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

NUMBER 557

(Issued in Two Parts)

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C O N T E N T S

PART I (PROMPT REPORTS)

PART II (COMPREHENSIVE REPORTS)

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C O N T E N T S

omprehensive Reports DATA FOR JULY 1990 Number 557 Part II

Hα SOLAR FLARES

JULY 1990

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0001	HOLL	01	0026	0028	0037	S20	E31	6131	07	3.4	11	SF		3	E		16		
0002		01	00351	0037	0103	S29	E46	6132	07	4.6	28	SF	C 5.0				56		
	HOLL	01	0035	0037	0047	S30	E46	6132	07	4.6	12	SN	C 5.0	3	E		60		
	PALE	01	0035	0037	0140	S27	E44	6132	07	4.4	65	SF	C 5.0	3	E		61		
	LEAR	01	0036	0037	0041	S30	E47	6132	07	4.7	5	SF	C 5.0	3	E		48		
0003		01	0036*	0039*	0225	S13	E12	6126	07	1.9	109	SF					62		FK
	PALE	01	0036	0039	0342	S14	E13	6126	07	2.0	186	1F			E		95		K
	PALE	01	0036	0152	0342	S14	E13	6126	07	2.0	186	1F		3	E		120		F
	LEAR	01	0037	0039	0044	S13	E11	6126	07	1.8	7	SF		2	E		62		
	HOLL	01	0037	0039	0202D	S14	E11	6126	07	1.8	85D	SF		3	E		85		F
	HOLL	01	0037	0121	0202D	S14	E11	6126	07	1.8	85D	SF			E		58		K
	LEAR	01	0102	0103	0110	S13	E10	6126	07	1.8	8	SF		3	E		14		
	LEAR	01	0119	0121	0137	S13	E11	6126	07	1.9	18	SF		3	E		29		
	LEAR	01	0140	0153	0224	S13	E14	6126	07	2.1	44	SF		3	E		58		
	LEAR	01	0231	0331	0339	S13	E12	6126	07	2.0	68	SF		3	E		38		F
0004	HOLL	01	0058	0058	0110	N17	E57	6133	07	5.4	12	SF		3	E		12		
0005	HOLL	01	0114	0126	0131	S20	E30	6131	07	3.3	17	SF	C 4.1	3	E		17		
0006		01	01352	01363	0145	S15	E30	6137	07	3.3	10	SF					24		F
	LEAR	01	0135	0136	0148	S15	E30	6137	07	3.3	13	SF		3	E		10		
	HOLL	01	0136	0136	0143	S16	E28	6137	07	3.2	7	SF		3	E		32		F
	PALE	01	0137	0139	0144	S14	E31	6137	07	3.4	7	SF		3	E		29		
0007		01	01401	01431	0204	S22	E29	6131	07	3.3	24	1F	M 1.0				129		F
	HOLL	01	0140	0145U	0156	S21	E30	6131	07	3.4	16	SF	M 1.0	2	E		96		F
	PALE	01	0141	0143	0209	S22	E27	6131	07	3.1	28	1F	M 1.0	3	E		140		F
	LEAR	01	0141	0144	0207	S23	E29	6131	07	3.3	26	1F	M 1.0	3	E		152		
0008	LEAR	01	0150	0155	0207	S09	W83		06	24.9	17	SF		3	E		33		
0009	LEAR	01	0219	0220	0225	S22	E26	6131	07	3.1	6	SF		3	E		17		
0010	LEAR	01	0402	0404	0413	S06	W66	6124	06	26.3	11	SF	C 3.2	3	E		37		
0011	LEAR	01	0420	0420	0425	S13	E12	6126	07	2.1	5	SF	C 3.2	3	E		22		
0012		01	12253	12301	1258	S14	E08	6126	07	2.1	33	SN	C 5.2				75		F
	SVTO	01	1225	1231	1302	S14	E07	6126	07	2.0	37	SN	C 5.2	4	E		90		
	RAMY	01	1228	1230	1254	S14	E09	6126	07	2.2	26	SF		2	E		60		F
0013		01	13152	1318	1330	N06	E13	6127	07	2.5	15	SF					26		F
	HOLL	01	1315	1318	1335	N06	E13	6127	07	2.5	20	SF		3	E		39		F
	RAMY	01	1317	1318	1324	N07	E13	6127	07	2.5	7	SF		3	E		12		F
0014		01	13545	14021	1414	S42	W38	6136	06	28.5	20	SF	C 2.5				20		F
	HOLL	01	1354	1403	1422	S42	W39	6136	06	28.5	28	SF	C 2.5	3	E		22		F
	RAMY	01	1359	1402	1407	S42	W38	6136	06	28.6	8	SF	C 2.5	3	E		18		
0015	HOLL	01	1450	1451	1500	S13	E04	6126	07	1.9	10	SF		3	E		25		F
0016		01	1508	15103	1518	S42	W38	6136	06	28.6	10	SF	C 2.6				18		F
	SVTO	01	1508	1510	1517	S42	W39	6136	06	28.5	9	SF	C 2.6	4	E		15		
	HOLL	01	1508	1513	1518	S42	W38	6136	06	28.6	10	SF	C 2.6	3	E		21		F
0017	SVTO	01	1540	1549	1553	S21	E18	6131	07	3.0	13	SF		4	E		33		
0018	HOLL	01	1626	1628	1655	N19	E49	6133	07	5.4	29	SF		3	E		23		F
0019	HOLL	01	1708	1708	1717	N13	W78	6129	06	25.9	9	SF		3	E		20		F
0020	HOLL	01	1708	1712	1717	S13	E06	6126	07	2.2	9	SF		3	E		14		F
0021	HOLL	01	1709	1714	1720	S17	E46	6139	07	5.2	11	SF		3	E		18		F
0022	HOLL	01	1758	1758	1806	S16	E03	6126	07	2.0	8	SF		3	E		12		

Hα SOLAR FLARES

JULY 1990

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0023	HOLL	01	1811	1817	1825	N19	E66	6138	07	6.8	14	SF		3	E		46		
0024		01	1812	1823*	1902	S15	E03	6126	07	2.0	50	SN	C 2.7				59		FK
	HOLL	01	1812	1823	1902	S15	E03	6126	07	2.0	50	SN			E		42		K
	HOLL	01	1812	1834	1902	S15	E03	6126	07	2.0	50	SF	C 2.7	3	E		76		F
0025		01	1856	1937*	2042	S23	E18	6131	07	3.2	106	SF					33		K
	HOLL	01	1856	1937	2042	S23	E18	6131	07	3.2	106	SF		3	E		30		
	HOLL	01	1856	2022	2042	S23	E18	6131	07	3.2	106	SF			E		36		K
0026	HOLL	01	1915	1915	1927	N15	W74	6129	06	26.3	12	SF		3	E		19		
0027	HOLL	01	2001	2002	2005	S42	W42	6136	06	28.5	4	SF		3	E		12		F
0028	HOLL	01	2014	2020U	2049	N19	E65	6138	07	6.8	35	SF		2	E		50		
0029	HOLL	01	2031E	2041U	2054	S14	E04	6126	07	2.1	23D	1F	C 6.7	2	E		110		F
0030	HOLL	01	2109	2109	2116	N14	W77	6129	06	26.2	7	SF		3	E		12		
0031	HOLL	01	2109	2124U	2131D	S23	E18	6131	07	3.3	22D	SF		3	E		13		
0032	HOLL	01	2116	2130U	2148	S19	W33	6122	06	29.5	32	SF		3	E		20		
0033		01	2126	2200	2217D	S14	E02	6126	07	2.0	51D	SF					21		F
	HOLL	01	2126	2131U	2200D	S15	E01	6126	07	2.0	34D	SF		3	E		26		F
	PALE	01	2157E	2200	2217D	S13	E03	6126	07	2.1	20D	SF		3	E		16		
0034	HOLL	01	2152	2154	2200D	S41	W43	6136	06	28.5	8D	SF		3	E		17		
0035		01	2259	2303	2351D	S16	E02	6126	07	2.1	52D	1F	C 4.7				88		F
	PALE	01	2259	2303	2351D	S16	E02	6126	07	2.1	52D	SF	C 4.7	3	E		66		
	HOLL	01	2303E	2303U	2306D	S15	E01	6126	07	2.0	3D	1F	C 4.7	2	E		109		F
0036	TACH	02	0305		0337	S12	W02	6126	07	2.0	32	SB		2	C	0314	87	0.9	BE
0037	LEAR	02	0359	0401	0411	S15	E05	6137	07	2.5	12	SF		3	E		47		F
0038	SVTO	02	0444	0454	0456	S21	E11	6131	07	3.0	12	SF		3	E		19		F
0039	SVTO	02	0453	0454	0456	N11	W80	6129	06	26.3	3	SF	C 6.4	3	E		20		
0040	LEAR	02	0533	0552	0634	S10	W03	6126	07	2.0	61	SF		3	E		28		F
0041	LEAR	02	0559	0607	0633	S18	E40	6139	07	5.3	34	SF		3	E		15		
0042	LEAR	02	0607	0607	0617	N15	E42	6139A	07	5.4	10	SF		3	E		37		
0043	SVTO	02	0617	0619	0632	N23	E61	6138	07	7.0	15	SF		3	E		20		
0044		02	06322	0638	0649	S41	W47	6136	06	28.5	17	SF	C 4.9				38		EF
	LEAR	02	0632	0638	0653	S40	W46	6136	06	28.6	21	SF	C 4.9	3	E		46		
	SVTO	02	0634	0638	0649	S42	W46	6136	06	28.6	15	SF	C 4.9	3	E		31		F
	ISTA	02	0636E		0645	S41	W48	6136	06	28.4	9D	1N							E
0045		02	08115	08202	0859	S14	W03	6126	07	2.1	48	1F	C 3.8				110		F
	LEAR	02	0811	0822	0900	S14	W03	6126	07	2.1	49	1F	C 3.8	2	E		175		F
	SVTO	02	0816	0820	0905	S14	W03	6126	07	2.1	49	SF	C 3.8	3	E		44		F
	ISTA	02	0818E		0852	S14	W02	6126	07	2.2	34D	1N							F
0046	SVTO	02	0844	0847	0851	N23	E59	6138	07	6.9	7	SF		3	E		42		
0047		02	09001	0903	0959	N16	E60	6143	07	6.9	59	SF	C 5.5				65		F
	SVTO	02	0900	0903	0959	N15	E58	6143	07	6.8	59	SF	C 5.5	3	E		93		F
	LEAR	02	0901	0903	0910D	N17	E62	6143	07	7.1	9D	SF	C 5.5	2	E		37		
0048	SVTO	02	1141	1143	1204	S42	W48	6136	06	28.6	23	SF	C 3.6	3	E		23		
0049	SVTO	02	1150	1221	1254	N22	E57	6138	07	6.9	64	SF		3	E		32		

Hα S O L A R F L A R E S

JULY 1990

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp	Xray	See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0050	SVTO	02	1217	1223	1232	S09	W82	6124	06	26.4	15	SF	C 7.4	3	E		58		
0051	SVTO	02	1301	1301	1308	S21	E07	6131	07	3.1	7	SF		3	E		14		
0052	SVTO	02	1355	1356	1402	S42	W51	6136	06	28.5	7	SF		3	E		16		
0053	SVTO	02	1527	1528	1534	N22	E56	6138	07	6.9	7	SF		3	E		23		
0054		02	1553	1555	1618	S14	W08	6126	07	2.0	25	SF	C 3.8				60		
	SVTO	02	1553	1555	1615	S13	W06	6126	07	2.2	22	SF	C 3.8	2	E		73		
	RAMY	02	1558E	1558U	1621	S16	W09	6126	07	2.0	23D	SF		2	E		47		
		02	1731		1753	No Flare Patrol													
0055		02	1758E	1800U	1812	N19	E35	6133	07	5.4	14D	SF					27		F
	PALE	02	1758E	1800U	1809D	N20	E36	6133	07	5.5	11D	SF		2	E		16		
	HOLL	02	1758E	1801U	1812	N18	E34	6133	07	5.3	14D	SF		2	E		38		F
0056	HOLL	02	1806E	1807	1822D	S32	E21	6132	07	4.4	16D	SF		2	E		47		
0057	HOLL	02	1843E	1845	1846D	S19	W60	6120	06	28.3	3D	SF		3	E		29		
		02	1853		1858	No Flare Patrol													
		02	2254		2308	No Flare Patrol													
		03	0153		0252	No Flare Patrol													
		03	0256		0304	No Flare Patrol													
0058	TACH	03	0504	0512	0525	S15	W17	6126	07	1.9	21	SN		2	C	0512	87	1.0	E
0059	TACH	03	0555	0600	0613	S17	W14	6126	07	2.2	18	SN		2	C	0600	153	1.8	E
0060	SVTO	03	0559	0603	0614	S10	W17	6126	07	2.0	15	SF	C 5.2	3	E		42		
0061	ISTA	03	0713		0723	S15	E03	6137	07	3.5	10	1N							D
0062	ISTA	03	0717		0720	N19	E27	6133	07	5.4	3	SN							D
0063	ISTA	03	0750		0758	N10	W22	6134	07	1.7	8	SB							D
0064		03	0751*		0829	S11	W22	6126	07	1.7	38	SN							DE
	ISTA	03	0751		0805	S13	W25	6126	07	1.4	14	SB							D
	ISTA	03	0801		0842	S10	W20	6126	07	1.8	41	1B							E
	KHAR	03	0824		0840	S11	W20	6126	07	1.8	16	SF		2	V	0829			D
0065	SVTO	03	0925	0927	0934	N07	W11	6127	07	2.6	9	SF		3	E		16		
0066	SVTO	03	0954	0955	1015	N18	E26	6133	07	5.4	21	SN	C 4.9	3	E		58		
0067	RAMY	03	1231	1235	1301	S10	W22	6126	07	1.9	30	SF		2	E		32		
0068	RAMY	03	1505	1505	1514	S11	W22	6126	07	2.0	9	SF		2	E		15		F
0069		03	15311	15321	1549	S10	W23	6126	07	1.9	18	SF					22		F
	RAMY	03	1531	1533	1538D	S10	W23	6126	07	1.9	7D	SF		2	E		23		F
	SVTO	03	1532	1532	1549	S11	W23	6126	07	1.9	17	SF		3	E		20		F
0070	HOLL	03	2107E	2109U	2132D	S23	W01	6131	07	3.8	25D	SF		2	E		85		FU
		03	2145		2157	No Flare Patrol													
		03	2337		2358	No Flare Patrol													
		04	0226		0236	No Flare Patrol													
		04	0244		0304	No Flare Patrol													
0071	SVTO	04	0414	0419	0433	S21	W14	6131	07	3.1	19	SF		3	E		40		F
0072	SVTO	04	0727	0729	0733	S23	W14	6131	07	3.2	6	SF		3	E		24		F
0073		04	07361	0737	0756	N20	E16	6133	07	5.5	20	1N					33		FU
	SVTO	04	0736	0737	0807	N20	E15	6133	07	5.5	31	SF		3	E		33		F
	ISTA	04	0737		0746	N21	E18	6133	07	5.7	9	1N							U

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0074	SVTO	04	0924	0925	0940	S29	W01	6132	07	4.3	16	SF		3	E		36		
0075		04	11091	11121	1139	N21	E34	6138	07	7.1	30	SN					107	1.3	EF
	SVTO	04	1109	1112	1139	N22	E34	6138	07	7.1	30	1N		3	E		112		
	HTPR	04	1110	1112	1140	N20	E34	6138	07	7.1	30	SN			C	1112	130	1.3	
	RAMY	04	1110	1113	1138	N21	E34	6138	07	7.1	28	SN		2	E		80		FE
0076	HOLL	04	1405	1410	1415	S24	W26	6131	07	2.6	10	SF		3	E		14		
0077	HOLL	04	1625	1626	1635	N10	W44	6134	07	1.4	10	SF		3	E		16		
0078		04	1639	1647	1738	N22	E28	6138	07	6.8	59	1N	M 7.6				151		
	SVTO	04	1639E		1734D	N22	E27	6138	07	6.8	55D	1N	M 7.6	3	E		119		
	KANZ	04	1639	1647	1731D	N22	E29	6138	07	6.9	52D	2N			V				
	RAMY	04	1639	1708U	1738	N22	E29	6138	07	6.9	59	1N		3	E		124		
	PALE	04	1651E	1651U	1738	N23	E29	6138	07	6.9	47D	1B	M 7.6	3	E		210		
0079		04	1718*	1720*	1837	S22	W21	6131	07	3.1	79	2N	M 4.8				243		FKR
	HOLL	04	1718	1720	1846	S23	W21	6131	07	3.1	88	1F			E		88		K
	HOLL	04	1718	1742	1846	S23	W21	6131	07	3.1	88	2B	M 4.8	2	E		459		F
	KANZ	04	1719		1731D	S22	W22	6131	07	3.0	12D	2N			V				
	PALE	04	1723	1740	1826	S21	W21	6131	07	3.1	63	2N		3	E		285		FR
	RAMY	04	1731	1739	1821	S22	W22	6131	07	3.0	50	2B		3	E		331		F
	RAMY	04	1821	1822	1847	S22	W21	6131	07	3.1	26	SF		3	E		50		
0080	SVTO	04	1722E	1737U	1738D	N17	W09		07	4.0	16D	SN		3	E		98		
0081	HOLL	04	1833	1838	1844	S23	W75	6122	06	29.1	11	SF		3	E		36		
0082		04	18341	18351	1913	N16	E07	6133	07	5.3	39	SF					24		F
	PALE	04	1834	1835	1904	N17	E08	6133	07	5.4	30	SF		3	E		16		
	HOLL	04	1834	1836	1927	N16	E06	6133	07	5.2	53	SF		3	E		36		F
	RAMY	04	1835	1835	1907	N15	E07	6133	07	5.3	32	SF		3	E		20		F
0083	PALE	04	1931	1950	1953	N19	E08	6133	07	5.4	22	SF		3	E		44		
0084		04	21011	21021	2107	S16	E02	6139	07	5.0	6	SF					21		
	HOLL	04	2101	2102	2105D	S17	E03	6139	07	5.1	4D	SF		3	E		27		
	PALE	04	2102	2103	2107	S16	E01	6139	07	4.9	5	SF		3	E		15		
0085		04	2149	2203*	2220	N20	E06	6133	07	5.4	31	SF					65	1.2	DFIJKT
	HOLL	04	2149	2203	2231D	N20	E06	6133	07	5.4	42D	SF		3	E		47		F
	HOLL	04	2149	2229	2231D	N20	E06	6133	07	5.4	42D	SF			E		39		K
	VORO	04	2153E	2203	2220	N20	E07	6133	07	5.4	27D	SF		2	C	2203	108	1.2	DIJT
0086	HOLL	04	2205	2206	2211	S14	W22	6137	07	3.2	6	SF		3	E		23		
0087	VORO	04	2342	2351	2412	S21	W26	6131	07	3.0	30	1F		2	C	2351	188	2.4	EI
0088		05	0319	0348	0448	N16	E03	6133	07	5.4	89	2B	M 1.3				423	5.8	FIK
	MITK	05	0319	0348	0421D	N16	E03	6133	07	5.4	62D	2B			C	0348	550	5.8	FIK
	SVTO	05	0346E	0348U	0448	N17	E03	6133	07	5.4	62D	2B	M 1.3	2	E		296		F
0089		05	0653	0710*	0736	S14	W30	6137	07	3.0	43	SF					29		FK
	SVTO	05	0653	0710	0736	S14	W30	6137	07	3.0	43	SF			E		30		K
	SVTO	05	0653	0722	0736	S14	W30	6137	07	3.0	43	SF		3	E		28		F
0090		05	07392	0745*	0809	S14	W30	6137	07	3.0	30	SF					31	0.4	FK
	SVTO	05	0739	0751	0809	S14	W30	6137	07	3.0	30	SF		3	E		35		F
	SVTO	05	0739	0757	0809	S14	W30	6137	07	3.0	30	SF			E		27		K
	KANZ	05	0741	0745	0808	S13	W30	6137	07	3.0	27	SF			V				
	YUNN	05	0746E	0749U	0752D	S15	W32	6137	07	2.9	6D	SN			P	0749	31	0.4	
0091		05	08119	0811*	0833	S21	W70	6122	06	30.0	22	SF					20		
	SVTO	05	0811	0811	0817	S21	W66	6122	06	30.3	6	SF		3	E		16		
	SVTO	05	0820	0834	0849	S21	W73	6122	06	29.8	29	SF		3	E		23		
0092	HTPR	05	0845		0930	N18	E03	6133	07	5.6	45	1F			C	0910	230	2.3	

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0093		05	0905*	0917*	0944	S15	W44	6126	07	2.0	39	1N	C 6.7				208	3.4	F
	HTPR	05	0905	0919	0945	S15	W43	6126	07	2.1	40	1N			C	0919	240	3.4	
	KANZ	05	0910	0922	0945	S15	W41	6126	07	2.3	35	1N			V				
	SVTO	05	0913	0917	0945	S16	W42	6126	07	2.2	32	1N	C 6.7	3	E		177		F
	KANZ	05	0934	0937	0941	S13	W48	6126	07	1.8	7	SN			V				
0094	SVTO	05	1007	1041	1052	S14	W31	6137	07	3.1	45	SF		3	E		44		
0095	SVTO	05	1026	1029	1033	N19	W01	6133	07	5.3	7	SF		2	E		20		
0096		05	12407	12419	1254	S17	W01	6139	07	5.4	14	SF					11		F
	KANZ	05	1240	1243	1250	S18	W04	6139	07	5.2	10	SF			V				
	RAMY	05	1241	1241	1250	S16	W04	6139	07	5.2	9	SF		3	E		11		F
	KANZ	05	1247	1250	1302	S18	E05	6139	07	5.9	15	SF			V				
0097		05	1316	13182	1330	N23	E18	6138	07	6.9	14	SF					21		F
	RAMY	05	1316	1318	1330	N24	E19	6138	07	7.0	14	SF		3	E		21		F
	KANZ	05	1316	1320	1330	N22	E18	6138	07	6.9	14	SF			V				
0098		05	13419	13503	1427	S21	W34	6131	07	3.0	46	SF					60		F
	SVTO	05	1341	1350	1427	S21	W33	6131	07	3.0	46	SF		3	E		95		F
	KANZ	05	1350	1353	1358D	S21	W35	6131	07	2.9	8D	SN			V				
	HOLL	05	1424E	1428U	1433D	S21	W33	6131	07	3.1	9D	SF		2	E		26		
0099	RAMY	05	1354	1355	1411	S14	W49	6126	07	1.9	17	SF	C 3.2	3	E		17		F
0100	HOLL	05	1440	1442	1449	S14	W35	6137	07	3.0	9	SF		2	E		14		
0101		05	1448*	1502*	1547	N21	E17	6138	07	6.9	59	SF	C 2.5				58		FK
	SVTO	05	1448	1502	1553	N21	E16	6138	07	6.8	65	SF			E		53		K
	SVTO	05	1448	1511	1553	N21	E16	6138	07	6.8	65	SF	C 2.5	3	E		77		
	KANZ	05	1450E	1502	1527D	N20	E16	6138	07	6.8	37D	SN			V				
	HOLL	05	1452	1512	1530D	N21	E17	6138	07	6.9	38D	SF	C 2.5	3	E		57		F
	RAMY	05	1506	1513	1534	N23	E19	6138	07	7.1	28	SF		3	E		44		F
0102		05	1457*	1459*	1514	S14	W34	6137	07	3.0	17	SF					14		F
	HOLL	05	1457	1459	1508	S14	W35	6137	07	3.0	11	SF		3	E		13		
	HOLL	05	1510	1512	1519	S14	W33	6137	07	3.1	9	SF		3	E		15		F
0103	KANZ	05	1506	1506	1509D	S13	W50	6126	07	1.8	3D	SF			V				
0104	RAMY	05	1705	1710	1714	N18	W04	6133	07	5.4	9	SF		3	E		11		
0105	HOLL	05	1747	1751	1757D	N21	E16	6138	07	7.0	10D	SF		3	E		11		
0106		05	1758*	18144	1830	S20	W36	6131	07	3.0	32	SF					40		F
	HOLL	05	1758	1818	1846	S21	W39	6131	07	2.7	48	SF		3	E		68		
	RAMY	05	1803	1816	1819	S20	W33	6131	07	3.2	16	SF		3	E		34		F
	PALE	05	1813	1814	1826	S20	W37	6131	07	2.9	13	SF		3	E		17		
		05	1950		2006	No Flare Patrol													
0107	HOLL	05	2007E	2010	2059D	N21	E13	6138	07	6.8	52D	1N	C 2.8	3	E		146		F
		05	2100		2114	No Flare Patrol													
		05	2118		2224	No Flare Patrol													
		05	2249		2323	No Flare Patrol													
0108	SVTO	06	0423	0434	0455	S15	W42	6137	07	3.0	32	SF	C 2.9	3	E		22		
0109		06	0436*	0540*	0634	N16	W12	6133	07	5.3	118	1N	M 2.2				283	3.1	DEFTZ
	SVTO	06	0436	0556	0721	N17	W12	6133	07	5.3	165	1N	M 2.2	3	E		234		F
	TACH	06	0440E		0516D	N17	W14	6133	07	5.1	36D	1B		2	C	0447	214	2.3	TZ
	PURP	06	0529	0552	0630	N17	W14	6133	07	5.2	61	1F			C	0552	198	2.2	Z
	ABST	06	0538	0540	0556	N16	W15	6133	07	5.1	18	SN			C	0540	131	1.4	D
	ABST	06	0538	0552	0620	N16	W10	6133	07	5.5	42	1N			C	0552	350	3.7	E
	ATHN	06	0544E	0547	0600	N16	W11	6133	07	5.4	16D	1F		2	V	0547	207	2.2	
	HTPR	06	0608E		0715	N17	W12	6133	07	5.3	67D	2B			C	0610	650	6.8	F

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0110	TACH	06	0511	0519	0534	S15	W63	6126	07	1.4	23	SB			2	C	0514	36	0.8	D
0111		06	06368	06435	0701	N22	E07	6138	07	6.8	25	SN						167	2.0	D
	HTPR	06	0636	0645	0705	N22	E08	6138	07	6.9	29	1N				C	0645	380	4.0	
	SVTO	06	0637	0643	0712	N22	E08	6138	07	6.9	35	SF			3	E		70		
	PURP	06	0638	0644	0653	N23	E10	6138	07	7.0	15	SF				C	0644	99	1.1	
	ABST	06	0644	0648	0655	N21	E01	6138	07	6.3	11	SN				C	0648	131	1.4	D
	YUNN	06	0647E	0648	0702	N23	E07	6138	07	6.8	15D	SB				P		157	1.7	
0112	YUNN	06	0647E	0648	0654	N22	E58		07	10.7	7D	SN				P		31	0.6	G
0113	YUNN	06	0647E	0648	0702	N16	W12	6133	07	5.4	15D	1F				P		314	3.4	
0114	HTPR	06	1024	1028	1045	S14	W42	6137	07	3.2	21	SF				C	1028	60	0.9	
0115	RAMY	06	1239	1239	1243	S13	W48	6137	07	2.9	4	SF			3	E		13		
0116	SVTO	06	1241	1243	1248	S22	W46	6131	07	3.0	7	SF			3	E		17		F
0117	HOLL	06	1409	1410	1413	N12	W11	6143	07	5.8	4	SF			3	E		11		
0118		06	14181	1419	1426	S14	W46	6137	07	3.1	8	SF						16		
	HOLL	06	1418	1419	1428	S16	W45	6137	07	3.2	10	SF			3	E		21		
	RAMY	06	1419	1419	1424	S13	W47	6137	07	3.0	5	SF			3	E		10		
0119	HOLL	06	1429	1429	1436	N21	W02	6138	07	6.4	7	SF			3	E		17		
0120	HOLL	06	1508	1513	1523	S22	W47	6131	07	3.0	15	SF			3	E		29		
0121	HTPR	06	1600	1613	1620	S13	W43	6137	07	3.4	20	SF				C	1613	75	1.2	
0122		06	16256	1630*	1654	S14	W48	6137	07	3.0	29	SF						18		
	RAMY	06	1625	1630	1634	S13	W49	6137	07	3.0	9	SF			3	E		16		
	HOLL	06	1631	1645	1713	S16	W46	6137	07	3.2	42	SF			3	E		21		
0123	HOLL	06	1659	1727	1744D	N17	W18	6133	07	5.3	45D	SF			3	E		18		
0124	HOLL	06	1715	1729	1742	S16	W47	6137	07	3.1	27	SF			3	E		25		
0125		06	18261	18292	1839	S15	W50	6137	07	3.0	13	SN	C	3.3				56		EF
	HOLL	06	1826	1829	1837D	S15	W50	6137	07	3.0	11D	SN	C	3.3	3	E		84		FE
	PALE	06	1827	1831	1839	S15	W50	6137	07	3.0	12	SF	C	3.3	3	E		28		F
0126	PALE	06	1848	1848	1942D	S13	W66	6126	07	1.8	54D	SF			3	E		34		
0127	HOLL	06	1918	1918	1926	N20	E05	6138	07	7.2	8	SF			3	E		26		
		06	2129		2250	No Flare Patrol														
0128	HOLL	07	0002	0004	0011	N09	W60	6127	07	2.5	9	SF			2	E		19		
0129	HOLL	07	0106	0108	0117	N20	W05	6138	07	6.7	11	SF			2	E		13		F
0130	HOLL	07	0117	0119	0125	S16	W57	6137	07	2.7	8	SF			2	E		27		
		07	0118		0124	No Flare Patrol														
		07	0337		0350	No Flare Patrol														
0131	HTPR	07	0553E		0705	N20	W26	6133	07	5.2	72D	1F				C	0630	250	2.9	EL
0132		07	0622	0634	0758	S31	W20	6132	07	5.7	96	2B						450	5.4	BGIU
	HTPR	07	0622	0634	0830	S32	W23	6132	07	5.4	128	2N				C	0634	450	5.4	GU
	ISTA	07	0705E		0725	S30	W17	6132	07	5.9	20D	2B								BIU
0133		07	07423	0805	0830	N20	W25	6133	07	5.4	48	1F						450	5.4	E
	KHAR	07	0742		0828U	N20	W24	6133	07	5.5	46U	SF			2	V	0742			E
	HTPR	07	0745	0805	0830	N21	W26	6133	07	5.3	45	2F				C	0805	450	5.4	
0134	KHAR	07	0753		0800	N21	W04	6138	07	7.0	7	SF			2	V	0753			D

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp	Opt	Xray	See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0135	KHAR	07	0903U		0908	N38	E88		07	14.5	5U	SF			2	V	0905			LR
0136	SVTO	07	0912	0915	0922	S13	W73	6126	07	1.9	10	SF			3	E		24		
0137	HTPR	07	1000	1010	1030	S27	W60	6126A	07	2.7	30	SF				C	1010	170	1.9	
0138		07	09592	10201	1120	N22	W08	6138	07	6.8	81	1N	C	4.6				265	4.0	F
	SVTO	07	0959	1021	1111	N21	W08	6138	07	6.8	72	1F	C	4.6	3	E		155		F
	HTPR	07	1001	1020	1130	N23	W07	6138	07	6.9	89	1N				C	1020	375	4.0	
0139	SVTO	07	1057	1059	1105	S15	W59	6137	07	3.0	8	SF			3	E		23		
0140	HTPR	07	1130	1140	1200	S13	W60	6137	07	2.9	30	1F				C	1140	120	2.8	T
0141	SVTO	07	1232	1233	1235	N09	W68	6127	07	2.4	3	SF			3	E		24		
0142		07	1322*	13413	1427	N22	W08	6138	07	6.9	65	1N	C	5.5				207	4.1	EF
	HTPR	07	1322	1344	1430	N23	W07	6138	07	7.0	68	1N				C	1344	390	4.1	
	SVTO	07	1333	1341	1417	N22	W09	6138	07	6.9	44	1N	C	5.5	3	E		119		F
	HOLL	07	1335	1341	1433	N20	W09	6138	07	6.9	58	1N	C	5.5	3	E		112		FE
0143	HOLL	07	1355	1404	1421	S14	W63	6137	07	2.8	26	SF			3	E		22		
0144		07	14304	1438	1456	N21	W30	6133	07	5.3	26	SN						58	1.1	H
	HTPR	07	1430		1439D	N22	W28	6133	07	5.4	9D	SN				C	1439	90	1.1	H
	SVTO	07	1434	1438	1456	N20	W31	6133	07	5.2	22	SF			3	E		26		
0145	HOLL	07	1516	1520	1523	S14	W61	6137	07	3.0	7	SF			4	E		23		
0146		07	17094	1713	1719	S14	W63	6137	07	2.9	10	SF	C	2.1				53		
	HOLL	07	1709	1713	1721	S14	W63	6137	07	2.9	12	SN	C	2.1	4	E		71		
	PALE	07	1712	1713	1719	S15	W64	6137	07	2.9	7	SF	C	2.1	3	E		50		
	RAMY	07	1712	1713	1722D	S14	W60	6137	07	3.2	10D	SF			2	E		53		
	SVTO	07	1713	1713	1717	S15	W65	6137	07	2.8	4	SF			3	E		39		
		07	2142		2209	No Flare Patrol														
		07	2218		2319	No Flare Patrol														
0147	HOLL	08	0003	0004	0008	S21	W62	6131	07	3.2	5	SF	C	3.0	2	E		19		
0148	LEAR	08	0045	0047	0100	S23	W62	6131	07	3.2	15	1F	M	1.1	3	E		122		
		08	0230		0237	No Flare Patrol														
		08	0355		0408	No Flare Patrol														
0149		08	0619	0627	0732	N18	W38	6133	07	5.4	73	1N	C	2.7				36		BFU
	SVTO	08	0619	0627	0744	N17	W38	6133	07	5.4	85	SF	C	2.7	3	E		36		UF
	ISTA	08	0655E		0720	N18	W39	6133	07	5.3	25D	2B								FUB
0150	ISTA	08	0713		0736	S14	W70	6137	07	3.0	23	1N								F
0151	RAMY	08	1135	1136	1140	N20	W40	6133	07	5.4	5	SF			3	E		20		
0152	HOLL	08	1242	1243	1254D	S21	W72	6131	07	3.0	12D	SF	C	3.2	2	E		36		
0153	RAMY	08	1418	1419	1422	S14	W74	6137	07	3.0	4	SF			3	E		12		
0154	HOLL	08	1447E	1447U	1459	S22	W76	6131	07	2.8	12D	SF			3	E		29		
0155	HOLL	08	1511	1511	1513D	N19	W26	6138	07	6.6	2D	SF			3	E		22		
0156	HOLL	08	1523	1524	1530	N19	W43	6133	07	5.3	7	SF			3	E		15		
0157	HOLL	08	1655	1656	1700	S14	E47	6142	07	12.2	5	SF			3	E		19		
0158	HOLL	08	1825	1833	1836	N19	W45	6133	07	5.3	11	SF			3	E		25		
0159		08	1825*	1826*	1837	S14	W78	6137	07	2.9	12	SF						16		
	HOLL	08	1825	1826	1832	S14	W78	6137	07	2.9	7	SF			3	E		17		
	HOLL	08	1837	1838	1842	S14	W78	6137	07	2.9	5	SF			3	E		14		

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP	Mo	Day	Dur (Min)	Opt	Imp	Xray	See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
		08	2133		2138	No Flare Patrol															
		08	2228		2238	No Flare Patrol															
		08	2243		2259	No Flare Patrol															
		09	0012		0041	No Flare Patrol															
		09	0054		0102	No Flare Patrol															
		09	0107		0255	No Flare Patrol															
0160		09	0623	06253	0647	N16	W52	6133		07	5.3	24	SF	C 2.6					33		
	LEAR	09	0623	0625	0646	N16	W51	6133		07	5.4	23	SF	C 2.6	3		E		33		
	KANZ	09	0625E	0628	0648	N15	W54	6133		07	5.2	23D	SF				V				
0161		09	0751	0810	0845	N17	W52	6133		07	5.4	54	1F						121		
	SVTO	09	0751	0810	0840	N16	W52	6133		07	5.4	49	SF		3		E		47		
	LEAR	09	0753E	0811U	0847D	N17	W52	6133		07	5.4	54D	1F		3		E		195		
	KANZ	09	0804E	0819U	0850	N17	W51	6133		07	5.5	46D	1F				V				
0162		09	1001	10081	1044	N13	W53	6133		07	5.4	43	SN	C 4.1					74		F
	SVTO	09	1001	1008	1044	N14	W53	6133		07	5.4	43	SF	C 4.1	3		E		74		F
	KANZ	09	1001	1009	1043	N12	W53	6133		07	5.4	42	SN				V				
0163	RAMY	09	1312	1315	1320	N18	W56	6133		07	5.3	8	SF		3		E		31		F
0164		09	14099	14182	1428	N20	W56	6133		07	5.3	19	SF						31		
	KANZ	09	1409	1420	1432	N20	W55	6133		07	5.4	23	SF				V				
	RAMY	09	1418	1418	1425	N20	W56	6133		07	5.3	7	SF		3		E		31		
0165		09	16113	16169	1645	N09	E08	6148		07	10.3	34	SN	C 4.7					56		EFK
	HOLL	09	1611	1621	1647	N08	E08	6148		07	10.3	36	SN	C 4.7	3		E		73		FE
	KANZ	09	1612	1616	1635	N09	E08	6148		07	10.3	23	SF				V				
	SVTO	09	1612	1623	1650	N09	E08	6148		07	10.3	38	SF	C 4.7	3		E		58		
	RAMY	09	1614	1619	1647	N09	E08	6148		07	10.3	33	SN	C 4.7	3		E		58		E
	RAMY	09	1614	1625	1647	N09	E08	6148		07	10.3	33	SN	C 4.7			E		35		K
0166	RAMY	09	1852	1859	1918	N18	W58	6133		07	5.4	26	SF		3		E		28		F
0167	RAMY	09	2051	2057	2107	S31	W67			07	4.6	16	SF		3		E		14		F
0168	PALE	09	2209	2210	2238	N16	W61	6133		07	5.3	29	SF	C 6.1	3		E		47		F
0169	PALE	10	0131E	0144U	0146D	N17	W63	6133		07	5.3	15D	SF		3		E		41		F
		10	0147		0253	No Flare Patrol															
0170		10	0540*	0550	0622	N20	W47	6138		07	6.6	42	1N						148	2.3	
	HTPR	10	0540	0550	0615	N20	W50	6138		07	6.4	35	1N				C	0550	220	3.5	
	HTPR	10	0600		0630	N21	W44	6138		07	6.9	30	SF				C	0610	75	1.1	
0171	HTPR	10	0545	0549	0555	N17	W70	6133		07	4.9	10	SF				C	0549	75		EH
0172	HTPR	10	0613		0705	S24	W90	6131		07	3.3	52	SN				C				T
0173	HTPR	10	0732	0745	0800	N25	E07			07	10.8	28	SF				C	0745	80	0.8	
0174	HTPR	10	0754		0845	S25	W90	6131		07	3.3	51	SF				C				T
0175		10	08405	0846	0904	N16	W72	6133		07	4.9	24	SN						68		A
	HTPR	10	0840	0846	0920	N16	W72	6133		07	4.9	40	SN				C	0844	110		A
	SVTO	10	0845	0846	0849	N16	W72	6133		07	4.9	4	SF		3		E		26		
0176	HTPR	10	0918	0926	0945	S25	W90	6131		07	3.4	27	1N				C				T
0177		10	1020*	1109*	1230	N20	W49	6138		07	6.7	130	1F						133	5.4	F
	HTPR	10	1020	1215	1215D	N20	W43	6138		07	7.1	115D	2N				C	1215	360	5.4	
	RAMY	10	1039	1109	1148	N19	W48	6138		07	6.8	69	SF		3		E		75		F
	RAMY	10	1201	1206	1211	N20	W47	6138		07	6.9	10	SF		3		E		84		F
	HOLL	10	1220E	1228U	1313	N20	W55	6138		07	6.3	53D	SF		2		E		85		
	RAMY	10	1223	1223	1247	N19	W50	6138		07	6.7	24	SF		3		E		63		F

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0178		10	1212*	1228	1240	N16	W71	6133		07	5.1	28	SF	C	8.3					60		H
	HTPR	10	1212	1228	1245	N17	W73	6133		07	5.0	33	SN				C		1228	65		
	HOLL	10	1227E	1228	1241	N16	W71	6133		07	5.1	14D	SF	C	8.3	2	E			57		H
	RAMY	10	1228	1228	1233	N16	W69	6133		07	5.3	5	SF	C	8.3	3	E			57		
0179		10	13542	14002	1439	N09	W03	6148		07	10.3	45	SF							104	1.9	F
	HTPR	10	1354	1402	1445	N09	W02	6148		07	10.4	51	SN				C		1402	190	1.9	
	SVTO	10	1356	1400	1438	N09	W04	6148		07	10.3	42	SF			3	E			58		
	HOLL	10	1356	1402	1434	N09	W04	6148		07	10.3	38	SF			3	E			63		F
0180		10	1407*	1422	1437	N14	W70	6133		07	5.3	30	SF	C	3.5					31		F
	SVTO	10	1407	1422	1434	N12	W72	6133		07	5.2	27	SF	C	3.5	3	E			18		F
	HOLL	10	1421	1422	1440	N16	W69	6133		07	5.4	19	SF	C	3.5	3	E			44		
0181		10	1446*	1456*	1522	N16	W74	6133		07	5.0	36	SF	C	2.5					52		
	SVTO	10	1446	1456	1528	N15	W72	6133		07	5.2	42	SF	C	2.5	3	E			61		
	HOLL	10	1451	1456	1513	N16	W72	6133		07	5.1	22	SF	C	2.5	3	E			76		
	RAMY	10	1519	1519	1522	N16	W77	6133		07	4.8	3	SF			3	E			39		
	HOLL	10	1519	1519	1524	N16	W77	6133		07	4.8	5	SF			3	E			34		
0182		10	15394	15415	1554	N07	E14	6150		07	11.7	15	SF							25		F
	HOLL	10	1539	1541	1548	N07	E14	6150		07	11.7	9	SF			3	E			31		
	RAMY	10	1543	1546	1601	N07	E13	6150		07	11.6	18	SF			3	E			19		F
0183	HOLL	10	1609	1609	1624	N07	E13	6150		07	11.6	15	SF			3	E			33		
0184		10	17301	17334	1746	N16	W72	6133		07	5.3	16	SF	C	1.6					32		
	HOLL	10	1730	1737	1748	N16	W71	6133		07	5.3	18	SF	C	1.6	3	E			47		
	RAMY	10	1731	1733	1743	N17	W74	6133		07	5.1	12	SF	C	1.6	3	E			18		
0185	HOLL	10	1737	1759	1831	N07	E13	6150		07	11.7	54	SF			3	E			36		
0186		10	1846*	18579	1927	N07	E13	6150		07	11.7	41	SN	C	1.7					56		EFKT
	HOLL	10	1846	1857	1927	N07	E13	6150		07	11.7	41	SN				E			61		K
	HOLL	10	1846	1906	1927	N07	E13	6150		07	11.7	41	SN	C	1.7	3	E			78		FE
	PALE	10	1905	1907U	2238D	N07	E12	6150		07	11.7	213D	SF			3	E			29		T
		10	2003		2008	No Flare Patrol																
		10	2036		2100	No Flare Patrol																
		10	2124		2321	No Flare Patrol																
0187	LEAR	11	0020	0021U	0027	N18	W80	6133		07	4.9	7	SF			3	E			30		
0188	LEAR	11	0021	0025	0036	N07	E09	6150		07	11.7	15	1F			3	E			151		
0189		11	01109	0113*	0142	N18	W61	6138		07	6.4	32	SF							28		F
	LEAR	11	0110	0113	0147	N19	W60	6138		07	6.5	37	SF			3	E			39		
	PALE	11	0119	0133	0137	N18	W62	6138		07	6.3	18	SF			3	E			16		F
0190	LEAR	11	0216	0217	0229	N07	E08	6150		07	11.7	13	SF	C	3.0	3	E			21		
0191		11	0418	0418U	0430D	N07	E06	6150		07	11.6	12D	1F	C	1.4					182	3.6	F
	SVTO	11	0416E	0418U	0430D	N07	E06	6150		07	11.6	14D	SF	C	1.4	2	E			15		F
	MITK	11	0418	0419D		N07	E06	6150		07	11.6		1F				P		0419	350	3.6	
0192	HTPR	11	0535E		0545	N15	W88	6133		07	4.6	10D	SF				C					ABT
0193	HTPR	11	0535E		0600	N07	E05	6150		07	11.6	25D	SN				C		0537	140	1.4	
0194		11	0605*	0613*	0632	N16	W84	6133		07	4.9	27	SF							27		AT
	HTPR	11	0605	0613	0625	N15	W88	6133		07	4.6	20	SF				C					AT
	LEAR	11	0610	0626	0629	N15	W81	6133		07	5.1	19	SF			3	E			28		
	SVTO	11	0619	0638	0641	N17	W82	6133		07	5.0	22	SF			3	E			26		

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0195		11	0609*	0609*	0737	N07	E05	6150	07	11.6	88	SF	C 2.9				82	1.7	DEFK
	LEAR	11	0609	0609	0617	N07	E06	6150	07	11.7	8	SF		3	E		13		
	BUCA	11	0616E	0628	0800	N07	E05	6150	07	11.6	104D	1N			P	0628	258	2.7	E
	SVTO	11	0619	0632	0947	N07	E04	6150	07	11.6	208	SF	C 2.9		E		43		K
	SVTO	11	0619	0823	0947	N07	E04	6150	07	11.6	208	SF		3	E		53		F
	LEAR	11	0630	0630	0640	N07	E06	6150	07	11.7	10	SF		3	E		40		
	HTPR	11	0630	0632	0655	N07	E05	6150	07	11.6	25	SF			C	0632	150	1.5	
	ABST	11	0631	0632	0635	N08	E05	6150	07	11.6	4	SN			C	0632	87	0.9	D
	KANZ	11	0635E	0635U	0645	N07	E05	6150	07	11.6	10D	SF			V				
	LEAR	11	0731	0734	0747	N07	E05	6150	07	11.7	16	SF		3	E		16		
0196		11	06221	06253	0648	N20	W66	6138	07	6.2	26	1F					126		
	HTPR	11	0622	0625	0650	N20	W68	6138	07	6.1	28	1F			C	0625	200		
	LEAR	11	0623	0628	0645	N19	W64	6138	07	6.4	22	SF		3	E		52		
0197	BUCA	11	0625	0632	0715	N27	W64	6138	07	6.3	50	1N			C	0632	86	2.1	E
0198	LEAR	11	0645	0648	0658	N19	W61	6138	07	6.6	13	SF		3	E		40		
0199	BUCA	11	0705	0715	0800	N24	W85	6133	07	4.7	55	SF			P	0715	54		D
0200		11	09061	09121	0938	N19	W67	6138	07	6.3	32	1F	C 6.2				141		
	HTPR	11	0906	0912	0945	N20	W68	6138	07	6.2	39	1N			C	0912	230		
	LEAR	11	0906	0913	0926D	N19	W66	6138	07	6.3	20D	1F	C 6.2	3	E		115		
	SVTO	11	0907	0913	0932	N18	W68	6138	07	6.2	25	SF	C 6.2	3	E		78		
0201	HTPR	11	1105	1134	1215	N07	E05	6150	07	11.8	70	SF			C	1134	120	1.2	T
0202		11	13142	1321*	1430	N16	E32	6145	07	14.0	76	SF					115	1.9	F
	SVTO	11	1314	1321	1422	N14	E30	6145	07	13.8	68	SF		3	E		96		F
	HTPR	11	1315	1340	1440	N17	E35	6145	07	14.2	85	SN			C	1340	150	1.9	F
	RAMY	11	1316	1342	1427	N17	E33	6145	07	14.1	71	SF		4	E		99		F
	KANZ	11	1357E	1357U	1403D	N18	E32	6145	07	14.0	6D	SF			V				
0203	HTPR	11	1447	1455	1515	N07	E03	6150	07	11.8	28	SF			C	1455	170	1.7	T
0204	HTPR	11	1500		1615	N15	W88	6143	07	5.0	75	SF			C				A
0205		11	16132	16151	1639	N06	E01	6150	07	11.7	26	SF					70	1.3	T
	HOLL	11	1613	1615	1631	N06	E00	6150	07	11.7	18	SF		3	E		39		
	HTPR	11	1613	1616	1630	N07	E03	6150	07	11.9	17	SN			C	1616	130	1.3	T
	RAMY	11	1615	1616	1656	N06	W01	6150	07	11.6	41	SF		3	E		41		
0206		11	16225	16256	1632	N19	W74	6143	07	6.0	10	SF					26		
	HOLL	11	1622	1625	1631	N19	W72	6143	07	6.2	9	SF		3	E		26		
	KANZ	11	1627	1631	1633	N19	W75	6143	07	6.0	6	SF			V				
0207		11	1634*	16502	1700	N18	W73	6143	07	6.1	26	1F					133		
	SVTO	11	1634	1651	1659	N17	W73	6143	07	6.1	25	SF		2	E		73		
	HOLL	11	1644	1651	1706	N19	W72	6143	07	6.2	22	1N		3	E		174		
	KANZ	11	1648	1652	1656	N19	W73	6143	07	6.1	8	SF			V				
	RAMY	11	1650	1650	1701	N19	W74	6143	07	6.0	11	1F		3	E		153		
0208	HTPR	11	1645	1650	1700D	N20	W68	6138	07	6.5	15D	SN			C	1650	50		T
0209		11	1714*	1716*	1732	N06	W02	6150	07	11.6	18	SF					20		
	PALE	11	1714	1716	1732	N06	W01	6150	07	11.6	18	SF		3	E		16		
	RAMY	11	1714	1718	1726	N06	W02	6150	07	11.6	12	SF		3	E		32		
	KANZ	11	1716		1716D	N08	W02	6150	07	11.6	12D	SF			V				
	RAMY	11	1730	1730	1738	N06	W02	6150	07	11.6	8	SF		3	E		13		
		11	2048		2058	No Flare Patrol													
		11	2153		2214	No Flare Patrol													
		11	2257		2316	No Flare Patrol													
		12	0024		0058	No Flare Patrol													
		12	0104		0154	No Flare Patrol													
0210	HTPR	12	0700		0745	N19	W90	6133	07	5.4	45	F			C				

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp	Xray	See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0211	ISTA	12	0822E		0834	N20	W75	6138	07	6.6	12D	1F							B
0212		12	0838	0845	0858	S08	E50	6149	07	16.1	20	1N					110	1.7	E
	HTPR	12	0838	0845	0900	S07	E48	6149	07	15.9	22	SF			C	0845	110	1.7	
	ISTA	12	0844E		0856	S09	E52	6149	07	16.3	12D	1N							E
0213	HTPR	12	0905	0918	1000	N09	W27	6148	07	10.3	55	SF			C	0918	90	1.0	
0214		12	11065	11117	1130	S10	W10	6151	07	11.7	24	SF					70	1.2	
	KANZ	12	1106	1118	1130	S10	W09	6151	07	11.8	24	SF			V				
	SVTO	12	1109	1111	1129	S11	W10	6151	07	11.7	20	SF		3	E		20		
	HTPR	12	1111	1115	1130	S10	W10	6151	07	11.7	19	SF			C	1115	120	1.2	
0215	HTPR	12	1230		1315	N19	W80	6138	07	6.4	45	F			V				AT
0216	HTPR	12	1335		1405	N19	W80	6138	07	6.5	30	F			V				AT
0217		12	13411	13453	1400	S10	W10	6151	07	11.8	19	1N	M 1.2				118		H
	KANZ	12	1341	1345	1404	S10	W10	6151	07	11.8	23	1F			V				
	HTPR	12	1341	1347	1355	S10	W10	6151	07	11.8	14	1N			C	1347	195		
	SVTO	12	1341	1348	1407	S10	W11	6151	07	11.7	26	1N	M 1.2	3	E		116		
	RAMY	12	1342	1345	1353	S11	W11	6151	07	11.7	11	SF	M 1.2	2	E		42		H
0218		12	1513	1544	1555	N19	W83	6133	07	6.3	42	SN							AT
	HTPR	12	1430E		1600D	N19	W85	6133	07	6.1	90D				V				AT
	KANZ	12	1513	1544	1555	N19	W81	6133	07	6.4	42	SN			V				
0219		12	15493	15505	1604	S10	W13	6151	07	11.7	15	SF	C 2.9				18		F
	RAMY	12	1549	1553	1602	S11	W12	6151	07	11.7	13	SF	C 2.9	3	E		27		F
	SVTO	12	1550	1550	1610	S10	W14	6151	07	11.6	20	SF	C 2.9	3	E		10		
	KANZ	12	1552	1555	1559	S10	W12	6151	07	11.7	7	SF			V				
0220	KANZ	12	1630	1634	1638	S10	W12	6151	07	11.8	8	SF			V				
0221		12	2050E	2052U	2107	N08	W34	6148	07	10.3	17D	SF					18		H
	HOLL	12	2050E	2052U	2107	N09	W34	6148	07	10.3	17D	SF		2	E		16		H
	RAMY	12	2053E	2053U	2058D	N08	W34	6148	07	10.3	5D	SF		2	E		20		
0222		12	2050E	2052U	2104	S10	W15	6151	07	11.7	14D	SF	C 1.2				16		
	HOLL	12	2050E	2052U	2104	S09	W15	6151	07	11.7	14D	SF	C 1.2	2	E		15		
	RAMY	12	2053E	2054U	2058D	S11	W15	6151	07	11.7	5D	SF		2	E		18		
0223	HOLL	12	2247E	2249	2255	N05	W18	6150	07	11.6	8D	SF		3	E		22		F
0224	HOLL	13	0022	0022	0034	N05	W18	6150	07	11.7	12	SF		3	E		14		
		13	0426		0437	No Flare Patrol													
0225	HTPR	13	0650	0700	0715	N20	W90	6138	07	6.4	25	SF			C				
0226		13	07257	0728	0742	N10	W40	6153	07	10.3	17	SF					40	0.5	EGH
	HTPR	13	0725	0728	0745	N09	W41	6153	07	10.2	20	SF			C	0728	40	0.5	H
	ISTA	13	0732		0739	N11	W39	6153	07	10.4	7	SF							EG
0227	HTPR	13	0735		0815	N20	W90	6138	07	6.4	40	SF			C				AT
0228		13	10151	1020	1142	N20	W88	6138	07	6.7	87	1N							AHT
	HTPR	13	1015		1200	N20	W90	6138	07	6.5	105	1B			C				AHT
	KANZ	13	1016	1020	1124	N20	W85	6138	07	6.9	68	SF			V				
0229	HOLL	13	1458	1458	1505	N15	W32	6153	07	11.2	7	SF		3	E		11		
0230	HOLL	13	1506	1508	1515	S11	W28	6151	07	11.5	9	SF		3	E		14		
0231	HTPR	13	1520		1630	N15	E85	6155	07	20.1	70	F			V				A
0232	HOLL	13	1746	1752	1811	N18	W28	6153	07	11.6	25	SF		4	E		12		F
0233	RAMY	13	1854	1901	1906	N14	W36	6153	07	11.1	12	SF		3	E		12		

