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NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE
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NOVEMBER 1994 NUMBER 603 - Part II

Solar-Geophysical Data comprehensive reports

Data for May 1994

International Standard Serial Number: 0038-0911
Library of Congress Catalog Number: 79-640375 //r81

NATIONAL GEOPHYSICAL DATA CENTER
Michael A. Chinnery, Director
Boulder, Colorado

Subscription information is on the inside back cover.

SOLAR-GEOPHYSICAL DATA

Number 603

(Issued in Two Parts)

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CONTENTS

DETAILED INDEX OF OBSERVATIONS PUBLISHED IN SOLAR-GEOPHYSICAL DATA

CODE	KIND OF OBSERVATION	MAR 94	APR	MAY	JUN	JUL	AUG	SEP	OCT
A.	SOLAR AND INTERPLANETARY EVENTS								
A.1	Sunspot Drawings	597A 41	598A 41	599A 41	600A 43	601A 45	602A 50	603A 45	
A.2aa	International Provisional Sunspot Numbers	596A 28	597A 24	598A 25	599A 24	600A 25	601A 25	602A 24	603A 25
A.2c	American Sunspot Numbers	596A 28	597A 24	598A 25	599A 24	600A 25	601A 25	602A 24	603A 25
A.3a	Mt. Wilson Magnetograms	597A 41	598A 41	599A 41	600A 43	601A 45	602A 50	603A 45	
A.3b	Sunspot Mag Class and Regions	597A 88	598A 87	599A 88	600A 89	601A 92	602A 98	603A 91	
A.3c	Kitt Peak Magnetograms	597A 41	598A 41	599A 41	600A 43	601A 45	602A 50	603A 45	
A.3d	Mean Solar Magnetic Field (Stanford)	596A 37	597A 31	598A 31	599A 31	600A 33	601A 33	602A 31	603A 33
A.3e	Stanford Magnetograms	597A 41	598A 41	599A 41	600A 43	601A 45	602A 50	603A 45	
A.4	H-alpha Filtergrams	597A 41		599A 41	600A 43	601A 45	602A 50	603A 45	
A.6c	Stanford Solar Mag Field Synoptic Maps	597A 34	598A 34	599A 34	600A 36	601A 38	602A 36	603A 38	
A.6d	Kitt Peak Solar Mag Field Synoptic Maps	597A 40	598A 40	599A 40	600A 42	601A 44	602A 48	603A 44	
A.6e	Mass Ejections (Proxy data) from the Sun	601B 24	----------	----------					
A.6f	Active Prominences and Filaments	601B 25	602B 19	603B 20					
A.6g	Sac Peak Coronal Line Synoptic Maps	597A 36	598A 36	599A 36	600A 38	601A 40	602A 40	603A 40	
A.7h	Coronal Line Emission (Sac Peak)	597A 41	598A 41	599A 41	600A 43	601A 45	602A 50	603A 45	
A.8aa	2800 MHz- Solar Flux (Penticton)	596A 28	597A 24	598A 25	599A 24	600A 25	601A 25	602A 24	603A 25
A.8ac	2800 MHz- Adj. Solar Flux (Penticton)	596A 28	597A 24	598A 25	599A 24	600A 25	601A 25	602A 24	603A 25
A.8g	Adjusted Daily Solar Fluxes (Learmonth)	596A 28	597A 24	598A 25	599A 24	600A 25	601A 25	602A 24	603A 25
A.10g	Nancay Radioheliograph - 164 MHz	597A102	598A 98	599A100	600A102	601A112	602A114	603A111	
A.11g	Solar X-ray GOES (graphs/event table)	601B 15	602B 12	603B 18					
A.11k	Solar UV NOAA-9	May 86-Dec 88 in 566B 84							
A.11l	Solar UV NIMBUS7	Nov 78-Dec 93 in 599A 67							
A.11n	Solar YOHKOH Soft X-ray Images	597A 72	597A 72	598A 71	599A 72	600A 73	601A 76	602A 81	603A 75
A.12e	Solar Particles (IMP H & J)	Dec 88-Oct 89 in 570B 92							
A.12g	Solar Particles (GOES-7)	596A 4	597A 4	598A 4	599A 4	600A 4	601A 4	602A 4	603A 4
A.12h	Interplanetary Particles (SAMPEX)	Jul-Dec 92 in 595B 36; Jan-Jun 93 in 596B 56							
A.13e	Solar Plasma (IMP-H & J)	Feb-Sep 93 in 596B 48; Oct 93 in 596B 46; Nov 93 in 597B 39							
A.16b	NIMBUS Solar Irradiance	Nov 78-Dec 93 in 599B 67 -- Final Data							
A.16c	ERBS, NOAA-9 & -10 Solar Irradiance	1989 in 551B 78; ERBS Oct 84-Jul 93 in 593B 43							
A.16d	UARS Solar Irradiance	1991 in 599B 63; 1992 in 599B 64							
A.17c	Inferred Interplanetary Mag Field	1984-1988 data in 542A168; 1989 in 548A154							
C.	SOLAR FLARE-ASSOCIATED EVENTS								
C.1a	H-alpha Flares	596A 31	597A 27	598A 28	599A 27	600A 28	601A 28	602A 27	603A 28
C.1ba	H-alpha Flare Groups	601B 4	602B 4	603B 4					
C.1d	Flare Patrol Obsevations	----------	----------	----------	----------	----------	----------		
C.1d	Flare Patrol Obsevations	601B 10	602B 8	603B 7					
C.3	Radio Bursts Fixed Frequency	601B 12	602B 10	603B 9					
C.3	Radio Bursts Fixed Frequency Selected	596A 35	597A ---	598A 30	599A 29	600A 31	601A 32	602A 30	603A 32
C.4f	Radio Bursts Spectral (Sagamore Hill)	597A 98	598A 94	599A 95	600A 97	601A103	602A107	603A 99	
C.4k	Radio Bursts Spectral (Learmonth)	597A 98	598A 94	599A 95	600A 97	601A103	602A107	603A 99	
C.4l	Radio Bursts Spectral (Palehua)	597A 98	598A 94	599A 95	600A 97	601A103	602A107	603A 99	
C.4m	Radio Bursts Spectral (Ondrejov)	597A 98	598A 94	599A 95	600A 97	601A103	602A107	603A 99	
C.4n	Radio Bursts Spectral (Potsdam)	597A 98	598A 94	599A 95	600A 97	601A103	602A107	603A 99	
C.4o	Radio Bursts Spectral (San Vitó)	597A 98	598A 94	599A 95	600A 97	601A103	602A107	603A 99	
C.4p	Radio Bursts Spectral (IZMIRAN)	597A 98	598A 94	599A 95	600A 97	601A103	602A107	603A 99	
C.6	Sudden Ionospheric Disturbances	597A 96	598A 92	599A 93	600A 95	601A101	602A104	603A 97	
D.	GEOMAGNETIC EVENTS								
D.1a	Geomagnetic Indices	602A128	602A129	599A108	600A110	601A120	602A120	603A120	
D.1ba	27-day Chart of Kp Indices	598A109	598A109	599A110	600A112	601A122	602A122	603A122	
D.1cb	Monthly Mean aa Indices	597A113	598A110	599A111	601A123	601A123	602A123	603A123	
D.1d	Principal Magnetic Storms	597A115	598A112	599A113	600A115	601A125	602A125	603A125	
D.1f	Sudden Commencements/Flare Effects	597A116	598A113	599A114	600A116	601A126	602A126	603A126	
D.1g	Equatorial Indices Dst	May-Jul 93 in 592A144; Aug-Dec 93 in 597A119							
D.1i	Polar Cap (PC) Index	597A114	598A111	599A112	600A114	601A124	602A124	603A124	
F.	COSMIC RAYS								
F.1a	Cosmic Ray Neutron Cts (Deep River)	597A103	598A 99	599A101	600A103	601A113	602A115	603A112	
F.1b	Cosmic Ray Neutron Cts (Climax)	597A103	598A 99	599A101	600A113	601A113	602A115	603A112	
F.1h	Cosmic Ray Neutron Cts (Thule)	597A103	598A 99	599A101	600A103	601A113	602A115	603A112	
F.1i	Cosmic Ray Neutron Cts (Kiel)								
F.1j	Cosmic Ray Neutron Cts (Tokyo)	597A103	598A 99	599A101	600A103	601A113	602A115	603A112	
F.1n	Cosmic Ray Neutron Cts (Beijing)	597A103	598A 99	599A101	600A103	601A113	602A115	603A112	
F.1b	Cosmic Ray Neutron Cts (Haleakala)	597A103	598A 99	599A101	600A103	601A113	602A115	603A112	
F.1o	Cosmic Ray Neutron Cts (Moscow)							603A112	
H.	MISCELLANEOUS								
H.60	IUWDS Alert Periods	596A 20	597A 19	598A 20	599A 19	600A 20	601A 20	602A 19	603A 20

The entry "597A 41" under Mar 1994, for example, means that the sunspot drawings for Mar 1994 appear in SOLAR-GEOPHYSICAL DATA No. 597, Part I, and that they begin on page 41. "A" denotes Part I and "B", Part II. Blanks indicate data not yet received and dashes mark unavailable data.

CONTENTS

Comprehensive Reports Number 603 Part II

DATA FOR MAY 1994

Hα SOLAR FLARES

MAY 1994

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
		01	2148		2237	No Flare Patrol													
		01	2248		2307	No Flare Patrol													
		01	2314		2319	No Flare Patrol													
		01	2345		2400	No Flare Patrol													
		02	0000		0419	No Flare Patrol													
0001	SVTO	02	0445E	0446U	0449D	N05	E36	7713	05	4.9	4D	SF		2	E		78		FU
		02	1106		1313	No Flare Patrol													
		02	1407		1413	No Flare Patrol													
		03	0056		0151	No Flare Patrol													
		03	0256		0317	No Flare Patrol													
		03	0333		0529	No Flare Patrol													
		05	0401		0404	No Flare Patrol													
		05	2018		2020	No Flare Patrol													
		05	2024		2040	No Flare Patrol													
		05	2051		2113	No Flare Patrol													
		05	2118		2129	No Flare Patrol													
		05	2216		2244	No Flare Patrol													
		05	2307		2348	No Flare Patrol													
		06	2023		2027	No Flare Patrol													
		06	2047		2048	No Flare Patrol													
		06	2129		2149	No Flare Patrol													
		06	2207		2228	No Flare Patrol													
0002		07	12553	12581	1308	S08	E31	7719	05	9.9	13	SF	B 2.1				45	1.0	
	HTPR	07	1255	1259	1314	S07	E31	7719	05	9.9	19	SF			C	1259	80	1.0	
	SVTO	07	1257	1258	1301	S08	E31	7719	05	9.9	4	SF	B 2.1	3	E		10		
	KANZ	07	1258	1258	1310	S08	E30	7719	05	9.8	12	SF		2	C				
0003	KANZ	07	1442	1442	1446	S07	E30	7719	05	9.8	4	SF		2	C				
		07	1912		2222	No Flare Patrol													
		07	2239		2301	No Flare Patrol													
		08	1642		1842	No Flare Patrol													
		08	2034		2044	No Flare Patrol													
		08	2247		2254	No Flare Patrol													
0004	KANZ	09	0904	0904	0908	S10	E34	7720	05	11.9	4	SF		2	C				
		09	2150		2219	No Flare Patrol													
		09	2232		2304	No Flare Patrol													
0005	ISTA	10	0755		0818	S10	E80	7721	05	16.3	23	SN			P				DG
		10	1813		1819	No Flare Patrol													
		10	1831		1907	No Flare Patrol													
		10	1938		1952	No Flare Patrol													
		10	2012		2059	No Flare Patrol													
		10	2111		2119	No Flare Patrol													
		10	2232		2320	No Flare Patrol													
		11	1656		1659	No Flare Patrol													
		11	1846		2314	No Flare Patrol													
0006		12	0547	0553	0558	N06	E74	7722	05	17.8	11	SF	B 2.7				13		H
	SVTO	12	0547	0553	0600	N06	E75	7722	05	17.8	13	SF	B 2.7	3	E		13		H
	KANZ	12	0551E	0551U	0555	N06	E73	7722	05	17.7	4D	SF		2	C				
0007	KANZ	12	0735	0739	0743	N06	E72	7722	05	17.7	8	SF		2	C				
0008	KANZ	12	1122		1130D	S11	W08	7720	05	11.9	8D	SF		2	C				
0009	KANZ	12	1234	1234	1238	N06	E70	7722	05	17.8	4	SF		2	C				
		12	1743		1759	No Flare Patrol													
		12	1815		1820	No Flare Patrol													
0010	HOLL	12	1850	1854	1904	N07	E67	7722	05	17.8	14	SF	B 5.9	3	E		36		
		12	2016		2103	No Flare Patrol													

Hα SOLAR FLARES

MAY 1994

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
		12	2107		2232	No Flare Patrol														
0011	HTPR	13	0607E	0616	0644	N08	E62	7722	05	17.9	37D	SN				C	0616	80	1.7	D
0012	ISTA	13	0710		0722	N05	E56	7722	05	17.5	12	SN				P				E
		13	0941		0951	No Flare Patrol														
0013		13	1205	1215	1236	S07	W50	7719	05	9.7	31	SF	B	5.0				40		FHS
	SVTO	13	1205	1215	1236	S07	W50	7719	05	9.7	31	SF	B	5.0	3	E		51		FH
	RAMY	13	1224E	1224U	1237	S07	W50	7719	05	9.8	13D	SF			4	E		30		FS
		13	1855		1930	No Flare Patrol														
		13	1935		2008	No Flare Patrol														
0014	HOLL	13	2146	2147	2155	N04	E50	7722	05	17.6	9	SF	B	2.4	3	E		17		F
		13	2202		2247	No Flare Patrol														
0015		14	0009	0012	0020	N05	E48	7722	05	17.6	11	1N	C	1.6				178	3.8	EF
	MITK	14	0009	0012	0018	N02	E48	7722	05	17.6	9	1B				E	0012	242	3.8	E
	LEAR	14	0009	0012	0023	N03	E48	7722	05	17.6	14	1F	C	1.6	3	E		114		FE
	PALE	14	0010E	0013U	0020D	N09	E49	7722	05	17.7	10D	S			1	E				F
0016	SVTO	14	1106	1109	1117	N10	E47	7722	05	18.0	11	SF			3	E		12		F
0017	KANZ	15	0929	0929	0933D	N07	E30	7722	05	17.6	4D	SF			2	C				
0018	HOLL	15	1728	1729	1733	N09	E39	7726	05	18.6	5	SF	B	6.0	3	E		19		
0019		16	10061	10073	1026	N10	W16	7723	05	15.2	20	SF	B	5.3				26		
	SVTO	16	1006	1010	1034	N11	W16	7723	05	15.2	28	SF	B	5.3	3	E		26		
	KANZ	16	1007	1007	1019	N09	W17	7723	05	15.1	12	SF			2	C				
0020		16	12193	12224	1234	N11	W18	7723	05	15.1	15	SF	B	2.6				32		F
	SVTO	16	1219	1222	1233	N11	W18	7723	05	15.1	14	SF	B	2.6	3	E		32		F
	KANZ	16	1222	1226	1234	N11	W18	7723	05	15.2	12	SF			2	C				
0021	HOLL	16	1801	1802	1806	N13	W20	7723	05	15.2	5	SF			3	E		13		
		16	1841		2129	No Flare Patrol														
0022	LEAR	17	0001	0003	0013	N10	E23	7726	05	18.7	12	SF			3	E		53		F
0023		17	00211	00241	0033	N10	E24	7726	05	18.8	12	SN	B	5.8				40	0.5	EF
	LEAR	17	0021	0025	0037	N10	E23	7726	05	18.7	16	SF	B	5.8	3	E		37		F
	MITK	17	0022	0024	0029	N09	E24	7726	05	18.8	7	SN				E	0024	42	0.5	E
0024	PALE	17	0126E	0126U	0132D	N10	E20	7726	05	18.6	6D	SF	B	3.9	3	E		14		
0025	KANZ	17	0905	0909	0925	S10	W70	7720	05	12.1	20	SF			2	C				
		17	2000		2025	No Flare Patrol														
		17	2030		2044	No Flare Patrol														
		17	2055		2222	No Flare Patrol														
		17	2232		2246	No Flare Patrol														
		18	0131		0143	No Flare Patrol														
		18	0211		0220	No Flare Patrol														
0026	SVTO	18	1159	1201	1203	N08	W12	7722	05	17.6	4	SF	B	1.5	3	E		10		
0027		18	1338	13401	1402	N06	W06	7722	05	18.1	24	SF	B	7.7				48		FH
	SVTO	18	1338	1340	1412	N06	W08	7722	05	18.0	34	SF			3	E		48		FH
	RAMY	18	1338	1341	1352	N07	W04	7722	05	18.3	14	SF	B	7.7	3	E		48		FH
0028	RAMY	18	1355	1404	1418	N07	W08	7722	05	18.0	23	SF	B	5.4	3	E		46		F
		18	1612		1630	No Flare Patrol														

