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Data for August 1993

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Number 594

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DATA FOR AUGUST 1993

Hα SOLAR FLARES

AUGUST 1993

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
0001	LEAR	02	0452	0453	0505	N17	W42	7556	07	30.1	13	SF		3	E		15		
0002		02	0812*	0828	0838	N16	W44	7556	07	30.1	26	SN					10	0.1	DG
	HTPR	02	0812	0828	0838	N17	W45	7556	07	30.0	26	SF			C	0828	10	0.1	
	ISTA	02	0825		0838	N16	W44	7556	07	30.1	13	SN			P				DG
0003	HTPR	02	0843	0910	1000	N15	E90		08	9.2	77				C				
0004	HTPR	02	0951	0954	0958	N10	W12	7555	08	1.5	7	SF			C	0954	20	0.2	E
0005	KANZ	02	1030	1030	1034	N08	E82	7558	08	8.6	4	SF		2	C				
0006		02	10304	1034	1042	N16	W44	7556	07	30.2	12	SF					10	0.1	D
	HTPR	02	1030	1034	1043	N15	W45	7556	07	30.1	13	SF			C	1034	10	0.1	D
	KANZ	02	1034	1034	1042	N17	W44	7556	07	30.2	8	SF		2	C				
0007		02	12473	12491	1300	N16	W45	7556	07	30.2	13	SF					20	0.3	E
	HTPR	02	1247	1249	1255	N15	W45	7556	07	30.2	8	SF			C	1249	20	0.3	E
	KANZ	02	1250	1250	1306	N16	W45	7556	07	30.2	16	SF		2	C				
0008		02	1335*	13562	1435	S14	W69	7553	07	28.4	60	SF					20		U
	HTPR	02	1335	1356	1500	S15	W70	7553	07	28.4	85	SF			C	1356	20		U
	KANZ	02	1354	1358	1410	S13	W68	7553	07	28.5	16	SF		2	C				
0009	KANZ	02	1446	1446	1454	N17	W46	7556	07	30.2	8	SF		2	C				
0010	KANZ	02	1642	1646	1650	N09	E78	7558	08	8.6	8	SF		2	C				
		02	2253		2258	No Flare Patrol													
		02	2321		2333	No Flare Patrol													
0011		03	1122*	1138*	1157	N15	E86		08	10.0	35	SF					16		D
	KANZ	03	1122	1138	1154	N14	E82		08	9.7	32	SF		2	C				
	HTPR	03	1135	1149	1204	N13	E90		08	10.3	29	SF			C	1149			D
	SVTO	03	1146	1146	1152	N17	E85		08	9.9	6	SF		3	E		16		
		03	2231		2349	No Flare Patrol													
		04	0129		0135	No Flare Patrol													
		04	0221		0226	No Flare Patrol													
		04	0331		0537	No Flare Patrol													
		04	0601		0616	No Flare Patrol													
		04	2202		2354	No Flare Patrol													
		05	0212		0228	No Flare Patrol													
		05	0235		0253	No Flare Patrol													
		05	0306		0328	No Flare Patrol													
		05	0338		0354	No Flare Patrol													
		05	0404		0407	No Flare Patrol													
		05	0409		0410	No Flare Patrol													
		05	0413		0432	No Flare Patrol													
		05	0436		0457	No Flare Patrol													
0012		05	05581	05591	0612	N12	E50	7558	08	9.0	14	SF	B 7.8				93		F
	SVTO	05	0558	0600	0616	N13	E50	7558	08	9.0	18	SF	B 7.8	3	E		93		F
	KANZ	05	0559	0559	0607	N10	E51	7558	08	9.1	8	SF		2	C				
0013		05	14371	14391	1449	N10	E51	7558	08	9.4	12	SF	B 5.1				34	0.8	EFH
	HTPR	05	1437	1439	1449	N10	E53	7558	08	9.6	12	SN			C	1439	50	0.8	E
	RAMY	05	1438	1439	1447	N10	E50	7558	08	9.4	9	SF		3	E		21		FH
	SVTO	05	1438	1440	1450	N10	E50	7558	08	9.4	12	SF	B 5.1	3	E		30		H
		05	1734		1748	No Flare Patrol													
		05	2018		2025	No Flare Patrol													
		05	2050		2058	No Flare Patrol													
		05	2153		2210	No Flare Patrol													
0014	HOLL	05	2211	2212	2311	N09	E46	7558	08	9.4	60	SF	B 5.9	3	E		18		F
		05	2320		2330	No Flare Patrol													
		05	2332		2400	No Flare Patrol													
		06	0244		0306	No Flare Patrol													

AUGUST 1993

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
		06	0311		0319	No Flare Patrol													
		06	0324		0334	No Flare Patrol													
		06	0338		0416	No Flare Patrol													
		06	0431		0438	No Flare Patrol													
		06	0441		0445	No Flare Patrol													
0015	SVTO	06	0520	0523	0530D	N10	E38	7558	08	9.1	10D	SF	C 1.1	2	E		47		FH
0016	WATU	06	0521	0524	0530	N03	E42		08	9.4	9	SN			C	0524	30	0.4	D
0017	HOLL	06	1541E	1541U	1610D	N12	E28	7558	08	8.8	29D	SF	B 2.3	3	E		33		F
		06	1827		1952	No Flare Patrol													
		06	2144		2147	No Flare Patrol													
		06	2156		2324	No Flare Patrol													
0018	BUCA	07	0755	0755U	0759	N12	E28		08	9.4	4	SN			P	0755	54	0.1	D
		07	1813		1823	No Flare Patrol													
		07	1832		2017	No Flare Patrol													
		07	2049		2130	No Flare Patrol													
		07	2226		2316	No Flare Patrol													
0019	LEAR	07	2335	2337	2342	N09	E12	7558	08	8.9	7	SF	B 5.5	3	E		24		F
0020	SVTO	08	0933	0935	0940	N18	E70	7560	08	13.7	7	SF	B 3.0	3	E		11		F
		08	1214		1222	No Flare Patrol													
0021	KANZ	08	1332	1336	1348	N16	E67	7560	08	13.6	16	SF		2	C				
0022	HOLL	08	1656	1658	1705	N09	E02	7558	08	8.8	9	SF	B 2.4	3	E		26		
		08	2237		2310	No Flare Patrol													
0023	LEAR	09	0208	0216	0235	N13	W03	7558	08	8.9	27	SF	B 3.9	3	E		32		F
		09	0336		0340	No Flare Patrol													
		09	0439		0450	No Flare Patrol													
0024	SVTO	09	1003	1013	1037	N12	W08	7558	08	8.8	34	SF	B 7.2	3	E		48		F
0025	KANZ	09	1346	1350	1354D	N16	W04	7558	08	9.3	8D	SF		2	C				
0026		09	16574	17012	1715	N12	W12	7558	08	8.8	18	SF	B 3.7				28		F
	HOLL	09	1657	1701	1721	N12	W11	7558	08	8.9	24	SF	B 3.7	3	E		38		F
	RAMY	09	1701	1703	1709	N11	W12	7558	08	8.8	8	SF		3	E		18		F
0027	HOLL	09	1957	1957	2031	N10	W13	7558	08	8.8	34	SF	B 7.8	3	E		62		F
0028	HOLL	09	2144	2159	2214	N10	W15	7558	08	8.8	30	SF	B 6.2	3	E		60		F
		09	2228		2233	No Flare Patrol													
		09	2244		2302	No Flare Patrol													
0029	HOLL	09	2312	2312	2318D	N09	W29	7562	08	7.8	6D	SF		3	E		14		
0030		10	00203	00225	0038	N10	W15	7558	08	8.9	18	SF	B 6.2				21	0.2	EF
	WATU	10	0020	0026	0031	N10	W15	7558	08	8.9	11	SN			C	0026	20	0.2	E
	LEAR	10	0021	0022	0045	N10	W14	7558	08	9.0	24	SF	B 6.2	3	E		16		F
	HOLL	10	0023	0027	0039	N10	W15	7558	08	8.9	16	SF		3	E		26		F
0031	LEAR	10	0027	0042	0052	N10	W31	7562	08	7.7	25	SF	B 7.1	3	E		12		F
0032		10	1225*	1239*	1305	N08	W36	7562	08	7.8	40	SF	B 5.0				65	2.2	FT
	HTPR	10	1225	1239	1324	N09	W37	7562	08	7.7	59	1F			C	1239	170	2.2	T
	RAMY	10	1236	1240	1251	N09	W36	7562	08	7.8	15	SF	B 5.0	3	E		47		F
	RAMY	10	1256	1257	1303	N09	W36	7562	08	7.8	7	SF		3	E		25		F
	SVTO	10	1257	1259	1303	N06	W36	7562	08	7.8	6	SF		3	E		17		F

Hα SOLAR FLARES

AUGUST 1993

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0033	SVTO	10	1322	1323	1332	N09	W23	7558	08	8.8	10	SF	B 4.7	3	E		17		F
0034		10	18552	19041	1944	N09	W26	7558	08	8.8	49	1N	C 4.6				169		FU
	HOLL	10	1855	1905	1948	N12	W26	7558	08	8.8	53	1N	C 4.6	3	E		172		UF
	RAMY	10	1857	1904	1941	N06	W26	7558	08	8.8	44	1N		3	E		166		UF
0035		10	1939	19392	1949	N09	W42	7562	08	7.7	10	SF					14		H
	RAMY	10	1939	1939	1952	N09	W42	7562	08	7.7	13	SF		3	E		17		
	HOLL	10	1939	1941	1946	N09	W41	7562	08	7.7	7	SF		3	E		11		H
0036	HOLL	10	2033	2034	2047	N09	W41	7562	08	7.8	14	SF	B 5.1	3	E		12		
0037	HOLL	10	2101	2118	2217	N09	W41	7562	08	7.8	76	SF	B 4.8	3	E		17		FH
		10	2302		2319	No Flare Patrol													
0038	LEAR	10	2321E	2322U	2341	N09	W42	7562	08	7.8	20D	SF		2	E		22		F
		11	0018		0019	No Flare Patrol													
0039	LEAR	11	0054	0059	0107	N09	W43	7562	08	7.8	13	SF		3	E		22		F
0040		11	01403	01457	0201	N11	W44	7562	08	7.7	21	1N	B 3.8				124	2.7	F
	LEAR	11	0140	0145	0208	N10	W44	7562	08	7.8	28	SF	B 3.8	3	E		57		F
	MITK	11	0143	0152	0154	N12	W44	7562	08	7.7	11	1B			C	0152	190	2.7	
0041		11	02481	02502	0306	N11	W45	7562	08	7.7	18	SF	C 1.7				101	1.6	EF
	LEAR	11	0248	0250	0311	N10	W45	7562	08	7.7	23	SF	C 1.7	3	E		81		F
	WATU	11	0249	0250	0302	N11	W45	7562	08	7.7	13	SF			C	0250	40	0.6	E
	MITK	11	0249	0252	0305	N12	W45	7562	08	7.7	16	1N			C	0252	181	2.6	
0042		11	0334	0336	0352	N10	W44	7562	08	7.8	18	SN	B 7.9				78	1.6	F
	MITK	11	0334	0336	0337	N12	W45	7562	08	7.7	3	SN			C	0336	112	1.6	
	LEAR	11	0334	0336	0407	N09	W44	7562	08	7.8	33	SF	B 7.9	3	E		43		F
0043	SVTO	11	0515E	0535	0539	N07	W46	7562	08	7.8	24D	SF	B 7.6	3	E		13		F
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	SVTO	11	0550	0552	0602	N07	W46	7562	08	7.8	12	SF	B 8.8	3	E		16		F
	KANZ	11	0550	0554	0606	N09	W46	7562	08	7.8	16	SF		2	C				
0045	MITK	11	0737	0742	0748	N13	W46	7562	08	7.8	11	SN			C	0742	63	0.9	D
0046		11	0735*	07511	0759	N11	W47	7562	08	7.8	24	SF	B 7.6				70	1.4	ET
	HTPR	11	0735	0752	0805	N10	W48	7562	08	7.7	30	SF			C	0752	60	0.9	T
	LEAR	11	0750	0751	0755	N11	W46	7562	08	7.9	5	SF	B 7.6	3	E		29		
	MITK	11	0750	0752	0756	N14	W46	7562	08	7.8	6	SN			C	0752	120	1.8	E
	KANZ	11	0755E		0755D	N09	W47	7562	08	7.8	6D	SF		2	C				
0047	HTPR	11	0954	1000	1006	N07	W51	7562	08	7.6	12	SF			C	1000	80	1.3	DT
0048		11	10103	10227	1050	N08	W47	7562	08	7.9	40	SN	M 1.5				122	2.2	EFTU
	HTPR	11	1010	1027	1048	N08	W47	7562	08	7.9	38	1B			C	1027	150	2.2	ETU
	SVTO	11	1013	1029	1052	N07	W48	7562	08	7.8	39	SN	M 1.5	3	E		94		F
	KANZ	11	1017E	1022	1048D	N09	W46	7562	08	8.0	31D	SN		2	C				
0049		11	14361	14401	1505	N08	W52	7562	08	7.7	29	SF	C 1.1				15		
	KANZ	11	1436	1440	1504	N08	W52	7562	08	7.7	28	SF		2	C				
	HOLL	11	1437	1441	1506	N08	W52	7562	08	7.7	29	SF	C 1.1	3	E		15		
0050	KANZ	11	1524	1532	1604	S11	E68		08	16.7	40	SF		2	C				
0051		11	1552*	16334	1700	S01	E68	7563	08	16.7	68	SF	C 4.4				71		FH
	KANZ	11	1552	1633	1701D	S03	E71	7563	08	17.0	69D	SF		2	C				
	HOLL	11	1552	1635	1711	S02	E67	7563	08	16.7	79	SF	C 4.4	3	E		88		FH
	SVTO	11	1630	1637	1649	N01	E67	7563	08	16.7	19	SF		3	E		54		F
0052	HOLL	11	1804	1806	1814	N08	W53	7562	08	7.8	10	SF		3	E		15		F

Hα SOLAR FLARES

AUGUST 1993

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0053	HOLL	11	1746	1753	1801	S04	E65	7563	08	16.6	15	SF		3	E		17		FH
0054	RAMY	11	1802	1803	1806	S04	E68	7563	08	16.8	4	SF		3	E		11		
0055	HOLL	11	1805	1817	1908	S02	E64	7563	08	16.5	63	SF		3	E		46		F
0056	HOLL	11	2024	2029	2032	N08	W53	7562	08	7.9	8	SF		3	E		17		F
		11	2201		2344	No Flare Patrol													
0057	KANZ	12	0801	0801	0805	S01	E60	7563	08	16.8	4	SF		2	C				
0058		12	11211	11211	1130	S02	E56	7563	08	16.6	9	SF					13		F
	KANZ	12	1121	1121	1133	S03	E56	7563	08	16.6	12	SF		2	C				
	SVTO	12	1122	1122	1128	N00	E57	7563	08	16.7	6	SF		3	E		13		F
0059		12	14011	14022	1406	N09	W64	7562	08	7.8	5	SF	B 2.8				13		FH
	SVTO	12	1401	1404	1406	N08	W64	7562	08	7.8	5	SF	B 2.8	3	E		13		FH
	KANZ	12	1402	1402	1407	N10	W63	7562	08	7.8	5	SF		2	C				
0060		12	1717	17231	1742	N12	W48	7558	08	9.1	25	SF	B 4.1				40		F
	HOLL	12	1717	1723	1756	N12	W51	7558	08	8.9	39	SF	B 4.1	3	E		39		F
	SVTO	12	1720E	1724	1728	N13	W45	7558	08	9.3	8D	SF		1	E		41		F
0061	RAMY	12	1722	1722	1726	N03	W51	7558	08	8.9	4	SF		3	E		12		F
		12	2031		2100	No Flare Patrol													
		12	2203		2322	No Flare Patrol													
		13	0324		0329	No Flare Patrol													
0062	HTPR	13	0614	0616	0628	S04	E43	7563	08	16.5	14	SF			C	0616	10	0.1	E
0063	BUCA	13	0735	0800	0813	S03	E46	7563	08	16.7	38	SF			C	0800	107	0.2	D
0064		13	08303	08337	0855	S03	E44	7563	08	16.6	25	SN					20	0.3	EF
	HTPR	13	0830	0833	0848	S04	E43	7563	08	16.6	18	SF			C	0833	20	0.3	
	KANZ	13	0832	0840	0900	S03	E44	7563	08	16.6	28	SF		2	C				
	ISTA	13	0833		0858	S02	E45	7563	08	16.7	25	1B			P				EF
0065		13	08563	09003	0920	S11	E53	7563	08	17.3	24	SF					30	0.6	C
	KANZ	13	0856	0900	0924	S10	E56	7563	08	17.6	28	SF		2	C				
	HTPR	13	0859	0903	0917	S12	E50	7563	08	17.1	18	SF			C	0903	30	0.6	C
0066	KANZ	13	1112	1116	1120	N11	W75	7562	08	7.8	8	SF		2	C				
0067	KANZ	13	1240	1244	1252	S09	E46	7563	08	17.0	12	SF		2	C				
0068		13	12411	12431	1251	S01	E45	7563	08	16.9	10	SF	C 1.8				58	1.4	H
	HTPR	13	1241	1243	1247	S02	E45	7563	08	16.9	6	SN			C	1243	100	1.4	
	RAMY	13	1242	1244	1249	N00	E46	7563	08	17.0	7	SF	C 1.8	3	E		36		
	SVTO	13	1242	1244U	1253	N01	E46	7563	08	17.0	11	SF		3	E		55		
	HOLL	13	1245E	1251U	1255	S02	E42	7563	08	16.7	10D	SF		1	E		42		H
0069	KANZ	13	1312	1312	1316	S02	E46	7563	08	17.0	4	SF		2	C				
0070		13	13445	13448	1353	S01	E45	7563	08	16.9	9	SF					20	0.4	D
	KANZ	13	1344	1344	1352	S01	E45	7563	08	16.9	8	SF		2	C				
	HTPR	13	1348	1350	1354	S02	E45	7563	08	16.9	6	SF			C	1350	30	0.4	D
	HOLL	13	1349	1352	1354	S01	E44	7563	08	16.9	5	SF		3	E		11		
0071	KANZ	13	1420	1420	1424	S03	E45	7563	08	16.9	4	SF		2	C				
0072		13	2018	20281	2034	S00	E40	7563	08	16.8	16	SF	C 1.1				33		H
	HOLL	13	2018	2028	2035	S01	E40	7563	08	16.8	17	SF	C 1.1	3	E		50		H
	RAMY	13	2024E	2029	2033	N00	E41	7563	08	16.9	9D	SF		3	E		16		
		13	2246		2315	No Flare Patrol													
0073	LEAR	13	2316E	2318	2330	N13	W68	7558	08	8.8	14D	SF	B 7.9	2	E		20		F

Hα SOLAR FLARES

AUGUST 1993

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
		14	0000		0000	No Flare Patrol													
0074		14	0037	0039	0044	S02	E36	7563	08	16.7	7	SN	B 9.3				17	0.3	EF
	HOLL	14	0037	0039	0043	S02	E33	7563	08	16.5	6	SF	B 9.3	3	E		14		F
	WATU	14	0039E	0039	0046	S01	E38	7563	08	16.9	7D	SN			P	0039	20	0.3	E
0075		14	11453	11475	1159	S00	E32	7563	08	16.9	14	SN					80	1.0	
	HTPR	14	1145	1147	1158	S00	E32	7563	08	16.9	13	SB			C	1147	80	1.0	
	KANZ	14	1148	1152	1200	S01	E32	7563	08	16.9	12	SF		2	C				
0076	KANZ	14	1244	1248	1252	S02	E33	7563	08	17.0	8	SF		2	C				
0077	SVTO	14	1245	1245	1248	N00	E26	7563	08	16.5	3	SF	B 1.9	3	E		14		
0078	KANZ	14	1536	1540	1548	S02	E30	7563	08	16.9	12	SF		2	C				
		14	1756		2212	No Flare Patrol													
		14	2235		2331	No Flare Patrol													
		16	1721		1832	No Flare Patrol													
		16	2001		2025	No Flare Patrol													
		16	2048		2120	No Flare Patrol													
		16	2135		2315	No Flare Patrol													
0079	HOLL	17	2027	2028	2037	S08	E78	7566	08	23.7	10	SF	C 1.3	3	E		25		
		17	2235		2248	No Flare Patrol													
		17	2252		2302	No Flare Patrol													
		18	1749		1806	No Flare Patrol													
		18	2024		2038	No Flare Patrol													
		18	2047		2055	No Flare Patrol													
		18	2256		2317	No Flare Patrol													
0080		19	08084	08085	0835	S06	E60	7566	08	23.8	27	SF	B 6.2				36		EF
	LEAR	19	0808	0808	0827	S07	E60	7566	08	23.8	19	SF		3	E		49		F
	SVTO	19	0810	0813	0823	S04	E58	7566	08	23.7	13	SF	B 6.2	3	E		23		F
	ISTA	19	0812		0855	S08	E62	7566	08	24.0	43	1N			P				EF
		19	1646		1658	No Flare Patrol													
		19	1721		1942	No Flare Patrol													
		19	2144		2319	No Flare Patrol													
0081		20	1036*	1036*	1036	S10	E40	7566	08	23.4	43	SF							
	KANZ	20	1036	1036	1036	S09	E40	7566	08	23.4	43	SF		2	C				
	KANZ	20	1048	1048	1052D	S10	E40	7566	08	23.4	4D	SF		2	C				
0082	KANZ	21	0720	0724	0728	S12	E31	7566	08	23.6	8	SF		2	C				
0083		21	0836	08382	0846	S11	E30	7566	08	23.6	10	SF	B 2.9				14		H
	SVTO	21	0836	0838	0843	S10	E30	7566	08	23.6	7	SF	B 2.9	3	E		14		H
	KANZ	21	0836	0840	0848	S12	E30	7566	08	23.6	12	SF		2	C				
0084		21	1120	11222	1128	S10	E28	7566	08	23.6	8	SF					13		FH
	RAMY	21	1120	1122	1127	S10	E29	7566	08	23.6	7	SF		3	E		13		FH
	KANZ	21	1120	1124	1128	S11	E28	7566	08	23.6	8	SF		2	C				
0085	KANZ	21	1529	1533	1553	S08	E32	7566	08	24.0	24	SF		2	C				
0086		21	15319	15405	1557	S04	E26	7566	08	23.6	26	SF	B 8.9				22		F
	HOLL	21	1531	1541	1605	S07	E28	7566	08	23.7	34	SF		3	E		30		F
	KANZ	21	1533	1545	1605	S05	E26	7566	08	23.6	32	SF		2	C				
	SVTO	21	1539	1540	1552	S03	E26	7566	08	23.6	13	SF		3	E		19		
	RAMY	21	1540	1540	1546	S02	E26	7566	08	23.6	6	SF	B 8.9	4	E		17		
		22	2242		2252	No Flare Patrol													
0087	SVTO	23	1405	1405	1409	S09	E04	7566	08	23.9	4	SF	B 3.1	3	E		12		F
0088	HOLL	23	1624	1644	1657	N10	E36	7568	08	26.4	33	SF		3	E		30		F
		23	1716		1732	No Flare Patrol													

Hα SOLAR FLARES

AUGUST 1993

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
		25	0444		0450	No Flare Patrol													
0089	SVTO	25	1120	1122	1142	S08	W22	7566	08	23.8	22	SF	B 4.3	3	E		30		F
		25	1650		1706	No Flare Patrol													
		25	1909		1921	No Flare Patrol													
		25	1944		2244	No Flare Patrol													
		25	2251		2301	No Flare Patrol													
		26	0339		0342	No Flare Patrol													
		26	0344		0403	No Flare Patrol													
		26	0407		0413	No Flare Patrol													
		26	0417		0419	No Flare Patrol													
		26	0424		0428	No Flare Patrol													
		26	0430		0432	No Flare Patrol													
		26	0434		0448	No Flare Patrol													
		26	0452		0453	No Flare Patrol													
		26	0455		0506	No Flare Patrol													
		26	0511		0514	No Flare Patrol													
0090	SVTO	26	1038	1038	1048	N07	E61	7573	08	31.0	10	SF	B 2.3	3	E		12		H
		26	2119		2137	No Flare Patrol													
		26	2202		2311	No Flare Patrol													
		27	1944		1956	No Flare Patrol													
		28	1001		1036	No Flare Patrol													
		28	2129		2237	No Flare Patrol													
		29	0906		1033	No Flare Patrol													
		29	2207		2254	No Flare Patrol													
		30	1732		1919	No Flare Patrol													
		30	2251		2314	No Flare Patrol													
		31	0000		0000	No Flare Patrol													
		31	0450		0515	No Flare Patrol													

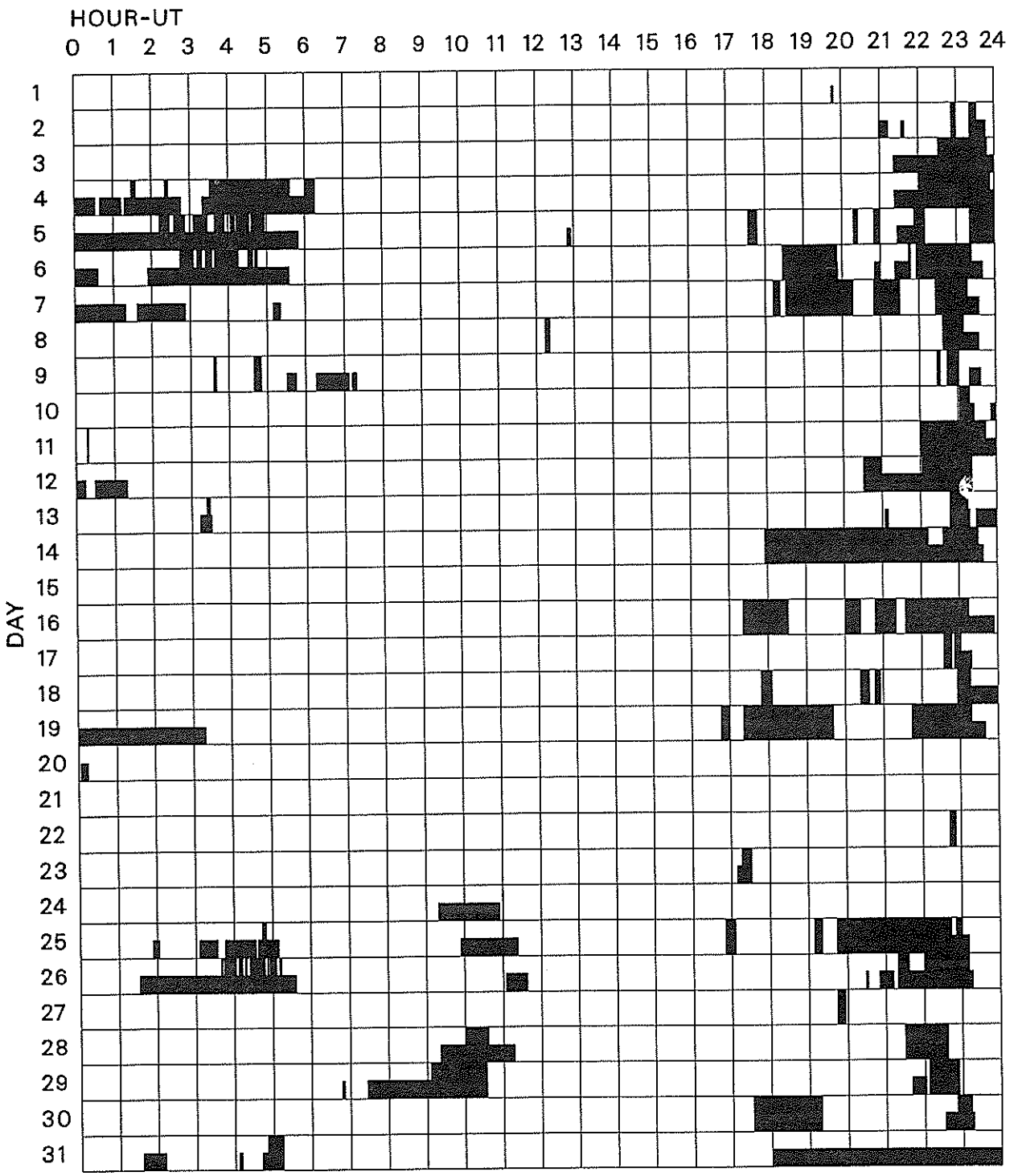
"Remarks"

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

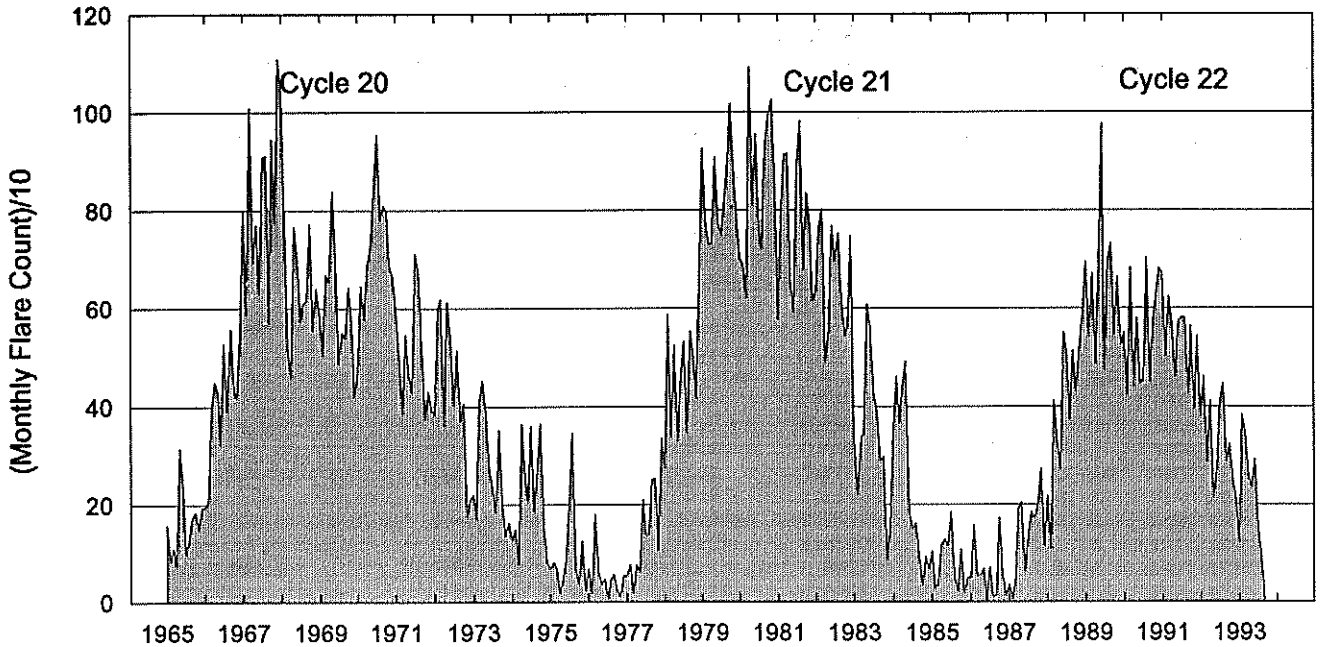
AUGUST 1993



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 nor cinematographic); portions of a panel with only the bottom half shaded mark times of only visual patrol.

Athens	Holloman	Learmonth	San Vito
Bucharest	Istanbul	Mitaka	Watukosek
Haute Province	Kanzelhoehe	Ramey	Yunnan

Monthly Counts of Grouped Solar Flares



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	121	384	347	259	235	293	150	90					1879

Monthly totals for the last 6 months may change significantly, as more stations submit their reports.
The term "grouped" means that observations of the same event by different sites have been lumped together and counted as one.

