JUNE 2008 NUMBER 766 - Part II

Solar-Geophysical Data comprehensive reports

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

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JUNE 2008 NUMBER 766 - Part II

Solar-Geophysical Data comprehensive reports

Data for December 2007

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NATIONAL GEOPHYSICAL DATA CENTER
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Boulder, Colorado

DETAILED INDEX OF OBSERVATIONS PUBLISHED IN SOLAR-GEOPHYSICAL DATA

CODE	KIND OF OBSERVATION	OCT	NOV	DEC	Jan 08	FEB	MAR	APR	MAY
A.	**SOLAR AND INTERPLANETARY**								
A.1	Sunspot Drawings	760A 40	761A 44	762A 40	763A 40	764A 46	765A 40	766A 40	
A.2aa	International Sunspot Numbers	759A 24	760A 23	761A 24	762A 24	763A 23	764A 22	765A 23	766A 24
A.2c	American Sunspot Numbers	759A 24	760A 23	761A 24	762A 24	763A 23	764A 22	765A 23	766A 24
A.3a	Mt. Wilson Magnetograms	760A 40	761A 44	762A 40	763A 40	764A 46	765A 40	766A 40	
A.3b	Sunspot Mag Class and Regions	760A 77	761A 79	762A 77	763A 77	764A 80	765A 77	766A 75	
A.3c	Kitt Peak Magnetograms	760A 40	761A 44	762A 40	763A 40	764A 46	765A 40	766A 40	
A.3d	Mean Solar Mag Field (Stanford)	759A 31	760A 30	761A 34	762A 31	763A 30	764A 31	765A 30	766A 30
A.3e	Stanford Magnetograms	760A 40	761A 44	762A 40	763A 40	764A 46	765A 40	766A 40	
A.4	H-alpha Filtergrams	760A 40	761A 44	762A 40	763A 40	764A 46	765A 40	766A 40	
A.5d	PhotometricCa FaculaeSanFernando	Jan 92-Dec 96-631B 22; 1997-1998 663B 66							
A.6c	Stanford Solar Mag Field Map	760A 34	761A 38	762A 34	763A 34	764A 34	765A 34	766A 34	
A.6d	Kitt Peak Mag Field Synoptic Map	760A 39	761A 43	762A 39	763A 39	764A 45	765A 39	766A 39	
A.6f	Active Prominences and Filaments	764B 16	765B 15	766B 20					
A.6g	Sac Peak Coronal Line Maps	760A 36	761A 40	762A 37	763A 37	764A 38	765A 36	766A 36	
A.6h	Photometric WL SanFernando	Jul-Dec 96 630B 32; 1997-1998 663B 51							
A.7h	Coronal Line Emission (Sac Peak)	760A 40	761A 44	762A 40	763A 40	764A 46	765A 40	766A 40	
A.7j	Coronal Hole Daily Maps (NSO/KP)								
A.7k	Coronal Index (Slovak Academy)	1939-1996 - 644B 28							
A.7m	Coronal Mass Ejections (CSPSW)	764B 21	765B 20	766B 25					
A.8aa	2800 MHz- Solar Flux (Penticton)	759A 24	760A 23	761A 24	762A 24	763A 23	764A 22	765A 23	766A 24
A.8ac	2800 MHz Adj Solar Flux (Pent.)	759A 24	760A 23	761A 24	762A 24	763A 23	764A 22	765A 23	766A 24
A.8g	Adjusted Daily Solar Flux SGMR	759A 24	760A 23	761A 24	762A 24	763A 23	764A 22	765A 23	766A 24
A.10g	Nancay Radiohelio 164&327MHz	760A 83	761A 85	762A 84	763A 83	764A 86	765A 85	766A 81	
A.10h	Nobeyama Radioheliogr 17 GHz	760A 71	761A 74	762A 71	763A 71	764A 75	765A 71	766A 70	
A.11g	Solar X-ray GOES (graphs)	764B 8	765B 9	766B 13					
A.11g	Solar X-ray GOES (event table)	759A 28	760A 27	761A 29	762A 28	763A 27	764A 28	765A 27	766A 28
A.11k	Solar UV NOAA-9	May 86-Dec 88 in 566B 84							
A.11l	Solar UV NIMBUS7	Nov 78-Oct84 in 542B 82							
A.11m	Solar UV SOLSTICE (UARS)	Oct 91-Sep 94 in 607B 46							
A.11o	Solar UV SUSIM (UARS)	Oct 91-Jan 97 in 629B 30							
A.11p	Solar UV Mg II Daily Index	764B 17	765B 16	766B 21					
A.12g	Solar Particles (GOES)	759A 4	760A 4	761A 4	762A 4	763A 4	764A 4	765A 4	766A 4
A.12i	Solar Energetic Particles (ACE)	764B 20	765B 19	766B 24					
A.13g	Solar Plasma (ACE)	764B 19	765B 18	766B 23					
A.16c	ERBS	NOAA-9 & Oct 84-Jun 00 in 671B 36							
A.16d	UARS Solar Irradiance	Oct 91-May 2001 684B 26 - Complete Mission							
A.16e	VIRGO/SOHO Solar Irradiance	Jan 96-Sep 00 in 678B 46							
A.17c	Inferred Interplanetary Mag Field	1984-1988 data in 542A168; 1989-Jan94 in 611A118							
A.17d	ACE Interplanetary Mag Field	764B 18	765B 17	766B 22					
C.	**SOLAR FLARE-ASSOCIATED EVENT**								
C.1a	H-alpha Flares	759A 27	760A 26	761A 27	762A 27	763A 26	764A 27	765A 26	766A 27
C.1ba	H-alpha Flare Groups	764B 4	765B 4	766B 4					
C.1d	Flare Patrol Observations	764B 6	765B 6	766B 10					
C.1h	H-alpha Flare Index (ImpxDur)	Jan 76-Dec 85 in 639B 26; Jan 86-Oct 96 in 635B 24; Jan 96-Dec 98 in 665B 63							
C.3	Radio Bursts Fixed Frequency	764B 8	765B 8	766B 12					
C.3	Radio Bursts Fixed Freq Selected	759A 29	760A 28	761A 32	762A 29	763A 28	764A 29	765A 28	766A 29
C.4	Radio Bursts Spectral	760A 79	761A 81	762A 80	763A 79	764A 82	765A 81	766A 77	
C.6	Sudden Ionospheric Disturbances	760A 78	761A 80	762A79	763A 78	764A 81	765A 80	766A 76	
D.	**GEOMAGNETIC EVENTS**								
D.1a	Geomagnetic Indices	760A 88	761A 92	762A 91	763A 90	764A 93	765A 93	766A 88	
D.1ba	27-day Chart of Kp Indices	760A 90	761A 94	762A 93	763A 92	764A 95	765A 95	766A 90	
D.1cb	Monthly Mean aa Indices	760A 91	761A 95	762A 94	763A 93	764A 97	765A 96	766A 91	
D.1d	Principal Magnetic Storms	760A 95	761A 99	762A 98	763A 97	764A103	765A100	766A 95	
D.1f	Sudden Commencements	760A 96	761A100	762A 99	763A 98	764A104	765A101	766A 96	
D.1g	Equatorial Indices Dst	760A 93	761A 97	762A 96	763A 95	764A101	765A 98	766A 93	
D.1l	Polar Cap (PC) Index	760A 94	761A 98	762A 97	763A 96	764A102	765A 99	766A 94	
F.	**COSMIC RAYS**								
F.1b	Cosmic Ray Neutron Cts (Climax)	760A 84	761A 87	762A 86	763A 85	764A 87	765A 88	766A 83	
F.1h	Cosmic Ray Neutron Cts (Thule)	760A 84	761A 87	762A 86	763A 85	764A 87	765A 88	766A 83	
F.1l	Cosmic Ray Neutron Cts (Kiel)	760A 84	761A 87	762A 86	763A 85	764A 87	765A 88	766A 83	
F.1n	Cosmic Ray Neutron Cts (Beijing)	760A 84	761A 87	762A 86	763A 85	764A 87	765A 88	766A 83	
F.1m	Cosmic Ray Neutron (Haleakala)	760A 84	761A 87	762A 86	763A 85	764A 87	765A 88	766A 83	
F.1o	Cosmic Ray Neutron (Moscow)	760A 84	761A 87	762A 86	763A 85	764A 87	765A 88	766A 83	
F.1p	Cosmic Ray Neutron Cts (Calgary)	760A 84	761A 87	762A 86	763A 85	764A 87	765A 88	766A 83	
H.	**MISCELLANEOUS**								
H.60	ISES Alert Periods	759A 20	760A 19	761A 20	762A 20	763A 19	764A 20	765A 19	766A 20

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.

CONTENTS

Comprehensive Reports Number 766 Part II

DATA FOR **DECEMBER**

Hà S O L A R F L A R E S
DECEMBER 2007

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp	Opt	Xray	See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
		01	1456		1723	No Flare Patrol														
		01	1757		2108	No Flare Patrol														
		01	2115		2146	No Flare Patrol														
0001	LEAR	01	2311	2403	0205	S06	E65	10977	12	6.8	174	SF			3	E		32		M
		02	0000		0701	No Flare Patrol														
0002	LEAR	02	0205	0205	0210	S06	E64	10977	12	6.9	5	SF			3	E		25		
0003	LEAR	02	0212	0217	0225	S06	E65	10977	12	6.9	13	SF			3	E		27		EH
0004	LEAR	02	0226	0228	0231	S06	E64	10977	12	6.9	5	SF			3	E		15		EH
0005	LEAR	02	0237	0238	0243	S06	E64	10977	12	6.9	6	SF			3	E		11		H
0006	LEAR	02	0300	0300	0304	S06	E64	10977	12	6.9	4	SF			3	E		10		
0007	LEAR	02	0320	0323	0325	S06	E64	10977	12	6.9	5	SF			3	E		17		
0008	LEAR	02	0330	0338	0341	S06	E64	10977	12	6.9	11	SF			3	E		10		
0009	LEAR	02	0350	0352	0355	S06	E64	10977	12	7.0	5	SF			3	E		29		
0010	LEAR	02	0403	0408	0411	S06	E63	10977	12	6.9	8	SF			3	E		10		
		02	0708		0812	No Flare Patrol														
		02	0826		0841	No Flare Patrol														
		02	0845		0852	No Flare Patrol														
		02	1315		1318	No Flare Patrol														
		02	1327		1424	No Flare Patrol														
0011	HOLL	02	1959	2005	2017	S07	E66	10977	12	7.8	18	SF			3	E		56		
0012	LEAR	02	2256	2256	2300	S07	E65	10977	12	7.8	4	SF			3	E		12		
		03	1121		1132	No Flare Patrol														
		03	1139		1152	No Flare Patrol														
		03	1156		1157	No Flare Patrol														
		03	1340		1403	No Flare Patrol														
0013	LEAR	04	0018	0019	0022	S06	E39	10977	12	6.9	4	SF			3	E		11		
		04	1341		1405	No Flare Patrol														
0014	LEAR	05	0414	0416	0423	S04	E22	10977	12	6.8	9	SF			3	E		38		FU
		05	0555		0605	No Flare Patrol														
		05	0618		0623	No Flare Patrol														
		05	0647		0654	No Flare Patrol														
		05	0812		0817	No Flare Patrol														
0015	LEAR	05	2342	2344	2344	S10	E76	10978	12	11.7	2	SF			3	E		18		
0016	LEAR	05	2342	2344	2347	S10	E76	10978	12	11.7	5	SF			3	E		18		
0017	LEAR	06	0009	0010	0019	S11	E76	10978	12	11.7	10	SF			3	E		77		
0018	LEAR	06	0157	0157	0159	S12	E80	10978	12	12.1	2	SF			3	E		20		
0019	LEAR	06	0313	0313	0320	S11	E78	10978	12	12.0	7	SF			3	E		16		
0020	LEAR	06	0433	0437	0439	S12	E79	10978	12	12.1	6	SF			3	E		12		
0021	LEAR	06	0442	0447	0450	S10	E76	10978	12	11.9	8	SF			3	E		26		
0022	LEAR	06	0735	0738	0740	S12	E76	10978	12	12.0	5	SF			3	E		19		
		06	1348		1358	No Flare Patrol														
		06	1405		1406	No Flare Patrol														

