U.S. DEPARTMENT OF COMMERCE
C. William Verity, Jr., Secretary

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
William E. Evans, Under Secretary for Oceans and Atmosphere

NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE
Thomas N. Pyke, Jr., Assistant Administrator

MARCH 1989 NUMBER 535 - Part II

Solar-Geophysical Data comprehensive reports

Data for September 1988

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.

S O L A R - G E O P H Y S I C A L D A T A

NUMBER 535

(Issued in Two Parts)

Editor: Helen E. Coffey

Chief: Joe H. Allen
Solar-Terrestrial Physics Division

Staff: Daniel C. Wilkinson
Carol Weathers
John A. McKinnon

C O N T E N T S

PART I (PROMPT REPORTS)

PART II (COMPREHENSIVE REPORTS)

DETAILED INDEX OF OBSERVATIONS PUBLISHED IN "SOLAR-GEOPHYSICAL DATA"

CODE	KIND OF OBSERVATION	JUL 88	AUG	SEP	OCT	NOV	DEC	JAN 89	FEB
A.	SOLAR AND INTERPLANETARY EVENTS								
A.1	Sunspot Drawings	529A 45	530A 51	531A 55	532A 48	533A 48	534A 60	535A 48	
A.2aa	Internat. Provisional Sunspot Numbers	528A 11	529A 11	530A 13	531A 13	532A 13	533A 13	534A 13	535A 13
A.2c	American Sunspot Numbers	528A 11	529A 11	530A 13	531A 13	532A 13	533A 13	534A 13	535A 13
A.3a	Mt. Wilson Magnetograms	529A 45	530A 51	531A 55	532A 48	533A 48	534A 60	535A 48	
A.3b	Mt. Wilson Sunspot Magnetic Class	529A 76	530A 82	531A 85	532A 79	533A 78	534A 91	535A 79	
A.3c	Kitt Peak Magnetograms	529A 45	530A 51	531A 55	532A 48	533A 48	534A 60	535A 48	
A.3d	Mean Solar Magnetic Field (Stanford)	528A 40	529A 34	530A 40	531A 43	532A 37	533A 37	534A 41	535A 37
A.3e	Stanford Magnetograms	529A 45	530A 51	531A 55	532A 48	533A 48	534A 60	535A 48	
A.4	H-alpha Filtergrams	529A 45	530A 51	531A 55	532A 48	533A 48	534A 60	535A 48	
A.5	Calcium Plage Photographs/Drawings	Oct 87 in 525A154							
A.5a	Calcium Plage Regions	Aug-Oct 87 in 525A138							
A.5b	Daily Calcium Plage Indices	Aug-Oct 87 in 525A141							
A.6	H-alpha Synoptic Charts	529A 36	530A 42	535A132	535A133	535A134			
A.6b	Active Region Carte Synoptique (Paris)	534B 62							
A.6c	Stanford Solar Mag Field Synoptic Maps	529A 38	530A 44	531A 48	532A 42	533A 42	534A 46	535A 42	
A.6d	Kitt Peak " Mag Field Synoptic Maps	529A 44	530A 50	531A 54	532A 41	533A 41	534A 58	535A 41	
A.6e	Mass Ejections from the Sun	533B 83	534B 48	535B 50					
A.6f	Active Prominences and Filaments	533B 85	534B 49	535B 51					
A.6g	Sac Peak Coronal Line Synoptic Maps	529A 38	530A 46	531A 50	532A 44	533A 44	534A 50	535A 44	
A.7h	Coronal Line Emission (Sac Peak)	529A 45	530A 51	531A 55	532A 48	533A 48	534A 60	535A 48	
A.8aa	2800 MHz - Solar Flux (Ottawa)	528A 11	529A 11	530A 13	531A 13	532A 13	533A 13	534A 13	535A 13
A.8ac	2800 MHz - Adj. Solar Flux (Ottawa)	528A 11	529A 11	530A 13	531A 13	532A 13	533A 13	534A 13	535A 13
A.8g	Adjusted Daily Solar Fluxes (Sagamore)	528A 11	529A 11	530A 13	531A 13	532A 13	533A 13	534A 13	535A 13
A.10a	Interferometric Chart (164 MHz) Nancay	529A132	529A 30	530A 34	531A 35	532A 32	533A 32	534A 34	535A 31
A.10c	East-West Scans - 21 cm - Fleurs	528A 35	529A 28	530A 32	531A 33	532A 30	533A 31	534A 33	535A 29
A.10d	East-West Scans - 43 cm - Fleurs	---	529A 29	530A 33	531A 34	532A 31	533A 31	534A 33	535A 30
A.10e	East-West Scans - 10 cm - Ottawa	528A 34	529A 27	530A 31	531A 32	532A 29	533A 30	534A 32	535A 28
A.10f	East-West Scans - 3 cm - Toyokawa	528A 33	529A 26	530A 30	531A 31	532A 28	533A 29	534A 31	535A 27
A.11g	Solar X-ray GOES (graphs/event table)	533B 73	534B 39	535B 42					
A.11k	Solar UV NOAA-9	May-Dec 86 in 529B 74							
A.12e	Solar Particles (IMP H & J)	Sep 85-May 86 in 525B 60							
A.13e	Solar Plasma (IMP H & J)	Oct 87-Jan 88 in 525B 56; Feb-Nov 88 in 535B 64							
A.13f	Solar Wind (Pioneer 12)	Feb 84-Dec 87 in 525A114							
A.16a	SMM Solar Irradiance	Feb 80-Oct 87 in 530B 64							
A.16b	NIMBUS Solar Irradiance	Nov 78-Feb 87 in 523B 49							
A.17	Interplanetary Mag Field (Pioneer 12)	Jan-Jun 88 in 533A130							
A.17c	Inferred Interplanetary Mag Field	Mar 88 in 524A 40							
B.	IONOSPHERIC RADIO PROPAGATION								
B.52	Field Strength Graphs-North Atlantic	529A128	530A124	531A138	532A128	533A126	534A152	535A128	
B.53	Quality Indices on Paths to Germany	529A130	531A148	531A137	532A130	533A128	534A154	535A130	
C.	SOLAR FLARE-ASSOCIATED EVENTS								
C.1a	H-alpha Flares	528A 16	529A 16	530A 18	531A 18	532A 17	533A 16	534A 16	535A 16
C.1ba	H-alpha Flare Groups	533B 6	534B 4	535B 4					
C.1d	Flare Patrol Observations	528A 32	529A 25	530A 29	531A 30	532A 27	533A 28	534A 30	535A 26
C.1d	Flare Patrol Observations	533B 32	534B 20	535B 23					
C.3	Radio Bursts Fixed Freq.	533B 34	534B 22	535B 25					
C.3	Radio Bursts Fixed Freq. Selected	528A 37	529A 31	530A 35	531A 36	532A 33	533A 33	534A 35	535A 32
C.4d	Radio Bursts Spectral (Culgoora)	532A132	532A138	531A116	532AA09	534A157	534A129		
C.4e	Radio Bursts Spectral (Weissenau)	529A101	530A107	531A116	532A109	533A108	534A129	535A111	
C.4f	Radio Bursts Spectral (Sagamore Hill)	529A101	530A107	531A116	532A109	533A108	534A129	535A111	
C.4i	Radio Bursts Spectral (Bleien)	---	---	---	---	---	---	---	
C.4k	Radio Bursts Spectral (Learmonth)	529A101	530A107	531A116	532A109	533A108	534A129	535A111	
C.4l	Radio Bursts Spectral (Palehua)	529A101	530A107	531A116	532A109	533A108	534A129	535A111	
C.6	Sudden Ionospheric Disturbances	529A 98	530A105	531A113	532A105	533A108	534A129	535A104	
D.	GEOMAGNETIC & MAGNETOSPHERIC EVENTS								
D.1a	Geomagnetic Indices	529A122	530A118	531A132	532A123	533A121	534A147	535A122	
D.1ba	27-day Chart of Kp Indices	529A124	530A120	531A134	532A125	533A123	534A149	535A124	
D.1cb	Monthly Mean aa Indices	529A125	530A121	531A135	532A126	533A124	534A150	535A125	
D.1d	Principal Magnetic Storms	529A126	530A122	531A136	532A127	533A125	534A151	535A126	
D.1f	Sudden Commencements/Flare Effects	529A127	530A123	532A141	533A145	534A162	535A138		
D.1g	Equatorial Indices Dst	Jul 87 in 519A 99; Aug-Dec 87 in 534A163							
F	COSMIC RAYS								
F.1a	Cosmic Ray Neutron Cts (Deep River)	531A137	531A138	531A127	532A120	533A120	534A146	535A119	
F.1b	Cosmic Ray Neutron Cts (Climax)	529A119	530A116	531A127	532A120	533A120	534A146	535A119	
F.1e	Cosmic Ray Neutron Cts (Alert)	533A136	---	---	---	---	---	---	
F.1h	Cosmic Ray Neutron Cts (Thule)	529A119	531A138	531A127	532A120	533A120	535A136	535A119	
F.1i	Cosmic Ray Neutron Cts (Kiel)	529A119	530A116	531A127	532A120	533A120	534A146	535A119	
F.1j	Cosmic Ray Neutron Cts (Tokyo)	533A136	533A137	533A138	532A120	533A120	534A146	535A119	
F.1l	Cosmic Ray Neutron Cts (Huancayo)	529A119	530A116	531A127	533A139	533A120	534A146	535A119	
H.	MISCELLANEOUS								
H.60	IUWDS Alert Periods	528A 5	529A 5	530A 5	531A 5	532A 5	533A 4	534A 4	535A 4

The entry "529A 45" under Jul 1988, for example, means that the sunspot drawings for Jul 1988 appear in SOLAR-GEOPHYSICAL DATA No. 529, Part I, and that they begin on page 45. "A" denotes Part I and "B", Part II. Blanks indicate data not yet received and dashes mark unavailable data.

C O N T E N T S

Comprehensive Reports DATA FOR **SEPTEMBER 1988** Number 535 Part II

Hα S O L A R F L A R E S

SEPTEMBER 1988

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
0001	PALE	01	0249	0250	0253	S21	E17	5131	09	2.4	4	SF			3	E		22		
0002	SVTO	01	0620	0627	0653	S23	E13	5131	09	2.3	33	SF			3	E		43		H
0003	SVTO	01	0707	0708	0714	N24	W01	5128	09	1.2	7	SF	C	1.7	3	E		64		FH
0004	LEAR	01	0728	0735	0744	S21	E16	5131	09	2.5	16	SF			3	E		18		
0005	KAND	01	0947	0949	0952	S20	E17	5131	09	2.7	5	SN				P	0949	104	1.2	DT
0006		01	10059	10077	1022	S14	E12	5129	09	2.3	17	SF						42	0.7	ET
	SVTO	01	1005	1007	1022	S12	E09	5129	09	2.1	17	SF			3	E		22		
	KAND	01	1005	1007	1024	S15	E13	5129	09	2.4	19	SN				P	1007	62	0.7	ET
	KANZ	01	1014	1014	1021	S15	E14	5129	09	2.5	7	SF				P				E
0007	KAND	01	1152	1152	1155	S22	E12	5131	09	2.4	3	SN				P	1152	42	0.5	DT
0008	LVOV	01	1343E	1344	1346D	S22	E06	5131	09	2.0	3D	SN				C	1344	100	1.2	D
0009	HOLL	01	1642	1642	1658	S21	E09	5131	09	2.4	16	SF	C	1.3	3	E		10		
0010		01	18345	1843	1847	N20	W11	5128	08	31.9	13	SF	C	3.1				58		
	PALE	01	1834	1843	1858D	N21	W11	5128	08	31.9	24D	SF	C	3.1	3	E		65		
	HOLL	01	1839	1843	1847	N20	W11	5128	08	31.9	8	SF	C	3.1	3	E		51		
0011	PALE	01	2028	2031	2045	N21	W12	5128	08	31.9	17	SF			3	E		43		F
0012		01	2052	20531	2104	S20	E09	5131	09	2.5	12	1B	C	6.1				102		F
	HOLL	01	2052	2053	2100	S20	E10	5131	09	2.6	8	SB	C	6.1	3	E		75		F
	PALE	01	2052	2054	2108	S21	E08	5131	09	2.5	16	1B	C	6.1	3	E		128		
0013	CATA	02	0737	0745	0750D	N20	W04		09	2.0	13D	SN			2	C	0745	84	0.9	
0014		02	07532	07562	0815	S20	E04	5131	09	2.6	22	SF	C	3.6				152	2.0	E
	ABST	02	0753	0756	0810	S20	E01	5131	09	2.4	17	SF				C	0756	174	1.9	E
	ABST	02	0754	0758	0810	S21	E06	5131	09	2.8	16	SF				C	0758	174	2.0	E
	LEAR	02	0755	0758	0820	S19	E04	5131	09	2.6	25	SF	C	3.6	3	E		62		
	KHAR	02	0805E	0805U	0820	S19	E03	5131	09	2.6	15D	1F			2	P	0808	200	2.2	E
0015	CATA	02	0822E	0839	0850D	N21	W01		09	2.3	28D	SN			2	C	0839	141	1.5	
0016		02	09361	09364	0950	S24	W02	5131	09	2.2	14	SN	C	1.7				66	1.4	
	CATA	02	0936	0936	0955	S24	W03	5131	09	2.2	19	SB			2	C	0936	112	1.4	
	LEAR	02	0937	0940	0945	S23	W02	5131	09	2.2	8	SF	C	1.7	3	E		19		
		02	1011		1013	No Flare Patrol														
0017		02	1032*	1036*	1048	S24	E04	5131	09	2.7	16	SF						70	0.8	DL
	KHAR	02	1032	1036	1040	S24	E05	5131	09	2.8	8	SF			2	V	1036			D
	KHAR	02	1045	1047	1055	S24	E03	5131	09	2.7	10	SF			2	P	1049	70	0.8	DL
0018	RAMY	02	1518	1520	1529	S22	W04	5131	09	2.3	11	SF	C	1.7	3	E		43		F
		02	1523		1548	No Flare Patrol														
		02	1559		1637	No Flare Patrol														
		02	2233		2239	No Flare Patrol														
0019		03	04091	0412	0418	S21	W10	5131	09	2.4	9	SF	C	1.2				42		F
	LEAR	03	0409	0412	0420	S20	W09	5131	09	2.5	11	SF	C	1.2	4	E		57		F
	PALE	03	0410	0412	0417	S22	W12	5131	09	2.2	7	SF	C	1.2	3	E		26		
0020	LEAR	03	0434	0435	0441	S21	W14	5131	09	2.1	7	SF			4	E		31		
0021		03	05207	05304	0543	S20	W12	5131	09	2.3	23	1N	C	2.8				152	2.9	D
	LEAR	03	0520	0534	0544	S21	W14	5131	09	2.1	24	SF	C	2.8	4	E		53		
	TACH	03	0527	0530	0542	S20	W10	5131	09	2.5	15	1N				V	0530	250	2.9	D

SEPTEMBER 1988

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
0022		03	07064	07104	0752	S22	W40	5126C	08	31.2	46	SN	C	5.8				109	0.7	F
	KANZ	03	0706	0710	0756	S22	W38	5126C	08	31.4	50	SN				P				
	LEAR	03	0708E	0716U	0740	S20	W41	5126C	08	31.2	32D	1N	C	5.8	4	E		170		F
	KANZ	03	0710	0714	0800	S23	W45	5126C	08	30.9	50	SN				P				
	YUNN	03	0723E	0726U	0730D	S22	W37	5126C	08	31.5	7D	SB	C	5.8		P	0726	48	0.7	
0023		03	08182	08206	0848	N33	E90	5134	09	10.5	30	1N						56		H
	KHAR	03	0818	0826	0900	N32	E90	5134	09	10.5	42	1F			2	P	0826			H
	CATA	03	0820	0820	0836	N34	E90	5134	09	10.5	16	1N			2	C	0820	56		
0024	CATA	03	0859	0859	0910	S23	W17	5131	09	2.1	11	SN			2	C	0859	112	1.4	
0025	CATA	03	1005	1005	1015	N33	E90	5134	09	10.6	10	1N			2	C	1005	45		
0026	CATA	03	1136E	1136	1140D	N33	E90	5134	09	10.6	4D	1F			2	C	1136	45		
0027		03	1246	1251	1305	N24	E38	5133	09	6.5	19	SF						50		
	SVTO	03	1246	1251	1309	N25	E36	5133	09	6.3	23	SF			3	E		66		
	RAMY	03	1247E	1249U	1301	N24	E39	5133	09	6.5	14D	SF			3	E		34		
0028		03	13171	13193	1336	S22	W14	5131	09	2.5	19	SF	C	2.7				32		F
	RAMY	03	1317	1319	1338	S22	W14	5131	09	2.5	21	SF	C	2.7	4	E		31		F
	SVTO	03	1317	1319	1340	S22	W14	5131	09	2.5	23	SF	C	2.7	3	E		33		
	KANZ	03	1318	1322	1330	S21	W16	5131	09	2.3	12	SF				P				
	KANZ	03	1318	1322	1334	S21	W12	5131	09	2.6	16	SF				P				
0029	RAMY	03	1618	1618U	1636D	S22	W14	5131	09	2.6	18D	SF	C	1.2	3	E		24		F
0030	HOLL	03	1721	1731	1758	S24	W45	5126	08	31.2	37	SF			3	E		56		
0031	HOLL	03	1856	1859	1914	S24	W47	5126	08	31.1	18	SF			3	E		39		
0032	HOLL	03	2149E	2149U	2202	S17	W19	5131	09	2.5	13D	SF	C	1.2	3	E		37		
0033	HOLL	03	2322	2327	2330	S24	W50	5126C	08	31.1	8	SF			2	E		11		
0034	HOLL	03	2356	2357	2411	S19	W20	5131	09	2.5	15	SF			2	E		23		
0035	LEAR	04	0231	0231	0244	S16	W18	5131	09	2.7	13	SF			3	E		14		FH
0036		04	06441	06443	0706	N21	W43	5128	09	1.0	22	SF						37		
	LEAR	04	0644	0644	0656	N22	W42	5128	09	1.0	12	SF			3	E		23		
	SVTO	04	0645	0647	0717	N20	W44	5128	08	31.9	32	SF			3	E		51		
0037		04	0649	06501	0654	S19	W20	5131	09	2.7	5	SF						20		
	LEAR	04	0649	0650	0654	S19	W21	5131	09	2.7	5	SF			3	E		25		
	SVTO	04	0649	0651	0655	S19	W20	5131	09	2.7	6	SF			3	E		16		
0038	LEAR	04	0800	0804	0814	S19	W24	5131	09	2.5	14	SF			3	E		15		
		04	1021		1030	No Flare Patrol														
0039		04	13403	1344	1353	S23	W32	5131	09	2.1	13	SF						27		
	KANZ	04	1340	1344	1352	S23	W33	5131	09	2.0	12	SF				P				
	HOLL	04	1343	1345U	1354	S23	W32	5131	09	2.1	11	SF			2	E		27		
0040		04	14462	14523	1516	S16	W26	5131	09	2.6	30	SF						17		
	RAMY	04	1446	1455	1516	S17	W26	5131	09	2.6	30	SF			3	E		17		
	KANZ	04	1448	1452	1511D	S16	W25	5131	09	2.7	23D	SF				P				
0041	HOLL	04	1811	1812	1824	S18	W30	5131	09	2.5	13	SF			3	E		16		F
0042		04	18451	18451	1907	N21	W50	5128	08	31.9	22	SF						35		F
	HOLL	04	1845	1845	1907	N21	W50	5128	08	31.9	22	SF			3	E		31		
	RAMY	04	1846	1846	1902D	N21	W50	5128	08	31.9	16D	SF			2	E		39		F
0043		04	1832*	1903	1927	S18	W28	5131	09	2.6	55	SF						68		F
	RAMY	04	1832	1857U	1929	S18	W29	5131	09	2.6	57	SF			2	E		72		F
	HOLL	04	1857	1903	1925	S17	W28	5131	09	2.7	28	SF			3	E		63		F

Hα S O L A R F L A R E S

SEPTEMBER 1988

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP No	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
0044	CATA	05	0639E	0639	0641D	S17	W44	5129	09	1.9	2D	SB			2	C	0639	56	0.9	
0045		05	14104	14191	1449	S22	W38	5131	09	2.7	39	SF	C	3.0				38		FZ
	KANZ	05	1410	1418U	1445	S21	W37	5131	09	2.7	35	SF				P				
	SVTO	05	1414	1419	1448	S23	W36	5131	09	2.8	34	SF	C	3.0	3	E		32		ZF
	RAMY	05	1414	1420	1455	S21	W40	5131	09	2.5	41	SF	C	3.0	4	E		45		ZF
0046	KANZ	05	1414	1414	1418D	N11	E50	5138	09	9.3	4D	SF				P				
0047		05	15304	1537*	1620	S17	W40	5131	09	2.6	50	SF	C	3.0				44		FH
	SVTO	05	1530	1559	1629	S16	W42	5131	09	2.5	59	SF			3	E		56		FH
	HOLL	05	1531	1538	1603	S18	W40	5131	09	2.6	32	SF	C	3.0	3	E		30		F
	RAMY	05	1534	1537	1627	S16	W38	5131	09	2.8	53	SF	C	3.0	3	E		47		F
0048		05	1813	18249	1903	S18	W42	5131	09	2.6	50	1F	C	4.0				109		F
	PALE	05	1813	1824	1904	S18	W42	5131	09	2.6	51	1F			3	E		110		
	RAMY	05	1813	1831	1900	S18	W43	5131	09	2.5	47	1F	C	4.0	3	E		115		F
	HOLL	05	1813	1833	1904	S17	W42	5131	09	2.6	51	1F	C	4.0	3	E		102		F
0049	HOLL	05	1924	1925	1930	S19	W48	5131	09	2.1	6	SF	C	1.3	3	E		18		
		05	2317		2356	No Flare Patrol														
0050	LEAR	06	0016	0017	0026	S18	W51	5131	09	2.1	10	SF			3	E		21		
		06	0113		0200	No Flare Patrol														
		06	0257		0329	No Flare Patrol														
0051	KAND	06	0855	0859	0904	S19	W58	5131	09	1.9	9	SF				P	0859	42	0.9	D
0052	HOLL	06	1452	1452	1501	S19	W60	5131	09	2.0	9	SF			3	E		11		
0053	HOLL	06	1640	1642	1651	S20	W54	5131	09	2.6	11	SF			3	E		20		
0054	HOLL	06	1748	1749	1753	S21	W57	5131	09	2.4	5	SF			3	E		15		
0055		06	18351	18361	1843	S19	W62	5131	09	2.0	8	SF	C	1.2				15		
	PALE	06	1835	1836	1843	S20	W63	5131	09	1.9	8	SF	C	1.2	3	E		18		
	HOLL	06	1836	1836	1843	S19	W62	5131	09	2.0	7	SF	C	1.2	3	E		14		
	RAMY	06	1836	1837	1842	S19	W62	5131	09	2.0	6	SF	C	1.2	3	E		14		
0056	RAMY	06	2059	2102	2104	S21	W52	5131	09	2.9	5	SF			3	E		13		
		06	2118		2130	No Flare Patrol														
		06	2157		2200	No Flare Patrol														
0057	HOLL	06	2211E	2222	2229	S21	W58	5131	09	2.5	18D	SF			3	E		28		
0058	HOLL	06	2241	2241	2248	S19	W65	5131	09	2.0	7	SF			3	E		22		
0059	CATA	07	0631E	0631	0710D	S20	E49	5137	09	11.0	39D	SN			2	C	0631	39	0.7	
0060		08	0035*	00459	0052	S21	W68	5131	09	2.8	17	SN	C	3.0				31		D
	PEKG	08	0035	0045	0050	S23	W72	5131	09	2.5	15	SB				P	0045	38		D
	LEAR	08	0037	0045	0046	S19	W65	5131	09	3.1	9	SF			3	E		30		
	LEAR	08	0054	0054	0101	S21	W66	5131	09	3.0	7	SF	C	3.0	3	E		25		
		08	0948		0949	No Flare Patrol														
		08	1000		1002	No Flare Patrol														
		08	1036		1046	No Flare Patrol														
		08	1137		1147	No Flare Patrol														
		08	1149		1207	No Flare Patrol														
		08	1227		1242	No Flare Patrol														
0061		08	1233	1238U	1251	S21	W77	5131	09	2.6	18	1N	M	2.0				108		
	SVTO	08	1233	1238U	1251	S23	W79	5131	09	2.4	18	1N	M	2.0	3	E		108		
	KANZ	08	1243E	1243U	1245D	S19	W75	5131	09	2.8	2D	1N				P				
		08	1246		1309	No Flare Patrol														

SEPTEMBER 1988

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
0062	HOLL	08	1537	1537	1545	S18	E32	5137	09	11.1	8	SF			3	E		18		
0063		08	1653*	17545	1816	S22	W70	5131	09	3.3	83	SF						20		
	PALE	08	1653	1754	1820	S20	W68	5131	09	3.5	87	SF			3	E		29		
	HOLL	08	1743	1759	1811	S25	W71	5131	09	3.2	28	SF			3	E		11		
0064	HOLL	08	1840	1841	1906	S25	W72	5131	09	3.2	26	SN	M	1.2	3	E		91		
0065	HOLL	08	1915	1921	1931	S19	E27	5137	09	10.9	16	SF			3	E		15		
0066	HOLL	08	2049	2052	2059	S25	W72	5131	09	3.3	10	SF			3	E		32		
		09	0054		0109	No Flare Patrol														
		09	0201		0248	No Flare Patrol														
0067	TACH	09	0544	0556	0600D	S23	W85	5131	09	2.7	16D	1F				C	0556	138		T
0068	CATA	09	0857	0857	0900	S23	W90	5131	09	2.4	3	SN			2	C	0857	28		
0069	HOLL	09	2056	2100	2127	S13	E16	5143	09	11.1	31	SF	C	1.2	3	E		46		F
0070		10	11096	11154	1132	N32	E49	5142	09	14.3	23	SN						55	1.4	
	KANZ	10	1109	1117	1132	N31	E49	5142	09	14.3	23	SF				P				
	SVTO	10	1113	1119	1133	N34	E48	5142	09	14.3	20	SF			3	E		26		
	CATA	10	1115	1115	1125D	N31	E50	5142	09	14.4	10D	SB			2	C	1115	84	1.4	
0071	LVOV	10	1403E	1404	1420D	S16	E07	5143	09	11.1	17D	SF				C	1404	100	1.1	D
0072	HOLL	11	0001	0008	0025D	S15	E04	5143	09	11.3	24D	SF			3	E		12		
0073		11	03202	03222	0340	N32	E42	5142	09	14.5	20	SN						46	1.0	FL
	TACH	11	0320	0322	0352	N32	E41	5142	09	14.4	32	SB				C	0322	76	1.0	FL
	LEAR	11	0322	0324	0329	N32	E42	5142	09	14.5	7	SF			3	E		17		
0074	SVTO	11	1145	1148	1153	S09	E80	5148	09	17.5	8	SF			3	E		32		
0075	KANZ	11	1307	1311	1321	S13	E75	5148	09	17.2	14	SF				P				
0076		11	13271	13287	1340	S20	W11	5137	09	10.7	13	SF						58	1.2	D
	SVTO	11	1327	1329	1349	S20	W09	5137	09	10.9	22	SF			3	E		17		
	KANZ	11	1328	1328	1332	S19	W11	5137	09	10.7	4	SF				P				
	LVOV	11	1334E	1335	1348D	S20	W13	5137	09	10.6	14D	SF				C	1335	100	1.2	D
0077	HOLL	11	1414	1414	1431	S10	E75	5148	09	17.2	17	SF			3	E		27		
		11	1716		1726	No Flare Patrol														
		11	1751		1757	No Flare Patrol														
		11	1813		1853	No Flare Patrol														
		11	1945		2114	No Flare Patrol														
		11	2134		2334	No Flare Patrol														
0078	PEKG	12	0025	0028	0048	N28	W80	5146	09	5.8	23	SN				P	0030	38		D
0079	KAND	12	0654	0656	0700	N34	E19	5142	09	13.8	6	SF				P	0656	42	0.5	D
0080		12	07193	07193	0732	S14	E72	5148	09	17.7	13	SN	C	1.7				45		ET
	LEAR	12	0719	0719	0727	S14	E70	5148	09	17.6	8	SF	C	1.7	3	E		15		
	SVTO	12	0719	0720	0731	S11	E70	5148	09	17.6	12	SF	C	1.7	3	E		46		
	CATA	12	0720	0720	0731	S15	E72	5148	09	17.7	11	SB			2	C	0720	56		
	KAND	12	0720	0721	0739	S13	E76	5148	09	18.0	19	SB				P	0721	62		ET
	KANZ	12	0722	0722	0732	S15	E70	5148	09	17.6	10	SF				P				
0081		12	10541	1055	1104	S25	W52	5147	09	8.4	10	SN						40	1.1	
	SVTO	12	1054	1055	1104	S27	W51	5147	09	8.5	10	SF			3	E		25		
	CATA	12	1055	1055	1105	S23	W52	5147	09	8.4	10	SB			2	C	1055	56	1.1	
		12	1639		1725	No Flare Patrol														

Hα SOLAR FLARES

SEPTEMBER 1988

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Day	Dur (Min)	Imp Opt	Xray	See	Obs Type	Time (UT)	Area Measurement Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
0082		12	1733	1736	1750	S14	E65	5148	09	17.6	17	SF	C 1.3				64		F
	HOLL	12	1733	1736	1748	S14	E65	5148	09	17.6	15	SF	C 1.3	3	E		73		F
	PALE	12	1733	1736	1752	S14	E65	5148	09	17.6	19	SF	C 1.3	3	E		55		F
0083		12	2032	20514	2113	S13	E60	5148	09	17.4	41	1F	C 1.4				107		FH
	PALE	12	2032	2055	2110	S12	E61	5148	09	17.4	38	1F	C 1.4	3	E		142		
	HOLL	12	2046E	2051	2116	S14	E60	5148	09	17.4	30D	SF	C 1.4	3	E		72		FH
0084	TACH	13	0315	0333	0421	N33	E12	5142	09	14.1	66	SB			C	0333	100	1.2	ET
0085	TACH	13	0404	0419	0518	S05	E43	5148	09	16.4	74	SB			C	0419	60	0.8	EKT
0086	ABST	13	0647	0653U	0706	S11	E56	5148	09	17.5	19	1F			P	0653	157	3.1	E
0087		13	07519	0810*	0838	S13	E55	5148	09	17.5	47	1N	C 4.1				206	5.2	EFTU
	SVTO	13	0751	0811	0855	S12	E55	5148	09	17.5	64	1N	C 4.1	3	E		223		F
	ABST	13	0753	0801U	0809	S12	E57	5148	09	17.6	16	1N			P	0801	131	2.6	E
	KAND	13	0754	0823	0858	S15	E54	5148	09	17.4	64	2B			P	0823	374	7.8	FTU
	LEAR	13	0800	0810	0831	S13	E55	5148	09	17.5	31	SF	C 4.1	3	E		94		F
0088		13	0912	0913	0922	S20	W18	5149	09	12.0	10	SN					66	1.1	E
	SVTO	13	0912	0913	0922	S20	W15	5149	09	12.2	10	SF		3	E		22		
	HTPR	13	0914E		0923	S20	W20	5149	09	11.8	9D	SN			C	0914	110	1.1	E
0089	HTPR	13	0914E		1010	S14	E51	5148	09	17.2	56D	SN			C	0916	80	1.2	E
0090		13	10554	10582	1110	N32	E10	5142	09	14.2	15	SN					34	0.4	DE
	KHAR	13	1052E		1106	N32	E09	5142	09	14.2	14D	SN		1	P	1052			D
	HTPR	13	1055	1058	1115	N31	E09	5142	09	14.2	20	SN			C	1058	30	0.3	E
	SVTO	13	1057	1059	1107	N31	E11	5142	09	14.3	10	SF		3	E		29		
	KAND	13	1059	1100	1110	N32	E10	5142	09	14.2	11	SF			P	1100	42	0.5	E
0091	HTPR	13	1103	1108	1122	S11	E52	5148	09	17.4	19	SN			C	1108	30	0.5	E
0092	KHAR	13	1116U	1117U	1124U	N18	W26	5145	09	11.5	8U	SF		1	V	1117			D
0093	HTPR	13	1118	1121	1133	S19	W18	5149	09	12.1	15	SF			C	1121	40	0.4	E
0094	HTPR	13	1141	1142	1146	N32	E10	5142	09	14.3	5	SF			C	1142	20	0.3	E
0095	HTPR	13	1210	1216	1226	N32	E09	5142	09	14.2	16	SF			C	1216	20	0.2	E
0096	HTPR	13	1438	1445	1449	S20	W22	5149	09	11.9	11	SF			C	1445	30	0.3	E
0097	HOLL	13	1806	1813	1901	S19	W20	5149	09	12.2	55	SF		3	E		17		H
0098		13	1916	19271	2025	N14	E14	5144	09	14.9	69	SF					62		FU
	HOLL	13	1916	1927	2027	N13	E14	5144	09	14.8	71	SF		3	E		48		F
	PALE	13	1916	1928	2023	N15	E14	5144	09	14.9	67	SF		3	E		75		UF
0099	PALE	14	0319	0323	0332	N16	E11	5144	09	15.0	13	SF		3	E		23		FS
0100	KAND	14	0720	0723	0726	S19	W34	5149	09	11.7	6	SF			P	0723	21	0.3	D
0101	HTPR	14	0749	0753	0808	S20	E90		09	21.2	19	SF			C	0753	10		
0102	HTPR	14	0835	0839	0843	S16	E36	5148	09	17.1	8	SF			C	0839	20	0.2	
0103	HTPR	14	0840	0850	0900	N22	E60	5154	09	19.0	20	SF			C	0850	40	0.8	E
0104		14	11332	1136	1152	S12	E37	5148	09	17.3	19	SN	C 1.3				76	1.4	EFH
	RAMY	14	1133	1136	1159	S12	E36	5148	09	17.2	26	SF	C 1.3	3	E		49		FH
	KAND	14	1135	1136	1145	S12	E38	5148	09	17.3	10	SN	C 1.3		P	1136	104	1.4	E
0105	HTPR	14	1247E		1300	S18	W43	5137	09	11.2	13D	SF			C	1250	40	0.5	E
0106		14	18081	18101	1814	S19	W50	5137	09	10.9	6	SF					23		
	PALE	14	1808	1810	1814	S18	W51	5137	09	10.9	6	SF		3	E		24		
	HOLL	14	1809	1810	1813	S20	W49	5137	09	11.0	4	SF		3	E		20		
	RAMY	14	1809	1811	1814	S20	W49	5137	09	11.0	5	SF		3	E		24		

SEPTEMBER 1988

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
0107		14	18471	18493	1910	N33	W08	5142	09	14.1	23	SF						27		FH
	HOLL	14	1847	1851	1916	N32	W08	5142	09	14.1	29	SF			4	E		31		FH
	RAMY	14	1848	1849	1905	N33	W08	5142	09	14.1	17	SF			3	E		15		F
	PALE	14	1848	1852	1928D	N34	W08	5142	09	14.1	40D	SF			3	E		34		F
		14	1952		1954	No Flare Patrol														
0108		14	20572	21012	2113	S12	E33	5148	09	17.3	16	SF						26		
	PALE	14	2057	2103	2113	S12	E34	5148	09	17.4	16	SF			3	E		41		
	HOLL	14	2059	2101	2113	S12	E32	5148	09	17.3	14	SF			3	E		11		
0109	HOLL	14	2312	2317	2326	S12	E33	5148	09	17.4	14	SF			3	E		15		
0110	HOLL	14	2323	2324	2329	N31	W15	5142	09	13.8	6	SF			3	E		16		H
0111	HTPR	15	1151E		1245	N23	E37	5153	09	18.3	54D	SF				C	1208	50	0.6	E
0112	HTPR	15	1233	1235	1238	S18	E70	5157	09	20.8	5	SF				C	1235	20	0.4	
0113	HTPR	15	1320	1323	1326	N30	W22	5142	09	13.8	6	SN				C	1323	40	0.4	
0114	HTPR	15	1327	1329	1334	N16	W78	5138	09	9.6	7	SF				C	1329	20		
0115	HTPR	15	1443	1447	1450	S13	E45		09	19.0	7	SF				C	1447	40	0.6	
0116		15	1530	1531	1537	S20	W60	5137	09	11.0	7	SN						20	0.4	
	HOLL	15	1530	1531	1537	S20	W60	5137	09	11.0	7	SF			3	E		19		
	HTPR	15	1530	1531	1537	S20	W61	5137	09	11.0	7	SN				C	1531	20	0.4	
0117	ABST	16	0438	0452	0518	S20	W70	5137	09	10.8	40	1N				C	0452	87		E
0118	ABST	16	0606	0626	0641	S20	E90	5156	09	23.1	35	1F				C	0626	87		E
0119	HTPR	16	0918	0919	0935	N30	W33	5142	09	13.8	17	SF				C	0919	20	0.2	
0120	HTPR	16	1056	1100	1110	S22	W71	5137	09	11.0	14	SF				C	1100	30	0.7	
0121	HOLL	16	2240	2240	2313	S11	E06	5148	09	17.4	33	SF			3	E		11		
0122	TACH	17	0308E	0311	0358D	S13	W06	5155	09	16.7	50D	SB				C	0311	100	1.1	D
0123	YUNN	17	0313E	0323	0354	S13	E03	5148	09	17.4	41D	SN				P		64	0.7	
0124		17	0309E	0337*	0559D	N30	W40	5142	09	14.0	170D	SB						35	0.5	DKT
	TACH	17	0309E	0337	0559D	N30	W40	5142	09	14.0	170D	SB				C	0337	35	0.5	DKT
	TACH	17	0309E	0430	0559D	N30	W40	5142	09	14.0	170D	SB				C				K
	TACH	17	0309E	0502	0559D	N30	W40	5142	09	14.0	170D	SB				C				K
0125	HTPR	17	0712	0714	0730	N33	W41	5142	09	14.0	18	SF				C	0714	30	0.4	
		17	1041		1042	No Flare Patrol														
0126	HTPR	17	1042E		1053	N33	W42	5142	09	14.1	11D	SF				C	1045	50	0.7	E
0127	HTPR	17	1255	1307	1315	N33	W42	5142	09	14.2	20	SF				C	1307	40	0.5	E
0128	HTPR	17	1406	1420	1440	S30	W52	5160	09	13.5	34	SF				C	1420	40	0.6	
0129		17	1500*	1519	1548	N23	E22	5154	09	19.3	48	SF						45	1.0	EF
	HTPR	17	1500		1530D	N22	E22	5154	09	19.3	30D	SN				C	1509	100	1.0	EF
	HOLL	17	1511	1515U	1550	N23	E22	5154	09	19.3	39	SF			3	E		20		F
	RAMY	17	1511	1519	1545	N23	E22	5154	09	19.3	34	SF			3	E		14		
0130	LEAR	18	0421	0421	0424	S36	E61	5158	09	23.1	3	SF	C	1.0	3	E		16		
0131		18	06383	06453	0706	N19	E17	5154	09	19.6	28	1N	C	2.7				204	3.0	EF
	ABST	18	0638	0648	0706	N19	E16	5154	09	19.5	28	1N				C	0648	348	3.5	E
	CATA	18	0640	0645	0705	N19	E17	5154	09	19.6	25	1B			2	C	0645	225	2.5	
	LEAR	18	0641	0645	0706	N19	E17	5154	09	19.6	25	SF	C	2.7	3	E		40		F

Hα SOLAR FLARES

SEPTEMBER 1988

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
0132	CATA	18	0957	1006	1027	S40	E67	5158	09	23.9	30	1N			2	C	1006	56		
0133		18	1435*	1435*	1504	N22	E11	5154	09	19.4	29	SF	C	1.6				30		F
	RAMY	18	1435	1435	1453	N23	E09	5154	09	19.3	18	SF			3	E		20		
	HOLL	18	1441E	1441U	1459	N24	E10	5154	09	19.4	18D	SF			3	E		32		
	HOLL	18	1454	1458	1511	N20	E13	5154	09	19.6	17	SF	C	1.6	3	E		48		F
	RAMY	18	1455	1457	1512	N19	E13	5154	09	19.6	17	SF	C	1.6	3	E		22		
0134	HOLL	18	1937	1938	1956	N19	E10	5154	09	19.6	19	SF			4	E		19		F
0135		18	2012	2013	2027	N30	W59	5142	09	14.2	15	SF						28		
	HOLL	18	2012	2013	2027	N30	W59	5142	09	14.2	15	SF			4	E		36		
	RAMY	18	2014E	2014U	2017D	N31	W59	5142	09	14.2	3D	SF			3	E		20		
0136	PALE	18	2140E	2145U	2225D	N29	E88	5159	09	25.8	45D	SN	C	2.8	3	E		90		
0137		18	2322	2324	2333	S36	E52	5158	09	23.1	11	SF						37		
	HOLL	18	2322	2324	2333	S35	E51	5158	09	23.0	11	SF			4	E		45		
	PALE	18	2324E	2326U	2335D	S36	E52	5158	09	23.1	11D	SF			2	E		29		
0138	SVTO	19	0533E	0535U	0540D	S37	E43	5158	09	22.7	7D	SF			2	E		83		
0139	ABST	19	0548	0550	0600	N31	E85	5159	09	25.9	12	SF				C	0550	52		D
0140	SVTO	19	0559	0613	0706	N29	E66	5159	09	24.4	67	SF			3	E		56		
0141		19	07123	07141	0724	N24	E01	5154	09	19.4	12	SN						58	0.6	
	YUNN	19	0712	0714	0718	N24	E01	5154	09	19.4	6	SN				C		32	0.3	
	CATA	19	0715	0715	0731	N23	E01	5154	09	19.4	16	SN			2	C	0715	84	0.9	
0142	YUNN	19	0720	0724	0731	N30	W65	5142	09	14.2	11	SN				C		24	0.6	
0143	CATA	19	1020	1020	1045	S18	W29	5155	09	17.2	25	SN			2	C	1020	112	1.5	
0144		19	1025*	1037	1045	S39	E47	5158	09	23.2	20	1N						112	1.6	
	CATA	19	1025	1037	1045	S39	E48	5158	09	23.3	20	1N			2	C	1037	112	1.6	
	KANZ	19	1035	1039U	1039D	S39	E46	5158	09	23.2	4D	SF				P				
0145		19	1104	1104	1128	N29	E77	5159	09	25.5	24	1N	M	1.6				158		H
	CATA	19	1104	1104	1130	N30	E78	5159	09	25.6	26	2B			2	C	1104	225		
	KANZ	19	1108E	1108U	1126	N28	E78	5159	09	25.6	18D	SF				P				
	RAMY	19	1115E	1117U	1128D	N30	E76	5159	09	25.4	13D	SN	M	1.6	2	E		90		H
		19	1541		1556	No Flare Patrol														
		19	1615		1619	No Flare Patrol														
		19	1625		1756	No Flare Patrol														
0146		19	21421	21471	2155	N30	E74	5159	09	25.7	13	SN	C	8.9				42		
	HOLL	19	2142	2148	2155	N31	E73	5159	09	25.7	13	SN	C	8.9	4	E		36		
	PALE	19	2143	2147	2205D	N30	E74	5159	09	25.7	22D	SF	C	8.9	3	E		48		
0147	PALE	20	0158	0200	0204	N31	E71	5159	09	25.7	6	SF			3	E		27		
0148		20	02231	0225	0241	N28	E69	5159	09	25.5	18	SF	C	6.7				42		
	PALE	20	0223	0225	0244	N29	E70	5159	09	25.6	21	SF	C	6.7	3	E		53		
	LEAR	20	0224	0225	0238	N28	E68	5159	09	25.4	14	SF	C	6.7	3	E		32		
0149	TACH	20	0356	0402	0408	N28	E67	5159	09	25.4	12	SB				C	0402	56		D
0150		20	05161	05191	0533	S36	E44	5158	09	23.7	17	SN	C	5.0				74	1.4	E
	LEAR	20	0516	0520	0531	S35	E44	5158	09	23.7	15	SF	C	5.0	3	E		73		
	TACH	20	0517	0519	0535	S37	E46	5158	09	23.9	18	SB				C	0519	66	1.4	E
	SVTO	20	0533E	0535U	0540D	S37	E43	5158	09	23.7	7D	SF	C	5.0	2	E		83		

