U.S. DEPARTMENT OF COMMERCE
Ronald H. Brown, Secretary

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
D. James Baker, Administrator

NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE
Robert S. Winokur, Assistant Administrator

JUNE 1994 NUMBER 598 - Part II

Solar-Geophysical Data comprehensive reports

Data for December 1993

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 598

(Issued in Two Parts)

Editor: Helen E. Coffey

Chief: Joe H. Allen
Solar-Terrestrial Physics Division

Staff: Christine D. Hanchett
Edward H. Erwin

Computer Consultants:
Daniel C. Wilkinson
Grigoriy Ushomirskiy

CONTENTS

PART I (PROMPT REPORTS)

PART II (COMPREHENSIVE REPORTS)

DETAILED INDEX OF OBSERVATIONS PUBLISHED IN SOLAR-GEOPHYSICAL DATA

CODE	KIND OF OBSERVATION	OCT 93	NOV	DEC	JAN 94	FEB	MAR	APR	MAY
A.	SOLAR AND INTERPLANETARY EVENTS								
A.1	Sunspot Drawings	592A 50	593A 47	594A 49	595A 43	596A 47	597A 41	598A 41	
A.2aa	International Provisional Sunspot Numbers	591A 25	592A 23	593A 26	594A 27	595A 25	596A 28	597A 24	598A 25
A.2c	American Sunspot Numbers	591A 25	592A 23	593A 26	594A 27	595A 25	596A 28	597A 24	598A 25
A.3a	Mt. Wilson Magnetograms	592A 50	593A 47	594A 49	595A 43	596A 47	597A 41	598A 41	
A.3b	Sunspot Mag Class and Regions	592A 98	593A 77	594A 96	595A 90	596A 90	597A 88	598A 87	
A.3c	Kitt Peak Magnetograms	592A 50	593A 47	594A 49	595A 43	596A 47	597A 41	598A 41	
A.3d	Mean Solar Magnetic Field (Stanford)	591A 35	592A 33	593A 37	594A 39	595A 33	596A 37	597A 31	598A 31
A.3e	Stanford Magnetograms	592A 50	593A 47	594A 49	595A 43	596A 47	597A 41	598A 41	
A.4	H-alpha Filtergrams	592A 50	593A 47	594A 49	595A 43	596A 47	597A 41		
A.6c	Stanford Solar Mag Field Synoptic Maps	592A 36	593A 40	594A 42	595A 36	596A 40	597A 34	598A 34	
A.6d	Kitt Peak Solar Mag Field Synoptic Maps	592A 48	593A 46	594A 48	595A 42	596A 46	597A 40	598A 40	
A.6e	Mass Ejections (Proxy data) from the Sun	596B 34	597B 29	598B 37					
A.6f	Active Prominences and Filaments	596B 35	597B 30	598B 38					
A.6g	Sac Peak Coronal Line Synoptic Maps	592A 40	593A 42	594A 44	595A 38	596A 42	597A 36	598A 36	
A.7h	Coronal Line Emission (Sac Peak)	592A 50	593A 43	594A 49	595A 43	596A 47	597A 41	598A 41	
A.8aa	2800 MHz- Solar Flux (Penticton)	591A 25	592A 23	593A 26	594A 27	595A 25	596A 28	597A 24	598A 25
A.8ac	2800 MHz- Adj. Solar Flux (Penticton)	591A 25	592A 23	593A 26	594A 27	595A 25	596A 28	597A 24	598A 25
A.8g	Adjusted Daily Solar Fluxes (Learmonth)	591A 25	592A 23	593A 26	594A 27	595A 25	596A 28	597A 24	598A 25
A.10g	Nancay Radioheliograph - 164 MHz	592A115	593A108	594A114	595A116	596A102	597A102	598A 98	
A.11g	Solar X-ray GOES (graphs/event table)	596B 25	597B 21	598B 27					
A.11k	Solar UV NOAA-9	May 86-Dec 88 in 566B 84							
A.11l	Solar UV NIMBUS7	Nov 78-Oct 84 in 542B 82							
A.11n	Solar YOHKOH Soft X-ray Images	592A 81	593A 77	594A 80	595A 74	596A 75	597A 72	597A 72	598A 71
A.12e	Solar Particles (IMP H & J)	Dec 88-Oct 89 in 570B 92							
A.12g	Solar Particles (GOES-7)	591A 4	592A 4	593A 4	594A 4	595A 4	596A 4	597A 4	598A 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-Jun 92 in 577B 56							
A.16c	ERBS, NOAA-9 & -10 Solar Irradiance	1989 in 551B 78; ERBS Oct 84-Jul 93 in 593B 43							
A.17c	Inferred Interplanetary Mag Field	1984-1988 data in 542A168; 1989 in 548A154							
C.	SOLAR FLARE-ASSOCIATED EVENTS								
C.1a	H-alpha Flares	591A 28	592A 26	593A 29	594A 30	595A 28	596A 31	597A 27	598A 28
C.1ba	H-alpha Flare Groups	596B 4	597B 4	598B 4					
C.1d	Flare Patrol Obsevations	591A 33	592A 30	---	---	---	---	---	---
C.1d	Flare Patrol Obsevations	596B 12	597B 10	598B 16					
C.3	Radio Bursts Fixed Frequency	596B 14	597B 12	598B 18					
C.3	Radio Bursts Fixed Frequency Selected	591A 34	592A 31	593A 36	594A 37	595A 31	596A 35	597A ---	598A 30
C.4f	Radio Bursts Spectral (Sagamore Hill)	592A109	593A103	594A109	595A105	596A 99	597A 98	598A 94	
C.4k	Radio Bursts Spectral (Learmonth)	592A109	593A103	594A109	595A105	596A 99	597A 98	598A 94	
C.4l	Radio Bursts Spectral (Palehua)	592A109	593A103	594A109	595A105	596A 99	597A 98	598A 94	
C.4m	Radio Bursts Spectral (Ondrejov)	592A109	593A103	594A109	595A105	596A 99	597A 98	598A 94	
C.4n	Radio Bursts Spectral (Potsdam)		593A103	594A109	595A105	596A 99	597A 98	598A 94	
C.4o	Radio Bursts Spectral (San Vito)	592A109	593A103	594A109	595A105	596A 99	597A 98	598A 94	
C.4p	Radio Bursts Spectral (IZMIRAN)	592A109	593A103	594A109	595A105	596A 99	597A 98	598A 94	
C.6	Sudden Ionospheric Disturbances	592A106	593A100	594A105	595A101	596A 97	597A 96	598A 92	
D.	GEOMAGNETIC EVENTS								
D.1a	Geomagnetic Indices	592A122	593A115	594A120	595A123	596A109	597A110	598A107	
D.1ba	27-day Chart of Kp Indices	592A124	593A117	594A122	595A125	596A111	598A109	598A109	
D.1cb	Monthly Mean aa Indices	593A118	593A118	594A123	595A126	596A112	597A113	598A110	
D.1d	Principal Magnetic Storms	592A128	593A120	594A125	595A128	596A113	597A115	598A112	
D.1f	Sudden Commencements/Flare Effects	Nov-Dec	92 in 597	A 124	595A129	596A114	597A116	598A113	
D.1g	Equatorial Indices Dst	May-Jul 93 in 592A144; Aug-Dec 93 in 597A119							
D.1i	Polar Cap (PC) Index	See UAG	593A119	594A124	595A127	597A118	597A114	598A111	
F.	COSMIC RAYS								
F.1a	Cosmic Ray Neutron Cts (Deep River)	592A120	593A109	594A115	595A117	596A103	597A103	598A 99	
F.1b	Cosmic Ray Neutron Cts (Climax)	592A120	593A109	594A115	595A117	596A103	597A103	598A 99	
F.1h	Cosmic Ray Neutron Cts (Thule)	592A120	593A109	594A115	595A117	596A103	597A103	598A 99	
F.1i	Cosmic Ray Neutron Cts (Kiel)								
F.1j	Cosmic Ray Neutron Cts (Tokyo)	592A120	593A109	594A115	595A117	596A103	597A103	598A 99	
F.1n	Cosmic Ray Neutron Cts (Beijing)	592A120	593A109	594A115	595A117	596A103	597A103	598A 99	
F.1b	Cosmic Ray Neutron Cts (Haleakala)	592A120	593A109	594A115	595A117	596A103	597A103	598A 99	
H.	MISCELLANEOUS								
H.60	IUWDS Alert Periods	591A 20	592A 19	593A 20	594A 20	595A 18	596A 20	597A 19	598A 20

The entry "592A 50" under Oct 1993, for example, means that the sunspot drawings for Oct 1993 appear in SOLAR-GEOPHYSICAL DATA No. 592, Part I, and that they begin on page 50. "A" denotes Part I and "B", Part II. Blanks indicate data not yet received and dashes mark unavailable data.

CONTENTS

Comprehensive Reports Number 598 Part II

DATA FOR DECEMBER 1993

Hα SOLAR FLARES

DECEMBER 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
0001		01	0024	0039	0046	N04	W18	7624	11	29.8	22	SF					17		F
	LEAR	01	0024	0039	0046	N05	W18	7624	11	29.8	22	SF		3	E		21		F
	PALE	01	0025E	0037U	0046D	N02	W18	7624	11	29.8	21D	SF		3	E		13		
0002	LEAR	01	0057	0112	0134	N06	W18	7624	11	29.8	37	SF		3	E		25		
0003		01	0149	0151	0154	N04	W19	7624	11	29.7	5	SF					17		
	PALE	01	0148E	0150U	0151D	N02	W19	7624	11	29.7	3D	SF		3	E		14		
	LEAR	01	0149	0151	0154	N05	W19	7624	11	29.7	5	SF		3	E		20		
0004		01	0159	0205	0227	N04	W18	7624	11	29.8	28	SF	C 3.2				66		
	LEAR	01	0159	0205	0227	N05	W18	7624	11	29.8	28	SF	C 3.2	3	E		80		
	PALE	01	0201E	0209U	0215D	N02	W18	7624	11	29.8	14D	SF		2	E		53		
0005		01	0235	0237	0250	N04	W18	7624	11	29.9	15	SF					10		
	LEAR	01	0235	0237	0250	N05	W19	7624	11	29.8	15	SF		3	E		10		
	PALE	01	0238E	0238U	0240D	N02	W18	7624	11	29.9	2D	SF		2	E		10		
0006	LEAR	01	0415	0419	0431	N05	W21	7624	11	29.7	16	1N	C 5.0	3	E		128		F
0007	LEAR	01	0439	0443	0449	N04	W16	7624	11	30.0	10	SF		3	E		19		
0008	LEAR	01	0555	0603	0616	N04	W20	7624	11	29.8	21	SF		3	E		54		F
0009	LEAR	01	0701	0702	0710	S23	E65	7627	12	6.3	9	SF	C 3.1	3	E		51		F
0010	LEAR	01	0842	0859	0902	N06	W23	7624	11	29.7	20	SF		3	E		35		F
0011	LEAR	01	0932	0932	0938	N05	W24	7624	11	29.7	6	SF		3	E		20		F
0012	SVTO	01	1121		1124D	N03	W22	7624	11	29.9	3D	SF	C 1.4	3	E		17		H
0013	RAMY	01	1229	1230	1234	N04	W24	7624	11	29.8	5	SF	B 8.6	3	E		21		
0014	HTPR	02	0954	0959	1021	S22	E62	7629	12	7.2	27	1F			C	0959	110	2.4	DKT
0015	CATA	02	1236E	1240	1245D	S23	E56	7627	12	6.8	9D	SN		2	C	1240	56	1.1	
0016	RAMY	02	1553	1557	1605	S16	E55	7627	12	6.8	12	SF	B 6.4	3	E		13		
0017	PALE	02	1928E	1928U	1941D	S18	E48	7627	12	6.5	13D	SF	B 4.5	3	E		16		
		02	1943		1944	No Flare Patrol													
0018		02	2236	2241	2309	S18	E48	7627	12	6.6	33	SF	B 9.2				38		F
	HOLL	02	2236	2241	2309	S19	E48	7627	12	6.6	33	SF	B 9.2	3	E		51		F
	LEAR	02	2238E	2238U	2254D	S18	E48	7627	12	6.6	16D	SF		3	E		25		F
0019	HTPR	03	1231	1300	1317	S16	E44	7627	12	6.8	46	SF			C	1300	70	1.0	
0020	HTPR	03	1236	1243	1251	S20	E65	7629	12	8.5	15	F			C	1243	30		D
0021	RAMY	03	1348	1353	1418D	S17	E41	7627	12	6.7	30D	SF		3	E		12		
0022		03	1657	1658	1702	S18	E40	7627	12	6.7	5	SF					16		
	RAMY	03	1657	1658	1702	S17	E40	7627	12	6.7	5	SF		3	E		13		
	HOLL	03	1657	1658	1703	S19	E39	7627	12	6.7	6	SF		3	E		18		
0023		03	1801	1805	1808	S18	E39	7627	12	6.7	7	SF					25		
	HOLL	03	1801	1805	1807	S18	E39	7627	12	6.7	6	SF		3	E		25		
	RAMY	03	1801	1805	1808	S18	E39	7627	12	6.7	7	SF		3	E		25		
0024	HOLL	03	1932	1938	1945	S22	E57	7629	12	8.2	13	SF		3	E		19		
0025	LEAR	04	0112	0118	0125	S23	E52	7629	12	8.0	13	SF	C 1.2	3	E		52		F
0026	LEAR	04	0410	0411	0416	S22	E53	7629	12	8.2	6	SF	B 5.2	3	E		44		F
0027	LEAR	04	0510	0511	0514	S23	E50	7629	12	8.1	4	SF	B 5.2	3	E		17		

Hα SOLAR FLARES

DECEMBER 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
0028	LEAR	04	0518	0518	0526	S23	E50	7629	12	8.1	8	SF	B 6.6	3	E		18		
0029	LEAR	04	0547	0554	0559	S23	E50	7629	12	8.1	12	SF	B 6.3	3	E		22		
0030	LEAR	04	0603	0608	0620	S23	E49	7629	12	8.0	17	SF	B 5.7	3	E		15		
0031		04	07412	0747	0756	S23	E50	7629	12	8.2	15	SF	B 3.4				35		
	LEAR	04	0741	0747	0757	S23	E51	7629	12	8.2	16	SF	B 3.4	3	E		35		
	KANZ	04	0743	0747	0755	S23	E49	7629	12	8.1	12	SF		2	C				
0032	KANZ	04	0950	0950	0954	S23	E48	7629	12	8.1	4	SF		2	C				
0033	HTPR	04	1432	1435	1443	N04	W66	7624	11	29.8	11	SF			C	1435	40	0.9	D
0034	RAMY	04	1432	1436	1442	S21	E49	7629	12	8.4	10	SF	B 8.3	3	E		13		
0035	RAMY	04	1736	1738	1747	S22	E44	7629	12	8.1	11	SF	B 5.6	4	E		13		F
0036	LEAR	04	2252	2254	2256	S11	E43	7630	12	8.2	4	SF		3	E		22		F
0037	LEAR	04	2252	2253	2256	S23	E42	7629	12	8.2	4	SF		3	E		40		F
0038	RAMY	05	1541	1542	1548	S22	E35	7629	12	8.3	7	SF	B 6.7	3	E		12		F
0039		05	1626*	1645	1650	S22	E33	7629	12	8.2	24	SF	C 1.6				36		F
	RAMY	05	1626	1645	1652	S22	E33	7629	12	8.2	26	SF	C 1.6	4	E		30		F
	HOLL	05	1643	1645	1647	S22	E33	7629	12	8.2	4	SF		4	E		41		F
		05	2038		2044	No Flare Patrol													
		05	2138		2156	No Flare Patrol													
		05	2206		2210	No Flare Patrol													
		06	0324		0354	No Flare Patrol													
0040	LEAR	06	0638	0638	0642	S09	E26	7630	12	8.2	4	SF		3	E		14		
0041	LEAR	06	0638	0653	0701	S23	E25	7629	12	8.2	23	SF	B 7.1	3	E		48		F
0042		06	0704E	0715U	0800	S22	E24	7629	12	8.1	56D	SF					54		F
	KANZ	06	0704E	0715U	0800	S23	E22	7629	12	8.0	56D	SF		2	C				
	SVTO	06	0710E	0715U	0730D	S22	E26	7629	12	8.3	20D	SF		2	E		54		F
0043	LEAR	06	0736	0744	0746	S22	E24	7629	12	8.2	10	SF		3	E		58		F
0044		06	07524	0756	0817	S24	E24	7629	12	8.2	25	SN					56	0.6	
	KANZ	06	0752	0756	0804	S23	E26	7629	12	8.3	12	SF		2	C				
	CATA	06	0756	0756	0830	S24	E23	7629	12	8.1	34	SN		1	C	0756	56	0.6	
0045		06	08017	0808	0825	S22	E26	7629	12	8.3	24	SF					67		F
	LEAR	06	0801	0808	0826	S22	E24	7629	12	8.2	25	SF		3	E		67		F
	KANZ	06	0808	0808	0824	S21	E28	7629	12	8.5	16	SF		2	C				
0046		06	10361	10373	1120	S24	E22	7629	12	8.1	44	SN					56	0.6	
	KANZ	06	1036	1040	1120	S25	E22	7629	12	8.1	44	SF		2	C				
	CATA	06	1037	1037	1117D	S24	E22	7629	12	8.1	40D	SN		1	C	1037	56	0.6	
0047		06	12262	12284	1238	S22	E20	7629	12	8.0	12	SF	C 1.7				22		FH
	RAMY	06	1226	1232	1240	S22	E21	7629	12	8.1	14	SF	C 1.7	3	E		22		FH
	KANZ	06	1228	1228	1236	S22	E20	7629	12	8.0	8	SF		2	C				
0048	RAMY	06	1608	1609	1624	S22	E21	7629	12	8.3	16	SF	B 7.8	3	E		12		F
0049		06	1717	1721	1814	S22	E19	7629	12	8.2	57	1N	C 9.7				99		EF
	RAMY	06	1717	1721	1812	S21	E19	7629	12	8.2	55	SN		3	E		89		FE
	HOLL	06	1717	1721	1817	S22	E19	7629	12	8.2	60	1N	C 9.7	3	E		109		F
0050	PALE	06	1746E	1746U	1814D	S21	E19	7629	12	8.2	28D	SF		4	E		29		H
0051		06	2040	2045	2106	S22	E16	7629	12	8.1	26	SF	C 7.5				53		FH
	HOLL	06	2040	2045	2106	S23	E16	7629	12	8.1	26	SF	C 7.5	3	E		56		
	PALE	06	2044E	2047U	2058D	S22	E15	7629	12	8.0	14D	SF		2	E		50		FH

Hα SOLAR FLARES

DECEMBER 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
0052	LEAR	06	2227	2254	2256	S21	E14	7629	12	8.0	29	SF		3	E		45		F
0053		07	0021*	0045	0104	S22	E11	7629	12	7.8	43	SF	C 3.8				37	0.2	EF
	LEAR	07	0021	0045	0118	S22	E12	7629	12	7.9	57	SF	C 3.8	3	E		55		F
	PALE	07	0038E	0039U	0103D	S21	E11	7629	12	7.9	25D	SF		2	E		42		
	MITK	07	0044	0045	0050	S22	E11	7629	12	7.9	6	SN			C	0045	13	0.2	E
0054		07	02111	02132	0232	S21	E11	7629	12	7.9	21	SN	C 4.2				53	1.0	EF
	LEAR	07	0211	0213	0236	S21	E12	7629	12	8.0	25	SF	C 4.2	3	E		32		F
	PALE	07	0211E	0215U	0224D	S21	E11	7629	12	7.9	13D	SF		2	E		40		
	MITK	07	0212	0215	0228	S22	E10	7629	12	7.9	16	SB			C	0215	86	1.0	E
0055		07	04144	04194	0433	S22	E10	7629	12	7.9	19	SN	C 1.7				46	0.6	EF
	LEAR	07	0414	0419	0437	S21	E10	7629	12	7.9	23	SF	C 1.7	3	E		39		F
	MITK	07	0418	0423	0429	S22	E09	7629	12	7.9	11	SN			C	0423	53	0.6	E
0056	MITK	07	0527	0528	0528	S23	E09	7629	12	7.9	1	SN			C	0528	13	0.2	D
0057	SVTO	07	0649E	0654U	0657	S17	W23	7627	12	5.5	8D	SF		2	E		51		FH
0058		07	07047	07102	0726	S22	E12	7629	12	8.2	22	SF					54		F
	SVTO	07	0704	0710	0719	S22	E14	7629	12	8.4	15	SF		2	E		68		F
	LEAR	07	0711	0712	0732	S22	E09	7629	12	8.0	21	SF		3	E		41		F
0059		07	0820	08255	0903	S18	W11	7627	12	6.5	43	SN	B 9.3				93	1.8	EFHL
	LEAR	07	0820	0829	0903	S18	W11	7627	12	6.5	43	SF	B 9.3	3	E		56		FH
	CATA	07	0821E	0825	0850D	S18	W11	7627	12	6.5	29D	SB		1	C	0825	168	1.8	
	SVTO	07	0822E	0830	0905D	S19	W11	7627	12	6.5	43D	SF		3	E		56		FH
	KHAR	07	0835E	0835U	0850D	S16	W11	7627	12	6.5	15D	SF		2	V	0835			EL
0060	HTPR	07	0920E		0958	S22	E08	7629	12	8.0	38D	SF			C	0920	120	1.3	E
0061	KHAR	07	0938	0942	0946	S14	W69	7623	12	2.2	8	SF		2	P	0942			DO
0062	HOLL	07	2050E	2051U	2105D	S11	E02	7630	12	8.0	15D	SF	B 6.2	2	E		18		F
0063		08	0150	0152	0155	S22	E01	7629	12	8.1	5	SF	C 1.0				30		F
	LEAR	08	0150	0152	0155	S22	E01	7629	12	8.1	5	SF	C 1.0	3	E		13		F
	PALE	08	0150E	0152U	0157D	S21	E01	7629	12	8.1	7D	SF		3	E		47		
		08	0242		0246	No Flare Patrol													
		08	0355		0403	No Flare Patrol													
0064		08	0933*	0939*	1011	S22	W04	7629	12	8.1	38	1N	C 1.8				123	2.2	F
	LEAR	08	0933	0939	1012	S22	W04	7629	12	8.1	39	SF	C 1.8	3	E		61		F
	HTPR	08	0945E		1010	S23	W04	7629	12	8.1	25D	1N			C	0945	210	2.3	
	SVTO	08	0945	0954	1005D	S22	W04	7629	12	8.1	20D	SF		3	E		24		
	CATA	08	0946E	0946	1015D	S22	W04	7629	12	8.1	29D	1N		1	C	0946	196	2.1	
0065		08	10123	10151	1032	S24	W22	7627	12	6.7	20	SN	B 6.9				68	1.3	
	SVTO	08	1012	1016	1032	S24	W21	7627	12	6.8	20	SF	B 6.9	3	E		25		
	CATA	08	1015	1015	1015D	S24	W22	7627	12	6.7	20D	SN		1	C	1015	112	1.3	
0066	KANZ	08	1129	1133	1137	S22	W06	7629	12	8.0	8	SF		2	C				
0067	KANZ	08	1206	1218	1234	S22	W06	7629	12	8.0	28	SF		2	C				
0068	RAMY	08	1501	1502	1515	S22	W08	7629	12	8.0	14	SF	B 7.9	3	E		45		F
0069	PALE	08	1759E	1800U	1803D	S21	W08	7629	12	8.1	4D	SF	B 3.5	3	E		14		
0070		08	1941	1942	1946	S10	W10	7630	12	8.1	5	SF	B 8.3				14		F
	PALE	08	1939E	1940U	1942D	S09	W09	7630	12	8.1	3D	SF		3	E		13		
	RAMY	08	1941	1942	1946	S10	W11	7630	12	8.0	5	SF	B 8.3	3	E		15		F
0071	PALE	08	2053E	2053U	2056D	S21	W09	7629	12	8.2	3D	SF		3	E		20		
0072	MITK	09	0115	0115	0116	S20	W16	7629	12	7.8	1	SN			C	0115	13	0.2	D

Hα SOLAR FLARES

DECEMBER 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
0073	MITK	09	0212	0212	0213	S16	W36	7627	12	6.4	1	SN			C	0212	13	0.2	E
0074	LEAR	09	0321	0321	0326	S22	W15	7629	12	8.0	5	SF	B 4.1	3	E		14		
		10	0440		0456	No Flare Patrol													
		10	0541		0629	No Flare Patrol													
		10	0636		0653	No Flare Patrol													
		10	1959		2003	No Flare Patrol													
		10	2301		2311	No Flare Patrol													
		11	2108		2213	No Flare Patrol													
0075	LEAR	12	0203	0203	0210	S20	W62	7633	12	7.3	7	SF	B 3.9	3	E		13		
0076	LEAR	12	0229	0231U	0237	S22	W75	7627	12	6.3	8	1F	B 6.5	3	E		142		
0077	LEAR	12	0423	0424	0429	S20	W64	7633	12	7.3	6	SF	B 2.3	3	E		35		
0078		12	08246	0830	0836	S22	W64	7629	12	7.4	12	SN					35		
	SVTO	12	0824	0826U	0830	S21	W64	7629	12	7.4	6	SF		3	E		14		
	CATA	12	0830	0830	0842	S22	W64	7629	12	7.4	12	SN		1	C	0830	56		
0079	LEAR	12	0826	0826	0834	S21	W55	7629	12	8.1	8	SF	B 7.9	3	E		19		
0080	KANZ	12	1126	1126	1134	S22	W61	7629	12	7.8	8	SF		2	C				
0081	KANZ	12	1206	1206	1210	S21	W63	7629	12	7.7	4	SF		2	C				
		12	1501		1538	No Flare Patrol													
		12	1540		1618	No Flare Patrol													
		12	2128		2204	No Flare Patrol													
0082	MITK	13	0100	0105	0119	S15	W68	7633	12	7.9	19	SN			C	0105	29		D
		14	0058		0107	No Flare Patrol													
		14	0127		0422	No Flare Patrol													
0083		14	2100	2102	2114	S13	W78	7634	12	9.0	14	SF					26		H
	HOLL	14	2100	2102	2114	S12	W79	7634	12	8.9	14	SF		3	E		27		H
	PALE	14	2104E	2104U	2116D	S14	W77	7634	12	9.0	12D	SF		3	E		26		
0084	PALE	14	2123E	2127U	2137D	S14	W77	7634	12	9.1	14D	SF		2	E		27		
0085	HOLL	14	2233	2234	2238	S11	W80	7634	12	8.9	5	SF		3	E		23		
		15	0035		0041	No Flare Patrol													
		15	0051		0113	No Flare Patrol													
		15	1117		1122	No Flare Patrol													
		15	1256		1257	No Flare Patrol													
		16	0731		0845	No Flare Patrol													
		16	0911		0926	No Flare Patrol													
		16	0954		0958	No Flare Patrol													
0086	CATA	16	1015E	1015	1015D	N08	W01	7637	12	16.3	5D	SN		1	C	1015	112	1.1	
0087		17	1958	2001	2150	N06	E40	7635	12	20.8	112	SF	C 2.0				52		FH
	HOLL	17	1958	2001	2149	N07	E43	7635	12	21.0	111	SF	C 2.0	3	E		29		FH
	PALE	17	2001E	2001U	2150	N05	E37	7635	12	20.6	109D	SF		3	E		76		H
0088		18	13313	13371	1345	N02	E30	7635	12	20.8	14	SF					50	0.6	E
	HTPR	18	1331	1337	1344	N04	E30	7635	12	20.8	13	SF			C	1337	50	0.6	E
	KANZ	18	1334	1338	1346	S00	E30	7635	12	20.8	12	SF		2	C				
0089		18	1455	1510	1538D	N02	E29	7635	12	20.8	43D	SN	B 3.6				44	0.7	EK
	HTPR	18	1455	1510	1528D	N04	E30	7635	12	20.9	33D	SF			C	1510	60	0.7	EK
	RAMY	18	1512E	1516U	1538D	N00	E28	7635	12	20.7	26D	SN	B 3.6	2	E		27		
0090	HTPR	18	1455	1521	1528D	N04	E30	7635	12	20.9	33D	SF			C	1521	50	0.6	EK
		18	1539		1716	No Flare Patrol													
		18	2148		2220	No Flare Patrol													

Hα SOLAR FLARES

DECEMBER 1993

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMP	NOAA/ USAF Region	Mo	Day	Dur (Min)	Imp Opt	Xray	See	Obs Type	Time (UT)	Area Measurement Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
0091	PALE	19	0304E	0304U	0310D	N02	E24	7635	12	20.9	6D	SF		2	E		14		
		19	2059		2127	No Flare Patrol													
		20	1247		1300	No Flare Patrol													
0092	RAMY	20	1425	1426	1431	N08	E80	7640	12	26.6	6	SF	B 6.0	3	E		12		
0093	RAMY	20	1533	1535	1553	N07	E76	7640	12	26.3	20	SF	B 6.8	3	E		50		
0094	RAMY	20	1819	1820	1829	N07	E75	7640	12	26.4	10	SF		3	E		20		F
0095		20	1849	1852	1902	N08	E73	7640	12	26.2	13	SF	B 6.4				29		F
	RAMY	20	1849	1852	1902	N08	E74	7640	12	26.3	13	SF	B 6.4	3	E		32		F
	PALE	20	1858E	1858U	1903D	N07	E72	7640	12	26.2	5D	SF		2	E		26		
0096	RAMY	20	1916	1917	1927	N07	E72	7640	12	26.2	11	SF		3	E		18		
		21	1600		1615	No Flare Patrol													
		21	1645		1658	No Flare Patrol													
		21	2023		2036	No Flare Patrol													
		21	2058		2229	No Flare Patrol													
0097	SVTO	22	0757	0800	0809	N08	E55	7640	12	26.4	12	SF		3	E		10		
0098		22	09325	09346	0944	N08	E58	7640	12	26.7	12	SN	C 2.1				58	1.6	F
	HTPR	22	0932	0934	0944	N09	E59	7640	12	26.8	12	SB			C	0934	70		
	LEAR	22	0936	0937	0943	N09	E56	7640	12	26.6	7	SF	C 2.1	3	E		21		F
	KANZ	22	0937	0937	0945	N09	E59	7640	12	26.8	8	SF		2	C				
	CATA	22	0940E	0940	0940D	N07	E58	7640	12	26.7	8D	SN		1	C	0940	84	1.6	
0099	KANZ	22	1033	1033	1049	N07	E59	7640	12	26.8	16	SF		2	C				
0100	HTPR	22	1104	1108	1123	N09	E50	7640	12	26.2	19	SN			C	1108	80	1.2	K
0101		22	11047	11134	1122	N08	E49	7640	12	26.1	18	SF	C 1.2				66	1.4	K
	HTPR	22	1104	1117	1123	N09	E50	7640	12	26.2	19	SN			C	1117	90	1.4	K
	KANZ	22	1109	1113	1122	N07	E49	7640	12	26.1	13	SF		2	C				
	SVTO	22	1111	1115	1121D	N07	E49	7640	12	26.1	10D	SF	C 1.2	3	E		43		
0102		22	1146*	12383	1246	N08	E49	7640	12	26.2	60	SF					30	0.8	E
	SVTO	22	1146	1239	1242	N07	E48	7640	12	26.1	56	SF		3	E		11		
	KANZ	22	1214	1238	1250	N07	E48	7640	12	26.1	36	SF		2	C				
	HTPR	22	1224	1241	1242D	N09	E50	7640	12	26.3	18D	SF			C	1241	50	0.8	E
0103		22	13002	1302	1309	N06	E47	7640	12	26.0	9	SF	B 7.0				26		
	RAMY	22	1300	1302	1308	N06	E46	7640	12	26.0	8	SF	B 7.0	3	E		26		
	KANZ	22	1302	1302	1310	N07	E48	7640	12	26.1	8	SF		2	C				
0104	KANZ	22	1326	1350	1358D	N07	E48	7640	12	26.1	32D	SF		2	C				
0105	HOLL	22	1606E	1616U	1643	N07	E45	7640	12	26.0	37D	SF	B 3.5	2	E		31		
0106	RAMY	22	1647	1648	1651	N05	E44	7640	12	26.0	4	SF	B 7.6	3	E		12		F
0107		22	1723	1725	1737	N06	E46	7640	12	26.2	14	1N	M 1.4				80		FH
	HOLL	22	1723	1725	1737	N07	E45	7640	12	26.1	14	1B	M 1.4	3	E		133		H
	PALE	22	1731E	1731U	1738D	N06	E46	7640	12	26.2	7D	SF		1	E		27		FH
0108	HOLL	22	2233	2238	2246	N07	E42	7640	12	26.1	13	SF	B 4.5	3	E		18		
0109		22	2252*	23023	2308	N07	E42	7640	12	26.1	16	SF	B 4.7				22		F
	HOLL	22	2252	2305	2310	N07	E41	7640	12	26.0	18	SF	B 4.7	3	E		30		F
	LEAR	22	2302	2302	2307	N07	E42	7640	12	26.1	5	SF		3	E		13		
0110	HOLL	22	2311	2315U	2325	N08	E46	7640	12	26.4	14	SF	B 4.3	2	E		28		F
0111	LEAR	23	0011	0012	0016	N07	E42	7640	12	26.1	5	SF	C 1.4	3	E		11		

