U.S. DEPARTMENT OF COMMERCE
William M. Daley, Secretary

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
D. James Baker, Administrator

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

MARCH 1998 NUMBER 643 - Part II

Solar-Geophysical Data comprehensive reports

Data for September 1997

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

NATIONAL GEOPHYSICAL DATA CENTER
Michael S. Loughridge, Director
Boulder, Colorado

Subscription information is on the inside back cover.

SOLAR-GEOPHYSICAL DATA

Number 643

(Issued in Two Parts)

Editor: Helen E. Coffey

Chief: Herbert W. Kroehl
Solar-Terrestrial Physics Division

Staff: Christine D. Hanchett
Edward H. Erwin

Computer Consultant:
Daniel C. Wilkinson

CONTENTS

DETAILED INDEX OF OBSERVATIONS PUBLISHED IN SOLAR-GEOPHYSICAL DATA

CODE	KIND OF OBSERVATION	JUL 97	AUG	SEP	OCT	NOV	DEC	JAN 98	FEB
A.	SOLAR AND INTERPLANETARY								
A.1	Sunspot Drawings	637A 41	638A 45	639A 41	640A 47	641A 44	642A 44	643A 48	
A.2aa	International Provisional Sunspot Numbers	636A 25	637A 24	638A 24	639A 24	640A 24	641A 25	642A 26	643A 24
A.2c	American Sunspot Numbers	636A 25	637A 24	638A 24	639A 24	640A 24	641A 25	642A 26	643A 24
A.3a	Mt. Wilson Magnetograms	637A 41	638A 45	639A 41	640A 47	641A 44	642A 44	643A 48	
A.3b	Sunspot Mag Class and Regions	637A 88	638A 92	639A 89	640A 94	641A 89	642A 94	643A106	
A.3c	Kitt Peak Magnetograms	637A 41	638A 45	639A 41	640A 47	641A 44	642A 44	643A 48	
A.3d	Mean Solar Magnetic Field (Stanford)	636A 32	637A 32	638A 36	639A 32	640A 37	641A 33	642A 35	643A 33
A.3e	Stanford Magnetograms	637A 41	638A 45	639A 41	640A 47	641A 44	642A 44	643A 48	
A.4	H-alpha Filtergrams	637A 41	638A 45	639A 41	640A 47	641A 44	642A 44	643A 48	
A.5d	Photometric Ca II Faculae (San Fernando)	May 88-Dec 91 in 630B 37; Jan 92-Dec 96 in 631B 22							
A.6c	Stanford Solar Mag Field Synoptic Maps	637A 36	638A 40	639A 36	640A 42	641A 38	642A 38	643A 36	
A.6d	Kitt Peak Solar Mag Field Synoptic Maps	637A 40	638A 44	639A 40	640A 46	641A 43	642A 43	643A 46	
A.6f	Active Prominences and Filaments	641B 19	642B 21	643B 28					
A.6g	Sac Peak Coronal Line Synoptic Maps	637A 38	638A 42	639A 38	640A 44	641A 40	642A 40	643A 40	
A.6h	Photometric White Light (San Fernando)	Aug 95-Jun 96 in 624B 24; Jul-Dec 96 630B 32							
A.7h	Coronal Line Emission (Sac Peak)	637A 41	638A 45	639A 41	640A 47	641A 44	642A 44	643A 48	
A.8aa	2800 MHz- Solar Flux (Penticton)	636A 25	637A 24	638A 24	639A 24	640A 24	641A 25	642A 26	643A 24
A.8ac	2800 MHz- Adj. Solar Flux (Penticton)	636A 25	637A 24	638A 24	639A 24	640A 24	641A 25	642A 26	643A 24
A.8g	Adjusted Daily Solar Fluxes (Learmonth)	636A 25	637A 24	638A 24	639A 24	640A 24	641A 25	642A 26	643A 24
A.10g	Nancay Radioheliograph - 164&327 MHz	637A 97	638A107	639A119	640A106	641A112	642A113	643A126	
A.10h	Nobeyama Radioheliograph - 17 GHz							643A 98	
A.11g	Solar X-ray GOES (graphs/event table)	641B 11	642B 13	643B 20					
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.11m	Solar UV SOLSTICE (UARS)	Oct 91-Sep 94 in 607B 46							
A.11n	Solar YOHKOH Soft X-ray Images	637A 72	638A 76	639A 71	640A 78	641A 74	642A 75	643A 79	
A.11o	Solar UV SUSIM (UARS)	Oct 91-Jan 97 in 629B 30							
A.12g	Solar Particles (GOES-7)	636A 4	637A 4	638A 4	639A 4	640A 4	641A 4	642A 4	643A 4
A.12h	Interplanetary Particles (SAMPEX)	Jul 95-Dec 96 in 632B 22; Jan-Feb 97 in 633B 28							
A.13e	Solar Plasma (IMP-8)	641B 24	642B 27	643B 35					
A.16c	ERBS, NOAA-9 & -10 Solar Irradiance	ERBS Jan-Dec 96 in 632B 64; Jan-Oct 97 in 639B 58							
A.16d	UARS Solar Irradiance	Oct 91-Dec 97 in 642B 32							
A.17c	Inferred Interplanetary Mag Field	1984-1988 data in 542A168; 1989-Jan 94 in 611A118							
A.17	IMP-8 Interplanetary Mag Field	641B 25	642B 28	643B 36					
C.	SOLAR FLARE-ASSOCIATED EVENTS								
C.1a	H-alpha Flares	636A 28	637A 27	638A 27	639A 29	640A 27	641A 28	642A 29	643A 27
C.1ba	H-alpha Flare Groups	641B 4	642B 4	643B 4					
C.1d	Flare Patrol Obsevations	641B 7	642B 9	643B 13					
C.1h	H-alpha Flare Index (ImpxDur)	Jan 86-Oct 96 in 635B 24; Jan 76-Dec 85 in 639B 26							
C.3	Radio Bursts Fixed Frequency	641B 9	642B 11	643B 15					
C.3	Radio Bursts Fixed Frequency Selected	636A 30	637A 30	638A 34	639A 30	640A 35	641A 32	642A 33	643A 31
C.4	Radio Bursts Spectral	637A 93	638A101	639A100	640A101	641A 99	642A104	643A115	
C.6	Sudden Ionospheric Disturbances	637A 92	638A100	639A 98	640A100	641A 95	642A103	643A114	
D.	GEOMAGNETIC EVENTS								
D.1a	Geomagnetic Indices	637A106	638A117	639A130	640A115	642A134	642A122	643A136	
D.1ba	27-day Chart of Kp Indices	637A108	638A119	639A132	640A117	641A121	642A124	643A138	
D.1cb	Monthly Mean aa Indices	637A109	638A120	639A134	640A118	641A122	642A125	643A139	
D.1d	Principal Magnetic Storms	637A112	638A123	639A137	640A122	641A126	642A130	643A145	
D.1f	Sudden Commencements/Flare Effects	637A113	638A124	639A138	640A124	641A127	642A131	643A146	
D.1g	Equatorial Indices Dst			639A136	640A121	641A125	642A129	643A144	
D.1i	Polar Cap (PC) Index	637A111	638A122	639A135	640A120	641A124	642A128	643A143	
F.	COSMIC RAYS								
F.1b	Cosmic Ray Neutron Cts (Climax)	637A 98	638A109	639A122	640A107	641A114	642A114	643A128	
F.1h	Cosmic Ray Neutron Cts (Thule)	----------	----------	----------	----------	----------	----------	----------	
F.1i	Cosmic Ray Neutron Cts (Kiel)	637A 98	638A109	639A122	640A107	641A114	642A114	643A128	
F.1n	Cosmic Ray Neutron Cts (Beijing)	637A 98	638A109	639A122	640A107	641A114	642A114	643A128	
F.1m	Cosmic Ray Neutron Cts (Haleakala)	637A 98	638A109	639A122	640A107	641A114	642A114	643A128	
F.1o	Cosmic Ray Neutron Cts (Moscow)	637A 98	638A109	639A122	640A107	641A114	642A114	643A128	
F.1p	Cosmic Ray Neutron Cts (Calgary)	637A 98	638A109	639A122	640A107	641A114	642A114	643A128	
F.1r	Cosmic Ray Neutron Cts (Goose Bay)	637A 98	638A109	639A122	640A107	641A114	642A114	643A128	
H.	MISCELLANEOUS								
H.60	ISES Alert Periods	636A 20	637A 20	638A 19	639A 20	640A 19	641A 20	642A 20	643A 18

The entry "637 41" under Jul 97, for example, means that the sunspot drawings for Jul 1997 appear in SOLAR-GEOPHYSICAL DATA No. 637, Part I, and that they begin on page 41. "A" denotes Part I and "B", Part II. Blanks indicate data not yet received and dashes mark unavailable data.

CONTENTS

Comprehensive Reports Number 643 Part II

DATA FOR **SEPTEMBER 1997**

Hα SOLAR FLARES

SEPTEMBER 1997

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	Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0001	LEAR	01	0358	0358	0401	N24	W14	8076	08	31.1	3	SF			3	E		19		
0002	KANZ	01	0701	0701	0701	N34	W10	8076	08	31.5	3	SF			2	C				
0003	KANZ	01	0749	0749	0753	N26	W26	8076	08	30.4	4	SF			2	C				
0004	KANZ	01	0917	0917	0933	N29	W17	8076	08	31.0	16	SF			2	C				
0005	KANZ	01	1337	1345	1349	N28	W30	8076	08	30.3	12	SF			2	C				
0006	KANZ	01	1501	1501	1509	N28	W31	8076	08	30.3	8	SF			2	C				
0007	KANZ	01	1553	1553	1601	N28	W31	8076	08	30.3	8	SF			2	C				
0008	KANZ	02	0622	0622	0626	N25	W44	8078	08	29.9	4	SF			2	C				
0009		02	06562	0658	0701	N29	W33	8076	08	30.8	5	SF						26		
	SVTO	02	0656	0658	0702	N29	W35	8076	08	30.6	6	SF			3	E		38		
	LEAR	02	0657	0658	0700	N30	W32	8076	08	30.9	3	SF			3	E		13		
	KANZ	02	0658	0658	0702	N29	W33	8076	08	30.8	4	SF			2	C				
0010		02	11422	11435	1148	N29	W36	8076	08	30.8	6	SF						11		
	RAMY	02	1142	1143	1147	N30	W36	8076	08	30.7	5	SF			3	E		12		
	KANZ	02	1144	1144	1148	N29	W36	8076	08	30.8	4	SF			2	C				
	SVTO	02	1144	1148	1150	N29	W37	8076	08	30.7	6	SF			3	E		10		
0011	KANZ	02	1228	1236	1244	N29	W36	8076	08	30.8	16	SF			2	C				
0012	RAMY	02	1529	1530	1536	N29	W35	8076	08	31.0	7	SF			3	E		13		
0013	SVTO	02	1638E	1638U	1649D	N29	W39	8076	08	30.7	11D	SF			3	E		19		
		02	1706		2003	No Flare Patrol														
		02	2053		2058	No Flare Patrol														
0014	HOLL	02	2114	2115	2121	N24	W36	8076	08	31.1	7	SF			3	E		37		
		02	2152		2215	No Flare Patrol														
		02	2223		2242	No Flare Patrol														
0015		02	2358	23581	2406	N32	W42	8076	08	30.8	8	SN						90	1.8	EFH
	LEAR	02	2358	2358	2409	N32	W41	8076	08	30.8	11	SF			3	E		56		FH
	MITK	02	2358	2359	2402	N31	W42	8076	08	30.8	4	SB				C	2359	125	1.8	E
0016		03	02081	0210	0217	N32	W43	8076	08	30.8	9	1N						114	1.9	EFH
	LEAR	03	0208	0210	0222	N32	W43	8076	08	30.8	14	1F			3	E		103		FH
	MITK	03	0209	0210	0212	N31	W43	8076	08	30.8	3	SN				C	0210	125	1.9	E
0017		03	06401	0641	0650	N32	W45	8076	08	30.8	10	SF						45		
	LEAR	03	0640	0641	0648	N33	W44	8076	08	30.9	8	SF			3	E		38		
	SVTO	03	0641	0641	0651	N30	W46	8076	08	30.8	10	SF			3	E		52		
0018	MEUD	03	0721E	0944	1157	S29	E62	8083	09	8.2	276D					C				KT
0019		03	09001	09021	0911	N29	W44	8076	08	31.0	11	SF						33	0.9	F
	MEUD	03	0900	0902	0914	N28	W44	8076	08	31.0	14	SF				C	0902	60	0.9	
	SVTO	03	0900	0903	0911	N28	W43	8076	08	31.0	11	SF			3	E		25		F
	LEAR	03	0901	0903	0907	N31	W44	8076	08	31.0	6	SF			3	E		15		
0020		03	14033	1407	1416	S27	E59	8083	09	8.2	13	SF						14		
	KANZ	03	1403	1407	1419	S27	E60	8083	09	8.3	16	SF			2	C				
	SVTO	03	1406	1407	1413	S27	E58	8083	09	8.1	7	SF			3	E		17		
	HOLL	03	1406	1407	1417	S27	E58	8083	09	8.1	11	SF			3	E		11		
0021		03	15112	15163	1538	N26	W48	8076	08	31.0	27	SF						36		F
	KANZ	03	1511	1519	1535D	N26	W50	8076	08	30.8	24D	SF			2	C				
	SVTO	03	1511	1519	1543	N28	W48	8076	08	31.0	32	SF			3	E		27		F
	RAMY	03	1512	1516	1536	N28	W48	8076	08	31.0	24	SF			3	E		53		F
	HOLL	03	1513	1516	1534	N24	W46	8076	08	31.1	21	SF			3	E		29		

Hα SOLAR FLARES

SEPTEMBER 1997

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
0022	MEUD	03	1528E	1533	1552	S28	W44		08	31.2	24D	SN			C				
0023		03	1604	1608	1626D	S28	E58	8083	09	8.2	22D	SF					12		
	KANZ	03	1604	1608	1616D	S28	E60	8083	09	8.3	12D	SF		2	C				
	SVTO	03	1608E	1615U	1626D	S27	E57	8083	09	8.1	18D	SF		3	E		12		
0024	RAMY	03	1712	1713	1716	S27	E57	8083	09	8.1	4	SF		3	E		14		
		03	1925		2023	No Flare Patrol													
		03	2107		2126	No Flare Patrol													
		03	2140		2212	No Flare Patrol													
		03	2226		2303	No Flare Patrol													
0025	HOLL	03	2326E	2332	2335	S26	E57	8083	09	8.4	9D	SF		3	E		12		
0026	RAMY	04	1233	1233	1240	N28	W60	8076	08	30.9	7	SF		3	E		14		
		04	1719		1729	No Flare Patrol													
0027	HOLL	04	1854	1857	1859	S27	E45	8083	09	8.3	5	SF		3	E		18		
0028	HOLL	04	1900	1903	1920	S27	E43	8083	09	8.1	20	SF		3	E		30		
		04	2025		2035	No Flare Patrol													
0029	HOLL	04	2315	2315	2324	S28	E43	8083	09	8.3	9	SF		3	E		18		
0030	HOLL	05	0001	0008	0024	N23	E36	8082	09	7.8	23	SF		3	E		32		
		05	0102		0231	No Flare Patrol													
		05	0420		0435	No Flare Patrol													
		05	0515		0527	No Flare Patrol													
0031		05	1324	13241	1331	N28	W73	8076	08	30.9	7	SF					22		F
	SVTO	05	1324	1324	1329	N27	W75	8076	08	30.8	5	SF		3	E		23		F
	KANZ	05	1324	1324	1332	N28	W70	8076	08	31.1	8	SF		2	C				
	RAMY	05	1324	1325	1333	N28	W74	8076	08	30.9	9	SF		3	E		22		
0032	SVTO	05	1552	1552	1556	N20	E27	8082	09	7.7	4	SF		3	E		13		F
0033		05	1559	1600	1604	N20	E27	8082	09	7.7	5	SF					22		F
	RAMY	05	1559	1600	1604	N21	E27	8082	09	7.7	5	SF		3	E		23		
	SVTO	05	1559E	1600U	1605D	N20	E27	8082	09	7.7	6D	SF		3	E		21		F
0034		05	1925	19311	1946	N22	E23	8082	09	7.6	21	SF					48		
	HOLL	05	1925	1931	1942	N22	E23	8082	09	7.6	17	SF		3	E		43		
	RAMY	05	1925	1932	1950	N21	E23	8082	09	7.6	25	SF		3	E		53		
		05	1956		2015	No Flare Patrol													
		05	2136		2150	No Flare Patrol													
		05	2207		2253	No Flare Patrol													
		06	0020		0055	No Flare Patrol													
		06	0117		0148	No Flare Patrol													
		06	0203		0422	No Flare Patrol													
		06	0427		0459	No Flare Patrol													
0035		06	11182	11182	1126	N22	E17	8082	09	7.8	8	SF					15		F
	SVTO	06	1118	1118	1125	N21	E16	8082	09	7.7	7	SF		3	E		15		F
	KANZ	06	1120	1120	1128	N22	E18	8082	09	7.8	8	SF		2	C				
0036	KANZ	06	1137	1140	1204	N25	W86	8076	08	30.9	27	1F		2	C				
0037	HOLL	06	1736	1736	1740	S26	E86	8085	09	13.4	4	SF		3	E		18		
		06	2159		2202	No Flare Patrol													
		06	2221		2248	No Flare Patrol													
0038	SVTO	07	0611E	0615U	0621D	S24	E75	8085	09	13.0	10D	SF		2	E		68		H

Hα SOLAR FLARES

SEPTEMBER 1997

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
0039	LEAR	07	0614	0615	0619	S31	E77	8085	09	13.3	5	SF		3	E		58		H
0040	SVTO	07	0738	0740	0747	S24	E75	8085	09	13.1	9	SF		2	E		30		H
0041	SVTO	07	0945	0947	0951	S24	E73	8085	09	13.0	6	SF		2	E		21		
0042	SVTO	07	1336	1337	1356	N21	E00	8082	09	7.6	20	SF		3	E		33		F
0043	SVTO	07	1446	1447	1459	S25	E68	8085	09	12.9	13	SF		2	E		19		
0044	HOLL	07	1551	1551	1554	S24	E68	8085	09	12.9	3	SF		3	E		20		
0045	HOLL	07	1642	1644	1648	S24	E67	8085	09	12.9	6	SF		3	E		22		
0046		07	1709	17102	1715	S25	E66	8085	09	12.8	6	SF					22		
	RAMY	07	1709	1710	1714	S26	E64	8085	09	12.7	5	SF		3	E		18		
	HOLL	07	1709	1712	1716	S24	E67	8085	09	12.9	7	SF		3	E		25		
0047		07	17394	17417	1751	S25	E66	8085	09	12.8	12	SF					16		
	HOLL	07	1739	1741	1750	S24	E66	8085	09	12.8	11	SF		3	E		13		
	RAMY	07	1743	1748	1752	S26	E65	8085	09	12.8	9	SF		3	E		20		
0048	HOLL	07	1900	1901	1905	S24	E66	8085	09	12.9	5	SF		3	E		26		
0049		07	19163	19181	1922	S28	E06	8083	09	8.3	6	SF					18		
	HOLL	07	1916	1918	1921	S26	E05	8083	09	8.2	5	SF		3	E		13		
	RAMY	07	1919	1919	1924	S29	E06	8083	09	8.3	5	SF		3	E		23		
0050	HOLL	07	1920	1921	1928	S24	E66	8085	09	12.9	8	SF		3	E		33		
		08	0422		0454	No Flare Patrol													
		08	0514		0659	No Flare Patrol													
0051	MEUD	08	0717	0719	0721	S29	W02	8083	09	8.1	4	SF			C	0719	70	0.8	
0052	SVTO	08	0908	0915	0924	N23	E35	8084	09	11.1	16	SF		3	E		18		
0053	SVTO	08	1026	1027	1031	S25	E58	8085	09	12.9	5	SF		3	E		26		
0054	KANZ	08	1326	1326	1330	S24	E54	8085	09	12.7	4	SF		2	C				
0055		08	13584	14004	1410	S26	E58	8085	09	13.1	12	SF					36		F
	MEUD	08	1358	1400	1408	S25	E60	8085	09	13.2	10	SF			C				
	RAMY	08	1359	1402	1409	S27	E55	8085	09	12.9	10	SF		3	E		44		
	SVTO	08	1359	1402	1416	S27	E60	8085	09	13.2	17	SF		3	E		31		F
	HOLL	08	1359	1404	1410	S25	E56	8085	09	12.9	11	SF		3	E		33		
	KANZ	08	1402	1402	1406	S26	E59	8085	09	13.2	4	SF		2	C				
0056	MEUD	08	1419	1420	1436	N23	E35	8084	09	11.3	17	SF			C	1420	30	0.4	ET
0057	MEUD	08	1450	1503	1537	N23	E35	8084	09	11.3	47	SF			C	1503	50	0.6	ET
0058	KANZ	08	1518	1518	1554	S33	E79		09	14.9	36	SF		2	C				
0059	HOLL	08	1608	1609	1618	S25	E56	8085	09	13.0	10	SF		3	E		21		
0060	RAMY	08	1702	1702	1711	N21	E30	8084	09	11.0	9	SF		3	E		11		F
0061		08	1733	1738	1755	S26	E54	8085	09	12.9	22	SF					60		
	RAMY	08	1733	1738	1756	S26	E53	8085	09	12.8	23	SF		3	E		59		
	HOLL	08	1744E	1744U	1754	S25	E54	8085	09	12.9	10D	SF		3	E		62		
0062		08	1928	19324	2112	S28	W08	8083	09	8.2	104	SF					84		EF
	HOLL	08	1928	1932	2110	S28	W07	8083	09	8.3	102	SF		4	E		71		FE
	RAMY	08	1928	1936	2115	S27	W08	8083	09	8.2	107	SF		3	E		98		FE
0063		08	20272	2030	2033	N22	E30	8084	09	11.1	6	SF					19		
	RAMY	08	2027	2030	2033	N21	E29	8084	09	11.1	6	SF		3	E		20		
	HOLL	08	2029	2030	2033	N22	E30	8084	09	11.1	4	SF		3	E		18		