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0234	HOLL	13	2132	2134	2143	N15	W38	6153	07	11.0	11	SF			3	E		10		
0235	HOLL	13	2200	2201	2207	N15	W34	6153	07	11.3	7	SF			3	E		12		
0236	HOLL	13	2231	2235	2324	N15	W39	6153	07	11.0	53	SF			3	E		16		
0237	HOLL	13	2309	2310	2319	S09	E28	6149	07	16.1	10	SF			3	E		59		FH
0238		13	23402	2342	2346	N06	W33	6150	07	11.5	6	SF						18		
	HOLL	13	2340	2341U	2354D	N06	W33	6150	07	11.5	14D	SF			2	E		19		
	PALE	13	2342	2342	2346	N05	W33	6150	07	11.5	4	SF			3	E		16		
0239		14	0007	0008U	0028D	N10	E82	6155	07	20.2	21D	SF						64		F
	PALE	14	0007	0010U	0028D	N11	E81	6155	07	20.1	21D	SF			3	E		37		
	HOLL	14	0008E	0008U	0014D	N10	E82	6155	07	20.2	6D	SF			2	E		91		F
		14	0042		0121	No Flare Patrol														
		14	0126		0128	No Flare Patrol														
		14	0147		0153	No Flare Patrol														
0240	KHAR	14	0918E		1004U	S10	W38	6151	07	11.5	46U	SF			2	V	0918			D
0241		14	12184	12193	1232	N14	W44	6153	07	11.2	14	SF	C	1.4				31		
	SVTO	14	1218	1219	1230	N13	W44	6153	07	11.2	12	SF	C	1.4	3	E		29		
	RAMY	14	1218	1221	1234	N15	W45	6153	07	11.1	16	SF	C	1.4	3	E		33		
	KANZ	14	1222	1222	1229D	N15	W43	6153	07	11.2	7D	SF				V				
0242	RAMY	14	1527	1533	1540	N16	W46	6153	07	11.1	13	SF			3	E		18		
		14	1650		1740	No Flare Patrol														
		14	1824		1833	No Flare Patrol														
		14	1901		1917	No Flare Patrol														
		14	1933		2124	No Flare Patrol														
		14	2131		2151	No Flare Patrol														
		14	2213		2309	No Flare Patrol														
0243	LEAR	15	0022	0023	0036	N15	W54	6153	07	10.9	14	SF			3	E		42		
0244	LEAR	15	0113	0118	0132	N15	W55	6153	07	10.9	19	SF	B	9.1	3	E		34		
0245	LEAR	15	0231	0248	0255	N15	W55	6153	07	10.9	24	SF			3	E		32		
0246		15	0707	0707	0712	N14	W57	6153	07	11.0	5	SF						28		F
	LEAR	15	0656E	0703U	0714D	N14	W59	6153	07	10.8	18D	SF			2	E		40		
	SVTO	15	0707	0707	0712	N15	W55	6153	07	11.1	5	SF			3	E		15		F
0247		15	08321	08342	0843	N14	W58	6153	07	11.0	11	SF						40		F
	LEAR	15	0832	0834	0843	N14	W59	6153	07	10.9	11	SF			3	E		54		
	KANZ	15	0832	0836	0846	N14	W58	6153	07	11.0	14	SF				V				
	SVTO	15	0833	0834	0841	N13	W57	6153	07	11.0	8	SF			3	E		25		F
0248		15	09171	09212	0928	N13	W58	6153	07	11.0	11	SF						26		F
	KANZ	15	0917	0921	0929	N14	W59	6153	07	10.9	12	SF				V				
	SVTO	15	0918	0923	0928	N12	W58	6153	07	11.0	10	SF			3	E		26		F
0249	KANZ	15	1009	1016	1022	N13	W59	6153	07	11.0	13	SF				V				
0250	SVTO	15	1140	1152	1228	S11	W47	6151	07	11.9	48	SF			3	E		29		
0251	KANZ	15	1547	1547	1609	N16	W68	6153	07	10.5	22	SF				V				
0252	HOLL	15	1637	1638	1703	N14	W63	6153	07	10.9	26	SF			4	E		17		
		15	1809		1841	No Flare Patrol														
0253	HOLL	15	1930E	1933U	2057D	N38	W08		07	15.2	87D	1F	C	1.8	2	E		158		FU
		15	2026		2034	No Flare Patrol														
		15	2043		2049	No Flare Patrol														
		15	2140		2323	No Flare Patrol														

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Day	Dur (Min)	Imp	Opt	Xray	See	Obs Type	Time (UT)	Area Measurement Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
		15	2353		2400	No Flare Patrol														
		16	0000		0001	No Flare Patrol														
0254	PURP	16	0102E	0106U	0110	N16	W73	6153	07	10.5	8D	SF				P	0106	50		
0255	MITK	16	0322	0324	0348	N12	W75	6153	07	10.5	26	1N				C	0324	130		EH
0256	PALE	16	0322E	0329U	0329D	S12	W58	6151	07	11.8	7D	SF	C	2.1	3	E		28		
0257	LEAR	16	0507E	0509U	0531D	N04	E01		07	16.3	24D	SN			2	E		72		
0258	SVTO	16	0509	0510	0517	S10	W62	6151	07	11.5	8	SF	B	6.5	2	E		74		
0259	LEAR	16	0555E	0559	0606	S11	W60	6151	07	11.7	11D	SF			3	E		37		
0260		16	0623*	0637	0651	S11	W59	6151	07	11.8	28	SF	C	1.0				26		E
	SVTO	16	0623	0637	0652	S12	W59	6151	07	11.8	29	SF	C	1.0	3	E		31		
	LEAR	16	0636	0637	0651	S10	W60	6151	07	11.8	15	SF	C	1.0	3	E		22		
	ISTA	16	0639E		0650	S10	W59	6151	07	11.8	11D	1N								E
0261	ISTA	16	0700E		0709	N09	W58	6150	07	11.9	9D	SB								D
0262	KHAR	16	0857U		0900D	N14	W72	6153	07	10.9	3U	SF			1	V	0857			D
0263		16	1153	1153U	1200	S12	W64	6151	07	11.7	7	SF	C	1.3				19		
	KANZ	16	1153	1153	1201	S11	W65	6151	07	11.6	8	SF				V				
	SVTO	16	1153	1154	1159	S12	W64	6151	07	11.7	6	SF	C	1.3	3	E		19		
0264	HOLL	16	1328	1334	1341	S10	W66	6151	07	11.6	13	SF			3	E		60		
0265	LEAR	17	0207	0224	0242	S30	E87	6161	07	23.9	35	SF			3	E		48		
0266	KANZ	17	0922	0922	0926	S21	W69	6146	07	12.1	4	SF				V				
0267		17	1341	1342	1347	S28	E74	6161	07	23.3	6	SF						12		
	KANZ	17	1336E		1336D	S28	E71	6161	07	23.1	6D	SF				V				
	SVTO	17	1341	1342	1347	S28	E77	6161	07	23.6	6	SF			3	E		12		
0268		17	14016	14054	1416	S28	E74	6161	07	23.4	15	SF						18		
	KANZ	17	1401	1405	1416	S28	E72	6161	07	23.2	15	SF				V				
	SVTO	17	1407	1409	1417	S28	E76	6161	07	23.5	10	SF			3	E		18		
0269	HOLL	17	1710	1712	1723	S29	E74	6161	07	23.5	13	SF	C	1.7	4	E		22		
0270	RAMY	17	2211	2216	2222	S27	E69	6161	07	23.3	11	SF	C	1.7	3	E		16		
		17	2224		2257	No Flare Patrol														
0271		18	0211	0214	0214	S26	E68	6161	07	23.4	3	SF						18		
	PALE	18	0205E	0205U	0208	S26	E68	6161	07	23.4	3D	SF			3	E		13		
	PALE	18	0211	0214	0221	S27	E68	6161	07	23.4	10	SF			3	E		22		
0272	SVTO	18	0626	0630	0635	S27	E63	6161	07	23.2	9	SF	M	1.0	3	E		28		
0273	KHAR	18	0756E		0805U	S30	E62	6161	07	23.2	9U	SN			1	V				T
0274		18	0924	0927	0920	S30	E62	6161	07	23.3	1436	SN								HT
	KHAR	18	0900E		0920	S30	E62	6161	07	23.2	20D	SN			2	V	0902			HT
	KHAR	18	0924	0927	0930D	S30	E62	6161	07	23.3	6D	SN			2	V	0927			T
0275	SVTO	18	1246	1246	1249	S26	E58	6161	07	23.0	3	SF			3	E		16		
0276	HOLL	18	1701	1702	1705	N05	E86	6162	07	25.1	4	SF			3	E		26		
0277	HOLL	18	1734	1737	1747	S29	E60	6161	07	23.4	13	1B	C	6.1	3	E		178		EH
0278	PALE	18	2050	2050	2114	S27	E57	6161	07	23.3	24	SF			3	E		26		

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0279		18	2215	2216*	2423	S26	E54	6161	07	23.1	128	SF	C 1.4				58	2.2	EKT
	PALE	18	2215	2216	2423	S26	E53	6161	07	23.0	128	SF			E		27		KT
	PALE	18	2215	2345	2423	S26	E53	6161	07	23.0	128	SF	C 1.4	3	E		48		T
	MITK	18	2332E	2401		S26	E55	6161	07	23.2	D	1N			C	2332	100	2.2	E
0280		19	07566	08007	0809	S29	E46	6161	07	22.9	13	SF					13		
	KANZ	19	0756	0800	0808	S29	E45	6161	07	22.8	12	SF			V				
	LEAR	19	0802	0807	0810	S29	E47	6161	07	23.0	8	SF		3	E		13		
0281	KANZ	19	0830	0830	0838	S26	E44	6161	07	22.8	8	SF			V				
0282		19	09131	09132	0918	S28	E44	6161	07	22.8	5	SF					19		
	KANZ	19	0913	0913	0917	S28	E44	6161	07	22.8	4	SF			V				
	LEAR	19	0914	0915	0918	S29	E45	6161	07	22.9	4	SF		3	E		19		
0283	KANZ	19	1008	1012	1020	S25	E44	6161	07	22.8	12	SF			V				
0284		19	1346*	1349*	1419	N19	W47	6154	07	16.0	33	SF					43		FK
	HOLL	19	1346	1349	1424	N19	W47	6154	07	16.0	38	SF		3	E		44		
	HOLL	19	1346	1401	1424	N19	W47	6154	07	16.0	38	SF			E		56		K
	KANZ	19	1355E	1355U	1423	N19	W48	6154	07	15.9	28D	SF			V				
	RAMY	19	1357	1357	1405	N19	W47	6154	07	16.0	8	SF		3	E		28		F
0285	HOLL	19	2301	2304	2314	N10	E72	6162	07	25.4	13	SF		3	E		16		
0286	TACH	20	0354U	0400U	0421	N26	E45	6163	07	23.6	27U	SB		1	C	0400	66	1.0	FGU
0287		20	0514	0516	0545	N22	E38	6163	07	23.1	31	1F					215	5.8	FGU
	TACH	20	0513E		0534	N22	E41	6163	07	23.4	21D	2N		1	C	0521	408	5.8	UG
	LEAR	20	0514	0516	0551	N22	E38	6163	07	23.1	37	SF		3	E		22		F
	KANZ	20	0541E		0551	N21	E35	6163	07	22.9	10D	SF			V				
0288	KANZ	20	0617	0621	0628	S27	E31	6161	07	22.7	11	SF			V				
0289		20	07254	07285	0743	N08	E63	6162	07	25.0	18	SF	C 1.3				60	1.8	DF
	ABST	20	0725	0728	0733	N07	E61	6162	07	24.9	8	SF			C	0728	87	1.8	D
	LEAR	20	0726	0732	0748	N09	E65	6162	07	25.2	22	SF	C 1.3	3	E		33		F
	KANZ	20	0729	0733	0747	N08	E62	6162	07	25.0	18	SF			V				
0290		20	08203	08225	0834	S27	E37	6161	07	23.2	14	SF					28		F
	LEAR	20	0820	0822	0833	S26	E36	6161	07	23.1	13	SF		3	E		28		F
	KANZ	20	0823	0827	0835	S28	E38	6161	07	23.3	12	SF			V				
0291	ISTA	20	0825	0827	0840	N30	E42	6163	07	23.6	15	1N							D
0292	ISTA	20	0855	0901	0903	N30	E42	6163	07	23.7	8	1N							D
0293	KANZ	20	1218E	1218U	1222	S21	E75	6164	07	26.3	4D	SF			V				
0294		20	14072	14104	1436	N10	E62	6162	07	25.2	29	1F					76		FH
	SVTO	20	1407	1412	1432	N11	E63	6162	07	25.3	25	1F		3	E		102		F
	KANZ	20	1407	1414	1433	N10	E61	6162	07	25.2	26	1F			V				
	RAMY	20	1409	1410	1424	N09	E62	6162	07	25.2	15	SF		3	E		46		FH
	HOLL	20	1411E	1413U	1454	N09	E62	6162	07	25.2	43D	SF		2	E		79		F
0295		20	1411	1414	1418	N16	W62	6154	07	15.9	7	SF					29		
	KANZ	20	1411	1414	1417	N16	W62	6154	07	15.9	6	SF			V				
	HOLL	20	1411E	1415U	1420	N16	W61	6154	07	16.0	9D	SF		2	E		29		
0296		20	15012	1507	1513	N08	E56	6162	07	24.8	12	SF					13		
	HOLL	20	1501	1507	1511	N08	E57	6162	07	24.9	10	SF		3	E		13		
	KANZ	20	1503	1507	1515	N09	E55	6162	07	24.7	12	SF			V				
0297	HOLL	20	1619	1619	1624	N09	E57	6162	07	24.9	5	SF		3	E		11		
0298	HOLL	20	1623	1623	1627	S23	W56		07	16.4	4	SF		3	E		11		
0299	RAMY	20	1943	1944	1947	S29	E33	6161	07	23.4	4	SF		3	E		19		
		20	2228		2309	No Flare Patrol													

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo Day	Dur (Min)	Imp Opt	Xray	See	Obs Type	Area Measurement Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
0300	TACH	21	0323	0326	0328	N10	E45	6162	07 24.5	5	SB		3	C	0326	97	1.4	ELT
0301	TACH	21	0346	0352	0403	N10	E53	6162	07 25.1	17	1N		3	C	0352	245	4.2	ELT
0302	TACH	21	0400	0403	0414	N30	W60		07 16.4	14	1N		3	C	0403	143	3.0	D
0303		21	0426	0427	0440	N10	E45	6162	07 24.6	14	SN					62	1.1	DH
	TACH	21	0426	0427	0436	N10	E45	6162	07 24.6	10	SB		3	C	0427	76	1.1	D
	SVTO	21	0434E	0435U	0443	N11	E45	6162	07 24.6	9D	SF		1	E		49		H
0304	TACH	21	0506	0507	0510	N10	E45	6162	07 24.6	4	SB		3	C	0507	51	0.8	D
0305	SVTO	21	0848	0902	0910	N11	E53	6162	07 25.3	22	SF		3	E		39		F
0306	SVTO	21	0942	0945	0951	N11	E49	6162	07 25.1	9	SF		3	E		19		
0307	SVTO	21	1205	1206	1216	N11	E50	6162	07 25.3	11	SF		3	E		28		
0308		21	20019	20155	2024	S28	E16	6161	07 23.1	23	SF	C 1.7				26		F
	HOLL	21	2001	2015	2021	S28	E16	6161	07 23.1	20	SF	C 1.7	4	E		27		F
	RAMY	21	2010	2020	2028	S28	E17	6161	07 23.2	18	SF		3	E		24		F
		21	2204		2209	No Flare Patrol												
		21	2221		2314	No Flare Patrol												
0309	LEAR	22	0019	0019	0026	S27	E13	6161	07 23.0	7	SF		3	E		10		F
0310	KHAR	22	0603E		0625U	N10	E90	6171	07 29.0	22U	SF		1	V	0603			D
0311		22	06171	0620	0635	N13	E42	6162	07 25.4	18	SF	B 9.4				50	1.0	BEL
	KANZ	22	0617	0620	0632	N14	E41	6162	07 25.4	15	SF			V				
	YUNN	22	0618E	0620U	0625D	N13	E44	6162	07 25.6	7D	SB			P	0620	47	0.7	
	SVTO	22	0618	0620	0639	N14	E43	6162	07 25.5	21	SF	B 9.4	3	E		17		
	KHAR	22	0620U		0640	N13	E41	6162	07 25.3	20U	SF		1	V	0628			L
	BUCA	22	0620E	0620U	0630	N13	E41	6162	07 25.3	10D	SF			P	0620	86	1.2	BE
0312	KHAR	22	0642	0644	0653U	N10	E90	6171	07 29.0	11U	SF		1	V	0644			D
0313	BUCA	22	0645	0700U	0730	S14	W85		07 15.8	45	SN			C	0700	107		D
0314	RAMY	22	1424	1428	1434	N13	E38	6162	07 25.5	10	SF		3	E		27		
0315		22	16011	16103	1619	N13	E37	6162	07 25.4	18	SF					29		
	RAMY	22	1601	1611	1619	N13	E37	6162	07 25.4	18	SF		3	E		29		
	SVTO	22	1601	1613	1623	N14	E37	6162	07 25.5	22	SF		3	E		22		
	HOLL	22	1602	1610	1616	N12	E38	6162	07 25.5	14	SF		2	E		35		
0316		22	17232	1727	1732	N10	E86	6171	07 29.2	9	SF					36		
	RAMY	22	1723	1727	1731	N10	E83	6171	07 29.0	8	SF		3	E		39		
	PALE	22	1725	1727	1733	N11	E88	6171	07 29.3	8	SF		3	E		34		
0317		22	18092	18112	1832	N10	E80	6171	07 28.8	23	SF	C 1.5				24		
	HOLL	22	1809	1811	1835	N11	E80	6171	07 28.8	26	SF	C 1.5	3	E		20		
	RAMY	22	1811	1813	1830	N10	E79	6171	07 28.7	19	SF	C 1.5	3	E		29		
0318		22	20491	2052	2136	N13	E32	6162	07 25.3	47	SF	C 2.9				59		F
	HOLL	22	2049	2052	2136	N12	E32	6162	07 25.3	47	SF	C 2.9	3	E		77		F
	PALE	22	2050	2052	2129D	N14	E33	6162	07 25.4	39D	SF	C 2.9	3	E		41		F
0319		22	21262	2129	2145	N10	E88	6171	07 29.5	19	1F	C 2.9				85		
	HOLL	22	2126	2129	2145	N10	E87	6171	07 29.4	19	1F	C 2.9	3	E		115		
	PALE	22	2128	2130U	2146D	N11	E88	6171	07 29.5	18D	SF	C 2.9	3	E		55		
0320		22	2157	2158	2213	N12	E82	6171	07 29.1	16	1F	C 4.7				54		E
	HOLL	22	2157	2158	2217	N11	E80	6171	07 28.9	20	SF	C 4.7	3	E		54		
	VORO	22	2158E		2209	N13	E84	6171	07 29.2	11D	1F		2	C	2158	54		E
0321	VORO	23	0003	0004	0009	N11	E84	6171	07 29.3	6	1F		2	C	0004	81		E

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0322	VORO	23	0252	0256	0301	N10	E35	6162	07	25.7	9	SF		2	C	0256	108	1.3	DIJ
0323		23	04276	04343	0452	N11	E76	6171	07	28.9	25	SN	C 2.5				31		DE
	TACH	23	0427	0435	0455	N11	E75	6171	07	28.8	28	SB		2	C	0435	26		D
	PURP	23	0432E	0437	0449	N10	E79	6171	07	29.1	17D	SN			C	0437	42		E
	PALE	23	0433	0434	0447D	N11	E75	6171	07	28.8	14D	SF	C 2.5	3	E		24		
0324	BUCA	23	0640E	0650	0657	S10	W38	6170	07	20.4	17D	SF			P	0650	129	1.8	E
0325	ISTA	23	0812		0826	N11	W30		07	21.1	14	SF							D
0326	ISTA	23	0839E		0847	S14	E71	6168	07	28.7	8D	1B							FG
0327		23	12334	12361	1250	N12	E70	6171	07	28.8	17	SF					48		
	SVTO	23	1233	1236	1258	N14	E70	6171	07	28.8	25	SF		3	E		70		
	RAMY	23	1237	1237	1241	N11	E69	6171	07	28.7	4	SF		3	E		25		
0328	HOLL	23	1409	1411	1416	N10	E23	6162	07	25.3	7	SF		2	E		19		
0329	HOLL	23	1542E	1548	1624	N11	E19	6162	07	25.1	42D	SF		3	E		35		F
0330	HOLL	23	1545	1554	1616	N29	E29	6167	07	25.9	31	SF		3	E		25		F
0331	HOLL	23	1631E	1631U	1636	S18	E80	6177	07	29.8	5D	SF	C 1.2	2	E		28		
0332	PALE	23	1819	1819	1824	N10	E22	6162	07	25.4	5	SF		3	E		14		
0333		23	19191	1921	1937	N11	E21	6162	07	25.4	18	SF	C 3.3				41		FH
	HOLL	23	1919	1921	1930	N09	E21	6162	07	25.4	11	SF		3	E		31		FH
	PALE	23	1920	1921	1940	N11	E22	6162	07	25.5	20	SF	C 3.3	3	E		69		F
	RAMY	23	1925E	1925U	1940	N12	E20	6162	07	25.3	15D	SF		3	E		23		
0334		23	19192	19224	1948	N11	E68	6171	07	28.9	29	SF					54		
	HOLL	23	1919	1922	1949	N08	E67	6171	07	28.8	30	SF		3	E		64		
	PALE	23	1920	1923	1946	N12	E68	6171	07	28.9	26	SF		3	E		49		
	RAMY	23	1921	1926	1950	N13	E69	6171	07	29.0	29	SF		3	E		48		
0335	HOLL	23	2009	2009	2019	N08	E74	6171	07	29.4	10	SF		3	E		11		
0336	HOLL	23	2144	2148	2150	N09	E09	6162	07	24.6	6	SF		3	E		22		F
0337	HOLL	23	2153	2153	2159	N11	E17	6162	07	25.2	6	SF		3	E		17		F
0338		23	2154	21552	2218	N11	E73	6171	07	29.4	24	SN	C 6.3				124		EF
	RAMY	23	2154	2155	2155D	N11	E75	6171	07	29.5	1D	SN		2	E		80		E
	HOLL	23	2154	2157	2219	N10	E72	6171	07	29.3	25	1B	C 6.3	3	E		227		F
	PALE	23	2205E	2205U	2218	N13	E73	6171	07	29.4	13D	SF		3	E		64		
		23	2206		2209	No Flare Patrol													
0339		23	22223	2226	2232	N12	E12	6162	07	24.8	10	SF					26		F
	PALE	23	2222	2226	2231	N12	E11	6162	07	24.8	9	SF		3	E		24		
	HOLL	23	2225	2226	2233	N12	E14	6162	07	25.0	8	SF		3	E		29		F
0340	HOLL	23	2346	2350	2416	N08	E07	6162	07	24.5	30	SF		3	E		35		
0341	SVTO	24	0558	0600	0611	N13	E60	6171	07	28.8	13	SF		3	E		12		
0342		24	06153	06209	0642	N11	E69	6171	07	29.4	27	SF	C 2.7				110		EK
	BUCA	24	0615	0625	0647	N11	E68	6171	07	29.4	32	1N			C	0625	215		E
	LEAR	24	0618	0620	0639	N11	E69	6171	07	29.4	21	SF	C 2.7		E		75		K
	LEAR	24	0618	0629	0639	N11	E69	6171	07	29.4	21	SF		2	E		41		
0343		24	07151	07189	0728	N11	E61	6171	07	28.9	13	SF	C 1.7				46	1.4	D
	ISTA	24	0715E		0725	N08	E59	6171	07	28.7	10D	SN							D
	SVTO	24	0715	0722	0725	N11	E62	6171	07	29.0	10	SF	C 1.7	3	E		43		
	BUCA	24	0715	0727	0735	N13	E63	6171	07	29.0	20	SF			C	0727	64	1.4	D
	LEAR	24	0716	0718	0727	N11	E61	6171	07	28.9	11	SF	C 1.7	2	E		30		

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Day	Dur (Min)	Imp	Opt	Xray	See	Obs	Type	Time (UT)	Area Measurement Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
0344	ISTA	24	0800		0826	N10	E10	6162	07	25.1	26	SN									E
0345		24	09291	09301	0942	N12	E00	6162	07	24.4	13	SF	C	2.2					66		FH
	SVTO	24	0929	0931	0944	N12	E03	6162	07	24.6	15	SF	C	2.2	3	E			62		FH
	KANZ	24	0930	0930	0942	N12	W01	6162	07	24.3	12	SF				V					
	LEAR	24	0930	0931	0939	N12	W01	6162	07	24.3	9	SF	C	2.2	3	E			69		F
0346		24	11486	11523	1201	N12	E01	6162	07	24.6	13	SF	C	1.3					17		F
	KANZ	24	1148	1152	1202	N12	W03	6162	07	24.3	14	SF				V					
	SVTO	24	1154	1155	1200	N11	E05	6162	07	24.9	6	SF	C	1.3	3	E			17		F
0347		24	1258	1301	1330	N12	E10	6162	07	25.3	32	SF	C	2.1					56		FH
	HOLL	24	1234E	1234U	1353	N11	E08	6162	07	25.1	79D	SF			1	E			80		FH
	SVTO	24	1258	1301	1306	N13	E12	6162	07	25.4	8	SF	C	2.1	3	E			33		FH
0348	HOLL	24	1452	1501	1536	N11	E58	6171	07	29.0	44	SF			3	E			36		
0349	HOLL	24	1531	1532	1537	N24	W20	6163	07	23.1	6	SF			3	E			33		
0350		24	17231	17241	1738	S21	E68	6172	07	29.9	15	SF	C	2.6					36		
	HOLL	24	1723	1725	1743	S21	E66	6172	07	29.8	20	SF	C	2.6	3	E			50		
	PALE	24	1724	1724	1734	S21	E70	6172	07	30.1	10	SF	C	2.6	3	E			22		
		24	1941		1959	No Flare Patrol															
0351		24	2056E	2106	2110	N32	E16	6167	07	26.1	14D	SF							32		F
	PALE	24	2056E	2056U	2115D	N32	E16	6167	07	26.1	19D	SF			3	E			43		F
	HOLL	24	2102E	2106	2110	N31	E17	6167	07	26.2	8D	SF			3	E			22		F
		24	2120		2139	No Flare Patrol															
		24	2151		2156	No Flare Patrol															
		24	2242		2259	No Flare Patrol															
		24	2310		2322	No Flare Patrol															
		24	2338		2340	No Flare Patrol															
0352	LEAR	25	0014	0015	0018	N11	E58	6171	07	29.4	4	SF			3	E			22		
0353	LEAR	25	0256	0258	0307	S20	E13	6175	07	26.1	11	SF			3	E			32		
0354		25	07413	07431	0808	N23	W38	6173	07	22.4	27	1B							161	2.2	G
	ISTA	25	0741	0743	0808	N25	W38	6173	07	22.4	27	1B									G
	BUCA	25	0744	0744	0800D	N21	W38	6173	07	22.4	16D	1N				P		0744	161	2,2	G
0355	ATHN	25	0746E	0748U	0754D	N28	W24	6163	07	23.4	8D	1N			2	V		0748	191	2.3	
0356		25	0817E	0825	0834	N12	E52	6171	07	29.3	17D	SN							32	0.5	F
	YUNN	25	0817E	0825	0832	N11	E51	6171	07	29.2	15D	SN				P			31	0.5	
	SVTO	25	0818E	0821U	0836	N13	E52	6171	07	29.3	18D	SF			3	E			32		F
0357		25	13165	13215	1348	N12	E47	6171	07	29.1	32	1F	C	3.8					100		F
	SVTO	25	1316	1326	1347	N13	E48	6171	07	29.2	31	1F	C	3.8	3	E			116		F
	RAMY	25	1319	1321	1347	N11	E48	6171	07	29.2	28	SF	C	3.8	3	E			90		F
	KANZ	25	1321	1324	1351	N11	E47	6171	07	29.1	30	1F				V					
	HOLL	25	1323E	1325U	1328D	N11	E46	6171	07	29.0	5D	SF			2	E			95		F
0358		25	14085	14146	1443	S15	E62	6174	07	30.3	35	SF							31		F
	HOLL	25	1408	1415U	1510	S16	E62	6174	07	30.3	62	SF			3	E			29		
	RAMY	25	1413	1414	1427	S16	E62	6174	07	30.3	14	SF			3	E			39		F
	SVTO	25	1413	1420	1433	S14	E63	6174	07	30.3	20	SF			3	E			24		
0359	HOLL	25	1429E	1435	1444	N11	W06	6162	07	25.1	15D	SF			3	E			12		F
0360		25	1501*	1510*	1600	N11	W06	6162	07	25.2	59	SF							44		FK
	HOLL	25	1501	1510	1609	N11	W06	6162	07	25.2	68	SF				E			33		K
	HOLL	25	1501	1524	1609	N11	W06	6162	07	25.2	68	SF			3	E			59		F
	SVTO	25	1502	1525	1547	N11	W07	6162	07	25.1	45	SF			3	E			49		F
	RAMY	25	1515	1528	1557	N12	W07	6162	07	25.1	42	SF			3	E			34		F
0361	HOLL	25	1620	1633	1639	S18	W52	6176	07	21.7	19	SF			3	E			13		

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo Day	Dur (Min)	Imp Opt	Xray	See	Obs Type	Area Measurement Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
0362		25	1705	17081	1728	N20	W44	6173	07 22.3	23	SF					49		
	HOLL	25	1705	1708	1726	N20	W44	6173	07 22.3	21	SF		3	E		49		
	KANZ	25	1705	1709	1731	N20	W44	6173	07 22.3	26	SF			V				
0363		25	17599	1810	1828	N11	W06	6162	07 25.3	29	SF					28		F
	PALE	25	1759	1810	1837	N11	W06	6162	07 25.3	38	SF		3	E		30		
	HOLL	25	1808	1810	1820	N11	W07	6162	07 25.2	12	SF		3	E		25		F
0364		25	18194	18251	1830	S20	W52	6176	07 21.8	11	SF					17		F
	HOLL	25	1819	1825	1831	S19	W53	6176	07 21.7	12	SF		3	E		21		F
	PALE	25	1823	1826	1830	S21	W52	6176	07 21.8	7	SF		3	E		13		F
0365	HOLL	25	1842	1843	1846	S15	E33	6168	07 28.3	4	SF		3	E		19		F
0366	HOLL	25	1843	1844	1854	N10	W02	6162	07 25.6	11	SF		3	E		17		F
0367	HOLL	25	1936	1940	1947	S18	W53	6176	07 21.8	11	SF		3	E		10		F
0368	HOLL	25	1940	1947	1953	N10	W11	6162	07 25.0	13	SF		3	E		16		F
0369	HOLL	25	2044	2046	2102	S18	W54	6176	07 21.7	18	SF		3	E		14		F
0370		25	2045	2046	2054	N12	W10	6162	07 25.1	9	SF					25		F
	HOLL	25	2045	2046	2053	N12	W07	6162	07 25.3	8	SF		3	E		24		
	PALE	25	2045	2046	2054	N11	W13	6162	07 24.9	9	SF		3	E		26		F
0371	PALE	25	2056	2142	2213	N10	W05	6162	07 25.5	77	SF		3	E		63		F
0372		25	21233	21331	2141	N10	E46	6171	07 29.3	18	SF					36		F
	HOLL	25	2123	2133	2139	N10	E45	6171	07 29.3	16	SF		3	E		28		F
	PALE	25	2126	2134	2143	N11	E46	6171	07 29.3	17	SF		3	E		44		F
0373		25	2200	2206*	2407	N11	E44	6171	07 29.2	127	1N					228	7.1	EFJKT
	PALE	25	2200	2206	2402D	N11	E44	6171	07 29.2	122D	1F			E		99		KT
	HOLL	25	2200	2301	2407	N10	E43	6171	07 29.1	127	1N		3	E		149		FET
	PALE	25	2200	2303	2402D	N11	E44	6171	07 29.2	122D	1F		3	E		152		FET
	VORO	25	2226E	2300	2340D	N11	E43	6171	07 29.2	74D	2N		1	V	2300	511	7.1	EJ
0374		25	2221*	2232*	2530	S14	E56	6174	07 30.2	189	2N	M 2.3				428	11.5	EFJKTUZ
	PALE	25	2221	2232	2535	S14	E58	6174	07 30.3	194	SF			E		55		KU
	PALE	25	2221	2323U	2535	S14	E58	6174	07 30.3	194	2N	M 2.3	3	E		460		UF
	HOLL	25	2223	2302	2529	S15	E55	6174	07 30.1	186	SN			E		78		KT
	HOLL	25	2223	2324	2529	S15	E55	6174	07 30.1	186	2N	M 2.3	3	E		457		FET
	VORO	25	2304	2320	2340D	S16	E56	6174	07 30.2	36D	3F		1	V	2320	851	16.3	EJ
	LEAR	25	2322E	2334U	2545	S12	E51	6174	07 29.8	143D	2N		1	E		590		UF
	PURP	25	2339E	2341U	2507	S13	E53	6174	07 30.0	88D	2B			C	2341	481	8.9	Z
	MITK	25	2343E	2347D		S14	E58	6174	07 30.4	D	2N			P	2343	450	9.4	F
0375	HOLL	26	0121	0124	0130	S18	W57	6176	07 21.7	9	SF		3	E		14		F
0376		26	0224*	0235*	0315	N11	W12	6162	07 25.2	51	SN					155	4.0	EF
	PALE	26	0224	0235	0258	N11	W10	6162	07 25.3	34	SF		3	E		36		
	LEAR	26	0245E	0245	0322	N11	W11	6162	07 25.3	37D	SF		3	E		62		F
	TACH	26	0306	0314	0326	N12	W14	6162	07 25.1	20	1B		3	C	0314	367	4.0	E
0377	LEAR	26	0230	0239	0249	N07	E43	6171	07 29.3	19	SF		3	E		19		
0378	TACH	26	0401	0402	0417	N12	W08	6162	07 25.6	16	SB		3	C	0402	76	0.8	E
0379		26	06551	0657	0714	S20	E56	6177	07 30.6	19	SF	C 2.0				51		F
	SVTO	26	0655	0657	0718	S19	E56	6177	07 30.6	23	SF	C 2.0	3	E		71		F
	LEAR	26	0656	0657	0711	S21	E56	6177	07 30.6	15	SF	C 2.0	3	E		31		F
0380		26	07302	07331	0741	N13	W13	6162	07 25.3	11	SF	C 2.8				44	0.6	DEFH
	LEAR	26	0730	0734	0743	N13	W13	6162	07 25.3	13	SF	C 2.8	3	E		58		HE
	ABST	26	0732	0733	0740	N13	W13	6162	07 25.3	8	SF			C	0733	52	0.6	D
	SVTO	26	0732	0734U	0740	N12	W13	6162	07 25.3	8	SF	C 2.8	2	E		23		F
0381	SVTO	26	1105	1106	1110	S19	W64	6176	07 21.6	5	SF		3	E		15		

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0382		26	11543	11571	1203	S16	E20	6168	07 28.0	9	SF					17		F
	RAMY	26	1154	1157	1204	S17	E20	6168	07 28.0	10	SF		3	E		20		F
	SVTO	26	1157	1158	1202	S15	E21	6168	07 28.1	5	SF		3	E		14		F
0383	RAMY	26	1315	1318	1329	N12	W20	6162	07 25.0	14	SF		3	E		27		F
0384		26	13313	1334	1340	S17	W64	6176	07 21.7	9	SF					26		F
	HOLL	26	1331	1334	1340	S18	W63	6176	07 21.8	9	SF		3	E		24		F
	KANZ	26	1331	1334	1341D	S17	W63	6176	07 21.8	10D	SF			V				
	RAMY	26	1334	1334	1339	S17	W67	6176	07 21.5	5	SF		3	E		28		
0385		26	1336*	1337*	1402	S21	E50	6177	07 30.4	26	SF					31		FK
	HOLL	26	1336	1337	1408	S22	E50	6177	07 30.4	32	SF		3	E		35		F
	HOLL	26	1336	1353	1408	S22	E50	6177	07 30.4	32	SF			E		37		K
	RAMY	26	1337	1337	1349	S22	E49	6177	07 30.3	12	SF		3	E		28		
	SVTO	26	1337	1337	1406D	S20	E51	6177	07 30.5	29D	SF		3	E		38		
	RAMY	26	1353	1356	1423D	S21	E50	6177	07 30.4	30D	SF		3	E		16		F
0386		26	1357	1403	1408	N12	W18	6162	07 25.2	11	SF					18		F
	RAMY	26	1357	1358U	1425D	N12	W18	6162	07 25.2	28D	SF		3	E		22		F
	HOLL	26	1357	1403	1408	N12	W18	6162	07 25.2	11	SF		3	E		15		F
		26	1414		1421	No Flare Patrol												
		26	1429		1445	No Flare Patrol												
0387	RAMY	26	1604	1607	1619	S24	E41	6172	07 29.8	15	SF		3	E		20		
0388		26	1659	17031	1718	N12	W19	6162	07 25.3	19	1B M 3.3					139		FH
	PALE	26	1659E	1703U	1719	N11	W22	6162	07 25.0	20D	1B		3	E		110		H
	RAMY	26	1659	1703	1719D	N13	W17	6162	07 25.4	20D	1B M 3.3		3	E		190		H
	HOLL	26	1659	1704	1717	N13	W17	6162	07 25.4	18	1B M 3.3		3	E		117		FH
0389	HOLL	26	1837	1848	1917	S18	W66	6176	07 21.7	40	SF		3	E		38		
0390	HOLL	26	2058	2100	2115	S21	W54	6161	07 22.7	17	SF		3	E		13		
0391		26	2113	21187	2135	N13	W19	6162	07 25.4	22	SF					45		EK
	HOLL	26	2113	2118	2135	N13	W19	6162	07 25.4	22	SF			E		29		K
	HOLL	26	2113	2124	2135	N13	W19	6162	07 25.4	22	SN		3	E		79		E
	PALE	26	2122E	2125	2138D	N13	W19	6162	07 25.4	16D	SF		3	E		28		
0392	HOLL	26	2146E	2147U	2153	S20	E48	6177	07 30.6	7D	SF		3	E		18		
		26	2214		2258	No Flare Patrol												
0393	HOLL	26	2329	2335	2353	N13	W20	6162	07 25.5	24	SF C 2.0		3	E		20		
0394	HOLL	26	2332E	2336	2355D	S22	E45	6177	07 30.4	23D	SF		2	E		67		
0395		26	23556	24041	2416	N13	W21	6162	07 25.4	21	1N C 6.7					129	2.1	EFH
	MITK	26	2355	2404	2417	N13	W22	6162	07 25.3	22	1N			C	2404	190	2.1	EH
	LEAR	27	0001	0005	0015	N14	W21	6162	07 25.4	14	1N C 6.7		3	E		139		F
	PALE	27	0006E	0006U	0035D	N12	W20	6162	07 25.5	29D	SN C 6.7		3	E		58		H
0396	LEAR	27	0447	0447	0456	S26	E36	6172	07 30.0	9	SF		3	E		15		
0397		27	0459	0459	0546	S19	E46	6177	07 30.7	47	SN					31	0.8	
	SVTO	27	0459	0459	0506	S19	E44	6177	07 30.6	7	SF		3	E		15		
	YUNN	27	0505E	0506U	0625	S19	E47	6177	07 30.8	80D	SN			P	0506	47	0.8	
0398		27	07465	07505	0759	S19	E42	6177	07 30.5	13	SF					27		
	KANZ	27	0746	0750	0801	S19	E42	6177	07 30.5	15	SF			V				
	SVTO	27	0747	0751	0759	S18	E43	6177	07 30.6	12	SF		3	E		26		
	LEAR	27	0751	0755	0758	S20	E41	6177	07 30.5	7	SF		3	E		28		
0399		27	07571	08002	0808	N12	E26	6171	07 29.3	11	SF					14		
	LEAR	27	0757	0800	0807	N11	E26	6171	07 29.3	10	SF		3	E		12		
	SVTO	27	0758	0802	0809	N12	E25	6171	07 29.2	11	SF		3	E		15		

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0400	LEAR	27	0844	0845	0900	N12	W29	6162	07	25.2	16	SF			3	E		25		
0401	SVTO	27	0941	0942	0947	N11	W27	6162	07	25.4	6	SF			3	E		33		
0402	SVTO	27	1021	1021	1030	N09	W35	6162	07	24.8	9	SF			3	E		20		
0403	SVTO	27	1031	1031	1034	S20	W85	6176	07	20.9	3	SF			3	E		24		
0404	SVTO	27	1106	1116	1149	N11	E24	6171	07	29.3	43	SF			3	E		74		F
0405		27	1450	14521	1458	N13	W30	6162	07	25.3	8	SF						27		EF
	HOLL	27	1450	1452	1459	N13	W29	6162	07	25.4	9	SF			3	E		41		FE
	RAMY	27	1450	1453	1458	N13	W30	6162	07	25.3	8	SF			3	E		17		
	SVTO	27	1450	1453	1458	N12	W31	6162	07	25.3	8	SF			3	E		24		
0406	HOLL	27	1519	1519	1523	S19	W80	6176	07	21.5	4	SF	C	1.4	3	E		14		
		27	1749		1845	No Flare Patrol														
0407	HOLL	27	2046	2046	2057	N14	W38	6162	07	25.0	11	SF			3	E		15		
0408	HOLL	27	2048	2054	2058	N16	W71		07	22.5	10	SF			3	E		16		H
0409	HOLL	27	2234	2235	2238D	S16	E01	6168	07	28.0	4D	SF			3	E		25		F
		27	2239		2309	No Flare Patrol														
0410	LEAR	27	2328	2328	2339	N10	E17	6171	07	29.2	11	SF			3	E		44		F
0411	LEAR	28	0037	0037	0041	S24	E21	6172	07	29.6	4	SF			3	E		11		
0412	LEAR	28	0238	0245	0258	N10	W45	6162	07	24.7	20	SF	C	2.4	3	E		58		F
0413	LEAR	28	0239	0239	0242	S23	E20	6172	07	29.6	3	SF			3	E		21		
0414	LEAR	28	0312	0314	0318	N14	W36	6162	07	25.4	6	SF			3	E		57		
0415	LEAR	28	0458	0459	0503	N18	W76		07	22.4	5	SF			3	E		27		
0416	LEAR	28	0706	0707	0715	N18	W77		07	22.4	9	SF			3	E		15		
0417	SVTO	28	0746	0747	0751	N20	E69	6180	08	2.6	5	SF			3	E		37		
0418	LEAR	28	0803	0804	0813	S16	W05	6168	07	27.9	10	SF			3	E		23		F
		28	0952		0953	No Flare Patrol														
0419	SVTO	28	0953	0956	1034D	N11	E10	6171	07	29.2	41D	SF	C	1.5	3	E		77		F
0420	HOLL	28	1413	1415	1421	N10	W50	6162	07	24.8	8	SF			3	E		17		
0421	HOLL	28	1451	1453	1503	N10	E10	6171	07	29.4	12	SF			3	E		13		
0422	HOLL	28	1757	1800	1808	S16	W10	6168	07	28.0	11	SF			3	E		23		
0423	LEAR	29	0137	0144	0150	N26	W42	6167	07	25.8	13	SF			3	E		45		F
0424	HOLL	29	1831E	1831U	1901D	N11	W07	6171	07	29.2	30D	SF			2	E		32		FH
		29	2100		2105	No Flare Patrol														
		29	2124		2130	No Flare Patrol														
		29	2135		2220	No Flare Patrol														
0425	HOLL	29	2220E	2224U	2252	N15	E45	6180	08	2.3	32D	2F	C	3.1	2	E		349		U
		30	0250		0255	No Flare Patrol														
0426	LEAR	30	0327	0329	0336	N14	W73	6162	07	24.6	9	SF	C	2.3	3	E		11		

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0427	BUCA	30	0625E	0635	0645	N12	W73	6162	07	24.8	20D	SF				P	0635	129		E
0428		30	0632*	0638*	0815	N18	E42	6180	08	2.5	103	2N	M	4.4				646	11.3	DEFHIJKU
	KANZ	30	0632	0731	0810D	N18	E44	6180	08	2.6	98D	3B				V				U
	SVTO	30	0633	0638	0654	N18	E42	6180	08	2.5	21	SF			3	E		32		UF
	MITK	30	0634	0728D		N20	E45	6180	08	2.7		2N				P	0716	490	7.3	F
	PURP	30	0635	0659U	0659D	N18	E41	6180	08	2.4	24D	1N				P	0659	177	2.5	
	BUCA	30	0635	0725U	0924	N18	E41	6180	08	2.4	169	2B				C	0725	859	11.8	FU
	ISTA	30	0706		0905	N15	E40	6180	08	2.3	119	4B								FHIJKU
	SVTO	30	0706	0732	0847	N20	E45	6180	08	2.7	101	2B	M	4.4	4	E		568		ZU
	HURB	30	0707	0712	0730	N17	E41	6180	08	2.4	23	1N								D
	HURB	30	0713	0714	0731	N16	E40	6180	08	2.3	18	2N								EH
	ATHN	30	0728E	0800	0834	N24	E40	6180	08	2.4	66D	3B			2	V	0800	1751	23.5	
0429		30	15101	15101	1520	S26	W32	6168C	07	28.1	10	SF						16		
	SVTO	30	1510	1510	1515	S28	W33	6168C	07	28.0	5	SF			3	E		13		
	HOLL	30	1511	1511	1520	S25	W31	6168C	07	28.2	9	SF			3	E		18		
	KANZ	30	1512E	1512U	1524	S24	W32	6168C	07	28.2	12D	1F				V				
0430		30	1536	15391	1546	S24	W14	6172	07	29.6	10	SF						17		
	HOLL	30	1536	1539	1545	S24	W11	6172	07	29.8	9	SF			3	E		17		
	KANZ	30	1536	1540	1548	S24	W17	6172	07	29.3	12	SF				V				
0431	HOLL	30	1615	1616	1626	S20	W03	6177	07	30.4	11	SF			3	E		21		
		30	2048		2115	No Flare Patrol														
		30	2212		2218	No Flare Patrol														
0432	HOLL	31	0002	0007	0011D	S23	W21	6172	07	29.4	9D	SF			3	E		15		
0433		31	0539	05392	0547	S15	W16	6174	07	30.0	8	SN	C	1.5				11		EF
	SVTO	31	0539	0539	0547	S16	W16	6174	07	30.0	8	SF	C	1.5	3	E		11		F
	MITK	31	0539	0541	0556D	S14	W17	6174	07	29.9	17D	SN				C	0541			E
0434		31	0612E	0613	0633	S24	W22	6172	07	29.5	21D	SF						80	1.0	D
	BUCA	31	0612E	0613	0625	S23	W21	6172	07	29.6	13D	SF				P	0613	54	0.7	D
	BUCA	31	0612E	0613	0641	S24	W23	6172	07	29.5	29D	SF				P	0613	107	1.4	D
0435		31	0705	0705U	0720	S07	E26	6184	08	2.2	15	SN						42	0.5	D
	BUCA	31	0705	0705U	0720	S05	E27	6184	08	2.3	15	SF				C	0705	53	0.6	D
	YUNN	31	0705E	0707U	0719	S09	E26	6184	08	2.2	14D	SN				P	0707	31	0.4	
0436	ISTA	31	0759		0811	N11	W33	6171	07	28.8	12	1N								D
0437		31	0800	08011	0808	N10	W27	6171B	07	29.3	8	SF						60	1.2	EG
	SVTO	31	0800	0801	0804	N10	W27	6171B	07	29.3	4	SF			3	E		13		
	BUCA	31	0800	0802	0812	N11	W27	6171B	07	29.3	12	SF				C	0802	107	1.2	EG
0438		31	08463	0849	0858	S14	W18	6174	07	30.0	12	SF						48		EF
	ISTA	31	0846		0859	S13	W17	6174	07	30.1	13	1N								E
	SVTO	31	0849	0849	0856	S15	W18	6174	07	30.0	7	SF			3	E		36		F
	LEAR	31	0849	0849	0858	S15	W18	6174	07	30.0	9	SF			3	E		60		F
0439	LEAR	31	0900	0900	0907	S23	W21	6172	07	29.7	7	SF			3	E		16		
0440		31	12571	13011	1322	S24	W22	6172	07	29.8	25	SF						29		F
	RAMY	31	1257	1302	1324	S24	W21	6172	07	29.9	27	SF			3	E		38		F
	SVTO	31	1258	1301	1319	S23	W22	6172	07	29.8	21	SF			3	E		20		
0441		31	14221	14264	1454	S08	E22	6184	08	2.2	32	SF	C	1.7				28		F
	HOLL	31	1422	1430	1450	S08	E22	6184	08	2.2	28	SF	C	1.7	3	E		32		F
	RAMY	31	1423	1426	1458	S08	E22	6184	08	2.2	35	SF	C	1.7	3	E		24		F
0442	HOLL	31	1557	1557	1602	N13	E85	6186	08	7.1	5	SF			3	E		34		F
0443	HOLL	31	1652	1652	1711	S25	W27	6172	07	29.6	19	SF			3	E		18		F
0444		31	18042	18061	1812	S24	W27	6172	07	29.7	8	SF						20		F
	HOLL	31	1804	1807	1811	S25	W27	6172	07	29.7	7	SF			3	E		26		
	PALE	31	1806	1806	1813	S24	W27	6172	07	29.7	7	SF			3	E		15		F