Hà S O L A R F L A R E S
DECEMBER 2007

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
		06	1521		1721	No Flare Patrol													
		06	1842		2058	No Flare Patrol													
		06	2142		2155	No Flare Patrol													
0023	LEAR	06	2247	2249	2251	S10	E67	10978	12	12.0	4	SF	3	E			74		
0024	LEAR	06	2252	2253	2257	S10	E67	10978	12	12.0	5	1F	3	E			105		
0025	LEAR	06	2300	2450	0234	S10	E66	10978	12	11.9	214	2F	3	E			431		
0026	LEAR	07	0246	0252		S11	E65	10978	12	12.0		2F	3	E			484		
0027	LEAR	07	0246	0259	0458	S11	E66	10978	12	12.1	132	2F	3	E			463		
0028	LEAR	07	0436	0439	0501	S05	W06	10977	12	6.7	25	SF	3	E			70		U
0029	LEAR	07	0541	0549	0555	S10	E63	10978	12	12.0	14	SF	3	E			18		
0030	LEAR	07	0620	0621	0634	S10	E63	10978	12	12.0	14	SF	3	E			50		
0031	LEAR	07	0605	0608	0611	S10	E63	10978	12	12.0	6	SF	3	E			31		
0032	LEAR	07	0612	0612	0615	S10	E63	10978	12	12.0	3	SF	3	E			59		
0033	LEAR	07	0635	0650	0655	S10	E63	10978	12	12.0	20	SF	3	E			29		
0034	LEAR	07	0706	0708	0710	S10	E63	10978	12	12.0	4	SF	3	E			13		
0035	LEAR	07	0745	0745	0749	S10	E62	10978	12	12.0	4	SF	3	E			10		
0036	LEAR	07	0757	0759	0801	S10	E62	10978	12	12.0	4	SF	3	E			11		
0037	LEAR	07	0841	0843	0848	S10	E62	10978	12	12.0	7	SF	3	E			14		
0038	LEAR	07	0848	0918	0939	S11	E62	10978	12	12.0	51	SF	3	E			50		
0039	LEAR	07	0941	0945	1004	S10	E61	10978	12	12.0	23	SF	3	E			64		
		07	1107		1119	No Flare Patrol													
		07	1651		1658	No Flare Patrol													
		07	1728		1738	No Flare Patrol													
		07	1804		1813	No Flare Patrol													
		07	1933		1945	No Flare Patrol													
		07	2049		2101	No Flare Patrol													
		07	2110		2140	No Flare Patrol													
0040	LEAR	07	2220	2225	2230	S11	E55	10978	12	12.1	10	SF	2	E			16		
0041	LEAR	07	2243	2244	2249	S11	E52	10978	12	11.8	6	SF	2	E			47		
0042	LEAR	07	2349	2349	2353	S11	E52	10978	12	11.9	4	SF	3	E			16		
0043	LEAR	07	2356	2358	2402	S11	E52	10978	12	11.9	6	SF	3	E			25		
0044	LEAR	08	0012	0012	0016	S11	E51	10978	12	11.8	4	SF	3	E			22		
0045	LEAR	08	0035	0039	0042	S11	E51	10978	12	11.9	7	SF	3	E			61		
0046	LEAR	08	0044	0058	0100	S11	E51	10978	12	11.9	16	SF	3	E			74		
0047	LEAR	08	0108	0117	0128	S11	E51	10978	12	11.9	20	SF	3	E			35		
0048	LEAR	08	0129	0133	0135	S11	E51	10978	12	11.9	6	SF	3	E			39		
0049	LEAR	08	0136	0201	0210	S11	E50	10978	12	11.8	34	SF	3	E			45		
0050	LEAR	08	0210	0216	0250	S11	E50	10978	12	11.8	40	SF	3	E			54		
0051	LEAR	08	0327	0330	0332	N07	W55	10979	12	4.0	5	SF	3	E			61		

Hà S O L A R F L A R E S
DECEMBER 2007

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0052	LEAR	08	0333	0334	0336	N07	W55	10979	12	4.0	3	SF		3	E		59		
0053	LEAR	08	0340	0342	0347	N07	W56	10979	12	3.9	7	SF		3	E		70		
0054	LEAR	08	0328	0330	0334	S11	E50	10978	12	11.9	6	SF		3	E		42		
0055	LEAR	08	0340	0343	0347	S11	E50	10978	12	11.9	7	SF		3	E		41		
0056	LEAR	08	0359	0403	0414	N07	W55	10979	12	4.0	15	SF		3	E		91		
0057	LEAR	08	0431	0433	0434	N07	W56	10979	12	4.0	3	SF		3	E		13		
0058	LEAR	08	0615	0615	0618	N08	W58	10979	12	3.9	3	SF		3	E		10		
0059	LEAR	08	0637	0638	0642	N07	W58	10979	12	3.9	5	SF		3	E		27		
0060	LEAR	08	0740	0740	0744	N07	W58	10979	12	4.0	4	SF		3	E		25		
0061	LEAR	08	0802	0819	0823	N07	W59	10979	12	3.9	21	SF		3	E		16		
0062	LEAR	08	0850	0851	0854	N07	W59	10979	12	3.9	4	SF		3	E		17		
0063	LEAR	08	0850	0851	0853	S11	E49	10978	12	12.0	3	SF		3	E		22		
		08	0944		1048	No Flare Patrol													
		08	1058		1112	No Flare Patrol													
		08	1119		1257	No Flare Patrol													
		08	1308		1321	No Flare Patrol													
		08	1336		1342	No Flare Patrol													
		08	1346		1400	No Flare Patrol													
		08	1402		1419	No Flare Patrol													
		08	1539		1747	No Flare Patrol													
		08	1808		2239	No Flare Patrol													
		08	2307		2310	No Flare Patrol													
		09	0047		0051	No Flare Patrol													
0064	LEAR	09	0145	0148	0158	S10	E40	10978	12	12.1	13	SF		3	E		15		
		09	0212		0220	No Flare Patrol													
0065	LEAR	09	0229	0235	0245	S11	E33	10978	12	11.6	16	SF		3	E		23		
		09	0409		0423	No Flare Patrol													
		09	0621		0628	No Flare Patrol													
		09	0646		0745	No Flare Patrol													
0066	LEAR	09	0937	0938	0949	S11	E34	10978	12	11.9	12	SF		3	E		50		
0067	LEAR	09	0954	1002	1008	S11	E35	10978	12	12.0	14	SF		3	E		34		
		09	1049		1139	No Flare Patrol													
		09	1141		1230	No Flare Patrol													
		09	1237		1245	No Flare Patrol													
		09	1253		1429	No Flare Patrol													
0068	HOLL	09	1603	1607U	1621D	S10	E25	10978	12	11.5	18D	SF		3	E		38		
0069	HOLL	09	1646E	1646U	1714D	S10	E25	10978	12	11.6	28D	SF		3	E		11		
0070	HOLL	09	2017	2017	2034	S10	E23	10978	12	11.6	17	SF		3	E		31		
		09	2023		2047	No Flare Patrol													
		09	2112		2123	No Flare Patrol													
		09	2137		2158	No Flare Patrol													
		09	2202		2220	No Flare Patrol													
		10	0122		0152	No Flare Patrol													
		10	0551		0651	No Flare Patrol													
0071	LEAR	10	0700	0700	0716	S09	E21	10978	12	11.9	16	SF		4	E		81		FU

Hà S O L A R F L A R E S
DECEMBER 2007

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
0072	KANZ	10	0807E	0809	0830	S10	E22	10978	12	12.0	23D	SF		2	E				
0073		10	08381	0840	0846	S10	E22	10978	12	12.0	8	SF					22		FU
	LEAR	10	0838	0840	0846	S09	E21	10978	12	11.9	8	SF		3	E		22		UF
	KANZ	10	0839	0840	0845	S11	E22	10978	12	12.0	6	SF		2	E				
		10	1347		1348	No Flare Patrol													
		10	1350		1401	No Flare Patrol													
		10	1403		2325	No Flare Patrol													
		10	2339		2351	No Flare Patrol													
0074	LEAR	11	0248	0251	0256	S10	E06	10978	12	11.6	8	SF		3	E		43		
0075	LEAR	11	0749	0750	0753	S08	E09	10978	12	12.0	4	SF		3	E		27		
0076	LEAR	11	0910	0912	0915	S06	E08	10978	12	12.0	5	SF		3	E		24		E
0077		11	09261	0928	0942	S06	E10	10978	12	12.1	16	1F					124		F
	KANZ	11	0926	0928U	0950	S06	E10	10978	12	12.1	24	SF		2	E				
	LEAR	11	0927	0928	0934	S06	E09	10978	12	12.1	7	1F		4	E		124		F
0078		11	09383	0938*	1005	S07	E08	10978	12	12.0	27	SF					43		F
	KANZ	11	0938	0938	0950U	S07	E09	10978	12	12.1	12U	SF		2	E				
	LEAR	11	0941	0950	1005	S07	E08	10978	12	12.0	24	SF		3	E		43		F
		11	1242		1243	No Flare Patrol													
		11	1320		1439	No Flare Patrol													
		11	1731		1835	No Flare Patrol													
		11	1927		1943	No Flare Patrol													
		11	2051		2108	No Flare Patrol													
		11	2123		2133	No Flare Patrol													
0079	LEAR	11	2335	2337	2340	S10	E01	10978	12	12.0	5	2F		3	E		331		E
0080	LEAR	11	2345	2349	2403	S07	E01	10978	12	12.1	18	SF		3	E		21		
0081	LEAR	12	0539	0540	0541	S10	W09	10978	12	11.5	2	SF		3	E		19		
0082	LEAR	12	1015	1016	1023	S13	W09	10978	12	11.7	8	SF		3	E		27		
		12	1050		1053	No Flare Patrol													
		12	1109		1119	No Flare Patrol													
		12	1144		1439	No Flare Patrol													
		12	1601		1616	No Flare Patrol													
0083	HOLL	12	1806	1806	1812	S09	W10	10978	12	12.0	6	SF		3	E		11		
0084	HOLL	12	1901	1905	1923	S12	W12	10978	12	11.9	22	SF		3	E		19		
0085	LEAR	12	2223	2254	2317	S11	W15	10978	12	11.8	54	SF		3	E		83		
0086	HOLL	12	2229	2230	2235	S08	W12	10978	12	12.0	6	SF		3	E		17		
0087	LEAR	13	0048	0050	0056	S09	W14	10978	12	12.0	8	2F		3	E		432		
0088	LEAR	13	0048	0050	0056	S09	W14	10978	12	12.0	8	SF		3	E		60		
0089	LEAR	13	0102	0105	0111	S09	W14	10978	12	12.0	9	SF		3	E		63		
0090	LEAR	13	0142	0143	0152	S09	W14	10978	12	12.0	10	SF		3	E		70		
		13	0211		0332	No Flare Patrol													
0091	LEAR	13	0359	0401	0414	S10	W16	10978	12	12.0	15	SF		3	E		88		
0092	LEAR	13	0437	0441	0449	S09	W16	10978	12	12.0	12	SF		3	E		30		
0093	LEAR	13	0507	0510	0514	S08	W18	10978	12	11.9	7	SF		3	E		27		