SOLAR RADIO EMISSION
Outstanding Occurrences

AUGUST 1993

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
01	127	TORN	44	NS	0830.0E		390.0D		10.0		V=1
	204	IZMI	43	NS	1000.0		120.0D		5.0		
	260	ONDR	40	F	0930.0	1028.0	150.0	80.0			
	127	TORN	4	S/F	1019.1	1019.7	1.4	60.0	30.0		
	127	TORN	46	C	1207.4	1209.7	16.0	1900.0	90.0		
02	127	TORN	43	NS	1030.0		270.0D		1.0		V=1
	235	CUBA	44	NS	1316.0E		414.0D		9.0		
	280	CUBA	44	NS	1316.0E		414.0D		16.0		
	204	IZMI	4	S/F	0701.5	0702.0	1.0	39.0			
	9100	GORK	2	S/F	0803.5	0803.6	0.4D	13.0			
	2950	GORK	1	S	0825.2	0826.0	1.8	2.0			
	127	TORN	46	C	0921.0	0921.7	3.3	110.0	30.0		
	33	UPIC	2	S/F	0921.5	0921.6	0.6				
	260	ONDR	40	F	0925.0	1220.0	210.0	320.0			
	204	IZMI	7	C	0926.3	0926.5	12.0	20.0			
	127	TORN	6	S	1244.0	1244.6	1.3	40.0	20.0		
	536	ONDR	42	SER	1254.5	1256.0	11.0	65.0			
	2800	PENT	3	S	1926.8	1927.5	3.8	10.0	2.0		
03	245	LEAR	43	NS	0358.0	0358.0	137.0	57.0			QL=4 ST=3 TYP=1
	245	SVTO	43	NS	0409.0	0425.0U	1191.0	58.0			QL=4 ST=3 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D		15.0		
	127	TORN	44	NS	0620.0E		520.0D		20.0		V=2
	245	SVTO	43	NS	1107.0	1215.0	90.0	88.0			QL=4 ST=2 TYP=1
	280	CUBA	44	NS	1304.0E		466.0D		14.0		
	235	CUBA	44	NS	1304.0E		466.0D		11.0		
	260	ONDR	40	F	1045.0	1129.5	125.0	80.0			
	204	IZMI	25	R	1125.0	1143.0	28.0	180.0			
	33	UPIC	45	C	1127.7	1128.4	1.8				
	245	SGMR	8	S	1134.0	1135.0	2.0	58.0			QL=4 ST=2 TYP=3
	245	SGMR	4	S/F	1140.0	1141.0	6.0	65.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1214.0	1215.0	1.0	100.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1339.0	1339.0	1.0	95.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	1339.0	1339.0	1.0	170.0			QL=4 ST=2 TYP=3
	33	UPIC	2	S/F	1422.7	1423.0	0.6				
04	260	ONDR	44	NS	0700.0E	1109.5	540.0D	80.0			
	245	LEAR	8	S	0117.0	0117.0	1.0	56.0			QL=4 ST=2 TYP=3
	2800	HIRA	45	C	0222.3	0223.0	4.0	18.0	10.0		WL
	204	IZMI	41	F	0601.0	0602.3	3.0	130.0			
	204	IZMI	41	F	0759.0	0800.0	2.0	35.0			
	3013	IZMI	5	S	0837.0	0840.5	3.5	3.0	1.5		
	245	LEAR	8	S	0839.0	0840.0	1.0	120.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0839.0	0839.0	1.0	55.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0839.0	0840.0	1.0	130.0			QL=4 ST=2 TYP=3
	2950	GORK	1	S	0839.0	0840.5	3.0	3.0			
	950	GORK	1	S	0839.2	0840.5	2.8	6.0			
	410	LEAR	8	S	0840.0	0840.0	U	45.0			QL=4 ST=2 TYP=3
	204	IZMI	5	S	1021.5	1022.0	1.2	19.0	8.0		
	245	SVTO	8	S	1103.0	1105.0	2.0	54.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1105.0	1105.0	U	65.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1428.0	1428.0	1.0	62.0			QL=4 ST=3 TYP=3
	245	SGMR	8	S	1908.0	1908.0	U	86.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	2114.4	2114.6	0.6	25.0	16.0		O
05	235	CUBA	44	NS	1410.0E		327.0D		11.0		
	280	CUBA	44	NS	1410.0E		327.0D		15.0		
	2800	HIRA	4	S/F	0112.4	0115.5	7.0	5.0	2.0		O
	2800	HIRA	41	F	0556.8	0558.6	3.0	7.0			O
	2950	GORK	45	C	0557.0	0559.0	3.0	4.0			
	3013	IZMI	41	F	0557.0	0559.3	4.0	6.0			
	9100	GORK	3	S	0558.5	0558.6	0.3	5.9			
	204	IZMI	5	S	0816.6	0817.0	1.2	25.0	12.0		
	260	ONDR	40	F	1000.0	1230.0	180.0	130.0			
	610	SGMR	8	S	1436.0	1437.0	1.0	40.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1436.0	1437.0	1.0	160.0			QL=4 ST=2 TYP=3
	410	SVTO	4	S/F	1436.0	1437.0	5.0	220.0			QL=4 ST=2 TYP=3
	2800	HIRA	8	S	2204.0	2204.0	0.8	3.0	2.0		O

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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
06	2800	HIRA	1	S	0520.6	0521.9	3.0	6.0	3.0		O
	2950	GORK	1	S	0521.0	0522.0	2.5	5.0			
	950	GORK	1	S	0521.0	0522.0	2.5	2.0			
08	2950	GORK	1	S	0924.0	0925.9	6.7	3.0			
	260	ONDR	8	S	0925.0	0925.5	1.0	40.0			
	950	GORK	1	S	0925.3	0926.0	1.5	6.0			
09	2800	HIRA	20	GRF	0204.8	0212.4	38.0	3.0	2.0		O
	204	IZMI	41	F	0609.5	0610.0	1.5	350.0			
	245	LEAR	8	S	0726.0	0727.0	2.0	530.0			QL=/ ST=/ TYP=5
	2695	LEAR	8	S	0726.0	0727.0	2.0	53.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0726.0	0726.0	1.0	530.0			QL=4 ST=2 TYP=6
	245	SVTO	8	S	0726.0	0726.0	1.0	470.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	0726.4	0727.0	3.0	300.0			
	1415	LEAR	8	S	0727.0	0728.0	1.0	320.0			QL=4 ST=2 TYP=3
	260	ONDR	42	SER	0727.0	0825.0	215.0	100.0			
	9100	GORK	2	S/F	0730.1	0730.4	0.6	17.0			
	204	IZMI	42	SER	0818.5	0825.0	13.8	210.0			
	245	LEAR	8	S	0824.0	0825.0	1.0	59.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0824.0	0825.0	1.0	51.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	1002.2	1013.5	14.0	68.0			
	3013	IZMI	20	GRF	1011.0	1013.5	7.5	5.0	3.0		
	33	UPIC	4	S/F	1228.3	1228.4	0.7				
	610	PALE	4	S/F	1722.0	1725.0	3.0	66.0			QL=4 ST=2 TYP=3
	245	PALE	4	S/F	1723.0	1725.0	3.0	330.0			QL=4 ST=2 TYP=3
	1415	PALE	4	S/F	1723.0	1725.0	3.0	21.0			QL=4 ST=2 TYP=3
	245	SGMR	4	S/F	1723.0	1725.0	3.0	340.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1724.0	1725.0	1.0	65.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2022.0	2022.0	U	75.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2022.0	2022.0	U	76.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	2138.0	2139.0	1.0	37.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	2138.7	2139.0	0.4	8.0			O
	410	PALE	8	S	2141.0	2141.0	U	73.0			QL=4 ST=2 TYP=3
	2800	HIRA	1	S	2156.4	2158.8	3.0	5.0	3.0		O
10	9100	GORK	3	S	0435.0	0435.5	0.8	24.0			
	2800	PENT	22	GRF	1847.6	1903.0	88.1	25.9	5.0		
	4995	SGMR	8	S	1902.0	1902.0	1.0	28.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1902.0	1903.0	1.0	29.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1903.0	1903.0	2.0	190.0			QL=4 ST=2 TYP=3
11	127	TORN	44	NS	1010.0E		124.0D		10.0		V=0
	9100	GORK	7	C	0333.8	0335.5	2.2	16.0			
	2950	GORK	1	S	0334.0	0334.6	1.2	2.0			
	9100	GORK	1	S	0405.5	0406.7	1.9	4.0			
	2950	GORK	1	S	0406.0	0407.4	3.0	2.0			
	2950	GORK	1	S	0548.9	0549.9	1.7	2.0			
	9100	GORK	7	C	0549.1	0549.8	1.5	8.0			
	204	IZMI	5	S	0703.0	0703.5	1.0	23.0			
	204	IZMI	42	SER	0830.0	0836.5	90.0	34.0	5.0		
	204	IZMI	42	SER	0925.0	0932.0	29.0	3.0			
	2840	PEKG	41	F	1002.0	1020.0	20.0	14.4			
	3100	BERN	46	C	1003.5	1018.0	58.7	6.3			
	5200	BERN	46	C	1005.7	1018.1	54.8	3.2			
	3013	IZMI	41	F	1012.0	1022.0	17.0	34.0			
	536	ONDR	47	GB	1012.0	1015.5	25.5	100.0			
	260	ONDR	47	GB	1014.0	1025.5	15.0	63.0			
	3000	ONDR	20	GRF	1014.5	1022.0	15.0				
	204	IZMI	45	C	1015.0	1024.0	26.0	13.0			
	410	SGMR	4	S/F	1023.0	1026.0	4.0	20.0			QL=2 ST=2 TYP=3
	410	SVTO	4	S/F	1023.0	1024.0	3.0	33.0			QL=4 ST=2 TYP=3
	245	SGMR	4	S/F	1024.0	1026.0	7.0	13.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	1024.0	1025.0	2.0	120.0			QL=4 ST=2 TYP=3
	33	UPIC	46	C	1024.0	1026.5	17.5				
	536	ONDR	47	GB	1113.5	1130.0	25.5	50.0			
	260	ONDR	47	GB	1118.0	1129.0	29.0	75.0			
	410	SVTO	4	S/F	1124.0E	1131.0	18.0D	76.0			QL=2 ST=3 TYP=5
	204	IZMI	45	C	1124.0	1135.0	27.0	10.0			

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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
11	610	SGMR	4	S/F	1125.0	1129.0	7.0	27.0			QL=4 ST=3 TYP=3
	410	SGMR	4	S/F	1125.0	1129.0	17.0	69.0			QL=4 ST=3 TYP=3
	245	SGMR	4	S/F	1126.0	1130.0	12.0	21.0			QL=4 ST=3 TYP=3
	808	ONDR	20	GRF	1127.0	1131.5	10.0				
	1415	SGMR	8	S	1129.0	1130.0	2.0	12.0			QL=4 ST=3 TYP=3
	410	SVTO	4	S/F	1132.0	1135.0	5.0	66.0			QL=4 ST=2 TYP=5
12	2950	GORK	1	S	0759.1	0759.6	2.6	2.0			
	950	GORK	41	F	0912.0U	0912.5	1.0D	66.0			
	245	SGMR	8	S	1717.0	1717.0	1.0	280.0			QL=4 ST=3 TYP=3
	2800	PENT	20	GRF	2203.6	2225.1	127.0	7.8	4.0		
	2800	HIRA	20	GRF	2216.5	2225.5	26.0	9.0	6.0		0
13	245	SGMR	43	NS	2018.0	2018.0	11.0	240.0			QL=4 ST=2 TYP=1
	2800	HIRA	4	S/F	0251.0	0252.0	2.0	17.0	9.0		0
	410	SGMR	8	S	1241.0	1242.0	2.0	390.0			QL=4 ST=2 TYP=3
	245	SGMR	49	GB	1241.0	1241.0	2.0	5700.0			QL=4 ST=2 TYP=6
	410	SVTO	49	GB	1241.0	1241.0	1.0	800.0			QL=4 ST=2 TYP=6
	610	SVTO	8	S	1241.0	1241.0	1.0	52.0			QL=4 ST=3 TYP=3
	245	SVTO	49	GB	1241.0E	1241.0	1.0D	5500.0			QL=4 ST=3 TYP=6
	127	TORN	47	GB	1241.3	1242.0U	3.1	510.0D	180.0		
	33	UPIC	45	C	1242.3	1243.2	1.3				
	410	SVTO	8	S	1341.0	1342.0	1.0	360.0			QL=4 ST=3 TYP=3
	410	SGMR	8	S	1342.0	1342.0	U	230.0			QL=4 ST=2 TYP=3
	245	SGMR	49	GB	1342.0	1342.0	U	900.0			QL=4 ST=2 TYP=6
	245	SVTO	49	GB	1342.0	1342.0	U	850.0			QL=4 ST=3 TYP=6
	245	SGMR	4	S/F	1929.0	1930.0	3.0	56.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1956.0	1956.0	U	160.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2004.0	2005.0	1.0	52.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2103.0	2104.0	2.0	360.0			QL=4 ST=2 TYP=3
14	410	LEAR	8	S	0005.0	0005.0	1.0	17.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0005.0	0006.0	1.0	630.0			QL=4 ST=2 TYP=6
	500	HIRA	8	S	0005.7	0005.8	0.3	9.0	6.0		0
	245	LEAR	8	S	0006.0	0006.0	1.0	630.0			QL=/ ST=/ TYP=5
	245	LEAR	8	S	0034.0	0035.0	2.0	500.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0034.0	0035.0	2.0	36.0			QL=4 ST=2 TYP=3
	410	LEAR	49	GB	0034.0	0035.0	2.0	510.0			QL=4 ST=2 TYP=6
	500	HIRA	42	SER	0034.8	0035.0	4.0	100.0			WR
	245	LEAR	8	S	0035.0	0036.0	1.0	500.0			QL=/ ST=/ TYP=3
	410	LEAR	8	S	0035.0	0035.0	1.0	510.0			QL=/ ST=/ TYP=5
	3013	IZMI	41	F	1146.5	1146.7	4.0	7.0			
	410	SVTO	8	S	1244.0	1244.0	U	110.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1244.0	1244.0	U	120.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1758.0	1758.0	U	50.0			QL=4 ST=3 TYP=3
15	500	HIRA	8	S	0600.8	0601.0	0.8	40.0			0
	2950	GORK	1	S	0601.1	0601.4	1.0	1.0			
	204	IZMI	42	SER	0933.0	0936.2	16.0	112.0			
17	9100	GORK	3	S	0744.1	0744.4	0.5	4.9			
18	950	GORK	41	F	0537.5	0538.0	1.2	40.0			
	2950	GORK	1	S	0537.7	0538.0	0.6	2.0			
	9100	GORK	2	S/F	0921.8	0922.0	1.0	4.8			
	2950	GORK	1	S	0951.1	0951.6	0.8	2.0			
	9100	GORK	1	S	0951.5	0951.5	0.5	5.7			
	204	IZMI	41	F	0956.0	0956.3	1.5	70.0			
19	950	GORK	41	F	0424.3	0425.0	1.3	21.6			
	2950	GORK	2	S/F	0424.6	0424.9	0.6	5.0			
	950	GORK	41	F	0425.2E	0425.2		18.0			
20	33	UPIC	45	C	0730.3	0730.5	1.5				
	33	UPIC	4	S/F	0954.5	0954.7	1.2				
	127	TORN	47	GB	1144.8	1146.2	5.4	280.0D	90.0		
	204	IZMI	42	SER	1145.5	1148.5	6.0	27.0			
	33	UPIC	46	C	1145.6	1148.3	4.1				

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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
21	500	HIRA	8	S	0011.1	0011.2	0.2	4.0			ML
	245	SVTO	8	S	0432.0	0433.0	1.0	140.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0433.0	0433.0	U	140.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0433.0	0433.0	U	130.0			QL=2 ST=2 TYP=3
	204	IZMI	41	F	0718.0	0719.0	2.0	200.0			
	33	UPIC	45	C	0718.0	0718.5	1.5				
	127	TORN	4	S/F	0831.9	0833.7	3.0	760.0D	380.0		
	204	IZMI	42	SER	0832.5	0833.5	11.0	380.0			
	33	UPIC	46	C	0832.5	0833.5	10.0				
	260	ONDR	42	SER	0832.5	0833.5	177.5	80.0			
	245	SVTO	8	S	0833.0	0833.0	1.0	61.0			QL=4 ST=2 TYP=3
	536	ONDR	8	S	0833.0	0833.2	1.0	48.0			
	500	HIRA	46	C	0833.2	0833.8	1.5	21.0	10.0		WL
	33	UPIC	46	C	1116.5	1122.4	8.0				
	204	IZMI	42	SER	1116.5	1118.5	17.0	1800.0			
	127	TORN	46	C	1116.5	1123.8	11.0	140.0			DISTURBED
	127	TORN	4	S/F	1117.2	1118.6	2.2	500.0	250.0		
	127	TORN	42	SER	1333.1	1333.3	6.0	30.0			
	127	TORN	42	SER	1432.1	1434.7	3.5	50.0D			
	2800	PENT	20	GRF	1521.8	1540.0	120.0	7.2	3.0		
22	245	PALE	43	NS	1727.0	1920.0	673.0	290.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1847.0	1921.0	212.0	150.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	2326.0	0156.0	627.0	210.0			QL=4 ST=3 TYP=1
	245	PALE	4	S/F	0412.0	0415.0	5.0	70.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0415.0	0415.0	1.0	69.0			QL=4 ST=2 TYP=3
	500	HIRA	46	C	0415.0	0415.3	1.3	29.0	9.0		WL
	260	ONDR	42	SER	0800.0	0818.3	200.0	125.0			
	245	LEAR	8	S	0820.0	0822.0	2.0	180.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0822.0	0822.0	U	210.0			QL=4 ST=3 TYP=3
	15400	LEAR	8	S	0840.0	0840.0	1.0	30.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0842.0	0842.0	U	100.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0842.0	0842.0	U	130.0			QL=4 ST=3 TYP=3
	204	IZMI	41	F	0842.4	0842.5	1.3	75.0			
	245	SGMR	8	S	1226.0	1226.0	1.0	55.0			QL=4 ST=2 TYP=3
	33	UPIC	4	S/F	1303.1	1303.7	0.9				
	245	SGMR	4	S/F	1726.0	1727.0	3.0	38.0			QL=4 ST=2 TYP=3
23	204	IZMI	43	NS	0730.0		150.0D		10.0		
	260	ONDR	44	NS	0800.0E	0925.0	280.0D	200.0			
	127	TORN	43	NS	1140.0		200.0D		5.0		V=1
	245	SVTO	8	S	0650.0	0650.0	1.0	39.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0650.0	0650.0	1.0	72.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0722.0	0722.0	U	61.0			QL=4 ST=2 TYP=3
	33	UPIC	8	S	1150.0	1150.2	0.5				
	245	SGMR	8	S	1506.0	1507.0	1.0	53.0			QL=4 ST=3 TYP=3
24	204	IZMI	42	SER	0800.0	0800.9	7.0	95.0			
25	33	UPIC	8	S	0950.0	0950.7	1.5				
	204	IZMI	5	S	0950.5	0950.6	0.2	380.0	300.0		
27	9100	GORK	1	S	0748.9	0749.0	0.5	7.8			
28	204	IZMI	42	SER	0647.5	0653.0	14.3	55.0			

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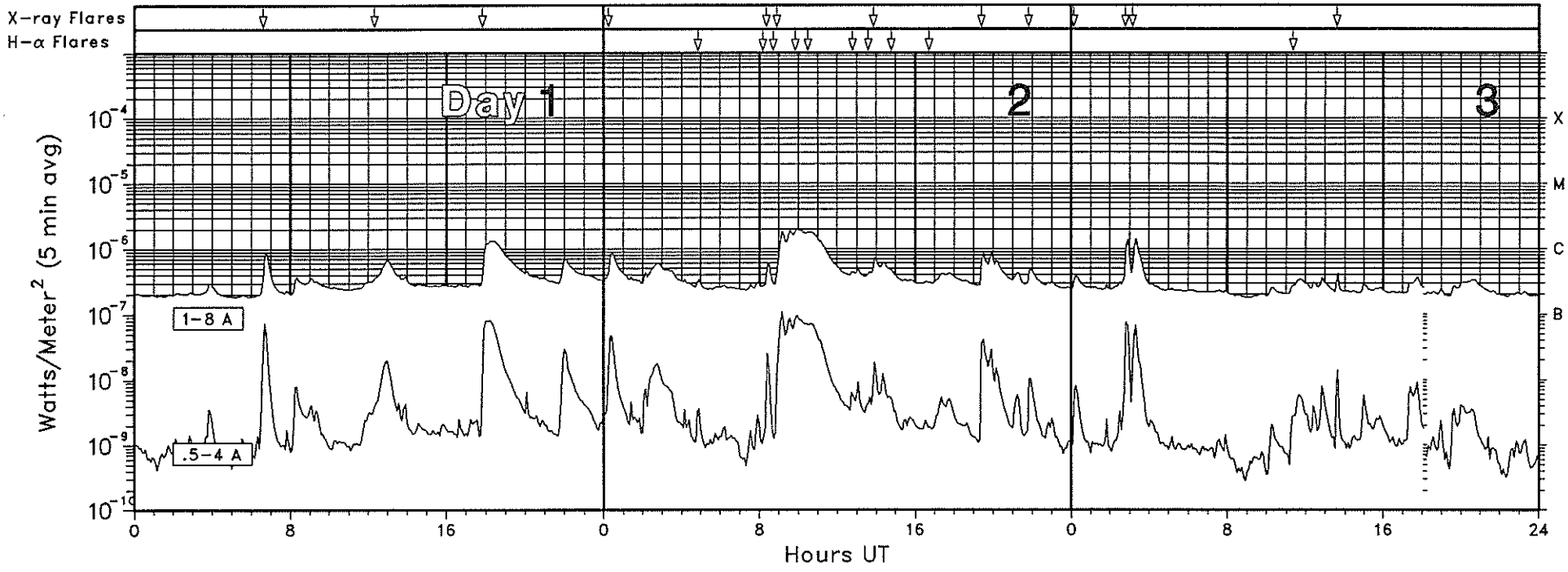
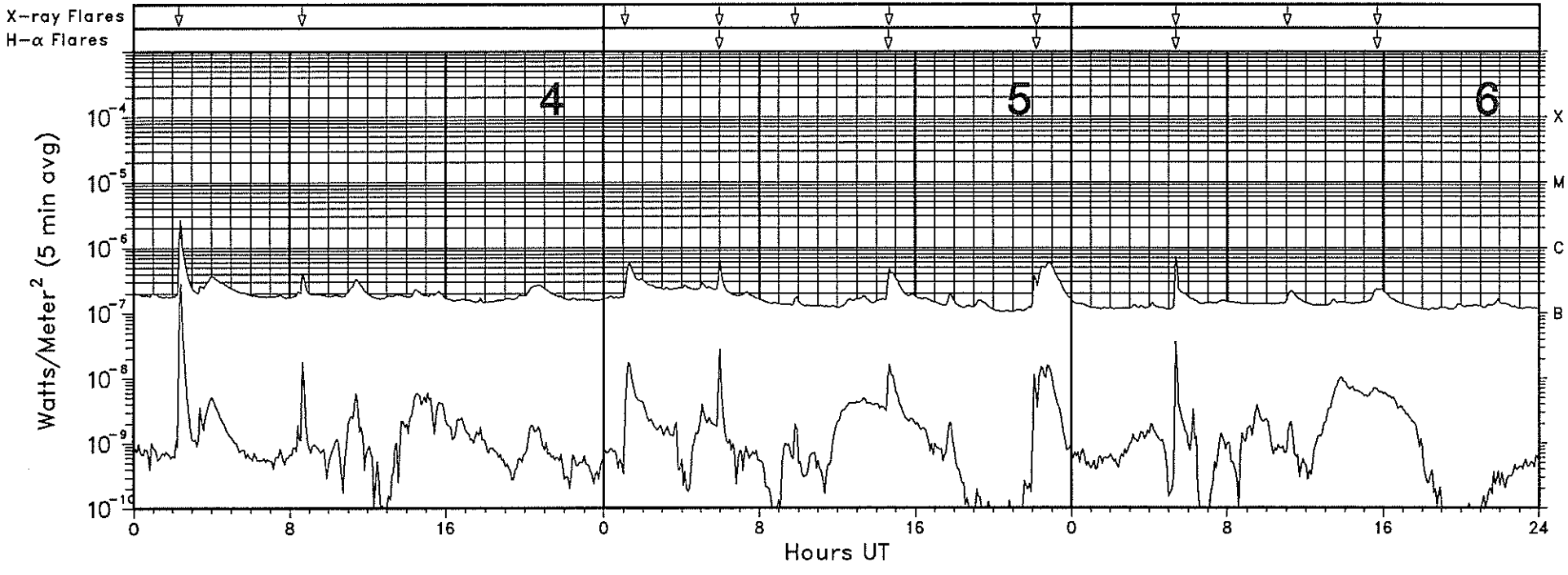
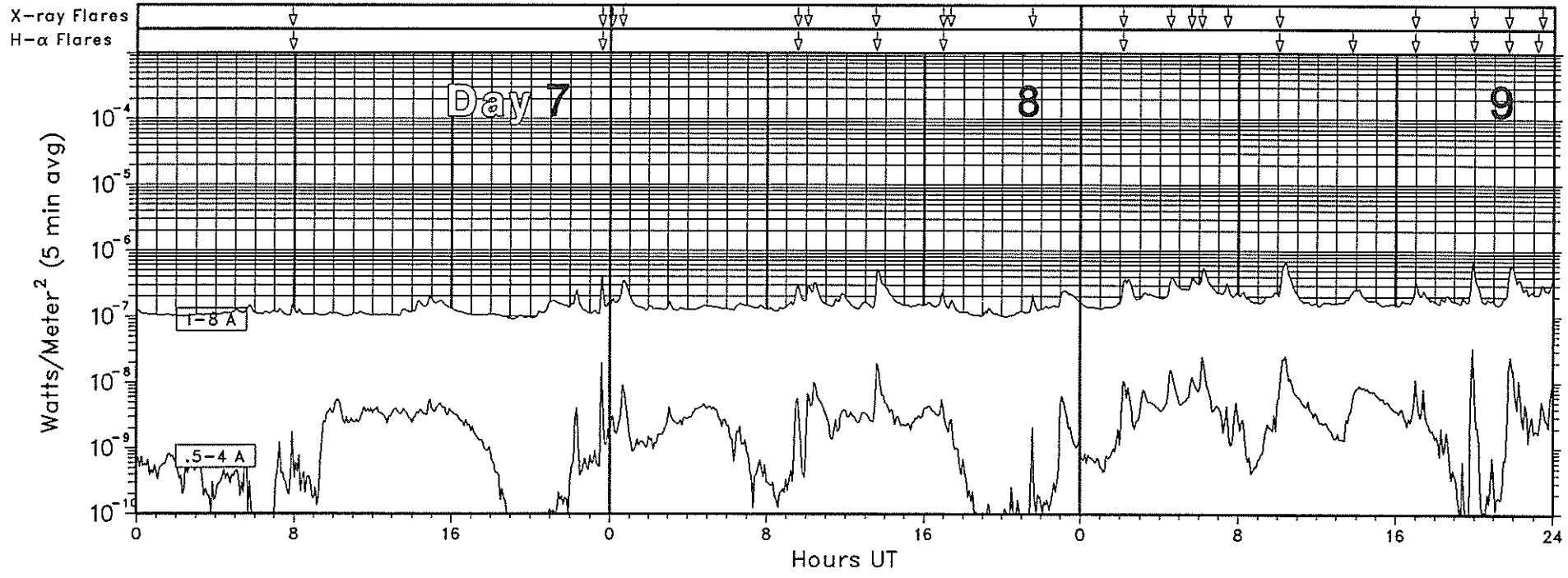
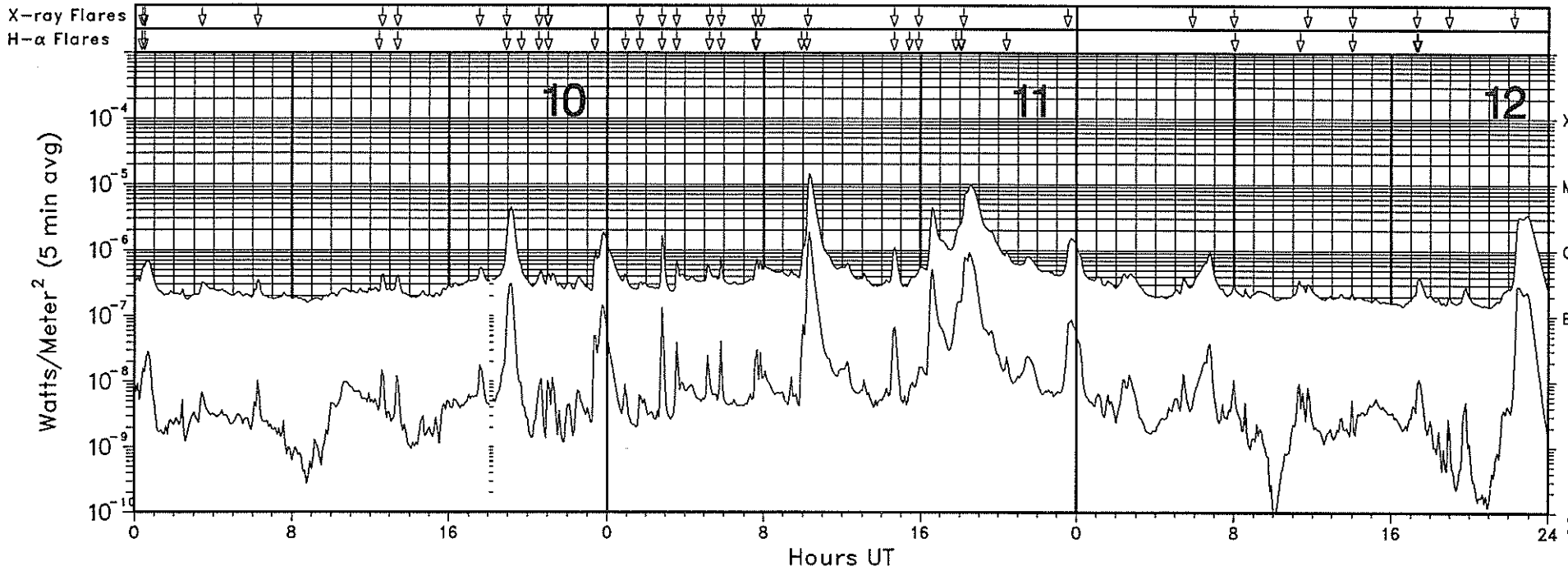




