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**NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION**

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# **Solar-Geophysical Data comprehensive reports**

Data for October 1989

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C O N T E N T S

**PART I (PROMPT REPORTS)**

	Page
DETAILED INDEX FOR 1989-1990 . . . . .	2
DATA FOR MARCH 1990. . . . .	3- 51
DATA FOR FEBRUARY 1990 . . . . .	53-148
LATE DATA. . . . .	149-156
Nancay Interferometric Chart Jan 90	
Cosmic Rays Climax and Huancayo Jan 90	
Inferred Interplanetary Magnetic Field 1989	

Printer's Error: Reprint of halftone images of Kitt Peak Solar  
Magnetic Field Synoptic Charts Rotations 1822-1823 Nov-Dec 89

**PART II (COMPREHENSIVE REPORTS)**

	Page
DETAILED INDEX FOR 1989-1990 . . . . .	2
DATA FOR OCTOBER 1989. . . . .	3-92
MISCELLANEOUS DATA . . . . .	93-95
Meudon Carte Synoptique Aug 89	

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

CODE	KIND OF OBSERVATION	AUG 89	SEP	OCT	NOV	DEC	JAN 90	FEB	MAR	
<b>A. SOLAR AND INTERPLANETARY EVENTS</b>										
A.1	Sunspot Drawings	542A 67	543A 77	544A 67	545A 63	546A 63	547A 59	548A 64		
A.2aa	Internat. Provisional Sunspot Numbers	541A 13	542A 27	543A 29	544A 27	545A 29	546A 29	547A 27	548A 29	
A.2c	American Sunspot Numbers	541A 13	542A 27	543A 29	544A 27	545A 29	546A 29	547A 27	548A 29	
A.3a	Mt. Wilson Magnetograms	542A 67	543A 77	544A 67	545A 63	546A 63	547A 59	548A 64		
A.3f	SOON Sunspot Mag Class and Regions	542A 98	543A107	544A 98	545A 93	546A 94	547A 90	548A 92		
A.3c	Kitt Peak Magnetograms	542A 67	543A 77	544A 67	545A 63	546A 63	547A 59	548A 64		
A.3d	Mean Solar Magnetic Field (Stanford)	541A 45	542A 56	543A 56	544A 54	545A 49	546A 49	547A 45	548A 51	
A.3e	Stanford Magnetograms	542A 67	543A 77	544A 67	545A 63	546A 63	547A 59	548A 64		
A.4	H-alpha Filtergrams	542A 67	543A 77	544A 67	545A 63	546A 63	547A 59	548A 64		
A.6	H-alpha Synoptic Charts	542A 58	543A 60	544A 58	545A 52	546A 52	547A 48	548A 54		
A.6b	Active Region Carte Synoptique (Paris)	548B 94								
A.6c	Stanford Solar Mag Field Synoptic Maps	542A 60	543A 62	544A 60	545A 54	546A 54	547A 50	548A 56		
A.6d	Kitt Peak " Mag Field Synoptic Maps	542A 66	543A 74	544A 66	548A155	548A156	547A 58	548A 55		
A.6e	Mass Ejections from the Sun	546B102	547B122	548B 77						
A.6f	Active Prominences and Filaments	546B104	547B124	548B 79						
A.6g	Sac Peak Coronal Line Synoptic Maps	542A 62	543A 64	544A 62	545A 56	546A 56	547A 52	548A 58		
A.7h	Coronal Line Emission (Sac Peak)	542A 67	543A 77	544A 67	545A 63	546A 63	547A 59	548A 64		
A.8aa	2800 MHz - Solar Flux (Ottawa)	541A 13	542A 27	543A 29	544A 27	545A 29	546A 29	547A 27	548A 29	
A.8ac	2800 MHz - Adj. Solar Flux (Ottawa)	541A 13	542A 27	543A 29	544A 27	545A 29	546A 29	547A 27	548A 29	
A.8g	Adjusted Daily Solar Fluxes (Sagamore)	541A 13	542A 27	543A 29	544A 27	545A 29	546A 29	547A 27	548A 29	
A.10a	Interferometric Chart (164 MHz) Nancy	541A 34	542A 47	543A 49			547A146	548A150		
A.10c	East-West Scans - 21 cm - Fleurs	541A 32	543A166	543A 47	544A 46	545A 44	547A144	547A 40	---	
A.10d	East-West Scans - 43 cm - Fleurs	541A 33	543A167	543A 48	544A 47	545A 45	547A145	547A 41	---	
A.10e	East-West Scans - 10 cm - Ottawa	541A 31	542A 46	543A 46	544A 45	545A 43	546A 43	547A 39	548A 45	
A.10f	East-West Scans - 3 cm - Toyokawa	541A 30	542A 45	---	---	---	---	---	---	
A.11g	Solar X-ray GOES (graphs/event table)	546B 93	547B113	548B 68						
A.11k	Solar UV NOAA-9	May 86-Dec 87 in 541B178								
A.11l	Solar UV NIMBUS7	Nov 78-Oct 84 in 542B 82								
A.12e	Solar Particles (IMP H & J)	Jul 86-Aug 87 in 539B112; Sep 87-Mar 88 & May-Nov 88 in 546B124								
A.13e	Solar Plasma (IMP H & J)	Jun 89 in 543B 83								
A.13f	Solar Wind (Pioneer 12)	Jan-Dec 88 in 536A153								
A.16a	SMM Solar Irradiance	Feb 80-Oct 87 in 530B 64								
A.16b	NIMBUS Solar Irradiance	Nov 78-Jul 89 in 534B114								
A.16c	ERBS Solar Irradiance	1984-88 in 538B101								
A.17	Interplanetary Mag Field (Pioneer 12)	Jan-Jun 88 in 533A130; Jul 88 in 536A152								
A.17c	Inferred Interplanetary Mag Field	1984-1988 data in 542A168; 1989 in 548A154								
<b>C. SOLAR FLARE-ASSOCIATED EVENTS</b>										
C.1a	H-alpha Flares	541A 17	542A 31	543A 33	544A 31	545A 32	546A 33	547A 30	548A 32	
C.1ba	H-alpha Flare Groups	546B 4	547B 4	548B 4						
C.1d	Flare Patrol Observations	541A 29	542A 44	543A 44	544A 44	545A 42	546A 42	547A 38	548A 44	
C.1d	Flare Patrol Observations	546B 39	547B 40	548B 30						
C.3	Radio Bursts Fixed Freq.	546B 41	547B 42	548B 32						
C.3	Radio Bursts Fixed Freq. Selected	541A 35	542A 48	543A 50	544A 48	545A 46	546A 47	547A 43	548A 47	
C.4d	Radio Bursts Spectral (Culgoora)	Dec 88 in 534A129								
C.4e	Radio Bursts Spectral (Weissenau)	542A140	543A135	544A130	545A123	546A130	547A123	548A117		
C.4f	Radio Bursts Spectral (Sagamore Hill)	542A140	543A135	544A130	545A123	546A130	547A123	548A117		
C.4i	Radio Bursts Spectral (Bleien)	542A140	---							
C.4k	Radio Bursts Spectral (Learmonth)	542A140	543A135	544A130	545A123	546A130	547A123	548A117		
C.4l	Radio Bursts Spectral (Palehua)	542A140	543A135	544A130	545A123	546A130	547A123	548A117		
C.4m	Radio Bursts Spectral (Ondrejov)						547A123	548A117		
C.6	Sudden Ionospheric Disturbances	542A133	543A128	544A124	545A117	546A124	547A118	548A113		
<b>D. GEOMAGNETIC &amp; MAGNETOSPHERIC EVENTS</b>										
D.1a	Geomagnetic Indices	542A158	543A158	544A147	545A138	546A146	547A137	548A143		
D.1ba	27-day Chart of Kp Indices	542A160	543A160	544A149	545A140	546A148	547A139	548A145		
D.1cb	Monthly Mean aa Indices	542A161	543A161	545A141	545A141	546A149	547A140	548A146		
D.1d	Principal Magnetic Storms	542A162	543A162	544A151	545A142	546A151	547A141	548A147		
D.1f	Sudden Commencements/Flare Effects	544A158	544A159	547A147	547A148					
D.1g	Equatorial Indices Dst	Aug-Dec 87 in 534A163; Mar-Apr 88 in 541A146								
<b>F. COSMIC RAYS</b>										
F.1a	Cosmic Ray Neutron Cts (Deep River)	542A153	543A151	544A140	545A135	546A141	547A136	548A142		
F.1b	Cosmic Ray Neutron Cts (Climax)	542A153	543A151	544A140	546A156		548A151			
F.1h	Cosmic Ray Neutron Cts (Thule)	542A153	543A151	544A140	546A156	546A141	547A136	548A142		
F.1i	Cosmic Ray Neutron Cts (Kiel)	542A153	543A151	544A140	545A135	546A141	547A136	548A142		
F.1j	Cosmic Ray Neutron Cts (Tokyo)	542A153	543A151	544A140	545A135	546A141	547A136	548A142		
F.1l	Cosmic Ray Neutron Cts (Huancayo)	544A156	546A154	546A155	546A156		548A151			
<b>H. MISCELLANEOUS</b>										
H.60	IUWDS Alert Periods	541A 4	542A 19	543A 20	544A 19	545A 20	546A 20	547A 18	548A 20	

The entry "542A 67" under Aug 1989, for example, means that the sunspot drawings for Aug 1989 appear in SOLAR-GEOPHYSICAL DATA No. 542, Part I, and that they begin on page 67. "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 OCTOBER 1989                      Number 548      Part II

	Page
MEUDON CARTE SYNOPTIQUE (Unavailable at time of publication.)	
Active Regions and Filaments	
Synoptic Solar Maps	
 SOLAR FLARES	
H-alpha Solar Flare Groups . . . . .	4-29
Intervals of No Flare Patrol Observation . . . . .	30
Number of Solar Flares August 1966-present . . . . .	31
 SOLAR RADIO BURSTS AT FIXED FREQUENCIES . . . . .	32-67
 INTERPLANETARY SOLAR PARTICLES AND PLASMA	
IMP 8 Solar Wind (Data unavailable at time of publication.)	
 SOLAR X-RAY RADIATION FROM GOES SATELLITE Graphs . . . . .	68-73
Preliminary Event List . . . . .	74-75
Preliminary Daily Average Background . . . . .	76
 MASS EJECTIONS FROM THE SUN . . . . .	77-78
 ACTIVE PROMINENCES AND FILAMENTS . . . . .	79-92
 SOLAR IRRADIANCE (Data unavailable at time of publication.)	

4  
Oct 89

H $\alpha$  SOLAR FLARES

OCTOBER 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	NOAA/USAF		CMP No	Day	Dur (Min)	Imp Opt	Xray	See	Obs Type	Area Measurement			Remarks
						Region	Lat CMD								Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0001	01	0212	0214	0222	S17 E16	5708	10	2.3	10	SN C 3.4					60	1.0	DIJ	
	LEAR	01	0212	0214	0222	S17 E16	5708	10	2.3	10	SN C 3.4	3	E		30			
	VORO	01	0212	0214	0222	S17 E15	5708	10	2.2	10	SF		C	0214	90	1.0	DIJ	
0002	PEKG	01	0213	0227	0239	N22 E66	5719	10	6.2	26	SF		P	0222	84	1.1	D	
0003	01	08121	08165	0844	S16 E22	5712	10	3.0	32	SF C 2.8					29		F	
	SVTO	01	0812	0816	0841	S17 E23	5712	10	3.1	29	SF C 2.8	2	E		29		F	
	KANZ	01	0813	0821	0846	S16 E20	5712	10	2.8	33	SF		V					
0004	KANZ	01	1023	1023	1026D	S25 E09	5715	10	2.1	3D	SF		V					
		01	1038		1039	No Flare Patrol												
0005	RAMY	01	1127	1133	1155	S16 E19	5712	10	2.9	28	SF		3	E		57		F
0006	RAMY	01	1337	1345	1355	N15 E43	5716	10	4.8	18	SF		4	E		31		H
0007	01	17009	1709*	1747	S25 E08	5715	10	2.3	47	SF					21		F	
	RAMY	01	1700	1727	1810	S25 E11	5715	10	2.6	70	SF		3	E		25		F
	HOLL	01	1700	1728U	1756	S25 E06	5715	10	2.2	56	SF		3	E		17		F
	PALE	01	1709	1709	1715	S24 E06	5715	10	2.2	6	SF		3	E		21		
0008	HOLL	01	1716	1716	1720	S19 E15	5712	10	2.9	4	SF		3	E		20		F
0009	HOLL	01	1800	1803	1822	S17 E17	5712	10	3.0	22	SF		3	E		35		F
0010	RAMY	01	1801	1801	1828	N29 E47	5714	10	5.4	27	SF		3	E		19		F
0011	01	1803*	18173	1842	S17 E02	5708	10	1.9	39	SF C 2.7					43		F	
	RAMY	01	1803	1818	1846	S16 E01	5708	10	1.8	43	SF		3	E		29		F
	HOLL	01	1803	1820	1848	S19 E05	5708	10	2.1	45	SF C 2.7		3	E		87		F
	PALE	01	1817	1817	1832	S16 W01	5708	10	1.7	15	SF		3	E		13		
0012	01	19551	19571	2016	S19 E13	5712	10	2.8	21	SF					31		F	
	HOLL	01	1955	1958	2013	S19 E12	5712	10	2.7	18	SF		3	E		41		F
	RAMY	01	1956	1957	2018	S19 E14	5712	10	2.9	22	SF		3	E		21		
0013	HOLL	01	2216	2216	2223	S16 E05	5708	10	2.3	7	SF		3	E		18		
0014	02	02044	0208	0222	N14 E37	5716	10	4.9	18	SF					59	1.2	EIJ	
	VORO	02	0204	0208	0225	N13 E37	5716	10	4.9	21	SF		2	C	0208	99	1.2	EIJ
	PALE	02	0208	0208	0220	N14 E37	5716	10	4.9	12	SF		3	E		19		
0015	PEKG	02	0322	0336	0404	S22 E23	5712	10	3.9	42	SF		C	0336	92		E	
0016	TACH	02	0501E	0510	0707	S34 W02		10	2.0	126D	1B		3	C	0510	280	3.9	EG
0017	02	07496	07535	0820	S17 W04	5708	10	2.0	31	SN C 3.8					80	1.9	EFU	
	TACH	02	0749	0753	0800D	S17 W03	5708	10	2.1	11D	SB		3	C	0753	168	1.9	E
	SVTO	02	0751E	0754	0844D	S18 W05	5708	10	1.9	53D	SF		2	E		52		UF
	KANZ	02	0751	0758	0836	S18 W03	5708	10	2.1	45	SF		V				E	
	LEAR	02	0755	0757	0803	S16 W06	5708	10	1.9	8	SF C 3.8		3	E		19		F
0018	02	08413	08487	0955	S17 E05	5712	10	2.7	74	1F M 1.5					176		FU	
	LEAR	02	0841	0855	0939	S16 E05	5712	10	2.7	58	1F M 1.5		3	E		188		UF
	SVTO	02	0844E	0848	1017	S17 E06	5712	10	2.8	93D	1N		2	E		163		UF
	KANZ	02	0844	0855	0948	S18 E04	5712	10	2.7	64	1F		V				U	
0019	02	08483	08505	0930	S22 W07	5715	10	1.8	42	SF					28		F	
	LEAR	02	0848	0850	0914	S23 W07	5715	10	1.8	26	SF		3	E		24		F
	SVTO	02	0848	0850	0948	S21 W07	5715	10	1.8	60	SN		2	E		31		F
	KANZ	02	0851	0855	0928	S22 W07	5715	10	1.8	37	SF		V					
0020	KANZ	02	0906	0916	0940	S15 E13	5712	10	3.4	34	SF		V					
0021	02	11557	1155*	1222	N28 E78	5743B	10	8.6	27	SF					41		F	
	CATA	02	1155	1155	1155D	N29 E75	5743B	10	8.4	27D	SN		2	P	1155	28		
	SVTO	02	1201	1206	1220	N29 E79	5743B	10	8.7	19	SF		3	E		67		
	RAMY	02	1202	1203	1223	N26 E79	5743B	10	8.6	21	SF		3	E		28		F

H $\alpha$  SOLAR FLARES

5  
Oct 89

OCTOBER 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Imp (Min)	Opt	Xray	See	Obs Type	Area Measurement			Remarks	
																Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)		
0022	SVTO	02	1205	1207	1212	N21	E87	5723	10	9.2	7	SF		3	E		24			
0023	SVTO	02	1427	1430	1434	S29	E86		10	9.3	7	SF		3	E		60			
0024	HOLL	02	1521	1524	1531	N23	E44	5719	10	6.0	10	SF		3	E		21			F
		02	1946		2024	No Flare Patrol														
0025	HOLL	02	2304	2309	2332	S16	W08	5708	10	2.3	28	SF		3	E		25			
0026		03	00182	00213	0039	S25	W11	5715	10	2.2	21	SF	C 2.6				26			FS
	HOLL	03	0018	0021	00260	S24	W11	5715	10	2.2	80	SF		3	E		40			FS
	LEAR	03	0020	0024	0039	S26	W11	5715	10	2.1	19	SF	C 2.6	3	E		12			F
		03	0134		0147	No Flare Patrol														
0027		03	08114	08144	0829	N28	E76	5721	10	9.3	18	SN	C 5.6				106			CDFH
	KANZ	03	0811E	0815	0831	N27	E75	5721	10	9.2	200	SB			V					
	SVTO	03	0811	0815	0831	N30	E79	5721	10	9.5	20	1N	C 5.6	3	E		105			FH
	PURP	03	0812E	0814	0826	N27	E76	5721	10	9.3	140	1F			P	0814	181			C
	LEAR	03	0812	0815	0825	N27	E76	5721	10	9.3	13	SN		3	E		76			H
	BUCA	03	0815	0818	0830	N27	E74	5721	10	9.1	15	SF			C	0818	64			D
0028		03	0956*	1002*	1120	S13	W40	5709	09	30.4	84	1N					149	3.4		EFU
	KANZ	03	0956	1019	1055	S13	W40	5709	09	30.4	59	1N			V					U
	URUM	03	1000	1016	10450	S12	W42	5709	09	30.2	450	1N			C		193	2.8		E
	CATA	03	1002E	1002	10050	S12	W40	5709	09	30.4	30	1B		2	P	1002	281	4.0		
	SVTO	03	1002	1019	1156	S15	W40	5709	09	30.4	114	1F		3	E		229			F
	RAMY	03	1051E	1057U	1059	S12	W38	5709	09	30.6	80	SF		2	E		28			F
	RAMY	03	1105	1126	1130	S13	W38	5709	09	30.6	25	SF		3	E		14			F
0029	SVTO	03	1010	1027	1038	N30	E80	5721	10	9.7	28	SF	C 5.1	3	E		42			
0030	SVTO	03	1048	1053	1103	S25	W19	5715	10	2.0	15	SF		3	E		19			F
0031	RAMY	03	1119	1120	1127	S11	E17	5724	10	4.7	8	SF		3	E		28			F
0032		03	1130	11317	1146	S14	E83	5726	10	9.7	16	SN					45			D
	KAND	03	1130	1138	1150	S14	E85	5726	10	9.9	20	SN			P	1138	62			D
	CATA	03	1131E	1131	11350	S16	E85	5726	10	9.9	40	1N		2	P	1131	56			
	SVTO	03	1136E	1137U	1142	S12	E79	5726	10	9.4	60	SF		2	E		16			
0033		03	1138	1142	1156	N30	E72	5721	10	9.1	18	SF					30			
	SVTO	03	1138	1142	1148	N31	E79	5721	10	9.7	10	SF		3	E		20			
	RAMY	03	1138	1142	1204	N28	E64	5721	10	8.5	26	SF		3	E		40			
0034	SVTO	03	1218	1221	1230	N31	E83	5725	10	10.1	12	SF	C 3.5	3	E		23			F
0035	RAMY	03	1248	1305	1357	N29	E23	5714	10	5.3	69	1N	C 5.2	3	E		102			
0036	SVTO	03	1252	1253	1257	N18	E20	5716	10	5.0	5	SF		3	E		17			
0037		03	12572	13093	1350	N24	E23	5719	10	5.3	53	1N					114	2.4		EF
	KANZ	03	1257E	1309	14100	N23	E22	5719	10	5.2	730	1F			V					
	KAND	03	1257	1312	1346	N25	E23	5719	10	5.3	49	1B			P	1312	208	2.4		EF
	RAMY	03	1259	1305U	1353	N23	E24	5719	10	5.4	54	SF		3	E		20			
0038	RAMY	03	1427	1428	1436	N17	E19	5716	10	5.0	9	SF		3	E		27			
0039		03	1728	1730	1756	S16	W16	5712	10	2.5	28	SF	C 3.3				34			F
	HOLL	03	1728	1730	1755	S16	W16	5712	10	2.5	27	SF	C 3.3	3	E		26			F
	RAMY	03	1728	1730	1758	S17	W16	5712	10	2.5	30	SF	C 3.3	3	E		43			
0040	HOLL	03	1734	1735	1739	N27	E65	5721	10	8.8	5	SF		3	E		24			
0041		03	18141	1816	1840	N29	E27	5714	10	5.9	26	SF					18			
	RAMY	03	1814	1816	18560	N28	E26	5714	10	5.8	420	SF		3	E		17			
	HOLL	03	1815	1816	1840	N30	E28	5714	10	6.0	25	SF		3	E		19			

6  
Oct 89

H $\alpha$  SOLAR FLARES

OCTOBER 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
																Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0042	HOLL	03	2019	2021	2028	N28	E66	5721	10	9.0	9	SF		3	E		25		F
0043	HOLL	03	2100	2103	2119	N28	E76	5721	10	9.8	19	SF		3	E		21		F
		03	2137		2205	No Flare Patrol													
0044		03	2258	2307*	2340	N29	E25	5714	10	5.9	42	SF	C 6.6				89		FK
	LEAR	03	2258	2307	2340	N28	E25	5714	10	5.9	42	SF	C 6.6	3	E		42		F
	HOLL	03	2301E	2309U	2404D	N29	E25	5714	10	5.9	63D	1N		2	E		171		F
	HOLL	03	2301E	2332	2404D	N29	E25	5714	10	5.9	63D	SF			E		54		K
0045	LEAR	04	0316	0317	0334	S17	W16	5712	10	2.9	18	SF		3	E		25		F
0046		04	0506	0508*	0518	S16	W55	5709	09	30.0	12	1N	C 4.0				236	9.1	FJU
	TACH	04	0501E	0543	0608D	S15	W57	5709	09	30.0	67D	2N		3	C	0543	439	9.1	JU
	LEAR	04	0506	0508	0518	S17	W53	5709	09	30.2	12	SF	C 4.0	3	E		32		F
0047		04	0519*	0532*	0619	N14	E10	5716	10	5.0	60	1N					158	2.1	E
	TACH	04	0519	0532	0608D	N14	E10	5716	10	5.0	49D	1B		3	C	0532	219	2.3	E
	LEAR	04	0539	0548	0628	N14	E11	5716	10	5.1	49	SF		3	E		35		
	PURP	04	0542E	0543	0623	N14	E09	5716	10	4.9	41D	1N			P	0543	201	2.1	
	URUM	04	0550	0554	0607	N14	E10	5716	10	5.0	17	SN			C		177	1.9	E
0048	MITK	04	0707	0709	0720	S25	W29	5715	10	2.0	13	SF			C	0709	110	1.5	E
0049		04	0834I	0838I	0903	N28	E61	5721	10	9.1	29	1N	C 7.1				149	4.2	DF
	LEAR	04	0834	0838	0908	N28	E63	5721	10	9.3	34	SN		3	E		81		F
	SVTO	04	0834	0838	0915D	N30	E61	5721	10	9.1	41D	1B	C 7.1	3	E		108		F
	KANZ	04	0835	0839	0909	N28	E60	5721	10	9.0	34	1N			V				
	PURP	04	0836E	0836U	0855D	N28	E60	5721	10	9.0	19D	2F			P	0836	295	6.2	D
	ATHN	04	0837E	0839U	0851	N27	E60	5721	10	9.0	14D	1B		2	V	0839	111	2.1	
0050		04	09352	09385	1011	N23	E12	5719	10	5.3	36	1N	C 6.6				179	3.4	EF
	LEAR	04	0935	0939	1008D	N25	E10	5719	10	5.2	33D	SF	C 6.6	3	E		47		
	KANZ	04	0935	0939	1024	N23	E11	5719	10	5.2	49	1F			V				
	URUM	04	0935	0943	1011	N23	E11	5719	10	5.2	36	1B			C		289	3.2	E
	LEAR	04	0937	0938	0959	N21	E13	5719	10	5.4	22	SF		3	E		28		
	ATHN	04	0939E	0943U	0943D	N23	E14	5719	10	5.5	4D	1B		2	V	0943	318	3.5	
	SVTO	04	0947E	0947U	1004D	N22	E16	5719	10	5.6	17D	1F		1	E		213		F
0051	LEAR	04	0947	0947	0950	N08	E75	5726B	10	10.0	3	SF		3	E				
0052	RAMY	04	1115	1141	1203	N29	E60	5721	10	9.2	48	SF		3	E		27		
0053	RAMY	04	1118	1134	1142	S15	W11	5712	10	3.6	24	SF		3	E		18		
0054		04	1227*	1227*	1256	N28	E67	5721	10	9.7	29	SF	C 2.8				30		
	RAMY	04	1227	1227	1234	N29	E67	5721	10	9.8	7	SF	C 2.8	3	E		25		
	RAMY	04	1238	1250	1319	N28	E67	5721	10	9.8	41	SF	C 4.1	3	E		34		
		04	1231		1310	No Flare Patrol													
0055	RAMY	04	1235	1236	1245	N30	E18	5714	10	5.9	10	SF		3	E		19		
0056		04	1326	13322	1348	N29	E16	5714	10	5.8	22	SF					33		F
	RAMY	04	1326	1332	1356	N29	E16	5714	10	5.8	30	SF		3	E		33		F
	KANZ	04	1326	1334	1341	N29	E16	5714	10	5.8	15	SF			V				
0057	SVTO	04	1328E	1355U	1414	N15	E30	5727	10	6.8	46D	SF		2	E		33		F
0058		04	1359I	1400I	1412	S10	E03	5724	10	4.8	13	SF					34		
	HOLL	04	1357E	1400	1415	S10	E03	5724	10	4.8	18D	SF		3	E		36		
	RAMY	04	1359	1401	1413	S10	E04	5724	10	4.9	14	SF		3	E		32		
	KANZ	04	1400	1400	1408	S11	E02	5724	10	4.7	8	SF			V				
0059		04	1417	14206	1430	N27	E52	5721	10	8.6	13	SF	C 5.3				12		K
	RAMY	04	1417	1420	1430	N27	E52	5721	10	8.6	13	SF			E		15		K
	RAMY	04	1417	1426	1430	N27	E52	5721	10	8.6	13	SF	C 5.3	3	E		8		

H $\alpha$  SOLAR FLARES

7  
Oct 89

OCTOBER 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	NOAA/USAF		CMP Mo	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks	
						Lat	Cmd Region							Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)		
0060	04	1423*	1422*	1445	N32	E18	5714	10	6.0	22	SF				50			
	KANZ	04	1422E	1422	1449	N32	E18	5714	10	6.0	27D	SF	V					
	HOLL	04	1423	1423	1435	N33	E19	5714	10	6.1	12	SF	3	E		17		
	SVTO	04	1424E	1424U	1509D	N30	E16	5714	10	5.8	45D	1F	2	E		103		
	HOLL	04	1437	1437	1452	N33	E18	5714	10	6.0	15	SF	3	E		29		
0061	04	14485	1453*	1459	N28	E60	5721	10	9.3	11	SF				19		FH	
	SVTO	04	1448	1454	1502	N29	E56	5721	10	9.0	14	SF	3	E		16		F
	RAMY	04	1452	1454	1459	N29	E57	5721	10	9.1	7	SF	3	E		21		
	HOLL	04	1452	1505	1508D	N27	E64	5721	10	9.6	16D	SF	3	E		20		H
	KANZ	04	1453	1453	1457	N26	E62	5721	10	9.4	4	SF		V				
0062	04	15514	16039	1618	S10	E03	5724	10	4.9	27	SF				40			
	RAMY	04	1551	1612	1623	S11	E04	5724	10	5.0	32	SF	3	E		40		
	KANZ	04	1555	1603	1612	S10	E02	5724	10	4.8	17	SF		V				
	04	1621		1811	No Flare Patrol													
0063	RAMY	04	1752	1753	1757	S14	E64	5726	10	9.6	5	SF	3	E		11		
	04	1818		2011	No Flare Patrol													
	04	2054		2219	No Flare Patrol													
0064	04	2322	2324	2343	N33	E72	5725	10	10.7	21	1F				103		DIJ	
	LEAR	04	2322	2324	2334	N33	E72	5725	10	10.7	12	SF	3	E		35		
	VORO	04	2322	2324	2336	N33	E71	5725	10	10.6	14	SF	2	C	2324	54		DIJ
	MITK	04	2333E		2359	N33	E74	5725	10	10.8	26D	2F		C	2333	220		
0065	LEAR	05	0331	0332	0343	N29	E54	5721	10	9.4	12	SF	3	E		30		F
0066	05	03382	03413	0355	S12	W04	5724	10	4.8	17	1N				164	2.2	DF	
	LEAR	05	0338	0342	0358	S11	W04	5724	10	4.8	20	SF	3	E		47		F
	URUM	05	0339	0341	0350	S12	W03	5724	10	4.9	11	1N		C		225	2.4	D
	PEKG	05	0340	0342	0358	S15	W07	5724	10	4.6	18	SN		C	0342	126	1.4	D
	MITK	05	0341E	0344	0355	S12	W03	5724	10	4.9	14D	1F		C	0344	260	2.8	
0067	LEAR	05	0516	0517	0525	N26	E49	5721	10	9.0	9	SF	3	E		24		F
0068	05	05406	05488	0612	N28	E54	5721	10	9.4	32	SN				56	1.7	E	
	LEAR	05	0540	0556	0614	N29	E50	5721	10	9.1	34	SF	3	E		27		
	PEKG	05	0546	0548	0609	N28	E59	5721	10	9.8	23	SN		C	0548	84	1.7	E
0069	05	06073	06093	0622	S18	W39	5712	10	2.3	15	SN	C 4.5			124	2.5	DE	
	TACH	05	0607	0612	0627	S16	W44	5712	10	1.9	20	1B	2	C	0612	214	3.2	E
	PEKG	05	0608	0609	0618	S17	W39	5712	10	2.3	10	1B		P	0609	169	2.5	E
	LEAR	05	0608	0609	0624	S18	W38	5712	10	2.4	16	SF	C 4.5	3	E	65		
	SVTO	05	0609	0609	0628D	S19	W37	5712	10	2.4	19D	SF	2	E		41		
	URUM	05	0610	0610U	0620	S18	W39	5712	10	2.3	10	SN		C		129	1.9	D
0070	SVTO	05	0647E	0647U	0733D	N15	E59	5726B	10	9.7	46D	SF	C 3.7	2	E	97		F
0071	LEAR	05	0652	0654	0658	S17	W39	5712	10	2.3	6	SF	3	E		27		
0072	05	08443	08452	0852	N27	E54	5721	10	9.6	8	SF	C 2.9			52	1.0	D	
	BUCA	05	0844	0845	0852	N27	E54	5721	10	9.6	8	SF		C	0845	43	0.8	D
	KHAR	05	0845E		0850D	N26	E54	5721	10	9.5	5D	SN	2	P	0846	80	1.2	D
	SVTO	05	0846E	0846U	0853	N29	E54	5721	10	9.6	7D	SF	C 2.9	2	E	33		
	KANZ	05	0847	0847	0851	N27	E53	5721	10	9.5	4	SF		V				
0073	05	1132	11322	1137	N28	E52	5721	10	9.5	5	SF				37		F	
	KANZ	05	1132	1132	1136	N27	E52	5721	10	9.5	4	SF		V				
	RAMY	05	1132	1134	1138	N28	E52	5721	10	9.5	6	SF	3	E		37		F
0074	05	1152	12034	1215	S26	W43	5715	10	2.1	23	SF	C 6.7			84		FH	
	KANZ	05	1152	1203	1215	S26	W41	5715	10	2.3	23	SF		V				
	SVTO	05	1158E	1207	1245D	S27	W45	5715	10	2.0	47D	SF	C 6.7	2	E	84		FH



8  
Oct 89

H $\alpha$  SOLAR FLARES

OCTOBER 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	NOAA/ USAF Region	CMP Mo	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks	
														Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)		
0075	05	1154*	1159	1220	N29 E52	5721	10	9.6	26	SN					123		EFH	
	RAMY	05	1154	1159	1205	N27 E54	5721	10	9.7	11	SF	3	E		53		FH	
	SVTO	05	1158E	1200	1246D	N30 E54	5721	10	9.7	48D	SN	2	E		91		FE	
	KANZ	05	1200	1200	1234	N29 E55	5721	10	9.8	34	SN		V					
	RAMY	05	1211	1211U	1213D	N30 E43	5721	10	8.9	2D	1F	3	E		225		FH	
0076	05	12073	1211	1218	S26 E58	5729	10	10.0	11	SF					31			
	KANZ	05	1207	1211	1219	S26 E58	5729	10	10.0	12	SF		V					
	SVTO	05	1210	1211	1216	S25 E59	5729	10	10.1	6	SF	3	E		31			
0077	05	1323	1331*	1444	N28 E53	5721	10	9.7	81	SF					40		FK	
	RAMY	05	1323	1331	1444	N28 E53	5721	10	9.7	81	SF		E		46		K	
	RAMY	05	1323	1400	1444	N28 E53	5721	10	9.7	81	SF	3	E		34		F	
0078	05	13334	13401	1452	N13 W08	5716	10	5.0	79	SN	C 3.7				65		FU	
	RAMY	05	1333	1340	1547D	N10 W08	5716	10	5.0	134D	SN	C 3.7	3	E	84		UF	
	KANZ	05	1337	1341	1452	N14 W08	5716	10	5.0	75	SN		V					
	SVTO	05	1338E	1338U	1451D	N14 W08	5716	10	5.0	73D	SN	2	E		46		F	
0079	KANZ	05	1357	1400	1412	N28 E41	5721	10	8.8	15	SF		V					
0080	05	14001	1404	1412	N28 W00	5714	10	5.6	12	SF	C 5.1				10		F	
	KANZ	05	1400	1404	1412	N28 E01	5714	10	5.7	12	SF		V					
	RAMY	05	1401	1404	1412	N28 W02	5714	10	5.4	11	SF	C 5.1	3	E	10		F	
0081	05	13591	14013	1416	S19 W39	5712	10	2.6	17	SF					76		FU	
	RAMY	05	1359	1401	1412	S19 W38	5712	10	2.7	13	SF	3	E		72		UF	
	KANZ	05	1400	1404	1420	S18 W39	5712	10	2.6	20	SF		V					
	SVTO	05	1400E	1405U	1420D	S19 W39	5712	10	2.6	20D	SF	2	E		79		F	
0082	KANZ	05	1444	1444	1452	N23 W61	5709C	09	30.9	8	SF		V					
0083	RAMY	05	1628	1630	1632	N31 E00	5714	10	5.7	4	SF	3	E		50		F	
0084	RAMY	05	1906	1913	1918	N30 E39	5721	10	8.9	12	SF	C 3.2	3	E	12			
		05	1935		2106	No Flare Patrol												
		05	2121		2227	No Flare Patrol												
0085	06	06076	0614*	0642	N28 E36	5721	10	9.1	35	1N				120	2.0	EF		
	LEAR	06	0607	0614	0642	N27 E34	5721	10	8.9	35	SF	3	E		47		F	
	PEKG	06	0613	0615	0626	N30 E38	5721	10	9.2	13	1N		C	0615	168	2.3	E	
	PURP	06	0613	0627	0650	N29 E33	5721	10	8.8	37	SN		P	0627	74	1.0		
	URUM	06	0626E	0629	0650	N28 E37	5721	10	9.1	24D	1F		C		193	2.7	E	
0086	KANZ	06	0838	0838	0842	N26 E41	5721	10	9.5	4	SF		V					
0087	06	1039	10433	1054	N28 E30	5721	10	8.8	15	1B				281	3.6			
	KANZ	06	1039	1043	1054	N28 E30	5721	10	8.8	15	SN		V					
	CATA	06	1046E	1046	1046D	N28 E31	5721	10	8.9	15D	1B	1	P	1046	281	3.6		
0088	KANZ	06	1146	1146	1149	N21 E35	5723	10	9.2	3	SF		V					
0089	06	12458	12543	1322	N28 E32	5721	10	9.0	37	SF				28		F		
	RAMY	06	1245	1254	1331	N28 E32	5721	10	9.0	46	SF	4	E		38		F	
	KANZ	06	1246	1257	1313	N27 E34	5721	10	9.2	27	SF		V					
	SVTO	06	1253	1254	1318D	N28 E30	5721	10	8.9	25D	SF	2	E		17		F	
0090	06	1403*	14183	1504	N28 E28	5721	10	8.8	61	1F				88		FU		
	KANZ	06	1403	1418	1503	N28 E28	5721	10	8.8	60	1F		V					
	HOLL	06	1403	1421	1508	N27 E29	5721	10	8.8	65	1F	3	E		153			
	SVTO	06	1414	1419	1450D	N30 E24	5721	10	8.5	36D	SF	3	E		52		UF	
	RAMY	06	1414	1420	1502	N28 E29	5721	10	8.8	48	SF	3	E		59		F	
0091	06	14591	15003	1508	S17 W41	5712	10	3.5	9	SF				14		F		
	HOLL	06	1459	1500	1509	S17 W46	5712	10	3.1	10	SF	3	E		13			
	KANZ	06	1459	1503	1508	S17 W40	5712	10	3.6	9	SF		V					
	RAMY	06	1500	1500	1507	S17 W38	5712	10	3.7	7	SF	3	E		15		F	

H $\alpha$  SOLAR FLARES

9  
Oct 89

OCTOBER 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	NOAA/USAF			CMP Mo	Dur Day	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
						Lat	CMD	Region							Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0092		06	15393	15396	1609	S13	E38	5726	10	9.5	30	SF				19		
	KANZ	06	1539	1539	1558D	S13	E38	5726	10	9.5	19D	SF		V				
	HOLL	06	1542	1545	1609	S13	E39	5726	10	9.6	27	SF	3	E		19		
0093	HOLL	06	1658	1703	1714	S13	E37	5726	10	9.5	16	SF	3	E		12		
0094	RAMY	06	1742	1747	1822	N28	E27	5721	10	8.8	40	SF C 2.5	3	E		95		
0095	RAMY	06	2003	2007	2018	S13	E35	5726	10	9.5	15	SF	3	E		33		
		06	2026		2031	No Flare Patrol												
0096		06	2116	2118	2156	S12	E35	5726	10	9.5	40	SF				34		F
	RAMY	06	2116	2118	2123	S12	E35	5726	10	9.5	7	SF	3	E		14		F
	HOLL	06	2150E	2150U	2230	S13	E35	5726	10	9.5	40D	SF	2	E		53		
		06	2128		2143	No Flare Patrol												
0097	HOLL	06	2240	2241	2334	S13	E34	5726	10	9.5	54	SF	3	E		35		F
0098	HOLL	06	2243	2245	2302	N28	E25	5721	10	8.9	19	SF	3	E		24		F
0099		07	0352*	0355*	0504	N28	E28	5721	10	9.3	72	SN C 5.9				108	1.7	DEF
	LEAR	07	0352	0457	0517	N27	E23	5721	10	8.9	85	SF C 5.9	3	E		74		F
	PALE	07	0353	0359	0413D	N29	E23	5721	10	9.0	20D	SF	3	E		45		F
	PEKG	07	0355E	0355	0413	N27	E24	5721	10	9.0	18D	SN		C	0355	134	1.6	E
	YUNN	07	0356E	0356U	0356D	N29	E26	5721	10	9.2	18D	SN		P	0356	24	0.3	
	PEKG	07	0435	0452	0510	N28	E35	5721	10	9.9	35	1N		C	0452	24	2.9	E
	URUM	07	0459E	0459U	0510	N28	E35	5721	10	9.9	11D	1N		C		161	2.2	E
	PURP	07	0509	0513	0528	N29	E33	5721	10	9.8	19	SF		P	0513	107	1.4	D
0100	TACH	07	0514E	0519	0542	N20	E25	5723	10	9.1	28D	SN	3	C	0519	133	1.6	U
0101	TACH	07	0538	0547	0602	N25	W27	5719	10	5.1	24	SN	3	C	0547	92	1.1	E
0102	SVTO	07	0710	0713	0717	S11	E30	5726	10	9.5	7	SF	3	E		21		
0103	YUNN	07	0823E	0823U	0824	S14	W40	5724	10	4.3	1D	SN		P	0823	32	0.5	
0104	SVTO	07	0955	0957	1014	N23	W25	5719	10	5.5	19	SF	3	E		62		
0105	KHAR	07	1025E		1030D	N24	W26	5719	10	5.4	5D	SN	2	V	1026			
0106		07	11283	11321	1143	N28	E17	5721	10	8.8	15	SF				36		F
	RAMY	07	1128	1133	1146	N27	E18	5721	10	8.9	18	SF	2	E		55		F
	SVTO	07	1131	1132	1140	N30	E16	5721	10	8.7	9	SF	3	E		16		F
0107	CATA	07	1158	1200	1200D	S32	E70	5734	10	13.0	2D	1B	1	P	1200	84		
0108		07	1550*	1557*	1620	N28	E18	5721	10	9.1	30	SF				35		F
	HOLL	07	1550	1557	1558	N28	E19	5721	10	9.1	8	SF	3	E		11		
	HOLL	07	1601	1602	1605	N28	E18	5721	10	9.1	4	SF	3	E		16		F
	HOLL	07	1606	1618	1638	N27	E16	5721	10	8.9	32	SF	3	E		61		F
	RAMY	07	1606	1618	1639	N28	E19	5721	10	9.1	33	SF	3	E		51		
0109		07	19481	19501	1957	N28	E16	5721	10	9.1	9	SF				20		
	HOLL	07	1948	1951	1958	N26	E18	5721	10	9.2	10	SF	3	E		26		
	RAMY	07	1949	1950	1956	N29	E15	5721	10	9.0	7	SF	3	E		13		
0110	HOLL	07	2132	2132	2139	N25	E24	5721	10	9.7	7	SF	3	E		17		F
0111		07	2302	23037	2325	S18	W68	5712	10	2.8	23	SF				41		
	HOLL	07	2302	2303	2318	S19	W58	5712	10	3.5	16	SF	3	E		29		
	HOLL	07	2302	2310	2332	S17	W77	5712	10	2.1	30	SF	3	E		53		
0112	LEAR	08	0141	0141	0145	S17	E01	5722	10	8.1	4	SF	3	E		13		
0113		08	0344	03491	0409	N21	E30	5725C	10	10.4	25	SN C 3.9				78	1.3	EF
	LEAR	08	0344	0349	0408	N20	E30	5725C	10	10.4	24	SF C 3.9	3	E		50		F
	PEKG	08	0344	0350	0410	N22	E30	5725C	10	10.5	26	SN		C	0350	105	1.3	E

10  
Oct 89

H $\alpha$  SOLAR FLARES

OCTOBER 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Time (UT)	Area Measurement		Remarks	
																	Apparent (10-6 Disk)	Corr (Sq Deg)		
0114	08	05142	05181	0529	N30	E12	5721	10	9.2	15	SN						58	1.2	EF	
	PEKG	08	0514	0519	0530	N32	E13	5721	10	9.2	16	SN			C	0519	105	1.2	E	
	LEAR	08	0516	0518	0528	N28	E10	5721	10	9.0	12	SF		3	E		12		F	
	08	1014			1039	No Flare Patrol														
0115	RAMY	08	1220	1222	1233	N32	E28	5725	10	10.7	13	SF		2	E			24		F
0116	08	16271	1629	1644	N18	E38	5728	10	11.6	17	SF						16			
	HOLL	08	1627	1629	1644	N18	E38	5728	10	11.6	17	SF		3	E		19			
	RAMY	08	1628	1629	1645	N18	E37	5728	10	11.5	17	SF		3	E		14			
	08	1955		1959	No Flare Patrol															
	08	2003		2010	No Flare Patrol															
	08	2053		2102	No Flare Patrol															
0117	VORO	09	0024	0027	0044	N17	W71		10	3.6	20	SF		2	C	0027	45		DI	
0118	VORO	09	0032	0035	0042	N28	E88	5735	10	15.9	10	SF		2	C	0035	27		D	
0119	09	0117	01191	0124	N32	E22	5725	10	10.8	7	1N						117	2.6	E	
	LEAR	09	0117	0120	0124	N30	E22	5725	10	10.8	7	SF		3	E		24			
	PEKG	09	0118E	0119	0124	N33	E21	5725	10	10.7	6D	1N			P	0120	210	2.6	E	
0120	09	01505	0156*	0255	N19	E27	5728	10	11.1	65	1N	C 6.9					299	4.7	EFHJKUZ	
	VORO	09	0150	0206	0300D	N18	E26	5728	10	11.0	70D	2F		2	C	0206	582	6.5	EHJZ	
	PEKG	09	0150	0220	0254	N20	E28	5728	10	11.2	64	1N			P	0220	294	3.5	E	
	LEAR	09	0152	0156	0246	N18	E27	5728	10	11.1	54	SF	C 6.9	3	E		97		F	
	PALE	09	0155	0157	0231	N19	E25	5728	10	11.0	36	SF		3	E		71		F	
	MITK	09	0207E		0328	N22	E27	5728	10	11.2	81D	1B			C	0209	350	4.2	EJK	
	URUM	09	0221E	0223	0255	N19	E27	5728	10	11.1	34D	1N			C		402	4.7	U	
0121	LEAR	09	0200	0206	0226	N18	E15	5726A	10	10.2	26	SF		3	E		23			
	09	1014			1057	No Flare Patrol														
0122	RAMY	09	1100	1110	1128	N20	E13	5726A	10	10.4	28	SF		3	E		29		F	
0123	RAMY	09	1225	1229	1236	N29	E76	5735	10	15.5	11	SF		3	E		11			
0124	RAMY	09	1249	1257	1304	N29	E77	5735	10	15.6	15	SF		3	E		17			
0125	RAMY	09	1321	1325	1328	N28	E76	5735	10	15.5	7	SF		3	E		14			
0126	RAMY	09	1449	1453	1504	N16	E81	5736	10	15.8	15	SF		3	E		31			
0127	09	1831	1842	1910	S14	W04	5726	10	9.5	39	SF						48		FU	
	RAMY	09	1831	1842	1907	S13	W04	5726	10	9.5	36	SF		3	E		58		UF	
	HOLL	09	1833E	1834U	1912	S14	W03	5726	10	9.5	39D	SF		2	E		38		F	
0128	09	1907	1901*	1925	N16	E81	5736	10	15.9	18	SF						47			
	RAMY	09	1901E	1901	1916	N18	E85	5736	10	16.3	15D	SF		3	E		57			
	HOLL	09	1907	1913	1934	N15	E77	5736	10	15.6	27	SF		3	E		37			
0129	09	19382	19456	2016	N24	W56	5719	10	5.5	38	SF	C 2.5					43		F	
	HOLL	09	1938	1945	2022	N25	W59	5719	10	5.2	44	SF		3	E		52			
	RAMY	09	1940	1951	2010	N22	W53	5719	10	5.7	30	SF	C 2.5	3	E		34		F	
0130	09	20274	2034	2057	S30	E40	5734	10	13.0	30	SF						23		F	
	RAMY	09	2027	2034	2055	S30	E41	5734	10	13.1	28	SF		3	E		22		F	
	HOLL	09	2031	2034	2059	S30	E39	5734	10	12.9	28	SF		3	E		24			
0131	09	2056	2057	2128	N14	W64	5716	10	5.0	32	SF						32		FH	
	RAMY	09	2056	2057	2121	N15	W65	5716	10	4.9	25	SF		3	E		27		FH	
	HOLL	09	2056	2108U	2136	N14	W62	5716	10	5.2	40	SF		3	E		36			
0132	HOLL	09	2241	2257	2336	S15	W06	5726	10	9.5	55	1F		3	E		112			
0133	HOLL	09	2311	2315	2328	N34	E10	5725	10	10.8	17	SN	C 2.6	3	E		80			

H $\alpha$  SOLAR FLARES

11  
Oct 89

OCTOBER 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Dur (Min)	Imp Opt	Xray	See	Obs Type	Area Measurement			Remarks	
																Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)		
0134	HOLL	09	2331	2332	2342	N30	W65	5714	10	4.9	11	SF			3	E		37		
0135	LEAR	10	0228		0248	S15	W07	5726	10	9.6	20	SF			3	E		11		F
0136		10	03553	04014	0413	N33	E05	5725	10	10.6	18	1N	C 2.7					223	3.4	EF
	PEKG	10	0355	0405	0411	N33	E07	5725	10	10.7	16	1N				C	0405	336	3.9	E
	MITK	10	0357	0401	0415	N33	E04	5725	10	10.5	18	1N				C	0401	240	2.8	E
	LEAR	10	0358	0401	0412	N32	E05	5725	10	10.6	14	SF	C 2.7	3	E			93		F
0137	ABST	10	0716	0719	0730	S16	E90	5740	10	17.1	14	1N				C	0719	131		AD
		10	0902		0909	No Flare Patrol														
		10	0946		0950	No Flare Patrol														
		10	0958		1001	No Flare Patrol														
0138	KANZ	10	1102	1102	1110	N29	E67	5742A	10	15.7	8	SF				C				
0139	HOLL	10	1358	1401U	1406	N15	W25	5723	10	8.7	8	SF			3	E		12		
0140	HOLL	10	1609	1611	1617	N28	E62	5735	10	15.5	8	SF			3	E		20		
0141		10	1616	1616	1622	N35	W00	5725	10	10.7	6	SF						18		F
	RAMY	10	1616	1616	1620	N37	E02	5725	10	10.8	4	SF			3	E		13		
	HOLL	10	1616	1616	1623	N33	W03	5725	10	10.4	7	SF			3	E		23		F
0142	RAMY	10	1755E	1800	1809	N35	W11	5725	10	9.9	14D	SF			3	E		23		H
0143	HOLL	10	2019	2027	2056D	N13	W15	5725B	10	9.7	37D	SF			3	E		24		FU
0144	HOLL	10	2020	2020	2030	N17	W21	5723	10	9.2	10	SF			3	E		11		
0145	HOLL	10	2036	2044	2053	N24	W72	5719	10	5.3	17	SF			3	E		69		
0146	PEKG	11	0130	0142	0206	N27	W20	5721	10	9.5	36	SN				C	0142	105	1.2	E
0147	PEKG	11	0137	0142	0156	S12	W20	5726	10	9.6	19	1N				C	0142	189	2.2	U
0148		11	02312	02342	0246	N36	W02	5725	10	10.9	15	SN						35	0.6	D
	PEKG	11	0231	0236	0245	N37	W01	5725	10	11.0	14	SN				C	0236	50	0.6	D
	LEAR	11	0233	0234	0248	N36	W03	5725	10	10.9	15	SF			3	E		20		
0149	PEKG	11	0236	0240	0245	N12	E35	5738	10	13.7	9	SN				C	0240	42	0.5	D
0150		11	0442	0444*	0526	N28	W21	5721	10	9.5	44	1N						180	3.7	EF
	LEAR	11	0442	0444	0526	N27	W22	5721	10	9.5	44	SF			3	E		44		F
	PEKG	11	0454E	0455	0505D	N28	W20	5721	10	9.6	11D	1B				P	0455	315	3.7	E
0151	KANZ	11	0902	0906	0914	N35	W06	5725	10	10.9	12	SF				C				
0152	KANZ	11	1008	1008	1012	S17	E72	5740	10	16.9	4	SF				V				
0153	KANZ	11	1213	1216	1220	N20	W30	5723	10	9.2	7	SF				V				
0154		11	14061	1414	1438	N28	W26	5721	10	9.5	32	SF						21		
	KANZ	11	1406	1414	1437	N27	W26	5721	10	9.6	31	SF				V				
	HOLL	11	1407	1414	1439	N28	W26	5721	10	9.5	32	SF			3	E		21		
0155		11	14451	14531	1458	N13	E48	5736	10	15.2	13	SF						11		
	HOLL	11	1445	1454	1459	N13	E48	5736	10	15.2	14	SF			3	E		11		
	KANZ	11	1446	1453	1457	N13	E49	5736	10	15.3	11	SF				V				
0156	KANZ	11	1446	1446	1450	N36	W10	5725	10	10.8	4	SF				V				
0157		11	15392	15592	1629	N28	W26	5721	10	9.6	50	SF						94		F
	HOLL	11	1539	1559	1633	N27	W25	5721	10	9.7	54	SF			3	E		99		F
	RAMY	11	1540	1601	1625	N27	W29	5721	10	9.4	45	SF			3	E		89		
	KANZ	11	1541	1600	1604D	N29	W25	5721	10	9.7	23D	SF				V				

12  
Oct 89

H $\alpha$  SOLAR FLARES

OCTOBER 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	NOAA/USAF			Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
						Lat	CMD	Region						Mo	Day	Time (UT)	
0158		11	1541	15442	1552	N13	E47	5736	10	15.2	11	SF			48		H
	KANZ	11	1541	1544	1548	N13	E47	5736	10	15.2	7	SF	V				
	HOLL	11	1541	1546	1557	N13	E47	5736	10	15.2	16	SF	3 E		48		H
0159	HOLL	11	1622	1625	1649	N27	E49	5735	10	15.5	27	SF C 3.1	3 E		83		EF
0160	HOLL	11	1642	1645	1723	N27	W29	5721	10	9.4	41	SF C 3.7	3 E		35		F
0161	HOLL	11	1715	1721	1736	N13	E47	5736	10	15.3	21	SF	3 E		64		
0162	RAMY	11	1907	1920	1940	N23	W77	5719	10	5.9	33	SF	3 E		28		F
0163		11	1920*	1921*	1933	N29	W85	5714	10	5.1	13	SF			26		H
	HOLL	11	1920	1921	1924	N29	W85	5714	10	5.1	4	SF	3 E		18		
	RAMY	11	1935	1940	1942	N29	W85	5714	10	5.1	7	SF	3 E		35		H
0164	HOLL	11	2013	2014	2035	N11	E24	5738	10	13.6	22	SF	3 E		21		
0165	HOLL	11	2031	2041	2105	N29	W38	5721	10	8.9	34	SF	3 E		58		
0166	HOLL	11	2046	2048	2101	S17	E68	5740	10	17.0	15	SF	3 E		13		
0167		12	03019	03059	0319	N12	W36	5725B	10	9.4	18	1N			153	2.0	EG
	YUNN	12	0301	0305	0317	N11	W36	5725B	10	9.4	16	SN	P		96	1.2	G
	PEKG	12	0310	0314	0321	N14	W36	5725B	10	9.4	11	1F	C	0314	210	2.7	E
0168		12	0323	0326	0341	S12	W42	5726	10	9.0	18	1B			191	2.8	D
	PEKG	12	0323	0326	0341	S12	W42	5726	10	9.0	18	1B	C	0326	189	2.8	D
	YUNN	12	0325E	0326U	0340D	S13	W43	5726	10	8.9	15D	1N	P	0326	193	2.9	
0169		12	0452	0505	0527	N27	W35	5721	10	9.5	35	1N			142	2.5	EF
	LEAR	12	0451E	0504U	0521	N27	W35	5721	10	9.5	30D	SF	2 E		54		
	PEKG	12	0452	0505	0530	N27	W35	5721	10	9.5	38	1B	C	0505	210	2.8	E
	TACH	12	0502E		0531	N28	W35	5721	10	9.5	29D	1B	2 C	0502	163	2.2	F
0170		12	0540	05405	0555	S14	E66	5740	10	17.2	15	SF C 2.3			48		D
	LEAR	12	0540	0540	0552	S15	E63	5740	10	17.0	12	SF C 2.3	3 E		12		
	PEKG	12	0540	0545	0550	S15	E69	5740	10	17.4	10	1N	C	0545	63		D
	SVTO	12	0547E	0547U	0604	S12	E65	5740	10	17.1	17D	SF	2 E		69		
0171		12	07211	07212	0739	S12	W44	5726	10	9.0	18	SN C 1.8			64	1.5	E
	LEAR	12	0721	0721	0734	S12	W44	5726	10	9.0	13	SF C 1.8	3 E		21		
	SVTO	12	0721	0723	0736	S13	W45	5726	10	8.9	15	SF	3 E		24		
	TACH	12	0722	0723	0742	S10	W44	5726	10	9.0	20	SB	2 C	0723	76	1.1	E
	PURP	12	0723E	0723U	0743	S11	W42	5726	10	9.1	20D	SF	P	0723	134	1.9	E
0172		12	0916	09163	0927	N28	W32	5721	10	9.9	11	1N			123	2.9	
	CATA	12	0916	0916	0916D	N27	W33	5721	10	9.8	11D	1N	1 P	0916	225	2.9	
	LEAR	12	0916	0919	0927	N28	W32	5721	10	9.9	11	SF	3 E		21		
0173		12	09301	09301	0940	N14	E40	5736	10	15.4	10	SN			64	1.5	
	CATA	12	0930	0930	0942	N14	E40	5736	10	15.4	12	SB	1 C	0930	112	1.5	
	LEAR	12	0931	0931	0937	N13	E39	5736	10	15.3	6	SF	3 E		15		
0174		12	10421	10446	1058	S10	W45	5726	10	9.1	16	SF C 1.7			40		
	KANZ	12	1042	1046U	1046D	S11	W45	5726	10	9.1	4D	SF	V				
	SVTO	12	1043	1044	1058	S12	W46	5726	10	9.0	15	SF C 1.7	3 E		40		
	KHAR	12	1048E	1050	1057	S08	W44	5726	10	9.1	9D	SN	2 V	1050			
0175	RAMY	12	1137	1151	1226	S14	E61	5740	10	17.1	49	SF	3 E		39		
0176		12	1202*	1203*	1251	N30	E38	5735	10	15.5	49	1N C 3.8			180	4.8	FK
	SVTO	12	1202	1203	1251	N30	E38	5735	10	15.5	49	SF	E		95		K
	SVTO	12	1202	1222	1251	N30	E38	5735	10	15.5	49	1N C 3.8	3 E		108		F
	CATA	12	1215	1220	1230D	N29	E39	5735	10	15.6	15D	1B	1 P	1220	337	4.8	
0177	RAMY	12	1206	1210	1311	N29	W46	5721	10	8.9	65	SF	3 E		56		
0178	RAMY	12	1352	1353	1355	N22	W47	5723	10	9.0	3	SF	3 E		10		H

H $\alpha$  SOLAR FLARES

13  
Oct 89

OCTOBER 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Imp (Min)	Xray	Obs See	Type	Area Measurement		Remarks	
															Time (UT)	Apparent (10-6 Disk)		Corr (Sq Deg)
0179	HOLL	12	1506	1508	1515	S12	W46	5726	10	9.2	9	SF C 3.7	3	E		15		
0180	HOLL	12	1601E	1603U	1612	N24	W60	5743	10	8.0	11D	SF		3	E		44	
0181		12	17011	1705	1724	N25	W63	5743	10	7.8	23	SF					40	
	HOLL	12	1701	1705	1722	N25	W63	5743	10	7.8	21	SF		3	E		33	
	RAMY	12	1702	1705	1725	N25	W63	5743	10	7.8	23	SF		3	E		46	
0182	RAMY	12	1854	1855	1858	S14	E62	5740	10	17.5	4	SF C 1.8	3	E			27	
0183	HOLL	12	1912	1912	1915	N22	W48	5723	10	9.1	3	SF		3	E		12	
0184	HOLL	12	1927E	1927U	1933	S17	E57	5740	10	17.1	6D	SF		3	E		19	
		12	1956		2043	No Flare Patrol												
		12	2133		2140	No Flare Patrol												
0185		12	23371	23436	2448	N20	W35	5725B	10	10.3	71	2F M 1.1				375	9.5	EFHIJW
	VORO	12	2337	2343	2505	N22	W32	5725B	10	10.5	88	2F	2	C	2343	762	9.5	EHJIW
	LEAR	12	2338	2344	2454	N21	W36	5725B	10	10.2	76	1F	3	E		133		F
	HOLL	12	2342E	2347	2422D	N17	W36	5725B	10	10.2	40D	2N M 1.1	3	E		479		FE
	PALE	12	2345E	2349	2426	N18	W36	5725B	10	10.2	41D	1F	3	E		126		F
0186	LEAR	13	0050	0058	0112	N20	W44	5723	10	9.7	22	SF		3	E			28
0187		13	02159	02218	0244	S13	W52	5726	10	9.2	29	SF				100	2.4	DE
	VORO	13	0215	0221	0254	S12	W51	5726	10	9.2	39	1F	2	C	0221	188	3.2	E
	LEAR	13	0215	0227	0237	S14	W50	5726	10	9.3	22	SF		3	E		27	
	PEKG	13	0224	0229	0240	S14	W54	5726	10	9.0	16	SN		C	0229	84	1.5	D
0188	YUNN	13	0238	0244U	0255	S24	E87	5747	10	19.8	17			P	0244			A
0189	PEKG	13	0319	0327	0340	N13	E06	5738	10	13.6	21	SN		C	0327	84	0.9	D
0190	YUNN	13	0704	0736	0846D	S23	E87	5747	10	20.0	102D			C				Y
0191		13	07512	07532	0801	N25	W69	5743	10	8.0	10	SF						25
	KANZ	13	0751	0755	0759	N26	W69	5743	10	8.0	8	SF		C				
	SVTO	13	0752	0754	0808	N24	W68	5743	10	8.1	16	SF		3	E		38	
	LEAR	13	0753	0753	0756	N26	W69	5743	10	8.0	3	SF		3	E		12	
0192	SVTO	13	0801	0802	0815	N16	E30	5736	10	15.6	14	SF		3	E			15
0193	KANZ	13	0916	0920	0931	N15	E26	5736	10	15.3	15	SF			V			
0194		13	12261	1229	1234	N15	E24	5736	10	15.3	8	SF						22
	KANZ	13	1226	1229	1236	N14	E24	5736	10	15.3	10	SF			V			
	SVTO	13	1227	1229	1232	N16	E24	5736	10	15.3	5	SF		3	E			22
0195		13	13263	13291	1333	N22	E27	5742	10	15.6	7	SF						15
	SVTO	13	1326	1330	1333	N23	E27	5742	10	15.6	7	SF		3	E			15
	RAMY	13	1328	1329	1334	N22	E28	5742	10	15.7	6	SF		3	E			15
	KANZ	13	1329	1329	1333	N22	E27	5742	10	15.6	4	SF			V			
0196		13	13293	13371	1341	N12	E00	5738	10	13.6	12	SF						14
	KANZ	13	1329	1337	1341	N13	E01	5738	10	13.6	12	SF			V			
	SVTO	13	1332	1338	1341	N11	W01	5738	10	13.5	9	SF		3	E			14
0197		13	14512	1453	1504	N13	E22	5736	10	15.3	13	SF						44
	RAMY	13	1451	1453	1503	N14	E27	5736	10	15.6	12	SF		3	E			35
	KANZ	13	1453	1453	1505	N13	E19	5736	10	15.0	12	SN			V			
	HOLL	13	1454E	1454U	1504	N13	E20	5736	10	15.1	10D	SF		3	E			52
0198	HOLL	13	1519	1521	1537	S15	E43	5740	10	16.9	18	SF		3	E			11
0199		13	15517	15536	1612	S25	E84	5744	10	20.2	21	1F						142
	RAMY	13	1551	1553	1619D	S25	E82	5744	10	20.0	28D	1F		3	E			138
	HOLL	13	1558	1559	1612	S25	E85	5744	10	20.2	14	1F		3	E			145