SEPTEMBER 1988

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP	Mo	Day	Dur (Min)	Imp	Opt	Xray	See	Obs Type	Time (UT)	Area Measurement Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
0151		20	0547*	0548*	0701	N28	E67	5159		09	25.5	74	1N						140	3.0	EKT
	TACH	20	0547	0548	0705	N28	E66	5159		09	25.4	78	1B				C	0548	260		EKT
	TACH	20	0547	0650	0705	N28	E66	5159		09	25.4	78	1B				C				K
	SVTO	20	0559	0613	0706	N29	E66	5159		09	25.4	67	SF			3	E		56		
	HTPR	20	0607E		0725	N28	E66	5159		09	25.4	78D	1N				C	0652	150	3.0	EK
	KANZ	20	0612E		0631	N27	E71	5159		09	25.8	19D	SF				P				
	YUNN	20	0635	0646	0653	N29	E66	5159		09	25.4	18	SN				C		96		
0152		20	0640	06462	0715	S18	W48	5155		09	16.6	35	SN						23	0.4	
	YUNN	20	0640	0646	0653D	S19	W47	5155		09	16.7	13D	SN				P		16	0.3	
	HTPR	20	0640	0648	0715	S18	W48	5155		09	16.6	35	SF				C	0648	30	0.5	
0153		20	0739*	07449	0753	N27	E67	5159		09	25.5	14	SN	C	1.8				59	2.3	E
	HTPR	20	0739		0820D	N28	E66	5159		09	25.5	41D	1B				C	0747	100	2.3	E
	KANZ	20	0740	0744	0749	N27	E73	5159		09	26.0	9	SF				P				
	LEAR	20	0746	0747	0753	N27	E65	5159		09	25.4	7	SF	C	1.8	3	E		18		
	KANZ	20	0749	0753	0757	N27	E65	5159		09	25.4	8	SF				P				
0154	HTPR	20	0744	0750	0759	S20	E27	5156		09	22.4	15	SF				C	0750	20	0.2	
0155	HTPR	20	0809		0820D	S40	E42	5158		09	23.8	11D	SF				C	0813	10	0.1	
0156	HTPR	20	1026E		1036	N28	E65	5159		09	25.5	10D	SB				C	1027	80	1.8	
0157	KAND	20	1035	1040	1045	S18	E27	5156		09	22.5	10	SF				P	1040	42	0.5	D
0158	HTPR	20	1138	1144	1206	S20	W90			09	13.6	28	SF				C	1144	40		
0159		20	1146	1149	1153	N29	E65	5159		09	25.6	7	SF						43		
	KANZ	20	1146	1149	1153	N27	E65	5159		09	25.5	7	SF				P				
	RAMY	20	1146	1151U	1207D	N31	E65	5159		09	25.6	21D	SF			3	E		43		
0160		20	13072	1311	1325	S19	E26	5156		09	22.5	18	SN						20	0.2	
	HTPR	20	1307	1311	1325	S20	E26	5156		09	22.5	18	SN				C	1311	20	0.2	
	SVTO	20	1309	1311	1332D	S18	E26	5156		09	22.5	23D	SF			3	E		21		
0161	HTPR	20	1311	1313	1324	N33	E27	5161		09	22.7	13	SF				C	1313	10	0.1	
0162		20	13343	13373	1416	N34	E25	5161		09	22.5	42	SF						42	0.7	E
	HTPR	20	1334	1340	1415	N33	E27	5161		09	22.7	41	SN				C	1340	60	0.7	E
	KANZ	20	1335E	1339	1357D	N35	E23	5161		09	22.4	22D	SF				P				
	SVTO	20	1337	1337	1416	N33	E24	5161		09	22.5	39	SF			3	E		24		
0163	HTPR	20	1353	1402	1412	S20	E25	5156		09	22.5	19	SF				C	1402	30	0.3	
0164		20	1356*	1413	1440	S36	E36	5158		09	23.5	44	1F	C	1.9				91	0.8	E
	SVTO	20	1356	1414U	1442D	S36	E33	5158		09	23.2	46D	1F	C	1.9	3	E		122		
	HTPR	20	1409	1413	1440	S37	E40	5158		09	23.8	31	SF				C	1413	60	0.8	E
0165	HTPR	20	1417	1418	1442	N27	E56	5159		09	24.9	25	SB				C	1418	30	0.5	E
0166		20	14341	14391	1451	S18	E25	5156		09	22.5	17	SF						26	0.3	E
	HTPR	20	1434	1440	1451	S20	E24	5156		09	22.4	17	SF				C	1440	30	0.3	E
	SVTO	20	1435	1439	1442D	S15	E26	5156		09	22.6	7D	SF			3	E		23		
0167	SVTO	20	1437	1442	1442D	N35	E22	5161		09	22.4	5D	SF			3	E		12		
		20	1502		1503	No Flare Patrol															
0168		20	15141	1516	1521	S35	E31	5158		09	23.1	7	SN						30	0.5	
	HTPR	20	1514	1516	1523	S37	E31	5158		09	23.1	9	SN				C	1516	40	0.5	
	RAMY	20	1515	1516	1519	S33	E31	5158		09	23.1	4	SF			3	E		21		
		20	1646		1649	No Flare Patrol															
		20	1950		1956	No Flare Patrol															
		20	2104		2113	No Flare Patrol															
0169	PALE	20	2126E	2128U	2203	S15	E25	5156		09	22.8	37D	SF			3	E		38		

Hα SOLAR FLARES

SEPTEMBER 1988

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo Day	Dur (Min)	Imp Opt	Xray	See	Obs Type	Area Measurement Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
0170		21	0646	0650	0734	N28	E52	5159	09 25.3	48	SN					74	0.9	DEK
	HTPR	21	0645E		0735	N27	E49	5159	09 25.1	50D	SN			C	0649	60	0.9	EK
	ABST	21	0646	0650	0734	N30	E55	5159	09 25.6	48	SF			C	0650	87		D
0171		21	0913	0917*	0935	S38	E22	5158	09 23.2	22	SN					50	0.6	EK
	HTPR	21	0913	0917	0935	S38	E22	5158	09 23.2	22	SN			C	0917	50	0.6	EK
	HTPR	21	0913	0927	0935	S38	E22	5158	09 23.2	22	SN			C				K
0172	HTPR	21	0928	0936	0943	N16	E65	5162A	09 26.3	15	SN			C	0936	40	0.9	
0173	HTPR	21	0934	0953	1001	N27	E50	5159	09 25.3	27	SB			C	0953	70	1.1	E
0174	HTPR	21	1025	1034	1040	N27	E48	5159	09 25.2	15	SF			C	1034	20	0.3	
0175		21	1535	15361	1548	S10	W57	5148	09 17.4	13	SF					19	0.6	
	HOLL	21	1535E	1536	1548	S10	W57	5148	09 17.4	13D	SF		3	E		16		
	HTPR	21	1535	1537	1555	S09	W59	5148	09 17.2	20	SF			C	1537	30	0.6	
	RAMY	21	1537E	1537U	1542	S10	W56	5148	09 17.4	5D	SF		3	E		12		
		21	2002		2137	No Flare Patrol												
0176	HOLL	21	2139	2145	2216	N29	E44	5159	09 25.3	37	SF		3	E		46		
0177		21	2141	2202	2211	S17	E04	5156	09 22.2	30	SF					34		
	HOLL	21	2141	2202	2210	S17	E05	5156	09 22.3	29	SF		3	E		39		
	PALE	21	2158E	2202	2212	S17	E04	5156	09 22.2	14D	SF		3	E		30		
0178		21	22332	22362	2256	S35	E22	5158	09 23.7	23	SF	C 1.5				77	1.0	ET
	PALE	21	2233	2236	2259	S35	E23	5158	09 23.8	26	SF	C 1.5	3	E		79		
	HOLL	21	2233	2236	2300	S34	E23	5158	09 23.8	27	SF	C 1.5	3	E		81		
	VORO	21	2235	2238	2249	S36	E21	5158	09 23.6	14	SF		2	C	2238	72	1.0	ET
0179	HOLL	21	2249	2256	2317	S14	E09	5156	09 22.6	28	SF		3	E		21		
0180		21	23241	2330	2340	N27	E46	5159	09 25.5	16	SN	C 5.1				78	0.9	EFT
	VORO	21	2324	2330	2340	N27	E45	5159	09 25.5	16	SF		2	C	2330	63	0.9	ET
	PALE	21	2325	2330	2340	N27	E46	5159	09 25.6	15	SN	C 5.1	3	E		94		F
0181		22	01141	01171	0133	S14	E05	5156	09 22.4	19	SF					26	0.3	ET
	VORO	22	0114	0118	0128	S14	E05	5156	09 22.4	14	SF		2	C	0118	27	0.3	ET
	PALE	22	0115	0117	0138	S14	E05	5156	09 22.4	23	SF		3	E		26		
0182		22	0311	0317	0320	N28	E43	5159	09 25.5	9	SN	C 5.6				13	0.2	
	LEAR	22	0311	0315U	0317	N27	E44	5159	09 25.6	6	SF	C 5.6	3	E		10		
	YUNN	22	0316E	0317	0323	N28	E42	5159	09 25.4	7D	SN	C 5.6		P		16	0.2	
0183		22	0331	0331	0341	S14	E03	5156	09 22.4	10	SN					24	0.4	
	YUNN	22	0323E	0332U	0343	S14	E03	5156	09 22.4	20D	SN			P	0332	32	0.4	
	LEAR	22	0331	0331	0339	S14	E03	5156	09 22.4	8	SF		3	E		17		
		22	0402		0414	No Flare Patrol												
		22	0416		0436	No Flare Patrol												
		22	0551		0601	No Flare Patrol												
0184	KAND	22	0642E		0707	S14	E02	5156	09 22.4	25D	SN			P	0642	104	1.1	EFIT
0185		22	0715	0719	0748	N22	E56	5163	09 26.6	33	1N					90	1.6	EK
	ABST	22	0715	0719	0726	N23	E55	5163	09 26.5	11	1F			C	0719	140	2.5	E
	HTPR	22	0719E		0810	N20	E58	5163	09 26.7	51D	SN			C	0754	40	0.6	EK
0186		22	07341	0740	0748	S12	W67	5148	09 17.3	14	1N					148	1.8	E
	ABST	22	0734	0740	0746	S13	W69	5148	09 17.1	12	1N			C	0740	175		E
	HTPR	22	0735	0740	0750	S11	W65	5148	09 17.4	15	SN			C	0740	120	1.8	E
0187	HTPR	22	0741	0758	0803	S35	E18	5158	09 23.7	22	SF			C	0758	110	1.3	E
0188	ABST	22	0752	0755	0801D	N21	E56	5163	09 26.6	9D	SF			P	0755	114	2.0	E

SEPTEMBER 1988

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
0189		22	08032	0807	0830	N26	E40	5159	09	25.4	27	SN	M	2.0				137	2.2	DE
	HTPR	22	0803	0807	0854	N26	E38	5159	09	25.3	51	SB				C	0807	120	1.4	E
	PEKG	22	0804	0807	0815	N27	E42	5159	09	25.6	11	1N	M	2.0		P	0807	210	3.0	D
	LEAR	22	0805	0807	0821	N26	E41	5159	09	25.5	16	SF	M	2.0	3	E		82		
0190	HTPR	22	0807	0818	0842	N25	E43	5162	09	25.7	35	SN				C	0818	50	0.7	E
0191	KHAR	22	0915U		0920	N20	E54	5163	09	26.5	5U	SF			2	V	0915			D
0192		22	09332	09352	0950	N29	E38	5159	09	25.4	17	SN						50	0.6	DE
	KHAR	22	0933	0935	0940	N29	E39	5159	09	25.4	7	SF			2	V	0935			D
	HTPR	22	0935	0937	1000	N29	E36	5159	09	25.2	25	SN				C	0937	50	0.6	E
0193	HTPR	22	0937	0938	0945	S38	E13	5158	09	23.4	8	SF				C	0938	30	0.4	E
0194		22	10001	1004*	1049	S15	W03	5156	09	22.2	49	1B						268	2.8	EFGHIKZ
	HTPR	22	1000	1012	1051	S16	W07	5156	09	21.9	51	1B				C	1012	220	2.2	EIK
	HTPR	22	1000	1030	1051	S16	W07	5156	09	21.9	51	1B				C				K
	KAND	22	1001	1010	1045	S14	E02	5156	09	22.6	44	1B				P	1010	333	3.6	EFIZ
	KHAR	22	1003U	1004	1048	S14	W01	5156	09	22.3	45U	1F			2	P	1008	250	2.7	EGH
0195	KHAR	22	1011		1115	N25	E63	5163	09	27.3	64	1F			2	V	1100			H
0196	HTPR	22	1020	1025	1035	N28	E34	5159	09	25.1	15	SF				C	1025	30	0.4	
0197		22	1030	10302	1036	S14	W69	5148	09	17.2	6	SF						42		D
	KAND	22	1030	1030	1036	S13	W68	5148	09	17.3	6	SF				P	1030	42		D
	KHAR	22	1030U	1032	1037	S14	W70	5148	09	17.1	7U	SF			2	V	1032			D
0198		22	10434	1050*	1106	N27	E37	5159	09	25.3	23	SF						66	0.8	DEG
	HTPR	22	1043	1100	1115	N28	E34	5159	09	25.1	32	SN				C	1100	50	0.6	E
	KAND	22	1047	1050	1056	N28	E39	5159	09	25.5	9	SF				P	1050	83	1.1	E
	KHAR	22	1052U	1058U	1106	N26	E39	5159	09	25.5	14U	SF			2	V	1058			DG
0199	CATA	22	1107E	1107	1133D	N25	E61	5163	09	27.2	26D	1N			2	C	1107	112	2.4	
0200		22	11183	11222	1136	S15	W01	5156	09	22.4	18	SB	C	4.5				136	1.5	EFGH
	HTPR	22	1118	1123	1135	S16	W06	5156	09	22.0	17	SB				C	1123	80	0.8	E
	RAMY	22	1119	1122	1136	S16	E01	5156	09	22.5	17	1N	C	4.5	3	E		129		FE
	KAND	22	1120	1124	1137	S15	W01	5156	09	22.4	17	SB	C	4.5		P	1124	166	1.8	E
	KHAR	22	1121	1122	1132D	S15	E01	5156	09	22.5	11D	1N			2	V	1122			GH
	CATA	22	1121	1122	1133D	S15	W02	5156	09	22.3	12D	SB			2	C	1122	169	1.9	
0201	HTPR	22	1145	1223	1254	N28	E32	5159	09	25.0	69	SN				C	1223	60	0.7	E
0202	HTPR	22	1206	1207	1225	S18	W04	5156	09	22.2	19	SF				C	1207	20	0.2	
0203	RAMY	22	1259	1305	1307	S35	E12	5158	09	23.5	8	SF			3	E		51		
0204		22	13427	1349	1358	N28	E34	5159	09	25.2	16	SF						18	0.2	
	HTPR	22	1342	1349	1400	N28	E31	5159	09	25.0	18	SF				C	1349	20	0.2	
	RAMY	22	1349	1350U	1357	N28	E37	5159	09	25.5	8	SF			2	E		15		
0205	HTPR	22	1349	1431	1500	S16	W18	5157	09	21.2	71	SB				C				K
0206		22	1349*	1400*	1437	S16	W04	5156	09	22.3	48	SN	C	3.4				63	1.1	EFIK
	HTPR	22	1349	1400	1500	S16	W08	5156	09	22.0	71	SB				C	1400	110	1.1	EFIK
	RAMY	22	1355	1400	1424	S17	W02	5156	09	22.4	29	SF	C	3.4	3	E		65		
	KANZ	22	1355	1402	1423	S15	W02	5156	09	22.4	28	SN				P				
	RAMY	22	1427	1435	1440	S16	W02	5156	09	22.4	13	SF			3	E		14		
0207	HTPR	22	1430	1434	1442	S40	W01	5158	09	22.5	12	SF				C	1434	10	0.1	
0208		22	1521	15231	1542	N28	E33	5159	09	25.2	21	SN	C	2.7				60	0.8	EK
	HTPR	22	1521	1523	1543	N28	E30	5159	09	25.0	22	SN				C	1523	70	0.8	EK
	RAMY	22	1521	1524	1541	N27	E36	5159	09	25.4	20	SF	C	2.7	3	E		50		
0209		22	1629	1632	1643	N28	E36	5159	09	25.5	14	SF	C	4.4				70		H
	RAMY	22	1629	1632	1644	N28	E36	5159	09	25.5	15	SF	C	4.4	3	E		98		H
	HOLL	22	1639E	1639U	1642	N29	E37	5159	09	25.6	3D	SF			3	E		41		H

Hα SOLAR FLARES

SEPTEMBER 1988

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Opt	Imp	Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0210		22	1630	1641	1712	N24	E56	5163	09	27.0	42	SN						82		EF
	RAMY	22	1630	1641	1707	N24	E54	5163	09	26.8	37	SF			3	E		95		
	HOLL	22	1639E	1645U	1716	N23	E59	5163	09	27.2	37D	SN			3	E		69		FE
0211	RAMY	22	1649	1650	1654	S13	W03	5156	09	22.5	5	SF			3	E		12		
0212	RAMY	22	1739	1753	1820	S17	W01	5156	09	22.6	41	SF			3	E		42		
0213	RAMY	22	1741	1744	1807	N24	E73		09	28.4	26	SF			3	E		96		
0214		22	1831*	1854	1856	S17	W05	5156	09	22.4	25	SF						12		H
	RAMY	22	1831	1831U	1848	S20	W07	5156	09	22.2	17	SF			3	E		11		
	HOLL	22	1834E	1840U	1858D	S18	W05	5156	09	22.4	24D	SF			3	E		11		H
	RAMY	22	1852	1854	1903	S14	W02	5156	09	22.6	11	SF			3	E		14		
0215		22	1853	18504	1908	N28	E36	5159	09	25.6	15	SF						24		F
	HOLL	22	1848E	1850	1905	N28	E35	5159	09	25.5	17D	SF			3	E		17		F
	RAMY	22	1853	1854	1911	N28	E36	5159	09	25.6	18	SF			3	E		32		
0216		22	20002	2018	2056	S15	W05	5156	09	22.4	56	SN	C	3.9				85		F
	PALE	22	2000	2018	2056	S14	W05	5156	09	22.4	56	SN	C	3.9	3	E		56		F
	RAMY	22	2002	2003U	2105D	S15	W05	5156	09	22.4	63D	SN	C	3.9	3	E		59		F
	HOLL	22	2010E	2018	2106D	S15	W05	5156	09	22.5	56D	1N	C	3.9	3	E		141		F
0217		22	2031*	2044	2042	N26	E32	5159	09	25.3	11	SF	C	5.3				33		F
	PALE	22	2031	2032U	2042	N26	E31	5159	09	25.3	11	SF	C	5.3	3	E		28		
	RAMY	22	2031	2032U	2105D	N26	E31	5159	09	25.3	34D	SF	C	5.3	3	E		42		F
	HOLL	22	2044	2044	2054D	N27	E35	5159	09	25.6	10D	SF			3	E		28		
		22	2128		2204	No Flare Patrol														
0218	VORO	22	2241	2242	2301	N08	E25		09	24.8	20	SN			2	C	2242	125	1.4	DT
0219	PALE	22	2241E	2244U	2256D	S14	W07	5156	09	22.4	15D	SN	C	7.6	3	E		71		F
0220		22	2324	2326	2344	N28	E32	5159	09	25.5	20	SF						59	0.9	DT
	VORO	22	2324	2326	2337	N28	E32	5159	09	25.5	13	SF			2	C	2326	72	0.9	DT
	LEAR	22	2324	2326	2350	N29	E32	5159	09	25.5	26	SF			4	E		46		
0221		23	00143	0025	0110	S15	W07	5156	09	22.5	56	SN	C	2.3				117	2.7	F
	LEAR	23	0014	0025	0049	S14	W07	5156	09	22.5	35	SN	C	2.3	3	E		69		
	HOLL	23	0017	0020U	0020D	S14	W07	5156	09	22.5	3D	SF	C	2.3	2	E		41		
	YUNN	23	0044E	0044U	0130	S16	W08	5156	09	22.4	46D	1N				P	0044	241	2.7	F
0222	VORO	23	0018	0021	0030	N09	E26		09	25.0	12	1F			2	C	0021	224	2.5	EIT
0223	YUNN	23	0048	0051	0122	N18	E88	5168	09	29.7	34	SB				C		16		H
0224	LEAR	23	0056	0104	0126	N27	E33	5159	09	25.6	30	SF	C	5.5	3	E		26		
0225		23	0200	02068	0230	N28	E32	5159	09	25.6	30	1N	C	3.9				135	3.1	
	YUNN	23	0200	0206	0230	N28	E31	5159	09	25.5	30	1B	C	3.9		C		241	3.1	
	LEAR	23	0200	0214	0231	N27	E32	5159	09	25.6	31	SF	C	3.9	4	E		29		
0226		23	0305	03083	0319	N28	E32	5159	09	25.6	14	1F	C	1.9				172	4.2	
	LEAR	23	0305	0311	0320	N27	E31	5159	09	25.5	15	SF	C	1.9	3	E		22		
	YUNN	23	0306E	0308	0318	N29	E32	5159	09	25.6	12D	1F	C	1.9		P		321	4.2	
0227	LEAR	23	0409	0411	0414	N22	E28	5162	09	25.3	5	SF			3	E		14		
0228	YUNN	23	0423E	0424	0428	S19	W13	5156	09	22.2	5D	SB				P		48	0.6	
0229		23	0431	0434	0446	N23	E34	5162	09	25.8	15	SB	C	2.0				81	1.0	D
	YUNN	23	0431	0434	0442	N23	E33	5162	09	25.7	11	SB	C	2.0		C		48	0.6	
	ABST	23	0433E	0434	0451	N23	E35	5162	09	25.9	18D	SN				P	0434	114	1.5	D
0230	ABST	23	0618	0620	0630	N28	E29	5159	09	25.5	12	SN				C	0620	87	1.0	E
0231	ABST	23	0621	0624	0639	N22	E17	5166	09	24.6	18	SN				C	0624	70	0.8	DJ

SEPTEMBER 1988

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	Obs Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0232		23	0719*	07222	0748	N25	E24	5159	09	25.2	29	SF					96	1.1	DGK
	ABST	23	0719	0722	0755	N26	E25	5159	09	25.2	36	SN			C	0722	96	1.1	DK
	KANZ	23	0721	0724	0728	N24	E25	5159	09	25.2	7	SF			P				
	KHAR	23	0745		0800	N24	E23	5159	09	25.1	15	SF		2	V	0745			G
0233		23	08473	08553	0925	N25	E26	5162	09	25.4	38	1N					197	2.3	
	CATA	23	0847	0855	0915	N25	E25	5162	09	25.3	28	1N		2	C	0855	197	2.3	
	KANZ	23	0850	0858	0935	N25	E26	5162	09	25.4	45	1F			P				
0234		23	08462	0853*	0937	N28	E26	5159	09	25.4	51	SN	C 5.1				112	1.8	DEFV
	HTPR	23	0842E		0858D	N26	E25	5159	09	25.3	16D	SB			C	0854	170	1.8	EV
	SVTO	23	0846	0907	1000	N28	E26	5159	09	25.4	74	1F	C 5.1	3	E		103		
	LEAR	23	0848	0853	0920	N28	E26	5159	09	25.4	32	SF	C 5.1	3	E		62		F
	KHAR	23	0920E	0921	0932	N28	E28	5159	09	25.6	12D	SF		2	V	0921			D
0235		23	1009	1013	1048	N27	E27	5159	09	25.5	39	SN					100	1.1	EGH
	HTPR	23	1004E		1120	N27	E26	5159	09	25.4	76D	SN			C	1013	100	1.1	E
	KHAR	23	1008E	1012U	1030U	N26	E27	5159	09	25.5	22U	SN		2	V	1012			EGH
	KANZ	23	1009	1013	1017	N27	E27	5159	09	25.5	8	SF			P				
0236		23	1030	1032	1046	N19	E82	5168	09	29.7	16	SF	C 1.9				33		D
	KHAR	23	1030		1045	N17	E88	5168	09	30.1	15	SF		2	V	1030			D
	SVTO	23	1030E	1031U	1043	N22	E80	5168	09	29.6	13D	SF	C 1.9	2	E		26		
	HTPR	23	1030	1032	1050	N19	E78	5168	09	29.4	20	SN			C	1032	40		
0237	KHAR	23	1045	1050	1100D	N28	E28	5159	09	25.6	15D	SF		2	V	1050			D
0238		23	12101	12132	1221	N33	W10	5161	09	22.7	11	SF					34	0.6	E
	KANZ	23	1210	1213	1217	N33	W09	5161	09	22.8	7	SF			P				
	HTPR	23	1210	1213	1220	N33	W11	5161	09	22.6	10	SF			C	1213	50	0.6	E
	RAMY	23	1211	1215	1227	N34	W10	5161	09	22.7	16	SF		4	E		17		
0239		23	12224	12264	1234	N27	E25	5159	09	25.5	12	SF	C 1.9				44	1.2	E
	HTPR	23	1222	1230	1242	N26	E24	5159	09	25.4	20	SF			C	1230	110	1.2	E
	KANZ	23	1225	1229	1233	N26	E26	5159	09	25.5	8	SF			P				
	SVTO	23	1226	1226	1230	N29	E24	5159	09	25.4	4	SF	C 1.9	3	E		13		
	RAMY	23	1226	1226	1233	N27	E26	5159	09	25.5	7	SF	C 1.9	4	E		10		
0240	HTPR	23	1336	1339	1346	S17	E90	5169	09	30.4	10	SN			C	1339	40		
0241	RAMY	23	1354	1404	1410	N21	E78	5168	09	29.5	16	SF		3	E		12		
0242	RAMY	23	1354	1355	1357	S15	W16	5156	09	22.4	3	SF		3	E		22		
0243	HTPR	23	1408E		1418	S14	W15	5156	09	22.4	10D	SF			C	1408	20	0.2	
0244		23	1421	1427	1443	N26	E24	5159	09	25.5	22	SF					28	0.4	E
	HTPR	23	1408E		1438D	N27	E23	5159	09	25.4	30D	SF			C	1426	40	0.4	E
	RAMY	23	1421	1427	1443	N26	E24	5159	09	25.5	22	SF		4	E		15		
0245	RAMY	23	1526	1526	1532	N29	E20	5159	09	25.2	6	SF		3	E		19		
0246	RAMY	23	1556E	1557U	1559	N29	E23	5159	09	25.5	3D	SF		2	E		39		
0247	HOLL	23	1607	1608	1611	S14	W17	5156	09	22.4	4	SF		3	E		15		
0248	HOLL	23	1611	1611	1617	N30	E22	5159	09	25.4	6	SF		3	E		18		
0249	HOLL	23	2121	2127	2157	N19	E09	5166	09	24.6	36	SF	C 1.7	3	E		78		FY
0250	HOLL	23	2146	2146	2152	N19	E78	5168	09	29.8	6	SF		3	E		11		
0251	HOLL	23	2159	2202	2222	S19	W14	5156	09	22.8	23	SF		3	E		43		
0252	VORO	23	2256E	2301	2309	N20	E07	5166	09	24.5	13D	SF		2	C	2301	18	0.2	DT
0253		23	23102	23151	2321	S17	W45	5157	09	20.5	11	SF					37	0.7	DT
	VORO	23	2310	2315	2322	S17	W46	5157	09	20.5	12	SF		2	C	2315	45	0.7	DT
	HOLL	23	2311	2315	2324	S17	W44	5157	09	20.6	13	SF		3	E		43		
	PALE	23	2312	2316	2318	S18	W46	5157	09	20.5	6	SF		3	E		23		

Hα SOLAR FLARES

SEPTEMBER 1988

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo Day	Dur (Min)	Imp Opt	Xray	See	Obs Type	Area Measurement Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
0254		23	23562	2402*	2443	N28	E20	5159	09 25.6	47	SF	C 3.1				54	0.6	EFIT
	PALE	23	2356	2413	2533D	N28	E19	5159	09 25.5	97D	SF		3	E		80		F
	HOLL	23	2357	2411	2444	N27	E19	5159	09 25.5	47	SF		3	E		48		F
	VORO	23	2358	2402	2442	N28	E20	5159	09 25.6	44	SF		2	C	2402	54	0.6	EIT
	LEAR	24	0013E	0013	0044	N27	E20	5159	09 25.6	31D	SF	C 3.1	3	E		36		
0255	HOLL	24	0005	0007	0020	S38	W03	5158	09 23.8	15	SF		3	E		21		
0256	PALE	24	0010	0019	0028	N22	E19	5162	09 25.5	18	SF	C 3.1	3	E		18		
0257	VORO	24	0031	0039	0058	N24	E27	5163	09 26.1	27	SF		2	C	0039	27	0.3	DIT
0258		24	00333	00382	0053	S34	W08	5158	09 23.4	20	1F					100	0.8	DFT
	HOLL	24	0033	0039	0050D	S33	W06	5158	09 23.5	17D	SN		3	E		83		F
	VORO	24	0035	0040	0050	S35	W08	5158	09 23.4	15	SF		2	C	0040	81	0.8	DT
	PALE	24	0036	0038	0054	S33	W08	5158	09 23.4	18	1F		3	E		123		
	LEAR	24	0036	0039	0054	S33	W08	5158	09 23.4	18	1F		3	E		114		
0259	VORO	24	0050	0052	0106	N26	E16	5159	09 25.3	16	SF		2	C	0052	36	0.4	DT
0260		24	01121	01131	0127	S18	E80	5169	09 30.1	15	1F					50		ADT
	VORO	24	0112	0114	0135	S18	E80	5169	09 30.1	23	1F		2	C	0114	90		DTA
	LEAR	24	0113	0113	0119	S18	E81	5169	09 30.2	6	SF		3	E		10		
0261	LEAR	24	0124	0124	0129	S34	W08	5158	09 23.4	5	SF		3	E		27		
0262	LEAR	24	0215	0217	0243	S14	W22	5156	09 22.4	28	SF		3	E		47		F
0263		24	03562	03571	0412	N27	E17	5159	09 25.5	16	SN	C 1.8				83	1.3	EF
	PALE	24	0340E	0358	0411D	N26	E15	5159	09 25.3	31D	SF	C 1.8	1	E		75		F
	LEAR	24	0356	0357	0415	N27	E17	5159	09 25.5	19	SF	C 1.8	3	E		32		
	PEKG	24	0358E	0358	0400D	N28	E18	5159	09 25.6	2D	SN	C 1.8		P	0358	134	1.6	E
	TACH	24	0358	0358	0410	N27	E17	5159	09 25.5	12	SB			C	0358	90	1.0	E
0264		24	04491	04518	0506	S15	W24	5156	09 22.4	17	SN	C 1.6				89	1.4	EF
	PEKG	24	0358E	0459	0500D	S15	W25	5156	09 22.3	62D	SN	C 1.6		P	0459	151	1.8	E
	LEAR	24	0449	0451	0509	S14	W23	5156	09 22.5	20	SF	C 1.6	3	E		26		F
	TACH	24	0450	0452	0504	S15	W25	5156	09 22.3	14	SB			C	0452	90	1.0	E
0265	PEKG	24	0527E	0527	0530	N23	E01	5167A	09 24.3	3D	SN			P	0527	71	0.8	D
0266	HTPR	24	0636E		0840	N18	E01	5166	09 24.3	124D	SF			C	0639	50	0.5	EK
0267		24	06494	06534	0704	S18	W24	5156	09 22.4	15	SF					32	0.6	EF
	HTPR	24	0649	0657	0708	S18	W25	5156	09 22.4	19	SF			C	0657	50	0.6	E
	LEAR	24	0653	0653	0700	S17	W22	5156	09 22.6	7	SF		3	E		13		F
0268	HTPR	24	0740	0744	0803	N17	E22	5162A	09 26.0	23	SF			C	0744	20	0.2	E
0269	HTPR	24	0745	0752	0827	N27	E10	5159	09 25.1	42	SF			C	0752	60	0.7	EI
0270		24	08385	08425	0902	N28	E12	5159	09 25.3	24	SF	C 2.1				55	0.9	EH
	HTPR	24	0838	0843	0910	N27	E09	5159	09 25.1	32	SN			C	0843	80	0.9	E
	KHAR	24	0840		0905	N27	E12	5159	09 25.3	25	SF		2	V	0846			EH
	LEAR	24	0840	0842	0856	N28	E12	5159	09 25.3	16	SF	C 2.1	3	E		30		
	KANZ	24	0843	0847	0859	N28	E14	5159	09 25.4	16	SF			P				
0271	HTPR	24	0934	0938	0944	N21	E27	5163	09 26.5	10	SF			C	0938	50	0.5	E
0272	HTPR	24	0956	0959	1003	S39	W10	5158	09 23.6	7	SF			C	0959	20	0.2	E
0273	HTPR	24	1027	1030	1036	S19	W21	5156	09 22.8	9	SF			C	1030	20	0.2	E
0274	HTPR	24	1031	1034	1054	N30	E10	5159	09 25.2	23	SF			C	1034	40	0.4	E

SEPTEMBER 1988

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Day	Dur (Min)	Imp Opt	Xray	See	Obs Type	Time (UT)	Area Measurement Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
0275		24	1053*	1101*	1154	S40	E08	5167	09	25.1	61	SN					114	2.0	F
	HTPR	24	1053	1116	1300	S38	E07	5167	09	25.0	127	SB			C	1116	60	0.7	
	CATA	24	1055	1115	1141D	S40	E08	5167	09	25.1	46D	1N		2	C	1115	225	3.4	
	KANZ	24	1057	1101	1121	S43	E09	5167	09	25.2	24	SF			P				
	SVTO	24	1058	1112	1137	S39	E11	5167	09	25.3	39	SF		3	E		57		F
	KANZ	24	1109	1113	1137	S40	E07	5167	09	25.0	28	SF			P				
0276	HTPR	24	1122	1130	1200	N22	E25	5163	09	26.4	38	SN			C	1130	60	0.7	E
0277	CATA	24	1135	1141	1141D	S37	W01	5167	09	24.4	6D	SN		2	C	1141	84	1.2	
0278	HTPR	24	1202	1207	1220	N27	E10	5159	09	25.3	18	SF			C	1207	70	0.8	E
0279		24	1323*	1343*	1411	S16	W28	5156	09	22.4	48	1N	C 5.3				231	2.9	EFH
	HOLL	24	1323	1345U	1345D	S17	W24	5156	09	22.7	22D	2B		3	E		373		
	HTPR	24	1341	1344	1410	S15	W29	5156	09	22.4	29	1B			C	1343	260	2.9	E
	SVTO	24	1341	1344	1417	S15	W29	5156	09	22.4	36	1F	C 5.3	3	E		204		FH
	RAMY	24	1342	1343	1355	S15	W30	5156	09	22.3	13	SF	C 5.3	2	E		95		F
	KANZ	24	1343	1343	1415	S15	W30	5156	09	22.3	32	1N			P				
	HOLL	24	1345E	1353	1416	S17	W28	5156	09	22.4	31D	1B		3	E		223		F
0280		24	15083	15135	1524	N22	E14	5162	09	25.7	16	SN	C 1.7				32	0.5	E
	HTPR	24	1508	1513	1520	N22	E14	5162	09	25.7	12	SB			C	1513	50	0.5	E
	RAMY	24	1511	1517	1525	N22	E14	5162	09	25.7	14	SF	C 1.7	3	E		25		
	SVTO	24	1512E	1518	1528	N22	E14	5162	09	25.7	16D	SF	C 1.7	2	E		22		
0281	HTPR	24	1516	1519	1523	N22	E25	5163	09	26.5	7	SF			C	1519	40	0.4	E
0282	HOLL	24	1517	1517	1524	N17	E23	5162A	09	26.4	7	SF	C 1.7	3	E		19		
0283	HOLL	24	1550	1550	1602	S18	W32	5156	09	22.2	12	SF		3	E		16		
0284	HTPR	24	1552	1555	1607	S18	E71	5169	09	30.1	15	SF			C	1555	20	0.5	
0285		24	15572	16021	1615	N22	E25	5163	09	26.6	18	SF					34	0.7	E
	HTPR	24	1557	1603	1620	N22	E25	5163	09	26.6	23	SF			C	1603	60	0.7	E
	RAMY	24	1559	1602	1612	N21	E25	5163	09	26.6	13	SF		3	E		21		
	HOLL	24	1559	1602	1613	N22	E26	5163	09	26.7	14	SF		3	E		22		
0286		24	15591	16034	1624	N28	E10	5159	09	25.4	25	SF					48	0.8	E
	HOLL	24	1559	1603	1628	N28	E11	5159	09	25.5	29	SF		3	E		26		
	HTPR	24	1600	1607	1620	N27	E10	5159	09	25.4	20	SF			C	1607	70	0.8	E
0287		24	2240	22521	2327	N20	E65	5168	09	29.9	47	SF					34		ET
	HOLL	24	2240	2253	2348	N20	E65	5168	09	29.9	68	SF		3	E		24		
	VORO	24	2250E	2252	2306	N21	E65	5168	09	29.9	16D	SF		2	C	2252	45		ET
0288		24	22515	2252*	2314	S22	E70	5169	09	30.3	23	SF	C 4.4				37		EFITW
	HOLL	24	2251	2252	2322	S21	E73	5169	09	30.5	31	SF		3	E		26		F
	VORO	24	2253	2303	2314	S23	E70	5169	09	30.3	21	SF		2	C	2303	72		EITW
	LEAR	24	2256	2301	2307	S23	E67	5169	09	30.1	11	SF	C 4.4	3	E		14		F
0289	HOLL	24	2316	2322	2339	S17	W33	5156	09	22.5	23	SF		3	E		11		F
0290		25	0024*	00376	0129	S17	E67	5169	09	30.1	65	2N	M 2.3				365		DFTU
	HOLL	25	0024	0037	0042D	S18	E67	5169	09	30.1	18D	2B	M 2.3	3	E		330		F
	PALE	25	0027E	0037U	0133	S17	E66	5169	09	30.0	66D	2N	M 2.3	3	E		402		UF
	LEAR	25	0028	0042	0142	S17	E65	5169	09	29.9	74	2N	M 2.3	3	E		446		UF
	PEKG	25	0033	0043	0110	S18	E68	5169	09	30.2	37	2B	M 2.3		C	0043	442		U
	VORO	25	0036	0039	0131	S17	E69	5169	09	30.3	55	1F		2	C	0046	206		DT
0291	VORO	25	0133	0139	0145	S19	W40	5156	09	22.0	12	SF		2	C	0139	27	0.4	DT
0292		25	05251	05261	0533	S18	W41	5156	09	22.1	8	SN	C 1.6				52	1.3	DF
	LEAR	25	0525	0526	0536	S17	W40	5156	09	22.2	11	SF	C 1.6	3	E		19		F
	PEKG	25	0526	0527	0530	S18	W42	5156	09	22.0	4	SN	C 1.6		P	0527	84	1.3	D
0293	LEAR	25	0607	0622	0645	N18	E61	5168	09	29.9	38	SF	C 1.4	3	E		76		

Hα SOLAR FLARES

SEPTEMBER 1988

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
0294	TACH	25	0615E		0625D	S17	W41	5156	09	22.1	10D	1N			V	0615	150	2.3	D
0295		25	08296	08424	0912	S18	W40	5156	09	22.3	43	SF	C 2.1				59	1.7	EF
	SVTO	25	0829	0842	0919	S19	W39	5156	09	22.4	50	SF	C 2.1	3	E		34		F
	LEAR	25	0831	0846	0904	S17	W39	5156	09	22.4	33	SF	C 2.1	3	E		37		
	BUCA	25	0835	0845	0900D	S18	W43	5156	09	22.1	25D	SN			C	0845	107	1.7	E
0296		25	1041	1101*	1215	S17	W40	5156	09	22.4	94	1N	C 2.9				243	7.4	F
	SVTO	25	1041	1101	1224	S16	W42	5156	09	22.2	103	SF	C 2.9	3	E		93		F
	RAMY	25	1114E	1116	1206	S17	W38	5156	09	22.6	52D	1F		3	E		131		F
	CATA	25	1115E	1120	1155D	S17	W39	5156	09	22.5	40D	2B		2	C	1120	506	7.4	
0297		25	14092	1410*	1434	N20	W14	5166	09	24.5	25	SF					12		
	HOLL	25	1409	1410	1440	N20	W14	5166	09	24.5	31	SF		3	E		11		
	RAMY	25	1411	1425	1428	N19	W15	5166	09	24.4	17	SF		3	E		14		
0298	HOLL	25	1447	1450	1515	N20	W15	5166	09	24.5	28	SF		3	E		17		
0299		25	19071	1910	1928	N20	E54	5168	09	29.9	21	SF	C 1.9				14		F
	HOLL	25	1907	1910	1928	N20	E54	5168	09	29.9	21	SF	C 1.9	3	E		17		F
	RAMY	25	1908	1910	1927	N20	E55	5168	09	30.0	19	SF	C 1.9	3	E		11		
0300	HOLL	25	2154	2201	2211	N19	W72	5164	09	20.4	17	SF	C 2.3	3	E		13		
0301	VORO	25	2258	2301	2318	N23	W77	5164	09	20.0	20	SF		2	C	2301	36		DT
0302	VORO	26	0017	0020	0031	N24	W79	5164	09	19.9	14	SF		2	C	0020	45		ET
0303	LEAR	26	0136	0137	0144	N17	E47	5168	09	29.6	8	SF	C 1.9	3	E		39		
0304		26	0224	0253	0319	S37	W35	5158	09	23.3	55	SF	C 6.3				70		U
	LEAR	26	0224	0253	0319	S37	W35	5158	09	23.3	55	SF	C 6.3	3	E		79		U
	PALE	26	0230E	0234U	0322D	S37	W35	5158	09	23.3	52D	SF	C 6.3	3	E		62		
0305	LEAR	26	0431	0432	0450	N19	W75	5164	09	20.5	19	SF		3	E		21		
0306	CATA	26	0740	0740	0740D	N20	E42	5168	09	29.5	19D	SN		2	C	0740	56	0.8	
0307	RAMY	26	1134E	1134U	1140	S17	W56	5156	09	22.2	6D	SF		3	E		14		
0308	CATA	26	1205	1205	1211	N21	E40	5168	09	29.6	6	SN		2	C	1205	39	0.5	
0309		26	1227	12311	1314	S30	E22		09	28.2	47	SN					56	0.8	
	KANZ	26	1227	1231	1314	S30	E22		09	28.2	47	SF			P				
	CATA	26	1232E	1232	1232D	S30	E22		09	28.2	47D	SN		2	C	1232	56	0.8	
0310	CATA	26	1232E	1232	1232D	N21	E39	5168	09	29.5	47D	SN		2	C	1232	56	0.8	
0311	HOLL	26	1634	1636	1645	N22	E44	5168	09	30.1	11	SF		3	E		21		
0312	HOLL	26	1816	1817	1822	N19	E37	5168	09	29.6	6	SF		3	E		18		
0313		26	18587	1908	1914	N20	E36	5168	09	29.5	16	SF	C 1.6				32		
	HOLL	26	1858	1908	1914	N19	E36	5168	09	29.5	16	SF	C 1.6	3	E		38		
	RAMY	26	1905	1908	1913	N20	E36	5168	09	29.5	8	SF	C 1.6	3	E		27		
0314	HOLL	26	1918	1919	1923	S27	E73	5171	10	2.5	5	SF		3	E		18		
0315	HOLL	26	2039	2046	2054	N20	E35	5168	09	29.5	15	SF		3	E		61		H
0316	HOLL	26	2115	2119	2124	N23	E37	5168	09	29.7	9	SF		3	E		16		
0317	HOLL	26	2344	2344	2420	S25	E70	5171	10	2.4	36	SF		3	E		17		
0318	HOLL	27	0003	0004	0012	N22	W06	5163	09	26.5	9	SF		3	E		20		
0319		27	02413	0246	0254	N29	W26	5159	09	25.1	13	SF					44	0.8	EFT
	VORO	27	0241	0246	0253	N29	W26	5159	09	25.1	12	SF		2	C	0246	63	0.8	ET
	LEAR	27	0244	0246	0255	N29	W25	5159	09	25.1	11	SF		3	E		25		F

