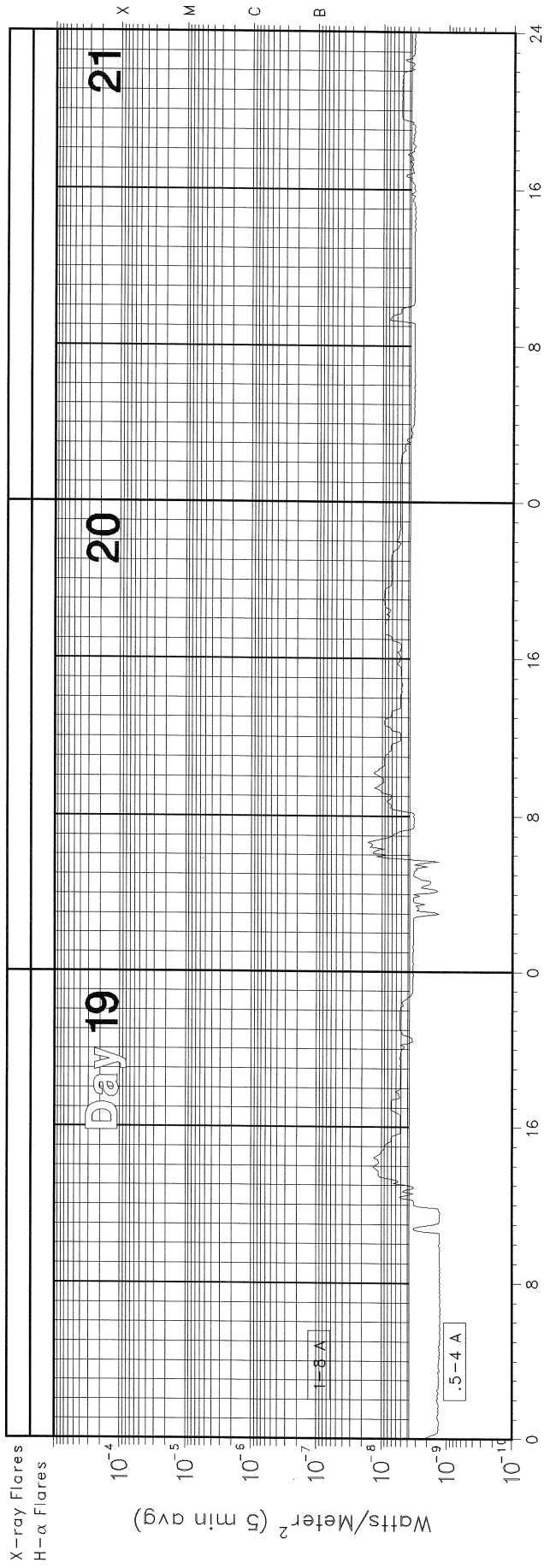
GOES X-RAY DETECTOR

October 2007



