FEBRUARY 2009 NUMBER 774 - Part II

Solar-Geophysical Data comprehensive reports

Data for August 2008
Explanation of Data Reports Issued as Number 515 (Supplement) July 1987

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FEBRUARY 2009 NUMBER 774 - Part II

Solar-Geophysical Data comprehensive reports

Data for August 2008

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NATIONAL GEOPHYSICAL DATA CENTER
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SOLAR-GEOPHYSICAL DATA

Number 774

(Issued in Two Parts)

Editor: Edward H. Erwin

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Comprehensive Reports Number 774 Part II

DATA FOR **AUGUST 2008**

Hà S O L A R F L A R E S
AUGUST 2008

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
		01	0000		0024	No Flare Patrol													
		01	0111		0254	No Flare Patrol													
		01	0318		0414	No Flare Patrol													
		01	0925		0930	No Flare Patrol													
		01	1831		2015	No Flare Patrol													
		02	2131		2137	No Flare Patrol													
		02	2252		2323	No Flare Patrol													
		03	2211		2337	No Flare Patrol													
		04	0059		0333	No Flare Patrol													
		04	0403		0422	No Flare Patrol													
		04	1229		1240	No Flare Patrol													
		04	1245		1249	No Flare Patrol													
		04	1258		1419	No Flare Patrol													
		04	1721		1927	No Flare Patrol													
		04	2051		2203	No Flare Patrol													
		05	1312		1335	No Flare Patrol													
		06	2044		2057	No Flare Patrol													
		06	2118		2212	No Flare Patrol													
		07	1245		1248	No Flare Patrol													
		07	1832		2234	No Flare Patrol													
		08	1440		1544	No Flare Patrol													
		08	1554		1604	No Flare Patrol													
		08	1659		1703	No Flare Patrol													
		08	2035		2144	No Flare Patrol													
		10	1835		1843	No Flare Patrol													
		10	1900		1907	No Flare Patrol													
		10	2035		2306	No Flare Patrol													
		10	2319		2400	No Flare Patrol													
		11	0000		0041	No Flare Patrol													
		11	0110		0116	No Flare Patrol													
		11	0304		0429	No Flare Patrol													
		11	1905		2141	No Flare Patrol													
		11	2250		2308	No Flare Patrol													
		12	0000		0433	No Flare Patrol													
		12	1058		1102	No Flare Patrol													
		12	1219		1222	No Flare Patrol													
		12	2216		2314	No Flare Patrol													
		12	2342		2348	No Flare Patrol													
		13	0026		0057	No Flare Patrol													
		13	0105		0116	No Flare Patrol													
		13	0354		0431	No Flare Patrol													
		14	0047		0154	No Flare Patrol													
		14	1725		2254	No Flare Patrol													
		15	1632		1722	No Flare Patrol													
		15	1932		2123	No Flare Patrol													
		15	2139		2303	No Flare Patrol													
		16	1714		2124	No Flare Patrol													
		16	2204		2304	No Flare Patrol													
		18	0244		0436	No Flare Patrol													
		18	1830		1835	No Flare Patrol													
		20	1711		1749	No Flare Patrol													
		20	1759		1821	No Flare Patrol													
		20	2110		2143	No Flare Patrol													
		20	2157		2255	No Flare Patrol													
		22	2113		2400	No Flare Patrol													
		23	0000		0011	No Flare Patrol													
		23	0019		0442	No Flare Patrol													
		23	2015		2044	No Flare Patrol													
		23	2103		2118	No Flare Patrol													
		23	2214		2218	No Flare Patrol													
		23	2222		2231	No Flare Patrol													
		23	2237		2259	No Flare Patrol													
		23	2325		2336	No Flare Patrol													
		24	0159		0249	No Flare Patrol													
		24	0430		0444	No Flare Patrol													
		24	1834		1904	No Flare Patrol													
		24	2034		2106	No Flare Patrol													
		24	2127		2324	No Flare Patrol													
		24	2357		2400	No Flare Patrol													
		25	0000		0250	No Flare Patrol													

Hà S O L A R F L A R E S
AUGUST 2008

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
		25	1917		1923	No Flare Patrol													
		25	2014		2027	No Flare Patrol													
		25	2039		2045	No Flare Patrol													
		25	2109		2133	No Flare Patrol													
		25	2144		2231	No Flare Patrol													
		25	2245		2310	No Flare Patrol													
		26	1730		1735	No Flare Patrol													
		26	2041		2400	No Flare Patrol													
		27	0000		0445	No Flare Patrol													
		27	1458		1542	No Flare Patrol													
		27	1622		2118	No Flare Patrol													
		27	2146		2253	No Flare Patrol													
		28	0146		0335	No Flare Patrol													
		28	0359		0405	No Flare Patrol													
		28	0410		0509	No Flare Patrol													
		28	1400		1703	No Flare Patrol													
		28	1714		1739	No Flare Patrol													
		28	1743		1750	No Flare Patrol													
		28	1849		1901	No Flare Patrol													
		28	1946		2156	No Flare Patrol													
		29	0031		0055	No Flare Patrol													
		29	0149		0417	No Flare Patrol													
		29	1755		1803	No Flare Patrol													
		29	2016		2023	No Flare Patrol													
		29	2059		2117	No Flare Patrol													
		29	2213		2254	No Flare Patrol													
		30	1731		1736	No Flare Patrol													
		30	1745		2114	No Flare Patrol													
		30	2138		2259	No Flare Patrol													
		31	1700		2252	No Flare Patrol													

"Remarks"

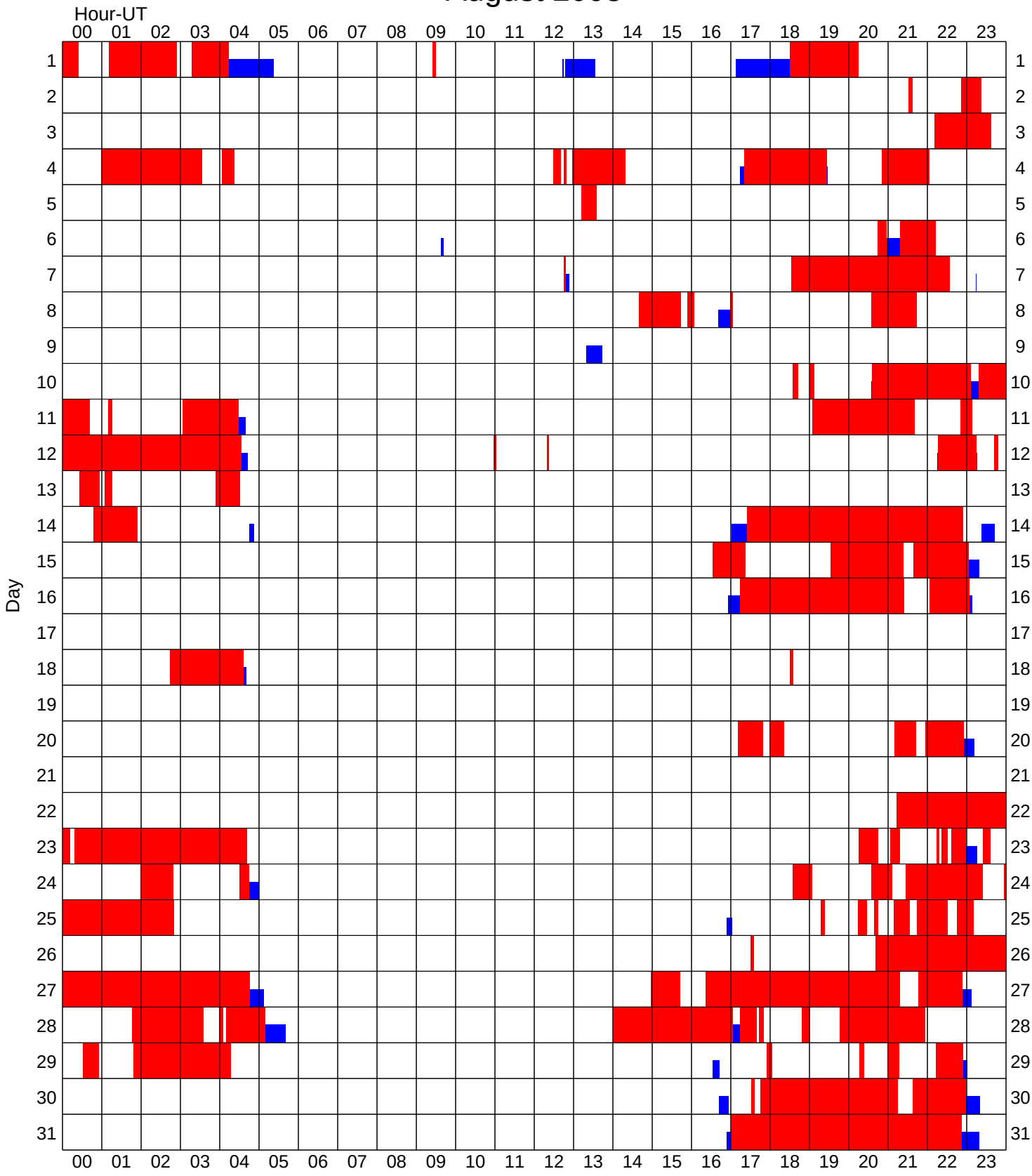
A = Eruptive prominence whose base is less than 90 degrees from central meridian.
B = Probably the end of a more important flare.
C = Invisible 10 minutes before.
D = Brilliant point.
E = Two or more brilliant points.
F = Several eruptive centers.
G = No visible spots in the neighborhood.
H = Flare accompanied 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