SEPTEMBER 1988

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
0320	LEAR	27	0317	0320	0328	S29	E70	5171	10	2.6	11	SF		3	E		38		
0321	HTPR	27	0627E		0642	N18	E30	5168	09	29.5	15D	SF			C	0629	30	0.3	E
0322		27	06346	0643*	0727	N20	W00	5163C	09	27.3	53	1N	C 4.7				237	3.6	EFHIU
	PEKG	27	0634	0646	0703	N21	W02	5163C	09	27.1	29	1B	C 4.7		C	0646	231	2.5	E
	TACH	27	0636	0643	0730D	N21	W02	5163C	09	27.1	54D	2N			C	0643	610	6.6	HU
	HTPR	27	0637	0645	0730	N20	W01	5163C	09	27.2	53	SB			C	0645	180	1.8	EI
	LEAR	27	0639	0645	0726	N20	W01	5163C	09	27.2	47	SN	C 4.7	3	E		82		F
	KANZ	27	0710E	0711	0729	N21	W00	5163C	09	27.3	19D	SF			P				
	SVTO	27	0640	0645	0745	N19	E03	5163C	09	27.5	65	SN	C 4.7	2	E		80		F
0323		27	07103	0719	0733	S28	E68	5171	10	2.6	23	1N	C 5.7				108		E
	TACH	27	0710	0719	0800D	S28	E67	5171	10	2.5	50D	2N			C	0719	165		E
	LEAR	27	0713	0719	0733	S28	E68	5171	10	2.6	20	SF	C 5.7	3	E		51		
0324	HTPR	27	0714	0716	0800	S22	E45	5169	09	30.7	46	SF			C	0716	20	0.3	
0325		27	07137	0718*	0754	S30	E63	5174B	10	2.2	41	SN					69	1.8	EI
	HTPR	27	0713	0718	0732	S30	E63	5174B	10	2.2	19	SN			C	0718	40	0.8	EI
	HTPR	27	0720	0750	0818	S31	E62	5174B	10	2.2	58	SB			C	0750	60	1.2	E
	BUCA	27	0735E	0744	0752	S30	E65	5174B	10	2.4	17D	1F			C	0744	107	3.4	E
0326	HTPR	27	0850	0907	0917	N22	E35	5168	09	30.0	27	SF			C	0907	30	0.4	E
0327		27	08502	08503	0910	S26	E62	5171	10	2.2	20	SN	C 3.1				99	1.6	EH
	LEAR	27	0850	0850	0904	S27	E62	5171	10	2.2	14	SF	C 3.1	3	E		57		
	KHAR	27	0850	0851	0918	S26	E65	5171	10	2.4	28	SF		2	V	0851			EH
	HTPR	27	0850	0853	0914	S27	E67	5171	10	2.6	24	SB			C	0853	70	1.6	E
	CATA	27	0851	0851	0851D	S25	E60	5171	10	2.0	24D	1N		2	C	0851	169		
	KANZ	27	0852	0852	0903	S26	E56	5171	10	1.7	11	SF			P				
0328		27	09491	0955*	1033	S26	E64	5171	10	2.4	44	1N	M 1.6				185	3.2	EFGIU
	KHAR	27	0949	0955	1008D	S27	E67	5171	10	2.6	19D	1N		2	P	0955			G
	KANZ	27	0949	0957	1020	S28	E61	5171	10	2.2	31	1F			P				U
	HTPR	27	0950	0956	1035	S27	E67	5171	10	2.6	45	1B			C	0956	200	4.6	EI
	SVTO	27	0950	0956	1043	S23	E63	5171	10	2.3	53	2F	M 1.6	2	E		270		UF
	CATA	27	1041E	1041	1048D	S24	E62	5171	10	2.2	7D	SN		2	C	1041	84	1.7	
0329	HTPR	27	1034	1036	1039	N21	E26	5168	09	29.4	5	SF			C	1036	40	0.4	E
0330		27	11232	1127	1137	N20	E32	5168	09	29.9	14	SF	C 1.8				53	0.7	E
	RAMY	27	1123	1123U	1134	N19	E30	5168	09	29.8	11	SF	C 1.8	2	E		46		
	HTPR	27	1125	1127	1140	N22	E34	5168	09	30.1	15	SF			C	1127	60	0.7	E
0331	HTPR	27	1223	1227	1230	N24	E31	5168	09	29.9	7	SF			C	1227	30	0.3	E
0332		27	12391	12391	1245	N19	W41	5166	09	24.4	6	SF					43	0.8	E
	KANZ	27	1239	1239	1243	N19	W41	5166	09	24.4	4	SF			P				
	RAMY	27	1239	1239	1245	N19	W40	5166	09	24.5	6	SF		4	E		14		
	HTPR	27	1239	1240	1247	N20	W40	5166	09	24.5	8	SF			C	1240	30	0.4	E
	CATA	27	1240	1240	1240D	N18	W42	5166	09	24.3	8D	SN		2	C	1240	84	1.2	
0333	HTPR	27	1239	1241	1248	S23	W55	5172	09	23.3	9	SF			C	1241	10	0.2	
0334		27	12553	12583	1314	S18	W65	5156	09	22.6	19	SF					21	0.4	
	HTPR	27	1255	1301	1310	S17	W63	5156	09	22.7	15	SF			C	1301	20	0.4	
	RAMY	27	1256	1300	1314	S18	W65	5156	09	22.6	18	SF		3	E		22		
	KANZ	27	1258	1258	1317	S18	W67	5156	09	22.4	19	SF			P				
0335		27	14183	14211	1425	N20	E25	5168	09	29.5	7	SF					39	0.6	EH
	HOLL	27	1418	1421	1425	N20	E24	5168	09	29.4	7	SF		3	E		28		H
	HTPR	27	1418	1422	1427	N21	E26	5168	09	29.6	9	SF			C	1422	50	0.6	E
	KANZ	27	1421	1421	1424	N19	E24	5168	09	29.4	3	SF			P				
0336		27	14504	14544	1514	S28	E54	5174B	10	1.8	24	SF					30	0.5	E
	HTPR	27	1450	1454	1520	S28	E53	5174B	10	1.8	30	SF			C	1454	30	0.5	E
	KANZ	27	1454	1458	1509	S29	E55	5174B	10	1.9	15	SF			P				

Hα SOLAR FLARES

SEPTEMBER 1988

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
0337	HOLL	27	1454	1459	1511	S27	E60	5171	10	2.3	17	SF			3	E		10		
0338		27	16061	1616	1717	S28	E66	5171	10	2.8	71	2B	M	7.9				242	4.3	EFI
	HTPR	27	1606		1646D	S28	E68	5171	10	3.0	40D	1B				C	1619	180	4.3	EI
	HOLL	27	1607	1616	1717	S27	E65	5171	10	2.7	70	2B	M	7.9	3	E		303		FE
0339	HOLL	27	1726	1726	1737	S26	E59	5171	10	2.3	11	SF			3	E		13		
0340		27	1805	1806	1818	S26	E58	5171	10	2.2	13	SN						67		F
	PALE	27	1805	1806	1816	S25	E58	5171	10	2.2	11	SN			3	E		50		F
	HOLL	27	1805	1806	1819	S27	E59	5171	10	2.3	14	SN			3	E		84		F
0341		27	1805*	1807*	1828	N21	E26	5168	09	29.7	23	SF						21		FHU
	PALE	27	1805	1808	1814	N20	E27	5168	09	29.8	9	SF			3	E		22		F
	HOLL	27	1807	1807	1813	N20	E28	5168	09	29.9	6	SF			3	E		13		F
	PALE	27	1818	1821	1831D	N22	E21	5168	09	29.4	13D	SF			3	E		20		H
	HOLL	27	1819	1820	1826	N21	E22	5168	09	29.4	7	SF			3	E		13		H
	HOLL	27	1828	1836	1845	N20	E28	5168	09	29.9	17	SF			3	E		34		UF
	PALE	27	1834	1836	1843	N21	E27	5168	09	29.8	9	SF			3	E		22		U
0342		27	19362	1941	1956	S25	E54	5171	10	2.0	20	2B	C	4.7				421		F
	PALE	27	1936	1941	1959	S25	E55	5171	10	2.1	23	2B	C	4.7	2	E		562		F
	HOLL	27	1938	1941	1958	S25	E53	5171	10	1.9	20	2B	C	4.7	3	E		391		F
	RAMY	27	1942E	1942U	1950	S26	E53	5171	10	1.9	8D	2B	C	4.7	3	E		311		
0343	HOLL	27	2147	2148	2158	S15	W75	5156	09	22.2	11	SF			3	E		41		
0344		27	2159	2206	2221	S23	E59	5171	10	2.5	22	1N	C	2.7				188		
	HOLL	27	2159	2206	2221	S23	E59	5171	10	2.5	22	1N	C	2.7	3	E		146		
	PALE	27	2206E	2207U	2221	S23	E59	5171	10	2.5	15D	1F	C	2.7	3	E		230		
0345		27	2340	2341	2348	S28	E58	5171	10	2.5	8	SF	C	1.3				38		F
	PALE	27	2340	2341	2347	S28	E58	5171	10	2.5	7	SF	C	1.3	3	E		29		
	HOLL	27	2340	2341	2349	S28	E58	5171	10	2.5	9	SF	C	1.3	3	E		46		F
0346	VORO	28	0248	0254	0300D	S28	W87		09	21.3	12D	1F			2	C	0254	108		ADHT
0347		28	0805*	08164	0858	N26	E08	5173	09	28.9	53	SF						68	0.7	DG
	BUCA	28	0805	0817	0900D	N27	E07	5173	09	28.9	55D	SF				C	0817	64	0.7	D
	KANZ	28	0809	0816	0903	N25	E09	5173	09	29.0	54	SF				P				
	HTPR	28	0813	0820	0908	N27	E09	5173	09	29.0	55	SF				C	0820	40	0.4	
	CATA	28	0816	0816	0830D	N26	E07	5173	09	28.9	14D	SN			2	C	0816	84	0.9	
	KAND	28	0820	0820	0843	N26	E08	5173	09	29.0	23	SN				P	0820	83	0.9	DG
0348		28	09001	09012	0912	S26	E63	5171	10	3.3	12	SF						41	0.4	E
	KAND	28	0900	0901	0906	S27	E65	5171	10	3.4	6	SF				P	0901	62		E
	HTPR	28	0901	0903	0918	S26	E61	5171	10	3.1	17	SF				C	0903	20	0.4	E
0349	HTPR	28	1004	1005	1015	N21	E23	5168	09	30.2	11	SF				C	1005	30	0.3	E
0350	HTPR	28	1044	1046	1100	S18	W80	5156	09	22.3	16	SF				C	1046	20		
0351	HTPR	28	1145	1149	1200	S16	E20	5169	09	30.0	15	SF				C	1149	20	0.2	E
0352		28	12122	12169	1323	S27	E59	5171	10	3.1	71	SN	C	2.9				51	0.5	E
	SVTO	28	1212	1216	1325	S25	E59	5171	10	3.1	73	SF	C	2.9	3	E		51		
	HTPR	28	1213	1216	1330	S27	E55	5171	10	2.8	77	SN				C	1216	30	0.5	E
	KANZ	28	1214	1218	1323	S29	E59	5171	10	3.1	69	SF				P				
	CATA	28	1214	1225	1240D	S26	E61	5171	10	3.2	26D	1B			2	C	1225	112		
	RAMY	28	1305E	1308U	1313	S26	E61	5171	10	3.3	8D	SF			2	E		12		
0353		28	14311	14323	1444	S25	E56	5171	10	2.9	13	SN	C	2.5				69	1.5	E
	HOLL	28	1431	1432	1447	S24	E56	5171	10	2.9	16	SF	C	2.5	3	E		69		
	HTPR	28	1431	1433	1443	S26	E54	5171	10	2.8	12	SB				C	1433	80	1.5	E
	KANZ	28	1431	1435	1443	S26	E57	5171	10	3.0	12	SF				P				
	SVTO	28	1432	1432	1442	S23	E57	5171	10	3.0	10	SF	C	2.5	3	E		58		
0354	HOLL	28	1902	1903	1914	S25	E49	5171	10	2.6	12	SF	C	1.8	3	E		71		F

SEPTEMBER 1988

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
0355	HOLL	28	1957	2001	2010	S26	E50	5171	10	2.7	13	SF	C	1.6	3	E		19		
0356	HOLL	28	2014	2015	2019	S21	W71	5172	09	23.4	5	SF			3	E		16		
0357	HOLL	28	2045	2046	2052	N23	E12	5168	09	29.8	7	SF			3	E		13		F
0358	HOLL	28	2104	2106	2117	N29	W40	5159	09	25.7	13	SF			3	E		21		
0359	HOLL	28	2237	2242	2331	N23	E13	5168	09	29.9	54	SF			3	E		38		F
0360		28	2232*	23084	2350	S26	E48	5171	10	2.7	78	2B	M	5.7				492	3.9	EFITU
	HOLL	28	2232	2308	2420D	S24	E48	5171	10	2.6	108D	3B			3	E		654		UF
	LEAR	28	2255	2308	2409	S27	E48	5171	10	2.7	74	3B	M	5.7	4	E		608		
	VORO	28	2304	2312	2330	S28	E48	5171	10	2.7	26	1N			2	C	2312	215	3.9	EIT
0361	TACH	29	0448	0459	0540D	S26	E50	5171	10	3.1	52D	1N				C	0459	219	4.3	ET
0362		29	0544*	06011	0642	S27	E48	5171	10	3.0	58	1F	M	1.1				175	4.8	EF
	LEAR	29	0544	0601	0643	S27	E48	5171	10	3.0	59	1F	M	1.1	4	E		229		F
	ABST	29	0554	0602	0645	S28	E50	5171	10	3.1	51	1N				C	0602	244	4.8	E
	SVTO	29	0606E	0606U	0639	S26	E45	5171	10	2.7	33D	SF	M	1.1	2	E		53		
0363		29	06043	06061	0614	N20	E08	5168	09	29.9	10	SF						84	1.5	E
	ABST	29	0604	0606	0615	N21	E09	5168	09	29.9	11	SF				C	0606	140	1.5	E
	LEAR	29	0607	0607	0614	N20	E08	5168	09	29.9	7	SF			3	E		29		
0364	LEAR	29	0646	0655	0715	S27	E50	5171	10	3.2	29	SF			3	E		39		
0365	ABST	29	0729	0737	0749	S28	E55	5171	10	3.6	20	SF				C	0737	87	1.8	D
0366		29	1036	1053*	1206	S26	E47	5171	10	3.1	90	SF						48	0.9	E
	HTPR	29	1036	1053	1212	S26	E47	5171	10	3.1	96	SF				C	1053	60	0.9	E
	RAMY	29	1132E	1134	1200	S26	E47	5171	10	3.1	28D	SF			3	E		36		
0367	HTPR	29	1224	1225	1243	S18	E07	5169	09	30.0	19	SF				C	1225	70	0.7	E
0368		29	13103	13132	1332	S26	E44	5171	10	3.0	22	SF	C	1.2				30	0.5	E
	SVTO	29	1310	1313	1335	S24	E45	5171	10	3.0	25	SF	C	1.2	3	E		25		
	HTPR	29	1310	1315	1340	S27	E42	5171	10	2.8	30	SN				C	1315	40	0.5	E
	RAMY	29	1311	1314	1327	S26	E46	5171	10	3.1	16	SF	C	1.2	4	E		27		
	KANZ	29	1313	1313	1321	S27	E44	5171	10	3.0	8	SF				P				
	HOLL	29	1324E	1324U	1337	S28	E43	5171	10	2.9	13D	SF			2	E		28		
0369		29	16134	1617	1624	S26	E44	5171	10	3.1	11	SF						14		H
	HOLL	29	1613	1617	1624	S27	E45	5171	10	3.2	11	SF			3	E		12		H
	RAMY	29	1617	1617	1624	S26	E44	5171	10	3.1	7	SF			3	E		16		
0370	HOLL	29	1712	1718	1729	N21	W43	5163	09	26.4	17	SF			3	E		13		
0371	HOLL	29	1814	1816	1824	S18	E04	5169	09	30.1	10	SF			3	E		23		
0372	LEAR	29	2358		2405	S24	E35	5171	10	2.7	7	SF			4	E		18		
0373		30	0058	01019	0132	N21	W07	5168	09	29.5	34	SF	C	6.0				92	1.0	EIT
	LEAR	30	0058	0101	0135	N19	W07	5168	09	29.5	37	SF	C	6.0	4	E		94		
	VORO	30	0108E	0110	0128	N23	W07	5168	09	29.5	20D	SF			2	C	0110	90	1.0	EIT
0374	LEAR	30	0140	0143	0210	S27	E34	5171	10	2.7	30	SF	C	3.8	4	E		46		F
0375	LEAR	30	0306	0308	0338	N20	W07	5168	09	29.6	32	SF			3	E		26		F
0376		30	0455	0508	0541	S26	E30	5171	10	2.5	46	1N	C	5.7				176	4.0	BEFL
	LEAR	30	0455	0508	0541	S26	E31	5171	10	2.6	46	SF	C	5.7	3	E		77		F
	TACH	30	0500E		0541	S27	E30	5171	10	2.5	41D	1B				C	0510	275	4.0	BEL
0377	KANZ	30	0812	0812	0812	N23	W46	5163	09	26.8	41	SF				P				

Hα SOLAR FLARES

SEPTEMBER 1988

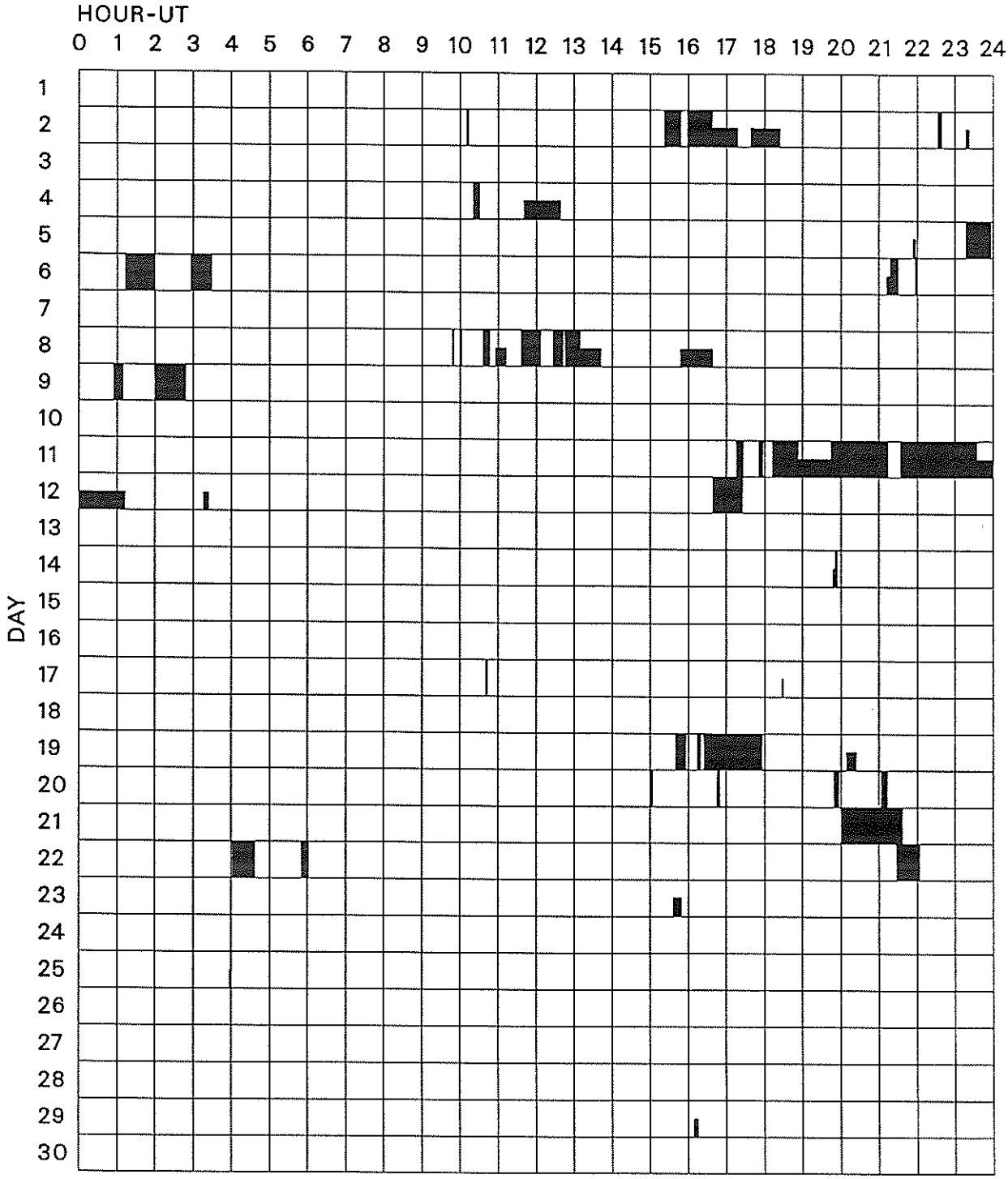
Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0378		30	0812	0812	0900	N23	W07	5168	09	29.8	48	SN					62	0.7	D
	KANZ	30	0812	0812	0857	N22	W05	5168	09	29.9	45	SF			P				
	KHAR	30	0850E		0904	N24	W06	5168	09	29.9	14D	SN		2	P	0854	60	0.7	D
	YUNN	30	0904E	0904U	0908D	N22	W11	5168	09	29.5	4D	SN			P	0904	64	0.7	
0379		30	0845	0854	0904	S27	E28	5171	10	2.5	19	SF					42	0.9	DH
	SVTO	30	0845	0854	0905	S27	E31	5171	10	2.8	20	SF		3	E		13		
	KHAR	30	0850U		0904	S27	E26	5171	10	2.4	14U	SF		2	P	0854	70	0.9	DH
0380	KHAR	30	1022	1023	1029	N21	W13	5168	09	29.4	7	SN		2	V	1023			D
0381		30	10362	10366	1054	N24	W10	5168	09	29.7	18	SF					79	1.5	D
	CATA	30	1036	1036	1056D	N23	W10	5168	09	29.7	20D	SN		2	C	1036	141	1.5	
	SVTO	30	1036	1042	1054	N23	W11	5168	09	29.6	18	SF		3	E		17		
	KHAR	30	1038	1039	1050	N24	W09	5168	09	29.7	12	SF		2	V	1039			D
	KANZ	30	1038	1042	1057	N24	W10	5168	09	29.7	19	SF			P				
0382	KANZ	30	1248	1252	1304	N29	W26	5173	09	28.5	16	SB			P				
0383	KANZ	30	1329	1329	1333	N23	W48	5163C	09	26.9	4	SF			P				
0384	HOLL	30	1451	1512	1534	S24	E30	5171	10	2.9	43	SF		3	E		31		F
0385	HOLL	30	1515	1515	1528	N22	W11	5168	09	29.8	13	SF		3	E		15		
0386	HOLL	30	1515	1517	1521	N24	W52	5163	09	26.6	6	SF		3	E		13		
0387		30	1857	1912	2059	S27	E26	5171	10	2.8	122	2N	M 1.7				370		EFU
	HOLL	30	1857	1917U	2059	S27	E28	5171	10	3.0	122	2N	M 1.7	3	E		378		UE
	PALE	30	1900E	1912	2101D	S27	E25	5171	10	2.7	121D	2N	M 1.7	3	E		362		F
0388	HOLL	30	2204	2212	2216	N25	W69	5162	09	25.6	12	SF		3	E		31		
0389	HOLL	30	2211	2212	2219	N29	W29	5173	09	28.6	8	SF		3	E		50		
0390	HOLL	30	2353	2412	2427	N21	W75	5162	09	25.2	34	SF		3	E		19		

"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.

INTERVALS OF NO FLARE PATROL OBSERVATION
FOR PRECEDING SOLAR FLARE TABLE

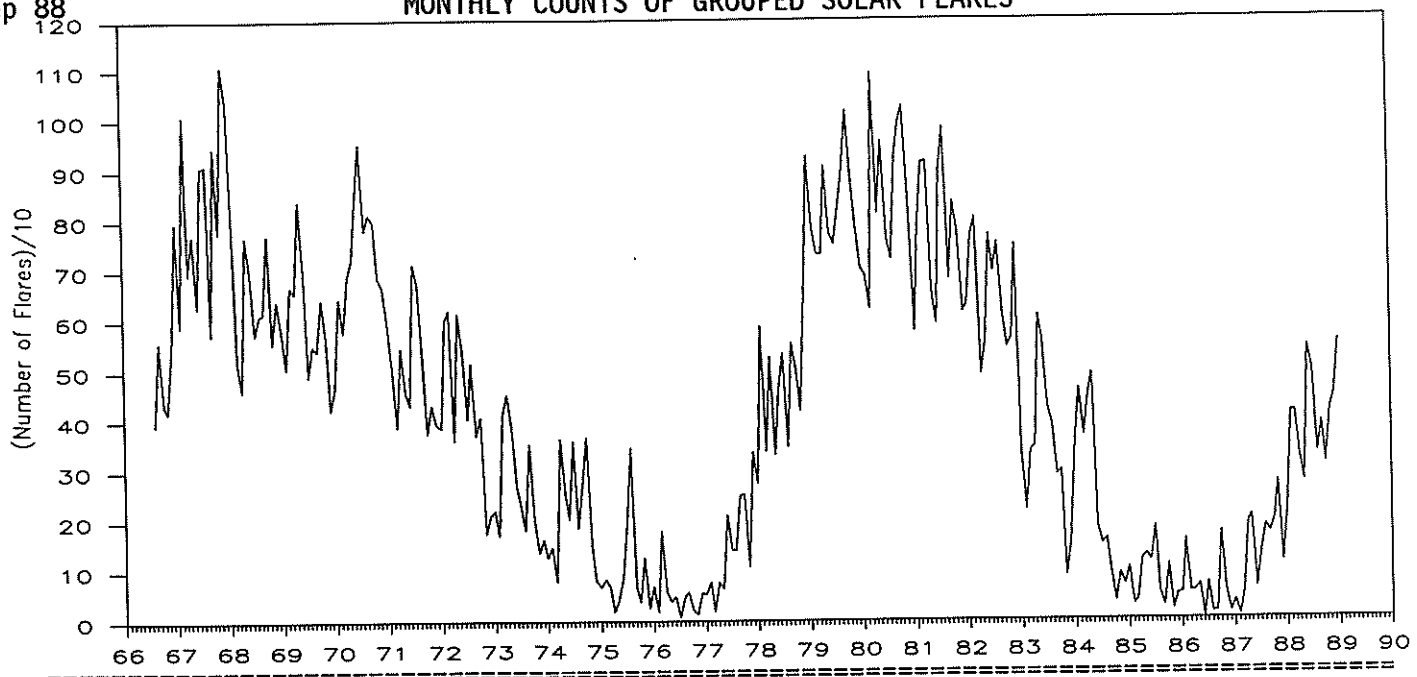
SEPTEMBER 1988



Times of no flare patrol, shown here as shaded areas, combine reports from the observatories listed below. Portions of a panel completely shaded mark dates and times of no patrol of any kind, that is, of neither visual nor cinematographic; portions of a panel with only the bottom half shaded mark times of strictly visual patrol.

Abastumani	Haute Provence	Kanzelhoehe	Mitaka	San Vito
Bucharest	Holloman	Kharkov	Palehua	Tashkent
Catania	Kandilli	Learmonth	Peking	Voroshilov
		Lvov	Ramey	Yunnan

MONTHLY COUNTS OF GROUPED SOLAR FLARES*



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1966								391	558	432	417	543	2341
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	171	198	273	114	1626
1988	217	412	412	328	272	544	499	331	390	308	415	447	4575
1989	555												555

*Flare counts are preliminary from July 1982 to present. In particular, the monthly totals for the last 6 months may change significantly, as more sites submit their reports. The term "grouped" means that observations of the same event by different stations have been lumped together and counted as one.

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

SEPTEMBER 1988

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	100	GORK	44	NS	0350.0E		493.0D		5.0		
	200	GORK	44	NS	0350.0E		493.0D		5.0		
	245	SVTO	44	NS	0436.0E	1333.0	745.0D	110.0			QL=1 ST=2 TYP=1
	260	ONDR	44	NS	0600.0E	1341.6U	492.0D	104.0			
	245	SGMR	44	NS	1030.0E	1333.0	747.0D	250.0			QL=1 ST=2 TYP=1
	245	PALE	44	NS	1639.0E	0232.0	714.0D	180.0			QL=1 ST=2 TYP=1
	200	HIRA	44	NS	2010.0E	0017.0	300.0D	7.0	3.0		O
	2950	GORK	21	GRF	0505.2	0743.0	420.0D	9.2			
	5900	KISV	1	S	0519.3	0520.0	7.0	4.0			
	5900	KISV	1	S	0542.6	0544.2	11.0	7.0			
	204	IZMI	42	SER	0640.5	0643.0	50.0	130.0			
	650	GORK	46	C	0704.7	0706.7	6.5	11.0			
	650	GORK	46	C	0704.7	0707.8		12.5			
	245	LEAR	4	S/F	0705.0	0707.0	4.0	67.0			QL=1 ST=2 TYP=3
	2950	GORK	1	S	0705.9	0706.6	0.9	3.7			
	5900	KISV	45	C	0706.0U	0708.2	3.0U	35.0			
	3013	IZMI	5	S	0706.5	0708.3	2.5	9.0	4.0		
	9100	GORK	2	S/F	0706.7	0708.2	1.5	20.0			
	245	SVTO	8	S	0707.0	0707.0	1.0	77.0			QL=1 ST=2 TYP=3
	3100	CRIM	1	S	0707.0	0708.8	2.0	5.0	2.0		
	536	ONDR	41	F	0707.3	0708.5	1.9	4.0			
	9500	POTS	3	S	0707.5	0708.1	1.7	15.0			
	2950	GORK	45	C	0707.5	0708.2		8.0			
	3000	POTS	4	S/F	0707.5	0708.3	1.0	10.0			
	2950	GORK	45	C	0707.5	0707.8	0.9	6.1			
	950	GORK	1	S	0707.6	0708.8	1.5	2.0			
	15000	KISV	2	S/F	0708.1	0708.2	0.5	8.0			
	5900	KISV	22	GRF	0715.8	0727.5	44.0	7.0			
	5900	KISV	2	S/F	0716.3	0716.8	1.2	7.0			
	9100	GORK	20	GRF	0727.7E	0735.0	28.6D	10.0			
	5900	KISV	2	S/F	0734.7	0735.1	0.7	4.0			
	9100	GORK	22	GRF	0929.4	0948.0	20.6	12.8			
	15000	KISV	1	S	0947.0	0948.0	1.7	8.0			
	9300	KISV	45	C	0947.2	0948.0		11.0			
	9300	KISV	45	C	0947.2	0947.9	3.5	14.0			
	5900	KISV	2	S/F	0947.7	0948.0	3.0	12.0			
	5900	KISV	22	GRF	1205.3	1205.7	16.0	5.0			
	234	POTS	42	SER	1213.0	1221.6	10.0	650.0			
	536	ONDR	41	F	1241.8	1241.9	25.2	2.0			
	1415	SGMR	8	S	2052.0	2052.0	1.0	94.0			QL=1 ST=3 TYP=3
	2695	SGMR	4	S/F	2052.0	2052.0		130.0			QL=1 ST=3 TYP=3
	15400	SGMR	4	S/F	2052.0E	2052.0		64.0			QL=1 ST=3 TYP=3
	1415	PALE	4	S/F	2052.0	2052.0	12.0	90.0			QL=1 ST=2 TYP=3
	2800	OTTA	3	S	2052.2	2052.3	1.3	146.0	73.0		
	2800	OTTA	29	PBI	2053.5	2053.5	10.0	13.0	5.0		
02	200	GORK	44	NS	0350.0E		460.0D		5.0		
	204	IZMI	43	NS	0600.0		360.0	10.0			
	260	ONDR	44	NS	0600.0E	0708.8	486.0D	18.0U			
	5900	KISV	1	S	0516.2	0517.3	3.0	9.0			
	5900	KISV	22	GRF	0529.0	0536.0	21.0	4.0			
	5900	KISV	22	GRF	0529.0	0546.8		4.0			
	9300	KISV	1	S	0540.5	0540.8	1.0	8.0			
	9300	KISV	22	GRF	0544.0	0545.5	7.5	3.0			
	9100	GORK	21	GRF	0628.1	0939.2	332.0D	21.0			
	3100	CRIM	21	GRF	0718.0	0758.0	242.0	21.0	7.0		
	2950	GORK	21	GRF	0725.0	0810.0	250.0	16.4			
	3000	POTS	20	GRF	0725.0	0758.0	290.0	33.0			
	650	GORK	22	GRF	0735.1	0743.7	14.1	5.4			
	950	GORK	1	S	0739.4	0743.6	5.2	3.0			
	1470	POTS	20	GRF	0745.0	0838.5	298.0	16.0			
	950	GORK	20	GRF	0745.4	0818.0U	78.0	6.0			
	9300	KISV	20	GRF	0750.0	0805.0	82.0	13.0			
	2950	GORK	3	S	0752.3	0754.6U	2.7	14.0			
	5900	KISV	21	GRF	0753.0	0753.0	151.0	23.0			
	9500	POTS	20	GRF	0755.0	0928.5	135.0	13.0			
	650	GORK	21	GRF	0759.6	0817.8	129.0D	7.0			
	9100	GORK	1	S	0935.2	0936.2	2.2	18.5			
	3000	POTS	3	S	0935.5	0936.0	2.0	27.0			

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

SEPTEMBER 1988

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
02	5900	KISV	2	S/F	0935.8	0936.3	1.2	13.0			
	9300	KISV	2	S/F	0935.8	0936.3	1.5	18.0			
	536	ONDR	4	S/F	0935.8	0936.3	1.3	79.0			
	3100	CRIM	1	S	0936.0	0936.2	1.0	4.1	1.4		
	2950	GORK	1	S	0936.0	0936.2	1.3	4.8			
	950	GORK	5	S	0936.0	0936.4	3.6	6.0			
	9500	POTS	3	S	0936.0	0936.4	1.5	28.0			
	1470	POTS	3	S	0936.0	0936.4	2.5	20.0			
	650	GORK	1	S	0939.1	0939.4	1.3	2.0			
	9300	KISV	21	GRF	1040.5	1041.2	26.5	10.0			
	5900	KISV	22	GRF	1041.0	1042.3	8.0	5.0			
	536	ONDR	5	S	1041.9	1042.1	0.6	80.0			
	9400	HUAN	2	S/F	1516.9	1518.3	4.7	19.8	8.8		R
	9400	HUAN	20	GRF	1926.0	1941.2	47.6	16.5	11.3		1
	245	PALE	4	S/F	2004.0E	2004.0		110.0			QL=1 ST=3 TYP=3
	245	SGMR	8	S	2004.0	2004.0	1.0	160.0			QL=1 ST=2 TYP=3
03	200	GORK	44	NS	0357.0E		399.0D	5.0	5.0		
	245	SVTO	44	NS	0542.0E	0558.0	676.0D	36.0			QL=1 ST=2 TYP=1
	204	IZMI	43	NS	0600.0		360.0	10.0			
	260	ONDR	44	NS	0600.0E	0945.4	505.0D	167.0			
	245	SGMR	43	NS	1032.0	1159.0	742.0D	25.0			QL=1 ST=2 TYP=1
	9100	GORK	22	GRF	0527.0	0529.5	15.0	8.0			
	9300	KISV	46	C	0527.7	0533.3		6.0			
	9300	KISV	46	C	0527.7	0528.7	7.0	10.0			
	5900	KISV	45	C	0528.6	0529.5	3.0	5.0			
	5900	KISV	45	C	0528.6	0529.6		6.0			
	5900	KISV	22	GRF	0601.0	0729.1	363.0	15.0			
	5900	KISV	2	S/F	0612.4	0615.7	14.2	12.0			
	9100	GORK	2	S/F	0612.8	0616.9	6.3	5.5			
	9300	KISV	40	F	0614.0	0615.7	4.0	6.0			
	9300	KISV	40	F	0614.0	0616.8		5.0			
	3100	CRIM	3	S	0702.0	0709.0	12.0	10.5	3.0		
	3100	CRIM	29	PBI	0702.0	0713.5	47.0	6.3	2.0		
	3000	POTS	20	GRF	0702.5	0708.0	88.0	16.0			
	2950	GORK	21	GRF	0703.0	0715.0	72.0	7.2			
	2950	GORK	45	C	0706.6	0709.1		6.6			
	2950	GORK	45	C	0706.6	0707.2	7.6	6.0			
	100	GORK	2	S/F	0708.2	0709.2	2.0	15.0			
	650	GORK	46	C	0708.5	0709.3U		57.0D			
	650	GORK	46	C	0708.5	0708.7	1.3	57.0			
	950	GORK	4	S/F	0708.7	0709.2	1.0	9.0			
	9100	GORK	20	GRF	0712.8	0722.0	25.0	6.0			
	2950	GORK	20	GRF	0842.1	0845.0	45.0	4.8			
	5900	KISV	46	C	0856.7	0858.1		10.0			
	5900	KISV	46	C	0856.7	0857.2	3.2	6.0			
	5900	KISV	46	C	0856.7	0858.3		11.0			
	5900	KISV	46	C	0856.7	0858.5		12.0			
	810	KRAK	8	S	0857.3	0857.7	0.5	15.0			
	9100	GORK	2	S/F	0857.6	0858.0	1.7	13.0			
	9300	KISV	46	C	0857.8	0858.0	1.2	11.0			
	9300	KISV	46	C	0857.8	0858.2		9.0			
	9300	KISV	46	C	0857.8	0858.5		10.0			
	650	GORK	4	S/F	0857.9	0858.1	0.8	47.0			
	950	GORK	1	S	0857.9	0858.1	0.7	38.0			
	5900	KISV	45	C	0910.8	0911.3	3.4	29.0			
	5900	KISV	46	C	0910.8	0911.7		17.0			
	245	LEAR	4	S/F	0945.0	0945.0	4.0	180.0			QL=1 ST=2 TYP=3
	430	KRAK	8	S	0945.0	0945.1	0.2	87.0			
	234	POTS	4	S/F	0945.0	0945.1	0.7	650.0	200.0		
	5900	KISV	20	GRF	1004.2	1011.0	13.5	1.0			
	5900	KISV	22	GRF	1032.2	1033.1	13.0	3.0			
	5900	KISV	22	GRF	1229.3	1236.8	25.0D	5.0			
	5200	BERN	3	S	1314.0	1319.2	25.0	32.0			
	8400	BERN	3	S	1314.0	1319.2	25.0	36.0			
	9400	HUAN	1	S	1716.5	1719.5	6.5	5.7	2.5		0
04	200	GORK	44	NS	0348.0E		407.0D		5.0		

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

SEPTEMBER 1988

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
04	5900	KISV	45	C	0509.8	0520.2		8.0			
	5900	KISV	45	C	0509.8	0515.6	15.0	5.0			
	260	ONDR	40	F	0640.0	1026.4	445.0	15.0			
	5900	KISV	45	C	0643.0	0703.4		6.0			
	5900	KISV	45	C	0643.0	0649.5	24.0	7.0			
	2950	GORK	1	S	0643.2	0643.7	1.0	4.9	2.4		
	9300	KISV	22	GRF	0644.1	0649.4	33.0	8.0			
	2950	GORK	20	GRF	0758.3	0759.7	10.0	4.2			
	204	IZMI	4	S/F	0923.5	0924.0	1.0	43.0	20.0		
	5900	KISV	2	S/F	1027.2	1029.6	8.3	10.0			
	5900	KISV	45	C	1135.0	1143.2		14.0			
	5900	KISV	45	C	1135.0	1138.8	26.5	16.0			
	9300	KISV	42	SER	1138.2	1143.1		6.0			
	9300	KISV	42	SER	1138.2	1138.7	6.0	9.0			
	9400	HUAN	2	S/F	1310.0	1314.1	10.8	13.9	5.3		1
05	245	SGMR	43	NS	1034.0	1437.0	446.0	66.0			QL=1 ST=1 TYP=1
	245	SGMR	44	NS	1034.0E	1435.0	806.0D	61.0			QL=1 ST=1 TYP=1
	260	ONDR	40	F	0622.0	1209.7	427.0	27.0			
	5900	KISV	1	S	0748.2	0748.8	1.3	5.0			
	9300	KISV	1	S	0748.7	0748.8	0.4	3.0			
	5900	KISV	2	S/F	0819.1	0819.4	2.8	1.0			
	810	KRAK	8	S	1205.4	1205.5	0.4	5.0			
	430	KRAK	41	F	1330.0	1337.0	10.5D	18.0	4.0		
	810	KRAK	41	F	1333.5	1339.2	6.8D	47.0	6.0		
	3000	POTS	25	R	1354.0	1418.0	56.0D	40.0			
	9500	POTS	25	R	1355.0	1418.0	55.0D	44.0			
	9400	HUAN	21	GRF	1358.2	1422.6	54.4	30.4	9.8		O
	1470	POTS	25	R	1401.0	1418.5	49.0D	17.0			
	5200	BERN	3	S	1413.0	1418.0	20.0	42.0			
	3200	BERN	3	S	1413.0	1418.0	20.0	30.0			
	11800	BERN	3	S	1413.0	1418.0	20.0	52.0			
	8400	BERN	3	S	1413.0	1418.0	20.0	58.0			
	9400	HUAN	3	S	1413.8	1418.3	9.0	57.5	21.6		O
	8800	SVTO	8	S	1416.0	1418.0	2.0	61.0			QL=1 ST=2 TYP=3
	2800	OTTA			1419.0	1419.0	22.0	25.9	11.0		
06	260	ONDR	40	F	0610.0	0809.3U	215.6	3.0			
	9100	GORK	1	S	0841.6	0841.9	1.6	7.0			
	5900	KISV	1	S	0857.6	0859.0	5.4	14.0			
	9100	GORK	1	S	0858.2	0859.0	2.2	21.0			
	3000	POTS	1	S	0858.5	0859.0	1.0	3.0			
	9300	KISV	1	S	0858.6	0859.0	1.4	21.0			
	1470	POTS	1	S	0858.8	0859.0	1.2	3.0			
	650	GORK	6	S	0859.0	0859.1	0.2	2.0			
	9500	POTS	8	S	0859.0	0859.1	0.7	14.0			
	5900	KISV	2	S/F	1109.4	1109.9	1.7	3.0			
	9500	POTS	1	S	1437.2	1437.5	1.3	7.0			
07	260	ONDR	40	F	0817.4	0826.6	9.2	4.0			
	245	LEAR	4	S/F	0902.0	0902.0	4.0	66.0			QL=1 ST=2 TYP=3
	5900	KISV	46	C	1025.1	1038.0		4.0			
	5900	KISV	46	C	1025.1	1029.7	17.0	8.0			
	9300	KISV	1	S	1028.5	1029.9	4.8	5.0			
	9100	GORK	1	S	1029.0	1029.9	3.9	3.5			
	536	ONDR	5	S	1037.4	1037.4	0.3	49.0			
	9300	KISV	4	S/F	1214.0	1217.9	3.9	31.0			
	15000	KISV	2	S/F	1217.0	1218.0	1.5	7.0			
	9500	POTS	3	S	1217.0	1217.2	2.0	25.0			
	3000	POTS	1	S	1217.0	1218.4	2.5	6.0			
	5900	KISV	4	S/F	1217.0	1217.9	3.0	31.0			
	5200	BERN	3	S	1217.3	1217.5	1.0	25.0			
	11800	BERN	3	S	1217.3	1217.5	1.0	17.0			
	8400	BERN	3	S	1217.3	1217.5	1.0	36.0			
	1470	POTS	1	S	1217.3	1217.8	1.7	3.0			
	9400	HUAN	3	S	1950.8	1951.8	4.2	64.5	16.5		1
	8800	SGMR	8	S	1951.0	1952.0	1.0	69.0			QL=1 ST=3 TYP=3
	4995	SGMR	8	S	1951.0	1952.0	1.0	58.0			QL=1 ST=3 TYP=3
	9400	HUAN	29	PBI	1955.0	1955.0	16.1	6.1	2.1		O

SOLAR RADIO EMISSION
Outstanding Occurrences

SEPTEMBER 1988

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	500	HIRA	27	RF	0145.0	0157.0	75.0	6.0	4.0		0
	260	ONDR	40	F	0605.0	0733.2U	171.0	4.0			
	650	GORK	41	F	0716.3	0716.4	2.0	4.0			
	650	GORK	41	F	0716.3	0717.8		8.5			
	950	GORK	41	F	0716.5	0717.7		1.4			
	950	GORK	41	F	0716.5	0716.9	2.3	1.4			
	9300	KISV	22	GRF	0744.5	0744.5	9.0	5.0			
	5900	KISV	22	GRF	0745.3	0745.5	14.5	2.0			
	430	KRAK	8	S	0745.5	0745.5	0.1	30.0			
	5900	KISV	21	GRF	0811.4	0812.0	10.5	5.0			
	9300	KISV	2	S/F	0811.6	0812.0	0.7	6.0			
	9300	KISV	1	S	0812.6	0817.3	7.8	4.0			
	9300	KISV	20	GRF	0906.7	0912.0	10.0	3.0			
	536	ONDR	4	S/F	0945.3	0946.4	1.1	23.0U			
	33	UPIC	8	S	1009.0	1009.1	0.7				
	5900	KISV	20	GRF	1100.0	1102.0	16.0	3.0			
	5900	KISV	2	S/F	1222.6	1224.0	4.0	2.0			
	5900	KISV	2	S/F	1231.7	1232.5	1.6	3.0			
	5900	KISV	20	GRF	1234.2	1239.3	21.0	6.0			
	9300	KISV	20	GRF	1234.4	1241.7	15.0	7.0			
	2800	OTTA	3	S	1536.0	1544.0	20.0	8.0	3.0		
	2800	OTTA	3	S	1839.2	1841.8	6.1	153.7	61.0		
	2695	PALE	4	S/F	1840.0	1841.0	4.0	140.0			QL=1 ST=3 TYP=3
	8800	PALE	4	S/F	1840.0	1842.0	4.0	70.0			QL=1 ST=2 TYP=3
	4995	PALE	4	S/F	1840.0	1842.0	4.0	80.0			QL=1 ST=3 TYP=3
	2695	SGMR	4	S/F	1840.0	1841.0	3.0	150.0			QL=1 ST=2 TYP=3
	9400	HUAN	3	S	1840.2	1841.9	4.8	35.6	20.0		R
	4995	PALE	8	S	1841.0	1842.0	1.0	70.0			QL=1 ST=2 TYP=3
	8800	SGMR	8	S	1841.0	1841.0	1.0	67.0			QL=1 ST=2 TYP=3
	4995	SGMR	8	S	1841.0	1841.0	2.0	93.0			QL=1 ST=2 TYP=3
	9400	HUAN	29	PBI	1845.0	1845.0	26.3	8.9	5.2		0
	2800	OTTA	29	PBI	1845.3	1845.3	17.0	14.6	7.0		
	9400	HUAN	2	S/F	1917.0	1918.5	10.1	10.7	6.2		1
	410	PALE	8	S	1946.0	1946.0	1.0	62.0			QL= ST=2 TYP=3
	245	PALE	8	S	1946.0	1946.0	1.0	64.0			QL= ST=2 TYP=3
	200	HIRA	42	SER	2055.2	2057.4	8.6	140.0			0
	100	HIRA	46	C	2055.4	2057.0	2.6	730.0			
	500	HIRA	46	C	2242.0	2254.0		11.0			0
	500	HIRA	46	C	2242.0	2316.2	55.0	14.0	5.0		0
09	260	ONDR	44	NS	0630.0E	0956.9	450.0D	16.0			
	245	SGMR	44	NS	1038.0E	1302.0	802.0D	45.0			QL=1 ST=1 TYP=1
	245	SGMR	43	NS	1620.0	1625.0	383.0D	130.0			QL=1 ST=2 TYP=1
	2950	GORK	1	S	0510.4	0510.7	1.0	2.6	1.3		
	2950	GORK	1	S	0639.1	0640.4	2.5	0.9			
	2950	GORK	1	S	0642.1	0644.8	7.8	3.9			
	5900	KISV	2	S/F	0642.7	0644.4	4.0	5.0			
	9100	GORK	1	S	0642.7	0644.5	3.4	4.7			
	9300	KISV	2	S/F	0643.2						
	9300	KISV	2	S/F	0643.2	0644.5	2.4	4.0			
	950	GORK	20	GRF	0643.8	0644.7	8.5	1.4			
	204	IZMI	41	F	0739.0	0741.0	2.5	125.0			
	950	GORK	1	S	0739.0	0740.6	2.4	1.4			
	2950	GORK	1	S	0740.1	0740.7	2.5	5.8			
	5900	KISV	2	S/F	0740.1	0740.7	0.8	8.0			
	650	GORK	1	S	0740.1	0740.8	3.0	3.0			
	5900	KISV	28	PRE	0748.5	0756.6	8.6	2.0			
	2950	GORK	1	S	0754.8	0757.0	3.0	3.2			
	5900	KISV	2	S/F	0756.6	0757.1	3.1	4.0			
	2950	GORK	3	S	0801.6U	0803.4	4.3D	5.4			
	5900	KISV	2	S/F	0802.5	0803.1	3.0	3.0			
	2950	GORK	1	S	0814.3	0815.0	1.9	1.2			
	33	UPIC	8	S	0936.9	0937.0	0.4				
	245	SGMR	4	S/F	1521.0	1521.0		79.0			QL=1 ST=2 TYP=3
	245	SGMR	8	S	1624.0	1625.0	1.0	270.0			QL=1 ST=2 TYP=3
	245	SGMR	49	GB	1640.0	1640.0	1.0	800.0			QL=1 ST=2 TYP=6
	245	SGMR	49	GB	1645.0E	1645.0	440.0D	830.0			QL=1 ST=2 TYP=6
	245	PALE	8	S	2056.0	2056.0	2.0	96.0			QL=1 ST=2 TYP=3
	245	SGMR	8	S	2056.0	2056.0	1.0	110.0			QL=1 ST=3 TYP=3