SEPTEMBER 1997

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
0064	LEAR	09	0911	0914	0922	N21	E24	8084	09	11.2	11	SF		3	E		13		F
0065		09	0948	09511	1036	S22	E44	8085	09	12.8	48	1N					135		F
	SVTO	09	0948	0951	1035	S20	E44	8085	09	12.8	47	1N		3	E		135		F
	KANZ	09	0948	0952	1036	S24	E45	8085	09	12.9	48	1F		2	C				
0066		09	13523	13535	1414	S28	W18	8083	09	8.2	22	SF					14		
	HOLL	09	1352	1358	1418	S28	W17	8083	09	8.2	26	SF		3	E		14		
	RAMY	09	1353	1353	1414D	S27	W18	8083	09	8.2	21D	SF		3	E		13		
	SVTO	09	1353	1357	1413	S28	W18	8083	09	8.2	20	SF		3	E		15		
	KANZ	09	1355	1355	1411	S28	W18	8083	09	8.2	16	SF		2	C				
0067	RAMY	09	1516	1520	1527D	S23	E42	8085	09	12.9	11D	SF		3	E		22		F
0068	RAMY	09	1751	1752	1755	S26	W19	8083	09	8.3	4	SF		3	E		18		
0069		09	18371	1842	1928	S24	E42	8085	09	13.0	51	1F					112		F
	HOLL	09	1837	1842	1940	S25	E43	8085	09	13.1	63	1F		4	E		117		F
	RAMY	09	1838	1842	1915	S23	E40	8085	09	12.8	37	1F		3	E		108		F
0070	RAMY	09	1950	1953	1957	S29	E45	8085	09	13.3	7	SF		3	E		17		
0071	HOLL	09	2303	2305	2308	S27	W20	8083	09	8.4	5	SF		3	E		22		
0072		10	07583	07596	0814	S26	W29	8083	09	8.1	16	SF					48	1.4	F
	MEUD	10	0758	0803	0820	S28	W25	8083	09	8.4	22	SF			C	0803	100	1.4	
	LEAR	10	0759	0759	0810	S23	W32	8083	09	7.9	11	SF		3	E		18		
	SVTO	10	0759	0803	0812	S24	W32	8083	09	7.9	13	SF		3	E		27		F
	KANZ	10	0801	0805	0813	S27	W27	8083	09	8.2	12	SF		2	C				
0073	SVTO	10	0846	0846	0854	N20	E06	8084	09	10.8	8	SF		3	E		28		
0074		10	10076	10121	1026	S24	E30	8085	09	12.7	19	SN					50	0.6	
	MEUD	10	1007	1012	1027	S24	E31	8085	09	12.8	20	SN			C	1012	50	0.6	
	KANZ	10	1013	1013	1025	S25	E30	8085	09	12.7	12	SF		2	C				
0075	SVTO	10	1102	1102	1109	N19	E05	8084	09	10.8	7	SF		3	E		15		
0076	SVTO	10	1302	1304	1310	N19	E04	8084	09	10.8	8	SF		3	E		11		
0077	HOLL	10	1811	1813	1823	N22	E01	8084	09	10.8	12	SF		3	E		15		
		10	2312		2323	No Flare Patrol													
		11	0111		0140	No Flare Patrol													
		11	0202		0241	No Flare Patrol													
		11	0444		0445	No Flare Patrol													
0078		11	11521	1153	1201	S24	E20	8085	09	13.0	9	SF					25		
	SVTO	11	1152	1153	1201	S24	E22	8085	09	13.2	9	SF		3	E		25		
	KANZ	11	1153	1153	1201	S24	E17	8085	09	12.8	8	SF		2	C				
0079		11	13352	1337	1344	N22	W03	8084	09	11.3	9	SN					30	0.3	
	MEUD	11	1335	1337	1346	N23	W02	8084	09	11.4	11	SN			C	1337	30	0.3	
	KANZ	11	1337	1337	1341	N22	W04	8084	09	11.2	4	SF		2	C				
0080	HOLL	11	1621	1622	1627	N24	W07	8084	09	11.1	6	SF		3	E		28		
0081	HOLL	11	2243	2243	2249	N23	W08	8084	09	11.3	6	SF		3	E		11		H
0082	HOLL	11	2323	2324	2327	N23	W08	8084	09	11.3	4	SF		3	E		32		
0083	LEAR	12	0028	0029	0031	N22	W16	8084	09	10.8	3	SF		3	E		10		
0084	LEAR	12	0211	0214	0217	N22	W17	8084	09	10.8	6	SF		3	E		16		
0085	KANZ	12	0800	0800	0804	S35	W14		09	11.2	4	SF		2	C				
0086	SVTO	12	1411	1420	1429	N22	W19	8084	09	11.1	18	SF		3	E		11		

Hα SOLAR FLARES

SEPTEMBER 1997

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp	Opt	Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0087		12	1606	1607	1610	N24	W19	8084	09	11.2	4	SF						23		
	SVTO	12	1604E	1604U	1610D	N24	W20	8084	09	11.1	6D	SF			3	E		27		
	RAMY	12	1606	1607	1610	N23	W18	8084	09	11.3	4	SF			4	E		19		
0088	RAMY	12	1731	1732	1737	N23	W19	8084	09	11.3	6	SF			3	E		18		
0089	RAMY	12	1859	1900	1914	N23	W19	8084	09	11.3	15	SF			3	E		33		F
0090	RAMY	12	2008	2008	2016	N22	W20	8084	09	11.3	8	SF			3	E		17		
		12	2225		2248	No Flare Patrol														
0091		13	06281	06312	0638	N22	W25	8084	09	11.3	10	SF						14		F
	LEAR	13	0628	0631	0639	N24	W24	8084	09	11.4	11	SF			3	E		19		F
	SVTO	13	0629	0632	0638	N21	W26	8084	09	11.3	9	SF			3	E		10		
	KANZ	13	0629	0633	0637	N21	W25	8084	09	11.3	8	SF			2	C				
0092	SVTO	13	0629	0632U	0652D	N29	E61	8086	09	18.0	23D	SF			3	E		15		
0093	LEAR	13	0629	0632	0637	N22	E61	8086	09	17.9	8	SF			3	E		16		F
0094	SVTO	13	0653E	0653U	0730D	N29	E61	8086	09	18.1	37D	SF			3	E		20		
0095	MEUD	13	0812E	0836	0906	N23	W25	8084	09	11.4	54D	SF				C	0836	200	0.2	E
0096		13	0841	08421	0858	N27	E62	8086	09	18.2	17	SF						20		
	SVTO	13	0840E	0846U	0858D	N29	E60	8086	09	18.1	18D	SF			3	E		14		
	KANZ	13	0841E	0841U	0855D	N28	E64	8086	09	18.4	14D	SF			2	C				
	LEAR	13	0841	0842	0902	N23	E61	8086	09	18.1	21	SF			3	E		27		
	MEUD	13	0841	0843	0853	N28	E61	8086	09	18.1	12	SF				C				
0097	SVTO	13	0942E	0948U	0955D	N28	E60	8086	09	18.1	13D	SF			3	E		13		
0098	SVTO	13	1212	1215U	1227D	N22	W28	8084	09	11.3	15D	SF			3	E		15		
0099	SVTO	13	1524E	1531U	1542D	N10	E52	8086	09	17.5	18D	SF			2	E		30		
0100	RAMY	13	1531	1533	1542	N29	E58	8086	09	18.2	11	SF			4	E		26		
		13	2025		2212	No Flare Patrol														
		13	2237		2304	No Flare Patrol														
0101	LEAR	14	0254	0254	0258	S23	W79	8083	09	8.0	4	SF			3	E		27		
0102	SVTO	14	0629	0630	0645	S25	W18	8085	09	12.9	16	SF			3	E		27		F
0103	SVTO	14	0954	0955	0958	N28	E46	8086	09	18.0	4	SF			3	E		17		
0104		14	1057	1109U	1110	S25	W21	8085	09	12.8	13	SF						137		EFU
	KHAR	14	1057		1110	S24	W22	8085	09	12.7	13	SF			2	V				E
	SVTO	14	1057E	1116U	1158D	S25	W21	8085	09	12.8	61D	1F			3	E		183		F
	RAMY	14	1109E	1109U	1159D	S25	W19	8085	09	13.0	50D	SF			2	E		91		U
0105	RAMY	14	1355	1357	1406	N22	W42	8084	09	11.3	11	SF			3	E		10		
0106	RAMY	14	1701	1702	1708	N28	E43	8086	09	18.1	7	SF			3	E		27		F
0107	HOLL	14	2013	2022	2039	N22	W52	8084	09	10.8	26	SF			3	E		30		
0108	LEAR	15	0032	0033	0050	N28	E37	8086	09	17.9	18	SF			3	E		15		
0109	LEAR	15	0206	0213	0224	N22	W56	8084	09	10.8	18	SF			3	E		76		
0110	LEAR	15	0505	0506	0509	N28	E34	8086	09	17.9	4	SF			3	E		19		
0111		15	06414	0649*	0709	N21	W54	8084	09	11.1	28	SF						32		F
	SVTO	15	0641	0700	0710	N20	W53	8084	09	11.2	29	SF			2	E		15		F
	LEAR	15	0644	0652	0708	N22	W59	8084	09	10.7	24	SF			3	E		50		
	KANZ	15	0645	0649	0709	N21	W51	8084	09	11.4	24	SF			2	C				

Hα SOLAR FLARES

SEPTEMBER 1997

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
0112	MEUD	15	0707	0716	0722	N27	E36	8086	09	18.1	15	SF				C	0716	100	1.3	T
0113		15	07341	07354	0744	N21	W51	8084	09	11.4	10	SF						48	0.9	FHT
	MEUD	15	0734	0736	0745	N23	W52	8084	09	11.3	11	SN				C	0736	50	0.9	T
	SVTO	15	0735	0735	0743	N20	W52	8084	09	11.3	8	SF			3	E		45		FH
	KANZ	15	0735E	0739	0743	N21	W49	8084	09	11.5	8D	SF			2	C				
0114	LEAR	15	0736	0736	0741	N22	W59	8084	09	10.8	5	SF			3	E		11		
0115	MEUD	15	0742	0759	0813	S27	W30	8085	09	13.0	31	1B				C	0759	200	2.8	
0116		15	08012	0804	0830	N28	E35	8086	09	18.1	29	SF						64	1.9	T
	MEUD	15	0801	0804	0851	N27	E36	8086	09	18.1	50	SF				C	0804	150	1.9	T
	LEAR	15	0803	0804	0810	N28	E33	8086	09	17.9	7	SF			3	E		29		
	SVTO	15	0803	0806U	0809D	N28	E37	8086	09	18.2	6D	SF			2	E		13		
0117		15	11215	11277	1136	N27	E36	8086	09	18.3	15	SF						43	0.8	T
	MEUD	15	1121	1127	1129	N27	E36	8086	09	18.3	8	SF				C	1127	60	0.8	T
	SVTO	15	1126	1134	1142	N27	E35	8086	09	18.2	16	SF			3	E		26		
0118		15	13505	13551	1406	N22	W54	8084	09	11.4	16	SF						23	0.5	FT
	MEUD	15	1350	1355	1408	N23	W52	8084	09	11.6	18	SF				C	1355	30	0.5	T
	SVTO	15	1355	1356	1403	N21	W55	8084	09	11.4	8	SF			3	E		16		F
0119	HOLL	15	1352	1401	1409	N22	W62	8084	09	10.8	17	SF			3	E		46		
0120		15	13585	14031	1410	N27	E34	8086	09	18.2	12	SN						52	0.8	HT
	HOLL	15	1358	1403	1416	N28	E33	8086	09	18.2	18	SN			3	E		76		H
	MEUD	15	1358	1404	1408	N27	E36	8086	09	18.4	10	SN				C	1406	60	0.8	T
	SVTO	15	1403	1403	1407	N26	E33	8086	09	18.1	4	SF			3	E		21		
0121	HOLL	15	1637	1637	1644	N28	E29	8086	09	17.9	7	SF			3	E		24		
0122	HOLL	15	1641	1642	1656	S25	W34	8085	09	13.1	15	SF			3	E		34		
0123		15	18325	1837	1846	N28	E29	8086	09	18.0	14	SF						44		
	HOLL	15	1832	1837	1847	N28	E28	8086	09	18.0	15	SF			3	E		51		
	RAMY	15	1837	1837	1844	N28	E30	8086	09	18.1	7	SF			3	E		38		
0124	HOLL	15	2039	2045	2052	N28	E27	8086	09	18.0	13	SF			4	E		31		
0125	HOLL	15	2040	2123	2145	N19	W62	8084	09	11.1	65	SF			3	E		54		
0126	HOLL	15	2132	2132	2142	N28	E28	8086	09	18.1	10	SF			3	E		29		
		15	2154		2253	No Flare Patrol														
		16	0006		0303	No Flare Patrol														
0127		16	07011	0702	0706	N22	W68	8084	09	11.1	5	SF						27		
	LEAR	16	0701	0702	0705	N22	W71	8084	09	10.8	4	SF			3	E		27		
	KANZ	16	0702	0702	0706	N21	W65	8084	09	11.3	4	SF			2	C				
0128		16	10291	10301	1035	N23	W65	8084	09	11.4	6	SN								T
	MEUD	16	1029	1031	1036	N23	W65	8084	09	11.4	7	SN				C				T
	KANZ	16	1030	1030	1034	N23	W65	8084	09	11.4	4	SF			2	C				
0129		16	11322	11353	1149	N30	E20	8086	09	18.0	17	SN						120	1.4	
	MEUD	16	1132	1135	1152	N30	E20	8086	09	18.0	20	SN				C	1135	120	1.4	
	KANZ	16	1134	1138	1146	N29	E21	8086	09	18.1	12	SF			2	C				
		16	2048		2123	No Flare Patrol														
0130	HOLL	16	2214	2215	2247	N21	W74	8084	09	11.2	33	SF			3	E		23		F
		17	0011		0026	No Flare Patrol														
		17	0031		0153	No Flare Patrol														
		17	0220		0502	No Flare Patrol														
0131	KANZ	17	1053	1053	1057	S24	W65	8085	09	12.4	4	SF			2	C				

Hα SOLAR FLARES

SEPTEMBER 1997

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
0132		17	1137*	1141*	1207	N21	W82	8084	09	11.2	30	1N					78		AH
	KANZ	17	1137	1141	1205	N20	W78	8084	09	11.5	28	1N		2	C				
	RAMY	17	1138E	1141U	1210	N21	W82	8084	09	11.2	32D	SN		3	E		78		H
	HURB	17	1149	1154	1207	N22	W86	8084	09	10.9	18	1F							A
0133	KANZ	17	1205	1217	1221	S24	W65	8085	09	12.5	16	SF		2	C				
0134	KANZ	17	1317	1317	1321	S24	W65	8085	09	12.5	4	SF		2	C				
0135		17	17291	17311	1736	S25	W70	8085	09	12.3	7	SF					30		
	HOLL	17	1729	1731	1736	S26	W70	8085	09	12.3	7	SF		3	E		41		
	RAMY	17	1730	1732	1735	S24	W70	8085	09	12.3	5	SF		3	E		19		
0136		17	1749	17509	1808	N22	W83	8084	09	11.4	19	SF					58		F
	HOLL	17	1749	1750	1810	N21	W84	8084	09	11.3	21	SF		3	E		73		F
	RAMY	17	1749	1759	1807	N22	W82	8084	09	11.4	18	SF		3	E		43		F
		17	2012		2237	No Flare Patrol													
0137	MEUD	18	1416	1418	1422D	S25	W89		09	11.7	6D	SN			C				
		18	1732		2252	No Flare Patrol													
0138	LEAR	19	0147	0150	0153	S17	W88	8085	09	12.4	6	1F		3	E		141		
0139	MEUD	19	0859	0920	0957	S25	W90	8085	09	12.4	58				C				
0140	MEUD	19	1157		1323D	S25	W90	8085	09	12.5	86D				C				
0141	LEAR	20	0834	0834	0837	N28	W29	8086	09	18.1	3	SF		3	E		15		
		20	0956		1010	No Flare Patrol													
		20	1015		1041	No Flare Patrol													
		20	1924		1926	No Flare Patrol													
		20	2125		2140	No Flare Patrol													
		20	2144		2228	No Flare Patrol													
0142	KHAR	21	1017		1050	S44	E53		09	25.8	33	SF		2	V				D
		21	1752		2237	No Flare Patrol													
		21	2318		2400	No Flare Patrol													
		22	0000		0017	No Flare Patrol													
0143	LEAR	22	0050	0051	0053	S25	E69	8087	09	27.4	3	SF		3	E		16		
		22	0423		0434	No Flare Patrol													
0144	LEAR	22	0446	0450	0454	S33	E45	8088	09	25.8	8	SF		3	E		11		
0145	LEAR	22	0530	0542	0552	S33	E44	8088	09	25.7	22	SF		3	E		27		
0146	SVTO	22	0546E	0549U	0557D	S53	E44	8088	09	26.0	11D	SF		3	E		11		F
0147	LEAR	22	0607	0625	0635	S33	E44	8088	09	25.7	28	SF		3	E		49		
0148	SVTO	22	0612E	0645U	0646D	S28	E47	8088	09	25.9	34D	SF		3	E		29		F
0149	LEAR	22	0639	0644	0648	S32	E40	8088	09	25.4	9	SF		3	E		20		
0150	SVTO	22	0747	0758	0834	S28	E46	8088	09	25.9	47	SF		3	E		25		F
0151		22	0907	0846*	0930	S30	E44	8088	09	25.8	23	1N					177	5.0	KT
	MEUD	22	0805E	0846	0932	S29	E45	8088	09	25.9	87D	2N			C	0846	300	5.6	KT
	MEUD	22	0805E	0912	0932	S29	E45	8088	09	25.9	87D	1N			C	0912	230	4.3	KT
	LEAR	22	0907	0912	0927	S32	E41	8088	09	25.6	20	SF		3	E		66		
	SVTO	22	0912E	0913U	0936D	S28	E46	8088	09	26.0	24D	1N		3	E		113		
0152	MEUD	22	1025	1039	1103	S29	E45	8088	09	26.0	38	SN			C	1039	100	1.7	T

Hα SOLAR FLARES

SEPTEMBER 1997

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
0153		22	1122	1123	1128	S20	E66	8087	09	27.5	6	SF					17		E
	MEUD	22	1122	1123	1128	S21	E66	8087	09	27.5	6	SF			C				E
	RAMY	22	1122	1123U	1129	S20	E65	8087	09	27.4	7	SF		3	E		17		
0154	RAMY	22	1412E	1418U	1451	S28	E43	8088	09	25.9	39D	SF		3	E		56		
0155	HOLL	22	1640	1643	1645	S28	E42	8088	09	26.0	5	SF		3	E		13		
0156	HOLL	22	1811	1814	1824	S28	E40	8088	09	25.9	13	SF		3	E		54		
0157	HOLL	22	2106	2107	2110	S29	E42	8088	09	26.2	4	SF		3	E		11		
0158	LEAR	23	0317	0319	0322	S29	E38	8088	09	26.1	5	SF		3	E		12		
0159	LEAR	23	0325	0326	0331	S29	E38	8088	09	26.1	6	SF		3	E		11		
0160	LEAR	23	0341	0346	0354	S29	E38	8088	09	26.1	13	SF		3	E		18		
0161	LEAR	23	0354	0356	0402	S29	E38	8088	09	26.1	8	SF		3	E		18		
0162	URUM	23	0418	0426	0437	S27	E33	8088	09	25.7	19	SN			P		48	0.7	D
0163	URUM	23	0447	0457	0513	S27	E32	8088	09	25.7	26	SN			P		32	0.5	D
0164	LEAR	23	0707	0710	0717	S29	E36	8088	09	26.1	10	SF		3	E		11		
0165	MEUD	23	0905E	0935	0947	S28	E30	8088	09	25.7	42D	SF			C	0935	30	0.4	DT
0166	MEUD	23	0948	0956	1000	S28	E30	8088	09	25.7	12	SF			C	0956	50	0.7	T
0167		23	15473	15522	1600	S28	E30	8088	09	26.0	13	SF					27	0.7	FT
	MEUD	23	1547	1554	1559	S28	E30	8088	09	26.0	12	SN			C	1554	50	0.7	T
	RAMY	23	1550	1552	1601	S28	E28	8088	09	25.8	11	SF		3	E		18		
	HOLL	23	1550	1553	1559	S29	E32	8088	09	26.2	9	SF		3	E		13		F
0168	HOLL	23	1845	1846	1850	S29	E30	8088	09	26.1	5	SF		3	E		14		F
0169	HOLL	23	1903	1908	1921	S28	E29	8088	09	26.1	18	SF		3	E		22		
		23	2058		2132	No Flare Patrol													
		23	2201		2228	No Flare Patrol													
0170	LEAR	24	0247	0247	0309	S31	E19	8088	09	25.6	22	1B		3	E		167		
0171		24	05304	0534*	0550	S28	E18	8088	09	25.6	20	SN					44	0.7	E
	URUM	24	0530	0544	0558	S28	E21	8088	09	25.9	28	SB			P		48	0.7	E
	LEAR	24	0534	0534	0543	S29	E15	8088	09	25.4	9	SF		3	E		39		
0172		24	06563	06596	0716	S29	E20	8088	09	25.8	20	SN					107	1.9	DT
	LEAR	24	0656	0700	0716	S29	E15	8088	09	25.5	20	SF		3	E		35		
	MEUD	24	0656	0705	0718	S29	E21	8088	09	25.9	22	SN			C	0705	140	1.8	T
	KANZ	24	0659	0659	0715	S29	E24	8088	09	26.2	16	SN		2	C				
	URUM	24	0702E	0703	0715	S28	E21	8088	09	25.9	13D	SB			P		145	2.0	D
0173		24	0847*	09112	0926	S29	E22	8088	09	26.1	39	SN					50	0.6	T
	MEUD	24	0847	0913	0919	S29	E21	8088	09	26.0	32	SN			C	0849	50	0.6	T
	KANZ	24	0911	0911	0927	S30	E23	8088	09	26.2	16	SN		2	C				
	MEUD	24	0920E		0933	S29	E21	8088	09	26.0	13D				C				
0174	LEAR	24	0911	0913	0923	S29	E13	8088	09	25.4	12	SN		3	E		42		
0175		24	10221	10273	1033	S30	E22	8088	09	26.2	11	SF					100	1.3	T
	MEUD	24	1022	1030	1033	S30	E20	8088	09	26.0	11	SF			C	1030	100	1.3	T
	KANZ	24	1023	1027	1035D	S30	E23	8088	09	26.2	12D	SF		2	C				
0176		24	11012	11047	1120	S29	E19	8088	09	25.9	19	1N					187	3.5	EFT
	URUM	24	1101	1104	1113	S27	E18	8088	09	25.9	12	1B			P		289	3.8	E
	MEUD	24	1101	1104	1123	S30	E20	8088	09	26.0	22	1B			C	1104	250	3.2	T
	RAMY	24	1103E	1110U	1121	S28	E18	8088	09	25.9	18D	SF		3	E		21		F
	KANZ	24	1103	1111	1123	S30	E21	8088	09	26.1	20	SF		2	C				