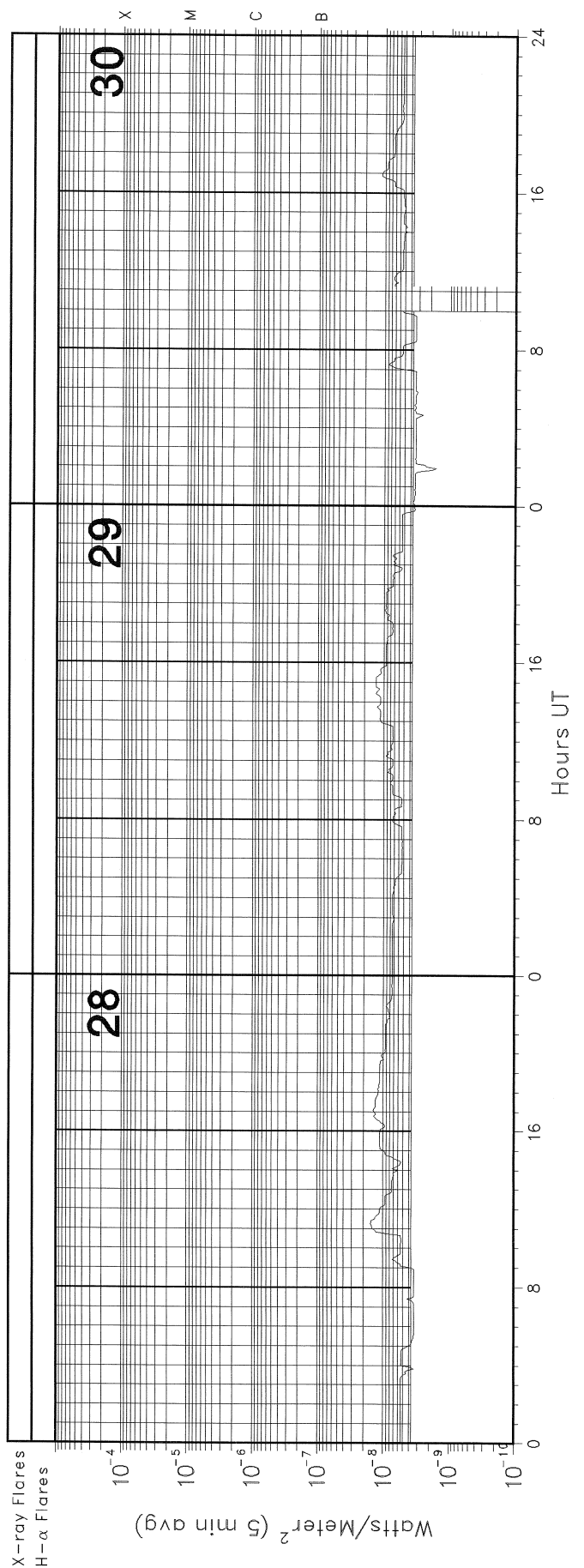
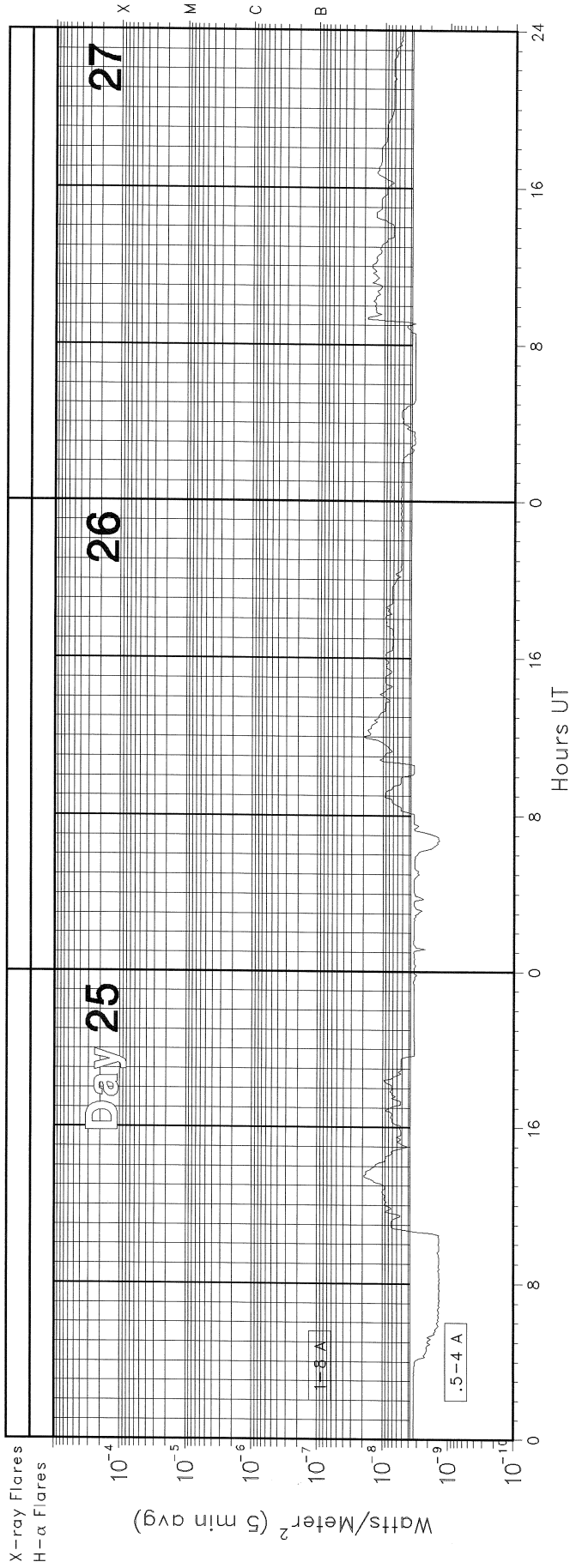
GOES X-RAY DETECTOR

