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Comprehensive Reports

Number 772 Part II

DATA FOR JUNE

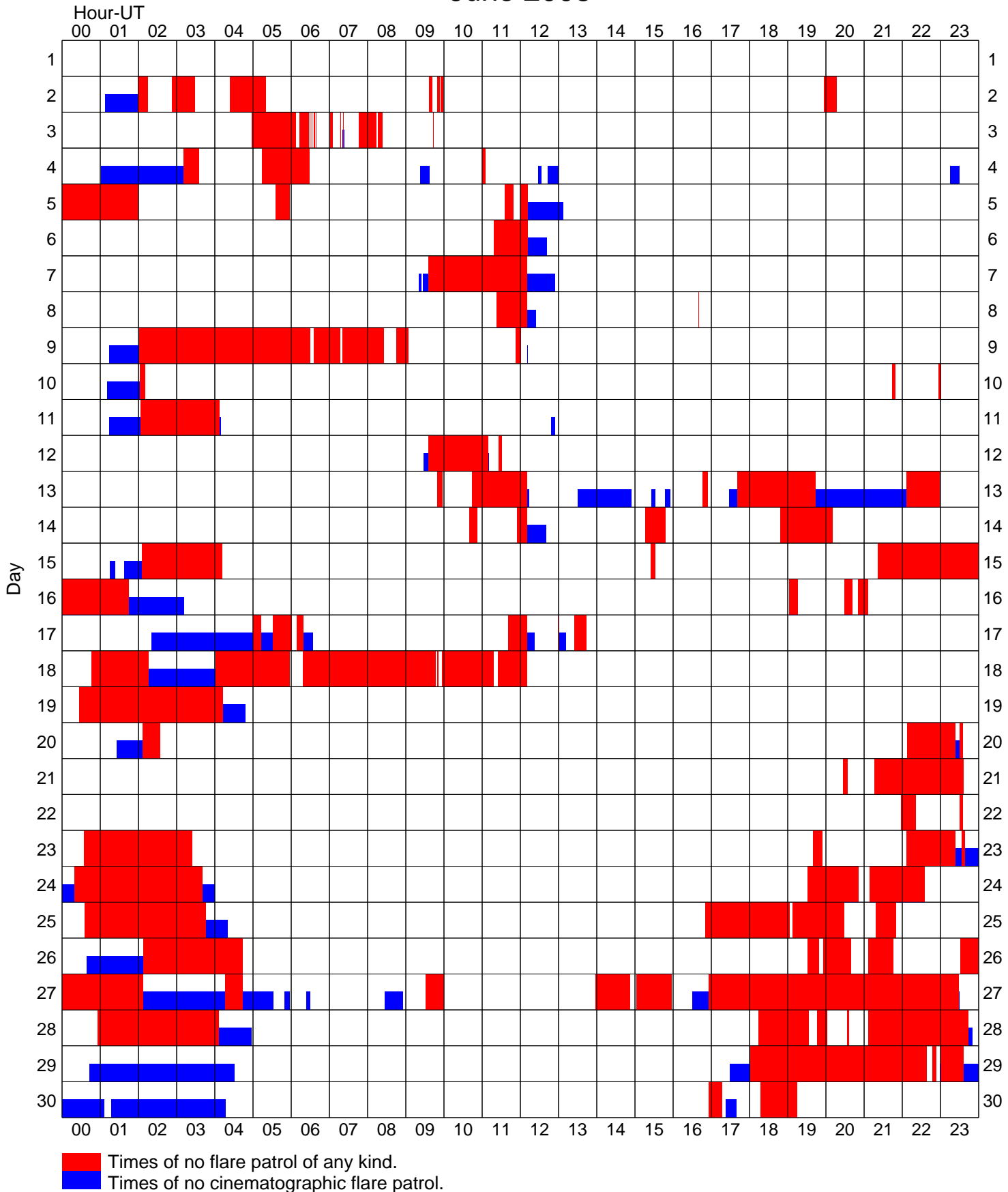
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HÀ S O L A R F L A R E S
JUNE 2008

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	NOAA/		Dur (Min)	Imp		Obs See Type	Area Measurement			Remarks
						CMD	Region		CMP Mo Day	Opt		Xray	Time (UT)	Apparent (10-6 Disk)	
		20	0207		0234	No	Flare	Patrol							
		20	2208		2324	No	Flare	Patrol							
		20	2330		2335	No	Flare	Patrol							
		21	2027		2034	No	Flare	Patrol							
		21	2116		2336	No	Flare	Patrol							
		22	2158		2221	No	Flare	Patrol							
		22	2330		2335	No	Flare	Patrol							
		23	0035		0325	No	Flare	Patrol							
		23	1940		1954	No	Flare	Patrol							
		23	2207		2324	No	Flare	Patrol							
		23	2333		2338	No	Flare	Patrol							
		24	0019		0340	No	Flare	Patrol							
		24	1931		2051	No	Flare	Patrol							
		24	2109		2235	No	Flare	Patrol							
		25	0036		0346	No	Flare	Patrol							
		25	1651		1903	No	Flare	Patrol							
		25	1908		2029	No	Flare	Patrol							
		25	2118		2150	No	Flare	Patrol							
		26	0208		0444	No	Flare	Patrol							
		26	1931		1949	No	Flare	Patrol							
		26	1956		2039	No	Flare	Patrol							
		26	2107		2146	No	Flare	Patrol							
		26	2332		2400	No	Flare	Patrol							
		27	0000		0207	No	Flare	Patrol							
		27	0417		0444	No	Flare	Patrol							
		27	0932		1000	No	Flare	Patrol							
		27	1358		1452	No	Flare	Patrol							
		27	1502		1557	No	Flare	Patrol							
		27	1656		2329	No	Flare	Patrol							
		28	0056		0406	No	Flare	Patrol							
		28	1814		1933	No	Flare	Patrol							
		28	1946		2002	No	Flare	Patrol							
		28	2033		2036	No	Flare	Patrol							
		28	2107		2344	No	Flare	Patrol							
		29	1801		2238	No	Flare	Patrol							
		29	2247		2253	No	Flare	Patrol							
		29	2300		2336	No	Flare	Patrol							
		30	1656		1717	No	Flare	Patrol							
		30	1818		1915	No	Flare	Patrol							

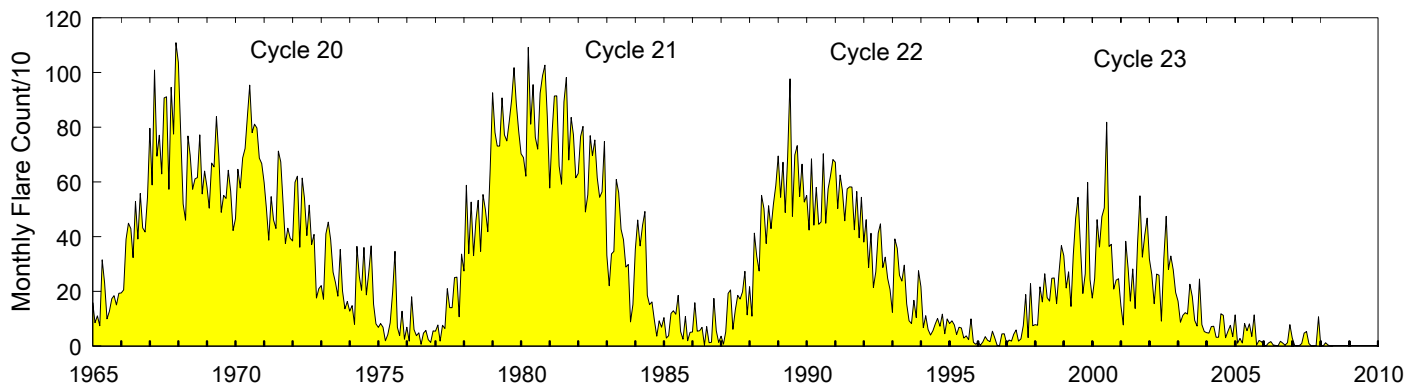
Intervals of No Flare Patrol Observation for Preceding Solar Flare Table

June 2008



Stations participating: Holloman, Learmonth, SanVito, Kanzelhoehe.