Hα SOLAR FLARES

SEPTEMBER 1997

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	Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0177	MEUD	24	1425	1427	1430	S25	E49	8087	09	28.4	5	SF				C	1427	20	0.3	D
0178		24	18252	1831	1854	S29	E16	8088	09	26.0	29	1N						166		EF
	HOLL	24	1825	1831	1854	S29	E15	8088	09	25.9	29	1N		3		E		172		E
	RAMY	24	1827	1831	1855	S29	E16	8088	09	26.0	28	1N		3		E		160		F
		24	2159		2228	No Flare Patrol														
0179		24	23151	23152	2321	S28	E09	8088	09	25.7	6	SF						12		F
	HOLL	24	2315	2315	2320	S28	E12	8088	09	25.9	5	SF		3		E		11		F
	LEAR	24	2316	2317	2322	S29	E06	8088	09	25.4	6	SF		3		E		12		
0180	LEAR	25	0038	0040	0046	S29	E05	8088	09	25.4	8	SF		3		E		29		
0181		25	0319*	0327*	0346	S29	E06	8088	09	25.6	27	SN						70	1.5	E
	LEAR	25	0319	0327	0345	S29	E04	8088	09	25.4	26	SN		3		E		83		
	URUM	25	0322	0330	0342	S29	E10	8088	09	25.9	20	SN				P		113	1.5	E
	LEAR	25	0346	0346	0350	S29	E04	8088	09	25.5	4	SF		3		E		13		
0182		25	1143	11495	1218	S28	E04	8088	09	25.8	35	1N						169	0.3	EFH
	MEUD	25	1143	1149	1209	S28	E05	8088	09	25.9	26	1N				C	1149	250	0.3	
	SVTO	25	1143	1154	1223	S27	E02	8088	09	25.6	40	1N		3		E		135		FH
	RAMY	25	1144E	1157U	1213	S27	E04	8088	09	25.8	29D	1F		3		E		122		FE
	KANZ	25	1204E	1204U	1228	S29	E04	8088	09	25.8	24D	1N		2		C				
0183		26	03152	03181	0340	S28	W08	8088	09	25.5	25	1B						162	2.9	EF
	LEAR	26	0315	0318	0343	S26	W08	8088	09	25.5	28	SN		3		E		99		F
	URUM	26	0317	0319	0337	S29	W08	8088	09	25.5	20	1B				P		225	2.9	E
		26	1952		2003	No Flare Patrol														
0184	MEUD	28	0954		0956D	S30	W30	8088	09	26.0	2D	SF				C				
0185	KANZ	29	1129	1129U	1129D	S26	W15		09	28.3	2D	SF		2		C				
0186		29	12316	12325	1238	S31	W50	8088	09	25.6	7	SF						27		H
	MEUD	29	1231	1232	1235	S30	W50	8088	09	25.6	4	SF				C				
	RAMY	29	1234	1235	1239	S31	W52	8088	09	25.4	5	SF		4		E		27		H
	KANZ	29	1237	1237	1241	S32	W49	8088	09	25.6	4	SF		2		C				
0187	MEUD	29	1253	1255	1300	S25	W19		09	28.1	7	SF				C	1255	400	0.5	E
0188		29	1623	1625	1636	S32	W52	8088	09	25.6	13	SN						67		F
	RAMY	29	1623	1625	1635	S32	W52	8088	09	25.6	12	SF		4		E		64		F
	HOLL	29	1623	1625	1636	S33	W53	8088	09	25.5	13	SN		3		E		70		F

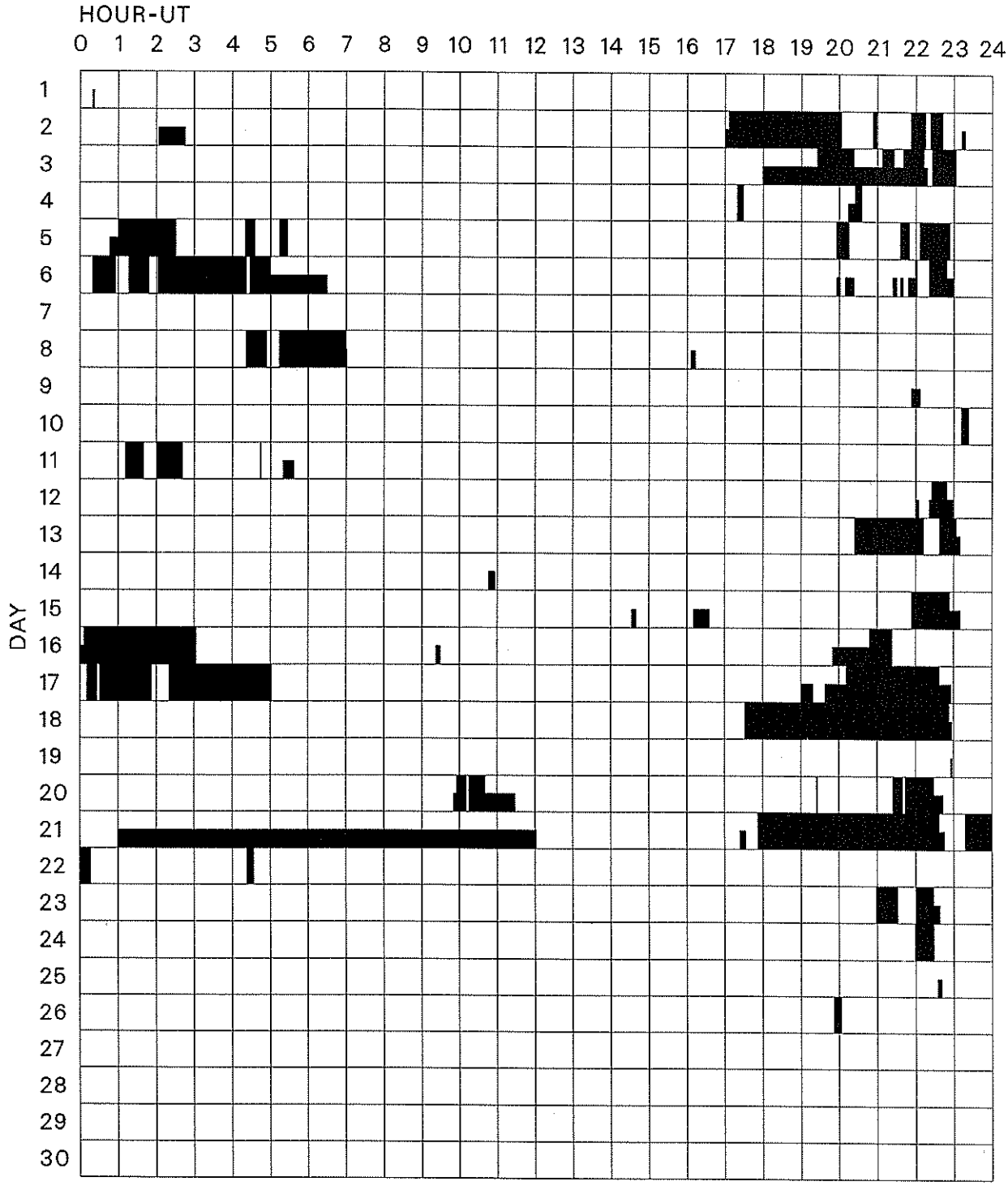
"Remarks"

A = Eruptive prominence whose base is less than 90 degrees from central meridian.
B = Probably the end of a more important flare.
C = Invisible 10 minutes before.
D = Brilliant point.
E = Two or more brilliant points.
F = Several eruptive centers.
G = No visible spots in the neighborhood.
H = Flare accompanied by high-speed dark filament.
I = Active region very extended.
J = Distinct variations of plage intensity before or after the flare.
K = Several intensity maxima.
L = Existing filaments show signs of sudden activity.
M = White-light flare.
N = Continuous spectrum shows effects of polarization.
O = Observations have been made in the H and K lines of Ca II.
P = Flare shows Helium D3 in emission.
Q = Flare shows Balmer continuum in emission.
R = Marked asymmetry in H-alpha line suggests ejection of high-velocity material.
S = Brightness follows disappearance of filament in same position.
T = Region active all day.
U = Two bright branches, parallel or converging.
V = Occurrence of an explosive phase; important, expansion within roughly 1 minute that often includes a significant intensity increase.
W = Great increase in area after time of maximum intensity.
X = Unusually wide H-alpha line.
Y = System of loop-type prominences.
Z = Major sunspot umbra covered by flare.

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

INTERVALS OF NO FLARE PATROL OBSERVATION
FOR PRECEDING SOLAR FLARE TABLE

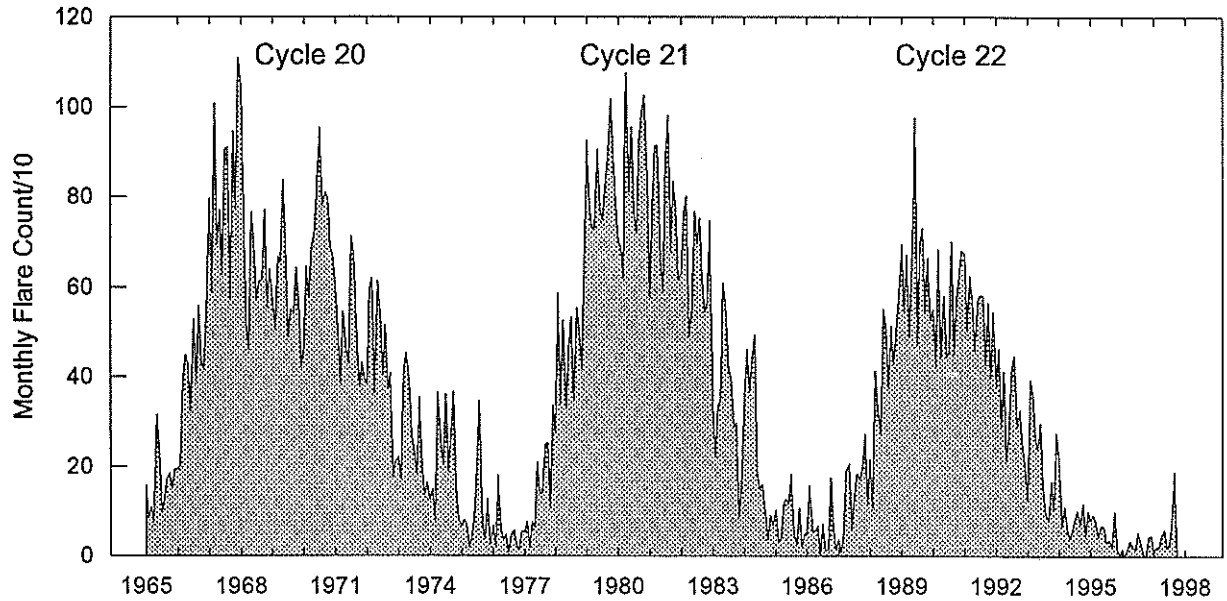
SEPTEMBER 1997



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.

Holloman	Learmonth	Mitaka	San Vito
Hurbanovo	Meudon	Ramey	Urumqi
Kanzelhoehe			Voroshilov

Monthly Counts of Grouped Solar Flares
Jan 1965 - Sep 1997



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1965	158	85	110	74	315	231	99	127	173	184	150	193	1899
1966	194	205	390	449	429	323	528	391	558	432	417	543	4859
1967	796	589	1009	694	771	629	907	911	573	946	775	1109	9709
1968	1037	773	519	460	768	697	573	611	616	772	556	640	8022
1969	581	504	669	655	839	694	489	551	540	643	566	422	7153
1970	466	646	578	688	722	836	954	780	811	797	687	667	8632
1971	598	505	387	546	461	430	713	673	518	375	431	394	6031
1972	384	599	621	361	614	541	404	515	371	408	175	210	5203
1973	221	171	410	453	388	270	232	182	353	201	136	163	3180
1974	127	148	79	364	255	204	360	187	270	366	153	81	2594
1975	68	82	69	19	42	85	196	346	68	38	127	25	1165
1976	69	18	180	60	38	48	6	47	57	23	13	55	614
1977	54	77	18	76	64	210	140	140	250	252	107	336	1724
1978	274	588	338	526	330	460	533	346	554	499	418	648	5514
1979	926	781	731	731	907	772	750	821	901	1018	888	786	10012
1980	703	689	621	1092	811	956	763	720	924	988	1027	838	10132
1981	578	782	914	915	658	592	893	982	680	836	773	615	9218
1982	631	766	803	490	553	769	696	753	615	544	564	748	7932
1983	332	220	337	346	609	561	427	389	289	298	88	152	4048
1984	353	461	366	440	492	185	151	161	95	36	92	69	2901
1985	104	29	38	119	129	116	185	53	25	108	19	50	975
1986	51	158	54	56	68	3	71	12	14	174	56	13	730
1987	36	7	52	192	205	61	132	185	172	198	273	114	1627
1988	217	109	413	328	274	551	502	375	513	429	518	587	4816
1989	695	544	672	488	691	977	474	699	733	547	665	526	7711
1990	550	424	684	442	580	445	454	703	449	574	623	682	6610
1991	672	503	625	570	458	574	582	581	425	565	396	544	6495
1992	380	462	287	412	214	271	413	447	287	325	248	206	3952
1993	123	392	357	262	237	296	154	92	82	167	104	275	2541
1994	217	67	111	60	40	56	81	101	72	117	45	99	1066
1995	82	95	77	42	69	66	29	37	23	99	14	6	639
1996	14	3	15	34	21	16	54	31	3	0	44	45	280
1997	8	22	18	43	59	18	26	75	188				457

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

SOLAR RADIO EMISSION
Outstanding Occurrences

SEPTEMBER 1997

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
01	127	TORN	43	NS	0720.0		384.0		2.0		V=1
	235	CUBA	44	NS	1250.0E		540.0D		7.0		
	280	CUBA	44	NS	1300.0E		540.0D		12.0		
	5730	IRKU	20	GRF	0154.0	0207.0	32.0	3.0		U	
	5730	IRKU	4	S/F	0233.8	0237.0	18.2	9.0		U	
	5730	IRKU	20	GRF	0436.0	0441.0	12.8	3.0		U	
	3000	IZMI	1	S	0941.5E	0941.6	1.0U	4.0	2.0		
	33	UPIC	4	S/F	1637.0	1637.1	1.3				
02	204	IZMI	43	NS	0754.0		246.0D		5.0		
	235	CUBA	44	NS	1300.0E		530.0D		9.0		
	280	CUBA	44	NS	1300.0E		530.0D		13.0		
	5730	IRKU	20	GRF	0145.0	0145.8	4.0	1.0		U	
	2840	PEKG	1	S	0656.0	0658.5	3.0	3.3			
	3000	IZMI	1	S	0656.5	0656.7	1.0	4.0	2.0		
	5730	IRKU	3	S	0657.5	0657.7	1.5	4.0		U	
	204	IZMI	42	SER	1123.0	1133.0	15.0	35.0			
	2695	SGMR	4	S/F	1227.0	1229.0	6.0	13.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1228.0	1229.0	7.0	12.0			QL=4 ST=2 TYP=3
	33	UPIC	45	C	1252.0	1252.2	1.2				
	33	UPIC	45	C	1324.5	1324.6	1.0				
	2800	PENT	1	S	2109.0	2111.0	5.0	62.0			
	500	HIRA	42	SER	2109.9	2110.0	1.0	27.0			O
	2800	HIRA	6	S	2109.9	2110.9	3.4	42.0	8.0		O
	8800	SGMR	8	S	2110.0	2110.0	1.0	56.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	2110.0	2110.0	1.0	50.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	2110.0	2111.0	170.0	57.0			QL=4 ST=1 TYP=3
	8800	PALE	4	S/F	2110.0	2110.0	170.0	79.0			QL=4 ST=1 TYP=3
	2840	PEKG	4	S/F	2356.0	2359.0	5.0	67.4			
	2804	VORO	4	S/F	2356.4	2358.0	5.0	3.8			
	2800	PENT	1	S	2357.0	2358.0	5.0	53.0			
	2695	LEAR	8	S	2357.0	2358.0	1.0	50.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	2357.0	2358.0	2.0	47.0			QL=4 ST=2 TYP=3
	500	HIRA	42	SER	2357.1	2357.7	2.5	500.0			O
	2800	HIRA	6	S	2357.1	2357.7	1.7	41.0	8.0		O
03	235	CUBA	44	NS	1300.0E		530.0D		12.0		
	280	CUBA	44	NS	1300.0E		530.0D		16.0		
	2695	LEAR	8	S	0006.0	0007.0	1.0	130.0			QL=4 ST=2 TYP=3
	2840	PEKG	20	GRF	0205.0	0208.0	14.0	10.2			
	5730	IRKU	21	GRF	0207.0	0208.4	17.0	4.0		U	
	2804	VORO	4	S/F	0207.2	0208.1	1.2	0.5			
	5730	IRKU	1	S	0639.9	0641.0	6.1	4.0		U	
	3000	IZMI	5	S	0640.0	0641.0	4.0	8.0	4.0		
04	204	IZMI	43	NS	0745.0		255.0D		30.0		
	280	CUBA	44	NS	1300.0E		530.0D		17.0		
	235	CUBA	44	NS	1300.0E		530.0D		12.0		
	33	UPIC	3	S	0632.0	0632.1	0.6				
	33	UPIC	2	S/F	0637.5	0637.7	1.0				
05	204	IZMI	44	NS	0600.0E		360.0D		40.0		
	127	TORN	44	NS	0620.0E		460.0D		1.0		V=1
	235	CUBA	44	NS	1305.0E		525.0D		13.0		
	280	CUBA	44	NS	1305.0E		525.0D		18.0		
	33	UPIC	3	S	1118.0	1118.2	0.5				
06	204	IZMI	44	NS	0600.0E		360.0D		15.0		
	127	TORN	44	NS	0620.0E		290.0D		2.0		V=2
	280	CUBA	44	NS	1300.0E		530.0D		24.0		
	235	CUBA	44	NS	1300.0E		530.0D		12.0		
07	127	TORN	44	NS	0620.0E		290.0D		2.0		V=0,DISTURBED
	235	CUBA	44	NS	1300.0E		530.0D		32.0		
	280	CUBA	44	NS	1300.0E		530.0D		38.0		
	5730	IRKU	21	GRF	0600.0	0621.0	90.0	1.0		U	
08	204	IZMI	44	NS	0600.0E		360.0D		60.0		
	127	TORN	44	NS	0620.0E		520.0D		8.0		V=2