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

SEPTEMBER 1988

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
10	245	LEAR	44	NS	0000.0E	0905.0	600.0D	80.0			QL=1 ST=2 TYP=1
	245	SVTO	43	NS	0445.0	0905.0	721.0D	79.0			QL=1 ST=2 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D	50.0			
	260	ONDR	44	NS	0640.0E	0958.3	435.0D	56.0U			
	245	SGMR	43	NS	1039.0	1548.0	722.0D	120.0			QL=1 ST=2 TYP=1
	245	PALE	44	NS	1900.0E	1909.0	300.0D	13.0			QL=1 ST=3 TYP=1
	200	HIRA	44	NS	2025.0E	2200.0	300.0D	9.0	3.0		MR
	245	LEAR	44	NS	2253.0E	0357.0	667.0D	56.0			QL=1 ST=2 TYP=1
	410	LEAR	4	S/F	0630.0	0631.0	3.0	17.0			QL=1 ST=2 TYP=3
	204	IZMI	41	F	0631.0	0638.0	7.0	300.0			
	245	LEAR	8	S	0631.0	0631.0	1.0	85.0			QL=1 ST=2 TYP=3
	245	SVTO	8	S	0631.0	0632.0	2.0	78.0			QL=1 ST=2 TYP=3
	200	HIRA	42	SER	0631.0	0637.0	11.9	250.0			MR
	100	HIRA	42	SER	0631.0	0631.3	10.0	380.0			
	234	POTS	42	SER	0631.3	0637.6	12.0	360.0			
	30	POTS	42	SER	0631.6	0632.0	6.0	1200.0			
	33	UPIC	42	SER	0632.0		31.8				
	245	LEAR	8	S	0636.0	0637.0	2.0	130.0			QL=1 ST=2 TYP=3
	245	SVTO	8	S	0636.0	0637.0	2.0	120.0			QL=1 ST=2 TYP=3
	234	POTS	4	S/F	1017.2	1017.5	1.1	360.0	90.0		
	33	UPIC	42	SER	1127.0		27.8				
	245	SGMR	4	S/F	1322.0	1322.0		240.0			QL=1 ST=2 TYP=3
	245	SVTO	8	S	1322.0	1322.0	2.0	140.0			QL=1 ST=2 TYP=3
	245	PALE	4	S/F	2159.0	2159.0		100.0			QL=1 ST=2 TYP=3
11	245	SVTO	44	NS	0446.0E	1140.0	719.0D	190.0			QL=1 ST=2 TYP=1
	204	IZMI	43	NS	0600.0		360.0	20.0			
	260	ONDR	44	NS	0620.0E	1140.2	471.0D	56.0U			
	33	UPIC	43	NS	0847.6		433.0				
	245	SGMR	43	NS	1040.0	1518.0	720.0D	150.0			QL=1 ST=2 TYP=1
	200	HIRA	44	NS	2025.0E	0735.0	740.0D	17.0	6.0		WR
	100	HIRA	43	NS	2230.0	2348.0	200.0	105.0	14.0		
	245	LEAR	44	NS	2240.0E	0234.0	680.0D	67.0			QL=1 ST=2 TYP=1
	245	LEAR	8	S	0102.0	0103.0	1.0	140.0			QL=1 ST=2 TYP=3
	204	IZMI	41	F	0654.0	0654.5	2.0	115.0			
	810	KRAK	1	S	0724.5	0724.7	0.4	8.0	1.0		
	245	SGMR	8	S	1141.0	1141.0	1.0	390.0			QL=1 ST=2 TYP=3
	245	LEAR	4	S/F	2306.0	2309.0	3.0	270.0			QL=1 ST=2 TYP=3
	245	PALE	4	S/F	2306.0	2309.0	4.0	340.0			QL=1 ST=2 TYP=3
12	245	PALE	44	NS	0232.0E	0315.0	91.0D	96.0			QL=1 ST=2 TYP=1
	100	GORK	44	NS	0400.0E		475.0D		5.0		
	200	GORK	44	NS	0400.0E		475.0D		5.0		
	245	SVTO	44	NS	0447.0E	1502.0	716.0D	100.0			QL=1 ST=2 TYP=1
	234	POTS	44	NS	0540.0E	1011.0	560.0D	54.0	27.0		
	204	IZMI	44	NS	0600.0E		360.0D	25.0			
	260	ONDR	44	NS	0800.0E	1254.4	440.0D	46.0			
	245	SGMR	44	NS	1041.0E	1920.0	717.0D	150.0			QL=1 ST=3 TYP=1
	245	PALE	44	NS	1635.0E	0137.0	707.0D	58.0			QL=1 ST=2 TYP=1
	200	HIRA	44	NS	2025.0E	0700.0	740.0D	115.0	36.0		SR
	245	LEAR	44	NS	2239.0E	0443.0	681.0D	190.0			QL=1 ST=2 TYP=1
	200	HIRA	42	SER	0308.3	0314.5	12.5	120.0			O
	410	LEAR	8	S	0314.0	0315.0	1.0	52.0			QL=1 ST=2 TYP=3
	610	LEAR	8	S	0314.0	0315.0	1.0	63.0			QL=1 ST=2 TYP=3
	245	LEAR	8	S	0314.0	0315.0	1.0	80.0			QL=1 ST=2 TYP=3
	245	LEAR	4	S/F	0651.0	0653.0	5.0	100.0			QL=1 ST=2 TYP=3
	200	GORK	4	S/F	0651.2	0653.0	2.7	210.0			
	204	IZMI	41	F	0652.0	0653.0	2.5	200.0			
	410	LEAR	8	S	0652.0	0653.0	1.0	52.0			QL=1 ST=2 TYP=3
	234	POTS	42	SER	0652.0	0655.2	3.6	2200.0			
	100	GORK	41	F	0652.1	0652.3	4.4	2800.0			
	100	GORK	41	F	0652.1	0655.5		2100.0			
	30	POTS	42	SER	0652.2	0653.6	2.4	3600.0			
	245	SVTO	8	S	0653.0	0653.0	2.0	75.0			QL=1 ST=2 TYP=5
	650	GORK	1	S	0717.8	0718.3	4.5	3.0			
	5900	KISV	46	C	0718.0	0721.1		4.0			
	9100	GORK	22	GRF	0718.0	0721.2	22.8	9.0			
	5900	KISV	46	C	0718.0	0718.3	4.6	10.0			
	3013	IZMI	5	S	0718.0	0718.5	2.0	9.0	4.0		

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

SEPTEMBER 1988

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	9500	POTS	1	S	0718.0	0718.5	1.4	6.0			
	3100	CRIM	1	S	0718.0	0718.6	3.8	4.6	1.6		
	1470	POTS	4	S/F	0718.0	0718.7	6.0	11.0			
	3000	POTS	2	S/F	0718.0	0718.8	4.0U	6.0			
	5900	KISV	20	GRF	0718.0	0725.8	12.5	2.0			
	950	GORK	46	C	0718.1	0718.4	5.9	6.0			
	950	GORK	46	C	0718.1	0719.7		5.0			
	2950	GORK	4	S/F	0718.1	0718.7	3.8	6.5			
	9300	KISV	46	C	0726.2	0727.0		18.0			
	9300	KISV	46	C	0726.2	0726.4	1.2	40.0			
	9300	KISV	46	C	0726.2	0726.7		13.0			
	8800	SGMR	49	GB	1130.0E	1131.0	2.0D	850.0			QL=1 ST=2 TYP=6
	234	POTS	4	S/F	1253.7	1254.1	1.1	400.0			
	245	SGMR	8	S	1501.0	1502.0	1.0	230.0			QL=1 ST=2 TYP=3
	245	PALE	4	S/F	1802.0E	1802.0		65.0			QL=1 ST=2 TYP=3
13	100	HIRA	43	NS	0000.0	0300.0	540.0D	230.0	70.0		
	100	GORK	44	NS	0347.0E		490.0D		15.0		
	200	GORK	44	NS	0348.0E		489.0D		140.0		
	245	SVTO	44	NS	0448.0E	1112.0	714.0D	120.0			QL=1 ST=2 TYP=1
	234	POTS	44	NS	0530.0E	0814.0	570.0D	165.0	41.0		
	204	IZMI	44	NS	0600.0E		360.0D	100.0			
	260	ONDR	44	NS	0630.0E	0814.0	456.0D	68.0U			
	410	SVTO	44	NS	0840.0E	0851.0	23.0D	58.0			QL=1 ST=2 TYP=1
	245	SGMR	44	NS	1042.0E	1215.0	714.0D	170.0			QL=1 ST=2 TYP=1
	245	PALE	44	NS	1642.0E	2125.0	699.0D	130.0			QL=1 ST=2 TYP=1
	200	HIRA	44	NS	2025.0E		740.0D		30.0U		
	100	HIRA	44	NS	2025.0E	0406.0	740.0D	78.0	23.0		
	245	LEAR	44	NS	2238.0E	0859.0	683.0D	190.0			QL=1 ST=2 TYP=1
	9100	GORK	21	GRF	0734.3	0832.0	266.0	16.0			
	650	GORK	28	PRE	0737.0	0739.5	4.7	2.0			
	3100	CRIM	21	GRF	0747.2	0819.8	123.0	10.0	3.3		
	2950	GORK	21	GRF	0748.1	0823.0	91.0	6.3			
	650	GORK	23	GRF	0750.1		250.0D	8.0			
	5900	KISV	45	C	0752.1	0754.8		6.0			
	5900	KISV	45	C	0752.1	0753.8	4.0D	9.0			
	9300	KISV	2	S/F	0752.8	0753.8	3.0D	10.0			
	610	LEAR	8	S	0753.0	0753.0	1.0	72.0			QL=1 ST=2 TYP=3
	950	GORK	23	GRF	0753.2		244.0D				
	950	GORK	3	S	0753.6	0753.8	0.5	10.0			
	9100	GORK	1	S	0753.6	0753.8	0.6	10.0	5.0		
	650	GORK	4	S/F	0753.6	0753.9	1.6	98.0			
	2950	GORK	1	S	0757.9	0758.6	1.7	3.1	1.5		
	650	GORK	47	GB	0758.3	0805.0	68.7	36.0			
	650	GORK	47	GB	0758.3	0851.2		50.0			
	650	GORK	47	GB	0758.3	0810.3		150.0			
	650	GORK	47	GB	0758.3	0832.4		30.0			
	810	KRAK	8	S	0758.5	0758.7	0.3	7.0			
	2950	GORK	2	S/F	0800.2	0802.2	2.5	6.9			
	500	HIRA	46	C	0803.4	0810.3	13.0U	260.0	39.0U		O SUNSET
	500	HIRA	46	C	0803.4	0805.7		40.0			WR
	3013	IZMI	5	S	0804.0	0805.0	2.0	11.0	4.0		
	810	KRAK	41	F	0804.5E	0832.5	53.5D	36.0	6.0		
	430	KRAK	46	C	0804.5E	0811.5	78.7D	180.0	18.0		
	2950	GORK	2	S/F	0805.2	0805.4	3.4	3.1			
	610	LEAR	4	S/F	0809.0	0810.0	9.0	170.0			QL=1 ST=2 TYP=3
	410	LEAR	4	S/F	0809.0	0811.0	7.0	150.0			QL=1 ST=2 TYP=3
	950	GORK	4	S/F	0809.1	0810.2	3.0	18.0			
	2950	GORK	1	S	0809.9	0810.5	0.9	5.0	2.5		
	245	SVTO	4	S/F	0810.0	0814.0	6.0	120.0			QL=1 ST=2 TYP=5
	410	SVTO	8	S	0810.0	0811.0	2.0	120.0			QL=1 ST=2 TYP=3
	245	LEAR	4	S/F	0813.0	0814.0	3.0	140.0			QL=1 ST=2 TYP=3
	2950	GORK	1	S	0814.1	0814.7	1.6	3.1	1.5		
	2950	GORK	2	S/F	0817.0	0819.5	3.1	3.1	1.5		
	950	GORK	46	C	0821.8	0824.1		26.0			
	950	GORK	46	C	0821.8	0822.6	3.9	15.0			
	950	GORK	46	C	0831.2	0832.3	4.3	58.0			
	950	GORK	46	C	0831.2	0834.6		26.0			
	1415	SVTO	8	S	0832.0	0832.0	1.0	68.0			QL=1 ST=2 TYP=3

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

SEPTEMBER 1988

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
13	410	LEAR	4	S/F	0838.0	0851.0	17.0	58.0			QL=1 ST=2 TYP=5
	410	SVTO	8	S	0839.0	0839.0	1.0	55.0			QL=1 ST=2 TYP=3
	950	GORK	46	C	0839.2	0842.0		9.0			
	950	GORK	46	C	0839.2	0843.0		9.0			
	950	GORK	46	C	0839.2	0840.2	5.4	23.0			
	245	LEAR	4	S/F	0851.0	0851.0	3.0	59.0			QL=1 ST=2 TYP=3
	810	KRAK	41	F	0912.3	0912.5	1.5	8.0	1.0		
	810	KRAK	2	S/F	1041.5	1041.6	0.8	7.0	3.0		
	5900	KISV	23	GRF	1055.7	1056.4	22.0	18.0			
┌	9300	KISV	2	S/F	1055.8	1056.3	3.0	6.0			
├	9100	GORK	2	S/F	1055.8	1056.4	3.1	7.0			
└	3100	CRIM	1	S	1055.8	1056.6	2.2	5.0	1.7		
	810	KRAK	1	S	1106.0	1106.0	0.9	7.0			
	810	KRAK	1	S	1209.0	1209.4	0.8	6.0	2.0		
	810	KRAK	8	S	1218.8	1219.0	0.6	14.0			
	810	KRAK	8	S	1227.3	1227.5	0.4	14.0			
	9400	HUAN	1	S	2055.9	2059.0	5.8	5.2	1.7		O
	9400	HUAN	2	S/F	2107.4	2109.3	14.3	16.8	5.4		O
14	200	GORK	44	NS	0348.0E		435.0D		15.0		
├	100	GORK	44	NS	0348.0E		498.0D		5.0		
├	234	POTS	44	NS	0540.0E	1409.0	560.0D	58.0	35.0		
├	204	IZMI	44	NS	0600.0E		360.0D	60.0			
├	260	ONDR	44	NS	0610.0E	0900.0	479.0D	69.0			
├	245	SVTO	44	NS	0710.0E	0859.0	570.0D	150.0			QL=1 ST=2 TYP=1
├	245	SGMR	44	NS	1043.0E	1629.0	797.0D	110.0			QL=1 ST=3 TYP=1
├	245	SGMR	44	NS	1043.0E	1244.0	797.0D	91.0			QL=1 ST=3 TYP=1
├	245	PALE	44	NS	1646.0E	1658.0	694.0D	130.0			QL=1 ST=3 TYP=1
├	245	LEAR	44	NS	2237.0E	2251.0	83.0D	85.0			QL=1 ST=1 TYP=1
└	245	LEAR	44	NS	2237.0E	2251.0	684.0D	85.0			QL=1 ST=1 TYP=1
	810	KRAK	8	S	0718.2	0718.5	0.4	12.0			
	810	KRAK	41	F	0730.1	0730.2	2.5	5.0	2.0		
	810	KRAK	8	S	0929.2	0929.2	0.1	4.0			
	810	KRAK	8	S	1106.5	1106.7	0.4	13.0			
	2950	GORK	22	GRF	1130.6	1136.0	31.0	4.6			
	9400	HUAN	2	S/F	1455.0	1457.7	8.5	5.6			O
	9400	HUAN	1	S	1646.2	1649.6	7.4	4.2	2.3		R
	9400	HUAN	1	S	2115.4	2118.8	7.6	14.8	8.6		O
	9400	HUAN	29	PBI	2123.0	2123.0	25.1	8.1	2.9		O
15	200	GORK	44	NS	0421.0E		459.0D		15.0		
├	100	GORK	44	NS	0421.0E		459.0D		25.0		
├	245	SVTO	43	NS	0450.0	0646.0	708.0D	64.0			QL=1 ST=2 TYP=1
├	234	POTS	44	NS	0540.0E	0740.0	560.0D	85.0	45.0		
├	204	IZMI	44	NS	0600.0E		360.0D	50.0			
├	260	ONDR	44	NS	0605.0E	0943.7	486.0D	26.0U			
├	245	SGMR	43	NS	1044.0	1250.0	709.0D	130.0			QL=1 ST=2 TYP=1
├	245	PALE	44	NS	1745.0E	1812.0U	375.0D	22.0			QL=1 ST=3 TYP=1
├	245	LEAR	43	NS	2236.0	0131.0	685.0D	51.0			QL=1 ST=2 TYP=1
├	200	HIRA	44	NS	2332.0E	0035.0	550.0D	54.0	25.0		MR
└	100	HIRA	44	NS	2332.0E	0125.0	550.0D	110.0	39.0		
	430	KRAK	8	S	1114.9	1115.0	0.2	6.0			
16	200	GORK	44	NS	0358.0E		488.0D		5.0		
├	100	GORK	44	NS	0358.0E		487.0D		5.0		
├	204	IZMI	44	NS	0600.0E		360.0D	30.0			
├	260	ONDR	44	NS	0626.0E	0918.3	470.0D	213.0U			
├	245	SGMR	43	NS	1045.0	1853.0	706.0D	82.0			QL=1 ST=2 TYP=1
├	200	HIRA	44	NS	2025.0E	0400.0	720.0D	11.0	7.0		MR
└	245	LEAR	43	NS	2235.0	0724.0	686.0D	22.0			QL=1 ST=2 TYP=1
┌	500	HIRA	46	C	0241.3	0242.6	2.0	17.0			WR
└	245	LEAR	4	S/F	0242.0E	0242.0	84.0D	57.0			QL=1 ST=3 TYP=3
	245	LEAR	8	S	0317.0E	0318.0	1.0D	100.0			QL=1 ST=2 TYP=3
	234	POTS	4	S/F	0647.0	0647.3	0.7	140.0	15.0		
	3100	CRIM	20	GRF	0840.0	0845.0	10.0	2.3	1.0		
┌	245	LEAR	8	S	0918.0E	0918.0	1.0D	380.0			QL=1 ST=2 TYP=3
├	245	SVTO	4	S/F	0918.0E	0918.0		320.0			QL=1 ST=2 TYP=3
├	234	POTS	4	S/F	0918.2	0918.4	1.0	1800.0	350.0		
├	200	GORK	4	S/F	0918.2	0918.5	1.0	770.0			

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

SEPTEMBER 1988

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
16	100	GORK	8	S	0918.3	0918.4	0.8	500.0			
	650	GORK	8	S	0918.3	0918.4	4.0	15.0			
	30	POTS	4	S/F	0918.3	0918.5	1.6	4000.0	600.0		
	204	IZMI	5	S	0918.5	0919.0	1.0	600.0	400.0		
	234	POTS	4	S/F	1012.8	1013.7	1.3	200.0	25.0		
	245	SVTO	8	S	1013.0	1013.0	1.0	97.0			QL=1 ST=2 TYP=3
	30	POTS	8	S	1013.2	1013.6	0.9	9000.0	3000.0		
	650	GORK	6	S	1013.4	1013.6	0.4	1.0			
	200	GORK	8	S	1013.4	1013.7	0.6	25.0			
	204	IZMI	5	S	1013.5	1014.0	0.6	300.0	150.0		
	100	GORK	8	S	1013.5	1013.7	0.4	1000.0			
	234	POTS	42	SER	1217.6	1222.0	4.6	1400.0			
	30	POTS	8	S	1222.0	1222.3	0.5	4000.0	1500.0		
	245	PALE	49	GB	1727.0E	1730.0	5.0D	540.0			QL=1 ST=2 TYP=7
	245	SGMR	49	GB	1727.0E	1727.0	1.0D	680.0			QL=1 ST=2 TYP=6
	245	SGMR	49	GB	1730.0E	1730.0	2.0D	1000.0			QL=1 ST=2 TYP=6
	245	PALE	8	S	1914.0	1914.0	1.0	230.0			QL=1 ST=3 TYP=3
	245	SGMR	8	S	1914.0	1914.0	1.0	460.0			QL=1 ST=2 TYP=3
17	100	GORK	44	NS	0400.0E		285.0D		5.0		
	200	GORK	44	NS	0400.0E		395.0D		5.0		
	245	SVTO	44	NS	0451.0E	0508.0	1149.0D	21.0			QL=1 ST=1 TYP=1
	204	IZMI	43	NS	0600.0		360.0	10.0			
	260	ONDR	44	NS	0605.0E	1048.6U	485.0D	35.0			
	245	SGMR	43	NS	1046.0	1600.0	703.0D	75.0			QL=1 ST=2 TYP=1
	200	HIRA	44	NS	2025.0E	2251.0	720.0D	13.0	4.0		MR
	3100	CRIM	1	S	0628.9	0629.1	1.0	3.9	1.0		
	3100	CRIM	20	GRF	0740.0	0842.0	120.0	5.5	2.0		
	430	KRAK	42	SER	0842.0	0847.7	6.7	15.0			
	234	POTS	4	S/F	1047.7	1048.0	1.0	110.0	5.0		
	204	IZMI	5	S	1048.0	1048.5	0.8	89.0	75.0		
	30	POTS	4	S/F	1048.1	1048.7	2.1	2600.0	800.0		
	33	UPIC	4	S/F	1048.5	1048.8	1.4				
18	200	GORK	44	NS	0402.0E		393.0D		5.0		
	100	GORK	44	NS	0402.0E		393.0D		5.0		
	204	IZMI	43	NS	0600.0		360.0	15.0			
	260	ONDR	44	NS	0725.0E	0842.7U	455.0D	13.0U			
	245	SGMR	44	NS	1048.0E	1539.0	699.0D	130.0			QL=1 ST=2 TYP=1
	2950	GORK	20	GRF	0637.1	0641.6	67.0	4.4			
	9300	KISV	22	GRF	0639.7	0649.2	16.3	6.0			
	9100	GORK	20	GRF	0639.7	0646.4	56.3	8.0			
	410	LEAR	4	S/F	0640.0	0641.0	4.0	50.0			QL=1 ST=3 TYP=3
	500	HIRA	7	C	0640.3	0646.0		3.0			O
	500	HIRA	7	C	0640.3	0641.5	11.5	54.0	5.0		WL
	650	GORK	46	C	0640.5	0641.0	3.3	20.0			
	650	GORK	46	C	0640.5	0641.6		40.0			
	650	GORK	46	C	0640.5	0643.6		11.0			
	650	GORK	29	PBI	0640.5	0643.8	9.5	1.5			
	950	GORK	4	S/F	0640.5	0641.8	1.9	18.0			
	5900	KISV	22	GRF	0642.0	0649.2	26.4	5.0			
	245	SVTO	4	S/F	0704.0E	0704.0		430.0			QL=1 ST=3 TYP=3
	245	LEAR	4	S/F	0704.0	0704.0	85.0	450.0			QL=1 ST=3 TYP=3
	204	IZMI	5	S	0704.0	0704.5	0.8	754.0	600.0		
	2950	GORK	21	GRF	0831.8	1031.0	121.0D	5.8			
	3000	POTS	2	S/F	0840.0	0842.0	3.0	5.0			
	200	GORK	46	C	0840.3	0841.8		20.0			
	200	GORK	46	C	0840.3	0840.8	3.0	15.0			
	1470	POTS	3	S	0840.5	0841.8	3.5	7.0			
	100	GORK	4	S/F	0841.2	0842.1	1.9	200.0			
	950	GORK	3	S	0841.2	0842.1	2.0	2.8			
	650	GORK	1	S	0841.2	0842.2	1.9	5.0			
	2950	GORK	1	S	0841.3	0842.1	1.6	3.6	1.8		
	204	IZMI	5	S	0842.0	0843.0	2.0	60.0	30.0		
	430	KRAK	42	SER	0851.0	0902.0	12.0	14.0			
	9400	HUAN	22	GRF	1320.5	1332.0	41.7	9.7	3.1		O
	9400	HUAN	20	GRF	1631.8	1710.0U	89.7	18.0	8.4		O
	100	HIRA	42	SER	2142.9		29.0	1000.0D			
	200	HIRA	42	SER	2142.9	2142.9	23.1	320.0			O

SOLAR RADIO EMISSION
Outstanding Occurrences

SEPTEMBER 1988

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
18	9400	HUAN	2	S/F	2149.2	2152.6	6.4	13.8	5.2		O
	240	SYDN	8	S	2203.0	2204.0	2.0	250.0			QL= ST= TYP=3
	610	PALE	8	S	2205.0	2205.0	1.0	130.0			QL=1 ST=2 TYP=3
	410	PALE	8	S	2205.0	2206.0	1.0	55.0			QL=1 ST=2 TYP=3
	245	PALE	8	S	2205.0	2206.0	1.0	110.0			QL=1 ST=2 TYP=3
	610	SGMR	8	S	2205.0	2205.0	1.0	160.0			QL=1 ST=2 TYP=3
	410	SGMR	8	S	2205.0	2206.0	1.0	56.0			QL=1 ST=2 TYP=3
	245	SGMR	8	S	2205.0	2206.0	1.0	130.0			QL=1 ST=2 TYP=3
	500	HIRA	45	C	2205.0	2205.6	1.5	170.0			O
	245	LEAR	4	S/F	2320.0	2321.0	4.0	210.0			QL=1 ST=2 TYP=5
	245	PALE	8	S	2321.0	2321.0	1.0	160.0			QL=1 ST=2 TYP=3
	200	HIRA	41	F	2322.2	2322.8	1.8	230.0			O
19	200	GORK	44	NS	0358.0E		487.0D		5.0		
	204	IZMI	43	NS	0600.0		360.0	25.0			
	260	ONDR	44	NS	0720.0E	1104.3	412.0D	42.0			
	100	GORK	43	NS	0722.0		73.0		5.0		
	245	LEAR	4	S/F	0739.0	0739.0	4.0	94.0			QL=1 ST=2 TYP=3
	200	GORK	41	F	0914.7	0915.0	2.2	20.0			
	200	GORK	41	F	0914.7	0916.5		20.0D			
	100	GORK	46	C	0916.2	0916.3	2.2	210.0			
	100	GORK	46	C	0916.2	0916.6		310.0			
	9100	GORK	4	S/F	1001.9	1003.4	3.3	117.0			
	950	GORK	2	S/F	1019.5	1020.0	2.4	5.0			
	1470	POTS	8	S	1019.6	1020.3	0.9	8.0			
	650	GORK	2	S/F	1020.0	1020.0	1.3	4.0			
	9500	POTS	1	S	1020.0	1020.5	1.0	3.0			
	234	POTS	4	S/F	1020.3	1021.1	2.1	110.0	5.0		
	2950	GORK	1	S	1037.5	1037.7	0.5	2.4	1.2		
	4995	SGMR	4	S/F	1101.0	1103.0	4.0	51.0			QL=1 ST=2 TYP=3
	8800	SGMR	4	S/F	1101.0	1103.0	4.0	120.0			QL=1 ST=2 TYP=3
	2695	SGMR	8	S	1101.0	1101.0	1.0	48.0			QL=1 ST=2 TYP=3
	15400	SGMR	4	S/F	1101.0	1103.0	4.0	130.0			QL=1 ST=2 TYP=3
	536	ONDR	42	SER	1101.0	1106.6	6.0	48.0			
	3013	IZMI	5	S	1101.5	1104.0	4.5	20.0	10.0		
	9500	POTS	4	S/F	1101.5	1103.2	25.0	100.0			
	15000	KISV	29	PBI	1101.6	1105.1	7.5	12.0			
	3100	CRIM	45	C	1101.6	1102.2	7.0	15.0	5.0		
	3100	CRIM	45	C	1101.6	1103.3		15.0			
	15000	KISV	4	S/F	1101.6	1103.6	3.5	101.0			
	200	GORK	46	C	1101.7	1105.1		20.0			
	100	GORK	41	F	1101.7	1102.2	3.0	520.0			
	200	GORK	46	C	1101.7	1102.5	5.5	20.0D			
	100	GORK	41	F	1101.7	1103.5		880.0			
	1470	POTS	4	S/F	1101.7	1103.5	8.3	48.0			
	2950	GORK	4	S/F	1101.8	1102.3	5.5	19.6			
	9100	GORK	29	PBI	1101.9	1105.2	26.0	18.0			
	1415	SGMR	8	S	1102.0	1103.0	2.0	65.0			QL=1 ST=2 TYP=3
	15400	SVTO	8	S	1102.0	1103.0	2.0	100.0			QL=1 ST=2 TYP=3
	8800	SVTO	8	S	1102.0	1103.0	2.0	110.0			QL=1 ST=2 TYP=3
	5900	KISV	4	S/F	1102.2	1103.8	8.5	88.0			
	950	GORK	29	PBI	1102.4	1106.0	5.5	2.5			
	950	GORK	46	C	1102.4	1104.4		10.0			
	950	GORK	46	C	1102.4	1103.7	3.5	13.0			
	650	GORK	46	C	1102.5	1106.4		18.0			
	650	GORK	46	C	1102.5	1102.6	4.7	21.0			
	4995	SVTO	8	S	1103.0	1103.0	1.0	65.0			QL=1 ST=2 TYP=3
	9300	KISV	4	S/F	1103.0E	1103.6	3.0D	116.0			
	9300	KISV	29	PBI	1103.0E	1105.7	24.0D	8.0			
	536	ONDR	3	S	1203.2	1203.4	1.4	7.0			
	430	KRAK	42	SER	1241.0	1250.4U	9.5	16.0			
	245	PALE	8	S	1721.0	1721.0	1.0	110.0			QL=1 ST=2 TYP=3
	245	SGMR	8	S	1721.0	1721.0	1.0	100.0			QL=1 ST=2 TYP=3
	245	SGMR	4	S/F	2139.0	2143.0	5.0	280.0			QL=1 ST=2 TYP=3
	9400	HUAN	3	S	2140.2	2142.6	5.4	29.2	11.4		O
	200	HIRA	46	C	2141.0	2142.6	2.6	315.0	76.0		O
	245	PALE	8	S	2143.0	2143.0	1.0	230.0			QL=1 ST=2 TYP=3
	245	SGMR	4	S/F	2221.0E	2221.0		54.0			QL=1 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

SEPTEMBER 1988

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	200	GORK	44	NS	0354.0E		490.0D		5.0		
	260	ONDR	44	NS	0740.0E	1057.5	500.0D	88.0			
	204	IZMI	43	NS	1000.0		120.0	10.0			
	245	SGMR	44	NS	1050.0E	1532.0	694.0D	210.0			QL=1 ST=2 TYP=1
	245	SVTO	44	NS	1410.0E	1532.0	140.0D	120.0			QL=1 ST=2 TYP=1
	245	PALE	44	NS	1639.0E	1731.0	695.0D	110.0			QL=1 ST=2 TYP=1
	200	HIRA	44	NS	2030.0E		720.0D		45.0		
	100	HIRA	44	NS	2030.0E		720.0D		67.0U		
	245	LEAR	44	NS	2231.0E	2321.0	692.0D	65.0			QL=1 ST=2 TYP=1
	200	HIRA	41	F	0227.3	0228.4	2.0	195.0			O
	2950	GORK	21	GRF	0510.0	0833.0	410.0D	7.6			
	9100	GORK	20	GRF	0515.0	0908.0	406.0	12.0			
	5900	KISV	22	GRF	0515.1	0516.7	16.0	9.0			
	500	HIRA	41	F	0555.8	0556.2	0.9	51.0			O
	2950	GORK	2	S/F	0609.8	0612.0	3.0	2.1			
	650	GORK	2	S/F	0610.0	0611.3	5.5	7.0			
	950	GORK	29	PBI	0610.8	0613.8	6.3	1.5			
	950	GORK	4	S/F	0610.8	0611.9	3.0	21.0			
	245	LEAR	8	S	0643.0	0644.0	2.0	50.0			QL=1 ST=2 TYP=3
	234	POTS	8	S	0643.6	0644.0	0.8	140.0	50.0		
	204	IZMI	5	S	0643.8	0644.0	1.0	550.0	450.0		
	33	UPIC	42	SER	0750.6		153.8				
	650	GORK	4	S/F	0842.9	0842.9	0.8	63.0			
	204	IZMI	42	SER	0944.0	1019.5	37.0	250.0			
	234	POTS	4	S/F	0949.0	0949.1	0.5	140.0	20.0		
	5900	KISV	42	SER	1015.5	1018.0		2.0			
	5900	KISV	42	SER	1015.5	1016.5	5.7	3.0			
	5900	KISV	42	SER	1015.5	1020.8		3.0			
	234	POTS	4	S/F	1018.5	1018.7	1.1	2000.0	350.0		
	2950	GORK	1	S	1020.3	1020.8	1.0	2.1			
	2950	GORK	1	S	1148.4	1149.0	1.3	2.4	1.2		
	5900	KISV	22	GRF	1220.8	1223.9	26.0	6.0			
	234	POTS	41	F	1301.2	1301.6	1.3	110.0	5.0		
	100	HIRA	42	SER	2052.7	2103.3	12.5	620.0			
	500	HIRA	22	GRF	2101.5	2117.5	102.0	14.0	5.0		WL
	200	HIRA	27	RF	2110.3	2130.0	76.0	110.0	64.0		SL
	100	HIRA	27	RF	2110.6	2140.9	70.0	340.0	110.0		
21	200	GORK	44	NS	0400.0E		484.0D		15.0		
	100	GORK	44	NS	0400.0E		484.0D		15.0		
	245	SVTO	44	NS	0455.0E	1435.0	693.0D	72.0			QL=1 ST=2 TYP=1
	234	POTS	44	NS	0543.0E	1418.0	557.0D	47.0	28.0		
	204	IZMI	44	NS	0600.0E		360.0D	80.0			
	260	ONDR	44	NS	0603.0E	0719.6	487.0D	66.0			
	245	SGMR	43	NS	1051.0	1434.0	691.0	140.0			QL=1 ST=2 TYP=1
	245	PALE	44	NS	1638.0E	0254.0	695.0D	110.0			QL=1 ST=2 TYP=1
	410	PALE	44	NS	1827.0E	1841.0	333.0D	23.0			QL=1 ST=3 TYP=1
	245	LEAR	44	NS	2230.0E	0701.0	693.0D	130.0			QL=1 ST=2 TYP=1
	200	HIRA	42	SER	0015.0	0024.1	30.0	280.0			SL
	2950	GORK	20	GRF	0518.2	0955.0	400.0D	8.8			
	950	GORK	41	F	0559.3	0600.0		10.0			
	650	GORK	41	F	0559.3	0600.0		50.0			
	950	GORK	41	F	0559.3	0559.4	0.8	3.6			
	650	GORK	41	F	0559.3	0559.4	0.8	15.0			
	33	UPIC	45	C	0648.5	0648.9	1.6				
	234	POTS	41	F	1002.5	1003.3	1.5	170.0			
	9100	GORK	20	GRF	1051.0		69.0D				
	5900	KISV	1	S	1255.5	1258.0	6.0	2.0			
	410	SGMR	8	S	1415.0	1415.0	1.0	190.0			QL=1 ST=2 TYP=3
	245	PALE	4	S/F	1738.0E	1738.0		100.0			QL=1 ST=3 TYP=3
	245	PALE	8	S	1738.0	1738.0	1.0	100.0			QL=1 ST=3 TYP=3
	500	HIRA	27	RF	2150.5	2203.0	25.0	6.0	4.0		WL
	500	HIRA	27	RF	2312.5	2333.0	48.0	7.0	3.0		WL
22	200	GORK	44	NS	0350.0E		485.0D		20.0		
	100	GORK	44	NS	0350.0E		485.0D		5.0		
	200	HIRA	44	NS	0400.0E	0650.0	270.0D	80.0	41.0		ML
	245	SVTO	43	NS	0456.0	1353.0	690.0D	260.0			QL=1 ST=2 TYP=1
	234	POTS	44	NS	0550.0E	1014.0	549.0D	85.0	50.0		

SOLAR RADIO EMISSION
Outstanding Occurrences

SEPTEMBER 1988

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
22	204	IZMI	44	NS	0600.0E		360.0D	230.0			
	260	ONDR	44	NS	0620.0E	1029.3U	470.0D				
	430	KRAK	44	NS	0959.0E	1029.8	160.0D	220.0D	5.0		
	430	KRAK	44	NS	0959.0E	1025.5	160.0D	220.0D	5.0		
	245	SGMR	43	NS	1052.0	2054.0	688.0D	410.0			QL=1 ST=2 TYP=1
	245	PALE	44	NS	1638.0E	1702.0	442.0D	13.0			QL=1 ST=3 TYP=1
	410	PALE	43	NS	1638.0	1702.0	442.0	9.0			QL=1 ST=3 TYP=1
	245	LEAR	44	NS	2229.0E	2232.0	694.0D	39.0			QL=1 ST=2 TYP=1
	500	HIRA	24	R	0112.5	0252.5	130.0	7.0	4.0		WL
	245	LEAR	8	S	0146.0	0146.0	2.0	120.0			QL=1 ST=2 TYP=3
	410	LEAR	8	S	0252.0	0252.0	1.0	140.0			QL=1 ST=2 TYP=3
	410	PALE	8	S	0252.0	0252.0	1.0	300.0			QL=1 ST=2 TYP=3
	500	HIRA	46	C	0320.5	0330.8	33.5	29.0	5.0		ML
	9100	GORK	23	GRF	0357.0U	1029.5	480.0D	23.0			
	2950	GORK	21	GRF	0358.0	1004.3	480.0D	19.8			
	100	GORK	4	S/F	0453.0	0454.0	1.7	220.0			
	245	LEAR	8	S	0623.0	0625.0	2.0	240.0			QL=1 ST=2 TYP=3
	650	GORK	23	GRF	0624.0		330.0D	5.0			
	245	SVTO	8	S	0624.0	0625.0	1.0	190.0			QL=1 ST=2 TYP=3
	100	GORK	27	RF	0634.2	0653.8	54.5	25.0			
	500	HIRA	24	R	0635.0	0700.0	63.0D	9.0	4.0U		WL SUNSET
	950	GORK	4	S/F	0636.2	0637.4	3.1	17.0			
	650	GORK	4	S/F	0636.4	0637.3	1.4	8.5			
	5900	KISV	28	PRE	0736.4	0736.9	1.2	4.0			
	2950	GORK	1	S	0736.7	0737.0	0.7	5.7			
	9300	KISV	28	PRE	0736.7	0736.9	0.7	3.0			
	3100	CRIM	21	GRF	0740.0	0810.0	62.0	6.0	2.0		
	2695	LEAR	4	S/F	0804.0	0806.0	3.0	97.0			QL=1 ST=2 TYP=3
	8400	BERN	47	GB	0804.2	0806.5	4.0	77.0			
	11800	BERN	47	GB	0804.2	0806.5	4.0	64.0			
	3200	BERN	47	GB	0804.2	0806.5	4.0	119.0			
	5200	BERN	47	GB	0804.2	0806.5	4.0	82.0			
	3000	POTS	4	S/F	0804.2	0806.6	26.0	108.0			
	3100	CRIM	3	S	0804.3	0807.0	5.0	79.0	26.0		
	950	GORK	4	S/F	0804.3	0806.7	8.2	30.0			
	9300	KISV	46	C	0804.4	0807.2		27.0			
	5900	KISV	29	PBI	0804.4	0808.3	24.0	16.0			
	9300	KISV	29	PBI	0804.4	0808.3	40.0	11.0			
	9300	KISV	46	C	0804.4	0806.7		80.0			
	5900	KISV	4	S/F	0804.4	0806.7	4.0	85.0			
	9100	GORK	2	S/F	0804.4	0804.9	1.6	22.0			
	9300	KISV	46	C	0804.4	0804.9	4.0	24.0			
	15000	KISV	45	C	0804.5	0805.0	2.5	25.0			
	1470	POTS	4	S/F	0804.5	0806.6	16.0U	59.0			
	9500	POTS	4	S/F	0804.5	0806.6	21.0	60.0			
	15000	KISV	45	C	0804.5	0806.7		79.0			
	15000	KISV	29	PBI	0804.5	0806.9	3.5	10.0			
	2950	GORK	4	S/F	0804.6	0806.9	3.9	117.0			
	3013	IZMI	5	S	0805.0	0807.0	5.0	112.0	70.0		
	410	LEAR	8	S	0805.0	0806.0	2.0	34.0			QL=1 ST=2 TYP=3
	15400	LEAR	8	S	0806.0	0806.0	1.0	36.0			QL=1 ST=2 TYP=3
	8800	LEAR	8	S	0806.0	0806.0	1.0	64.0			QL=1 ST=2 TYP=3
	610	LEAR	8	S	0806.0	0806.0	1.0	66.0			QL=1 ST=2 TYP=3
	1415	SVTO	8	S	0806.0	0806.0	1.0	68.0			QL=1 ST=2 TYP=3
	4995	SVTO	8	S	0806.0	0806.0	1.0	67.0			QL=1 ST=2 TYP=3
	2695	SVTO	8	S	0806.0	0807.0	1.0	96.0			QL=1 ST=2 TYP=3
	8800	SVTO	8	S	0806.0	0806.0	1.0	74.0			QL=1 ST=2 TYP=3
	650	GORK	4	S/F	0806.1	0806.7	1.0	125.0			
	9100	GORK	4	S/F	0806.3	0806.5	2.3	79.0			
	9100	GORK	46	C	0806.3	1121.8		23.0			
	245	SVTO	8	S	0831.0	0831.0	1.0	330.0			QL=1 ST=2 TYP=3
	3100	CRIM	1	S	0850.5	0851.5	2.0	2.0	0.7		
	5200	BERN	47	GB	0957.0	1027.3	45.0	28.0			
	3200	BERN	47	GB	0957.0	1027.3	45.0	10.0			
	5900	KISV	22	GRF	0957.3	1009.6	73.0	14.0			
	3100	CRIM	45	C	0958.5	1030.0		7.0			
	3100	CRIM	45	C	0958.5	1004.5	18.0	6.0	2.0		
	9300	KISV	22	GRF	1003.5	1025.5	64.0	14.0			
	100	GORK	27	RF	1008.9	1046.2	60.7	30.0			

