



Solar-Geophysical Data comprehensive reports

Data for December 2005 and Miscellaneous

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

NEW DATA:

**ACE Solar Wind, Interplanetary Magnetic Field and
Particles -- Monthly Plots**

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NATIONAL OCEANIC AND
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NATIONAL ENVIRONMENTAL SATELLITE,
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Data for December 2005 and Late Data

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Boulder, Colorado

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SOLAR-GEOPHYSICAL DATA

Number 742
(Issued in Two Parts)

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INCLUDING:

ACE SOLAR WIND, INTERPLANETARY MAGNETIC FIELD AND PARTICLES

-- MONTHLY PLOTS

DETAILED INDEX OF OBSERVATIONS PUBLISHED IN SOLAR-GEOPHYSICAL DATA

CODE	KIND OF OBSERVATION	OCT 05	NOV	DEC	JAN 06	FEB	MAR	APR	MAY
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A.1	Sunspot Drawings	736A 42	737A 44	738A 48	739A 36	740A 40	741A 42	742A 40	
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A.3d	Mean Solar Magnetic Field (Stanford)	735A 31	736A 31	737A 33	738A 31	739A 27	740A 31	741A 33	742A 31
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A.6c	Stanford Solar Mag Field Synoptic Map	736A 36	737A 38	738A 36	739A 30	740A 34	741A 36	742A 34	
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A.6g	Sac Peak Coronal Line Synoptic Maps	736A 38	737A 40	738A 40	739A 32	740A 36	741A 38	742A 36	
A.6h	Photometric White Light San Fernando	Jul-Dec 96 630B 32; 1997-1998 in 663B 51							
A.7h	Coronal Line Emission (Sac Peak)	736A 42	737A 44	738A 48	739A 36	740A 40	741A 42	742A 40	
A.7j	Coronal Hole Daily Maps (NSO/KP)								
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A.8aa	2800 MHz- Solar Flux (Penticton)	735A 24	736A 23	737A 25	738A 24	739A 22	740A 24	741A 24	742A 25
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Dec 05

H α SOLAR FLARES

DECEMBER 2005

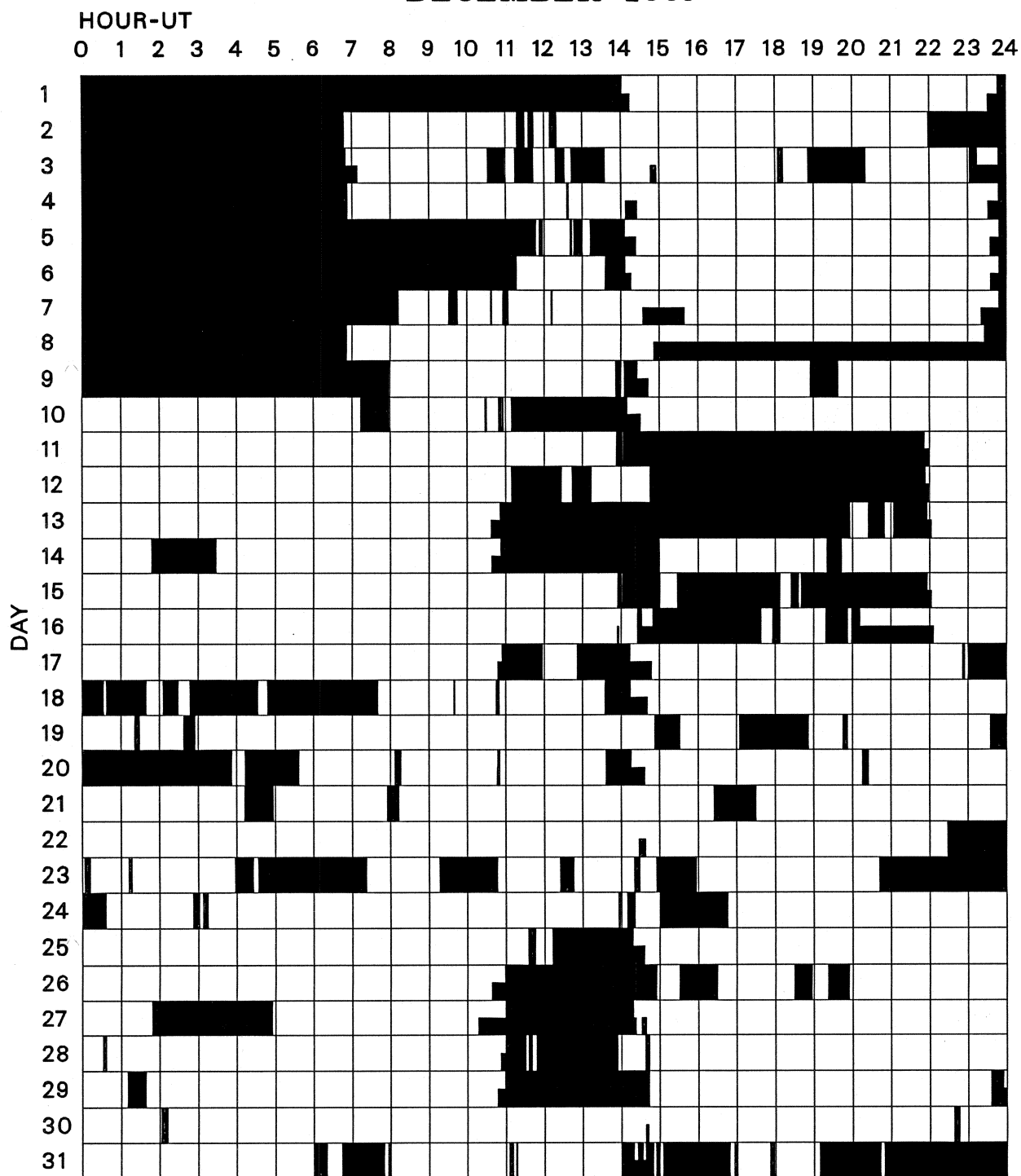
Grp #	Sta	Start Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/	CMP	Dur	Imp	Obs	Time	Area Measurement		Corr	Remarks
								USAF Region						Mo	Day		
		01	0000		1402	No	Flare	Patrol									
0001	HOLL	01	1532	1533	1542	S02	E24	10826	12	3.4	10	SF		3	E		27
		01	2347		2400	No	Flare	Patrol									
		02	0000		0648	No	Flare	Patrol									
0002		02	10082	1013	1042	S04	E12	10826	12	3.3	34	1N					235
	KANZ	02	1008	1013	1053U	S04	E12	10826	12	3.3	45U	1N		2	E		
	SVTO	02	1010	1013	1042	S04	E13	10826	12	3.4	32	1N		3	E		235
		02	1118		1130	No	Flare	Patrol									
		02	1136		1144	No	Flare	Patrol									
		02	1209		1220	No	Flare	Patrol									
0003	HOLL	02	2004	2114	2158D	S04	E09	10826	12	3.5	114D	1F		3	E		130
		02	2159		2400	No	Flare	Patrol									
		03	0000		0650	No	Flare	Patrol									
0004	LEAR	03	0330	0331U	0340	S15	E24	10820	12	5.0	10	3B		5	E		20
0005	SVTO	03	0848	0849	0907	S05	E01	10826	12	3.4	19	1F		3	E		150
0006	SVTO	03	0908	0913	0920	S06	W01	10826	12	3.3	12	SF		3	E		76
		03	1032		1058	No	Flare	Patrol									
		03	1115		1143	No	Flare	Patrol									
		03	1218		1232	No	Flare	Patrol									
		03	1243		1335	No	Flare	Patrol									
0007	SVTO	03	1358	1358	1403	S06	W02	10826	12	3.4	5	SF		3	E		27
		03	1805		1813	No	Flare	Patrol									
		03	1852		2021	No	Flare	Patrol									
0008	HOLL	03	2221	2235	2242	S04	W02	10826	12	3.8	21	1N		3	E		110
		03	2303		2315	No	Flare	Patrol									
		03	2348		2400	No	Flare	Patrol									
		04	0000		0653	No	Flare	Patrol									
0009		04	0832	0929	1018	S05	W14	10826	12	3.3	106	1F					104
	KANZ	04	0826E	0931U	1019	S04	W14	10826	12	3.3	113D	1F		2	E		
	SVTO	04	0832	0929	1017	S06	W15	10826	12	3.2	105	1F		3	E		104
0010		04	10462	10481	1054	S06	E09	10828	12	5.1	8	SF					20
	KANZ	04	1046	1048	1055	S06	E09	10828	12	5.1	9	SF		2	E		
	SVTO	04	1048	1049	1054	S06	E09	10828	12	5.1	6	SF		3	E		20
		04	1236		1238	No	Flare	Patrol									
		04	2348		2400	No	Flare	Patrol									
		05	0000		1147	No	Flare	Patrol									
		05	1153		1154	No	Flare	Patrol									
		05	1156		1157	No	Flare	Patrol									
		05	1241		1243	No	Flare	Patrol									
		05	1247		1300	No	Flare	Patrol									
		05	1312		1406	No	Flare	Patrol									
		05	2349		2400	No	Flare	Patrol									
		06	0000		1117	No	Flare	Patrol									
		06	1336		1407	No	Flare	Patrol									
		06	2349		2400	No	Flare	Patrol									
		07	0000		0813	No	Flare	Patrol									
		07	0931		0945	No	Flare	Patrol									
		07	1037		1038	No	Flare	Patrol									
		07	1056		1058	No	Flare	Patrol									
		07	1102		1104	No	Flare	Patrol									
		07	1212		1213	No	Flare	Patrol									

6
Dec 05

H α SOLAR FLARES

DECEMBER 2005

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/	CMP	Dur	Imp	Obs	Time	Area Measurement		Corr	Remarks			
								USAF						Region	Mo			Day	(Min)	Opt
			23 0112		0116	No Flare	Patrol													
			23 0357		0426	No Flare	Patrol													
			23 0433		0722	No Flare	Patrol													
			23 0916		1047	No Flare	Patrol													
0014	LEAR	23	0946	0947	0959	N17 E39	10838	12	26.4	13	SF			3	E		28		FU	
			23 1225		1246	No Flare	Patrol													
			23 1421		1429	No Flare	Patrol													
			23 1455		1557	No Flare	Patrol													
			23 2042		2400	No Flare	Patrol													
			24 0000		0036	No Flare	Patrol													
			24 0252		0302	No Flare	Patrol													
			24 0307		0315	No Flare	Patrol													
			24 1356		1358	No Flare	Patrol													
			24 1409		1422	No Flare	Patrol													
			24 1501		1646	No Flare	Patrol													
	0015		25	1008	1011	1031	S08 E42	10842	12	28.6	23	SF						50		FU
		LEAR	25	1008	1011	1031	S08 E42	10842	12	28.6	23	SF			2	E		50		UF
		KANZ	25	1015E	1015E	1029U	S08 E42	10842	12	28.6	14U	SF			2	E				
				25 1135		1146	No Flare	Patrol												
				25 1213		1418	No Flare	Patrol												
				26 1058		1455	No Flare	Patrol												
			26 1531		1630	No Flare	Patrol													
			26 1830		1857	No Flare	Patrol													
			26 1922		1955	No Flare	Patrol													
			27 0148		0455	No Flare	Patrol													
			27 1059		1419	No Flare	Patrol													
			28 0032		0036	No Flare	Patrol													
			28 1059		1131	No Flare	Patrol													
			28 1135		1141	No Flare	Patrol													
			28 1147		1355	No Flare	Patrol													
			28 1438		1444	No Flare	Patrol													
0016			28	2232	2238	2250	N11 E38	10843	12	31.8	18	SF						57		EFHU
		LEAR	28	2232	2238	2249	N12 E37	10843	12	31.7	17	SF			3	E		68		FE
		HOLL	28	2232	2238	2250	N10 E40	10843	12	31.9	18	SF			3	E		46		UH
			29 0110		0138	No Flare	Patrol													
			29 1058		1444	No Flare	Patrol													
			29 2336		2355	No Flare	Patrol													
			29 2400		2400	No Flare	Patrol													
			30 0203		0212	No Flare	Patrol													
			30 2238		2246	No Flare	Patrol													
			31 0601		0620	No Flare	Patrol													
			31 0644		0750	No Flare	Patrol													
			31 0756		0800	No Flare	Patrol													
			31 1106		1111	No Flare	Patrol													
			31 1116		1117	No Flare	Patrol													
			31 1401		1420	No Flare	Patrol													
			31 1426		1434	No Flare	Patrol													
			31 1438		1450	No Flare	Patrol													
			31 1454		1459	No Flare	Patrol													
			31 1505		1649	No Flare	Patrol													
			31 1657		1701	No Flare	Patrol													
			31 1752		1758	No Flare	Patrol													
			31 1909		2044	No Flare	Patrol													
			31 2049		2400	No Flare	Patrol													