Hα SOLAR FLARES

DECEMBER 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
0112		23	0019	0023	0034	N07	E42	7640	12	26.1	15	SF	C 1.1				22		H
	LEAR	23	0019	0023	0034	N07	E41	7640	12	26.1	15	SF	C 1.1	3	E		23		
	PALE	23	0021E	0021U	0023D	N07	E42	7640	12	26.2	2D	SF		1	E		21		H
0113	LEAR	23	0253	0257	0307	N07	E39	7640	12	26.0	14	SF	B 5.5	3	E		25		
0114	LEAR	23	0530	0532	0538	N07	E38	7640	12	26.1	8	SF	C 4.4	3	E		27		
0115	CATA	23	0738E	0740	0740D	N07	E38	7640	12	26.2	2D	SB		1	C	0740	56	0.7	
0116	KANZ	23	0807	0811	0819	N07	E37	7640	12	26.1	12	SF		2	C				
0117		23	08391	08412	0850	N06	E42	7640	12	26.5	11	SF					13		
	KANZ	23	0839	0843	0851	N05	E41	7640	12	26.4	12	SF		2	C				
	SVTO	23	0840	0841	0850	N06	E42	7640	12	26.5	10	SF		3	E		13		
0118		23	08594	09031	0907	N07	E37	7640	12	26.1	8	SF	C 2.9				34		H
	KANZ	23	0859	0903	0907	N08	E37	7640	12	26.1	8	SF		2	C				
	SVTO	23	0859	0904	0908	N07	E37	7640	12	26.1	9	SF	C 2.9	3	E		33		H
	LEAR	23	0903	0903	0907	N07	E36	7640	12	26.1	4	SF		3	E		35		
0119		23	09512	09541	1002	N07	E36	7640	12	26.1	11	SF	C 1.2				28		
	LARI	23	0951	0954	0957	N08	E35	7640	12	26.0	6	SF			P	0954			
	LEAR	23	0953	0954	1000	N07	E35	7640	12	26.0	7	SF		3	E		23		
	SVTO	23	0953	0955	1008	N07	E37	7640	12	26.2	15	SF	C 1.2	3	E		32		
0120		23	10443	10452	1054	N08	E35	7640	12	26.1	10	SF					20	0.2	
	HTPR	23	1044	1045	1056	N08	E35	7640	12	26.1	12	SF			C	1045	20	0.2	
	KANZ	23	1047	1047	1051	N07	E35	7640	12	26.1	4	SF		2	C				
0121		23	1114*	11447	1204	N08	E35	7640	12	26.1	50	SF					20	0.2	E
	HTPR	23	1114	1145	1159	N08	E35	7640	12	26.1	45	SF			C	1145	20	0.2	E
	LARI	23	1136	1144	1214	N08	E34	7640	12	26.0	38	SF			P	1144			
	KANZ	23	1143	1151	1159	N08	E36	7640	12	26.2	16	SF		2	C				
0122		23	12323	12345	1254	N07	E35	7640	12	26.1	22	SN	C 1.9				75	1.0	EFH
	HTPR	23	1232	1234	1240	N08	E35	7640	12	26.1	8	SB			C	1234	110	1.3	
	CATA	23	1235	1235	1241D	N06	E34	7640	12	26.1	6D	SB		1	C	1235	56	0.7	
	RAMY	23	1235	1236	1302	N06	E33	7640	12	26.0	27	SN	C 1.9	3	E		62		FE
	SVTO	23	1235	1237	1309	N07	E37	7640	12	26.3	34	SF	C 2.9	3	E		73		H
	KANZ	23	1235	1239	1247	N08	E35	7640	12	26.1	12	SF		2	C				
0123	KANZ	23	1239	1247	1259	N05	E39	7640	12	26.4	20	SF		2	C				
0124	RAMY	23	1305	1306	1317	N04	E37	7640	12	26.3	12	SF		3	E		19		
0125		23	1441	1447	1458	N03	E37	7640	12	26.4	17	SF	C 2.0				45		
	RAMY	23	1441	1447	1458	N05	E34	7640	12	26.1	17	SF	C 2.0	3	E		35		
	SVTO	23	1445E	1445U	1454D	N01	E40	7640	12	26.6	9D	SF		3	E		55		
0126		23	1617	1625	1642	N04	E42	7640	12	26.8	25	SF	C 2.9				32		F
	RAMY	23	1617	1625	1645	N03	E43	7640	12	26.9	28	SF	C 2.9	3	E		30		F
	HOLL	23	1625E	1630U	1640	N06	E41	7640	12	26.7	15D	SF		1	E		34		
0127	PALE	23	2031E	2031U	2033	N05	E36	7640	12	26.5	2D	SF		2	E		11		F
0128	LEAR	23	2300	2321	2325	N06	E31	7640	12	26.3	25	SF	C 3.1	3	E		63		F
0129	LEAR	24	0335	0335	0346	N07	E27	7640	12	26.2	11	SF	B 7.4	3	E		12		F
0130	LEAR	24	0842	0858	0939	N07	E22	7640	12	26.0	57	SF	C 2.7	3	E		81		F
0131	LEAR	24	0943	0957	1014	N07	E20	7640	12	25.9	31	SN	C 3.8	3	E		77		F
0132	SVTO	24	0948E	0955U	1006D	N08	E30	7640	12	26.6	18D	1N		2	E		143		EF
		24	1026		1039	No Flare Patrol													

Hα SOLAR FLARES

DECEMBER 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
0133		24	1144E	1145*	1210	N08	E23	7640	12	26.2	26D	1N					84		
	SVTO	24	1144E	1145	1205	N08	E22	7640	12	26.1	21D	1F		3	E		108		
	RAMY	24	1151E	1157	1215	N07	E24	7640	12	26.3	24D	SB		2	E		60		
0134	SVTO	24	1211	1214	1226	N08	E22	7640	12	26.1	15	SF	C 5.1	3	E		97		F
0135	SVTO	24	1318	1319	1328D	N04	W49	7635	12	20.9	10D	SF		3	E		38		F
0136	SVTO	24	1322	1324	1329D	N08	E26	7640	12	26.5	7D	SF		3	E		16		F
0137	RAMY	24	1324	1325	1328	N06	E34	7640	12	27.1	4	SF		3	E		16		
0138	RAMY	24	1335	1341	1409	N07	E20	7640	12	26.1	34	SF	C 2.5	3	E		40		F
0139	RAMY	24	1451	1503	1537	N08	E29	7640	12	26.8	46	1N	M 1.3	3	E		195		EF
0140		24	1729	17301	1738	N06	E20	7640	12	26.2	9	SN	C 3.9				66		EF
	HOLL	24	1729	1730	1734	N07	E23	7640	12	26.4	5	SF		3	E		66		
	RAMY	24	1729	1731	1741	N06	E17	7640	12	26.0	12	SN	C 3.9	3	E		67		FE
0141		24	1804	1814	1835	N06	E20	7640	12	26.2	31	1B	M 1.1				144		EF
	HOLL	24	1804	1814	1835	N07	E20	7640	12	26.2	31	1N	M 1.1	3	E		124		
	PALE	24	1810E	1818U	1840D	N06	E20	7640	12	26.2	30D	1B		2	E		165		FE
0142		24	2106	2106	2110	N06	E16	7640	12	26.1	4	SF	C 1.8				30		FH
	HOLL	24	2106	2106	2110	N07	E16	7640	12	26.1	4	SF	C 1.8	3	E		18		
	PALE	24	2107E	2108U	2126D	N05	E15	7640	12	26.0	19D	SF		2	E		42		FH
0143		24	21161	21171	2122	N06	E14	7640	12	25.9	6	SN	C 2.1				22		
	RAMY	24	2116	2118	2121D	N06	E14	7640	12	25.9	5D	SN		2	E		19		
	HOLL	24	2117	2117	2122	N06	E15	7640	12	26.0	5	SF	C 2.1	3	E		25		
0144	LEAR	24	2354	2355		N07	E15	7640	12	26.1		SF	B 9.1	3	E		16		
0145	LEAR	25	0132	0134	0137	N06	E13	7640	12	26.0	5	SF		3	E		16		
0146		25	04251	04281	0436	N06	E12	7640	12	26.1	11	1N	C 6.2				143	2.3	F
	MITK	25	0425	0428	0432	N06	E13	7640	12	26.1	7	1B			C	0428	212	2.3	
	LEAR	25	0426	0429	0441	N07	E12	7640	12	26.1	15	SF	C 6.2	3	E		74		F
0147		25	04424	04505	0500	N02	E16	7640	12	26.4	18	SN	C 4.3				58	0.6	EF
	LEAR	25	0442	0455	0507	N03	E15	7640	12	26.3	25	SF	C 4.3	3	E		55		F
	MITK	25	0446	0450	0452	N01	E16	7640	12	26.4	6	SN			C	0450	60	0.6	E
0148		25	05186	05291	0606	N06	E12	7640	12	26.1	48	1N	C 4.4				178	2.7	F
	LEAR	25	0518	0530	0640	N07	E11	7640	12	26.0	82	SF	C 4.4	3	E		98		F
	MITK	25	0524	0529	0533	N06	E12	7640	12	26.1	9	1B			C	0529	258	2.7	
		25	0632		0805	No Flare Patrol													
0149	LEAR	25	0657	0738	0847	N07	E10	7640	12	26.0	110	SF	C 5.8	3	E		89		F
0150	SVTO	25	0835E	0835U	0848D	N08	E17	7640	12	26.6	13D	SF	C 4.5	2	E		93		F
		25	0849		0958	No Flare Patrol													
0151	ISTA	25	1020		1030	S15	W72		12	20.0	10	SN			P				DG
0152		25	1139*	12441	1253	N07	E08	7640	12	26.1	74	SF					24		F
	SVTO	25	1139	1245	1253	N08	E10	7640	12	26.2	74	SN		3	E		34		F
	RAMY	25	1213	1244	1254	N07	E08	7640	12	26.1	41	SF		3	E		15		F
	KANZ	25	1244	1244	1252	N06	E07	7640	12	26.0	8	SF		2	C				
0153	RAMY	25	1444	1452	1500	N07	E07	7640	12	26.1	16	SF	C 6.0	3	E		15		EF
0154	HOLL	25	1521	1524	1530	N07	E06	7640	12	26.1	9	SF		3	E		12		H
0155	HOLL	25	1559	1602	1606	N07	E06	7640	12	26.1	7	SF		3	E		21		

DECEMBER 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
0156	HOLL	25	1615	1615	1623	N07	E06	7640	12	26.1	8	SF		3	E		14		
0157		25	1709	17101	1720	N08	E07	7640	12	26.2	11	SF	C 4.6				30		F
	RAMY	25	1709	1710	1720	N08	E07	7640	12	26.2	11	SF		3	E		28		F
	HOLL	25	1709	1711	1720	N08	E07	7640	12	26.2	11	SF	C 4.6	3	E		33		F
0158	RAMY	25	1743	1745	1750	N04	E08	7640	12	26.3	7	SF		3	E		10		F
0159		25	1744	17572	1818	N07	E06	7640	12	26.2	34	SN	M 1.5				74		EF
	RAMY	25	1744	1757	1820	N07	E06	7640	12	26.2	36	SN	M 1.5	3	E		69		FE
	HOLL	25	1744	1759	1815	N07	E05	7640	12	26.1	31	SF		3	E		80		F
0160		25	18262	18347	1901	N07	E04	7640	12	26.1	35	SF					32		F
	RAMY	25	1826	1834	1903	N07	E04	7640	12	26.1	37	SF		3	E		21		F
	HOLL	25	1828	1841	1859	N07	E04	7640	12	26.1	31	SF		3	E		42		
0161	RAMY	25	1931	1934	1938	N06	E04	7640	12	26.1	7	SF		3	E		14		F
0162		25	1939	1940	1946	N07	E04	7640	12	26.1	7	SF	C 1.8				44		F
	RAMY	25	1939	1940	1946	N07	E04	7640	12	26.1	7	SF	C 1.8	3	E		47		F
	PALE	25	1940E		1946	N07	E05	7640	12	26.2	6D	SF		3	E		40		F
0163	HOLL	25	2258	2309	2322	N08	E08	7640	12	26.5	24	SF		3	E		51		
0164	LEAR	25	2258	2302	2320D	N06	E01	7640	12	26.0	22D	SF		3	E		33		
		25	2355		2400	No Flare Patrol													
		26	0000		0046	No Flare Patrol													
0165	LEAR	26	0347	0349	0356	N06	W01	7640	12	26.1	9	SF	B 6.6	3	E		32		
0166	LEAR	26	0402	0413	0444	N06	W02	7640	12	26.0	42	1N	M 1.5	3	E		192		EF
0167		26	05115	05172	0542	N06	W03	7640	12	26.0	31	SN	C 1.7				49	0.8	DF
	LEAR	26	0511	0517	0558	N05	W04	7640	12	25.9	47	SF	C 1.7	3	E		25		F
	MITK	26	0516	0519	0527	N07	W02	7640	12	26.1	11	SN			C	0519	73	0.8	D
0168	MITK	26	0539	0546	0554	N06	W02	7640	12	26.1	15	SN			C	0546	179	1.9	E
0169	LEAR	26	0608	0616	0629	N07	W03	7640	12	26.0	21	SF	C 2.5	3	E		48		F
0170	LEAR	26	0718	0733	0749	N06	W06	7640	12	25.8	31	1F	C 4.6	3	E		123		F
0171	LEAR	26	0843	0848	0858	N06	W05	7640	12	26.0	15	SF	C 3.6	3	E		46		F
0172	SVTO	26	0850E	0853U	0857D	N06	E04	7640	12	26.7	7D	SF		1	E		62		F
0173	LEAR	26	0913	0914	0932	N06	E00	7640	12	26.4	19	SF	C 2.8	3	E		46		F
0174	LEAR	26	0940	0941	0946	N05	W09	7640	12	25.7	6	SF	C 2.5	3	E		19		H
0175	LEAR	26	1003	1015	1027D	N06	W05	7640	12	26.0	24D	SF	C 1.4	3	E		32		
0176	RAMY	26	1331	1340	1357	N10	W01	7640	12	26.5	26	1N	C 2.4	3	E		113		EF
0177		26	14565	15041	1551	N07	W06	7640	12	26.2	55	1N	C 5.7				143		EF
	HOLL	26	1456	1505	1626	N07	W06	7640	12	26.2	90	1F	C 5.7	3	E		173		FE
	RAMY	26	1501	1504	1516	N07	W06	7640	12	26.2	15	1N		3	E		113		FE
0178	RAMY	26	1542	1558	1621	N07	W11	7640	12	25.8	39	1F	C 6.5	3	E		148		EF
0179		26	17051	1707	1710	N06	W12	7640	12	25.8	5	SF	C 2.2				14		
	HOLL	26	1705	1707	1710	N06	W12	7640	12	25.8	5	SF	C 2.2	3	E		15		
	RAMY	26	1706	1707	1711	N06	W11	7640	12	25.9	5	SF		3	E		14		
0180		26	1714*	17583	1823	N11	W10	7640	12	26.0	69	SF	C 1.0				36		F
	RAMY	26	1714	1801	1830	N11	W09	7640	12	26.0	76	SF	C 1.0	3	E		56		F
	HOLL	26	1757	1758	1816	N11	W10	7640	12	26.0	19	SF	C 2.0	3	E		16		

Hα SOLAR FLARES

DECEMBER 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
0181	RAMY	26	1831	1840	1847	N06	W09	7640	12	26.1	16	SF		3	E		23		
0182		26	19031	19041	1919	N06	W10	7640	12	26.0	16	SF	C 1.6				48		F
	RAMY	26	1903	1904	1923	N06	W10	7640	12	26.0	20	SF	C 1.6	3	E		47		F
	HOLL	26	1904	1905	1915	N06	W10	7640	12	26.0	11	SF		3	E		48		
0183	RAMY	26	1924	1936	1939	N05	W14	7640	12	25.8	15	SF	C 1.5	3	E		14		F
		26	2158		2223	No Flare Patrol													
0184		26	2238	2239	2253	N10	E04	7640	12	27.2	15	SF	C 3.0				50		F
	PALE	26	2237E	2239U	2255D	N11	E05	7640	12	27.3	18D	SF		2	E		47		F
	LEAR	26	2238	2239	2253	N08	E02	7640	12	27.1	15	SF	C 3.0	3	E		54		F
0185	PALE	26	2357E	2357U	2409D	N06	W17	7640	12	25.7	12D	SF		1	E		13		
0186	PALE	27	0218E	0219U	0240D	N09	E04	7640	12	27.4	22D	SF		3	E		20		F
0187		27	03131	0317	0322	N05	W18	7640	12	25.8	9	SN	C 1.6				34	0.5	DF
	LEAR	27	0313	0317	0325	N04	W18	7640	12	25.8	12	SF	C 1.6	3	E		23		F
	MITK	27	0314	0317	0320	N06	W17	7640	12	25.9	6	SN			C	0317	46	0.5	D
0188		27	03507	03572	0402	N06	W18	7640	12	25.8	12	SN	C 1.5				18	0.1	D
	LEAR	27	0350	0357	0405	N05	W19	7640	12	25.7	15	SF	C 1.5	3	E		23		
	MITK	27	0357	0359	0400	N07	W17	7640	12	25.9	3	SN			C	0359	13	0.1	D
0189		27	0916	09171	0930	N10	W03	7644	12	27.2	14	SB					68	1.1	F
	CATA	27	0912E	0917	0949D	N11	W03	7644	12	27.1	37D	SB		1	C	0917	112	1.1	
	SVTO	27	0916	0918	0930	N10	W03	7644	12	27.2	14	SN		3	E		25		F
0190	LEAR	27	0912	0915	0941	N07	W13	7640	12	26.4	29	SF	C 4.8	3	E		46		FH
0191		27	0953	0954	1006	N06	W24	7640	12	25.6	13	SF	C 4.3				34		FH
	LEAR	27	0953	0954	1001	N06	W25	7640	12	25.5	8	SF	C 4.3	3	E		28		
	SVTO	27	0956E	0958U	1012	N06	W23	7640	12	25.7	16D	SF		3	E		39		FH
		27	1111		1140	No Flare Patrol													
		27	1212		1248	No Flare Patrol													
		27	1259		1308	No Flare Patrol													
		27	1352		1406	No Flare Patrol													
		27	1412		1419	No Flare Patrol													
0192	RAMY	27	1559	1559	1605	N07	W24	7640	12	25.9	6	SF	C 1.4	3	E		15		F
0193	RAMY	27	1843	1900	1922	N10	W20	7640	12	26.3	39	SF	M 1.9	3	E		28		F
		27	2158		2202	No Flare Patrol													
0194	HOLL	27	2207	2208	2312D	N09	W18	7644	12	26.6	65D	SF		3	E		42		
		27	2228		2237	No Flare Patrol													
0195	LEAR	28	0152	0157	0207	N07	W25	7640	12	26.2	15	SF		3	E		30		F
0196	LEAR	28	0240	0243	0258	N10	W15	7644	12	27.0	18	SF		3	E		23		F
0197		28	0227*	02508	0314	N10	W24	7640	12	26.3	47	SF	C 8.4				71	0.8	EFIJ
	LEAR	28	0227	0253	0331	N09	W24	7640	12	26.3	64	SF	C 8.4	3	E		88		F
	VORO	28	0244U	0250	0300D	N09	W27	7640	12	26.1	16U	SF		1	C	0250	99	1.2	EIJ
	MITK	28	0257	0258	0258	N11	W22	7640	12	26.5	1	SN			C	0258	26	0.3	E
0198	PALE	28	0258E	0306U	0306D	N10	W27	7640	12	26.1	8D	SF		2	E		28		
0199	LEAR	28	0649	0653	0705	N11	W16	7644	12	27.1	16	SF	C 3.0	3	E		73		F
0200		28	07564	08031	0816	N05	W32	7640	12	25.9	20	SF					35		F
	SVTO	28	0756	0803	0816	N05	W33	7640	12	25.9	20	SF		3	E		35		F
	KANZ	28	0800	0804	0816D	N05	W31	7640	12	26.0	16D	SF		2	C				

DECEMBER 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
0201		28	0833	08351	0844	N04	W35	7640	12	25.7	11	SF						30		F
	LEAR	28	0833	0835	0842	N03	W35	7640	12	25.7	9	SF			3	E		25		
	SVTO	28	0833	0836	0846	N04	W35	7640	12	25.7	13	SF			3	E		35		F
0202		28	08536	0901	0918	N06	W34	7640	12	25.8	25	SF	C	2.7				63		F
	SVTO	28	0853	0901	0920	N06	W34	7640	12	25.8	27	SF	C	2.7	3	E		64		F
	LEAR	28	0859	0901	0917	N05	W34	7640	12	25.8	18	SF			3	E		62		F
0203		28	10133	10151	1027	N10	W17	7644	12	27.1	14	SF						19		
	LEAR	28	1013	1015	1026	N11	W18	7644	12	27.1	13	SF			3	E		19		
	KANZ	28	1016	1016	1028	N10	W16	7644	12	27.2	12	SF			2	C				
0204	KANZ	28	1032	1036	1052	N11	E83	7645	01	3.7	20	SF			2	C				
0205	KANZ	28	1100	1104	1120	N10	W16	7644	12	27.2	20	SF			2	C				
0206	KANZ	28	1208	1208	1212	N07	W29	7640	12	26.3	4	SF			2	C				
0207	KANZ	28	1212	1220	1236	N07	W31	7640	12	26.2	24	SF			2	C				
		28	1353		1418	No Flare Patrol														
		28	1429		1434	No Flare Patrol														
0208	RAMY	28	1530	1534	1538	N08	W36	7640	12	25.9	8	SF			3	E		60		F
		28	1547		1555	No Flare Patrol														
0209	RAMY	28	1602	1604	1611	N13	W19	7644	12	27.2	9	SF	C	2.6	3	E		11		
0210	RAMY	28	1653	1656	1713	N07	W37	7640	12	25.9	20	1N	M	1.1	3	E		134		EF
		28	1730		1734	No Flare Patrol														
		28	1809		1956	No Flare Patrol														
0211	RAMY	28	2002	2005	2018	N08	W35	7640	12	26.2	16	SF			3	E		24		F
0212	HOLL	28	2153	2157	2206	N07	W39	7640	12	26.0	13	SF			3	E		11		
0213	HOLL	28	2157	2157	2204	N06	W31	7641	12	26.6	7	SF			3	E		17		
0214	HOLL	28	2220	2221	2224	N06	W42	7640	12	25.8	4	SF			3	E		10		
0215	PALE	29	0143	0146	0154D	S10	E84	7646	01	4.4	11D	SF			4	E		45		F
0216		29	02171	0220	0234	N10	W37	7640	12	26.3	17	SF	C	1.9				55	1.2	DFIJ
	VORO	29	0217	0220	0232	N10	W38	7640	12	26.2	15	SF			1	C	0220	90	1.2	DIJ
	LEAR	29	0218	0220	0237	N10	W36	7640	12	26.4	19	SF	C	1.9	3	E		20		F
0217	LEAR	29	0242	0247	0252	N07	W41	7640	12	26.0	10	SF	C	1.4	3	E		27		F
0218	LEAR	29	0257	0300	0303	S09	E80	7646	01	4.1	6	SF			3	E		32		
0219	LEAR	29	0634	0636	0647	N07	W42	7640	12	26.1	13	SF	C	1.1	3	E		32		F
0220		29	07461	07471	0752	S13	E76	7646	01	4.0	6	SF	C	1.6				25		
	LEAR	29	0746	0748	0752	S13	E75	7646	01	4.0	6	SF	C	1.6	3	E		25		
	KANZ	29	0747	0747	0751	S13	E78	7646	01	4.2	4	SF			2	C				
0221	KANZ	29	0931	0931	0935	N12	E81	7645	01	4.5	4	SF			2	C				
0222	LEAR	29	0940	0942	0949	S09	E76	7646	01	4.1	9	SF			3	E		19		
0223	RAMY	29	1245	1252	1310	S11	E76	7646	01	4.2	25	SF			3	E		23		
0224	RAMY	29	1439	1444	1447	S11	E77	7646	01	4.4	8	SF			3	E		29		
0225	RAMY	29	1530	1539	1604	N12	W43	7640	12	26.4	34	SF	C	9.9	3	E		50		F
0226	PALE	29	1755E	1756U	1759	N14	W45	7640	12	26.3	4D	SF	C	1.5	2	E		34		F

Hα SOLAR FLARES

DECEMBER 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
		29	2131		2217	No Flare Patrol													
0227	LEAR	29	2256	2258	2303	N11	E67	7645	01	4.0	7	SF	C 3.7	3	E		18		F
0228	LEAR	30	0027	0032	0054	N08	W43	7640	12	26.8	27	SF		3	E		28		F
0229	MITK	30	0349	0350	0350	N13	W45	7640	12	26.8	1	SN			C	0350	7	0.1	E
0230	MITK	30	0355	0355	0356	N13	W45	7640	12	26.8	1	SN			C	0355	20	0.3	
0231	MITK	30	0441	0449	0450	N13	W46	7640	12	26.7	9	SN			C	0449	26	0.4	D
0232	MITK	30	0501	0503	0512	N13	W46	7640	12	26.7	11	SN			C	0503	105	1.6	
0233	MITK	30	0526	0526	0526	N13	W46	7640	12	26.7	11	SN			C	0526	7	0.1	D
0234	MITK	30	0530	0533	0533	N13	W46	7640	12	26.7	3	SN			C	0533	33	0.5	D
0235	MITK	30	0535	0536	0536	N13	W47	7640	12	26.7	1	SN			C	0536	7	0.1	D
0236	MITK	30	0542	0542	0543	N13	W46	7644	12	26.8	1	SN			C	0542	13	0.2	D
0237	TACH	30	0548	0553	0609	N12	E66	7645	01	4.2	21	1N		2	C	0553	184		,EZ
0238	TACH	30	0618	0623	0631	N11	W53	7640	12	26.3	13	1B		2	C	0623	245	4.3	,VZ
		30	0718		0735	No Flare Patrol													
		30	0838		0845	No Flare Patrol													
0239	CATA	30	1032	1032	1040	N13	E57	7645	01	3.7	8	SB		1	C	1032	56	1.1	
0240	CATA	30	1037	1037	1101	N14	E68	7645	01	4.6	24	SB		1	C	1037	67		
0241	CATA	30	1149	1149	1208	S12	E66	7646	01	4.5	19	1B		1	C	1149	168		
0242	CATA	30	1200	1200	1208	N12	E56	7645	01	3.7	8	SB		1	C	1200	84	1.6	
0243		30	1211	1227	1242	N10	W48	7644	12	26.9	31	SF					18		
	RAMY	30	1211	1227	1242	N10	W50	7644	12	26.7	31	SF		3	E		12		
	SVTO	30	1217E	1224U	1238D	N10	W47	7644	12	27.0	21D	SF		3	E		25		
0244		30	1220	12207	1305	N10	E60	7645	01	4.0	45	SF					22		
	SVTO	30	1217E	1220	1302D	N10	E59	7645	01	3.9	45D	SF		2	E		33		
	RAMY	30	1220	1227	1305	N09	E61	7645	01	4.1	45	SF		3	E		10		
		30	1241		1244	No Flare Patrol													
0245	RAMY	30	1248	1306	1320	N09	W51	7644	12	26.7	32	SF	C 1.2	3	E		39		
		30	1254		1259	No Flare Patrol													
0246	RAMY	30	1308	1314	1319	N10	E62	7645	01	4.2	11	SF		3	E		43		
0247	RAMY	30	1321	1322	1344	N09	E62	7645	01	4.2	23	SF	C 1.2	3	E		47		F
0248	RAMY	30	1357	1400	1418	N10	W50	7644	12	26.8	21	SF		3	E		11		
0249	RAMY	30	1509	1539	1600	N10	E59	7645	01	4.1	51	SF		3	E		32		F
0250	RAMY	30	1513	1609	1715	N12	W57	7640	12	26.3	122	1N	C 5.5	3	E		141		EF
0251		30	1705	1710	1742	N10	E58	7645	01	4.1	37	SN	C 7.7				76		F
	RAMY	30	1705	1710	1742	N10	E58	7645	01	4.1	37	SN	C 7.7	3	E		55		F
	HOLL	30	1705	1710	1742	N10	E58	7645	01	4.1	37	SF	C 7.7	3	E		96		
0252	RAMY	30	1740	1755	1818	N08	W61	7640	12	26.2	38	SF		3	E		25		F
0253		30	1820	18211	1835	N10	E58	7645	01	4.1	15	SF					16		F
	RAMY	30	1820	1821	1827	N09	E56	7645	01	4.0	7	SF		3	E		15		F
	HOLL	30	1820	1822	1843	N10	E60	7645	01	4.3	23	SF		3	E		17		

