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MARCH 2008 NUMBER 763 - Part II

Solar-Geophysical Data comprehensive reports

Data for September 2007

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Boulder, Colorado

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NATIONAL OCEANIC AND
ATMOSPHERIC ADMINISTRATION

NATIONAL ENVIRONMENTAL SATELLITE,
DATA, AND INFORMATION SERVICE

NATIONAL GEOPHYSICAL
DATA CENTER

BOULDER,
COLORADO

SOLAR-GEOPHYSICAL DATA

Number 763

(Issued in Two Parts)

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Solar-Terrestrial Physics Division

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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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SEPTEMBER 2007

Grp #	Sta	Start Day (UT)	Max (UT)	End (UT)	Lat	NOAA/		Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks	
						USAF CMD	Region						Mo	Day	Time (UT)		Apparent (10-6 Disk)
		24	1422	1428		No Flare	Patrol										
		24	1718	1754		No Flare	Patrol										
		24	1831	1836		No Flare	Patrol										
		24	1909	1938		No Flare	Patrol										
		26	1011	1129		No Flare	Patrol										
		26	1146	1215		No Flare	Patrol										
		26	1221	1247		No Flare	Patrol										
		28	1012	1119		No Flare	Patrol										
		28	1923	1928		No Flare	Patrol										
		28	2025	2042		No Flare	Patrol										
		28	2122	2128		No Flare	Patrol										
		29	1832	1844		No Flare	Patrol										

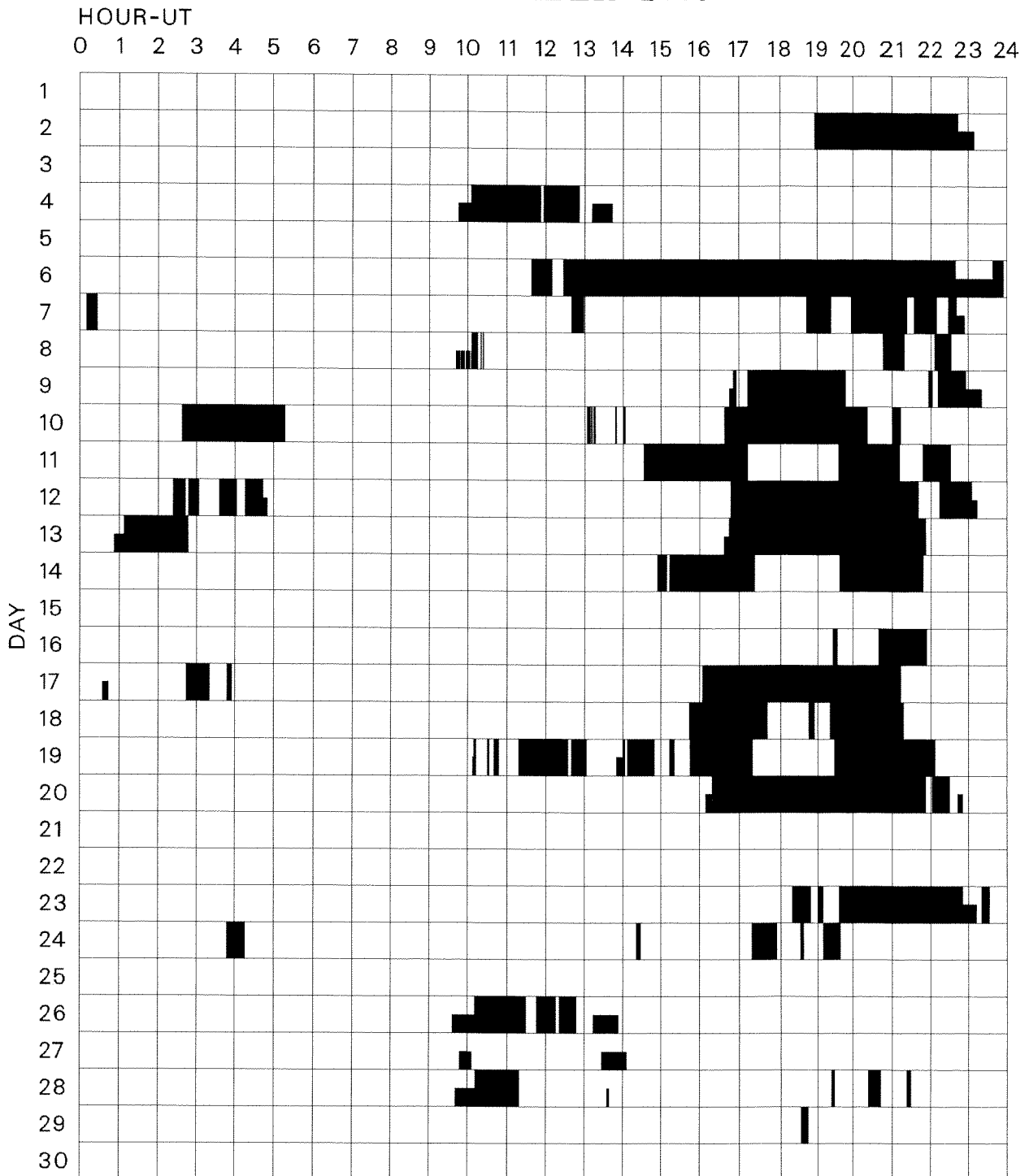
"Remarks"

- | | |
|---|---|
| <p>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.</p> | <p>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.</p> |
|---|---|

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

INTERVALS OF NO FLARE PATROL OBSERVATION FOR PRECEDING SOLAR FLARE TABLE

SEPTEMBER 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.

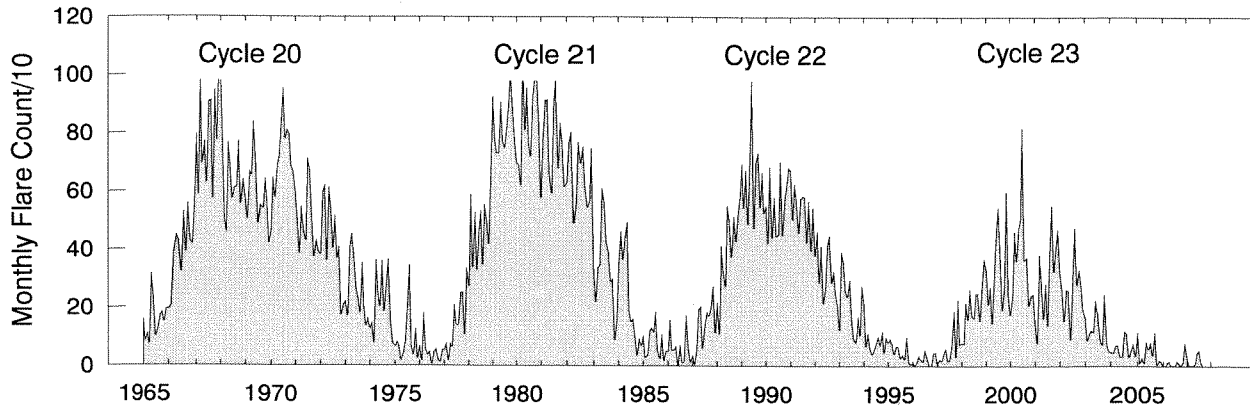
Holloman
Kanzelhoehe

Learmonth

San Vito

Monthly Counts of Grouped Solar Flares

Jan 1965 - Sep 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				152

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

8
Sep 07

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

SEPTEMBER 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		
01	33 UPIC	3 S	0923.0	0923.5	1.0				
05	2800 HIRA	1 S	0009.0	0011.0	4.0	10.0			
	2800 HIRA	4 S/F	0023.0	0026.0	7.0	10.0			
12	33 UPIC	3 S	1649.0	1649.5	1.0				
23	33 UPIC	3 S	1146.0	1146.5	1.0				

Reports are received routinely from the following observatories:

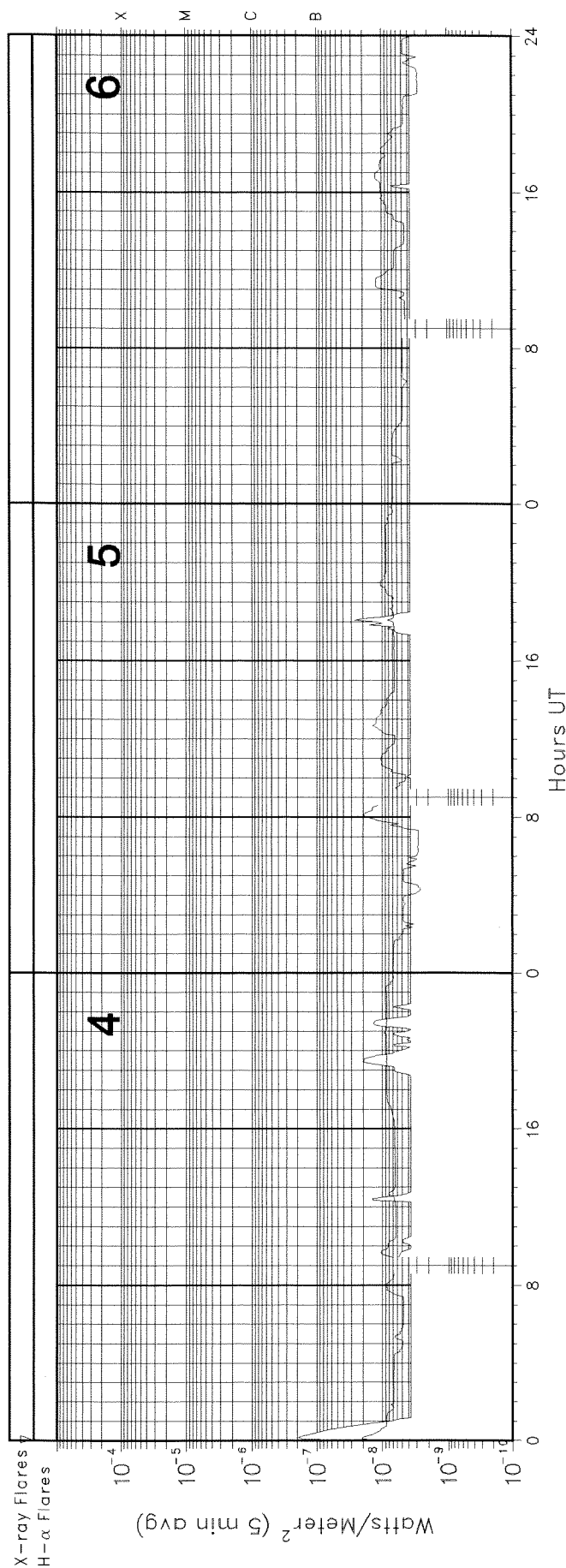
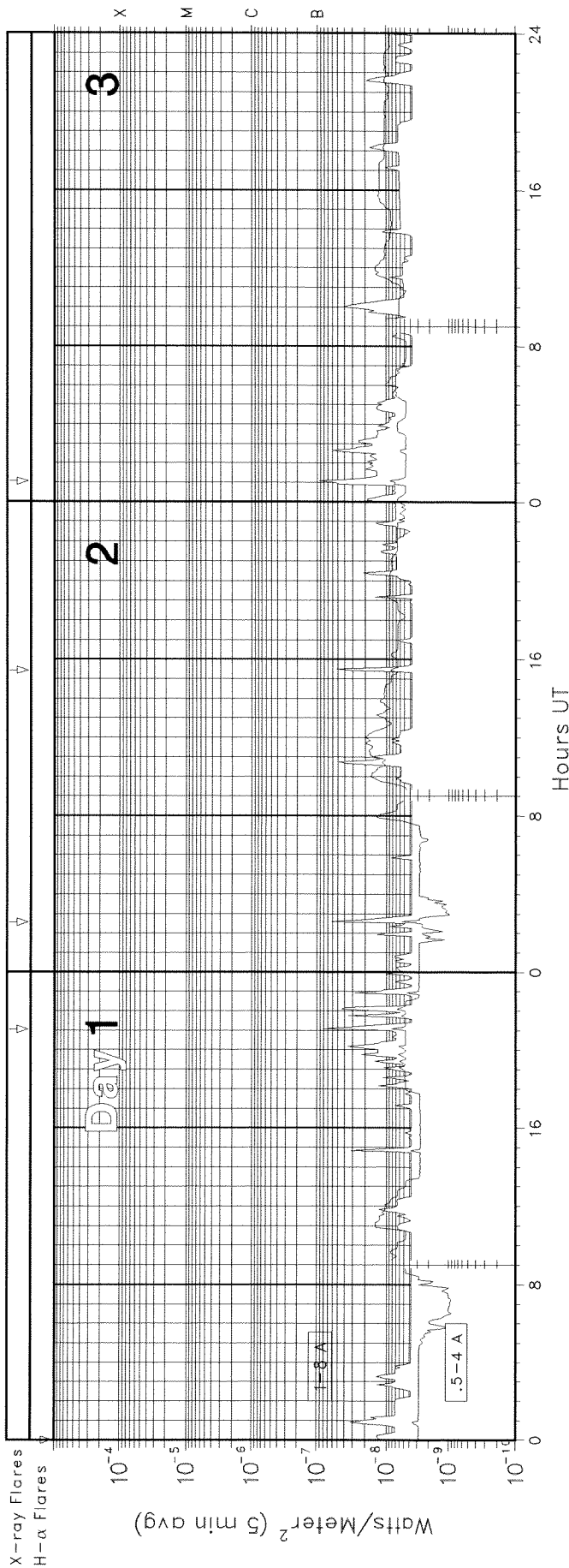
CUBA = Havana	LEAR = Learmonth	SGMR = Sagamore Hill
GORK = Gorky	PEKG = Peking	SVTO = San Vito
HIRA = Hiraiso	PALE = Palehua	TORN = Torun
IZMI = IZMIRAN	PENT = Penticton	UPIC = Upice

Explanation of Type Code:

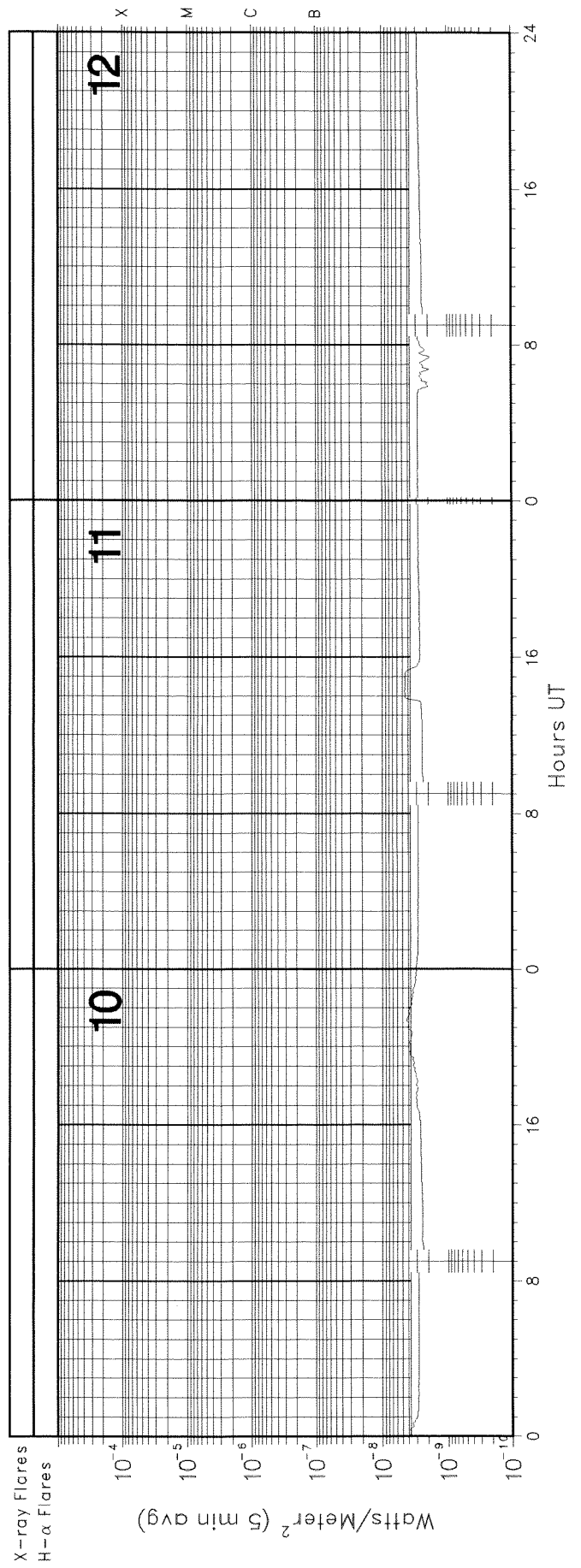
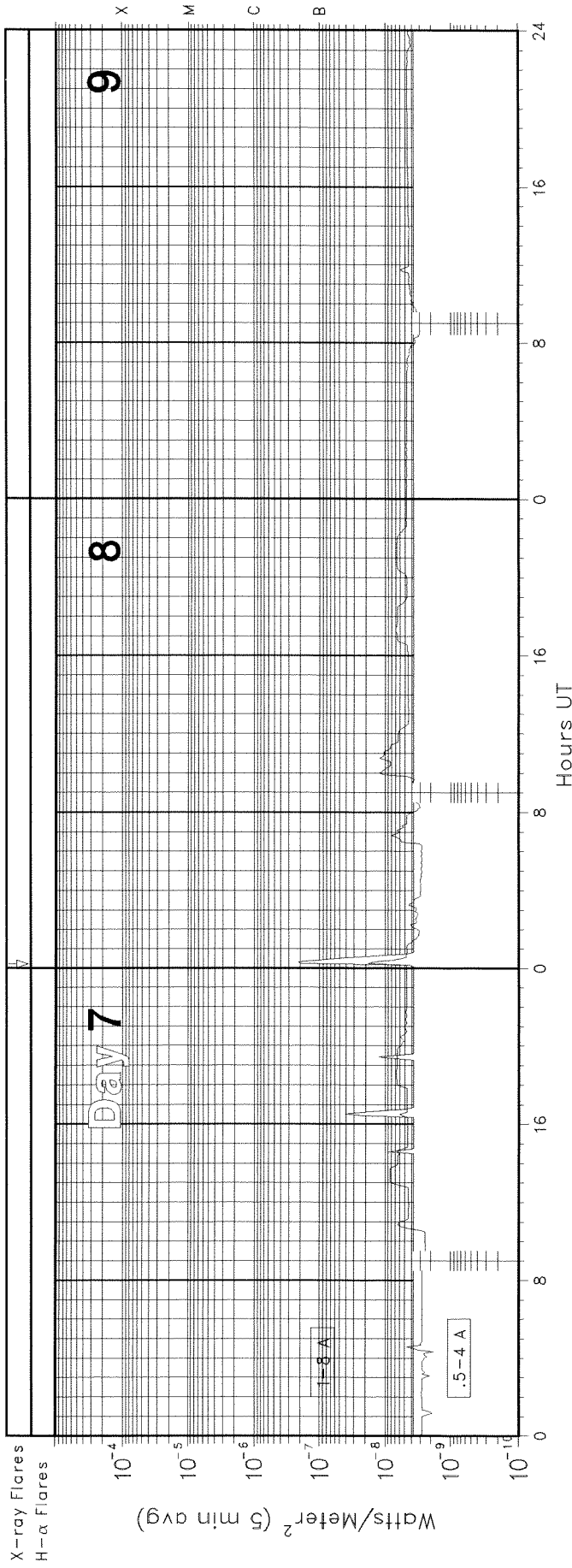
1 Simple 1	7 Minor +	24 Rise	30 Post Burst Increase A	43 Onset of Noise Storm
2 Simple 1F	8 Spike	25 Rise A	31 Post Burst Decrease	44 Noise Storm in Progress
3 Simple 2	20 Simple 3	26 Fall	33 Absorption	45 Complex
4 Simple 2F	21 Simple 3A	27 Rise and Fall	40 Fluctuation	46 Complex F
5 Simple	22 Simple 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 September 2007

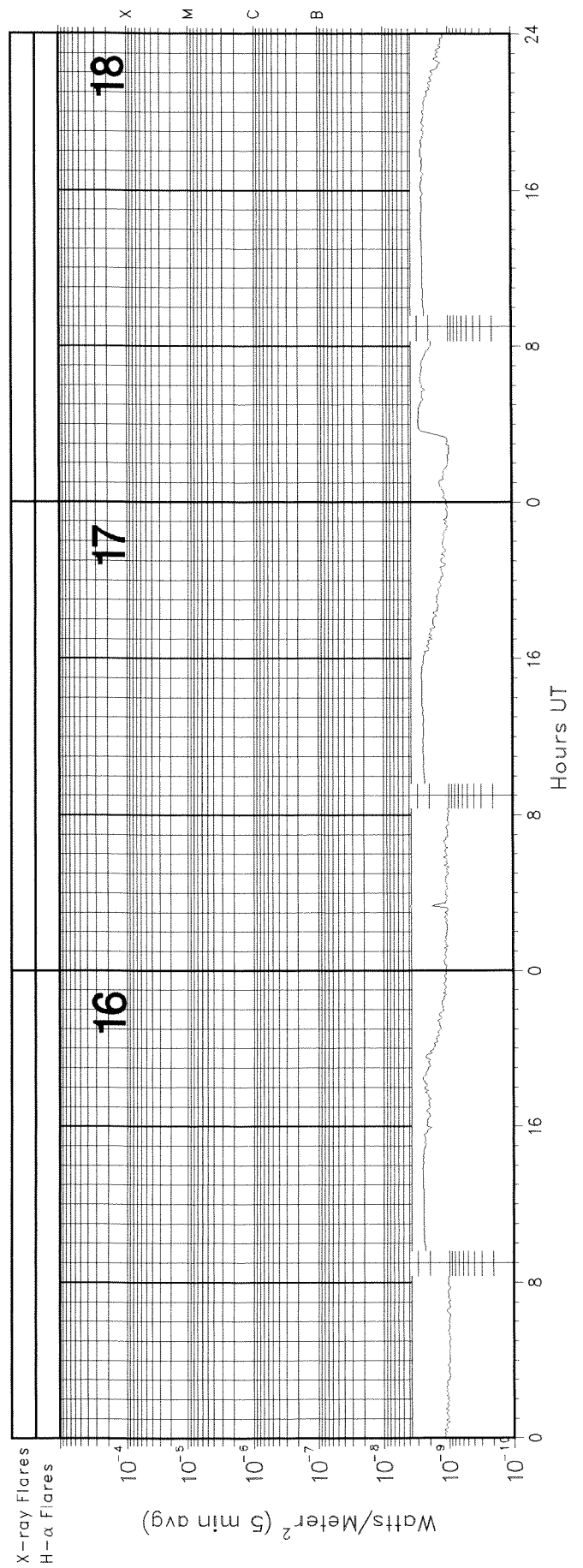
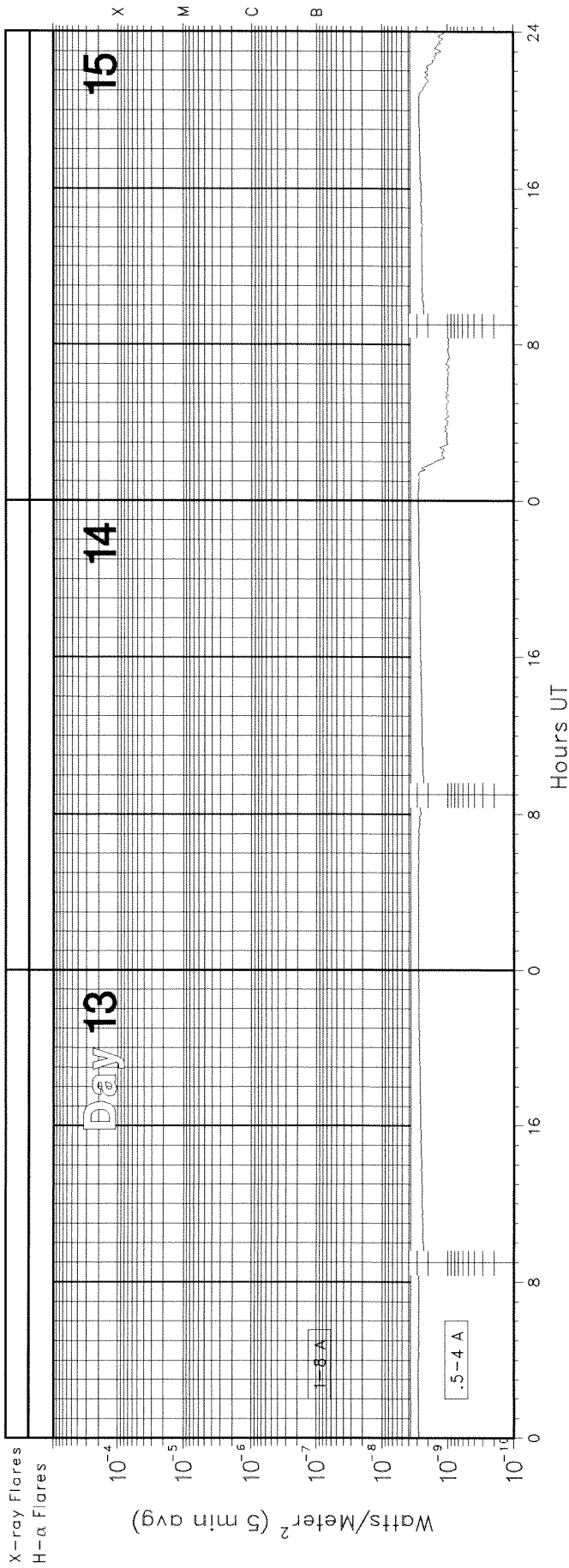