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

SEPTEMBER 1988

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
22	30	POTS	4	S/F	1024.2	1029.9	7.4	500.0	100.0		
	650	GORK	46	C	1024.7	1029.1		7.0			
	650	GORK	46	C	1024.7	1025.4	5.9	6.5			
	650	GORK	46	C	1024.7	1027.5		10.0			
	200	GORK	47	GB	1024.8	1027.6	6.0	1680.0			
	204	IZMI	45	C	1025.0	1027.5	6.0	20000.0	500.0		
	1470	POTS	20	GRF	1025.0U	1029.5	10.0U	8.0			
	9500	POTS	20	GRF	1025.0	1029.5	20.0	11.0			
	3000	POTS	20	GRF	1025.0	1029.5	30.0	8.0			
	5900	KISV	46	C	1025.2	1027.6	3.5	32.0			
	5900	KISV	46	C	1025.2	1029.6		23.0			
	5900	KISV	29	PBI	1025.2	1030.8	8.0	8.0			
	536	ONDR	41	F	1025.3		3.6				
	100	GORK	46	C	1025.3	1025.4	5.0	160.0			
	950	GORK	46	C	1025.3	1029.5		3.6			
	100	GORK	46	C	1025.3	1029.6		2900.0			
	950	GORK	46	C	1025.3	1027.6	5.1	2.0			
	100	GORK	46	C	1025.3	1027.7		2500.0			
	234	POTS	4	S/F	1025.5	1027.5	4.5	3100.0	150.0		
	2950	GORK	2	S/F	1026.1	1027.6	5.3	8.0			
	245	SVTO	49	GB	1027.0E	1027.0	3.0D	820.0			QL=1 ST=3 TYP=6
	3013	IZMI	5	S	1027.5	1028.0	3.0	8.0	4.0		
	410	SVTO	4	S/F	1029.0E	1029.0		74.0			QL=1 ST=3 TYP=3
	5900	KISV	45	C	1118.0	1120.1	20.5	19.0			
	5900	KISV	45	C	1118.0	1121.8		46.0			
	9500	POTS	25	R	1118.0	1121.8	22.0	21.0			
	9300	KISV	45	C	1118.5	1120.1	11.0	20.0			
	9300	KISV	45	C	1118.5	1121.9		26.0			
	5200	BERN	3	S	1119.3	1121.5	10.0	38.0			
	3200	BERN	3	S	1119.3	1121.5	10.0	28.0			
	15000	KISV	46	C	1119.8	1120.1	3.2	7.0			
	15000	KISV	46	C	1119.8	1121.8		12.0			
	3013	IZMI	5	S	1120.0	1122.0	2.5	19.0	8.0		
	2950	GORK	3	S	1121.3	1121.8	1.1	20.8			
	3100	CRIM	1	S	1121.5	1121.8	1.0	7.0	1.5		
	3000	POTS	8	S	1121.5	1121.8	1.0	15.0			
	950	GORK	1	S	1122.2	1122.3	0.2	0.7			
	5900	KISV	2	S/F	1244.2	1244.8	4.5	8.0			
	3000	POTS	3	S	1245.0	1247.0	5.0	10.0			
	1470	POTS	4	S/F	1245.0	1246.6	8.0	33.0			
	536	ONDR	40	F	1245.5	1246.2	5.7	88.0			
	9300	KISV	2	S/F	1245.5	1246.7	3.7	8.0			
	810	KRAK	42	SER	1246.5	1247.3	1.7	68.0			
	9500	POTS	1	S	1246.5	1246.7	3.5	7.0			
	410	SGMR	8	S	1249.0	1249.0	2.0	330.0			QL=1 ST=2 TYP=3
	410	SVTO	8	S	1249.0	1250.0	2.0	340.0			QL=1 ST=3 TYP=3
	410	SGMR	8	S	1423.0	1424.0	1.0	90.0			QL=1 ST=2 TYP=3
	245	PALE	8	S	2029.0	2029.0	1.0	230.0			QL=1 ST=2 TYP=3
23	200	HIRA	44	NS	0000.0E	0048.0	500.0D	13.0	6.0		WL
	200	GORK	44	NS	0356.0E		484.0D		5.0		
	100	GORK	44	NS	0356.0E		484.0D		5.0		
	204	IZMI	43	NS	0600.0		120.0	25.0			
	260	ONDR	44	NS	0706.0E	1055.3	427.0D	5.0			
	245	PALE	44	NS	1638.0E	1702.0U	693.0D	13.0			QL=1 ST=2 TYP=1
	245	LEAR	44	NS	2228.0E	0411.0	695.0D	82.0			QL=1 ST=2 TYP=1
	410	LEAR	8	S	0006.0	0006.0	2.0	81.0			QL=1 ST=2 TYP=3
	200	HIRA	42	SER	0122.0	0151.6	31.0	100.0			ML
	200	HIRA	42	SER	0409.2	0439.0	69.0	130.0			O
	2950	GORK	1	S	0421.8	0423.5	5.2	8.3			
	2950	GORK	20	GRF	0431.2	0433.0	17.7	3.8			
	650	GORK	1	S	0431.3	0433.0	3.4	2.7			
	950	GORK	1	S	0431.6	0432.8	2.7	1.8			
	5900	KISV	45	C	0511.2	0511.8	1.0	3.0			
	2950	GORK	1	S	0526.1	0526.6	1.2	5.1	2.5		
	2950	GORK	1	S	0619.4	0620.5	2.4	3.2	1.6		
	3100	CRIM	21	GRF	0738.6	0857.8	131.0	7.1	2.4		
	9500	POTS	29	PBI	0850.0	0853.6	65.0	13.0			
	3000	POTS	29	PBI	0851.0	0853.2	44.0	15.0			

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

SEPTEMBER 1988

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	2950	GORK	29	PBI	0851.1	0854.0	180.0	4.9			
	2950	GORK	4	S/F	0851.1	0853.3	2.9	13.6			
	5900	KISV	21	GRF	0851.4	0853.4	56.0	20.0			
	9100	GORK	20	GRF	0851.4	0853.6	145.0	12.0			
	9300	KISV	25	R	0851.4	0853.7	249.0	16.0			
	1470	POTS	4	S/F	0851.5	0852.2	3.0	24.0			
	3100	CRIM	1	S	0851.5	0853.4	3.3	9.1	3.0		
	3013	IZMI	5	S	0852.0	0853.0	3.0	5.0	4.0		
	204	IZMI	4	S/F	0943.0	0943.5	1.0	140.0	100.0		
	536	ONDR	42	SER	1230.8	1235.1	8.5	108.0			
24	200	GORK	44	NS	0354.0E		366.0D		5.0		
	100	GORK	44	NS	0356.0E		396.0D		5.0		
	200	HIRA	43	NS	0455.0	0550.0	270.0D	15.0	3.0		MR
	204	IZMI	43	NS	0600.0		360.0	13.0			
	245	SGMR	44	NS	1054.0E	2045.0	683.0D	91.0			QL=1 ST=2 TYP=1
	245	LEAR	44	NS	2227.0E	0233.0	697.0D	26.0			QL=1 ST=2 TYP=1
	200	HIRA	46	C	0017.5	0019.1	4.6	270.0	45.0		WR
	2700	PENT	47	GB	0020.0	0028.0	50.0	655.0	260.0		
	200	HIRA	42	SER	0408.4	0435.0	54.8	35.0			MR
	9100	GORK	20	GRF	0443.7	0846.0	432.0D	10.5			
	2950	GORK	21	GRF	0446.4	0854.0	360.0	12.5			
	2950	GORK	1	S	0450.1	0450.7	1.5	5.1			
	3100	CRIM	20	GRF	0831.7	0846.6	42.0	4.6	1.6		
	5900	KISV	22	GRF	0834.5	0840.4	26.5	8.0			
	9300	KISV	22	GRF	0837.4	0847.0	24.0	8.0			
	15000	KISV	22	GRF	0837.4	0848.9	24.0	10.0			
	430	KRAK	41	F	1100.5	1100.9U	2.7	17.0	3.0		
	1470	POTS	3	S	1340.0	1342.5	5.0	7.0			
	3000	POTS	24	R	1340.0	1342.5	25.0	26.0			
	9500	POTS	24	R	1341.5	1342.5	34.0	9.0			
	200	HIRA	27	RF	2224.4	2339.0	114.0	22.0	3.0		MR
25	100	GORK	44	NS	0403.0E		387.0D		5.0		
	200	GORK	44	NS	0403.0E		387.0D		5.0		
	127	TORN	44	NS	0700.0E		420.0D		4.0		V=1
	204	IZMI	43	NS	0800.0		240.0	10.0			
	245	SGMR	44	NS	1055.0E	1920.0	680.0D	100.0			QL=1 ST=2 TYP=1
	245	PALE	44	NS	1915.0E	1938.0	285.0D	54.0			QL=1 ST=3 TYP=1
	100	HIRA	44	NS	2030.0E		500.0D		43.0		
	200	HIRA	44	NS	2030.0E		630.0D		18.0		
	410	LEAR	44	NS	2226.0E	2314.0	304.0D	39.0			QL=1 ST=2 TYP=1
	245	LEAR	44	NS	2226.0E	2311.0	393.0D	250.0			QL=1 ST=2 TYP=1
	500	HIRA	46	C	0017.0	0034.5		21.0			O
	500	HIRA	46	C	0017.0	0025.8	47.5	76.0	9.0		O
	610	LEAR	4	S/F	0022.0	0033.0		43.0			QL=1 ST=1 TYP=5
	410	LEAR	4	S/F	0024.0	0025.0		31.0			QL=1 ST=1 TYP=3
	2695	LEAR	49	GB	0025.0E	0037.0	28.0D	710.0			QL=1 ST=2 TYP=7
	1415	PALE	4	S/F	0027.0	0037.0	20.0	310.0			QL=1 ST=2 TYP=3
	200	HIRA	46	C	0027.7	0035.6	22.4	280.0	15.0		WR
	2695	PALE	49	GB	0032.0E	0037.0	16.0D	680.0			QL=1 ST=2 TYP=6
	8800	PALE	4	S/F	0033.0	0037.0	13.0	270.0			QL=1 ST=2 TYP=3
	4995	PALE	4	S/F	0033.0	0037.0	10.0	410.0			QL=1 ST=2 TYP=3
	8800	LEAR	4	S/F	0033.0	0037.0	20.0	290.0			QL=1 ST=2 TYP=3
	15400	LEAR	4	S/F	0033.0	0037.0	20.0	170.0			QL=1 ST=2 TYP=3
	100	HIRA	48	C	0033.7		18.5	1000.0D	600.0D		
	15400	PALE	4	S/F	0035.0	0037.0	5.0	160.0			QL=1 ST=2 TYP=3
	245	PALE	4	S/F	0154.0	0154.0		99.0			QL=1 ST=2 TYP=3
	245	LEAR	4	S/F	0154.0	0154.0	92.0	83.0			QL=1 ST=2 TYP=3
	610	LEAR	8	S	0243.0	0245.0	2.0	120.0			QL=1 ST=2 TYP=3
	610	PALE	8	S	0244.0	0245.0	1.0	96.0			QL=1 ST=2 TYP=3
	200	HIRA	27	RF	0418.5	0444.2	80.0	23.0	5.0		MR
	9100	GORK	20	GRF	0451.0E	0454.0	190.0D	11.0			
	950	GORK	2	S/F	0521.9	0522.4	1.3	2.8			
	650	GORK	8	S	0522.4	0522.4	0.2	5.4			
	2950	GORK	2	S/F	0524.2	0524.7	5.3	2.5			
	500	HIRA	46	C	0538.9	0540.9	2.6	76.0			WR
	3100	CRIM	1	S	0605.0	0608.0	5.0	4.0	1.0		
	9100	GORK	20	GRF	0606.0	0620.0	14.3	8.0			

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

SEPTEMBER 1988

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
25	2950	GORK	20	GRF	0717.9	0742.0	145.0	4.4			
	3100	CRIM	20	GRF	0828.7	0840.0	41.0	3.0	1.0		
	234	POTS	4	S/F	1018.8	1019.0	1.2	140.0	15.0		
	9100	GORK	20	GRF	1112.0	1205.9	90.0	9.5			
	610	SGMR	8	S	1459.0	1459.0	1.0	240.0			QL=1 ST=2 TYP=3
	410	SGMR	8	S	1459.0	1459.0	1.0	350.0			QL=1 ST=2 TYP=3
	245	SGMR	8	S	1459.0	1459.0	1.0	330.0			QL=1 ST=2 TYP=3
	200	HIRA	27	RF	2156.0	2307.0	119.0	220.0	72.0		SR
	500	HIRA	46	C	2228.1	2312.2		26.0			MR
	500	HIRA	46	C	2228.1	2335.4	105.0	65.0	11.0		MR
	100	HIRA	27	RF	2230.0	2312.0	132.0	710.0	225.0		
	245	PALE	8	S	2300.0	2301.0	1.0	160.0			QL=1 ST=2 TYP=3
	610	LEAR	4	S/F	2323.0	2326.0	4.0	69.0			QL=1 ST=2 TYP=3
26	200	GORK	44	NS	0433.0E		508.0D		5.0		
	100	GORK	44	NS	0433.0E		507.0D		5.0		
	127	TORN	43	NS	0710.0		510.0		7.0		V=1
	260	ONDR	44	NS	0815.0E	0952.5U	395.0D	30.0U			
	245	SGMR	44	NS	1056.0E	1917.0	677.0D	64.0			QL=1 ST=2 TYP=1
	610	LEAR	4	S/F	0755.0	0755.0	4.0	60.0			QL=1 ST=2 TYP=3
	204	IZMI	5	S	1004.0	1004.5	0.6	90.0	45.0		
	2950	GORK	1	S	1200.3	1201.0	2.5	3.5			
	234	POTS	4	S/F	1315.0	1315.3	0.6	130.0	10.0		
	100	HIRA	24	R	2030.0E		720.0D		15.0		
	200	HIRA	24	R	2030.0E	2500.0	720.0D	8.0	4.0		MR
	200	HIRA	42	SER	2205.3	2208.0	60.0	37.0			MR
27	100	GORK	44	NS	0402.0E		538.0D		60.0		
	200	GORK	44	NS	0402.0E		538.0D		10.0		
	200	HIRA	43	NS	0428.0	0708.0	300.0D	64.0	60.0		MR
	245	LEAR	43	NS	0506.0	0815.0	298.0	100.0			QL=1 ST=2 TYP=1
	245	SVTO	43	NS	0507.0	0707.0	1133.0	80.0			QL=1 ST=1 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D	60.0			
	127	TORN	44	NS	0620.0E		560.0D		132.0		V=1
	260	ONDR	44	NS	0657.0E	0937.0	484.0D	71.0			
	245	SGMR	43	NS	1057.0	1633.0	674.0D	130.0			QL=1 ST=2 TYP=1
	245	PALE	44	NS	1642.0E	1909.0	686.0D	95.0			QL=1 ST=2 TYP=1
	100	HIRA	44	NS	2030.0E	0242.0	720.0D	130.0	65.0		
	200	HIRA	44	NS	2030.0E	2324.0	720.0D	17.0	7.0		MR
	245	LEAR	43	NS	2224.0	0745.0	701.0	110.0			QL=1 ST=2 TYP=1
	500	HIRA	41	F	0031.3	0039.5	25.0	17.0			O
	100	HIRA	42	SER	0521.0	0712.0	165.0	620.0			
	9100	GORK	21	GRF	0609.0	0755.8	424.0D	31.0			
	2950	GORK	21	GRF	0636.0	0745.0	325.0	12.7			
	950	GORK	21	GRF	0636.5	0643.5	14.5	2.0			
	650	GORK	21	GRF	0637.7		15.9	1.0			
	950	GORK	2	S/F	0637.8	0641.6	5.6	9.0			
	5200	BERN	46	C	0638.0	0642.0	20.0	53.0			
	3200	BERN	46	C	0638.0	0642.0	20.0	26.0			
	500	HIRA	46	C	0639.0	0641.8	8.5	11.0	3.0		O
	650	GORK	2	S/F	0639.4	0642.1	6.2	8.0			
	2950	GORK	4	S/F	0640.1	0641.5	4.6	26.0			
	3013	IZMI	5	S	0640.5	0641.5	3.5	23.0	15.0		
	1415	SVTO	4	S/F	0641.0	0641.0		91.0			QL=1 ST=2 TYP=5
	245	LEAR	4	S/F	0706.0	0707.0		88.0			QL=1 ST=2 TYP=3
	5900	KISV	23	GRF	0709.8						
	5900	KISV	23	GRF	0709.8	0721.0		15.0			
	9300	KISV	23	GRF	0709.8	0721.0		21.0			
	9300	KISV	23	GRF	0709.8	0714.2	77.0	11.0			
	5900	KISV	23	GRF	0709.8	0714.3	152.5	7.0			
	5900	KISV	23	GRF	0709.8	0752.6		9.0			
	9300	KISV	23	GRF	0709.8	0752.7		13.0			
	5900	KISV	45	C	0848.4	0850.0		9.0			
	5900	KISV	45	C	0848.4	0849.3	4.5	11.0			
	9500	POTS	3	S	0848.5	0849.3	4.0	20.0			
	9100	GORK	46	C	0848.6	0850.0		13.0			
	9300	KISV	45	C	0848.6	0850.1		9.0			
	9100	GORK	46	C	0848.6	0849.3	1.8	24.0			
	9300	KISV	45	C	0848.6	0849.3	4.0	19.0			

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

SEPTEMBER 1988

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	5900	KISV	29	PBI	0947.2	0957.0	111.5	6.0			
	5900	KISV	46	C	0947.2	0955.1		31.0			
	5900	KISV	46	C	0947.2	0952.8	11.0	32.0			
	5900	KISV	46	C	0947.2	0953.9		21.0			
	9300	KISV	46	C	0951.7	0955.1		72.0			
	9300	KISV	46	C	0951.7	0952.7	5.0	21.0			
	9300	KISV	29	PBI	0951.7	0956.7	31.5	20.0			
	9300	KISV	46	C	0951.7	0953.9		53.0			
	2950	GORK	1	S	0951.9	0952.8	2.2	8.7			
	3013	IZMI	5	S	0952.0	0952.5	1.5	7.0	5.0		
	3000	POTS	3	S	0952.0	0952.8	1.5	9.0			
	9100	GORK	46	C	0952.3	0955.1		59.0			
	9100	GORK	46	C	0952.3	0952.8	4.3	20.0			
	9100	GORK	46	C	0952.3	0953.8		43.0			
	9500	POTS	40	F	0952.5	0955.1	38.0	52.0			
	1470	POTS	42	SER	0952.5	0955.3	4.5	6.0			
	650	GORK	2	S/F	0952.5	0952.5	0.6	5.0			
	1470	POTS	42	SER	0952.5	0955.9	4.5	5.0			
	536	ONDR	42	SER	1030.0	1033.0	9.0	44.0			
	9400	HUAN	45	C	1604.6	1611.0U	15.6	281.4	99.9		R
	2800	OTTA	3	S	1606.5	1616.3	14.5	326.0	114.0		
	11800	BERN	46	C	1607.0	1612.1	15.0	940.0			
	5200	BERN	46	C	1607.0	1613.2	15.0	620.0			
	3200	BERN	46	C	1607.0	1616.2	15.0	250.0			
	8800	SGMR	49	GB	1608.0E	1613.0	16.0D	640.0			QL=1 ST=2 TYP=6
	4995	SGMR	4	S/F	1608.0E	1613.0	12.0D	470.0			QL=1 ST=2 TYP=3
	4995	SVTO	4	S/F	1609.0	1613.0	9.0	490.0			QL=1 ST=3 TYP=5
	15400	SGMR	49	GB	1610.0E	1612.0	19.0D	600.0			QL=1 ST=2 TYP=6
	15400	SVTO	49	GB	1611.0E	1613.0	7.0D	510.0			QL=1 ST=3 TYP=6
	8800	SVTO	49	GB	1611.0E	1613.0	7.0D	500.0			QL=1 ST=3 TYP=6
	1415	SGMR	4	S/F	1612.0	1616.0	5.0	95.0			QL=1 ST=2 TYP=3
	2695	SGMR	4	S/F	1612.0	1616.0	7.0	310.0			QL=1 ST=2 TYP=3
	2695	SVTO	4	S/F	1612.0	1616.0	6.0	300.0			QL=1 ST=3 TYP=3
	1415	SVTO	4	S/F	1613.0	1613.0	5.0	87.0			QL=1 ST=3 TYP=3
	245	SGMR	49	GB	1614.0	1617.0	5.0	780.0			QL=1 ST=2 TYP=6
	245	SVTO	4	S/F	1615.0	1617.0	3.0	370.0			QL=1 ST=3 TYP=5
	410	SGMR	8	S	1619.0	1619.0	1.0	70.0			QL=1 ST=2 TYP=3
	9400	HUAN	29	PBI	1620.2	1620.2	71.6	47.8	23.6		R
	2800	OTTA	29	PBI	1621.0	1621.0	100.0	20.0	10.0		
	500	HIRA	42	SER	2149.5	2150.5	16.5	20.0			O
28	200	GORK	44	NS	0352.0E		548.0D		5.0		
	100	GORK	44	NS	0352.0E		548.0D		15.0		
	245	SVTO	43	NS	0502.0	0745.0	674.0D	97.0			QL=1 ST=2 TYP=1
	204	IZMI	43	NS	0600.0		360.0	10.0			
	127	TORN	44	NS	0620.0E	1030.0U	330.0D	90.0	2.0		V=0
	260	ONDR	44	NS	0700.0E	0746.0U	465.0D	8.0			
	245	SGMR	43	NS	1058.0	1622.0	672.0D	110.0			QL=1 ST=2 TYP=1
	245	PALE	44	NS	2307.0E	0029.0	248.0D	410.0			QL=1 ST=2 TYP=1
	200	HIRA	42	SER	0017.2	0021.8	15.8	135.0			WR
	200	HIRA	46	C	0356.8	0358.1	2.1	140.0			O
	245	LEAR	8	S	0558.0	0558.0	1.0	55.0			QL=1 ST=3 TYP=3
	245	LEAR	4	S/F	0558.0	0558.0		55.0			QL=1 ST=3 TYP=3
	3100	CRIM	1	S	0624.5	0624.9	2.0	11.0	4.0		
	2950	GORK	3	S	0624.8	0625.2	1.6	23.1			
	3013	IZMI	5	S	0625.0	0625.4	1.0	10.0	5.0		
	234	POTS	4	S/F	0745.0	0745.1	0.6	400.0	150.0		
	100	GORK	41	F	0958.8	1022.3		110.0			
	100	GORK	41	F	0958.8	1031.7		400.0			
	100	GORK	41	F	0958.8	0959.7	33.4	30.0			
	9100	GORK	1	S	1028.8	1029.2	1.2	9.8	5.0		
	9300	KISV	1	S	1028.9	1029.2	1.0	11.0			
	5900	KISV	1	S	1028.9	1029.2	1.5	11.0			
	9500	POTS	8	S	1029.0U	1029.5U	1.0U				
	200	GORK	46	C	1030.3	1031.4	2.0	3.0			
	200	GORK	46	C	1030.3	1031.9		5.0			
	9100	GORK	20	GRF	1130.0	1221.5	90.0	11.6			
	234	POTS	4	S/F	1305.2	1305.4	0.9	140.0	50.0		
	536	ONDR	42	SER	1422.2	1422.3	10.8D	171.0			

SOLAR RADIO EMISSION
Outstanding Occurrences

SEPTEMBER 1988

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	3000	POTS	4	S/F	1431.0	1432.0	4.0	21.0			
	9500	POTS	25	R	1431.0	1431.8	9.0	6.0			
	1470	POTS	3	S	1431.0	1431.9	5.0	11.0			
	2700	PENT	47	GB	2256.0	2306.5	19.8	630.0	190.0		
	8800	LEAR	49	GB	2301.0	2307.0	31.0	1800.0			QL=1 ST=2 TYP=6
	1415	SYDN	4	S/F	2302.0	2305.0	12.0	815.0			QL= ST= TYP=3
	2695	LEAR	49	GB	2303.0E	2306.0	11.0D	610.0			QL=1 ST=2 TYP=6
	4995	PALE	49	GB	2303.0E	2306.0	12.0D	850.0			QL=1 ST=2 TYP=6
	8800	PALE	49	GB	2303.0E	2307.0	17.0D	1800.0			QL=1 ST=2 TYP=6
	1415	PALE	4	S/F	2304.0	2305.0	5.0	420.0			QL=1 ST=2 TYP=3
	2695	PALE	49	GB	2304.0E	2306.0	9.0D	630.0			QL=1 ST=2 TYP=6
	15400	PALE	49	GB	2304.0E	2308.0	15.0D	1800.0			QL=1 ST=2 TYP=6
	15400	LEAR	49	GB	2304.0E	2307.0	27.0D	1600.0			QL=1 ST=2 TYP=6
	610	LEAR	49	GB	2305.0E	2310.0	7.0D	3400.0			QL=1 ST=2 TYP=7
	410	LEAR	49	GB	2306.0E	2311.0	9.0D	660.0			QL=1 ST=2 TYP=7
	610	PALE	4	S/F	2306.0	2308.0	6.0	310.0			QL=1 ST=2 TYP=3
	200	HIRA	48	C	2306.7	2427.1	168.0	850.0	120.0		WL
	200	HIRA	48	C	2306.7	2347.7		390.0			WL
	410	PALE	4	S/F	2307.0	2307.0	4.0	68.0			QL=1 ST=2 TYP=3
	100	HIRA	48	C	2309.1U		11.0D	1000.0D			
	2700	PENT	29	PBI	2315.8	2315.8	90.0D	19.2			
	410	LEAR	4	S/F	2330.0	2334.0	10.0	95.0			QL=1 ST=2 TYP=3
	245	LEAR	4	S/F	2333.0	2341.0	8.0	52.0			QL=1 ST=2 TYP=3
	245	LEAR	4	S/F	2345.0	2348.0	6.0	220.0			QL=1 ST=2 TYP=3
	410	LEAR	8	S	2347.0	2348.0	2.0	460.0			QL=1 ST=2 TYP=3
	500	HIRA	42	SER	2347.5	2348.2	9.0	810.0			O
	500	HIRA	46	C	2358.0	2439.0	52.0	43.0	13.0		O
29	410	LEAR	43	NS	0000.0	0032.0	178.0	61.0			QL=1 ST=2 TYP=1
	245	LEAR	43	NS	0004.0	0029.0	241.0	410.0			QL=1 ST=2 TYP=1
	610	LEAR	43	NS	0026.0	0032.0	152.0	22.0			QL=1 ST=2 TYP=1
	200	GORK	44	NS	0348.0E		552.0D		5.0		
	245	PALE	44	NS	1641.0E	1648.0	298.0D	41.0			QL=1 ST=2 TYP=1
	245	SGMR	43	NS	1735.0	1821.0	273.0D	91.0			QL=1 ST=2 TYP=1
	9100	GORK	20	GRF	0345.0E	0610.3	322.0D	20.0			
	2950	GORK	21	GRF	0409.6	0601.8	300.0	14.6			
	3100	CRIM	21	GRF	0541.0	0614.5	177.0	10.0	3.0		
	5900	KISV	23	GRF	0553.2	0559.1		18.0			
	5900	KISV	23	GRF	0553.2	0557.3	33.5	14.0			
	5900	KISV	23	GRF	0553.2	0607.5		22.0			
	3100	CRIM	1	S	0553.5	0555.0	4.0	5.0	2.0		
	2950	GORK	45	C	0554.2	0555.3	2.7	5.7			
	2950	GORK	45	C	0554.2	0555.8		4.7			
	200	GORK	4	S/F	0559.0	0559.2	1.2	20.0D			
	100	GORK	8	S	0559.0	0559.2	0.7	110.0			
	260	ONDR	42	SER	0850.4	0853.6	37.0	4.0			
	536	ONDR	6	S	1008.7	1009.7	2.2	91.0			
	260	ONDR	40	F	1151.0	1156.0	5.2	4.0			
	245	PALE	8	S	1734.0	1735.0	1.0	100.0			QL=1 ST=2 TYP=3
	245	SGMR	8	S	1734.0	1735.0	1.0	140.0			QL=1 ST=2 TYP=3
30	200	GORK	44	NS	0402.0E		538.0D		5.0		
	221	ABST	43	NS	0500.0	0718.0	300.0	9.0			QL= ST= TYP=1
	200	HIRA	43	NS	0536.0	0717.0	165.0D	11.0	4.0		O
	204	IZMI	43	NS	0600.0		360.0	10.0			
	260	ONDR	44	NS	0805.0E	1247.7U	405.0D	38.0U			
	245	SGMR	44	NS	1101.0E	1310.0	665.0D	200.0			QL=1 ST=2 TYP=1
	245	PALE	44	NS	1930.0E	1946.0	270.0D	93.0			QL=1 ST=3 TYP=1
	100	HIRA	44	NS	2030.0E	2219.0	720.0D	600.0	270.0		
	200	HIRA	44	NS	2030.0E	0607.0	720.0D	140.0	51.0		SL
	245	LEAR	44	NS	2221.0E	0725.0	705.0D	89.0			QL=1 ST=2 TYP=1
	2950	GORK	23	GRF	0450.5	0511.3	380.0	14.8			
	9100	GORK	20	GRF	0453.1	0507.0	52.0	12.7			
	2950	GORK	46	C	0454.3	0455.0	9.8	8.3			
	2950	GORK	46	C	0454.3	0456.1		8.3			
	2950	GORK	46	C	0454.3	0503.3		7.0			
	950	GORK	2	S/F	0618.0	0618.1	12.0	8.5			
	410	SVTO	8	S	0810.0	0811.0	1.0	58.0			QL=1 ST=2 TYP=3
	410	LEAR	4	S/F	0811.0E	0811.0		83.0			QL=1 ST=2 TYP=3

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

SEPTEMBER 1988

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	650	GORK	3	S	0811.0	0811.4	0.7	7.0	3.0		
	950	GORK	1	S	0817.2	0817.4	0.4	4.0			
	5900	KISV	45	C	0924.0	0924.0		5.0			
	5900	KISV	45	C	0924.0	0925.2	6.5	12.0			
	9100	GORK	20	GRF	0931.0	0931.2	15.8	6.6			
	536	ONDR	4	S/F	1004.4	1004.5	0.9	1.0			
	810	KRAK	8	S	1044.0	1044.1	0.2	12.0			
	9100	GORK	2	S/F	1054.8	1056.3	5.9	15.0			
	9500	POTS	3	S	1055.0	1056.0	2.0	16.0			
	3000	POTS	3	S	1055.0	1056.4	4.0	16.0			
	3013	IZMI	5	S	1055.0	1056.5	2.0	17.0	10.0		
	3100	CRIM	1	S	1055.1	1056.3	2.0	11.2	4.0		
	2950	GORK	3	S	1055.4	1056.4	1.6	16.6	8.0		
	1470	POTS	3	S	1055.5	1056.5	3.5	11.0			
	650	GORK	8	S	1104.8	1104.8	0.1	16.0	8.0		
	650	GORK	4	S/F	1122.0	1122.1	0.3	9.0			
	3000	POTS	3	S	1246.5	1249.5	5.0	18.0			
	1470	POTS	40	F	1246.5	1249.5	5.0	9.0			
	9500	POTS	20	GRF	1247.0	1252.6	17.0	7.0			
	536	ONDR	40	F	1247.4	1247.7	0.7	19.0			
	2950	GORK	4	S/F	1249.1	1249.4	1.6	9.1			
	536	ONDR	45	C	1319.6	1328.8	11.4	26.0			
	8800	SGMR	8	S	1504.0	1504.0	1.0	440.0			QL=1 ST=2 TYP=3
	245	SGMR	8	S	1504.0	1504.0	1.0	47.0			QL=1 ST=2 TYP=3
	245	PALE	49	GB	1756.0E	1756.0	1.0D	1300.0			QL=1 ST=3 TYP=6
	245	SGMR	49	GB	1756.0E	1756.0	1.0D	1300.0			QL=1 ST=2 TYP=6
	9400	HUAN	21	GRF	1830.0	1916.7	138.3	44.3	10.8		R
	9400	HUAN	4	S/F	1902.7	1910.6	11.3	40.9	27.3		R
	2695	SGMR	8	S	1904.0	1905.0	1.0	64.0			QL=1 ST=2 TYP=3
	4995	SGMR	8	S	1904.0	1904.0	1.0	54.0			QL=1 ST=2 TYP=3
	4995	SGMR	4	S/F	1907.0	1910.0	4.0	64.0			QL=1 ST=2 TYP=3
	2695	SGMR	4	S/F	1907.0	1909.0	3.0	58.0			QL=1 ST=2 TYP=3
	8800	SGMR	4	S/F	1911.0	1912.0	3.0	42.0			QL=1 ST=2 TYP=3
	245	PALE	8	S	1942.0	1942.0	1.0	68.0			QL=1 ST=2 TYP=3
	9400	HUAN	1	S	2109.1	2111.2	5.1	5.1	3.0		O
	200	HIRA	46	C	2210.5	2211.9	2.1	1100.0			O

Reports are received routinely from the following observatories:

BERN = Berne	IZMI = IZMIRAN	ONDR = Ondrejov	SVTO = San Vito
CRIM = Crimea	KISK = Kislovodsk	OTTA = Ottawa	SYDN = Sydney
GORK = Gorky	KRAK = Krakow	PALE = Palehua	TORN = Torun
HIRA = Hiraiso	LEAR = Learmonth	PENT = Penticton	TRST = Trieste
HUAN = Huancayo	NOBE = Nobeyama	POTS = Potsdam	TYKW = Toyokawa
		SGMR = Sagamore Hill	UPIC = Upice

Explanation of Type Code:

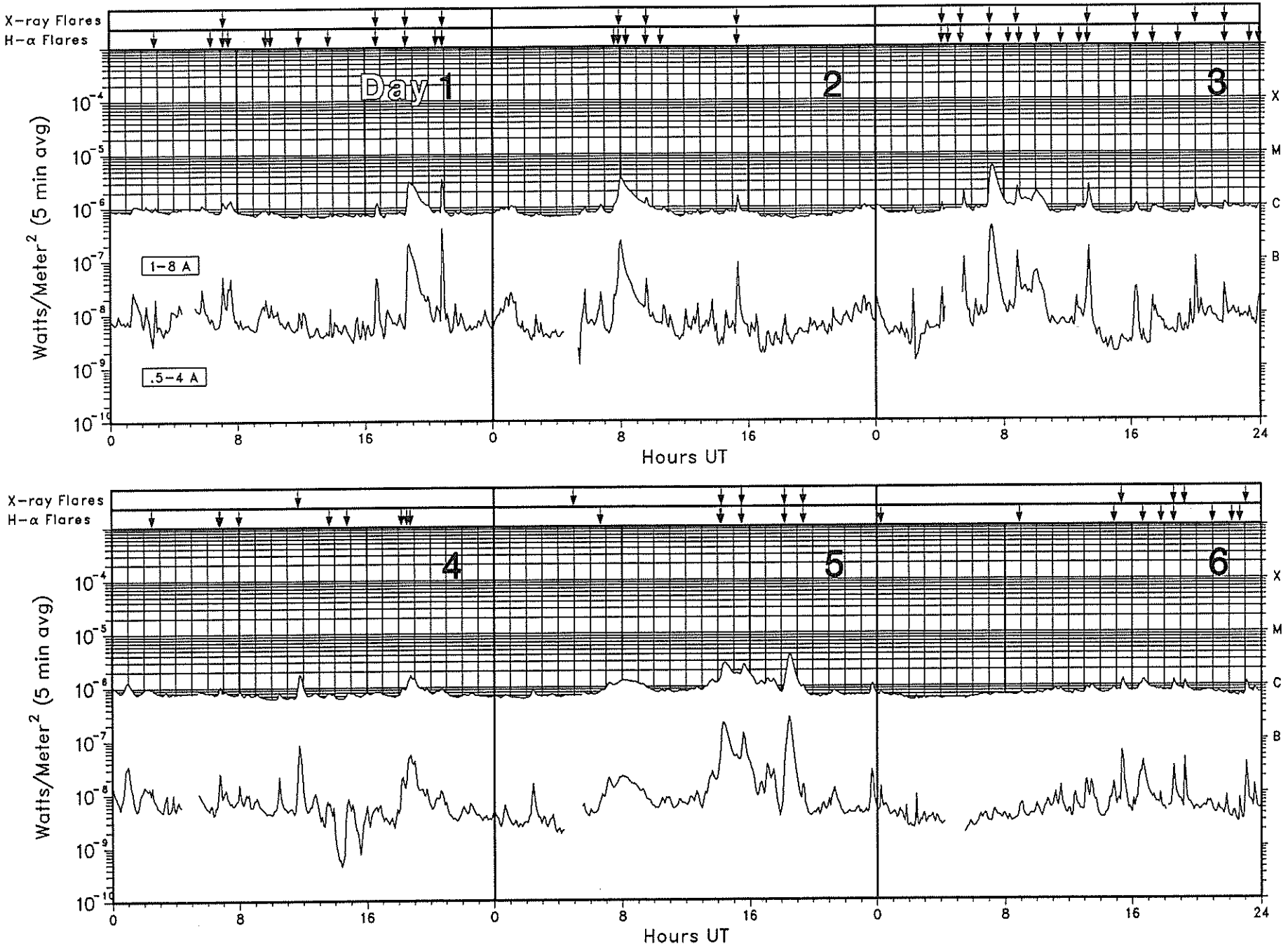
1 Simple 1	7 Minor +	24 Rise	30 Post Burst Increase A	43 Onset of Noise Storm
2 Simple 1F	8 Spike	25 Rise A	31 Post Burst Decrease	44 Noise Storm in Progress
3 Simple 2	20 Simple 3	26 Fall	33 Absorption	45 Complex
4 Simple 2F	21 Simple 3A	27 Rise and Fall	40 Fluctuation	46 Complex F
5 Simple	22 Simple 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; Ottawa, Canada 2800 MHz; Hiraiso, Japan 500 and 200 MHz; and Toyokawa, Japan 9400, 3750, 2000 and 1000 MHz.