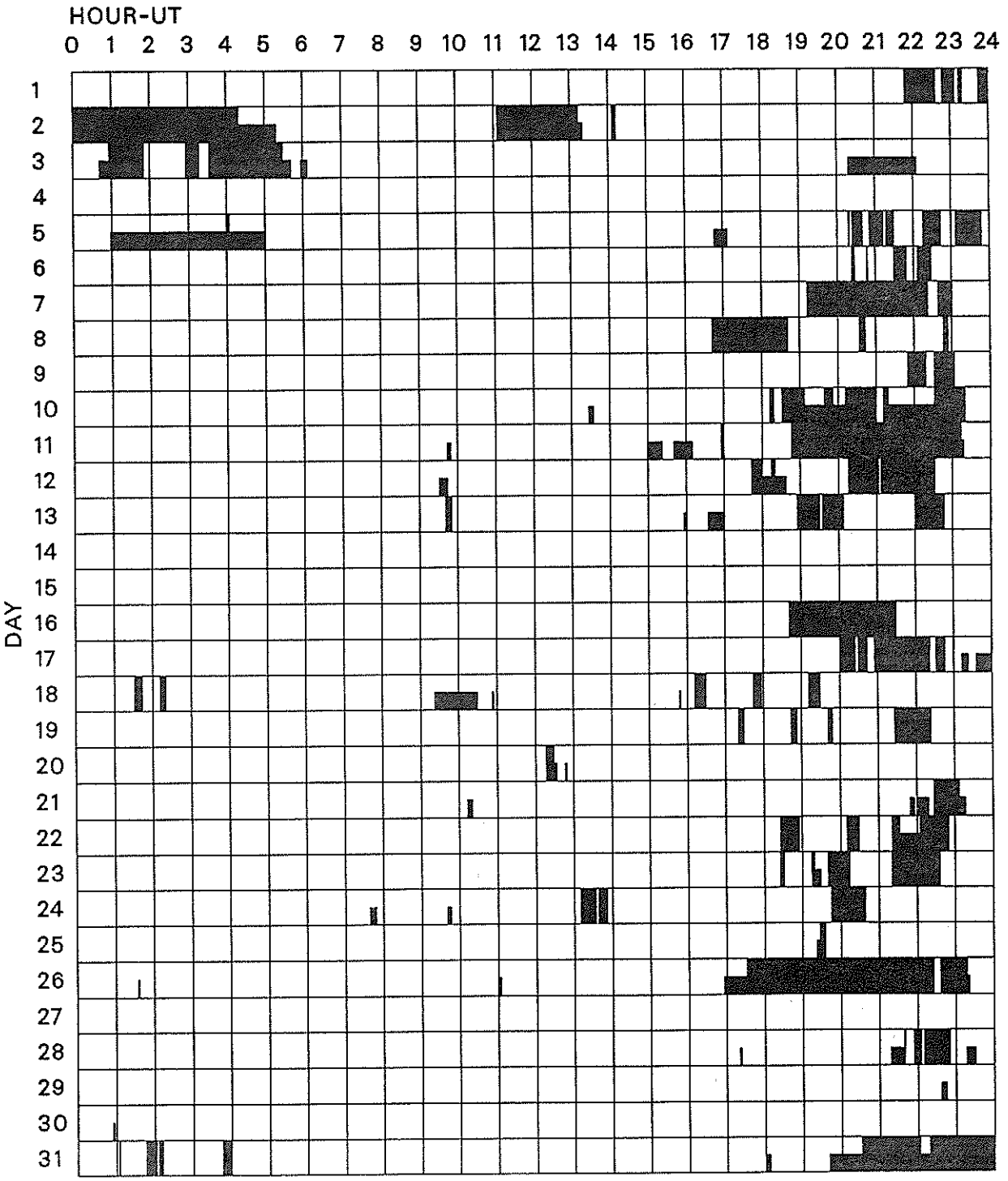
Hα SOLAR FLARES

MAY 1994

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
0029	RAMY	18	1711	1711	1716	N06	W09	7722	05	18.0	5	SF	B 2.5	3	E		16		F
		18	1744		1757	No Flare Patrol													
		18	1911		1929	No Flare Patrol													
0030	HOLL	18	2116	2120	2126	N06	W12	7722	05	18.0	10	SF	B 2.9	3	E		15		F
		19	1721		1729	No Flare Patrol													
		19	1844		1853	No Flare Patrol													
		19	1942		1948	No Flare Patrol													
		19	2126		2223	No Flare Patrol													
		20	1217		1229	No Flare Patrol													
0031	SVTO	20	1453	1456	1509	N10	W71	7723	05	15.3	16	SF		3	E		21		
0032		20	16251	1627	1634	N08	E32	7727	05	23.1	9	SF	B 2.6				28		F
	HOLL	20	1625	1627	1636	N07	E32	7727	05	23.1	11	SF	B 2.6	3	E		28		F
	SVTO	20	1626	1627	1633	N08	E32	7727	05	23.1	7	SF		2	E		28		F
0033		21	0546	0551	0558	N09	W42	7722	05	18.1	12	SF	B 2.7				22		F
	SVTO	21	0546	0551	0600	N09	W42	7722	05	18.1	14	SF	B 2.7	3	E		22		F
	KANZ	21	0549E	0549U	0557	N09	W42	7722	05	18.1	8D	SF		2	C				
0034	RAMY	21	1113E	1113U	1122D	N09	W46	7722	05	18.0	9D	SF		2	E		16		
0035	SVTO	21	1256	1258	1306	N08	W44	7722	05	18.2	10	SF	B 1.6	3	E		20		
		21	2227		2307	No Flare Patrol													
0036	SVTO	22	0804	0811	0819	N14	W54	7722	05	18.2	15	SF	B 1.9	3	E		38		F
		22	1826		1856	No Flare Patrol													
		22	2010		2029	No Flare Patrol													
		22	2121		2133	No Flare Patrol													
		22	2205		2250	No Flare Patrol													
0037		23	0735	0743	0813	N10	W04	7727	05	23.0	38	SF	B 4.8				42		F
	KANZ	23	0735	0735U	0807D	N10	W05	7727	05	22.9	32D	SF		2	C				
	SVTO	23	0735	0743	0813	N09	W04	7727	05	23.0	38	SF	B 4.8	3	E		42		F
0038	ISTA	23	0737E		0755	N13	W13	7727	05	22.3	18D	SN			P				FG
		23	1825		1831	No Flare Patrol													
		23	1915		1919	No Flare Patrol													
		23	1940		2014	No Flare Patrol													
		23	2120		2236	No Flare Patrol													
0039	ATHN	24	0647	0647	0656	N07	W88	7722	05	17.7	9	SN		3	V	0647	64	1.4	
		24	1310		1334	No Flare Patrol													
		24	1338		1352	No Flare Patrol													
0040	HOLL	24	1812	1812	1824	N09	W23	7727	05	23.0	12	SF	B 3.0	3	E		18		
		24	1945		2039	No Flare Patrol													
		25	1927		1936	No Flare Patrol													
		26	1732		2226	No Flare Patrol													
		26	2236		2318	No Flare Patrol													
		28	2139		2140	No Flare Patrol													
		28	2154		2205	No Flare Patrol													
		28	2210		2251	No Flare Patrol													
		31	0104		0105	No Flare Patrol													
		31	0146		0202	No Flare Patrol													
		31	0206		0212	No Flare Patrol													
		31	0346		0400	No Flare Patrol													
		31	2031		2203	No Flare Patrol													
		31	2218		2400	No Flare Patrol													

INTERVALS OF NO FLARE PATROL OBSERVATION
FOR PRECEDING SOLAR FLARE TABLE

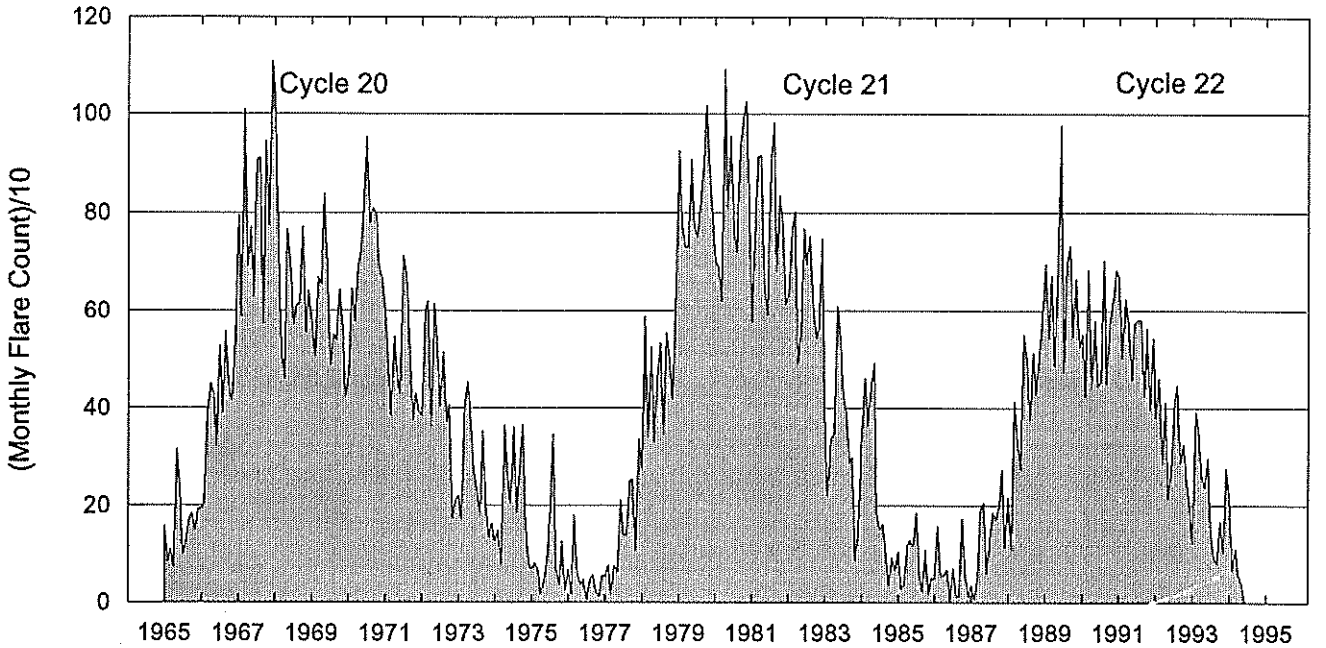
MAY 1994



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
Haute Province
Holloman
Hurbanovo
Istanbul
Kanzelhoehe
Learmonth
Mitaka
Paleahua
Ramey
San Vito
Urumqi
Yunnan

Monthly Counts of Grouped Solar Flares
Jan 1965 - May 1994



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1965	158	85	110	74	315	231	99	127	173	184	150	193	1899
1966	194	205	390	449	429	323	528	391	558	432	417	543	4859
1967	796	589	1009	694	771	629	907	911	573	946	775	1109	9709
1968	1037	773	519	460	768	697	573	611	616	772	556	640	8022
1969	581	504	669	655	839	694	489	551	540	643	566	422	7153
1970	466	646	578	688	722	836	954	780	811	797	687	667	8632
1971	598	505	387	546	461	430	713	673	518	375	431	394	6031
1972	384	599	621	361	614	541	404	515	371	408	175	210	5203
1973	221	171	410	453	388	270	232	182	353	201	136	163	3180
1974	127	148	79	364	255	204	360	187	270	366	153	81	2594
1975	68	82	69	19	42	85	196	346	68	38	127	25	1165
1976	69	18	180	60	38	48	6	47	57	23	13	55	614
1977	54	77	18	76	64	210	140	140	250	252	107	336	1724
1978	274	588	338	526	330	460	533	346	554	499	418	648	5514
1979	926	781	731	731	907	772	750	821	901	1018	888	786	10012
1980	703	689	621	1092	811	956	763	720	924	988	1027	838	10132
1981	578	782	914	915	658	592	893	982	680	836	773	615	9218
1982	631	766	803	490	553	769	696	753	615	544	564	748	7932
1983	332	220	337	346	609	561	427	389	289	298	88	152	4048
1984	353	461	366	440	492	185	151	161	95	36	92	69	2901
1985	104	29	38	119	129	116	185	53	25	108	19	50	975
1986	51	158	54	56	68	3	71	12	14	174	56	13	730
1987	36	7	52	192	205	61	132	185	172	198	273	114	1627
1988	217	109	413	328	274	551	502	375	513	429	518	587	4816
1989	695	544	672	488	691	977	474	699	733	547	665	526	7711
1990	550	424	684	442	580	445	454	703	449	574	623	682	6610
1991	672	503	625	570	458	574	582	581	425	565	396	544	6495
1992	380	462	287	412	214	271	413	447	287	325	248	206	3952
1993	123	392	357	262	237	296	154	92	82	167	104	275	2541
1994	217	67	111	60	40								495

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

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

Outstanding Occurrences

MAY 1994

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
03	204	IZMI	41	F	0736.5	0736.7	3.0	400.0			
	204	IZMI	41	F	1104.0	1104.2	0.6	100.0			
04	536	ONDR	8	S	1334.5	1334.5	0.5				
	260	ONDR	8	S	1335.0	1335.0	0.5	50.0			
	536	ONDR	8	S	1353.0	1353.5	1.5				
	260	ONDR	8	S	1353.5	1354.5	1.5				
	808	ONDR	8	S	1354.0	1354.0	1.0				
	536	ONDR	8	S	1359.5	1400.0	1.0				
	260	ONDR	8	S	1401.0	1401.5	2.0				
11	2950	GORK	1	S	0308.5	0308.8	0.8	2.8			
	2950	GORK	2	S/F	0310.8	0311.3	1.8	3.5			
12	9100	GORK	28	PRE	0407.7	0408.0	0.6	6.2			
	15400	LEAR	8	S	0408.0	0408.0	U	41.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0408.0	0408.0	U	45.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0408.0	0408.0	U	40.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	0408.0	0408.0	1.0	40.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0408.0	0408.0	U	110.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0408.0	0408.0	U	43.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0408.0	0408.0	U	37.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0408.0	0408.0	U	52.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	0408.0	0408.0	1.0	40.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	0408.0	0408.0	U	53.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0408.0	0408.0	U	290.0			QL=4 ST=2 TYP=3
	245	SVTO	49	GB	0408.0	0408.0	1.0	3300.0			QL=4 ST=2 TYP=6
	15400	SVTO	8	S	0408.0	0408.0	U	39.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0408.0	0408.0	1192.0	3400.0			QL=4 ST=1 TYP=6
	500	HIRA	46	C	0408.0	0408.1	2.0	22.0	7.0		O
	2950	GORK	4	S/F	0408.2	0408.6	5.9	32.0			
	950	GORK	29	PBI	0408.3	0409.0	12.0	11.0			
	950	GORK	4	S/F	0408.3	0408.5	0.7	75.0			
	9100	GORK	3	S	0408.3	0408.5	0.7	49.0			
	2800	HIRA	3	S	0408.3	0408.5	1.0	31.0	19.0		WL
	9100	GORK	29	PBI	0409.0	0409.0	1.5	6.2			
	2840	PEKG	5	S	0442.0	0442.8	3.0	40.6			
	950	GORK	21	GRF	0512.3	0524.0	17.7	5.0			
	950	GORK	2	S/F	0515.2	0515.8	0.8	12.0			
	500	HIRA	42	SER	0517.8	0522.8	6.0	250.0			O
	410	LEAR	8	S	0522.0	0523.0	1.0	330.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0522.0	0523.0	2.0	460.0			QL=4 ST=2 TYP=3
	410	SVTO	49	GB	0522.0	0523.0	2.0	1500.0			QL=4 ST=2 TYP=6
	9100	GORK	2	S/F	0522.5	0523.5	3.7	8.2			
	2800	HIRA	45	C	0522.6	0522.7	3.0	7.0	4.0		O
	2950	GORK	2	S/F	0522.8	0524.5		4.1			
	950	GORK	46	C	0522.9	0523.0	1.1	185.0			
	2950	GORK	2	S/F	0522.9	0523.1	4.1	6.8			
	950	GORK	46	C	0522.9	0523.4		110.0			
	245	LEAR	8	S	0523.0	0523.0	U	330.0			QL=4 ST=2 TYP=3
	3013	IZMI	7	C	0523.0	0523.4	2.5	9.0	5.0		
	204	IZMI	45	C	0523.0	0523.5	2.5	4400.0			
	33	UPIC	45	C	0523.0	0523.7	1.3				
	3013	IZMI	1	S	0630.0	0631.0	1.0	2.0	1.0		
	950	GORK	4	S/F	0630.0	0630.4	3.0	98.0			
	2950	GORK	2	S/F	0630.0	0630.7	1.7	2.7			
	2800	HIRA	1	S	0630.3	0630.6	1.0	4.0	2.0		O
	33	UPIC	2	S/F	0630.6	0630.8	0.6				
	2950	GORK	22	GRF	0715.6	0724.7	15.0	5.5			
	950	GORK	46	C	0725.2	0727.3		33.0			
	950	GORK	46	C	0725.2	0725.4	4.8	7.0			
	950	GORK	46	C	0748.5	0752.0		35.0			
	950	GORK	46	C	0748.5	0754.0		18.0			
	950	GORK	46	C	0748.5	0750.5	8.5	28.0			
	500	HIRA	42	SER	0751.5	0753.2	2.0	12.0			O
	3013	IZMI	5	S	0753.0	0754.0	2.5	4.0	2.0		
	245	LEAR	8	S	0753.0	0754.0	1.0	110.0			QL=4 ST=2 TYP=3
	204	IZMI	7	C	0753.0	0753.5	5.0	70.0			
	2950	GORK	2	S/F	0753.3	0754.0	1.7	4.8			

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

MAY 1994

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
12	2800	HIRA	1	S	0753.3	0753.6	1.0	5.0	3.0		O
	9100	GORK	2	S/F	0753.4	0754.7	3.6	6.2			
	950	GORK	2	S/F	0807.9	0808.1	1.1	7.0			
	950	GORK	4	S/F	0819.2	0820.1	1.3	128.0			
	950	GORK	30	PBI	0819.2	0820.5	9.5	7.0			
	33	UPIC	2	S/F	0819.2	0819.5	1.8				
	3013	IZMI	1	S	0819.7	0820.1	1.0	2.0	1.0		
	2950	GORK	2	S/F	0819.8	0820.2	0.9	2.1			
	950	GORK	1	S	0824.0	0824.2	0.6	5.0			
	950	GORK	1	S	0840.7	0840.8	1.3	17.0			
	204	IZMI	4	S/F	1058.0	1058.4	0.7	50.0			
	245	SGMR	8	S	1452.0	1453.0	1.0	160.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1452.0	1453.0	1.0	180.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1459.0	1459.0	U	100.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1502.0	1502.0	U	74.0			QL=4 ST=2 TYP=3
13	204	IZMI	43	NS	0500.0		420.0D		5.0		
	260	ONDR	44	NS	0700.0E		500.0D				
	245	SGMR	43	NS	2152.0	2301.0	101.0	190.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	2200.0	2304.0	200.0	140.0			QL=2 ST=2 TYP=1
	500	HIRA	43	NS	2203.0	2245.0	110.0	10.0	4.0		WR
	245	LEAR	43	NS	2304.0	2305.0	356.0	260.0			QL=4 ST=2 TYP=1
	245	LEAR	4	S/F	0433.0	0436.0	3.0	6.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0444.0	0444.0	1.0	7.0			QL=4 ST=2 TYP=3
	500	HIRA	42	SER	0616.0	0616.1	2.5	5.0			O
	204	IZMI	7	C	0714.5	0714.7	0.3	75.0	37.0		
	245	SGMR	8	S	2030.0	2030.0	1.0	110.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2031.0	2031.0	U	91.0			QL=4 ST=2 TYP=3
	500	HIRA	42	SER	2144.1	2149.0	5.5	30.0			O
14	245	PALE	43	NS	0247.0	0247.0	24.0	59.0			QL=2 ST=2 TYP=1
	204	IZMI	44	NS	0500.0E		420.0D	20.0			
	260	ONDR	44	NS	0700.0E	1309.5	600.0D	50.0			
	245	PALE	43	NS	2321.0	0057.0	96.0	67.0			QL=2 ST=2 TYP=1
	500	HIRA	42	SER	0011.1	0016.0	6.0	21.0			O
	245	SVTO	8	S	0428.0	0428.0	U	93.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	0429.0	0429.0	U	58.0			QL=2 ST=2 TYP=3
	610	SVTO	49	GB	0433.0	0434.0	2.0	560.0			QL=2 ST=2 TYP=6
	245	SGMR	8	S	2115.0	2117.0	2.0	82.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2254.0	2255.0	1.0	58.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2303.0	2303.0	1.0	50.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2320.0	2321.0	1.0	60.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2328.0	2328.0	U	95.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2356.0	2356.0	1.0	55.0			QL=4 ST=2 TYP=3
15	260	ONDR	44	NS	0700.0E	1448.0	600.0D	85.0			
	245	LEAR	8	S	0018.0	0018.0	U	120.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0043.0	0043.0	U	130.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0052.0	0052.0	1.0	110.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	0953.0	0953.0	U	330.0			QL=2 ST=2 TYP=3
16	260	ONDR	42	SER	0911.0	0936.0	109.0	80.0			
	127	TORN	4	S/F	1047.1	1049.0	3.4	70.0	10.0		
	2800	PENT	3	S	2158.9	2203.1	10.2	13.7	4.0		
	2800	HIRA	3	S	2200.5	2203.0	5.0	15.0	11.0		O
	2800	PENT	3	S	2357.5	2359.6	11.3	6.3	1.0		
	245	LEAR	8	S	2358.0	2359.0	1.0	79.0			QL=4 ST=2 TYP=3
	2800	HIRA	45	C	2358.5	2359.3	3.0	8.0	4.0		O
	500	HIRA	46	C	2358.6	2400.4	3.0	220.0	40.0		WL
17	500	HIRA	22	GRF	0008.9	0044.6	40.0	9.0	5.0		WR
	2800	PENT	3	S	0019.8	0021.6	5.1	5.9	2.0		
	2800	HIRA	1	S	0020.0	0021.4	3.0	7.0	5.0		O
	2950	GORK	20	GRF	0851.0	0930.0	64.0	4.9			
	204	IZMI	41	F	0959.0	0959.5	1.5	450.0			
	260	ONDR	8	S	0959.0	0959.5	1.0	60.0			
19	260	ONDR	45	C	0905.0	0905.5	5.0	30.0			

