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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 545

(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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Hα SOLAR FLARES

JULY 1989

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0001	HOLL	01	0023	0031	0041	S16	E64	5572	07	5.9	18	SF		3	E		21		
0002		01	0113	01142	0122	N11	W42	5558	06	28.0	9	1F	C 1.8				168	3.9	D
	PALE	01	0113	0114	0122	N12	W41	5558	06	28.1	9	SF	C 1.8	3	E		63		
	PEKG	01	0115E	0116	0121	N10	W42	5558	06	28.0	6D	1F			P	0116	273	3.9	D
0003		01	0424	04269	0436	N08	W45	5558	06	27.9	12	SF	C 1.6				117	2.2	D
	MITK	01	0424		0428D	N08	W45	5558	06	27.9	4D	1F			P	0428	180	2.6	
	PALE	01	0424	0426	0436	N09	W44	5558	06	28.0	12	SF	C 1.6	3	E		46		
	PEKG	01	0425E	0435	0440D	N08	W46	5558	06	27.8	15D	SN			P	0435	126	1.9	D
0004		01	0557U	0604	0612	N09	W46	5558	06	27.9	15U	1N					250	3.4	Z
	TACH	01	0557U	0604	0612	N09	W46	5558	06	27.9	15U	1B		3	C	0604	250	3.4	Z
	KANZ	01	0614E		0621D	N09	W45	5558	06	28.0	7D	SF			V				
0005	CATA	01	0812E	0820	0831	N09	E77	5576	07	7.1	19D	1N		2	P	0820	112		
0006	SVTO	01	1142E	1143U	1152D	N18	W34	5569	06	29.0	10D	SF		2	E		15		F
0007	SVTO	01	1155	1156	1255D	N18	W36	5569	06	28.8	60D	SF		2	E		19		
		01	1214		1218	No Flare Patrol													
0008	HOLL	01	1455	1455	1510	N16	W81		06	25.6	15	SF		3	E		22		
0009		01	1509	1526	1608	N20	W36	5569	06	29.0	59	SF					24		F
	HOLL	01	1509	1526	1608	N21	W36	5569	06	29.0	59	SF		3	E		34		
	SVTO	01	1514E	1518U	1529D	N19	W36	5569	06	29.0	15D	SF		2	E		15		F
0010	RAMY	01	1646E	1646U	1656D	N16	W35	5569	06	29.1	10D	SF		2	E		15		F
0011	HOLL	01	1950	1954	2003	N14	W77		06	26.1	13	SF		3	E		17		
0012	HOLL	01	2021	2023	2027	N26	W71	5555	06	26.4	6	SF	C 1.4	4	E		16		
0013	HOLL	01	2339	2340	2409	S18	W45	5563	06	28.6	30	SF		4	E		23		H
0014		02	00112	00141	0023	N25	E86	5575	07	8.7	12	SF	C 4.0				38		F
	HOLL	02	0011	0015	0030	N26	E85	5575	07	8.6	19	SF	C 4.0	4	E		69		F
	LEAR	02	0012	0014	0018	N24	E83	5575	07	8.4	6	SF		3	E		24		
	PALE	02	0013	0015	0021	N24	E90	5575	07	9.0	8	SF		3	E		22		F
0015	HOLL	02	0052	0055	0101	N22	W40	5569	06	29.1	9	SF		4	E		12		F
0016		02	0400*	0425	0450	N08	E87	5576	07	8.7	50	1B					131		AD
	URUM	02	0400	0425	0456	N08	E84	5576	07	8.5	56	1N			C		145		A
	TACH	02	0414	0425	0445	N09	E90	5576	07	8.9	31	1B		3	C	0425	117		D
0017		02	0645*	0752*	0916	N21	W45	5569	06	28.9	151	SN					109	2.1	EK
	SVTO	02	0645	0820	0947	N20	W45	5569	06	28.9	182	SF		3	E		87		
	URUM	02	0740	0752	0916	N21	W44	5569	06	29.0	96	SN			C		113	1.7	EK
	URUM	02	0740	0823	0916	N21	W44	5569	06	29.0	96	SN			C		113	1.7	EK
	LEAR	02	0810	0816	0902	N21	W44	5569	06	29.1	52	SN		3	E		41		
	YUNN	02	0822	0823	0900	N20	W46	5569	06	28.9	38	1B			C		189	2.9	E
0018		02	08014	08032	0826	N25	E78	5575	07	8.4	25	1N	C 1.7				88		E
	LEAR	02	0801	0803	0813	N25	E78	5575	07	8.4	12	SF	C 1.7	3	E		81		
	URUM	02	0802	0805	0810	N26	E79	5575	07	8.5	8	1N			C		80		E
	SVTO	02	0803E	0803	0904	N25	E76	5575	07	8.2	61D	SF		3	E		79		
	CATA	02	0805	0805	0815	N25	E79	5575	07	8.4	10	1B		2	P	0805	112		
0019	SVTO	02	1032	1034	1047	N19	W49	5569	06	28.8	15	SF	C 2.2	3	E		30		F
0020		02	10532	10541	1112	N23	E76	5575	07	8.3	19	1N	C 2.0				88		F
	SVTO	02	1053	1054	1112	N24	E77	5575	07	8.4	19	SF	C 2.0	3	E		35		F
	CATA	02	1055	1055	1116D	N22	E74	5575	07	8.1	21D	1B		2	P	1055	141		
0021		02	1133	1146	1150	N19	W48	5569	06	28.9	17	SF	C 1.9				25		F
	SVTO	02	1133	1146	1151	N20	W50	5569	06	28.7	18	SF	C 1.9	3	E		11		F
	RAMY	02	1146E	1146U	1150	N18	W47	5569	06	29.0	4D	SF		2	E		39		F

Hα SOLAR FLARES

JULY 1989

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
0022	SVTO	02	1238	1240	1246	N20	W50	5569	06	28.8	8	SF		3	E		23		F
0023		02	1400*	14181	1444	N21	W48	5569	06	29.0	44	SF					32		F
	HOLL	02	1400	1419	1505	N21	W45	5569	06	29.2	65	SF		3	E		45		
	RAMY	02	1416	1418	1424	N21	W51	5569	06	28.8	8	SF		3	E		19		F
0024	RAMY	02	1431	1435	1453	N10	E75	5576	07	8.2	22	SF		3	E		28		
0025	HOLL	02	1546	1546	1550	N09	E79	5576	07	8.6	4	SF		3	E		14		
0026	HOLL	02	1551	1551	1605	N20	W47	5569	06	29.2	14	SF		3	E		11		
0027	HOLL	02	1647	1650	1721	N07	W66	5558	06	27.8	34	SF		3	E		23		
0028	HOLL	02	1735	1742	1758	N23	E71	5575	07	8.2	23	SF		3	E		36		
0029	HOLL	02	1953	1957	2017	N07	E78	5576	07	8.7	24	SF		3	E		29		
0030	HOLL	02	2214	2221	2251	N09	E75	5576	07	8.5	37	SF		3	E		23		
0031		02	23205	23262	2334	N22	E69	5575	07	8.3	14	SF	C 2.6				43		DZ
	HOLL	02	2320	2328	2336	N23	E68	5575	07	8.2	16	SF	C 2.6	4	E		51		
	VORO	02	2322	2328	2333	N23	E70	5575	07	8.4	11	SF		2	C	2328	45		DZ
	PALE	02	2325	2326	2334	N21	E69	5575	07	8.3	9	SF	C 2.6	3	E		34		
0032		03	0034*	0049	0056	N22	E67	5575	07	8.2	22	SF					26		
	HOLL	03	0034	0049	0057	N23	E68	5575	07	8.3	23	SF		3	E		31		
	LEAR	03	0044	0049	0055	N22	E66	5575	07	8.1	11	SF		3	E		22		
0033	HOLL	03	0047	0053	0120	N09	E72	5576	07	8.4	33	SF		3	E		40		
0034		03	01342	01391	0144	S14	E44	5574	07	6.4	10	SF	C 6.8				31		E
	HOLL	03	0134	0139	0145	S14	E45	5574	07	6.5	11	SF	C 6.8	3	E		48		E
	LEAR	03	0136	0140	0143	S14	E44	5574	07	6.4	7	SF	C 6.8	3	E		14		
0035		03	01386	01423	0148	N23	E66	5575	07	8.1	10	SF					16		
	HOLL	03	0138	0142	0146	N24	E65	5575	07	8.1	8	SF		3	E		20		
	LEAR	03	0144	0145	0149	N22	E66	5575	07	8.1	5	SF		3	E		11		
0036	LEAR	03	0243	0246	0251	N22	E65	5575	07	8.1	8	SF		3	E		22		
0037	LEAR	03	0346	0350	0357	N21	E64	5575	07	8.1	11	SF		3	E		44		
0038	ABST	03	0522	0523	0532	N23	E65	5575	07	8.2	10	SN			C	0523	87		D
0039	ABST	03	0624	0625	0630	N23	E65	5575	07	8.3	6	SF			C	0625	87		D
0040	ABST	03	0648	0649	0652	S18	E36	5572	07	6.0	4	SN			C	0649	87	1.2	D
0041		03	06572	06591	0705	S16	W67	5563	06	28.3	8	SN					55		D
	LEAR	03	0657	0659	0705	S16	W64	5563	06	28.5	8	SF		3	E		23		
	ABST	03	0659	0700	0705	S17	W70	5563	06	28.1	6	SN			C	0700	87		D
0042	ABST	03	0700	0702	0710	N23	E65	5575	07	8.3	10	SN			C	0702	131		D
0043	HOLL	03	1350	1351	1354	S15	E37	5574	07	6.4	4	SF		3	E		13		
0044		03	1357	1402*	1453	S21	E55		07	7.8	56	SF					26		K
	HOLL	03	1357	1402	1453	S21	E55		07	7.8	56	SF			E		25		K
	HOLL	03	1357	1417	1453	S21	E55		07	7.8	56	SF		3	E		27		
0045	HOLL	03	1438	1444	1501	N23	E60	5575	07	8.2	23	SF		3	E		56		
0046	HOLL	03	1456	1500	1528	N07	E68	5576	07	8.7	32	SF		3	E		49		
0047		03	1459	1502*	1558	N17	W58	5569	06	29.3	59	SN					42		K
	HOLL	03	1459	1502	1558	N17	W58	5569	06	29.3	59	SN			E		50		K
	HOLL	03	1459	1518	1558	N17	W58	5569	06	29.3	59	SF		3	E		34		

Hα SOLAR FLARES

JULY 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP	Mo	Day	Dur (Min)	Imp	Opt	Xray	See	Obs Type	Time (UT)	Area Measurement Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
0048	HOLL	03	1511	1515	1524	S19	W69	5563		06	28.5	13	SF			3	E		35		
0049	HOLL	03	1527	1527	1535	N25	E58	5575		07	8.1	8	SF			3	E		10		
		03	1726		1729	No Flare Patrol															
0050	HOLL	03	1756	1756	1812	N22	W78	5559		06	27.8	16	SF			3	E		11		
0051	HOLL	03	1812	1813	1829	N23	E57	5575		07	8.1	17	SF			3	E		18		
0052	HOLL	03	1821	1829	1838	N18	W64	5569		06	29.0	17	SF			3	E		19		
0053	HOLL	03	1844	1845	1901	N23	E56	5575		07	8.1	17	SF			3	E		16		F
0054	HOLL	03	1904	1915	1930	N23	E56	5575		07	8.1	26	SF			3	E		16		
0055	HOLL	03	1927	1927	1940	N21	W62	5569		06	29.1	13	SF			3	E		19		
0056	PALE	03	1929	1930	1938D	N20	W77	5559		06	28.0	9D	SF			3	E		10		
0057	HOLL	03	1943	1949	1959	N10	E63	5576		07	8.5	16	SF			3	E		18		F
0058	HOLL	03	1955	1957	2010	S17	E34	5572		07	6.4	15	SF			3	E		27		F
		03	2230		2232	No Flare Patrol															
0059		03	23591	2401	2438	N24	E54	5575		07	8.2	39	1B	M	7.4				234	6.6	EFHUZ
	HOLL	03	2359	2401U	2418D	N25	E53	5575		07	8.1	19D	1B	M	7.4	3	E		195		FE
	PALE	03	2359	2401	2430	N24	E54	5575		07	8.2	31	1B	M	7.4	3	E		154		H
	LEAR	03	2359	2401	2459	N22	E52	5575		07	8.0	60	1B	M	7.4	3	E		218		
	VORO	04	0000	0001	0024	N23	E55	5575		07	8.2	24	2F			2	C	0001	367	6.6	UZ
0060	PALE	04	0109	0111U	0123	N09	E59	5576		07	8.5	14	SF	C	2.0	3	E		16		
0061		04	0317	0320	0336	N23	E52	5575		07	8.1	19	SN						48	1.2	BDF
	URUM	04	0317	0320	0320D	N22	E54	5575		07	8.3	3D	SN				C		64	1.2	BD
	PALE	04	0317	0320	0336	N24	E51	5575		07	8.1	19	SF			3	E		33		F
0062		04	06002	06022	0612	N22	E90	5582		07	11.2	12	1N						87		AD
	ABST	04	0600	0602	0615	N25	E90	5582		07	11.2	15	1N				C	0602	87		AD
	ABST	04	0602	0604	0610	N20	E90	5582		07	11.1	8	1N				C	0604	87		AD
0063		04	0653	06541	0710	N10	E56	5576		07	8.5	17	SF						50		FK
	SVTO	04	0644E	0645U	0715	N11	E57	5576		07	8.6	31D	SF			3	E		76		F
	SVTO	04	0644E	0654	0715	N11	E57	5576		07	8.6	31D	SF				E		53		K
	LEAR	04	0653	0655	0701	N07	E55	5576		07	8.4	8	SF			3	E		22		
0064	SVTO	04	0723	0724	0732	N07	E54	5576		07	8.3	9	SF			3	E		55		F
0065		04	0749	07491	0755	N08	E55	5576		07	8.4	6	SN						39	1.0	DE
	HTPR	04	0748E		0757D	N09	E57	5576		07	8.6	9D	SN				C	0751	70	1.4	E
	LEAR	04	0749	0749	0753	N08	E54	5576		07	8.4	4	SF			3	E		16		
	URUM	04	0749	0750	0757	N08	E55	5576		07	8.4	8	SN				C		32	0.6	D
0066	SVTO	04	0830E	0832U	0842D	N07	E53	5576		07	8.3	12D	SF			2	E		16		F
0067	SVTO	04	0834E	0834U	0853D	S17	E25	5572		07	6.2	19D	SF			2	E		21		F
0068	URUM	04	0939	0940	0940D	N19	W71	5569		06	29.1	1D	SF				C		16		E
0069		04	1444	14443	1503	N24	E44	5575		07	8.0	19	SF	C	3.5				31		F
	HOLL	04	1444	1444	1505	N23	E46	5575		07	8.1	21	SF	C	3.5	3	E		37		F
	RAMY	04	1444	1446	1458	N24	E43	5575		07	7.9	14	SF	C	3.5	3	E		21		F
	SVTO	04	1444	1447	1506	N26	E44	5575		07	8.0	22	SF	C	3.5	3	E		34		
0070	HOLL	04	1500	1501	1511	N08	E50	5576		07	8.4	11	SF			3	E		20		
0071	RAMY	04	1535	1535	1542	N07	W84	5558		06	28.4	7	SF			3	E		17		

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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
0072	HOLL	04	1614	1627	1648	S23	E20	5572	07	6.2	34	SF		4	E		28		
0073	HOLL	04	1632	1634	1636	N09	E52	5576	07	8.6	4	SF		4	E		13		F
0074		04	1723	17231	1802	N24	E45	5575	07	8.2	39	SF	C 2.9				28		F
	HOLL	04	1723	1723	1802	N24	E45	5575	07	8.2	39	SF	C 2.9	4	E		29		F
	RAMY	04	1723	1724	1748D	N24	E45	5575	07	8.2	25D	SF	C 2.9	3	E		27		F
0075		04	1742	1746	1754	N08	E48	5576	07	8.3	12	SF					14		
	RAMY	04	1742	1746	1748D	N08	E48	5576	07	8.3	6D	SF		3	E		15		
	HOLL	04	1742	1746	1754	N08	E48	5576	07	8.3	12	SF		4	E		13		
0076	HOLL	04	1906	1913	1919	N11	E51	5576	07	8.6	13	SF		4	E		17		
0077		04	1957*	1957*	2030	N24	E42	5575	07	8.1	33	SN	C 3.0				60		EFK
	HOLL	04	1957	1957	2002	N24	E42	5575	07	8.1	5	SF		4	E		20		
	HOLL	04	2008	2010	2039	N24	E41	5575	07	8.0	31	SN	C 3.0		E		85		K
	HOLL	04	2008	2020	2039	N24	E41	5575	07	8.0	31	1N	C 3.0	4	E		101		FE
	PALE	04	2016	2021	2040	N23	E43	5575	07	8.1	24	SF	C 3.0	3	E		33		
0078		04	23161	23171	2328	N14	E18	5573	07	6.3	12	SF					50	0.9	E
	VORO	04	2316	2318	2331	N14	E18	5573	07	6.3	15	SF		2	C	2318	81	0.9	E
	PALE	04	2317	2317	2325	N15	E18	5573	07	6.3	8	SF		3	E		19		
0079		05	0023	0024	0038	N17	E26	5583B	07	7.0	15	SF					61	1.1	E
	VORO	05	0023	0024	0042	N17	E26	5583B	07	7.0	19	SF		2	C	0024	99	1.1	E
	HOLL	05	0026E	0028U	0035	N17	E26	5583B	07	7.0	9D	SF		2	E		23		
0080		05	0027	0030	0036	N24	E40	5575	07	8.1	9	SF	C 2.1				18		F
	HOLL	05	0026E	0028U	0036	N24	E40	5575	07	8.1	10D	SF	C 2.1	2	E		19		F
	PALE	05	0027	0030	0036	N24	E41	5575	07	8.2	9	SF	C 2.1	3	E		17		F
0081		05	05161	05202	0601	S16	E18	5572	07	6.6	45	SN	C 1.9				78	1.1	EF
	LEAR	05	0516	0522	0555	S16	E17	5572	07	6.5	39	SF	C 1.9	3	E		61		F
	URUM	05	0517	0520	0607	S17	E19	5572	07	6.7	50	SN			C		96	1.1	E
0082	YUNN	05	0559E	0600U	0610D	N09	E45	5576	07	8.6	11D	1B			P	0600	157	2.3	
0083	YUNN	05	0559E	0600U	0610D	S20	E17	5572	07	6.5	11D	SB			P	0600	31	0.4	
0084	HTPR	05	0719	0720	0727	N23	E36	5575	07	8.1	8	SF			C	0720	40	0.5	E
0085		05	07367	0751	0819	S18	E16	5572	07	6.5	43	SN					59	0.8	EFI
	HTPR	05	0736		0818D	S18	E16	5572	07	6.5	42D	SN			C	0749	80	0.9	EI
	LEAR	05	0743	0751	0818	S17	E17	5572	07	6.6	35	SF		4	E		34		F
	KAND	05	0750E		0820	S18	E16	5572	07	6.5	30D	SN			P	0752	62	0.7	E
0086		05	07531	07555	0828	N23	E36	5575	07	8.1	35	1B	C 9.6				214	3.2	EFIZ
	HTPR	05	0753		0818D	N23	E36	5575	07	8.1	25D	1B			C	0755	250	3.0	EI
	LEAR	05	0753	0756	0829	N22	E37	5575	07	8.2	36	1N	C 9.6	4	E		148		ZF
	URUM	05	0753	0756	0832	N23	E36	5575	07	8.1	39	1B			C		193	2.6	E
	KAND	05	0754	0755	0820	N23	E36	5575	07	8.1	26	1B			P	0755	208	2.8	EZ
	CATA	05	0755E	0800	0831	N23	E36	5575	07	8.1	36D	1B		2	P	0800	337	4.5	
	SVTO	05	0759E	0800U	0826	N23	E36	5575	07	8.1	27D	1N	C 9.6	2	E		151		FE
0087	ATHN	05	0755E	0756U	0802D	N05	E45	5576	07	8.7	7D	1N		2	V	0756	223	3.2	
0088		05	08152	08162	0824	N24	E87	5582	07	12.1	9	1N	C 5.8				96		A
	LEAR	05	0815	0818	0821	N23	E87	5582	07	12.0	6	SF	C 5.8	4	E		41		
	CATA	05	0816	0816	0828	N25	E90	5582	07	12.3	12	1B		2	C	0816	129		
	URUM	05	0817	0817	0824	N25	E82	5582	07	11.7	7	1N			C		113		A
	HTPR	05	0818E		0818D	N25	E90	5582	07	12.3	7D	1B			C	0818	100		
0089	HTPR	05	0859		0904D	N09	E37	5576	07	8.1	5D	SF			C	0901	40	0.5	E
0090	SVTO	05	0930	0949	1005D	S17	E13	5572	07	6.4	35D	SF		3	E		29		
0091		05	0931	0939	1008D	N10	E40	5576	07	8.4	37D	1N	C 3.8				106		FH
	SVTO	05	0931	0939	1008D	N11	E42	5576	07	8.5	37D	1N	C 3.8	3	E		122		FH
	LEAR	05	0933E	0937U	0942D	N09	E39	5576	07	8.3	9D	SF	C 3.8	1	E		90		F

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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	Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0092	RAMY	05	1238	1249	1311	N18	E28	5583B	07	7.6	33	SF	C 3.4	2	E		97		F
0093		05	1235*	1249*	1314	N23	E34	5575	07	8.1	39	SF					99	2.6	EFI
	HTPR	05	1235	1250	1320	N23	E34	5575	07	8.1	45	1N			C	1250	220	2.6	EI
	HOLL	05	1245	1249	1308	N23	E34	5575	07	8.1	23	SF		2	E		38		F
	SVTO	05	1301	1304	1315	N24	E34	5575	07	8.2	14	SF		2	E		40		
0094	HOLL	05	1345	1347	1352	S11	E69	5579	07	10.8	7	SF		3	E		22		
0095		05	1503*	1511*	1542	N24	E33	5575	07	8.2	39	SF	C 1.2				62	1.4	EF
	HOLL	05	1503	1511	1543	N24	E34	5575	07	8.2	40	SF	C 1.2	4	E		31		F
	HTPR	05	1503	1524	1540	N23	E33	5575	07	8.2	37	SN			C	1524	120	1.4	E
	SVTO	05	1505	1516	1547	N24	E33	5575	07	8.2	42	SF	C 1.2	2	E		49		F
	RAMY	05	1523	1524U	1540	N23	E33	5575	07	8.2	17	SF	C 2.7	2	E		50		
0096		05	1549	15581	1648	S18	E11	5572	07	6.5	59	SF	C 2.8				149	2.0	EFI
	SVTO	05	1549	1559	1642	S16	E12	5572	07	6.6	53	SF		3	E		87		F
	HTPR	05	1550E		1611D	S18	E10	5572	07	6.4	21D	SN			C	1557	200	2.0	EI
	HOLL	05	1556E	1558	1654	S21	E10	5572	07	6.4	58D	1F	C 2.8	4	E		160		F
0097		05	1625	1637*	1716	N23	E32	5575	07	8.1	51	1N	M 1.1				126		EFK
	HOLL	05	1625	1637	1723	N23	E32	5575	07	8.1	58	1N	M 1.1		E		173		K
	HOLL	05	1625	1647	1723	N23	E32	5575	07	8.1	58	1N	M 1.1	4	E		188		FE
	KANZ	05	1648E	1653	1715	N23	E31	5575	07	8.1	27D	1F			V				
	PALE	05	1654E	1658	1702	N23	E32	5575	07	8.2	8D	SF	M 1.1	3	E		18		
0098		05	23346	23411	2359	N14	E05	5578	07	6.3	25	SF					50	1.1	EF
	HOLL	05	2334	2341	2404	N15	E05	5578	07	6.4	30	SF		3	E		30		F
	VORO	05	2336	2342	2403	N14	E05	5578	07	6.4	27	SF		2	C	2342	108	1.1	E
	PALE	05	2340	2341	2351	N14	E05	5578	07	6.4	11	SF		3	E		12		
0099		06	0108*	0115*	0141	N23	E30	5575	07	8.3	33	SF					25	0.4	DF
	HOLL	06	0108	0115	0142	N24	E29	5575	07	8.3	34	SF		3	E		23		F
	LEAR	06	0112	0126	0138	N22	E31	5575	07	8.4	26	SF		3	E		20		
	URUM	06	0132	0133	0144	N24	E29	5575	07	8.3	12	SF			C		32	0.4	D
0100	URUM	06	0244	0254	0305	N24	E29	5575	07	8.3	21	SN			C		16	0.2	D
0101	LEAR	06	0340	0340	0352	N07	E32	5576	07	8.5	12	SF		3	E		15		F
0102		06	0642	0647	0706	N23	E26	5575	07	8.3	24	SN					22	0.4	
	LEAR	06	0642	0647	0704	N23	E27	5575	07	8.3	22	SF		3	E		13		
	YUNN	06	0644E	0649U	0707	N23	E25	5575	07	8.2	23D	SN			P	0649	31	0.4	
0103	SVTO	06	0710E	0711U	0713	N13	E02	5578	07	6.4	3D	SF		2	E		24		
0104	CATA	06	1037	1037	1105D	N13	E90		07	13.2	28D	1B		1	P	1037	84		
0105		06	1043E	1139	1517D	S11	E82	5585	07	12.6	274D	1N					80		ET
	SVTO	06	1043E	1139	1517D	S11	E85	5585	07	12.8	274D	1F		2	E		101		T
	HTPR	06	1207E		1336D	S11	E80	5585	07	12.5	89D	SN			C	1223	60		E
0106	HOLL	06	1344	1349U	1404D	S18	E00	5572	07	6.6	20D	SF		2	E		18		
0107	HOLL	06	1432E	1433U	1517D	N08	E23	5576	07	8.3	45D	SF		2	E		34		
		06	1442		1451	No Flare Patrol													
0108	HOLL	06	1533E	1553U	1605D	S21	W03	5572	07	6.4	32D	SF		3	E		54		
0109	SVTO	06	1617	1618	1632	N16	E57	5581	07	11.0	15	SF		3	E		53		F
0110		06	18023	18056	1837	S16	W06	5574	07	6.3	35	SF					19		FS
	RAMY	06	1802	1811	1830D	S16	W05	5574	07	6.4	28D	SF		2	E		24		F
	HOLL	06	1805	1805	1837	S15	W08	5574	07	6.1	32	SF		3	E		14		S
		06	1924		1928	No Flare Patrol													
		06	2020		2024	No Flare Patrol													

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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
0111	HOLL	06	2035	2036	2043	S19	W05	5572	07	6.5	8	SF		3	E		19		
0112		06	2229	22301	2234	S18	W08	5572	07	6.3	5	SF					68	1.2	DEIJ
	HOLL	06	2229	2230	2234	S18	W08	5572	07	6.3	5	SF		3	E		28		E
	VORO	06	2229	2231	2234	S18	W08	5572	07	6.3	5	SF		1	C	2231	108	1.2	DIJ
0113	HOLL	06	2246	2249	2259D	S17	W07	5572	07	6.4	13D	SF		3	E		16		F
0114	HOLL	06	2252	2256	2259D	N21	W66	5571	07	1.9	7D	SF		3	E		28		
0115	LEAR	07	0007	0007	0013	N21	W66	5571	07	1.9	6	SF		4	E		10		
0116		07	0048	00501	0114	S20	W09	5572	07	6.3	26	SN	C 4.2				66	0.8	DEFGIJ
	LEAR	07	0048	0050	0108	S20	W09	5572	07	6.3	20	SF	C 4.2	4	E		62		F
	HOLL	07	0048	0050	0111	S20	W08	5572	07	6.4	23	SN	C 4.2	3	E		87		E
	MITK	07	0048	0050	0115	S20	W08	5572	07	6.4	27	SN			C	0050			E
	VORO	07	0048	0051	0109	S19	W07	5572	07	6.5	21	SF		1	C	0051	99	1.1	DIJ
	PALE	07	0054E	0054U	0110	S20	W07	5572	07	6.5	16D	SF	C 4.2	3	E		52		F
	YUNN	07	0103E	0106U	0128	S24	W14	5572	07	6.0	25D	SN			P	0106	31	0.4	G
0117		07	02441	0245	0252	S17	W08	5572	07	6.5	8	SN					31	0.4	D
	YUNN	07	0243E	0247U	0304D	S17	W09	5572	07	6.4	21D	SN			P	0247	47	0.5	
	URUM	07	0244	0245	0253	S18	W08	5572	07	6.5	9	SN			C		32	0.4	D
	LEAR	07	0245	0245	0250	S17	W08	5572	07	6.5	5	SF		4	E		14		
0118		07	0332*	0333*	0407	S20	W10	5572	07	6.4	35	SN	C 3.7				95	1.5	DEF
	LEAR	07	0332	0333	0342	S20	W10	5572	07	6.4	10	SF	C 3.7	4	E		56		
	URUM	07	0332	0334	0335D	S20	W10	5572	07	6.4	3D	SN			C		64	0.7	E
	MITK	07	0332	0334	0421	S20	W09	5572	07	6.4	49	1N			C	0334	210	2.4	E
	LEAR	07	0404	0405	0411	S20	W11	5572	07	6.3	7	SF	C 2.8	4	E		14		F
	ABST	07	0404	0406	0415	S20	W10	5572	07	6.4	11	SN			C	0406	131	1.4	D
0119		07	0401	04011	0433	N22	E13	5575	07	8.2	32	SF					58	0.9	DE
	LEAR	07	0401	0401	0408	N22	E12	5575	07	8.1	7	SF		4	E		28		
	ABST	07	0401	0402	0405	N22	E14	5575	07	8.2	4	SN			C	0402	87	0.9	D
	MITK	07	0401	0402	0527	N23	E12	5575	07	8.1	86	SF			C	0402			E
0120	LEAR	07	0615	0615	0620	N22	E12	5575	07	8.2	5	SF		3	E		21		
0121	SVTO	07	0918	0919	0926	S18	W13	5572	07	6.4	8	SF		2	E		24		
0122	SVTO	07	0944	0945	0949	N26	E60	5582	07	12.1	5	SF		2	E		20		
0123	KHAR	07	1007E	1012U	1030	S20	W11	5572	07	6.6	23D	1F		2	V	1012			
		07	1218		1219	No Flare Patrol													
0124		07	13581	1413	1432	N24	E08	5575	07	8.2	34	SF					32		F
	RAMY	07	1358	1413	1441	N24	E08	5575	07	8.2	43	SF		3	E		31		F
	HOLL	07	1359	1413	1430	N25	E09	5575	07	8.3	31	SF		3	E		33		F
	KANZ	07	1415E	1415U	1425	N24	E08	5575	07	8.2	10D	SF			V				
0125	HOLL	07	1404	1405	1424	S21	W18	5572	07	6.2	20	SF		3	E		11		
0126	KANZ	07	1448	1459	1527	N29	E16	5575	07	8.9	39	SF			V				
0127	HOLL	07	1448	1500	1532	S20	W18	5572	07	6.2	44	SF		3	E		26		
0128	HOLL	07	1456	1500	1527	N24	E08	5575	07	8.2	31	SF		3	E		23		F
0129		07	1812*	18321	1906	N24	E05	5575	07	8.1	54	SF					48		F
	HOLL	07	1812	1832	1906	N24	E06	5575	07	8.2	54	SF		3	E		77		F
	PALE	07	1826	1833	1844D	N24	E04	5575	07	8.1	18D	SF		3	E		20		
0130		07	19362	19391	2041	N24	E05	5575	07	8.2	65	1F	C 2.0				88		F
	HOLL	07	1936	1940	2041	N24	E06	5575	07	8.3	65	1F	C 2.0	3	E		101		F
	PALE	07	1938	1939	2007D	N24	E04	5575	07	8.1	29D	SF	C 2.0	3	E		74		F
		07	2121		2133	No Flare Patrol													
		07	2156		2203	No Flare Patrol													

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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
0131		07	2337E	2337U	2352	S10	E51	5579	07	11.8	15D	SF	C	1.3				36		F
	HOLL	07	2337E	2337U	2352	S10	E52	5579	07	11.9	15D	SF	C	1.3	2	E		62		F
	PALE	07	2345E	2349U	2414D	S10	E50	5579	07	11.7	29D	SF	C	1.3	3	E		10		
0132		08	0400	04007	0425	S20	W22	5572	07	6.5	25	1F	C	1.7				137	3.4	CDEF
	PALE	08	0400	0400	0415	S20	W22	5572	07	6.5	15	SF	C	1.7	3	E		39		
	LEAR	08	0400	0403	0425	S20	W23	5572	07	6.4	25	SF	C	1.7	3	E		43		F
	TACH	08	0400	0406	0436	S19	W22	5572	07	6.5	36	SN			2	C	0406	128	1.5	CE
	PEKG	08	0400	0407	0425	S21	W23	5572	07	6.4	25	2F				C	0407	420	5.2	D
	SVTO	08	0415E	0417U	0428D	S20	W22	5572	07	6.5	13D	SF			2	E		56		
0133	SVTO	08	0727	0727	0737	N10	E02	5576	07	8.5	10	SF			3	E		21		
0134		08	08052	08141	0826	S10	E43	5579	07	11.6	21	SF						24		
	KANZ	08	0805	0815	0827	S11	E46	5579	07	11.8	22	SF				V				
	SVTO	08	0807	0814	0826	S10	E40	5579	07	11.3	19	SF			3	E		24		
0135	SVTO	08	0822	0825	0846	S10	W30		07	6.1	24	SF			3	E		22		F
0136	KANZ	08	0823	0827	0849	S20	W24	5572	07	6.5	26	SF				V				
0137		08	0827*	0853*	0918	S12	E47	5585	07	11.9	51	SN						25	0.4	E
	KANZ	08	0827	0853	0924	S13	E45	5585	07	11.7	57	SF				V				
	HTPR	08	0852	0858	0905	S11	E48	5585	07	12.0	13	SN				C	0858	30	0.4	E
	HTPR	08	0915	0919	0925	S11	E48	5585	07	12.0	10	SN				C	0919	20	0.3	
0138		08	0827	0855*	0925	S09	E46	5579	07	11.8	58	SN						37		K
	SVTO	08	0827	0855	0925	S09	E46	5579	07	11.8	58	SF			3	E		35		
	SVTO	08	0827	0921	0925	S09	E46	5579	07	11.8	58	SB				E		39		K
0139	SVTO	08	0851	0917	0929	S20	W25	5572	07	6.4	38	SF			3	E		17		
0140	SVTO	08	0930	0949	1021	S22	W28	5572	07	6.2	51	SF			3	E		52		
0141		08	09362	09411	1012	N20	W88	5571	07	1.7	36	SN						43		
	HTPR	08	0936	0942	1020	N20	W90	5571	07	1.5	44	SN				C	0942	30		
	KANZ	08	0938	0942	1022	N21	W85	5571	07	1.9	44	SF				V				
	CATA	08	0941E	0941	0954	N20	W90	5571	07	1.5	13D	1B			1	P	0941	56		
0142	HTPR	08	0940	0952	1005	S19	W36	5572	07	5.6	25	SF				C	0952	30	0.4	
0143		08	09587	1007*	1052	S10	E41	5579	07	11.5	54	SF						20	0.4	K
	SVTO	08	0958	1008	1055	S10	E38	5579	07	11.3	57	SF				E		16		K
	SVTO	08	0958	1015	1055	S10	E38	5579	07	11.3	57	SF			3	E		13		
	KANZ	08	1000	1007	1058	S10	E44	5579	07	11.7	58	SF				V				
	HTPR	08	1005	1017	1039	S12	E43	5579	07	11.6	34	SF				C	1017	30	0.4	
0144		08	11066	1112*	1128	S19	W61	5587	07	3.8	22	SF						28	0.6	
	KANZ	08	1106		11100	S18	W61	5587	07	3.8	4D	SF				V				
	SVTO	08	1107	1112	1120	S20	W63	5587	07	3.6	13	SF			3	E		26		
	HTPR	08	1112	1125	1136	S18	W60	5587	07	3.9	24	SF				C	1125	30	0.6	
0145		08	11303	11331	1140	S20	W32	5572	07	6.0	10	SF	C	1.1				32	0.6	
	HTPR	08	1130	1134	1140	S19	W37	5572	07	5.6	10	SF				C	1134	50	0.6	
	SVTO	08	1133	1133	1139	S21	W29	5572	07	6.2	6	SF	C	1.1	3	E		15		
	KANZ	08	1134E		11340	S21	W30	5572	07	6.2	6D	SF				V				
0146	HTPR	08	1216	1234	1244	S20	W30	5572	07	6.2	28	SF				C	1234	50	0.6	E
0147	HTPR	08	1220	1223	1237	S18	W61	5587	07	3.9	17	SF				C	1223	30	0.6	
0148		08	13506	13591	1409	S18	W24	5572	07	6.7	19	SF	C	1.2				16	0.2	F
	HTPR	08	1350	1359	1408	S16	W20	5572	07	7.0	18	SF				C	1359	20	0.2	
	SVTO	08	1356	1359	1408	S21	W29	5572	07	6.3	12	SF	C	1.2	3	E		11		F
	KANZ	08	1356	1400	1411	S16	W22	5572	07	6.9	15	SF				V				

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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	Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0149		08	15093	15121	1524	S18	E62	5586	07	13.3	15	SN						37	1.2	E
	KANZ	08	1509	1513	1517D	S20	E64	5586	07	13.5	8D	SF				V				
	HOLL	08	1511E	1513U	1522	S15	E61	5586	07	13.2	11D	SF			2	E		26		
	HTPR	08	1512		1520D	S20	E59	5586	07	13.1	8D	SB				C	1514	60	1.2	E
	SVTO	08	1512	1512	1526	S16	E63	5586	07	13.4	14	SF			3	E		25		
0150	HOLL	08	2051	2059	2110	N24	W09	5575	07	8.2	19	SF			3	E		33		F
0151	HOLL	08	2058	2059	2112	S10	E48	5585	07	12.5	14	SF	C	1.4	3	E		34		
0152		08	2201	21594	2210	S09	E38	5579	07	11.8	9	SF	C	1.2				33		
	HOLL	08	2157E	2159	2212	S10	E37	5579	07	11.7	15D	SF	C	1.2	3	E		41		
	PALE	08	2201	2203	2209	S08	E39	5579	07	11.8	8	SF			3	E		25		
		08	2233		2252	No Flare Patrol														
0153	HOLL	08	2302	2303	2310	N09	W08	5576	07	8.3	8	SF			3	E		12		F
		08	2335		2350	No Flare Patrol														
0154	HOLL	09	0012E	0013	0027D	S10	E37	5579	07	11.8	15D	SF			2	E		21		
0155		09	0052*	01225	0207	S20	W36	5572	07	6.3	75	2B	M	5.1				521	2.0	FIU
	PALE	09	0052	0125	0212	S20	W35	5572	07	6.3	80	2B	M	5.1	3	E		539		UF
	LEAR	09	0115	0124	0219	S19	W35	5572	07	6.4	64	2N	M	5.1	3	E		429		UF
	PEKG	09	0117	0122	0147	S21	W38	5572	07	6.1	30	3B				C	0122	1261	18.0	IF
	HOLL	09	0119E	0127	0150D	S19	W36	5572	07	6.3	31D	1B	M	5.1	2	E		219		UF
	YUNN	09	0128E	0136U	0210	S20	W37	5572	07	6.2	42D	1N				P	0136	157	2.2	F
0156	ABST	09	0610	0614	0635	N20	W20	5575	07	7.7	25	SN				C	0614	131	1.5	E
0157	SVTO	09	1253	1256	1259	N19	E21	5581	07	11.1	6	SF			3	E		15		
0158		09	1321	13223	1331	N26	E28	5582	07	11.7	10	SF						23		
	SVTO	09	1321	1322	1330	N27	E28	5582	07	11.7	9	SF			3	E		23		
	KANZ	09	1321	1325	1332	N26	E28	5582	07	11.7	11	SF				V				
0159		09	14221	14234	1432	N25	W22	5575	07	7.9	10	SF						25		F
	HOLL	09	1422	1423	1430	N25	W21	5575	07	8.0	8	SF			3	E		25		F
	SVTO	09	1422	1425	1432	N25	W22	5575	07	7.9	10	SF			4	E		25		F
	KANZ	09	1423	1427	1434	N25	W22	5575	07	7.9	11	SF				V				
		09	1536		1540	No Flare Patrol														
0160	HOLL	09	2056E	2057U	2125	N23	W30	5575	07	7.6	29D	SF	C	1.0	3	E		75		
		09	2144		2251	No Flare Patrol														
0161	HOLL	09	2255E	2256	2304	N26	E24	5582	07	11.8	9D	SF			3	E		32		
0162	HOLL	10	0009	0009	0021	N26	W28	5575	07	7.8	12	SF			3	E		64		
0163	LEAR	10	0223	0225	0231	N26	E86	5589	07	16.8	8	SF	C	1.2	3	E		64		
0164		10	0258E	0342	0600D	N26	E87	5589	07	16.9	182D	1N						91		AB
	TACH	10	0258E		0600D	N25	E90	5589	07	17.1	182D	1N			3	C	0305	150		B
	URUM	10	0331E	0342	0350D	N28	E84	5589	07	16.7	19D	SN				C		32		A
0165	LEAR	10	0347	0348	0356	N23	E29	5582	07	12.4	9	SF			3	E		34		
0166	ABST	10	0611	0613	0625	N27	E90	5589	07	17.3	14	1F				C	0613	87		D
0167		10	0705	0705	0712	N28	E90	5589	07	17.3	7	1N						84		D
	CATA	10	0705	0705	0710D	N27	E90	5589	07	17.3	5D	1N			2	P	0705	84		
	KHAR	10	0706E		0712	N28	E90	5589	07	17.3	6D	SN			2	V	0709			D
0168	KHAR	10	0735		0745	N28	E90	5589	07	17.3	10	SF			2	V	0737			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
0169		10	1001*	10121	1028	N25	E19	5582	07	11.9	27	1F						180	2.3	E
	KANZ	10	1001	1013	1032	N25	E26	5582	07	12.4	31	1F				V				
	KHAR	10	1010	1012	1025	N27	E23	5582	07	12.2	15	1F			2	P	1013	180	2.3	E
	KANZ	10	1013	1013	1028	N23	E09	5582	07	11.1	15	SF				V				
0170	CATA	10	1040E	1046	1100	N27	E90	5589	07	17.4	20D	1N			2	P	1046	112		
0171	HOLL	10	1519E	1521	1530D	S14	E13	5579	07	11.6	11D	SF			3	E		17		F
0172	HOLL	10	1755	1756	1806D	S10	E12	5579	07	11.6	11D	SF			3	E		29		F
0173		10	1852	1853	1902	S09	E11	5579	07	11.6	10	SF						30		F
	RAMY	10	1852	1853	1902	S09	E11	5579	07	11.6	10	SF			3	E		18		
	HOLL	10	1853E	1853	1905D	S09	E11	5579	07	11.6	12D	SF			3	E		41		F
0174		10	2012	20131	2042	N10	W34	5576	07	8.3	30	SF	C	1.3				38		F
	HOLL	10	2012	2013	2043	N10	W34	5576	07	8.3	31	SF	C	1.3	3	E		41		F
	RAMY	10	2012	2014	2040	N09	W33	5576	07	8.4	28	SF	C	1.3	3	E		34		
0175	HOLL	10	2104	2108	2115	N13	W61	5573D	07	6.3	11	SF	C	1.3	3	E		44		
		10	2249		2257	No Flare Patrol														
0176	LEAR	11	0034	0034	0042	N13	W65	5573D	07	6.1	8	SF	C	1.1	3	E		24		
0177		11	06332	06341	0642	N23	W40	5575	07	8.2	9	SF	C	1.2				30		
	LEAR	11	0633	0634	0644	N24	W42	5575	07	8.0	11	SF	C	1.2	3	E		30		
	KANZ	11	0635	0635	0641	N22	W39	5575	07	8.3	6	SF				C				
0178		11	11401	1141	1148	N14	E02	5581	07	11.6	8	SF						20		F
	RAMY	11	1140	1141	1146	N13	E03	5581	07	11.7	6	SF			3	E		12		
	SVTO	11	1141	1141	1149	N14	E02	5581	07	11.6	8	SF			3	E		27		F
		11	1647		1808	No Flare Patrol														
		11	1840		1853	No Flare Patrol														
0179	PALE	12	0028	0029	0046	N07	W53	5576	07	8.0	18	SF	C	1.3	3	E		24		F
0180	LEAR	12	0357	0402	0423	S10	W07	5579	07	11.6	26	SF	C	3.1	4	E		95		F
0181	SVTO	12	0538	0538	0546	S09	W09	5579	07	11.5	8	SF			3	E		18		F
0182	SVTO	12	0546	0551	0558	N29	E64	5589	07	17.2	12	SF			3	E		47		F
0183	LEAR	12	0639	0639	0719	N12	E63	5590	07	17.0	40	SF			3	E		31		
0184		12	07563	08011	0806	S16	W70	5572	07	7.0	10	SF						12		
	HTPR	12	0756	0802	0808	S15	W70	5572	07	7.0	12	SF				C	0802	10		
	SVTO	12	0759	0801	0805	S18	W71	5572	07	6.9	6	SF			3	E		14		
0185		12	08253	08323	0844	S22	W82	5572	07	6.0	19	1F						66	5.0	
	HTPR	12	0825	0832	0845	S19	W80	5572	07	6.2	20	1F				C	0832	100	5.0	
	SVTO	12	0828	0835	0843	S24	W83	5572	07	5.9	15	SF			3	E		31		
0186	SVTO	12	0914	0915	0919	S18	W75	5572	07	6.7	5	SF			3	E		17		
0187	HTPR	12	1301		1303D	N18	W16	5581	07	11.3	2D	SF				C	1302	20	0.2	E
		12	1340		1347	No Flare Patrol														
0188	HOLL	12	1729	1741	1802	N27	E62	5589	07	17.5	33	SF	C	1.2	2	E		51		F
0189	HOLL	12	1938	1949	2054	N37	W30		07	10.4	76	SF			3	E		78		FS
0190	HOLL	12	1949	1956	2022	N29	E56	5589	07	17.2	33	SF			3	E		37		
0191	PALE	12	2051	2119	2122	N12	E52	5590	07	16.8	31	SF			3	E		18		
0192	PALE	13	0141E	0141U	0146	S17	W80	5572	07	7.0	5D	SF			3	E		38		

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0193	TACH	13	0407	0408	0420	N29	E57	5589	07	17.6	13	SF			2	C	0408	82	1.9	F
0194		13	0655E	0757	0827	S18	W90	5572	07	6.4	92D	1N						98		AEK
	HTPR	13	0655E		0825	S16	W90	5572	07	6.5	90D	1N				C	0753	120		EK
	YUNN	13	0713E	0729U	0744D	S18	W89	5572	07	6.5	31D	SN				P	0729	63		A
	CATA	13	0757E	0757	0757D	S18	W90	5572	07	6.5	31D	1N			1	P	0757	112		
	SVTO	13	0803E	0805U	0829	S19	W89	5572	07	6.5	26D	SN			2	E				
0195	SVTO	13	0826	0829	0850	S12	W22	5579	07	11.7	24	SF			3	E		22		
0196		13	08403	08571	0926	N27	E53	5589	07	17.5	46	SN						42	0.9	E
	HTPR	13	0840	0858	0920	N26	E53	5589	07	17.5	40	SN				C	0858	50	0.9	E
	SVTO	13	0843	0857	0931	N28	E53	5589	07	17.5	48	SF			3	E		33		
0197		13	0854*	09113	0931	N26	W15	5582	07	12.2	37	SN						87	1.2	EFIU
	SVTO	13	0854	0914	0945	N25	W15	5582	07	12.2	51	SF			3	E		48		U
	HTPR	13	0905	0912	0930	N26	W14	5582	07	12.3	25	SN				C	0912	120	1.3	EI
	YUNN	13	0906	0911	0918	N26	W15	5582	07	12.2	12	SN				C		94	1.1	F
0198	SVTO	13	0932	0933	0947	N28	E52	5589	07	17.5	15	SF			3	E		22		
0199	SVTO	13	0932	0942	0954	S18	W19	5582A	07	11.9	22	SF			3	E		33		
0200	HTPR	13	1159	1202	1210	N26	E51	5589	07	17.5	11	SF				C	1202	50	0.8	E
0201	HTPR	13	1342		1353D	N20	W10	5592A	07	12.8	11D	SN				C	1345	130	1.3	EI
0202	SVTO	13	1559E	1601U	1635	N23	W13	5592A	07	12.7	36D	SF			2	E		61		F
0203		13	1559E	16057	1644	N30	W17	5582	07	12.3	45D	SF						74		FK
	HOLL	13	1559E	1605	1644	N30	W17	5582	07	12.3	45D	SF				E		75		K
	HOLL	13	1559E	1612	1644	N30	W17	5582	07	12.3	45D	SF			3	E		72		F
		13	1844		1901	No Flare Patrol														
		13	1932		2034	No Flare Patrol														
		13	2038		2053	No Flare Patrol														
		13	2106		2113	No Flare Patrol														
		13	2151		2229	No Flare Patrol														
0204		14	0702*	07117	0728	S14	W17	5585	07	13.0	26	SN						57	0.8	D
	ABST	14	0607E	0616U	0729D	S13	W17	5585	07	13.0	82D	SF				P	0616	87	1.0	D
	SVTO	14	0702	0711	0730	S14	W16	5585	07	13.1	28	SF			3	E		15		
	KAND	14	0706	0718	0736D	S14	W17	5585	07	13.0	30D	SN				P	0718	42	0.5	D
	PEKG	14	0714	0718	0725	S14	W18	5585	07	12.9	11	SN				C	0720	84	0.9	D
0205	KHAR	14	0630E	0630U	0636	N28	E42	5589	07	17.5	6D	SF			2	V	0630			D
0206	KHAR	14	0635U		0642U	N27	W27	5582	07	12.2	7U	SN			1	P	0640	60	0.7	D
0207	KHAR	14	0800	0803	0808	S16	W16	5586	07	13.1	8	SF			2	V	0803			DH
0208	KHAR	14	0956E	0956U	1005	N15	W43	5591	07	11.1	9D	SF			2	P	1002	80	1.0	D
0209		14	1524	1528	1546	S12	W41	5579	07	11.5	22	SF						30		F
	RAMY	14	1524	1528	1541	S11	W40	5579	07	11.6	17	SF			3	E		17		F
	SVTO	14	1524E	1531U	1550	S13	W42	5579	07	11.5	26D	SF			3	E		42		
0210		14	18584	19023	1916	N11	E32	5590	07	17.2	18	SF						25		
	HOLL	14	1858	1905	1925	N10	E31	5590	07	17.1	27	SF			3	E		41		
	PALE	14	1902	1902	1908	N13	E32	5590	07	17.2	6	SF			3	E		13		
	RAMY	14	1902	1903	1915D	N11	E32	5590	07	17.2	13D	SF			3	E		20		
0211	URUM	15	0312E	0314	0319D	N27	E33	5589	07	17.7	7D	SF				C		64	0.8	E
0212	SVTO	15	0449	0457	0528	N27	E28	5589	07	17.4	39	SF			3	E		22		
0213	SVTO	15	0511	0511	0515	S04	E56	5594	07	19.4	4	SF			3	E		16		
0214	SVTO	15	0534	0538	0541	S04	E56	5594	07	19.4	7	SF			3	E		12		