14  
Oct 89

H $\alpha$  SOLAR FLARES

OCTOBER 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Imp (Min)	Xray Opt	Obs See	Type	Area Measurement			Remarks	
															Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)		
0200		13	16363	1640	1645	S22	E72	5744	10	19.2	9	SF				36			
	HOLL	13	1636	1640	1645	S20	E70	5744	10	19.0	9	SF	3	E		48			
	RAMY	13	1639	1641U	1654D	S24	E73	5744	10	19.3	15D	SF	3	E		24			
0201		13	1751	17511	1758	N11	W04	5738	10	13.4	7	SF				24			
	HOLL	13	1751	1751	1758	N11	W04	5738	10	13.4	7	SF	3	E		26			
	RAMY	13	1751	1752	1757	N11	W03	5738	10	13.5	6	SF	3	E		21			
0202	HOLL	13	1826	1828	1833	N12	W02	5738	10	13.6	7	SF	3	E		15			
0203	RAMY	13	1834E	1834U	1911D	S16	E87	5748	10	20.4	37D	SF	3	E		14			
0204	HOLL	13	1840	1843	1857	S16	E44	5740	10	17.1	17	SF	3	E		16			
0205	RAMY	13	1928	1931U	2025D	N31	W49	5725	10	9.9	57D	SF	3	E		20			
0206		13	19315	19363	2020	N26	W56	5721	10	9.5	49	SF				57		F	
	HOLL	13	1931	1939	2031	N27	W55	5721	10	9.5	60	SF	3	E		87		F	
	PALE	13	1936	1936	2009	N25	W56	5721	10	9.5	33	SF	3	E		27			
0207	HOLL	13	2346	2352	2404	S16	E43	5740	10	17.2	18	SF	3	E		54		FH	
0208	MITK	14	0424E	0427	0459	N11	E19	5736	10	15.6	35D	SN		C	0427			E	
0209	LEAR	14	0659	0700	0706	N16	W65	5723	10	9.4	7	SF	C 2.6	3	E		41		F
0210		14	07491	07494	0757	N17	W68	5723	10	9.1	8	SN	C 4.8			136	4.5	DEZ	
	TACH	14	0749	0749	0758	N17	W68	5723	10	9.1	9	1B		3	C	0749	255		EZ
	KANZ	14	0749	0753	0757	N16	W68	5723	10	9.2	8	SF			V				
	URUM	14	0750	0751	0756	N17	W69	5723	10	9.1	6	SN			C		32		D
	ATHN	14	0750E	0751	0756D	N17	W67	5723	10	9.2	6D	1N		3	V	0751	191	4.5	
	LEAR	14	0750	0751	0758	N16	W69	5723	10	9.1	8	SF	C 4.8	3	E		64		
0211		14	08315	08373	0843	S16	E39	5740	10	17.3	12	SF	C 4.9			30	0.5	D	
	KANZ	14	0831	0838	0842	S16	E38	5740	10	17.2	11	SF			V				
	LEAR	14	0836	0837	0844	S16	E39	5740	10	17.3	8	SF	C 4.9	3	E		27		
	URUM	14	0836	0840	0844	S16	E40	5740	10	17.4	8	SN			C		32	0.5	D
0212	ATHN	14	1037E	1039U	1043D	S18	E40	5740	10	17.5	6D	1B		3	V	1039	286	4.2	
0213	KANZ	14	1111	1111	1115	S16	E37	5740	10	17.3	4	SF			V				
		14	1232		1242	No Flare Patrol													
0214	RAMY	14	1314	1316	1327D	S23	E73	5744	10	20.2	13D	SF		3	E		25		H
		14	1319		1324	No Flare Patrol													
0215		14	1432	1433	1441	S16	E36	5740	10	17.3	9	SF	C 2.6			49		F	
	HOLL	14	1432	1433	1441	S16	E36	5740	10	17.3	9	SF	C 2.6	4	E		49		F
	KANZ	14	1433E	1433	1436D	S15	E36	5740	10	17.3	3D	SF			C				
0216	HOLL	14	1513	1513	1519	N15	W71	5723	10	9.2	6	SF		4	E		18		
0217		14	1518	1521	1526	S26	E64	5744	10	19.6	8	SF				25		F	
	HOLL	14	1518	1521	1526	S26	E62	5744	10	19.4	8	SF		4	E		30		F
	RAMY	14	1520E	1523U	1530D	S25	E65	5744	10	19.7	10D	SF		2	E		20		
		14	1615		1616	No Flare Patrol													
0218		14	1628	1630	1634	S24	E70	5747	10	20.1	6	SF				18			
	RAMY	14	1628	1630	1633	S24	E69	5747	10	20.0	5	SF		2	E		15		
	HOLL	14	1630E	1631U	1634	S25	E70	5747	10	20.1	4D	SF		4	E		22		
0219	RAMY	14	1635	1636	1639	N17	W73	5723	10	9.1	4	SF		2	E		15		
0220		14	16395	16471	1702	S16	E32	5740	10	17.1	23	SF				36		F	
	HOLL	14	1639	1648	1704	S16	E31	5740	10	17.0	25	SF		4	E		41		F
	RAMY	14	1644	1647	1700	S15	E32	5740	10	17.1	16	SF		3	E		32		F

H $\alpha$  SOLAR FLARES

15  
Oct 89

OCTOBER 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	NOAA/USAF			Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement		Remarks	
						Lat	CMD	Region						Mo	Day		Time (UT)
0221	RAMY	14	1652	1652	1659	N28	W69	5721	10	9.3	7	SF	3	E	32		
0222		14	17052	17096	1722	N16	W72	5723	10	9.2	17	SF			30		
	RAMY	14	1705	1715	1732	N17	W72	5723	10	9.2	27	SF	3	E	24		
	HOLL	14	1707	1709	1712	N16	W73	5723	10	9.2	5	SF	4	E	35		
0223	HOLL	14	1750	1753	1805	N16	W76	5723	10	9.0	15	1N C	4.8	4	E	181	E
0224	HOLL	14	1804	1808	1843	S15	E30	5740	10	17.0	39	SF C	4.3	4	E	24	F
0225	HOLL	14	1820	1825	1838	N17	W75	5723	10	9.1	18	SF		4	E	80	F
0226	HOLL	14	1845	1847	1855	S16	E74	5748	10	20.4	10	SF		3	E	14	
0227	HOLL	14	1852	1852	1856	N14	W46	5728	10	11.3	4	SF		3	E	17	
0228	HOLL	14	1928	1930	1940	N16	W75	5723	10	9.1	12	SF		3	E	45	F
		14	1958		2010	No Flare Patrol											
0229	HOLL	14	2014	2015	2018	N15	W47	5728	10	11.3	4	SF		3	E	24	
0230	HOLL	14	2037	2039	2043	N15	W47	5728	10	11.3	6	SF		3	E	18	F
0231	HOLL	14	2052	2054	2059	N17	W77	5723	10	9.0	7	SF		3	E	54	
0232	HOLL	14	2106	2113	2135	S15	E32	5740	10	17.3	29	1B C	5.0	3	E	217	FH
0233	HOLL	14	2136	2142	2156	S15	E29	5740	10	17.1	20	SF		3	E	18	F
0234	HOLL	14	2145	2149	2154	N16	W78	5723	10	9.0	9	1F		3	E	102	
0235	HOLL	14	2229	2232	2239	N16	W77	5723	10	9.1	10	SF C	3.4	3	E	45	
0236	HOLL	14	2232	2234	2241	N15	W48	5728	10	11.3	9	SF		3	E	37	
0237		14	22373	2240	2302	S24	E66	5747	10	20.0	25	1N M	1.3			96	EF
	HOLL	14	2237	2240	2312	S24	E67	5747	10	20.1	35	1N M	1.3	3	E	180	FE
	LEAR	14	2240	2240	2251	S24	E66	5747	10	20.0	11	SF		2	E	11	
0238	HOLL	14	2259	2301	2310	S13	W75		10	9.3	11	SF		3	E	32	
0239		14	2333*	2334*	2354	S30	E68	5747	10	20.3	21	SF M	1.0			17	F
	HOLL	14	2333	2334	2351	S30	E68	5747	10	20.3	18	SF M	1.0	3	E	18	F
	HOLL	14	2355	2355	2358	S31	E67	5747	10	20.3	3	SF		3	E	16	F
0240	LEAR	15	0230	0232	0241	N15	W51	5728	10	11.2	11	SF		4	E	39	
0241	LEAR	15	0309	0311	0321	S27	E65	5747	10	20.2	12	SF		3	E	25	
0242	LEAR	15	0309	0311	0321	S22	E48	5744	10	18.8	12	SF		3	E	26	
0243	LEAR	15	0315	0316	0320	N17	W82	5723	10	8.9	5	SF		3	E	32	
0244		15	0335*	0336*	0350	N15	W52	5728	10	11.2	15	SF				22	F
	LEAR	15	0335	0336	0342	N15	W53	5728	10	11.1	7	SF		3	E	26	
	LEAR	15	0347	0352	0357	N15	W52	5728	10	11.2	10	SF		3	E	17	F
0245	LEAR	15	0447	0449	0457	N15	W53	5728	10	11.2	10	SF		3	E	22	
0246	ABST	15	0713	0714	0720	N16	W90	5723	10	8.5	7	SN		C	0719	87	AD
0247	CATA	15	1007	1012	1021	N18	W80	5723	10	9.3	14	2F		1	C	1012	169
0248		15	1222	1225	1321	S24	E58	5747	10	20.0	59	SF				32	F
	RAMY	15	1222	1225	1321	S23	E59	5747	10	20.1	59	SF		4	E	31	
	SVTO	15	1222	1225U	1322D	S24	E58	5747	10	20.0	60D	SF		2	E	34	F
0249	RAMY	15	1240	1243	1250	N19	W82	5723	10	9.3	10	SF C	7.7	4	E	26	



16  
Oct 89

H $\alpha$  SOLAR FLARES

OCTOBER 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	NOAA/USAF			CMP Mo Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Time (UT)	Area Measurement		Remarks
						Region	Lat	Cmd								Apparent (10-6 Disk)	Corr (Sq Deg)	
0250		15	1340	1406	1433	S15	E64	5748	10 20.4	53	SF					50		
	RAMY	15	1340	1406	1433	S16	E67	5748	10 20.6	53	SF	4	E		59			
	SVTO	15	1341E	1404U	1413D	S14	E60	5748	10 20.1	32D	SF	2	E		42			
0251		15	1420	1434	1513	S14	E20	5740	10 17.1	53	1B M 1.6				172		FH	
	RAMY	15	1420	1434	1513	S14	E21	5740	10 17.2	53	1N M 1.6	4	E		158		FH	
	SVTO	15	1422E	1433U	1505D	S14	E20	5740	10 17.1	43D	1B	2	E		187		FH	
0252	RAMY	15	1616	1629	1640	S14	E62	5748	10 20.4	24	SF	3	E		24			
0253	RAMY	15	1716	1718	1722	S24	E51	5744	10 19.6	6	SF	3	E		37		F	
0254	HOLL	15	1726	1727	1731	S20	W29	5739	10 13.5	5	SF	2	E		11			
0255	HOLL	15	1749	1752	1754	N15	W59	5728	10 11.3	5	SF	2	E		11			
		15	1804		1810	No Flare Patrol												
		15	1846		1854	No Flare Patrol												
0256		15	1920	19216	1939	S19	W30	5739	10 13.5	19	SN				31		K	
	HOLL	15	1920	1921	1939	S19	W30	5739	10 13.5	19	SF	3	E		24			
	HOLL	15	1920	1927	1939	S19	W30	5739	10 13.5	19	SB		E		38		K	
0257	HOLL	15	1925	1928	1937	S15	E19	5740	10 17.2	12	1F	3	E		105		F	
0258	HOLL	15	2003	2005	2027	S16	E19	5740	10 17.3	24	SF	3	E		25		F	
0259		15	2034	2034*	2104	S15	E16	5740	10 17.1	30	SF				26		FK	
	HOLL	15	2034	2034	2104	S15	E16	5740	10 17.1	30	SF	3	E		27		F	
	HOLL	15	2034	2056	2104	S15	E16	5740	10 17.1	30	SF		E		26		K	
0260	HOLL	15	2048	2051	2055	S22	E39	5744	10 18.9	7	SF	3	E		24		F	
0261		15	2055	20564	2104	S29	E58	5747	10 20.4	9	SF				26		K	
	HOLL	15	2055	2056	2104	S29	E58	5747	10 20.4	9	SF		E		32		K	
	HOLL	15	2055	2100	2104	S29	E58	5747	10 20.4	9	SF	3	E		19			
0262	HOLL	15	2153	2159	2212	S30	E57	5747	10 20.4	19	SN	3	E		56		E	
0263	HOLL	15	2229	2230	2242	N14	W61	5728	10 11.3	13	SF	3	E		14			
0264	HOLL	15	2249	2253	2302	S25	E53	5747	10 20.0	13	SF C 2.3	3	E		18			
0265	HOLL	15	2322	2327	2339	S13	W15	5749	10 14.8	17	SF	3	E		25		F	
0266	HOLL	15	2323	2325	2329	S16	E58	5748	10 20.4	6	SF	3	E		13			
0267	HOLL	15	2323	2323	2335	S25	E52	5747	10 20.0	12	SF	3	E		12		F	
0268	HOLL	16	0004	0006	0014	S30	E57	5747	10 20.5	10	SF	2	E		21			
		16	0055		0059	No Flare Patrol												
0269	LEAR	16	0415	0417	0423	N13	W07	5736	10 15.6	8	SF C 3.1	3	E		55		F	
0270		16	05071	05089	0526	S15	E09	5740	10 16.9	19	1N C 2.0				167	2.4	EFU	
	ABST	16	0507	0508	0519	S16	E08	5740	10 16.8	12	SF		C	0508	87	1.0	E	
	LEAR	16	0508	0508	0522	S16	E08	5740	10 16.8	14	SF C 2.0	3	E		26		F	
	PEKG	16	0508	0515	0529	S15	E08	5740	10 16.8	21	1N		C	0515	294	3.3	E	
	TACH	16	0508	0517	0535	S14	E12	5740	10 17.1	27	1B	2	C	0517	260	2.9	U	
0271	PEKG	16	0656	0657	0659	S27	E39	5747	10 19.3	3	SN		C	0657	50	0.8	D	
0272	LEAR	16	0729	0737	0747	S16	E53	5748	10 20.3	18	SF	3	E		16			
0273		16	12081	12169	1244	S15	E51	5748	10 20.4	36	SF				46		F	
	RAMY	16	1208	1225	1247	S16	E52	5748	10 20.4	39	SF	3	E		75		F	
	KANZ	16	1209	1216	1246	S15	E49	5748	10 20.2	37	SF		V					
	SVTO	16	1212E	1212U	1240	S13	E51	5748	10 20.3	28D	SF	3	E		16			

H $\alpha$  SOLAR FLARES

17  
Oct 89

OCTOBER 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	NOAA/USAF		CMP Mo Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks	
						Lat	Region							Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)		
0274		16	12149	12158	1233	S22	E48	5747	10	20.2	19	SF				30		F
	RAMY	16	1214	1215	1221	S22	E48	5747	10	20.2	7	SF	3	E		16		F
	KANZ	16	1216	1223	1235	S23	E47	5747	10	20.1	19	SF		V				
	RAMY	16	1223	1223	1242	S22	E48	5747	10	20.2	19	SF	3	E		44		F
0275	KANZ	16	1258	1258	1352	S15	E51	5748	10	20.4	54	SF		V				
0276		16	13002	13002	1304	S27	E49	5747	10	20.3	4	SF C 4.3				12		
	RAMY	16	1300	1300	1303	S26	E50	5747	10	20.4	3	SF C 4.3	3	E		12		
	KANZ	16	1302	1302	1306	S28	E48	5747	10	20.3	4	SF		V				
0277	HOLL	16	1328E	1333U	1407	S15	E49	5748	10	20.3	39D	SF	2	E		21		
0278	RAMY	16	1343	1344	1349	S27	E47	5747	10	20.2	6	SF	3	E		14		
		16	1504		1506	No Flare Patrol												
0279		16	1514	1518	1530	S24	E46	5747	10	20.2	16	SN				47		F
	SVTO	16	1508E	1518U	1536D	S25	E46	5747	10	20.2	28D	SN	2	E		47		F
	KANZ	16	1514	1518	1530	S23	E46	5747	10	20.2	16	SF		V				
		16	1552		2207	No Flare Patrol												
		16	2231		2235	No Flare Patrol												
0280	MITK	17	0038	0042	0047	N13	W83	5728	10	10.8	9	1N		C	0042	150		EH
0281	PURP	17	0203E	0203U	0215	S31	E44	5747	10	20.5	12D	2F		P	0203	336	6.2	
0282	ABST	17	0511	0512	0518D	N11	W90	5728	10	10.4	7D	2F		C	0512	175		AE
0283	LEAR	17	0521	0521	0528	S30	E41	5747	10	20.4	7	SF C 3.9	3	E		19		
0284	SVTO	17	0619	0620	0634	S17	W05	5740	10	16.9	15	SF	3	E		30		
0285		17	06392	06422	0652	S19	W48	5739	10	13.6	13	SN				42	0.8	DE
	TACH	17	0639	0644	0651U	S19	W45	5739	10	13.8	12U	SB	2	C	0644	51	0.8	E
	PEKG	17	0640	0642	0655	S20	W50	5739	10	13.4	15	SN		C	0642	50	0.9	D
	LEAR	17	0641	0643	0649	S19	W50	5739	10	13.5	8	SF	3	E		26		
0286	KANZ	17	1006	1009	1013	S17	E41	5748	10	20.5	7	SF		V				
0287		17	11402	1142	1154	N13	W83	5728	10	11.2	14	SF				16		
	RAMY	17	1140	1142	1153	N13	W85	5728	10	11.1	13	SF	3	E		16		
	KANZ	17	1142	1142	1154	N13	W81	5728	10	11.4	12	SF		V				
0288		17	13192	13192	1326	S14	W34	5749	10	15.0	7	SF				12		F
	RAMY	17	1319	1319	1327	S14	W34	5749	10	15.0	8	SF	3	E		12		F
	KANZ	17	1321	1321	1324	S14	W34	5749	10	15.0	3	SF		V				
0289		17	13524	13582	1402	N12	W84	5728	10	11.2	10	SF C 3.0				21		
	RAMY	17	1352	1358	1401	N12	W86	5728	10	11.1	9	SF C 3.0	3	E		21		
	KANZ	17	1356	1400	1403	N13	W81	5728	10	11.5	7	SF		V				
0290	HOLL	17	1619	1622	1627	S32	E35	5747	10	20.4	8	SF	2	E		28		F
0291	HOLL	17	1642	1649	1659	S29	E34	5747	10	20.4	17	SF	3	E		25		
0292		17	16481	1649	1701	S19	E31	5748	10	20.1	13	SF				26		F
	HOLL	17	1648	1649	1704	S19	E30	5748	10	20.0	16	SF	3	E		31		F
	RAMY	17	1649	1649	1658	S19	E32	5748	10	20.1	9	SF	3	E		20		
0293	RAMY	17	1850	1851	1902	S28	E35	5747	10	20.5	12	SN M 1.0	3	E		84		EF
0294	HOLL	17	2301	2306	2311	S27	E29	5747	10	20.2	10	SF	3	E		15		
0295	MITK	18	0010	0113	0404	S13	E30	5748	10	20.3	234	1B		C	0113	280	4.2	FJKLU

18  
Oct 89

H $\alpha$  SOLAR FLARES

OCTOBER 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/	CMP	Dur (Min)	Imp	Obs	Area Measurement			Remarks	
								USAF Region					Mo	Day	Time (UT)		Apparent (10-6 Disk)
0296		18	0022	0027*	0425	S28	E30	5747	10	20.3	243	1F M 2.7			93		FKTU
	LEAR	18	0022	0027	0425	S28	E29	5747	10	20.3	243	SF	E		77		KT
	LEAR	18	0022	0108	0425	S28	E29	5747	10	20.3	243	1F	3 E		99		FT
	PALE	18	0203E	0218	0307D	S28	E32	5747	10	20.6	64D	1F M 2.7	3 E		103		UF
0297		18	02477	02555	0310	S22	E56	5753	10	22.4	23	SF			28		F
	LEAR	18	0247	0300	0310	S24	E55	5753	10	22.4	23	SF	3 E		32		
	PALE	18	0254	0255	0307D	S21	E57	5753	10	22.5	13D	SF	3 E		25		F
0298		18	04372	0440	0502	S30	E28	5747	10	20.4	25	1N M 1.6			236	3.8	EJ
	LEAR	18	0437	0440	0457	S30	E28	5747	10	20.4	20	1F M 1.6	3 E		201		
	MITK	18	0439	0440	0506	S29	E29	5747	10	20.5	27	1N	C	0440	270	3.8	EJ
0299		18	07591	0804	0826	S12	W18	5740	10	17.0	27	SF			24		
	SVTO	18	0759	0804	0811D	S11	W16	5740	10	17.1	12D	SF	3 E		24		
	KANZ	18	0800	0804	0826	S13	W19	5740	10	16.9	26	SF	V				
0300	CATA	18	0900E	0900	0905	N14	W90	5728	10	11.6	5D	1N	1 P	0900	56		A
0301	KANZ	18	0909	0909	0921	S33	E24	5747	10	20.3	12	SF	V				
0302	KANZ	18	1008	1008	1020	S10	E47		10	21.9	12	SF	V				
0303	KANZ	18	1040	1044	1056	N13	W40	5736	10	15.4	16	SF	V				
0304	KANZ	18	1108	1111	1119	S29	E26	5747	10	20.5	11	SF	V				
0305		18	1119*	1123*	1207	S23	E51	5753	10	22.4	48	SF C 5.4			13		F
	KANZ	18	1119	1123	1127	S23	E51	5753	10	22.4	8	SF	V				
	RAMY	18	1122	1142	1252	S23	E51	5753	10	22.4	90	SF C 5.4	3 E		13		F
	KANZ	18	1135	1142	1154	S23	E51	5753	10	22.4	19	SF	V				
	KANZ	18	1201	1201	1215	S24	E50	5753	10	22.4	14	SF	V				
0306		18	12301	12301	1235	S24	E20	5747	10	20.1	5	SN			56	0.7	
	CATA	18	1230	1230	1240D	S24	E20	5747	10	20.1	10D	SB	1 P	1230	56	0.7	
	KANZ	18	1231	1231	1235	S24	E19	5747	10	20.0	4	SF	V				
0307	KANZ	18	1320	1323	1341	S30	E25	5747	10	20.5	21	SF	V				
0308		18	1500	1505*	1551	S29	E24	5747	10	20.5	51	SF C 6.6			67		FHK
	HOLL	18	1457E	1518	1554	S29	E23	5747	10	20.4	57D	SF C 6.6	2 E		92		FH
	RAMY	18	1500	1505	1550	S29	E24	5747	10	20.5	50	SF	E		59		K
	RAMY	18	1500	1514	1550	S29	E24	5747	10	20.5	50	SF	3 E		51		F
0309		18	16437	1643*	1705	S26	E20	5747	10	20.2	22	SN C 5.9			52		EF
	HOLL	18	1643	1643	1649	S27	E21	5747	10	20.3	6	SF	3 E		11		
	HOLL	18	1650	1654	1721	S26	E18	5747	10	20.1	31	SN C 5.9	3 E		93		FE
0310		18	1651*	1655*	1826	S23	E07	5744	10	19.2	95	SF			20		FK
	RAMY	18	1651	1657	2012D	S23	E07	5744	10	19.2	201D	SF	E		19		K
	RAMY	18	1651	1809	2012D	S23	E07	5744	10	19.2	201D	SF	3 E		18		F
	HOLL	18	1654	1655	1734	S22	E06	5744	10	19.2	40	SF	3 E		24		F
	HOLL	18	1808	1809	1833	S23	E06	5744	10	19.2	25	SF	3 E		16		F
	HOLL	18	1849	1900	1912	S23	E07	5744	10	19.3	23	SF	3 E		23		
0311		18	1806	1825*	2050	S25	E16	5747	10	20.0	164	2B M 7.4			402		FKU
	RAMY	18	1806	1822U	2012D	S25	E19	5747	10	20.2	126D	2B	3 E		276		UF
	HOLL	18	1806	1825	2050	S25	E15	5747	10	19.9	164	2B M 7.4	3 E		477		F
	HOLL	18	1806	1840	2050	S25	E15	5747	10	19.9	164	2N	E		454		K
0312	HOLL	18	2011	2013	2016	S19	W70	5739	10	13.5	5	SF	3 E		20		
0313		18	2044*	2047*	2104	S19	W71	5739	10	13.4	20	SF			36		
	HOLL	18	2044	2047	2100	S19	W71	5739	10	13.4	16	SF	3 E		51		
	HOLL	18	2101	2101	2107	S19	W71	5739	10	13.4	6	SF	3 E		20		
0314	HOLL	18	2233	2249	2313	S19	W27	5740	10	16.9	40	SF	3 E		39		
0315	HOLL	18	2308	2312	2315	S29	E15	5747	10	20.1	7	SF	3 E		15		

H $\alpha$  SOLAR FLARES

19  
Oct 89

OCTOBER 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo Day	Dur (Min)	Imp Opt Xray	Obs See Type	Area Measurement			Remarks		
													Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)			
0316	LEAR	18	2328	2337	2347	S26	E44	5753	10 22.4	19	SF	3 E		26				
0317	LEAR	19	0411	0420	0426	S23	E41	5753	10 22.3	15	SF	3 E		33				
0318	SVTO	19	0638	0640	0643	S19	W77	5739	10 13.4	5	SF	3 E		14				
0319	SVTO	19	0645	0649	0720	S26	E14	5747	10 20.4	35	SF	3 E		28			F	
0320		19	0732	0735	0741	S17	W34	5740	10 16.7	9	SF			16			F	
	LEAR	19	0732	0735	0740	S17	W34	5740	10 16.7	8	SF	3 E		12				
	SVTO	19	0732	0735	0741	S17	W33	5740	10 16.8	9	SF	3 E		21			F	
	KANZ	19	0732	0735	0742	S16	W34	5740	10 16.7	10	SF	V						
0321		19	08106	08182	0824	S29	E05	5747	10 19.7	14	SF			19			H	
	SVTO	19	0810	0820	0826	S32	E03	5747	10 19.6	16	SF	3 E		17			H	
	LEAR	19	0815	0818	0822	S28	E06	5747	10 19.8	7	SF	3 E		21				
	KANZ	19	0816	0819	0823	S27	E07	5747	10 19.9	7	SN	V						
0322		19	08154	08158	0836	S20	W75	5739	10 13.6	21	SF			15			H	
	SVTO	19	0815	0815	0834	S19	W73	5739	10 13.8	19	SF	3 E		15			H	
	KANZ	19	0819	0823	0838	S20	W77	5739	10 13.4	19	SF	V						
0323		19	08459	09124	0932	S26	E10	5747	10 20.1	47	1N M 1.6			351	9.2		F	
	SVTO	19	0845	0914	0934	S25	E12	5747	10 20.3	49	1N M 1.6	3 E		174			F	
	KANZ	19	0854	0916	0936	S25	E08	5747	10 20.0	42	1N	V						
	CATA	19	0903E	0912	0940D	S28	E12	5747	10 20.3	37D	2B	1 P	0912	731	9.2			
	LEAR	19	0903E	0914	0926	S26	E08	5747	10 20.0	23D	1F	2 E		149				
0324	KANZ	19	0953	0957	1041	S17	E35	5753	10 22.1	48	1F	V					EF	
0325	LEAR	19	0956	0957	1003	S18	W34	5740	10 16.8	7	SF	2 E		26			F	
0326		19	1101	1105	1155	S28	E12	5747	10 20.4	54	SN			180	3.5		T	
	RAMY	19	1048E	1050U	1226	S28	E13	5747	10 20.5	98D	1B	3 E		79				
	CATA	19	1058E	1105	1105D	S27	E12	5747	10 20.4	7D	1B	1 P	1105	281	3.5		T	
	KANZ	19	1101	1105	1124	S28	E12	5747	10 20.4	23	SF	V						
0327		19	1229*	1239*	2149	S25	E09	5747	10 20.2	560	3B X13.0			908	37.0		EFIJKUYZ	
	RAMY	19	1229	1239	2013D	S27	E10	5747	10 20.3	464D	SF	E		119			KU	
	RAMY	19	1229	1255	2013D	S27	E10	5747	10 20.3	464D	4B X13.0	3 E					ZU	
	KANZ	19	1230	1254	1552D	S24	E07	5747	10 20.1	202D	4B	V					U	
	SVTO	19	1240	1304U	1459D	S25	E09	5747	10 20.2	139D	3B	2 E		799			UY	
	SVTO	19	1242	1259U	1459D	S21	E05	5747	10 19.9	137D	2B	2 E		310			UF	
	KAND	19	1318E		1343D	S25	E05	5747	10 19.9	25D	4B	P	1320	3607	37.0		EFIJK	
	HOLL	19	1330E	1331U	2149	S27	E11	5747	10 20.4	499D	4B	3 E					ZU	
	HOLL	19	1330E	1439	2149	S27	E11	5747	10 20.4	499D	1B	E		432			KU	
	HOLL	19	1330E	1824	2149	S27	E11	5747	10 20.4	499D	SN	E		183			KU	
0328	LEAR	20	0242	0242	0248	S28	E03	5747	10 20.3	6	SF	3 E		11				
	0329		20	03391	03403	0352	S28	E02	5747	10 20.3	13	1N M 1.1			67			EF
		LEAR	20	0339	0340	0355	S28	E02	5747	10 20.3	16	SN M 1.1	4 E		67			FE
PEKG	20	0340	0343	0349	S28	E03	5747	10 20.4	9	1N	V							
0330	LEAR	20	0410	0412	0418	S20	E79	5754	10 26.2	8	SF	3 E		64				
0331		20	05118	05201	0546	S26	E00	5747	10 20.2	35	SN C 9.8			174	3.5		U	
	MITK	20	0511	0521	0613	S26	E01	5747	10 20.3	62	SN	C	0521					
	LEAR	20	0519	0520	0534	S27	W02	5747	10 20.1	15	SF C 9.8	3 E		56				
	TACH	20	0519E	0521	0530	S25	E01	5747	10 20.3	11D	1B	2 C	0521	291	3.5		U	
0332		20	0707	0709	0713	S28	W01	5747	10 20.2	6	1N C 3.7			118	2.3		D	
	LEAR	20	0707	0709	0713	S27	W03	5747	10 20.1	6	SF C 3.7	3 E		46				
	PEKG	20	0708E	0708U	0708D	S28	E01	5747	10 20.4	6D	1B	P	0708	189	2.3		D	

20  
Oct 89

H $\alpha$  SOLAR FLARES

OCTOBER 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	NOAA/ USAF			Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement		Remarks			
						Lat	CMD	Region						Mo	Day		Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)
0333		20	0742*	0745*	0806	S27	E00	5747	10	20.3	24	1N	C 9.1		178	3.4	EKTU		
	KAND	20	0740E	0752	0814	S29	E01	5747	10	20.4	34D	1N		P	0752	187	2.3	E	
	SVTO	20	0742	0745	0803	S27	E01	5747	10	20.4	21	SF		E		37		K	
	SVTO	20	0742	0752	0803	S27	E01	5747	10	20.4	21	SN	C 9.1	3	E	40			
	PURP	20	0743E	0743U	0807	S28	W01	5747	10	20.2	24D	1N		P	0743	255	3.1		
	LEAR	20	0743	0752	0807	S27	E00	5747	10	20.3	24	SF		3	E	46			
	TACH	20	0752	0756	0800	S25	E01	5747	10	20.4	8	1B		2	C	0756	316	3.8	U
CATA	20	0753	0753	0830D	S28	E01	5747	10	20.4	37D	1B		1	P	0753	365	4.5	T	
0334		20	0914	0918	0923	S28	W01	5747	10	20.3	9	SF				27			
	SVTO	20	0905E	0905U	0911D	S27	E00	5747	10	20.4	6D	SF		2	E		32		
	SVTO	20	0913E	0914U	0924	S27	W03	5747	10	20.1	11D	SF		2	E		22		
	KANZ	20	0914	0918	0922	S29	E01	5747	10	20.5	8	SF			C				
0335		20	0942*	0944*	1020	S28	E00	5747	10	20.4	38	1N				187	2.3	E	
	KAND	20	0942	0944	1021D	S29	E01	5747	10	20.5	39D	1N		P	0944	187	2.3	E	
	KANZ	20	1016	1016	1020	S27	W00	5747	10	20.4	4	SF		V					
0336		20	1120	1119*	1137	S20	E80	5754	10	26.6	17	SN				37		EFH	
	KHAR	20	1112E		1137	S18	E85	5754	10	26.9	25D	SN		2	P	1116		EH	
	CATA	20	1119E	1119	1125D	S22	E85	5754	10	27.0	6D	1B		1	P	1119	56		
	KANZ	20	1120	1123	1131	S21	E75	5754	10	26.2	11	SF			V				
	RAMY	20	1120	1130	1142	S19	E77	5754	10	26.3	22	SF		3	E		18		FH
0337		20	1117E	1118*	1146	S26	W03	5747	10	20.2	29	SF				34		DEFK	
	RAMY	20	1117	1118	1151	S27	E00	5747	10	20.5	34	SF			E	36		K	
	RAMY	20	1117	1130	1151	S27	E00	5747	10	20.5	34	SF		3	E	33		F	
	KHAR	20	1122		1132	S23	W06	5747	10	20.0	10	SN		2	V	1124		E	
	KANZ	20	1123	1123	1135	S24	W07	5747	10	19.9	12	SF			V				
	KHAR	20	1148E		1200	S28	W04	5747	10	20.2	12D	SF		2	V	1148		D	
0338		20	1144I	1145B	1158	S20	E25	5753	10	22.4	14	SF				15			
	RAMY	20	1144	1153	1156	S20	E25	5753	10	22.4	12	SF		3	E		15		
	KANZ	20	1145	1145	1159	S20	E25	5753	10	22.4	14	SF			V				
0339	CATA	20	1200	1210	1215	N14	W90	5738	10	13.7	15	1F		1	C	1210	68		
0340	RAMY	20	1303	1304	1349	S18	E78	5754	10	26.5	46	SF		3	E		13		
0341		20	1415E	1423*	1527	S28	W02	5747	10	20.4	72	1N	H 1.6			95		FHKU	
	RAMY	20	1415	1510	1558	S26	W03	5747	10	20.4	103	1B	H 1.6	3	E	187		FH	
	RAMY	20	1415	1528	1558	S26	W03	5747	10	20.4	103	SF			E	80		K	
	KANZ	20	1417E	1441U	1526D	S31	W01	5747	10	20.5	69D	1F			V				
	HOLL	20	1421	1423	1426	S29	W02	5747	10	20.4	5	SF		3	E		19		UF
0342		20	1428*	1430*	1453	S15	W19	5755	10	19.2	25	SF				25		F	
	RAMY	20	1428	1430	1501	S16	W18	5755	10	19.2	33	SF		3	E	34			
	HOLL	20	1433	1433	1444	S15	W19	5755	10	19.2	11	SF		3	E	30		F	
	KANZ	20	1441E	1441U	1452D	S14	W19	5755	10	19.2	11D	SF			V				
	HOLL	20	1445	1447	1454	S16	W19	5755	10	19.2	9	SF		3	E		12		
0343	RAMY	20	1516	1525	1532	S18	E78	5754	10	26.6	16	SF		3	E		20		
0344	HOLL	20	1524E	1525U	1554D	S06	E03		10	20.9	30D	SF		2	E		28		FU
0345		20	1621	1632E	1655	S16	W19	5755	10	19.2	34	SF				40		F	
	HOLL	20	1621	1632	1655	S16	W19	5755	10	19.2	34	SF		3	E		47		F
	RAMY	20	1621	1634	1655	S15	W19	5755	10	19.2	34	SF		3	E		32		
0346	RAMY	20	1623	1631	1639	S18	E76	5754	10	26.5	16	SF		3	E		28		
0347	RAMY	20	1730	1730	1745	S26	W04	5747	10	20.4	15	SF	C 5.0	3	E		16		
0348		20	1755*	1803*	1848	S15	W20	5755	10	19.2	53	SF	C 3.7			23		F	
	RAMY	20	1755	1803	1851	S15	W20	5755	10	19.2	56	SF	C 3.7	3	E		28		
	HOLL	20	1806	1812	1819D	S15	W20	5755	10	19.2	13D	SF		3	E		23		F
	HOLL	20	1831	1834	1845	S16	W21	5755	10	19.2	14	SF		3	E		18		
0349	RAMY	20	1816	1819	1822	S26	W05	5747	10	20.4	6	SF	C 4.2	3	E		14		F

H $\alpha$  SOLAR FLARES

21  
Oct 89

OCTOBER 1989

Grp #	Sta	Start Day (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo Day	Dur (Min)	Imp Opt Xray	Obs See Type	Area Measurement			Remarks
												Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0350		20 1849	1849	1918	S19	E77	5754	10 26.7	29	SF			14		
	HOLL	20 1849	1849	1902	S19	E77	5754	10 26.7	13	SF	3 E		13		
	RAMY	20 1849	1849	1933	S19	E77	5754	10 26.7	44	SF	3 E		16		
0351	RAMY	20 1909	1915	1935	S15	W22	5755	10 19.1	26	SF	3 E		13		
0352	RAMY	20 1939	1944	2035	S19	E75	5754	10 26.5	56	SF C 4.8	3 E		19		
		20 2000		2005	No Flare Patrol										
		20 2009		2201	No Flare Patrol										
0353	LEAR	20 2310	2314	2327	S19	E71	5754	10 26.4	17	SF	3 E		32		
0354		21 0153	0155	0206	S27	W09	5747	10 20.4	13	2N M 2.4			388	6.7	HZ
	MITK	21 0153	0155	0205	S27	W08	5747	10 20.4	12	2F	C	0155	530	6.6	
	PALE	21 0153	0155	0206	S28	W07	5747	10 20.5	13	1N	3 E		155		
	LEAR	21 0153	0155	0206	S28	W09	5747	10 20.4	13	1N M 2.4	3 E		156		H
	PURP	21 0154E	0155	0206	S26	W10	5747	10 20.3	120	2N	P	0155	510	6.3	
	PEKG	21 0155E	0155U	0205	S27	W09	5747	10 20.4	100	2B	P	0155	589	7.3	Z
0355		21 0246I	02474	0256	S21	E17	5753	10 22.4	10	SF			74	1.5	DE
	PEKG	21 0246	0251	02510	S21	E17	5753	10 22.4	50	SN	P	0251	126	1.5	D
	LEAR	21 0247	0247	0250	S21	E16	5753	10 22.3	3	SF	3 E		22		
	MITK	21 0247	0249	0302	S21	E17	5753	10 22.4	15	SF	C	0249			E
0356		21 0512I	0513I	0522	S26	E17	5753	10 22.5	10	SN C 3.2			59	1.0	DE
	LEAR	21 0512	0513	0522	S26	E16	5753	10 22.4	10	SF C 3.2	3 E		34		
	MITK	21 0513	0514	0520	S26	E17	5753	10 22.5	7	SF	C	0514			E
	PEKG	21 0515E	0515U	0525	S25	E17	5753	10 22.5	100	SB	P	0515	84	1.0	D
0357		21 0555	0556	0604	S20	E70	5754	10 26.6	9	1N C 2.8			102		
	LEAR	21 0555	0556	0604	S19	E66	5754	10 26.3	9	SF C 2.8	3 E		36		
	PURP	21 0556E	0556	0604	S21	E74	5754	10 26.9	80	1N	C	0556	168		
0358		21 0614*	0644*	0707	S24	W13	5747	10 20.2	53	SN			148	2.5	
	PURP	21 0614	0645	0658	S24	W13	5747	10 20.2	44	1N	C	0645	255	3.1	
	MITK	21 0642	0645	0646D	S22	W13	5747	10 20.3	40	SF	C	0645			
	LEAR	21 0643	0644	0648	S23	W14	5747	10 20.2	5	SF	3 E		35		
	PURP	21 0655	0705	0735	S28	W11	5747	10 20.4	40	SN	C	0705	154	1.9	
0359		21 0649I	0651*	0816	S19	E67	5754	10 26.4	87	1F			234		EK
	LEAR	21 0649	0651	0810	S19	E65	5754	10 26.2	81	SF	E		68		K
	LEAR	21 0649	0726	0810	S19	E65	5754	10 26.2	81	1F	3 E		74		
	PURP	21 0650	0720	0739D	S19	E69	5754	10 26.5	490	3F	C	0720	691		
	MITK	21 0657E	0658	0702D	S19	E67	5754	10 26.4	50	1F	C	0658	250		E
	BUCA	21 0715E		0827	S17	E67	5754	10 26.4	720	1N	P	0715	86		E
0360		21 08153	0829	0908	S27	W13	5747	10 20.3	53	1F			182	3.2	
	BUCA	21 0815	0829	0900	S25	W14	5747	10 20.2	45	1N	C	0829	258	3.2	
	LEAR	21 0818	0829	0901	S27	W13	5747	10 20.3	43	1F	3 E		106		
	KANZ	21 0853E		0922	S29	W12	5747	10 20.4	290	1F	V				
0361	RAMY	21 1120	1127	1139	S30	W17	5747	10 20.1	19	SF	3 E		27		F
0362	KANZ	21 1121	1121	1125	S13	E73	5758	10 27.0	4	SF	V				
0363	KANZ	21 1129	1129	1135	S22	W15	5747	10 20.3	6	SF	V				
0364		21 1248	1256*	1324	S26	W14	5747	10 20.4	36	SF C 4.5			38		FK
	RAMY	21 1248	1256	1326	S28	W13	5747	10 20.5	38	SF	E		40		K
	RAMY	21 1248	1316	1326	S28	W13	5747	10 20.5	38	SF C 4.5	3 E		37		F
	KANZ	21 1314E	1314U	1321	S23	W17	5747	10 20.2	70	SF	V				
0365		21 1321*	1326*	1344	S14	E78	5758	10 27.4	23	SF			14		
	RAMY	21 1321	1326	1340	S14	E78	5758	10 27.4	19	SF	3 E		16		
	RAMY	21 1341	1343	1349	S14	E77	5758	10 27.4	8	SF	3 E		12		
0366		21 13262	13271	1345	S20	E64	5754	10 26.4	19	SN			45		
	RAMY	21 1326	1327	1351	S19	E65	5754	10 26.5	25	SN	3 E		45		
	KANZ	21 1328	1328	1339	S20	E64	5754	10 26.4	11	SF	V				

22  
Oct 89

H $\alpha$  SOLAR FLARES

OCTOBER 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	NOAA/USAF			CMP Mo	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks	
						Lat	CMD	Region							Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)		
0367	RAMY	21	1443	1448	1456	S19	E64	5754	10	26.5	13	SF	3	E		21			
0368		21	1453	1456	1530	S25	W17	5747	10	20.3	37	SF				31		FHK	
	RAMY	21	1453	1456	1530	S25	W17	5747	10	20.3	37	SF		E		32		K	
	RAMY	21	1453	1505	1530	S25	W17	5747	10	20.3	37	SF	3	E		30		FH	
0369		21	1457*	1502*	1521	S20	E60	5754	10	26.2	24	SF				24			
	RAMY	21	1457	1502	1515	S20	E60	5754	10	26.2	18	SF	3	E		27			
	RAMY	21	1516	1516	1527	S20	E60	5754	10	26.2	11	SF	3	E		20			
0370	HOLL	21	1601	1606	1611	S18	E63	5754	10	26.5	10	SF	3	E		15			
0371	PALE	21	1802	1802	1807	S30	W15	5747	10	20.6	5	SF	3	E		10			
0372	RAMY	21	1818	1839	1929	S28	W16	5747	10	20.5	71	SF	3	E		67		F	
0373		21	1829*	1845	1856	S18	E62	5754	10	26.5	27	SF	C 2.6			32		F	
	RAMY	21	1829	1846	1859	S19	E61	5754	10	26.4	30	SF	C 2.6	3	E	45			
	PALE	21	1843	1845	1856	S17	E63	5754	10	26.6	13	SF		3	E	25			
	HOLL	21	1845	1845	1853	S19	E61	5754	10	26.4	8	SF		3	E	25		F	
0374		21	1926	1927	1932	S24	W34	5744	10	19.2	6	SF				15		F	
	RAMY	21	1926	1929	1932	S24	W34	5744	10	19.2	6	SF		3	E	19		F	
	HOLL	21	1927	1927	1935D	S25	W34	5744	10	19.2	8D	SF		3	E	11			
0375	RAMY	21	1930	1930	1933	S14	E73	5758	10	27.3	3	SF	3	E		18			
0376		21	1955	2003	2028	S28	W18	5747	10	20.4	33	SF	C 5.0			57		F	
	RAMY	21	1955	2003	2055	S28	W17	5747	10	20.5	60	SN	C 5.0	3	E	73		F	
	PALE	21	2000	2004	2015	S29	W17	5747	10	20.5	15	SF	C 5.0	3	E	43		F	
	HOLL	21	2002	2006	2013	S27	W19	5747	10	20.3	11	SF	C 5.0	2	E	56		F	
0377		21	2048	2054	2143	S18	E60	5754	10	26.4	55	SF	C 2.5			30		F	
	HOLL	21	2048	2057U	2129	S19	E58	5754	10	26.3	41	SF	C 2.5	3	E	38		F	
	PALE	21	2050	2054	2157	S17	E62	5754	10	26.6	67	SF		3	E	22		F	
0378	PALE	21	2144	2145	2155	S11	E72	5758	10	27.3	11	SF	3	E		17		F	
0379	PALE	21	2155	2156	2212	S28	W21	5747	10	20.3	17	SF	3	E		21		F	
0380		21	2201	2202	2216	S19	E59	5754	10	26.4	15	SF	C 6.4			22		F	
	PALE	21	2201	2202	2214	S19	E57	5754	10	26.3	13	SF	C 6.4	3	E	21		F	
	HOLL	21	2206E	2207U	2217	S19	E61	5754	10	26.6	11D	SF	C 6.4	2	E	23		F	
0381		21	2239	2240	2254	S29	W18	5747	10	20.5	15	SF				22		F	
	LEAR	21	2239	2240	2254	S28	W19	5747	10	20.4	15	SF		3	E	26			
	PALE	21	2251E	2251U	2302D	S30	W17	5747	10	20.6	11D	SF		3	E	17		F	
0382		21	2347	2353	2423	S28	W22	5747	10	20.3	36	SN	M 3.1			86		EF	
	LEAR	21	2347	2353	2423	S27	W22	5747	10	20.3	36	SF		3	E	74			
	PALE	21	2353	2353	2406D	S29	W22	5747	10	20.3	13D	SN	M 3.1	3	E	98		FE	
0383		22	0100	0102	0115	S18	E61	5754	10	26.7	15	1N				131		E	
	LEAR	22	0100	0102	0115	S20	E60	5754	10	26.6	15	1F		3	E	100			
	PALE	22	0102E	0102U	0120D	S17	E62	5754	10	26.7	18D	1N		3	E	162		E	
0384	VORO	22	0126E	0127	0133	S23	W65	5740	10	17.0	7D	SF		1	C	0127		DI	
0385		22	0219	0220	0226	S27	W24	5747	10	20.2	7	SF	C 4.1			64	1.0	DHIJ	
	VORO	22	0219	0220	0222	S27	W24	5747	10	20.2	3	SF		1	C	0220	81	1.0	DHIJ
	LEAR	22	0219	0220	0230	S27	W23	5747	10	20.3	11	SF	C 4.1	3	E	46			
0386		22	0309	0317	0441	S28	W26	5747	10	20.1	92	1N	C 6.1			176	3.4		
	LEAR	22	0309	0317	0441	S29	W22	5747	10	20.4	92	1F	C 6.1	3	E	112			
	YUNN	22	0322E	0331U	0402D	S28	W30	5747	10	19.8	40D	1N		P	0331	241	3.4		
0387	TACH	22	0511E	0522	0715	S23	W30	5744	10	19.9	124D	2B		2	C	0522	571	7.9	EU
0388	LEAR	22	0616	0624	0628	S30	W25	5747	10	20.3	12	SF	C 7.2	3	E	20			

H $\alpha$  SOLAR FLARES

23  
Oct 89

OCTOBER 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	NOAA/USAF			Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks	
						Lat	Cmd	Region						Mo	Day	Time (UT)		Apparent (10-6 Disk)
0389	LEAR	22	0711	0712	0717	S20	E55	5754	10	26.5	6	SF	3	E		24		
0390		22	0806*	0807*	0828	S28	W25	5747	10	20.4	22	SF				23		
	LEAR	22	0806	0807	0826	S27	W26	5747	10	20.3	20	SF	3	E		23		
	KANZ	22	0819	0819	0830	S29	W24	5747	10	20.5	11	SF		V				
0391	KANZ	22	0929	0929	0933	S26	W29	5747	10	20.1	4	SF		V				
0392		22	10321	10332	1038	S26	W28	5747	10	20.3	6	SN				154	2.2	T
	KANZ	22	1032	1035	1038	S24	W30	5747	10	20.1	6	SF		V				
	CATA	22	1033	1033	1033D	S24	W30	5747	10	20.1	6D	SB	2	P	1033	84	1.2	
	CATA	22	1033	1033	1033D	S31	W24	5747	10	20.5	6D	1B	2	P	1033	225	3.2	T
0393	KANZ	22	1120	1124	1224	S28	W27	5747	10	20.4	64	1N		V				EF
0394	RAMY	22	1121	1133	1133D	N12	W67	5750	10	17.4	12D	SF	3	E		43		H
0395		22	12044	12101	1226	S23	E54	5754	10	26.7	22	SN				52	1.4	
	RAMY	22	1204	1211	1226	S25	E56	5754	10	26.8	22	SF	3	E		37		
	KANZ	22	1206	1210	1221	S21	E53	5754	10	26.6	15	SF		V				
	CATA	22	1208	1210	1231	S22	E54	5754	10	26.6	23	SB	1	C	1210	68	1.4	
0396	KANZ	22	1218	1221	1228	S13	W33	5748	10	20.0	10	SF		V				
0397		22	1244	12442	1248	S22	W31	5747	10	20.1	4	SF				20		
	KANZ	22	1244	1244	1248	S23	W32	5747	10	20.1	4	SF		V				
	RAMY	22	1244	1246	1249	S22	W30	5747	10	20.2	5	SF	3	E		20		
0398		22	13061	1311*	1338	S22	E53	5754	10	26.6	32	1F C 8.9				69		K
	RAMY	22	1306	1313	1347	S22	E54	5754	10	26.7	41	SF		E		37		K
	RAMY	22	1306	1324	1347	S22	E54	5754	10	26.7	41	1F C 8.9	3	E		101		
	KANZ	22	1307	1311	1319	S22	E50	5754	10	26.4	12	1F		V				
0399		22	13101	13141	1324	S28	W28	5747	10	20.4	14	SF				32		F
	RAMY	22	1310	1314	1324	S27	W27	5747	10	20.4	14	SF	3	E		32		F
	KANZ	22	1311	1315	1323	S28	W28	5747	10	20.4	12	SF		V				
0400	RAMY	22	1332	1332	1336	N12	W67	5750	10	17.5	4	SF	3	E		13		
0401		22	1329*	1339*	1405	S27	W27	5747	10	20.4	36	SF				38		FK
	RAMY	22	1329	1339	1408	S27	W27	5747	10	20.4	39	SF		E		35		K
	RAMY	22	1329	1348	1408	S27	W27	5747	10	20.4	39	SF	3	E		31		F
	KANZ	22	1331	1347	1407	S28	W28	5747	10	20.4	36	SF		V				
	HOLL	22	1333E	1336U	1351	S28	W27	5747	10	20.4	18D	SF	2	E		73		F
	RAMY	22	1410	1411	1413	S27	W27	5747	10	20.5	3	SF	3	E		15		F
0402	KANZ	22	1403	1407	1423	S21	W39	5744	10	19.6	20	SF		V				
0403		22	14115	1411*	1430	S20	E50	5754	10	26.4	19	SF				22		F
	RAMY	22	1411	1411	1415	S20	E51	5754	10	26.5	4	SF	3	E		16		F
	HOLL	22	1411	1433	1439	S20	E49	5754	10	26.3	28	SF	2	E		32		
	RAMY	22	1416	1435	1437	S20	E49	5754	10	26.3	21	SF	3	E		19		
0404	KANZ	22	1429	1435	1441	S29	W27	5747	10	20.5	12	SF		V				
0405		22	15121	1521	1533	S14	W31	5748	10	20.3	21	SF				20		
	HOLL	22	1512	1521	1537	S14	W31	5748	10	20.3	25	SF	3	E		25		
	RAMY	22	1513	1521	1529	S14	W30	5748	10	20.4	16	SF	3	E		15		
	KANZ	22	1520E	1520U	1527D	S14	W32	5748	10	20.2	7D	SF		V				
0406	RAMY	22	1554	1558	1615	S27	W28	5747	10	20.5	21	SN M 1.3	3	E		58		F
0407		22	1555*	16106	1634	N13	W70	5750	10	17.4	39	SF				48		H
	HOLL	22	1555	1610	1633	N13	W70	5750	10	17.4	38	SF	3	E		50		
	RAMY	22	1605	1616	1635	N13	W71	5750	10	17.3	30	SF	3	E		45		H
0408	RAMY	22	1621	1624	1637	S24	W32	5747	10	20.2	16	SF	3	E		23		F



24  
Oct 89

H $\alpha$  SOLAR FLARES

OCTOBER 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	NOAA/USAF			CMP Mo	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
						Lat	CMD	Region							Time (UT)	Apparent (10 <sup>-6</sup> Disk)	Corr (Sq Deg)	
0409		22	1708*	1719*	2109	S27	W32	5747	10	20.2	241	1N X 2.9				232		FKTY
	HOLL	22	1708	1719	2108	S27	W31	5747	10	20.3	240	SF		E		92		KT
	HOLL	22	1708	1757	2108	S27	W31	5747	10	20.3	240	2B X 2.9	3	E		480		YFT
	HOLL	22	1708	2009	2108	S27	W31	5747	10	20.3	240	SF		E		99		KT
	PALE	22	1732	1734	2111	S27	W33	5747	10	20.1	219	1F		E		202		KT
	PALE	22	1732	1755	2111	S27	W33	5747	10	20.1	219	2B	3	E		286		T
0410		22	17213	17252	1734	S20	E52	5754	10	26.7	13	SF				30		
	PALE	22	1721	1725	1728	S19	E51	5754	10	26.6	7	SF	3	E		19		
	HOLL	22	1724	1727	1739	S20	E53	5754	10	26.8	15	SF	3	E		42		
0411	HOLL	22	1749	1749	1801	S20	E47	5754	10	26.3	12	SF	3	E		24		F
0412	RAMY	22	1753	1754	1800	N12	W71	5750	10	17.4	7	SF	3	E		17		
0413	PALE	22	1901	1904	1912	S14	W35	5748	10	20.1	11	SF	3	E		15		
0414		22	1927*	19403	2004	S15	W33	5748	10	20.3	37	SF				25		F
	PALE	22	1927	1943	2005	S16	W33	5748	10	20.3	38	SF	3	E		19		F
	HOLL	22	1932	1940	1956	S15	W31	5748	10	20.5	24	SF	3	E		31		F
	RAMY	22	1939	1940	2011	S14	W36	5748	10	20.1	32	SF	3	E		26		F
0415	HOLL	22	2203	2206	2212	N12	W74	5750	10	17.3	9	SF	4	E		23		
0416	HOLL	22	2301	2316	2333	N13	W73	5750	10	17.4	32	SF	3	E		20		
0417	HOLL	22	2319	2322	2339	S26	W34	5747	10	20.3	20	SF	3	E		18		
0418	HOLL	22	2344	2355	2412	N12	W74	5750	10	17.4	28	SF	2	E		19		
0419	PALE	23	0001	0008	0034	S29	W33	5747	10	20.4	33	SF	3	E		12		
0420		23	0047*	01033	0147	N12	W79	5750	10	17.1	60	1F				68		EJ
	VORO	23	0047	0106	0155	N13	W85	5750	10	16.6	68	1F	2	C	0106	54		EJ
	LEAR	23	0056	0106	0144	N12	W76	5750	10	17.3	48	SF	3	E		48		
	PALE	23	0059	0104	0137	N10	W77	5750	10	17.2	38	SF	3	E		43		
	MITK	23	0103	0103	0151	N12	W80	5750	10	17.0	48	1N		C	0103	100		
	PURP	23	0110E	0119U	0148	N12	W76	5750	10	17.3	380	1N		P	0119	94		
0421		23	01502	01553	0218	S28	W35	5747	10	20.3	28	SF				82	2.6	EF
	PALE	23	0150	0155	0221	S29	W34	5747	10	20.4	31	SF	3	E		35		F
	LEAR	23	0152	0158	0219	S27	W36	5747	10	20.3	27	SF	3	E		42		
	PURP	23	0202E	0202U	0213	S28	W36	5747	10	20.3	110	1N		P	0202	168	2.6	E
0422		23	03421	03432	0355	S27	W37	5747	10	20.3	13	SN C 7.3				122	2.9	D
	LEAR	23	0342	0345	0357	S27	W37	5747	10	20.3	15	SF C 7.3	3	E		54		
	MITK	23	0343	0343	0358	S27	W36	5747	10	20.3	15	SN		C	0343			
	PEKG	23	0344E	0344	0350	S28	W37	5747	10	20.3	60	1B		P	0344	189	2.9	D
0423		23	04101	04157	0452	S26	W40	5747	10	20.1	42	1N M 1.0				231	6.0	E
	PEKG	23	0410	0415	0425	S25	W40	5747	10	20.1	15	2N		P	0424	378	6.0	E
	LEAR	23	0411	0422	0519	S26	W39	5747	10	20.1	68	SF M 1.0	3	E		84		
0424	LEAR	23	0422	0431	0437	S20	E43	5754	10	26.5	15	SF	3	E		30		
0425	LEAR	23	0625	0651	0720	S17	W44	5748	10	19.9	55	SF	3	E		76		
0426		23	06326	0634*	0750	S29	W38	5747	10	20.3	78	1N M 1.7				134	3.1	BEFK
	LEAR	23	0632	0634	0811	S28	W39	5747	10	20.2	99	SF		E		76		K
	MITK	23	0632	0640	0704D	S29	W35	5747	10	20.5	320	1N		C	0640	140	2.1	
	LEAR	23	0632	0641	0811	S28	W39	5747	10	20.2	99	SF M 1.7	3	E		60		F
	ABST	23	0638	0649	0658	S28	W38	5747	10	20.3	20	1F		C	0649	175	2.8	E
	PURP	23	0725E	0732U	0732D	S30	W40	5747	10	20.2	70	1N		P	0732	221	4.5	
	KANZ	23	0726E		0800	S30	W35	5747	10	20.5	340	SN		C				B
0427		23	08043	08122	0841	S16	W43	5748	10	20.1	37	SF				126	3.4	EH
	BUCA	23	0727E	0740U	0840	S18	W40	5748	10	20.3	730	1N		P	0740	215	3.4	E
	LEAR	23	0804	0812	0842	S17	W45	5748	10	19.9	38	SF	3	E		38		
	KANZ	23	0807	0814	0825	S16	W43	5748	10	20.1	18	SF		V				
	KHAR	23	0848E		0858	S15	W43	5748	10	20.1	100	SF	2	V	0848			EH

H $\alpha$  SOLAR FLARES

OCTOBER 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo Day	Dur (Min)	Imp Opt Xray	Obs See Type	Area Measurement			Remarks	
													Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)		
0428		23	08555	09005	0915	N12	W82	5750	10	17.2	20	SN C 5.5			57		E
	CATA	23	0855	0900	0920	N13	W83	5750	10	17.1	25	1B	1	C	0900	84	
	SVTO	23	0857E	0902U	0921D	N11	W81	5750	10	17.3	24D	SF C 5.5	3	E		65	
	KANZ	23	0857	0905	0917	N12	W78	5750	10	17.5	20	SN		V			
	KHAR	23	0859	0903	0912	N14	W85	5750	10	16.9	13	SN	2	P	0903		E
	LEAR	23	0900	0905	0911	N12	W85	5750	10	17.0	11	SF	3	E		23	
0429	KHAR	23	0906	0907	0924	S16	W46	5748	10	19.9	18	SF	2	V	0907		D
0430	KHAR	23	0927	0928	0938	S23	W41	5747	10	20.2	11	SN	2	V	0928		
0431	SVTO	23	0929E	0947U	1027D	S18	E39	5754	10	26.4	58D	SF	2	E		53	
0432		23	0942	09433	0953	S24	W46	5744	10	19.8	11	SN					
	KHAR	23	0942	0943	0956	S23	W46	5744	10	19.8	14	SN	2	V	0943		
	KANZ	23	0942	0946	0950	S24	W45	5744	10	19.9	8	SF		V			
0433	KHAR	23	0958	0959	1005	S14	W41	5748	10	20.3	7	SF	2	V	0959		D
0434		23	1053*	1104*	1141	S26	W43	5747	10	20.1	48	SF				84	FK
	RAMY	23	1053	1105	1153	S27	W42	5747	10	20.2	60	SF		E		95	K
	RAMY	23	1053	1119	1153	S27	W42	5747	10	20.2	60	SF	3	E		73	F
	KANZ	23	1104	1104	1108	S27	W39	5747	10	20.4	4	SN		V			
	KHAR	23	1112		1142	S23	W46	5747	10	19.9	30	SF	2	V	1116		
	KANZ	23	1115	1119	1151	S24	W46	5747	10	19.9	36	SN		V			
0435		23	12013	12042	1208	S14	E50	5758	10	27.3	7	SF				62	
	SVTO	23	1201	1206	1220D	S13	E50	5758	10	27.3	19D	SF	3	E		62	
	KANZ	23	1204	1204	1208	S14	E50	5758	10	27.3	4	SF		V			
0436		23	12351	12433	1341	S27	W41	5747	10	20.3	66	2B X 1.5				290	FZ
	RAMY	23	1235	1243	1347	S27	W42	5747	10	20.2	72	2B X 1.5	3	E		321	ZF
	KANZ	23	1236	1244	1344	S28	W41	5747	10	20.3	68	2B		V			
	SVTO	23	1236	1246	1332	S27	W40	5747	10	20.4	56	2B	3	E		258	ZF
0437	HOLL	23	1323	1523	1530	S22	W65	5744	10	18.6	127	SF	3	E		12	
0438	HOLL	23	1334E	1336U	1348	S30	W43	5747	10	20.2	14D	SN	2	E		71	F
0439	KANZ	23	1355	1355	1359	N14	W81	5750	10	17.4	4	SF		V			
0440		23	14022	14082	1449	S27	W43	5747	10	20.2	47	SF				60	EF
	RAMY	23	1402	1408	1451	S27	W43	5747	10	20.2	49	SF	3	E		65	F
	KANZ	23	1403	1410	1428D	S26	W45	5747	10	20.1	25D	SF		V			
	HOLL	23	1404	1408	1447	S27	W42	5747	10	20.3	43	SF	3	E		54	FE
0441		23	14106	14204	1428	N12	W86	5750	10	17.1	18	SF				26	F
	RAMY	23	1410	1420	1430	N12	W84	5750	10	17.3	20	SF	3	E		27	F
	KANZ	23	1410	1424	1428D	N13	W84	5750	10	17.2	18D	SF		V			
	HOLL	23	1416	1420	1427	N12	W90	5750	10	16.8	11	SF	3	E		25	
0442	HOLL	23	1432	1439	1445	S19	E36	5754	10	26.3	13	SF	3	E		32	
0443	RAMY	23	1452	1501	1509	S30	W40	5747	10	20.5	17	SF	3	E		27	
0444		23	15165	15231	1530	S13	E48	5758	10	27.2	14	SF				15	F
	HOLL	23	1516	1524	1533	S13	E48	5758	10	27.2	17	SF	3	E		15	
	RAMY	23	1521	1523	1528	S13	E47	5758	10	27.2	7	SF	3	E		15	F
0445		23	16562	1700	1713	N12	W82	5750	10	17.5	17	SF				22	
	HOLL	23	1656	1700	1705	N13	W81	5750	10	17.6	9	SF	3	E		23	
	RAMY	23	1658	1700	1721	N12	W84	5750	10	17.4	23	SF	3	E		21	
0446		23	17162	1720	1732	S18	W46	5748	10	20.2	16	SF				14	
	RAMY	23	1716	1720	1733	S18	W46	5748	10	20.2	17	SF	3	E		15	
	HOLL	23	1718	1720	1731	S18	W45	5748	10	20.3	13	SF	3	E		13	
0447	HOLL	23	1756	1759	1802	N13	W82	5750	10	17.6	6	SF	3	E		12	