October 2007



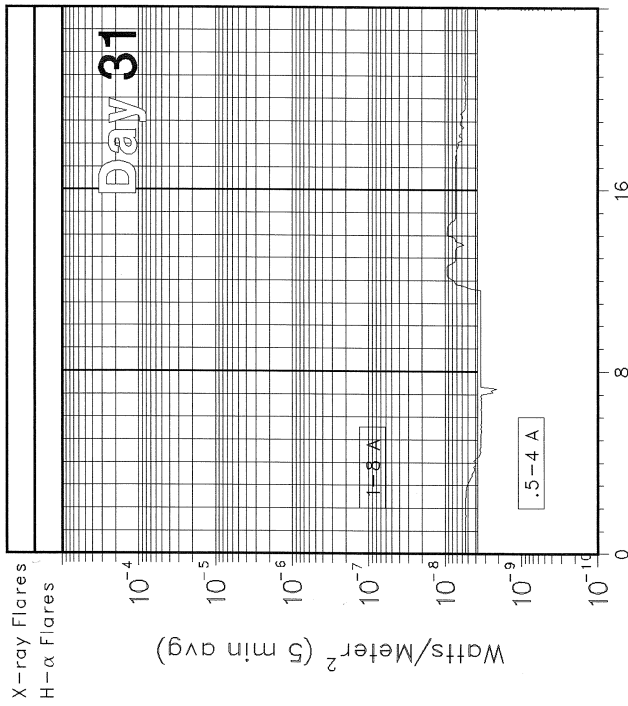
GOES X-RAY DETECTOR

October 2007



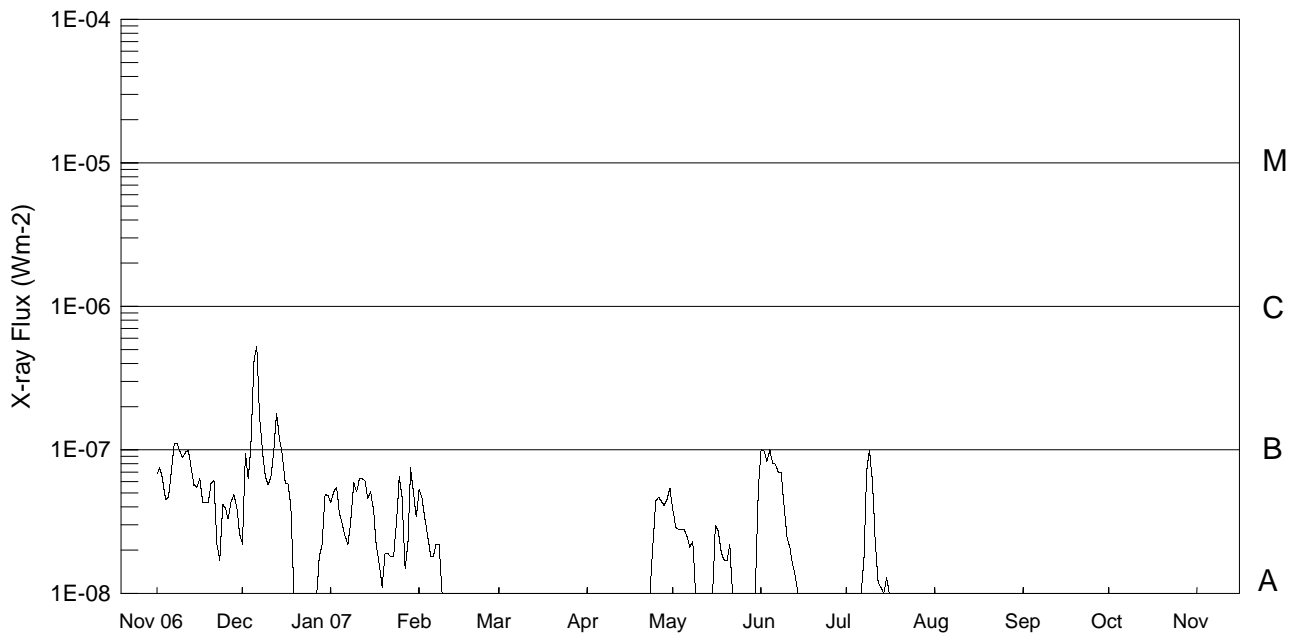
GOES X-RAY DETECTOR

October 2007



Preliminary GOES Satellite Daily X-Ray Background Nov 2006 - Oct 2007

15
Oct 07



Day	Nov 06	Dec	Jan 07	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
1	A6.8	A2.2	A4.3	A5.3	<A1.0	<A1.0	A3.8	B1.0	<A1.0	<A1.0	<A1.0	<A1.0
2	A7.5	A9.5	A5.1	A4.6	<A1.0	<A1.0	A2.9	A9.9	<A1.0	<A1.0	<A1.0	<A1.0
3	A6.2	A6.3	A5.5	A3.3	<A1.0	<A1.0	A2.8	A8.3	<A1.0	<A1.0	<A1.0	<A1.0
4	A4.5	B1.1	A3.6	A2.5	<A1.0	<A1.0	A2.8	B1.0	<A1.0	<A1.0	<A1.0	<A1.0
5	A4.7	B4.1	A3.1	A1.8	<A1.0	<A1.0	A2.8	A8.0	<A1.0	<A1.0	<A1.0	<A1.0
6	A7.0	B5.3	A2.5	A1.8	<A1.0	<A1.0	A2.5	A8.0	<A1.0	<A1.0	<A1.0	<A1.0
7	B1.1	B1.7	A2.2	A2.2	<A1.0	<A1.0	A2.1	A7.0	A1.7	<A1.0	<A1.0	<A1.0
8	B1.1	A9.7	A3.2	A2.2	<A1.0	<A1.0	A2.3	A7.0	A6.9	<A1.0	<A1.0	<A1.0
9	A9.8	A6.5	A5.9	<A1.0	<A1.0	<A1.0	<A1.0	A4.2	B1.0	<A1.0	<A1.0	<A1.0
10	A8.8	A5.7	A5.1	<A1.0	<A1.0	<A1.0	<A1.0	A2.5	A6.3	<A1.0	<A1.0	<A1.0
11	A9.6	A6.6	A6.3	<A1.0	<A1.0	<A1.0	<A1.0	A2.1	A2.4	<A1.0	<A1.0	<A1.0
12	B1.0	A9.8	A6.3	<A1.0	<A1.0	<A1.0	<A1.0	A1.6	A1.2	<A1.0	<A1.0	<A1.0
13	A7.5	B1.8	A6.1	<A1.0	<A1.0	<A1.0	<A1.0	A1.3	A1.1	<A1.0	<A1.0	<A1.0
14	A5.7	B1.2	A4.6	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
15	A5.5	A9.2	A5.1	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	A1.3	<A1.0	<A1.0	<A1.0
16	A6.3	A5.9	A3.8	<A1.0	<A1.0	<A1.0	A3.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
17	A4.3	A5.8	A2.1	<A1.0	<A1.0	<A1.0	A2.7	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
18	A4.3	A3.9	A1.6	<A1.0	<A1.0	<A1.0	A1.9	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
19	A4.3	<A1.0	A1.1	<A1.0	<A1.0	<A1.0	A1.7	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
20	A5.9	<A1.0	A1.9	<A1.0	<A1.0	<A1.0	A1.7	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
21	A6.1	<A1.0	A1.9	<A1.0	<A1.0	<A1.0	A2.2	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
22	A2.2	<A1.0	A1.8	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
23	A1.7	<A1.0	A1.8	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
24	A4.2	<A1.0	A3.1	<A1.0	<A1.0	A2.2	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
25	A3.9	<A1.0	A6.5	<A1.0	<A1.0	A4.4	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
26	A3.3	<A1.0	A4.6	<A1.0	<A1.0	A4.7	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
27	A4.3	<A1.0	A1.5	<A1.0	<A1.0	A4.4	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
28	A4.9	A1.8	A2.2	<A1.0	<A1.0	A4.1	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
29	A4.0	A2.2	A7.5		<A1.0	A4.5	<A1.0	A1.0	<A1.0	<A1.0	<A1.0	<A1.0
30	A2.6	A4.9	A5.1		<A1.0	A5.4	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
31		A4.8	A3.4		<A1.0		A5.1		<A1.0	<A1.0		<A1.0

Levels below B1.0 are unreliable.