GOES-7 X-RAY DETECTOR

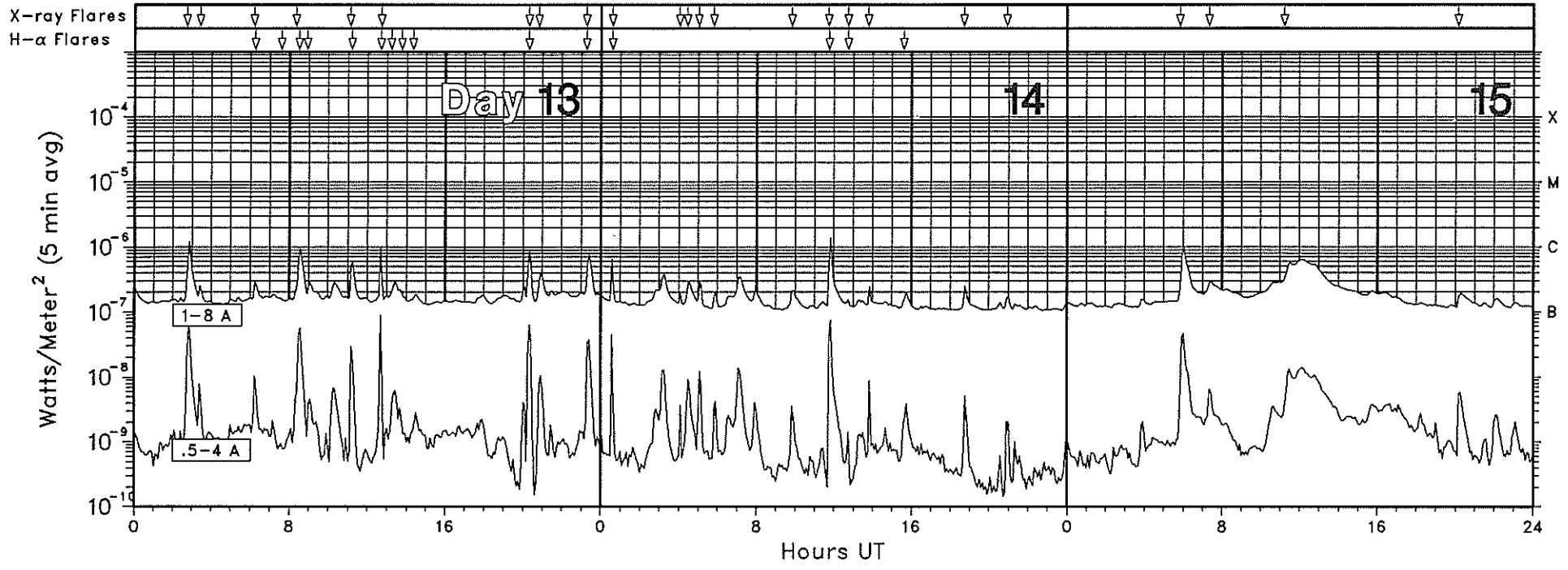
August 1993

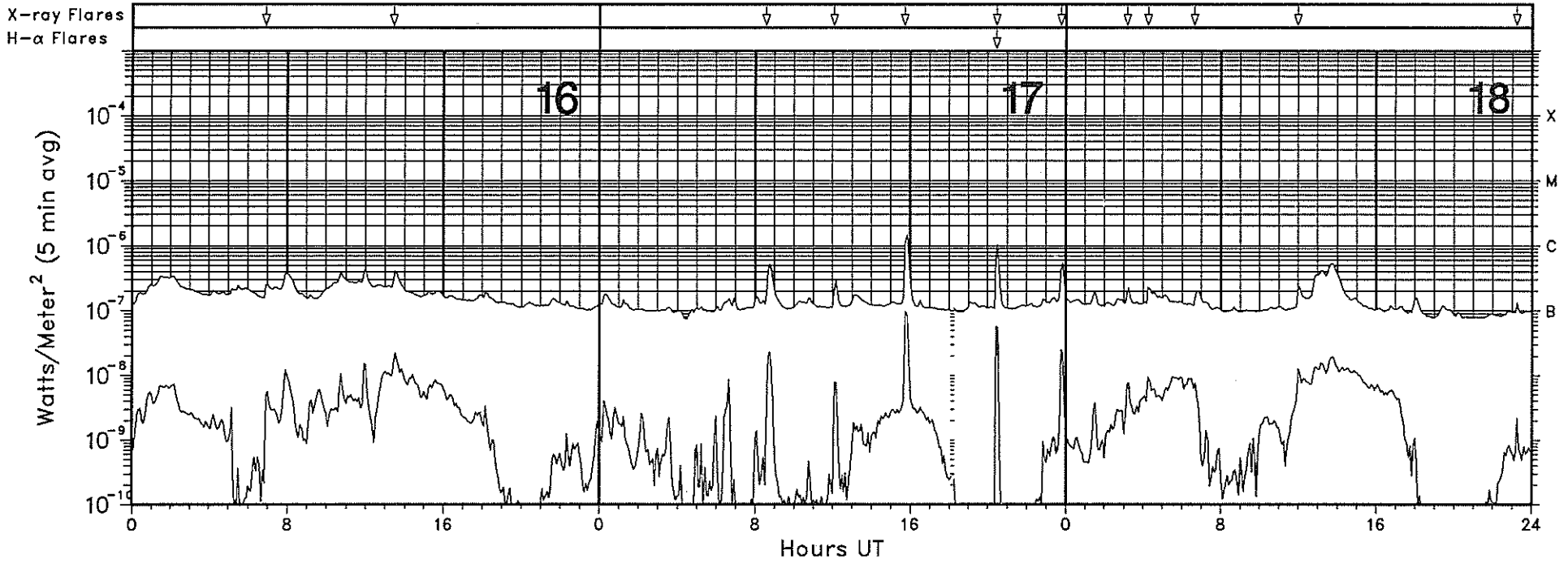




GOES-7 X-RAY DETECTOR

August 1993

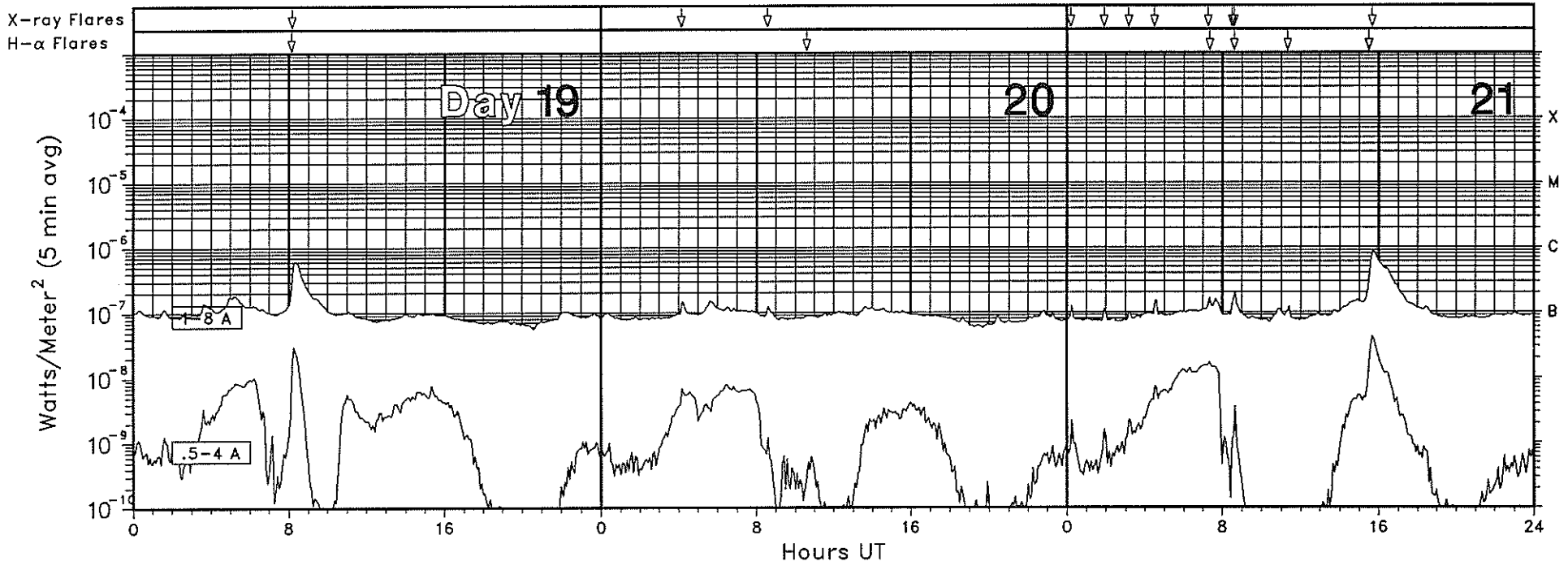


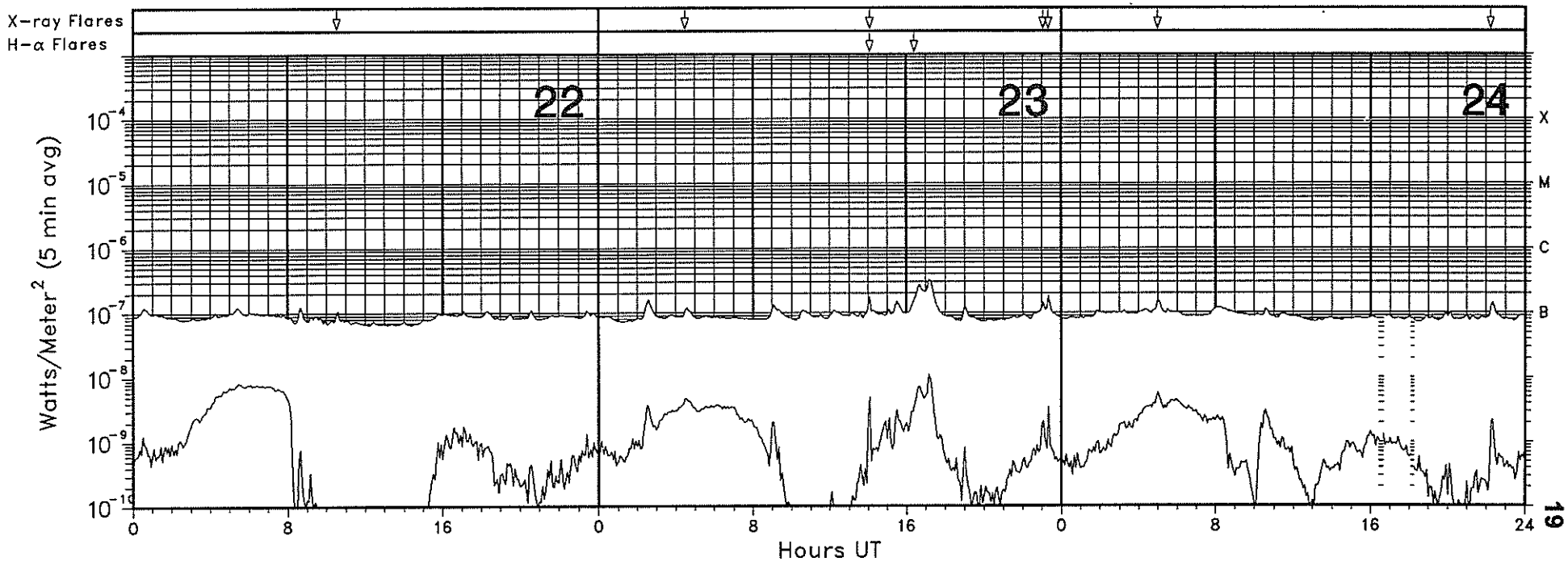


18 Aug 93

GOES-7 X-RAY DETECTOR

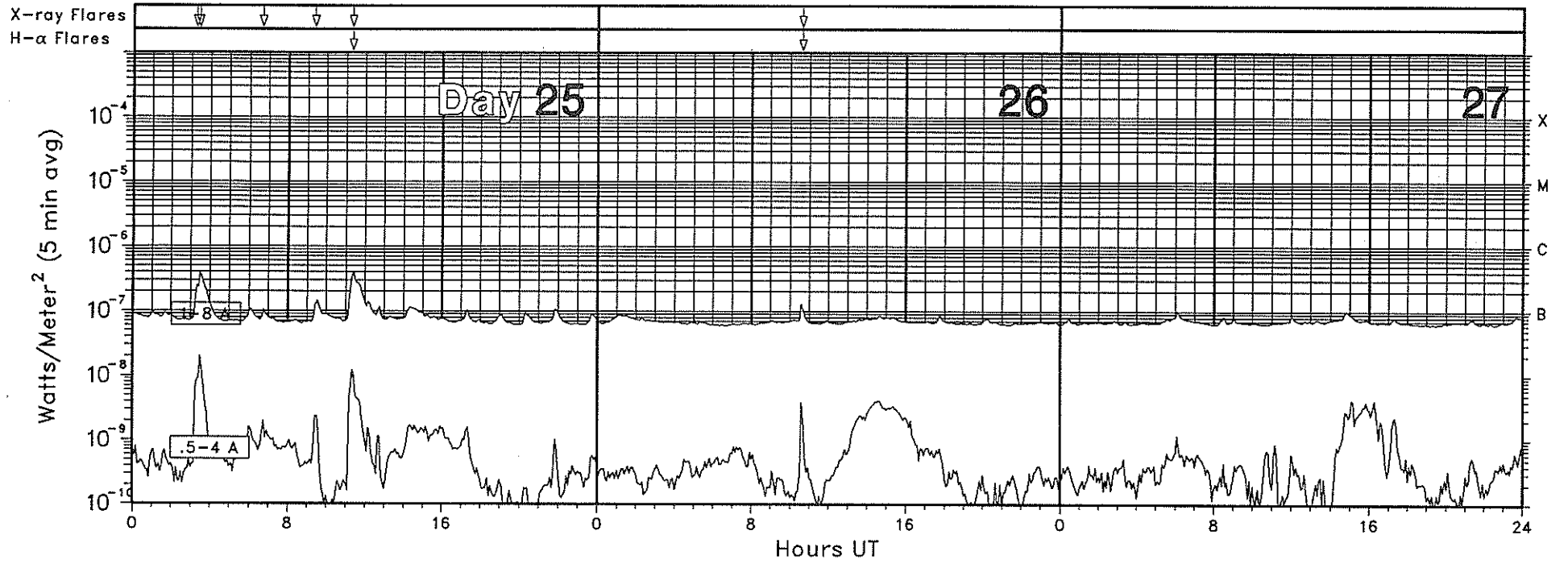
August 1993

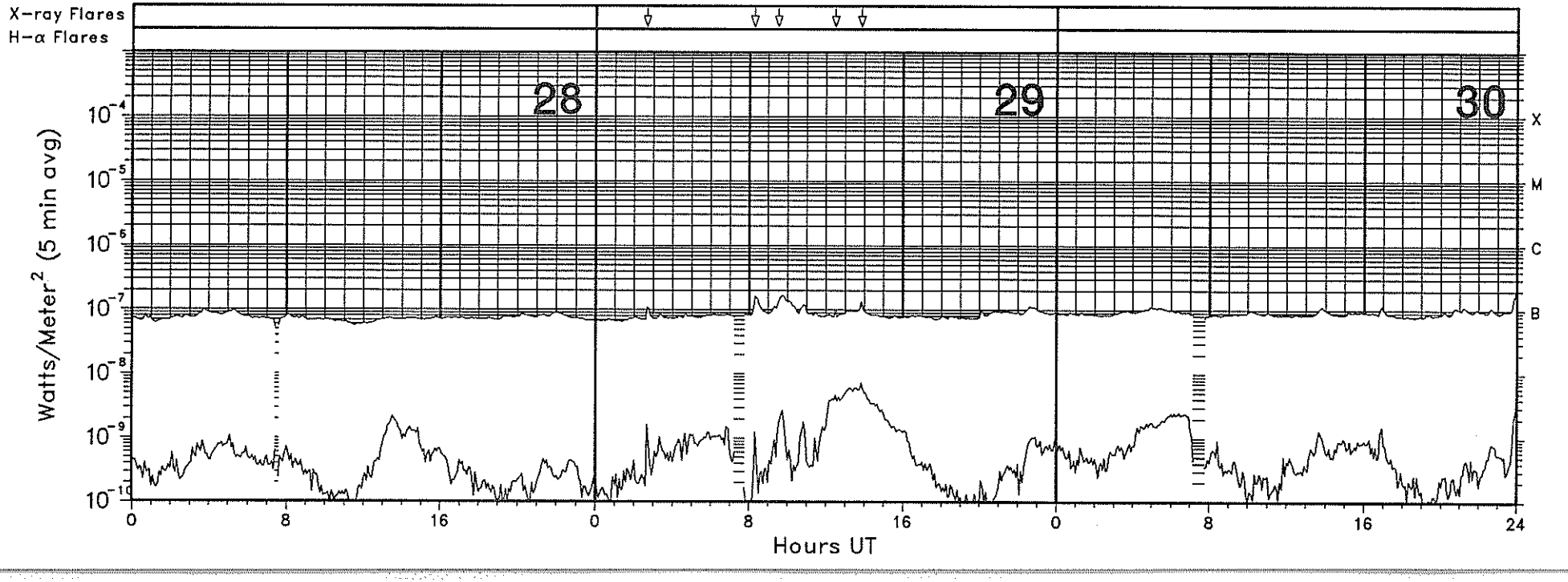




GOES-7 X-RAY DETECTOR

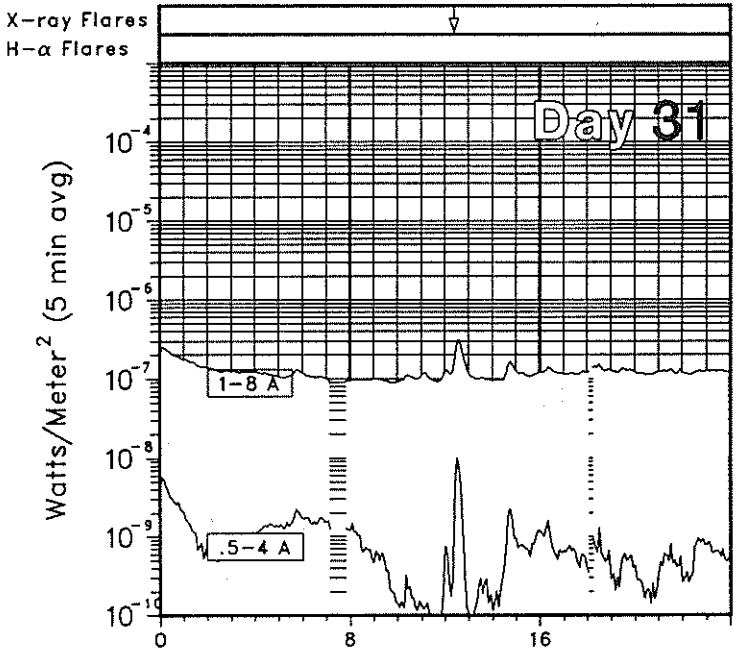
August 1993





GOES-7 X-RAY DETECTOR

August 1993



GOES S O L A R X-RAY F L A R E S

Preliminary Listing

August 1993

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp	Xray	NOAA/ USAF Region
01	0635	0646	0656				B	9.1	
01	1220	1302	1318				B	6.7	
01	1751	1823	1902				C	1.3	
02	0016	0027	0041				B	9.1	
02	0823	0828	0835				B	6.8	
02	0854	0957	1117				C	2.0	
02	1352	1358	1406				B	7.6	
02	1925	1929	1935				C	1.2	
02	2149	2154	2204				B	5.7	
03	0009	0013	0026				B	4.1	
03	0247	0255	0300				C	1.5	
03	0310	0323	0331				C	1.4	
03	1336	1340	1342				B	6.1	
04	0219	0225	0227				C	6.4	
04	0838	0843	0848				B	4.6	
05	0105	0119	0135				B	6.3	
05	0558	0600	0616	N13	E50	SF	B	7.8	7558
05	0950	0954	0959				B	2.0	
05	1438	1440	1450	N10	E50	SF	B	5.1	7558
05	2211	2212	2311	N09	E46	SF	B	5.9	7558
06	0520	0523	0530	N10	E38	SF	C	1.1	7558
06	1103	1113	1129				B	2.1	
06	1541	1541	1610	N12	E28	SF	B	2.3	7558
07	0753	0756	0758				B	1.9	
07	2335	2337	2342	N09	E12	SF	B	5.5	7558
08	0006	0009	0015				B	2.1	
08	0038	0044	0055				B	3.6	
08	0933	0935	0940	N18	E70	SF	B	3.0	7560
08	1003	1009	1017				B	3.0	
08	1330	1336	1349				B	5.5	
08	1656	1658	1705	N09	E02	SF	B	2.4	7558
08	1721	1725	1731				B	1.8	
08	2131	2136	2141				B	2.2	
09	0208	0216	0235	N13	W03	SF	B	3.9	7558
09	0431	0438	0448				B	4.0	
09	0534	0541	0550				B	3.9	
09	0607	0614	0623				B	5.6	
09	0725	0728	0731				B	3.5	
09	1003	1013	1037	N12	W08	SF	B	7.2	7558
09	1657	1701	1721	N12	W11	SF	B	3.7	7558
09	1957	1957	2031	N10	W13	SF	B	7.8	7558
09	2144	2159	2214	N10	W15	SF	B	6.2	7558
09	2325	2329	2332				B	3.5	
10	0021	0022	0045	N10	W14	SF	B	6.2	7558
10	0027	0042	0052	N10	W31	SF	B	7.1	7562
10	0323	0327	0334				B	3.2	
10	0613	0619	0622				B	4.0	
10	1236	1240	1251	N09	W36	SF	B	5.0	7562
10	1322	1323	1332	N09	W23	SF	B	4.7	7558
10	1733	1738	1745				B	5.7	
10	1855	1905	1948	N12	W26	1N	C	4.6	7558
10	2033	2034	2047	N09	W41	SF	B	5.1	7562
10	2059	2102	2109				B	4.6	
10	2101	2118	2217	N09	W41	SF	B	4.8	7562
11	0140	0145	0208	N10	W44	SF	B	3.8	7562
11	0248	0250	0311	N10	W45	SF	C	1.7	7562
11	0334	0336	0407	N09	W44	SF	B	7.9	7562
11	0515	0535	0539	N07	W46	SF	B	7.6	7562
11	0550	0552	0602	N07	W46	SF	B	8.8	7562
11	0735	0741	0745				B	8.3	
11	0750	0751	0755	N11	W46	SF	B	7.6	7562
11	1013	1029	1052	N07	W48	SN	M	1.5	7562
11	1437	1441	1506	N08	W52	SF	C	1.1	7562
11	1552	1635	1711	S02	E67	SF	C	4.4	7563
11	1811	1835	1854				C	9.9	
11	2331	2349	2403				C	1.6	
12	0551	0648	0656				B	9.6	
12	0757	0800	0802				B	4.3	
12	1144	1147	1154				B	3.5	
12	1401	1404	1406	N08	W64	SF	B	2.8	7562
12	1717	1723	1756	N12	W51	SF	B	4.1	7558
12	1856	1859	1903				B	2.3	
12	2216	2257	2317				C	3.5	
13	0242	0253	0256				C	1.6	
13	0324	0327	0332				B	2.7	
13	0612	0617	0624				B	2.9	
13	0820	0837	0844				B	9.7	
13	1107	1114	1121				B	6.8	
13	1242	1244	1249	S00	E46	SF	C	1.8	7563
13	2018	2028	2035	S01	E40	SF	C	1.1	7563
13	2048	2057	2106				B	4.0	
13	2316	2318	2330	N13	W68	SF	B	7.9	7558
14	0037	0039	0043	S02	E33	SF	B	9.3	7563
14	0403	0406	0409				B	2.1	
14	0426	0432	0442				B	2.9	
14	0502	0509	0512				B	4.1	
14	0549	0556	0600				B	2.1	
14	0950	0954	0957				B	2.6	
14	1143	1150	1155				C	1.6	
14	1245	1245	1248	S00	E26	SF	B	1.9	7563
14	1347	1351	1353				B	3.1	
14	1842	1846	1851				B	2.6	
14	2056	2100	2103				B	2.0	
15	0549	0601	0611				C	1.0	
15	0719	0723	0909				B	3.0	
15	1113	1208	1323				B	6.4	
15	2008	2018	2043				B	1.9	
16	0653	0758	0821				B	4.0	
16	1326	1333	1342				B	4.1	
17	0834	0847	0857				B	5.4	
17	1204	1210	1214				B	3.7	
17	1542	1550	1555				C	1.7	
17	2027	2028	2037	S08	E78	SF	C	1.3	7566
17	2344	2350	2353				B	7.3	
18	0310	0314	0319				B	2.6	
18	0414	0418	0422				B	2.9	
18	0638	0651	0706				B	2.1	
18	1158	1203	1211				B	2.8	
18	2313	2316	2319				B	1.5	

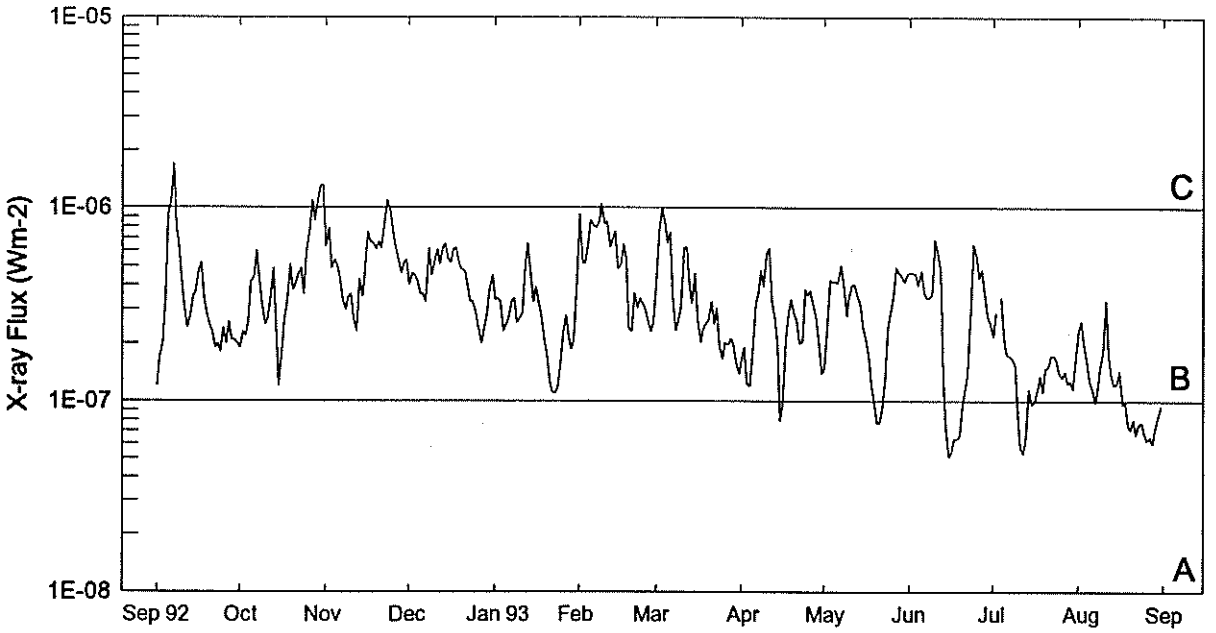
GOES S O L A R X-RAY F L A R E S
Preliminary Listing

August 1993

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp	Xray	NOAA/ USAF Region
19	0810	0813	0823	S04	E58	SF	B6.2		7566
20	0408	0414	0419				B1.6		
20	0833	0837	0843				B1.3		
21	0012	0015	0018				B1.4		
21	0154	0158	0201				B1.4		
21	0310	0314	0317				B1.2		
21	0429	0435	0437				B2.3		
21	0716	0720	0724				B1.8		
21	0830	0834	0836				B2.0		
21	0836	0838	0843	S10	E30	SF	B2.9		7566
21	1540	1540	1546	S02	E26	SF	B8.9		7566
22	1031	1034	1038				B1.2		
23	0430	0435	0440				B1.2		
23	1405	1405	1409	S09	E04	SF	B3.1		7566
23	2302	2305	2307				B1.9		
23	2319	2323	2325				B2.2		
24	0457	0502	0507				B1.6		
24	2213	2222	2228				B1.4		
25	0316	0320	0323				B3.5		
25	0326	0330	0339				B4.0		
25	0641	0648	0652				B1.2		
25	0922	0931	0941				B1.4		
25	1120	1122	1142	S08	W22	SF	B4.3		7566
26	1038	1038	1048	N07	E61	SF	B2.3		7573
29	0239	0243	0248				B1.3		
29	0816	0823	0831				B1.6		
29	0930	0946	0956				B1.7		
29	1228	1231	1233				B1.1		
29	1350	1353	1355				B1.6		
31	1224	1236	1246				B3.2		

EDITOR's NOTE: Please note that whenever optical flares are given, the times given are times of the optical flares and not the times of the X-ray flares. These data are taken directly from the NOAA SEL "Preliminary Report and Forecast of Solar Geophysical Data" weekly report.

Preliminary GOES Satellite Daily X-ray Background Sep 92 - Aug 93



Day	Sep 92	Oct	Nov	Dec	Jan 93	Feb	Mar	Apr	May	Jun	Jul	Aug
1	B1.2	B1.9	B6.3	B4.0	B3.3	B9.2	B4.5	B1.6	B1.4	B4.6	B2.1	B2.3
2	B1.7	B2.3	B7.9	B4.6	B3.4	B5.1	B7.6	B1.9	B2.2	B4.5	B2.8	B2.5
3	B2.0	B2.2	B4.9	B4.5	B3.3	B5.1	C1.0	B1.2	B4.2	B4.5	---	B1.9
4	B3.5	B2.6	B5.4	B4.2	B2.3	B6.3	B8.2	B1.2	B4.1	B3.9	B3.4	B1.6
5	B9.2	B4.2	B5.0	B3.6	B2.4	B8.6	B6.5	B1.7	B4.1	B4.7	B2.0	B1.2
6	C1.1	B4.4	B4.3	B3.6	B2.7	B8.1	B7.4	B3.2	B4.0	B3.6	B1.7	B1.1
7	C1.7	B6.0	B3.4	B3.3	B3.3	B7.9	B3.5	B3.6	B5.0	B3.4	B1.7	A9.8
8	B7.9	B4.3	B3.0	B6.2	B3.4	B8.5	B2.3	B4.7	B4.0	B3.4	B1.6	B1.1
9	B6.4	B3.2	B3.5	B4.5	B2.5	C1.0	B2.6	B3.9	B2.7	B3.5	B1.5	B1.5
10	B4.0	B2.5	B3.6	B5.1	B2.7	B8.2	B3.0	B5.8	B3.4	B6.8	A8.5	B1.7
11	B3.0	B2.7	B2.7	B6.1	B2.8	B8.4	B6.2	B6.1	B4.0	B5.9	A5.7	B3.3
12	B2.4	B3.6	B2.3	B5.1	B4.9	B6.2	B6.2	B3.2	B4.0	B4.7	A5.3	B1.7
13	B2.8	B4.9	B4.3	B6.1	B6.5	B6.8	B4.0	B2.7	B3.4	B1.3	A6.6	B1.3
14	B3.5	B2.5	B3.5	B6.5	B4.4	B7.5	B3.2	B1.9	B3.2	A7.2	B1.1	B1.2
15	B3.7	B1.2	B4.5	B5.4	B3.2	B4.8	B4.6	A7.8	B2.4	A5.1	A9.5	B1.2
16	B4.8	B1.8	B7.5	B5.2	B3.9	B5.0	B2.6	A9.5	B2.1	A5.4	A9.9	B1.4
17	B5.2	B2.7	B6.7	B6.1	B3.1	B6.4	B2.0	B2.0	B1.7	A6.3	B1.1	A9.6
18	B3.5	B3.2	B6.6	B6.2	B2.7	B5.4	B2.3	B2.8	B1.2	A6.3	B1.3	A9.9
19	B2.9	B5.1	B6.1	B5.1	B2.1	B2.4	B2.5	B3.3	A9.5	A6.5	B1.1	A7.6
20	B2.5	B3.8	B6.7	B4.8	B1.7	B2.3	B2.6	B2.8	A7.6	A9.5	B1.4	A7.1
21	B2.3	B4.0	B6.2	B4.7	B1.2	B3.6	B3.2	B2.6	A7.7	B1.2	B1.5	A7.9
22	B1.9	B4.5	B8.5	B4.0	B1.1	B3.0	B2.5	B1.9	A9.0	B1.4	B1.7	A6.7
23	B2.0	B4.9	C1.1	B3.3	B1.1	B3.4	B3.0	B2.0	B1.3	B3.0	B1.7	A7.5
24	B1.8	B3.6	B9.6	B3.3	B1.1	B3.2	B1.9	B3.7	B2.4	B6.4	B1.6	A7.7
25	B2.4	B5.9	B7.5	B2.9	B1.5	B3.0	B1.6	B3.5	B2.8	B5.5	B1.4	A6.8
26	B2.0	B7.7	B6.3	B2.4	B2.2	B2.5	B2.0	B3.7	B3.3	B4.3	B1.3	A6.2
27	B2.6	C1.1	B5.5	B2.0	B2.8	B2.2	B1.9	B3.1	B4.9	B4.7	B1.4	A6.4
28	B2.1	B8.6	B4.6	B2.3	B2.1	B2.5	B2.1	B2.7	B4.6	B3.6	B1.2	A6.0
29	B2.1	C1.1	B5.2	B2.8	B1.8		B1.9	B1.9	B4.4	B2.7	B1.2	A7.1
30	B2.0	C1.3	B5.4	B3.8	B2.0		B1.6	B1.3	B4.1	B2.5	B1.1	A8.1
31		C1.3		B4.5	B4.2		B1.3		B4.5		B1.6	A9.4

MASS EJECTIONS FROM THE SUN--PROXY DATA*

August 1993

Site	Mo	Day	Observed UT Start	Observed UT Max	Observed UT End	Location RA°	Location R/Ro	Freq or Wavelength	Kind of Event
POTS	Aug	11	1019.3		1047U			40-170	II C,H,HARM
IZMI	Aug	11	1022.0		1037.0			Meter	II HARM
SVTO	Aug	11	1023		1041			Meter	II

QUALIFIERS ON START, MAX AND END TIMES
- E = event began before the tabulated time
- U = uncertain time

TYPE OF EVENT
- A = eruptive active region prominence
- CB = coronal cloud bubble
- D = coronal depletions
- E = coronal enhancement
- EL = coronal expanding loop
- II = Type II radio burst
- IVm = moving Type IV radio burst
- Q = eruptive quiescent prominence
- R = coronal ray or streamer
- S = flare-surge if there is a known flare association
- SP = flare-spray if there is a known flare association
- ** = movement may be caused by ionospheric refraction

REPORTING STATIONS
- IZMI = Izmiran
- KHAR = Kharkov
- LEAR = Learmonth
- ONDR = Ondrejov
- POTS = Potsdam
- SGMR = Sagamore Hill
- SVTO = San Vito
- WROC = Wroclaw

*Please be advised that this list is made up of proxy data--not actual measurements of coronal mass ejections (CMEs). The list was requested by the IAU Commission 10 in 1979. See page 46 in the July 1987 supplement to Solar-Geophysical Data for more information.

ACTIVE PROMINENCES AND FILAMENTS

AUGUST 1993

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
01	DSF	0115U	1631U	N00	W09	07	31.4		10	0	0	E	HOLL		
01	AFS	0603E	1119D	N08	W06	07	31.8		01	9	9	E	SVTO	7555	
01	ADF	0603E	1731	N09	E02	08	1.4	1	08	9	9	E	SVTO	7555	
01	AFS	0603E	1731	N15	W29	07	30.1		02	9	9	E	SVTO	7556	
01	AFS	0603E	1731	S12	W49	07	28.7		01	9	9	E	SVTO	7553	
01	AFS	0610E	0945	S11	W51	07	28.5		01	9	9	E	LEAR	7553	
01	APR	0811E	811D	N33	E90	08	8.5	2	15				VALA		
01	AFS	1059E	2116	N16	W31	07	30.2		02	9	9	E	RAMY	7556	
01	AFS	1253E	0049	N16	W31	07	30.3		02	9	9	E	HOLL	7556	
01	ASR	1310E	0049	N15	E90	08	8.4			9	9	E	HOLL		
01	ADF	1310E	2140D	N11	W10	07	31.8	1	12	9	9	E	HOLL	7555	
01	DSF	1315U	1446U	N11	W01	08	1.5	2	07	0	0	E	RAMY	7555	
01	DSF	1315U	1446U	N15	W12	07	31.6	2	12	0	0	E	RAMY	7555	
01	APR	1445E	1930D	N17	E90	08	8.4	2		9	9	E	RAMY		
01	ASR	1445E	2116	N11	E90	08	8.4			9	9	E	RAMY	7558	
01	ASR	1547E	1731	N14	E90	08	8.4			9	9	E	SVTO		
01	ASR	2148E	0049	S18	E90	08	8.8			9	9	E	HOLL		
02	ASR	0004E	0942	N12	E89	08	8.7			9	9	E	LEAR	7558	
02	ADF	0600E	1730	N15	W17	08	1.0	1	13	9	9	E	SVTO	7555	
02	AFS	0600E	1730	N18	W44	07	30.0		05	9	9	E	SVTO	7556	
02	ASR	0810E	1145D	N16	E90	08	9.2			9	9	E	SVTO	7558	
02	ASR	0810E	1400D	N13	E90	08	9.1			9	9	E	SVTO	7558	
02	BSL	0857E	857D	N11	E90	08	9.1	3	23				VALA		
02	BSL	0857E	923	N22	E90	08	9.3	3	24				VALA		
02	EPL	0905	914D	N17	E90	08	9.2	1	09				VALA		
02	AFS	1058E	1730	N09	W17	08	1.2		01	9	9	E	SVTO	7555	
02	DSD	1101E	2216	N20	W45	07	30.1		02	9	9	E	RAMY	7556	
02	AFS	1102E	2216	S19	E73	08	8.0		02	8	8	E	RAMY	7557	
02	AFS	1105E	2216	N08	W14	08	1.4		01	9	9	E	RAMY	7555	
02	ASR	1112E	2216	N14	E88	08	9.1			9	9	E	RAMY	7558	
02	AFS	1117E	1730	S08	E36	08	5.2		01	9	9	E	SVTO		
02	AFS	1216E	1730	S26	W12	08	1.6		01	5	5	E	SVTO		
02	DSD	1251E	1326D	N14	W47	07	30.1		02	9	9	E	SVTO	7556	
02	DSD	1319E	1524D	N08	W16	08	1.3		03	9	9	E	SVTO	7555	
02	ASR	1351E	1730	N15	E90	08	9.4			9	9	E	SVTO	7558	
02	DSD	1706E	1730	N08	W18	08	1.4		02	9	9	E	SVTO	7555	
02	SSB	2235		111	W51	08	3.9			0	0	E	HOLL		
02	ASR	2330E	2320	N13	E85	08	9.4			9	9	E	HOLL	7558	
03	ASR	0510E	0525D	N14	W90	07	27.5			9	9	E	SVTO	7558	
03	AFS	1107E	1851D	N09	W26	08	1.5		01	9	9	E	RAMY	7555	
03	AFS	1109E	2230	N19	W61	07	29.9		02	9	9	E	RAMY	7556	
03	AFS	1116E	1725D	N12	W65	07	29.7		02	9	9	E	RAMY	7552	
03	ADF	1121E	2230	S17	E60	08	8.0	1	04	9	9	E	RAMY	7557	
03	AFS	1121E	2230	S19	E60	08	8.0		02	9	9	E	RAMY	7557	
03	AFS	1130E	2230	N10	E73	08	9.0		02	9	9	E	RAMY	7558	
03	DSD	1206E	2230	N17	E82	08	9.7		04	9	9	E	RAMY	7558	
03	ADF	1240E	1704	N11	E66	08	8.5		05	9	9	E	SVTO	7558	
03	AFS	1343E	1704	N11	E72	08	9.0		01	9	9	E	SVTO	7558	
03	ADF	1343E	1704	N17	E77	08	9.4		10	9	9	E	SVTO	7558	
03	DSD	1402E	1704	S12	W81	07	28.6		04	9	9	E	SVTO	7553	
03	AFS	1408E	1704	S18	E59	08	8.1		01	9	9	E	SVTO	7557	
03	ADF	1418E	1704	S11	E55	08	7.7		08	9	9	E	SVTO	7557	
03	DSD	1424E	1945D	N13	E65	08	8.5		01	9	9	E	HOLL	7558	
03	APR	1534E	1843D	N17	W90	07	27.9	1		9	9	E	RAMY		
03	ADF	1945E	2107	N15	E70	08	9.1	1	07	9	9	E	HOLL	7558	
04	DSD	0537E	1505D	N18	E63	08	9.0		02	9	9	E	SVTO	7558	
04	AFS	0546E	1733	N11	E62	08	8.9		02	9	9	E	SVTO	7558	
04	AFS	0556E	1733	S16	E48	08	7.9		01	9	9	E	SVTO	7557	
04	AFS	0559E	1733	N11	W41	08	1.2		02	9	9	E	SVTO	7555	
04	ADF	0930E	1733	S11	E45	08	7.8	1	07	9	9	E	SVTO	7557	
04	ASR	0935E	1337D	S18	W90	07	28.6			9	9	E	SVTO	7553	
04	AFS	1100E	2201	N12	E60	08	9.0		02	9	9	E	RAMY	7558	
04	AFS	1103E	2201	S17	E47	08	8.0		01	9	9	E	RAMY	7557	
04	ADF	1123E	2201	N15	W45	08	1.1	1	07	9	9	E	RAMY	7555	
04	ADF	1432E	2201	N14	E58	08	9.0	1	06	9	9	E	RAMY	7558	
04	ADF	1505E	1733	N19	E66	08	9.7	1	10	9	9	E	SVTO	7558	
04	APR	1542E	2201	S21	W90	07	28.8	1		9	9	E	RAMY	7553	