**INTERVALS OF NO FLARE PATROL OBSERVATION
FOR PRECEDING SOLAR FLARE TABLE****DECEMBER 2005**

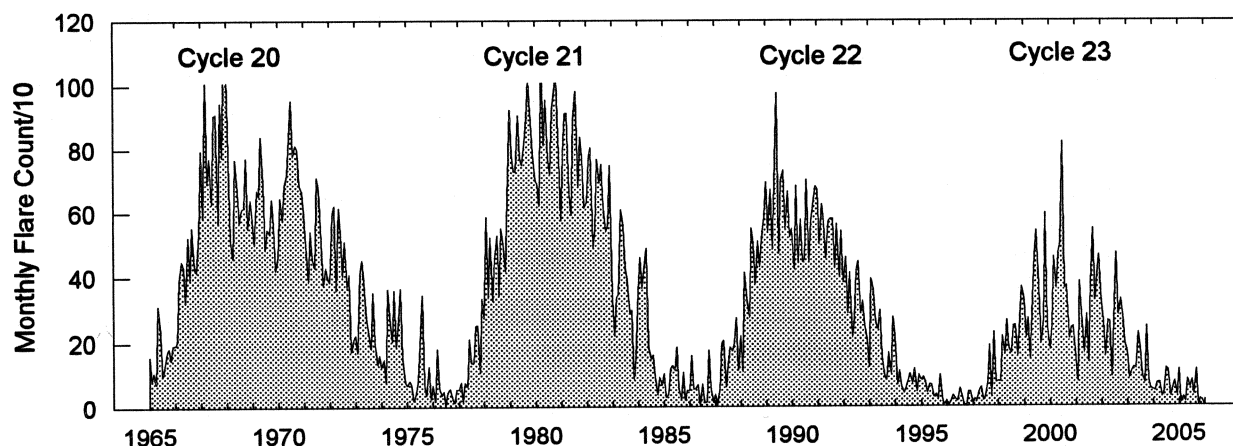
Times of no flare patrol, shown here as shaded areas, combine reports from the stations listed below. Portions of a panel completely shaded mark dates and times of no patrol of any kind (neither visual or cinematographic): portions of a panel with only the bottom half shaded mark times of only visual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

Holloman
Kanzelhoehe

Learmonth

San Vito

Monthly Counts of Grouped Solar Flares Jan 1965 -Dec 2005



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

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

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Dec 05

DECEMBER 2005

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22	Mean W/m 2 Hz)		
01	2804	VORO	22 GRF	0216.0	0224.4	63.5	9.1			
	2800	HIRA	7 C	0219.0	0224.0	49.0	10.0			0
	8800	LEAR	8 S	0452.0	0452.0	1.0	61.0			QL=4 ST=2 TYP=3
	15400	LEAR	8 S	0452.0	0452.0	1.0	100.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	2204.0	2204.0	U	51.0			QL=4 ST=2 TYP=3
02	127	TORN	44 NS	1020.0E		240.0D		22.0		V=1
	2804	VORO	4 S/F	0245.9	0254.0U	17.0	5.0U			
	4995	PALE	48 C	0246.0	0249.0	9.0	770.0			QL=4 ST=2 TYP=8
	8800	PALE	48 C	0246.0	0249.0	8.0	910.0			QL=4 ST=2 TYP=8
	15400	PALE	49 GB	0246.0	0249.0	7.0	910.0			QL=4 ST=2 TYP=6
	2800	HIRA	47 GB	0246.0	0250.0	16.0	675.0			0
	15400	LEAR	49 GB	0246.0	0249.0	1274.0	720.0			QL=4 ST=3 TYP=6
	4995	LEAR	49 GB	0247.0	0249.0	1273.0	790.0			QL=4 ST=3 TYP=6
	8800	LEAR	49 GB	0247.0	0249.0	1273.0	870.0			QL=4 ST=3 TYP=6
	2695	PALE	49 GB	0248.0	0249.0	7.0	660.0			QL=4 ST=2 TYP=6
	2695	LEAR	4 S/F	0248.0	0249.0	1272.0	460.0			QL=4 ST=3 TYP=3
	1415	LEAR	48 C	0249.0	0251.0	7.0	210.0			QL=4 ST=2 TYP=8
	1415	PALE	48 C	0249.0	0250.0	6.0	200.0			QL=4 ST=2 TYP=8
	1415	LEAR	4 S/F	0249.0	0249.0	1271.0	77.0			QL=4 ST=3 TYP=3
	410	PALE	8 S	0251.0	0251.0	1.0	180.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0252.0	0252.0	U	60.0			QL=4 ST=2 TYP=3
	410	LEAR	8 S	0252.0	0252.0	U	61.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0252.0	0252.0	U	58.0			QL=4 ST=2 TYP=3
	2804	VORO	29 PBI	0302.9	0304.1	55.0	2.0			
	2804	VORO	2 S/F	0434.1	0434.8	2.1	10.6			
	900	GORK	7 C	0731.4	0733.1	3.8	6.7			
	900	GORK	7 C	0731.4	0733.8		5.0			
	2950	GORK	2 S/F	0734.4	0734.6	0.6	11.0			
	9100	GORK	46 C	1006.5	1014.0U		260.0U			
	9100	GORK	46 C	1006.5	1008.4U	14.5	300.0U			
	2950	GORK	46 C	1009.7	1011.2U	2.7	170.0U			
	2950	GORK	46 C	1009.7	1015.3		170.0U			
	2695	LEAR	48 C	1010.0	1011.0	9.0	490.0			QL=4 ST=2 TYP=8
	4995	LEAR	48 C	1010.0	1011.0	9.0	350.0			QL=4 ST=2 TYP=8
	8800	LEAR	48 C	1010.0	1010.0	7.0	370.0			QL=4 ST=2 TYP=8
	15400	LEAR	48 C	1010.0	1013.0	6.0	130.0			QL=4 ST=2 TYP=8
	15400	LEAR	8 S	1010.0	1010.0	1.0	120.0			QL=4 ST=2 TYP=3
	1415	LEAR	48 C	1011.0	1012.0	7.0	410.0			QL=4 ST=2 TYP=8
	900	GORK	46 C	1011.0	1014.0	13.0	240.0			
	900	GORK	46 C	1011.0	1018.4		111.0			
	900	GORK	46 C	1011.0	1017.7		143.0			
	1415	SVTO	4 S/F	1013.0E	1015.0U	8.0D	170.0			QL=4 ST=2 TYP=3
	2695	SVTO	4 S/F	1013.0E	1015.0U	9.0D	240.0			QL=4 ST=2 TYP=3
	4995	SVTO	4 S/F	1013.0E	1014.0U	8.0D	270.0			QL=4 ST=2 TYP=3
	8800	SVTO	4 S/F	1013.0E	1015.0U	9.0D	270.0			QL=4 ST=2 TYP=3
	15400	SVTO	4 S/F	1013.0E	1015.0U	3.0D	130.0			QL=4 ST=2 TYP=3
	1415	SVTO	4 S/F	1013.0E	1013.0U	827.0D	96.0			QL=4 ST=1 TYP=3
	2695	SVTO	4 S/F	1013.0E	1013.0U	827.0D	140.0			QL=4 ST=1 TYP=3
	4995	SVTO	4 S/F	1013.0E	1013.0U	827.0D	130.0			QL=4 ST=1 TYP=3
	8800	SVTO	4 S/F	1013.0E	1014.0U	827.0D	160.0			QL=4 ST=1 TYP=3
	15400	SVTO	4 S/F	1013.0E	1013.0U	827.0D	92.0			QL=4 ST=1 TYP=3
	410	SVTO	48 C	1014.0E	1017.0U	8.0D	280.0			QL=4 ST=2 TYP=8
	610	SVTO	48 C	1014.0E	1017.0U	5.0D	250.0			QL=2 ST=2 TYP=8
	610	LEAR	4 S/F	1015.0	1017.0	4.0	110.0			QL=4 ST=2 TYP=3
	245	SVTO	48 C	1015.0E	1017.0U	3.0D	100.0			QL=4 ST=2 TYP=8
	245	LEAR	8 S	1016.0	1016.0	2.0	57.0			QL=4 ST=2 TYP=3
	410	LEAR	4 S/F	1017.0	1019.0	3.0	100.0			QL=4 ST=2 TYP=3
	2950	GORK	29 PBI	1020.0	1020.0	25.0	52.0			
	9100	GORK	29 PBI	1021.0	1021.0	24.0D	47.0			
03	2804	VORO	21 GRF	0532.9	0556.7	25.7	13.2			
	2800	HIRA	1 S	0535.0	0539.0	20.0	10.0			0
	2950	GORK	40 F	0721.4	0721.9	2.2	6.5			
	900	GORK	41 F	0727.2	0728.0	3.8	5.0			
	900	GORK	41 F	0727.2	0728.9		13.0			
	9100	GORK	2 S/F	0727.3	0728.0	3.2	11.0			
	2950	GORK	4 S/F	0727.3	0728.0	3.4	21.0			
	1415	SVTO	8 S	0733.0	0734.0	1.0	91.0			QL=4 ST=2 TYP=3

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Dec 05

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

DECEMBER 2005

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
03	2695	SVTO	8 S	0733.0	0733.0	1.0	73.0			QL=4 ST=2 TYP=3
	4995	SVTO	8 S	0733.0	0733.0	1.0	32.0			QL=4 ST=2 TYP=3
	8800	SVTO	8 S	0733.0	0733.0	U	23.0			QL=4 ST=2 TYP=3
	2950	GORK	46 C	0733.3	0735.6		33.0			
	2950	GORK	46 C	0733.3	0733.8	2.7	56.0			
	900	GORK	45 C	0733.5	0734.0		60.0			
	9100	GORK	7 C	0733.5	0734.6		11.0			
	9100	GORK	7 C	0733.5	0733.7	1.3	18.0			
	900	GORK	45 C	0733.5	0733.8	2.4	71.0			
	610	LEAR	8 S	0734.0	0734.0	U	190.0			QL=4 ST=2 TYP=3
	1415	LEAR	8 S	0734.0	0734.0	U	110.0			QL=4 ST=2 TYP=3
	2695	LEAR	8 S	0734.0	0734.0	U	62.0			QL=4 ST=2 TYP=3
	610	SVTO	8 S	0734.0	0734.0	U	83.0			QL=2 ST=2 TYP=3
	2950	GORK	46 C	0846.7	0848.1		28.0			
	2950	GORK	46 C	0846.7	0849.1		16.0			
	2950	GORK	46 C	0846.7	0847.5	3.3	30.0			
	9100	GORK	46 C	0846.8	0848.1		41.0			
	9100	GORK	46 C	0846.8	0847.4	5.3	63.0			
	9100	GORK	21 GRF	0846.8	1004.8	106.2	15.0			
	9100	GORK	46 C	0846.8	0848.9		38.0			
	8800	LEAR	8 S	0847.0	0848.0	1.0	68.0			QL=4 ST=2 TYP=3
	2695	SVTO	8 S	0847.0	0847.0	1.0	25.0			QL=4 ST=2 TYP=3
	4995	SVTO	8 S	0847.0	0847.0	2.0	88.0			QL=4 ST=2 TYP=3
	8800	SVTO	8 S	0847.0	0847.0	2.0	80.0			QL=4 ST=2 TYP=3
	4995	LEAR	8 S	0848.0	0848.0	U	60.0			QL=4 ST=2 TYP=3
	2950	GORK	29 PBI	0850.0	0850.0	43.8	4.5			
	9100	GORK	3 S	1044.5	1044.8	0.5	60.0			
04	900	GORK	46 C	0827.1	0830.6		207.0			
	900	GORK	46 C	0827.1	0829.8	11.1	250.0			
	410	SVTO	4 S/F	0828.0	0830.0	3.0	61.0			QL=4 ST=2 TYP=3
	1415	SVTO	4 S/F	0828.0	0829.0	6.0	94.0			QL=4 ST=2 TYP=3
	2950	GORK	46 C	0828.2	0830.2	4.5	9.9			
	2950	GORK	46 C	0828.2	0830.6		11.0			
	610	LEAR	8 S	0829.0	0830.0	2.0	100.0			QL=4 ST=2 TYP=3
	1415	LEAR	8 S	0829.0	0830.0	2.0	100.0			QL=4 ST=2 TYP=3
	610	SVTO	48 C	0829.0	0835.0	6.0	120.0			QL=4 ST=2 TYP=8
	245	SVTO	8 S	0830.0	0830.0	U	24.0			QL=4 ST=2 TYP=3
	2695	SVTO	8 S	0830.0	0830.0	U	21.0			QL=4 ST=2 TYP=3
	9100	GORK	2 S/F	0942.4	0943.3	6.0	15.0			
06	410	PALE	8 S	2007.0	2007.0	1.0	440.0			QL=4 ST=2 TYP=3
07	127	TORN	44 NS	0740.0E		230.0D		3.0		V=2
	245	SVTO	43 NS	1157.0	1157.0	U	54.0			QL=4 ST=2 TYP=1
	9100	GORK	2 S/F	0721.2	0721.6	1.3	9.5			
	2950	GORK	2 S/F	0721.3	0722.1	1.2	3.4			
	245	SVTO	8 S	0955.0	0955.0	U	65.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0956.0	0956.0	U	76.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1110.0	1111.0	1.0	77.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1117.0	1117.0	1.0	57.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1133.0	1133.0	U	75.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1154.0	1154.0	U	69.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1417.0	1417.0	U	51.0			QL=4 ST=2 TYP=3
	245	SVTO	48 C	1423.0	1423.0	2.0	74.0			QL=4 ST=2 TYP=8
	245	SVTO	4 S/F	1446.0	1447.0	3.0	78.0			QL=4 ST=2 TYP=3
	15400	SGMR	8 S	1823.0	1823.0	U	56.0			QL=4 ST=2 TYP=3
	15400	SGMR	8 S	1917.0	1917.0	U	96.0			QL=4 ST=2 TYP=3
08	245	LEAR	8 S	0305.0	0305.0	U	60.0			QL=4 ST=2 TYP=3
	33	UPIC	45 C	0840.0	0840.2	1.0				
	410	SGMR	48 C	1310.0	1314.0	5.0	71.0			QL=4 ST=2 TYP=8
09	15400	SGMR	8 S	1504.0	1504.0	U	100.0			QL=4 ST=2 TYP=3
	245	SGMR	49 GB	1854.0	1854.0	U	1000.0			QL=4 ST=2 TYP=6
	410	SGMR	8 S	1854.0	1854.0	U	220.0			QL=4 ST=2 TYP=3
	610	SGMR	8 S	1854.0	1854.0	U	97.0			QL=4 ST=2 TYP=3
	1415	SGMR	8 S	1854.0	1854.0	U	80.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1901.0	1901.0	U	270.0			QL=4 ST=2 TYP=3