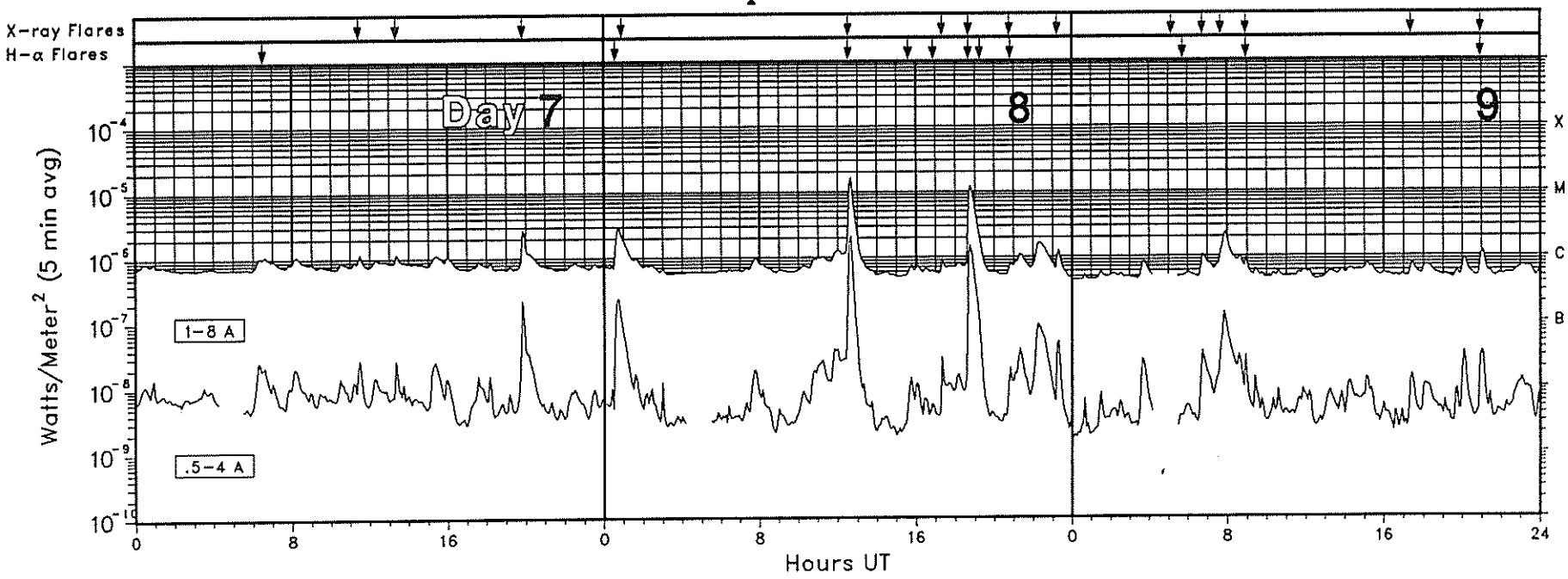
GOES-7 X-RAY DETECTOR

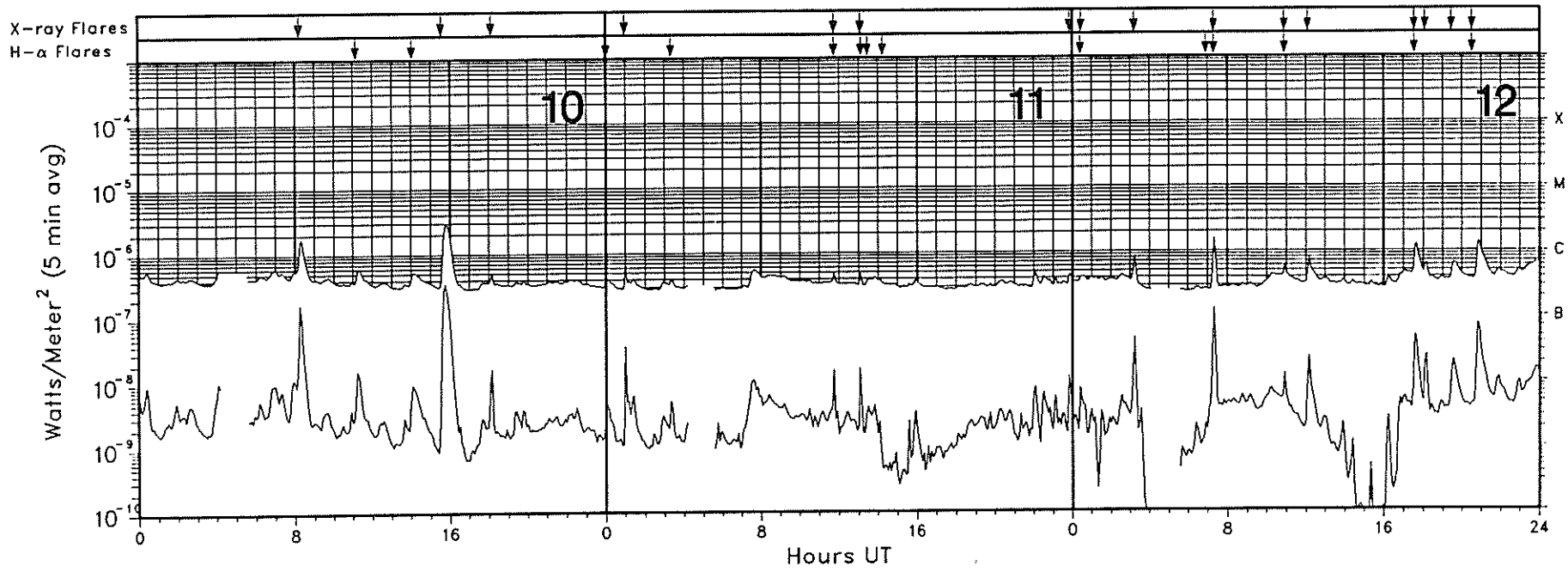
September 1988



GOES-7 X-RAY DETECTOR

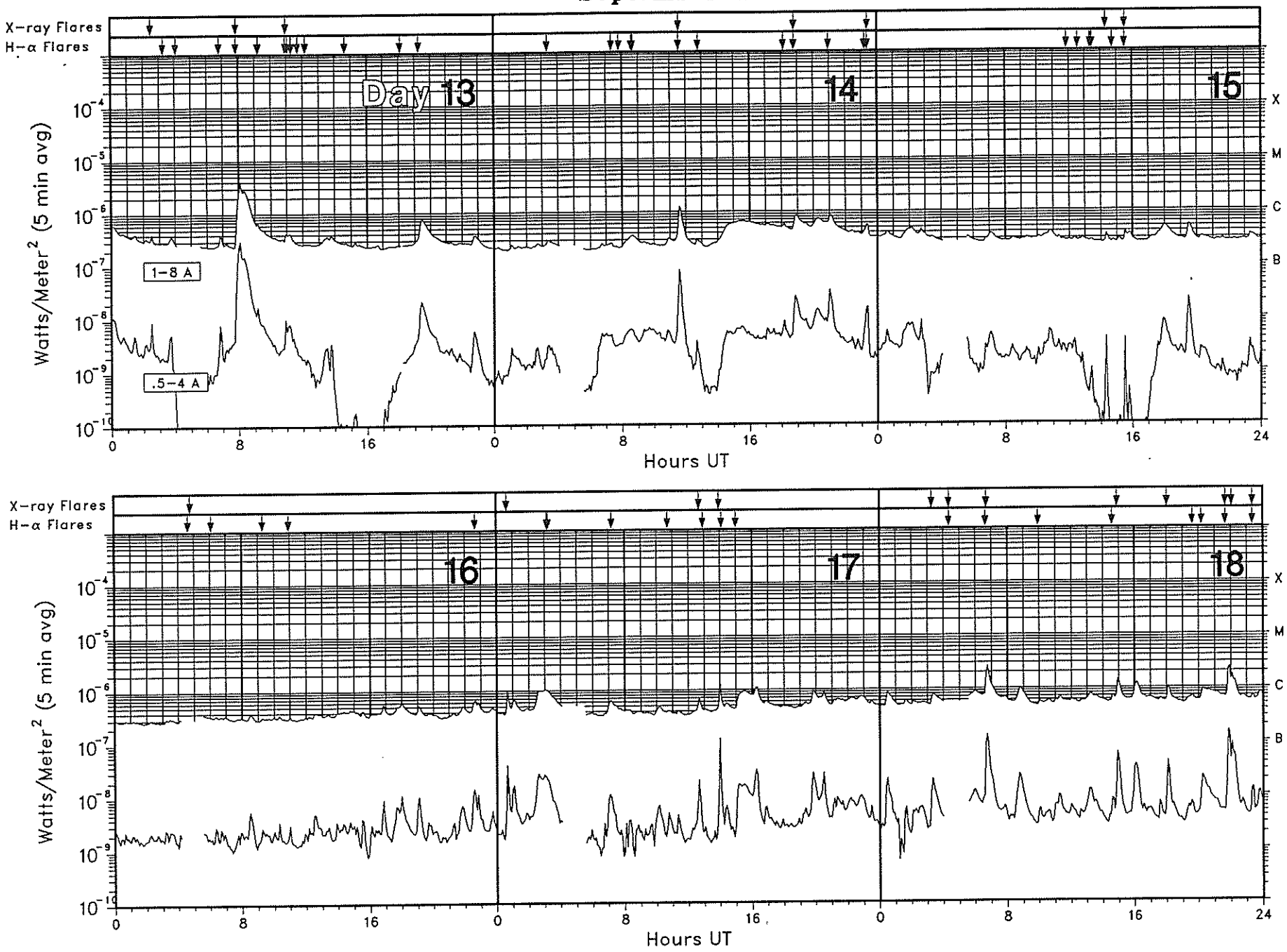
September 1988





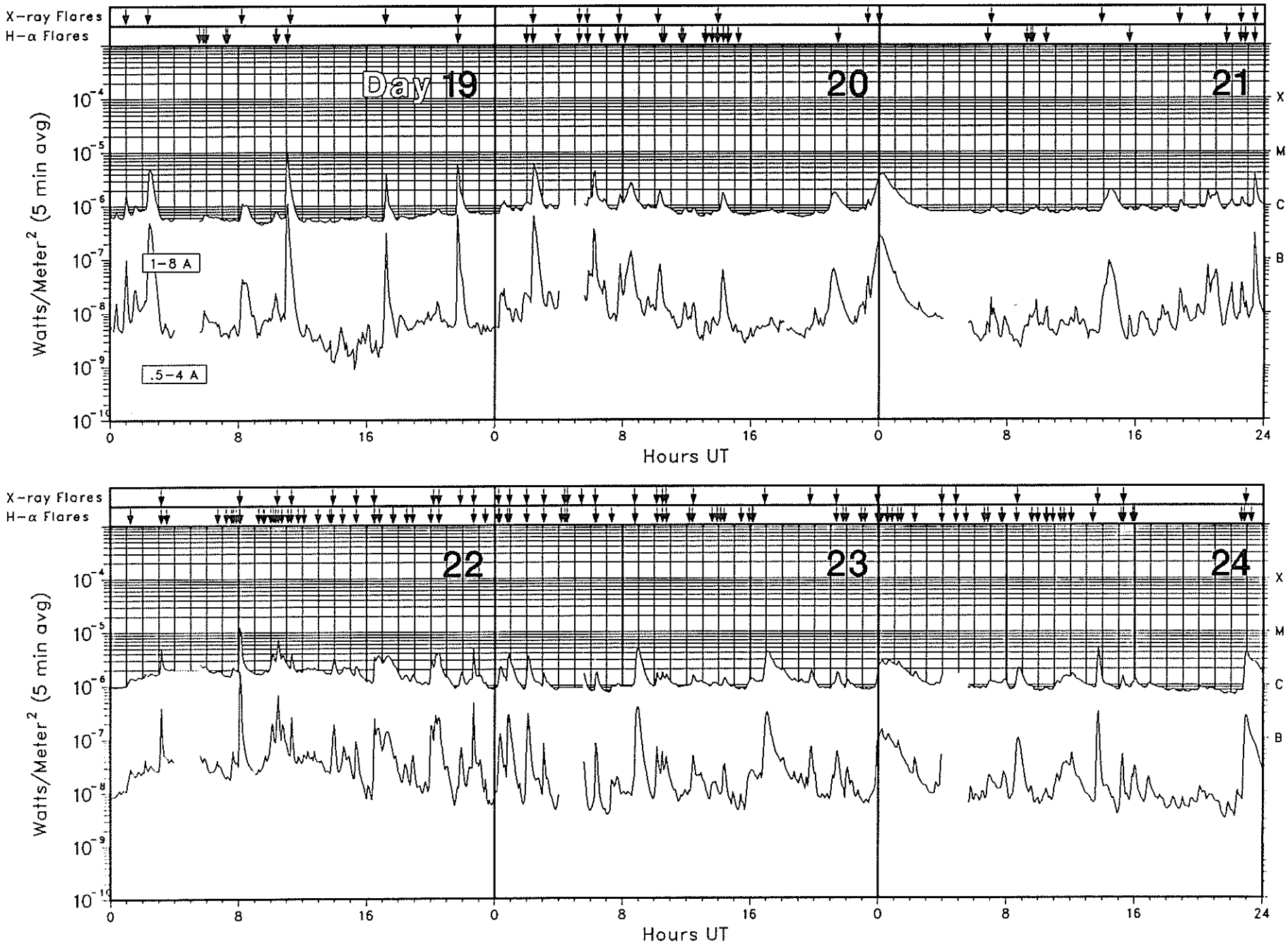
GOES-7 X-RAY DETECTOR

September 1988



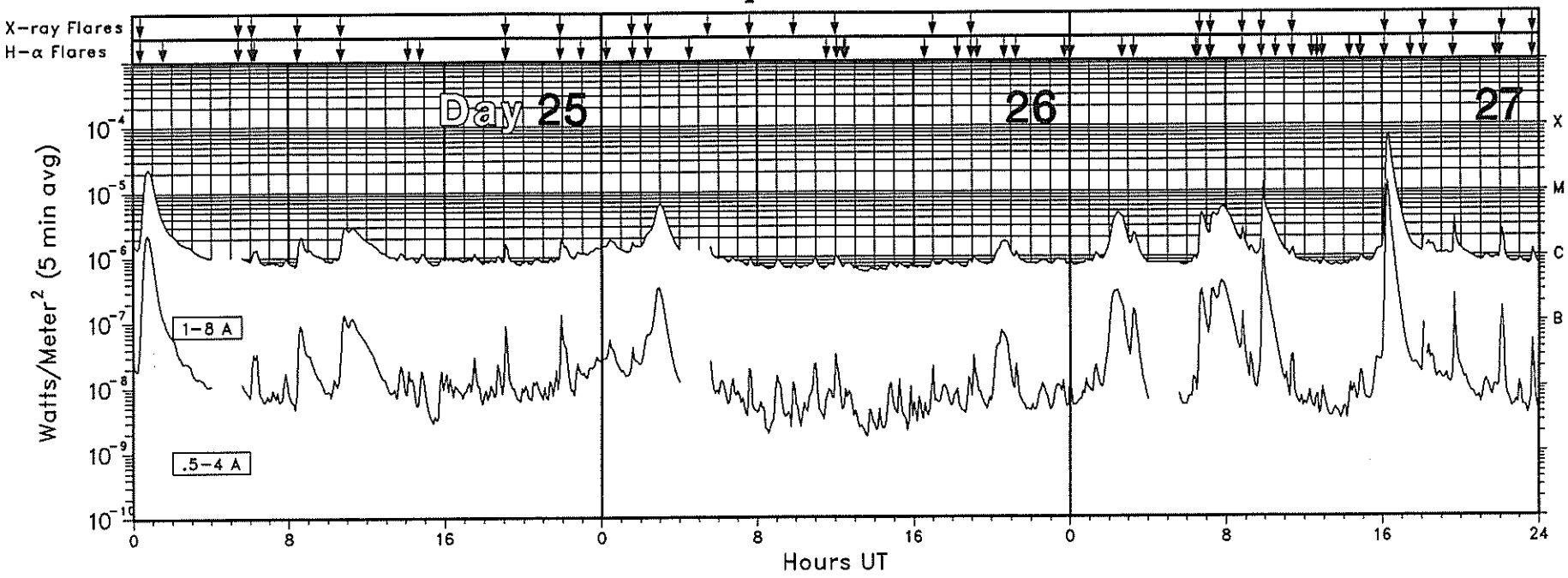
GOES-7 X-RAY DETECTOR

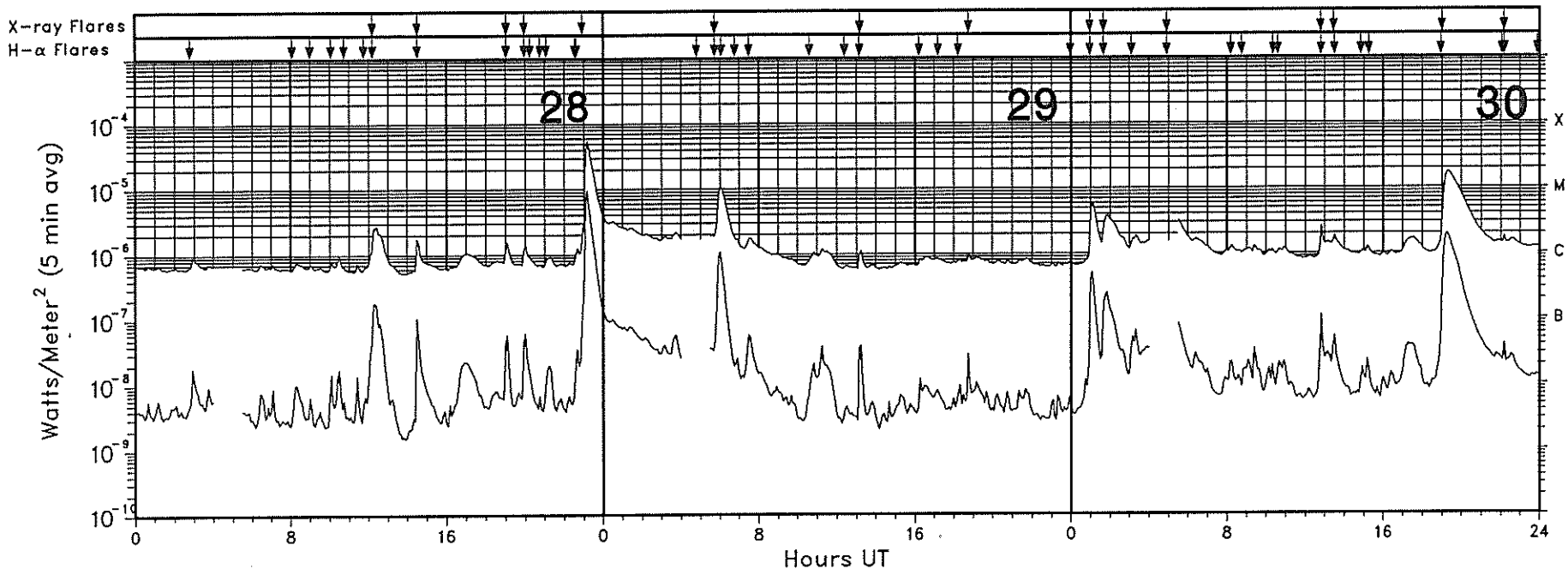
September 1988



GOES-7 X-RAY DETECTOR

September 1988





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

Preliminary Listing

September 1988

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Imp	Opt	Xray	NOAA/ USAF Region
01	0708E	0708	0715D	N24	E01		SF	C1.7	5128
01	1642E	1642	1658D	S21	E09		SF	C1.3	5131
01	1834E	1843	1858	N21	W11		SF	C3.1	5128
01	2052E	2053	2100D	S20	E10		SB	C6.1	5131
02	0755E	0758	0820D	S19	E04		SF	C3.6	5131
02	0937E	0940	0945D	S23	W02		SF	C1.7	5131
02	1518E	1520	1529D	S22	W04		SF	C1.7	5131
03	0410	0412	0419D	S22	W12		SF	C1.2	5131
03	0520E	0534	0544D	S21	W14		SF	C2.8	5131
03	0708	0716U	0740D	S20	W41		1N	C5.8	5126
03	0848	0854	0858					C2.4	
03	1317E	1319	1340D	S22	W14		SF	C2.7	5131
03	1618E	1618U	1636	S22	W14		SF	C1.2	5131
03	1959	2003	2006					C2.2	
03	2149	2149U	2202D	S17	W19		SF	C1.2	5131
04	1142	1150	1158					C1.8	
05	0459	0505	0513					C2.4	
05	1414E	1420	1455D	S21	W40		SF	C3.0	5131
05	1531E	1538	1603D	S18	W40		SF	C3.0	5131
05	1813E	1833	1904D	S17	W42		1F	C4.0	5131
05	1924E	1925	1930D	S19	W48		SF	C1.3	5131
06	1520	1525	1531					C1.4	
06	1835E	1836	1843D	S20	W63		SF	C1.2	5131
06	1915	1919	1923					C1.4	
06	2303E	2307	2318D	S19	W64		SF	C1.2	5131
07	1126	1130	1137					C1.2	
07	1321	1325	1328					C1.3	
07	1950	1954	1958					C4.0	
08	0054E	0054	0101D	S21	W66		SF	C3.0	5131
08	1233E	1238U	1251D	S23	W79		1N	M2.0	5131
08	1719	1723	1727					C1.0	
08	1840E	1841	1906D	S25	W27		SN	M1.2	5131
08	2047	2123	2139					C1.1	
08	2315	2319	2327					C1.3	
09	0509	0514	0521					C1.1	
09	0644	0649	0658					C1.1	
09	0740	0758	0806					C2.3	
09	0855	0858	0901					C1.0	
09	1721	1726	1737					B7.9	
09	2056E	2100	2127D	S13	E16		SF	C1.2	5143
10	0813	0821	0827					C1.9	
10	1533	1549	1604					C3.0	
10	1808	1811	1814					B6.2	
11	0058	0103	0105					C1.1	
11	1145E	1148	1153D	S09	E80		SF	B6.1	5148
11	1306	1310	1312					B6.7	
11	2351	2354	2357					B6.5	
12	0027	0030	0032					B6.3	
12	0313	0318	0320					C1.0	
12	0719E	0720	0731D	S11	E70		SF	C1.7	5148
12	1054E	1055	1104D	S27	W51		SF	B6.4	5147
12	1206	1212	1217					B8.3	
12	1733E	1736	1748D	S14	E65		SF	C1.3	5148
12	1806	1809	1811					B8.5	
12	1928	1938	1953					B6.5	
12	2032E	2055	2110D	S12	E61		1F	C1.4	5148
13	0229	0233	0236					B4.6	
13	0751E	0811	0855D	S12	E55		1N	C4.1	5148
13	1057E	1059	1107D	N31	E11		SF	B5.2	5142
14	1133E	1136	1159D	S12	E36		SF	C1.3	5148
14	1847E	1851	1928D	N33	W08		SF	B8.4	5142
14	2323E	2324	2329D	N31	W15		SF	B6.9	5142
15	1418	1423	1428					B3.6	
15	1530E	1531	1537D	S20	W60		SF	B4.3	5137
16	0447	0456	0504					C1.7	
17	0038	0043	0048					C1.0	
17	1241	1244	1246					B8.7	
17	1357	1402	1404					C2.1	
18	0317	0323	0341					B8.0	
18	0421E	0421	0424D	S36	E61		SF	C1.0	5158
18	0641E	0645	0706D	N19	E17		SF	C2.7	5154
18	1454E	1458	1511D	N20	E13		SF	C1.6	5154
18	1802	1808	1817					C1.0	
18	2140	2145U	2225	N29	E88		SN	C2.8	5159
18	2204	2207	2210					C2.0	
18	2322E	2324	2333D	S35	E51		SF	B8.9	5158
19	0058	0101	0105					C2.0	
19	0221	0229	0242					C5.3	
19	0812	0818	0841					C1.1	
19	1115	1117U	1128	N30	E76		SN	M1.6	5159
19	1711	1718	1721					C4.7	
19	2142E	2148	2155D	N31	E73		SN	C8.9	5159
20	0222E	0225	0244D	N28	E69		SF	C6.7	5159
20	0516E	0520	0531D	S35	E44		SF	C5.0	5158
20	0545E	0551	0630D	N28	E66		1N	C5.6	5159
20	0746E	0747	0753D	N27	E65		SF	C1.8	5159
20	1011	1024	1030					C2.0	
20	1356E	1414U	1442	S36	E33		1F	C1.9	5158
20	2317	2322	2328					C1.3	
21	0000		0013D	N22	E68		SF	C4.0	5163
21	0659	0702	0704					C1.1	
21	1352	1428	1500					C2.2	
21	1842	1848	1858					C1.4	
21	2027	2032	2035					C2.5	
21	2233E	2236	2300D	S34	E23		SF	C1.5	5158
21	2325E	2330	2340D	N27	E46		SN	C5.1	5159
22	0311E	0315U	0317D	N27	E44		SF	C5.6	5159
22	0805E	0807	0821D	N26	E41		SF	M2.0	5159
22	1026	1032	1037					C8.1	
22	1119E	1122	1136D	S16	E01		1N	C4.5	5156
22	1355E	1400	1424D	S17	W02		SF	C3.4	5156
22	1521E	1524	1541D	N27	E36		SF	C2.7	5159
22	1629E	1632	1644D	N28	E36		SF	C4.4	5159
22	2010	2018	2054	S15	W05		1N	C3.9	5156
22	2031E	2032U	2105	N26	E31		SF	C5.3	5159
22	2151	2158	2206					C1.8	
22	2241	2244U	2256	S14	W07		SN	C7.6	5156
23	0014E	0025	0049D	S14	W07		SN	C2.3	5156
23	0056E	0104	0126D	N27	E33		SF	C5.5	5159
23	0200E	0214	0231D	N27	E32		SF	C3.9	5159
23	0305E	0311	0320D	N27	E31		SF	C1.9	5159
23	0421	0425	0428					C1.6	
23	0433E	0436	0443D	N22	E34		SF	C2.0	

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

Preliminary Listing

September 1988

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Imp	Opt	Xray	NOAA/ USAF Region
23	0525	0533	0541					C2.3	
23	0618	0627	0633					C1.8	
23	0846E	0907	1000D	N28	E26	1F		C5.1	5159
23	1008	1012	1015					C2.1	
23	1030	1031U	1043D	N22	E80	SF		C1.9	5168
23	1043	1047	1051					C1.7	
23	1226E	1226	1233D	N27	E26	SF		C1.9	5159
23	1655	1709	1726					C4.3	
23	1943	1953	1958					C2.1	
23	2121E	2127	2157D	N19	E09	SF		C1.7	5166
23	2356E	0013	0133	N28	E19	SF		C3.1	5159
24	0356E	0357	0415D	N27	E17	SF		C1.8	5159
24	0449E	0451	0509D	S14	W23	SF		C1.6	5156
24	0840E	0842	0856D	N28	E12	SF		C2.1	5159
24	1341E	1344	1417D	S15	W29	1F		C5.3	5156
24	1517E	1517	1524D	N22	E23	SF		C1.7	5170
24	2256E	2301	2307D	S23	E67	SF		C4.4	5169
25	0024E	0037	0042	S18	E67	2B		M2.3	5169
25	0525E	0526	0536D	S17	W40	SF		C1.6	5156
25	0607E	0622	0645D	N18	E61	SF		C1.4	5168
25	0829E	0842	0919D	S19	W39	SF		C2.1	5156
25	1041E	1101	1224D	S16	W42	SF		C2.9	5156
25	1907E	1910	1928D	N20	E54	SF		C1.9	5168
25	2154E	2201	2211D	N19	W72	SF		C2.3	5164
26	0133E	0137	0156D	N17	E43	SF		C1.9	5168
26	0224E	0253	0319D	S37	W35	SF		C6.3	5158
26	0528	0533	0537					C2.6	
26	0737	0740	0745					C1.0	
26	0952	0955	0957					C1.0	
26	1200	1204	1206					C1.4	
26	1659	1702	1704					C1.1	
26	1858E	1908	1914D	N19	E36	SF		C1.6	5168
27	0639E	0645	0726D	N20	W01	SN		C4.7	
27	0713E	0719	0733D	S28	E68	SF		C5.7	5171
27	0850E	0850	0904D	S27	E62	SF		C3.1	5171
27	0950E	0956	1043D	S23	E63	2F		M1.6	5171
27	1123E	1123U	1134D	N19	E30	SF		C1.8	5168
27	1607E	1616	1717D	S27	E65	2B		M7.9	5171
27	1804	1809	1818					C2.4	
27	1938E	1941	1958D	S25	E53	2B		C4.7	5171
27	2206	2207U	2221D	S23	E59	1F		C2.7	5171
27	2340E	2341	2347D	S28	E58	SF		C1.3	5171
28	1212E	1216	1325D	S25	E59	SF		C2.9	5171
28	1431E	1432	1447D	S24	E56	SF		C2.5	5171
28	1902E	1903	1914D	S25	E49	SF		C1.8	5171
28	1957E	2001	2010D	S26	E50	SF		C1.6	5171
28	2255E	2308	0009D	S27	E48	3B		M5.7	5171
29	0544E	0601	0643D	S27	E48	1F		M1.1	5171
29	1311E	1314	1327D	S26	E46	SF		C1.2	5171
29	1846	1850	1852					C1.3	
30	0058E	0101	0135D	N19	W07	SF		C6.0	5168
30	0140E	0143	0210D	S27	E34	SF		C3.8	5171
30	0455E	0508	0541D	S26	E31	SF		C5.7	5171
30	1247	1252	1255					C3.2	
30	1327	1331	1335					C2.0	
30	1900	1912	2101	S27	E25	2N		M1.7	5171
30	2210	2213	2215					C2.0	

Preliminary GOES Satellite Data
Daily Average X-ray Background
October 1987 - September 1988

Day	1987 Oct	Nov	Dec	1988 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	A6.8	B2.2	A7.6	B2.0	B2.5	B1.0	B4.4	B1.9	B7.5	B8.4	B9.4	B6.9
2	A6.8	B3.8	A8.3	B1.4	B2.5	A8.5	B3.5	B2.6	B6.6	B7.1	B9.8	B6.5
3	A7.7	B3.4	A5.2	B4.6	B1.9	B1.1	B3.7	B3.7	B7.1	B9.7	C1.1	B6.9
4	B1.2	B3.4	A4.8	B2.4	B1.5	B1.8	B3.5	B5.1	B9.5	B6.3	B8.6	B6.7
5	B1.1	B2.1	A5.3	B2.3	B1.7	B1.6	B4.2	B4.1	B6.0	B6.4	B8.3	B6.4
6	B1.0	B2.1	A7.8	B2.5	B1.5	B1.4	B4.3	B2.9	B4.8	B6.5	B7.9	B6.1
7	B1.1	B1.7	A8.5	B2.5	B2.4	B1.6	B3.8	B3.1	B5.6	B6.8	B8.2	B6.9
8	B1.7	B1.2	A9.1	B2.7	B1.8	B1.6	B3.9	B2.5	B5.2	B7.0	C1.1	B5.5
9	B2.1	A8.8	B1.4	B2.3	B1.8	B1.6	B3.2	B1.8	B6.4	B7.7	C1.0	B4.8
10	B2.0	A8.8	A9.4	B3.0	B1.5	B1.8	B3.1	B1.6	B4.9	B9.1	C1.0	B3.2
11	B1.8	B1.9	B2.3	B2.1	B1.6	B2.8	B4.5	B1.6	B4.3	B7.7	B6.7	B2.7
12	B1.7	B1.4	B3.2	B3.1	B1.8	B3.4	B5.5	B1.5	B3.7	B4.9	B5.1	B2.8
13	B2.3	B1.4	B1.8	--	B1.8	B3.4	B4.4	B1.4	B3.0	B5.3	B3.9	B2.4
14	B2.1	A8.2	B1.3	B4.0	B1.5	B2.5	B6.0	B1.3	B2.8	B5.0	B3.1	B2.3
15	B2.2	A9.7	B1.4	B3.9	B1.4	B6.0	B7.4	B1.1	B3.3	B4.7	B3.2	B2.6
16	B2.6	B1.1	B1.2	B5.1	B1.2	B6.9	B9.2	B1.3	B3.7	B5.5	B3.0	B3.0
17	B2.1	B1.1	A9.5	B3.6	B1.2	B4.6	B5.3	B2.0	B3.6	B4.8	B3.2	B3.6
18	B2.6	B1.6	A8.9	B2.2	B1.6	B3.0	B3.9	B3.2	B4.0	B6.7	B2.8	B5.3
19	B2.4	B2.7	A7.3	B2.5	B1.4	B3.3	B5.5	B2.9	B2.6	B9.2	B2.7	B4.8
20	B1.7	B5.2	A7.1	B2.3	B1.2	B4.4	B5.1	B3.2	B2.6	B4.5	B2.7	B6.9
21	B1.5	B3.5	A9.8	B2.4	B1.3	B3.8	B4.7	B4.1	B3.5	B6.5	B2.8	B7.2
22	B1.6	B3.6	B1.5	B2.0	A9.9	B3.7	B3.1	B5.8	B4.6	B7.2	B2.7	C1.0
23	B1.4	B3.0	B1.0	B2.0	B1.0	B6.0	B2.2	B8.8	B9.8	B6.1	B7.4	B8.8
24	B1.4	B2.9	B2.3	B3.1	A9.0	B6.8	B2.6	B4.5	C1.2	B6.7	B7.7	B8.1
25	B1.8	B2.9	B4.9	B1.9	A9.0	B6.1	B2.0	B5.3	---	B7.7	B7.3	B8.5
26	B1.9	B2.9	B4.7	B2.2	B9.5	B4.5	B1.5	B3.8	C2.7	B8.0	B7.4	B6.2
27	B2.5	B2.0	B3.4	B4.6	B1.0	B4.0	B1.1	B3.7	C1.1	B8.9	B8.1	B7.3
28	B2.7	B1.7	B2.3	B5.1	B1.2	B3.5	B1.1	B5.0	C1.6	B9.4	B7.3	B6.0
29	B1.9	B1.7	B1.8	B4.4	B2.0	B3.5	B1.1	B7.2	C1.5	B9.9	B9.2	B6.0
30	B2.7	B1.1	B2.5	B2.7		B3.3	B1.6	B8.0	B8.1	B7.8	B9.4	B8.4
31	B2.7		---	B2.1		B4.2		B8.5		B9.4	B8.9	

MASS EJECTIONS FROM THE SUN

SEPTEMBER 1988

Sta	Day	Observed UT Start	Max	End	Location RA°	R/R$_0$	Freq or Wavelength	Kind of Event
PALE	Sep 01	1841.0		1915.0			Meter	II
SGMR	Sep 01	1841.0		1915.0			Meter	II
KHAR	Sep 03	0818	0829	0910	056-058	1.00-1.03	H-alpha	S
SGMR	Sep 08	1850.0		1914.0			Meter	II
PALE	Sep 08	1854.0		1915.0			Meter	II
WEIS	Sep 10	1540.6		1546.6			130-40 MHz	II Herringbone
PALE	Sep 10	1540.6		1546.6			Meter	II
SGMR	Sep 10	1541.0		1546.0			Meter	II
KHAR	Sep 14	0752 E		0812	115-117	0.69-0.73	H-alpha	S
SGMR	Sep 17	1500.0		1509.0			Meter	IV
CULG	Sep 18	2211.0		2212.0			Meter	II
KHAR	Sep 22	1010		1050 D	190	0.35	H-alpha	S
KHAR	Sep 22	1055		1120	066	0.90-0.93	H-alpha	S
KHAR	Sep 22	1121		1132 D	160	0.33	H-alpha	S
VORO	Sep 22	2259	2306 U	2326	065	0.37	H-alpha	S
VORO	Sep 23	0112	0115 U	0136	068	1	H-alpha	S
KHAR	Sep 24	0848		0858	026	0.49	H-alpha	S
SGMR	Sep 24	1337.0		2400.0			Meter	IV
VORO	Sep 24	2252	2300 U	2321	086	1	H-alpha	A
CULG	Sep 25	0031.0		0035.0			Meter	II
LEAR	Sep 25	0034.0		0038.0			Meter	II
CULG	Sep 25	0035.0		0100.0			Meter	II
LEAR	Sep 25	0036.0		0102.0			Meter	IV
PALE	Sep 25	0036.0		0049.0			Meter	II
PALE	Sep 25	0036.0		0101.0			Meter	IV
CULG	Sep 25	0047.0		0051.0			Meter	II
WEIS	Sep 25	1119.6		1137.9			42-30 MHz	II
LEAR	Sep 27	0647.0		0658.0			Meter	II
LEAR	Sep 27	0707.0		1004.0			Meter	IV
KHAR	Sep 27	0910 E		0930	116	0.89	H-alpha	S
WEIS	Sep 27	1614.8		1621.5			250-30 MHz	II Herringbone
SGMR	Sep 27	1616.0		1629.0			Meter	II
WEIS	Sep 27	1625.8		1630.7			70-36 MHz	II Herringbone
WEIS	Sep 27	1635.6		1638.6			50-30 MHz	II
VORO	Sep 28	0233	0254 U	0300 D	055	1	H-alpha	SP
VORO	Sep 28	2301	2310 U	2338	200	0.8	H-alpha	S
CULG	Sep 28	2309.0		2338.0			Meter	II
LEAR	Sep 28	2309.0		0314.0			Meter	IV
LEAR	Sep 28	2313.0		2314.0			Meter	II
PALE	Sep 28	2313.0		2314.0			Meter	II
KHAR	Sep 30	0904 E		0920	146	0.60	H-alpha	S
SGMR	Sep 30	1916.0		1936.0			Meter	II

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

REPORTING STATIONS
- CULG = Culgoora
- KHAR = Kharkov
- LEAR = Learmonth
- PALE = Palehua
- SGMR = Sagamore Hill
- VORO = Voroshilov
- WEIS = Weissenau

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

ACTIVE PROMINENCES AND FILAMENTS

SEPTEMBER 1988

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	0622E	1610D	N21	W05	08	31.9		03	7	8	E	SVTO	5128	
01	ADF	0627E	1610D	S25	W14	08	31.2	1	10	9	9	E	SVTO	5126	
01	APR	0629E	1610D	N32	E90	09	8.4	1		9	9	E	SVTO		
01	DSD	0630E	0701	S22	E13	09	2.3		15	9	9	E	SVTO	5131	Flare Associated
01	DSD	0640E	0707D	S21	E12	09	2.2		12	9	9	E	LEAR	5131	
01	DSD	0709	0731	N24	W01	09	1.2		07	9	9	E	SVTO	5128	Flare Associated
01	DSD	1130E	1700D	S21	E17	09	2.8		02	9	9	E	RAMY	5131	
01	DSD	1130E	1700D	S22	E08	09	2.1		03	9	9	E	RAMY	5131	
01	AFS	1235E	1700D	N20	W07	09	1.0		02	8	9	E	RAMY	5128	
01	ADF	1246E	1700D	N24	E68	09	6.8	1	02	9	9	E	RAMY	5133	
01	DSD	1715E	1952D	N22	W08	09	1.1		05	9	9	E	HOLL	5128	
01	DSD	1808E	0432D	S22	E04	09	2.1		05	9	9	E	PALE	5131	
01	AFS	1818E	0432D	N23	W12	08	31.8		04	6	5	E	PALE	5128	
01	DSD	1824E	0432D	N20	W09	09	1.1		04	9	9	E	PALE	5128	
01	SDF	1837E	2035D	N26	E01	09	1.8		07	0	0	E	PALE		
01	SDF	2104E	2345D	N25	W19	08	31.4		07	0	0	E	HOLL		
01	SDF	2214E	1837D	S40	E20	09	3.5		08	0	0	E	PALE		
02	DSD	0407E	0424	N18	W15	09	1.0		05	9	9	E	LEAR	5128	
02	AFS	0455E	0956D	S20	E04	09	2.5		03	9	9	E	LEAR	5131	
02	ADF	0622E	1448D	S15	E07	09	2.8	1	04	9	9	E	SVTO	5131	
02	DSD	0637E	0903D	N22	W13	09	1.3		06	9	9	E	SVTO	5128	
02	BSL	0640E	0650D	N18	E90	09	9.1	1-				C	CATA		
02	ADF	0850E	0918D	N32	W02	09	2.2	1				V	KHAR		
02	BSL	0930	0946D	S18	E90	09	9.2	1-				C	CATA		
02	BSL	0937	0946	S35	W90	08	26.3	1-				C	CATA		
02	ADF	1045E	1055D	S25	E03	09	2.7	1				V	KHAR		
02	BSL	1102	1110	N63	W90	08	25.5	1-				C	CATA		
02	BSL	1136	1145D	S55	W90	08	25.8	1				C	CATA		
02	ADF	1235E	1816D	S17	E06	09	3.0	2	05	9	9	E	RAMY	5131	
02	ADF	1235E	1816D	S25	E00	09	2.5	2	04	9	9	E	RAMY	5131	
02	DSD	1355E	1816D	N19	W26	08	31.6		02	9	9	E	RAMY	5128	
02	ASR	1440E	1816D	N32	E90	09	9.7			9	9	E	RAMY		
02	ASR	1750E	0431D	N35	E90	09	9.9			9	9	E	PALE		
02	AFS	1750E	0431D	S20	W02	09	2.6		02	9	9	E	PALE	5131	
02	SDF	2214E	1837D	S40	E20	09	4.5		08	0	0	E	PALE		
03	SDF	0029E	0020D	N33	W26	08	31.9		11	0	0	E	LEAR		
03	DSD	0313E	0410	S23	W15	09	2.0		05	9	9	E	LEAR	5131	
03	DSD	0314E	0315D	S21	W13	09	2.1		06	9	9	E	PALE	5131	
03	ASR	0555E	1649D	N38	E90	09	10.5			9	9	E	SVTO		
03	ASR	0557E	0956D	N32	E90	09	10.4			9	9	E	LEAR		
03	BSL	0818	0910	N32	E90	09	10.5	1				V	KHAR		
03	AFS	0852E	0956D	N18	E15	09	4.5		02	9	9	E	LEAR		
03	AFS	0930E	1649D	N20	E15	09	4.5		02	9	9	E	SVTO		
03	BSL	0945	1000	N37	E90	09	10.6	1-				C	CATA		
03	BSL	1055E	1110D	N34	E90	09	10.6	1-				C	CATA		
03	BSL	1055E	1110D	N36	E90	09	10.7	1				C	CATA		
03	DSD	1110E	1725D	S19	W44	08	31.1		02	9	9	E	RAMY	5126	
03	DSD	1110E	1725D	S19	W48	08	30.9		02	9	9	E	RAMY	5126	
03	ADF	1110E	2144D	S26	W41	08	31.3	2	08	9	9	E	RAMY	5126	
03	DSD	1115E	2029D	N18	W40	08	31.4		02	9	9	E	RAMY	5128	
03	ADF	1122E	1420D	S20	W11	09	2.6	1	05	9	9	E	RAMY	5131	
03	ASR	1130E	1426D	N29	E90	09	10.5			9	8	E	RAMY		
03	ASR	1130E	1926D	N35	E90	09	10.7			9	9	E	RAMY		
03	AFS	1240E	2144D	N19	E13	09	4.5		02	9	9	E	RAMY		
03	DSD	1455E	1959D	S21	W19	09	2.2		03	9	5	E	HOLL	5131	
03	SDF	1503E	1510D	N28	E07	09	4.2		11	0	0	E	HOLL		
03	ASR	1504E	0109D	N35	E85	09	10.4			9	9	E	HOLL	5134	
03	SDF	1837E	2035D	N26	E01	09	3.8		07	0	0	E	PALE		
03	AFS	2130E	0337D	S20	E08	09	4.5		02	7	7	E	PALE	5135	
04	AFS	0020E	0109D	N19	E06	09	4.5		02	5	5	E	HOLL	5135	
04	DSD	0237	0349D	S15	W18	09	2.7		02	8	7	E	LEAR	5131	
04	DSD	0243E	0254D	N20	W48	08	31.4		09	9	9	E	LEAR	5128	
04	AFS	0550E	1650D	N19	E02	09	4.4		02	9	9	E	SVTO	5135	
04	ADF	0559E	1650D	S24	W27	09	2.2	1	07	9	9	E	SVTO	5131	
04	BSL	0646	0705	S21	E90	09	11.2	1-				C	CATA		
04	BSL	0720	0805D	S21	E90	09	11.2	1				C	CATA		
04	AFS	0815E	0952D	N17	W17	09	3.0		02	9	9	E	LEAR		

ACTIVE PROMINENCES AND FILAMENTS

SEPTEMBER 1988

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
04	BSL	0817E	0920D	S22	E90	09	11.3	1				C	CATA		
04	AFS	0830E	1650D	N15	W18	09	3.0		02	9	9	E	SVTO		
04	BSL	0937E	1000D	S22	E90	09	11.3	1				C	CATA		
04	BSL	1012E	1020D	S23	E90	09	11.3	1-				C	CATA		
04	SDF	1021E	1650D	N22	E05	09	4.8		10	5	5	E	SVTO		
04	BSL	1044	1054	S22	E90	09	11.4	1-				C	CATA		
04	DSD	1122E	2200D	S20	W58	08	31.0		02	9	9	E	RAMY	5126	
04	ADF	1122E	2200D	S24	W57	08	31.1	1	04	9	9	E	RAMY	5126	
04	ADF	1350E	1545D	S25	W23	09	2.8	2	12	9	8	E	RAMY	5131	
04	DSD	1412E	1720D	N21	W49	08	31.8		03	9	9	E	RAMY	5128	
04	AFS	1523E	0118D	N16	W22	09	3.0		03	9	8	E	HOLL	5136	
04	DSD	1811E	2230D	S19	W34	09	2.2		04	9	9	E	HOLL	5131	
04	AFS	1815E	2230D	N19	W04	09	4.4		02	9	9	E	HOLL	5135	
04	ASR	1816E	0118D	S19	E78	09	10.7			9	9	E	HOLL	5137	
04	EPL	1845E	1936D	S07	E89	09	11.4	3		9	9	E	HOLL		
04	EPL	1845E	1945D	S09	E90	09	11.5	3		9	9	E	RAMY		
04	AFS	2253E	0952D	N19	E07	09	5.5		02	9	9	E	LEAR	5135	
04	ASR	2253E	0952D	N33	E90	09	12.1			9	9	E	LEAR	5134	
04	AFS	2253E	0952D	S17	W21	09	3.3		05	9	9	E	LEAR	5131	
04	AFS	2312E	0938D	N19	W05	09	4.6		02	9	9	E	LEAR	5135	
05	AFS	0020E	0938D	N27	W16	09	3.8		02	9	9	E	LEAR	5136	
05	DSD	0045	0220	S15	W37	09	2.2		06	9	9	E	LEAR	5131	
05	AFS	0602E	1642D	N18	W11	09	4.4		04	9	9	E	SVTO	5135	
05	ADF	0603E	1642D	S14	W49	09	1.5	1	11	8	8	E	SVTO	5129	
05	BSL	0825	0905	S25	W90	08	29.5	2				C	CATA		
05	BSL	0846E	0915	N18	W90	08	29.6	1				C	CATA		
05	DSD	1105E	2207D	S20	W49	09	1.7		04	9	9	E	RAMY	5131	
05	DSD	1115E	2125D	S21	W73	08	31.0		02	9	9	E	RAMY	5126	
05	ADF	1115E	2125D	S25	W70	08	31.0	1	04	9	9	E	RAMY	5126	
05	ADF	1126E	2207D	N23	W63	08	31.6	1	09	9	9	E	RAMY	5128	
05	ADF	1235E	2207D	S15	E75	09	11.2	1	04	9	9	E	RAMY		
05	DSD	1430E	1655D	S26	W40	09	2.5		02	9	9	E	RAMY	5131	
05	ADF	1430E	2207D	S15	W38	09	2.7	1	07	9	9	E	RAMY	5131	
05	AFS	1430E	2207D	S17	W36	09	2.9		03	9	9	E	RAMY	5131	
05	ADF	1430E	2207D	S24	W40	09	2.5	1	10	9	9	E	RAMY	5131	
05	DSD	1445E	1736D	N19	W19	09	4.2		03	9	9	E	RAMY	5135	
05	DSD	1557E	1627D	S16	W42	09	2.5		04	9	9	E	SVTO	5131	Flare Associated
05	ASR	1600E	1722D	S25	W90	08	29.8			9	9	E	RAMY	5126	
05	SDF	1603E	1349D	N39	W02	09	5.5		08	0	0	E	RAMY		
05	DSD	1650E	2125D	N23	W62	08	31.9		02	9	9	E	RAMY	5128	
05	AFS	1736E	2207D	N18	W17	09	4.4		02	9	9	E	RAMY	5135	
05	DSD	1929E	0428D	S19	W49	09	2.1		04	9	9	E	PALE	5131	
05	ASR	1930E	2153D	S23	E88	09	12.6			8	8	E	HOLL	5137	
05	ASR	1945E	2207D	S25	E87	09	12.6			9	9	E	RAMY	5137	
05	ASR	2018E	0057D	S24	E87	09	12.6			9	9	E	PALE	5137	
06	DSD	0130E	0310D	S20	W53	09	2.0	1	05	9	9	E	LEAR	5131	
06	AFS	0230E	0952D	S22	W46	09	2.6		03	4	7	E	LEAR	5131	
06	ASR	0515E	0952D	S20	W90	08	30.4			9	9	E	LEAR	5126	
06	BSL	0655	0710	S28	W90	08	30.3	1-				C	CATA		
06	BSL	0715	0725	S28	W90	08	30.4	1-				C	CATA		
06	BSL	0815	0819D	S23	W90	08	30.5	1-				C	CATA		
06	BSL	0936	0957	S27	W90	08	30.5	1-				C	CATA		
06	BSL	1001	1010	S22	W90	08	30.6	1-				C	CATA		
06	BSL	1045	1050	S21	W90	08	30.6	1-				C	CATA		
06	AFS	1105E	1559D	N15	W47	09	2.9		06	8	8	E	SVTO	5136	
06	AFS	1110E	1559D	N38	E55	09	10.9		07	9	9	E	SVTO	5134	
06	DSD	1112E	2015D	S19	W57	09	2.1		03	9	9	E	RAMY	5131	
06	ASR	1112E	2156D	S21	W80	08	31.3			9	9	E	RAMY	5126	
06	BSL	1125	1137D	S69	W90	08	29.4	1-				C	CATA		
06	ASR	1228E	2156D	N33	E88	09	13.5			9	9	E	RAMY		
06	AFS	1247E	2156D	N17	W47	09	3.0		02	9	9	E	RAMY	5136	
06	ASR	1304E	0115D	S21	W90	08	30.7			9	9	E	HOLL	5126	
06	ASR	1345E	0115D	N34	E87	09	13.5			9	9	E	HOLL		
06	ASR	1345E	1436D	N35	E87	09	13.5			9	9	E	SVTO		
06	ASR	1722E	0428D	S25	W90	08	30.8			5	5	E	PALE	5126	
06	ASR	1728E	0428D	N33	E90	09	13.9			9	9	E	PALE		
06	AFS	1825E	2156D	N20	W09	09	6.1		01	9	9	E	RAMY		
06	SDF	1830E	1830D	N15	E39	09	9.7		12	0	0	E	RAMY	5138	

ACTIVE PROMINENCES AND FILAMENTS

SEPTEMBER 1988

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	AFS	1935E	0115D	N16	W52	09	2.9		02	9	9	E	HOLL	5136	
06	AFS	1941E	0428D	N16	W52	09	2.9		02	9	9	E	PALE	5136	
06	AFS	2103E	0428D	N19	W11	09	6.0		01	9	9	E	PALE		
06	AFS	2226E	0115D	N20	W11	09	6.1		02	8	9	E	HOLL	5141	
06	ASR	2315E	0944D	N32	E90	09	14.1			9	9	E	LEAR		
06	AFS	2320E	0944D	N11	W21	09	5.4		02	9	9	E	LEAR	5141	
07	ASR	0040E	0115D	N19	W85	08	31.5			9	9	E	HOLL	5128	
07	ASR	0040E	0830D	S23	W75	09	1.2			9	9	E	LEAR	5126	
07	ASR	0045E	0944D	N20	W82	08	31.7			9	9	E	LEAR	5128	
07	AFS	0535E	1638D	N13	W60	09	2.7		02	9	9	E	SVTO	5136	
07	ASR	0536E	0815D	S27	W90	08	31.2			9	9	E	SVTO	5126	
07	AFS	0605E	0944D	N17	W57	09	2.9		02	9	7	E	LEAR	5136	
07	ASR	0606E	1638D	N33	E90	09	14.4			9	9	E	SVTO	5140	
07	BSL	0631E	0655	S25	W90	08	31.3	1-	/			C	CATA		
07	BSL	0647	0711D	N32	E90	09	14.4	1-				C	CATA		
07	BSL	0832E	0835	S18	W90	08	31.5	1				C	CATA		
07	BSL	0840	0900	S15	W90	08	31.5	1				C	CATA		
07	BSL	0942	0955D	N17	W90	08	31.6	1-				C	CATA		
07	BSL	1050	1115	N18	W90	08	31.6	1				C	CATA		
07	ASR	1148E	1500D	S21	W90	08	31.6			9	9	E	RAMY	5126	
07	AFS	1148E	1735D	N18	W19	09	6.0		02	8	6	E	RAMY	5141	
07	AFS	1148E	1923D	N16	W62	09	2.8		02	9	9	E	RAMY	5136	
07	ASR	1148E	1923D	N31	E85	09	14.2			9	9	E	RAMY		
07	ADF	1148E	1923D	S15	E51	09	11.3	2	05	9	9	E	RAMY		
07	ASR	1310E	1923D	N21	W85	09	1.0			9	9	E	RAMY	5128	
07	ASR	1459E	2245D	S13	W88	09	1.0			9	9	E	HOLL	5129	
07	ASR	1500E	1923D	N81	W12	09	6.5			9	9	E	RAMY	5129	
08	ASR	0400E	0947D	S14	W80	09	2.1			9	9	E	LEAR	5129	
08	ASR	0740E	0947D	N14	E90	09	15.1			9	9	E	LEAR		
08	ASR	0758E	0844D	N17	E87	09	14.9			9	9	E	SVTO		
08	ASR	0801E	0825D	S22	W87	09	1.6			9	9	E	SVTO	5131	
08	ASR	1350E	1545D	S21	W79	09	2.5			4	9	E	HOLL	5131	
08	SSB	1410		266	W00	09	13.5			0	0	E	HOLL		
08	ASR	1428E	2318D	N15	E82	09	14.8			9	9	E	HOLL	5144	
08	AFS	1439E	0032D	S13	E37	09	11.4		02	9	9	E	HOLL	5143	
08	AFS	1655E	1932D	N15	E78	09	14.6		02	9	9	E	PALE		
08	SDF	1843E	1831D	N15	E61	09	13.4		06	0	0	E	PALE		
08	SDF	1843E	1831D	S32	W16	09	7.5		04	0	0	E	PALE		
08	ASR	1919E	0032D	S22	W90	09	1.9			9	9	E	HOLL	5131	
09	ASR	0115E	0950D	S20	E90	09	15.9			9	9	E	LEAR	5131	
09	BSL	0630E	0630D	S35	W90	09	2.1	1-				C	CATA		
09	BSL	0641E	0645D	S34	W90	09	2.1	1-				C	CATA		
09	BSL	0645	0645D	S20	W90	09	2.4	1-				C	CATA		
09	BSL	0645	0645D	S27	W90	09	2.3	1-				C	CATA		
09	BSL	0751	0800	N18	W90	09	2.5	1-				C	CATA		
09	BSL	0834	0845	S34	W90	09	2.2	1-				C	CATA		
09	ASR	0840E	1415D	S29	W90	09	2.3			9	9	E	SVTO	5131	
09	BSL	0910E	0910D	S34	W90	09	2.2	1-				C	CATA		
09	BSL	0930E	0930D	N73	W90	09	1.1	1-				C	CATA		
09	BSL	0930E	0930D	S27	W90	09	2.4	1-				C	CATA		
09	BSL	1051E	1100	S20	W90	09	2.6	1-				C	CATA		
09	BSL	1051E	1120	S24	W90	09	2.5	1				C	CATA		
09	BSL	1113E	1138D	S27	W90	09	2.4	1-				C	CATA		
09	AFS	1230E	1632D	N34	E08	09	10.1		02	9	9	E	SVTO		
09	AFS	1230E	1632D	S29	W47	09	5.8		01	9	9	E	SVTO	5140	
09	ASR	1430E	0056D	S28	W83	09	3.1			6	5	E	HOLL	5131	
09	AFS	1526E	0056D	N17	E25	09	11.5		02	6	6	E	HOLL	5145	
09	AFS	1529E	0056D	S27	W49	09	5.8		01	7	8	E	HOLL	5140	
09	ASR	1727E	2042D	S25	W87	09	3.0			9	9	E	PALE	5131	
09	AFS	1743E	2042D	N17	E23	09	11.5		02	9	9	E	PALE		
10	AFS	0105E	0952D	N17	E21	09	11.6		02	8	5	E	LEAR	5145	
10	DSD	0530	0738D	S08	E12	09	11.1		06	9	9	E	LEAR	5143	
10	DSD	0540	0952D	N31	W57	09	5.7		03	9	9	E	LEAR		
10	DSD	0610E	0854D	N28	W57	09	5.8		05	9	9	E	SVTO		
10	AFS	0615E	1620D	N28	W55	09	6.0		02	8	7	E	SVTO		
10	AFS	0634E	1620D	N17	E17	09	11.6		02	8	6	E	SVTO	5145	