16
Oct 07

ACTIVE PROMINENCES AND FILAMENTS

OCTOBER 2007

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
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NO REPORTS

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

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

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

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

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

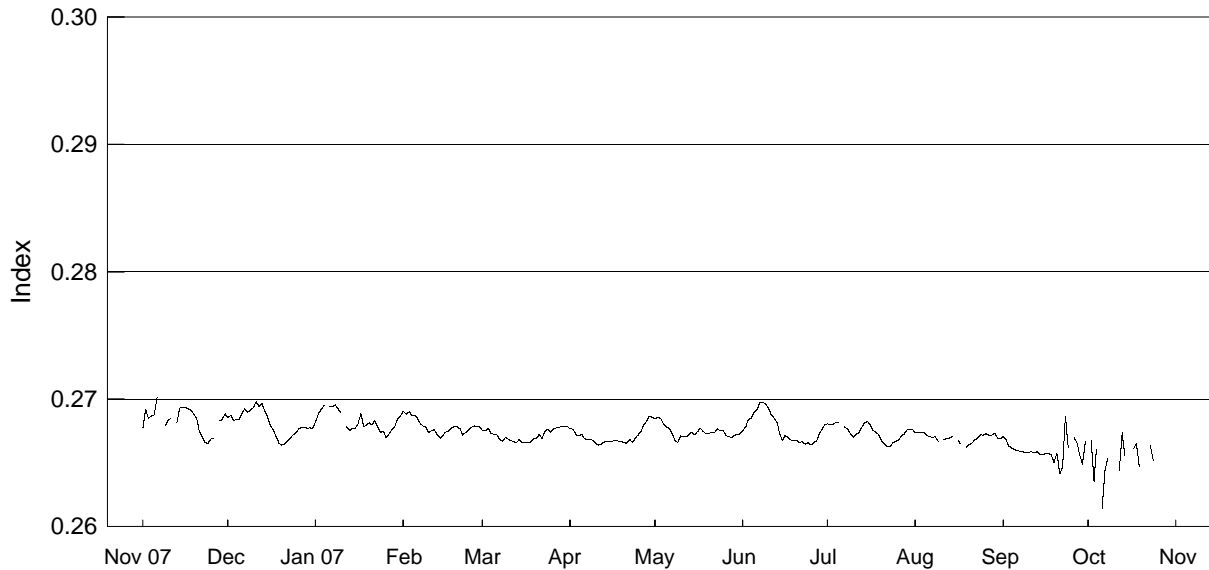
ABST = Abastumani	HOLL = Holloman	RAMY = Ramey
ATHN = Athens	KHAR = Kharkov	SVTO = San Vito
BUCA = Bucharest	LEAR = Learmonth	VORO = Voroshilov
CATA = Catania	PALE = Palehua	VALA = Valasske Mezirici
		WROC = Wroclaw