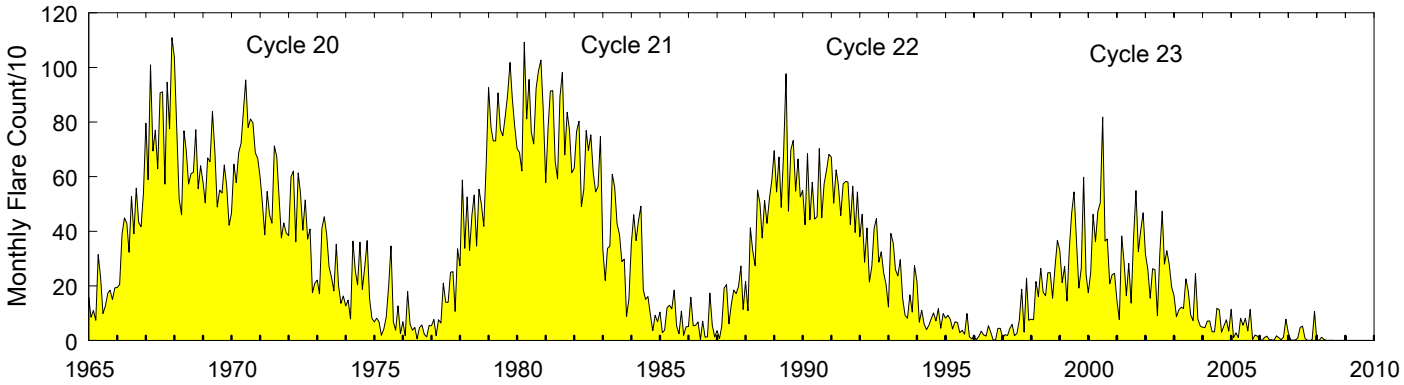
August 2008



Times of no flare patrol of any kind.
Times of no cinematographic flare patrol.

Stations participating: Holloman, Learmonth, SanVito, Kanzelhoehe.

Monthly Counts of Grouped Solar Flares
Jan 1965 - Aug 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	0	0					18

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
Selected Fixed Frequency Events

AUGUST 2008

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
03	33	UPIC	4 S/F	1422.5	1422.7	1.5U				
22	33	UPIC	2 S/F	0656.0	0657.3	3.0U				

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

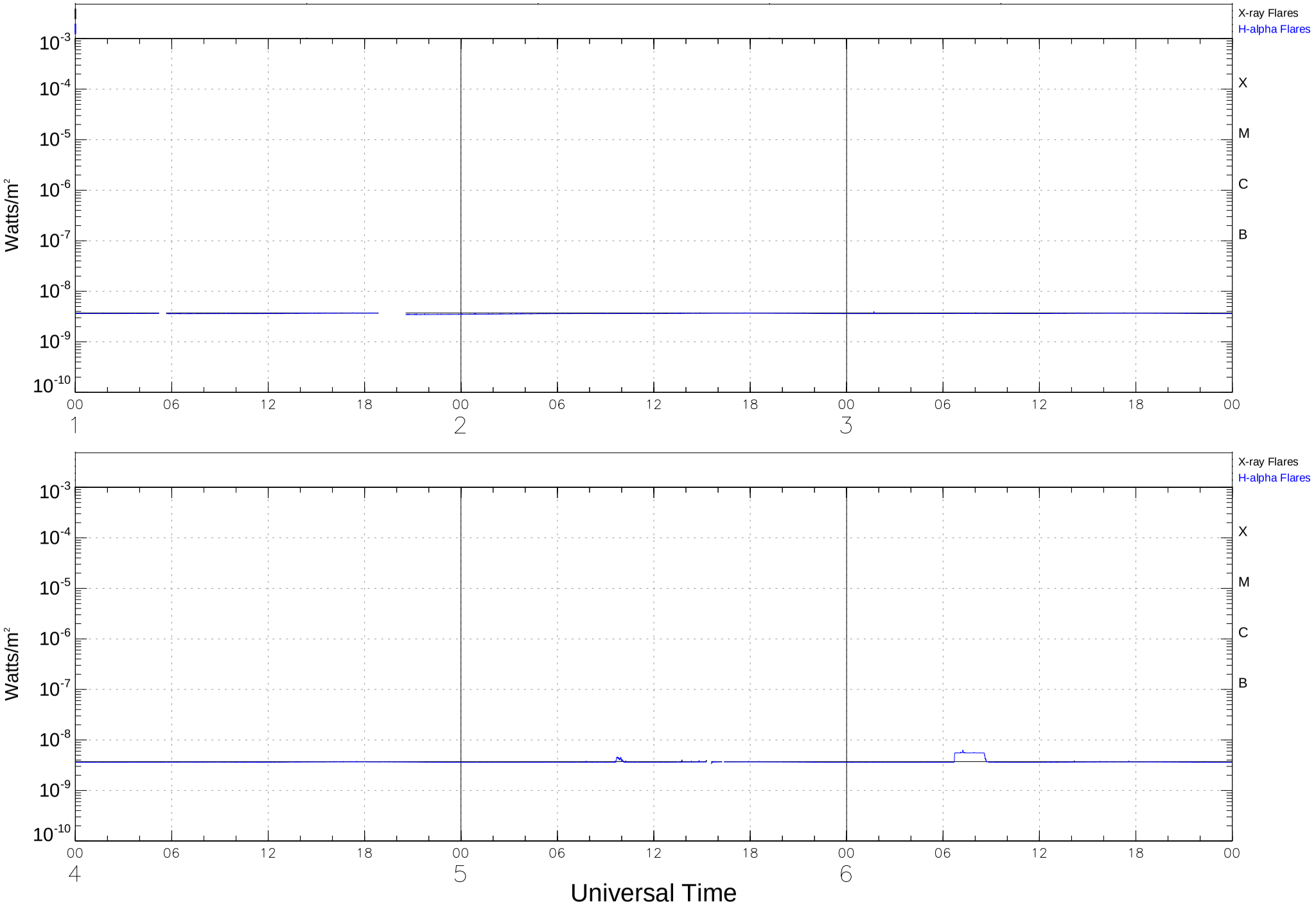
Explanation of Type Code:

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 Precusor	41 Group of Bursts	47 Great Burst
6 Minor	23 Simple 3AF	29 Post Burst Increase	42 Series of Bursts	48 Major

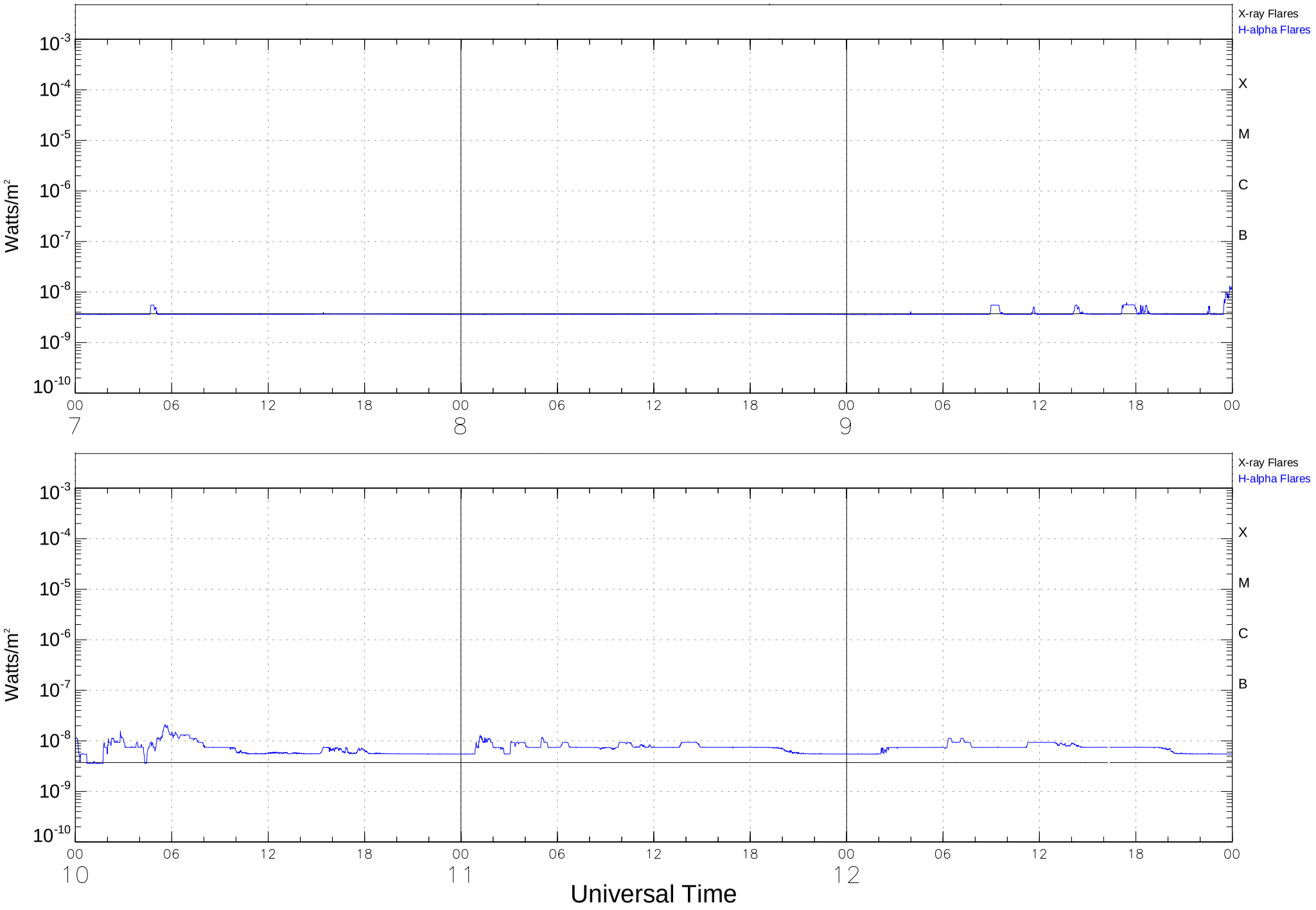
1A Simple 1A	4A Simple 2AF	24PF Post Rise F	27F Rise and Fall F
3A Simple 2A	4O Rise Only	16A Fall A	27AF Rise and Fall AF
21A Simple 3A GRF	4OF Rise Only F	26O Fall Only	31A Post Burst Decrease A
2A Simple 1AF	4P Post Rise	26F Fall F	32A Absorption A

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.

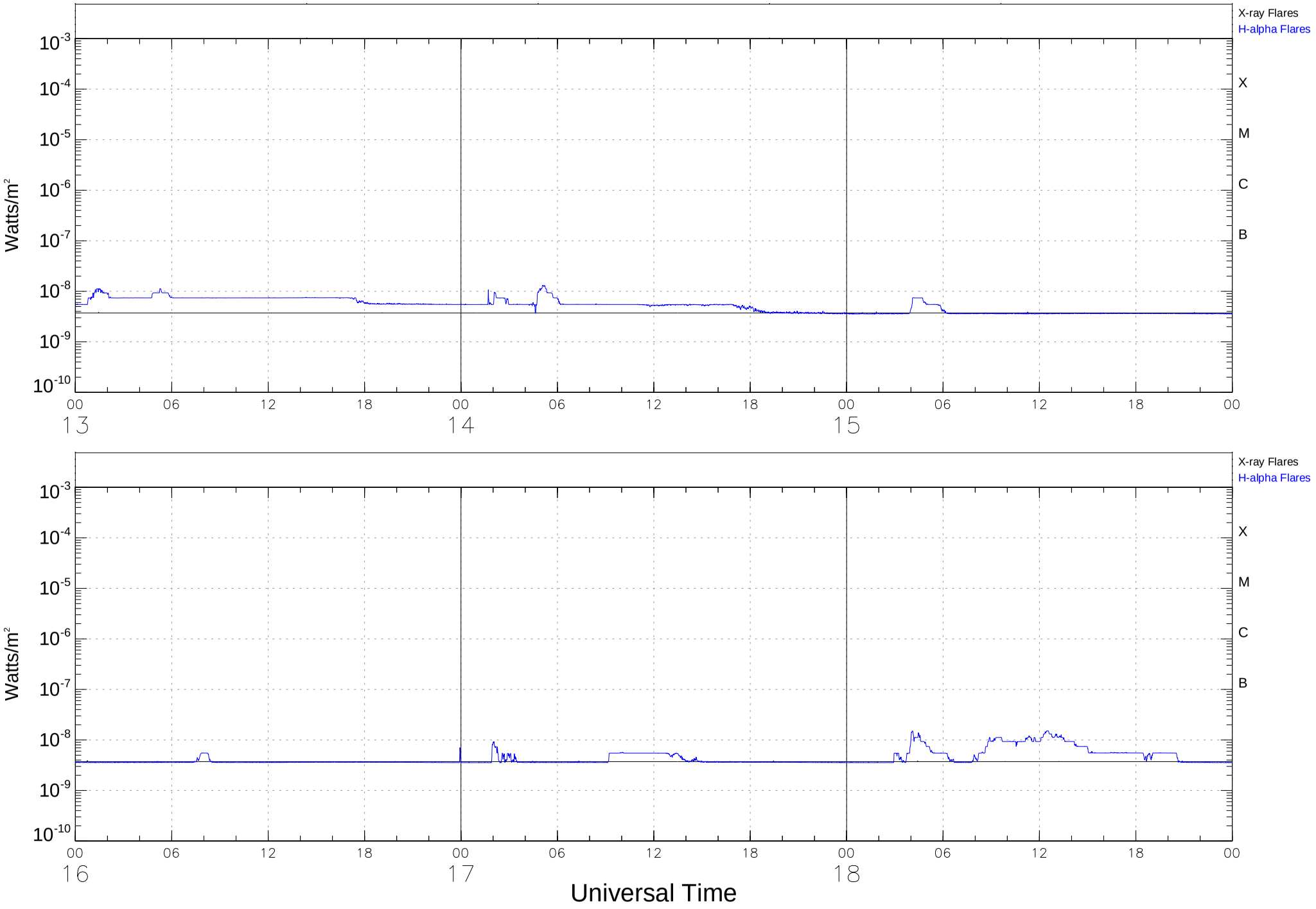
GOES-10 Solar X-Rays (1-Minute Averages)
August 2008