Hà S O L A R F L A R E S
DECEMBER 2007

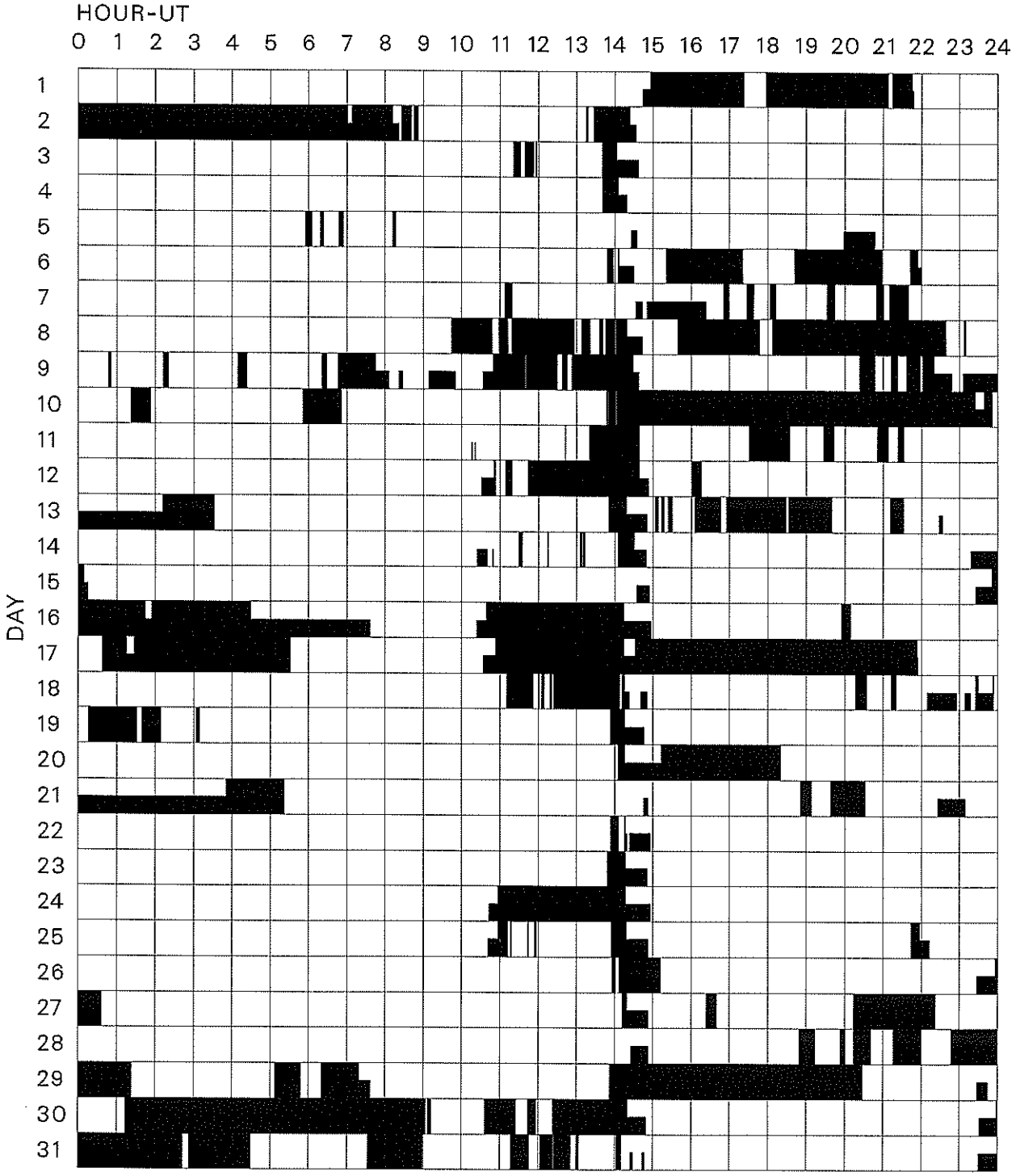
Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0094	LEAR	13	0515	0516	0524	S10	W23	10978	12	11.5	9	SF		3	E		16		
0095	LEAR	13	0533	0537	0547	S08	W19	10978	12	11.8	14	SF		3	E		23		
0096	LEAR	13	0559	0600	0605	S10	W17	10978	12	12.0	6	SF		3	E		40		
0097	LEAR	13	0842	0842	0849	S11	W18	10978	12	12.0	7	SF		3	E		15		
0098	LEAR	13	0931	0931	0933	S08	W20	10978	12	11.9	2	SF		3	E		14		
0099		13	09464	0951*	1023	S08	W20	10978	12	11.9	37	1F					76		F
	LEAR	13	0946	0951	1023	S07	W21	10978	12	11.8	37	1F		3	E		100		F
	SVTO	13	0950	1001	1018	S08	W20	10978	12	11.9	28	SF		3	E		53		F
	KANZ	13	1001E	1001E	1028	S08	W19	10978	12	12.0	27D	1F		2	E				
		13	1351		1418	No Flare Patrol													
		13	1503		1508	No Flare Patrol													
		13	1513		1517	No Flare Patrol													
		13	1524		1530	No Flare Patrol													
		13	1606		1646	No Flare Patrol													
		13	1655		1828	No Flare Patrol													
		13	1832		1940	No Flare Patrol													
		13	2111		2132	No Flare Patrol													
0100	HOLL	13	2157	2200	2300D	S07	W25	10978	12	12.0	63D	SF		3	E		64		F
0101	LEAR	14	0139	0141	0144	S10	W29	10978	12	11.9	5	SF		3	E		46		
0102		14	0747*	08301	0909	S07	W32	10978	12	11.9	82	SF					71		
	KANZ	14	0747	0830	0902D	S07	W31	10978	12	12.0	75D	SF		2	E				
	LEAR	14	0812	0831	0909	S07	W32	10978	12	11.9	57	SF		3	E		71		
0103	LEAR	14	0751	0759	0811	S07	W32	10978	12	11.9	20	SF		3	E		20		
		14	1129		1135	No Flare Patrol													
		14	1214		1215	No Flare Patrol													
		14	1306		1308	No Flare Patrol													
		14	1310		1313	No Flare Patrol													
		14	1405		1431	No Flare Patrol													
0104	HOLL	14	1516	1525	1612	S10	W42	10978	12	11.5	56	SF		3	E		60		F
		15	0000		0009	No Flare Patrol													
		15	2351		2400	No Flare Patrol													
		16	0000		0144	No Flare Patrol													
		16	0154		0429	No Flare Patrol													
		16	1039		1414	No Flare Patrol													
		16	1955		2009	No Flare Patrol													
		17	0037		0115	No Flare Patrol													
		17	0127		0531	No Flare Patrol													
0105	LEAR	17	0712	0714	0730	S09	W75	10978	12	11.7	18	SF		2	E		25		EF
0106	LEAR	17	0730	0731	0739	S10	W78	10978	12	11.4	9	SF		2	E		31		EF
		17	1053		1414	No Flare Patrol													
		17	1432		2153	No Flare Patrol													
		18	1111		1152	No Flare Patrol													
		18	1200		1201	No Flare Patrol													
		18	1205		1209	No Flare Patrol													
		18	1218		1221	No Flare Patrol													
		18	1224		1408	No Flare Patrol													
		18	1412		1415	No Flare Patrol													
0107	HOLL	18	1524	1524	1529	S06	W90	10978	12	11.9	5	SF		3	E		32		
		18	2017		2035	No Flare Patrol													
		18	2113		2120	No Flare Patrol													
		18	2325		2329	No Flare Patrol													
		18	2353		2354	No Flare Patrol													

Hà S O L A R F L A R E S
DECEMBER 2007

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	Area Measurement Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
		19	0016		0131	No Flare Patrol													
		19	0139		0209	No Flare Patrol													
		19	0303		0309	No Flare Patrol													
		19	1353		1416	No Flare Patrol													
		20	1405		1416	No Flare Patrol													
		20	1513		1820	No Flare Patrol													
		21	0351		0522	No Flare Patrol													
		21	1851		1908	No Flare Patrol													
		21	1938		2032	No Flare Patrol													
		22	1354		1406	No Flare Patrol													
		22	1415		1417	No Flare Patrol													
		23	1348		1417	No Flare Patrol													
		24	1057		1417	No Flare Patrol													
		25	1057		1112	No Flare Patrol													
		25	1117		1118	No Flare Patrol													
		25	1144		1145	No Flare Patrol													
		25	1154		1157	No Flare Patrol													
		25	1355		1418	No Flare Patrol													
		25	2144		2158	No Flare Patrol													
		26	1407		1512	No Flare Patrol													
		26	2356		2400	No Flare Patrol													
		27	0000		0036	No Flare Patrol													
		27	1412		1419	No Flare Patrol													
		27	1624		1640	No Flare Patrol													
		27	2014		2222	No Flare Patrol													
		28	1849		1914	No Flare Patrol													
		28	1953		2001	No Flare Patrol													
		28	2014		2041	No Flare Patrol													
		28	2116		2200	No Flare Patrol													
		28	2247		2400	No Flare Patrol													
		29	0000		0123	No Flare Patrol													
		29	0507		0547	No Flare Patrol													
		29	0620		0719	No Flare Patrol													
		29	1352		2028	No Flare Patrol													
		30	0113		0903	No Flare Patrol													
		30	0907		0912	No Flare Patrol													
		30	1036		1125	No Flare Patrol													
		30	1144		1157	No Flare Patrol													
		30	1223		1420	No Flare Patrol													
		30	2359		2400	No Flare Patrol													
		31	0000		0243	No Flare Patrol													
		31	0253		0429	No Flare Patrol													
		31	0733		0858	No Flare Patrol													
		31	1117		1146	No Flare Patrol													
		31	1203		1223	No Flare Patrol													
		31	1225		1251	No Flare Patrol													
		31	1300		1304	No Flare Patrol													
		31	1403		1410	No Flare Patrol													
		31	2400		2400	No Flare Patrol													