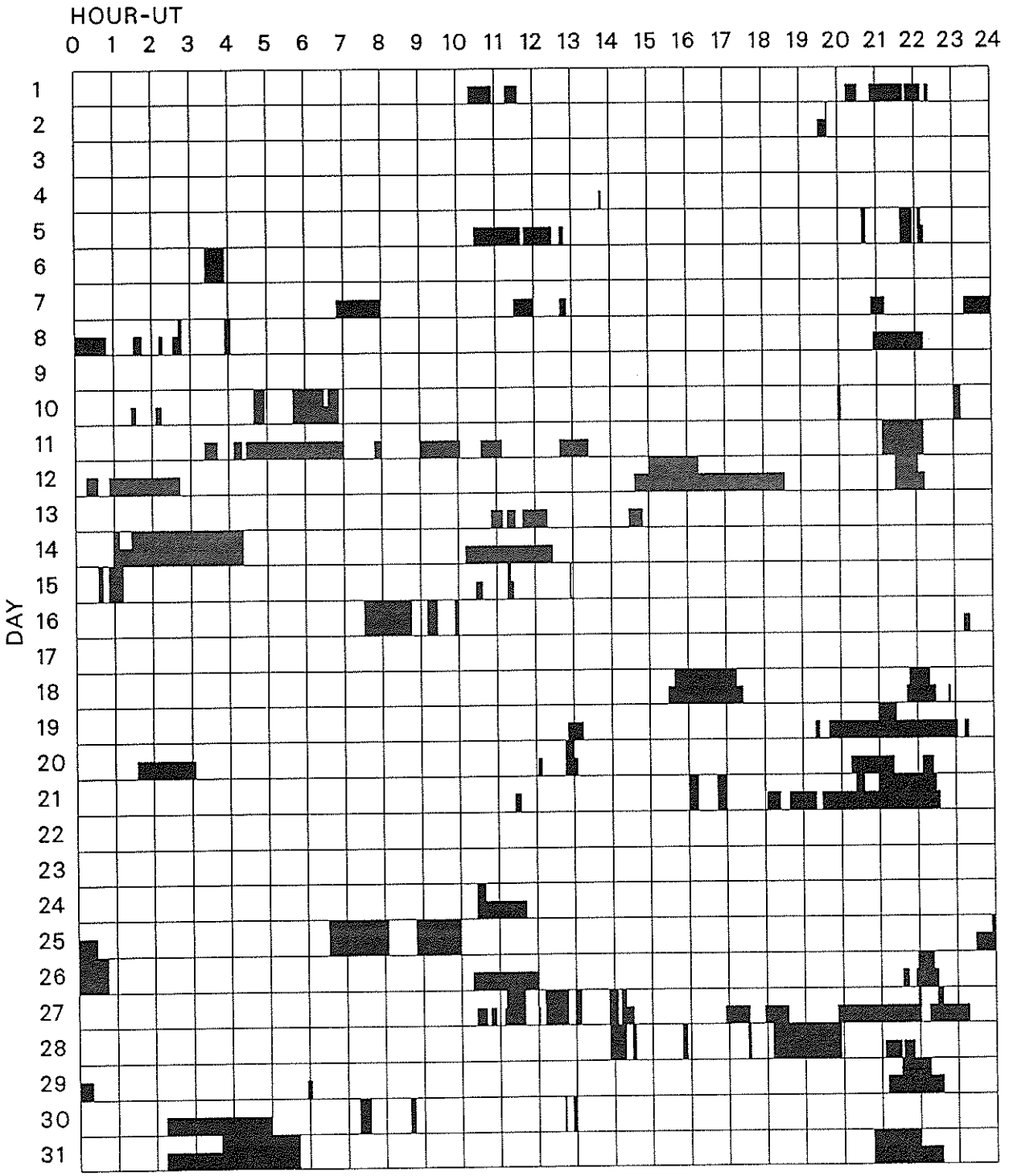
Hα SOLAR FLARES

DECEMBER 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
0254		30	1848	1848	1900	N10	E57	7645	01	4.1	12	SF					10		F
	HOLL	30	1848	1848	1855	N09	E58	7645	01	4.1	7	SF		3	E		10		
	RAMY	30	1848	1848	1904	N10	E56	7645	01	4.0	16	SF		3	E		11		F
0255		30	19142	1917	1933	N09	E59	7645	01	4.2	19	SF	C 3.0				48		F
	RAMY	30	1914	1917	1936	N09	E58	7645	01	4.1	22	SN	C 3.0	3	E		59		
	HOLL	30	1916	1916U	1930	N09	E58	7645	01	4.1	14	SF		3	E		56		
	PALE	30	1916E	1917U	1927D	N09	E62	7645	01	4.4	11D	SF		3	E		29		F
0256	PALE	30	2017E	2019U	2030D	N09	W62	7645	12	26.2	13D	SF		3	E		31		F
0257		30	20157	20193	2031	N10	E58	7645	01	4.2	16	SF	C 1.6				13		F
	RAMY	30	2015	2019	2028	N09	E58	7645	01	4.2	13	SF	C 1.6	3	E		14		F
	HOLL	30	2022	2022	2034	N10	E59	7645	01	4.3	12	SF		3	E		12		
0258	PALE	30	2117E	2119U	2131D	N16	W49	7644	12	27.2	14D	SF		3	E		63		F
0259	HOLL	30	2117	2118	2129	N11	W61	7640	12	26.3	12	SN	C 7.6	3	E		77		
0260	HOLL	30	2208	2211	2217	N08	W67	7640	12	25.9	9	SF		3	E		21		
0261		31	0043	0048	0056	N12	E52	7645	01	3.9	13	SF	C 2.5				48		
	LEAR	31	0043	0048	0056	N13	E49	7645	01	3.7	13	SF	C 2.5	3	E		40		
	PALE	31	0045E	0050U	0105D	N12	E55	7645	01	4.2	20D	SF		3	E		55		
0262	LEAR	31	0145	0149	0152	S09	E55	7646	01	4.2	7	SF		3	E		35		
		31	0341		0543	No Flare Patrol													
0263	LEAR	31	0526	0536	0559	N12	W54	7644	12	27.1	33	SF		3	E		33		F
0264	LEAR	31	0526	0536	0555	N08	W70	7640	12	26.0	29	SF	C 2.8	3	E		35		F
0265	LEAR	31	0624	0628	0639	N11	E52	7645	01	4.2	15	SF	C 3.2	3	E		24		F
0266	LEAR	31	0644	0646	0655	N12	W55	7644	12	27.1	11	SF	C 4.1	3	E		24		F
0267		31	0818	08204	0827	N12	E46	7645	01	3.8	9	SN					28	0.5	
	CATA	31	0817E	0824	0824D	N12	E44	7645	01	3.7	7D	SN		1	C	0824	39	0.5	
	SVTO	31	0818	0820	0827	N12	E47	7645	01	3.9	9	SF		3	E		16		
0268	LEAR	31	0903	0905	0911	S08	E50	7646	01	4.1	8	SF		3	E		42		F
0269	SVTO	31	1120	1121	1132	N09	W62	7640	12	26.8	12	SF	C 2.1	3	E		33		
0270	SVTO	31	1138	1139	1146	N12	E44	7645	01	3.8	8	SF		3	E		25		
0271	RAMY	31	1441	1442	1445	N09	W69	7640	12	26.4	4	SF	C 2.0	3	E		24		F
0272	RAMY	31	1802	1804	1807	S10	E44	7646	01	4.0	5	SF		3	E		18		
0273	RAMY	31	1918	1928	1942	N09	W78	7640	12	26.0	24	SF	C 1.7	3	E		50		
		31	2046		2159	No Flare Patrol													
0274		31	2233	2235	2240	N12	E39	7645	01	3.9	7	SF	C 1.8				27		H
	LEAR	31	2233	2235	2240	N13	E38	7645	01	3.8	7	SF		2	E		39		
	HOLL	31	2236E	2238U	2242D	N12	E40	7645	01	3.9	6D	SF	C 1.8	3	E		15		H
0275		31	23111	23112	2316	N10	W80	7640	12	25.9	5	SF					24		
	HOLL	31	2311	2311	2313	N10	W81	7640	12	25.9	2	SF		3	E		18		
	LEAR	31	2311	2312	2320	N09	W79	7640	12	26.0	9	SF		2	E		29		
	PALE	31	2312	2313	2325D	N10	W80	7640	12	25.9	13D	SF		3	E		25		

INTERVALS OF NO FLARE PATROL OBSERVATION
FOR PRECEDING SOLAR FLARE TABLE

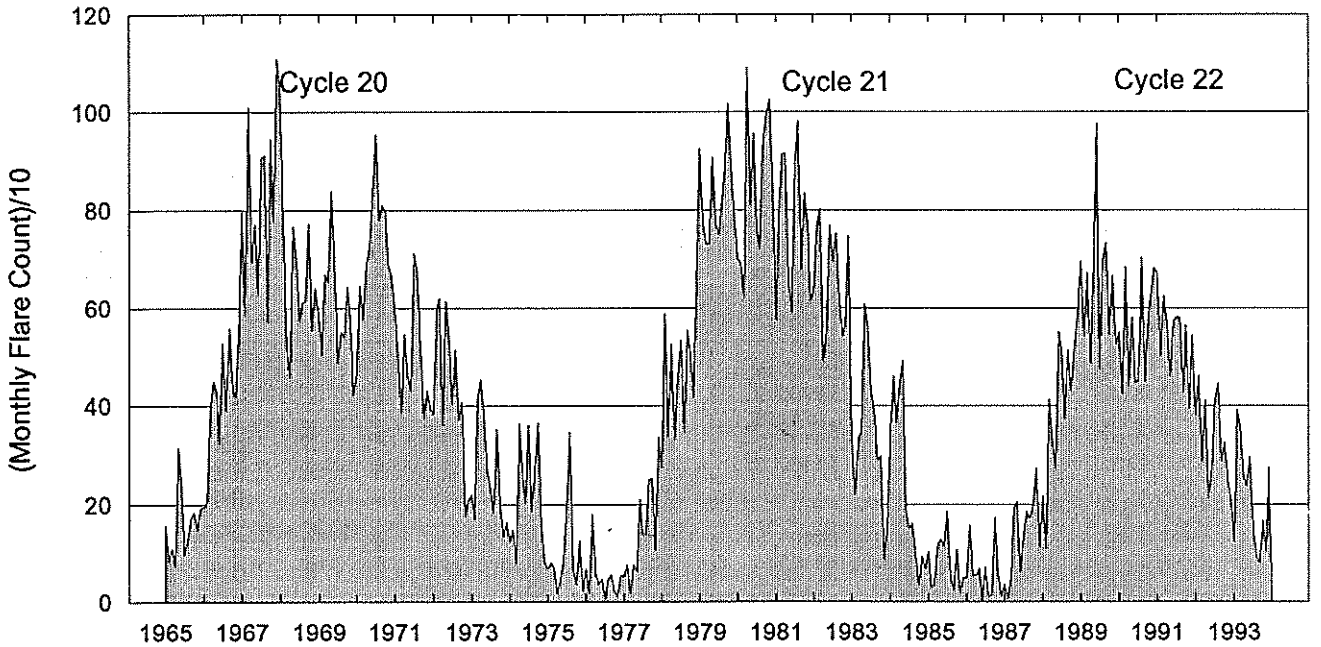
DECEMBER 1993



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	Istanbul	Learmonth	San Vito
Catania	Kanzelhoehe	Mitaka	Tashkent
Haute Province	Kharkov	Palehua	Voroshilov
Holloman	Larissa	Ramey	

Monthly Counts of Grouped Solar Flares
Jan 1965 - Dec 1993



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

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.
NOTE: Counts for 1993 were updated to reflect the addition of Catania data.

SOLAR RADIO EMISSION
Outstanding Occurrences

DECEMBER 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	204	IZMI	43	NS	0700.0		300.0D		15.0		
	127	TORN	44	NS	0700.0E		440.0D		7.0		V=1
	245	SVTO	43	NS	0813.0	0814.0	28.0	110.0			QL=4 ST=3 TYP=1
	260	ONDR	44	NS	0900.0E	1110.0	180.0D	125.0			
	245	SVTO	43	NS	1231.0	1353.0	102.0	280.0			QL=4 ST=2 TYP=1
	15400	SVTO	4	S/F	0647.0	0658.0U	13.0	65.0			QL=4 ST=2 TYP=5
	2950	GORK	23	GRF	0655.3U	0706.3	28.0D	3.5			
	3013	IZMI	7	C	0658.0U	0701.7	4.2D	25.0			
	2950	GORK	4	S/F	0659.2	0701.8	6.8	16.0			
	950	GORK	46	C	0659.9	0700.4	3.3	23.0			
	950	GORK	46	C	0659.9	0700.9		23.0			
	9100	GORK	2	S/F	0700.0	0701.8	6.0	12.0			
	610	SVTO	4	S/F	1108.0	1113.0	6.0	130.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	1108.0	1109.0	1.0	68.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1108.0	1108.0	1.0	410.0			QL=4 ST=2 TYP=3
	3013	IZMI	5	S	1108.0	1108.5	1.2	16.0			
	950	GORK	1	S	1108.3	1108.6	0.7	5.0			
	2950	GORK	3	S	1108.3	1108.7	1.2	11.0			
	536	ONDR	8	S	1112.5	1112.5	0.5	45.0			
	808	ONDR	8	S	1112.5	1112.5	0.5				
	245	SGMR	8	S	1231.0	1232.0	1.0	70.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1741.0	1741.0	U	59.0			QL=4 ST=2 TYP=3
02	280	CUBA	44	NS	1500.0E		190.0D		20.0		
	235	CUBA	44	NS	1500.0E		190.0D		12.0		
	2950	GORK	1	S	0741.3	0741.4	0.2	2.7			
	950	GORK	1	S	0741.4	0741.4	0.5	5.0			
	950	GORK	2	S/F	0926.3	0926.4	0.3	23.0			
	2950	GORK	1	S	0926.4	0926.6	0.3	3.3			
	2950	GORK	1	S	1007.1	1007.3	0.5	1.9			
	950	GORK	2	S/F	1007.2	1007.3	0.3	12.0			
	260	ONDR	42	SER	1028.0	1032.0	92.0	150.0			
	245	PALE	4	S/F	2325.0	2330.0	7.0	95.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2330.0	2330.0	U	69.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2330.0	2330.0	U	94.0			QL=4 ST=2 TYP=3
03	245	LEAR	43	NS	0215.0	0215.0	501.0	160.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	0215.0	0215.0	1305.0	160.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	0632.0	0632.0	73.0	76.0			QL=4 ST=2 TYP=1
	204	IZMI	44	NS	0700.0E		300.0D		10.0		
	127	TORN	44	NS	0700.0E		410.0D		5.0		V=1
	245	SVTO	43	NS	0841.0	0849.0	8.0	72.0			QL=4 ST=2 TYP=1
	260	ONDR	44	NS	0900.0E	0959.0	180.0D	160.0			
	280	CUBA	44	NS	1520.0E		175.0D		17.0		
	235	CUBA	44	NS	1520.0E		175.0D		8.0		
	245	LEAR	8	S	0632.0	0632.0	1.0	68.0			QL=2 ST=2 TYP=3
	2950	GORK	2	S/F	0655.1	0655.3	0.6	2.8			
	950	GORK	2	S/F	0655.2	0655.3	0.6	5.0			
	245	SVTO	8	S	0739.0	0739.0	U	160.0			QL=2 ST=2 TYP=3
	2950	GORK	20	GRF	0742.0	0747.4	36.0	2.7			
	245	SVTO	8	S	0817.0	0817.0	U	130.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1953.0	1953.0	U	52.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2354.0	2354.0	U	53.0			QL=4 ST=3 TYP=3
04	245	LEAR	8	S	0119.0	0120.0	2.0	54.0			QL=4 ST=3 TYP=3
	245	PALE	8	S	0133.0	0133.0	1.0	77.0			QL=4 ST=2 TYP=3
05	280	CUBA	44	NS	1613.0E		287.0D		17.0		
	235	CUBA	44	NS	1613.0E		287.0D		7.0		
	2950	GORK	20	GRF	1027.5	1047.5	39.5	3.8			
06	280	CUBA	44	NS	1500.0E		180.0D		17.0		
	235	CUBA	44	NS	1500.0E		180.0D		6.0		
	2800	PENT	3	S	1716.2	1717.5	3.5	14.4	5.0		
	4995	SGMR	8	S	1717.0	1717.0	1.0	58.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1717.0	1717.0	U	33.0			QL=4 ST=2 TYP=3
	2800	PENT	3	S	2042.4	2044.3	4.8	8.7	3.0		
07	204	IZMI	43	NS	0700.0		300.0D		5.0		

SOLAR RADIO EMISSION
Outstanding Occurrences

DECEMBER 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
07	235	CUBA	44	NS	1355.0E		170.0D		10.0		
	280	CUBA	44	NS	1355.0E		238.0D		17.0		
	245	LEAR	49	GB	0135.0	0135.0	1.0	1600.0			QL=4 ST=2 TYP=6
	204	IZMI	42	SER	0730.0	0732.0	21.0	58.0			
	260	ONDR	8	S	1031.5	1032.0	1.5	130.0			
	245	PALE	8	S	1927.0	1928.0	1.0	54.0			QL=4 ST=2 TYP=3
	245	SGMR	4	S/F	1927.0	1928.0	3.0	48.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1950.0	1951.0	1.0	56.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1950.0	1951.0	1.0	57.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2043.0	2044.0	1.0	50.0			QL=4 ST=2 TYP=3
08	235	CUBA	44	NS	1510.0E		210.0D		7.0		
	280	CUBA	44	NS	1510.0E		210.0D		16.0		
	204	IZMI	42	SER	0736.0	0746.5	33.0	51.0			
	3013	IZMI	20	GRF	0933.0	0936.5	20.0	4.0	3.0		
	260	ONDR	42	SER	0950.0	1021.0	115.0	100.0			
	245	SGMR	8	S	1513.0	1513.0	1.0	55.0			QL=4 ST=2 TYP=3
09	204	IZMI	43	NS	0958.0		127.0D	5.0	4.0		
	235	CUBA	44	NS	1359.0E		436.0D		12.0		
	280	CUBA	44	NS	1400.0E		420.0D		19.0		
	2800	HIRA	1	S	0208.0	0208.4	2.0	17.0	8.0		O
10	260	ONDR	44	NS	0900.0E	1056.0	180.0D	160.0			
	280	CUBA	44	NS	1400.0E		429.0D		19.0		
	235	CUBA	44	NS	1410.0E		419.0D		13.0		
	204	IZMI	41	F	0741.0	0741.5	1.0	76.0			
	204	IZMI	42	SER	0910.5	0919.0	15.0	35.0			
12	610	LEAR	8	S	0203.0	0203.0	U	60.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	0203.0	0203.0	U	68.0			QL=4 ST=2 TYP=3
	2950	GORK	2	S/F	0824.5	0825.3	2.0	3.6			
13	280	CUBA	44	NS	1620.0E		310.0D		19.0		
	235	CUBA	44	NS	1625.0E		305.0D		12.0		
14	280	CUBA	44	NS	1417.0E		412.0D		19.0		
	235	CUBA	44	NS	1417.0E		472.0D		12.0		
15	280	CUBA	44	NS	1410.0E		433.0D		19.0		
	235	CUBA	44	NS	1500.0E		60.0D		12.0		
	204	IZMI	41	F	0925.5	0926.0	2.0	21.0			
17	280	CUBA	44	NS	1500.0E		385.0D		18.0		
	235	CUBA	44	NS	1500.0E		385.0D		12.0		
	500	HIRA	8	S	0601.8	0602.1	0.4	7.0			O
	245	LEAR	8	S	0728.0	0728.0	U	150.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0728.0	0728.0	U	150.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	0728.2	0729.0	1.5	66.0			
	204	IZMI	42	SER	1125.0	1130.0	12.5	71.0			
	245	PALE	8	S	2332.0	2332.0	U	50.0			QL=4 ST=2 TYP=3
18	204	IZMI	41	F	1050.4	1051.5	2.0	19.0			
	204	IZMI	42	SER	1135.0	1136.5	8.0	30.0			
	536	ONDR	8	S	1135.1	1135.5	0.5	30.0			
	260	ONDR	45	C	1140.5	1141.5	3.5	35.0			
	127	TORN	45	C	1246.0	1248.8	5.2	30.0	4.0		
19	204	IZMI	41	F	1152.0	1153.0	1.0	28.0			
20	204	IZMI	43	NS	0808.0		232.0D		10.0		
	127	TORN	43	NS	1100.0		42.0		1.0		V=1
	235	CUBA	44	NS	1400.0E		406.0D		11.0		
	280	CUBA	44	NS	1400.0E		445.0D		16.0		
	4995	PALE	8	S	0156.0	0157.0	2.0	42.0			QL=4 ST=2 TYP=3
	2800	HIRA	45	C	0156.0	0157.2	2.0	14.0	7.0		O
	4995	LEAR	8	S	0157.0	0157.0	U	32.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0204.0	0205.0	2.0	17.6			
	260	ONDR	40	F	1000.5	1005.0	10.0	40.0			

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

DECEMBER 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
20	2800	PENT	3	S	1848.4	1850.5	5.9	9.5	2.0		
	245	PALE	8	S	1850.0	1850.0	U	65.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1850.0	1850.0	U	57.0			QL=4 ST=2 TYP=3
21	280	CUBA	44	NS	1600.0E		300.0D		19.0		
	235	CUBA	44	NS	1600.0E		310.0D		13.0		
	2695	LEAR	4	S/F	0545.0	0551.0	8.0	63.0			QL=4 ST=2 TYP=3
	4995	LEAR	4	S/F	0546.0	0551.0	7.0	59.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	0546.0	0551.0	7.0	39.0			QL=4 ST=2 TYP=3
	1415	LEAR	4	S/F	0546.0	0551.0	7.0	36.0			QL=4 ST=2 TYP=3
	500	HIRA	4	S/F	0547.0	0549.6	5.0	7.0	5.0		O
	2800	HIRA	3	S	0548.5	0551.6	11.0	60.0	27.0		O
	245	LEAR	8	S	0549.0	0550.0	2.0	26.0			QL=4 ST=2 TYP=3
	15400	LEAR	4	S/F	0549.0	0551.0	4.0	18.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	0552.0	0554.4	12.0	48.3			
	204	IZMI	42	SER	0711.0	0729.5	19.0	87.0			
	204	IZMI	42	SER	0812.0	0812.3	21.0	69.0			
	204	IZMI	42	SER	0908.0	1004.7	75.0				
	260	ONDR	42	SER	1010.0	1013.5	110.0	50.0			
22	204	IZMI	43	NS	0700.0		300.0D		5.0		
	260	ONDR	44	NS	0900.0E		180.0D				
	950	GORK	20	GRF	0930.8	0935.5	14.2	3.0			
	2950	GORK	1	S	0935.5	0936.6	2.1	1.7			
	204	IZMI	42	SER	1105.0	1111.5	10.0	300.0U			
	245	SGMR	8	S	1301.0	1301.0	U	310.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1301.0	1301.0	U	100.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1301.0	1301.0	U	220.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1301.0	1301.0	U	96.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1615.0	1615.0	1.0	370.0			QL=4 ST=3 TYP=3
	410	PALE	49	GB	1724.0	1725.0	2.0	640.0			QL=2 ST=2 TYP=6
	610	PALE	4	S/F	1724.0	1725.0	6.0	180.0			QL=2 ST=2 TYP=3
	410	SGMR	49	GB	1724.0	1725.0	2.0	600.0			QL=4 ST=2 TYP=6
	245	SGMR	49	GB	1724.0	1725.0	4.0	7300.0			QL=4 ST=2 TYP=6
	610	SGMR	4	S/F	1724.0	1725.0	3.0	210.0			QL=4 ST=2 TYP=3
	2800	PENT	3	S	1724.8	1725.4	2.7	160.0	34.0		
	1415	PALE	8	S	1725.0	1725.0	1.0	130.0			QL=2 ST=2 TYP=3
	245	PALE	49	GB	1725.0	1727.0	3.0	7000.0			QL=2 ST=2 TYP=7
	15400	SGMR	49	GB	1725.0	1725.0	U	660.0			QL=2 ST=2 TYP=6
	1415	SGMR	8	S	1725.0	1725.0	2.0	170.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1725.0	1725.0	U	350.0			QL=2 ST=2 TYP=3
	4995	SGMR	8	S	1725.0	1725.0	U	270.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1725.0	1725.0	1.0	190.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	1730.0	1730.0	U	25.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	2029.0	2029.0	U	77.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2029.0	2029.0	U	65.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2048.0	2048.0	2.0	100.0			QL=4 ST=2 TYP=3
23	204	IZMI	43	NS	0700.0		300.0D		5.0		
	260	ONDR	44	NS	0900.0E	0937.5	130.0D	510.0			
	127	TORN	43	NS	1115.0		185.0D		1.0		V=1
	235	CUBA	44	NS	1420.0E		360.0D		17.0		
	280	CUBA	44	NS	1420.0E		360.0D		23.0		
	500	HIRA	42	SER	0010.1	0011.1	3.0	370.0			O
	2800	HIRA	8	S	0010.5	0010.6	0.5	12.0	8.0		WL
	245	LEAR	49	GB	0018.0	0019.0	2.0	4600.0			QL=4 ST=2 TYP=6
	245	PALE	49	GB	0018.0	0019.0	2.0	3900.0			QL=4 ST=2 TYP=6
	500	HIRA	46	C	0018.8	0019.9	1.5	82.0	30.0		WR
	410	LEAR	8	S	0019.0	0019.0	U	38.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	0019.0	0019.0	U	44.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	0019.0	0019.0	U	29.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	0019.0	0019.0	U	51.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0019.0	0019.0	U	45.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0147.0	0147.0	1.0	150.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0147.0	0147.0	1.0	160.0			QL=4 ST=2 TYP=3
	245	PALE	4	S/F	0157.0	0200.0	6.0	120.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0158.0	0200.0	U	120.0			QL=4 ST=2 TYP=5
	245	LEAR	8	S	0259.0	0259.0	1.0	140.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0259.0	0259.0	1.0	140.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

DECEMBER 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
23	410	PALE	8	S	0259.0	0259.0	1.0	130.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0259.0	0259.0	U	150.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0510.0	0512.0	5.0	78.9			
	610	LEAR	8	S	0528.0	0528.0	1.0	350.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0528.0	0528.0	2.0	330.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0528.0	0528.0	1.0	170.0			QL=4 ST=2 TYP=3
	410	LEAR	49	GB	0528.0	0528.0	1.0	6100.0			QL=4 ST=2 TYP=6
	245	LEAR	49	GB	0528.0	0528.0	1.0	2300.0			QL=4 ST=2 TYP=6
	2695	LEAR	8	S	0528.0	0528.0	1.0	75.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	0528.0	0528.0	1.0	78.0			QL=4 ST=2 TYP=3
	15400	LEAR	4	S/F	0528.0	0528.0	1112.0	310.0			QL=4 ST=1 TYP=3
	2800	HIRA	3	S	0528.2	0528.6	1.5	65.0	48.0		O
	500	HIRA	46	C	0528.5	0528.7	3.0	320.0	60.0		WR
	245	LEAR	8	S	0534.0	0534.0	U	80.0			QL=4 ST=2 TYP=3
	950	GORK	1	S	0652.4	0652.6	1.3	2.0			
	2950	GORK	1	S	0652.4	0652.9	1.3	4.2			
	2950	GORK	23	GRF	0728.6	0841.0	211.0D	8.3			
	2950	GORK	2	S/F	0739.3	0741.6	3.7	4.8			
	9100	GORK	2	S/F	0739.5	0741.5	4.1	12.0			
	950	GORK	21	GRF	0748.0	0824.0	93.0	6.5			
	2950	GORK	1	S	0807.5	0808.8	2.2	2.7			
	950	GORK	2	S/F	0808.7	0808.9	0.5	10.0			
	3013	IZMI	7	C	0857.5	0859.0	8.5	29.0			
	2950	GORK	3	S	0857.9	0859.3	3.4	27.0			
	610	SVTO	8	S	0858.0	0859.0	1.0	170.0			QL=2 ST=2 TYP=3
	2695	SVTO	8	S	0858.0	0859.0	2.0	32.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0858.0	0859.0	1.0	83.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	0858.0	0859.0	2.0	20.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	0858.0	0859.0	2.0	66.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0858.0	0859.0	3.0	96.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	0858.0	0859.0	3.0	36.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	0858.0	0859.0	3.0	63.0			QL=4 ST=2 TYP=3
	950	GORK	4	S/F	0858.1	0859.1	1.9	141.0			
	9100	GORK	3	S	0858.3	0859.3	3.7	106.0			
	3000	ONDR	8	S	0859.0	0900.0	4.0				
	2950	GORK	46	C	0928.2	0930.0		5.8			
	2950	GORK	46	C	0928.2	0928.5	2.0	1.9			
	245	LEAR	4	S/F	0935.0	0937.0	3.0	210.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0935.0	0937.0	2.0	200.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0935.5	0937.0	2.7	72.0			
	245	SVTO	4	S/F	0948.0	0950.0	5.0	60.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0950.0	0950.0	1.0	67.0			QL=4 ST=2 TYP=3
	9100	GORK	1	S	0952.0	0953.4	3.7	7.7			
	33	UPIC	45	C	1000.0	1000.8	2.7				
	204	IZMI	42	SER	1139.0	1139.5	18.0	52.0			
	33	UPIC	45	C	1310.8	1312.0	2.5				
	245	SGMR	8	S	1627.0	1628.0	1.0	35.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1627.0	1628.0	1.0	75.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1627.0	1628.0	1.0	62.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	1833.0	1833.0	U	140.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1833.0	1833.0	U	160.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1900.0	1901.0	2.0	48.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	1901.0	1901.0	1.0	51.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1901.0	1901.0	1.0	120.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1901.0	1901.0	U	150.0			QL=4 ST=2 TYP=3
	610	PALE	49	GB	2021.0	2022.0	2.0	2200.0			QL=4 ST=2 TYP=6
	610	SGMR	49	GB	2022.0	2022.0	1.0	1800.0			QL=4 ST=2 TYP=6
	610	PALE	8	S	2026.0	2026.0	1.0	81.0			QL=4 ST=2 TYP=3
	610	SGMR	4	S/F	2026.0	2026.0	7.0	68.0			QL=4 ST=2 TYP=3
	15400	LEAR	4	S/F	2300.0	2302.0	5.0	150.0			QL=2 ST=2 TYP=3
24	245	LEAR	43	NS	0402.0	0402.0	211.0	97.0			QL=4 ST=2 TYP=1
	127	TORN	44	NS	0700.0E		440.0D		20.0		V=2
	204	IZMI	43	NS	0821.0		219.0D		100.0		
	245	SVTO	43	NS	0830.0	0838.0	273.0	200.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	0834.0	0834.0	926.0	220.0			QL=4 ST=3 TYP=1
	260	ONDR	44	NS	0900.0E	1016.0	180.0D	160.0			
	245	SGMR	43	NS	1236.0	1240.0	132.0	170.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1518.0	1524.0	22.0	78.0			QL=4 ST=2 TYP=1

SOLAR RADIO EMISSION
Outstanding Occurrences

DECEMBER 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
24	280	CUBA	44	NS	1523.0E		352.0D		24.0		
	235	CUBA	44	NS	1523.0E		352.0D		20.0		
	2800	HIRA	1	S	0521.8	0522.2	1.0	4.0			O
	3013	IZMI	41	F	0947.5	0951.2	5.0	8.0			
	536	ONDR	8	S	0951.5	0951.6	0.5	40.0			
	536	ONDR	7	C	1108.0	1108.5	4.0	48.0			
	245	SVTO	8	S	1420.0	1421.0	1.0	120.0			QL=4 ST=3 TYP=5
	245	SVTO	8	S	1432.0	1432.0	U	54.0			QL=4 ST=3 TYP=3
	610	PALE	4	S/F	1728.0	1728.0	5.0	77.0			QL=2 ST=2 TYP=3
	4995	SGMR	8	S	1728.0	1728.0	1.0	27.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1728.0	1728.0	1.0	120.0			QL=4 ST=2 TYP=3
	2800	PENT	3	S	1728.2	1729.1	1.7	12.1	4.0		
25	204	IZMI	43	NS	0700.0		300.0D		15.0		
	127	TORN	43	NS	0820.0		360.0		2.0		V=1
	260	ONDR	44	NS	0900.0E	1129.0	180.0D	200.0			
	245	LEAR	43	NS	2327.0	0041.0	141.0	120.0			QL=4 ST=2 TYP=1
	2800	HIRA	1	S	0426.0	0426.1	1.5	6.0			O
	3013	IZMI	41	F	0703.0	0703.5	10.0	11.1			
	410	SVTO	4	S/F	0710.0	0712.0	3.0	230.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0712.0	0712.0	U	89.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0841.0	0841.0	U	55.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	1006.5	1007.3	1.5	121.0			
	536	ONDR	8	S	1103.0	1103.5	1.5	50.0			
	245	SVTO	8	S	1122.0	1122.0	1.0	95.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1215.0	1215.0	2.0	84.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1233.0	1233.0	1.0	130.0			QL=4 ST=3 TYP=3
	245	SGMR	8	S	1541.0	1541.0	1.0	95.0			QL=4 ST=3 TYP=3
	8800	PALE	4	S/F	1753.0	1759.0	8.0	34.0			QL=2 ST=2 TYP=3
	8800	SGMR	4	S/F	1754.0	1754.0	7.0	51.0			QL=4 ST=3 TYP=3
	245	PALE	8	S	1822.0	1822.0	1.0	120.0			QL=4 ST=3 TYP=3
	245	SGMR	8	S	1822.0	1823.0	1.0	130.0			QL=4 ST=3 TYP=3
	245	PALE	8	S	1929.0	1929.0	1.0	79.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1929.0	1929.0	1.0	67.0			QL=4 ST=3 TYP=3
	245	SGMR	8	S	2021.0	2023.0	2.0	150.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2022.0	2023.0	2.0	170.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2327.0	2327.0	1.0	97.0			QL=4 ST=2 TYP=3
26	245	PALE	43	NS	0056.0	0140.0	93.0	91.0			QL=4 ST=2 TYP=1
	127	TORN	44	NS	0700.0E		410.0D		1.0		V=1
	260	ONDR	44	NS	0900.0E	0940.0U	180.0D				
	204	IZMI	43	NS	0908.0		172.0D		15.0		
	245	SGMR	43	NS	1314.0	1333.0	23.0	130.0			QL=4 ST=2 TYP=1
	245	PALE	8	S	0017.0	0017.0	U	73.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0028.0	0030.0	3.0	1800.0			QL=2 ST=2 TYP=6
	245	PALE	49	GB	0028.0	0030.0	3.0	1900.0			QL=4 ST=2 TYP=6
	410	LEAR	8	S	0029.0	0030.0	2.0	86.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0029.0	0030.0	2.0	120.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0041.0	0041.0	U	110.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0140.0	0140.0	U	400.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	0140.0	0140.0	U	360.0			QL=2 ST=2 TYP=3
	8800	LEAR	8	S	0408.0	0409.0	1.0	31.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0408.0	0409.0	1.0	51.0			QL=4 ST=2 TYP=3
	2800	HIRA	1	S	0408.3	0408.8	1.0	13.0	8.0		O
	245	LEAR	8	S	0510.0	0511.0	1.0	310.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0543.0	0543.0	1.0	88.0			QL=4 ST=2 TYP=3
	500	HIRA	42	SER	0546.5	0546.9	2.0	20.0			O
	245	LEAR	8	S	0547.0	0547.0	U	160.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0724.0	0726.0	2.0	280.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0725.0	0726.0	6.0	500.0			
	610	LEAR	8	S	0725.0	0726.0	1.0	69.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0725.0	0726.0	1.0	65.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0725.0	0726.0	3.0	3200.0			QL=4 ST=3 TYP=6
	245	SVTO	49	GB	0725.0	0726.0	3.0	3000.0			QL=4 ST=2 TYP=6
	410	SVTO	8	S	0725.0	0726.0	2.0	410.0			QL=2 ST=2 TYP=3
	3013	IZMI	7	C	0725.5	0726.0	2.5	55.0			
	1415	LEAR	8	S	0726.0	0726.0	U	50.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	0726.0	0726.0	2.0	49.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0726.0	0726.0	U	63.0			QL=4 ST=2 TYP=3