GOES X-RAY DETECTOR September 2007

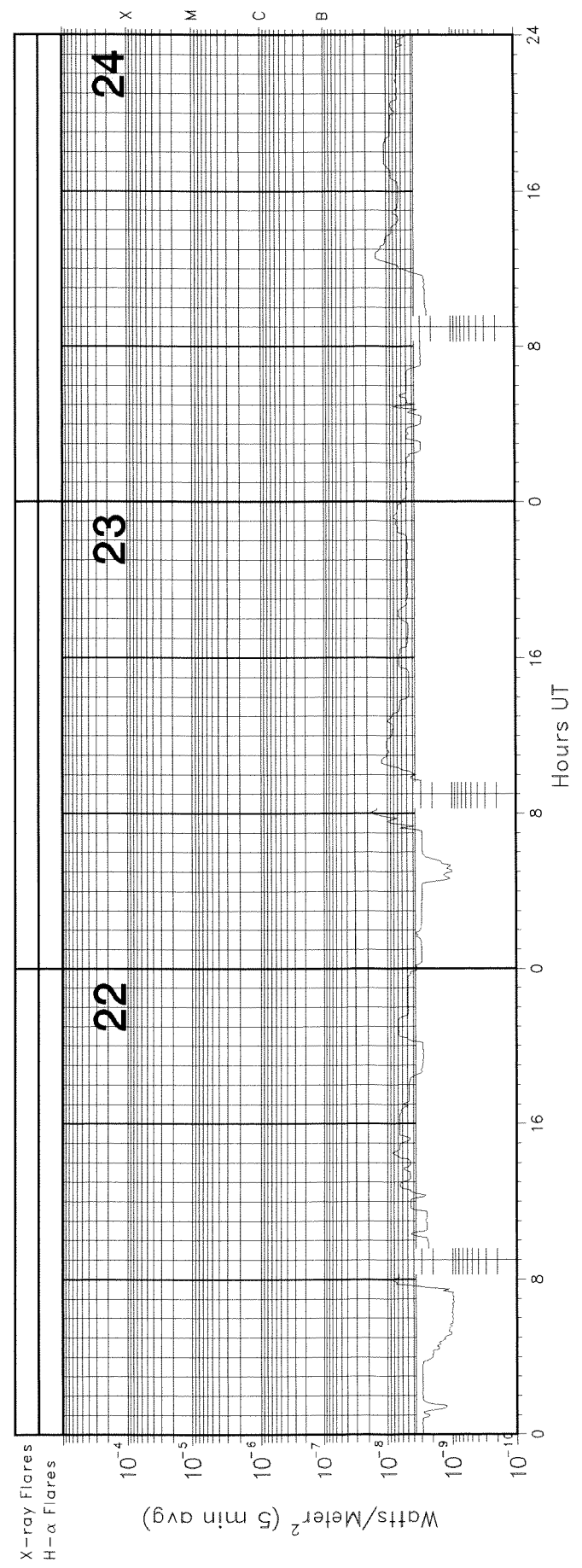
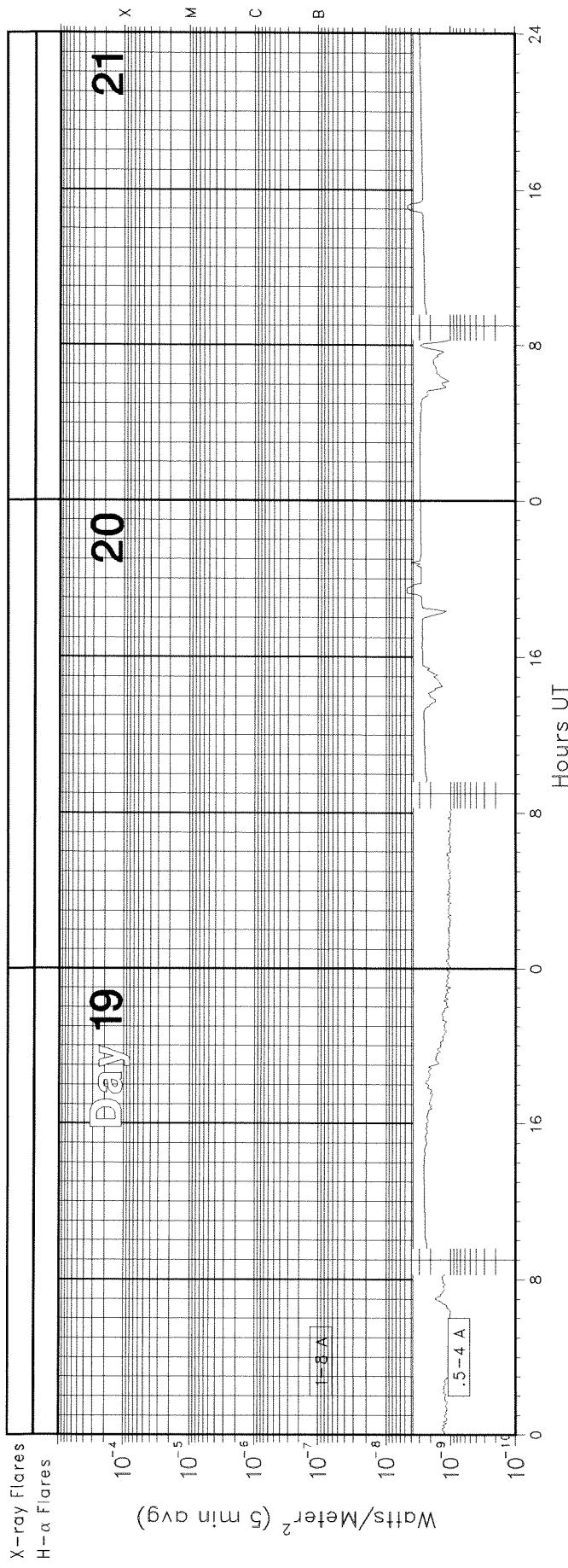