INTERVALS OF NO FLARE PATROL OBSERVATION
FOR PRECEDING SOLAR FLARE TABLE

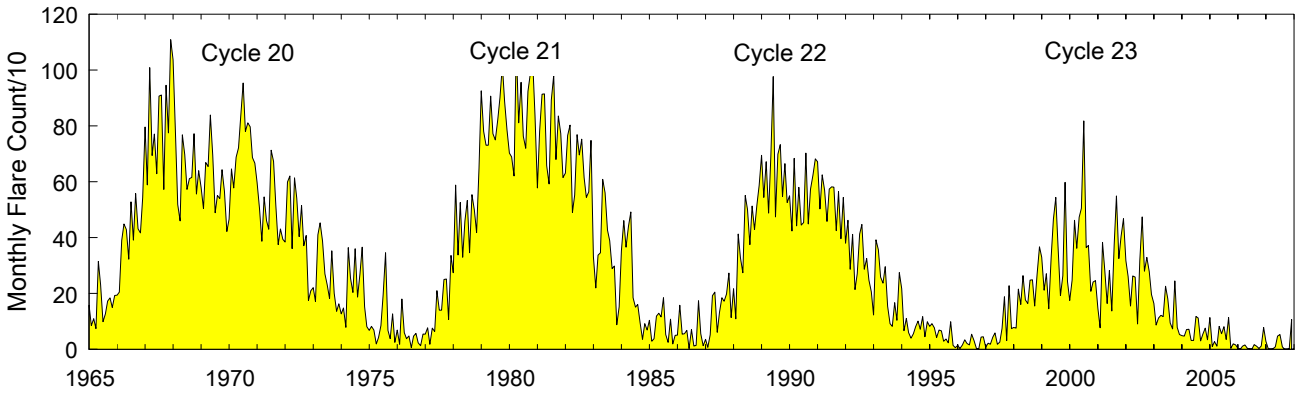
DECEMBER 2007



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 Learmonth San Vito
Kanzelhoehe

Monthly Counts of Grouped Solar Flares
Jan 1965 - Dec 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	2	107	261

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

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

Outstanding Occurrences

DECEMBER 2007

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	8 S	1153.5	1154.0	1.0				
05	410	SGMR	48 C	1318.0	1322.0	7.0	520.0			QL=4 ST=3 TYP=8
	410	SGMR	48 C	1320.0	1322.0	640.0	520.0			QL=2 ST=2 TYP=8
08	410	SGMR	48 C	1305.0	1309.0	6.0	490.0			QL=4 ST=2 TYP=8
10	33	UPIC	8 S	1215.5	1215.8	0.5				
	410	SGMR	48 C	1305.0	1307.0	4.0	260.0			QL=4 ST=2 TYP=8
	410	SGMR	4 S/F	1305.0	1307.0	655.0	260.0			QL=4 ST=1 TYP=3
13	2800	HIRA	1 S	0434.0	0436.0	4.0	10.0			
	2804	VORO	40 F	0434.3	0435.1	6.0	11.5			
14	2804	VORO	40 F	0137.8	0138.5	1.2	9.5			
16	2800	HIRA	1 S	0350.0	0353.0	7.0	15.0			
	2804	VORO	2 S/F	0350.4	0352.6	2.2	21.4			
31	2800	HIRA	7 C	0041.0	0048.0	10.0	35.0			
	2804	VORO	1 S	0047.3	0048.2	0.9	48.1			
	2804	VORO	46 C	0059.3	0103.6	12.4	19.8			
	2800	HIRA	7 C	0100.0	0103.0	12.0	25.0			
	2804	VORO	29 PBI	0116.0	0216.0	120.0	6.6			

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:

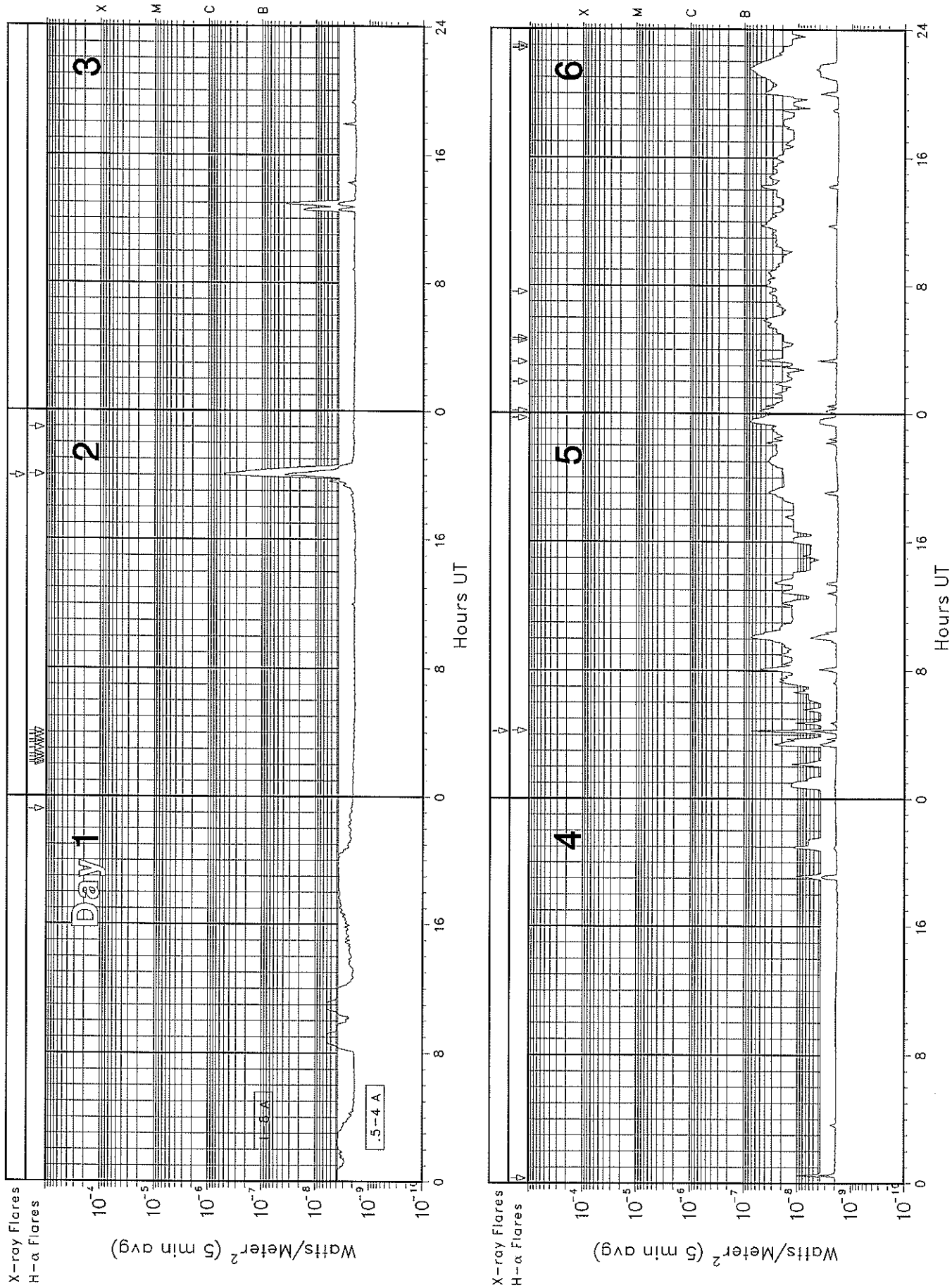
1 Simple 1	7 Minor +	24 Rise	30 Post Burst Increase A	43 Onset of Noise Storm
2 Simple 1F	8 Spike	25 Rise A	31 Post Burst Decrease	44 Noise Storm in Progress
3 Simple 2	20 Simple 3	26 Fall	33 Absorption	45 Complex
4 Simple 2F	21 Simple 3A	27 Rise and Fall	40 Fluctuation	46 Complex F
5 Simple	22 Simple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

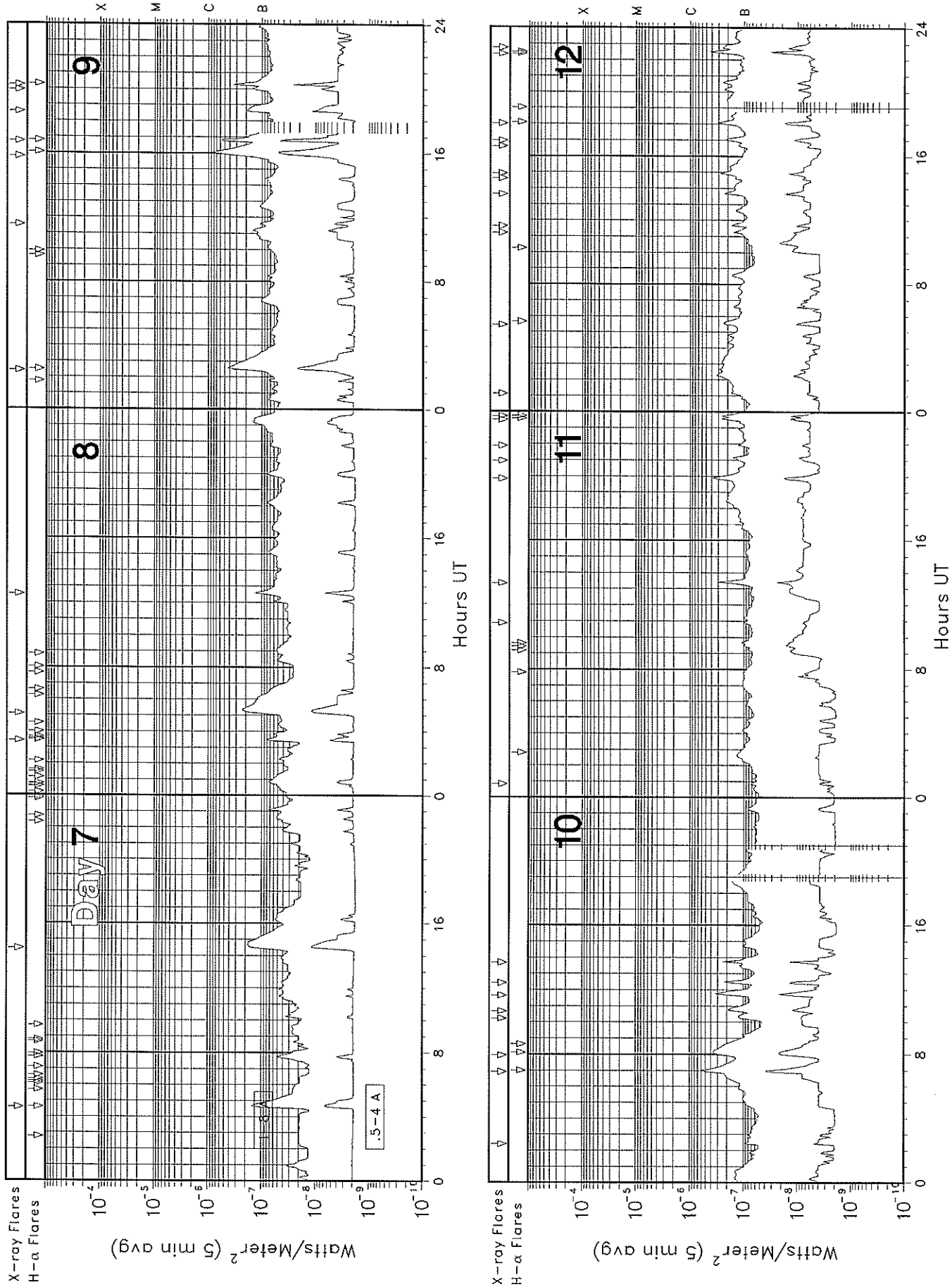
1A Simple 1A	4A Simple 2AF	24PF Post Rise F	27F Rise and Fall F
3A Simple 2A	4O Rise Only	16A Fall A	27AF Rise and Fall AF
21A Simple 3A GRF	4OF Rise Only F	26O Fall Only	31A Post Burst Decrease A
2A Simple 1AF	4P Post Rise	26F Fall F	32A Absorption A