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

Outstanding Occurrences

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Dec 05

DECEMBER 2005

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
11	610	LEAR	8 S	0709.0	0709.0	U	110.0			QL=4 ST=2 TYP=3
	33	UPIC	45 C	0754.0	0754.5	1.5				
	245	SGMR	49 GB	1337.0	1337.0	U	1200.0			QL=4 ST=2 TYP=6
	410	SGMR	49 GB	1337.0	1337.0	U	1900.0			QL=4 ST=2 TYP=6
	610	SGMR	8 S	1337.0	1337.0	U	70.0			QL=4 ST=2 TYP=3
	2695	SGMR	8 S	1337.0	1337.0	U	79.0			QL=4 ST=2 TYP=3
	1415	SVTO	8 S	1337.0	1337.0	U	32.0			QL=4 ST=2 TYP=3
	2695	SVTO	8 S	1337.0	1337.0	U	80.0			QL=4 ST=2 TYP=3
	4995	SVTO	8 S	1337.0	1337.0	U	28.0			QL=4 ST=2 TYP=3
	127	TORN	4 S/F	1337.8	1338.3	3.5	1060.0	530.0		
12	245	SGMR	8 S	1456.0	1456.0	U	88.0			QL=4 ST=2 TYP=3
	127	TORN	44 NS	0740.0E		380.0D		6.0		V=1
	2804	VORO	8 S	0305.4	0305.8	0.6	5.9			
	9100	GORK	3 S	0718.5	0718.8	0.7	26.0			
	245	LEAR	8 S	0955.0	0955.0	U	53.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0955.0	0955.0	U	67.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1517.0	1517.0	U	52.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	1819.0	1820.0	2.0	160.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	1855.0	1856.0	1.0	380.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1928.0	1928.0	U	57.0			QL=4 ST=2 TYP=3
13	245	PALE	8 S	1929.0	1929.0	U	61.0			QL=4 ST=2 TYP=3
	410	PALE	8 S	0218.0	0219.0	2.0	140.0			QL=4 ST=2 TYP=3
	1415	PALE	8 S	2111.0	2111.0	U	53.0			QL=4 ST=2 TYP=3
	610	PALE	48 C	2116.0E	2117.0U	6.0D	600.0			QL=4 ST=2 TYP=8
14	410	PALE	4 S/F	2116.0E	2117.0U	4.0D	190.0			QL=4 ST=2 TYP=3
	127	TORN	43 NS	1048.0		192.0		1.0		V=1
	245	PALE	8 S	0033.0	0034.0	1.0	290.0			QL=4 ST=2 TYP=3
	410	PALE	8 S	0034.0	0035.0	1.0	97.0			QL=4 ST=2 TYP=3
	9100	GORK	4 S/F	1007.0	1007.7	1.6	12.0			
	2950	GORK	2 S/F	1007.3	1007.8	1.0	6.6			
	900	GORK	40 F	1007.4	1009.4	2.0	20.0			
	245	SVTO	8 S	1224.0	1224.0	U	96.0			QL=4 ST=2 TYP=3
15	2800	HIRA	1 S	0130.0	0130.0	2.0	10.0			0
17	127	TORN	43 NS	1030.0		150.0		1.0		V=1
	2950	GORK	1 S	0834.2	0834.8	1.0	1.8			
	900	GORK	41 F	0834.3	0836.5		14.0			
	900	GORK	41 F	0834.3	0834.9	3.0	4.7			
	2950	GORK	46 C	0836.1	0836.3	1.2	10.0			
	2950	GORK	46 C	0836.1	0836.6		18.0			
18	410	PALE	43 NS	1839.0	1839.0	89.0	75.0			QL=4 ST=2 TYP=1
	410	PALE	8 S	1833.0	1833.0	U	150.0			QL=4 ST=2 TYP=3
19	127	TORN	43 NS	0800.0		330.0		1.0		V=1
	610	LEAR	48 C	0019.0	0023.0	5.0	200.0			QL=4 ST=2 TYP=8
	245	LEAR	8 S	2335.0	2337.0	2.0	75.0			QL=4 ST=3 TYP=3
	245	LEAR	8 S	2337.0	2337.0	U	67.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	2346.0	2346.0	1.0	62.0			QL=4 ST=3 TYP=3
	245	PALE	8 S	2346.0	2346.0	U	54.0			QL=4 ST=2 TYP=3
20	245	LEAR	43 NS	0017.0	0323.0	217.0	110.0			QL=4 ST=2 TYP=1
	245	LEAR	43 NS	0017.0	0017.0	1423.0	51.0			QL=4 ST=1 TYP=1
	245	LEAR	43 NS	0017.0	0103.0	1423.0	65.0			QL=4 ST=1 TYP=1
	245	LEAR	43 NS	0017.0	0132.0	1423.0	100.0			QL=4 ST=1 TYP=1
	245	LEAR	43 NS	0017.0	0323.0	1423.0	110.0			QL=4 ST=1 TYP=1
	245	PALE	43 NS	0212.0	0228.0	83.0	110.0			QL=4 ST=2 TYP=1
	245	LEAR	43 NS	0500.0	0509.0	54.0	62.0			QL=4 ST=2 TYP=1
	127	TORN	44 NS	0740.0E		320.0D		4.0		V=1
	245	PALE	8 S	0102.0	0102.0	U	66.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0108.0	0108.0	U	53.0			QL=4 ST=2 TYP=3
	410	PALE	8 S	0111.0	0112.0	1.0	57.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0132.0	0132.0	U	96.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0145.0	0145.0	U	90.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0812.0	0812.0	U	58.0			QL=4 ST=2 TYP=3

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Dec 05

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

Outstanding Occurrences

DECEMBER 2005

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
20	127	TORN	45 C	1143.0	1143.4	1.1	60.0	20.0		
	245	PALE	8 S	1853.0	1853.0	1.0	170.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1853.0	1853.0	1.0	180.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	2335.0	2337.0	2.0	75.0			QL=4 ST=3 TYP=3
	245	LEAR	8 S	2346.0	2346.0	1.0	62.0			QL=4 ST=2 TYP=3
21	127	TORN	43 NS	1140.0		140.0		4.0		V=1
	245	SGMR	8 S	1350.0	1350.0	U	52.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	1931.0	1931.0	U	83.0			QL=4 ST=2 TYP=3
22	127	TORN	43 NS	1000.0		240.0		3.0		V=0
	245	PALE	8 S	0300.0	0301.0	2.0	330.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0526.0	0526.0	1.0	54.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	1010.0	1010.0	1.0	130.0			QL=4 ST=2 TYP=3
	410	SGMR	8 S	1646.0	1646.0	U	120.0			QL=4 ST=2 TYP=3
23	245	LEAR	8 S	0716.0	0716.0	U	120.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0716.0	0716.0	U	120.0			QL=2 ST=2 TYP=3
	410	SVTO	8 S	0716.0	0717.0	1.0	170.0			QL=2 ST=2 TYP=3
	610	SVTO	8 S	0717.0	0717.0	U	160.0			QL=2 ST=2 TYP=3
	33	UPIC	45 C	0951.0	0951.5	1.0				
	33	UPIC	45 C	1146.0	1146.2	1.0				
25	410	PALE	8 S	0037.0	0037.0	1.0	110.0			QL=4 ST=2 TYP=3
	2950	GORK	4 S/F	1009.8	1011.3	5.4	14.0			
	245	PALE	8 S	2311.0	2311.0	U	150.0			QL=4 ST=2 TYP=3
26	245	PALE	8 S	0055.0	0055.0	U	97.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0056.0	0056.0	U	82.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0612.0	0612.0	U	100.0			QL=4 ST=2 TYP=3
	410	SVTO	8 S	1038.0	1038.0	U	110.0			QL=4 ST=2 TYP=3
	33	UPIC	46 C	1038.5	1038.8	2.0				UNCERTN
	127	TORN	4 S/F	1038.6	1039.0U	2.9	40.0	10.0		DISTURBED
	410	LEAR	8 S	1039.0	1039.0	U	81.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1039.0	1039.0	U	22.0			QL=4 ST=2 TYP=3
27	127	TORN	2 S/F	1219.1	1219.6	0.7	10.0	6.0		
	245	SGMR	8 S	1837.0	1838.0	2.0	57.0			QL=4 ST=2 TYP=3
28	245	LEAR	8 S	2232.0	2232.0	U	52.0			QL=4 ST=2 TYP=3
31	127	TORN	43 NS	1057.0		193.0		3.0		V=1

Reports are received routinely from the following observatories:

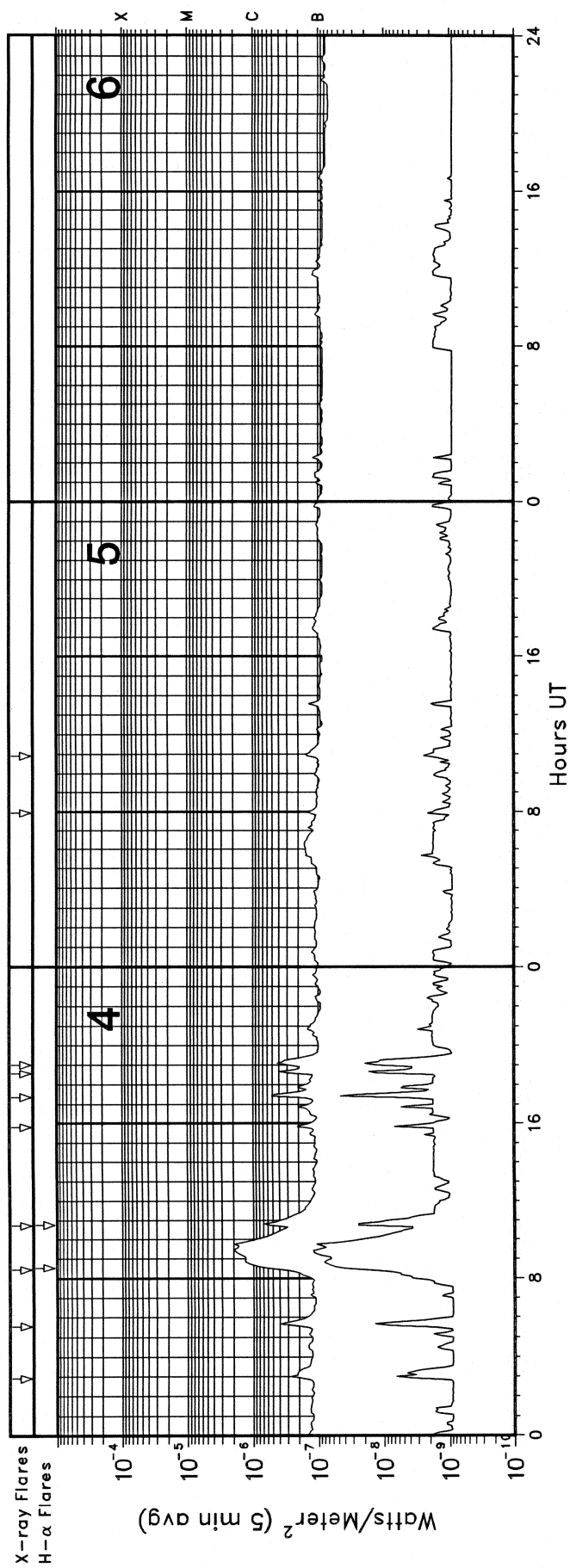
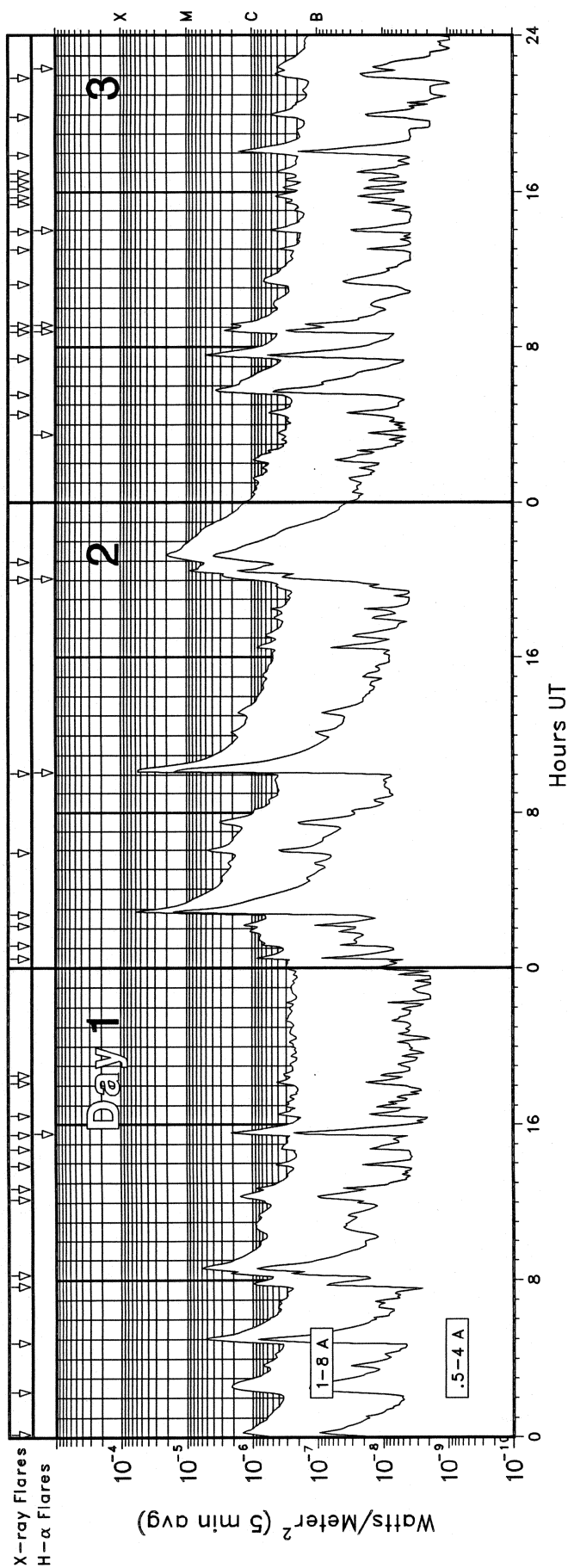
BERN = Berne	HUMN = Humain	ONDR = Ondrejov	SVTO = San Vito
CRIM = Crimea	IZMI = IZMIRAN	PEKG = Peking	TORN = Torun
CUBA = Havana	KISV = Kislovodsk	PALE = Palehua	TRST = Trieste
GORK = Gorky	KRAK = Krakow	PENT = Penticton	TYKW = Toyokawa
HIRA = Hiraiso	LEAR = Learmonth	POTS = Potsdam	UPIC = Upice
HUAN = Huancayo	NOBE = Nobeyama	SGMR = Sagamore Hill	