26  
Oct 89

H $\alpha$  SOLAR FLARES

OCTOBER 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	NOAA/ USAF			Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement		Remarks			
						Lat	CMD	Region						Mo	Day		Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)
0448		23	18422	1846*	1919	S26	W49	5747	10	20.0	37	SN	C 4.9		91		EFK		
	RAMY	23	1842	1851	1915	S27	W50	5747	10	19.9	33	1N	C 4.9	3	E	164		F	
	HOLL	23	1844	1846	1921	S26	W49	5747	10	20.0	37	SN		3	E	72		FE	
	HOLL	23	1844	1914	1921	S26	W49	5747	10	20.0	37	SB			E	36		K	
0449		23	20582	2101	2107	S20	E37	5754	10	26.7	9	SF				26			
	HOLL	23	2058	2101	2108	S20	E37	5754	10	26.7	10	SF		3	E	33			
	PALE	23	2100	2101	2106	S19	E37	5754	10	26.7	6	SF		3	E	18			
0450	HOLL	23	2117	2131	2153	S14	W49	5748	10	20.2	36	SF		3	E	26			
0451		23	22151	2217	2222	S26	W46	5747	10	20.3	7	SF	C 2.5			12			
	HOLL	23	2215	2217	2223	S25	W46	5747	10	20.4	8	SF	C 2.5	3	E	14			
	PALE	23	2216	2217	2220	S27	W47	5747	10	20.3	4	SF		3	E	10			
0452	PALE	23	2257	2257	2307	S18	W54	5748	10	19.8	10	SF		3	E	17			
0453	LEAR	23	2331	2343	2420	S29	W47	5747	10	20.3	49	SF	C 4.7	3	E	19		F	
0454	PALE	24	0117	0119	0134	S32	W45	5747	10	20.5	17	SF		3	E	25		F	
0455	PALE	24	0153	0154	0156	S24	W52	5747	10	20.1	3	SF	C 4.0	3	E	24			
0456	PALE	24	0256	0257	0303	S18	W68	5755	10	18.9	7	SF		3	E	15			
0457	LEAR	24	0306	0312	0332	S22	W71	5744	10	18.7	26	SF		3	E	51			
0458	PALE	24	0259	0301	0308	S17	W50	5748	10	20.3	9	SF		3	E	16		F	
0459	LEAR	24	0259	0301	0331	S27	W51	5747	10	20.1	32	SF	C 3.5	3	E	15			
0460		24	04217	0428*	0513	S18	W54	5748	10	20.1	52	SF	C 3.6			102	3.3	EFK	
	LEAR	24	0421	0428	0527	S19	W54	5748	10	20.1	66	SF			E	81		K	
	LEAR	24	0421	0516	0527	S19	W54	5748	10	20.1	66	SF	C 3.6	3	E	56		F	
	MITK	24	0428	0435	0446	S17	W53	5748	10	20.1	18	1N			C	0435	170	3.3	E
0461		24	06444	06454	0658	S27	W58	5747	10	19.8	14	1N	C 3.8			154	3.9	DEV	
	MITK	24	0644	0645	0700D	S27	W57	5747	10	19.8	160	1N			C	0645	150	3.4	E
	LEAR	24	0644	0646	0657	S27	W59	5747	10	19.7	13	SN	C 3.8	3	E	95			
	PURP	24	0647E	0649	0700	S26	W57	5747	10	19.8	130	2N			P	0649	275	6.2	
	ABST	24	0648	0649	0654D	S27	W58	5747	10	19.8	60	1N			C	0649	96	2.2	DV
0462	KHAR	24	0817		0840	S37	E90		10	31.6	23	SF		2	P	0817			
0463	KHAR	24	0933		0945	S22	W75	5744	10	18.6	12	SF		2	P	0933		DH	
0464	KHAR	24	1040	1042	1050	N10	E06	5760	10	24.9	10	SF		2	V	1042		E	
0465		24	10502	10561	1105	S30	W58	5747	10	19.9	15	SN						DH	
	KHAR	24	1050	1057	1106	S30	W60	5747	10	19.7	16	SN		2	V	1057		DH	
	KANZ	24	1052	1056	1104	S29	W56	5747	10	20.1	12	SF			V				
0466	KHAR	24	1103	1104	1120	S21	W57	5748	10	20.1	17	SF		2	P	1110	75	1.5	D
0467		24	11164	11193	1136	S28	W57	5747	10	20.0	20	SF				20		DF	
	KANZ	24	1116	1120	1137	S29	W56	5747	10	20.1	21	SF			V				
	RAMY	24	1118	1119	1142	S26	W56	5747	10	20.1	24	SF		3	E	20		F	
	KHAR	24	1120	1122	1130	S30	W60	5747	10	19.7	10	SF		2	V	1122		D	
0468		24	1400	13582	1409	S28	W54	5747	10	20.4	9	SF				38		F	
	HOLL	24	1358E	1358	1414	S27	W54	5747	10	20.4	160	SF		3	E	38		F	
	KANZ	24	1400	1400	1404	S28	W54	5747	10	20.4	4	SF			V				
0469		24	14191	14243	1435	S20	E26	5754	10	26.6	16	SF				35		F	
	RAMY	24	1419	1424	1430	S19	E26	5754	10	26.6	11	SF		3	E	18		F	
	HOLL	24	1420	1427	1440	S20	E26	5754	10	26.6	20	SF		3	E	52			
0470	HOLL	24	1427E	1427U	1429	S27	W58	5747	10	20.1	20	SF		3	E	15			

H $\alpha$  SOLAR FLARES

27  
Oct 89

OCTOBER 1989

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			Remarks
																Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0471	HOLL	24	1630	1630	1637	S20	E24	5754	10	26.5	7	SF		3	E		14		
0472	HOLL	24	1647E	1704U	1715	S16	W62	5748	10	20.0	28D	SF		3	E		44		
0473		24	1738I	1748*	2349	S29	W57	5747	10	20.3	371	2N X 5.7					477		FHKUYZ
	HOLL	24	1738	1750	2323	S27	W55	5747	10	20.4	345	1F			E		308		KU
	HOLL	24	1738	1812	2323	S27	W55	5747	10	20.4	345	3B		3	E		673		ZU
	RAMY	24	1739	1748	2118D	S30	W55	5747	10	20.4	219D	1F			E		207		KU
	PALE	24	1739	1748	2359D	S30	W57	5747	10	20.2	380D	SF			E		178		KT
	PALE	24	1739	1811	2359D	S30	W57	5747	10	20.2	380D	3B		3	E		722		YFT
	RAMY	24	1739	1813	2118D	S30	W55	5747	10	20.4	219D	3B X 5.7		3	E		773		UH
	LEAR	24	2214E		2440	S28	W67	5747	10	19.7	146D	2N		2	E				YF
0474	HOLL	24	1741	1748	1807	S18	W52	5748	10	20.8	26	SF		3	E		23		
0475	HOLL	24	1830	1838	1848	S17	W61	5748	10	20.1	18	SF		3	E		29		
		24	2152		2206	No Flare Patrol													
0476	HOLL	24	2257	2304	2325	S20	E20	5754	10	26.5	28	SF		3	E		54		
0477	LEAR	25	0051	0052	0059	S26	W69	5747	10	19.7	8	1N		3	E		131		
0478	LEAR	25	0114	0114	0124	S20	E19	5754	10	26.5	10	SF		3	E		13		
0479	LEAR	25	0338	0339	0352	S20	E17	5754	10	26.4	14	SF		3	E		13		
0480		25	0458	05003	0508	S28	W76	5747	10	19.3	10	1N M 1.1					156		E
	LEAR	25	0458	0500	0510	S27	W73	5747	10	19.5	12	1F M 1.1		3	E		198		
	URUM	25	0501E	0503	0507	S29	W79	5747	10	19.0	6D	1N			C		113		E
0481		25	08343	08344	0842	S26	W72	5747	10	19.8	8	SF							D
	KANZ	25	0834	0834	0838	S25	W70	5747	10	19.9	4	SF			V				D
	KHAR	25	0837	0838	0847	S26	W73	5747	10	19.7	10	SF		2	V	0838			D
0482		25	0959*	1001*	1016	S25	W73	5747	10	19.8	17	SF							DH
	KHAR	25	0959	1001	1007	S26	W73	5747	10	19.7	8	SF		2	V	1001			DH
	KHAR	25	1005		1016	S25	W75	5747	10	19.6	11	SF		2	V				DH
	KANZ	25	1009	1009	1013	S24	W70	5747	10	20.0	4	SF			V				
	KHAR	25	1025	1026	1030	S25	W75	5747	10	19.6	5	SF		2	V	1026			DH
0483	KANZ	25	1013	1013	1013	S19	W64	5748	10	20.5	5	SF			V				
0484		25	1120	1124	1131	S16	W73	5748	10	19.9	11	SF							D
	KANZ	25	1120	1124	1131	S17	W68	5748	10	20.3	11	SF			V				D
	KHAR	25	1124E		1131	S14	W78	5748	10	19.6	7D	SF		2	V	1125			D
0485	RAMY	25	1147	1147	1152	S27	W70	5747	10	20.0	5	SF		3	E		18		
0486		25	14042	14073	1420	S26	W66	5747	10	20.4	16	SF					71		
	RAMY	25	1404	1407	1422	S26	W67	5747	10	20.4	18	SF		3	E		71		
	KANZ	25	1406	1410	1419	S26	W64	5747	10	20.6	13	SF			V				
0487		25	14372	14403	1459	S26	W71	5747	10	20.1	22	1F C 3.5					139		
	RAMY	25	1437	1440	1505D	S27	W72	5747	10	20.0	28D	1F C 3.5		3	E		199		
	KANZ	25	1439	1443	1446D	S25	W70	5747	10	20.2	7D	1F			V				
	HOLL	25	1440E	1440U	1459	S25	W70	5747	10	20.2	19D	SF		2	E		79		
0488		25	1633	1639*	1758	S29	W68	5747	10	20.3	85	1N M 8.7					238		EFHKU
	RAMY	25	1633	1639	1806	S30	W69	5747	10	20.3	93	1N		3	E		232		FH
	RAMY	25	1633	1654	1806	S30	W69	5747	10	20.3	93	1N			E		225		K
	HOLL	25	1637E	1641	1741	S28	W65	5747	10	20.6	64D	2N M 8.7		2	E		257		UE
0489		25	18064	1810	1818	S19	W74	5748	10	20.1	12	SF					13		
	RAMY	25	1806	1810	1818	S19	W74	5748	10	20.1	12	SF		3	E		13		
	RAMY	25	1810	1810	1818	S19	W74	5748	10	20.1	8	SF		3	E		13		
0490	RAMY	25	1807	1807	1824	S20	E11	5754	10	26.6	17	SF		3	E		13		

28  
Oct 89

H $\alpha$  SOLAR FLARES

OCTOBER 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	NOAA/USAF			Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks		
						Lat	CMD	Region						Mo	Day	Time (UT)		Apparent (10-6 Disk)	Corr (Sq Deg)
0491	HOLL	25	2235	2235	2242	S27	W77	5747	10	19.9	7	SF	3	E		30		F	
0492	PALE	26	0152E	0152U	0204	S21	E09	5754	10	26.8	12D	SF	3	E		14			
0493		26	1115*	1115*	1120	S26	W82	5747	10	20.1	5	SF						DH	
	KANZ	26	1115	1115	1119	S25	W75	5747	10	20.6	4	SF		V					
	KHAR	26	1115	1118	1121	S26	W86	5747	10	19.8	6	SF	2	V	1118			DH	
	KHAR	26	1125	1126	1130D	S28	W86	5747	10	19.7	5D	SF	2	V	1126			D	
0494		26	1155*	1155*	1211	S27	W77	5747	10	20.5	16	SF C	4.9				41		
	KANZ	26	1155	1155	1159	S25	W75	5747	10	20.7	4	SF		V					
	RAMY	26	1204	1204	1218	S30	W80	5747	10	20.2	14	SF C	4.9	3	E		41		
	KANZ	26	1207	1207	1215	S27	W75	5747	10	20.7	8	SF		V					
0495	RAMY	26	1229	1232	1237	S30	W80	5747	10	20.2	8	SF		3	E		40	H	
0496	RAMY	26	1530	1531	1538	S28	W87	5747	10	19.8	8	SF		3	E		51		
0497	HOLL	26	1959	2001	2005	N11	W28	5760	10	24.7	6	SF		3	E		14		
0498	PALE	26	2046	2049	2059	S30	W79	5747	10	20.6	13	SF M	8.1	3	E		38		
0499		27	11311	11356	1204	S33	W88		10	20.5	33	1N M	6.2				69	AH	
	RAMY	27	1131	1141	1143	S35	W87		10	20.5	12	SF M	6.2	3	E		26	H	
	CATA	27	1132	1135	1135D	S35	W90		10	20.3	3D	1N		1	P	1135	112	A	
	KANZ	27	1132	1137	1226	S32	W84		10	20.8	54	1F			V				
	KHAR	27	1135E		1153D	S30	W90		10	20.4	18D	1N		2	P			H	
		27	1503		1507	No Flare Patrol													
0500		27	19013	19013	1913	S31	W81		10	21.4	12	1F X	1.0				111	E	
	HOLL	27	1901	1901	1913	S32	W80		10	21.4	12	1N X	1.0	3	E		125	E	
	PALE	27	1901	1904	1913	S35	W81		10	21.3	12	SF		3	E		50		
	RAMY	27	1904	1904U	1905D	S27	W82		10	21.4	1D	1F		2	E		157		
0501	PALE	27	1951	1954	2004	N21	E27	5763	10	29.9	13	SF		3	E		19		
		28	0052		0057	No Flare Patrol													
0502	KHAR	28	0818		0919	N20	E90	5769	11	4.2	61	SF		2	V	0829		D	
0503		28	08496	0904U	0930	N20	E20	5763	10	29.9	41	SF					32	0.4	DE
	KANZ	28	0849	0904U	0942	N20	E20	5763	10	29.9	53	SF			V				
	KHAR	28	0855		0918	N20	E20	5763	10	29.9	23	SF		2	V	0857		D	
	URUM	28	0925E	0925U	0939D	N21	E21	5763	10	30.0	14D	SF			C		32	0.4	E
0504	KHAR	28	1009	1011	1022	N20	E90	5769	11	4.3	13	SF		2	V	1011		D	
0505	KHAR	28	1050	1118	1136D	S27	W90		10	21.4	46D	1N		2	V			EFY	
0506	RAMY	28	1146	1159	1224D	N21	E20	5763	10	30.0	38D	SF		2	E		14		
0507	LEAR	29	0540	0557	0603	N17	E68	5770	11	3.4	23	SF		3	E		17		
0508	KHAR	29	1005	1007	1015	N12	E90	5773	11	5.2	10	SF		2	V	1011		D	
0509	SVTO	29	1232	1238	1304	S15	W32	5758	10	27.1	32	SF		3	E		13	F	
0510	HOLL	29	1722	1732	1743	N21	E02	5763	10	29.9	21	SF		3	E		16		
0511	HOLL	29	1849E	1849U	1907	N23	E76	5769	11	4.6	18D	SF		1	E		23		
		29	1912		2009	No Flare Patrol													
0512		29	2129*	2150*	2302	N26	E75	5769	11	4.7	93	1N M	2.3				143	EF	
	HOLL	29	2129	2150	2307D	N27	E78	5769	11	5.0	98D	2N M	2.3	1	E		266	FE	
	LEAR	29	2230	2243	2302	N25	E72	5769	11	4.5	32	SF		3	E		20		
0513	MITK	30	0041	0107	0119	N21	W04	5763	10	29.7	38	SF			C	0107			

H $\alpha$  SOLAR FLARES

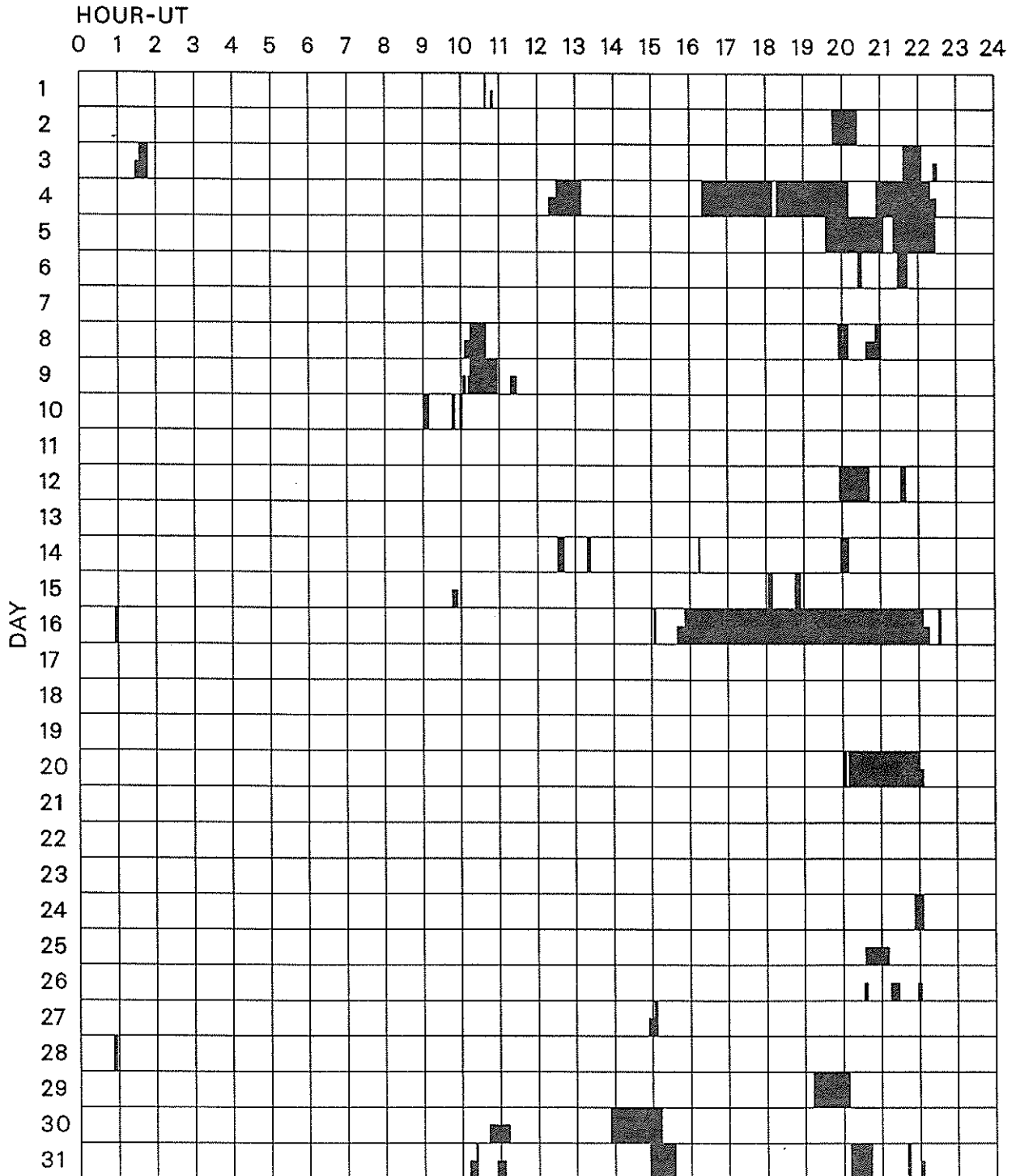
29  
Oct 89

OCTOBER 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
															Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0514	PURP	30	0157E	0202	0230	N21	W04	5763	10	29.8	33D	SN		P	0202	107	1.2	E
0515	LEAR	30	0221	0221	0231	N22	E72	5769	11	4.6	10	SF	3	E		17		
0516	LEAR	30	0739	0741	0808	N22	E65	5769	11	4.3	29	SF	3	E		46		
		30	1353		1514	No Flare Patrol												
0517	HOLL	30	1916	1916	1922	N14	E76	5773	11	5.5	6	SF	3	E		11		F
0518	HOLL	30	2020	2029	2044	N25	E61	5769	11	4.6	24	SF	3	E		16		F
0519		30	21107	21171	2148	N27	E60	5769	11	4.5	38	SN	C 8.6			57		EF
	HOLL	30	2110	2117	2142	N25	E59	5769	11	4.4	32	SN	C 8.6	3	E	75		FE
	PALE	30	2117	2118	2155	N29	E60	5769	11	4.6	38	SF		3	E	39		
0520	HOLL	30	2133	2133	2141	S15	W41	5758	10	27.8	8	SF		3	E	11		F
0521	PALE	30	2340	2341	2350	N23	E56	5769	11	4.3	10	SF		3	E	38		
0522	LEAR	30	2341	2342	2346	S23	W30	5765	10	28.7	5	SF		3	E	12		
0523	PALE	31	0058	0102	0110	N28	E58	5769	11	4.6	12	SF		3	E	18		F
0524	LEAR	31	0133	0148	0158	N23	E55	5769	11	4.3	25	SF		3	E	17		
0525		31	0219	02201	0227	N23	E53	5769	11	4.2	8	SF	C 3.1			22		
	PALE	31	0219	0220	0226	N24	E53	5769	11	4.2	7	SF		3	E	17		
	LEAR	31	0219	0221	0228	N22	E53	5769	11	4.2	9	SF	C 3.1	3	E	27		
0526	LEAR	31	0255	0259	0310	S13	E04	5775	10	31.4	15	SF		3	E	27		
0527	LEAR	31	0511	0538	0627	N26	E55	5769	11	4.5	76	SF	M 1.4	3	E	83		F
0528		31	0553	0554	0603	N24	E30	5764	11	2.6	10	SN				88	1.6	D
	LEAR	31	0553	0554	0603	N24	E30	5764	11	2.6	10	SF		4	E	49		
	PEKG	31	0555E	0555U	0555D	N24	E30	5764	11	2.6	10D	SN		P	0555	126	1.6	D
0529	LEAR	31	0724	0724	0728	N23	E30	5764	11	2.6	4	SF		3	E	16		
		31	1021		1023	No Flare Patrol												
0530	SVTO	31	1117E	1135U	1215D	S07	W03	5775	10	31.2	58D	SF		2	E	32		F
0531	RAMY	31	1123	1127	1213D	N26	E49	5769	11	4.3	50D	SF	C 5.7	2	E	59		F
0532	RAMY	31	1300E	1420U	1435D	N25	E47	5769	11	4.2	95D	SF		2	E	21		F
0533		31	1410E	1418U	1434D	S18	E68	5772	11	5.8	24D	SF				42		
	SVTO	31	1410E	1418U	1427D	S18	E69	5772	11	5.8	17D	SF		2	E	61		
	RAMY	31	1420E	1425U	1434D	S17	E66	5772	11	5.6	14D	SF		2	E	22		
		31	1455		1535	No Flare Patrol												
0534		31	18551	19002	1914	N24	E43	5769	11	4.1	19	SF	C 7.7			30		
	RAMY	31	1855	1902	1916	N23	E42	5769	11	4.0	21	SF	C 7.7	3	E	38		
	PALE	31	1856	1900	1911	N24	E44	5769	11	4.2	15	SF		3	E	21		
		31	2010		2044	No Flare Patrol												
0535	HOLL	31	2050E	2051U	2055D	N21	W27	5763	10	29.8	5D	SF		2	E	50		
		31	2140		2144	No Flare Patrol												

## INTERVALS OF NO FLARE PATROL OBSERVATION FOR PRECEDING SOLAR FLARE TABLE

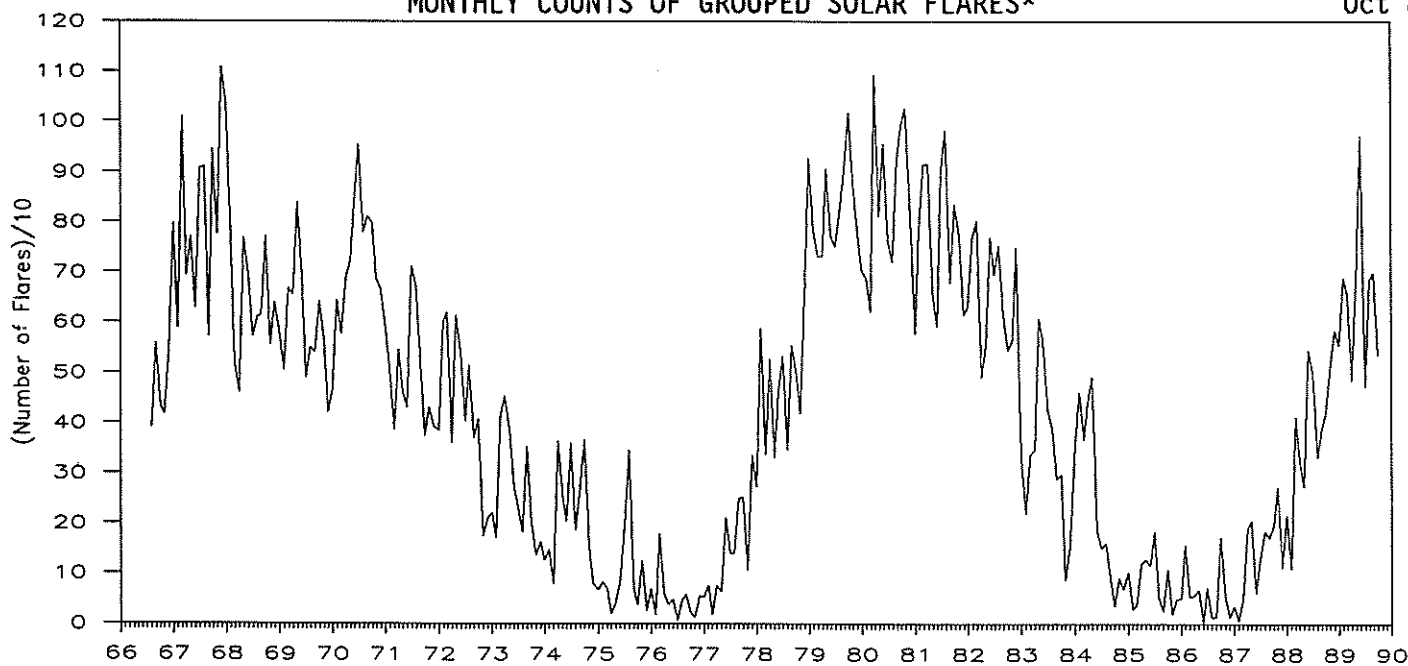
OCTOBER 1989



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 | Holloman    | Kharkov   | Peking     | Tashkent   |
| Athens     | Hurbanovo   | Learmonth | Purple Mt. | Urumqi     |
| Bucharest  | Kandilli    | Mitaka    | Ramey      | Voroshilov |
| Catania    | Kanzelhoehe | Palehua   | San Vito   | 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	172	198	273	114	1627
1988	217	109	413	328	274	544	499	331	390	421	508	584	4618
1989	689	539	658	485	686	971	473	684	699	535			6419

\*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

OCTOBER 1989

Day	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
						Peak (10 -22 W/m <sup>2</sup> Hz)	Mean (2 Hz)		
01	5900 KISV	46 C	0628.4	0629.0	1.7	4.0			
	5900 KISV	46 C	0629.3			4.0			
	5900 KISV	46 C	0629.6			3.0			
	5900 KISV	1 S	0630.2	0630.8	1.0	2.0			
	5900 KISV	1 S	0631.3	0631.5	0.4	2.0			
	260 ONDR	41 F	0700.0	1327.6	480.0				
	5900 KISV	22 GRF	0719.0	0719.7	11.5	6.0			
	5900 KISV	22 GRF	0811.1	0816.5		7.0			
	5900 KISV	22 GRF	0811.1	0815.6	9.0	7.0			
	430 KRAK	42 SER	0819.5	0820.3	0.8	52.0			
	1470 POTS	3 S	0901.0	0903.0	6.0	7.0			
	600 HUMN	2 S/F	0901.0	0902.5	2.7	16.0	3.0		
	950 GORK	1 S	0902.4	0903.0	2.7	3.0			
	204 IZMI	41 F	0919.5	0920.2	3.1	30.0			
	650 GORK	23 GRF	0920.2	1046.9	129.80	25.0			
	950 GORK	23 GRF	0942.0	1100.0	108.00	8.0			
	810 KRAK	41 F	0943.0	0946.3	20.0	28.0	8.0		
	808 ONDR	41 F	0943.2	0946.4	60.0	19.0			
	950 GORK	46 C	0945.0	0949.0		22.0			
	950 GORK	46 C	0945.0	0946.5	7.0	20.0			
	1470 POTS	42 SER	0946.0	0957.0	18.0	16.0			
	536 ONDR	48 C	0950.0	0955.0	13.0	54.0			
	600 HUMN	2 S/F	0950.6	0952.7	6.3	14.0	5.0		
	430 KRAK	41 F	0953.0	0953.5	8.0	18.0	5.0		
	650 GORK	4 S/F	0954.3	0957.5	6.1	19.0			
	9300 KISV	2 S/F	0954.4	0955.8	3.0	4.0			
	5900 KISV	2 S/F	0954.4	0956.9	8.0	4.0			
	950 GORK	3 S	0955.0	0957.0	5.5	7.0			
	810 KRAK	40 F	1017.5	1043.0U	43.0	6.0	3.0		
	950 GORK	4 S/F	1021.8	1024.9	3.7	8.0			
	1470 POTS	20 GRF	1026.0	1045.0	49.0	51.0			
	600 HUMN	27 RF	1026.0	1041.3	30.5	16.0	6.0		
	536 ONDR	47 GB	1026.0	1041.4	24.0	35.0			
	950 GORK	4 S/F	1026.6	1028.6	2.9	9.0			
	650 GORK	46 C	1035.4	1041.3		19.0			
	650 GORK	46 C	1035.4	1036.4	9.6	20.0			
	2950 GORK	20 GRF	1035.5	1045.0	33.7	10.0			
	950 GORK	5 S	1035.5	1045.3	24.3	24.0			
	2850 CRIM	20 GRF	1035.7	1043.0	25.0	15.0	5.0		
	5900 KISV	22 GRF	1126.6	1130.2	10.5	9.0			
536 ONDR	41 F	1331.0	1339.5	17.0	8.0				
2800 OTTA	4 S/F	1930.0	2002.0	90.0	46.9	14.0			
245 PALE	8 S	1933.0E	1933.0	1.00	200.0			ST=2 TYP=3	
245 SGMR	8 S	1933.0E	1933.0	1.00	160.0			ST=2 TYP=3	
1415 PALE	20 GRF	1941.0E	2013.0	46.00	59.0			ST=2 TYP=2	
1415 SGMR	20 GRF	1941.0E	2013.0	259.00	77.0			ST=3 TYP=2	
410 PALE	8 S	2038.0E	2038.0	U	150.0			ST=2 TYP=3	
245 PALE	8 S	2038.0E	2038.0	1.00	270.0			ST=2 TYP=3	
500 HIRA	46 C	2049.5	2053.2	22.5	47.0	20.0		0	
410 SGMR	8 S	2055.0E	2055.0	U	80.0			ST=2 TYP=3	
02	15400 LEAR	4 S/F	0104.0E	0105.0	3.00	120.0			ST=2 TYP=3
	15400 LEAR	8 S	0127.0E	0127.0	1.00	78.0			ST=2 TYP=3
	245 PALE	8 S	0242.0E	0242.0	1.00	250.0			ST=2 TYP=3
	9100 GORK	23 GRF	0437.7	0917.0	502.30	40.0			
	5900 KISV	1 S	0509.5	0509.8	0.6	4.0			
	9300 KISV	2 S/F	0509.7	0509.9	1.2	7.0			
	9300 KISV	45 C	0606.3	0606.5		5.0			
	9300 KISV	45 C	0606.3	0608.9	5.7	7.0			
	9300 KISV	2 S/F	0628.4	0629.2	4.9	4.0			
	260 ONDR	41 F	0700.0	1142.8	480.0	70.0			
	650 GORK	4 S/F	0740.6	0741.1	1.0	263.0			
	2950 GORK	20 GRF	0751.4	0757.0	16.1	4.0			
	650 GORK	20 GRF	0835.5	1115.0	264.50	12.0			
	3013 IZMI	22 GRF	0839.0	0847.3	31.0	50.0	30.0		
	5900 KISV	22 GRF	0839.4	0848.1	90.8	42.0			
	3200 BERN	4 S/F	0839.5	0846.5	17.0	5.1			
	5200 BERN	4 S/F	0839.5	0846.5	17.0	3.8			
	2850 CRIM	25 R	0839.5	0905.9		36.0			

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

33  
Oct 89

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
02	2950	GORK	23 GRF	0839.6	0906.0	260.4D	31.0			
	9300	KISV	22 GRF	0839.6	0849.1	87.8	22.0			
	2850	CRIM	3 S	0840.0	0840.6	1.0	60.0	20.0		
	2950	GORK	1 S	0840.1	0840.4	1.5	21.0			
	204	IZMI	41 F	0840.8	0842.3	2.5	66.0			
	2850	CRIM	3 S	0843.6	0847.4	10.0	79.0	26.0		
	2695	SVTO	4 S/F	0844.0E	0847.0	9.0D	82.0			ST=2 TYP=3
	2950	GORK	4 S/F	0844.7	0847.4	8.7	47.0			
	1415	LEAR	4 S/F	0845.0E	0847.0	67.0D	45.0			ST=2 TYP=3
	2695	LEAR	4 S/F	0845.0E	0847.0	73.0D	79.0			ST=2 TYP=3
	1470	POTS	45 C	0845.0E	0849.0U	55.0D	90.0U			
	950	GORK	3 S	0845.0	0849.4	7.1	17.0			
	3000	POTS	45 C	0845.0E	0847.5	65.0D	68.0			
	4995	LEAR	4 S/F	0846.0E	0847.0	4.0D	43.0			ST=2 TYP=3
	950	GORK	29 PBI	0852.1	0852.1	187.9	10.0			
	3000	POTS	3 S	1102.5	1105.3	12.0	32.0			
	9500	POTS	1 S	1103.0	1105.0	4.0	7.0			
	1470	POTS	3 S	1103.0	1105.0	5.0	7.0			
	2850	CRIM	3 S	1103.0	1105.3	5.0	40.0	13.0		
	9300	KISV	2 S/F	1103.6	1105.0	6.6	10.0			
	3013	IZMI	6 S	1103.6	1105.4	5.0	24.0	12.0		
	5900	KISV	2 S/F	1103.7	1105.3	9.1	15.0			
	9100	GORK	1 S	1103.8	1105.0	3.1	6.0			
	2950	GORK	3 S	1104.1	1105.1	3.4	27.0			
	536	ONDR	42 SER	1146.0	1158.0	13.0	77.0			
	127	TORN	5 S	1357.3	1359.2	4.0	40.0	20.0		
	536	ONDR	42 SER	1429.3	1432.1	3.5	72.0			
	245	SVTO	8 S	1542.0E	1542.0	U	110.0			ST=2 TYP=3
	410	SVTO	8 S	1542.0E	1542.0	U	51.0			ST=2 TYP=3
	245	PALE	8 S	2325.0E	2327.0	2.0D	70.0			ST=2 TYP=3
	245	PALE	8 S	2340.0E	2340.0	1.0D	170.0			ST=2 TYP=3
03	200	GORK	44 NS	0427.0E		100.4D		5.0		
	260	ONDR	43 NS	0700.0		90.0				
	500	HIRA	21 GRF	0305.0	0345.0	165.0	15.0	7.0	0	
	9100	GORK	20 GRF	0452.5	1036.6	487.5D	16.0			
	9300	KISV	2 S/F	0534.0	0534.5	1.6	5.0			
	5900	KISV	2 S/F	0534.0	0534.5	2.4	4.0			
	410	SVTO	4 S/F	0535.0E	0536.0	4.0D	53.0			ST=2 TYP=3
	245	SVTO	8 S	0537.0E	0537.0	1.0D	46.0			ST=2 TYP=3
	9300	KISV	2 S/F	0812.6	0813.7	4.1	9.0			
	1470	POTS	20 GRF	0813.0	0826.5	34.0	49.0			
	5900	KISV	2 S/F	0813.2	0813.8	1.9	4.0			
	950	GORK	23 GRF	0815.0	0823.0	57.0	11.0			
	810	KRAK	1 S	0815.3	0817.5	3.7	4.0	2.0		
	650	GORK	21 GRF	0815.5	0837.4	49.6	12.0			
	600	HUMN	27 RF	0815.7	0827.2	34.3	25.0	8.0		
	234	POTS	29 PBI	0815.9	0816.7	28.3	400.0			
	245	LEAR	8 S	0816.0E	0816.0	1.0D	250.0			ST=2 TYP=3
	245	SVTO	8 S	0816.0E	0816.0	1.0D	280.0			ST=2 TYP=3
	204	IZMI	41 F	0816.3	0817.2	3.0	41.0			
	430	KRAK	2 S/F	0816.7	0817.0	2.8	58.0	9.0		
	113	POTS	4 S/F	0816.9	0826.6	18.2	2000.0			
	2850	CRIM	3 S	0817.0	0827.0	33.0	29.0	10.0		
	100	GORK	41 F	0817.0	0834.5		300.0			
	100	GORK	41 F	0817.0	0826.8	19.5	2700.0			
	3000	POTS	20 GRF	0818.0	0827.0	32.0	24.0			
	127	TORN	48 C	0818.6	0825.7	10.0	390.0	50.0		
	430	KRAK	27 RF	0820.3	0827.0	26.5	39.0	13.0		
	810	KRAK	27 RF	0820.5	0827.0	34.5	36.0	11.0		
	2950	GORK	20 GRF	0822.8	0827.0	23.7	21.0			
	5900	KISV	20 GRF	0822.9	0825.2	25.8	13.0			
	950	GORK	5 S	0823.5	0827.0	16.2	59.0			
204	IZMI	20 GRF	0823.5	0827.0	27.0	9.0	5.0			
650	GORK	20 GRF	0823.7	0827.0	13.7	31.0				
9300	KISV	20 GRF	0824.3	0828.0	16.8	6.0				
260	ONDR	41 F	0830.0	1053.0	270.0					
950	GORK	21 GRF	0927.0	1012.0	141.0	6.0				
2950	GORK	20 GRF	0954.6	1045.0	185.4D	12.0				

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

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 <sup>-22</sup> W/m <sup>2</sup> Hz)	Mean (10 <sup>-22</sup> W/m <sup>2</sup> Hz)		
03	1470	POTS	22 GRF	0955.0	1003.4	125.0	18.0			
	5900	KISV	22 GRF	0956.0	1022.3	120.0	11.0			
	9300	KISV	20 GRF	0956.4	1006.8	18.0	6.0			
	650	GORK	20 GRF	0957.0	1017.5	28.2	8.0			
	2850	CRIM	24 R	1009.0	1050.0		7.0			
	950	GORK	2 S/F	1014.3	1015.7	4.7	3.0			
	650	GORK	4 S/F	1016.0	1017.1	2.7	73.0			
	9300	KISV	21 GRF	1016.3	1031.4	47.0	12.0			
	536	ONDR	42 SER	1030.7	1052.0	34.0	99.0			
	808	ONDR	42 SER	1031.4	1052.4	22.0	21.0			
	950	GORK	4 S/F	1116.3	1117.1	1.9	33.0			
	1470	POTS	22 GRF	1252.0	1309.4	63.0	38.0			
	600	HUMN	27 RF	1256.5	1313.6	67.8	57.0	13.0		
	430	KRAK	46 C	1257.0	1314.0	63.50	126.0	34.0		
	810	KRAK	46 C	1257.2	1306.4	54.0	52.0	13.0		
	3000	POTS	20 GRF	1300.0	1318.0	60.0	9.0			
	9500	POTS	20 GRF	1300.0	1315.0	60.0	15.0			
	808	ONDR	46 C	1302.0	1306.7	50.0	43.0			
	410	SVTO	4 S/F	1308.0E	1313.0	19.00	110.0			ST=2 TYP=3
	610	SGMR	8 S	1310.0E	1310.0	U	55.0			ST=2 TYP=3
	245	SVTO	4 S/F	1311.0E	1314.0	16.00	55.0			ST=2 TYP=3
	610	SGMR	4 S/F	1312.0E	1313.0	10.00	110.0			ST=2 TYP=3
	410	SGMR	8 S	1313.0E	1313.0	2.00	91.0			ST=2 TYP=3
	245	SGMR	8 S	1514.0E	1514.0	1.00	110.0			ST=2 TYP=3
245	SVTO	8 S	1514.0E	1514.0	U	120.0			ST=2 TYP=3	
04	200	GORK	44 NS	0448.0E		408.00		5.0		
	204	IZMI	43 NS	0600.0		360.0	10.0			
	260	ONDR	43 NS	0800.0	0941.9	120.0	179.0			
	100	GORK	43 NS	1003.0		93.00		5.0		
	2840	PEKG	5 S	0315.0	0316.3	4.0	13.1			
	950	GORK	23 GRF	0524.0	0555.5	49.8	6.0			
	500	HIRA	41 F	0529.7	0538.8	32.5	40.0			WR
	410	LEAR	4 S/F	0534.0E	0536.0	6.00	67.0			ST=2 TYP=3
	950	GORK	46 C	0534.5	0539.0	20.5	23.0			
	950	GORK	46 C	0534.5	0546.3		18.0			
	245	LEAR	4 S/F	0535.0E	0537.0	5.00	49.0			ST=2 TYP=3
	410	SVTO	4 S/F	0535.0E	0536.0	4.00	53.0			ST=2 TYP=3
	245	SVTO	8 S	0537.0E	0537.0	1.00	46.0			ST=2 TYP=3
	100	GORK	3 S	0537.0	0538.2	3.4	850.0			
	200	GORK	41 F	0537.2	0546.4		27.0			
	200	GORK	41 F	0537.2	0539.6	17.9	28.0			
	410	LEAR	8 S	0546.0E	0547.0	1.00	41.0			ST=2 TYP=3
	245	LEAR	8 S	0546.0E	0546.0	2.00	62.0			ST=2 TYP=3
	245	SVTO	8 S	0546.0E	0548.0	2.00	76.0			ST=3 TYP=3
	410	SVTO	8 S	0546.0E	0547.0	1.00	50.0			ST=3 TYP=3
	5900	KISV	20 GRF	0639.2	0641.8	13.0	3.0			
	9300	KISV	20 GRF	0641.2	0647.5	11.8	6.0			
	245	SVTO	8 S	0643.0E	0643.0	2.00	72.0			ST=2 TYP=3
	3013	IZMI	1 S	0740.0	0740.2	0.3	11.0	5.0		
	9100	GORK	21 GRF	0749.4	0946.1	310.60	40.0			
	9300	KISV	2 S/F	0801.7	0803.5	3.6	4.0			
	245	LEAR	8 S	0809.0E	0809.0	1.00	58.0			ST=2 TYP=3
	245	SVTO	8 S	0809.0E	0810.0	1.00	64.0			ST=2 TYP=3
	15000	KISV	23 GRF	0823.7	0839.8	53.0	22.0			
	5900	KISV	23 GRF	0828.5	0845.5	58.5	13.0			
	9300	KISV	23 GRF	0828.5	0842.7	28.5	17.0			
	3000	POTS	3 S	0830.0	0836.6	23.0	33.0			
2850	CRIM	29 PBI	0832.0	0840.0	25.0	14.0	5.0			
2950	GORK	21 GRF	0832.0	0951.0	150.3	22.0				
2850	CRIM	3 S	0832.0	0836.5	8.0	43.0	14.0			
3013	IZMI	22 GRF	0832.2	0836.7	18.0	29.0				
8800	LEAR	4 S/F	0833.0E	0836.0	9.00	59.0			ST=2 TYP=3	
4995	LEAR	4 S/F	0833.0E	0836.0	12.00	67.0			ST=2 TYP=3	
15400	LEAR	4 S/F	0833.0E	0836.0	12.00	40.0			ST=2 TYP=3	
9500	POTS	3 S	0833.0U	0836.5U	22.0U	57.0				
9100	GORK	4 S/F	0833.7	0836.4	7.1	56.0				
2950	GORK	3 S	0834.2	0836.7	6.4	24.0				
5900	KISV	4 S/F	0834.3	0836.4	11.2	67.0				

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

35  
Oct 89

OCTOBER 1989

Day	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
						Peak (10 -22 W/m 2 Hz)	Mean		
04	15000 KISV	2 S/F	0834.5	0836.2	5.0	30.0			
	9300 KISV	4 S/F	0834.7	0836.4	5.6	53.0			
	2695 LEAR	4 S/F	0835.0E	0838.0	5.00	42.0			ST=2 TYP=5
	4995 SVTO	4 S/F	0835.0E	0836.0	3.00	61.0			ST=2 TYP=3
	8800 SVTO	8 S	0835.0E	0836.0	2.00	39.0			ST=2 TYP=3
	15400 SVTO	8 S	0835.0E	0836.0	1.00	34.0			ST=2 TYP=3
	11800 BERN	3 S	0835.0	0836.5	3.0	3.1			
	8400 BERN	3 S	0835.0	0836.5	3.0	3.1			
	5200 BERN	3 S	0835.0	0836.5	3.0	4.3			
	3200 BERN	3 S	0835.0	0836.5	3.0	2.4			
	950 GORK	2 S/F	0835.1	0836.3	2.6	6.0			
	2695 SVTO	8 S	0836.0E	0836.0	1.00	31.0			ST=2 TYP=3
	245 LEAR	8 S	0904.0E	0904.0	U	55.0			ST=2 TYP=3
	650 GORK	23 GRF	0913.0	0948.7	85.0	42.0			
	245 SVTO	8 S	0914.0E	0914.0	1.00	74.0			ST=2 TYP=3
	950 GORK	21 GRF	0915.0	0949.1	42.3	19.0			
	810 KRAK	45 C	0916.3	0942.0	52.5	81.0	24.0		
	234 POTS	27 RF	0932.0E	0955.0	48.00	65.0			
	430 KRAK	45 C	0932.8	0947.0	40.5	290.0	49.0		
	2850 CRIM	46 C	0933.0	0945.0		139.0			
	1470 POTS	22 GRF	0933.0	0943.0	47.0	68.0			
	2850 CRIM	46 C	0933.0	0946.1	18.0	81.0	40.0		
	2850 CRIM	46 C	0933.0	0949.2		84.0			
	5900 KISV	46 C	0934.5	0938.0		22.0			
	5900 KISV	29 PBI	0934.5	0951.0	25.0	15.0			
	5900 KISV	46 C	0934.5	0936.2		21.0			
	5900 KISV	46 C	0934.5	0940.5		30.0			
	5900 KISV	46 C	0934.5	0943.6	16.5	31.0			
	200 GORK	41 F	0934.6	0935.3	13.4	185.0			
	200 GORK	41 F	0934.6	0941.8		550.0			
	245 LEAR	4 S/F	0935.0E	0937.0	3.00	210.0			ST=2 TYP=3
	410 SVTO	8 S	0935.0E	0935.0	U	230.0			ST=2 TYP=3
	245 SVTO	4 S/F	0935.0E	0937.0	4.00	270.0			ST=2 TYP=3
	9500 POTS	20 GRF	0935.0	0943.0	50.0	19.0			
	536 ONDR	49 GB	0935.0	0947.1	50.0	137.0			
	204 IZHI	24 R	0935.1	0943.0	30.0	290.0			
	808 ONDR	49 GB	0935.4	0943.0	36.0	54.0			
	9300 KISV	46 C	0935.7	0938.0		14.0			
	650 GORK	46 C	0935.7	0937.1		75.0			
	600 HUMN	4 S/F	0935.7	0947.1	32.1	86.0	17.0		
	9300 KISV	46 C	0935.7	0937.2		14.0			
	9300 KISV	46 C	0935.7	0943.2		21.0			
	9300 KISV	46 C	0935.7	0936.2	13.0	22.0			
	9300 KISV	46 C	0935.7	0940.3		20.0			
	650 GORK	46 C	0935.7	0936.6	2.6	47.0			
	9300 KISV	29 PBI	0935.7	0948.7	22.1	15.0			
	2695 LEAR	4 S/F	0936.0E	0945.0	15.00	130.0			ST=2 TYP=5
	1415 LEAR	20 GRF	0936.0E	0942.0	12.00	55.0			ST=2 TYP=2
	610 LEAR	4 S/F	0936.0E	0946.0	13.00	150.0			ST=2 TYP=3
	2695 SVTO	4 S/F	0936.0E	0945.0	15.00	140.0			ST=2 TYP=5
	2950 GORK	46 C	0936.0	0936.1	15.0	52.0			
	2950 GORK	46 C	0936.0	0949.3		40.0			
	3013 IZMI	23 GRF	0936.0	0944.8	24.0	37.0	20.0		
	3000 POTS	22 GRF	0936.0	0945.8	39.0	90.0			
	2950 GORK	46 C	0936.0	0944.9		75.0			
	100 GORK	41 F	0936.8	0948.3		1830.0			
	100 GORK	41 F	0936.8	0937.7	14.9	370.0			
	410 LEAR	4 S/F	0937.0E	0954.0	18.00	190.0			ST=2 TYP=3
	1415 SVTO	20 GRF	0937.0E	0943.0	11.00	56.0			ST=2 TYP=2
	113 POTS	27 RF	0937.0	1002.0	83.0	50.0			
	950 GORK	46 C	0937.1	0943.1		78.0			
	950 GORK	46 C	0937.1	0941.1	11.7	84.0			
	40 POTS	42 SER	0937.4	0959.8	34.0	10000.0			
	127 TORN	27 RF	0938.0		84.0		12.0		
	4995 SVTO	20 GRF	0939.0E	0944.0	9.00	30.0			ST=2 TYP=2
	15000 KISV	22 GRF	0940.0	0946.3	24.0	10.0			
	650 GORK	46 C	0940.8	0943.6	7.9	99.0			
	650 GORK	46 C	0940.8	0946.9		164.0			
	2850 CRIM	29 PBI	0951.0E	0951.0	14.00	24.0	8.0		

36  
Oct 89

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

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
04	260	ONDR	41 F	1000.0	1150.8	300.0	166.0			
	430	KRAK	8 S	1028.0	1028.1	0.5	180.0			
	410	SGMR	49 GB	1146.0E	1147.0	4.0D	720.0			ST=3 TYP=6
	536	ONDR	45 C	1146.6	1148.0	4.5	147.0			
	430	KRAK	42 SER	1146.7	1148.0	4.0	310.0			
	600	HUMN	2 S/F	1146.8	1147.5	1.4	56.0	18.0		
	810	KRAK	42 SER	1147.0	1148.0	4.0	296.0			
	610	SGMR	4 S/F	1147.0E	1147.0	3.0D	320.0			ST=2 TYP=3
	410	SVTO	8 S	1147.0E	1148.0	1.0D	140.0			ST=2 TYP=3
	650	GORK	41 F	1147.0	1150.4		188.0			
	808	ONDR	45 C	1147.0	1147.8	4.5	98.0			
	650	GORK	41 F	1147.0	1147.8U	4.2	260.0			
	950	GORK	41 F	1147.1	1149.7		36.0			
	950	GORK	41 F	1147.1	1147.9	3.8	394.0			
	600	HUMN	2 S/F	1149.0	1150.0	2.0	49.0	10.0		
	245	SGMR	8 S	1149.0E	1149.0	1.0D	50.0			ST=2 TYP=3
	4995	SGMR	49 GB	1247.0E	1247.0	2.0D	1000.0			ST=3 TYP=6
	430	KRAK	45 C	1342.3	1342.8	7.0	83.0	12.0		
	600	HUMN	2 S/F	1558.0	1558.6	1.2	37.0	11.0		
	410	SGMR	8 S	2001.0E	2001.0	U	93.0			ST=2 TYP=3
	245	SGMR	8 S	2013.0E	2013.0	1.0D	87.0			ST=2 TYP=3
245	LEAR	8 S	2309.0E	2309.0	U	160.0			ST=2 TYP=3	
05	2840	PEKG	20 GRF	0053.0	0055.3	11.0	3.1			
	245	LEAR	8 S	0203.0E	0203.0	U	190.0			ST=2 TYP=3
	2840	PEKG	20 GRF	0313.0	0350.4	88.0D	11.9			
	9100	GORK	1 S	0515.6	0516.1	1.6	10.0			
	2850	CRIM	1 S	0604.0	0606.0	3.0	17.6	5.0		
	2840	PEKG	5 S	0604.0	0608.6	7.0D	21.7			
	200	HIRA	42 SER	0606.7	0608.3	5.9	150.0			0
	204	IZMI	41 F	0607.2	0608.8	7.8	150.0			
	950	GORK	2 S/F	0607.4	0609.0	7.1	7.0			
	3013	IZMI	41 F	0608.3	0608.8	5.2	5.0			
	2840	PEKG	5 S	0611.0E	0612.3	9.0D	15.5			
	9100	GORK	20 GRF	0612.0E	0710.7	209.2D	12.0			
	2950	GORK	21 GRF	0632.5	0706.0	167.0	12.0			
	234	POTS	42 SER	0715.1	0720.9	11.8	700.0			
	113	POTS	42 SER	0716.6	0725.7	10.4	400.0			
	950	GORK	23 GRF	0717.2	0719.7	10.3	4.0			
	200	HIRA	42 SER	0717.8	0726.0	8.6	1600.0			WR
	245	LEAR	4 S/F	0718.0E	0721.0	3.0D	310.0			ST=2 TYP=3
	245	SVTO	4 S/F	0718.0E	0721.0	3.0D	340.0			ST=2 TYP=3
	500	HIRA	42 SER	0718.0	0718.9	8.5	21.0			WR
	204	IZMI	41 F	0718.2	0726.5	8.8	1300.0			
	650	GORK	4 S/F	0718.3	0719.8	2.0	16.0			
	100	HIRA	42 SER	0718.9	0726.2	7.7	1000.0D			
	2850	CRIM	1 S	0722.0	0723.0	1.0	14.0	5.0		
	2840	PEKG	5 S	0725.0	0726.0	2.0	16.0			
	245	SVTO	8 S	0725.0E	0726.0	1.0D	120.0			ST=2 TYP=3
	650	GORK	4 S/F	0725.6	0726.2	0.9	34.0			
	950	GORK	4 S/F	0725.7	0726.2	0.9	30.0			
	2950	GORK	1 S	0725.7	0726.2	0.8	12.0			
	5900	KISV	2 S/F	0726.0	0726.4	1.4	5.0			
	5900	KISV	2 S/F	0729.1	0730.4	2.2	3.0			
	9300	KISV	2 S/F	0842.5	0842.8	0.9	5.0			
	5900	KISV	20 GRF	0842.6	0842.8	11.7	5.0			
	9300	KISV	20 GRF	0844.5	0844.8	9.5	5.0			
260	ONDR	41 F	0922.0	1039.2	338.0	229.0				
9100	GORK	20 GRF	0948.0	1208.5	192.0	16.0				
234	POTS	41 F	1037.7	1038.9	5.4	25.0				
245	SVTO	8 S	1038.0E	1038.0	1.0D	390.0			ST=2 TYP=3	
40	POTS	41 F	1038.1	1039.0	5.0	9000.0				
204	IZMI	41 F	1038.1	1042.4	5.2	385.0				
113	POTS	41 F	1038.1	1038.4	5.1	280.0				
650	GORK	22 GRF	1101.9	1134.7	56.3	25.0				
113	POTS	4 S/F	1150.5	1152.6	5.4	140.0				
234	POTS	4 S/F	1151.0	1151.9	4.2	100.0				
40	POTS	4 S/F	1151.4	1152.1	5.1	9000.0				
204	IZMI	4 S/F	1152.0	1152.8	2.1	55.0	26.0			

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

37  
Oct 89

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 <sup>-22</sup> W/m <sup>2</sup> Hz)	Flux Density Mean	Int	Remarks
05	950	GORK	46 C	1152.2	1153.5		10.0			
		GORK	46 C	1152.2	1152.8	2.0	8.0			
	2850	CRIM	24 R	1155.0	1159.5		16.0			
		GORK	20 GRF	1159.7	1200.0	60.30	13.0			
	430	KRAK	40 F	1338.0	1338.0	4.0	10.0	6.0		
		SGMR	4 S/F	1338.0E	1341.0	4.00	130.0			ST=2 TYP=3
	245	SVTO	4 S/F	1338.0E	1341.0	4.00	130.0			ST=2 TYP=3
		HUMN	27 RF	1338.0	1342.0	12.0	6.0	2.0		
	810	KRAK	40 F	1338.4	1338.7	4.5	8.0	5.0		
		SGMR	8 S	1403.0E	1403.0	1.00	64.0			ST=3 TYP=3
2800	OTTA	20 GRF	1730.0	1930.0	230.0	13.4	6.0			
06	9100	GORK	20 GRF	0515.0	0531.2	57.0	5.0			
	2840	PEKG	20 GRF	0601.0	0625.9	110.00	10.4			
	2850	CRIM	1 S	1018.0	1018.1	0.2	16.0	3.0		
		CRIM	1 S	1024.1	1024.8	1.7	13.0	4.0		
	2850	CRIM	1 S	1038.0	1039.4	2.3	13.0	4.0		
		IZMI	5 S	1038.0	1039.7	6.0	12.0	6.0		
	260	ONDR	41 F	1055.0	1229.3	120.0	210.0			
	204	IZMI	5 S	1146.0	1146.2	0.4	34.0	17.0		
	2800	OTTA	20 GRF	1400.0	1420.0	55.0	4.5	2.0		
		ONDR	42 SER	1404.0	1418.0	20.0	149.0			
	2800	OTTA	20 GRF	1743.0	1747.0	20.0	9.9	4.0		
	2695	PENT	4 S/F	2204.0	2206.0	6.0	22.6	7.0		
	200	HIRA	46 C	2204.0	2215.2	18.5	3600.0	45.0		WR
		HIRA	46 C	2206.5	2217.0	19.0	18.0			WR
	245	LEAR	49 GB	2215.0E	2217.0	8.00	530.0			ST=3 TYP=6
	245	PALE	49 GB	2215.0E	2215.0	3.00	580.0			ST=2 TYP=7
	100	HIRA	7 C	2215.3	2227.0		70.0			
	100	HIRA	7 C	2215.3	2216.3	36.0	1000.00			
	245	LEAR	8 S	2235.0E	2235.0	U	91.0			ST=2 TYP=3
07	200	GORK	44 NS	0430.0E		435.00		5.0		
	127	TORN	43 NS	0820.0		400.0		4.0		V=1
	200	HIRA	44 NS	2037.0E	0600.0	700.00	20.0	10.0		MR
	2840	PEKG	1 S	0350.0	0353.0	9.0	11.2			
	2840	PEKG	3 S	0447.0	0451.5	11.0	86.6			
	1415	LEAR	4 S/F	0450.0E	0451.0	6.00	38.0			ST=2 TYP=3
	2695	LEAR	4 S/F	0450.0E	0451.0	5.00	53.0			ST=2 TYP=3
	4995	LEAR	4 S/F	0450.0E	0451.0	4.00	37.0			ST=2 TYP=3
	950	GORK	46 C	0450.4	0454.5		50.0			
	2950	GORK	4 S/F	0450.4	0451.7	6.1	69.0			
	950	GORK	46 C	0450.4	0451.8	9.6	160.0			
	500	HIRA	46 C	0451.0	0451.4	10.5	95.0			0
	9100	GORK	20 GRF	0511.2	0537.4	298.5	9.0			
	410	LEAR	4 S/F	0536.0E	0537.0	5.00	41.0			ST=2 TYP=3
	245	LEAR	8 S	0536.0E	0537.0	2.00	56.0			ST=2 TYP=3
	245	SVTO	8 S	0537.0E	0537.0	1.00	72.0			ST=2 TYP=3
	410	SVTO	8 S	0537.0E	0537.0	2.00	62.0			ST=2 TYP=3
	204	IZMI	5 S	0751.8	0752.3	1.0	64.0	32.0		
	260	ONDR	41 F	0800.0	1020.0	380.0	270.0			
	204	IZMI	41 F	1032.0	1034.5	3.0	29.0			
	100	GORK	3 S	1032.1	1032.5	3.1	240.0			
	200	GORK	41 F	1032.2	1034.2		185.0			
	200	GORK	41 F	1032.2	1032.4	3.0	26.0			
	410	SVTO	8 S	1034.0E	1034.0	U	210.0			ST=2 TYP=3
	430	KRAK	8 S	1034.2	1034.2	0.7	62.0			
	430	KRAK	42 SER	1047.0	1048.0	2.0	280.0			
	536	ONDR	42 SER	1254.0	1347.0	56.0	22.0			
	1415	SVTO	8 S	1319.0E	1319.0	2.00	64.0			ST=2 TYP=3
	245	PALE	8 S	1715.0E	1715.0	U	130.0			ST=2 TYP=3
245	SGMR	8 S	1715.0E	1715.0	U	110.0			ST=2 TYP=3	
100	HIRA	42 SER	2319.8	2325.1	29.7	470.0				
200	HIRA	46 C	2342.2	2345.5	5.9	40.0			MR	
08	200	GORK	44 NS	0436.0E		423.00		5.0		
	100	GORK	44 NS	0436.0E		423.00		5.0		
	204	IZMI	43 NS	0600.0		360.0	10.0			
	127	TORN	44 NS	0620.0E		150.00		75.0		V=2

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

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
08	245	PALE	4 S/F	0130.0E	0138.0	9.00	290.0			ST=3 TYP=3
	200	HIRA	7 C	0136.3	0138.0	25.0	125.0		O	
	200	HIRA	7 C	0136.3	0151.5		23.0		MR	
	245	LEAR	8 S	0137.0E	0138.0	2.00	280.0			ST=2 TYP=3
	245	PALE	8 S	0137.0E	0138.0	2.00	290.0			ST=3 TYP=3
	100	HIRA	46 C	0137.0	0146.2	36.0	190.0			
	100	HIRA	46 C	0137.0	0154.8		25.0			
	200	HIRA	46 C	0431.7	0432.1	5.1	410.0		SR	
	245	LEAR	8 S	0432.0E	0432.0	1.00	140.0			ST=2 TYP=3
	2850	CRIM	1 S	0516.9	0517.0	0.2	28.0	7.0		
	200	HIRA	41 F	0518.8	0523.8	45.0	90.0		MR	
	100	HIRA	46 C	0519.8	0537.6	54.0	460.0	74.0		
	245	LEAR	8 S	0520.0E	0521.0	1.00	70.0			ST=2 TYP=3
	245	SVTO	8 S	0520.0E	0521.0	2.00	56.0			ST=2 TYP=3
	204	IZMI	5 S	0625.2	0626.0	1.0	69.0	34.0		
	500	HIRA	46 C	0644.1	0644.5	2.3	44.0			O
	260	ONDR	41 F	0800.0E	0907.3	390.00	166.0			
	204	IZMI	24 R	0902.2	0907.6	18.2	90.0			
	245	LEAR	4 S/F	0906.0E	0909.0	3.00	68.0			ST=2 TYP=3
	204	IZMI	41 F	1034.0	1039.0	12.0	117.0			
	536	ONDR	41 F	1100.0	1320.0	143.0	24.0			
	810	KRAK	2 S/F	1218.5	1220.0	2.8	34.0	13.0		
	1470	POTS	4 S/F	1219.5	1220.7	4.0	36.0			
	808	ONDR	5 S	1219.5	1220.8	4.0	80.0			
	245	SGMR	8 S	1628.0E	1628.0	U	52.0			ST=2 TYP=3
	100	HIRA	46 C	2217.2	2218.4	50.0	640.0	95.0		
	200	HIRA	46 C	2217.3	2221.0	28.4	315.0	80.0		MR
	200	HIRA	46 C	2217.3	2239.4		135.0			MR
500	HIRA	46 C	2218.0	2231.0		13.0			WR	
500	HIRA	46 C	2218.0	2226.0	22.5	35.0			WR	
245	LEAR	4 S/F	2220.0E	2226.0	6.00	120.0			ST=2 TYP=3	
245	PALE	4 S/F	2220.0E	2226.0	7.00	190.0			ST=2 TYP=5	
09	100	HIRA	44 NS	0200.0E		480.00	65.0			
	200	HIRA	44 NS	0200.0E	0446.0	480.00	24.0	10.0	MR	
	200	GORK	44 NS	0439.0E		501.00		5.0		
	100	GORK	44 NS	0439.0E		501.00		13.0		
	113	POTS	44 NS	0544.0E	0554.0	306.00	120.0			
	204	IZMI	43 NS	0600.0		360.0	10.0			
	234	POTS	44 NS	0710.0E	0725.0	195.00	40.0			
	127	TORN	44 NS	0800.0E		420.00		9.0	V=2	
	500	HIRA	42 SER	0114.5	0119.3	5.0	95.0			O
	245	LEAR	8 S	0115.0E	0115.0	1.00	68.0			ST=2 TYP=3
	610	LEAR	8 S	0119.0E	0119.0	1.00	38.0			ST=2 TYP=3
	410	LEAR	8 S	0119.0E	0119.0	U	110.0			ST=2 TYP=3
	245	LEAR	8 S	0119.0E	0119.0	U	50.0			ST=2 TYP=3
	500	HIRA	46 C	0146.0	0156.8	32.0	48.0			O
	100	HIRA	42 SER	0336.3	0405.9	47.0	630.0			
	245	LEAR	8 S	0440.0E	0440.0	1.00	380.0			ST=2 TYP=3
	204	IZMI	5 S	0624.2	0624.4	0.4	800.0	400.0		
	260	ONDR	41 F	0800.0E	1037.8	380.00	36.0			
	9100	GORK	20 GRF	0958.1	1130.4	181.90	16.0			
	204	IZMI	41 F	1011.8	1013.0	3.4	46.0			
	100	GORK	46 C	1013.5	1015.1		1660.0			
	100	GORK	46 C	1013.5	1014.7	6.9	2370.0			
	113	POTS	4 S/F	1014.4	1014.5	1.6	280.0			
	30	POTS	4 S/F	1014.4	1014.5	2.1	5000.0			
	2850	CRIM	24 R	1052.0	1110.0		9.5			
	2950	GORK	20 GRF	1058.3	1125.2	54.9	7.0			
	100	GORK	4 S/F	1224.0	1225.3	3.0	120.0			
	536	ONDR	41 F	1226.5	1230.1	5.0	9.0			
	2950	GORK	2 S/F	1252.5	1255.2	3.6	8.0			
	536	ONDR	42 SER	1312.7	1313.1	3.0	40.0			
	810	KRAK	1 S	1323.3	1323.5	0.7	3.0	2.0		
	245	PALE	49 GB	1932.0E	1933.0	1.00	590.0			ST=2 TYP=6
2800	OTTA	3 S	1932.9	1933.5	4.0	22.2	6.0			
410	PALE	8 S	1933.0E	1933.0	U	110.0			ST=2 TYP=3	
245	SGMR	8 S	1933.0E	1933.0	U	580.0			ST=2 TYP=3	
410	SGMR	8 S	1933.0E	1933.0	U	65.0			ST=2 TYP=3	