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 X-RAY DETECTOR

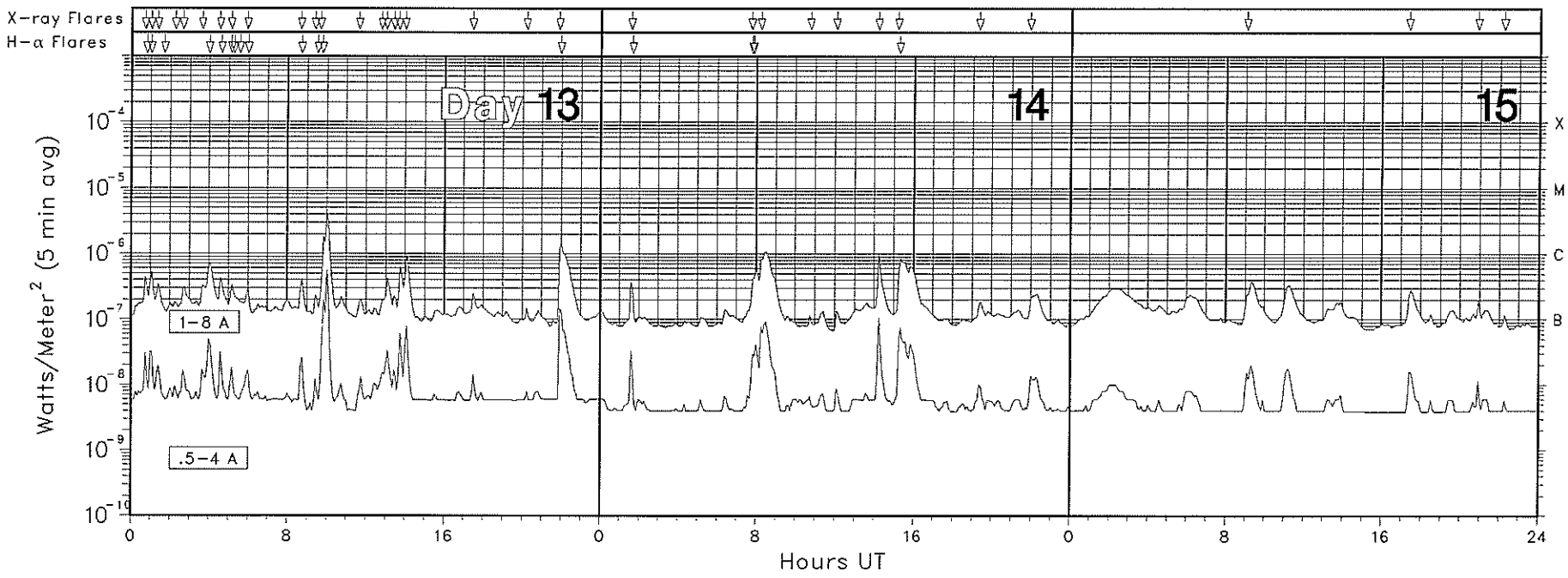
December 2007

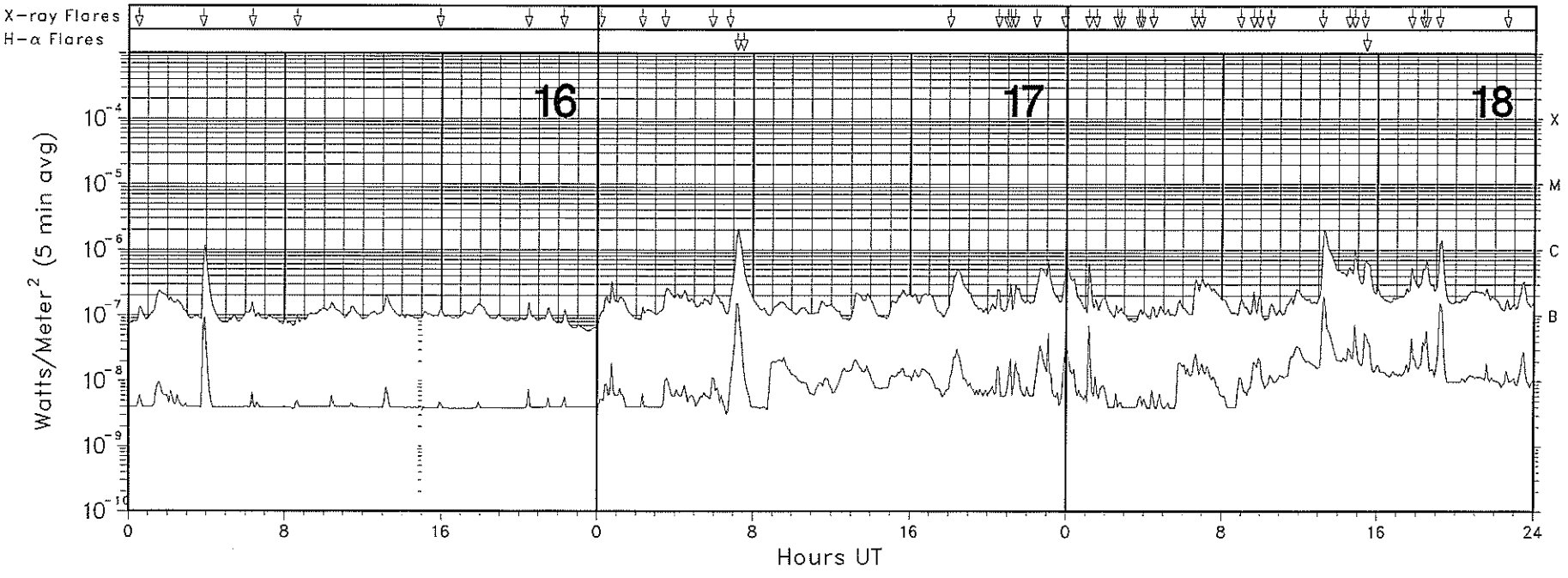



GOES X-RAY DETECTOR
December 2007
Day 7
8
9
10
11
12
.5-4 A
1-8 A
X
M
C
B
Watts/Meter² (5 min avg)
X-ray Flares
H-α Flares
Hours UT
0
8
16
24