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

Nov 2006 - Oct 2007

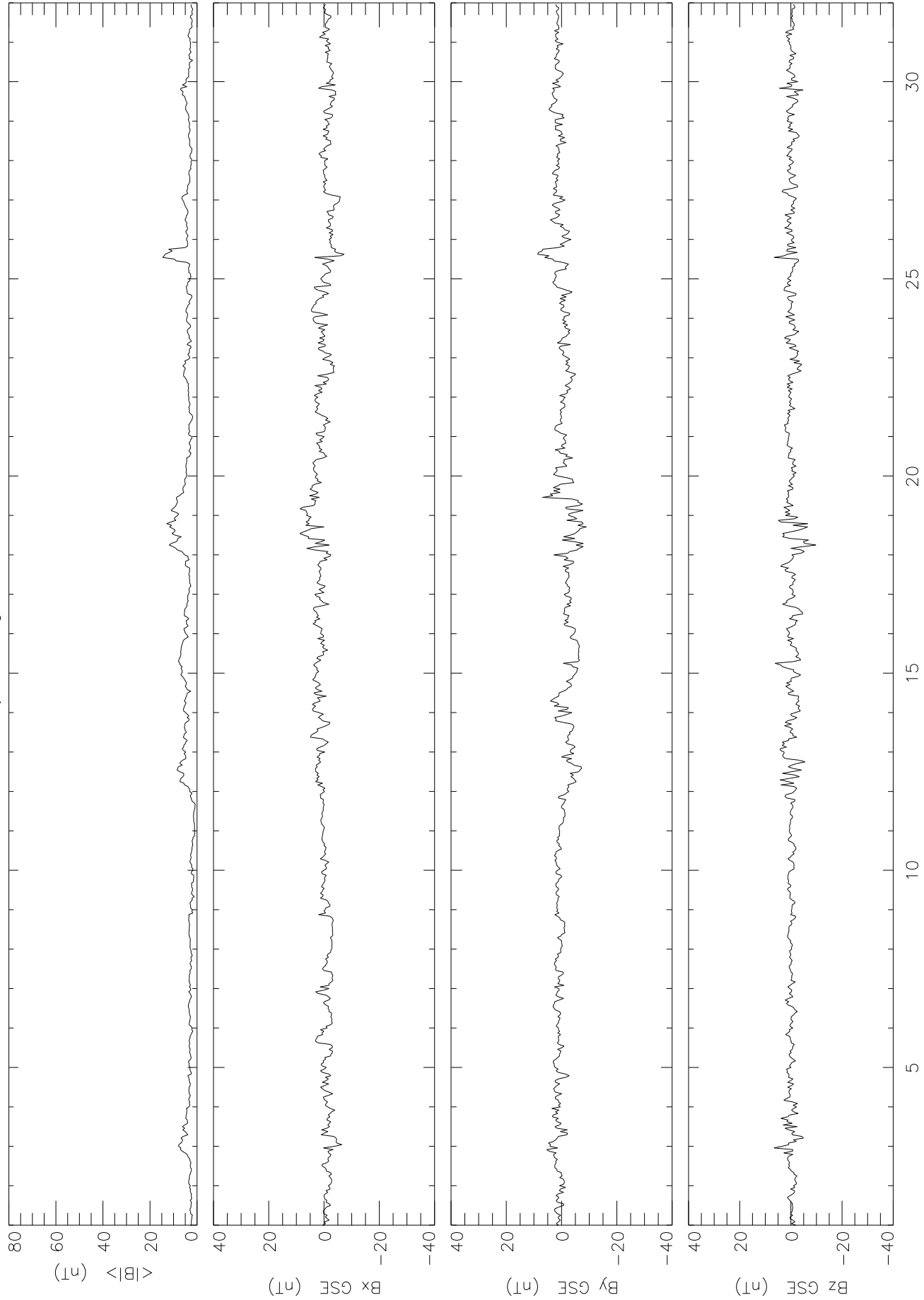
Version 9.1



Day	Nov 06	Dec	Jan 07	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
1	0.2678	0.2685	0.2682	0.2691	0.2675	0.2677	0.2685	0.2676	0.2681	0.2674	0.2671	---
2	0.2692	0.2687	0.2689	0.2688	0.2675	0.2676	0.2686	0.2678	0.2680	0.2674	0.2669	0.2668
3	0.2685	0.2683	0.2692	0.2690	0.2677	0.2672	0.2685	0.2684	0.2681	0.2674	0.2663	0.2635
4	0.2687	0.2684	0.2695	0.2687	0.2673	0.2671	0.2680	0.2685	0.2682	0.2674	0.2662	0.2661
5	0.2688	0.2684	---	0.2687	0.2673	0.2673	0.2679	0.2690	0.2682	0.2672	0.2661	---
6	0.2701	0.2689	0.2695	0.2685	0.2672	0.2669	0.2677	0.2692	---	0.2671	0.2660	0.2615
7	---	0.2693	0.2694	0.2681	0.2669	0.2669	0.2673	0.2697	0.2678	0.2670	0.2659	0.2645
8	---	0.2690	0.2696	0.2679	0.2667	0.2668	0.2667	0.2698	0.2677	0.2671	0.2659	0.2654
9	0.2680	0.2691	0.2692	0.2678	0.2670	0.2668	0.2666	0.2697	0.2673	0.2667	0.2658	---
10	0.2684	0.2693	0.2689	0.2674	0.2669	0.2665	0.2671	0.2693	0.2670		0.2659	---
11	0.2685	0.2698	---	0.2675	0.2668	0.2664	0.2671	0.2688	0.2673	0.2668	0.2659	---
12	---	0.2694	0.2678	0.2676	0.2667	0.2665	0.2671	0.2685	0.2674	0.2669	0.2658	0.2644
13	0.2682	0.2697	0.2676	0.2672	0.2666	0.2666	0.2672	0.2682	0.2678	0.2670	0.2659	0.2674
14	0.2693	0.2691	0.2677	0.2670	0.2668	0.2667	0.2674	0.2674	0.2681	0.2671	0.2657	0.2655
15	0.2694	0.2686	0.2677	0.2672	0.2666	0.2667	0.2672	0.2667	0.2683	---	0.2656	---
16	0.2694	0.2679	0.2681	0.2674	0.2666	0.2667	0.2675	0.2672	0.2680	0.2668	0.2657	---
17	0.2693	0.2676	0.2689	0.2675	0.2666	0.2668	0.2677	0.2670	0.2676	0.2665	0.2657	0.2661
18	0.2691	0.2671	0.2678	0.2677	0.2666	0.2667	0.2675	0.2668	0.2674	---	0.2656	0.2665
19	0.2688	0.2666	0.2680	0.2679	0.2669	0.2667	0.2673	0.2668	0.2672	0.2662	0.2650	0.2647
20	0.2685	0.2664	0.2682	0.2679	0.2669	0.2666	0.2673	0.2668	0.2667	0.2664	0.2657	---
21	0.2674	0.2664	0.2680	0.2677	0.2672	0.2666	0.2674	0.2666	0.2665	0.2666	0.2641	---
22	0.2670	0.2667	0.2683	0.2672	0.2669	0.2668	0.2674	0.2667	0.2663	0.2668	0.2647	---
23	0.2666	0.2669	0.2678	0.2674	0.2675	0.2666	0.2677	0.2665	0.2663	0.2670	0.2687	0.2664
24	0.2665	0.2672	0.2674	0.2676	0.2676	0.2670	0.2675	0.2666	0.2666	0.2672	0.2662	0.2652
25	0.2669	0.2673	0.2675	0.2678	0.2674	0.2672	0.2676	0.2664	0.2667	0.2672	---	---
26	0.2669	0.2676	0.2670	0.2679	0.2677	0.2675	0.2672	0.2666	0.2668	0.2673	0.2670	---
27	---	0.2678	0.2673	0.2678	0.2677	0.2680	0.2671	0.2667	0.2671	0.2672	0.2666	---
28	0.2683	0.2678	0.2676	0.2678	0.2678	0.2683	0.2670	0.2673	0.2673	0.2672	0.2656	---
29	0.2684	0.2677	0.2679		0.2678	0.2687	0.2672	0.2677	0.2676	0.2673	0.2649	0.2658
30	0.2689	0.2678	0.2685		0.2679	0.2686	0.2672	0.2680	0.2676	0.2669	0.2667	---
31		0.2677	0.2687		0.2679		0.2673		0.2676	0.2669		---
Mean	0.2683	0.2681	0.2683	0.2679	0.2672	0.2671	0.2674	0.2677	0.2674	0.2670	0.2660	0.2653