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0215		15	0539E	0540U	0613	S08	E89	5597	07	21.9	34D	SF	C 1.6						AH
	SVTO	15	0539E	0540U	0557	S07	E89	5597	07	21.9	18D	SF	C 1.6	3	E				H
	YUNN	15	0546E	0551U	0629	S09	E89	5597	07	21.9	43D				P	0551			A
0216	SVTO	15	0930	0941	1022	N28	E26	5589	07	17.4	52	SF		3	E		65		
0217	CATA	15	1002	1015	1015D	S08	E90	5597	07	22.2	13D	1B		1	P	1015	45		
0218	RAMY	15	1203	1215	1225	N11	E22	5590	07	17.1	22	SF		4	E		17		F
0219	RAMY	15	1223	1225	1248	N27	E27	5589	07	17.6	25	SF		3	E		13		
0220	HOLL	15	1822	1822	1838	N27	E24	5589	07	17.6	16	SF		3	E		11		
0221	HOLL	15	2231	2234	2307	N28	E20	5589	07	17.5	36	SF	C 1.3	3	E		23		F
		16	0123		0129	No Flare Patrol													
		16	0158		0203	No Flare Patrol													
0222		16	06443	06473	0706	N11	E13	5590	07	17.2	22	SF					15		
	SVTO	16	0644	0650	0705	N11	E13	5590	07	17.2	21	SF		3	E		15		
	KANZ	16	0647	0647	0706	N11	E13	5590	07	17.3	19	SF			C				
0223		16	07102	07132	0720	S07	E75	5597	07	21.9	10	SF	C 1.6				42		
	KANZ	16	0710	0714	0718	S07	E74	5597	07	21.8	8	SF			C				
	CATA	16	0710	0715	0721	S08	E76	5597	07	22.0	11	1N		1	C	0715	56		
	SVTO	16	0712	0713	0721	S05	E76	5597	07	22.0	9	SF	C 1.6	3	E		29		
0224	CATA	16	0925	0925	0935	S14	E72	5597	07	21.8	10	1N		1	C	0925	84		
0225	RAMY	16	1201	1202	1209	S13	E69	5597	07	21.7	8	SF		4	E		27		
0226	RAMY	16	1324	1324	1329	S24	E88	5598	07	23.3	5	SF		4	E		10		
0227	RAMY	16	1402	1403	1422	N26	E12	5589	07	17.5	20	SF	C 3.1	4	E		20		F
0228	RAMY	16	1525	1527	1529	S15	E72	5597	07	22.1	4	SF		4	E		15		
0229	HOLL	16	1545	1546	1549	S13	E71	5597	07	22.0	4	SF		3	E		15		
0230		16	1717	1719	1725	S14	E71	5597	07	22.1	8	SN					54		H
	RAMY	16	1717	1719	1725	S15	E71	5597	07	22.1	8	SF		3	E		51		H
	HOLL	16	1717	1719	1725	S13	E71	5597	07	22.1	8	SN		3	E		56		
0231	PALE	17	0008	0011	0017	S14	E89	5600	07	23.7	9	1F	C 2.0	3	E		133		
		17	0255		0300	No Flare Patrol													
0232		17	05473	05512	0617	S20	W55	5586	07	13.0	30	1N	C 5.9				120	3.5	EFK
	ABST	17	0547	0553	0614	S20	W54	5586	07	13.1	27	1N			C	0553	140	2.8	E
	TACH	17	0549	0551	0607D	S20	W55	5586	07	13.0	18D	1B		2	C	0551	200	4.2	EK
	SVTO	17	0549	0552	0622	S22	W55	5586	07	13.0	33	SN	C 5.9	3	E		99		F
	LEAR	17	0550	0553	0615	S19	W56	5586	07	13.0	25	SF		3	E		43		F
0233		17	14101	14121	1416	S14	E57	5597	07	21.9	6	SF	C 1.1				18		
	SVTO	17	1410	1413	1416	S12	E57	5597	07	21.9	6	SF	C 1.1	3	E		17		
	RAMY	17	1411	1412	1417	S16	E57	5597	07	21.9	6	SF	C 1.1	4	E		19		
		17	1800		1846	No Flare Patrol													
0234	RAMY	17	2047	2052	2103	N18	E51	5596	07	21.7	16	SF		3	E		13		
		17	2258		2321	No Flare Patrol													
0235	PEKG	18	0110	0112	0125	S07	E18	5594	07	19.4	15	1F			C	0112	189	2.1	E
0236	SVTO	18	0505	0506	0515	S14	E50	5597	07	22.0	10	SF		3	E		21		

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0237		18	06072	0610	0616	N27	W09	5589	07	17.5	9	SF					14		
	KANZ	18	0607	0611U	0611D	N27	W09	5589	07	17.5	4D	SF			C				
	SVTO	18	0609	0610	0616	N27	W09	5589	07	17.5	7	SF		3	E		14		
0238		18	0627E	0633	0702	S14	E47	5597	07	21.8	35D	1N	C 2.2				173	3.5	D
	SVTO	18	0627E	0632U	0702	S13	E48	5597	07	21.9	35D	SN	C 2.2	3	E		88		
	URUM	18	0629E	0633	0644D	S14	E46	5597	07	21.7	15D	1B			C		161	2.6	D
	MITK	18	0630E		0659D	S15	E47	5597	07	21.8	29D	1F			C	0630	270	4.4	
0239	HTPR	18	0734	0736	0740	N19	E42	5596	07	21.5	6	SF			C	0736	30	0.4	
0240	HTPR	18	0801	0803	0817	S13	E50	5597	07	22.1	16	SN			C	0803	30	0.5	E
0241	HTPR	18	0805	0820	0850	S20	E58	5598	07	22.8	45	SN			C	0820	50	0.9	
0242		18	0906	09101	0922	N26	W13	5589	07	17.4	16	SN	C 1.4				72	0.9	EU
	HTPR	18	0906	0910	0920	N26	W13	5589	07	17.4	14	SN			C	0910	80	0.9	EU
	SVTO	18	0906	0911	0925	N25	W13	5589	07	17.4	19	SF	C 1.4	2	E		65		
0243		18	0930	0911*	0940	S26	E82	5600	07	24.8	10	1N					56		D
	CATA	18	0911E	0911	0940	S26	E80	5600	07	24.6	29D	1N		1	P	0911	56		
	KHAR	18	0930	0932	0940	S26	E85	5600	07	25.0	10	SF		2	V	0932			D
0244	KHAR	18	0928		0935	N26	E85	5601	07	25.0	7	SF		2	V	0930			DR
0245	HTPR	18	0934	1110	1230	N18	E42	5596	07	21.6	176	SN			C	1110	60	0.8	E
0246		18	10493	10531	1059	S21	W71	5586	07	13.0	10	SF					29		
	HTPR	18	1049	1054	1100	S20	W72	5586	07	12.9	11	SN			C	1054	40		
	RAHY	18	1051	1053	1058	S21	W72	5586	07	12.9	7	SF		2	E		22		
	SVTO	18	1052	1053	1059	S22	W70	5586	07	13.1	7	SF		2	E		26		
0247		18	1314*	1320*	1331	N26	W14	5589	07	17.5	17	SF					21	0.3	E
	HTPR	18	1314	1320	1330	N26	W15	5589	07	17.4	16	SF			C	1320	30	0.3	E
	SVTO	18	1318	1320	1326	N27	W13	5589	07	17.5	8	SF		2	E		22		
	SVTO	18	1330	1330	1337	N26	W13	5589	07	17.5	7	SF		3	E		11		
0248	HTPR	18	1358	1406	1420	S31	E90		07	25.7	22	SN			C	1406	20		
0249		18	1413	1415	1421	N28	E68	5599	07	23.9	8	SN	C 1.4				34	1.2	E
	HTPR	18	1413	1415	1421	N26	E70	5599	07	24.0	8	SN			C	1415	50	1.2	E
	SVTO	18	1414E	1414U	1432D	N29	E67	5599	07	23.8	18D	SF	C 1.4	2	E		18		
0250	HOLL	18	1424	1433	1439	N27	W15	5589	07	17.4	15	SF		3	E		12		
0251	HOLL	18	1515	1519	1524	N27	W15	5589	07	17.5	9	SF		3	E		15		
0252		18	1528	1536	1610	N20	E42	5596	07	21.8	42	SF					25	0.6	
	HTPR	18	1528	1536	1610	N19	E44	5596	07	22.0	42	SF			C	1536	40	0.6	
	SVTO	18	1543E	1543U	1606D	N21	E41	5596	07	21.8	23D	SF		2	E		10		
0253	HTPR	18	1553		1712D	N22	E90	5601	07	25.6	79D	SN			C	1611	30		
0254	HOLL	18	2013	2014	2105D	N24	E85	5601	07	25.4	52D	SF	C 1.9	2	E		28		
		18	2155		2224	No Flare Patrol													
		18	2245		2248	No Flare Patrol													
0255	LEAR	19	0239	0246	0254	N24	E70	5601	07	24.5	15	SF		4	E		35		
0256	TACH	19	0344	0355	0412	S12	E37	5597	07	21.9	28	SB		2	C	0355	107	1.3	F
0257		19	03558	0408	0434	N27	W23	5589	07	17.4	39	1N					234	4.1	EFU
	TACH	19	0355	0408	0430	N27	W23	5589	07	17.4	35	2N		2	C	0408	500	6.1	U
	LEAR	19	0357	0404U	0425	N27	W22	5589	07	17.4	28	SF		2	E		26		F
	ABST	19	0403	0408	0448	N27	W23	5589	07	17.4	45	1N			P	0408	175	2.1	E
0258		19	0402	0404U	0425	N24	E78	5601	07	25.2	23	1N	C 6.8				79		D
	LEAR	19	0402	0404U	0425	N24	E76	5601	07	25.0	23	SF	C 6.8	2	E		53		
	ABST	19	0403E	0425U	0518D	N24	E80	5601	07	25.3	75D	1N			P	0425	105		D

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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
0259		19	0645*	0649*	0733	N25	E76	5601	07 25.2	48	SF	C 1.6				58		DET
	HTPR	19	0601E		0740	N25	E77	5601	07 25.2	99D	SN			C	0650	60		E
	SVTO	19	0645	0649	0716	N26	E76	5601	07 25.2	31	SF		3	E		45		
	LEAR	19	0656	0710	0746	N24	E75	5601	07 25.1	50	SF	C 1.6	3	E		27		
	KANZ	19	0703E	0709U	0722D	N25	E73	5601	07 24.9	19D	SF			C				
	KHAR	19	0710E		0730	N25	E76	5601	07 25.2	20D	SF		2	P	0710			DT
	URUM	19	0722	0728	0741D	N25	E78	5601	07 25.3	19D	1N			C		129		E
	SVTO	19	0725	0727	0732	N26	E77	5601	07 25.3	7	SF		3	E		30		
0260	HTPR	19	0730	0733	0746	S18	E45	5598	07 22.7	16	SN			C	0733	70	1.0	EI
0261		19	0752*	0804*	0834	N25	E76	5601	07 25.2	42	1N					122		DET
	HTPR	19	0752	0835	0835D	N25	E76	5601	07 25.2	43D	1N			C	0935	100		
	KHAR	19	0802	0804	0815	N25	E76	5601	07 25.2	13	SF		2	V	0802			DT
	URUM	19	0830E	0830	0855D	N25	E75	5601	07 25.2	25D	1B			C		145		E
	KHAR	19	0835	0845	0853	N24	E76	5601	07 25.2	18	SN		2	V	0845			DT
0262	HTPR	19	0830	0834	0838	S14	E35	5597	07 22.0	8	SF			C	0834	20	0.2	
0263	KHAR	19	0912E	0912U	0916	S06	W03	5594	07 19.1	4D	SF		2	V	0912			D
0264	HTPR	19	0927	0933	0950	N29	W26	5589	07 17.3	23	SF			C	0933	30	0.3	EI
0265	KHAR	19	1002	1003	1010	N25	E76	5601	07 25.3	8	SF		2	V	1003			DT
0266		19	1025*	1028*	1045	N26	E76	5601	07 25.3	20	SF					14		DT
	KHAR	19	1025	1028	1036D	N24	E76	5601	07 25.3	11D	SF		2	V	1028			DT
	SVTO	19	1037	1038	1045	N27	E75	5601	07 25.3	8	SF		3	E		14		
0267		19	1055*	1118	1150	N26	E72	5601	07 25.0	55	SF	C 1.4				23		F
	RAMY	19	1055	1118	1213	N24	E69	5601	07 24.8	78	SF	C 1.4	3	E		28		F
	SVTO	19	1117	1118U	1128	N27	E74	5601	07 25.2	11	SF		3	E		18		
0268	HTPR	19	1155	1208	1230	S15	E32	5597	07 21.9	35	SN			C	1208	60	0.7	E
0269	SVTO	19	1312	1314	1324	N27	E73	5601	07 25.2	12	SF		3	E		19		
0270		19	14071	14091	1429	S14	E33	5597	07 22.1	22	1N	C 2.2				124	2.2	EFV
	HTPR	19	1407	1410	1430	S14	E32	5597	07 22.0	23	1B			C	1410	180	2.2	EV
	HOLL	19	1408	1409	1425	S14	E33	5597	07 22.1	17	1N		2	E		195		FE
	RAMY	19	1408	1410	1426D	S18	E34	5597	07 22.2	18D	SF		3	E		33		
	SVTO	19	1408	1410	1432	S10	E32	5597	07 22.0	24	SF	C 2.2	3	E		88		
0271	HOLL	19	1552	1552	1600	S14	E32	5597	07 22.1	8	SF		3	E		49		
0272	HOLL	19	1825	1826	1837	N18	E23	5596	07 21.5	12	SF		3	E		21		
0273		19	2118	21218	2201	N25	E71	5601	07 25.4	43	SN	C 6.6				95		EFK
	HOLL	19	2118	2121	2233D	N24	E69	5601	07 25.2	75D	SN			E		68		K
	HOLL	19	2118	2129U	2233D	N24	E69	5601	07 25.2	75D	1N		3	E		142		FE
	PALE	19	2128E	2129	2201	N27	E74	5601	07 25.7	33D	SF	C 6.6	3	E		75		F
0274	PALE	19	2216	2219	2237	S13	E30	5597	07 22.2	21	SF	C 2.5	3	E		42		F
0275	PEKG	20	0002	0008	0017	S13	E28	5597	07 22.1	15	SN			C	0005	105	1.3	E
0276	ABST	20	0457	0458	0500	N34	W58	5593E	07 15.6	3	SN			C	0458	87	1.3	D
0277	HTPR	20	0700	0713	0718	S14	E21	5597	07 21.9	18	SF			C	0713	30	0.3	E
0278	HTPR	20	0702	0704	0712	N19	E15	5596	07 21.4	10	SF			C	0704	20	0.2	E
0279		20	07272	07292	0743	S06	W14	5594	07 19.3	16	SN					71	0.7	EG
	HTPR	20	0727	0729	0745	S05	W15	5594	07 19.2	18	SN			C	0729	100	1.0	E
	KANZ	20	0727	0731	0742	S06	W13	5594	07 19.3	15	SF			V				
	KAND	20	0729	0729	0742	S06	W14	5594	07 19.3	13	SB			P	0729	42	0.4	EG
0280	HTPR	20	0736	0740	0746	N25	E64	5601	07 25.3	10	SN			C	0740	60	1.3	E

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP No	Day	Dur (Min)	Imp	Opt	Xray	See	Obs Type	Area Measurement Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
0281	HTPR	20	0913	0915	0921	N19	E14	5596	07	21.4	8	SF				C	0915	20	0.2	E
0282	HTPR	20	1038	1045	1055	N25	E63	5601	07	25.3	17	SF				C	1045	40	0.8	E
0283		20	1106*	11321	1201	N24	E65	5601	07	25.5	55	1N	M	1.0				169	6.5	EFHU
	RAMY	20	1106	1132	1205	N24	E65	5601	07	25.5	59	1N	M	1.0	3	E		133		FH
	SVTO	20	1120	1132	1203	N26	E64	5601	07	25.4	43	1F	M	1.0	3	E		117		FH
	HTPR	20	1124	1133	1200	N25	E63	5601	07	25.3	36	2B				C	1133	300	6.5	EU
	KAND	20	1128	1132	1155	N23	E68	5601	07	25.7	27	SB				P	1132	125		E
	KANZ	20	1131E	1131U	1202D	N23	E63	5601	07	25.3	31D	1F				V				
0284	HTPR	20	1301	1303	1309	N13	W43	5590	07	17.3	8	SF				C	1303	10	0.1	
0285		20	14191	14211	1428	S13	E20	5597	07	22.1	9	SF						34	0.5	EF
	SVTO	20	1419	1421	1427	S12	E19	5597	07	22.0	8	SF			3	E		18		F
	HTPR	20	1420	1422	1428	S14	E20	5597	07	22.1	8	SF				C	1422	50	0.5	E
0286		20	15245	1529	1544	S12	E18	5597	07	22.0	20	SF						70	1.2	E
	HTPR	20	1524	1529	1548	S14	E19	5597	07	22.1	24	SF				C	1529	120	1.2	E
	HOLL	20	1528	1529	1541	S10	E18	5597	07	22.0	13	SF			3	E		19		
	KANZ	20	1529	1529	1544	S13	E18	5597	07	22.0	15	SF				V				
0287	HTPR	20	1605E		1630	S20	E28	5598	07	22.8	25D	SF				C	1605	40	0.5	E
0288	HTPR	20	1627	1630	1646	N30	E45	5599	07	24.2	19	SF				C	1630	20	0.3	E
0289		20	1637*	1646*	1734	N25	E56	5601	07	25.0	57	1F	C	2.6				111	1.6	EFK
	HOLL	20	1637	1646	1759	N26	E57	5601	07	25.1	82	SF				E		34		K
	HOLL	20	1637	1656	1759	N26	E57	5601	07	25.1	82	1F	C	2.6	3	E		191		
	SVTO	20	1642	1656	17400	N27	E56	5601	07	25.0	58D	1N	C	2.6	3	E		181		F
	HTPR	20	1645	1646	1648	N24	E54	5601	07	24.9	3	SN				C	1646	30	0.4	
	KANZ	20	1647E	1702U	17260	N25	E56	5601	07	25.0	39D	1F				V				
	HTPR	20	1648		1705D	N25	E56	5601	07	25.0	17D	1N				C	1654	150	2.7	E
	RAMY	20	1652E	1655U	1728	N25	E56	5601	07	25.0	36D	SF			1	E		81		F
0290	HOLL	20	1837	1838	1848	S14	E17	5597	07	22.1	11	SF			3	E		39		F
0291	HOLL	20	1917	1919	1934	N29	W07	5595A	07	20.2	17	SF			3	E		17		F
0292	HOLL	20	2025E	2027	2048	S16	E09	5597	07	21.5	23D	1B	M	3.3	3	E		198		FH
		20	2205		2236	No Flare Patrol														
0293	HOLL	20	2323	2323	2331	N12	W52	5590	07	17.0	8	SF			3	E		20		
0294	HOLL	20	2344	2344	2401	S11	E15	5597	07	22.1	17	SF			3	E		14		F
0295	HOLL	21	0031	0032	0038	N18	E10	5596	07	21.8	7	SF			3	E		25		F
0296		21	0045	0046	0100	S16	E12	5597	07	21.9	15	SF	C	1.3				22	0.4	DF
	HOLL	21	0045	0046	0100	S16	E12	5597	07	21.9	15	SF	C	1.3	3	E		11		F
	PURP	21	0047E	0047U	0047D	S15	E12	5597	07	21.9	15D	SF				P	0047	32	0.4	D
0297	YUNN	21	0315	0323	0328	N25	E50	5601	07	25.0	13	SF				C		31	0.5	E
0298		21	0540*	05468	0604	S15	E06	5597	07	21.7	24	1B	M	1.4				198	3.2	EH
	MITK	21	0540	0546	0612	S14	E07	5597	07	21.8	32	SB				C	0546			EH
	KANZ	21	0541	0548	0601	S15	E07	5597	07	21.8	20	1N				V				
	SVTO	21	0544	0550	0606	S15	E08	5597	07	21.8	22	1B	M	1.4	3	E		176		H
	TACH	21	0545	0549	0607	S14	E05	5597	07	21.6	22	1B			2	C	0549	311	3.4	H
	ATHN	21	0546	0548	0600	S15	E06	5597	07	21.7	14	1B			3	V	0548	286	3.1	
	LEAR	21	0554	0554	0601	S15	E06	5597	07	21.7	7	SF	M	1.4	3	E		17		H
0299	KANZ	21	0620	0620	0636	S14	E06	5597	07	21.7	16	SF				V				
0300		21	07362	07401	0747	N28	W31	5603	07	18.9	11	SN	C	1.6				57	0.8	H
	SVTO	21	0736	0740	0752	N27	W32	5603	07	18.8	16	SN	C	1.6	3	E		44		H
	KANZ	21	0737	0741	0745	N28	W31	5603	07	18.9	8	SF				V				
	HTPR	21	0738	0740	0743	N30	W30	5603	07	18.9	5	SB				C	0740	70	0.8	

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0301	HTPR	21	0750	0753	0757	S20	E20	5598	07	22.8	7	SF			C	0753	30	0.3	E
0302	HTPR	21	0830	0837	0840	S20	E20	5598	07	22.9	10	SN			C	0837	30	0.3	EI
0303		21	09123	09152	0920	S25	E23	5598	07	23.2	8	SF					20	0.2	D
	HTPR	21	0912	0915	0918	S25	E23	5598	07	23.2	6	SF			C	0915	20	0.2	
	KHAR	21	0915	0917	0921	S25	E23	5598	07	23.2	6	SF		2	V	0917			D
0304	KANZ	21	0916	0916	0924	S13	E11	5597	07	22.2	8	SF			V				
0305		21	0835*	0848*	0941	N28	W32	5603	07	18.8	66	SN					100	1.2	DEI
	HTPR	21	0835	0848	0947	N28	W32	5603	07	18.8	72	SN			C	0848	100	1.2	EI
	KHAR	21	0920	0922	0935	N29	W31	5603	07	18.9	15	SF		2	V	0922			D
0306		21	11423	11433	1155	S14	E13	5607	07	22.5	13	SF	C 1.9				43	0.7	EFHT
	SVTO	21	1142	1146	1200	S13	E14	5607	07	22.5	18	SF	C 1.9	3	E		49		F
	KANZ	21	1143	1143	1159	S15	E10	5607	07	22.2	16	SF			V				
	KAND	21	1145	1145	1150	S14	E13	5607	07	22.5	5	SN			P	1145	62	0.7	ET
	RAMY	21	1145E	1146U	1151	S14	E14	5607	07	22.5	6D	SF	C 1.9	3	E		17		FH
0307	HTPR	21	1200E		1206	S25	E20	5598	07	23.0	6D	SF			C	1203	40	0.4	E
0308	HTPR	21	1401E		1416	N24	E44	5601	07	25.0	15D	SF			C	1405	30	0.4	
0309	HTPR	21	1401E		1420	N30	W34	5603	07	18.9	19D	SF			C	1408	10	0.1	
0310	KANZ	21	1457	1504	1520	S20	E35	5600	07	24.3	23	SF			V				
0311	KANZ	21	1544	1548	1603	N26	W37	5603	07	18.8	19	SF			V				
0312		21	1631	1631	1642	S33	E08	5606	07	22.3	11	SF	C 3.4				16		
	HOLL	21	1631	1631	1640	S33	E08	5606	07	22.3	9	SF	C 3.4	3	E		16		
	KANZ	21	1631	1631	1643	S33	E07	5606	07	22.2	12	SF			V				
0313		21	1651*	1652*	1708	S10	E01	5597	07	21.8	17	SF	C 1.5				30		F
	HOLL	21	1651	1652	1704	S10	E01	5597	07	21.8	13	SF	C 1.5	3	E		33		F
	SVTO	21	1651	1657	1702	S09	E01	5597	07	21.8	11	SF	C 1.5	3	E		42		
	RAMY	21	1652E	1652U	1852D	S10	E01	5597	07	21.8	1200	SF	C 1.5	2	E		34		F
	KANZ	21	1653	1653	1701	S10	E01	5597	07	21.8	8	SF			V				
	SVTO	21	1716	1717	1727	S13	E03	5597	07	21.9	11	SF		3	E		12		F
0314		21	19292	19312	1946	N26	W36	5603	07	19.0	17	SF					20		F
	RAMY	21	1929	1931	1947	N26	W35	5603	07	19.1	18	SF		3	E		22		F
	HOLL	21	1931	1933	1945	N27	W37	5603	07	18.9	14	SF		4	E		17		F
0315	HOLL	21	1943	1943	1952	N19	E00	5596	07	21.8	9	SF		4	E		10		
0316	HOLL	21	2005	2011	2041	S32	E05	5606	07	22.2	36	SN	C 3.8	4	E		67		E
0317	HOLL	21	2038	2045	2126	N28	W37	5603	07	19.0	48	SF		4	E		24		F
0318	HOLL	21	2128	2132	2158	S19	E31	5600	07	24.3	30	SF		4	E		20		
0319	HOLL	21	2146	2154	2222	S33	E04	5606	07	22.2	36	SF		4	E		45		F
0320	HOLL	21	2208	2211	2224	S14	E00	5597	07	21.9	16	SF		4	E		23		
0321	HOLL	21	2211	2219	2234	N23	E39	5601	07	24.9	23	SF		3	E		28		
		21	2244		2259	No Flare Patrol													
0322	HOLL	21	2300E	2309	2413	S33	E03	5606	07	22.2	73D	1N	C 4.8	3	E		101		E
0323	HOLL	21	2357		2413	N26	W60	5589	07	17.3	16	SF		3	E		22		
0324	YUNN	22	0028E	0031U	0126	S33	E02	5606	07	22.2	58D	SN			P	0031	79	1.0	E
0325		22	0137	0138	0147	N28	W40	5603	07	18.9	10	SF	C 2.0				24		
	LEAR	22	0137	0138	0147	N27	W39	5603	07	19.0	10	SF	C 2.0	3	E		21		
	PALE	22	0140E	0143U	0155D	N28	W42	5603	07	18.8	15D	SF		1	E		28		

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0326	YUNN	22	0150	0214	0221	S18	E30	5600	07	24.4	31	SN			C		31	0.4	
0327		22	0207	02063	0226	S32	E01	5606	07	22.2	19	SF					50	1.4	F
	YUNN	22	0158E	0206	0230	S32	E01	5606	07	22.2	32D	SN			P		110	1.4	F
	LEAR	22	0207	0209	0222	S33	E02	5606	07	22.2	15	SF		3	E		21		F
	PALE	22	0210E	0212U	0215D	S32	E01	5606	07	22.2	5D	SF		1	E		18		F
0328	LEAR	22	0243	0246	0253	N29	W40	5603	07	19.0	10	SF		3	E		34		
0329		22	0248*	0258*	0335	S32	W00	5606	07	22.1	47	SN	C 4.2				70	1.4	FH
	YUNN	22	0248	0258	0312D	S32	W01	5606	07	22.0	24D	SN			P		110	1.4	F
	LEAR	22	0312	0319	0335	S33	E00	5606	07	22.1	23	SF	C 4.2	3	E		29		FH
0330		22	04341	0436	0506	N20	W06	5596	07	21.7	32	SF	C 1.5				62		
	SVTO	22	0434	0436	0520	N20	W05	5596	07	21.8	46	SF	C 1.5	2	E		84		
	LEAR	22	0435	0436	0452	N19	W06	5596	07	21.7	17	SF	C 1.5	3	E		40		
0331	SVTO	22	0529	0533	0551	S10	W06	5597	07	21.8	22	SF		3	E		22		
0332		22	0603	0604	0618	S10	W06	5597	07	21.8	15	SF	C 3.1				32		
	LEAR	22	0603	0604	0617	S10	W07	5597	07	21.7	14	SF	C 3.1	3	E		25		
	SVTO	22	0603	0604	0619	S10	W06	5597	07	21.8	16	SF	C 3.1	3	E		40		
0333	YUNN	22	0649	0707	0716D	S32	W02	5606	07	22.1	27D	SN			P		63	0.8	
0334	HTPR	22	0758E		0844D	S33	W05	5606	07	21.9	46D	SF			C	0840	80	1.0	EI
0335	HTPR	22	0828	0830	0839	S10	W10	5597	07	21.6	11	SF			C	0830	20	0.2	E
0336		22	0906		0923	S12	W10	5597	07	21.6	17	SN					45	0.4	E
	HTPR	22	0900E		0923	S10	W10	5597	07	21.6	23D	SN			C	0904	50	0.5	E
	HTPR	22	0906		0938D	S13	W09	5597	07	21.7	32D	SN			C	0918	40	0.4	E
0337	HTPR	22	0900E		0938D	S33	W05	5606	07	22.0	38D	SB			C	0908	120	1.5	EI
0338	SVTO	22	0902	0903	0917	N27	W42	5603	07	19.1	15	SF	C 1.9	2	E		22		
0339	HTPR	22	0927		0938D	N20	W08	5596	07	21.8	11D	SB			C	0933	50	0.5	E
0340	SVTO	22	0949	0956	1003	S32	W01	5606	07	22.3	14	SF		2	E		21		
0341	SVTO	22	1040	1046	1111	N20	W08	5596	07	21.8	31	SF	C 1.5	3	E		42		F
0342	SVTO	22	1044	1047	1056	S32	W02	5606	07	22.3	12	SF		3	E		16		F
0343		22	1106	1116	1133	S12	W08	5597	07	21.8	27	SF					16		F
	SVTO	22	1106	1116	1131	S11	W10	5597	07	21.7	25	SF		3	E		17		F
	RAMY	22	1113E	1123U	1135	S13	W07	5597	07	21.9	22D	SF		2	E		14		F
0344		22	1302	13031	1319	S33	W04	5606	07	22.2	17	SF					28		FH
	SVTO	22	1302	1303	1320	S32	W03	5606	07	22.3	18	SF		3	E		23		F
	HOLL	22	1302	1304	1319	S33	W04	5606	07	22.2	17	SF		3	E		33		FH
	RAMY	22	1307E	1308U	1317	S33	W05	5606	07	22.1	10D	SF		2	E		27		
0345		22	13124	13192	1342	N19	W10	5596	07	21.8	30	SF	C 1.5				24		F
	SVTO	22	1312	1319	1347	N19	W10	5596	07	21.8	35	SF	C 1.5	3	E		32		F
	RAMY	22	1316	1318U	1410D	N19	W11	5596	07	21.7	54D	SF	C 1.5	2	E		19		
	HOLL	22	1316	1321	1338	N19	W10	5596	07	21.8	22	SF		3	E		22		F
0346	SVTO	22	1343	1344	1400	S32	W04	5606	07	22.2	17	SF		3	E		19		F
0347	SVTO	22	1404	1404	1427	S33	W01	5606	07	22.5	23	SF		3	E		24		
0348		22	15072	15091	1524	N27	W47	5603	07	19.0	17	SF					18		
	SVTO	22	1507	1509	1531	N27	W49	5603	07	18.8	24	SF		3	E		22		
	HOLL	22	1508	1510	1521	N27	W46	5603	07	19.0	13	SF		3	E		19		
	RAMY	22	1509	1509	1521	N27	W47	5603	07	19.0	12	SF		2	E		14		

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0349		22	15585	1606	1620	N26	W50	5603	07	18.8	22	SF	C 1.4				48		F
	SVTO	22	1558	1606	1623	N26	W51	5603	07	18.7	25	SF	C 1.4	2	E		58		
	HOLL	22	1603	1606	1617	N27	W48	5603	07	18.9	14	SF	C 1.4	3	E		39		F
0350		22	1603	16041	1620	S33	W05	5606	07	22.3	17	SF					23		
	HOLL	22	1603	1604	1621	S33	W05	5606	07	22.3	18	SF		3	E		29		
	SVTO	22	1603	1605	1618	S33	W05	5606	07	22.3	15	SF		2	E		17		
0351		22	16381	1645*	1701	S18	E74	5608	07	28.3	23	SF	C 1.5				52		
	SVTO	22	1638	1656	1707	S15	E76	5608	07	28.4	29	SF		3	E		57		
	HOLL	22	1639	1645	1653	S21	E68	5608	07	27.9	14	SF	C 1.5	3	E		46		
	KANZ	22	1639E	1646	1704	S18	E77	5608	07	28.5	25D	SF			C				
0352	HOLL	22	1728	1728	1732	N27	W45	5603	07	19.2	4	SF		3	E		16		
0353	HOLL	22	1747	1755	1824	S15	W11	5597	07	21.9	37	SF		3	E		24		F
0354		22	1831	1840*	1919	S13	W12	5597	07	21.9	48	SF					40		FK
	HOLL	22	1831	1840	1919	S13	W12	5597	07	21.9	48	SN			E		37		K
	HOLL	22	1831	1901	1919	S13	W12	5597	07	21.9	48	SF		3	E		59		
	RAMY	22	1841E	1902U	1940D	S14	W13	5597	07	21.8	59D	SF		2	E		24		F
0355		22	1841	1844	1853	S17	E74	5608	07	28.4	12	SF	C 2.0				19		
	HOLL	22	1841	1844	1853	S17	E74	5608	07	28.4	12	SF	C 2.0	3	E		12		
	RAMY	22	1842E	1842U	1850D	S17	E74	5608	07	28.4	8D	SF		2	E		26		
0356	RAMY	22	1851E	1851U	1857D	N27	W50	5603	07	18.9	6D	SF		2	E		23		
0357		22	2001*	2006*	2024	S13	W13	5597	07	21.8	23	SF	C 2.4				36		F
	HOLL	22	2001	2006	2015	S13	W14	5597	07	21.8	14	SF		3	E		19		
	RAMY	22	2005E	2058U	2118D	S13	W12	5597	07	21.9	73D	SF		2	E		59		F
	HOLL	22	2017	2018	2032	S13	W14	5597	07	21.8	15	SF		3	E		23		
	HOLL	22	2046	2058U	2111D	S13	W12	5597	07	21.9	25D	SF	C 2.4	3	E		41		
		22	2119		2219	No Flare Patrol													
		22	2301		2309	No Flare Patrol													
0358	HOLL	22	2318	2321	2324	S21	E67	5608	07	28.1	6	SF	C 1.3	3	E		18		
0359		23	0220	0223	0232	S12	W14	5597	07	22.0	12	SF					26	0.3	
	LEAR	23	0220	0223	0228	S13	W13	5597	07	22.1	8	SF		3	E		22		
	YUNN	23	0224E	0224U	0235	S12	W14	5597	07	22.0	11D	S			P	0224	31	0.3	
0360	SVTO	23	0502	0503	0513	N25	W53	5603	07	19.1	11	SF		2	E		12		H
0361	SVTO	23	0530	0536	0613	N27	W54	5603	07	19.0	43	SF		3	E		25		
0362	SVTO	23	0530	0534	0546	S31	W11	5606	07	22.4	16	SF		3	E		26		FH
0363		23	0615	0619	0635	S32	W12	5606	07	22.3	20	SN					54	1.0	F
	LEAR	23	0615	0619	0632	S31	W13	5606	07	22.2	17	SF		3	E		28		F
	YUNN	23	0620E	0620U	0638	S32	W12	5606	07	22.3	18D	SN			P	0620	79	1.0	
0364		23	0638*	06559	0739	N28	W56	5603	07	18.9	61	SF					35	1.0	D
	LEAR	23	0638	0655	0716	N28	W57	5603	07	18.8	38	SF		3	E		24		
	SVTO	23	0650	0659	0802	N27	W54	5603	07	19.1	72	SF		3	E		32		
	URUM	23	0657E	0704	0709D	N28	W58	5603	07	18.7	12D	SF			C		48	1.0	D
0365		23	06432	0648*	0723	S31	W13	5606	07	22.2	40	1N	C 4.5				134	2.0	EFH
	LEAR	23	0643	0648	0710	S31	W13	5606	07	22.2	27	1N	C 4.5	3	E		116		F
	YUNN	23	0645	0648	0722	S33	W10	5606	07	22.5	37	1B			C		189	2.5	F
	SVTO	23	0645	0649	0737	S31	W12	5606	07	22.3	52	1F	C 4.5	3	E		119		FE
	URUM	23	0657E	0705	0709D	S30	W15	5606	07	22.1	12D	SF			C		113	1.5	E
	KHAR	23	0707E	0707U	0730D	S31	W15	5606	07	22.1	23D	1F		2	V	0707			H
0366	SVTO	23	0647	0705	0722	S16	E72	5608	07	28.7	35	SF		3	E		29		
0367	SVTO	23	0831	0959	1134	N25	W58	5603	07	18.9	183	SF		3	E		39		

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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
0368	SVTO	23	0854	0855	0900	S16	E70	5608	07 28.7	6	SF		3	E		15		F
0369	SVTO	23	0909	0915	0922	S16	E70	5608	07 28.7	13	SF		3	E		14		
0370	SVTO	23	0909	0909	0921	S11	W20	5597	07 21.9	12	SN		3	E		13		
0371	SVTO	23	0919	0921	0937	N24	W78	5589	07 17.4	18	SF		3	E		13		F
0372	SVTO	23	0954	0955	1009	S11	W21	5597	07 21.8	15	SF		3	E		13		F
0373	SVTO	23	0954	1002	1018	S33	W12	5606	07 22.4	24	SF		3	E		11		F
0374	SVTO	23	1016	1033	1118	S16	E70	5608	07 28.7	62	SF		3	E		48		
0375		23	1032	10351	1050	S32	W14	5606	07 22.3	18	SF	C 2.0				25		F
	SVTO	23	1032	1035	1048	S32	W15	5606	07 22.2	16	SF	C 2.0	3	E		25		F
	KANZ	23	1032	1036	1051	S32	W14	5606	07 22.3	19	SF			V				
0376		23	11411	11442	1153	S17	E68	5608	07 28.6	12	SF					40		
	SVTO	23	1141	1144	1153	S16	E68	5608	07 28.6	12	SF		3	E		40		
	KANZ	23	1142	1146	1152D	S18	E67	5608	07 28.6	10D	SF			V				
0377		23	11442	11442	1203	S11	W22	5597	07 21.8	19	SN					23		F
	SVTO	23	1144	1144	1203	S11	W22	5597	07 21.8	19	SN		3	E		23		F
	KANZ	23	1146	1146	1152D	S11	W23	5597	07 21.7	6D	SF			V				
0378	SVTO	23	1242	1244	1251	N25	W60	5603	07 18.9	9	SF		3	E		27		
0379		23	13546	13573	1417	S17	E66	5608	07 28.6	23	SF					32		
	SVTO	23	1354	1357	1413	S16	E67	5608	07 28.7	19	SF		3	E		39		
	HOLL	23	1400	1400	1421	S18	E65	5608	07 28.5	21	SF		3	E		26		
0380	HOLL	23	1447	1452	1455	S31	W18	5606	07 22.2	8	SF		4	E		12		F
0381	HOLL	23	1518	1521	1528	S18	E63	5608	07 28.4	10	SF	C 1.5	4	E		40		
0382	HOLL	23	1530	1542	1602	S10	W20	5597	07 22.1	32	SF		4	E		35		F
0383	SVTO	23	1540	1541	1550	S16	E65	5608	07 28.6	10	SF		3	E		35		
0384	HOLL	23	1614	1620	1627	N28	W60	5603	07 19.0	13	SF		4	E		21		
0385	HOLL	23	1651	1653	1657	S22	W11	5598	07 22.8	6	SF		4	E		37		
0386	HOLL	23	1730	1733	1738	N26	W61	5603	07 19.0	8	SF		4	E		18		
0387	HOLL	23	2043	2043	2047	S22	W13	5598	07 22.9	4	SF		3	E		12		
0388	HOLL	23	2102	2105	2118	S22	W13	5598	07 22.9	16	SF		3	E		29		
		23	2144		2147	No Flare Patrol												
		23	2205		2328	No Flare Patrol												
		23	2338		2349	No Flare Patrol												
		23	2357		2400	No Flare Patrol												
		24	0000		0005	No Flare Patrol												
		24	0014		0029	No Flare Patrol												
0389	PEKG	24	0041	0042	0049	N27	W72	5603	07 18.4	8	1F			C	0042	84		D
0390	YUNN	24	0211E	0211U	0218	N26	W63	5603	07 19.2	7D	SN			P	0211	63	1.5	
0391	PALE	24	0321	0322	0337	N25	W72	5603	07 18.6	16	SF		3	E		22		
0392	KHAR	24	0802	0805	0810U	S32	W26	5606	07 22.3	8U	SF		2	V	0805			D
0393	SVTO	24	0839	0840	0850	N25	W67	5603	07 19.2	11	SF		3	E		36		
0394		24	09371	09382	0946	N16	W27	5605	07 22.3	9	SF					13		F
	KANZ	24	0937	0940	0944	N16	W27	5605	07 22.3	7	SF			V				
	SVTO	24	0938	0938	0947	N16	W27	5605	07 22.3	9	SF		3	E		13		F

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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
0395		25	02003	02013	0206	N30	W86	5603	07	18.3	6	1N	C 3.1				40		D
	PEKG	25	0200	0201	0207	N30	W90	5603	07	18.0	7	1B			C	0201	63		D
	LEAR	25	0203	0204	0206	N30	W81	5603	07	18.7	3	SF	C 3.1	3	E		18		
0396		25	0614*	0623*	0707	N23	E00	5601	07	25.2	53	SF	C 2.1				94	1.0	EFIU
	SVTO	25	0613E	0626	0726	N23	E00	5601	07	25.2	73D	1F	C 2.1	3	E		107		F
	KANZ	25	0614	0625	0710	N24	E02	5601	07	25.4	56	SF			V				
	YUNN	25	0620	0623	0650	N21	W00	5601	07	25.3	30	SB			C		31	0.3	
	PEKG	25	0630	0636	0643	N24	E02	5601	07	25.4	13	SF			C	0636	168	1.8	U
	HTPR	25	0647E		0725	N24	W02	5601	07	25.1	38D	SF			C	0705	70	0.8	EI
0397	CATA	25	0650	0650	0656	N28	W90	5603	07	18.2	6	1B		2	C	0650	56		
0398	KHAR	25	0738U		0755	N30	W88	5603	07	18.4	17U	SF		2	V	0738			H
0399	HTPR	25	0814	0816	0826	S18	E43	5608	07	28.6	12	SN			C	0816	40	0.6	E
0400		25	0839*	0843*	0904	N26	W85	5603	07	18.7	25	1B	X 2.6				152		AEH
	HTPR	25	0839	0843	0904	N20	W85	5603	07	18.8	25	1B			C	0843	130		AE
	SVTO	25	0839	0843	0908	N25	W84	5603	07	18.8	29	2N	X 2.6	3	E		279		
	KANZ	25	0840	0844	0902	N28	W81	5603	07	19.0	22	1N			V				
	CATA	25	0840	0846	0907	N25	W90	5603	07	18.4	27	2B		2	C	0846	225		
	KHAR	25	0842	0843	0912	N27	W88	5603	07	18.5	30	1N		2	P	0843			H
	YUNN	25	0845E	0848	0852	N26	W87	5603	07	18.6	7D	SB			P		31		
	URUM	25	0853	0855	0907	N29	W82	5603	07	18.9	14	1B			C		96		A
0401	HTPR	25	0951	0952	0954	S23	W40	5598	07	22.3	3	SF			C	0952	10	0.1	
0402	HTPR	25	0956	0957	1000	S22	W32	5598	07	22.9	4	SF			C	0957	20	0.2	E
0403		25	1104	1104	1108	N25	W78	5603	07	19.4	4	SF					30		
	HTPR	25	1104	1104	1107	N25	W78	5603	07	19.4	3	SF			C	1104	30		
	KANZ	25	1104	1104	1108	N25	W77	5603	07	19.5	4	SF			V				
		25	1309		1335	No Flare Patrol													
0404		25	15041	15051	1512	N29	W88	5603	07	18.7	8	SF					38		
	SVTO	25	1504	1506	1512	N29	W85	5603	07	19.0	8	SF		3	E		44		
	RAMY	25	1505	1505	1511	N29	W90	5603	07	18.6	6	SF		3	E		31		
0405	SVTO	25	1548	1549	1558	N28	W90	5603	07	18.6	10	SF	C 3.4	3	E		51		
		25	1714		1737	No Flare Patrol													
		25	2018		2057	No Flare Patrol													
		25	2345		2349	No Flare Patrol													
0406		26	01221	01223	0130	S15	W59	5597	07	21.6	8	SN	C 2.2				76	2.2	DE
	PALE	26	0122	0122	0132	S16	W56	5597	07	21.8	10	SF	C 2.2	3	E		33		
	PURP	26	0122E	0125	0128	S13	W60	5597	07	21.5	6D	1N			C	0125	133	3.0	E
	PEKG	26	0123	0124	0130	S16	W60	5597	07	21.5	7	SN			C	0124	63	1.3	D
0407		26	02507	02591	0312	S15	W61	5597	07	21.5	22	1F	C 3.3				242	6.4	EF
	PALE	26	0250	0300	0314	S16	W59	5597	07	21.6	24	1F	C 3.3	3	E		174		F
	PEKG	26	0257	0259	0312	S16	W62	5597	07	21.4	15	1F			C	0259	189	4.4	E
	PURP	26	0259E	0300U	0311	S13	W61	5597	07	21.5	12D	2N			C	0300	363	8.4	
0408		26	08211	08222	0829	S14	W32	5613B	07	23.9	8	SF					40	0.7	E
	SVTO	26	0821	0823	0830	S15	W32	5613B	07	23.9	9	SF		3	E		44		
	HTPR	26	0821	0824	0831	S12	W31	5613B	07	24.0	10	SN			C	0824	60	0.7	E
	LEAR	26	0822	0822	0827	S14	W32	5613B	07	23.9	5	SF		3	E		17		
0409	HTPR	26	0903	0905	0911	S18	E28	5608	07	28.5	8	SF			C	0905	30	0.3	E
0410		26	10205	10207	1038	N31	W89	5603	07	19.4	18	1N					149		A
	SVTO	26	1020	1020	1025	N31	W88	5603	07	19.5	5	SF		3	E		13		
	HTPR	26	1020	1022	1027	N30	W90	5603	07	19.3	7	SB			C	1022	60		
	URUM	26	1020	1027	1057	N33	W89	5603	07	19.4	37	1F			C		129		A
	CATA	26	1025	1025	1043	N31	W90	5603	07	19.3	18	3F		1	P	1025	394		