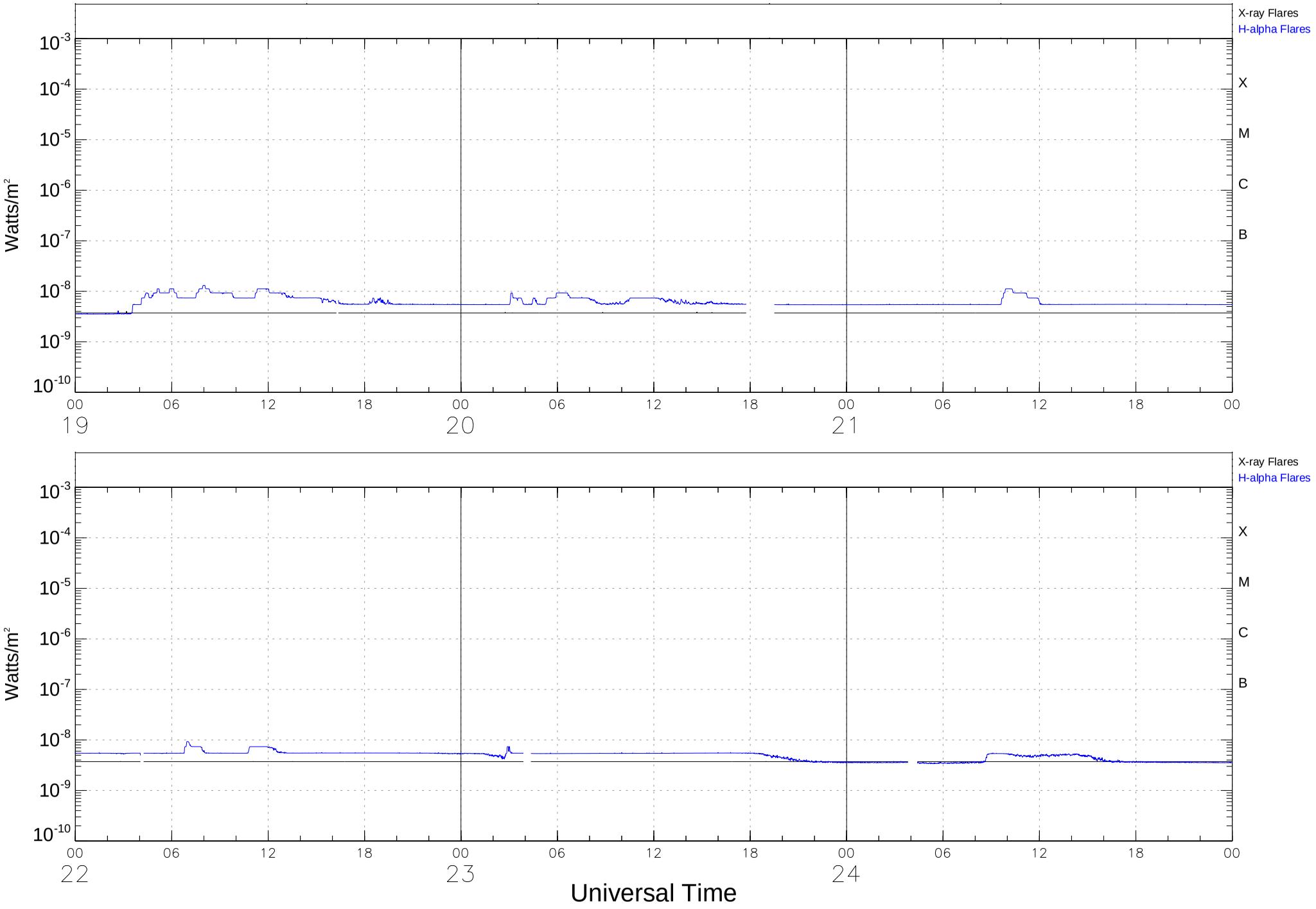
GOES-10 Solar X-Rays (1-Minute Averages)
August 2008



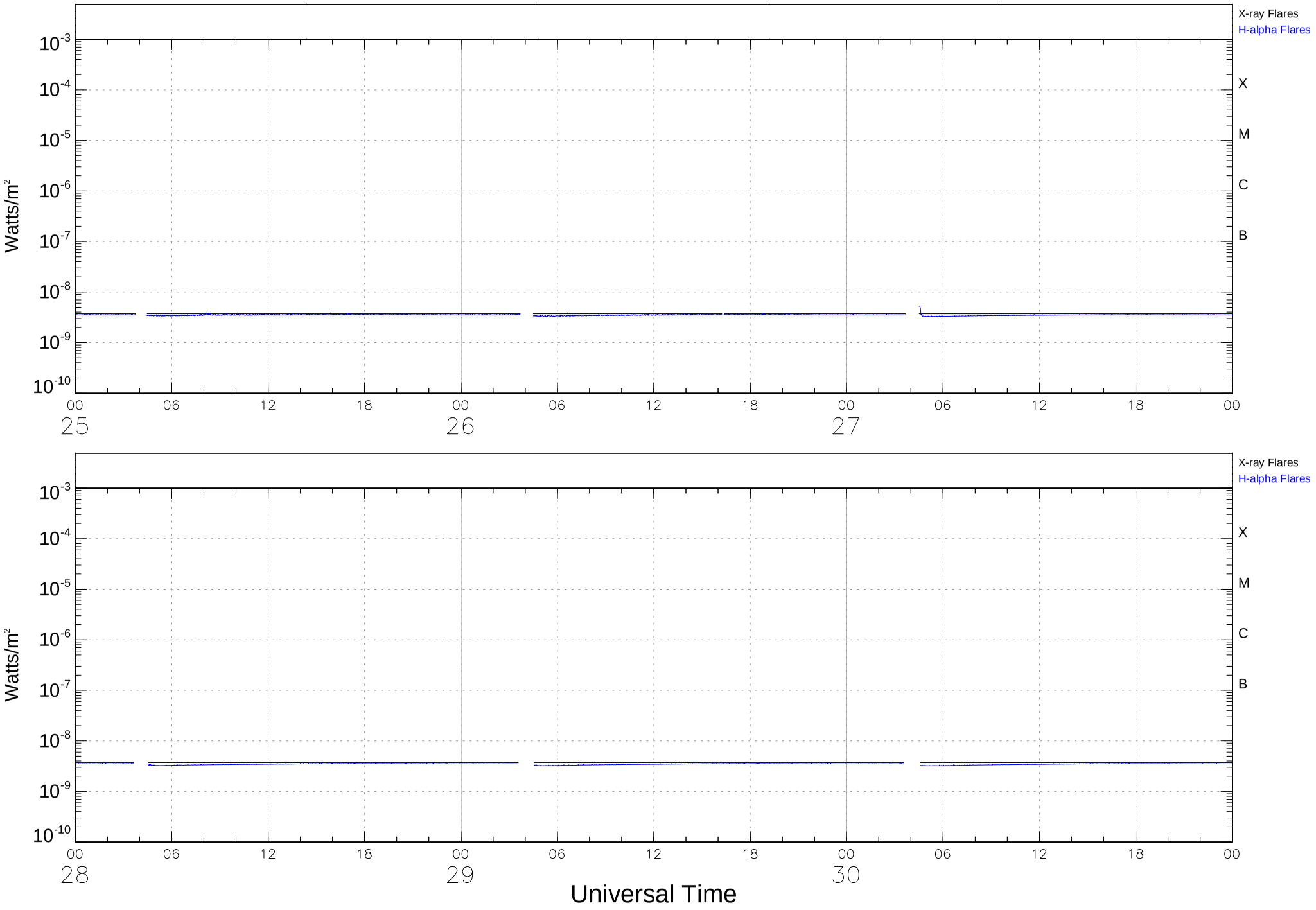
GOES-10 Solar X-Rays (1-Minute Averages)
August 2008