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

39  
Oct 89

OCTOBER 1989

Day	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
						Peak (10 <sup>-22</sup> W/m <sup>2</sup> Hz)	Mean (2 Hz)		
09	500 HIRA	27 RF	2209.0	2303.0	95.0	6.0	3.0	0	
	245 LEAR	8 S	2315.0E	2315.0	U	73.0			ST=2 TYP=3
10	100 GORK	44 NS	0445.0E		495.00		5.0		
	200 GORK	44 NS	0445.0E		495.00		5.0		
	127 TORN	44 NS	0620.0E		520.00		9.0	V=1	
	200 HIRA	42 SER	0015.2	0016.8	4.0	185.0		0	
	245 LEAR	8 S	0018.0E	0018.0	U	120.0			ST=2 TYP=3
	100 HIRA	46 C	0327.9	0329.0	1.1	380.0			
	200 HIRA	8 S	0328.1	0328.4	1.0	145.0		0	
	200 HIRA	46 C	0357.8	0357.9	4.1	315.0		0	
	245 LEAR	49 GB	0358.0E	0358.0	1.00	520.0			ST=2 TYP=6
	5900 KISV	2 S/F	0819.8	0820.3	3.9	3.0			
	260 ONDR	41 F	0945.0	0954.6	105.0	9.0			
	536 ONDR	42 SER	1012.1	1012.8	2.0	60.0			
	15000 KISV	45 C	1102.6	1103.0	1.0	6.0			
	15000 KISV	45 C	1102.6	1103.5		5.0			
	260 ONDR	42 SER	1130.0	1135.5	8.5	180.0			
	260 ONDR	41 F	1150.0		130.0				
	536 ONDR	8 S	1207.7	1208.4	1.0	86.0			
	810 KRAK	42 SER	1330.3	1332.1	3.6	7.0			
	808 ONDR	41 F	1330.5	1336.0	10.0	12.0			
	536 ONDR	41 F	1331.0	1336.0	40.0	161.0			
	2800 OTTA	3 S	1334.7	1335.6	9.0	115.5	23.0		
	1470 POTS	3 S	1335.0	1336.0	2.0	51.0			
	4995 SGMR	8 S	1335.0E	1335.0	2.00	130.0			ST=2 TYP=3
	8800 SGMR	8 S	1335.0E	1335.0	1.00	48.0			ST=2 TYP=3
	2695 SGMR	8 S	1335.0E	1335.0	2.00	120.0			ST=2 TYP=3
	1415 SGMR	8 S	1335.0E	1336.0	2.00	48.0			ST=2 TYP=3
	610 SGMR	8 S	1335.0E	1335.0	1.00	93.0			ST=2 TYP=3
	8800 SVTO	8 S	1335.0E	1335.0	1.00	35.0			ST=2 TYP=3
	4995 SVTO	8 S	1335.0E	1335.0	2.00	110.0			ST=2 TYP=3
	1415 SVTO	8 S	1335.0E	1336.0	2.00	46.0			ST=2 TYP=3
	2695 SVTO	8 S	1335.0E	1335.0	2.00	120.0			ST=2 TYP=3
	410 SGMR	4 S/F	1335.0E	1337.0	625.00	100.0			ST=1 TYP=3
3000 POTS	4 S/F	1335.0	1335.7	2.0	104.0				
9500 POTS	3 S	1335.0	1335.7	3.0	38.0				
810 KRAK	4 S/F	1335.4	1335.5	2.5	156.00	3.0			
113 POTS	4 S/F	1336.1	1337.1	1.5	40.0				
245 SGMR	49 GB	1337.0E	1337.0	1.00	960.0			ST=2 TYP=6	
410 SVTO	8 S	1337.0E	1337.0	U	71.0			ST=2 TYP=3	
245 SVTO	49 GB	1337.0E	1337.0	1.00	870.0			ST=2 TYP=6	
234 POTS	4 S/F	1337.1	1337.2	2.7	250.0				
40 POTS	4 S/F	1401.0	1403.0	5.7	11000.0				
245 SGMR	8 S	1401.0E	1401.0	2.00	230.0			ST=2 TYP=3	
245 SVTO	8 S	1401.0E	1401.0	1.00	180.0			ST=2 TYP=3	
3000 POTS	40 F	1401.0	1402.5	4.0	23.0				
113 POTS	4 S/F	1401.0	1402.5	4.5	2400.0				
234 POTS	4 S/F	1401.0	1401.7	5.8	350.0				
1470 POTS	40 F	1401.0	1402.9	4.0	63.0				
260 ONDR	42 SER	1402.0	1403.0	3.5	130.0				
245 SGMR	8 S	1608.0E	1608.0	U	180.0				
2800 OTTA	3 S	1647.2	1648.7	8.0	79.4	16.0		ST=2 TYP=3	
2695 SGMR	8 S	2029.0E	2030.0	1.00	51.0			ST=2 TYP=3	
610 SGMR	8 S	2029.0E	2029.0	1.00	97.0			ST=2 TYP=3	
410 SGMR	8 S	2029.0E	2030.0	1.00	330.0			ST=2 TYP=3	
2800 OTTA	3 S	2029.3	2030.1	3.0	52.8	11.0			
100 HIRA	42 SER	2351.5	2352.3	7.4	335.0				
200 HIRA	42 SER	2352.1	2359.3	7.9	290.0			0	
11	204 IZMI	43 NS	0600.0		360.0	5.0			
	200 GORK	43 NS	0719.7		280.30		5.0		
	100 HIRA	42 SER	0107.1	0233.0	87.8	1000.00			
	245 LEAR	8 S	0137.0E	0137.0	1.00	77.0			ST=2 TYP=3
	200 HIRA	41 F	0151.1	0156.9	21.0	320.0			
	200 HIRA	42 SER	0229.5	0233.0	7.9	2200.0			WR WL
	245 LEAR	8 S	0230.0E	0230.0	1.00	58.0			ST=2 TYP=3
	245 LEAR	49 GB	0233.0E	0233.0	1.00	760.0			ST=2 TYP=6
410 LEAR	8 S	0233.0E	0233.0	U	95.0			ST=2 TYP=3	



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

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
11	100	HIRA	42 SER	0301.7	0324.1	24.6	1000.00			
	245	LEAR	8 S	0324.0E	0324.0	1.00	54.0			ST=2 TYP=3
	100	GORK	42 SER	0509.9	0623.2		240.0			
	100	GORK	42 SER	0509.9	0548.3		370.0			
	100	GORK	42 SER	0509.9	0510.5	84.5	37.0			
	200	GORK	42 SER	0510.0	0622.2		26.0			
	200	GORK	42 SER	0510.0	0547.6		26.0			
	200	GORK	42 SER	0510.0	0511.6	81.1	27.0			
	200	HIRA	42 SER	0510.6	0511.2	10.0	300.0		0	
	5900	KISV	2 S/F	0515.5	0516.0	3.0	2.0			
	200	HIRA	46 C	0546.9	0547.0	1.8	120.0		0	
	100	HIRA	41 F	0617.2	0622.6	10.6	315.0			
	200	HIRA	41 F	0620.1	0621.8	11.2	80.0		WR	
	204	IZMI	41 F	0620.2	0622.2	9.0	37.0			
	245	LEAR	8 S	0621.0E	0622.0	1.00	230.0			ST=2 TYP=3
	245	SVTO	8 S	0622.0E	0622.0		130.0			ST=2 TYP=3
	5900	KISV	20 GRF	0644.2	0645.6	11.7	4.0			
	9300	KISV	20 GRF	0644.5	0648.9	15.5	4.0			
	204	IZMI	42 SER	0649.8	0714.2	25.2	350.0			
	204	IZMI	41 F	0649.8	0649.8	3.0	56.0			
	100	GORK	4 S/F	0707.9	0708.8	2.2	365.0			
	200	GORK	41 F	0708.2	0714.3		345.0			
	200	GORK	41 F	0708.2	0708.7	7.3	180.0			
	204	IZMI	41 F	0708.5	0714.2	7.0	350.0			
	245	LEAR	8 S	0714.0E	0714.0		51.0			ST=2 TYP=3
	245	SVTO	8 S	0714.0E	0714.0		65.0			ST=2 TYP=3
	5900	KISV	2 S/F	0812.0	0813.2	6.0	5.0			
	9300	KISV	2 S/F	0812.4	0813.8	5.6	4.0			
	245	LEAR	8 S	0826.0E	0826.0	1.00	65.0			ST=2 TYP=3
	260	ONDR	41 F	0900.0	1300.5	320.0	16.0			
	204	IZMI	5 S	0903.2	0903.4	1.0	141.0	70.0		
	2950	GORK	20 GRF	0922.3	0924.0	26.7	5.0			
	245	SGMR	8 S	1543.0E	1543.0		160.0			ST=2 TYP=3
	245	SVTO	8 S	1543.0E	1543.0	1.00	220.0			ST=2 TYP=3
	245	PALE	8 S	1728.0E	1728.0		140.0			ST=2 TYP=3
	245	SGMR	8 S	1728.0E	1728.0		120.0			ST=2 TYP=3
	245	PALE	49 GB	1759.0E	1759.0	1.00	640.0			ST=2 TYP=6
	245	SGMR	49 GB	1759.0E	1759.0	1.00	650.0			ST=2 TYP=6
	245	PALE	8 S	2056.0E	2056.0	1.00	170.0			ST=2 TYP=3
	245	SGMR	8 S	2056.0E	2056.0	2.00	150.0			ST=2 TYP=3
245	PALE	8 S	2133.0E	2134.0	1.00	150.0			ST=2 TYP=3	
245	SGMR	8 S	2133.0E	2134.0	1.00	140.0			ST=3 TYP=3	
200	HIRA	8 S	2133.3	2133.7	0.9	450.0		0		
2695	LEAR	4 S/F	2229.0E	2230.0	3.00	53.0			ST=2 TYP=3	
4995	LEAR	8 S	2229.0E	2230.0	2.00	44.0			ST=2 TYP=3	
2695	PENT	3 S	2229.5	2230.3	7.0	46.1	9.0			
1415	LEAR	8 S	2230.0E	2230.0		18.0			ST=2 TYP=3	
245	LEAR	8 S	2357.0E	2357.0	1.00	54.0			ST=2 TYP=3	
12	200	GORK	43 NS	0641.2		258.80		5.0		
	204	IZMI	43 NS	0658.0		302.0	10.0			
	245	PALE	44 NS	2007.0E	0335.0	466.00	240.0			ST=2 TYP=1
	500	HIRA	44 NS	2042.0E	0210.0	680.00	36.0	13.0	WL	
	200	HIRA	44 NS	2042.0E	0440.0	680.00	240.0	57.0	HL	
	100	HIRA	44 NS	2042.0E	0455.0	680.00	260.0	70.0		
	245	LEAR	8 S	0059.0E	0059.0		80.0			ST=2 TYP=3
	410	LEAR	8 S	0110.0E	0111.0	2.00	96.0			ST=2 TYP=3
	245	LEAR	49 GB	0110.0E	0110.0	2.00	510.0			ST=2 TYP=6
	410	PALE	8 S	0110.0E	0111.0	2.00	140.0			ST=2 TYP=3
	245	PALE	49 GB	0110.0E	0111.0	2.00	730.0			ST=2 TYP=6
	610	PALE	8 S	0110.0E	0111.0	2.00	58.0			ST=2 TYP=3
	100	HIRA	46 C	0110.4	0110.6	2.0	460.0			
	500	HIRA	46 C	0110.5	0111.8	2.0	70.0		0	
	200	HIRA	46 C	0110.6	0110.8	2.0	1500.0		0	
	610	LEAR	8 S	0111.0E	0111.0	1.00	63.0			ST=2 TYP=3
	2840	PEKG	1 S	0111.0	0111.5	1.0	6.7			
500	HIRA	41 F	0208.0	0210.3	5.0	60.0		0		
610	LEAR	4 S/F	0209.0E	0211.0	5.00	27.0			ST=2 TYP=3	
1415	LEAR	8 S	0209.0E	0211.0	2.00	14.0			ST=2 TYP=3	

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

41  
Oct 89

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 <sup>-22</sup> W/m <sup>2</sup> Hz)	Mean		
12	245	LEAR	8 S	0210.0E	0211.0	2.0D	450.0			ST=2 TYP=3
	410	LEAR	8 S	0210.0E	0210.0	2.0D	110.0			ST=2 TYP=3
	2840	PEKG	1 S	0210.0	0211.2	3.0	6.0			
	200	HIRA	46 C	0210.6	0211.3	2.6	2400.0		0	
	100	HIRA	46 C	0210.9	0211.6	1.5	810.0			
	410	PALE	8 S	0211.0E	0211.0	U	83.0			ST=2 TYP=3
	245	PALE	49 GB	0211.0E	0211.0	1.0D	530.0			ST=2 TYP=6
	2840	PEKG	1 S	0321.0	0321.5	2.0	3.3			
	245	PALE	8 S	0322.0E	0322.0	1.0D	420.0			ST=2 TYP=3
	15000	KISV	22 GRF	0514.8	0518.0	12.5	9.0			
	2840	PEKG	5 S	0539.0	0540.0	2.0	13.9			
	5900	KISV	23 GRF	0539.5	0543.2	12.7	3.0			
	2950	GORK	22 GRF	0539.5	0540.3	10.0	9.0			
	2850	CRIM	1 S	0539.6	0540.3	1.5	9.6	3.0		
	5900	KISV	2 S/F	0540.0	0540.5	1.7	6.0			
	204	IZHI	5 S	0615.1	0615.3	0.6	50.0	25.0		
	650	GORK	1 S	0719.0	0721.0	4.4	4.0			
	2840	PEKG	1 S	0720.0	0720.8	2.0	10.7			
	950	GORK	1 S	0720.0	0720.9	2.6	4.0			
	2850	CRIM	1 S	0720.3	0720.9	1.2	9.6	3.0		
	2950	GORK	3 S	0720.4	0721.0	2.1	11.0			
	3013	IZHI	1 S	0720.5	0720.6	0.3	7.0	4.0		
	100	GORK	8 S	0757.3	0758.0	1.7	1320.0			
	245	LEAR	49 GB	0848.0E	0848.0	1.0D	840.0			ST=2 TYP=6
	245	SVTO	49 GB	0848.0E	0848.0	912.0D	1100.0			ST=1 TYP=6
	100	GORK	41 F	0848.4	0856.6		840.0			
	100	GORK	41 F	0848.4	0848.7	20.6	360.0			
	200	GORK	3 S	0848.5	0848.7	0.8	170.0			
	204	IZHI	41 F	0848.6	0849.0	2.5	350.0			
	234	POTS	8 S	0848.6	0848.7	1.4	850.0			
	113	POTS	4 S/F	0848.7	0848.9	0.8	1900.0			
	260	ONDR	41 F	0900.0	0932.1	320.0	253.0			
	2950	GORK	4 S/F	0927.0	0930.6	7.0	9.0			
	650	GORK	46 C	0927.1	0927.5	4.7	40.0			
	536	ONDR	42 SER	0928.9	0931.4	5.0	40.0			
	245	LEAR	49 GB	0929.0E	0932.0	3.0D	520.0			ST=2 TYP=7
	600	HUMN	2 S/F	0929.0	0930.2	2.5	40.0	10.0		
	650	GORK	46 C	0929.1	0932.1		300.0			
	5900	KISV	46 C	0929.2	0930.5		7.0			
	5900	KISV	46 C	0929.2	0929.6		5.0			
	5900	KISV	46 C	0929.2	0930.8	2.5	17.0			
	810	KRAK	42 SER	0929.3	0932.0	3.7	68.0			
	430	KRAK	42 SER	0929.4	0932.0	4.0	300.0			
	9100	GORK	1 S	0929.4	0930.4	5.3	6.0			
	100	GORK	4 S/F	0929.5	0932.3	3.5	160.0			
	9300	KISV	45 C	0929.5	0930.5	2.4	7.0			
	9300	KISV	45 C	0929.5	0930.6		5.0			
	200	GORK	4 S/F	0929.8	0932.3	3.2	27.0			
	234	POTS	41 F	0929.9	0932.1	4.2	650.0			
	610	LEAR	8 S	0930.0E	0932.0	2.0D	290.0			ST=2 TYP=3
245	SVTO	49 GB	0930.0E	0932.0	2.0D	680.0			ST=2 TYP=7	
950	GORK	41 F	0930.0	0932.1		47.0				
808	ONDR	41 F	0930.0	0932.2	3.5	19.0				
113	POTS	4 S/F	0930.0	0932.2	3.7	150.0				
950	GORK	41 F	0930.0	0930.4	3.5	7.0				
2850	CRIM	1 S	0930.0	0930.5	1.0	11.7	2.0			
204	IZHI	41 F	0930.0	0932.5	3.2	170.0				
410	LEAR	8 S	0932.0E	0932.0	U	130.0			ST=2 TYP=3	
410	SVTO	8 S	0932.0E	0932.0	U	150.0			ST=2 TYP=3	
245	SVTO	8 S	1056.0E	1056.0	1.0D	170.0			ST=2 TYP=3	
430	KRAK	8 S	1154.2	1154.2	0.1	19.0				
245	PALE	8 S	1642.0E	1642.0	1.0D	180.0			ST=2 TYP=3	
245	SGMR	8 S	1642.0E	1642.0	1.0D	330.0			ST=2 TYP=3	
245	PALE	8 S	1648.0E	1649.0	1.0D	110.0			ST=2 TYP=3	
245	PALE	8 S	1718.0E	1718.0	U	240.0			ST=2 TYP=3	
245	SGMR	8 S	1718.0E	1718.0	U	230.0			ST=2 TYP=3	
245	PALE	8 S	2059.0E	2059.0	U	100.0			ST=2 TYP=3	
245	SGMR	8 S	2059.0E	2059.0	U	95.0			ST=2 TYP=3	
245	PALE	4 S/F	2152.0E	2155.0	4.0D	450.0			ST=2 TYP=5	

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

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 -22 W/m 2 Hz)	Mean			
12	245	PALE	8 S	2158.0E	2158.0	1.00	60.0			ST=2 TYP=3	
	245	PALE	8 S	2207.0E	2208.0	1.00	140.0			ST=2 TYP=3	
13	245	LEAR	44 NS	0154.0E	0434.0	495.00	460.0			ST=2 TYP=1	
	200	GORK	44 NS	0436.0E		369.00		7.0			
	100	GORK	44 NS	0437.0E		428.00		8.0			
	204	IZMI	43 NS	0600.0		360.0	25.0				
	234	POTS	44 NS	0600.0E	0602.0	286.00	100.00				
	113	POTS	44 NS	0600.0E	0658.0	343.00	125.0				
	245	SVTO	44 NS	0604.0E	0614.0	111.00	100.0				ST=2 TYP=1
	127	TORN	44 NS	0620.0E		420.00		35.0		V=1	
	245	SVTO	44 NS	1320.0E	1320.0	151.00	69.0				ST=2 TYP=1
	245	PALE	44 NS	2032.0E	2044.0	208.00	150.0				ST=3 TYP=1
	500	HIRA	43 NS	2300.0	0319.0	340.0	17.0	5.0		WR	
	245	LEAR	8 S	0009.0E	0010.0	1.00	74.0				ST=2 TYP=3
	2840	PEKG	1 S	0159.0	0200.5	2.0	8.2				
	500	HIRA	8 S	0252.8	0253.2	0.5	1500.0			0	
	410	LEAR	49 GB	0253.0E	0256.0	3.00	810.0				ST=2 TYP=6
	2840	PEKG	5 S	0254.0	0256.0	3.0	16.4				
	610	LEAR	8 S	0255.0E	0256.0	1.00	35.0				ST=2 TYP=3
	245	PALE	8 S	0256.0E	0256.0	U	140.0				ST=2 TYP=3
	410	PALE	49 GB	0256.0E	0256.0	U	860.0				ST=2 TYP=6
	2840	PEKG	5 S	0352.0	0352.5	1.0	22.2				
	2840	PEKG	45 C	0414.0	0426.0	60.0	208.0				
	9100	GORK	21 GRF	0447.6	0650.9	432.4	72.0				
	2850	CRIM	45 C	0448.0	0528.0		170.0				
	2850	CRIM	45 C	0448.0	0503.5	79.0	74.0	50.0			
	2950	GORK	23 GRF	0448.1	0515.0	231.9	79.0				
	1415	LEAR	20 GRF	0454.0E	0527.0	52.00	58.0				ST=2 TYP=2
	2695	LEAR	4 S/F	0456.0E	0529.0	52.00	150.0				ST=2 TYP=5
	4995	LEAR	4 S/F	0457.0E	0527.0	54.00	100.0				ST=2 TYP=5
	5900	KISV	22 GRF	0510.7	0529.0	42.3	58.0				
	2950	GORK	20 GRF	0518.3	0528.0	25.0	110.0				
	9300	KISV	22 GRF	0518.6	0536.2	34.4	144.0				
	9100	GORK	20 GRF	0521.4	0528.0	21.3	28.0				
	8800	LEAR	20 GRF	0522.0E	0529.0	28.00	42.0				ST=2 TYP=2
	2840	PEKG	29 PBI	0541.0		47.00	77.2				
	100	HIRA	46 C	0601.3	0603.5	4.6	450.0				
	650	GORK	23 GRF	0616.5	1120.9	343.50	30.0				
100	HIRA	42 SER	0623.8	0623.8	13.2	870.0					
3000	POTS	21 GRF	0648.0E	0650.0	212.00	29.0					
9500	POTS	21 GRF	0650.0E	0650.0	220.00	48.0					
245	SVTO	8 S	0705.0E	0705.0	U	220.0				ST=2 TYP=3	
260	ONDR	41 F	0710.0E	1332.2	420.00	187.0					
5900	KISV	4 S/F	0719.1	0721.5	4.9	24.0					
610	LEAR	8 S	0720.0E	0721.0	1.00	290.0				ST=2 TYP=3	
2840	PEKG	5 S	0720.0	0721.4	4.0	26.8					
15000	KISV	1 S	0720.4	0721.6	3.7	15.0					
9100	GORK	1 S	0720.8	0721.2	1.8	24.0					
650	GORK	4 S/F	0720.8	0721.3	1.0	140.0					
3000	POTS	3 S	0720.8	0721.4	2.2	42.0					
2850	CRIM	1 S	0721.0	0721.3	1.5	18.3	6.0				
2950	GORK	3 S	0721.0	0721.4	1.5	18.0					
3013	IZMI	5 S	0721.0	0721.4	1.5	17.0	5.0				
1470	POTS	3 S	0721.0	0721.5	2.0	9.0					
9500	POTS	3 S	0721.0	0721.5	2.5	39.0					
950	GORK	2 S/F	0721.0	0721.7	1.5	6.0					
9300	KISV	1 S	0721.2	0721.6	1.5	17.0					
536	ONDR	42 SER	0955.8	1023.6	60.0	164.0					
245	SVTO	8 S	1021.0E	1021.0	1.00	150.0				ST=2 TYP=5	
430	KRAK	42 SER	1035.2	1052.9	19.7	270.0					
113	POTS	42 SER	1122.5	1123.1	9.1	200.0					
40	POTS	42 SER	1122.6	1123.6	9.2	6000.00					
536	ONDR	42 SER	1248.0	1333.1	72.0	109.0					
245	SVTO	8 S	1303.0E	1303.0	U	230.0				ST=2 TYP=3	
113	POTS	8 S	1442.6	1442.9	0.8	200.0					
40	POTS	8 S	1442.9	1443.4	1.0	3000.0					
245	PALE	8 S	2029.0E	2030.0	1.00	50.0				ST=2 TYP=3	
410	PALE	8 S	2030.0E	2030.0	U	53.0				ST=2 TYP=3	

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

43  
Oct 89

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 <sup>-22</sup> W/m <sup>2</sup> Hz)	Flux Density Mean	Int	Remarks
13	245	PALE	8 S	2047.0E	2048.0	1.0D	310.0			ST=2 TYP=3
	410	PALE	8 S	2056.0E	2057.0	1.0D	58.0			ST=2 TYP=3
	500	HIRA	42 SER	2238.7	2239.5	1.5	47.0		0	
	100	HIRA	42 SER	2332.3	2354.1	54.8D	1000.0D			
	245	LEAR	4 S/F	2333.0E	2335.0	3.0D	470.0			ST=2 TYP=3
	245	PALE	49 GB	2333.0E	2335.0	2.0D	720.0			ST=2 TYP=6
	200	HIRA	42 SER	2333.0	2354.1	60.0	1900.0		0	
	410	LEAR	8 S	2334.0E	2335.0	2.0D	100.0			ST=2 TYP=3
	500	HIRA	42 SER	2334.0	2335.5	42.5	45.0		ML	
	410	PALE	8 S	2335.0E	2335.0	U	290.0			ST=2 TYP=3
	245	LEAR	4 S/F	2352.0E	2354.0	3.0D	120.0			ST=2 TYP=3
245	PALE	8 S	2353.0E	2354.0	2.0D	180.0			ST=2 TYP=3	
14	200	HIRA	43 NS	0050.0	0326.0	430.0D	27.0	8.0	MR	
	245	LEAR	44 NS	0239.0E	0601.0	450.0D	430.0			ST=2 TYP=1
	200	GORK	44 NS	0434.0E		431.0D		5.0		
	100	GORK	44 NS	0435.0E		430.0D		5.0		
	234	POTS	44 NS	0540.0E	0629.0U	538.0D	28.0			
	204	IZMI	43 NS	0600.0		360.0	40.0			
	127	TORN	44 NS	0620.0E		500.0D		7.0	V=1	
	245	SVTO	44 NS	0625.0E	0708.0	564.0D	180.0			ST=3 TYP=1
	245	SGMR	43 NS	1146.0	1802.0	563.0D	280.0			ST=3 TYP=1
	200	HIRA	44 NS	2044.0E		680.0D		22.0		
	245	LEAR	44 NS	2209.0E	2226.0	121.0D	100.0			ST=2 TYP=1
	410	LEAR	4 S/F	0011.0E	0016.0	6.0D	430.0			ST=3 TYP=3
	245	LEAR	4 S/F	0011.0E	0016.0	6.0D	200.0			ST=3 TYP=3
	245	PALE	4 S/F	0012.0E	0016.0	4.0D	290.0			ST=2 TYP=5
	245	LEAR	8 S	0033.0E	0034.0	1.0D	120.0			ST=2 TYP=3
	245	LEAR	8 S	0215.0E	0215.0	U	320.0			ST=2 TYP=3
	245	LEAR	8 S	0230.0E	0230.0	U	180.0			ST=2 TYP=3
	245	LEAR	4 S/F	0252.0E	0253.0	3.0D	300.0			ST=2 TYP=3
	245	LEAR	8 S	0312.0E	0314.0	2.0D	140.0			ST=2 TYP=3
	100	GORK	41 F	0458.1	0509.3		23800.0			
	100	GORK	41 F	0458.1	0503.4	13.6	120.0			
	200	GORK	41 F	0503.7	0511.0		330.0			
	200	GORK	41 F	0503.7	0509.2	8.3	1000.0			
	200	HIRA	42 SER	0508.9	0509.2	12.5	1850.0			0
	100	HIRA	46 C	0509.0		2.6	1000.0D			
	245	LEAR	8 S	0509.0E	0509.0	U	180.0			ST=2 TYP=3
	410	LEAR	8 S	0509.0E	0509.0	U	310.0			ST=2 TYP=3
	245	SVTO	8 S	0601.0E	0601.0	1.0D	360.0			ST=2 TYP=3
	234	POTS	4 S/F	0601.2	0601.6	0.9	750.0			
	204	IZMI	41 F	0627.0	0627.5	1.0	160.0			
	9100	GORK	21 GRF	0645.8	1113.6	299.2D	20.0			
	200	HIRA	42 SER	0646.9	0714.5	62.7	1500.0			0
	204	IZMI	41 F	0648.0	0649.0	1.2	400.0			
	100	GORK	41 F	0657.6	0702.0	18.6	60.0			
	100	GORK	41 F	0657.6	0714.9		1200.0			
	200	GORK	41 F	0657.9	0659.3	18.1	830.0			
	200	GORK	41 F	0657.9	0714.6		1830.0			
	100	HIRA	42 SER	0658.0	0714.5	17.2	1000.0D			
	113	POTS	4 S/F	0658.0	0658.7	3.0	420.0			
	40	POTS	4 S/F	0658.1	0659.3	2.9	53000.0			
	33	UPIC	4 S/F	0658.5	0658.6	1.5				
	234	POTS	4 S/F	0659.0	0659.3	1.2	275.0			
204	IZMI	41 F	0659.0	0659.5	1.1	610.0				
650	GORK	23 GRF	0706.5U	1116.2	278.5D	28.0				
245	SVTO	8 S	0711.0E	0711.0	U	490.0			ST=2 TYP=3	
204	IZMI	41 F	0711.0	0715.3	5.0	1000.0				
950	GORK	1 S	0711.0	0711.5	2.0	3.0				
9100	GORK	1 S	0711.1	0711.4	1.4	16.0				
234	POTS	42 SER	0711.1	0711.4	5.0	750.0				
2950	GORK	1 S	0711.2	0711.4	0.7	4.0				
9300	KISV	1 S	0711.2	0711.5	1.8	18.0				
5900	KISV	1 S	0711.2	0711.5	2.1	16.0				
15000	KISV	2 S/F	0711.3	0711.5	1.2	6.0				
9100	GORK	1 S	0714.4	0715.0	1.2	5.0				
2950	GORK	1 S	0714.5	0715.0	1.8	4.0				
9300	KISV	2 S/F	0714.5	0715.0	1.2	6.0				

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

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
14	950	GORK	1 S	0714.5	0715.2	3.0	5.0			
	5900	KISV	45 C	0714.6	0715.0	1.4	5.0			
	5900	KISV	45 C	0714.6	0715.7		4.0			
	113	POTS	4 S/F	0747.5	0750.2	6.9	770.0			
	200	GORK	41 F	0748.5	0806.7		1170.0			
	100	HIRA	46 C	0748.5	0749.7	2.6	1000.00			
	200	GORK	41 F	0748.5	0749.8	19.1	330.0			
	127	TORN	47 GB	0748.7	0750.0	3.0	2800.0	1400.0		
	950	GORK	4 S/F	0748.8	0750.1	4.0	40.0			
	234	POTS	4 S/F	0748.9	0749.9	2.5	275.0			
	245	LEAR	8 S	0749.0E	0749.0	2.00	230.0			ST=2 TYP=3
	2695	LEAR	8 S	0749.0E	0750.0	1.00	52.0			ST=2 TYP=3
	204	IZMI	5 S	0749.0	0749.8	2.0	380.0	200.0		
	100	GORK	41 F	0749.1	0750.3	20.3	5780.0			
	100	GORK	41 F	0749.1	0806.7		3970.0			
	100	GORK	41 F	0749.1	0808.8		1440.0			
	40	POTS	4 S/F	0749.2	0750.2	11.0U	100000.00			
	5900	KISV	2 S/F	0749.4	0750.2	4.0	22.0			
	3000	POTS	3 S	0749.5	0750.1	2.5	41.0			
	2850	CRIM	3 S	0749.5	0750.2	2.2	58.0	19.0		
	2950	GORK	3 S	0749.5	0750.2	2.1	40.0			
	9300	KISV	2 S/F	0749.5	0750.3	3.5	12.0			
	1470	POTS	4 S/F	0749.5	0749.9	2.5	35.0			
	9100	GORK	2 S/F	0749.6	0750.2	1.6	10.0			
	3013	IZMI	5 S	0749.8	0750.2	4.0	32.0	16.0		
	33	UPIC	4 S/F	0750.0	0750.5	1.5				
	410	LEAR	8 S	0808.0E	0808.0	1.00	86.0			ST=2 TYP=3
	15400	LEAR	8 S	0834.0E	0835.0	1.00	59.0			ST=2 TYP=3
	245	LEAR	49 GB	0834.0E	0835.0	4.00	1800.0			ST=2 TYP=6
	2695	LEAR	4 S/F	0834.0E	0837.0	8.00	180.0			ST=2 TYP=3
	8800	LEAR	4 S/F	0834.0E	0835.0	4.00	94.0			ST=2 TYP=3
	4995	LEAR	4 S/F	0834.0E	0835.0	926.00	41.0			ST=1 TYP=3
	8800	SVTO	4 S/F	0834.0E	0835.0	926.00	74.0			ST=1 TYP=3
	5900	KISV	46 C	0834.1	0835.0		50.0			
	5900	KISV	46 C	0834.1	0835.1	13.7	93.0			
	5900	KISV	46 C	0834.1	0837.7		83.0			
	15000	KISV	46 C	0834.2	0836.0		47.0			
	15000	KISV	46 C	0834.2	0835.1	4.0	90.0			
	113	POTS	41 F	0834.2	0837.1	8.9	500.0			
	15000	KISV	46 C	0834.2	0837.7		22.0			
	200	GORK	4 S/F	0834.4	0837.8	5.8	1670.0			
	9500	POTS	42 SER	0834.5	0835.0	16.0	104.0			
	950	GORK	46 C	0834.6	0842.0		45.0			
	9100	GORK	46 C	0834.6	0836.0		70.0			
	950	GORK	46 C	0834.6	0836.0	8.6	87.0			
	9100	GORK	46 C	0834.6	0835.0	5.2	125.0			
	9100	GORK	46 C	0834.6	0837.6		39.0			
950	GORK	46 C	0834.6	0837.8		185.0				
2950	GORK	46 C	0834.7	0839.0		14.0				
2950	GORK	46 C	0834.7	0836.0		41.0				
9300	KISV	46 C	0834.7	0836.0		86.0				
2950	GORK	46 C	0834.7	0835.1	11.0	36.0				
810	KRAK	45 C	0834.7	0836.1	12.0	121.0	29.0			
9300	KISV	46 C	0834.7	0835.2	15.7	125.0				
2950	GORK	46 C	0834.7	0837.7		120.0				
9300	KISV	46 C	0834.7	0837.7		47.0				
2850	CRIM	45 C	0834.8	0836.0		54.0				
204	IZMI	42 SER	0834.8	0838.0	8.0	1350.0				
2850	CRIM	45 C	0834.8	0835.1	6.0	54.0	49.0			
234	POTS	41 F	0834.8	0837.1U	7.6	2600.0				
3200	BERN	46 C	0834.8	0837.6	5.0	9.4				
8400	BERN	46 C	0834.8	0837.6	5.0	4.6				
11800	BERN	46 C	0834.8	0837.6	5.0	12.6				
5200	BERN	46 C	0834.8	0837.6	5.0	6.9				
2850	CRIM	30 PBI	0834.8	0840.8	12.0	15.0	5.0			
2850	CRIM	45 C	0834.8	0837.9		149.0				
650	GORK	46 C	0834.9	0838.1		117.0				
650	GORK	46 C	0834.9	0835.2	9.8	78.0				
3013	IZMI	41 F	0835.0	0838.0	8.0	54.0				

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

45  
Oct 89

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 <sup>-22</sup> W/m <sup>2</sup> Hz)	Flux Density Mean	Int	Remarks	
14	430	KRAK	4 S/F	0835.0	0837.0	9.0	430.00	13.0			
	410	LEAR	4 S/F	0835.0E	0837.0	3.00	330.0			ST=2 TYP=5	
	610	LEAR	4 S/F	0835.0E	0837.0	4.00	64.0			ST=2 TYP=5	
	610	SVTO	4 S/F	0835.0E	0838.0	3.00	150.0			ST=2 TYP=3	
	1415	SVTO	4 S/F	0835.0E	0837.0	7.00	140.0			ST=2 TYP=3	
	245	SVTO	49 GB	0835.0E	0835.0	3.00	1900.0			ST=2 TYP=7	
	15400	SVTO	4 S/F	0835.0E	0835.0	3.00	56.0			ST=2 TYP=3	
	4995	SVTO	4 S/F	0835.0E	0837.0	3.00	87.0			ST=2 TYP=5	
	8800	SVTO	4 S/F	0835.0E	0837.0	4.00	73.0			ST=2 TYP=5	
	2695	SVTO	4 S/F	0835.0E	0837.0	5.00	150.0			ST=2 TYP=3	
	410	SVTO	4 S/F	0835.0E	0838.0	3.00	280.0			ST=2 TYP=5	
	1470	POTS	4 S/F	0835.0U	0837.3	17.0U	70.0				
	3000	POTS	42 SER	0836.0E	0837.5	9.00	236.0				
	100	GORK	4 S/F	0836.3	0838.0	3.9	1680.0				
	4995	LEAR	8 S	0837.0E	0837.0	1.00	76.0				ST=2 TYP=5
	1415	LEAR	4 S/F	0837.0E	0837.0	5.00	140.0				ST=2 TYP=3
	2850	CRIM	1 S	0841.8	0841.9	1.0	12.0	4.0			
	950	GORK	29 PBI	0843.2	0843.2	16.8	28.0				
	100	GORK	46 C	0948.0	0950.2	3.8	360.0				
	100	GORK	46 C	0948.0	0950.6		240.0				
	40	POTS	4 S/F	0949.2	0950.0	2.8	83000.0				
	113	POTS	4 S/F	0949.5	0950.5	2.5	150.0				
	40	POTS	42 SER	1101.0	1113.2	15.5	1500.0				
	113	POTS	42 SER	1101.0	1101.3	16.0	900.0				
	100	GORK	8 S	1101.1	1101.5	0.8	4210.0				
	950	GORK	46 C	1107.6	1112.1		57.0				
	950	GORK	46 C	1107.6	1109.3	16.4	31.0				
	5900	KISV	3 S	1107.8	1109.2	6.9	70.0				
	4995	SVTO	8 S	1108.0E	1109.0	1.00	45.0				ST=3 TYP=3
	8800	SVTO	8 S	1108.0E	1109.0	1.00	67.0				ST=3 TYP=3
	9100	GORK	4 S/F	1108.3	1109.1	2.1	73.0				
	9300	KISV	3 S	1108.3	1109.1	6.2	85.0				
	9500	POTS	3 S	1108.5	1109.0	2.2	66.0				
	1470	POTS	3 S	1108.5	1109.0	2.5	30.0				
	3000	POTS	3 S	1108.5	1109.0	2.5	31.0				
	100	GORK	4 S/F	1108.5	1111.2	5.1	1080.0				
	810	KRAK	2 S/F	1108.5	1109.3	2.5	25.0	10.0			
	3013	IZMI	41 F	1108.6	1109.1	6.5	30.0				
	650	GORK	46 C	1108.7	1112.0		42.0				
	2950	GORK	46 C	1108.7	1112.0		23.0				
	430	KRAK	2 S/F	1108.7	1109.0	1.0	53.0	6.0			
	2950	GORK	46 C	1108.7	1109.2	5.9	26.0				
	650	GORK	46 C	1108.7	1109.4	5.2	176.0				
	2850	CRIM	45 C	1108.8	1112.0	5.0	29.0				
	15000	KISV	2 S/F	1108.8	1109.2	2.5	35.0				
	2850	CRIM	45 C	1108.8	1109.3	5.0	33.5	10.0			
	1415	SVTO	8 S	1109.0E	1109.0		22.0				ST=3 TYP=3
	15400	SVTO	8 S	1109.0E	1109.0		31.0				ST=3 TYP=3
	2695	SVTO	8 S	1109.0E	1109.0		32.0				ST=3 TYP=3
	200	GORK	8 S	1110.8	1111.2	1.2	1000.0				
127	TORN	47 GB	1110.9	1111.5	3.0	1300.0	670.0				
810	KRAK	3 S	1111.0	1112.0	4.0	45.0	15.0				
410	SVTO	8 S	1111.0E	1111.0	1.00	190.0				ST=3 TYP=3	
245	SVTO	49 GB	1111.0E	1111.0		1400.0				ST=3 TYP=6	
1470	POTS	3 S	1111.0U	1112.0U	6.0U	45.0					
204	IZMI	41 F	1111.0	1111.2	1.5	1000.0					
430	KRAK	4 S/F	1111.0	1111.6	2.2	400.00	8.0				
9100	GORK	2 S/F	1111.2	1112.0	1.4	12.0					
9300	KISV	2 S/F	1111.4	1112.1	1.7	11.0					
3000	POTS	3 S	1111.5	1112.0	2.5	25.0					
9500	POTS	3 S	1111.5	1112.1	1.5	12.0					
5900	KISV	2 S/F	1111.5	1111.9	1.2	14.0					
536	ONDR	8 S	1213.9	1214.0	0.8	38.0					
113	POTS	42 SER	1220.0	1220.5	20.0	2100.0					
40	POTS	42 SER	1220.0	1220.6	20.1	66000.0					
5900	KISV	2 S/F	1223.1	1223.1	5.7	5.0					
536	ONDR	41 F	1251.0	1255.8	8.0	11.0					
113	POTS	4 S/F	1305.5	1307.2	4.5	550.0					
40	POTS	4 S/F	1305.5	1306.8	2.9	36000.0					

46  
Oct 89

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

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
14	2800	OTTA	3 S	1432.3	1433.0	3.0	20.5	4.0		
	410	SGMR	8 S	1449.0E	1449.0	U	270.0			ST=2 TYP=3
	245	SGMR	8 S	1449.0E	1450.0	1.00	240.0			ST=2 TYP=3
	2800	OTTA	3 S	1450.3	1450.7	2.0	13.5	3.0		
	2800	OTTA	3 S	1750.0	1750.7	4.0	89.7	18.0		
	4995	SGMR	8 S	1750.0E	1750.0	1.00	170.0			ST=2 TYP=3
	2695	SGMR	8 S	1750.0E	1750.0	1.00	62.0			ST=2 TYP=3
	410	SGMR	8 S	1750.0E	1751.0	1.00	100.0			ST=2 TYP=3
	245	SGMR	49 GB	1750.0E	1750.0	2.00	3400.0			ST=2 TYP=6
	8800	SGMR	8 S	1750.0E	1750.0	1.00	66.0			ST=2 TYP=3
	2800	OTTA	3 S	1813.7	1814.3	2.3	12.1	3.0		
	2800	OTTA	3 S	2014.0	2017.2	9.0	13.5	3.0		
	410	SGMR	8 S	2111.0E	2111.0	U	180.0			ST=2 TYP=3
	610	SGMR	49 GB	2111.0E	2111.0	U	1100.0			ST=2 TYP=6
	500	HIRA	22 GRF	2130.0	2247.0	270.0	21.0	6.0		WR
	200	HIRA	27 RF	2135.0	2242.0	180.0	37.0	18.0		MR
	2695	LEAR	8 S	2239.0E	2240.0	1.00	54.0			ST=2 TYP=3
	4995	LEAR	8 S	2239.0E	2240.0	1.00	130.0			ST=2 TYP=3
	8800	LEAR	8 S	2239.0E	2240.0	1.00	110.0			ST=2 TYP=3
	2695	PENT	3 S	2239.6	2240.2	2.5	58.2	12.0		
	15400	LEAR	8 S	2240.0E	2240.0	U	49.0			ST=2 TYP=3
1415	LEAR	8 S	2240.0E	2240.0	U	42.0			ST=2 TYP=3	
245	LEAR	8 S	2316.0E	2317.0	1.00	70.0			ST=2 TYP=3	
15	200	GORK	44 NS	0444.0E		421.00		5.0		
	100	GORK	44 NS	0444.0E		421.00		5.0		
	204	IZMI	43 NS	0600.0		360.0	15.0			
	127	TORN	43 NS	0750.0		430.0		8.0		V=0
	245	LEAR	44 NS	2315.0E	2323.0	156.00	160.0			ST=2 TYP=1
	2840	PEKG	20 GRF	0208.0	0216.0	39.0	12.3			
	245	LEAR	8 S	0217.0E	0218.0	1.00	57.0			ST=2 TYP=3
	100	HIRA	46 C	0245.5	0246.2	1.3	1000.00			
	9300	KISV	2 S/F	0522.0	0522.5	1.7	5.0			
	9100	GORK	20 GRF	0523.2	1009.4	381.80	26.0			
	204	IZMI	4 S/F	0621.0	0621.3	0.8	120.0	70.0		
	9300	KISV	2 S/F	0658.4	0658.7	2.6	5.0			
	100	GORK	4 S/F	0713.2	0714.2	3.3	31.0			
	5900	KISV	2 S/F	0724.1	0724.6	2.1	3.0			
	650	GORK	22 GRF	0753.6	0925.8	233.40	36.0			
	600	HUMN	20 GRF	0823.0	0922.0	190.0	14.0	4.0		
	260	ONDR	41 F	0840.0	1256.4	340.0	191.0			
	950	GORK	22 GRF	0906.0	1052.0	159.00	9.0			
	245	LEAR	8 S	0928.0E	0928.0	1.00	140.0			ST=2 TYP=3
	245	SVTO	8 S	0928.0E	0928.0	U	110.0			ST=2 TYP=3
	430	KRAK	42 SER	1043.0E	1047.2	30.20	54.0			
	100	GORK	41 F	1103.3	1120.6		430.0			
	100	GORK	41 F	1103.3	1103.9	29.2	320.0			
	113	POTS	4 S/F	1240.0	1240.7U	4.5	2800.00			
	40	POTS	4 S/F	1240.1	1241.2	4.4	38000.0			
	245	SGMR	8 S	1352.0E	1352.0	U	110.0			ST=2 TYP=3
	245	SVTO	8 S	1352.0E	1352.0	1.00	110.0			ST=2 TYP=3
	113	POTS	8 S	1408.6	1409.3	1.4	250.0			
	40	POTS	8 S	1409.2	1409.3	0.8	3800.0			
	3000	POTS	3 S	1418.5	1420.5	3.5	16.0			
	2800	OTTA	3 S	1419.4	1420.5	3.0	11.2	2.0		
3000	POTS	4 S/F	1425.0	1427.5	5.0	38.0				
2800	OTTA	3 S	1425.5	1427.3	6.0	43.7	9.0			
245	SGMR	8 S	1500.0E	1500.0	U	53.0			ST=2 TYP=3	
245	SVTO	4 S/F	1533.0E	1535.0	3.00	230.0			ST=2 TYP=3	
410	SVTO	8 S	1534.0E	1534.0	2.00	87.0			ST=2 TYP=3	
2800	OTTA	3 S	1713.0	1715.0	17.0	9.7	3.0			
245	SGMR	8 S	1732.0E	1732.0	U	67.0			ST=2 TYP=3	
245	SGMR	8 S	1828.0E	1828.0	U	73.0			ST=2 TYP=3	
245	SGMR	8 S	1920.0E	1922.0	2.00	84.0			ST=2 TYP=3	
245	SGMR	8 S	1946.0E	1946.0	1.00	84.0			ST=2 TYP=3	
200	HIRA	27 RF	2200.0	2323.0	200.0	5.0	1.0		WL	
16	200	GORK	44 NS	0445.0E		435.00		5.0		
	245	LEAR	44 NS	0456.0E	0605.0	130.00	200.0			ST=2 TYP=1

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

47  
Oct 89

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m <sup>2</sup> Hz)	Mean (2 Hz)		
16	245	SVTO	43 NS	0526.0	0618.0	349.00	130.0			ST=2 TYP=1
	127	TORN	43 NS	1233.0		147.0		10.0	V=1	
	200	HIRA	44 NS	2045.0E	0623.0	670.00	14.0	9.0	WR	
	2840	PEKG	1 S	0418.0	0419.4	3.0	8.1			
	100	HIRA	46 C	0418.2	0418.7	4.0	690.0			
	245	LEAR	8 S	0440.0E	0440.0	1.00	92.0			ST=2 TYP=3
	2950	GORK	1 S	0506.7	0507.4	5.7	11.0			
	9100	GORK	21 GRF	0509.4	1048.2	410.60	19.0			
	2950	GORK	1 S	0527.3	0528.2	3.1	5.0			
	204	IZMI	42 SER	0625.0	0635.0	18.0	270.0			
	5900	KISV	2 S/F	0820.9	0821.5	1.4	4.0			
	2950	GORK	1 S	0821.1	0821.4	1.1	3.0			
	15000	KISV	28 PRE	0840.5	0841.1	3.8	10.0			
	2695	LEAR	8 S	0845.0E	0846.0	1.00	150.0			ST=2 TYP=3
	15000	KISV	4 S/F	0845.3	0846.5	4.3	83.0			
	5900	KISV	2 S/F	0845.3	0846.5	5.4	21.0			
	9300	KISV	4 S/F	0845.3	0846.5	8.3	75.0			
	9100	GORK	4 S/F	0845.7	0846.4	4.2	61.0			
	2850	CRIM	3 S	0845.8	0846.0	0.8	95.0	32.0		
	2950	GORK	1 S	0845.8	0846.2	1.0	16.0			
	8800	LEAR	8 S	0846.0E	0846.0		U	37.0		ST=2 TYP=3
	15400	LEAR	8 S	0846.0E	0846.0	1.00	52.0			ST=2 TYP=3
	15400	SVTO	8 S	0846.0E	0846.0	1.00	57.0			ST=2 TYP=3
	2695	SVTO	8 S	0846.0E	0846.0		U	160.0		ST=2 TYP=3
	8800	SVTO	8 S	0846.0E	0846.0	1.00	56.0			ST=2 TYP=3
	1415	SVTO	4 S/F	0846.0E	0846.0	914.00	160.0			ST=1 TYP=3
	204	IZMI	5 S	0915.8	0916.0	0.4	51.0			
	9300	KISV	2 S/F	0937.9	0938.8	3.0	6.0			
	15000	KISV	2 S/F	0944.0	0944.8	2.2	4.0			
	9500	POTS	3 S	0948.5	0949.1	2.5	13.0			
	15000	KISV	2 S/F	0948.6	0949.2	3.0	8.0			
	9100	GORK	2 S/F	0948.7	0949.2	2.3	13.0			
	9300	KISV	22 GRF	1047.1	1048.5	17.2	9.0			
	15000	KISV	23 GRF	1047.9	1051.1		8.0			
	15000	KISV	23 GRF	1047.9	1054.6		8.0			
	15000	KISV	23 GRF	1047.9	1048.6	13.9	8.0			
	2950	GORK	1 S	1048.0	1048.3	0.6	9.0			
	5900	KISV	2 S/F	1048.0	1048.5	3.5	3.0			
	15000	KISV	2 S/F	1059.8	1101.5	1.7	5.0			
	2850	CRIM	3 S	1148.0	1148.2	0.3	29.0	10.0		
	15000	KISV	2 S/F	1153.8	1154.3	77.0	6.0			
	9300	KISV	2 S/F	1222.0	1222.9	3.9	9.0			
	15000	KISV	45 C	1222.1	1223.9		9.0			
	15000	KISV	45 C	1222.1	1222.9	4.2	11.0			
	5900	KISV	45 C	1222.5	1223.6		6.0			
5900	KISV	45 C	1222.5	1222.7	4.9	6.0				
234	POTS	25 R	1231.0	1248.0	48.0	45.0				
113	POTS	27 RF	1231.5	1256.5	38.5	35.0				
810	KRAK	1 S	1235.0	1235.5	1.3	7.0	3.0			
810	KRAK	42 SER	1242.5	1243.1	1.5	77.0				
8800	SGMR	49 GB	1247.0E	1247.0		U	2300.0		ST=2 TYP=6	
1470	POTS	4 S/F	1253.0	1256.4	10.0	12.0				
3000	POTS	4 S/F	1254.0	1258.0U	7.0	17.0				
245	SGMR	8 S	1255.0E	1256.0	1.00	300.0			ST=2 TYP=3	
5900	KISV	46 C	1255.6	1258.5	10.7	13.0				
808	ONDR	3 S	1256.0	1256.3	4.0	75.0				
9300	KISV	45 C	1256.1	1256.6		9.0				
9300	KISV	45 C	1256.1	1257.6	7.0	11.0				
5900	KISV	46 C	1256.7			11.0				
5900	KISV	46 C	1257.6			12.0				
5900	KISV	46 C	1304.3			10.0				
113	POTS	4 S/F	1350.4	1351.0	3.1	350.0				
127	TORN	4 S/F	1430.9	1431.4	1.7	800.0	400.0			
8800	SGMR	8 S	1502.0E	1502.0	1.00	120.0			ST=2 TYP=3	
15400	SGMR	8 S	1502.0E	1502.0	1.00	150.0			ST=2 TYP=3	
17	100	GORK	44 NS	0443.0E		457.00		5.0		
	200	GORK	44 NS	0443.0E		457.00		5.0		
	127	TORN	44 NS	0620.0E		520.00		380.0	V=0	



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

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 <sup>-22</sup> W/m <sup>2</sup> Hz)	Flux Density Mean	Int	Remarks
17	245	LEAR	44 NS	0713.0E	0802.0	177.0D	360.0			ST=2 TYP=1
	234	POTS	43 NS	0721.5	0812.1	459.0D	100.0			
	245	SVTO	44 NS	0753.0E	0933.0	343.0D	220.0			ST=2 TYP=1
	113	POTS	43 NS	0755.5	1238.0U	425.0D	200.0			
	200	HIRA	44 NS	2045.0E		200.0D		6.0		
	100	HIRA	44 NS	2045.0E		200.0D		25.0		
	17000	NOBE	1 S	0201.8	0201.9	0.7	26.0			15R 80,35GHz:SK
	9100	GORK	21 GRF	0445.4	1122.1	454.6D	27.0			
	9300	KISV	23 GRF	0516.5	0525.2	21.8	13.0			
	5900	KISV	23 GRF	0516.8	0524.8	23.4	9.0			
	9100	GORK	2 S/F	0518.9	0521.0	5.5	34.0			
	15000	KISV	2 S/F	0520.2	0521.0	5.6	32.0			
	9300	KISV	4 S/F	0520.2	0521.1	4.7	30.0			
	5900	KISV	2 S/F	0520.2	0521.1	3.3	11.0			
	17000	NOBE	1 S	0520.5	0521.0	4.0	29.0			0 80,35GHz:0
	15400	SVTO	4 S/F	0533.0E	0534.0	5.0D	130.0			ST=2 TYP=3
	9300	KISV	45 C	0604.6	0609.3	9.6	10.0			
	9300	KISV	45 C	0604.6	0605.9		9.0			
	9100	GORK	2 S/F	0605.4	0609.1	4.7	11.0			
	5900	KISV	46 C	0605.4	0607.1	6.2	5.0			
	5900	KISV	46 C	0605.4	0609.2		4.0			
	5900	KISV	46 C	0605.4	0605.9		5.0			
	15000	KISV	2 S/F	0605.5	0606.9	1.9	5.0			
	15000	KISV	2 S/F	0623.8	0624.1	0.3	6.0			
	245	LEAR	8 S	0658.0E	0658.0	U	78.0			ST=2 TYP=3
	245	SVTO	8 S	0701.0E	0701.0	1.0D	150.0			ST=3 TYP=3
	245	LEAR	8 S	0702.0E	0702.0	U	77.0			ST=2 TYP=3
	245	LEAR	8 S	0704.0E	0704.0	U	160.0			ST=2 TYP=3
	245	SVTO	8 S	0704.0E	0704.0	1.0D	60.0			ST=2 TYP=3
	204	IZMI	25 R	0735.0	0815.0	80.0	240.0			
	9500	POTS	25 R	0937.5	0938.0	38.0	8.0			
	9100	GORK	1 S	0937.7	0938.2	1.6	8.0			
	810	KRAK	42 SER	0943.0	0947.0	10.0	18.0			
	245	SGMR	8 S	1126.0E	1126.0	U	86.0			ST=2 TYP=3
	430	KRAK	8 S	1300.2	1300.5	0.5	50.0U			
2850	CRIM	1 S	1300.9	1301.5	2.0	10.5	3.0			
245	SGMR	8 S	1611.0E	1611.0	U	100.0			ST=2 TYP=3	
8800	SGMR	4 S/F	1849.0E	1850.0	7.0D	220.0			ST=2 TYP=3	
2800	OTTA	3 S	1850.0	1850.7	30.0	321.4	64.0			
1415	SGMR	4 S/F	1850.0E	1850.0	7.0D	210.0			ST=2 TYP=3	
2695	SGMR	4 S/F	1850.0E	1850.0	6.0D	310.0			ST=2 TYP=3	
15400	SGMR	49 GB	1850.0E	1850.0	2.0D	760.0			ST=3 TYP=6	
4995	SGMR	4 S/F	1850.0E	1850.0	6.0D	150.0			ST=2 TYP=3	
100	HIRA	46 C	2107.9	2110.9	3.2	2800.0			SL	
18	245	LEAR	44 NS	0031.0E	0044.0	580.0D	670.0			ST=2 TYP=1
	200	GORK	44 NS	0432.0E		448.0D		14.0		
	100	GORK	44 NS	0432.0E		448.0D		15.0		
	245	SVTO	44 NS	0523.0E	1531.0	620.0D	200.0			ST=2 TYP=1
	113	POTS	44 NS	0545.0E	0616.0	555.0D	240.0			
	234	POTS	44 NS	0547.0E	0558.5	555.0D	150.0U			
	204	IZMI	43 NS	0600.0		360.0	90.0			
	127	TORN	44 NS	0620.0E		520.0D		170.0		V=1
	430	KRAK	44 NS	0750.0E	0910.0	374.0D	49.0	14.0		
	260	ONDR	44 NS	0800.0E	1148.1	390.0D	141.0			
	410	SVTO	43 NS	0858.0	0900.0	22.0	58.0			ST=2 TYP=1
	245	SGMR	44 NS	1400.0E	1521.0	455.0D	190.0			ST=2 TYP=1
	100	HIRA	44 NS	2047.0E	2243.0	400.0D	80.0	27.0		
	200	HIRA	44 NS	2047.0E	2143.0	670.0D	37.0	19.0		WR
	245	LEAR	44 NS	2206.0E	0105.0	181.0D	120.0			ST=2 TYP=1
	200	HIRA	24 R	0015.8	0051.4	460.0D	434.0	82.0		MR
	500	HIRA	24 R	0016.0	0031.4	460.0D	24.0	15.0		ML
	15400	LEAR	4 S/F	0017.0E	0022.0	13.0D	74.0			ST=2 TYP=5
	17000	NOBE	21 GRF	0017.3	0204.7	133.0	50.0			0 80,35GHz:0
	4995	LEAR	4 S/F	0018.0E	0022.0	14.0D	160.0			ST=2 TYP=3
2695	LEAR	4 S/F	0018.0E	0022.0	15.0D	140.0			ST=2 TYP=5	
8800	LEAR	4 S/F	0018.0E	0022.0	14.0D	110.0			ST=2 TYP=3	
1415	LEAR	4 S/F	0021.0E	0022.0	6.0D	60.0			ST=2 TYP=3	
410	LEAR	8 S	0021.0E	0022.0	2.0D	62.0			ST=2 TYP=3	

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

49  
Oct 89

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 -22 W/m 2 Hz)	Mean			
18	610	LEAR	8 S	0021.0E	0022.0	2.00	22.0			ST=2 TYP=3	
	245	LEAR	4 S/F	0021.0E	0022.0	14.00	370.0			ST=2 TYP=3	
	100	HIRA	24 R	0021.1	0241.6	460.00	850.0	270.0			
	17000	NOBE	1 S	0021.3	0022.3	2.0	24.0			32L	
	610	LEAR	4 S/F	0037.0E	0041.0	6.00	120.0			ST=2 TYP=5	
	4995	LEAR	4 S/F	0037.0E	0041.0	11.00	120.0			ST=2 TYP=3	
	8800	LEAR	4 S/F	0037.0E	0041.0	11.00	85.0			ST=2 TYP=3	
	15400	LEAR	4 S/F	0038.0E	0041.0	4.00	55.0			ST=2 TYP=3	
	2695	LEAR	4 S/F	0038.0E	0041.0	7.00	90.0			ST=2 TYP=3	
	2840	PEKG	45 C	0045.0E	0049.4	42.00	64.5				
	15400	LEAR	4 S/F	0437.0E	0439.0	7.00	92.0			ST=2 TYP=3	
	17000	NOBE	7 C	0437.3	0438.1	10.0	66.0			14L 80,35GHz:0	
	8800	LEAR	4 S/F	0438.0E	0439.0	5.00	52.0			ST=2 TYP=3	
	9100	GORK	21 GRF	0440.0E		379.10					
	200	GORK	4 S/F	0726.4	0727.0	3.6	520.0				
	650	GORK	22 GRF	0809.0	0840.9	66.80	14.0				
	9300	KISV	22 GRF	0821.2	0824.2	13.8	7.0				
	5900	KISV	22 GRF	0821.2	0824.3	9.0	5.0				
	15000	KISV	22 GRF	0821.6	0823.5	17.0	7.0				
	200	GORK	41 F	0851.8	0859.0		340.0				
	200	GORK	41 F	0851.8	0853.7	11.9	170.0				
	9500	POTS	40 F	0901.0	0909.0	24.0	26.0				
	5900	KISV	46 C	0903.2	0909.3	10.0	5.0				
	5900	KISV	46 C	0903.2	0907.6		5.0				
	5900	KISV	46 C	0903.2	0905.6		4.0				
	9300	KISV	46 C	0903.3	0905.0		13.0				
	9300	KISV	46 C	0903.3	0907.2		13.0				
	9300	KISV	46 C	0903.3	0909.2	18.2	20.0				
	9100	GORK	46 C	0904.1	0905.0	8.6	12.0				
	9100	GORK	46 C	0904.1	0909.1		18.0				
	15000	KISV	46 C	0904.3	0905.0		12.0				
	15000	KISV	46 C	0904.3	0907.1		13.0				
	15000	KISV	46 C	0904.3	0909.1	7.6	26.0				
	245	SVTO	49 GB	0909.0E	0909.0	1.00	660.0				ST=2 TYP=6
	15000	KISV	2 S/F	0940.7	0942.0	2.6	9.0				
	15000	KISV	23 GRF	1103.6	1113.5	39.1	19.0				
	9500	POTS	20 GRF	1105.0	1110.0	50.0	10.0				
	9300	KISV	22 GRF	1105.1	1115.5	30.2	11.0				
	9100	GORK	20 GRF	1106.0	1115.3	45.8	12.0				
	15000	KISV	45 C	1106.1	1107.4	5.3	11.0				
	15000	KISV	45 C	1106.1	1109.8		9.0				
	536	ONDR	42 SER	1203.0	1203.8	30.0	125.0				
	9300	KISV	2 S/F	1228.6	1231.0	5.4	16.0				
	9500	POTS	3 S	1229.0	1230.8	5.0	13.0				
	5900	KISV	2 S/F	1229.3	1230.9	6.0	11.0				
	15000	KISV	2 S/F	1229.3	1230.9	3.9	11.0				
	234	POTS	4 S/F	1356.0	1356.4	0.8	350.0				
	2800	OTTA	20 GRF	1512.0	1523.0	43.0	11.0	5.0			
	245	SGMR	49 GB	1644.0E	1644.0	U	650.0				
	2695	SGMR	8 S	1653.0E	1654.0	1.00	88.0				ST=2 TYP=6
8800	SGMR	8 S	1653.0E	1653.0	1.00	50.0				ST=2 TYP=3	
4995	SGMR	8 S	1653.0E	1653.0	1.00	85.0				ST=2 TYP=3	
245	SGMR	8 S	1653.0E	1653.0	1.00	370.0				ST=2 TYP=3	
2800	OTTA	3 S	1653.4	1653.8	2.0	98.2	19.0				
2800	OTTA	29 PBI	1655.4	1655.4	70.00	12.9	6.0				
2800	OTTA	3 S	1805.8	1806.5	2.2	387.0	75.0				
4995	SGMR	8 S	1806.0E	1806.0	1.00	200.0				ST=2 TYP=3	
8800	SGMR	8 S	1806.0E	1810.0	4.00	350.0				ST=2 TYP=5	
15400	SGMR	49 GB	1806.0E	1806.0	1.00	640.0				ST=2 TYP=6	
2695	SGMR	8 S	1806.0E	1806.0	1.00	310.0				ST=2 TYP=3	
2800	OTTA	29 PBI	1808.0	1808.0	195.0	32.1	16.0				
15400	SGMR	49 GB	1809.0E	1810.0	47.00	690.0				ST=2 TYP=6	
2695	SGMR	20 GRF	1809.0E	1812.0	41.00	110.0				ST=2 TYP=2	
8800	SGMR	20 GRF	1809.0E	1812.0	43.00	410.0				ST=2 TYP=2	
4995	SGMR	20 GRF	1809.0E	1810.0	43.00	140.0				ST=2 TYP=2	
2800	OTTA	4 S/F	1809.3	1812.1	11.8	108.3	32.0				
1415	SGMR	4 S/F	1814.0E	1828.0	16.00	370.0				ST=2 TYP=3	
2800	OTTA	22 GRF	1827.6	1829.2	33.0	73.9	22.0				
1415	SGMR	8 S	1847.0E	1849.0	2.00	52.0				ST=2 TYP=3	