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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
0411	HTPR	26	1349	1400	1415	S21	E90	5612	08	2.5	26	SB				C	1400	40		
0412	HTPR	26	1425	1438	1447	S21	E90	5612	08	2.5	22	SB				C	1438	50		
0413	HTPR	26	1449	1453	1530	S19	E25	5608	07	28.5	41	SN				C	1453	80	0.9	EI
0414	HTPR	26	1532	1547	1605	S38	W17	5611	07	25.3	33	SF				C	1547	50	0.6	E
0415		26	15561	15572	1615	S18	E25	5608	07	28.6	19	SN						60	1.3	EFI
	HTPR	26	1556	1559	1624	S18	E23	5608	07	28.4	28	SB				C	1559	120	1.3	EI
	RAMY	26	1557	1557	1606	S17	E26	5608	07	28.6	9	SF			2	E		21		F
	SVTO	26	1600E	1600U	1635D	S18	E25	5608	07	28.6	35D	SF			2	E		38		F
0416	PALE	26	1727	1728	1754	S17	E26	5608	07	28.7	27	SF			3	E		15		FH
0417	PALE	26	1857	1859	1934D	S17	E25	5608	07	28.7	37D	SF			3	E		40		F
		26	1937		1943	No Flare Patrol														
		26	1947		2033	No Flare Patrol														
		26	2042		2049	No Flare Patrol														
0418	HOLL	26	2109	2110	2117	S34	W61	5606	07	22.0	8	SF			2	E		66		
		26	2131		2142	No Flare Patrol														
		26	2146		2156	No Flare Patrol														
		26	2203		2216	No Flare Patrol														
0419	HTPR	27	0832	0846	0900	S14	W75	5597	07	21.7	28	SF				C	0846	30		
0420	HTPR	27	1033	1035	1044	S20	W44	5600	07	24.1	11	SF				C	1035	30	0.4	E
		27	1443		1637	No Flare Patrol														
0421	PALE	27	1945	2009	2010	S18	E11	5608	07	28.7	25	SF			3	E		59		F
		27	2143		2152	No Flare Patrol														
		27	2205		2219	No Flare Patrol														
		27	2309		2312	No Flare Patrol														
0422	PALE	28	0222	0226	0228	S18	E07	5608	07	28.6	6	SF			3	E		13		
0423		28	0315*	0322*	0420	S19	E06	5608	07	28.6	65	SN	C	2.7				139	2.4	EU
	PALE	28	0315	0322	0344	S19	E07	5608	07	28.7	29	SF			3	E		27		
	TACH	28	0316	0400	0446	S22	E06	5608	07	28.6	90	SB			2	C	0400	168	2.0	U
	PEKG	28	0320	0400	0430	S18	E05	5608	07	28.5	70	1N				C	0400	378	4.3	U
	PALE	28	0356	0359	0413	S18	E05	5608	07	28.5	17	SF	C	2.7	3	E		36		
	ABST	28	0406E	0408U	0428	S20	E06	5608	07	28.6	22D	SN				P	0408	87	1.0	E
0424	ABST	28	0724	0726	0729	S19	W07	5616	07	27.8	5	SN				C	0726	87	1.0	D
0425		28	08371	08384	0846	S20	W07	5616	07	27.8	9	SN	C	1.6				37	0.6	EF
	HTPR	28	0837	0842	0850	S20	W07	5616	07	27.8	13	SN				C	0842	60	0.6	E
	LEAR	28	0838	0838	0842	S20	W07	5616	07	27.8	4	SF	C	1.6	3	E		14		F
0426	HTPR	28	0857	0904	0912	S20	W07	5616	07	27.8	15	SF				C	0904	20	0.2	
0427		28	09488	09562	1002	N12	E80	5614	08	3.4	14	1N						48		
	HTPR	28	0948	0958	1003	N13	E80	5614	08	3.4	15	SF				C	0958	40		
	CATA	28	0956	0956	1000	N12	E80	5614	08	3.4	4	1N			2	C	0956	56		
0428	HTPR	28	1042	1046	1051	S15	W90	5597	07	21.6	9	SN				C	1046	40		
0429	HTPR	28	1157	1202	1208	N22	W70	5613	07	23.1	11	SF				C	1202	40		
0430	HTPR	28	1259E		1347	S12	E11	5618A	07	29.4	48D	SN				C	1318	50	0.5	
0431	HOLL	28	1357	1416	1540	S04	E71	5615	08	2.9	103	SF			3	E		28		H
0432	HOLL	28	1611	1613	1625	N12	E76	5614	08	3.4	14	SF			3	E		17		

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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
0433	HOLL	28	1713	1720	1731	N22	W73	5613	07	23.1	18	SF			3	E		17		
		28	1954		2003	No Flare Patrol														
		28	2021		2029	No Flare Patrol														
		28	2043		2055	No Flare Patrol														
		28	2233		2245	No Flare Patrol														
		28	2349		2400	No Flare Patrol														
0434	PALE	29	0255	0302	0307	N20	W82	5613	07	22.8	12	SF			3	E		22		
0435		29	0259*	0302*	0317	S03	E68	5615	08	3.2	18	SF						17		
	PALE	29	0259	0302	0312	S03	E69	5615	08	3.3	13	SF			3	E		13		
	PALE	29	0316	0317	0322	S03	E68	5615	08	3.2	6	SF			3	E		21		
0436	ABST	29	0550	0600	0610	N20	W85	5613	07	22.7	20	1F				C	0600	52		D
0437	ABST	29	0612	0614	0623	S17	E69	5612	08	3.5	11	SN				C	0614	52		D
0438		29	0652*	0653*	0721	N22	W82	5613	07	23.0	29	SN	C	4.3				73		AE
	LEAR	29	0652	0653	0701	N23	W82	5613	07	23.0	9	SF			3	E		31		
	KANZ	29	0653	0653	0703	N21	W76	5613	07	23.5	10	SF				C				
	HTPR	29	0700E		0745	N22	W90	5613	07	22.4	45D	1B				C	0715	110		AE
	LEAR	29	0709	0709	0725	N23	W81	5613	07	23.0	16	SF	C	4.3	3	E		40		
	KANZ	29	0710	0714	0725	N23	W76	5613	07	23.4	15	SF				C				
	CATA	29	0711	0715	0727	N23	W90	5613	07	22.4	16	1B			1	C	0715	112		
0439	HTPR	29	0728	0737	0802	S19	W18	5616	07	27.9	34	SN				C	0737	40	0.4	E
0440		29	10294	10373	1114	S12	W06	5618	07	29.0	45	SF						36	0.5	E
	HTPR	29	1029	1037	1127	S12	W07	5618	07	28.9	58	SF				C	1037	50	0.5	E
	SVTO	29	1033	1040	1100	S12	W05	5618	07	29.1	27	SF			3	E		22		
0441		29	1009*	1045*	1116	N20	W82	5613	07	23.1	67	SF	C	3.0				35		E
	HTPR	29	1009	1100	1130	N22	W85	5613	07	22.9	81	SF				C	1100	50		E
	SVTO	29	1033	1045	1102	N19	W80	5613	07	23.3	29	SF	C	3.0	3	E		20		
0442	SVTO	29	1034	1037	1043	S20	W19	5616	07	28.0	9	SF			3	E		14		
0443	SVTO	29	1101	1116	1132	S12	W06	5618	07	29.0	31	SF			3	E		18		
0444		29	11436	1146*	1214	N18	E05	5617	07	29.9	31	SF						19		
	SVTO	29	1143	1146	1215	N18	E05	5617	07	29.9	32	SF			3	E		19		
	KANZ	29	1149	1201	1213	N18	E05	5617	07	29.9	24	SF				C				
		29	1328		1357	No Flare Patrol														
0445		29	1500	15023	1511	N20	W84	5613	07	23.2	11	SF	C	7.1				88		
	SVTO	29	1500	1502	1511	N18	W87	5613	07	23.0	11	SF			3	E		81		
	RAMY	29	1500	1505	1511	N21	W80	5613	07	23.5	11	SF	C	7.1	2	E		96		
		29	1616		1626	No Flare Patrol														
0446	RAMY	29	1847E	1901U	1907	S04	E60	5615	08	3.3	20D	SF			2	E		19		
		29	1926		1930	No Flare Patrol														
0447	HOLL	29	2030E	2031	2040	S16	E54	5612	08	2.9	10D	SF			3	E		48		
0448		29	20307	2037*	2043	S03	E61	5615	08	3.4	13	SF	C	1.8				40		K
	HOLL	29	2030	2038	2158D	S04	E62	5615	08	3.5	88D	SF	C	1.8	2	E		68		
	HOLL	29	2030	2051	2158D	S04	E62	5615	08	3.5	88D	SF				E		40		K
	PALE	29	2037	2037	2043	S02	E58	5615	08	3.2	6	SF			3	E		12		
0449	PALE	29	2227	2231	2242	S04	E57	5615	08	3.2	15	SF			3	E		12		
0450	PALE	29	2247	2250	2304	S02	E57	5615	08	3.2	17	SF			3	E		26		

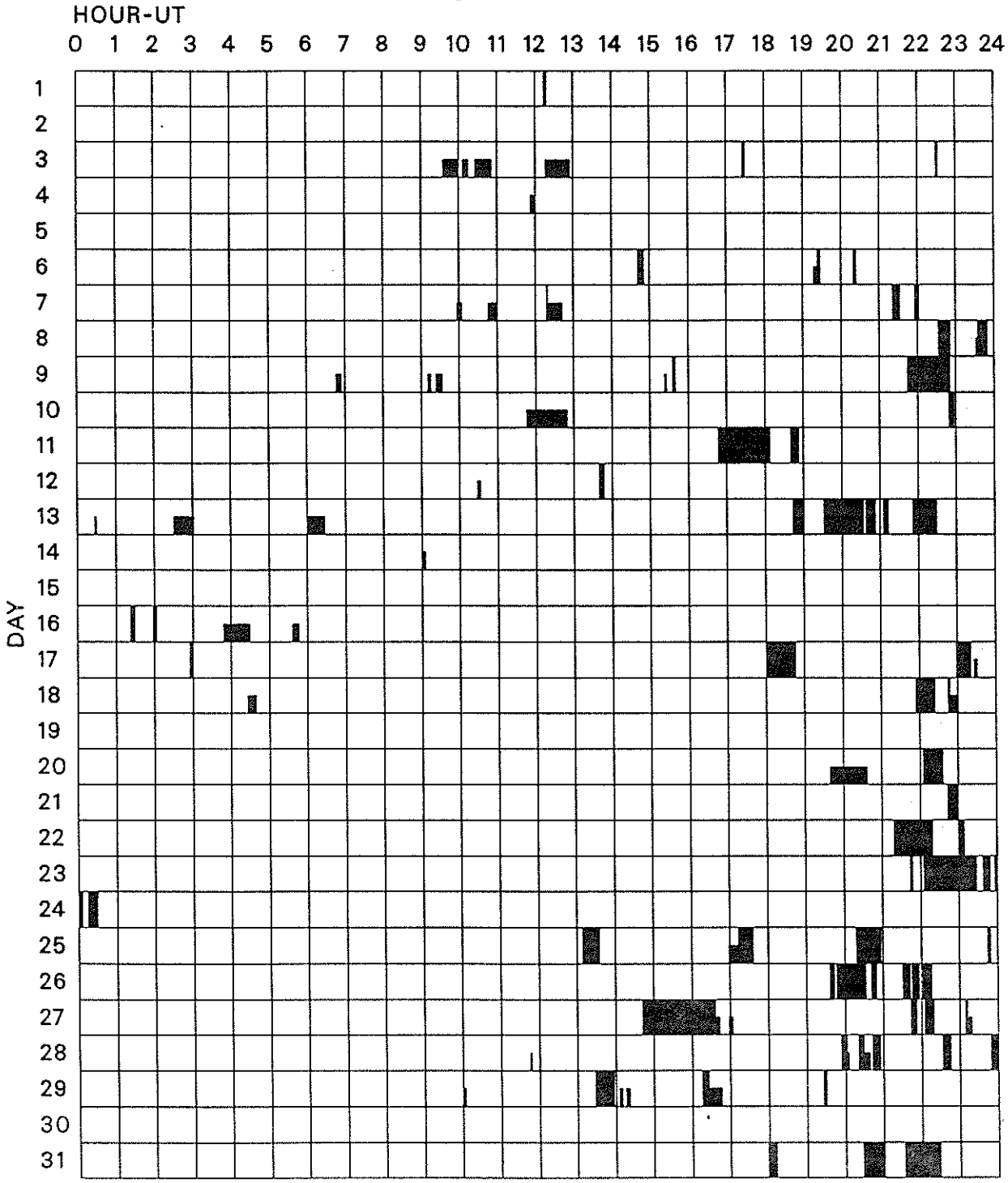
Hα SOLAR FLARES

JULY 1989

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
0451		30	00353	0038*	0110	N19	W00	5617	07	30.0	35	SF					73	1.8	EF
	PALE	30	0035	0039	0109	N19	W01	5617	07	29.9	34	SF		3	E		37		F
	PEKG	30	0037	0048	0125	N18	E00	5617	07	30.0	48	SF			C	0048	168	1.8	E
	LEAR	30	0038	0038	0055	N19	E00	5617	07	30.0	17	SF		3	E		14		
0452		30	0451	0455	0524	S13	E75	5619	08	4.9	33	SF	C 4.6				83		F
	PALE	30	0451	0454U	0458D	S12	E77	5619	08	5.0	7D	SF		3	E		44		
	LEAR	30	0451	0455	0525	S14	E72	5619	08	4.6	34	1F	C 4.6	3	E		165		F
	SVTO	30	0453E	0453U	0523	S12	E76	5619	08	4.9	30D	SF		2	E		40		
0453	ABST	30	0615	0618	0626	S06	E56	5615	08	3.4	11	SF			C	0618	70	1.2	D
0454		30	06321	06331	0638	S28	E60	5621	08	4.0	6	SF					50	2.0	DV
	ABST	30	0632	0633	0640	S27	E60	5621	08	3.9	8	SF			C	0633	87	2.0	DV
	LEAR	30	0633	0634	0636	S28	E59	5621	08	3.9	3	SF		3	E		14		
0455	CATA	30	0815	0815	0821	N23	W90	5613	07	23.4	6	1N		1	C	0815	45		
0456	CATA	30	1025	1025	1031	N24	W90	5613	07	23.5	6	1F		1	C	1025	56		
0457		30	10269	1026*	1052	S14	E47	5612	08	3.0	26	SF					23		F
	SVTO	30	1026	1026	1030	S13	E46	5612	08	2.9	4	SF		3	E		14		
	SVTO	30	1035	1049	1114	S16	E48	5612	08	3.1	39	SF		3	E		32		F
0458	SVTO	30	1214	1214	1221	S13	E45	5612	08	2.9	7	SF		3	E		36		F
0459	SVTO	30	1219	1221	1224	N18	W07	5617	07	30.0	5	SF		3	E		15		
0460	SVTO	30	1259	1321	1406	S25	E75	5622	08	5.3	67	SF		3	E		20		
0461	SVTO	30	1313	1322	1332	S04	E50	5615	08	3.3	19	SF		3	E		11		
0462	HOLL	30	2040	2040	2048	S20	W37	5616	07	28.0	8	SF	C 3.0	3	E		22		
0463	PALE	31	0106	0114	0149	N18	W14	5617	07	30.0	43	SF	C 7.2	3	E		31		F
0464	PEKG	31	0320	0340	0350	N18	W16	5617	07	29.9	30	1N			C	0340	189	2.1	D
0465		31	07032	0709	0746	S18	E37	5612	08	3.1	43	SF	C 8.7				72	1.8	F
	SVTO	31	0703	0709	0746	S17	E36	5612	08	3.0	43	SF	C 8.7	3	E		23		
	ABST	31	0705	0709	0715D	S18	E38	5612	08	3.2	10D	SF			C	0709	122	1.8	F
	KANZ	31	0711E		0713D	S18	E38	5612	08	3.2	2D	SF			V				
0466		31	0801	08021	0807	S20	E36	5612	08	3.1	6	SN					44	0.9	D
	SVTO	31	0801	0802	0807	S20	E36	5612	08	3.1	6	SF		3	E		24		
	PURP	31	0802E	0803	0809D	S21	E35	5612	08	3.0	7D	SB			P	0803	63	0.9	D
0467	CATA	31	1010	1015	1017	N22	E90		08	7.3	7	1N		2	C	1015	112		
0468	RAMY	31	1334	1334	1338	S14	E89	5623	08	7.3	4	SF		3	E		15		
0469	RAMY	31	1701	1701	1709	S15	E35	5612	08	3.3	8	SF		3	E		27		
0470	PALE	31	1752	1754	1810D	S11	E79	5623	08	6.7	18D	SF	C 9.6	3	E		75		
		31	1759		1812	No Flare Patrol													
		31	2027		2101	No Flare Patrol													
0471	HOLL	31	2058E	2058U	2125	S16	E32	5612	08	3.3	27D	1B	M 1.5	2	E		124		EF
		31	2133		2228	No Flare Patrol													
0472	PALE	31	2258	2301U	2315	S14	E30	5612	08	3.2	17	SF	C 6.4	3	E		30		F
0473	PALE	31	2315	2316	2327	S10	E76	5623	08	6.7	12	1N	M 1.0	3	E		219		F

INTERVALS OF NO FLARE PATROL OBSERVATION
FOR PRECEDING SOLAR FLARE TABLE

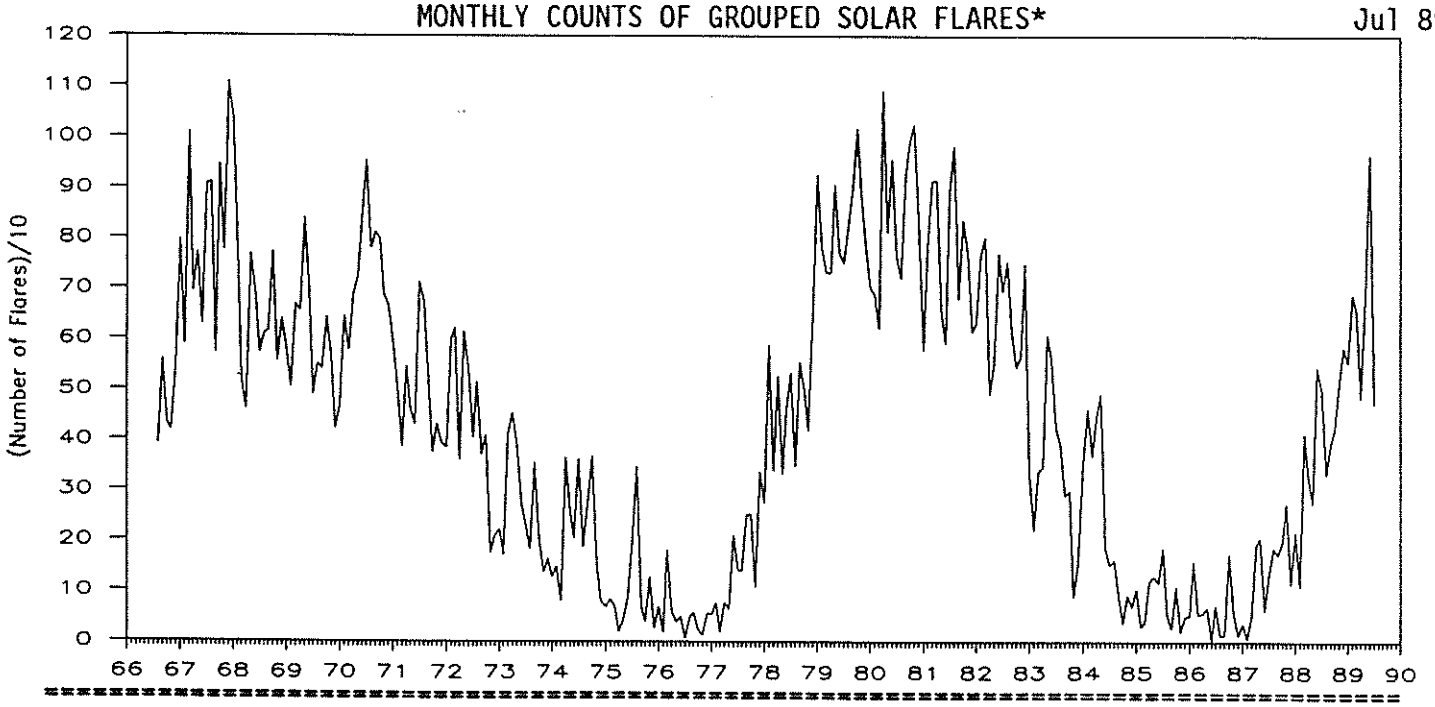
JULY 1989



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

Abastumani	Haute Provence	Kanzelhoehe	Mitaka	San Vito
Athens	Holloman	Kharkov	Palehua	Tashkent
Bucharest	Hurbanovo	Kodaikanal	Peking	Urumqi
Catania	Kandilli	Learmonth	Purple Mt.	Voroshilov

MONTHLY COUNTS OF GROUPED SOLAR FLARES*



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1966								391	558	432	417	543	2341
1967	796	589	1009	694	771	629	907	911	573	946	775	1109	9709
1968	1037	773	519	460	768	697	573	611	616	772	556	640	8022
1969	581	504	669	655	839	694	489	551	540	643	566	422	7153
1970	466	646	578	688	722	836	954	780	811	797	687	667	8632
1971	598	505	387	546	461	430	713	673	518	375	431	394	6031
1972	384	599	621	361	614	541	404	515	371	408	175	210	5203
1973	221	171	410	453	388	270	232	182	353	201	136	163	3180
1974	127	148	79	364	255	204	360	187	270	366	153	81	2594
1975	68	82	69	19	42	85	196	346	68	38	127	25	1165
1976	69	18	180	60	38	48	6	47	57	23	13	55	614
1977	54	77	18	76	64	210	140	140	250	252	107	336	1724
1978	274	588	338	526	330	460	533	346	554	499	418	648	5514
1979	926	781	731	731	907	772	750	821	901	1018	888	786	10012
1980	703	689	621	1092	811	956	763	720	924	988	1027	838	10132
1981	578	782	914	915	658	592	893	982	680	836	773	615	9218
1982	631	766	803	490	553	769	696	753	615	544	564	748	7932
1983	332	220	337	346	609	561	427	389	289	298	88	152	4048
1984	353	461	366	440	492	185	151	161	95	36	92	69	2901
1985	104	29	38	119	129	116	185	53	25	108	19	50	975
1986	51	158	54	56	68	3	71	12	14	174	56	13	730
1987	36	7	52	192	205	61	132	185	172	198	273	114	1627
1988	217	109	413	328	274	544	499	331	390	421	508	584	4618
1989	689	539	658	485	685	966	473						4495

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

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 1989

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	410	LEAR	4	S/F	0058.0E	0058.0	3.0D	64.0			ST=2 TYP=3
	2840	PEKG	1	S	0111.0	0112.9	5.0	4.7			
	9300	KISV	2	S/F	0437.1	0437.8	2.7	4.0			
	5900	KISV	45	C	0437.5	0437.8	0.9	3.0			
┌	410	LEAR	8	S	0529.0E	0529.0	U	430.0			ST=2 TYP=3
└	410	SVTO	8	S	0529.0E	0529.0	U	310.0			ST=2 TYP=3
	260	ONDR	41	F	0533.0E	1501.4	620.0D	24.0			
┌	2950	GORK	1	S	0609.9	0612.1	4.3	2.0			
├	650	GORK	1	S	0610.5	0611.1	0.8	1.0			
└	950	GORK	2	S/F	0611.1	0611.8	1.3	5.0			
┌	950	GORK	2	S/F	0830.0	0830.3	0.5	10.0			
├	650	GORK	1	S	0830.1	0830.3	0.5	2.0			
└	9300	KISV	2	S/F	0830.1	0830.4	0.6	2.0			
	5900	KISV	2	S/F	0844.6	0846.6	4.0	3.0			
┌	950	GORK	2	S/F	0907.3	0907.5	0.3	6.0			
└	650	GORK	1	S	0907.3	0907.5	0.4	1.0			
	536	ONDR	41	F	1043.2	1044.1	2.0	52.0			
	808	ONDR	41	F	1156.0	1158.4	3.0	7.0			
	536	ONDR	8	S	1251.8	1252.4	0.8	93.0			
	536	ONDR	42	SER	1321.2	1332.3	12.0	41.0			
┌	536	ONDR	40	F	1517.5	1518.1	2.0	81.0			
└	410	SGMR	8	S	1518.0E	1518.0	U	120.0			ST=2 TYP=3
┌	610	SGMR	8	S	1807.0E	1807.0	U	69.0			ST=2 TYP=3
├	245	SGMR	8	S	1807.0E	1807.0	U	87.0			ST=2 TYP=3
└	410	SGMR	8	S	1807.0E	1807.0	U	80.0			ST=2 TYP=3
┌	410	SGMR	8	S	1835.0E	1836.0	1.0D	51.0			ST=2 TYP=3
└	245	SGMR	8	S	1836.0E	1836.0	U	100.0			ST=2 TYP=3
┌	2840	PEKG	1	S	2352.0	2353.4	9.0	4.7			
├	410	SGMR	8	S	2354.0E	2354.0	1.0D	86.0			ST=2 TYP=3
├	610	SGMR	8	S	2354.0E	2354.0	1.0D	65.0			ST=2 TYP=3
└	245	SGMR	8	S	2354.0E	2354.0	1.0D	290.0			ST=2 TYP=3
02	260	ONDR	44	NS	0530.0E	0940.5	620.0D	64.0			
	2840	PEKG	1	S	0009.0	0012.0	9.0	4.1			
	2840	PEKG	20	GRF	0408.8	0441.0	70.0	7.4			
┌	410	LEAR	8	S	0425.0E	0425.0	U	79.0			ST=2 TYP=3
├	410	PALE	20	GRF	0425.0E	0425.0	U	60.0			ST=2 TYP=2
└	410	SVTO	8	S	0425.0E	0425.0	U	56.0			ST=2 TYP=3
	536	ONDR	8	S	0640.3	0640.5	0.5	22.0			
	536	ONDR	42	SER	0750.2	0756.2	25.6	14.0			
┌	9300	KISV	2	S/F	0754.4	0755.1	2.9	8.0			
└	5900	KISV	2	S/F	0754.4	0755.1	3.2	13.0			
	2840	PEKG	1	S	0800.0	0803.0	4.5	3.2			
	2950	GORK	21	GRF	0800.0	0815.7	22.0	3.0			
	9100	GORK	1	S	0800.7	0801.1	2.6	4.0			
┌	3100	CRIM	1	S	0802.0	0803.0	1.5	3.5	1.0		
└	2950	GORK	1	S	0802.1	0803.0	1.4	3.0			
	5900	KISV	2	S/F	0808.6	0809.6	1.9	4.0			
	2840	PEKG	1	S	0814.0	0815.7	4.0	2.3			
	808	ONDR	42	SER	0917.0	1016.8	110.0	77.0			
	204	IZMI	42	SER	0950.0	0957.2	40.0	40.0			
┌	9300	KISV	4	S/F	1030.5	1031.2	7.5	34.0			
├	5900	KISV	2	S/F	1030.6	1031.3	3.1	25.0			
└	15000	KISV	2	S/F	1030.8	1031.3	0.8	16.0			
	5900	KISV	2	S/F	1142.0	1142.4	1.2	4.0			
	536	ONDR	42	SER	1148.5	1156.5	9.0	16.0			
	536	ONDR	42	SER	1301.0	1305.3	8.0	80.0			
	410	SGMR	8	S	1338.0E	1338.0	U	160.0			ST=2 TYP=3
03	610	LEAR	8	S	0135.0E	0135.0	1.0D	32.0			ST=2 TYP=3
├	8800	LEAR	8	S	0135.0E	0135.0	1.0D	170.0			ST=2 TYP=3
├	4995	LEAR	8	S	0135.0E	0135.0	1.0D	130.0			ST=2 TYP=3
├	1415	LEAR	8	S	0135.0E	0135.0	2.0D	110.0			ST=2 TYP=3
├	2695	LEAR	8	S	0135.0E	0135.0	2.0D	130.0			ST=2 TYP=3
├	4995	PALE	8	S	0135.0E	0135.0	1.0D	110.0			ST=2 TYP=3
├	1415	PALE	8	S	0135.0E	0135.0	1.0D	110.0			ST=2 TYP=3
├	2695	PALE	8	S	0135.0E	0135.0	1.0D	130.0			ST=2 TYP=3
├	8800	PALE	8	S	0135.0E	0135.0	1.0D	220.0			ST=2 TYP=3
├	15400	PALE	8	S	0135.0E	0135.0	1.0D	150.0			ST=2 TYP=3

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

JULY 1989

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	500	HIRA	42	SER	0135.2	0135.8	7.5	310.0			O
	17000	NOBE	1	S	0135.6	0135.9	1.5	134.0			
	35000	NOBE	1	S	0135.6	0135.9	1.3	60.0			POL O; 80 GHZ:O
	1415	LEAR	8	S	0139.0E	0139.0	U	14.0			ST=2 TYP=3
	2695	LEAR	8	S	0139.0E	0139.0	1.0D	15.0			ST=2 TYP=3
	610	LEAR	8	S	0139.0E	0139.0	1.0D	92.0			ST=2 TYP=3
	100	HIRA	46	C	0213.7		1.2	1000.0D			
	200	HIRA	42	SER	0213.9	0214.1	5.9	600.0			WR
	245	LEAR	49	GB	0214.0E	0214.0	U	900.0			ST=2 TYP=6
	200	HIRA	8	S	0516.5	0516.8	0.5	63.0			O
	260	ONDR	41	F	0530.0E	0550.5	620.0D	55.0			
	245	LEAR	8	S	0549.0E	0550.0	1.0D	230.0			ST=2 TYP=3
	245	SVTO	8	S	0549.0E	0550.0	1.0D	270.0			ST=2 TYP=3
	200	HIRA	42	SER	0549.5	0550.0	2.0	350.0			O
	650	GORK	23	GRF	0858.7	0909.7	25.7	4.0			
	950	GORK	21	GRF	0858.9	1030.0	95.1D	4.0			
	610	SVTO	4	S/F	0904.0E	0905.0	14.0D	310.0			ST=3 TYP=3
	536	ONDR	42	SER	0912.0	1357.0	360.0	189.0			
	610	LEAR	8	S	0914.0E	0914.0	1.0D	260.0			ST=2 TYP=3
	650	GORK	4	S/F	0914.2	0914.7	0.8	267.0			
	600	HUMN	8	S	0914.5	0914.6	0.3	75.0	30.0		
	950	GORK	3	S	0914.6	0914.8	0.7	6.0			
	100	GORK	4	S/F	0915.0	0916.0	5.4	35.0			
	610	LEAR	49	GB	0916.0E	0917.0	4.0D	570.0			ST=3 TYP=6
	650	GORK	46	C	0916.9	0917.0	1.7	245.0			
	650	GORK	46	C	0916.9	0917.3		103.0			
	650	GORK	46	C	0916.9	0917.9		73.0			
	950	GORK	4	S/F	0917.0	0917.4	2.1	29.0			
	600	HUMN	4	S/F	0917.3	0917.7	1.0	85.0	35.0		
	430	KRAK	2	S/F	0920.6	0921.5	1.2	85.0	4.0		
	650	GORK	23	GRF	0934.0	0954.0	27.7	2.0			
	650	GORK	23	GRF	0954.7	0956.0	2.4	2.0			
	950	GORK	4	S/F	0956.8	0957.0	1.7	50.0			
	3100	CRIM	1	S	1006.0	1006.8	1.5	4.7	1.0		
	950	GORK	4	S/F	1006.1	1006.9	2.1	51.0			
	9300	KISV	1	S	1006.2	1006.8	5.0	4.0			
	5900	KISV	2	S/F	1006.4	1006.8	4.7	5.0			
	650	GORK	41	F	1006.9E	1016.5		882.0			
	650	GORK	41	F	1006.9E	1007.9	16.7D	58.0			
	600	HUMN	8	S	1012.0	1012.1	0.2	70.0	25.0		
	610	SVTO	49	GB	1015.0E	1015.0	1.0D	1900.0			ST=2 TYP=6
	610	SGMR	49	GB	1016.0E	1016.0	U	840.0			ST=3 TYP=6
	950	GORK	4	S/F	1016.4	1016.7	0.9	240.0			
	810	KRAK	8	S	1016.5	1016.6	1.0	160.0D			
	100	GORK	4	S/F	1019.1	1020.3	2.0	34.0			
	650	GORK	2	S/F	1106.4	1109.8	6.7	6.0			
	950	GORK	4	S/F	1109.4	1109.9	1.0	93.0			
	430	KRAK	2	S/F	1114.7	1114.9	0.7	20.0	4.0		
	610	SGMR	8	S	1313.0E	1313.0	U	110.0			ST=2 TYP=3
	245	SGMR	8	S	1411.0E	1411.0	1.0D	70.0			ST=2 TYP=3
	2800	OTTA	20	GRF	1424.0	1458.0	246.0	12.5	6.0		
	245	SGMR	8	S	1828.0E	1829.0	2.0D	120.0			ST=2 TYP=3
	245	SGMR	8	S	1840.0E	1841.0	1.0D	120.0			ST=2 TYP=3
	410	SGMR	8	S	1840.0E	1841.0	1.0D	100.0			ST=2 TYP=3
	245	SGMR	8	S	2140.0E	2140.0	2.0D	100.0			ST=2 TYP=3
	410	SGMR	8	S	2140.0E	2140.0	2.0D	69.0			ST=2 TYP=3
04	2695	PENT	3	S	0000.0	0001.0	14.0	156.4	59.0		
	2695	LEAR	4	S/F	0000.0E	0000.0	3.0D	150.0			ST=2 TYP=3
	4995	LEAR	8	S	0000.0E	0000.0	2.0D	400.0			ST=2 TYP=3
	1415	LEAR	8	S	0000.0E	0001.0	2.0D	130.0			ST=2 TYP=3
	410	LEAR	49	GB	0000.0E	0000.0	2.0D	590.0			ST=2 TYP=6
	610	LEAR	8	S	0000.0E	0000.0	2.0D	370.0			ST=2 TYP=3
	15400	LEAR	49	GB	0000.0E	0000.0	1.0D	700.0			ST=2 TYP=6
	8800	LEAR	49	GB	0000.0E	0000.0	2.0D	550.0			ST=2 TYP=6
	245	LEAR	49	GB	0000.0E	0000.0	2.0D	3400.0			ST=2 TYP=6
	4995	PALE	8	S	0000.0E	0000.0	1.0D	370.0			ST=2 TYP=3
	410	PALE	49	GB	0000.0E	0000.0	1.0D	750.0			ST=2 TYP=6
	1415	PALE	8	S	0000.0E	0001.0	2.0D	160.0			ST=2 TYP=3

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

JULY 1989

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	245	PALE	49	GB	0000.0E	0000.0	U	4300.0			ST=1 TYP=6
	610	PALE	8	S	0000.0E	0000.0	U	270.0			ST=1 TYP=3
	8800	PALE	49	GB	0000.0E	0000.0	1.0D	690.0			ST=2 TYP=6
	15400	PALE	49	GB	0000.0E	0000.0	1.0D	860.0			ST=2 TYP=6
	2840	PEKG	3	S	0000.0	0000.9	6.0	204.0			
	17000	NOBE	7	C	0000.2	0000.7	3.0	763.0			6L;80,35GHZ:SKY
	500	HIRA	46	C	0000.5	0000.8	6.5	847.0			O
	200	HIRA	46	C	0000.6	0000.7	1.3	360.0			O
	2950	GORK	22	GRF	0317.7	0334.0	26.1	3.0			
	2840	PEKG	20	GRF	0329.0	0333.2	13.0	5.1			
	2950	GORK	22	GRF	0411.0	0522.3	469.0	7.0			
	3100	CRIM	20	GRF	0503.0	0512.4	25.0	7.8	3.0		
	2840	PEKG	20	GRF	0513.0	0519.5	17.0	7.8			
	9100	GORK	20	GRF	0529.0	0616.8	176.5	9.0			
	260	ONDR	41	F	0530.0E	0634.0	65.0D	8.0			
	5900	KISV	2	S/F	0901.5	0901.7	1.7	11.0			
	536	ONDR	27	RF	0930.0	1005.9	60.0	5.0			
	950	GORK	8	S	1027.5	1027.5	0.2	19.0			
	650	GORK	4	S/F	1028.7	1029.1	0.9	36.0			
	260	ONDR	42	SER	1111.2	1113.8	280.0	11.0			
	536	ONDR	8	S	1150.8	1151.1	0.7	25.0			
	3000	POTS	3	S	1442.0	1444.2	5.0	15.0			
	2800	OTTA	3	S	1443.0	1444.0	3.0	17.4	6.0		
	9500	POTS	3	S	1443.0	1444.0	7.0	72.0			
	8800	SGMR	8	S	1443.0E	1444.0	2.0D	87.0			ST=2 TYP=3
	8800	SVTO	8	S	1443.0E	1444.0	1.0D	57.0			ST=2 TYP=3
	15400	SVTO	8	S	1443.0E	1444.0	1.0D	110.0			ST=2 TYP=3
	1470	POTS	3	S	1443.0	1444.2	4.0	8.0			
	808	ONDR	8	S	1443.8	1444.1	2.0	155.0			
	610	PALE	8	S	1723.0E	1723.0	1.0D	220.0			ST=2 TYP=3
	610	SGMR	8	S	1723.0E	1723.0	1.0D	240.0			ST=3 TYP=3
	600	HUMN	1	S	1724.5	1724.6	0.4	65.0	15.0		
	410	SGMR	8	S	1814.0E	1814.0	2.0D	68.0			ST=2 TYP=3
	610	SGMR	8	S	1839.0E	1839.0	U	83.0			ST=2 TYP=3
	410	SGMR	8	S	1839.0E	1839.0	U	82.0			ST=2 TYP=3
	245	SGMR	8	S	1839.0E	1839.0	U	70.0			ST=2 TYP=3
	610	PALE	8	S	1949.0E	1949.0	1.0D	140.0			ST=2 TYP=3
	610	SGMR	8	S	1949.0E	1949.0	1.0D	120.0			ST=2 TYP=3
05	245	PALE	8	S	0055.0E	0055.0	1.0D	74.0			ST=2 TYP=3
	2950	GORK	23	GRF	0304.4	0801.5	384.3	13.0			
	2840	PEKG	3	S	0311.0	0312.9	9.0	48.6			
	9100	GORK	4	S/F	0314.6	0315.8	4.3	90.0			
	4995	LEAR	8	S	0315.0E	0315.0	2.0D	82.0			ST=2 TYP=3
	8800	LEAR	8	S	0315.0E	0315.0	1.0D	80.0			ST=2 TYP=3
	2695	LEAR	8	S	0315.0E	0316.0	1.0D	61.0			ST=2 TYP=3
	15400	LEAR	8	S	0315.0E	0315.0	2.0D	37.0			ST=2 TYP=3
	2950	GORK	3	S	0315.3	0316.1U	2.7	36.0			
	2840	PEKG	45	C	0701.0	0754.1	53.1	19.1			
	5900	KISV	23	GRF	0748.0	0803.0	36.0	8.0			
	5900	KISV	2	S/F	0748.0	0748.5	2.4	4.0			
	9500	POTS	3	S	0750.0	0754.0	30.0	62.0			
	9100	GORK	21	GRF	0751.2	0757.8	43.7	15.0			
	5900	KISV	4	S/F	0751.5	0754.2	6.5	40.0			
	15000	KISV	23	GRF	0752.2	0801.0	13.1	14.0			
	2950	GORK	4	S/F	0752.4	0754.0	5.7	19.0			
	950	GORK	46	C	0752.5	0752.5	1.2	4.0			
	15400	LEAR	8	S	0753.0E	0754.0	1.0D	33.0			ST=2 TYP=3
	8800	LEAR	8	S	0753.0E	0754.0	2.0D	55.0			ST=2 TYP=3
	4995	LEAR	8	S	0753.0E	0754.0	2.0D	43.0			ST=2 TYP=3
	2695	LEAR	8	S	0753.0E	0754.0	2.0D	22.0			ST=2 TYP=3
	15400	SVTO	8	S	0753.0E	0754.0	1.0D	52.0			ST=2 TYP=3
	8800	SVTO	8	S	0753.0E	0754.0	1.0D	70.0			ST=2 TYP=3
	3100	CRIM	1	S	0753.2	0754.0	2.5	14.0	5.0		
	9100	GORK	4	S/F	0753.4	0754.0	2.1	67.0			
	650	GORK	2	S/F	0753.4	0753.9	0.6	7.0			
	1470	POTS	4	S/F	0753.5	0754.0	1.5	53.0			
	950	GORK	46	C	0753.5	0754.4		5.0			
	15000	KISV	2	S/F	0753.9	0754.0	1.3	39.0			

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 1989

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	1415	LEAR	8	S	0754.0E	0754.0	U	22.0			ST=2 TYP=3
	5900	KISV	2	S/F	0807.7	0808.0	1.8	4.0			
	2840	PEKG	1	S	0933.0	0934.2	5.0	24.8			
	2950	GORK	3	S	0933.7	0935.2	4.3	24.0			
	3100	CRIM	1	S	0934.0	0935.1	3.0	14.0	5.0		
	3000	POTS	3	S	0934.0	0935.2	5.0	24.0			
	9500	POTS	20	GRF	0934.0	0935.5	36.0	8.0			
	3013	IZMI	5	S	0934.1	0935.3	3.2	28.0	14.0		
	9100	GORK	22	GRF	0934.7	0935.2	18.7	10.0			
	950	GORK	1	S	0937.9	0938.2	0.6	2.0			
	650	GORK	5	S	0938.0	0938.2	0.6	10.0			
	536	ONDR	41	F	0938.0	1008.3	60.0	20.0			
	260	ONDR	41	F	1147.8	1209.5	232.2	26.0			
	3000	POTS	3	S	1246.0	1247.8	3.0	13.0			
	536	ONDR	8	S	1423.6	1423.7	1.2	63.0			
	2800	OTTA	3	S	1645.0	1647.0	5.0	16.2	7.0		
	2800	OTTA	29	PBI	1647.0	1710.0	36.0	4.5	4.0		
06	2950	GORK	20	GRF	0526.5	0531.2	11.7	3.0			
	5900	KISV	20	GRF	0716.0	0723.3	18.1	4.0			
	2950	GORK	22	GRF	0724.0	1152.4	276.0	7.0			
	5900	KISV	20	GRF	0736.1	0739.8	19.8	4.0			
	260	ONDR	41	F	0820.0	0901.8	80.0	2.0			
	204	IZMI	8	S	0902.2	0902.3	0.3	150.0	70.0		
	100	GORK	41	F	1105.0	1136.5	55.9	4821.0			
	100	GORK	41	F	1105.0	1158.6		5035.0			
	260	ONDR	42	SER	1115.2	1152.9	105.0	98.0			
	204	IZMI	7	C	1119.1	1119.3	0.5	77.0	30.0		
	204	IZMI	8	S	1146.1	1146.4	0.5	380.0	160.0		
	200	GORK	8	S	1146.2	1146.3	0.6	250.0			
	9300	KISV	2	S/F	1218.6	1218.9	1.5	8.0			
	5900	KISV	2	S/F	1218.6	1218.9	1.4	6.0			
	100	HIRA	46	C	2336.3	2337.4	2.0	425.0			
	200	HIRA	41	F	2338.3	2354.8	52.8	10.0		0	
07	260	ONDR	43	NS	1433.0	1550.0	77.0	31.0			
	245	SGMR	43	NS	1534.0	1601.0	76.00	72.0			ST=3 TYP=1
	245	LEAR	8	S	0003.0E	0003.0	U	120.0			ST=2 TYP=3
	245	PALE	8	S	0003.0E	0003.0	U	180.0			ST=2 TYP=3
	9100	GORK	21	GRF	0300.0E	0303.0U	46.60	20.0			
	9100	GORK	1	S	0316.7	0317.3	3.8	10.0			
	2950	GORK	20	GRF	0329.0	0550.3	177.6	4.0			
	9100	GORK	2	S/F	0330.3	0332.1	4.2	19.0			
	9300	KISV	46	C	0400.6	0404.1	8.2	28.0			
	9300	KISV	46	C	0400.6	0403.3		28.0			
	9300	KISV	46	C	0400.6	0403.7		24.0			
	5900	KISV	46	C	0400.8	0404.1		13.0			
	5900	KISV	46	C	0400.8	0403.3	7.3	16.0			
	5900	KISV	46	C	0400.8	0403.8		15.0			
	9100	GORK	21	GRF	0401.0	0406.6	33.8	6.0			
	9100	GORK	45	C	0402.8	0404.0		20.0			
	9100	GORK	45	C	0402.8	0403.2	3.2	23.0			
	15000	KISV	2	S/F	0402.8	0404.2	4.9	10.0			
	245	SVTO	8	S	0705.0E	0705.0	1.00	63.0			ST=2 TYP=3
	2950	GORK	21	GRF	0709.9	1008.6	289.9	4.0			
	9100	GORK	1	S	0726.0	0727.1	5.0	5.0			
	5900	KISV	2	S/F	0833.3	0836.5	5.2	5.0			
	9100	GORK	1	S	0834.0	0834.4	2.1	3.0			
	5900	KISV	2	S/F	0841.2	0841.8	3.1	4.0			
	260	ONDR	42	SER	0844.0	0946.9	100.0	12.0			
	9300	KISV	2	S/F	0911.9	0912.9	1.6	4.0			
	2950	GORK	1	S	0942.9	0943.2	0.8	4.0			
	5900	KISV	2	S/F	0942.9	0943.3	0.9	11.0			
	9300	KISV	2	S/F	0943.2	0943.4	0.5	4.0			
	5900	KISV	46	C	1002.5	1005.6		10.0			
	5900	KISV	46	C	1002.5	1003.6	15.3	15.0			
	5900	KISV	46	C	1002.5	1006.8		8.0			
	9100	GORK	20	GRF	1002.6	1003.5	15.4	6.0			
	9300	KISV	21	GRF	1003.0	1003.6	10.2	7.0			

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

JULY 1989

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	2950	GORK	1	S	1004.4	1006.8	3.6	3.0			
	9100	GORK	1	S	1155.7	1156.4	1.7	5.0			
	5900	KISV	2	S/F	1156.0	1156.5	1.5	9.0			
	9300	KISV	2	S/F	1156.4	1156.5	0.4	5.0			
	5900	KISV	4	S/F	1210.5	1212.7	4.8	35.0			
	1470	POTS	1	S	1211.0U	1213.0U	4.0U	5.0			
	3100	CRIM	29	PBI	1211.5	1214.5	30.0	6.0	2.0		
	3100	CRIM	1	S	1211.5	1212.6	3.0	14.0	5.0		
	3000	POTS	3	S	1211.5	1212.6	14.0	28.0			
	9500	POTS	3	S	1211.5	1212.8	3.5	17.0			
	9300	KISV	2	S/F	1211.6	1212.7	2.5	21.0			
	2800	OTTA	3	S	1212.0	1214.0	8.0	38.1	14.0		
	2695	SGMR	8	S	1212.0E	1212.0	1.0D	56.0			ST=2 TYP=3
	260	ONDR	41	F	1225.0	1228.8	50.0	105.0			
	245	SGMR	8	S	1228.0E	1228.0	U	57.0			ST=2 TYP=3
	245	SGMR	8	S	1531.0E	1531.0	U	52.0			ST=2 TYP=3
	410	SGMR	8	S	1913.0E	1913.0	U	54.0			ST=2 TYP=3
	245	SGMR	8	S	1913.0E	1913.0	1.0D	87.0			ST=2 TYP=3
	245	SGMR	8	S	1928.0E	1929.0	1.0D	130.0			ST=2 TYP=3
	610	SGMR	8	S	1928.0E	1929.0	1.0D	75.0			ST=2 TYP=3
08	2840	PEKG	21	GRF	0350.0	0442.0	156.0D	19.1			
	2840	PEKG	1	S	0448.0	0449.0	2.0	3.0			
	5900	KISV	2	S/F	0456.6	0457.2	3.5	2.0			
	2950	GORK	20	GRF	0458.6	0533.0	42.7	3.0			
	9300	KISV	20	GRF	0530.0	0639.0	290.0	8.0			
	2950	GORK	20	GRF	0608.0	0636.3	205.0	4.0			
	5900	KISV	1	S	0622.6	0623.5	2.5	2.0			
	204	IZMI	42	SER	0741.5	0750.2	41.0	70.0			
	950	GORK	46	C	0816.1	0819.2		13.0			
	950	GORK	46	C	0816.1	0818.7	4.7	8.0			
	650	GORK	46	C	0816.5	0819.1		57.0			
	650	GORK	46	C	0816.5	0820.6		23.0			
	650	GORK	46	C	0816.5	0818.9	5.5	31.0			
	810	KRAK	4	S/F	0818.5	0819.4	1.5	300.0	60.0		
	260	ONDR	41	F	0920.0	1310.0	390.0	189.0			
	5900	KISV	1	S	0932.7	0934.1	3.0	5.0			
	245	SGMR	8	S	1309.0E	1309.0	U	270.0			ST=2 TYP=3
	245	SVTO	8	S	1309.0E	1309.0	U	240.0			ST=2 TYP=3
	245	SGMR	8	S	1753.0E	1753.0	U	53.0			ST=2 TYP=3
	2800	OTTA	4	S/F	1916.0	1918.0	4.0	14.5	6.0		
09	100	GORK	43	NS	0235.3		234.7		5.0		
	200	GORK	43	NS	0251.8		170.2		5.0		
	2840	PEKG	46	C	0106.0	0118.0	31.0	77.2			
	2695	PENT	4	S/F	0111.0	0113.0	41.0D	82.7	28.0		
	1415	LEAR	4	S/F	0114.0E	0126.0	19.0D	50.0			ST=2 TYP=3
	2695	LEAR	4	S/F	0114.0E	0117.0	26.0D	57.0			ST=2 TYP=3
	15400	LEAR	4	S/F	0114.0E	0127.0	23.0D	50.0			ST=2 TYP=3
	500	HIRA	42	SER	0114.5	0117.5	38.0	34.0		O	
	2695	PALE	4	S/F	0115.0E	0118.0	7.0D	68.0			ST=2 TYP=3
	610	LEAR	4	S/F	0115.0E	0133.0	25.0D	170.0			ST=2 TYP=5
	4995	LEAR	4	S/F	0115.0E	0119.0	25.0D	36.0			ST=2 TYP=3
	15400	PALE	20	GRF	0117.0E	0128.0	17.0D	53.0			ST=2 TYP=2
	245	PALE	8	S	0118.0E	0119.0	2.0D	100.0			ST=2 TYP=3
	245	LEAR	8	S	0119.0E	0119.0	1.0D	63.0			ST=2 TYP=3
	8800	LEAR	4	S/F	0119.0E	0127.0	21.0D	25.0			ST=2 TYP=3
	17000	NOBE	20	GRF	0119.4	0128.5	30.0	47.0			0;80,35GHZ:0
	100	HIRA	46	C	0128.2		4.6	1000.0D			
	610	PALE	4	S/F	0132.0E	0133.0	3.0D	160.0			ST=2 TYP=3
	2840	PEKG	29	PBI	0137.0		67.0	14.7			
	500	HIRA	41	F	0229.0	0237.0	14.0	11.0		WL	
	200	HIRA	27	RF	0307.0	0408.0	104.0	5.0	1.0	WL	
	9100	GORK	20	GRF	0359.7	0406.1	17.6	4.0			
	500	HIRA	24	R	0802.0	0918.0	105.0D	240.0	72.0	SL	SUNSET
	536	ONDR	45	C	0808.0		110.0				
	610	LEAR	4	S/F	0810.0E	0918.0	85.0D	390.0			ST=3 TYP=5
	810	KRAK	27	RF	0820.5E	0900.2	40.5D	55.0	13.0		
	204	IZMI	4	S/F	0829.5	0829.7	1.0	44.0	20.0		