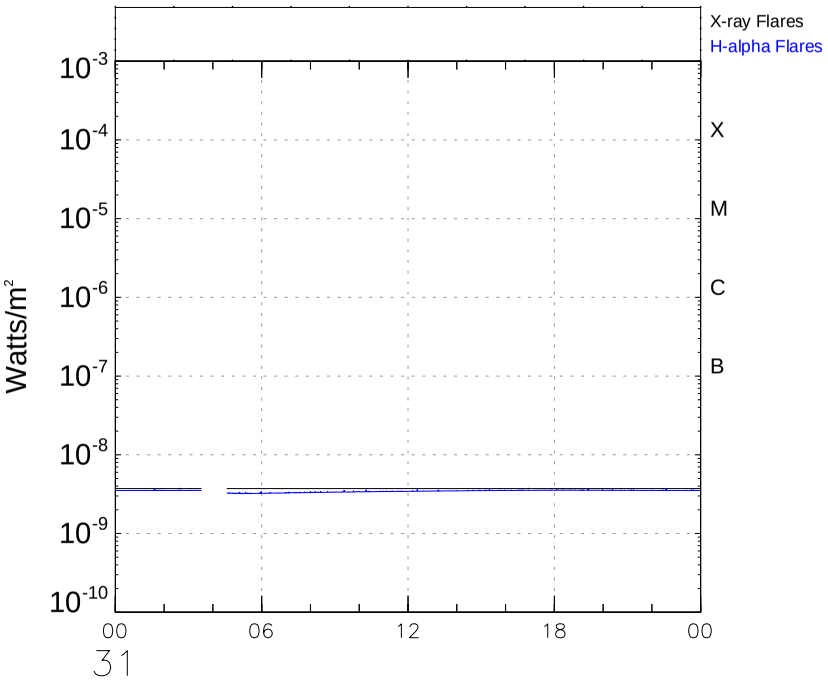


GOES-10 Solar X-Rays (1-Minute Averages)
August 2008



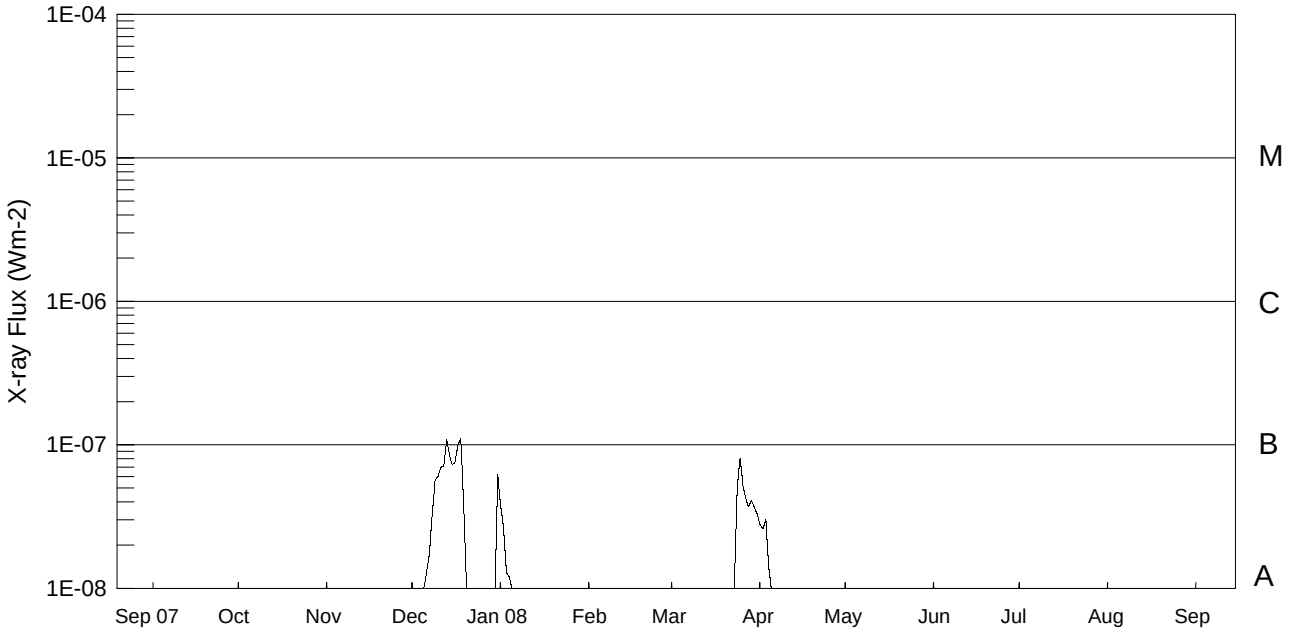
GOES-10 Solar X-Rays (1-Minute Averages)
August 2008




X-ray Flares
H-alpha Flares
Watts/m²
10-3
10-4
10-5
10-6
10-7
10-8
10-9
10-10
X
M
C
B
00
06
12
18
00
31

Preliminary GOES Satellite Daily X-Ray Background
Sep 2007 - Aug 2008

15 Aug 08



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

Levels below B1.0 are unreliable.

ACTIVE PROMINENCES AND FILAMENTS

AUGUST 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

No Reports

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.

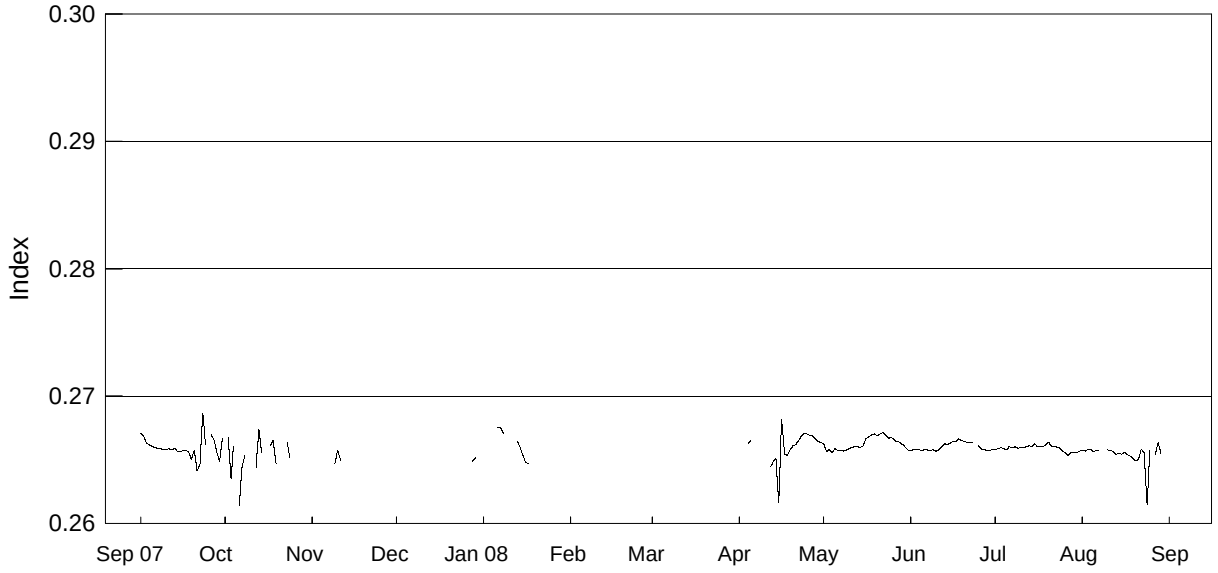
The remark "Bright Emission 1/3" indicates that bright emission was observed 1/3 of time.
The remark "Normal Emission 1/3" indicates that normal emission was observed 1/3 of time.