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Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
04	ADF	1735E	2114	N14	E56	08	9.0	1	09	9	9	E	HOLL	7558	
05	AFS	0514E	1726	N09	E50	08	9.0		01	9	9	E	SVTO	7558	
05	DSD	0514E	1726	N17	E51	08	9.1		02	9	9	E	SVTO	7558	
05	AFS	0516E	1726	S21	E37	08	8.0		02	9	9	E	SVTO	7557	
05	ADF	0630E	1726	N14	E50	08	9.0	1	04	9	9	E	SVTO	7558	
05	DSD	0714E	1726	N19	E04	08	5.6		02	9	9	E	SVTO		
05	DSD	1005E	1726	N11	W52	08	1.5		04	9	9	E	SVTO	7555	
05	AFS	1008E	1726	N09	E31	08	7.7		01	9	9	E	SVTO		
05	ADF	1121E	2152	N17	E48	08	9.1	1	04	9	9	E	RAMY	7558	
05	AFS	1122E	2152	N09	E31	08	7.8		01	9	9	E	RAMY		
05	APR	1125E	2152	N16	W90	07	29.7	1		9	9	E	RAMY	7556	
05	DSD	1127E	2152	N13	W54	08	1.4		04	9	9	E	RAMY	7555	
05	ADF	1129E	2152	S07	E56	08	9.7	1	10	9	9	E	RAMY		
05	AFS	1242E	2152	N12	E43	08	8.8		02	7	6	E	RAMY	7558	
05	DSD	1438E	1757D	N10	E52	08	9.5		05	9	9	E	RAMY	7558	Flare Associated
05	DSD	1438E	1519	N11	E52	08	9.5		04	9	9	E	SVTO	7558	Flare Associated
05	ADF	1615E	2319	N13	E43	08	8.9	1	05	9	9	E	HOLL	7558	
05	ADF	1617E	2319	S13	E59	08	10.1	1	08	9	9	E	HOLL		
05	ASR	1749E	1806D	S08	E85	08	12.1			9	9	E	RAMY		
05	AFS	2136E	2152	S14	E00	08	5.9		01	9	9	E	RAMY		
06	AFS	0447E	1722	S14	W06	08	5.7		02	9	9	E	SVTO		
06	AFS	0454E	1722	N09	E19	08	7.6		01	9	9	E	SVTO		
06	DSD	0454E	1722	N19	E31	08	8.6		01	9	9	E	SVTO	7558	
06	DSD	0520	0604D	N10	E38	08	9.1		04	9	9	E	SVTO	7558	Flare Associated
06	DSD	0811E	1722	N14	E31	08	8.7		02	9	9	E	SVTO	7558	
06	DSD	0811E	1722	S05	E44	08	9.6		01	9	9	E	SVTO		
06	DSD	1056E	2143	N11	E39	08	9.4		03	9	9	E	RAMY	7558	
06	ADF	1057E	2143	S08	E44	08	9.7	1	09	9	9	E	RAMY		
06	DSD	2045E	0120	N11	E15	08	8.0		03	9	9	E	HOLL	7558	
07	AFS	0353E	0949	N10	E23	08	8.9		02	9	9	E	LEAR	7558	
07	ADF	0450E	1705	N11	E21	08	8.8	1	08	9	9	E	SVTO	7558	
07	AFS	0522E	1705	N11	E22	08	8.9		02	9	9	E	SVTO	7558	
07	DSD	0611E	0930D	S16	W20	08	5.7		02	9	9	E	SVTO	7559	
07	ADF	0615E	1705	S07	E34	08	9.8	1	04	9	9	E	SVTO		
07	AFS	0617E	1705	N09	E08	08	7.9		03	9	9	E	SVTO		
07	AFS	0640	841	N13	E23	08	9.0						BUCA		
07	APR	1136E	1705	N40	W90	07	31.1	1		9	9	E	SVTO		
07	AFS	1143E	2036	N10	E18	08	8.8		02	9	9	E	RAMY	7558	
07	ADF	1145E	2036	N22	E14	08	8.6	1	08	9	9	E	RAMY	7558	
07	ADF	1455E	2036	S07	E28	08	9.7	1	09	9	9	E	RAMY		
08	ADF	0208E	0949	N18	E19	08	9.5	1	09	9	9	E	LEAR	7558	
08	AFS	0320E	0949	N10	E10	08	8.9		04	7	5	E	LEAR	7558	
08	AFS	0630E	1017D	N17	E07	08	8.8		01	7	8	E	SVTO	7558	
08	DSD	0630E	1053D	N10	E16	08	9.5		01	9	9	E	SVTO	7558	
08	DSD	0630E	1053D	N13	E01	08	8.3		01	9	9	E	SVTO	7558	
08	DSD	0630E	1055D	S08	E24	08	10.1		02	9	9	E	SVTO		
08	AFS	0630E	1705	N10	E09	08	8.9		03	9	9	E	SVTO	7558	
08	DSD	0630E	1705	N18	E74	08	13.9		02	9	9	E	SVTO	7560	
08	ADF	0630E	1705	N25	E18	08	9.7	1	21	9	9	E	SVTO	7558	
08	AFS	0630E	1705	S20	E05	08	8.6		01	9	7	E	SVTO	7557	
08	AFS	0717E	0949	N16	E80	08	14.4		02	9	9	E	LEAR	7560	
08	AFS	0818E	1705	N13	E50	08	12.1		02	9	9	E	SVTO		
08	AFS	0845E	0949	N10	E50	08	12.1		01	8	8	E	LEAR		
08	AFS	1057E	1705	N09	W09	08	7.8		01	9	9	E	SVTO		
08	AFS	1119E	2144	N10	E05	08	8.8		01	9	9	E	RAMY	7558	
08	ADF	1120E	2144	N24	E18	08	9.9	1	19	9	9	E	RAMY	7558	
08	AFS	1140E	2144	N13	E48	08	12.1		01	9	9	E	RAMY		
08	AFS	1141E	2144	N19	E67	08	13.6		02	9	9	E	RAMY	7560	
08	AFS	1310E	2144	N17	E03	08	8.8		01	9	8	E	RAMY	7558	
08	AFS	1352E	0054	N13	E46	08	12.0		02	9	9	E	HOLL		
08	DSD	1352E	2125D	N19	E70	08	13.9		03	9	9	E	HOLL	7560	
08	DSF	2049U	1408U	N17	E00	08	8.9		12	0	0	E	HOLL	7558	
08	DSF	2049U	1408U	N22	W31	08	6.5		04	0	0	E	HOLL		
08	ADF	2150E	0054	N11	W01	08	8.8	1	17	8	8	E	HOLL	7558	
09	AFS	0023E	0950	N14	E66	08	14.0		03	9	9	E	LEAR	7560	

ACTIVE PROMINENCES AND FILAMENTS

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Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
09	AFS	0025E	0950	N10	E42	08	12.2		02	9	9	E	LEAR		
09	ADF	0310E	0950	N19	E03	08	9.4	1	04	9	9	E	LEAR	7558	
09	AFS	0500E	1218	N72	E31	08	12.0		02	9	9	E	SVTO		
09	AFS	0514E	1218	N12	W04	08	8.9		03	7	7	E	SVTO	7558	
09	AFS	0521	1732	N08	W35	08	6.6		02	9	9	E	SVTO	7562	
09	AFS	0527E	1723	N12	E22	08	10.9		02	9	9	E	SVTO	7561	
09	AFS	0557E	1218	N17	E60	08	13.8		02	9	9	E	SVTO	7560	
09	APR	0626E	0655D	N02	E90	08	16.0	1		9	9	E	SVTO		
09	ADF	0707E	1011D	N24	E08	08	9.9	2	07	9	9	E	SVTO	7558	
09	SSB	0738		341	W06	08	6.2			0	0	E	SVTO		
09	ADF	0747E	1218	N10	W07	08	8.8	1	09	9	9	E	SVTO	7558	Flare Associated
09	DSD	0815E	0931D	N10	W12	08	8.4		02	9	9	E	SVTO	7558	
09	AFS	0840E	0950	N10	W24	08	7.5		02	9	9	E	LEAR		
09	DSD	0845E	0931D	N14	E37	08	12.2		02	9	9	E	SVTO		
09	DSD	0847E	0950	N13	E37	08	12.1		03	8	8	E	LEAR		
09	AFS	0938E	1723	N09	W21	08	7.8		02	9	9	E	SVTO	7558	
09	ADF	0940E	1723	N19	W16	08	8.2	1	06	9	9	E	SVTO	7558	
09	ADF	1040E	1927	N16	W06	08	9.0	1	05	9	9	E	RAMY	7558	
09	AFS	1051E	1927	N08	W23	08	7.7		02	9	9	E	RAMY	7562	
09	ADF	1053E	1927	S18	W22	08	7.8	1	04	9	9	E	RAMY	7557	
09	AFS	1053E	1927	S20	W21	08	7.8		02	7	7	E	RAMY	7557	
09	AFS	1056E	1927	N13	E34	08	12.0		02	9	9	E	RAMY	7561	
09	AFS	1056E	1927	N14	E37	08	12.2		01	9	9	E	RAMY	7561	
09	AFS	1100E	1927	N18	E57	08	13.8		02	9	9	E	RAMY	7560	
09	APR	1102E	1927	N04	E90	08	16.2	1		9	9	E	RAMY		
09	SSB	1105		343	W10	08	6.2			0	0	E	RAMY		394 W61
09	AFS	1211E	1927	N08	W38	08	6.6		01	9	9	E	RAMY		
09	DSD	1211E	1927	N08	W39	08	6.6		02	9	9	E	RAMY		
09	AFS	1310E	0112	N17	E65	08	14.5		01	7	7	E	HOLL	7560	
09	AFS	1315E	0112	N11	E41	08	12.6		02	9	9	E	HOLL		
09	AFS	1315E	0112	N13	E43	08	12.8		01	7	7	E	HOLL		
09	AFS	1330E	0112	N08	W25	08	7.7		01	9	9	E	HOLL		
09	ADF	1645E	0112	N10	W12	08	8.8	3	09	9	9	E	HOLL	7558	
09	AFS	2350E	0952	N15	E51	08	13.8		01	7	7	E	LEAR	7560	
09	AFS	2351E	0250D	N11	E28	08	12.1		01	7	7	E	LEAR	7561	
09	AFS	2352E	0952	N11	W16	08	8.8		01	8	8	E	LEAR	7558	
09	ASR	2357E	0112	S01	E90	08	16.7			9	9	E	HOLL		
10	AFS	0010E	0952	N10	W29	08	7.8		02	9	9	E	LEAR	7562	
10	ADF	0234E	0952	N11	W17	08	8.8	1	11	8	8	E	LEAR	7558	
10	ASR	0317E	0952	N02	E90	08	16.8			8	8	E	LEAR		
10	AFS	0521	1732	N08	W35	08	7.6		02	9	9	E	SVTO	7562	
10	AFS	0527E	1732	N12	E22	08	11.9		02	9	9	E	SVTO	7561	
10	ASR	0925E	1025D	N01	E90	08	17.1			9	9	E	SVTO		
10	AFS	0938E	1732	N09	W21	08	8.8		02	9	9	E	SVTO	7558	
10	ADF	0940E	1732	N19	W16	08	9.2	1	06	9	9	E	SVTO	7558	
10	AFS	1050E	2109	N17	E43	08	13.7		01	8	8	E	RAMY	7560	
10	APR	1055E	2109	S04	E90	08	17.2	1		9	9	E	RAMY	7563	
10	AFS	1130E	2109	N05	W20	08	9.0		02	9	9	E	RAMY	7558	
10	DSD	1132E	2109	N01	W33	08	8.0		02	9	9	E	RAMY	7562	
10	AFS	1132E	2109	N02	W32	08	8.1		02	9	9	E	RAMY	7562	
10	ADF	1148E	2109	S20	W33	08	8.0	1	05	9	9	E	RAMY	7557	
10	DSD	1342E	1550D	N08	W36	08	7.9		03	9	9	E	HOLL	7562	
10	SSB	1358		328	W10	08	8.5			0	0	E	HOLL		
10	AFS	1435E	2109	N00	E79	08	16.5		02	9	9	E	RAMY	7563	
10	APR	1623E	1641D	S11	W90	08	3.9			9	9	E	SVTO		
10	SSB	1716		329	W12	08	8.5			0	0	E	RAMY		
10	ADF	1725E	1857D	N16	W23	08	9.0	1	14	9	9	E	RAMY	7558	
10	DSF	1855U	1910	N13	W23	08	9.0	3	13	0	0	E	HOLL	7558	Flare Associated
10	DSF	1855U	1910U	N13	W23	08	9.0	3	13	0	0	E	HOLL	7558	Flare Associated
10	DSF	1857U	1910U	N16	W23	08	9.0	3	14	0	0	E	RAMY	7558	Flare Associated
10	DSD	2004E	2359	N10	W42	08	7.7		02	9	9	E	HOLL	7562	Flare Associated
10	DSD	2025E	2109	N12	W28	08	8.7		01	9	9	E	RAMY	7558	
10	DSD	2043E	2101D	N18	W26	08	8.9		02	9	9	E	HOLL	7558	
11	DSD	0020E	0210D	N08	W40	08	8.0		03	8	8	E	LEAR	7562	
11	AFS	0020E	0950	N08	W41	08	7.9		03	9	9	E	LEAR	7562	
11	AFS	0436E	1730	N07	W45	08	7.8		02	9	9	E	SVTO	7562	
11	AFS	0455E	0950	S04	E78	08	17.0		04	9	9	E	LEAR	7563	
11	DSD	0645E	1730	S01	E70	08	16.5		05	9	9	E	SVTO	7563	

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Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
11	ADF	0745E	0950	N11	W44	08	8.0	1	06	9	9	E	LEAR	7562	
11	ADF	0745E	0950	S20	W39	08	8.3	1	11	9	9	E	LEAR	7557	
11	ADF	0828E	1730	N14	W33	08	8.8	1	08	9	9	E	SVTO	7558	
11	AFS	0903E	1730	N07	W50	08	7.6		01	9	9	E	SVTO		
11	SSB	0935		343	W35	08	7.9			0	0	E	SVTO		
11	DSD	0939E	1730	N06	W49	08	7.7		04	9	9	E	SVTO	7562	
11	AFS	0940E	1730	N02	E70	08	16.6		02	9	9	E	SVTO	7563	
11	ADF	1005E	1730	S22	W39	08	8.4	1	13	9	9	E	SVTO	7557	
11	AFS	1327E	1811	N08	W52	08	7.7		02	9	9	E	RAMY	7562	
11	DSD	1327E	1811	S02	E70	08	16.8		02	9	9	E	RAMY	7563	
11	BSD	1358E	1425D	S01	E68	08	16.7		17	9	9	E	HOLL	7563	
11	DSD	1558E	2200	S02	E68	08	16.7		06	9	9	E	HOLL	7563	Flare Associated
11	ADF	1610E	2200	N11	W38	08	8.8	1	12	9	9	E	HOLL	7558	
11	SSB	1614		342	W38	08	8.3			0	0	E	HOLL		
11	ADF	1617E	1811	S29	W48	08	7.9	1	10	9	9	E	RAMY	7557	
11	AFS	1912E	2200	N10	W53	08	7.8		02	9	9	E	HOLL	7562	
11	ADF	1912E	2200	N10	W56	08	7.6	1	05	9	9	E	HOLL	7562	
12	AFS	0330E	0420	N09	W58	08	7.8		03	9	9	E	LEAR	7562	
12	ADF	0340E	0420	N12	W58	08	7.8	1	09	9	9	E	LEAR	7562	
12	SSB	0425		338	W41	08	9.1			0	0	E	LEAR		
12	DSD	0536E	1025D	N18	E17	08	13.5		03	9	9	E	SVTO	7560	
12	ADF	1102E	2202	N19	W40	08	9.4	1	11	9	9	E	RAMY	7558	
12	AFS	1108E	2202	N10	W04	08	12.2		02	9	9	E	RAMY	7561	
12	DSD	1109E	2202	N16	W13	08	11.5		02	9	9	E	RAMY	7560	
12	AFS	1111E	2202	S01	E58	08	16.8		02	9	9	E	RAMY	7563	
12	DSD	1111E	2202	S03	E58	08	16.8		03	9	9	E	RAMY	7563	
12	AFS	1206E	2202	N07	W62	08	7.8		01	9	9	E	RAMY	7562	
12	DSD	1206E	2202	N08	W64	08	7.7		02	9	9	E	RAMY	7562	
12	AFS	1330E	2029	N12	W07	08	12.0		01	9	9	E	HOLL	7561	
12	DSD	1400	1406	N08	W64	08	7.8		03	9	9	E	SVTO	7562	Flare Associated
12	DSD	1547E	1658D	N03	E34	08	15.2		02	9	9	E	SVTO		
12	DSD	1645E	1701D	N02	E32	08	15.1		02	9	9	E	HOLL		
12	ADF	1655E	2029	N10	W52	08	8.8	1	08	9	9	E	HOLL	7558	
12	DSD	1752E	2029	S02	E54	08	16.8		04	9	9	E	HOLL	7563	
12	DSD	1935E	2103D	N03	W56	08	8.6		03	9	9	E	RAMY	7558	
13	AFS	0530E	0950	S03	W45	08	9.9		03	9	9	E	LEAR	7563	
13	ASR	0650E	815	N10	E23	08	15.0						BUCA		
13	ASR	1050E	1227D	N06	W90	08	6.7			8	8	E	SVTO	7564	
13	AFS	1114E	2210	S01	E43	08	16.7		01	9	9	E	RAMY	7563	
13	ADF	1127E	2210	S07	E56	08	17.7	1	02	9	9	E	RAMY		
13	DSD	1133E	2210	S11	W43	08	10.2		02	8	7	E	RAMY		
13	AFS	1138E	2210	N09	W19	08	12.0		02	9	9	E	RAMY	7561	
13	DSD	1142E	2210	N00	E46	08	16.9		08	9	9	E	RAMY	7563	
13	DSD	1246E	1920D	S02	E43	08	16.7		04	9	9	E	HOLL	7563	Flare Associated
13	ADF	1328E	0052	N11	W63	08	8.8	1	13	9	9	E	HOLL	7558	
13	ADF	1335E	2210	N15	W67	08	8.5	1	13	9	9	E	RAMY	7558	
13	DSD	2026E	2240D	S02	E39	08	16.8		06	9	9	E	HOLL	7563	Flare Associated
14	APR	0650E	0814D	S16	E90	08	21.1	1		9	9	E	SVTO		
14	ADF	0713E	1010D	N16	W09	08	13.6	1	05	9	9	E	SVTO	7560	
14	DSD	1129E	1333D	N03	E32	08	16.9		02	9	9	E	SVTO	7563	
14	DSD	1147	1201	N02	E30	08	16.7		02	9	9	E	SVTO	7563	
14	AFS	1212E	2234	N12	W82	08	8.3		02	9	9	E	RAMY	7558	
14	ASR	1316E	2234	N00	E90	08	21.3			9	9	E	RAMY	7562	
14	AFS	1321E	2234	S28	E01	08	14.6		02	9	9	E	RAMY	7563	
14	DSD	1322E	2234	S08	E42	08	17.7		02	9	9	E	RAMY		
14	DSD	1515E	2040D	N01	E29	08	16.8		03	9	9	E	HOLL	7563	
14	DSF	1743U	1158U	S28	W20	08	13.2	2	08	0	0	E	RAMY		
14	AFS	1749E	2234	N12	W35	08	12.1		01	8	8	E	RAMY	7561	
14	APR	2020E	0021	S20	E90	08	21.7	1		9	9	E	HOLL		
14	APR	2025E	0021	S23	W90	08	7.9	1		9	9	E	HOLL		
14	EPL	2119	2315D	S23	W90	08	7.9	3	-	9	9	E	HOLL		
14	EPL	2213E	2234	S22	W90	08	8.0	3		8	7	E	RAMY		
14	DSF	2321U	1305U	N14	E55	08	19.1		10	0	0	E	HOLL		
14	DSF	2321U	1305U	S31	W16	08	13.7		10	0	0	E	HOLL		
14	AFS	2350E	0945	N00	E22	08	16.6		03	7	7	E	LEAR	7563	
15	ASR	0435E	0520D	N11	W90	08	8.4			8	8	E	LEAR	7558	

ACTIVE PROMINENCES AND FILAMENTS

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Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
15	ASR	0437E	0555D	N10	W90	08	8.4			9	9	E	SVTO	7558	
15	ADF	0700E	0945	N18	W22	08	13.6	1	08	9	9	E	LEAR	7560	
15	APR	1055	1105	N23	E90	08	22.4						ATHN		
15	APR	1055	1105	S21	E90	08	22.3						ATHN		
15	AFS	1132E	1746	S01	E17	08	16.7		01	9	9	E	RAMY	7563	
15	AFS	1134E	1746	N12	W44	08	12.2		01	9	9	E	RAMY	7561	
15	AFS	1142E	1746	N18	W26	08	13.5		01	9	9	E	RAMY	7560	
15	APR	1204E	1746	N17	W90	08	8.7	1		9	9	E	RAMY	7558	
15	DSD	1255E	1955D	S02	E11	08	16.3		03	9	9	E	HOLL	7563	
15	DSD	1255E	1955D	S10	E48	08	19.1		03	9	9	E	HOLL	7565	
15	DSD	1635E	1746	S02	E09	08	16.4		02	9	9	E	RAMY	7563	
15	DSD	1637E	1746	S11	E43	08	18.9		02	9	9	E	RAMY	7565	
15	APR	1640E	0001D	S17	E90	08	22.5	1		9	9	E	HOLL		
15	APR	1641E	1746	S05	W90	08	9.0	1		9	9	E	RAMY		
15	ASR	1643E	1746	N12	W90	08	8.9			9	9	E	RAMY	7558	
15	APR	1650E	1746	S20	E90	08	22.6	1		9	9	E	RAMY		
16	APR	0505	0945	S13	E90	08	23.0						ATHN		
16	AFS	0512E	1718	S01	E03	08	16.4		01	9	9	E	SVTO	7563	
16	APR	0655E	1718	S19	E90	08	23.1	1		9	9	E	SVTO		
16	ASR	0657E	0710	S12	W90	08	9.5			9	9	E	SVTO		
16	ADF	0730E	1053D	N02	E04	08	16.6	1	04	9	9	E	SVTO	7563	
16	ADF	0845E	0950	N19	W35	08	13.7	1	06	8	8	E	LEAR	7560	
16	APR	0940E	0958	N00	E90	08	23.1	3		9	9	E	SVTO		
16	EPL	1014E	035	N01	E90	08	23.1	2	19				VALA		
16	ASR	1543E	1718	N17	W90	08	9.8			9	9	E	SVTO		
16	APR	1547E	1851D	N08	E90	08	23.4	1		9	9	E	HOLL		
16	APR	1548E	2047	S20	E90	08	23.5	1		9	9	E	HOLL		
16	CAP	1600E	1851D	N18	W90	08	9.8	1	02	9	9	E	HOLL		
16	SSB	1608		244	W06	08	20.0			0	0	E	HOLL		
16	DSF	2151U	1343U	N35	E66	08	22.2		19	0	0	E	HOLL		
16	DSF	2151U	1343U	S05	E10	08	17.6		05	0	0	E	HOLL		
16	ASR	2335E	0145D	S10	E90	08	23.7			7	7	E	LEAR		
17	ADF	0238E	0953	N20	W44	08	13.7	1	05	8	8	E	LEAR	7560	
17	APR	0500	1120	S30	E90	08	24.3						ATHN		
17	BSD	0550E	0838D	S05	E84	08	23.5		02	9	9	E	SVTO		
17	ASR	0555E	0953	S09	E88	08	23.8			5	7	E	LEAR		
17	ASR	0839E	1715	S05	E90	08	24.1			9	9	E	SVTO		
17	DSD	0850E	1715	N19	W45	08	13.9		01	9	9	E	SVTO	7560	
17	DSD	0855E	1715	N00	W12	08	16.5		02	9	9	E	SVTO	7563	
17	AFS	0856E	1715	S05	W11	08	16.5		08	5	5	E	SVTO	7563	
17	APR	0912E	1328D	S05	E90	08	24.1	1		8	7	E	SVTO		
17	DSF	0915U	2300U	S03	E11	08	18.2		09	0	0	E	LEAR		
17	DSD	1054E	2145	N01	W11	08	16.6		02	9	9	E	RAMY	7563	
17	AFS	1137E	2145	S16	W44	08	14.1		01	9	9	E	RAMY		
17	AFS	1155E	1715	S18	W44	08	14.1		01	9	9	E	SVTO		
17	ASR	1355E	2227D	S05	E77	08	23.3			9	9	E	HOLL		
17	AFS	1730E	0049D	S16	W49	08	14.0		01	7	7	E	HOLL		
17	APR	1850E	2033D	N22	W90	08	10.9			9	9	E	HOLL		
17	EPL	1921E	1946D	N22	W90	08	10.9	3		9	9	E	HOLL		
17	AFS	2116E	2145	S07	E77	08	23.6		02	9	9	E	RAMY	7566	
17	ADF	2117E	2145	S10	E79	08	23.8	1	05	9	9	E	RAMY	7566	
18	AFS	0200E	0515D	S14	W54	08	14.0		02	6	3	E	LEAR		
18	AFS	0518E	1704	S10	E66	08	23.2		01	9	9	E	SVTO	7566	
18	AFS	0520E	0954	S11	E74	08	23.8		02	9	9	E	LEAR	7566	
18	ADF	0920E	1704	S09	E71	08	23.7	1	06	9	9	E	SVTO	7566	
18	DSD	0930E	1704	S10	W19	08	17.0		01	9	9	E	SVTO	7563	
18	AFS	0948E	1704	S19	W59	08	13.9		01	9	9	E	SVTO		
18	AFS	1041E	1932	S03	W25	08	16.6		02	9	9	E	RAMY	7563	
18	DSD	1046E	1331D	S03	W28	08	16.3		02	9	9	E	RAMY	7563	
18	ADF	1047E	1932	S06	E76	08	24.1	1	11	9	9	E	RAMY	7566	
18	ADF	1047E	1932	S07	E67	08	23.5	1	06	9	9	E	RAMY	7566	
18	AFS	1047E	1932	S08	E69	08	23.6		01	9	9	E	RAMY	7566	
18	AFS	1053E	1932	S16	W56	08	14.2		01	7	8	E	RAMY	7567	
18	DSD	1055E	1932	S13	E10	08	19.2		03	9	9	E	RAMY	7565	
18	DSD	1405E	1545D	N12	W19	08	17.1		01	9	9	E	SVTO		
18	DSD	1418E	1932	N01	W16	08	17.4		02	9	9	E	RAMY		
18	DSD	1419E	1932	S04	E64	08	23.4		03	9	9	E	RAMY	7566	

ACTIVE PROMINENCES AND FILAMENTS

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Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
18	BSD	1500E	1521	S29	W79	08	12.4		03	9	9	E	SVTO		
18	DSD	2235	2255	S04	W29	08	16.8		03	9	9	E	HOLL	7563	
19	DSD	0513E	0810D	S13	E09	08	19.9		02	9	9	E	SVTO	7565	
19	ADF	0519E	1540D	S03	E60	08	23.7	1	06	9	9	E	SVTO	7566	
19	AFS	0521E	1645	S08	E60	08	23.7		02	9	9	E	SVTO	7566	
19	DSD	0538E	0808D	S09	W35	08	16.6		02	9	9	E	SVTO	7563	
19	DSD	0734E	0808D	S02	W37	08	16.5		03	9	9	E	SVTO	7563	
19	DSD	0808E	0955	S04	E60	08	23.8		05	9	9	E	LEAR	7566	Flare Associated
19	ASR	1027E	1208D	N13	E90	08	26.2			5	7	E	SVTO		
19	AFS	1052E	1720	S14	W04	08	19.1		01	8	8	E	RAMY	7565	
19	AFS	1053E	1720	S09	E57	08	23.7		02	9	9	E	RAMY	7566	
19	ADF	1055E	1720	S09	E56	08	23.6	1	06	9	9	E	RAMY	7566	
19	AFS	1108E	1720	S14	W68	08	14.3		01	9	9	E	RAMY	7567	
19	ADF	1110E	1720	S08	W35	08	16.8	1	05	9	9	E	RAMY	7563	
19	AFS	1111E	1720	S03	W39	08	16.5		02	9	9	E	RAMY	7563	
19	ADF	1425E	1645	S02	W38	08	16.8	1	05	9	9	E	SVTO	7563	
19	SSB	2019		226	W30	08	21.9			0	0	E	HOLL		
20	AFS	0230E	0350D	S07	E47	08	23.6		04	9	9	E	LEAR	7566	
20	ADF	0350E	0950	S07	E47	08	23.7	1	05	9	9	E	LEAR	7566	
20	ASR	0425E	0530D	S15	W90	08	13.4			9	9	E	LEAR	7567	
20	AFS	0559E	1715	S07	E46	08	23.7		01	9	9	E	SVTO	7566	
20	SSB	0925		227	W38	08	22.6			0	0	E	SVTO		
20	DSD	0956E	1715	N11	E80	08	26.4		03	9	9	E	SVTO		
20	DSD	1031E	1715	S07	E41	08	23.5		02	9	9	E	SVTO	7566	
20	ADF	1400E	1715	S10	E46	08	24.0	1	04	9	9	E	SVTO	7566	
21	DSD	0232E	0704D	S10	E33	08	23.6		05	9	9	E	LEAR	7566	
21	DSD	0517E	0927	S08	E34	08	23.8		04	9	9	E	SVTO	7566	
21	AFS	0517E	1719	S08	E34	08	23.8		01	9	9	E	SVTO	7566	
21	AFS	0523E	1402D	S04	W62	08	16.6		01	9	9	E	SVTO	7563	
21	AFS	0523E	1719	N10	E69	08	26.4		02	9	9	E	SVTO	7568	
21	AFS	0712E	0954	N08	E68	08	26.4		03	9	9	E	LEAR		
21	DSD	0840E	0954	S12	E28	08	23.5		05	9	9	E	LEAR	7566	Flare Associated
21	DSD	1107E	1652D	S07	E29	08	23.6		02	9	9	E	RAMY	7566	
21	AFS	1107E	2029	S09	E31	08	23.8		01	9	9	E	RAMY	7566	
21	DSD	1113E	2029	N11	E66	08	26.4		02	9	9	E	RAMY	7568	
21	DSD	1115E	2029	S09	W27	08	19.4		02	9	9	E	RAMY	7565	
21	AFS	1122E	2029	S09	W60	08	17.0		01	9	9	E	RAMY		
21	DSD	1125E	1133	S10	E29	08	23.6		06	9	9	E	RAMY	7566	Flare Associated
21	DSD	1132E	1719	S09	E29	08	23.6		04	9	9	E	SVTO	7566	
21	SSB	1350		240	W67	08	25.2			0	0	E	HOLL		
21	AFS	1622E	2029	N11	E64	08	26.5		02	9	9	E	RAMY	7568	
21	ADF	1623E	2029	S11	E80	08	27.7	1	03	9	9	E	RAMY		
21	AFS	1720E	0105	N09	E60	08	26.2		02	8	7	E	HOLL		
21	AFS	2344E	0956	N09	E59	08	26.4		01	9	9	E	LEAR	7568	
22	DSD	0446E	1130D	S06	E20	08	23.7		01	9	9	E	SVTO	7566	
22	DSD	0449E	1130D	N11	E57	08	26.5		01	9	9	E	SVTO	7568	
22	AFS	0453E	1433D	S12	W29	08	20.0		02	9	9	E	SVTO		
22	DSD	0607E	1130D	S05	W74	08	16.7		01	9	9	E	SVTO	7563	
22	AFS	0607E	1400D	N11	E56	08	26.5		03	9	9	E	SVTO	7568	
22	AFS	0735E	1712	S08	E20	08	23.8		02	9	9	E	SVTO	7566	
22	ADF	0954E	1712	S07	E19	08	23.8	1	04	9	9	E	SVTO	7566	
22	ADF	1118E	2130	S06	E16	08	23.7	1	04	9	9	E	RAMY	7566	
22	AFS	1123E	2130	S12	W43	08	19.2		01	8	8	E	RAMY	7565	
22	AFS	1124E	2130	S11	W32	08	20.1		01	6	7	E	RAMY	7569	
22	AFS	1230E	1712	S11	W44	08	19.2		02	9	9	E	SVTO	7565	
22	ADF	1335E	0115	S08	E17	08	23.8	1	04	9	9	E	HOLL	7566	
22	AFS	1515E	1712	N09	E49	08	26.3		01	9	9	E	SVTO	7568	
22	AFS	1647E	1712	S12	W70	08	17.4		01	9	9	E	SVTO		
22	AFS	1657E	2022D	S18	W27	08	20.6		02	9	9	E	HOLL		
22	AFS	1739E	2130	S09	E19	08	24.2		02	9	9	E	RAMY	7566	
22	AFS	1740E	2130	N09	E46	08	26.2		01	9	9	E	RAMY	7568	
22	DSD	1914E	2130	S06	E08	08	23.4		02	9	9	E	RAMY	7566	
23	DSF	0020U	1355U	S27	E01	08	23.1		17	0	0	E	HOLL		
23	AFS	0200E	0950	N07	E41	08	26.1		04	9	9	E	LEAR	7568	
23	AFS	0200E	0950	S07	E07	08	23.6		02	9	9	E	LEAR	7566	

ACTIVE PROMINENCES AND FILAMENTS

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Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
23	DSD	0205E	0255D	S08	E09	08	23.8		02	9	9	E	LEAR	7566	
23	AFS	0315E	0950	S17	W34	08	20.5		01	9	9	E	LEAR		
23	BSD	0500E	0710D	S09	E77	08	29.0		01	9	9	E	SVTO		
23	BSD	0500E	0710D	S09	W77	08	17.4		01	9	9	E	SVTO		
23	AFS	0500E	1127D	S12	W52	08	19.3		02	9	9	E	SVTO	7565	
23	AFS	0500E	1127D	S19	W33	08	20.7		02	9	9	E	SVTO		
23	DSD	0507E	1715	S08	E06	08	23.7		01	9	9	E	SVTO	7566	
23	DSD	0508E	1245D	S12	W41	08	20.1		02	9	9	E	SVTO	7568	
23	ADF	0620E	0950	S04	E04	08	23.6	1	07	6	7	E	LEAR	7566	
23	ADF	0630E	1715	S08	E08	08	23.9		04	9	9	E	SVTO	7566	
23	BSD	0645E	800D	S10	E09	08	23.9						BUCA		
23	DSD	0735E	0944D	S17	W40	08	20.3		01	9	9	E	SVTO		
23	AFS	0800E	1715	S08	E08	08	23.9		02	9	9	E	SVTO	7566	
23	SSB	1105		208	W59	08	24.2			0	0	E	RAMY		
23	AFS	1110E	1822	S11	W56	08	19.2		01	9	9	E	RAMY	7565	
23	AFS	1114E	1715	N10	E37	08	26.2		02	9	9	E	SVTO	7568	
23	AFS	1133E	1822	N09	E36	08	26.2		02	9	9	E	RAMY	7568	
23	AFS	1145E	1715	S18	W35	08	20.8		02	9	9	E	SVTO		
23	ASR	1216E	1232D	S10	W90	08	16.7			9	9	E	SVTO		
23	ASR	1340E	1622D	S09	W85	08	17.2			7	7	E	HOLL		
23	SSB	1342		148	W01	08	27.1			0	0	E	HOLL		
23	ASR	1545E	1620D	N24	E90	08	30.6			9	9	E	SVTO		
23	AFS	2350E	0950	S17	W45	08	20.6		01	7	7	E	LEAR		
24	ASR	0715E	0950	N05	E90	08	31.0			8	8	E	LEAR		
24	SSB	0830		163	W26	08	29.2			0	0	E	LEAR		
24	ASR	0910E	1710	N08	E90	08	31.1			9	9	E	SVTO		
24	DSD	0940E	1710	S08	W09	08	23.7		01	9	9	E	SVTO	7566	
24	AFS	0940E	1710	S09	W07	08	23.9		02	9	9	E	SVTO	7566	
24	DSD	0942E	1710	N09	E19	08	25.8		01	9	9	E	SVTO	7568	
24	AFS	0942E	1710	N24	E10	08	25.2		02	9	9	E	SVTO	7568	
24	DSD	0943E	1710	N22	E80	08	30.5		02	9	9	E	SVTO		
24	DSD	0944E	1710	S09	E43	08	27.6		01	9	9	E	SVTO	7570	
24	DSD	0945E	1710	S13	W54	08	20.3		01	9	9	E	SVTO	7569	
24	AFS	0946E	1710	S19	W48	08	20.7		03	9	9	E	SVTO		
24	SSB	1028		161	W25	08	29.2			0	0	E	SVTO		
24	AFS	1050E	2101	N21	E75	08	30.2		02	9	9	E	RAMY	7572	
24	ASR	1052E	2101	N07	E90	08	31.2			9	9	E	RAMY		
24	AFS	1056E	2101	S10	E42	08	27.6		01	9	9	E	RAMY	7570	
24	DSD	1059E	2101	S09	W67	08	19.4		02	9	9	E	RAMY	7565	
24	AFS	1105E	2101	S18	W50	08	20.6		02	9	9	E	RAMY	7571	
24	AFS	1110E	2101	S09	W09	08	23.8		02	8	8	E	RAMY	7566	
24	SSB	1130		141	W06	08	27.5			0	0	E	RAMY		162 W27
24	DSD	1357E	1710	N22	E74	08	30.3		01	9	9	E	SVTO		
24	ASR	1536E	0116	N07	E90	08	31.4			9	9	E	HOLL		
24	ADF	1614E	0116	N08	E18	08	26.0	1	06	9	9	E	HOLL	7568	
24	DSD	1629E	2101	N09	E16	08	25.9		02	9	9	E	RAMY	7568	
24	DSD	1709E	1805D	S09	W64	08	19.9		01	9	9	E	HOLL	7569	
25	DSD	0515E	1244D	S09	W18	08	23.9		01	9	9	E	SVTO	7566	
25	DSD	0515E	1615	S10	W16	08	24.0		02	9	9	E	SVTO	7566	
25	AFS	0517E	1615	N11	E13	08	26.2		02	9	9	E	SVTO	7568	
25	AFS	0519E	1323D	N22	E67	08	30.4		02	9	9	E	SVTO	7572	
25	DSD	0520E	1615	S12	W77	08	19.4		02	9	9	E	SVTO	7565	
25	DSD	0522E	1615	N10	E17	08	26.5		01	9	9	E	SVTO	7568	
25	AFS	0639E	1615	S12	W16	08	24.1		03	9	9	E	SVTO	7566	
25	DSD	0759E	1615	S13	W70	08	20.0		02	9	9	E	SVTO	7569	
25	AFS	1057E	1649	N09	E07	08	26.0		01	9	9	E	RAMY	7568	
25	ADF	1119E	1649	N05	E74	08	31.0	1	04	9	9	E	RAMY	7573	
25	DSD	1119E	1649	N07	E72	08	30.9		02	9	9	E	RAMY	7573	
25	AFS	1123E	1649	N21	E62	08	30.2		02	9	9	E	RAMY	7572	
25	AFS	1132E	1649	S19	W63	08	20.7		01	8	8	E	RAMY	7571	
25	DSD	1243E	1615	S07	W25	08	23.6		03	9	9	E	SVTO	7566	
25	DSD	1300E	1649	S06	W26	08	23.6		03	9	9	E	RAMY	7566	
25	DSD	1300E	1649	S09	W24	08	23.7		01	9	9	E	RAMY	7566	
25	AFS	1319E	2250	N08	E07	08	26.1		01	7	7	E	HOLL	7568	
25	ADF	1430E	1707	S09	E26	08	27.5	1	07	9	9	E	HOLL	7570	
25	DSD	1440E	1615	N08	E70	08	30.8		04	9	9	E	SVTO	7573	
26	AFS	0612E	1540	N08	W04	08	25.9		02	9	9	E	SVTO	7568	