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

SEPTEMBER 1997

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
08	280	CUBA	44	NS	1300.0E		530.0D		36.0		
	235	CUBA	44	NS	1300.0E		530.0D		32.0		
	5730	IRKU	20	GRF	0610.0	0615.0	620.5	1.0	U		
	5730	IRKU	20	GRF	0649.0	0651.0	14.5	2.0	U		
	5730	IRKU	20	GRF	0715.0	0721.3	15.0	1.0	U		
	33	UPIC	4	S/F	1139.7	1140.1	0.9				
	2800	PENT	45	C	1929.0	1932.0	3.0U	222.0			
	2695	PALE	4	S/F	1929.0	1931.0	22.0	220.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	1930.0	1931.0	14.0	230.0			QL=4 ST=2 TYP=3
	2695	SGMR	48	C	1930.0	1931.0	19.0	220.0			QL=4 ST=2 TYP=8
	8800	SGMR	48	C	1930.0	1931.0	15.0	340.0			QL=4 ST=2 TYP=8
09	204	IZMI	44	NS	0600.0E		360.0D		40.0		
	127	TORN	44	NS	0620.0E		520.0D		9.0		V=1
	280	CUBA	44	NS	1300.0E		530.0D		27.0		
	235	CUBA	44	NS	1300.0E		530.0D		23.0		
	5730	IRKU	1	S	0120.0	0120.7	27.6	1.0	U		
	5730	IRKU	21	GRF	0658.7	0659.2	16.3	6.0	U		
	5730	IRKU	42	SER	0914.0	0928.0	26.0D	43.0	U		
	3000	IZMI	7	C	0947.0	0950.0	23.0	36.0			
	2695	LEAR	8	S	0949.0	0949.0	1.0	40.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0949.0	0949.0	1.0	120.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0949.0	0949.0	2.0	55.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0949.0	0949.0	3.0	170.0			QL=4 ST=2 TYP=3
10	204	IZMI	44	NS	0600.0E		360.0D		20.0		
	127	TORN	43	NS	0710.0		470.0		8.0		V=1
	235	CUBA	44	NS	1300.0E		530.0D		18.0		
	280	CUBA	44	NS	1300.0E		530.0D		27.0		
	2804	VORO	21	GRF	0021.0	0028.0	44.0	0.4			
	2840	PEKG	5	S	0022.0	0026.5	8.0	12.0			
	5730	IRKU	4	S/F	0024.0	0025.0	5.0	12.0	U		
	2804	VORO	4	S/F	0024.0	0025.0	5.0	0.6			
	2800	PENT	4	S/F	0025.0	0026.0	3.0	8.0			
	5730	IRKU	21	GRF	0045.0	0045.5	5.0	1.0	U		
	2840	PEKG	20	GRF	0515.0	0519.0	23.0	2.6			
	5730	IRKU	20	GRF	0517.0	0518.1	13.5	1.0	U		
	5730	IRKU	4	S/F	0757.5	0759.0	9.5	19.0	U		
11	204	IZMI	44	NS	0600.0E		360.0D		25.0		
	127	TORN	44	NS	0620.0E		520.0D		32.0		V=1
	235	CUBA	44	NS	1300.0E		300.0D		19.0		
	280	CUBA	44	NS	1300.0E		530.0D		23.0		
	204	IZMI	41	F	0713.0	0714.0	2.5	40.0			
	500	HIRA	8	S	2322.2	2322.6	0.9	30.0			WR
12	204	IZMI	44	NS	0600.0E		360.0D		20.0		
	127	TORN	43	NS	0735.0		395.0		5.0		V=1
	280	CUBA	44	NS	1300.0E		530.0D		29.0		
	235	CUBA	44	NS	1300.0E		530.0D		24.0		
	500	HIRA	42	SER	0024.7	0025.0	3.4	17.0			WR
	500	HIRA	8	S	0137.0	0137.2	0.5	3.0			WR
	500	HIRA	42	SER	0209.7	0211.1	1.5	14.0			WR
	500	HIRA	8	S	0234.9	0235.0	0.4	6.0			WR
	500	HIRA	8	S	0356.4	0356.6	0.5	20.0			O
	500	HIRA	42	SER	0451.4	0451.5	0.9	6.0			O
	5730	IRKU	4	S/F	0513.0	0515.5	8.0	9.0	U		
	500	HIRA	42	SER	0514.0	0515.1	2.2	80.0			MR
	33	UPIC	2	S/F	0514.8	0515.5	1.8				
	2800	HIRA	1	S	0515.0	0515.3	0.7	6.0	2.0		O
	204	IZMI	41	F	0655.0	0656.0	5.0	120.0			
	500	HIRA	42	SER	0656.0	0656.6	2.2	30.0			WR
	204	IZMI	42	SER	0827.0	0828.0	10.0	250.0			
	33	UPIC	4	S/F	0832.5	0833.5	1.8				
	204	IZMI	7	C	1004.0	1004.2	0.5	150.0			
	204	IZMI	7	C	1033.5	1033.8	0.5	320.0			
	204	IZMI	41	F	1136.0	1136.3	0.8	700.0			
	204	IZMI	5	S	1146.0	1146.5	1.0	700.0			
	2800	PENT	1	S	1605.0	1605.0	2.0	17.0			

SOLAR RADIO EMISSION
Outstanding Occurrences

SEPTEMBER 1997

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
12	2695	SGMR	8	S	1605.0	1605.0	1.0	37.0			QL=4 ST=3 TYP=3
	2695	SVTO	8	S	1605.0	1605.0	1.0	41.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	2006.0	2007.0	1.0	34.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	2007.0	2007.0	U	7.0			QL=4 ST=2 TYP=3
13	204	IZMI	44	NS	0600.0E		360.0D		5.0		
	280	CUBA	44	NS	1300.0E		530.0D		16.0		
	235	CUBA	44	NS	1300.0E		530.0D		10.0		
	5730	IRKU	42	SER	0506.5	0507.5	6.5	6.0	U		
	204	IZMI	41	F	0829.0	0832.5	4.0	100.0			
	204	IZMI	41	F	1055.0	1058.0	5.0	150.0			
	2695	PALE	4	S/F	1948.0	1950.0	8.0	8.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1948.0	1950.0	3.0	8.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1948.0	1950.0	3.0	11.0			QL=4 ST=2 TYP=3
	2804	VORO	3	S	2338.1	2339.2	1.8	0.3			
14	127	TORN	44	NS	1140.0E		200.0D		5.0		V=1
	235	CUBA	44	NS	1300.0E		530.0D		12.0		
	280	CUBA	44	NS	1300.0E		530.0D		18.0		
	5730	IRKU	1	S	0224.0	0224.3	1.5	1.0	U		
	5730	IRKU	4	S/F	0251.5	0253.5	22.5	29.0	U		
	5730	IRKU	2	S/F	0328.3	0329.0	2.7	3.0	U		
	5730	IRKU	1	S	0458.0	0459.2	5.0	1.0	U		
	5730	IRKU	2	S/F	0935.0	0936.0	3.0	3.0	U		
	33	UPIC	45	C	1515.6	1516.0	0.7				
15	280	CUBA	44	NS	1300.0E		530.0D		13.0		
	235	CUBA	44	NS	1300.0E		530.0D		7.0		
	2840	PEKG	5	S	0148.0	0211.0	30.0	7.2			
	5730	IRKU	45	C	0150.2	0209.7	68.0	25.0	U		
	5730	IRKU	20	GRF	0310.0	0314.0	23.0	1.0	U		
	5730	IRKU	21	GRF	0334.0	0355.2	48.0	3.0	U		
	5730	IRKU	20	GRF	0639.0	0700.0	62.2	3.0	U		
	5730	IRKU	20	GRF	0748.0	0823.0	70.0	2.0	U		
16	235	CUBA	44	NS	1300.0E		530.0D		7.0		
	280	CUBA	44	NS	1300.0E		530.0D		13.0		
	5730	IRKU	20	GRF	0135.8	0140.0	24.2	1.0	U		
	5730	IRKU	1	S	0443.0	0445.0	6.0	1.0	U		
	5730	IRKU	20	GRF	0630.0	0645.0	44.0	1.0	U		
17	5730	IRKU	42	SER	0105.0	0135.3	76.0	11.0	U		
	5730	IRKU	20	GRF	0342.5	0402.0	49.5	1.0	U		
	5730	IRKU	20	GRF	0525.0	0525.6	19.0	1.0	U		
	204	IZMI	7	C	1052.0	1053.0	4.0	116.0			
	33	UPIC	46	C	1052.8	1053.5	4.1				
	204	IZMI	7	C	1137.0	1139.0	3.0	110.0			
	33	UPIC	46	C	1215.0	1215.8	4.0				
	33	UPIC	45	C	1449.8	1451.0	1.7				
18	204	IZMI	43	NS	1058.0		65.0D		5.0		
	33	UPIC	46	C	1444.9	1445.7	2.1				
	33	UPIC	45	C	1605.7	1606.0	1.3				
20	2804	VORO	2	S/F	0030.5	0031.2	1.2	0.4			
21	5730	IRKU	1	S	0552.0	0553.0	2.6	1.0	U		
	5730	IRKU	1	S	0555.5	0556.3	2.5	1.0	U		
22	2840	PEKG	3	S	0044.0	0048.0	8.0	42.1			
	5730	IRKU	4	S/F	0045.0	0048.6	11.0	58.0	U		
	2695	LEAR	8	S	0047.0	0048.0	1.0	28.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0047.0	0048.0	2.0	130.0			QL=4 ST=2 TYP=3
	2700	PURP	1	S	0047.6	0049.0	2.0	23.0			
	2800	PENT	4	S/F	0048.0	0049.0	2.0	36.0			
	8800	PALE	8	S	0048.0	0048.0	U	97.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	0048.0	0048.0	U	34.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0048.0	0048.1	0.2	5.0			O
	2800	PENT	1	S	1812.0	1814.0	8.0	9.0			

SOLAR RADIO EMISSION
Outstanding Occurrences

SEPTEMBER 1997

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	235	CUBA	44	NS	1300.0E		530.0D		7.0		
	280	CUBA	44	NS	1300.0E		530.0D		12.0		
	204	IZMI	7	C	0826.5	0826.7	0.6	150.0			
	2695	PALE	4	S/F	2129.0	2130.0	5.0	34.0			QL=4 ST=2 TYP=3
	2800	PENT	40	F	2130.0	2131.0	20.0	28.0			
	2695	SGMR	8	S	2130.0	2130.0	1.0	28.0			QL=4 ST=2 TYP=3
	500	HIRA	27	RF	2130.1	2131.0	41.0	17.0	5.0		WR
24	204	IZMI	43	NS	0600.0		360.0D		10.0		
	235	CUBA	44	NS	1300.0E		530.0D		15.0		
	280	CUBA	44	NS	1300.0E		530.0D		19.0		
	2804	VORO	32	ABS	0210.0	0242.0	120.0	3.4			
	5730	IRKU	2	S/F	0219.5	0247.0	56.5	291.0	U		
	2840	PEKG	47	GB	0237.0	0248.0	33.0	513.0			
	2804	VORO	4	S/F	0242.3	0247.3	20.0	4.5			
	2700	PURP	47	GB	0242.9	0248.0	20.1	495.0			
	2800	HIRA	48	C	0245.9	0247.8	5.0	510.0	110.0		O
	8800	PALE	4	S/F	0246.0	0247.0	3.0	310.0			QL=4 ST=2 TYP=3
	2695	PALE	49	GB	0246.0	0248.0	5.0	650.0			QL=4 ST=2 TYP=6
	8800	LEAR	4	S/F	0246.0	0247.0	1274.0	400.0			QL=4 ST=1 TYP=3
	2695	LEAR	49	GB	0246.0	0248.0	1274.0	710.0			QL=4 ST=1 TYP=6
	500	HIRA	48	C	0246.2	0247.0	10.0	1250.0			WR
	200	HIRA	48	C	0246.7	0248.7	8.0	4750.0			WL
	2840	PEKG	5	S	0530.0	0534.0	9.0	55.3			
	5730	IRKU	4	S/F	0533.0	0534.3	537.5	37.0	U		
	200	HIRA	48	C	0533.2	0534.2	2.5	2000.0			MR
	500	HIRA	46	C	0533.4	0534.2	2.7	270.0	50.0		MR
	8800	LEAR	8	S	0534.0	0534.0	U	75.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0534.0	0534.0	U	67.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0534.0	0534.0	U	73.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0655.0	0656.0	10.0	200.0U			
	5730	IRKU	1	S	0655.5	0656.4	659.0	1.0	U		
	5730	IRKU	20	GRF	0701.5	0703.5	8.5	1.0	U		
	5730	IRKU	1	S	0737.5	0738.0	1.4	1.0	U		
	204	IZMI	7	C	0949.0	0949.5	0.5	73.0			
	204	IZMI	41	F	1037.0	1037.5	3.0	1500.0			
	3000	IZMI	7	C	1100.5	1104.0	10.0	63.0			
	2695	SVTO	48	C	1101.0	1104.0	3.0	76.0			QL=4 ST=2 TYP=8
	8800	SVTO	8	S	1101.0	1101.0	U	36.0			QL=2 ST=2 TYP=3
	204	IZMI	46	C	1101.0	1102.0	13.0	3500.0			
	2695	SGMR	48	C	1101.0E	1104.0U	3.0D	60.0			QL=2 ST=3 TYP=8
	204	IZMI	29	PBI	1113.0		27.0		80.0		
	2695	PALE	4	S/F	1824.0	1831.0	7.0	47.0			QL=4 ST=2 TYP=3
	2800	PENT	40	F	1827.0	1832.0	20.0	43.0			
	8800	SGMR	8	S	1830.0	1831.0	1.0	27.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1830.0	1831.0	1.0	47.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1842.0	1842.0	U	6.0			QL=4 ST=2 TYP=3
	500	HIRA	46	C	2313.6	2314.0	2.0	16.0	5.0		WR
	2804	VORO	3	S	2313.6	2315.1	3.2	0.8			
	2800	HIRA	3	S	2314.1	2315.1	2.4	9.0	3.0		O
25	204	IZMI	44	NS	0600.0E		360.0D		5.0		
	235	CUBA	44	NS	1300.0E		530.0D		10.0		
	280	CUBA	44	NS	1300.0E		530.0D		15.0		
	2804	VORO	23	GRF	0115.0	0240.0	185.0	0.4			
	5730	IRKU	20	GRF	0316.0	0323.0	40.0	9.0	U		
	2700	PURP	4	S/F	0319.3	0321.3	9.7	10.0			
	500	HIRA	42	SER	0319.7	0320.7	7.7	10.0			O
	2804	VORO	4	S/F	0320.0	0321.0	5.0	1.0			
	2800	HIRA	45	C	0320.4	0321.1	3.7	8.0	3.0		O
	204	IZMI	24	R	0830.0		120.0		10.0		
	3000	IZMI	42	SER	1143.0	1146.0	18.0	26.0			
	2695	SGMR	4	S/F	1144.0	1146.0	4.0	23.0			QL=4 ST=3 TYP=3
	8800	SGMR	4	S/F	1144.0	1147.0	4.0	12.0			QL=4 ST=3 TYP=3
	2695	SVTO	20	GRF	1145.0	1146.0	1.0	29.0			QL=4 ST=3 TYP=2
	235	CUBA	7	C	1344.0	1347.0	5.0	1063.0			
	280	CUBA	7	C	1344.0	1347.0	5.0	2690.0			
	280	CUBA	25	R	1740.0E	1752.0	250.0D	231.0			
	235	CUBA	25	R	1740.0	1752.0	250.0	173.0			

SOLAR RADIO EMISSION
Outstanding Occurrences

SEPTEMBER 1997

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	204	IZMI	44	NS	0600.0E		360.0D		10.0		
	127	TORN	43	NS	0930.0		330.0D		24.0		V=2
	235	CUBA	44	NS	1300.0E		530.0D		12.0		
	280	CUBA	44	NS	1300.0E		530.0D		15.0		
	2804	VORO	23	GRF	0001.0	0322.2	250.0	1.2			
	2840	PEKG	5	S	0313.0	0316.0	14.0	55.5			
	2700	PURP	20	GRF	0314.4	0316.3	10.6	8.0			
	5730	IRKU	20	GRF	0315.0	0323.0	35.0	6.0		U	
	2804	VORO	3	S	0315.1	0316.1	2.4	0.6			
	5730	IRKU	1	S	0705.0	0706.0	3.5	1.0		U	
	204	IZMI	41	F	0804.0	0805.0	2.5	75.0			
	204	IZMI	41	F	1021.0	1021.5	1.5	120.0			
27	204	IZMI	44	NS	0600.0E		360.0D		30.0		
	280	CUBA	44	NS	1300.0E		530.0D		29.0		
	235	CUBA	44	NS	1300.0E		530.0D		37.0		
	204	IZMI	42	SER	0836.0	0837.0	4.0	300.0			
	204	IZMI	41	F	0917.0	0918.5	2.0	180.0			
	204	IZMI	25	R	1015.0		90.0		120.0		
	280	CUBA	6	S	1453.0	1453.2	1.0	29.0			
	235	CUBA	6	S	1531.0E	1531.2	1.0D	37.0			
28	204	IZMI	44	NS	0600.0E		360.0D		10.0		
	280	CUBA	44	NS	1300.0E		406.0D		15.0		
	235	CUBA	44	NS	1300.0E		406.0D		12.0		
	204	IZMI	7	C	0846.0	0848.0	3.0	220.0			
	33	UPIC	45	C	1404.5	1405.5	2.0				
	200	HIRA	8	S	2346.0	2346.1	1.0	90.0			O
29	204	IZMI	44	NS	0600.0E		360.0D		10.0		
	280	CUBA	44	NS	1300.0E		530.0D		20.0		
	235	CUBA	44	NS	1300.0E		530.0D		16.0		
	200	HIRA	8	S	0413.2	0413.5	0.7	130.0			O
	200	HIRA	8	S	0709.4	0709.7	0.9	80.0			O
	204	IZMI	45	C	0710.0	0710.5	1.0	350.0			
	204	IZMI	41	F	0910.0	0912.0	10.0	120.0			
	204	IZMI	8	S	0933.5	0933.8	0.5	190.0			
	235	CUBA	6	S	1459.0	1459.2	1.0	247.0			
	280	CUBA	6	S	1459.0	1459.2	1.0	20.0			
30	235	CUBA	44	NS	1300.0E		530.0D		9.0		
	280	CUBA	44	NS	1300.0E		530.0D		13.0		
	204	IZMI	42	SER	1115.0		37.0	27.0			

Reports are received routinely from the following observatories:

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

Explanation of Type Code:

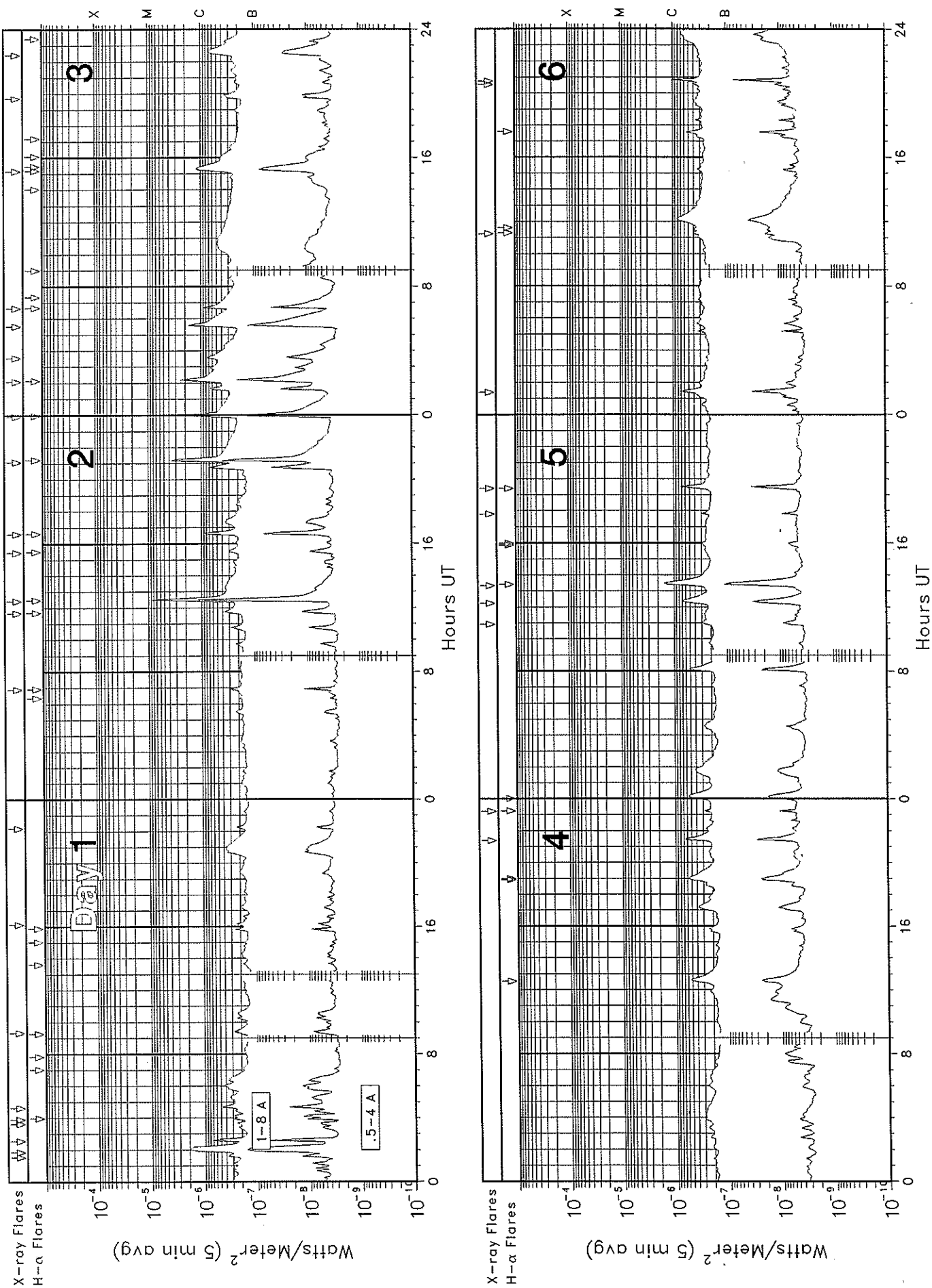
1 Simple 1	7 Minor +	24 Rise	30 Post Burst Increase A	43 Onset of Noise Storm
2 Simple 1F	8 Spike	25 Rise A	31 Post Burst Decrease	44 Noise Storm in Progress
3 Simple 2	20 Simple 3	26 Fall	33 Absorption	45 Complex
4 Simple 2F	21 Simple 3A	27 Rise and Fall	40 Fluctuation	46 Complex F
5 Simple	22 Simple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