Explanation of Type Code:

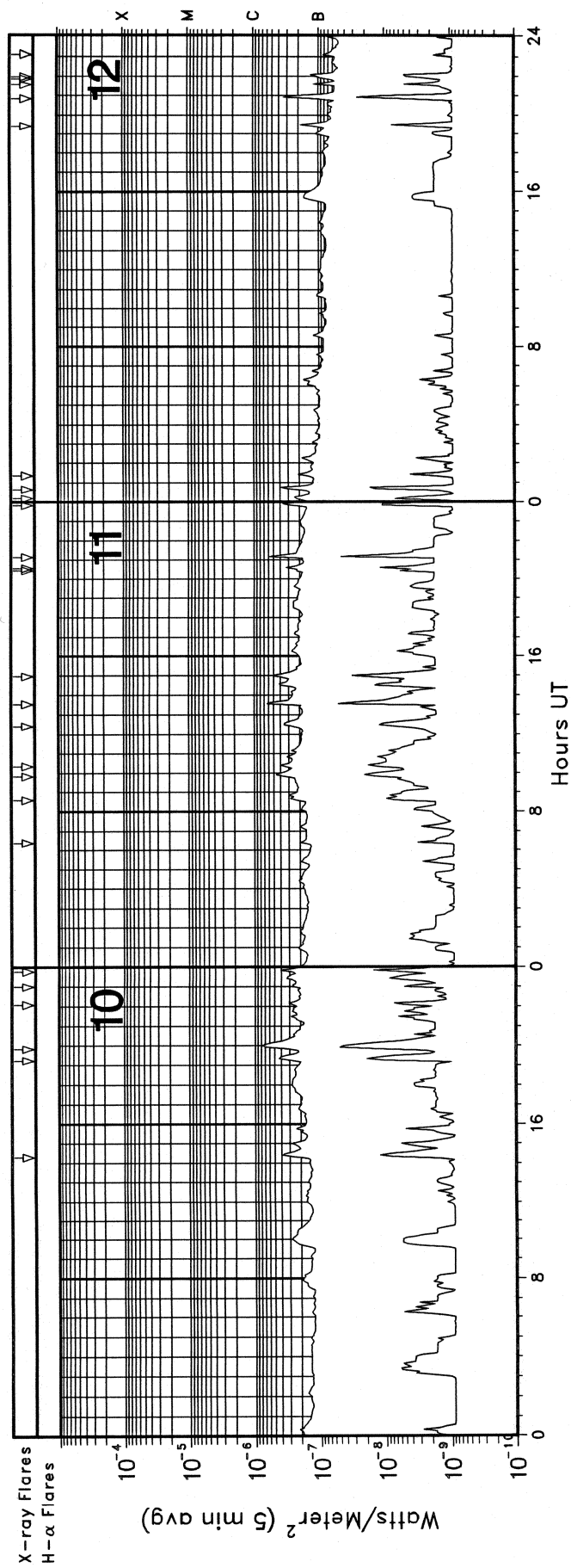
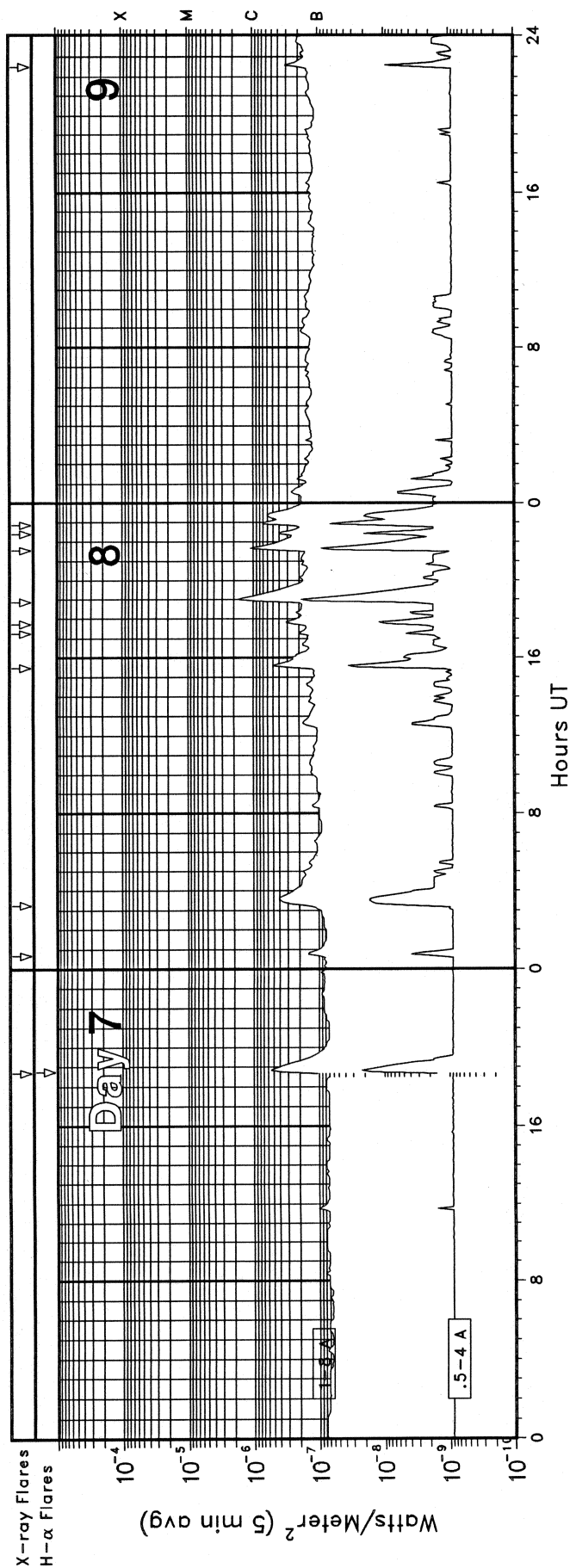
1 Simple 1	7 Minor +	24 Rise	30 Post Burst Increase A	43 Onset of Noise Storm
2 Simple 1F	8 Spike	25 Rise A	31 Post Burst Decrease	44 Noise Storm in Progress
3 Simple 2	20 Simple 3	26 Fall	33 Absorption	45 Complex
4 Simple 2F	21 Simple 3A	27 Rise and Fall	40 Fluctuation	46 Complex F
5 Simple	22 Simple 3F	28 Precursor	41 Group of Bursts	47 Great Burst
6 Minor	23 Simple 3AF	29 Post Burst Increase	42 Series of Bursts	48 Major
1A Simple 1A	4A Simple 2AF	24PF Post Rise F	27F Rise and Fall F	
3A Simple 2A	40 Rise Only	16A Fall A	27AF Rise and Fall AF	
21A Simple 3A GRF	40F Rise Only F	260 Fall Only	31A Post Burst Decrease A	
2A Simple 1AF	4P Post Rise	26F Fall F	32A Absorption A	

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

GOES X-RAY DETECTOR December 2005

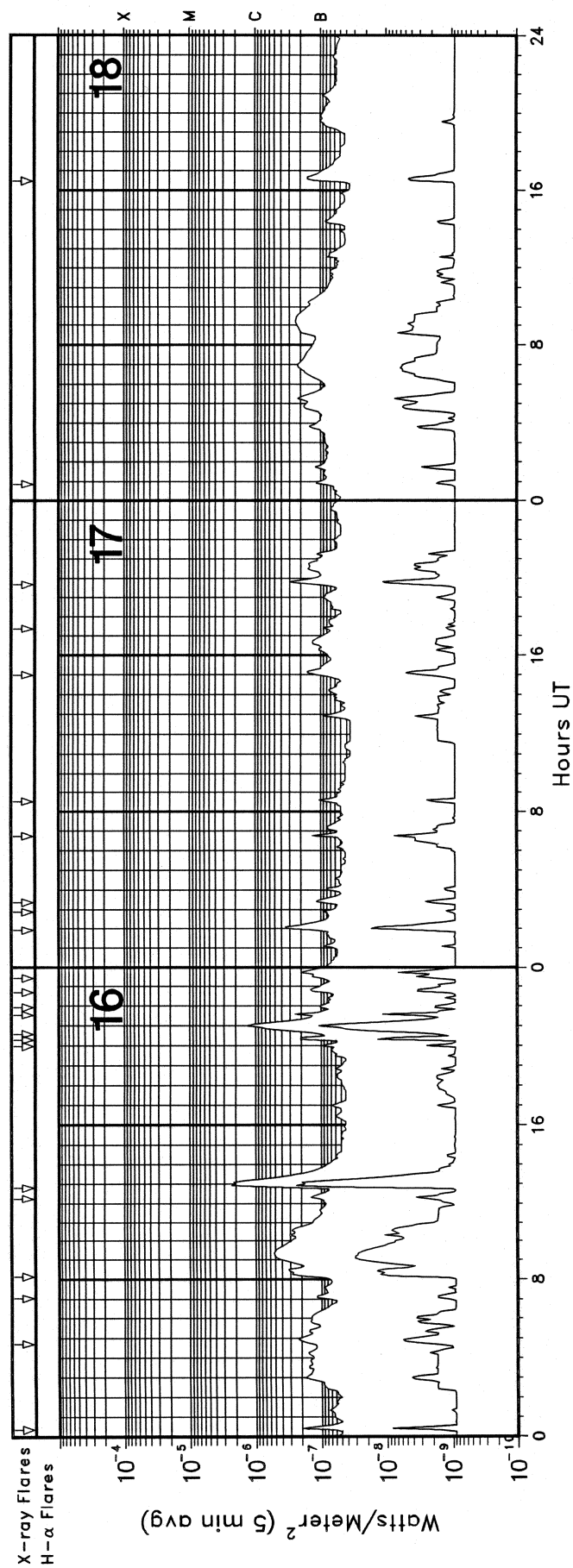
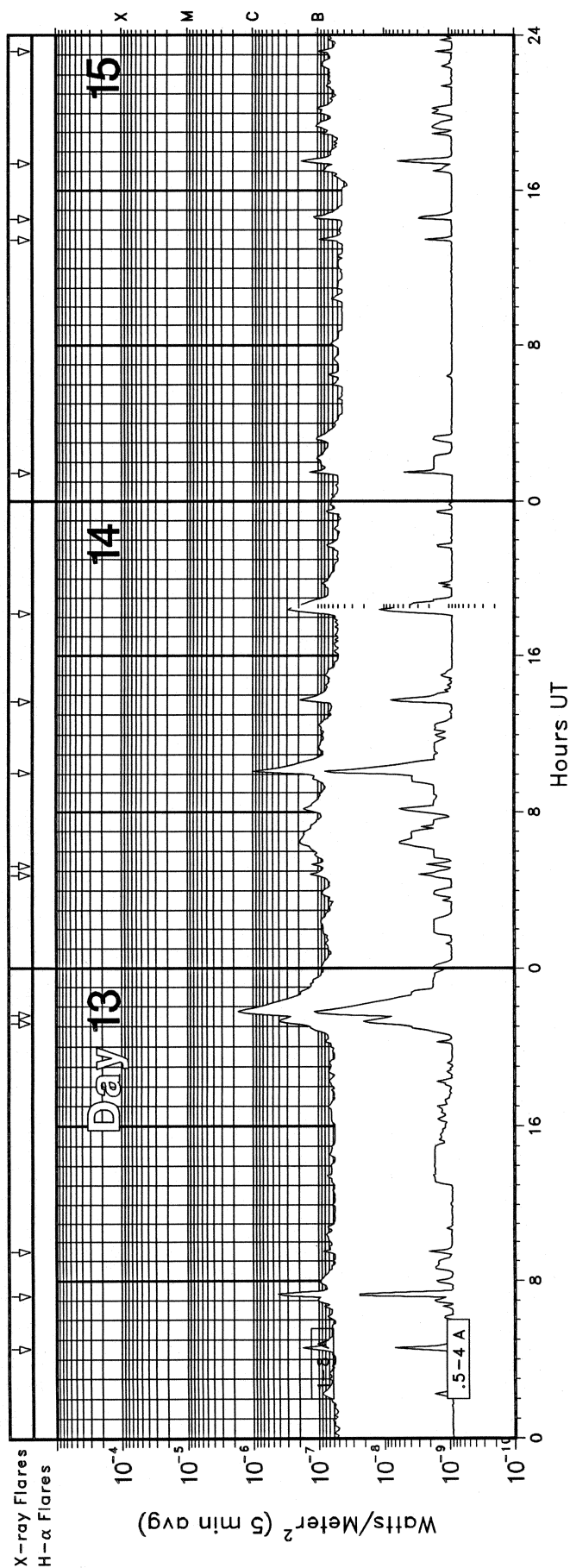