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JULY 1990

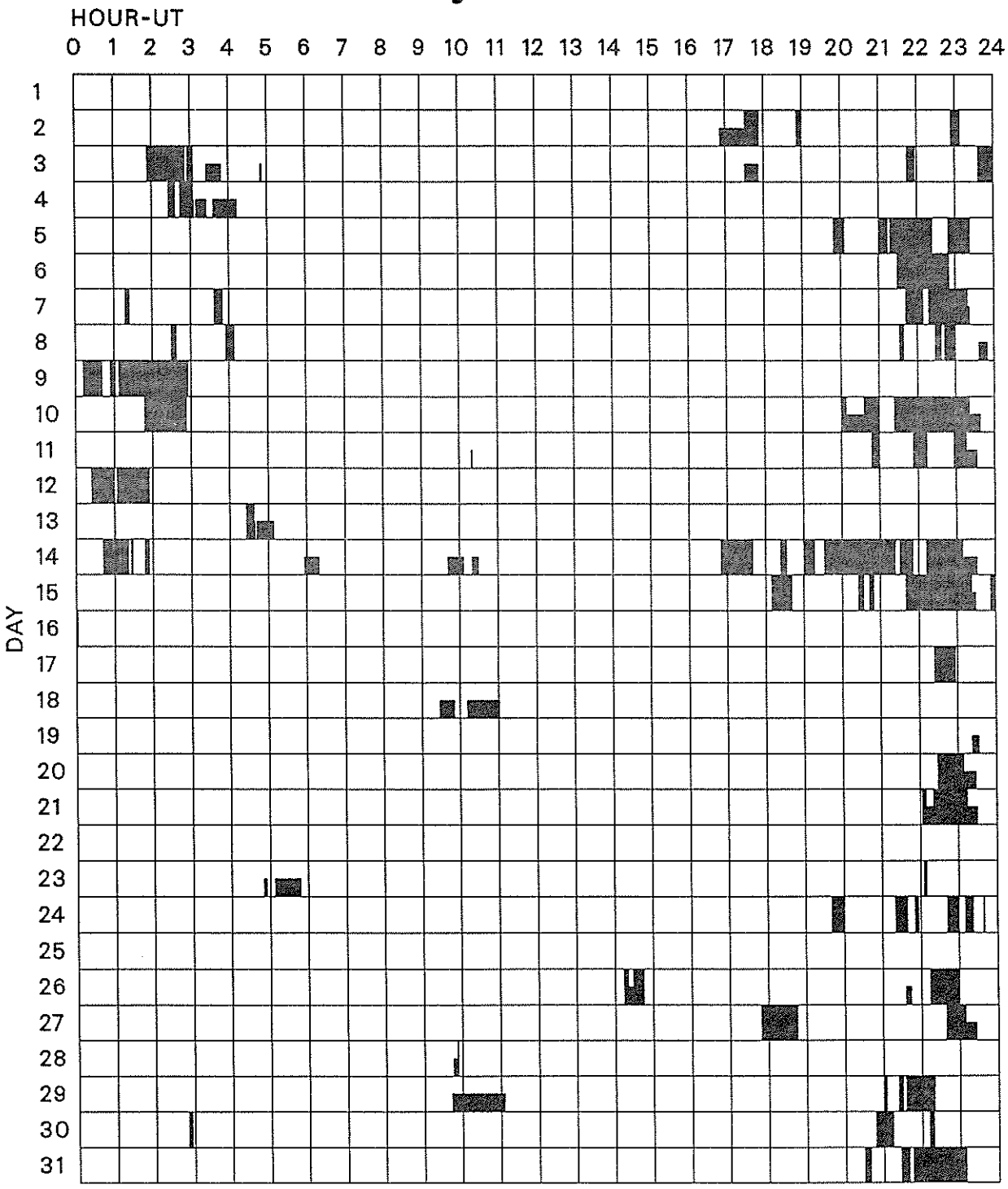
Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp	Opt	Xray	See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0445	HOLL	31	1849	1905	1912D	S25	W30	6172	07	29.4	23D	SF			3	E		50		H
0446		31	1930E	1932	2025	S24	W25	6172	07	29.9	55D	SN	C	2.3				56		FK
	HOLL	31	1930E	1932	2025	S24	W25	6172	07	29.9	55D	SB				E		27		K
	HOLL	31	1930E	1948U	2025	S24	W25	6172	07	29.9	55D	SF	C	2.3	3	E		86		F
		31	2030		2039	No Flare Patrol														
		31	2127		2140	No Flare Patrol														
		31	2146		2309	No Flare Patrol														
0447	HOLL	31	2358	2359	2411	S24	W33	6172	07	29.4	13	SF			3	E		17		

"Remarks"

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

INTERVALS OF NO FLARE PATROL OBSERVATION
FOR PRECEDING SOLAR FLARE TABLE

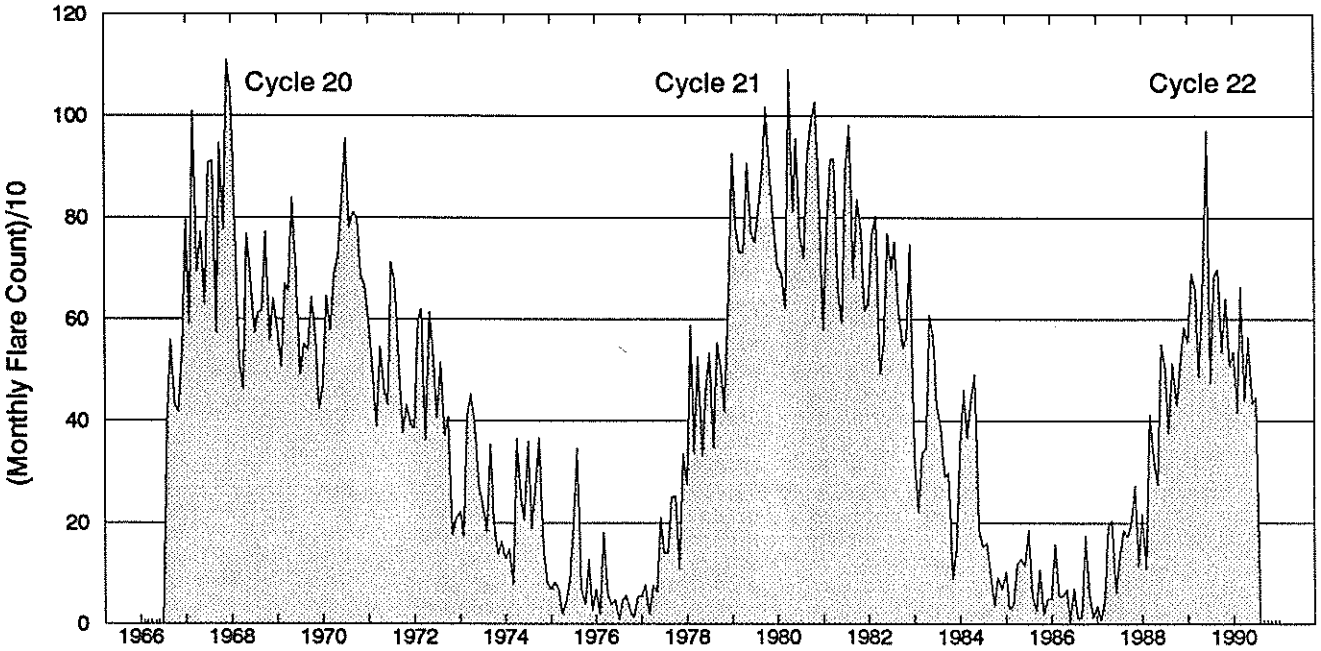
JULY 1990



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

Abastumani	Haute Provence	Istanbul	Mitaka	San Vito
Athens	Holloman	Kanzelhoehe	Palehua	Tashkent
Bucharest	Herbanovo	Kharkov	Purple Mt.	Voroshilov
		Learmonth	Ramey	Yunnan

Monthly Counts of Grouped Solar Flares*



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1966	--	--	--	--	--	--	--	391	558	432	417	543	2341
1967	796	589	1009	694	771	629	907	911	573	946	775	1109	9709
1968	1037	773	519	460	768	697	573	611	616	772	556	640	8022
1969	581	504	669	655	839	694	489	551	540	643	566	422	7153
1970	466	646	578	688	722	836	954	780	811	797	687	667	8632
1971	598	505	387	546	461	430	713	673	518	375	431	394	6031
1972	384	599	621	361	614	541	404	515	371	408	175	210	5203
1973	221	171	410	453	388	270	232	182	353	201	136	163	3180
1974	127	148	79	364	255	204	360	187	270	366	153	81	2594
1975	68	82	69	19	42	85	196	346	68	38	127	25	1165
1976	69	18	180	60	38	48	6	47	57	23	13	55	614
1977	54	77	18	76	64	210	140	140	250	252	107	336	1724
1978	274	588	338	526	330	460	533	346	554	499	418	648	5514
1979	926	781	731	731	907	772	750	821	901	1018	888	786	10012
1980	703	689	621	1092	811	956	763	720	924	988	1027	838	10132
1981	578	782	914	915	658	592	893	982	680	836	773	615	9218
1982	631	766	803	490	553	769	696	753	615	544	564	748	7932
1983	332	220	337	346	609	561	427	389	289	298	88	152	4048
1984	353	461	366	440	492	185	151	161	95	36	92	69	2901
1985	104	29	38	119	129	116	185	53	25	108	19	50	975
1986	51	158	54	56	68	3	71	12	14	174	56	13	730
1987	36	7	52	192	205	61	132	185	172	198	273	114	1627
1988	217	109	413	328	274	551	502	375	513	429	508	584	4803
1989	689	539	658	485	686	971	473	684	699	535	640	507	7566
1990	536	415	664	439	565	433	447	--	--	--	--	--	3499

*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

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
01	245	LEAR	44	NS	0237.0E	0256.0	270.0D	150.0			QL=2 ST=2 TYP=1
	100	GORK	44	NS	0248.0E		401.0D		5.0		
	200	GORK	44	NS	0248.0E		551.0D		5.0		
	245	PALE	44	NS	0250.0E	0301.0	33.0D	130.0			QL=4 ST=2 TYP=1
	260	ONDR	44	NS	0500.0E		700.0D	296.0			
	234	POTS	44	NS	0540.0E	1342.0U	531.0D	40.0			
	204	IZMI	43	NS	0600.0		360.0	15.0			
	127	TORN	44	NS	0620.0E		300.0D		2.0		V=0,DISTURBED
	245	SGMR	44	NS	1317.0E	1910.0	569.0D	220.0			QL=2 ST=2 TYP=1
	245	PALE	44	NS	1744.0E	1910.0	136.0D	200.0			QL=4 ST=2 TYP=1
	200	HIRA	44	NS	1932.0E		860.0D		8.0		
	2840	PEKG	45	C	0227.8	0249.2	37.0	47.6	17.5		
	500	HIRA	46	C	0228.8	0246.0		256.0			0
	500	HIRA	46	C	0228.8	0248.0	58.0	436.0	29.0		SL
	200	HIRA	27	RF	0232.0	0317.0	155.0	112.0	25.0		
	410	LEAR	20	GRF	0242.0E	0248.0	15.0D	400.0			QL=4 ST=2 TYP=2
	610	PALE	4	S/F	0245.0E	0248.0	6.0D	240.0			QL=4 ST=2 TYP=5
	1415	PALE	4	S/F	0245.0E	0249.0	6.0D	130.0			QL=4 ST=2 TYP=3
	1415	LEAR	4	S/F	0245.0E	0249.0	11.0D	120.0			QL=4 ST=2 TYP=3
	610	LEAR	4	S/F	0245.0E	0248.0	12.0D	260.0			QL=4 ST=2 TYP=3
	410	PALE	4	S/F	0245.0E	0248.0	12.0D	390.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0247.0E	0249.0	4.0D	67.0			QL=2 ST=2 TYP=3
	245	PALE	4	S/F	0247.0E	0248.0	3.0D	86.0			QL=4 ST=2 TYP=3
	650	GORK	46	C	0247.4	0248.3	3.9	69.0			
	950	GORK	46	C	0247.4	0248.3	3.9	104.0			
	950	GORK	46	C	0247.4	0249.3		88.0			
	650	GORK	46	C	0247.4	0248.9		64.0			
	2695	PALE	8	S	0248.0E	0249.0	2.0D	56.0			QL=4 ST=2 TYP=3
	2950	GORK	20	GRF	0325.6	0658.7	364.4D	13.0			
	9300	KISV	45	C	0459.8	0502.0		12.0			
	9300	KISV	45	C	0459.8	0501.6	6.2	13.0			
	5900	KISV	45	C	0459.9	0502.0	8.9	14.0			
	5900	KISV	45	C	0459.9	0501.0		12.0			
	650	GORK	2	S/F	0500.5	0501.9	1.6	7.0			
	950	GORK	2	S/F	0500.6	0500.6	0.3	3.0			
	2850	CRIM	20	GRF	0502.0	0708.0	130.0	15.8	5.0		
	2850	CRIM	1	S	0507.0	0507.8	1.4	4.3	1.0		
	5900	KISV	20	GRF	0524.0	0525.9	13.7	9.0			
	2850	CRIM	1	S	0524.5	0527.0	6.8	6.0	2.0		
	9300	KISV	2	S/F	0524.7	0526.2	4.2	7.0			
	9100	GORK	22	GRF	0615.0E	0656.5	135.0D	10.0			
	204	IZMI	42	SER	0722.0	0732.0	16.0	350.0			
	430	KRAK	8	S	0947.3	0947.4	0.6	50.0			
	33	UPIC	8	S	1120.8	1121.0	0.6				
	33	UPIC	3	S	1158.4	1158.5	0.5				
	5900	KISV	21	GRF	1224.0	1225.0U	16.0	51.0			
	9500	POTS	31	ABS	1224.0	1225.2	21.0	31.0			
	1470	POTS	40	F	1224.0U	1225.5	8.0U	10.0			
	9300	KISV	21	GRF	1224.3	1225.4	12.0	26.0			
	3000	POTS	40	F	1224.5	1225.2	21.0	24.0			
	15000	KISV	21	GRF	1224.8	1225.4		12.0			
	15000	KISV	21	GRF	1224.8	1232.5	12.0	14.0			
	33	UPIC	8	S	1225.0	1225.1	0.8				
	810	KRAK	2	S/F	1225.0	1225.3	1.0	62.0	15.0		
	808	ONDR	4	S/F	1225.2	1225.5	2.5	33.0			
	9400	HUAN	2	S/F	1254.4	1255.8	5.7	5.5	3.3		
	9300	KISV	1	S	1255.3	1255.8	2.0	8.0			
	15000	KISV	1	S	1255.5	1255.8	0.6	10.0			
	5900	KISV	2	S/F	1316.5	1317.0	2.0	6.0			
	245	SGMR	8	S	1402.0E	1402.0	U	180.0			QL=4 ST=2 TYP=3
	536	ONDR	8	S	1519.4	1519.6	0.9	25.0			
	9400	HUAN	23	GRF	1903.1	1931.0	49.9	12.9	6.1		
	9400	HUAN	2	S/F	1934.6	1936.0	4.3	21.0	6.1		
	9400	HUAN	22	GRF	2019.6	2037.0	37.0	9.7	4.4		
	8800	PALE	8	S	2346.0E	2347.0	2.0D	130.0			QL=4 ST=2 TYP=3
02	100	HIRA	43	NS	0040.0	0648.0	550.0D	130.0	54.0		
	200	GORK	44	NS	0245.0E		220.0D		5.0		
	100	GORK	44	NS	0245.0E		221.0D		5.0		

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
02	260	ONDR	44	NS	0500.0E		700.0D				
	204	IZMI	43	NS	0600.0		360.0	10.0			
	127	TORN	44	NS	0620.0E		520.0D		85.0		V=1
	200	GORK	44	NS	0638.0E		298.0D		5.0		
	100	GORK	44	NS	0638.0E		298.0D		10.0		
	245	SGMR	44	NS	1537.0E	1725.0	152.0D	75.0			QL=4 ST=2 TYP=1
	245	PALE	44	NS	1719.0E	1736.0	38.0D	78.0			QL=4 ST=3 TYP=1
	100	HIRA	44	NS	1932.0E	0811.0	860.0D	170.0	39.0		
	200	HIRA	44	NS	1932.0E	2326.0	860.0D	36.0	18.0		MR
	410	SGMR	44	NS	2030.0E	2126.0	82.0D	62.0			QL=4 ST=3 TYP=1
	245	SGMR	44	NS	2123.0E	2140.0	157.0D	230.0			QL=4 ST=3 TYP=1
	245	PALE	44	NS	2143.0E	2304.0	230.0D	150.0			QL=4 ST=2 TYP=1
	245	LEAR	44	NS	2322.0E	2355.0	113.0D	400.0			QL=4 ST=2 TYP=1
	200	HIRA	27	RF	0028.0	0053.0	120.0	31.0	10.0		WL
	9100	GORK	22	GRF	0300.0	0520.0	240.0	8.0			
	2950	GORK	1	S	0308.0	0308.3	1.2	5.0			
	100	HIRA	46	C	0338.3	0339.7	15.0	950.0			
	245	LEAR	8	S	0417.0E	0417.0	2.0D	58.0			QL=2 ST=2 TYP=3
	2950	GORK	20	GRF	0425.0	0452.7	187.1	8.0			
	950	GORK	2	S/F	0425.9	0426.4	0.7	16.0			
	245	LEAR	8	S	0456.0E	0456.0	1.0D	250.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0456.0E	0456.0	1.0D	240.0			QL=4 ST=2 TYP=3
	200	GORK	4	S/F	0456.4	0456.8	1.3	30.0D			
	100	GORK	4	S/F	0456.7	0457.1	1.0	2400.0			
	650	GORK	20	GRF	0508.0	0517.7	27.1	1.0			
	950	GORK	20	GRF	0508.0	0517.7	26.9	3.0			
	5900	KISV	23	GRF	0531.7	0540.4	22.0	13.0			
	5900	KISV	23	GRF	0532.7	0536.2		13.0			
	9300	KISV	21	GRF	0534.5	0547.2	16.0	8.0			
	9300	KISV	21	GRF	0534.5	0540.5		5.0			
	5900	KISV	22	GRF	0558.0	0608.0	26.0	15.0			
	536	ONDR	42	SER	0650.9	0903.9	140.0	91.0			
	650	GORK	21	GRF	0806.0	0837.0	62.4	4.0			
	5900	KISV	22	GRF	0814.0	0824.8	31.0	12.0			
	2950	GORK	23	GRF	0814.1	0952.6	225.9D	18.0			
	9300	KISV	22	GRF	0818.0E	0824.2	30.0D	11.0			
	9100	GORK	20	GRF	0819.4	0825.5	21.0	7.0			
	950	GORK	21	GRF	0852.1	0901.1	18.9	4.0			
	2840	PEKG	21	GRF	0854.8	0904.8	26.0	18.2	6.7		
	9500	POTS	20	GRF	0855.0	0904.7	13.0	U			
	9100	GORK	22	GRF	0855.8	0904.8	184.2D	18.0			
	5900	KISV	22	GRF	0856.4	0904.2	102.4	25.0			
	1470	POTS	40	F	0858.0	0904.0U	8.5	22.0			
	9300	KISV	22	GRF	0858.6	0904.8	79.2	20.0			
	2840	PEKG	1	S	0903.8	0904.2	0.7	12.7	4.7		
	3000	POTS	2	S/F	0903.8	0904.2	2.2	10.0			
	2850	CRIM	1	S	0903.9	0904.0	1.0	11.7	4.0		
	650	GORK	4	S/F	0903.9	0904.2	4.5	15.0			
	2950	GORK	2	S/F	0903.9	0904.2	1.1	11.0			
	950	GORK	4	S/F	0903.9	0904.7	1.8	25.0			
	808	ONDR	49	GB	0904.0	0956.2	83.0	94.0			
	536	ONDR	49	GB	0923.0	0944.8	45.0	138.0			
	650	GORK	23	GRF	0930.4E	1003.3	59.0D	7.0			
	950	GORK	21	GRF	0930.7	0952.4	58.7	6.0			
	650	GORK	46	C	0931.8	0957.1		215.0			
	650	GORK	46	C	0931.8	0944.3	31.5	200.0			
	1470	POTS	21	GRF	0935.0	0945.0	135.0	16.0			
	3000	POTS	20	GRF	0935.0	0944.8	85.0	18.0			
	234	POTS	42	SER	0937.7	0945.0	33.3	550.0			
	245	SVTO	49	GB	0940.0E	0945.0	6.0D	990.0			QL=2 ST=2 TYP=6
	204	IZMI	45	C	0940.0	0943.2	7.0	400.0	150.0		
	200	GORK	46	C	0940.2	0945.1	16.8	90.0			
	200	GORK	46	C	0940.2	0954.6		50.0			
	200	HIRA	46	C	0940.9	0942.9	5.3	162.0			WL
	245	SGMR	49	GB	0941.0E	0945.0	4.0D	900.0			QL=2 ST=3 TYP=6
	2850	CRIM	20	GRF	0941.0	0944.0	24.0	19.0	6.0		
	2950	GORK	2	S/F	0941.3	0944.0	6.8	13.0			
	950	GORK	4	S/F	0941.4	0943.9	9.2	30.0			
	30	POTS	42	SER	0941.4	0943.9	19.6	1400.0U			

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

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
02	3013	IZMI	5	S	0941.7	0945.0	7.5	12.0	8.0		
	33	UPIC	46	C	0941.7	0944.1	7.6				
	610	SGMR	4	S/F	0942.0E	0943.0	5.0D	250.0			QL=2 ST=3 TYP=3
	410	SGMR	4	S/F	0942.0E	0944.0	6.0D	400.0			QL=2 ST=3 TYP=3
	410	SVTO	4	S/F	0942.0E	0944.0	6.0D	420.0			QL=4 ST=2 TYP=3
	610	SVTO	4	S/F	0942.0E	0943.0	5.0D	370.0			QL=4 ST=2 TYP=3
	100	HIRA	46	C	0942.9	0946.2	5.3D	1000.0D			SUNSET
	204	IZMI	30	PBI	0949.0		25.0	80.0			
	610	SVTO	4	S/F	0950.0E	0954.0	10.0D	300.0			QL=4 ST=2 TYP=5
	1415	SVTO	4	S/F	0953.0E	0954.0	3.0D	69.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	0953.0E	1000.0	9.0D	190.0			QL=2 ST=2 TYP=5
	410	SVTO	4	S/F	0953.0E	0954.0	7.0D	220.0			QL=4 ST=2 TYP=3
	1470	POTS	40	F	0953.0	0954.2	9.0	53.0			
	2950	GORK	45	C	0953.3	0954.0	3.4	5.0			
	950	GORK	46	C	0953.3	0956.0		85.0			
	950	GORK	46	C	0953.3	0954.2	10.0	80.0			
	2950	GORK	45	C	0953.3	0955.5		5.0			
	950	GORK	46	C	0953.3	0958.8		60.0			
	610	SGMR	4	S/F	0954.0E	0954.0	7.0D	200.0			QL=2 ST=3 TYP=5
	410	SGMR	4	S/F	0954.0E	0954.0	7.0D	210.0			QL=2 ST=3 TYP=5
	245	SGMR	4	S/F	0954.0E	1000.0	7.0D	200.0			QL=2 ST=3 TYP=5
	536	ONDR	27	RF	1010.0	1220.7	195.0	34.0			
	1470	POTS	4	S/F	1021.0	1021.9	2.0	21.0			
	950	GORK	2	S/F	1021.1	1021.8	2.0	9.0			
	204	IZMI	7	C	1034.0	1035.0	1.0	240.0			
	808	ONDR	3	S	1127.0	1127.4	1.2	12.0			
	2850	CRIM	20	GRF	1205.0	1220.0	42.0	12.0	4.0		
	1470	POTS	8	S	1224.1	1224.2	0.7	31.0			
	410	SGMR	8	S	1316.0E	1316.0	1.0D	350.0			QL=2 ST=2 TYP=3
	610	SGMR	49	GB	1316.0E	1316.0	1.0D	590.0			QL=2 ST=2 TYP=6
	610	SVTO	8	S	1316.0E	1316.0	1.0D	60.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1316.0E	1316.0	1.0D	190.0			QL=4 ST=2 TYP=3
	808	ONDR	3	S	1316.7	1316.9	1.4	69.0			
	2800	OTTA	20	GRF	1440.0	1634.0	345.0	12.5	6.0		
	2800	OTTA	22	GRF	1552.5	1553.5	34.0	6.9	2.0		
	9400	HUAN	2	S/F	1640.0	1651.4	17.6	16.9	5.8		
	245	PALE	8	S	1705.0E	1705.0	1.0D	140.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1725.0E	1725.0	1.0D	87.0			QL=4 ST=2 TYP=3
	9400	HUAN	23	GRF	1739.6	1835.5	95.1	12.3	2.9		
	245	PALE	8	S	1754.0E	1754.0	U	270.0			QL=2 ST=3 TYP=3
	245	SGMR	8	S	1754.0E	1754.0	U	310.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1754.0E	1754.0	U	240.0			QL=2 ST=2 TYP=3
	9400	HUAN	2	S/F	1755.8	1757.3	6.5	9.2	5.3		
	9400	HUAN	2	S/F	1755.8	1759.8		10.0			
	9400	HUAN	1	S	1805.2	1808.8	6.6	10.8	3.8		
	9400	HUAN	1	S	1934.1	1935.4	7.2	13.9	5.5		
	245	PALE	8	S	1935.0E	1935.0	U	300.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1935.0E	1935.0	1.0D	240.0			QL=4 ST=2 TYP=3
	2800	OTTA	4	S/F	1935.0	1935.5	2.1	25.0	5.0		
	500	HIRA	22	GRF	2012.0	2127.5	263.0	45.0	7.0		MR
	410	SGMR	8	S	2027.0E	2028.0	1.0D	64.0			QL=4 ST=2 TYP=3
	200	HIRA	46	C	2037.0	2039.6	5.3	120.0			SR
	245	PALE	8	S	2102.0E	2102.0	1.0D	87.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2102.0E	2102.0	1.0D	75.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2104.0E	2105.0	2.0D	83.0			QL=4 ST=2 TYP=3
	245	PALE	4	S/F	2134.0E	2140.0	9.0D	180.0			QL=4 ST=2 TYP=5
	200	HIRA	46	C	2136.3	2139.9	6.6	202.0			SR
	9400	HUAN	2	S/F	2136.7	2139.6	9.1	9.2	4.2		
	245	PALE	8	S	2233.0E	2233.0	1.0D	220.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	2233.0E	2233.0	1.0D	450.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2354.0E	2355.0	1.0D	280.0			QL=2 ST=2 TYP=3
03	100	GORK	44	NS	0248.0E		276.0D		10.0		
	200	GORK	44	NS	0248.0E		279.0D		5.0		
	260	ONDR	44	NS	0500.0E	1309.7	700.0D	282.0			
	113	POTS	44	NS	0520.0E	1310.0	580.0D	85.0			
	204	IZMI	43	NS	0600.0		360.0	80.0			
	245	LEAR	44	NS	0601.0E	0932.0	212.0D	640.0			QL=2 ST=2 TYP=1
	127	TORN	44	NS	0620.0E		520.0D		70.0		V=2

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
03	234	POTS	44	NS	0640.0E	1311.0U	500.0D	100.0			
	245	SVTO	44	NS	0735.0E	0910.0	425.0D	120.0			QL=2 ST=2 TYP=1
	33	UPIC	43	NS	0842.2	0908.5	388.4				
	100	GORK	44	NS	0915.0E		111.0D		10.0		
	200	GORK	44	NS	0918.0E		108.0D		5.0		
	245	SGMR	44	NS	0942.0E	1323.0	323.0D	170.0			QL=2 ST=2 TYP=1
	200	HIRA	44	NS	1934.0E	0550.0	860.0D	23.0	8.0		MR
	200	HIRA	42	SER	0017.4	0033.0	20.5	690.0			
	200	HIRA	41	F	0157.0	0205.9	10.6	150.0			
	410	LEAR	8	S	0203.0E	0203.0	U	210.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0203.0E	0203.0	6.0D	890.0			QL=2 ST=2 TYP=6
	410	PALE	8	S	0203.0E	0203.0	U	270.0			QL=4 ST=2 TYP=3
	9100	GORK	22	GRF	0242.0E	0300.0U	318.0D	21.0			
	2950	GORK	21	GRF	0244.0E	0558.7	556.0D	16.0			
	950	GORK	20	GRF	0300.0E	0317.5	41.2D	5.0			
	650	GORK	22	GRF	0300.0E	0317.5	52.2D	3.0			
	2950	GORK	1	S	0317.4	0317.6	0.5	20.0			
	100	HIRA	46	C	0418.5	0419.8	4.6	1000.0D			
	100	GORK	41	F	0418.7	0423.2		330.0			
	100	GORK	41	F	0418.7	0422.5		160.0			
	100	GORK	41	F	0418.7	0419.7	4.8	1220.0			
	245	LEAR	8	S	0419.0E	0420.0	1.0D	53.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0419.0E	0420.0	2.0D	58.0			QL=4 ST=2 TYP=3
	200	GORK	41	F	0419.0	0423.2		25.0D			
	200	GORK	41	F	0419.0	0422.5		25.0D			
	200	GORK	41	F	0419.0	0419.8	4.5	25.0D			
	2950	GORK	1	S	0419.7	0420.0	1.1	6.0			
	245	PALE	8	S	0421.0E	0421.0	U	230.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0441.0E	0441.0	U	60.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0441.0E	0441.0	U	53.0			QL=2 ST=2 TYP=3
	9300	KISV	22	GRF	0537.6	0602.8	32.9	10.0			
	5900	KISV	22	GRF	0551.8	0559.3	38.8	13.0			
	245	LEAR	8	S	0555.0E	0555.0	1.0D	69.0			QL=2 ST=2 TYP=3
	5900	KISV	2	S/F	0637.2	0638.5	5.2	4.0			
	410	LEAR	8	S	0643.0E	0643.0	1.0D	64.0			QL=4 ST=2 TYP=3
	536	ONDR	8	S	0643.7	0644.1	1.5	124.0			
	5900	KISV	2	S/F	0745.2	0746.3	4.6	6.0			
	950	GORK	2	S/F	0808.1	0808.5	0.7	17.0			
	650	GORK	2	S/F	0808.2	0808.4	0.5	14.0			
	9100	GORK	21	GRF	0821.0	1000.0	198.0U	10.0			
	536	ONDR	41	F	0844.6	0846.4	3.5	14.0			
	810	KRAK	8	S	0845.7	0846.1	1.2	12.0			
	650	GORK	4	S/F	0845.7	0846.2	0.9	20.0			
	950	GORK	4	S/F	0845.7	0846.2	0.8	12.0			
	808	ONDR	3	S	0846.0	0846.6	1.9	9.0			
	430	KRAK	8	S	0846.1	0846.1	0.2	30.0			
	5900	KISV	21	GRF	0923.0	0957.0	68.0	10.0			
	245	SGMR	8	S	0932.0E	0932.0	U	95.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0932.0E	0932.0	U	250.0			QL=2 ST=2 TYP=3
	8800	SVTO	8	S	0953.0E	0954.0	1.0D	100.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	0953.0E	0954.0	1.0D	69.0			QL=4 ST=2 TYP=3
	9100	GORK	3	S	0953.2	0954.0	3.0	130.0			
	5900	KISV	3	S	0953.3	0953.9	35.0	96.0			
	15000	KISV	3	S	0953.4	0954.0	1.6	63.0			
	9500	POTS	3	S	0953.5	0953.9	11.5	93.0			
	9300	KISV	8	S	0953.6	0953.9	0.8	120.0			
	3013	IZMI	1	S	0958.6	0959.0	2.4	4.0	2.0		
	9300	KISV	29	PBI	0959.1		33.0	23.0			
	536	ONDR	27	RF	1014.0	1218.1	145.0	43.0			
	810	KRAK	8	S	1015.0	1015.0	0.1	10.0			
	410	SGMR	8	S	1015.0E	1015.0	U	65.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1015.0E	1015.0	U	78.0			QL=4 ST=2 TYP=3
	430	KRAK	8	S	1015.0	1015.3	0.6	67.0			
	5900	KISV	22	GRF	1120.0	1130.8	38.0	8.0			
	5900	KISV	2	S/F	1252.0	1253.0	2.0	5.0			
	15000	KISV	2	S/F	1300.4	1300.6	1.0	8.0			
	5900	KISV	22	GRF	1303.1	1303.5	12.0	6.0			
	15000	KISV	2	S/F	1307.5	1307.7	1.5	14.0			
	245	SGMR	49	GB	1309.0E	1309.0	U	620.0			QL=2 ST=2 TYP=6

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

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
03	245	SGMR	8	S	1542.0E	1542.0	1.0D	93.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2033.0E	2033.0	U	100.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2033.0E	2033.0	1.0D	130.0			QL=4 ST=2 TYP=3
	2800	OTTA	20	GRF	2045.0	2117.5	150.0	7.2	3.0		
	2800	OTTA	4	S/F	2208.1	2208.9	1.2	14.4	4.0		
04	200	GORK	44	NS	0254.0E		546.0D		5.0		
	100	GORK	44	NS	0254.0E		546.0D		5.0		
	260	ONDR	44	NS	0500.0E	0833.5	700.0D				
	204	IZMI	43	NS	0600.0		360.0	20.0			
	127	TORN	44	NS	0620.0E		520.0D		10.0		V=10
	200	HIRA	44	NS	1934.0E	0536.0	860.0D	270.0	121.0		SR
	100	HIRA	44	NS	1934.0E	0826.0	860.0D	760.0	310.0		
	245	PALE	44	NS	1948.0E	0225.0	552.0D	730.0			QL=4 ST=2 TYP=1
	245	SGMR	44	NS	1953.0E	2031.0	247.0D	130.0			QL=2 ST=2 TYP=1
	245	LEAR	44	NS	2322.0E	0225.0	611.0D	610.0			QL=4 ST=2 TYP=1
	500	HIRA	44	NS	2345.0E	0825.0	600.0D	19.0	9.0		WR
	9100	GORK	20	GRF	0251.0E	0326.1	186.0D	15.0			
	2950	GORK	22	GRF	0306.0E	0736.8	290.3D	14.0			
	5900	KISV	21	GRF	0411.2	0413.2	12.0	15.0			
	9300	KISV	2	S/F	0412.2	0412.8	4.0	9.0			
	5900	KISV	21	GRF	0616.9	0624.0	23.0	10.0			
	9300	KISV	2	S/F	0623.0	0624.0	2.0	7.0			
	5900	KISV	24	R	0712.1	0713.5		4.0			
	536	ONDR	41	F	0720.0	1221.1	520.0	31.0			
	950	GORK	20	GRF	0722.0	0745.4	35.6	2.0			
	650	GORK	23	GRF	0723.4	0727.6	39.9	3.0			
	5900	KISV	22	GRF	0734.0	0736.7	36.0	12.0			
	9300	KISV	22	GRF	0735.0	0736.7	35.0	10.0			
	650	GORK	2	S/F	0738.0	0738.6	1.5	8.0			
	245	LEAR	8	S	0750.0E	0751.0	1.0D	400.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0750.0E	0751.0	1.0D	440.0			QL=2 ST=2 TYP=3
	234	POTS	4	S/F	0750.5	0750.9	0.9	1000.0			
	204	IZMI	4	S/F	0751.0	0751.2	1.0	133.0	90.0		
	2950	GORK	23	GRF	0830.4	1025.0	209.6D	22.0			
	245	LEAR	49	GB	0833.0E	0833.0	U	3200.0			QL=2 ST=2 TYP=6
	245	SVTO	49	GB	0833.0E	0833.0	U	2000.0			QL=2 ST=2 TYP=6
	200	GORK	3	S	0833.0	0833.2	1.0	25.0			
	100	GORK	4	S/F	0833.0	0833.3	1.0	355.0			
	113	POTS	4	S/F	0833.1	0833.2	1.0	100.0			
	234	POTS	4	S/F	0833.2	0833.4	0.4	700.0			
	650	GORK	23	GRF	0916.8	1056.5	163.2D	4.0			
	9100	GORK	21	GRF	0951.0	1124.0	105.0U	20.0			
	100	GORK	4	S/F	0952.4	0956.4	5.5	2000.0			
	30	POTS	4	S/F	0956.2	0956.3	0.9	2500.0U			
	113	POTS	8	S	0956.2	0956.5	0.8	230.0			
	650	GORK	1	S	1032.6	1032.9	0.7	5.0			
	650	GORK	8	S	1057.2	1057.3	0.3	20.0			
	8800	SVTO	4	S/F	1100.0E	1110.0	12.0D	290.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	1104.0	1106.0	16.0	300.0			
	650	GORK	2	S/F	1106.8	1107.3	5.5	7.0			
	200	GORK	4	S/F	1107.5	1109.9	9.0	105.0			
	5900	KISV	29	PBI	1107.8	1112.3	23.5	11.0			
	5900	KISV	4	S/F	1107.8	1110.5	4.5	184.0			
	9300	KISV	4	S/F	1108.0	1111.0U	7.3	144.0D			
	9300	KISV	23	GRF	1108.3	1124.3	29.5	14.0			
	15000	KISV	47	GB	1108.7	1110.6	2.0	768.0D			
	245	SGMR	8	S	1109.0E	1109.0	U	120.0			QL=4 ST=2 TYP=3
	15400	SGMR	49	GB	1109.0E	1109.0	3.0D	840.0			QL=4 ST=2 TYP=6
	4995	SVTO	8	S	1109.0E	1110.0	2.0D	140.0			QL=4 ST=2 TYP=3
	15400	SVTO	49	GB	1109.0E	1109.0	2.0D	670.0			QL=2 ST=2 TYP=6
	8800	SVTO	4	S/F	1109.0E	1110.0	3.0D	290.0			QL=4 ST=2 TYP=3
	9100	GORK	46	C	1109.0	1110.5		325.0			
	9500	POTS	4	S/F	1109.0	1110.5	29.0	255.0			
	9100	GORK	46	C	1109.0	1109.7	5.5	260.0			
	3000	POTS	4	S/F	1109.5	1110.4	4.0	55.0			
	2850	CRIM	4	S/F	1109.5	1110.5	3.7	88.0	29.0		
	2950	GORK	4	S/F	1109.5	1110.5	3.0	60.0			
	3013	IZMI	4	S/F	1109.5	1110.5	4.5	30.0	17.0		

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

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
04	2695	SGMR	8	S	1110.0E	1110.0	1.0D	63.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	1110.0E	1110.0	U	36.0			QL=4 ST=2 TYP=3
	1470	POTS	3	S	1110.0	1110.8	2.5	34.0			
	950	GORK	4	S/F	1110.2	1110.5	0.9	28.0			
	810	KRAK	1	S	1110.3	1110.6	1.5	8.0	4.0		
	808	ONDR	3	S	1110.5	1110.9	1.0	15.0			
	950	GORK	29	PBI	1111.1	1111.1	6.6	5.0			
	100	GORK	46	C	1136.9	1145.0	12.3	950.0			
	100	GORK	46	C	1136.9	1145.2		710.0			
	9400	HUAN	1	S	1206.7	1207.8	2.8	8.6	3.2		
	9400	HUAN	2	S/F	1316.3	1318.6		22.6			
	9400	HUAN	2	S/F	1316.3	1317.7	6.9	19.4	7.6		
	15000	KISV	45	C	1317.5	1318.5	2.6	47.0			
	9500	POTS	4	S/F	1317.5	1318.5	3.5	26.0			
	5900	KISV	2	S/F	1317.5	1318.6	2.8	15.0			
	9300	KISV	45	C	1317.5	1318.6	3.0	30.0			
	15000	KISV	45	C	1317.5	1317.7		45.0			
	9300	KISV	45	C	1317.5	1317.8		17.0			
	9400	HUAN	23	GRF	1624.1	1744.6	154.5	64.6	20.0		
	9400	HUAN	2	S/F	1637.4	1638.9	3.2	28.0	8.3		
	15400	SGMR	8	S	1638.0E	1639.0	1.0D	68.0			QL=4 ST=2 TYP=3
	9400	HUAN	45	C	1645.6	1646.8	14.0	379.1	122.4		
	2800	OTTA	47	GB	1646.0	1647.5	6.0	958.0	192.0		
	2695	PALE	4	S/F	1646.0E	1647.0	4.0D	440.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	1646.0E	1649.0	9.0D	450.0			QL=4 ST=2 TYP=5
	8800	SGMR	49	GB	1646.0E	1649.0	9.0D	840.0			QL=4 ST=2 TYP=7
	245	SVTO	4	S/F	1646.0E	1647.0	4.0D	300.0			QL=2 ST=2 TYP=3
	8800	SVTO	49	GB	1646.0E	1649.0	9.0D	710.0			QL=4 ST=2 TYP=6
	1415	SVTO	4	S/F	1646.0E	1648.0	9.0D	380.0			QL=4 ST=2 TYP=3
	15400	SGMR	49	GB	1646.0E	1649.0	12.0D	1200.0			QL=4 ST=2 TYP=7
	15400	SVTO	49	GB	1646.0E	1649.0	11.0D	940.0			QL=2 ST=2 TYP=6
	2695	SVTO	49	GB	1646.0E	1647.0	10.0D	670.0			QL=4 ST=2 TYP=7
	4995	SVTO	20	GRF	1646.0E	1649.0	10.0D	440.0			QL=4 ST=2 TYP=2
	1415	SGMR	4	S/F	1646.0E	1648.0	434.0D	360.0			QL=4 ST=1 TYP=3
	15400	PALE	49	GB	1647.0E	1649.0	7.0D	980.0			QL=4 ST=2 TYP=6
	8800	PALE	49	GB	1647.0E	1649.0	3.0D	960.0			QL=4 ST=2 TYP=6
	410	SGMR	4	S/F	1647.0E	1652.0	5.0D	240.0			QL=4 ST=2 TYP=5
	410	SVTO	8	S	1647.0E	1649.0	2.0D	92.0			QL=4 ST=2 TYP=3
	610	SGMR	4	S/F	1647.0E	1649.0	10.0D	280.0			QL=4 ST=2 TYP=3
	1415	PALE	4	S/F	1647.0E	1648.0	433.0D	250.0			QL=4 ST=1 TYP=3
	610	SVTO	8	S	1648.0E	1649.0	1.0D	190.0			QL=4 ST=2 TYP=3
	2800	OTTA	29	PBI	1652.0	1657.6	350.0	108.1	22.0		
	410	PALE	8	S	1652.0E	1652.0	U	250.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	1656.0E	1656.0	1.0D	64.0			QL=4 ST=2 TYP=3
	9400	HUAN	2	S/F	1716.0	1718.1	3.7	15.1	5.9		
	9400	HUAN	1	S	1725.2	1727.7	3.9	6.5	1.5		
	2800	OTTA	22	GRF	1732.0	1733.5	100.0	42.8	12.0		
	8800	SGMR	4	S/F	1732.0E	1738.0	8.0D	51.0			QL=4 ST=3 TYP=3
	4995	SGMR	4	S/F	1732.0E	1738.0	8.0D	77.0			QL=4 ST=3 TYP=3
	4995	PALE	20	GRF	1732.0E	1738.0	12.0D	85.0			QL=4 ST=2 TYP=2
	9400	HUAN	4	S/F	1732.6	1739.0	8.8	30.2	12.2		
	2695	SVTO	4	S/F	1733.0E	1733.0	6.0D	56.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1733.0E	1733.0	U	60.0			QL=4 ST=2 TYP=3
	15400	PALE	20	GRF	1737.0E	1745.0	21.0D	66.0			QL=4 ST=2 TYP=2
	245	PALE	8	S	1814.0E	1814.0	1.0D	51.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1814.0E	1814.0	1.0D	55.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1930.0E	1930.0	2.0D	57.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1930.0E	1930.0	2.0D	62.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1947.0E	1947.0	U	72.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2235.0E	2235.0	1.0D	220.0			QL=2 ST=2 TYP=3
05	200	GORK	44	NS	0239.0E		545.0D		15.0		
	100	GORK	44	NS	0239.0E		545.0D		20.0		
	245	SVTO	44	NS	0346.0E	0425.0	853.0D	480.0			QL=2 ST=2 TYP=1
	260	ONDR	44	NS	0500.0E	1622.5	700.0D	85.0			
	40	POTS	44	NS	0540.0E	1325.0	560.0D	1500.0U			
	113	POTS	44	NS	0540.0E	1344.5	560.0D	1200.0			
	234	POTS	44	NS	0540.0E	1023.5	560.0D	350.0			
	204	IZMI	43	NS	0600.0		360.0	80.0			

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

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
05	127	TORN	44	NS	0620.0E		520.0D		960.0		V=1
	430	KRAK	44	NS	0700.0E	0824.5	360.0D	62.0	25.0		
	410	SVTO	44	NS	0748.0E	1508.0	536.0D	81.0			QL=2 ST=2 TYP=1
	245	SGMR	44	NS	0940.0E	2129.0	859.0D	420.0			QL=2 ST=2 TYP=1
	245	PALE	44	NS	1632.0E	0034.0	748.0D	540.0			QL=4 ST=2 TYP=1
	200	HIRA	44	NS	1934.0E	0143.0	860.0D	490.0	295.0		SR
	100	HIRA	44	NS	1934.0E	0650.0	860.0D	630.0	570.0		
	245	LEAR	44	NS	2322.0E	0547.0	612.0D	530.0			QL=4 ST=2 TYP=1
	100	GORK	42	SER	0239.5	0735.4		480.0			
	100	GORK	42	SER	0239.5	0243.6		960.0			
	100	GORK	42	SER	0239.5	0240.7	542.0	1200.0			
	100	GORK	42	SER	0239.5	0805.8		1080.0			
	100	GORK	42	SER	0239.5	1140.8		480.0			
	100	GORK	42	SER	0239.5	0833.9		780.0			
	650	GORK	23	GRF	0305.3	0412.9	534.7D	9.0			
	2840	PEKG	20	GRF	0306.0	0334.0	73.0	35.6	13.5		
	9100	GORK	22	GRF	0315.0	0342.0	186.0	36.0			
	2950	GORK	20	GRF	0325.8	0333.8	28.2	19.0			
	950	GORK	21	GRF	0327.8	0333.9	56.8	5.0			
	950	GORK	2	S/F	0333.9	0335.3	2.9	4.0			
	200	GORK	3	S	0556.0	0556.3	0.5	200.0			
	536	ONDR	41	F	0600.0	1404.1	485.0	33.0			
	234	POTS	4	S/F	0602.2	0602.5	0.8	750.0			
	15000	KISV	2	S/F	0613.3	0613.5	1.8	9.0			
	5900	KISV	2	S/F	0647.9	0649.2	4.9	3.0			
	15000	KISV	1	S	0651.5	0651.8	0.6	7.0			
	15000	KISV	2	S/F	0701.7	0701.8	1.4	18.0			
	950	GORK	22	GRF	0755.2	0857.1	209.3	5.0			
	9100	GORK	23	GRF	0818.0	0933.0	222.0D	17.0			
	650	GORK	2	S/F	0831.4	0832.4	1.6	7.0			
	650	GORK	3	S	0843.7	0843.9	0.4	6.0			
	2950	GORK	20	GRF	0913.0	0917.1	15.2	5.0			
	9300	KISV	22	GRF	0913.2	0933.1	30.4	9.0			
	5900	KISV	22	GRF	0914.5	0932.3	29.0	8.0			
	9100	GORK	2	S/F	1000.3	1001.1	2.1	18.0			
	9500	POTS	4	S/F	1000.8	1001.3	2.2	12.0			
	9300	KISV	2	S/F	1018.1	1018.6	1.5	5.0			
	9300	KISV	22	GRF	1021.9	1025.8	10.9	8.0			
	5900	KISV	22	GRF	1022.2	1025.5	16.7	6.0			
	200	GORK	3	S	1022.8	1023.0	0.5	2000.0			
	9300	KISV	45	C	1046.6	1047.0	3.2	9.0			
	9300	KISV	45	C	1046.6	1047.4		6.0			
	5900	KISV	45	C	1046.7	1047.0	1.9	6.0			
	5900	KISV	45	C	1046.7	1047.5		5.0			
	810	KRAK	1	S	1236.7	1237.0	0.6	6.0	3.0		
	808	ONDR	41	F	1237.6	1238.0	8.0	5.0			
	2800	OTTA	3	S	1347.0	1349.5	6.3	20.0	4.0		
	5900	KISV	4	S/F	1347.6	1349.3	7.8	24.0			
	3000	POTS	4	S/F	1348.0	1349.5	5.0	19.0			
	9300	KISV	2	S/F	1348.5	1349.4	3.5	17.0			
	9500	POTS	3	S	1348.5	1349.5	3.0	11.0			
	9400	HUAN	1	S	1410.5	1413.2	4.9	10.6	3.6		
	2800	OTTA	20	GRF	1457.0	1512.0	100.0	6.0	2.0		
	245	PALE	49	GB	1733.0E	1734.0	1.0D	520.0			QL=2 ST=2 TYP=6
	245	SGMR	49	GB	1733.0E	1734.0	1.0D	510.0			QL=2 ST=2 TYP=6
	245	SVTO	49	GB	1733.0E	1734.0	1.0D	670.0			QL=2 ST=2 TYP=6
	500	HIRA	42	SER	2014.0	2120.5	95.0	32.0			MR
	410	PALE	8	S	2148.0E	2148.0	1.0D	130.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2148.0E	2148.0	U	170.0			QL=4 ST=2 TYP=3
06	200	GORK	44	NS	0241.0E		320.0D		15.0		
	100	GORK	44	NS	0242.0E		323.0D		75.0		
	245	SVTO	44	NS	0347.0E	0347.0	1213.0D	160.0			QL=2 ST=1 TYP=1
	260	ONDR	44	NS	0500.0E		700.0D				
	40	POTS	44	NS	0530.0E	0629.0	580.0D	2200.0			
	113	POTS	44	NS	0530.0E	0657.5	571.0D	750.0			
	234	POTS	44	NS	0550.0E	0612.0	551.0D	235.0			
	204	IZMI	43	NS	0600.0		360.0	30.0			
	127	TORN	44	NS	0620.0E		520.0D		960.0		V=1

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
06	200	GORK	44	NS	0935.0E		91.0D		10.0		
	245	SGMR	44	NS	0936.0E	0946.0	864.0D	120.0			QL=2 ST=1 TYP=1
	100	GORK	44	NS	0938.0E		88.0D		120.0		
	245	SVTO	44	NS	1025.0E	1539.0	454.0D	320.0			QL=2 ST=2 TYP=1
	245	PALE	44	NS	1632.0E	0428.0	748.0D	290.0			QL=4 ST=2 TYP=1
	100	HIRA	44	NS	1934.0E	0800.0	860.0D	610.0	305.0		
	200	HIRA	44	NS	1934.0E	0800.0	860.0D	160.0	95.0		SR
	245	LEAR	44	NS	2322.0E	0412.0	612.0D	770.0			QL=2 ST=2 TYP=1
	9100	GORK	23	GRF	0242.0E	0600.0	372.0D	55.0			
	2950	GORK	1	S	0302.3	0302.9	1.6	9.0			
	2950	GORK	20	GRF	0434.1	0437.3	22.7	6.0			
	2840	PEKG	45	C	0514.0	0538.7	109.0	56.6	22.7		
	2950	GORK	21	GRF	0519.3	0548.3	95.2	26.0			
	2850	CRIM	21	GRF	0521.0	0546.0	89.0	42.0	14.0		
	5900	KISV	23	GRF	0525.8	0600.5	96.2	45.0			
	9300	KISV	23	GRF	0526.9	0557.1	87.4	48.0			
	500	HIRA	20	GRF	0528.0	0600.0	160.0	18.0	9.0		WR
	15000	KISV	23	GRF	0533.4	0612.7	88.0	78.0			
	2950	GORK	4	S/F	0536.7	0538.7	3.6	20.0			
	650	GORK	20	GRF	0538.4	0554.6	70.6	5.0			
	2850	CRIM	1	S	0538.4	0538.8	0.8	24.0	8.0		
	2950	GORK	2	S/F	0544.9	0545.6	3.1	14.0			
	536	ONDR	42	SER	0600.0	0643.3	100.0	28.0			
	410	LEAR	8	S	0606.0E	0607.0	2.0D	120.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0607.0E	0607.0	U	5000.0			QL=2 ST=2 TYP=6
	15000	KISV	1	S	0607.1	0607.5	0.6	34.0			
	200	GORK	3	S	0607.3	0607.5	0.8	1400.0			
	9100	GORK	2	S/F	0607.3	0607.5	0.3	20.0			
	9300	KISV	8	S	0607.3	0607.5	0.6	23.0			
	5900	KISV	1	S	0607.4	0607.5	0.3	13.0			
	2950	GORK	1	S	0607.4	0607.6	0.6	13.0			
	2850	CRIM	8	S	0607.4	0607.7	0.3	24.0			
	234	POTS	8	S	0607.5	0607.6	0.7	14000.0			
	5900	KISV	45	C	0634.7	0635.6		13.0			
	5900	KISV	45	C	0634.7	0635.9	3.1	14.0			
	9300	KISV	45	C	0635.1	0635.7		16.0			
	9300	KISV	45	C	0635.1	0635.9	2.0	19.0			
	15000	KISV	2	S/F	0635.2	0635.7	1.1	20.0			
	9100	GORK	2	S/F	0635.2	0635.8	1.2	15.0			
	5900	KISV	2	S/F	0640.6	0641.4	3.0	8.0			
	430	KRAK	40	F	0652.0E	0750.5	368.0D	15.0	2.0		
	5900	KISV	2	S/F	0750.0	0752.5	3.2	7.0			
	9300	KISV	1	S	0750.1	0750.5	0.9	6.0			
	15000	KISV	1	S	0750.1	0750.8	1.0	12.0			
	5900	KISV	2	S/F	0755.7	0756.3	2.3	5.0			
	5900	KISV	2	S/F	1009.9	1010.3	1.8	5.0			
	536	ONDR	41	F	1148.0	1214.4	220.0	32.0			
	5900	KISV	23	GRF	1216.3	1220.0	15.8	7.0			
	9300	KISV	2	S/F	1217.5	1218.1	1.6	6.0			
	5900	KISV	2	S/F	1217.5	1218.3	1.9	16.0			
	5900	KISV	2	S/F	1237.5	1238.4	7.7	15.0			
	610	SGMR	4	S/F	1516.0E	1521.0	8.0D	55.0			QL=4 ST=2 TYP=5
	9400	HUAN	22	GRF	1810.1	1828.0	40.6	5.0	1.7		
	9400	HUAN	2	S/F	2029.3	2032.0	8.3	10.0	3.3		
07	200	GORK	44	NS	0239.0E		414.0D		10.0		
	100	GORK	44	NS	0240.0E		413.0D		50.0		
	245	SVTO	44	NS	0347.0E	0417.0	296.0D	260.0			QL=2 ST=2 TYP=1
	260	ONDR	44	NS	0500.0E	0740.8	700.0D	54.0			
	113	POTS	44	NS	0530.0E	0831.0	550.0D	300.0			
	204	IZMI	43	NS	0600.0		360.0	50.0			
	127	TORN	44	NS	0620.0E		520.0D		430.0		V=1
	234	POTS	44	NS	0640.0E	0741.0	482.0D	145.0			
	245	SGMR	44	NS	1022.0E	1128.0	224.0D	300.0			QL=2 ST=2 TYP=1
	245	SVTO	44	NS	1040.0E	1124.0	208.0D	140.0			QL=2 ST=2 TYP=1
	245	SGMR	43	NS	1604.0	1851.0	266.0D	92.0			QL=4 ST=2 TYP=1
	100	HIRA	44	NS	1936.0E	0133.0	860.0D	140.0	42.0		
	200	HIRA	44	NS	1936.0E	2100.0	860.0D	33.0	13.0		MR
	410	LEAR	8	S	0117.0E	0117.0	U	180.0			QL=4 ST=2 TYP=3