ACTIVE PROMINENCES AND FILAMENTS

AUGUST 1993

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
26	DSD	0640E	1033D	S12	W35	08	23.6		03	9	9	E	SVTO	7566	
26	AFS	0725E	0953	N10	W01	08	26.2		02	9	9	E	LEAR	7568	
26	AFS	0805E	1540	S10	W33	08	23.8		02	9	9	E	SVTO	7566	
26	DSD	0812E	0920D	N10	E68	08	31.4		03	9	9	E	SVTO	7573	
26	AFS	0828E	0953	N20	E48	08	30.0		02	9	9	E	LEAR	7572	
26	DSD	0840E	1033D	N21	E48	08	30.0		02	9	9	E	SVTO	7572	
26	AFS	0844E	1540	N22	E51	08	30.3		02	9	9	E	SVTO	7572	
26	AFS	0920E	1540	N09	E63	08	31.1		02	9	9	E	SVTO	7573	
26	SSB	0945		144	W34	08	29.9			0	0	E	SVTO		
26	DSD	1041E	1540	N07	E62	08	31.1		03	9	9	E	SVTO	7573	Flare Associated
26	DSD	1053E	1905D	S10	W37	08	23.7		04	9	9	E	RAMY	7566	
26	AFS	1055E	2201	N08	W06	08	26.0		02	9	9	E	RAMY	7568	
26	ADF	1059E	2201	N08	E62	08	31.1	1	06	9	9	E	RAMY	7573	
26	AFS	1059E	2201	N08	E63	08	31.2		01	9	9	E	RAMY	7573	
26	SSB	1106		112	W03	08	27.3			0	0	E	RAMY		130 W21
26	DSD	1126E	1315D	S17	W14	08	25.4		03	8	7	E	RAMY		
26	DSD	1322E	1905D	S10	W39	08	23.6		03	9	9	E	RAMY	7566	
26	AFS	1337E	2118	N08	W08	08	26.0		02	7	7	E	HOLL	7568	
26	SSB	1345		147	W40	08	30.4			0	0	E	HOLL		
26	AFS	1725E	1758D	N07	E59	08	31.1		02	9	9	E	HOLL	7573	
26	DSD	2028E	2201	S10	W41	08	23.8		02	9	9	E	RAMY	7566	
26	DSF	2028U	1145U	N21	E33	08	29.4	2	09	0	0	E	RAMY		
26	AFS	2316E	0829D	N08	E54	08	31.0		02	7	7	E	LEAR	7573	
26	AFS	2338E	0955	N10	W14	08	25.9		01	8	8	E	LEAR	7568	
27	AFS	0240E	0955	N11	W14	08	26.0		03	9	9	E	LEAR	7568	
27	AFS	0555E	1430	N08	E50	08	31.0		01	7	7	E	SVTO	7573	
27	AFS	0607E	1430	S09	W47	08	23.7		01	9	9	E	SVTO	7566	
27	AFS	0734E	1430	N08	W18	08	26.0		02	9	9	E	SVTO	7568	
27	AFS	0742E	1017D	N22	E40	08	30.4		01	5	5	E	SVTO	7572	
27	ADF	0809E	0959D	N09	E51	08	31.2	1	05	5	6	E	SVTO	7573	
27	SSB	0832		143	W46	08	30.9			0	0	E	SVTO		
27	AFS	1115E	2159	N09	W20	08	26.0		02	9	9	E	RAMY	7568	
27	DSD	1116E	1350D	N10	W24	08	25.7		03	9	9	E	RAMY	7568	
27	ADF	1118E	2159	N11	W18	08	26.1	1	03	9	9	E	RAMY	7568	
27	AFS	1120E	2159	S07	W50	08	23.7		01	9	9	E	RAMY	7566	
27	DSD	1122E	2030D	S09	W52	08	23.6		02	9	9	E	RAMY	7566	
27	DSD	1126E	2159	N22	E33	08	30.0		01	9	9	E	RAMY	7572	
27	DSD	1126E	1336D	N08	W24	08	25.7		03	9	9	E	SVTO	7568	
27	AFS	1129E	2159	N08	E48	08	31.1		02	9	9	E	RAMY	7573	
27	DSD	1131E	2159	N05	E50	08	31.2		02	9	9	E	RAMY	7573	
27	APR	1216E	2030D	N11	E90	09	3.3	1		9	9	E	RAMY		
27	DSD	1350E	2159	N10	E20	08	29.1		02	9	9	E	RAMY	7568	
27	DSD	1405E	1710	N09	W19	08	26.2		03	9	9	E	HOLL	7568	
27	AFS	1508E	2350D	N08	E46	08	31.1		02	8	8	E	HOLL	7573	
27	ADF	1756E	2159	S04	W56	08	23.6	1	05	9	9	E	RAMY	7566	
27	AFS	2335E	0950	N11	W27	08	25.9		02	9	9	E	LEAR	7568	
27	ADF	2337E	0713D	N10	W25	08	26.1	1	04	9	9	E	LEAR	7568	
28	AFS	0220E	0545D	N06	E35	08	30.7		02	9	9	E	LEAR	7573	
28	DSD	0430E	0950	N09	W30	08	25.9		03	9	8	E	LEAR	7568	
28	SSB	0725		115	W31	08	29.5			0	0	E	LEAR		
28	AFS	1043E	1849	N08	E35	08	31.1		02	9	9	E	RAMY	7573	
28	AFS	1050E	1849	N18	E26	08	30.4		01	9	9	E	RAMY	7572	
28	DSD	1051E	1609D	S11	W64	08	23.6		02	9	9	E	RAMY	7566	
28	APR	1055E	1849	S22	W90	08	21.5	1		9	9	E	RAMY		
28	AFS	1100E	1849	N09	W33	08	26.0		02	9	9	E	RAMY	7568	
28	DSD	1319E	1501D	N02	W34	08	26.0		02	9	9	E	HOLL	7568	
28	DSD	1336E	1625D	S05	E24	08	30.4		01	9	9	E	HOLL	7573	
28	DSD	1345E	1450D	N07	E30	08	30.8		02	9	9	E	RAMY	7573	
28	DSD	1450E	1559D	N10	W35	08	26.0		02	9	9	E	RAMY	7568	
28	AFS	1454E	2337	N08	W35	08	26.0		02	9	9	E	HOLL	7568	
28	ADF	1609E	1849	S10	W65	08	23.8	1	03	9	9	E	RAMY	7566	
28	APR	1705E	1849	S04	E90	09	4.4	1		9	9	E	RAMY		
29	AFS	0135E	0725D	N09	W42	08	25.9		02	9	9	E	LEAR	7568	
29	AFS	1034E	2204	N08	W45	08	26.1		03	9	9	E	RAMY	7568	
29	DSD	1043E	2204	N19	E07	08	30.0		03	7	7	E	RAMY	7572	
29	APR	1049E	2204	N03	E90	09	5.2	1		9	8	E	RAMY		
29	APR	1052E	2204	S19	W90	08	22.6	1		8	9	E	RAMY		

ACTIVE PROMINENCES AND FILAMENTS

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Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
29	AFS	1057E	2204	S03	E41	09	1.5		01	8	8	E	RAMY		
29	AFS	1100E	1616	N06	W46	08	26.0		03	9	9	E	SVTO	7568	
29	DSD	1109E	1616	N21	E15	08	30.6		02	9	9	E	SVTO	7572	
29	SSB	1113		454	W25	08	25.3			0	0	E	RAMY		112 W43 141 W72
29	AFS	1125E	1616	S02	E42	09	1.6		01	8	8	E	SVTO		
29	ASR	1405E	1622D	N08	E81	09	4.6			4	5	E	RAMY		
29	AFS	1812E	2309	N09	W50	08	26.0		02	9	9	E	HOLL	7568	
29	ADF	1812E	2309	N21	E07	08	30.3	1	04	9	9	E	HOLL	7572	
29	DSD	1916E	2204	N07	W56	08	25.6		03	9	9	E	RAMY	7568	
29	DSD	1917E	2309	N07	W56	08	25.6		03	9	9	E	HOLL	7568	
30	AFS	0120E	0950	N09	W55	08	25.9		03	9	9	E	LEAR	7568	
30	AFS	0121E	0950	N07	E07	08	30.6		01	9	9	E	LEAR	7573	
30	ASR	0220E	0950	S10	W90	08	23.3			9	9	E	LEAR	7566	
30	AFS	0240E	0950	S21	E27	09	1.2		03	9	9	E	LEAR		
30	AFS	0508E	1645	N09	E11	08	31.0		02	9	9	E	SVTO	7573	
30	AFS	0511E	1645	S03	E30	09	1.4		01	9	9	E	SVTO		
30	DSD	0513E	0607D	N01	W24	08	28.4		01	9	9	E	SVTO	7572	
30	AFS	0607E	1645	N21	E00	08	30.2		03	9	9	E	SVTO	7572	
30	AFS	0620E	1645	S07	E38	09	2.1		01	9	9	E	SVTO		
30	AFS	1030E	1645	N06	W61	08	25.9		01	9	9	E	SVTO	7568	
30	AFS	1038E	1643	N08	W58	08	26.1		01	9	9	E	RAMY	7568	
30	AFS	1043E	1643	S20	E23	09	1.2		01	8	8	E	RAMY		
30	AFS	1045E	1643	S07	E34	09	2.0		01	9	9	E	RAMY	7575	
30	DSD	1048E	1643	S03	W25	08	28.6		02	9	9	E	RAMY		
30	AFS	1048E	1643	S04	W27	08	28.4		01	8	8	E	RAMY		
30	APR	1055E	1643	S18	W90	08	23.6	1		9	9	E	RAMY		
30	APR	1057E	1643	S13	E85	09	5.9	1		9	9	E	RAMY		
30	APR	1100E	1643D	N04	W90	08	23.7	1		9	9	E	RAMY		
30	SSB	1112		454	W38	08	26.1			0	0	E	RAMY		117 W61
30	AFS	1139E	1643	N09	E08	08	31.1		02	6	7	E	RAMY	7573	
30	APR	1417E	2135D	S20	W90	08	23.7	1		9	9	E	HOLL		
31	AFS	0001E	0950	S08	E03	08	31.2		02	9	9	E	LEAR		
31	AFS	0025E	0950	N09	W69	08	25.8		02	9	9	E	LEAR	7568	
31	ADF	0026E	0950	N10	W66	08	26.0	1	03	9	9	E	LEAR	7568	
31	ASR	0320E	0950	S13	W90	08	24.3			9	7	E	LEAR	7574	
31	AFS	0517E	1635	S08	E25	09	2.1		01	9	9	E	SVTO	7575	
31	AFS	0519E	1635	N06	W72	08	25.8		02	9	9	E	SVTO	7568	
31	ASR	0527E	1403D	S15	W40	08	28.2			9	9	E	SVTO		
31	DSD	0550E	0916D	N07	W04	08	30.9		02	9	9	E	SVTO	7573	
31	DSD	0551E	1406D	N05	W04	08	30.9		01	9	9	E	SVTO	7573	
31	DSD	0555E	0917D	S10	E16	09	1.4		01	9	9	E	SVTO		
31	DSD	0615E	0921D	N06	E70	09	5.5		01	9	9	E	SVTO		
31	ASR	0847E	1135D	N11	E90	09	7.1			9	9	E	SVTO		
31	DSD	0913E	1635	S16	W62	08	26.7		02	9	9	E	SVTO	7574	
31	DSD	0918E	1635	S08	E17	09	1.7		01	9	9	E	SVTO		
31	DSD	0920E	1337D	S20	E06	08	31.8		01	9	9	E	SVTO		
31	AFS	1032E	1800	N11	E60	09	4.9		02	9	9	E	RAMY		
31	AFS	1033E	1800	N09	W67	08	26.4		02	9	9	E	RAMY	7568	
31	DSD	1035E	1800	N11	W68	08	26.3		02	9	9	E	RAMY	7568	
31	DSD	1050E	1800	S09	E22	09	2.1		01	9	9	E	RAMY	7575	
31	ASR	1059E	1800D	S12	W90	08	24.7			9	9	E	RAMY		
31	ASR	1233E	1800	N12	E90	09	7.3			9	9	E	RAMY	7576	
31	ASR	1327E	1515D	N13	E90	09	7.3			9	9	E	SVTO		
31	APR	1343E	1800	S20	W90	08	24.7	1		9	9	E	RAMY		
31	ASR	1454E	1800	N08	W79	08	25.7			9	9	E	RAMY	7568	
31	ASR	1515	1635	S16	W90	08	24.8			9	9	E	SVTO		
31	BSD	1535E	1548	N06	W81	08	25.6		11	9	9	E	SVTO	7568	
31	DSF	1722U	1152U	N20	E66	09	5.8	2	08	0	0	E	RAMY		
31	ADF	2345E	0700D	N08	W12	08	31.1	1	04	8	8	E	LEAR	7573	

CONTENTS

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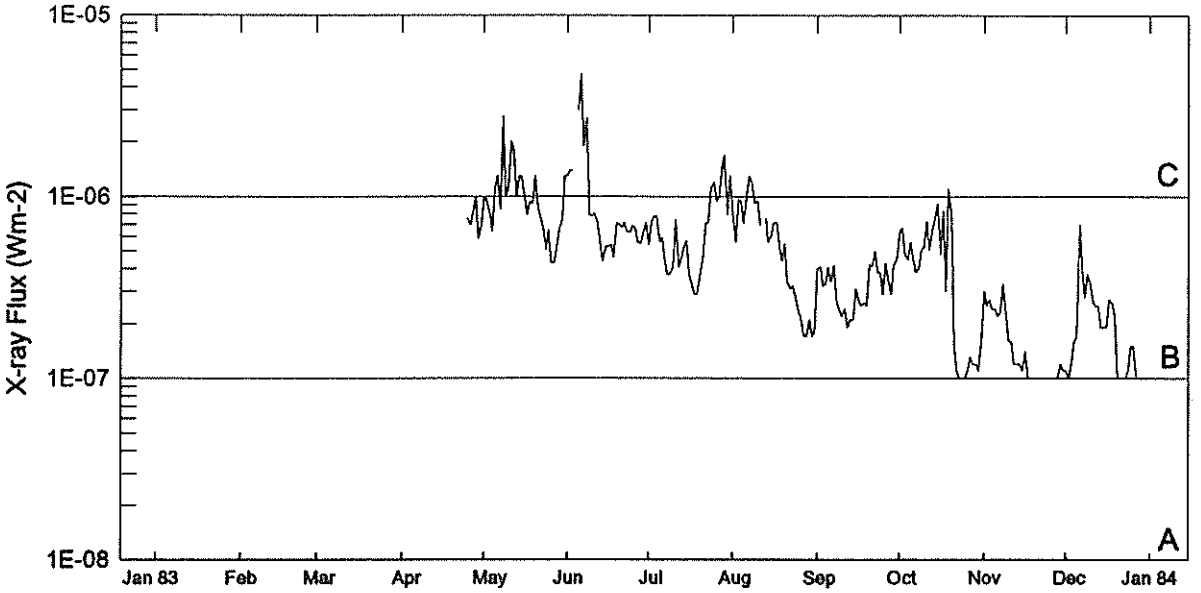
MISCELLANEOUS DATA

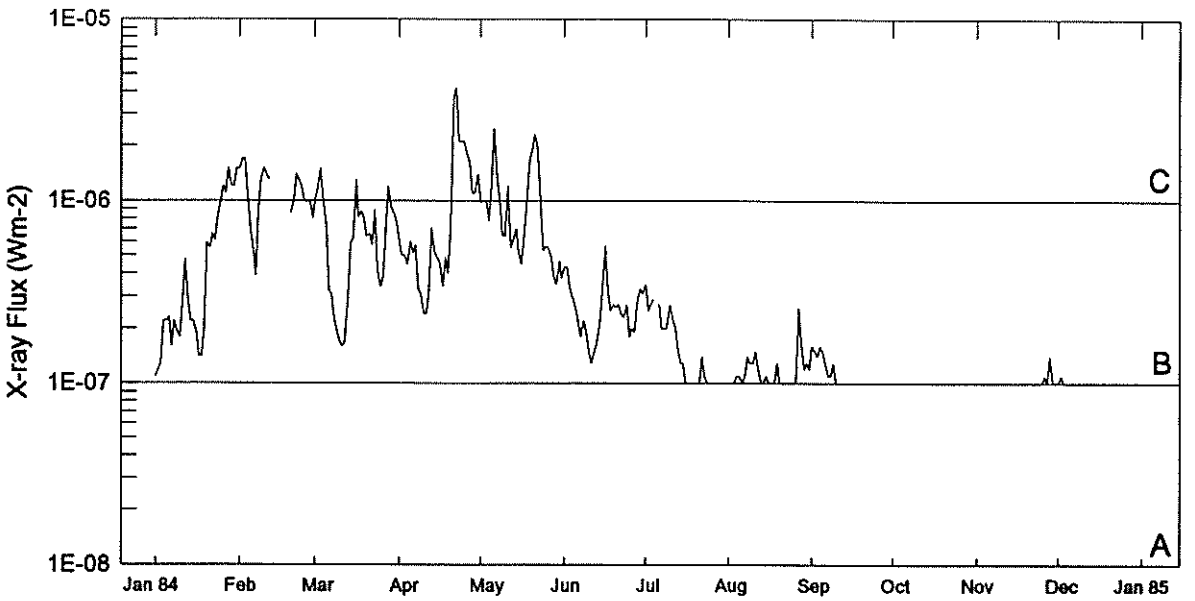
Preliminary GOES Satellite Daily X-ray Background 1983



Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1					C1.0	C1.3	B5.4	B8.1	B4.0	B6.4	B3.0	B1.1
2					B9.5	C1.4	B7.3	B5.6	B4.1	B6.7	B2.5	B1.0
3					B8.1	C1.4	B7.8	B9.6	B3.2	B4.8	B2.7	B1.2
4					B6.4	---	B7.8	B9.4	B3.3	B4.5	B2.4	B1.6
5					C1.1	C3.0	B5.6	B7.1	B4.1	B5.6	B2.4	B1.7
6					C1.3	C4.7	B5.9	C1.0	B3.4	B4.5	B2.2	B7.0
7					B8.5	C1.9	B4.4	C1.3	B4.2	B3.8	B2.3	B3.8
8					C2.8	C2.7	B3.7	C1.2	B2.6	B4.0	B3.3	B2.8
9					C1.0	B7.9	B3.7	B9.2	B2.4	B5.1	B2.2	B3.7
10					C1.1	B7.8	B4.1	B9.4	B2.2	B5.3	B1.6	B3.4
11					C2.0	B8.0	B7.4	B6.9	B2.4	B7.3	B1.6	B2.6
12					C1.8	B7.2	B4.1	---	B1.9	B5.1	B1.2	B2.5
13					C1.0	B5.5	B4.4	B7.6	B2.1	B6.6	B1.2	B2.5
14					C1.3	B4.4	B5.3	B5.6	B2.1	B7.6	B1.2	B1.9
15					C1.3	B5.3	B5.7	B6.0	B3.1	B9.1	B1.1	B1.9
16					C1.0	B5.3	B3.8	B7.2	B2.7	B4.8	B1.4	B1.9
17					B7.9	B5.4	B3.2	B7.2	B2.5	B8.3	B1.0	B2.7
18					B9.3	B4.6	B2.9	B5.3	B2.6	B3.0	<B1.0	B2.6
19					B9.2	B7.1	B2.9	B4.4	B2.5	C1.1	B1.0	B2.2
20					C1.3	B7.0	B3.6	B5.5	B4.2	B7.7	<B1.0	B1.0
21					B8.8	B6.7	B4.6	B3.4	B4.1	B1.5	<B1.0	<B1.0
22					B7.7	B7.2	B7.1	B3.1	B5.0	B1.1	<B1.0	<B1.0
23					B6.6	B6.4	B7.2	B3.2	B3.8	<B1.0	<B1.0	<B1.0
24					B5.1	B6.3	C1.1	B2.8	B3.8	<B1.0	<B1.0	B1.1
25				B7.5	B6.5	B6.9	C1.2	B2.4	B2.9	<B1.0	<B1.0	B1.5
26				B7.0	B4.3	B6.7	B9.4	B2.1	B4.3	B1.1	<B1.0	B1.5
27				B8.3	B4.3	B5.6	C1.0	B1.7	B3.4	B1.3	<B1.0	B1.0
28				C1.0	B5.3	B5.5	C1.5	B1.7	B2.9	B1.2	B1.0	<B1.0
29				B5.8	B6.6	B6.3	C1.7	B2.1	B4.2	B1.2	B1.2	<B1.0
30				B7.0	B7.6	B7.2	B7.9	B1.7	B4.5	B1.1	B1.1	<B1.0
31					C1.3		C1.3	B1.8		B1.7		B1.0

Note: Data not available until 25 Apr 83. Data <B1.0 shown as B1.0.

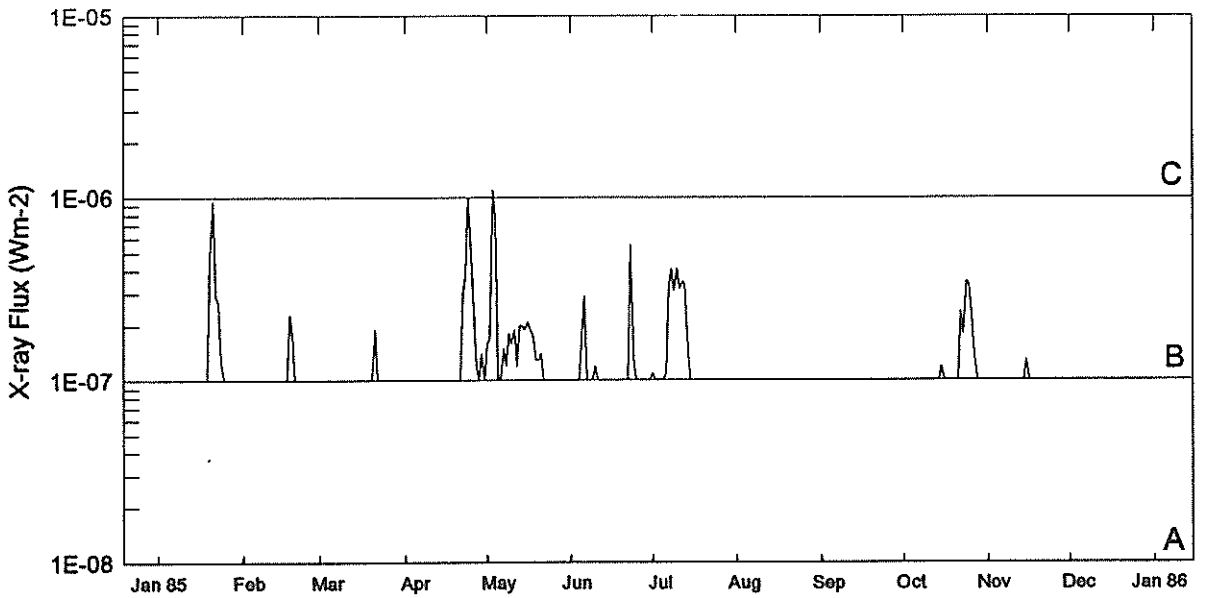
Preliminary GOES Satellite Daily X-ray Background 1984



Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	B1.1	C1.5	C1.2	B5.0	C1.0	B4.3	B2.5	<B1.0	B1.5	<B1.0	<B1.0	B1.1
2	B1.2	C1.7	C1.5	B5.0	C1.0	B3.3	B2.7	B1.0	B1.4	<B1.0	<B1.0	<B1.0
3	B1.3	C1.7	C1.0	B4.5	B7.7	B2.9	B2.9	B1.1	B1.6	<B1.0	<B1.0	<B1.0
4	B2.2	C1.1	B7.3	B6.0	C1.2	B2.6	---	B1.1	B1.5	<B1.0	<B1.0	<B1.0
5	B2.2	B6.8	B3.2	B5.2	C2.5	B2.2	B2.7	B1.0	B1.3	<B1.0	<B1.0	<B1.0
6	B2.3	B5.4	B3.1	B5.7	C1.3	B1.8	B2.0	B1.1	B1.1	<B1.0	<B1.0	<B1.0
7	B1.6	B3.9	B2.3	B3.3	C1.0	B2.2	B2.0	B1.4	B1.1	<B1.0	<B1.0	<B1.0
8	B2.2	B8.9	B1.9	B3.1	B6.5	B1.9	B2.0	B1.3	B1.3	<B1.0	<B1.0	<B1.0
9	B1.9	C1.3	B1.7	B2.4	B6.4	B1.5	B2.7	B1.3	<B1.0	<B1.0	<B1.0	<B1.0
10	B1.8	C1.5	B1.6	B2.4	C1.2	B1.3	B2.3	B1.5	<B1.0	<B1.0	<B1.0	B1.0
11	B2.8	C1.4	B1.7	B3.2	B5.5	B1.5	B2.0	B1.2	<B1.0	<B1.0	<B1.0	B1.0
12	B4.8	C1.3	B3.0	B7.1	B6.1	B1.7	B1.6	B1.0	<B1.0	<B1.0	<B1.0	<B1.0
13	B2.8	---	B5.9	B5.2	B7.0	B2.1	B1.3	B1.0	<B1.0	<B1.0	<B1.0	<B1.0
14	B2.2	---	B6.2	B4.9	B5.4	B3.6	B1.3	B1.1	<B1.0	<B1.0	<B1.0	<B1.0
15	B2.2	---	C1.3	B4.6	B4.5	B5.7	B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0
16	B1.9	---	B8.1	B3.4	B6.3	B3.2	B1.0	B1.0	<B1.0	<B1.0	<B1.0	<B1.0
17	B1.4	---	B8.7	B4.9	B9.5	B2.5	B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0
18	B1.4	---	B8.0	B4.0	C1.7	B2.7	<B1.0	B1.3	<B1.0	<B1.0	<B1.0	<B1.0
19	B2.0	---	B6.4	B7.2	C1.9	B2.6	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0
20	B5.9	B8.6	B6.6	C3.7	C2.3	B2.7	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0
21	B5.5	C1.0	B5.7	C4.2	C2.0	B2.4	B1.4	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0
22	B6.6	C1.4	B8.9	C2.1	C1.0	B2.3	B1.1	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0
23	B6.1	C1.3	B4.2	C2.1	B5.3	B2.7	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0
24	B8.2	C1.2	B3.4	C2.1	B5.6	B1.8	<B1.0	<B1.0	<B1.0	<B1.0	B1.0	<B1.0
25	C1.0	C1.0	B3.8	C1.8	B5.5	B2.0	B1.0	<B1.0	<B1.0	<B1.0	B1.1	<B1.0
26	C1.2	B9.9	B6.7	C1.6	B4.9	B1.9	<B1.0	B2.6	<B1.0	<B1.0	<B1.0	---
27	C1.1	C1.0	C1.2	C1.1	B3.8	B2.9	<B1.0	B1.7	<B1.0	<B1.0	B1.4	<B1.0
28	C1.5	B8.0	B9.1	C1.1	B3.5	B3.3	<B1.0	B1.2	<B1.0	<B1.0	B1.0	<B1.0
29	C1.2	C1.0	B8.6	C1.4	B4.7	B3.1	<B1.0	B1.3	<B1.0	---	<B1.0	<B1.0
30	C1.2		B7.7	B9.8	B3.8	B3.5	<B1.0	B1.2	<B1.0	<B1.0	<B1.0	<B1.0
31	C1.5		B5.9		B4.4		<B1.0	B1.6		<B1.0		<B1.0

Note: Data <B1.0 shown as B1.0.

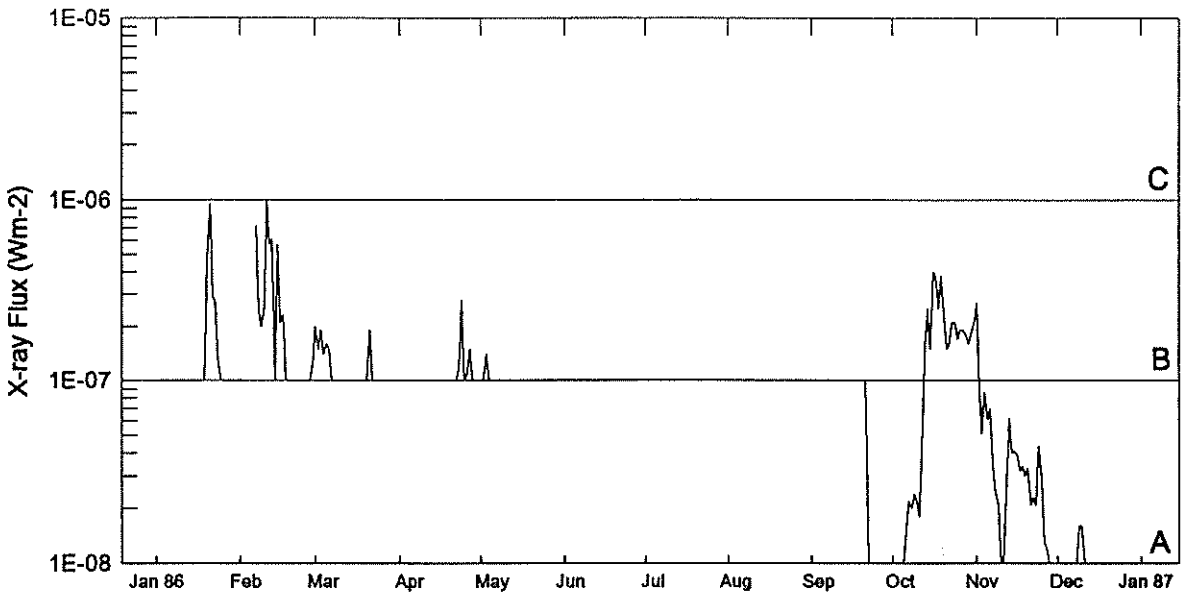
Preliminary GOES Satellite Daily X-ray Background 1985



Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	<B1.0	<B1.0	<B1.0	<B1.0	B1.6	<B1.0	B1.1	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0
2	<B1.0	<B1.0	<B1.0	<B1.0	B1.7	<B1.0	B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0
3	<B1.0	<B1.0	<B1.0	<B1.0	C1.1	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0
4	<B1.0	<B1.0	<B1.0	<B1.0	B7.7	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0
5	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	B1.8	B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0
6	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	B2.9	B1.1	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0
7		<B1.0	<B1.0	<B1.0	B1.5	B1.0	B3.2	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0
8	<B1.0	<B1.0	<B1.0	<B1.0	B1.2	B1.0	B4.1	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0
9	<B1.0	<B1.0	<B1.0	<B1.0	B1.8	B1.0	B3.1	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0
10	<B1.0	<B1.0	<B1.0	<B1.0	B1.6	B1.2	B4.1	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0
11	<B1.0	<B1.0	<B1.0	<B1.0	B1.9	B1.0	B3.2	<B1.0	<B1.0	<B1.0	<B1.0	B1.0
12	<B1.0	<B1.0	<B1.0	<B1.0	B1.2	B1.0	B3.5	<B1.0	<B1.0	<B1.0	<B1.0	B1.0
13	<B1.0	<B1.0	<B1.0	<B1.0	B2.0	<B1.0	B3.4	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0
14	<B1.0	<B1.0	<B1.0	<B1.0	B2.0	<B1.0	B1.5	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0
15	<B1.0	<B1.0	<B1.0	<B1.0	B1.9	<B1.0	<B1.0	<B1.0	<B1.0	B1.2	B1.3	<B1.0
16	<B1.0	<B1.0	<B1.0	<B1.0	B2.1	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0
17	B1.0	<B1.0	<B1.0	<B1.0	B1.9	<B1.0	<B1.0	<B1.0	<B1.0	B1.0	<B1.0	<B1.0
18	<B1.0	B2.3	<B1.0	<B1.0	B1.8	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0
19	<B1.0	B1.8	<B1.0	<B1.0	B1.3	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0
20	B4.7	<B1.0	<B1.0	<B1.0	B1.3	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0
21	B9.5	<B1.0	B1.9	B1.0	B1.4	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0
22	B2.9	<B1.0	<B1.0	B2.9	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	B2.4	<B1.0	<B1.0
23	B2.7	<B1.0	<B1.0	B3.8	<B1.0	B5.5	<B1.0	<B1.0	<B1.0	B1.8	<B1.0	<B1.0
24	B1.3	<B1.0	<B1.0	C1.0	<B1.0	B1.3	<B1.0	<B1.0	<B1.0	B3.5	<B1.0	<B1.0
25	<B1.0	<B1.0	<B1.0	B5.5	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	B3.4	<B1.0	<B1.0
26	<B1.0	<B1.0	<B1.0	B2.5	<B1.0	<B1.0	B1.0	<B1.0	<B1.0	B2.3	<B1.0	<B1.0
27	<B1.0	<B1.0	<B1.0	B1.2	<B1.0	<B1.0	B1.0	<B1.0	<B1.0	B1.4	<B1.0	<B1.0
28	<B1.0	<B1.0	<B1.0	B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0
29	<B1.0		<B1.0	B1.4	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0
30	<B1.0		<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0
31	<B1.0		<B1.0		<B1.0		<B1.0	<B1.0		<B1.0		<B1.0

Note: Data <B1.0 shown as B1.0.