GOES X-RAY DETECTOR December 2005

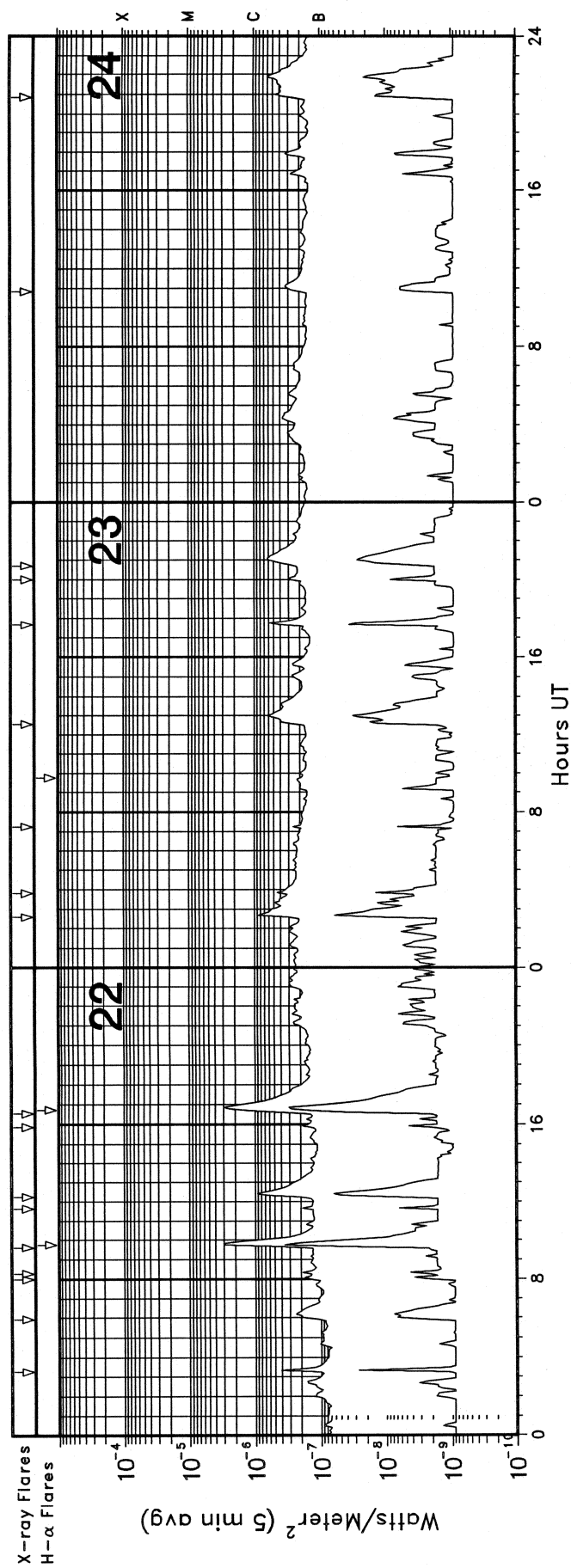
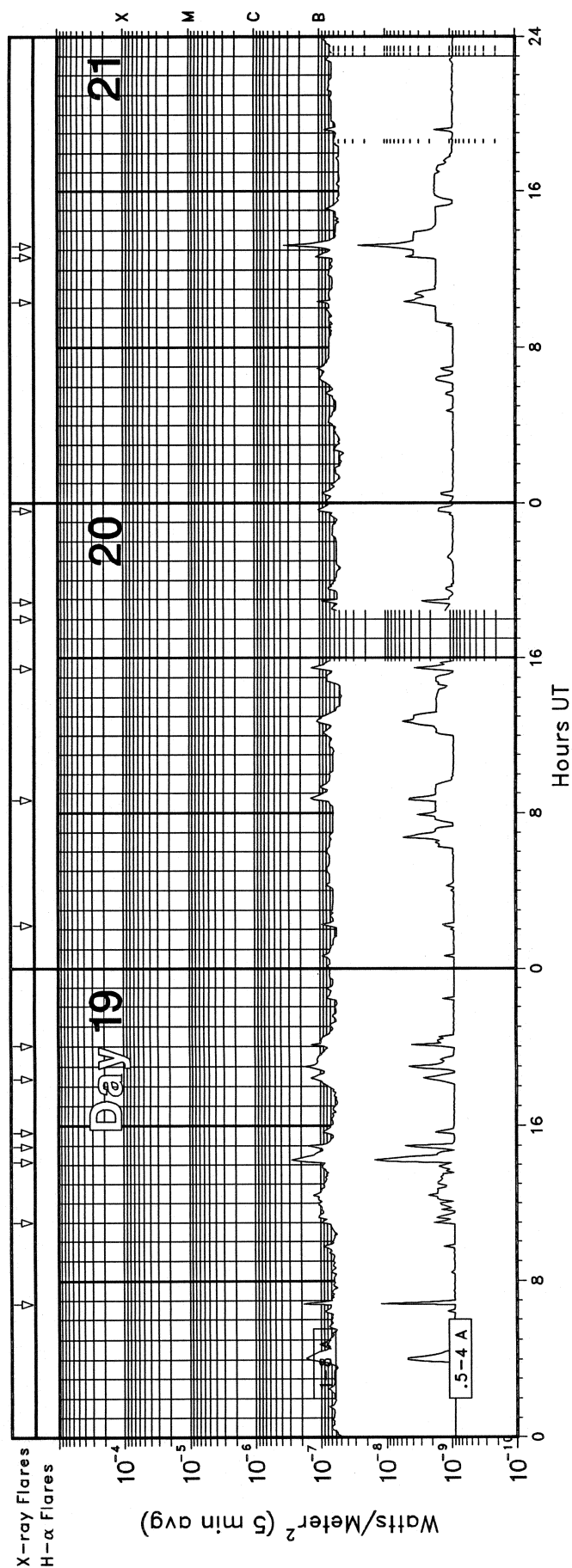


GOES X-RAY DETECTOR

December 2005

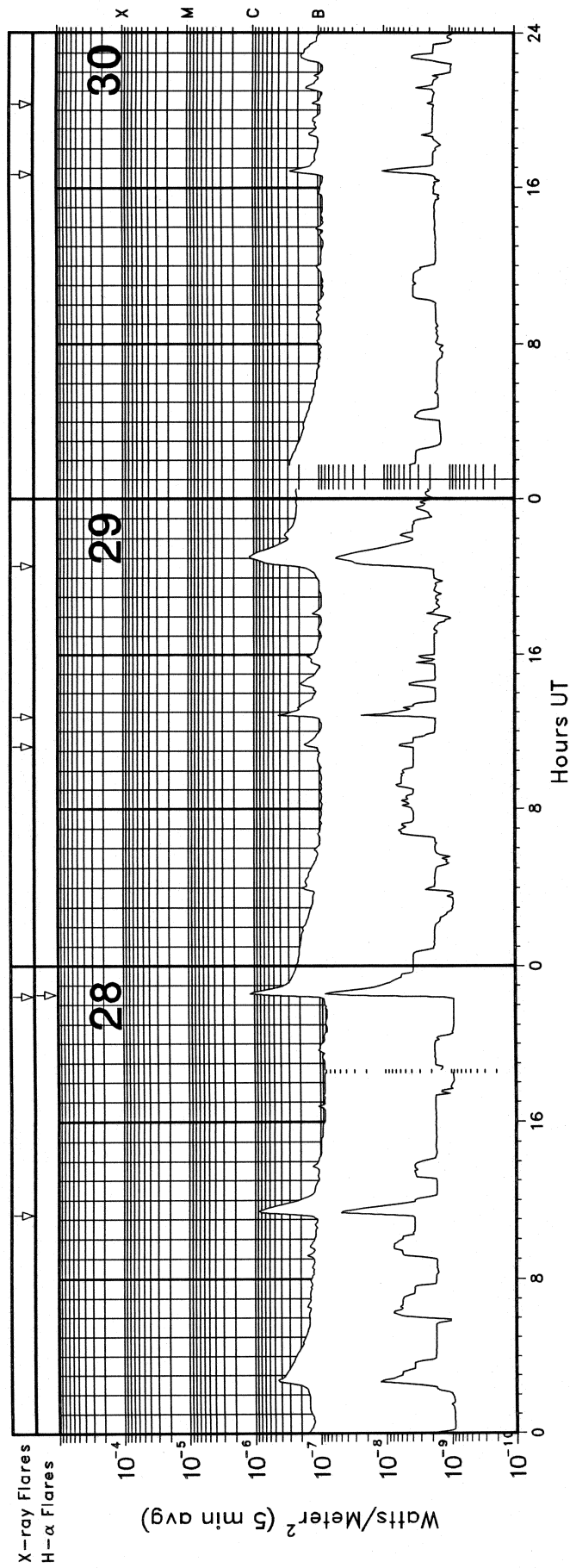
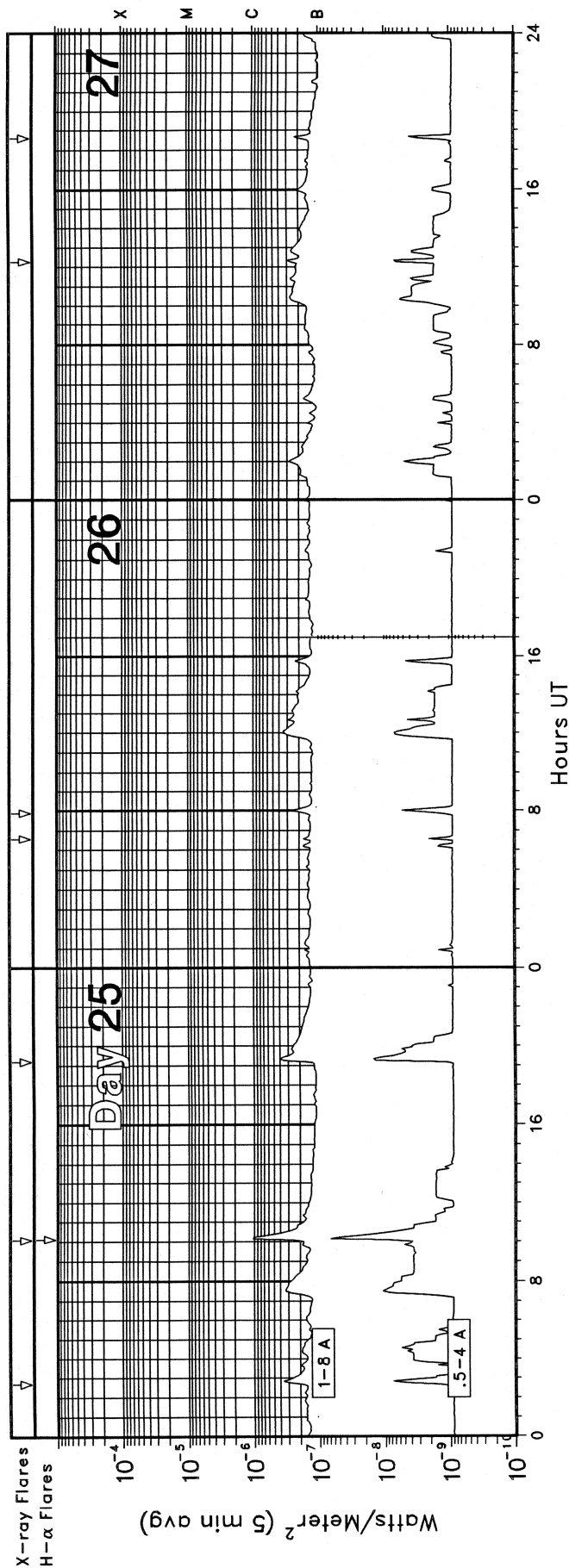