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

DECEMBER 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
26	610	SVTO	8	S	0726.0	0726.0	1.0	59.0			QL=2 ST=2 TYP=3
	410	LEAR	8	S	0915.0	0916.0	2.0	57.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0915.0	0916.0	1.0	23.0			QL=4 ST=2 TYP=3
	245	SVTO	49	GB	0938.0	0939.0	3.0	1700.0			QL=4 ST=3 TYP=6
	204	IZMI	7	C	0939.0	0941.0	5.0	7.0	3.0		
	245	LEAR	49	GB	0939.0	0939.0	2.0	1700.0			QL=4 ST=2 TYP=6
	410	LEAR	8	S	0939.0	0939.0	U	42.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0939.0	0939.0	2.0	86.0			QL=2 ST=3 TYP=3
	204	IZMI	41	F	0939.5	0939.8	5.0	360.0			
	260	ONDR	45	C	0939.7	0940.0U	5.0				
	245	LEAR	8	S	1015.0	1016.0	2.0	75.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	1030.0	1030.0	2.0	180.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1030.0	1030.0	U	150.0			QL=4 ST=2 TYP=3
	260	ONDR	8	S	1053.0	1053.0	1.0	508.0			
	245	SVTO	8	S	1053.0	1053.0	U	200.0			QL=4 ST=2 TYP=3
	260	ONDR	8	S	1120.0	1120.0	0.5				
	536	ONDR	45	C	1126.0	1128.0	5.0	55.0			
	808	ONDR	8	S	1127.5	1127.8	1.0				
	410	SGMR	4	S/F	1251.0	1253.0	4.0	280.0			QL=4 ST=3 TYP=3
	245	SGMR	4	S/F	1252.0	1253.0	3.0	420.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1253.0	1253.0	2.0	89.0			QL=4 ST=3 TYP=3
	410	SGMR	8	S	1508.0	1508.0	1.0	85.0			QL=4 ST=2 TYP=3
	410	SGMR	49	GB	1554.0	1555.0	2.0	6000.0			QL=4 ST=2 TYP=6
	1415	SGMR	8	S	1555.0	1556.0	1.0	79.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1555.0	1555.0	1.0	47.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1555.0	1555.0	2.0	69.0			QL=4 ST=2 TYP=3
	245	SGMR	49	GB	1555.0	1556.0	5.0	1600.0			QL=4 ST=2 TYP=7
	15400	SGMR	4	S/F	1555.0	1555.0	5.0	28.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1555.0	1555.0	1.0	110.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	1555.0	1555.0	5.0	65.0			QL=4 ST=2 TYP=3
	2800	PENT	4	S/F	1702.5	1705.9	5.3	17.9	7.0		
	245	SGMR	8	S	1703.0	1704.0	1.0	67.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1703.0	1707.0	5.0	23.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	1703.0	1706.0	5.0	31.0			QL=4 ST=2 TYP=3
	610	SGMR	4	S/F	1703.0	1707.0	4.0	100.0			QL=4 ST=2 TYP=3
	410	SGMR	4	S/F	1703.0	1706.0	3.0	57.0			QL=4 ST=2 TYP=3
	410	SGMR	4	S/F	1737.0	1738.0	3.0	36.0			QL=4 ST=2 TYP=3
	245	SGMR	4	S/F	1737.0	1738.0	3.0	210.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1738.0	1738.0	U	140.0			QL=2 ST=2 TYP=3
	610	SGMR	8	S	1738.0	1738.0	2.0	23.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1753.0	1754.0	2.0	24.0			QL=4 ST=2 TYP=3
	245	PALE	4	S/F	1753.0	1754.0	3.0	86.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1753.0	1754.0	1.0	86.0			QL=4 ST=2 TYP=3
	610	PALE	4	S/F	1754.0	1756.0	4.0	19.0			QL=4 ST=2 TYP=3
	2800	PENT	4	S/F	1834.5	1836.5	6.8	8.6	2.0		
	410	PALE	4	S/F	1930.0	1932.0	6.0	160.0			QL=4 ST=2 TYP=3
	610	PALE	4	S/F	1930.0	1932.0	6.0	82.0			QL=4 ST=2 TYP=3
	245	PALE	4	S/F	1930.0	1933.0	6.0	100.0			QL=4 ST=2 TYP=3
	410	SGMR	4	S/F	1930.0	1932.0	4.0	160.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1932.0	1932.0	2.0	160.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1933.0	1933.0	1.0	97.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1956.0	1956.0	U	62.0			QL=4 ST=2 TYP=3
	410	PALE	4	S/F	2029.0	2030.0	4.0	43.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2029.0	2030.0	1.0	48.0			QL=4 ST=2 TYP=3
	2800	PENT	4	S/F	2029.0	2030.1	2.8	7.4	3.0		
	2800	PENT	29	PBI	2031.8	2033.2	7.1	3.5	1.0		
	500	HIRA	46	C	2356.0	2357.4	4.0	260.0	40.0		O
27	260	ONDR	44	NS	0900.0E	0928.5	180.0D				
	235	CUBA	44	NS	1500.0E		204.0D		11.0		
	280	CUBA	44	NS	1500.0E		204.0D		16.0		
	500	HIRA	46	C	0313.0	0315.0	6.0	120.0	20.0		O
	610	LEAR	4	S/F	0313.0	0313.0	3.0	190.0			QL=4 ST=2 TYP=5
	410	LEAR	4	S/F	0313.0	0313.0	4.0	180.0			QL=4 ST=2 TYP=5
	610	PALE	4	S/F	0313.0	0313.0	3.0	190.0			QL=4 ST=2 TYP=5
	410	PALE	4	S/F	0313.0	0316.0	5.0	210.0			QL=4 ST=2 TYP=5
	2800	HIRA	40	F	0313.0	0316.3	6.0	43.0			O
	245	LEAR	8	S	0314.0	0314.0	U	55.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0314.0	0314.0	U	69.0			QL=4 ST=2 TYP=3

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

DECEMBER 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
27	1415	PALE	8	S	0315.0	0316.0	1.0	31.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0316.0	0316.0	U	30.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	0316.0	0316.0	U	25.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	0318.0	0320.0	3.0	250.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0320.0	0320.0	1.0	260.0			QL=4 ST=2 TYP=3
	500	HIRA	42	SER	0348.0	0349.5	4.0	100.0			O
	500	HIRA	8	S	0517.0	0517.3	0.7	185.0			O
	204	IZMI	41	F	0737.5	0738.0	25.0	19.0			
	2950	GORK	23	GRF	0824.7	0915.0	179.3U	10.5			
	127	TORN	4	S/F	0906.5	0907.6	2.0	160.0	60.0		
	3013	IZMI	7	C	0910.0	0913.3	95.0	21.0			
	950	GORK	21	GRF	0910.1	0914.3	16.9	5.0			
	2950	GORK	4	S/F	0911.7	0913.4	2.6	23.0			
	950	GORK	4	S/F	0911.9	0913.1	2.3	14.0			
	2695	SVTO	8	S	0912.0	0913.0	1.0	31.0			QL=4 ST=2 TYP=3
	536	ONDR	8	S	0912.0	0912.3	1.0				
	4995	SVTO	8	S	0913.0	0913.0	U	21.0			QL=4 ST=2 TYP=3
	260	ONDR	45	C	0915.0	0918.0	7.0	330.0			
	245	LEAR	49	GB	0916.0	0917.0	1.0	600.0			QL=4 ST=2 TYP=6
	245	SVTO	49	GB	0916.0	0917.0	2.0	550.0			QL=4 ST=2 TYP=6
	204	IZMI	41	F	0917.0	0917.5	13.0	350.0			
	536	ONDR	45	C	0924.0	0924.5	5.0				
	245	LEAR	8	S	0928.0	0928.0	U	480.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0928.0	0928.0	2.0	76.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0928.0	0928.0	2.0	460.0			QL=4 ST=2 TYP=3
	3013	IZMI	42	SER	0950.0	0951.0	50.0	16.0			
	2950	GORK	2	S/F	0950.3	0951.3	1.5	14.0			
	204	IZMI	41	F	0953.0	0954.0	20.0	330.0			
	2950	GORK	2	S/F	0953.3	0953.7	0.9	12.0			
	536	ONDR	8	S	0953.5	0954.0	1.0	70.0			
	9100	GORK	7	C	1053.3	1055.7		9.2			
	204	IZMI	41	F	1100.5	1101.0	20.0	230.0			
	204	IZMI	7	C	1116.0	1116.2	0.2	50.0			
	204	IZMI	7	C	1157.5	1158.0	13.0	230.0			
	245	SGMR	8	S	1326.0	1326.0	U	200.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1326.0	1326.0	U	190.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1355.0	1355.0	1.0	46.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1444.0	1445.0	2.0	84.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1444.0	1445.0	1.0	130.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1445.0	1445.0	U	110.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1739.0	1740.0	2.0	140.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1740.0	1740.0	1.0	91.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1740.0	1740.0	2.0	91.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1740.0	1740.0	2.0	160.0			QL=4 ST=2 TYP=3
	2800	PENT	20	GRF	1834.0	2020.0	225.0	13.7	8.0		
	2800	PENT	3	S	1850.3	1851.1	3.1	11.0	3.0		
	500	HIRA	42	SER	2312.2	2312.7	7.5	12.0			O
28	204	IZMI	43	NS	1119.0		40.0D	10.0			
	280	CUBA	44	NS	1340.0E		415.0D		13.0		
	235	CUBA	44	NS	1340.0E		415.0D		13.0		
	2800	HIRA	20	GRF	0024.6	0025.5	25.0	4.0	2.0		O
	2800	HIRA	1	S	0232.2	0233.0	3.0	12.0	7.0		O
	2800	HIRA	45	C	0248.0	0250.7	9.0	15.0	10.0		O
	9100	GORK	1	S	0739.3	0740.5	1.9	10.0			
	9100	GORK	1	S	0743.0	0743.4	1.7	6.9			
	9100	GORK	41	F	0758.6	0802.1		5.1			
	9100	GORK	41	F	0758.6	0759.6	5.0	6.9			
	9100	GORK	7	C	0827.2	0828.2	3.6	5.1			
	9100	GORK	7	C	0827.2	0829.9		3.4			
	3013	IZMI	7	C	0831.0	0832.8	45.0	7.0			
	2950	GORK	2	S/F	0831.5	0832.7	5.9	5.5			
	204	IZMI	42	SER	0832.0	0832.7	65.0	360.0			
	2950	GORK	21	GRF	0857.5	0922.2	52.5	4.8			
	4995	SVTO	8	S	0858.0	0859.0	2.0	30.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	0858.0	0859.0	2.0	6.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	0858.0	0900.0	2.0	13.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0858.0	0859.0	2.0	300.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0859.0	0859.0	U	300.0			QL=4 ST=2 TYP=3

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

DECEMBER 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
28	2695	LEAR	8	S	0859.0	0859.0	1.0	32.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0859.0	0859.0	U	30.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0859.0	0859.0	1.0	29.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0859.0	0859.0	1.0	21.0			QL=4 ST=2 TYP=3
	2950	GORK	4	S/F	0859.2	0859.6	2.8	23.0			
	9100	GORK	2	S/F	0859.3	0859.6	1.3	18.0			
	950	GORK	1	S	0859.3	0859.7	7.8	6.0			
	9100	GORK	29	PBI	0900.6	0901.2	4.3	4.3			
	260	ONDR	40	F	0923.0	0930.0	10.0	45.0			
	9100	GORK	2	S/F	0944.4	0945.3	1.6	4.3			
	9100	GORK	6	S	1035.0	1035.7	1.0	21.0			
	9100	GORK	29	PBI	1036.0	1036.0	3.0	7.7			
	536	ONDR	8	S	1114.0	1114.0	0.5	72.0			
	610	SVTO	8	S	1207.0	1208.0	2.0	10.0			QL=4 ST=2 TYP=3
	410	SVTO	4	S/F	1207.0	1208.0	3.0	14.0			QL=4 ST=2 TYP=3
	3000	ONDR	45	C	1207.5	1209.0	2.5				
	1415	SVTO	4	S/F	1208.0	1209.0	3.0	30.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1208.0	1209.0	3.0	130.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	1208.0	1209.0	3.0	49.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1208.0	1209.0	2.0	25.0			QL=4 ST=2 TYP=3
	127	TORN	46	C	1208.2	1213.0	5.5	100.0	15.0		
	245	SVTO	49	GB	1211.0	1212.0	1.0	1300.0			QL=4 ST=2 TYP=6
	610	SGMR	4	S/F	1654.0	1655.0	5.0	54.0			QL=4 ST=2 TYP=3
	8800	SGMR	20	GRF	1654.0	1701.0	10.0	31.0			QL=4 ST=2 TYP=2
	2695	SGMR	4	S/F	1654.0	1654.0	10.0	30.0			QL=4 ST=2 TYP=3
	15400	SGMR	20	GRF	1654.0	1700.0	10.0	38.0			QL=4 ST=2 TYP=2
	4995	SGMR	4	S/F	1654.0	1655.0	10.0	30.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1657.0	1658.0	1.0	74.0			QL=4 ST=2 TYP=3
	500	HIRA	42	SER	2312.2	2312.7	7.5	12.0			O
	2800	HIRA	8	S	2312.5	2312.6	0.2	14.0			O
	245	LEAR	8	S	2317.0	2317.0	U	210.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2317.0	2317.0	1.0	270.0			QL=4 ST=2 TYP=3
29	204	IZMI	43	NS	0902.0		50.0		5.0		
	235	CUBA	44	NS	1527.0E		355.0D		12.0		
	280	CUBA	44	NS	1527.0E		355.0D		19.0		
	8800	LEAR	8	S	0546.0	0546.0	1.0	55.0			QL=4 ST=2 TYP=3
	4995	SGMR	20	GRF	1528.0	1531.0	57.0	39.0			QL=4 ST=2 TYP=2
	8800	SGMR	20	GRF	1528.0	1537.0	57.0	28.0			QL=4 ST=2 TYP=2
	2695	SGMR	20	GRF	1529.0	1549.0	56.0	22.0			QL=4 ST=2 TYP=2
	15400	SGMR	20	GRF	1530.0	1548.0	55.0	27.0			QL=4 ST=2 TYP=2
	2695	PALE	8	S	1744.0	1745.0	1.0	47.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	1745.0	1745.0	U	62.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	1745.0	1745.0	U	37.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1745.0	1745.0	U	38.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1745.0	1745.0	U	37.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1745.0	1745.0	U	79.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	2214.3	2214.6	0.6	15.0			O
30	260	ONDR	44	NS	0920.0E	1000.0U	180.0D				
	245	SVTO	43	NS	1159.0	1201.0	44.0	140.0			QL=4 ST=2 TYP=1
	280	CUBA	44	NS	1430.0E		340.0D		25.0		
	235	CUBA	44	NS	1530.0E		270.0D		22.0		
	15400	LEAR	4	S/F	0618.0	0621.0	5.0	60.0			QL=4 ST=2 TYP=5
	8800	LEAR	8	S	0618.0	0618.0	1.0	33.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0618.0	0619.0	1.0	29.0			QL=4 ST=2 TYP=3
	4995	LEAR	4	S/F	0618.0	0621.0	4.0	49.0			QL=4 ST=3 TYP=3
	2800	HIRA	45	C	0618.0	0618.6	6.0	24.0	10.0		O
	2950	GORK	2	S/F	0618.0	0618.9	1.7	16.0			
	9100	GORK	6	S	0618.4	0618.8	1.2	1.0			
	2950	GORK	2	S/F	0620.8	0621.8	1.7	6.3			
	9100	GORK	6	S	0621.4	0621.6	0.7	18.0			
	410	LEAR	8	S	0820.0	0821.0	1.0	270.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0820.0	0821.0	1.0	300.0			QL=4 ST=2 TYP=3
	9100	GORK	21	GRF	0837.5	0921.0	79.5	13.0			
	9100	GORK	1	S	0916.5	0917.3	2.7	8.0			
	245	LEAR	8	S	0920.0	0920.0	1.0	360.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0920.0	0920.0	1.0	440.0			QL=4 ST=2 TYP=3
	204	IZMI	7	C	0920.5	0920.7	10.0	150.0			

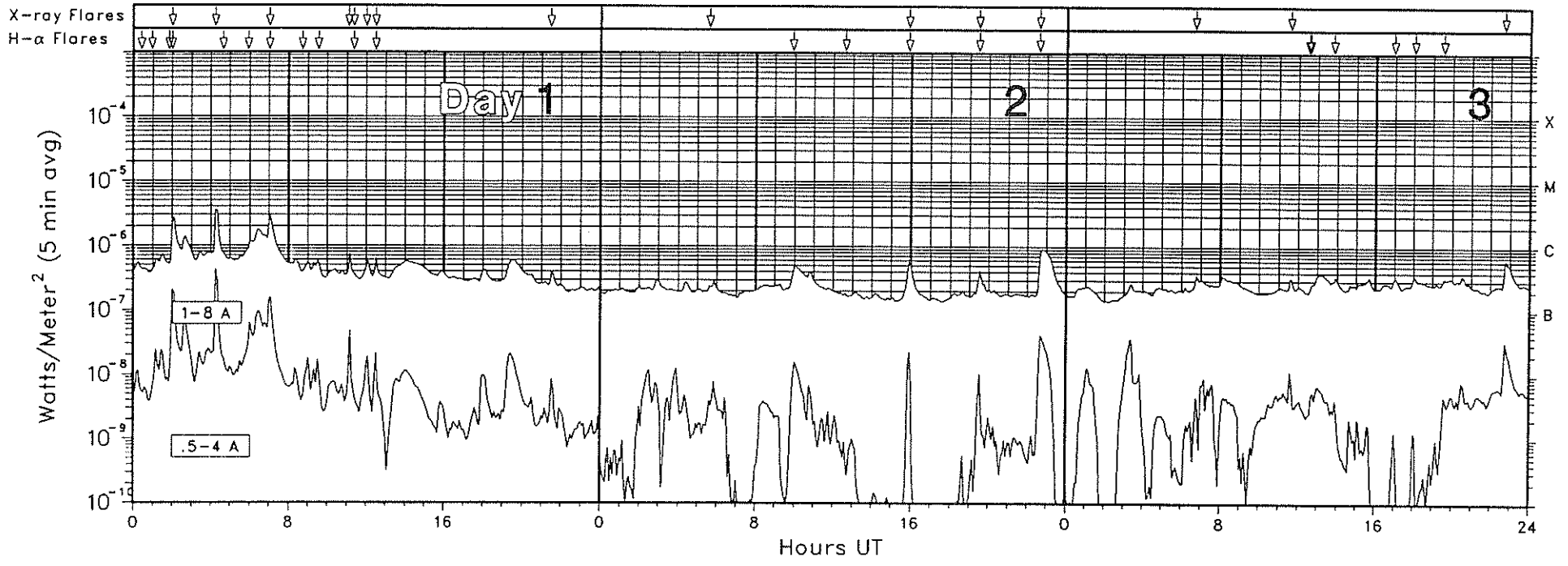
S O L A R R A D I O E M I S S I O N
Outstanding Occurrences

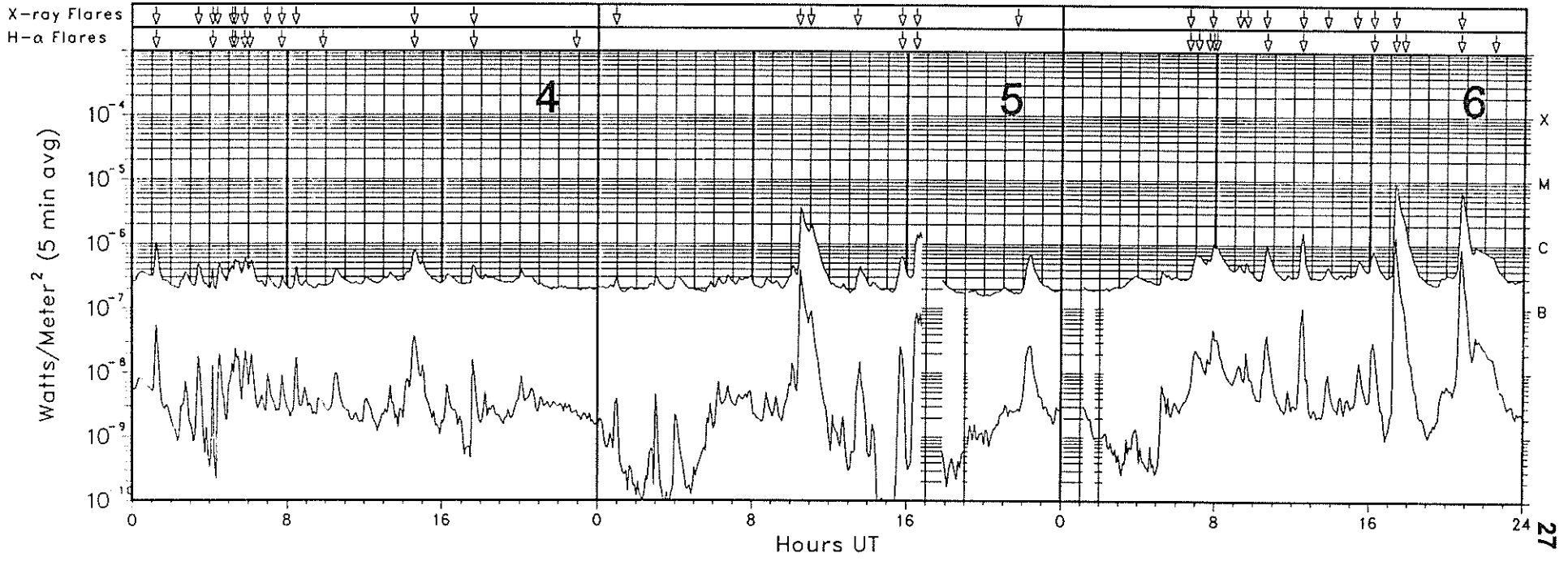
DECEMBER 1993

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
30	245	LEAR	8	S	0959.0	0959.0	U	130.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0959.0	0959.0	1.0	160.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	1005.0	1006.0	1.0	160.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1005.0	1006.0	1.0	210.0			QL=4 ST=2 TYP=3
	536	ONDR	8	S	1033.0	1033.2	1.5	100.0			
	245	SVTO	8	S	1202.0	1203.0	1.0	180.0			QL=2 ST=2 TYP=3
	410	SVTO	8	S	1203.0	1203.0	U	200.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	1207.0	1207.0	2.0	500.0			QL=2 ST=2 TYP=3
	410	SVTO	49	GB	1207.0	1207.0	1.0	560.0			QL=2 ST=2 TYP=6
	245	SGMR	49	GB	1253.0	1254.0	1.0	520.0			QL=4 ST=2 TYP=6
	245	SVTO	8	S	1253.0	1254.0	2.0	440.0			QL=2 ST=2 TYP=3
	1415	SVTO	8	S	1254.0	1254.0	U	32.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1425.0	1425.0	U	120.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1425.0	1425.0	U	83.0			QL=2 ST=2 TYP=3
	245	SGMR	49	GB	1451.0	1451.0	U	700.0			QL=4 ST=3 TYP=6
	245	SVTO	49	GB	1451.0	1451.0	U	610.0			QL=2 ST=2 TYP=6
	245	SGMR	8	S	1638.0	1638.0	U	100.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1708.0	1709.0	2.0	33.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1855.0	1855.0	U	60.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1959.0	2000.0	1.0	180.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1959.0	2000.0	1.0	190.0			QL=4 ST=2 TYP=3
	2800	PENT	3	S	2117.3	2118.5	4.5	53.2	12.0		
	1415	PALE	8	S	2118.0	2118.0	U	30.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	2118.0	2118.0	U	30.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	2118.0	2118.0	1.0	58.0			QL=4 ST=2 TYP=3
31	204	IZMI	43	NS	0700.0		300.0D		20.0		
	127	TORN	44	NS	0700.0E		440.0D		1.0		V=1?,DISTURBED
	245	SVTO	43	NS	0726.0	0821.0	55.0	120.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	0726.0	0821.0	206.0	130.0			QL=4 ST=2 TYP=1
	260	ONDR	44	NS	0900.0E	1051.5	180.0D	170.0			
	410	PALE	4	S/F	0046.0	0049.0	4.0	300.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0047.0	0049.0	2.0	640.0			QL=4 ST=2 TYP=6
	245	PALE	49	GB	0047.0	0049.0	3.0	780.0			QL=4 ST=2 TYP=6
	500	HIRA	42	SER	0048.0	0049.7	2.5	40.0			O
	245	LEAR	8	S	0250.0	0250.0	U	98.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0250.0	0250.0	1.0	95.0			QL=4 ST=2 TYP=3
	500	HIRA	1	S	0331.8	0332.6	1.5	10.0			O
	245	PALE	8	S	0332.0	0332.0	1.0	250.0			QL=4 ST=2 TYP=3
	2800	HIRA	1	S	0441.0	0442.0	1.0	7.0			O
	410	LEAR	8	S	0442.0	0442.0	1.0	77.0			QL=4 ST=2 TYP=3
	500	HIRA	42	SER	0442.0	0443.1	4.0	30.0			O
	9100	GORK	1	S	0818.5	0818.8	0.6	21.0			
	3013	IZMI	41	F	0829.5	0830.2	25.0	10.0			
	2950	GORK	2	S/F	0829.7	0830.3	1.8	8.3			
	9100	GORK	1	S	0857.3	0857.5	0.5	14.0			
	536	ONDR	8	S	1008.0	1008.5	1.5	48.0			
	3013	IZMI	5	S	1008.5	1010.0	30.0	4.0	2.0		
	33	UPIC	40	F	1015.0	1047.1	112.0				
	245	SVTO	8	S	1055.0	1055.0	U	58.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	1128.0	1128.0	1.0	140.0			QL=2 ST=2 TYP=3
	410	SVTO	8	S	1128.0	1129.0	1.0	130.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1423.0	1423.0	1.0	67.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1423.0	1423.0	1.0	67.0			QL=2 ST=2 TYP=3
	410	SGMR	8	S	1427.0	1427.0	2.0	74.0			QL=4 ST=2 TYP=3
	245	SGMR	49	GB	1427.0	1428.0	2.0	530.0			QL=4 ST=2 TYP=6
	245	SVTO	8	S	1428.0	1428.0	U	460.0			QL=2 ST=2 TYP=3
	410	SVTO	8	S	1428.0	1428.0	1.0	36.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1847.0	1849.0	2.0	78.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1941.0	1941.0	1.0	50.0			QL=4 ST=2 TYP=3