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

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

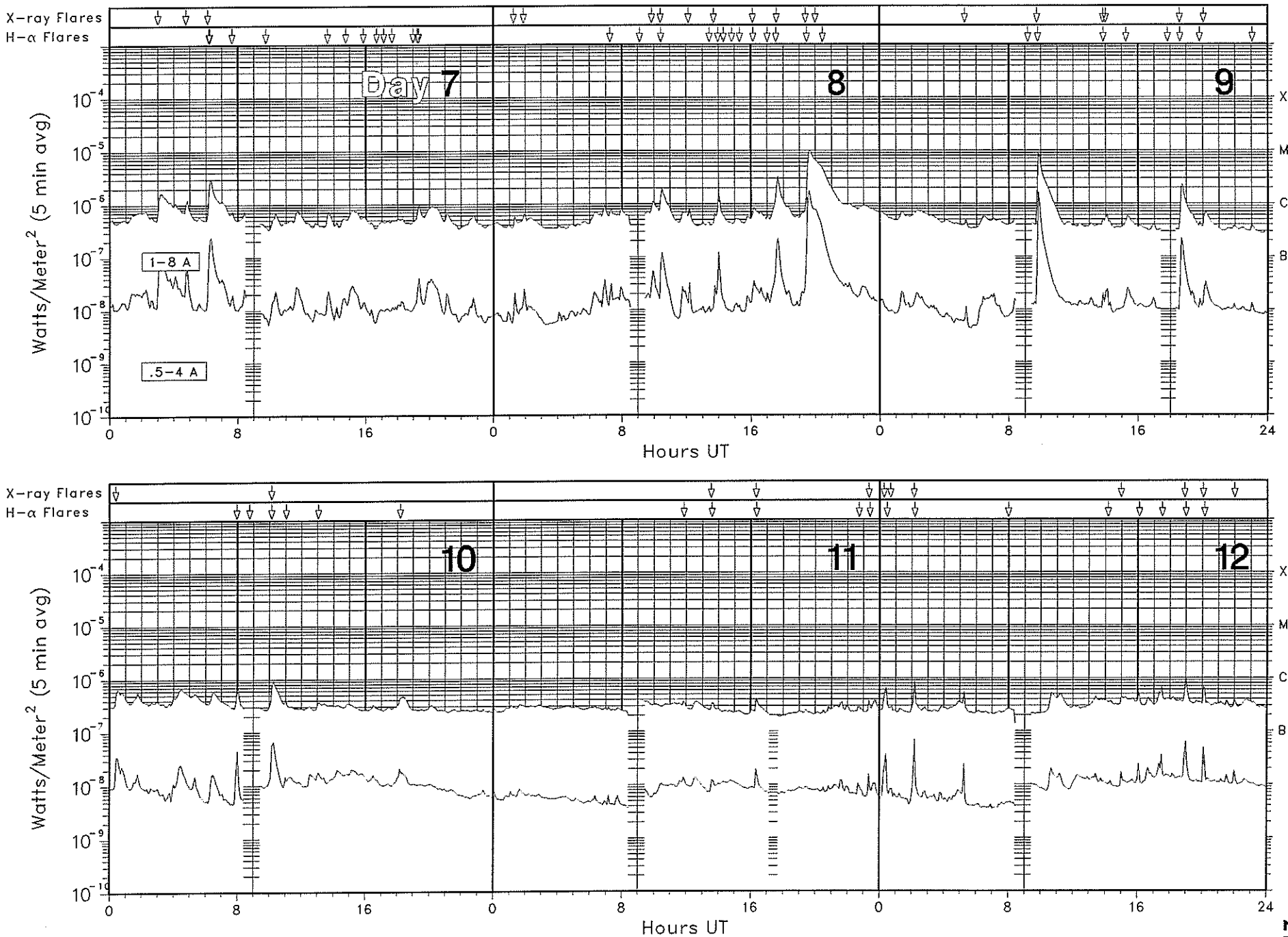
GOES X-RAY DETECTOR

September 1997



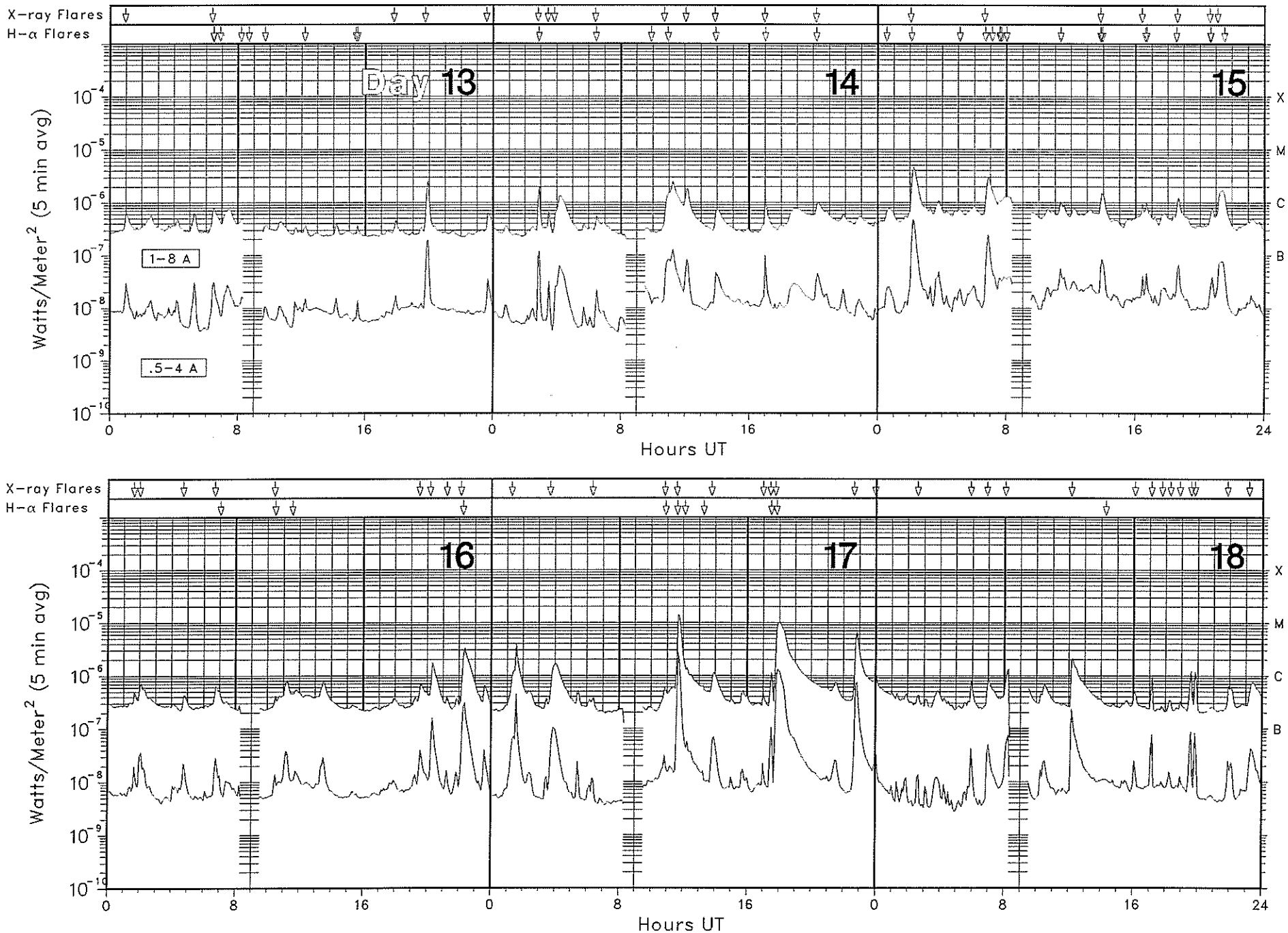
GOES X-RAY DETECTOR

September 1997



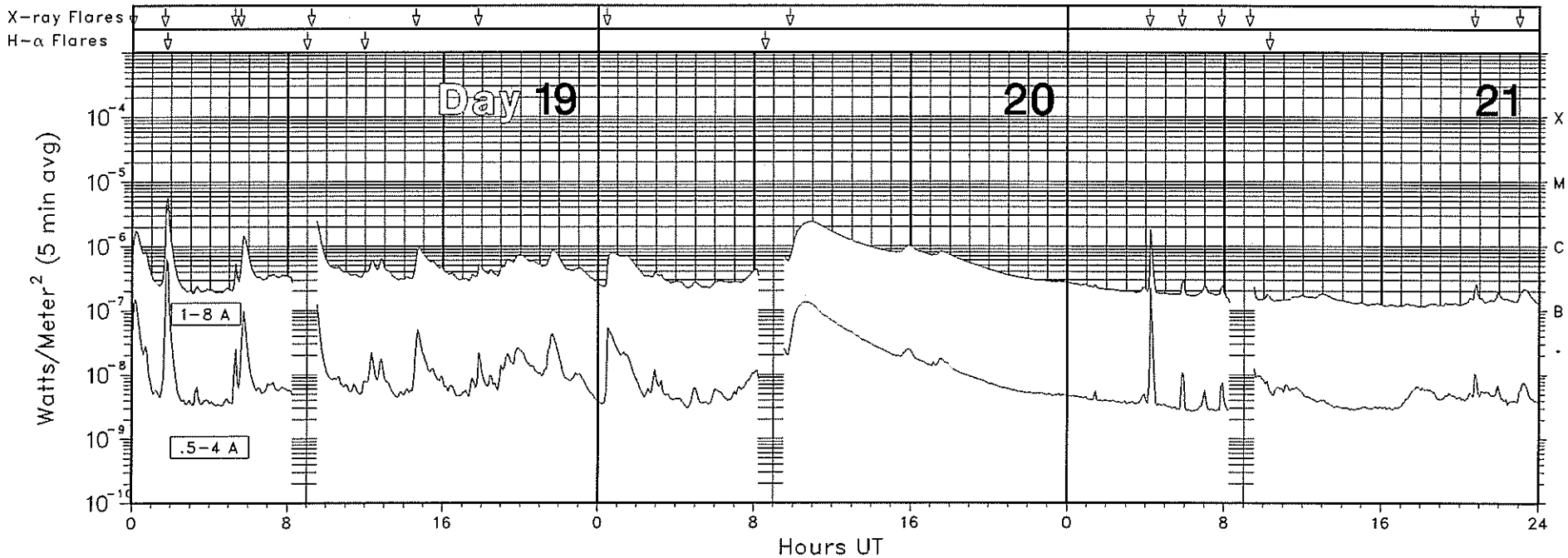
GOES X-RAY DETECTOR

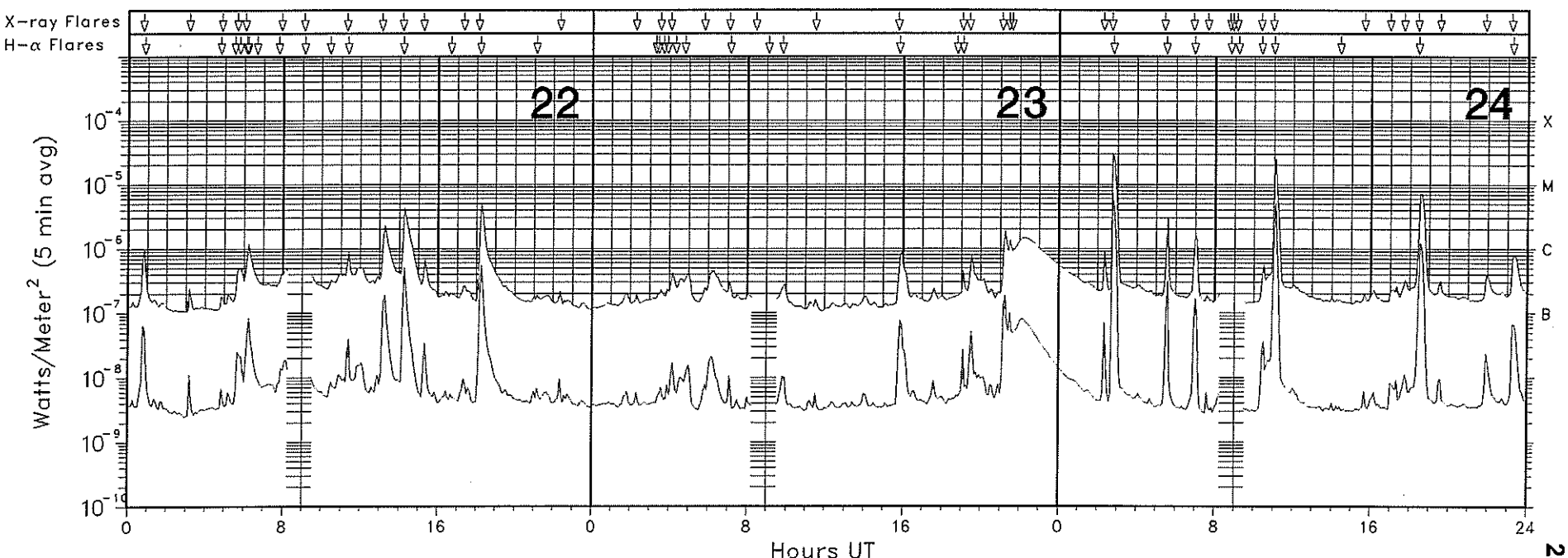
September 1997



GOES X-RAY DETECTOR

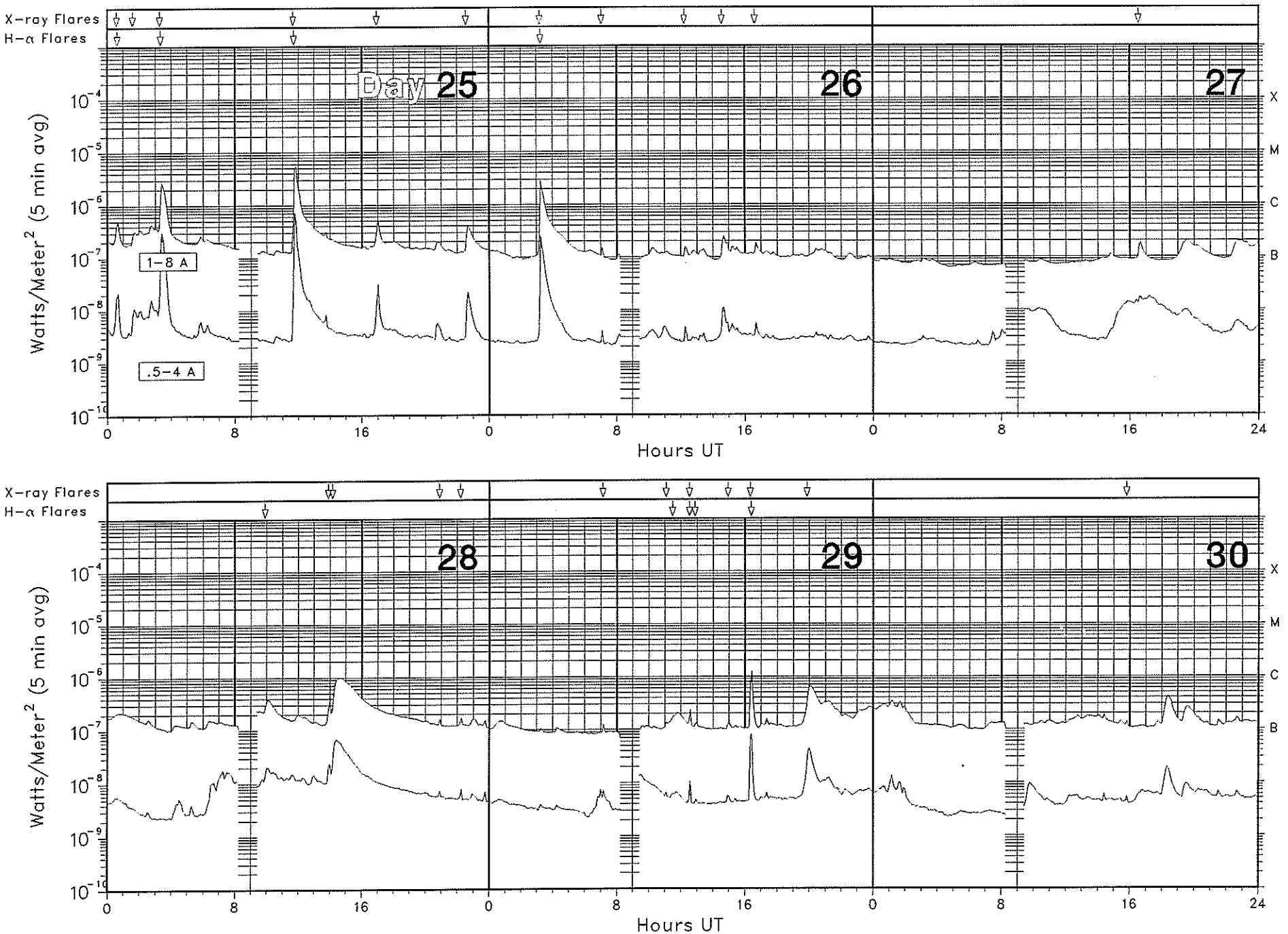
September 1997





GOES X-RAY DETECTOR

September 1997



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

September 1997

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/ USAF Region	Flux
01	0132	0139	0146				B3.9		2.9E-04
01	0152	0201	0214				C2.2		2.1E-03
01	0233	0238	0241				C1.1		3.2E-04
01	0337	0340	0342				B2.9		7.8E-05
01	0353	0356	0402	N24	W14	SF	B2.9	8076	1.3E-04
01	0436	0442	0446				B5.2		2.5E-04
01	0920	0927	0933				B2.5		1.7E-04
01	1607	1610	1616				B2.1		1.1E-04
01	2211	2214	2220				B2.6		1.2E-04
02	0654	0658	0700	N29	W35	SF	B3.8	8076	1.1E-04
02	1140	1144	1155	N30	W36	SF	B3.5	8076	2.6E-04
02	1225	1230	1234	N28	W37	1N	M1.0	8076	2.8E-03
02	1526	1534	1542	N29	W35	SF	B2.7	8076	2.4E-04
02	1635	1639	1643	N29	W39	SF	C1.2	8076	3.9E-04
02	2106	2113	2119	N24	W36	SF	C4.1	8076	1.9E-03
02	2354	2359	2403	N32	W41	SF	C2.8	8076	8.4E-04
03	0205	0212	0217	N32	W43	1F	C2.7	8076	1.2E-03
03	0332	0336	0340				B7.2		3.1E-04
03	0531	0537	0553				C1.7		1.4E-03
03	0639	0642	0645	N30	W46	SF	C1.0	8076	2.9E-04
03	1509	1520	1534	N28	W48	SF	C1.1	8076	1.3E-03
03	1942	1957	2000				B3.7		2.9E-04
03	2225	2241	2253				B7.4		1.0E-03
04	2122	2127	2135				B7.4		4.4E-04
04	2313	2316	2318	S28	E43	SF	B2.8	8083	7.4E-05
05	1055	1102	1116				B3.0		3.5E-04
05	1214	1224	1233				B7.3		6.9E-04
05	1320	1330	1338	N28	W74	SF	C1.7	8076	1.2E-03
05	1748	1751	1754				B3.2		1.0E-04
05	1924	1932	1936	N21	E23	SF	B8.4	8082	3.9E-04
06	0123	0128	0132				B7.0		3.0E-04
06	1115	1119	1123	N21	E16	SF	B4.2	8082	1.8E-04
06	2032	2035	2038				B3.8		1.3E-04
06	2046	2052	2054				C1.1		3.6E-04
07	0300	0317	0349				C1.6		3.9E-03
07	0445	0449	0454				C1.4		6.4E-04
07	0606	0620	0629	S31	E77	SF	C3.1	8085	2.7E-03
08	0117	0120	0127				B5.9		2.9E-04
08	0154	0158	0202				B6.7		2.7E-04
08	0952	0958	1006				C1.0		7.9E-04
08	1024	1030	1039	S25	E58	SF	C2.3	8085	1.4E-03
08	1207	1211	1215				B8.1		3.3E-04
08	1342	1403	1407	S27	E55	SF	C1.8	8085	1.2E-03
08	1606	1613	1628	S25	E56	SF	B7.7	8085	9.0E-04
08	1735	1739	1746	S26	E53		C3.5	8085	1.7E-03
08	1923	1927	1948	S28	W07	SF	M1.0	8083	9.5E-03
08	2000	2015	2021				C5.4		6.1E-03
09	0517	0520	0523				B5.6		1.7E-04
09	0945	0953	1003	S20	E44	1N	C9.7	8085	6.5E-03
09	1351	1352	1356	S28	W17	SF	B6.4	8083	1.6E-04
09	1401	1404	1408				B7.8	8083	2.6E-04
09	1835	1844	1852	S25	E43	1F	C2.5	8085	1.6E-03
09	2004	2011	2023				B7.1		7.2E-04
10	0023	0033	0057				B6.8		1.2E-03
10	1008	1014	1027				C1.0		9.0E-04
11	1333	1337	1343				B3.7		2.0E-04
11	1619	1622	1627	N24	W07	SF	B4.9	8084	1.9E-04
11	2320	2324	2326	N23	W08	SF	B5.2	8084	1.4E-04
12	0016	0028	0030	N22	W16	SF	B8.5	8084	4.6E-04
12	0041	0044	0047				B3.0		9.6E-05
12	0207	0211	0213	N22	W17	SF	C1.1	8084	2.8E-04
12	1459	1503	1506				B4.7		1.7E-04
12	1855	1900	1904	N23	W19	SF	C1.1	8084	4.1E-04
12	2004	2009	2011	N22	W20	SF	C1.0	8084	3.0E-04
12	2159	2202	2205				B3.8		1.2E-04
13	0056	0103	0114				B6.6		6.0E-04
13	0623	0630	0640	N21	W26	SF	B8.4	8086	6.8E-04
13	1747	1757	1801				B4.9		3.3E-04
13	1945	1956	2001				C2.4		1.4E-03
13	2336	2342	2356				B6.6		6.6E-04
14	0250	0255	0258	S23	W79	SF	C2.8	8083	8.1E-04
14	0327	0332	0336				B7.3		3.1E-04
14	0351	0414	0420				C1.2		1.4E-03
14	0626	0632	0639	S25	W18	SF	B5.1	8085	3.4E-04
14	1043	1115	1128	S25	W21	1F	C2.7	8085	4.2E-03
14	1202	1210	1214				C1.9		1.1E-03
14	1351	1359	1420	N22	W42	SF	B6.7	8084	1.0E-03
14	1658	1702	1706	N28	E43	SF	C1.5	8086	4.7E-04
14	2011	2016	2032	N22	W52	SF	C1.0	8084	1.2E-03
15	0202	0214	0227	N22	W56	SF	C4.4	8084	4.4E-03
15	0638	0654	0706	N22	W59	SF	C3.1	8084	3.6E-03
15	1349	1358	1407				C1.5	8086	1.3E-03
15	1623	1627	1630	N28	E29	SF	B9.5		3.3E-04
15	1835	1842	1844	N28	E28		C1.4	8086	6.3E-04
15	2037	2046	2053	N28	E27	SF	B7.7	8086	6.0E-04
15	2107	2125	2136	N28	E28	SF	C1.8	8086	2.5E-03
16	0137	0143	0148				B5.0		2.9E-04
16	0200	0205	0211				B8.3		4.4E-04
16	0442	0448	0501				B4.5		4.4E-04
16	0640	0648	0704	N22	W71	SF	B6.5	8084	7.9E-04
16	1026	1030	1033				B4.3		1.4E-04
16	1930	1939	1949				B7.1		6.9E-04
16	2010	2030	2041				C1.6		1.3E-03
16	2112	2115	2118				B4.2		1.2E-04
16	2206	2222	2238	N21	W74	SF	C3.4	8084	3.9E-03
17	0117	0136	0139				C5.6		2.3E-03
17	0342	0405	0423				C1.7		3.0E-03
17	0621	0624	0628				B3.8		1.5E-04
17	1050	1054	1056				B8.1		2.0E-04
17	1135	1143	1152	N21	W82	SN	M1.7	8084	9.8E-03
17	1345	1357	1410				C1.2		1.4E-03
17	1658	1702	1707				B4.4		1.9E-04
17	1725	1730	1737	S26	W70	SF	C1.2	8085	6.3E-04
17	1745	1803	1827	N21	W84	SF	M1.0	8084	1.9E-02
17	2239	2251	2258				C7.1		4.5E-03
17	2358	2401	2402				C1.6		2.9E-04
18	0235	0238	0244				B4.6		2.1E-04
18	0553	0558	0601				C1.1		3.4E-04
18	0654	0701	0714				B8.0		7.5E-04
18	0803	0818	0820				C1.4		1.0E-03
18	1208	1213	1222				C2.9		1.5E-03
18	1604	1608	1611				B5.8		1.9E-04