GOES X-RAY DETECTOR December 2005

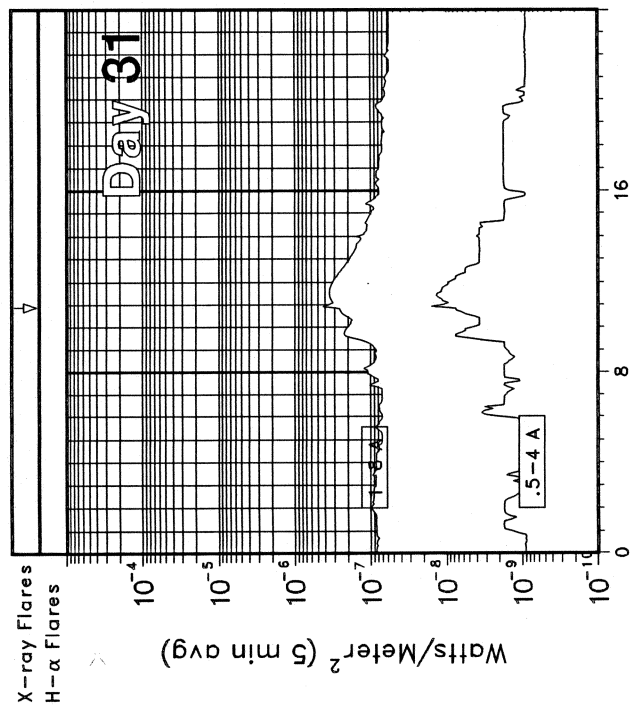


GOES X-RAY DETECTOR

December 2005

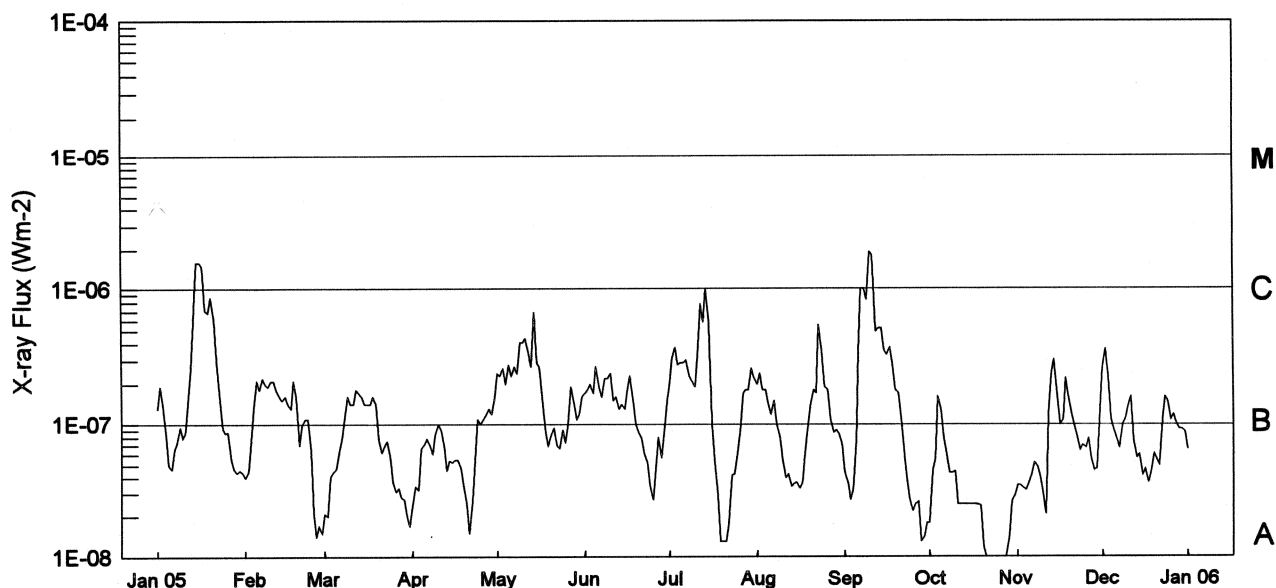


GOES X-RAY DETECTOR December 2005



Preliminary GOES Satellite Daily X-Ray Background Jan 2005 - Dec 2005

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Dec 05



Day	Jan 05	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	B1.3	A4.0	A2.1	A2.5	B2.4	B1.7	B2.0	B2.0	A4.4	A1.8	A3.5	B2.6
2	B1.9	A4.5	A2.0	A3.4	B2.3	B1.8	B3.1	B2.4	A3.7	A4.6	A3.5	B3.6
3	B1.4	A7.6	A4.1	A3.2	B2.6	B2.0	B3.7	B1.8	A2.7	A5.5	A3.3	B2.3
4	A8.3	B1.3	A4.5	A6.6	B2.0	B1.7	B2.8	B1.8	A3.2	B1.6	A3.2	B1.1
5	A5.0	B2.1	A4.7	A7.1	B2.8	B2.7	B2.9	B1.4	A7.6	B1.3	A3.6	A8.9
6	A4.7	B1.8	A6.4	A7.8	B2.3	B1.9	B2.9	B1.2	B3.4	A8.0	A4.3	A7.7
7	A6.5	B2.2	A7.8	A6.9	B2.7	B1.6	B3.0	B1.5	C1.0	A5.9	A5.2	A6.7
8	A7.3	B2.0	B1.1	A6.1	B2.4	B2.2	B2.3	B1.0	C1.0	A4.4	A4.9	B1.0
9	A9.5	B1.9	B1.6	A8.5	B4.1	B2.2	B2.1	A8.1	B8.3	A4.4	A4.1	B1.1
10	A7.9	B2.1	B1.4	B1.0	B4.1	B2.4	B1.9	A5.5	C1.9	A4.5	A3.1	B1.4
11	A8.6	B2.1	B1.4	A9.2	B4.4	B1.5	B3.2	A4.0	C1.8	A2.5	A2.1	B1.6
12	B1.6	B1.8	B1.8	A6.9	B3.4	B1.6	B7.8	A4.3	B4.9	A2.5	B1.2	A7.5
13	B2.6	B1.6	B1.7	A4.6	B2.7	B1.3	B5.8	A3.4	B5.2	A2.5	B2.4	A5.7
14	B7.3	B1.5	B1.6	A5.4	B6.8	B1.4	C1.0	A3.6	B5.2	A2.5	B3.0	A6.0
15	C1.6	B1.6	B1.4	A5.3	B2.9	B1.3	B5.9	A3.7	B3.5	A2.5	B1.6	A4.2
16	C1.6	B1.4	B1.4	A5.5	B2.7	B1.8	B1.0	A3.3	B3.3	A2.5	B1.0	A4.7
17	C1.5	B1.3	B1.4	A5.5	B1.4	B2.3	A5.4	A3.6	B3.7	A2.5	B1.1	A3.7
18	B7.1	B2.1	B1.6	A4.8	A8.8	B1.5	A2.9	A6.1	B2.8	A2.5	B2.2	A4.4
19	B6.8	B1.6	B1.4	A3.5	A6.9	B1.0	A1.3	B1.0	B1.8	A2.4	B1.6	A6.1
20	B8.7	A7.0	A7.7	A2.5	A8.4	A8.8	A1.3	B1.4	B1.7	A1.2	B1.2	A5.5
21	B6.2	A9.9	A6.2	A1.5	A9.4	A7.8	A1.3	B1.8	B1.1	<A1.0	A9.8	A5.0
22	B3.0	B1.1	A6.9	A2.6	A6.9	A6.1	A1.8	B1.7	A5.9	<A1.0	A8.2	B1.1
23	B1.5	B1.1	A7.5	A5.5	A6.6	A5.3	A4.2	B5.5	A3.8	<A1.0	A6.4	B1.6
24	A9.3	A6.4	A5.8	B1.1	A9.1	A3.4	A4.3	B3.5	A2.7	<A1.0	A7.0	B1.5
25	A8.6	A2.1	A3.7	B1.0	A7.3	A2.7	A6.3	B1.9	A2.2	<A1.0	A6.7	B1.1
26	A8.7	A1.4	A3.1	B1.1	A9.9	A4.8	A8.9	B1.8	A2.5	<A1.0	A7.8	B1.2
27	A5.6	A1.7	A3.3	B1.2	B1.9	A8.0	B1.7	B1.1	A2.6	<A1.0	A5.7	B1.0
28	A4.7	A1.5	A2.8	B1.3	B1.5	A5.7	B1.8	A8.7	A1.3	<A1.0	A4.6	A9.3
29	A4.4		A2.7	B1.2	B1.1	A8.6	B1.8	A9.1	A1.4	A1.4	A4.7	A9.3
30	A4.6		A2.0	B1.6	B1.2	B1.5	B2.6	A8.5	A1.8	A2.6	B1.3	A8.8
31	A4.4		A1.7		B1.6		B2.2	A7.1		A2.9		A6.5

Levels below B1.0 are unreliable.

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Dec 05

ACTIVE PROMINENCES AND FILAMENTS

DECEMBER 2005

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
12	DSF	1049U	2136U	N11	E61	12 17.0			0	0	E	LEAR		
13	APR	0110	1050	N00	W74	12 7.5	1		8	9	E	LEAR		
18	DSF	1350U	0709U	N18	W56	12 14.3		16	0	0	E	SVTO		
19	EPL	2338E	0728	S07	W77	12 14.2	3		8	6	E	LEAR		
23	DSD	0214	0316	N17	E36	12 25.8		67	0	0	E	LEAR	0838	Normal Emission 1/3
28	DSF	2325U	1457U	S11	E43	01 1.2	3	08	0	0	E	HOLL		

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

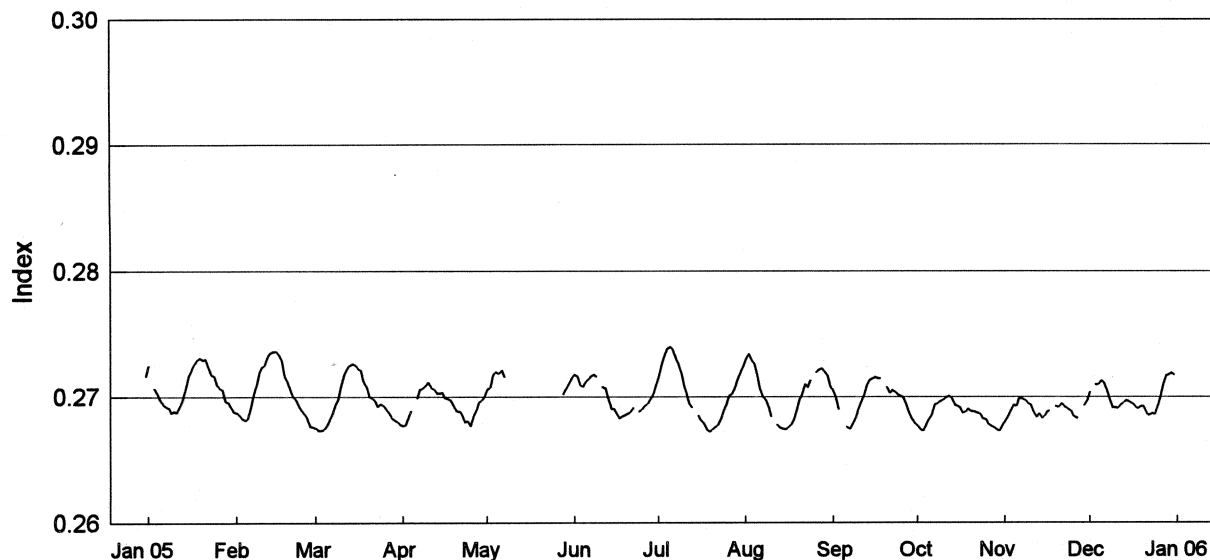
NOTE: The U.S. Air Force solar observing sites (HOLL, LEAR, RAMY, AND SVTO) have changed operational requirements and will only report the following: BSL, EPL, LPS, SPY, and DSF's.