GOES X-RAY DETECTOR

December 2007

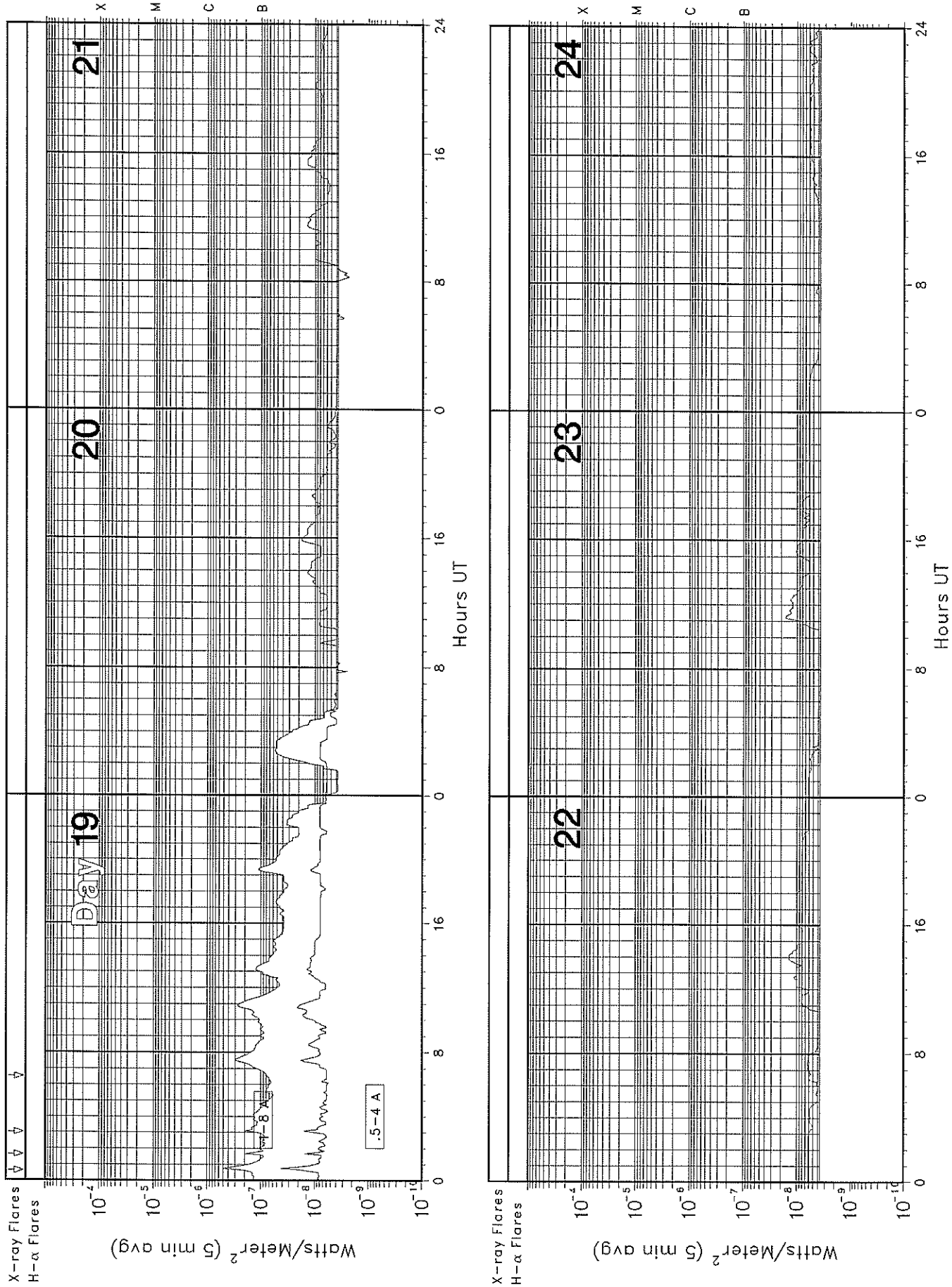




15
Dec 07

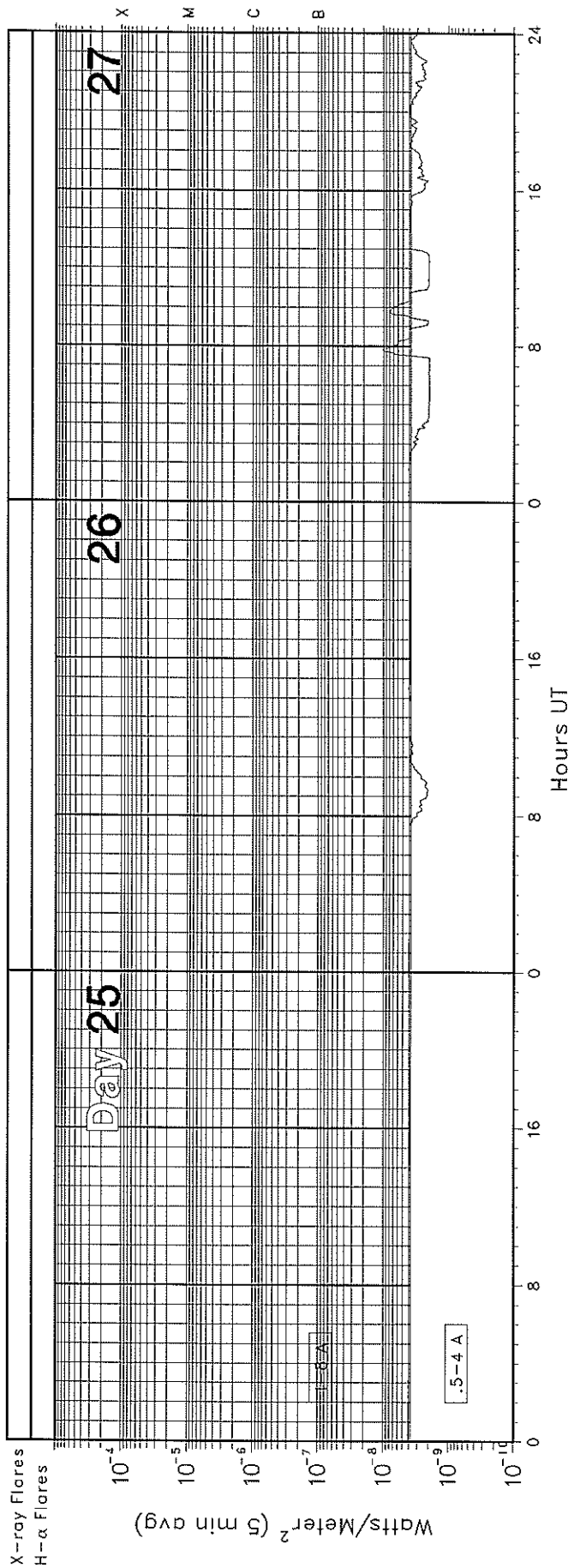
GOES X-RAY DETECTOR

December 2007



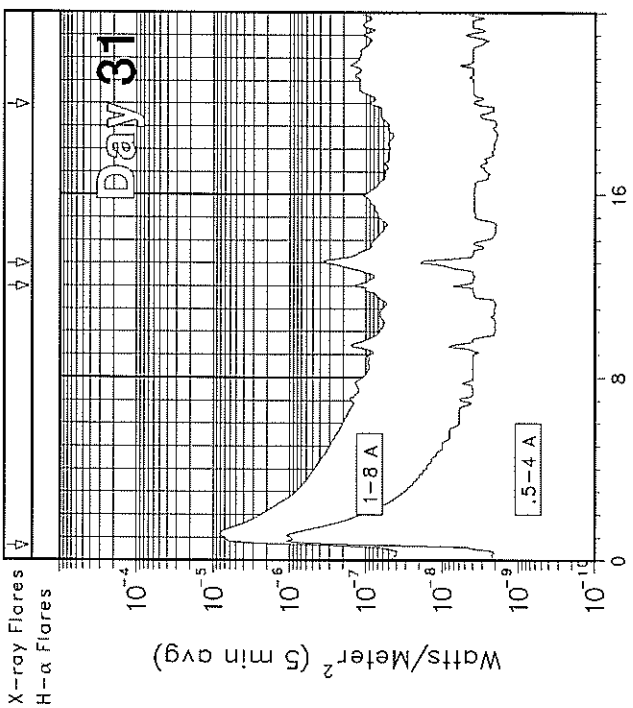
GOES X-RAY DETECTOR

December 2007

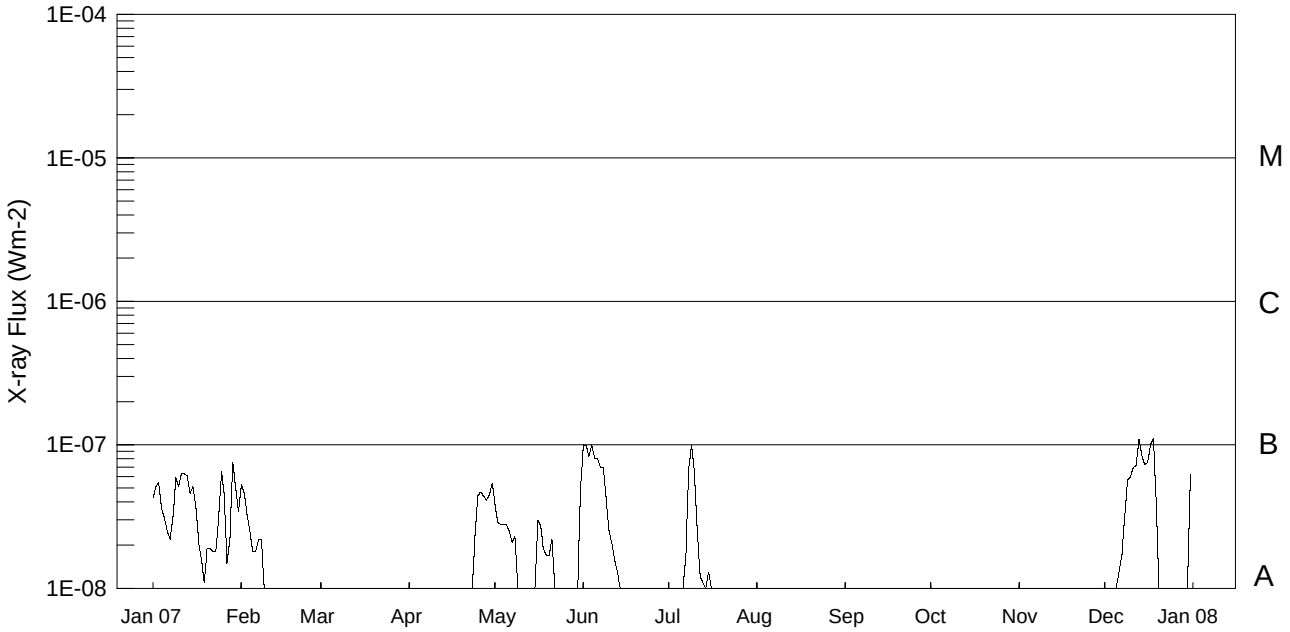


GOES X-RAY DETECTOR

December 2007



Preliminary GOES Satellite Daily X-Ray Background
Jan 2007 - Dec 2007



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

Levels below B1.0 are unreliable.

ACTIVE PROMINENCES AND FILAMENTS

DECEMBER 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
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.

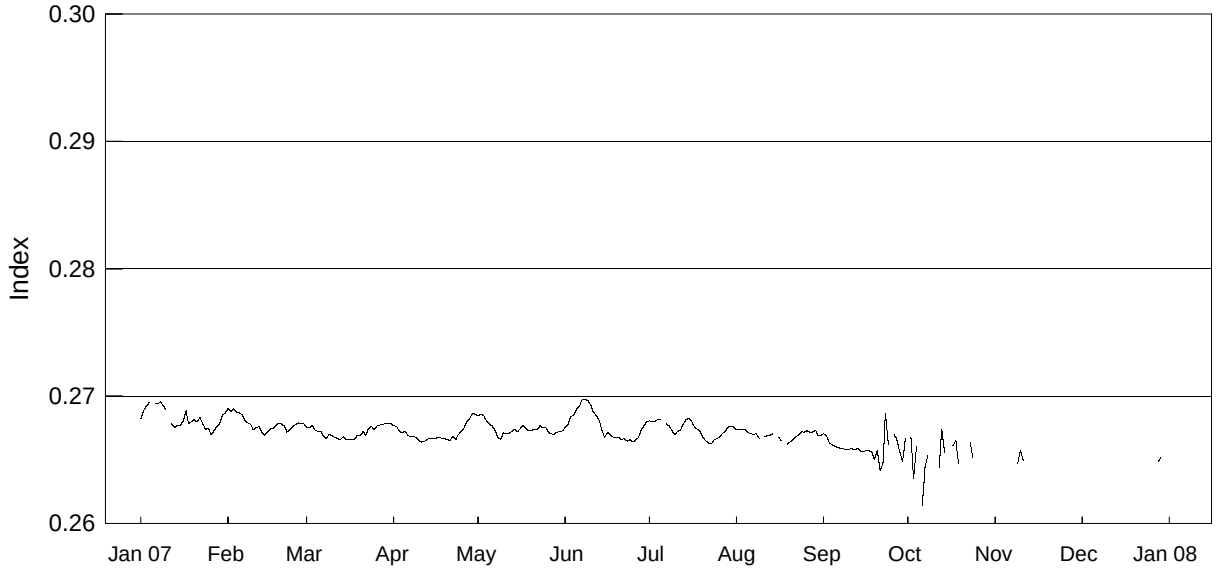
The remark "Bright Emission 1/3" indicates that bright emission was observed 1/3 of time.
The remark "Normal Emission 1/3" indicates that normal emission was observed 1/3 of time.

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

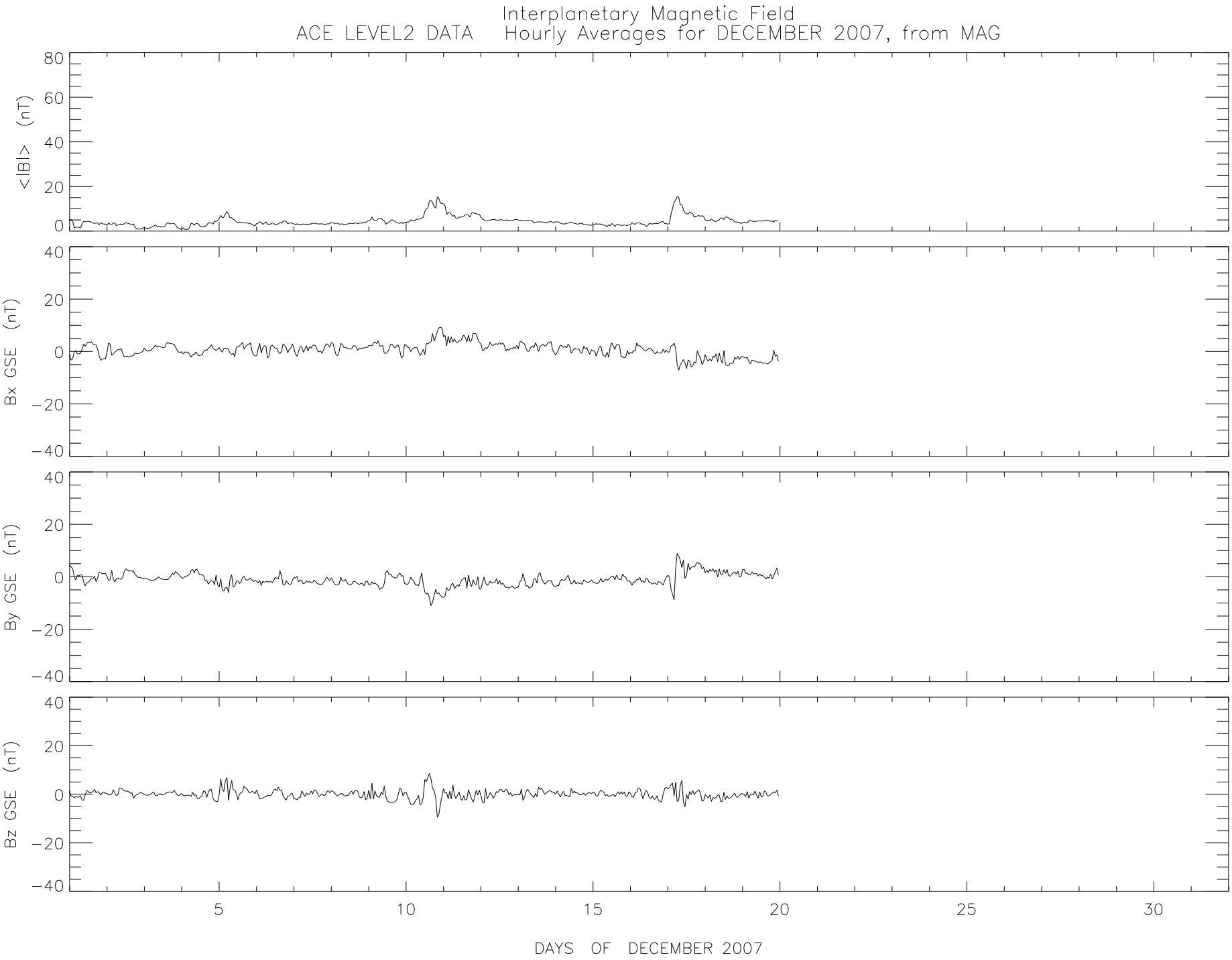
NOTE: The U.S. Air Force solar observing sites (HOLL, LEAR, RAMY, AND SVTO) have changed operational requirements and will only report the following: BSL, EPL, LPS, SPY, and DSF's.