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

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
18	500	HIRA	27 RF	2300.0	2519.0	180.0	30.0	11.0		WL
19	200	GORK	44 NS	0438.0E		442.00		13.0		
	100	GORK	44 NS	0438.0E		442.00		30.0		
	127	TORN	44 NS	0620.0E		520.00		295.0		V=1
	245	LEAR	44 NS	0750.0E	0846.0	141.00	1300.0			ST=2 TYP=1
	260	ONDR	44 NS	0800.0E		390.00				
	204	IZMI	43 NS	0805.0		295.0		50.0		
	430	KRAK	44 NS	0808.0E	1157.0	279.50		500.0	100.0	
	650	GORK	44 NS	0809.6E		230.40		8.0		
	810	KRAK	43 NS	0815.2	1058.7	269.8		92.0	17.0	
	245	SVTO	43 NS	0827.0	1353.0	435.00		510.0		ST=2 TYP=1
	536	ONDR	43 NS	0900.0		320.0				
	410	SVTO	43 NS	0922.0	1113.0	380.00		160.0		ST=2 TYP=1
	410	LEAR	44 NS	0937.0E	0958.0	34.00		100.0		ST=2 TYP=1
	410	SGMR	44 NS	1125.0E	1554.0	466.00		160.0		ST=2 TYP=1
	245	SGMR	44 NS	1125.0E	1702.0	608.00		250.0		ST=2 TYP=1
	610	SGMR	44 NS	1450.0E	1549.0	224.00		190.0		ST=2 TYP=1
	200	HIRA	44 NS	2047.0E	2218.0	670.00		12.0	6.0	WR
	610	LEAR	8 S	0025.0E	0025.0	1.00		230.0		ST=2 TYP=3
	410	LEAR	8 S	0054.0E	0056.0	2.00		66.0		ST=2 TYP=3
	245	LEAR	8 S	0517.0E	0518.0	1.00		130.0		ST=2 TYP=3
	245	SVTO	8 S	0517.0E	0518.0	1.00		98.0		ST=2 TYP=3
	5900	KISV	2 S/F	0532.5	0532.9	5.0		5.0		
	9100	GORK	23 GRF	0548.7	0912.4	371.30		60.0		
	650	GORK	22 GRF	0602.6	0637.3	88.1		9.0		
	9300	KISV	22 GRF	0634.5	0636.3			9.0		
	9300	KISV	22 GRF	0634.5	0635.4	21.2		9.0		
	15000	KISV	2 S/F	0635.0	0635.4	2.3		7.0		
	2950	GORK	23 GRF	0642.3	1024.0	317.70		12.0		
	5900	KISV	23 GRF	0702.4	0707.4	18.1		6.0		
	9300	KISV	23 GRF	0703.5	0705.4			9.0		
	9300	KISV	23 GRF	0703.5	0710.6	23.9		14.0		
	5900	KISV	2 S/F	0710.0	0710.6	2.6		6.0		
	100	GORK	4 S/F	0812.8	0819.0	7.2		450.0		
	950	GORK	40 F	0813.0	1104.3	227.00		110.0		
	3013	IZMI	41 F	0813.0	0819.4	6.5		22.0		
	40	POTS	27 RF	0813.8	0919.0	237.0				
	234	POTS	27 RF	0814.5	1007.0	226.0		275.00		
	9300	KISV	45 C	0814.6	0819.3			9.0		
	9300	KISV	45 C	0814.6	0816.7	10.9		9.0		
	5900	KISV	2 S/F	0815.7	0816.8	2.5		5.0		
3000	POTS	3 S	0818.0	0819.0	2.0		19.0			
113	POTS	27 RF	0818.2	0856.6	227.0		315.0			
2950	GORK	3 S	0818.5	0819.0	2.0		19.0			
5900	KISV	2 S/F	0818.5	0819.2	3.6		15.0			
2850	CRIM	1 S	0818.8	0819.3	1.2		28.0	9.0		
600	HUMN	21 GRF	0819.0	1344.0	460.00		60.0			
3013	IZMI	6 S	0829.0	0831.5	7.0		17.0	8.0		
5900	KISV	45 C	0829.7	0834.3			9.0			
5900	KISV	45 C	0829.7	0831.3	14.9		15.0			
2950	GORK	1 S	0829.8	0831.3	6.5		12.0			
2850	CRIM	1 S	0829.8	0831.4	3.0		20.0	7.0		
5900	KISV	2 S/F	0837.8	0839.0	2.7		7.0			
5900	KISV	46 C	0845.3	0912.3			20.0			
5900	KISV	46 C	0845.3	0848.7			13.0			
5900	KISV	46 C	0845.3	0849.8			17.0			
5900	KISV	46 C	0845.3	0857.9	42.4		23.0			
245	SVTO	49 GB	0846.0E	0846.0	1.00		920.0		ST=2 TYP=6	
3013	IZMI	22 GRF	0848.0	0850.0	12.0		22.0			
2950	GORK	1 S	0848.3	0850.0	3.4		8.0			
9500	POTS	21 GRF	0852.0	0912.3	38.0		34.0			
2950	GORK	1 S	0853.7	0858.1	5.5		7.0			
9300	KISV	46 C	0854.9	0910.1			27.0			
9300	KISV	46 C	0854.9	0912.4	28.1		32.0			
9300	KISV	46 C	0854.9	0857.5			27.0			
9300	KISV	46 C	0854.9	0907.6			22.0			
9100	GORK	2 S/F	0855.5	0857.9	5.1		21.0			
410	SVTO	8 S	0857.0E	0858.0	1.00		110.0		ST=2 TYP=3	

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

51  
Oct 89

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 <sup>-22</sup> W/m <sup>2</sup> Hz)	Flux Density Mean	Int	Remarks
19	2950	GORK	1 S	0911.5	0912.4	5.5	7.0			
	2950	GORK	1 S	0920.7	0924.9	7.3	7.0			
	808	ONDR	41 F	0940.0		260.00				
	9500	POTS	20 GRF	0947.0	1021.0	53.00	23.0			
	3000	POTS	21 GRF	0948.0	0956.0	22.0	22.0			
	2850	CRIM	1 S	0948.3	0951.7	5.0	22.0	7.0		
	5900	KISV	45 C	0948.4	0956.0	10.6	12.0			
	5900	KISV	45 C	0948.4	0952.4		12.0			
	9300	KISV	22 GRF	0949.7	0956.2	19.2	9.0			
	2950	GORK	46 C	0949.9	0956.0		14.0			
	2950	GORK	46 C	0949.9	0951.8	9.9	14.0			
	2850	CRIM	1 S	0955.1	0956.2	4.7	18.0	6.0		
	1470	POTS	3 S	1010.0	1012.2	4.0	6.0			
	2950	GORK	1 S	1011.2	1012.3	2.2	5.0			
	9300	KISV	42 SER	1011.8	1020.1		19.0			
	5900	KISV	42 SER	1011.8	1015.1		4.0			
	9300	KISV	42 SER	1011.8	1012.1	15.8	6.0			
	5900	KISV	42 SER	1011.8	1012.1	16.0	5.0			
	5900	KISV	42 SER	1011.8	1022.7		10.0			
	9300	KISV	42 SER	1011.8	1015.8		9.0			
	9300	KISV	22 GRF	1054.7	1114.4	41.9	18.0			
	5900	KISV	21 GRF	1103.5	1117.2	25.0	17.0			
	9300	KISV	22 GRF	1153.7	1202.7	16.7	19.0			
	9300	KISV	47 GB	1228.0	1257.0	29.0	28418.0			
	5900	KISV	47 GB	1235.0	1258.0		26216.0			
	15000	KISV	47 GB	1237.9	1257.0		36664.0			
	9500	POTS	47 GB	1238.0		222.00	7200.00			
	8800	SVTO	49 GB	1238.0E	1257.0	163.00	30000.0			ST=2 TYP=7
	1470	POTS	47 GB	1239.0		221.00	5580.00			
	3000	POTS	47 GB	1239.0		221.00	1820.00			
	15400	SVTO	49 GB	1239.0E	1256.0	162.00	60000.0			ST=2 TYP=7
	4995	SVTO	49 GB	1239.0E	1258.0	681.00	16000.0			ST=1 TYP=7
	2850	CRIM	47 GB	1239.4	1251.0		6825.0			
	2850	CRIM	47 GB	1239.4	1256.7	40.0	11025.0			
	2850	CRIM	47 GB	1239.4	1248.8		6475.0			
	2695	SVTO	49 GB	1240.0E	1251.0	180.00	4500.0			ST=2 TYP=7
	1415	SVTO	49 GB	1241.0E	1258.0	171.00	8200.0			ST=2 TYP=7
	33	UPIC	31 ABS	1242.0		96.0				
	19600	BERN	47 GB	1242.0	1256.5	30.0	2797.0			
	5200	BERN	47 GB	1242.0	1256.5	30.0	2543.0			
	3200	BERN	47 GB	1242.0	1256.5	30.0	1475.0			
	11800	BERN	47 GB	1242.0	1256.5	30.0	3508.0			
	8400	BERN	47 GB	1242.0	1256.5	30.0	2600.0			
	610	SGMR	49 GB	1243.0E	1259.0	96.00	46000.0			ST=2 TYP=7
	1415	SGMR	49 GB	1243.0E	1258.0	175.00	9200.0			ST=3 TYP=7
	8800	SGMR	49 GB	1243.0E	1257.0	183.00	44000.0			ST=2 TYP=7
	4995	SGMR	49 GB	1243.0E	1258.0	183.00	34000.0			ST=2 TYP=7
	15400	SGMR	49 GB	1243.0E	1256.0	183.00	36000.0			ST=2 TYP=7
	2695	SGMR	49 GB	1243.0E	1259.0	183.00	8500.0			ST=2 TYP=7
	245	SGMR	49 GB	1244.0E	1249.0	105.00	13000.0			ST=2 TYP=7
410	SGMR	49 GB	1244.0E	1252.0	103.00	18000.0			ST=2 TYP=7	
234	POTS	49 GB	1244.0	1250.0	196.00	77000.0				
113	POTS	49 GB	1244.0	1250.00	196.00	3500.00				
810	KRAK	49 GB	1245.0		115.00	300.00	160.00			
33	UPIC	49 GB	1245.5		23.0					
600	HUMN	47 GB	1246.0	1259.0	30.0	1120.0	307.0			
410	SVTO	49 GB	1247.0E	1252.0	24.00	9400.0			ST=2 TYP=7	
127	TORN	49 GB	1247.2		11.0	2200.00	1300.0			
430	KRAK	49 GB	1247.5	1259.5U	115.00	2000.00	370.00			
30	POTS	49 GB	1247.5	1254.8	U	8000.0				
245	SVTO	49 GB	1248.0E	1249.0	16.00	10000.0			ST=2 TYP=7	
2800	OTTA	47 GB	1259.5E	1259.5	26.00	7246.0				
2800	OTTA	29 PBI	1318.0	1318.0	550.0	165.0	82.0			
2800	OTTA	45 C	1319.0	1344.0	300.0	202.0				
245	SVTO	49 GB	1332.0E	1342.0	17.00	2000.0			ST=2 TYP=6	
410	SGMR	49 GB	1447.0E	1449.0	6.00	17000.0			ST=3 TYP=6	
410	SVTO	49 GB	1447.0E	1450.0	6.00	14000.0			ST=2 TYP=6	
4995	SGMR	4 S/F	1621.0E	1623.0	7.00	170.0			ST=2 TYP=3	
1415	SGMR	4 S/F	1621.0E	1623.0	6.00	100.0			ST=2 TYP=3	

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

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
19	2695	SGMR	4 S/F	1621.0E	1623.0	10.00	190.0			ST=2 TYP=3
	8800	SGMR	8 S	1622.0E	1623.0	1.00	63.0			ST=2 TYP=3
	2695	SGMR	4 S/F	1638.0E	1642.0	8.00	78.0			ST=2 TYP=3
	1415	SGMR	4 S/F	1638.0E	1640.0	6.00	110.0			ST=2 TYP=3
	2695	SGMR	4 S/F	1656.0E	1711.0	21.00	85.0			ST=2 TYP=3
	1415	SGMR	4 S/F	1656.0E	1701.0	24.00	87.0			ST=2 TYP=3
	610	SGMR	49 GB	1657.0E	1700.0	6.00	1500.0			ST=2 TYP=7
	4995	SGMR	4 S/F	1657.0E	1712.0	21.00	75.0			ST=2 TYP=3
	245	SGMR	49 GB	1706.0E	1708.0	11.00	780.0			ST=2 TYP=6
	610	SGMR	49 GB	1708.0E	1708.0	6.00	540.0			ST=2 TYP=6
	410	SGMR	4 S/F	1709.0E	1719.0	11.00	390.0			ST=2 TYP=5
	1415	SGMR	8 S	1711.0E	1712.0	1.00	57.0			ST=2 TYP=3
	410	SGMR	49 GB	1749.0E	1755.0	7.00	1200.0			ST=2 TYP=7
	245	SGMR	8 S	1755.0E	1756.0	1.00	250.0			ST=2 TYP=3
	245	SGMR	4 S/F	1842.0E	1846.0	4.00	140.0			ST=3 TYP=3
	610	SGMR	8 S	1845.0E	1845.0	2.00	100.0			ST=2 TYP=3
	410	SGMR	8 S	1845.0E	1846.0	1.00	130.0			ST=2 TYP=3
410	SGMR	4 S/F	1944.0E	1947.0	8.00	71.0			ST=2 TYP=3	
20	200	GORK	44 NS	0440.0E		440.00		5.0		
	204	IZMI	43 NS	0600.0		360.0	15.0			
	245	SGMR	44 NS	1239.0E	1239.0	526.00	53.0			ST=1 TYP=1
	234	POTS	43 NS	1423.0	1455.0	39.00	40.0			
	113	POTS	43 NS	1433.0	1457.0	27.00	20.0			
	200	HIRA	44 NS	2048.0E	2208.0	665.00	25.0	5.0		MR
	245	LEAR	43 NS	2239.0	2239.0	81.0	110.0			ST=1 TYP=1
	245	LEAR	44 NS	2240.0E	0027.0	300.00	120.0			ST=2 TYP=1
	100	HIRA	45 C	0236.8	0237.3	1.3	1000.00			
	35000	NOBE	1 S	0338.6	0339.1	2.0	410.0			2L
	80000	NOBE	1 S	0338.6	0339.1	2.0	77.0			
	17000	NOBE	1 S	0338.6	0339.1	6.0	157.0			2L
	9100	GORK	23 GRF	0511.3	1117.4	408.70	27.0			
	17000	NOBE	7 C	0518.5	0519.4	8.0	68.0			7L 80,36GHz:0
	15000	KISV	4 S/F	0518.6	0519.6	9.6	83.0			
	15400	LEAR	8 S	0519.0E	0519.0	1.00	66.0			ST=2 TYP=3
	9300	KISV	2 S/F	0519.3	0519.6	7.6	15.0			
	9300	KISV	2 S/F	0740.2	0741.8	18.8	38.0			
	15000	KISV	2 S/F	0740.5	0741.9	5.5	33.0			
	9100	GORK	2 S/F	0740.6	0741.7	5.9	34.0			
	5900	KISV	2 S/F	0740.6	0741.9	7.8	7.0			
	9500	POTS	3 S	0740.8	0741.9	4.2	36.0			
	19600	BERN	4 S/F	0741.0	0742.0	15.0	3.1			
	11800	BERN	4 S/F	0741.0	0742.0	15.0	4.0			
	8400	BERN	4 S/F	0741.0	0742.0	15.0	3.1			
	15400	LEAR	4 S/F	0751.0E	0752.0	5.00	64.0			ST=2 TYP=3
	15400	SVTO	8 S	0751.0E	0752.0	2.00	60.0			ST=2 TYP=3
	260	ONDR	41 F	0900.0	1139.1	340.00	43.0			
	9300	KISV	22 GRF	0900.1	0913.2	16.6	10.0			
	15000	KISV	22 GRF	0908.4	0912.8	8.3	19.0			
	9500	POTS	1 S	0912.5	0913.0	2.5	10.0			
	9100	GORK	1 S	0912.7	0912.9	2.1	6.0			
	15400	LEAR	8 S	0941.0E	0942.0	2.00	61.0			ST=2 TYP=3
9500	POTS	3 S	0941.0	0942.4	5.0	15.0				
9300	KISV	2 S/F	0941.4	0942.4	5.5	16.0				
9100	GORK	2 S/F	0941.5	0942.3	1.4	12.0				
15400	SVTO	8 S	0942.0E	0942.0	1.00	61.0			ST=2 TYP=3	
9500	POTS	3 S	0950.0	0952.0	5.0	13.0				
9100	GORK	1 S	0951.4	0952.0	2.4	6.0				
8800	LEAR	8 S	0957.0E	0957.0	1.00	38.0			ST=2 TYP=3	
2695	LEAR	8 S	0957.0E	0957.0	U	28.0			ST=2 TYP=3	
15400	LEAR	8 S	0957.0E	0957.0	2.00	61.0			ST=2 TYP=3	
15400	SVTO	8 S	1013.0E	1013.0	1.00	57.0			ST=2 TYP=3	
9500	POTS	3 S	1015.0	1017.5	5.0	11.0				
9100	GORK	1 S	1016.4	1017.5	2.7	8.0				
2950	GORK	20 GRF	1016.4	1101.5	52.6	2.0				
9300	KISV	2 S/F	1016.6	1017.6	3.7	12.0				
9500	POTS	29 PB1	1116.5	1117.0	39.0	13.0				
15000	KISV	4 S/F	1116.7	1117.1	2.8	57.0				
2950	GORK	23 GRF	1119.3	1131.1	28.7	4.0				

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

53  
Oct 89

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 <sup>-22</sup> W/m <sup>2</sup> Hz)	Mean (2 Hz)		
20	3000	POTS	29 PBI	1120.0	1121.5	50.0	10.0			
	2950	GORK	1 S	1120.7	1121.7	4.1	4.0			
	100	GORK	4 S/F	1143.5	1145.3	1.9	350.0			
	2950	GORK	1 S	1143.5	1143.6	0.5	6.0			
	950	GORK	2 S/F	1143.6	1143.6	2.2	2.0			
	200	GORK	4 S/F	1143.7	1144.8	2.1	160.0			
	204	IZMI		1144.1	1144.8	1.0	400.0			
	234	POTS	4 S/F	1144.1	1144.8	1.2	130.0			
	113	POTS	4 S/F	1144.5	1144.8	1.3	135.0			
	40	POTS	4 S/F	1145.0	1145.4	0.7	750.0			
	536	ONDR	42 SER	1335.4	1336.1	1.0	38.0			
	3000	POTS	3 S	1409.0	1413.0U	8.5	32.0			
	1470	POTS	3 S	1409.0U	1413.4	8.5U	19.0			
	2800	OTTA	4 S/F	1412.8	1415.0	5.5	21.4	6.0		
	15400	SVTO	8 S	1452.0E	1452.0	1.00	73.0			
	8800	SGMR	8 S	1509.0E	1509.0	1.00	120.0			ST=2 TYP=3
	15400	SGMR	49 GB	1509.0E	1509.0	1.00	700.0			ST=3 TYP=3
	8800	SVTO	8 S	1509.0E	1509.0	1.00	120.0			ST=3 TYP=3
	50000	BERN	46 C	1509.1	1509.6	2.0	20.9			ST=2 TYP=3
	8400	BERN	46 C	1509.1	1509.6	2.0	8.8			
35000	BERN	46 C	1509.1	1509.6	2.0	52.8				
11800	BERN	46 C	1509.1	1509.6	2.0	23.1				
19600	BERN	46 C	1509.1	1509.6	2.0	82.5				
15400	SGMR	8 S	1729.0E	1729.0	1.00	77.0			ST=2 TYP=3	
21	200	GORK	44 NS	0451.0E		369.00		5.0		
	100	GORK	44 NS	0451.0E		369.00		5.0		
	204	IZMI	43 NS	0600.0		360.0	15.0			
	17000	NOBE	1 S	0039.8	0040.3	3.0	19.0			30L 80,35GHz:0
	245	PALE	8 S	0116.0E	0116.0	U	74.0			ST=2 TYP=3
	15400	LEAR	49 GB	0152.0E	0154.0	7.00	630.0			ST=2 TYP=6
	8800	LEAR	4 S/F	0152.0E	0154.0	10.00	320.0			ST=2 TYP=3
	15400	PALE	49 GB	0152.0E	0154.0	1328.00	500.0			ST=1 TYP=6
	35000	NOBE	7 C	0152.1	0154.1	8.0	415.0			10L 80GHz:0
	17000	NOBE	7 C	0152.1	0154.1	8.0	526.0			22L
	4995	LEAR	4 S/F	0153.0E	0154.0	9.00	120.0			ST=2 TYP=3
	2695	LEAR	4 S/F	0153.0E	0154.0	6.00	160.0			ST=2 TYP=3
	4995	PALE	8 S	0153.0E	0154.0	2.00	100.0			ST=2 TYP=3
	2695	PALE	8 S	0153.0E	0154.0	2.00	160.0			ST=2 TYP=3
	2840	PEKG	3 S	0153.0	0154.1	38.0	187.2			
	1415	LEAR	4 S/F	0154.0E	0154.0	4.00	51.0			ST=2 TYP=3
	1415	PALE	8 S	0154.0E	0154.0	1.00	52.0			ST=2 TYP=3
	610	PALE	8 S	0331.0E	0332.0	2.00	100.0			ST=2 TYP=3
	245	PALE	8 S	0332.0E	0332.0	1.00	84.0			ST=2 TYP=3
	9100	GORK	23 GRF	0457.3	0847.4	344.7	32.0			
	9300	KISV	23 GRF	0509.8	0518.8	17.2	10.0			
	5900	KISV	4 S/F	0512.9	0513.5	5.2	31.0			
	5900	KISV	23 GRF	0512.9	0518.9	19.8	5.0			
	8800	LEAR	8 S	0513.0E	0513.0	1.00	45.0			ST=2 TYP=3
	245	LEAR	8 S	0513.0E	0513.0	U	68.0			ST=2 TYP=3
	610	LEAR	8 S	0513.0E	0513.0	1.00	19.0			ST=2 TYP=3
	410	LEAR	8 S	0513.0E	0513.0	1.00	45.0			ST=2 TYP=3
	15000	KISV	45 C	0513.0	0513.5	9.7	24.0			
	15000	KISV	45 C	0513.0	0517.8		15.0			
	9100	GORK	46 C	0513.2	0513.5	6.1	44.0			
	9100	GORK	46 C	0513.2	0516.9		22.0			
	9300	KISV	45 C	0513.3	0513.5	5.5	56.0			
9300	KISV	45 C	0513.3	0516.9		25.0				
9300	KISV	22 GRF	0609.1	0616.1	13.1	18.0				
2950	GORK	21 GRF	0609.7	0830.0	290.30	8.0				
5900	KISV	23 GRF	0611.6	0707.9	67.1	14.0				
5900	KISV	2 S/F	0624.7	0626.6	6.4	12.0				
9300	KISV	2 S/F	0625.0	0626.5	5.0	8.0				
2840	PEKG	45 C	0625.0	0641.7		132.0				
2840	PEKG	45 C	0625.0	0649.9	37.00	83.8				
234	POTS	42 SER	0632.8	0650.6	18.4	880.0				
650	GORK	45 C	0638.1	0643.1		4.0				
650	GORK	45 C	0638.1	0641.7	6.3	5.0				
650	GORK	21 GRF	0638.3	0646.0	18.1	2.0				

54  
Oct 89

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

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 <sup>-22</sup> W/m <sup>2</sup> Hz)	Mean	Int	Remarks
21	410	LEAR	4 S/F	0640.0E	0642.0	3.0D	97.0			ST=2 TYP=3
	245	LEAR	4 S/F	0640.0E	0641.0	3.0D	58.0			ST=2 TYP=3
	2695	LEAR	4 S/F	0640.0E	0641.0	3.0D	110.0			ST=2 TYP=3
	4995	LEAR	4 S/F	0640.0E	0641.0	3.0D	150.0			ST=2 TYP=3
	1415	LEAR	4 S/F	0640.0E	0641.0	3.0D	26.0			ST=2 TYP=3
	5900	KISV	4 S/F	0640.3	0641.4	5.0	86.0			
	9300	KISV	23 GRF	0640.5	0707.1	27.5	18.0			
	950	GORK	21 GRF	0640.5	0652.4	23.5	3.0			
	9300	KISV	4 S/F	0640.5	0641.7	5.9	88.0			
	200	HIRA	42 SER	0640.6	0648.2	10.0	1100.0			0
	2850	CRIM	3 S	0640.7	0641.6	3.4	123.0	41.0		
	2950	GORK	3 S	0640.7	0641.6	3.1	110.0			
	100	GORK	41 F	0640.8	0650.3		1280.0			
	100	GORK	41 F	0640.8	0641.4	10.4	1400.0			
	100	HIRA	46 C	0640.9	0648.2	10.0	830.0			
	8800	LEAR	8 S	0641.0E	0641.0	2.0D	68.0			ST=2 TYP=3
	15400	LEAR	8 S	0641.0E	0641.0	2.0D	28.0			ST=2 TYP=3
	2695	SVTO	8 S	0641.0E	0641.0	1.0D	110.0			ST=2 TYP=3
	4995	SVTO	8 S	0641.0E	0641.0	1.0D	150.0			ST=2 TYP=3
	204	IZMI	42 SER	0641.0	0648.5	12.0	1700.0			
	15000	KISV	2 S/F	0641.0	0641.6	4.7	35.0			
	113	POTS	42 SER	0641.2	0648.4	10.4	560.0			
	30	POTS	42 SER	0641.2	0641.6	10.8	4000.0			
	500	HIRA	42 SER	0641.3	0643.5	9.5	18.0			0
	9100	GORK	4 S/F	0641.3	0641.6	2.8	67.0			
	950	GORK	46 C	0641.3	0643.6		11.0			
	950	GORK	46 C	0641.3	0641.7	2.9	5.0			
	17000	NOBE	1 S	0641.4	0641.6	2.0	27.0			0 80,35GHz:0
	33	UPIC	42 SER	0641.5	0643.5	10.1				
	410	SVTO	8 S	0642.0E	0643.0	1.0D	160.0			ST=2 TYP=3
	2695	LEAR	4 S/F	0648.0E	0649.0	3.0D	65.0			ST=2 TYP=3
	8800	LEAR	4 S/F	0648.0E	0649.0	3.0D	37.0			ST=2 TYP=3
	1415	LEAR	4 S/F	0648.0E	0649.0	3.0D	39.0			ST=2 TYP=3
	245	LEAR	8 S	0648.0E	0648.0	U	76.0			ST=2 TYP=3
	4995	LEAR	4 S/F	0648.0E	0649.0	3.0D	61.0			ST=2 TYP=3
	15400	LEAR	4 S/F	0648.0E	0649.0	3.0D	20.0			ST=2 TYP=3
	1470	POTS	3 S	0648.0	0650.0	5.0	42.0			
	2695	SVTO	8 S	0648.0E	0649.0	2.0D	76.0			ST=2 TYP=3
	3000	POTS	3 S	0648.0	0649.8	5.0	50.0			
	2850	CRIM	3 S	0648.0	0649.9	6.0	75.0	25.0		
	200	GORK	4 S/F	0648.0	0648.9	2.5	520.0			
	5900	KISV	4 S/F	0648.0	0649.9	5.3	64.0			
	3013	IZMI	7 C	0648.5	0650.0	6.0	144.0	70.0		
	2950	GORK	3 S	0648.5	0649.8	4.0	65.0			
	9300	KISV	4 S/F	0648.6	0649.9	5.4	43.0			
	950	GORK	4 S/F	0648.8	0649.9	2.9	19.0			
	9100	GORK	4 S/F	0648.9	0649.8	3.0	40.0			
	650	GORK	4 S/F	0648.9	0649.9	2.0	11.0			
	4995	SVTO	8 S	0649.0E	0649.0	1.0D	60.0			ST=2 TYP=3
	15000	KISV	2 S/F	0649.0	0649.9	4.8	17.0			
	9300	KISV	2 S/F	0700.4	0701.8	6.7	26.0			
	5900	KISV	2 S/F	0700.4	0701.8	6.4	14.0			
	15000	KISV	2 S/F	0700.6	0702.2	6.1	11.0			
	260	ONDR	42 SER	0800.0	0932.6	360.0	228.0			
9300	KISV	45 C	0821.4	0827.4		131.0				
9300	KISV	45 C	0821.4	0826.8	14.6	222.0				
5900	KISV	29 PBI	0824.4	0828.0	21.9	35.0				
5900	KISV	4 S/F	0824.4	0826.5	3.6	184.0				
4995	LEAR	8 S	0825.0E	0826.0	2.0D	390.0			ST=2 TYP=3	
8800	LEAR	4 S/F	0825.0E	0826.0	5.0D	480.0			ST=2 TYP=3	
2695	LEAR	8 S	0825.0E	0826.0	1.0D	65.0			ST=2 TYP=3	
15400	LEAR	49 GB	0825.0E	0826.0	3.0D	590.0			ST=2 TYP=6	
15400	SVTO	49 GB	0825.0E	0826.0	3.0D	600.0			ST=2 TYP=6	
2695	SVTO	8 S	0825.0E	0826.0	2.0D	77.0			ST=2 TYP=3	
8800	SVTO	4 S/F	0825.0E	0826.0	5.0D	390.0			ST=2 TYP=3	
4995	SVTO	8 S	0825.0E	0826.0	2.0D	380.0			ST=2 TYP=3	
15000	KISV	29 PBI	0825.4	0830.0	12.0	11.0				
15000	KISV	4 S/F	0825.4	0826.2	4.6	218.0				
9100	GORK	4 S/F	0825.5	0826.0	6.1	300.0				

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

55  
Oct 89

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
21	9500	POTS	45 C	0825.5	0826.0	4.5U	450.0			
	3000	POTS	3 S	0825.5	0826.0	18.0	87.0			
	3200	BERN	47 GB	0825.8	0826.0	2.0	9.6			
	8400	BERN	47 GB	0825.8	0826.0	2.0	54.0			
	11800	BERN	47 GB	0825.8	0826.0	2.0	63.6			
	50000	BERN	47 GB	0825.8	0826.0	2.0	57.9			
	5200	BERN	47 GB	0825.8	0826.0	2.0	38.6			
	35000	BERN	47 GB	0825.8	0826.0	2.0	77.2			
	19600	BERN	47 GB	0825.8	0826.0	2.0	94.5			
	2850	CRIM	3 S	0825.8	0826.1	2.8	102.0	34.0		
	3013	IZMI	5 S	0825.8	0826.4	4.0	32.0	16.0		
	2950	GORK	3 S	0825.9	0826.0	2.6	97.0			
	9500	POTS	20 GRF	0855.0	0900.5	25.0	18.0			
	9100	GORK	2 S/F	0859.2	0900.5	2.5	15.0			
	245	LEAR	8 S	0930.0E	0931.0	2.00	400.0			ST=2 TYP=3
	234	POTS	4 S/F	0930.0	0931.4	1.6	140.0			
	245	SVTO	8 S	0931.0E	0931.0	1.00	370.0			ST=2 TYP=3
	204	IZMI	42 SER	0931.0	0932.6	14.0	79.0			
	204	IZMI	42 SER	1001.0	1018.0	18.0	280.0			
	15000	KISV	2 S/F	1010.2	1010.5	2.1	31.0			
	5900	KISV	2 S/F	1010.3	1010.4	2.0	3.0			
	9100	GORK	2 S/F	1010.3	1010.5	1.7	20.0			
	9300	KISV	4 S/F	1010.3	1010.5	6.3	24.0			
	9300	KISV	1 S	1109.8	1109.9	0.2	18.0			
	9300	KISV	23 GRF	1112.8	1114.9	22.6	9.0			
	2850	CRIM	1 S	1124.0	1126.0	5.0	22.0	7.0		
	3013	IZMI	5 S	1125.0	1126.0	3.0	17.0	8.0		
	3000	POTS	3 S	1125.0U	1126.0U	4.0U	22.0			
	9500	POTS	3 S	1125.0	1126.2	3.5	15.0			
	1470	POTS	3 S	1125.0	1126.4	3.0	18.0			
	5900	KISV	4 S/F	1125.3	1126.1	4.2	21.0			
	430	KRAK	8 S	1125.3	1125.5	0.7	220.0			
	810	KRAK	8 S	1125.5	1126.0	0.7	22.0			
	9300	KISV	2 S/F	1125.5	1126.2	1.4	14.0			
	536	ONDR	40 F	1125.5	1126.3	2.0	18.0			
	808	ONDR	42 SER	1126.1	1152.5	29.0	20.0			
	113	POTS	4 S/F	1133.2	1134.0	1.6	280.0			
	30	POTS	4 S/F	1133.6	1133.8	0.8	2200.0			
	5900	KISV	45 C	1151.9	1152.2		13.0			
	5900	KISV	45 C	1151.9	1152.5	2.7	25.0			
	1415	SVTO	8 S	1152.0E	1152.0	U	91.0			ST=2 TYP=3
	9500	POTS	40 F	1152.0	1152.3	1.0	10.0			
	1470	POTS	4 S/F	1152.0	1152.4	2.0	82.0			
	3000	POTS	3 S	1152.0	1152.6	1.5	16.0			
	15000	KISV	2 S/F	1203.8	1204.2	1.2	11.0			
	33	UPIC	8 S	1233.5	1233.6	0.5				
	9500	POTS	20 GRF	1245.0	1252.0	35.0	36.0			
	9300	KISV	22 GRF	1245.2	1256.9	15.8	38.0			
	15000	KISV	46 C	1251.0	1251.2	1.8	8.0			
	15000	KISV	46 C	1251.0	1252.2		4.0			
	15000	KISV	46 C	1251.0	1251.4		7.0			
	5900	KISV	46 C	1253.3	1302.1		8.0			
	5900	KISV	46 C	1253.3	1259.3	11.2	17.0			
	5900	KISV	46 C	1253.3	1302.4		9.0			
5900	KISV	46 C	1253.3	1259.7		15.0				
5900	KISV	46 C	1253.3	1256.8		16.0				
15000	KISV	46 C	1256.2	1257.1		6.0				
15000	KISV	46 C	1256.2	1257.7		5.0				
15000	KISV	46 C	1256.2	1256.8	2.0	8.0				
1470	POTS	3 S	1308.5	1310.0	3.0	8.0				
3000	POTS	40 F	1308.5	1310.0	3.5	10.0				
2800	OTTA	3 S	1449.6	1449.7	1.5	8.6	2.0			
8800	SGMR	20 GRF	1454.0E	1455.0	5.00	160.0			ST=2 TYP=2	
15400	SGMR	4 S/F	1454.0E	1455.0	6.00	110.0			ST=2 TYP=3	
4995	SGMR	4 S/F	1454.0E	1455.0	6.00	83.0			ST=2 TYP=3	
8800	SVTO	8 S	1454.0E	1455.0	2.00	130.0			ST=2 TYP=3	
15400	SVTO	8 S	1454.0E	1455.0	2.00	73.0			ST=2 TYP=3	
4995	SVTO	4 S/F	1454.0E	1455.0	8.00	83.0			ST=2 TYP=3	
2800	OTTA	20 GRF	1454.3	1455.0	60.0	10.3	4.0			



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

OCTOBER 1989

Day	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 <sup>-22</sup> W/m <sup>2</sup> Hz)		Int	Remarks
						Peak	Mean		
21	8400 BERN	4 S/F	1454.5	1455.3	4.0	16.3			
	5200 BERN	4 S/F	1454.5	1455.3	4.0	6.5			
	19600 BERN	4 S/F	1454.5	1455.3	4.0	5.4			
	11800 BERN	4 S/F	1454.5	1455.3	4.0	11.8			
	4995 PALE	8 S	2154.0E	2155.0	2.00	52.0			ST=2 TYP=3
	8800 PALE	8 S	2154.0E	2155.0	2.00	130.0			ST=2 TYP=3
	8800 LEAR	4 S/F	2238.0E	2239.0	3.00	150.0			ST=2 TYP=3
	15400 LEAR	8 S	2238.0E	2239.0	2.00	160.0			ST=2 TYP=3
	35000 NOBE	1 S	2238.3	2239.2	3.0	74.0			11L 80GHz:0
	17000 NOBE	7 C	2238.3	2239.2	4.0	159.0			15L
	4995 LEAR	8 S	2239.0E	2239.0	U	31.0			ST=2 TYP=3
	17000 NOBE	7 C	2347.9	2349.0	12.0	92.0			8L 80,35GHz:0
	8800 PALE	4 S/F	2348.0E	2350.0	4.00	59.0			ST=2 TYP=3
	15400 PALE	8 S	2348.0E	2349.0	1.00	80.0			ST=2 TYP=3
	15400 LEAR	4 S/F	2348.0E	2353.0	16.00	120.0			ST=2 TYP=5
	8800 LEAR	4 S/F	2348.0E	2354.0	16.00	110.0			ST=2 TYP=3
	8800 PALE	4 S/F	2352.0E	2354.0	9.00	110.0			ST=2 TYP=3
	15400 PALE	4 S/F	2352.0E	2353.0	4.00	88.0			ST=2 TYP=3
	4995 LEAR	4 S/F	2353.0E	2354.0	11.00	36.0			ST=2 TYP=3
	4995 PALE	8 S	2354.0E	2354.0	1.00	28.0			ST=2 TYP=3
	22	200 HIRA	44 NS	2051.0E	2300.0	300.00	6.0	3.0	0
17000 NOBE		1 S	0218.4	0219.3	4.0	32.0			14L 80,35GHz:0
4995 LEAR		20 GRF	0308.0E	0321.0	26.00	51.0			ST=2 TYP=2
17000 NOBE		20 GRF	0308.6	0310.1	27.0	27.0			20L 80,35GHz:0
2695 LEAR		8 S	0329.0E	0331.0	2.00	25.0			ST=2 TYP=3
500 HIRA		46 C	0348.0	0349.3	7.0	9.0			0
9100 GORK		23 GRF	0508.0E	1044.1	352.00	22.0			
15000 KISV		42 SER	0510.3	0521.0		43.0			
15000 KISV		42 SER	0510.3	0515.1	19.7	24.0			
17000 NOBE		7 C	0514.8	0520.6	8.0	43.0			13L 80,35GHz:0
9300 KISV		23 GRF	0518.7	0525.0	11.7	13.0			
5900 KISV		4 S/F	0518.7	0521.0	13.7	34.0			
9100 GORK		2 S/F	0519.9	0521.0	3.3	20.0			
9300 KISV		4 S/F	0520.2	0521.1	4.0	27.0			
2950 GORK		20 GRF	0544.6	0554.0	116.7	13.0			
5900 KISV		22 GRF	0545.5	0550.7	27.7	26.0			
9300 KISV		22 GRF	0546.1	0550.2	23.8	22.0			
5900 KISV		22 GRF	0612.7	0619.4	41.0	14.0			
15000 KISV		22 GRF	0615.7	0619.6	10.8	26.0			
9300 KISV		22 GRF	0615.9	0619.5	25.6	20.0			
15000 KISV		22 GRF	0642.5	0646.9	12.3	18.0			
9300 KISV		46 C	0642.7	0644.1		14.0			
9300 KISV		46 C	0642.7	0652.3		13.0			
9300 KISV		46 C	0642.7	0645.6		15.0			
9300 KISV		46 C	0642.7	0649.9	14.0	16.0			
260 ONDR		42 SER	0800.0	1030.1	360.0	155.0			
15000 KISV		45 C	0805.3	0807.2		15.0			
15000 KISV		45 C	0805.3	0806.9	4.8	21.0			
9300 KISV		23 GRF	0805.3	0817.9	20.2	9.0			
5900 KISV		2 S/F	0805.6	0806.9	6.6	19.0			
9300 KISV		2 S/F	0806.0	0806.9	3.3	14.0			
15000 KISV		22 GRF	0846.8	0854.7	14.9	13.0			
2950 GORK		21 GRF	0851.4	0939.0	128.60	12.0			
9300 KISV		2 S/F	0853.5	0855.5	6.0	9.0			
3000 POTS		20 GRF	0905.0	0939.0	55.0	20.0			
5900 KISV		22 GRF	0913.5	0953.8	53.0	18.0			
15000 KISV		2 S/F	0917.8	0918.1	2.6	6.0			
15000 KISV		2 S/F	0927.6	0928.0	3.7	5.0			
1470 POTS		20 GRF	0934.0	0944.0	28.0	4.0			
2850 CRIM		20 GRF	0934.8	0936.0	11.0	6.0			2.0
15000 KISV		45 C	0952.1	0953.0	6.2	10.0			
15000 KISV	45 C	0952.1	0953.7		9.0				
9300 KISV	2 S/F	0952.4	0954.1	7.4	9.0				
5900 KISV	22 GRF	1025.5	1029.8	34.8	14.0				
3000 POTS	4 S/F	1027.5	1030.0	12.0	27.0				
9300 KISV	22 GRF	1027.8	1043.9	35.5	15.0				
2950 GORK	3 S	1029.4	1030.0	1.7	25.0				
100 GORK	3 S	1029.4	1029.9	1.4	230.0				

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

57  
Oct 89

OCTOBER 1989

Day	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 <sup>-22</sup> W/m <sup>2</sup> Hz)	Flux Density Mean	Int	Remarks
22	2850 CRIM	3 S	1029.5	1030.0	1.0	30.0	10.0		
	950 GORK	4 S/F	1029.5	1030.0	0.8	30.0			
	3013 IZMI	5 S	1029.5	1030.0	2.0	29.0	14.0		
	810 KRAK	8 S	1029.5	1030.0	0.7	135.0			
	1470 POTS	3 S	1029.5	1030.0	4.5	12.0			
	200 GORK	3 S	1029.6	1030.0	1.1	27.0			
	204 IZMI	5 S	1029.6	1030.0	0.8	1000.0	700.0		
	650 GORK	1 S	1029.6	1029.9	1.2	2.0			
	113 POTS	8 S	1029.7	1029.9	0.5	175.0			
	234 POTS	8 S	1029.8	1029.9	0.7	880.0			
	808 ONDR	3 S	1029.9	1030.2	1.6	8.0			
	430 KRAK	2 S/F	1031.5	1032.2	1.7	15.0	4.0		
	15000 KISV	2 S/F	1042.5	1044.0	3.8	8.0			
	430 KRAK	8 S	1049.5	1050.0		45.0			
	15000 KISV	2 S/F	1055.1	1056.7	5.1	8.0			
	15000 KISV	29 PBI	1116.9	1124.3	32.7	38.0			
	15000 KISV	4 S/F	1116.9	1118.7	7.4	211.0			
	9500 POTS	4 S/F	1117.0	1118.9	43.0	136.0			
	5900 KISV	29 PBI	1117.2	1124.5	35.5	42.0			
	5900 KISV	4 S/F	1117.2	1118.7	7.3	176.0			
	9300 KISV	4 S/F	1117.3	1118.7	7.4	124.00			
	2695 SVTO	8 S	1118.0E	1118.0	1.00	80.0			ST=2 TYP=3
	4995 SVTO	8 S	1118.0E	1118.0	2.00	110.0			ST=2 TYP=3
	15400 SVTO	4 S/F	1118.0E	1118.0	7.00	180.0			ST=2 TYP=3
	8800 SVTO	8 S	1118.0E	1118.0	1.00	93.0			ST=2 TYP=3
	3000 POTS	3 S	1118.0	1118.6	3.5	82.0			
	1470 POTS	3 S	1118.0	1118.6	6.0	36.0			
	2850 CRIM	29 PBI	1118.2	1120.0	30.0	10.0	3.0		
	2850 CRIM	3 S	1118.2	1118.8	1.8	103.0	30.0		
	3200 BERN	4 S/F	1118.3	1118.6	1.5	6.8			
	5200 BERN	4 S/F	1118.3	1118.6	1.5	14.8			
	19600 BERN	4 S/F	1118.3	1118.6	1.5	10.8			
	8400 BERN	4 S/F	1118.3	1118.6	1.5	12.4			
	11800 BERN	4 S/F	1118.3	1118.6	1.5	13.6			
	3013 IZMI	5 S	1118.4	1119.0	4.0	79.0	40.0		
	33 UPIC	32 ABS	1118.5	1123.5	80.0				
	808 ONDR	3 S	1119.0	1119.1	2.0	17.0			
	9300 KISV	29 PBI	1124.7E	1124.7	36.40	33.0			
	536 ONDR	8 S	1146.1	1146.4	0.7	28.0			
	245 SGMR	8 S	1241.0E	1242.0	1.00	80.0			ST=2 TYP=3
	3000 POTS	3 S	1241.0	1243.2	9.0	21.0			
	1470 POTS	3 S	1241.5	1244.2	5.5	8.0			
	9500 POTS	3 S	1241.5	1243.8	6.0	11.0			
	245 SVTO	8 S	1242.0E	1242.0	U	74.0			ST=2 TYP=3
	9500 POTS	4 S/F	1307.5	1309.5	5.0	33.0			
	2800 OTTA	4 S/F	1308.0	1309.5	9.0	30.8	9.0		
	8400 BERN	3 S	1308.0	1310.0	6.0	3.3			
	5200 BERN	3 S	1308.0	1310.0	6.0	5.0			
	19600 BERN	3 S	1308.0	1310.0	6.0	2.2			
	11800 BERN	3 S	1308.0	1310.0	6.0	3.2			
	3200 BERN	3 S	1308.0	1310.0	6.0	3.1			
	3000 POTS	4 S/F	1308.0	1309.9	32.0	33.0			
	4995 SGMR	4 S/F	1309.0E	1309.0	3.00	65.0			ST=2 TYP=3
	1470 POTS	40 F	1309.0	1310.8	3.5	115.0			
	1415 SGMR	8 S	1310.0E	1310.0	2.00	130.0			ST=2 TYP=3
	1415 SVTO	8 S	1310.0E	1311.0	1.00	120.0			ST=2 TYP=3
	430 KRAK	42 SER	1310.0	1323.5	26.0	25.0			
	3000 POTS	3 S	1441.0	1442.0	2.0	8.0			
	9500 POTS	1 S	1441.5	1442.0	1.5	10.0			
	2800 OTTA	3 S	1553.0	1553.6	8.0	44.6	9.0		
	2800 OTTA	4 S/F	1620.0	1621.1	3.0	14.2	3.0		
	2800 OTTA	28 PRE	1704.0	1733.0	29.0	30.4	12.0		
	4995 SGMR	8 S	1716.0E	1717.0	1.00	53.0			ST=2 TYP=3
	4995 SGMR	8 S	1719.0E	1719.0	U	51.0			ST=2 TYP=3
	245 SGMR	8 S	1726.0E	1726.0	1.00	52.0			ST=2 TYP=3
	8800 SGMR	49 GB	1730.0E	1802.0	146.00	39000.0			ST=2 TYP=7
	610 PALE	49 GB	1731.0E	1746.0	104.00	1200.0			ST=2 TYP=7
	610 SGMR	49 GB	1731.0E	1746.0	104.00	1600.0			ST=2 TYP=7
	2695 PALE	49 GB	1731.0E	1818.0	168.00	18000.0			ST=2 TYP=7

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

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 <sup>-22</sup> W/m <sup>2</sup> Hz)	Flux Density Mean	Int	Remarks	
22	4995	PALE	49 GB	1731.0E	1801.0	162.00	22000.0			ST=2 TYP=7	
	8800	PALE	49 GB	1732.0E	1801.0	144.00	22000.0			ST=2 TYP=7	
	15400	SGMR	49 GB	1732.0E	1802.0	145.00	25000.0			ST=2 TYP=7	
	4995	SGMR	49 GB	1732.0E	1803.0	152.00	48000.0			ST=2 TYP=7	
	1415	SGMR	49 GB	1732.0E	1824.0	152.00	6500.0			ST=2 TYP=7	
	1415	PALE	49 GB	1732.0E	1824.0	167.00	6300.0			ST=2 TYP=7	
	15400	PALE	49 GB	1732.0E	1801.0	171.00	21000.0			ST=2 TYP=7	
	2800	OTTA	47 GB	1733.0	1818.8	170.0	13070.0	2600.0			
	2695	SGMR	49 GB	1733.0E	1818.0	151.00	22000.0			ST=2 TYP=7	
	245	PALE	49 GB	1734.0E	1738.0	67.00	1100.0			ST=2 TYP=6	
	245	SGMR	49 GB	1734.0E	1738.0	97.00	1200.0			ST=2 TYP=7	
	410	PALE	49 GB	1735.0E	1751.0	77.00	2500.0			ST=2 TYP=7	
	410	SGMR	49 GB	1735.0E	1751.0	83.00	2400.0			ST=2 TYP=7	
	2800	OTTA	29 PBI	2023.0	2023.0	120.0	30.5	15.0			
	8800	PALE	49 GB	2132.0E	2132.0	1.00	610.0			ST=2 TYP=6	
23	100	GORK	43 NS	1017.2		72.80		5.0			
	500	HIRA	46 C	0047.5	0055.8	50.0	8.0		0		
	2840	PEKG	3 S	0059.0	0102.5	10.0	11.0				
	2840	PEKG	21 GRF	0407.0	0424.0	66.0	23.9				
	4995	LEAR	8 S	0411.0E	0412.0	2.00	51.0			ST=2 TYP=3	
	8800	LEAR	8 S	0411.0E	0412.0	2.00	40.0			ST=2 TYP=3	
	2840	PEKG	5 S	0411.0	0412.8	4.0	20.4				
	15400	LEAR	8 S	0412.0E	0412.0	1.00	27.0			ST=2 TYP=3	
	2695	LEAR	8 S	0412.0E	0412.0	1.00	35.0			ST=2 TYP=3	
	9100	GORK	23 GRF	0436.0E	1117.4	414.00	38.0				
	9300	KISV	2 S/F	0537.3	0538.4	5.3	8.0				
	500	HIRA	41 F	0538.0	0538.5	3.5	11.0		0		
	950	GORK	1 S	0538.1	0538.5	1.1	2.0				
	650	GORK	4 S/F	0538.1	0538.6	1.4	5.0				
	9300	KISV	22 GRF	0547.6	0557.8	17.6	16.0				
	5900	KISV	22 GRF	0549.0	0555.1	15.3	13.0				
	15400	SVTO	4 S/F	0629.0E	0630.0	7.00	70.0			ST=2 TYP=3	
	15000	KISV	29 PBI	0629.0	0651.0	27.0	34.0				
	15000	KISV	46 C	0629.0	0647.3		49.0				
	15000	KISV	46 C	0629.0	0631.5	22.0	85.0				
	15000	KISV	46 C	0629.0	0630.8		83.0				
	5900	KISV	46 C	0629.2	0640.3		46.0				
	5900	KISV	46 C	0629.2	0647.3	60.8	54.0				
	9300	KISV	46 C	0629.2	0647.4	58.8	97.0				
	9300	KISV	46 C	0629.2	0630.6		54.0				
	9300	KISV	46 C	0629.2	0639.7		49.0				
	5900	KISV	46 C	0629.2	0632.7		39.0				
	9100	GORK	46 C	0629.4	0647.2		53.0				
	9100	GORK	46 C	0629.4	0630.4	25.2	37.0				
	650	GORK	1 S	0643.7	0645.0	4.3	2.0				
	950	GORK	2 S/F	0643.8	0644.8	2.4	7.0				
	204	IZMI	42 SER	0644.0	0709.8	30.0	52.0				
	8800	LEAR	4 S/F	0646.0E	0647.0	6.00	67.0			ST=2 TYP=3	
	15000	KISV	22 GRF	0731.4	0732.1	13.6	25.0				
	260	ONDR	42 SER	0900.0	1010.0	300.0	22.0				
2850	CRIM	45 C	0904.5	0926.0		18.0					
2850	CRIM	45 C	0904.5	0920.0	40.5	15.0	6.0				
9300	KISV	2 S/F	0907.3	0908.1	2.6	7.0					
15000	KISV	2 S/F	0907.4	0908.0	3.3	19.0					
5900	KISV	2 S/F	0907.8	0908.1	1.9	6.0					
3000	POTS	20 GRF	0910.0	0926.0	55.0	19.0					
2950	GORK	20 GRF	0919.1	0926.2	11.6	11.0					
9500	POTS	20 GRF	0920.0	0949.0	70.0	23.0					
9300	KISV	23 GRF	0921.0	0927.4	53.9	22.0					
5900	KISV	23 GRF	0921.2	0926.5	51.4	20.0					
15000	KISV	2 S/F	0923.5	0924.5	4.6	13.0					
9300	KISV	46 C	0936.3	0944.0		14.0					
9300	KISV	46 C	0936.3	0938.1		10.0					
9300	KISV	46 C	0936.3	0949.4	21.3	20.0					
9300	KISV	46 C	0936.3	0941.7		17.0					
5900	KISV	45 C	0940.7	0949.1		19.0					
5900	KISV	45 C	0940.7	0941.7	15.2	30.0					
9100	GORK	2 S/F	0948.2	0949.1	2.6	13.0					

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

59  
Oct 89

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 <sup>-22</sup> W/m <sup>2</sup> Hz)	Flux Density Mean	Int	Remarks
23	15000	KISV	2 S/F	0948.6	0949.4	2.7	10.0			
	100	GORK	3 S	1009.0	1009.7	1.4	115.0			
	9300	KISV	22 GRF	1016.7	1018.0	9.9	9.0			
	5900	KISV	2 S/F	1021.5	1022.3	4.9	11.0			
	650	GORK	2 S/F	1035.1	1037.9	5.3	3.0			
	9300	KISV	2 S/F	1051.3	1054.1	7.5	11.0			
	15000	KISV	2 S/F	1051.3	1053.7	4.3	10.0			
	5900	KISV	2 S/F	1104.7	1105.7	2.7	6.0			
	5900	KISV	22 GRF	1112.9	1117.2	11.8	15.0			
	9300	KISV	2 S/F	1114.7	1117.2	7.7	14.0			
	15000	KISV	2 S/F	1115.4	1117.4	2.7	10.0			
	9300	KISV	22 GRF	1124.3	1129.1	9.6	10.0			
	15000	KISV	2 S/F	1124.9	1125.6	2.5	7.0			
	5900	KISV	2 S/F	1126.8	1128.9	5.8	7.0			
	430	KRAK	42 SER	1152.2	1152.5	1.0	33.0			
	430	KRAK	4 S/F	1208.5	1208.7	1.5	90.0	25.0		
	536	ONDR	42 SER	1210.0	1308.0	58.0	44.0			
	9300	KISV	29 PBI	1233.8	1241.0	18.7	167.0			
	5900	KISV	47 GB	1233.8	1237.3	8.6	734.0			
	9300	KISV	47 GB	1233.8	1237.4	7.2	1255.0			
	5900	KISV	29 PBI	1233.8	1242.4	36.3	145.0			
	9500	POTS	45 C	1234.0	1237.5	81.0	1085.0			
	15000	KISV	47 GB	1234.1	1237.3	5.0	2058.00			
	33	UPIC	46 C	1235.0	1237.0	2.3				
	4995	SGMR	4 S/F	1235.0E	1237.0	29.00	440.0			ST=2 TYP=3
	15400	SGMR	49 GB	1235.0E	1237.0	29.00	2500.0			ST=2 TYP=6
	15400	SVTO	49 GB	1235.0E	1237.0	25.00	2200.0			ST=2 TYP=6
	3000	POTS	29 PBI	1235.0	1237.4	80.0	45.0			
	8800	SGMR	49 GB	1236.0E	1237.0	28.00	1300.0			ST=2 TYP=6
	4995	SVTO	4 S/F	1236.0E	1237.0	24.00	350.0			ST=2 TYP=3
	8800	SVTO	49 GB	1236.0E	1237.0	24.00	1100.0			ST=2 TYP=6
	2850	CRIM	29 PBI	1236.5	1240.0	40.0	8.0			
	2850	CRIM	3 S	1236.5	1237.2	3.5	50.0	13.0		
	2695	SVTO	4 S/F	1237.0E	1237.0	683.00	37.0			ST=1 TYP=3
	33	UPIC	31 ABS	1237.3	1241.7	34.7				
	15000	KISV	29 PBI	1239.1E	1239.1	46.80	362.0			
	9500	POTS	21 GRF	1401.0	1416.7	49.0	30.0			
	245	SGMR	8 S	1537.0E	1537.0	U	55.0			ST=2 TYP=3
	610	LEAR	49 GB	2214.0E	2215.0	2.00	550.0			ST=2 TYP=6
	610	PALE	8 S	2214.0E	2215.0	1.00	280.0			ST=2 TYP=3
	8800	LEAR	4 S/F	2335.0E	2336.0	3.00	68.0			ST=2 TYP=3
	15400	LEAR	4 S/F	2335.0E	2336.0	3.00	94.0			ST=2 TYP=3
	8800	PALE	4 S/F	2335.0E	2336.0	3.00	64.0			ST=2 TYP=3
	15400	PALE	8 S	2335.0E	2336.0	2.00	72.0			ST=2 TYP=3
	17000	NOBE	1 S	2335.5	2336.6	4.0	62.0			29L 80,35GHz:0
4995	LEAR	4 S/F	2336.0E	2338.0	3.00	42.0			ST=2 TYP=3	
4995	PALE	4 S/F	2336.0E	2338.0	3.00	44.0			ST=2 TYP=3	
24	2840	PEKG	45 C	0151.0	0153.4	8.0	32.1			
	500	HIRA	46 C	0152.8	0152.9	1.6	227.0			0
	8800	LEAR	8 S	0153.0E	0153.0	U	61.0			ST=2 TYP=3
	4995	LEAR	8 S	0153.0E	0153.0	U	45.0			ST=2 TYP=3
	15400	LEAR	8 S	0153.0E	0153.0	U	35.0			ST=2 TYP=3
	4995	PALE	8 S	0153.0E	0153.0	U	50.0			ST=2 TYP=3
	8800	PALE	8 S	0153.0E	0153.0	U	63.0			ST=2 TYP=3
	17000	NOBE	1 S	0153.0	0153.4	1.0	18.0			40L 80,35GHz:0
	5900	KISV	23 GRF	0505.9	0518.0		12.0			
	5900	KISV	23 GRF	0505.9	0513.4		12.0			
	5900	KISV	23 GRF	0505.9	0511.7	20.4	13.0			
	9300	KISV	46 C	0508.9	0518.1		13.0			
	9300	KISV	46 C	0508.9	0510.3		17.0			
	9300	KISV	46 C	0508.9	0513.4	15.3	19.0			
	245	LEAR	8 S	0537.0E	0538.0	1.00	270.0			ST=2 TYP=3
	245	SVTO	8 S	0537.0E	0538.0	1.00	200.0			ST=2 TYP=3
	2840	PEKG	3 S	0538.0	0541.7	14.0	14.9			
	15000	KISV	2 S/F	0540.5	0541.4	3.1	9.0			
2850	CRIM	1 S	0541.0	0541.8	2.0	11.4	4.0			
5900	KISV	2 S/F	0547.6	0548.5	2.4	6.0				
9300	KISV	2 S/F	0547.7	0548.5	3.7	7.0				

60  
Oct 89

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

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 <sup>-22</sup> W/m <sup>2</sup> Hz)	Flux Density Mean	Int	Remarks
24	5900	KISV	23 GRF	0636.6	0650.2	35.1	11.0			
	204	IZMI	42 SER	0637.2	0720.1	49.0	74.0			
	2840	PEKG	5 S	0643.0	0645.0	27.0	17.0			
	2850	CRIM	1 S	0643.1	0645.1	3.0	16.2	5.0		
	2850	CRIM	29 PBI	0643.1	0646.1	10.0	7.3	2.0		
	9300	KISV	23 GRF	0643.4	0649.8	23.7	6.0			
	15000	KISV	23 GRF	0643.6	0647.6	16.2	10.0			
	5900	KISV	4 S/F	0643.8	0645.1	5.0	27.0			
	9300	KISV	2 S/F	0644.2	0645.1	2.9	25.0			
	15000	KISV	2 S/F	0644.7	0645.1	1.4	10.0			
	5900	KISV	2 S/F	0705.5	0706.0	2.1	4.0			
	15000	KISV	46 C	0714.3	0717.2		10.0			
	15000	KISV	46 C	0714.3	0720.5		11.0			
	15000	KISV	46 C	0714.3	0719.7	15.7	12.0			
	15000	KISV	46 C	0714.3	0723.9		10.0			
	5900	KISV	2 S/F	0716.7	0717.2	1.6	5.0			
	9500	POTS	40 F	0718.5	0726.6	37.0	25.0			
	9300	KISV	45 C	0719.0	0726.5	18.6	26.0			
	9300	KISV	45 C	0719.0	0720.6		12.0			
	3000	POTS	40 F	0720.0	0726.6	8.0	14.0			
	5900	KISV	2 S/F	0724.8	0726.9	4.7	14.0			
	260	ONDR	42 SER	0924.0	1059.4	300.0	174.0			
	15000	KISV	22 GRF	0928.9	0942.6	31.0	25.0			
	5900	KISV	23 GRF	0929.9	0932.1		7.0			
	5900	KISV	23 GRF	0929.9	0942.5	25.4	14.0			
	9500	POTS	20 GRF	0930.0	0943.0	45.0	25.0			
	9300	KISV	22 GRF	0931.7	0942.5	36.2	20.0			
	5900	KISV	23 GRF	1042.6	1059.2		20.0			
	5900	KISV	23 GRF	1042.6	1119.4	90.5	24.0			
	9300	KISV	23 GRF	1046.0	1059.2		18.0			
	9300	KISV	23 GRF	1046.0	1119.3	82.4	25.0			
	9300	KISV	23 GRF	1046.0	1106.4		22.0			
	234	POTS	4 S/F	1055.6	1056.2	2.0	330.0			
	113	POTS	4 S/F	1055.8	1056.4	1.8	70.0			
	40	POTS	8 S	1056.1	1056.3	0.8	9000.0			
	9500	POTS	20 GRF	1100.0U	1119.5	58.0U	10.0			
	2850	CRIM	1 S	1103.2	1106.5	10.0	26.0	8.0		
	5900	KISV	2 S/F	1104.8	1106.4	6.5	22.0			
	15000	KISV	22 GRF	1117.6	1119.0	18.8	10.0			
	2850	CRIM	20 GRF	1127.0	1130.0	12.0	10.2	3.0		
	8800	SVTO	8 S	1151.0E	1152.0	1.0D	180.0			ST=2 TYP=3
	610	SGMR	20 GRF	1228.0E	1238.0	26.0D	170.0			QL=/ ST=2 TYP=2
	9500	POTS	3 S	1302.5	1303.9	7.5	10.0			
	610	SGMR	20 GRF	1306.0E	1308.0	2.0D	61.0			QL=/ ST=2 TYP=2
	9500	POTS	3 S	1333.0	1335.4	10.0	23.0			
	8800	SGMR	49 GB	1734.0E	1811.0	170.0D	48000.0			ST=2 TYP=7
	1415	SGMR	49 GB	1735.0E	1850.0	88.0D	2900.0			ST=2 TYP=7
	4995	SGMR	49 GB	1735.0E	1811.0	169.0D	47000.0			ST=2 TYP=7
	15400	SGMR	49 GB	1736.0E	1743.0	384.0D	1600.0			ST=1 TYP=6
	2800	OTTA	47 GB	1736.5	1813.5	105.0	9690.0	1940.0		
	15400	PALE	49 GB	1737.0E	1810.0	168.0D	28000.0			ST=2 TYP=7
	8800	PALE	49 GB	1737.0E	1810.0	169.0D	49000.0			ST=3 TYP=7
	1415	PALE	49 GB	1737.0E	1850.0	177.0D	3000.0			ST=2 TYP=7
	2695	PALE	49 GB	1738.0E	1813.0	166.0D	11000.0			ST=2 TYP=7
	4995	PALE	49 GB	1738.0E	1811.0	166.0D	24000.0			ST=2 TYP=7
	2695	SGMR	49 GB	1738.0E	1813.0	166.0D	9800.0			ST=2 TYP=7
15400	SGMR	49 GB	1740.0E	1800.0	164.0D	26000.0			ST=3 TYP=7	
610	SGMR	49 GB	1746.0E	1810.0	68.0D	1600.0			ST=2 TYP=7	
410	SGMR	49 GB	1750.0E	1814.0	59.0D	3000.0			ST=2 TYP=7	
245	SGMR	49 GB	1751.0E	1838.0	80.0D	760.0			ST=2 TYP=7	
610	PALE	49 GB	1755.0E	1810.0	65.0D	1500.0			ST=2 TYP=7	
245	PALE	49 GB	1759.0E	1808.0	28.0D	440.0			ST=2 TYP=7	
410	PALE	49 GB	1759.0E	1814.0	46.0D	2800.0			ST=2 TYP=7	
2800	OTTA	3 S	1858.5	1900.2	7.0	88.0	18.0			
2800	OTTA	47 GB	1915.1	1921.5	28.7	542.0	108.0			
2800	OTTA	29 PBI	1922.0E	1922.0U	340.0D	134.0	67.0			
2800	OTTA	3 S	1957.7	2006.0	24.5	247.0	49.0			
410	SGMR	8 S	2026.0E	2027.0	1.0D	160.0			ST=2 TYP=3	
245	PALE	49 GB	2028.0E	2028.0	1.0D	2100.0			ST=2 TYP=6	