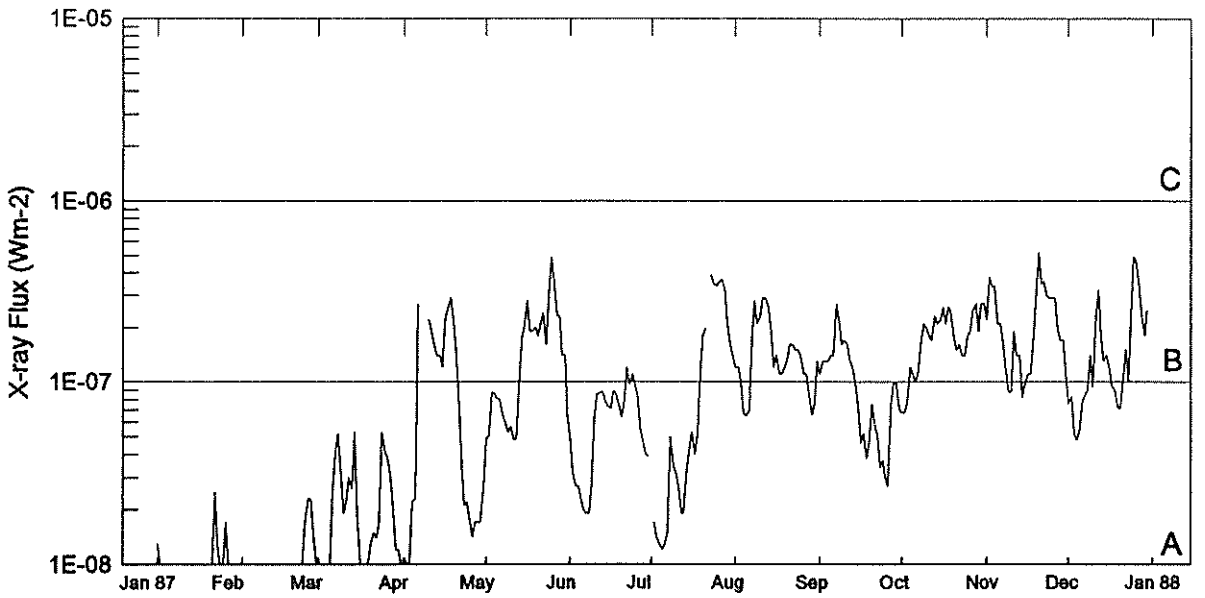
Preliminary GOES Satellite Daily X-ray Background 1986



Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	<B1.0	<B1.0	B2.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<A1.0	B2.7	<A1.0
2	<B1.0	<B1.0	B1.5	<B1.0	B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<A1.0	A9.0	<A1.0
3	<B1.0	---	B1.9	<B1.0	B1.4	<B1.0	<B1.0	<B1.0	<B1.0	<A1.0	A5.1	<A1.0
4	<B1.0	---	B1.4	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<A1.0	A8.6	<A1.0
5	<B1.0	---	B1.6	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<A1.0	A6.1	<A1.0
6	<B1.0	---	B1.5	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	A1.5	A7.0	<A1.0
7	<B1.0	B7.2	B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	A2.2	A3.6	<A1.0
8	<B1.0	B2.5	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	A2.0	A2.5	<A1.0
9	<B1.0	B2.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	A2.4	A2.1	A1.6
10	<B1.0	B2.5	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	A2.2	<A1.0	A1.6
11	<B1.0	B9.8	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	A1.8	<A1.0	<A1.0
12	<B1.0	B5.7	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	A4.3	A2.3	<A1.0
13	<B1.0	B6.1	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	B1.6	A6.2	<A1.0
14	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	B1.0	<B1.0	<B1.0	B2.5	A4.0	<A1.0
15	<B1.0	B5.7	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	B1.5	A4.1	<A1.0
16	<B1.0	B2.1	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	B4.0	A3.9	<A1.0
17	B1.0	B2.3	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	B3.7	A3.2	<A1.0
18	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	B2.5	A3.4	<A1.0
19	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	B3.8	A3.0	<A1.0
20	B4.7	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	B2.2	A3.3	<A1.0
21	B9.5	<B1.0	B1.9	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	B1.5	A2.1	<A1.0
22	B2.9	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<A1.0	B1.6	A2.3	<A1.0
23	B2.7	<B1.0	<B1.0	B1.2	<B1.0	<B1.0	<B1.0	<B1.0	<A1.0	B2.1	A2.1	<A1.0
24	B1.3	<B1.0	<B1.0	B2.8	<B1.0	<B1.0	<B1.0	<B1.0	<A1.0	B2.1	A4.4	<A1.0
25	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<A1.0	B1.7	A2.9	<A1.0
26	<B1.0	<B1.0	<B1.0	B1.1	<B1.0	<B1.0	<B1.0	<B1.0	<A1.0	B1.9	A1.3	<A1.0
27	<B1.0	B1.0	<B1.0	B1.5	<B1.0	<B1.0	<B1.0	<B1.0	<A1.0	B1.9	A1.2	<A1.0
28	<B1.0	B1.3	<B1.0	B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<A1.0	B1.8	<A1.0	<A1.0
29	<B1.0		<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<A1.0	B1.6	<A1.0	<A1.0
30	<B1.0		<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<B1.0	<A1.0	B1.8	<A1.0	<A1.0
31	<B1.0		<B1.0		<B1.0		<B1.0	<B1.0		B2.1		<A1.0

Note: Background levels <B1.0 were not reported until 22 Sep 86. Data <A1.0 shown as A1.0.

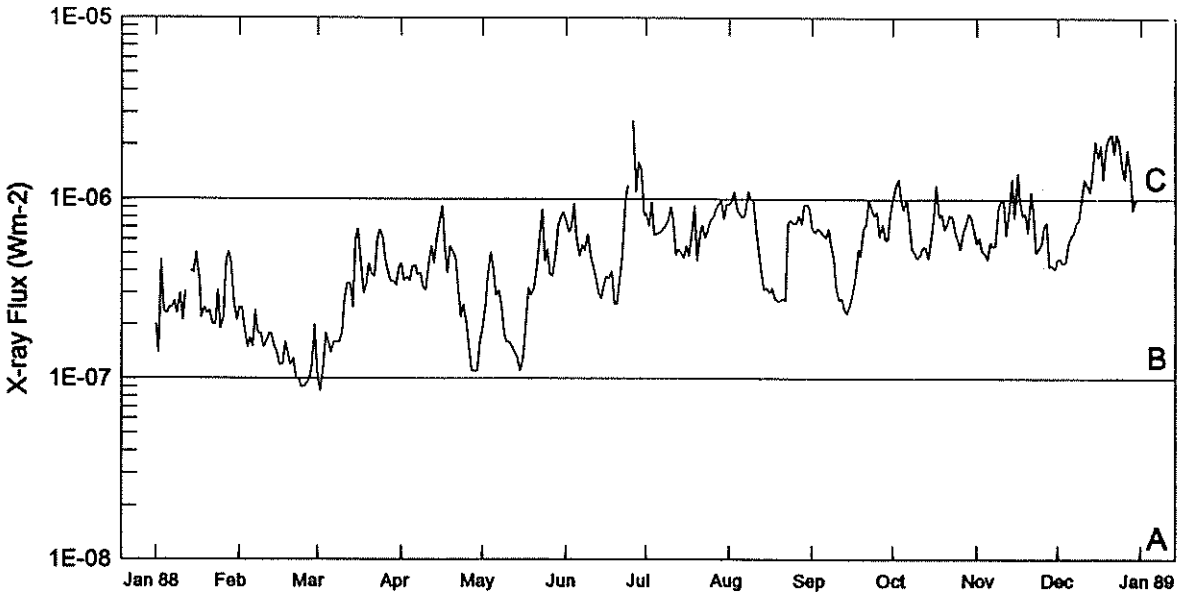
Preliminary GOES Satellite Daily X-ray Background 1987



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

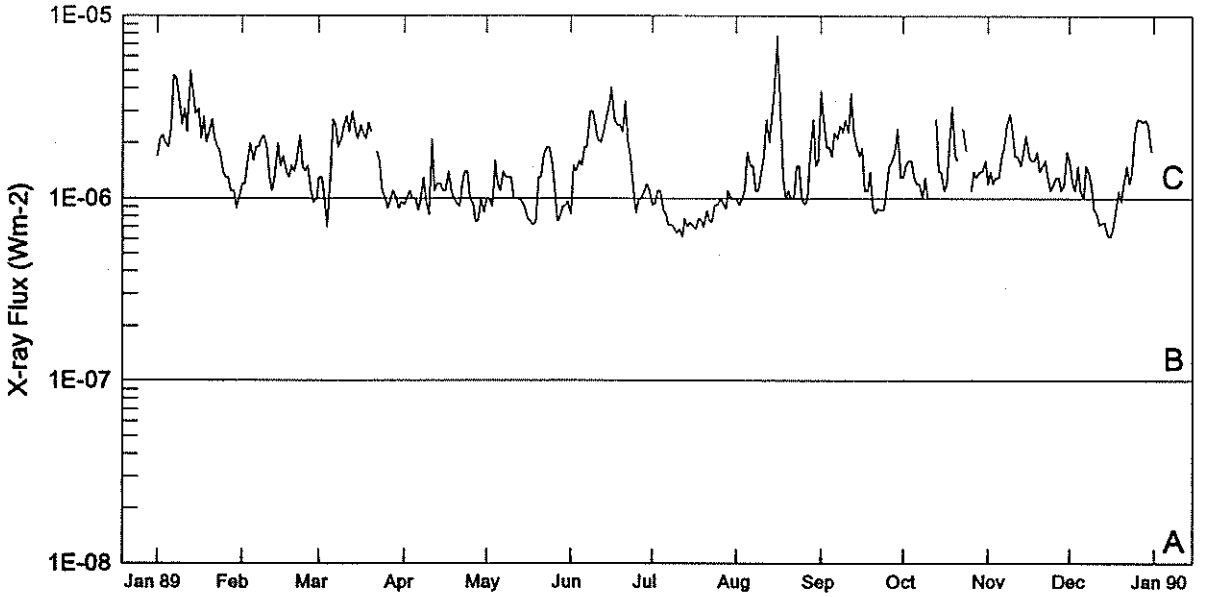
Note: Data <A1.0 shown as A1.0

Preliminary GOES Satellite Daily X-ray Background 1988



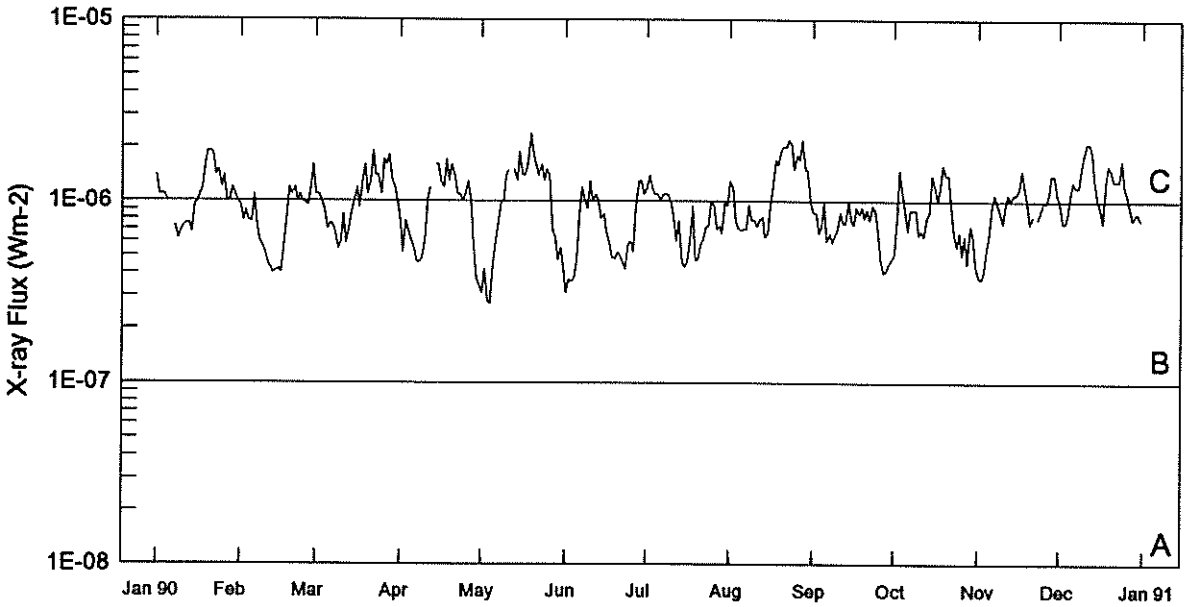
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	B2.0	B2.5	B1.0	B4.4	B1.9	B7.5	B8.4	B9.4	B6.9	C1.0	B5.7	B4.6
2	B1.4	B2.5	A8.5	B3.5	B2.6	B6.6	B7.1	B9.8	B6.5	C1.2	B6.1	B4.7
3	B4.6	B1.9	B1.1	B3.7	B3.7	B7.1	B9.7	C1.1	B6.9	C1.3	B5.2	B4.4
4	B2.4	B1.5	B1.8	B3.5	B5.1	B9.5	B6.3	B8.6	B6.7	C1.0	B5.0	B4.5
5	B2.3	B1.7	B1.6	B4.2	B4.1	B6.0	B6.4	B8.3	B6.4	B8.7	B4.6	B5.7
6	B2.5	B1.5	B1.4	B4.3	B2.9	B4.8	B6.5	B7.9	B6.1	C1.0	B5.8	B6.2
7	B2.5	B2.4	B1.6	B3.8	B3.1	B5.6	B6.8	B8.2	B6.9	B7.4	B5.5	B6.6
8	B2.7	B1.8	B1.6	B3.9	B2.5	B5.2	B7.0	C1.1	B5.5	B5.3	B5.5	B7.4
9	B2.3	B1.8	B1.6	B3.2	B1.8	B6.4	B7.7	C1.0	B4.8	B5.0	B9.2	B7.8
10	B3.0	B1.5	B1.8	B3.1	B1.6	B4.9	B9.1	C1.0	B3.2	B4.7	B9.8	C1.0
11	B2.1	B1.6	B2.8	B4.5	B1.6	B4.3	B7.7	B6.7	B2.7	B4.9	B9.8	C1.3
12	B3.1	B1.8	B3.4	B5.5	B1.5	B3.7	B4.9	B5.1	B2.8	B5.4	B6.3	C1.2
13	---	B1.8	B3.4	B4.4	B1.4	B3.0	B5.3	B3.9	B2.4	B5.4	B8.9	C1.1
14	B4.0	B1.5	B2.5	B6.0	B1.3	B2.8	B5.0	B3.1	B2.3	B4.7	C1.3	C1.4
15	B3.9	B1.4	B6.0	B7.4	B1.1	B3.3	B4.7	B3.2	B2.6	B5.9	B7.9	C2.1
16	B5.1	B1.2	B6.9	B9.2	B1.3	B3.7	B5.5	B3.0	B3.0	B7.8	C1.4	C1.7
17	B3.6	B1.2	B4.6	B5.3	B2.0	B3.6	B4.8	B3.2	B3.6	C1.2	C1.0	C2.0
18	B2.2	B1.6	B3.0	B3.9	B3.2	B4.0	B6.7	B2.8	B5.3	B8.0	B8.1	C1.3
19	B2.5	B1.4	B3.3	B5.5	B2.9	B2.6	B9.2	B2.7	B4.8	B8.3	B8.4	C1.9
20	B2.3	B1.2	B4.4	B5.1	B3.2	B2.6	B4.5	B2.7	B6.9	B6.8	B6.6	C2.2
21	B2.4	B1.3	B3.8	B4.7	B4.1	B3.5	B6.5	B2.8	B7.2	B7.3	C1.1	C2.3
22	B2.0	A9.9	B3.7	B3.1	B5.8	B4.6	B7.2	B2.7	C1.0	B8.2	B8.3	C1.8
23	B2.0	B1.0	B6.0	B2.2	B8.8	B9.8	B6.1	B7.4	B8.8	B8.0	B5.1	C2.3
24	B3.1	A9.0	B6.8	B2.6	B4.5	C1.2	B6.7	B7.7	B8.1	B6.6	B5.3	C2.1
25	B1.9	A9.0	B6.1	B2.0	B5.3	---	B7.7	B7.3	B8.5	B6.0	B5.7	C1.5
26	B2.2	A9.5	B4.5	B1.5	B3.8	C2.7	B8.0	B7.4	B6.2	B5.3	B7.2	C1.3
27	B4.6	B1.0	B4.0	B1.1	B3.7	C1.1	B8.9	B8.1	B7.3	B6.7	B7.5	C1.9
28	B5.1	B1.2	B3.5	B1.1	B5.0	C1.6	B9.4	B7.3	B6.0	B7.3	B4.2	C1.4
29	B4.4	B2.0	B3.5	B1.1	B7.2	C1.5	B9.9	B9.2	B6.0	B8.4	B4.3	B8.7
30	B2.7		B3.3	B1.6	B8.0	B8.1	B7.8	B9.4	B8.4	B8.0	B4.1	C1.0
31	B2.1		B4.2		B8.5		B9.4	B8.9		B6.7		---

Preliminary GOES Satellite Daily X-ray Background 1989



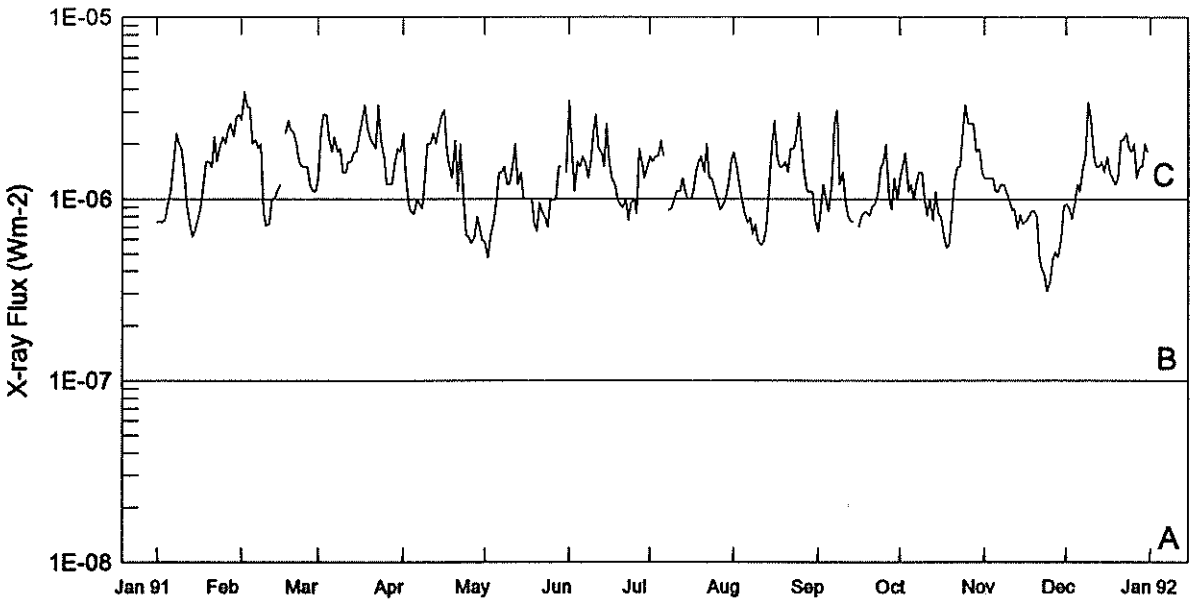
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	C1.7	C1.2	C1.3	B9.2	C1.0	B8.2	B9.2	C1.0	C3.9	C1.3	C1.2	C1.6
2	C2.1	C1.2	C1.3	C1.0	C1.0	C1.5	B9.4	B9.2	C2.5	C1.5	C1.4	C1.2
3	C2.2	C1.6	B9.8	C1.1	B9.1	C1.4	C1.1	C1.0	C1.9	C1.6	C1.2	C1.1
4	C2.0	C2.0	B7.0	C1.0	C1.6	C1.6	C1.1	C1.1	C1.9	C1.6	C1.3	C1.5
5	C1.9	C1.6	C1.3	C1.0	C1.2	C1.5	B8.7	C1.8	C1.7	C1.3	C1.3	C1.1
6	C2.4	C1.9	C2.7	B8.6	C1.1	C1.9	B8.2	C1.5	C2.3	C1.2	C1.7	C1.0
7	C4.7	C1.9	C2.5	C1.0	C1.4	C1.9	B7.2	C1.5	C2.1	C1.2	C1.9	C1.5
8	C4.6	C2.1	C1.9	C1.3	C1.3	C3.0	B7.2	C1.1	C2.5	C1.0	C2.5	C1.4
9	C3.4	C2.2	C2.1	B9.8	C1.3	C3.0	B7.0	C1.1	C2.3	C1.3	C2.9	C1.2
10	C2.5	C1.9	C2.5	B8.1	C1.3	C2.5	B6.5	C1.4	C2.7	C1.0	C2.3	B8.9
11	C3.1	C1.3	C2.8	C2.1	C1.0	C2.1	B6.8	C1.7	C2.3	C1.0	C1.7	B8.1
12	C2.3	C1.1	C2.3	C1.1	C1.0	C2.0	B6.2	C2.7	C3.8	---	C1.7	B7.2
13	C5.0	C1.3	C3.0	C1.2	B9.9	C2.3	B7.7	C2.0	C2.3	C2.7	C1.5	B7.3
14	C3.8	C2.0	C2.4	C1.2	B9.5	C2.7	B7.0	C2.7	C1.9	C1.4	C1.8	B7.4
15	C2.9	C1.5	C2.1	C1.1	B9.0	C3.3	B7.4	C4.3	C1.7	C1.4	C2.2	B6.3
16	C3.1	C1.7	C2.5	C1.1	B7.8	C4.1	B7.1	C7.9	C1.9	C1.1	C1.7	B6.2
17	C2.1	C1.4	C2.3	C1.4	B7.5	C2.7	B6.8	C3.5	C1.1	C1.2	C1.6	B6.8
18	C2.8	C1.3	C2.1	C1.1	B7.2	C2.5	B7.8	C1.3	C1.1	C2.0	C1.6	B8.8
19	C2.0	C1.5	C2.6	C1.0	B7.4	C2.5	B7.6	C1.0	C1.4	C3.2	C1.8	C1.1
20	C2.3	C1.4	C2.3	B9.5	C1.3	C2.3	B7.0	C1.1	B8.9	C1.7	C1.4	B9.6
21	C2.7	C1.7	---	B9.0	C1.3	C3.4	B8.6	C1.0	B8.3	C1.6	C1.5	C1.2
22	C2.1	C2.2	C1.8	C1.2	C1.7	C2.0	B7.6	C1.0	B8.9	---	C1.6	C1.5
23	C1.9	C1.5	C1.6	C1.4	C1.9	C1.7	B7.4	C1.5	B8.6	C2.4	C1.3	C1.2
24	C1.8	C1.4	C1.1	C1.4	C1.9	C1.1	B9.2	C1.5	B8.7	C1.8	C1.1	C1.4
25	C1.4	C1.5	C1.0	C1.0	C1.6	B8.3	B9.2	C1.0	C1.1	---	C1.2	C2.2
26	C1.3	C1.1	B8.9	B9.4	C1.2	B9.8	C1.0	B9.3	C1.5	C1.1	C1.3	C2.7
27	C1.3	B9.5	B9.9	B7.4	B7.5	C1.0	B9.5	B9.8	C1.6	C1.4	C1.3	C2.7
28	C1.1	C1.0	C1.1	B7.6	B7.9	C1.1	B8.8	C1.7	C1.8	C1.3	C1.1	C2.6
29	C1.1		C1.0	C1.0	B9.0	C1.2	C1.1	C2.7	C2.4	C1.4	C1.2	C2.7
30	C8.9		B8.8	B8.4	B9.2	C1.1	C1.0	C1.5	C1.3	C1.4	C1.8	C2.5
31	C1.0		B9.6		B9.7		C1.0	C1.6		C1.6		C1.8

Preliminary GOES Satellite Daily X-ray Background 1990



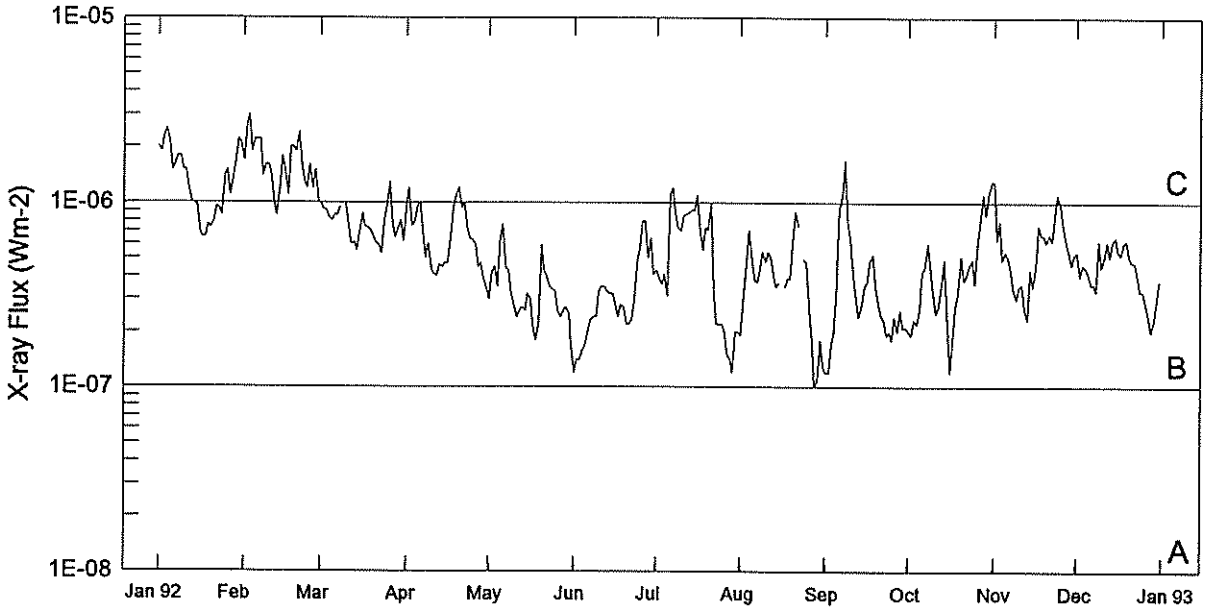
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	C1.4	B9.5	C1.1	B7.4	B3.1	B3.1	C1.2	C1.3	B8.7	B5.1	B3.8	C1.0
2	C1.1	B7.8	C1.1	B5.2	B4.2	B3.7	C1.4	C1.2	B8.6	B7.9	B3.7	B7.6
3	C1.1	B8.9	C1.0	B7.8	B2.8	B3.6	C1.2	B7.8	B6.6	C1.5	B4.0	B7.6
4	C1.1	B7.8	B9.1	B6.9	B2.7	B3.8	C1.1	B7.1	B7.3	C1.1	B5.2	B8.6
5	C1.0	B7.7	B7.0	B6.1	B4.4	B4.8	C1.1	B6.9	C1.0	B8.6	B6.7	C1.1
6	C1.0	C1.1	B7.5	B5.4	B5.7	B8.5	C1.0	B7.0	B6.0	B6.9	B9.4	C1.3
7	---	B7.5	B7.4	B4.6	B7.7	C1.2	C1.1	B7.0	B6.6	B9.0	C1.1	C1.2
8	B7.3	B6.1	B6.7	B4.6	B9.8	C1.0	C1.1	B9.6	B5.9	B8.9	B9.8	C1.2
9	B6.2	B5.7	B5.4	B4.8	C1.0	B9.1	C1.1	B7.8	B6.5	B9.0	B8.6	C1.5
10	B6.9	B5.2	B5.9	B6.1	C1.4	C1.3	B9.7	B7.9	B6.9	B6.5	B7.6	C1.8
11	B7.3	B4.6	B8.5	C1.0	C1.5	C1.0	B7.9	B7.2	B8.7	B6.9	B9.6	C2.1
12	B7.5	B4.3	B5.8	C1.2	---	C1.1	B6.0	B7.9	B7.5	B6.4	C1.1	C2.1
13	B7.5	B4.0	B7.1	---	C1.5	C1.0	B7.8	B8.2	B7.6	B8.3	C1.0	C1.9
14	B6.7	B4.1	B8.8	C1.6	C1.3	B8.0	B4.6	B6.3	C1.0	B8.6	C1.1	C1.3
15	B9.5	B4.2	C1.0	C1.6	C1.9	B8.5	B4.3	B6.6	B7.9	C1.4	C1.1	C1.0
16	C1.0	B4.0	C1.2	C1.3	C1.4	B6.9	B4.6	B9.4	B7.4	C1.2	C1.2	B9.1
17	C1.1	B5.9	B9.3	C1.2	C1.4	B5.9	B6.2	C1.2	B9.3	C1.0	C1.5	B7.6
18	C1.2	B8.2	C1.3	C1.7	C1.6	B4.9	B9.5	C1.7	B8.5	C1.2	C1.2	C1.3
19	C1.6	C1.2	C1.6	C1.3	C2.4	B4.8	B4.7	C1.6	B9.3	C1.6	C1.0	C1.6
20	C1.9	C1.1	C1.1	C1.6	C1.8	B5.2	B4.7	C1.9	B8.1	C1.4	B7.5	C1.5
21	C1.9	C1.2	C1.3	C1.4	C1.6	B5.0	B5.8	C2.0	B9.0	C1.4	B8.3	C1.3
22	C1.8	C1.0	C1.9	C1.1	C1.4	B4.6	B6.2	C2.0	B7.9	B9.5	---	C1.3
23	C1.4	C1.1	C1.4	C1.1	C1.6	B4.2	B7.2	C2.2	B9.5	B6.7	B8.0	C1.3
24	C1.5	C1.0	C1.4	C1.0	C1.3	B5.8	B7.3	C2.1	B8.9	B5.6	B8.8	C1.7
25	C1.2	B9.8	C1.1	C1.1	C1.5	B6.0	C1.0	C1.5	B6.9	B6.7	C1.0	C1.2
26	C1.4	B9.5	C1.7	C1.3	C1.4	B5.2	B9.5	C1.8	B4.8	B5.0	B9.8	C1.1
27	C1.0	C1.2	C1.6	C1.0	B6.8	B9.4	B7.0	C1.7	B4.0	B6.4	C1.1	B9.2
28	C1.0	C1.6	C1.8	B5.7	B6.4	C1.3	B7.3	C2.2	B4.1	B4.5	C1.4	B7.9
29	C1.2		C1.3	B3.8	B4.7	C1.3	B6.6	C1.5	B4.5	B7.3	C1.4	B8.4
30	C1.1		C1.2	B3.4	B5.5	C1.1	C1.0	C1.5	B4.8	B6.5	C1.1	B8.6
31	C1.0		C1.0		B4.5		B9.4	C1.0		B4.4		B7.8

Preliminary GOES Satellite Daily X-ray Background 1991



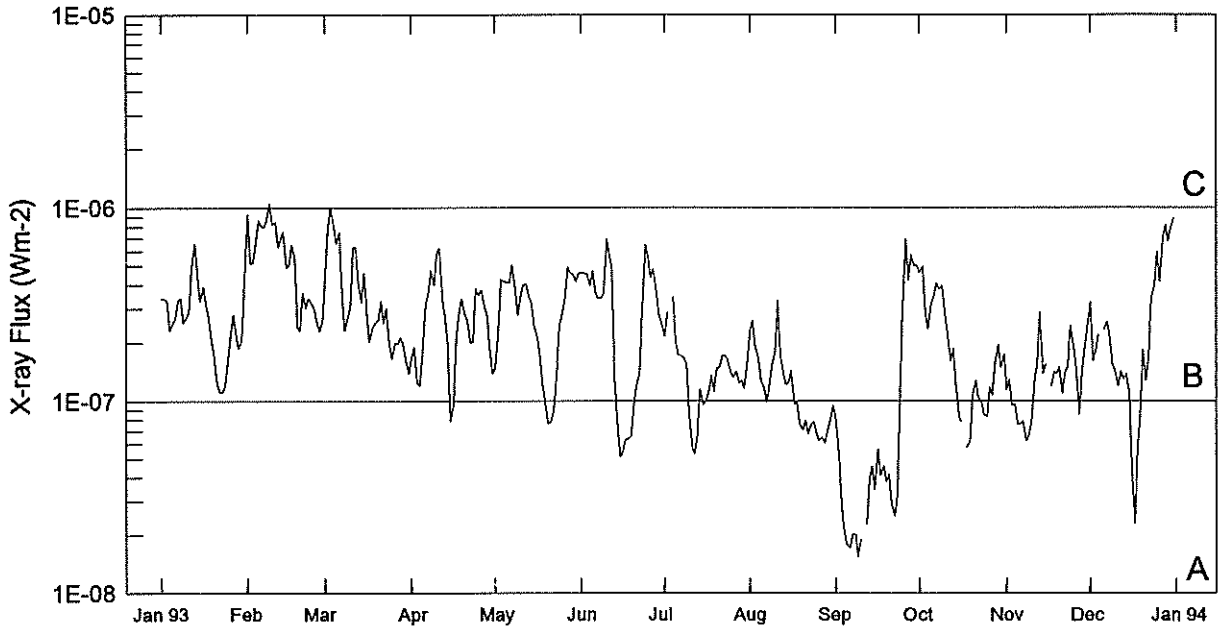
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	B7.4	C2.7	C1.3	C2.3	B5.8	C3.5	C1.7	C1.8	B6.6	C1.3	C1.3	B9.4
2	B7.6	C3.9	C2.3	C1.4	B4.7	C1.9	C1.6	C1.5	B8.9	C1.5	C1.3	B8.8
3	B7.4	C3.2	C2.9	B9.2	B6.3	C1.1	C1.7	C1.2	C1.2	C1.8	C1.3	B7.8
4	B7.8	C3.2	C2.9	B8.4	B7.2	C1.6	C1.7	C1.0	C1.0	C1.1	C1.3	B9.3
5	B9.5	C2.0	C2.1	B8.2	B9.1	C1.5	C2.1	B8.4	B8.5	C1.2	C1.1	C1.2
6	C1.1	C2.1	C1.8	C1.0	C1.4	C1.7	C1.7	B7.4	C1.2	B9.9	C1.1	C1.1
7	C1.5	C1.9	C2.2	B9.4	C1.4	C1.6	---	B7.9	C2.6	C1.2	C1.2	C1.5
8	C2.3	C2.0	C1.8	B8.8	C1.5	C1.3	B8.6	B6.4	C3.1	C1.4	C1.2	C1.7
9	C2.0	B8.5	C1.9	C1.3	C1.2	C1.6	B8.9	B7.2	C1.2	C1.4	C1.1	C3.4
10	C1.9	B7.1	C1.4	C2.0	C1.2	C2.3	C1.0	B5.9	C1.4	C1.0	C1.0	C2.8
11	C1.3	B7.3	C1.4	C2.0	C1.5	C2.9	C1.1	B5.6	B9.8	B8.1	B8.6	C1.7
12	B9.4	C1.0	C1.6	C2.3	C2.0	C1.9	C1.1	B5.8	B8.1	C1.0	B8.9	C1.5
13	B7.3	C1.0	C1.6	C2.0	C1.2	C1.8	C1.3	B6.9	B7.5	B7.6	B6.8	C1.5
14	B6.2	C1.1	C1.8	C2.4	C1.4	C1.5	C1.1	C1.1	B7.5	C1.1	B8.2	C1.6
15	B6.7	C1.2	C1.8	C2.9	C1.0	C2.6	C1.0	C2.0	---	B8.4	B7.3	C1.4
16	B7.9	---	C2.3	C3.1	C1.0	C1.6	C1.0	C2.7	B7.0	B7.9	B7.6	C1.7
17	B9.2	C2.3	C2.7	C1.8	C1.0	C1.3	C1.1	C1.7	B8.0	B6.5	B7.9	C1.4
18	C1.2	C2.7	C3.3	C1.5	C1.0	C1.2	C1.4	C1.5	B8.5	B5.4	B8.5	C1.3
19	C1.6	C2.4	C2.5	C1.3	B7.2	C1.0	C1.6	C1.5	B8.4	B5.6	B8.6	C1.2
20	C1.6	C2.3	C2.1	C2.1	B6.6	B9.3	C1.7	C1.6	B8.1	B8.3	B8.1	C1.3
21	C1.5	C2.0	C2.0	C1.1	B9.5	B8.9	C1.4	C1.4	B9.1	C1.3	B4.8	C2.1
22	C2.2	C1.6	C1.9	C2.0	B8.5	C1.0	C2.0	C1.9	B9.5	C1.5	B4.1	C2.1
23	C1.6	C1.5	C3.3	C1.0	B7.9	B7.6	C1.3	C1.9	C1.1	C1.5	B3.9	C2.3
24	C1.9	C1.5	C2.1	B6.3	B7.0	B9.4	C1.3	C2.1	C1.5	C2.3	B3.1	C1.9
25	C2.2	C1.5	C1.7	B6.2	B9.9	C1.0	C1.1	C3.0	C1.6	C3.3	B3.5	C1.8
26	C2.0	C1.2	C1.2	B5.7	B9.8	B8.3	C1.0	C2.0	C2.0	C2.6	B4.7	C2.0
27	C2.4	C1.1	C1.2	B6.2	C1.0	C1.9	B8.7	C1.4	C1.0	C2.6	B5.1	C1.3
28	C2.6	C1.1	C1.2	B8.0	C1.5	C1.6	B9.3	C1.1	B8.7	C2.6	B4.8	C1.5
29	C2.2		C1.6	B6.9	C1.5	C1.3	C1.0	C1.1	C1.3	C1.8	B6.1	C1.5
30	C2.8		C1.9	B5.9	--	C1.5	C1.2	C1.1	C1.0	C1.9	B9.1	C2.0
31	C2.9		C1.8		C1.4		C1.6	B7.7		C1.4		C1.8

