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(Issued in Two Parts)

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Hα SOLAR FLARES

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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
0001	LEAR	01	0331	0334	0340	N01	W38	6433	12	29.4	9	SF			3	E		21		
0002	LEAR	01	0612	0614	0621	S10	W65	6424	12	27.5	9	SF			3	E		16		
0003	LEAR	01	0646	0652	0658	S09	W65	6424	12	27.5	12	SF			3	E		21		
0004	LEAR	01	0829	0831	0844	S09	W69	6424	12	27.3	15	SF			3	E		24		
0005	LEAR	01	0945	0953	1035	S09	W68	6424	12	27.4	50	SF			3	E		27		
		01	1101		1156	No Flare Patrol														
0006	RAMY	01	1249	1251	1311	S24	E14	6435	01	2.6	22	SF			3	E		13		F
0007	RAMY	01	1249	1252	1348	N13	E32	6431	01	3.9	59	1F	C	5.0	3	E		102		FU
0008	RAMY	01	1421	1424	1432	N14	E34	6431	01	4.2	11	SF			3	E		24		
0009	HOLL	01	1557	1603	1618	S10	W70	6424	12	27.5	21	SF			1	E		16		
0010	HOLL	01	1623	1624	1633	S10	W73	6424	12	27.3	10	SF			2	E		20		
		01	2158		2203	No Flare Patrol														
0011	LEAR	01	2232	2251	2324	S08	W71	6424	12	27.7	52	SF			3	E		53		
0012	LEAR	01	2357	2401	2404	S13	W05	6427	01	1.6	7	SF			3	E		33		
0013	LEAR	02	0816	0828	0848	S11	E08	6432	01	2.9	32	SF			3	E		23		
0014	HTPR	02	1028		1100	S10	W85	6424	12	27.1	32	SN				C				A
		02	1105		1123	No Flare Patrol														
0015	RAMY	02	1244	1245	1255	S10	E07	6432	01	3.0	11	SF			3	E		10		F
0016	RAMY	02	1310	1310	1319	S10	E06	6432	01	3.0	9	SF			3	E		22		F
0017	RAMY	02	1441	1448	1450	S10	E06	6432	01	3.1	9	SF			3	E		18		F
0018		02	1615	1616	1633	S10	E04	6432	01	3.0	18	SF	C	1.3				38		F
	RAMY	02	1615	1616	1630	S10	E04	6432	01	3.0	15	SF	C	1.3	3	E		20		F
	HOLL	02	1615	1616	1636	S11	E05	6432	01	3.0	21	SF	C	1.3	3	E		56		F
0019	HOLL	02	1716	1720	1724	S12	E04	6432	01	3.0	8	SF			3	E		11		F
0020	HOLL	02	1900	1904	1931	S11	E03	6432	01	3.0	31	SF			4	E		26		
0021	HOLL	02	2053E	2056U	2105D	S11	E03	6432	01	3.1	12D	SF	C	1.3	1	E		23		
0022		02	2346*	2352*	2507	S10	W01	6432	01	2.9	81	SF	C	1.3				53	0.8	EFIJ
	LEAR	02	2346	2352	2445	S10	E00	6432	01	3.0	59	SF			3	E		20		
	LEAR	03	0045	0055	0131	S10	E00	6432	01	3.0	46	SF	C	1.3	3	E		59		F
	VORO	03	0051	0054	0104	S10	W03	6432	01	2.8	13	SF			2	C	0054	81	0.8	EIJ
0023	LEAR	03	0222	0229	0303	S11	W02	6432	01	2.9	41	SF			3	E		37		
0024		03	0555	06119	0734	S13	W30	6427	01	1.0	99	SF	C	1.6				118	2.0	EF
	LEAR	03	0555	0611	0734	S13	W30	6427	01	1.0	99	SF	C	1.6	3	E		68		F
	PEKG	03	0620E	0620	0630D	S13	W31	6427	12	31.9	100	SF				P	0620	168	2.0	E
0025	LEAR	03	0612	0612	0615	N08	E10	6431	01	4.0	3	SF			3	E		14		
0026	PEKG	03	0629E	0629	0630D	S22	E02	6435	01	3.4	1D	SF				P	0629	42	0.4	DG
		03	1553		1558	No Flare Patrol														
		03	1841		1844	No Flare Patrol														
		03	1849		1855	No Flare Patrol														