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

MAY 1994

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	260	ONDR	44	NS	1400.0E		180.0D				
	245	SGMR	43	NS	1418.0	1419.0	36.0	80.0			QL=4 ST=3 TYP=1
	245	SGMR	43	NS	1737.0	1737.0	10.0	65.0			QL=4 ST=2 TYP=1
	260	ONDR	45	C	1204.5	1206.0	4.0	65.0			
	127	TORN	4	S/F	1215.8	1216.1	2.9	190.0	90.0		
	245	SGMR	8	S	1216.0	1216.0	U	42.0			QL=4 ST=2 TYP=3
	33	UPIC	45	C	1216.0	1216.1	2.8				
	245	PALE	8	S	1737.0	1737.0	1.0	58.0			QL=2 ST=2 TYP=3
22	260	ONDR	44	NS	0700.0E	1356.0	600.0D	100.0			
23	245	LEAR	8	S	0159.0	0159.0	1.0	110.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0159.0	0159.0	1.0	92.0			QL=2 ST=2 TYP=3
	260	ONDR	45	C	0833.0	0839.5	15.0	50.0			
24	245	SVTO	43	NS	0605.0	0707.0	1075.0	130.0			QL=4 ST=1 TYP=1
	260	ONDR	44	NS	0630.0E	0703.0	195.0D	90.0			
	204	IZMI	43	NS	0641.0		64.0		15.0		
	245	SVTO	43	NS	0641.0	0707.0	39.0	130.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	0641.0	0707.0	49.0	140.0			QL=4 ST=2 TYP=1
	33	UPIC	45	C	1235.9	1236.7	2.3				
25	410	LEAR	8	S	0316.0	0316.0	U	60.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0316.0	0316.0	U	120.0			QL=2 ST=2 TYP=3
26	33	UPIC	4	S/F	1356.0	1356.1	0.5				UNCERTN
	33	UPIC	2	S/F	1454.7	1454.8	0.4				UNCERTN

Reports are received routinely from the following observatories:

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

Explanation of Type Code:

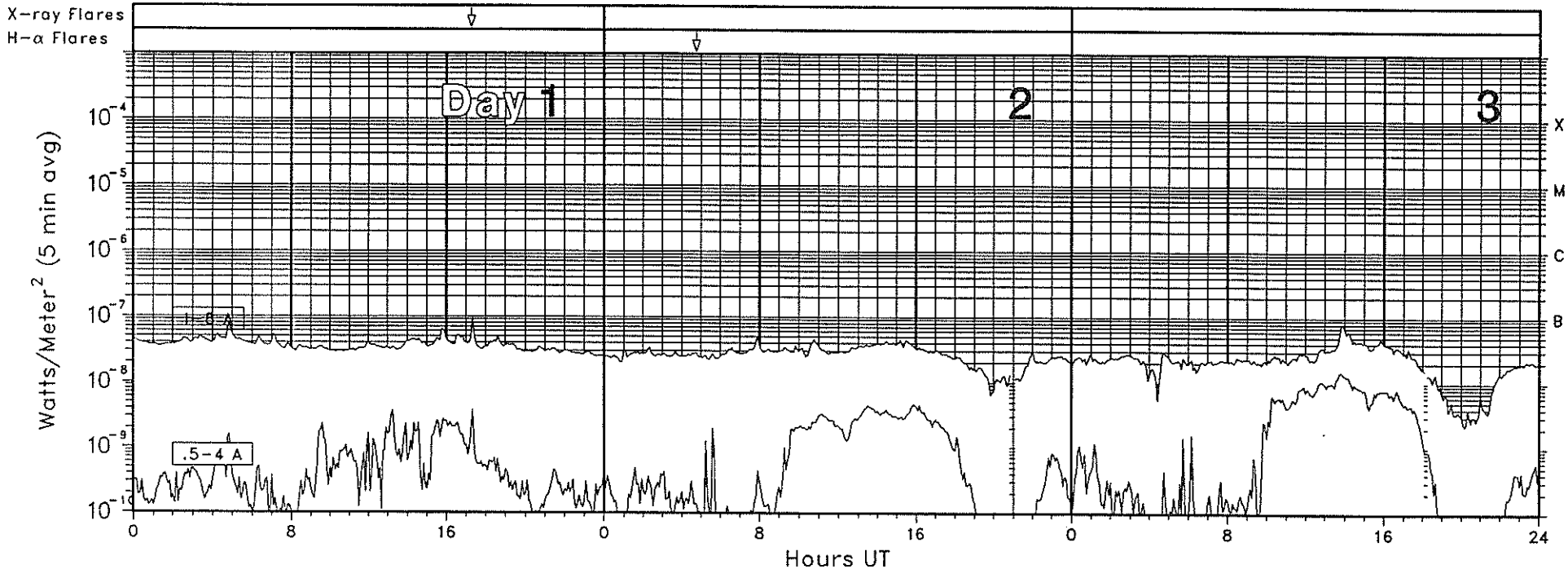
1 Simple 1	7 Minor +	24 Rise	30 Post Burst Increase A	43 Onset of Noise Storm
2 Simple 1F	8 Spike	25 Rise A	31 Post Burst Decrease	44 Noise Storm in Progress
3 Simple 2	20 Simple 3	26 Fall	33 Absorption	45 Complex
4 Simple 2F	21 Simple 3A	27 Rise and Fall	40 Fluctuation	46 Complex F
5 Simple	22 Simple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

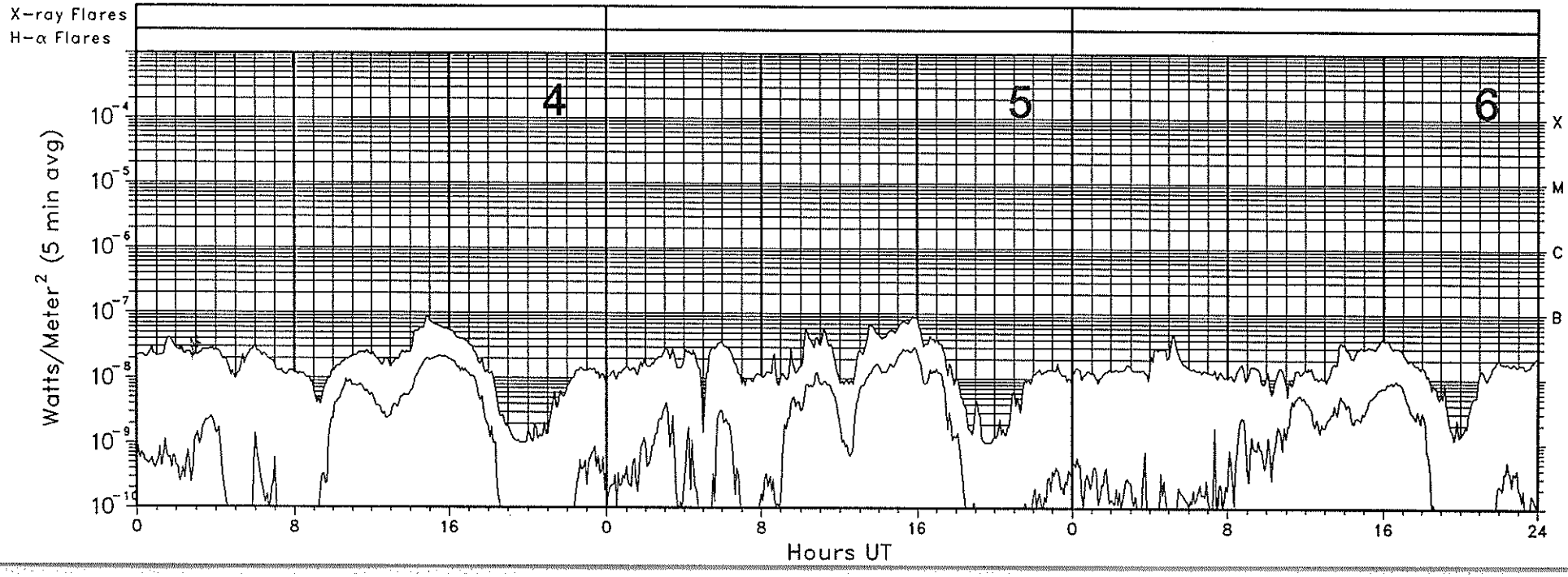
1A Simple 1A	4A Simple 2AF	24PF Post Rise F	27F Rise and Fall F
3A Simple 2A	40 Rise Only	16A Fall A	27AF Rise and Fall AF
21A Simple 3A GRF	40F Rise Only F	260 Fall Only	31A Post Burst Decrease A
2A Simple 1AF	4P Post Rise	26F Fall F	32A Absorption A

RSTN Site Information: Beginning in April 1986, the RSTN sites LEAR, PALE, SGMR, and SVTO fixed frequency solar radio data are periodically adjusted to several world standard stations. These world standard stations include: Kislovodsk, USSR 15,500 MHz; Penticton, Canada 2800 MHz; Hiraiso, Japan 500 and 200 MHz; and Toyokawa, Japan 9400, 3750, 2000 and 1000 MHz.