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

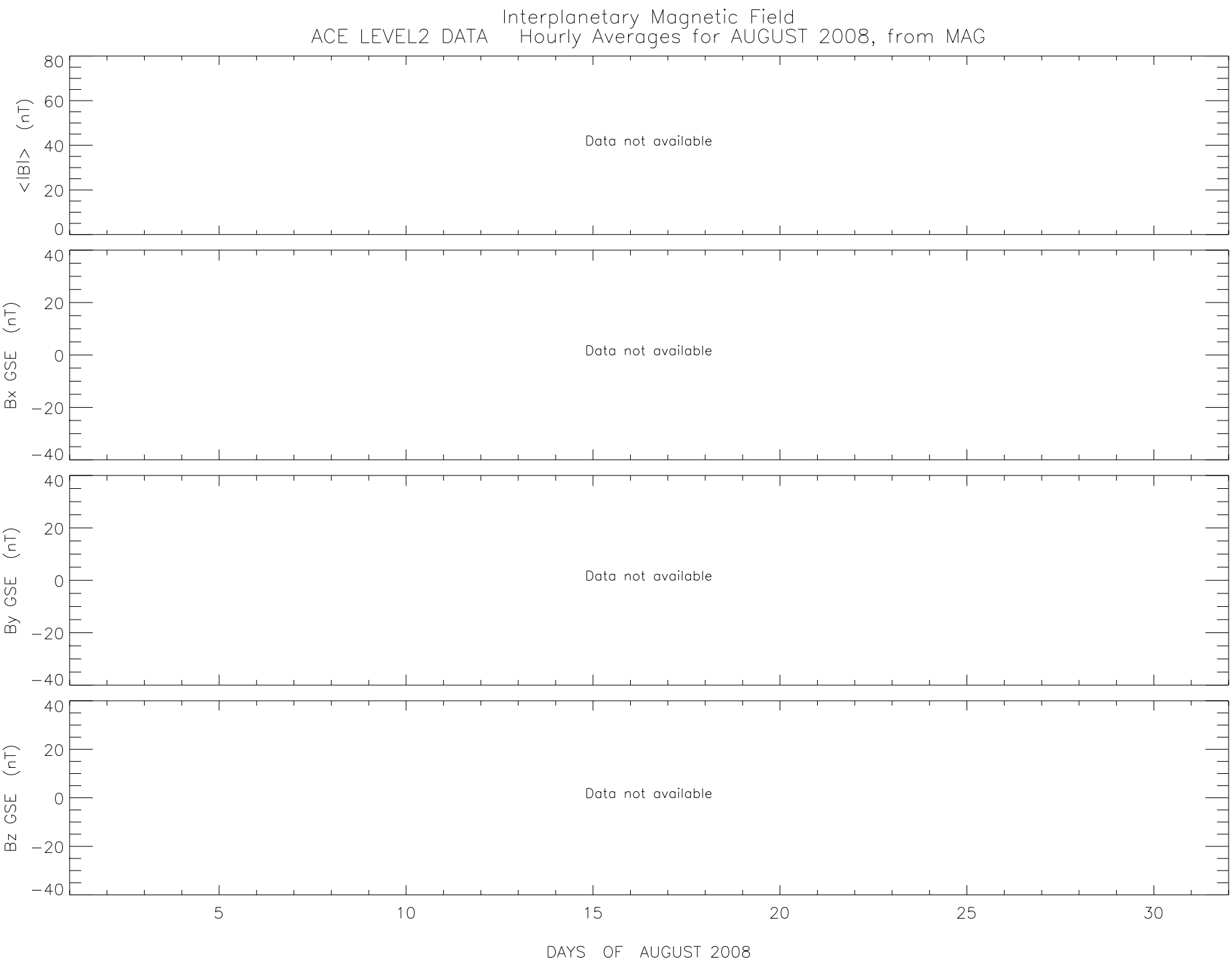
NOTE: The U.S. Air Force solar observing sites (HOLL, LEAR, RAMY, AND SVTO) have changed operational requirements and will only report the following: BSL, EPL, LPS, SPY, and DSF's.

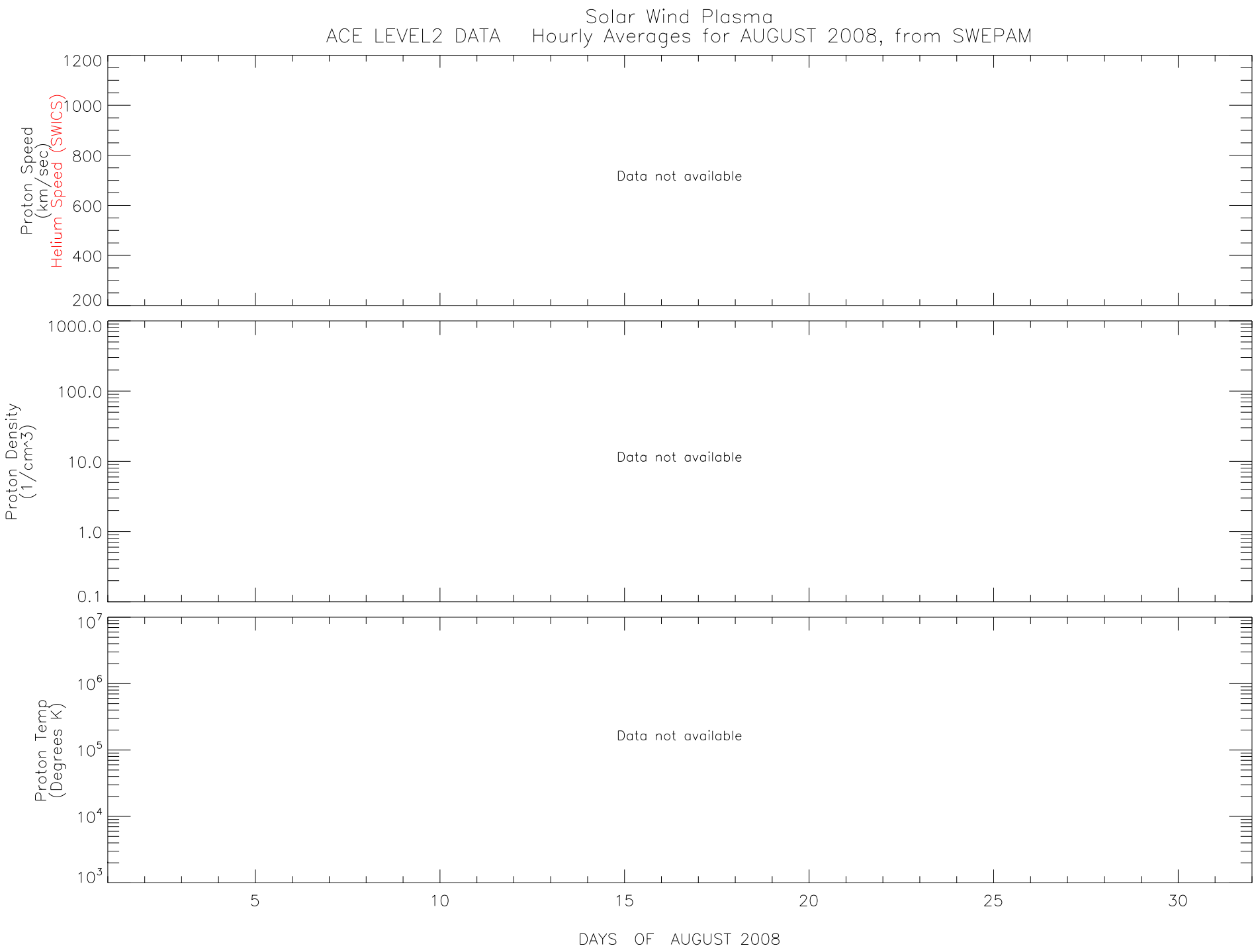
NOAA Solar Ultraviolet (UV) MgII Core-to-Wing Index
Sep 2007 - Aug 2008
Version 9.1