GOES X-RAY DETECTOR

September 2007

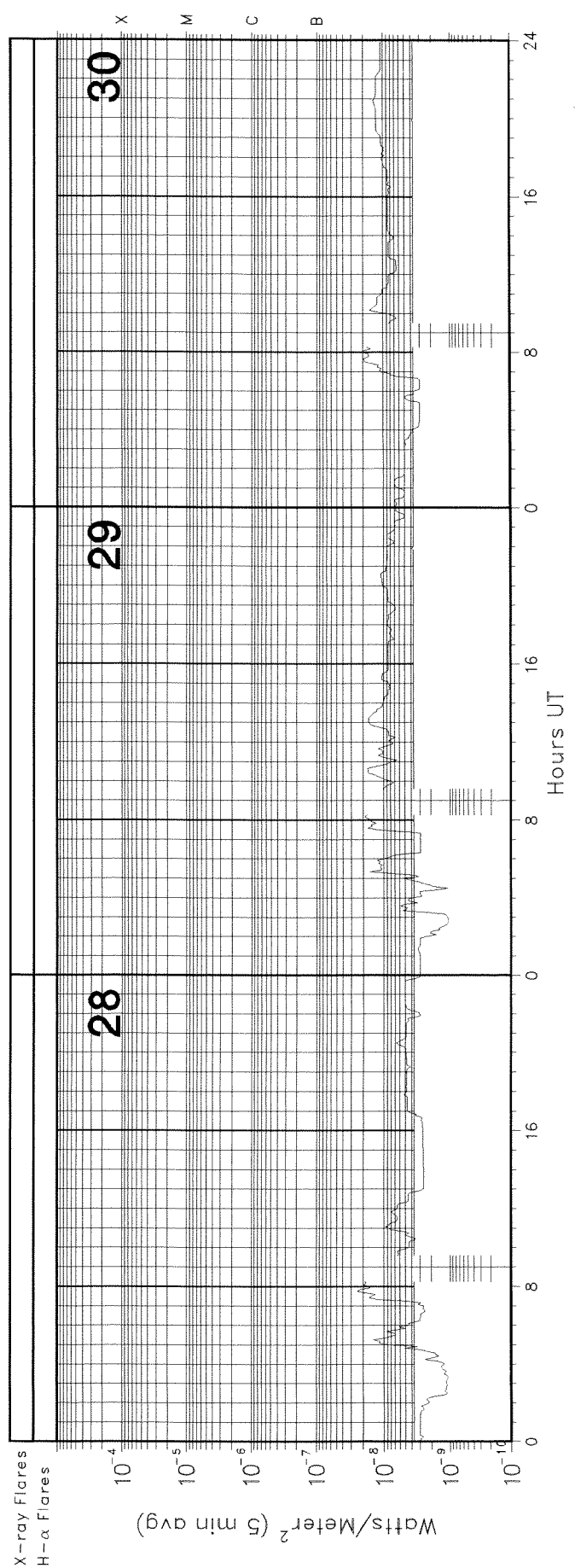
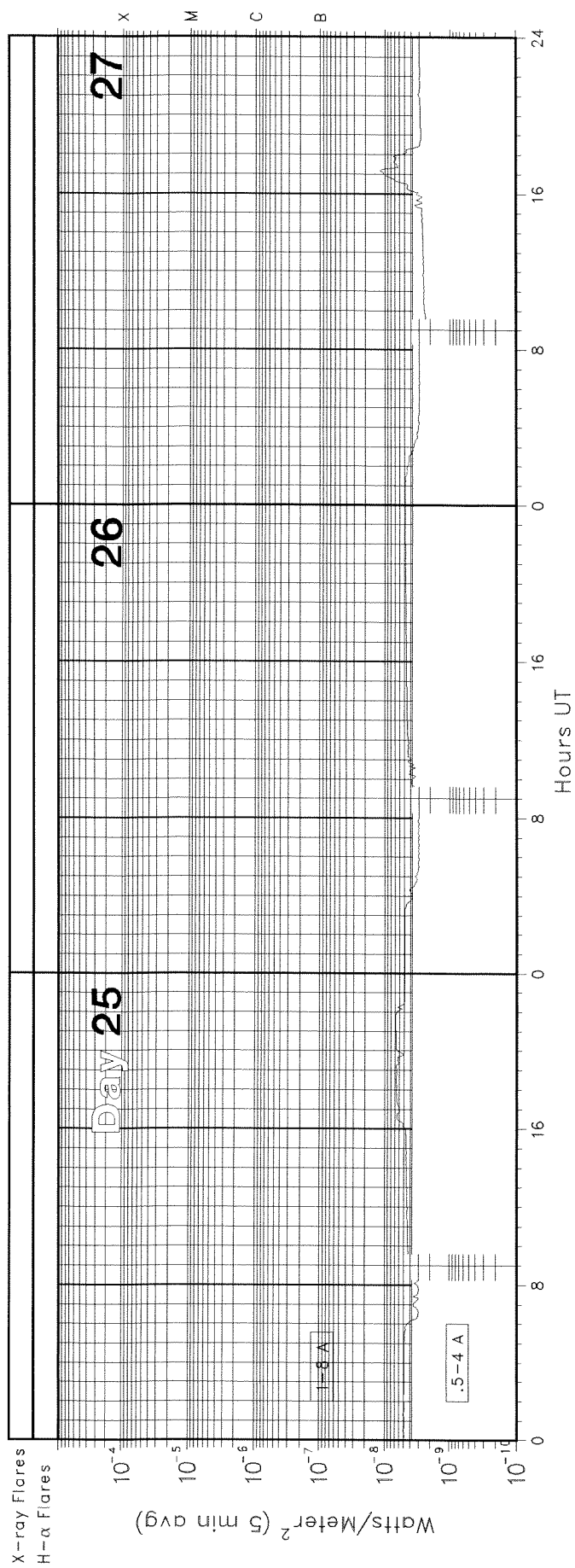


GOES X-RAY DETECTOR September 2007



GOES X-RAY DETECTOR

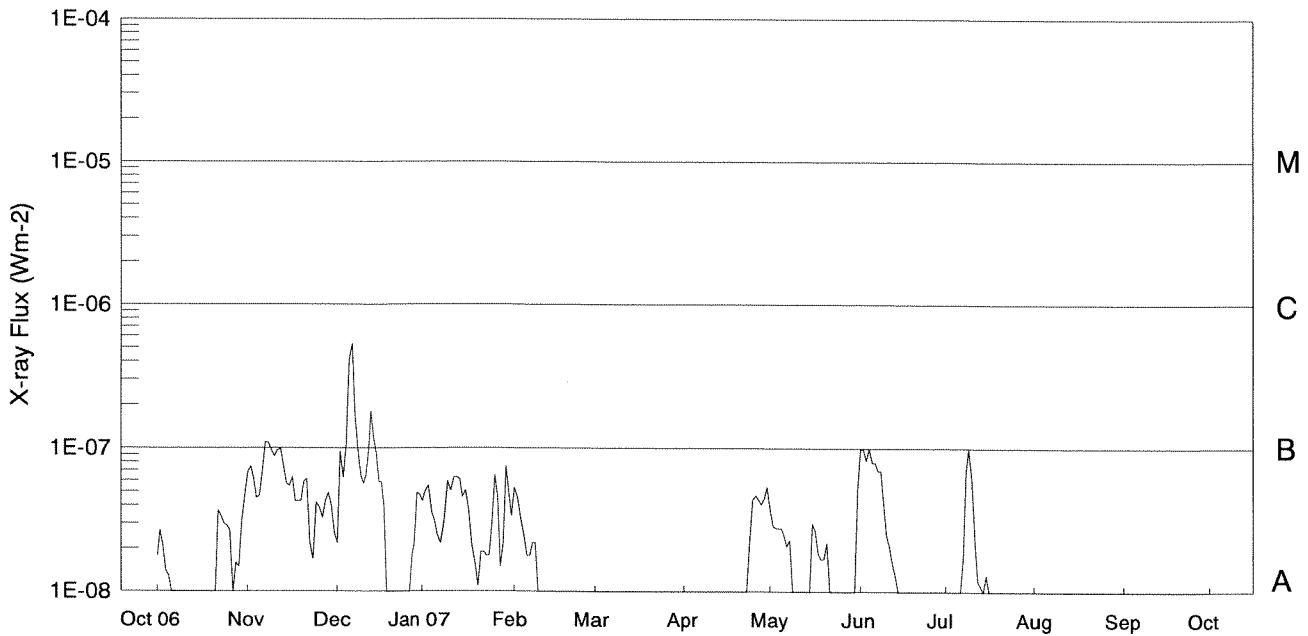
September 2007



Preliminary GOES Satellite Daily X-Ray Background

Oct 2006 - Sep 2007

14
Sep 07



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

Levels below B1.0 are unreliable.

ACTIVE PROMINENCES AND FILAMENTS

15
Sep 07

SEPTEMBER 2007

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo Day	Imp	Extent	Blue	Red	Obs	NOAA/ USAF Reg#	Remarks
									Shift (.1 A)	Shift (.1 A)			
21	DSF	0300U	0345U	S09	E00	09 21.1	3	04	0	0	E	LEAR	
28	AFS	0028E	1011	N02	E15	09 29.1		01	6	6	E	LEAR	
30	AFS	2253E	1011	N03	W11	09 30.1		03	4	5	E	LEAR 0791	

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.

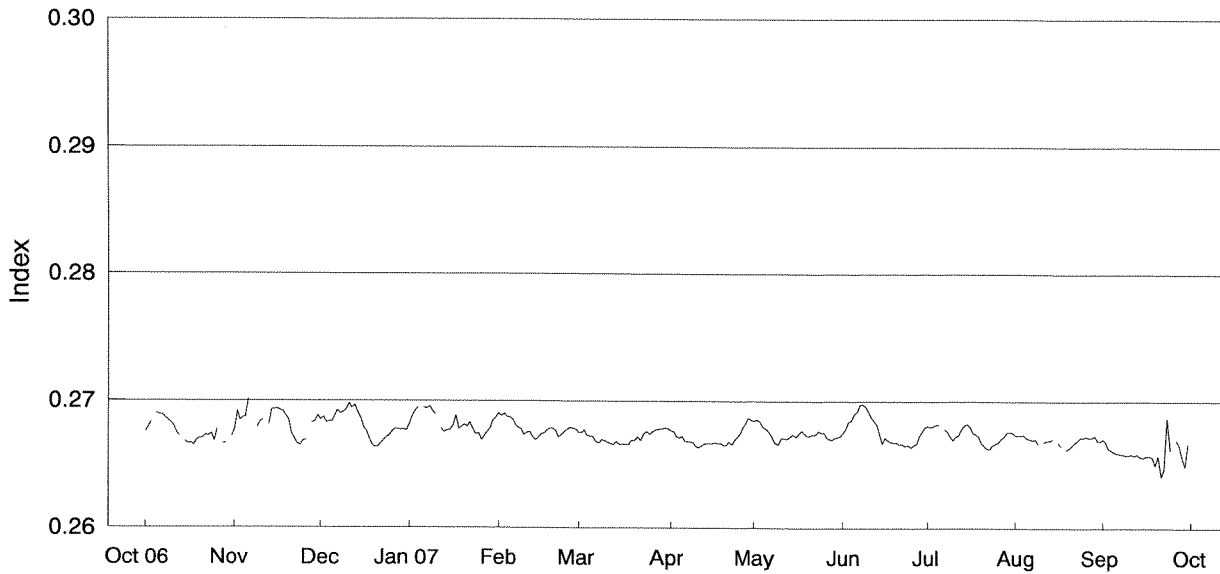
ABST = Abastumani	HOLL = Holloman	RAMY = Ramey
ATHN = Athens	KHAR = Kharkov	SVTO = San Vito
BUCA = Bucharest	LEAR = Learmonth	VORO = Voroshilov
CATA = Catania	PALE = Palehua	VALA = Valasske Mezirici
		WROC = Wroclaw