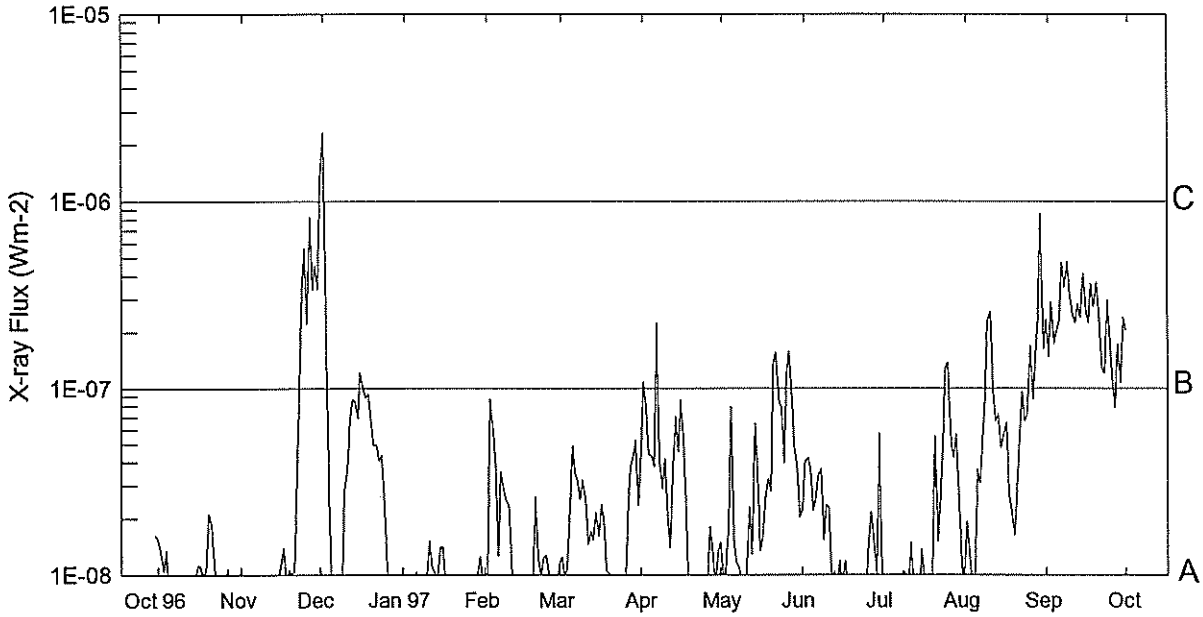
GOES S O L A R X-RAY F L A R E S
Preliminary Listing

September 1997

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp	Xray	NOAA/ USAF Region	Flux
18	1705	1710	1713				C	1.5		4.0E-04
18	1745	1748	1751				B	2.6		8.6E-05
18	1816	1819	1821				B	5.1		1.2E-04
18	1852	1856	1858				B	3.6		1.1E-04
18	1933	1936	1938				C	1.5		3.9E-04
18	1947	1953	1956				C	1.6		5.1E-04
18	2149	2206	2214				B	6.1		7.3E-04
18	2310	2331	2341				B	5.7		1.1E-03
19	0001	0013	0027				C	1.8		2.1E-03
19	0139	0150	0153	S17	W88	1F	C	8.6	8085	3.1E-03
19	0515	0521	0525				B	6.2		2.6E-04
19	0535	0548	0557				C	1.5		1.4E-03
19	0911	0929	0940				C	2.6		3.1E-03
19	1435	1445	1507				B	9.7		1.6E-03
19	1747	1753	1806				B	5.4		5.4E-04
20	0027	0048	0155				B	8.0		3.6E-03
20	0949	1044	1220				C	2.3		1.7E-02
21	0411	0417	0420				C	2.6		6.4E-04
21	0549	0554	0558				B	3.8		1.6E-04
21	0750	0754	0759				B	2.6		1.3E-04
21	0917	0924	0928				B	5.7		2.9E-04
21	2044	2049	2053				B	3.2		1.3E-04
21	2301	2304	2308				B	2.1		8.1E-05
22	0046	0049	0051	S25	E69	SF	C	1.7	8087	3.3E-04
22	0308	0313	0315				B	3.5		9.3E-05
22	0449	0453	0457	S33	E45		B	2.0	8088	8.5E-05
22	0538	0543	0559	S33	E44		B	5.2	8088	5.7E-04
22	0604	0616	0620	S33	E44	SF	C	1.4	8088	7.6E-04
22	0755	0758	0804	S28	E46		B	4.4	8088	2.2E-04
22	0905	0913	0917	S32	E41	SF	C	2.2	8088	7.2E-04
22	1119	1126	1130	S20	E65	SF	C	1.0	8087	4.8E-04
22	1306	1315	1324				C	2.6		1.7E-03
22	1410	1416	1426	S28	E43	SF	C	4.7	8088	2.9E-03
22	1515	1521	1526				B	7.2		3.5E-04
22	1720	1724	1727				B	3.1		1.2E-04
22	1806	1817	1824	S28	E40	SF	C	5.1	8088	2.9E-03
22	2220	2224	2226				B	3.0		8.3E-05
23	0217	0220	0226				B	2.1		9.9E-05
23	0332	0335	0340				B	2.1		9.6E-05
23	0404	0413	0416				B	4.0		2.3E-04
23	0546	0550	0555				B	2.6		1.3E-04
23	0704	0708	0711	S29	E36	SF	B	3.4	8088	1.3E-04
23	0825	0828	0832				B	2.3		8.7E-05
23	1129	1132	1136				B	1.7		6.6E-05
23	1544	1555	1602	S28	E28	SF	B	9.5	8088	6.7E-04
23	1902	1906	1909	S28	E29	SF	B	5.8	8088	1.6E-04
23	1924	1932	1938				B	8.3		4.7E-04
23	2105	2117	2123				C	1.9		1.3E-03
23	2127	2131	2136				C	1.4		6.7E-04
23	2136	2214	2350				C	1.5		8.6E-03
24	0217	0221	0225				C	1.1		3.5E-04
24	0243	0248	0252	S31	E19	1B	M	5.9	8088	1.5E-02
24	0523	0535	0538	S29	E15	SF	C	4.5	8088	1.2E-03
24	0654	0704	0707	S29	E15	SF	C	2.5	8088	1.0E-03
24	0736	0739	0741				B	2.4		6.1E-05
24	0845	0850	0852				B	3.5		1.1E-04
24	0854	0857	0859				B	3.1		8.2E-05
24	0906	0913	0916	S29	E13	SN	C	2.2	8088	6.3E-04
24	1021	1030	1032				B	9.1		2.8E-04
24	1057	1106	1110	S28	E18	SF	M	3.0	8088	1.1E-02
24	1539	1542	1544				B	2.4		6.3E-05
24	1658	1722	1725				B	2.8		3.7E-04
24	1740	1748	1753				B	3.6		2.4E-04
24	1824	1834	1845	S29	E15	1N	C	8.3	8088	6.5E-03
24	1931	1935	1938				B	3.6		1.4E-04
24	2151	2158	2207				B	4.2		3.2E-04
24	2312	2323	2335	S29	E06	SF	B	8.3	8088	9.3E-04
25	0035	0040	0044	S29	E05	SF	B	5.6	8088	2.5E-04
25	0135	0246	0312				B	4.0		1.7E-03
25	0317	0328	0339	S29	E04	SN	C	2.7	8088	2.4E-03
25	1140	1149	1155	S27	E02	1N	C	7.2	8088	3.4E-03
25	1655	1701	1706				B	5.6		2.9E-04
25	2233	2241	2255				B	4.2		4.3E-04
26	0312	0317	0320	S26	W08	SN	C	4.4	8088	1.0E-03
26	0703	0707	0710				B	1.7		5.9E-05
26	1213	1218	1224				B	1.7		9.7E-05
26	1433	1441	1450				B	2.5		2.1E-04
26	1637	1642	1648				B	1.9		1.1E-04
27	1634	1640	1647				B	1.9		1.3E-04
28	1354	1400	1405				B	3.7		2.0E-04
28	1411	1442	1534				C	1.0		4.0E-03
28	2053	2056	2058				B	2.1		4.9E-05
28	2212	2215	2217				B	2.3		5.4E-05
29	0708	0711	0714				B	1.3		4.3E-05
29	1105	1108	1110				B	1.6		3.7E-05
29	1231	1236	1238	S31	W52	SF	B	3.3	8088	9.0E-05
29	1456	1459	1502				B	1.7		5.0E-05
29	1620	1624	1627	S32	W52	SF	C	2.6	8088	5.1E-04
29	1952	2006	2025				B	6.6		1.1E-03
30	1549	1552	1554				B	1.4		3.6E-05

*****EDITOR's NOTE: Only GOES X-ray times now appear in this table, beginning with the July 1997 data. These data are from the NOAA Space Environment Center on-line archives (see http://www.sec.noaa.gov).

Preliminary GOES Satellite Daily X-Ray Background
Oct 96 - Sep 97



Day	Oct 96	Nov	Dec	Jan 97	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	A1.5	<A1.0	C1.3	<A1.0	<A1.0	A1.1	A4.6	A1.4	A2.2	<A1.0	<A1.0	B2.3
2	A1.3	<A1.0	C2.3	<A1.0	<A1.0	A1.2	B1.0	<A1.0	A4.0	<A1.0	A1.9	B1.4
3	A1.0	<A1.0	B2.4	<A1.0	A8.7	<A1.0	A7.9	A1.0	A4.2	<A1.0	A1.3	B2.8
4	A1.3	<A1.0	A3.7	<A1.0	A5.9	A1.0	A4.3	A1.8	A3.6	<A1.0	<A1.0	B1.7
5	<A1.0	<A1.0	<A1.0	<A1.0	A3.8	A2.3	A4.3	A7.9	A2.2	<A1.0	<A1.0	B2.0
6	<A1.0	<A1.0	<A1.0	A1.0	A1.2	A4.9	A3.8	A1.5	A2.5	<A1.0	A3.6	B2.3
7	<A1.0	<A1.0	<A1.0	<A1.0	A3.5	A3.4	B2.2	A1.1	A3.3	<A1.0	A3.0	B4.7
8	<A1.0	<A1.0	<A1.0	<A1.0	A2.7	A3.2	A4.1	A1.1	A3.6	<A1.0	A5.2	B3.5
9	<A1.0	<A1.0	<A1.0	<A1.0	A2.4	A2.5	A2.8	<A1.0	A1.5	A1.0	A8.8	B4.8
10	<A1.0	<A1.0	A2.7	<A1.0	A2.3	A3.2	A4.1	<A1.0	A2.3	A1.0	B2.3	B3.3
11	<A1.0	<A1.0	A3.6	A1.5	A1.1	A2.4	A2.0	A1.1	A2.2	<A1.0	B2.5	B2.4
12	<A1.0	<A1.0	A6.7	A1.0	<A1.0	A1.4	A1.4	A2.2	<A1.0	A1.4	A9.5	B2.2
13	<A1.0	<A1.0	A8.5	A1.0	<A1.0	A1.7	A3.2	A1.2	A1.0	<A1.0	A6.6	B2.8
14	<A1.0	<A1.0	A8.5	<A1.0	<A1.0	A1.5	A6.9	A6.4	<A1.0	<A1.0	A7.2	B2.4
15	<A1.0	<A1.0	A6.8	A1.4	<A1.0	A2.1	A4.5	A3.3	A1.2	<A1.0	A4.7	B4.1
16	A1.1	A1.1	B1.2	A1.4	<A1.0	A1.6	A8.6	A1.3	<A1.0	A1.3	A5.7	B2.6
17	A1.1	A1.3	B1.0	<A1.0	<A1.0	A2.3	A5.5	A1.5	A1.1	<A1.0	A6.5	B2.2
18	<A1.0	<A1.0	B8.9	<A1.0	<A1.0	A1.9	A1.9	A2.5	<A1.0	<A1.0	A2.7	B3.6
19	A1.1	A1.0	A9.2	<A1.0	<A1.0	A1.0	<A1.0	A3.2	<A1.0	A1.0	A2.1	B2.7
20	A2.1	A1.0	A6.7	<A1.0	A2.5	A1.0	<A1.0	A2.7	<A1.0	<A1.0	A1.6	B3.7
21	A1.8	A1.0	A4.9	<A1.0	A1.2	<A1.0	<A1.0	B1.3	<A1.0	A5.5	A2.4	B2.3
22	A1.2	A3.3	A4.9	<A1.0	<A1.0	<A1.0	<A1.0	B1.5	<A1.0	A1.5	A5.5	B1.2
23	<A1.0	B1.0	A4.0	<A1.0	A1.2	<A1.0	<A1.0	A8.5	<A1.0	A2.6	A9.5	B1.2
24	<A1.0	B3.3	A4.3	<A1.0	A1.2	<A1.0	<A1.0	A7.8	<A1.0	A5.0	A6.6	B2.9
25	<A1.0	B5.5	A2.6	<A1.0	A1.0	<A1.0	<A1.0	A3.9	<A1.0	B1.2	A7.2	B1.7
26	<A1.0	B2.2	A1.0	<A1.0	<A1.0	<A1.0	<A1.0	B1.1	A1.4	B1.3	B1.6	B1.0
27	A1.0	B8.2	<A1.0	<A1.0	<A1.0	A2.0	A1.8	B1.5	A2.1	A5.0	A8.7	A7.8
28	<A1.0	B3.3	<A1.0	<A1.0	<A1.0	A3.7	A1.4	A8.4	A1.4	A4.2	B1.4	B1.7
29	<A1.0	B4.5	<A1.0	<A1.0		A4.3	<A1.0	A4.8	A1.0	A5.6	B2.3	B1.0
30	<A1.0	B3.4	<A1.0	A1.2		A5.2	A1.3	A3.6	A5.7	A2.7	B8.6	B2.4
31	<A1.0		<A1.0	<A1.0		A2.3		A2.0		A1.1	B1.6	

ACTIVE PROMINENCES AND FILAMENTS

SEPTEMBER 1997

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	AFS	0539E	1710	N30	W14	08	31.1		02	9	9	E	SVTO	8076	
01	DSD	0540E	1202D	N33	W14	08	31.1		02	9	9	E	SVTO	8076	
01	AFS	1148E	1506D	N26	W22	08	30.9		01	5	5	E	RAMY	8076	
01	AFS	1152E	2005	N34	E74	09	7.4		01	3	3	E	RAMY	8081	
01	DSD	1216E	1359D	N28	W31	08	30.2		02	6	6	E	RAMY	8076	
01	AFS	1454E	2005	N30	W19	08	31.1		01	6	6	E	RAMY	8076	
01	DSD	1901E	2005	N28	W33	08	30.3		03	9	9	E	RAMY	8076	
02	AFS	0330E	0945	N28	E66	09	7.3		02	9	9	E	LEAR	8081	
02	DSD	0352E	0510D	N31	W37	08	30.3		09	9	6	E	LEAR	8076	
02	ADF	0530E	0852D	N29	W37	08	30.4	1	01	9	9	E	SVTO	8076	
02	AFS	0550E	1418D	N35	E65	09	7.4		03	9	9	E	SVTO	8081	
02	ADF	0550E	1705	N34	E66	09	7.5	1	05	9	9	E	SVTO	8081	
02	ADF	0610E	1106D	N36	W36	08	30.5	1	03	9	9	E	SVTO	8076	
02	ADF	0619E	0904D	S23	E59	09	6.8	1	03	9	9	E	SVTO		
02	ADF	0700E	0945	N33	W37	08	30.4		08	8	9	E	LEAR	8076	
02	DSD	0730	0830	N22	E63	09	7.1		09	9	9	E	LEAR	8080	
02	ADF	0830	0945	N22	E63	09	7.2		02	8	9	E	LEAR	8080	
02	ADF	0852E	1419D	N27	W43	08	30.1	1	11	9	9	E	SVTO	8076	
02	AFS	0915E	1109D	S30	E55	09	6.7		02	9	9	E	SVTO		
02	DSD	1129E	1248D	N26	W48	08	29.8		03	9	9	E	RAMY	8076	
02	ADF	1129E	1607	N30	W44	08	30.1	1	03	9	9	E	RAMY	8076	
02	DSD	1230E	1255D	N28	W39	08	30.6		07	9	9	E	SVTO	8076	
02	DSD	1233E	1248D	N28	W38	08	30.6		06	0	0	E	RAMY	8076	Flare Associated
02	ADF	1258E	2311	N28	W46	08	30.0	1	03	9	9	E	HOLL	8076	
03	DSD	0000E	0030D	N32	W42	08	30.8		04	9	9	E	LEAR	8076	
03	AFS	0320E	0955	S06	E32	09	5.5		02	9	4	E	LEAR		
03	ADF	0540E	1647	N28	W44	08	30.9	1	04	9	9	E	SVTO	8076	
03	AFS	0540E	1647	N30	W42	08	31.0		03	9	9	E	SVTO	8076	
03	DSD	0730E	1647	S28	E64	09	8.3		03	9	9	E	SVTO		
03	ADF	0925E	1647	N26	W46	08	30.9	1	12	9	9	E	SVTO	8076	
03	ADF	1123E	1647	N32	W44	08	31.0	1	07	9	9	E	SVTO	8076	
03	DSD	1141E	2024D	S28	E61	09	8.2		02	9	9	E	RAMY	8083	
03	AFS	1234E	1647	S27	E59	09	8.1		03	9	9	E	SVTO		
03	ADF	1242E	2219	N29	W56	08	30.2	1	03	9	9	E	RAMY	8076	
03	AFS	1259E	0027	S26	E60	09	8.2		03	9	8	E	HOLL	8083	
03	ADF	1343E	0027	N20	W58	08	30.2	1	10	7	8	E	HOLL	8076	
03	ADF	1426	0027	S32	E48	09	7.4	1	13	9	9	E	HOLL		
03	AFS	2024E	2219	S28	E54	09	8.1		01	9	9	E	RAMY	8083	
03	DSD	2213E	2219	S32	E60	09	8.7		01	9	9	E	RAMY	8083	
04	AFS	0725E	1058	S26	E50	09	8.2		03	9	9	E	SVTO	8083	
04	AFS	1042E	2142	S26	E47	09	8.1		01	9	9	E	RAMY	8083	
04	AFS	1308	0101	N22	E38	09	7.5		01	9	9	E	HOLL	8082	
04	AFS	1308	0101	S26	E45	09	8.0		03	7	8	E	HOLL	8083	
04	ADF	1346E	1611D	N24	W63	08	30.8	1	09	9	9	E	RAMY	8076	
04	AFS	1603E	2142	N35	E33	09	7.3		01	4	4	E	RAMY	8081	
05	AFS	0715E	1644	S27	E37	09	8.2		02	6	4	E	SVTO	8083	
05	ADF	0805E	1644	S31	E40	09	8.5	1	03	9	9	E	SVTO	8083	
05	AFS	0844E	1644	N21	E30	09	7.7		04	9	9	E	SVTO	8082	
05	AFS	1112E	2135	N21	E29	09	7.7		02	9	9	E	RAMY	8082	
05	AFS	1112E	2135	S27	E35	09	8.2		01	9	9	E	RAMY	8083	
05	DSD	1127E	1325D	S25	E30	09	7.8		03	9	9	E	RAMY	8083	
05	DSD	1138E	1610D	N22	E74	09	11.2		01	9	9	E	RAMY	8084	
05	AFS	1159E	1644	N22	E73	09	11.1		03	9	9	E	SVTO		
05	ADF	1600E	1658D	N48	E28	09	8.0	1	04	7	5	E	RAMY		
05	AFS	1623E	2135	N22	E70	09	11.1		01	5	5	E	RAMY	8084	
05	ASR	1625E	1940D	N24	W86	08	30.1			5	5	E	RAMY	8076	
05	AFS	1810E	2329	N22	E25	09	7.7		01	7	7	E	HOLL	8082	
05	AFS	1810E	2329	N27	E32	09	8.2		01	4	5	E	HOLL	8083	
06	DSD	0520E	0810D	N31	W75	08	31.3		02	9	9	E	SVTO	8076	
06	AFS	0522E	1645	N21	E19	09	7.7		03	9	9	E	SVTO	8082	
06	AFS	0525E	1645	N22	E63	09	11.1		02	9	9	E	SVTO	8084	
06	ASR	0635E	1645	N27	E90	09	13.3			9	9	E	SVTO		
06	DSD	0636E	1540D	S26	E29	09	8.5		02	9	9	E	SVTO	8083	
06	DSD	0636E	1645	S27	E21	09	7.9		04	9	9	E	SVTO	8083	
06	AFS	0645E	0934	N18	E19	09	7.7		02	6	7	E	LEAR	8082	