GOES-7 X-RAY DETECTOR

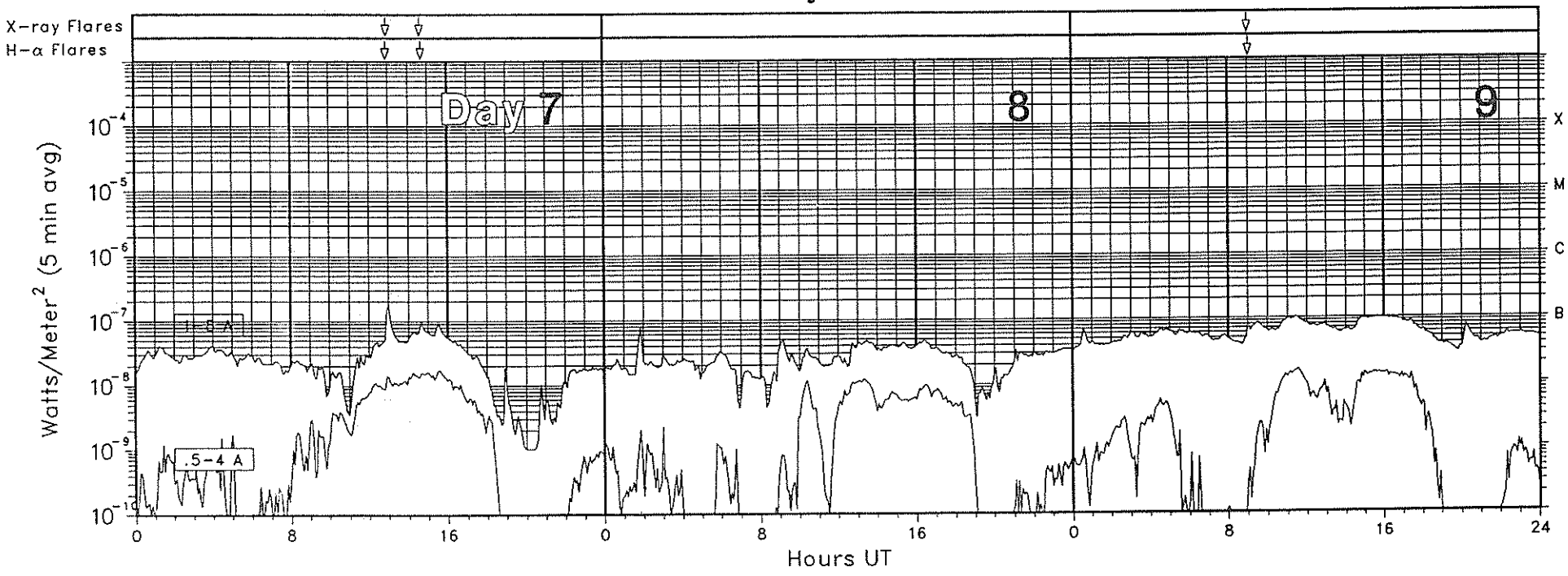
May 1994

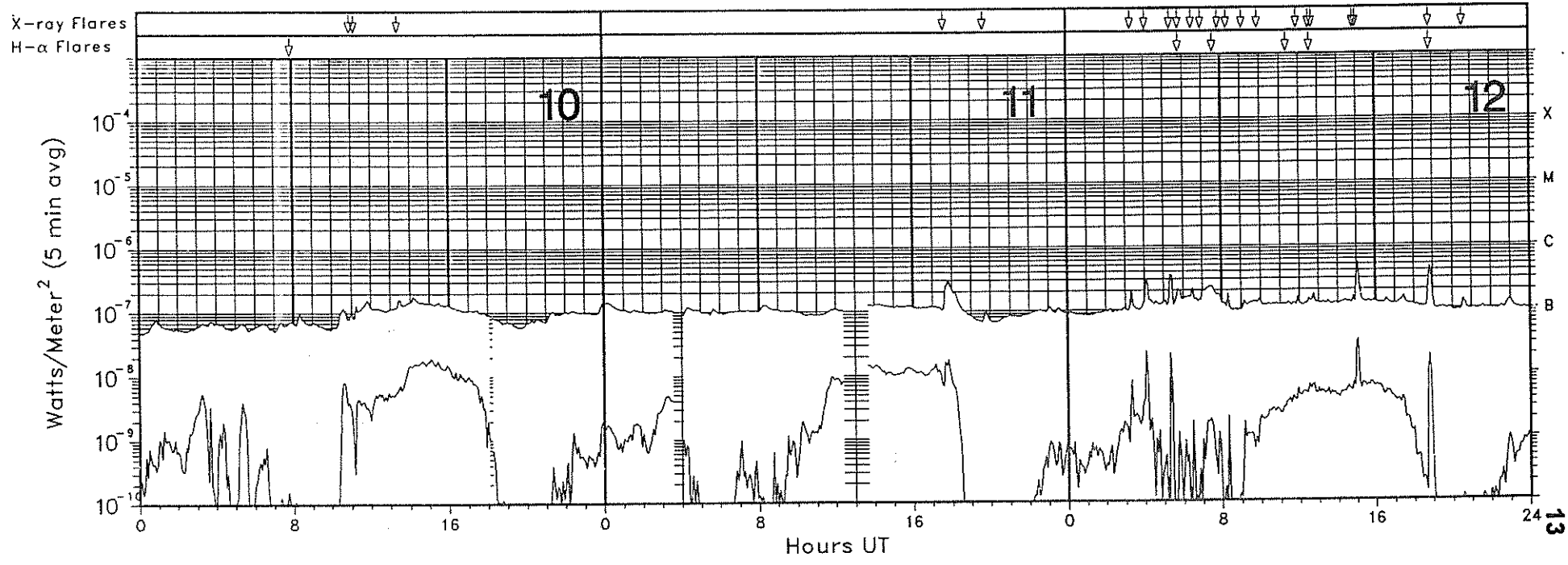




GOES-7 X-RAY DETECTOR

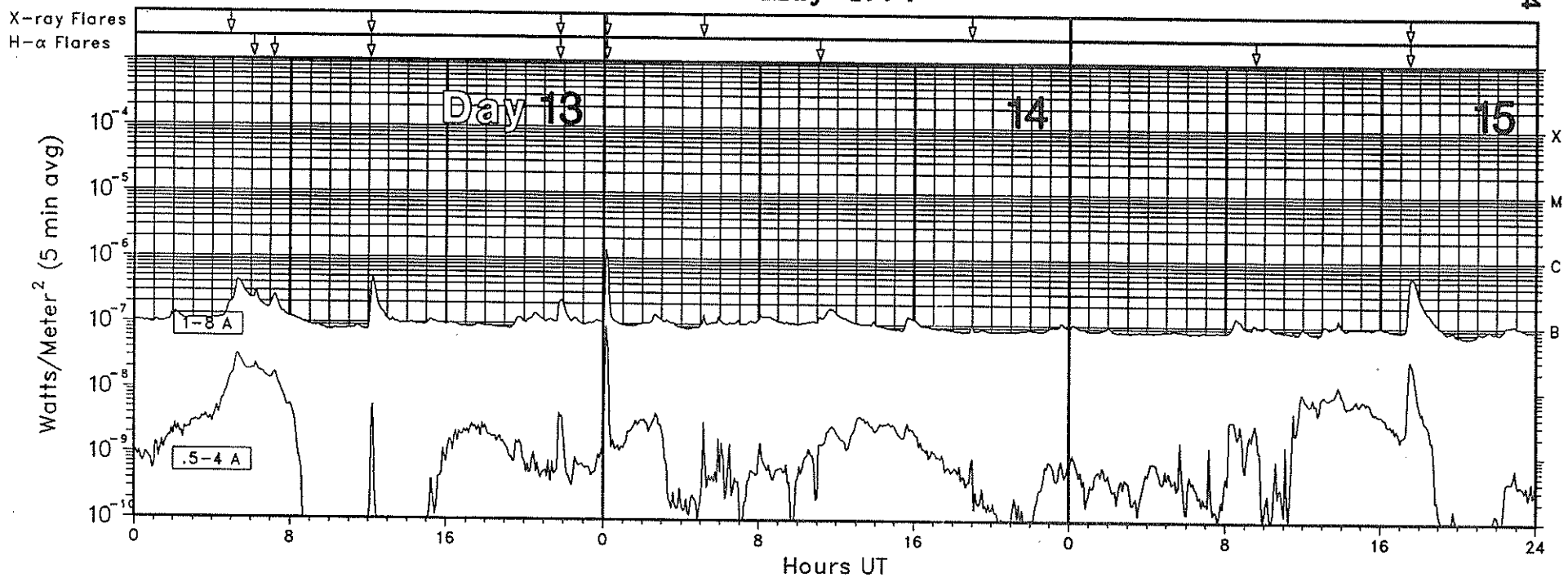
May 1994

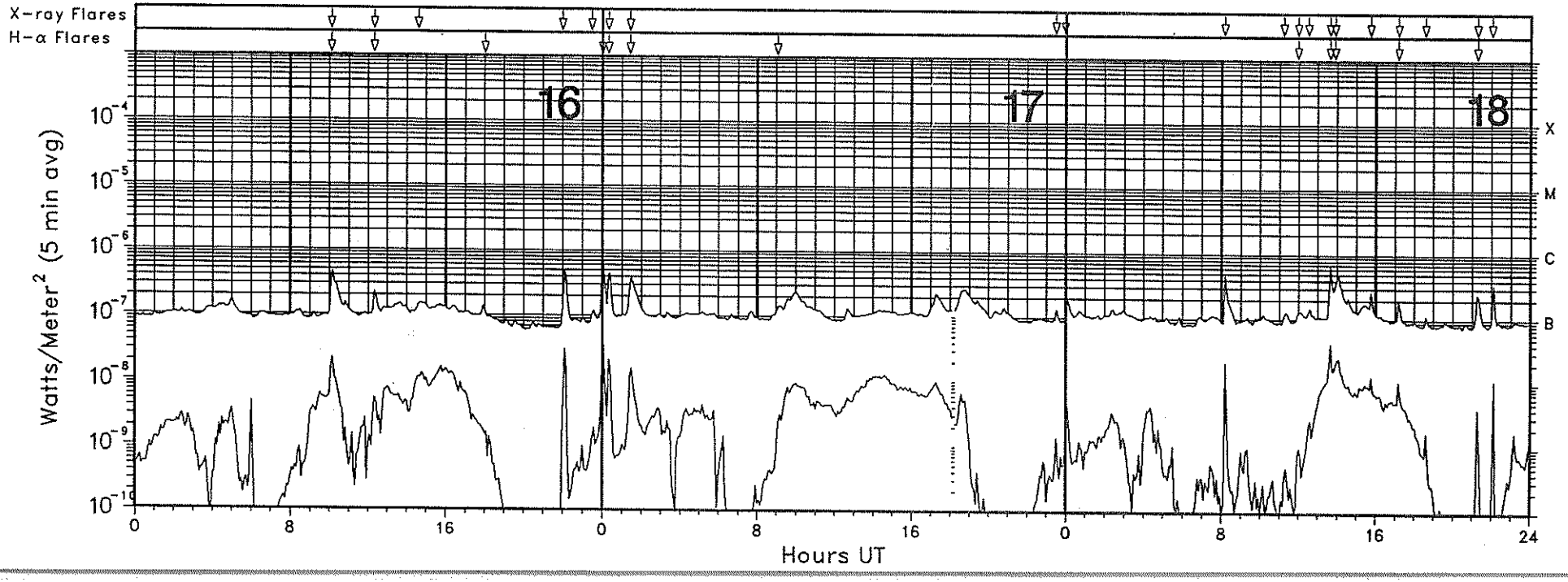




GOES-7 X-RAY DETECTOR

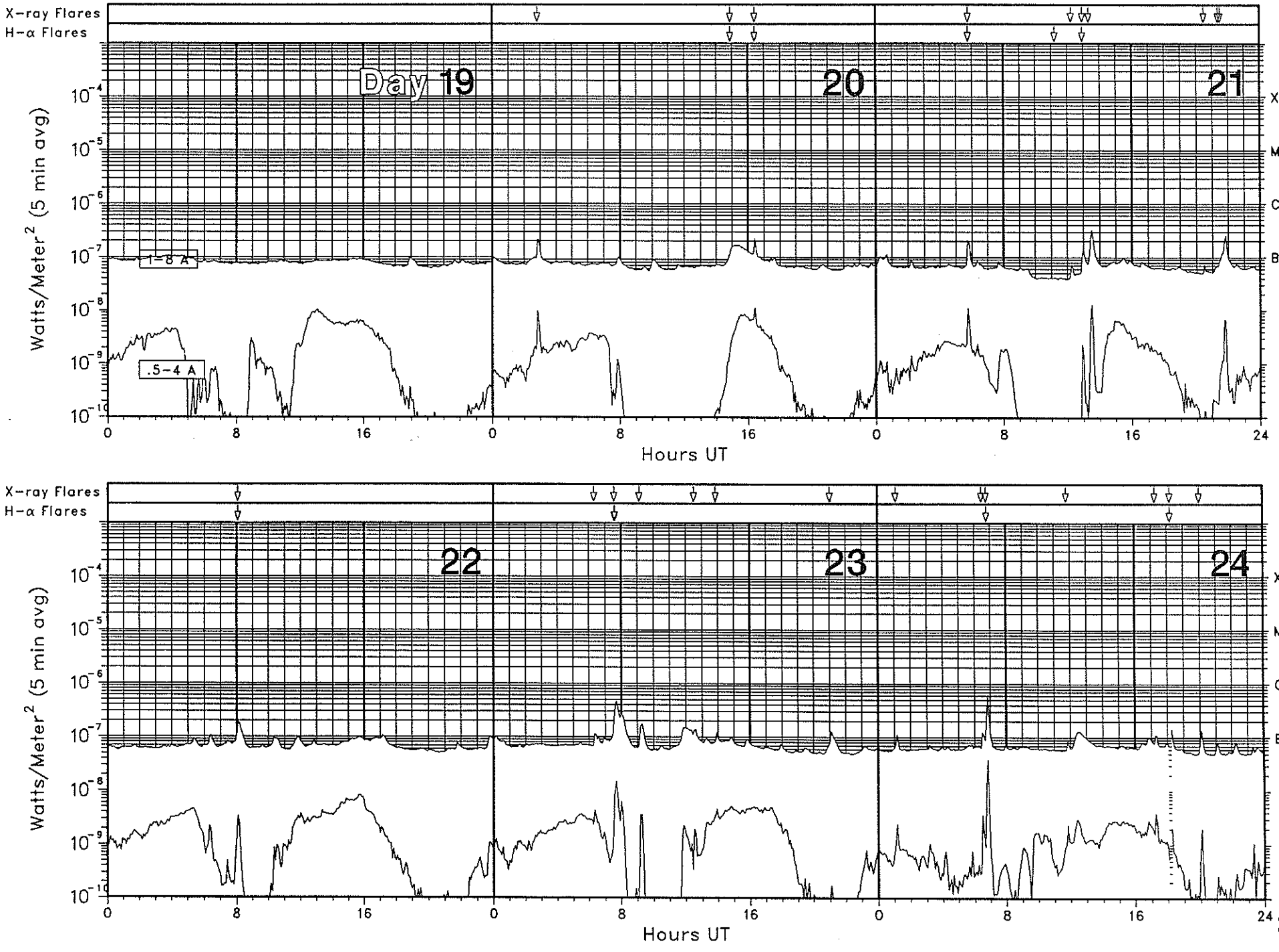
May 1994



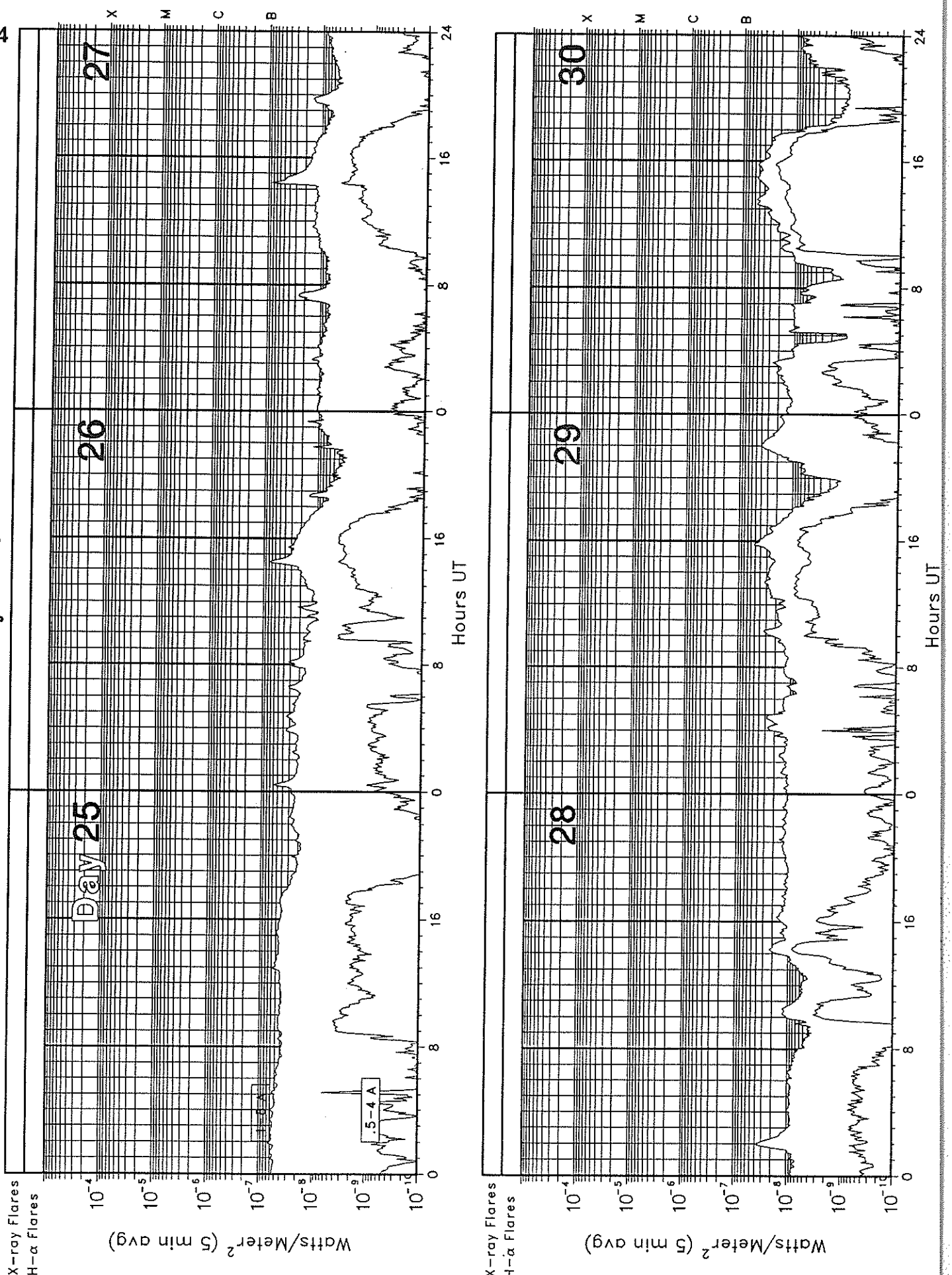


GOES-7 X-RAY DETECTOR

May 1994

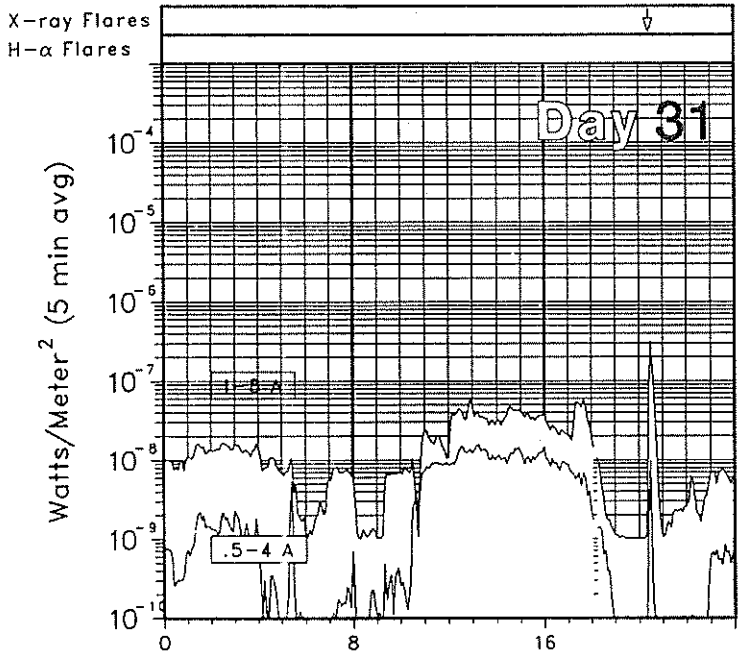


GOES-7 X-RAY DETECTOR
May 1994



GOES-7 X-RAY DETECTOR

May 1994



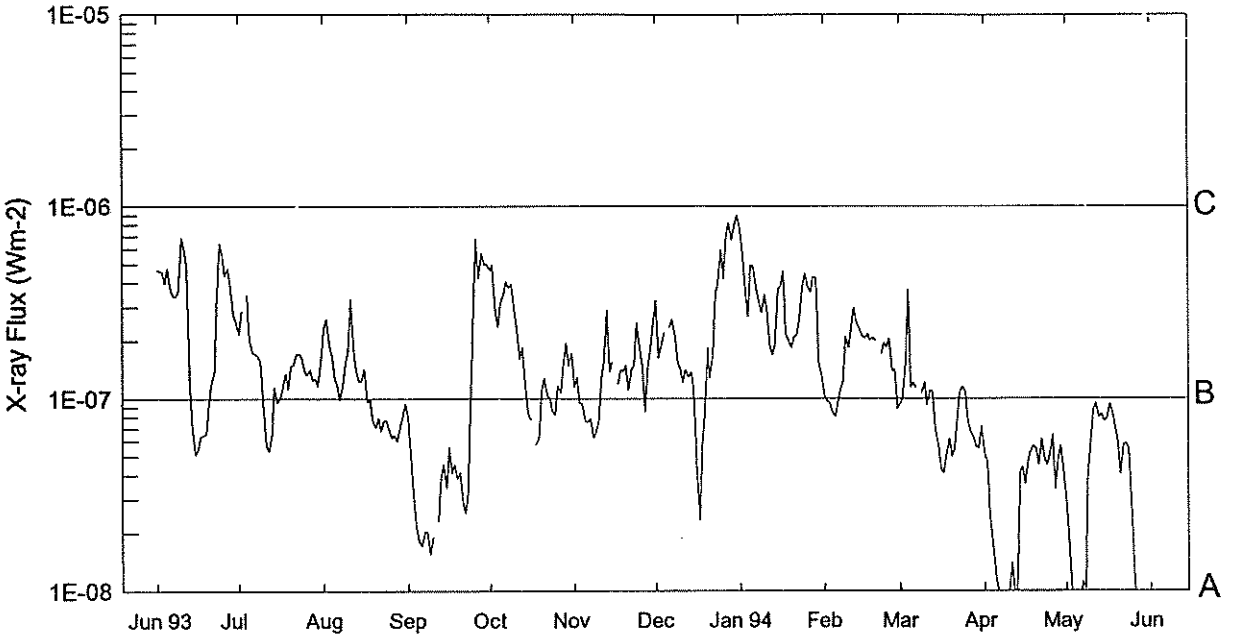
GOES S O L A R X-RAY F L A R E S
Preliminary Listing

May 1994

Day	Start (UT)	Max (UT)	End (UT)	Lat CMD	Imp Opt	Xray	NOAA/ USAF Region
01	1717	1720	1724			B1.2	
07	1257	1258	1301	S08E31SF		B2.1	7719
07	1439	1442	1444			B1.2	
09	0900	0904	0906			B1.0	
10	1059	1104	1106			B1.2	
10	1112	1116	1120			B1.4	
10	1326	1329	1332			B1.9	
11	1738	1752	1802			B3.4	
11	1942	1947	1954			B1.0	
12	0319	0323	0325			B3.0	
12	0405	0409	0411			B7.6	
12	0522	0524	0526			B9.7	
12	0547	0553	0600	N06E75SF		B2.7	7722
12	0629	0632	0634			B3.0	
12	0658	0730	0735			B2.6	
12	0752	0755	0757			B2.4	
12	0818	0822	0824			B2.2	
12	0907	0910	0912			B1.4	
12	0954	0956	0957			B1.7	
12	1154	1157	1159			B1.8	
12	1231	1232	1233			B2.0	
12	1241	1245	1247			B2.1	
12	1450	1453	1455			B2.1	
12	1458	1503	1510			B6.3	
12	1850	1854	1904	N07E67SF		B5.9	7722
12	2034	2037	2041			B1.5	
13	0454	0521	0541			B4.4	
13	1205	1215	1236	S07W50SF		B5.0	7719
13	2146	2147	2155	N04E50SF		B2.4	7722
14	0009	0012	0023	N03E48IF		C1.6	7722
14	0507	0512	0514			B1.5	
14	1855	1901	1903			B1.2	
15	1728	1729	1733	N09E39SF		B6.0	7726
16	1006	1010	1034	N11W16SF		B5.3	7723
16	1219	1222	1233	N11W18SF		B2.6	7723
16	1436	1440	1446			B1.7	
16	2200	2208	2214			B5.2	
16	2330	2335	2337			B1.4	
17	0021	0025	0037	N10E23SF		B5.8	7726
17	0126	0126	0132	N10E20SF		B3.9	7726
17	2328	2331	2335			B1.4	
17	2358	0004	0013			B2.0	
18	0809	0812	0815			B6.6	
18	1114	1120	1123			B1.4	
18	1159	1201	1203	N08W12SF		B1.5	7722
18	1231	1234	1237			B1.8	
18	1338	1341	1352	N07W04SF		B7.7	7722
18	1355	1404	1418	N07W08SF		B5.4	7722
18	1543	1547	1549			B3.5	
18	1711	1711	1716	N06W09SF		B2.5	7722
18	1834	1837	1840			B1.3	
18	2116	2120	2126	N06W12SF		B2.9	7722
18	2201	2206	2208			B5.3	
20	0248	0253	0259			B2.5	
20	1453	1456	1509	N10W71SF			7723
20	1625	1627	1636	N07E32SF		B2.6	7727
21	0546	0551	0600	N09W42SF		B2.7	7722
21	1215	1218	1221			B1.0	
21	1256	1258	1306	N08W44SF		B1.6	7722
21	1321	1331	1338			B3.3	
21	2029	2032	2034			B1.0	
21	2122	2125	2128			B1.0	
21	2130	2150	2155			B2.9	
22	0804	0811	0819	N14W54SF		B1.9	7726
23	0619	0624	0629			B1.2	
23	0735	0743	0813	N09W04SF		B4.8	
23	0908	0914	0924			B1.8	
23	1230	1234	1238			B1.7	
23	1352	1356	1401			B1.2	
23	2103	2107	2113			B1.3	
24	0107	0112	0115			B1.2	
24	0628	0632	0638			B1.4	
24	0645	0651	0655			B7.3	
24	1148	1151	1154			B1.0	
24	1715	1719	1722			B1.4	
24	1812	1812	1824	N09W23SF		B3.0	
24	2000	2007	2011			B1.6	
31	2026	2030	2034			B4.2	