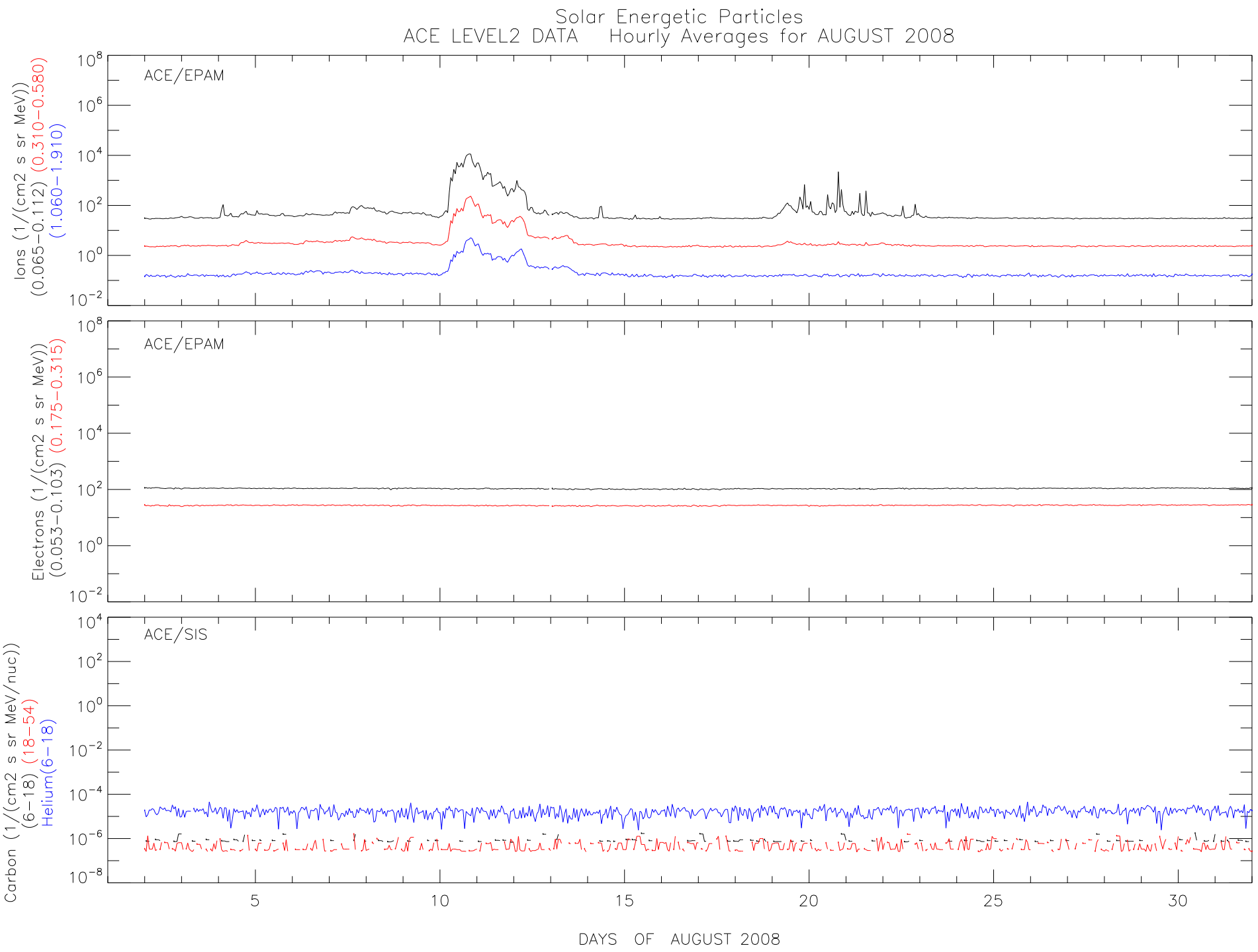


Day	Sep 07	Oct	Nov	Dec	Jan 08	Feb	Mar	Apr	May	Jun	Jul	Aug
1	0.2671	---	---	---	---	---	---	---	0.2663	0.2657	0.2658	0.2657
2	0.2669	0.2668	---	---	0.2658	---	---	---	0.2657	0.2658	0.2659	0.2657
3	0.2663	0.2635	---	---	---	---	---	---	0.2658	0.2658	0.2660	0.2658
4	0.2662	0.2661	---	---	---	---	---	0.2663	0.2656	0.2658	0.2659	0.2658
5	0.2661	---	---	---	---	---	---	0.2665	0.2659	0.2657	0.2658	0.2657
6	0.2660	0.2615	---	---	0.2675	---	---	---	0.2657	0.2659	0.2661	0.2657
7	0.2659	0.2645	0.2644	---	0.2675	---	---	---	0.2657	0.2658	0.2659	0.2657
8	0.2659	0.2654		---	0.2671	---	---	---	0.2657	0.2658	0.2660	---
9	0.2658	---	0.2647	---	---	---	---	---	0.2658	0.2658	0.2659	---
10	0.2659	---	0.2658	---	---	---	---	---	0.2659	0.2657	0.2660	0.2658
11	0.2659	---	0.2650	---	0.2527	---	---	---	0.2660	0.2658	0.2660	0.2657
12	0.2658	0.2644	---	---	---	---	---	0.2644	0.2660	0.2661	0.2660	0.2657
13	0.2659	0.2674	---	---	0.2664	---	---	0.2649	0.2660	0.2663	0.2661	0.2654
14	0.2657	0.2655	---	---	0.2659	---	---	0.2651	0.2660	0.2662	0.2661	0.2655
15	0.2656	---	---	---	0.2653	---	---	0.2617	0.2661	0.2663	0.2663	0.2654
16	0.2657	---	---	---	0.2648	---	---	0.2682	0.2667	0.2665	0.2660	0.2656
17	0.2657	0.2661	---	---	0.2647	---	---	0.2655	0.2668	0.2665	0.2660	0.2654
18	0.2656	0.2665	---	---	---	---	---	0.2654	0.2670	0.2667	0.2660	0.2653
19	0.2650	0.2647	---	---	---	---	---	0.2658	0.2670	0.2665	0.2662	0.2651
20	0.2657	---	---	---	---	---	---	0.2661	0.2669	0.2665	0.2664	0.2649
21	0.2641	---	---	---	---	---	---	0.2662	0.2670	0.2664	0.2661	0.2650
22	0.2647	---	---	---	---	---	---	0.2665	0.2672	0.2664	0.2660	0.2659
23	0.2687	0.2664	---	---	---	---	---	0.2669	0.2670	0.2664	0.2660	0.2656
24	0.2662	0.2652	---	0.2665	---	---	---	0.2671	0.2667	---	0.2659	0.2615
25	---	---	---	---	---	---	---	0.2670	0.2668	0.2661	0.2657	0.2657
26	0.2670	---	---	---	---	---	---	0.2669	0.2666	0.2659	0.2656	---
27	0.2666	---	---	---	---	---	---	0.2669	0.2664	0.2659	0.2654	0.2654
28	0.2656	---	---	0.2649	---	---	---	0.2666	0.2664	0.2657	0.2656	0.2664
29	0.2649	0.2658	---	0.2652	---	---	---	0.2664	0.2662	0.2657	0.2656	0.2655
30	0.2667	---	---	---	---		---	0.2664	0.2662	0.2658	0.2656	---
31		---		---	---		---		0.2660		0.2656	0.2632
Mean	0.2660	0.2653	0.2650	0.2655	0.2661	---	---	0.2660	0.2663	0.2660	0.2659	0.2651