NOAA Solar Ultraviolet (UV) MgII Core-to-Wing Index

Jan 2005 - Dec 2005

Version 9.1

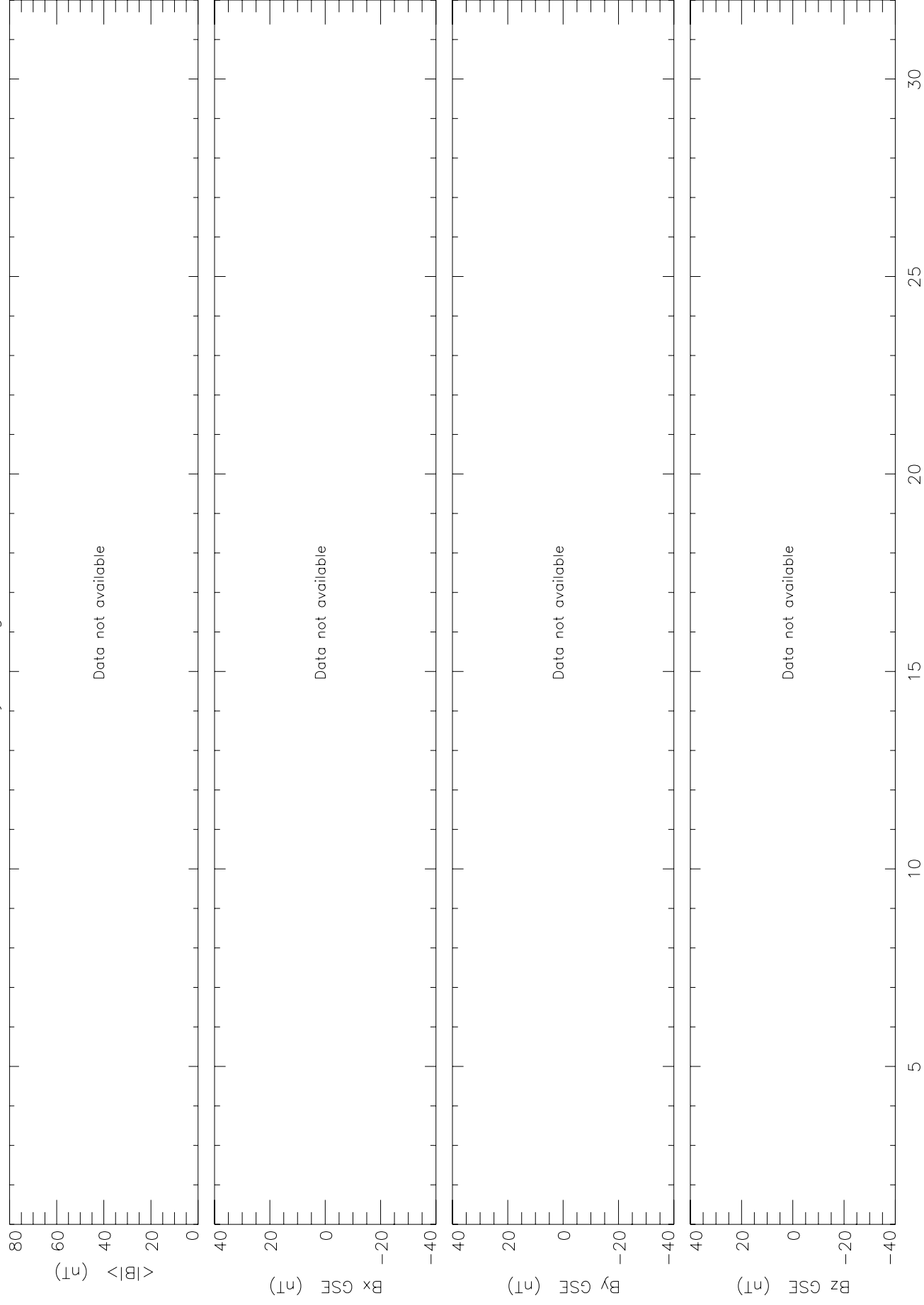
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Dec 05



Day	Jan 05	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.2724	0.2687	0.2675	0.2677	0.2706	0.2718	0.2715	0.2729	0.2704	0.2677	0.2680	0.2704
2	---	0.2685	0.2673	0.2678	0.2707	0.2716	0.2726	0.2733	0.2699	0.2674	0.2684	---
3	0.2707	0.2683	0.2673	0.2685	0.2718	0.2710	0.2732	0.2729	0.2689	0.2673	0.2689	0.2710
4	0.2702	0.2682	0.2674	0.2689	0.2720	0.2708	0.2738	0.2725	---	0.2677	0.2694	0.2710
5	0.2697	0.2683	0.2677	---	0.2719	0.2712	0.2739	0.2717	---	0.2683	0.2692	0.2713
6	0.2694	0.2691	0.2681	0.2699	0.2721	0.2715	0.2737	0.2706	0.2676	0.2686	0.2699	0.2711
7	0.2693	0.2701	0.2687	0.2706	0.2715	0.2717	0.2730	0.2700	0.2674	0.2694	0.2699	0.2704
8	0.2691	0.2709	0.2693	0.2706	---	0.2718	0.2726	0.2698	0.2678	0.2694	0.2697	0.2697
9	0.2687	0.2719	0.2698	0.2709	---	0.2716	0.2718	0.2691	0.2684	0.2696	0.2695	0.2692
10	0.2689	0.2724	0.2708	0.2712	---	---	0.2708	0.2684	0.2690	0.2697	0.2693	0.2691
11	0.2687	0.2725	0.2718	0.2708	---	0.2708	0.2702	---	0.2697	0.2699	0.2688	0.2691
12	0.2692	0.2732	0.2722	0.2706	---	0.2707	0.2694	0.2678	0.2702	0.2701	0.2684	0.2693
13	0.2698	0.2734	0.2725	0.2703	---	0.2699	0.2691	0.2676	0.2709	0.2699	0.2686	0.2695
14	0.2707	0.2736	0.2726	0.2703	---	0.2690	---	0.2675	0.2714	0.2693	0.2683	0.2697
15	0.2716	0.2736	0.2725	0.2703	---	0.2690	0.2685	0.2674	0.2715	0.2693	0.2685	0.2696
16	0.2722	0.2732	0.2723	0.2700	---	0.2686	0.2681	0.2675	0.2716	0.2691	0.2688	0.2695
17	0.2726	0.2728	0.2721	0.2699	---	0.2683	0.2679	0.2678	0.2715	0.2687	0.2689	0.2692
18	0.2728	0.2717	0.2712	0.2697	---	0.2685	0.2674	0.2681	0.2715	0.2688	---	0.2690
19	0.2731	0.2712	0.2708	0.2692	---	0.2685	0.2672	0.2689	---	0.2690	0.2692	0.2692
20	0.2729	0.2706	0.2701	0.2689	---	0.2687	0.2674	0.2697	0.2708	0.2688	0.2692	0.2692
21	0.2729	0.2701	0.2699	0.2689	---	0.2688	0.2676	0.2702	0.2703	0.2688	0.2694	0.2687
22	0.2723	0.2698	0.2697	0.2685	---	0.2691	0.2677	0.2710	0.2705	0.2687	0.2692	0.2685
23	0.2718	0.2693	0.2692	0.2680	---	---	0.2682	0.2707	0.2704	0.2686	0.2691	0.2687
24	0.2716	0.2689	0.2694	0.2681	---	0.2688	0.2688	0.2714	0.2702	0.2683	0.2689	0.2686
25	0.2710	0.2686	0.2693	0.2677	---	0.2690	0.2694	---	0.2701	0.2682	0.2685	0.2693
26	0.2707	0.2684	0.2690	0.2685	---	0.2692	0.2701	0.2720	0.2699	0.2679	0.2684	0.2700
27	0.2705	0.2677	0.2687	0.2689	---	0.2694	0.2702	0.2722	0.2692	0.2677	0.2683	0.2710
28	0.2697	0.2676	0.2684	0.2695	0.2702	0.2698	0.2707	0.2723	0.2686	0.2676	---	0.2717
29	0.2695		0.2682	0.2697	0.2706	0.2702	0.2714	0.2720	0.2682	0.2674	0.2693	0.2718
30	0.2691		0.2680	0.2700	0.2710	0.2709	0.2720	0.2717	0.2679	0.2673	0.2697	0.2719
31	0.2689		0.2678		0.2715		0.2724	0.2708		0.2677		0.2717
Mean	0.2707	0.2707	0.2697	0.2694	0.2712	0.2700	0.2703	0.2703	0.2698	0.2686	0.2690	0.2699

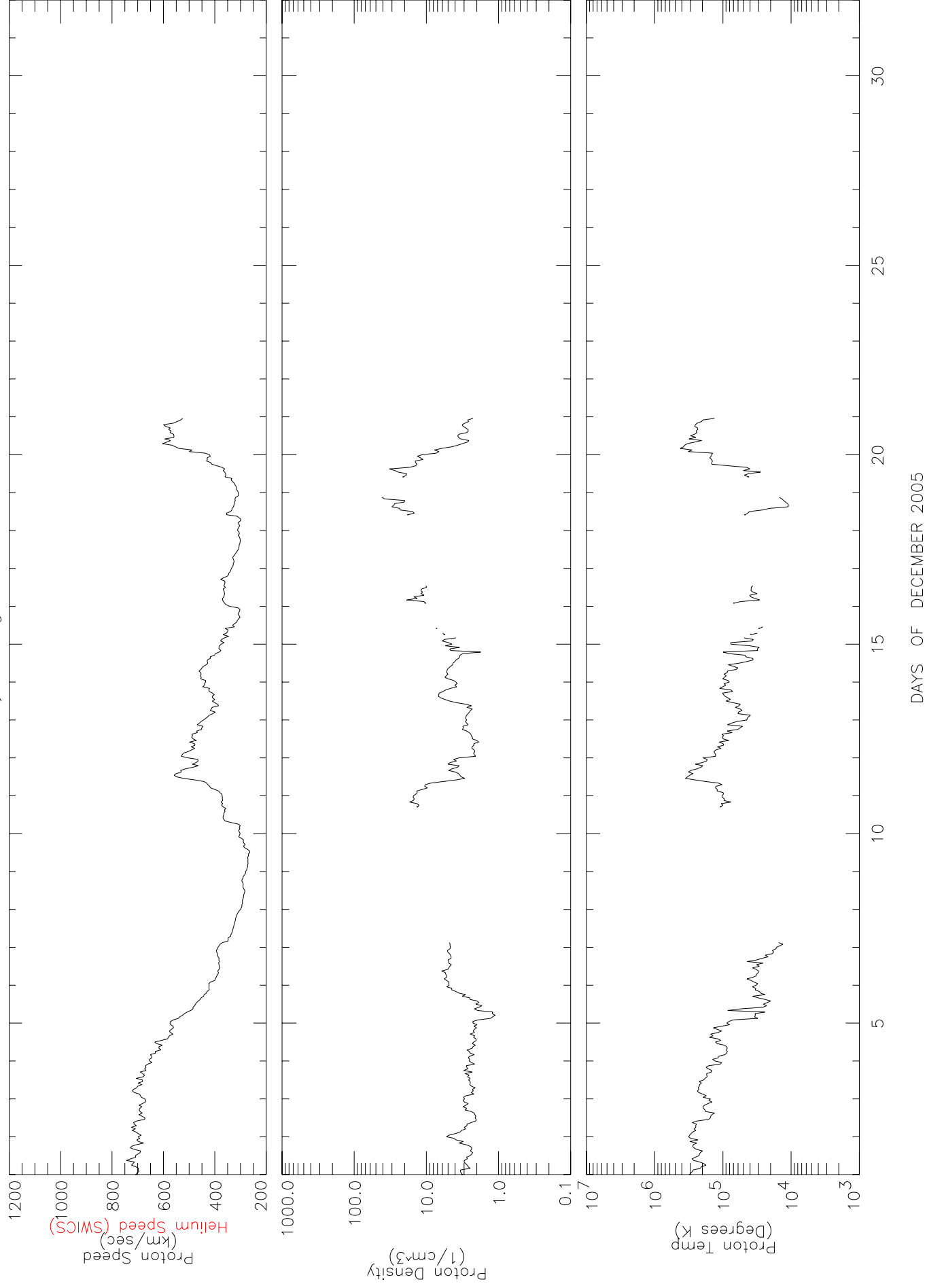
Data at: <http://www.sec.noaa.gov/ftpmenu/sbuw.html>

ACE LEVEL2 DATA Interplanetary Magnetic Field
Hourly Averages for DECEMBER 2005, from MAG