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

61  
Oct 89

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 - 22 W/m 2 Hz)	Mean		
24	245	SGMR	49 GB	2028.0E	2028.0	2.00	2400.0			ST=2 TYP=6
	15400	LEAR	8 S	2231.0E	2232.0	2.00	86.0			ST=2 TYP=3
	8800	LEAR	8 S	2232.0E	2232.0	1.00	26.0			ST=2 TYP=3
	17000	NOBE	1 S	2232.2	2232.7	1.5	82.0		17L	
	35000	NOBE	1 S	2232.2	2232.7	1.5	207.0		20L 80GHz:0	
25	500	HIRA	41 F	0000.0	0045.0	60.0	17.0	5.0		WL
	2840	PEKG	5 S	0112.0	0113.8	22.0	16.9			
	5900	KISV	4 S/F	0457.6	0458.6	6.0	26.0			
	9300	KISV	4 S/F	0457.8	0458.6	7.4	64.0			
	15000	KISV	2 S/F	0458.3	0458.6	2.0	19.0			
	15000	KISV	2 S/F	0505.7	0506.3	1.4	9.0			
	5900	KISV	22 GRF	0619.6	0621.1	17.8	9.0			
	204	IZMI	22 GRF	0734.0	0739.0	21.0	15.0			
	15000	KISV	2 S/F	0818.4	0818.6	2.6	6.0			
	15000	KISV	22 GRF	0830.3	0830.6	8.5	8.0			
	9300	KISV	22 GRF	0832.7	0833.5	9.6	9.0			
	5900	KISV	22 GRF	0832.7	0833.5	19.3	6.0			
	260	ONDR	42 SER	0900.0	1010.7	130.0	21.0			
	5900	KISV	45 C	0933.9	0938.2	7.8	9.0			
	5900	KISV	45 C	0933.9	0934.5		4.0			
	9300	KISV	2 S/F	0937.5	0938.3	2.6	4.0			
	9300	KISV	22 GRF	1021.1	1023.5	18.2	7.0			
	5900	KISV	22 GRF	1021.1	1023.5	16.3	9.0			
	204	IZMI	41 F	1032.0	1036.0	6.0	100.0			
	15000	KISV	2 S/F	1058.7	1059.0	2.5	13.0			
	9300	KISV	2 S/F	1058.8	1059.0	1.2	4.0			
	5900	KISV	22 GRF	1112.9	1123.3	10.8	13.0			
	9300	KISV	2 S/F	1122.6	1123.3	4.8	7.0			
	5900	KISV	2 S/F	1146.7	1147.8	2.9	5.0			
	536	ONDR	8 S	1210.0	1210.1	0.7	71.0			
	610	SGMR	4 S/F	1228.0	1238.0	26.0	170.0			QL=/ ST=/ TYP=3
	4995	SGMR	49 GB	1635.0E	1636.0	9.00	830.0			ST=2 TYP=6
	8800	SGMR	49 GB	1635.0E	1636.0	6.00	2100.0			ST=2 TYP=6
	15400	SGMR	49 GB	1635.0E	1636.0	4.00	4100.0			ST=2 TYP=6
	2800	OTTA	3 S	1635.5	1636.5	4.0	105.0	21.0		
2695	SGMR	8 S	1636.0E	1636.0	2.00	83.0			ST=2 TYP=3	
2800	OTTA	29 PBI	1639.5	1639.5	80.0	30.7	15.0			
410	SGMR	4 S/F	1750.0	1814.0	59.0	3000.0			QL=/ ST=/ TYP=3	
245	SGMR	4 S/F	1751.0	1838.0	80.0	760.0			QL=/ ST=/ TYP=3	
500	HIRA	41 F	2323.0	2411.0	90.0	13.0			0	
26	4995	LEAR	4 S/F	0053.0E	0053.0	7.00	45.0			ST=2 TYP=3
	15400	LEAR	4 S/F	0053.0E	0053.0	3.00	69.0			ST=2 TYP=3
	8800	LEAR	4 S/F	0053.0E	0053.0	3.00	37.0			ST=2 TYP=3
	17000	NOBE	1 S	0053.5	0053.6	1.0	60.0			23L 80,35GHz:0
	500	HIRA	8 S	0101.7	0102.3	0.7	49.0			0
	2840	PEKG	20 GRF	0122.0	0142.2	47.0	6.9			
	2850	CRIM	20 GRF	0646.0	0653.5	20.0	6.0	2.0		
	5900	KISV	22 GRF	0721.6	0722.6	12.7	7.0			
	9300	KISV	2 S/F	0721.7	0722.6	5.3	5.0			
	9300	KISV	22 GRF	0804.8	0806.1	9.5	8.0			
	9300	KISV	22 GRF	0839.5	0841.6	9.5	13.0			
	9100	GORK	22 GRF	0840.2	0841.7	33.2	12.0			
	5900	KISV	22 GRF	0840.3	0842.6	12.7	9.0			
	234	POTS	4 S/F	0843.6	0843.9	0.8	165.00			
	9300	KISV	22 GRF	0906.6	0910.5	10.0	12.0			
	5900	KISV	22 GRF	0906.8	0910.8	10.4	13.0			
	260	ONDR	42 SER	0910.0	1105.1	290.0	57.0			
	9300	KISV	22 GRF	1012.0	1015.3	10.2	8.0			
	536	ONDR	48 C	1058.5	1059.7	2.5	77.0			
	650	GORK	22 GRF	1130.3	1131.3	17.8	5.0			
	9300	KISV	29 PBI	1156.3	1206.0	12.7	12.0			
	9300	KISV	4 S/F	1156.3	1201.1	9.7	143.00			
	9100	GORK	21 GRF	1157.0	1216.0	21.00	10.0			
	5900	KISV	4 S/F	1157.1	1201.0	9.7	114.0			
	2950	GORK	21 GRF	1157.2	1216.0	31.80	9.0			
	9500	POTS	4 S/F	1158.0	1201.0	22.0	123.0			
1470	POTS	40 F	1159.0	1200.0	2.0	18.0				

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

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 -22 W/m 2 Hz)	Mean			
26	15400	SGMR	8 S	1159.0E	1200.0	2.00	220.0			ST=2 TYP=3	
	4995	SGMR	8 S	1159.0E	1200.0	2.00	170.0			ST=2 TYP=3	
	8800	SGMR	8 S	1159.0E	1200.0	2.00	170.0			ST=2 TYP=3	
	15400	SVTO	4 S/F	1159.0E	1200.0	3.00	170.0			ST=2 TYP=3	
	8800	SVTO	4 S/F	1159.0E	1201.0	3.00	110.0			ST=2 TYP=3	
	3000	POTS	40 F	1159.0	1200.5	6.00	104.0				
	15000	KISV	4 S/F	1159.0	1200.9	8.6	128.0				
	9100	GORK	4 S/F	1159.2	1200.9	4.8	135.0				
	2950	GORK	4 S/F	1159.5	1201.0	4.7	17.0				
	2850	CRIM	3 S	1159.5	1200.5	3.0	29.5	10.0			
	2695	SGMR	8 S	1200.0E	1200.0	U	67.0				ST=2 TYP=3
	4995	SVTO	8 S	1200.0E	1201.0	2.00	78.0				ST=2 TYP=3
	5900	KISV	29 PBI	1206.8E	1206.8	23.60	16.0				
	15000	KISV	45 C	1230.7	1232.6		9.0				
	15000	KISV	45 C	1230.7	1231.8	2.3	9.0				
	9300	KISV	22 GRF	1230.8	1232.0	10.5	10.0				
	9300	KISV	22 GRF	1230.8	1235.6		10.0				
	5900	KISV	2 S/F	1230.9	1231.9	3.1	8.0				
	15000	KISV	46 C	1234.9	1235.0		7.0				
	15000	KISV	46 C	1234.9	1235.3		9.0				
	15000	KISV	46 C	1234.9	1235.6	1.3	10.0				
	2800	OTTA	3 S	1529.8	1530.1	7.5	17.8	3.0			
	8800	PALE	49 GB	2044.0E	2046.0	16.00	8200.0				ST=2 TYP=6
	15400	PALE	49 GB	2044.0E	2045.0	19.00	5800.0				ST=2 TYP=6
	8800	SGMR	49 GB	2044.0E	2046.0	16.00	8900.0				ST=2 TYP=6
	4995	SGMR	49 GB	2044.0E	2046.0	17.00	5400.0				ST=2 TYP=6
	4995	PALE	49 GB	2044.0E	2046.0	22.00	4000.0				ST=2 TYP=6
	2695	PALE	49 GB	2044.0E	2046.0	25.00	940.0				ST=2 TYP=6
	2800	OTTA	3 S	2044.5	2046.3	19.0	904.0	180.0			
	1415	PALE	49 GB	2045.0E	2045.0	5.00	1500.0				ST=2 TYP=6
1415	SGMR	49 GB	2045.0E	2045.0	5.00	1600.0				ST=2 TYP=6	
2800	OTTA	29 PBI	2103.5	2103.5	120.0	34.2	11.0				
500	HIRA	41 F	2228.5	2300.5	90.0	12.0			0		
500	HIRA	46 C	2324.7	2329.8	17.5	19.0			0		
27	2840	PEKG	20 GRF	0219.0	0220.5	13.0	5.8				
	8800	LEAR	8 S	0220.0E	0220.0	1.00	43.0			ST=2 TYP=3	
	4995	LEAR	8 S	0220.0E	0220.0	1.00	23.0			ST=2 TYP=3	
	15400	LEAR	8 S	0220.0E	0220.0	1.00	74.0			ST=2 TYP=3	
	17000	NOBE	1 S	0220.2	0220.3	1.5	39.0			35L 80,35GHz:0	
	2840	PEKG	1 S	0504.0	0506.8	9.0	8.0				
	9300	KISV	22 GRF	0504.2	0507.2	9.3	6.0				
	5900	KISV	2 S/F	0504.4	0506.7	5.5	6.0				
	9300	KISV	22 GRF	0649.5	0652.6	8.9	6.0				
	5900	KISV	2 S/F	0650.8	0652.8	4.2	3.0				
	260	ONDR	41 F	0912.0	0913.8	288.0	21.0				
	5900	KISV	22 GRF	0944.8	0947.4	11.5	9.0				
	536	ONDR	8 S	1007.4	1007.6	0.7	22.0				
	3013	IZMI	45 C	1125.3	1126.5	30.0	922.0	450.0			
	2850	CRIM	47 GB	1126.5	1127.0	14.0	1714.0	571.0			
	2850	CRIM	30 PBI	1126.5	1140.5	80.0	43.0				
	9300	KISV	47 GB	1129.3	1131.2	6.0	4072.0				
	9300	KISV	29 PBI	1129.3	1135.3	58.9	200.0				
	9100	GORK	47 GB	1129.4	1131.1	10.2	3780.0				
	5900	KISV	29 PBI	1129.4	1136.1	82.3	177.0				
	5900	KISV	47 GB	1129.4	1131.2	6.7	2557.0				
	15000	KISV	29 PBI	1129.4	1134.2	40.8	231.0				
	15000	KISV	47 GB	1129.4	1131.3	4.8	2927.0				
	33	UPIC	45 C	1129.6	1130.1	2.0					
	1415	SVTO	4 S/F	1130.0E	1131.0	4.00	390.0				ST=2 TYP=3
	15400	SVTO	49 GB	1130.0E	1131.0	7.00	3900.0				ST=2 TYP=6
	8800	SVTO	49 GB	1130.0E	1131.0	9.00	3100.0				ST=2 TYP=6
	2695	SVTO	49 GB	1130.0E	1131.0	16.00	1000.0				ST=2 TYP=6
	4995	SVTO	49 GB	1130.0E	1131.0	16.00	1800.0				ST=2 TYP=6
	950	GORK	29 PBI	1130.0	1133.0	21.3	10.0				
9500	POTS	45 C	1130.0	1131.0	25.0	2920.0					
1470	POTS	45 C	1130.0	1131.5	35.0	460.0					
3000	POTS	45 C	1130.0	1130.6	55.0	1420.00					
2950	GORK	47 GB	1130.3	1131.1	47.70	980.0					

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

63  
Oct 89

OCTOBER 1989

Day	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
						Peak (10 -22 W/m 2 Hz)	Mean			
27	650 GORK	22 GRF	1130.3	1131.3	17.8	5.0				
	950 GORK	4 S/F	1130.7	1131.3	2.3	32.0				
	808 ONDR	20 GRF	1131.0	1131.8	7.0	15.0				
	33 UPIC	31 ABS	1131.6	1135.0	34.4					
	9100 GORK	29 PBI	1139.6	1139.6	38.40	22.0				
	2850 CRIM	3 S	1226.8	1233.6	19.0	52.0	17.0			
	3000 POTS	29 PBI	1230.0	1236.9	90.0	51.0				
	5900 KISV	46 C	1233.0	1238.0		13.0				
	5900 KISV	46 C	1233.0	1237.0	13.7	16.0				
	5900 KISV	46 C	1233.0	1235.9		15.0				
	8800 PALE	49 GB	1859.0E	1900.0	9.00	3200.0			ST=2 TYP=6	
	15400 PALE	49 GB	1859.0E	1900.0	7.00	2400.0			ST=2 TYP=6	
	15400 SGMR	49 GB	1859.0E	1900.0	7.00	2100.0			ST=2 TYP=6	
	8800 SGMR	49 GB	1859.0E	1900.0	9.00	3900.0			ST=2 TYP=6	
	4995 PALE	49 GB	1859.0E	1900.0	12.00	2100.0			ST=2 TYP=6	
	4995 SGMR	49 GB	1859.0E	1901.0	11.00	2600.0			ST=2 TYP=6	
	2695 PALE	49 GB	1859.0E	1900.0	20.00	1100.0			ST=2 TYP=6	
	2695 SGMR	49 GB	1859.0E	1901.0	301.00	1100.0			ST=1 TYP=6	
	2800 OTTA	3 S	1859.4	1901.2	19.0	1064.0	213.0			
	1415 PALE	4 S/F	1900.0E	1900.0	9.00	330.0			ST=2 TYP=3	
	1415 SGMR	4 S/F	1900.0E	1900.0	9.00	310.0			ST=2 TYP=3	
	410 SGMR	8 S	1901.0E	1901.0	U	70.0			ST=2 TYP=3	
	2800 OTTA	29 PBI	1918.5	1918.5	118.0	30.1	9.0			
	28	245 LEAR	8 S	0252.0E	0252.0	1.00	66.0			ST=2 TYP=3
		2840 PEKG	5 S	0428.0	0442.3	20.0	16.4			
		2840 PEKG	45 C	0458.0	0515.6	38.0	129.4			
		5900 KISV	47 GB	0459.4	0515.5	31.0	532.0			
4995 LEAR		4 S/F	0502.0E	0515.0	22.00	490.0			ST=2 TYP=5	
9100 GORK		23 GRF	0502.2	0503.7	26.3	26.0				
9300 KISV		47 GB	0502.7	0515.6	28.4	277.0				
15000 KISV		4 S/F	0502.8	0515.5	20.0	89.0				
2695 LEAR		8 S	0503.0E	0503.0	1.00	21.0			ST=2 TYP=3	
8800 LEAR		8 S	0503.0E	0503.0	U	18.0			ST=2 TYP=3	
2950 GORK		4 S/F	0503.0E	0515.8	21.00	140.0				
2850 CRIM		3 S	0511.7	0516.0	15.0	130.0	43.0			
9100 GORK		4 S/F	0512.2	0515.6	10.4	275.0				
1415 LEAR		8 S	0514.0E	0515.0	1.00	20.0			ST=2 TYP=3	
15400 LEAR		4 S/F	0514.0E	0515.0	5.00	97.0			ST=2 TYP=3	
9100 GORK		21 GRF	0624.6	0950.5	323.40	18.0				
2950 GORK		21 GRF	0708.6	1142.0	276.40	7.0				
260 ONDR		41 F	0949.0	1123.0	251.0	23.0				
650 GORK		21 GRF	1116.6	1133.0	22.40	4.0				
2695 SVTO		49 GB	1119.0E	1124.0	12.00	800.0			ST=2 TYP=6	
4995 SVTO		49 GB	1119.0E	1123.0	10.00	660.0			ST=2 TYP=6	
650 GORK		48 C	1119.2	1120.0	13.8	107.0				
650 GORK		48 C	1119.2	1123.4		24.0				
2850 CRIM		47 GB	1119.5	1134.0		1254.0	417.0			
9500 POTS		45 C	1119.5	1121.0	36.0	675.0				
2850 CRIM		47 GB	1119.5	1121.1	15.0	164.0				
2950 GORK		46 C	1119.5	1121.1	14.5	135.0				
808 ONDR		49 GB	1119.5	1122.3	20.0	159.0				
2850 CRIM		29 PBI	1119.5	1134.5	26.0	19.0	6.0			
1470 POTS		45 C	1119.5	1123.8	28.0	570.0				
3000 POTS		45 C	1119.5	1123.8	51.0	1400.00				
2950 GORK		46 C	1119.5	1123.9		730.0				
15000 KISV		4 S/F	1119.6	1121.0	2.6	240.0				
3013 IZMI		45 C	1119.6	1124.0	19.0	633.0	315.0			
15000 KISV		29 PBI	1119.6	1122.2	8.6	69.0				
100 GORK		3 S	1119.6	1120.3	2.0	650.0				
950 GORK		46 C	1119.6	1122.3	10.4	81.0				
950 GORK		46 C	1119.6	1125.4		92.0				
5900 KISV		47 GB	1119.6	1121.4	7.9	895.0				
5900 KISV		29 PBI	1119.6	1127.5	9.1	58.0				
5900 KISV	47 GB	1119.6	1123.7		678.0					
9100 GORK	47 GB	1119.6	1120.9	10.4	720.0					
9300 KISV	47 GB	1119.8	1121.1	8.0	125.00					
9300 KISV	29 PBI	1119.8	1127.8	10.8	19.0					
8800 SVTO	49 GB	1120.0E	1121.0	6.00	620.0			ST=2 TYP=6		



64  
Oct 89

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

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
28	15400	SVTO	4 S/F	1120.0E	1121.0	5.00	260.0			ST=2 TYP=3
	1415	SVTO	4 S/F	1120.0E	1123.0	10.00	320.0			ST=2 TYP=3
	810	KRAK	4 S/F	1121.5	1122.0	13.0	350.00	31.0		
	536	ONDR	48 C	1121.9	1123.6	12.0	162.0			
	410	SVTO	8 S	1122.0E	1122.0	2.00	220.0			ST=2 TYP=3
	430	KRAK	48 C	1122.2	1122.5	3.0	240.00	80.0		
	600	HUMN	4 S/F	1122.3	1123.2	9.0	70.0	14.0		
	950	GORK	29 PBI	1130.0	1130.0	12.00	17.0			
	810	KRAK	42 SER	1204.5	1206.1	9.0	45.0			
	808	ONDR	42 SER	1205.0	1206.4	7.0	19.0			
	430	KRAK	42 SER	1410.8	1411.0	1.0	210.00			
	410	SVTO	8 S	1413.0E	1413.0	U	50.0			ST=2 TYP=3
	430	KRAK	42 SER	1415.5	1415.9	1.0	110.0			
	245	PALE	8 S	2036.0E	2036.0	1.00	63.0			ST=2 TYP=3
245	SGMR	8 S	2036.0E	2036.0	1.00	62.0			ST=2 TYP=3	
29	200	GORK	43 NS	0845.0		165.0		5.0		
	100	GORK	43 NS	0913.0		137.0		5.0		
	500	HIRA	46 C	0249.5	0253.3	20.0	24.0		0	
	500	HIRA	46 C	0249.5	0255.7		7.0		0	
	2840	PEKG	45 C	0251.0	0306.4	18.0	49.2			
	2695	PALE	20 GRF	0304.0E	0306.0	5.00	78.0			ST=2 TYP=2
	500	HIRA	48 C	0346.0	0431.0	101.0	860.0	128.0		0
	500	HIRA	48 C	0346.0	0505.3		760.0			0
	500	HIRA	48 C	0346.0	0454.5		370.0			0
	2840	PEKG	45 C	0346.0	0350.5	10.00	99.2			
	200	HIRA	46 C	0348.2	0354.1	53.0	130.0	14.0		0
	100	HIRA	46 C	0349.5	0354.5	46.0	1800.0	55.0		0
	245	LEAR	4 S/F	0355.0E	0358.0	26.00	69.0			ST=2 TYP=5
	2840	PEKG	47 GB	0356.0E	0408.3	53.00	890.7			
	4995	LEAR	49 GB	0357.0E	0407.0	45.00	1300.0			ST=2 TYP=6
	1415	LEAR	4 S/F	0357.0E	0408.0	45.00	420.0			ST=2 TYP=5
	8800	LEAR	49 GB	0357.0E	0406.0	45.00	1100.0			ST=2 TYP=7
	15400	LEAR	49 GB	0359.0E	0408.0	43.00	730.0			ST=2 TYP=7
	610	LEAR	49 GB	0401.0E	0430.0	41.00	670.0			ST=2 TYP=7
	2695	LEAR	49 GB	0401.0E	0408.0	41.00	1000.0			ST=2 TYP=7
	410	LEAR	4 S/F	0424.0E	0430.0	18.00	300.0			ST=2 TYP=5
	410	LEAR	4 S/F	0448.0E	0454.0	9.00	220.0			ST=2 TYP=5
	610	LEAR	20 GRF	0448.0E	0454.0	9.00	310.0			ST=2 TYP=2
	1415	LEAR	20 GRF	0449.0E	0454.0	10.00	94.0			ST=2 TYP=2
	2840	PEKG	3 S	0449.0	0454.0	13.0	61.6			
	4995	LEAR	4 S/F	0451.0E	0453.0	6.00	48.0			ST=2 TYP=3
	9100	GORK	22 GRF	0451.2	0454.9	8.5	22.0			
	8800	LEAR	4 S/F	0452.0E	0453.0	6.00	34.0			ST=2 TYP=3
	2695	LEAR	8 S	0453.0E	0453.0	1.00	23.0			ST=2 TYP=3
	650	GORK	47 GB	0454.0E	0510.0		690.0			
	2950	GORK	22 GRF	0454.0E	0551.0	70.50	48.0			
	650	GORK	47 GB	0454.0E	0543.6		160.0			
	950	GORK	47 GB	0454.0	0514.6	86.5	120.0			
	650	GORK	47 GB	0454.0E	0502.6	86.60	750.0			
	410	LEAR	4 S/F	0459.0E	0505.0	16.00	370.0			ST=2 TYP=5
	610	LEAR	49 GB	0500.0E	0502.0	24.00	550.0			ST=2 TYP=7
	1415	LEAR	49 GB	0501.0E	0504.0	19.00	620.0			ST=2 TYP=7
	2840	PEKG	3 S	0502.0	0511.0	21.0	35.5			
	500	HIRA	46 C	0533.0	0540.3	23.5	80.0	23.0		0
	9100	GORK	22 GRF	0533.3	0552.7	35.7	10.0			
1415	LEAR	20 GRF	0538.0E	0548.0	13.00	190.0			ST=2 TYP=2	
610	LEAR	4 S/F	0539.0E	0540.0	10.00	94.0			ST=2 TYP=3	
1415	SVTO	20 GRF	0542.0E	0548.0	9.00	190.0			ST=2 TYP=2	
2840	PEKG	3 S	0544.0E	0551.2	17.00	56.5				
2850	CRIM	28 PRE	0544.0	0547.8	3.8	4.6	1.5			
5900	KISV	22 GRF	0546.9	0552.7	14.5	13.0				
2850	CRIM	3 S	0547.8	0551.5	11.0	53.0	17.0			
2695	SVTO	4 S/F	0548.0E	0550.0	6.00	63.0			ST=2 TYP=3	
2850	CRIM	20 GRF	0602.8	0605.5	10.2	4.6	1.5			
2950	GORK	20 GRF	0612.3	0621.0	18.4	3.0				
950	GORK	30 PBI	0620.5	0620.5	81.5	7.0				
650	GORK	30 PBI	0620.6	0842.0	274.7	8.0				
950	GORK	2 S/F	0641.3	0642.8	4.1	5.0				

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

65  
Oct 89

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m <sup>2</sup> Hz)	Mean		
29	650	GORK	4 S/F	0651.0	0654.2	6.8	9.0			
	950	GORK	2 S/F	0651.3	0652.5	2.4	4.0			
	1470	POTS	20 GRF	0710.0	0719.8	25.0	17.0			
	3000	POTS	20 GRF	0710.0	0719.8	40.0	8.0			
	2840	PEKG	20 GRF	0715.0	0719.0	12.0	7.2			
	2850	CRIM	20 GRF	0716.6	0720.0	8.0	4.8	1.5		
	2950	GORK	20 GRF	0717.1	0719.3	18.6	4.0			
	650	GORK	46 C	0740.1	0749.0		17.0			
	650	GORK	46 C	0740.1	0746.1	12.6	17.0			
	1470	POTS	22 GRF	0830.0	0846.5	30.0	27.0			
	950	GORK	2 S/F	0836.3	0841.3	17.7	12.0			
	950	GORK	1 S	0858.8	0900.3	3.70	3.0			
	260	ONDR	41 F	0900.0	0927.4	300.00	20.0			
	100	GORK	4 S/F	0925.5	0927.7	3.5	300.0			
	808	ONDR	2 S/F	1157.5	1158.8	5.0	6.0			
	2695	PENT	4 S/F	2114.0	2137.6	150.00	162.0	32.0		
	500	HIRA	46 C	2129.5	2138.2	25.5	8.0			0
1415	PALE	4 S/F	2136.0E	2138.0	8.00	61.0			ST=2 TYP=3	
4995	PALE	4 S/F	2136.0E	2138.0	10.00	110.0			ST=2 TYP=3	
8800	PALE	4 S/F	2137.0E	2139.0	4.00	61.0			ST=2 TYP=3	
15400	PALE	4 S/F	2137.0E	2137.0	143.00	28.0			ST=1 TYP=3	
30	245	LEAR	8 S	0553.0E	0554.0	1.00	87.0			ST=2 TYP=3
	204	IZMI	5 S	0712.2	0712.8	0.7	95.0	50.0		
	260	ONDR	41 F	1032.2	1038.9	11.5	15.0			
	5900	KISV	2 S/F	1044.3	1045.0	2.7	21.0			
	9300	KISV	2 S/F	1044.7	1045.0	2.2	6.0			
	245	SVTO	8 S	1131.0E	1131.0	U	100.0			ST=2 TYP=3
	1470	POTS	3 S	1333.0	1337.0	9.0	19.0			
	3000	POTS	3 S	1334.0	1337.0	8.0	11.0			
	410	LEAR	4 S/F	2337.0E	2340.0	3.00	170.0			ST=2 TYP=3
	100	HIRA	41 F	2338.6	2340.6	3.6	12200.0			WL
	200	HIRA	41 F	2339.0	2339.6	2.4	1200.0			0
31	200	GORK	44 NS	0500.0E		420.00		5.0		
	127	TORN	43 NS	0952.0	1048.3	90.0	400.0	4.0		V=2
	245	LEAR	49 GB	0015.0E	0015.0	1.00	1600.0			ST=2 TYP=6
	410	LEAR	49 GB	0015.0E	0015.0	1.00	790.0			ST=2 TYP=6
	410	PALE	49 GB	0015.0E	0015.0	1.00	950.0			ST=2 TYP=6
	245	PALE	49 GB	0015.0E	0015.0	1.00	2100.0			ST=2 TYP=6
	200	HIRA	8 S	0015.2	0015.2	0.7	1300.0			0
	500	HIRA	46 C	0015.3	0026.3		10.0			0
	500	HIRA	46 C	0015.3	0015.5	19.7	40.0			0
	2840	PEKG	5 S	0050.0	0052.3	4.0	10.9			0
	100	HIRA	46 C	0217.6	0219.1	3.1	2400.0			0
	245	LEAR	8 S	0219.0E	0219.0	1.00	150.0			ST=2 TYP=3
	245	PALE	8 S	0219.0E	0219.0	1.00	230.0			ST=2 TYP=3
	8800	LEAR	4 S/F	0339.0E	0340.0	4.00	49.0			ST=2 TYP=3
	610	LEAR	4 S/F	0339.0E	0340.0	7.00	330.0			ST=2 TYP=3
	245	LEAR	49 GB	0339.0E	0341.0	7.00	1400.0			ST=2 TYP=6
	410	LEAR	4 S/F	0339.0E	0340.0	5.00	210.0			ST=2 TYP=3
	200	HIRA	46 C	0339.9	0340.3	1.5	7500.0			0
	100	HIRA	48 C	0340.0	0340.0	2.1	16000.00			0
	2695	LEAR	4 S/F	0340.0E	0341.0	6.00	59.0			ST=2 TYP=3
	15400	LEAR	4 S/F	0340.0E	0340.0	7.00	75.0			ST=2 TYP=3
	1415	LEAR	4 S/F	0340.0E	0341.0	5.00	37.0			ST=2 TYP=3
	4995	LEAR	4 S/F	0340.0E	0341.0	5.00	62.0			ST=2 TYP=3
	2840	PEKG	5 S	0340.0	0340.9	9.0	89.2			
	500	HIRA	46 C	0340.5	0341.0	3.5	98.0			0
	35000	NOBE	1 S	0340.6	0340.8	1.0	97.0			0 80GHz:0
	17000	NOBE	1 S	0340.6	0340.8	1.0				14L
2840	PEKG	20 GRF	0501.0	0530.3	161.00	29.0				
2850	CRIM	25 R	0520.0	0540.0		25.0				
9100	GORK	20 GRF	0521.3	0557.8	401.70	33.0				
5900	KISV	23 GRF	0523.5	0552.3	77.4	37.0				
9300	KISV	23 GRF	0524.1	0552.6	101.7	37.0				
2850	CRIM	20 GRF	0526.9	0530.1	9.0	14.0	5.0			
9300	KISV	45 C	0527.5	0537.3		10.0				
9300	KISV	45 C	0527.5	0530.3	13.6	17.0				

66  
Oct 89

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

OCTOBER 1989

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
31	5900	KISV	45 C	0527.7	0537.1		12.0			
	5900	KISV	45 C	0527.7	0530.2	14.8	34.0			
	2695	SVTO	4 S/F	0543.0E	0545.0	4.00	53.0			ST=2 TYP=3
	4995	SVTO	8 S	0543.0E	0544.0	2.00	54.0			ST=2 TYP=3
	15400	SVTO	8 S	0544.0E	0545.0	2.00	68.0			ST=2 TYP=3
	113	POTS	8 S	0632.2	0635.3	3.5	175.0			
	200	GORK	41 F	0634.4	0635.4	39.9	830.0			
	200	GORK	41 F	0634.4	0713.6		500.0			
	100	GORK	41 F	0634.5	0713.6		2830.0			
	100	GORK	41 F	0634.5	0653.6	50.5	570.0			
	245	LEAR	4 S/F	0635.0E	0635.0	3.00	360.0			ST=3 TYP=3
	245	SVTO	49 GB	0635.0E	0635.0	U	500.0			ST=2 TYP=6
	204	IZMI	5 S	0635.2	0635.5	0.6	750.0	380.0		
	234	POTS	4 S/F	0635.3	0635.3	1.3	1000.0			
	113	POTS	4 S/F	0653.4	0653.5	0.8	365.0			
	245	LEAR	8 S	0713.0E	0713.0	1.00	370.0			ST=2 TYP=3
	245	SVTO	8 S	0713.0E	0713.0	1.00	420.0			ST=3 TYP=3
	204	IZMI	4 S/F	0713.2	0714.0	0.8	640.0			
	200	HIRA	8 S	0713.2	0713.2	0.8	710.0			0
	234	POTS	4 S/F	0713.4	0713.6	1.2	1900.0			
	113	POTS	4 S/F	0713.6	0713.8	1.1	1700.0			
	9300	KISV	22 GRF	0721.6	0818.0	104.4	22.0			
	2850	CRIM	20 GRF	0807.8	0819.8	16.0	5.0	2.0		
	200	GORK	4 S/F	0809.8	0814.0	4.5	330.0			
	204	IZMI	41 F	0810.0	0812.8	4.0	790.0			
	113	POTS	41 F	0810.8	0812.8	4.2	150.0			
	245	LEAR	8 S	0811.0E	0811.0	2.00	110.0			ST=2 TYP=3
	245	SVTO	8 S	0811.0E	0811.0	2.00	160.0			ST=2 TYP=3
	100	GORK	4 S/F	0811.0	0812.8	2.0	250.0			
	234	POTS	41 F	0811.2	0811.6	3.0	500.0			
	260	ONDR	41 F	0900.0E	1126.0	300.00	241.0			
	100	GORK	3 S	0907.8	0908.3	1.2	30.0			
	9300	KISV	22 GRF	1006.8	1009.9	17.2	6.0			
	5900	KISV	22 GRF	1007.3	1009.9	17.6	5.0			
	100	GORK	41 F	1029.1	1100.1	90.9	2380.0			
	100	GORK	41 F	1029.1	1157.4		2380.0			
	100	GORK	41 F	1029.1	1125.7		1470.0			
	430	KRAK	42 SER	1032.0	1049.4	28.00	82.0			
	536	ONDR	41 F	1032.5	1102.9	31.0	44.0			
	410	SVTO	8 S	1042.0E	1042.0	U	42.0			ST=2 TYP=3
	245	SVTO	8 S	1042.0E	1042.0	1.00	75.0			ST=2 TYP=3
	410	SVTO	8 S	1045.0E	1045.0	1.00	45.0			ST=2 TYP=3
	245	SVTO	8 S	1046.0E	1046.0	U	50.0			ST=2 TYP=3
	410	SVTO	8 S	1049.0E	1049.0	U	71.0			ST=2 TYP=3
	410	SVTO	8 S	1056.0E	1056.0	1.00	77.0			ST=2 TYP=3
	200	GORK	41 F	1058.2	1126.2		136.0			
	200	GORK	41 F	1058.2	1101.8	28.8	166.0			
	204	IZMI	41 F	1101.8	1102.0	2.0	570.0			
	808	ONDR	41 F	1102.0	1125.7	29.0	24.0			
	234	POTS	4 S/F	1103.0	1103.8	1.1	150.0			
536	ONDR	42 SER	1123.6	1125.1	5.0	64.0				
3000	POTS	3 S	1125.0	1126.0	2.5	8.0				
245	SVTO	8 S	1125.0E	1126.0	1.00	92.0			ST=2 TYP=3	
1470	POTS	3 S	1125.0	1125.2	3.00	13.0				
430	KRAK	4 S/F	1125.0	1125.3	2.0	190.0	4.0			
113	POTS	4 S/F	1125.0	1125.4	2.2	800.0				
40	POTS	4 S/F	1125.0	1125.7	1.7	33000.0				
234	POTS	4 S/F	1125.1	1125.3U	2.0	U				
650	GORK	4 S/F	1125.2	1125.7	3.0	32.0				
204	IZMI	41 F	1125.2	1125.8	0.6	240.0				
810	KRAK	2 S/F	1125.4	1125.6	1.2	35.0	5.0			
950	GORK	2 S/F	1125.5	1125.7	1.7	13.0				
2950	GORK	1 S	1125.5	1125.8	1.6	6.0				
5900	KISV	2 S/F	1125.6	1125.9	6.7	7.0				
9300	KISV	2 S/F	1125.8	1125.9	2.2	6.0				
113	POTS	4 S/F	1157.1	1157.4	0.7	800.0				
40	POTS	4 S/F	1157.2	1157.3	0.9	9400.0				
204	IZMI	5 S	1157.4	1157.5	0.2	120.0	80.0			
8800	SVTO	8 S	1216.0E	1216.0	U	110.0			ST=2 TYP=3	

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

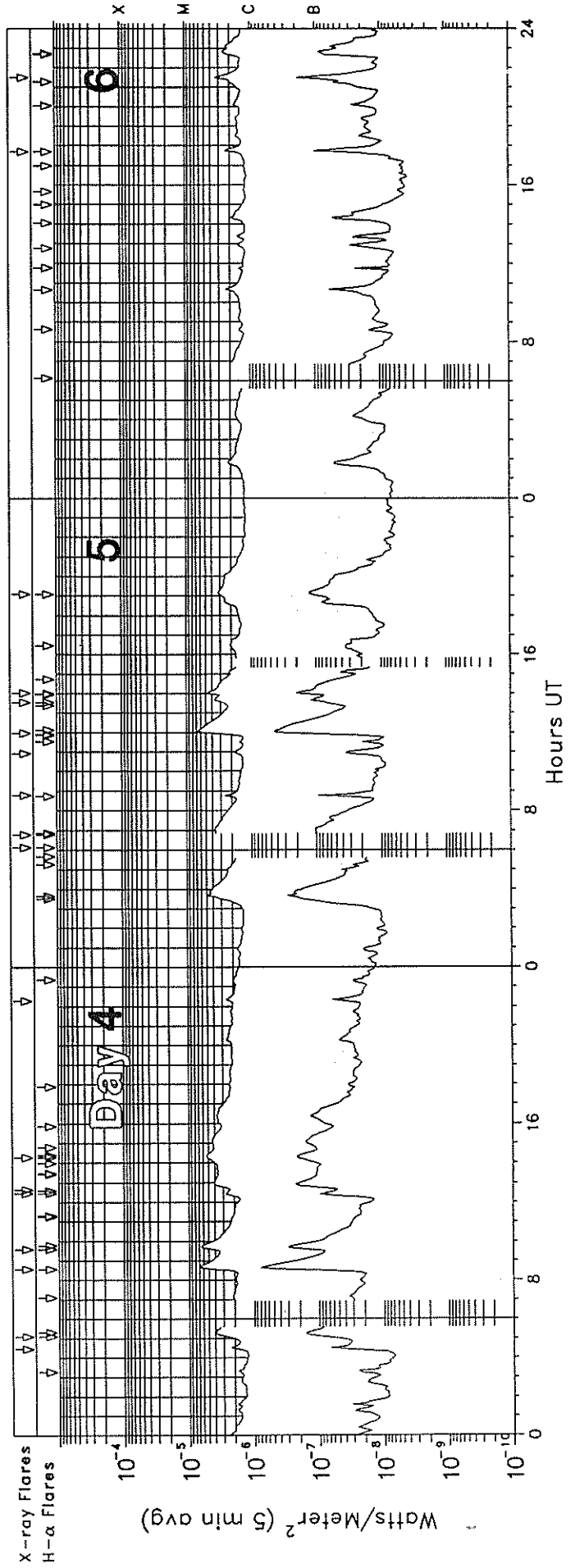
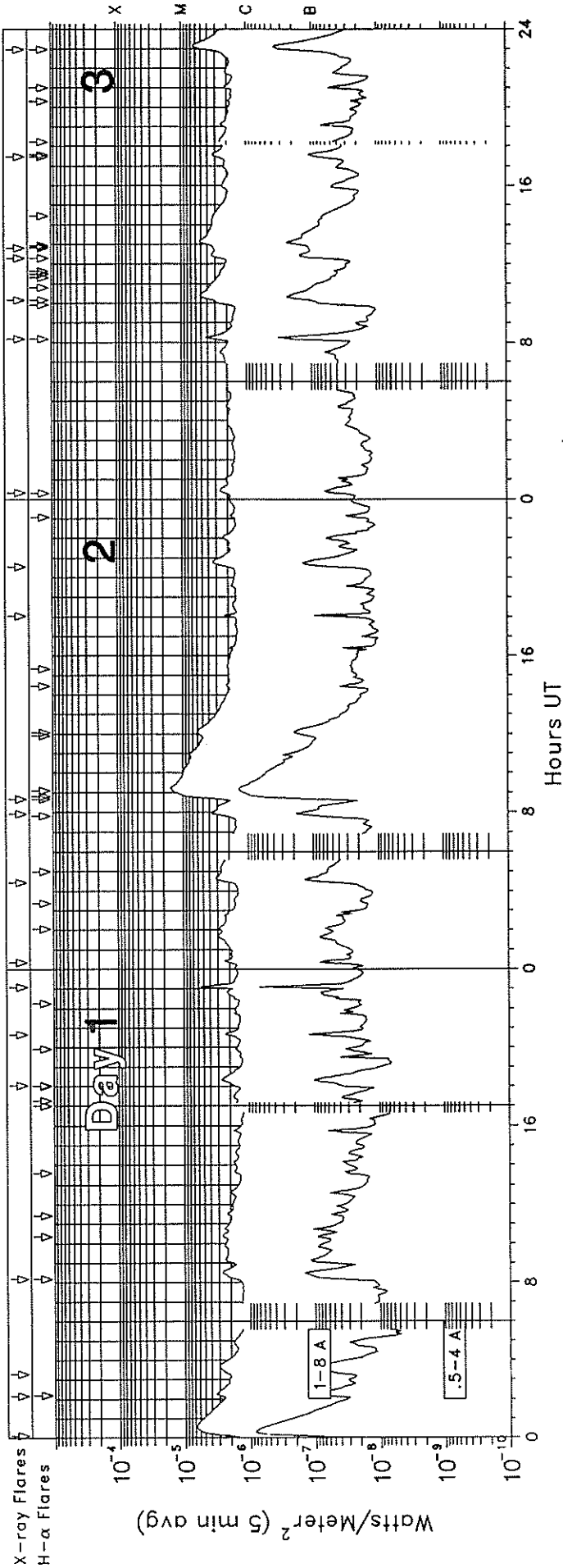
67  
Oct 89

OCTOBER 1989

Day	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
						Peak (10 -22 W/m 2 Hz)	Mean		
31	536 ONDR	8 S	1249.8	1249.9	0.5	39.0			
	1470 POTS	40 F	1323.0	1326.0	7.0	15.0			
	2800 OTTA	4 S/F	1541.0	1615.5	170.0	80.7	16.0		
	2695 SGMR	4 S/F	1612.0E	1615.0	7.00	63.0			ST=2 TYP=3
	245 PALE	8 S	1757.0E	1757.0	U	64.0			ST=2 TYP=3
	245 SGMR	8 S	1757.0E	1757.0	U	85.0			ST=2 TYP=3
	610 PALE	8 S	1854.0E	1854.0	U	330.0			ST=2 TYP=3
	1415 PALE	8 S	1854.0E	1854.0	U	28.0			ST=2 TYP=3
	410 SGMR	8 S	1854.0E	1854.0	U	490.0			ST=2 TYP=3
	610 SGMR	8 S	1854.0E	1854.0	U	430.0			ST=2 TYP=3
	2800 OTTA	3 S	1854.2	1855.5	2.5	14.3	3.0		
	245 PALE	49 GB	1859.0E	1859.0	1.00	730.0			ST=2 TYP=6
	245 SGMR	49 GB	1859.0E	1859.0	1.00	1100.0			ST=2 TYP=6
	410 PALE	8 S	1900.0E	1900.0	U	140.0			ST=2 TYP=3
	610 PALE	8 S	1900.0E	1900.0	U	220.0			ST=2 TYP=3
	410 SGMR	8 S	1900.0E	1900.0	U	150.0			ST=2 TYP=3
	610 SGMR	8 S	1900.0E	1900.0	U	260.0			ST=2 TYP=3
	245 PALE	8 S	1903.0E	1903.0	U	400.0			ST=2 TYP=3
	410 PALE	8 S	1903.0E	1903.0	U	120.0			ST=2 TYP=3
	15400 PALE	8 S	1903.0E	1903.0	1.00	38.0			ST=2 TYP=3
	245 SGMR	49 GB	1903.0E	1903.0	U	510.0			ST=3 TYP=6
	610 SGMR	8 S	1903.0E	1903.0	1.00	46.0			ST=2 TYP=3
	410 SGMR	8 S	1903.0E	1903.0	U	130.0			ST=2 TYP=3
	15400 SGMR	20 GRF	2036.0E	2043.0	9.00	160.0			ST=2 TYP=2
	2695 PENT	4 S/F	2038.7	2039.6	4.5	56.1	11.0		
	2695 PALE	8 S	2039.0E	2039.0	1.00	56.0			ST=2 TYP=3
	1415 PALE	8 S	2039.0E	2039.0	1.00	51.0			ST=2 TYP=3
	15400 PALE	8 S	2039.0E	2039.0	1.00	130.0			ST=2 TYP=3
	4995 PALE	8 S	2039.0E	2039.0	U	62.0			ST=2 TYP=3
	410 SGMR	49 GB	2039.0E	2039.0	U	1200.0			ST=2 TYP=6
	4995 SGMR	8 S	2039.0E	2039.0	1.00	80.0			ST=2 TYP=3
	2695 SGMR	8 S	2039.0E	2039.0	1.00	62.0			ST=2 TYP=3
	610 SGMR	8 S	2039.0E	2039.0	U	150.0			ST=2 TYP=3
	245 SGMR	49 GB	2039.0E	2039.0	1.00	7500.0			ST=2 TYP=6
	1415 SGMR	8 S	2039.0E	2039.0	1.00	43.0			ST=2 TYP=3
	8800 SGMR	4 S/F	2039.0E	2039.0	201.00	90.0			ST=1 TYP=3
	2695 PALE	8 S	2042.0E	2042.0	2.00	63.0			ST=2 TYP=3
	1415 PALE	8 S	2042.0E	2042.0	2.00	59.0			ST=2 TYP=3
	610 PALE	8 S	2042.0E	2042.0	1.00	160.0			ST=3 TYP=3
	410 PALE	8 S	2042.0E	2042.0	1.00	470.0			ST=3 TYP=3
	245 PALE	8 S	2042.0E	2042.0	1.00	120.0			ST=2 TYP=3
	4995 PALE	8 S	2042.0E	2042.0	2.00	33.0			ST=3 TYP=3
8800 PALE	8 S	2042.0E	2043.0	2.00	73.0			ST=2 TYP=3	
15400 PALE	8 S	2042.0E	2043.0	2.00	100.0			ST=3 TYP=3	
410 SGMR	49 GB	2042.0E	2042.0	1.00	550.0			ST=2 TYP=6	
2695 SGMR	8 S	2042.0E	2042.0	2.00	51.0			ST=2 TYP=3	
610 SGMR	8 S	2042.0E	2042.0	1.00	170.0			ST=2 TYP=3	
2695 PENT	4 S/F	2042.4	2042.8	2.7	65.3	13.0			
8800 SGMR	8 S	2043.0E	2043.0	U	70.0			ST=2 TYP=3	
2695 PENT	31 ABS	2045.1	2058.0	30.0	-7.2	-3.0			
245 PALE	8 S	2100.0E	2100.0	1.00	130.0			ST=2 TYP=3	
245 SGMR	8 S	2100.0E	2100.0	U	210.0			ST=2 TYP=3	
245 PALE	8 S	2313.0E	2313.0	1.00	83.0			ST=2 TYP=3	
200 HIRA	46 C	2330.4	2332.0	4.0	120.0			WR	
245 LEAR	4 S/F	2331.0E	2334.0	3.00	70.0			ST=2 TYP=3	
100 HIRA	46 C	2331.0	2332.5	5.3	830.0				

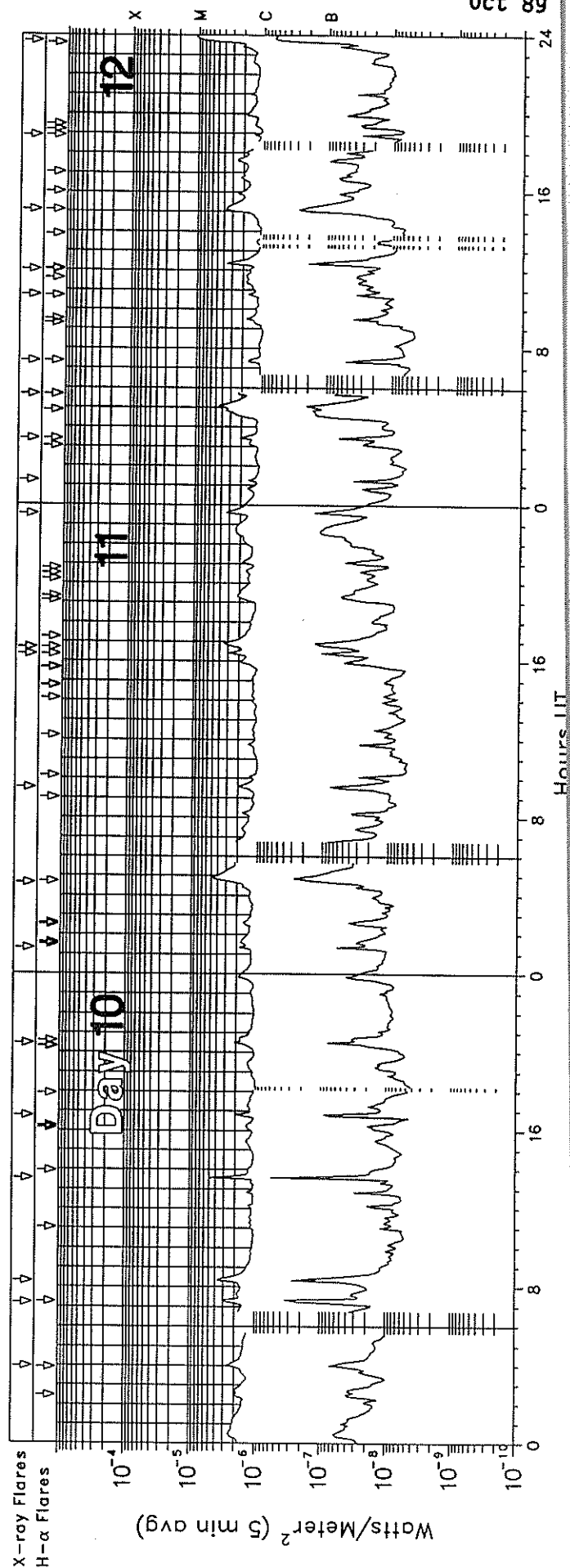
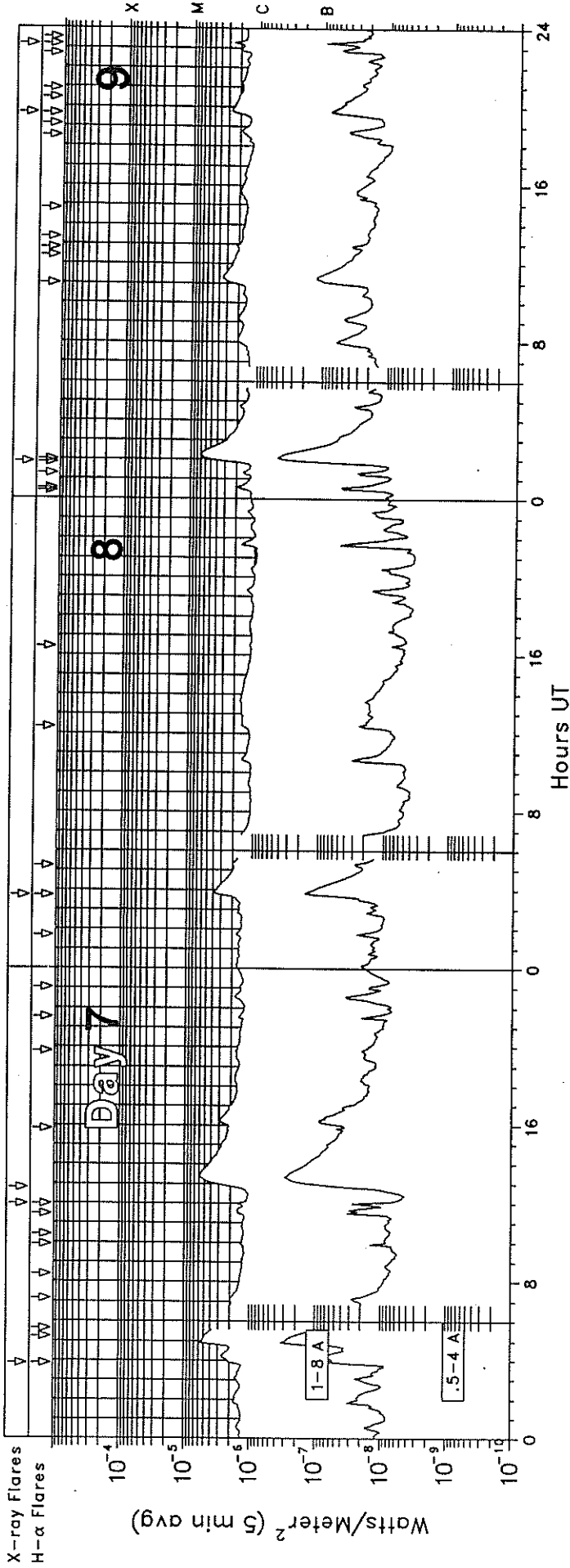
# GOES-7 X-RAY DETECTOR

October 1989



# GOES-7 X-RAY DETECTOR

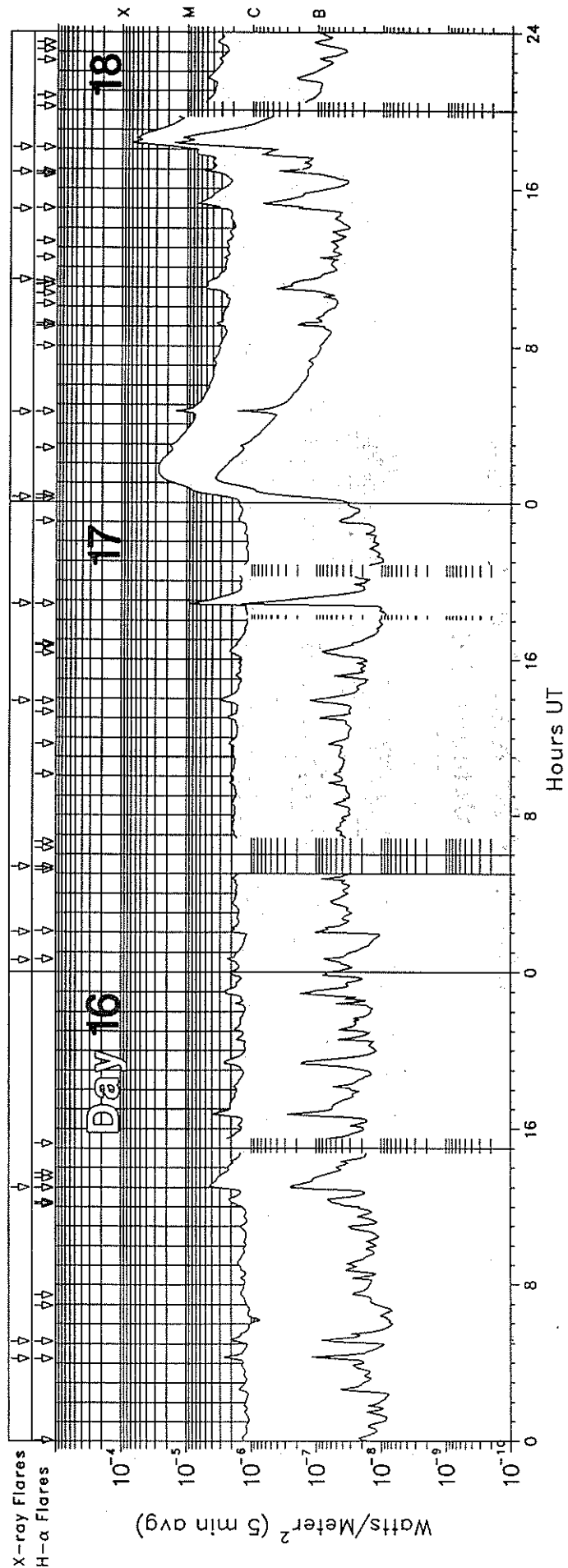
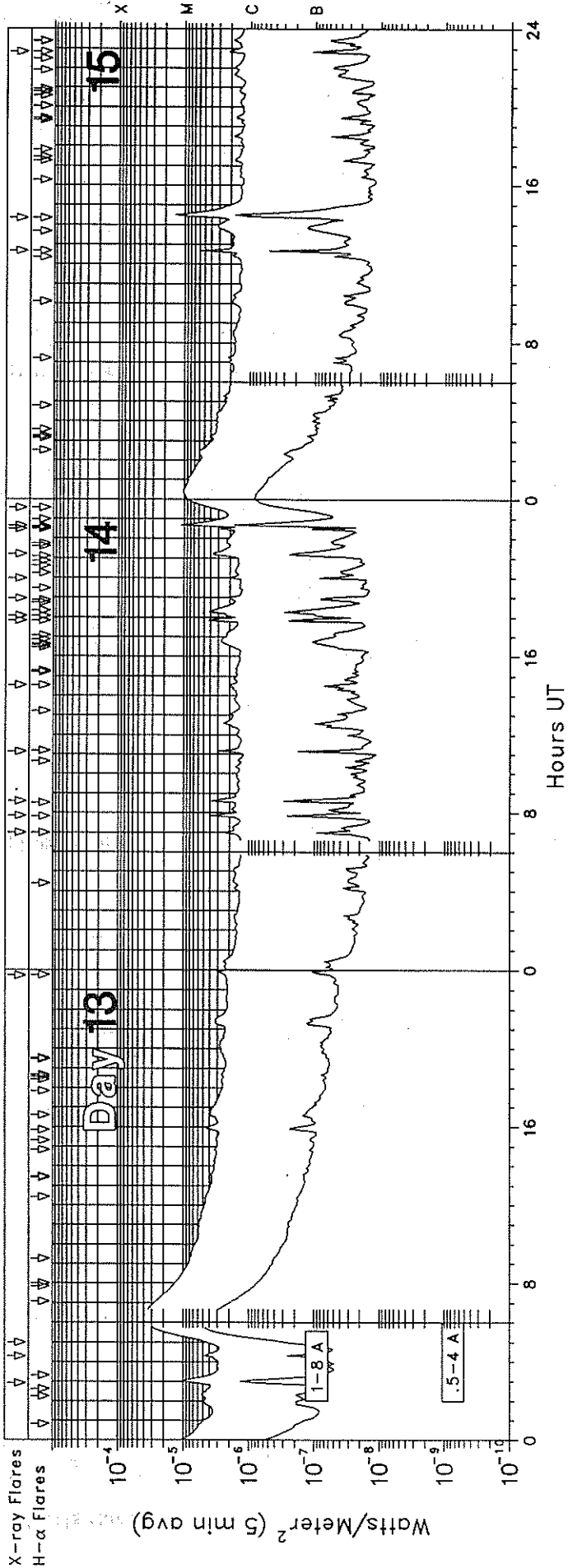
October 1989



70  
Oct 89

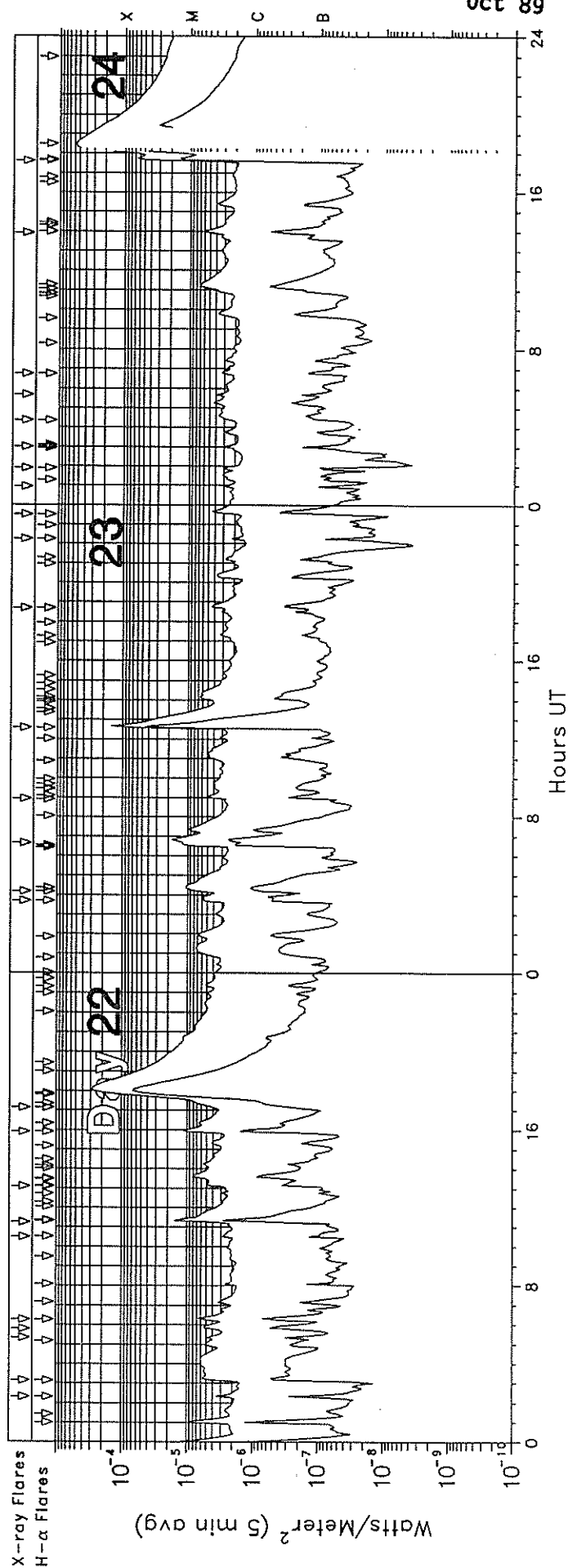
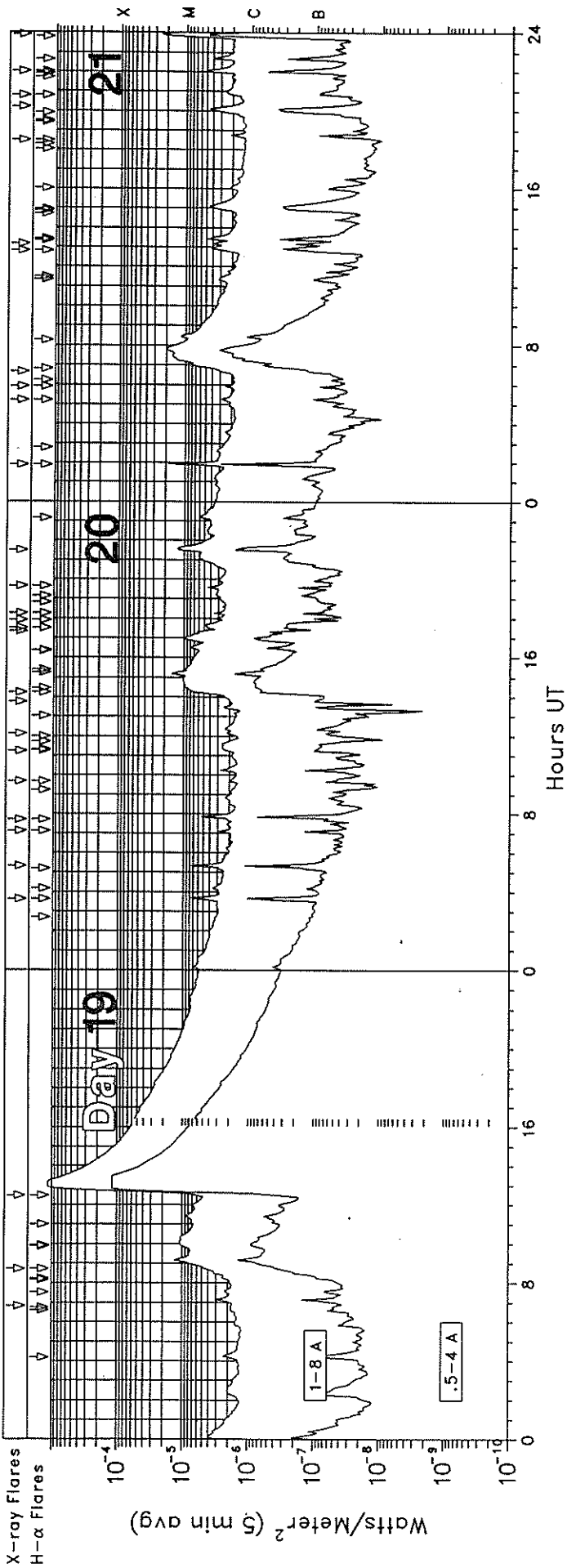
# GOES-7 X-RAY DETECTOR