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 1989

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	808	ONDR	3	S	0856.0	0900.6	6.0	10.0			
	9300	KISV	20	GRF	0904.5	0912.6	10.6	2.0			
	260	ONDR	42	SER	1118.5	1321.8	130.0	97.0			
	5900	KISV	45	C	1150.4	1150.7	0.9	1.0			
	204	IZMI	8	S	1151.0	1151.1	0.2	32.0	15.0		
	5900	KISV	1	S	1200.1	1200.6	1.9	1.0			
	536	ONDR	8	S	1248.2	1248.5	0.8	36.0			
	536	ONDR	41	F	1320.0	1420.2	95.0	10.0			
┌	5900	KISV	2	S/F	1320.8	1321.4	3.1	6.0			
├	245	SGMR	8	S	1321.0E	1321.0	U	83.0			ST=2 TYP=3
├	245	SVTO	8	S	1321.0E	1321.0	U	77.0			ST=2 TYP=3
├	9300	KISV	2	S/F	1321.1	1321.5	1.5	3.0			
└	15000	KISV	2	S/F	1321.1	1321.5	0.6	5.0			
┌	245	SVTO	8	S	1420.0E	1421.0	2.00	140.0			ST=2 TYP=3
└	245	SGMR	8	S	1421.0E	1421.0	1.00	150.0			ST=2 TYP=3
	410	SGMR	8	S	1718.0E	1718.0	1.00	140.0			ST=2 TYP=3
┌	410	SGMR	8	S	1744.0E	1744.0	U	79.0			ST=2 TYP=3
├	245	SGMR	8	S	1744.0E	1744.0	U	53.0			ST=2 TYP=3
└	610	SGMR	8	S	1744.0E	1744.0	U	80.0			ST=2 TYP=3
	100	HIRA	42	SER	2051.3	2051.9	4.3	490.0			
	200	HIRA	42	SER	2051.5	2054.4	9.0	97.0		WR	
	200	HIRA	41	F	2253.5	2253.8	2.1	340.0		O	
10	200	HIRA	44	NS	1930.0E	2200.0	300.00	3.0	1.0	O	
┌	200	HIRA	46	C	0007.9	0008.3	1.4	375.0		O	
├	245	LEAR	8	S	0008.0E	0008.0	U	56.0			ST=2 TYP=3
├	1415	LEAR	8	S	0008.0E	0008.0	U	47.0			ST=2 TYP=3
└	245	PALE	8	S	0008.0E	0008.0	U	84.0			ST=2 TYP=3
	260	ONDR	42	SER	0600.0	1248.0	580.0	258.0			
	410	SVTO	8	S	0724.0E	0000.0	1.00	79.0			ST=2 TYP=3
	810	KRAK	8	S	0730.6	0730.7	0.2	21.0			
	2840	PEKG	20	GRF	0734.0	0803.2	111.0	16.8			
	536	ONDR	27	RF	0956.0	1006.2	28.0	14.0			
┌	2950	GORK	20	GRF	1009.4	1011.2	15.2	3.0			
├	5900	KISV	22	GRF	1009.4	1011.5	10.1	4.0			
└	9300	KISV	2	S/F	1010.2	1012.1	5.8	4.0			
┌	245	SGMR	8	S	1247.0E	1247.0	1.00	370.0			ST=2 TYP=3
├	245	SVTO	8	S	1247.0E	1247.0	1.00	410.0			ST=2 TYP=3
├	30	POTS	4	S/F	1247.2	1248.1	3.0	16000.00			
└	234	POTS	4	S/F	1247.2	1247.6	1.8	250.0			
	33	UPIC	46	C	1356.5		2.5				
11	2840	PEKG	5	S	0449.0	0455.4	11.0	6.2			
	260	ONDR	41	F	0530.0E	1334.0	620.00	66.0			
	2950	GORK	1	S	0632.2	0633.1	1.8	2.0			
	810	KRAK	40	F	0709.4	0713.3	13.8	21.0	0.3		
	536	ONDR	27	RF	0750.0	1007.9	170.0	6.0			
	2950	GORK	23	GRF	0936.9	1146.7	143.1	4.0			
	810	KRAK	8	S	1128.0	1128.1	0.3	22.0			
	2950	GORK	2	S/F	1139.0	1142.6	3.8	11.0			
	204	IZMI	4	S/F	1155.0	1155.2	0.9	34.0	17.0		
┌	234	POTS	42	SER	1320.3	1333.4	14.0	250.0			
├	30	POTS	42	SER	1321.1	1333.6	14.4	16000.00			
├	245	SGMR	8	S	1333.0E	1333.0	1.00	310.0			ST=2 TYP=3
└	245	SVTO	8	S	1333.0E	1333.0	U	250.0			ST=2 TYP=3
	536	ONDR	40	F	1447.7	1448.2	8.5	62.0			
	200	HIRA	42	SER	2211.5	2211.6	4.0	170.0		O	
┌	245	LEAR	8	S	2324.0E	2325.0	1.00	66.0			ST=2 TYP=3
├	245	PALE	8	S	2324.0E	2325.0	1.00	96.0			ST=2 TYP=3
└	200	HIRA	42	SER	2324.7	2324.7	3.3	110.0		O	
	245	PALE	8	S	2327.0E	2327.0	1.00	80.0			ST=2 TYP=3
12	260	ONDR	43	NS	1110.0	1211.8	260.0	53.0			
	2840	PEKG	5	S	0024.2	0028.7	19.8	70.6			
	2950	GORK	1	S	0358.7	0359.6	2.6	5.0			
	2840	PEKG	20	GRF	0506.0	0524.0	41.0	3.7			
	260	ONDR	41	F	0530.0	0643.1	80.0	25.0			
	8800	SVTO	8	S	0655.0E	0655.0	U	79.0			ST=2 TYP=3
	950	GORK	1	S	0711.8	0711.9	0.2	3.0			

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

JULY 1989

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	810	KRAK	42	SER	0812.8	0815.9	19.3	17.0			
	810	KRAK	41	F	0858.5	0859.6	1.5	10.0	3.0		
	204	IZMI	5	S	1100.1	1100.3	1.0	30.0	15.0		
	810	KRAK	8	S	1106.1	1106.2	0.2	21.0			
	536	ONDR	42	SER	1232.0	1401.5	170.0	104.0			
	410	SVTO	20	GRF	1320.0E	1335.0	46.0D	61.0			ST=2 TYP=2
	410	SGMR	8	S	1340.0E	1340.0	U	61.0			ST=2 TYP=3
	410	SGMR	8	S	1352.0E	1352.0	U	200.0			ST=2 TYP=3
	245	PALE	8	S	1701.0E	1702.0	1.0D	61.0			ST=2 TYP=3
	2800	OTTA	20	GRF	1935.0	2027.0	195.0	16.2	7.0		
	2800	OTTA	3	S	2122.0	2124.0	5.0	12.5	6.0		
13	200	GORK	43	NS	0324.0		366.0		5.0		
	245	SVTO	44	NS	0413.0E	0426.0	34.0D	110.0			ST=2 TYP=1
	245	LEAR	44	NS	0427.0E	0639.0	310.0D	140.0			ST=2 TYP=1
	260	ONDR	44	NS	0530.0E	0700.2	620.0D				
	204	IZMI	43	NS	0600.0		360.0	20.0			
	245	SVTO	44	NS	0608.0E	0756.0	126.0D	64.0			ST=2 TYP=1
	234	POTS	43	NS	0613.0	0653.0	216.0	25.0			
	2840	PEKG	20	GRF	0047.0	0052.0	18.0	3.6			
	200	HIRA	42	SER	0110.4	0110.7	94.0	87.0		ML	
	245	LEAR	8	S	0243.0E	0244.0	1.0D	82.0			ST=2 TYP=3
	245	PALE	8	S	0244.0E	0245.0	1.0D	140.0			ST=2 TYP=3
	2840	PEKG	20	GRF	0308.0	0345.0	108.0	14.5			
	500	HIRA	27	RF	0350.0	0417.5	57.5	12.0	4.0	WL	
	650	GORK	23	GRF	0351.9	0425.8	70.7	8.0			
	950	GORK	1	S	0357.0	0357.3	0.5	3.0			
	200	HIRA	27	RF	0406.2	0425.0	77.2	33.0	4.0	ML	
	5900	KISV	1	S	0406.5	0406.8	0.6	9.0			
	650	GORK	46	C	0416.2	0417.2		9.0			
	650	GORK	46	C	0416.2	0416.3	1.6	4.0			
	245	PALE	8	S	0426.0E	0426.0	1.0D	100.0			ST=2 TYP=3
	2950	GORK	1	S	0505.7	0506.7	1.2	3.0			
	9100	GORK	1	S	0506.1	0506.5	0.6	13.0			
	950	GORK	1	S	0506.5E	0506.6	0.3D	3.0			
	536	ONDR	41	F	0638.0	0700.5	40.0	23.0			
	245	SVTO	8	S	0639.0E	0639.0	U	180.0			ST=2 TYP=3
	200	HIRA	42	SER	0650.5	0700.0	10.6	295.0		WL	
	950	GORK	46	C	0657.9	0659.1	3.7	4.0			
	410	LEAR	4	S/F	0658.0E	0700.0	3.0D	210.0			ST=2 TYP=3
	245	LEAR	4	S/F	0658.0E	0700.0	3.0D	250.0			ST=2 TYP=3
	650	GORK	46	C	0658.8	0659.0	2.8	14.0			
	650	GORK	46	C	0658.8	0700.6		27.0			
	610	LEAR	8	S	0659.0E	0700.0	2.0D	29.0			ST=2 TYP=3
	204	IZMI	5	S	0659.0	0700.5	2.0	800.0	400.0		
	245	SVTO	8	S	0700.0E	0700.0	1.0D	340.0			ST=2 TYP=3
	430	KRAK	45	C	0700.7E	0700.7	1.5D	175.0	9.0		
	200	HIRA	27	RF	0703.0	0714.5	54.0	10.0	4.0	ML	
	245	SVTO	8	S	0829.0E	0830.0	1.0D	190.0			ST=2 TYP=3
	8800	SVTO	8	S	1019.0E	1019.0	U	54.0			ST=2 TYP=3
	536	ONDR	41	F	1052.0	1103.2	13.0	63.0			
	536	ONDR	42	SER	1204.5	1253.6	65.0	45.0			
	2800	OTTA	20	GRF	1400.0	1410.0	107.0	6.1	3.0		
	536	ONDR	8	S	1452.0	1452.5	1.0	85.0			
	2800	OTTA	20	GRF	1548.0	1620.0	132.0	8.5	4.0		
	245	SGMR	8	S	1712.0E	1712.0	1.0D	76.0			ST=2 TYP=3
	245	PALE	8	S	1720.0E	1721.0	1.0D	140.0			ST=2 TYP=3
	245	SGMR	8	S	1720.0E	1721.0	1.0D	130.0			ST=2 TYP=3
	245	SVTO	8	S	1721.0E	1721.0	U	110.0			ST=2 TYP=3
	410	SGMR	8	S	1752.0E	1752.0	U	130.0			ST=3 TYP=3
	245	SGMR	8	S	1752.0E	1752.0	U	87.0			ST=2 TYP=3
	245	SGMR	8	S	1810.0E	1812.0	2.0D	53.0			ST=2 TYP=3
	410	SGMR	8	S	1810.0E	1810.0	1.0D	53.0			ST=2 TYP=3
	245	PALE	8	S	1812.0E	1812.0	U	64.0			ST=2 TYP=3
	200	HIRA	42	SER	2232.9	2334.0	80.5	260.0		O	
14	200	GORK	43	NS	0245.0		558.0		5.0		
	245	LEAR	44	NS	0408.0E	0638.0	329.0D	65.0			ST=2 TYP=1
	200	HIRA	43	NS	0500.0	0753.0	300.0D	42.0	8.0	ML	

SOLAR RADIO EMISSION

Outstanding Occurrences

JULY 1989

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	44	NS	0530.0E	0805.6	620.0D	46.0			
	234	POTS	44	NS	0550.0E	0725.5	274.0D	40.0			
	204	IZMI	43	NS	0600.0		360.0	40.0			
	245	SVTO	44	NS	0608.0E	0748.0	189.0D	230.0			ST=2 TYP=1
	410	SVTO	44	NS	0703.0E	0703.0	27.0D	68.0			ST=3 TYP=1
	200	HIRA	44	NS	1930.0E	2227.0	860.0D	24.0	6.0	WL	
	245	LEAR	8	S	0201.0E	0201.0	1.0D	65.0			ST=2 TYP=3
	536	ONDR	41	F	0530.0	0731.5	420.0	12.0			
	500	HIRA	20	GRF	0635.0	0728.0	85.0	8.0	3.0	WL	
	650	GORK	22	GRF	0650.0E	0728.2	108.4D	8.0			
	410	LEAR	8	S	0702.0E	0703.0	2.0D	52.0			ST=2 TYP=3
	245	LEAR	4	S/F	0736.0E	0736.0	3.0D	54.0			ST=2 TYP=3
	245	LEAR	4	S/F	0744.0E	0748.0	10.0D	140.0			ST=2 TYP=5
	950	GORK	22	GRF	0759.7	0937.0	220.3	24.0			
	245	LEAR	8	S	0807.0E	0807.0	1.0D	76.0			ST=2 TYP=3
	234	POTS	4	S/F	0847.6	0848.1	2.3	165.0			
	127	TORN	4	S/F	0917.7	0918.5	2.0	85.0	40.0		
	204	IZMI	41	F	1046.2	1046.9	1.0	55.0			
	650	GORK	22	GRF	1116.4E	1142.0	43.6D	6.0			
	245	SGMR	8	S	1224.0E	1224.0	1.0D	51.0			ST=2 TYP=3
	245	SVTO	8	S	1224.0E	1224.0	U	52.0			ST=2 TYP=3
	536	ONDR	42	SER	1342.5	1449.7	67.2	41.0			
	245	SGMR	8	S	2031.0E	2031.0	U	68.0			ST=2 TYP=3
	100	HIRA	8	S	2156.8		0.9	1000.0D			
	200	HIRA	8	S	2156.8	2157.0	0.7	530.0		0	
	245	PALE	8	S	2157.0E	2157.0	1.0D	300.0			ST=2 TYP=3
	410	PALE	8	S	2157.0E	2157.0	1.0D	78.0			ST=2 TYP=3
	245	SGMR	8	S	2157.0E	2157.0	1.0D	270.0			ST=2 TYP=3
	410	SGMR	8	S	2157.0E	2157.0	1.0D	51.0			ST=2 TYP=3
15	245	LEAR	43	NS	0255.0	0301.0	29.0	150.0			ST=2 TYP=1
	200	GORK	43	NS	0257.7		278.3		5.0		
	245	PALE	44	NS	0306.0E	0306.0	18.0D	68.0			ST=2 TYP=1
	260	ONDR	44	NS	0530.0E	1229.5	610.0D				
	234	POTS	43	NS	0847.0	0934.0	270.0	25.0			
	204	IZMI	43	NS	0855.0		185.0	30.0			
	200	GORK	43	NS	0905.0		28.0D		5.0		
	245	SVTO	44	NS	1215.0E	1230.0	105.0D	220.0			ST=2 TYP=1
	245	SGMR	44	NS	1218.0E	1301.0	84.0D	110.0			ST=3 TYP=1
	200	HIRA	44	NS	1930.0E	2326.0	450.0D	11.0	7.0	WL	
	245	PALE	8	S	0253.0E	0253.0	U	88.0			ST=2 TYP=3
	245	PALE	4	S/F	0255.0E	0301.0	7.0D	190.0			ST=2 TYP=5
	100	GORK	8	S	0628.7	0629.0	1.2	328.0			
	204	IZMI	5	S	0629.0	0629.4	0.9	70.0	35.0		
	204	IZMI	41	F	0714.8	0715.2	1.5	50.0			
	430	KRAK	2	S/F	0715.0	0715.5	1.0	16.0	4.0		
	810	KRAK	8	S	0757.8	0757.9	0.4	9.0			
	810	KRAK	1	S	0817.5	0817.5	1.0	11.0	3.0		
	810	KRAK	8	S	0819.7	0819.7	0.5	7.0			
	536	ONDR	41	F	0922.0	0926.1	8.0	38.0			
	810	KRAK	1	S	1049.9	1050.5	1.0	6.0	2.0		
	245	SGMR	8	S	1122.0E	1122.0	U	68.0			ST=2 TYP=3
	536	ONDR	41	F	1220.0	1328.8	150.0	18.0			
	245	SGMR	4	S/F	1229.0E	1230.0	3.0D	170.0			ST=2 TYP=3
16	260	ONDR	44	NS	0540.0E	1437.7	610.0D				
	245	SVTO	44	NS	1719.0E	1729.0	30.0D	130.0			ST=2 TYP=1
	536	ONDR	41	F	0540.0	0626.2	95.0	20.0			
	650	GORK	46	C	0624.4	0626.3	2.9	18.0			
	650	GORK	46	C	0624.4	0626.6		14.0			
	950	GORK	46	C	0624.5	0626.4	2.9	22.0			
	950	GORK	46	C	0624.5	0626.6		8.0			
	245	LEAR	8	S	0626.0E	0626.0	U	300.0			ST=2 TYP=3
	245	SVTO	8	S	0626.0E	0626.0	U	350.0			ST=3 TYP=3
	430	KRAK	42	SER	0659.5E	0702.9	21.5D	24.0			
	204	IZMI	42	SER	0715.0	0719.3	9.0	100.0			
	536	ONDR	41	F	1015.0	1324.5	305.0	12.0			
	204	IZMI	5	S	1148.0	1148.2	0.8	33.0	15.0		
	2800	OTTA	20	GRF	1340.0	1412.0	100.0	7.7	3.0		

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

JULY 1989

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	2800	OTTA	20	GRF	1902.0	1958.0	116.0	9.7	5.0		
	245	PALE	8	S	2039.0E	2039.0	1.0D	170.0			ST=2 TYP=3
	245	SGMR	8	S	2039.0E	2039.0	2.0D	150.0			ST=2 TYP=3
17	200	GORK	43	NS	0303.0		114.8		5.0		
	100	HIRA	42	SER	0004.4	0005.1	6.6	285.0			
	245	LEAR	8	S	0006.0E	0007.0	1.0D	110.0			ST=2 TYP=3
	245	PALE	8	S	0006.0E	0006.0	1.0D	150.0			ST=2 TYP=3
	200	HIRA	42	SER	0006.6	0006.9	4.3	440.0		O	
	5900	KISV	40	F	0506.9	0509.4		3.0			
	5900	KISV	40	F	0506.9	0507.9	3.0	3.0			
	15000	KISV	2	S/F	0547.7	0551.5	13.9	47.0			
	4995	LEAR	4	S/F	0548.0E	0551.0	1092.0D	130.0			ST=1 TYP=3
	5900	KISV	4	S/F	0548.6	0551.2	5.2	138.0			
	9300	KISV	29	PBI	0548.6	0553.5	211.5	7.0			
	5900	KISV	29	PBI	0548.6	0553.9	203.0	11.0			
	3100	CRIM	3	S	0548.8	0551.3	7.0	66.0	22.0		
	650	GORK	2	S/F	0548.8	0551.4	6.2	7.0			
	9300	KISV	4	S/F	0548.8	0551.4	4.9	96.0			
	9100	GORK	4	S/F	0548.9	0551.4	4.5	111.0			
	100	GORK	4	S/F	0548.9	0549.7	4.8	209.0			
	2695	LEAR	4	S/F	0549.0E	0551.0	4.0D	54.0			ST=2 TYP=3
	245	LEAR	8	S	0549.0E	0549.0	1.0D	240.0			ST=2 TYP=3
	2695	SVTO	4	S/F	0549.0E	0551.0	3.0D	63.0			ST=2 TYP=3
	4995	SVTO	4	S/F	0549.0E	0551.0	4.0D	100.0			ST=2 TYP=3
	245	SVTO	8	S	0549.0E	0549.0	1.0D	380.0			ST=2 TYP=3
	950	GORK	46	C	0549.4	0550.7	4.9	10.0			
	950	GORK	46	C	0549.4	0551.9		8.0			
	15400	LEAR	4	S/F	0550.0E	0551.0	3.0D	48.0			ST=2 TYP=3
	1415	LEAR	8	S	0550.0E	0551.0	2.0D	18.0			ST=2 TYP=3
	8800	SVTO	8	S	0550.0E	0551.0	2.0D	93.0			ST=2 TYP=3
	11800	BERN	4	S/F	0550.0	0551.3	3.0	5.7			
	8400	BERN	4	S/F	0550.0	0551.3	3.0	12.3			
	3200	BERN	4	S/F	0550.0	0551.3	3.0	4.9			
	5200	BERN	4	S/F	0550.0	0551.3	3.0	11.4			
	410	LEAR	8	S	0551.0E	0551.0	U	15.0			ST=2 TYP=3
	9100	GORK	29	PBI	0553.4	0553.4	7.5	14.0			
	536	ONDR	27	RF	0600.0	1006.2	540.0	13.0			
	2950	GORK	23	GRF	0614.3	0617.0	23.9	3.0			
	2950	GORK	46	C	0627.3	0632.2		7.0			
	2950	GORK	46	C	0627.3	0628.6	6.9	15.0			
	5900	KISV	40	F	0629.1	0630.6	3.2	1.0			
	9100	GORK	20	GRF	0712.9	0742.3	100.7	6.0			
	430	KRAK	2	S/F	0756.0	0756.5	1.3	21.0			
	260	ONDR	41	F	0820.0	0907.4	50.0	16.0			
	260	ONDR	41	F	1336.0	1410.5	114.0	185.0			
	245	SGMR	8	S	1410.0E	1410.0	U	160.0			ST=2 TYP=3
	245	SVTO	8	S	1410.0E	1410.0	1.0D	160.0			ST=2 TYP=3
	245	SGMR	49	GB	2043.0E	2043.0	U	1000.0			ST=3 TYP=6
	245	SGMR	8	S	2211.0E	2211.0	U	61.0			ST=2 TYP=3
18	200	GORK	43	NS	0245.0		153.0		5.0		
	127	TORN	43	NS	1112.0		96.0		2.0	V=1	
	245	PALE	8	S	0356.0E	0356.0	U	63.0			ST=2 TYP=3
	260	ONDR	41	F	0540.0E	0627.9	280.0D	283.0			
	536	ONDR	41	F	0600.0	0934.0	540.0	37.0			
	2950	GORK	23	GRF	0614.3	0617.0	23.9	3.0			
	650	GORK	46	C	0624.7	0628.2	5.3	3.0			
	650	GORK	46	C	0624.7	0631.5		14.0			
	245	LEAR	8	S	0627.0E	0627.0	1.0D	170.0			ST=2 TYP=3
	245	SVTO	8	S	0627.0E	0627.0	1.0D	220.0			ST=2 TYP=3
	2840	PEKG	1	S	0627.0	0628.5	7.0	12.7			
	234	POTS	42	SER	0627.2	0631.7	4.8	135.0			
	2950	GORK	46	C	0627.3	0632.2		7.0			
	2950	GORK	46	C	0627.3	0628.6	6.9	15.0			
	500	HIRA	46	C	0627.5	0628.2	5.0	8.0		O	
	204	IZMI	5	S	0627.5	0627.8	1.2	98.0	45.0		
	3100	CRIM	45	C	0627.6	0630.1		10.0			
	3100	CRIM	45	C	0627.6	0629.3		16.0			

S O L A R R A D I O E M I S S I O N
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JULY 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
18	3100	CRIM	45	C	0627.6	0628.7	8.5	19.0	7.0		
	200	GORK	4	S/F	0627.7	0628.1	1.6	32.0			
	950	GORK	46	C	0627.8	0631.4		4.0			
	950	GORK	46	C	0627.8	0628.5	6.3	2.0			
	5900	KISV	46	C	0628.1	0629.3		10.0			
	5900	KISV	46	C	0628.1	0628.5	7.6	14.0			
	5900	KISV	46	C	0628.1	0632.5		7.0			
	9300	KISV	22	GRF	0628.1	0628.6	11.9	10.0			
	9100	GORK	22	GRF	0628.1	0628.7	8.8	11.0			
	245	SVTO	8	S	0631.0E	0631.0	U	89.0			ST=2 TYP=3
	204	IZMI	5	S	0702.1	0702.3	0.3	22.0	10.0		
	204	IZMI	41	F	0730.0	0730.5	9.0	700.0			
	245	LEAR	8	S	0734.0E	0735.0	1.0D	280.0			ST=2 TYP=3
	245	SVTO	8	S	0734.0E	0735.0	1.0D	300.0			ST=2 TYP=3
	100	HIRA	46	C	0734.3		1.3	1000.0D			
	100	GORK	8	S	0734.3	0735.0	1.7	1166.0			
	234	POTS	4	S/F	0734.3	0735.2	2.4	400.0			
	200	GORK	8	S	0734.4	0734.9	1.8	400.0			
	33	UPIC	8	S	0734.5	0735.0	1.5				
	30	POTS	4	S/F	0734.5	0735.1	2.7	12000.0D			
	430	KRAK	8	S	0735.2	0735.2	0.7	12.0			
	5900	KISV	2	S/F	0746.3	0746.8	1.4	5.0			
	204	IZMI	42	SER	0824.0	0848.0	27.0	90.0			
	430	KRAK	8	S	0825.4	0825.5	0.2	31.0			
	100	GORK	4	S/F	0847.0	0847.8	1.8	33.0			
	200	GORK	4	S/F	0847.0	0847.8	1.6	32.0			
	810	KRAK	8	S	0854.1	0854.1	0.5	56.0			
	810	KRAK	8	S	0905.2	0905.2	0.5	41.0			
	430	KRAK	8	S	0934.4	0934.4	1.0	51.0			
	430	KRAK	8	S	0939.0	0939.0	0.2	16.0			
	260	ONDR	42	SER	1036.6	1123.6	290.0	89.0			
	950	GORK	2	S/F	1046.7	1047.2	0.9	4.0			
	650	GORK	2	S/F	1046.8	1047.3	0.8	6.0			
	1470	POTS	3	S	1057.0	1059.3	3.0	7.0			
	5900	KISV	1	S	1111.7	1112.5	2.0	3.0			
	204	IZMI	5	S	1122.5	1123.3	1.3	77.0	35.0		
	410	SGMR	8	S	1156.0E	1156.0	U	130.0			ST=2 TYP=3
	245	SGMR	8	S	1156.0E	1156.0	1.0D	110.0			ST=2 TYP=3
	610	SGMR	8	S	1156.0E	1156.0	U	55.0			ST=2 TYP=3
	410	SGMR	8	S	1251.0E	1251.0	U	58.0			ST=2 TYP=3
	410	SGMR	8	S	1253.0E	1253.0	1.0D	69.0			ST=2 TYP=3
	410	SGMR	8	S	1914.0E	1914.0	U	62.0			ST=2 TYP=3
	245	SGMR	8	S	1914.0E	1915.0	1.0D	72.0			ST=2 TYP=3
19	200	GORK	43	NS	0234.0		566.0		5.0		
	204	IZMI	43	NS	0600.0		360.0	10.0			
	100	GORK	43	NS	1019.5		100.5		5.0		
	200	HIRA	41	F	0211.0	0225.4	75.0	118.0		O	
	245	LEAR	8	S	0217.0E	0218.0	2.0D	100.0			ST=2 TYP=3
	245	PALE	8	S	0218.0E	0218.0	1.0D	140.0			ST=2 TYP=3
	245	LEAR	8	S	0225.0E	0225.0	1.0D	66.0			ST=2 TYP=3
	245	PALE	8	S	0225.0E	0225.0	1.0D	84.0			ST=2 TYP=3
	245	LEAR	8	S	0349.0E	0350.0	1.0D	69.0			ST=2 TYP=3
	245	PALE	8	S	0349.0E	0350.0	1.0D	93.0			ST=2 TYP=3
	200	HIRA	45	C	0349.0	0349.5	1.5	2600.0		WR	
	200	GORK	8	S	0349.3	0350.0	4.6	4545.0			
	100	GORK	8	S	0349.5	0350.0	1.0	3739.0			
	950	GORK	1	S	0412.6	0412.9	0.7	2.0			
	950	GORK	1	S	0415.6	0416.0	0.6				
	536	ONDR	41	F	0540.0	0734.2	560.0	12.0			
	260	ONDR	41	F	0540.0E	0854.7	600.0D	57.0			
	9300	KISV	2	S/F	0632.7	0633.1	0.7	5.0			
	810	KRAK	8	S	0705.4	0705.4	0.1	16.0			
	810	KRAK	41	F	0715.5	0715.6	1.5	21.0	2.0		
	245	SVTO	8	S	0750.0E	0750.0	U	94.0			ST=2 TYP=3
	127	TORN	45	C	0850.5		6.0		12.0		DISTURBED
	5900	KISV	2	S/F	0852.6	0852.9	0.9	3.0			
	2950	GORK	21	GRF	0926.5	0951.1	48.9	4.0			
	2950	GORK	2	S/F	0935.2	0936.6	2.6	4.0			

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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	3100	CRIM	1	S	0935.6	0937.1	2.5	7.0	2.0		
	33	UPIC	3	S	1140.6	1140.6	0.4				
	430	KRAK	8	S	1150.2	1150.4	1.0	34.0			
	33	UPIC	45	C	1210.7	1210.8	0.6				
	33	UPIC	3	S	1312.5	1312.7	0.5				
	3000	POTS	4	S/F	1406.0	1409.8	9.0	13.0			
	127	TORN	42	SER	1406.1		11.8		7.0		
	127	TORN	47	GB	1406.1	1407.7	3.5	2300.0	1200.0		
	33	UPIC	46	C	1406.5	1410.8	4.7				
	9500	POTS	20	GRF	1407.0	1410.0	6.0	12.0			
	1470	POTS	4	S/F	1407.0	1410.5	6.0	13.0			
	808	ONDR	40	F	1410.0	1410.6	1.7	11.0			
	245	SGMR	8	S	1655.0E	1655.0	1.0D	500.0			ST=2 TYP=3
	245	SVTO	8	S	1655.0E	1655.0	1.0D	480.0			ST=2 TYP=3
	15400	SVTO	8	S	1727.0E	1727.0	1.0D	57.0			ST=3 TYP=3
	245	PALE	8	S	1821.0E	1821.0	2.0D	200.0			ST=2 TYP=3
	245	SGMR	8	S	1821.0E	1821.0	2.0D	170.0			ST=2 TYP=3
	245	PALE	49	GB	1825.0E	1826.0	2.0D	1200.0			ST=2 TYP=6
	245	SGMR	49	GB	1825.0E	1826.0	2.0D	1300.0			ST=2 TYP=6
	600	HUMN	41	F	1825.0	1827.3	3.0	30.0	10.0		
	410	PALE	8	S	1826.0E	1826.0	U	83.0			ST=2 TYP=3
	410	SGMR	8	S	1826.0E	1826.0	U	77.0			ST=2 TYP=3
	410	PALE	8	S	1829.0E	1829.0	U	65.0			ST=2 TYP=3
	245	PALE	8	S	1829.0E	1829.0	1.0D	77.0			ST=2 TYP=3
	245	SGMR	8	S	1829.0E	1829.0	1.0D	68.0			ST=2 TYP=3
	2800	OTTA	3	S	2117.0	2126.0	45.0	28.9	12.0		
	200	HIRA	46	C	2125.0	2129.7	10.6	15.0		O	
	2800	OTTA	3	S	2215.0	2217.0	20.0	22.9	8.0		
	100	HIRA	42	SER	2216.3	2230.1	32.3	630.0			
	200	HIRA	46	C	2224.8		6.7	110.0D		WR	
	245	SGMR	49	GB	2225.0E	2227.0	6.0D	950.0			ST=2 TYP=7
	200	HIRA	8	S	2355.6	2355.8	1.0	520.0		O	
	245	LEAR	8	S	2356.0E	2356.0	1.0D	330.0			ST=2 TYP=3
	245	PALE	8	S	2356.0E	2356.0	1.0D	490.0			ST=2 TYP=3
20	2840	PEKG	3	S	0008.0	0010.5	5.0	25.9			
	100	HIRA	42	SER	0008.5		6.9	1000.0D			
	200	HIRA	42	SER	0008.6	0010.6	7.0	6800.0		WR	
	2695	PENT	4	S/F	0009.0	0010.0	10.0	25.5	9.0		
	610	LEAR	8	S	0009.0E	0010.0	2.0D	170.0			ST=2 TYP=3
	410	LEAR	8	S	0009.0E	0010.0	2.0D	160.0			ST=2 TYP=3
	245	LEAR	49	GB	0009.0E	0010.0	5.0D	630.0			ST=2 TYP=6
	410	PALE	8	S	0009.0E	0010.0	1.0D	270.0			ST=2 TYP=3
	245	PALE	49	GB	0009.0E	0010.0	1.0D	950.0			ST=2 TYP=6
	610	PALE	8	S	0010.0E	0010.0	U	190.0			ST=2 TYP=3
	245	PALE	8	S	0012.0E	0013.0	2.0D	230.0			ST=2 TYP=3
	245	LEAR	8	S	0121.0E	0121.0	U	100.0			ST=3 TYP=3
	100	GORK	41	F	0303.0	0359.0	106.4	1200.0			
	200	GORK	41	F	0303.0	0434.3		178.0			
	200	GORK	41	F	0303.0	0307.4	103.3	357.0			
	100	GORK	41	F	0303.0	0400.8		900.0			
	100	HIRA	42	SER	0303.1	0358.2U	104.0	1000.0D			
	200	HIRA	42	SER	0303.7	0358.3	100.0	230.0		WR	
	500	HIRA	42	SER	0304.5	0330.9	100.0	117.0		WR	
	650	GORK	46	C	0305.4E	0307.2		11.0			
	650	GORK	46	C	0305.4E	0305.8	2.5D	3.0			
	245	LEAR	8	S	0307.0E	0307.0	1.0D	110.0			ST=2 TYP=3
	245	PALE	8	S	0307.0E	0307.0	1.0D	60.0			ST=3 TYP=3
	650	GORK	46	C	0328.9	0331.5		66.0			
	650	GORK	46	C	0328.9	0330.9	5.6	86.0			
	410	LEAR	8	S	0330.0E	0330.0	1.0D	100.0			ST=2 TYP=3
	245	LEAR	8	S	0330.0E	0330.0	2.0D	86.0			ST=2 TYP=3
	610	LEAR	8	S	0330.0E	0330.0	2.0D	120.0			ST=2 TYP=3
	410	PALE	8	S	0330.0E	0331.0	1.0D	100.0			ST=2 TYP=3
	245	PALE	8	S	0330.0E	0331.0	2.0D	130.0			ST=2 TYP=3
	610	PALE	8	S	0330.0E	0330.0	1.0D	120.0			ST=2 TYP=3
	950	GORK	4	S/F	0330.8	0331.5	2.0	9.0			
	245	LEAR	8	S	0334.0E	0334.0	U	140.0			ST=2 TYP=3
	410	LEAR	8	S	0334.0E	0334.0	U	87.0			ST=2 TYP=3

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JULY 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
20	245	PALE	8	S	0334.0E	0334.0	U	180.0			ST=2 TYP=3
	410	PALE	8	S	0334.0E	0334.0	U	110.0			ST=2 TYP=3
	650	GORK	2	S/F	0335.2	0335.4	0.3	5.0			
	950	GORK	1	S	0335.2	0335.4	0.3	1.0			
	410	LEAR	8	S	0358.0E	0358.0	1.00	82.0			ST=2 TYP=3
	245	PALE	4	S/F	0358.0E	0358.0	3.00	170.0			ST=2 TYP=3
	410	PALE	8	S	0358.0E	0358.0	1.00	120.0			ST=2 TYP=3
	410	SVTO	8	S	0358.0E	0358.0	U	100.0			ST=2 TYP=3
	245	SVTO	8	S	0358.0E	0358.0	2.00	140.0			ST=2 TYP=3
	650	GORK	41	F	0358.5	0400.5		7.0			
	950	GORK	41	F	0358.5	0358.6	3.2	2.0			
	650	GORK	41	F	0358.5	0358.6	4.1	16.0			
	950	GORK	41	F	0358.5	0400.8		4.0			
	2950	GORK	2	S/F	0359.8	0400.6	1.6	4.0			
	2950	GORK	29	PBI	0401.4	0401.4	6.10	1.0			
	610	LEAR	8	S	0409.0E	0409.0	U	360.0			ST=2 TYP=3
	610	PALE	8	S	0409.0E	0409.0	U	350.0			ST=2 TYP=3
	950	GORK	46	C	0409.0	0409.6	4.6	25.0			
	950	GORK	46	C	0409.0	0410.9		10.0			
	650	GORK	4	S/F	0409.4E	0409.5	3.90	635.0			
	950	GORK	1	S	0418.7	0418.9	0.5	2.0			
	245	LEAR	8	S	0434.0E	0434.0	U	50.0			ST=2 TYP=3
	410	LEAR	8	S	0434.0E	0434.0	U	90.0			ST=2 TYP=3
	245	PALE	8	S	0434.0E	0434.0	U	71.0			ST=2 TYP=3
	410	PALE	8	S	0434.0E	0434.0	U	120.0			ST=2 TYP=3
	650	GORK	4	S/F	0434.1	0434.3	1.0	11.0			
	950	GORK	22	GRF	0434.1	0448.4	14.8	1.0			
	245	LEAR	8	S	0444.0E	0444.0	U	56.0			ST=2 TYP=3
	410	LEAR	8	S	0444.0E	0444.0	1.00	98.0			ST=2 TYP=3
	245	PALE	8	S	0444.0E	0444.0	1.00	70.0			ST=2 TYP=3
	410	SVTO	8	S	0444.0E	0444.0	1.00	130.0			ST=2 TYP=3
	245	SVTO	8	S	0444.0E	0444.0	1.00	75.0			ST=2 TYP=3
	650	GORK	46	C	0444.4	0444.6	0.6	16.0			
	650	GORK	46	C	0444.4	0444.7		21.0			
	260	ONDR	41	F	0540.0E	0704.3	590.00	212.0			
	536	ONDR	41	F	0540.0	0844.4	580.0	88.0			
	650	GORK	1	S	0547.8	0548.4	1.3	2.0			
	100	GORK	4	S/F	0548.5	0552.8	4.9	200.0			
	245	SVTO	8	S	0617.0E	0617.0	1.00	58.0			ST=2 TYP=3
	204	IZMI	41	F	0643.5	0643.6	0.8	16.0			
	33	UPIC	42	SER	0647.0		272.7				
	100	GORK	41	F	0648.3	0648.4	17.7	31.0			
	100	GORK	41	F	0648.3	0704.5		600.0			
	1415	LEAR	8	S	0651.0E	0651.0	1.00	68.0			ST=2 TYP=3
	245	LEAR	4	S/F	0700.0E	0704.0	4.00	310.0			ST=2 TYP=3
	500	HIRA	41	F	0700.0	0704.5	5.0	49.0		O	
	204	IZMI	41	F	0700.6	0704.0	6.0	550.0			
	650	GORK	46	C	0700.8	0703.1	4.1	16.0			
	650	GORK	46	C	0700.8	0704.5		19.0			
	200	GORK	4	S/F	0700.8	0703.5	3.9	178.0			
	950	GORK	46	C	0700.9	0703.1	7.1	3.0			
	200	HIRA	46	C	0700.9	0704.3	4.8	240.0		WR	
	950	GORK	46	C	0700.9	0704.4		3.0			
	100	HIRA	46	C	0701.3E	0704.6	6.60	730.0			
	808	ONDR	40	F	0701.5	0704.1	3.5	8.0			
	430	KRAK	4	S/F	0701.5E	0704.2	3.50	150.0	4.0		
	430	KRAK	4	S/F	0701.5E	0704.5		174.0			
	810	KRAK	42	SER	0702.0	0704.4	2.7	107.0			
	410	LEAR	8	S	0704.0E	0704.0	U	62.0			ST=2 TYP=3
	2695	LEAR	8	S	0706.0E	0707.0	1.00	140.0			ST=2 TYP=3
	650	GORK	2	S/F	0744.1	0745.3	1.4	6.0			
	950	GORK	1	S	0744.4	0745.1	1.5	2.0			
	200	GORK	41	F	0842.9	0912.5		535.0			
	200	GORK	41	F	0842.9	0843.5	57.1	178.0			
	600	HUMN	41	F	0843.0	0844.0	5.0	24.0	5.0		
	410	LEAR	8	S	0843.0E	0843.0	1.00	70.0			ST=2 TYP=3
	245	LEAR	8	S	0843.0E	0844.0	1.00	130.0			ST=2 TYP=3
	410	SVTO	8	S	0843.0E	0843.0	1.00	69.0			ST=2 TYP=3
	245	SVTO	8	S	0843.0E	0844.0	1.00	170.0			ST=2 TYP=3

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

JULY 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
20	234	POTS	4	S/F	0843.1	0844.2	1.4	300.0			
	100	GORK	41	F	0843.1	0912.5		1300.0			
	100	GORK	41	F	0843.1	0843.6	94.9	600.0			
	650	GORK	41	F	0843.2	0848.1		21.0			
	650	GORK	41	F	0843.2	0844.2	5.3	46.0			
	204	IZMI	41	F	0843.2	0843.6	1.8	450.0			
	30	POTS	42	SER	0843.2	0843.6	5.0	10000.0			
	950	GORK	4	S/F	0843.3	0844.4	1.2	24.0			
	808	ONDR	8	S	0843.8	0844.4	0.8	12.0			
	610	LEAR	8	S	0844.0E	0844.0	U	28.0			ST=2 TYP=3
	810	KRAK	8	S	0844.0	0844.4	0.5	28.0			
	2950	GORK	21	GRF	0910.9	1127.3	169.1	10.0			
	234	POTS	4	S/F	0911.5	0912.3	5.3	935.0			
	650	GORK	4	S/F	0911.6	0913.0	2.8	16.0			
	430	KRAK	4	S/F	0911.6	0913.0	3.0	55.0	10.0		
	30	POTS	41	F	0911.8	0912.6	7.6	11000.0D			
	204	IZMI	42	SER	0911.8	0912.8	28.5	650.0			
	200	HIRA	46	C	0911.9	0912.2	2.1	180.0		MR	
	950	GORK	46	C	0912.0	0913.0		7.0			
	600	HUMN	2	S/F	0912.0	0913.0	2.5	12.0	6.0		
	410	LEAR	8	S	0912.0E	0912.0	U	22.0			ST=2 TYP=3
	245	LEAR	8	S	0912.0E	0912.0	1.0D	310.0			ST=2 TYP=3
	245	SVTO	4	S/F	0912.0E	0912.0	4.0D	450.0			ST=2 TYP=5
	1470	POTS	4	S/F	0912.0	0913.1	1.5	7.0			
	950	GORK	46	C	0912.0	0912.5	2.2	6.0			
	810	KRAK	4	S/F	0912.2	0913.0	1.2	8.0	2.0		
	2950	GORK	2	S/F	0912.3	0913.1	2.8	4.0			
	808	ONDR	40	F	0912.6	0913.2	3.0	4.0			
	1470	POTS	3	S	0927.0U	0927.5U	1.0U	7.0			
	650	GORK	2	S/F	0938.7	0938.8	1.4	3.0			
	950	GORK	1	S	0939.0	0939.1	0.2	1.0			
	650	GORK	2	S/F	1108.5	1108.7	0.7	3.0			
	204	IZMI	5	S	1112.3	1112.6	1.2	65.0	30.0		
	1470	POTS		GRF	1115.0	1129.0U		7.0			
	1470	POTS	21	GRF	1115.0	1117.7	75.0	7.0			
	950	GORK	1	S	1116.4	1116.7	1.8	1.0			
	100	GORK	8	S	1116.8	1117.8	2.9	1200.0			
	650	GORK	2	S/F	1116.9	1117.2	1.2	4.0			
	200	GORK	8	S	1117.0	1117.7	1.7	28.0			
	9500	POTS	20	GRF	1120.0	1133.0	70.0	12.0			
	3000	POTS	20	GRF	1120.0	1128.5	50.0	6.0			
	650	GORK	21	GRF	1122.3	1126.9	12.2	1.0			
	950	GORK	20	GRF	1124.4	1130.0	12.3	2.0			
	9100	GORK	20	GRF	1124.6	1137.8	35.4	15.0			
	9300	KISV	20	GRF	1126.2	1137.9	50.4	11.0			
	5900	KISV	20	GRF	1126.4	1139.4	48.3	10.0			
	430	KRAK	1	S	1126.8	1127.1	2.5	6.0	3.0		
	650	GORK	5	S	1126.9	1127.7	1.2	2.0			
	15000	KISV	20	GRF	1128.2	1136.5	20.3	12.0			
	430	KRAK	8	S	1239.3	1239.5	0.5	54.0			
	810	KRAK	8	S	1239.4	1239.6	0.2	9.0			
	610	PALE	4	S/F	1743.0E	1745.0	3.0D	260.0			ST=2 TYP=3
	610	SGMR	4	S/F	1743.0E	1745.0	3.0D	260.0			ST=2 TYP=3
	600	HUMN	4	S/F	1743.5	1743.7	2.0	75.0	25.0		
	2800	OTTA	4	S/F	2019.0	2023.0	10.0	186.9	50.0		
	200	HIRA	46	C	2024.4	2025.5	25.7	460.0	21.0	O	
	200	HIRA	46	C	2024.4	2034.6		30.0		O	
	100	HIRA	48	C	2024.9	2031.7	14.3	15000.0	1400.0	WL	
	1415	PALE	4	S/F	2025.0E	2027.0	4.0D	200.0			ST=2 TYP=3
	4995	PALE	4	S/F	2025.0E	2027.0	5.0D	280.0			ST=2 TYP=3
	245	PALE	4	S/F	2025.0E	2027.0	5.0D	210.0			ST=2 TYP=3
	410	PALE	4	S/F	2025.0E	2028.0	6.0D	390.0			ST=2 TYP=3
	610	PALE	4	S/F	2025.0E	2028.0	4.0D	300.0			ST=2 TYP=3
	15400	PALE	4	S/F	2025.0E	2027.0	8.0D	320.0			ST=2 TYP=3
	410	SGMR	4	S/F	2025.0E	2027.0	5.0D	320.0			ST=2 TYP=3
	610	SGMR	4	S/F	2025.0E	2028.0	5.0D	390.0			ST=2 TYP=3
	4995	SGMR	4	S/F	2025.0E	2027.0	215.0D	340.0			ST=1 TYP=3
	245	SGMR	4	S/F	2025.0E	2027.0	215.0D	190.0			ST=1 TYP=3
	1415	SGMR	4	S/F	2025.0E	2027.0	215.0D	200.0			ST=1 TYP=3