Monthly Counts of Grouped Solar Flares Jan 1965 - Jun 2008



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	2	107	261
2008	2	0	12	4	0	0							18

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

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Jun 08

S O L A R R A D I O E M I S S I O N
Selected Fixed Frequency Events

JUNE 2008

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	45 C	1733.5	1734.3	2.0U				
10	33 UPIC	2 S/F	1337.9	1338.2	1.1U				

Reports are received routinely from the following observatories:

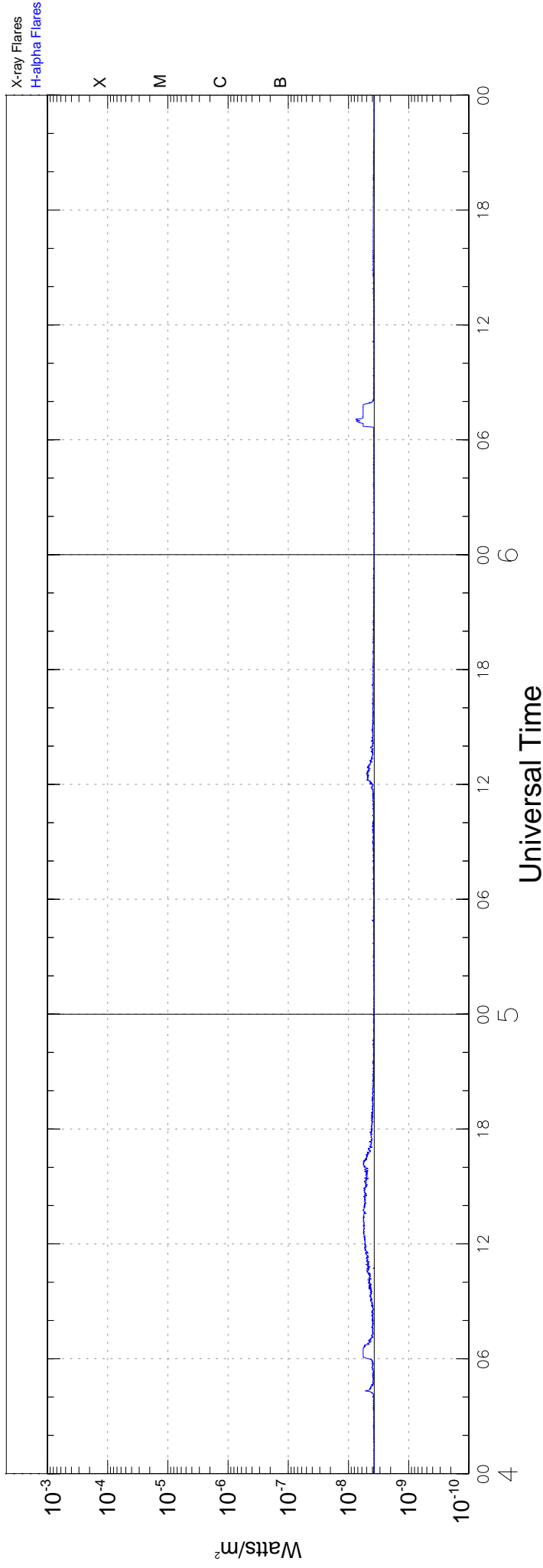
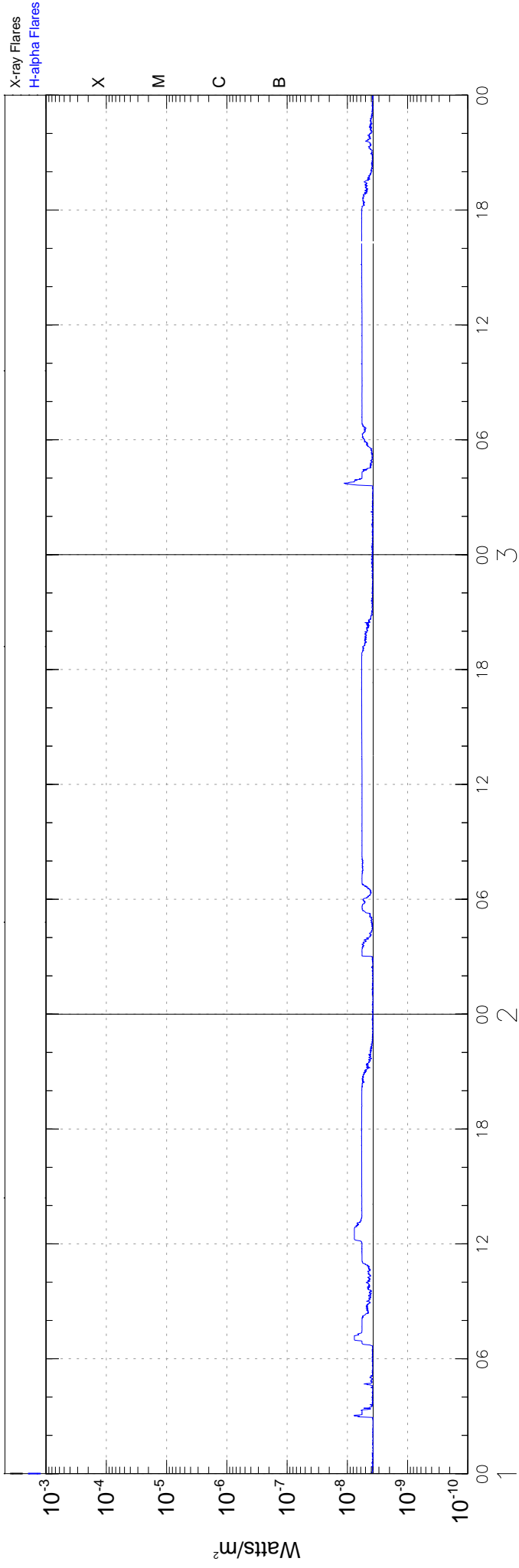
LEAR = Learmonth SGMR = Sagamore Hill SVTO = San Vito

Explanation of Type Code:

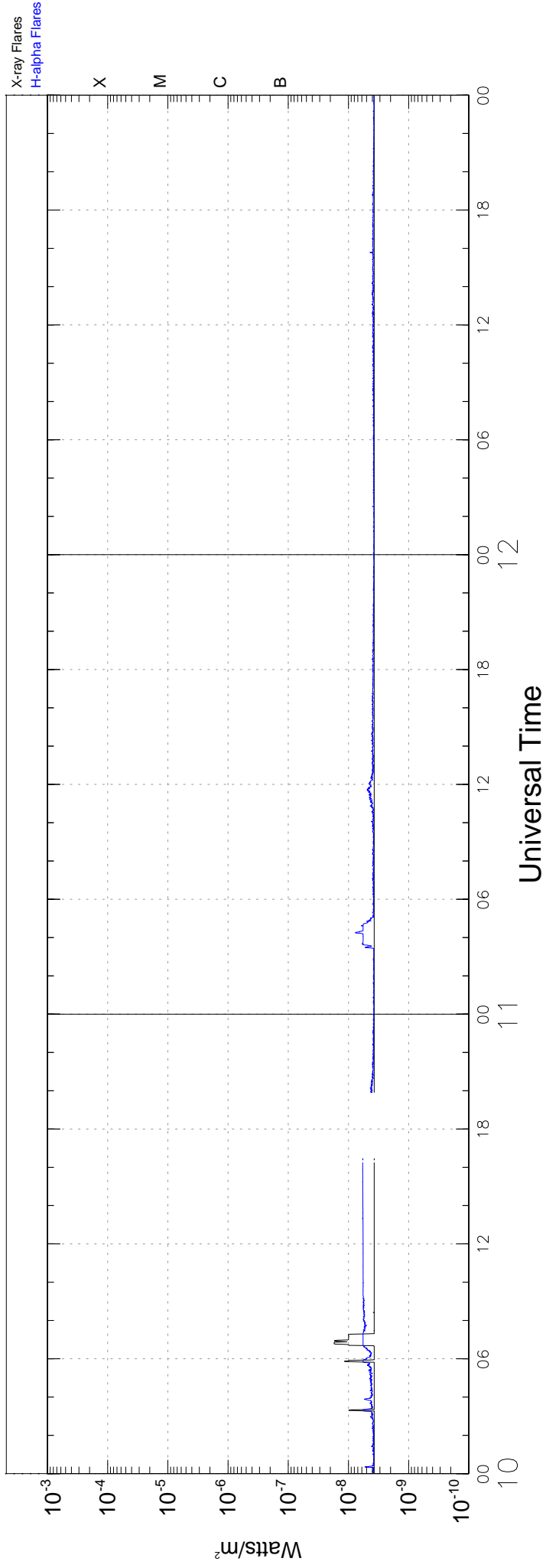
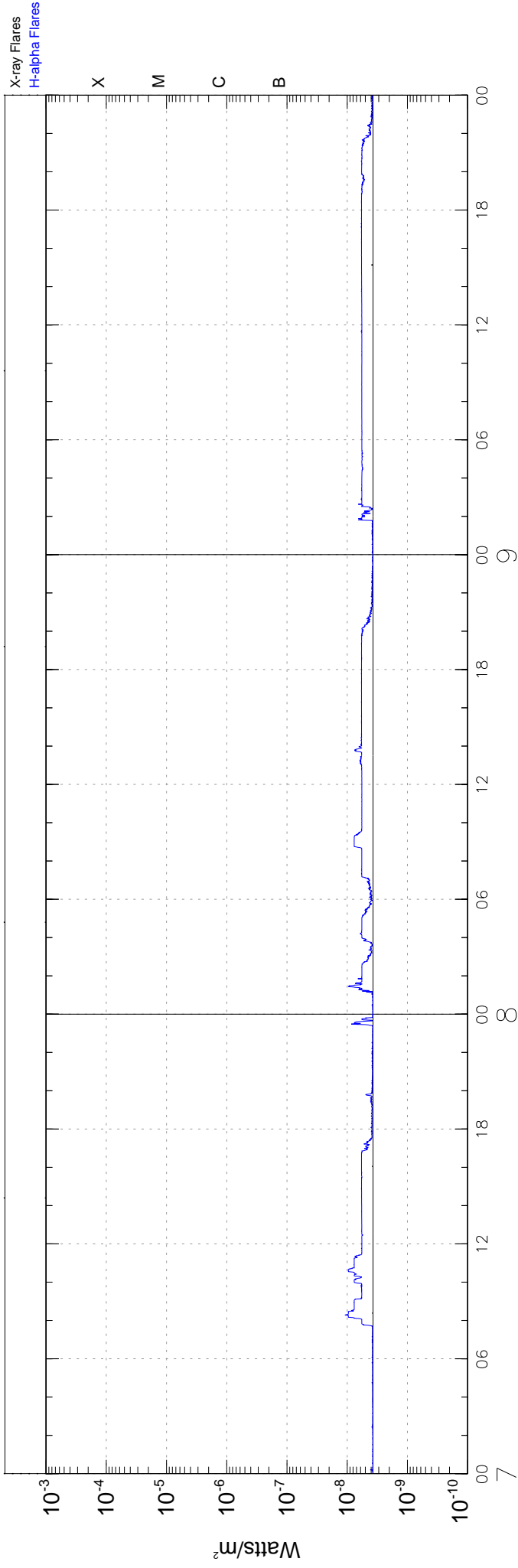
1 Simple 1	7 Minor +	24 Rise	30 Post Burst Increase A	43 Onset of Noise Storm
2 Simple 1F	8 Spike	25 Rise A	31 Post Burst Decrease	44 Noise Storm in Progress
3 Simple 2	20 Simple 3	26 Fall	33 Absorption	45 Complex
4 Simple 2F	21 Simple 3A	27 Rise and Fall	40 Fluctuation	46 Complex F
5 Simple	22 Simple 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		4O Rise Only	16A Fall A	27AF Rise and Fall AF
21A Simple 3A GRF		4OF Rise Only F	26O Fall Only	31A Post Burst Decrease A
2A Simple 1AF		4P Post Rise	26F Fall F	32A Absorption A

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

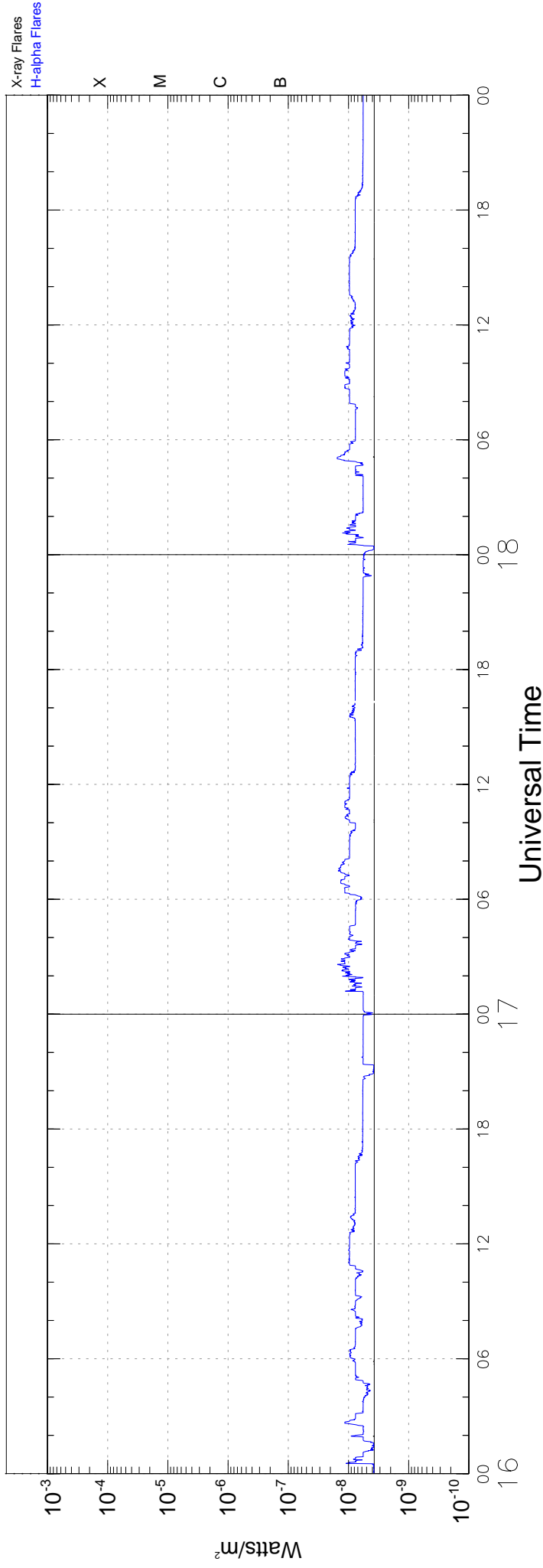
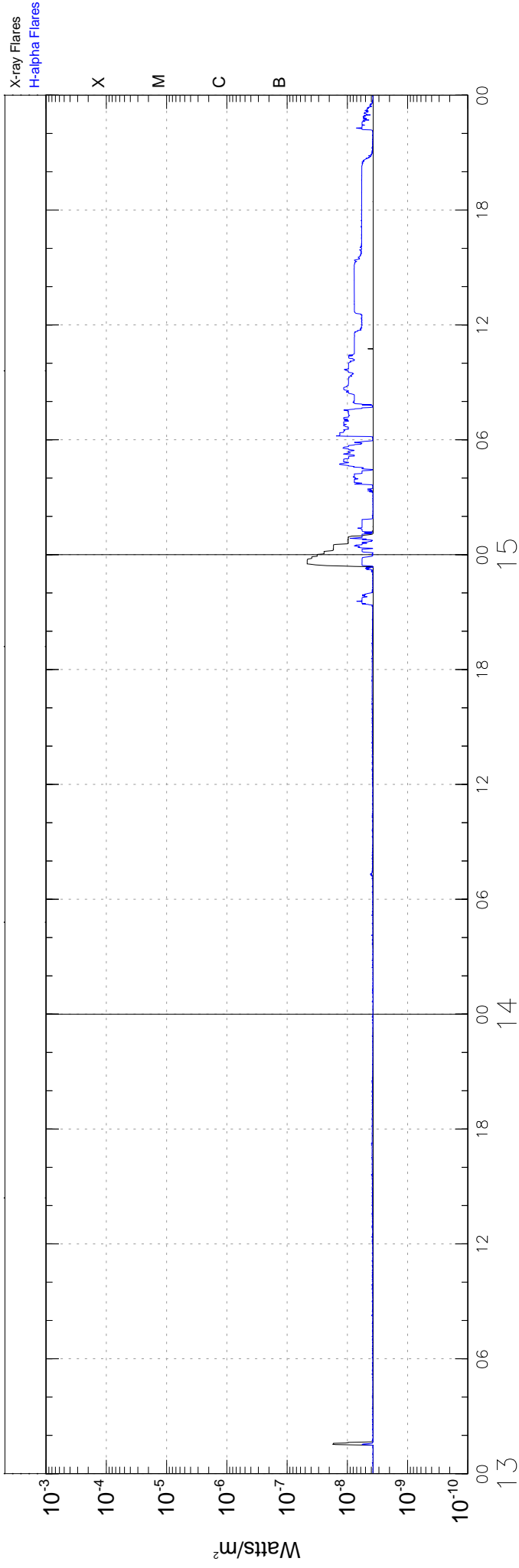
GOES-10 Solar X-Rays (1-Minute Averages) June 2008