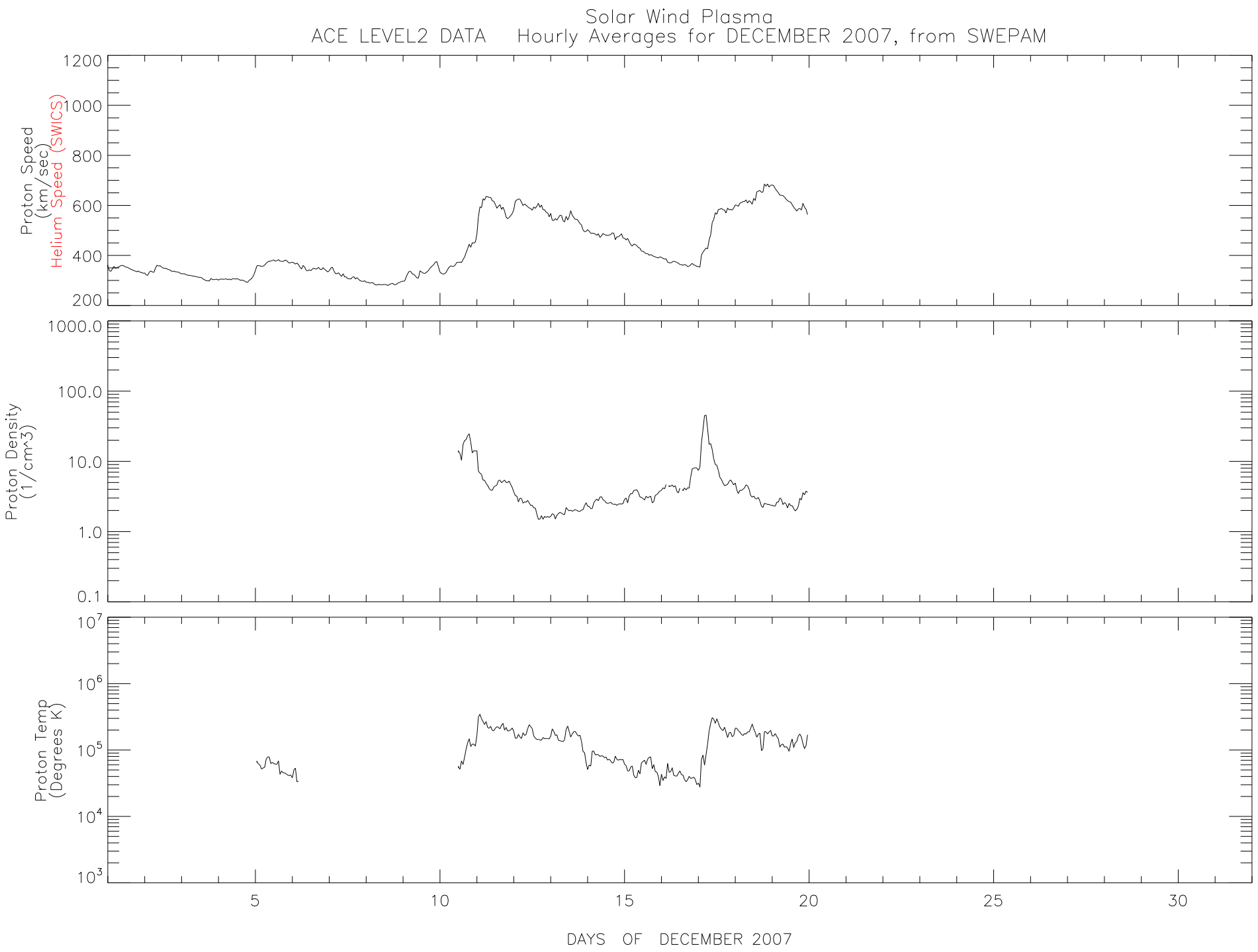
NOAA Solar Ultraviolet (UV) MgII Core-to-Wing Index
Jan 2007 - Dec 2007
Version 9.1

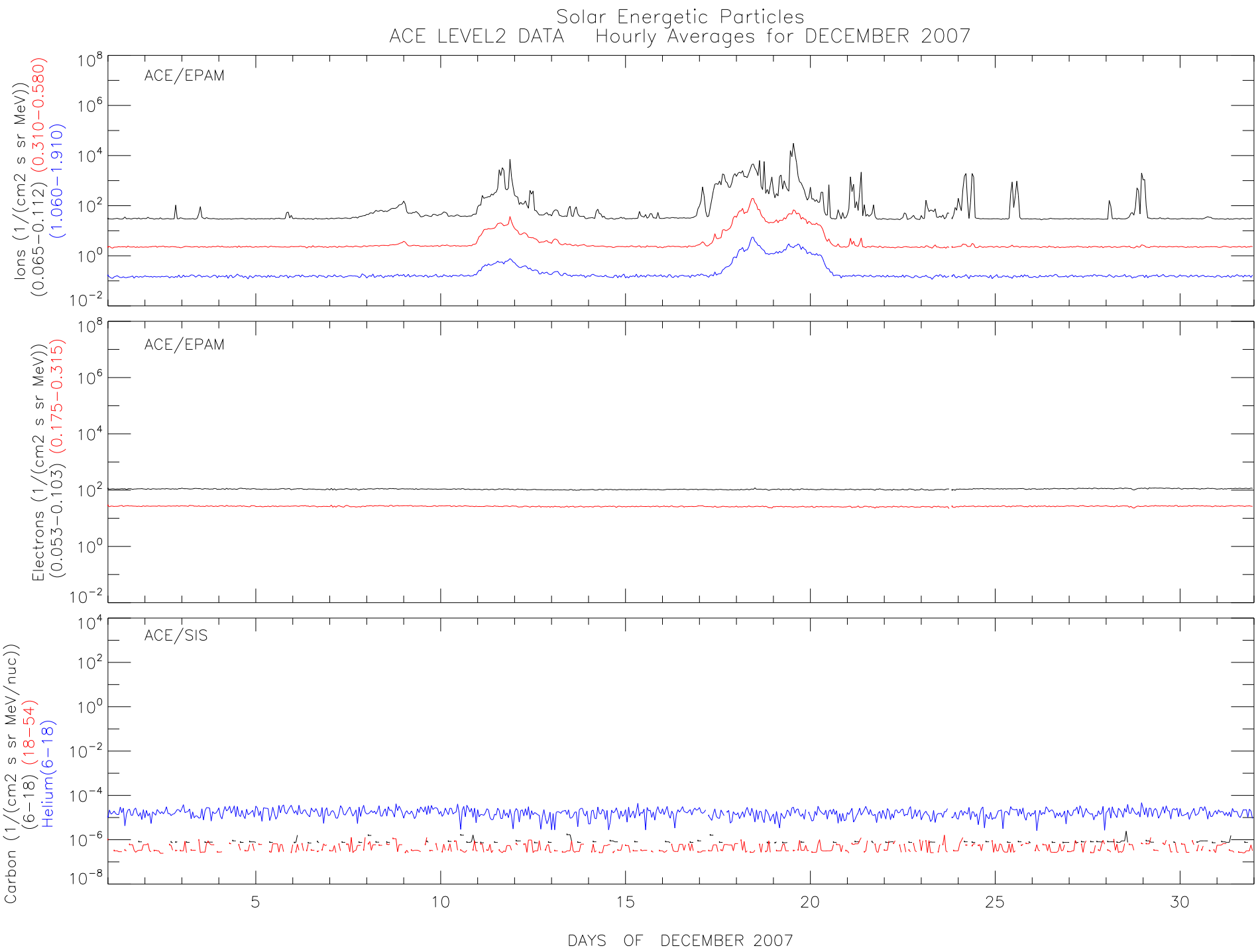


Day	Jan 07	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.2682	0.2691	0.2675	0.2677	0.2685	0.2676	0.2681	0.2674	0.2671	---	---	---
2	0.2689	0.2688	0.2675	0.2676	0.2686	0.2678	0.2680	0.2674	0.2669	0.2668	---	---
3	0.2692	0.2690	0.2677	0.2672	0.2685	0.2684	0.2681	0.2674	0.2663	0.2635	---	---
4	0.2695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

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


Interplanetary Magnetic Field
ACE LEVEL2 DATA Hourly Averages for DECEMBER 2007, from MAG
<|B|> (nT)
Bx GSE (nT)
By GSE (nT)
Bz GSE (nT)
80
60
40
20
0
40
20
0
−20
−40
5
10
15
20
25
30
DAYS OF DECEMBER 2007


Solar Wind Plasma
ACE LEVEL2 DATA Hourly Averages for DECEMBER 2007, from SWEPAM
Proton Speed (km/sec)
Helium Speed (SWICS)
1200
1000
800
600
400
200
Proton Density (1/cm^3)
1000.0
100.0
10.0
1.0
0.1
Proton Temp (Degrees K)
10^7
10^6
10^5
10^4
10^3
5
10
15
20
25
30
DAYS OF DECEMBER 2007