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JULY 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks	
20	500	HIRA	46	C	2025.0	2027.3	18.5	189.0	30.0		WLWR	
	8800	PALE	4	S/F	2026.0E	2027.0	3.0D	390.0				ST=2 TYP=3
	2695	PALE	4	S/F	2026.0E	2027.0	4.0D	170.0				ST=2 TYP=3
	2695	SGMR	4	S/F	2026.0E	2027.0	4.0D	170.0				ST=2 TYP=3
	8800	SGMR	4	S/F	2026.0E	2027.0	3.0D	490.0				ST=2 TYP=3
	15400	SGMR	8	S	2027.0E	2027.0	2.0D	360.0				ST=2 TYP=3
	500	HIRA	8	S	2330.0	2330.3	0.6	32.0			WL	
21	200	HIRA	42	SER	0041.2	0041.3	9.2	15.0			O	
	500	HIRA	42	SER	0041.2	0045.3	9.0	9.0			WL	
	2695	PENT	3	S	0045.5	0045.8	7.0	16.9	6.0			
	200	HIRA	41	F	0244.4	0248.8	4.6	240.0			O	
	100	HIRA	41	F	0246.2	0246.7	3.0	185.0				
	100	GORK	4	S/F	0247.0	0249.0	5.0	212.0				
	245	LEAR	8	S	0248.0E	0248.0	1.0D	160.0				ST=2 TYP=3
	245	PALE	8	S	0248.0E	0248.0	1.0D	220.0				ST=2 TYP=3
	200	GORK	41	F	0339.0	0353.1		200.0				
	200	GORK	41	F	0339.0	0339.6	15.0	33.0				
	2950	GORK	2	S/F	0348.0	0350.3	5.2	5.0				
	200	HIRA	41	F	0348.2	0350.6	2.8	530.0			WR	
	500	HIRA	46	C	0349.3	0351.0	3.0	15.0			WR	
	100	GORK	4	S/F	0350.5	0353.1	3.1	318.0				
	650	GORK	2	S/F	0350.8	0351.0	0.5	3.0				
	950	GORK	1	S	0351.0	0351.2	0.3	3.0				
	100	GORK	41	F	0511.0	0544.1	45.4	1060.0				
	100	GORK	41	F	0511.0	0553.5		4666.0				
	200	GORK	41	F	0511.1	0511.7	35.9	32.0				
	200	GORK	41	F	0511.1	0543.9		400.0				
	2950	GORK	21	GRF	0518.2	0521.7	46.4	3.0				
	260	ONDR	46	C	0530.0		26.0					
	536	ONDR	41	F	0530.0	0544.7	600.0	99.0				
	5900	KISV	2	S/F	0531.8	0532.5	3.0	9.0				
	9100	GORK	21	GRF	0537.4	0549.5	20.3	16.0				
	9300	KISV	2	S/F	0537.8	0538.8	3.2	19.0				
	5900	KISV	23	GRF	0537.9	0549.3	19.1	12.0				
	9100	GORK	1	S	0538.0	0538.6	1.8	17.0				
	5900	KISV	2	S/F	0538.0	0538.8	2.8	18.0				
	15000	KISV	2	S/F	0538.3	0538.8	1.3	10.0				
	100	HIRA	42	SER	0542.2	0553.7	13.9	1300.0			MR	
	650	GORK	46	C	0542.7	0549.2		60.0				
	650	GORK	46	C	0542.7	0544.2	6.9	87.0				
	650	GORK	46	C	0542.7	0545.9		188.0				
	650	GORK	46	C	0542.7	0544.9		70.0				
	30	POTS	42	SER	0542.8	0543.0U	16.7	10000.0D				
	200	HIRA	42	SER	0542.9	0545.5	14.5	440.0			SL	
	33	UPIC	48	C	0543.0		16.8					
	610	LEAR	4	S/F	0543.0E	0546.0	7.0D	170.0				ST=2 TYP=3
	1415	LEAR	4	S/F	0543.0E	0544.0	3.0D	43.0				ST=2 TYP=3
	245	LEAR	4	S/F	0543.0E	0545.0	9.0D	360.0				ST=2 TYP=3
	410	LEAR	4	S/F	0543.0E	0545.0	7.0D	370.0				ST=2 TYP=3
	8800	LEAR	4	S/F	0543.0E	0545.0	9.0D	51.0				ST=2 TYP=3
	4995	LEAR	4	S/F	0543.0E	0545.0	9.0D	78.0				ST=2 TYP=3
	245	SVTO	49	GB	0543.0E	0546.0	3.0D	530.0				ST=3 TYP=6
	2695	SVTO	4	S/F	0543.0E	0545.0	3.0D	68.0				ST=3 TYP=3
	4995	SVTO	4	S/F	0543.0E	0545.0	3.0D	8.0				ST=3 TYP=3
	410	SVTO	49	GB	0543.0E	0546.0	3.0D	630.0				ST=3 TYP=6
	2950	GORK	46	C	0543.0	0545.5		35.0				
	950	GORK	46	C	0543.0	0544.8	9.7	30.0				
	2950	GORK	46	C	0543.0	0544.8	8.0	37.0				
	950	GORK	46	C	0543.0	0545.9		61.0				
	950	GORK	46	C	0543.0	0548.9		17.0				
	234	POTS	42	SER	0543.2	0545.0	10.6	250.0				
	500	HIRA	46	C	0543.4	0545.8	8.0	153.0	34.0		MRWL	
	9300	KISV	23	GRF	0543.5	0549.7	15.5	16.0				
	9300	KISV	46	C	0543.6	0546.0		34.0				
	3100	CRIM	45	C	0543.6	0544.1	7.0	33.6	13.0			
	3100	CRIM	45	C	0543.6	0545.6		37.7				
	9300	KISV	46	C	0543.6	0545.6	2.9	50.0				
	3100	CRIM	45	C	0543.6	0544.9		40.8				

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JULY 1989

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
21	9300	KISV	46	C	0543.6	0544.9		36.0			
	5900	KISV	45	C	0543.7	0545.0		58.0			
	5900	KISV	45	C	0543.7	0545.6	3.8	82.0			
	9100	GORK	46	C	0543.8	0545.5		44.0			
	9100	GORK	46	C	0543.8	0544.8	2.9	27.0			
	610	SVTO	8	S	0544.0E	0546.0	2.0D	130.0			ST=3 TYP=3
	8800	SVTO	8	S	0544.0E	0545.0	2.0D	50.0			ST=3 TYP=3
	808	ONDR	48	C	0544.0	0545.8	7.0	36.0			
	15000	KISV	23	GRF	0544.1	0550.6	13.1	23.0			
	15000	KISV	45	C	0544.8	0545.1		15.0			
	15000	KISV	45	C	0544.8	0545.7	2.2	25.0			
	410	SVTO	4	S/F	0548.0E	0549.0	3.0D	73.0			ST=3 TYP=3
	650	GORK	29	PBI	0549.6	0549.6	6.7	8.0			
	650	GORK	2	S/F	0617.1	0619.2	5.4	6.0			
	500	HIRA	46	C	0618.0	0619.3	3.0	17.0		O	
	950	GORK	2	S/F	0618.4	0619.5	4.3	5.0			
	260	ONDR	42	SER	0631.2	0631.8	17.0	123.0			
	650	GORK	21	GRF	0633.9	0645.9	17.9	1.0			
	950	GORK	2	S/F	0644.4	0647.3	4.0	8.0			
	2950	GORK	1	S	0645.4	0647.2	4.9	3.0			
	500	HIRA	46	C	0645.5	0647.0	3.0	9.0		O	
	650	GORK	4	S/F	0645.9	0647.2	2.4	9.0			
	33	UPIC	8	S	0718.5	0718.6	0.4				
	2950	GORK	1	S	0737.3	0737.8	1.4	2.0			
	950	GORK	8	S	0828.6	0828.8	0.3	8.0			
	650	GORK	2	S/F	0828.7	0828.8	0.3	3.0			
	9500	POTS	20	GRF	0925.7	0931.5	13.0	6.0			
	1470	POTS	8	S	0941.9	0942.1	0.7	9.0			
	5900	KISV	2	S/F	1221.2	1222.2	3.1	4.0			
	245	SGMR	49	GB	1234.0E	1234.0	U	560.0			ST=2 TYP=6
	245	SVTO	49	GB	1234.0E	1234.0U	U	520.0			ST=2 TYP=6
	260	ONDR	48	C	1234.0	1234.7	4.3	97.0			
	234	POTS	41	F	1234.4	1234.5	3.7	200.0			
	5900	KISV	2	S/F	1318.1	1318.7	3.8	7.0			
	127	TORN	45	C	1330.7		20.0		10.0		DISTURBED
	3000	POTS	1	S	1438.5	1439.5	2.0	4.0			
	1470	POTS	4	S/F	1438.5	1439.6	3.6	6.0			
	260	ONDR	42	SER	1440.0	1443.0	50.0	17.0			
	245	SGMR	8	S	1650.0E	1651.0	2.0D	380.0			ST=2 TYP=3
	245	PALE	8	S	1651.0E	1651.0	U	420.0			ST=2 TYP=3
	245	SVTO	4	S/F	1651.0E	1651.0	1404.0D	360.0			ST=2 TYP=3
	245	SVTO	8	S	1706.0E	1706.0	1.0D	93.0			ST=2 TYP=3
	610	PALE	8	S	2311.0E	2311.0	U	98.0			ST=2 TYP=3
	610	SGMR	8	S	2311.0E	2311.0	U	68.0			ST=2 TYP=3
	15400	SGMR	4	S/F	2314.0E	2316.0	3.0D	90.0			ST=2 TYP=3
22	100	GORK	43	NS	0545.4		194.6		360.0		
	127	TORN	43	NS	1026.0	1104.3	146.0	40.0	2.0	V=1	
	200	HIRA	44	NS	1940.0E	0413.0	840.0D	12.0	6.0	MR	
	200	HIRA	8	S	0007.9	0008.4	0.8	370.0		O	
	245	PALE	8	S	0008.0E	0008.0	U	57.0			ST=2 TYP=3
	200	HIRA	46	C	0048.4	0048.8	4.6	220.0		O	
	950	GORK	22	GRF	0300.0E	0343.3	171.0D	13.0			
	650	GORK	23	GRF	0300.0E	0347.8	245.4D	5.0			
	9100	GORK	20	GRF	0306.0U	0328.8	70.5D	18.0			
	2950	GORK	22	GRF	0310.0	0333.0	65.7	8.0			
	500	HIRA	41	F	0327.5	0328.3	27.5	5.0		O	
	2950	GORK	21	GRF	0433.0	0913.5	298.0	12.0			
	9100	GORK	20	GRF	0518.0	0603.2	156.4	8.0			
	245	LEAR	8	S	0529.0E	0529.0	U	280.0			ST=2 TYP=3
	245	SVTO	8	S	0529.0E	0529.0	U	350.0			ST=2 TYP=3
	5900	KISV	2	S/F	0532.4	0532.9	1.1	4.0			
	536	ONDR	41	F	0540.0	1402.8	580.0	61.0			
	100	GORK	41	F	0545.4	0833.8		3602.0			
	100	GORK	41	F	0545.4	0710.8	186.1	8441.0			
	260	ONDR	41	F	0600.0	0622.0	35.0	174.0			
	2840	PEKG	1	S	0601.0	0602.5	3.0	6.2			
	2950	GORK	2	S/F	0601.7	0602.9	5.3	6.0			
	3013	IZMI	5	S	0601.8	0603.2	3.0	6.0	3.0		

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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	5	S	0601.8	0602.9	1.5	11.0	5.0			
	3100	CRIM	1	S	0602.0	0603.0	2.5	7.2	2.0			
	5900	KISV	2	S/F	0602.3	0602.9	4.7	8.0				
	650	GORK	2	S/F	0620.7	0622.4	4.2	3.0				
	950	GORK	2	S/F	0621.6	0622.0	2.9	5.0				
	204	IZMI	5	S	0840.5	0840.6	0.6	8.0	4.0			
	260	ONDR	42	SER	0856.9	0902.1	12.0	205.0				
	200	GORK	4	S/F	0857.3	0902.3	5.7	185.0				
	2950	GORK	1	S	0857.7	0858.2	2.3	9.0				
	3100	CRIM	1	S	0857.8	0858.1	1.0	4.0	1.0			
	3100	CRIM	21	GRF	0857.8	0910.5	25.0	9.0	3.0			
	204	IZMI	41	F	0857.8	0904.9	13.5	24.0				
	245	LEAR	8	S	0902.0E	0902.0	U	130.0				ST=2 TYP=3
	245	SVTO	8	S	0902.0E	0902.0	U	240.0				ST=2 TYP=3
	650	GORK	40	F	0907.9	0919.2		2.0				
	650	GORK	40	F	0907.9	0910.3	12.9	2.0				
	950	GORK	41	F	0912.8	0913.7		4.0				
	950	GORK	41	F	0912.8	0912.8	1.1	6.0				
	260	ONDR	41	F	1021.0	1026.2	150.0	13.0				
	204	IZMI	41	F	1102.3	1104.2	7.8	20.0				
	5900	KISV	22	GRF	1301.6	1302.7	34.4	10.0				
	9300	KISV	22	GRF	1301.9	1302.7	34.1	7.0				
	260	ONDR	42	SER	1416.0	1416.6	80.0	25.0				
	2695	PALE	8	S	1637.0E	1638.0	2.0D	75.0				ST=2 TYP=3
	1415	PALE	4	S/F	1638.0E	1640.0	4.0D	63.0				ST=2 TYP=3
	100	HIRA	41	F	2042.2	2044.0	4.6	310.0				
	200	HIRA	46	C	2043.9	2045.0	2.0	550.0			WL	
	245	PALE	4	S/F	2044.0E	2047.0	4.0D	75.0				ST=2 TYP=3
	245	SGMR	4	S/F	2044.0E	2047.0	4.0D	74.0				ST=2 TYP=3
	500	HIRA	46	C	2044.2	2045.0	3.2	24.0			WR	
	200	HIRA	41	F	2239.2	2240.3	33.7	136.0			SR	
23	200	GORK	43	NS	0243.4		406.6		5.0			
	100	GORK	43	NS	0300.0		390.0D		5.0			
	204	IZMI	43	NS	0600.0		360.0	15.0				
	127	TORN	43	NS	0758.0		462.0		8.0		V=1	
	200	HIRA	44	NS	1940.0E	0322.0	840.0D	9.0	4.0		WR	
	100	HIRA	42	SER	0046.9	0053.2	6.6	1000.0				
	200	HIRA	41	F	0049.5	0052.8	37.0	540.0			O	
	245	LEAR	8	S	0050.0E	0050.0	1.0D	90.0				ST=2 TYP=3
	245	PALE	8	S	0050.0E	0050.0	1.0D	110.0				ST=2 TYP=3
	245	LEAR	8	S	0053.0E	0053.0	U	120.0				ST=2 TYP=3
	410	LEAR	8	S	0053.0E	0053.0	U	44.0				ST=2 TYP=3
	245	PALE	8	S	0053.0E	0053.0	U	170.0				ST=2 TYP=3
	650	GORK	22	GRF	0335.4	0358.9	35.5	5.0				
	2950	GORK	20	GRF	0456.1	0658.0	274.9	7.0				
	260	ONDR	41	F	0540.0E	1144.6	600.0D	70.0				
	5900	KISV	2	S/F	0611.4	0611.9	1.0	4.0				
	9100	GORK	20	GRF	0646.3	0708.5	39.5	6.0				
	100	GORK	8	S	0656.7	0658.1	3.3	411.0				
	100	HIRA	45	C	0656.8	0657.6	2.0	615.0				
	204	IZMI	41	F	0658.0	0658.1	2.0	66.0				
	5900	KISV	2	S/F	0658.1	0658.9	2.5	3.0				
	204	IZMI	41	F	0720.6	0720.9	1.6	155.0	70.0			
	245	SVTO	8	S	0813.0E	0813.0	1.0D	76.0				ST=2 TYP=3
	33	UPIC	45	C	0851.3	0851.5	3.0					
	204	IZMI	41	F	0851.5	0851.9	2.0	55.0				
	100	GORK	8	S	0851.6	0851.7	2.9	1132.0				
	5900	KISV	2	S/F	0851.8	0854.2	4.3	7.0				
	9300	KISV	2	S/F	0853.0	0854.1	1.8	6.0				
	204	IZMI	41	F	0935.9	0937.4	2.2	160.0	70.0			
	33	UPIC	8	S	0953.0	0953.0	0.4					
	5900	KISV	2	S/F	1034.1	1034.2	0.8	3.0				
	3000	POTS	4	S/F	1141.5	1144.4	5.0	12.0				
	1470	POTS	3	S	1142.4	1143.9	3.1	9.0				
	245	SGMR	8	S	1143.0E	1143.0	1.0D	93.0				ST=2 TYP=3
	245	SVTO	8	S	1143.0E	1143.0	1.0D	82.0				ST=2 TYP=3
	204	IZMI	5	S	1143.4	1143.8	1.1	350.0	100.0			
	9300	KISV	2	S/F	1143.4	1143.9	1.0	3.0				

SOLAR RADIO EMISSION
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JULY 1989

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	3013	IZMI	1	S	1143.5	1144.0	1.3	7.0	4.0		
	5900	KISV	2	S/F	1143.5	1143.8	1.2	6.0			
	536	ONDR	41	F	1209.0	1210.2	15.0	13.0			
	5900	KISV	2	S/F	1248.9	1249.3	0.7	2.0			
	5900	KISV	45	C	1315.8	1316.7	3.2	4.0			
	245	PALE	8	S	2128.0E	2128.0	U	53.0			ST=2 TYP=3
	245	SGMR	8	S	2128.0E	2128.0	2.00	56.0			ST=2 TYP=3
24	100	GORK	44	NS	0233.0E		570.00		5.0		
	200	GORK	44	NS	0245.0E		558.00		5.0		
	260	ONDR	44	NS	0530.0E	0728.0	620.00	186.0			
	204	IZMI	43	NS	0600.0		360.0	25.0			
	127	TORN	44	NS	0800.0E		460.00		9.0	V=1	
	245	SVTO	44	NS	1024.0E	1025.0	6.00	78.0			ST=2 TYP=1
	200	HIRA	44	NS	1940.0E	0100.0	840.00	10.0	5.0	WR	
	2695	PENT	4	S/F	0026.5	0030.5	12.0	23.2	12.0		
	200	HIRA	42	SER	0202.3	0202.6	21.8	80.0		ML	
	2840	PEKG	20	GRF	0311.0	0329.4	34.0	129.7			
	2950	GORK	23	GRF	0358.4	0604.8	289.2	6.0			
	204	IZMI	41	F	0617.1	0617.2	9.0	65.0			
	410	SVTO	8	S	0723.0E	0723.0	U	96.0			ST=2 TYP=3
	3000	POTS	4	S/F	0726.9	0728.5	3.1	9.0			
	245	LEAR	8	S	0727.0E	0728.0	1.00	210.0			ST=2 TYP=3
	245	SVTO	8	S	0727.0E	0728.0	1.00	290.0			ST=2 TYP=3
	200	HIRA	46	C	0727.1	0728.0	1.3	107.0		O	
	100	HIRA	46	C	0727.1	0727.7	1.3	205.0			
	650	GORK	1	S	0727.2	0728.3	2.6	2.0			
	100	GORK	8	S	0727.3	0728.1	1.7	205.0			
	5900	KISV	2	S/F	0727.3	0728.3	2.9	4.0			
	950	GORK	1	S	0727.4	0728.1	2.4	1.0			
	2950	GORK	1	S	0727.4	0728.3	1.9	4.0			
	200	GORK	8	S	0727.4	0728.3	1.4	81.0			
	430	KRAK	2	S/F	0727.5	0727.7	1.0	14.0	6.0		
	204	IZMI	42	SER	0727.7	0727.9	1.5	180.0			
	410	LEAR	8	S	0728.0E	0728.0	U	38.0			ST=2 TYP=3
	410	SVTO	8	S	0728.0E	0728.0	U	130.0			ST=2 TYP=3
	9300	KISV	2	S/F	0759.8	0759.9	0.4	2.0			
	5900	KISV	2	S/F	0759.8	0759.9	0.3	2.0			
	5900	KISV	21	GRF	0818.6	0820.0	16.5	9.0			
	9300	KISV	2	S/F	0819.9	0820.0	0.4	5.0			
	410	LEAR	8	S	0843.0E	0843.0	1.00	99.0			ST=2 TYP=3
	410	SVTO	8	S	0843.0E	0843.0	U	65.0			ST=2 TYP=3
	430	KRAK	8	S	0843.1	0843.3	0.7	240.0			
	2950	GORK	22	GRF	0902.9	0911.8	22.2	5.0			
	245	SVTO	8	S	0952.0E	0952.0	1.00	78.0			ST=2 TYP=3
	536	ONDR	41	F	0955.0	0959.1	23.0	88.0			
	430	KRAK	42	SER	1014.3	1016.5	8.0	130.0			
	410	SGMR	8	S	1016.0E	1016.0	U	66.0			ST=2 TYP=3
	245	SGMR	8	S	1025.0E	1025.0	U	53.0			ST=2 TYP=3
	430	KRAK	8	S	1030.5	1030.6	0.6	230.0			
	5900	KISV	45	C	1030.6	1030.7	0.8	3.0			
	9300	KISV	2	S/F	1030.6	1030.8	1.1	4.0			
	5900	KISV	45	C	1030.6	1030.9		3.0			
	5900	KISV	2	S/F	1041.8	1042.5	3.1	2.0			
	245	SGMR	8	S	1045.0E	1045.0	U	85.0			ST=2 TYP=3
	9100	GORK	20	GRF	1123.4	1200.8	38.0	14.0			
	9100	GORK	20	GRF	1123.4	1200.8	38.00	14.0			
	9500	POTS	4	S/F	1237.8	1238.7	2.7	29.0			
	9300	KISV	2	S/F	1237.8	1238.8	2.7	23.0			
	5900	KISV	2	S/F	1237.8	1238.8	3.7	10.0			
	15000	KISV	2	S/F	1237.9	1238.8	2.3	25.0			
	1470	POTS	1	S	1238.8	1239.2	0.7	2.0			
	610	SGMR	20	GRF	1245.0E	1251.0	37.00	220.0			ST=2 TYP=2
	245	SGMR	8	S	2023.0E	2023.0	U	51.0			ST=2 TYP=3
	245	PALE	8	S	2133.0E	2133.0	1.00	76.0			ST=2 TYP=3
	245	PALE	8	S	2216.0E	2216.0	U	98.0			ST=2 TYP=3
	245	SGMR	8	S	2216.0E	2216.0	U	88.0			ST=2 TYP=3
	245	SGMR	8	S	2303.0E	2303.0	U	70.0			ST=2 TYP=3

S O L A R R A D I O E M I S S I O N
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JULY 1989

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	100	GORK	44	NS	0249.0E		556.0D		5.0		
	200	GORK	44	NS	0252.0E		551.0D		5.0		
	204	IZMI	43	NS	0600.0		360.0	10.0			
	127	TORN	44	NS	0620.0E		390.0D		15.0		V=1
	200	HIRA	44	NS	1940.0E	0344.0	840.0D	11.0	5.0		O
	245	LEAR	8	S	0400.0E	0400.0	U	56.0			ST=2 TYP=3
	245	PALE	8	S	0400.0E	0400.0	U	71.0			ST=2 TYP=3
	410	LEAR	8	S	0401.0E	0401.0	1.0D	67.0			ST=2 TYP=3
	5900	KISV	2	S/F	0453.4	0454.2	2.4	7.0			
	5900	KISV	2	S/F	0510.5	0512.1	4.0	5.0			
	260	ONDR	41	F	0600.0E		590.0D				
	9300	KISV	45	C	0620.1	0621.1		6.0			
	9300	KISV	45	C	0620.1	0623.2	7.6	9.0			
	5900	KISV	45	C	0621.3	0622.2		6.0			
	5900	KISV	45	C	0621.3	0623.3	8.7	9.0			
	9100	GORK	20	GRF	0621.6	0623.1	12.6	8.0			
	245	SVTO	8	S	0629.0E	0629.0	U	270.0			ST=2 TYP=3
	5900	KISV	2	S/F	0634.7	0636.3	4.2	5.0			
	9300	KISV	2	S/F	0744.9	0745.5	8.7	8.0			
	9100	GORK	2	S/F	0745.0	0745.4	4.2	8.0			
	5900	KISV	22	GRF	0745.3	0745.4	10.2	4.0			
	2840	PEKG	28	PRE	0833.0	0840.0	7.0	49.9			
	536	ONDR	41	F	0836.0		30.0				
	245	SVTO	8	S	0836.0E	0836.0	U	54.0			ST=2 TYP=3
	9500	POTS	45	C	0837.0E	0842.6	48.0D	695.0			
	15400	LEAR	49	GB	0838.0E	0841.0	12.0D	1300.0			ST=2 TYP=7
	8800	LEAR	49	GB	0838.0E	0842.0	10.0D	830.0			ST=2 TYP=7
	4995	LEAR	49	GB	0838.0E	0840.0	10.0D	350.0			ST=2 TYP=7
	8800	SVTO	49	GB	0838.0E	0842.0	11.0D	820.0			ST=2 TYP=7
	15400	SVTO	49	GB	0838.0E	0841.0	15.0D	1600.0			ST=2 TYP=7
	4995	SVTO	49	GB	0838.0E	0840.0	10.0D	340.0			ST=2 TYP=7
	3000	POTS	45	C	0838.0E	0841.5	42.0D	230.0			
	9100	GORK	47	GB	0838.0	0842.7	10.0	957.0			
	2950	GORK	46	C	0838.1	0842.2		171.0			
	2950	GORK	46	C	0838.1	0841.7	9.4	221.0			
	9300	KISV	29	PBI	0838.2	0849.5	22.5	25.0			
	1470	POTS	45	C	0838.2	0842.5	42.0	155.0			
	9300	KISV	47	GB	0838.2	0842.7	11.3	769.0			
	15000	KISV	47	GB	0838.4	0841.4	10.1	1509.0			
	5900	KISV	47	GB	0838.4	0841.4	10.1	441.0			
	15000	KISV	29	PBI	0838.4	0848.5	23.5	73.0			
	5900	KISV	29	PBI	0838.4	0848.5	23.5	41.0			
	3013	IZMI	45	C	0838.5	0840.5	10.0	221.0	100.0		
	3100	CRIM	45	C	0839.0	0845.0		114.0			
	1415	LEAR	49	GB	0839.0E	0842.0	9.0D	140.0			ST=2 TYP=7
	2695	SVTO	49	GB	0839.0E	0841.0	8.0D	210.0			ST=2 TYP=7
	650	GORK	46	C	0839.0	0839.3	7.4	57.0			
	3100	CRIM	45	C	0839.0	0842.5		252.0			
	650	GORK	46	C	0839.0	0841.5		150.0			
	3100	CRIM	45	C	0839.0	0841.6		254.0			
	3100	CRIM	45	C	0839.0	0840.8	18.0	196.0	85.0		
	650	GORK	46	C	0839.0	0841.9		258.0			
	950	GORK	46	C	0839.3	0842.2		85.0			
	808	ONDR	5	S	0839.3	0842.5	16.5	85.0			
	810	KRAK	45	C	0839.3	0842.5	28.0	108.0	12.0		
	950	GORK	46	C	0839.3	0841.9	8.7	74.0			
	410	LEAR	49	GB	0840.0E	0841.0	5.0D	12000.0			ST=2 TYP=7
	2695	LEAR	49	GB	0840.0E	0841.0	5.0D	260.0			ST=2 TYP=7
	610	LEAR	49	GB	0840.0E	0841.0	5.0D	2100.0			ST=2 TYP=7
	2840	PEKG	45	C	0840.0	0842.0	5.0	327.6			
	1415	SVTO	49	GB	0840.0E	0842.0	8.0D	130.0			ST=2 TYP=7
	200	HIRA	48	C	0840.3	0841.6	15.8	6100.0	290.0		O
	100	GORK	47	GB	0840.7	0845.2	12.1	9779.0			
	500	HIRA	48	C	0840.7	0841.5	9.0D	6500.0	735.0		O SUNSET
	430	KRAK	45	C	0840.7	0841.5U	18.5	250.0D	33.0D		
	100	GORK	47	GB	0840.7	0846.9		9058.0			
	234	POTS	45	C	0840.8	0842.0	8.0	34000.0			
	100	HIRA	48	C	0840.9		19.8	1000.0D	350.0D		
	204	IZMI	47	GB	0841.0	0842.0	8.0	9500.0	500.0		

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25	245	LEAR	49	GB	0841.0E	0841.0	5.0D	6300.0			ST=2 TYP=7
	245	SVTO	49	GB	0841.0E	0841.0	8.0D	9000.0			ST=2 TYP=7
	610	SVTO	49	GB	0841.0E	0841.0	2.0D	230.0			ST=2 TYP=7
	410	SVTO	49	GB	0841.0E	0841.0	4.0D	8300.0			ST=2 TYP=7
	600	HUMN	4	S/F	0841.0	0843.0	31.0	190.0	10.0		
	200	GORK	47	GB	0841.0	0847.3		4629.0			
	30	POTS	45	C	0841.0	0850.3	29.0	12000.0D			
	200	GORK	47	GB	0841.0	0844.9	16.0	5185.0			
	33	UPIC	49	GB	0841.2		34.4				
	127	TORN	49	GB	0842.2	0847.0U	17.0	4600.0D	690.0		
	2840	PEKG	29	PBI	0845.0		27.0	113.8			
	650	GORK	29	PBI	0846.4	0846.4	28.3	16.0			
	2950	GORK	29	PBI	0847.5	0847.5	14.2	31.0			
	9100	GORK	29	PBI	0848.0	0848.0	14.3D	50.0			
	950	GORK	29	PBI	0848.0	0848.0	27.9	10.0			
	430	KRAK	27	RF	0912.2	0915.5	25.0U	7.0	3.0		
	245	SVTO	20	GRF	0921.0E	0930.0	18.0D	120.0			ST=2 TYP=2
	204	IZMI	23	GRF	0921.5	0932.0	35.0	95.0	50.0		
	200	GORK	46	C	0922.5	0939.2		59.0			
	200	GORK	46	C	0922.5	0932.3	32.4	75.0			
	245	LEAR	4	S/F	0928.0E	0930.0	7.0D	80.0			ST=2 TYP=3
	950	GORK	22	GRF	0943.3	1127.7	124.4	19.0			
	245	SVTO	8	S	0947.0E	0947.0	1.0D	200.0			ST=2 TYP=3
	204	IZMI	5	S	0947.9	0948.0	0.4	230.0	100.0		
	33	UPIC	8	S	0947.9	0947.9	0.4				
	5900	KISV	2	S/F	0953.4	0955.7	6.0	5.0			
	204	IZMI	5	S	0957.8	0957.9	0.3	210.0	100.0		
	5900	KISV	1	S	1022.7	1022.9	0.8	1.0			
	5900	KISV	2	S/F	1030.1	1030.5	0.8	1.0			
	536	ONDR	42	SER	1144.1	1148.7	5.5	12.0			
	5900	KISV	2	S/F	1148.1	1148.6	4.7	3.0			
	9500	POTS	4	S/F	1223.6	1223.9	1.4	17.0			
	5900	KISV	2	S/F	1223.7	1224.0	2.0	6.0			
	15000	KISV	1	S	1223.7	1224.0	1.1	22.0			
	9300	KISV	2	S/F	1223.7	1224.0	2.6	16.0			
	245	SGMR	8	S	1332.0E	1332.0	U	490.0			ST=2 TYP=3
	610	SGMR	8	S	1332.0E	1332.0	U	94.0			ST=2 TYP=3
	245	SVTO	8	S	1332.0E	1332.0	U	270.0			ST=2 TYP=3
	410	SVTO	8	S	1332.0E	1332.0	U	73.0			ST=2 TYP=3
	234	POTS	8	S	1332.1	1332.2	0.5	650.0	200.0		
	30	POTS	4	S/F	1332.1	1332.4	1.0	1200.0			
	9300	KISV	2	S/F	1332.2	1332.3	0.8	4.0			
	33	UPIC	45	C	1332.2	1332.3	0.9				
	5900	KISV	45	C	1332.2	1332.8	0.9	3.0			
	808	ONDR	8	S	1346.7	1347.0	1.0	22.0			
	3000	POTS	3	S	1346.7	1347.4	2.7	8.0			
	5900	KISV	2	S/F	1346.9	1347.1	0.8	6.0			
	245	SGMR	8	S	1442.0E	1442.0	U	54.0			ST=2 TYP=3
	410	SGMR	8	S	2105.0E	2105.0	U	63.0			ST=2 TYP=3
	410	SGMR	8	S	2130.0E	2130.0	U	100.0			ST=2 TYP=3
	410	SGMR	8	S	2139.0E	2139.0	U	100.0			ST=2 TYP=3
	245	SGMR	8	S	2248.0E	2249.0	1.0D	50.0			ST=2 TYP=3
26	200	GORK	44	NS	0239.0E		561.0D		5.0		
	204	IZMI	43	NS	0600.0		360.0	10.0			
	260	ONDR	41	F	0530.0E	0928.3	400.0D	163.0			
	536	ONDR	42	SER	1107.0	1454.4	233.0	80.0			
	260	ONDR	42	SER	1210.0	1344.4	180.0	52.0			
	3000	POTS	1	S	1236.5	1243.1	8.5	6.0			
	9500	POTS	1	S	1237.5	1241.5	7.5	8.0			
	3000	POTS	3	S	1304.5	1305.8	2.0	12.0			
	5900	KISV	46	C	1333.4	1335.5	11.0	24.0			
	5900	KISV	46	C	1333.4	1338.6		13.0			
	5900	KISV	46	C	1333.4	1335.8		22.0			
	3000	POTS	20	GRF	1334.1	1338.2	7.9	6.0			
	9300	KISV	46	C	1334.3	1335.3		18.0			
	9300	KISV	46	C	1334.3	1335.8	12.5	21.0			
	9300	KISV	46	C	1334.3	1338.9		11.0			
	9500	POTS	3	S	1334.6	1335.7	9.9	20.0			

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

JULY 1989

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	808	ONDR	41	F	1345.7	1351.4	8.5	21.0			
	3000	POTS	4	S/F	1349.9	1350.4	3.4	23.0			
	2800	OTTA	3	S	1350.0	1351.0	4.0	38.2	15.0		
	1470	POTS	4	S/F	1350.0	1350.3	5.0	46.0			
	33	UPIC	45	C	1350.3	1350.4	1.0				
	2800	OTTA	4	S/F	1557.0	1601.0	28.0	12.5	5.0		
	245	SGMR	8	S	1638.0E	1638.0	2.0D	68.0			ST=2 TYP=3
	245	SVTO	8	S	1638.0E	1638.0	U	63.0			ST=2 TYP=3
	245	PALE	8	S	1708.0E	1708.0	1.0D	160.0			ST=2 TYP=3
	245	SGMR	8	S	1708.0E	1708.0	1.0D	140.0			ST=2 TYP=3
	245	SVTO	8	S	1708.0E	1708.0	U	130.0			ST=2 TYP=3
	245	PALE	8	S	2035.0E	2035.0	U	53.0			ST=2 TYP=3
	245	PALE	8	S	2103.0E	2103.0	U	100.0			ST=2 TYP=3
	245	PALE	8	S	2111.0E	2111.0	U	71.0			ST=2 TYP=3
27	200	GORK	44	NS	0257.0E		543.0D		5.0		
	100	GORK	43	NS	0307.5		49.5		5.0		
	204	IZMI	43	NS	0730.0		270.0	10.0			
	245	LEAR	8	S	0118.0E	0118.0	1.0D	94.0			ST=2 TYP=3
	245	PALE	8	S	0118.0E	0118.0	2.0D	120.0			ST=2 TYP=3
	200	HIRA	46	C	0118.2	0118.5	2.3	65.0		O	
	650	GORK	2	S/F	0308.7	0310.4	3.1	2.0			
	260	ONDR	41	F	0540.0E	1007.4	570.0D	64.0			
	5900	KISV	2	S/F	0713.7	0714.3	1.7	4.0			
	5900	KISV	2	S/F	0830.4	0830.7	1.9	4.0			
	536	ONDR	27	RF	0920.0	1006.0	50.0	11.0			
	9300	KISV	1	S	1310.5	1311.0	1.2	3.0			
	245	PALE	8	S	1716.0E	1716.0	1.0D	220.0			ST=2 TYP=3
	410	PALE	8	S	1716.0E	1716.0	1.0D	100.0			ST=2 TYP=3
	245	SGMR	8	S	1716.0E	1716.0	1.0D	180.0			ST=2 TYP=3
	610	SGMR	8	S	1716.0E	1716.0	1.0D	50.0			ST=2 TYP=3
	410	SVTO	8	S	1716.0E	1716.0	1.0D	100.0			ST=3 TYP=3
	245	SVTO	8	S	1716.0E	1716.0	1.0D	250.0			ST=2 TYP=3
	245	PALE	49	GB	1746.0E	1750.0	6.0D	900.0			ST=2 TYP=7
	2800	OTTA	3	S	1747.0	1748.0	11.0	136.0	51.0		
	610	PALE	8	S	1747.0E	1748.0	2.0D	52.0			ST=2 TYP=3
	1415	PALE	4	S/F	1747.0E	1747.0	4.0D	130.0			ST=2 TYP=3
	2695	PALE	4	S/F	1747.0E	1747.0	3.0D	140.0			ST=2 TYP=3
	610	SGMR	4	S/F	1747.0E	1748.0	3.0D	50.0			ST=3 TYP=3
	245	SGMR	49	GB	1747.0E	1750.0	5.0D	820.0			ST=2 TYP=7
	4995	SGMR	8	S	1747.0E	1747.0	1.0D	50.0			ST=2 TYP=3
	1415	SGMR	4	S/F	1747.0E	1747.0	3.0D	120.0			ST=2 TYP=3
	2695	SGMR	4	S/F	1747.0E	1747.0	3.0D	130.0			ST=2 TYP=3
	4995	PALE	4	S/F	1747.0E	1747.0	373.0D	53.0			ST=1 TYP=3
	200	HIRA	42	SER	2212.6	2212.9	5.9	1450.0		O	
	100	HIRA	8	S	2212.7		0.8	1000.0D			
	500	HIRA	46	C	2212.9	2213.1	6.5	81.0		O	
	245	SGMR	8	S	2213.0E	2213.0	1.0D	450.0			ST=2 TYP=3
	245	SGMR	8	S	2217.0E	2217.0	1.0D	280.0			ST=2 TYP=3
28	200	HIRA	43	NS	2300.0	0300.0	210.0	7.0	4.0	WL	
	245	LEAR	8	S	0219.0E	0219.0	U	170.0			ST=2 TYP=3
	245	PALE	8	S	0219.0E	0219.0	U	220.0			ST=2 TYP=3
	260	ONDR	41	F	0540.0	0724.5	580.0	144.0			
	3100	CRIM	1	S	0630.0	0630.8	2.0	6.0	2.0		
	536	ONDR	27	RF	0720.0	0850.8	180.0	8.0			
	410	LEAR	8	S	0724.0E	0725.0	1.0D	44.0			ST=2 TYP=3
	245	LEAR	8	S	0724.0E	0724.0	U	160.0			ST=2 TYP=3
	245	SVTO	8	S	0724.0E	0724.0	U	200.0			ST=2 TYP=3
	234	POTS	4	S/F	0724.2	0724.6	1.4	190.0			
	30	POTS	4	S/F	0724.2	0724.6	1.9	2400.0			
	204	IZMI	7	C	0724.4	0724.5	5.0	190.0	90.0		
	33	UPIC	45	C	0724.5	0724.6	1.1				
	204	IZMI	41	F	0804.2	0804.3	3.8	48.0			
	650	GORK	22	GRF	0806.0	0829.0	66.0	3.0			
	950	GORK	22	GRF	0806.7	0829.0	66.3	4.0			
	204	IZMI	5	S	0837.0	0837.4	1.0	60.0	30.0		
	610	SVTO	20	GRF	0843.0E	0845.0	15.0D	67.0			ST=2 TYP=2
	430	KRAK	8	S	0902.7	0902.8	0.3	13.0			

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 1989

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	536	ONDR	42	SER	1141.7	1143.2	25.0	68.0			
	810	KRAK	8	S	1152.5	1152.7	0.2	9.0			
	5900	KISV	1	S	1215.8	1216.9	3.0	16.0			
	9300	KISV	1	S	1216.6	1216.9	0.7	12.0			
	245	PALE	8	S	1839.0E	1839.0	U	140.0			ST=2 TYP=3
	245	PALE	8	S	1937.0E	1937.0	U	76.0			ST=2 TYP=3
29	200	GORK	43	NS	0256.0		223.0		5.0		
	9100	GORK	1	S	0315.0	0315.7	1.3	12.0			
	5900	KISV	2	S/F	0359.7	0400.1	2.0	3.0			
	5900	KISV	23	GRF	0608.9	0615.2	15.8	7.0			
	9300	KISV	23	GRF	0609.1	0615.0	15.9	12.0			
	9100	GORK	4	S/F	0609.6	0611.5	3.5	242.0			
	8800	LEAR	4	S/F	0610.0E	0611.0	3.0D	170.0			ST=2 TYP=3
	8800	SVTO	8	S	0610.0E	0611.0	2.0D	160.0			ST=2 TYP=3
	5900	KISV	4	S/F	0610.5	0611.5	3.3	35.0			
	15000	KISV	4	S/F	0610.7D	0611.4	2.3D	199.0D			
	35000	NOBE	3	S	0610.7	0611.6	2.5	70.0			POL 0; 80GHZ:0
	17000	NOBE	3	S	0610.7	0611.6	2.7	276.0			POL 0
	9300	KISV	4	S/F	0610.7	0611.7	3.3	149.0			
	15400	LEAR	8	S	0611.0E	0611.0	1.0D	260.0			ST=2 TYP=3
	15400	SVTO	8	S	0611.0E	0611.0	1.0D	250.0			ST=2 TYP=3
	9100	GORK	29	PBI	0613.1	0613.1	12.6	27.0			
	650	GORK	22	GRF	0628.3	0736.2	164.0	4.0			
	950	GORK	22	GRF	0706.0E	0708.0	45.9D	3.0			
	245	LEAR	8	S	0735.0E	0736.0	1.0D	53.0			ST=2 TYP=3
	245	SVTO	8	S	0735.0E	0736.0	1.0D	63.0			ST=2 TYP=3
	100	HIRA	46	C	0735.0	0735.6	1.3	680.0			
	260	ONDR	48	C	0735.2	0736.1	10.0	111.0			
	200	HIRA	46	C	0735.2	0735.6	4.0	140.0		0	
	200	GORK	8	S	0735.4	0736.0	1.6	34.0			
	100	GORK	8	S	0735.6	0736.0	1.3	417.0			
	204	IZMI	7	C	0735.6	0736.1	1.3	124.0	50.0		
	430	KRAK	42	SER	0736.4	0736.5	2.3	29.0			
	260	ONDR	41	F	1200.0	1319.5	190.0	22.0			
	33	UPIC	4	S/F	1204.0	1204.4	0.8				
	536	ONDR	42	SER	1432.2	1432.6	27.0	58.0			
30	2840	PEKG	20	GRF	0033.0	0038.5	31.0	9.8			
	500	HIRA	4	S/F	0037.5	0037.6	1.5	11.0		0	
	500	HIRA	46	C	0043.5	0046.7	7.0	24.0		0	
	1415	LEAR	8	S	0046.0E	0047.0	1.0D	17.0			ST=2 TYP=3
	610	LEAR	8	S	0046.0E	0046.0	1.0D	51.0			ST=2 TYP=3
	2950	GORK	23	GRF	0449.1	0547.6	83.4	3.0			
	3100	CRIM	1	S	0451.7	0453.0	3.5	6.8	2.0		
	2950	GORK	45	C	0452.6	0454.3		3.0			
	2950	GORK	45	C	0452.6	0452.9	2.4	4.0			
	9100	GORK	20	GRF	0454.3	0507.8	30.9	6.0			
	260	ONDR	41	F	0540.0E	1019.0	560.0D	68.0			
	650	GORK	22	GRF	0724.2	0754.0	72.7	3.0			
	950	GORK	22	GRF	0731.8	0754.0	48.7	1.0			
	2950	GORK	20	GRF	0741.1	0909.7	96.1	2.0			
	9100	GORK	20	GRF	0842.6	0920.0	48.4D	9.0			
	204	IZMI	41	F	1014.0	1018.3	5.7	52.0			
	430	KRAK	8	S	1018.5	1018.6	0.3	64.0			
	5900	KISV	45	C	1032.0	1039.1		12.0			
	5900	KISV	45	C	1032.0	1034.1	18.0	11.0			
	9300	KISV	45	C	1032.5	1034.1	28.0	11.0			
	9300	KISV	45	C	1032.5	1039.4		11.0			
	536	ONDR	42	SER	1130.5	1151.6	31.0	60.0			
	3000	POTS	3	S	1213.2	1213.7	1.2	9.0			
	5900	KISV	45	C	1241.0	1241.7	8.0	5.0			
	5900	KISV	45	C	1241.0	1246.7		6.0			
	33	UPIC	45	C	1326.6	1327.6	2.4				
	536	ONDR	8	S	1449.0	1449.3	1.0	52.0			
	245	PALE	8	S	2038.0E	2040.0	2.0D	53.0			ST=2 TYP=3
31	33	UPIC	8	S	0417.0	0417.5	1.2				
	5900	KISV	1	S	0608.5	0609.7	2.0	4.0			

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

JULY 1989

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	9300	KISV	1	S	0608.8	0609.3	1.0	2.0			
	536	ONDR	27	RF	0640.0	1004.4	240.0	10.0			
	650	GORK	22	GRF	0644.7	0655.3	20.9	4.0			
	2840	PEKG	20	GRF	0649.0	0702.5	33.0	11.6			
	3000	POTS	20	GRF	0658.0	0702.5	37.0	12.0			
	3100	CRIM	1	S	0700.0	0701.0	2.5	5.7	2.0		
	5900	KISV	22	GRF	0700.0	0703.4	42.0	13.0			
	9500	POTS	20	GRF	0700.0	0703.5	40.0	16.0			
	9300	KISV	2	S/F	0701.0	0705.5	7.0	11.0			
	260	ONDR	41	F	0720.0E	1204.1	460.00	158.0			
	650	GORK	21	GRF	0728.1	0747.1	25.9	1.0			
	430	KRAK	8	S	0731.0	0731.2	0.2	31.0			
	650	GORK	1	S	0735.5	0736.4	1.4	3.0			
	2950	GORK	20	GRF	0754.3	0800.2	33.8	3.0			
	5900	KISV	22	GRF	0755.5	0802.0	15.0	10.0			
	9100	GORK	2	S/F	0800.4	0802.0	4.2	8.0			
	2840	PEKG	20	GRF	0804.0	0822.4	37.0	12.7			
	2950	GORK	1	S	0833.1	0839.0	7.2	1.0			
	9100	GORK	1	S	0837.4	0837.8	2.8	7.0			
	33	UPIC	8	S	0837.5	0837.6	0.5				
	9500	POTS	1	S	1110.5	1111.0	2.0	10.0			
	9300	KISV	1	S	1110.6	1111.1	1.5	8.0			
	9100	GORK	1	S	1110.7	1111.0	2.3	7.0			
	9100	GORK	20	GRF	1123.7	1124.7	7.7	14.0			
	9300	KISV	2	S/F	1124.0	1124.7	1.5	11.0			
	9500	POTS	3	S	1124.0	1124.8	5.0	16.0			
	536	ONDR	42	SER	1313.0	1315.9	30.0	38.0			
	2695	SVTO	4	S/F	1719.0E	1722.0	4.00	56.0			ST=3 TYP=3
	2800	OTTA	3	S	1754.0	1755.0	2.0	38.6	14.0		
	2800	OTTA	3	S	2055.0	2056.0	7.0	39.8	15.0		
	1415	PALE	8	S	2056.0E	2056.0	U	71.0			ST=2 TYP=3
	2800	OTTA	20	GRF	2100.0	2230.0	290.0	7.5	6.0		

Reports are received routinely from the following observatories:

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

Explanation of Type Code:

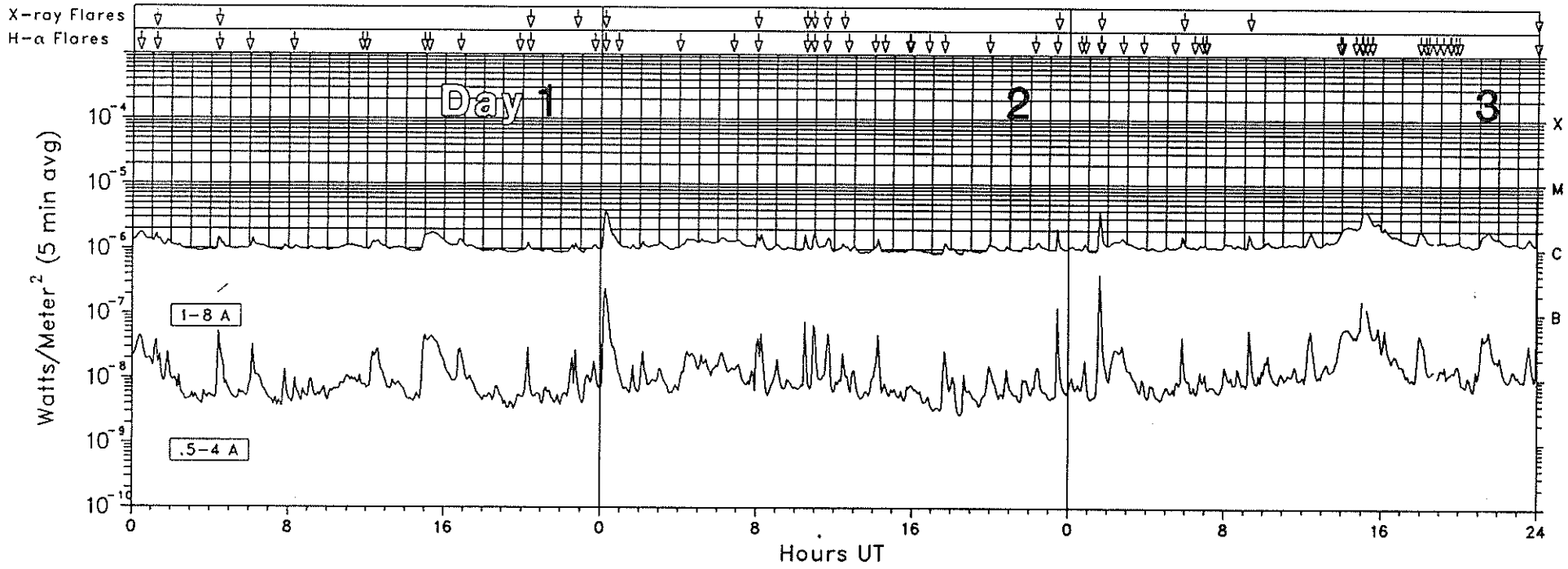
1 Simple 1	7 Minor +	24 Rise	30 Post Burst Increase A	43 Onset of Noise Storm
2 Simple 1F	8 Spike	25 Rise A	31 Post Burst Decrease	44 Noise Storm in Progress
3 Simple 2	20 Simple 3	26 Fall	33 Absorption	45 Complex
4 Simple 2F	21 Simple 3A	27 Rise and Fall	40 Fluctuation	46 Complex F
5 Simple	22 Simple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