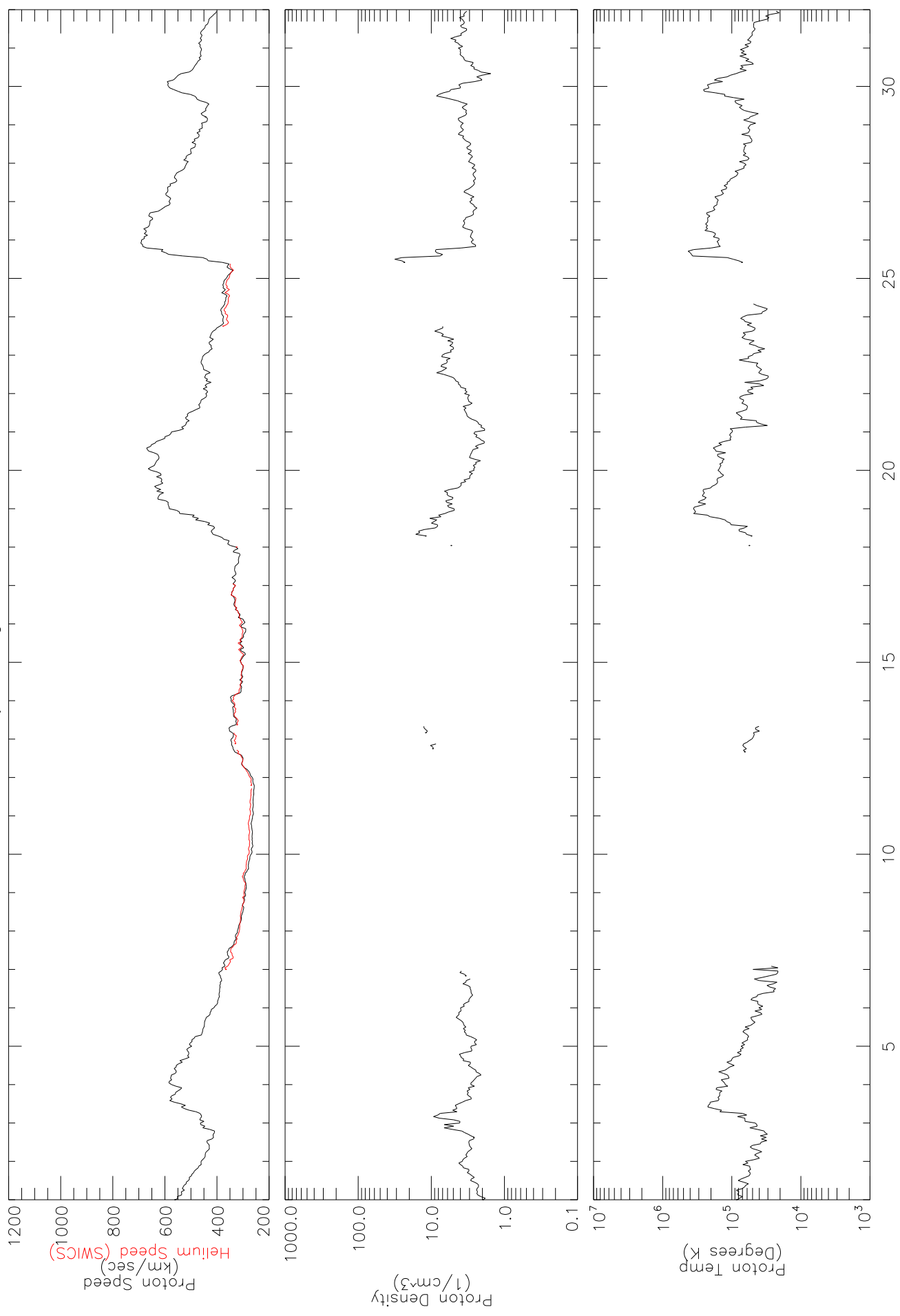
Data at: <http://www.sec.noaa.gov/ftpmenu/sbu.html>

ACE LEVEL2 DATA Interplanetary Magnetic Field
Hourly Averages for OCTOBER 2007, from MAG