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

DECEMBER 2007

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	
2007/12/01	13:35:27	193	4	243	----	----	----	------	194	Very Poor; 2pts; Only C2
2007/12/01	14:30:04	188	6	316	480	157	0	-91.7*	187	Very Poor; Only C2
2007/12/01	15:06:04	19	5	241	226	256	446	6.0*	24	Very Poor; Only C2
2007/12/01	22:30:04	20	9	263	153	379	1052	45.6*	25	Very Poor; Only C2
2007/12/01	23:06:04	271	7	195	140	245	311	3.9*	272	Very Poor Event
2007/12/02	00:30:04	268	10	130	95	164	233	2.0*	272	Very Poor Event
2007/12/02	05:30:04	268	9	172	148	197	225	1.4*	273	Very Poor Event
2007/12/02	09:54:04	11	9	414	450	379	0	-18.9*	21	Very Poor; Only C2
2007/12/02	13:54:04	22	9	266	425	107	0	-85.5*	26	Very Poor; Only C2
2007/12/02	18:30:04	10	6	204	265	142	0	-23.9*	13	Very Poor; Only C2
2007/12/02	23:42:04	113	7	184	131	241	359	5.5*	112	Very Poor Event
2007/12/03	02:06:04	170	4	220	103	338	1236	63.1*	167	Very Poor; Only C2
2007/12/03	02:30:04	19	6	300	106	512	2134	188.0*	24	Very Poor; 3pts; Only C2
2007/12/03	04:30:04	204	4	293	219	369	1036	42.5*	207	Very Poor; Only C2
2007/12/03	05:30:04	14	7	333	341	325	120	-4.4*	22	Poor Event; Only C2
2007/12/03	11:06:04	242	6	256	350	162	0	-28.1*	248	Very Poor; Only C2
2007/12/04	01:31:41	272	60	210	94	353	303	3.4	279	
2007/12/04	16:06:04	282	13	283	253	314	471	6.5*	282	Poor Event
2007/12/04	17:30:04	97	67	53	0	139	181	1.5*	103	
2007/12/04	23:30:04	127	16	263	116	437	378	5.9*	120	
2007/12/05	04:06:04	121	11	347	268	443	410	4.5*	113	Poor Event
2007/12/05	07:54:04	130	11	396	467	311	296	-6.2*	120	Poor Event
2007/12/05	11:30:04	359	5	296	206	389	971	37.1*	1	Very Poor; Only C2
2007/12/06	03:08:06	343	4	293	355	227	0	-34.7*	339	Very Poor; Only C2
2007/12/06	04:54:04	35	34	196	129	269	402	5.9*	36	Very Poor Event
2007/12/06	07:31:41	249	24	117	131	103	0	-2.8*	253	Poor Event; Only C2
2007/12/06	08:30:04	341	4	220	168	273	866	30.3*	340	Very Poor; Only C2
2007/12/06	12:54:04	93	37	192	173	212	247	1.3*	93	Very Poor Event
2007/12/06	19:31:42	103	5	388	656	136	0	-101.8*	104	Very Poor; Only C2
2007/12/06	21:54:07	357	4	177	241	121	0	-20.2*	356	Very Poor; Only C2
2007/12/07	05:30:04	113	10	209	250	170	0	-17.3*	113	Very Poor; Only C2
2007/12/07	05:54:04	265	55	284	271	298	309	0.9*	266	Poor Event
2007/12/07	08:06:04	278	9	165	194	139	0	-2.3*	281	Very Poor Event
2007/12/07	09:08:05	81	28	158	102	214	879	31.5*	77	Very Poor; Only C2
2007/12/07	23:06:04	23	6	575	----	----	----	------	27	Very Poor; 2pts; Only C2
2007/12/08	02:30:04	72	11	135	99	173	252	2.6*	77	Very Poor Event
2007/12/08	08:30:04	120	5	324	363	285	0	-21.0*	117	Very Poor; 3pts; Only C2
2007/12/08	18:54:04	84	41	160	0	377	584	14.5*	79	Poor Event
2007/12/08	19:31:41	265	79	348	300	397	468	5.5*	273	Poor Event
2007/12/09	15:30:04	253	7	252	186	323	386	5.0*	256	Very Poor Event
2007/12/10	02:54:04	292	5	303	286	321	364	2.1*	285	Very Poor Event
2007/12/10	08:06:04	284	12	315	251	381	458	6.2*	284	Very Poor Event
2007/12/10	09:30:05	116	6	193	129	264	1230	62.6*	114	Very Poor; 3pts; Only C2
2007/12/10	13:31:41	136	4	182	234	131	0	-29.9*	134	Very Poor; Only C2
2007/12/10	19:31:45	238	7	224	311	139	0	-34.3*	242	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

DECEMBER 2007

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	
2007/12/11	01:31:43	89	8	236	275	197	0	-22.7*	82	Very Poor; Only C2
2007/12/11	02:30:04	271	28	208	233	183	0	-2.7*	275	Very Poor Event
2007/12/11	05:30:04	282	12	86	0	176	220	2.0*	279	Poor Event
2007/12/11	20:30:04	356	7	847	466	1233	2026	176.0*	358	Poor Event
2007/12/12	06:30:04	74	15	305	280	331	343	1.7*	72	Poor Event
2007/12/12	08:30:04	121	7	266	213	318	752	21.9*	114	Very Poor; Only C2
2007/12/12	11:54:04	114	8	540	804	275	0	-83.9*	113	Very Poor Event
2007/12/12	12:06:04	72	9	259	122	395	720	23.5*	73	Very Poor Event
2007/12/13	06:54:04	270	9	429	376	486	928	30.7*	268	Very Poor; 3pts; Only C2
2007/12/14	01:31:43	242	13	212	227	195	174	-1.0*	243	Very Poor Event
2007/12/14	07:31:45	96	21	147	221	74	0	-29.5*	91	Very Poor; Only C2
2007/12/14	09:54:04	305	11	327	374	278	79	-5.8*	298	Very Poor Event
2007/12/14	10:30:21	121	9	222	252	191	0	-17.2*	112	Very Poor; 3pts; Only C2
2007/12/14	12:30:04	294	32	281	62	537	597	14.4*	290	Very Poor Event
2007/12/15	03:54:07	295	26	428	298	563	512	7.4*	286	
2007/12/15	12:54:30	295	22	207	155	256	346	4.0*	290	Poor Event
2007/12/15	13:54:22	116	7	148	250	55	0	-90.8*	110	Very Poor; 3pts; Only C2
2007/12/15	19:54:04	240	12	272	302	237	246	-1.5*	244	Very Poor Event
2007/12/15	21:30:07	143	7	118	31	214	1432	85.0*	141	Very Poor; 3pts; Only C2
2007/12/16	01:31:43	129	10	161	63	268	1535	99.2*	125	Very Poor; 3pts; Only C2
2007/12/16	06:30:04	99	62	184	105	275	276	2.7*	106	
2007/12/16	20:30:04	90	29	183	161	207	228	1.1*	84	
2007/12/16	21:54:20	273	17	147	0	269	430	8.2*	269	Very Poor Event
2007/12/17	08:54:04	101	6	283	265	302	319	1.3*	95	Very Poor Event
2007/12/17	10:06:27	284	11	215	171	259	355	4.2*	273	Very Poor Event
2007/12/17	16:54:06	90	22	279	258	303	330	1.8*	92	Very Poor Event
2007/12/17	20:06:04	90	11	269	245	294	363	3.4*	88	Very Poor Event
2007/12/17	23:06:05	89	17	256	192	326	382	4.8*	89	Very Poor Event
2007/12/18	02:06:04	287	12	303	209	406	424	6.2*	280	Very Poor Event
2007/12/18	04:30:04	92	10	101	108	95	0	-1.0*	91	Very Poor; Only C2
2007/12/18	06:30:04	1	5	258	335	177	0	-29.5*	4	Very Poor; Only C2
2007/12/18	08:30:04	342	6	235	185	285	830	28.3*	342	Very Poor; Only C2
2007/12/18	10:30:23	95	15	269	205	341	343	3.3*	90	Very Poor Event
2007/12/18	11:06:04	43	10	198	208	189	0	-6.5*	48	Very Poor; 3pts; Only C2
2007/12/18	23:30:04	89	18	183	177	191	198	0.4*	92	Very Poor Event
2007/12/19	13:31:41	86	24	148	152	142	106	-0.5*	91	Very Poor Event
2007/12/19	18:30:28	319	43	157	140	175	331	3.8*	316	Very Poor; Only C2
2007/12/20	06:30:04	85	11	142	128	156	188	0.9*	83	Very Poor Event
2007/12/20	06:54:04	185	7	251	104	407	1276	69.7*	184	Very Poor; Only C2
2007/12/22	02:30:04	287	14	350	259	435	415	5.0*	293	Very Poor Event
2007/12/22	04:30:05	196	4	341	213	483	1148	53.7*	198	Very Poor; 3pts; Only C2
2007/12/23	00:30:58	93	16	87	0	165	226	2.2*	92	Poor Event
2007/12/23	02:30:04	232	15	221	204	237	281	1.6*	235	Very Poor Event
2007/12/23	08:06:04	234	19	158	125	193	256	2.1*	234	Very Poor Event
2007/12/23	20:30:58	233	14	336	408	261	0	-8.0*	234	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

DECEMBER 2007

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	
2007/12/24	06:06:04	0	4	200	271	132	0	-27.0*	1	Very Poor; Only C2
2007/12/24	19:30:04	96	43	132	49	220	248	2.4*	94	Poor Event
2007/12/24	21:30:04	180	7	264	347	183	0	-47.0*	179	Very Poor; Only C2
2007/12/25	20:58:40	19	5	144	117	172	630	16.3*	25	Very Poor; 3pts; Only C2
2007/12/26	03:30:04	233	7	348	284	419	1259	62.7*	234	Very Poor; 3pts; Only C2
2007/12/26	07:31:41	345	6	419	80	790	2764	344.1*	344	Very Poor; 3pts; Only C2
2007/12/26	13:31:40	7	9	488	241	757	2405	249.9*	9	Poor Event; 3pts; Only C2
2007/12/26	13:31:40	108	14	336	217	459	791	24.1*	109	Poor Event
2007/12/26	23:30:04	233	4	297	380	215	0	-46.9*	237	Very Poor; Only C2
2007/12/27	01:54:04	247	7	360	527	208	0	-147.7*	254	Very Poor; 3pts; Only C2
2007/12/27	03:54:05	246	10	270	245	295	576	11.4*	252	Very Poor; Only C2
2007/12/27	17:06:04	45	6	456	377	538	1075	41.9*	53	Poor Event; Only C2
2007/12/27	17:30:04	267	21	158	189	128	0	-7.7*	271	Very Poor; Only C2
2007/12/28	10:30:24	240	8	190	179	200	365	4.3*	250	Very Poor; Only C2
2007/12/28	11:30:04	209	5	235	18	514	2397	246.1*	211	Very Poor; 3pts; Only C2
2007/12/29	00:54:04	120	16	162	158	166	177	0.3*	115	Very Poor Event
2007/12/29	03:54:08	208	8	455	----	----	----	------	213	Very Poor; 2pts; Only C2
2007/12/30	05:30:04	274	26	229	235	223	211	-0.4*	274	Very Poor Event
2007/12/30	07:31:42	243	7	386	361	411	538	6.6*	255	Poor Event
2007/12/31	01:31:40	92	164	1013	1171	850	959	-21.2	99	Partial Halo
2007/12/31	01:54:05	271	38	549	610	482	393	-9.1*	271	
2007/12/31	01:54:05	113	54	309	0	569	528	12.4*	128	
2007/12/31	16:06:04	110	14	514	474	558	547	3.2*	105	Poor Event
2007/12/31	21:08:04	109	14	447	358	540	549	7.3*	101	Poor Event
2007/12/31	23:54:05	116	14	254	341	161	0	-11.6*	116	Very Poor Event

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