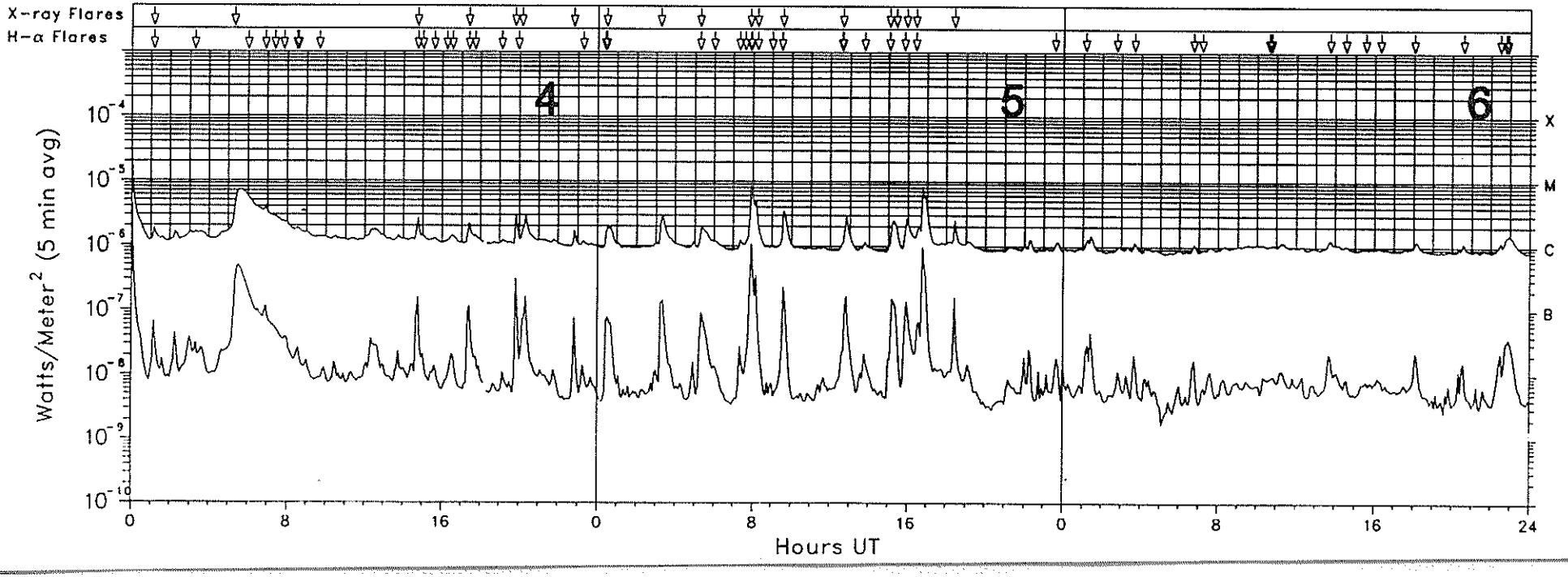
1A Simple 1A	4A Simple 2AF	24PF Post Rise F	27F Rise and Fall F
3A Simple 2A	40 Rise Only	16A Fall A	27AF Rise and Fall AF
21A Simple 3A GRF	40F Rise Only F	260 Fall Only	31A Post Burst Decrease A
2A Simple 1AF	4P Post Rise	26F Fall F	32A Absorption A

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

GOES-7 X-RAY DETECTOR

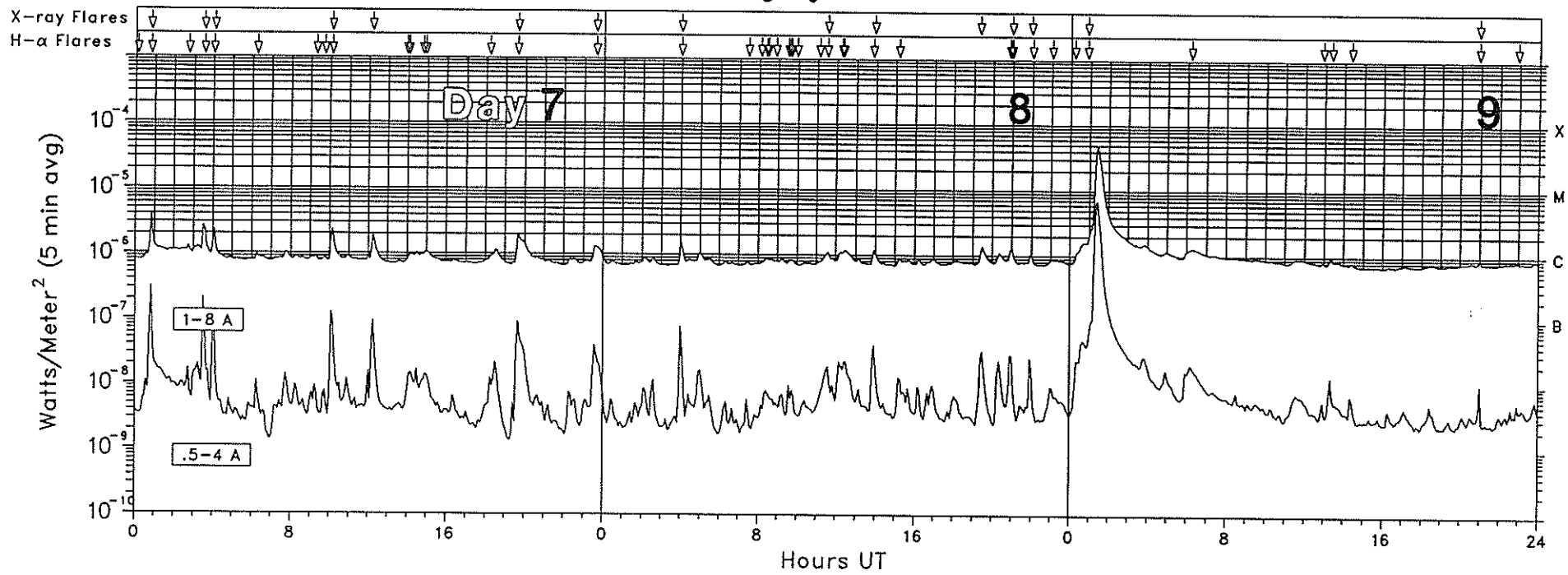
July 1989

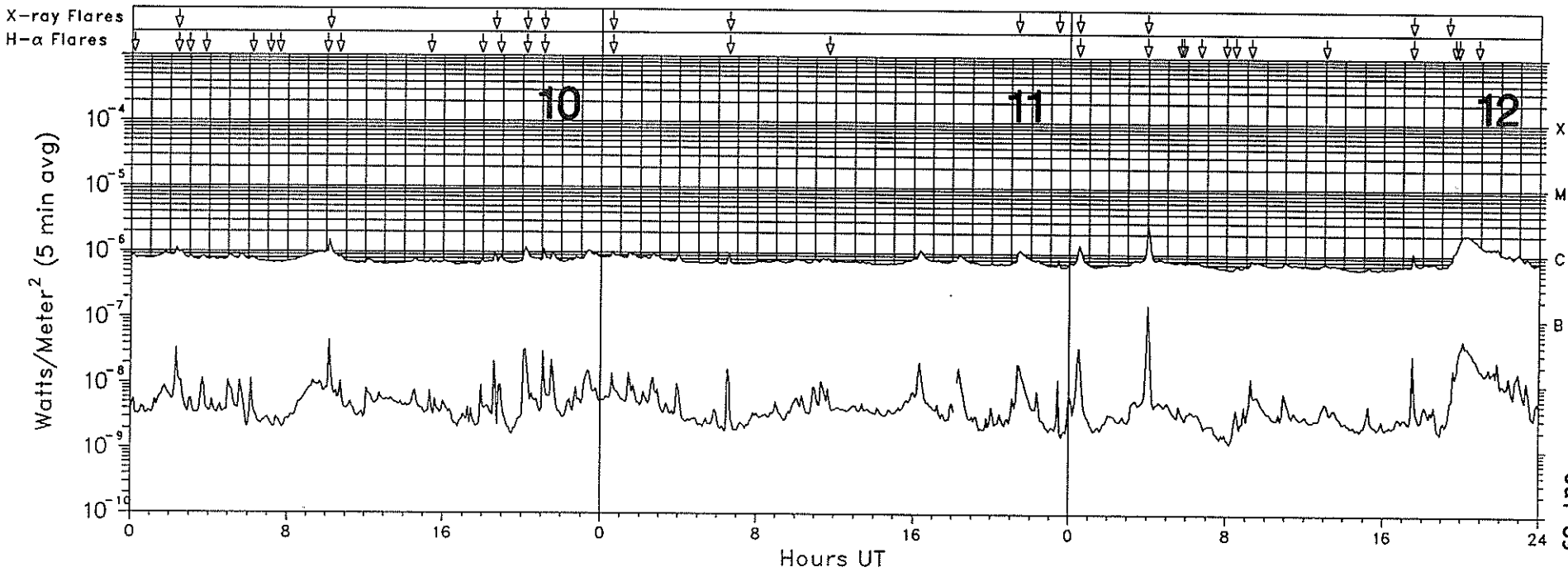




GOES-7 X-RAY DETECTOR

July 1989





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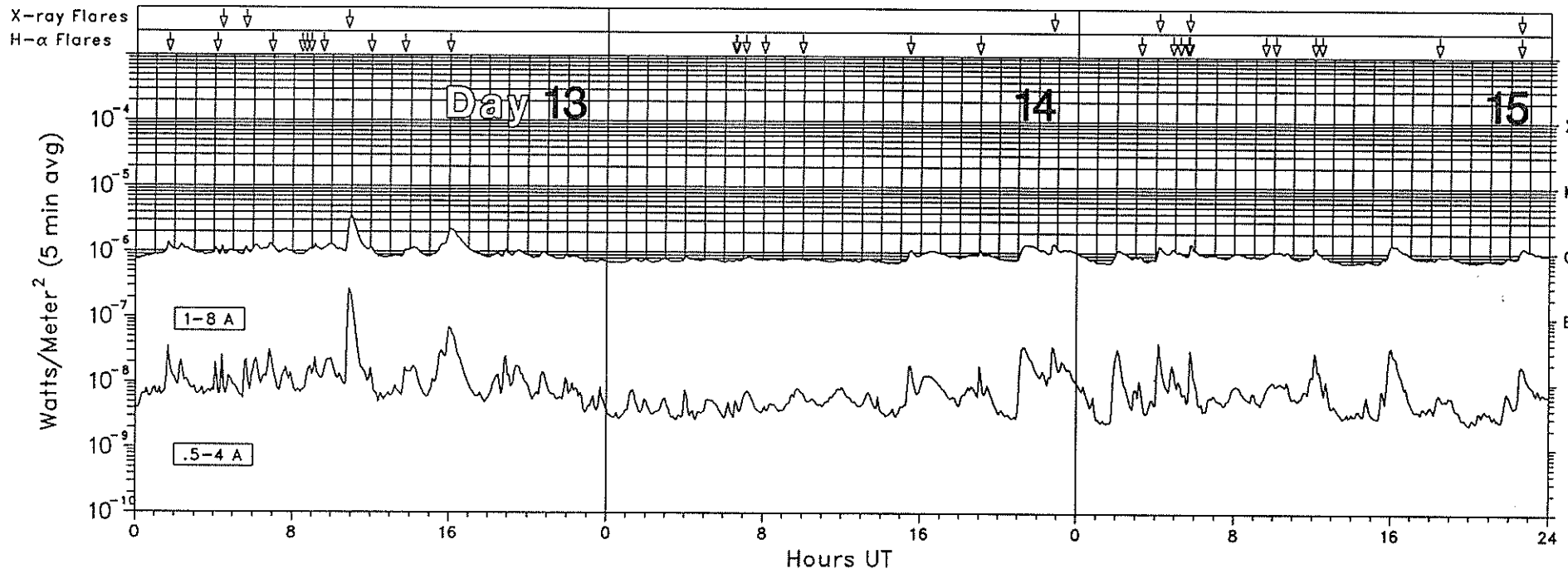
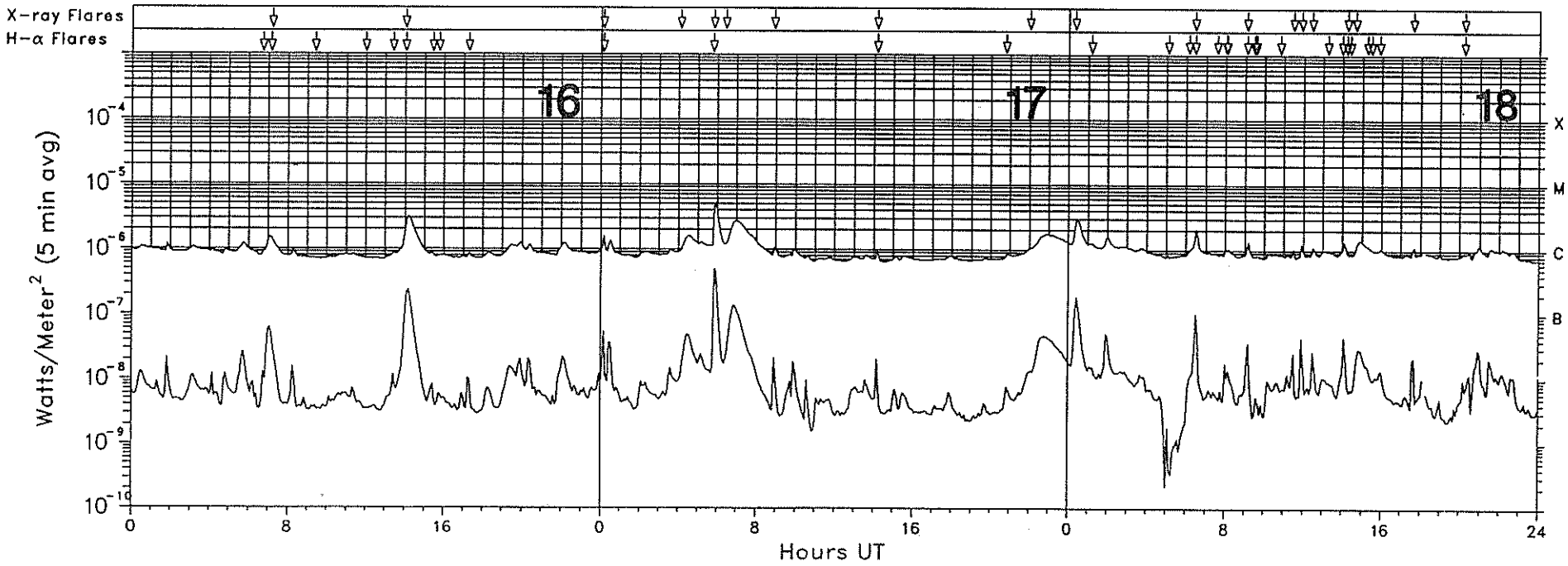
Jul 89

GOES-7 X-RAY DETECTOR

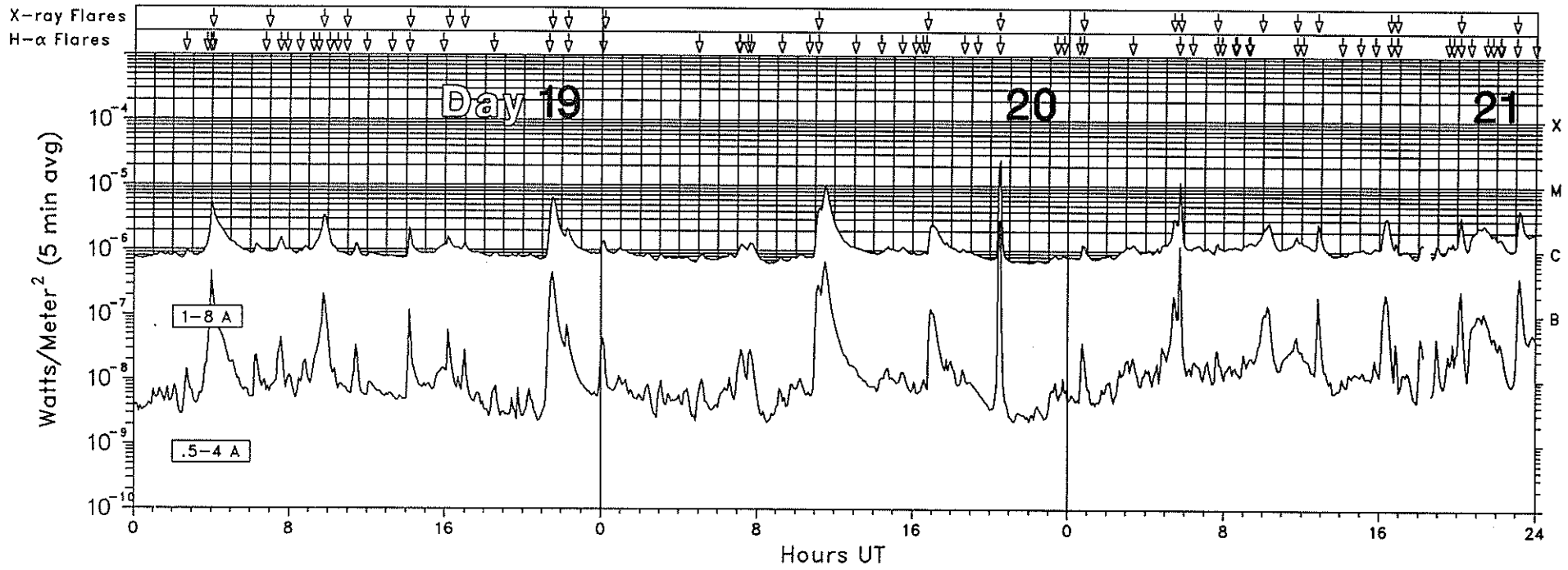
July 1989

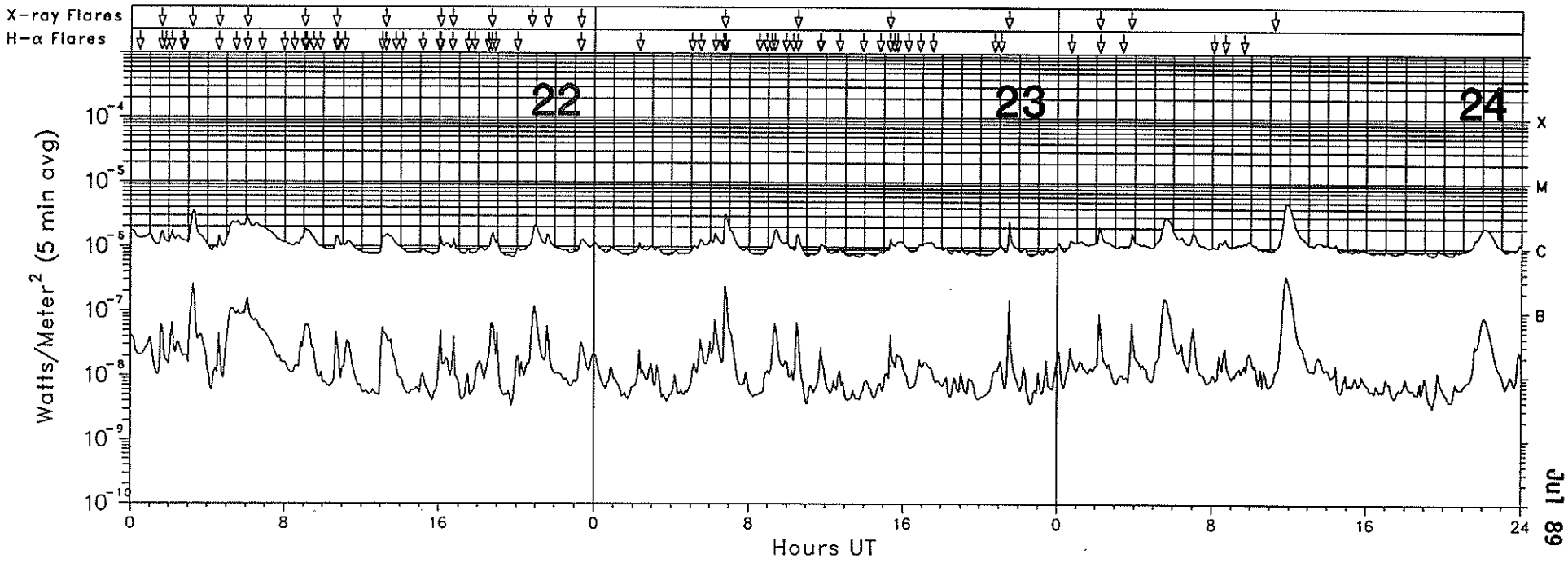




GOES-7 X-RAY DETECTOR

July 1989

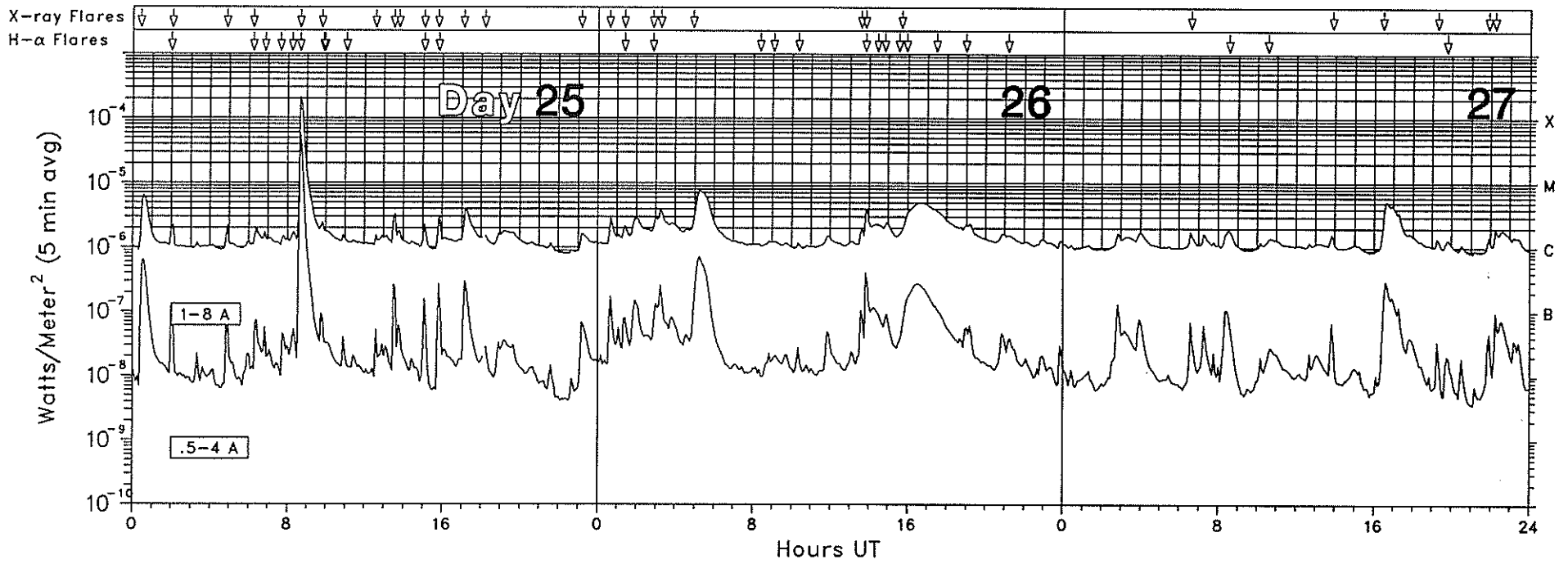


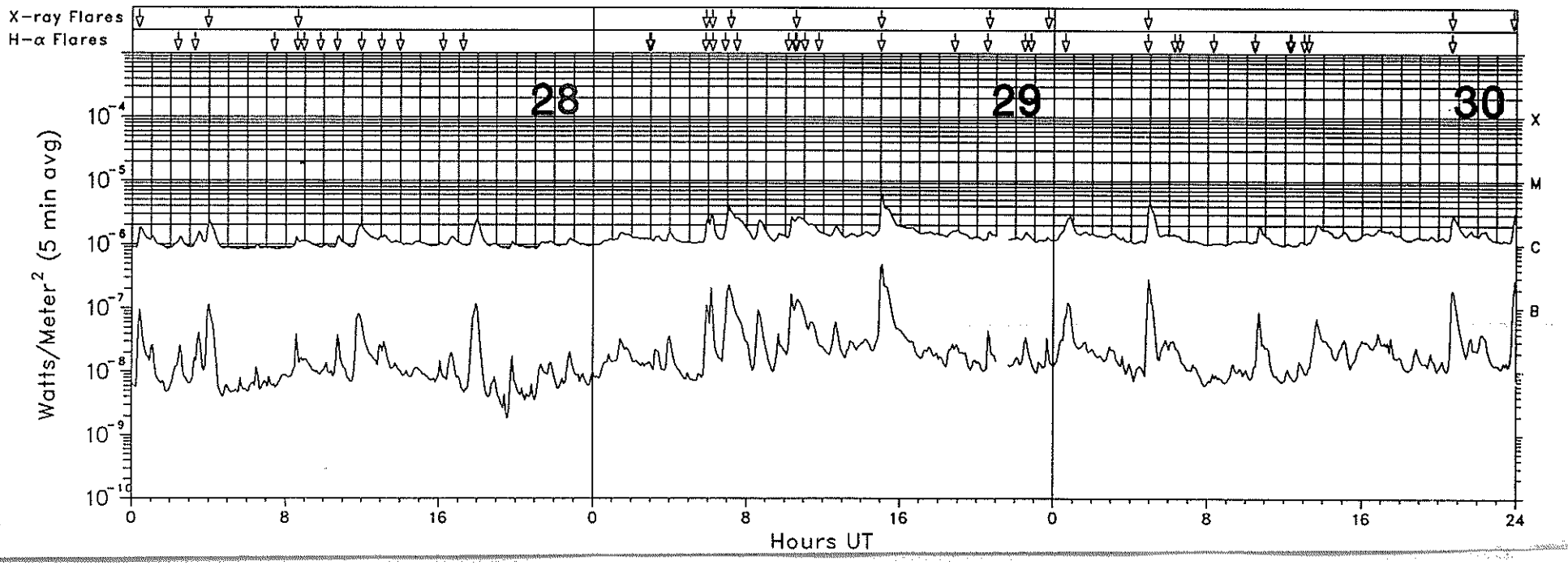


53
Jul 89

GOES-7 X-RAY DETECTOR

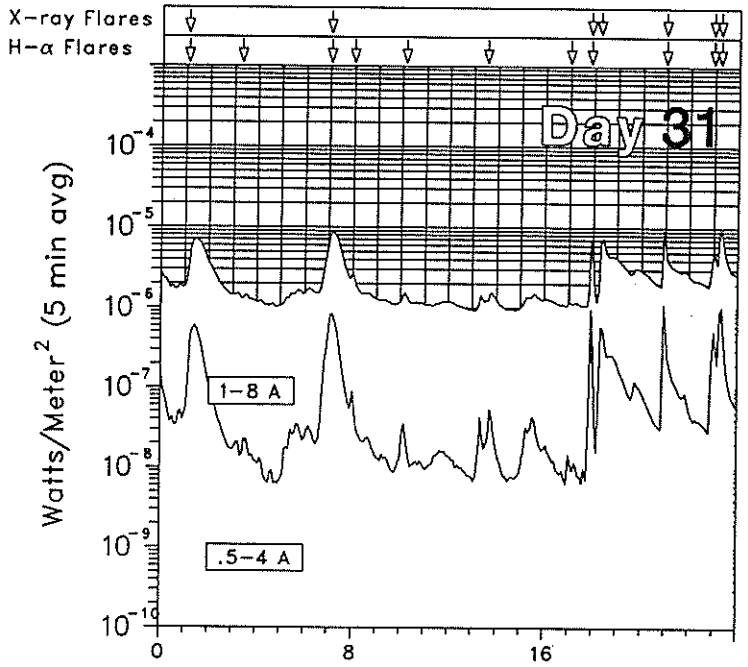
July 1989





GOES-7 X-RAY DETECTOR

July 1989



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

July 1989

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Imp Opt	Xray	NOAA/ USAF Region
01	0113E	0114	0122D	N12	W41	SF	C1.8	5558
01	0424E	0426	0436D	N09	W44	SF	C1.6	5558
01	2021E	2023	2027D	N26	W71	SF	C1.4	5555
01	2246	2249	2251				C1.6	
02	0011E	0015	0030D	N26	E85	SF	C4.0	5575
02	0801E	0803	0813D	N25	E78	SF	C1.7	5575
02	1032E	1034	1047D	N19	W49	SF	C2.2	5569
02	1053E	1054	1112D	N24	E77	SF	C2.0	5575
02	1133E	1146	1151D	N20	W50	SF	C1.9	5569
02	1226	1229	1231				C1.4	
02	2325E	2326	2334D	N21	E69	SF	C2.6	5575
03	0136E	0140	0143D	S14	E44	SF	C6.8	5574
03	0549	0552	0555				C1.8	
03	0915	0919	0922				C2.2	
03	2359E	0001	0059D	N22	E52	1B	M7.4	5575
04	0109E	0111U	0123D	N09	E59	SF	C2.0	5576
04	0518	0536	0611				C7.3	
04	1444E	1446	1458D	N24	E43	SF	C3.5	5575
04	1723E	1723	1802D	N24	E45	SF	C2.9	5575
04	1948	1952	1955				C3.8	
04	2008E	2020	2039D	N24	E41	1N	C3.0	5575
04	2248	2252	2256				C1.8	
05	0027E	0030	0036D	N24	E41	SF	C2.1	5575
05	0314	0321	0329				C3.1	
05	0516E	0522	0555D	S16	E17	SF	C1.9	5572
05	0753E	0756	0829D	N22	E37	1N	C9.6	5575
05	0815E	0818	0821D	N23	E87	SF	C5.8	5582
05	0933	0937U	0942	N09	E39	SF	C3.8	5576
05	1238E	1249	1311D	N18	E28	SF	C3.4	5575
05	1503E	1511	1543D	N24	E34	SF	C1.2	5575
05	1523E	1524U	1540D	N23	E33	SF	C2.7	5575
05	1556	1558	1654D	S21	E10	1F	C2.8	5572
05	1625E	1647	1723D	N23	E32	1N	M1.1	5575
05	1823	1828	1832				C2.7	
07	0048E	0050	0108D	S20	W09	SF	C4.2	5572
07	0332E	0333	0342D	S20	W10	SF	C3.7	5572
07	0404E	0405	0411D	S20	W11	SF	C2.8	5572
07	1007		1030	S20	W11	1F	C2.5	5572
07	1211	1217	1225				C2.0	
07	1938E	1939	2007	N24	E04	SF	C2.0	5575
07	2337	2341	0014	S10	E50	SF	C1.3	5579
08	0400E	0403	0425D	S20	W23	SF	C1.7	5572
08	1133E	1133	1139D	S21	W29	SF	C1.1	5572
08	1356E	1359	1408D	S21	W29	SF	C1.2	5572
08	1920	1935	1940				C1.4	
08	2058E	2059	2112D	S10	E48	SF	C1.4	5585
08	2157	2159	2212D	S10	E37	SF	C1.2	5579
09	0052E	0125	0212D	S20	W35	2B	M5.1	5572
09	2056	2057U	2125D	N23	W30	SF	C1.0	5575
10	0223E	0225	0231D	N26	E86	SF	C1.2	5589
10	1010E	1012	1025D	N28	E33	1F	C1.8	
10	1837E	1838	1842D	N13	W60	SF	C1.2	5573
10	2012E	2014	2040D	N09	W33	SF	C1.3	5576
10	2104E	2108	2115D	N13	W61	SF	C1.3	5573
11	0034E	0034	0042D	N13	W65	SF	C1.1	5573
11	0633E	0634	0644D	N24	W42	SF	C1.2	5575
11	2121	2125	2138				C1.2	
11	2324	2327	2329				B9.5	
12	0028E	0029	0046D	N07	W53	SF	C1.3	5576
12	0357E	0402	0423D	S10	W07	SF	C3.1	5579
12	1729E	1741	1802D	N27	E62	SF	C1.2	5589
12	1920	2008	2110				C2.2	
13	0424	0427	0431				C1.3	
13	0537	0541	0546				C1.2	
13	1050	1102	1119				C3.4	
14	2245E	2246	2255D	S10	E90	SN	C1.5	
15	0407	0413	0429				C1.2	
15	0539	0540U	0557D	S07	E89	SF	C1.6	5597
15	2231E	2234	2307D	N28	E20	SF	C1.3	5589
16	0712E	0713	0721D	S05	E76	SF	C1.6	5597
16	1402E	1403	1422D	N26	E12	SF	C3.1	5589
17	0008E	0011	0017D	S14	E89	1F	C2.0	5597
17	0405	0435	0450				C1.6	
17	0549E	0552	0622D	S22	W55	SN	C5.9	5586
17	0625	0700	0735				C2.8	
17	0855	0858	0904				C1.1	
17	1410E	1413	1416D	S12	E57	SF	C1.1	5597
17	2200	2250	2345				C1.7	
18	0020	0029	0040				C3.1	
18	0627	0632U	0702D	S13	E48	SN	C2.2	5597
18	0906E	0911	0925D	N25	W13	SF	C1.4	5589
18	1129	1132	1134				C1.2	
18	1155	1158	1201				C1.5	
18	1226	1234	1236				C1.3	
18	1414	1414U	1432	N29	E67	SF	C1.4	5599
18	1439	1455	1510				C1.4	
18	1736	1741	1744				C1.3	
18	2013E	2014	2105	N24	E85	SF	C1.9	5601
19	0402E	0404U	0425D	N24	E76	SF	C6.8	5601
19	0656E	0710	0746D	N24	E75	SF	C1.6	5601
19	0944	0950	0957				C3.6	
19	1055E	1118	1213D	N24	E69	SF	C1.4	5601
19	1408E	1410	1432D	S10	E32	SF	C2.2	5597
19	1610	1613	1616				C2.0	
19	1656	1701	1705				C1.5	
19	2128	2129	2201D	N27	E74	SF	C6.6	5601
19	2216E	2219	2237D	S13	E30	SF	C2.5	5597
20	0008E	0012	0026D	N20	E20	SF	C1.4	5596
20	1106E	1132	1205D	N24	E65	1N	M1.0	5691
20	1642E	1656	1740	N27	E56	1N	C2.6	5601
20	2025	2027	2048D	S16	E09	1B	M3.3	5597
21	0045E	0046	0100D	S16	E12	SF	C1.3	5597
21	0523	0531	0540				C3.3	
21	0544E	0550	0606D	S15	E08	1B	M1.4	5597
21	0736E	0740	0752D	N27	W32	SN	C1.6	5603
21	0955	1020	1040				C2.9	
21	1142E	1146	1200D	S13	E14	SF	C1.9	5597
21	1247	1253	1301				C2.8	
21	1631E	1631	1640D	S33	E08	SF	C3.4	5606
21	1651E	1657	1702D	S09	E01	SF	C1.5	5597
21	2005E	2011	2041D	S32	E05	SN	C3.8	5606
21	2300	2309	0013D	S33	E03	1N	C4.8	5606

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

July 1989

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp	Xray	NOAA/ USAF Region
22	0137E	0138	0147D	N27	W39	SF		C2.0	5603
22	0312E	0319	0335D	S33	W00	SF		C4.2	5606
22	0435E	0436	0452D	N19	W06	SF		C1.5	5596
22	0603E	0604	0617D	S10	W07	SF		C3.1	5597
22	0902E	0903	0917D	N27	W42	SF		C1.9	5603
22	1040E	1046	1111D	N20	W08	SF		C1.5	5596
22	1312E	1319	1347D	N19	W10	SF		C1.5	5596
22	1603E	1606	1617D	N27	W48	SF		C1.4	5603
22	1639E	1645	1653D	S21	E68	SF		C1.5	5608
22	1841E	1844	1853D	S17	E74	SF		C2.0	5608
22	2046E	2058U	2111	S13	W12	SF		C2.4	5597
22	2135	2139	2143					C1.7	
22	2318E	2321	2324D	S21	E67	SF		C1.3	5608
23	0643E	0648	0710D	S31	W13	1N		C4.5	5606
23	1032E	1035	1048D	S32	W15	SF		C2.0	5606
23	1518E	1521	1528D	S18	E63	SF		C1.5	5608
23	2127	2133	2136					C2.9	
24	0209	0215	0217					C2.7	
24	0347	0352	0357					C1.8	
24	1113	1156	1217					C5.0	
25	0025	0037	0049					C6.7	
25	0203E	0204	0206D	N30	W81	SF		C3.1	5603
25	0452	0456	0458					C3.4	
25	0613	0626	0726D	N23	W00	1F		C2.1	5601
25	0839E	0843	0908D	N25	W84	2N		X2.6	5603
25	0947	0950	0952					C3.4	
25	1234	1239	1242					C1.6	
25	1330	1335	1338					C5.0	
25	1347	1350	1353					C2.4	
25	1503	1509	1512					C2.6	
25	1547E	1548	1556D	N30	W90	SF		C3.4	5603
25	1705	1716	1727					C4.3	
25	1812	1815	1817					C2.3	
25	2309	2314	2332					C1.6	
26	0036	0043	0051					C2.9	
26	0122E	0122	0132D	S16	W56	SF		C2.2	5597
26	0250E	0300	0314D	S16	W59	1F		C3.3	5597
26	0314	0318	0322					C4.3	
26	0454	0517	0545					C7.8	
26	1335	1341	1346					C2.1	
26	1349	1354	1400					C4.8	
26	1540	1642	1746					C5.0	
27	0635	0638	0642					C1.9	
27	1351	1355	1357					C2.0	
27	1625	1640	1715					C5.3	
27	1916	1920	1924					C1.7	
27	2152	2156	2201					C1.5	
27	2213	2219	2224					C2.0	
28	0021	0029	0041					C1.8	
28	0356E	0359	0413D	S18	E05	SF		C2.7	5608
28	0838E	0838	0842D	S20	W07	SF		C1.6	5608
29	0552	0600	0610					C2.5	
29	0611	0615	0618					C3.8	
29	0709E	0709	0725D	N23	W81	SF		C4.3	5613
29	1033E	1045	1102D	N19	W80	SF		C3.0	5613
29	1500E	1505	1511D	N21	W80	SF		C7.1	5613
29	2037E	2037	2043D	S02	E58	SF		C1.8	5615
29	2342	2345	2347					C1.6	
30	0451E	0455	0525D	S14	E72	1F		C4.6	5619
30	2040E	2040	2048D	S20	W37	SF		C3.0	5616
30	2350	2359	0011					C3.2	
31	0106E	0114	0149D	N18	W14	SF		C7.2	5617
31	0703E	0709	0746D	S17	E36	SF		C8.7	5612
31	1752E	1754	1810	S11	E79	SF		C9.6	5623
31	1816	1825	1838					C8.4	5623
31	2058	2058U	2125D	S16	E32	1B		M1.5	5612
31	2258E	2301U	2315D	S14	E30	SF		C6.4	5612
31	2315E	2316	2327D	S10	E76	1N		M1.0	5623

Preliminary GOES Satellite Data
Daily Average X-ray Background
August 1988 - July 1989

Day	1988 Aug	Sep	Oct	Nov	Dec	1989 Jan	Feb	Mar	Apr	May	Jun	Jul
1	B9.4	B6.9	C1.0	B5.7	B4.6	C1.7	C1.2	C1.3	B9.2	C1.0	B8.2	B9.2
2	B9.8	B6.5	C1.2	B6.1	B4.7	C2.1	C1.2	C1.3	C1.0	C1.0	C1.5	B9.4
3	C1.1	B6.9	C1.3	B5.2	B4.4	C2.2	C1.6	B9.8	C1.1	B9.1	C1.4	C1.1
4	B8.6	B6.7	C1.0	B5.0	B4.5	C2.0	C2.0	B7.0	C1.0	C1.6	C1.6	C1.1
5	B8.3	B6.4	B8.7	B4.6	B5.7	C1.9	C1.6	C1.3	C1.0	C1.2	C1.5	B8.7
6	B7.9	B6.1	C1.0	B5.8	B6.2	C2.4	C1.9	C2.7	B8.6	C1.1	C1.9	B8.2
7	B8.2	B6.9	B7.4	B5.5	B6.6	C4.7	C1.9	C2.5	C1.0	C1.4	C1.9	B7.2
8	C1.1	B5.5	B5.3	B5.5	B7.4	C4.6	C2.1	C1.9	C1.3	C1.3	C3.0	B7.2
9	C1.0	B4.8	B5.0	B9.2	B7.8	C3.4	C2.2	C2.1	B9.8	C1.3	C3.0	B7.0
10	C1.0	B3.2	B4.7	B9.8	C1.0	C2.5	C1.9	C2.5	B8.1	C1.3	C2.5	B6.5
11	B6.7	B2.7	B4.9	B9.8	C1.3	C3.1	C1.3	C2.8	C2.1	C1.0	C2.1	B6.8
12	B5.1	B2.8	B5.4	B6.3	C1.2	C2.3	C1.1	C2.3	C1.1	C1.0	C2.0	B6.2
13	B3.9	B2.4	B5.4	B8.9	C1.1	C5.0	C1.3	C3.0	C1.2	B9.9	C2.3	B7.7
14	B3.1	B2.3	B4.7	C1.3	C1.4	C3.8	C2.0	C2.4	C1.2	B9.5	C2.7	B7.0
15	B3.2	B2.6	B5.9	B7.9	C2.1	C2.9	C1.5	C2.1	C1.1	B9.0	C3.3	B7.4
16	B3.0	B3.0	B7.8	C1.4	C1.7	C3.1	C1.7	C2.5	C1.1	B7.8	C4.1	B7.1
17	B3.2	B3.6	C1.2	C1.0	C2.0	C2.1	C1.4	C2.3	C1.4	B7.5	C2.7	B6.8
18	B2.8	B5.3	B8.0	B8.1	C1.3	C2.8	C1.3	C2.1	C1.1	B7.2	C2.5	B7.8
19	B2.7	B4.8	B8.3	B8.4	C1.9	C2.0	C1.5	C2.6	C1.0	B7.4	C2.5	B7.6
20	B2.7	B6.9	B6.8	B6.6	C2.2	C2.3	C1.4	C2.3	B9.5	C1.3	C2.3	B7.0
21	B2.8	B7.2	B7.3	C1.1	C2.3	C2.7	C1.7	*	B9.0	C1.3	C3.4	B8.6
22	B2.7	C1.0	B8.2	B8.3	C1.8	C2.1	C2.2	C1.8	C1.2	C1.7	C2.0	B7.6
23	B7.4	B8.8	B8.0	B5.1	C2.3	C1.9	C1.5	C1.6	C1.4	C1.9	C1.7	B7.4
24	B7.7	B8.1	B6.6	B5.3	C2.1	C1.8	C1.4	C1.1	C1.4	C1.9	C1.1	B9.2
25	B7.3	B8.5	B6.0	B5.7	C1.5	C1.4	C1.5	C1.0	C1.0	C1.6	B8.3	B9.2
26	B7.4	B6.2	B5.3	B7.2	C1.3	C1.3	C1.1	B8.9	B9.4	C1.2	B9.8	C1.0
27	B8.1	B7.3	B6.7	B7.5	C1.9	C1.3	B9.5	B9.9	B7.4	B7.5	C1.0	B9.5
28	B7.3	B6.0	B7.3	B4.2	C1.4	C1.1	C1.0	C1.1	B7.6	B7.9	C1.1	B8.8
29	B9.2	B6.0	B8.4	B4.3	B8.7	C1.1		C1.0	C1.0	B9.0	C1.2	C1.1
30	B9.4	B8.4	B8.0	B4.1	C1.0	C8.9		B8.8	B8.4	B9.2	C1.1	C1.0
31	B8.9		B6.7			C1.0		B9.6		B9.7		C1.0

MASS EJECTIONS FROM THE SUN

JULY 1989

Site	Mo	Day	Observed UT Start	Observed UT Max	Observed UT End	Location RA*	Location R/Ro	Freq or Wavelength	Kind of Event
LEAR	Jul	09	0128.0		0151.0			Meter	II
PALE	Jul	09	0129.0		0149.0			Meter	II
KHAR	Jul	09	0710		0730	115	0.80	H-alpha	S
KHAR	Jul	09	0728	0740 U	0755	110	0.84	H-alpha	S
KHAR	Jul	10	0706 E		0825 D	062	1.00	H-alpha	S
KHAR	Jul	10	0750 E		0758 D	118	0.73	H-alpha	S
KHAR	Jul	14	0742 E	0750 U	0822 D	122-130	0.93-0.95	H-alpha	S
KHAR	Jul	14	0803		0810	212	0.39	H-alpha	S
KHAR	Jul	17	0948 E		1000 D	116	1.00	H-alpha	S
KHAR	Jul	18	0755 E		0812 D	064	1.00	H-alpha	S
KHAR	Jul	18	0928 E		0950 D	064	1.00	H-alpha	S
KHAR	Jul	19	0723 E		0748 D	248	1.00	H-alpha	S
KHAR	Jul	19	0805 E		0815 D	292	1.00	H-alpha	S
SGMR	Jul	19	1417.0		1421.0			Meter	II
SVTO	Jul	19	1417.0		1421.0			Meter	II
PALE	Jul	20	2029.0		2034.0			Meter	II
SGMR	Jul	20	2029.0		2045.0			Meter	II
PALE	Jul	20	2031.0		2051.0			Meter	IV
SVTO	Jul	21	0543.0		0604.0			Meter	II
BLEN	Jul	21	0543.8		0552.0			Decimeter; meter	IV Pulsations
BLEN	Jul	21	0545.4		0554.0			Decimeter; meter	II
WEIS	Jul	21	0548.7		0559.8			150- 30 MHz	II Herringbone
LEAR	Jul	21	0549.0		0605.0			Meter	II
KHAR	Jul	21	0724 E		0735 D	316	0.63	H-alpha	S
KHAR	Jul	21	0743 E		0820 D	313	0.65	H-alpha	S
KHAR	Jul	21	0831 E		0839 D	313	0.65	H-alpha	S
KHAR	Jul	23	0709 E		0725 D	199	0.61	H-alpha	S
KHAR	Jul	25	0741 E		0758 D	300	1.00	H-alpha	S
BLEN	Jul	25	0840.9		0849.5			Decimeter; meter	II Herringbone
SVTO	Jul	25	0844.0		0859.0			Meter	II
LEAR	Jul	25	0844.0		0905.0			Meter	II
WEIS	Jul	25	0844.1		0856.8			170- 30 MHz	II Herringbone
SVTO	Jul	25	0845.0		0934.0			Meter	IV
KHAR	Jul	25	0906 E		0940 D	300	1.00	H-alpha	S
BLEN	Jul	27	1748.3		1753.5			Decimeter; meter	II Herringbone
SGMR	Jul	27	1749.0		1751.0			Meter	II
PALE	Jul	27	1750.0		1751.0			Meter	II

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

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

REPORTING STATIONS
- BLEN = Bleien
- KHAR = Kharkov
- LEAR = Learmonth
- PALE = Palehua
- SGMR = Sagamore Hill
- SVTO = San Vito
- WEIS = Weissenau