GOES-10 Solar X-Rays (1-Minute Averages) June 2008

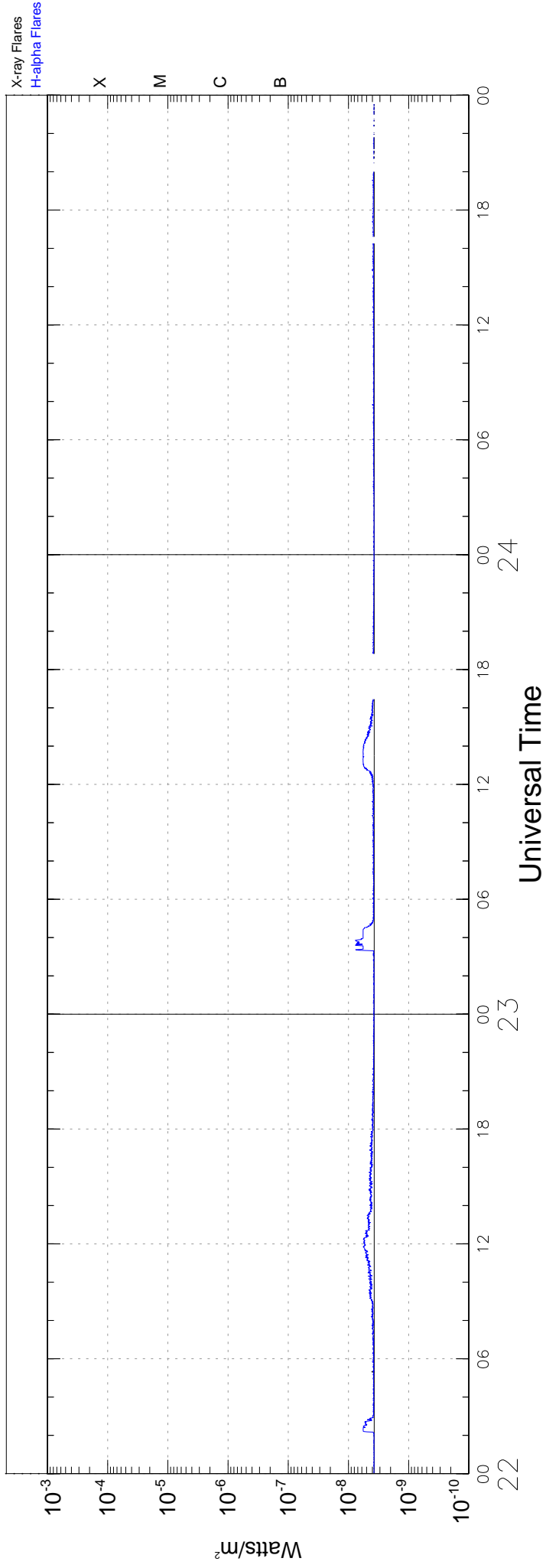
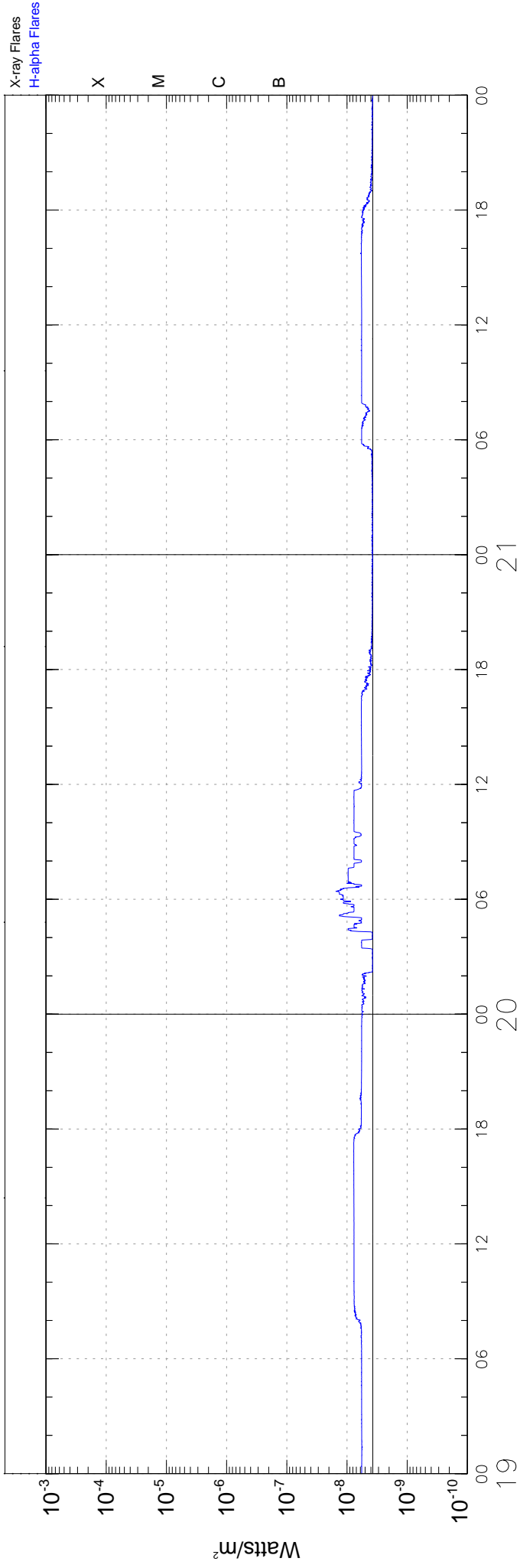