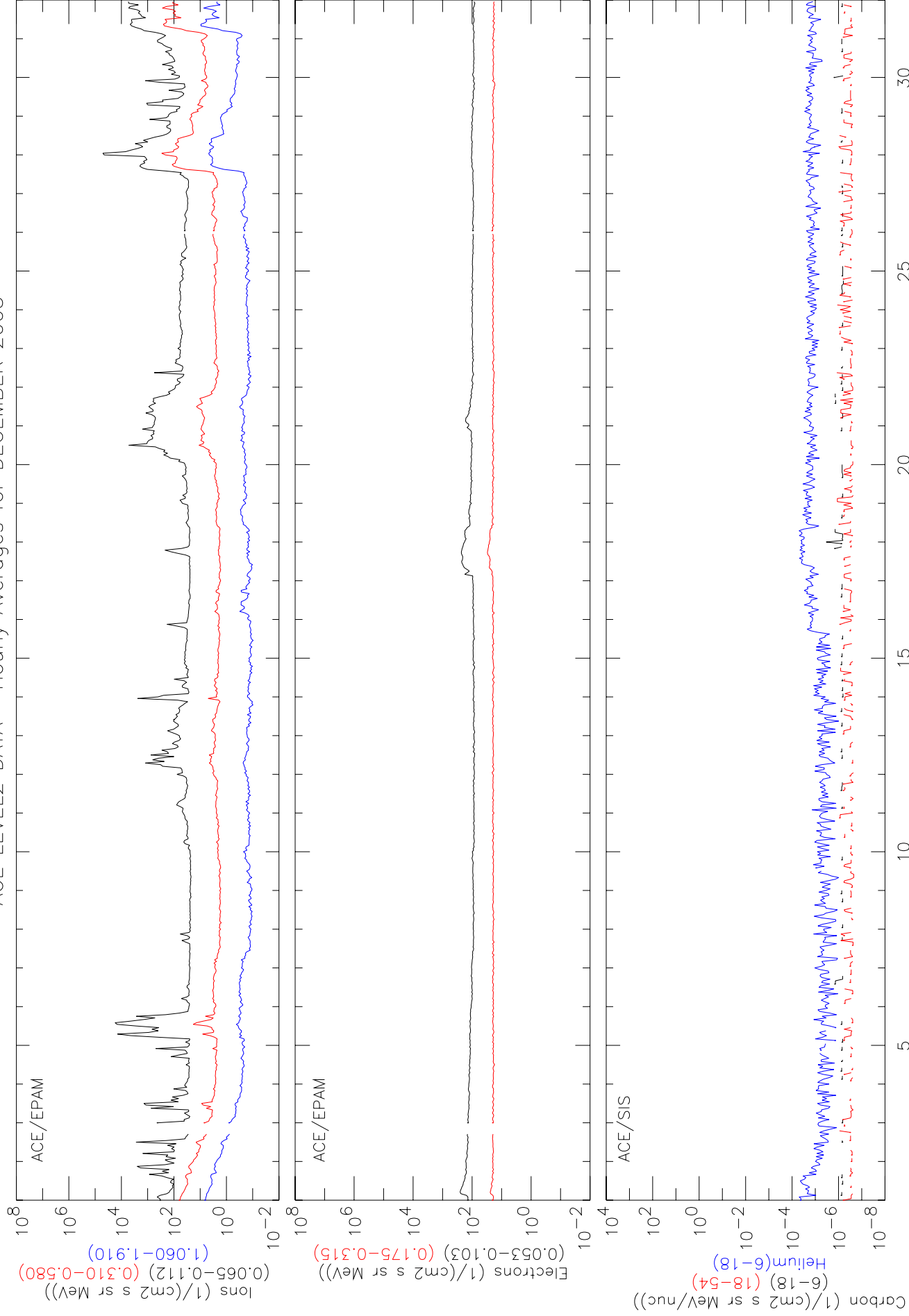


DAYS OF DECEMBER 2005

ACE LEVEL2 DATA Solar Wind Plasma Hourly Averages for DECEMBER 2005, from SWEPAM



Solar Energetic Particles ACE LEVEL2 DATA Hourly Averages for DECEMBER 2005



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 2005

First C2 Appearance		Central Width		Linear Fit		----2nd order speed----		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	
2005/12/01	00:30:05	92	10	361	418	309	0	-29.5*	90	3 points; Only C2
2005/12/01	02:54:05	265	67	580	532	629	627	4.6	245	
2005/12/01	08:06:06	98	18	718	741	696	662	-4.7	102	Only C2
2005/12/01	12:30:05	102	12	681	747	614	404	-16.6	107	
2005/12/01	17:54:05	98	17	487	374	598	1284	62.3*	105	
2005/12/02	01:31:46	81	91	714	745	679	694	-3.0	74	3 points; Only C2 Partial Halo
2005/12/02	04:54:05	111	9	576	766	380	0	-38.5*	115	
2005/12/02	07:31:49	115	86	707	730	684	678	-3.0	117	
2005/12/02	11:06:05	197	129	353	363	343	0	-6.7*	204	3 points; Only C2
2005/12/02	11:30:05	45	26	468	294	660	2018	169.2*	54	
2005/12/02	15:54:05	112	11	465	740	163	0	-53.1*	114	Only C2
2005/12/02	16:30:05	89	12	331	287	380	413	3.8*	88	
2005/12/02	22:24:05	113	8	459	512	405	146	-10.0*	115	
2005/12/03	01:24:05	132	47	599	645	553	510	-6.5	120	Only C2
2005/12/03	08:24:05	158	63	98	0	199	585	14.1*	142	
2005/12/03	16:48:06	269	35	124	69	174	293	3.3*	269	
2005/12/03	20:24:06	139	77	752	844	656	653	-12.1	119	3 points; Only C2 2 points; Only C2
2005/12/04	01:24:05	239	9	498	508	488	0	-13.4*	239	
2005/12/04	01:36:05	1	4	619	----	----	----	-----	4	
2005/12/04	11:24:05	155	53	512	737	308	0	-56.2*	127	Only C2
2005/12/04	19:12:05	147	69	688	758	617	0	-38.5	135	
2005/12/05	13:30:15	90	56	236	196	279	484	8.0	90	Only C2
2005/12/05	17:48:05	93	59	275	242	308	413	4.6*	88	
2005/12/05	21:36:06	86	67	406	458	354	0	-10.6	76	
2005/12/06	02:00:05	87	36	137	92	186	256	2.4*	82	Only C2
2005/12/06	23:24:05	81	25	310	353	269	0	-14.2*	83	
2005/12/07	19:12:05	Halo	360	673	768	568	609	-8.9	61	Only C2
2005/12/09	14:00:05	124	14	531	575	486	240	-11.2	120	
2005/12/09	21:36:37	82	52	246	335	156	0	-63.8*	84	
2005/12/10	00:00:37	309	26	391	382	399	461	2.8*	301	Only C2
2005/12/10	08:24:05	304	46	84	----	----	----	-----	307	
2005/12/10	18:36:05	262	66	176	0	392	323	4.5*	254	
2005/12/11	11:36:05	237	16	235	209	265	312	2.2	239	Only C2
2005/12/11	17:00:05	238	22	384	343	428	538	7.1*	238	
2005/12/11	17:24:05	74	62	220	275	162	0	-4.8	73	
2005/12/12	02:36:05	273	10	249	323	174	0	-49.8*	271	Only C2
2005/12/12	09:12:37	231	14	241	173	316	443	7.1*	228	
2005/12/12	11:24:05	285	9	605	327	887	2201	196.9*	285	
2005/12/12	16:12:05	233	39	216	208	224	254	0.9*	234	Only C2
2005/12/12	20:24:05	225	29	59	0	135	249	2.6*	230	
2005/12/12	21:12:40	120	14	331	364	296	0	-19.5*	117	
2005/12/13	04:00:05	284	20	631	733	533	0	-43.1*	279	Only C2
2005/12/13	06:48:05	275	4	556	639	475	0	-29.8*	274	
2005/12/13	12:48:05	271	49	327	46	618	697	20.0	267	
2005/12/13	15:24:05	246	19	312	231	394	879	29.6*	242	

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Center for Solar Physics and Space Weather (CSPSW) – The Catholic University of America/NRL/NASA
DECEMBER 2005

First C2 Appearance		Central Width		Linear Fit	----2nd order speed-----			Accel	Measurement	Remarks
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	
2005/12/13	16:12:05	77	10	192	110	280	475	9.4*	81	
2005/12/13	22:00:06	87	64	724	710	740	740	1.8	96	
2005/12/14	00:36:06	127	5	373	382	365	321	-1.8*	122	
2005/12/14	05:48:07	82	20	293	335	255	0	-22.9*	84	Only C2
2005/12/14	06:24:06	225	11	241	198	287	332	3.0*	226	
2005/12/14	13:48:05	120	20	675	526	839	1005	30.5*	115	
2005/12/14	19:12:05	90	33	283	271	295	371	2.6*	90	
2005/12/14	20:00:05	286	42	865	1023	713	0	-120.6*	278	
2005/12/17	00:12:05	264	71	392	347	435	411	3.6*	270	Only C3
2005/12/17	04:12:05	36	21	264	239	289	689	17.3*	41	Only C2
2005/12/17	05:48:05	93	172	428	538	315	0	-15.7	43	Uncertain Width; Partial Halo
2005/12/17	14:36:05	52	45	337	316	360	438	3.8	53	
2005/12/18	02:24:05	86	34	569	498	642	875	21.3	89	
2005/12/18	03:00:06	276	143	877	584	1172	2620	274.6*	287	Only C2; Uncertain Width; Partial Halo
2005/12/18	04:24:05	157	115	156	0	385	350	5.3*	141	
2005/12/18	13:12:05	56	51	507	399	616	1255	59.5*	64	Only C2
2005/12/18	18:17:38	66	29	222	270	175	0	-9.6*	59	Only C2
2005/12/18	18:34:44	270	40	219	197	244	316	2.6*	272	
2005/12/18	21:50:05	68	40	212	213	211	207	-0.1*	68	
2005/12/19	02:50:06	60	56	390	559	210	0	-32.2*	66	
2005/12/19	04:26:06	285	38	54	43	64	190	1.4*	286	Only C2
2005/12/19	07:50:06	277	62	297	273	321	340	1.8	280	
2005/12/19	12:50:05	51	93	260	227	292	353	3.0*	77	
2005/12/20	04:30:05	122	45	244	299	185	0	-9.9*	121	
2005/12/20	14:06:07	64	9	304	325	282	0	-4.7*	65	
2005/12/20	16:30:05	61	9	366	305	419	575	9.9*	62	
2005/12/20	20:30:05	72	10	300	379	218	0	-25.7*	68	
2005/12/20	23:30:05	273	57	266	214	319	545	10.4*	271	
2005/12/21	02:30:05	270	54	228	123	331	861	29.6*	270	Only C2
2005/12/21	23:54:20	69	20	385	351	421	569	8.2*	65	
2005/12/22	06:30:29	62	20	166	98	233	425	7.4*	65	
2005/12/22	13:31:46	67	26	542	593	488	366	-9.0*	72	
2005/12/22	19:54:05	68	25	208	235	179	0	-3.8*	66	
2005/12/23	02:54:05	75	7	552	324	759	2219	201.4*	76	3 points; Only C2
2005/12/23	15:30:05	242	9	456	392	519	735	15.9	248	
2005/12/23	21:30:05	113	69	341	253	429	704	18.0	110	
2005/12/24	00:30:05	115	37	155	153	156	167	0.2	110	
2005/12/25	03:30:11	99	18	725	----	----	----	-----	101	2 points; Only C2
2005/12/25	04:30:05	285	39	196	169	226	543	11.1*	279	3 points; Only C2
2005/12/25	10:56:13	106	44	572	513	632	707	9.7	113	
2005/12/25	13:31:47	15	4	369	----	----	----	-----	16	2 points; Only C2
2005/12/26	15:30:05	355	4	191	----	----	----	-----	355	2 points; Only C2

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DECEMBER 2005

First C2 Appearance		Central Width			Linear Fit			----2nd order speed----		Accel m/s ²	Measurement		Remarks
Date	Time UT	Position Angle degree	Angular Width degree	Speed km/s	Initial km/s	Final km/s	20R km/s	Position Angle degree					
2005/12/27	09:06:05	46	6	366	460	267	0	-43.8*	46				
2005/12/27	09:06:05	87	56	76	25	122	246	2.5*	101				
2005/12/27	18:30:05	39	8	546	----	----	----	-----	41			2 points;Only C2	
2005/12/28	03:30:05	139	124	381	307	464	424	3.6	151			Partial Halo	
2005/12/28	18:30:29	155	14	238	182	291	415	5.8	154				
2005/12/28	21:54:05	154	38	293	220	376	389	4.2	158				
2005/12/28	23:30:05	57	45	186	230	143	0	-11.4*	71			Only C2	
2005/12/29	07:54:05	170	6	282	243	322	459	6.2*	169				
2005/12/29	11:30:05	135	50	69	76	63	0	-1.0*	133			Only C2	
2005/12/29	14:30:05	148	75	361	287	440	444	4.9	146				
2005/12/29	17:06:05	142	35	293	23	564	564	13.0	136				
2005/12/29	20:58:42	163	110	466	309	636	655	14.1	166				
2005/12/30	06:54:05	154	25	261	173	345	392	5.3*	151				
2005/12/30	09:30:05	97	96	323	380	262	0	-6.6	94				
2005/12/30	12:54:05	5	50	137	119	155	315	3.5*	345			Only C2	
2005/12/30	16:06:06	164	22	327	278	376	402	3.4*	165				
2005/12/31	12:06:05	276	26	158	149	166	232	1.3	274				
2005/12/31	20:58:44	192	31	273	240	304	466	6.7*	198				

CME heights are measured at the fastest segment of the leading edge

PA= Position Angle measured from Solar North in degrees (Counter clockwise)

ONLINE -- Click on date to view java script movies

ONLINE -- Click on time to see height-time digital files

ONLINE -- Click on speed to view height-time plot

Numbers in 2nd order fit columns correspond to the speed at the last height of measurement and at a distance of 20 solar radii.