ACTIVE PROMINENCES AND FILAMENTS

JULY 1989

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	0235E	0530D	N08	E90	07	7.8			9	9	E	LEAR		
01	BSL	0626E	0635D	N08	E90	07	8.0	1				C	CATA		
01	BSL	0656E	0715D	N09	E90	07	8.0	1				C	CATA		
01	ASR	0659E	1529D	N11	E90	07	8.1			9	9	E	SVTO		
01	BSL	0727E	0800D	N08	E90	07	8.0	1-				C	CATA		
01	BSL	0812E	0831D	N07	E90	07	8.1	1				C	CATA		
01	BSL	0847E	0945D	N08	E90	07	8.1	1				C	CATA		
01	AFS	1156E	1529D	N20	W36	06	28.8		02	8	7	E	SVTO	5569	
01	ASR	1255E	0200D	N09	E90	07	8.3			9	9	E	HOLL		
01	ASR	1313E	1809D	N08	E90	07	8.3			9	9	E	RAMY		
01	SSB	1320		382	W50	06	24.7			0	0	E	HOLL		
01	SSB	1324		383	W52	06	24.6			0	0	E	RAMY		
01	ASR	1652E	0452D	N07	E90	07	8.4			9	9	E	PALE		
01	DSD	1652E	0452D	N08	W52	06	27.9		03	9	9	E	PALE	5558	
01	ADF	1652E	0452D	N19	W36	06	29.0		06	9	9	E	PALE	5569	
01	ADF	1652E	0452D	N27	W62	06	27.0		09	9	9	E	PALE	5555	
01	ADF	1652E	0452D	S17	W43	06	28.5		03	9	9	E	PALE	5563	
01	ADF	1652E	0452D	S17	W57	06	27.5		12	9	9	E	PALE	5561	
01	ASR	2337E	0938D	S18	W90	06	25.2			9	9	E	LEAR	5552	
01	DSD	2345E	0050D	S15	W46	06	28.6		05	9	9	E	HOLL	5563	Flare Associated
01	ASR	2350E	0200D	N23	E86	07	8.6			9	9	E	HOLL	5575	
02	ADF	0050E	0200D	S14	W61	06	27.5	2	09	9	9	E	HOLL	5561	
02	ASR	0130E	0938D	N07	E90	07	8.8			9	9	E	LEAR		
02	AFS	0445E	0938D	N21	W41	06	29.1		02	6	5	E	LEAR	5569	
02	ASR	0500E	1227D	S20	W90	06	25.4			9	9	E	SVTO		
02	AFS	0520E	1605D	N18	W42	06	29.1		02	9	9	E	SVTO	5569	
02	BSL	0630E	0646	S17	W90	06	25.5	1-				C	CATA		
02	BSL	0637E	0705D	N12	W90	06	25.6	1				C	ABST		
02	BSL	0637E	0705D	N55	W90	06	24.6	1				C	ABST		
02	BSL	0640	0646	N82	E90	07	10.6	1-				C	CATA		
02	BSL	0640	0646	S26	E90	07	9.3	1-				C	CATA		
02	BSL	0651	0708	S17	W90	06	25.5	1-				C	CATA		
02	AFS	0705E	1605D	N10	E88	07	8.9		03	9	9	E	SVTO		
02	BSL	0730	0745	S17	W90	06	25.6	1-				C	CATA		
02	ADF	0732E	1605D	S17	E89	07	9.1	1	16	9	9	E	SVTO		
02	BSL	0825	0855	S17	W90	06	25.6	1-				C	CATA		
02	BSL	0900	0910	S17	W90	06	25.6	1-				C	CATA		
02	BSL	0920	0930	S17	W90	06	25.6	1-				C	CATA		
02	BSL	1000	1015	N84	W90	06	24.1	1-				C	CATA		
02	BSL	1040	1053	S28	E90	07	9.5	1-				C	CATA		
02	MDP	1042E	1605D	N34	E90	07	9.6			9	9	E	SVTO		
02	DSD	1043E	1440D	N18	W49	06	28.8		02	9	9	E	RAMY	5569	
02	ADF	1043E	1533D	S18	E75	07	8.1	1	15	9	9	E	RAMY		
02	BSL	1103	1111	N74	E90	07	10.7	1-				C	CATA		
02	BSL	1105	1115D	N78	E90	07	10.8	1-				C	CATA		
02	BSL	1115	1115D	N29	W90	06	25.5	1-				C	CATA		
02	BSL	1128E	1130D	N30	W90	06	25.5	1-				C	CATA		
02	BSL	1128E	1144D	S27	E90	07	9.5	1-				C	CATA		
02	DSD	1133E	1440D	S20	E47	07	6.1		04	9	9	E	RAMY	5572	
02	DSD	1205E	1520D	S17	E49	07	6.2		06	9	9	E	SVTO	5572	
02	AFS	1210E	1533D	N17	W54	06	28.5		03	9	9	E	RAMY	5569	
02	ADF	1219E	1605D	N50	E77	07	9.0	1	19	9	9	E	SVTO		
02	ADF	1220E	1605D	N39	E26	07	4.6	1	32	9	9	E	SVTO		
02	APR	1314E	0205D	N41	E90	07	9.9	1		8	9	E	HOLL		
02	AFS	1329E	0205D	N19	W44	06	29.3		03	9	8	E	HOLL	5569	
02	ADF	1405E	0205D	S24	E75	07	8.4	2	19	9	9	E	HOLL		
02	ADF	1735E	0508D	N20	E73	07	8.3		09	9	9	E	PALE	5575	
02	BSD	1735E	1800	N31	W75	06	26.9		05	9	9	E	PALE	5555	
02	ASR	1735E	2015D	S10	W90	06	26.1			9	9	E	PALE		
02	DSD	1735E	2030D	S20	E45	07	6.2		03	9	9	E	PALE	5572	
02	AFS	1824E	2238D	N22	W50	06	29.0		04	9	9	E	PALE	5569	
02	ASR	2002E	0205D	S13	W90	06	26.1			9	9	E	HOLL		
02	ASR	2002E	2203D	N14	W90	06	26.1			6	8	E	HOLL		
02	DSD	2031E	0508D	S20	E43	07	6.1		04	9	9	E	PALE	5572	
02	ASR	2145E	0205D	N28	W90	06	26.0			5	9	E	HOLL		
02	APR	2219E	0508D	N60	E90	07	10.8			9	9	E	PALE		
02	APR	2310	0130D	N13	W90	06	26.3	1				C	VORO		
02	APR	2330	0130	S25	W90	06	26.1	1				C	VORO		

ACTIVE PROMINENCES AND FILAMENTS

JULY 1989

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	APR	0010	0130D	S10	E90	07	9.8	1				C	VORO		
03	APR	0020	0130D	N62	E90	07	11.0	1				C	VORO		
03	APR	0020	0130D	N64	W90	06	25.1	1				C	VORO		
03	ASR	0251E	0934D	S19	W90	06	26.3			9	9	E	LEAR	5561	
03	DSD	0357E	0508D	N23	E64	07	8.1		05	9	9	E	PALE	5575	
03	BSL	0424E	0604D	N10	W90	06	26.5	1				C	ABST		
03	APR	0425E	0604D	N64	W90	06	25.2	1				C	ABST		
03	DSD	0509E	0819D	N25	E66	07	8.3		03	9	9	E	SVTO	5575	
03	ASR	0509E	1216D	N05	W78	06	27.5			9	9	E	SVTO	5558	
03	AFS	0509E	1216D	N12	E72	07	8.6		02	9	9	E	SVTO	5576	
03	APR	0509E	1216D	S16	E90	07	10.0			9	9	E	SVTO		
03	APR	0510E	1125D	N70	W90	06	25.1					V	ATHN		
03	ASR	0524E	1216D	S23	W90	06	26.4			7	7	E	SVTO	5556	
03	BSL	0731E	0743	N86	E90	07	11.7	1-				C	CATA		
03	BSL	0809E	0855D	N06	W90	06	26.7	1				C	CATA		
03	DSD	0819E	1216D	N13	E44	07	6.7		03	9	9	E	SVTO	5573	
03	ASR	0820E	0934D	N07	W90	06	26.7			6	6	E	LEAR	5558	
03	BSL	0855	0855D	N07	W90	06	26.7	1-				C	CATA		
03	BSL	0909E	0915D	N06	W90	06	26.7	1				C	CATA		
03	BSL	1015	1024D	N06	W90	06	26.8	1				C	CATA		
03	ASR	1350E	2212D	S21	W90	06	26.8			8	6	E	HOLL	5561	
03	AFS	1730E	2223D	S19	E34	07	6.3		02	9	9	E	PALE	5572	
03	BSD	1749E	1824D	N21	W77	06	27.9		05	6	8	E	HOLL	5559	
03	ASR	1802E	0313D	S22	W88	06	27.1			9	9	E	PALE	5561	
03	ASR	1810E	0443D	N06	W84	06	27.6			9	9	E	PALE	5558	
03	BSD	1819E	2305D	N18	W66	06	28.8		05	9	9	E	PALE	5569	
03	ASR	1855E	0157D	N08	W84	06	27.6			9	9	E	HOLL	5558	
03	ASR	1855E	0157D	S21	W90	06	27.0			8	8	E	HOLL	5556	
03	ADF	1915E	0157D	S20	E32	07	6.2	1	04	9	9	E	HOLL	5572	
03	BSD	1915E	2212D	N21	W78	06	27.9		03	9	9	E	HOLL	5559	
03	AFS	2020E	0157D	S06	W18	07	2.5		01	8	8	E	HOLL		
03	BSD	2134	2114D	N20	W67	06	28.9		05	9	9	E	HOLL	5569	
03	BSL	2302	2321	S18	W90	06	27.2	1				C	VORO		
03	APR	2302E	0159D	N11	W90	06	27.3	1				C	VORO		
03	ADF	2302E	0159D	N48	E45	07	7.7	1				C	VORO		
03	APR	2302E	0159D	N64	E90	07	12.0	1				C	VORO		
03	APR	2309E	0443D	N42	E90	07	11.3			9	9	E	PALE		
04	BSL	0000	0032	N36	W90	06	26.9	1				C	VORO		
04	APR	0000	0159	S06	E90	07	10.7	1				C	VORO		
04	APR	0000	0159D	N35	E90	07	11.2	1				C	VORO		
04	ADF	0010	0159D	N20	E03	07	4.2	1				C	VORO		
04	APR	0010	0159D	N64	W90	06	26.1	1				C	VORO		
04	DSD	0013E	0443D	N24	E52	07	8.0		05	9	9	E	PALE	5575	Flare Associated
04	AFS	0045E	0920D	N21	E53	07	8.1		02	6	5	E	LEAR	5575	
04	AFS	0220E	0920D	S21	E28	07	6.2		02	5	5	E	LEAR	5572	
04	BSL	0605E	0705D	N65	E90	07	12.3	1				C	ABST		
04	ASR	0621E	0731D	N23	E90	07	11.2			9	7	E	LEAR		
04	BSL	0633E	0645	N83	E90	07	12.7	1-				C	CATA		
04	BSL	0636	0645	S80	E90	07	12.6	1-				C	CATA		
04	BSL	0745	0750	S21	W90	06	27.5	1-				C	CATA		
04	BSL	0750	0802	S50	E90	07	11.9	1-				C	CATA		
04	BSL	0755	0815	S18	W90	06	27.6	1-				C	CATA		
04	BSL	0755	0815	S21	W90	06	27.5	1-				C	CATA		
04	BSL	0823	0845	N24	W90	06	27.5	1				C	CATA		
04	BSL	0840	0850	N89	W90	06	26.0	1-				C	CATA		
04	BSL	0845	0900	S22	W90	06	27.5	1-				C	CATA		
04	BSL	0856	0907	N56	E90	07	12.2	1-				C	CATA		
04	BSD	0900E	1723D	N18	W65	06	29.5		04	9	9	E	SVTO	5569	
04	BSL	0907	0920	N30	W90	06	27.4	1				C	CATA		
04	BSL	0907	0930	N06	W90	06	27.7	1				C	CATA		
04	ASR	0910E	1503D	N03	W90	06	27.7			9	9	E	SVTO	5558	
04	BSL	0916	0939	N18	W90	06	27.6	1-				C	CATA		
04	BSL	0950	1006	N52	E90	07	12.1	1-				C	CATA		
04	BSL	1001	1022	N09	W90	06	27.8	1-				C	CATA		
04	BSL	1030	1041	N78	W90	06	26.2	1-				C	CATA		
04	BSL	1037	1041D	N14	E90	07	11.2	1				C	CATA		
04	BSL	1110	1116D	N88	W90	06	26.1	1-				C	CATA		
04	BSL	1132	1140D	S18	W90	06	27.7	1-				C	CATA		

ACTIVE PROMINENCES AND FILAMENTS

JULY 1989

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
04	SDF	1140E	0645D	N30	W14	07	3.4	1				C	CATA		
04	SDF	1140E	0645D	N36	W20	07	2.9	1				C	CATA		
04	BSD	1235E	1458D	N19	W74	06	29.0		03	9	9	E	RAMY	5569	
04	SDF	1254E	1125D	N18	W41	07	1.4		19	0	0	E	RAMY		
04	BSD	1415E	1915D	N20	W73	06	29.1		08	9	9	E	HOLL	5569	
04	ASR	1440E	1723D	S15	W90	06	27.9			9	9	E	SVTO	5563	
04	ASR	1523E	1723D	S21	W89	06	27.9			9	9	E	SVTO	5561	
04	ASR	1525E	0114D	S18	W82	06	28.5			9	9	E	HOLL	5563	
04	APR	1525E	1945D	S15	W90	06	27.9			9	9	E	HOLL	5563	
04	ASR	1529E	1745D	S13	W82	06	28.5			9	9	E	RAMY	5563	
04	APR	1529E	1745D	S15	W90	06	27.9			9	9	E	RAMY	5563	
04	ADF	1814E	0451D	N14	E23	07	6.5		05	9	9	E	PALE	5573	
04	ADF	1814E	0451D	S21	E21	07	6.4		05	9	9	E	PALE	5572	
04	ADF	1820E	0451D	N22	E40	07	7.8		06	9	9	E	PALE	5575	
04	ADF	1820E	0451D	S23	E48	07	8.5		16	9	9	E	PALE		
04	BSD	1950	0114D	N17	W77	06	29.1		06	9	9	E	HOLL	5569	
04	APR	2150	0200D	N60	W90	06	27.1	1				C	VORO		
04	BSL	2230	2300	S12	E90	07	11.7	1				C	VORO		
04	ASR	2238	2250	N11	E90	07	11.7	1				C	VORO		
04	APR	2300	0200D	N30	E90	07	12.0	1				C	VORO		
04	BSL	2300	2341	S07	E90	07	11.7	1				C	VORO		
04	APR	2330	0200	N10	W90	06	28.3	1				C	VORO		
05	APR	0013	0200D	N13	E90	07	11.8	1				C	VORO		
05	APR	0028	0200D	S37	E90	07	12.3	1				C	VORO		
05	BSL	0041	0105	N11	E90	07	11.8	1				C	VORO		
05	APR	0053	0200E	S18	E90	07	11.9	1				C	VORO		
05	BSL	0100	0121	N17	W90	06	28.3	1				C	VORO		
05	AFS	0150E	0942D	N21	E39	07	8.1		02	7	6	E	LEAR	5575	
05	ASR	0200E	0942D	S12	E90	07	11.9			6	4	E	LEAR	5579	
05	APR	0215E	0942D	N16	E90	07	11.9	2		9	5	E	LEAR		
05	ADF	0320E	0550D	N05	E46	07	8.6	1	04	7	5	E	LEAR	5576	
05	BSL	0644E	0645D	S21	W90	06	28.5	1-				C	CATA		
05	BSL	0712E	0745D	S21	W90	06	28.5	1-				C	CATA		
05	BSL	0755E	0805	S11	E90	07	12.1	1-				C	CATA		
05	BSL	0755E	0828	S05	E90	07	12.1	1-				C	CATA		
05	BSL	0840	0852	S84	E90	07	13.7	1-				C	CATA		
05	BSL	0840	0900	S84	W90	06	27.1	1-				C	CATA		
05	BSL	0845	0910	S55	W90	06	27.7	1				C	CATA		
05	DSD	0850E	1030D	N13	E41	07	8.5		04	9	9	E	SVTO	5576	Flare Associated
05	AFS	0918E	1030D	N10	E42	07	8.5		03	9	9	E	SVTO	5576	
05	ASR	0930E	1742D	N05	W90	06	28.8			7	7	E	SVTO	5558	
05	BSL	0952E	1000	S13	E90	07	12.2	1-				C	CATA		
05	BSL	0957	1013	N89	W90	06	27.1	1-				C	CATA		
05	BSL	1042	1106	S05	E90	07	12.2	1				C	CATA		
05	ASR	1053E	1101D	N14	W90	06	28.7			9	9	E	RAMY	5569	
05	ASR	1053E	1951D	S13	E90	07	12.2			7	6	E	RAMY	5579	
05	AFS	1223E	1742D	N32	E23	07	7.3		02	8	8	E	SVTO	5575	
05	AFS	1420E	0145D	N23	E33	07	8.1		02	6	8	E	HOLL	5575	
05	DSD	1728E	0450D	N22	E26	07	7.7		04	9	9	E	PALE	5575	Flare Associated
05	ADF	1728E	0450D	S21	E08	07	6.3		05	9	7	E	PALE	5572	
05	SSB	1735		280	W04	07	11.7			0	0	E	HOLL		
05	APR	2216	0111D	N68	W90	06	27.9	1				C	VORO		
05	ASR	2245E	0450D	N12	E90	07	12.7			9	9	E	PALE	5582	
05	APR	2256	0111D	S42	E90	07	13.3	1				C	VORO		
05	ADF	2315	0111D	N20	W27	07	3.9	1				C	VORO		
05	APR	2315	0111D	S33	W90	06	28.9	1				C	VORO		
05	APR	2335	0111D	N10	E90	07	12.7	1				C	VORO		
05	ASR	2350E	0145D	S12	E90	07	12.8			9	9	E	HOLL		
05	BSL	2355	0017	S11	E90	07	12.8	1				C	VORO		
06	BSL	0030	0101	N18	W90	06	29.3	1				C	VORO		
06	BSL	0042	0101	N13	W90	06	29.3	1				C	VORO		
06	BSL	0107	0111D	N19	W90	06	29.3	1				C	VORO		
06	DSD	0249E	0516D	N23	E27	07	8.2		04	9	9	E	LEAR	5575	
06	ASR	0513E	1654D	S10	E90	07	13.0			9	9	E	SVTO		
06	AFS	0516E	1738D	N20	E03	07	6.4		02	8	9	E	SVTO		
06	ASR	0611E	0730D	N26	E90	07	13.2			9	9	E	LEAR	5582	
06	DSD	0724	0812	S16	E06	07	6.8		11	9	9	E	LEAR	5572	
06	BSL	0859	0911	N32	E90	07	13.5	1-				C	CATA		

ACTIVE PROMINENCES AND FILAMENTS

JULY 1989

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
06	EPL	0911	1105D	N66	W90	06	28.4	3				C	CATA		
06	BSL	1004	1012	N89	E90	07	14.8	1				C	CATA		
06	ASR	1201E	1335D	S12	E90	07	13.3			9	9	E	RAMY		
06	AFS	1205E	1725D	N25	E18	07	7.9		01	9	9	E	RAMY	5575	
06	AFS	1350E	1715D	N25	E17	07	7.9	1	02	7	6	E	HOLL	5575	
06	ASR	1402E	0200D	S12	E81	07	12.7			9	9	E	HOLL		
06	ADF	1435E	1531D	N28	E27	07	8.7	2	06	9	9	E	HOLL	5575	
06	ADF	1450E	0200D	S24	E21	07	8.2	1	18	9	9	E	HOLL		
06	ASR	1706E	0354D	S09	E78	07	12.6			9	9	E	PALE	5585	
06	APR	1715E	1718D	S34	E90	07	13.9			9	9	E	PALE		
06	DSD	1715E	2019D	S12	E81	07	12.8		02	9	9	E	RAMY		
06	AFS	1720E	0200D	N76	W55	07	1.6	1	02	9	9	E	HOLL		
06	SDF	1755E	1803D	S14	W07	07	6.2	3	07	0	0	E	HOLL	5574	
06	ASR	1825E	2019D	S19	E87	07	13.4			9	8	E	RAMY		
06	AFS	2102E	0354D	N10	E19	07	8.3		02	9	9	E	PALE	5576	
06	ASR	2135E	0200D	N22	E90	07	13.8			9	9	E	HOLL		
06	BSL	2142	2240	N21	E90	07	13.8	1				C	VORO		
06	APR	2144	0130D	N42	W90	06	29.6	1				C	VORO		
06	ASR	2154E	0031D	N24	E90	07	13.9			9	9	E	PALE		
06	APR	2156	0130D	S45	E90	07	14.4	1				C	VORO		
06	APR	2314	0130D	N21	W90	06	30.1	1				C	VORO		
06	ADF	2314	0130D	N23	W45	07	3.5	1				C	VORO		
07	AFS	0009E	0756D	N04	E18	07	8.3		03	8	6	E	LEAR	5576	
07	BSL	0018	0101	S25	E90	07	14.0	1				C	VORO		
07	BSL	0423E	0436D	S45	E90	07	14.6	1				C	ABST		
07	AFS	0545E	0756D	S12	W20	07	5.7		03	9	9	E	LEAR	5572	
07	AFS	0609E	1520D	N23	E11	07	8.1		02	9	9	E	SVTO	5575	
07	BSL	0741	0745D	N63	W90	06	29.4	1-				C	CATA		
07	BSL	0745	0745D	S66	W90	06	29.3	1-				C	CATA		
07	BSL	0745	0745D	S81	W90	06	29.0	1-				C	CATA		
07	AFS	0925E	1609D	S20	W13	07	6.4		02	9	9	E	SVTO	5572	
07	BSL	0937E	0940	N30	W90	06	30.3	1-				C	CATA		
07	BSL	0937E	0940D	N68	E90	07	15.5	1-				C	CATA		
07	DSD	1448E	0020D	N09	E11	07	8.4		06	9	9	E	HOLL	5576	
07	SSB	1514		280	W29	07	13.9			0	0	E	HOLL		
07	SSB	1530		280	W29	07	13.9			0	0	E	RAMY		
07	ADF	1535E	0020D	S20	W17	07	6.3	1	05	9	9	E	HOLL	5572	
07	ADF	1535E	1802D	S13	W09	07	7.0	1	08	8	9	E	HOLL	5572	
07	ADF	1544E	1603D	S13	W09	07	7.0	1	08	9	9	E	RAMY	5572	
07	ADF	1720E	1726D	S21	W10	07	6.9		07	9	9	E	PALE	5572	Flare Associated
08	AFS	0005E	0737D	S11	E50	07	11.8		03	7	7	E	LEAR	5579	
08	ADF	0014E	0020D	N26	E04	07	8.3	1	09	9	9	E	HOLL	5575	
08	ADF	0120E	0737D	N21	E02	07	8.2	1	08	8	4	E	LEAR	5575	
08	AFS	0125E	0444D	N21	W21	07	6.4		02	8	8	E	PALE	5583	
08	DSD	0140E	0344D	S15	E70	07	13.4		03	9	9	E	PALE	5586	
08	DSD	0140E	0444D	N23	W02	07	7.9		02	9	9	E	PALE	5575	
08	DSD	0201E	0444D	S08	E43	07	11.3		03	9	9	E	PALE	5579	
08	AFS	0215E	0737D	S18	W59	07	3.6		02	7	6	E	LEAR	5587	
08	ADF	0445E	1646D	N22	W01	07	8.1	1	04	9	9	E	SVTO	5575	
08	ADF	0445E	1646D	N25	E00	07	8.2	1	05	9	9	E	SVTO	5575	
08	AFS	0513E	1646D	S09	E47	07	11.7		03	9	9	E	SVTO	5579	
08	BSL	0538E	0621D	S30	E90	07	15.3	1				C	ABST		
08	AFS	0555E	1646D	N22	W03	07	8.0		03	6	8	E	SVTO	5575	
08	APR	0651E	0958D	N28	W83	07	1.8	1		9	9	E	SVTO	5577	
08	BSL	0756	0808	N26	E90	07	15.3	1-				C	CATA		
08	BSL	0801	0808	N24	E90	07	15.3	1-				C	CATA		
08	ADF	0828E	1646D	S16	W29	07	6.1	1	07	9	9	E	SVTO	5572	
08	BSL	0903	0919	N24	E90	07	15.3	1-				C	CATA		
08	AFS	0945E	1646D	S09	E44	07	11.7		03	9	9	E	SVTO	5579	
08	BSL	1108	1130	S65	W90	06	30.4	1-				C	CATA		
08	BSL	1125	1135	S67	W90	06	30.4	1-				C	CATA		
08	AFS	1555E	2150D	S17	W25	07	6.8		02	9	9	E	RAMY	5572	
08	SDF	1646E	0435D	S16	E22	07	10.4		13	0	0	E	SVTO		
08	ADF	1723E	0330D	N15	E40	07	11.7		13	9	7	E	PALE	5581	
08	ADF	1723E	0330D	N22	W07	07	8.2		11	9	9	E	PALE	5575	
08	ASR	1723E	0330D	N24	W90	07	1.8			9	9	E	PALE	5577	
08	ADF	1723E	0330D	N29	W01	07	8.6		12	9	9	E	PALE	5575	
08	AFS	1723E	0330D	S09	E40	07	11.7		05	9	9	E	PALE	5579	

ACTIVE PROMINENCES AND FILAMENTS

JULY 1989

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	DSD	1723E	0330D	S17	W25	07	6.8		02	9	9	E	PALE	5572	
08	ADF	1723E	0330D	S17	W31	07	6.4		09	9	9	E	PALE	5572	
08	DSD	1723E	0330D	S21	E70	07	14.1		06	9	9	E	PALE	5586	
08	ASR	1844E	2150D	N20	W90	07	1.9			9	9	E	RAMY	5571	
08	ADF	2101E	0027D	S24	E70	07	14.3	1	06	9	9	E	HOLL	5586	
08	ADF	2101E	0027D	S24	W10	07	8.1	1	04	9	9	E	HOLL		
08	AFS	2101E	0150D	S10	E37	07	11.6		02	7	7	E	HOLL	5579	
08	ADF	2147E	0150D	S11	W37	07	6.1	2	08	9	9	E	HOLL	5572	
09	BSL	0531E	0645D	N46	E90	07	16.7	1				C	ABST		
09	ADF	0547E	1040D	S16	W34	07	6.7	1	09	9	9	E	SVTO	5572	
09	ADF	0547E	1040D	S20	W42	07	6.0	1	08	9	9	E	SVTO	5572	
09	AFS	0547E	1728D	S20	W36	07	6.5		02	9	9	E	SVTO	5572	
09	BSL	0610E	0645D	S40	E90	07	16.6	1				C	ABST		
09	ADF	0627E	1724D	N21	W23	07	7.5	1	06	9	9	E	SVTO	5575	
09	ADF	0627E	1728D	N21	W14	07	8.2	1	13	9	9	E	SVTO	5575	
09	ADF	0700E	0800	S47	E50	07	13.5	1				V	KHAR		
09	DSD	0710E	0730	S18	E50	07	13.1	1				V	KHAR		
09	DSD	0728	0755	S15	E56	07	13.5	1				V	KHAR		
09	BSL	0750E	0752	N25	E90	07	16.3	1-				C	CATA		
09	BSL	0750E	0817	N17	E90	07	16.2	1-				C	CATA		
09	BSL	0806	0817	N25	E90	07	16.3	1-				C	CATA		
09	ADF	0836	0930	S47	E50	07	13.5	1				V	KHAR		
09	ADF	0927	1003D	S29	E66	07	14.6	1				V	KHAR		
09	AFS	0938E	1103D	S10	E31	07	11.7		01	9	9	E	SVTO	5579	
09	BSL	1003E	1010D	N27	E90	07	16.4	1-				C	CATA		
09	BSL	1024E	1035D	N30	E90	07	16.5	1-				C	CATA		
09	AFS	1237E	1728D	S09	E29	07	11.7		02	8	9	E	SVTO	5579	
09	DSD	1330E	1457D	N24	W21	07	7.9		03	9	9	E	SVTO	5575	
09	SSB	1355		248	W23	07	13.3			0	0	E	RAMY		
09	SSB	1412		248	W23	07	13.3			0	0	E	SVTO		
09	SSB	1428		247	W22	07	13.2			0	0	E	HOLL		
09	ASR	1600E	1728D	N31	E90	07	16.8			9	9	E	SVTO		
09	ADF	1705E	2025D	S25	W39	07	6.7	2	06	9	9	E	RAMY	5572	
09	ASR	1743E	0045D	N28	E90	07	16.8			9	9	E	HOLL		
09	ADF	1749E	0045D	S23	E18	07	11.1	2	20	9	9	E	HOLL		
09	ADF	1815E	0431D	S16	W37	07	6.9		12	9	9	E	PALE	5572	
09	DSD	1825E	0431D	N10	W19	07	8.3		05	9	9	E	PALE	5576	
09	ADF	1825E	0431D	N21	W24	07	7.9		06	9	9	E	PALE	5575	
09	DSD	1825E	0431D	N23	W23	07	8.0		04	9	9	E	PALE	5575	
09	ADF	1825E	0431D	S24	W18	07	8.4		07	9	9	E	PALE	5584	
09	DSD	1825E	0431D	S25	W35	07	7.0		05	9	9	E	PALE	5584	
09	ADF	1841E	0431D	N14	E27	07	11.8		06	9	9	E	PALE	5581	
09	DSD	1841E	0431D	S06	E13	07	10.7		03	9	9	E	PALE	5579	
09	DSD	1844E	2320D	N09	W24	07	8.0		03	9	9	E	HOLL	5576	
09	DSD	1852E	2322D	S08	E16	07	11.0		02	9	9	E	HOLL	5579	
09	ASR	2327E	0939D	N28	E88	07	16.8			7	7	E	LEAR		
09	AFS	2331E	0939D	S12	E22	07	11.6		03	9	9	E	LEAR	5579	
10	ADF	0410E	0939D	N25	W24	07	8.3	1	04	9	9	E	LEAR	5575	
10	ASR	0551E	1135D	N29	E90	07	17.3			9	9	E	SVTO		
10	BSL	0605E	0704D	N26	E90	07	17.2	1				C	ABST		
10	BSL	0605E	0704D	N40	E90	07	17.6	1				C	ABST		
10	BSL	0700E	0705	N15	E90	07	17.1	1-				C	CATA		
10	BSL	0705	0710D	N24	E90	07	17.2	1-				C	CATA		
10	BSL	0705	0710D	N26	E90	07	17.3	1-				C	CATA		
10	BSL	0706E	0825D	N28	E90	07	17.3	1				V	KHAR		
10	DSD	0750	0758	S18	E43	07	13.6	1				V	KHAR		
10	BSL	0905E	0920	N09	E90	07	17.1	1-				C	CATA		
10	BSL	0905E	0935	N07	E90	07	17.1	1-				C	CATA		
10	BSL	0935	0952	N83	E90	07	18.8	1-				C	CATA		
10	ADF	0936E	1135D	S16	W48	07	6.7	1	18	9	9	E	SVTO	5572	
10	ADF	0940E	1028	S15	W54	07	6.3	1				V	KHAR		
10	BSL	0942	0952	N07	E90	07	17.1	1-				C	CATA		
10	BSL	0942	0952	N09	E90	07	17.1	1-				C	CATA		
10	BSL	1001	1017	N17	E90	07	17.2	1-				C	CATA		
10	BSL	1006	1024D	N07	E90	07	17.2	1-				C	CATA		
10	BSL	1017	1024D	N08	E90	07	17.2	1				C	CATA		
10	BSL	1040E	1110D	N08	E90	07	17.2	1				C	CATA		
10	BSL	1122E	1131	N08	E90	07	17.2	1-				C	CATA		

ACTIVE PROMINENCES AND FILAMENTS

JULY 1989

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	BSL	1122E	1144D	N07	E90	07	17.2	1				C	CATA		
10	BSL	1122E	1144D	N09	E90	07	17.2	1-				C	CATA		
10	SDF	1135E	0559D	S32	E22	07	12.2		12	0	0	E	SVTO		
10	DSD	1156E	1800D	S20	E41	07	13.6		02	9	9	E	RAMY	5586	
10	ADF	1408E	2150D	S14	E50	07	14.4	2	09	9	9	E	RAMY	5572	
10	ASR	1423E	2043D	N29	E90	07	17.6			9	9	E	HOLL		
10	SSB	2245		236	W29	07	13.8			0	0	E	PALE		
10	AFS	2245E	0151D	N08	W35	07	8.3		02	9	9	E	PALE	5576	
10	DSD	2245E	0151D	N10	W63	07	6.2		03	9	9	E	PALE	5578	
10	AFS	2303E	0151D	N21	W52	07	7.0		02	9	9	E	PALE	5583	
10	ASR	2303E	0151D	N29	E89	07	17.9			9	9	E	PALE	5589	
10	ASR	2331E	0920D	N10	E87	07	17.5			9	9	E	LEAR	5590	
10	AFS	2345E	0920D	S14	E22	07	12.6		02	8	8	E	LEAR	5585	
10	AFS	2349E	0920D	S10	E09	07	11.7		02	9	9	E	LEAR	5579	
10	AFS	2352E	0500D	N14	W62	07	6.3		02	9	9	E	LEAR	5578	
11	BSL	0643E	0655	N54	W90	07	3.5	1-				C	CATA		
11	ADF	0706E	0915	S08	W62	07	6.6	1				V	KHAR		
11	BSL	0742	0754	S74	E90	07	19.6	1-				C	CATA		
11	BSL	0805	0809D	S15	W90	07	4.5	1				C	CATA		
11	BSL	0831	0838	N30	W90	07	4.3	1-				C	CATA		
11	AFS	0907E	1440D	N27	E11	07	12.2		02	9	9	E	SVTO	5582	
11	EPL	0945E	1134	N47	W90	07	3.9	3				C	CATA		
11	BSL	1110	1141	N20	E90	07	18.3	1-				C	CATA		
11	ASR	1116	1341D	N12	E90	07	18.2			9	9	E	RAMY		
11	ASR	1118E	1220D	N22	E89	07	18.3			9	9	E	SVTO		
11	SSB	1558		291	W00	07	18.5			0	0	E	RAMY		
11	DSD	1830E	2045D	S14	E20	07	13.3		03	9	9	E	PALE	5586	
11	ADF	2042E	0340D	S09	W03	07	11.6	1	05	9	9	E	PALE	5579	
11	SSB	2113		200	W05	07	11.9			0	0	E	PALE		239 W44
12	DSD	0535E	0713D	S19	E18	07	13.6		04	9	9	E	SVTO	5586	
12	BSL	0639E	0702D	N45	E90	07	19.7	1				C	ABST		
12	ASR	0643E	1611D	N18	E88	07	19.0			9	9	E	SVTO		
12	ASR	0839E	0915D	S23	W81	07	6.1			9	9	E	SVTO	5572	
12	EPL	1015E	1611D	S12	W76	07	6.7	1		9	9	E	SVTO		
12	APR	1024E	1036D	S09	W90	07	5.7	1				V	KHAR		
12	BSL	1051	1104	N43	W90	07	5.0	1-				C	CATA		
12	BSL	1111	1121D	S22	E90	07	19.4	1-				C	CATA		
12	DSD	1123E	1440D	S16	E12	07	13.4		03	9	9	E	RAMY	5586	
12	ADF	1123E	1747D	N24	E66	07	17.6	1	04	9	9	E	RAMY	5589	
12	SDF	1143E	0637D	N30	W26	07	10.4	1				C	CATA		
12	SDF	1143E	0637D	N37	W30	07	10.1	1				C	CATA		
12	ASR	1400E	1549D	N19	E90	07	19.4			9	9	E	RAMY		
12	SSB	1412		191	W06	07	19.4			0	0	E	HOLL		
12	SDF	1440E	1747D	N39	W17	07	11.2		30	0	0	E	RAMY		
12	SDF	1440E	1747D	N43	W18	07	11.1		20	0	0	E	RAMY		
12	SDF	1611E	0910D	N39	W20	07	11.0		19	0	0	E	SVTO		
12	ADF	1721E	2248D	N32	E60	07	17.5	1	04	7	8	E	HOLL	5589	
12	SDF	1800E	1930	N42	W19	07	11.2	1	28	0	0	E	HOLL		Flare Associated
12	AFS	1813E	0411D	N28	E61	07	17.5		05	9	8	E	PALE	5589	
12	ASR	1910E	0157D	N12	W90	07	6.0			7	9	E	HOLL	5578	
12	SDF	1930	2020D	N37	W21	07	11.1	1	09	0	0	E	HOLL		Flare Associated
12	ASR	2335E	0933D	N13	W90	07	6.2			9	9	E	LEAR	5578	
12	ASR	2338E	0933D	S18	W90	07	6.1			9	9	E	LEAR	5572	
12	AFS	2345E	0933D	S19	W17	07	11.7		02	9	9	E	LEAR		
13	ASR	0020E	0411D	N10	W90	07	6.2			9	9	E	PALE	5578	
13	ASR	0020E	0411D	N18	W83	07	6.7			9	9	E	PALE	5572	
13	APR	0630E	1140D	S05	W90	07	6.5					V	ATHN		
13	APR	0630E	1140D	S40	W90	07	5.9					V	ATHN		
13	BSL	0645	0702	N38	E90	07	20.5	1-				C	CATA		
13	BSL	0722	0726D	S18	W90	07	6.4	1-				C	CATA		
13	BSL	0757E	0757D	S19	W90	07	6.5	1-				C	CATA		
13	ASR	0821E	1652D	S18	W90	07	6.5			9	9	E	SVTO	5572	
13	AFS	0846E	1652D	N27	E52	07	17.4		03	9	9	E	SVTO	5589	
13	ASR	0853E	1652D	S25	W89	07	6.5			9	9	E	SVTO	5584	
13	AFS	0903E	1652D	S12	W23	07	11.6		04	9	9	E	SVTO	5579	
13	BSL	0932E	0936D	S17	W90	07	6.5	1-				C	CATA		
13	ASR	1109E	1813D	S18	W83	07	7.1			9	9	E	RAMY	5576	

ACTIVE PROMINENCES AND FILAMENTS

JULY 1989

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	APR	1111E	1813D	S07	W90	07	6.7	1		9	9	E	RAMY		
13	APR	1208E	1652D	S09	W90	07	6.7	2		9	9	E	SVTO		
13	SDF	1300E	1813D	S09	E68	07	18.6		18	0	0	E	RAMY		
13	APR	1537E	2140D	S06	W90	07	6.9	1		7	9	E	HOLL		
13	ASR	1537E	2140D	S17	W88	07	7.0			9	9	E	HOLL	5576	
13	AFS	1542E	2140D	S09	W27	07	11.6		04	7	6	E	HOLL	5579	
13	AFS	1725E	1813D	N31	E51	07	17.7		04	9	9	E	RAMY	5589	
13	AFS	2056E	2140D	N29	E48	07	17.6		04	9	9	E	HOLL	5589	
13	SDF	2140E	2253D	N38	W11	07	13.0		19	0	0	E	PALE		
13	AFS	2253E	0453D	N29	E44	07	17.4		05	9	9	E	PALE	5589	
14	AFS	0045E	0859D	N26	E45	07	17.5		02	6	5	E	LEAR	5589	
14	AFS	0115E	0859D	N27	E10	07	14.8		02	7	4	E	LEAR		
14	ASR	0420E	1508D	S12	W90	07	7.4			7	8	E	SVTO		
14	AFS	0424E	1729D	N28	E41	07	17.4		04	9	9	E	SVTO	5589	
14	APR	0502E	1729D	S09	W90	07	7.4	2		9	9	E	SVTO		
14	APR	0529E	0859D	S07	W90	07	7.5	1		9	9	E	LEAR		
14	AFS	0601E	1508D	N27	E07	07	14.8		02	7	8	E	SVTO		
14	ADF	0607E	1729D	S19	W16	07	13.0	2	05	6	8	E	SVTO	5586	
14	APR	0630E	1030D	S08	W90	07	7.5	1				V	KHAR		
14	BSL	0701E	0730D	S07	W90	07	7.5	1				C	ABST		
14	BSL	0730E	0730D	S27	E90	07	21.3	1				C	ABST		
14	BSL	0740E	0755	S16	W90	07	7.5	1-				C	CATA		
14	SDF	0742E	1022D	S26	E66	07	19.4	1				V	KHAR		
14	DSD	0803E	0810	S15	W14	07	13.3	1				V	KHAR		
14	BSL	0806E	0814	N82	W90	07	5.9	1-				C	CATA		
14	BSL	0806E	0814	S26	W90	07	7.3	1-				C	CATA		
14	BSL	0806E	0814	S29	W90	07	7.3	1-				C	CATA		
14	BSL	0806E	0820	S16	W90	07	7.5	1-				C	CATA		
14	BSL	0806E	0820	S54	E90	07	22.1	1-				C	CATA		
14	APR	0830E	1140D	S04	W90	07	7.6					V	ATHN		
14	APR	0830E	1140D	S50	W90	07	6.7					V	ATHN		
14	BSL	0834	0845	S15	W90	07	7.5	1-				C	CATA		
14	BSL	0834	0850	S17	W90	07	7.5	1				C	CATA		
14	BSL	0925	0943	N80	W90	07	6.0	1-				C	CATA		
14	BSL	0935	0943	N85	E90	07	22.8	1-				C	CATA		
14	DSD	1125E	1604D	N10	E33	07	16.9		03	9	9	E	RAMY	5590	
14	ADF	1140E	1612D	S14	W14	07	13.4	2	04	9	9	E	RAMY	5586	
14	SSB	1333		197	W38	07	22.4			0	0	E	RAMY		
14	AFS	1620E	2037D	N28	E37	07	17.6		04	9	9	E	RAMY	5589	
14	DSD	1700E	2037D	N10	E29	07	16.9		02	9	9	E	RAMY	5590	
14	DSD	1700E	2037D	N16	E30	07	17.0		04	9	9	E	RAMY	5590	
14	CRN	1719E	2140D	N20	W90	07	7.8		09	8	8	E	HOLL		
14	AFS	2140E	0142D	N27	E31	07	17.3		04	8	8	E	HOLL	5589	
14	AFS	2208E	0225D	N28	E33	07	17.5		03	9	9	E	PALE	5589	
14	ASR	2246	2300	S12	E90	07	21.7			9	9	E	HOLL		
14	LPS	2300	2349D	S12	E90	07	21.7			9	9	E	HOLL		Flare Associated
14	LPS	2303E	2327D	S12	E90	07	21.7			9	9	E	PALE		
14	MDP	2334E	0229D	S04	E90	07	21.7			9	9	E	PALE		
15	DSD	0151E	0426D	N29	E31	07	17.5		04	9	9	E	PALE	5589	
15	BSL	0504E	0641D	S20	W90	07	8.3	1				C	ABST		
15	AFS	0505E	1602D	N27	E28	07	17.4		03	9	9	E	SVTO	5589	
15	ASR	0539E	1602D	S07	E89	07	21.9			9	9	E	SVTO		Flare Associated
15	BSL	0548E	0641D	S07	E90	07	22.0	1				C	ABST		
15	APR	0605E	0620D	S10	E90	07	22.0					V	ATHN		
15	APR	0605E	1200D	S50	W90	07	7.6					V	ATHN		
15	APR	0618E	1032D	S24	W89	07	8.4	1		7	9	E	SVTO	5584	
15	ADF	0632E	1522D	N15	E27	07	17.3	2	04	9	9	E	SVTO	5590	
15	ASR	0705E	1602D	N22	W89	07	8.4			9	9	E	SVTO	5575	
15	BSL	0715	0715D	N89	W90	07	6.9	1-				C	CATA		
15	BSL	0758E	0811	S18	E90	07	22.2	1-				C	CATA		
15	AFS	0801E	1602D	S11	W50	07	11.6		02	7	5	E	SVTO	5579	
15	BSL	0817	0824	S12	E90	07	22.1	1-				C	CATA		
15	BSL	0832	0840	S43	E90	07	22.8	1-				C	CATA		
15	BSL	0835	0840	S12	E90	07	22.1	1-				C	CATA		
15	BSL	0948	1002	N81	E90	07	23.8	1-				C	CATA		
15	BSL	0948	1002	S17	E90	07	22.2	1-				C	CATA		
15	BSL	1111	1119	N72	W90	07	7.2	1-				C	CATA		
15	BSL	1126	1143	N46	W90	07	8.0	1-				C	CATA		

ACTIVE PROMINENCES AND FILAMENTS

JULY 1989

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
15	ASR	1140E	2053D	S10	E90	07	22.2			9	9	E	RAMY	5597	
15	DSD	1143E	1420D	N26	E19	07	17.0		03	9	9	E	RAMY	5589	
15	AFS	1143E	1420D	N26	E23	07	17.3		02	9	9	E	RAMY	5589	
15	AFS	1149E	1523D	S06	E52	07	19.4		03	9	9	E	RAMY	5594	
15	ADF	1219E	1532D	S14	W56	07	11.3	1	08	9	9	E	RAMY	5579	
15	SSB	1537		185	W40	07	22.6			0	0	E	RAMY		214 W69
15	SSB	1541		178	W33	07	21.8			0	0	E	HOLL		213 W68
15	APR	1608E	1905D	N15	W90	07	8.8			9	9	E	HOLL		
15	AFS	1621E	2153D	N29	E21	07	17.3		05	9	9	E	HOLL	5589	
15	AFS	1727E	2053D	N27	E21	07	17.4		03	8	7	E	RAMY	5589	
15	SSB	1855		190	W47	07	23.3			0	0	E	PALE		
15	AFS	1855E	0018D	N28	E20	07	17.3		04	9	9	E	PALE	5589	
15	DSD	2327E	0034D	N10	E17	07	17.2		04	9	9	E	HOLL	5590	
15	AFS	2349E	0034D	S05	E45	07	19.3		02	9	9	E	HOLL	5594	
16	AFS	0038E	0425D	S04	E43	07	19.2		02	9	9	E	PALE	5594	
16	ASR	0052E	0425D	S10	E88	07	22.6			9	9	E	PALE	5597	
16	ASR	0052E	0425D	S18	E89	07	22.8			9	9	E	PALE		
16	DSD	0400E	0425D	N24	E11	07	17.0		03	9	9	E	PALE	5589	
16	AFS	0450E	1719D	N28	E14	07	17.3		02	9	9	E	SVTO	5589	
16	AFS	0450E	1719D	S03	E42	07	19.3		01	6	7	E	SVTO	5594	
16	BSL	0534E	0606D	S20	E90	07	23.1	1				C	ABST		
16	BSL	0750	0839	S22	E90	07	23.2	1-				C	CATA		
16	BSL	0845	0905	S13	E90	07	23.1	1-				C			
16	BSL	0911	0935	S22	E90	07	23.3	1				C	CATA		
16	BSL	1004	1016	N42	E90	07	23.8	1-				C	CATA		
16	BSL	1004	1050	S13	E90	07	23.2	1				C	CATA		
16	BSL	1012	1050	S22	E90	07	23.3	1-				C	CATA		
16	BSL	1100	1110D	N12	E90	07	23.2	1-				C	CATA		
16	BSL	1110	1110D	N84	W90	07	8.1	1-				C	CATA		
16	DSD	1126E	2023D	S21	W44	07	13.1		03	9	9	E	RAMY	5586	
16	ASR	1130E	2023D	S22	E90	07	23.4			8	9	E	RAMY	5598	
16	SSB	1155		142	W08	07	19.6			0	0	E	RAMY		161 W27 185 W51
16	ADF	1358E	2137D	N32	E17	07	17.9	1	08	8	8	E	RAMY	5589	
16	DSD	1534E	1601D	S16	E72	07	22.1		25	9	9	E	RAMY	5597	Flare Associated
16	ASR	1544E	1945D	S22	E90	07	23.6			9	9	E	HOLL		
16	AFS	1555E	2352D	S20	W45	07	13.2		01	9	9	E	HOLL	5586	
16	DSD	1736E	1945D	S13	E69	07	21.9		10	9	9	E	HOLL	5597	
16	DSD	1748E	0036D	S13	E73	07	22.2		04	9	9	E	PALE	5597	
16	AFS	1748E	0336D	N27	E08	07	17.4		06	9	9	E	PALE	5589	
16	DSD	1748E	2104D	S12	E78	07	22.6		07	9	9	E	PALE	5597	
16	SSB	1935		142	W12	07	20.0			0	0	E	HOLL		181 W51
16	DSD	2104E	0336D	S04	E32	07	19.3		05	9	9	E	PALE	5594	
16	ADF	2104E	0336D	S18	W52	07	12.9		05	9	9	E	PALE	5586	
16	ADF	2157E	2352D	S13	W50	07	13.1	1	10	9	9	E	HOLL	5586	
17	BSL	0016E	0016D	S14	E77	07	22.8			9	9	E	PALE	5597	Flare Associated
17	DSD	0036E	0336D	S10	E67	07	22.0		10	9	9	E	PALE	5597	Flare Associated
17	BSL	0455E	0555D	N10	E90	07	24.0	1				C	ABST		
17	ADF	0553E	0829D	S06	E66	07	22.2	1	05	9	9	E	LEAR	5597	
17	AFS	0618E	0829D	N28	E03	07	17.5		03	9	9	E	LEAR	5589	
17	BSL	0736E	0739D	N10	W90	07	10.5	1-				C	CATA		
17	BSL	0837	0845	S20	E90	07	24.2	1-				C	CATA		
17	BSL	0851	0945D	S28	E90	07	24.4	1-				C	CATA		
17	AFS	0902E	1753D	N27	E00	07	17.4		01	6	7	E	SVTO	5589	
17	BSL	0940	0945	N84	E90	07	25.8	1-				C	CATA		
17	BSL	0940	0945D	S22	E90	07	24.3	1-				C	CATA		
17	ASR	0944E	1753D	S19	E90	07	24.3			9	9	E	SVTO		
17	BSL	0945	0945D	N28	E90	07	24.4	1-				C	CATA		
17	BSL	0948E	1000	S26	E90	07	24.4	1				V	KHAR		
17	ADF	0950E	1025	N17	E44	07	20.7	1				V	KHAR		
17	BSL	0955	0959	N29	E90	07	24.5	1-				C	CATA		
17	BSL	0959	1007	N47	E90	07	24.9	1-				C	CATA		
17	BSL	0959	1007	N75	E90	07	25.7	1-				C	CATA		
17	AFS	1023E	1753D	S04	E25	07	19.3		01	8	9	E	SVTO	5594	
17	ADF	1050E	2206D	S16	W60	07	12.9	1	05	9	9	E	RAMY	5586	
17	DSD	1050E	2206D	S23	E79	07	23.5		02	9	9	E	RAMY	5598	
17	ASR	1058E	1753D	N38	E90	07	24.7			9	9	E	SVTO		
17	ADF	1059E	1753D	N19	E48	07	21.1	1	17	9	9	E	SVTO		
17	ADF	1100E	1753D	N28	W05	07	17.1	1	12	9	9	E	SVTO		