Preliminary GOES Satellite Daily X-ray Background 1992

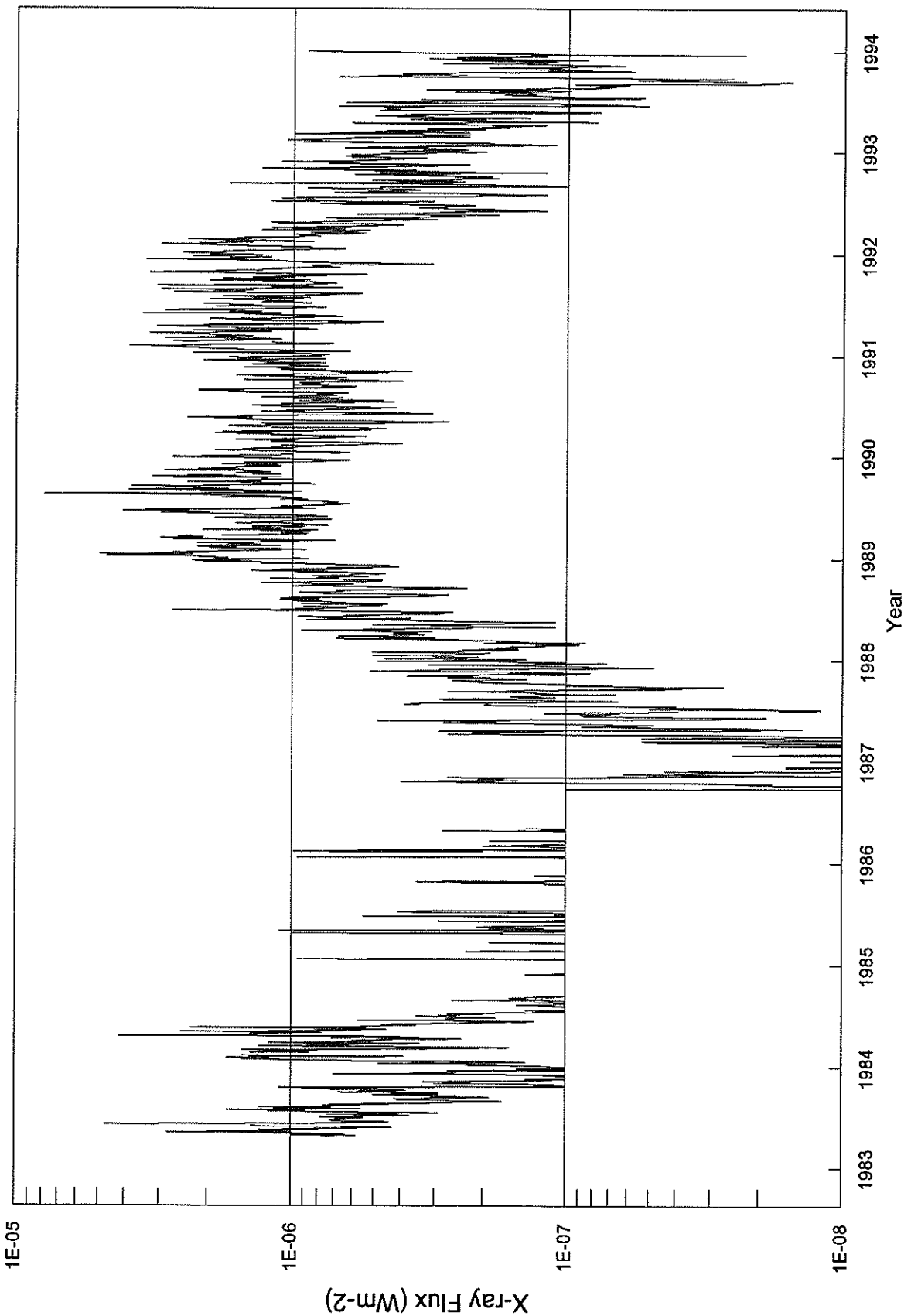


Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	C2.0	C1.7	B9.2	C1.2	B4.2	B1.4	B3.9	B3.2	B1.2	B1.9	B6.3	B4.0
2	C1.9	C2.6	B9.1	B7.5	B4.5	B1.4	B3.6	B4.6	B1.7	B2.3	B7.9	B4.6
3	C2.3	C3.0	B8.3	B7.8	B3.5	B1.6	B4.1	B7.1	B2.0	B2.2	B4.9	B4.5
4	C2.5	C1.9	B8.0	B9.7	B6.3	B1.7	B3.1	B5.2	B3.5	B2.6	B5.4	B4.2
5	C2.1	C2.2	B8.6	C1.0	B7.6	B2.0	C1.1	B3.8	B9.2	B4.2	B5.0	B3.6
6	C1.5	C2.2	B8.5	B6.8	B4.4	B2.3	C1.2	B3.7	C1.1	B4.4	B4.3	B3.6
7	C1.6	C2.2	B9.5	B5.0	B4.3	B2.4	B8.8	B4.3	C1.7	B6.0	B3.4	B3.3
8	C1.8	C1.4	---	B6.0	B3.2	B2.4	B7.3	B5.4	B7.9	B4.3	B3.0	B6.2
9	C1.8	C1.6	B9.8	B4.3	B2.8	B3.3	B7.0	B4.8	B6.4	B3.2	B3.5	B4.5
10	C1.5	C1.6	B7.6	B4.1	B2.4	B3.5	B8.5	B5.4	B4.0	B2.5	B3.6	B5.1
11	C1.5	C1.4	B6.0	B4.0	B2.6	B3.5	B8.6	B5.1	B3.0	B2.7	B2.7	B6.1
12	C1.2	C1.0	B6.1	B4.6	B2.7	B3.3	B8.8	B3.9	B2.4	B3.6	B2.3	B5.1
13	C1.0	B8.5	B5.5	B4.5	B2.6	B3.2	B9.1	B3.5	B2.8	B4.9	B4.3	B6.1
14	C1.0	C1.2	B6.9	B4.7	B3.2	B3.2	B9.1	B3.7	B3.5	B2.5	B3.5	B6.5
15	B9.7	C1.8	B8.7	B4.7	B3.0	B2.8	C1.1	---	B3.7	B1.2	B4.5	B5.4
16	B6.8	C1.5	B7.5	B6.7	B2.1	B2.4	B6.9	B3.5	B4.8	B1.8	B7.5	B5.2
17	B6.5	C1.1	B7.3	B9.6	B1.8	B2.8	B5.5	B3.9	B5.2	B2.7	B6.7	B6.1
18	B6.5	C2.0	B7.1	C1.1	B2.2	B2.7	B7.3	B3.9	B3.5	B3.2	B6.6	B6.2
19	B7.6	C2.0	B6.6	C1.2	B5.9	B2.2	B7.1	B6.1	B2.9	B5.1	B6.1	B5.1
20	B7.3	C1.9	B6.0	B9.4	B4.3	B2.2	B9.8	B8.9	B2.5	B3.8	B6.7	B4.8
21	B8.0	C2.4	B5.9	C1.0	B4.0	B2.3	B3.4	B7.4	B2.3	B4.0	B6.2	B4.7
22	B9.5	C1.6	B5.3	B7.3	B3.5	B2.9	B2.2	---	B1.9	B4.5	B8.5	B4.0
23	B9.3	C1.3	B7.8	B6.4	B3.4	B4.9	B2.2	B4.9	B2.0	B4.9	C1.1	B3.3
24	B8.6	C1.2	C1.0	B6.3	B3.3	B5.7	B2.2	B4.8	B1.8	B3.6	B9.6	B3.3
25	C1.4	C1.6	C1.3	B6.0	B2.6	B7.9	B2.0	B2.6	B2.4	B5.9	B7.5	B2.9
26	C1.5	C1.2	B7.7	B4.5	B2.4	B8.0	B1.5	B1.8	B2.0	B7.7	B6.3	B2.4
27	C1.1	C1.5	B6.5	B4.7	B2.6	B5.0	B1.4	B1.0	B2.6	C1.1	B5.5	B2.0
28	C1.3	C1.0	B7.3	B3.9	B2.7	B6.4	B1.2	B1.1	B2.1	B8.6	B4.6	B2.3
29	C1.7	C1.0	B8.0	B3.4	B2.5	B4.1	B2.0	B1.8	B2.1	C1.1	B5.2	B2.8
30	C2.2		B6.2	B3.0	B1.7	B4.3	B2.0	B1.3	B2.0	C1.3	B5.4	B3.8
31	C2.1		C1.0		B1.2		B1.9	B1.2		C1.3		B4.5

Preliminary GOES Satellite Daily X-ray Background 1993



Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	B3.3	B9.2	B4.5	B1.6	B1.4	B4.6	B2.1	B2.3	A8.0	B4.6	B1.1	B3.2
2	B3.4	B5.1	B7.6	B1.9	B2.2	B4.5	B2.8	B2.5	A5.1	B4.9	B1.3	B1.6
3	B3.3	B5.1	C1.0	B1.2	B4.2	B4.5	---	B1.9	A2.8	B2.8	A9.5	B1.8
4	B2.3	B6.3	B8.2	B1.2	B4.1	B3.9	B3.4	B1.6	A2.1	B2.3	A9.5	B2.2
5	B2.4	B8.6	B6.5	B1.7	B4.1	B4.7	B2.0	B1.2	A1.7	B3.1	A7.5	---
6	B2.7	B8.1	B7.4	B3.2	B4.0	B3.6	B1.7	B1.1	A1.7	B3.4	A7.5	B2.3
7	B3.3	B7.9	B3.5	B3.6	B5.0	B3.4	B1.7	A9.8	A2.0	B4.0	A7.8	B2.5
8	B3.4	B8.5	B2.3	B4.7	B4.0	B3.4	B1.6	B1.1	A2.0	B3.7	A6.2	B2.1
9	B2.5	C1.0	B2.6	B3.9	B2.7	B3.5	B1.5	B1.5	A1.5	B3.9	A6.6	B1.5
10	B2.7	B8.2	B3.0	B5.8	B3.4	B6.8	A8.5	B1.7	A1.9	B2.8	A7.7	B1.4
11	B2.8	B8.4	B6.2	B6.1	B4.0	B5.9	A5.7	B3.3	---	B2.2	B1.2	B1.2
12	B4.9	B6.2	B6.2	B3.2	B4.0	B4.7	A5.3	B1.7	A2.2	B1.6	B1.5	B1.4
13	B6.5	B6.8	B4.0	B2.7	B3.4	B1.3	A6.6	B1.3	A3.8	B1.8	B2.8	B1.2
14	B4.4	B7.5	B3.2	B1.9	B3.2	A7.2	B1.1	B1.2	A4.5	B1.2	B1.3	B1.3
15	B3.2	B4.8	B4.6	A7.8	B2.4	A5.1	A9.5	B1.2	A3.4	A8.2	B1.5	B1.1
16	B3.9	B5.0	B2.6	A9.5	B2.1	A5.4	A9.9	B1.4	A5.6	A7.7	---	A4.5
17	B3.1	B6.4	B2.0	B2.0	B1.7	A6.3	B1.1	A9.6	A4.1	---	B1.1	A2.3
18	B2.7	B5.4	B2.3	B2.8	B1.2	A6.3	B1.3	A9.9	A4.5	A5.7	B1.4	A5.7
19	B2.1	B2.4	B2.5	B3.3	A9.5	A6.5	B1.1	A7.6	A3.8	A6.2	B1.3	A8.2
20	B1.7	B2.3	B2.6	B2.8	A7.6	A9.5	B1.4	A7.1	A4.1	B1.0	B1.5	B1.8
21	B1.2	B3.6	B3.2	B2.6	A7.7	B1.2	B1.5	A7.9	A2.9	B1.2	B1.1	B1.2
22	B1.1	B3.0	B2.5	B1.9	A9.0	B1.4	B1.7	A6.7	A2.5	B1.0	B1.4	B1.6
23	B1.1	B3.4	B3.0	B2.0	B1.3	B3.0	B1.7	A7.5	A3.2	A9.9	B1.4	B3.4
24	B1.1	B3.2	B1.9	B3.7	B2.4	B6.4	B1.6	A7.7	B1.0	A8.5	B2.4	B3.9
25	B1.5	B3.0	B1.6	B3.5	B2.8	B5.5	B1.4	A6.8	B3.0	A8.2	B1.9	B5.9
26	B2.2	B2.5	B2.0	B3.7	B3.3	B4.3	B1.3	A6.2	B6.8	B1.1	B1.4	B4.1
27	B2.8	B2.2	B1.9	B3.1	B4.9	B4.7	B1.4	A6.4	B4.2	B1.0	A8.5	B6.9
28	B2.1	B2.5	B2.1	B2.7	B4.6	B3.6	B1.2	A6.0	B5.7	B1.5	B1.4	B8.1
29	B1.8		B1.9	B1.9	B4.4	B2.7	B1.2	A7.1	B4.9	B1.9	B1.8	B6.6
30	B2.0		B1.6	B1.3	B4.1	B2.5	B1.1	A8.1	B5.0	B1.4	B2.3	B7.8
31	B4.2		B1.3		B4.5		B1.6	A9.4		B1.7		B8.9



Note: Background levels were not reported below B1.0 until 22 Sep 86.

48
Misc
1993-94

MEMO TO: January 1994 Satellite Anomaly Event File

FROM: Joe H. Allen

SUBJECT: Solar Coronal Holes and Energetic Electrons in the Magnetosphere

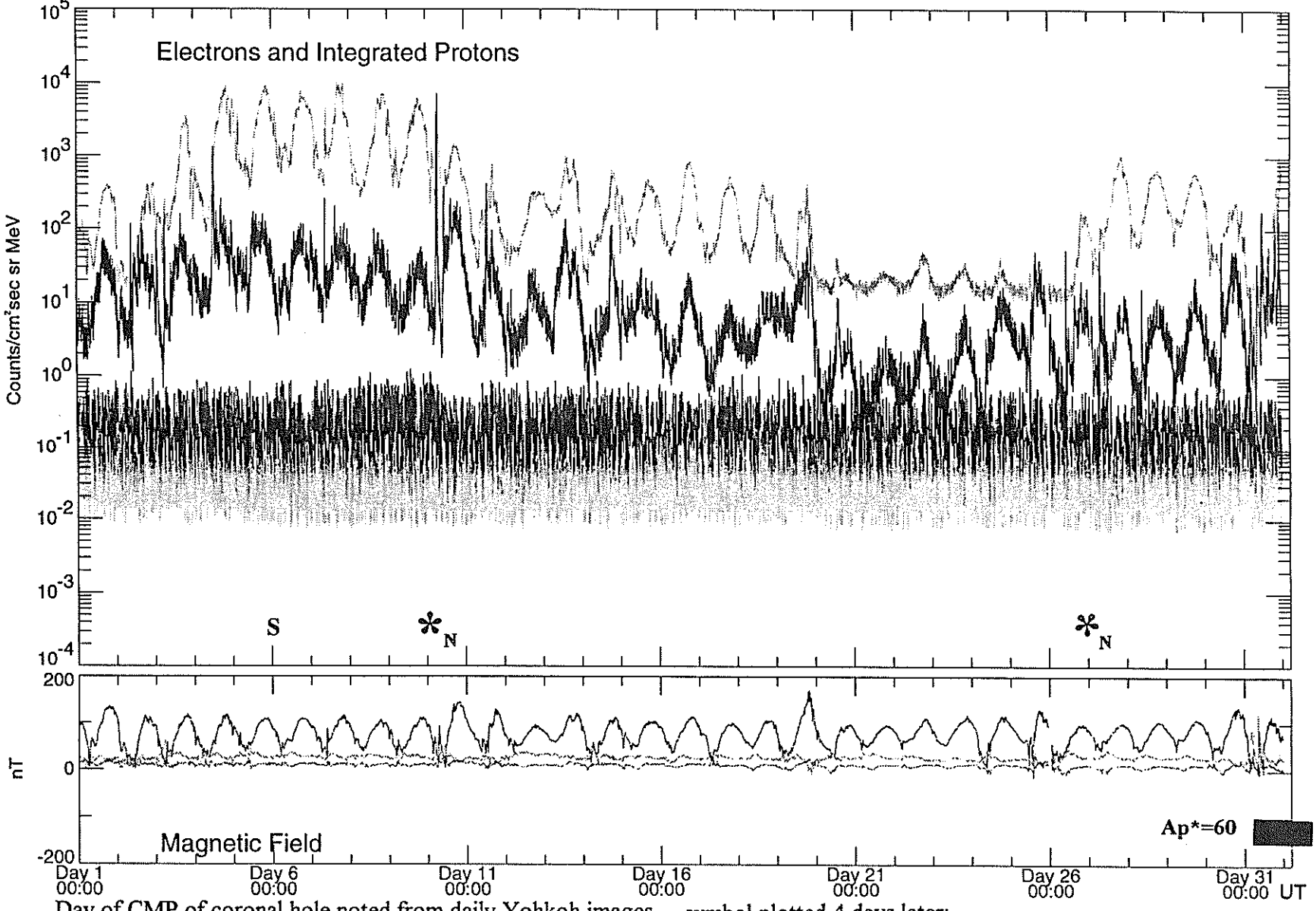
Monthly plots of GOES-7 Space Environment Monitor (SEM) energetic particle and magnetometer data for 1993 were plotted by Dan Wilkinson and Greg Ushomirskiy (NGDC) to support studies of conditions during the failures of Canadian geostationary telecommunications satellites ANIK E-1 and E-2 on 20 and 21 January 1994 (see separate chronology for details). Helen Coffey reviewed the YOHKOH solar x-ray telescope composite images from ***"Solar-Geophysical Data"*** (SGD) Reports for 1993 and January 1994. She noted the date of central meridian (CM) passage of major coronal holes and marked the date of CM passage + four days on the SEM charts and found a striking agreement with the onset of extended, multi-day periods of elevated levels of > 2 MeV electrons at geostationary altitude. Joe Allen added the most disturbed days from the Ap* index. This note serves as a cover memo for these figures. Anyone interested should check with Helen (303-497-6223 or via internet to hcoffey@ngdc.noaa.gov). Questions about the particle measurements should be directed to Herb Sauer (303-497-3681 or via internet to hsauer@selvax.sel.bldrdoc.gov). Questions about the figures or the SEM data archive should be directed to Dan Wilkinson (303-497-6137 or dwilkinson@ngdc.noaa.gov). Joe Allen is happy to hear from all those interested in this active period and its consequences (303-497-6323 or jallen@ngdc.noaa.gov).

Analysis of the probable cause(s) of the ANIK failures and problems experienced by other satellites around this time focused on the relatively high level of trapped energetic electrons at geostationary altitude and lasting for about 10 days (see data figures for 5-minute average GOES-7 Space Environment Monitor particle plots for electrons having E > 2 MeV). These levels increased suddenly on 12 January with the onset of a magnetic storm at Earth associated with passage across the solar central meridian some four days earlier of a southern hemisphere coronal hole. Integrated flux of high energy electron measurements from other geostationary monitoring satellites supported the GOES data and gave added spectral energy details. Their study led to the conclusion that fluence levels probably were sufficiently high within short enough time intervals so that deep dielectric charging ("bulk charging") of susceptible parts of satellite structures occurred. Resultant discharges occurred when capacitance was exceeded and cables or components received surges that caused anomalous system operations or, in the most extreme cases, damaged critical parts of the spacecraft. This is stated as "probable" because no exact history of each affected satellite is known and there are cases where similar periods in earlier months did not cause such failures.

See also: D.N. Baker, et al. ***"Satellite and rocket studies of relativistic electrons and their influence on the middle atmosphere,"*** JATP, Vol. 55, No. 13, pp. 1619-1628, 1993.

A.L. Vampola, ***"Thick dielectric charging on high-altitude spacecraft,"*** Journal of Electrostatics, V. 20, p. 21, 1987.

GOES-7 Space Environment Monitor (5-Min Averages)
January 1993



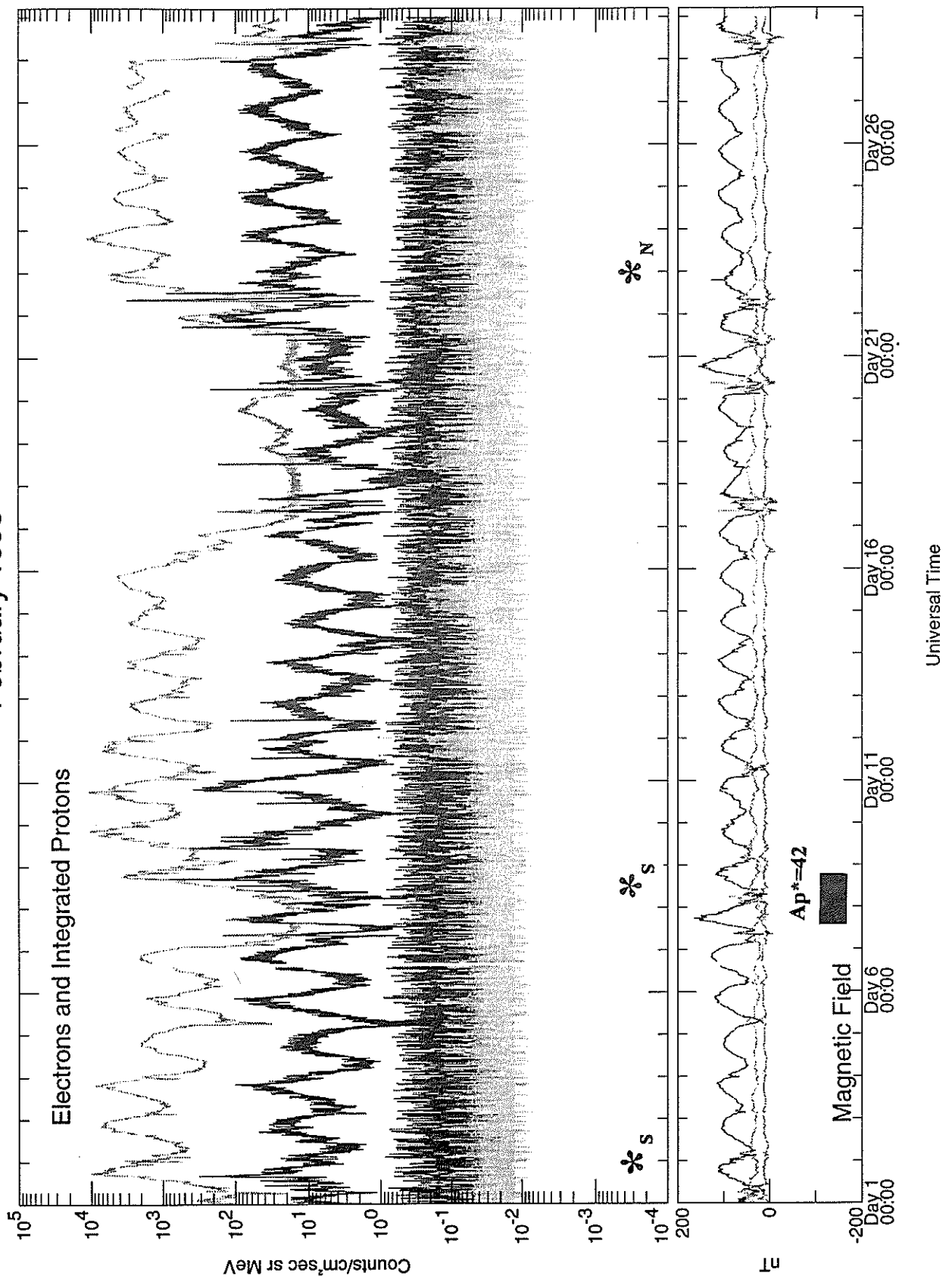
Day of CMP of coronal hole noted from daily Yohkoh images -- symbol plotted 4 days later:

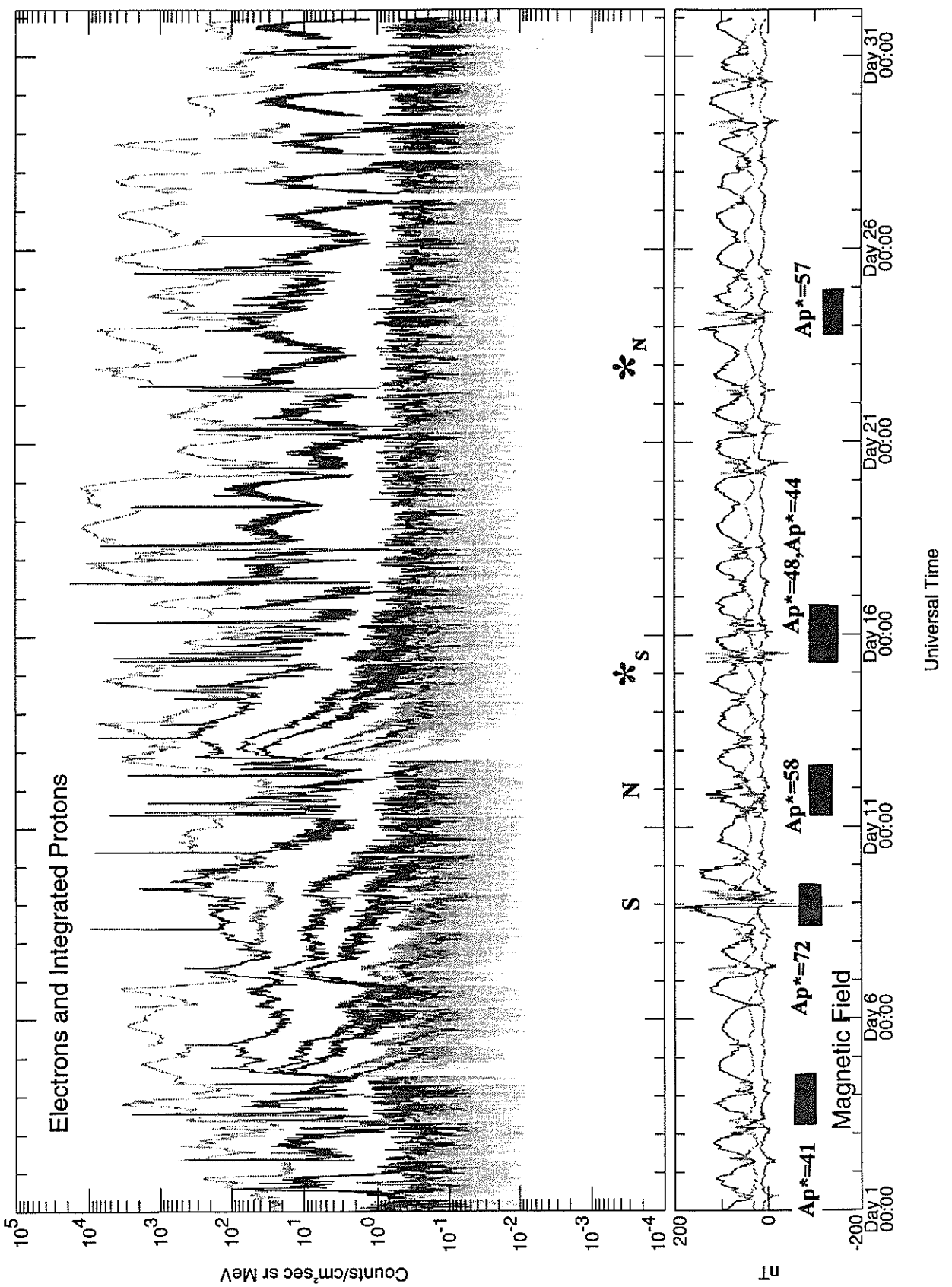
* = Extended coronal hole passage (from pole down to equator)