GOES-7 X-RAY DETECTOR

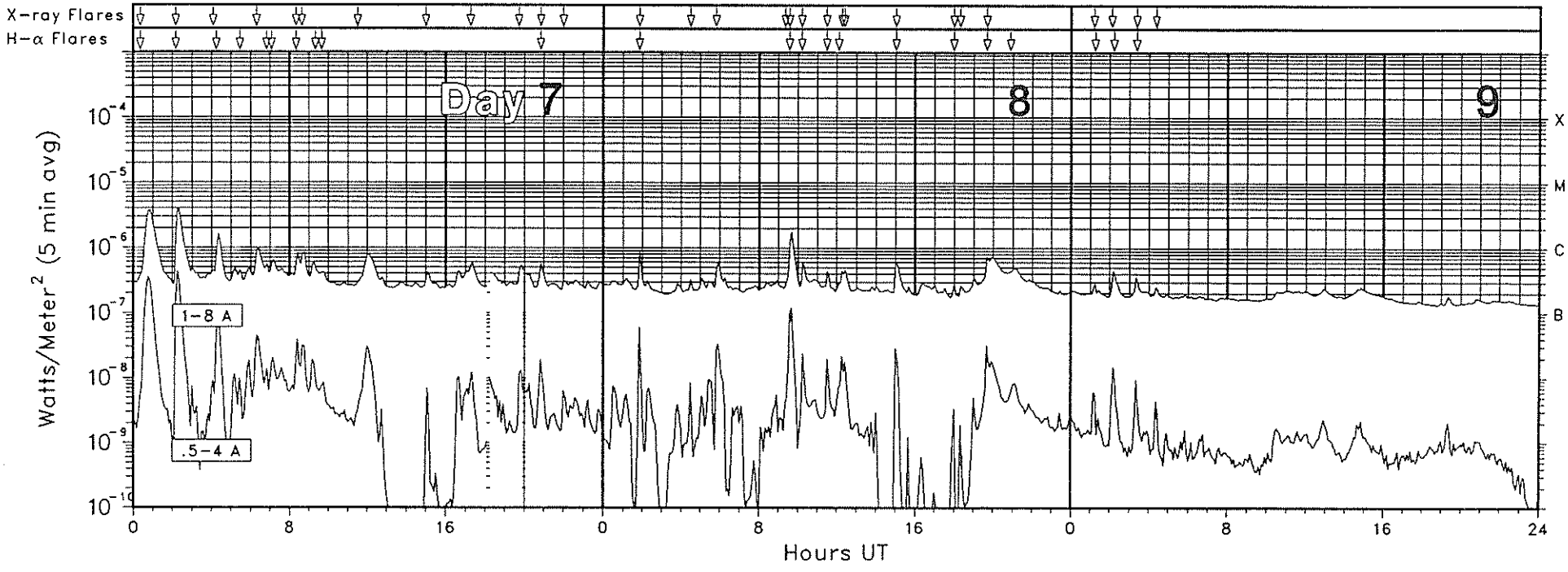
December 1993

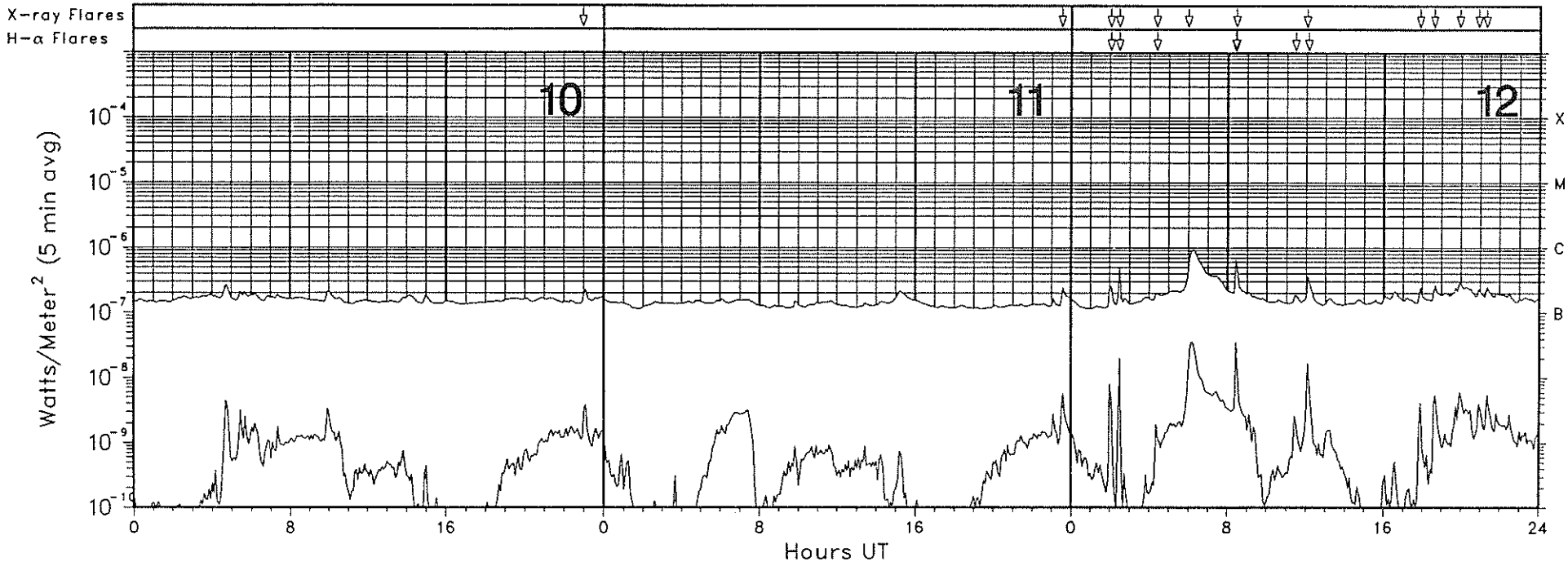




GOES-7 X-RAY DETECTOR

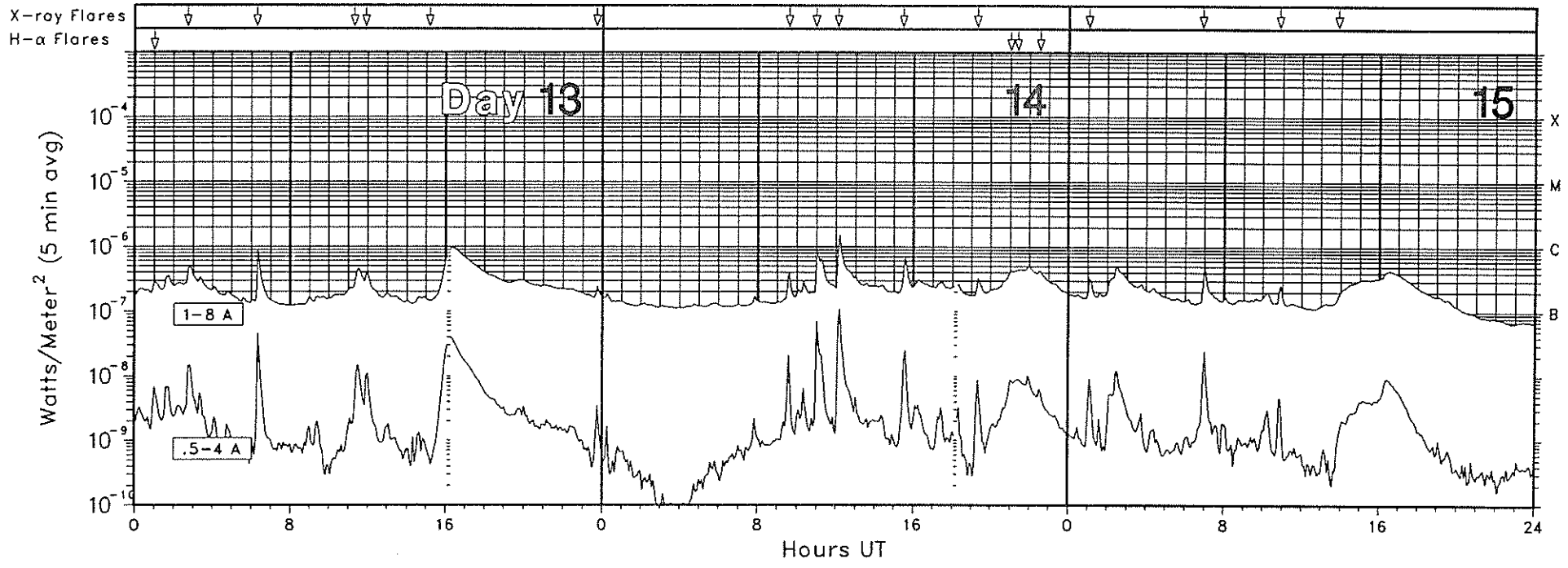
December 1993

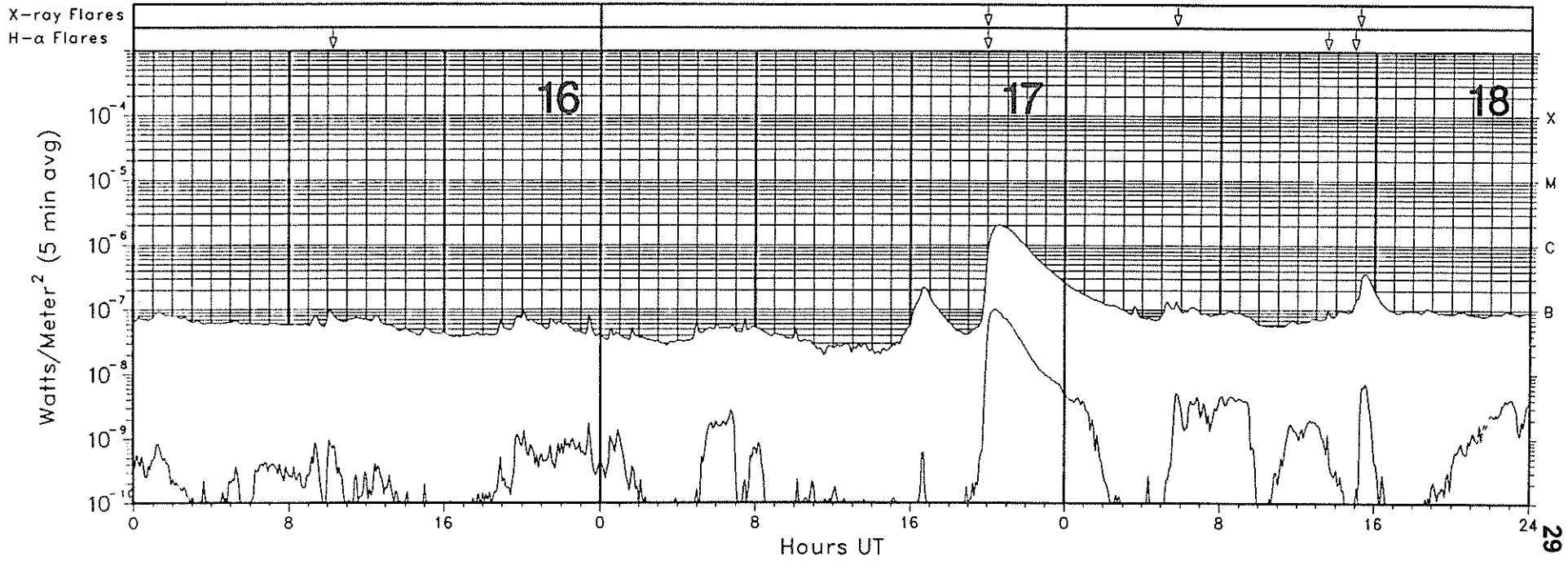




GOES-7 X-RAY DETECTOR

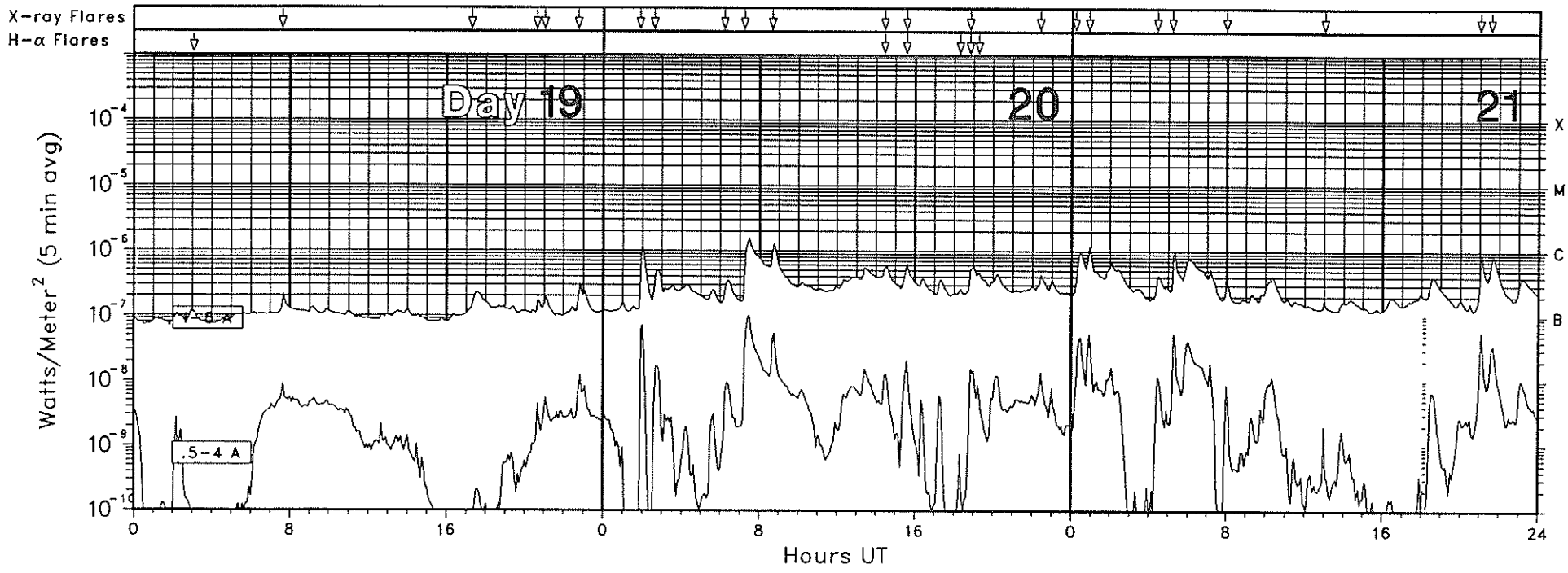
December 1993

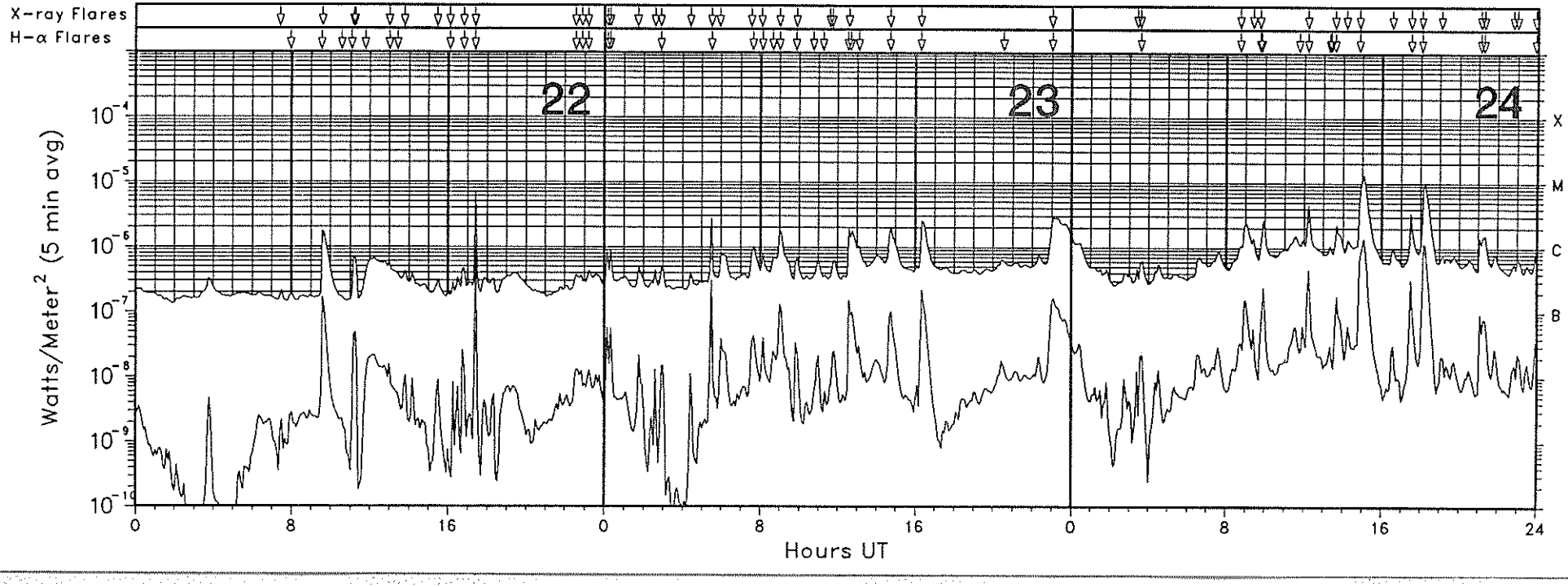




GOES-7 X-RAY DETECTOR

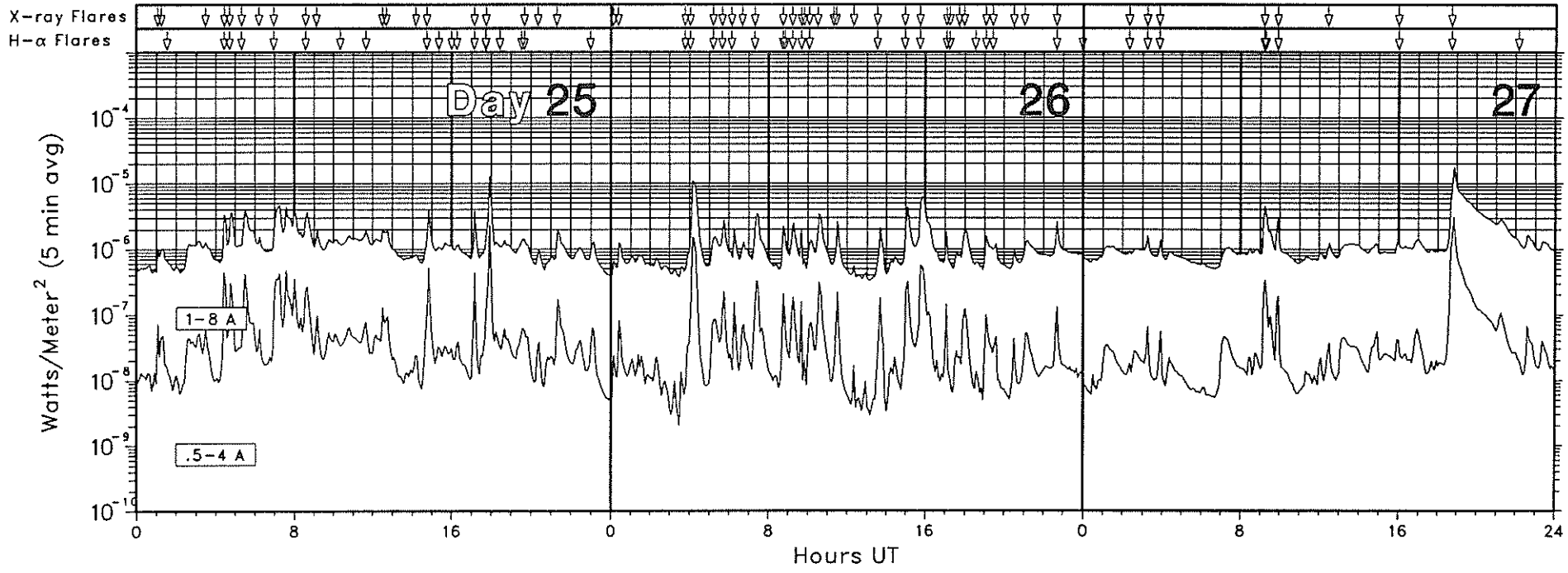
December 1993

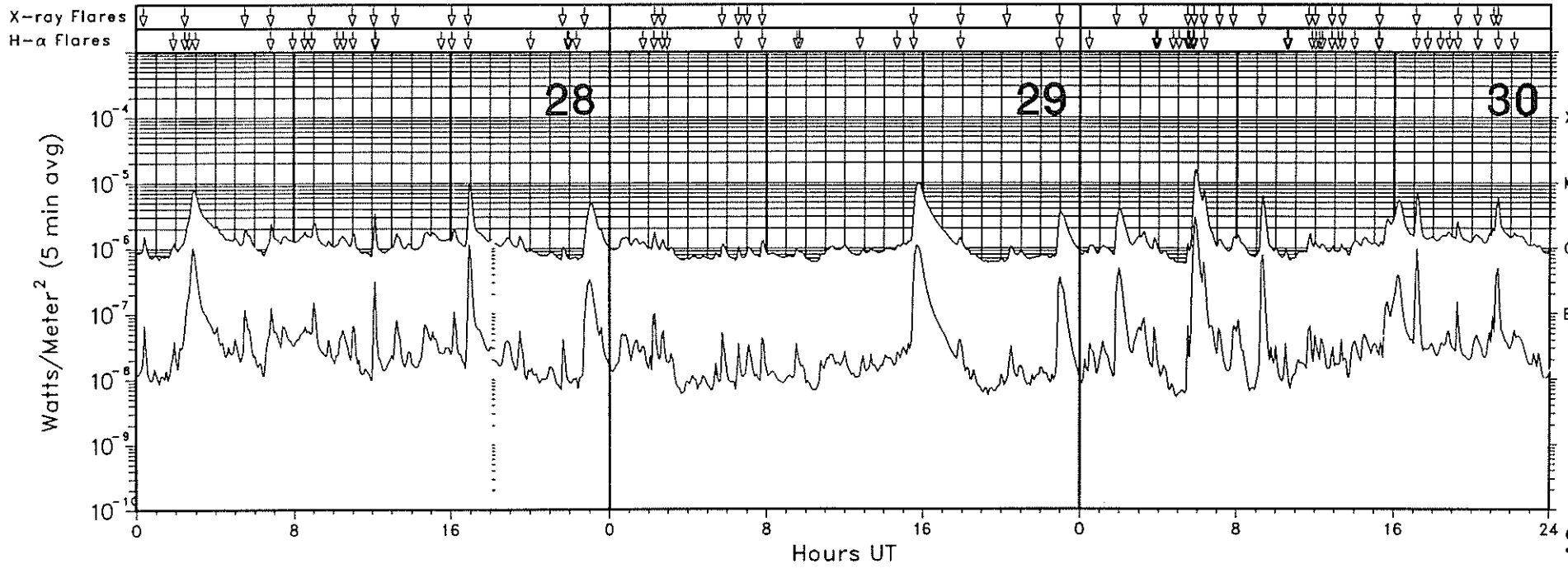




GOES-7 X-RAY DETECTOR

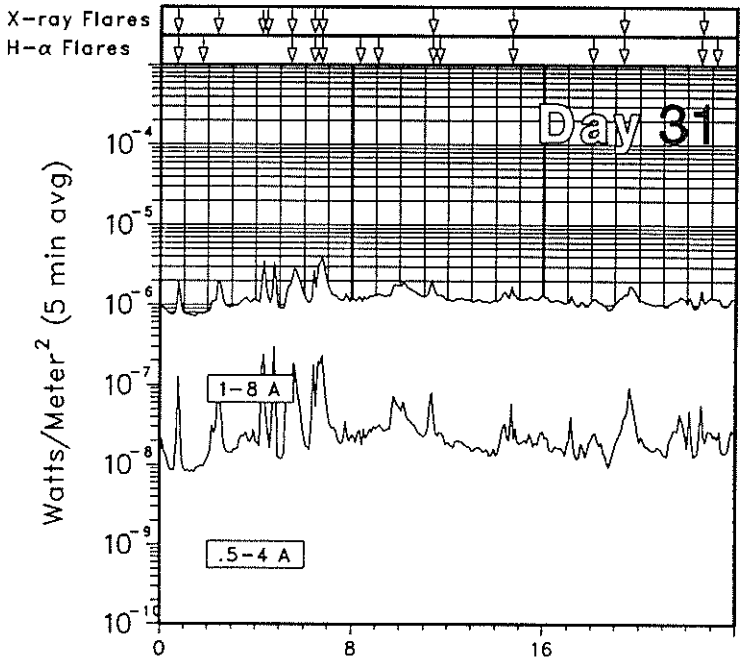
December 1993





GOES-7 X-RAY DETECTOR

December 1993



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

December 1993

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Imp Opt	Xray	NOAA/ USAF Region
01	0159	0205	0227	N05	W18	SF	C3.2	7624
01	0415	0419	0431	N05	W21	1N	C5.0	7624
01	0701	0702	0710	S23	E65	SF	C3.1	7627
01	1105	1109	1111				B5.4	
01	1121	1124U	1124	N03	W22	SF	C1.4	7624
01	1200	1205	1211				B6.1	
01	1229	1230	1234	N04	W24	SF	B8.6	7624
01	2127	2134	2138				B4.1	
02	0536	0539	0541				B2.8	
02	1553	1557	1605	S16	E55	SF	B6.4	7627
02	1928	1928	1941	S18	E48	SF	B4.5	7627
02	2236	2241	2309	S19	E48	SF	B9.2	7627
03	0641	0645	0656				B3.8	
03	1135	1139	1142				B4.4	
03	2241	2248	2303				B6.8	
04	0112	0118	0125	S23	E52	SF	C1.2	7629
04	0324	0328	0333				B5.5	
04	0410	0411	0416	S22	E53	SF	B5.2	7629
04	0424	0431	0441				B4.9	
04	0510	0511	0514	S23	E50	SF	B5.2	7629
04	0518	0518	0526	S23	E50	SF	B6.6	7629
04	0547	0554	0559	S23	E50	SF	B6.3	7629
04	0658	0704	0708				B3.7	
04	0741	0747	0757	S23	E51	SF	B3.4	7629
04	0826	0830	0833				B5.6	
04	1432	1436	1442	S21	E49	SF	B8.3	7629
04	1736	1738	1747	S22	E44	SF	B5.6	7629
05	0056	0100	0104				B3.2	
05	1025	1033	1042				C4.3	
05	1059	1104	1111				C2.1	
05	1323	1336	1351				B4.7	
05	1541	1542	1548	S22	E35	SF	B6.7	7629
05	1626	1645	1652	S22	E33	SF	C1.6	7629
05	2140	2226	2235				B7.2	
06	0638	0653	0701	S23	E25	SF	B7.1	7629
06	0747	0756	0814				C1.0	
06	0911	0916	0931				B5.1	
06	0934	0938	0942				B6.0	
06	1034	1041	1048				C1.0	
06	1226	1232	1240	S22	E21	SF	C1.7	7629
06	1343	1352	1357				B4.8	
06	1515	1528	1538				B6.2	
06	1608	1609	1624	S22	E21	SF	B7.8	7629
06	1717	1721	1817	S22	E19	1N	C9.7	7629
06	2040	2045	2106	S23	E16	SF	C7.5	7629
07	0021	0045	0118	S22	E12	SF	C3.8	7629
07	0211	0213	0236	S21	E12	SF	C4.2	7629
07	0404	0419	0437	S21	E10	SF	C1.7	7629
07	0618	0623	0630				C1.0	
07	0820	0829	0903	S18	W11	SF	B9.3	7627
07	0837	0845	0849				B9.6	
07	1129	1206	1221				B8.0	
07	1500	1508	1513				B4.5	
07	1715	1720U	1722D				B6.2	
07	1943	1950	1959				B5.7	
07	2050	2051	2105	S11	E02	SF	B6.2	7630
07	2159	2203	2210				B3.3	
08	0150	0152	0155	S22	E01	SF	C1.0	7629
08	0429	0433	0435				B3.9	
08	0548	0558	0604				B6.2	
08	0921	0925	0928				B3.4	
08	0933	0939	1012	S22	W04	SF	C1.8	7629
08	1012	1016	1032	S24	W21	SF	B6.9	7627
08	1129	1134	1136				B5.6	
08	1215	1218	1220				B6.3	
08	1223	1226	1231				B4.8	
08	1501	1502	1515	S22	W08	SF	B7.9	7629
08	1759	1800	1803	S21	W08	SF	B3.5	7629
08	1819	1823	1827				B3.0	
08	1941	1942	1946	S10	W11	SF	B8.3	7630
09	0111	0114	0116				B4.2	
09	0206	0214	0220				B4.9	
09	0321	0321	0326	S22	W15	SF	B4.1	7629
09	0420	0424	0426				B3.1	
10	2258	2305	2310				B2.5	
11	2331	2336	2344				B2.5	
12	0203	0203	0210	S20	W62	SF	B3.9	7633
12	0229	0231	0237	S22	W75	1F	B6.5	7627
12	0423	0424	0429	S20	W64	SF	B2.3	7633
12	0559	0617	0634				B9.4	
12	0826	0826	0834	S21	W55	SF	B7.9	7629
12	1202	1206	1214				B3.8	
12	1752	1755	1758				B2.8	
12	1835	1839	1844				B3.0	
12	1955	1958	2002				B3.4	
12	2054	2057	2101				B2.6	
12	2118	2122	2126				B2.7	
13	0243	0252	0259				B5.0	
13	0617	0623	0626				C1.1	
13	1119	1132	1144				B4.6	
13	1153	1159	1204				B4.3	
13	1509	1619	1724				B9.6	
13	2342	2346	2350				B2.5	
14	0934	0938	0941				B5.0	
14	1057	1102	1106				C1.2	
14	1204	1210	1214				C2.1	
14	1527	1536	1542				B7.2	
14	1916	1921	1930				B3.4	
15	0102	0106	0114				B3.5	
15	0652	0701	0705				B6.5	
15	1049	1055	1059				B2.9	
15	1351	1632	1736				B4.3	T
17	1958	2001	2149	N07	E43	SF	C2.0	7635
18	0544	0547	0549				B1.6	
18	1512	1516	1538	S00	E28	SN	B3.6	7635
19	0736	0741	0747				B2.2	
19	1717	1736	1748				B2.3	
19	2038	2042	2049				B1.9	
19	2101	2108	2113				B2.1	
19	2245	2253	2257				B3.2	
20	0152	0200	0209				C1.3	
20	0235	0245	0259				B5.2	
20	0613	0625	0638				B3.6	
20	0713	0731	0751				C1.5	

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

December 1993

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/ USAF Region
20	0838	0846	0854				C1.3	
20	1425	1426	1431	N08	E80	SF	B6.0	7640
20	1533	1535	1553	N07	E76	SF	B6.8	7640
20	1849	1852	1902	N08	E74	SF	B6.4	7640
20	2222	2225	2236				B4.7	
21	0012	0030	0042				C1.0	
21	0053	0057	0102				C1.2	
21	0424	0429	0438				B4.6	
21	0511	0520	0524				C1.2	
21	0757	0802	0808				B3.5	
21	1259	1302	1304				B2.3	
21	2100	2105	2113				C1.0	
21	2134	2142	2150				B8.7	
22	0726	0730	0734				B2.3	
22	0936	0937	0943	N09	E56	SF	C2.1	7640
22	1111	1115	1121	N07	E49	SF	C1.2	7640
22	1115	1119	1121				C1.4	
22	1300	1302	1308	N06	E46	SF	B7.0	7640
22	1346	1350	1352				B5.7	
22	1527	1530	1534				B3.5	
22	1606	1616	1643	N07	E45	SF	B3.5	7640
22	1647	1648	1651	N05	E44	SF	B7.6	7640
22	1723	1725	1737	N07	E45	1B	M1.4	7640
22	2233	2238	2246	N07	E42	SF	B4.5	7640
22	2252	2305	2310	N07	E41	SF	B4.7	7640
22	2311	2315	2325	N08	E46	SF	B4.3	7640
23	0011	0012	0016	N07	E42	SF	C1.4	7640
23	0019	0023	0034	N17	E41	SF	C1.1	7640
23	0143	0149	0151				B6.2	
23	0235	0238	0240				B6.0	
23	0253	0257	0307	N07	E39	SF	B5.5	7640
23	0425	0429	0431				B5.0	
23	0530	0532	0538	N07	E38	SF	C4.4	7640
23	0556	0603	0619				B8.8	
23	0733	0743	0749				C1.0	
23	0805	0813	0816				B9.0	
23	0859	0904	0908	N07	E37	SF	C2.9	7640
23	0953	0955	1008	N07	E37	SF	C1.2	7640
23	1136	1139	1143				B4.3	
23	1144	1150	1157				B6.9	
23	1235	1237	1309	N07	E37	SF	C2.9	7640
23	1235	1236	1302	N06	E33	SN	C1.9	7640
23	1441	1447	1458	N05	E34	SF	C2.0	7640
23	1617	1625	1645	N03	E43	SF	C2.9	7640
23	2300	2321	2325	N06	E31	SF	C3.1	7640
24	0324	0327	0329				B6.0	
24	0335	0335	0346	N07	E27	SF	B7.4	7640
24	0842	0858	0939	N07	E22	SN	C2.7	7640
24	0923	0926	0928				C1.7	
24	0943	0957	1014	N07	E20	SN	C3.8	7640
24	1211	1214	1221	N08	E22	SF	C5.1	7640
24	1335	1341	1409	N07	E20	SF	C2.5	7640
24	1411	1415	1425				C1.4	
24	1451	1503	1537	N08	E29	1N	M1.3	7640
24	1631	1635	1640				C1.0	
24	1729	1731	1741	N06	E17	SN	C3.9	7640
24	1804	1814	1835	N07	E20	1N	M1.1	7640
24	1905	1910	1913				B8.9	
24	2106	2106	2110	N07	E16	SF	C1.8	7640
24	2117	2117	2122	N06	E15	SF	C2.1	7640
24	2246	2249	2252				B6.7	
24	2259	2303	2312				B7.1	
24	2354	2355	0000	N07	E15	SF	B9.1	7640
25	0103	0108	0111				C1.3	
25	0115	0119	0125				C1.2	
25	0327	0330	0333				C1.5	
25	0426	0429	0441	N07	E12	SF	C6.2	7640
25	0442	0455	0507	N03	E15	SF	C4.3	7640
25	0518	0530	0640	N07	E11	SF	C4.4	7640
25	0612	0616	0619				C1.7	
25	0657	0738	0847	N07	E10	SF	C5.8	7640
25	0835	0835	0848	N08	E17	SF	C4.5	7640
25	0906	0910	0915				C2.1	
25	1229	1233	1236				C2.3	
25	1241	1244	1248				C2.2	
25	1411	1415	1417				C1.0	
25	1444	1452	1500	N07	E07	SF	C6.0	7640
25	1709	1711	1720	N08	E07	SF	C4.6	7640
25	1744	1757	1820	N07	E06	SN	M1.5	7640
25	1939	1940	1946	N07	E04	SF	C1.8	7640
25	2021	2025	2030				C1.0	
25	2117	2123	2128				C2.6	
26	0008	0013	0015				B7.7	
26	0023	0029	0032				C1.6	
26	0347	0349	0356	N06	W01	SF	B6.6	7640
26	0402	0413	0444	N06	W02	1N	M1.5	7640
26	0511	0517	0558	N05	W04	SF	C1.7	7640
26	0538	0548	0550				C3.3	
26	0608	0616	0629	N07	W03	SF	C2.5	7640
26	0640	0645	0648				C1.5	
26	0718	0733	0749	N06	W06	1F	C4.6	7640
26	0843	0848	0858	N06	W05	SF	C3.6	7640
26	0913	0914	0932	N06	W00	SF	C2.8	7640
26	0940	0941	0946	N05	W09	SF	C2.5	7640
26	0948	0951	0953				B7.5	
26	1003	1015	1027	N06	W05	SF	C1.4	7640
26	1029	1039	1043				C4.0	
26	1118	1121	1123				B7.7	
26	1126	1131	1135				C3.0	
26	1218	1221	1223				B7.3	
26	1331	1340	1357	N10	W01	1N	C2.4	7640
26	1456	1505	1626	N07	W06	1F	C5.7	7640
26	1542	1558	1621	N07	W11	1F	C6.5	7640
26	1705	1707	1710	N06	W12	SF	C2.2	7640
26	1714	1801	1830	N11	W09	SF	C1.0	7640
26	1741	1745	1747				C1.0	
26	1757	1758	1816	N11	W10	SF	C2.0	7640
26	1903	1904	1923	N06	W10	SF	C1.6	7640
26	1924	1936	1939	N05	W14	SF	C1.5	7640
26	2028	2032	2036				C1.1	
26	2101	2110	2127				C1.3	
26	2238	2239	2253	N08	E02	SF	C3.0	7640
27	0218	0219	0240	N09	E04	SF		7640
27	0313	0317	0325	N04	W18	SF	C1.6	7640
27	0350	0357	0405	N05	W19	SF	C1.5	7640
27	0912	0915	0941	N07	W13	SF	C4.8	7640
27	0953	0954	1001	N06	W25	SF	C4.3	7640
27	1226	1231	1236				C1.3	
27	1559	1559	1605	N07	W24	SF	C1.4	7640
27	1843	1900	1922	N10	W20	SF	M1.9	7640
28	0022	0027	0031				C1.7	
28	0227	0253	0331	N09	W24	SF	C8.4	7640
28	0530	0534	0537				C2.6	
28	0649	0653	0705	N11	W16	SF	C3.0	7640
28	0853	0901	0920	N06	W34	SF	C2.7	7640
28	1059	1104	1108				C2.1	
28	1205	1210	1214				C4.6	

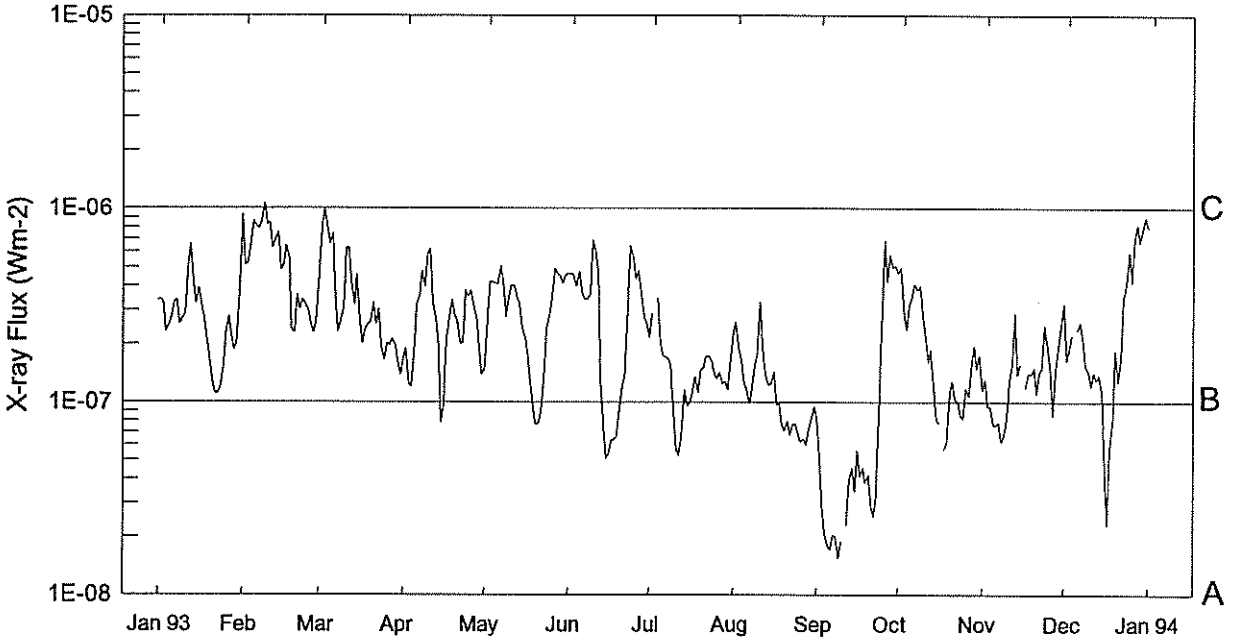
GOES S O L A R X-RAY F L A R E S
Preliminary Listing