October 1989



# GOES-7 X-RAY DETECTOR

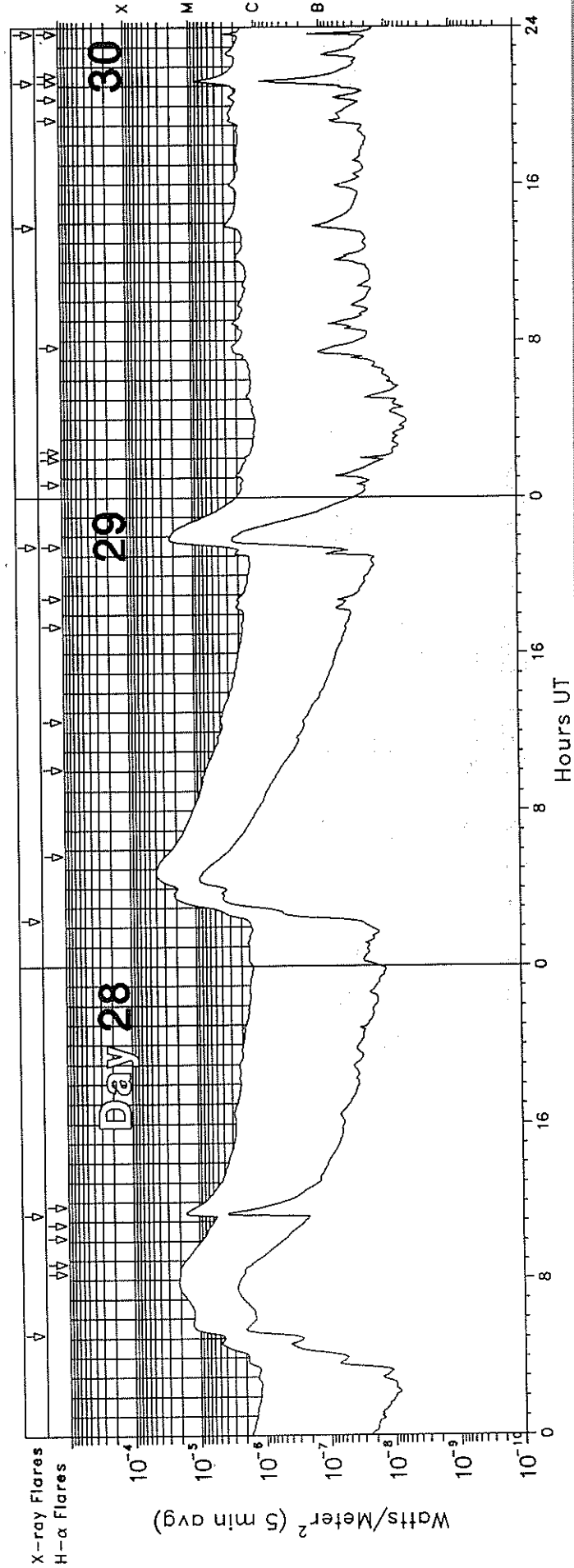
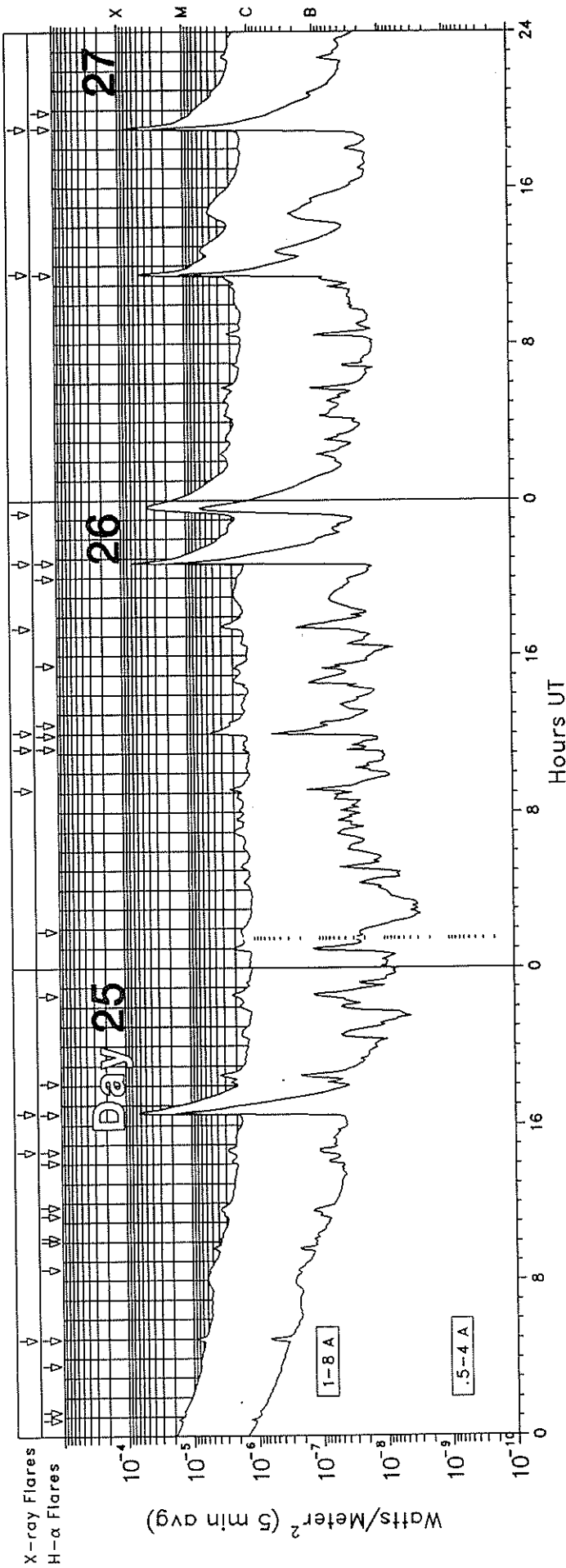
October 1989





# GOES-7 X-RAY DETECTOR

October 1989





74  
Oct 89

GOES SOLAR X-RAY FLARES  
\*\*Preliminary Listing\*\*

October 1989

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Imp Opt	Xray	NOAA/USAF Region
01	0007	0036	0123				C6.8	
01	0210E	0214	0230D	S20	E23	SF	C3.4	
01	0318	0343	0357				C3.1	
01	0812E	0816	0841D	S17	E23	SF	C2.8	5712
01	1803D	1820	1848D	S19	E05	SF	C2.7	5708
01	2041	2045	2048				C2.7	
01	2305	2308	2312				C7.7	
02	0021	0026	0029				C2.9	
02	0426	0439	0455				C3.9	
02	0755E	0757	0803D	S16	W06	SF	C3.8	5708
02	0841E	0855	0939D	S16	E05	1F	M1.5	5712
02	1803	1807	1809				C2.8	
02	2033	2049	2056				C3.4	
03	0020E	0024	0039D	S26	W11	SF	C2.6	5715
03	0811E	0815	0831D	N30	E79	1N	C5.6	5721
03	1010E	1027	1038D	N30	E80	SF	C5.1	5721
03	1218E	1221	1230D	N31	E83	SF	C3.5	5721
03	1248E	1305	1357D	N29	E23	1N	C5.2	5714
03	1728E	1730	1755D	S16	W16	SF	C3.3	5712
03	2258E	2307	2340D	N28	E25	SF	C6.6	5714
04	0427	0432	0440				C2.3	
04	0506E	0508	0518D	S17	W53	SF	C4.0	5709
04	0834E	0838	0915	N30	E61	1B	C7.1	5721
04	0935E	0939	1008	N25	E10	SF	C6.6	5714
04	1227E	1227	1234D	N29	E67	SF	C2.8	5721
04	1238E	1250	1319D	N28	E67	SF	C4.1	5721
04	1417E	1426	1430D	N27	E52	SF	C5.3	5721
04	2217	2221	2225				C2.6	
05	0608E	0609	0624D	S18	W38	SF	C4.5	5712
05	0647	0647U	0733	N15	E59	SF	C3.7	
05	0846	0846U	0853D	N29	E54	SF	C2.9	5721
05	1056	1100	1105				C1.8	
05	1158	1207	1245	S27	W45	SF	C6.7	5715
05	1333E	1340	1547	N10	W08	SN	C3.7	5716
05	1401E	1404	1412D	N28	W02	SF	C5.1	5714
05	1906E	1913	1918D	N30	E39	SF	C3.2	5721
06	1742E	1747	1822D	N28	E27	SF	C2.5	5721
06	2129	2133	2137				C3.4	
07	0352E	0457	0517D	N27	E23	SF	C5.9	5721
07	1158	1202	1204				C1.8	
07	1248	1323	1445				C6.0	
08	0344E	0349	0408D	N20	E30	SF	C3.9	5728
09	0152E	0156	0246D	N18	E27	SF	C6.9	5728
09	1940E	1951	2010D	N22	W53	SF	C2.5	5719
09	2311E	2315	2328D	N34	E10	SN	C2.6	5725
10	0358E	0401	0412D	N32	E05	SF	C2.7	5725
10	0712	0721	0725				C3.6	
10	0819	0824	0830				C3.9	
10	1333	1338	1340				C6.8	
10	1646	1650	1653				C2.9	
10	2028	2032	2035				C2.4	
11	0118	0122	0124				C2.0	
11	0438	0453	0550	N28	W19	1N	C5.0	5721
11	0932	0937	0943				C2.1	

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Imp Opt	Xray	NOAA/USAF Region
11	1622E	1625	1649D	N27	E49	SF	C3.1	5735
11	1642E	1645	1723D	N27	W29	SF	C3.7	5721
11	2332	2338	2347				C3.3	
12	0115	0118	0120				C1.7	
12	0324	0329	0332				C2.1	
12	0540E	0540	0552D	S15	E63	SF	C2.3	5740
12	0721E	0721	0734D	S12	W44	SF	C1.8	5726
12	1043E	1044	1058D	S12	W46	SF	C1.7	5726
12	1202E	1226	1253D	N29	E39	1N	C3.8	5735
12	1506E	1508	1515D	S12	W46	SF	C3.7	5726
12	1854E	1855	1858D	S14	E62	SF	C1.8	5740
12	2342	2347	0022	N17	W36	2N	M1.1	5745
13	0255	0305	0319				M1.0	
13	0418	0423	0428				C4.9	
13	0500	0612	0830				M4.1	5744
13	2344E		2351	S19	E39	SF	C4.4	
14	0659E	0700	0706D	N16	W65	SF	C2.6	5723
14	0750E	0751	0758D	N16	W69	SF	C4.8	5723
14	0836E	0837	0844D	S16	E39	SF	C4.9	5740
14	1108	1113	1115				C3.6	
14	1432E	1433	1441D	S16	E36	SF	C2.6	5740
14	1750E	1753	1805D	N16	W76	1N	C4.8	5723
14	1804E	1808	1843D	S15	E30	SF	C4.3	5740
14	1857	1900	1902				C2.7	
14	1959	2004	2006				C2.4	
14	2112E		2145D	S18	E27		C5.0	5740
14	2229E	2232	2239D	N16	W77	SF	C3.4	5723
14	2239E	2243	2255D	S26	E67	SN	M1.3	5747
14	2333E	2334	2351D	S30	E68	SF	M1.0	5747
15	1240E	1243	1250D	N19	W82	SF	C7.7	5723
15	1420E	1434	1513D	S14	E21	1N	M1.6	5740
15	2249E	2253	2302D	S25	E53	SF	C2.3	5747
16	0415E	0417	0423D	N13	W07	SF	C3.1	5736
16	0508E	0508	0522D	S16	E08	SF	C2.0	5740
16	1300E	1300	1303D	S26	E50	SF	C4.3	5747
17	0036E	0041	0050D	N19	W81	SF	C2.9	5728
17	0201E	0203	0225D	S29	E42	SN	C2.4	5747
17	0521E	0521	0528D	S30	E41	SF	C3.9	5747
17	1352E	1358	1401D	N12	W86	SF	C3.0	5728
17	1850E	1851	1915	S29	E33	1N	M1.0	5747
18	0015E		0230	S30	E30	1F	M2.7	5747
18	0436E	0442	0510D	S30	E28	1N	M1.6	5747
18	1122E	1142	1252D	S23	E51	SF	C5.4	5753
18	1457	1518	1554D	S29	E23	SF	C6.6	5747
18	1650E	1654	1721D	S26	E18	SN	C5.9	5747
18	1806E	1825	2050D	S25	E15	2B	M7.4	5747
19	0650E	0712	0719D	N10	W74	SF	C3.4	5738
19	0845E	0914	0934D	S25	E12	1N	M1.6	5747
19	1229E	1255	2013	S27	E10	4B	X13.0	5747
20	0339E	0340	0355D	S28	E02	SN	M1.1	5747
20	0519E	0520	0534D	S27	W02	SF	C9.8	5747
20	0707E	0709	0713D	S27	W03	SF	C3.7	5747
20	0743E	0752	0807D	S27	W00	SF	C9.1	5747
20	0941	0944	0948				C2.3	
20	1115		1137D	S10	E85	SN	C2.6	
20	1208	1211	1215				C2.4	

NOAA/USAF SOLAR X-RAY FLARE LISTING

GOES SOLAR X-RAY FLARES  
 \*\*Preliminary Listing\*\*

75  
 Oct 89

October 1989

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Imp Opt	Xray	NOAA/USAF Region
20	1346	1349	1353				C2.3	
20	1415E	1510	1558D	S26	W03	1B	M1.6	5747
20	1721	1724	1726				C7.9	
20	1730E	1730	1745D	S26	W04	SF	C5.0	5747
20	1755E	1803	1851D	S15	W20	SF	C3.7	5755
20	1816E	1819	1822D	S26	W05	SF	C4.2	5747
20	1939E	1944	2035D	S19	E75	SF	C4.8	5754
20	2130E	2134	2203D	S26	W11	1N	M1.4	5747
21	0153E	0155	0206D	S28	W09	1N	M2.4	5747
21	0512E	0513	0522D	S26	E16	SF	C3.2	5753
21	0554E	0555	0602D	S19	E68	1F	C2.8	5754
21	0640E	0643	0649D	S27	W16	1N	M1.9	5747
21	1248E	1316	1326D	S28	W13	SF	C4.5	5747
21	1310	1314	1317				C4.3	
21	1829E	1846	1859D	S19	E61	SF	C2.6	5754
21	2012		2040D	S28	W20	1F	C5.0	5747
21	2048E	2057U	2129D	S19	E58	SF	C2.5	5754
21	2201E	2202	2214D	S19	E57	SF	C6.4	5754
21	2354	2356	2400	S28	W22		M3.1	5747
22	0219E	0220	0230D	S27	W23	SF	C4.1	5747
22	0309E	0317	0441D	S29	W22	1F	C6.1	5747
22	0520	0523	0526				C5.4	
22	0548	0554	0602				C5.9	
22	0616E	0624	0628D	S30	W25	SF	C7.2	5747
22	1030	1034	1038				C3.5	
22	1115E	1121	1230D	S27	W26	SN	M1.5	5747
22	1306E	1324	1347D	S22	E54	1F	C8.9	5754
22	1554E	1558	1647D	S28	W28	SN	M1.3	5747
22	1708E	1757	2108D	S27	W31	2B	X2.9	5747
23	0342E	0345	0357D	S27	W37	SF	C7.3	5747
23	0411E	0422	0519D	S26	W39	SF	M1.0	5747
23	0638E	0649	0659D	S28	W38	1F	M1.7	5747
23	0857	0902U	0921	N11	W81	SF	C5.5	5750
23	1235E	1243	1347D	S27	W42	2B	X1.5	5747
23	1842E	1851	1915D	S27	W50	1N	C4.9	5747
23	2215E	2217	2223D	S25	W46	SF	C2.5	5747
23	2331E	2343	0020D	S29	W47	SF	C4.7	5747

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Imp Opt	Xray	NOAA/USAF Region
24	0055	0058	0101				C3.3	
24	0153E	0154	0156D	S24	W52	SF	C4.0	5747
24	0259E	0301	0331D	S27	W51	SF	C3.5	5747
24	0421E	0516	0527D	S19	W54	SF	C3.6	5748
24	0540	0543	0545				C4.7	
24	0644E	0646	0657D	S27	W59	SN	C3.8	5747
24	1355	1402	1409				C6.7	5747
24	1736	1831	0224	S30	W57	3B	X5.7	5747
25	0458E	0500	0510D	S27	W73	1F	M1.1	5747
25	1437E	1440	1505	S27	W72	1F	C3.5	5747
25	1637	1641	1806D	S28	W65	2N	M8.7	5747
26	0909	0912	0916				C2.4	
26	1115E	1118	1121D	S26	W86	SF	C1.6	5747
26	1204E	1204	1218D	S30	W80	SF	C4.9	5747
26	1724	1730	1740				C3.2	
26	2046E	2049	2059D	S30	W79	SF	M8.1	5747
26	2319	2341	0053				M4.1	5748
27	1135		1153	S28	W90	1N	M6.2	5747
27	1901E	1901	1913D	S32	W90	1N	X1.0	5747
28	0510	0755	0950				M2.1	
28	1120	1125	1252				M1.6	
29	0221	0451	0617				M4.0	
29	2129E	2150	2307	N27	E78	2N	M2.3	5769
30	1347	1352	1411				C3.0	
30	2110E	2117	2142D	N25	E59	SN	C8.6	5769
30	2339	2342	2344				C4.1	
31	0219E	0221	0228D	N22	E53	SF	C3.1	5769
31	0339	0342	0344				C8.8	
31	0511E	0538	0627D	N26	E55	SF	M1.4	5769
31	1123E	1127	1213	N26	E49	SF	C5.7	5769
31	1613	1637	1719				M1.1	
31	1855E	1902	1916D	N23	E42	SF	C7.7	5769
31	2037	2045	2047				M1.9	
31	2058	2105	2107				C3.5	

76  
Oct 89

Preliminary GOES Satellite Data  
Daily Average X-ray Background  
November 1988 - October 1989

Day	1988		1989									
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
1	B5.7	B4.6	C1.7	C1.2	C1.3	B9.2	C1.0	B8.2	B9.2	C1.0	C3.9	C1.3
2	B6.1	B4.7	C2.1	C1.2	C1.3	C1.0	C1.0	C1.5	B9.4	B9.2	C2.5	C1.5
3	B5.2	B4.4	C2.2	C1.6	B9.8	C1.1	B9.1	C1.4	C1.1	C1.0	C1.9	C1.6
4	B5.0	B4.5	C2.0	C2.0	B7.0	C1.0	C1.6	C1.6	C1.1	C1.1	C1.9	C1.6
5	B4.6	B5.7	C1.9	C1.6	C1.3	C1.0	C1.2	C1.5	B8.7	C1.8	C1.7	C1.3
6	B5.8	B6.2	C2.4	C1.9	C2.7	B8.6	C1.1	C1.9	B8.2	C1.5	C2.3	C1.2
7	B5.5	B6.6	C4.7	C1.9	C2.5	C1.0	C1.4	C1.9	B7.2	C1.5	C2.1	C1.2
8	B5.5	B7.4	C4.6	C2.1	C1.9	C1.3	C1.3	C3.0	B7.2	C1.1	C2.5	C1.0
9	B9.2	B7.8	C3.4	C2.2	C2.1	B9.8	C1.3	C3.0	B7.0	C1.1	C2.3	C1.3
10	B9.8	C1.0	C2.5	C1.9	C2.5	B8.1	C1.3	C2.5	B6.5	C1.4	C2.7	C1.0
11	B9.8	C1.3	C3.1	C1.3	C2.8	C2.1	C1.0	C2.1	B6.8	C1.7	C2.3	C1.0
12	B6.3	C1.2	C2.3	C1.1	C2.3	C1.1	C1.0	C2.0	B6.2	C2.7	C3.8	---
13	B8.9	C1.1	C5.0	C1.3	C3.0	C1.2	B9.9	C2.3	B7.7	C2.0	C2.3	C2.7
14	C1.3	C1.4	C3.8	C2.0	C2.4	C1.2	B9.5	C2.7	B7.0	C2.7	C1.9	C1.4
15	B7.9	C2.1	C2.9	C1.5	C2.1	C1.1	B9.0	C3.3	B7.4	C4.3	C1.7	C1.4
16	C1.4	C1.7	C3.1	C1.7	C2.5	C1.1	B7.8	C4.1	B7.1	C7.9	C1.9	C1.1
17	C1.0	C2.0	C2.1	C1.4	C2.3	C1.4	B7.5	C2.7	B6.8	C3.5	C1.1	C1.2
18	B8.1	C1.3	C2.8	C1.3	C2.1	C1.1	B7.2	C2.5	B7.8	C1.3	C1.1	C2.0
19	B8.4	C1.9	C2.0	C1.5	C2.6	C1.0	B7.4	C2.5	B7.6	C1.0	C1.4	C3.2
20	B6.6	C2.2	C2.3	C1.4	C2.3	B9.5	C1.3	C2.3	B7.0	C1.1	B8.9	C1.7
21	C1.1	C2.3	C2.7	C1.7	*	B9.0	C1.3	C3.4	B8.6	C1.0	B8.3	C1.6
22	B8.3	C1.8	C2.1	C2.2	C1.8	C1.2	C1.7	C2.0	B7.6	C1.0	B8.9	---
23	B5.1	C2.3	C1.9	C1.5	C1.6	C1.4	C1.9	C1.7	B7.4	C1.5	B8.6	C2.4
24	B5.3	C2.1	C1.8	C1.4	C1.1	C1.4	C1.9	C1.1	B9.2	C1.5	B8.7	C1.8
25	B5.7	C1.5	C1.4	C1.5	C1.0	C1.0	C1.6	B8.3	B9.2	C1.0	C1.1	---
26	B7.2	C1.3	C1.3	C1.1	B8.9	B9.4	C1.2	B9.8	C1.0	B9.3	C1.5	C1.1
27	B7.5	C1.9	C1.3	B9.5	B9.9	B7.4	B7.5	C1.0	B9.5	B9.8	C1.6	C1.4
28	B4.2	C1.4	C1.1	C1.0	C1.1	B7.6	B7.9	C1.1	B8.8	B1.7	C1.8	C1.3
29	B4.3	B8.7	C1.1		C1.0	C1.0	B9.0	C1.2	C1.1	C2.7	C2.4	C1.4
30	B4.1	C1.0	C8.9		B8.8	B8.4	B9.2	C1.1	C1.0	C1.5	C1.3	C1.4
31			C1.0		B9.6		B9.7		C1.0	C1.6		C1.6

NOV 1988  
1-10 11:00 AM

MASS EJECTIONS FROM THE SUN

OCTOBER 1989

77  
Oct 89

Site	Mo	Day	— Observed UT —			Location		Freq or Wavelength	Kind of Event	
			Start	Max	End	RA*	R/Ro			
SGMR	Oct	01	1944.0		1948.0			Meter	II	
PALE	Oct	01	1944.0		1958.0			Meter	II	
SGMR	Oct	01	1957.0		1958.0			Meter	II	
CULG	Oct	04	0427		0430			Meter	II	
LEAR	Oct	04	0518.0		0527.0			Meter	II	
CULG	Oct	04	0519		0528			Meter	II	
BLEN	Oct	04	0942.2		1004.3			Decimeter; meter	IV Pulsations	
WEIS	Oct	04	0955.8		1011.0			70- 30 MHz	II Herringbone	
LEAR	Oct	04	0956.0		1006.0			Meter	II	
SVTO	Oct	04	0956.0		1010.0			Meter	II	
CULG	Oct	08	0146		0159			Meter	II	
VORO	Oct	09	0204	0207	U 0204	265	0.6	H-alpha	SP	
WEIS	Oct	10	1336.8		1338.2			400-230 MHz	II Herringbone	
BLEN	Oct	10	1336.9		1338.4			Decimeter; meter	II	
KHAR	Oct	12	1015	E	1048	D	296	1.00-1.03	H-alpha	S
CULG	Oct	12	2204		2206			Meter	II Single burst	
VORO	Oct	12	2340	2342	U 2405	210	0.7	H-alpha	SP	
LEAR	Oct	14	2334.0		2340.0			Meter	II	
CULG	Oct	14	2335		2337			Meter	II	
KHAR	Oct	15	0952	0958	U 1020	285	1.00-1.04	H-alpha	S	
KHAR	Oct	15	1043		1100	D	285	1.00-1.02	H-alpha	S
KHAR	Oct	16	1020		1042		128	0.76	H-alpha	S
KHAR	Oct	16	1050	E	1110	D	130-134	0.84-0.80	H-alpha	S
WEIS	Oct	18	0705.0		0708.2			70- 38 MHz	II	
SGMR	Oct	19	1245.0		1310.0			Meter	IV	
BLEN	Oct	19	1245.8		1512.3			Decimeter; meter	IV Pulsations	
WEIS	Oct	19	1245.9		1311.0			1000-150 MHz	IV	
BLEN	Oct	19	1248.0		1303.9			Decimeter; meter	II	
SVTO	Oct	19	1249.0		1253.0			Meter	II	
WEIS	Oct	19	1250.6		1313.0			140- 30 MHz	II Herringbone	
WEIS	Oct	19	1335		1452			500- 30 MHz	IV Pulsations	
KHAR	Oct	20	1130	E	1150	D	110	1.00-1.02	H-alpha	S
SGMR	Oct	22	1744.0		1842.0			Meter	IV	
PALE	Oct	22	1745.0		1759.0			Meter	II	
PALE	Oct	22	1745.0		1830.0			Meter	IV	
SGMR	Oct	22	1746.0		1756.0			Meter	II	
KHAR	Oct	23	0848	E	0916	D	244	0.74	H-alpha	S
KHAR	Oct	23	1032	E	1047	D	284	1.00-1.02	H-alpha	S
KHAR	Oct	23	1124	E	1149	D	247	0.71	H-alpha	S
KHAR	Oct	23	1141	E	1200	D	226	0.79	H-alpha	S
KHAR	Oct	24	0915	E	0925	D	054	1.00-1.03	H-alpha	S
KHAR	Oct	24	0933		0955		247	0.96	H-alpha	S
KHAR	Oct	24	1021		1053	D	252	0.86	H-alpha	S
KHAR	Oct	24	1055		1125	D	235	0.92	H-alpha	S
KHAR	Oct	24	1115	E	1130	D	252	0.86	H-alpha	S
SGMR	Oct	24	1800.0		1801.0			Meter	II	
SGMR	Oct	24	1801.0		1816.0			Meter	IV	
PALE	Oct	24	1806.0		1810.0			Meter	II	
PALE	Oct	24	1836.0		1840.0			Meter	II	
KHAR	Oct	25	0842		0855	D	242	0.98	H-alpha	S
KHAR	Oct	25	1008		1029	D	242	0.98	H-alpha	S
KHAR	Oct	25	1025	E	1045	D	249	0.96	H-alpha	S
KHAR	Oct	26	1104	E	1115	D	250	1.00-1.02	H-alpha	S
LEAR	Oct	26	2323.0		2331.0			Meter	II	
CULG	Oct	26	2323		2341			Meter	II Single burst	

78  
Oct 89

MASS EJECTIONS FROM THE SUN  
OCTOBER 1989

Site	Mo	Day	Observed UT			Location		Freq or Wavelength	Kind of Event	
			Start	Max	End	RA*	R/Ro			
CULG	Oct	26	2325		2335			Meter	IV Continuum	
PALE	Oct	26	2326.0		2331.0			Meter	II	
LEAR	Oct	26	2331.0		2405.0			Meter	IV	
KHAR	Oct	27	1135	E	1153	D	236-239	1.00-1.04	H-alpha	S
KHAR	Oct	28	1050	E 1118	U 1136	D	240-255	1.00-1.15	H-alpha	S
CULG	Oct	29	0203		0214				Meter	II
LEAR	Oct	29	0302.0		0313.0				Meter	II
PALE	Oct	29	0302.0		0304.0				Meter	II
LEAR	Oct	29	0316.0		0432.0				Meter	IV
CULG	Oct	29	0355		0422				Meter	IV
CULG	Oct	29	0355		0432				Meter	II
CULG	Oct	29	2149		2154				Meter	II
SVTO	Oct	31	1107.0		1110.0				Meter	II
SGMR	Oct	31	1123.0		1127.0				Meter	II

QUALIFIERS ON START, MAX, AND END TIMES

D = event ended after tabulated time  
E = event began before tabulated time  
U = uncertain time

TYPE OF EVENT

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

REPORTING STATIONS

BLEN = Bleien  
CULG = Culgoora  
KHAR = Kharkov  
LEAR = Learmonth  
PALE = Palehua  
SGMR = Sagamore Hill  
SVTO = San Vito  
VORO = Voroshilov  
WEIS = Weissenau

## ACTIVE PROMINENCES AND FILAMENTS

79  
Oct 89

OCTOBER 1989

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
01	ADF	0031	0228D	N27	W28	09	28.9	1				C	VORO		
01	APR	0206	0228D	N72	W90	09	23.0	1				C	VORO		
01	AFS	0325E	0810D	N31	E90	10	8.2		07	8	3	E	LEAR		
01	ADF	0632E	1535D	S16	E22	10	2.9	1	08	9	9	E	SVTO	5712	
01	BSL	0801E	0801D	S60	E90	10	9.2	1				C	CATA		
01	ADF	0921E	1535D	S15	E23	10	3.1	1	20	9	9	E	SVTO	7512	
01	AFS	0921E	1535D	S24	E10	10	2.2		02	7	9	E	SVTO	5715	
01	BSL	1032E	1037D	S60	E90	10	9.3	2				C	CATA		
01	BSL	1050E	1055D	S60	E90	10	9.4	2				C	CATA		
01	BSL	1106E	1106D	S60	E90	10	9.4	2				C	CATA		
01	ADF	1115E	2157D	S13	E08	10	2.1	1	05	9	9	E	RAMY	5708	
01	SSB	1330		219	W23	10	3.0			0	0	E	RAMY		
01	DSD	1726E	0229D	N16	E42	10	4.9		03	9	9	E	PALE	5716	
01	ADF	1726E	0229D	N30	E49	10	5.6		06	9	9	E	PALE	5714	
01	DSD	1726E	0229D	S13	W22	09	30.1		02	9	9	E	PALE	5709	
01	ADF	1726E	0229D	S16	E17	10	3.0		24	9	9	E	PALE	5712	
01	SSB	2005		220	W28	10	3.4			0	0	E	HOLL		
01	ADF	2011E	2015D	N18	E43	10	5.1	1	03	8	8	E	HOLL	5716	
01	ADF	2018E	2019D	S13	W24	09	30.0	1	01	8	8	E	HOLL	5709	
01	ASR	2046E	0229D	N28	E90	10	8.9			9	9	E	PALE		
01	ASR	2310E	1005D	N27	E90	10	9.0			9	9	E	LEAR	5721	
01	ADF	2357	0228D	N29	W39	09	29.0	1				C	VORO		
02	APR	0013	0228D	S47	W90	09	24.6	1				C	VORO		
02	APR	0023	0228D	N25	E90	10	9.0	1				C	VORO		
02	ADF	0712E	1617D	S17	E11	10	3.1	1	22	9	9	E	SVTO	5712	
02	BSL	1131E	1140	S39	W90	09	25.3	1-				C	CATA		
02	ASR	1200E	1911D	N18	E83	10	8.8			9	9	E	RAMY	5723	
02	ASR	1200E	1911D	N26	E88	10	9.3			9	9	E	RAMY	5721	
02	ADF	1250E	1911D	N14	E33	10	5.0	1	04	9	9	E	RAMY	5716	
02	SSB	1608		224	W43	10	4.6			0	0	E	RAMY		246 W65
02	AFS	1614E	2301D	S27	W07	10	2.1		03	9	9	E	HOLL	5715	
02	ADF	1907E	2301D	S16	E06	10	3.2	1	09	9	9	E	HOLL	5712	
02	AFS	2250E	1009D	S11	E26	10	4.9		02	9	9	E	LEAR		
02	SDF	2355E	0018	S25	W07	10	2.4		08	0	0	E	HOLL	5715	
03	ASR	0239E	1009D	S14	E90	10	9.9			9	9	E	LEAR		
03	ASR	0723E	1009D	N28	E90	10	10.3			9	9	E	LEAR	5721	
03	DSD	0815	1009D	N27	E76	10	9.3		03	9	9	E	LEAR	5721	Flare Associated
03	DSD	0820E	0908D	N30	E79	10	9.6		14	9	9	E	SVTO	5721	Flare Associated
03	BSL	0850	0900	N21	W90	09	26.6	1-				C	CATA		
03	SSB	0918		184	W11	10	9.7			0	0	E	SVTO		
03	BSL	0935E	0936D	N02	W90	09	26.8	1				C	CATA		
03	BSL	1002E	1005D	N04	W90	09	26.8	1				C	CATA		
03	ADF	1015E	1938D	N27	E67	10	8.6	1	05	9	9	E	RAMY	5721	
03	BSL	1052E	1052D	N10	W90	09	26.8	2				C	CATA		
03	BSL	1102E	1102D	N10	W90	09	26.8	2				C	CATA		
03	BSL	1102E	1102D	N34	E90	10	10.6	1-				C	CATA		
03	SSB	1112		196	W25	10	10.9			0	0	E	RAMY		221 W50
03	ASR	1142	1412D	S10	E83	10	9.7			9	9	E	SVTO		Flare Associated
03	BSD	1218	1231	N30	E83	10	10.0		06	9	9	E	SVTO	5721	Flare Associated
03	AFS	2333E	1008D	S10	E12	10	4.9		03	9	9	E	LEAR	5724	
03	AFS	2333E	1008D	S16	W04	10	3.7		02	9	9	E	LEAR	5712	
03	AFS	2334E	1008D	N13	E37	10	6.8		02	9	9	E	LEAR		
04	AFS	0410E	1008D	S14	E72	10	9.6		02	9	9	E	LEAR	5726	
04	AFS	1051E	1750D	S11	E03	10	4.7		02	9	9	E	RAMY	5724	
04	AFS	1051E	1950D	N13	E30	10	6.7		03	9	9	E	RAMY		
04	AFS	1051E	1950D	S14	E67	10	9.5		02	9	9	E	RAMY	5726	
04	AFS	1051E	1950D	S16	W09	10	3.8		03	9	9	E	RAMY	5712	
04	ADF	1113E	1950D	N27	E56	10	8.8	1	11	9	9	E	RAMY	5721	
04	ADF	1127E	1750D	S17	W24	10	2.6	1	04	9	9	E	RAMY	5712	
04	BSL	1152E	1212	N80	E90	10	12.8	1-				C	CATA		
04	AFS	1337E	2053D	S15	W11	10	3.7		04	9	9	E	HOLL	5712	
04	SSB	1433		156	W03	10	8.8			0	0	E	RAMY		210 W54
04	DSD	1457E	2053D	N27	E65	10	9.7		04	9	9	E	HOLL	5721	Flare Associated
04	ADF	1504E	2053D	S22	W25	10	2.7	1	11	9	9	E	HOLL	5715	
04	ADF	2342	0300D	N12	W28	10	2.9	1				C	VORO		
04	APR	2342	0300D	N42	E90	10	12.4	1				C	VORO		
04	ADF	2342	0300D	S31	W33	10	2.4	1				C	VORO		



ACTIVE PROMINENCES AND FILAMENTS

OCTOBER 1989

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/USAF Reg#	Remarks
05	ADF	0000E	1009D	N27	E50	10	8.9	1	07	9	9	E	LEAR	5721	
05	APR	0240	0300D	N22	W90	09	28.3	1				C	VORO		
05	ADF	0715E	0900D	S14	W27	10	3.3	1				P	BUCH		
05	BSL	0731E	0736D	N88	E90	10	13.7	1-				C	CATA		
05	BSL	0731E	0736D	S44	E90	10	12.7	1-				C	CATA		
05	ADF	0748E	0908D	S18	W23	10	3.6	2	07	9	9	E	SVTO	5712	
05	SDF	1009E	2355D	S10	E23	10	7.1		22	0	0	E	LEAR		
05	ADF	1015E	1611D	N29	E38	10	8.4	1	12	9	9	E	SVTO	5721	
05	AFS	1017E	1519D	S14	E54	10	9.5		03	9	9	E	SVTO	5726	
05	AFS	1105E	1934D	N14	E57	10	9.8		02	9	9	E	RAMY		
05	ADF	1105E	1934D	S20	W41	10	2.3	1	08	9	9	E	RAMY	5712	
05	AFS	1105E	1934D	S27	E62	10	10.3		02	9	9	E	RAMY		
05	ADF	1105E	1934D	S29	E65	10	10.5	1	10	9	9	E	RAMY		
05	AFS	1106E	1934D	N25	E43	10	8.8		03	9	9	E	RAMY	5721	
05	ADF	1106E	1934D	N29	E58	10	10.0	1	14	9	9	E	RAMY	5721	
05	AFS	1110E	1934D	S13	E54	10	9.5		02	9	9	E	RAMY	5726	
05	DSD	1110E	1934D	S15	E53	10	9.5		04	9	9	E	RAMY	5726	
05	DSD	1154	1934D	N28	E52	10	9.5		11	9	9	E	RAMY	5721	
05	DSD	1215E	1934D	S26	W47	10	1.8		05	9	9	E	RAMY	5715	
05	DSD	1243E	1519D	S27	W46	10	1.9		04	9	9	E	SVTO	5715	Flare Associated
05	DSD	1333	1934D	N19	W05	10	5.2		04	9	9	E	RAMY	5716	
05	AFS	1546E	1934D	N16	W52	10	1.7		02	9	9	E	RAMY		
05	EPL	1701	1830D	N22	W90	09	28.9	2		9	9	E	RAMY		
06	SDF	0738E	0738D	N22	W64	10	1.4	1				C	CATA		
06	BSL	0801E	0805	S83	W90	09	28.0	1-				C	CATA		
06	BSL	1047E	1047D	S16	W90	09	29.7	1-				C	CATA		
06	BSL	1136E	1140	S17	W90	09	29.7	1-				C	CATA		
06	AFS	1140E	2127D	S27	E49	10	10.3		02	9	9	E	RAMY	5729	
06	MDP	1143E	1458	S15	W83	09	30.2			9	9	E	RAMY	5709	
06	SSB	1145		160	W29	10	11.2			0	0	E	RAMY		
06	ADF	1209E	1501D	N27	E24	10	8.4	1	11	9	9	E	SVTO	5721	
06	AFS	1218E	1501D	N09	E52	10	10.4		02	7	8	E	SVTO		
06	ADF	1228E	2127D	N27	E24	10	8.4	1	13	9	9	E	RAMY	5721	
06	APR	1458E	1637D	S14	W86	09	30.1	1		9	9	E	RAMY	5709	
06	ADF	1500E	0036D	N30	E25	10	8.6	1	06	9	9	E	HOLL	5721	
06	ADF	1503	2127D	S16	W44	10	3.3	1	06	9	9	E	RAMY	5712	
06	ADF	1512E	0036D	S17	W48	10	3.0	1	03	8	8	E	HOLL	5712	
06	SDF	1611E	0548D	S08	E13	10	7.6		36	0	0	E	SVTO		
06	ADF	1624E	0036D	N14	E63	10	11.4	1	03	9	9	E	HOLL	5328	
06	SSB	1632		156	W28	10	11.1			0	0	E	HOLL		
06	AFS	1637E	2127D	S12	E38	10	9.5		03	9	9	E	RAMY	5726	
06	AFS	1706E	0036D	S13	E37	10	9.5		02	9	9	E	HOLL	5726	
06	ASR	2243E	0036D	N20	E90	10	13.8			9	9	E	HOLL		
06	AFS	2327E	1014D	S14	E35	10	9.6		02	9	9	E	LEAR	5726	
07	APR	0000E	0054D	N40	E90	10	14.3	1				C	VORO		
07	APR	0000E	0054D	S30	E90	10	14.1	1				C	VORO		
07	ADF	0047E	0820D	N26	E24	10	8.9	2	06	9	9	E	LEAR	5721	
07	AFS	0233E	0413D	S11	E32	10	9.5		02	8	8	E	PALE	5726	
07	ASR	0545E	0810D	N22	W90	09	30.3			9	9	E	LEAR	5730	
07	DSD	0605E	0820D	N28	E30	10	9.6		04	9	9	E	SVTO	5721	
07	ADF	0605E	1409D	N31	E18	10	8.7	1	07	9	9	E	SVTO	5721	
07	APR	0630E	0930D	N28	E90	10	14.3					V	ATHN		
07	ASR	0837E	1014D	N23	E90	10	14.3			9	9	E	LEAR		
07	ASR	0917E	0958D	N20	E89	10	14.2			9	9	E	SVTO		
07	ASR	0917E	0958D	N26	E88	10	14.2			9	9	E	SVTO		
07	DSD	0957E	1044D	N22	E51	10	11.3		05	9	9	E	SVTO	5728	
07	EPL	1026E	1200D	N21	E90	10	14.3	1				C	CATA		
07	APR	1047E	1153D	N26	E90	10	14.4	2				V	KHAR		
07	BSL	1050	1058	S88	E90	10	15.9	1-	C				CATA		
07	ADF	1133E	2119D	N15	E53	10	11.5	1	05	9	9	E	RAMY	5728	
07	AFS	1133E	2119D	S13	E27	10	9.5		03	9	9	E	RAMY	5726	
07	BSD	1210E	1418D	S32	E71	10	13.1		10	9	9	E	RAMY		
07	EPL	1217E	1243D	N20	E90	10	14.4	2				C	CATA		
07	SSB	1228		159	W42	10	12.4			0	0	E	RAMY		
07	EPL	1246E	1418D	N15	E90	10	14.3	1		9	9	E	RAMY		
07	ASR	1257E	2119D	N26	E87	10	14.3			9	9	E	RAMY	5733	
07	DSD	1726E	0400D	N30	W34	10	5.0		06	9	9	E	PALE	5714	

ACTIVE PROMINENCES AND FILAMENTS

81  
Oct 89

OCTOBER 1989

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/USAF Reg#	Remarks
07	DSD	1726E	0400D	N30	W34	10	5.0		06	9	9	E	PALE	5714	
07	ADF	1729E	2119D	N25	E43	10	11.0		11	9	9	E	RAMY		
07	AFS	1922E	0002D	S15	E24	10	9.6		03	7	7	E	HOLL	5726	
07	APR	1942E	2119D	S40	E90	10	15.1	1		9	9	E	RAMY		
07	AFS	1950E	2119D	S07	W16	10	6.6		02	9	9	E	RAMY		
07	SSB	2103		159	W47	10	12.8			0	0	E	HOLL		
07	ASR	2122E	0002D	N26	E90	10	14.9			9	9	E	HOLL		
07	DSD	2123E	0002D	N30	W32	10	5.4		02	9	9	E	HOLL	5714	
07	APR	2125E	0002D	S45	E90	10	15.4	1		9	9	E	HOLL		
07	AFS	2128E	0002D	S08	W16	10	6.7		02	6	6	E	HOLL		
07	ASR	2230E	1013D	N25	E90	10	14.9			9	9	E	LEAR	5733	
07	ASR	2230E	0400D	S36	E90	10	15.2			9	9	E	PALE		
07	ADF	2315E	0415D	N29	E27	10	10.1	2	07	9	8	E	LEAR	5725	
07	EPL	2353E	0208D	N43	E90	10	15.4			9	9	E	LEAR		
08	ADF	1220E	1848D	S28	E24	10	10.4	1	04	9	9	E	RAMY	5729	
08	SDF	1604E	1326D	S10	W35	10	6.0		15	0	0	E	HOLL		
08	SSB	1659		109	W07	10	9.4			0	0	E	RAMY		118 W16 137 W35
08	SSB	1659		158	W57	10	13.7			0	0	E	RAMY		
08	SSB	1818		106	W06	10	9.2			0	0	E	HOLL		152 W52 169 W69
08	APR	2320	0300D	N38	E90	10	16.2	1				C	VORO		
08	APR	2329	0300D	N38	W90	10	1.7	1				C	VORO		
08	ADF	2333E	0331D	N16	E32	10	11.4		07	9	9	E	PALE	5728	
08	ADF	2333E	0331D	N30	E00	10	9.0		04	9	9	E	PALE	5721	
08	ADF	2333E	0331D	S17	W16	10	7.8		06	9	8	E	PALE	5722	
08	DSD	2333E	0331D	S26	E16	10	10.2		06	9	9	E	PALE	5729	
08	ADF	2333E	0331D	S33	E20	10	10.6		07	9	9	E	PALE	5725	
08	EPL	2353E	0208D	N43	E90	10	16.4			9	9	E	LEAR		
09	BSD	0204	0240	N22	E27	10	11.2	1				C	VORO		
09	DSD	0320E	1013D	N17	E27	10	11.2		04	9	9	E	LEAR	5728	
09	AFS	0835E	1013D	N34	E17	10	10.7		03	9	9	E	LEAR	5725	
09	ADF	1058E	2150D	N25	E21	10	11.1	1	09	9	9	E	RAMY	5728	
09	SSB	1207		109	W19	10	10.2			0	0	E	RAMY		133 W42
09	AFS	1814E	2040D	S21	W22	10	8.1		01	9	9	E	HOLL	5722	
09	SSB	2308		112	W27	10	10.9			0	0	E	HOLL		122 W37 163 W78
10	ADF	0001E	0032D	S14	E03	10	10.2	1	08	9	9	E	HOLL	5726	
10	ASR	0221E	0848D	S15	E90	10	16.9			9	9	E	LEAR		
10	ASR	0530E	1539D	S14	E90	10	17.0			9	9	E	SVTO		
10	ASR	0601E	1539D	S17	W90	10	3.4			7	7	E	SVTO	5712	
10	AFS	0655E	1539D	S32	E32	10	12.8		02	8	9	E	SVTO	5734	
10	APR	0715E	0740D	S20	E90	10	17.2					V	ATHN		
10	BSL	0751	0755D	S16	W90	10	3.5	1-				C	CATA		
10	BSL	0821E	0826	S76	W90	10	2.0	1-				C	CATA		
10	BSL	0821E	0830	S15	E90	10	17.2	1-				C	CATA		
10	BSL	0821E	0830	S89	E90	10	18.8	1-				C	CATA		
10	BSL	0821E	0836D	N49	E90	10	17.9	1-				C	CATA		
10	AFS	1008E	1539D	N17	E69	10	15.7		03	9	9	E	SVTO	5736	
10	ASR	1156E	2056D	N23	W90	10	3.6			9	9	E	RAMY	5710	
10	ASR	1156E	2056D	S15	E90	10	17.3			9	9	E	RAMY		
10	AFS	1227E	2056D	N16	E68	10	15.7		02	9	9	E	RAMY	5736	
10	ASR	1228E	2056D	S19	W90	10	3.6			9	9	E	RAMY	5712	
10	SSB	1236		437	W00	10	7.8			0	0	E	RAMY		103 W26 111 W34
10	ADF	1317E	2056D	N19	E07	10	11.1	1	04	9	9	E	RAMY	5728	
10	APR	1318E	2056D	S27	W90	10	3.5	1		9	9	E	RAMY	5712	
10	ADF	1325E	2056D	N29	E65	10	15.6	1	05	9	9	E	RAMY	5735	
10	DSD	1329E	2056D	N18	E66	10	15.6		02	9	9	E	RAMY	5736	
10	SSB	1447		437	W01	10	7.8			0	0	E	HOLL		113 W37
10	APR	1505E	1539D	S28	W81	10	4.3	1		9	9	E	SVTO	5712	
10	SSB	1510		437	W01	10	7.9			0	0	E	SVTO		
10	ASR	1558E	0026D	S19	W90	10	3.8			8	9	E	HOLL	5712	
10	ASR	1720E	0026D	S15	E90	10	17.5			9	9	E	HOLL		
10	AFS	1815E	2056D	N22	E64	10	15.7		02	9	9	E	RAMY		
10	AFS	1916E	0026D	N11	E38	10	13.7		02	9	9	E	HOLL	5738	
10	ASR	2340E	0915D	S19	W90	10	4.1			9	9	E	LEAR	5724	
10	AFS	2343E	0915D	N11	E33	10	13.5		03	9	9	E	LEAR	5738	
10	ASR	2358E	0915D	S15	E90	10	17.8			9	9	E	LEAR		
11	ADF	0638E	1506D	N24	W42	10	8.0	1	12	9	9	E	SVTO	5721	

ACTIVE PROMINENCES AND FILAMENTS

OCTOBER 1989

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	Day	Imp	Extent	Blue	Red	Obs	NOAA/USAF	Remarks
										Shift (.1 A)	Shift (.1 A)			
11	ADF	0638E	1506D	N27	W35	10	8.5	1	09	9	9	E	SVTO 5721	
11	AFS	0726E	1506D	N13	E31	10	13.6		04	9	9	E	SVTO 5738	
11	BSL	0743E	0752	S22	W90	10	4.4					C	CATA	
11	BSL	0747	0806	N23	W90	10	4.4	1-				C	CATA	
11	BSL	0757	0834	S22	W90	10	4.4	1-				C	CATA	
11	BSL	0805	0817	S18	W90	10	4.5	1-				C	CATA	
11	BSL	0822	0914	S15	W90	10	4.5	1-				C	CATA	
11	BSL	0826	0841	N41	E90	10	18.7	1-				C	CATA	
11	BSL	0842	0852	S06	W90	10	4.6	1-				C	CATA	
11	BSL	0845	0852	N67	W90	10	3.2	1-				C	CATA	
11	BSL	0914	0918D	S21	W90	10	4.5	1-				C	CATA	
11	DSD	0928E	1506D	N16	E53	10	15.4		06	9	9	E	SVTO 5736	
11	BSL	1005	1016D	S14	W90	10	4.6	1				C	CATA	
11	BSL	1013	1016D	S20	W90	10	4.5	1-				C	CATA	
11	BSL	1033	1040	N08	W90	10	4.7	1-				C	CATA	
11	BSL	1033	1045	S33	W90	10	4.3	2				C	CATA	
11	BSL	1045	1045D	S20	W90	10	4.6	1-				C	CATA	
11	ASR	1101E	1755D	S22	W90	10	4.5			9	9	E	RAMY 5712	
11	AFS	1102E	2107D	N12	E29	10	13.6		04	9	9	E	RAMY 5738	
11	ASR	1103E	2107D	N29	W90	10	4.4			9	9	E	RAMY 5714	
11	DSD	1104E	2107D	N13	E51	10	15.3		06	9	9	E	RAMY 5736	
11	AFS	1105E	1755D	S16	E75	10	17.1		03	9	9	E	RAMY	
11	DSD	1106E	2107D	N37	W08	10	10.8		03	9	9	E	RAMY 5725	
11	ADF	1107E	2107D	N30	W27	10	9.3	1	13	9	9	E	RAMY 5721	
11	ADF	1115E	2107D	S31	W02	10	11.3	1	23	9	9	E	RAMY 5729	
11	AFS	1150E	1748D	N29	E54	10	15.7		03	9	9	E	RAMY 5735	
11	AFS	1152E	1748D	N35	W07	10	10.9		02	9	9	E	RAMY 5725	
11	DSD	1330E	0006D	N13	E50	10	15.3		12	9	9	E	HOLL 5736	
11	ADF	1419E	0006D	N12	E49	10	15.3	2	14	9	9	E	HOLL 5736	
11	ADF	1450E	2107D	N25	W18	10	10.2	1	08	9	9	E	RAMY	
11	ASR	1451	1755D	S18	E90	10	18.5			9	9	E	RAMY	
11	SSB	1510		455	W13	10	7.5			0	0	E	HOLL	117 W52 129 W67
11	DSD	1748E	2107D	N13	E24	10	13.5		04	9	9	E	RAMY 5738	
11	ASR	1930E	0354D	N25	W90	10	4.8			9	9	E	PALE 5714	
11	AFS	1939E	0354D	N13	E24	10	13.6		03	9	9	E	PALE 5738	
11	DSD	1939E	0354D	N16	E48	10	15.4		05	9	9	E	PALE 5736	
11	DSD	2228E	0354D	N10	E19	10	13.4		03	9	9	E	PALE 5738	
11	AFS	2301	1012D	N10	E15	10	13.1		04	9	9	E	LEAR 5738	
11	AFS	2343E	0915D	N11	E33	10	14.5		03	9	9	E	LEAR 5738	
11	ASR	2346	0545D	S16	E90	10	18.8			9	9	E	LEAR 5740	
12	AFS	0628E	1311D	N12	E17	10	13.5		03	9	9	E	SVTO 5738	
12	BSL	0729E	0831D	N22	W90	10	5.4	1				C	CATA	
12	ASR	0745E	1012D	N21	W90	10	5.4			9	9	E	LEAR 5719	
12	BSL	0817	0826	S29	E90	10	19.4	1-				C	CATA	
12	BSL	0817	0831	S17	E90	10	19.2	1-				C	CATA	
12	AFS	0826E	1311D	N25	W56	10	8.0		02	9	9	E	SVTO 5721	
12	ADF	0826E	1311D	N27	W50	10	8.4	1	09	9	9	E	SVTO 5721	
12	ADF	0826E	1311D	N27	W54	10	8.1	1	09	9	9	E	SVTO 5721	
12	BSL	0845E	0858	N22	W90	10	5.4	1-				C	CATA	
12	ADF	0845E	1311D	S31	W39	10	9.3	1	24	9	9	E	SVTO 5729	
12	BSL	0910	0916D	N62	W90	10	4.4	1-				C	CATA	
12	BSL	0910	0916D	S27	E90	10	19.4	1-				C	CATA	
12	BSL	1008E	1021	S25	E90	10	19.4	1-				C	CATA	
12	BSL	1015E	1037D	N26	W90	10	5.4	1				V	KHAR	
12	DSD	1020E	1055D	S20	E67	10	17.5	1				V	KHAR	
12	BSL	1034E	1052	N57	W90	10	4.6	1-				C	CATA	
12	AFS	1058E	1955D	N17	E41	10	15.6		04	9	9	E	RAMY 5736	
12	AFS	1059E	1955D	N23	E41	10	15.6		03	9	9	E	RAMY 5742	
12	ADF	1059E	1955D	N30	E40	10	15.6	1	05	9	9	E	RAMY 5735	
12	AFS	1100E	1955D	N12	E16	10	13.7		04	9	9	E	RAMY 5738	
12	ASR	1101E	1955D	N30	W90	10	5.4			9	9	E	RAMY 5714	
12	AFS	1102E	1955D	S15	E61	10	17.1		03	9	9	E	RAMY 5740	
12	DSD	1104	1955D	N10	E14	10	13.5		04	9	9	E	RAMY 5738	
12	BSL	1116	1125	S75	E90	10	20.7	1-				C	CATA	
12	SSB	1120		435	W23	10	9.8			0	0	E	SVTO	
12	BSL	1125	1132D	N16	E90	10	19.3	1-				C	CATA	
12	BSL	1132	1132D	S27	E90	10	19.5	1-				C	CATA	
12	BSL	1155E	1230D	S26	E90	10	19.5	1-				C	CATA	
12	ASR	1202E	1311D	S24	E90	10	19.4			9	9	E	SVTO	

## ACTIVE PROMINENCES AND FILAMENTS

OCTOBER 1989

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/USAF Reg#	Remarks
12	DSD	1352	1955D	N22	W47	10 9.0		03	9	9	E	RAMY	5723	
12	ASR	1410E	1955D	S23	E85	10 19.1			9	9	E	RAMY		
12	DSD	1658E	1706D	N18	W49	10 9.0		05	9	9	E	HOLL	5723	
12	AFS	1700E	0022D	N12	E14	10 13.8		04	9	9	E	HOLL	5738	
12	ADF	1700E	0022D	N29	W50	10 8.8	1	03	9	9	E	HOLL	5721	
12	ADF	1706E	0022D	S15	E58	10 17.1	1	03	9	9	E	HOLL	5740	
12	ASR	1722E	0022D	S25	E90	10 19.7			9	9	E	HOLL		
12	SSB	1730		437	W28	10 9.8			0	0	E	HOLL		448 W40
12	SSB	1740		433	W25	10 10.2			0	0	E	RAMY		447 W39
12	AFS	1744E	0343D					03	9	7	E	PALE	5738	
12	DSD	1744E	0343D	N09	E09	10 13.4		01	9	7	E	PALE	5738	
12	DSD	1744E	0343D	N15	E33	10 15.2		01	9	9	E	PALE	5736	
12	ADF	1744E	0343D	N28	W51	10 8.7		09	9	9	E	PALE	5721	
12	AFS	1750E	1955D	N25	W60	10 8.1		02	9	9	E	RAMY		
12	AFS	2302E	1016D	N12	E10	10 13.7		05	9	9	E	LEAR	5738	
12	DSD	2340E	0005D	N23	W36	10 10.2	1				C	VORO		
13	SDF	0022E	1725D	S34	W44	10 9.5	3	08	0	0	E	HOLL	5729	
13	APR	0053	0300D	N21	E90	10 19.9	1				C	VORO		
13	APR	0053	0300D	N78	E90	10 21.4	1				C	VORO		
13	APR	0104E	0300D	S31	W90	10 5.9	1				C	VORO		
13	APR	0253	0300D	S25	E90	10 20.1	1				C	VORO		
13	ASR	0420E	1016D	S25	E90	10 20.1			9		E	LEAR	5744	
13	ASR	0635E	1521D	S21	E74	10 18.9			9	9	E	SVTO	5744	
13	APR	0715E	1000D	S22	E90	10 20.2	1				P	BUCH		
13	AFS	0716E	1521D	N12	E03	10 13.5		04	9	9	E	SVTO	5738	
13	LPS	0731E	1016D	S25	E90	10 20.3			9	9	E	LEAR	5744	
13	LPS	0812E	1230D	S26	E90	10 20.3					V	ATHN		
13	AFS	0840E	1016D	N04	E10	10 14.1		02	9	9	E	LEAR		
13	LPS	1047E	2049D	S24	E90	10 20.4			9	9	E	RAMY	5744	
13	AFS	1149E	2049D	N10	E03	10 13.7		04	9	9	E	RAMY	5738	
13	AFS	1150E	1503D	S04	W09	10 12.8		01	0	9	E	SVTO		
13	SSB	1240		435	W38	10 10.7			0	0	E	RAMY		
13	ASR	1244E	1330	S17	W86	10 7.0			9	9	E	RAMY		
13	SDF	1250E	2049D	S33	W38	10 10.5		14	0	0	E	RAMY	5729	
13	LPS	1330E	0026D	S20	E90	10 20.4			9	9	E	HOLL	5744	
13	AFS	1526E	0026D	N12	W01	10 13.6		05	9	9	E	HOLL	5738	
13	AFS	1530E	0026D	N04	E06	10 14.1		02	9	9	E	HOLL		
13	ASR	1530E	2154D	S25	E85	10 20.2			9	9	E	HOLL	5744	
13	SSB	1544		445	W49	10 9.8			0	0	E	HOLL		
13	ASR	1605E	2049D	S25	E85	10 20.2			9	9	E	RAMY	5744	Flare Associated
13	LPS	1706E	0402D	S23	E90	10 20.6			9	8	E	PALE	5744	
13	ASR	1719E	2154D	S16	E90	10 20.5			9	9	E	HOLL		
13	ASR	1720E	2049D	S15	E90	10 20.5			9	9	E	RAMY		
13	ADF	1730E	0402D	N09	W03	10 13.5		05	9	9	E	PALE	5738	
13	AFS	1730E	0402D	N11	W02	10 13.6		05	9	9	E	PALE	5738	
13	ADF	1730E	0402D	N27	W60	10 9.0		12	9	9	E	PALE	5721	
13	AFS	1730E	0402D	S17	E43	10 17.0		05	9	9	E	PALE	5740	
13	ASR	1730E	0402D	S23	E90	10 20.7			9	9	E	PALE	5744	
13	ADF	1733E	2049D	S32	W34	10 11.0	1	10	9	9	E	RAMY	5729	
13	ASR	1745E	0402D	S15	E90	10 20.5			9	9	E	PALE		
13	ASR	1856E	2049D	S16	W90	10 7.0			9	9	E	RAMY		
13	DSD	1939E	0026D	N12	W04	10 13.5		04	9	9	E	HOLL	5738	
13	DSD	2358E	0026D	S17	E44	10 17.3		05	9	9	E	HOLL	5740	Flare Associated
14	APR	0006	0300D	N77	E90	10 22.3	1				C	VORO		
14	LPS	0104E	0823	S26	E90	10 21.0			9	5	E	LEAR	5744	
14	ASR	0114E	0944D	S17	E89	10 20.8			9	9	E	LEAR		
14	APR	0140	0300D	N22	E90	10 21.0	1				C	VORO		
14	DSD	0214E	0944D	S11	W65	10 9.2		11	8	8	E	LEAR	5726	
14	ASR	1315	1350	S24	E73	10 20.2			9	9	E	RAMY	5744	Flare Associated
14	AFS	1315E	1739D	N11	W13	10 13.6		02	9	9	E	RAMY	5738	
14	AFS	1315E	1739D	N15	W41	10 11.4		03	9	9	E	RAMY	5728	
14	DSD	1315E	1739D	N18	W72	10 9.1		09	9	9	E	RAMY	5723	
14	ADF	1315E	1739D	S10	E36	10 17.2	1	05	9	9	E	RAMY	5740	
14	AFS	1315E	1739D	S15	E37	10 17.3		02	9	9	E	RAMY	5740	
14	ASR	1315E	1739D	S16	E80	10 20.6			9	9	E	RAMY		
14	ASR	1327E	1355	S23	E75	10 20.3			9	9	E	HOLL	5744	
14	DSD	1400E	1710D	N18	W72	10 9.1		12	9	9	E	HOLL	5723	
14	AFS	1450E	0023D	N11	W14	10 13.6		04	7	7	E	HOLL	5738	