S = Southern coronal hole passage

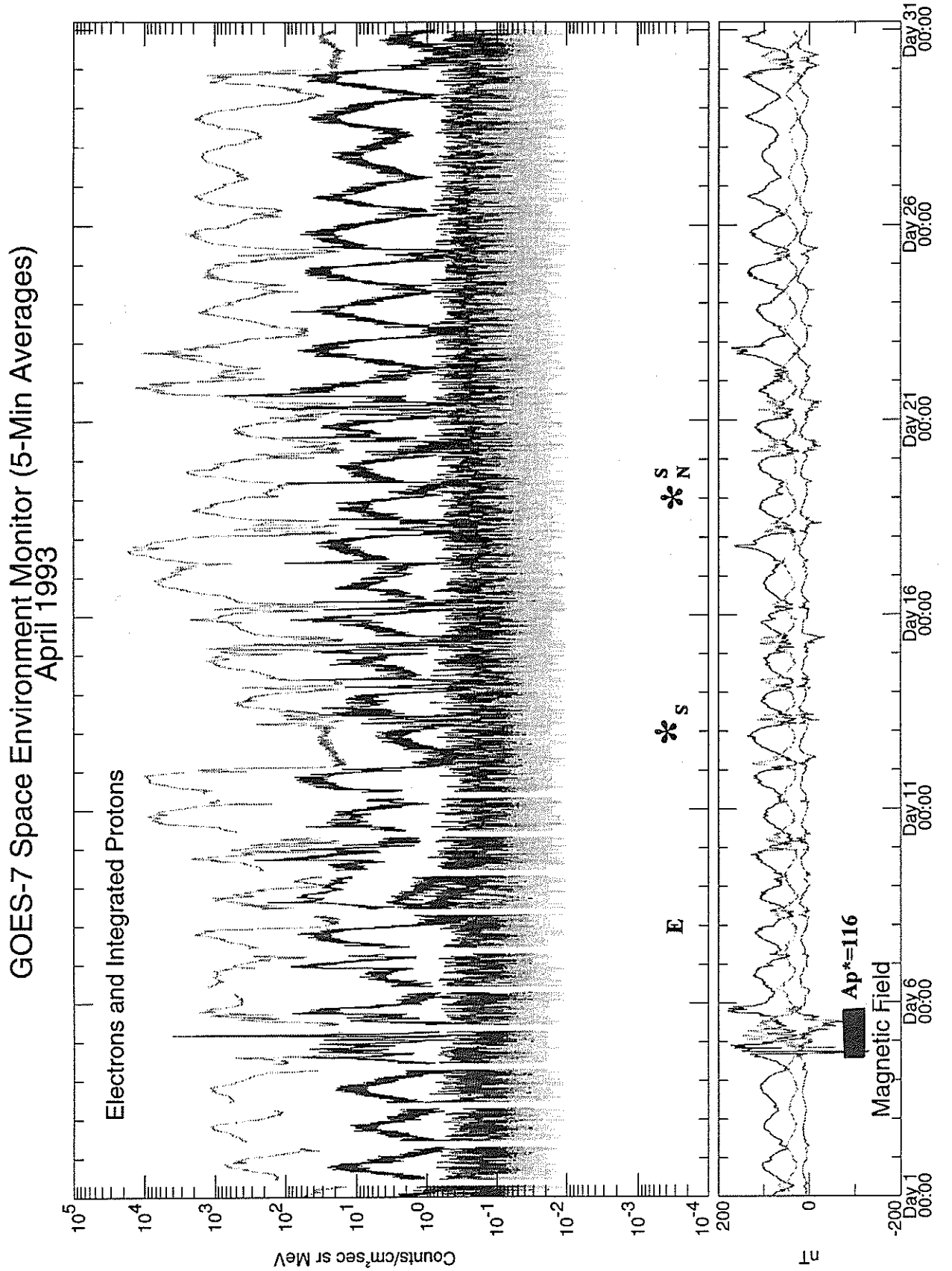
N = Northern coronal hole passage

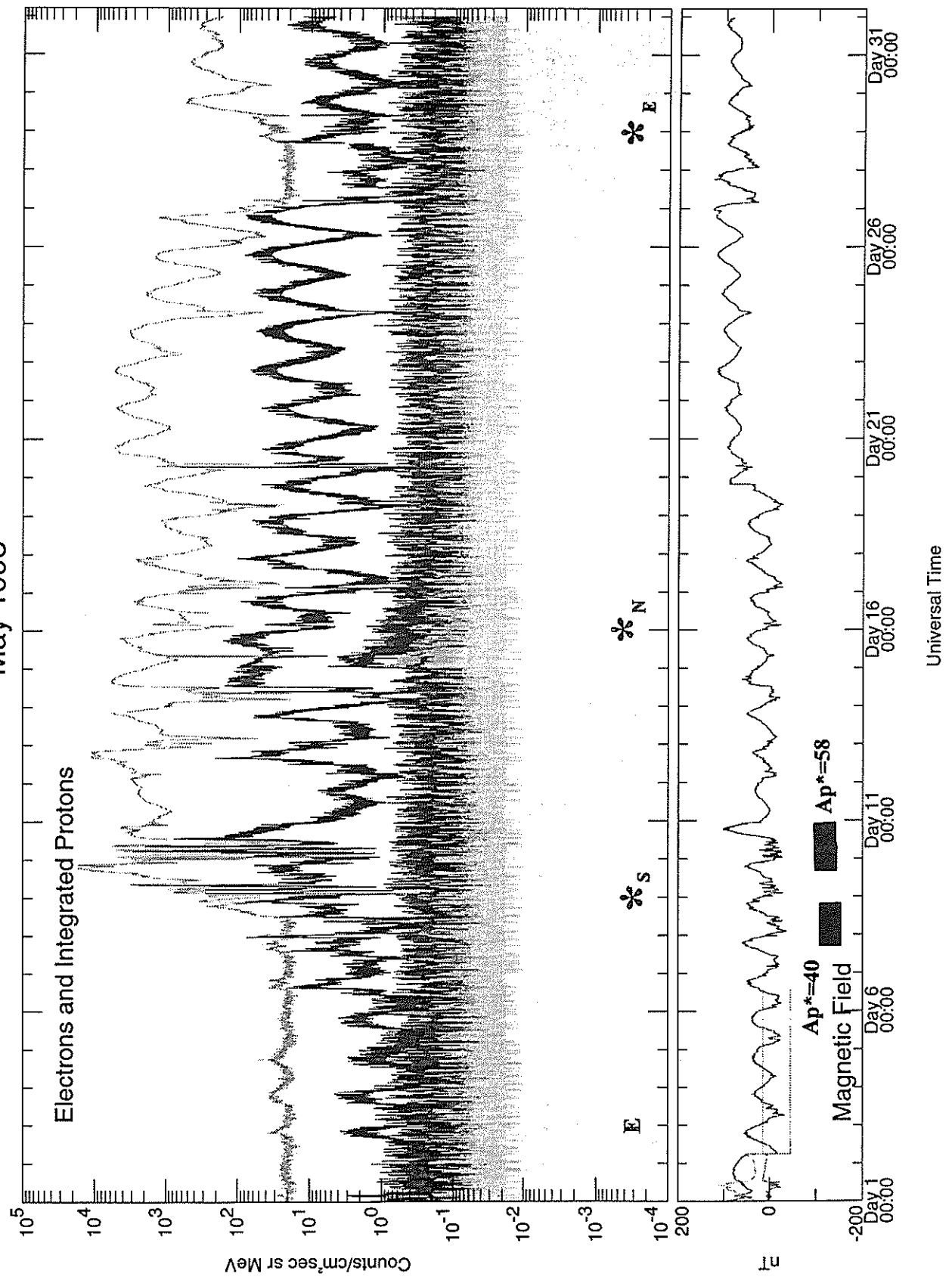
E = Equatorial coronal hole passage

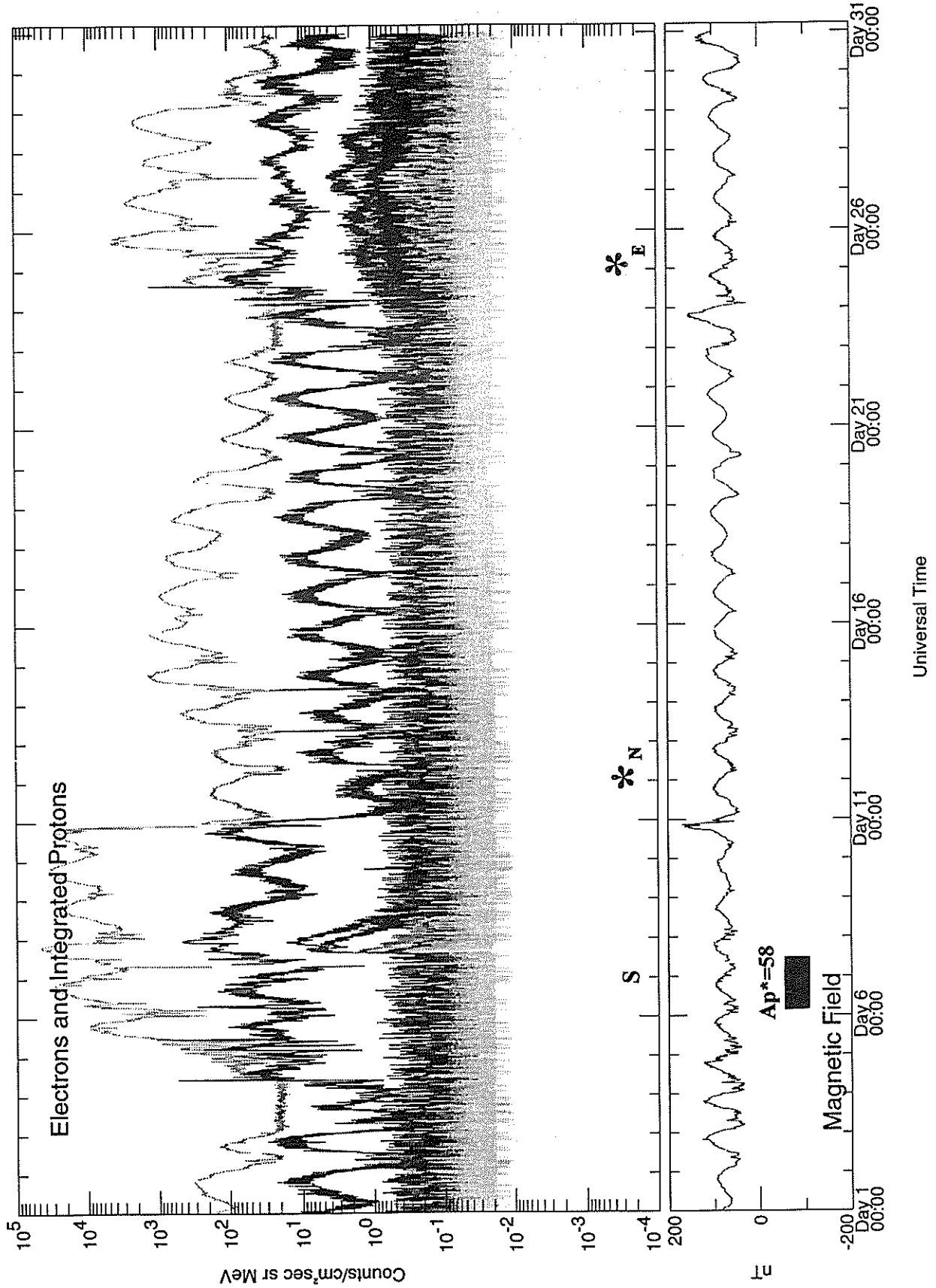

GOES-7 Space Environment Monitor (5-Min Averages)
February 1993
Electrons and Integrated Protons
Counts/cm²sec sr MeV
S
S
N
nT
Magnetic Field
Ap*=42
Day 1 00:00
Day 6 00:00
Day 11 00:00
Day 16 00:00
Day 21 00:00
Day 26 00:00
Universal Time

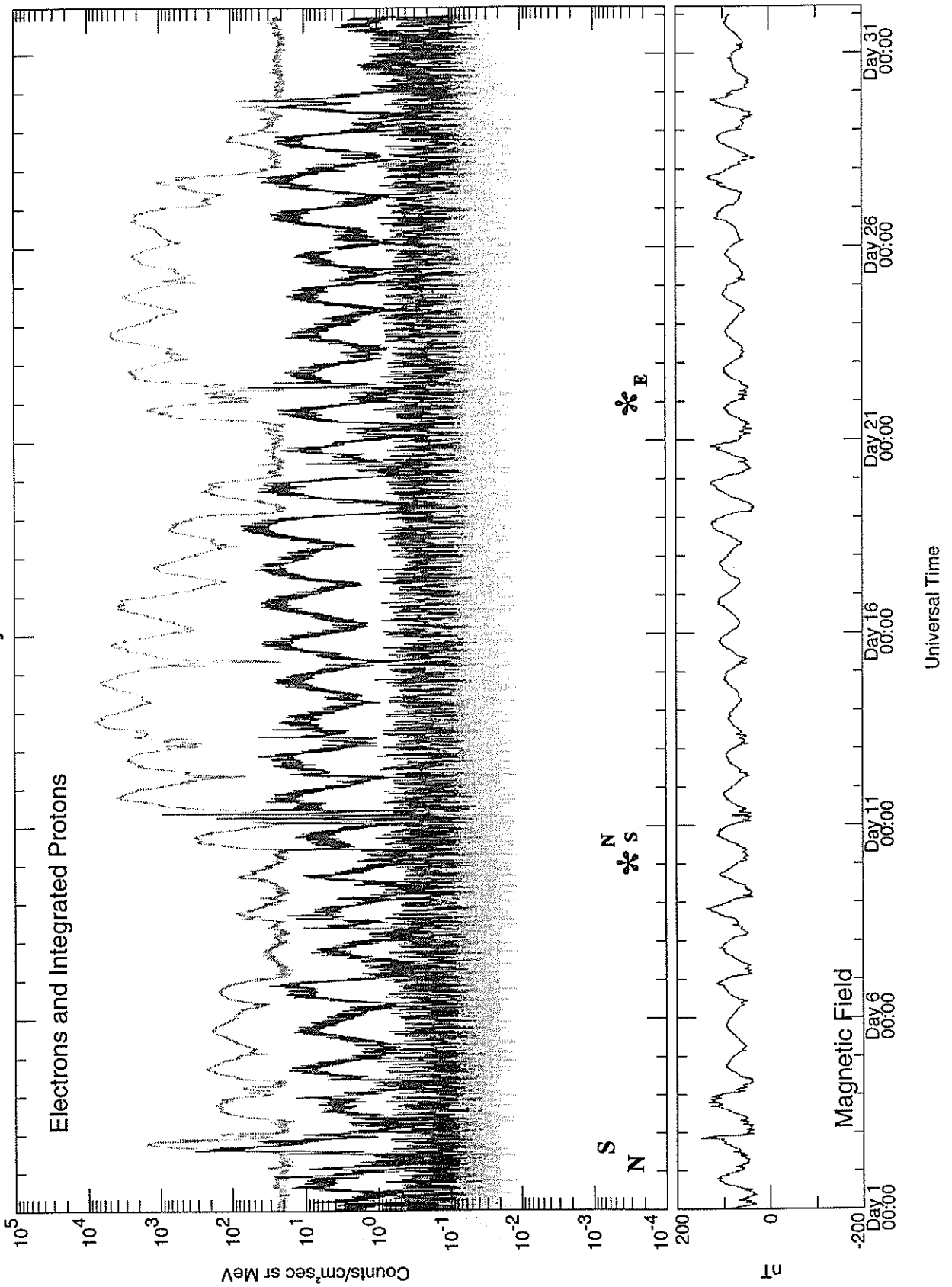

GOES-7 Space Environment Monitor (5-Min Averages)
March 1993
Electrons and Integrated Protons
Counts/cm²sec sr MeV
S
N
S
N
nT
Magnetic Field
Ap*=41
Ap*=72
Ap*=58
Ap*=48,Ap*=44
Ap*=57
Day 1 00:00
Day 6 00:00
Day 11 00:00
Day 16 00:00
Day 21 00:00
Day 26 00:00
Day 31 00:00
Universal Time

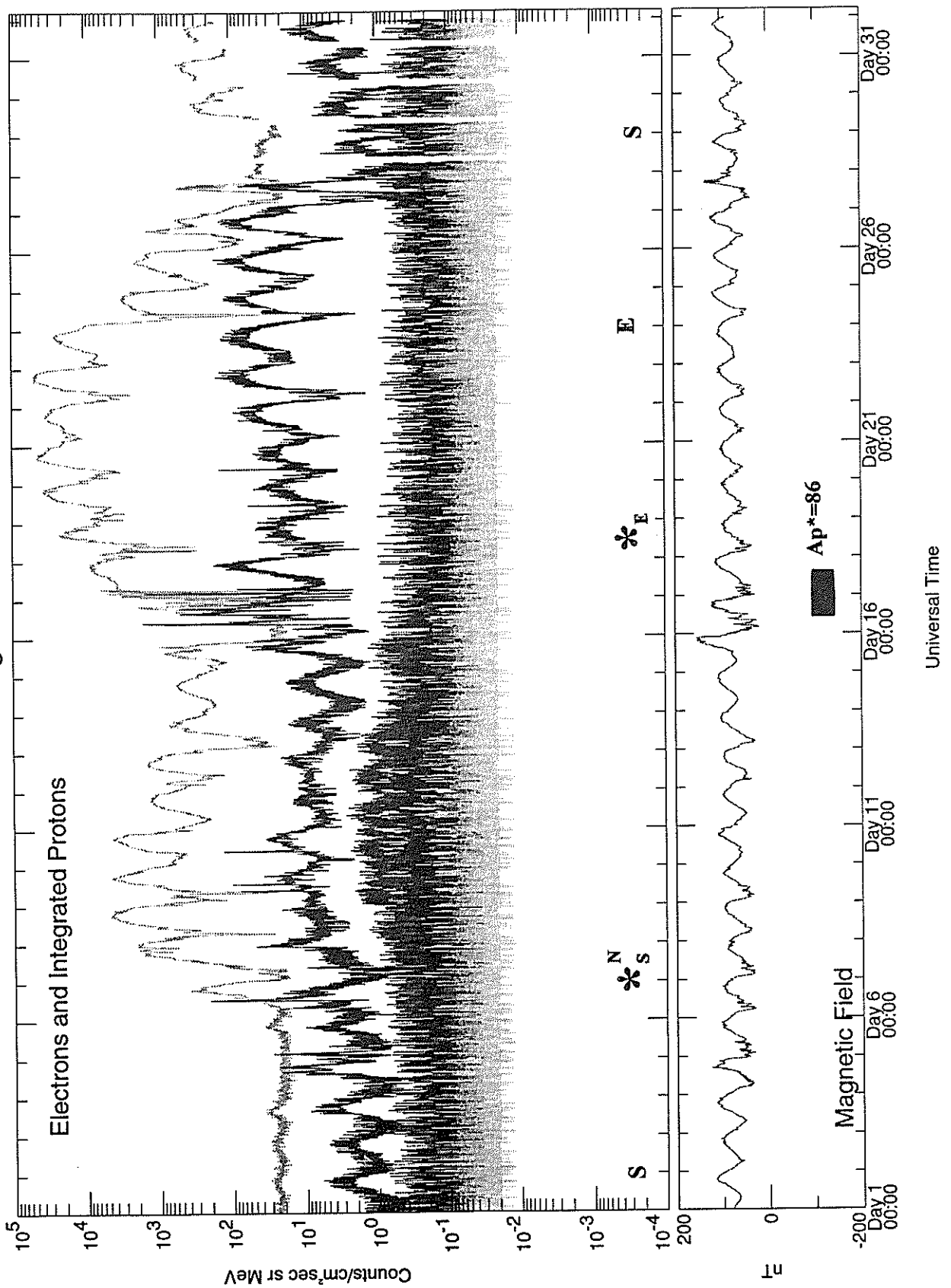
52
Misc
Apr 93

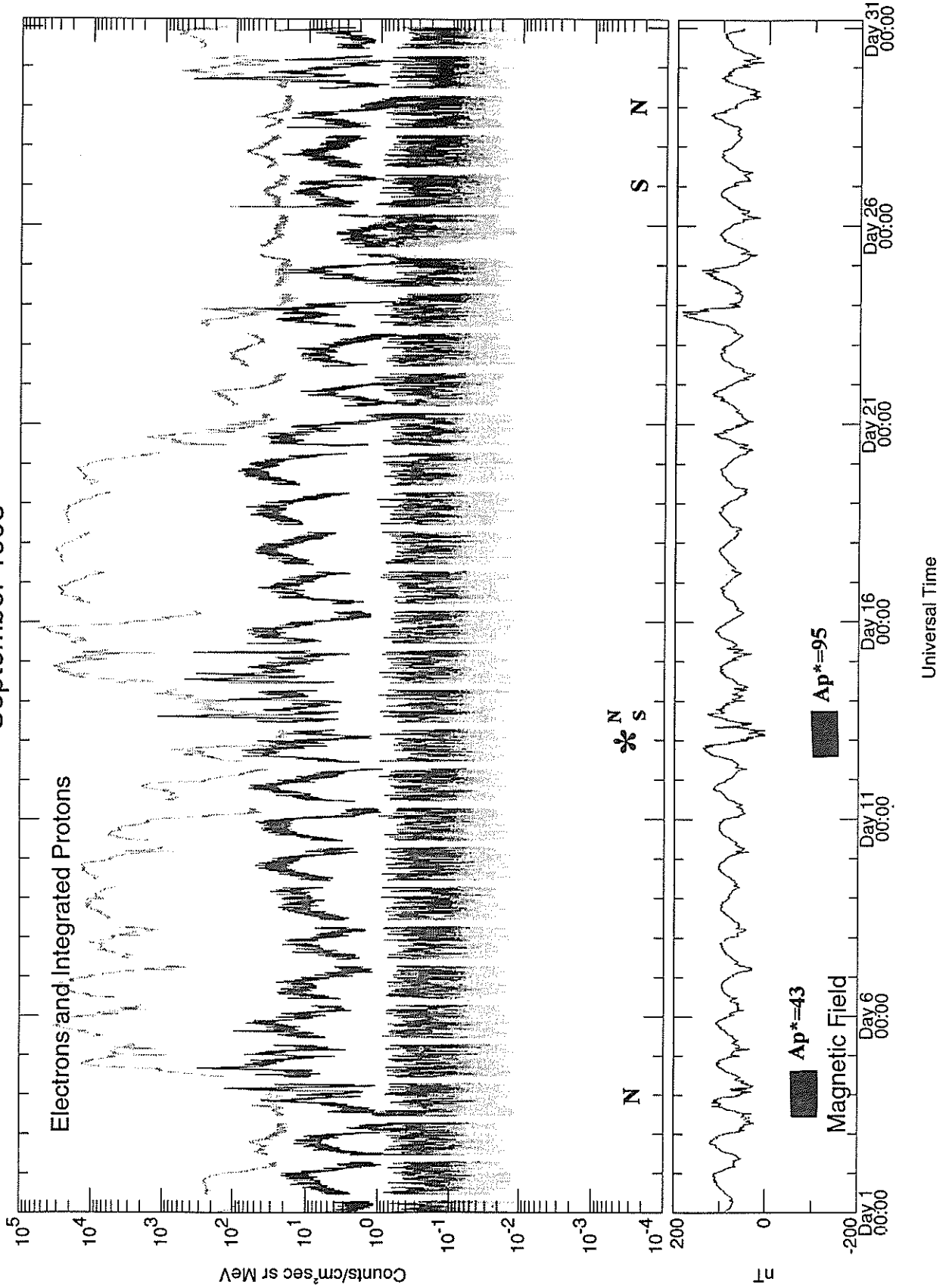



GOES-7 Space Environment Monitor (5-Min Averages)
May 1993
Electrons and Integrated Protons
Counts/cm²sec sr MeV
E
S
N
E
Magnetic Field
Ap*=40
Ap*=58
nT
Day 1 00:00
Day 6 00:00
Day 11 00:00
Day 16 00:00
Day 21 00:00
Day 26 00:00
Day 31 00:00
Universal Time

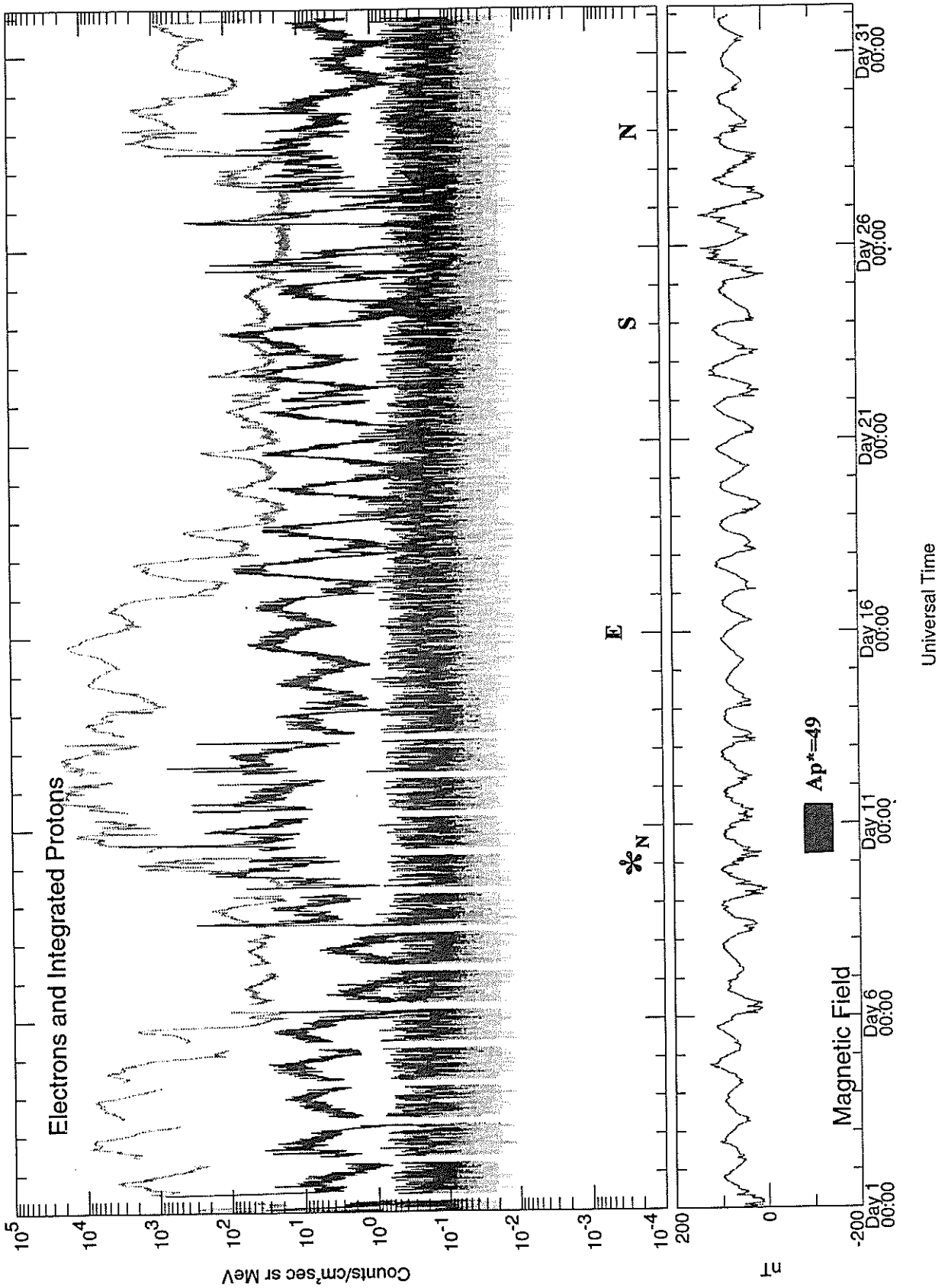

GOES-7 Space Environment Monitor (5-Min Averages)
June 1993
Electrons and Integrated Protons
Counts/cm²sec sr MeV
S
N
E
Magnetic Field
Ap*=58
nT
Day 1 00:00
Day 6 00:00
Day 11 00:00
Day 16 00:00
Day 21 00:00
Day 26 00:00
Day 31 00:00
Universal Time


GOES-7 Space Environment Monitor (5-Min Averages)
July 1993
Electrons and Integrated Protons
Counts/cm²sec sr MeV
S
N
N
S
E
Magnetic Field
nT
Day 1 00:00
Day 6 00:00
Day 11 00:00
Day 16 00:00
Day 21 00:00
Day 26 00:00
Day 31 00:00
Universal Time

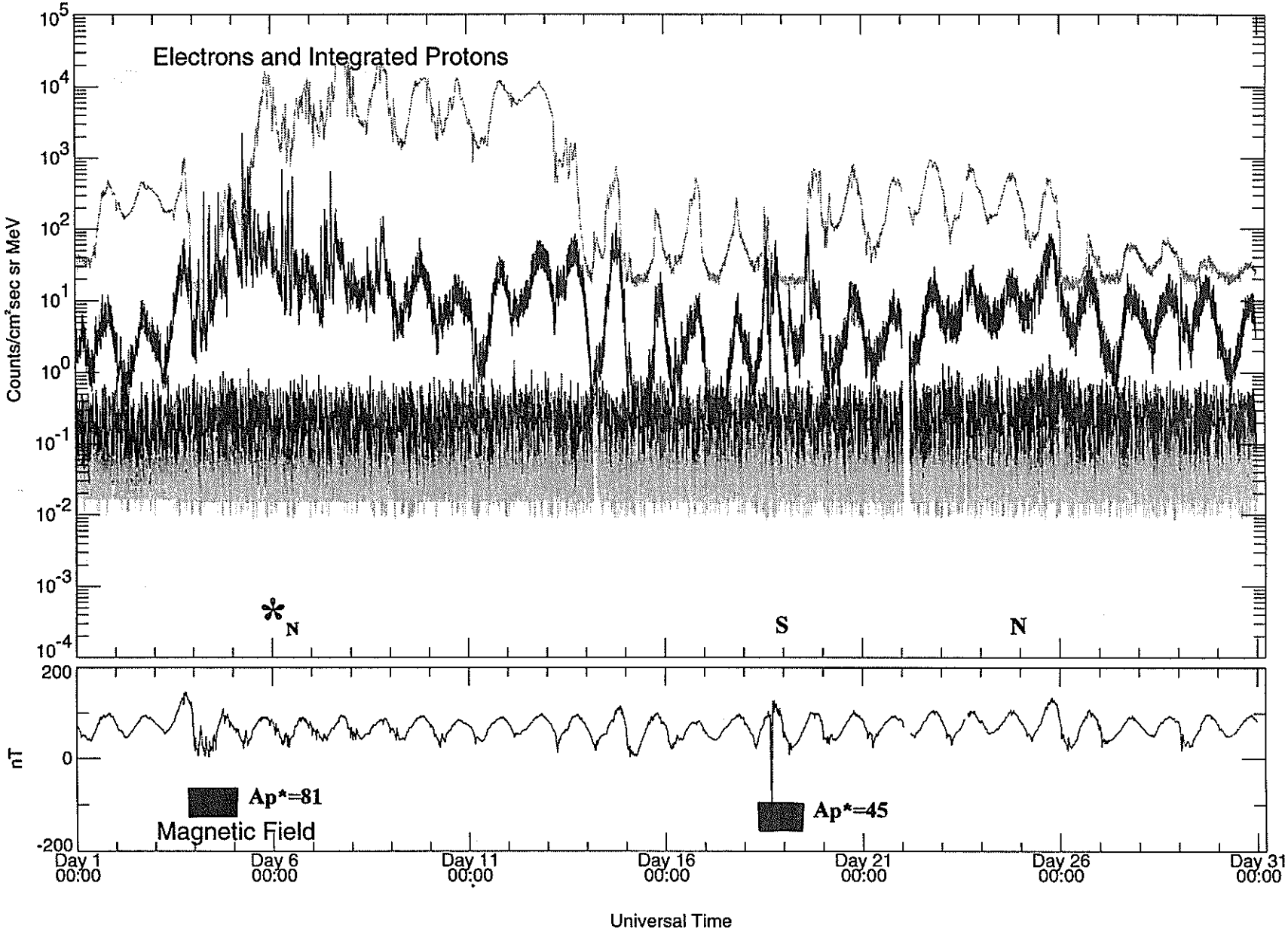

GOES-7 Space Environment Monitor (5-Min Averages)
August 1993
Electrons and Integrated Protons
Counts/cm²sec sr MeV
S
N
S
E
S
Magnetic Field
nT
Ap*=86
Day 1
00:00
Day 6
00:00
Day 11
00:00
Day 16
00:00
Day 21
00:00
Day 26
00:00
Day 31
00:00
Universal Time


GOES-7 Space Environment Monitor (5-Min Averages)
September 1993
Electrons and Integrated Protons
Counts/cm²sec sr MeV
N
S
N
S
N
nT
Ap*=43
Ap*=95
Magnetic Field
Day 1 00:00
Day 6 00:00
Day 11 00:00
Day 16 00:00
Day 21 00:00
Day 26 00:00
Day 31 00:00
Universal Time

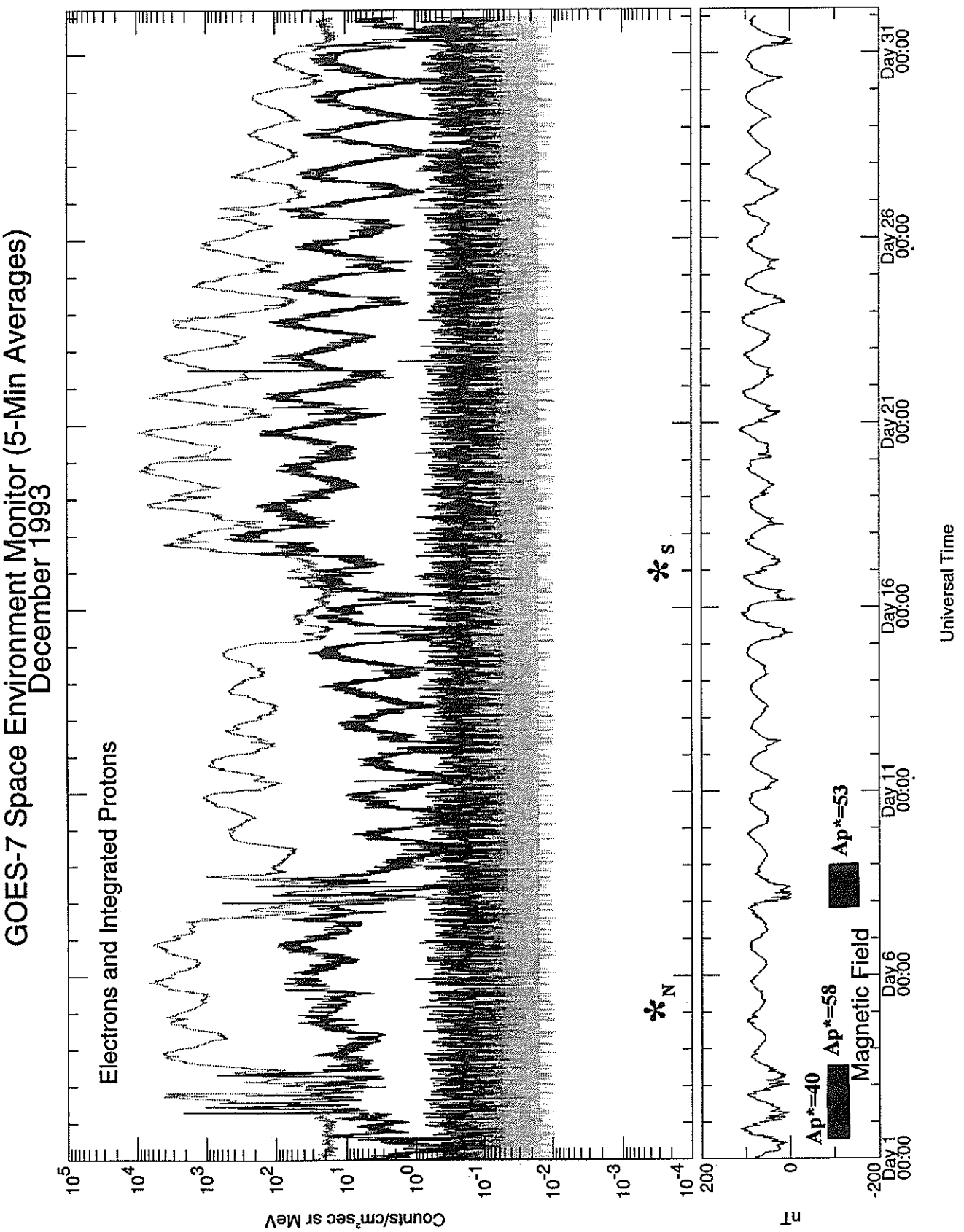
58
Misc
Oct 93

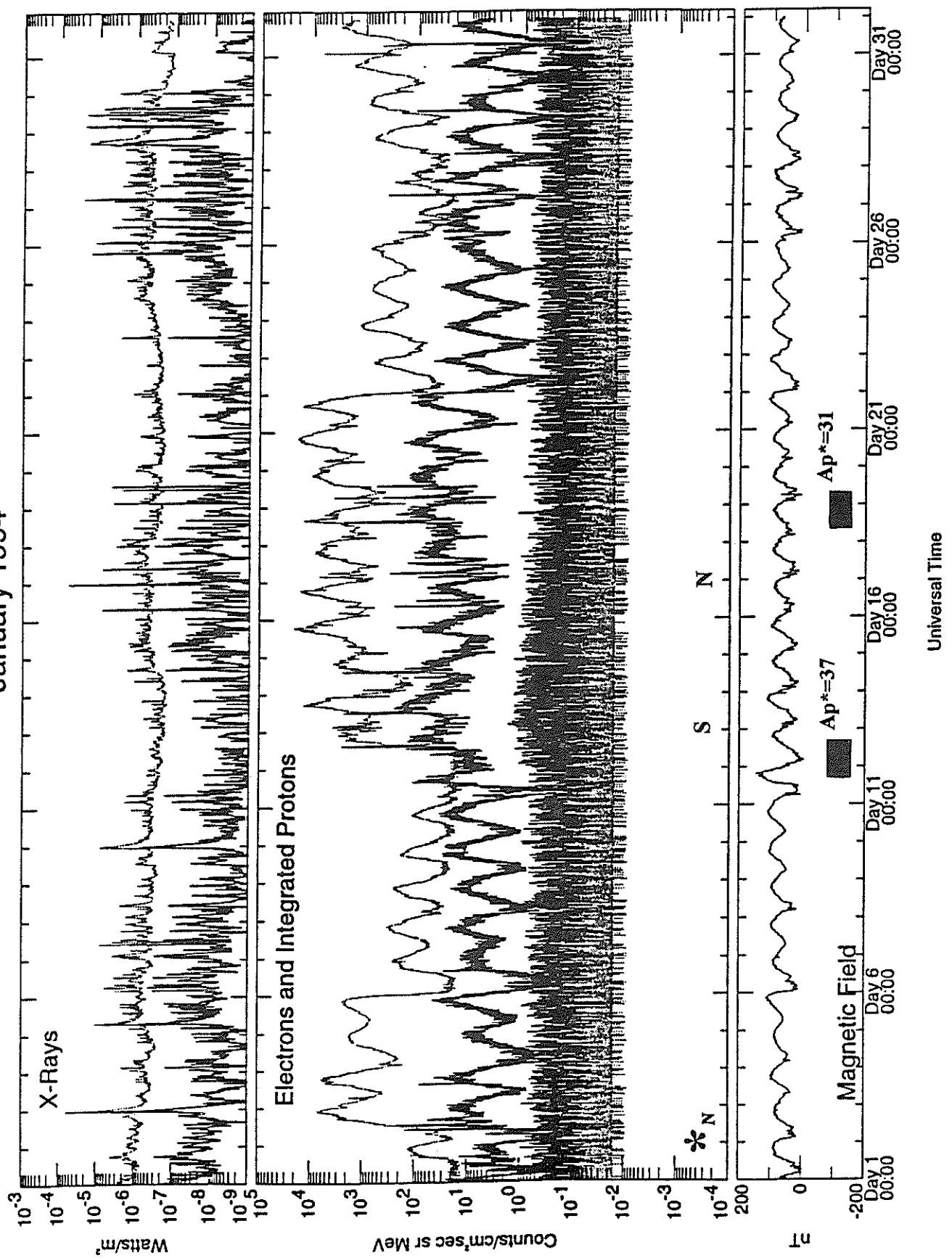


GOES-7 Space Environment Monitor (5-Min Averages)
November 1993



59
Misc
Nov 93


GOES-7 Space Environment Monitor (5-Min Averages)
December 1993
Electrons and Integrated Protons
Counts/cm²sec sr MeV
N
S
nT
Ap*=40
Ap*=58
Ap*=53
Magnetic Field
Day 1 00:00
Day 6 00:00
Day 11 00:00
Day 16 00:00
Day 21 00:00
Day 26 00:00
Day 31 00:00
Universal Time


GOES-7 Space Environment Monitor (5-Min Averages)
January 1994
X-Rays
Watts/m²
Electrons and Integrated Protons
Counts/cm²sec sr MeV
S
N
N
Magnetic Field
nT
Ap*=37
Ap*=31
Day 1 00:00
Day 6 00:00
Day 11 00:00
Day 16 00:00
Day 21 00:00
Day 26 00:00
Day 31 00:00
Universal Time

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FOR
SOLAR-TERRESTRIAL PHYSICS

The ICSU Panel on WDCs has recommended that it would be appropriate courtesy to acknowledge in publications that data were obtained from the originating station or investigator through the intermediary of the WDCs. The following statement is suggested:

"Data used in this study were provided by WDC-A for Solar-Terrestrial Physics, NOAA E/GC2, 325 Broadway, Boulder Colorado 80303, USA."