December 1993

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/ USAF Region
28	1310	1315	1329				C1.7	
28	1602	1604	1611	N13	W19	SF	C2.6	7644
28	1653	1656	1713	N07	W37	1N	M1.1	7640
28	2138	2143	2150				C1.1	
28	2244	2307	2322				C5.0	
29	0218	0220	0237	N10	W36	SF	C1.9	7640
29	0242	0247	0252	N07	W41	SF	C1.4	7640
29	0544	0549	0556				C1.2	
29	0634	0636	0647	N07	W42	SF	C1.1	7640
29	0701	0707	0717				C1.0	
29	0746	0748	0752	S13	E75	SF	C1.6	7640
29	1530	1539	1604	N12	W43	SF	C9.9	7640
29	1755	1756	1759	N14	W45	SF	C1.5	7640
29	2016	2032	2041				C1.1	
29	2256	2258	2303	N11	E67	SF	C3.7	7645
30	0149	0203	0214				C4.3	
30	0310	0317	0319				C1.8	
30	0528	0531	0536				C1.3	
30	0547	0555	0610	N10	E70	1N	M1.6	7645
30	0617	0622	0626				C8.0	
30	0704	0714	0718				C1.3	
30	0747	0806	0812				C1.6	
30	0914	0919	0928				C7.1	
30	1140	1144	1150				C1.9	
30	1159	1202	1205				C1.4	
30	1248	1306	1320	N09	W51	SF	C1.2	7644
30	1321	1322	1344	N09	E62	SF	C1.2	7645
30	1513	1609	1715	N12	W57	1N	C5.5	7640
30	1705	1710	1742	N10	E58	SN	C7.7	7645
30	1914	1917	1936	N09	E58	SN	C3.0	7645
30	2015	2019	2028	N09	E58	SF	C1.6	7645
30	2104	2108	2112				C2.3	
30	2117	2118	2129	N11	W61	SN	C7.6	7640
31	0043	0048	0056	N13	E49	SF	C2.5	7645
31	0223	0229	0235				C2.1	
31	0415	0420	0423				C4.8	
31	0427	0446	0456	N11	E45	1N	C4.0	7645
31	0526	0536	0555	N08	W70	SF	C2.8	7640
31	0624	0628	0639	N11	E52	SF	C3.2	7645
31	0644	0646	0655	N12	W55	SF	C4.1	7644
31	1120	1121	1132	N09	W62	SF	C2.1	7640
31	1441	1442	1445	N09	W69	SF	C2.0	7640
31	1918	1928	1942	N09	W78	SF	C1.7	7640
31	2236	2238	2242	N12	E40	SF	C1.8	7645

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
Jan 93 - Dec 93



Day	Jan 93	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

MASS EJECTIONS FROM THE SUN--PROXY DATA*

December 1993

Site	Mo	Day	Observed UT Start	Max	End	Location RA*	R/Ro	Freq or Wavelength	Kind of Event
LEAR	Dec	03	0636.0		0643.0			Meter	II 1400km/s
SVTO	Dec	03	0639.0		0641.0			Meter	II 1600km/s
IZMI	Dec	26	0728.5		0737.0			Meter	II
IZMI	Dec	27	0915.1		0919.3			Meter	II
POTS	Dec	27	0911.6		0918.1			110-500	II,IIIG,HARM
ONDR	Dec	27	0915.0		0919.3			Decimeter, Meter	II
POTS	Dec	28	1208.1		1218.5			40-700	II,IIIG,H,HARM
ONDR	Dec	28	1212.0		1213.2			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

DECEMBER 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	ASR	1033E	1117	S30	E90	12	8.5			9	9	E	SVTO	7627	
01	AFS	1107E	1117	N03	W22	11	29.9		05	9	9	E	SVTO	7624	
01	DSD	1112	1117	N03	W22	11	29.9		02	9	9	E	SVTO	7624	
01	AFS	1115E	2054D	N01	W20	11	30.0		02	9	9	E	RAMY	7624	
01	DSD	1116E	1358D	N03	W18	11	30.1		02	9	9	E	RAMY	7624	
01	DSD	1120E	2054D	N04	W20	11	30.0		03	9	9	E	RAMY	7624	
01	AFS	1127E	2054D	S15	W19	11	30.0		02	9	9	E	RAMY	7625	
01	ASR	1216E	1607D	S19	E90	12	8.4			9	9	E	RAMY	7627	
01	AFS	1410E	2054D	S17	E63	12	6.4		02	9	9	E	RAMY	7627	
01	SSB	1415		289	W22	12	8.4			0	0	E	RAMY		
01	ADF	1453E	2054D	S14	E69	12	6.8	1	05	9	9	E	RAMY	7627	
01	ADF	1453E	2054D	S19	W20	11	30.1	1	11	9	9	E	RAMY		
01	AFS	1629E	2054D	S23	W69	11	26.5		01	9	9	E	RAMY	7628	
01	ADF	1724E	2054D	S13	E12	12	2.6	1	04	9	9	E	RAMY	7623	
01	AFS	1922E	2347	N04	W26	11	30.0		03	9	8	E	HOLL	7624	
01	ADF	1925E	2347	S20	E62	12	6.5	1	04	9	9	E	HOLL	7627	
01	ADF	1937E	0033	S20	E62	12	6.5	1	04	9	9	E	PALE	7627	
01	AFS	2021E	0033	N04	W25	11	30.0		03	9	9	E	PALE	7624	
01	ADF	2032E	2054D	S27	E64	12	6.8	1	05	9	9	E	RAMY	7627	
01	AFS	2202E	1033	N05	W30	11	29.8		02	8	8	E	LEAR	7624	
01	AFS	2205E	1033	S15	E60	12	6.5		02	8	8	E	LEAR	7627	
02	AFS	0006E	0033	S17	E56	12	6.2		04	9	9	E	PALE	7627	
02	AFS	0008E	0033	S15	W26	11	30.0		02	9	9	E	PALE	7625	
02	ADF	0038E	1033	S24	E61	12	6.7	1	08	7	6	E	LEAR	7627	
02	DSD	0545E	1033	N04	W30	11	30.0		04	9	9	E	LEAR	7624	
02	ADF	09400	0955D	N08	W40	11	29.5						KHAR		
02	ADF	09400	1043D	S26	E57	12	6.8						KHAR		
02	DSD	1002	1019	N06	W37	11	29.7						KHAR		
02	AFS	1116E	2022	N02	W33	11	30.0		03	9	9	E	RAMY	7624	
02	AFS	1119E	2022	S16	W23	11	30.7		03	9	9	E	RAMY	7625	
02	BSL	1200	1208	S55	E90	12	10.3	1-				C	CATA		
02	AFS	1205E	2022	S19	E52	12	6.5		02	9	9	E	RAMY	7627	
02	SSB	1208		290	W35	12	9.7			0	0	E	RAMY		
02	ADF	1210E	2022	S15	E59	12	7.0	1	06	9	9	E	RAMY	7627	
02	ADF	1425E	2022	S25	E56	12	6.9	1	07	9	9	E	RAMY	7627	
02	ADF	1430E	2022	N29	W16	12	1.3	1	08	9	9	E	RAMY	7626	
02	AFS	1548E	2022	S21	W79	11	26.7		02	9	9	E	RAMY	7628	
02	ADF	1600E	2347	S16	E55	12	6.8	1	07	9	9	E	HOLL	7627	
02	DSD	1601E	2347	N04	W44	11	29.5		03	9	9	E	HOLL	7624	
02	DSD	1703E	2022	S22	W79	11	26.7		07	9	9	E	RAMY	7628	
02	AFS	1713E	2347	S19	W80	11	26.7		03	9	9	E	HOLL	7628	
02	DSD	1826E	2047D	N02	W45	11	29.5		03	9	9	E	PALE	7624	
02	SSB	2115		296	W46	12	10.9			0	0	E	PALE		
02	AFS	2225E	1035	S14	W40	11	30.0		02	9	9	E	LEAR	7625	
02	AFS	2225E	1035	S16	E42	12	6.1		02	9	9	E	LEAR	7627	
02	DSF	2243U	1511U	S26	W30	11	30.6	2	05	0	0	E	HOLL		
02	ASR	2248E	0915D	S20	W90	11	26.2			7	7	E	LEAR	7628	
02	AFS	2330E	1035	S23	E70	12	8.4		02	7	7	E	LEAR		
03	ADF	0140E	1035	S47	E32	12	5.7	1	08	9	9	E	LEAR	7627	
03	DSD	0855E	1035	S23	E62	12	8.1		02	9	9	E	LEAR		
03	AFS	1120E	2120	S21	E62	12	8.2		02	9	9	E	RAMY	7629	
03	DSD	1120E	2120	S22	E61	12	8.2		02	9	9	E	RAMY	7629	
03	AFS	1129E	2120	S20	E42	12	6.7		02	9	9	E	RAMY	7627	
03	BSL	1136E	1151D	S17	W90	11	26.7	1-				C	CATA		
03	AFS	1139E	2120	N02	W47	11	30.0		02	9	9	E	RAMY	7624	
03	SSB	1259		289	W48	12	11.0			0	0	E	RAMY		
03	DSD	1348E	1433D	S17	E42	12	6.8		02	9	9	E	RAMY	7627	Flare Associated
03	ADF	1454E	2350	S19	E37	12	6.4	1	07	9	9	E	HOLL	7627	
03	DSD	1459E	1842D	S19	E40	12	6.7		02	9	9	E	HOLL	7627	
03	AFS	1503E	2350	S23	E60	12	8.2		03	9	9	E	HOLL	7629	
03	ADF	1504E	2120	S25	E41	12	6.8	1	06	9	9	E	RAMY	7627	
03	DSD	1636E	1927D	S16	W46	11	30.2		01	9	9	E	RAMY	7625	
03	DSD	1636E	2120	S16	W46	11	30.2		01	9	9	E	RAMY	7625	
03	ADF	1643E	2350	S21	E40	12	6.8	1	24	9	9	E	HOLL	7627	
03	ADF	1728E	2120	S15	E43	12	7.0	1	05	9	9	E	RAMY	7627	
03	AFS	1834E	2350	S10	E58	12	8.1		01	9	9	E	HOLL	7630	
03	ASR	1921E	2120	S18	E90	12	10.6			9	9	E	RAMY		
03	DSD	1925E	2350	N05	W59	11	29.5		02	9	9	E	HOLL	7624	

ACTIVE PROMINENCES AND FILAMENTS

DECEMBER 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
03	ADF	2014E	0220	S18	E45	12	7.3	1	06	9	9	E	PALE	7627	
03	DSD	2014E	0220	S18	E49	12	7.6		08	9	9	E	PALE	7627	
03	DSD	2015E	0220	S20	E59	12	8.3		02	9	9	E	PALE	7630	
03	AFS	2015E	0220	S21	E59	12	8.4		02	9	9	E	PALE	7630	
03	DSF	2038U	1241U	S20	W61	11	29.3	2	09	0	0	E	RAMY		
03	AFS	2052E	2120	S09	E56	12	8.1		01	9	9	E	RAMY	7630	
03	AFS	2215E	1030	S18	E32	12	6.4		03	7	7	E	LEAR	7627	
03	AFS	2215E	1030	S21	E55	12	8.1		02	8	8	E	LEAR	7629	
03	AFS	2217E	1030	S16	W51	11	30.1		02	8	8	E	LEAR	7625	
03	ADF	2330E	0245D	S09	W26	12	2.0	1	05	9	9	E	LEAR	7623	
04	ADF	0130E	1030	S17	E38	12	6.9	1	06	9	9	E	LEAR	7627	
04	ADF	0130E	1030	S26	E35	12	6.8	1	12	9	9	E	LEAR	7627	
04	ADF	0700	1200	S26	E36	12	7.1						ATHN		
04	AFS	0850E	1415	S09	E53	12	8.3		01	9	9	E	SVTO	7630	
04	DSD	0851E	1217D	S09	E51	12	8.2		02	9	9	E	SVTO	7630	
04	BSL	1038E	1038D	S68	W90	11	26.4	1-				C	CATA		
04	DSD	1209E	2023	S12	W33	12	2.0		02	9	9	E	RAMY	7623	
04	DSD	1210E	2023	S09	E47	12	8.0		02	9	9	E	RAMY	7630	
04	AFS	1210E	2023	S09	E48	12	8.1		02	9	9	E	RAMY	7630	
04	ADF	1214E	2023	S22	E48	12	8.2	1	05	9	9	E	RAMY	7629	
04	AFS	1215E	2023	S21	E51	12	8.4		01	9	9	E	RAMY	7629	
04	AFS	1217E	1415	S22	E52	12	8.5		03	9	9	E	SVTO	7629	
04	ADF	1218E	2023	S23	E30	12	6.8	1	09	9	9	E	RAMY	7627	
04	DSD	1219E	2023	S18	E25	12	6.4		02	9	9	E	RAMY	7627	
04	AFS	1220E	2023	S19	E24	12	6.3		02	8	8	E	RAMY	7627	
04	AFS	1250E	1415	S14	W27	12	2.5		02	7	7	E	SVTO	7623	
04	DSF	1302U	1751U	N34	W14	12	3.4	2	36	0	0	E	HOLL		
04	DSF	1302U	1756U	N09	W40	12	1.5	2	36	0	0	E	RAMY		
04	DSF	1302U	1756U	N10	W38	12	1.7	2	45	0	0	E	SVTO		
04	AFS	1322E	2023	N02	W60	11	30.1		02	8	8	E	RAMY	7624	
04	DSD	1327E	2023	N03	W59	11	30.1		02	9	9	E	RAMY	7624	
04	SSB	1335		286	W58	12	12.1			0	0	E	RAMY		301 W73
04	AFS	1425E	2347	S11	E46	12	8.1		01	9	9	E	HOLL	7630	
04	AFS	1444E	2057D	S23	E46	12	8.1		01	9	9	E	HOLL	7629	
04	ADF	1720E	2023	S17	E31	12	7.1	1	06	9	9	E	RAMY	7627	
04	ADF	1754E	2347	S23	E23	12	6.5	1	09	9	9	E	HOLL	7627	
04	ADF	1931E	2023	S06	W71	11	29.6	1	04	9	8	E	RAMY		
04	AFS	2215E	1031	S23	E43	12	8.2		02	9	9	E	LEAR	7629	
04	DSD	2310E	2345D	S22	E40	12	8.0		01	9	9	E	LEAR	7629	
05	ADF	0005E	0745D	S17	E26	12	7.0	1	13	9	9	E	LEAR	7627	
05	ADF	0015E	0322	S39	W24	12	3.1	1	02	9	9	E	PALE	7629	
05	ADF	0020E	0322	S23	W20	12	3.5	1	03	9	9	E	PALE	7627	
05	DSD	0906E	1028	S24	E37	12	8.2		01	9	9	E	SVTO	7629	
05	DSF	1037U	0825U	N23	W20	12	3.9	2				C	CATA		
05	AFS	1143E	1513D	S22	E32	12	7.9		02	9	9	E	RAMY	7629	
05	DSD	1200E	2037	S09	E32	12	7.9		03	9	9	E	RAMY	7630	
05	AFS	1208E	2037	S10	E35	12	8.1		02	9	9	E	RAMY	7630	
05	DSF	1318U	0933U	N10	W38	12	2.7	2	45	0	0	E	SVTO		
05	AFS	1513E	2037	S22	E36	12	8.4		03	9	9	E	RAMY	7629	
05	AFS	1643E	1940D	S24	E32	12	8.2		03	9	9	E	HOLL	7629	Flare Associated
05	AFS	1940E	2347	S11	E30	12	8.1		02	7	7	E	HOLL	7630	
05	SSB	2241		227	W17	12	8.0			0	0	E	HOLL		
05	ADF	2258E	1031	S26	E27	12	8.0		04	9	8	E	LEAR	7629	
05	ADF	2335E	0136	N32	E24	12	7.9	1	04	9	9	E	PALE	7629	
05	SSB	2340		272	W77	12	12.6			0	0	E	LEAR		
05	SSB	2350		227	W18	12	8.0			0	0	E	PALE		
06	DSD	0235E	1031	S10	E26	12	8.1		03	9	9	E	LEAR	7630	
06	DSD	0420E	0535D	S21	E04	12	6.5		04	8	7	E	LEAR	7627	
06	AFS	0545E	1031	S20	E25	12	8.1		02	9	9	E	LEAR	7629	
06	AFS	0546E	1031	S09	E25	12	8.1		03	9	9	E	LEAR	7630	
06	BSL	0849E	0851D	N22	E90	12	13.3	1-				C	CATA		
06	BSL	0953E	0955D	S46	E90	12	13.9	1-				C	CATA		
06	BSL	1010E	1025	S47	E90	12	13.9	1-				C	CATA		
06	DSD	1035E	1051	S23	E25	12	8.4		02	9	9	E	SVTO	7629	
06	BSL	1100	1117	S22	W90	11	29.6	1-				C	CATA		
06	BSL	1117	1117D	N71	E90	12	14.7	1-				C	CATA		
06	BSL	1141E	1146D	S32	W90	11	29.5	1-				C	CATA		

ACTIVE PROMINENCES AND FILAMENTS

DECEMBER 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
06	DSD	1149E	2056	S21	E19	12	7.9		02	9	9	E	RAMY	7629	
06	DSD	1149E	2056	S21	E20	12	8.0		01	9	9	E	RAMY	7629	
06	DSD	1214E	1715D	S10	E18	12	7.9		03	9	9	E	RAMY	7630	
06	DSD	1214E	2056	S08	E19	12	7.9		02	9	9	E	RAMY	7630	
06	AFS	1214E	2056	S09	E21	12	8.1		01	9	9	E	RAMY	7630	
06	DSD	1231E	1240D	S23	E21	12	8.1	1				C	CATA		
06	DSD	1232E	1341D	S22	E23	12	8.3		04	9	9	E	RAMY	7629	Flare Associated
06	ADF	1350E	2056	S23	E01	12	6.6	1	05	9	9	E	RAMY	7627	
06	ADF	1350E	2056	S25	E03	12	6.8	1	02	9	9	E	RAMY	7627	
06	APR	1447E	1625D	N14	E90	12	13.4	1		6	8	E	RAMY		
06	AFS	1523E	2056	S22	E20	12	8.2		03	9	9	E	RAMY	7629	
06	DSD	1814E	0144D	S21	E18	12	8.1		03	9	9	E	PALE	7629	Flare Associated
06	APR	1840E	2309	S08	W90	11	30.0	1		4	5	E	HOLL		
06	DSD	1907E	0224	S09	E17	12	8.1		03	9	9	E	PALE	7630	
06	AFS	1910E	2309	S23	E17	12	8.1		01	9	9	E	HOLL	7629	
06	ADF	1925E	0224	S18	W08	12	6.2	1	06	9	9	E	PALE	7627	
06	DSD	1925E	0224	S18	W10	12	6.0		02	9	9	E	PALE	7627	
06	DSD	2235E	0545D	S21	E14	12	8.0		04	9	8	E	LEAR	7629	
06	AFS	2340E	1040	S09	E12	12	7.9		04	9	9	E	LEAR	7630	
07	AFS	0018E	0224	S08	E15	12	8.1		04	9	9	E	PALE	7630	
07	AFS	0030E	0224	S21	E11	12	7.9		02	9	9	E	PALE	7629	
07	ADF	0345E	1040	S23	W07	12	6.6	1	03	8	7	E	LEAR	7627	
07	DSD	0649E	0737D	S17	W23	12	5.5		01	9	9	E	SVTO	7627	Flare Associated
07	DSD	0725	0759D	S22	E14	12	8.4		03	9	9	E	SVTO	7629	
07	AFS	0749E	0956	S09	E12	12	8.2		02	9	9	E	SVTO	7630	
07	ADF	08350	0850D	S15	W07	12	6.8						KHAR		
07	DSD	0840E	0940D	S16	W09	12	6.7		04	8	8	E	LEAR	7627	Flare Associated
07	BSL	1001E	1013	N02	E90	12	14.1	1-				C	CATA		
07	BSL	1028E	1040	S28	W90	11	30.4	1-				C	CATA		
07	BSL	1116E	1120D	S28	W90	11	30.4	1-				C	CATA		
07	AFS	1120E	2125	S15	W66	12	2.5		02	7	7	E	RAMY	7623	
07	ADF	1125E	2125	S17	W10	12	6.7	1	05	9	9	E	RAMY	7627	
07	AFS	1128E	2125	S10	E07	12	8.0		02	9	9	E	RAMY	7630	
07	AFS	1132E	2125	S08	E10	12	8.2		01	8	8	E	RAMY	7630	
07	AFS	1139E	2125	S22	E11	12	8.3		02	9	9	E	RAMY	7629	
07	DSD	1202E	1719D	S16	W21	12	5.9		02	9	9	E	RAMY	7627	
07	DSF	1240U	0711U	S08	E14	12	8.6	1				C	CATA		
07	AFS	1452E	2348	S10	W04	12	7.3		02	9	9	E	HOLL	7630	
07	ADF	1719E	2125	S10	E08	12	8.3	1	05	9	9	E	RAMY	7630	
07	DSD	1938E	2125	S09	E03	12	8.0		02	9	9	E	RAMY	7630	
07	DSD	2023E	2302D	S21	W01	12	7.8		02	9	9	E	HOLL	7629	
07	DSF	2316U	1509U	S41	E40	12	11.2	2	17	0	0	E	HOLL		
08	AFS	0001E	0318	S08	E02	12	8.1		03	9	9	E	PALE	7630	
08	AFS	0001E	0318	S21	E02	12	8.1		02	9	9	E	PALE	7629	
08	SSB	0002		229	W46	12	10.4			0	0	E	PALE		
08	ADF	0002E	0318	S23	W15	12	6.8	1	03	9	9	E	PALE	7627	
08	DSF	0224U	1509U	S35	E21	12	9.8	2	17	0	0	E	PALE		
08	AFS	0255E	1040	S10	W02	12	8.0		02	9	9	E	LEAR	7630	
08	DSD	0256E	0830D	S22	W04	12	7.8		02	9	9	E	LEAR	7629	
08	AFS	0256E	1040	S22	E00	12	8.1		03	9	9	E	LEAR	7629	
08	AFS	0651E	1442	S09	W04	12	8.0		02	9	9	E	SVTO	7630	
08	DSD	0651E	1442	S10	W04	12	8.0		01	9	9	E	SVTO	7630	
08	DSD	0653E	1442	S20	E07	12	8.8		02	9	9	E	SVTO	7629	
08	ADF	0655E	1442	S18	W24	12	6.5	2	02	9	9	E	SVTO	7627	
08	ADF	0833E	1442	S24	W10	12	7.6	2	16	9	9	E	SVTO		
08	ASR	0916E	1442	S15	W90	12	1.6			9	9	E	SVTO	7623	
08	DSF	0930U	2210U	S38	E20	12	10.0	2	15	0	0	E	LEAR		
08	BSL	0952	1004	N71	W90	11	30.2	1-				C	CATA		
08	DSD	1038E	1442	S21	E03	12	8.7		02	9	9	E	SVTO	7629	
08	BSL	1049	1056	S73	W90	11	30.2	1-				C	CATA		
08	BSL	1100	1114	N69	W90	11	30.3	1-				C	CATA		
08	ASR	1110E	1442	N05	E90	12	15.2			9	9	E	SVTO		
08	DSD	1115E	1442	S10	W03	12	8.2		02	9	9	E	SVTO	7630	
08	AFS	1117E	1442	S10	W05	12	8.1		02	9	9	E	SVTO	7630	
08	BSL	1118	1124	N71	W90	11	30.3	1-				C	CATA		
08	DSD	1154E	2054	S09	W05	12	8.1		01	9	9	E	RAMY	7630	
08	AFS	1154E	2054	S10	W06	12	8.0		02	9	9	E	RAMY	7630	
08	BSL	1205E	1239D	S35	W90	12	1.3	1-				C	CATA		

ACTIVE PROMINENCES AND FILAMENTS

DECEMBER 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
08	AFS	1220E	2054	S21	W07	12	8.0		01	9	9	E	RAMY	7629	
08	APR	1239E	2054	N21	E90	12	15.4	1		9	9	E	RAMY		
08	APR	1342E	1535D	S19	W90	12	1.7	1		9	9	E	RAMY	7623	
08	APR	1343E	1442	S21	W90	12	1.7	1		9	9	E	SVTO	7623	
08	APR	1355E	1442	N17	E83	12	14.9	1		6	5	E	SVTO		
08	ADF	1426E	2054	S24	W13	12	7.6	1	12	9	9	E	RAMY	7629	
08	AFS	1451E	1834	S09	W08	12	8.0		02	9	9	E	HOLL	7630	
08	APR	1511E	1834	N13	E82	12	14.8	1		9	9	E	HOLL		
08	AFS	1800E	0335	S10	W09	12	8.1		04	9	9	E	PALE	7630	
08	AFS	1800E	0335	S21	W07	12	8.2		04	9	9	E	PALE	7629	
08	ASR	1802E	2112D	S11	W90	12	2.0			9	9	E	PALE	7623	
08	APR	1803E	0335	N18	E90	12	15.6	1		9	9	E	PALE		
08	ADF	2012E	0335	S20	W18	12	7.5	1	12	9	9	E	PALE	7627	
08	AFS	2225E	1038	S08	W14	12	7.9		03	8	8	E	LEAR	7630	
08	ADF	2330E	1038	S29	W17	12	7.6	1	07	9	9	E	LEAR	7629	
09	ASR	0050E	0300D	S15	W90	12	2.2			7	7	E	LEAR	7623	
09	APR	0655E	1038	N18	E90	12	16.1	1		9	9	E	LEAR		
09	AFS	0655E	1455	S22	W13	12	8.3		03	9	9	E	SVTO	7629	
09	DSD	0656E	0858D	S09	W18	12	7.9		02	9	9	E	SVTO	7630	
09	APR	0700E	0858D	N17	E90	12	16.1	1		9	9	E	SVTO		
09	AFS	0718E	1455	N13	W06	12	8.8		02	9	9	E	SVTO		
09	BSL	0815E	0846	N07	W90	12	2.6	1-				C	CATA		
09	AFS	0840E	1038	S21	W14	12	8.3		03	9	9	E	LEAR	7629	
09	AFS	0926E	1455	S09	W17	12	8.1		03	9	9	E	SVTO	7630	
09	BSL	1030	1041	N78	E90	12	17.8	1-				C	CATA		
09	BSL	1036	1103	S40	E90	12	16.8	1-				C	CATA		
09	AFS	1119E	2011	S10	W20	12	8.0		02	9	9	E	RAMY	7630	
09	AFS	1133E	2011	N12	W10	12	8.7		01	9	9	E	RAMY		
09	BSL	1222	1235	N72	E90	12	17.7	1-				C	CATA		
09	ADF	1240E	1455	S20	W19	12	8.1	1	07	9	9	E	SVTO	7629	
09	AFS	1751E	2011	S22	W24	12	7.9		03	9	9	E	RAMY	7629	
09	DSD	1821E	2011	S06	E15	12	10.9		01	9	9	E	RAMY		
09	AFS	1821E	2011	S08	E15	12	10.9		02	9	9	E	RAMY		
09	AFS	1829E	2310D	S08	E14	12	10.8		01	9	9	E	HOLL		
09	AFS	1830E	2011	N12	W14	12	8.7		01	8	8	E	RAMY		
09	AFS	1919E	0340	N13	W13	12	8.8		02	9	9	E	PALE		
09	AFS	1919E	0340	S10	W23	12	8.1		03	9	9	E	PALE	7630	
09	DSD	2027E	2122	S18	W33	12	7.3		01	9	9	E	HOLL	7629	
09	DSD	2101E	2116	S21	W21	12	8.3		02	8	4	E	HOLL	7629	
09	AFS	2117E	2349	S09	W26	12	7.9		02	9	8	E	HOLL	7630	
09	AFS	2148E	2349	S18	W34	12	7.3		01	8	7	E	HOLL	7629	
09	AFS	2225E	1031	S09	W27	12	7.9		02	7	7	E	LEAR	7630	
09	ADF	2226E	1031	S24	W32	12	7.5	1	12	8	8	E	LEAR	7629	
10	AFS	0703E	1500	S09	W31	12	8.0		02	9	9	E	SVTO	7630	
10	AFS	0704E	1500	S21	W30	12	8.0		03	9	9	E	SVTO	7629	
10	AFS	0705E	1500	S18	W39	12	7.3		02	9	9	E	SVTO		
10	AFS	0751E	1500	N14	W20	12	8.8		02	9	9	E	SVTO	7631	
10	AFS	0811E	1500	S20	W50	12	6.5		03	9	9	E	SVTO	7627	
10	BSL	0912E	0930	S02	W90	12	3.7	1-				C	CATA		
10	BSL	0925	0930D	N05	W90	12	3.7	1-				C	CATA		
10	AFS	0945E	1500	S11	W19	12	9.0		02	9	9	E	SVTO		
10	BSL	0955E	1056D	S26	W90	12	3.4	1-				C	CATA		
10	BSL	1114E	1145D	S26	W90	12	3.5	1-				C	CATA		
10	DSD	1116E	1948	S22	W34	12	7.8		03	9	9	E	RAMY	7629	
10	AFS	1119E	1948	S10	W32	12	8.1		02	9	9	E	RAMY	7630	
10	DSD	1119E	1948	S11	W37	12	7.7		02	9	9	E	RAMY	7630	
10	DSD	1125E	1604D	N14	W13	12	9.5		01	9	8	E	RAMY		
10	DSD	1128E	1948	N12	W24	12	8.7		02	9	9	E	RAMY	7631	
10	AFS	1130E	1948	S12	W50	12	6.7		02	9	9	E	RAMY	7627	
10	DSD	1130E	1948	S18	W49	12	6.7		03	9	9	E	RAMY	7627	
10	BSL	1132	1139	N83	E90	12	18.9	1-				C	CATA		
10	AFS	1133E	1948	S20	W41	12	7.3		01	9	9	E	RAMY		
10	DSD	1133E	1500	S08	W35	12	7.8		01	9	9	E	SVTO	7630	
10	ASR	1222E	1422D	N02	W83	12	4.3			9	9	E	RAMY		
10	AFS	1223E	1948	N11	W23	12	8.8		01	8	7	E	RAMY	7631	
10	AFS	1600E	2326	S09	W37	12	7.9		02	5	7	E	HOLL	7630	
10	ADF	1741	1948	S19	W55	12	6.5	1	04	9	9	E	RAMY	7627	
10	DSD	2236E	0445D	S19	W47	12	7.3		03	8	7	E	LEAR	7633	