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
Jun 93 - May 94



Day	Jun 93	Jul	Aug	Sep	Oct	Nov	Dec	Jan 94	Feb	Mar	Apr	May
1	B4.6	B2.1	B2.3	A8.0	B4.6	B1.1	B3.2	B7.9	B1.0	A9.4	A5.1	A2.9
2	B4.5	B2.8	B2.5	A5.1	B4.9	B1.3	B1.6	B6.0	A9.7	A9.9	A4.7	A1.8
3	B4.5	---	B1.9	A2.8	B2.8	A9.5	B1.8	B3.6	A9.5	B1.5	A2.4	A1.0
4	B3.9	B3.4	B1.6	A2.1	B2.3	A9.5	B2.2	B2.6	A8.6	B3.7	A1.8	<A1.0
5	B4.7	B2.0	B1.2	A1.7	B3.1	A7.5	---	B4.9	A8.0	B1.1	A1.2	<A1.0
6	B3.6	B1.7	B1.1	A1.7	B3.4	A7.5	B2.3	B4.8	A9.6	B1.2	<A1.0	<A1.0
7	B3.4	B1.7	A9.8	A2.0	B4.0	A7.8	B2.5	B3.7	B1.1	B1.1	<A1.0	A1.1
8	B3.4	B1.6	B1.1	A2.0	B3.7	A6.2	B2.1	B3.1	B1.2	---	<A1.0	A1.0
9	B3.5	B1.5	B1.5	A1.5	B3.9	A6.6	B1.5	B2.7	B2.0	B1.0	<A1.0	A3.7
10	B6.8	A8.5	B1.7	A1.9	B2.8	A7.7	B1.4	B3.4	B1.8	B1.2	<A1.0	A5.9
11	B5.9	A5.7	B3.3	---	B2.2	B1.2	B1.2	B2.7	B2.3	A9.1	A1.4	A8.6
12	B4.7	A5.3	B1.7	A2.2	B1.6	B1.5	B1.4	B1.8	B2.9	B1.1	<A1.0	A9.4
13	B1.3	A6.6	B1.3	A3.8	B1.8	B2.8	B1.2	B1.6	B2.5	B1.0	<A1.0	A7.9
14	A7.2	B1.1	B1.2	A4.5	B1.2	B1.3	B1.3	B1.9	B2.3	A6.9	A4.2	A8.3
15	A5.1	A9.5	B1.2	A3.4	A8.2	B1.5	B1.1	B3.6	B2.1	A5.6	A4.4	A7.5
16	A5.4	A9.9	B1.4	A5.6	A7.7	---	A4.5	B3.8	B2.0	A4.2	A3.6	A7.7
17	A6.3	B1.1	A9.6	A4.1	---	B1.1	A2.3	B4.6	B2.1	A4.0	A4.8	A9.4
18	A6.3	B1.3	A9.9	A4.5	A5.7	B1.4	A5.7	B2.1	B2.0	A5.0	A5.3	A8.4
19	A6.5	B1.1	A7.6	A3.8	A6.2	B1.3	A8.2	B2.0	B2.0	A6.1	A5.7	A7.0
20	A9.5	B1.4	A7.1	A4.1	B1.0	B1.5	B1.8	B1.8	B1.9	A4.9	A5.5	A6.0
21	B1.2	B1.5	A7.9	A2.9	B1.2	B1.1	B1.2	B2.1	---	A5.4	A4.5	A4.0
22	B1.4	B1.7	A6.7	A2.5	B1.0	B1.4	B1.6	B2.1	B1.7	A7.7	A6.2	A5.7
23	B3.0	B1.7	A7.5	A3.2	A9.9	B1.4	B3.4	B2.5	B1.9	B1.0	A4.9	A5.8
24	B6.4	B1.6	A7.7	B1.0	A8.5	B2.4	B3.9	B3.8	B1.8	B1.1	A4.5	A5.5
25	B5.5	B1.4	A6.8	B3.0	A8.2	B1.9	B5.9	B4.4	B2.0	B1.0	A5.0	A2.9
26	B4.3	B1.3	A6.2	B6.8	B1.1	B1.4	B4.1	B3.8	B1.3	A7.5	A6.5	A1.1
27	B4.7	B1.4	A6.4	B4.2	B1.0	A8.5	B6.9	B3.5	B1.4	A6.7	A3.4	<A1.0
28	B3.6	B1.2	A6.0	B5.7	B1.5	B1.4	B8.1	B4.2	A8.8	A6.2	A4.7	<A1.0
29	B2.7	B1.2	A7.1	B4.9	B1.9	B1.8	B6.6	B4.2		A5.5	A5.7	<A1.0
30	B2.5	B1.1	A8.1	B5.0	B1.4	B2.3	B7.8	B1.5		A5.5	A4.4	<A1.0
31		B1.6	A9.4		B1.7		B8.9	B1.3		A7.2		<A1.0

NOTE: Background levels below B1.0 are unreliable.

ACTIVE PROMINENCES AND FILAMENTS

MAY 1994

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	SSB	0001		16S	W80	05	7.0			0	0	E	LEAR		
01	DSD	0030E	0430D	N06	E53	05	5.0		02	9	9	E	LEAR		
01	DSD	0503E	1627	S13	E18	05	2.6		01	9	9	E	SVTO	7712	
01	AFS	0705E	0936	S14	E58	05	5.7		01	9	9	E	LEAR		
01	AFS	0721E	1627	S14	E59	05	5.8		01	9	9	E	SVTO	7714	
01	DSD	0926E	1019D	N07	E49	05	5.1		01	9	9	E	SVTO		
01	AFS	1020E	1627	N07	E48	05	5.0		01	9	9	E	SVTO	7713	
01	AFS	1115E	1434	S14	W62	04	26.9		01	9	9	E	RAMY	7710	
01	AFS	1119E	1434	S12	E13	05	2.4		02	9	9	E	RAMY	7712	
01	AFS	1130E	1434	N11	E47	05	5.0		01	9	9	E	RAMY	7713	
01	DSD	1130E	1434	N11	E48	05	5.1		01	9	9	E	RAMY	7713	
01	EPL	1242E	1549D	S31	W80	04	25.3	3		9	9	E	HOLL		
01	DSD	1326E	1627	N06	E46	05	5.0		02	9	9	E	SVTO	7713	
01	AFS	1340E	2313	N05	E45	05	4.9		02	8	7	E	HOLL		
01	AFS	1345E	2313	S13	E12	05	2.5		03	8	8	E	HOLL	7712	
01	AFS	1405E	1434	N08	W23	04	30.0		02	9	9	E	RAMY	7715	
01	EPL	1420E	1434	S30	W88	04	24.8	3		9	9	E	RAMY		
01	EPL	1421	1558D	S32	W90	04	24.6	3		9	9	E	SVTO		
01	EPL	1424E	1549D	S31	W80	04	25.4	3		9	9	E	HOLL		
01	APR	1425E	1430D	S32	W90	04	24.6	2	14				VALA		
01	DSD	1455E	1627	N07	W22	04	30.0		02	9	9	E	SVTO	7715	
01	AFS	1455E	1627	N07	W23	04	30.0		02	9	9	E	SVTO	7715	
01	AFS	1512E	2313	N08	W24	04	29.9		01	9	9	E	HOLL		
01	AFS	1512E	2313	N08	W24	04	29.9		01	9	9	E	HOLL	7715	
01	DSD	1515E	1627	S07	E19	05	3.0		01	9	9	E	SVTO		
01	AFS	2046E	2242	N06	E43	05	5.1		02	0	0	E	PALE	7711	
02	AFS	0420E	1452	N05	E36	05	4.9		02	9	9	E	SVTO	7713	
02	AFS	0420E	1452	N15	E04	05	2.5		01	9	9	E	SVTO		
02	AFS	0435E	1452	S15	E45	05	5.6		01	9	9	E	SVTO	7714	
02	AFS	0439E	1452	N07	W31	04	30.0		02	9	9	E	SVTO	7715	
02	AFS	0650E	1452	S12	E02	05	2.4		02	9	9	E	SVTO	7712	
02	APR	0729E	0946D	N43	W90	04	25.0	1	08				VALA		
02	APR	0730E	0836	N17	E90	05	9.1	1	06				VALA		
02	AFS	0755E	0935	N07	E35	05	4.9		02	9	9	E	LEAR	7713	
02	AFS	0755E	0935	N08	W33	04	29.9		02	9	9	E	LEAR	7715	
02	DSD	0905E	1452	N07	E36	05	5.1		02	9	9	E	SVTO	7713	
02	AFS	1321E	1846	N08	W36	04	29.9		01	9	9	E	RAMY	7715	
02	AFS	1323E	1846	N07	E33	05	5.0		01	9	9	E	RAMY	7713	
02	AFS	1336E	0012D	N08	W36	04	30.0		02	9	9	E	HOLL	7715	
02	AFS	1340E	0055	N07	E32	05	5.0		01	9	9	E	HOLL	7713	
02	AFS	1356E	0055	S08	E06	05	3.0		01	6	6	E	HOLL		
02	DSD	2039E	2105D	N09	W44	04	29.6		05	9	9	E	HOLL	7715	
03	AFS	0152E	0940	N07	E25	05	4.9		02	9	9	E	LEAR	7713	
03	AFS	0152E	0940	S08	W01	05	3.0		02	7	7	E	LEAR		
03	AFS	0631E	1552	N06	E23	05	5.0		01	9	9	E	SVTO	7713	
03	ADF	0805E	1552	S08	W04	05	3.0	1	05	9	9	E	SVTO		
03	AFS	0813E	1103D	S17	E42	05	6.5		01	9	9	E	SVTO		
03	AFS	1105E	2210	S08	W06	05	3.0		01	9	9	E	RAMY		
03	AFS	1119E	2210	N08	W48	04	30.0		02	9	9	E	RAMY	7715	
03	AFS	1610E	2210	N07	E17	05	4.9		01	9	9	E	RAMY	7713	
03	DSD	1618E	1920D	N03	W21	05	2.1		01	9	9	E	RAMY	7716	
03	AFS	1618E	2210	N02	W23	05	2.0		01	9	8	E	RAMY	7716	
03	AFS	1752E	0332	S13	W01	05	3.7		03	0	0	E	PALE	7712	
03	AFS	1753E	0332	N07	E33	05	6.2		02	0	0	E	PALE	7713	
03	DSD	1755E	0332	N06	E32	05	6.1		03	0	0	E	PALE	7713	
03	DSF	1830	1834	S01	E36	05	6.4	3	04	0	0	E	HOLL		
03	DSD	1916E	2210	N09	E16	05	5.0		01	7	9	E	RAMY	7713	
03	AFS	2202E	0332	S08	W03	05	3.7		02	0	0	E	PALE		
03	DSD	2202E	0332	S09	W03	05	3.7		03	0	0	E	PALE		
03	DSD	2226E	0332	S21	E15	05	5.1		03	0	0	E	PALE		
03	AFS	2243E	0332	N07	W44	04	30.6		02	0	0	E	PALE	7715	
03	DSD	2245E	0128	S15	E22	05	5.6		02	9	9	E	HOLL	7714	
04	DSD	0015E	0128	S14	E22	05	5.7		05	9	9	E	HOLL	7714	
04	ADF	0020E	0128	N03	W27	05	2.0	1	05	6	7	E	HOLL	7716	
04	AFS	0110E	0940	N09	W56	04	29.9		01	6	8	E	LEAR	7715	
04	DSD	0115E	0800D	S15	E22	05	5.7		04	9	9	E	LEAR	7714	
04	AFS	0115E	0830D	S15	E21	05	5.6		02	9	9	E	LEAR	7714	

ACTIVE PROMINENCES AND FILAMENTS

MAY 1994

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	0300E	0402D	N01	W28	05	2.0	1	03	8	9	E	LEAR	7716	
04	AFS	0440E	1721	S15	E19	05	5.6		02	9	9	E	SVTO	7714	
04	AFS	0450E	1010D	N07	E10	05	4.9		01	9	9	E	SVTO	7713	
04	DSD	1010E	1207D	N03	E25	05	6.3		01	9	9	E	SVTO		
04	AFS	1026E	1355D	S14	E16	05	5.6		01	9	9	E	RAMY	7714	
04	DSD	1226E	1316D	N02	W33	05	2.0		01	9	9	E	RAMY	7716	
04	AFS	1611E	2225	N07	E04	05	5.0		01	8	9	E	RAMY	7713	
04	DSD	1612E	2000D	N05	E06	05	5.1		02	9	9	E	RAMY	7713	
04	AFS	1616E	2225	S07	W22	05	3.0		01	9	9	E	RAMY	7717	
04	DSD	2002E	2225	S16	E09	05	5.5		02	8	7	E	RAMY	7714	
05	AFS	0540E	1706	S15	E05	05	5.6		01	9	9	E	SVTO	7714	
05	DSD	0550E	0945D	S11	W59	04	30.8		02	9	9	E	SVTO	7711	
05	DSD	1000E	1706	S15	E02	05	5.6		01	9	9	E	SVTO	7714	
05	DSD	1345E	1900D	S14	W01	05	5.5		04	9	9	E	HOLL	7714	
05	ASR	2012E	2118D	N12	W90	04	29.2			9	9	E	HOLL	7715	
05	AFS	2013E	2306	S14	W04	05	5.5		03	9	9	E	HOLL	7714	
06	AFS	0430E	0830D	S09	W14	05	5.1		02	8	8	E	LEAR	7614	
06	AFS	1025E	2128	N14	W11	05	5.6		02	8	9	E	RAMY	7714	
06	DSD	1026E	1303D	N13	W08	05	5.8		01	9	9	E	RAMY	7714	
06	DSD	1037E	1608D	N06	W18	05	5.1		01	9	9	E	RAMY	7713	
06	AFS	1055E	2128	S08	E46	05	9.9		02	9	9	E	RAMY	7719	
06	DSD	1104E	1304D	S17	W14	05	5.4		02	9	9	E	RAMY	7714	
06	AFS	1108E	1610D	N09	E34	05	9.0		01	9	9	E	RAMY		
06	AFS	1345E	2302	S08	E45	05	9.9		02	9	9	E	HOLL	7719	
06	DSD	1606E	2128	S08	E43	05	9.9		03	9	9	E	RAMY	7719	
06	DSD	1610E	2302	S08	E42	05	9.8		01	9	9	E	HOLL	7719	
06	SSB	1640		384	W14	04	30.3			0	0	E	HOLL		
06	AFS	1722E	0415	S08	E45	05	10.1		02	0	0	E	PALE		
06	DSD	1722E	0415	S09	E44	05	10.0		03	0	0	E	PALE		
06	AFS	2328E	0935	S07	E36	05	9.7		02	9	9	E	LEAR	7719	
06	DSD	2350E	0500D	S08	E37	05	9.8		02	9	9	E	LEAR	7719	
07	DSD	0419E	1010D	S09	E34	05	9.7		02	9	9	E	SVTO	7719	
07	AFS	0419E	1250D	S10	E36	05	9.9		02	9	9	E	SVTO	7719	
07	ASR	0514E	0645D	S16	E90	05	14.0			7	9	E	SVTO		
07	ASR	0515E	0625D	S17	E90	05	14.0			7	7	E	LEAR		
07	DSD	0540E	0845D	S07	E33	05	9.7		02	9	9	E	LEAR	7719	
07	DSD	0845E	0935	S09	E31	05	9.7		02	9	9	E	LEAR	7719	
07	AFS	1208E	1911	S07	E31	05	9.8		02	9	9	E	RAMY	7719	
07	DSD	1420E	1911	S06	E27	05	9.6		01	8	9	E	RAMY	7719	
07	DSD	1420E	1911	S06	E27	05	9.6		01	8	9	E	RAMY	7719	
07	DSD	1441E	1641D	S07	E29	05	9.8		03	9	9	E	SVTO	7719	
07	DSD	1608E	1911	S10	E57	05	11.9		01	9	9	E	RAMY		
07	AFS	2330E	0940	S13	E52	05	11.9		03	9	9	E	LEAR		
08	DSD	0440E	0939D	S11	E50	05	11.9		03	3	8	E	SVTO		
08	AFS	0515E	1130D	S07	E22	05	9.9		02	7	7	E	SVTO	7719	
08	AFS	0530E	0852D	N05	W31	05	5.9		01	9	9	E	SVTO		
08	AFS	0630E	1130D	S10	E50	05	12.0		02	9	9	E	SVTO		
08	AFS	1031E	1553	S11	E47	05	12.0		01	9	9	E	RAMY	7720	
08	AFS	1440E	1553	S08	E16	05	9.8		02	9	9	E	RAMY	7719	
09	AFS	0005E	0600D	S06	W10	05	8.2		02	5	7	E	LEAR	7719	
09	EPL	1511E	1543D	N03	W90	05	2.9	3		9	9	E	HOLL		
09	EPL	1511E	1543D	N03	W90	05	2.9	3		9	9	E	HOLL		
09	SSB	1630		386	W56	05	2.2			0	0	E	HOLL		
09	DSD	1700E	0438	S12	E30	05	12.0		02	0	0	E	PALE	7720	
09	AFS	1945E	2340D	S07	W01	05	9.7		02	5	5	E	HOLL	7719	
10	DSF	0842U	0044U	S32	W37	05	7.4	2	19	0	0	E	LEAR		
10	SSB	1058		390	W70	05	2.3			0	0	E	RAMY		
10	SSB	1346		327	W08	05	8.5			0	0	E	HOLL		386 W67
10	DSD	1601E	2231	S14	E72	05	16.1		01	9	9	E	RAMY		
10	AFS	1603E	2231	S08	W12	05	9.8		02	9	9	E	RAMY	7719	
11	DSF	0051U	1331U	N34	E30	05	13.4	2	10	0	0	E	HOLL		
11	APR	0455E	1130D	N14	E90	05	18.0	1		9	9	E	SVTO		
11	ASR	0620E	1727	N10	E84	05	17.6			9	9	E	SVTO		