ACTIVE PROMINENCES AND FILAMENTS

SEPTEMBER 1997

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	ASR	0645E	0934	S28	E73	09	12.0			7	7	E	LEAR		
06	APR	0750E	1645	N27	W90	08	30.4	1		9	9	E	SVTO	8078	
06	ASR	0800E	1220D	N26	W90	08	30.4			9	9	E	SVTO	8076	
06	BSL	0915U	0935	N24	W90	08	30.6	1		9	9	V	KHAR		
06	ASR	1003E	1645	N22	W90	08	30.6			9	9	E	SVTO	8078	
06	ASR	1150E	2158	S23	E90	09	13.4			9	9	E	RAMY	8085	
06	AFS	1158E	2158	S27	E21	09	8.1		01	5	6	E	RAMY	8083	
06	ASR	1315E	2158	N27	W90	08	30.6			8	7	E	RAMY	8076	
06	AFS	1317E	2158	N21	E14	09	7.6		02	9	9	E	RAMY	8082	
06	AFS	1430E	0004	N21	E12	09	7.5		01	9	8	E	HOLL	8082	
06	ASR	1515E	0004	S23	E90	09	13.6			7	7	E	HOLL	8085	
06	AFS	1630E	0004	S25	E17	09	8.0		01	9	9	E	HOLL	8083	
06	DSD	1847	2015D	N20	E55	09	11.0		03	9	9	E	RAMY	8084	
06	ADF	2306E	0957D	N20	E10	09	7.7		03	6	5	E	LEAR	8082	
06	ASR	2306E	0957D	S30	E75	09	12.9			9	9	E	LEAR	8085	
06	AFS	2355E	0934	S31	E23	09	8.8		04	9	9	E	LEAR	8083	
07	AFS	0605E	1650	S23	E78	09	13.3		02	9	9	E	SVTO	8085	
07	DSD	0608E	1650	S26	E86	09	13.9		02	9	9	E	SVTO	8085	
07	AFS	0610E	1650	N21	E05	09	7.6		02	6	7	E	SVTO	8082	
07	BSD	0614E	0630D	S24	E84	09	13.7		04	9	9	E	SVTO	8085	Flare Associated
07	BSD	0739	0748	S24	E84	09	13.8		03	9	9	E	SVTO	8085	Flare Associated
07	DSD	0830E	1010D	N20	E02	09	7.5		03	9	9	E	SVTO	8082	
07	DSD	0922U	0940	N21	E04	09	7.7	1		9	9	V	KHAR		
07	ADF	0935E	1650	N34	E12	09	8.3	1	10	9	9	E	SVTO	8083	
07	DSD	0940U	1005	S27	E78	09	13.3	1		9		V	KHAR		
07	ADF	1002E	1650	S34	W03	09	7.2	1	04	9	9	E	SVTO	8081	
07	DSD	1030U	1200D	S27	E78	09	13.3	1		9		V	KHAR		
07	BSL	1125U	1148	N24	W90	08	31.7	1		9	9	V	KHAR		
07	AFS	1157E	2214	N21	E01	09	7.6		01	7	6	E	RAMY	8082	
07	AFS	1157E	2214	S27	E08	09	8.1		01	4	4	E	RAMY	8083	
07	AFS	1208E	2214	S24	E70	09	12.9		01	8	9	E	RAMY	8085	
07	ADF	1227E	1650	S27	W09	09	6.8	1	05	9	9	E	SVTO	8084	
07	AFS	1309E	0006	N21	E01	09	7.6		01	4	5	E	HOLL	8082	
07	AFS	1309E	0006	S25	E09	09	8.2		02	6	7	E	HOLL	8083	
07	DSD	1309E	1928	S25	E70	09	13.0		02	9	9	E	HOLL	8085	
07	BSD	1408E	1425D	S21	E64	09	12.5		03	9	9	E	RAMY	8085	
07	DSD	1408E	2214	S25	E66	09	12.7		02	9	9	E	RAMY	8085	
07	DSD	1420	0006	S23	E08	09	8.2		02	9	9	E	HOLL	8083	
07	ADF	2146	0006	S31	W13	09	6.9	1	12	7	8	E	HOLL		
08	AFS	0528E	0955	N19	E36	09	11.0		02	9	9	E	LEAR	8084	
08	AFS	0728E	1635	N22	E35	09	11.0		02	9	9	E	SVTO	8084	
08	AFS	0735E	1635	S24	E59	09	12.9		01	9	9	E	SVTO	8085	
08	DSD	1109E	1632D	S28	E04	09	8.8		02	9	9	E	RAMY	8083	
08	AFS	1129E	2209	N22	E31	09	10.9		01	9	9	E	RAMY	8084	
08	AFS	1140E	2209	S26	E58	09	13.0		01	9	9	E	RAMY	8085	
08	ADF	1157E	1826D	N18	E37	09	11.3	1	04	9	9	E	RAMY	8084	
08	AFS	1302E	0112	N22	E32	09	11.0		02	9	9	E	HOLL	8084	
08	DSD	1604E	2202D	N21	E28	09	10.8		01	9	9	E	RAMY	8084	
08	ADF	2027E	2209	S22	E50	09	12.7	1	04	8	9	E	RAMY	8085	
08	AFS	2255E	0949	N19	E27	09	11.0		02	9	9	E	LEAR	8084	
08	AFS	2255E	0949	S27	W14	09	7.9		03	9	7	E	LEAR	8083	
09	ADF	0557E	1505D	S31	W09	09	8.5	1	06	9	9	E	SVTO	8083	
09	AFS	0613E	1635	N22	E22	09	10.9		02	9	9	E	SVTO	8084	
09	AFS	0622E	1635	S28	E52	09	13.3		02	9	9	E	SVTO	8085	
09	ADF	0623E	1513D	S25	E48	09	13.0	1	19	9	9	E	SVTO	8085	
09	AFS	0832E	1513D	S23	E46	09	12.9		01	9	9	E	SVTO	8085	
09	DSD	1104E	1324D	N22	E13	09	10.5		02	9	9	E	RAMY	8084	
09	AFS	1104E	2217	N21	E20	09	11.0		01	9	9	E	RAMY	8084	
09	ADF	1130E	1635	S23	E41	09	12.6	1	06	9	9	E	SVTO	8085	
09	ADF	1131E	1710D	S23	E47	09	13.1	1	07	9	9	E	RAMY	8085	
09	DSD	1131E	1635	S25	E54	09	13.7		02	9	9	E	SVTO	8085	
09	AFS	1132E	2217	S26	W16	09	8.2		01	9	9	E	RAMY	8083	
09	AFS	1136E	2217	S29	E49	09	13.3		01	9	9	E	RAMY	8085	
09	DSD	1151E	1431D	N22	E13	09	10.5		01	9	9	E	SVTO	8084	
09	DSD	1420E	2150D	S24	E42	09	12.8		03	9	9	E	HOLL	8085	
09	DSD	1420E	2150D	S27	E53	09	13.7		02	9	9	E	HOLL	8085	
09	DSD	1718	2217	S30	E42	09	13.0		02	8	8	E	RAMY	8085	

ACTIVE PROMINENCES AND FILAMENTS

SEPTEMBER 1997

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
09	DSF	2217U	1115U	S24	W24	09	8.1	1	05	0	0	E	RAMY	8083	
09	AFS	2310E	0044	N21	E14	09	11.0		01	9	7	E	HOLL	8084	
09	AFS	2315E	0044	S29	W20	09	8.4		01	6	7	E	HOLL	8083	
10	AFS	0010E	0941	N19	E14	09	11.1		03	9	5	E	LEAR	8083	
10	AFS	0010E	0941	S25	W26	09	8.0		03	9	7	E	LEAR	8084	
10	AFS	0200E	0941	S28	E33	09	12.7		05	9	9	E	LEAR	8085	
10	AFS	0715E	1336D	N19	E04	09	10.6		02	9	9	E	SVTO	8084	
10	ADF	0716E	1222D	S26	E34	09	12.9	1	03	9	9	E	SVTO	8085	
10	DSD	1059E	1516D	N19	E05	09	10.8		02	9	9	E	RAMY	8084	
10	AFS	1127E	2158	N21	E07	09	11.0		01	9	9	E	RAMY	8084	
10	AFS	1127E	2158	S25	E33	09	13.0		01	9	9	E	RAMY	8085	
10	AFS	1127E	2158	S27	W28	09	8.3		01	9	9	E	RAMY	8083	
10	AFS	1200E	1336D	N18	E02	09	10.6		03	9	9	E	SVTO	8084	
10	DSD	1336E	1528D	N20	E01	09	10.6		04	9	9	E	SVTO	8084	
10	DSD	1436E	2311	N19	E02	09	10.8		02	9	8	E	HOLL	8084	
10	AFS	1436E	2311	S25	E29	09	12.8		03	9	9	E	HOLL	8085	
10	AFS	2030E	2311	N21	E03	09	11.1		01	6	6	E	HOLL	8084	
10	AFS	2030E	2311	S27	W30	09	8.5		01	7	6	E	HOLL	8083	
10	DSD	2055E	2135D	S26	W28	09	8.7		06	9	9	E	HOLL	8083	
11	AFS	0540E	1637	S24	E25	09	13.2		02	9	9	E	SVTO	8085	
11	ADF	0549E	1637	S23	E24	09	13.1	1	05	9	9	E	SVTO	8085	
11	ADF	0618E	1211D	N20	W05	09	10.9	1	04	9	9	E	SVTO	8084	
11	AFS	0723E	1637	S31	W39	09	8.2		03	6	5	E	SVTO	8083	
11	AFS	0810E	1340D	N17	W52	09	7.4		02	7	7	E	SVTO	8082	
11	ADF	0910E	1637	N36	W51	09	7.3	1	13	5	7	E	SVTO	8081	
11	ASR	1045E	1246D	N27	E90	09	18.5			7	7	E	RAMY	8086	
11	DSD	1046E	1948D	S25	W35	09	8.7		02	9	9	E	RAMY	8083	
11	AFS	1059E	2043	N21	W06	09	11.0		01	8	9	E	RAMY	8084	
11	DSD	1111	1255D	N23	W02	09	11.3		01	9	9	E	RAMY	8084	
11	ASR	1307E	1321D	N35	E90	09	18.7			7	7	E	SVTO		
11	AFS	1440E	0022	S25	E19	09	13.1		01	6	7	E	HOLL	8085	
11	AFS	1445E	0022	N20	W09	09	10.9		01	9	9	E	HOLL	8084	
11	AFS	1527E	1637	N20	W09	09	10.9		02	7	8	E	SVTO	8084	
11	DSD	1624E	2043	N23	W03	09	11.4		03	9	9	E	RAMY	8084	
11	DSD	1631	0022	N23	W03	09	11.4		04	9	9	E	HOLL	8084	
11	ADF	1650E	2010D	S24	E16	09	12.9	1	03	9	9	E	RAMY	8085	
11	ADF	1700E	1810D	N22	W09	09	11.0	1	04	5	6	E	RAMY	8084	
11	DSD	2019E	2043	S26	E11	09	12.7		02	9	9	E	RAMY	8085	
11	DSD	2241	2305	N22	W07	09	11.4		02	9	9	E	HOLL	8084	Flare Associated
11	AFS	2256E	0800D	N11	W21	09	10.4		03	8	6	E	LEAR	8084	
11	DSD	2330	0010	N24	W05	09	11.6		04	9	9	E	LEAR	8084	
12	DSD	0030	0130	N24	W05	09	11.6		03	9	9	E	LEAR	8084	
12	AFS	0100E	0958	S27	E11	09	12.9		02	9	9	E	LEAR	8085	
12	DSD	0208	0958	N25	W06	09	11.6		05	9	9	E	LEAR	8084	
12	ADF	0533E	0753D	S24	W40	09	9.1	1	06	9	9	E	SVTO	8083	
12	DSD	0537E	1637	N24	W10	09	11.5		02	9	9	E	SVTO	8084	
12	AFS	0538E	1637	N20	W16	09	11.0		02	9	9	E	SVTO	8084	
12	DSD	1104E	1125D	N20	W18	09	11.1		02	5	9	E	RAMY	8084	
12	AFS	1104E	2224	N22	W20	09	10.9		01	9	9	E	RAMY	8084	
12	DSD	1129E	2224	N23	W19	09	11.0		03	9	9	E	RAMY	8084	
12	ADF	1359E	1637	N22	W20	09	11.0	1	08	9	9	E	SVTO	8084	
13	AFS	0347E	0948	N22	E65	09	18.1		02	9	9	E	LEAR	8086	
13	ADF	0347E	0948	S30	W01	09	13.1	1	06	6	5	E	LEAR	8085	
13	AFS	0632E	1625	N28	E61	09	18.0		02	9	9	E	SVTO	8086	
13	ADF	0720E	1625	N28	W32	09	10.8	1	08	9	9	E	SVTO	8084	
13	DSD	0927E	1424D	N33	W28	09	11.2		04	9	9	E	SVTO	8084	
13	DSD	1127E	2021D	N21	W32	09	11.0		03	9	9	E	RAMY	8084	
13	DSD	1204E	2021D	N29	E61	09	18.3		02	6	8	E	RAMY	8086	
13	AFS	1312E	2224	N30	E60	09	18.3		02	6	6	E	RAMY	8086	
13	AFS	1440E	2224	N22	W33	09	11.1		01	9	9	E	RAMY	8084	
13	BSD	2011E	2224	S26	W70	09	8.4		01	9	9	E	RAMY	8083	
13	DSD	2320E	0053D	N25	E59	09	18.5		04	9	9	E	LEAR	8086	
14	ADF	0620E	0944D	S24	W21	09	12.6	1	03	9	9	E	SVTO	8085	
14	AFS	0752E	1327	N27	E47	09	18.0		02	9	9	E	SVTO	8086	
14	ASR	0844E	0958	S24	W87	09	7.6			9	9	E	LEAR	8083	

ACTIVE PROMINENCES AND FILAMENTS

SEPTEMBER 1997

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	BSL	0938	0952	S27	W90	09	7.6	1		9	9	V	KHAR		
14	ASR	0938E	1224D	S25	W90	09	7.4			9	9	E	SVTO	8083	
14	ADF	1057E	1327	N23	W24	09	12.6	1	04	9	9	E	SVTO	8085	
14	AFS	1131E	1920	N28	E45	09	18.0		01	7	7	E	RAMY	8086	
14	ASR	1645	1912D	S29	W90	09	7.6			9	9	E	RAMY	8083	
14	DSD	2316	0026	N29	E39	09	18.0		03	9	8	E	HOLL	8086	
15	AFS	0200E	0944	N25	W52	09	11.0		03	9	9	E	LEAR	8084	
15	AFS	0506E	1519	N28	E35	09	17.9		02	9	9	E	SVTO	8086	
15	AFS	0636E	1519	N20	W52	09	11.3		02	7	7	E	SVTO	8084	
15	AFS	0636E	1519	N20	W56	09	11.0		02	9	9	E	SVTO	8084	
15	AFS	0640E	1519	N26	E33	09	17.8		02	9	9	E	SVTO	8086	
15	DSD	0725E	0852D	N21	W52	09	11.3		04	9	9	E	SVTO	8084	Flare Associated
15	DSD	0917E	1015D	N30	E32	09	17.8	1	05	9	9	V	KHAR		
15	AFS	1214E	2149	N27	E30	09	17.8		01	9	9	E	RAMY	8086	
15	AFS	1215E	2149	N20	W56	09	11.2		01	7	8	E	RAMY	8084	
15	DSD	1409	2153	N29	E32	09	18.1		03	9	9	E	HOLL	8086	
15	ASR	2043E	2053	S30	W90	09	8.8			8	8	E	HOLL	8083	
15	AFS	2327E	0756	N26	E29	09	18.2		03	9	9	E	LEAR	8086	
15	AFS	2327E	0756	N27	W63	09	11.1		03	9	9	E	LEAR	8084	
15	AFS	2330E	0944	N24	E41	09	19.1		03	9	9	E	LEAR	8086	
16	AFS	1112E	2047	N27	E21	09	18.1		01	9	9	E	RAMY	8086	
16	AFS	1126E	1634	N27	E22	09	18.2		03	9	9	E	SVTO	8086	
16	AFS	1128E	1634	N22	W66	09	11.4		02	9	9	E	SVTO	8084	
16	AFS	1227E	1634	N27	E20	09	18.1		02	9	9	E	SVTO	8086	
16	ADF	2330E	0030	N23	E01	09	17.0	1	07	8	7	E	HOLL	8086	
16	AFS	2330E	0030	N28	E14	09	18.1		02	8	5	E	HOLL	8086	
17	AFS	0602E	1501D	S26	W55	09	13.0		01	9	9	E	SVTO	8085	
17	BSD	1143E	1309D	N21	W82	09	11.2		09	0	0	E	RAMY	8084	Flare Associated
17	SPY	1148E	1234D	N18	W87	09	10.9			9	9	E	RAMY	8084	Flare Associated
17	DSD	1306E	1332D	S24	W71	09	12.1		16	9	9	E	RAMY	8085	
17	ASR	1325E	2011	N19	W90	09	10.7			5	4	E	RAMY	8084	
17	APR	1337E	2011	N27	W90	09	10.5	1		5	5	E	RAMY	8084	
17	DSD	1451	1810D	S25	W68	09	12.3		05	0	0	E	HOLL	8085	Flare Associated
17	BSD	1455E	1600D	S22	W74	09	11.9		13	2	3	E	RAMY	8085	
17	ASR	1530E	1810D	N28	W90	09	10.6			9	9	E	HOLL	8084	
17	ASR	1534E	1629D	N29	W90	09	10.6			9	9	E	RAMY		
17	ASR	1550E	1656	N30	W90	09	10.6			9	9	E	SVTO	8084	
17	ASR	2240	2325D	N25	W87	09	11.2			9	9	E	LEAR	8084	
17	BSD	2358	0009D	S20	W77	09	12.1		01	8	4	E	LEAR	8085	
18	AFS	0055E	0955	N28	E01	09	18.1		02	7	5	E	LEAR	8086	
18	ASR	0135E	0955	N25	W89	09	11.2			4	5	E	LEAR	8084	
18	APR	0159E	0520D	N36	W89	09	10.9	1		7	5	E	LEAR	8084	
18	ASR	0547E	0955	S18	W88	09	11.5			9	9	E	LEAR	8085	
18	ASR	1050E	1731	S24	W90	09	11.5			5	7	E	RAMY	8085	
18	ASR	1145E	1731	N20	W90	09	11.6			5	6	E	RAMY		
18	ASR	1334E	1508	S25	W90	09	11.6			7	6	E	SVTO	8085	
18	AFS	1610E	1731	N27	W06	09	18.2		02	5	4	E	RAMY	8086	
18	DSD	1705E	1731	N31	W04	09	18.4		01	9	9	E	RAMY	8086	
18	ASR	2355E	1003	S21	W87	09	12.3			9	7	E	LEAR	8085	
19	APR	0015E	1003	N20	E84	09	25.4			8	5	E	LEAR		
19	ASR	0838E	1629	S21	W90	09	12.4			9	9	E	SVTO	8085	
19	APR	1012E	1629	N20	E90	09	26.3	1		7	7	E	SVTO		
19	ASR	1045E	2204	S25	W90	09	12.5			9	9	E	RAMY	8085	
19	APR	1230E	2204	N22	E90	09	26.4	1		7	6	E	RAMY		
19	APR	1341E	2345	N24	E90	09	26.5	1		7	7	E	HOLL		
19	ASR	1353	2322	S21	W90	09	12.7			9	9	E	HOLL	8085	
19	ASR	1500E	2204	N24	E90	09	26.6			6	6	E	RAMY		
19	AFS	2340E	0700D	N31	W21	09	18.3		03	9	7	E	LEAR	8086	
20	APR	0345E	0950D	N20	E90	09	27.0			9	9	E	LEAR		
20	ASR	0445	0950D	N15	E90	09	27.0			9	9	E	LEAR		
20	ASR	0531E	1105D	N22	E90	09	27.1			9	9	E	SVTO		
20	APR	0532E	1203D	N23	E90	09	27.2	1		9	9	E	SVTO		
20	APR	1120E	1258D	N27	E90	09	27.5	1		9	9	E	RAMY		
20	ASR	1227E	2110	N21	E90	09	27.4			5	5	E	RAMY		