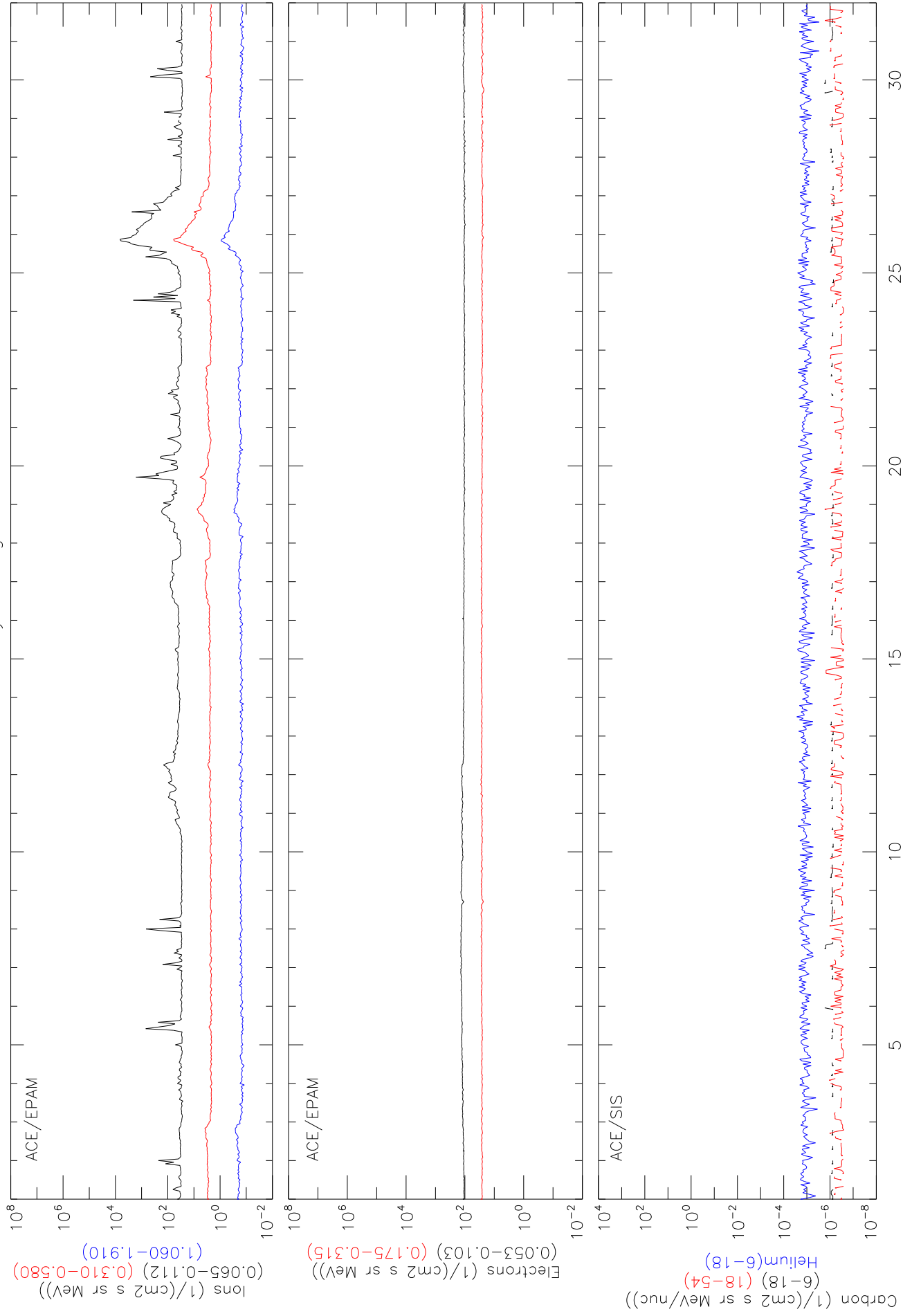
DAYS OF OCTOBER 2007

ACE LEVEL2 DATA Hourly Averages for OCTOBER 2007, from SWEPM



DAYS OF OCTOBER 2007

Solar Energetic Particles ACE LEVEL2 DATA Hourly Averages for OCTOBER 2007



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
OCTOBER 2007

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 ²	Position Angle degree	
2007/10/01	03:54:04	259	14	349	326	373	517	6.9*	261	Very Poor Event
2007/10/01	05:30:04	264	33	310	357	256	190	-4.0*	264	Poor Event
2007/10/02	00:06:04	352	8	442	447	437	349	-3.4*	352	Very Poor; Only C2 Only 3 points
2007/10/02	04:54:04	168	12	198	368	15	0	-92.7*	164	Very Poor; Only C2
2007/10/02	05:54:04	99	37	166	115	221	491	9.5*	91	Very Poor; Only C2
2007/10/02	09:30:04	166	8	411	328	494	1100	46.3*	166	Very Poor; Only C2
2007/10/02	18:30:04	291	19	257	203	313	378	4.4*	290	Very Poor Event
2007/10/02	23:30:04	220	11	273	324	222	0	-29.0*	222	Very Poor; Only C2
2007/10/03	07:31:40	352	4	236	279	194	0	-25.0*	352	Very Poor; Only C2
2007/10/03	09:06:04	214	53	88	0	164	227	2.2*	214	Very Poor Event
2007/10/03	17:30:04	77	28	160	0	341	609	15.7*	80	Poor Event
2007/10/03	21:30:04	327	10	325	353	298	0	-15.6*	321	Very Poor; Only C2
2007/10/04	12:11:08	213	7	444	557	334	0	-86.5*	215	Very Poor; Only C2 Only 3 points
2007/10/04	18:30:04	120	21	334	306	362	365	1.7*	117	Poor Event
2007/10/04	18:54:04	81	35	245	116	388	387	5.6*	85	Poor Event
2007/10/05	02:30:04	248	10	231	362	90	0	-29.3*	255	Very Poor; Only C2
2007/10/05	09:54:04	91	9	203	188	220	340	3.9*	90	Very Poor Event
2007/10/06	00:54:04	239	9	244	108	391	1377	78.6*	242	Very Poor; Only C2 Only 3 points
2007/10/06	06:30:04	237	8	230	380	90	0	-78.4*	241	Very Poor; Only C2 Only 3 points
2007/10/06	12:54:04	254	9	367	260	483	1233	61.9*	264	Very Poor; Only C2 Only 3 points
2007/10/06	20:30:04	57	10	331	377	284	0	-17.8*	61	Very Poor; Only C2
2007/10/06	20:58:39	347	7	235	246	222	0	-7.2*	341	Very Poor; Only C2 Only 3 points
2007/10/07	19:42:04	291	8	253	207	300	329	3.3*	293	Very Poor; Only C3
2007/10/07	23:06:49	234	11	372	381	362	147	-5.3*	237	Very Poor; Only C2
2007/10/08	12:30:04	277	82	206	91	331	301	3.4	283	
2007/10/08	18:30:04	112	15	184	148	221	335	4.2*	113	Very Poor Event
2007/10/08	23:30:04	271	39	251	248	254	256	0.2*	276	Poor Event
2007/10/09	10:30:19	262	32	145	142	148	189	0.6*	270	Very Poor; Only C2
2007/10/09	15:30:04	268	32	259	157	366	491	8.9*	272	Poor Event
2007/10/10	13:06:04	43	8	265	219	313	646	15.4*	38	Very Poor; Only C2
2007/10/10	15:54:04	211	6	330	373	287	0	-24.0*	215	Very Poor; Only C2
2007/10/11	05:54:04	68	9	237	270	201	0	-11.2*	67	Very Poor; Only C2
2007/10/11	08:54:04	98	7	468	494	442	0	-17.9*	106	Poor Event
2007/10/11	09:30:04	98	17	564	587	540	542	-2.2	101	
2007/10/11	12:54:04	280	11	235	214	256	440	6.2*	280	Very Poor; Only C2
2007/10/11	18:54:04	333	6	146	----	----	----	-----	325	Very Poor; Only C2 Only 2 points
2007/10/12	10:30:17	341	354	185	163	208	575	12.7*	158	Very Poor; Only C2 Partial Halo
2007/10/12	11:30:04	68	8	327	235	425	715	19.4*	74	Very Poor Event