ACTIVE PROMINENCES AND FILAMENTS

MAY 1994

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	DSF	0904U	0045U	N37	W50	05	7.3	2	10	0	0	E	LEAR		
11	DSD	1016E	1414D	S12	E63	05	16.2		01	9	9	E	RAMY	7721	
11	CRN	1019E	1037D	S09	E90	05	18.2	1	08				VALA		
11	AFS	1020E	1628	S06	W23	05	9.7		01	6	8	E	RAMY	7719	
11	SSB	1029		330	W23	05	9.1			0	0	E	RAMY		
11	AFS	1100E	1628	N06	E65	05	16.3		01	9	9	E	RAMY		
11	AFS	1106E	1727	N08	E65	05	16.3		01	9	9	E	SVTO		
11	ASR	1250E	1628	N10	E89	05	18.2			9	9	E	RAMY	7722	
11	ASR	1252E	1628	N06	E89	05	18.2			9	9	E	RAMY		
11	ASR	1825E	0010	N07	E88	05	18.3			9	9	E	HOLL	7722	
11	ASR	2325E	0225D	N07	E80	05	18.0			9	9	E	LEAR	7722	
12	ASR	0110E	0500D	N05	W90	05	5.3			9	7	E	LEAR	7713	
12	AFS	0420E	0430	N13	E41	05	15.3		02	0	0	E	PALE		
12	AFS	0445E	0935	N09	E40	05	15.2		02	9	9	E	LEAR		
12	AFS	0511E	1431	N10	E36	05	14.9		02	9	9	E	SVTO		
12	DSD	0548E	0635D	N05	E75	05	17.8		15	9	9	E	SVTO	7722	Flare Associated
12	DSD	0600E	0635D	N05	E76	05	17.9		16	9	9	E	LEAR	7722	
12	BSD	0743E	0826D	N05	E74	05	17.8		17	9	9	E	SVTO	7722	
12	AFS	1044E	1742	N10	E36	05	15.1		02	9	9	E	RAMY	7723	
12	AFS	1050E	1342D	S10	W09	05	11.8		01	8	4	E	RAMY	7720	
12	SSB	1116		334	W41	05	9.7			0	0	E	RAMY		
12	DSD	1127E	1204D	S11	W09	05	11.8		01	9	9	E	SVTO	7720	
12	AFS	1319E	1431	S11	W10	05	11.8		01	9	9	E	SVTO	7720	
12	DSD	1520E	1742	N05	E68	05	17.7		02	9	9	E	RAMY	7722	
12	AFS	1805E	2015	N09	E28	05	14.8		03	9	9	E	HOLL	7723	
12	AFS	2320E	0400D	N10	E29	05	15.1		02	9	9	E	LEAR	7723	
13	AFS	0242E	0855D	S07	E02	05	13.3		02	9	9	E	LEAR		
13	AFS	0727E	1503D	S08	E10	05	14.1		01	9	9	E	SVTO		
13	AFS	0728E	1503D	S05	W01	05	13.2		02	9	9	E	SVTO		
13	DSD	1023E	1738	N04	E62	05	18.1		02	9	9	E	RAMY	7722	
13	AFS	1026E	1738	N10	E23	05	15.2		02	5	6	E	RAMY	7723	
13	DSD	1032E	1738	S11	E35	05	16.1		01	9	9	E	RAMY	7721	
13	ADF	1038E	1738	N13	W29	05	11.2	1	08	9	9	E	RAMY		
13	SSB	1042		338	W58	05	10.1			0	0	E	RAMY		
13	DSD	1219E	1338D	S08	W49	05	9.8		01	9	9	E	SVTO	7719	Flare Associated
13	DSF	1224U	1236	S07	W51	05	9.7	2	04	9	9	E	RAMY	7719	Flare Associated
13	AFS	1242E	1738	N06	E38	05	16.4		02	7	7	E	RAMY	7725	
13	ADF	1339E	1726	S05	W53	05	9.6	1	05	9	9	E	SVTO	7719	
13	SSB	1627		338	W60	05	10.3			0	0	E	HOLL		
13	AFS	1733E	1738	S06	W07	05	13.2		01	7	7	E	RAMY	7724	
13	DSD	1800E	2201	N06	E53	05	17.7		02	9	9	E	HOLL	7722	
14	DSD	0012E	0135D	N05	E48	05	17.6		07	9	9	E	LEAR	7722	Flare Associated
14	DSD	1116E	1328D	N07	E42	05	17.6		02	9	9	E	RAMY	7722	
14	DSD	1140E	1410D	N06	E42	05	17.6		01	9	9	E	SVTO	7722	
14	DSD	1213E	1328D	N09	E44	05	17.8		02	9	9	E	RAMY	7722	
14	DSD	1410E	1655	N09	E44	05	17.9		02	9	9	E	SVTO	7722	
15	DSD	0030E	0455D	S04	W41	05	11.9		03	9	8	E	LEAR	7722	
15	APR	0530	1130	N12	E90	05	22.0						ATHN		
15	ADF	0620E	1715	N04	E35	05	17.9	1	06	9	9	E	SVTO	7722	
15	DSD	0823E	1105D	N04	E36	05	18.0		02	9	9	E	SVTO	7722	
15	DSD	1105E	1715	N08	E32	05	17.9		02	9	9	E	SVTO	7722	
15	DSF	1136U	1022U	N19	E57	05	19.8	2	07	0	0	E	RAMY		
15	DSD	1324E	1429D	N03	E34	05	18.1		01	9	9	E	RAMY	7722	
15	APR	1337E	1618	S35	E90	05	22.8	1	07				VALA		
15	DSD	1429E	2030D	N08	E30	05	17.8		01	9	9	E	RAMY	7722	
15	ASR	1455E	1715	S12	E90	05	22.4			9	9	E	SVTO		
15	AFS	1535E	1715	S10	W51	05	11.8		01	9	9	E	SVTO	7720	
15	APR	1552	1602	S16	W90	05	8.8	1	05				VALA		
15	AFS	1608E	2105	N05	E28	05	17.8		01	8	9	E	RAMY	7722	
15	AFS	1610E	2105	N09	W08	05	15.1		02	9	9	E	RAMY	7723	
15	AFS	1612E	2105	S13	E06	05	16.1		02	9	9	E	RAMY	7721	
15	AFS	2345E	0825D	N06	E37	05	18.7		01	7	7	E	LEAR	7726	
16	AFS	0545E	1725	N04	E24	05	18.0		02	9	9	E	SVTO	7722	
16	AFS	0551E	1725	N09	E34	05	18.8		02	9	9	E	SVTO	7726	
16	SSB	0553		252	W09	05	20.1			0	0	E	SVTO		

ACTIVE PROMINENCES AND FILAMENTS

MAY 1994

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
16	DSD	0626E	0925D	N01	W20	05	14.8		02	9	9	E	SVTO		
16	DSD	0627E	1725	N09	E27	05	18.3		02	9	9	E	SVTO	7722	
16	ADF	0628E	1725	N05	E25	05	18.1	1	04	9	9	E	SVTO	7722	
16	DSD	1030E	1732D	S11	W65	05	11.5		02	8	9	E	RAMY	7720	
16	AFS	1039E	1739D	N09	E31	05	18.8		01	9	9	E	RAMY	7726	
16	AFS	1042E	2000	N05	E21	05	18.0		01	9	9	E	RAMY	7722	
16	SSB	1145		253	W13	05	20.5			0	0	E	RAMY		319 W79
16	DSD	1338E	1815D	N09	E25	05	18.4		04	9	9	E	HOLL	7726	
16	DSD	1352E	1815D	N07	E18	05	17.9		02	9	9	E	HOLL	7722	
16	DSD	2322E	0220	N03	E20	05	18.5		05	0	0	E	PALE	7726	
16	SSB	2339		254	W20	05	21.1			0	0	E	PALE		
17	AFS	0005E	0801D	N09	E23	05	18.7		03	9	9	E	LEAR	7726	
17	DSD	0035E	0801D	N09	E22	05	18.7		04	9	9	E	LEAR	7722	
17	DSD	0450E	0630D	N08	E10	05	17.9		03	8	8	E	SVTO	7722	
17	AFS	0515E	1730	N08	E77	05	23.0		02	9	9	E	SVTO		
17	DSD	0700E	1730	S08	W73	05	11.8		02	9	9	E	SVTO	7720	
17	AFS	1102E	1703	N05	E75	05	23.1		02	9	9	E	RAMY	7727	
17	AFS	1121E	1703	S09	W77	05	11.7		03	9	9	E	RAMY	7720	
17	SSB	1137		235	W08	05	20.1			0	0	E	RAMY		255 W28
17	SSB	1150		235	W08	05	20.1			0	0	E	SVTO		255 W28
17	DSD	1325E	1520D	N07	E02	05	17.7		01	9	9	E	SVTO	7722	
17	DSD	1325E	1520D	N07	E05	05	17.9		01	9	9	E	SVTO	7722	
17	ASR	1450	1730	S03	W90	05	10.9			9	9	E	SVTO		
17	AFS	1545E	2335	N07	E74	05	23.2		02	9	7	E	HOLL	7727	
17	DSD	1631E	1703	N09	E04	05	18.0		03	9	9	E	RAMY	7622	
17	DSD	2049E	2335	N07	W03	05	17.6		02	9	9	E	HOLL	7722	
18	AFS	0400E	0525D	N06	W02	05	18.0		01	8	8	E	LEAR	7722	
18	DSD	1108	1338D	N06	W06	05	18.0		02	9	9	E	SVTO	7722	
18	DSD	1121	1300D	N08	W11	05	17.6		04	9	9	E	SVTO	7722	
18	AFS	1202E	2052	N06	W07	05	18.0		01	9	9	E	RAMY	7722	
18	DSD	1203E	2052	N08	W11	05	17.7		03	9	9	E	RAMY	7722	
18	AFS	1209E	2052	N07	E60	05	23.0		02	9	9	E	RAMY	7727	
18	AFS	1213E	1355D	N13	W45	05	15.1		02	9	9	E	RAMY	7723	
18	SSB	1221		236	W23	05	21.3			0	0	E	RAMY		
18	AFS	1251E	2052	S10	E51	05	22.4		01	8	9	E	RAMY		
18	AFS	1320E	1610	N07	W61	05	14.0		02	7	7	E	SVTO	7727	
18	DSD	1338	1610	N06	W07	05	18.0		02	9	9	E	SVTO	7722	Flare Associated
18	BSD	1343E	1450D	N08	W05	05	18.2		04	9	9	E	RAMY	7722	
18	AFS	2251E	0121	N07	W11	05	18.1		02	9	9	E	HOLL	7722	
18	AFS	2253E	0121	N07	E56	05	23.1		03	9	9	E	HOLL	7727	
18	AFS	2320E	0932	N07	E53	05	22.9		02	9	9	E	LEAR	7727	
19	AFS	0645E	1737	N08	E51	05	23.1		03	9	9	E	SVTO	7727	
19	AFS	0715E	1737	S08	E42	05	22.4		02	9	9	E	SVTO		
19	DSD	1038E	1308D	N09	W21	05	17.9		03	9	9	E	SVTO	7722	
19	DSD	1101E	1424D	N08	E49	05	23.1		03	9	9	E	RAMY	7727	
19	AFS	1101E	2125	N06	E47	05	23.0		02	9	9	E	RAMY	7727	
19	AFS	1108E	2125	S10	E39	05	22.4		02	9	9	E	RAMY		
19	DSD	1252E	1427D	N08	W19	05	18.1		03	9	9	E	RAMY	7722	
19	DSD	1308E	1737	S09	W37	05	16.8		01	9	9	E	SVTO		
19	AFS	1915E	0125D	N07	E43	05	23.0		01	9	9	E	HOLL	7727	
20	AFS	0010E	0910D	N06	E40	05	23.0		02	6	7	E	LEAR	7727	
20	AFS	0121E	0240	N09	E40	05	23.0		02	0	0	E	PALE	7727	
20	SSB	0530		261	W70	05	25.8			0	0	E	SVTO		
20	DSD	0830E	1725	N09	E35	05	23.0		02	8	8	E	SVTO	7727	
20	DSD	1043E	1725	N05	E32	05	22.8		02	7	7	E	SVTO	7727	
20	DSD	1043E	1725	N06	W35	05	17.8		02	9	9	E	SVTO	7722	
20	DSD	1232E	2053	N06	E35	05	23.1		01	9	9	E	RAMY	7727	
20	DSD	1309E	1839D	N06	E31	05	22.9		02	9	9	E	HOLL	7727	
20	ADF	1316E	1725	N07	W35	05	17.9	1	07	9	9	E	SVTO	7722	
20	DSF	1416U	1503U	N08	W74	05	15.0	3	06	0	0	E	HOLL	7723	
20	APR	1433	1506	N04	W90	05	13.9	1		9	9	E	SVTO		
20	ADF	1450	1725	N16	W62	05	15.9	1	10	9	9	E	SVTO	7723	
20	AFS	1847E	0151	N07	E30	05	23.0		02	9	9	E	HOLL	7727	
20	AFS	2035E	2053	N08	E29	05	23.0		01	9	9	E	RAMY	7727	
20	AFS	2043E	2053	N08	W37	05	18.1		01	9	9	E	RAMY	7722	
20	AFS	2145E	0151	N10	W38	05	18.0		01	9	9	E	HOLL	7722	

ACTIVE PROMINENCES AND FILAMENTS

MAY 1994

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
21	AFS	0045E	0928	N06	E27	05	23.0		01	7	5	E	LEAR	7727	
21	AFS	0250E	0830D	S10	E17	05	22.4		03	9	9	E	LEAR		
21	SSB	0529		189	W11	05	27.9			0	0	E	SVTO		
21	SSB	0529		216	W39	05	22.5			0	0	E	SVTO		
21	DSD	0700E	1742	N05	W44	05	18.0		02	9	9	E	SVTO	7722	
21	AFS	1039E	2225	N09	E21	05	23.0		01	7	7	E	RAMY	7727	
21	DSD	1045E	1308D	N10	W45	05	18.1		02	9	9	E	RAMY	7722	
21	DSD	1045E	1308D	N10	W46	05	18.0		02	9	9	E	RAMY	7722	
21	ADF	1102E	1543D	N08	W25	05	19.6	1	05	9	9	E	RAMY		
21	LPS	1115E	1340D	N12	W90	05	14.7	1	08				VALA		
21	SSB	1551		186	W14	05	28.1			0	0	E	RAMY		
21	AFS	1614E	2225	S17	E32	05	24.1		01	9	9	E	RAMY		
21	DSD	1728E	1813D	S07	E05	05	22.1		04	9	9	E	HOLL		
21	AFS	1729E	2225	S10	E07	05	22.2		02	8	9	E	RAMY		
21	DSD	1730E	1832D	S06	E05	05	22.1		03	9	9	E	RAMY		
21	AFS	1735E	0026D	S17	E32	05	24.2		01	9	9	E	HOLL		
21	AFS	1740E	1910D	N07	W52	05	17.8		01	9	9	E	HOLL	7722	
21	SSB	1745		188	W17	05	28.4			0	0	E	HOLL		
21	DSD	2124E	0026D	N10	W50	05	18.1		02	9	9	E	HOLL	7722	
22	AFS	0135E	0916	N07	E12	05	23.0		04	7	6	E	LEAR	7727	
22	DSD	0444E	0612D	N09	E13	05	23.2		01	9	9	E	SVTO	7727	
22	APR	0613E	1742	N02	W90	05	15.5	1		9	9	E	SVTO		
22	AFS	1100E	2204	N07	E08	05	23.0		02	9	9	E	RAMY	7727	
22	DSD	1134E	2008D	N07	E09	05	23.1		03	9	9	E	RAMY	7727	
22	AFS	1217E	1742	N08	E08	05	23.1		02	9	9	E	SVTO	7727	
22	DSD	1220E	1742	N08	W65	05	17.6		04	9	9	E	SVTO	7722	
22	AFS	1257E	1449D	N07	E07	05	23.1		03	9	9	E	HOLL	7727	
22	DSD	1601E	2031D	N10	W64	05	17.8		03	7	8	E	RAMY	7722	
23	APR	0700	1100	N32	W90	05	16.2						ATHN		
23	AFS	0850E	1615D	N07	W03	05	23.1		02	9	9	E	SVTO	7727	
23	AFS	1034E	2049	N07	W05	05	23.1		01	9	8	E	RAMY	7727	
23	AFS	1038E	2049	S18	W18	05	22.1		01	8	9	E	RAMY		
23	SSB	1100		219	W71	05	25.2			0	0	E	RAMY		
23	ASR	1320E	1432D	N11	W77	05	17.8			7	7	E	RAMY	7722	
23	SSB	1320		190	W43	05	31.0			0	0	E	SVTO		
23	ASR	1330E	1445D	N09	W75	05	17.9			9	9	E	SVTO	7722	
24	APR	0500	1100	N32	W90	05	17.1						ATHN		
24	BSL	0649	0659	N07	W90	05	17.5						ATHN		
24	ASR	0703E	0910D	N09	W90	05	17.5			9	9	E	LEAR	7722	
24	AFS	1012E	1803	N07	W17	05	23.1		01	8	9	E	RAMY	7727	
24	DSD	1013E	1132D	N08	W20	05	22.9		02	9	9	E	RAMY	7727	
24	ASR	1127E	1803	N07	W88	05	17.9			8	9	E	RAMY	7722	
24	SSB	1214		166	W32	05	29.7			0	0	E	RAMY		
24	ASR	1222E	1421D	N12	W89	05	17.8			9	9	E	RAMY	7722	
24	ASR	1355E	1422	N07	W90	05	17.8			9	9	E	SVTO	7722	
24	SSB	1414		169	W37	05	30.1			0	0	E	SVTO		
24	ASR	1427E	2328	N08	W90	05	17.8			9	9	E	HOLL	7722	
24	SSB	1545		167	W34	05	30.0			0	0	E	HOLL		
24	ADF	1641E	1803	N06	W23	05	23.0	1	04	9	9	E	RAMY	7727	
24	DSD	1645E	1803	N09	E45	05	28.1		02	9	9	E	RAMY		
24	AFS	1747E	2328	N07	W22	05	23.1		02	9	9	E	HOLL	7727	
24	SSB	2129		167	W38	05	30.3			0	0	E	PALE		
25	DSD	0045E	0524D	N09	W28	05	22.9		03	4	6	E	LEAR	7727	
25	ASR	0521E	0652D	N09	W90	05	18.5			9	5	E	LEAR	7722	
25	SSB	1121		167	W46	05	31.0			0	0	E	RAMY		
25	SSB	1149		168	W47	05	31.2			0	0	E	SVTO		
25	AFS	1239E	1926	S08	E58	05	29.9		01	9	9	E	RAMY	7728	
25	SSB	1305		167	W47	05	31.1			0	0	E	HOLL		
25	SSB	1919		167	W50	05	31.5			0	0	E	PALE		
26	ADF	0600E	1731	N08	W42	05	23.1	2	04	9	9	E	SVTO	7727	
26	ADF	0815E	0924	N07	W46	05	22.9		04	9	9	E	LEAR	7727	
27	AFS	0900E	1330D	N00	E27	05	29.4		01	9	9	E	SVTO		

ACTIVE PROMINENCES AND FILAMENTS

MAY 1994

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	ASR	0900	1133D	N19	E90	06	5.2			9	9	E	SVTO		
29	BSL	1000	1013	N15	E90	06	5.2						ATHN		
29	DSD	1015E	1153D	S08	E03	05	29.6		01	9	9	E	SVTO	7728	

ADF = Active Dark Filament
AFS = Arch Filament System
APR = Active Prominence
ASR = Active Surge Region
BSD = Bright Surge on Disk
BSL = Bright Surge on Limb
CAP = CAP Prominence (Tandberg-Hanssen)
CRN = Coronal Rain
DSD = Dark Surge on Disk
DSF = Disappearing Solar Filament
EPL = Eruptive Prominence on Limb
LPS = Loops
MDP = Mound Prominence
SDF/DSF = Sudden Disappearing Filament
SPY = Spray
SSB = Solar Sector Boundary

For SOLAR SECTOR BOUNDARY REPORTS, the latitude field contains the Carrington longitude of the point where a neutral line crosses the solar equator. The comments field may contain the Carrington longitude and central meridian distance of two more intersection points.