ACTIVE PROMINENCES AND FILAMENTS

JULY 1989

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
17	APR	1145E	1345	N09	E90	07	24.2	2		9	9	E	SVTO		
17	APR	1209E	1507D	N06	E90	07	24.2	2		9	9	E	RAMY		
17	EPL	1345	1700D	N09	E90	07	24.3	2		9	9	E	SVTO		
17	ASR	1403E	1900D	N24	E88	07	24.4			9	9	E	RAMY		
17	ASR	1406E	1753D	N27	E90	07	24.6			9	9	E	SVTO		
17	CAP	1441E	1753D	N35	E90	07	24.8		02	9	9	E	SVTO		
17	DSD	1523E	1640D	N24	W09	07	16.9		04	9	9	E	SVTO	5589	
17	AFS	1612E	1753D	N11	E27	07	19.7		02	8	8	E	SVTO		
17	ASR	1613E	1753D	S17	W90	07	10.8			9	9	E	SVTO		
17	DSD	1714E	1753D	N20	E49	07	21.5		05	9	9	E	SVTO	5596	
17	SDF	1722E	1238D	S25	W20	07	16.2		17	0	0	E	HOLL		
18	SDF	0000E	1238D	S25	W20	07	16.4		17	0	0	E	HOLL		
18	SDF	0000E	1238D	S33	W05	07	17.6		12	0	0	E	HOLL		
18	APR	0205E	0624D	S28	E90	07	25.1	2		9	9	E	LEAR	5598	
18	ASR	0238E	0313D	N19	W90	07	11.2			9	8	E	PALE	5581	
18	AFS	0238E	0313D	S20	E65	07	23.1		05	9	9	E	PALE	5598	
18	AFS	0238E	0313D	S25	W09	07	17.4		04	9	7	E	PALE	5589	
18	ASR	0530E	1527D	S19	E82	07	24.5			9	9	E	SVTO		
18	APR	0715E	0730D	S62	E90	07	26.3					V	ATHN		
18	APR	0715E	0740D	N45	W90	07	10.8					V	ATHN		
18	BSL	0720	0732	S47	W90	07	10.8	1-				C	CATA		
18	BSL	0720	0736	S19	W90	07	11.4	1-				C	CATA		
18	BSL	0750	0755	S87	E90	07	26.7	1-				C	CATA		
18	BSL	0755E	0812D	N26	E90	07	25.3	1				V	KHAR		
18	AFS	0831E	1530D	N28	W13	07	17.3		03	7	9	E	SVTO	5589	
18	ADF	0831E	1614D	N32	W06	07	17.9	1	16	9	9	E	SVTO	5589	
18	BSL	0834	0840	S84	W90	07	10.0	1-				C	CATA		
18	BSL	0834	0847	N26	E90	07	25.3	1-				C	CATA		
18	BSL	0847	0855	N45	E90	07	25.8	1-				C	CATA		
18	BSL	0928	0950	N26	E90	07	25.4	1				V	KHAR		
18	APR	1000E	1020	N39	W90	07	11.1	1				V	KHAR		
18	BSL	1005	1020	S82	E90	07	26.8	1-				C	CATA		
18	BSL	1005	1025D	N19	W90	07	11.5	1				C	CATA		
18	BSL	1035E	1127	N19	W90	07	11.6	1				C	CATA		
18	BSL	1055	1127	N32	E90	07	25.6	1				C	CATA		
18	BSL	1140	1140D	N18	W90	07	11.6	1-				C	CATA		
18	AFS	1153E	1840D	N17	E43	07	21.8		02	9	9	E	RAMY	5596	
18	ASR	1153E	1840D	N20	W90	07	11.6			9	9	E	RAMY	5581	
18	AFS	1153E	1840D	N27	W14	07	17.4		02	8	6	E	RAMY	5589	
18	ASR	1250E	1614D	N18	W90	07	11.7			9	9	E	SVTO	5581	
18	ASR	1345E	2010D	N21	W90	07	11.7			9	9	E	HOLL	5581	
18	APR	1430E	1530D	N35	E90	07	25.8			9	9	E	HOLL		
18	APR	1430E	1524	N32	E77	07	24.7	2		9	9	E	RAMY		
18	BSL	1438	1448	N21	W90	07	11.7			9	9	E	HOLL	5581	
18	BSL	1439	1509D	N20	W90	07	11.7			9	9	E	RAMY	5581	
18	EPL	1440	1530	N35	E90	07	25.8			9	9	E	HOLL		
18	EPL	1440E	1524	N32	E78	07	24.8	2		9	9	E	RAMY		
18	EPL	1442E	1517D	N31	E90	07	25.7	1		9	9	E	SVTO		
18	EPL	1442E	1614D	N32	W76	07	12.6	1		9	9	E	SVTO		
18	SDF	1504E	1517D	N31	E90	07	25.7		15	0	0	E	SVTO		
18	EPL	1510E	1840D	N35	W90	07	11.4	2		9	9	E	RAMY		
18	AFS	1545E	1614D	N20	E41	07	21.8		02	9	9	E	SVTO	5596	
18	ASR	1609E	1614D	S11	W90	07	11.9			6	7	E	SVTO	5579	
18	AFS	1657E	2336D	N21	W07	07	18.2		02	9	9	E	HOLL	5589	
18	DSD	1657E	2336D	N24	W07	07	18.2		02	9	9	E	HOLL	5589	
18	AFS	1704E	2336D	N28	W35	07	16.0		02	9	9	E	HOLL		
18	ASR	1710E	2336D	N33	E90	07	25.9			9	9	E	HOLL		
18	ASR	1730E	2336D	S19	E90	07	25.6			9	9	E	HOLL		
18	AFS	1744E	0209D	N27	W18	07	17.3		02	9	9	E	PALE	5589	
18	ASR	2052E	2323D	N29	W90	07	11.8			9	9	E	HOLL	5581	
18	AFS	2130E	0209D	N20	E39	07	21.9		02	9	9	E	PALE	5596	
19	AFS	0100E	0821D	N18	E35	07	21.7		01	9	7	E	LEAR	5596	
19	ASR	0259E	0313	S22	W89	07	12.3			6	6	E	LEAR	5586	
19	ASR	0347E	0821D	S23	W89	07	12.3			6	7	E	LEAR	5586	
19	ASR	0350	0821D	N21	W90	07	12.2			9	9	E	LEAR	5582	
19	BSL	0423E	0458D	N21	W90	07	12.3	1				C	ABST		
19	BSL	0423E	0458D	S32	E90	07	26.3	1				C	ABST		
19	BSL	0452	0505D	N21	W90	07	12.3			9	9	E	LEAR	5582	

ACTIVE PROMINENCES AND FILAMENTS

JULY 1989

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
19	ASR	0504E	1752D	N19	W83	07	12.9			9	9	E	SVTO	5582	
19	ASR	0523E	1752D	S25	W82	07	12.9			9	9	E	SVTO	5586	
19	AFS	0537E	1752D	N27	W25	07	17.3		04	8	9	E	SVTO	5589	
19	AFS	0537E	1752D	S22	E49	07	23.0		01	9	9	E	SVTO	5598	
19	ADF	0612E	1725D	N17	E36	07	22.0	1	12	9	9	E	SVTO	5596	
19	AFS	0612E	1752D	N20	E33	07	21.8		01	9	9	E	SVTO	5596	
19	BSL	0642E	0700D	S26	W90	07	12.3	2				C	CATA		
19	BSL	0655	0704	N24	W90	07	12.3			9	9	E	LEAR	5586	
19	BSL	0712E	0721D	S27	W90	07	12.3	2				C	CATA		
19	BSL	0723E	0748	S22	W90	07	12.4	1				V	KHAR		
19	BSL	0736E	0800	S27	W90	07	12.3	1				C	CATA		
19	BSL	0805	0830D	N20	W90	07	12.4	1				C	CATA		
19	BSL	0805E	0815D	N22	W90	07	12.4	1				V	KHAR		
19	BSL	0818	0830D	S26	W90	07	12.3	1				C	CATA		
19	BSL	0844E	0845D	S26	W90	07	12.4	1-				C	CATA		
19	BSL	0907	0918	N88	E90	07	27.8	1-				C	CATA		
19	BSL	0912	0927D	N19	W90	07	12.5	1-				C	CATA		
19	BSL	0924	0927D	S26	W90	07	12.4	1-				C	CATA		
19	APR	0942E	1005	S47	W90	07	11.9	1				V	KHAR		
19	BSL	0955E	1006	N19	W90	07	12.5	1				C	CATA		
19	APR	1005E	1025	S20	E90	07	26.3	1				V	KHAR		
19	BSL	1015	1036	N19	W90	07	12.5	1				C	CATA		
19	DSD	1024E	1752D	S13	E33	07	21.9		03	9	9	E	SVTO	5597	
19	BSL	1037	1107	S23	W90	07	12.5	1-				C	CATA		
19	BSL	1052	1100	N78	W90	07	11.1	1-				C	CATA		
19	BSL	1052	1107	N20	W90	07	12.6	1-				C	CATA		
19	ASR	1054E	1820D	S24	W80	07	13.3			9	9	E	RAMY	5586	
19	AFS	1115E	1820D	N16	E32	07	21.9		02	9	9	E	RAMY	5596	
19	ASR	1115E	1820D	N19	W90	07	12.6			9	9	E	RAMY	5582	
19	DSD	1115E	1820D	S18	E33	07	22.0		05	9	9	E	RAMY	5597	
19	BSL	1125	1135	N19	W90	07	12.6	1-				C	CATA		
19	BSL	1125	1142	N22	W90	07	12.5	1				C	CATA		
19	AFS	1335E	1820D	N21	E71	07	25.0		02	9	9	E	RAMY	5601	
19	ASR	1645E	2243D	S20	W85	07	13.2			9	9	E	HOLL	5586	
19	AFS	1720E	1752D	N26	E68	07	25.0		01	9	9	E	SVTO	5601	
19	DSD	1730E	1957D	S11	E30	07	22.0		02	9	9	E	HOLL	5597	
19	DSD	1830E	0509D	N22	E23	07	21.5		04	9	9	E	PALE	5596	
19	AFS	1830E	0509D	N28	E71	07	25.3		02	9	9	E	PALE	5601	
19	ASR	1830E	0509D	S22	W80	07	13.6			9	9	E	PALE	5586	
19	AFS	1943E	0509D	N28	W10	07	19.0		02	9	9	E	PALE	5603	
19	AFS	2039E	2243D	S09	W05	07	19.5		01	9	9	E	HOLL	5594	
19	AFS	2103E	2243D	S10	E29	07	22.0		02	9	9	E	HOLL	5597	
19	AFS	2103E	2243D	S13	E35	07	22.5		01	9	9	E	HOLL	5597	
20	ASR	0125E	0901D	S19	W90	07	13.2			9	9	E	LEAR	5586	
20	AFS	0126E	0901D	N22	E66	07	25.1		03	9	9	E	LEAR	5601	
20	AFS	0430E	0901D	S12	E22	07	21.8		03	9	9	E	LEAR	5597	
20	AFS	0445E	1755D	S14	E20	07	21.7		03	9	9	E	SVTO	5597	
20	BSL	0739	0739D	N84	E90	07	28.7	1-				C	CATA		
20	BSL	0739	0739D	S20	W90	07	13.4	1-				C	CATA		
20	AFS	0805E	1755D	N26	E62	07	25.1		02	9	9	E	SVTO	5601	
20	BSL	0807E	0821	N72	W90	07	12.1	1-				C	CATA		
20	BSL	0835	0835D	S16	W90	07	13.5	1-				C	CATA		
20	BSL	0835	0835D	S31	W90	07	13.2	1-				C	CATA		
20	BSL	0846E	0850	S80	W90	07	12.0	1-				C	CATA		
20	BSL	0846E	0902	S27	W90	07	13.3	1-				C	CATA		
20	BSL	0932	0947	N87	W90	07	12.0	1-				C	CATA		
20	BSL	0932	1000D	N38	W90	07	13.1	1-				C	CATA		
20	AFS	1025E	1821D	N18	E56	07	24.7		03	9	9	E	RAMY	5601	
20	ASR	1025E	1821D	S18	W90	07	13.6			9	9	E	RAMY	5586	
20	DSD	1205E	1821D	N24	E59	07	25.1		03	9	9	E	RAMY	5601	Flare Associated
20	DSD	1325E	1821D	N16	E17	07	21.8		01	9	9	E	RAMY	5596	
20	DSD	1435E	1538D	N16	E23	07	22.3		02	9	9	E	SVTO	5596	
20	AFS	1450E	0116D	N24	E58	07	25.1		02	9	9	E	HOLL	5601	
20	AFS	1720E	1821D	N15	E22	07	22.4		03	9	9	E	RAMY		
20	DSD	1740E	1821D	S13	E12	07	21.6		03	9	9	E	RAMY	5597	
20	SSB	1815		451	W14	07	16.9			0	0	E	RAMY		459 W22 142 W65
20	DSD	1821E	0116D	S10	E13	07	21.7		02	9	9	E	HOLL	5597	
20	DSD	1832E	2152D	N29	W23	07	19.0		01	9	9	E	HOLL	5603	
20	DSD	2027E	2155D	S13	E11	07	21.7		05	9	9	E	HOLL	5597	Flare Associated

ACTIVE PROMINENCES AND FILAMENTS

JULY 1989

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	SSB	2313		N35	W00	07	18.3			0	0	E	HOLL		
21	AFS	0006E	0859D	N01	E56	07	25.2		02	9	9	E	LEAR	5601	
21	AFS	0020E	0859D	N29	W23	07	19.2		02	9	9	E	LEAR	5603	
21	AFS	0030E	0859D	S09	E10	07	21.8		02	9	9	E	LEAR	5597	
21	AFS	0535E	1754D	S22	E24	07	23.1		03	9	9	E	SVTO	5598	
21	AFS	0536E	1754D	S10	E10	07	22.0		02	9	9	E	SVTO	5597	
21	AFS	0537E	1754D	S14	E06	07	21.7		02	9	9	E	SVTO	5597	
21	AFS	0538E	1754D	N26	E51	07	25.2		03	9	9	E	SVTO	5601	
21	AFS	0539E	1754D	N27	W28	07	19.0		02	9	9	E	SVTO	5603	
21	AFS	0540E	1754D	N25	W49	07	17.4		03	9	9	E	SVTO	5589	
21	DSD	0545	0615	S13	E07	07	21.8		09	9	9	E	SVTO	5597	Flare Associated
21	DSD	0553E	0810D	S15	E01	07	21.3		08	9	9	E	LEAR	5597	
21	ADF	0555E	0605D	S15	E03	07	21.5					V	ATHN		
21	DSD	0724E	0735	N30	W30	07	18.9	1				V	KHAR		
21	DSD	0740	0814D	N27	W32	07	18.8		03	9	9	E	SVTO	5603	Flare Associated
21	DSD	0743E	0820	N30	W32	07	18.8	1				V	KHAR		
21	BSL	0801E	0808	N73	W90	07	13.1	1-				C	CATA		
21	DSD	0831E	0839	N30	W32	07	18.8	1				V	KHAR		
21	BSL	0839	0846	N72	W90	07	13.1	1-				C	CATA		
21	BSL	0857	0900	N82	E90	07	29.7	1-				C	CATA		
21	BSL	1034E	1034D	S27	W90	07	14.4	1-				C	CATA		
21	AFS	1111E	1932D	S05	W30	07	19.2		02	8	9	E	RAMY	5594	
21	AFS	1123E	2141D	N15	E12	07	22.4		03	9	9	E	RAMY	5605	
21	AFS	1126E	2141D	S22	E20	07	23.0		03	9	9	E	RAMY	5598	
21	AFS	1128E	2141D	N25	E48	07	25.2		02	9	9	E	RAMY	5601	
21	SDF	1145	1138D	S14	E15	07	22.6	1	05	9	9	E	SVTO	5597	Flare Associated
21	DSD	1146E	1313D	N14	E17	07	22.8		06	9	9	E	RAMY	5598	Flare Associated
21	DSD	1313E	1929D	S09	E03	07	21.8		05	9	9	E	RAMY	5597	
21	DSD	1320E	0105D	S11	E02	07	21.7		06	9	9	E	HOLL	5597	
21	AFS	1329E	2325D	N24	E48	07	25.3		03	9	9	E	HOLL	5601	
21	AFS	1333E	2325D	N14	E11	07	22.4		02	7	5	E	HOLL	5605	
21	DSD	1421E	1929D	S13	E02	07	21.7		03	9	9	E	RAMY	5597	
21	AFS	1430E	2141D	N30	W35	07	18.8		02	9	8	E	RAMY	5603	
21	DSD	1445E	2325D	S13	E02	07	21.8		02	9	9	E	HOLL	5597	
21	DSD	1618E	1930D	S17	E60	07	26.2		08	9	9	E	RAMY		
21	ASR	1618E	2141D	S19	E90	07	28.5			9	9	E	RAMY		
21	ASR	1620E	0105D	S19	E90	07	28.5			9	9	E	HOLL		
21	AFS	1620E	2141D	S33	E07	07	22.2		02	9	9	E	RAMY	5606	
21	DSD	1623E	1810D	S17	E57	07	26.0		13	9	9	E	HOLL		
21	AFS	2322E	0943D	S15	E09	07	22.6		02	8	8	E	LEAR	5607	
21	AFS	2325E	0943D	N28	W36	07	19.2		02	9	9	E	LEAR	5603	
21	AFS	2327E	0943D	N22	E40	07	25.0		03	9	9	E	LEAR	5601	
21	AFS	2329E	0943D	S22	E12	07	22.9		02	9	9	E	LEAR	5598	
21	ASR	2331E	0943D	S20	E85	07	28.5			8	8	E	LEAR		
22	DSD	0050E	0145D	S33	E05	07	22.4		03	9	9	E	LEAR	5606	
22	AFS	0050E	0943D	S32	E01	07	22.1		02	9	9	E	LEAR	5606	
22	AFS	0138E	0215D	S32	E02	07	22.2		03	9	9	E	PALE	5606	
22	AFS	0142E	0215D	S20	E30	07	24.4		03	9	9	E	PALE	5600	
22	AFS	0145E	0943D	S19	E29	07	24.3		02	9	9	E	LEAR	5600	
22	ASR	0150E	0215D	S18	E90	07	28.9			9	9	E	PALE		
22	DSD	0312	0417D	S33	W03	07	21.9		05	9	9	E	LEAR	5606	
22	ASR	0558E	1738D	S17	E88	07	28.9			9	9	E	SVTO		
22	DSD	0650E	0730D	S32	W03	07	22.0		05	9	4	E	LEAR	5606	
22	BSL	0745	0755	S74	E90	07	30.6	1-				C	CATA		
22	AFS	0846E	1738D	N26	E36	07	25.2		01	8	9	E	SVTO	5601	
22	AFS	0846E	1738D	S32	W02	07	22.2		01	9	9	E	SVTO	5606	
22	AFS	0855E	1738D	S10	W05	07	22.0		02	9	9	E	SVTO	5597	
22	AFS	0855E	1738D	S23	E07	07	22.9		03	9	9	E	SVTO	5598	
22	ADF	0915E	1130D	S15	W09	07	21.7	1	08	9	9	E	SVTO	5597	
22	ADF	1108E	2225D	S10	W04	07	22.2	1	03	9	9	E	RAMY	5597	
22	SDF	1130E	1139D	S15	W09	07	21.8		08	0	0	E	SVTO	5597	
22	AFS	1136E	1738D	N21	W08	07	21.9		02	9	9	E	SVTO	5596	
22	DSD	1300E	2240D	S11	W11	07	21.7		03	9	9	E	HOLL	5597	
22	AFS	1308E	2240D	N14	W02	07	22.4		01	9	9	E	HOLL	5605	
22	DSD	1313E	0011D	S33	W04	07	22.2		02	9	9	E	HOLL	5606	Flare Associated
22	AFS	1621E	0011D	S13	W09	07	22.0		02	9	9	E	HOLL	5597	
22	DSD	1735E	0011D	N27	W45	07	19.2		04	9	9	E	HOLL	5603	
22	ADF	1743E	2240D	N30	E51	07	26.7	2	11	9	9	E	HOLL		

ACTIVE PROMINENCES AND FILAMENTS

JULY 1989

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
22	AFS	2238E	0011D	S32	W10	07	22.1		03	9	9	E	HOLL	5606	
22	AFS	2319E	0805D	N31	W10	07	22.2		02	9	9	E	LEAR	5606	
22	AFS	2321E	0805D	N18	E06	07	23.4		02	8	8	E	LEAR		
22	AFS	2323E	0805D	N29	W52	07	18.9		03	9	9	E	LEAR	5603	
22	AFS	2325E	0805D	S21	E00	07	23.0		02	9	9	E	LEAR	5598	
22	AFS	2327E	0805D	S12	W14	07	21.9		03	9	9	E	LEAR	5597	
22	AFS	2329E	0805D	S20	E69	07	28.2		03	9	9	E	LEAR		
23	DSD	0448E	0500D	S11	W20	07	21.7		02	9	9	E	SVTO	5596	
23	AFS	0448E	1719D	S11	W18	07	21.8		02	9	9	E	SVTO	5597	
23	AFS	0449E	1013D	S33	W08	07	22.6		02	9	9	E	SVTO	5606	
23	ADF	0449E	1719D	S33	W13	07	22.2	1	06	9	9	E	SVTO	5696	
23	DSD	0508E	0640D	N28	W52	07	19.1		03	9	9	E	SVTO	5603	Flare Associated
23	AFS	0516E	1016D	N25	W54	07	19.0		02	9	9	E	SVTO	5603	
23	DSD	0531E	1009D	S33	W12	07	22.3		06	9	9	E	SVTO	5606	Flare Associated
23	ASR	0545E	0805D	S24	W90	07	16.3			9	9	E	LEAR		
23	ASR	0557E	0945D	S27	W88	07	16.4			9	9	E	SVTO		
23	BSL	0700	0700D	S27	W90	07	16.3	1-				C	CATA		
23	DSD	0709E	0725D	S31	W11	07	22.4	1				V	KHAR		
23	BSL	0731E	0754	S26	W90	07	16.3	1-				C	CATA		
23	ADF	0740E	0749D	S37	W34	07	20.6	1				V	KHAR		
23	BSL	0755	0805D	N88	W90	07	14.9	1				C	CATA		
23	BSL	0849	0900	N87	E90	07	31.8	1-				C	CATA		
23	BSL	0857	0915	N78	E90	07	31.7	1-				C	CATA		
23	BSL	0955	1010	N49	W90	07	15.8	1-				C	CATA		
23	SDF	1000E	0019D	N60	E00	07	23.4		39	0	0	E	HOLL		
23	BSL	1010	1020	N61	E90	07	31.4	1-				C	CATA		
23	BSL	1010	1020	N88	E90	07	31.8	1-				C	CATA		
23	ADF	1410E	0106D	S18	W11	07	22.7	1	06	9	9	E	HOLL	5598	
23	ADF	1412E	0106D	N29	E17	07	24.9	1	06	7	9	E	HOLL	5601	
23	AFS	1413E	0106D	N27	W57	07	19.1		04	9	9	E	HOLL	5603	
23	AFS	1415E	0106D	N15	W17	07	22.3		03	9	9	E	HOLL	5605	
23	ADF	1417E	0106D	S31	W15	07	22.4	2	04	6	9	E	HOLL	5606	
23	DSD	1417E	0106D	S33	W18	07	22.2		03	9	9	E	HOLL	5606	
23	ADF	1640	1805D	N32	E19	07	25.2	1	08	9	9	E	RAMY	5601	
23	DSD	1640E	1805D	N27	W59	07	19.1		04	9	9	E	RAMY	5603	
24	ADF	0148E	0824D	S33	W25	07	22.1	1	03	9	9	E	LEAR	5606	
24	AFS	0321E	0337D	N25	W68	07	18.9		05	9	9	E	PALE	5589	
24	ADF	0516E	1515D	N14	W04	07	23.9	1	12	9	9	E	SVTO		
24	AFS	0516E	1736D	N13	W28	07	22.1		01	9	9	E	SVTO	5605	
24	AFS	0516E	1736D	N14	W26	07	22.2		03	9	9	E	SVTO	5605	
24	AFS	0516E	1736D	N15	W32	07	21.8		02	9	9	E	SVTO	5596	
24	ADF	0528E	1516D	N25	E16	07	25.5	1	09	9	9	E	SVTO	5601	
24	AFS	0528E	1736D	N25	E12	07	25.1		03	8	9	E	SVTO	5601	
24	ADF	0555E	1517D	S15	W26	07	22.3	1	07	9	9	E	SVTO	5597	
24	AFS	0555E	1736D	N25	W68	07	19.0		01	9	9	E	SVTO	5603	
24	AFS	0555E	1736D	S14	W30	07	22.0		01	9	9	E	SVTO	5597	
24	ADF	0612E	1518D	S31	W23	07	22.4	1	14	9	8	E	SVTO	5606	
24	AFS	0612E	1736D	S33	W26	07	22.2		02	7	9	E	SVTO	5606	
24	ADF	0621E	1736D	S19	E56	07	28.5	1	17	9	9	E	SVTO	5608	
24	BSL	0812	0829	N22	W90	07	17.4	1				C	CATA		
24	BSL	0812	0829	N82	E90	08	1.7	1-				C	CATA		
24	AFS	0907E	1736D	S11	W33	07	21.9		01	9	9	E	SVTO	5597	
24	ADF	0914E	1519D	N25	W74	07	18.6	1	06	9	9	E	SVTO	5603	
24	BSL	0921	0938	N60	W90	07	16.5	1-				C	CATA		
24	BSL	1131E	1131D	N10	W90	07	17.7	1-				C	CATA		
24	DSD	1150E	1658D	N27	W69	07	19.1		04	9	9	E	RAMY	5603	
24	AFS	1150E	1658D	S32	W30	07	22.1		03	9	9	E	RAMY	5606	
24	ASR	1205E	1658D	N13	W90	07	17.7			9	9	E	RAMY	5590	
24	AFS	1625E	1658D	N12	W32	07	22.3		02	9	9	E	RAMY	5605	
24	ASR	1830E	0207D	N10	W90	07	18.0			9	9	E	PALE	5590	
24	ASR	1830E	0207D	N10	W90	07	18.0			9	9	E	PALE	5590	
25	ASR	0015E	0039D	N30	W90	07	17.9			9	9	E	HOLL	5603	
25	ADF	0145E	0243D	S31	W38	07	22.1	1	04	9	9	E	LEAR	5606	
25	AFS	0201E	0508D	S22	W30	07	22.8		02	6	7	E	PALE	5598	
25	ASR	0210E	0508D	N26	W90	07	18.1			9	9	E	PALE	5603	
25	AFS	0706E	1713D	S10	W43	07	22.1		02	9	9	E	SVTO	5597	
25	AFS	0706E	1713D	S11	W47	07	21.7		03	9	9	E	SVTO	5597	

ACTIVE PROMINENCES AND FILAMENTS

JULY 1989

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	APR	0712E	0940D	S03	E90	08	1.0	1				V	KHAR		
25	BSL	0741E	0758	N29	W90	07	18.3	1				V	KHAR		
25	ADF	0749E	1103D	S30	W37	07	22.4	1	09	9	9	E	SVTO	5606	
25	AFS	0749E	1103D	S32	W39	07	22.2		02	9	9	E	SVTO	5606	
25	BSL	0825	0838	N21	W90	07	18.4	1-				C	CATA		
25	BSL	0838	0840D	N34	W90	07	18.2	1-				C	CATA		
25	BSL	0838	0840D	N43	E90	08	1.8	1-				C	CATA		
25	BSL	0851E	0858	S12	E90	08	1.1	1-				C	CATA		
25	BSL	0906E	0940D	N30	W90	07	18.3	1				V	KHAR		
25	BSL	0907	0950	N34	E90	08	1.5	1				C	CATA		
25	BSL	0931	0958	N32	E90	08	1.5	1-				C	CATA		
25	BSL	0958	1025	N24	W90	07	18.5	1-				C	CATA		
25	SDF	1037E	1140	N17	E30	07	27.7	2+				C	CATA		
25	SSB	1112		375	W00	07	19.9			0	0	E	SVTO		
25	DSD	1124E	1611D	N28	W85	07	18.8		05	9	9	E	RAMY	5603	
25	AFS	1124E	2106D	S21	W33	07	22.9		02	9	9	E	RAMY	5598	
25	BSL	1130	1140D	N27	W90	07	18.5	1				C	CATA		
25	ADF	1155E	2106D	S30	W38	07	22.5	1	05	9	9	E	RAMY	5606	
25	BSL	1517	1538	N26	W90	07	18.6			7	7	E	SVTO	5603	Flare Associated
25	SDF	1713E	0640D	N11	E30	07	28.0		27	0	0	E	SVTO		
25	SSB	1820		388	W18	07	19.1			0	0	E	PALE		374 W03
25	ASR	1820E	0507D	N28	W88	07	18.9			9	9	E	PALE	5603	
25	CAP	1820E	2055D	N28	W85	07	19.1		02	9	9	E	PALE	5603	
25	SDF	1823E	1823D	N35	E29	07	28.1		19	0	0	E	PALE		
26	ASR	0345E	0829D	N29	W90	07	19.1			9	9	E	LEAR	5603	
26	ASR	0548E	1710D	N27	W86	07	19.5			9	9	E	SVTO	5603	
26	APR	0700E	1145D	S25	E90	08	2.3					V	ATHN		
26	AFS	0730E	1710D	S16	W60	07	21.8		01	8	8	E	SVTO	5597	
26	AFS	0730E	1710D	S37	W10	07	25.5		01	9	7	E	SVTO		
26	BSL	0732	0741D	S11	W90	07	19.5	1				C	CATA		
26	BSL	0754E	0811	N19	E90	08	2.2	1-				C	CATA		
26	BSL	0833E	0838D	N78	W90	07	18.0	1-				C	CATA		
26	BSL	0921E	0921D	S36	W90	07	19.2	1-				C	CATA		
26	BSL	0954	1012	N88	E90	08	3.8	1-				C	CATA		
26	BSL	1018	1025	N73	E90	08	3.7	1-				C	CATA		
26	BSL	1018	1025	S69	W90	07	18.3	1-				C	CATA		
26	AFS	1124E	2106D	S21	W33	07	23.9		02	9	9	E	RAMY	5598	
26	ASR	1130E	1722D	N27	W90	07	19.5			9	9	E	RAMY	5603	
26	ADF	1155E	2106D	S30	W38	07	23.5	1	05	9	9	E	RAMY	5606	
26	AFS	1330E	1722D	S38	W13	07	25.5		03	9	9	E	RAMY		
26	ADF	1528E	2317D	S17	E28	07	28.8	1	04	9	9	E	HOLL	5608	
26	APR	1555E	1710D	N00	E89	08	2.3	1		9	9	E	SVTO		
26	ADF	1627E	2317D	N20	W54	07	22.5	1	07	9	8	E	HOLL		
26	SSB	1640		386	W27	07	20.0			0	0	E	SVTO		
26	SSB	1655		387	W28	07	19.9			0	0	E	PALE		376 W17
26	AFS	1655E	0016D	S23	W48	07	23.0		02	7	9	E	PALE	5598	
26	APR	1655E	0447D	S01	E90	08	2.4	1		9	9	E	PALE		
26	ADF	1655E	0447D	S17	E27	07	28.7	1	05	9	9	E	PALE	5608	
26	DSD	1745E	2039D	S17	E27	07	28.8		03	9	9	E	PALE	5608	Flare Associated
26	ASR	2050E	0150D	N28	W90	07	19.8			9	9	E	PALE	5603	
26	ASR	2114E	2317D	N30	W90	07	19.8			9	9	E	HOLL	5603	
27	ASR	0035E	0447D	S18	E90	08	2.9			9	9	E	PALE		
27	ASR	0130E	0857D	S21	E90	08	3.0			9	9	E	LEAR		
27	ASR	0254E	0302	N25	W90	07	20.1			9	9	E	PALE	5603	
27	BSL	0302	0347	N25	W90	07	20.1			9	9	E	PALE	5603	
27	APR	0610E	1140D	S29	W90	07	20.2					V	ATHN		
27	APR	0610E	1140D	S58	E90	08	4.1					V	ATHN		
27	APR	0640E	1140D	S10	E90	08	3.0					V	ATHN		
27	ASR	0655E	1151D	S06	W89	07	20.6			6	6	E	SVTO		
27	ASR	0725E	0857D	S16	W88	07	20.6			9	9	E	LEAR	5597	
27	SSB	0737		389	W38	07	20.1			0	0	E	SVTO		
27	BSL	0739E	0739D	S18	W90	07	20.5	1-				C	CATA		
27	APR	0820E	1151D	S03	E80	08	2.3	1		9	9	E	SVTO		
27	ASR	0822E	1151D	N25	W90	07	20.4			9	9	E	SVTO	5603	
27	SDF	0839E	0341D	N65	W20	07	25.6		70	0	0	E	LEAR		
27	BSL	0933	1010D	N19	E90	08	3.3	1-				C	CATA		
27	ASR	1118E	1151D	N15	E90	08	3.3			9	9	E	SVTO		
27	BSL	1122E	1126D	N13	E90	08	3.3	1-				C	CATA		

ACTIVE PROMINENCES AND FILAMENTS

JULY 1989

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	BSL	1122E	1126D	N23	E90	08	3.4	1-				C	CATA		
27	AFS	1322E	0133D	S19	E14	07	28.6		02	9	9	E	HOLL	5608	
27	SDF	1404E	2322D	N65	W18	07	26.0		62	0	0	E	HOLL		
27	DSD	1657E	1832D	S19	E01	07	27.8		04	9	9	E	RAMY	5608	
27	AFS	1657E	1832D	S19	E11	07	28.5		02	9	9	E	RAMY	5608	
27	DSD	1730E	0335D	S08	E69	08	1.9		05	9	9	E	PALE		
27	ASR	1730E	0504D	S16	W90	07	20.9			9	9	E	PALE	5597	
27	AFS	1730E	0504D	S17	E12	07	28.6		03	9	9	E	PALE	5608	
27	ADF	1730E	0504D	S33	W61	07	22.9		08	9	9	E	PALE	5606	
27	ASR	1758E	1832D	N26	W90	07	20.7			9	9	E	RAMY		
27	SSB	2155		388	W45	07	20.6			0	0	E	PALE		380 W37
27	SSB	2329		389	W47	07	20.5			0	0	E	HOLL		379 W37
28	DSD	0153E	0300D	S19	W02	07	27.9		03	9	9	E	PALE	5608	
28	AFS	0340E	0948D	S19	E04	07	28.4		02	9	9	E	LEAR	5608	
28	BSL	0542E	0614D	N30	W90	07	21.1	1				C	ABST		
28	BSL	0542E	0740D	N42	W90	07	20.8	1				C	ABST		
28	AFS	0550E	1607D	S19	E05	07	28.6		03	9	9	E	SVTO	5608	
28	SSB	0558		387	W49	07	20.9			0	0	E	SVTO		
28	APR	0600E	1140D	S55	E90	08	5.0					V	ATHN		
28	ASR	0605E	1607D	S21	W88	07	21.5			9	9	E	SVTO	5597	
28	BSL	0614E	0740D	N49	W90	07	20.7	1				C	ABST		
28	BSL	0614E	0740D	S05	W90	07	21.5	1				C	ABST		
28	BSL	0614E	0740D	S55	E90	08	5.0	1				C	ABST		
28	BSL	0658E	0701D	N89	E90	08	5.7	1-				C	CATA		
28	BSL	0658E	0701D	S06	E90	08	4.0	1				C	CATA		
28	BSL	0809	0826	N85	W90	07	19.9	1-				C	CATA		
28	SSB	0811		389	W52	07	20.7			0	0	E	LEAR		
28	BSL	0834E	0840D	S10	E90	08	4.1	1				C	CATA		
28	BSL	0901E	0905D	N30	W90	07	21.3	1				C	CATA		
28	BSL	1010	1010D	N21	E90	08	4.3	1-				C	CATA		
28	BSL	1010	1010D	N23	E90	08	4.3	1-				C	CATA		
28	BSL	1036E	1049	N27	E90	08	4.4	1-				C	CATA		
28	BSL	1036E	1058	S16	W90	07	21.6	1-				C	CATA		
28	BSL	1036E	1058D	S28	E90	08	4.5	1-				C	CATA		
28	BSL	1041	1058	S10	W90	07	21.7	1				C	CATA		
28	SDF	1125E	0647D	N65	W30	07	25.8	2				C	CATA		
28	AFS	1315E	2111D	S18	W01	07	28.5		02	9	9	E	HOLL	5608	
28	DSD	1318E	1730D	S12	E12	07	29.4		02	9	9	E	HOLL		
28	SSB	1330		389	W55	07	20.9			0	0	E	HOLL		
28	ASR	1330E	1607D	S34	W88	07	21.5			9	9	E	SVTO	5606	
28	DSD	1331E	1607D	S12	E12	07	29.5		03	9	9	E	SVTO		
28	AFS	1332E	1607D	N38	E25	07	30.6		02	9	9	E	SVTO		
28	ADF	1356E	2111D	S03	E77	08	3.3	2	14	9	9	E	HOLL		
28	ADF	1405E	1607D	S01	E79	08	3.5	1	18	9	9	E	SVTO		
28	BSD	1448E	1531D	S02	E70	08	2.8		05	9	9	E	SVTO		
28	BSD	1451E	1730D	S04	E76	08	3.3		12	9	9	E	HOLL		Flare Associated
28	DSD	1547E	1845D	N13	E78	08	3.5		03	9	9	E	RAMY		
28	DSD	1808E	0448D	S02	E74	08	3.3		05	9	9	E	PALE	5615	
28	ASR	2230E	0448D	N13	W90	07	22.1			9	9	E	PALE	5606	
29	BSL	0520E	0545D	N10	W90	07	22.4	1				C	ABST		
29	EPL	0530E	0615D	S33	E90	08	5.4					V	ATHN		
29	APR	0530E	1100D	S60	E90	08	6.1					V	ATHN		
29	APR	0535E	1130D	N10	W90	07	22.5					V	ATHN		
29	BSL	0545E	0622D	S29	E90	08	5.3	1				C	ABST		
29	BSL	0545E	0645D	S03	W90	07	22.5	1				C	ABST		
29	BSL	0545E	0645D	S50	E90	08	5.9	1				C	ABST		
29	AFS	0630E	0926D	N18	E09	07	29.9		03	9	9	E	LEAR		
29	DSD	0638E	0645D	N20	E09	07	30.0	1				C	CATA		
29	BSL	0705E	0710	S13	E90	08	5.1	1-				C	CATA		
29	BSL	0705E	0727D	S30	E90	08	5.4	1-				C	CATA		
29	DSD	0705E	0735D	N20	E09	07	30.0	1				C	CATA		
29	BSL	0721	0730	N37	W90	07	22.0	1-				C	CATA		
29	BSL	0727	0730	N58	E90	08	6.2	1-				C	CATA		
29	SDF	0801E	0909D	S09	W52	07	25.4		09	0	0	E	LEAR		
29	AFS	0832E	1704D	N19	E09	07	30.0		04	9	9	E	SVTO	5617	
29	ASR	0832E	1704D	N19	W80	07	23.2			9	9	E	SVTO	5613	
29	SSB	0834		378	W54	07	22.6			0	0	E	SVTO		
29	BSL	0908	0911D	N20	W90	07	22.5	1				C	CATA		

ACTIVE PROMINENCES AND FILAMENTS

JULY 1989

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
29	ASR	0920E	0926D	N22	W90	07	22.5			9	9	E	LEAR	5613	
29	BSL	0922E	0925D	N20	W90	07	22.5	1				C	CATA		
29	AFS	0942E	1704D	S12	W04	07	29.1		03	9	9	E	SVTO	5618	
29	BSL	1041E	1100	N87	W90	07	21.0	1				C	CATA		
29	BSL	1051E	1105	N28	E90	08	5.5	1				C	CATA		
29	AFS	1109E	2124D	N18	E07	07	30.0		03	9	9	E	RAMY		
29	ASR	1109E	2124D	N21	W78	07	23.5			9	9	E	RAMY	5613	
29	AFS	1109E	2124D	S12	W04	07	29.2		02	9	9	E	RAMY		
29	ADF	1135E	2124D	N00	E63	08	3.2	2	20	9	9	E	RAMY	5615	
29	SSB	1233		377	W55	07	22.9			0	0	E	RAMY		
29	AFS	1522E	1704D	S22	W14	07	28.6		02	9	9	E	SVTO	5608	
29	AFS	1652E	0458D	S20	W16	07	28.5		02	8	8	E	PALE	5608	
29	ASR	1702E	0458D	N21	W90	07	22.8			9	9	E	PALE	5613	
29	AFS	1713E	0458D	S02	E59	08	3.1		01	8	9	E	PALE	5615	
29	AFS	1719E	0458D	S12	W08	07	29.1		03	9	9	E	PALE	5618	
29	AFS	2038E	2216D	S11	W12	07	28.9		04	9	9	E	HOLL	5618	
29	ASR	2045E	2216D	N23	W80	07	23.7			9	9	E	HOLL	5613	
29	AFS	2157E	0458D	N18	E01	07	30.0		03	9	9	E	PALE	5617	
29	AFS	2336E	0950D	S12	W09	07	29.3		03	9	9	E	LEAR	5618	
30	ASR	0135E	0950D	S14	E86	08	5.6			9	9	E	LEAR	5619	
30	ASR	0325E	0950D	S30	E82	08	5.6			9	9	E	LEAR		
30	ASR	0530E	0950D	N24	W90	07	23.3			9	9	E	LEAR	5613	
30	SPY	0616E	1717D	N18	W03	07	30.0			9	9	E	SVTO	5617	
30	AFS	0616E	1717D	S20	E51	08	3.2		03	9	9	E	SVTO	5612	
30	SSB	0620		379	W68	07	23.1			0	0	E	LEAR		
30	DSD	0623E	0911D	S05	E55	08	3.4		02	9	9	E	SVTO	5615	
30	AFS	0623E	1717D	S03	E52	08	3.1		01	9	9	E	SVTO	5615	
30	ASR	0627E	1717D	N21	W85	07	23.7			9	9	E	SVTO	5613	
30	BSL	0630E	0652D	N22	W90	07	23.3	1				C	ABST		
30	BSL	0630E	0659D	N27	E90	08	6.3	1				C	ABST		
30	BSL	0701E	0711	S16	E90	08	6.1	1				C	CATA		
30	BSL	0711	0730	S17	E90	08	6.1	1				C	CATA		
30	AFS	0740E	1717D	S12	W18	07	29.0		02	9	9	E	SVTO	5618	
30	AFS	0740E	1717D	S13	W13	07	29.3		02	9	8	E	SVTO		
30	BSL	0755	0807	S15	E90	08	6.1	1-				C	CATA		
30	BSL	0755	0815	S17	E90	08	6.2	1-				C	CATA		
30	BSL	0857E	0923	S17	E90	08	6.2	2				C	CATA		
30	BSL	0911	0915	S14	E90	08	6.2	1-				C	CATA		
30	BSL	1010	1031	S17	E90	08	6.3	1				C	CATA		
30	BSL	1025	1125	N23	W90	07	23.5	1				C	CATA		
30	BSL	1107	1125	N84	E90	08	7.8	1-				C	CATA		
30	BSL	1107	1130	S17	E90	08	6.3	2				C	CATA		
30	AFS	1200E	1917D	N18	W07	07	30.0		03	9	9	E	RAMY	5617	
30	ASR	1200E	1917D	N23	W90	07	23.6			9	9	E	RAMY	5613	
30	ASR	1441E	1635D	N24	E90	08	6.6			9	9	E	SVTO		
30	AFS	1812E	0450D	S05	E45	08	3.1		01	6	6	E	PALE	5615	
30	AFS	1817E	0450D	S10	E65	08	4.6		01	8	7	E	PALE	5619	
30	AFS	2047E	2328D	S05	E46	08	3.3		03	8	8	E	HOLL	5615	
30	ASR	2054E	2328D	N14	E90	08	6.7			9	9	E	HOLL		
30	DSD	2058E	2328D	S10	W30	07	28.6		02	9	9	E	HOLL	5618	
30	ADF	2103E	2328D	N18	W11	07	30.0	1	02	9	9	E	HOLL	5617	
31	ASR	0013E	0113D	N16	E89	08	6.7			9	9	E	PALE		
31	ASR	0029E	0450D	S11	E89	08	6.7			9	9	E	PALE		
31	AFS	0042E	0450D	N18	W13	07	30.0		02	9	9	E	PALE	5617	
31	LPS	0214E	0303	S12	E89	08	6.8			9	9	E	PALE		
31	APR	0600E	1140D	N45	W90	07	23.8					V	ATHN		
31	APR	0600E	1140D	N46	E90	08	7.7					V	ATHN		
31	APR	0600E	1140D	S35	E90	08	7.4					V	ATHN		
31	ASR	0602E	1003D	N17	E85	08	6.7			9	9	E	SVTO		
31	ASR	0602E	1720D	S12	E82	08	6.4			9	9	E	SVTO		
31	ASR	0634E	1340D	N22	E88	08	7.0			9	9	E	SVTO		
31	BSL	0652E	0736D	N20	E90	08	7.2	1				C	ABST		
31	BSL	0703	0721	S36	E90	08	7.5	1-				C	CATA		
31	BSL	0716	0721	S33	E90	08	7.4	1-				C	CATA		
31	BSL	0736E	0736D	S13	E90	08	7.1	1				C	ABST		
31	APR	0736E	0736D	S23	E90	08	7.2	1				C	ABST		
31	BSL	0821	0821D	N77	W90	07	23.0	1-				C	CATA		
31	AFS	0845E	1245D	N17	W20	07	29.8		03	9	9	E	SVTO	5617	

ACTIVE PROMINENCES AND FILAMENTS

JULY 1989

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
31	AFS	0845E	1720D	S17	E36	08	3.1		02	6	5	E	SVTO	5612	
31	AFS	0908E	1720D	S12	W34	07	28.8		01	9	9	E	SVTO	5618	
31	BSL	0947E	1021	N22	E90	08	7.3	1				C	CATA		
31	BSL	1025	1101	N44	E90	08	7.9	1				C	CATA		
31	ASR	1056E	1720D	N22	E90	08	7.4			9	9	E	SVTO		
31	AFS	1101E	1735D	N17	W19	07	30.0		02	9	9	E	RAMY	5617	
31	DSD	1101E	1735D	N28	E86	08	7.2		04	9	9	E	RAMY		
31	AFS	1101E	1735D	S11	W35	07	28.8		02	9	9	E	RAMY	5618	
31	ASR	1101E	1735D	S12	E89	08	7.2			9	9	E	RAMY		
31	AFS	1101E	1735D	S17	E34	08	3.0		02	9	9	E	RAMY	5612	
31	ASR	1145E	1735D	N26	E90	08	7.5			9	9	E	RAMY		
31	DSD	1345E	1735D	N17	W19	07	30.1		03	9	9	E	RAMY	5617	
31	ADF	1355E	1735D	S29	E62	08	5.4	1	04	9	9	E	RAMY	5622	
31	SDF	1720E	1000D	N29	W36	07	28.9		12	0	0	E	SVTO		
31	AFS	1723E	0448D	S12	W39	07	28.8		02	9	9	E	PALE	5618	
31	ASR	1723E	1825	S12	E81	08	6.8			9	9	E	PALE	5623	
31	AFS	1812E	0450D	S05	E45	08	4.1		01	6	6	E	PALE	5615	
31	AFS	1817E	0450D	S10	E65	08	5.6		01	8	7	E	PALE	5619	
31	BSL	1824	1915D	S15	E88	08	7.4			9	9	E	PALE	5623	
31	BSL	2123E	2340D	S20	E90	08	7.8			9	9	E	HOLL	5623	

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

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

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

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

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

Eppley Lab

1989 DAILY MEAN SOLAR IRRADIANCE*
NIMBUS-7 (ERB Channel 10C)

Units = W/m2

Jul 76 89

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1371.61	1372.19	1371.86	1371.76	1371.98	1371.70	1372.23					
2	1371.55	1371.68	1371.73	1371.68	1371.92	1372.13	1372.48					
3	1371.78	1371.73	1371.94	1371.56	1372.09	1372.62	1372.62					
4	1371.93	1371.85	1372.05	1371.59	1372.04	1373.00	1372.34					
5	1371.96	1372.14	1372.43	1371.85	1372.36	1372.87	1372.27					
6	1371.84	1372.09	1372.47	1371.97	1372.60	1372.91	1372.36					
7	1371.64	1372.35	1372.43	1372.14	1372.91	1372.72	1372.96					
8	1371.12	1372.11	1372.22	1372.60	1373.17	1372.93	1373.04					
9	1371.30	1371.83	1371.75	1373.04	1373.13	1372.77	1372.99					
10	1371.45	1371.60	1371.39	1373.10	1373.35	1371.96	1372.87					
11	1372.01	1371.50	1370.94	1373.42	1373.24	1371.35	1372.85					
12	1371.85	1371.64	1370.64	1373.42	1373.16	1370.73	1372.71					
13	1371.63	1371.04	1370.79	1373.15	1373.19	1370.11	1372.66					
14	1371.43	1371.22	1371.20	1372.69	1372.86	1369.67	1372.44					
15	1370.33	1371.21	1371.60	1372.18	1372.73	1369.43	1372.61					
16	1370.52	1371.71	1371.77	1371.71	1372.07	1369.85	1372.44					
17	1370.71	1371.97	1372.09	1371.55	1371.74	1370.52	1371.78					
18	1371.33	1372.10	1372.07	1371.46	1371.83	1371.45	1371.69					
19	1371.93	1372.23	1371.96	1371.46	1371.64	1372.48	1371.43					
20	1372.60	1371.88	1371.45	1371.48	1370.86	1372.59	1371.28					
21	1372.60	1371.35	1371.03	1371.77	1370.97	1372.77	1371.06					
22	1372.55	1371.07	1370.85	1371.71	1371.20	1372.19	1370.85					
23	1371.53	1371.06	1371.12	1371.57	1371.39	1371.08	1370.59					
24	1371.13	1371.43	1371.29	1371.47	1371.49	1370.65	1370.88					
25	1371.14	1371.93	1371.36	1371.86	1371.51	1370.39	1371.16					
26	1370.74	1372.02	1372.14	1371.80	1371.40	1370.44	1371.52					
27	1371.09	1372.25	1372.10	1371.93	1371.47	1370.35	1371.51					
28	1371.21	1372.21	1371.79	1372.12	1371.48	1370.43	1371.77					
29	1371.27		1372.14	1372.06	1371.74	1370.97	1371.29					
30	1371.94		1372.00	1372.15	1371.73	1371.44	1371.21					
31	1372.01		1371.88		1371.51		1370.84					

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

WORLD DATA CENTER A
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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."