ACTIVE PROMINENCES AND FILAMENTS

DECEMBER 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
10	ADF	2236E	0450D	S12	W37	12	8.1	1	04	9	9	E	LEAR	7630	
10	ADF	2236E	0545D	S13	W38	12	8.1	1	04	9	9	E	LEAR	7629	
11	AFS	0501E	0955	S09	W44	12	7.9		02	9	9	E	LEAR	7630	
11	APR	1100	1130	S18	W90	12	4.6						ATHN		
11	AFS	1123E	2107	S10	W44	12	8.2		01	9	9	E	RAMY	7630	
11	DSD	1123E	2107	S11	W49	12	7.8		02	9	9	E	RAMY	7630	
11	DSD	1132E	1700D	S21	W48	12	7.8		02	9	9	E	RAMY	7629	
11	DSD	1132E	1700D	S23	W46	12	7.9		01	9	9	E	RAMY	7629	
11	ADF	1132E	2107	S22	W47	12	7.9	1	04	9	9	E	RAMY	7629	
11	BSL	1211E	1216D	S71	W90	12	3.3	1-				C	CATA		
11	BSL	1229E	1234	S64	W90	12	3.5	1-				C	CATA		
11	ADF	1308E	2107	N16	E49	12	15.3	1	06	9	9	E	RAMY	7632	
11	DSD	1352E	1715D	S02	W20	12	10.1		01	9	9	E	RAMY		
11	DSD	1400E	1723D	N13	E50	12	15.3		02	9	9	E	RAMY	7632	
11	SSB	1429		207	W72	12	12.2			0	0	E	RAMY		
11	ADF	1545E	1700D	S19	W61	12	7.0	1	05	9	9	E	RAMY	7633	
11	AFS	1648E	2107	S21	W68	12	6.5		02	9	9	E	RAMY	7627	
11	DSD	1700E	2107	S24	W56	12	7.4		02	9	9	E	RAMY	7629	
11	AFS	2252E	1040	S09	W54	12	7.9		04	9	9	E	LEAR	7630	
12	AFS	0115E	0311	S10	W54	12	8.0		02	9	9	E	PALE	7630	
12	DSD	0236E	0311	S21	W51	12	8.2		03	9	9	E	PALE	7629	
12	AFS	0756E	1500	S23	W60	12	7.7		03	9	9	E	SVTO	7629	
12	AFS	0758E	1500	S10	W60	12	7.8		02	9	9	E	SVTO	7630	
12	AFS	0801E	1500	N00	W30	12	10.1		02	9	9	E	SVTO		
12	AFS	0804E	1500	S08	W19	12	10.9		01	9	9	E	SVTO		
12	ADF	0840E	1500	N20	E38	12	15.3	1	11	6	6	E	SVTO	7632	
12	AFS	0947E	1500	N08	E39	12	15.3		01	9	9	E	SVTO	7632	
12	BSL	1040	1051	N01	E90	12	19.2	1-				C	CATA		
12	BSL	1215E	1234D	S18	W90	12	5.6	1-				C	CATA		
12	ASR	1344E	1410D	S19	W90	12	5.7			9	9	E	SVTO	7633	
12	DSD	1823E	0058D	S21	W59	12	8.2		02	9	9	E	PALE	7629	
12	AFS	1839E	2015	S42	W66	12	7.3		02	9	9	E	RAMY	7630	
12	AFS	1912E	2015	S22	W77	12	6.9		02	9	9	E	RAMY	7627	
12	ASR	1913E	2015	S22	W90	12	5.9			9	9	E	RAMY		
13	ADF	0610E	1040	N12	E30	12	15.5	1	08	9	9	E	LEAR	7632	
13	AFS	0716E	1455	S21	W71	12	7.8		02	9	9	E	SVTO	7629	
13	BSL	0900	0901D	S77	E90	12	21.7	1-				C	CATA		
13	BSL	0912E	0937	S77	E90	12	21.7	1-				C	CATA		
13	BSL	0926	0932	S86	W90	12	5.0	1-				C	CATA		
13	BSL	0938	0943	S88	W90	12	5.0	1-				C	CATA		
13	BSL	0943	0947	N28	W90	12	6.4	1-				C	CATA		
13	DSD	1047E	1455	N08	E31	12	15.8		01	9	9	E	SVTO	7632	
13	DSD	1047E	1455	N18	E24	12	15.3		02	9	9	E	SVTO	7632	
13	DSD	1054E	1455	S11	W81	12	7.4		01	9	9	E	SVTO	7630	
13	DSD	1056E	1455	N11	W65	12	8.6		02	9	9	E	SVTO	7631	
13	DSD	1057E	1455	S02	W46	12	10.0		01	9	9	E	SVTO		
13	ADF	1128E	1455	N18	E21	12	15.1	1	02	9	9	E	SVTO	7632	
13	BSL	1138	1141D	N62	W90	12	5.5	1-				C	CATA		
13	BSL	1138	1141D	N77	W90	12	5.2	1-				C	CATA		
13	ASR	1200E	1455	S22	W90	12	6.6			7	7	E	SVTO		
13	AFS	1230E	2028	S24	W75	12	7.7		04	9	9	E	RAMY	7629	
13	AFS	1245E	2028	S14	W59	12	9.1		01	9	9	E	RAMY		
13	AFS	1247E	1638D	S01	W46	12	10.1		01	9	9	E	RAMY		
13	DSD	1249E	1627D	N07	E25	12	15.4		01	9	9	E	RAMY	7632	
13	ADF	1250E	2028	N10	E29	12	15.7	1	08	9	9	E	RAMY	7632	
13	DSD	1308E	1455	S12	W58	12	9.2		01	9	9	E	SVTO		
13	ASR	1405E	1628D	N06	E90	12	20.3			9	9	E	RAMY		
13	ASR	1410E	1455	S14	W90	12	6.8			7	6	E	SVTO		
13	APR	1505E	1617D	N14	W82	12	7.4	1		8	9	E	HOLL	7630	
13	EPL	1543E	1551D	N14	W82	12	7.4	3		6	9	E	HOLL	7630	
13	AFS	1631E	2350	S12	W61	12	9.1		01	7	7	E	HOLL		
13	APR	1714E	2350	S18	W83	12	7.4	1		9	6	E	HOLL	7633	
13	ASR	2320E	0535D	N03	E90	12	20.7			9	9	E	LEAR		
13	ADF	2320E	0126	N05	E18	12	15.3	1	04	9	9	E	PALE	7632	
13	ASR	2320E	0126	N06	E90	12	20.7			9	9	E	PALE		
14	ASR	0108E	0126	S10	W90	12	7.3			9	9	E	PALE	7630	

ACTIVE PROMINENCES AND FILAMENTS

DECEMBER 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
14	ASR	0423E	1035	S18	W90	12	7.3			9	9	E	LEAR	7629	
14	AFS	0535E	1035	S12	W70	12	8.9		01	7	7	E	LEAR		
14	ADF	0740E	1035	N15	E13	12	15.3	1	06	9	9	E	LEAR	7632	
14	APR	1139E	1942	S14	W90	12	7.7	1		9	9	E	RAMY	7630	
14	ASR	1139E	1942	S20	W90	12	7.6			9	9	E	RAMY	7629	
14	APR	1143E	1942	N13	E90	12	21.3	1		9	9	E	RAMY		
14	ADF	1145E	1942	N03	E69	12	19.6	1	05	9	9	E	RAMY	7635	
14	SSB	1201		160	W63	12	19.8			0	0	E	RAMY		
14	AFS	1222E	1942	S14	W73	12	9.0		02	9	9	E	RAMY	7634	
14	ADF	1252E	1942	N15	E10	12	15.3	1	06	9	9	E	RAMY		
14	BSD	1337E	1733D	S13	W75	12	8.9		05	9	9	E	RAMY	7634	
14	AFS	1356E	1942	S11	E25	12	16.5		01	8	8	E	RAMY		
14	ASR	1358E	1612D	N05	E81	12	20.6			9	9	E	RAMY	7635	
14	APR	1435E	1855D	S12	W90	12	7.8			9	9	E	HOLL	7630	
14	ASR	1435E	2345	S17	W90	12	7.8			9	9	E	HOLL	7629	
14	ASR	1523E	1541	N09	E90	12	21.4			8	7	E	HOLL		
14	ASR	1735E	2119D	N04	E90	12	21.5			9	9	E	PALE	7635	
14	ASR	1755E	1942	N05	E81	12	20.8			7	7	E	RAMY	7635	
14	DSD	1855E	2345	N01	E80	12	20.8		04	9	7	E	HOLL	7635	
14	DSD	1855E	2350	N09	E90	12	21.5		04	9	7	E	HOLL		
14	BSD	2059	2110	S12	W80	12	8.8		05	9	9	E	HOLL	7634	Flare Associated
14	ASR	2305E	0120D	S18	W84	12	8.6			7	7	E	LEAR	7629	
14	DSF	2329U	1441U	S02	W41	12	11.9	2	16	0	0	E	HOLL		
14	DSF	2329U	1441U	S01	W40	12	12.0	2	10	0	0	E	PALE		
14	ASR	2357E	0145D	S11	W78	12	9.1			8	8	E	LEAR	7634	
14	SSB	2359		160	W70	12	20.4			0	0	E	LEAR		
15	ADF	0225E	1040	S09	E16	12	16.3	1	03	8	8	E	LEAR		
15	AFS	0653E	1040	S13	E13	12	16.3		02	9	9	E	LEAR		
15	ASR	0723E	0815D	N08	E90	12	22.0			9	7	E	LEAR	7635	
15	DSF	0805U	2208U	S10	W28	12	13.2	2	18	0	0	E	LEAR		
15	ASR	0816E	1040	S11	W90	12	8.6			9	9	E	LEAR	7634	
15	ASR	1125E	1957	N13	W90	12	8.7			9	9	E	RAMY	7634	
15	AFS	1130E	1957	S12	E12	12	16.4		01	9	9	E	RAMY		
15	AFS	1139E	1957	N01	E67	12	20.5		03	9	9	E	RAMY	7635	
15	ADF	1335E	1705D	N15	W04	12	15.3	1	05	9	9	E	RAMY	7632	
15	ADF	1337E	1936D	S09	E11	12	16.4	1	01	9	9	E	RAMY		
15	ASR	1430E	1615	S12	W90	12	8.8			9	9	E	HOLL	7634	
15	APR	1435E	1855D	S12	W90	12	8.8			9	9	E	HOLL	7630	
15	ADF	1535E	2350	N01	E75	12	21.2	1	09	9	9	E	HOLL	7635	
15	AFS	1548E	2050D	N06	E13	12	16.6		01	9	9	E	HOLL		
15	AFS	1635E	1957	N06	E12	12	16.6		01	9	9	E	RAMY		
15	DSD	1635E	1957	N07	E13	12	16.7		02	9	9	E	RAMY		
15	DSD	1713E	1957	N02	E67	12	20.7		02	9	9	E	RAMY	7635	
15	ADF	1815E	0017	N15	W05	12	15.4	1	06	9	9	E	PALE	7632	
15	AFS	1816E	0017	N06	E12	12	16.6		02	9	9	E	PALE		
15	ASR	1839E	2350	S10	W90	12	9.0			8	7	E	HOLL	7634	
15	AFS	2137E	0017	N03	E67	12	20.9		02	9	9	E	PALE	7635	
15	AFS	2137E	0017	S10	E07	12	16.4		01	8	8	E	PALE		
15	AFS	2235E	0952	N07	E10	12	16.7		02	9	9	E	LEAR		
15	AFS	2237E	0952	N02	E66	12	20.9		02	8	8	E	LEAR	7635	
16	DSD	0100E	0220D	N05	E09	12	16.7		03	7	7	E	LEAR		
16	ADF	0730E	1344	N00	E56	12	20.5	1	06	9	9	E	SVTO	7635	
16	AFS	0750E	1344	N05	E03	12	16.5		02	9	9	E	SVTO		
16	DSD	0900E	1344	N06	E05	12	16.7		03	9	9	E	SVTO		
16	BSL	1054	1105	N77	E90	12	24.8	1-				C	CATA		
16	BSL	1058	1105	S68	W90	12	8.3	1-				C	CATA		
16	BSL	1110	1115	S89	W90	12	8.0	1-				C	CATA		
16	ADF	1125E	2023	N01	E56	12	20.6	1	05	9	9	E	RAMY	7635	
16	AFS	1127E	2023	N04	E56	12	20.7		02	8	8	E	RAMY	7635	
16	AFS	1130E	2023	N05	E01	12	16.5		02	9	9	E	RAMY	7637	
16	BSL	1218E	1220	S80	W90	12	8.1	1-				C	CATA		
16	BSL	1218E	1225D	S45	W90	12	9.0	1-				C	CATA		
16	BSL	1218E	1225D	S88	E90	12	24.9	1-				C	CATA		
16	ADF	1345E	2023	N02	E61	12	21.1	1	04	9	9	E	RAMY	7635	
16	ADF	1349E	2023	N18	W18	12	15.2	1	05	8	7	E	RAMY		
16	DSD	1356E	2023	N06	E01	12	16.6		03	9	8	E	RAMY	7637	
16	AFS	1620E	2350	N06	W02	12	16.5		02	9	9	E	HOLL	7637	
16	ADF	1835E	0349	N03	E60	12	21.2	1	04	9	9	E	PALE	7635	

ACTIVE PROMINENCES AND FILAMENTS

DECEMBER 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
16	DSD	1835E	0349	N04	E54	12	20.8		02	8	8	E	PALE	7635	
16	ADF	1835E	0349	N05	W17	12	15.5	1	05	9	9	E	PALE	7632	
16	AFS	1835E	0349	S11	W05	12	16.4		02	7	7	E	PALE		
16	AFS	1840E	0349	N05	E00	12	16.8		02	9	9	E	PALE	7637	
16	DSD	1840E	0349	N06	W04	12	16.5		02	9	9	E	PALE	7637	
16	ADF	2006E	2350	N00	E52	12	20.7	1	06	9	9	E	HOLL	7635	
16	ADF	2006E	2350	S02	E58	12	21.2	1	03	9	6	E	HOLL	7635	
16	AFS	2237E	1005	N02	E66	12	21.9		02	8	8	E	LEAR	7635	
17	AFS	0207E	0349	S07	E05	12	17.5		02	9	9	E	PALE		
17	AFS	0310E	1031	N06	W08	12	16.5		02	8	8	E	LEAR	7637	
17	DSD	0820E	1031	S01	E44	12	20.6		03	9	9	E	LEAR	7635	
17	AFS	0956E	1455	N05	W12	12	16.5		01	9	9	E	SVTO	7637	
17	AFS	0958E	1455	N02	E47	12	20.9		02	9	9	E	SVTO		
17	BSL	1049E	1106	N61	W90	12	9.5	1-				C	CATA		
17	ADF	1103E	1455	S01	E43	12	20.7	2	10	9	9	E	SVTO	7635	
17	AFS	1211E	1455	S01	E45	12	20.9		03	9	9	E	SVTO	7635	
17	AFS	1350E	1635	N01	E41	12	20.6		02	9	9	E	RAMY	7635	
17	DSD	1354E	1635	N01	E44	12	20.9		01	9	9	E	RAMY	7635	
17	ADF	1358E	1635	N02	E46	12	21.0	1	06	8	8	E	RAMY	7635	
17	DSD	1401E	1635	N06	W15	12	16.5		04	9	9	E	RAMY	7637	
17	ADF	1429E	1635	N03	W14	12	16.5	1	04	9	9	E	RAMY	7637	
17	ADF	1437E	1635	N13	W29	12	15.4	1	06	9	9	E	RAMY	7632	
17	APR	1545E	1635	S28	W90	12	10.6	1		9	9	E	RAMY		
17	AFS	1627E	1635	S05	W03	12	17.5		02	9	9	E	RAMY		
17	AFS	1918E	2351	N07	W16	12	16.6		01	9	9	E	HOLL	7637	
17	AFS	1935E	0215	N01	E41	12	20.9		02	9	9	E	PALE	7635	
17	DSD	1935E	0215	N02	E44	12	21.1		02	9	9	E	PALE	7635	
17	ADF	1935E	0215	N14	W31	12	15.5	1	05	9	9	E	PALE	7632	
17	ADF	1940E	0215	N03	W17	12	16.5	1	04	9	9	E	PALE	7637	
17	AFS	1940E	0215	N05	W12	12	16.9		02	9	9	E	PALE	7637	
17	DSD	1940E	0215	N07	W15	12	16.7		02	9	9	E	PALE	7637	
17	DSD	2005E	2351	N03	E40	12	20.8		02	9	9	E	HOLL	7635	
17	ADF	2008E	2156D	N00	E41	12	20.9	1	07	9	9	E	HOLL	7635	
17	BSD	2024E	2141D	N07	E42	12	21.0		02	8	8	E	HOLL	7635	Flare Associated
17	BSD	2025E	2145D	N08	E43	12	21.1		02	8	8	E	PALE	7635	Flare Associated
17	ASR	2220E	2223D	S20	W90	12	11.0			9	9	E	PALE		
17	ADF	2245E	1031	S01	E35	12	20.6	1	04	9	9	E	LEAR	7635	
18	AFS	0320E	1031	N11	W41	12	15.0		04	9	7	E	LEAR		
18	AFS	0745E	1500	N11	W46	12	14.9		01	9	9	E	SVTO		
18	BSL	0812E	0829D	S35	W90	12	11.1	1-				C	CATA		
18	BSL	0824	0829D	S88	W90	12	9.9	1-				C	CATA		
18	BSL	0938	0938D	N49	W90	12	10.8	1-				C	CATA		
18	DSD	0947E	1500	N00	E32	12	20.8		02	9	9	E	SVTO	7635	
18	BSL	1045	1100	N73	W90	12	10.2	1-				C	CATA		
18	AFS	1210E	1500	N03	E35	12	21.1		01	4	4	E	SVTO	7635	
18	AFS	1218E	1500	N07	W26	12	16.6		01	6	6	E	SVTO	7637	
18	ADF	1345E	1500	N00	E27	12	20.6	1	02	9	9	E	SVTO	7635	
18	AFS	1922E	0310	N11	W51	12	15.0		02	9	9	E	PALE	7638	
18	AFS	1924E	0310	N02	W46	12	15.4		03	7	7	E	PALE	7632	
18	ADF	1935E	0310	N05	W29	12	16.6	1	03	9	9	E	PALE	7637	
18	AFS	1935E	0310	N06	W27	12	16.8		02	9	9	E	PALE	7637	
18	AFS	2000E	2009	N04	W31	12	16.5		01	9	9	E	RAMY	7637	
18	DSD	2020E	0310	N02	E28	12	20.9		02	9	9	E	PALE	7635	
18	ADF	2020E	0310	N06	E29	12	21.0	1	06	9	9	E	PALE	7635	
18	AFS	2020E	0310	N07	E29	12	21.0		03	9	9	E	PALE	7635	
18	AFS	2035E	0310	N08	W12	12	17.9		02	9	9	E	PALE	7639	
18	AFS	2035E	0310	S07	W19	12	17.4		02	9	9	E	PALE		
19	DSD	0003E	1030	N16	W50	12	15.2		04	9	8	E	LEAR	7632	
19	DSD	0210E	0538D	S02	E24	12	20.9		03	9	9	E	LEAR	7635	
19	DSD	0730E	1135D	N06	W39	12	16.4		01	6	6	E	SVTO	7637	
19	DSD	0808E	1137D	N00	E17	12	20.6		01	4	5	E	SVTO	7635	
19	APR	1030	1200	N22	W90	12	12.5						ATHN		
19	DSD	1200E	1700D	N09	E14	12	20.5		02	9	9	E	RAMY	7635	
19	ADF	1200E	1941	S01	E16	12	20.7	1	03	9	9	E	RAMY	7635	
19	DSD	1202E	1941	N09	W40	12	16.5		01	9	9	E	RAMY	7637	
19	AFS	1204E	1941	N08	W21	12	17.9		02	9	8	E	RAMY	7639	
19	DSD	1204E	1456	S20	W40	12	16.4		01	9	9	E	SVTO		

ACTIVE PROMINENCES AND FILAMENTS

DECEMBER 1993

Day	Event Type	Start (UT)	End (UT)	Lat	CMP CMD	Mo	Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
19	DSD	1210E	1941	N13	W60	12	15.0		01	9	9	E	RAMY	7638	
19	AFS	1212E	1655D	S05	W28	12	17.4		01	8	8	E	RAMY		
19	ASR	1236E	1941	N04	E89	12	26.2			9	9	E	RAMY		
19	AFS	1240E	1941	S17	W42	12	16.3		02	9	9	E	RAMY		
19	ASR	1253E	1456	N04	E89	12	26.2			9	9	E	SVTO		
19	DSD	1507E	1700D	S02	E15	12	20.7		01	9	9	E	RAMY	7635	
19	DSD	1510E	1700D	N08	W25	12	17.7		02	9	9	E	RAMY	7639	
19	ADF	1633E	1941	N16	W64	12	14.8	1	03	9	9	E	RAMY	7638	
19	AFS	1700E	1941	N05	E15	12	20.8		01	9	9	E	RAMY	7635	
19	DSD	1744E	2248D	N13	W65	12	14.8		03	9	9	E	PALE	7638	
19	AFS	1750E	0334	N06	W41	12	16.7		02	9	9	E	PALE	7637	
19	DSD	1758E	0334	N04	E14	12	20.8		03	9	9	E	PALE	7635	
19	ADF	1758E	0334	N05	E14	12	20.8	1	03	9	9	E	PALE	7635	
19	ADF	1759E	0054D	N06	E17	12	21.0	1	05	9	9	E	PALE	7635	
19	ASR	2048E	0334	N03	E90	12	26.6			9	9	E	PALE		
19	ASR	2321E	1026	N07	E90	12	26.7			9	9	E	LEAR		
20	ASR	0715E	1315	N09	E90	12	27.0			9	9	E	SVTO		
20	APR	0800E	1315	N32	W90	12	13.2	2		9	9	E	SVTO		
20	BSL	0838E	0840D	S78	W90	12	12.0	1-				C	CATA		
20	BSL	0838E	0840D	S85	E90	12	28.8	1-				C	CATA		
20	BSL	0850E	0905D	N08	E90	12	27.1	1-				C	CATA		
20	DSF	0927U	2345U	N40	E28	12	22.7	2	10	0	0	E	LEAR		
20	BSL	1007E	1010D	N09	E90	12	27.2	1-				C	CATA		
20	BSL	1007E	1010D	S14	E90	12	27.2	1-				C	CATA		
20	AFS	1017E	1315	N02	E06	12	20.9		02	9	9	E	SVTO	7635	
20	BSL	1020E	1030	N08	E90	12	27.2	1-				C	CATA		
20	ASR	1043E	1105D	N04	E90	12	27.2			9	9	E	SVTO		
20	BSL	1051	1100D	N09	E90	12	27.2	1				C	CATA		
20	AFS	1138E	2015	N08	E82	12	26.6		02	9	9	E	RAMY	7640	
20	ASR	1140E	2015	N07	E84	12	26.8			9	9	E	RAMY	7640	
20	AFS	1148E	2015	N13	W70	12	15.2		02	9	9	E	RAMY	7638	
20	DSD	1150E	1713D	N09	W54	12	16.4		03	9	9	E	RAMY	7637	
20	AFS	1151E	2015	N08	W52	12	16.6		01	9	9	E	RAMY	7637	
20	DSD	1155E	1420D	N01	E02	12	20.6		03	9	9	E	RAMY	7635	
20	SSB	1212		437	W59	12	17.3			0	0	E	RAMY		447 W69
20	BSL	1235	1241D	N15	E90	12	27.3	1-				C	CATA		
20	BSD	1321	1321	N09	E78	12	26.4		05	9	9	E	SVTO		
20	DSD	1620E	2015	N08	E02	12	20.8		01	9	9	E	RAMY	7635	
20	ASR	1633E	2254	N10	E87	12	27.2			9	9	E	HOLL	7640	
20	ADF	1637E	2015	N17	W75	12	15.0	1	03	9	9	E	RAMY	7632	
20	AFS	1724E	2015	S05	W44	12	17.4		01	9	9	E	RAMY		
20	AFS	1829E	0020D	N09	W58	12	16.4		02	9	9	E	PALE	7637	
20	BSD	1829E	1903D	N07	E72	12	26.2		03	9	9	E	PALE	7640	
20	ADF	1830E	0020D	N15	W70	12	15.5	1	04	9	9	E	PALE	7632	
20	ASR	1903E	2205D	N07	E90	12	27.5			9	9	E	PALE	7640	
20	ASR	1931E	2014D	N01	E90	12	27.5			9	9	E	PALE	7641	
20	AFS	2014E	0335	N08	E74	12	26.4		02	9	9	E	PALE	7640	
20	AFS	2310E	1047	N10	E73	12	26.4		02	8	8	E	LEAR	7640	
21	ASR	0020E	0312D	N08	E88	12	27.6			9	9	E	PALE	7640	
21	AFS	1014E	1524	N07	E67	12	26.4		02	9	9	E	SVTO	7640	
21	AFS	1014E	1524	N08	E60	12	25.9		02	9	9	E	SVTO	7640	
21	AFS	1014E	1524	N10	E67	12	26.5		02	9	9	E	SVTO	7640	
21	BSL	1016E	1105D	S02	W90	12	14.7	1-				C	CATA		
21	BSL	1016E	1105D	S14	E90	12	28.2	1-				C	CATA		
21	BSL	1100	1105D	S04	E90	12	28.2	1-				C	CATA		
21	BSL	1100	1105D	S62	E90	12	29.4	1-				C	CATA		
21	DSD	1115E	1210D	N07	E69	12	26.6		06	9	9	E	SVTO	7640	
21	AFS	1123E	2057	N05	E64	12	26.3		02	9	9	E	RAMY	7640	
21	AFS	1123E	2057	N07	E69	12	26.6		03	9	9	E	RAMY	7640	
21	DSD	1132E	2057	N01	E65	12	26.3		02	9	9	E	RAMY	7641	
21	ADF	1132E	2057	S01	E72	12	26.8	1	04	9	9	E	RAMY	7641	
21	AFS	1157E	1740D	N01	W06	12	21.0		01	9	9	E	RAMY	7635	
21	DSD	1157E	1740D	N02	W10	12	20.7		02	9	9	E	RAMY	7635	
21	AFS	1200E	2057	N02	W10	12	20.7		01	9	9	E	RAMY	7635	
21	AFS	1202E	1740D	N12	W02	12	21.3		01	9	9	E	RAMY	7635	
21	ADF	1204E	2057	N02	W03	12	21.3	1	12	9	9	E	RAMY	7635	
21	ADF	1205E	1524	N00	E75	12	27.1	1	07	9	9	E	SVTO	7641	
21	AFS	1220E	1524	N05	W10	12	20.8		02	9	9	E	SVTO	7635	

ACTIVE PROMINENCES AND FILAMENTS

DECEMBER 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
21	APR	1441E	2057	N20	W90	12	14.7	1		9	9	E	RAMY	7632	
21	SSB	1448		432	W69	12	18.7			0	0	E	RAMY		442 W79
21	DSD	1533E	2057	N08	E64	12	26.4		01	9	9	E	RAMY	7640	
21	DSD	1542E	2057	N02	W09	12	21.0		01	9	9	E	RAMY	7635	
21	AFS	1737E	2057	N10	E60	12	26.2		02	9	9	E	RAMY	7640	
21	ADF	1815E	0018	N02	W11	12	20.9	1	04	9	9	E	PALE	7635	
21	AFS	1815E	0018D	N11	E58	12	26.1		03	9	9	E	PALE	7640	
21	AFS	1835E	0018	N13	W06	12	21.3		01	8	8	E	PALE		
21	DSD	1917E	0018	N10	E72	12	27.2		03	9	9	E	PALE	7640	
21	AFS	2240E	1046	N08	E59	12	26.4		02	8	8	E	LEAR	7640	
22	APR	0730E	1046	N10	W75	12	16.7	1		9	8	E	LEAR	7637	
22	DSD	0742E	1242	N06	E49	12	26.0		01	9	9	E	SVTO	7640	
22	AFS	0752E	1242	N07	E53	12	26.3		02	9	9	E	SVTO	7640	
22	APR	0754E	1242	S12	E90	12	29.1	1		9	9	E	SVTO	7637	
22	AFS	0756E	1242	S01	W21	12	20.8		02	9	9	E	SVTO	7635	
22	AFS	0823E	1242	N13	E57	12	26.6		02	9	9	E	SVTO	7640	
22	MDP	0830	1200	N16	W90	12	15.5						ATHN		
22	APR	0835	1200	N22	E90	12	29.3						ATHN		
22	APR	0840	1200	S22	E90	12	29.3						ATHN		
22	ADF	1030E	1242	N00	W17	12	21.2	1	09	9	9	E	SVTO	7635	
22	AFS	1134E	2022	N05	E49	12	26.1		02	9	9	E	RAMY	7640	
22	AFS	1134E	2022	N06	E52	12	26.4		01	9	9	E	RAMY	7640	
22	AFS	1134E	2022	N08	E56	12	26.7		02	9	9	E	RAMY	7640	
22	BSL	1140	1204	N07	E90	12	29.2	1-				C	CATA		
22	DSD	1140E	2022	N05	E48	12	26.1		01	9	9	E	RAMY	7640	
22	APR	1210E	2022	N18	W90	12	15.6	1		9	9	E	RAMY	7632	
22	ADF	1215E	2022	N03	W17	12	21.2	1	07	9	9	E	RAMY	7635	
22	SSB	1236		375	W25	12	16.7			0	0	E	RAMY		
22	DSD	1623E	2022	N08	E43	12	25.9		03	9	9	E	RAMY	7640	
22	DSD	1625E	2022	N01	E50	12	26.4		01	9	9	E	RAMY	7641	
22	DSD	1627E	2022	N02	W24	12	20.9		01	9	9	E	RAMY	7635	
22	DSD	1648E	1852D	N14	W16	12	21.5		02	9	9	E	RAMY		
22	DSD	1718E	2352	N09	E44	12	26.0		05	9	9	E	HOLL	7640	
22	DSD	1725E	2022	N05	E43	12	25.9		06	9	9	E	RAMY	7640	Flare Associated
22	DSD	1731E	1922D	N08	E46	12	26.2		04	9	9	E	PALE	7640	Flare Associated
22	DSD	1732E	1855D	N06	E44	12	26.0		07	9	9	E	HOLL	7640	Flare Associated
22	DSD	1758E	1855D	N06	E51	12	26.6		05	9	9	E	HOLL	7640	
22	ADF	1817E	2022	N03	E47	12	26.3	1	04	9	9	E	RAMY	7640	
22	ADF	1825E	2352	N12	W20	12	21.3	1	17	9	9	E	HOLL	7635	
22	ADF	1830E	0051	N06	E50	12	26.5		03	9	9	E	PALE	7641	
22	ADF	1834E	0051	N02	W25	12	20.9	1	04	9	9	E	PALE	7635	
22	APR	1849E	2022	N26	E90	12	29.8	1		9	9	E	RAMY		
22	APR	1908E	0051	S90	E13	12	24.0	1		9	9	E	PALE		
22	ADF	1922E	0051	N11	E50	12	26.6	1	04	9	9	E	PALE	7640	
22	APR	1927E	2352	S15	E90	12	29.6	1		7	7	E	HOLL		
22	AFS	2054E	2352	N11	E43	12	26.1		02	9	7	E	HOLL	7640	
22	AFS	2230E	0400D	N05	E47	12	26.4		03	9	9	E	LEAR	7640	
22	DSD	2315E	0630D	N11	E52	12	26.9		04	9	9	E	LEAR	7640	
22	ADF	2328E	1038	N15	E52	12	26.9	1	04	9	9	E	LEAR	7640	
23	DSD	0021E	0051	N07	E42	12	26.2		02	9	9	E	PALE	7640	Flare Associated
23	DSD	0034E	0630D	N06	E41	12	26.1		04	9	9	E	LEAR	7640	
23	APR	0430E	1038	S12	W65	12	18.3	1		9	8	E	LEAR		
23	AFS	0720E	1458	N10	E41	12	26.4		02	9	9	E	SVTO	7640	
23	AFS	0721E	1458	N05	E42	12	26.4		02	9	9	E	SVTO	7640	
23	ADF	0730E	1458	S04	E43	12	26.5	1	06	9	9	E	SVTO	7641	
23	ADF	0731E	1458	N09	E44	12	26.6	1	06	9	9	E	SVTO	7640	
23	DSD	0759E	1458	N07	E37	12	26.1		03	9	9	E	SVTO	7640	
23	AFS	0800E	1458	N09	E45	12	26.7		02	9	9	E	SVTO	7640	
23	APR	0808E	0939D	S16	E90	12	30.2	1		9	9	E	SVTO		
23	BSL	0846	0850	N72	E90	12	31.6	1-				C	CATA		
23	DSD	0908	1234D	N06	E36	12	26.1		02	9	9	E	SVTO	7640	Flare Associated
23	BSL	0923	0932	N07	W90	12	16.6	1-				C	CATA		
23	AFS	1118E	1458	S13	E76	12	29.2		01	9	9	E	SVTO		
23	DSD	1130E	2024	N10	E39	12	26.4		04	9	9	E	RAMY	7640	
23	ADF	1135E	2024	N09	E44	12	26.8	1	07	9	9	E	RAMY	7640	
23	DSD	1139E	1331D	N07	E50	12	27.2		04	9	9	E	SVTO	7640	
23	AFS	1200E	2024	N04	E38	12	26.3		02	9	9	E	RAMY	7640	
23	BSL	1202E	1215D	S01	E90	12	30.2	1-				C	CATA		