GOES-10 Solar X-Rays (1-Minute Averages) June 2008

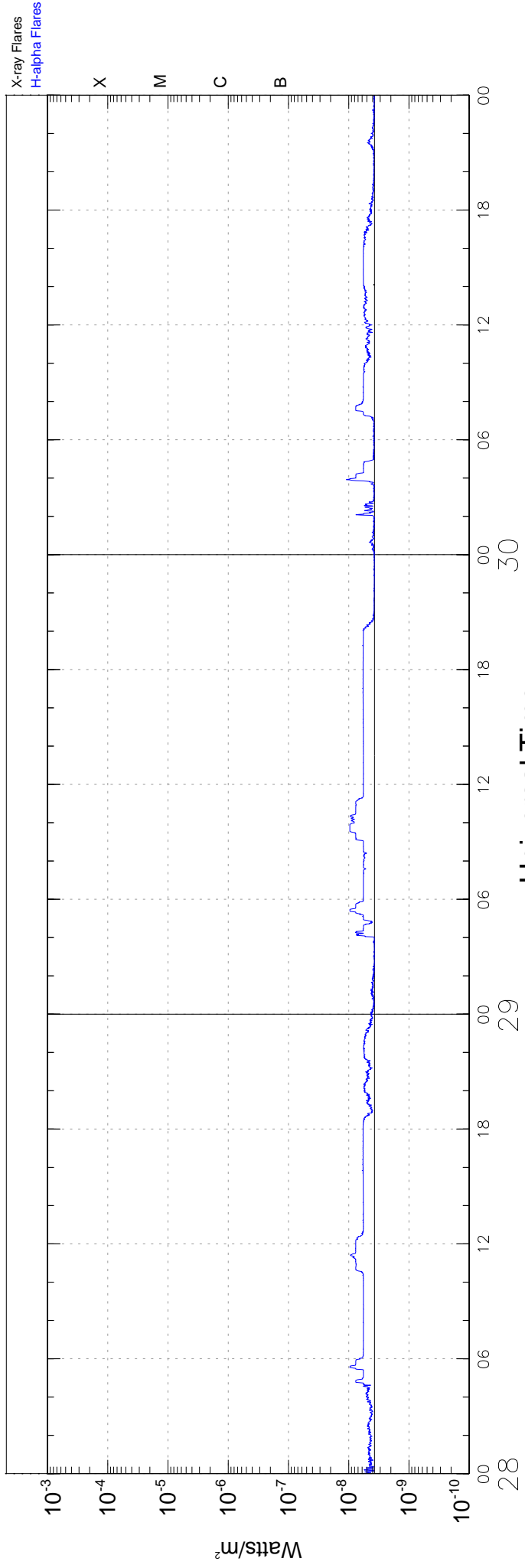
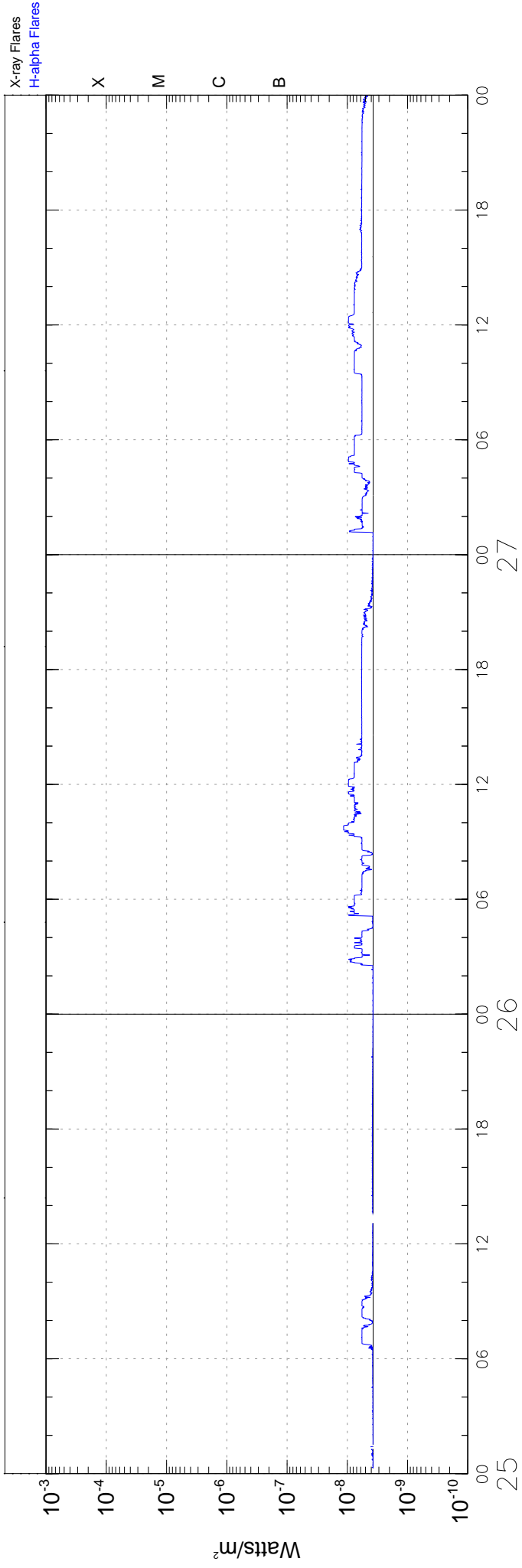


GOES-10 Solar X-Rays (1-Minute Averages)

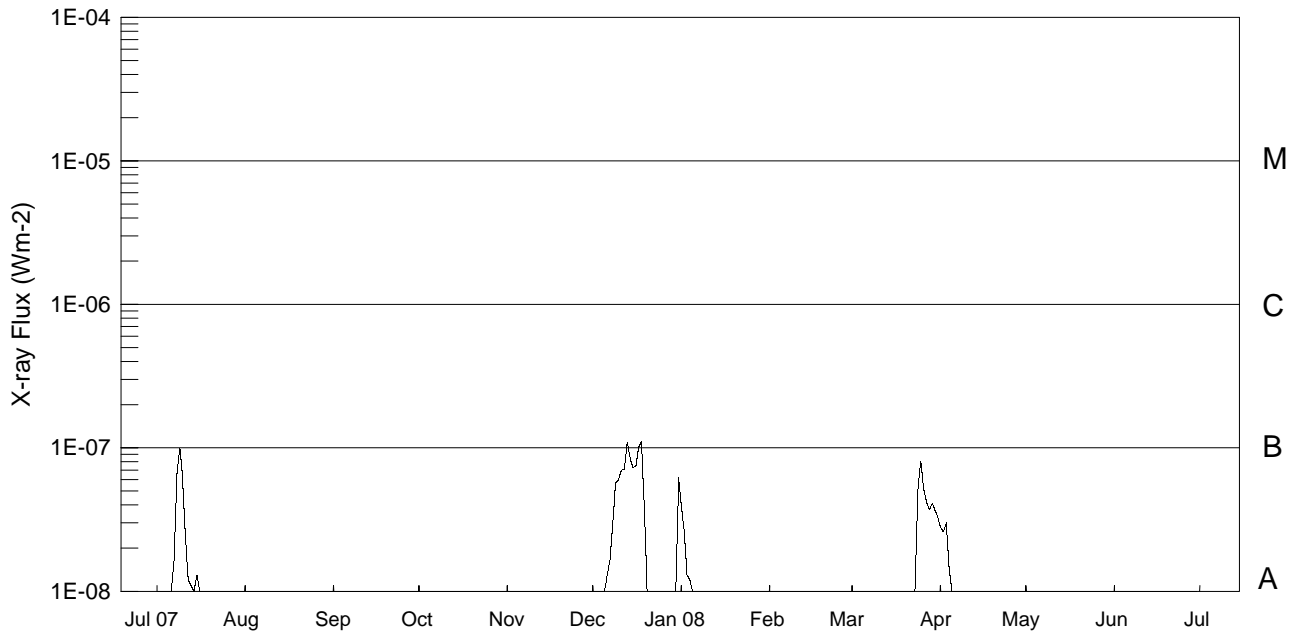
June 2008



GOES-10 Solar X-Rays (1-Minute Averages) June 2008



Preliminary GOES Satellite Daily X-Ray Background Jul 2007 - Jun 2008



Day	Jul 07	Aug	Sep	Oct	Nov	Dec	Jan 08	Feb	Mar	Apr	May	Jun
1	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	A3.8	<A1.0	<A1.0	A2.8	<A1.0	<A1.0
2	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	A2.7	<A1.0	<A1.0	A2.6	<A1.0	<A1.0
3	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	A1.3	<A1.0	<A1.0	A3.0	<A1.0	<A1.0
4	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	A1.2	<A1.0	<A1.0	A1.4	<A1.0	<A1.0
5	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
6	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	A1.3	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
7	A1.7	<A1.0	<A1.0	<A1.0	<A1.0	A1.7	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
8	A6.9	<A1.0	<A1.0	<A1.0	<A1.0	A3.2	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
9	B1.0	<A1.0	<A1.0	<A1.0	<A1.0	A5.7	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
10	A6.3	<A1.0	<A1.0	<A1.0	<A1.0	A6.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
11	A2.4	<A1.0	<A1.0	<A1.0	<A1.0	A7.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
12	A1.2	<A1.0	<A1.0	<A1.0	<A1.0	A7.1	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
13	A1.1	<A1.0	<A1.0	<A1.0	<A1.0	B1.1	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
14	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	A8.4	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
15	A1.3	<A1.0	<A1.0	<A1.0	<A1.0	A7.3	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
16	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	A7.5	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
17	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	B1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
18	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	B1.1	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
19	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	A4.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
20	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
21	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
22	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
23	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0
24	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	A5.1	<A1.0	<A1.0	<A1.0
25	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	A8.1	<A1.0	<A1.0	<A1.0
26	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	A5.2	<A1.0	<A1.0	<A1.0
27	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	A4.2	<A1.0	<A1.0	<A1.0
28	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	A3.7	<A1.0	<A1.0	<A1.0
29	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	A4.1	<A1.0	<A1.0	<A1.0
30	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0	<A1.0		A3.7	<A1.0	<A1.0	<A1.0
31	<A1.0	<A1.0		<A1.0		A6.2	<A1.0		A3.3		<A1.0	

Levels below B1.0 are unreliable.

ACTIVE PROMINENCES AND FILAMENTS

15
Jun 08

JUNE 2008

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
30	DSF	1552U	0542U	N53	W35	06	27.7	2	06	0	0	E	SVTO		

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.