ACTIVE PROMINENCES AND FILAMENTS

SEPTEMBER 1988

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	ASR	0649E	0854D	S23	W90	09	3.3			9	9	E	SVTO		
10	ASR	0655E	0702	S29	W90	09	3.2			9	8	E	SVTO		
10	BSL	0745E	0755	S20	W90	09	3.4	1-				C	CATA		
10	BSL	0810	0815	S24	W90	09	3.4	1-				C	CATA		
10	BSL	0823	0839	N77	W90	09	2.0	1-				C	CATA		
10	BSL	0823	0845	S21	W90	09	3.4	1-				C	CATA		
10	SDF	1145E	0539D	N21	E27	09	12.5	1				C	CATA		
10	ADF	1230E	1630D	S15	E10	09	11.3	1	06	9	9	E	SVTO	5143	
10	AFS	1335E	2009D	N15	E59	09	15.0		02	9	9	E	RAMY	5144	
10	ADF	1335E	2009D	N28	E53	09	14.7	1	05	9	9	E	RAMY	5142	
10	AFS	1335E	2009D	N30	W58	09	6.0		03	9	9	E	RAMY	5146	
10	AFS	1525E	2358D	N15	E58	09	15.0		02	9	9	E	HOLL	5144	
10	AFS	1720E	1925D	S25	W30	09	8.4		02	6	9	E	HOLL		
10	AFS	1745E	0424D	N15	E57	09	15.0		01	9	9	E	PALE	5144	
10	AFS	1745E	0424D	N17	E10	09	11.5		02	9	9	E	PALE	5145	
10	ASR	1817	0059D	S11	E90	09	17.5			9	9	E	HOLL		
10	AFS	2255E	0831D	S13	E07	09	11.5		03	9	9	E	LEAR	5143	
10	ASR	2255E	0934D	S11	E88	09	17.6			9	9	E	LEAR	5148	
10	AFS	2315E	0934D	N17	E08	09	11.6		02	9	9	E	LEAR	5145	
11	DSD	0315E	0405	N29	E46	09	14.7		05	9	9	E	LEAR	5142	
11	AFS	0315E	0934D	S23	W35	09	8.4		02	9	9	E	LEAR	5147	
11	ADF	0650E	1637D	S27	W38	09	8.3	1	05	9	9	E	SVTO	5147	
11	AFS	0652E	1637D	N34	E37	09	14.2		02	9	9	E	SVTO	5142	
11	AFS	0653E	1637D	N16	E03	09	11.5		04	9	9	E	SVTO	5145	
11	BSL	0655	0710	S13	E90	09	18.1	1-				C	CATA		
11	ASR	0655E	1637D	S10	E90	09	18.0			9	9	E	SVTO	5148	
11	EPL	0715E	0745D	S09	E90	09	18.0	2				P	BUCH		
11	EPL	0715	0821D	S20	E90	09	18.2	2				C	CATA		
11	BSL	0732	0758	S13	E90	09	18.1	1				C	ABST		
11	APR	0746E	0845	S16	E90	09	18.1			9	9	E	SVTO		
11	BSL	0806	0821D	S12	E90	09	18.1	1-				C	CATA		
11	BSL	0806	0821D	S13	E90	09	18.1	1-				C	CATA		
11	ASR	1519E	1622D	S21	E90	09	18.5			9	9	E	SVTO		
11	ASR	1525E	1535	S21	E90	09	18.5			9	9	E	HOLL		
11	DSD	1525E	1615D	N33	E27	09	13.8		02	9	9	E	HOLL	5142	
11	DSD	1540	1600D	N33	E26	09	13.7		05	9	9	E	SVTO	5142	
11	SSB	1610		266	W31	09	16.9			0	0	E	HOLL		
12	ASR	0521E	0951D	S26	W90	09	5.2			7	6	E	LEAR	5140	
12	ASR	0624E	1633D	S30	W90	09	5.2			9	9	E	SVTO	5140	
12	BSL	0700	0800	S28	W90	09	5.2					P	BUCH		
12	BSL	0731	0750D	S16	E90	09	19.1	1-				C	CATA		
12	ADF	0831	0951D	N19	E32	09	14.8		06	9	9	E	LEAR	5142	
12	BSL	0844	0850	S28	W90	09	5.3	1-				C	CATA		
12	AFS	0930E	1633D	S20	W01	09	12.3		03	9	9	E	SVTO		
12	BSL	1000	1045	N23	E90	09	19.3	1				C	CATA		
12	ASR	1220E	1633D	N18	W90	09	5.7			7	7	E	SVTO	5141	
12	ASR	1230E	1348D	N20	W85	09	6.0			9	9	E	RAMY	5141	
12	AFS	1230E	1623D	S20	W03	09	12.3		02	9	9	E	RAMY		
12	ASR	1230E	1623D	S28	W87	09	5.7			9	9	E	RAMY	5140	
12	AFS	1555E	0100D	S20	W06	09	12.2		03	9	9	E	HOLL	5149	
12	AFS	1608E	1623D	N16	W37	09	9.9		02	9	9	E	RAMY	5138	
12	ASR	1614E	1623D	N30	W84	09	6.1			9	9	E	RAMY	5146	
12	AFS	1755E	0422D	N17	W18	09	11.4		02	5	5	E	PALE	5145	
12	ASR	1800E	0422D	N29	W90	09	5.7			9	9	E	PALE	5146	
12	DSD	1805E	2000D	S15	E68	09	17.9		04	9	9	E	HOLL	5148	
12	SSB	1846		221	W00	09	14.3			0	0	E	HOLL		266 W45
12	APR	1905E	0100D	N34	W90	09	5.6	2		9	8	E	HOLL		
12	DSD	1930E	0100D	N32	E13	09	13.8		04	9	9	E	HOLL	5142	
12	DSD	2000E	0100D	N34	E17	09	14.2		06	9	8	E	HOLL	5142	
12	DSD	2046	0100D	S15	E63	09	17.6		04	9	9	E	HOLL	5148	Flare Associated
12	ASR	2108E	0100D	N30	W84	09	6.3			9	9	E	HOLL	5146	
12	APR	2253E	0955D	N35	W90	09	5.7			9	9	E	LEAR	5133	
12	ASR	2355	0336D	N31	W90	09	5.9			9	9	E	LEAR	5146	
13	AFS	0635E	1447D	S19	W15	09	12.1		02	8	9	E	SVTO	5149	
13	AFS	0705E	1447D	N14	W47	09	9.7		03	9	9	E	SVTO	5138	
13	APR	0706E	1447D	N27	W90	09	6.3			9	9	E	SVTO	5133	
13	ASR	0835E	1447D	N30	W90	09	6.3			9	9	E	SVTO	5133	

ACTIVE PROMINENCES AND FILAMENTS

SEPTEMBER 1988

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
13	AFS	1220E	1707D	N15	W49	09	9.8		02	9	9	E	RAMY	5138	
13	ADF	1220E	1707D	N18	W26	09	11.5		04	9	9	E	RAMY	5145	
13	AFS	1220E	1707D	S20	W18	09	12.1		02	9	9	E	RAMY	5149	
13	SSB	1507		267	W47	09	19.2			0	0	E	HOLL		
13	AFS	1650E	0032D	N16	W52	09	9.7		02	9	9	E	HOLL	5138	
13	AFS	1730E	0308D	S19	W21	09	12.1		02	9	9	E	PALE	5149	
13	AFS	1731E	0353D	N16	W53	09	9.7		02	9	9	E	PALE	5138	
13	DSD	1819E	2230D	S20	W19	09	12.3		03	9	9	E	HOLL	5149	Flare Associated
13	SDF	1916E	2107	N14	E13	09	14.8		04	0	0	E	PALE	5144	
13	ADF	1959E	2107	N16	E14	09	14.9	2	07	9	9	E	PALE	5144	Flare Associated
13	DSD	2008E	0308D	S18	W21	09	12.2		03	9	9	E	PALE	5149	
14	SDF	0319	0345	N17	E10	09	14.9		05	0	0	E	PALE	5144	
14	SDF	0353E	1859D	N32	E50	09	18.1		04	0	0	E	PALE		
14	SDF	0353E	1859D	S22	W14	09	13.1		04	0	0	E	PALE		
14	BSL	0447	0806	N36	E90	09	21.4	1				C	ABST		
14	AFS	0515E	0949D	N15	W56	09	10.0		05	9	9	E	LEAR	5138	
14	AFS	0515E	0949D	S13	E43	09	17.5		03	9	9	E	LEAR	5148	
14	DSD	0752D	0812	S14	E40	09	17.3	1				V	KHAR		
14	ADF	0755E	0830D	S33	W45	09	10.7	1				V	KHAR		
14	BSL	1012E	1020	S80	W90	09	6.1	1-				C	CATA		
14	SDF	1120E	0933D	N38	E19	09	16.0	1				C	CATA		
14	DSD	1131E	1300D	S12	E36	09	17.2		04	9	9	E	RAMY	5148	Flare Associated
14	AFS	1211E	2159D	N16	W64	09	9.6		03	9	9	E	RAMY	5138	
14	ADF	1216E	2159D	N21	W46	09	11.0	1	09	7	6	E	RAMY	5145	
14	DSD	1230E	1527D	N30	W10	09	13.7		04	9	9	E	SVTO	5142	
14	APR	1330E	1655D	N18	E90	09	21.4			8	9	E	RAMY		
14	SDF	1425E	2341D	N36	E00	09	14.6		13	0	0	E	HOLL		
14	SDF	1425E	2341D	S26	W24	09	12.7		07	0	0	E	HOLL		
14	SSB	1435		265	W67	09	20.5			0	0	E	HOLL		
14	AFS	1657E	0104D	N16	W66	09	9.7		01	9	9	E	HOLL	5138	
14	AFS	1830E	2216D	N17	W69	09	9.5	1	02	9	9	E	PALE	5138	
14	DSD	1911E	2321D	N31	W13	09	13.8		04	9	9	E	HOLL	5142	Flare Associated
14	SDF	1939E	1245D	N11	E38	09	17.7		16	0	0	E	RAMY		
14	SDF	1939E	1245D	N21	W32	09	12.4		17	0	0	E	RAMY		
14	SDF	1939E	1245D	S33	E03	09	15.0		06	0	0	E	RAMY		
14	DSD	2320E	0705D	N31	W15	09	13.8		03	9	9	E	LEAR	5142	
14	DSD	2322	0104D	N31	W15	09	13.8		18	9	9	E	HOLL	5142	Flare Associated
15	SDF	0104E	1309D	N19	W22	09	13.4		17	0	0	E	HOLL		
15	AFS	0440E	1000D	S14	E30	09	17.5		04	9	9	E	LEAR	5148	
15	ASR	0440E	1000D	S22	W90	09	8.3			9	9	E	LEAR	5147	
15	AFS	0720E	1000D	N21	E54	09	19.4		04	9	7	E	LEAR		
15	AFS	1150E	1645D	N16	W76	09	9.7		02	9	9	E	RAMY	5138	
15	AFS	1232E	1645D	N23	E34	09	18.1		04	9	9	E	RAMY	5153	
15	AFS	1232E	1645D	N33	E42	09	18.8		03	9	9	E	RAMY	5152	
15	AFS	1417E	1645D	N32	W20	09	14.0		04	6	7	E	RAMY	5142	
15	SDF	1939E	1245D	N11	E38	09	18.7		16	0	0	E	RAMY		
15	SDF	1939E	1245D	N21	W32	09	13.4		17	0	0	E	RAMY		
15	SDF	1939E	1245D	S33	E03	09	16.0		06	0	0	E	RAMY		
15	DSD	2205E	0103D	N32	W28	09	13.7		04	9	9	E	HOLL	5142	
15	AFS	2245E	0940D	S13	E22	09	17.6		06	9	9	E	LEAR	5148	
15	DSD	2254E	0103D	N30	W26	09	13.9		04	7	8	E	HOLL	5142	
15	DSD	2300E	0119D	N30	W26	09	13.9		04	9	9	E	LEAR	5142	
15	APR	2310E	0103D	S13	E90	09	22.7			7	7	E	HOLL		
16	ASR	0020E	0103D	S13	E90	09	22.8			9	9	E	HOLL		
16	SDF	0103E	1812D	N51	W21	09	14.2		24	0	0	E	HOLL		
16	DSD	0325E	0600D	S09	E14	09	17.2		03	9	9	E	LEAR	5148	
16	ASR	0325E	0940D	S18	E90	09	23.0			9	9	E	LEAR		
16	BSD	0445E	0518	S21	W70	09	10.8		08	6	5	E	LEAR	5137	
16	ASR	0640E	1228D	S14	E88	09	22.9			9	9	E	SVTO		
16	AFS	0642E	1228D	S11	E15	09	17.4		02	8	8	E	SVTO	5148	
16	BSL	0712E	0731D	S23	W90	09	9.4	1				C	ABST		
16	ASR	0836E	1228D	N15	W90	09	9.5			9	9	E	SVTO	5138	
16	AFS	0838E	1228D	N35	E30	09	18.7		02	9	9	E	SVTO	5152	
16	ADF	0840E	1228D	S13	E15	09	17.5	1	08	9	9	E	SVTO	5148	
16	AFS	0905E	1228D	N30	W30	09	14.0		02	6	9	E	SVTO	5142	
16	AFS	0930E	1228D	S18	E10	09	17.1		02	9	9	E	SVTO		
16	ADF	1125E	1410D	N36	W29	09	14.1	1	07	9	9	E	RAMY	5142	

ACTIVE PROMINENCES AND FILAMENTS

SEPTEMBER 1988

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	ADF	1125E	1422D	N21	E41	09	19.6	2	09	9	9	E	RAMY	5154	
16	AFS	1125E	1723D	N20	E13	09	17.5		02	9	9	E	RAMY		
16	AFS	1125E	1723D	S19	E08	09	17.1		02	9	9	E	RAMY		
16	ASR	1125E	1735D	N18	W90	09	9.6			9	9	E	RAMY	5138	
16	AFS	1125E	1735D	N32	W31	09	14.0		03	9	9	E	RAMY	5142	
16	ASR	1125E	1735D	S14	E90	09	23.3			9	9	E	RAMY	5156	
16	AFS	1125E	1735D	S19	W57	09	12.1		04	9	9	E	RAMY	5149	
16	ASR	1342E	0103D	N19	W90	09	9.7			9	9	E	HOLL	5138	
16	APR	1351E	0103D	N31	W90	09	9.5			9	9	E	HOLL	5134	
16	ASR	1352E	0103D	S15	E79	09	22.5			8	9	E	HOLL	5156	
16	ASR	1609E	1735D	N28	W84	09	10.1			9	9	E	RAMY	5134	
16	DSD	1637E	0103D	N32	W38	09	13.7		04	9	9	E	HOLL	5142	
16	DSD	1637E	2120D	N30	W37	09	13.8		03	9	9	E	HOLL	5142	
16	DSD	1700E	1735D	N31	W36	09	13.9		03	9	9	E	RAMY	5142	
16	DSD	1727E	0308D	N30	W37	09	13.8		03	9	9	E	PALE	5142	
16	DSD	1727E	0418D	N32	W38	09	13.7		03	9	9	E	PALE	5142	
16	ASR	1745E	0103D	S31	E90	09	23.8			9	9	E	HOLL		
16	SSB	1755		225	W56	09	18.9			0	0	E	HOLL		
16	ADF	1758E	2120D	S20	W76	09	10.9	2	20	8	8	E	HOLL	5137	
16	ASR	1850E	2120D	N29	W88	09	9.9			8	8	E	HOLL	5134	
16	ASR	2338E	0418D	S37	E86	09	23.9			9	9	E	PALE		
17	BSL	0559E	0731D	S31	W90	09	10.1	1				C	ABST		
17	BSL	0634E	0731D	S20	W90	09	10.4	1				C	ABST		
17	ADF	0650E	1304D	N18	E31	09	19.6	1	07	9	9	E	SVTO	5154	
17	ADF	0654E	1304D	N30	W41	09	14.1	1	07	9	9	E	SVTO	5142	
17	BSL	0720	0749	S44	E90	09	24.7	1-				C	CATA		
17	BSL	0828E	0835	S38	E90	09	24.6	1-				C	CATA		
17	ASR	1110E	1500D	S21	W90	09	10.6			9	9	E	RAMY	5137	
17	AFS	1110E	1637D	S21	W67	09	12.3		03	9	9	E	RAMY	5149	
17	ADF	1130E	1500D	N18	E23	09	19.2	1	06	9	9	E	RAMY	5154	
17	AFS	1130E	1500D	N19	E29	09	19.7		02	8	7	E	RAMY	5154	
17	AFS	1130E	1500D	N20	E27	09	19.5		03	9	9	E	RAMY	5154	
17	DSD	1135E	2103D	N31	W44	09	14.0		03	9	9	E	RAMY	5142	
17	APR	1205E	2103D	S23	W90	09	10.6	2		9	9	E	RAMY	5137	
17	ADF	1240E	1500D	S23	W42	09	14.3	2	26	9	9	E	RAMY		
17	AFS	1302E	1304D	N20	E20	09	19.1		03	9	9	E	SVTO	5154	
17	APR	1354E	0102D	N22	W90	09	10.7			9	9	E	HOLL	5137	
17	ASR	1404	1909D	S37	E90	09	24.8			9	9	E	HOLL	5158	
17	ASR	1405E	1500D	S38	E90	09	24.9			9	8	E	RAMY		
17	ASR	1600E	2045D	S19	W82	09	11.4			9	9	E	RAMY	5137	
17	ADF	1841E	2344D	N19	E25	09	19.7	1	04	9	9	E	PALE	5154	
17	DSD	1902E	2040	N30	W50	09	13.9		04	9	9	E	PALE	5142	
17	AFS	1931E	0102D	S20	E22	09	19.5		02	9	9	E	HOLL	5154	
17	DSD	1931E	2035D	S20	E21	09	19.4		02	9	9	E	HOLL	5154	
17	AFS	1937E	0403D	N20	E23	09	19.6		02	9	9	E	PALE	5154	
17	DSD	2045E	2103D	N18	E26	09	19.8		03	9	9	E	RAMY	5154	
17	AFS	2045E	2103D	N19	E22	09	19.5		02	9	9	E	RAMY	5154	
17	ASR	2140	2201D	S37	E85	09	24.7			9	9	E	HOLL	5158	
18	SDF	0102E	1457D	N42	E61	09	23.0		29	0	0	E	HOLL		
18	BSL	0520E	0550D	S12	W90	09	11.4	1				C	ABST		
18	BSL	0800E	0850D	N56	W90	09	10.5	1-				C	CATA		
18	AFS	0825E	1438D	S34	E64	09	23.4		03	9	9	E	SVTO	5158	
18	ADF	0826E	1438D	N20	E17	09	19.6	1	05	9	9	E	SVTO	5154	
18	AFS	0829E	1438D	N29	W50	09	14.4		04	9	9	E	SVTO	5150	
18	AFS	0830E	0941D	N31	W49	09	14.5		04	8	4	E	LEAR	5150	
18	SDF	0907E	0150D	N31	E30	09	20.7		20	0	0	E	LEAR		
18	BSL	0925	0940D	N30	E90	09	25.5	1				C	CATA		
18	BSL	1015	1026	N29	E90	09	25.5	1-				C	CATA		
18	BSL	1052	1055D	N28	E90	09	25.5	1-				C	CATA		
18	BSL	1127E	1135D	N30	E90	09	25.5	1-				C	CATA		
18	DSD	1222E	2017D	N30	W48	09	14.7		02	9	9	E	RAMY	5142	
18	AFS	1222E	2017D	N30	W51	09	14.5		02	8	9	E	RAMY	5142	
18	ASR	1241E	2017D	S39	E85	09	25.4			9	9	E	RAMY		
18	ASR	1250E	1519D	S19	W90	09	11.7			9	9	E	RAMY	5149	
18	ASR	1310E	1519D	N18	W90	09	11.7			9	9	E	RAMY	5145	
18	ADF	1310E	2017D	N20	E15	09	19.7	1	03	9	9	E	RAMY	5154	
18	ASR	1325E	1527D	N24	E88	09	25.3			9	9	E	HOLL		
18	ASR	1325E	1905D	S20	W90	09	11.7			9	9	E	HOLL	5149	

SEPTEMBER 1988

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
18	AFS	1916E	0406D	N31	W55	09	14.5		03	9	9	E	PALE	5142	
18	ASR	2150	0406D	N29	E88	09	25.8			9	9	E	PALE		Flare Associated
18	AFS	2335E	0406D	S09	W22	09	17.3		02	7	7	E	PALE	5148	
19	ASR	0005E	1001D	N23	E90	09	25.9			7	5	E	LEAR		
19	APR	0135E	1001D	N42	E90	09	26.4	2		9	9	E	LEAR		
19	ASR	0140E	1001D	S40	E76	09	25.3			9	7	E	LEAR	5158	
19	BSL	0454E	0723D	N40	E90	09	26.5	1				C	ABST		
19	AFS	0530E	1001D	N18	E07	09	19.8		05	5	4	E	LEAR	5154	
19	BSL	0704	0721	S51	W90	09	11.6	1-				C	CATA		
19	BSL	0755	0755D	S82	E90	09	27.7	1-				C	CATA		
19	AFS	0853E	1610D	N29	W64	09	14.3		06	9	9	E	SVTO	5142	
19	BSL	0900E	0910	S20	W90	09	12.5	1				C	CATA		
19	SDF	0907E	0150D	N31	E30	09	21.7		20	0	0	E	LEAR		
19	AFS	0909E	1610D	S35	E56	09	23.9		05	9	9	E	SVTO	5158	
19	ADF	0926E	1610D	N32	W67	09	14.1	1	06	9	9	E	SVTO	5142	
19	BSL	1104	1132	N30	E90	09	26.5	1				C	CATA		
19	BSL	1109	1120	S68	E90	09	27.6	1-				C	CATA		
19	BSL	1109	1125D	S78	W90	09	11.1	1-				C	CATA		
19	ASR	1115E	1131D	N29	E80	09	25.7			9	9	E	RAMY		Flare Associated
19	ASR	1131E	2140D	N21	E89	09	26.3			9	9	E	RAMY		
19	BSL	1139	1142D	N22	E90	09	26.4	1-				C	CATA		
19	AFS	1308E	1608D	S18	W34	09	16.9		01	9	9	E	RAMY	5155	
19	DSD	1308E	2140D	S36	E54	09	23.9		02	9	9	E	RAMY	5158	
19	ASR	1313E	1500D	N21	E90	09	26.4			8	9	E	SVTO		
19	APR	1400E	0045D	N45	E90	09	27.0	1		7	7	E	HOLL		
19	ASR	1400E	2312D	N22	E90	09	26.5			9	9	E	HOLL		
19	CAP	1820E	1822D	N25	E90	09	26.7		01	8	8	E	HOLL		
19	AFS	1900E	0045D	S18	W38	09	16.9		02	9	9	E	HOLL	5155	
19	DSD	1910E	2214D	S36	E40	09	23.0		02	9	9	E	HOLL	5158	
19	AFS	2130E	0045D	S37	E49	09	23.8		02	9	9	E	HOLL	5158	
19	DSD	2210E	2312D	S10	E33	09	22.4		03	9	9	E	HOLL	5156	
19	AFS	2220E	0045D	N33	E35	09	22.7		02	9	9	E	HOLL		
19	AFS	2236E	0247D	N34	E35	09	22.7		02	9	9	E	PALE		
19	DSD	2236E	0247D	S15	E35	09	22.6		03	9	9	E	PALE	5156	
19	AFS	2315E	1002D	N19	W07	09	19.4		03	9	9	E	LEAR	5154	
19	AFS	2315E	1002D	N33	E34	09	22.7		02	9	9	E	LEAR		
19	AFS	2318E	1002D	S14	E63	09	24.7		02	9	9	E	LEAR	5156	
19	ASR	2318E	0247D	N23	E90	09	26.9			9	9	E	PALE		
19	AFS	2319E	1002D	S35	E63	09	25.0		02	9	9	E	LEAR	5158	
19	ASR	2330E	0045D	S32	W86	09	13.2			9	9	E	HOLL	5160	
19	ASR	2331E	0247D	S32	W82	09	13.5			9	9	E	PALE	5160	
19	AFS	2335E	1002D	S18	W40	09	16.9		02	9	9	E	LEAR	5155	
19	AFS	2340E	0247D	S15	E35	09	22.6		02	9	8	E	PALE	5156	
20	AFS	0148E	0247D	S37	E46	09	23.8		02	9	9	E	PALE	5158	
20	AFS	0640E	1442D	S20	W45	09	16.8		04	9	9	E	SVTO	5155	
20	AFS	0649E	1442D	N34	E28	09	22.5		07	9	9	E	SVTO		
20	AFS	0740E	1442D	S35	E42	09	23.7		08	9	9	E	SVTO	5158	
20	AFS	1148E	1215D	S30	W90	09	13.4		06	9	9	E	SVTO	5160	
20	AFS	1251E	1828D	S10	W42	09	17.4		02	9	7	E	RAMY	5148	
20	ASR	1518E	1828D	S29	W87	09	13.8			9	9	E	RAMY	5160	
20	DSD	1710E	1828D	N29	E65	09	25.8		06	9	9	E	RAMY	5159	
20	AFS	1740E	1828D	N19	W05	09	20.3		01	9	9	E	RAMY		
20	AFS	1750E	1828D	N20	E06	09	21.2		01	8	5	E	RAMY		
20	DSD	1820E	1828D	S20	E15	09	21.9		05	9	9	E	RAMY	5160	
20	AFS	2205E	0414D	S16	E24	09	22.7		01	9	9	E	PALE	5156	
20	AFS	2340E	0956D	S17	E19	09	22.4		03	9	9	E	LEAR	5156	
21	ASR	0001E	0306D	N39	E90	09	28.3			9	9	E	PALE		
21	ASR	0010E	0423D	N36	E90	09	28.2			9	9	E	LEAR		
21	APR	0053E	0956D	S30	W90	09	13.9	2		9	9	E	LEAR	5160	
21	SDF	0414E	2215D	N49	E04	09	21.5		28	0	0	E	PALE		
21	BSL	0458E	0804D	N30	W90	09	14.1	1				C	ABST		
21	ASR	0615E	0956D	N30	W86	09	14.5			9	9	E	LEAR	5142	
21	SDF	0810E	0817D	N50	W18	09	19.8		21	0	0	E	LEAR		
21	ASR	1214E	1858D	N28	W90	09	14.5			9	9	E	RAMY	5150	
21	AFS	1249E	1858D	N30	W33	09	18.9		02	6	5	E	RAMY	5152	
21	AFS	1324E	1858D	N20	W05	09	21.2		02	9	9	E	RAMY	5165	
21	SDF	1431E	2220D	N47	W20	09	19.9		28	0	0	E	HOLL		

ACTIVE PROMINENCES AND FILAMENTS

SEPTEMBER 1988

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
21	AFS	1432E	2319D	S16	E13	09	22.6		03	9	9	E	HOLL	5156	
21	ASR	1433E	2319D	N35	W89	09	14.5			7	6	E	HOLL	5142	
21	AFS	1535E	1933D	N20	E38	09	24.5		01	4	4	E	HOLL		
21	DSD	1544	2319D	S16	E09	09	22.3		06	9	9	E	HOLL	5156	
21	DSD	1554E	1858D	S16	E09	09	22.3		06	9	9	E	RAMY	5156	
21	DSD	1625E	1858D	N27	E47	09	25.3		03	9	9	E	RAMY	5159	
21	AFS	1745E	0337D	N21	W08	09	21.1	1	02	9	9	E	PALE	5165	
21	ASR	1825E	0216D	N32	W90	09	14.6			5	5	E	PALE	5142	
21	DSD	1826E	0337D	S16	E05	09	22.1		05	9	9	E	PALE	5156	
21	AFS	1827E	0337D	N26	E47	09	25.4	1	02	9	9	E	PALE	5159	
21	AFS	1828E	0337D	N20	W19	09	20.3		02	9	9	E	PALE	5164	
21	ADF	1828E	1833D	N24	E90	09	28.7	1	14	9	9	E	PALE	5163	
21	AFS	1925E	2319D	N20	W09	09	21.1		04	9	9	E	HOLL	5165	
21	AFS	1925E	2319D	N28	E45	09	25.3		03	9	9	E	HOLL	5159	
21	DSD	2130E	0125D	S38	E13	09	22.9		05	8	8	E	PALE	5158	
22	AFS	0239E	0926D	N20	W13	09	21.1		03	9	9	E	LEAR	5165	
22	AFS	0239E	0926D	S16	E05	09	22.5		02	9	9	E	LEAR	5156	
22	AFS	0335E	0926D	N23	E46	09	25.7		02	9	9	E	LEAR	5162	
22	ASR	0339E	0926D	N23	E90	09	29.1			9	9	E	LEAR		
22	BSL	0635E	0645D	N26	E90	09	29.3	1				C	CATA		
22	BSL	0635E	0645D	N30	E90	09	29.3	1				C	CATA		
22	BSL	0635E	0645D	S18	E90	09	29.1	1-				C	CATA		
22	BSL	0722E	0803D	S09	E90	09	29.1	1				C	ABST		
22	BSL	0826E	0830	N48	W90	09	14.8	1-				C	CATA		
22	ADF	0845E	1010D	N26	E45	09	25.9	1				V	KHAR		
22	ADF	0849E	0907D	S40	E35	09	25.2	1				V	KHAR		
22	BSL	0911	0915D	N57	W90	09	14.5	1-				C	CATA		
22	BSL	0915	0915D	N47	W90	09	14.8	1-				C	CATA		
22	ASR	1010	1050D	S15	W01	09	22.3	1				V	KHAR		
22	APR	1016E	1036D	S20	W90	09	15.5	1				V	KHAR		
22	DSD	1055	1120	N23	E68	09	27.7	1				V	KHAR		
22	DSD	1121	1132D	S12	E01	09	22.5	1				V	KHAR		
22	ADF	1127E	2118D	S13	E00	09	22.5	1	05	9	9	E	RAMY	5156	
22	AFS	1147E	1945D	N27	W36	09	19.7		03	9	9	E	RAMY	5159	
22	ASR	1147E	2118D	N21	E90	09	29.4			9	9	E	RAMY		
22	DSD	1225E	1942D	S18	W72	09	17.0		06	9	9	E	RAMY	5155	
22	ADF	1242E	2118D	N25	E71	09	28.0	1	09	9	9	E	RAMY	5163	
22	DSD	1639E	1804D	N23	E59	09	27.2		05	9	9	E	HOLL	5163	Flare Associated
22	DSD	1639E	1804D	N29	E37	09	25.6		04	9	9	E	HOLL	5159	Flare Associated
22	DSD	1639	1740D	N28	E35	09	25.4		03	9	9	E	RAMY	5159	Flare Associated
22	EPL	1720E	1738D	N24	E90	09	29.7	3		9	9	E	RAMY	5163	Flare Associated
22	DSD	1830E	1830D	S20	W08	09	22.1		07	9	9	E	RAMY	5156	
22	DSD	1835E	1912D	S16	W07	09	22.2		06	9	9	E	HOLL	5156	
22	ASR	1840E	2054D	N25	E90	09	29.7			9	9	E	HOLL		Flare Associated
22	ASR	2031E	0412D	N20	E87	09	29.5			9	9	E	PALE		
22	AFS	2035E	2118D	S19	W33	09	20.3		02	9	8	E	RAMY	5157	
22	ASR	2246E	1003D	N22	E88	09	29.7			9	9	E	LEAR	5168	
22	AFS	2246E	1003D	S13	W07	09	22.4		02	9	9	E	LEAR	5156	
22	ASR	2250E	0500D	S18	W86	09	16.4			9	9	E	LEAR	5155	
22	AFS	2255E	0500D	N21	W24	09	21.1		02	9	9	E	LEAR	5165	
22	AFS	2315E	1003D	N28	E32	09	25.5		02	9	9	E	LEAR	5159	
22	AFS	2325E	1003D	S36	E08	09	23.6		02	9	9	E	LEAR	5158	
22	DSD	2335E	1003D	S42	E31	09	25.5	1	09	9	9	E	LEAR	5167	
23	AFS	0000E	0020D	N19	E20	09	24.5		01	8	8	E	HOLL		
23	AFS	0200E	1003D	N19	E20	09	24.6		02	9	9	E	LEAR	5166	
23	AFS	0301E	0412D	N28	E30	09	25.5		03	9	9	E	PALE	5159	
23	APR	0514E	0806D	S11	E90	09	30.0	1				C	ABST		
23	APR	0528E	07E0D	N18	W90	09	16.4	1				C	ABST		
23	BSL	0540E	0806D	N26	E90	09	30.2	1				C	ABST		
23	BSL	0706	0715	N61	E90	10	1.2	1-				C	CATA		
23	APR	0743E	0945D	S13	E90	09	30.1	1				V	KHAR		
23	APR	0743E	1000D	S20	E90	09	30.2	1				V	KHAR		
23	BSL	0801	0806	N21	E90	09	30.2	1-				C	CATA		
23	BSL	0806	0815	N67	W90	09	15.2	1-				C	CATA		
23	BSL	0835	0905	S14	W90	09	16.5	1-				C	CATA		
23	AFS	0844E	1607D	N20	E15	09	24.5		03	9	9	E	SVTO	5166	
23	AFS	0844E	1607D	N30	W57	09	18.9		02	9	9	E	SVTO	5152	
23	ADF	1010	1100D	N27	E24	09	25.3	1				V	KHAR		

ACTIVE PROMINENCES AND FILAMENTS

SEPTEMBER 1988

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	1130E	1928D	N28	E20	09	25.0		04	9	9	E	RAMY	5159	
23	ADF	1130E	1928D	N29	E23	09	25.3	1	09	9	9	E	RAMY	5159	
23	AFS	1140E	1928D	N19	E13	09	24.5		03	8	8	E	RAMY	5166	
23	AFS	1215E	1627D	S18	W42	09	20.3		02	9	9	E	RAMY	5157	
23	ADF	1222E	1530D	N34	W11	09	22.6	1	07	9	9	E	RAMY	5161	
23	ADF	1225E	1928D	N22	E51	09	27.4	2	25	9	9	E	RAMY	5163	
23	DSD	1230E	1928D	N19	W32	09	21.1		02	9	9	E	RAMY	5165	
23	AFS	1240E	1928D	N23	E29	09	25.8		03	9	9	E	RAMY		
23	ADF	1416E	2210D	N19	W28	09	21.4		03	9	9	E	HOLL	5165	
23	ADF	1416E	2210D	N26	E60	09	28.2		05	9	9	E	HOLL	5163	
23	ASR	1420E	1928D	S20	E90	09	30.5			9	9	E	RAMY		
23	ADF	1635E	1928D	S16	W16	09	22.5	1	03	9	9	E	RAMY	5156	
23	DSD	1638E	1928D	S36	W08	09	23.0		02	9	9	E	RAMY	5158	
23	ADF	1639E	1928D	N28	E24	09	25.6	2	04	9	9	E	RAMY	5159	
23	ASR	1818E	1928D	S12	W90	09	17.0			9	9	E	RAMY	5148	
23	DSD	1845E	0050D	S19	W20	09	22.2		04	6	6	E	HOLL	5156	
23	AFS	2000E	0050D	N29	E20	09	25.4		03	9	9	E	HOLL	5159	
23	DSD	2135E	0050D	N19	E06	09	24.3		03	9	9	E	HOLL	5166	Flare Associated
23	AFS	2235E	0941D	N27	E18	09	25.3		02	9	9	E	LEAR	5159	
23	AFS	2235E	0941D	S15	W19	09	22.5		03	9	9	E	LEAR	5156	
23	AFS	2240E	0941D	N18	E06	09	24.4		02	9	9	E	LEAR	5166	
23	ADF	2240E	0941D	S38	E13	09	25.0	1	05	8	7	E	LEAR	5167	
23	DSD	2304	0941D	N18	E05	09	24.3		03	9	9	E	LEAR	5166	
23	AFS	2334E	0050D	N23	E22	09	25.7		02	9	9	E	HOLL		
23	AFS	2340E	0411D	N19	E05	09	24.4		02	8	8	E	PALE	5166	
24	ASR	0113	0941D	S19	E88	09	30.8			9	9	E	LEAR		
24	BSL	0630E	0640D	S22	E90	10	1.2	1-				C	CATA		
24	BSL	0651E	0725D	S22	E90	10	1.2	1-				C	CATA		
24	ADF	0804E	0918D	N18	E01	09	24.4	1				V	KHAR		
24	ADF	0807E	0918D	S12	E73	09	29.8	1				V	KHAR		
24	ADF	0825E	0835	S15	E58	09	28.7	1				V	KHAR		
24	DSD	0848	0858	N32	E14	09	25.5	1				V	KHAR		
24	BSL	0930	0949	N17	E90	10	1.2	1-				C	CATA		
24	AFS	1010E	1600D	N18	W01	09	24.3		03	9	9	E	SVTO	5166	
24	BSL	1130	1140D	S26	E90	10	1.5	1-				C	CATA		
24	ADF	1145E	1600D	S30	E17	09	25.8	1	13	9	9	E	SVTO	5167	
24	ADF	1201E	1600D	N38	E55	09	28.9	1	24	9	9	E	SVTO	5163	
24	ADF	1209E	1600D	S06	E62	09	29.1	1	08	9	9	E	SVTO		
24	ASR	1230	1600D	N21	E90	10	1.4			9	9	E	SVTO		
24	DSD	1243E	1619D	N19	E66	09	29.6		02	9	9	E	RAMY	5168	
24	DSD	1243E	1934D	N17	W08	09	23.9		03	9	9	E	RAMY	5166	
24	AFS	1243E	2041D	N27	E10	09	25.3		02	9	9	E	RAMY	5159	
24	ASR	1322E	2041D	N19	E90	10	1.4			9	9	E	RAMY		
24	ADF	1322E	2041D	S10	E66	09	29.5	2	08	9	9	E	RAMY	5169	
24	DSD	1354	1440D	S14	W29	09	22.4		03	9	9	E	SVTO	5156	
24	DSD	1355E	1548D	S13	W28	09	22.5		03	9	9	E	RAMY	5156	Flare Associated
24	ASR	1500E	2004D	N18	E90	10	1.5			8	8	E	HOLL		
24	ADF	1640E	0042D	S10	E74	09	30.2	1	10	9	9	E	HOLL	5169	
24	DSD	1640E	1833D	N19	W03	09	24.5		02	9	9	E	HOLL	5166	
24	DSD	1710E	1944D	N19	W05	09	24.3		02	9	9	E	PALE	5166	
24	DSD	1845E	0050D	S19	W20	09	23.2		04	6	6	E	HOLL	5156	
24	AFS	2000E	0050D	N29	E20	09	26.4		03	9	9	E	HOLL	5159	
24	AFS	2025E	0042D	S17	W34	09	22.3		02	7	5	E	HOLL	5156	
24	AFS	2034E	0356D	S17	W34	09	22.3		03	7	7	E	PALE	5156	
24	ADF	2226E	0830D	N21	E19	09	26.4	1	34	9	9	E	LEAR	5163	
24	ADF	2226E	0954D	S14	W38	09	22.1	1	05	7	9	E	LEAR	5156	
25	AFS	0815E	1554D	N19	W66	09	20.3		02	9	8	E	SVTO	5164	
25	ASR	0816E	1454D	S24	E90	10	2.3			9	9	E	SVTO		
25	BSL	1010	1030D	N22	E90	10	2.3	1				C	CATA		
25	AFS	1250E	2105D	N25	W03	09	25.3		02	9	9	E	RAMY	5159	
25	DSD	1358E	1647D	N22	E00	09	25.6		03	9	9	E	HOLL	5162	
25	ADF	1440E	2105D	N22	E68	09	30.8	1	07	9	9	E	RAMY	5168	
25	ASR	1506E	2105D	S23	E90	10	2.6			9	9	E	RAMY		
25	DSD	1520E	2055D	S18	W45	09	22.2		03	9	9	E	RAMY	5156	
25	ASR	1645E	2009D	S24	E90	10	2.6			9	9	E	HOLL		
25	ASR	1915E	0409D	S25	E90	10	2.8			9	9	E	PALE		
25	ASR	2235E	0944D	S24	E90	10	2.9			9	9	E	LEAR		
25	ASR	2330E	0048D	S24	E88	10	2.8			9	9	E	HOLL		

ACTIVE PROMINENCES AND FILAMENTS

SEPTEMBER 1988

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
26	AFS	0230E	0944D	S18	W51	09	22.2		01	7	9	E	LEAR	5156	
26	DSD	0756E	0814	N21	E42	09	29.5	1				C	CATA		
26	BSL	0826	0830D	N78	W90	09	18.0	1-				C	CATA		
26	BSL	0932E	0941	S41	W90	09	19.0	1-				C	CATA		
26	DSD	0932E	0951	N22	E41	09	29.5	1				C	CATA		
26	ASR	0955E	1421D	S28	E90	10	3.4			9	9	E	SVTO		
26	BSL	1015	1131D	N32	E90	10	3.5	1				C	CATA		
26	BSL	1027	1035	N63	W90	09	18.4	1-				C	CATA		
26	DSD	1030	1040	N23	E41	09	29.6	1				C	CATA		
26	ASR	1055E	2029D	N83	W19	09	24.7			9	9	E	RAMY	5164	
26	ADF	1143E	2029D	S18	E48	09	30.1	1	07	9	9	E	RAMY	5169	
26	DSD	1240E	1421D	N22	E38	09	29.4		06	9	9	E	SVTO	5168	
26	DSD	1320E	1739D	N21	E39	09	29.5		05	9	9	E	RAMY	5168	
26	ADF	1349E	1421D	S42	W17	09	25.2	1	07	9	9	E	SVTO	5167	
26	ASR	1510E	1730D	S26	E81	10	2.9			9	9	E	HOLL		
26	AFS	1511E	1720	S20	W41	09	23.5		02	5	4	E	HOLL		
26	ASR	1525	1758	N19	W82	09	20.4			9	9	E	HOLL	5164	
26	ASR	1715E	0409D	S25	E90	10	3.7			9	9	E	PALE	5171	
26	ASR	1735E	0409D	N19	W90	09	19.9			9	9	E	PALE	5164	
26	AFS	1800E	0409D	N27	W18	09	25.3		02	8	8	E	PALE	5159	
26	ASR	1956E	2348D	S24	E82	10	3.2			9	9	E	HOLL	5171	
26	DSD	2046	2348D	N19	E35	09	29.5		06	9	9	E	HOLL	5168	Flare Associated
27	ADF	0003E	0048D	N24	W05	09	26.6	1	04	9	9	E	HOLL	5163	
27	AFS	0006E	0048D	N26	W20	09	25.4		02	9	9	E	HOLL	5159	
27	ADF	0009E	0048D	S41	W20	09	25.4	2	06	9	9	E	HOLL	5167	
27	DSD	0910E	0930D	S20	E59	10	1.9	1				V	KHAR		
27	BSL	0931	0931D	N55	W90	09	19.6	1-				C	CATA		
27	BSL	1135	1140	N76	W90	09	19.2	1-				C	CATA		
27	BSL	1230E	1235	N83	E90	10	5.9	1-				C	CATA		
27	DSD	1416E	1504D	N22	E25	09	29.5		06	9	9	E	SVTO	5168	
27	DSD	1422	1745D	N20	E24	09	29.4		04	9	9	E	HOLL	5168	Flare Associated
27	DSD	1820	0045D	N18	E26	09	29.7		05	9	9	E	HOLL	5168	Flare Associated
27	DSD	1820	0254D	N18	E26	09	29.7		05	9	9	E	PALE	5168	Flare Associated
27	DSD	2105E	0045D	S24	E63	10	2.7		08	9	9	E	HOLL	5171	
28	DSD	0015E	0505D	S25	E56	10	2.3		01	7	6	E	LEAR	5171	
28	DSD	0057E	0626	N19	E17	09	29.3		03	9	9	E	LEAR	5168	
28	APR	0528E	0750D	N19	W90	09	21.3	1				C	ABST		
28	APR	0549E	0750D	S40	W90	09	20.9	1				C	ABST		
28	DSD	0555E	0630D	N19	E16	09	29.5		03	9	9	E	SVTO	5168	
28	APR	0616E	0750D	S26	W90	09	21.3	1				C	ABST		
28	APR	0624E	0750D	S25	E90	10	5.2	1				C	ABST		
28	DSD	0630E	0805D	N21	E13	09	29.3		03	9	9	E	SVTO	5168	
28	DSD	0655E	0805D	N19	E16	09	29.5		03	9	9	E	SVTO	5168	
28	AFS	0811	0959D	N24	E08	09	28.9		03	7	7	E	LEAR		
28	AFS	0835E	1544D	N28	E02	09	28.5		02	9	9	E	SVTO		
28	ASR	0836E	1544D	S21	E90	10	5.2			9	9	E	SVTO	5156	
28	ADF	0838E	1544D	N23	E17	09	29.7	1	11	9	9	E	SVTO	5168	
28	DSD	1102E	1935D	S27	E48	10	2.2		02	9	9	E	RAMY	5171	
28	BSL	1145	1206	S40	W90	09	21.1	1				C	CATA		
28	EPL	1157	1206	S42	W90	09	21.1	1-				C	CATA		
28	DSD	1400E	2125D	N19	E09	09	29.3		04	9	9	E	HOLL	5168	
28	DSD	1637E	2155D	S24	E50	10	2.5		06	9	9	E	HOLL	5171	
28	AFS	1726E	1935D	N18	E15	09	29.9		02	9	9	E	RAMY	5168	
28	DSD	1826	2125D	N18	E22	09	30.4		03	9	9	E	HOLL	5168	
28	DSD	2311	0003	S27	E43	10	2.3		11	9	9	E	LEAR	5171	
28	DSD	2319	2321D	S25	E42	10	2.2		11	9	9	E	HOLL	5171	Flare Associated
29	APR	0626E	0932D	N24	W90	09	22.3			7	7	E	LEAR		
29	APR	0629E	0855D	N20	W90	09	22.4	1				C	ABST		
29	AFS	0641E	1548D	S25	E51	10	3.2		04	9	9	E	SVTO	5171	
29	DSD	0648E	0648D	N27	W54	09	25.1		05	9	9	E	SVTO	5159	
29	ADF	0654E	1548D	S19	E13	09	30.3		08	9	9	E	SVTO	5169	
29	BSL	0826	0846	S17	E90	10	6.2	1				C	CATA		
29	BSL	1015	1021	N17	E90	10	6.3	1-				C	CATA		
29	BSL	1030	1046	S25	E90	10	6.4	1-				C	CATA		
29	ADF	1050E	1400D	N20	E01	09	29.5	1	06	9	9	E	RAMY	5168	
29	DSD	1050E	1400D	N26	W60	09	24.8		02	9	9	E	RAMY	5159	

ACTIVE PROMINENCES AND FILAMENTS

SEPTEMBER 1988

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
29	AFS	1050E	2150D	S25	E43	10	2.8		03	9	9	E	RAMY	5171	
29	BSL	1145	1207	S17	E90	10	6.3	1-				C	CATA		
29	SDF	1318E	2120D	N28	W33	09	27.0		11	5	5	E	HOLL		
29	DSD	1340E	2150D	S27	E39	10	2.6		06	9	9	E	RAMY	5171	
29	ASR	1340E	2150D	S37	W90	09	22.3			9	9	E	RAMY	5158	
29	AFS	1425E	1625D	S29	E35	10	2.3		02	8	8	E	RAMY	5171	
29	AFS	1433E	1712D	N16	E10	09	30.4		03	8	7	E	RAMY		
29	DSD	1613	2025D	S29	E41	10	2.9		05	9	9	E	HOLL	5171	Flare Associated
29	ADF	1625E	2150D	N27	W32	09	27.2	2	13	9	9	E	RAMY	5163	
29	ADF	1707E	2150D	S19	E39	10	2.7	2	04	9	9	E	RAMY	5171	
29	ADF	1726E	2140D	N27	W32	09	27.2	2	12	9	9	E	HOLL	5163	
29	DSD	2153E	2345D	N21	W59	09	25.4		02	8	9	E	HOLL	5162	
29	ASR	2157E	2245D	S36	W88	09	22.8			9	9	E	HOLL	5158	
29	DSD	2204	0006D	N21	W03	09	29.7		03	9	9	E	HOLL	5168	
29	AFS	2258E	0953D	N24	W59	09	25.4		02	9	9	E	LEAR	5162	
30	ADF	0501E	0953D	S27	E29	10	2.5	1	09	9	9	E	LEAR	5171	
30	DSD	0904	0920	S28	E26	10	2.4	1				V	KHAR		
30	BSL	1026	1033	S18	E90	10	7.3	1-				C	CATA		
30	BSL	1108	1110D	S20	E90	10	7.3	1-				C	CATA		
30	AFS	1230E	1430D	N25	W45	09	27.0		02	9	9	E	SVTO	5163	
30	ADF	1230E	1540D	N21	W51	09	26.6	1	09	9	9	E	SVTO	5163	
30	ASR	1230E	1540D	S14	E90	10	7.3			9	9	E	SVTO		
30	ASR	1507E	2115D	S09	E88	10	7.2			8	9	E	HOLL		
30	ADF	1518E	2110D	N19	W14	09	29.6	1	05	9	9	E	HOLL	5168	
30	ASR	1757E	0311D	S16	E90	10	7.6			9	9	E	PALE		
30	AFS	1810E	0311D	N25	W48	09	27.0		01	8	8	E	PALE	5163	
30	DSD	1830E	2024D	N20	W03	09	30.5		05	9	9	E	RAMY		
30	AFS	2020E	2043D	N20	W17	09	29.5		04	9	9	E	RAMY	5168	
30	AFS	2105E	0311D	N20	W17	09	29.6		02	9	9	E	PALE	5168	
30	AFS	2110E	0042D	N21	W15	09	29.7		02	9	9	E	HOLL	5168	
30	AFS	2243E	0952D	N21	W16	09	29.7		03	9	9	E	LEAR	5168	
30	ASR	2243E	0952D	S12	E90	10	7.7			9	9	E	LEAR		
30	DSD	2253E	0129	S26	E16	10	2.2		07	9	9	E	LEAR	5171	
30	DSD	2320E	0042D	S26	E18	10	2.4		07	9	9	E	HOLL	5171	

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
EPL = Eruptive Prominence on Limb
LPS = Loops
MDP = Mound Prominence
SDF = 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.