ACTIVE PROMINENCES AND FILAMENTS

DECEMBER 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
23	AFS	1202E	2024	N08	E46	12	26.9		02	9	9	E	RAMY	7640	
23	AFS	1203E	2024	N07	E42	12	26.6		01	9	9	E	RAMY	7640	
23	AFS	1204E	2024	N08	E41	12	26.6		01	9	9	E	RAMY	7640	
23	DSD	1205E	2024	N05	E48	12	27.1		02	9	9	E	RAMY	7640	
23	ADF	1217E	2024	N02	W32	12	21.1	1	04	9	8	E	RAMY	7635	
23	AFS	1223E	2024	S17	E69	12	28.7		02	9	9	E	RAMY		
23	BSL	1230E	1243D	S01	E90	12	30.2	1-				C	CATA		
23	DSD	1249E	1331D	N07	E35	12	26.1		04	9	9	E	SVTO	7640	Flare Associated
23	DSD	1343E	2024	N07	E46	12	27.0		02	9	9	E	RAMY	7640	Flare Associated
23	DSD	1349E	1458	N01	E40	12	26.6		03	9	9	E	SVTO	7641	
23	DSD	1538E	2024	N02	E41	12	26.7		01	8	9	E	RAMY	7641	
23	ADF	1607E	2024	N18	E41	12	26.8	1	07	9	9	E	RAMY	7640	
23	APR	1637E	2024	S14	E90	12	30.5	1		9	9	E	RAMY		
23	DSD	1827E	2024	N02	W40	12	20.8		01	9	9	E	RAMY	7635	
23	SSB	2015		389	W35	12	16.7			0	0	E	PALE		
23	ADF	2057E	0342	N08	E43	12	27.1	1	04	9	9	E	PALE	7640	
23	AFS	2057E	0342	N09	E31	12	26.2		03	9	9	E	PALE	7640	
23	ADF	2057E	0342	N13	E28	12	26.0	1	04	9	9	E	PALE	7640	
23	AFS	2230E	1025	N07	E30	12	26.2		02	9	9	E	LEAR	7640	
23	DSD	2230E	1025	N07	E43	12	27.1		03	9	9	E	LEAR	7640	
23	DSD	2242E	0342	N19	E60	12	28.5		03	9	9	E	PALE		
24	AFS	0100E	0230D	N15	E68	12	29.2		02	9	9	E	LEAR		
24	ADF	0130E	1025	N12	W39	12	21.1	1	15	9	9	E	LEAR	7635	
24	ADF	0150E	0342	N05	W40	12	21.1		05	9	9	E	PALE	7635	
24	BSD	0150E	0342	N06	W41	12	21.0		02	9	9	E	PALE	7635	
24	DSD	0948	1334	N08	E30	12	26.6		02	9	9	E	SVTO	7640	Flare Associated
24	AFS	1040E	1334	N07	E31	12	26.8		02	9	9	E	SVTO	7640	
24	AFS	1040E	1334	N09	E31	12	26.8		02	9	9	E	SVTO	7640	
24	DSD	1042E	1334	S19	W57	12	20.1		03	9	9	E	SVTO		
24	AFS	1134E	2121	N06	E24	12	26.3		01	9	9	E	RAMY	7640	
24	DSD	1135E	2121	N05	E20	12	26.0		01	9	9	E	RAMY	7640	
24	DSD	1135E	2121	N07	E35	12	27.1		03	9	9	E	RAMY	7640	
24	AFS	1139E	2121	N04	E26	12	26.4		02	9	9	E	RAMY	7640	
24	ADF	1142E	2121	N03	E30	12	26.7	1	06	9	9	E	RAMY	7641	
24	SSB	1236		368	W43	12	18.9			0	0	E	SVTO		
24	DSF	1242U	0901U	N15	E45	12	27.9	1				C	CATA		
24	AFS	1242E	2121	N09	E22	12	26.2		02	9	9	E	RAMY	7640	
24	DSD	1243E	2121	N07	E17	12	25.8		01	9	9	E	RAMY	7640	
24	DSD	1245E	2121	N09	E34	12	27.1		02	9	9	E	RAMY	7640	
24	DSD	1246E	2121	N00	E25	12	26.4		02	9	9	E	RAMY	7641	
24	ADF	1247E	2121	N04	W47	12	21.0	1	07	9	9	E	RAMY	7635	
24	ADF	1249E	2121	S17	E60	12	29.1	1	03	8	8	E	RAMY		
24	AFS	1406E	2121	N11	W15	12	23.4		03	9	9	E	RAMY	7642	
24	AFS	1414E	2121	S16	E55	12	28.8		02	9	9	E	RAMY		
24	DSD	1419E	2121	N09	E18	12	25.9		02	9	9	E	RAMY	7640	
24	DSD	1500E	1532D	N08	E29	12	26.8		04	9	9	E	RAMY	7640	Flare Associated
24	DSD	1512E	1545D	N10	E32	12	27.0		05	9	9	E	HOLL	7640	Flare Associated
24	AFS	1745E	2355	N08	E20	12	26.2		02	9	9	E	HOLL	7640	
24	AFS	1745E	2355	N10	W17	12	23.5		02	7	6	E	HOLL		
24	DSD	1826E	1847D	N06	E18	12	26.1		03	9	9	E	PALE	7640	Flare Associated
24	ADF	1849E	0340	N01	E28	12	26.9	1	07	9	9	E	PALE	7641	
24	ADF	1849E	0340	N07	E24	12	26.6	1	03	9	9	E	PALE	7640	
24	ADF	1853E	0340	N19	E50	12	28.6	1	06	9	9	E	PALE		
24	SSB	1854		371	W48	12	18.8			0	0	E	PALE		
24	ADF	1854E	0340	S03	W48	12	21.2	1	04	9	9	E	PALE	7635	
24	AFS	1901E	0340	N10	W18	12	23.4		02	9	9	E	PALE	7642	
24	DSD	2021E	2152D	N07	E17	12	26.1		01	9	9	E	HOLL	7640	
24	DSD	2114E	2152D	N05	E16	12	26.1		04	9	9	E	PALE	7640	Flare Associated
24	DSD	2250E	1045	N05	E20	12	26.4		04	9	9	E	LEAR	7640	
25	ADF	0005E	0840D	N06	E13	12	26.0	1	04	9	9	E	LEAR	7640	
25	AFS	0005E	1045	N08	E15	12	26.1		04	9	9	E	LEAR	7640	
25	SSB	0010		368	W50	12	19.2			0	0	E	LEAR		
25	BSL	0825	0835	S25	W90	12	18.4	1-				C	CATA		
25	DSD	0833E	1445	N05	E06	12	25.8		02	9	9	E	SVTO	7640	
25	ADF	0833E	1445	N05	E17	12	26.6	1	05	9	9	E	SVTO	7640	
25	AFS	0833E	1445	N06	E08	12	25.9		02	9	9	E	SVTO	7640	
25	ADF	0833E	1445	N06	E17	12	26.6	1	09	9	9	E	SVTO	7641	
25	DSD	1130E	2003	N06	E05	12	25.8		01	9	9	E	RAMY	7640	

ACTIVE PROMINENCES AND FILAMENTS

DECEMBER 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
25	DSD	1130E	2003	N08	E09	12	26.1		02	9	9	E	RAMY	7640	
25	AFS	1131E	2003	N05	E09	12	26.1		02	9	9	E	RAMY	7640	
25	DSD	1133E	2003	N07	E13	12	26.4		01	9	9	E	RAMY	7640	
25	DSD	1135E	2003	N09	E21	12	27.0		02	9	9	E	RAMY	7640	
25	AFS	1136E	2003	N10	E14	12	26.5		02	9	9	E	RAMY	7640	
25	ADF	1137E	2003	N01	E21	12	27.0	1	03	9	9	E	RAMY	7641	
25	DSD	1138E	1700D	N03	E18	12	26.8		01	9	9	E	RAMY	7641	
25	AFS	1200E	2003	N11	W27	12	23.5		02	9	9	E	RAMY	7642	
25	DSD	1202E	1602D	S19	E40	12	28.5		02	8	8	E	RAMY		
25	DSD	1204E	1550D	N02	W63	12	20.8		01	9	9	E	RAMY	7635	
25	ADF	1209E	1603D	S20	E63	12	30.3	1	02	9	9	E	RAMY	7643	
25	ADF	1209E	2003	S19	E58	12	29.9	1	06	9	9	E	RAMY	7643	
25	DSD	1348E	1700D	N01	E13	12	26.5		02	9	9	E	RAMY	7641	
25	DSD	1354E	1445	N03	E14	12	26.6		03	9	9	E	SVTO	7641	
25	ADF	1356E	2003	N13	W02	12	25.4	1	10	9	9	E	RAMY		
25	AFS	1457E	2354	N10	E21	12	27.2		02	9	9	E	HOLL	7640	
25	DSD	1501E	2354	N06	E05	12	26.0		06	9	9	E	HOLL	7640	
25	DSD	1524E	1727D	N07	E06	12	26.1		02	9	9	E	HOLL	7640	Flare Associated
25	ADF	1550E	2003	N04	W63	12	20.9	1	04	9	9	E	RAMY	7635	
25	ADF	1640E	2027D	N04	W65	12	20.8	1	04	9	9	E	HOLL	7635	
25	DSD	1659E	1956D	N06	E10	12	26.4		02	9	9	E	HOLL	7640	
25	DSD	1840E	0322D	N08	E20	12	27.3		02	9	9	E	PALE	7640	
25	DSD	1840E	0329	N02	E05	12	26.1		03	9	9	E	PALE	7640	
25	ADF	1840E	0329	N03	W61	12	21.2	1	04	9	9	E	PALE	7635	
25	AFS	1840E	0329	N11	E12	12	26.7		02	9	9	E	PALE	7640	
25	AFS	1842E	0250D	N10	W28	12	23.7		02	8	8	E	PALE	7642	
25	AFS	1842E	0250D	S17	E60	12	30.3		02	8	8	E	PALE	7643	
25	DSD	1842E	0329	N04	E14	12	26.8		02	9	9	E	PALE	7641	
25	DSF	2327U	1457U	N11	W40	12	23.0	2	06	0	0	E	HOLL		
26	AFS	0350E	1040	N05	W02	12	26.0		04	9	9	E	LEAR	7640	
26	DSD	0610E	0815D	N08	W09	12	25.6		08	8	8	E	LEAR	7640	
26	DSD	0820E	0840	N05	W08	12	25.7		03	9	9	E	SVTO	7640	
26	ADF	0827E	0840	N03	W78	12	20.5	1	12	9	9	E	SVTO	7635	
26	DSD	0941	1040	N05	W10	12	25.6		06	9	9	E	LEAR	7640	Flare Associated
26	DSD	1132E	2115	N06	W04	12	26.2		03	9	9	E	RAMY	7640	
26	AFS	1133E	2115	N09	E07	12	27.0		02	9	9	E	RAMY	7640	
26	AFS	1134E	2115	N06	W03	12	26.2		02	9	9	E	RAMY	7640	
26	DSD	1135E	2115	N05	W09	12	25.8		03	9	9	E	RAMY	7640	
26	AFS	1140E	2115	N05	W01	12	26.4		01	9	7	E	RAMY	7641	
26	AFS	1142E	2115	N10	E11	12	27.3		01	9	9	E	RAMY	7640	
26	AFS	1224E	2115	S18	E49	12	30.2		01	7	7	E	RAMY	7643	
26	SSB	1231		300	W01	12	26.5			0	0	E	RAMY		369 W70
26	DSD	1335E	2115	N07	W11	12	25.7		01	9	9	E	RAMY	7640	
26	AFS	1432E	2257	N09	E05	12	27.0		02	9	9	E	HOLL	7640	
26	ADF	1436E	2115	N01	W73	12	21.1	1	03	9	9	E	RAMY	7635	
26	DSD	1513E	1641D	N05	E09	12	27.3		04	9	9	E	HOLL	7640	Flare Associated
26	DSD	1530E	2115	S04	W04	12	26.3		01	9	9	E	RAMY		
26	DSD	1538E	1802D	S04	W04	12	26.3		01	9	9	E	HOLL		
26	ADF	1624E	2115	N01	W02	12	26.5	1	04	9	9	E	RAMY	7641	
26	AFS	1630E	2115	S04	W05	12	26.3		01	9	9	E	RAMY		
26	ADF	1647E	2115	N13	W09	12	26.0	1	07	9	9	E	RAMY	7640	
26	AFS	1728E	2257	S05	W06	12	26.3		02	9	9	E	HOLL		
26	AFS	1759E	2200	N51	E49	12	30.9		01	9	9	E	HOLL		
26	AFS	1759E	2257	N09	W10	12	26.0		01	9	9	E	HOLL	7640	
26	ADF	1824E	2257	N13	W04	12	26.5	1	06	9	9	E	HOLL	7640	
26	DSD	1828E	2003D	S05	W05	12	26.4		02	9	9	E	HOLL		
26	AFS	2100E	0213D	S15	E27	12	28.9		02	9	9	E	PALE		
26	ADF	2100E	0248	N05	W12	12	26.0	1	04	9	9	E	PALE	7640	
26	DSD	2100E	0248	N07	W18	12	25.5		07	9	9	E	PALE	7640	
26	DSD	2100E	0248	N10	E08	12	27.5		03	9	9	E	PALE	7640	
26	AFS	2100E	0248	N11	W02	12	26.7		02	9	9	E	PALE	7640	
26	AFS	2100E	0248	S04	W08	12	26.3		02	9	9	E	PALE		
26	ADF	2105E	0213D	N01	W02	12	26.7	1	04	9	9	E	PALE	7641	
26	AFS	2105E	0248	N07	W04	12	26.6		02	9	9	E	PALE	7641	
26	AFS	2110E	0213D	S18	E48	12	30.5		02	9	9	E	PALE	7643	
26	SSB	2130		304	W10	12	26.6			0	0	E	PALE		339 W45
27	DSD	0001E	1045	N05	W19	12	25.6		04	9	7	E	LEAR	7640	
27	AFS	0001E	1045	N06	W15	12	25.9		04	9	8	E	LEAR	7640	

ACTIVE PROMINENCES AND FILAMENTS

DECEMBER 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
27	DSD	0020E	0033D	N05	W08	12	26.4		02	9	9	E	PALE	7641	
27	DSD	0916E	1002D	N12	W03	12	27.2		04	9	9	E	LEAR	7640	Flare Associated
27	DSD	0917E	0949D	N15	W05	12	27.0	2				C	CATA		
27	BSL	0943	0949D	S83	E90	01	4.8	1-				C	CATA		
27	BSL	1141E	1152	N15	E90	01	3.3	1-				C	CATA		
27	BSL	1146	1159	S88	E90	01	4.9	1-				C	CATA		
27	BSL	1149	1159	S88	W90	12	19.1	1-				C	CATA		
27	AFS	1200E	1950	N10	W06	12	27.0		02	9	9	E	RAMY	7640	
27	DSD	1310E	1950	N08	W24	12	25.7		01	9	9	E	RAMY	7640	
27	AFS	1317E	1950	N07	W15	12	26.4		02	9	9	E	RAMY	7640	
27	DSD	1323E	1950	N12	W18	12	26.2		01	9	9	E	RAMY	7640	
27	ADF	1329E	1848D	S20	E36	12	30.3	1	06	9	9	E	RAMY	7643	
27	APR	1335E	1950	S02	W90	12	20.8	1		9	9	E	RAMY	7635	
27	APR	1649E	1950	N10	W90	12	20.9	1		9	9	E	RAMY		
27	ASR	2340E	0140D	N10	E90	01	3.7			8	8	E	LEAR		
27	DSD	2341E	0515D	N06	W29	12	25.8		03	9	9	E	LEAR	7640	
27	AFS	2341E	0910D	N07	W23	12	26.3		03	9	9	E	LEAR	7640	
28	ASR	0125E	0150D	S15	E90	01	3.9			8	8	E	LEAR		
28	ASR	0155E	0306	S15	E90	01	3.9			9	9	E	PALE		
28	DSD	0159E	0306	N07	W10	12	27.3		05	9	9	E	PALE	7644	
28	AFS	0159E	0306	N09	W12	12	27.2		02	9	9	E	PALE	7644	
28	SSB	0210		296	W18	01	4.4			0	0	E	LEAR		
28	DSD	0215E	0306	N07	W27	12	26.1		03	9	9	E	PALE	7640	
28	AFS	0215E	0306	N08	W22	12	26.4		02	9	9	E	PALE	7640	
28	ADF	0217E	0306	S16	E24	12	29.9	1	04	9	9	E	PALE	7643	
28	ADF	0517E	0910D	N08	W34	12	25.7	1	14	9	9	E	LEAR	7640	
28	ASR	0535E	1045	S09	E90	01	4.0			9	9	E	LEAR		
28	ASR	0830E	1045	N10	E90	01	4.1			9	9	E	LEAR		
28	DSD	0919E	0934	N04	W41	12	25.3	1				C	CATA		
28	AFS	1226E	2133	N08	W37	12	25.7		02	9	9	E	RAMY	7640	
28	DSD	1227E	2133	N09	W38	12	25.7		01	9	9	E	RAMY	7640	
28	AFS	1229E	2133	N09	W30	12	26.3		01	9	9	E	RAMY	7640	
28	DSD	1234E	2133	N10	W29	12	26.3		02	8	8	E	RAMY	7640	
28	DSD	1236E	2133	N11	W17	12	27.2		01	9	9	E	RAMY	7644	
28	ADF	1334E	2133	S19	E21	12	30.2	1	03	9	9	E	RAMY	7643	
28	DSD	1421E	2133	N02	W29	12	26.4		01	9	9	E	RAMY	7641	
28	APR	1425E	2133	S10	E88	01	4.2	1		9	9	E	RAMY		
28	APR	1427E	2133	N10	E86	01	4.1	1		9	9	E	RAMY		
28	AFS	1439E	1725D	S29	W04	12	28.3		01	9	9	E	RAMY		
28	AFS	1639E	2133	N10	W24	12	26.9		02	9	9	E	RAMY	7644	
28	DSD	1641E	2133	S14	E01	12	28.8		01	9	9	E	RAMY		
28	AFS	1707E	2133	N12	W21	12	27.1		02	9	9	E	RAMY	7644	
28	APR	1745E	2133	N08	E89	01	4.4	1		9	9	E	RAMY		
28	DSD	2010E	0240	N09	W27	12	26.8		02	9	9	E	PALE	7640	
28	AFS	2010E	0240	N09	W38	12	26.0		02	9	9	E	PALE	7640	
28	AFS	2011E	0240	N10	W25	12	27.0		02	9	9	E	PALE	7644	
28	ASR	2015E	0240	N12	E90	01	4.6			9	9	E	PALE		
28	ASR	2015E	0240	S13	E90	01	4.6			9	9	E	PALE		
28	AFS	2036E	0240	S20	E20	12	30.4		02	8	8	E	PALE	7643	
28	ADF	2036E	0240	S22	E20	12	30.4	1	04	9	9	E	PALE	7643	
28	ASR	2042E	2350	N10	E80	01	3.9			9	9	E	HOLL		
28	ASR	2042E	2350	S09	E83	01	4.1			9	9	E	HOLL		
28	DSD	2047E	2350	N05	W42	12	25.7		01	9	9	E	HOLL	7640	
28	ASR	2225E	1047	N12	E90	01	4.7			9	9	E	LEAR	7645	
28	ASR	2225E	1047	S13	E89	01	4.6			9	9	E	LEAR	7646	
28	AFS	2227E	1047	N10	W39	12	26.0		02	9	9	E	LEAR	7640	
29	DSD	0303E	0525D	N07	W41	12	26.0		04	8	8	E	LEAR	7640	
29	ADF	0305E	0615D	S03	W37	12	26.4	1	04	9	9	E	LEAR		
29	SSB	0310		297	W33	01	5.8			0	0	E	LEAR		
29	BSL	0757E	0829	S15	E90	01	5.1	1				C	CATA		
29	BSL	0808	0829	S13	E90	01	5.1	1				C	CATA		
29	BSL	0809	0848	S29	E90	01	5.4	1-				C	CATA		
29	DSD	0821	0840	N02	W49	12	25.7	1				C	CATA		
29	DSD	0825E	0924D	N02	W50	12	25.6		04	9	9	E	LEAR	7640	
29	BSL	0835	0848	S82	E90	01	6.7	1-				C	CATA		
29	DSF	0949U	2320U	S05	E31	12	31.7	2	17	0	0	E	LEAR		
29	BSL	0950E	1001	N12	E90	01	5.2	1-				C	CATA		
29	BSL	1001	1015	S82	E90	01	6.8	1-				C	CATA		

ACTIVE PROMINENCES AND FILAMENTS

DECEMBER 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
29	BSL	1015	1020D	N11	E90	01	5.2	1				C	CATA		
29	AFS	1130E	2130	N07	W47	12	25.9		03	9	9	E	RAMY	7640	
29	DSD	1130E	2130	N07	W50	12	25.7		01	9	9	E	RAMY	7640	
29	ADF	1131E	2130	N04	W52	12	25.6	1	03	9	9	E	RAMY	7640	
29	AFS	1132E	2130	N09	W40	12	26.5		02	9	9	E	RAMY	7640	
29	AFS	1133E	2130	N10	W34	12	26.9		02	9	9	E	RAMY	7644	
29	DSD	1134E	2130	N10	W36	12	26.8		02	9	9	E	RAMY	7644	
29	DSD	1135E	2130	N06	W39	12	26.6		01	8	8	E	RAMY	7641	
29	ADF	1137E	2015D	S17	E17	12	30.8	1	04	9	9	E	RAMY	7643	
29	DSD	1154E	2130	N09	E69	01	3.7		02	9	9	E	RAMY	7645	
29	APR	1155E	1612D	N10	E89	01	5.2	1		9	9	E	RAMY	7645	
29	DSD	1157E	2130	S11	E73	01	4.0		02	8	7	E	RAMY	7646	
29	AFS	1609E	2130	N09	E74	01	4.2		02	9	9	E	RAMY	7645	
29	DSD	1610E	2130	N11	E76	01	4.4		01	9	9	E	RAMY	7645	
29	AFS	1612E	2130	S10	E74	01	4.2		02	9	9	E	RAMY	7646	
29	SSB	1735		266	W10	01	3.7			0	0	E	PALE		
29	AFS	1800E	0341	N09	W47	12	26.2		02	9	9	E	PALE	7640	
29	AFS	1800E	0341	N10	W37	12	27.0		02	9	9	E	PALE	7644	
29	ADF	1800E	1950D	N17	W42	12	26.5	2	08	9	9	E	PALE	7640	
29	DSD	1830E	2130	N13	W49	12	26.1		02	9	9	E	RAMY	7640	
29	AFS	1855E	0341	N10	E65	01	3.7		02	8	7	E	PALE	7645	
29	ADF	1855E	0341	N12	E67	01	3.8	1	05	9	9	E	PALE	7645	
29	AFS	1855E	0341	S12	E73	01	4.3		02	9	9	E	PALE	7646	
29	DSD	1926E	1950D	N12	W33	12	27.3		02	9	9	E	PALE	7644	
29	DSD	1933E	2130	N12	W32	12	27.4		04	9	9	E	RAMY	7644	
29	AFS	2223E	1047	N12	E64	01	3.7		03	9	9	E	LEAR	7645	
29	AFS	2223E	1047	S11	E72	01	4.3		02	9	9	E	LEAR	7646	
29	AFS	2225E	1047	N09	W50	12	26.2		03	9	9	E	LEAR	7640	
29	DSD	2333E	1015D	N08	W44	12	26.7		03	8	8	E	LEAR	7640	
30	BSL	0757	0805	S75	E90	01	7.6	1-				C	CATA		
30	AFS	1120E	1438D	N06	W58	12	26.1		02	9	9	E	RAMY	7640	
30	AFS	1122E	2043	N10	W45	12	27.1		04	9	9	E	RAMY	7640	
30	AFS	1132E	2043	S11	E62	01	4.1		01	9	9	E	RAMY	7646	
30	DSD	1133E	2043	S11	E61	01	4.1		02	9	9	E	RAMY	7646	
30	BSL	1200	1208	S57	E90	01	7.3	1-				C	CATA		
30	APR	1314E	2043	S31	E90	01	6.6	1		9	9	E	RAMY		
30	AFS	1439E	2043	N06	W58	12	26.3		02	9	9	E	RAMY	7644	
30	ADF	1515E	2043	S17	W07	12	30.1	1	07	9	9	E	RAMY	7643	
30	DSD	1700E	2043	N11	W53	12	26.7		03	9	9	E	RAMY	7644	
30	AFS	1704E	2358	N09	W52	12	26.8		03	9	9	E	HOLL	7644	
30	AFS	1741E	0340	S14	E67	01	4.8		03	9	9	E	PALE	7646	
30	DSD	1745E	0340	N10	E63	01	4.5		02	9	9	E	PALE	7645	
30	AFS	1745E	0340	N12	W47	12	27.2		03	9	9	E	PALE	7644	
30	ADF	1746E	0340	N07	E64	01	4.5	1	04	9	9	E	PALE	7645	
30	DSD	1754E	0340	N14	W45	12	27.3		04	9	9	E	PALE	7644	
30	ADF	1755E	0340	N10	W62	12	26.1	1	05	9	9	E	PALE	7640	
30	DSD	1755E	0340	N11	W60	12	26.2		02	9	9	E	PALE	7640	
30	DSD	1755E	0340	N12	W62	12	26.1		03	9	9	E	PALE	7640	
30	AFS	1933E	2358	S10	E57	01	4.1		02	9	9	E	HOLL	7646	
30	DSD	2005E	2112D	N11	E53	01	3.8		05	9	9	E	HOLL	7645	
30	ADF	2040E	2043	S15	E61	01	4.5	1	05	9	9	E	RAMY	7646	
30	AFS	2042E	2043	N08	E59	01	4.3		02	9	9	E	RAMY	7645	
30	DSD	2255E	0544D	N09	W56	12	26.7		02	9	9	E	LEAR	7640	
30	AFS	2300E	1042	N03	W74	12	25.4		04	9	9	E	LEAR	7640	
30	AFS	2304E	1042	S09	E55	01	4.1		02	9	9	E	LEAR	7646	
30	AFS	2305E	1042	N13	E59	01	4.4		03	9	9	E	LEAR	7645	
31	ADF	0620E	0800D	S17	E08	12	31.9	1	06	9	9	E	LEAR	7643	
31	DSD	0710E	0730D	N08	W71	12	26.0		04	9	9	E	LEAR	7641	
31	BSL	0824	0824D	N33	E90	01	7.5	1-				C	CATA		
31	AFS	0843E	1503	N10	E46	01	3.8		02	9	9	E	SVTO	7645	
31	AFS	0844E	1503	N12	E54	01	4.4		03	9	9	E	SVTO	7645	
31	AFS	0845E	1503	N08	W60	12	26.9		03	9	9	E	SVTO	7640	
31	DSD	0846E	1503	N04	W74	12	25.8		02	9	9	E	SVTO	7640	
31	AFS	0852E	1503	S08	E51	01	4.2		03	9	9	E	SVTO	7646	
31	AFS	0907E	1042	S16	E42	01	3.6		01	9	9	E	LEAR		
31	AFS	0952E	1503	S16	E43	01	3.7		02	9	9	E	SVTO		
31	ADF	1102E	1503	S19	W15	12	30.3	1	10	9	9	E	SVTO	7643	
31	ADF	1152E	2045	N08	W63	12	26.8	1	04	9	9	E	RAMY	7641	

ACTIVE PROMINENCES AND FILAMENTS

DECEMBER 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
31	AFS	1152E	2045	N11	W62	12	26.8		02	9	9	E	RAMY	7640	
31	DSD	1156E	2045	S08	E51	01	4.3		01	9	9	E	RAMY	7646	
31	AFS	1156E	2045	S11	E47	01	4.0		03	9	9	E	RAMY	7646	
31	AFS	1156E	2045	S17	E41	01	3.6		02	9	9	E	RAMY	7647	
31	AFS	1203E	2045	N09	E49	01	4.2		01	9	9	E	RAMY	7645	
31	DSD	1203E	2045	N10	E46	01	3.9		03	9	9	E	RAMY	7645	
31	AFS	1203E	2045	N10	E56	01	4.7		02	9	9	E	RAMY	7645	
31	ADF	1203E	2045	N20	E50	01	4.3	1	12	9	9	E	RAMY	7645	
31	ADF	1209E	1503	S10	E49	01	4.2	1	09	9	9	E	SVTO	7646	
31	APR	1224E	2045	N07	W79	12	25.6	1		9	9	E	RAMY	7640	
31	SSB	1256		270	W37	01	6.2			0	0	E	RAMY		
31	AFS	1800E	2359	S16	E38	01	3.6		01	9	9	E	HOLL	7647	
31	AFS	1807E	2248D	S09	E45	01	4.1		01	9	9	E	HOLL	7646	
31	AFS	1810E	2359	N11	W67	12	26.7		01	9	9	E	HOLL	7644	
31	ADF	1815E	0113	N03	W72	12	26.4	1	03	9	9	E	PALE	7641	
31	AFS	1815E	0113	N13	W66	12	26.8		03	9	9	E	PALE	7644	
31	ADF	1815E	0113	N13	W79	12	25.8	1	04	9	9	E	PALE	7640	
31	AFS	1815E	0113	S15	E37	01	3.6		02	9	9	E	PALE		
31	ADF	1817E	0113	N07	E39	01	3.7	1	05	9	9	E	PALE	7645	
31	DSD	1817E	0113	N12	E56	01	5.0		02	9	9	E	PALE	7645	
31	AFS	1817E	0113	N14	E45	01	4.2		03	9	9	E	PALE	7645	
31	AFS	1820E	0113	S08	E39	01	3.7		02	9	9	E	PALE	7646	
31	DSD	1820E	0113	S10	E51	01	4.6		02	9	9	E	PALE	7646	
31	AFS	1820E	0113	S12	E38	01	3.6		02	9	9	E	PALE	7646	
31	ADF	1820E	0113	S14	E47	01	4.3	1	03	9	9	E	PALE	7646	
31	BSD	1922E	2142D	N09	W86	12	25.3		02	9	9	E	PALE	7640	
31	DSD	2236E	2359	N12	E40	01	3.9		03	9	9	E	HOLL	7645	Flare Associated
31	DSD	2240E	0305D	N14	E38	01	3.8		04	9	9	E	LEAR	7645	
31	ADF	2248E	0058D	N05	W45	12	28.6	1	07	9	9	E	PALE		
31	AFS	2300E	1040	S16	E35	01	3.6		03	9	9	E	LEAR	7647	
31	ASR	2310E	1040	N08	W90	12	25.2			9	9	E	LEAR	7640	
31	ASR	2322E	2359	N10	W81	12	25.9			9	9	E	HOLL	7644	
31	AFS	2330E	1040	S09	E41	01	4.0		02	9	9	E	LEAR	7646	

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.

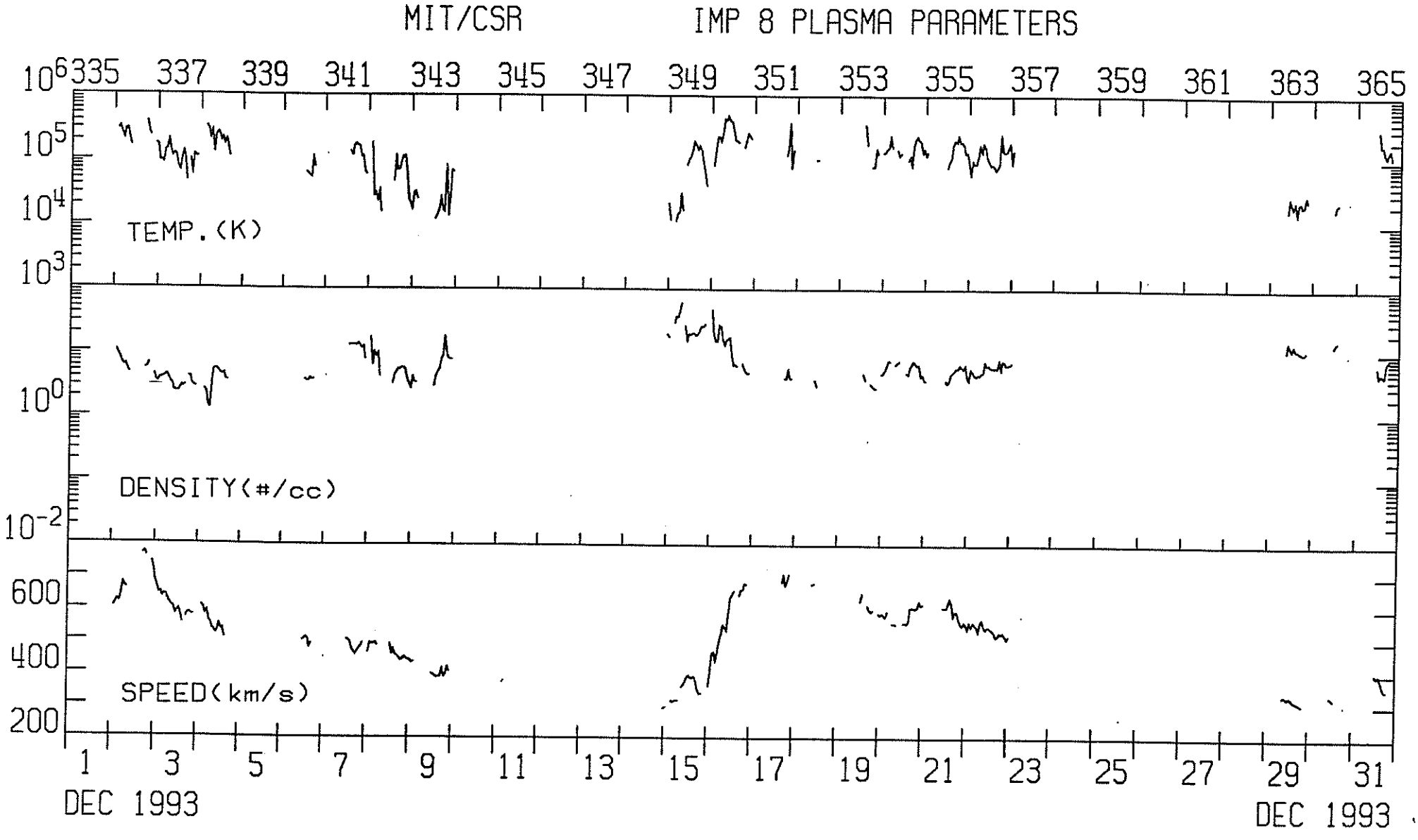
The EXTENT field for limb events is the radial extent above the limb in hundredths of solar radius. For disk events this field contains the heliographic extent in whole degrees.

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

IMP 8 SOLAR WIND PLASMA
DECEMBER 1993



IMP 8 MIT ONE-HOUR AVERAGES

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."