ACTIVE PROMINENCES AND FILAMENTS

OCTOBER 1989

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/USAF Reg#	Remarks
14	SPY	1756	1800D	N16	W75	10 9.0			9	9	E	HOLL	5723	Flare Associated
14	DSD	1815E	2301D	N16	W75	10 9.1		08	9	9	E	HOLL	5723	Flare Associated
14	AFS	1848E	0023D	N13	E08	10 15.4		01	9	9	E	HOLL	5736	
14	DSD	2118E	0023D	S15	E33	10 17.4		04	9	9	E	HOLL	5740	Flare Associated
14	ASR	2151E	2301D	N13	W90	10 8.1			9	9	E	HOLL	5723	Flare Associated
14	AFS	2304E	0023D	S19	W18	10 13.6		02	9	9	E	HOLL	5739	
14	ASR	2320E	1007D	S19	W90	10 8.1			9	9	E	LEAR	5726	
14	AFS	2325E	1007D	N10	W20	10 13.5		02	9	9	E	LEAR	5738	
14	SDF	2327E	2357D	S38	E10	10 15.8		30	0	0	E	HOLL		
15	ASR	0037E	1007D	N12	W90	10 8.2			9	9	E	LEAR	5723	
15	AFS	0055E	1007D	S20	W20	10 13.5		02	9	9	E	LEAR	5739	
15	AFS	0059E	1007D	S14	W03	10 14.8		02	9	9	E	LEAR		
15	BSL	0123E	0131	N16	W88	10 8.4			9	9	E	LEAR	5723	
15	BSL	0620E	0803D	S40	E90	10 22.6	1				C	ABST		
15	BSL	0714	0735	N17	W90	10 8.5	1				C	ABST		
15	BSL	0717E	0746D	N20	E90	10 22.2	1				C	ABST		
15	BSL	0717E	0746D	S05	E90	10 22.0	1				C	ABST		
15	BSL	0732E	0835	N16	W90	10 8.5			9	9	E	LEAR	5723	
15	BSL	0754E	0802	N18	W90	10 8.5	1-				C	CATA		
15	BSL	0754E	0813	N14	W90	10 8.5	1				C	CATA		
15	SDF	0755E	0130D	N33	E20	10 16.9		15	0	0	E	LEAR		
15	SDF	0755E	0130D	S39	E09	10 16.1		11	0	0	E	LEAR		
15	BSL	0756	0806	N15	W90	10 8.5	1				C	CATA		
15	BSL	0832	0850D	N15	W90	10 8.5	1				C	CATA		
15	BSL	0840	0850	N13	W90	10 8.6	1-				C	CATA		
15	BSL	0906E	0930	N16	W90	10 8.5	1				C	CATA		
15	BSL	0906E	0945D	N13	W90	10 8.6	1				C	CATA		
15	ADF	0923E	1030D	S27	W07	10 14.8	1				V	KHAR		
15	APR	0952E	1020	N16	W90	10 8.6	2				V	KHAR		
15	BSL	0955E	1030	N09	W90	10 8.6	2				C	CATA		
15	BSL	1008	1013	N14	W90	10 8.6	1-				C	CATA		
15	BSL	1028	1036	N75	W90	10 7.1	1-				C	CATA		
15	BSL	1028	1042	N89	E90	10 23.8	1-				C	CATA		
15	BSD	1040E	1250D	S29	E63	10 20.4		08	4	6	E	SVTO	5747	
15	APR	1040E	1516D	N03	E86	10 21.9	1		9	9	E	SVTO		
15	ASR	1040E	1516D	N14	W89	10 8.7			9	9	E	SVTO	5723	
15	AFS	1040E	1516D	N27	W03	10 15.2		03	9	9	E	SVTO	5735	
15	AFS	1040E	1516D	S15	E64	10 20.3		02	9	9	E	SVTO	5748	
15	AFS	1040E	1516D	S16	E19	10 16.9		02	7	7	E	SVTO	5740	
15	AFS	1040E	1516D	S19	E25	10 17.3		03	9	9	E	SVTO	5739	
15	AFS	1041E	1741D	N11	W23	10 13.7		03	9	9	E	RAMY	5738	
15	ASR	1041E	1741D	N12	W90	10 8.7			9	9	E	RAMY	5723	
15	BSL	1042	1046	N87	W90	10 7.0	1-				C	CATA		
15	BSL	1042	1147	N12	W90	10 8.7	2				C	CATA		
15	BSL	1046	1054	N78	W90	10 7.1	1-				C	CATA		
15	SSB	1114		436	W63	10 12.3			0	0	E	RAMY		442 W69
15	ASR	1122E	1427D	N21	W85	10 8.9			9	9	E	RAMY	5721	
15	BSL	1125	1131	N69	W90	10 7.3	1-				C	CATA		
15	BSL	1125	1147	N19	W90	10 8.6	1-				C	CATA		
15	BSL	1155	1217	N15	W90	10 8.7	1-				C	CATA		
15	BSL	1214	1236	N76	E90	10 23.8	1-				C	CATA		
15	BSL	1242	1246D	N18	W90	10 8.7	1				C	CATA		
15	BSL	1259E	1315	N19	W82	10 9.3			9	9	E	RAMY	5723	Flare Associated
15	DSD	1436E	1516D	S13	E21	10 17.2		08	9	9	E	SVTO	5740	Flare Associated
15	AFS	1558E	0023D	S15	W09	10 15.0		02	8	9	E	HOLL		
15	AFS	1605E	2149D	N26	W03	10 15.4		02	9	9	E	HOLL	5735	
15	AFS	1608E	2149D	N14	W02	10 15.5		03	9	9	E	HOLL	5736	
15	AFS	1612E	0023D	N11	W27	10 13.6		03	9	9	E	HOLL	5739	
15	AFS	1617E	0023D	S18	W27	10 13.6		02	9	9	E	HOLL	5739	
15	AFS	1633E	2149D	S13	E62	10 20.4		03	9	9	E	HOLL	5748	
15	ASR	1700E	0023D	N15	W90	10 8.9			9	9	E	HOLL	5723	
15	ADF	2140E	0023D	S26	E49	10 19.7	2	07	9	9	E	HOLL	5747	
15	DSD	2140E	0023D	S28	E57	10 20.3		04	9	9	E	HOLL	5747	
15	ADF	2144E	0023D	N15	W07	10 15.4	1	03	9	9	E	HOLL	5736	
15	ADF	2147E	0023D	S19	E58	10 20.3	1	12	9	9	E	HOLL	5748	
15	SDF	2153E	2210	S16	E15	10 17.0		04	0	0	E	HOLL	5740	
15	ADF	2153E	2210D	S16	E15	10 17.0	2	09	9	9	E	HOLL	5740	
15	SSB	2205		369	W03	10 10.8			0	0	E	HOLL		435 W69
15	ADF	2210E	0023D	S16	E13	10 16.9	1	05	9	9	E	HOLL	5740	

## ACTIVE PROMINENCES AND FILAMENTS

85  
Oct 89

OCTOBER 1989

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/USAF Reg#	Remarks
16	ADF	0104E	1010D	S15	E10	10 16.8	1	06	9	9	E	LEAR	5740	
16	BSL	0432E	0718D	N18	W90	10 9.3			9	9	E	LEAR	5723	
16	BSL	0522E	0759D	S07	E90	10 23.0	1				C	ABST		
16	BSL	0755	0806D	N17	W90	10 9.5	1-				C	CATA		
16	AFS	0813E	1551D	N20	E46	10 19.9		03	9	9	E	SVTO		
16	BSL	0838E	0840	N18	W90	10 9.5	1-				C	CATA		
16	BSL	0910	0917D	N26	E90	10 23.4	1-				C	CATA		
16	AFS	0916E	1551D	S13	E51	10 20.2		03	9	9	E	SVTO	5748	
16	DSD	1020	1042	S24	E43	10 19.7	1				V	KHAR		
16	BSL	1035	1042	N07	W90	10 9.7	1-				C	CATA		
16	DSD	1050E	1110D	S30	E46	10 20.1	1				V	KHAR		
16	ADF	1052E	2128D	S17	E07	10 17.0	1	04	9	9	E	RAMY	5740	
16	BSL	1101	1120D	N19	W90	10 9.6	1				C	CATA		
16	SSB	1213		391	W33	10 9.3			0	0	E	RAMY		394 W36 432 W74
16	BSL	1236E	1245	N45	E90	10 24.0	1-				C	CATA		
16	BSL	1240	1245	N52	W90	10 8.8	1-				C	CATA		
16	ADF	2237E	1009D	S23	E40	10 20.0	1	07	9	9	E	LEAR	5747	
17	SDF	0013E	1524D	N21	E02	10 17.2		06	0	0	E	HOLL		
17	ASR	0514E	1009D	N13	W89	10 10.5			9	9	E	LEAR	5728	
17	BSL	0519E	0804D	S53	E90	10 24.9	1				C	ABST		
17	BSL	0632E	0804D	S08	W90	10 10.5	1				C	ABST		
17	BSL	0632E	0804D	S33	W90	10 10.1	1				C	ABST		
17	ASR	0655E	1541D	N12	W90	10 10.5			9	9	E	SVTO	5728	
17	AFS	0812E	1541D	S19	W50	10 13.5		03	7	7	E	SVTO	5739	
17	AFS	0902E	1541D	S15	E39	10 20.3		02	9	9	E	SVTO	5748	
17	BSL	0903E	0925	N16	W90	10 10.5	1				C	CATA		
17	BSL	0915	0920	N27	E90	10 24.4	1-				C	CATA		
17	BSL	0915	0936	N12	W90	10 10.6	1				C	CATA		
17	BSL	1007	1018	N17	W90	10 10.6	1-				C	CATA		
17	BSL	1007	1018	N24	W90	10 10.5	1-				C	CATA		
17	BSL	1020	1027	N43	W90	10 10.0	1-				C	CATA		
17	ASR	1140E	2005D	N15	W90	10 10.7			9	9	E	RAMY	5728	
17	ADF	1140E	2005D	S13	W02	10 17.3	1	08	9	9	E	RAMY	5740	
17	ADF	1140E	1541D	S27	E27	10 19.6	1	07	9	9	E	SVTO	5747	
17	AFS	1142E	2005D	S19	W51	10 13.6		03	9	9	E	RAMY	5739	
17	ADF	1149	2005D	S12	E31	10 19.8	1	07	9	9	E	RAMY	5748	
17	AFS	1149	2005D	S14	E33	10 20.0		03	9	9	E	RAMY	5748	
17	AFS	1151E	2005D	S15	W34	10 14.9		02	9	9	E	RAMY	5749	
17	ADF	1215E	2005D	S25	E32	10 20.0	1	03	9	9	E	RAMY	5747	
17	BSL	1240E	1246	S21	W90	10 10.6	1-				C	CATA		
17	ASR	1425E	0015D	N13	W90	10 10.8			9	7	E	HOLL	5728	
17	DSD	1445E	2005D	S16	W35	10 15.0		03	7	7	E	RAMY	5744	
17	AFS	1614E	0015D	S20	W05	10 17.3		03	9	9	E	HOLL	5740	
17	APR	1635E	2005D	S32	W90	10 10.6	2		9	9	E	RAMY		
17	ADF	1723E	0015D	S14	E29	10 19.9	1	14	9	9	E	HOLL	5748	
17	SSB	1730		425	W43	10 15.7			0	0	E	HOLL		438 W56
17	DSD	1903E	0015D	S30	E27	10 19.9		06	9	9	E	HOLL	5747	Flare Associated
17	DSD	1908E	2005D	S30	E29	10 20.1		05	9	9	E	RAMY	5747	Flare Associated
17	AFS	1935E	0307D	N12	W32	10 15.4		02	9	9	E	PALE	5736	
17	ASR	1935E	0307D	N12	W90	10 11.0			9	9	E	PALE	5728	
17	DSD	2202E	0015D	N08	W61	10 13.3		04	9	9	E	HOLL	5738	
18	DSD	0203E	0307D	S25	E31	10 20.5		06	9	9	E	PALE	5747	Flare Associated
18	ASR	0445E	1015D	N15	W90	10 11.4			9	9	E	LEAR	5728	
18	BSL	0540E	0601D	S56	E90	10 26.0	1				C	ABST		
18	ADF	0650E	1015D	S21	W13	10 17.3	1	05	9	9	E	LEAR	5740	
18	BSL	0745	0755	N87	E90	10 26.7	1-				C	CATA		
18	BSL	0901E	0915	N18	W90	10 11.5	1-				C	CATA		
18	BSL	0950	1005	N17	W90	10 11.6	1-				C	CATA		
18	BSL	0955	1010	N35	W90	10 11.2	1-				C	CATA		
18	ASR	1109E	2031D	N19	W90	10 11.6			9	9	E	RAMY	5728	
18	ADF	1110E	2031D	S11	E20	10 20.0	1	06	9	9	E	RAMY	5748	
18	ADF	1110E	2031D	S31	E28	10 20.7	1	12	9	9	E	RAMY	5747	
18	AFS	1111E	2031D	S20	W65	10 13.5		03	9	9	E	RAMY	5739	
18	ADF	1112E	2031D	N10	W63	10 13.7	1	10	9	9	E	RAMY	5738	
18	AFS	1112E	2031D	S16	E10	10 19.2		02	9	9	E	RAMY		
18	ADF	1113E	2031D	S15	W17	10 17.2	1	06	9	9	E	RAMY	5740	
18	AFS	1113E	2031D	S19	W17	10 17.2		02	9	9	E	RAMY	5740	

ACTIVE PROMINENCES AND FILAMENTS

OCTOBER 1989

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
18	BSL	1124	1134	S84	E90	10 26.9	1-				C	CATA		
18	ADF	1139E	1536D	S28	E25	10 20.4	1	10	9	9	E	SVTO 5747		
18	BSL	1200	1216	N18	E90	10 25.3	1-				C	CATA		
18	BSL	1205	1216	N16	E90	10 25.3	1-				C	CATA		
18	BSL	1224	1240D	S17	W90	10 11.7	1-				C	CATA		
18	DSD	1455E	1800D	N05	W72	10 13.2		03	8	9	E	HOLL 5738		
18	ADF	1510E	0020D	S19	E19	10 20.1	1	17	9	9	E	HOLL 5748		
18	DSD	1510E	1800D	S31	E25	10 20.6		07	9	9	E	HOLL 5747	Flare Associated	
18	DSD	1545E	2031D	S24	E23	10 20.4		03	9	9	E	RAMY 5747		
18	SSB	1600		410	W40	10 17.8			0	0	E	HOLL		446 W76
18	ADF	1829E	0213D	N12	W68	10 13.6		08	9	9	E	PALE 5738		
18	ADF	1829E	0213D	S21	E53	10 22.8		06	9	9	E	PALE 5753		
18	DSD	1829E	0213D	S23	E19	10 20.2		01	9	9	E	PALE 5747		
19	DSD	0604E	0644D	S18	W73	10 13.7		03	9	9	E	SVTO 5739		
19	BSL	0737E	0748	N05	W90	10 12.6	1-				C	CATA		
19	BSL	0755	0800D	N67	W90	10 11.2	1-				C	CATA		
19	DSD	0816E	0825	S34	E08	10 20.0	1				C	CATA		
19	DSD	0822E	0842D	S25	E07	10 19.9		08	9	9	E	SVTO 5747	Flare Associated	
19	ASR	0822E	1325D	S19	W74	10 13.7			9	9	E	SVTO 5739	Flare Associated	
19	DSD	0824E	0910D	S27	E06	10 19.8		06	9	9	E	LEAR 5747	Flare Associated	
19	DSD	0825	0830D	S28	E06	10 19.8	1				C	CATA		
19	BSL	0925	0931	S19	E90	10 26.3	1-				C	CATA		
19	BSL	0931	0940D	N52	W90	10 11.7	1-				C	CATA		
19	BSL	1150	1150D	N02	E90	10 26.2	1-				C	CATA		
19	DSD	1200E	1827D	S20	W75	10 13.8		03	9	9	E	RAMY 5739		
19	ADF	1200E	2013D	S11	E08	10 20.1	1	09	9	9	E	RAMY 5748		
19	ADF	1200E	2013D	S18	W05	10 19.1	1	09	9	9	E	RAMY 5744		
19	ADF	1200E	2013D	S24	E38	10 22.4	1	14	9	9	E	RAMY 5753		
19	DSD	1255	2013D	S27	E12	10 20.5		18	9	9	E	RAMY 5747	Flare Associated	
19	DSD	1314E	1459D	S33	E13	10 20.6		12	9	9	E	SVTO 5747	Flare Associated	
19	LPS	1347	2144D	S31	E16	10 20.8			9	9	E	HOLL 5747	Flare Associated	
19	LPS	1357E	1459D	S29	E10	10 20.4			9	9	E	SVTO 5747	Flare Associated	
19	SSB	1500		369	W52	10 13.7			0	0	E	RAMY		
19	ASR	1622E	1822D	S18	E90	10 26.5			9	9	E	RAMY		
19	ASR	1745E	1822D	S20	W90	10 12.8			9	9	E	RAMY 5739		
19	ASR	1823E	0016D	S21	W88	10 13.0			9	9	E	HOLL 5739		
19	ADF	1829E	0247D	S23	E37	10 22.6		06	9	9	E	PALE 5753		
19	ASR	1829E	0247D	S23	W90	10 12.8			9	9	E	PALE 5739		
19	DSD	1829E	0247D	S30	E12	10 20.7		04	9	9	E	PALE 5747		
19	ASR	1913E	0016D	S19	E90	10 26.7			8	6	E	HOLL		
19	SSB	2030		350	W36	10 15.8			0	0	E	HOLL		413 W59
20	ADF	0056	0300D	S28	E05	10 20.4	1				C	VORO		
20	APR	0100	0300D	N26	W90	10 13.0	1				C	VORO		
20	APR	0110	0300D	S05	E90	10 26.8	1				C	VORO		
20	ASR	0220E	1019D	S19	E88	10 26.8			9	9	E	LEAR		
20	AFS	0245E	1019D	S16	W02	10 20.0		02	9	9	E	LEAR 5748		
20	BSL	0251	0300D	N30	W90	10 13.0	1				C	VORO		
20	ASR	0730E	1438D	N09	W88	10 13.7			9	9	E	SVTO 5738		
20	ASR	0730E	1438D	S17	E89	10 27.1			9	9	E	SVTO		
20	ASR	0730E	1438D	S17	W88	10 13.6			9	9	E	SVTO 5739		
20	AFS	0746E	1438D	S16	W15	10 19.2		02	9	9	E	SVTO		
20	AFS	0758E	1438D	S14	E01	10 20.4		03	9	9	E	SVTO 5748		
20	AFS	0758E	1438D	S14	W02	10 20.2		03	9	9	E	SVTO 5748		
20	BSL	0806E	0830	S21	W90	10 13.4	1-				C	CATA		
20	BSL	0845E	0857	S21	W90	10 13.5	1-				C	CATA		
20	BSL	0845E	0908	S20	W90	10 13.5	1-				C	CATA		
20	BSL	0926E	0930	S21	W90	10 13.5	1-				C	CATA		
20	BSL	0936	0941	S44	W90	10 12.9	1-				C	CATA		
20	BSL	0947	1000	N44	E90	10 27.8	1-				C	CATA		
20	BSL	0947	1000	S79	E90	10 28.7	1-				C	CATA		
20	BSL	0959E	0959D	S08	E90	10 27.2	1				C	ABST		
20	BSL	0959E	0959D	S30	E90	10 27.5	1				C	ABST		
20	BSL	1015	1030D	S22	W90	10 13.5	1				C	CATA		
20	ADF	1118E	2008D	S23	W06	10 20.0	1	10	9	9	E	RAMY 5747		
20	BSL	1130E	1150D	S20	E90	10 27.4	1				V	KHAR		
20	BSL	1147E	1245D	S22	W90	10 13.6	1-				C	CATA		
20	SDF	1150E	0738D	S13	E10	10 21.2	1				C	CATA		
20	BSL	1155	1210	S19	W90	10 13.6	1-				C	CATA		

## ACTIVE PROMINENCES AND FILAMENTS

87  
Oct 89

OCTOBER 1989

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP No	Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
20	BSL	1159	1205	S20	W90	10	13.6	1-				C	CATA		
20	BSL	1205	1245D	N15	W90	10	13.7	2				C	CATA		
20	BSL	1220	1236	S19	W90	10	13.6	1-				C	CATA		
20	BSL	1225	1240	S83	E90	10	28.9	1-				C	CATA		
20	ADF	1413E	1951D	S33	W01	10	20.5	1	07	9	9	E	HOLL	5747	
20	ASR	1555E	2008D	S14	E90	10	27.5			9	9	E	RAMY		
20	ADF	1717E	2008D	S15	W47	10	17.2	1	14	9	9	E	RAMY	5740	
20	ASR	2255E	1003D	N10	W90	10	14.2			9	9	E	LEAR	5738	
21	DSD	0205E	0233D	S29	W07	10	20.5		07	9	9	E	LEAR	5747	Flare Associated
21	AFS	0714E	1003D	S16	W29	10	19.1		02	8	8	E	LEAR	5755	
21	ADF	0923E	1408D	S28	W12	10	20.4	1	13	9	9	E	SVTO	5747	
21	AFS	0930E	1408D	S17	W29	10	19.2		04	9	9	E	SVTO	5755	
21	BSL	1031	1041D	N04	W90	10	14.7	1				C	CATA		
21	AFS	1037E	2057D	S16	W28	10	19.3		03	9	9	E	RAMY	5755	
21	ADF	1038E	2057D	S35	W12	10	20.5	1	18	9	9	E	RAMY	5747	
21	SSB	1112		S20	W27	10	19.9			0	0	E	RAMY		
21	SDF	1116E	0758D	N36	W35	10	18.6	2				C	CATA		
21	BSL	1116E	1116D	N02	W90	10	14.7	1-				C	CATA		
21	AFS	1320E	1408D	S25	W40	10	18.4		01	7	8	E	SVTO	5744	
21	ADF	1342E	1408D	S18	E63	10	26.4	1	06	9	9	E	SVTO	5754	
21	SDF	1420E	1259D	N33	W31	10	19.1	3	16	0	0	E	RAMY		
21	ASR	1543E	1956D	S25	E90	10	28.6			9	9	E	HOLL		
21	BSL	1545E	1637D	S24	E90	10	28.6			9	9	E	RAMY		
21	BSL	1548	1610D	S25	E90	10	28.6			9	9	E	HOLL		
21	AFS	1700E	0331D	S16	W22	10	20.0		02	9	9	E	PALE	5748	
21	ADF	1700E	0331D	S21	E12	10	22.6		14	9	9	E	PALE	5753	
21	ADF	1700E	0331D	S28	W30	10	19.4	1	13	9	9	E	PALE	5747	
21	SSB	1710		S20	W31	10	20.1			0	0	E	PALE		
21	AFS	1720E	2259D	S16	W33	10	19.2		03	6	6	E	HOLL	5755	
21	AFS	1721E	2259D	S15	W22	10	20.0		04	9	9	E	HOLL	5748	
21	AFS	1722E	2259D	S19	E63	10	26.5		05	9	9	E	HOLL	5754	
21	SSB	1725		S20	W30	10	20.1			0	0	E	HOLL		
21	SDF	1755E	1333D	S24	W25	10	19.8		10	0	0	E	HOLL	5747	
21	ADF	1758E	2259D	S24	W25	10	19.8	2	10	9	9	E	HOLL	5747	
21	ADF	1758E	2259D	S25	W20	10	20.2	2	11	9	9	E	HOLL	5747	
21	DSD	1836E	2259D	S14	E23	10	23.5		04	9	9	E	HOLL	5748	
21	AFS	2019E	2259D	S24	W42	10	18.6		02	9	9	E	HOLL	5744	
21	DSD	2033E	2259D	N24	E27	10	23.9		03	9	9	E	HOLL	5757	
21	ASR	2220E	0331D	N07	W90	10	15.2			9	9	E	PALE	5736	
21	DSD	2220E	0331D	N09	W64	10	17.1		02	9	9	E	PALE	5750	
21	ASR	2227E	0056D	N24	W89	10	15.0			9	9	E	PALE	5735	
21	AFS	2230E	0943D	S14	W26	10	20.0		02	9	9	E	LEAR	5748	
21	ASR	2302E	0331D	S12	E89	10	28.7			9	9	E	PALE		
21	AFS	2340E	0331D	S12	E21	10	23.6		03	8	8	E	PALE		
22	ASR	0023E	1018D	N11	W90	10	15.2			9	9	E	LEAR	5736	
22	APR	0140	0258D	N12	W90	10	15.3	1				C	VORO		
22	APR	0201	0258D	N65	W90	10	14.0	1				C	VORO		
22	ADF	0213	0258D	S28	W26	10	20.1	1				C	VORO		
22	ASR	0225E	1018D	S26	E90	10	29.1			9	9	E	LEAR		
22	AFS	0231E	1018D	S13	E17	10	23.4		02	9	9	E	LEAR		
22	BSL	0759E	0810	S16	E90	10	29.1	1-				C	CATA		
22	BSL	0851	0918	S16	E90	10	29.2	1				C	CATA		
22	BSL	0855	0906	N88	E90	10	30.8	1-				C	CATA		
22	BSL	0855	0930	N25	W90	10	15.4	1				C	CATA		
22	BSL	0911	0945D	S41	E90	10	29.7	1				C	CATA		
22	BSL	0938	0945D	S15	E90	10	29.2	1				C	CATA		
22	AFS	1044E	2013D	S14	W30	10	20.2		03	9	9	E	RAMY	5748	
22	AFS	1045E	2013D	S13	E14	10	23.5		02	9	9	E	RAMY		
22	AFS	1047E	2013D	N12	W64	10	17.6		03	9	9	E	RAMY	5750	
22	BSL	1139E	1154	S26	W90	10	15.5	1-				C	CATA		
22	BSL	1146	1154	S30	E90	10	29.6	1				C	CATA		
22	ADF	1148E	2013D	S15	W70	10	17.2	1	10	9	9	E	RAMY	5740	
22	BSL	1218	1231	S28	E90	10	29.5	1-				C	CATA		
22	BSL	1218	1241D	S42	E90	10	29.9	1				C	CATA		
22	DSD	1223E	1330	N10	W66	10	17.5		02	9	9	E	RAMY	5750	Flare Associated
22	SDF	1408E	0950D	N38	W31	10	20.1		14	0	0	E	SVTO		
22	BSD	1600	1623	N12	W70	10	17.4		20	9	9	E	HOLL	5750	Flare Associated
22	BSL	1623	1656D	N12	W70	10	17.4			9	9	E	HOLL	5750	Flare Associated



ACTIVE PROMINENCES AND FILAMENTS

OCTOBER 1989

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
22	DSD	1802E	0251D	N11	W74	10 17.2		04	9	9	E	PALE 5750		
22	AFS	1802E	0251D	N24	E15	10 23.9		03	9	9	E	PALE 5757		
22	DSD	1802E	0251D	S18	W36	10 20.0		02	9	9	E	PALE 5748		
22	ADF	1802E	0251D	S19	E51	10 26.6		03	9	9	E	PALE 5754		
22	LPS	1804E	0018D	S27	W33	10 20.2			9	9	E	HOLL 5747	Flare Associated	
22	LPS	1907E	0251D	N28	W37	10 19.9			9	9	E	PALE 5747		
22	ADF	1927E	2217D	S19	W51	10 18.9	1	05	9	9	E	HOLL 5744		
22	ASR	2043E	2230D	S26	E90	10 29.8			9	9	E	HOLL		
22	SSB	2220		280	W06	10 28.9			0	0	E	HOLL	320 W46	
22	LPS	2244E	0318	S33	W41	10 19.7			9	9	E	LEAR 5747		
23	APR	0129	0258D	N25	E90	10 30.0	1				C	VORO		
23	APR	0129	0258D	S18	W90	10 16.2	1				C	VORO		
23	BSL	0151	0240D	N10	W90	10 16.3	1				C	VORO		
23	BSL	0706E	0727D	S27	E90	10 30.3	1				C	ABST		
23	DSD	0848E	0916D	S16	W44	10 20.0	1				V	KHAR		
23	BSL	0905	0910	S85	W90	10 15.0	1-				C	CATA		
23	BSL	0905	0910D	S73	E90	10 31.6	1-				C	CATA		
23	BSL	1032E	1047D	N14	W90	10 16.6	1				V	KHAR		
23	ASR	1100E	2106D	N13	W88	10 16.8			9	9	E	RAMY 5750		
23	AFS	1100E	2106D	S13	E50	10 27.2		02	9	9	E	RAMY 5758		
23	AFS	1100E	2106D	S17	W44	10 20.1		03	9	9	E	RAMY 5748		
23	ADF	1100E	2106D	S32	W35	10 20.7	1	20	9	9	E	RAMY 5747		
23	AFS	1116E	2106D	N11	E19	10 24.9		02	9	9	E	RAMY		
23	DSD	1124E	1149D	S14	W43	10 20.2	1				V	KHAR		
23	ASR	1125E	2106D	S20	W89	10 16.7			9	9	E	RAMY 5740		
23	DSD	1141E	1200D	S32	W41	10 20.2	1				V	KHAR		
23	APR	1152E	1200D	N14	W90	10 16.7	1				V	KHAR		
23	DSD	1445E	2106D	S14	E49	10 27.3		03	9	9	E	RAMY 5758		
23	AFS	1727E	0342D	S13	E46	10 27.2		02	9	9	E	PALE 5758		
23	AFS	1727E	0342D	S16	W48	10 20.1		06	9	9	E	PALE 5748		
23	ADF	1727E	0342D	S31	W39	10 20.6		08	9	9	E	PALE 5747		
23	SSB	1735		281	W18	10 29.9			0	0	E	HOLL	315 W52	
23	ADF	1808E	0015D	N23	E58	10 28.2	1	04	9	9	E	HOLL		
23	ASR	2018E	0342D	N11	W90	10 17.1			9	9	E	PALE 5750		
23	AFS	2304E	1015D	S16	W48	10 20.3		07	9	9	E	LEAR 5748		
23	AFS	2309E	1015D	N10	E13	10 24.9		03	9	6	E	LEAR 5760		
23	SDF	2350E	1345D	N25	E47	10 27.6		35	0	0	E	HOLL		
24	ASR	0216E	0342D	S08	E90	10 30.8			9	9	E	PALE		
24	AFS	0520E	1015D	S14	E39	10 27.2		03	9	9	E	LEAR 5758		
24	BSL	0615E	0814D	N60	E90	11 1.2	1				C	ABST		
24	BSL	0615E	0814D	S30	E90	10 31.3	1				C	ABST		
24	BSL	0915E	0925D	N36	E90	10 31.6	1				V	KHAR		
24	DSD	0933	0955	S23	W75	10 18.6	1				V	KHAR		
24	APR	1020E	1055	S37	E90	10 31.7	1				V	KHAR		
24	DSD	1021	1053D	S14	W58	10 20.0	1				V	KHAR		
24	DSD	1055	1125	S30	W60	10 19.7	1				V	KHAR		
24	AFS	1105E	2118D	S18	W58	10 20.0		03	9	9	E	RAMY 5748		
24	DSD	1115	1130D	S14	W58	10 20.1	1				V	KHAR		
24	DSD	1120E	1216D	S28	W56	10 20.1		09	9	9	E	SVTO 5747		
24	AFS	1126E	1425D	S12	E36	10 27.2		02	9	9	E	SVTO 5758		
24	AFS	1126E	1425D	S18	W60	10 19.9		02	9	9	E	SVTO 5748		
24	ADF	1500E	0012D	S30	W51	10 20.6	1	06	9	9	E	HOLL 5747		
24	SSB	1507		253	W02	10 28.6			0	0	E	HOLL	276 W25 326 W75	
24	AFS	1710E	0020D	N11	E00	10 24.7		02	9	9	E	PALE 5760		
24	DSD	1758E	1825D	S31	W50	10 20.8		06	9	9	E	HOLL 5747	Flare Associated	
24	DSD	1802E	1959D	S35	W52	10 20.6		05	9	9	E	PALE 5747	Flare Associated	
24	LPS	1835E	0020D	S33	W61	10 19.9			9	9	E	PALE 5747	Flare Associated	
24	DSD	1856E	1920D	S29	W57	10 20.3		06	8	7	E	HOLL 5747	Flare Associated	
24	DSD	1856E	2038D	S39	W72	10 18.9		08	9	9	E	RAMY 5747		
24	EPL	1914E	0020D	S42	W90	10 17.4			9	9	E	PALE 5747	Flare Associated	
24	LPS	2309E	0908D	S30	W59	10 20.3			9	9	E	LEAR 5747		
24	AFS	2324E	0908D	N11	W01	10 24.9		04	9	9	E	LEAR 5760		
24	AFS	2340E	0900D	S28	W61	10 20.2		07	9	9	E	LEAR 5747		
25	ASR	0545E	0600	S17	E90	11 1.1			9	9	E	LEAR		
25	APR	0600E	1240D	N54	E90	11 2.0					V	ATHN		
25	APR	0800E	1050D	S27	W90	10 18.3	1				V	KHAR		
25	DSD	0842	0855D	S26	W75	10 19.5	1				V	KHAR		

ACTIVE PROMINENCES AND FILAMENTS

89  
Oct 89

OCTOBER 1989

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	Day	Imp	Extent	Blue	Red	Obs	Sta	NOAA/ USAF Reg#	Remarks
										Shift (.1 A)	Shift (.1 A)				
25	BSL	0855	0900D	S23	W90	10	18.4	1-				C	CATA		
25	BSL	0900	0900D	S20	W90	10	18.5	1				C	CATA		
25	BSL	0934E	0940D	S23	W90	10	18.5	1				C	CATA		
25	BSL	0940	0940D	N89	E90	11	2.8	1-				C	CATA		
25	DSD	1008	1029D	S26	W75	10	19.6	1				V	KHAR		
25	DSD	1025E	1045D	S20	W72	10	19.9	1				V	KHAR		
25	BSL	1035	1040	N11	W90	10	18.7	1-				C	CATA		
25	BSL	1045	1101	N05	W90	10	18.7	1-				C	CATA		
25	ASR	1115E	2034D	S17	W88	10	18.8			9	9	E	RAMY	5755	
25	ASR	1120E	1730D	S25	W90	10	18.5			9	9	E	RAMY	5744	
25	DSD	1120E	1730D	S27	W69	10	20.1		03	9	9	E	RAMY	5747	
25	AFS	1120E	2034D	N09	W10	10	24.7		03	9	9	E	RAMY	5760	
25	BSL	1135	1145	N60	W90	10	17.6	1-				C	CATA		
25	SSB	1218		273	W34	10	31.3			0	0	E	RAMY		
25	AFS	1514E	2319D	N11	W12	10	24.7		03	9	9	E	HOLL	5760	
25	DSD	1808E	0047D	S29	W77	10	19.7		03	9	9	E	PALE	5747	
25	AFS	1808E	0315D	N10	W14	10	24.7		02	9	9	E	PALE	5760	
25	ADF	1808E	0315D	S20	E11	10	26.6		05	9	9	E	PALE	5754	
25	ASR	1808E	0315D	S37	W88	10	18.7			6	8	E	PALE	5747	
25	AFS	1912E	2319D	S13	E48	10	29.4		02	8	8	E	HOLL	5761	
25	EPL	1914E	0020D	S42	W90	10	18.4			9	9	E	PALE	5747	Flare Associated
25	AFS	1955E	0315D	N31	E27	10	28.0		02	8	9	E	PALE		
25	AFS	1957E	2319D	N32	E26	10	27.9		01	9	9	E	HOLL		
25	AFS	2008E	2319D	N34	E29	10	28.1		01	9	9	E	HOLL		
25	ASR	2041E	2151D	S30	W90	10	18.8			9	9	E	HOLL	5747	
25	ASR	2230E	1013D	S30	W87	10	19.1			9	9	E	LEAR	5747	
25	ASR	2340E	0315D	S22	W89	10	19.1			9	9	E	PALE	5748	
25	AFS	2350E	1013D	N31	E24	10	27.9		02	9	8	E	LEAR		
26	APR	0020	0301D	N30	E90	11	2.1	1				C	VORO		
26	APR	0020	0301D	N45	W90	10	18.5	1				C	VORO		
26	APR	0020	0301D	S25	E90	11	2.0	1				C	VORO		
26	ADF	0026	0301D	N20	W10	10	25.2	1				C	VORO		
26	APR	0100	0301D	N08	W90	10	19.3	1				C	VORO		
26	BSL	0816E	0853D	N54	E90	11	3.1	1				C	ABST		
26	AFS	0833E	1013D	N10	W21	10	24.8		02	9	9	E	LEAR	5760	
26	BSL	0841	0850	N28	E90	11	2.4	1-				C	CATA		
26	APR	0902E	0935	S27	W90	10	19.4	1				V	KHAR		
26	BSL	1104E	1115D	S20	W90	10	19.6	1				V	KHAR		
26	AFS	1128E	1815D	N10	W24	10	24.7		02	9	9	E	RAMY	5760	
26	AFS	1128E	1815D	N31	E17	10	27.8		03	9	9	E	RAMY	5762	
26	ASR	1128E	1815D	S17	W81	10	20.3			9	9	E	RAMY	5748	
26	ADF	1128E	1815D	S25	E48	10	30.2	1	09	9	9	E	RAMY	5761	
26	ASR	1128E	1815D	S30	W85	10	19.8			9	9	E	RAMY	5747	
26	BSL	1235	1240D	N10	E90	11	2.3	1-				C	CATA		
26	AFS	1443E	2342D	N11	W24	10	24.8		02	9	9	E	HOLL	5760	
26	AFS	1525E	2342D	N32	E16	10	27.9		02	8	8	E	HOLL	5762	
26	ASR	1529E	2342D	S29	W90	10	19.6			9	9	E	HOLL	5747	
26	AFS	1537E	2342D	N23	E40	10	29.7		01	7	6	E	HOLL	5763	
26	AFS	1541E	2342D	S13	E37	10	29.4		02	7	5	E	HOLL	5761	
26	AFS	1544E	2342D	S15	E25	10	28.5		02	6	4	E	HOLL		
26	SDF	1555E	1354D	N04	E23	10	28.4		10	0	0	E	SVTO		
26	SDF	1600E	1128D	N15	W01	10	26.6		09	0	0	E	RAMY		
26	ADF	1746E	0231D	N08	W29	10	24.6		03	9	9	E	PALE	5760	
26	AFS	1746E	0231D	N11	W27	10	24.7		04	9	9	E	PALE	5760	
26	ADF	1746E	0231D	N24	W36	10	23.9		05	9	8	E	PALE	5757	
26	ADF	1746E	0231D	S12	E06	10	27.2		13	9	9	E	PALE	5758	
26	ASR	1746E	0231D	S16	W90	10	19.9			9	9	E	PALE	5748	
26	ADF	1746E	0231D	S20	E36	10	29.5		09	9	9	E	PALE	5761	
26	ASR	1746E	0231D	S28	W90	10	19.7			9	9	E	PALE	5747	
26	DSD	1856E	0231D	N24	E39	10	29.8		02	9	9	E	PALE	5763	
26	ADF	1857E	0231D	S10	E54	10	30.8		07	9	9	E	PALE		
26	DSD	1857E	0231D	S26	E30	10	29.1		04	9	9	E	PALE		
26	AFS	2240E	1015D	N10	W28	10	24.8		03	9	9	E	LEAR	5760	
26	ASR	2315E	1015D	S15	W90	10	20.1			9	9	E	LEAR	5748	
26	BSL	2316E	2342D	S20	W90	10	20.1			9	9	E	HOLL	5748	
26	BSL	2323	0032D	S21	W90	10	20.1			9	9	E	LEAR	5748	
26	LPS	2323E	0019	S21	W90	10	20.1			9	9	E	PALE	5748	
27	BSL	0019E	0231D	S21	W90	10	20.1			9	9	E	PALE	5748	

ACTIVE PROMINENCES AND FILAMENTS

OCTOBER 1989

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/USAF Reg#	Remarks
27	BSL	0521E	0738D	N20	W90	10 20.3	1				C	ABST		
27	APR	0521E	0738D	S34	E90	11 3.4	1				C	ABST		
27	BSL	0554E	0738D	S08	E90	11 3.0	1				C	ABST		
27	BSL	0616E	0738D	S30	W90	10 20.2	1				C	ABST		
27	EPL	0630E	0930D	S35	E90	11 3.5					V	ATHN		
27	BSL	0747E	0751	S88	E90	11 4.7	1-				C	CATA		
27	BSL	1034	1045	N78	E90	11 4.8	1-				C	CATA		
27	AFS	1102E	1945D	N21	E32	10 29.9		02	9	9	E	RAMY 5763		
27	ASR	1102E	1945D	S29	W90	10 20.4			9	9	E	RAMY 5747		
27	AFS	1110E	1945D	N09	W36	10 24.8		04	9	9	E	RAMY 5760		
27	ADF	1113E	1945D	N19	E02	10 27.6	1	08	9	9	E	RAMY 5758		
27	BSL	1132	1135	N70	W90	10 19.3	1-				C	CATA		
27	BSL	1135E	1153D	S31	W90	10 20.4	1				C	KHAR		
27	APR	1136E	1200D	S31	W90	10 20.4					V	ATHN		
27	AFS	1435E	0009D	N10	W38	10 24.7		04	9	9	E	HOLL 5760		
27	ASR	1435E	0009D	S26	W90	10 20.6			9	9	E	HOLL 5747		
27	ADF	1508E	2305D	S31	E58	11 1.2	1	14	9	9	E	HOLL		
27	AFS	1748E	0225D	N09	W40	10 24.7		03	9	9	E	PALE 5760		
27	DSD	1748E	0225D	N19	E28	10 29.9		05	9	9	E	PALE 5763		
27	AFS	1748E	0225D	N22	E28	10 29.9		04	9	9	E	PALE 5763		
27	AFS	1748E	0225D	N31	E00	10 27.7		01	9	8	E	PALE 5762		
27	ADF	1748E	0225D	S13	W07	10 27.2		11	9	9	E	PALE 5758		
27	DSD	1748E	0225D	S27	E51	10 31.7		03	9	9	E	PALE 5766		
27	ASR	1953E	0225D	S22	W90	10 20.9			9	9	E	PALE 5747		
27	SDF	2145E	1606D	N26	E32	10 30.4		09	0	0	E	HOLL		
27	AFS	2305E	1018D	N11	W45	10 24.6		02	9	9	E	LEAR 5760		
27	AFS	2306E	1018D	N20	E23	10 29.7		03	9	9	E	LEAR 5763		
28	ASR	0158E	1018D	S27	E90	11 4.1			9	9	E	LEAR 5747		
28	AFS	0220E	1018D	N11	E61	11 1.7		02	9	9	E	LEAR		
28	APR	0246E	0301D	N22	W90	10 21.2	1				C	VORO		
28	APR	0246E	0301D	S05	E90	11 3.8	1				C	VORO		
28	ADF	0813E	1020D	N20	E20	10 29.9	1				V	KHAR		
28	APR	0813E	1050D	S28	W90	10 21.3	2				V	KHAR		
28	BSL	0829E	0830D	N20	E90	11 4.2	1-				C	CATA		
28	BSL	0846E	0855	N28	E90	11 4.4	1-				C	CATA		
28	BSL	0905	0916	S33	E90	11 4.5	1-				C	CATA		
28	BSL	0906	0932	S18	E90	11 4.2	1-				C	CATA		
28	AFS	0926E	1456D	N08	W50	10 24.6		02	9	8	E	SVTO 5760		
28	AFS	0926E	1456D	N21	E18	10 29.8		04	9	9	E	SVTO 5763		
28	BSL	0956	1005D	N20	E90	11 4.3	1-				C	CATA		
28	BSL	1016E	1046	N20	E90	11 4.3	1-				C	CATA		
28	BSL	1021	1031	S81	E90	11 5.8	1-				C	CATA		
28	BSL	1040	1228	S17	W90	10 21.6	1				C	CATA		
28	ADF	1040E	1055D	N20	E20	10 30.0	1				V	KHAR		
28	SPY	1050	1136D	S26	E90	11 4.4	2				V	KHAR		
28	ASR	1054E	1340D	S30	W90	10 21.4			9	9	E	RAMY 5747		
28	BSL	1100	1206	S20	W90	10 21.6	1-				C	CATA		
28	BSL	1120	1240D	S28	W90	10 21.4	3				C	CATA		
28	BSL	1129E	1309D	S28	W90	10 21.4			9	9	E	RAMY 5747		
28	BSL	1130E	1324D	S28	W90	10 21.4			9	9	E	SVTO 5747		
28	AFS	1133E	1340D	N08	W50	10 24.7		02	9	9	E	RAMY 5760		
28	AFS	1134E	1340D	N20	E18	10 29.8		03	9	9	E	RAMY 5763		
28	AFS	1158E	1340D	S30	E38	10 31.5		02	9	9	E	RAMY 5766		
28	AFS	1159E	1340D	N12	E56	11 1.7		02	9	9	E	RAMY		
28	ADF	1200E	1340D	N35	E64	11 2.6	1	11	9	9	E	RAMY 5764		
28	ADF	1227E	1456D	S21	W27	10 26.4	1	09	9	9	E	SVTO 5754		
28	SDF	1240E	0801D	N60	W35	10 25.4	2				C	CATA		
28	SSB	1304		253	W53	11 2.1			0	0	E	RAMY		280 W80
28	APR	1533E	0007D	S36	W90	10 21.4	1		8	8	E	HOLL 5747		
28	ASR	1533E	2130D	S30	W90	10 21.6			9	9	E	HOLL 5747		
28	ADF	1535E	0007D	S20	W26	10 26.7	1	09	9	9	E	HOLL 5754		
28	ADF	1536E	0007D	S15	W20	10 27.1	1	05	9	9	E	HOLL 5758		
28	AFS	1538E	0007D	N20	E15	10 29.8		04	9	9	E	HOLL 5763		
28	APR	1540E	1924D	N24	E90	11 4.6	2		8	9	E	HOLL		
28	AFS	1542E	0007D	N27	W44	10 25.2		03	9	9	E	HOLL		
28	AFS	1543E	0007D	S11	W03	10 28.4		03	9	9	E	HOLL		
28	SSB	1551		246	W48	11 1.5			0	0	E	HOLL		
28	AFS	1802E	0336D	N10	W55	10 24.6		02	9	9	E	PALE 5760		
28	AFS	1802E	0336D	N21	E14	10 29.8		03	9	9	E	PALE 5763		

## ACTIVE PROMINENCES AND FILAMENTS

91  
Oct 89

OCTOBER 1989

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/USAF Reg#	Remarks
28	AFS	1802E	0336D	N26	W46	10 25.2		02	9	9	E	PALE	5767	
28	ASR	1820E	0336D	N25	E89	11 4.6			9	9	E	PALE		
28	ASR	1832E	2131D	N23	E90	11 4.7			8	8	E	HOLL		
28	ASR	1944E	0007D	S19	E90	11 4.7			9	9	E	HOLL		
28	AFS	2319E	1020D	N20	E11	10 29.8		03	9	9	E	LEAR	5763	
28	AFS	2320E	1020D	N28	W50	10 25.1		02	9	9	E	LEAR	5767	
28	ASR	2330E	0007D	N26	E90	11 5.0			9	9	E	HOLL	5769	
28	ADF	2352	0302D	N21	W15	10 27.8	1				C	VORO		
29	BSL	0020	0057	N20	W90	10 22.1	1				C	VORO		
29	APR	0020	0302D	N03	W90	10 22.3	1				C	VORO		
29	APR	0020	0302D	S04	E90	11 4.7	1				C	VORO		
29	ASR	0054E	1020D	N24	E90	11 5.0			9	9	E	LEAR	5769	
29	ASR	0055E	1020D	S17	E90	11 4.9			9	9	E	LEAR		
29	ADF	0056E	1020D	S19	W31	10 26.7	1	05	9	9	E	LEAR	5754	
29	APR	0124	0302D	N21	W90	10 22.1	1				C	VORO		
29	ASR	0248E	0336D	S29	W90	10 22.1			9	9	E	PALE		
29	APR	0254	0302D	S30	W90	10 22.0	1				C	VORO		
29	APR	0333E	0336D	S19	W88	10 22.4	2		9	9	E	PALE		
29	APR	0551E	0803D	S32	W90	10 22.1	1				C	ABST		
29	APR	0600E	0645D	S20	W90	10 22.4					V	ATHN		
29	AFS	0724E	1520D	N19	E05	10 29.7		04	9	9	E	SVTO	5763	
29	AFS	0724E	1520D	S11	W11	10 28.5		02	7	8	E	SVTO	5768	
29	APR	0736E	1520D	S25	W90	10 22.3	1		9	9	E	SVTO		
29	ADF	0739E	1520D	S22	W39	10 26.3	1	09	9	9	E	SVTO	5754	
29	BSL	0801E	0817	S24	W90	10 22.4	1-				C	CATA		
29	APR	0803E	0810D	S33	W90	10 22.2	1				V	KHAR		
29	BSL	0825	0842	N43	W90	10 21.9	1-				C	CATA		
29	BSL	0830	0920	N28	E90	11 5.4	1-				C	CATA		
29	BSL	0850	0920	N29	E90	11 5.4	1-				C	CATA		
29	APR	0902E	0914D	S22	W90	10 22.4	1				V	KHAR		
29	BSL	0920	0925	N12	E90	11 5.2	1-				C	CATA		
29	BSL	0920	0925	N86	W90	10 21.0	1-				C	CATA		
29	BSL	0930	0941	N37	W90	10 22.1	1-				C	CATA		
29	BSL	0941	0945D	N26	W90	10 22.4	1-				C	CATA		
29	BSL	1002	1015	N25	E90	11 5.4	1-				C	CATA		
29	BSL	1002	1042	N13	E90	11 5.2	1-				C	CATA		
29	BSL	1110	1115	N86	W90	10 21.0	1-				C	CATA		
29	BSL	1110	1120	N50	E90	11 6.1	1-				C	CATA		
29	BSL	1120	1131	N54	W90	10 21.7	1-				C	CATA		
29	BSL	1142	1152	N80	W90	10 21.1	1-				C	CATA		
29	BSL	1235	1240D	N23	E90	11 5.4	1-				C	CATA		
29	BSL	1235	1240D	N31	E90	11 5.6	1-				C	CATA		
29	SDF	1240E	0735D	N26	W36	10 26.7	1				C	CATA		
29	AFS	1428E	1839D	N07	W65	10 24.7		02	9	9	E	RAMY	5760	
29	DSD	1428E	1839D	N08	W69	10 24.4		06	9	9	E	RAMY	5760	
29	AFS	1428E	1839D	N23	E76	11 4.4		02	9	9	E	RAMY	5769	
29	ADF	1525E	2307D	S21	W43	10 26.3	1	05	9	9	E	HOLL	5754	
29	SSB	1605		227	W42	10 31.9			0	0	E	HOLL		250 W65
29	AFS	2013E	2225D	N20	W02	10 29.7		03	9	9	E	PALE	5663	
29	AFS	2013E	2225D	S21	E61	11 3.5		02	9	9	E	PALE	5771	
29	AFS	2224E	1020D	N19	W02	10 29.8		02	9	9	E	LEAR	5763	
29	AFS	2243E	1020D	N17	E59	11 3.4		04	9	9	E	LEAR	5770	
30	AFS	0710E	1352D	N20	E54	11 3.4		02	9	7	E	SVTO	5770	
30	ADF	0740E	1352D	S23	W48	10 26.6	1	04	9	9	E	SVTO	5754	
30	BSL	0746	0755	S30	W90	10 23.2	1-				C	CATA		
30	BSL	0746	0755D	S82	W90	10 21.9	1-				C	CATA		
30	AFS	0905E	1020D	S14	E14	10 31.4		02	9	9	E	LEAR		
30	AFS	0910E	1352D	S14	E14	10 31.4		02	9	9	E	SVTO		
30	BSL	0930	0946	N79	W90	10 22.0	1-				C	CATA		
30	BSL	1122E	1145	N23	W90	10 23.5	1				C	CATA		
30	ADF	1125E	1152D	S14	E65	11 4.4	1				V	KHAR		
30	BSL	1155	1200	N88	W90	10 22.1	1-				C	CATA		
30	BSL	1238	1240D	N78	E90	11 7.8	1				C	CATA		
30	SSB	1610		224	W52	11 1.7			0	0	E	HOLL		
30	AFS	1713E	2344D	N21	W12	10 29.8		03	9	9	E	HOLL	5763	
30	ADF	1725E	2344D	N29	E67	11 5.0	1	03	9	9	E	HOLL	5769	
30	AFS	1735E	2344D	N16	E17	11 1.0		01	9	9	E	HOLL		
30	ASR	1742E	2344D	N09	W80	10 24.7			8	8	E	HOLL	5760	

ACTIVE PROMINENCES AND FILAMENTS

OCTOBER 1989

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
30	ADF	1750E	2344D	S12	W46	10 27.3	1	04	9	9	E	HOLL	5758	
30	ASR	1928E	2045D	N13	E81	11 5.9			9	9	E	HOLL	5773	
30	ASR	1928E	2045D	N22	E90	11 6.7			9	9	E	HOLL		
30	ADF	2038E	0338D	S15	W31	10 28.5		04	9	9	E	PALE	5768	
30	DSD	2038E	0338D	S21	W55	10 26.6		04	9	9	E	PALE	5754	
30	DSD	2051E	0338D	N15	E76	11 5.6		06	9	9	E	PALE	5773	
30	DSD	2051E	0338D	N25	E61	11 4.6		03	9	9	E	PALE	5769	
30	DSD	2051E	0338D	S13	E08	10 31.5		02	9	9	E	PALE		
31	ASR	0054E	0338D	N08	W90	10 24.3			9	9	E	PALE	5760	
31	ASR	0058E	1020D	N09	W90	10 24.3			9	9	E	LEAR	5760	
31	ASR	0102E	1020D	N16	E90	11 6.9			9	9	E	LEAR		
31	AFS	0508E	1020D	S13	E00	10 31.2		03	9	9	E	LEAR		
31	BSL	0831	0850	N20	E90	11 7.2	1-				C	CATA		
31	BSL	0831	0916D	N30	W90	10 24.3	1				C	CATA		
31	BSL	0902	0916D	N16	E90	11 7.2	1-				C	CATA		
31	BSL	0902	0916D	N44	W90	10 23.9	1-				C	CATA		
31	BSL	0934E	0940D	N18	E90	11 7.2	1-				C	CATA		
31	BSL	1000E	1008D	N64	W90	10 23.4	1-				C	CATA		
31	BSL	1000E	1010D	N18	E90	11 7.3	1-				C	CATA		
31	BSL	1024E	1053D	N17	E90	11 7.3	1				C	CATA		
31	BSL	1024E	1053D	N19	E90	11 7.3	1-				C	CATA		
31	BSL	1045	1053D	N68	W90	10 23.3	1-				C	CATA		
31	BSL	1112E	1120D	N18	E90	11 7.3	1-				C	CATA		
31	BSL	1112E	1120D	N22	E90	11 7.4	1-				C	CATA		
31	BSL	1112E	1120D	N28	W90	10 24.4	1-				C	CATA		
31	ASR	1113E	1944D	N18	E90	11 7.3			9	9	E	RAMY		
31	BSL	1146E	1200	N28	W90	10 24.4	1-				C	CATA		
31	BSL	1151	1206	N36	W90	10 24.3	1-				C	CATA		
31	SDF	1200E	1105D	S40	E07	11 1.1		15	0	0	E	RAMY		
31	ASR	1209E	1438D	N19	W75	10 25.8			6	8	E	SVTO	5767	
31	BSL	1227	1240D	N72	W90	10 23.3	1-				C	CATA		
31	DSD	1240E	1944D	N14	E68	11 5.7		03	9	9	E	RAMY	5773	
31	DSD	1240E	1944D	N21	W76	10 25.7		03	9	9	E	RAMY	5767	
31	AFS	1240E	1944D	N27	E50	11 4.4		03	9	9	E	RAMY	5769	
31	AFS	1240E	1944D	S14	W49	10 27.8		03	9	9	E	RAMY	5758	
31	ADF	1314E	1944D	N25	E49	11 4.3	1	03	9	9	E	RAMY	5769	
31	ADF	1314E	1944D	N31	E53	11 4.7	1	06	9	9	E	RAMY	5769	
31	ADF	1330E	1944D	S25	W24	10 29.7	1	08	9	9	E	RAMY	5765	
31	AFS	1612E	2355D	N27	E51	11 4.6		01	9	9	E	HOLL	5769	
31	ADF	1620E	2355D	N25	E52	11 4.7	1	04	9	9	E	HOLL	5769	
31	ASR	1650E	2355D	N15	E90	11 7.5			9	9	E	HOLL		
31	AFS	1747E	2355D	N25	E24	11 2.6		04	9	9	E	HOLL	5764	
31	AFS	1749E	2355D	S12	W05	10 31.4		03	9	9	E	HOLL	5775	
31	LPS	1752E	2355D	N15	E90	11 7.5			9	9	E	HOLL		
31	LPS	1754E	1917D	N17	E90	11 7.6			9	9	E	PALE		
31	AFS	1759E	2355D	S15	W50	10 28.0		03	9	9	E	HOLL	5758	
31	AFS	1851E	2355D	N16	E30	11 3.1		04	9	9	E	HOLL	5770	
31	ASR	2237E	1020D	N16	E90	11 7.8			9	9	E	LEAR		
31	BSL	2355	0016D	N15	E90	11 7.8	1				C	VORO		

ADF = Active Dark Filament      BSL = Bright Surge on Limb      LPS = Loops  
 AFS = Arch Filament System      CAP = CAP Prominence (Tandberg-Hanssen)      MDP = Mound Prominence  
 APR = Active Prominence      CRN = Coronal Rain      SDF = Sudden Disappearing Filament  
 ASR = Active Surge Region      DSD = Dark Surge on Disk      SPY = Spray  
 BSD = Bright Surge on Disk      EPL = Eruptive Prominence on Limb      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 548 Part II

Page

MEUDON CARTE SYNOPTIQUE Carrington Rotation 1819 August 1989 . . . . .	94-95
Active Regions and Filaments	
Synoptic Solar Map	

94  
Late  
Aug 89

CARTE SYNOPTIQUE  
ACTIVE REGIONS  
CARRINGTON ROTATION 1819  
(15 August to 11 September 1989)

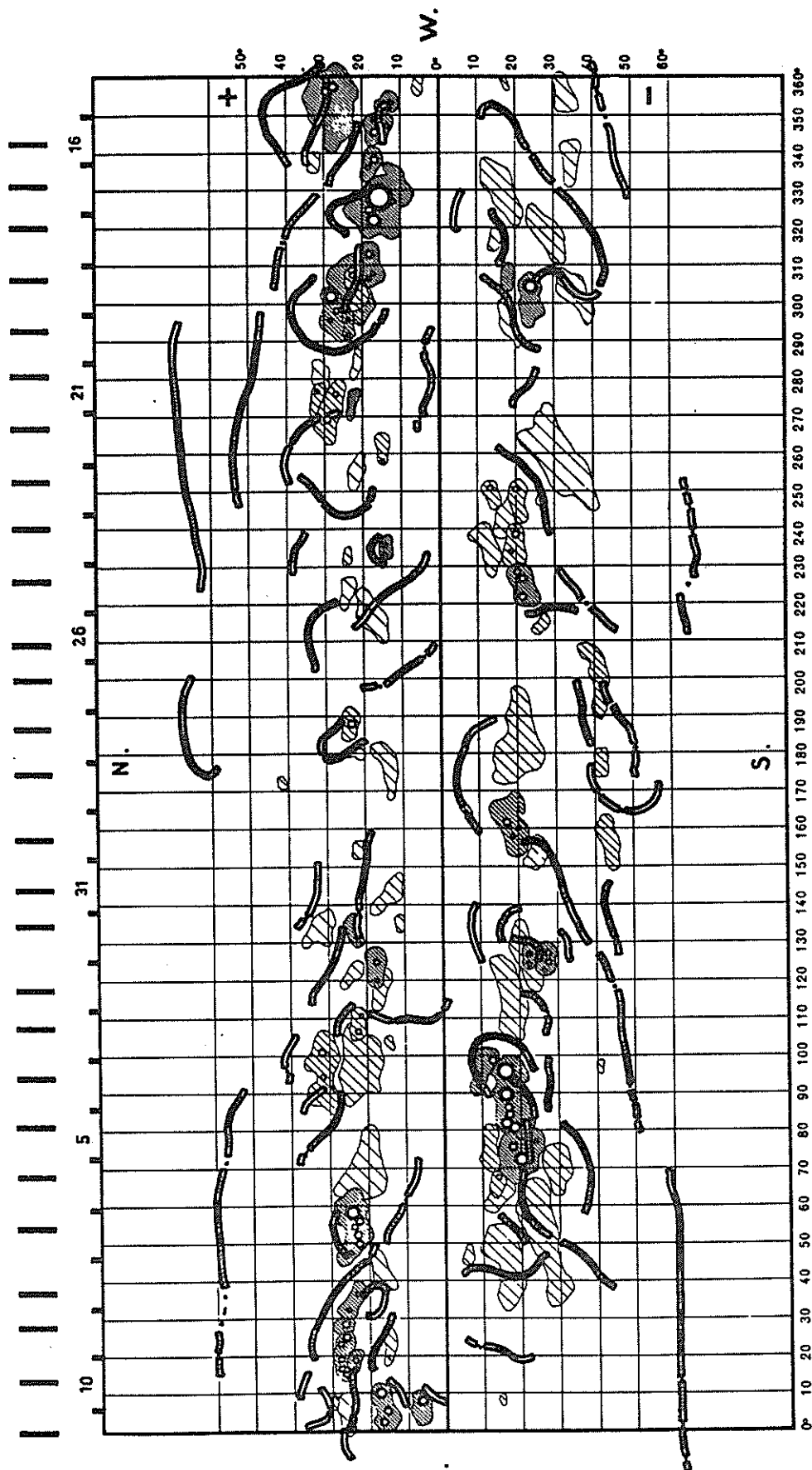
Region No.	Coordinates		Age at		Spotless Region	Region No. in Rotation 1818	Activity at West Limb
	Lat.	Long.	CMP (Days)	Imp			
1	6 N	357	-1	1	x		dispersed
2	13 N	353	>6	2			decreasing
3	29 N	352	>6	3		71 (1817)	decreasing
4	14 N	347	+2	2			disappeared
5	17 N	346	-5	2			increasing
6	18 N	337	>6	2			decreasing
7	33 N	337	>6	1	x		disappeared
8	16 S	329	>6	1	x		decreasing
9	16 N	327	>6	9			decreasing
10	28 S	318	>6	1	x		decreasing
11	14 S	316	>6	1	x		dispersed
12	18 N	309	>6	3			decreasing
13	18 S	306	>6	1	x		stable
14	22 N	304	>6	2		13	decreasing
15	23 N	303	>6	1	x		decreasing
16	35 S	302	>6	1	x	10	dispersed
17	23 S	300	>6	3			stable
18	27 N	297	>6	3			decreasing
19	23 N	294	+1	2			decreasing
20	32 N	274	-4	2			stable
21	23 N	273	+3	1	x		dispersed
22	28 N	271	>6	2			decreasing
23	15 N	201	+6	2			decreasing
24	13 S	248	>6	2			disappeared
25	20 S	247	+6	2			decreasing
26	17 S	242	>6	1	x		dispersed
27	20 S	235	>6	3		26	decreasing
28	15 N	234	+2	2			decreasing
29	13 S	234	>6	1	x	27	dispersed
30	24 N	232	+3	1	x		disappeared
31	21 S	225	>6	3			decreasing
32	26 S	213	>6	1	x		disappeared
33	41 S	200	>6	1	x	31	decreasing
34	24 N	187	>6	2		33	decreasing
35	20 S	182	>6	1	x		decreasing
36	22 N	179	+5	1	x		dispersed
37	41 S	177	>6	1	x		decreasing
38	14 N	176	>6	1	x	34	dispersed
39	18 S	160	>6	2		37	decreasing
40	43 S	156	>6	1	x		dispersed
41	22 N	153	-3	1	x		dispersed
42	25 S	153	>6	1	x		disappeared
43	14 N	142	>6	1	x		dispersed
44	11 N	135	>6	1	x		dispersed
45	23 N	132	+5	1	x		disappeared
46	23 S	127	-1	2			decreasing
47	23 S	125	>6	1	x	45	dispersed
48	27 S	125	+3	2			decreasing
49	18 N	123	0	2			decreasing
50	24 N	121	>6	1	x		decreasing
51	17 N	118	>6	1	x		disappeared
52	18 S	115	>6	1	x	47	dispersed
53	22 N	108	+5	2			decreasing
54	14 N	103	+5	1	x		dispersed
55	22 N	98	>6	1	x	51	decreasing
56	10 S	96	>6	2			decreasing
57	32 N	95	>6	3			decreasing
58	16 S	88	>6	6			decreasing
59	12 S	75	>6	1	x		decreasing
60	20 S	74	>6	4		56+58	decreasing
61	29 S	70	>6	1	x	60	decreasing
62	14 S	66	+2	2			stable
63	24 N	55	>6	4			decreasing
64	25 S	52	>6	1	x	61	dispersed
65	15 S	45	>6	1	x	62	dispersed
66	24 N	34	+2	2			decreasing
67	27 N	28	>6	2		66	decreasing
68	26 N	20	>6	3			decreasing
69	24 N	18	>6	2			decreasing
70	30 N	7	+6	1	x		disappeared
71	7 N	6	+4	3			decreasing
72	17 N	6	+5	3			decreasing

CARTE SYNOPTIQUE

CARRINGTON ROTATION NUMBER 1819  
(15 August to 11 September 1989)

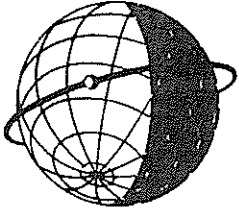
Meudon Observatory

August 1989



Heliographic Longitude





**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."