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


Interplanetary Magnetic Field
ACE LEVEL2 DATA Hourly Averages for AUGUST 2008, from MAG
<|B|> (nT)
Data not available
Bx GSE (nT)
Data not available
By GSE (nT)
Data not available
Bz GSE (nT)
Data not available
80
60
40
20
0
40
20
0
−20
−40
5
10
15
20
25
30
DAYS OF AUGUST 2008


Solar Wind Plasma
ACE LEVEL2 DATA Hourly Averages for AUGUST 2008, from SWEPAM
Proton Speed (km/sec)
Helium Speed (SWICS)
1200
1000
800
600
400
200
Data not available
Proton Density (1/cm^3)
1000.0
100.0
10.0
1.0
0.1
Data not available
Proton Temp (Degrees K)
10^7
10^6
10^5
10^4
10^3
Data not available
5
10
15
20
25
30
DAYS OF AUGUST 2008


Solar Energetic Particles
ACE LEVEL2 DATA Hourly Averages for AUGUST 2008
ACE/EPAM
Ions (1/(cm2 s sr MeV))
(0.065–0.112) (0.310–0.580)
(1.060–1.910)
ACE/EPAM
Electrons (1/(cm2 s sr MeV))
(0.053–0.103) (0.175–0.315)
ACE/SIS
Carbon (1/(cm2 s sr MeV/nuc))
(6–18) (18–54)
Helium(6–18)
DAYS OF AUGUST 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

AUGUST 2008

First C2 Appearance		Central Position	Width Angular	Linear Fit	----2nd order speed-----			Accel	Measurement Position	Remarks
Date	Time UT	Angle degree	Width degree	Speed km/s	Initial km/s	Final km/s	20R km/s	m/s^2	Angle degree	
2008/08/01	07:06:04	171	8	142	121	163	481	8.9*	171	Very Poor Event; Only C2
2008/08/01	13:06:04	58	5	387	375	400	469	3.4*	65	Very Poor Event
2008/08/01	17:30:04	64	8	387	447	329	0	-18.1*	71	
2008/08/03	10:34:01	20	10	257	217	296	789	24.1*	25	Very Poor Event; Only C2
2008/08/03	17:54:04	296	26	102	96	108	139	0.4*	293	Very Poor Event
2008/08/03	21:30:07	20	5	559	247	902	2644	303.8*	26	Very Poor; 3 pts; Only C2
2008/08/04	22:30:05	124	23	251	128	375	421	6.9*	119	Very Poor Event
2008/08/05	03:30:04	121	20	286	198	377	645	17.7*	110	Very Poor Event
2008/08/06	22:30:04	114	32	118	110	125	158	0.5*	109	Very Poor Event
2008/08/07	00:30:04	284	15	225	51	382	1131	52.0*	284	Very Poor Event; Only C2
2008/08/07	01:31:39	109	48	130	0	250	273	3.2*	110	Poor Event
2008/08/07	02:06:04	354	6	386	323	452	862	26.7*	355	Very Poor Event; Only C2
2008/08/08	02:54:04	42	7	244	187	302	796	25.5*	48	Very Poor Event; Only C2
2008/08/08	06:30:04	127	8	213	170	254	327	3.3*	119	Very Poor Event
2008/08/08	06:54:26	69	14	118	116	119	149	0.4*	70	Very Poor Event; Only C2
2008/08/08	17:12:36	99	8	339	439	238	0	-94.0*	95	Very Poor Event; Only C2
2008/08/08	20:00:04	285	13	311	233	394	538	9.8*	284	Very Poor Event
2008/08/10	13:00:04	99	8	299	361	232	0	-12.7*	94	Very Poor Event
2008/08/10	14:24:04	111	12	294	377	203	0	-10.4*	113	Very Poor Event
2008/08/11	07:24:04	73	20	258	182	336	789	23.9*	72	Very Poor Event; Only C2
2008/08/12	17:00:04	208	12	343	351	334	208	-3.4*	213	Very Poor Event; Only C2
2008/08/14	22:36:06	251	8	175	115	234	351	5.0*	252	Very Poor Event
2008/08/15	09:00:04	82	61	140	68	218	247	2.5*	84	
2008/08/16	14:36:04	263	26	201	216	184	116	-1.4*	257	Poor Event
2008/08/16	19:24:04	259	40	237	64	407	452	8.2	268	
2008/08/17	00:24:04	258	35	334	298	374	355	1.6	275	
2008/08/19	13:24:04	94	34	170	0	329	300	3.9*	89	
2008/08/22	21:50:36	252	7	242	254	231	0	-3.1*	257	Very Poor Event; Only C2
2008/08/23	19:30:05	314	10	546	661	429	166	-17.3	303	
2008/08/24	10:44:11	270	19	263	296	230	126	-3.4*	280	Very Poor Event
2008/08/24	21:30:07	199	5	213	----	----	----	------	103	Very Poor; 2 pts; Only C2
2008/08/25	05:30:04	305	6	147	120	179	249	2.0*	304	Very Poor Event
2008/08/25	06:54:04	267	15	214	168	262	300	2.7*	273	Very Poor Event
2008/08/25	09:54:04	85	6	300	458	145	0	-90.3*	91	Very Poor Event; Only C2
2008/08/26	06:30:04	68	5	230	225	234	332	2.5*	67	Very Poor; 3 pts; Only C2
2008/08/26	10:54:04	195	5	644	1018	303	0	-331.2*	200	Very Poor; 3 pts; Only C2
2008/08/26	23:30:04	272	37	271	178	369	651	16.5*	268	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

AUGUST 2008

First C2 Appearance		Central Position	Width	Linear Fit	----2nd order speed-----			Accel	Measurement Position	Remarks
Date	Time UT	Angle degree	Angular Width degree	Speed km/s	Initial km/s	Final km/s	20R km/s	m/s^2	Angle degree	
2008/08/27	00:06:04	69	20	125	136	115	0	-1.5*	66	Poor Event
2008/08/27	22:06:04	75	4	192	170	212	558	11.6*	76	Poor Event;3 pts; Only C2
2008/08/28	01:30:04	75	9	277	341	215	0	-18.5*	76	Very Poor Event; Only C2
2008/08/28	16:30:05	355	9	251	338	167	0	-35.3*	353	Very Poor Event; Only C2
2008/08/28	19:30:04	112	12	259	189	334	419	6.8*	111	Very Poor Event
2008/08/29	00:30:04	190	5	434	539	329	0	-59.2*	194	Very Poor Event; Only C2
2008/08/29	08:54:28	357	9	431	397	464	785	18.7*	354	Poor Event; Only C2
2008/08/29	13:06:04	30	7	348	387	309	0	-27.1*	32	Very Poor; 3 pts; Only C2
2008/08/29	21:08:02	72	29	158	150	165	184	0.5*	71	Very Poor Event
2008/08/30	01:30:04	271	53	62	30	96	229	2.1*	277	Very Poor Event; Only C2
2008/08/30	15:06:04	285	51	158	98	218	333	4.9*	273	Very Poor Event
2008/08/30	17:30:05	186	146	190	0	390	390	6.5*	174	Poor Event; Partial Halo
2008/08/31	01:06:04	279	36	266	302	229	197	-2.1*	276	Poor Event
2008/08/31	09:30:04	192	6	518	630	415	0	-56.1*	195	Very Poor; 3 pts; Only C2
2008/08/31	21:54:04	109	22	205	172	238	476	8.3*	102	Poor Event; Only C2

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