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
OCTOBER 2007

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 ²	Position Angle degree	
2007/10/14	15:30:04	140	20	150	153	146	112	-0.5*	136	Very Poor; Only C2
2007/10/15	09:54:04	106	36	276	246	307	366	3.0*	108	Poor Event
2007/10/15	13:18:04	75	10	231	249	213	193	-1.4*	69	Very Poor; Only C3
2007/10/15	15:30:04	64	12	167	123	214	283	3.1*	63	Very Poor Event
2007/10/15	22:30:04	69	14	319	160	504	503	11.4*	70	Very Poor Event
2007/10/16	07:31:40	134	21	259	349	173	0	-36.6*	127	Very Poor Event;
2007/10/16	16:30:04	61	57	126	14	238	287	3.4*	59	Only C2
2007/10/17	08:30:04	293	29	245	222	269	320	2.3*	287	Very Poor Event
2007/10/17	13:06:04	15	9	341	220	462	1448	83.9*	16	Very Poor; Only C2
2007/10/17	13:06:04	280	19	242	226	259	301	1.6*	274	Only 3 points Very Poor Event
2007/10/18	01:40:14	65	14	397	417	377	383	-1.5*	66	Very Poor Event
2007/10/18	09:30:04	219	47	371	333	410	435	3.4*	232	Poor Event
2007/10/18	10:06:04	68	17	318	199	448	454	7.9*	70	Very Poor Event
2007/10/18	20:30:04	130	10	321	143	507	1218	61.2*	129	Very Poor; Only C2
2007/10/18	23:30:05	116	8	219	306	134	0	-49.3*	109	Very Poor; Only C2
2007/10/19	13:30:04	130	10	357	448	270	0	-35.7*	128	Very Poor; Only C2
2007/10/20	00:54:04	120	5	548	614	476	0	-38.4*	116	Very Poor; Only C2
2007/10/20	05:30:04	251	20	219	234	204	0	-6.1*	257	Only 3 points Very Poor; Only C2
2007/10/20	06:54:04	241	21	138	175	104	0	-5.4*	248	Very Poor; Only C2
2007/10/20	22:06:26	245	41	99	0	198	285	3.7*	252	Poor Event
2007/10/21	04:06:04	101	7	345	329	358	498	5.8*	98	Very Poor Event
2007/10/21	17:30:04	265	6	275	291	260	0	-9.0*	264	Very Poor; Only C2
2007/10/21	18:30:04	253	13	145	128	162	213	1.3*	254	Only 3 points; Very Poor Event
2007/10/21	20:58:40	85	74	207	37	394	366	5.4*	92	Very Poor Event
2007/10/22	04:54:04	251	7	203	169	240	338	4.0*	255	Very Poor Event
2007/10/22	12:06:04	326	10	136	199	75	0	-24.9*	320	Very Poor; Only C2
2007/10/22	14:54:04	94	11	256	269	242	100	-2.6*	90	Very Poor Event
2007/10/22	16:30:04	76	16	306	274	341	343	1.9*	78	Poor Event
2007/10/22	21:30:04	81	6	374	336	418	403	2.1*	78	Poor Event
2007/10/23	00:54:04	88	22	187	154	223	408	5.9*	88	Very Poor Event
2007/10/23	02:54:04	87	6	289	207	371	444	6.6*	83	Very Poor Event
2007/10/23	07:54:04	83	17	220	231	207	182	-0.9*	82	Very Poor Event
2007/10/23	13:54:04	300	9	502	387	617	1189	52.4*	296	Poor Event; Only C2
2007/10/23	14:30:04	267	8	429	520	339	0	-51.5*	267	Poor Event; Only C2
2007/10/23	15:54:04	84	19	258	318	192	0	-12.7*	86	Very Poor Event
2007/10/23	16:54:05	51	16	347	307	383	957	35.4*	55	Very Poor; Only C2
2007/10/23	20:30:04	55	10	246	395	100	0	-81.8*	60	Only 3 points Very Poor; Only C2
2007/10/23	21:54:05	75	22	59	0	156	210	1.9*	75	Very Poor Event
2007/10/23	23:54:28	97	9	269	259	280	300	1.0*	96	Poor Event
2007/10/24	04:54:04	17	5	174	173	175	215	0.7*	19	Very Poor; Only C2

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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
OCTOBER 2007

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 ²	Position Angle degree	
2007/10/24	05:30:04	98	11	341	370	308	289	-2.3*	92	Poor Event
2007/10/24	19:31:39	240	11	316	180	459	492	10.0*	245	Very Poor Event
2007/10/25	00:54:04	198	7	252	167	343	1104	48.8*	203	Very Poor; Only C2 Only 3 points
2007/10/25	07:31:43	300	7	450	401	500	605	9.8*	295	
2007/10/25	22:26:04	355	3	251	157	357	980	39.8*	357	Very Poor; Only C2 Only 3 points
2007/10/26	03:06:04	278	12	466	470	462	448	-0.8*	278	Poor Event
2007/10/27	05:42:04	105	4	229	246	211	177	-1.5*	103	Very Poor; Only C3
2007/10/27	06:50:04	230	8	309	299	320	356	1.6*	238	Poor Event
2007/10/27	11:26:06	243	10	295	326	264	0	-17.1*	248	Very Poor; Only C2
2007/10/27	23:26:04	224	6	308	312	303	66	-4.0*	228	Very Poor; Only C2 Only 3 points;
2007/10/27	23:26:04	288	15	236	271	201	0	-20.6*	286	Very Poor; Only C2
2007/10/28	01:27:10	284	14	162	171	152	0	-5.1*	285	Very Poor; Only C2
2007/10/28	02:26:05	235	12	294	303	285	267	-0.8*	239	Poor Event
2007/10/28	10:26:08	241	6	233	11	493	2267	210.3*	243	Very Poor; Only C2 Only 3 points;
2007/10/29	09:26:04	239	20	239	340	137	0	-18.7*	241	Very Poor Event
2007/10/29	18:50:04	80	20	130	110	151	292	3.3*	83	Very Poor Event
2007/10/30	07:06:04	270	9	169	110	227	889	31.9*	268	Very Poor; Only C2
2007/10/30	12:50:04	232	4	326	217	444	1248	63.0*	236	Very Poor; Only C2 Only 3 points;
2007/10/30	21:50:04	96	44	366	467	258	0	-12.9*	109	Poor Event
2007/10/31	13:26:04	222	6	383	37	752	2661	298.1*	225	Very Poor; Only C2 Only 3 points;
2007/10/31	13:26:04	293	16	289	204	385	367	4.1*	291	Very Poor Event
2007/10/31	15:50:04	81	12	115	82	145	418	7.0*	79	Very Poor; Only C2
2007/10/31	21:26:09	276	7	228	80	379	1377	83.5*	281	Very Poor; Only C2
2007/10/31	21:26:09	289	14	255	137	385	396	6.5*	293	Very Poor Event

* Acceleration is uncertain due to either poor height measurement or a small number of height-time measurements.

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