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

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
07	410	LEAR	4	S/F	0213.0E	0214.0	1391.0D	160.0			QL=4 ST=2 TYP=3
	100	GORK	46	C	0347.7	0348.7	3.8	1290.0			
	100	GORK	46	C	0347.7	0350.9		260.0			
	5900	KISV	22	GRF	0401.0	0440.5	77.0	11.0			
	9300	KISV	22	GRF	0404.0	0418.6	38.0	7.0			
	245	PALE	49	GB	0412.0E	0412.0	U	630.0			QL=4 ST=2 TYP=6
	245	SVTO	49	GB	0412.0E	0412.0	U	840.0			QL=2 ST=2 TYP=6
	245	PALE	8	S	0417.0E	0417.0	1.0D	250.0			QL=4 ST=2 TYP=3
	950	GORK	2	S/F	0417.1	0419.4	4.3	2.0			
	650	GORK	4	S/F	0417.1	0419.4	5.6	20.0			
	5900	KISV	22	GRF	0543.3	0544.4	8.0	5.0			
	536	ONDR	41	F	0600.0	0826.3	260.0	12.0			
	2850	CRIM	20	GRF	0622.5	0645.0	52.0	9.0	3.0		
	9300	KISV	2	S/F	0623.9	0624.9	3.0	7.0			
	2950	GORK	20	GRF	0624.0	0649.2	114.9	9.0			
	100	GORK	46	C	0629.2	0630.2	3.5	900.0			
	100	GORK	46	C	0629.2	0630.5		640.0			
	100	GORK	46	C	0629.2	0630.7		510.0			
	100	GORK	41	F	0732.5	0752.2		1015.0			
	100	GORK	41	F	0732.5	0735.2	36.2	1670.0			
	100	GORK	41	F	0732.5	0806.8		1750.0			
	430	KRAK	8	S	0944.3	0944.4	0.7	92.0			
	5900	KISV	45	C	1037.7	1038.5	1.1	6.0			
	5900	KISV	45	C	1037.7	1038.7		4.0			
	430	KRAK	42	SER	1129.0	1152.0	101.5D	55.0			
	430	KRAK	42	SER	1129.0	1258.0	101.5D	52.0			
	536	ONDR	41	F	1225.0	1436.9	180.0	146.0			
	2800	OTTA	22	GRF	1320.0	1340.0	140.0	15.1	4.0		
	9500	POTS	20	GRF	1331.0	1342.0	59.0D	13.0			
	9400	HUAN	20	GRF	1332.5	1345.6	36.8	10.5	5.9		
	5900	KISV	22	GRF	1334.5	1337.0	10.0	15.0			
	1470	POTS	40	F	1338.0	1341.2	7.0	10.0			
	9300	KISV	22	GRF	1338.2	1342.7	16.7	14.0			
	3000	POTS	3	S	1338.5	1339.6	14.5	11.0			
	9400	HUAN	4	S/F	1432.5	1435.8	7.0	99.0	23.9		
	410	SVTO	8	S	1517.0E	1517.0	U	79.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1850.0E	1851.0	1.0D	110.0			QL=4 ST=2 TYP=3
	200	HIRA	46	C	2137.0	2139.3	13.9	71.0	24.0		SR
	245	SGMR	8	S	2209.0E	2209.0	U	140.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2209.0E	2209.0	1.0D	92.0			QL=4 ST=2 TYP=3
	2695	PENT	20	GRF	2310.5	2319.0	73.0	6.2	3.0		
	245	LEAR	8	S	2355.0E	2356.0	2.0D	61.0			QL=2 ST=3 TYP=3
08	200	GORK	44	NS	0236.0E		414.0D		5.0		
	100	GORK	44	NS	0236.0E		414.0D		10.0		
	245	LEAR	44	NS	0254.0E	0255.0	4.0D	110.0			QL=4 ST=2 TYP=1
	260	ONDR	44	NS	0500.0E	0703.8	700.0D	299.0			
	204	IZMI	43	NS	0600.0		360.0	20.0			
	127	TORN	44	NS	0620.0E		520.0D		30.0		V=2
	245	SVTO	44	NS	0653.0E	0703.0	22.0D	69.0			QL=2 ST=2 TYP=1
	610	LEAR	44	NS	0700.0E	0702.0	3.0D	84.0			QL=2 ST=2 TYP=1
	245	LEAR	44	NS	0700.0E	0702.0	3.0D	84.0			QL=4 ST=3 TYP=1
	200	HIRA	44	NS	1936.0E	2133.0	860.0D	23.0	8.0		MR
	2840	PEKG	3	S	0000.0	0005.2	16.0	33.9	14.3		
	2695	PENT	4	S/F	0004.9	0005.2	5.2	24.4	5.0		
	610	LEAR	8	S	0005.0E	0005.0	U	250.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0005.0E	0005.0	1.0D	33.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	0005.0E	0005.0	U	260.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0044.0	0047.1	8.0	21.6	9.2		
	2695	PENT	3	S	0046.1	0047.1	3.1	15.5	3.0		
	245	LEAR	8	S	0241.0E	0241.0	U	150.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	0241.0E	0241.0	1.0D	140.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0243.0E	0244.0	1.0D	50.0			QL=2 ST=2 TYP=3
	200	HIRA	41	F	0353.7	0400.0	10.2	53.0			MR
	200	GORK	41	F	0506.0	0517.5	42.0	35.0D			
	200	GORK	41	F	0506.0	0546.8		35.0D			
	245	LEAR	8	S	0527.0E	0527.0	U	73.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0527.0E	0527.0	U	62.0			QL=4 ST=2 TYP=3
	100	GORK	46	C	0539.2	0546.7		60.0			

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

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
08	100	GORK	46	C	0539.2	0545.8	8.5	50.0			
	200	HIRA	41	F	0542.6	0546.2	4.8	104.0			MR
	245	LEAR	8	S	0543.0E	0543.0	2.0D	72.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0543.0E	0544.0	2.0D	71.0			QL=4 ST=2 TYP=3
	536	ONDR	41	F	0600.0	1213.1	395.0	34.0			
	245	LEAR	8	S	0637.0E	0637.0	U	61.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0637.0E	0637.0	U	62.0			QL=2 ST=3 TYP=3
	9300	KISV	2	S/F	0809.8	0811.8	4.9	6.0			
	9300	KISV	2	S/F	0936.0	0940.4	10.0	17.0			
	9500	POTS	3	S	0940.0	0940.2	12.0	13.0			
	15000	KISV	22	GRF	1229.5	1234.0	12.0	15.0			
	9300	KISV	2	S/F	1233.5	1237.3	9.0	17.0			
	9500	POTS	20	GRF	1235.0	1237.7	12.5	7.0			
	536	ONDR	3	S	1352.1	1352.4	0.7	15.0			
	245	SGMR	8	S	1519.0E	1519.0	1.0D	89.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1519.0E	1519.0	1.0D	84.0			QL=4 ST=2 TYP=3
	536	ONDR	42	SER	1521.6	1522.2	1.7	11.0			
	9400	HUAN	2	S/F	1750.9	1756.0	12.3	3.8	2.1		
	245	PALE	8	S	1952.0E	1952.0	U	220.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1952.0E	1952.0	U	250.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2203.0E	2204.0	2.0D	76.0			QL=4 ST=2 TYP=3
	245	PALE	4	S/F	2205.0E	2207.0	3.0D	220.0			QL=4 ST=2 TYP=3
	610	PALE	4	S/F	2205.0E	2208.0	4.0D	86.0			QL=4 ST=2 TYP=3
	245	SGMR	4	S/F	2205.0E	2207.0	3.0D	270.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2206.0E	2208.0	2.0D	120.0			QL=4 ST=2 TYP=3
	610	SGMR	4	S/F	2206.0E	2208.0	3.0D	81.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2207.0E	2207.0	1.0D	170.0			QL=4 ST=2 TYP=3
09	100	HIRA	43	NS	0100.0	0200.0	300.0	64.0	10.0		
	200	GORK	44	NS	0253.0E		487.0D		5.0		
	100	GORK	44	NS	0253.0E		487.0D		5.0		
	245	LEAR	44	NS	0417.0E	0417.0	53.0D	73.0			QL=2 ST=2 TYP=1
	245	SVTO	44	NS	0453.0E	0453.0	24.0D	75.0			QL=2 ST=2 TYP=1
	204	IZMI	43	NS	0600.0		360.0	15.0			
	127	TORN	44	NS	0620.0E	1207.7	520.0D	700.0	5.0		V=2
	100	HIRA	44	NS	1936.0E	2018.0	260.0D	410.0	130.0		
	200	HIRA	44	NS	1936.0E	2116.0	400.0D	18.0	10.0		MR
	245	PALE	8	S	0417.0E	0417.0	1.0D	59.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0417.0E	0417.0	1.0D	69.0			QL=2 ST=3 TYP=3
	200	HIRA	41	F	0434.3	0452.0	38.0	91.0			SR
	245	SVTO	8	S	0449.0E	0449.0	U	65.0			QL=2 ST=2 TYP=3
	260	ONDR	41	F	0500.0E	1613.0	700.0D	450.0			
	2840	PEKG	1	S	0540.0	0542.6	8.0	9.9	4.8		
	15000	KISV	2	S/F	0541.0	0542.5	9.0	15.0			
	9300	KISV	2	S/F	0541.0	0542.5	9.0	11.0			
	9100	GORK	1	S	0541.0	0542.8	4.8	10.0			
	2950	GORK	1	S	0541.7	0542.5	5.4	5.0			
	2850	CRIM	1	S	0541.8	0542.8	6.0	8.0	3.0		
	1415	LEAR	8	S	0542.0E	0542.0	U	51.0			QL=2 ST=2 TYP=3
	1415	SVTO	8	S	0542.0E	0542.0	1.0D	67.0			QL=4 ST=2 TYP=3
	950	GORK	2	S/F	0542.2	0543.1	1.9	5.0			
	650	GORK	2	S/F	0542.3	0543.2	1.8	5.0			
	2850	CRIM	1	S	0623.3	0624.4	4.5	9.0	3.0		
	2950	GORK	1	S	0623.4	0624.1	4.2	6.0			
	650	GORK	4	S/F	0623.7	0624.7	1.6	45.0			
	536	ONDR	41	F	0720.0	1038.1	320.0	36.0			
	8800	SVTO	8	S	0828.0E	0828.0U	U	55.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	0839.0E	0842.0	3.0D	51.0			QL=2 ST=2 TYP=3
	808	ONDR	42	SER	0846.0	0849.3	4.0	3.0			
	234	POTS	4	S/F	0850.1	0850.3	0.9	140.0			
	33	UPIC	42	SER	0909.1		430.8				
	204	IZMI	41	F	0923.5	0925.3	2.5	80.0			
	100	GORK	41	F	0923.6	1023.1		385.0			
	100	GORK	41	F	0923.6	0924.7	88.7	130.0			
	100	GORK	41	F	0923.6	1008.9		385.0			
	200	GORK	4	S/F	0923.7	0925.6	2.3	40.0D			
	245	LEAR	8	S	0924.0E	0924.0	1.0D	76.0			QL=2 ST=2 TYP=3
	234	POTS	4	S/F	0924.0	0924.4	2.1	125.0			
	1470	POTS	40	F	0955.0	1007.3	20.0	8.0			

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

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
09	650	GORK	2	S/F	0955.9	0958.4	6.0	6.0			
	3000	POTS	40	F	0956.0	1008.2	14.0	20.0			
	810	KRAK	41	F	0956.0	0959.8	4.2	4.0	1.0		
	2850	CRIM	25	R	0956.2	1030.0		15.0			
	2950	GORK	21	GRF	0957.4	1011.1	111.2	9.0			
	430	KRAK	41	F	0957.4	0957.5	1.2	8.0	3.0		
	950	GORK	45	C	1000.4	1001.4		22.0			
	950	GORK	45	C	1000.4	1000.6	1.2	13.0			
	9100	GORK	22	GRF	1004.3U	1008.5	85.7U	15.0			
	2850	CRIM	7	C	1004.8	1008.3		30.0	10.0		
	2850	CRIM	7	C	1004.8	1005.5	5.0	20.0			
	2950	GORK	46	C	1005.0	1008.2		12.0			
	2950	GORK	46	C	1005.0	1005.6	4.2	7.0			
	9300	KISV	46	C	1007.0	1008.3	2.3	6.0			
	9300	KISV	46	C	1007.0	1008.6		5.0			
	9300	KISV	46	C	1007.0	1007.8		6.0			
	430	KRAK	8	S	1125.3	1125.4	0.2	22.0			
	245	SGMR	8	S	1144.0E	1144.0	U	110.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	1144.0E	1144.0	3.0D	120.0			QL=4 ST=2 TYP=3
	113	POTS	41	F	1204.4	1217.2	17.1	280.0			
	40	POTS	41	F	1204.5	1217.3	14.1	20000.0			
	9400	HUAN	20	GRF	1438.7	1446.2	19.4	5.2	1.5		
	536	ONDR	3	S	1514.0	1514.4	1.2	26.0			
	9400	HUAN	2	S/F	1522.6	1526.0	6.0	10.3	4.2		
	536	ONDR	42	SER	1613.0	1617.4	7.0	113.0			
	9400	HUAN	2	S/F	1614.0	1616.4	13.5	13.8	5.8		
	245	SGMR	4	S/F	1615.0E	1616.0	4.0D	110.0			QL=2 ST=2 TYP=3
	2800	OTTA	4	S/F	1616.0	1617.5	6.7	15.2	3.0		
	410	SGMR	8	S	1617.0E	1617.0	1.0D	36.0			QL=2 ST=2 TYP=3
	2800	OTTA	20	GRF	1742.5	1752.0	238.0	16.5	8.0		
	9400	HUAN	1	S	1947.0	1950.6	6.6	5.2	1.3		
	245	SGMR	4	S/F	2002.0E	2002.0	3.0D	70.0			QL=4 ST=2 TYP=3
	2800	OTTA	22	GRF	2207.0	2210.0	97.0	11.8	5.0		
10	127	TORN	44	NS	0620.0E		480.0D		3.0		V=0,DISTURBED
	200	GORK	44	NS	0650.0E		155.0D		5.0		
	410	SGMR	44	NS	2030.0E	2126.0	82.0D	62.0			QL=4 ST=2 TYP=1
	245	SGMR	44	NS	2123.0E	2140.0	157.0D	230.0			QL=4 ST=2 TYP=1
	410	LEAR	8	S	0345.0E	0345.0	1.0D	120.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0345.0E	0345.0	U	87.0			QL=4 ST=2 TYP=3
	650	GORK	2	S/F	0345.3	0345.5	1.9	6.0			
	950	GORK	2	S/F	0345.3	0345.7	1.9	5.0			
	260	ONDR	41	F	0500.0	1354.7	700.0	17.0			
	950	GORK	2	S/F	0542.5	0543.1	1.2	3.0			
	650	GORK	2	S/F	0542.5	0542.9	1.3	2.0			
	950	GORK	4	S/F	0549.9	0550.6	2.6	12.0			
	650	GORK	4	S/F	0626.8	0627.0	0.5	10.0			
	950	GORK	2	S/F	0626.8	0627.2	0.5	7.0			
	536	ONDR	41	F	0720.0	1220.7	400.0	27.0			
	2950	GORK	1	S	0922.3	0923.1	1.5	7.0			
	2850	CRIM	1	S	0922.6	0923.0	1.2	6.0	2.0		
	430	KRAK	42	SER	1016.7	1031.2	23.3	28.0			
	204	IZMI	24	R	1100.0	1154.5	65.0				
	430	KRAK	42	SER	1118.3	1127.9	14.0	21.0			
	245	SGMR	8	S	1154.0E	1155.0	2.0D	130.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	1154.0E	1155.0	2.0D	160.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1202.0E	1202.0	U	53.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	1202.0E	1202.0	1.0D	66.0			QL=4 ST=2 TYP=3
	810	KRAK	2	S/F	1216.8	1217.5	1.5	4.0	1.0		
	808	ONDR	41	F	1217.0	1218.4	8.0	8.0			
	3000	POTS	1	S	1217.5	1218.0	1.0	3.0			
	1470	POTS	1	S	1217.5	1218.2	2.0	3.0			
	9500	POTS	3	S	1226.5	1227.2	3.5	36.0			
	30	POTS	4	S/F	1227.5	1228.3	1.5	1100.0U			
	113	POTS	4	S/F	1227.6	1228.3	1.1	500.0			
	8800	SGMR	8	S	1228.0E	1228.0	U	60.0			QL=4 ST=2 TYP=3
	2800	OTTA	20	GRF	1249.0E	1249.0	197.0D	12.4	6.0		
	1470	POTS	4	S/F	1355.0	1359.0	10.0	13.0			
	234	POTS	4	S/F	1355.4	1358.6	6.5	60.0			

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
10	808	ONDR	41	F	1355.5	1356.1	10.0	14.0			
	113	POTS	4	S/F	1356.8	1358.4	7.3	525.0			
	2800	OTTA	4	S/F	1357.0	1359.5	9.4	9.6	3.0		
	30	POTS	4	S/F	1357.5	1359.4	4.5	2000.0D			
	9500	POTS	4	S/F	1358.0	1358.9	6.0	9.0			
	3000	POTS	3	S	1419.0	1421.5	5.0	19.0			
	9400	HUAN	2	S/F	1617.3	1621.3	6.1	24.9	5.0		
11	5900	KISV	2	S/F	0431.0	0433.3	4.0	4.0			
	9300	KISV	2	S/F	0432.5	0433.3	2.5	6.0			
	9300	KISV	25	R	0608.0	0628.3		6.0			
	5900	KISV	25	R	0611.0	0628.5		9.0			
	950	GORK	21	GRF	0856.7	1025.0	94.8D	16.0			
	808	ONDR	46	C	0900.0	0916.0	23.5	41.0			
	2850	CRIM	45	C	0906.6	0916.4		53.0			
	2850	CRIM	45	C	0906.6	0911.8	16.0	66.0	22.0		
	9300	KISV	45	C	0906.9	0912.0	12.5	62.0			
	2950	GORK	21	GRF	0906.9	0918.3	29.1	12.0			
	9300	KISV	29	PBI	0906.9	0919.4	31.6	12.0			
	9300	KISV	45	C	0906.9	0916.6		42.0			
	3013	IZMI	7	C	0907.0	0912.0	9.0	33.0	18.0		
	5900	KISV	45	C	0907.6	0912.0		57.0			
	5900	KISV	29	PBI	0907.6	0922.0	34.5	6.0			
	5900	KISV	45	C	0907.6	0916.4	14.4	58.0			
	2950	GORK	46	C	0908.9	0916.4		28.0			
	2950	GORK	46	C	0908.9	0911.9	9.1	38.0			
	9100	GORK	46	C	0909.0	0916.4		45.0			
	9100	GORK	46	C	0909.0	0911.4	9.0	60.0			
	15000	KISV	45	C	0909.4	0916.5		26.0			
	15000	KISV	45	C	0909.4	0911.6	10.6	51.0			
	950	GORK	46	C	0910.0	0916.0		100.0			
	8800	LEAR	8	S	0910.0E	0911.0	2.0D	30.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0910.0E	0911.0	7.0D	53.0			QL=4 ST=2 TYP=3
	4995	LEAR	4	S/F	0910.0E	0916.0	7.0D	57.0			QL=4 ST=2 TYP=5
	15400	LEAR	8	S	0910.0E	0911.0	2.0D	42.0			QL=4 ST=2 TYP=3
	1415	LEAR	4	S/F	0910.0E	0910.0	3.0D	63.0			QL=4 ST=2 TYP=3
	4995	SVTO	20	GRF	0910.0E	0916.0	7.0D	65.0			QL=4 ST=2 TYP=2
	8800	SVTO	4	S/F	0910.0E	0912.0	3.0D	58.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0910.0E	0911.0	2.0D	40.0			QL=4 ST=2 TYP=3
	1415	SVTO	4	S/F	0910.0E	0910.0	890.0D	68.0			QL=4 ST=1 TYP=3
	950	GORK	46	C	0910.0	0911.4	9.3	40.0			
	650	GORK	20	GRF	0910.7	0918.6	27.0	1.0			
	536	ONDR	41	F	0913.0	1153.9	207.0	105.0			
	650	GORK	46	C	0913.4	0916.3		8.0			
	650	GORK	46	C	0913.4	0913.8	7.9	20.0			
	430	KRAK	41	F	0914.2	0914.3	3.5	10.0	1.0		
	810	KRAK	45	C	0914.3E	0916.0	5.5D	24.0	9.0		
	9100	GORK	29	PBI	0918.0	0918.0	126.0U	20.0			
	430	KRAK	8	S	0943.2	0943.4	0.4	36.0			
	2800	OTTA	20	GRF	1308.0	1348.5	157.0	6.0	3.0		
	245	SGMR	8	S	1316.0E	1316.0	U	50.0			QL=4 ST=3 TYP=3
	536	ONDR	3	S	1357.6	1357.7	0.5	44.0			
12	200	HIRA	43	NS	2000.0	2123.0	240.0	7.0	3.0		WR
	260	ONDR	41	F	0500.0	1347.5	700.0	474.0			
	5900	KISV	2	S/F	0618.4	0620.0	4.6	5.0			
	536	ONDR	3	S	0954.5	0954.7	1.0	37.0			
	808	ONDR	41	F	1107.5	1108.8	2.4	5.0			
	430	KRAK	2	S/F	1210.0	1210.1	0.6	26.0	7.0		
	9500	POTS	40	F	1342.5	1345.3	10.0	13.0			
	3000	POTS	40	F	1342.5	1347.5	9.5	10.0			
	2800	OTTA	22	GRF	1343.4	1347.5	11.8	12.2	2.0		
	5900	KISV	2	S/F	1343.5	1345.3	11.0	13.0			
	9300	KISV	2	S/F	1343.5	1345.3	10.0	14.0			
	15000	KISV	21	GRF	1344.0	1345.3	12.0	19.0			
	536	ONDR	42	SER	1344.0	1347.5	64.0	161.0			
	245	SGMR	20	GRF	1346.0E	1347.0	1.0D	120.0			QL=4 ST=2 TYP=2
	410	SGMR	8	S	1346.0E	1347.0	1.0D	200.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1346.0E	1347.0	1.0D	170.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
12	1415	SGMR	8	S	1347.0E	1347.0	U	55.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1347.0E	1347.0	U	110.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	1347.0E	1347.0	U	60.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1347.0E	1347.0	U	170.0			QL=4 ST=2 TYP=3
	1470	POTS	3	S	1347.0	1347.4	2.5	42.0			
	808	ONDR	8	S	1356.6	1357.0	4.5	68.0			
13	204	IZMI	43	NS	0600.0		360.0	10.0			
	245	LEAR	8	S	0452.0E	0452.0	U	130.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0452.0E	0452.0	U	130.0			QL=4 ST=2 TYP=3
	260	ONDR	41	F	0500.0	1108.2	700.0	45.0			
	245	LEAR	8	S	0606.0E	0607.0	2.0D	100.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0607.0E	0607.0	U	110.0			QL=4 ST=2 TYP=3
	9300	KISV	22	GRF	0736.0	0751.2	27.0	7.0			
	5900	KISV	22	GRF	0736.0	0737.4	36.0	8.0			
	2950	GORK	20	GRF	0736.4	0738.9	14.0	5.0			
	430	KRAK	1	S	0815.8	0816.2	0.8	2.0	1.0		
	204	IZMI	41	F	0840.5	0840.9	0.7	13.0			
	2950	GORK	21	GRF	1006.8	1118.2	118.2D	29.0			
	204	IZMI	25	R	1021.0		65.0	25.0			
	5900	KISV	23	GRF	1024.0	1055.4	121.5	25.0			
	9300	KISV	23	GRF	1025.9	1119.4	107.3	53.0			
	127	TORN	27	RF	1029.0	1058.4	64.0	25.0	10.0		
	9100	GORK	21	GRF	1032.2	1127.3	93.1D	30.0			
	2850	CRIM	20	GRF	1042.0	1055.0	21.0	16.0	5.0		
	3013	IZMI	40	F	1042.0	1055.5	17.5	11.0			
	2950	GORK	45	C	1043.6	1047.0		8.0			
	2950	GORK	45	C	1043.6	1044.9	6.0	8.0			
	3000	POTS	45	C	1045.0E	1112.0	195.0D	89.0			
	1470	POTS	45	C	1045.0E	1112.5	195.0D	41.0			
	9500	POTS	45	C	1050.0E	1106.7	190.0D	73.0			
	2950	GORK	1	S	1054.0	1055.0	3.9	7.0			
	15000	KISV	23	GRF	1103.2	1114.9	24.2	46.0			
	2850	CRIM	3	S	1103.5	1112.0	15.5	89.0	30.0		
	3013	IZMI	28	PRE	1103.5	1107.5	4.8	8.0			
	5900	KISV	4	S/F	1104.2	1111.9	10.5	107.0			
	4995	SVTO	20	GRF	1107.0E	1111.0	9.0D	110.0			QL=4 ST=2 TYP=2
	2950	GORK	3	S	1107.3	1112.1	10.7	51.0			
	9100	GORK	20	GRF	1107.5	1112.0	17.9	60.0			
	3013	IZMI	20	GRF	1107.5	1112.3	23.5	62.0	30.0		
	950	GORK	20	GRF	1107.8	1112.5	10.5	10.0			
	2695	SGMR	20	GRF	1108.0E	1112.0	8.0D	57.0			QL=4 ST=2 TYP=2
	8800	SVTO	20	GRF	1108.0E	1111.0	7.0D	82.0			QL=4 ST=2 TYP=2
	2695	SVTO	20	GRF	1108.0E	1112.0	7.0D	68.0			QL=4 ST=2 TYP=2
	4995	SGMR	20	GRF	1108.0E	1111.0	10.0D	88.0			QL=4 ST=2 TYP=2
	15000	KISV	2	S/F	1108.9	1111.8	5.2	31.0			
	8800	SGMR	20	GRF	1109.0E	1111.0	7.0D	59.0			QL=2 ST=2 TYP=2
	9300	KISV	4	S/F	1109.0	1111.9	8.8	48.0			
	536	ONDR	41	F	1201.7	1202.8	160.0	33.0			
14	204	IZMI	43	NS	0600.0		90.0	15.0			
	260	ONDR	43	NS	1227.0	1450.5	253.0	16.0			
	500	HIRA	4	S/F	0005.0	0007.5	4.5	5.0			O
	245	LEAR	4	S/F	0336.0E	0337.0	3.0D	110.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0337.0E	0337.0	1.0D	95.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0520.0E	0521.0	1.0D	70.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0520.0E	0521.0	1.0D	67.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0556.0E	0556.0	U	77.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0556.0E	0556.0	U	71.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0612.0E	0613.0	2.0D	320.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0612.0E	0613.0	2.0D	320.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	0612.6	0613.5	1.8	250.0			
	234	POTS	41	F	0613.0	0613.7	2.5	275.0			
	113	POTS	4	S/F	0613.2	0613.9	1.4	70.0			
	245	LEAR	8	S	0634.0E	0634.0	U	340.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0634.0E	0634.0	1.0D	330.0			QL=4 ST=2 TYP=3
	113	POTS	4	S/F	0634.1	0634.4	1.1	60.0			
	204	IZMI	41	F	0634.1	0634.5	1.0	240.0			
	234	POTS	4	S/F	0634.1	0634.6	1.2	250.0			

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
14	260	ONDR	41	F	0700.0	0713.1	327.0	20.0			
	536	ONDR	27	RF	0700.0	1047.9	240.0	20.0			
	536	ONDR	42	SER	1505.0	1514.0	9.5	25.0			
15	260	ONDR	41	F	0500.0	1253.7	700.0	31.0			
	234	POTS	8	S	1253.2	1253.3	0.9	140.0			
	2800	OTTA	20	GRF	1845.5	1950.0	130.0	10.7	5.0		
	245	SGMR	8	S	2129.0E	2129.0	1.0D	57.0			QL=2 ST=2 TYP=3
16	245	SVTO	44	NS	1701.0E	1701.0	54.0D	87.0			QL=4 ST=2 TYP=1
	245	SGMR	44	NS	1857.0E	1910.0	303.0D	180.0			QL=4 ST=3 TYP=1
	200	HIRA	43	NS	2340.0	0600.0	610.0D	18.0	5.0		WR
	200	HIRA	42	SER	0057.4	0100.0	5.3	240.0			O
	245	LEAR	8	S	0100.0E	0100.0	1.0D	60.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0102.0E	0102.0	1.0D	160.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0102.0E	0102.0	U	150.0			QL=4 ST=2 TYP=3
	500	HIRA	41	F	0320.0	0324.0	5.0	49.0			O
	410	LEAR	8	S	0322.0E	0324.0	2.0D	51.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0322.0E	0322.0	2.0D	180.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0322.0E	0322.0	2.0D	170.0			QL=4 ST=2 TYP=3
	2950	GORK	1	S	0322.3	0322.6	1.6	5.0			
	410	PALE	8	S	0323.0E	0323.0	1.0D	90.0			QL=4 ST=2 TYP=3
	650	GORK	4	S/F	0323.9	0324.1	1.2	15.0			
	950	GORK	2	S/F	0323.9	0324.1	1.2	2.0			
	500	HIRA	41	F	0405.0	0406.0	2.5	18.0			O
	410	LEAR	8	S	0405.0E	0406.0	1.0D	28.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0405.0E	0405.0	1.0D	110.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0405.0E	0405.0	1.0D	95.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0405.0E	0406.0	1.0D	93.0			QL=4 ST=2 TYP=3
	950	GORK	1	S	0405.5	0406.1	2.0	5.0			
	2850	CRIM	1	S	0506.8	0507.2	0.7	9.0	3.0		
	2950	GORK	1	S	0506.9	0507.2	0.6	6.0			
	5900	KISV	4	S/F	0506.9	0507.2	1.2	15.0			
	9300	KISV	1	S	0507.0	0507.3	0.6	14.0			
	410	SVTO	8	S	0525.0E	0525.0	U	65.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	0525.0E	0526.0	1.0D	52.0			QL=4 ST=2 TYP=3
	950	GORK	1	S	0530.0	0530.2	0.4	1.0			
	650	GORK	1	S	0530.0	0530.2	0.4	2.0			
	536	ONDR	42	SER	0604.2	0604.8	1.5	25.0			
	5900	KISV	2	S/F	0634.6	0635.4	2.0	9.0			
	2850	CRIM	1	S	0634.7	0635.4	1.7	9.0	3.0		
	9300	KISV	45	C	0634.8	0635.2	1.0	8.0			
	9300	KISV	45	C	0634.8	0635.4		8.0			
	245	LEAR	8	S	0638.0E	0638.0	1.0D	33.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0638.0E	0638.0	1.0D	86.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0638.0E	0639.0	1.0D	130.0			QL=2 ST=2 TYP=3
	9300	KISV	1	S	0658.2	0658.6	0.9	9.0			
	650	GORK	4	S/F	0658.3	0658.5	1.0	50.0			
	2950	GORK	1	S	0658.3	0658.6	0.9	7.0			
	5900	KISV	2	S/F	0658.3	0658.6	1.1	9.0			
	950	GORK	3	S	0658.4	0658.6	0.7	7.0			
	2850	CRIM	1	S	0658.4	0658.7	0.5	13.0	4.0		
	808	ONDR	3	S	0658.7	0658.9	1.2	6.0			
	260	ONDR	41	F	0700.0		360.0				
	234	POTS	41	F	0800.5	0802.0	2.6	1000.0			
	204	IZMI	42	SER	0800.6	0802.0	3.0	450.0			
	410	LEAR	8	S	0801.0E	0802.0	1.0D	53.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0802.0E	0802.0	U	320.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0802.0E	0802.0	U	300.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0937.5	0938.2	16.8	48.0			
	234	POTS	8	S	0937.5	0938.4	1.1	100.0			
	204	IZMI	42	SER	1038.7	1039.5	2.5	35.0			
	536	ONDR	41	F	1140.0	1223.0	180.0	28.0			
	113	POTS	41	F	1429.9	1430.2	2.5	170.0			
	234	POTS	41	F	1429.9	1430.7	2.7	3600.0			
	410	SGMR	8	S	1430.0E	1431.0	1.0D	88.0			QL=4 ST=2 TYP=3
	245	SGMR	49	GB	1430.0E	1430.0	1.0D	900.0			QL=4 ST=2 TYP=6
	245	SVTO	49	GB	1430.0E	1430.0	1.0D	730.0			QL=4 ST=2 TYP=6
	410	SVTO	8	S	1430.0E	1430.0	1.0D	100.0			QL=4 ST=2 TYP=3

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

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
16	245	SGMR	8	S	1513.0E	1513.0	1.0D	55.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	1617.0E	1619.0	3.0D	140.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1619.0E	1619.0	1.0D	140.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1642.0E	1642.0	U	340.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1642.0E	1642.0	U	400.0			QL=4 ST=2 TYP=3
	245	SGMR	4	S/F	1701.0E	1701.0	3.0D	82.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1843.0E	1844.0	2.0D	170.0			QL=4 ST=2 TYP=3
	2800	OTTA	3	S	1904.3	1904.8	1.9	7.3	2.0		
	245	PALE	8	S	1910.0E	1910.0	U	220.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2050.0E	2050.0	2.0D	380.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2050.0E	2050.0	1.0D	410.0			QL=2 ST=2 TYP=3
	200	HIRA	8	S	2340.7	2340.9	0.8	130.0			O
	245	LEAR	8	S	2341.0E	2341.0	1.0D	100.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2341.0E	2341.0	U	71.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2341.0E	2341.0	U	110.0			QL=4 ST=2 TYP=3
17	245	PALE	44	NS	0012.0E	0324.0	287.0D	270.0			QL=4 ST=2 TYP=1
	245	LEAR	44	NS	0114.0E	0312.0	344.0D	170.0			QL=4 ST=2 TYP=1
	200	GORK	44	NS	0245.0E		555.0D		5.0		
	260	ONDR	44	NS	0510.0E	0804.0	470.0D	423.0			
	245	SVTO	44	NS	0558.0E	0558.0	60.0D	51.0			QL=4 ST=2 TYP=1
	204	IZMI	43	NS	0600.0		360.0	30.0			
	100	GORK	43	NS	0718.0		249.0		5.0		
	245	LEAR	44	NS	0754.0E	0918.0	104.0D	140.0			QL=4 ST=3 TYP=1
	245	SVTO	44	NS	0754.0E	0832.0	106.0D	130.0			QL=4 ST=2 TYP=1
	127	TORN	44	NS	0800.0E		420.0D		2.0		V=2
	410	LEAR	8	S	0002.0E	0002.0	1.0D	77.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0023.0E	0023.0	U	56.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0036.0E	0036.0	U	86.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	0142.0E	0143.0	1.0D	870.0			QL=2 ST=2 TYP=6
	245	PALE	8	S	0152.0E	0152.0	2.0D	110.0			QL=2 ST=2 TYP=3
	245	SVTO	4	S/F	0528.0E	0528.0	3.0D	51.0			QL=4 ST=2 TYP=3
	536	ONDR	27	RF	0730.0	1048.7	300.0	15.0			
	245	SVTO	8	S	0737.0E	0737.0	U	37.0			QL=4 ST=2 TYP=3
	100	GORK	41	F	0759.4	0813.2		115.0			
	100	GORK	41	F	0759.4	0807.3		2270.0			
	100	GORK	41	F	0759.4	0800.5	15.8	1130.0			
	5900	KISV	2	S/F	0800.0	0800.7	1.2	5.0			
	9300	KISV	1	S	0800.3	0800.7	0.6	7.0			
	33	UPIC	42	SER	0800.5		441.5				
	200	GORK	41	F	0801.0	0818.0		125.0			
	200	GORK	41	F	0801.0	0803.1	17.7	50.0			
	200	GORK	41	F	0801.0	0812.2		130.0			
	245	SVTO	8	S	1033.0E	1033.0	U	78.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1048.0E	1048.0	U	62.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1642.0E	1643.0	2.0D	290.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1643.0E	1643.0	U	260.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1643.0E	1643.0	1.0D	240.0			QL=4 ST=2 TYP=3
18	245	LEAR	8	S	0100.0E	0100.0	U	66.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0104.0E	0105.0	1.0D	270.0			QL=4 ST=2 TYP=3
	260	ONDR	41	F	0500.0	1335.7	700.0	212.0			
	5900	KISV	20	GRF	0605.1	0642.6	133.0	15.0			
	9300	KISV	20	GRF	0623.0	0654.0	103.0	23.0			
	9100	GORK	20	GRF	0627.0	0638.0	42.0U	7.0			
	536	ONDR	27	RF	0730.0	1049.0	300.0	21.0			
	204	IZMI	4	S/F	0850.7	0851.0	0.5	25.0			
	430	KRAK	8	S	0946.5	0946.8	0.6	53.0			
	5900	KISV	2	S/F	0949.4	0950.0	4.2	5.0			
	9300	KISV	2	S/F	0949.6	0950.1	1.0	4.0			
	9400	HUAN	1	S	1300.6	1304.1	8.8	5.5	3.6		
	5900	KISV	24	R	1300.8	1305.3		8.0			
	9300	KISV	24	R	1301.7	1302.8		5.0			
	245	SGMR	8	S	1711.0E	1712.0	1.0D	340.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1723.0E	1723.0	U	190.0			QL=4 ST=3 TYP=3
	9400	HUAN	20	GRF	1729.3	1740.5	47.2	9.1	3.0		
19	260	ONDR	41	F	0500.0	1624.2	700.0	623.0			
	950	GORK	1	S	0734.6	0735.1	0.9	1.0			

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

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
19	650	GORK	1	S	0734.6	0735.2	0.9	1.0			
	808	ONDR	8	S	0801.0	0801.2	1.3	10.0			
	5900	KISV	2	S/F	0820.8	0821.2	1.5	2.0			
	5900	KISV	2	S/F	0829.2	0829.7	1.7	2.0			
	430	KRAK	42	SER	0906.4	0913.5	10.3	210.0			
	536	ONDR	42	SER	0912.7	0913.8	5.0	66.0			
	430	KRAK	8	S	0944.3	0944.6	0.6	60.0			
	2950	GORK	20	GRF	1007.7	1008.9	16.3	3.0			
	245	PALE	49	GB	1945.0E	1945.0	1.0D	4000.0			QL=4 ST=2 TYP=6
	245	SGMR	49	GB	1945.0E	1945.0	U	4000.0			QL=4 ST=2 TYP=6
	245	SGMR	49	GB	2242.0E	2242.0	U	540.0			QL=4 ST=2 TYP=6
20	200	GORK	43	NS	0315.0		527.0D		5.0		
	204	IZMI	43	NS	0600.0		360.0	10.0			
	2840	PEKG	20	GRF	0144.0	0205.0	40.0	12.6	8.6		
	260	ONDR	41	F	0500.0	1623.9	700.0	592.0			
	33	UPIC	45	C	0719.5	0720.8	1.8				
	204	IZMI	41	F	0744.0	0744.4	2.5	37.0			
	33	UPIC	42	SER	1136.9	1324.2	208.9				
	536	ONDR	42	SER	1323.0	1452.7	165.0	27.0			
	245	PALE	8	S	1947.0E	1947.0	U	60.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1947.0E	1947.0	U	56.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2300.0E	2300.0	U	420.0			QL=4 ST=3 TYP=3
	245	SGMR	8	S	2300.0E	2300.0	U	420.0			QL=4 ST=2 TYP=3
21	245	LEAR	4	S/F	0155.0E	0157.0	5.0D	63.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	0210.0E	0210.0	1.0D	970.0			QL=4 ST=2 TYP=6
	245	LEAR	49	GB	0211.0E	0211.0	1.0D	930.0			QL=4 ST=2 TYP=6
	200	HIRA	8	S	0211.2	0211.5	0.7	305.0			O
	245	PALE	8	S	0223.0E	0223.0	U	250.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0224.0E	0224.0	U	240.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0231.0E	0231.0	1.0D	64.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0325.0E	0328.0	4.0D	1600.0			QL=4 ST=2 TYP=7
	200	HIRA	41	F	0325.0	0328.4	3.5	5600.0			O
	100	HIRA	41	F	0325.7		3.8	1000.0D			
	500	HIRA	41	F	0326.0	0328.0	3.5	21.0			WR
	410	PALE	8	S	0327.0E	0327.0	1.0D	140.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0328.0E	0328.0	1.0D	59.0			QL=4 ST=2 TYP=3
	2850	CRIM	20	GRF	0355.6	0412.0	36.0	14.0	5.0		
	500	HIRA	46	C	0401.0	0408.5	21.0	53.0	7.0		O
	610	LEAR	4	S/F	0405.0E	0406.0	3.0D	57.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	0405.0E	0405.0	1.0D	50.0			QL=4 ST=2 TYP=3
	200	HIRA	46	C	0405.9	0410.3	20.5	41.0			O
	245	LEAR	4	S/F	0406.0E	0410.0	7.0D	72.0			QL=2 ST=2 TYP=5
	100	HIRA	46	C	0406.6	0422.4	50.0	29.0			
	245	SVTO	8	S	0434.0E	0434.0	1.0D	60.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0435.0E	0435.0	U	79.0			QL=4 ST=2 TYP=3
	260	ONDR	41	F	0500.0	0555.9	700.0	303.0			
	245	SVTO	8	S	0555.0E	0555.0	U	450.0			QL=4 ST=2 TYP=3
	113	POTS	4	S/F	0555.0	0555.4	2.0	2700.0			
	234	POTS	4	S/F	0555.0	0555.4	0.9	550.0			
	245	LEAR	8	S	0556.0E	0556.0	U	440.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0706.0E	0706.0	1.0D	78.0			QL=4 ST=2 TYP=3
	33	UPIC	42	SER	0831.1	1452.5	507.0				
	430	KRAK	42	SER	0907.7	0910.8	9.4	53.0			
	1470	POTS	1	S	0942.0	0942.0	1.5	3.0			
	3000	POTS	3	S	0942.0	0942.5	1.5	7.0			
	9500	POTS	1	S	0942.0	0942.5	1.0	4.0			
	430	KRAK	42	SER	1034.5	1036.5	23.5	33.0			
	245	SGMR	8	S	1359.0E	1359.0	U	58.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1359.0E	1359.0	1.0D	56.0			QL=4 ST=2 TYP=3
	234	POTS	4	S/F	1359.4	1359.6	0.6	400.0			
	30	POTS	4	S/F	1359.5	1359.7	0.5	800.0U			
	113	POTS	4	S/F	1359.7	1359.9	0.3	140.0			
	536	ONDR	42	SER	1441.0	1502.2	32.0	21.0			
	245	PALE	8	S	1657.0E	1657.0	2.0D	65.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1657.0E	1657.0	U	90.0			QL=4 ST=2 TYP=3
	2800	OTTA	20	GRF	1943.5	2003.0	187.0	8.6	4.0		

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

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
22	204	IZMI	43	NS	0600.0		360.0	10.0			
	200	GORK	43	NS	0647.0		163.0D		5.0		
	260	ONDR	41	F	0500.0	1408.4	700.0	128.0			
	950	GORK	21	GRF	0612.4	0622.0	12.9	2.0			
	650	GORK	21	GRF	0612.4	0622.7	12.9	2.0			
	5900	KISV	45	C	0616.0	0622.0	9.0	19.0			
	5900	KISV	45	C	0616.0	0617.9		17.0			
	2950	GORK	21	GRF	0616.3	0624.3	59.0	3.0			
	9100	GORK	45	C	0616.5	0617.9	7.9	12.0			
	9100	GORK	45	C	0616.5	0621.9		13.0			
	9300	KISV	45	C	0616.6	0621.8	8.0	12.0			
	9300	KISV	45	C	0616.6	0617.9		10.0			
	2850	CRIM	42	SER	0617.0	0618.0	5.9	29.0	10.0		
	610	SVTO	8	S	0617.0E	0617.0	1.0D	120.0			QL=4 ST=2 TYP=3
	536	ONDR	41	F	0617.0	0617.7	32.0	164.0			
	2840	PEKG	5	S	0617.0	0617.8	2.0	19.4	12.8		
	2850	CRIM	42	SER	0617.0	0621.9		16.0			
	2950	GORK	3	S	0617.2	0617.9	1.4	16.0			
	950	GORK	1	S	0617.5	0617.7	0.6	2.0			
	650	GORK	8	S	0617.5	0617.7	0.7	40.0			
	8800	LEAR	8	S	0618.0E	0618.0	U	17.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0618.0E	0618.0	U	110.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0618.0E	0618.0	U	18.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0618.0E	0618.0	U	27.0			QL=4 ST=2 TYP=3
	2840	PEKG	21	GRF	0620.0	0621.8	11.0	13.6	9.0		
	2950	GORK	2	S/F	0621.0	0622.0	1.7	8.0			
	3013	IZMI	1	S	0621.0	0622.0	1.5	6.0	3.0		
	950	GORK	4	S/F	0621.1	0622.0	1.9	15.0			
	650	GORK	4	S/F	0621.1	0622.0	1.6	9.0			
	808	ONDR	4	S/F	0621.2	0622.4	4.0	10.0			
	5900	KISV	20	GRF	1209.7	1210.9	8.0	2.0			
	245	SGMR	8	S	1217.0E	1217.0	U	64.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1227.0E	1227.0	U	52.0			QL=4 ST=3 TYP=3
	245	SVTO	8	S	1228.0E	1228.0	U	58.0			QL=4 ST=2 TYP=3
	536	ONDR	42	SER	1257.2	1257.9	1.7	18.0			
	33	UPIC	45	C	1420.7	1420.9	0.6				
	3000	POTS	4	S/F	1427.5U	1428.0U	7.5U	22.0			
	9500	POTS	4	S/F	1427.5	1428.2	4.5	15.0			
	1470	POTS	4	S/F	1427.5	1429.3	6.5	16.0			
	2800	OTTA	4	S/F	1427.8	1428.3	3.2	27.6	8.0		
	536	ONDR	45	C	1428.0	1428.9	5.0	41.0			
	808	ONDR	6	S	1428.4	1429.2	5.0	12.0			
	2800	OTTA	29	PBI	1431.0	1431.0	19.1	5.6	2.0		
	1415	SGMR	8	S	1616.0E	1616.0	2.0D	210.0			QL=2 ST=3 TYP=3
	9400	HUAN	20	GRF	1812.0	1814.6	12.2	5.6	2.9		
	9400	HUAN	1	S	2059.6	2104.2	6.9	7.4	3.6		
	245	PALE	8	S	2142.0E	2142.0	1.0D	87.0			QL=4 ST=2 TYP=3
	9400	HUAN	2	S/F	2155.4	2157.0	4.0	20.5	9.8		
	245	SGMR	8	S	2156.0E	2156.0	1.0D	240.0			QL=4 ST=2 TYP=3
	100	HIRA	46	C	2156.8		2.6	1000.0D			
	200	HIRA	46	C	2156.8	2157.4	2.2	100.0			O
	2800	OTTA	3	S	2157.0	2157.8	3.0	11.1	2.0		
23	200	GORK	44	NS	0300.0E		545.0D		5.0		
	245	SVTO	44	NS	0419.0E	0437.0	32.0D	190.0			QL=4 ST=2 TYP=1
	245	LEAR	44	NS	0420.0E	0436.0	141.0D	210.0			QL=4 ST=2 TYP=1
	204	IZMI	43	NS	0600.0		360.0	15.0			
	260	ONDR	44	NS	0630.0E	1451.9	610.0D	426.0			
	127	TORN	43	NS	1146.0	1232.7	194.0	60.0			V=1
	245	SGMR	44	NS	1305.0E	1418.0	644.0D	150.0			QL=2 ST=2 TYP=1
	245	SVTO	44	NS	1320.0E	1326.0	270.0D	88.0			QL=2 ST=2 TYP=1
	245	PALE	44	NS	2036.0E	2159.0	294.0D	270.0			QL=4 ST=2 TYP=1
	245	LEAR	4	S/F	0002.0E	0002.0	5.0D	390.0			QL=4 ST=2 TYP=3
	15400	LEAR	4	S/F	0002.0E	0003.0	3.0D	180.0			QL=4 ST=2 TYP=5
	4995	LEAR	4	S/F	0002.0E	0003.0	3.0D	160.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	0002.0E	0003.0	3.0D	190.0			QL=4 ST=2 TYP=3
	245	PALE	4	S/F	0002.0E	0002.0	5.0D	420.0			QL=4 ST=2 TYP=3
	2840	PEKG	45	C	0002.0	0003.5	5.0	68.1	37.6		
	17000	NOBE	7	C	0002.8	0003.5	3.0	124.0			12L,80,35GHz:0

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
23	2695	LEAR	8	S	0003.0E	0003.0	1.0D	59.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0003.0E	0003.0	U	89.0			QL=4 ST=2 TYP=3
	15400	PALE	8	S	0003.0E	0003.0	1.0D	130.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	0003.0E	0003.0	1.0D	170.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	0003.0E	0003.0	1.0D	50.0			QL=4 ST=2 TYP=3
	100	HIRA	48	C	0003.5		4.3	1000.0D			
	200	HIRA	46	C	0003.6	0004.0	2.0	335.0			O
	500	HIRA	8	S	0003.8	0003.8	0.7	946.0			O
	245	LEAR	8	S	0009.0E	0009.0	U	120.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0009.0E	0009.0	U	120.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0031.0E	0031.0	U	110.0			QL=4 ST=2 TYP=3
	200	HIRA	41	F	0130.4	0133.7	8.6	110.0			O
	100	HIRA	8	S	0133.7		1.0	1000.0D			
	200	HIRA	42	SER	0311.2	0338.9	44.2	94.0			MR
	5900	KISV	25	R	0410.0	0436.7		13.0			
	245	LEAR	8	S	0419.0E	0419.0	U	53.0			QL=4 ST=2 TYP=3
	650	GORK	21	GRF	0419.0	0736.0	466.0D	9.0			
	950	GORK	22	GRF	0428.6	0432.0	12.4	3.0			
	650	GORK	2	S/F	0428.8	0429.4	1.2	6.0			
	9300	KISV	25	R	0430.0	0524.0		13.0			
	2950	GORK	22	GRF	0430.5	0443.9	18.0	5.0			
	100	GORK	4	S/F	0431.0	0432.5	3.4	130.0			
	200	GORK	4	S/F	0432.3	0432.9	1.7	30.0D			
	200	HIRA	41	F	0433.0	0433.4	50.0	105.0			MR
	245	PALE	4	S/F	0434.0E	0437.0	3.0D	180.0			QL=4 ST=2 TYP=3
	650	GORK	4	S/F	0434.5	0436.6	2.1	12.0			
	245	PALE	8	S	0439.0E	0439.0	U	73.0			QL=4 ST=2 TYP=3
	234	POTS	4	S/F	0640.3	0640.5	0.5	950.0			
	536	ONDR	41	F	0700.0	1235.7	540.0	63.0			
	234	POTS	8	S	0808.8	0809.2	0.6	500.0			
	245	LEAR	8	S	0833.0E	0834.0	1.0D	98.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0833.0E	0834.0	1.0D	100.0			QL=4 ST=2 TYP=3
	204	IZMI	4	S/F	0833.8	0834.0	0.9	400.0	150.0		
	113	POTS	4	S/F	0833.8E	0834.1	2.0D	770.0			
	30	POTS	4	S/F	0833.8	0834.1	1.0	3200.0U			
	33	UPIC	8	S	0833.9	0834.1	0.9				
	950	GORK	41	F	1139.5	1156.1		3.0			
	950	GORK	41	F	1139.5	1153.3		2.0			
	950	GORK	41	F	1139.5	1149.4	17.6	1.0			
	245	SGMR	8	S	1149.0E	1149.0	U	76.0			QL=4 ST=2 TYP=3
	810	KRAK	8	S	1155.8	1156.0	0.7	11.0			
	245	SGMR	8	S	1222.0E	1222.0	1.0D	96.0			QL=4 ST=2 TYP=3
	234	POTS	4	S/F	1222.5	1222.6	1.0	200.0			
	410	SGMR	8	S	1223.0E	1224.0	1.0D	82.0			QL=4 ST=2 TYP=3
	9400	HUAN	1	S	1234.6	1236.1	2.9	11.8	4.6		
	9400	HUAN	1	S	1234.6	1236.1	2.9	11.8	4.6		
	9500	POTS	3	S	1235.0U	1236.1	3.0U	16.0			
	3000	POTS	4	S/F	1235.0U	1235.6	4.0U	24.0			
	1470	POTS	4	S/F	1235.0U	1235.8	3.0U	30.0U			
	5900	KISV	2	S/F	1235.3	1236.2	7.0	24.0			
	9300	KISV	2	S/F	1235.3	1236.3	3.5	21.0			
	33	UPIC	42	SER	1235.5	1236.1	10.5				
	2800	OTTA	4	S/F	1235.5	1235.9	6.4	39.9	8.0		
	2850	CRIM	3	S	1235.6	1235.8	4.6	55.0	18.0		
	33	UPIC	4	S/F	1444.6	1444.7	1.2				
	33	UPIC	2	S/F	1516.2	1516.3	0.6				
	9400	HUAN	20	GRF	1535.8	1551.2	26.0	5.1	3.2		
	245	SGMR	8	S	1614.0E	1614.0	2.0D	250.0			QL=2 ST=3 TYP=3
	245	SVTO	8	S	1614.0E	1614.0	U	250.0			QL=2 ST=2 TYP=3
	33	UPIC	8	S	1614.3	1614.4	0.8				
	33	UPIC	3	S	1621.0	1621.1	0.4				
	9400	HUAN	22	GRF	1622.1	1638.6	26.1	6.8	3.6		
	245	PALE	8	S	1831.0E	1831.0	1.0D	120.0			QL=4 ST=2 TYP=3
	2800	OTTA	20	GRF	1918.0	1921.0	26.0	6.1	3.0		
	9400	HUAN	20	GRF	1919.0	1935.4	34.7	6.8	4.2		
	500	HIRA	21	GRF	2100.0	2152.0	85.0	12.0	3.0		O
	200	HIRA	41	F	2123.0	2130.0	57.0	36.0			WR
	2800	OTTA	4	S/F	2150.6	2155.2	6.1	18.4	4.0		
	9400	HUAN	2	S/F	2152.7	2154.8	6.5	16.9	7.9		