Hα S O L A R F L A R E S

JANUARY 1991

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0027	HOLL	03	1900E	2014	2031	S10	W12	6432	01	2.9	91D	SF	C 1.3	3	E		47		F
0028	HOLL	03	2030	2030	2039	S26	W26	6429	01	1.8	9	SF	C 1.4	3	E		18		F
		03	2101		2204	No Flare Patrol													
0029	LEAR	03	2302	2306	2325	S10	W13	6432	01	3.0	23	SF		3	E		32		F
0030	LEAR	04	0057	0057	0100	N08	W01	6431	01	4.0	3	SF		3	E		17		
0031		04	04311	04355	0518	N15	W05	6431	01	3.8	47	1N	C 2.4				224	2.7	EF
	LEAR	04	0431	0440	0526	N14	W05	6431	01	3.8	55	1F	C 2.4	3	E		171		F
	MITK	04	0432	0435	0509	N14	W05	6431	01	3.8	37	1N			C	0435	250	2.7	E
	PEKG	04	0435E	0435	0450D	N16	W06	6431	01	3.7	15D	1N			P	0435	252	2.7	E
0032	PEKG	04	0645E	0645	0645D	N10	E02	6431	01	4.4	15D	SF			P	0645	84	0.9	E
0033		04	0705	07074	0724	S26	W33	6429	01	1.7	19	SF	C 4.1				95	2.2	E
	LEAR	04	0705	0707	0720	S25	W32	6429	01	1.8	15	SF	C 4.1	3	E		84		
	PEKG	04	0711E	0711	0711D	S26	W34	6429	01	1.6	15D	1F			P	0711	168	2.2	E
	SVTO	04	0713E	0713U	0727	S28	W32	6429	01	1.8	14D	SF		3	E		33		
0034		04	0735	0740	0807	N10	W01	6431	01	4.2	32	SF	C 1.2				55	1.1	D
	LEAR	04	0735		0754	N11	E01	6431	01	4.4	19	SF		3	E		35		
	SVTO	04	0735	0740	0801	N09	W05	6431	01	3.9	26	SF	C 1.2	3	E		22		
	BUCA	04	0748E		0825	N11	E01	6431	01	4.4	37D	SF			P	0748	107	1.1	D
0035		04	07412	0757	0802	S08	W55	6430	12	31.2	21	SF					12		
	SVTO	04	0741	0757	0802	S08	W55	6430	12	31.2	21	SF		3	E		12		
	SVTO	04	0743	0757	0802	S08	W55	6430	12	31.2	19	SF		3	E		12		
0036	SVTO	04	1126	1127	1133	S27	W34	6429	01	1.8	7	SF		3	E		12		U
0037	SVTO	04	1414	1424	1442	S09	W61	6430	12	31.0	28	SF		3	E		14		
		04	1801		1909	No Flare Patrol													
		04	1943		2009	No Flare Patrol													
0038	PALE	04	2051	2100	2122	S09	W62	6430	12	31.2	31	SF		3	E		12		
0039	PALE	04	2139	2142	2157	S09	W61	6430	12	31.3	18	SF		3	E		14		H
0040	LEAR	04	2232	2318	2507	S07	W65	6430	12	31.1	155	1F		3	E		138		T
0041	LEAR	04	2243	2245	2255	N07	W13	6431	01	4.0	12	SF		3	E		19		
0042	LEAR	04	2306	2309	2315	S11	W26	6432	01	3.0	9	SF		3	E		15		
0043	HTPR	05	1152	1203	1215	S19	E35	6437	01	8.2	23	1B			C	1203	170	2.2	
0044	HTPR	05	1159	1202	1210	S07	W70	6430	12	31.2	11	SF			C	1202	50		
		05	1257		1258	No Flare Patrol													
0045		05	14262	1430	1450	N09	W58	6439A	01	1.2	24	SF					50	1.6	
	HTPR	05	1426	1430	1450	N08	W60	6439A	01	1.1	24	SF			C	1430	80	1.6	
	RAMY	05	1428	1431U	1434D	N10	W57	6439A	01	1.3	6D	SF		3	E		20		
		05	1531		2205	No Flare Patrol													
0046	RAMY	05	1900E	1900U	1930D	N12	W27	6431	01	3.7	30D	SF		3	E		27		
0047	RAMY	05	1951	1959U	2007D	S07	W57	6427	01	1.5	16D	SF	C 2.8	3	E		29		
0048	RAMY	05	2030	2044U	2051D	S07	W57	6427	01	1.6	21D	SF		3	E		25		
0049	LEAR	05	2241	2246	2313	S10	W58	6427	01	1.6	32	SF		3	E		52		
0050	LEAR	05	2325	2327	2341	S08	W59	6427	01	1.5	16	SF	C 1.7	3	E		30		F