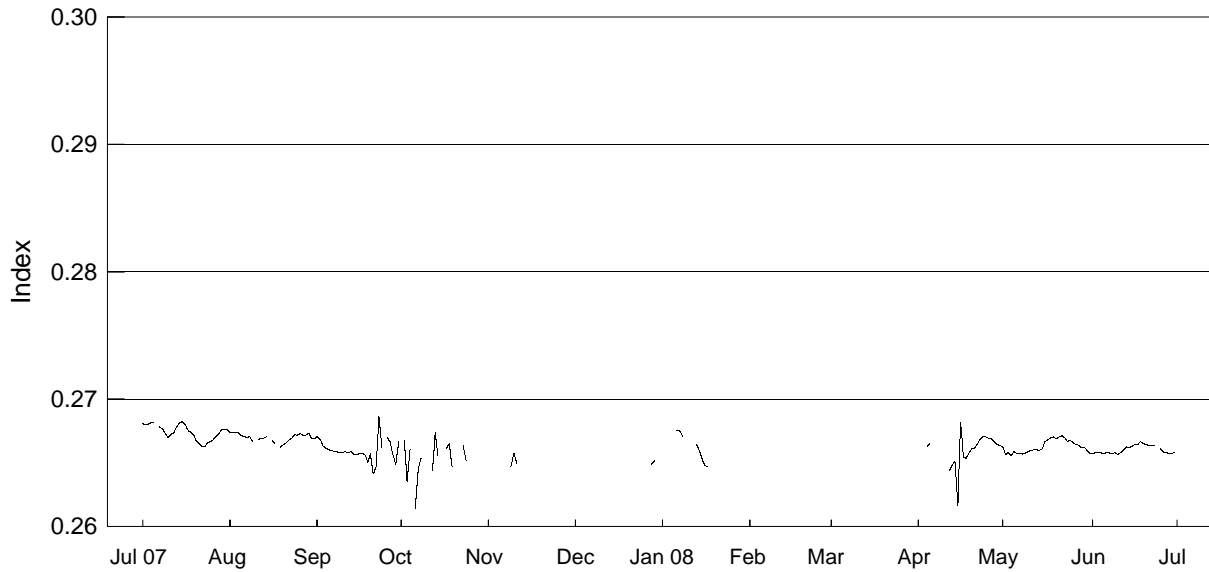
ABST = Abastumani	HOLL = Holloman	RAMY = Ramey
ATHN = Athens	KHAR = Kharkov	SVTO = San Vito
BUCA = Bucharest	LEAR = Learmonth	VORO = Voroshilov
CATA = Catania	PALE = Palehua	VALA = Valasske Mezirici
		WROC = Wroclaw

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

Jul 2007 - Jun 2008

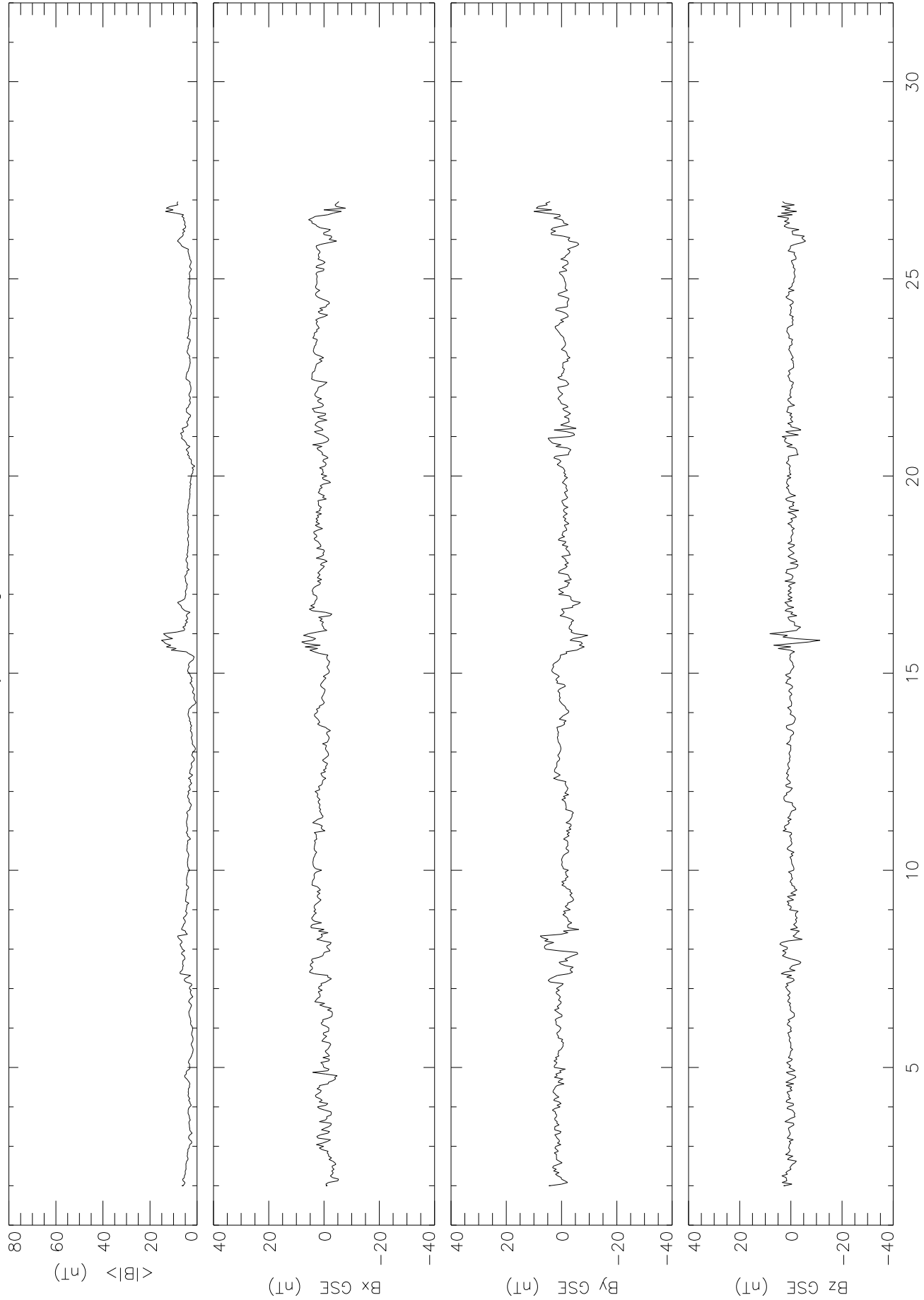
Version 9.1



Day	Jul 07	Aug	Sep	Oct	Nov	Dec	Jan 08	Feb	Mar	Apr	May	Jun
1	0.2681	0.2674	0.2671	---	---	---	---	---	---	---	0.2663	0.2657
2	0.2680	0.2674	0.2669	0.2668	---	---	0.2658	---	---	---	0.2657	0.2658
3	0.2681	0.2674	0.2663	0.2635	---	---	---	---	---	---	0.2658	0.2658
4	0.2682	0.2674	0.2662	0.2661	---	---	---	---	---	0.2663	0.2656	0.2658
5	0.2682	0.2672	0.2661	---	---	---	---	---	---	0.2665	0.2659	0.2657
6	---	0.2671	0.2660	0.2615	---	---	0.2675	---	---	---	0.2657	0.2659
7	0.2678	0.2670	0.2659	0.2645	0.2644	---	0.2675	---	---	---	0.2657	0.2658
8	0.2677	0.2671	0.2659	0.2654	---	---	0.2671	---	---	---	0.2657	0.2658
9	0.2673	0.2667	0.2658	---	0.2647	---	---	---	---	---	0.2658	0.2658
10	0.2670	---	0.2659	---	0.2658	---	---	---	---	---	0.2659	0.2657
11	0.2673	0.2668	0.2659	---	0.2650	---	0.2527	---	---	---	0.2660	0.2658
12	0.2674	0.2669	0.2658	0.2644	---	---	---	---	---	0.2644	0.2660	0.2661
13	0.2678	0.2670	0.2659	0.2674	---	---	0.2664	---	---	0.2649	0.2660	0.2663
14	0.2681	0.2671	0.2657	0.2655	---	---	0.2659	---	---	0.2651	0.2660	0.2662
15	0.2683	---	0.2656	---	---	---	0.2653	---	---	0.2617	0.2661	0.2663
16	0.2680	0.2668	0.2657	---	---	---	0.2648	---	---	0.2682	0.2667	0.2665
17	0.2676	0.2665	0.2657	0.2661	---	---	0.2647	---	---	0.2655	0.2668	0.2665
18	0.2674	---	0.2656	0.2665	---	---	---	---	---	0.2654	0.2670	0.2667
19	0.2672	0.2662	0.2650	0.2647	---	---	---	---	---	0.2658	0.2670	0.2665
20	0.2667	0.2664	0.2657	---	---	---	---	---	---	0.2661	0.2669	0.2665
21	0.2665	0.2666	0.2641	---	---	---	---	---	---	0.2662	0.2670	0.2664
22	0.2663	0.2668	0.2647	---	---	---	---	---	---	0.2665	0.2672	0.2664
23	0.2663	0.2670	0.2687	0.2664	---	---	---	---	---	0.2669	0.2670	0.2664
24	0.2666	0.2672	0.2662	0.2652	---	0.2665	---	---	---	0.2671	0.2667	---
25	0.2667	0.2672	---	---	---	---	---	---	---	0.2670	0.2668	0.2661
26	0.2668	0.2673	0.2670	---	---	---	---	---	---	0.2669	0.2666	0.2659
27	0.2671	0.2672	0.2666	---	---	---	---	---	---	0.2669	0.2664	0.2659
28	0.2673	0.2672	0.2656	---	---	0.2649	---	---	---	0.2666	0.2664	0.2657
29	0.2676	0.2673	0.2649	0.2658	---	0.2652	---	---	---	0.2664	0.2662	0.2657
30	0.2676	0.2669	0.2667	---	---	---	---	---	---	0.2664	0.2662	0.2658
31	0.2676	0.2669	---	---	---	---	---	---	---	---	0.2660	---
Mean	0.2674	0.2670	0.2660	0.2653	0.2650	0.2655	0.2661	---	---	0.2660	0.2663	0.2660