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

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
23	245	SGMR	8	S	2159.0E	2159.0	1.0D	240.0			QL=2 ST=2 TYP=3
	410	LEAR	8	S	2319.0E	2319.0	U	52.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	2349.0E	2350.0	1.0D	68.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	2350.5	2351.0	0.7	548.0			WR
24	245	LEAR	44	NS	0130.0E	0348.0	492.0D	150.0			QL=4 ST=2 TYP=1
	200	GORK	44	NS	0245.0E		555.0D		5.0		
	33	UPIC	44	NS	0400.0E		743.6D				
	260	ONDR	44	NS	0500.0E		700.0D				
	204	IZMI	43	NS	0600.0		360.0	10.0			
	127	TORN	44	NS	0620.0E		520.0D				V=1,DISTURBED
	100	GORK	44	NS	0802.0E		238.0D		5.0		
	245	SGMR	44	NS	0950.0E	2003.0	839.0D	460.0			QL=2 ST=2 TYP=1
	245	SVTO	44	NS	1029.0E	1153.0	440.0D	300.0			QL=2 ST=2 TYP=1
	234	POTS	44	NS	1148.5E	1245.0U	61.0D	50.0U			
	245	PALE	44	NS	1639.0E	1823.0	738.0D	470.0			QL=4 ST=2 TYP=1
	200	HIRA	44	NS	1940.0E		780.0D		39.0		
	245	LEAR	44	NS	2318.0E	0451.0	624.0D	420.0			QL=4 ST=2 TYP=1
	2840	PEKG	20	GRF	0005.0	0008.3	12.0	6.8	3.4		
	245	LEAR	8	S	0059.0E	0100.0	1.0D	54.0			QL=4 ST=2 TYP=3
	200	HIRA	46	C	0139.5	0139.6	1.5	104.0			O
	245	LEAR	4	S/F	0227.0E	0229.0	4.0D	160.0			QL=4 ST=2 TYP=3
	200	HIRA	46	C	0228.8	0230.0	2.1	710.0			MR
	100	HIRA	46	C	0229.0	0230.0	2.2	3000.0			O
	245	PALE	8	S	0229.0E	0229.0	1.0D	160.0			QL=4 ST=2 TYP=3
	650	GORK	21	GRF	0300.0E	0726.4	540.0D	11.0			
	950	GORK	21	GRF	0321.5	0723.8	518.5D	7.0			
	245	PALE	8	S	0401.0E	0401.0	U	63.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0406.0E	0406.0	U	75.0			QL=4 ST=2 TYP=3
	100	HIRA	46	C	0417.6	0418.5	2.0	720.0			
	200	HIRA	46	C	0417.8	0417.8	2.0	98.0			MR
	245	PALE	8	S	0418.0E	0418.0	1.0D	86.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0418.0E	0418.0	U	110.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	0441.0E	0441.0	1.0D	63.0			QL=4 ST=2 TYP=3
	2950	GORK	21	GRF	0445.1	0623.0	131.9	9.0			
	245	SVTO	8	S	0452.0E	0452.0	U	72.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0544.0E	0544.0	U	64.0			QL=4 ST=2 TYP=3
	113	POTS	4	S/F	0558.0	0559.0	1.9	200.0			
	30	POTS	4	S/F	0558.3	0558.6	1.6	200.0U			
	204	IZMI	4	S/F	0615.8	0616.0	0.5	65.0			
	2840	PEKG	5	S	0620.0	0620.7	6.0	10.7	5.4		
	2850	CRIM	1	S	0620.0	0620.8	3.4	13.0	4.0		
	2950	GORK	1	S	0620.5	0620.9	2.2	7.0			
	536	ONDR	41	F	0700.0	0929.3	540.0	152.0			
	410	LEAR	8	S	0703.0E	0703.0	1.0D	82.0			QL=4 ST=2 TYP=3
	30	POTS	42	SER	0720.5	0726.8	7.7	400.0U			
	245	SVTO	8	S	0721.0E	0721.0	1.0D	100.0			QL=4 ST=2 TYP=3
	113	POTS	42	SER	0721.0	0727.2	7.5	420.0			
	200	GORK	41	F	0721.0	0732.3		30.0D			
	234	POTS	41	F	0721.0	0726.7	12.3	450.0			
	200	GORK	41	F	0721.0	0726.9	11.8	800.0			
	204	IZMI	42	SER	0721.5	0726.8	11.3	1000.0			
	245	LEAR	8	S	0726.0E	0726.0	1.0D	290.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0726.0E	0726.0	1.0D	80.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0726.0E	0726.0	1.0D	81.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0726.0E	0726.0	2.0D	280.0			QL=4 ST=2 TYP=3
	204	IZMI	4	S/F	0818.5	0818.8	0.7	84.0			
	100	GORK	41	F	0919.6	0936.4		250.0			
	100	GORK	41	F	0919.6	0929.4	17.7	13700.0			
	245	SVTO	8	S	0920.0E	0920.0	U	100.0			QL=4 ST=2 TYP=3
	113	POTS	4	S/F	0926.8	0929.2	9.7	5500.0D			
	200	GORK	46	C	0927.9	0929.2	4.1	1400.0			
	200	GORK	46	C	0927.9	0929.5		17600.0			
	30	POTS	4	S/F	0927.9	0929.5U	5.1	4000.0D			
	33	UPIC	48	C	0928.0		4.5				
	245	LEAR	49	GB	0928.0E	0929.0	3.0D	3600.0			QL=4 ST=2 TYP=6
	610	LEAR	8	S	0928.0E	0929.0	2.0D	76.0			QL=4 ST=2 TYP=3
	410	LEAR	49	GB	0928.0E	0929.0	5.0D	930.0			QL=4 ST=2 TYP=6
	245	SVTO	49	GB	0928.0E	0929.0	3.0D	2400.0			QL=4 ST=2 TYP=6

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

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
24	127	TORN	47	GB	0928.0	0929.0	3.0	7000.0	3500.0		
	2840	PEKG	45	C	0928.0	0929.8	4.0	17.0	8.6		
	5900	KISV	23	GRF	0928.2	0934.1	19.6	8.0			
	234	POTS	4	S/F	0928.2	0929.5	5.8	33000.0			
	9100	GORK	22	GRF	0928.2	0933.9	16.2	10.0			
	204	IZMI	47	GB	0928.5	0929.3	7.1	48000.0			
	810	KRAK	2	S/F	0928.7	0929.0	1.1	28.0	5.0		
	650	GORK	46	C	0928.8	0929.2	4.3	50.0			
	950	GORK	46	C	0928.8	0929.3	4.3	23.0			
	950	GORK	46	C	0928.8	0932.4		3.0			
	650	GORK	46	C	0928.8	0932.4		23.0			
	430	KRAK	8	S	0928.8	0928.9	1.0	290.0D			
	2950	GORK	2	S/F	0928.9	0929.3	7.4	14.0			
	1415	LEAR	8	S	0929.0E	0929.0	1.0D	31.0			QL=4 ST=2 TYP=3
	410	SVTO	49	GB	0929.0E	0929.0	U	1200.0			QL=4 ST=2 TYP=6
	9300	KISV	22	GRF	0929.0	0934.0	12.4	9.0			
	9500	POTS	20	GRF	0929.0	0934.0	16.0	7.0			
	2850	CRIM	7	C	0929.0	0930.3		20.0			
	2850	CRIM	7	C	0929.0	0929.4	4.1	29.0	10.0		
	1470	POTS	4	S/F	0929.0	0929.5	4.0	49.0			
	200	HIRA	48	C	0929.0	0929.7	3.4	6500.0U	1100.0U		MR SUNSET
	100	HIRA	48	C	0929.0	0930.7	4.0	6000.0U	850.0U		MR SUNSET
	5900	KISV	46	C	0929.1	0932.4		5.0			
	5900	KISV	46	C	0929.1	0930.6		5.0			
	5900	KISV	46	C	0929.1	0929.6	10.0	14.0			
	3000	POTS	4	S/F	0929.5E	0929.5	10.0D	16.0			
	808	ONDR	4	S/F	0936.0	0938.2	4.3	16.0			
	204	IZMI	25	R	0951.0		129.0	100.0			
	245	SVTO	8	S	1018.0E	1018.0	1.0D	170.0			QL=4 ST=2 TYP=3
	100	GORK	41	F	1018.1	1039.0	101.9	2200.0			
	100	GORK	41	F	1018.1	1152.8		4600.0			
	100	GORK	41	F	1018.1	1041.9		1710.0			
	234	POTS	42	SER	1018.2	1018.5	7.0	500.0			
	113	POTS	42	SER	1018.2	1018.7	6.8	350.0			
	200	GORK	41	F	1018.3	1041.7		200.0			
	30	POTS	42	SER	1018.3	1018.7	7.2	2000.0U			
	200	GORK	41	F	1018.3	1018.9	24.1	400.0			
	204	IZMI	42	SER	1018.5	1018.8	7.5	350.0			
	245	SVTO	8	S	1024.0E	1024.0	1.0D	83.0			QL=4 ST=2 TYP=3
	234	POTS	41	F	1035.0	1041.8	7.8				
	113	POTS	41	F	1035.5	1038.7	8.4	500.0			
	30	POTS	41	F	1035.7	1037.7	7.4	3000.0U			
	204	IZMI	42	SER	1038.5	1039.0	4.5	450.0			
	5900	KISV	23	GRF	1117.8	1133.2	20.5	7.0			
	9300	KISV	20	GRF	1119.7	1120.5	14.1	10.0			
	3000	POTS	20	GRF	1120.0	1121.0	65.0	8.0			
	1470	POTS	1	S	1120.0	1120.4	1.0	3.0			
	9500	POTS	29	PBI	1120.0	1120.5	35.0	9.0			
	5900	KISV	2	S/F	1120.1	1120.6	4.0	7.0			
	950	GORK	1	S	1120.2	1120.5	1.0	5.0			
	650	GORK	2	S/F	1120.2	1120.5	1.1	7.0			
	204	IZMI	41	F	1135.5	1136.5	1.4	80.0			
	204	IZMI	45	C	1150.5	1153.3	5.5	560.0			
	127	TORN	47	GB	1150.6	1152.6	6.0	1100.0	100.0		
	200	GORK	46	C	1150.6	1152.7	3.4	160.0			
	200	GORK	46	C	1150.6	1153.8		400.0			
	1470	POTS	22	GRF	1151.0	1202.7	29.0	8.0			
	2950	GORK	1	S	1151.3	1152.7	4.4	8.0			
	2850	CRIM	1	S	1151.7	1152.8	1.8	9.0	3.0		
	3000	POTS	3	S	1152.0	1152.7	1.5	11.0			
	3013	IZMI	1	S	1152.0	1152.8	1.5	7.0	3.0		
	33	UPIC	48	C	1152.0	1154.9	5.1				
	410	SGMR	8	S	1153.0E	1155.0	2.0D	94.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1154.0E	1155.0	1.0D	85.0			QL=2 ST=2 TYP=3
	410	SGMR	8	S	1207.0E	1207.0	1.0D	190.0			QL=4 ST=3 TYP=3
	810	KRAK	2	S/F	1207.2	1207.5	1.2	6.0	1.0		
	2850	CRIM	1	S	1207.5	1207.9	0.8	6.0	2.0		
	5900	KISV	1	S	1207.7	1208.0	0.7	4.0			
	3000	POTS	3	S	1207.8	1208.3	0.7	6.0			

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
24	410	SGMR	8	S	1211.0E	1211.0	1.0D	86.0			QL=4 ST=3 TYP=3
	245	SGMR	8	S	1243.0E	1244.0	1.0D	430.0			QL=2 ST=2 TYP=3
	9400	HUAN	20	GRF	1250.8	1258.6	13.7	7.1	4.4		
	5900	KISV	23	GRF	1256.2	1300.4	10.9	9.0			
	9500	POTS	29	PBI	1256.5	1258.4	12.5	9.0			
	9300	KISV	22	GRF	1257.0	1258.4	17.0	14.0			
	3000	POTS	29	PBI	1257.0	1257.5	43.0	8.0			
	2850	CRIM	1	S	1257.0	1257.7	1.0	7.0	2.0		
	5900	KISV	2	S/F	1257.5	1258.4	2.8	14.0			
	5900	KISV	23	GRF	1316.6	1323.8	11.1	5.0			
	5900	KISV	46	C	1318.7	1318.8		5.0			
	5900	KISV	46	C	1318.7	1319.9	4.6	7.0			
	5900	KISV	46	C	1318.7	1320.9		5.0			
	245	SVTO	8	S	1322.0E	1322.0	U	240.0			QL=2 ST=2 TYP=3
	1470	POTS	29	PBI	1339.5	1339.7	45.5	2.0			
	245	SGMR	49	GB	1354.0E	1359.0	6.0D	540.0			QL=2 ST=2 TYP=7
	245	SVTO	8	S	1359.0E	1359.0	1.0D	450.0			QL=2 ST=2 TYP=3
	410	SVTO	8	S	1421.0E	1422.0	1.0D	140.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1422.0E	1422.0	U	270.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	1426.0E	1430.0	5.0D	490.0			QL=2 ST=2 TYP=5
	245	SGMR	49	GB	1429.0E	1430.0	2.0D	600.0			QL=2 ST=2 TYP=6
	2695	SVTO	8	S	1532.0E	1532.0	1.0D	190.0			QL=4 ST=2 TYP=3
	9400	HUAN	20	GRF	1701.4	1727.8	56.1	3.6	2.1		
	410	PALE	4	S/F	1809.0E	1810.0	3.0D	230.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	2146.0E	2146.0	1.0D	3200.0			QL=2 ST=2 TYP=6
	410	PALE	8	S	2146.0E	2146.0	U	92.0			QL=4 ST=2 TYP=3
	245	SGMR	49	GB	2146.0E	2146.0	1.0D	3000.0			QL=2 ST=2 TYP=6
	245	PALE	49	GB	2206.0E	2206.0	U	560.0			QL=2 ST=2 TYP=6
	15400	PALE	4	S/F	2344.0E	2345.0	16.0D	410.0			QL=4 ST=1 TYP=3
	610	PALE	4	S/F	2348.0E	2352.0	12.0D	66.0			QL=4 ST=1 TYP=5
	2840	PEKG	20	GRF	2348.0	2356.1	13.0	11.3	5.6		
25	410	PALE	44	NS	0231.0E	0335.0	139.0D	220.0			QL=4 ST=2 TYP=1
	100	GORK	44	NS	0252.0E		548.0D		5.0		
	200	GORK	44	NS	0252.0E		548.0D		5.0		
	245	SVTO	44	NS	0401.0E	1113.0	828.0D	480.0			QL=4 ST=2 TYP=1
	260	ONDR	44	NS	0500.0E		700.0D				
	113	POTS	44	NS	0540.0E	0729.0	370.0D	15.0			
	234	POTS	44	NS	0540.0E	0731.0U	562.0D	90.0			
	204	IZMI	43	NS	0600.0		360.0	100.0			
	127	TORN	44	NS	0620.0E		500.0D		3.0		V=1
	430	KRAK	44	NS	0729.0E	0738.8	135.0D	220.0	17.0		
	810	KRAK	43	NS	0827.0	0942.5	259.0D	21.0	9.0		
	245	SGMR	44	NS	0951.0E	1108.0	849.0D	560.0			QL=2 ST=1 TYP=1
	430	KRAK	44	NS	1143.0E	1154.0	79.5D	250.0D	150.0		
	245	SGMR	44	NS	1806.0E	1914.0	259.0D	120.0			QL=2 ST=2 TYP=1
	245	PALE	44	NS	1901.0E	2352.0	596.0D	190.0			QL=4 ST=2 TYP=1
	500	HIRA	46	C	0034.0	0037.5	18.0	19.0			WR
	100	GORK	46	C	0255.4	0256.5	2.1	230.0			
	100	GORK	46	C	0255.4	0256.8		230.0			
	950	GORK	23	GRF	0300.0E	0502.7	193.0D	12.0			
	2840	PEKG	20	GRF	0311.0	0323.7	24.0D	8.3	4.1		
	2840	PEKG	3	S	0335.0E	0335.4	11.0D	13.8	6.8		
	2950	GORK	2	S/F	0335.1	0335.6	3.0	11.0			
	650	GORK	1	S	0335.4	0336.0	2.5	3.0			
	950	GORK	1	S	0335.4	0335.7	2.0	6.0			
	100	GORK	41	F	0335.7	0337.1	16.8	230.0			
	100	GORK	41	F	0335.7	0344.8		230.0			
	200	GORK	41	F	0336.0	0343.3	16.2	80.0			
	200	GORK	41	F	0336.0	0350.7		190.0			
	650	GORK	22	GRF	0348.5U	0502.7	144.4D	22.0			
	500	HIRA	20	GRF	0425.0	0504.0	75.0	22.0	3.0		WR
	2840	PEKG	20	GRF	0442.0		31.0	11.2	5.5		
	100	GORK	46	C	0448.6	0451.3		230.0			
	100	GORK	46	C	0448.6	0449.4	3.6	230.0			
	245	SVTO	8	S	0451.0E	0451.0	U	300.0			QL=4 ST=2 TYP=3
	2950	GORK	20	GRF	0506.9	1154.1	417.1D	10.0			
	2840	PEKG	20	GRF	0637.0	0650.6	77.0	17.0	8.4		
	536	ONDR	41	F	0700.0	0915.6	600.0	28.0			

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

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
25	650	GORK	23	GRF	0715.0E	0943.3	285.0D	45.0			
	950	GORK	23	GRF	0715.0E	0943.3	285.0D	16.0			
	410	LEAR	8	S	0737.0E	0737.0	1.0D	460.0			QL=4 ST=2 TYP=3
	410	SVTO	49	GB	0737.0E	0737.0	1.0D	1200.0			QL=4 ST=2 TYP=6
	245	SVTO	8	S	0737.0E	0737.0	1.0D	210.0			QL=4 ST=2 TYP=3
	808	ONDR	41	F	0737.0	0914.8	320.0	1.0			
	5900	KISV	2	S/F	0737.2	0737.9	1.8	6.0			
	1470	POTS	3	S	0737.5	0737.9	2.0	7.0			
	950	GORK	1	S	0737.6	0737.8	0.4	13.0			
	650	GORK	8	S	0737.7	0737.8	0.2	15.0			
	245	SVTO	8	S	0747.0E	0748.0	1.0D	63.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0755.0	0758.6	18.0D	15.9	7.9		
	2840	PEKG	20	GRF	0813.0E	0816.4	23.0D	10.6	5.2		
	9300	KISV	1	S	0820.1	0820.8	0.9	13.0			
	245	SVTO	49	GB	1108.0E	1108.0	U	570.0			QL=2 ST=3 TYP=6
	245	SGMR	8	S	1140.0E	1140.0	U	340.0			QL=4 ST=2 TYP=3
	200	GORK	46	C	1149.1	1151.3		480.0			
	200	GORK	46	C	1149.1	1150.6	2.5	280.0			
	204	IZMI	45	C	1150.1	1151.0	1.5	2600.0			
	100	GORK	4	S/F	1150.2	1151.1	1.2	40.0			
	33	UPIC	4	S/F	1150.5	1150.9	1.6				
	2800	OTTA	20	GRF	1319.0	1325.0	26.0	4.2	2.0		
	9400	HUAN	1	S	1319.5	1325.1	10.8	7.1	3.4		
	9400	HUAN	1	S	1410.8	1415.0	11.2	3.5	1.8		
	3000	POTS	3	S	1411.0	1415.4	4.4	12.0			
	1470	POTS	3	S	1411.0	1414.5	11.0	13.0			
	2800	OTTA	22	GRF	1519.0E	1519.0	120.0D	9.6	4.0		
	245	PALE	8	S	1741.0E	1742.0	1.0D	80.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1741.0E	1742.0	1.0D	100.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1801.0E	1802.0	2.0D	110.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1801.0E	1802.0	1.0D	99.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	1808.0E	1809.0	1.0D	94.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	1822.0E	1822.0	1.0D	83.0			QL=2 ST=2 TYP=3
	2800	OTTA	28	PRE	2027.0	2255.0	158.0	17.2	8.0		
	9400	HUAN	2	S/F	2142.0	2146.0	11.0	10.6	6.2		
	245	PALE	8	S	2235.0E	2235.0	U	200.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	2235.0E	2235.0	U	220.0			QL=2 ST=2 TYP=3
	200	HIRA	46	C	2239.6	2242.2	3.3	97.0			SR
	245	PALE	8	S	2240.0E	2241.0	2.0D	150.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	2240.0E	2241.0	1.0D	160.0			QL=2 ST=2 TYP=3
	2840	PEKG	45	C	2242.0E	2332.1		327.0	141.0		
	2840	PEKG	45	C	2242.0E	2324.3		320.6	138.2		
	2840	PEKG	45	C	2242.0E	2332.8	105.0D	320.6	138.2		
	2695	PENT	4	S/F	2255.0	2324.1	29.1	221.5	44.0		
	500	HIRA	46	C	2256.5	2332.0		46.0			O
	500	HIRA	46	C	2256.5	2314.0	71.5	56.0	22.0		ML
	200	HIRA	46	C	2257.0	2333.7		73.0			O
	200	HIRA	46	C	2257.0	2312.9	46.2	76.0	22.0		O
	2695	PALE	4	S/F	2258.0E	2300.0	6.0D	62.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	2300.0E	2301.0	1.0D	36.0			QL=4 ST=2 TYP=3
	1415	PALE	4	S/F	2300.0E	2301.0	4.0D	52.0			QL=4 ST=2 TYP=3
	2695	PALE	20	GRF	2310.0E	2332.0	39.0D	230.0			QL=4 ST=2 TYP=2
	1415	PALE	49	GB	2310.0E	2335.0	49.0D	3900.0			QL=4 ST=2 TYP=7
	245	SGMR	8	S	2311.0E	2311.0	1.0D	65.0			QL=2 ST=2 TYP=3
	8800	PALE	20	GRF	2311.0E	2323.0	39.0D	82.0			QL=4 ST=2 TYP=2
	4995	PALE	20	GRF	2311.0E	2323.0	39.0D	130.0			QL=4 ST=2 TYP=2
	410	PALE	8	S	2313.0E	2313.0	U	61.0			QL=4 ST=2 TYP=3
	15400	PALE	20	GRF	2316.0E	2336.0	27.0D	59.0			QL=4 ST=2 TYP=2
	610	PALE	20	GRF	2319.0E	2331.0	39.0D	75.0			QL=4 ST=2 TYP=2
	2695	LEAR	20	GRF	2320.0E	2332.0	48.0D	270.0			QL=4 ST=2 TYP=2
	1415	LEAR	49	GB	2320.0E	2335.0	48.0D	3300.0			QL=4 ST=2 TYP=7
	610	LEAR	20	GRF	2320.0E	2346.0	43.0D	73.0			QL=4 ST=2 TYP=2
	15400	LEAR	20	GRF	2320.0E	2333.0	48.0D	130.0			QL=4 ST=2 TYP=2
	245	SGMR	8	S	2322.0E	2322.0	U	140.0			QL=2 ST=2 TYP=3
	410	LEAR	8	S	2325.0E	2325.0	U	18.0			QL=4 ST=2 TYP=3
	4995	LEAR	4	S/F	2325.0E	2326.0	43.0D	170.0			QL=4 ST=2 TYP=3
	8800	LEAR	20	GRF	2325.0E	2337.0	43.0D	100.0			QL=4 ST=2 TYP=2
	2695	PENT	29	PBI	2328.1	2332.0	134.0	228.9	34.0		
	245	LEAR	8	S	2331.0E	2333.0	2.0D	170.0			QL=2 ST=2 TYP=3

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

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
25	245	PALE	8	S	2342.0E	2353.0	12.0D	360.0			QL=2 ST=3 TYP=3
26	500	HIRA	44	NS	0008.0E	0220.0	570.0D	12.0	5.0		WR
	410	LEAR	44	NS	0218.0E	0218.0	D	97.0			QL=4 ST=2 TYP=1
	410	LEAR	44	NS	0220.0E	0336.0	275.0D	180.0			QL=4 ST=2 TYP=1
	100	GORK	44	NS	0241.0E		560.0D		5.0		
	200	GORK	44	NS	0242.0E		560.0D		5.0		
	245	SVTO	44	NS	0401.0E	1717.0	827.0D	770.0			QL=2 ST=2 TYP=1
	410	SVTO	44	NS	0428.0E	0436.0	17.0D	80.0			QL=4 ST=2 TYP=1
	260	ONDR	44	NS	0500.0E		700.0D				
	113	POTS	44	NS	0520.0E	0816.0	280.0D	11.0			
	234	POTS	44	NS	0530.0E	0609.0U	517.0D	90.0			
	204	IZMI	43	NS	0600.0		360.0	50.0			
	33	UPIC	43	NS	0611.0		642.0				
	430	KRAK	44	NS	0707.0E	0957.2	390.0D	80.0D	35.0		
	127	TORN	43	NS	0716.0		424.0		2.0		V=1
	245	SGMR	44	NS	0952.0E	2010.0	835.0D	1500.0			QL=2 ST=3 TYP=1
	410	SGMR	44	NS	1021.0E	1021.0	79.0D	65.0			QL=2 ST=2 TYP=1
	245	PALE	44	NS	1638.0E	1717.0	738.0D	670.0			QL=4 ST=2 TYP=1
	500	HIRA	44	NS	1940.0E	2100.0	780.0D	35.0	10.0		WR
	200	HIRA	44	NS	1940.0E	2148.0	780.0D	94.0	27.0		WR
	410	SGMR	44	NS	2024.0E	2104.0	203.0D	90.0			QL=4 ST=3 TYP=1
	410	PALE	44	NS	2030.0E	2051.0	114.0D	88.0			QL=4 ST=2 TYP=1
	245	LEAR	44	NS	2317.0E	0028.0	523.0D	500.0			QL=4 ST=2 TYP=1
	245	LEAR	8	S	0113.0E	0113.0	1.0D	140.0			QL=4 ST=2 TYP=3
	100	HIRA	46	C	0114.2	0114.9	1.7	3000.0			O
	245	PALE	49	GB	0118.0E	0118.0	1.0D	500.0			QL=4 ST=2 TYP=6
	245	PALE	8	S	0143.0E	0143.0	1.0D	240.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	0200.0E	0201.0	1.0D	220.0			QL=2 ST=2 TYP=3
	410	PALE	8	S	0208.0E	0209.0	1.0D	110.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0208.0E	0208.0	1.0D	300.0			QL=2 ST=2 TYP=3
	410	PALE	4	S/F	0218.0E	0221.0	4.0D	90.0			QL=4 ST=2 TYP=5
	410	PALE	4	S/F	0224.0E	0230.0	7.0D	100.0			QL=4 ST=2 TYP=5
	2950	GORK	22	GRF	0252.0E	0316.7	182.0D	17.0			
	200	GORK	41	F	0259.7	0309.3	21.6	360.0			
	200	GORK	41	F	0259.7	0320.6		200.0			
	650	GORK	23	GRF	0300.0E	1126.0	540.0D	25.0			
	950	GORK	21	GRF	0300.0E	0433.6	233.3D	10.0			
	2840	PEKG	1	S	0300.0	0301.9	6.0	8.0	3.5		
	100	GORK	41	F	0308.1	0309.2	33.4	30.0D			
	100	GORK	41	F	0308.1	0339.4		35.0D			
	2840	PEKG	20	GRF	0357.0	0445.0	56.0	9.6	4.1		
	650	GORK	8	S	0401.6	0401.7	0.3	30.0			
	950	GORK	1	S	0401.6	0401.9	1.0	2.0			
	536	ONDR	41	F	0600.0	1305.2	600.0	10.0			
	100	GORK	41	F	0609.0	0620.6		110.0			
	100	GORK	41	F	0609.0	0611.8	12.6	1700.0			
	113	POTS	4	S/F	0610.0	0611.7	2.3	280.0			
	2950	GORK	20	GRF	0748.3	1014.7	251.7D	12.0			
	100	GORK	46	C	0809.6	0810.1	2.4	340.0			
	100	GORK	46	C	0809.6	0810.5		230.0			
	950	GORK	23	GRF	0912.4	1134.0	167.6D	5.0			
	950	GORK	4	S/F	0920.1	0920.5	0.5	16.0			
	650	GORK	2	S/F	0920.1	0920.5	0.6	6.0			
	204	IZMI	42	SER	0921.2	0921.5	3.0	220.0			
	200	GORK	4	S/F	1011.9	1013.2	2.1	25.0D			
	245	SGMR	8	S	1021.0E	1021.0	U	170.0			QL=4 ST=3 TYP=3
	245	SGMR	8	S	1100.0E	1100.0	U	260.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1112.0E	1112.0	U	190.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1217.0E	1217.0	1.0D	200.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1256.0E	1256.0	U	380.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1333.0E	1333.0	U	180.0			QL=4 ST=3 TYP=3
	245	SGMR	8	S	1530.0E	1530.0	U	160.0			QL=4 ST=2 TYP=3
	9400	HUAN	21	GRF	1641.4	1713.6	86.2	8.3	3.6		
	245	SGMR	49	GB	1651.0E	1700.0	13.0D	1200.0			QL=2 ST=2 TYP=7
	610	SGMR	4	S/F	1658.0E	1659.0	6.0D	140.0			QL=4 ST=2 TYP=3
	2800	OTTA	3	S	1658.5	1700.2	11.4	151.7	30.0		
	9400	HUAN	45	C	1658.6	1700.0	10.5	152.1	49.8		
	2695	PALE	8	S	1659.0E	1700.0	2.0D	120.0			QL=4 ST=2 TYP=3

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

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
26	4995	PALE	8	S	1659.0E	1659.0	1.0D	210.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	1659.0E	1659.0	1.0D	140.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	1659.0E	1700.0	2.0D	110.0			QL=4 ST=2 TYP=3
	15400	PALE	8	S	1659.0E	1659.0	1.0D	62.0			QL=4 ST=2 TYP=3
	410	PALE	49	GB	1659.0E	1700.0	1.0D	640.0			QL=4 ST=2 TYP=6
	610	PALE	4	S/F	1659.0E	1659.0	8.0D	140.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1659.0E	1700.0	1.0D	320.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1659.0E	1659.0	5.0D	170.0			QL=4 ST=2 TYP=3
	15400	SGMR	4	S/F	1659.0E	1659.0	5.0D	100.0			QL=2 ST=2 TYP=3
	4995	SGMR	4	S/F	1659.0E	1659.0	5.0D	210.0			QL=4 ST=2 TYP=3
	1415	SGMR	4	S/F	1659.0E	1700.0	5.0D	120.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1659.0E	1700.0	2.0D	140.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1659.0E	1700.0	421.0D	190.0			QL=4 ST=1 TYP=3
	4995	SVTO	4	S/F	1659.0E	1659.0	421.0D	210.0			QL=4 ST=1 TYP=3
	610	SVTO	4	S/F	1659.0E	1659.0	421.0D	110.0			QL=2 ST=1 TYP=3
	15400	SVTO	4	S/F	1659.0E	1700.0	421.0D	80.0			QL=2 ST=1 TYP=3
	410	PALE	8	S	1706.0E	1707.0	2.0D	130.0			QL=2 ST=2 TYP=3
	410	SGMR	4	S/F	1706.0E	1707.0	16.0D	170.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1707.0E	1707.0	1.0D	400.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1707.0E	1708.0	1.0D	56.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1709.0E	1709.0	411.0D	46.0			QL=4 ST=1 TYP=3
	4995	SVTO	4	S/F	1717.0E	1717.0	403.0D	31.0			QL=4 ST=1 TYP=3
	610	SGMR	8	S	1823.0E	1824.0	1.0D	220.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	1824.0E	1824.0	U	190.0			QL=4 ST=2 TYP=3
	2800	OTTA	3	S	1824.1	1824.3	1.1	6.7	1.0		
	500	HIRA	41	F	2122.5	2123.5	2.5	175.0			O
	100	HIRA	46	C	2203.3	2203.9	1.6	910.0			
	500	HIRA	46	C	2209.0	2211.3	8.0	39.0			WR
	610	LEAR	4	S/F	2330.0E	2331.0	3.0D	130.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	2330.0E	2331.0	1.0D	120.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	2330.0E	2331.0	2.0D	140.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	2330.0	2331.2	3.0	10.6	4.8		
	2695	PENT	3	S	2331.0	2331.3	1.3	8.7	2.0		
	2840	PEKG	1	S	2334.0	2335.2	3.0	5.5	2.5		
	2695	PENT	20	GRF	2334.2	2335.2	6.1	4.0	2.0		
27	200	GORK	44	NS	0243.0E		560.0D		5.0		
	100	GORK	44	NS	0244.0E		558.0D		5.0		
	245	SVTO	44	NS	0418.0E	1236.0	652.0D	320.0			QL=2 ST=2 TYP=1
	260	ONDR	44	NS	0500.0E		700.0D				
	204	IZMI	43	NS	0600.0		360.0	150.0			
	33	UPIC	43	NS	0726.6		471.9				
	430	KRAK	44	NS	0732.0E	1231.0	323.0D	64.0	18.0		
	127	TORN	43	NS	0735.0		430.0				V=0,DISTURBED
	245	SGMR	44	NS	0953.0E	1025.0U	252.0D	230.0			QL=2 ST=2 TYP=1
	410	SVTO	44	NS	1155.0E	1225.0U	185.0D	150.0			QL=2 ST=2 TYP=1
	410	SGMR	44	NS	1239.0E	1301.0U	86.0D	120.0			QL=2 ST=2 TYP=1
	245	PALE	44	NS	1638.0E	2155.0	443.0D	150.0			QL=4 ST=2 TYP=1
	245	SGMR	44	NS	2141.0E	2214.0	125.0D	170.0			QL=2 ST=2 TYP=1
	410	SGMR	44	NS	2205.0E	2311.0	101.0D	75.0			QL=2 ST=2 TYP=1
	610	PALE	8	S	0002.0E	0003.0	2.0D	190.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0002.0	0003.3	7.0	23.7	10.6		
	245	LEAR	8	S	0003.0E	0003.0	U	300.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0003.0E	0003.0	1.0D	200.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0003.0E	0003.0	1.0D	31.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	0003.0E	0003.0	U	94.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	0003.0E	0003.0	1.0D	85.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0003.0E	0003.0	U	220.0			QL=2 ST=2 TYP=3
	2695	PENT	3	S	0003.0	0003.4	2.7	18.6	5.0		
	500	HIRA	41	F	0003.5	0004.5	1.8	85.0			O
	500	HIRA	27	RF	0010.0	0022.0	94.0	26.0	9.0		WR
	200	GORK	41	F	0243.7	0244.0	20.1	200.0			
	200	GORK	41	F	0243.7	0255.1		840.0			
	650	GORK	22	GRF	0300.0E	1200.0	540.0D	13.0			
	245	PALE	8	S	0335.0E	0335.0	1.0D	290.0			QL=2 ST=2 TYP=3
	5900	KISV	2	S/F	0428.4	0429.5	2.6	5.0			
	9300	KISV	45	C	0428.5	0430.2		6.0			
	9300	KISV	45	C	0428.5	0429.6	7.2	6.0			
	100	GORK	41	F	0439.5	0441.1	10.2	35.0			

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

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
27	100	GORK	41	F	0439.5	0448.7		35.0			
	200	GORK	41	F	0440.2	0442.2	19.4	120.0			
	200	GORK	41	F	0440.2	0458.5		150.0			
	100	GORK	46	C	0556.1	0557.7		1020.0			
	100	GORK	46	C	0556.1	0556.8	3.5	1810.0			
	113	POTS	4	S/F	0556.4	0556.7	2.1	400.0			
	30	POTS	4	S/F	0556.6	0558.1	1.7	400.0U			
	200	GORK	4	S/F	0557.7	0558.5	1.5	165.0			
	536	ONDR	41	F	0600.0	1517.3	600.0	176.0			
	410	LEAR	8	S	0628.0E	0629.0	2.0D	62.0			QL=4 ST=2 TYP=3
	5900	KISV	2	S/F	0744.6	0746.7	7.2	6.0			
	9300	KISV	2	S/F	0745.7	0746.5	5.6	6.0			
	204	IZMI	41	F	0755.0	0755.5	1.5	1000.0			
	245	LEAR	8	S	0902.0E	0903.0	1.0D	86.0			QL=4 ST=2 TYP=3
	808	ONDR	41	F	0919.0	0920.7	20.0	11.0			
	245	LEAR	8	S	0928.0E	0928.0	1.0D	94.0			QL=4 ST=2 TYP=3
	950	GORK	20	GRF	0939.9	0944.0	17.2	5.0			
	245	SGMR	8	S	1012.0E	1013.0	1.0D	340.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1025.0E	1025.0	1.0D	230.0			QL=2 ST=2 TYP=3
	100	GORK	46	C	1026.8	1032.2	7.0	450.0			
	100	GORK	46	C	1026.8	1033.4		230.0			
	245	SGMR	8	S	1029.0E	1029.0	U	130.0			QL=4 ST=2 TYP=3
	100	GORK	46	C	1105.9	1106.1	1.4	1130.0			
	100	GORK	46	C	1105.9	1106.3		900.0			
	950	GORK	20	GRF	1116.0	1131.1	34.0	3.0			
	808	ONDR	41	F	1228.0	1240.6	70.0	15.0			
	245	SGMR	8	S	1245.0E	1245.0	1.0D	280.0			QL=4 ST=2 TYP=3
	9400	HUAN	1	S	1301.0	1305.7	10.4	4.5	2.8		
	9400	HUAN	2	S/F	1854.4	1857.0	7.5	18.0	8.6		
	245	PALE	8	S	1928.0E	1928.0	1.0D	260.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	2047.0E	2047.0	U	52.0			QL=2 ST=2 TYP=3
	200	HIRA	41	F	2144.0	2150.0	59.0	27.0	14.0		O
	410	PALE	8	S	2157.0E	2157.0	U	140.0			QL=4 ST=2 TYP=3
	200	HIRA	46	C	2302.6	2302.6	3.2	130.0			O
	200	HIRA	27	RF	2308.6	2315.8	69.0	20.0	15.0		O
28	245	LEAR	44	NS	0128.0E	0240.0	112.0D	620.0			QL=4 ST=2 TYP=1
	245	PALE	44	NS	0147.0E	0239.0	142.0D	640.0			QL=4 ST=2 TYP=1
	200	GORK	44	NS	0250.0E		400.0D		5.0		
	260	ONDR	44	NS	0500.0E	1034.0	700.0D	519.0			
	430	KRAK	44	NS	0653.5E	0854.0	367.0D	160.0	34.0		
	245	LEAR	44	NS	0805.0E	0933.0	98.0D	300.0			QL=4 ST=2 TYP=1
	410	SVTO	44	NS	0834.0E	1209.0U	552.0D	180.0			QL=2 ST=2 TYP=1
	127	TORN	43	NS	0844.0		303.0		1.0		V=0
	245	SVTO	44	NS	0852.0E	0848.0U	534.0D	210.0			QL=2 ST=2 TYP=1
	245	SGMR	44	NS	0958.0E	1406.0	656.0D	690.0			QL=2 ST=2 TYP=1
	410	SGMR	44	NS	1011.0E	1445.0	517.0D	470.0			QL=2 ST=2 TYP=1
	204	IZMI	43	NS	1030.0		90.0	40.0			
	245	LEAR	8	S	0020.0E	0021.0	1.0D	63.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0118.0E	0119.0	1.0D	67.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0119.0E	0119.0	U	92.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0130.0E	0130.0	U	62.0			QL=4 ST=2 TYP=3
	245	PALE	4	S/F	0138.0E	0142.0	5.0D	190.0			QL=4 ST=2 TYP=5
	245	PALE	8	S	0146.0E	0146.0	1.0D	110.0			QL=4 ST=2 TYP=3
	2840	PEKG	45	C	0235.0	0241.2	16.0	41.2	18.9		
	650	GORK	21	GRF	0300.0E	0309.3	69.0D	9.0			
	2950	GORK	1	S	0309.6	0312.1	3.0	11.0			
	2840	PEKG	3	S	0311.0	0312.1	10.0	14.9	6.9		
	9100	GORK	1	S	0311.2	0312.0	1.7	10.0			
	650	GORK	4	S/F	0311.6	0312.1	0.6	13.0			
	950	GORK	4	S/F	0311.7	0312.0	3.0	30.0			
	650	GORK	22	GRF	0512.5	0819.7	257.5D	24.0			
	410	LEAR	8	S	0521.0E	0522.0	1.0D	73.0			QL=4 ST=2 TYP=3
	536	ONDR	41	F	0700.0	0932.1	540.0	58.0			
	410	LEAR	8	S	0710.0E	0710.0	1.0D	51.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0710.0E	0710.0	1.0D	140.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0710.0E	0710.0	1.0D	130.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0751.0E	0752.0	1.0D	130.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0757.0E	0758.0	1.0D	150.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
28	204	IZMI	4	S/F	0757.2	0758.0	0.7	55.0			
	245	SVTO	8	S	0906.0E	0906.0	1.0D	170.0			QL=2 ST=2 TYP=3
	33	UPIC	42	SER	1023.0	1023.4	376.8				
	113	POTS	4	S/F	1023.2	1023.3	0.7	750.0			
	30	POTS	4	S/F	1023.2	1023.3U	1.0	6000.0D			
	245	SVTO	49	GB	1406.0E	1406.0	2.0D	560.0			QL=2 ST=2 TYP=6
	245	PALE	8	S	1731.0E	1731.0	U	95.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1748.0E	1749.0	1.0D	78.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1756.0E	1758.0	2.0D	64.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1759.0E	1759.0	U	93.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1822.0E	1822.0	U	54.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1824.0E	1826.0	2.0D	57.0			QL=4 ST=2 TYP=3
	245	SGMR	4	S/F	2122.0E	2123.0	3.0D	210.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2123.0E	2123.0	2.0D	160.0			QL=4 ST=2 TYP=3
	200	HIRA	42	SER	2123.1	2125.7	4.6	285.0			O
	245	SGMR	8	S	2159.0E	2159.0	1.0D	65.0			QL=2 ST=2 TYP=3
	410	PALE	8	S	2211.0E	2211.0	U	62.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2212.0E	2213.0	1.0D	150.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2212.0E	2213.0	2.0D	170.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	2219.0E	2219.0	1.0D	64.0			QL=2 ST=2 TYP=3
	410	SGMR	8	S	2310.0E	2310.0	U	92.0			QL=2 ST=2 TYP=3
	410	LEAR	4	S/F	2322.0E	2322.0	8.0D	69.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2357.0E	2359.0	2.0D	120.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	2358.0E	2359.0	1.0D	87.0			QL=4 ST=2 TYP=3
29	410	LEAR	44	NS	0015.0E	0051.0	69.0D	100.0			QL=4 ST=2 TYP=1
	200	GORK	44	NS	0247.0E		403.0D		5.0		
	260	ONDR	44	NS	0500.0E		700.0D				
	245	LEAR	44	NS	0523.0E	0536.0	173.0D	230.0			QL=2 ST=2 TYP=1
	245	SVTO	44	NS	0531.0E	0536.0	150.0D	210.0			QL=2 ST=2 TYP=1
	430	KRAK	44	NS	0647.5E	1044.6	372.5D	120.0	17.0		
	127	TORN	43	NS	0857.0		323.0		1.0		V=0
	245	SGMR	44	NS	1047.0E	1520.0	777.0D	380.0			QL=2 ST=2 TYP=1
	410	SGMR	44	NS	1415.0E	1416.0	585.0D	67.0			QL=2 ST=3 TYP=1
	245	PALE	44	NS	1639.0E	0153.0	736.0D	450.0			QL=4 ST=2 TYP=1
	200	HIRA	44	NS	1940.0E	0340.0	780.0D	160.0	37.0		O
	410	SGMR	44	NS	2103.0E	2108.0	29.0D	84.0			QL=4 ST=2 TYP=1
	410	PALE	44	NS	2314.0E	0356.0	341.0D	100.0			QL=4 ST=2 TYP=1
	245	LEAR	44	NS	2316.0E	0301.0	628.0D	760.0			QL=2 ST=2 TYP=1
	410	LEAR	44	NS	2340.0E	0638.0	560.0D	120.0			QL=2 ST=2 TYP=1
	500	HIRA	44	NS	2345.0E		430.0D		18.0		
	245	LEAR	8	S	0002.0E	0002.0	1.0D	120.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0002.0E	0002.0	1.0D	120.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0002.0E	0002.0	U	85.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	0013.0E	0016.0	4.0D	140.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0015.0E	0015.0	U	46.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0016.0E	0016.0	U	120.0			QL=4 ST=2 TYP=3
	100	HIRA	46	C	0017.2	0017.2	1.5	815.0			
	200	HIRA	46	C	0017.2	0017.3	1.3	110.0			WR
	410	PALE	8	S	0030.0E	0030.0	U	61.0			QL=4 ST=2 TYP=3
	410	PALE	4	S/F	0035.0E	0037.0	5.0D	62.0			QL=4 ST=2 TYP=3
	410	PALE	4	S/F	0042.0E	0054.0	15.0D	160.0			QL=4 ST=2 TYP=5
	245	LEAR	8	S	0213.0E	0213.0	U	110.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0213.0E	0213.0	U	100.0			QL=4 ST=2 TYP=3
	650	GORK	20	GRF	0300.0E	0301.1	92.1D	16.0			
	245	LEAR	8	S	0306.0E	0307.0	1.0D	99.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	0306.0E	0307.0	1.0D	82.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0418.0E	0418.0	U	75.0			QL=2 ST=2 TYP=3
	650	GORK	22	GRF	0504.0E	0651.4	266.0D	14.0			
	245	LEAR	8	S	0518.0E	0518.0	U	57.0			QL=2 ST=2 TYP=3
	200	HIRA	41	F	0519.8	0523.1	21.8	56.0			O
	204	IZMI	4	S/F	0631.0	0631.1	0.5	35.0			
	950	GORK	20	GRF	0637.9	0701.3	34.1U	3.0			
	536	ONDR	41	F	0640.0	0751.9	560.0	18.0			
	204	IZMI	8	S	0711.0	0711.1	0.1	120.0			
	33	UPIC	42	SER	0902.3	0902.5	118.2				
	204	IZMI	4	S/F	0952.6	0953.0	0.5	85.0			
	245	SGMR	8	S	1038.0E	1038.0	2.0D	150.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1043.0E	1044.0	2.0D	140.0			QL=2 ST=2 TYP=3

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

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
29	204	IZMI	42	SER	1102.5	1107.5	10.0	60.0			
	113	POTS	41	F	1343.4	1343.4	2.5	140.0			
	40	POTS	4	S/F	1343.4	1343.9	2.3	700.0			
	9400	HUAN	1	S	1929.7	1935.8	9.1	6.0	2.8		
	410	PALE	8	S	2010.0E	2010.0	U	69.0			QL=4 ST=2 TYP=3
	2695	PENT	20	GRF	2127.0	2224.0	235.0	10.1	5.0		
	410	PALE	8	S	2308.0E	2308.0	1.0D	78.0			QL=4 ST=2 TYP=3
30	200	GORK	44	NS	0251.0E		549.0D		5.0		
	100	GORK	44	NS	0251.0E		549.0D		5.0		
	245	SVTO	43	NS	0405.0	0541.0U	595.0D	220.0			QL=2 ST=2 TYP=1
	410	SVTO	43	NS	0410.0	1238.0U	593.0D	260.0			QL=2 ST=2 TYP=1
	234	POTS	44	NS	0520.0E	0622.0	214.0D	80.0			
	204	IZMI	43	NS	0600.0		60.0	150.0			
	127	TORN	44	NS	0620.0E		520.0D		15.0		V=2
	204	IZMI	43	NS	0750.0		250.0	15.0			
	430	KRAK	44	NS	0902.0E	1241.7	245.0D	140.0	22.0		
	234	POTS	43	NS	1214.0	1235.0	110.0	50.0			
	245	SGMR	44	NS	1230.0E	1300.0	58.0D	170.0			QL=4 ST=2 TYP=1
	410	SGMR	44	NS	1244.0E	1334.0	59.0D	100.0			QL=4 ST=2 TYP=1
	410	SGMR	44	NS	1805.0E	1812.0	338.0D	210.0			QL=2 ST=2 TYP=1
	245	SGMR	44	NS	1807.0E	2210.0	336.0D	350.0			QL=2 ST=2 TYP=1
	200	HIRA	44	NS	1940.0E	2320.0	450.0D	52.0	17.0		O
	245	LEAR	44	NS	2315.0E	2333.0	629.0D	310.0			QL=2 ST=2 TYP=1
	410	LEAR	44	NS	2320.0E	0123.0	133.0D	88.0			QL=2 ST=2 TYP=1
	500	HIRA	44	NS	2335.0E	0119.0	240.0D	24.0	11.0		O
	100	HIRA	41	F	0113.9	0117.2	30.0	310.0			
	950	GORK	21	GRF	0258.0E	0835.5	503.0D	23.0			
	650	GORK	21	GRF	0300.0E	0835.1	534.6D	15.0			
	200	HIRA	46	C	0301.1	0302.1	3.3	1400.0	240.0		O
	100	GORK	41	F	0301.1	0347.5		100.0			
	100	GORK	41	F	0301.1	0301.5	47.1	115.0			
	200	GORK	41	F	0303.0	0303.1	57.0	880.0			
	200	GORK	41	F	0303.0	0359.7		140.0			
	200	GORK	41	F	0303.0	0339.9		150.0			
	1415	LEAR	8	S	0309.0E	0309.0	U	59.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	0309.0E	0309.0	1.0D	81.0			QL=4 ST=2 TYP=3
	100	HIRA	41	F	0316.5	0337.0	44.0	140.0			
	200	HIRA	41	F	0459.0	0500.1	4.3	780.0			O
	536	ONDR	49	GB	0600.0	0802.0	180.0	137.0			
	2950	GORK	21	GRF	0620.2	0821.0	343.8D	100.0			
	5900	KISV	47	GB	0654.2	0734.0	78.2	1585.0			
	5900	KISV	47	GB	0654.2	0728.4		1468.0			
	5900	KISV	29	PBI	0654.2	0812.4	182.0	237.0			
	2840	PEKG	47	GB	0657.0	0729.2	94.0	2235.0	1101.0		
	2850	CRIM	28	PRE	0658.2	0702.3	4.1	16.0	5.0		
	2950	GORK	47	GB	0700.5	0735.0		1500.0			
	2950	GORK	47	GB	0700.5	0708.7	80.5	500.0			
	3000	POTS	46	C	0701.0	0729.0	209.0	1300.0D			
	234	POTS	45	C	0701.0E	0723.5	84.0D	200.0			
	9300	KISV	29	PBI	0701.1	0816.3	195.5	122.0			
	9300	KISV	47	GB	0701.1	0734.4U	75.2	1856.0D			
	808	ONDR	49	GB	0702.0		100.0				
	1415	LEAR	49	GB	0702.0E	0757.0	91.0D	2100.0			QL=4 ST=2 TYP=7
	1415	SVTO	49	GB	0702.0E	0757.0	92.0D	2600.0			QL=4 ST=2 TYP=7
	2695	LEAR	49	GB	0702.0E	0728.0	103.0D	3100.0			QL=4 ST=2 TYP=7
	1470	POTS	46	C	0702.0	0754.7		1890.0			
	1470	POTS	46	C	0702.0	0743.7	243.0	1925.0			
	650	GORK	47	GB	0702.1	0802.3	93.0	3655.0			
	950	GORK	47	GB	0702.2	0759.6	93.3	9570.0			
	2850	CRIM	30	PBI	0702.3	0818.0	112.0	160.0	20.0		
	2850	CRIM	47	GB	0702.3	0735.1	75.7	3655.0	929.0		
	3013	IZMI	46	C	0702.5	0732.5	120.0	1452.0			
	9100	GORK	47	GB	0703.0	0735.0		890.0			
	610	LEAR	49	GB	0703.0E	0802.0	79.0D	1800.0			QL=4 ST=2 TYP=7
	2695	SVTO	49	GB	0703.0E	0729.0	85.0D	1800.0			QL=4 ST=2 TYP=7
	9500	POTS	45	C	0703.0	0735.0	267.0	685.0			
	9100	GORK	47	GB	0703.0	0728.3	86.2	780.0			
	204	IZMI	42	SER	0705.5	0705.7	7.0	320.0			