The EXTENT field for limb events is the radial extent above the limb in hundredths of solar radius. For disk events this field contains the heliographic extent in whole degrees.

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

Observation Type: C= Cinematographic, E= Electronic, P= Photographic, V= Visual.

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

CONTENTS

Comprehensive Reports Number 603 Part II

MISCELLANEOUS DATA

NOAA SPACE ENVIRONMENT SERVICES CENTER

Solar Proton Events Affecting the Earth Environment

Preliminary Listing

PARTICLE EVENT			ASSOCIATED FLARE AND ACTIVE REGION			
Start (Day/UT)	Maximum	Proton Flux (pfu @ >10 MeV)	Maximum (Day/UT)	Importance (X ray/Opt)	Location	Region # (SESC)
			1976			
Apr 30/2120	May 01/1700	12	Apr 30/2114	X2/2B	S09W47	700
			1977			
Sep 19/1430	Sep 19/2130	200	Sep 19/1054	X2/3B	N08W58	889
Nov 22/1400	Nov 22/1800	160	Nov 22/1006	X1/2N	N24W38	939
			1978			
Feb 13/0930	Feb 14/1000	850	Feb 13/0255	M7/0B	N22W13	1001
Apr 11/1530	Apr 11/1630	65	Apr 11/1353	X2/2B	N19W54	1057
Apr 29/0445	Apr 30/2000	1,000	Apr 28/1306	X5/4B	N22E41	1092
May 07/0420	May 07/0420	100	May 07/0330	X2/2B	N22W64	1095
Jun 02/0730	Jun 02/0935	19	May 31/1009	M5/2B	N23W50	1129
Jun 24/0900	Jun 25/0230	25	Jun 22/1709	M2/3B	N19E18	1164
Jul 13/0300	Jul 13/1000	20				
Sep 23/1035	Sep 24/0400	2,200	Sep 23/1023	X1/3B	N35W50	1294
Nov 10/2130	Nov 10/2140	38	Nov 10/0042	M1/2N	N17E02	1385
			1979			
Feb 17/2020	Feb 17/2205	31	Feb 16/0200	X2/2B	N15E48	1574
Apr 03/1600	Apr 03/2310	45				
Jun 06/1850	Jun 07/0005	950	Jun 05/0529	X2/1N	N20E16	1781
Jul 07/0015	Jul 07/1010	50				
Aug 19/0850	Aug 21/0740	500	Aug 18/1416	X6/1B	N10E90	1943
Sep 15/1500	Sep 16/1200	60	Sep 14/0802	X2/	N10E90	1994
Nov 16/0430	Nov 16/1300	75	Nov 15/1639	M1/0B	N34W25	2110
			1980			
Feb 06/1340	Feb 06/1850	12				
Jul 17/2300	Jul 19/1930	100	Jul 17/0603	M3/1B	S12E06	2562
			1981			
Mar 30/0900	Mar 30/2115	30	Mar 30/0049	M3/2N	N13W74	2993
Apr 10/1745	Apr 11/1400	50	Apr 10/1655	X2/3B	N09W40	3025
Apr 24/1515	Apr 24/2330	160	Apr 24/1400	X5/2B	N18W50	3049
May 09/1200	May 10/2130	150	May 08/2252	M7/2B	N09E37	3099
May 15/0300	May 16/1950	130	May 13/0425	X1/3B	N11E58	3106
Jul 20/1430	Jul 20/1825	100	Jul 20/1329	M5/1B	S26W75	3204
Jul 25/0600	Jul 25/1320	18				
Aug 10/0115	Aug/10 0435	57	Aug 07/1916	M4/2B	S10E24	3257
Oct 08/1235	Oct 13/2247	2,000	Oct 07/2308	X3/1B	S19E88	3390
Dec 10/0545	Dec 11/0900	65	Dec 09/1854	M5/3B	N12W16	3496

NOAA SPACE ENVIRONMENT SERVICES CENTER

Solar Proton Events Affecting the Earth Environment

Preliminary Listing

PARTICLE EVENT			ASSOCIATED FLARE AND ACTIVE REGION			
Start (Day/UT)	Maximum	Proton Flux (pfu @ >10 MeV)	Maximum (Day/UT)	Importance (X ray/Opt)	Location	Region # (SESC)
			1982			
Jan 31/0055	Jan 31/1630	830	Jan 30/2358	X1/3B	S13E19	3576
Jun 06/0245	Jun 06/0245	10	Jun 03/1146	X8/2B	S09E72	3763
Jun 09/0040	Jun 09/0510	30	Jun 06/1637	X12/3B	S11E26	3763
Jul 11/0700	Jul 13/1615	2,900	Jul 09/0742	X9/3B	N17E73	3804
Jul 22/2030	Jul 23/0220	240	Jul 22/1734	M4/0F	N29W86	3804
Sep 05/2205	Sep 06/0100	66	Sep 04/0400	M4/3N	N11E30	3886
Nov 22/1940	Nov 22/2140	40	Nov 22/1828	M7/1N	S11W43	3994
Nov 26/0605	Nov 26/1500	25	Nov 26/0253	X4/2B	S11W87	3994
Dec 08/0010	Dec 08/1000	1,000	Dec 07/2354	X2/0B	S14W81	4007
Dec 17/1845	Dec 18/0945	130	Dec 15/0202	X12/2B	S10E24	4026
Dec 19/1920	Dec 20/0515	85	Dec 19/1624	M9/2B	N10W75	4022
Dec 27/0600	Dec 27/1345	190	Dec 25/0752	X2/1B	S14E31	4033
			1983			
Feb 03/1200	Feb 04/1620	340	Feb 03/0619	X4/3B	S19W08	4077
Jun 15/0435	Jun 15/1800	18	Jun 14		S09W90	4201
			1984			
Feb 16/0915	Feb 16/1005	660	Feb 16		S12W90	4408
Feb 19/1310	Feb 21/1415	55	Feb 17/2301	X2/2B	N16E82	4421
Mar 13/1440	Mar 13/1450	10				
Mar 14/0405	Mar 14/0505	100	Mar 14/0334	M2/2B	S12W42	4433
Apr 25/1330	Apr 26/1420	2,500	Apr 25/0005	X13/3B	S12E43	4474
May 24/1045	May 24/1140	31	May 22/1503	M6/2B	S09E24	4492
May 31/1315	May 31/1415	15	May 31/1142	M1	S09W90	4492
			1985			
Jan 22/0415	Jan 22/0550	14	Jan 21/2350	X4/2B	S08W38	4617
Apr 25/1430	Apr 26/0600	160	Apr 24/0935	X1/3B	N06E27	4647
Jul 09/0235	Jul 09/0325	140	Jul 09/0204	M2/1B	S16W36	4671
			1986			
Feb 06/0925	Feb 07/1730	130	Feb 06/0625	X1/3B	S04W06	4711
Feb 14/1155	Feb 15/0400	130	Feb 14/0929	M6/1B	N01W76	4713
Mar 06/1835	Mar 06/1930	21	Mar 06/1703	C4/1F	N02E01	4717
May 04/1255	May 04/1320	16	May 04/1007	M1	N06W90	4717
			1987			
Nov 08/0200	Nov 08/0940	120	Nov 07/2014	M1	N31W90	4875
			1988			
Jan 02/2325	Jan 03/0835	92	Jan 02/2145	X1/3B	S34W18	4912
Mar 25/2225	Mar 25/2330	58	Mar 25/2145	EPL	N22W90	4965
Jun 30/1055	Jun 30/1140	21	Jun 30/0906	M9/2B	S16E22	5060

NOAA SPACE ENVIRONMENT SERVICES CENTER

Solar Proton Events Affecting the Earth Environment

Preliminary Listing

PARTICLE EVENT			ASSOCIATED FLARE AND ACTIVE REGION			
Start (Day/UT)	Maximum	Proton Flux (pfu @ >10 MeV)	Maximum (Day/UT)	Importance (X ray/Opt)	Location	Region # (SESC)
Aug 26/0000	Aug 26/0045	42	Aug 23/1804	M2/EPL	N24E90	5125
Oct 12/0920	Oct 12/0930	12	Oct 12/0511	X2/2N	S20W66	5175
Nov 08/2225	Nov 09/0635	13	Nov 07/1105	M3/1N	S17W47	5212
Nov 14/0130	Nov 14/0235	13	Nov 13/2309	M3/1N	S23W27	5227
Dec 17/0610	Dec 17/0855	18	Dec 15/0505	X1/1N	N27E59	5278
Dec 17/2000	Dec 18/0150	29	Dec 16/0841	X4/1B	N26E37	5278
			1989			
Jan 04/2305	Jan 05/0130	28	Jan 04/1753	M4/1N	S20W60	5303
Mar 08/1735	Mar 13/0645	3,500	Mar 06/1405	X15/3B	N35E69	5395
Mar 17/1855	Mar 18/0920	2,000	Mar 17/1744	X6/2B	N33W60	5395
Mar 23/2040	Mar 24/0110	53	Mar 23/1948	X1/3B	N18W28	5409
Apr 11/1435	Apr 12/0125	450	Apr 09/0105	X3/4B	N35E29	5441
May 05/0905	May 05/1000	27	May 04/1115	M5/2N	S20W36	5464
May 06/0235	May 06/1045	110	May 05/0737	X2/3B	N30E01	5470
May 23/1135	May 23/1350	68				
May 24/0730	May 24/0905	15	May 22/0037	M5/2B	S21E16	5497
Jun 18/1650	Jun 18/1910	18	Jun 18/1447	C4/0F	N12W31	5534
Jun 30/0655	Jun 30/0710	17	Jun 29/2127	M3/2B	N26W60	5555
Jul 01/0655	Jul 01/0720	17				
Jul 25/0900	Jul 25/1225	54	Jul 25/0844	X2/2N	N25W84	5603
Aug 12/1600	Aug 13/0710	9,200	Aug 12/1427	X2/2B	S16W37	5629
Sep 04/0120	Sep 04/0510	44	Sep 03/1432	X1/1B	S18E16	5669
Sep 12/1935	Sep 13/0825	57	Sep 12/0814	M5/EPL	S18W79	5669
Sep 29/1205	Sep 30/0210	4,500	Sep 29/1133	X9/EPL	S26W90	5698
Oct 06/0050	Oct 06/0825	22				
Oct 19/1305	Oct 20/1600	40,000	Oct 19/1258	X13/4B	S27E10	5747
Nov 09/0240	Nov 09/0610	43				
Nov 15/0735	Nov 15/0910	71	Nov 15/0659	X3/3B	N11W26	5786
Nov 27/2000	Nov 28/1105	380	Nov 25/2355	X1/2N	N30E05	5800
Nov 30/1345	Dec 01/1340	7,300	Nov 30/1229	X2/3B	N26W59	5800
			1990			
Mar 19/0705	Mar 19/2315	950	Mar 19/0508	X1/2B	N31W43	5969
Mar 29/0915	Mar 29/1005	16	Mar 28/0751	M4/2N	S04W37	5988
Apr 07/2240	Apr 08/1330	18	Apr 04/1338	M7/0N	N22E72	6007
Apr 11/2120	Apr 11/2130	13				
Apr 17/0500	Apr 17/0655	12	Apr 15/0302	X1/2B	N32E39	6022
Apr 28/1005	Apr 28/1735	150				
May 21/2355	May 22/0750	410	May 21/2219	X5/2B	N35W36	6063
May 24/2125	May 25/0115	180	May 24/2051	X9/1B	N33W78	6063
May 28/0715	May 29/0100	45				
Jun 12/1140	Jun 12/1700	79	Jun 12/0541	M6/2B	N10W33	6089
Jul 26/1720	Jul 26/2315	21				
Aug 01/000	Aug 01/2015	230	Jul 30/0736	M4/2B	N20E45	6180

NOAA SPACE ENVIRONMENT SERVICES CENTER

Solar Proton Events Affecting the Earth Environment

Preliminary Listing

PARTICLE EVENT			ASSOCIATED FLARE AND ACTIVE REGION			
Start (Day/UT)	Maximum	Proton Flux (pfu @ >10 MeV)	Maximum (Day/UT)	Importance (X ray/Opt)	Location	Region # (SESC)
		1991				
Jan 31/1130	Jan 31/1620	240	Jan 31/0230	X1/2B	S17W35	6469
Feb 25/1210	Feb 25/1305	13	Feb 25/0819	X1/2N	S16W80	6497
Mar 23/0820	Mar 24/0350	43,000	Mar 22/2247	X9/3B	S26E28	6555
Mar 29/2120	Mar 30/0330	20				
Apr 03/0815	Apr 04/1000	52	Apr 02/2327	M6/3B	N14W00	6562
May 13/0300	May 13/0910	350	May 13/0144	M8	S09W90	6615
May 31/1225	Jun 01/0445	22				
Jun 04/0820	Jun 11/1420	3,000	Jun 04/0352	X12/3B	N30E70	6659
Jun 14/2340	Jun 15/1950	1,400	Jun 15/0821	X12/3B	N33W69	6659
Jun 30/0755	Jul 02/1010	110	Jun 28/0626	M6	N30E85	6703
Jul 07/0455	Jul 08/1645	2,300	Jul 07/0223	X1/2B	N26E03	6703
Jul 11/0240	Jul 11/0450	30	Jul 10/1228	M3/2N	S22E34	6718
Jul 11/2255	Jul 12/0205	14				
Aug 26/1740	Aug 27/1830	240	Aug 25/0115	X2/2B	N25E64	6805
Oct 01/1740	Oct 01/1810	12	Sep 29/1533	M7/4B	S21E32	6853
Oct 28/1300	Oct 28/1440	40	Oct 27/0548	X6/3B	S13E15	6891
Oct 30/0745	Oct 30/0810	94	Oct 30/0634	X2/3B	S08W25	6891
		1992				
Feb 07/0645	Feb 07/1115	78	Feb 06/1048	M4/2B	S13W10	7042
Mar 16/0840	Mar 16/0840	10	Mar 15/0154	M7/3B	S14E29	7100
May 09/1005	May 09/2100	4,600	May 08/1546	M7/4B	S26E08	7154
Jun 25/2045	Jun 26/0610	390	Jun 25/2014	X3/2B	N09W67	7205
Aug 06/1145	Aug 06/1210	14	Aug 03/0706	M4/1N	S09E68	7248
Oct 30/1920	Oct 31/0710	2,700	Oct 30/1816	X1/2B	S22W61	7321
		1993				
Mar 04/1505	Mar 04/1735	17	Mar 04/1240	C8/2N	S14W56	7434
Mar 12/2010	Mar 13/0155	44	Mar 12/1815	M7/3B	S00W51	7440
		1994				
Feb 20/0300	Feb 21/0900	10,000	Feb 20/0141	M4/3B	N09W02	7671
Oct 20/0030	Oct 20/0340	35	Oct 19/2127	M3/1F	N12W24	7790

Please Note: Proton fluxes are integral 5-minute averages for energies >10 MeV, given in *Particle Flux Units* (pfu), measured by GOES spacecraft at Geosynchronous orbit: 1 pfu = 1 p/sq. cm-s-sr. SESC defines the *start* of a proton event to be the first of 3 consecutive data points with fluxes greater than or equal to 10 pfu. The *end* of an event is the last time the flux was greater than or equal to 10 pfu. This definition, motivated by SESC customer needs, allows multiple proton flares and/or interplanetary shock proton increases to occur within one SESC proton event. Additional data may be necessary to more completely resolve any individual proton event.

Different detectors, onboard different GOES spacecraft, have taken the data since 1976. These proton data were processed using various algorithms. To date, no attempt has been made to cross-normalize the resulting proton fluxes.

International Geophysical Calendar 1995 (Final)

EXPLANATIONS

This Calendar continues the series begun for the IGY years 1957-58, and is issued annually to recommend dates for solar and geophysical observations which cannot be carried out continuously. Thus, the amount of observational data in existence tends to be larger on Calendar days. The recommendations on data reduction and especially the flow of data to **World Data Centers (WDCs)** in many instances emphasize Calendar days. The Calendar is prepared by the **International Ursigram and World Days Service (IUWDS)** with the advice of spokesmen for the various scientific disciplines. For some programs, greater detail concerning recommendations appears from time to time published in **IAGA News, IUGG Chronicle, URSI Information Bulletin** or other scientific journals or newsletters.