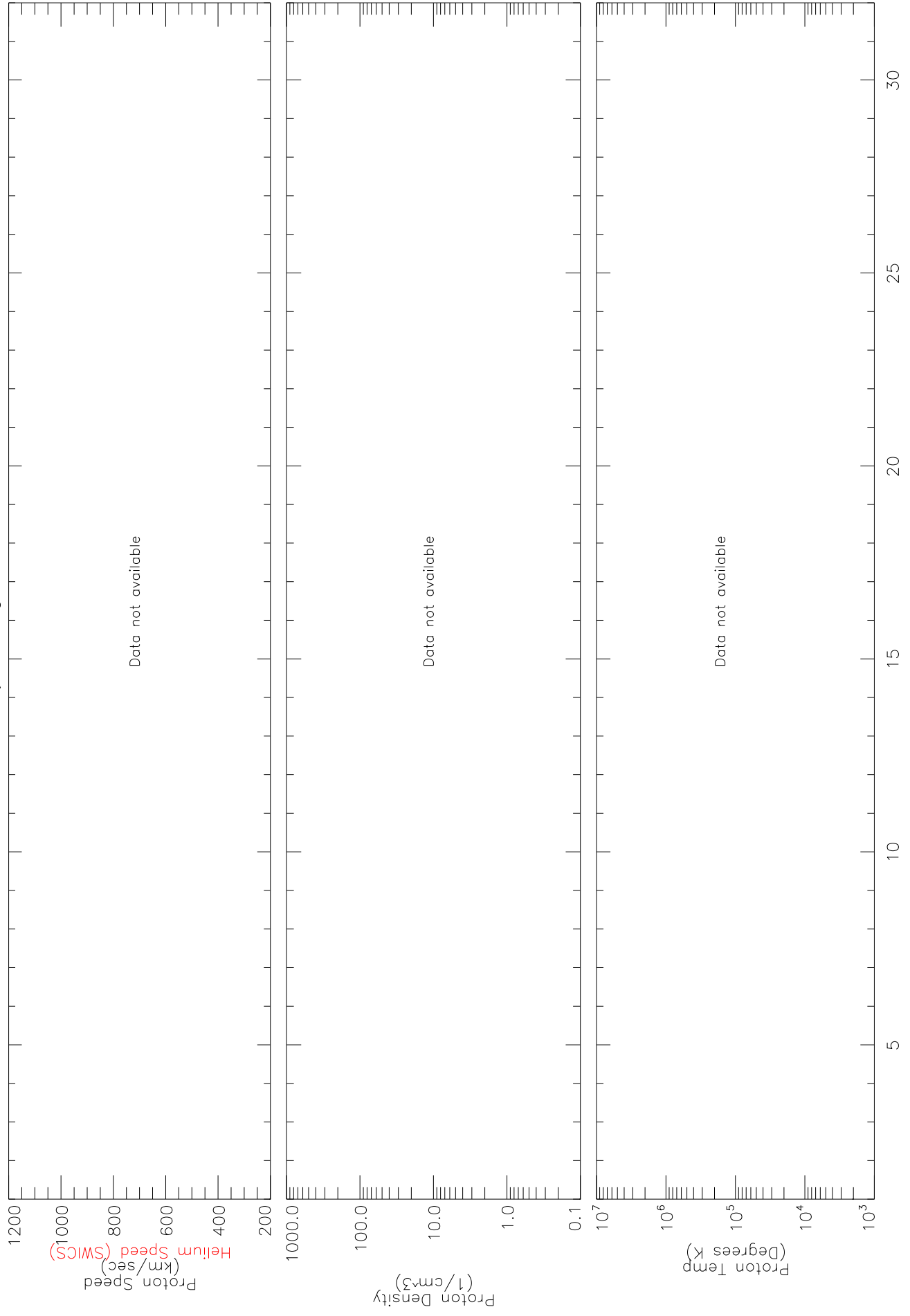
Data at: <http://www.swpc.noaa.gov/ftpmenu/sbuw.html>

Interplanetary Magnetic Field
ACE LEVEL2 DATA Hourly Averages for JUNE 2008, from MAG