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
30	204	IZMI	45	C	0706.0	0723.5	38.0	200.0			
	15000	KISV	47	GB	0706.6	0734.0U	60.1	2082.0D			
	4995	LEAR	49	GB	0707.0E	0735.0	94.0D	1300.0			QL=4 ST=2 TYP=7
	4995	SVTO	49	GB	0707.0E	0735.0	102.0D	1500.0			QL=4 ST=2 TYP=7
	200	HIRA	46	C	0707.9	0724.4	66.0	190.0	40.0		MR
	8800	LEAR	49	GB	0708.0E	0735.0	69.0D	580.0			QL=4 ST=2 TYP=7
	410	LEAR	4	S/F	0709.0E	0722.0	79.0D	310.0			QL=2 ST=2 TYP=5
	35000	NOBE	7	C	0709.8	0733.6	42.0	218.0			0,80GHz:0
	17000	NOBE	7	C	0709.8	0733.6	60.0	330.0			12L
	8800	SVTO	49	GB	0710.0E	0735.0	86.0D	820.0			QL=4 ST=2 TYP=6
	15400	LEAR	4	S/F	0711.0E	0735.0	88.0D	430.0			QL=4 ST=3 TYP=5
	610	SVTO	49	GB	0711.0E	0802.0	81.0D	2400.0			QL=2 ST=2 TYP=6
	15400	SVTO	4	S/F	0712.0E	0735.0	98.0D	370.0			QL=4 ST=2 TYP=5
	245	LEAR	20	GRF	0714.0E	0723.0	74.0D	260.0			QL=2 ST=2 TYP=2
	113	POTS	45	C	0715.0	0719.0	40.0U	850.0			
	100	GORK	8	S	0715.0	0716.1	2.0	345.0			
	100	HIRA	46	C	0715.8	0735.0		120.0			
	100	HIRA	46	C	0715.8	0717.8	41.6	980.0	150.0		O
	33	UPIC	47	GB	0717.9	0719.0	82.2				
	30	POTS	25	R	0718.6	0719.3	72.0U	2000.0U			
	810	KRAK	49	GB	0721.0E	0803.0	82.5D	7000.0D	1700.0D		
	430	KRAK	49	GB	0721.0E	0751.0	90.5D	500.0			
	430	KRAK	49	GB	0721.0E	0721.6U	90.5D	240.0D	190.0		
	15000	KISV	29	PBI	0806.7E	0806.7	30.5D	127.0			
	2850	CRIM	1	S	0825.8	0825.9	0.2	20.0			
	9100	GORK	29	PBI	0829.2	0829.2	161.5	65.0			
	2840	PEKG	29	PBI	0831.0		64.0	65.6	32.3		
	204	IZMI	41	F	0855.3	0856.3	1.0	270.0			
	536	ONDR	41	F	0900.0	1354.6	420.0	41.0			
	33	UPIC	42	SER	0912.5	1044.1	97.0				
	204	IZMI	42	SER	1032.0	1039.5	17.5	120.0			
	245	SGMR	8	S	1044.0E	1044.0	2.0D	240.0			QL=2 ST=2 TYP=3
	410	SGMR	8	S	1125.0E	1126.0	1.0D	120.0			QL=4 ST=2 TYP=3
	9500	POTS	20	GRF	1215.0	1225.0	75.0	11.0			
	1470	POTS	40	F	1215.0	1224.4	15.0	44.0			
	3000	POTS	40	F	1215.0	1247.6	95.0	14.0			
	410	SGMR	8	S	1217.0E	1218.0	2.0D	120.0			QL=4 ST=3 TYP=3
	5900	KISV	23	GRF	1218.0	1238.5	50.3	10.0			
	9300	KISV	23	GRF	1218.7	1238.5	49.3	12.0			
	33	UPIC	42	SER	1231.0	1236.2	44.5				
	245	SVTO	49	GB	1236.0E	1238.0	3.0D	950.0			QL=2 ST=2 TYP=6
	30	POTS	4	S/F	1236.4	1236.4	1.9	700.0U			
	234	POTS	4	S/F	1237.6	1238.5	1.2	900.0			
	245	SGMR	49	GB	1238.0E	1238.0	1.0D	1000.0			QL=2 ST=2 TYP=6
	810	KRAK	8	S	1238.0	1238.3	0.8	14.0			
	9400	HUAN	1	S	1653.4	1656.1	6.9	5.1	2.6		
	410	PALE	8	S	1806.0E	1806.0	U	51.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2013.0E	2013.0	U	200.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2321.0E	2321.0	1.0D	67.0			QL=4 ST=2 TYP=3
	245	PALE	4	S/F	2322.0E	2333.0	11.0D	220.0			QL=2 ST=2 TYP=3
	410	PALE	8	S	2324.0E	2325.0	1.0D	66.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2332.0E	2333.0	1.0D	220.0			QL=2 ST=3 TYP=3
	410	PALE	8	S	2341.0E	2341.0	1.0D	97.0			QL=4 ST=2 TYP=3
31	200	GORK	44	NS	0251.0E		99.0D		5.0		
	245	SVTO	44	NS	0407.0E	0654.0	658.0D	220.0			QL=2 ST=2 TYP=1
	260	ONDR	44	NS	0500.0E		700.0D				
	204	IZMI	43	NS	0600.0		150.0	20.0			
	430	KRAK	44	NS	0708.0E	1135.6	346.5D	130.0	10.0		
	127	TORN	43	NS	0909.0		240.0		1.0		V=0
	410	SVTO	44	NS	1145.0E	1213.0U	152.0D	130.0			QL=2 ST=2 TYP=1
	245	SGMR	44	NS	1241.0E	1324.0	661.0D	280.0			QL=4 ST=2 TYP=1
	245	PALE	8	S	0037.0E	0037.0	1.0D	77.0			QL=2 ST=3 TYP=3
	245	PALE	8	S	0102.0E	0102.0	U	140.0			QL=2 ST=2 TYP=3
	200	HIRA	41	F	0317.0	0346.0	79.0	280.0			O
	2850	CRIM	25	R	0523.0	0630.0		13.0			
	200	HIRA	42	SER	0532.0	0618.0	152.0	47.0			O
	2950	GORK	22	GRF	0537.9	0538.7	28.9	7.0			
	2850	CRIM	7	C	0538.0	0539.3		8.0			

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

JULY 1990

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
31	2850	CRIM	7	C	0538.0	0538.7	2.0	8.0	3.0		
	536	ONDR	41	F	0700.0	1506.7	540.0	177.0			
	5900	KISV	2	S/F	0729.0	0730.4	3.8	8.0			
	9500	POTS	1	S	0729.2	0730.4	3.2	10.0			
	9300	KISV	2	S/F	0729.4	0730.4	5.6	14.0			
	810	KRAK	8	S	0730.5	0730.7	0.8	5.0			
	3013	IZMI	42	SER	0737.2	0747.9	18.0	125.0			
	2950	GORK	20	GRF	0826.1	0848.8	27.1	4.0			
	100	HIRA	46	C	0840.3	0841.3	4.1	540.0			
	2850	CRIM	1	S	0858.3	0859.3	1.5	8.0	3.0		
	204	IZMI	42	SER	0932.5	0937.3	6.0	36.0			
	245	SGMR	8	S	1407.0E	1407.0	1.0D	210.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	1407.0E	1407.0	1.0D	210.0			QL=2 ST=2 TYP=3
	2800	OTTA	3	S	1421.2	1424.5	5.0	8.7	2.0		
	808	ONDR	3	S	1424.4	1424.6	2.0	9.0			
	245	SVTO	8	S	1632.0E	1633.0	2.0D	96.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1633.0E	1633.0	U	130.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	1908.0E	1908.0	U	59.0			QL=4 ST=2 TYP=3
	200	HIRA	46	C	2000.0	2002.2	4.6	190.0			O

Reports are received routinely from the following observatories:

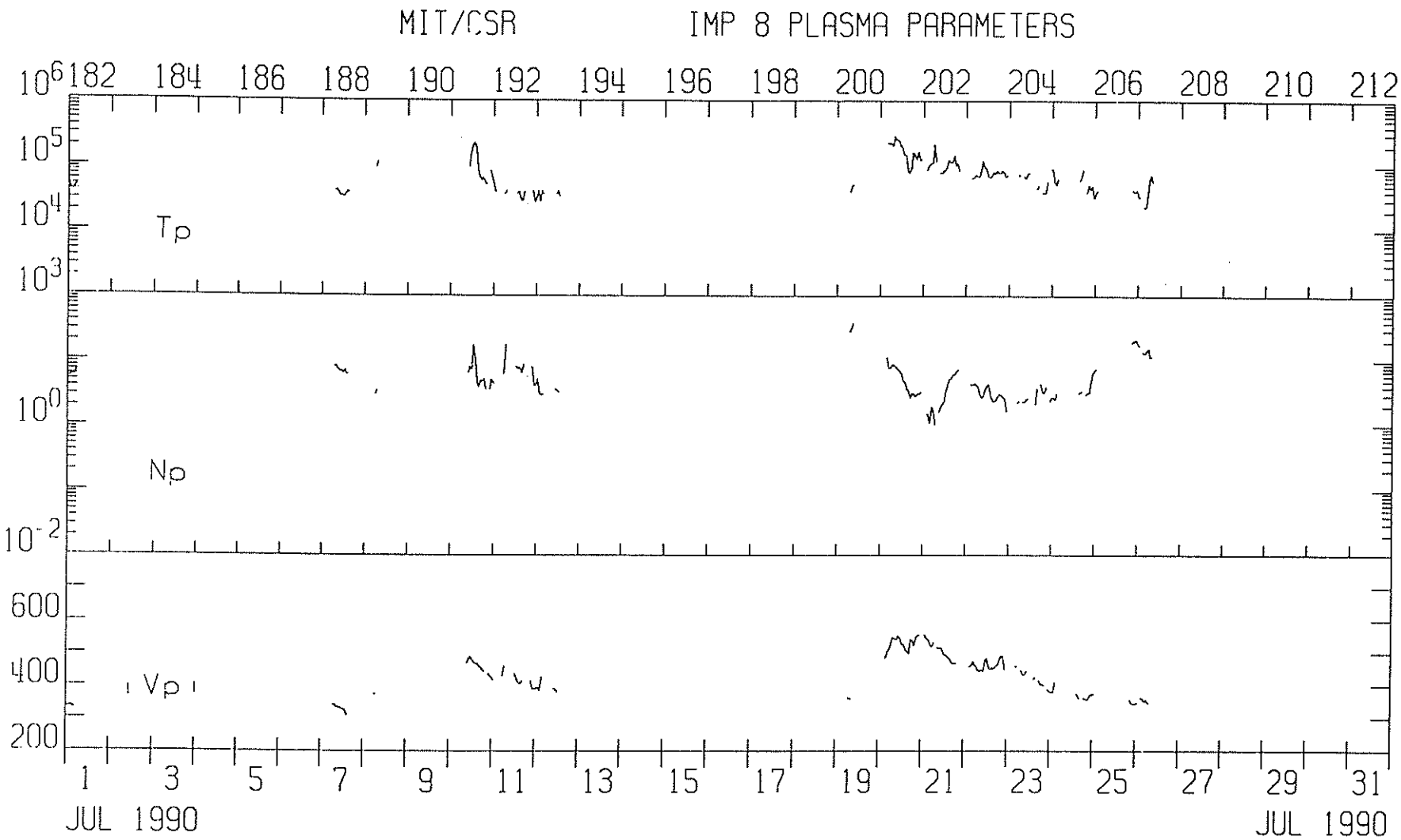
BERN = Berne	IZMI = IZMIRAN	ONDR = Ondrejov	SVTO = San Vito
CRIM = Crimea	KISK = Kislovodsk	OTTA = Ottawa	SYDN = Sydney
GORK = Gorky	KRAK = Krakow	PALE = Palehua	TORN = Torun
HIRA = Hiraiso	LEAR = Learmonth	PENT = Penticton	TRST = Trieste
HUAN = Huancayo	NOBE = Nobeyama	POTS = Potsdam	TYKW = Toyokawa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

Explanation of Type Code:

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

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

IMP 8 SOLAR WIND PLASMA
JULY 1990

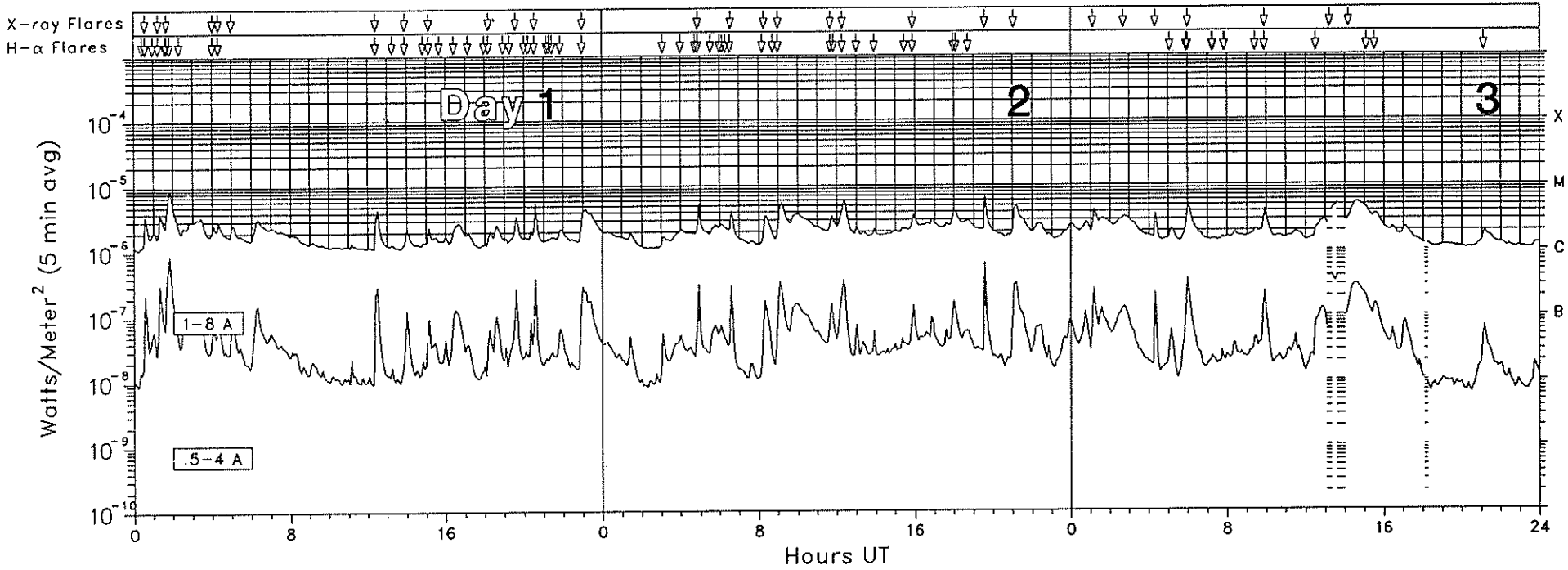


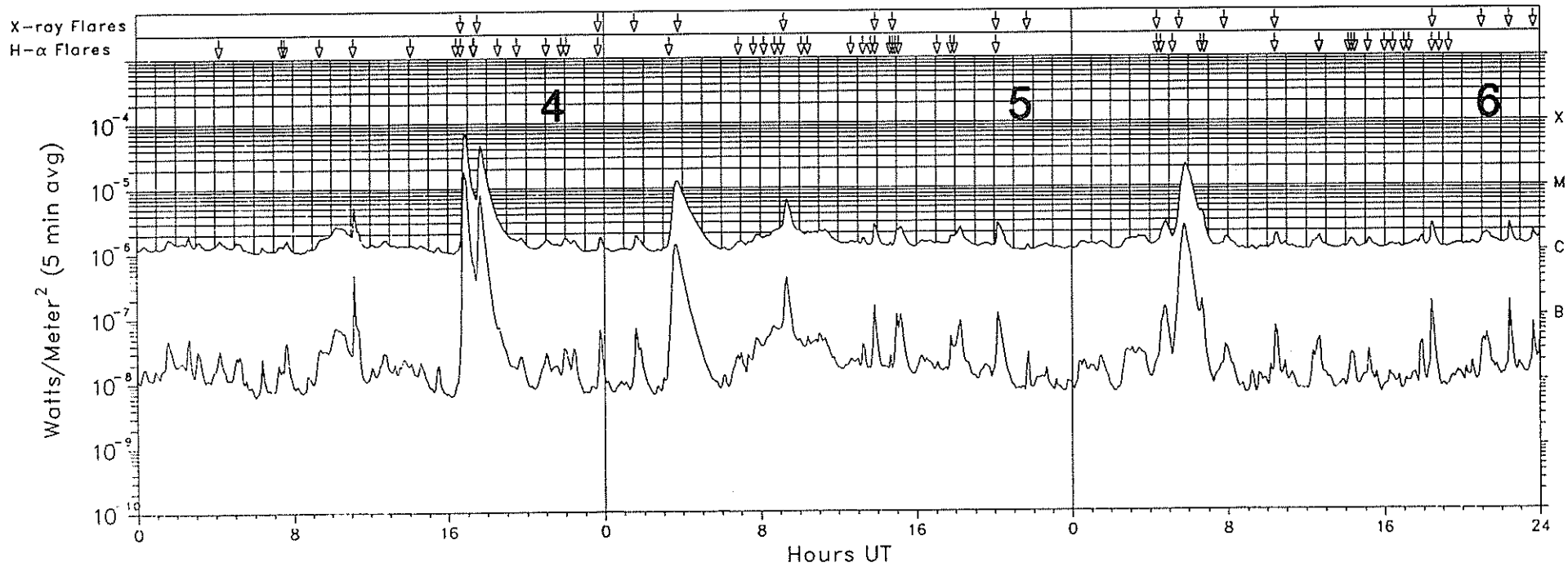
IMP 8 MIT PRELIMINARY ONE-HOUR AVERAGES

57
Jul 90

GOES-7 X-RAY DETECTOR

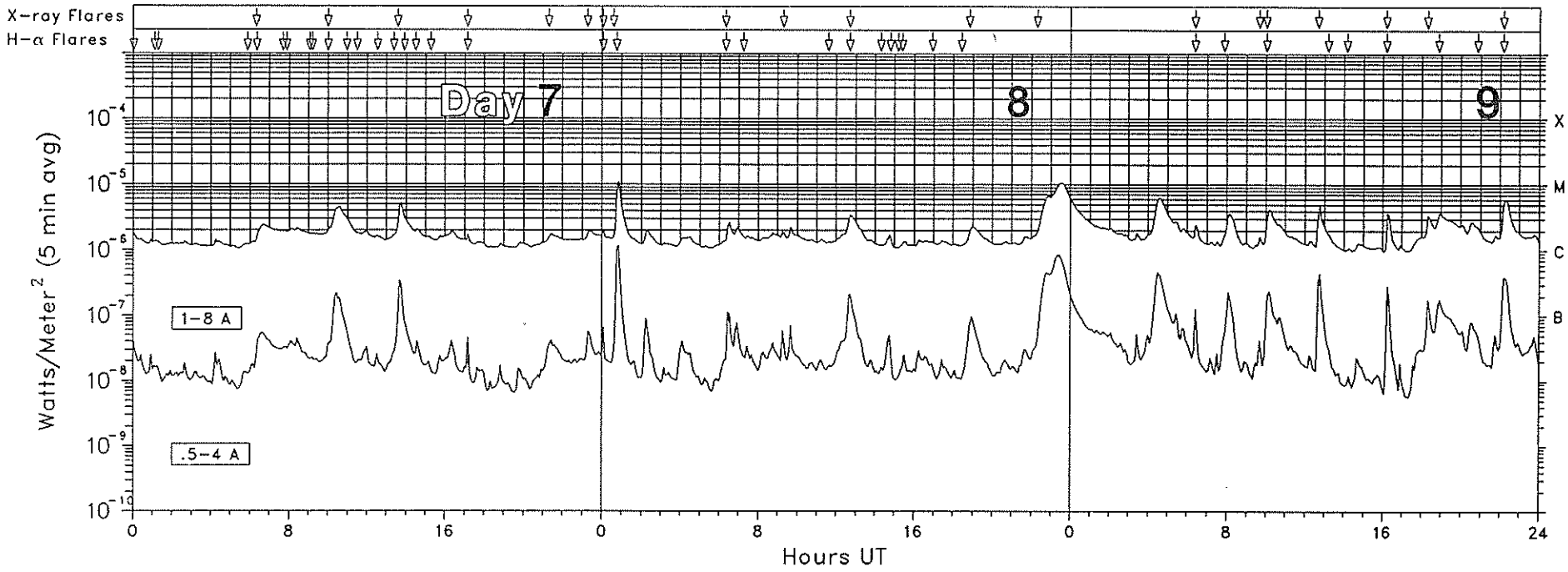
July 1990

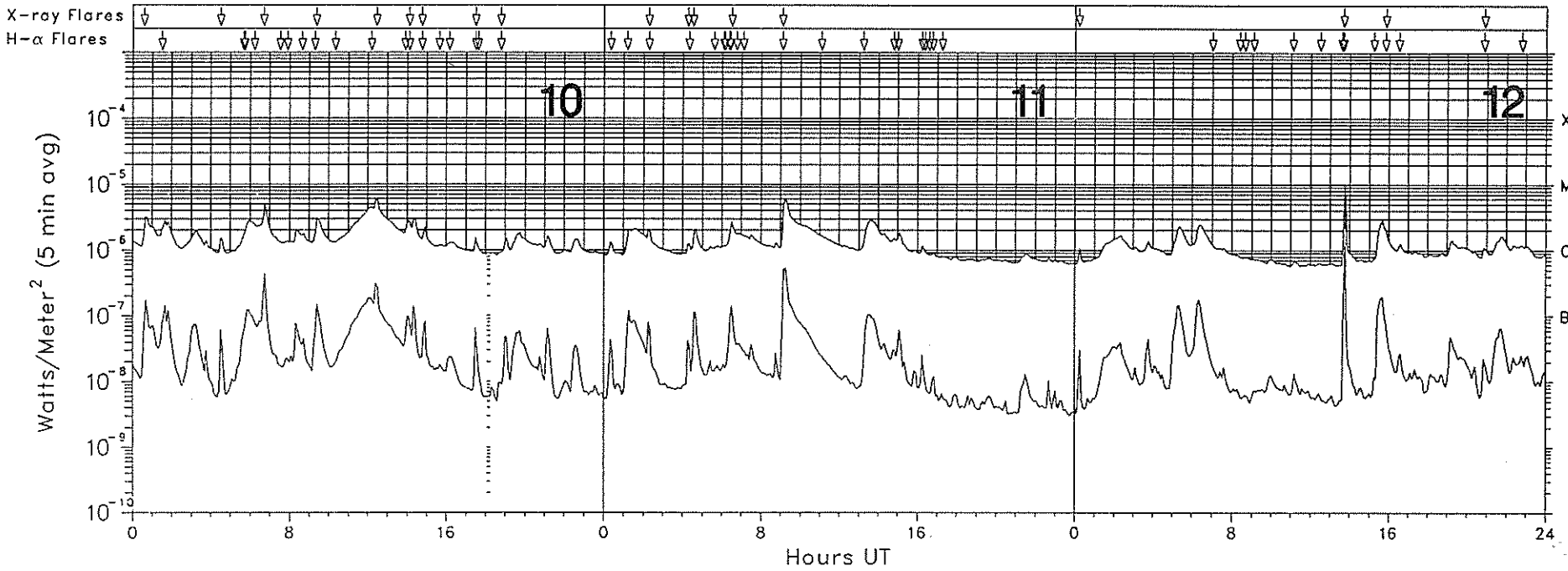




GOES-7 X-RAY DETECTOR

July 1990

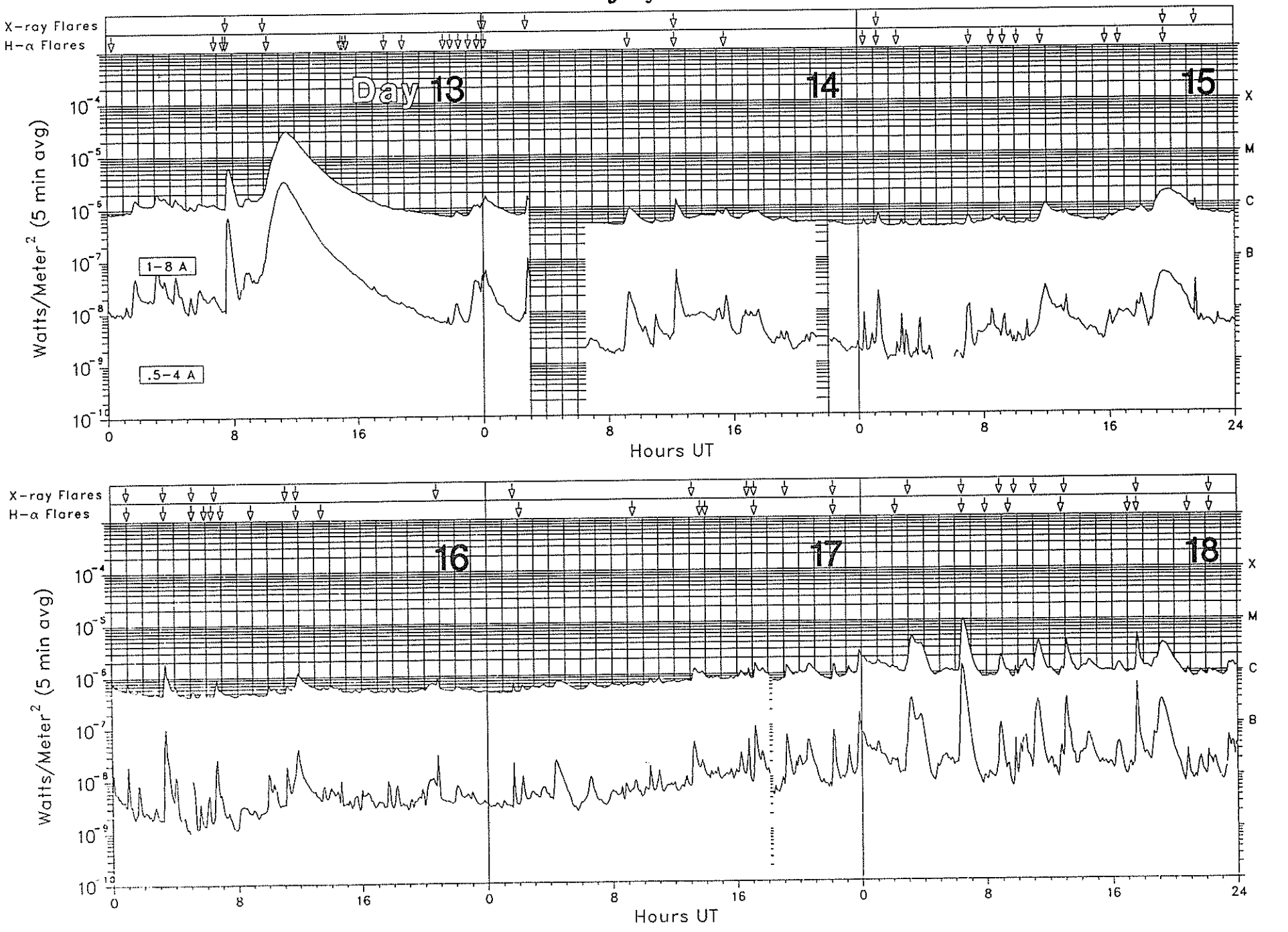




59
Jul 90

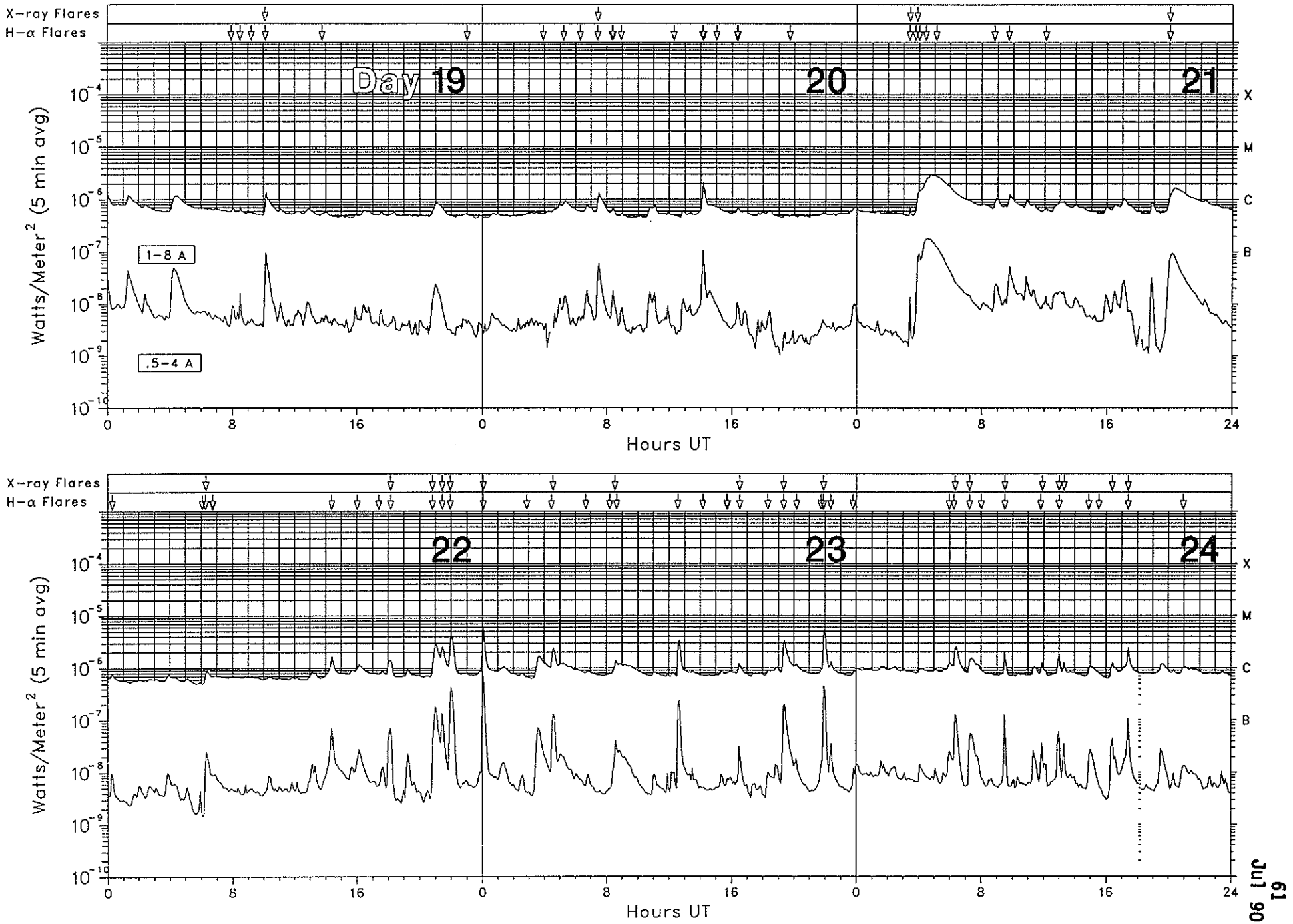
GOES-7 X-RAY DETECTOR

July 1990



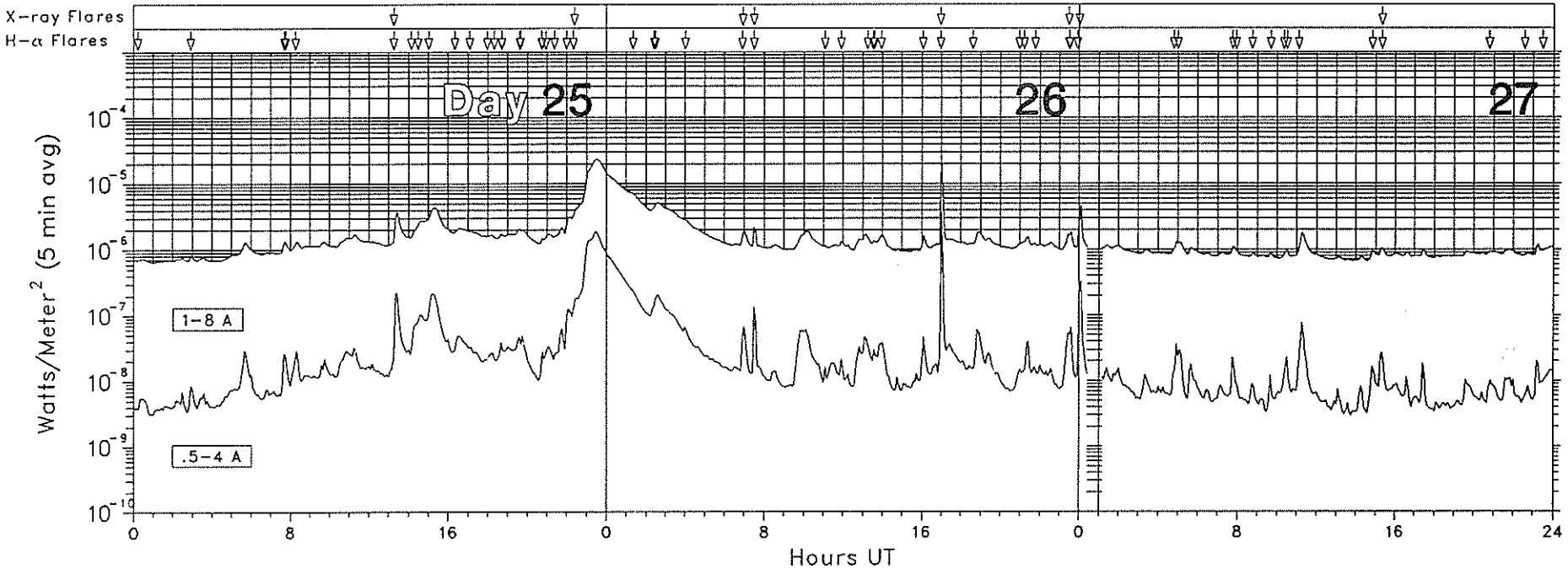
GOES-7 X-RAY DETECTOR

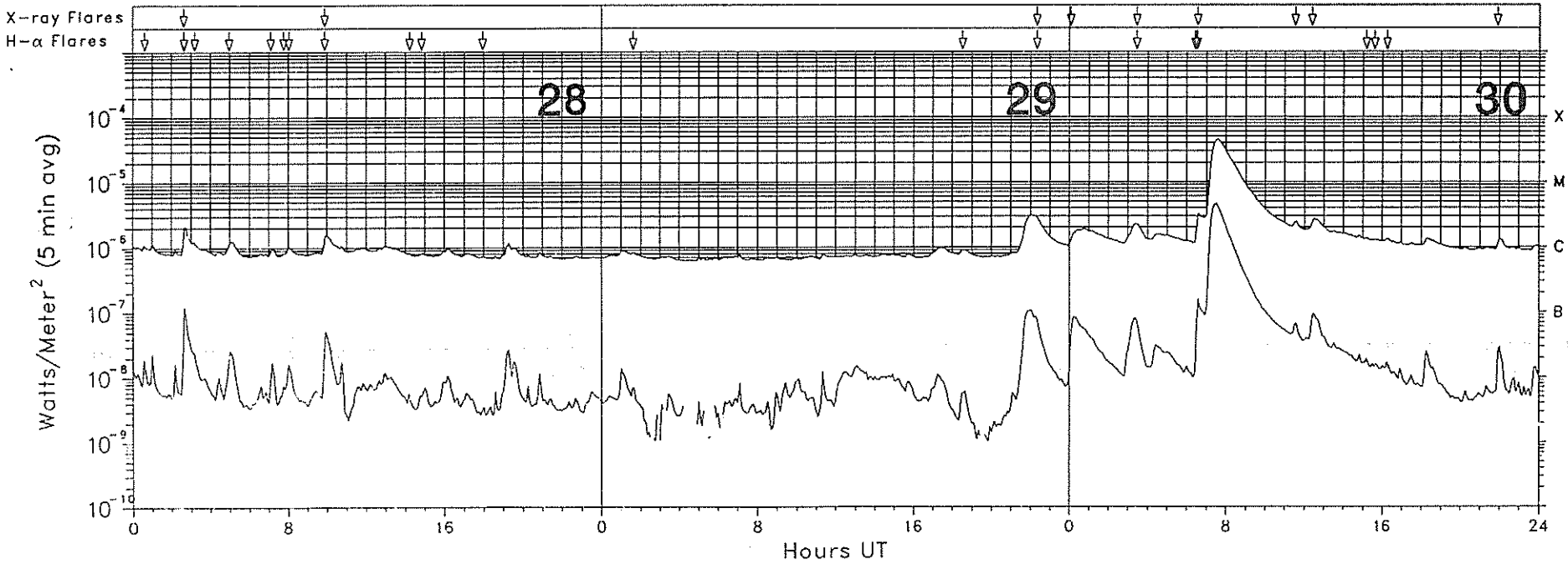
July 1990



GOES-7 X-RAY DETECTOR

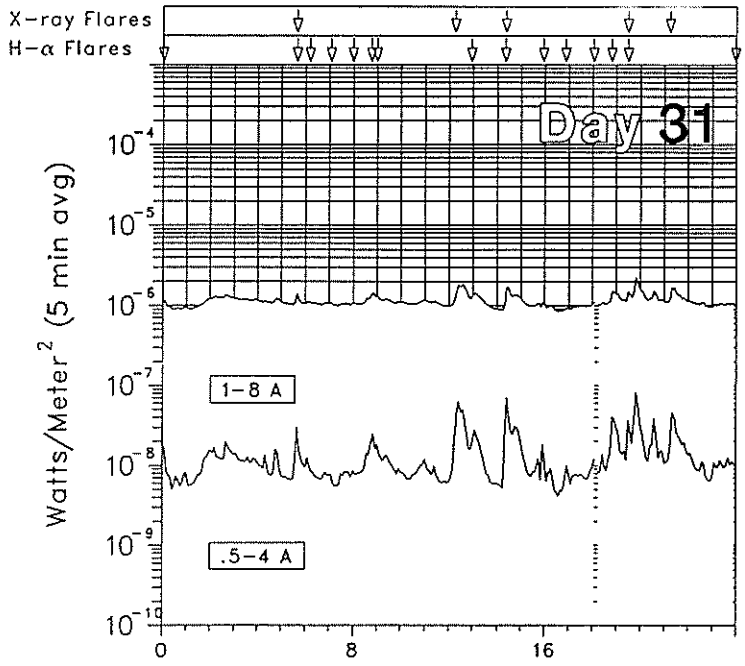
July 1990





GOES-7 X-RAY DETECTOR

July 1990



GOES SOLAR X-RAY FLARES
Preliminary Listing

July 1990

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Imp	Opt	Xray	NOAA/ USAF Region
01	0035E	0037	0140D	S27	E44		SF	C5.0	6132
01	0114E	0126	0131D	S20	E30		SF	C4.1	6131
01	0141E	0143	0209D	S22	E27		1F	M1.0	6131
01	0402E	0404	0413D	S06	W66		SF	C3.2	6124
01	0420E	0420	0425D	S13	E12		SF	C3.2	6126
01	0459	0504	0512					C2.8	
01	1225E	1231	1302D	S14	E07		SN	C5.2	6126
01	1354E	1403	1422D	S42	W39		SF	C2.5	6136
01	1508E	1510	1517D	S42	W39		SF	C2.6	6136
01	1812E	1834	1902D	S15	E03		SF	C2.7	6126
01	1934	1939	1943					C4.1	
01	2031	2041U	2054D	S14	E04		1F	C6.7	6126
01	2259E	2303	2351	S16	E02		SF	C4.7	6126
02	0453E	0454	0456D	N11	W80		SF	C6.4	6129
02	0634E	0638	0649D	S42	W46		SF	C4.9	6136
02	0816E	0820	0905D	S14	W03		SF	C3.8	6126
02	0900E	0903	0959D	N15	E58		SF	C5.5	6138
02	1141E	1143	1204D	S42	W48		SF	C3.6	6136
02	1217E	1223	1232D	S09	W82		SF	C7.4	6124
02	1553E	1555	1615D	S13	W06		SF	C3.8	6126
02	1934	1938	1941					C9.0	
02	2102	2114	2122					C5.1	
03	0107	0114	0122					C4.4	
03	0241	0248	0253					C3.3	
03	0419	0424	0427					C4.4	
03	0559E	0603	0614D	S10	W17		SF	C5.2	6126
03	0954E	0955	1015D	N18	E26		SN	C4.9	6133
03	1313	1324	1350					C4.7	
03	1411	1441	1509					C5.4	
04	1640E	1648	1744D	N21	E29		2B	M7.6	6138
04	1731E	1739	1821D	S22	W22		2B	M4.8	6131
04	2343	2350	2357					C1.9	
05	0133	0139	0144					C2.0	
05	0346	0348U	0448D	N17	E03		2B	M1.3	6133
05	0913E	0917	0945D	S16	W42		1N	C6.7	6126
05	1354E	1355	1411D	S14	W49		SF	C3.2	6126
05	1448E	1511	1553D	N21	E16		SF	C2.5	6138
05	2007	2010	2059	N21	E13		1N	C2.8	6138
05	2141	2146	2147					C1.6	
06	0423E	0434	0455D	S15	W42		SF	C2.9	6137
06	0532E	0552	0642D	N17	W15		2N	M2.2	
06	0749	0754	0800					C1.7	
06	1025	1030	1037					C1.8	
06	1827E	1831	1839D	S15	W50		SF	C3.3	6137
06	2058	2119	2129					C1.9	
06	2224	2229	2233					C2.9	
06	2339	2342	2345					C2.2	
07	0620	0644	0714					C2.4	
07	0959E	1021	1111D	N21	W08		1F	C4.6	6138
07	1335E	1341	1433D	N20	W09		1N	C5.5	6138
07	1709E	1713	1721D	S14	W63		SN	C2.1	6137
07	2117	2127	2134					C1.8	
07	2317	2326	2334					C2.0	
08	0003E	0004	0008D	S21	W62		SF	C3.0	6131
08	0036	0048	0108D	S21	W70		1B	M1.1	6131
08	0619E	0627	0744D	N17	W38		SF	C2.7	6133
08	0917	0920	0922					C2.3	
08	1242E	1243	1254	S21	W72		SF	C3.2	6131
08	1850	1902	1929					C2.1	
08	2218	2334	0011					M1.1	
09	0410	0437	0509					C6.4	
09	0623E	0625	0646D	N16	W51		SF	C2.6	6133
09	0939	0942	0948					C1.6	
09	1001E	1008	1044D	N14	W53		SF	C4.1	6133
09	1241	1245	1249					C7.3	
09	1611E	1621	1647D	N08	E08		SN	C4.7	6148
09	1818	1824	1834					C3.5	
09	2209E	2210	2238D	N16	W61		SF	C6.1	6133
10	0036	0044	0057					C3.3	
10	0430	0435	0439					C1.8	
10	0642	0648	0653					C5.2	
10	0923	0929	0937					C3.3	
10	1228E	1228	1233D	N16	W69		SF	C8.3	6133
10	1407E	1422	1434D	N12	W72		SF	C3.5	6133
10	1446E	1456	1528D	N15	W72		SF	C2.5	6133
10	1730E	1737	1748D	N16	W71		SF	C1.6	6133
10	1846E	1906	1927D	N07	E13		SN	C1.7	6150
11	0216E	0217	0229D	N07	E08		SF	C3.0	6150
11	0416	0418U	0430	N07	E06		SF	C1.4	6150
11	0432	0441	0448					C2.1	
11	0630E	0630	0640D	N07	E06		SF	C2.9	6150
11	0906E	0913	0926	N19	W66		1F	C6.2	6138
12	0012	0017	0019					C1.3	
12	1341E	1348	1407D	S10	W11		1N	M1.2	6151
12	1550E	1550	1610D	S10	W14		SF	C2.9	6151
12	2053	2054U	2058	S11	W15		SF	C1.2	6151
13	0735	0740	0759					C7.2	
13	0959	1130	1242					M3.1	
13	2356	2358	0002					C1.7	
14	0006	0011	0019					C1.7	
14	0247	0254	0259					C1.8	
14	1218E	1221	1234D	N15	W45		SF	C1.4	6153
15	0113E	0118	0132D	N15	W55		SF	B9.1	6153
15	1930E	1933U	2057	N38	W08		1F	C1.8	6159
15	2129	2133	2135					C1.3	
16	0100	0104	0106					C1.0	
16	0322	0329U	0329	S12	W58		SF	C2.1	6151
16	0509E	0510	0517D	S10	W62		SF	B6.5	6151
16	0636E	0637	0651D	S10	W60		SF	C1.0	6151
16	1110	1115	1120					B8.0	
16	1153E	1154	1159D	S12	W64		SF	C1.3	6151
16	2051	2054	2057					C1.1	
17	0141	0145	0147					B9.7	
17	1311	1320	1339					C1.2	
17	1643	1647	1649					C1.4	
17	1710E	1712	1723D	S29	E74		SF	C1.7	6161
17	1908	1912	1926					C1.4	
17	2211E	2216	2222D	S27	E69		SF	C1.7	6161
18	0301	0315	0356					C5.0	
18	0626E	0630	0635D	S27	E63		SF	M1.0	6161
18	0851	0855	0905					C2.1	

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

July 1990

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Imp	Opt	Xray	NOAA/ USAF Region
18	0948	0952	0956					C1.3	
18	1103	1122	1133					C3.9	
18	1259	1306	1314					C4.4	
18	1734E	1737	1747D	S29	E60		1B	C6.1	6161
18	2215E	2345	0023D	S26	E53		SF	C1.4	6161
19	1007	1012	1015					C1.6	
20	0726E	0732	0748D	N09	E65		SF	C1.3	6162
21	0325E	0328	0331D	N13	E55		SF	B8.2	6162
21	0353E		0400D	S28	E31		1N	C3.3	6161
21	2001E	2015	2021D	S28	E16		SF	C1.7	6161
22	0618E	0620	0639D	N14	E43		SF	B9.4	6162
22	1809E	1811	1835D	N11	E80		SF	C1.5	6171
22	2049E	2052	2136D	N12	E32		SF	C2.9	6162
22	2126E	2129	2145D	N10	E87		1F	C2.9	6171
22	2157E	2158	2217D	N11	E80		SF	C4.7	6171
23	0003E	0004	0007D	N11	E76		1N	C7.1	6171
23	0433E	0434	0447	N11	E75		SF	C2.5	6171
23	0832	0838	0901					C1.4	
23	1631	1631U	1636D	S18	E80		SF	C1.2	6172
23	1920E	1921	1940D	N11	E22		SF	C3.3	6162
23	2154E	2157	2219D	N10	E72		1B	C6.3	6171
24	0620E	0621	0642D	N11	E63		SF	C2.7	6171
24	0715E	0722	0725D	N11	E62		SF	C1.7	6171
24	0929E	0931	0944D	N12	E03		SF	C2.2	6162
24	1154E	1155	1200D	N11	E05		SF	C1.3	6162
24	1258E	1301	1306D	N13	E12		SF	C2.1	6162
24	1318	1322	1326					C1.3	
24	1623	1627	1629					C1.4	
24	1723E	1725	1743D	S21	E66		SF	C2.6	6172
25	1316E	1326	1347D	N13	E48		1F	C3.8	6171
25	2223E	2324	0129D	S15	E55		2N	M2.3	6174
26	0656E	0657	0711D	S21	E56		SF	C2.0	6177
26	0730E	0734	0743D	N13	W13		SF	C2.8	6162
26	1659E	1703	1719	N13	W17		1B	M3.3	6162
26	2329E	2335	2353D	N13	W20		SF	C2.0	6162
27	0001E	0005	0035	N14	W21		1N	C6.7	6162
27	1519E	1519	1523D	S19	W80		SF	C1.4	6176
28	0238E	0245	0258D	N10	W45		SF	C2.4	6162
28	0953E	0956	1034	N11	E10		SF	C1.5	6171
29	2220	2224U	2252D	N15	E45		2F	C3.1	6180
30	0004	0051	0133					C1.9	
30	0327E	0329	0336D	N14	W73		SF	C2.3	6162
30	0633E	0732	0847D	N20	E45		2B	M4.4	6180
30	1131	1135	1139					C2.6	
30	1223	1233	1247					C2.7	
30	2153	2210	2212					C1.4	
31	0539E	0539	0547D	S16	W16		SF	C1.5	6174
31	1217	1237	1244					C1.9	
31	1423E	1426	1458D	S08	E22		SF	C1.7	6184
31	1930	1948U	2025D	S24	W25		SF	C2.3	6172
31	2115	2124	2130					C1.8	

Preliminary GOES Satellite Data
Daily Average X-ray Background
Aug 1989 - Jul 1990

Day	1989 Aug	Sep	Oct	Nov	Dec	1990 Jan	Feb	Mar	Apr	May	Jun	Jul
1	C1.0	C3.9	C1.3	C1.2	C1.6	C1.4	B9.5	C1.1	B7.4	B3.1	B3.1	C1.2
2	B9.2	C2.5	C1.5	C1.4	C1.2	C1.1	B7.8	C1.1	B5.2	B4.2	B3.7	C1.4
3	C1.0	C1.9	C1.6	C1.2	C1.1	C1.1	B8.9	C1.0	B7.8	B2.8	B3.6	C1.2
4	C1.1	C1.9	C1.6	C1.3	C1.5	C1.1	B7.8	B9.1	B6.9	B2.7	B3.8	C1.1
5	C1.8	C1.7	C1.3	C1.3	C1.1	C1.0	B7.7	B7.0	B6.1	B4.4	B4.8	C1.1
6	C1.5	C2.3	C1.2	C1.7	C1.0	C1.0	C1.1	B7.5	B5.4	B5.7	B8.5	C1.0
7	C1.5	C2.1	C1.2	C1.9	C1.5	---	B7.5	B7.4	B4.6	B7.7	C1.2	C1.1
8	C1.1	C2.5	C1.0	C2.5	C1.4	B7.3	B6.1	B6.7	B4.6	B9.8	C1.0	C1.1
9	C1.1	C2.3	C1.3	C2.9	C1.2	B6.2	B5.7	B5.4	B4.8	C1.0	B9.1	C1.1
10	C1.4	C2.7	C1.0	C2.3	B8.9	B6.9	B5.2	B5.9	B6.1	C1.4	C1.3	B9.7
11	C1.7	C2.3	C1.0	C1.7	B8.1	B7.3	B4.6	B8.5	C1.0	C1.5	C1.0	B7.9
12	C2.7	C3.8	---	C1.7	B7.2	B7.5	B4.3	B5.8	C1.2	---	C1.1	B6.0
13	C2.0	C2.3	C2.7	C1.5	B7.3	B7.5	B4.0	B7.1	---	C1.5	C1.0	B7.8
14	C2.7	C1.9	C1.4	C1.8	B7.4	B6.7	B4.1	B8.8	C1.6	C1.3	B8.0	B4.6
15	C4.3	C1.7	C1.4	C2.2	B6.3	B9.5	B4.2	C1.0	C1.6	C1.9	B8.5	B4.3
16	C7.9	C1.9	C1.1	C1.7	B6.2	C1.0	B4.0	C1.2	C1.3	C1.4	B6.9	B4.6
17	C3.5	C1.1	C1.2	C1.6	B6.8	C1.1	B5.9	B9.3	C1.2	C1.4	B5.9	B6.2
18	C1.3	C1.1	C2.0	C1.6	B8.8	C1.2	B8.2	C1.3	C1.7	C1.6	B4.9	B9.5
19	C1.0	C1.4	C3.2	C1.8	C1.1	C1.6	C1.2	C1.6	C1.3	C2.4	B4.8	B4.7
20	C1.1	B8.9	C1.7	C1.4	B9.6	C1.9	C1.1	C1.1	C1.6	C1.8	B5.2	B4.7
21	C1.0	B8.3	C1.6	C1.5	C1.2	C1.9	C1.2	C1.3	C1.4	C1.6	B5.0	B5.8
22	C1.0	B8.9	---	C1.6	C1.5	C1.8	C1.0	C1.9	C1.1	C1.4	B4.6	B6.2
23	C1.5	B8.6	C2.4	C1.3	C1.2	C1.4	C1.1	C1.4	C1.1	C1.6	B4.2	B7.2
24	C1.5	B8.7	C1.8	C1.1	C1.4	C1.5	C1.0	C1.4	C1.0	C1.3	B5.8	B7.3
25	C1.0	C1.1	---	C1.2	C2.2	C1.2	B9.8	C1.1	C1.1	C1.5	B6.0	C1.0
26	B9.3	C1.5	C1.1	C1.3	C2.7	C1.4	B9.5	C1.7	C1.3	C1.4	B5.2	B9.5
27	B9.8	C1.6	C1.4	C1.3	C2.7	C1.0	C1.2	C1.6	C1.0	B6.8	B9.4	B7.0
28	B1.7	C1.8	C1.3	C1.1	C2.6	C1.0	C1.6	C1.8	B5.7	B6.4	C1.3	B7.3
29	C2.7	C2.4	C1.4	C1.2	C2.7	C1.2		C1.3	B3.8	B4.7	C1.3	B6.6
30	C1.5	C1.3	C1.4	C1.8	C2.5	C1.1		C1.2	B3.4	B5.5	C1.1	C1.0
31	C1.6		C1.6		C1.8	C1.0		C1.0		B4.5		B9.4