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

Oct 2006 - Sep 2007

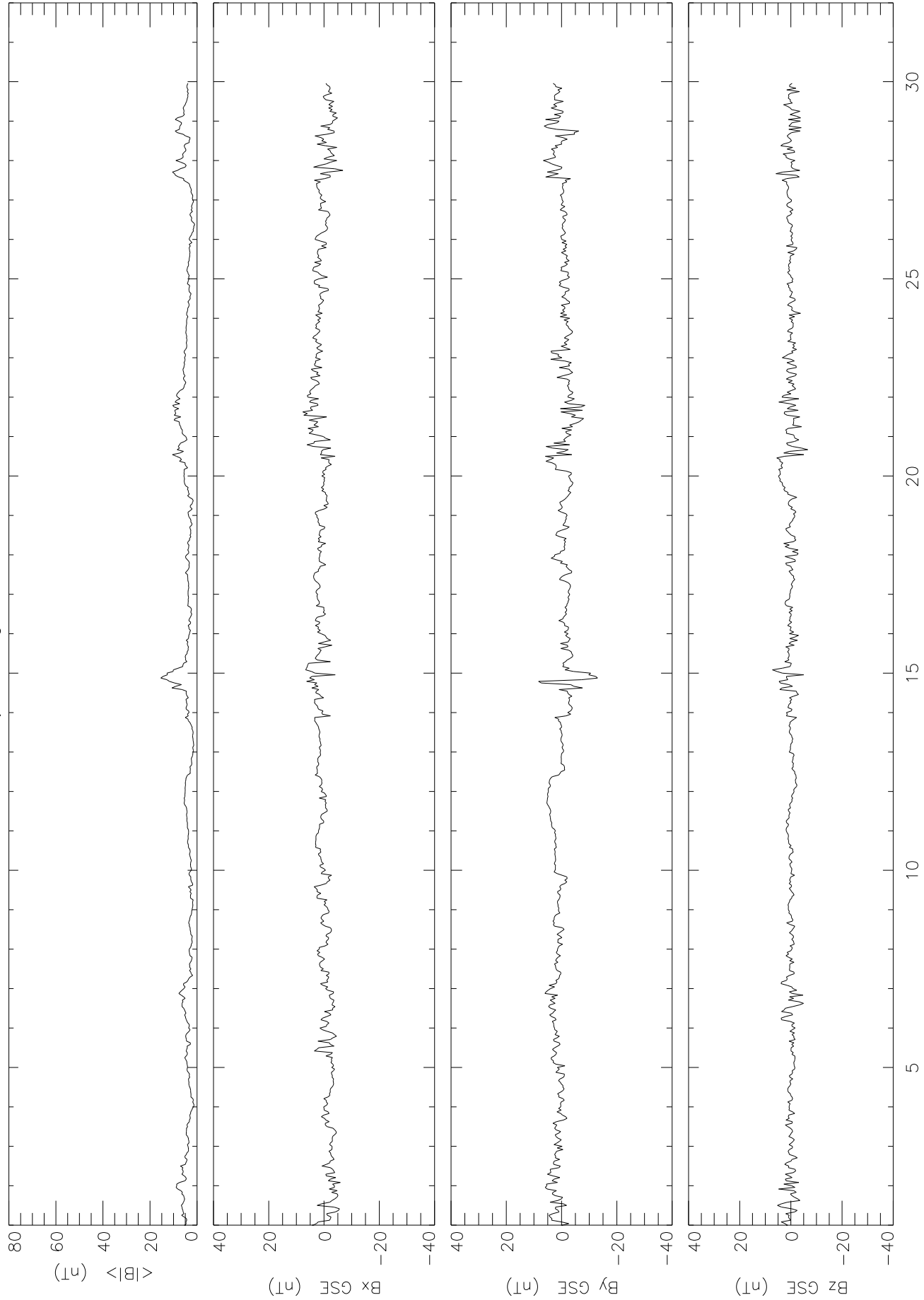
Version 9.1



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

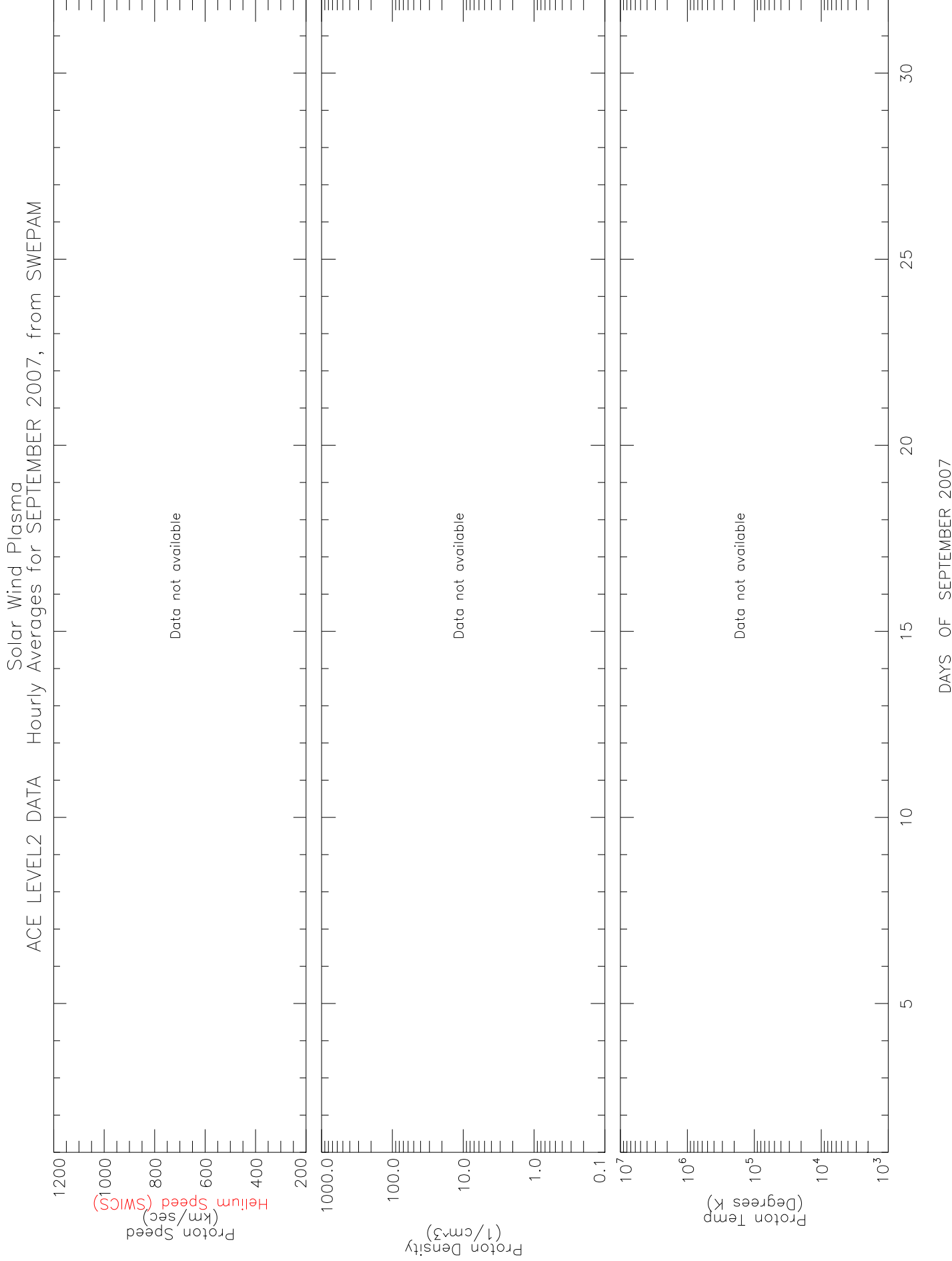
Data at: <http://www.sec.noaa.gov/ftpmenu/sbuw.html>