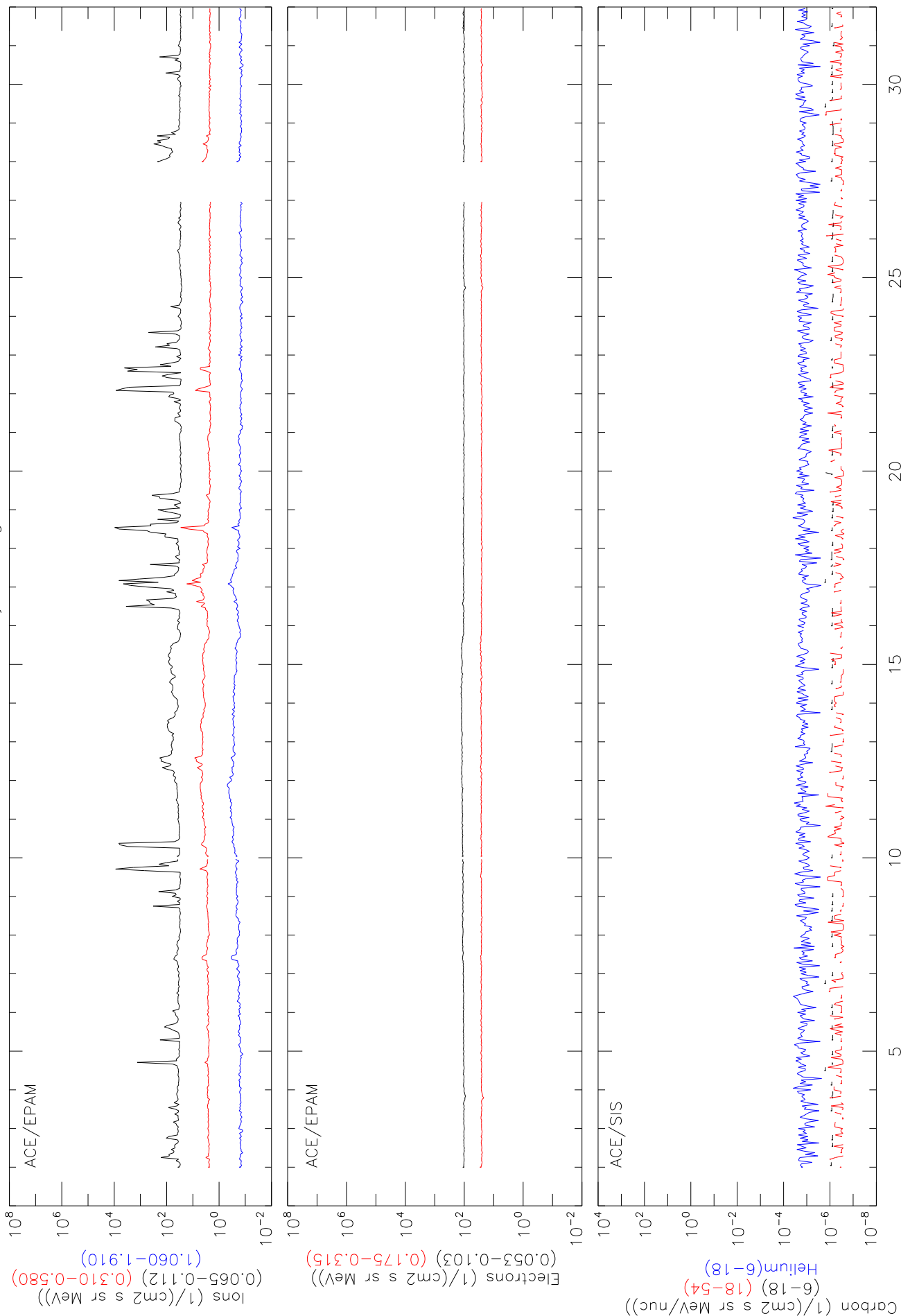
DAYS OF JUNE 2008

ACE LEVEL2 DATA Solar Wind Plasma Hourly Averages for JUNE 2008, from SWEPAM



DAYS OF JUNE 2008

Solar Energetic Particles
 ACE LEVEL2 DATA Hourly Averages for JUNE 2008



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
JUNE 2008

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	
2008/06/02	04:16:46	95	120	192	134	244	235	2.2*	82	Only C3
2008/06/02	16:06:04	85	10	371	383	359	156	-5.1*	78	Poor Event; Only C2
2008/06/02	16:54:04	237	5	393	355	430	716	16.3*	241	Poor Event; Only C2
2008/06/02	17:30:04	25	5	567	255	911	2681	303.2*	26	Very Poor; 3pts; Only C2
2008/06/03	05:54:04	202	8	225	233	217	0	-2.6*	206	Very Poor; Only C2
2008/06/04	03:54:04	71	18	255	284	226	54	-3.3*	77	Poor Event
2008/06/04	12:30:04	292	22	201	169	234	369	4.5*	293	Very Poor Event
2008/06/04	15:54:04	102	15	295	347	242	0	-22.0*	102	Very Poor; Only C2
2008/06/05	12:30:05	268	42	56	0	122	219	2.1*	272	Poor Event
2008/06/05	21:55:40	18	15	441	527	348	0	-20.1*	22	
2008/06/05	23:54:04	110	9	235	160	316	386	5.8*	111	Poor Event
2008/06/05	23:54:04	21	41	173	161	186	286	2.3*	23	Very Poor; Only C2
2008/06/06	07:31:38	15	6	296	372	222	0	-43.3*	19	Very Poor; Only C2
2008/06/06	18:30:04	115	33	125	0	261	327	4.7*	117	
2008/06/07	07:31:41	195	4	233	61	416	1476	101.4*	198	Very Poor; 3pts; Only C2
2008/06/07	11:30:04	172	7	188	231	145	0	-24.5*	171	Very Poor; Only C2
2008/06/07	14:30:04	102	13	350	460	240	0	-62.0*	102	Very Poor; Only C2
2008/06/07	15:54:04	71	16	167	169	165	122	-0.6*	73	Very Poor; Only C2
2008/06/08	01:31:38	96	12	281	243	319	763	21.6*	96	Very Poor; Only C2
2008/06/08	08:06:04	246	9	416	510	322	0	-37.8*	245	Poor Event; Only C2
2008/06/08	15:54:04	105	7	174	227	120	0	-31.3*	105	Very Poor; Only C2
2008/06/08	18:30:05	116	8	335	330	341	346	0.5*	116	Very Poor Event
2008/06/10	12:30:04	106	40	495	597	391	0	-20.3*	98	
2008/06/10	12:54:04	56	35	456	366	547	568	8.0*	68	
2008/06/11	07:31:38	271	31	154	157	150	131	-0.3*	267	Very Poor Event
2008/06/12	03:30:04	83	62	274	83	474	515	10.8	71	
2008/06/12	20:30:04	63	6	153	124	187	223	1.4*	69	Poor Event
2008/06/13	14:54:04	51	29	65	22	103	215	1.9*	47	Very Poor; Only C2
2008/06/15	00:54:04	169	73	243	271	215	73	-2.8*	167	
2008/06/15	14:54:04	163	5	225	447	23	0	-196.3*	159	Very Poor; 3pts; Only C2
2008/06/16	00:54:26	248	19	146	126	166	432	7.0*	255	Very Poor; Only C2
2008/06/16	07:31:38	228	27	219	263	175	0	-8.5*	235	Very Poor; Only C2
2008/06/16	19:54:04	353	5	279	188	375	811	25.9*	352	Very Poor; Only C2
2008/06/17	11:30:04	117	17	209	209	209	209	0.0*	110	Poor Event
2008/06/17	15:54:04	253	12	344	417	268	0	-27.0*	252	Poor Event; Only C2
2008/06/18	00:54:04	250	18	249	154	349	1062	45.5*	248	Very Poor; Only C2
2008/06/18	14:06:04	117	6	631	944	317	0	-217.6*	113	Very Poor; 3pts; Only C2
2008/06/18	20:06:04	222	29	148	142	154	161	0.2*	225	Very Poor Event
2008/06/19	13:54:04	256	6	328	396	258	0	-30.8*	253	Poor Event; Only C2
2008/06/19	16:26:04	358	6	659	568	749	1124	38.7*	360	Poor Event
2008/06/19	18:27:11	0	6	562	512	615	1127	44.1*	2	Very Poor; 3pts; Only C2
2008/06/19	20:06:04	77	44	127	66	187	228	1.9*	77	Very Poor Event

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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
JUNE 2008

First C2 Appearance		Central Width			Linear Fit			----2nd order speed----		Accel	Measurement	
Date	Time UT	Position Angle degree	Angular Width degree	Speed km/s	Initial km/s	Final km/s	20R km/s	m/s ²	Position Angle degree	Remarks		
2008/06/20	03:26:06	114	8	176	275	86	0	-32.1*	113	Very Poor; Only C2		
2008/06/20	12:26:05	235	25	219	115	331	363	5.1*	237	Poor Event		
2008/06/20	15:06:05	81	18	293	269	318	315	1.2*	83			
2008/06/21	03:34:11	113	5	209	149	268	665	17.8*	107	Very Poor; 3pts; Only C2		
2008/06/21	03:34:11	248	27	335	313	357	376	1.9*	245	Very Poor Event		
2008/06/21	09:06:04	258	7	397	325	468	678	15.1*	258	Very Poor Event		
2008/06/21	20:50:04	258	8	287	330	245	0	-23.1*	257	Very Poor; Only C2		
2008/06/21	23:26:04	117	9	299	440	161	0	-80.2*	110	Very Poor; Only C2		
2008/06/22	00:26:04	251	7	188	208	170	0	-2.9*	251	Very Poor Event		
2008/06/22	10:50:04	104	29	242	273	211	0	-4.0*	104	Very Poor Event		
2008/06/22	21:50:04	298	8	417	551	298	0	-43.7*	296	Very Poor; Only C2		
2008/06/23	23:26:05	184	10	407	469	343	0	-34.8*	184	Very Poor; Only C2		
2008/06/24	08:06:04	238	9	251	204	298	355	3.8*	241	Very Poor Event		
2008/06/24	08:50:05	183	7	301	297	306	385	2.6*	183	Very Poor; Only C2		
2008/06/24	08:50:05	8	7	305	309	300	193	-2.5*	13	Very Poor; Only C2		
2008/06/24	23:50:04	9	7	453	511	398	0	-52.4*	11	Very Poor; 3pts; Only C2		
2008/06/25	12:50:04	190	6	352	196	520	1303	69.0*	191	Very Poor; Only C2		
2008/06/25	15:26:04	191	7	322	161	494	1828	139.0*	190	Very Poor; 3pts; Only C2		
2008/06/25	18:26:04	270	14	190	188	192	217	0.5*	271	Very Poor; Only C2		
2008/06/26	00:26:04	233	31	228	168	291	329	3.3*	240			
2008/06/26	02:26:23	75	84	204	189	222	236	0.8*	67			
2008/06/26	22:06:04	7	4	191	275	116	0	-33.0*	10	Very Poor; 3pts; Only C2		
2008/06/27	01:50:06	93	31	179	60	295	1105	50.0*	92	Very Poor; Only C2		
2008/06/27	06:50:05	73	12	398	455	342	0	-12.9*	81	Poor Event		
2008/06/27	07:27:11	242	13	177	127	228	393	5.8*	243	Very Poor Event		
2008/06/27	15:26:04	247	38	119	0	278	375	5.8*	250	Poor Event		
2008/06/29	10:06:05	296	6	246	173	329	356	4.3*	294	Very Poor Event		
2008/06/30	07:27:11	40	36	216	192	241	275	1.6*	48	Poor Event		

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

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