MASS EJECTIONS FROM THE SUN

JULY 1989

Site	Mo	Day	Observed UT Start	Max	End	Location RA*	R/Ro	Freq or Wavelength	Kind of Event
BLEN	Jul	02	0941.1		0945.8			Meter	II Herringbone
BLEN	Jul	02	0942.0		0956.5			Dekameter, meter	IV Weak activity
CULG	Jul	02	2200		2208			Meter	II Single burst
WROC	Jul	03	0845		0859	279	0.2	H-alpha	SP
VORO	Jul	04	2153 E	2155 U	2218 D	031	0.05	H-alpha	S
CULG	Jul	04	2216		2219			Meter	II Single burst
KHAR	Jul	06	0753 E		0756 D	248	1.00-1.04	H-alpha	S
CULG	Jul	07	0629		0641			Meter	II
WEIS	Jul	07	0629.9		0640.1			86- 30 MHz	II Herringbone
SGMR	Jul	08	1251.0		1254.0			Meter	II
SVTO	Jul	08	1251.0		1254.0			Meter	II
POTS	Jul	10	1227.9		1228.6			40-170 MHz	IV Zebra patterns
POTS	Jul	10	1355.7		1406.8			40-170 MHz	IV Continuum
SGMR	Jul	15	1902.0		1922.0			Meter	II
PALE	Jul	15	1903.0		1919.0			Meter	II
PALE	Jul	16	1950.0		1950.0			Meter	II
SGMR	Jul	16	1952.0		1959.0			Meter	II
KHAR	Jul	18	0900 E		0930 D	124	0.95	H-alpha	S
WROC	Jul	20	0750		1230	094	0.07-0.1	H-alpha	S (several)
KHAR	Jul	21	0626 E	0631 U	0650 D	076-073	1.00-1.04	H-alpha	S
WROC	Jul	22	1417		1442	118	0.35	H-alpha	SP
LEAR	Jul	23	0405.0		0421.0			Meter	II
POTS	Jul	24	0920.1		0937.5			100-170 MHz	IV
POTS	Jul	24	1252.6		1309.0			100-170 MHz	IV
CULG	Jul	25	2326.5		2333			Meter, decimeter	IV
WROC	Jul	26	0840		1050	352	0.06	H-alpha	S (several)
WROC	Jul	30	0648		1220	082	0.15	H-alpha	Q
POTS	Jul	30	0701.1		1459 U			100-170 MHz	IV Continuum
LEAR	Jul	30	0715.0		0718.0			Meter	II
CULG	Jul	30	0715		0730			Meter	II Single burst
POTS	Jul	30	0715.1		0721.4			100-130 MHz	II
WEIS	Jul	30	0715.2		0736.2			130- 30 MHz	II Herringbone
SVTO	Jul	30	0716.0		0833.0			Meter	IV
LEAR	Jul	30	0717.0		0834.0			Meter	IV
POTS	Jul	30	0724.3		0726.0			140-170 MHz	II Harmonic?
BLEN	Jul	30	0743.5		0810.3			Meter	IV Fiber bursts
ONDR	Jul	30	0750.4		0809.0			Dekameter	IV Pulsations

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

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

REPORTING STATIONS
- BLEN = Bleien
- CULG = Culgoora
- KHAR = Kharkov
- LEAR = Learmonth
- ONDR = Ondrejov
- PALE = Palehua
- POTS = Potsdam
- SGMR = Sagamore Hill
- SVTO = San Vito
- VORO = Voroshilov
- WEIS = Weissenau
- WROC = Wroclaw

ACTIVE PROMINENCES AND FILAMENTS

JULY 1990

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
01	ASR	0004E	0202D	S07	W83	06	24.9			9	9	E	HOLL	6114	
01	ASR	0005E	0202D	N23	E90	07	7.9			9	9	E	HOLL	6138	
01	AFS	0045E	0935D	N07	E21	07	2.6		03	9	8	E	LEAR	6127	
01	AFS	0255E	0935D	S13	E12	07	2.0		04	9	9	E	LEAR	6126	
01	AFS	0303E	0935D	S22	W17	06	29.9		04	8	8	E	LEAR	6122	
01	AFS	0600E	0935D	S04	E09	07	1.9		03	4	4	E	LEAR		
01	AFS	0725E	1723D	N19	E17	07	2.6		04	9	9	E	SVTO	6127	
01	APR	0726E	1723D	S17	E84	07	7.7	2		9	9	E	SVTO		
01	AFS	0727E	1723D	S15	E50	07	5.1		02	8	8	E	SVTO	6139	
01	AFS	0728E	1723D	S20	E22	07	3.0		03	9	9	E	SVTO	6131	
01	AFS	0729E	1723D	S11	E14	07	2.4		03	9	9	E	SVTO	6126	
01	AFS	0730E	1723D	S11	E08	07	1.9		03	9	9	E	SVTO	6126	
01	ADF	0731E	1723D	N23	E58	07	5.8	1	14	9	9	E	SVTO	6122	
01	ADF	0805E	0905	N21	E73	07	6.9	1				V	KHAR		
01	AFS	1136E	1732D	S12	E12	07	2.4		03	9	9	E	RAMY	6126	
01	AFS	1136E	1732D	S13	E05	07	1.9		03	9	9	E	RAMY	6126	
01	AFS	1138E	1732D	N16	E52	07	5.4		03	9	9	E	RAMY	6133	
01	AFS	1149E	1732D	S07	W68	06	26.5		02	9	9	E	RAMY	6124	
01	DSD	1150E	1732D	S24	W20	06	30.0		02	9	9	E	RAMY	6122	
01	AFS	1151E	1732D	S23	E20	07	3.0		04	9	9	E	RAMY	6131	
01	AFS	1155E	1732D	S32	E42	07	4.8		03	9	9	E	RAMY	6132	
01	ADF	1156E	1732D	S31	E51	07	5.5	1	09	9	9	E	RAMY	6132	
01	ASR	1233E	1630D	S09	W90	06	24.9			9	9	E	RAMY	6114	
01	AFS	1312E	1915D	S23	W22	06	29.9		02	9	9	E	HOLL	6122	
01	ADF	1313E	1915D	S21	W22	06	30.0	1	02	9	9	E	HOLL	6122	
01	ADF	1314E	0203D	S22	W32	06	29.2	1	08	9	9	E	HOLL	6122	
01	SDF	1428E	1752D	S09	E33	07	4.1		05	0	0	E	HOLL		
01	SDF	1723E	0432D	S04	W43	06	28.6		04	0	0	E	SVTO		
01	APR	2338E	0404D	S22	E90	07	8.9			9	9	E	PALE		
02	ASR	0022E	0404D	N11	W90	06	25.3			9	9	E	PALE	6129	
02	AFS	0040E	0404D	N08	E08	07	2.6		06	9	9	E	PALE	6127	
02	DSD	0040E	0404D	S11	E06	07	2.5		03	9	9	E	PALE	6126	
02	AFS	0040E	0404D	S20	W32	06	29.7		03	9	9	E	PALE	6122	
02	DSD	0040E	0404D	S21	W49	06	28.4		02	9	9	E	PALE	6120	
02	DSD	0119E	0404D	N16	E39	07	5.0		02	9	9	E	PALE	6133	
02	ADF	0119E	0404D	N21	E64	07	7.0	1	15	9	9	E	PALE	6138	
02	DSD	0119E	0404D	S22	E17	07	3.4		03	9	9	E	PALE	6131	
02	ADF	0119E	0404D	S28	E41	07	5.2		28	9	9	E	PALE	6132	
02	AFS	0218E	0910D	S21	E13	07	3.1		03	5	5	E	LEAR	6131	
02	AFS	0222E	0910D	S12	E01	07	2.2		02	5	6	E	LEAR	6126	
02	AFS	0225E	0910D	S17	E40	07	5.1		03	8	7	E	LEAR	6139	
02	EPL	0458E	0715D	N11	W90	06	25.5	2		9	9	E	SVTO	6129	Flare Associated
02	ASR	0500E	0910D	N14	W83	06	26.0			9	9	E	LEAR	6129	
02	DSD	0540E	0715D	N16	E36	07	5.0		03	9	9	E	SVTO	6133	
02	DSD	0540E	0715D	S24	W43	06	29.0		02	9	9	E	SVTO	6122	
02	ADF	0540E	0928D	N14	W62	06	27.6	1	08	9	9	E	SVTO	6121	
02	AFS	0540E	1730D	N08	E05	07	2.6		05	7	6	E	SVTO	6127	
02	ADF	0540E	1730D	N19	E62	07	7.0	2	14	9	9	E	SVTO	6138	Flare Associated
02	AFS	0540E	1730D	S12	W03	07	2.0		05	9	9	E	SVTO	6126	
02	AFS	0540E	1730D	S15	E14	07	3.3		03	8	6	E	SVTO	6137	
02	AFS	0540E	1730D	S20	W37	06	29.5		02	9	9	E	SVTO	6122	
02	AFS	0540E	1730D	S28	E31	07	4.6		04	9	8	E	SVTO	6132	
02	AFS	0810E	0910D	N08	E06	07	2.8		05	9	9	E	LEAR	6127	
02	ASR	1030E	1730D	S08	W85	06	26.2			9	9	E	SVTO	6124	
02	EPL	1350E	1730D	N20	W90	06	25.8	3		9	9	E	SVTO	6130	
02	ADF	1401E	2330D	N19	E65	07	7.5	2	08	9	9	E	HOLL	6138	
02	ASR	1605E	2054D	N15	W90	06	25.9			9	9	E	RAMY	6129	
02	ASR	1605E	2054D	S08	W90	06	26.0			9	9	E	RAMY	6124	
02	AFS	1605E	2054D	S11	W11	07	1.8		02	9	9	E	RAMY	6126	
02	AFS	1605E	2054D	S16	E30	07	4.9		03	9	9	E	RAMY	6139	
02	AFS	1843E	0324D	S12	W10	07	2.0		03	9	9	E	PALE	6126	
02	AFS	1925E	0324D	S20	W43	06	29.6		02	9	9	E	PALE	6122	
02	ASR	2000E	0306D	N16	W90	06	26.1			9	9	E	PALE	6130	
03	ASR	0426E	1744D	S09	W90	06	26.5			9	9	E	SVTO	6124	
03	AFS	0520E	1744D	S19	W48	06	29.6		02	9	9	E	SVTO	6122	
03	ADF	0550E	1744D	S27	E23	07	5.0	1	10	9	7	E	SVTO	6132	
03	AFS	0601E	1744D	S16	E25	07	5.1		03	9	9	E	SVTO	6139	
03	DSD	0711E	0945D	S14	E02	07	3.4		04	9	9	E	SVTO	6137	Flare Associated

ACTIVE PROMINENCES AND FILAMENTS

JULY 1990

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
03	BSL	0750	0820	S07	W90	06	26.7					P	BUCA		
03	DSD	1125E	2025D	S21	W06	07	3.0		03	9	9	E	RAMY	6131	
03	ASR	1125E	2026D	S08	W90	06	26.8			9	9	E	RAMY	6124	
03	AFS	1125E	2052D	S12	W24	07	1.7		03	9	9	E	RAMY	6126	
03	AFS	1125E	2210D	N12	W29	07	1.3		02	9	9	E	RAMY	6134	
03	ADF	1125E	2210D	N20	E53	07	7.5	1	12	9	9	E	RAMY	6138	
03	ADF	1430E	2030D	S19	W57	06	29.3	1	05	9	9	E	RAMY	6122	
03	ADF	1520E	1744D	S11	W14	07	2.6	1	06	9	9	E	SVTO	6126	
03	AFS	1530E	1744D	S21	E42	07	6.9		02	9	9	E	SVTO	6138	
03	DSD	1807E	0113D	S13	W28	07	1.6		03	8	7	E	HOLL	6126	
03	DSD	1816E	0113D	N16	E15	07	4.9		03	9	8	E	HOLL	6133	
03	AFS	1836E	0113D	N11	W32	07	1.4	1	02	9	9	E	HOLL	6134	
03	ADF	1842E	0113D	N19	E37	07	6.6	1	07	9	9	E	HOLL	6138	
03	AFS	2325E	0504D	N08	W19	07	2.5		02	9	9	E	PALE	6127	
03	AFS	2355E	0504D	S24	W55	06	29.8		02	8	8	E	PALE	6122	
04	AFS	0003E	0504D	S13	W30	07	1.7		03	9	9	E	PALE	6126	
04	DSD	0010E	0504D	N19	E11	07	4.8		04	9	9	E	PALE	6133	
04	DSD	0510E	0545D	S24	W11	07	3.4		07	9	9	E	SVTO	6131	
04	AFS	0513E	1738D	N12	W37	07	1.4		02	9	9	E	SVTO	6134	
04	AFS	0525E	1738D	S12	W32	07	1.8		04	9	9	E	SVTO	6126	
04	AFS	0527E	1738D	N17	E14	07	5.3		02	9	9	E	SVTO	6133	
04	ADF	0528E	1245D	N23	E21	07	5.8	1	08	9	9	E	SVTO	6133	
04	AFS	0535E	1738D	S14	W10	07	3.5		03	8	8	E	SVTO	6137	
04	AFS	0536E	1246D	N09	W23	07	2.5		04	9	9	E	SVTO	6127	
04	ASR	0537E	0637D	N19	W90	06	27.5			9	9	E	SVTO	6130	
04	AFS	0547E	1738D	S15	W20	07	2.7		03	9	9	E	SVTO	6131	
04	ADF	0635E	1245D	N21	E30	07	6.6	1	04	9	9	E	SVTO	6138	
04	DSD	1110E	1435D	N21	E34	07	7.1		07	9	9	E	RAMY	6138	Flare Associated
04	ADF	1110E	1816D	S13	W13	07	3.5	1	04	9	9	E	RAMY	6137	
04	ADF	1110E	2149D	S13	W29	07	2.3	1	13	9	9	E	RAMY	6126	
04	DSD	1231E	1336	S14	W39	07	1.6		02	9	9	E	HOLL	6126	
04	AFS	1359E	2231D	S21	W20	07	3.0		03	9	9	E	HOLL	6131	
04	AFS	1403E	2039D	S28	E01	07	4.7		02	8	8	E	HOLL	6132	
04	DSD	1406E	2231D	N16	E04	07	4.9		04	9	9	E	HOLL	6133	
04	DSD	1406E	2231D	N16	E07	07	5.1		08	9	9	E	HOLL	6133	
04	AFS	1425E	2231D	N10	W42	07	1.4		02	7	8	E	HOLL	6134	
04	ADF	1435E	2231D	N22	E22	07	6.3	1	05	9	9	E	HOLL	6138	
04	ADF	1632E	2231D	N21	E37	07	7.5	2	11	9	9	E	HOLL	6138	
04	DSD	1650	2040D	N21	E30	07	7.0		07	9	9	E	HOLL	6138	
04	DSD	1715E	1738D	N21	E30	07	7.0		07	9	9	E	SVTO	6138	
04	SDF	1816E	1714D	S32	E54	07	9.0		18	0	0	E	HOLL		
04	SSB	1818		186	W35	07	11.6			0	0	E	RAMY		205 W53
04	ADF	1916E	2135D	N15	E07	07	5.3		05	9	9	E	PALE	6133	
04	ADF	1916E	2135D	N21	E07	07	5.3		09	9	9	E	PALE	6133	
04	DSD	1916E	2135D	S12	W41	07	1.7		03	9	9	E	PALE	6126	
04	DSD	1916E	2135D	S21	W20	07	3.3		03	9	9	E	PALE	6131	Flare Associated
04	ADF	1916E	2135D	S32	W03	07	4.6		05	8	9	E	PALE	6132	
04	DSD	1923E	2135D	N11	W48	07	1.2		04	9	9	E	PALE	6134	
04	ADF	1923E	2135D	N18	E17	07	6.1		08	9	9	E	PALE	6138	
04	ADF	1923E	2135D	S14	E08	07	5.4		07	9	9	E	PALE	6139	
04	DSD	2032E	2231D	S12	W46	07	1.4		10	8	8	E	HOLL	6126	
04	DSD	2038E	2231D	S24	W19	07	3.4		04	9	9	E	HOLL	6131	
04	DSD	2040E	2231D	N24	E27	07	6.9		04	9	9	E	HOLL	6138	
04	DSD	2050E	2231D	S14	W27	07	2.8		03	9	9	E	HOLL	6137	
04	ADF	2050E	2231D	S15	W28	07	2.7	2	08	9	9	E	HOLL	6137	
05	SSB	0803		154	W10	07	9.4			0	0	E	SVTO		
05	ADF	0945E	1639D	N24	E05	07	5.8	1	09	9	9	E	SVTO	6133	
05	ADF	0945E	1745D	N16	W03	07	5.2	1	07	9	9	E	SVTO	6133	
05	SSB	1125		150	W08	07	9.2			0	0	E	RAMY		157 W15 176 W34
05	ADF	1134E	2117D	N21	W02	07	5.3	1	09	7	7	E	RAMY	6133	
05	SSB	1151		197	W55	07	13.9			0	0	E	RAMY		
05	ASR	1240	1412D	S18	W90	06	28.8			9	9	E	RAMY	6122	
05	SDF	1247E	1256D	N02	W28	07	3.4		11	0	0	E	RAMY		
05	SDF	1639E	1639D	N24	E05	07	6.1	3	09	0	0	E	SVTO	6133	
05	AFS	1735E	1949D	N10	W43	07	2.5		02	9	9	E	PALE	6127	
05	DSD	1735E	1949D	N15	W09	07	5.0		03	9	9	E	PALE	6133	
05	ADF	1735E	1949D	N20	E10	07	6.5		06	9	9	E	PALE	6138	
05	APR	1735E	1949D	N39	E90	07	13.0			9	9	E	PALE		

ACTIVE PROMINENCES AND FILAMENTS

JULY 1990

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks	
05	AFS	1735E	1949D	S06	W12	07	4.8		02	9	9	E	PALE			
05	DSD	1735E	1949D	S13	W53	07	1.7		03	9	9	E	PALE	6126		
05	DSD	1735E	1949D	S15	W36	07	3.0		03	9	9	E	PALE	6137		
05	ADF	1735E	1949D	S17	W08	07	5.1		06	9	9	E	PALE	6139		
05	ASR	1735E	1949D	S18	W90	06	29.0			9	9	E	PALE	6122		
05	SDF	1745E	1046D	N04	W40	07	2.7		16	0	0	E	SVTO			
05	AFS	1842E	0026D	S13	W54	07	1.7		03	9	9	E	HOLL	6126		
05	DSD	1842E	0026D	S13	W56	07	1.5		03	9	9	E	HOLL	6126		
05	DSD	1844E	0026D	S21	W39	07	2.8		03	9	9	E	HOLL	6131		
05	ADF	1845E	0026D	N13	W07	07	5.2	1	06	9	9	E	HOLL	6133		
05	SSB	2050		146	W09	07	9.3			0	0	E	HOLL		172 W35	212 W75
05	SDF	2340E	1300D	N17	W25	07	4.1		13	0	0	E	HOLL			
06	ASR	0546E	1605D	S23	W90	06	29.4			9	9	E	SVTO	6122		
06	AFS	0546E	1710D	S12	W64	07	1.4		03	9	9	E	SVTO	6126		
06	ADF	0636E	1710D	N21	W01	07	6.2	1	15	9	9	E	SVTO	6133		
06	APR	0747E	1000D	N40	E90	07	13.6	1				V	KHAR			
06	BSL	0753E	0756D	S22	W90	06	29.5	1				V	KHAR			
06	ADF	0818E	1710D	S12	W42	07	3.2	1	10	9	9	E	SVTO	6137		
06	DSD	1029E	1840D	S22	W38	07	3.5		03	9	9	E	RAMY	6131		
06	ADF	1036E	1536D	S20	E51	07	10.3	1	12	8	8	E	RAMY			
06	SSB	1105		132	W03	07	8.8			0	0	E	RAMY		152 W23	174 W45
06	SSB	1107		188	W59	07	14.2			0	0	E	RAMY			
06	SDF	1300E	1445D	S05	E10	07	7.3		10	0	0	E	HOLL			
06	SDF	1300E	1445D	S33	W03	07	6.3		11	0	0	E	HOLL			
06	DSD	1527E	1640D	N20	W21	07	5.0		02	9	9	E	RAMY	6133		
06	DSD	1621	1634	S14	W48	07	3.0	2	04	9	9	E	SVTO	6137		
06	ASR	1630E	1737D	S21	W90	06	29.9			8	8	E	RAMY	6122		
06	SDF	1726E	1900D	S35	W07	07	6.2		12	0	0	E	PALE			
06	DSD	1743E	1857D	N14	W25	07	4.8		05	9	9	E	PALE	6133		
06	AFS	1743E	1857D	N21	W36	07	4.0		04	9	9	E	PALE			
06	DSD	1743E	1857D	N22	E00	07	6.7		02	9	9	E	PALE	6138		
06	DSD	1743E	1857D	S12	W66	07	1.8		03	9	9	E	PALE	6126		
06	AFS	1743E	1857D	S14	W51	07	2.9		04	9	9	E	PALE	6137		
06	DSD	1743E	1857D	S16	E74	07	12.3		02	9	9	E	PALE			
06	DSD	1743E	1857D	S20	W50	07	2.9		02	9	9	E	PALE	6131		
06	AFS	1909E	0200D	N20	W36	07	4.0		03	9	9	E	HOLL			
06	ADF	1950E	0200D	S15	W57	07	2.5	1	06	9	9	E	HOLL	6137		
06	SSB	2010		127	W03	07	8.8			0	0	E	HOLL		152 W28	172 W48
07	ADF	0115E	0200D	N18	W07	07	6.5	2	08	9	9	E	HOLL	6138		
07	AFS	0445E	1008D	N22	W41	07	4.0		01	7	6	E	SVTO			
07	ADF	0445E	1243D	N15	W26	07	5.2	1	07	9	9	E	SVTO	6133		
07	AFS	0445E	1445D	S07	W30	07	4.9		02	9	9	E	SVTO	6141		
07	AFS	0445E	1450D	N27	W61	07	2.4		02	8	8	E	SVTO	6127		
07	ADF	0445E	1805D	N18	W08	07	6.6	2	04	9	9	E	SVTO	6138		
07	ASR	0815E	1505D	S22	W90	06	30.4			8	8	E	SVTO	6126		
07	APR	0825	0920D	N38	E90	07	14.6	2				V	KHAR			
07	ADF	0858E	0920D	N34	E75	07	13.3	2				V	KHAR			
07	AFS	1040E	1815D	N11	W64	07	2.6		02	9	9	E	RAMY	6127		
07	AFS	1042E	1815D	S12	W60	07	2.9		03	9	9	E	RAMY	6137		
07	AFS	1306E	1712D	S15	W62	07	2.8		03	9	9	E	HOLL	6137		
07	AFS	1314E	0148D	S22	E58	07	12.0		02	9	8	E	HOLL			
07	ADF	1416E	1755D	S23	W57	07	3.2	1	05	9	9	E	HOLL	6131		
07	ASR	1510E	0148D	N11	W85	07	1.2			9	9	E	HOLL	6134		
07	ADF	1512E	0148D	N13	W32	07	5.2	1	05	8	7	E	HOLL	6133		
07	ADF	1512E	1715D	N23	W23	07	5.9	1	05	9	9	E	HOLL	6133		
07	DSD	1623E	1815D	S14	E62	07	12.4		03	9	9	E	RAMY	6142		
07	ADF	1623E	1815D	S15	E57	07	12.0	1	05	9	9	E	RAMY	6142		
07	SSB	1725		124	W12	07	9.5			0	0	E	HOLL		181 W69	
07	AFS	1734E	0120D	S06	W38	07	4.9		02	9	9	E	PALE	6141		
07	AFS	1735E	0120D	N09	W70	07	2.5		02	9	9	E	PALE	6127		
07	ADF	1742E	0120D	N22	W31	07	5.3	1	12	9	9	E	PALE	6133		
07	AFS	1748E	0120D	S06	W38	07	4.9		03	9	9	E	PALE	6141		
07	AFS	1748E	0120D	S22	E59	07	12.3		02	9	9	E	PALE			
07	SDF	1805E	0429D	N23	E20	07	9.3		07	0	0	E	SVTO			
07	SDF	1805E	0429D	N30	W13	07	6.7		06	0	0	E	SVTO			
07	DSD	1826E	0120D	S21	W61	07	3.1		03	9	9	E	PALE	6131		
07	SDF	1826E	0120D	S21	W61	07	3.1		03	9	9	E	PALE	6131		

ACTIVE PROMINENCES AND FILAMENTS

JULY 1990

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
08	SDF	0139E	0259D	N20	W05	07	7.7		05	0	0	E	LEAR	6138	
08	SDF	0139E	0259D	N31	E13	07	9.1		08	0	0	E	LEAR		
08	AFS	0500E	1802D	N19	W54	07	4.1		01	6	6	E	SVTO		
08	ASR	0500E	1802D	S13	W90	07	1.4			9	9	E	SVTO	6137	
08	AFS	0500E	1802D	S14	W70	07	2.9		02	9	9	E	SVTO	6137	
08	AFS	0500E	1802D	S22	E51	07	12.1		01	9	9	E	SVTO		
08	DSD	0500E	1802D	S22	W64	07	3.3		05	9	9	E	SVTO	6131	
08	ADF	0520	0656D	S12	W90	07	1.4	2	02	9	9	E	SVTO	6137	
08	ADF	1033E	1821D	N26	W08	07	7.8	1	12	9	9	E	RAMY	6138	
08	AFS	1037E	1522D	S19	W67	07	3.3		03	9	9	E	RAMY	6133	
08	ADF	1039E	1522D	S18	W35	07	5.8	1	12	9	9	E	RAMY	6139	
08	SSB	1100		125	W22	07	10.4			0	0	E	RAMY		146 W43 159 W56
08	BSD	1116E	1129D	S10	W78	07	2.6		03	9	9	E	RAMY	6137	
08	ADF	1236E	0009D	N14	W43	07	5.3	1	14	9	9	E	HOLL	6133	
08	DSD	1242E	2323D	S23	W70	07	3.1		11	9	9	E	HOLL	6131	
08	SSB	1250		123	W21	07	10.3			0	0	E	HOLL		144 W42 153 W51
08	ASR	1413E	1730D	S13	W90	07	1.8			9	9	E	RAMY	6126	
08	BSD	1447E	1554D	S22	W76	07	2.8		10	9	9	E	HOLL	6131	
08	SDF	1455E	1815D	N05	W10	07	7.9		04	0	0	E	HOLL		
08	ADF	1637E	0404D	N15	W45	07	5.3	1	12	9	9	E	PALE	6133	
08	DSD	1637E	2020D	N15	W48	07	5.0		01	9	9	E	PALE	6133	
08	AFS	1642E	2030D	S13	W75	07	3.0		02	9	9	E	PALE	6137	
08	AFS	1655E	2058D	S08	E04	07	9.0		01	9	9	E	PALE		
08	DSD	1658E	0353D	S14	W78	07	2.8		01	9	9	E	PALE	6137	
08	SDF	1726E	1900D	S35	W07	07	8.2		12	0	0	E	PALE		
08	CRN	1742E	2313D	S15	W90	07	1.9		06	9	9	E	HOLL	6137	
09	ASR	0320E	0847D	S20	W90	07	2.2			9	9	E	LEAR	6131	
09	ASR	0440E	1810D	S21	W90	07	2.3			9	9	E	SVTO	6131	
09	ASR	0440E	1810D	S25	W90	07	2.2			9	9	E	SVTO	6131	
09	ASR	0505E	0847D	S10	W90	07	2.4			9	9	E	LEAR	6126	
09	ASR	0505E	1810D	S13	W90	07	2.4			9	9	E	SVTO	6137	
09	DSD	0524E	0541D	N20	W50	07	5.4		03	9	9	E	SVTO	6133	
09	ADF	0525E	1810D	N19	W50	07	5.4	1	09	9	9	E	SVTO	6133	
09	ASR	0606E	0847D	S14	W90	07	2.4			9	9	E	LEAR	6137	
09	AFS	0804E	1810D	N09	E13	07	10.3		02	9	9	E	SVTO		
09	ASR	1033E	1944D	S08	E90	07	16.2			9	9	E	RAMY		
09	ASR	1034E	2108D	S16	E90	07	16.3			9	9	E	RAMY		
09	ADF	1036E	2207D	N26	E50	07	13.3	1	40	9	9	E	RAMY		
09	ADF	1045E	1950D	S17	E35	07	12.1	1	06	9	9	E	RAMY	6142	
09	ADF	1049E	1948D	S08	W60	07	4.9	1	05	9	9	E	RAMY	6141	
09	ASR	1102E	1940D	S13	W88	07	2.8			9	9	E	RAMY	6137	
09	ASR	1110E	1942D	S20	W90	07	2.6			9	9	E	RAMY	6131	
09	AFS	1141E	2109D	S21	E31	07	11.9		02	9	9	E	RAMY	6146	
09	AFS	1354E	2111D	N13	W45	07	6.2		02	7	7	E	RAMY	6143	
09	DSD	1424E	1943D	N17	W61	07	5.0		05	9	9	E	RAMY	6133	
09	SSB	1427		113	W28	07	10.6			0	0	E	RAMY		
09	SSB	1427		124	W36	07	11.5			0	0	E	RAMY		151 W63
09	ASR	1550E	1817D	S22	W90	07	2.7			9	9	E	HOLL	6131	
09	ADF	1558E	1602D	N19	W47	07	6.1	3	12	9	9	E	HOLL	6133	
09	ADF	1606E	1817D	N19	W39	07	6.7	1	04	9	9	E	HOLL	6138	
09	AFS	1749E	0504D	N09	E08	07	10.3		02	9	9	E	PALE	6148	
09	ASR	1749E	0504D	S07	E90	07	16.5			9	9	E	PALE		
09	ASR	1749E	0504D	S17	E90	07	16.6			9	9	E	PALE		
09	ASR	1749E	0504D	S18	W90	07	2.9			9	9	E	PALE	6131	
09	ADF	1917E	0504D	N17	W59	07	5.3		05	9	9	E	PALE	6133	
09	ADF	1937E	0504D	N19	W46	07	6.3	1	08	9	9	E	PALE	6138	
10	ASR	0423E	1801D	S24	W90	07	3.2			9	9	E	SVTO	6131	
10	DSD	0531E	0637D	S18	W73	07	4.7		04	9	9	E	SVTO	6139	
10	ADF	0531E	1801D	S20	W51	07	6.3	1	06	9	9	E	SVTO	6138	
10	ASR	0623E	0940D	S23	W90	07	3.3			9	9	E	LEAR	6131	
10	BSD	0847E	0920D	N16	W72	07	4.9		20	9	9	E	SVTO	6133	Flare Associated
10	BSD	0900E	0912	N17	W69	07	5.1		22	9	9	E	LEAR	6133	
10	ADF	1027E	2035D	N10	E49	07	14.1	1	07	8	8	E	RAMY	6145	
10	ADF	1029E	1543D	S19	E31	07	12.8	1	05	9	9	E	RAMY	6142	
10	ADF	1033E	1544D	S16	W68	07	5.3	1	09	9	9	E	RAMY	6139	
10	DSD	1037E	2033D	N21	W52	07	6.4		04	9	9	E	RAMY	6138	
10	ASR	1043E	1546D	S14	W89	07	3.7			9	9	E	RAMY	6137	

ACTIVE PROMINENCES AND FILAMENTS

JULY 1990

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
10	DSD	1046E	2030D	N18	W75	07	4.7		07	9	9	E	RAMY	6133	
10	ASR	1049E	2031D	S23	W90	07	3.5			9	9	E	RAMY	6131	
10	AFS	1054E	1548D	S08	E75	07	16.1		02	9	9	E	RAMY		
10	BSD	1228	1239	N16	W71	07	5.1		13	9	9	E	HOLL	6133	Flare Associated
10	BSL	1234E	1237	N16	W78	07	4.6			9	9	E	RAMY	6133	
10	ADF	1321E	2123D	N46	E43	07	14.1	1	28	9	9	E	HOLL		
10	SSB	1540		122	W48	07	12.5			0	0	E	RAMY		153 W79
10	AFS	1726E	0413D	N07	E14	07	11.8		02	9	9	E	PALE		
10	DSD	1726E	0413D	N09	W04	07	10.4		04	9	9	E	PALE	6148	
10	DSD	1726E	0413D	N16	W77	07	4.9		03	9	9	E	PALE	6133	
10	DSD	1726E	0413D	N19	W56	07	6.4		02	9	9	E	PALE	6138	
10	ADF	1726E	0413D	N32	W63	07	5.7	1	10	9	9	E	PALE	6133	
10	SDF	1801E	0604D	N09	E21	07	12.3		05	0	0	E	SVTO		
10	SDF	1821E	2009D	N03	E15	07	11.9		06	0	0	E	RAMY		
10	SDF	1907	1932	N02	E15	07	11.9		06	0	0	E	HOLL		Flare Associated
10	SDF	1933E	1836D	S15	E08	07	11.4		09	0	0	E	PALE		
10	BSD	1943	2039D	N17	W82	07	4.6		16	0	0	E	HOLL	6133	
11	ASR	0045E	0942D	S16	W90	07	4.2			9	9	E	LEAR	6139	
11	ASR	0048E	0942D	N13	W90	07	4.2			9	9	E	LEAR	6133	
11	DSD	0440E	0653D	N06	E05	07	11.6		02	9	9	E	LEAR	6150	
11	AFS	0440E	0942D	N06	E07	07	11.7		03	9	9	E	LEAR	6150	
11	BSD	0530E	0556	N14	W80	07	5.2		09	9	9	E	SVTO	6133	
11	ASR	0530E	1030D	S18	W90	07	4.4			9	9	E	SVTO	6139	
11	APR	0530E	1250D	N07	W89	07	4.6	1		6	9	E	SVTO	6133	
11	APR	0530E	1250D	S16	W90	07	4.4	1		8	9	E	SVTO	6139	
11	BSL	0547E	0604D	N15	W78	07	5.3			9	9	E	LEAR	6133	
11	BSL	0548	0556	N14	W80	07	5.2			9	9	E	SVTO	6133	
11	SSB	0604		126	W60	07	13.5			0	0	E	SVTO		
11	AFS	0611E	1729D	N06	E06	07	11.7		04	9	9	E	SVTO	6150	
11	BSD	0620	0655	N28	W64	07	6.3	1				P	BUCA		
11	SSB	1126		453	W30	07	7.3			0	0	E	RAMY		124 W61 152 W90
11	AFS	1131E	2152D	N06	E02	07	11.6		03	9	9	E	RAMY	6150	
11	DSD	1132	1159	N05	E01	07	11.5		03	9	9	E	RAMY	6150	
11	ADF	1144E	2152D	N28	W44	07	8.0	2	26	9	9	E	RAMY	6138	
11	ADF	1145E	2131D	N23	W72	07	5.9	2	30	9	9	E	RAMY	6133	
11	DSD	1146	1400D	S10	E00	07	11.5		03	9	9	E	RAMY		
11	DSD	1146	1400D	S11	E00	07	11.5		04	9	9	E	RAMY		
11	DSD	1222	1239	N06	E01	07	11.6		06	9	9	E	RAMY	6150	
11	DSD	1255E	1515	N05	E00	07	11.5		07	9	9	E	RAMY	6150	
11	ASR	1330E	1729D	N15	W90	07	4.7			9	9	E	SVTO	6133	
11	ASR	1358	1418	N15	W78	07	5.7			9	9	E	RAMY	6133	
11	AFS	1510E	1920D	N06	E01	07	11.7		02	9	9	E	HOLL	6150	
11	BSD	1510E	1920D	N15	W86	07	5.1		03	9	9	E	HOLL	6133	
11	APR	1510E	1920D	N17	W90	07	4.8	2		7	7	E	HOLL	6133	
11	DSD	1510E	1920D	N19	W72	07	6.1		03	9	9	E	HOLL	6138	
11	ASR	1600E	1920D	N19	W90	07	4.8			9	9	E	HOLL	6133	
11	AFS	1609E	1920D	S10	W01	07	11.6		02	9	9	E	HOLL		
11	ASR	1706E	0327D	N20	W90	07	4.8			9	9	E	PALE	6133	
11	ASR	1706E	0504D	S47	E90	07	19.2			9	9	E	PALE		
11	AFS	1745E	0504D	N05	E00	07	11.7		03	9	9	E	PALE	6150	
11	DSD	1745E	0504D	N07	E00	07	11.7		03	9	9	E	PALE	6150	
11	DSD	1745E	0504D	N09	W19	07	10.3		03	9	9	E	PALE	6148	
11	AFS	1745E	0504D	N15	W04	07	11.4		02	9	9	E	PALE		
11	DSD	1745E	0504D	N18	W71	07	6.3		05	9	9	E	PALE	6138	
11	DSD	1745E	0504D	S10	W01	07	11.7		03	9	9	E	PALE	6151	
11	DSD	1745E	0504D	S21	E06	07	12.2		04	9	9	E	PALE	6146	
11	ADF	2145E	2152D	S16	E76	07	17.7	1	15	9	9	E	RAMY	6152	
11	ASR	2338E	0854D	N21	W90	07	5.1			9	9	E	LEAR	6138	
11	AFS	2343E	0854D	N07	W04	07	11.7		04	9	9	E	LEAR	6150	
11	AFS	2343E	0854D	S09	W05	07	11.6		04	9	9	E	LEAR	6151	
12	AFS	0740E	1718D	N06	W08	07	11.7		04	9	9	E	SVTO	6150	
12	AFS	0741E	1718D	N15	W13	07	11.3		03	9	9	E	SVTO	6153	
12	AFS	0742E	1718D	S10	W08	07	11.7		03	9	9	E	SVTO	6151	
12	ASR	0743E	1025D	N18	W90	07	5.5			9	9	E	SVTO	6133	
12	APR	0744E	1718D	N18	W90	07	5.5	1		9	9	E	SVTO	6133	
12	SSB	0745		126	W73	07	14.7			0	0	E	SVTO		386 W00
12	APR	1026E	1718D	S31	W90	07	5.3	1		9	9	E	SVTO		
12	AFS	1054E	2058D	N14	W15	07	11.3		03	9	9	E	RAMY	6153	

ACTIVE PROMINENCES AND FILAMENTS

JULY 1990

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
12	ADF	1056E	2058D	N20	W64	07	7.6	1	26	9	9	E	RAMY	6138	
12	SSB	1304		125	W76	07	14.8			0	0	E	RAMY		
12	DSD	1351	1520D	S10	W10	07	11.8		04	9	9	E	SVTO	6151	Flare Associated
12	ASR	1524E	1718D	N18	W90	07	5.8			9	9	E	SVTO	6138	
12	ASR	1705E	0503D	N19	W90	07	5.8			9	9	E	PALE	6138	
12	AFS	1707E	0504D	N06	W15	07	11.6		01	9	9	E	PALE	6150	
12	AFS	1718E	0503D	S11	W11	07	11.9		02	9	9	E	PALE	6151	
12	SDF	1718E	0439D	N44	E03	07	13.0		31	0	0	E	SVTO		
12	AFS	1720E	0503D	N16	W18	07	11.3		02	9	9	E	PALE	6153	
12	ADF	1830E	0300D	S18	W07	07	12.2	1	04	9	9	E	PALE	6142	
12	ADF	1850E	0333D	S14	E53	07	16.8	1	09	9	9	E	PALE	6152	
12	AFS	2022E	0203D	N06	W16	07	11.6		04	9	9	E	HOLL	6150	
12	DSD	2022E	0203D	N07	W13	07	11.9		05	9	9	E	HOLL	6150	
12	AFS	2024E	0203D	S11	W18	07	11.5		03	9	9	E	HOLL	6151	
12	ASR	2025E	0203D	N18	W89	07	6.1			9	9	E	HOLL	6138	
12	AFS	2039E	0203D	N14	W25	07	11.0		03	9	9	E	HOLL	6153	
12	DSD	2058E	2233D	N08	W33	07	10.4		05	9	9	E	HOLL	6148	Flare Associated
12	AFS	2100E	0302D	N10	W35	07	10.2		02	9	9	E	PALE	6148	
12	SSB	2103		405	W01	07	12.5			0	0	E	HOLL		115 W71
12	DSD	2105E	0302D	N10	W35	07	10.2		03	9	9	E	PALE	6148	
12	SDF	2257E	1356D	N00	E16	07	14.1		07	0	0	E	HOLL		
12	SDF	2257E	1356D	S17	E65	07	17.9		08	0	0	E	HOLL		
12	DSD	2329E	0203D	N15	W25	07	11.1		04	9	9	E	HOLL	6153	
12	AFS	2341E	0343D	N06	W18	07	11.6		03	9	9	E	LEAR	6150	
12	ASR	2341E	0343D	N20	W90	07	6.1			9	9	E	LEAR	6138	
12	DSD	2343E	0343D	N04	W21	07	11.4		02	9	9	E	LEAR	6150	
12	DSD	2343E	0343D	N09	W15	07	11.9		04	9	9	E	LEAR	6150	
12	DSD	2349E	0203D	N08	W15	07	11.9		04	9	9	E	HOLL	6150	
13	DSD	0018E	0203D	N10	W36	07	10.3		05	9	9	E	HOLL	6148	
13	AFS	0020E	0343D	N16	W23	07	11.3		02	9	9	E	LEAR	6153	
13	AFS	0715E	1521D	N14	W27	07	11.3		03	9	9	E	SVTO	6153	
13	AFS	0716E	1521D	N06	W23	07	11.6		02	7	9	E	SVTO	6150	
13	AFS	0717E	1521D	S11	W22	07	11.6		02	9	9	E	SVTO	6151	
13	ASR	0718E	1521D	N19	W90	07	6.4			9	9	E	SVTO	6138	
13	ASR	0719E	1521D	N13	E90	07	20.1			9	9	E	SVTO	6155	
13	SSB	0720		125	W86	07	15.6			0	0	E	SVTO		386 W00
13	AFS	0721E	1521D	N21	E36	07	16.1		02	9	9	E	SVTO	6154	
13	LPS	0832	0927	N20	W90	07	6.5			9	9	E	SVTO	6138	Flare Associated
13	ASR	1047E	1157	N19	W90	07	6.6			9	9	E	RAMY	6138	
13	DSD	1048E	1204D	N09	W41	07	10.4		02	9	9	E	RAMY	6148	
13	AFS	1052E	2232D	N05	W25	07	11.6		03	9	9	E	RAMY	6150	
13	AFS	1053E	2232D	S11	W23	07	11.7		02	9	9	E	RAMY	6151	
13	AFS	1054E	2232D	N19	E35	07	16.1		02	9	9	E	RAMY		
13	ASR	1058E	2232D	N09	E86	07	19.9			9	9	E	RAMY		
13	AFS	1059E	2232D	N14	W28	07	11.3		02	9	9	E	RAMY	6153	
13	SSB	1103		401	W05	07	13.4			0	0	E	RAMY		453 W56 126 W90
13	LPS	1157E	2007D	N19	W90	07	6.6			9	9	E	RAMY	6138	
13	SSB	1209		416	W20	07	12.3			0	0	E	RAMY		436 W41
13	ADF	1213E	2232D	S16	E56	07	17.7	1	23	9	9	E	RAMY	6152	
13	LPS	1226E	1521D	N20	W90	07	6.6			9	9	E	SVTO	6138	
13	LPS	1236E	2128D	N21	W90	07	6.6			9	9	E	HOLL	6138	
13	AFS	1243E	0014D	S11	W25	07	11.6		03	9	9	E	HOLL	6151	
13	ADF	1244E	1707D	N09	W43	07	10.3	2	05	9	9	E	HOLL	6148	
13	DSD	1246E	1503D	N14	W31	07	11.2		03	9	9	E	HOLL	6153	
13	AFS	1247E	0014D	N06	W26	07	11.6		03	9	9	E	HOLL	6150	
13	ASR	1418E	0014D	N12	E90	07	20.4			9	9	E	HOLL		
13	AFS	1503E	0014D	N15	W30	07	11.3		02	9	9	E	HOLL	6153	
13	DSD	1505E	1709D	N03	W27	07	11.6		03	9	9	E	HOLL	6150	
13	ASR	1530E	2011D	N11	E85	07	20.0			9	9	E	RAMY		
13	LPS	1637E	2051D	N18	W90	07	6.8			9	9	E	PALE	6138	
13	ASR	1645E	2229D	N13	E90	07	20.5			9	9	E	PALE	6155	
13	AFS	1650E	0500D	N16	W33	07	11.2		02	9	9	E	PALE	6153	
13	AFS	1655E	0500D	N07	W29	07	11.5		01	9	9	E	PALE	6150	
13	ADF	1659E	0500D	S04	E35	07	16.3	1	09	9	9	E	PALE	6149	
13	AFS	1704E	0500D	S11	W28	07	11.6		02	9	9	E	PALE	6151	
13	SSB	1710		401	W08	07	13.6			0	0	E	PALE		123 W90
13	ADF	1921E	2232D	S28	E37	07	16.7	1	07	8	8	E	RAMY		
13	ADF	1949E	0500D	S23	E37	07	16.7	1	09	9	9	E	PALE		
13	DSD	1956E	2125D	N15	W30	07	11.5		03	9	9	E	HOLL	6153	

ACTIVE PROMINENCES AND FILAMENTS

JULY 1990

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
13	DSD	2312E	0014D	S08	E26	07	15.9		03	9	9	E	HOLL	6149	Flare Associated
13	ASR	2322	2329	N25	W90	07	7.0			9	9	E	HOLL	6138	
13	BSL	2329	2343D	N25	W90	07	7.0			9	9	E	HOLL	6138	
13	BSL	2329	2359	N24	W90	07	7.0			9	9	E	PALE	6138	
14	AFS	0201E	0946D	N20	E26	07	16.1		02	9	9	E	LEAR	6154	
14	AFS	0201E	0946D	S09	W33	07	11.6		03	9	9	E	LEAR	6151	
14	ASR	0259E	0355D	N20	W90	07	7.2			9	9	E	PALE	6138	
14	DSD	0530E	0700D	S15	W23	07	12.5		02	9	9	E	SVTO	6142	
14	AFS	0530E	1739D	N07	W34	07	11.7		04	9	6	E	SVTO	6150	
14	AFS	0530E	1739D	N15	W41	07	11.1		03	9	9	E	SVTO	6153	
14	AFS	0530E	1739D	N21	E25	07	16.1		02	9	7	E	SVTO	6154	
14	AFS	0530E	1739D	S10	W35	07	11.6		02	9	9	E	SVTO	6151	
14	SSB	0645		387	W02	07	7.8			0	0	E	SVTO		
14	ASR	0859E	0946D	N22	W90	07	7.4			9	9	E	LEAR	6138	
14	ADF	0918E	1033D	S20	W31	07	12.0	1				V	KHAR		
14	AFS	1018E	1631D	N13	W42	07	11.3		03	9	9	E	RAMY	6153	
14	DSD	1019E	1046D	S20	W30	07	12.1		04	9	9	E	RAMY	6146	
14	AFS	1021E	1631D	S11	W35	07	11.8		02	9	9	E	RAMY	6151	
14	AFS	1022E	1631D	S06	W36	07	11.7		03	9	9	E	RAMY	6150	
14	AFS	1026E	1631D	N19	E21	07	16.0		02	9	9	E	RAMY	6154	
14	SSB	1031		394	W11	07	7.4			0	0	E	RAMY		113 W90
14	ADF	1047E	1631D	S19	W33	07	11.9	1	04	9	9	E	RAMY	6146	
14	DSD	1408E	1552D	S14	W55	07	10.4		02	9	9	E	RAMY		
14	ASR	1554E	1605D	N32	W90	07	7.5			9	9	E	RAMY		
14	AFS	1741E	2212D	N15	W48	07	11.1		03	9	9	E	HOLL	6153	
14	AFS	1745E	2212D	S11	W41	07	11.6		02	9	9	E	HOLL	6151	
14	SSB	1749		391	W11	07	7.9			0	0	E	HOLL		403 W23 426 W46
14	BSL	2329	2359D	N24	W90	07	8.0			9	9	E	PALE	6138	
14	AFS	2355E	0914D	N15	W50	07	11.2		04	9	9	E	LEAR	6153	
14	AFS	2357E	0914D	S09	W43	07	11.8		02	9	9	E	LEAR	6151	
14	AFS	2359E	0914D	N19	E15	07	16.1		03	9	9	E	LEAR	6154	
15	AFS	0136E	0138D	N05	W45	07	11.7		02	9	9	E	PALE	6150	
15	AFS	0136E	0138D	N14	W52	07	11.1		02	9	9	E	PALE	6153	
15	ASR	0440E	0914D	S09	E90	07	21.9			9	8	E	LEAR		
15	SSB	0550		391	W18	07	8.3			0	0	E	SVTO		
15	AFS	0555E	1610D	N13	W55	07	11.1		03	9	9	E	SVTO	6153	
15	AFS	0555E	1610D	N19	E10	07	16.0		03	8	8	E	SVTO	6154	
15	AFS	0555E	1610D	S11	W46	07	11.8		03	7	8	E	SVTO	6151	
15	ADF	0600E	1610D	S06	E16	07	16.4	1	07	9	9	E	SVTO	6149	
15	ADF	0600E	1610D	S20	W41	07	12.1	1	04	9	9	E	SVTO	6146	
15	SSB	0615		390	W17	07	8.4			0	0	E	LEAR		403 W30
15	ADF	1319E	1333D	N17	E66	07	20.6	1	06	9	9	E	RAMY	6155	
15	DSD	1345E	2345D	N06	W49	07	11.9		03	9	9	E	HOLL	6150	
15	AFS	1345E	2345D	N15	W60	07	11.0		02	9	9	E	HOLL	6153	
15	DSD	1346E	2345D	S11	W50	07	11.8		02	9	9	E	HOLL	6151	
15	DSD	1535E	1801D	N16	W67	07	10.6		08	9	9	E	HOLL	6153	
15	AFS	1555E	1610D	N04	W48	07	12.1		06	9	9	E	SVTO	6150	
15	SDF	1610E	0852D	N38	W05	07	15.3		10	0	0	E	SVTO		
15	AFS	1620E	2345D	N19	E04	07	16.0		02	9	9	E	HOLL	6154	
15	SSB	1640		390	W23	07	8.7			0	0	E	HOLL		402 W35
15	SDF	1800E	1931D	N41	E02	07	15.9		19	0	0	E	HOLL		Flare Associated
15	BSD	1801E	2345D	N16	W68	07	10.6		12	9	9	E	HOLL	6153	
15	ADF	1955E	2345D	N43	E07	07	16.4	1	08	9	9	E	HOLL		
15	AFS	2351E	0329D	S11	W57	07	11.7		03	9	9	E	PALE	6151	
15	AFS	2352E	0329D	N14	W66	07	11.0		02	9	9	E	PALE	6153	
16	SSB	0009		392	W35	07	8.6			0	0	E	PALE		401 W54
16	SDF	0141E	0250D	N52	E02	07	16.2	3	19	0	0	E	LEAR		
16	AFS	0153E	0842D	N15	W66	07	11.1		02	9	9	E	LEAR	6153	
16	AFS	0220E	0329D	N18	W02	07	15.9		04	9	9	E	PALE	6154	
16	ADF	0227E	0329D	N15	E54	07	20.2	1	05	9	9	E	PALE	6155	
16	BSL	0342	0403D	N16	W71	07	10.8			9	9	E	LEAR	6153	
16	AFS	0607E	1228D	S12	W60	07	11.7		02	9	9	E	SVTO	6151	
16	AFS	0630E	1750D	N14	W68	07	11.1		03	9	9	E	SVTO	6153	
16	BSD	0638E	0702	N15	W73	07	10.7		03	9	9	E	SVTO	6153	
16	ASR	0645E	0710	N16	W90	07	9.4			9	9	E	LEAR	6148	
16	AFS	0713E	0842D	N01	E44	07	19.6		02	9	9	E	LEAR		
16	ASR	0739E	0842D	S27	E90	07	23.3			9	9	E	LEAR		