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

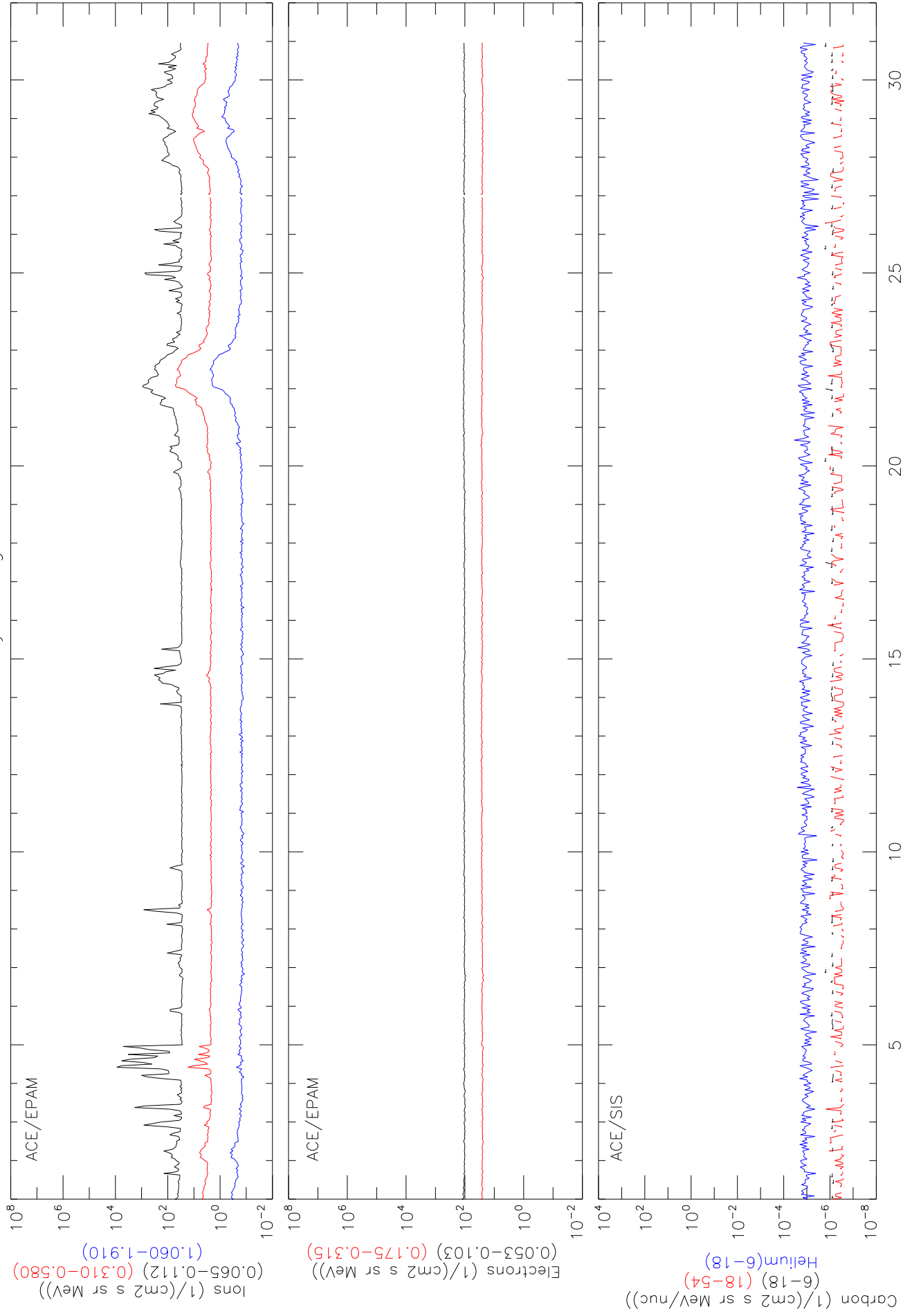


DAYS OF SEPTEMBER 2007

ACE LEVEL2 DATA Hourly Averages for SEPTEMBER 2007, from SWEPAM



Solar Energetic Particles ACE LEVEL2 DATA Hourly Averages for SEPTEMBER 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
SEPTEMBER 2007

First C2 Appearance		Central Width			Linear Fit			Measurement		Remarks
Date	Time UT	Position Angle degree	Angular Width degree	Speed km/s	----2nd order speed---- Initial km/s	Final km/s	20R km/s	Accel m/s ²	Position Angle degree	
2007/09/01	01:47:49	247	30	129	87	179	205	1.6*	244	Poor Event
2007/09/01	07:48:05	308	25	219	184	257	312	2.6*	309	Very Poor Event
2007/09/01	11:48:04	347	6	734	413	1078	2418	233.7*	343	Very Poor; Only C2
2007/09/01	19:31:41	244	18	258	124	389	457	8.8*	247	Poor Event
2007/09/02	00:30:04	257	45	345	267	426	461	6.6*	252	Poor Event
2007/09/02	02:54:04	263	25	370	320	424	431	3.5*	265	Poor Event
2007/09/02	10:30:15	249	14	374	383	366	358	-0.8*	248	Very Poor Event
2007/09/02	20:06:04	252	13	239	162	318	406	6.4*	255	Very Poor Event
2007/09/03	11:30:04	6	7	304	64	567	2352	232.7*	10	Very Poor; Only C2 Only 3 points
2007/09/03	12:06:04	107	13	252	202	305	493	9.0*	108	Very Poor Event
2007/09/04	00:30:04	112	20	340	221	463	926	37.5*	106	Very Poor Event
2007/09/04	16:30:04	235	9	467	734	205	0	-149.9*	234	Very Poor; Only C2
2007/09/04	18:06:05	256	19	186	245	125	0	-15.3*	261	Very Poor; Only C2
2007/09/04	20:30:04	3	7	213	125	303	935	35.8*	7	Very Poor; Only C2
2007/09/04	22:06:04	257	19	385	341	428	665	13.4*	261	Poor Event
2007/09/05	01:30:04	172	7	229	264	194	0	-20.1*	169	Very Poor; Only C2
2007/09/05	06:06:04	262	8	223	308	138	0	-26.7*	262	Very Poor; Only C2
2007/09/05	08:06:04	69	8	117	81	153	373	5.5*	61	Very Poor; Only C2
2007/09/05	10:54:04	237	9	249	328	166	0	-23.4*	238	Poor Event; Only C2
2007/09/05	16:54:04	121	18	171	147	193	516	10.3*	119	Poor Event; Only C2
2007/09/06	00:30:05	253	9	288	102	462	1211	60.3*	254	Very Poor; Only C2
2007/09/06	05:30:04	294	15	184	187	182	117	-0.9*	292	Very Poor; Only C2
2007/09/06	08:30:04	293	25	51	30	71	169	1.2*	291	Very Poor Event
2007/09/07	06:30:04	246	9	239	251	227	0	-6.7*	248	Very Poor; Only C2
2007/09/07	09:30:04	111	43	175	130	225	323	3.7*	107	Very Poor Event
2007/09/07	18:30:26	249	21	123	127	118	64	-0.5*	254	Very Poor Event
2007/09/08	01:31:41	292	34	98	0	242	432	8.4*	292	Very Poor Event
2007/09/08	02:30:04	104	17	144	135	154	246	1.7*	100	Poor Event; Only C2
2007/09/08	10:33:58	290	36	261	124	393	407	6.4*	289	
2007/09/08	18:30:04	243	13	271	295	245	0	-4.3*	248	Poor Event
2007/09/09	01:54:04	73	10	176	197	154	0	-5.4*	77	Poor Event; Only C2
2007/09/09	04:30:28	114	19	232	162	298	458	8.8*	107	Very Poor Event
2007/09/09	08:06:04	112	34	228	146	314	423	6.6*	105	Very Poor Event
2007/09/09	13:54:04	24	6	419	403	436	587	7.5*	29	Very Poor; Only C2
2007/09/09	13:54:04	80	16	200	204	197	132	-1.0*	79	Very Poor; Only C2
2007/09/09	23:06:51	172	5	200	277	118	0	-43.4*	170	Very Poor; Only C2
2007/09/09	23:06:51	198	8	234	90	375	1332	73.8*	200	Very Poor; Only C2
2007/09/10	01:31:40	116	9	267	304	226	181	-2.8*	119	Very Poor Event
2007/09/10	04:30:04	109	11	334	241	424	599	12.9*	110	Very Poor Event
2007/09/10	06:06:04	169	5	202	221	185	0	-6.5*	169	Very Poor; Only C2
2007/09/10	12:54:04	322	25	137	132	142	153	0.3*	319	Very Poor Event
2007/09/11	01:31:42	116	28	121	125	116	41	-0.6*	117	Poor Event; Only C2
2007/09/11	12:54:04	53	6	386	322	454	911	30.0*	56	Very Poor; Only C2
2007/09/12	02:06:04	251	13	550	454	652	1010	34.3*	255	Poor Event
2007/09/12	07:31:43	65	7	156	210	100	0	-21.1*	69	Very Poor; Only C2
2007/09/12	10:06:04	68	7	274	297	250	0	-5.4*	71	Very Poor; Only C2