ACTIVE PROMINENCES AND FILAMENTS

SEPTEMBER 1997

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
20	APR	1330E	2143	N26	E90	09	27.5	1		9	9	E	HOLL		
20	AFS	1330E	2143	N27	W31	09	18.1		02	5	7	E	HOLL	8086	
20	APR	1356E	1635	N23	E90	09	27.5	1		9	9	E	SVTO		
20	EPL	1556	1604	N23	E90	09	27.6	3		9	9	E	SVTO		
20	EPL	1558E	2110	N27	E90	09	27.7	3		9	9	E	RAMY		
20	APR	2331E	0845D	N21	E90	09	27.9			8	7	E	LEAR		
21	ADF	0125E	1006	N33	W38	09	18.0	1	05	8	9	E	LEAR	8086	
21	ASR	0333E	0845D	N18	E90	09	28.0			9	9	E	LEAR		
21	ASR	0625E	1100D	S23	E90	09	28.2			9	9	E	SVTO		
21	ASR	0655E	1006	S30	E90	09	28.4			9	9	E	LEAR		
21	ADF	0920E	1545	N31	W50	09	17.4	1	09	9	9	E	SVTO	8086	
21	AFS	0924E	1545	N25	W48	09	17.7		01	9	9	E	SVTO	8086	
21	DSD	1025	1050D	S43	E60	09	26.0	1		9	9	V	KHAR		
21	DSD	1025	1050D	S44	E48	09	25.1	1		9	9	V	KHAR		
21	DSD	1044	1050D	S44	E56	09	25.7	1		9	9	V	KHAR		
21	APR	1158E	1751	N25	E90	09	28.5	1		8	9	E	RAMY		
21	AFS	1325E	1751	S28	E56	09	25.9		01	9	9	E	RAMY	8088	
21	BSD	1431E	1515D	S29	E57	09	26.1		02	9	9	E	RAMY	8088	
21	DSD	1515E	1531D	S29	E57	09	26.1		03	9	9	E	RAMY	8088	
21	AFS	1529E	1545	N29	E57	09	26.1		02	9	9	E	SVTO		
22	AFS	0230E	1002	S33	E47	09	25.8		03	9	9	E	LEAR	8088	
22	ADF	0530E	1155D	N24	E57	09	26.6	1	33	9	9	E	SVTO		
22	AFS	0530E	1206	S27	E47	09	25.9		01	9	9	E	SVTO	8088	
22	AFS	0530E	1206	S28	E44	09	25.7		02	9	9	E	SVTO	8088	
22	DSD	0532E	1002	S34	E47	09	26.0		03	9	9	E	LEAR	8088	Flare Associated
22	ASR	0701	1002	S32	E71	09	27.9			9	9	E	LEAR	8087	
22	ASR	0745E	1206	S26	E77	09	28.3			9	9	E	SVTO	8087	
22	DSD	0745E	1206	S27	E48	09	26.1		04	9	9	E	SVTO	8088	
22	ADF	0845E	1002	N18	E67	09	27.5	1	14	9	9	E	LEAR		
22	DSD	1125E	1218D	S29	E42	09	25.8		02	9	9	E	RAMY	8088	
22	DSD	1311	1601D	S27	E45	09	26.0		02	9	9	E	RAMY	8088	Flare Associated
22	DSD	1414E	1530D	N17	E37	09	25.4		03	9	9	E	RAMY		
22	AFS	1428E	2007	S27	E41	09	25.8		02	9	9	E	RAMY	8088	
22	AFS	1616E	0038	S28	E40	09	25.8		02	9	9	E	HOLL	8088	
22	DSD	1639	1830D	S26	E40	09	25.8		06	9	9	E	HOLL	8088	
22	AFS	2304E	1010	S31	E31	09	25.4		03	9	9	E	LEAR	8088	
23	AFS	1040E	2015	S28	E29	09	25.7		02	7	8	E	RAMY	8088	
23	DSD	1218E	1421D	S29	E27	09	25.6		01	9	9	E	RAMY	8088	
23	AFS	1414	2341	S28	E27	09	25.7		02	9	9	E	HOLL	8088	
23	DSD	1640E	2015	S28	E27	09	25.8		02	9	9	E	RAMY	8088	
23	BSD	2138E	2341D	S29	E22	09	25.6		04	6	7	E	HOLL	8088	
23	AFS	2239E	1001	S21	E31	09	26.3		02	9	9	E	LEAR	8088	
23	DSD	2239E	1001	S29	E49	09	27.8		04	9	9	E	LEAR	8087	
24	DSD	1114	1527D	S28	E20	09	26.0		01	9	9	E	RAMY	8088	
24	AFS	1234E	1910	S28	E15	09	25.7		02	9	9	E	RAMY	8088	
24	DSD	1527E	1910	S26	E45	09	28.1		02	9	9	E	RAMY	8087	
24	DSD	1710E	1910	S30	E18	09	26.1		02	9	9	E	RAMY	8088	
25	AFS	0500E	1000	S28	E06	09	25.7		02	7	7	E	LEAR	8088	
25	AFS	0840E	1613	S29	E03	09	25.6		02	9	9	E	SVTO	8088	
25	AFS	0857E	1613	S27	E34	09	28.0		02	9	9	E	SVTO	8087	
25	DSD	1146E	1152D	S29	E02	09	25.6		04	9	9	E	SVTO	8088	Flare Associated
25	DSD	1207E	1235D	S27	E04	09	25.8		03	9	9	E	RAMY	8088	
25	BSD	1344E	1446D	S27	W01	09	25.5		07	9	9	E	RAMY	8088	
25	AFS	1359E	2340	S26	E30	09	27.9		01	7	4	E	HOLL	8087	
25	DSD	1449E	2340	S28	W05	09	25.2		06	9	9	E	HOLL	8088	
25	ADF	1510	2340	N34	E32	09	28.2	1	10	9	9	E	HOLL		
25	DSD	1608	1642	S27	W02	09	25.5		08	9	9	E	RAMY	8088	
26	DSD	0516E	0815D	N20	E08	09	26.8		03	9	9	E	SVTO		
26	ADF	0516E	0910D	N34	E31	09	28.7	1	18	9	9	E	SVTO		
26	DSD	1052E	1159D	S26	W09	09	25.7		03	9	9	E	RAMY	8088	
26	ADF	1450E	0046	N30	E17	09	27.9	1	11	9	9	E	HOLL		
26	DSD	1515E	1625	S28	W17	09	25.3		04	9	9	E	SVTO	8088	
28	EPL	1457	1549	S48	W90	09	21.0	3		7	9	E	RAMY		

ACTIVE PROMINENCES AND FILAMENTS

SEPTEMBER 1997

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
28	EPL	1459E	1556	S43	W90	09	21.2	3		9	9	E	SVTO		
28	DSD	2344E	1000	S26	W47	09	25.3		05	9	9	E	LEAR	8088	
29	DSD	0310E	1000	S24	W15	09	28.0		03	9	9	E	LEAR	8087	
29	ADF	0913E	1507	N26	W22	09	27.7	1	16	9	9	E	SVTO		
29	DSD	0925E	1507	S31	W51	09	25.4		03	9	9	E	SVTO	8088	
29	BSD	1235	1252	S31	W52	09	25.4		02	9	9	E	RAMY	8088	Flare Associated
29	EPL	1254E	1459	N22	E90	10	6.4	3		5	5	E	RAMY		
29	ADF	1317E	0044	N22	W41	09	26.4	1	07	9	8	E	HOLL	8089	
29	APR	1320E	1507	N27	E90	10	6.6	3		9	9	E	SVTO		
29	EPL	1447E	1457D	N23	E90	10	6.5	3		0	0	E	HOLL		
29	DSD	1510	2135	S38	W53	09	25.3		07	9	7	E	HOLL	8088	
29	BSD	1733E	1822	S32	W54	09	25.4		08	9	9	E	RAMY	8088	
30	ASR	0725E	1320D	S29	E90	10	7.4			9	9	E	SVTO		
30	ASR	1045E	1320D	N23	E90	10	7.4			9	9	E	SVTO		
30	ASR	1058E	1852D	N23	E90	10	7.4			9	9	E	RAMY		
30	BSD	1548E	1559D	S33	W69	09	25.2		08	9	9	E	RAMY	8088	
30	ASR	1910E	2115D	N90	E23	10	2.9			9	9	E	HOLL		
30	APR	1915E	2353	S90	E25	10	3.1			8	7	E	HOLL	8090	
30	ASR	2300E	0921	N19	E90	10	7.8			7	7	E	LEAR		

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

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

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

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

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

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

1997 SOLAR IRRADIANCE INSTANTANEOUS VALUES
EARTH RADIATION BUDGET EXPERIMENT

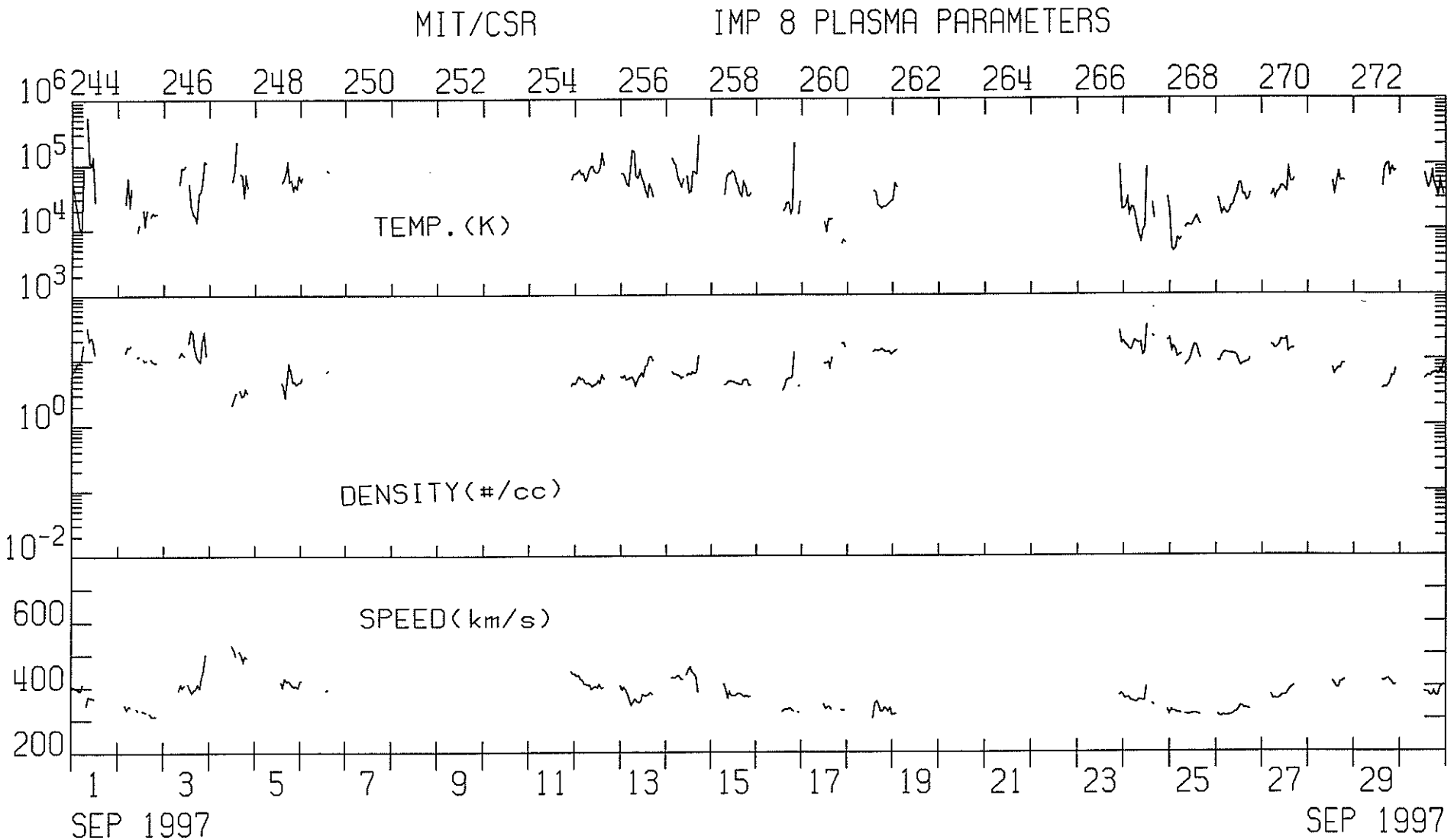
NASA LANGLEY RESEARCH CENTER

WATTS/m^2

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1365.1	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	1364.8	1365.1	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	1365.2	---	---	---	---	---	1365.7	---	---	---	---	---
5	---	---	---	---	---	1364.7	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	1365.4	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	1365.4	---	1365.3	---	---
9	---	---	---	1365.0	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	1365.2	1363.8	---	---	---
11	---	---	---	---	---	---	---	1365.2	---	---	---	---
12	---	1364.4	1365.7	---	---	---	---	1365.0	---	---	---	---
13	---	---	---	---	---	---	---	1365.8	---	---	---	---
14	---	1365.7	---	---	---	---	---	1365.4	1364.9	---	---	---
15	1364.6	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	1365.1	1365.4	---	---	---	---
17	1365.1	---	---	---	---	---	---	1365.3	1364.9	---	---	---
18	---	---	1365.2	---	---	1365.0	---	1365.7	---	---	---	---
19	---	---	---	---	1364.7	---	---	1365.3	---	---	---	---
20	---	---	1364.7	---	---	---	---	1365.3	---	---	---	---
21	---	---	---	---	1364.9	---	---	1365.2	---	---	---	---
22	---	---	---	1364.5	---	---	---	1365.3	---	---	---	---
23	---	---	---	---	---	---	---	1365.2	---	---	---	---
24	---	---	---	1365.1	---	---	---	1365.1	1365.1	---	---	---
25	---	---	---	---	---	---	---	---	1365.4	---	---	---
26	---	1365.1	1364.7	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	1365.3	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	1364.9	---	---	---	---	---	1365.1	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

* Solar Irradiance = Instantaneous values are cosine-corrected for any off-axis positioning of the sun in the telescope aperture.
All values are normalized to 1 astronomical unit.

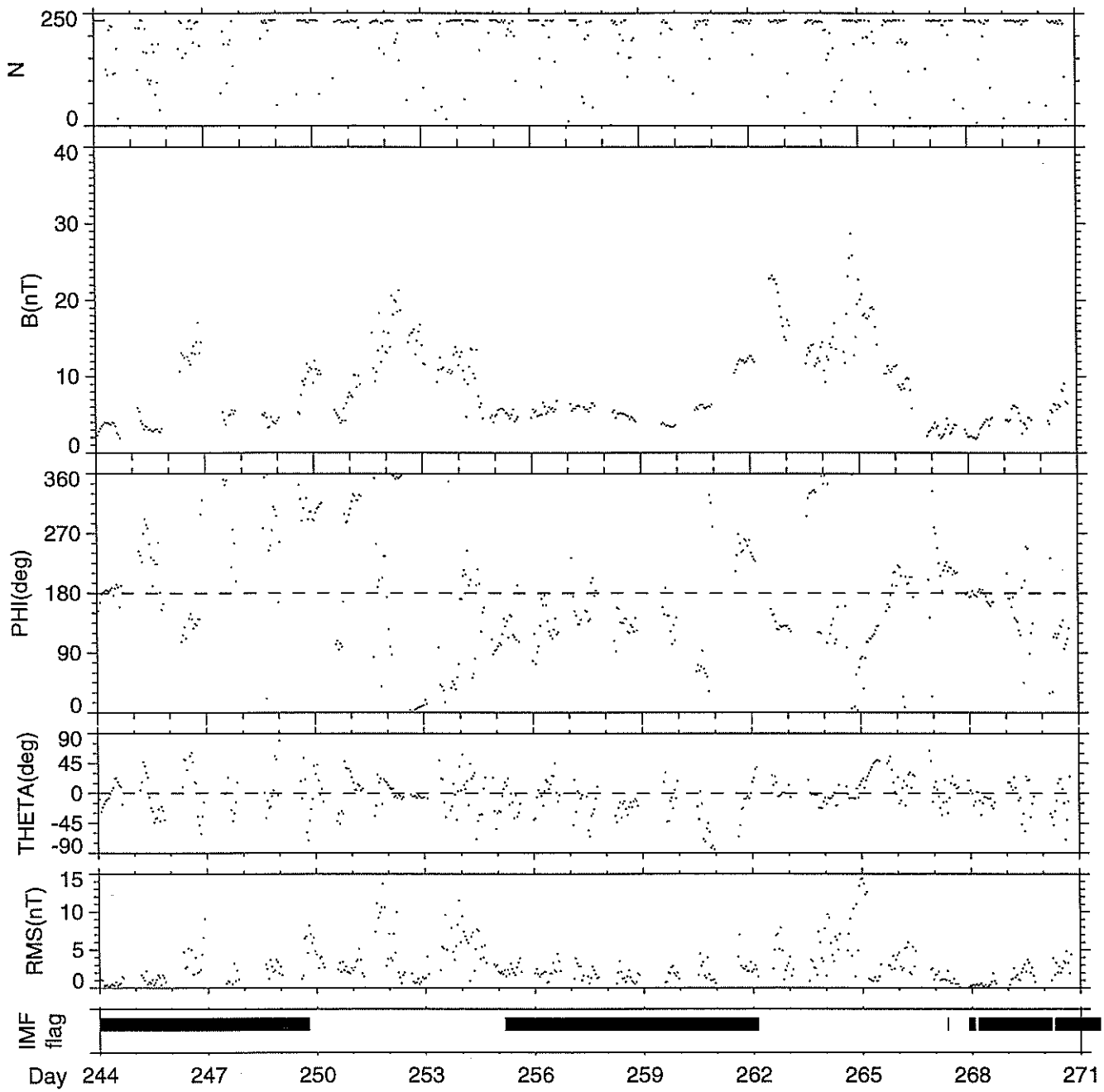
IMP 8 SOLAR WIND PLASMA
SEPTEMBER 1997



IMP 8 MIT ONE-HOUR AVERAGES

IMP-8 Magnetic Field Data in GSE Coordinates

1 Hour Averages (c) DOY 244 - 271 September 1 1997 - September 28 1997

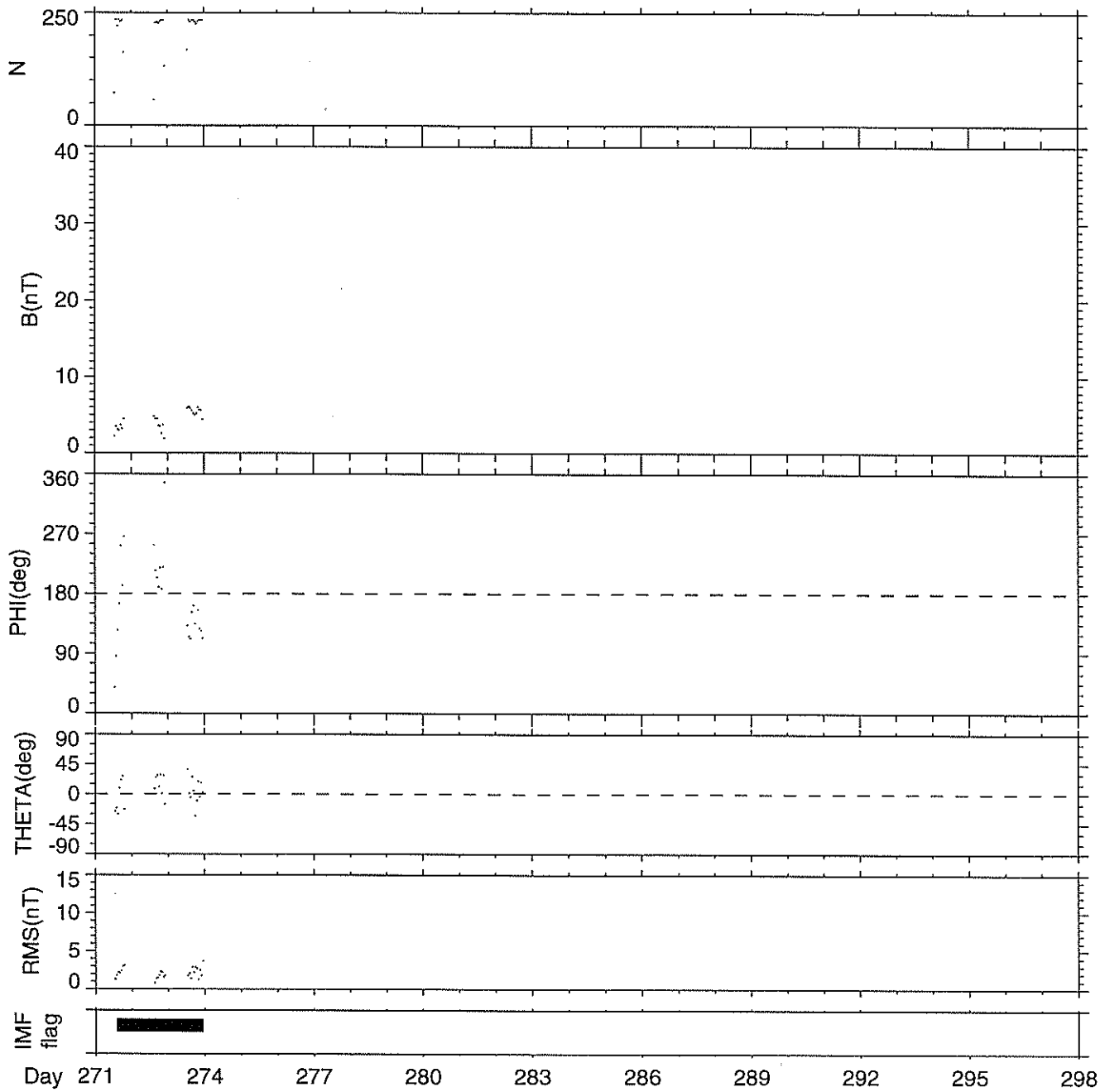


Generation Date : Wed Nov 26 13:06:41 1997

NOTE: The IMF "flag" (black boxes at the bottom of the plots) indicates where the interplanetary magnetic field regions are according to a dynamic model of the location of the bow shock. At all other times IMP-8 is in the magnetosphere.

IMP-8 Magnetic Field Data in GSE Coordinates

1 Hour Averages (c) DOY 271 - 273 September 28 1997 - September 30 1997



Generation Date : Wed Nov 26 13:06:42 1997

NOTE: The IMF "flag" (black boxes at the bottom of the plots) indicates where the interplanetary magnetic field regions are according to a dynamic model of the location of the bow shock. At all other times IMP-8 is in the magnetosphere.

☆U.S. GOVERNMENT PRINTING OFFICE:1998-673-001/29011

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."