JULY 1990

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
16	ASR	0842E	1750D	S10	W90	07	9.6			9	9	E	SVTO		
16	SSB	1050		389	W32	07	9.4			0	0	E	SVTO		
16	ADF	1125E	2036D	N15	W46	07	13.0	1	09	9	9	E	RAMY	6153	
16	SSB	1230		373	W17	07	11.0			0	0	E	HOLL		390 W34 400 W44
16	SSB	1230		417	W61	07	15.0			0	0	E	HOLL		
16	ASR	1505E	1750D	N15	W83	07	10.3			9	9	E	SVTO	6153	
16	BSD	1507E	1600D	N16	W82	07	10.4		10	9	9	E	HOLL	6153	
16	BSD	1630E	2130D	N15	W82	07	10.5		06	9	9	E	HOLL	6153	
16	BSD	1630E	0028D	N13	W80	07	10.6		03	9	9	E	PALE	6153	
16	AFS	1630E	0510D	N18	W14	07	15.6		02	8	8	E	PALE	6154	
16	ASR	1630E	2300D	S28	E88	07	23.6			9	9	E	PALE	6161	
16	SSB	1740		374	W21	07	11.1			0	0	E	PALE		388 W35 414 W61
16	SSB	1740		414	W61	07	15.5			0	0	E	PALE		
16	SDF	1750E	0735D	N50	W09	07	16.0		19	0	0	E	SVTO		
16	ASR	1958E	2036D	S29	E84	07	23.4			9	9	E	RAMY	6161	
16	SDF	2330E	0050D	N41	E02	07	17.1		09	0	0	E	PALE		
17	ASR	0119E	0940D	N16	W90	07	10.2			9	9	E	LEAR	6153	
17	ASR	0144E	0510D	N14	W88	07	10.4			9	9	E	PALE	6153	
17	ASR	0148	0510D	S27	E88	07	23.9			9	9	E	PALE	6161	
17	ASR	0149E	0940D	S30	E90	07	24.1			9	9	E	LEAR	6161	
17	SSB	0243		388	W40	07	9.9			0	0	E	LEAR		
17	ADF	0335E	0510D	N21	W26	07	15.1	2	13	9	9	E	PALE		
17	BSD	0520E	1616D	S28	E80	07	23.5		03	9	9	E	SVTO	6161	
17	ASR	0520E	1622D	N12	W90	07	10.4			9	9	E	SVTO	6153	
17	ADF	0554E	1622D	N16	W44	07	13.9	1	16	9	9	E	SVTO	6145	
17	ADF	0554E	1622D	S13	W70	07	12.0	1	06	9	9	E	SVTO	6151	
17	BSL	0650	0708	N16	W90	07	10.4			9	9	E	LEAR	6153	
17	SDF	0726E	1510D	N21	W74	07	11.6		16	0	0	E	SVTO		
17	ADF	0733E	1622D	N17	W15	07	16.2	1	09	7	7	E	SVTO	6154	
17	BSL	1109	1117	N12	W90	07	10.7			9	9	E	SVTO	6153	
17	ASR	1113E	1815D	N15	W90	07	10.6			9	9	E	RAMY	6153	
17	SSB	1251		430	W47	07	15.0			0	0	E	SVTO		
17	ADF	1300E	1701D	N22	W42	07	14.3	1	07	9	9	E	HOLL	6145	
17	ADF	1316E	1111D	S10	W73	07	12.1	1	16	9	9	E	HOLL	6151	
17	ASR	1320E	1634D	N24	W90	07	10.6			9	9	E	HOLL		
17	ADF	1335E	1704D	S08	E67	07	22.6	1	10	9	9	E	HOLL		
17	DSD	1413E	1816D	S28	E73	07	23.3		03	9	9	E	RAMY	6161	
17	SSB	1433		389	W47	07	10.1			0	0	E	RAMY		400 W58
17	SSB	1510		364	W23	07	12.7			0	0	E	HOLL		391 W50 403 W62
17	SSB	1510		423	W82	07	15.5			0	0	E	HOLL		
17	AFS	1514E	1823D	S27	E70	07	23.1		03	9	9	E	RAMY	6161	
17	ASR	1708E	0500D	N21	W90	07	10.8			9	9	E	PALE	6153	
17	DSD	1725E	0500D	N02	E24	07	19.5		03	9	9	E	PALE	6160	
17	ADF	1725E	0500D	N19	E32	07	20.2	1	08	9	9	E	PALE	6155	
17	ADF	1725E	0500D	S10	W75	07	12.1		10	9	9	E	PALE	6151	
17	ADF	1725E	0500D	S21	W12	07	16.8		07	9	9	E	PALE	6152	
17	DSD	1725E	0500D	S30	E74	07	23.5		12	9	9	E	PALE	6161	
17	ASR	2154E	0500D	S25	W90	07	10.9			8	8	E	PALE	6146	
17	ASR	2335E	0940D	N16	W90	07	11.1			9	9	E	LEAR	6153	
18	ASR	0015E	0940D	N03	W90	07	11.3			9	9	E	LEAR	6150	
18	SSB	0210		354	W19	07	14.0			0	0	E	PALE		389 W54
18	ASR	0213E	0234D	N23	W90	07	11.1			9	9	E	PALE		
18	SSB	0507		389	W55	07	10.5			0	0	E	SVTO		
18	AFS	0508E	1326D	S20	E66	07	23.3		02	9	9	E	SVTO	6161	Flare Associated
18	ASR	0509E	1326D	N09	E90	07	25.0			9	9	E	SVTO	6162	
18	ASR	0510E	1326D	N14	W90	07	11.4			9	9	E	SVTO	6153	
18	ASR	0530E	1326D	N04	W90	07	11.5			9	9	E	SVTO	6150	
18	BSL	0620	0640	N08	W90	07	11.5	1				P	BUCA		
18	APR	0620	0800	S21	W90	07	11.4	1				P	BUCA		
18	SPY	0745	0808D	N16	W90	07	11.5	1				P	BUCA		
18	DSD	0900E	0930D	S32	E67	07	23.7	1				V	KHAR		
18	DSD	1118E	1602	S30	E69	07	23.9		03	9	9	E	RAMY	6161	
18	ASR	1118E	1617D	N09	E87	07	25.0			9	9	E	RAMY	6162	
18	AFS	1118E	1617D	S28	E61	07	23.2		02	9	9	E	RAMY	6161	
18	ASR	1148E	1532D	N13	W90	07	11.7			9	9	E	RAMY	6153	
18	SSB	1200		350	W20	07	14.7			0	0	E	RAMY		362 W32 390 W60
18	AFS	1326E	2355D	S29	E61	07	23.3		03	9	9	E	HOLL	6161	
18	ASR	1332E	0034D	N09	E90	07	25.3			8	8	E	HOLL		

ACTIVE PROMINENCES AND FILAMENTS

JULY 1990

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
18	APR	1357E	0007D	S20	W90	07	11.7	1		8	8	E	HOLL		
18	ADF	1358E	2237D	N13	E21	07	20.2	1	05	9	9	E	HOLL	6155	
18	SSB	1402		353	W24	07	14.5			0	0	E	HOLL		364 W35 391 W62
18	SSB	1403		403	W74	07	18.3			0	0	E	HOLL		
18	BSD	1702	1800D	N05	E86	07	25.1	1	09	9	9	E	HOLL	6162	Flare Associated
18	DSD	1738	1800D	S27	E54	07	22.9		03	9	9	E	HOLL	6161	Flare Associated
18	SDF	1742E	1838D	S21	W15	07	17.6		06	0	0	E	PALE	6152	
18	APR	2011E	0458D	S40	W90	07	11.5			9	9	E	PALE		
18	ADF	2020E	0458D	N15	E18	07	20.2		06	9	9	E	PALE	6155	
18	ADF	2020E	0458D	S05	W34	07	16.3		11	9	9	E	PALE	6149	
18	ADF	2026E	0458D	N25	W60	07	14.2		09	7	8	E	PALE		
18	ADF	2026E	0458D	S09	E44	07	22.1		05	9	9	E	PALE		
18	DSD	2026E	0458D	S29	E58	07	23.4		06	9	9	E	PALE	6161	
18	DSD	2026E	0458D	S30	E56	07	23.2		04	9	9	E	PALE	6161	
18	APR	2108E	2231D	N17	W90	07	12.0			9	9	E	HOLL	6145	
18	APR	2132E	2231D	N26	W90	07	11.9			9	9	E	HOLL		
18	SSB	2334		396	W21	07	11.6			0	0	E	PALE		386 W05
18	DSD	2355E	0034D	S28	E52	07	23.1		09	9	9	E	HOLL	6161	
19	ASR	0002E	0754D	N10	E90	07	25.8			9	9	E	LEAR	6162	
19	APR	0022E	0034D	N12	W90	07	12.2	1		9	9	E	HOLL	6145	
19	ASR	0044E	0458D	N10	E90	07	25.8			9	9	E	PALE	6162	
19	DSD	0051E	0755D	S29	E53	07	23.2		03	9	9	E	LEAR	6161	
19	SSB	0550		389	W68	07	11.2			0	0	E	SVTO		
19	ASR	0551E	0725D	N12	E90	07	26.0			9	9	E	SVTO		
19	AFS	0552E	0725D	S27	E50	07	23.1		03	9	9	E	SVTO	6161	
19	APR	0553E	0725D	S21	W88	07	12.5	1		9	9	E	SVTO		
19	ASR	0554E	0725D	S14	W89	07	12.5			9	9	E	SVTO	6142	
19	ASR	0755E	0946D	S18	W90	07	12.5			9	9	E	LEAR	6142	
19	AFS	0755E	0946D	S27	E48	07	23.1		02	7	7	E	LEAR	6161	
19	ASR	0808	0946D	N10	E90	07	26.1			9	9	E	LEAR		
19	SSB	1128		318	W01	07	18.1			0	0	E	RAMY		355 W38 392 W75
19	AFS	1250E	2322D	N10	E70	07	24.8		03	9	9	E	HOLL	6162	
19	ADF	1255E	2234D	S30	E49	07	23.4	1	03	9	9	E	HOLL	6161	
19	AFS	1255E	2322D	S29	E50	07	23.4		02	9	9	E	HOLL	6161	
19	AFS	1330E	2322D	S18	E25	07	21.5		01	8	8	E	HOLL		
19	DSD	1422	1536D	S29	E45	07	23.1		03	9	9	E	RAMY	6161	
19	DSD	1422	1552	S28	E45	07	23.1		04	9	9	E	RAMY	6161	
19	AFS	1433	1612D	S18	E25	07	21.5		01	8	6	E	RAMY		
19	ADF	1552E	2053D	S28	E43	07	23.0	2	07	9	9	E	RAMY	6161	
19	ADF	1611E	2322D	N13	E06	07	20.1	1	05	8	8	E	HOLL	6155	
19	SSB	1615		361	W47	07	14.6			0	0	E	HOLL		388 W74
19	AFS	1708E	0509D	S26	E44	07	23.1		03	9	9	E	PALE	6161	
19	ADF	1709E	0321D	S27	E41	07	22.9	1	08	9	9	E	PALE	6161	
19	DSD	1720E	0509D	S25	E40	07	22.8		03	9	9	E	PALE	6161	
19	DSD	2002E	2228D	S28	E37	07	22.7		07	9	9	E	HOLL	6161	
19	AFS	2335E	0946D	S27	E41	07	23.2		03	9	9	E	LEAR	6161	
20	BSL	0539E	0649D	S23	E90	07	27.2	1				C	ABST		
20	SSB	0550		389	W68	07	12.2			0	0	E	SVTO		
20	DSD	0630E	0828D	S28	E31	07	22.7		05	9	9	E	LEAR	6161	
20	BSL	0649E	0805D	N40	W90	07	12.9	1				C	ABST		
20	AFS	0904E	0946D	N23	E36	07	23.1		02	9	9	E	LEAR		
20	AFS	1000E	1724D	N24	E34	07	23.0		01	9	9	E	SVTO		
20	AFS	1018E	1724D	N11	E64	07	25.2		02	9	9	E	SVTO	6162	
20	AFS	1028E	1724D	S27	E35	07	23.2		02	9	9	E	SVTO	6161	
20	ADF	1035E	1724D	N13	E62	07	25.1	1	03	9	9	E	SVTO	6162	
20	ADF	1118E	1724D	N20	W05	07	20.1	1	08	9	9	E	SVTO	6155	
20	ADF	1118E	1724D	S07	W58	07	16.1	2	10	8	9	E	SVTO	6149	
20	APR	1125E	1724D	S42	W90	07	13.1	1		9	9	E	SVTO		
20	SSB	1129		394	W90	07	11.7			0	0	E	SVTO		
20	ADF	1130E	1724D	S10	E27	07	22.5	1	06	9	8	E	SVTO		
20	SSB	1230		316	W13	07	19.3			0	0	E	RAMY		364 W61 393 W90
20	BSD	1230E	1239D	S20	E78	07	26.5		08	7	7	E	SVTO		
20	DSD	1234E	1400D	S69	E26	07	22.9		06	9	9	E	RAMY	6161	
20	ADF	1235E	2020D	S28	E33	07	23.1	2	09	9	9	E	RAMY	6161	
20	DSD	1242E	2215D	N09	E56	07	24.7		09	9	9	E	RAMY	6162	
20	ADF	1245E	1549D	N10	E66	07	25.5	2	08	9	9	E	RAMY	6162	
20	AFS	1252E	2215D	S22	E33	07	23.1		02	9	9	E	RAMY		
20	DSD	1417E	1457	N08	E61	07	25.2		03	9	9	E	RAMY	6162	Flare Associated

JULY 1990

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
20	ADF	1443E	2200D	N17	W06	07	20.1	1	07	9	9	E	HOLL	6155	
20	ADF	1445E	2205D	S30	E36	07	23.4	1	06	9	9	E	HOLL	6161	
20	ADF	1447E	1521D	N07	E56	07	24.8	1	05	9	9	E	HOLL	6162	
20	DSD	1447E	1920D	N12	E53	07	24.6		03	9	9	E	HOLL	6162	
20	ADF	1447E	2227D	N14	E63	07	25.4	1	06	9	9	E	HOLL	6162	
20	AFS	1450E	2227D	N22	E32	07	23.1		03	9	9	E	HOLL		
20	AFS	1451E	2200D	S38	W02	07	20.4		02	7	7	E	HOLL		
20	ASR	1452E	1948D	S21	E90	07	27.5			8	8	E	HOLL		
20	DSD	1456	1522	N10	E69	07	25.8		05	9	9	E	RAMY	6162	
20	DSD	1521E	2207D	N08	E55	07	24.8		09	9	9	E	HOLL	6162	
20	ADF	1538E	2215D	S14	W56	07	16.4	1	09	9	9	E	RAMY		
20	ADF	1547E	1917D	N19	W08	07	20.0	2	04	9	9	E	RAMY	6155	
20	DSD	1606E	2207D	S26	E29	07	22.9		06	9	9	E	HOLL	6161	
20	APR	1611E	1752D	N21	W90	07	13.8	1		7	6	E	HOLL		
20	DSD	1627E	1916D	S29	E29	07	22.9		04	9	9	E	RAMY	6161	
20	BSD	1740E	1748	N08	E54	07	24.8		08	9	9	E	HOLL	6162	
20	DSD	1756E	0231D	N08	E56	07	24.9		06	9	9	E	PALE	6162	
20	DSD	1801E	0231D	S29	E29	07	23.0		03	9	9	E	PALE	6161	
20	ADF	1802E	0231D	S32	E28	07	23.0	1	04	9	9	E	PALE	6161	
20	ADF	1813E	0231D	N15	E68	07	25.9	1	08	9	9	E	PALE	6162	
20	AFS	1822E	0231D	N23	E31	07	23.1		02	9	9	E	PALE	6163	
20	AFS	1913E	0231D	S26	E34	07	23.4		02	9	9	E	PALE	6161	
20	AFS	1920E	2227D	N09	E56	07	25.0		02	9	9	E	HOLL	6162	
20	BSD	1948E	2155D	S23	E74	07	26.5		03	9	9	E	HOLL	6164	
20	DSD	1957	0231D	S24	E87	07	27.5		04	9	9	E	PALE	6164	
20	DSD	2207E	2227D	S29	E34	07	23.6		03	9	9	E	HOLL	6161	
20	AFS	2336E	0944D	S27	E27	07	23.1		02	9	9	E	LEAR	6161	
20	AFS	2337E	0944D	N09	E53	07	25.0		02	9	9	E	LEAR	6162	
20	AFS	2338E	0944D	N22	E27	07	23.0		01	7	7	E	LEAR	6163	
20	AFS	2339E	0944D	N11	E21	07	22.6		02	9	9	E	LEAR		
21	DSD	0340E	0944D	N08	E43	07	24.4		09	9	9	E	LEAR	6162	
21	DSD	0434E	0529D	N11	E45	07	24.6		07	9	9	E	SVTO	6162	Flare Associated
21	DSD	0442E	0449D	N09	E45	07	24.6		04	9	9	E	SVTO	6162	Flare Associated
21	DSD	0610E	0626	N10	E42	07	24.4	1				V	KHAR		
21	ADF	0610E	0640	N12	E65	07	26.1	1				V	KHAR		
21	DSD	0618E	0640D	N13	E61	07	25.9		06	9	9	E	SVTO	6162	
21	ADF	0618E	1736D	N18	E57	07	25.6	2	09	9	9	E	SVTO	6162	
21	BSL	0626	0650	N14	E90	07	28.1	1				V	KHAR		
21	DSD	0640E	0720	N40	E90	07	28.6	1				V	KHAR		
21	APR	0646	0720D	N10	E42	07	24.4	1				V	KHAR		
21	ADF	0657	0734D	N10	E50	07	25.0	1				V	KHAR		
21	ADF	0706E	0734D	N12	E65	07	26.2	1				V	KHAR		
21	ADF	1049E	1858D	N20	E26	07	23.4	1	08	9	9	E	RAMY	6163	
21	ADF	1055E	2220D	N14	E54	07	25.5	1	11	9	9	E	RAMY	6162	
21	DSD	1319E	1644D	S26	E14	07	22.6		02	9	9	E	HOLL	6161	
21	DSD	1319E	2203D	S28	E16	07	22.8		06	9	9	E	HOLL	6161	
21	DSD	1321E	1631D	N09	E47	07	25.1		05	9	9	E	HOLL	6162	
21	AFS	1328E	2203D	S14	E23	07	23.3		02	9	9	E	HOLL		
21	SSB	1329		380	W90	07	14.1			0	0	E	HOLL		
21	AFS	1440E	1710D	N22	W20	07	20.1		02	9	9	E	RAMY		
21	ASR	1618E	2203D	S13	E90	07	28.5			9	9	E	HOLL		
21	ADF	1629E	2203D	N10	E41	07	24.8	2	11	9	9	E	HOLL	6162	
21	ADF	1722E	2120D	N13	E44	07	25.0	1	09	9	9	E	PALE	6162	
21	AFS	1825E	2120D	S14	E22	07	23.4		03	8	8	E	PALE		
21	AFS	1825E	2120D	S16	W18	07	20.4		02	9	9	E	PALE		
21	DSD	1826E	2120D	N09	E38	07	24.6		03	9	9	E	PALE	6162	
21	DSD	1826E	2120D	S28	E16	07	23.0		03	9	9	E	PALE	6161	
21	ADF	2340E	0853D	N09	E41	07	25.1	1	05	9	9	E	LEAR	6162	
22	APR	0011E	0400D	S13	E90	07	28.8	1				C	VORO		
22	APR	0200	0350D	N20	W90	07	15.2	1				C	VORO		
22	BSL	0340	0400D	N11	E90	07	28.9	1				C	VORO		
22	ASR	0600E	1738D	N12	W90	07	15.5			9	9	E	SVTO		
22	ADF	0625E	0653D	N12	E34	07	24.8	1				V	KHAR		
22	ADF	0625E	0653D	N14	E40	07	25.3	1				V	KHAR		
22	APR	0630	0800D	N12	E90	07	29.0					P	BUCA		
22	APR	0630	0800D	N38	W90	07	15.0					P	BUCA		
22	BSL	0636E	0714D	S09	E90	07	29.0			6	6	E	SVTO	6168	
22	ADF	0645E	0653D	N27	E42	07	25.5	1				V	KHAR		

ACTIVE PROMINENCES AND FILAMENTS

JULY 1990

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	AFS	0656E	1738D	N30	E46	07 25.9		02	9	9	E	SVTO	6167	
22	AFS	0657E	1738D	N13	E39	07 25.2		02	9	9	E	SVTO	6162	
22	AFS	0701E	1738D	N10	E01	07 22.4		02	9	9	E	SVTO	6166	
22	ADF	0701E	1738D	S25	E13	07 23.3	1	05	9	9	E	SVTO	6161	
22	ADF	0702E	1738D	N17	E42	07 25.5	1	09	9	9	E	SVTO	6162	
22	BSD	0740	0800D	S15	W90	07 15.5					P	BUCA		
22	ADF	1048E	1348D	S15	E02	07 22.6	1	09	9	9	E	RAMY	6169	
22	AFS	1052E	1349D	N11	W02	07 22.3		02	9	9	E	RAMY	6166	
22	ADF	1054E	2137D	S23	E58	07 26.9	1	06	8	8	E	RAMY	6164	
22	DSD	1106E	1217D	S28	W01	07 22.4		03	7	7	E	RAMY	6161	
22	SSB	1113		343	W56	07 18.7			0	0	E	RAMY		
22	DSD	1217E	1313D	S28	E05	07 22.9		07	9	9	E	RAMY	6161	
22	DSD	1355E	0022D	N11	W39	07 19.6		02	9	9	E	HOLL	6155	
22	DSD	1400E	0022D	S27	E00	07 22.6		02	9	9	E	HOLL	6161	
22	ADF	1400E	1556D	S27	E09	07 23.3	1	08	9	9	E	HOLL	6161	
22	ADF	1413	1738D	S55	E18	07 24.1	1	07	9	9	E	SVTO	6164	
22	ADF	1415E	0027D	N12	E39	07 25.5	1	12	9	9	E	HOLL	6162	
22	ADF	1415E	1604D	N09	E24	07 24.4	1	07	9	9	E	HOLL	6162	
22	ASR	1417E	1421	S22	E90	07 29.5			9	9	E	HOLL		
22	BSL	1421	1612D	S22	E90	07 29.5			9	9	E	HOLL		
22	BSL	1422	1425D	S22	E90	07 29.5			9	9	E	SVTO		
22	BSL	1425E	1452D	S23	E90	07 29.5			9	9	E	RAMY		
22	DSD	1444E	1730D	N14	E40	07 25.6		09	9	9	E	RAMY	6162	
22	ADF	1511E	0132D	S20	E55	07 26.8	1	13	9	9	E	HOLL	6164	
22	DSD	1516E	0028D	S13	E72	07 28.1		03	8	9	E	HOLL	6168	
22	ASR	1605E	1621	N19	W84	07 16.2			9	9	E	SVTO	6154	
22	AFS	1655E	0447D	N11	E34	07 25.3		03	9	9	E	PALE	6162	
22	AFS	1655E	0447D	N29	E42	07 26.0		02	9	9	E	PALE	6167	
22	APR	1655E	0447D	N39	E90	07 30.0	1		9	9	E	PALE		
22	ASR	1655E	1715D	N11	E90	07 29.5			9	9	E	PALE		
22	ASR	1655E	1715D	N17	E90	07 29.5			9	9	E	PALE		
23	ASR	0030E	0834D	S22	E89	07 29.9			9	9	E	LEAR		
23	ASR	0032E	0132D	S22	E88	07 29.8			8	8	E	HOLL		
23	BSL	0121	0155	N17	W90	07 16.2	1				C	VORO		
23	SDF	0132E	1325D	N18	W47	07 19.5		12	0	0	E	HOLL	6155	
23	AFS	0155E	0834D	N10	E24	07 24.9		02	9	9	E	LEAR	6162	
23	ASR	0344E	0447D	S22	E88	07 29.9			9	9	E	PALE		
23	ADF	0825E	1738D	N16	E26	07 25.3	1	07	9	9	E	SVTO	6162	
23	AFS	0825E	1738D	N29	E31	07 25.8	1	03	9	9	E	SVTO	6167	
23	DSD	1027E	1550D	S13	E61	07 28.0		03	9	9	E	RAMY	6168	
23	DSD	1029E	1551D	N27	E28	07 25.6		03	9	9	E	RAMY	6167	
23	ADF	1029E	1827D	N28	E31	07 25.8	1	05	9	9	E	RAMY	6167	
23	ADF	1033E	2155D	S23	E47	07 27.1	1	09	9	9	E	RAMY	6164	
23	ADF	1039E	1416D	N25	W10	07 22.7	1	05	9	9	E	RAMY	6161	
23	SSB	1050		274	W09	07 29.0			0	0	E	RAMY		291 W26 324 W59
23	ADF	1350E	0029D	N11	E15	07 24.7	1	10	9	9	E	HOLL	6162	
23	ADF	1409E	1555D	N19	W01	07 23.5	1	05	9	9	E	RAMY	6163	
23	DSD	1409E	1555D	N24	W08	07 23.0		04	9	9	E	RAMY	6163	
23	AFS	1409E	1833D	N23	W07	07 23.0		02	9	9	E	RAMY	6163	
23	AFS	1424E	1752D	N10	E23	07 25.3		02	9	9	E	HOLL	6162	
23	ADF	1428E	1835D	N15	W03	07 23.4	1	06	9	9	E	HOLL	6163	
23	AFS	1443E	0029D	N20	W17	07 22.3		02	8	8	E	HOLL		
23	SSB	1445		317	W54	07 22.1			0	0	E	HOLL		
23	AFS	1525E	1738D	S18	E31	07 26.0		02	9	9	E	SVTO	6164	
23	APR	1525E	1738D	S30	E90	07 30.7	1		7	9	E	SVTO		
23	AFS	1542E	0029D	S20	E31	07 26.0		02	9	9	E	HOLL		
23	ASR	1630E	1658D	S30	E90	07 30.8			9	9	E	HOLL	6172	Flare Associated
23	ASR	1635E	1738D	S17	E90	07 30.5			9	9	E	SVTO	6172	
23	APR	1650E	0506D	S32	E90	07 30.8			8	8	E	PALE		
23	ASR	1650E	1730D	S19	E90	07 30.6			9	9	E	PALE	6172	
23	AFS	1657E	0506D	N30	E27	07 25.8		03	9	9	E	PALE	6167	
23	ADF	1725E	0506D	N16	E23	07 25.5	1	10	9	9	E	PALE	6162	
23	APR	1745E	0506D	S13	E90	07 30.5			9	9	E	PALE		
23	AFS	1825E	0506D	N11	E16	07 25.0		04	9	9	E	PALE	6162	
23	ADF	1832E	2232D	N10	E13	07 24.7	1	03	9	9	E	HOLL	6162	
23	DSD	1907E	1920D	S29	E00	07 23.8		02	9	9	E	HOLL	6161	
23	DSD	1922E	1955D	N09	E20	07 25.3		03	9	9	E	HOLL	6162	Flare Associated
23	APR	2201E	0156	S13	W90	07 17.1	1				C	VORO		
23	BSL	2201E	2235	S22	E90	07 30.8	1				C	VORO		

ACTIVE PROMINENCES AND FILAMENTS

JULY 1990

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
23	BSL	2348	0010	S23	E90	07 30.9	1				C	VORO		
23	BSL	2400	0030	N04	W90	07 17.3	1				C	VORO		
24	APR	0015E	0335	S50	W90	07 16.4	1				C	VORO		
24	APR	0015E	0402D	S12	W90	07 17.2	2				C	VORO		
24	EPL	0048E	0115D	S14	W90	07 17.2			9	9	E	LEAR	6149	
24	EPL	0052E	0155D	S17	W90	07 17.2			9	9	E	PALE		
24	EPL	0058E	0029D	S17	W90	07 17.2			9	9	E	HOLL		
24	APR	0115E	0950D	S07	W90	07 17.3			9	9	E	LEAR	6149	
24	APR	0155E	0506D	S17	W90	07 17.2	2		9	9	E	PALE		
24	DSD	0432E	0950D	N11	E02	07 24.3		05	9	9	E	LEAR	6162	
24	AFS	0515E	1715D	N10	E08	07 24.8	1	03	9	9	E	SVTO	6162	
24	AFS	0545E	1715D	S18	W52	07 20.3		02	6	6	E	SVTO	6170	
24	BSL	0704E	0750D	S33	E90	07 31.4	1				C	ABST		
24	AFS	0750E	1715D	S19	W32	07 21.9	1	03	9	9	E	SVTO		
24	APR	0755E	0857D	N40	E90	07 31.7	1				V	KHAR		
24	AFS	0800E	0950D	S18	W33	07 21.8		02	9	9	E	LEAR		
24	ADF	0900E	1715D	S18	E30	07 26.6		22	9	9	E	SVTO	6164	
24	DSD	0904E	1639D	S08	E73	07 29.8		04	9	9	E	SVTO	6174	
24	DSD	0935	1209D	N12	W07	07 23.9		06	9	9	E	SVTO	6162	
24	DSD	1216E	1715D	N13	E15	07 25.6		08	9	9	E	SVTO	6162	
24	DSD	1300E	1345D	N12	E09	07 25.2		03	9	9	E	HOLL	6162	Flare Associated
24	DSD	1300E	1827D	N12	E04	07 24.8		03	9	9	E	HOLL	6162	Flare Associated
24	DSD	1306E	1715D	N12	W04	07 24.2		08	9	9	E	SVTO	6162	
24	AFS	1310E	2309D	N13	E60	07 29.1		02	9	9	E	HOLL	6171	
24	AFS	1312E	2309D	S18	W35	07 21.9		01	9	9	E	HOLL		
24	AFS	1327E	2309D	N10	E09	07 25.2		02	9	9	E	HOLL	6162	
24	ADF	1328E	1828D	N12	E12	07 25.5	1	05	7	7	E	HOLL	6162	
24	SSB	1345		289	W40	07 31.8			0	0	E	HOLL		
24	ADF	1346E	2309D	S09	W33	07 22.1	1	08	8	8	E	HOLL		
24	AFS	1518E	2204D	N11	E09	07 25.3		02	9	9	E	RAMY	6171	
24	DSD	1518E	2204D	N13	W06	07 24.2		04	9	9	E	RAMY	6171	
24	ADF	1518E	2232D	S10	E68	07 29.7	1	12	9	9	E	RAMY	6174	
24	AFS	1518E	2232D	S18	W38	07 21.7		02	9	9	E	RAMY		
24	ADF	1705E	0150D	N08	W04	07 24.4		05	9	9	E	PALE	6162	
24	AFS	1705E	0457D	N12	E60	07 29.2		02	9	9	E	PALE	6171	
24	AFS	1705E	0457D	N27	E16	07 25.9		02	7	8	E	PALE	6167	
24	AFS	1705E	0457D	S10	E03	07 24.9		03	9	9	E	PALE	6162	
24	AFS	1705E	0457D	S20	W37	07 21.9		02	9	9	E	PALE		
24	DSD	1923E	0457D	N10	W07	07 24.3		05	9	9	E	PALE	6162	
24	SDF	2012E	1745D	N67	W37	07 21.5		60	0	0	E	PALE		
24	AFS	2014E	0457D	S17	W59	07 20.3		02	9	9	E	PALE	6170	
24	AFS	2208E	0457D	S20	W39	07 21.9		02	9	9	E	PALE	6176	
24	AFS	2350E	0950D	N11	E70	07 30.2		03	9	9	E	LEAR	6171	
25	DSD	0115E	0457D	S29	W24	07 23.2		03	9	9	E	PALE	6161	
25	ADF	0120E	0457D	N07	W06	07 24.6	1	04	9	9	E	PALE	6162	
25	ADF	0215E	0948D	N11	W01	07 25.0		05	9	9	E	LEAR	6162	
25	AFS	0218E	0948D	S18	W42	07 21.9		02	9	9	E	LEAR	6176	
25	BSD	0232E	0340D	S27	W27	07 23.0		09	9	9	E	LEAR	6161	
25	DSD	0623E	0935D	N13	E04	07 25.6		06	9	9	E	SVTO	6162	
25	ADF	0623E	1622D	S20	W61	07 20.6	1	04	9	7	E	SVTO	6170	
25	AFS	0656E	1706D	N11	E00	07 25.3		03	9	9	E	SVTO	6162	
25	ADF	0934E	1220D	N12	W11	07 24.6	1	16	9	9	E	SVTO	6162	
25	DSD	1105E	1819D	N09	W17	07 24.2		05	9	9	E	RAMY	6162	
25	ADF	1105E	2202D	S12	E64	07 30.3	1	08	9	9	E	RAMY	6177	
25	AFS	1105E	2202D	S18	W48	07 21.8		03	9	9	E	RAMY	6176	
25	ADF	1150E	1706D	S12	E62	07 30.2	1	08	9	9	E	SVTO	6174	
25	SSB	1210		245	W08	07 28.9			0	0	E	RAMY		
25	SDF	1245E	1346D	S09	W03	07 25.3		14	0	0	E	RAMY		
25	DSD	1406E	0132D	N08	W15	07 24.5		05	9	9	E	HOLL	6162	
25	ADF	1406E	0132D	N11	W05	07 25.2	1	07	9	9	E	HOLL	6162	
25	AFS	1410E	0132D	N27	E02	07 25.7		03	9	9	E	HOLL	6167	
25	ADF	1415E	0132D	S16	E60	07 30.1	2	07	9	9	E	HOLL	6174	
25	ADF	1415E	1720D	S19	E62	07 30.3	2	07	9	9	E	HOLL	6177	
25	AFS	1418E	0132D	S19	W49	07 21.8		04	9	9	E	HOLL	6176	
25	AFS	1419E	0132D	N28	E15	07 26.8		02	9	9	E	HOLL		
25	SSB	1420		244	W08	07 28.9			0	0	E	HOLL		
25	SDF	1715E	1040D	N55	E44	07 29.5		27	0	0	E	SVTO		
25	AFS	1718E	0450D	N28	E15	07 26.9		02	9	9	E	PALE	6178	

ACTIVE PROMINENCES AND FILAMENTS

JULY 1990

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
25	AFS	1739E	0450D	S19	W51	07	21.8		03	9	9	E	PALE	6176	
25	ADF	1814E	0450D	N10	W12	07	24.8	1	03	9	9	E	PALE	6162	
25	AFS	1814E	0450D	N12	W08	07	25.1		03	9	9	E	PALE	6162	
25	DSD	1818E	0450D	N10	W06	07	25.3		03	9	9	E	PALE	6162	
25	ADF	1822E	0450D	S19	E15	07	26.9	1	05	9	9	E	PALE	6164	
25	AFS	1827E	2133D	N11	W12	07	24.9		02	9	9	E	PALE	6166	
25	ADF	1835E	0450D	N11	E48	07	29.4	1	04	9	9	E	PALE	6171	
25	AFS	1835E	0450D	N12	E46	07	29.2		03	9	9	E	PALE	6171	
25	ADF	1842E	0450D	S11	E59	07	30.2	1	12	9	9	E	PALE	6174	
25	AFS	1859E	2141D	N07	W42	07	22.6		02	9	9	E	RAMY	6166	
25	SSB	1930		244	W11	07	29.1			0	0	E	PALE		
25	AFS	2056E	0132D	N11	W08	07	25.3		02	9	9	E	HOLL	6162	
25	SDF	2118E	1956D	N07	W13	07	24.9		13	0	0	E	HOLL		
25	AFS	2125E	0450D	N28	E01	07	26.0		03	9	9	E	PALE	6167	
25	DSD	2133E	0450D	N08	E46	07	29.3		03	9	9	E	PALE	6171	Flare Associated
26	SDF	0215E	1731D	N10	W16	07	24.9		08	0	0	E	PALE		
26	ADF	0250E	0830D	N09	E48	07	29.7	1	05	7	9	E	LEAR	6171	
26	APR	0546E	1146D	S17	E84	08	1.6			9	9	E	SVTO		
26	AFS	0548E	1508D	N09	W49	07	22.6		02	9	9	E	SVTO	6166	
26	AFS	0550E	1501D	N13	E39	07	29.2		02	9	9	E	SVTO	6171	
26	ADF	0551E	1634D	N10	E46	07	29.7	1	05	9	9	E	SVTO	6171	
26	SSB	0611		247	W20	07	29.8			0	0	E	SVTO		
26	DSD	0742E	0945D	N14	W11	07	25.5		08	9	9	E	LEAR	6162	
26	SSB	1110		208	W00	07	27.1			0	0	E	RAMY		246 W21 282 W57
26	AFS	1119E	1855D	S18	W60	07	21.9		03	9	9	E	RAMY	6176	
26	ADF	1130E	1855D	S11	E46	07	29.9	1	11	9	9	E	RAMY	6174	
26	DSD	1134E	1533D	S28	W48	07	22.7		05	9	9	E	RAMY	6161	
26	DSD	1211E	1258D	N10	W28	07	24.4		06	9	9	E	SVTO	6168	
26	ADF	1300E	0038D	S16	E47	07	30.1	1	09	9	9	E	HOLL	6174	
26	ADF	1307E	1631D	N05	W27	07	24.5	1	07	9	9	E	HOLL	6162	
26	DSD	1323E	1346	N10	W28	07	24.4		06	9	9	E	RAMY	6162	
26	AFS	1348E	1529D	S04	E00	07	26.6		02	9	9	E	RAMY		
26	DSD	1702E	1840D	N10	W24	07	24.9		10	9	9	E	RAMY	6162	Flare Associated
26	DSD	1707E	1917D	N10	W13	07	25.7		08	9	9	E	PALE	6162	Flare Associated
26	DSD	1709E	2143D	N13	W16	07	25.5		07	9	9	E	HOLL	6162	Flare Associated
26	SSB	1731		252	W28	07	30.8			0	0	E	PALE		
26	BSD	1900E	1922	S19	W69	07	21.5		04	9	9	E	HOLL	6176	Flare Associated
26	DSD	1922E	2344D	S19	W69	07	21.5		05	9	9	E	HOLL	6176	
26	AFS	1936E	0340D	N11	W24	07	25.0		02	9	9	E	PALE	6162	
26	SSB	2002		246	W26	07	30.4			0	0	E	HOLL		
26	BSD	2056	2200D	S27	W53	07	22.7		05	9	9	E	HOLL	6161	
26	APR	2234E	2315D	S18	W90	07	20.1	1				C	VORO		
26	ASR	2340E	0745D	S13	W90	07	20.2			9	9	E	LEAR	6170	
27	DSD	0015E	0050D	N17	W25	07	25.1		08	9	9	E	PALE	6162	Flare Associated
27	DSD	0027E	0038D	N13	W19	07	25.6		09	9	9	E	HOLL	6162	
27	AFS	0250E	0951D	S24	E37	07	30.0		02	9	9	E	LEAR	6172	
27	AFS	0400E	0951D	S17	W72	07	21.7		02	9	9	E	LEAR	6176	
27	AFS	0503E	1737D	S20	E43	07	30.5		02	9	9	E	SVTO	6177	
27	AFS	0515E	0951D	N13	W24	07	25.4		02	7	9	E	LEAR	6162	
27	ADF	0516E	1737D	S08	E37	07	30.0	1	12	9	9	E	SVTO	6174	
27	ADF	0530E	0951D	S17	E38	07	30.1	2	11	9	9	E	LEAR	6177	
27	AFS	0539E	1125D	S20	W73	07	21.6		03	9	9	E	SVTO	6176	
27	ASR	0820E	0951D	S17	W90	07	20.5			9	9	E	LEAR	6170	
27	AFS	0822E	0951D	S11	W36	07	24.6		04	9	9	E	LEAR	6174	
27	AFS	0832E	1125D	S09	E35	07	30.0		02	9	9	E	SVTO	6174	
27	AFS	0840E	0951D	S22	E40	07	30.4		02	9	9	E	LEAR	6177	
27	DSD	0948E	1001D	N11	W27	07	25.4		03	9	9	E	SVTO	6162	Flare Associated
27	ASR	1007E	1045D	S26	W90	07	20.4			9	9	E	SVTO	6176	
27	BSL	1045	1051	S21	W90	07	20.5			9	9	E	SVTO	6176	Flare Associated
27	ASR	1205E	1830D	S25	W90	07	20.5			9	9	E	RAMY	6176	
27	SSB	1216		282	W70	08	4.0			0	0	E	RAMY		246 W34 208 W00
27	ADF	1223E	1830D	S11	E33	07	30.0	2	11	9	9	E	RAMY	6174	
27	ADF	1305E	0148D	S17	E36	07	30.3	1	08	9	9	E	HOLL	6174	
27	SSB	1337		249	W39	07	31.5			0	0	E	HOLL		283 W73
27	BSL	1539	1604	S18	W80	07	21.6			9	9	E	RAMY	6176	
27	BSL	1542	1621D	S21	W90	07	20.7			9	9	E	HOLL	6176	
27	SDF	1634E	1014D	N35	E45	07	31.3		07	0	0	E	SVTO		
27	ADF	2049E	2348D	N14	W38	07	25.0	2	08	9	9	E	HOLL	6162	

ACTIVE PROMINENCES AND FILAMENTS

JULY 1990

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
27	BSD	2119E	2153D	N20	W73	07	22.3		05	9	9	E	HOLL	6173	
27	ADF	2340E	0951D	S10	E27	07	30.0	1	12	9	9	E	LEAR	6174	
27	ASR	2341E	0951D	S16	W90	07	21.2			9	9	E	LEAR	6176	
28	DSD	0210E	0951D	N09	W52	07	24.2		03	9	9	E	LEAR	6162	
28	ASR	0515E	1738D	S19	W90	07	21.3			9	9	E	SVTO	6176	
28	AFS	0523E	1738D	N08	W46	07	24.8		02	9	9	E	SVTO	6162	
28	ADF	0532E	1738D	S11	E23	07	30.0	1	09	9	9	E	SVTO	6174	
28	AFS	0540E	0951D	S20	E30	07	30.5		03	9	9	E	LEAR	6177	
28	ADF	0635E	0951D	N11	E10	07	29.0	2	05	9	9	E	LEAR	6171	
28	BSL	0655E	0802D	S50	E90	08	4.9	1				C	ABST		
28	AFS	1034E	1617D	S10	E50	08	1.2		02	9	9	E	RAMY	6181	
28	ADF	1035E	1617D	S19	E22	07	30.1	1	13	9	9	E	RAMY	6174	
28	DSD	1050E	1403D	N17	E53	08	1.5		03	9	9	E	RAMY	6179	
28	AFS	1057E	1405D	N18	W83	07	22.1		03	9	9	E	RAMY	6173	
28	SSB	1230		208	W13	07	29.1			0	0	E	RAMY		
28	DSD	1323E	1355D	S16	W07	07	28.0		07	9	9	E	HOLL	6168	
28	ADF	1331E	1530D	N13	W53	07	24.6	1	05	9	9	E	HOLL	6162	
28	ADF	1331E	2354D	S10	E20	07	30.1	1	07	9	9	E	HOLL	6174	
28	ADF	1442E	2000D	S26	E17	07	29.9	1	04	9	9	E	HOLL	6172	
28	SSB	1500		210	W14	07	29.4			0	0	E	HOLL		246 W50
28	BSD	1725E	1949D	N15	W82	07	22.5		03	9	9	E	PALE	6173	
28	SSB	1740		251	W56	08	2.1			0	0	E	PALE		237 W42 210 W16
28	ASR	1920E	0448D	S20	W88	07	22.1			9	9	E	PALE	6176	
28	ASR	2026E	0448D	N15	W84	07	22.5			9	9	E	PALE	6173	
29	ADF	0015E	0950D	N11	E01	07	29.1	2	05	9	9	E	LEAR	6171	
29	ASR	0017E	0950D	N17	W90	07	22.2			9	9	E	LEAR	6173	
29	ADF	0600E	1720D	S11	E11	07	30.1	1	06	8	9	E	SVTO	6174	
29	AFS	0825E	0950D	S03	W09	07	28.7		02	9	9	E	LEAR		
29	BSD	0911E	0950D	N12	W66	07	24.4		11	9	9	E	LEAR	6162	
29	DSD	1008	1220D	N09	W68	07	24.3		16	9	9	E	SVTO	6162	
29	AFS	1036E	1710D	S05	W11	07	28.6		02	9	9	E	RAMY		
29	AFS	1038E	1344D	N12	W42	07	26.3		02	9	9	E	RAMY	6182	
29	ADF	1038E	1344D	N13	W34	07	26.9	1	08	9	9	E	RAMY	6182	
29	ADF	1047E	2134D	S09	E06	07	29.9	1	12	9	9	E	RAMY	6174	
29	ASR	1053E	1347D	N19	W90	07	22.6			9	9	E	RAMY	6173	
29	DSD	1056E	1349D	S25	E08	07	30.1		04	9	9	E	RAMY	6172	
29	ADF	1108E	1350D	N21	W48	07	25.8	1	08	9	9	E	RAMY	6167	
29	SSB	1127		211	W26	07	30.3			0	0	E	RAMY		247 W62
29	AFS	1350E	0052D	N11	W63	07	24.8		02	9	9	E	HOLL	6162	
29	ASR	1352E	1710D	S26	W88	07	22.7			9	9	E	RAMY	6161	
29	SSB	1420		346	W63	07	25.5			0	0	E	HOLL		310 W27 297 W14
29	ASR	1545E	1847D	S22	W90	07	22.7			9	9	E	HOLL		
29	ADF	1605E	0052D	S13	E05	07	30.0	1	04	8	8	E	HOLL	6174	
29	AFS	1700E	0443D	S08	E35	08	1.3		02	8	8	E	PALE	6181	
29	ADF	1700E	0443D	S14	E05	07	30.1		06	9	9	E	PALE	6174	
29	SDF	1704E	2151D	S33	E12	07	30.7		09	0	0	E	HOLL		
29	SDF	1704E	2151D	S36	W34	07	27.0		24	0	0	E	HOLL		
29	SDF	1704E	2151D	S43	E03	07	29.9		17	0	0	E	HOLL		
29	SSB	1709		251	W69	08	3.3			0	0	E	PALE		212 W31
29	ASR	1738E	0443D	S28	W90	07	22.7			9	9	E	PALE	6161	
29	DSD	1847E	1956D	N11	W09	07	29.1		04	9	9	E	HOLL	6171	Flare Associated
29	SDF	2134E	1331D	S31	W42	07	26.6		16	0	0	E	RAMY		
30	APR	0050E	0052D	S26	E90	08	6.0	2		8	8	E	HOLL		
30	EPL	0437E	0443D	S22	E90	08	6.1			9	9	E	PALE		
30	EPL	0505E	1431D	S24	E90	08	6.2			9	6	E	SVTO		
30	BSD	0510E	0605D	N10	W78	07	24.3		11	9	9	E	SVTO	6162	Flare Associated
30	ADF	0510E	1724D	N11	W75	07	24.6	1	10	9	9	E	SVTO	6162	
30	ASR	0527E	1724D	S14	E90	08	6.0			9	9	E	SVTO		
30	EPL	0528E	0746D	S60	E90	08	7.1			9	9	E	SVTO		
30	AFS	0625E	1724D	S09	E27	08	1.3		03	9	9	E	SVTO	6181	
30	AFS	0626E	1205D	S23	E14	07	31.3		02	8	8	E	SVTO		
30	AFS	0627E	1724D	S25	W07	07	29.7		02	9	9	E	SVTO	6172	
30	ADF	0628E	1724D	N25	E46	08	2.8	2	19	9	9	E	SVTO	6180	
30	ASR	0632	1000	N13	W80	07	24.2					P	BUCA		
30	EPL	0635	0827	S17	E90	08	6.1	1				P	BUCA		
30	BSD	0640E	0952D						10	9	9	E	LEAR	6162	
30	BSL	0721	0801	N22	E90	08	6.2					P	BUCA		

ACTIVE PROMINENCES AND FILAMENTS

JULY 1990

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
30	LPS	0727E	1205D	N21	E44	08	2.7			9	9	E	SVTO	6180	Flare Associated
30	APR	0746E	1724D	S60	E90	08	7.2	2		9	9	E	SVTO		
30	BSD	0752E	0816	N11	W79	07	24.4		11	9	9	E	SVTO	6162	
30	ADF	1036E	2020D	N12	W50	07	26.7	1	07	9	9	E	RAMY	6182	
30	ADF	1041E	2211D	N22	E58	08	3.9	1	14	9	9	E	RAMY	6180	
30	AFS	1053E	1345D	S29	W10	07	29.7		02	7	7	E	RAMY	6172	
30	ADF	1055E	1737D	S12	E08	07	31.0	1	27	9	9	E	RAMY		
30	ASR	1101E	2211D	S16	E90	08	6.3			9	9	E	RAMY		
30	DSD	1108E	1347D	N12	W81	07	24.4		05	9	9	E	RAMY	6162	
30	SSB	1115		182	W10	08	5.6			0	0	E	RAMY		213 W41
30	ADF	1227E	1724D	S20	E01	07	30.6	1	12	9	9	E	SVTO	6174	
30	SDF	1338E	2151D	S05	E45	08	2.9		05	0	0	E	HOLL		
30	DSD	1349E	2025D	N14	E24	08	1.4		03	9	9	E	RAMY	6179	
30	ADF	1448E	0150D	N13	W75	07	24.9	1	04	9	9	E	HOLL	6162	
30	ADF	1453E	2012D	S17	W01	07	30.5	1	06	8	8	E	HOLL	6177	
30	APR	1506E	2330D	S30	E90	08	6.7	1		5	5	E	HOLL		
30	ASR	1510E	2343D	S05	W90	07	23.9			6	6	E	HOLL		
30	SSB	1515		177	W08	08	5.4			0	0	E	HOLL		197 W28 210 W41
30	ASR	1550E	1950D	N13	W85	07	24.2			9	9	E	HOLL	6162	
30	ADF	1642E	0453D	N10	W77	07	24.9	1	04	9	9	E	PALE	6162	
30	ASR	1650E	1732D	N11	W90	07	23.9			9	9	E	PALE	6162	
30	ADF	1652E	0453D	S13	W09	07	30.0	1	07	9	9	E	PALE	6174	
30	AFS	1652E	0453D	S20	W03	07	30.5		02	9	9	E	PALE	6174	
30	ADF	1659E	0453D	N22	E51	08	3.6	1	21	9	9	E	PALE	6180	
30	AFS	1711E	0453D	S24	W12	07	29.8		02	9	9	E	PALE	6172	
30	ASR	1719E	0453D	S05	E90	08	6.4			9	9	E	PALE		
30	AFS	1724E	0453D	S08	E34	08	2.3		01	9	9	E	PALE		
30	DSD	1737E	0453D	S24	W18	07	29.3		02	9	9	E	PALE	6172	
30	ASR	1824E	0453D	S14	E90	08	6.6			9	9	E	PALE		
30	ASR	2040E	0453D	N09	W90	07	24.1			9	9	E	PALE	6162	
30	APR	2301E	0200D	S34	W90	07	23.8	1				C	VORO		
30	APR	2301E	2321	N20	E90	08	6.8	1				C	VORO		
31	DSD	0615	0625	S24	W22	07	29.6	1				P	BUCA		
31	APR	0625	0825	N09	E90	08	7.0	1				P	BUCA		
31	ADF	0654E	1105D	S11	W17	07	30.0	1	13	9	9	E	SVTO	6174	
31	ADF	0654E	1606D	N14	E25	08	2.2	1	29	9	9	E	SVTO	6180	
31	ASR	0710E	0946D	N05	W90	07	24.6			9	9	E	LEAR	6162	
31	ADF	0728E	1106D	S22	W60	07	26.7	1	11	9	9	E	SVTO	6164	
31	ADF	0728E	1606D	S13	W54	07	27.2	1	19	9	9	E	SVTO	6164	
31	ASR	0753E	1606D	N09	W90	07	24.6			9	9	E	SVTO	6162	
31	AFS	0830E	0946D	S25	W19	07	29.9		05	9	9	E	LEAR	6172	
31	ASR	1100E	1743D	N13	W80	07	25.4			9	9	E	RAMY	6162	
31	ADF	1100E	1945D	S12	W19	07	30.0	1	18	9	9	E	RAMY	6174	
31	ASR	1226E	1606D	N27	E84	08	7.1			9	9	E	SVTO		
31	ASR	1228	1746D	N25	E90	08	7.5			9	9	E	RAMY		
31	AFS	1241E	1550D	S15	W20	07	30.0		02	9	9	E	SVTO	6174	
31	AFS	1256E	1606D	S06	E74	08	6.1		02	9	9	E	SVTO		
31	ADF	1314E	1217D	S18	W16	07	30.3	1	06	9	9	E	HOLL	6174	
31	SSB	1332		159	W02	08	5.0			0	0	E	HOLL		213 W55
31	DSD	1535E	1606D	N14	E16	08	1.8		03	9	9	E	SVTO	6180	
31	DSD	1550E	1606D	S25	W31	07	29.2		04	9	9	E	SVTO	6172	
31	ASR	1600E	1702D	N15	E86	08	7.2			9	9	E	HOLL		Flare Associated
31	SDF	1606E	0527D	N06	E31	08	3.0		03	0	0	E	SVTO		
31	SDF	1606E	0527D	N08	W32	07	29.3		04	0	0	E	SVTO		
31	BSD	1610E	1739D	N15	E80	08	6.7		06	9	9	E	RAMY		
31	DSD	1618E	1739D	N16	E19	08	2.1		04	9	9	E	RAMY	6180	
31	ASR	1735E	1825D	N08	W90	07	25.0			9	9	E	PALE	6162	
31	AFS	1735E	2145D	S26	W30	07	29.4		04	9	9	E	PALE	6172	
31	ASR	1736E	2145D	N26	E88	08	7.6			9	9	E	PALE	6185	
31	ASR	1758E	2349D	N25	E90	08	7.7			9	9	E	HOLL	6185	
31	SDF	1807E	1714D	S01	E24	08	2.5		09	0	0	E	PALE		
31	DSD	1849	0149D	S24	W32	07	29.3		05	9	9	E	HOLL	6172	Flare Associated
31	ADF	2002E	0149D	N25	E29	08	3.1	1	15	9	9	E	HOLL	6180	
31	ASR	2057E	2145D	N09	W90	07	25.1			9	9	E	PALE	6162	

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."