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
SEPTEMBER 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	
2007/09/12	18:54:04	51	7	315	218	415	939	34.4*	54	Very Poor; Only C2
2007/09/12	20:06:04	263	14	294	285	304	311	0.8*	271	Very Poor Event
2007/09/13	04:30:04	280	26	175	184	167	0	-2.9*	277	Very Poor; Only C2
2007/09/13	08:54:04	117	10	353	384	319	286	-2.9*	119	Very Poor Event
2007/09/13	09:30:04	69	9	119	93	143	271	2.7*	66	Poor Event; Only C2
2007/09/13	12:06:04	117	11	256	229	286	345	3.0*	119	Poor Event
2007/09/13	19:31:40	75	9	192	163	224	371	4.6*	75	Very Poor Event
2007/09/14	00:54:04	120	7	210	88	343	994	46.2*	118	Very Poor; Only C2
2007/09/14	03:54:04	121	9	272	243	300	615	15.4*	119	Very Poor; Only C2
2007/09/14	04:30:04	70	7	314	89	562	2313	219.3*	71	Very Poor; Only C2 Only 3 points
2007/09/14	07:54:04	279	11	200	157	246	330	3.9*	279	Very Poor Event
2007/09/14	12:30:04	230	12	181	67	308	391	6.1*	230	Very Poor Event
2007/09/15	15:30:04	142	7	144	124	164	532	11.2*	138	Very Poor; Only C2
2007/09/16	02:30:04	232	9	183	107	254	313	3.9*	237	Very Poor Event Only 3 points
2007/09/16	03:30:11	57	8	730	660	808	1424	68.6*	59	Very Poor; Only C2
2007/09/16	06:30:04	235	8	160	62	255	377	5.9*	238	Very Poor Event
2007/09/16	11:06:16	105	26	194	274	113	0	-15.4*	105	Only C2
2007/09/16	18:30:04	238	12	220	272	161	0	-5.1*	242	Very Poor Event
2007/09/17	00:30:04	46	8	183	214	153	0	-11.9*	49	Very Poor; Only C2
2007/09/17	09:30:04	69	27	133	140	126	0	-2.4*	67	Very Poor; Only C2
2007/09/17	18:54:04	355	9	269	67	482	1502	94.4*	352	Very Poor; Only C2
2007/09/17	18:54:04	124	11	285	235	335	639	14.6*	124	Poor Event; Only C2
2007/09/18	04:06:04	357	6	333	323	344	523	7.0*	357	Very Poor; Only C2 Only 3 points
2007/09/18	06:30:04	124	17	226	147	309	744	22.0*	124	Very Poor; Only C2
2007/09/18	17:30:04	34	10	327	312	343	555	9.0*	37	Very Poor; Only C2
2007/09/19	04:06:04	235	25	110	0	278	304	3.9*	247	Poor Event
2007/09/19	15:54:04	258	21	202	198	205	219	0.4*	261	Very Poor Event
2007/09/20	00:54:04	248	24	253	203	306	328	2.7*	253	Very Poor Event
2007/09/21	05:30:05	246	8	260	210	311	428	6.0*	248	Poor Event
2007/09/21	12:30:04	242	11	291	235	349	377	4.1*	256	Very Poor Event
2007/09/21	12:54:05	275	11	145	80	219	366	5.8*	272	Very Poor Event
2007/09/21	21:54:04	118	11	389	404	374	73	-6.7*	114	Poor Event; Only C2
2007/09/21	23:30:04	276	9	152	155	150	134	-0.3*	273	Very Poor Event
2007/09/22	02:30:04	70	30	144	106	181	359	5.6*	70	Very Poor Event
2007/09/22	07:31:39	184	26	99	65	132	439	7.9*	185	Very Poor; Only C2
2007/09/22	19:31:36	103	11	244	278	209	0	-6.8*	98	Very Poor Event
2007/09/23	01:54:04	71	15	199	165	233	274	2.1*	72	Very Poor Event
2007/09/23	03:54:04	214	15	279	236	323	374	4.2*	226	Very Poor Event
2007/09/23	09:06:04	74	17	220	155	290	306	3.0*	74	
2007/09/23	18:54:05	286	23	197	162	232	499	9.2*	289	Very Poor; Only C2
2007/09/23	20:06:04	212	56	222	197	248	289	1.8*	226	
2007/09/23	23:30:04	68	14	259	206	321	350	3.8*	74	Poor Event
2007/09/24	03:54:04	82	52	116	0	240	235	2.4*	78	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
SEPTEMBER 2007

First C2 Appearance		Central Width			Linear Fit			Measurement		
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	Remarks
2007/09/25	17:30:05	83	24	172	126	221	246	1.9*	79	Poor Event
2007/09/25	18:30:04	239	15	524	362	695	1165	52.5*	237	Very Poor Event
2007/09/25	19:31:40	255	19	601	616	587	523	-4.5*	249	Poor Event
2007/09/26	00:30:04	295	8	262	194	330	815	26.9*	291	Very Poor; Only C2
2007/09/26	00:30:04	81	34	164	167	161	157	-0.1*	85	Poor Event
2007/09/26	03:30:04	254	26	581	520	641	715	10.0*	249	
2007/09/26	04:30:04	240	29	251	158	357	421	6.5*	240	Very Poor Event
2007/09/26	12:30:04	72	17	206	191	220	236	0.9*	77	Very Poor Event
2007/09/26	12:30:04	233	17	279	252	307	376	3.6*	239	Very Poor Event
2007/09/26	16:54:04	250	11	463	775	142	0	-63.7*	248	
2007/09/26	16:54:04	76	16	128	36	218	241	2.4*	78	Poor Event
2007/09/27	03:54:04	250	8	425	419	432	509	3.5*	250	Very Poor; Only C2
2007/09/27	12:54:04	275	9	359	284	435	967	34.6*	276	Very Poor; Only C2
2007/09/27	13:30:04	292	9	338	258	420	732	19.7*	289	Very Poor Event
2007/09/27	15:54:04	240	10	295	258	336	362	2.9*	243	Poor Event
2007/09/27	22:30:04	237	10	239	190	290	337	3.6*	241	Very Poor Event
2007/09/28	05:30:05	240	9	220	79	359	432	8.3*	242	Very Poor Event
2007/09/28	10:54:04	307	9	286	229	341	635	15.0*	304	Very Poor; Only C2
2007/09/28	16:54:04	305	7	278	245	310	699	17.7*	303	Very Poor; Only C2
2007/09/28	17:30:05	236	10	161	137	186	350	4.7*	239	Very Poor Event
2007/09/28	23:06:04	289	8	189	157	223	298	2.8*	291	Very Poor Event
2007/09/29	05:54:04	109	14	146	163	127	0	-3.8*	105	Very Poor; Only C2
2007/09/29	10:56:03	234	9	326	299	356	372	2.3*	239	Poor Event
2007/09/29	16:30:26	257	35	457	377	538	1043	39.3*	266	Very Poor Event
2007/09/29	20:30:04	264	26	177	172	182	228	0.9*	263	Very Poor; Only C2
2007/09/30	03:30:10	297	10	179	184	175	73	-1.3*	291	Very Poor; Only C2
2007/09/30	04:30:04	266	28	210	217	204	137	-1.2*	270	Poor Event
2007/09/30	07:32:13	183	6	382	342	422	812	23.0*	183	Very Poor; Only C2
2007/09/30	10:33:58	269	23	152	209	93	0	-14.2*	270	Very Poor Event

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