C O N T E N T S

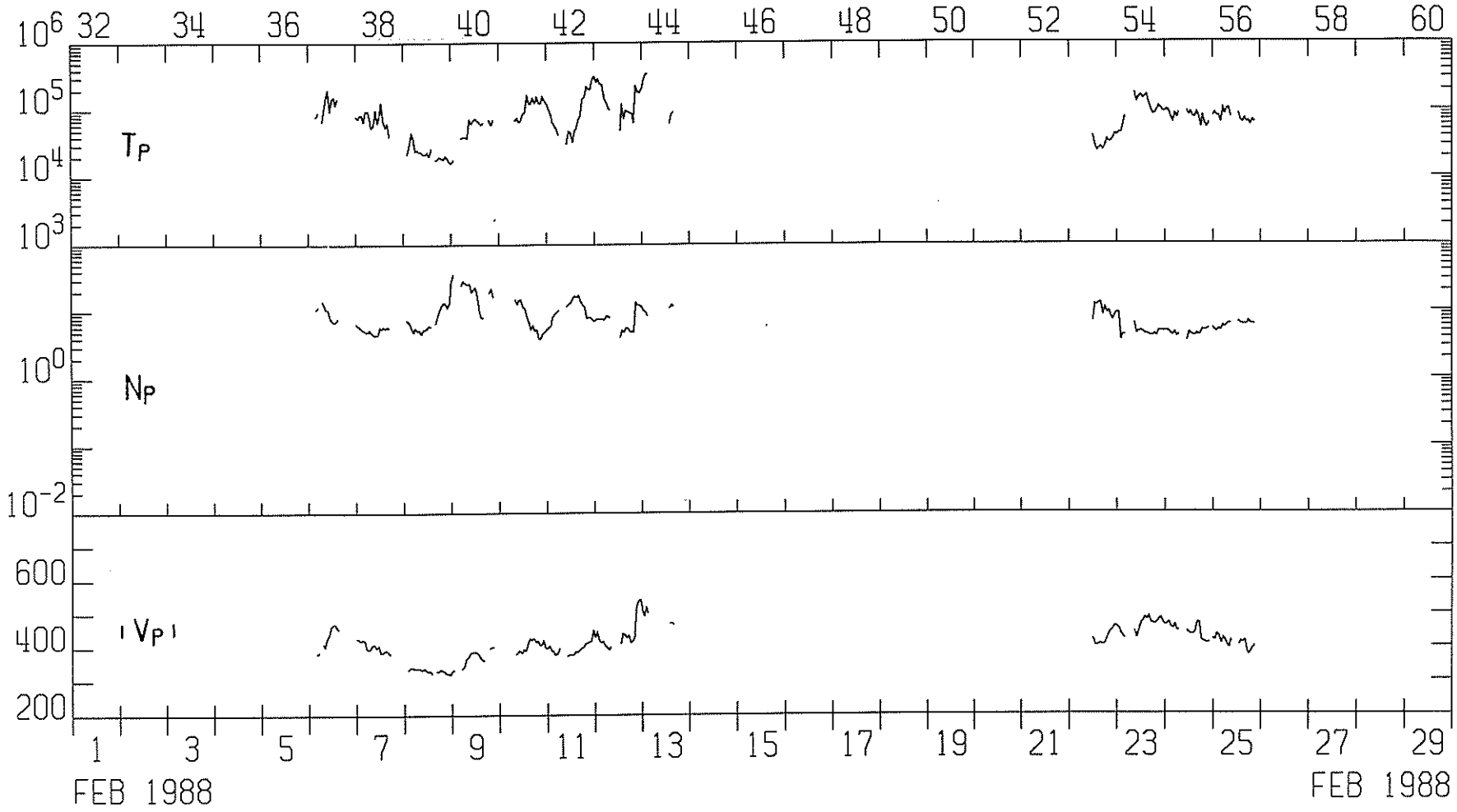
Comprehensive Reports **MISCELLANEOUS DATA** Number 535 Part II

64
Late
Feb 88

IMP 8 SOLAR WIND PLASMA

FEBRUARY 1988

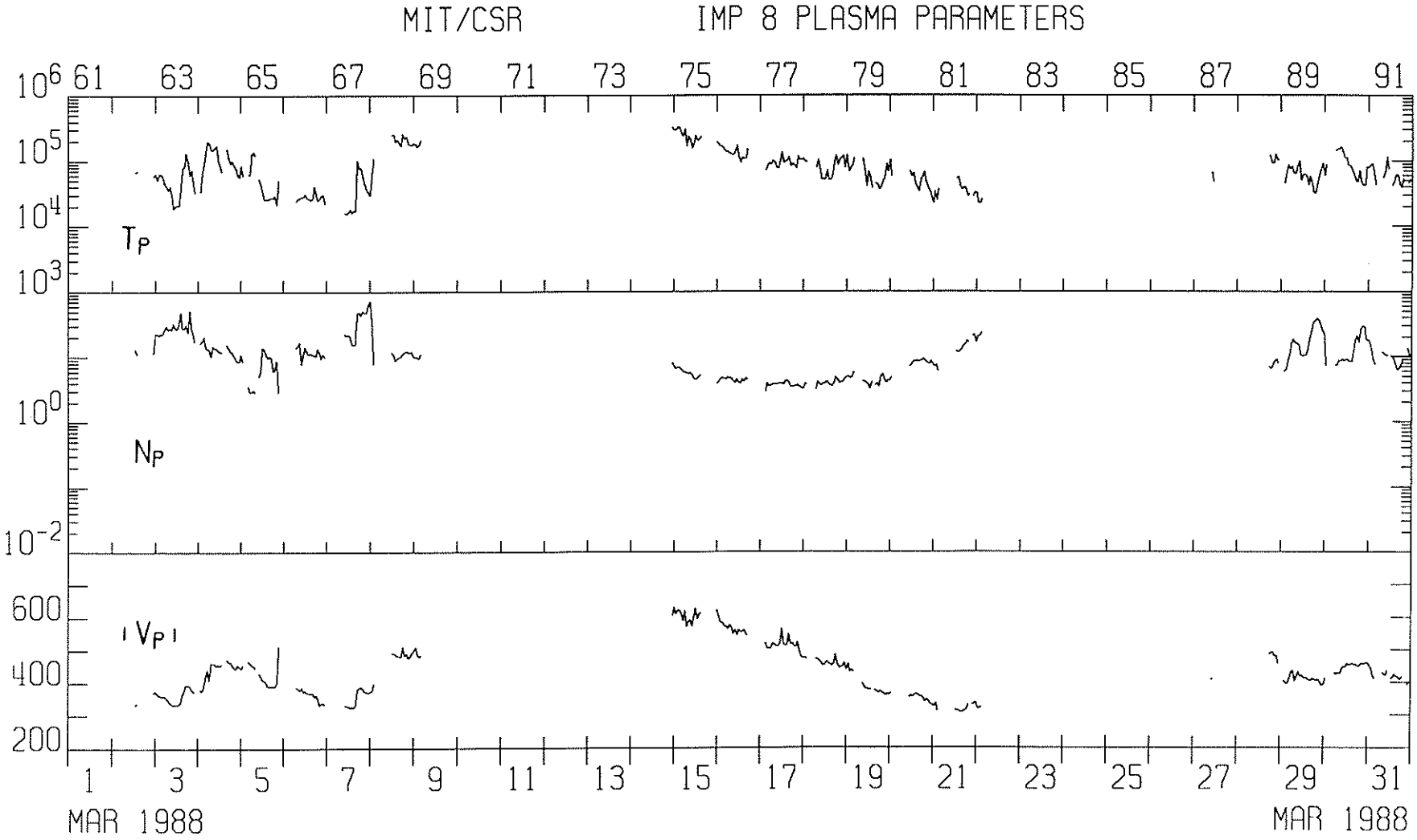
MIT/CSR IMP 8 PLASMA PARAMETERS



IMP 8 MIT PRELIMINARY ONE-HOUR AVERAGES

IMP 8 SOLAR WIND PLASMA

MARCH 1988

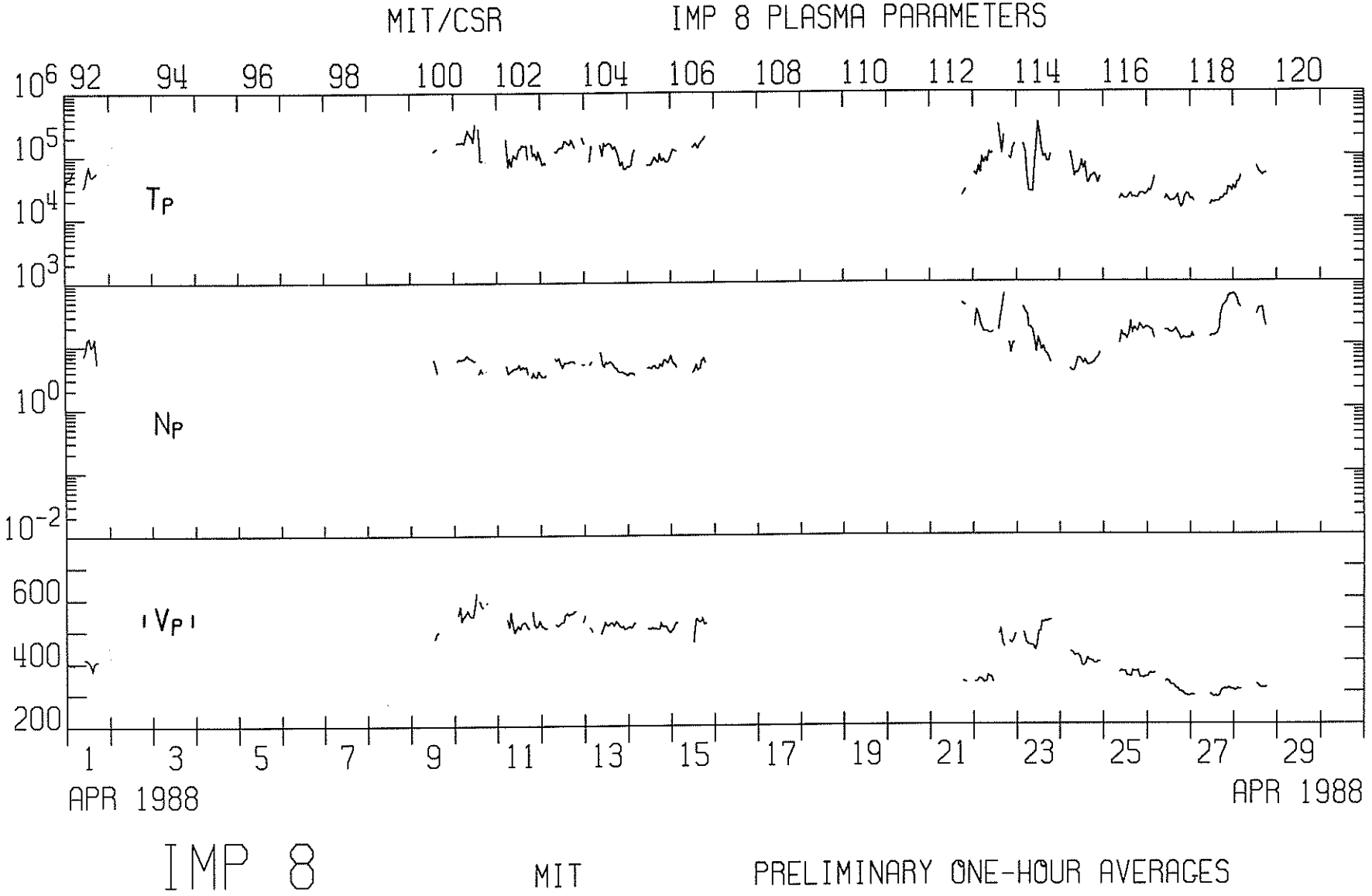


IMP 8 MIT PRELIMINARY ONE-HOUR AVERAGES

65
Late
Mar 88

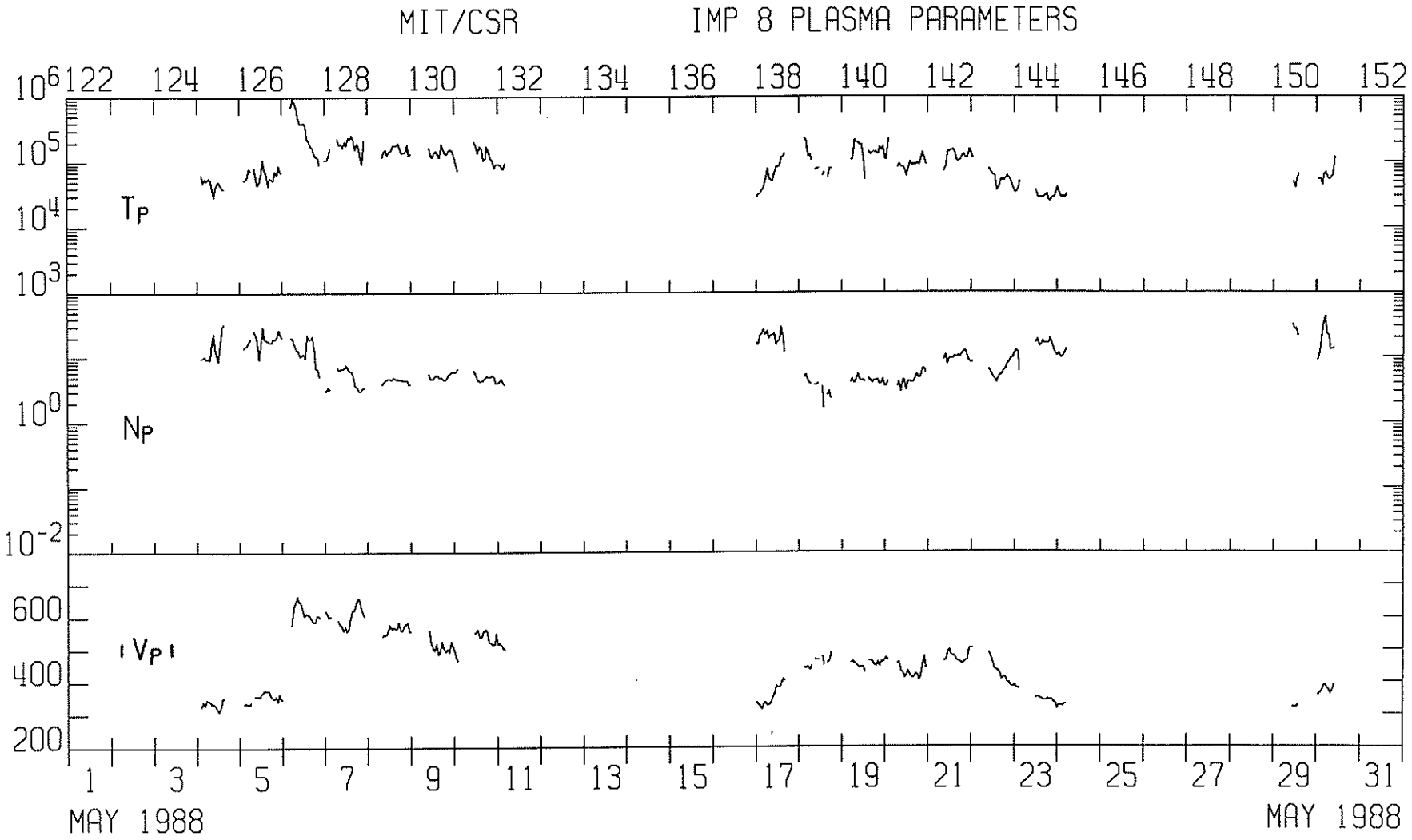
IMP 8 SOLAR WIND PLASMA

APRIL 1988



IMP 8 SOLAR WIND PLASMA

MAY 1988

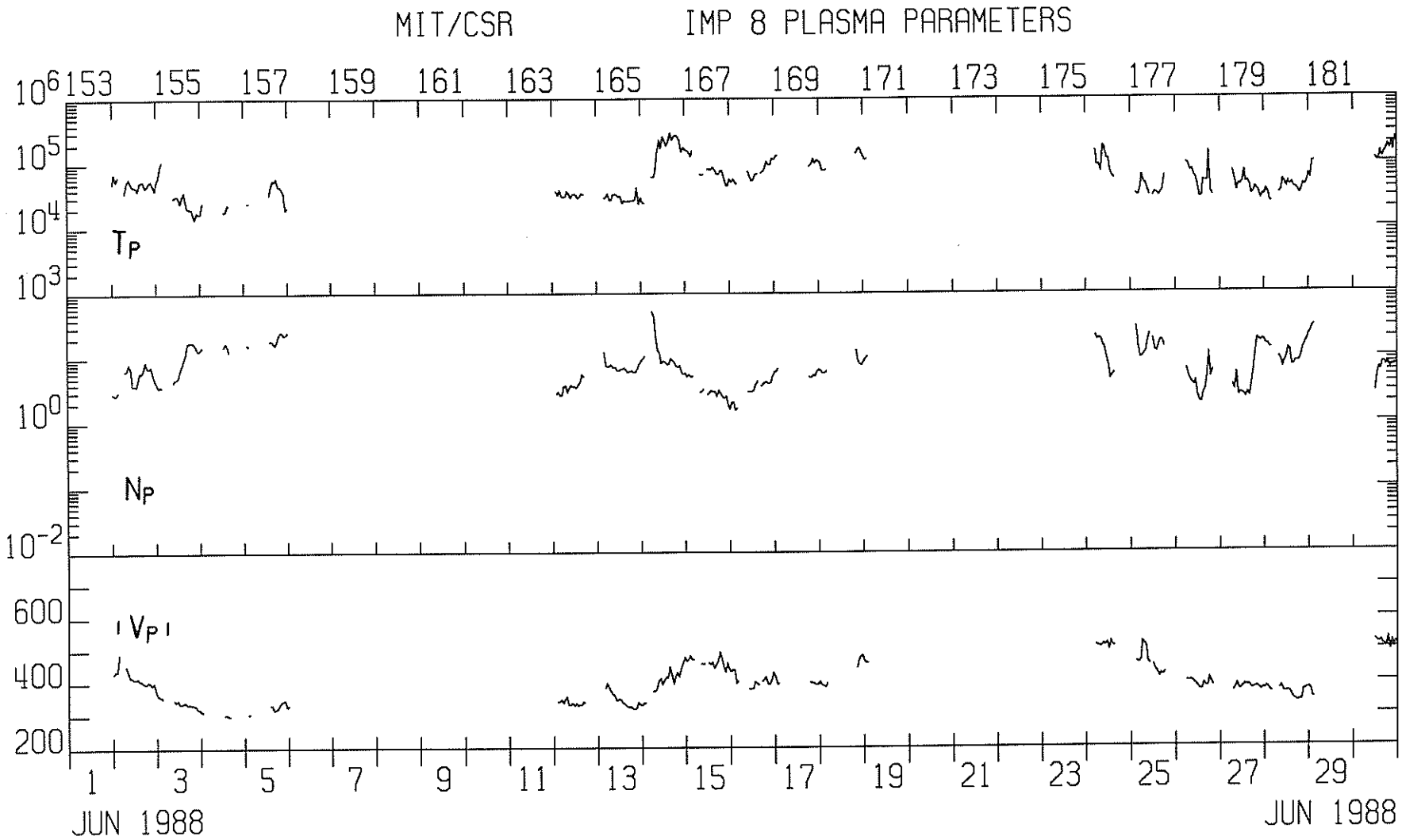


IMP 8 MIT PRELIMINARY ONE-HOUR AVERAGES

67
Late
May 88

IMP 8 SOLAR WIND PLASMA

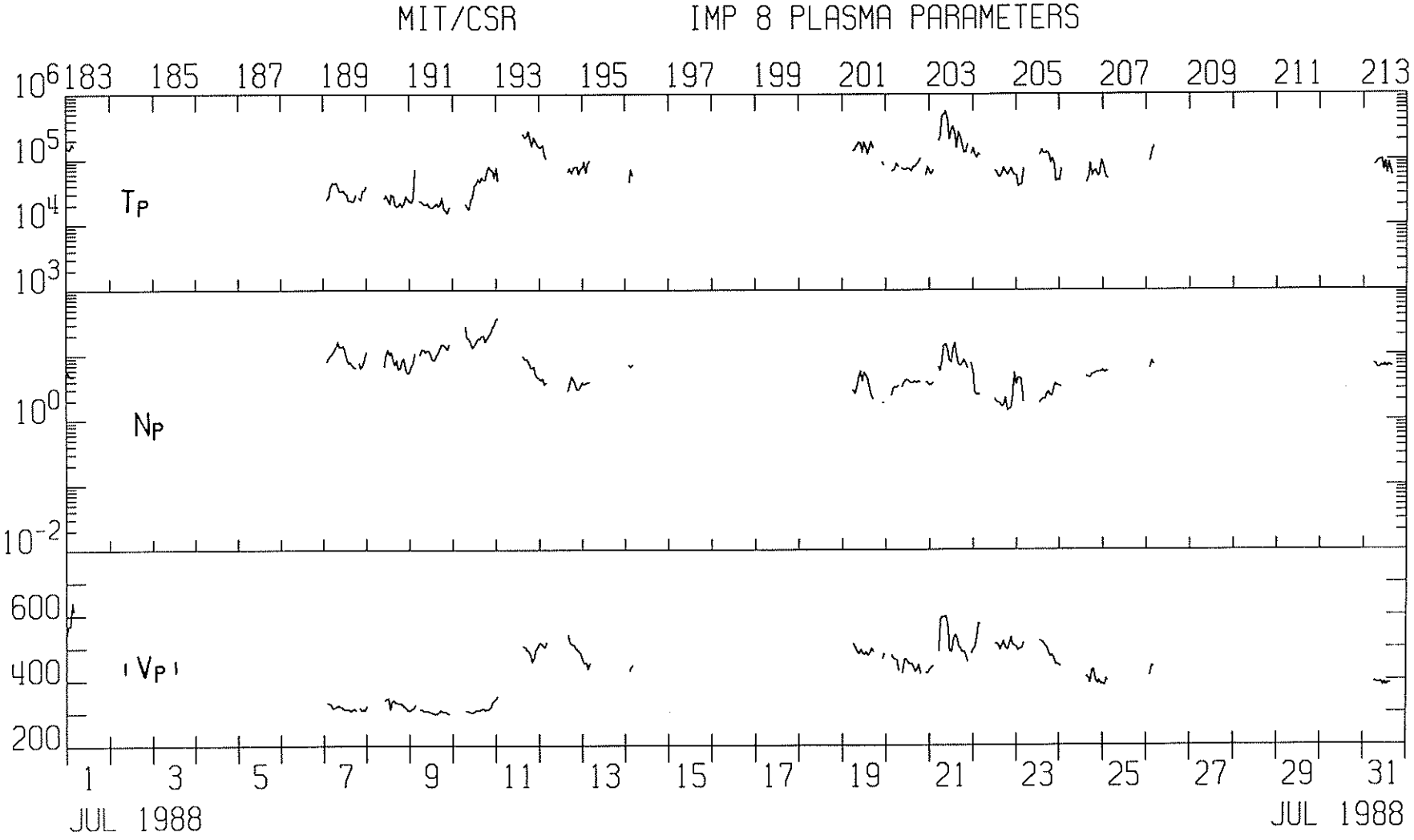
JUNE 1988



IMP 8 MIT PRELIMINARY ONE-HOUR AVERAGES

IMP 8 SOLAR WIND PLASMA

JULY 1988



IMP 8 MIT PRELIMINARY ONE-HOUR AVERAGES

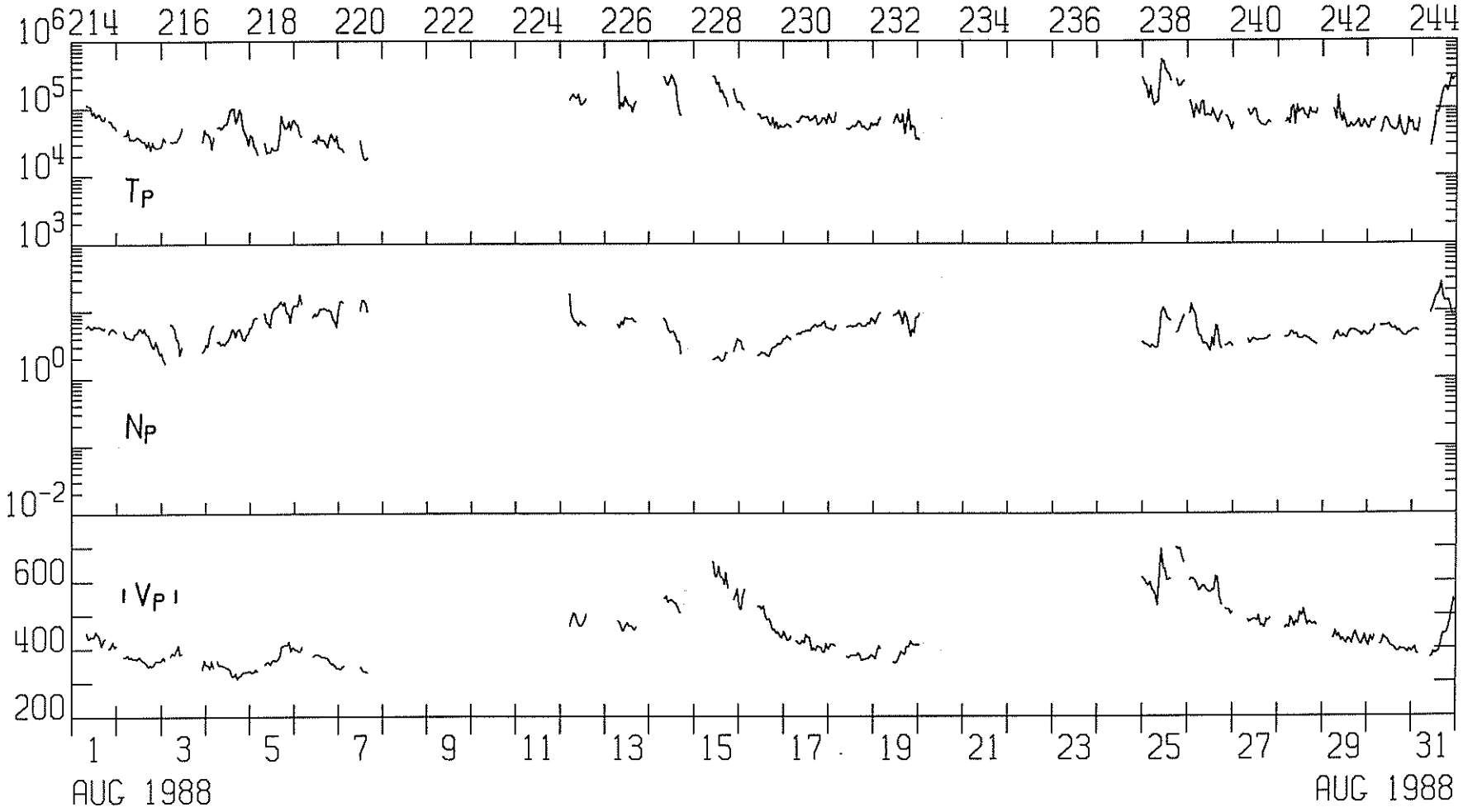
69
Late
Jul 88

70
Late
Aug 88

IMP 8 SOLAR WIND PLASMA

AUGUST 1988

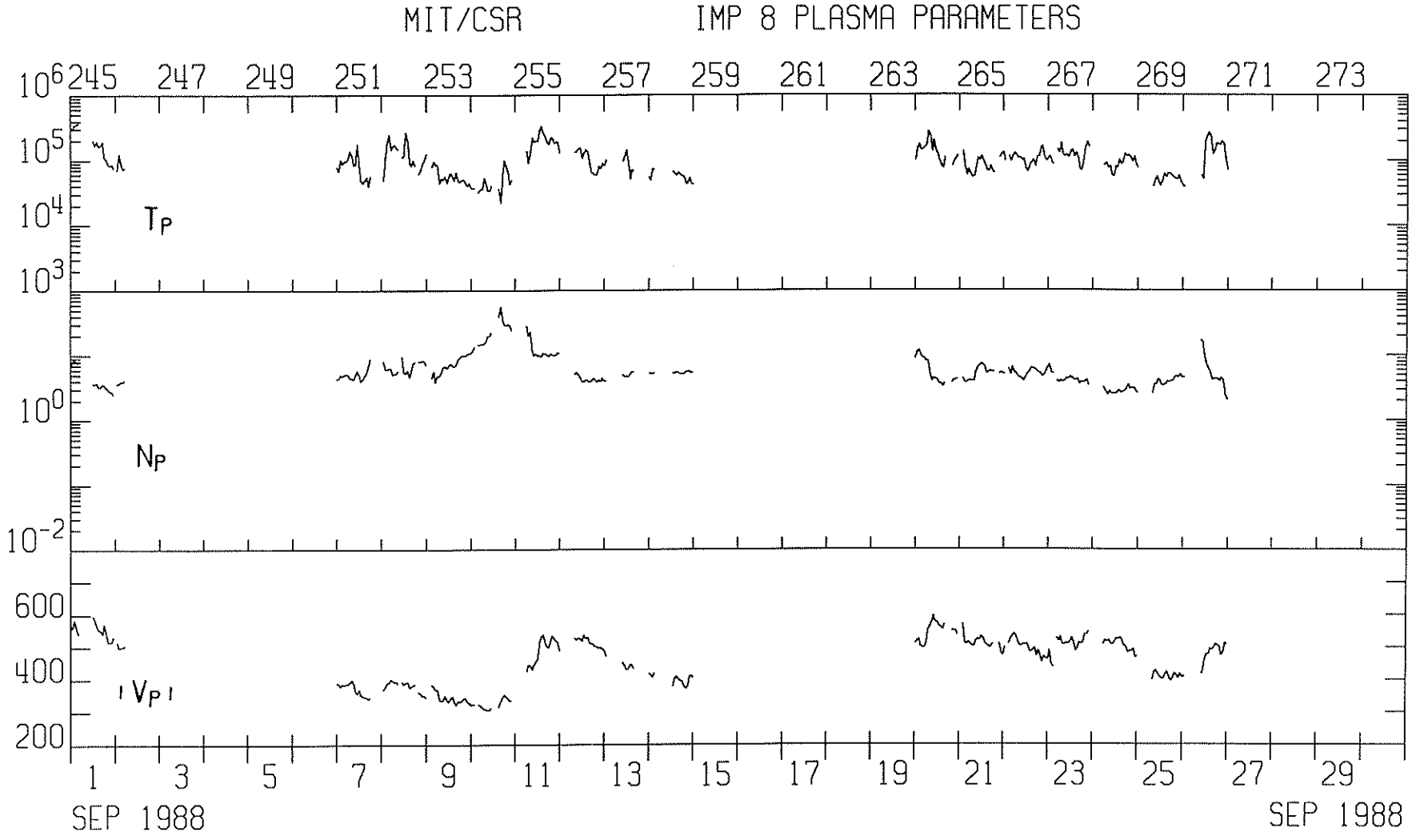
MIT/CSR IMP 8 PLASMA PARAMETERS



IMP 8 MIT PRELIMINARY ONE-HOUR AVERAGES

IMP 8 SOLAR WIND PLASMA

SEPTEMBER 1988



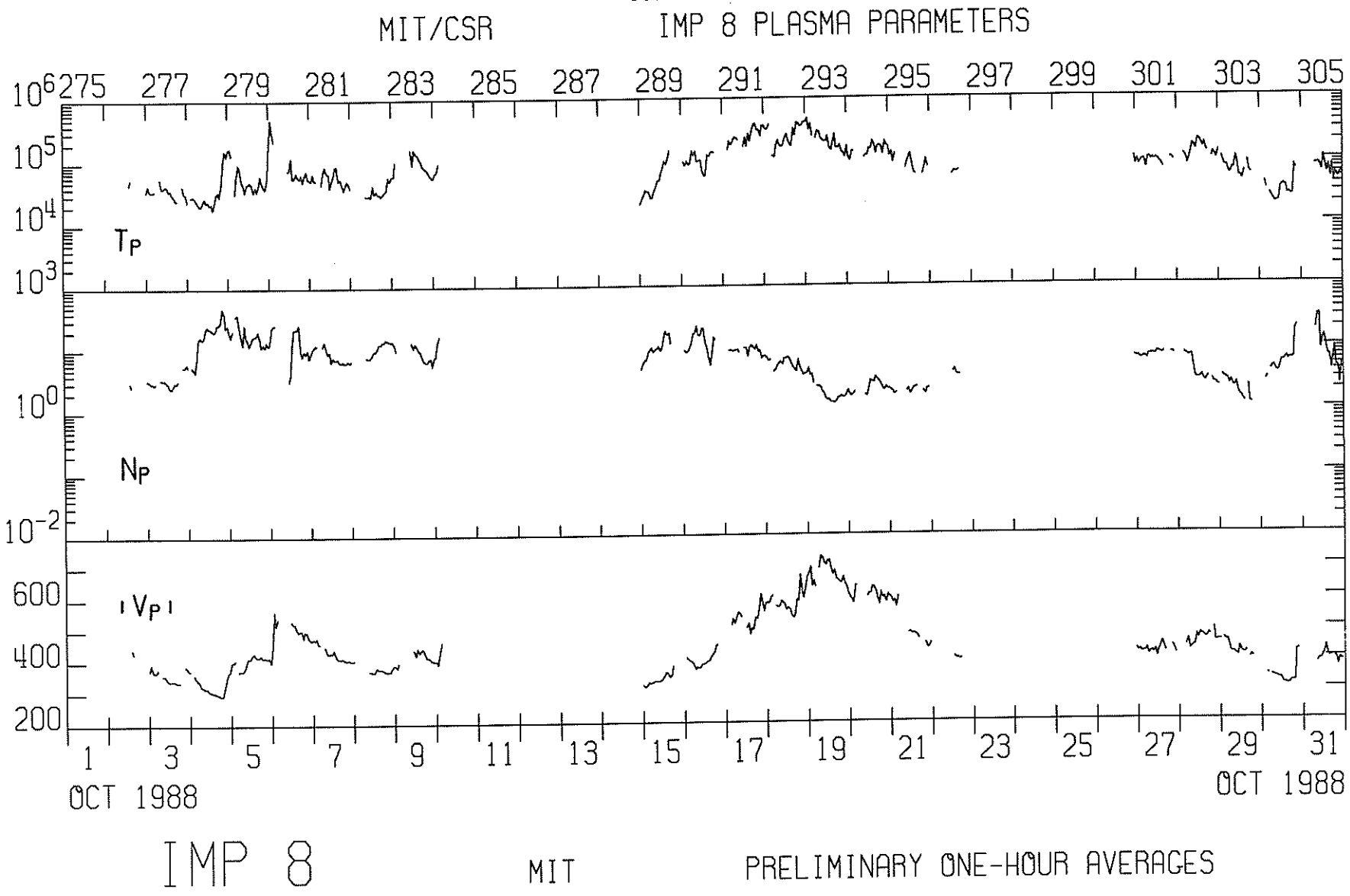
IMP 8 MIT PRELIMINARY ONE-HOUR AVERAGES

71
Late
Sep 88

72
Late
Oct 88

IMP 8 SOLAR WIND PLASMA

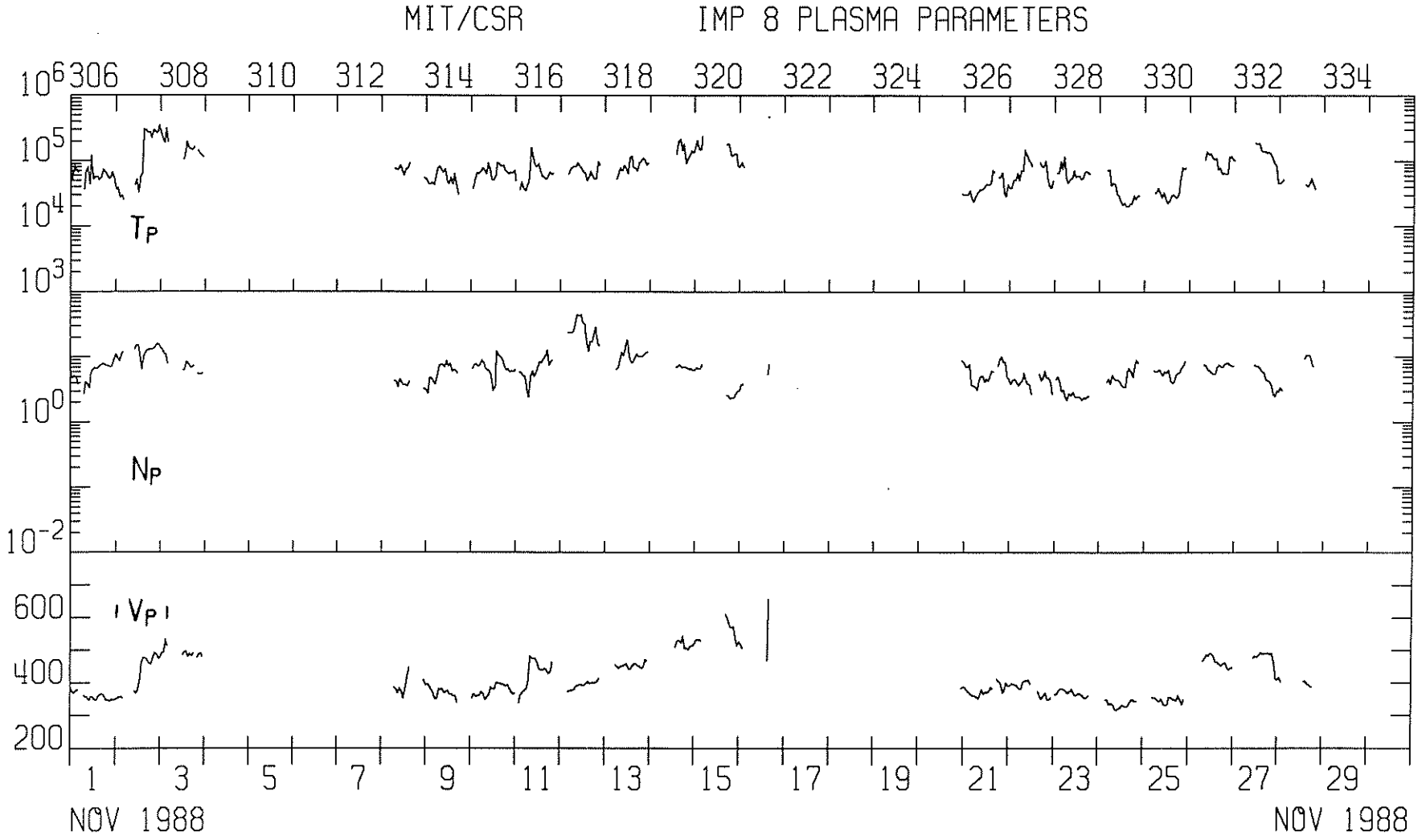
OCTOBER 1988



IMP 8 MIT PRELIMINARY ONE-HOUR AVERAGES

IMP 8 SOLAR WIND PLASMA

NOVEMBER 1988



IMP 8 MIT PRELIMINARY ONE-HOUR AVERAGES

73
Late
Nov 88

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."