The definitions of the designated days remain as described on previous Calendars. **Universal Time (UT)** is the standard time for all world days. **Regular Geophysical Days (RGD)** are each Wednesday. **Regular World Days (RWD)** are three consecutive days each month (always Tuesday, Wednesday and Thursday near the middle of the month). **Priority Regular World Days (PRWD)** are the **RWD** which fall on Wednesdays. **Quarterly World Days (QWD)** are one day each quarter and are the **PRWD** which fall in the **World Geophysical Intervals (WGI)**. The **WGI** are fourteen consecutive days in each season, beginning on Monday of the selected month, and normally shift from year to year. In 1995 the **WGI** will be February, May, August and November.

The Solar Eclipses are:

a.) 29 April 1995 (annular) eclipse will cross northern Peru, southern Colombia, and northern Brazil. Maximum annularity of 6 minutes 37 seconds will occur in Peru, with the sun at altitude 70 degrees. The path of annularity will be 195 miles across. The partial phases will be seen as far north as Mexico City and most of the Florida peninsula. All of South America except for its southern tip will also see a partial eclipse. The moon's diameter will be 95 percent that of the sun.

b.) 24 October 1995 (total) solar eclipse crosses Iran, Afghanistan, Pakistan, India, Bangladesh, Myanmar, Thailand, Cambodia and Vietnam. Its maximum duration of 2 minutes 10 seconds will be reached in the ocean north of Borneo. Weather forecasts are predicted to be 85-90 percent for clear weather in northwestern India, the most favorable region. The path of totality crosses just south of Agra and then includes Varanasi and Calcutta. Totality there is only about 1 minute in duration, and lengthens toward the east, though the weather forecasts worsen. The path of totality will be only 78 km wide. (Description by Dr. Jay Pasachoff)

Meteor Showers (selected by R. Hawkes, Canada) include the most prominent regular showers. The dates for Northern Hemisphere meteor showers are: Jan 3-5 (Quadrantid); Apr 21-23 (Lyrid); May 3-5 (Eta-Aquarid); Jun 6-11 (Arietid, Zeta-Perseid); Jun 27-29 (Beta-Taurid); Aug 10-15 (Perseid); Oct 21-23 (Orionid); Nov 17-19 (Leonid); Dec 13-15 (Geminid); Dec 22-23, 1995 (Ursid); and Jan 3-5, 1996 (Quadrantid). The dates for Southern Hemisphere meteor showers are: May 3-5 (Eta-Aquarid); Jun 6-11 (Arietid, Zeta-Perseid); Jun 27-29 (Beta-Taurid); Jul 28-31 (S. Delta-Aquarid, Alpha-Aurigid); Oct 21-23 (Orionid); Nov 17-19 (Leonid); and Dec 13-15, 1995 (Geminid). Particular attention is drawn to observations of the Leonid shower as part of the International Leonid Watch which will continue throughout the decade.

The occurrence of unusual solar or geophysical conditions is announced or forecast by the IUWDS through various types of geophysical **"Alerts"** (which are widely distributed by telegram and radio broadcast on a current schedule). Stratospheric warmings **(STRATWARM)** are also designated. The meteorological telecommunications network coordinated by WMO carries these worldwide Alerts once daily soon after 0400 UT. For definitions of Alerts see IUWDS "Synoptic Codes for Solar and Geophysical Data", March 1990 and its amendments. **Retrospective World Intervals** are selected and announced by MONSEE and elsewhere to provide additional analyzed data for particular events studied in the ICSU Scientific Committee on Solar-Terrestrial Physics (SCOSTEP) programs.

RECOMMENDED SCIENTIFIC PROGRAMS

OPERATIONAL EDITION

(The following material was reviewed in 1994 by spokesmen of IAGA, WMO and URSI as suitable for coordinated geophysical programs in 1995.)

Airglow and Aurora Phenomena. Airglow and auroral observatories operate with their full capacity around the New Moon periods. However, for progress in understanding the mechanism of many phenomena, such as low latitude aurora, the coordinated use of all available techniques, optical and radio, from the ground and in space is required. Thus, for the airglow and aurora 7-day periods on the Calendar, ionosonde, incoherent scatter, special satellite or balloon observations, etc., are especially encouraged. Periods of approximately one weeks' duration centered on the New Moon are proposed for high resolution of ionospheric, auroral and magnetospheric observations at high latitudes during northern winter.

Atmospheric Electricity. Non-continuous measurements and data reduction for continuous measurements of atmospheric electric current density, field, conductivities, space charges, ion number densities, ionosphere potentials, condensation nuclei, etc.; both at ground as well as with radiosondes, aircraft, rockets; should be done with first priority on the **RGD** each Wednesday, beginning on 4 January 1995 at 0000 UT, 11 January at 0600 UT, 18 January at 1200 UT, 25 January at 1800 UT, etc. (beginning hour shifts six hours each week, but is always on Wednesday). Minimum program is at the same time on **PRWD** beginning with 11 January at 0600 UT. Data reduction for continuous measurements should be extended, if possible, to cover at least the full RGD including, in addition, at least 6 hours prior to indicated beginning time. Measurements prohibited by bad weather should be done 24 hours later. Results on sferics and ELF are wanted with first priority for the same hours, short-period measurements centered around the minutes 35-50 of the hours indicated. **Priority Weeks** are the weeks which contain a PRWD; minimum priority weeks are the ones with a QWD. The World Data Centre for Atmospheric Electricity, 7 Karbysheva, Leningrad 194018, USSR, is the collection point for data and information on measurements.

Geomagnetic Phenomena. It has always been a leading principle for geomagnetic observatories that operations should be as continuous as possible and the great majority of stations undertake the same program without regard to the Calendar.

Stations equipped for making magnetic observations, but which cannot carry out such observations and reductions on a continuous schedule are encouraged to carry out such work at least on RWD (and during times of **MAGSTORM** Alert).

Ionospheric Phenomena. Special attention is continuing on particular events which cannot be forecast in advance with reasonable certainty. These will be identified by Retrospective World Intervals. The importance of obtaining full observational coverage is therefore stressed even if it is possible to analyze the detailed data only for the chosen events. In the case of vertical incidence sounding, the need to obtain quarter-hourly ionograms at as many stations as possible is particularly stressed and takes priority over recommendation (a) below when both are not practical.

For the vertical incidence (VI) sounding program, the summary recommendations are: (a) All stations should make soundings on the hour and every quarter hour; (b) On **RWDs**, ionogram soundings should be made at least every quarter hour and preferably every five minutes or more frequently, particularly at high latitudes; (c) All stations are encouraged to make f-plots on **RWDs**; f-plots should be made for high latitude stations, and for so-called "representative" stations at lower latitudes for all days (i.e., including **RWDs** and **WGIs**) (Continuous records of ionospheric parameters are acceptable in place of f-plots at temperate and low latitude stations); (d) Copies of hourly ionograms with appropriate scales for **QWDs** are to be sent to WDCs; (e) Stations in the eclipse zone and its conjugate area should take continuous observations on solar eclipse days and special observations on adjacent days. See also recommendations under **Airglow and Aurora Phenomena.**

For the incoherent scatter observation program, every effort should be made to obtain measurements at least on the **Incoherent Scatter Coordinated Observation Days**, and intensive series should be attempted whenever possible in **WGIs**, on Dark Moon Geophysical Days (DMGD) or the **Airglow and Aurora Periods.** The need for collateral VI observations with not more than quarter-hourly spacing at least during all observation periods is stressed. Special programs include: CADITS/MLTCS (Coupling and Dynamics of the Ionosphere-Thermosphere System/Mesosphere, Lower-Thermosphere Coupling Study -- combined local E and F region measurements, including vector velocities, with 15 minute time resolution. Latitudinal coverage may be sacrificed to meet this goal); DATABASE (Incoherent Scatter Database -- emphasis on broad latitudinal coverage of the F region); FAST (Fast Auroral Snapshot -- coordinated FAST satellite observations with GISMOS); GISMOS (Global Ionospheric Simultaneous Measurements of Substorms -- wide latitudinal coverage of convection with highest possible time resolution); JOULE (coordinated radar/ground-based optics/satellite (MSX) campaign to measure Joule heating and its effects on the atmosphere); SUNDIAL (coordinated weather and climatology study of the global ionosphere/magnetosphere system -- full 30 day round-the-clock ionosonde coverage of E- and F-region characteristics including intermediate, descending and sequential layers. Special programs: Dr. J. Holt, M.I.T. Haystack Observatory, Route 40, Westford, MA 01886 U.S.A., URSI Working Group G.5. Phone: (617)981-5625, e-mail address: "jmh@chaos.haystack.edu".

For the ionospheric drift or wind measurement by the various radio techniques, observations are recommended to be concentrated on the weeks including **RWDs.**

For traveling ionosphere disturbances, propose special periods for coordinated measurements of gravity waves induced by magnetospheric activity, probably on selected **PRWD** and **RWD.**

For the ionospheric absorption program half-hourly observations are made at least on all **RWDs** and half-hourly tabulations sent to WDCs. Observations should be continuous on **solar eclipse** days for stations in eclipse zone and in its conjugate area. Special efforts should be made to obtain daily absorption measurements at temperate latitude stations during the period of Absorption Winter Anomaly, particularly on days of abnormally high or abnormally low absorption (approximately October-March, Northern Hemisphere; April-September, Southern Hemisphere).

For back-scatter and forward scatter programs, observations should be made and analyzed on all **RWDs** at least.

For synoptic observations of mesospheric (D region) electron densities, several groups have agreed on using the **RGD** for the hours around noon.

For ELF noise measurements involving the earth-ionosphere cavity resonances any special effort should be concentrated during the **WGIs.**

It is recommended that more intensive observations in all programs be considered on days of **unusual meteor activity.**

Meteorology. Particular efforts should be made to carry out an intensified program on the **RGD** -- each Wednesday, UT. A desirable goal would be the scheduling of meteorological rocketsondes, ozone sondes and radiometer sondes on these days, together with maximum-altitude rawinsonde ascents at both 0000 and 1200 UT.

During **WGI** and **STRATWARM** Alert Intervals, intensified programs are also desirable, preferably by the implementation of RGD-type programs (see above) on Mondays and Fridays, as well as on Wednesdays.

Global Atmosphere Watch (GAW) WMOs GAW integrates many monitoring and research activities involving measurement of atmospheric composition. Serves as an early warning system to detect further changes in atmospheric concentrations of greenhouse gases, changes in the ozone layer and in the long range transport of pollutants, including acidity and toxicity of rain as well as of atmospheric burden of aerosols (dirt and dust particles). Contact WMO, 41, avenue Giuseppe-Motta, P.O. Box 2300, 1211 Geneva 2, Switzerland.

Solar Phenomena. Observatories making specialized studies of solar phenomena, particularly using new or complex techniques, such that continuous observation or reporting is impractical, are requested to make special efforts to provide to WDCs data for **solar eclipse** days, **RWDs** and during **PROTON/FLARE ALERTS.** The attention of those recording solar noise spectra, solar magnetic fields and doing specialized optical studies is particularly drawn to this recommendation.

FLARES22(FLAre RESearch at the maximum of solar cycle 22). 1990-1997 worldwide Solar-Terrestrial Energy Program (STEP) project. Aimed at understanding basic physical processes of transient solar activity and its coupling with the solar-terrestrial environment, including times of the various solar **ALERTS.** Coordinates satellite and ground-based observations. Observational campaigns are driven by specific scientific objectives rather than observations per se. Satellites include SOLAR-A, GRO, CORONAS, WIND, GEOTAIL, ULYSSES, etc. Program will focus on international collaboration of data analyses and theoretical work via electronic mail and workshops. For more information, contact Dr. M. Machado, Department of Physics, The University of Alabama in Huntsville, Huntsville, AL 35899 USA. Phone: (205)895-6676; FAX number is (205)895-6790; SPAN e-mail address is SSL::MACHADO or SOLAR::MMACHADO.

SOLTIP (SOlar connection with Transient Interplanetary Processes). Program within the SCOSTEP STEP (Solar-Terrestrial Energy Program) project: 1990-1997. Its focus is on remote and in situ observations and analyses of solar-generated phenomena and their propagation throughout the heliosphere, including times following the various solar **ALERTS.** Desired goals include: (1) interplanetary scintillation observation of remote radio galaxies as well as telemetry signals to/from interplanetary spacecraft; (2) coordination of Earth-orbiting spacecraft such as IMP-8 in the solar wind and solar-orbiting spacecraft such as ICE, GIOTTO, SAKIGAKE, VOYAGER 1/2, PIONEER 10/11, ULYSSES, RELICT, WIND, SOHO, Galileo, and ACE. Contact is Dr. M. Dryer, NOAA R/E/SE, 325 Broadway, Boulder, CO 80303 USA. Phone: (303)497-3978; FAX number (303)497-3645; SPAN e-mail address SELVAX::MDRYER.

Space Research, Interplanetary Phenomena, Cosmic Rays, Aeronomy. Experimenters should take into account that observational effort in other disciplines tends to be intensified on the days marked on the Calendar, and schedule balloon and rocket experiments accordingly if there are no other geophysical reasons for choice. In particular it is desirable to make rocket measurements of ionospheric characteristics on the same day at as many locations as possible; where feasible, experimenters should endeavor to launch rockets to monitor at least normal conditions on the **Quarterly World Days (QWD)** or on **RWDs**, since these are also days when there will be maximum support from ground observations. Also, special efforts should be made to assure recording of telemetry on **QWD** and **Airglow and Aurora Periods** of experiments on satellites and of experiments on spacecraft in orbit around the Sun.

The **International Ursigram and World Days Service (IUWDS)** is a permanent scientific service of the **International Union of Radio Science (URSI)**, with the participation of the **International Astronomical Union** and the **International Union Geodesy and Geophysics. IUWDS** adheres to the **Federation of Astronomical and Geophysical Data Analysis Services (FAGS)** of the **International Council of Scientific Unions (ICSU).** The **IUWDS** coordinates the international aspects of the world days program and rapid data interchange.

This Calendar for 1995 has been drawn up by H.E. Coffey, of the IUWDS Steering Committee, in association with spokesmen for the various scientific disciplines in SCOSTEP, IAGA and URSI and other ICSU organizations. Similar Calendars are issued annually beginning with the IGY, 1957-58, and are published in various widely available scientific publications.

Published for the International Council of Scientific Unions and with financial assistance of UNESCO.

Additional copies are available upon request to IUWDS Chairman, Dr. R. Thompson, IPS Radio and Space Services, Department of Administrative Services, P.O. Box 5606, West Chatswood, NSW 2057, Australia (FAX number (61)(2)414 8331; e-mail address is richard@ips.oz.au), or IUWDS Secretary for World Days, Miss H.E. Coffey, WDC-A for Solar-Terrestrial Physics, NOAA E/GC2, 325 Broadway, Boulder, Colorado 80303, USA (FAX number (303)497-6513; e-mail address is hcoffey@ngdc.noaa.gov).

Footnotes to front of calendar --

NOTES on other dates and programs of interest:

1. Days with unusual meteor shower activity are: Northern Hemisphere 3-5 Jan; 21-23 Apr; 3-5 May; 6-11, 27-29 Jun; 10-15 Aug; 21-23 Oct; 17-19 Nov; 13-15, 22-23 Dec 1995; 3-5 Jan 1996. Southern Hemisphere 3-5 May; 6-11, 27-29 Jun; 28-31 Jul; 21-23 Oct; 17-19 Nov; 13-15 Dec 1995.

2. GAW (Global Atmosphere Watch). WMO program to measure atmospheric composition -- early warning system to detect further changes in atmospheric concentrations. (See Explanations.)

3. SOLTIP (Solar connection with Transient Interplanetary Processes). Observing Program 1990 - 1997: solar-generated phenomena and their propagation throughout the heliosphere. (See Explanations.)

4. FLARES22 (FLAre RESearch at solar cycle 22 maximum). Observing Program 1990-1997: basic physical processes of transient solar activity and its coupling with solar-terrestrial environment. (See Explanations.)

5. Day intervals that IMP 8 satellite is in the solar wind (begin and end days are generally partial days): 26 Dec 1994-1 Jan 1995; 7-14 Jan; 20-26 Jan; 1-8 Feb; 14-21 Feb; 26 Feb-6 Mar; 11-18 Mar; 23-31 Mar; 4-12 Apr; 16-25 Apr; 28 Apr-7 May; 11-20 May; 24 May-1 Jun; 5-14 Jun; 18-26 Jun; 1-8 Jul; 13-20 Jul; 26 Jul-1 Aug; 7-14 Aug; 20-26 Aug; 1-8 Sep; 14-21 Sep; 26 Sep-3 Oct; 9-16 Oct; 22-28 Oct; 4-10 Nov; 16-22 Nov; 29 Nov-5 Dec; 11-18 Dec; 24-30 Dec 1995. Note that there will not necessarily be total IMP 8 data monitoring coverage during these intervals. (Information kindly provided by the WDC-A for Rockets and Satellites, NASA GSFC, Greenbelt, MD 20771 U.S.A.).

6. + Incoherent Scatter Coordinated Observations Days (see Explanations) starting at 1600 UT on the first day of the intervals indicated, and ending at 1600 UT on the last day of the intervals: 1-4 Feb 1995 JOULE; 28 Feb-2 Mar GISMOS; 28-29 Mar DATABASE; 1-5 May CADITS/MLTCS; 20-21 Jun DATABASE; 22-24 Aug GISMOS; 27-28 Sep SUNDIAL; 23-27 Oct CADITS/MLTCS; 21-22 Nov 1995 GISMOS; 22-24 Jan 1996 GISMOS/FAST,

   where CADITS = Coupling and Dynamics of the Ionosphere-Thermosphere System;
   DATABASE = Incoherent Scatter Database;
   FAST = Fast Auroral Snapshot (with FAST satellite);
   GISMOS = Global Ionospheric Simultaneous Measurements of Substorms;
   JOULE = Joule Heating;
   MLTCS = Mesosphere, Lower-Thermosphere Coupling Study;
   SUNDIAL = Coordinated study of the ionosphere/magnetosphere.

OPERATIONAL EDITION, September 1994

Editor's Note: On the printed International Geophysical Calendar 1995 (Final), the footnote number 6 lists Incoherent Scatter Coordinated Observations Days including 23-27 Jan 1995 JOULE. This was in error. The only JOULE observing program is the 1-4 Feb 1995 period. We apologize for this oversight.

WORLD DATA CENTER A
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."