Hα S O L A R F L A R E S

JANUARY 1991

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
0051	LEAR	06	0116	0119	0125	S23	W50	6435	01	2.2	9	SF			3	E		21		F
0052		06	02351	0239*	0322	S18	E26	6437	01	8.1	47	SN						96	1.8	F
	YUNN	06	0235	0302	0324	S18	E25	6437	01	8.0	49	SN				C		157	1.8	F
	LEAR	06	0236	0239	0321	S18	E26	6437	01	8.1	45	SF			3	E		34		F
0053	LEAR	06	0447	0448	0455	S06	W85	6430	12	30.9	8	SF	C	2.6	3	E		56		
0054		06	08351	08421	0851	S08	W81	6430	12	31.3	16	SF						34		
	LEAR	06	0835	0842	0851	S08	W83	6430	12	31.1	16	SF			3	E		34		
	KANZ	06	0836	0843	0851	S08	W79	6430	12	31.4	15	SF				C				
0055	KANZ	06	0911	0915	0922	S08	W82	6430	12	31.2	11	SF				V				
0056	KANZ	06	0950	0957	1009	S08	W82	6430	12	31.3	19	SF				V				
0057		06	11531	11543	1212	S08	W67	6427	01	1.5	19	SN						28	4.1	AJT
	ONDR	06	1134U	1142U	1202D	S06	W68	6427	01	1.4	28U	1B				P	1142	40	4.1	TAJ
	KANZ	06	1153	1157	1211	S08	W66	6427	01	1.5	18	SF				V				
	SVTO	06	1154	1154	1212	S10	W68	6427	01	1.4	18	SF			3	E		17		
0058	RAMY	06	1503	1504	1508	S04	W85	6430	12	31.3	5	SF	C	1.8	3	E		15		
0059	RAMY	06	1603E	1611	1720	N34	W26		01	4.6	77D	1F	C	5.7	3	E		226		FU
0060	RAMY	06	1704	1706	1712	S04	W90	6430	12	31.0	8	SF			3	E		21		
0061	PALE	06	1730E	1730U	1743	N34	W27		01	4.6	13D	SF			3	E		28		FH
0062		06	17373	17395	1748	S06	W90	6430	12	31.0	11	SF						28		
	PALE	06	1737	1739	1744	S07	W90	6430	12	31.0	7	SF			3	E		32		
	RAMY	06	1740	1744	1751	S04	W89	6430	12	31.1	11	SF			3	E		23		
0063	HOLL	06	2130	2131	2140	N08	W34	6431	01	4.3	10	SF			3	E		17		
0064	LEAR	07	0402	0417	0432	S10	W33	6442	01	4.7	30	SF			3	E		22		F
0065	LEAR	07	0434	0437	0447	S11	W35	6442	01	4.5	13	SF			3	E		16		F
0066	LEAR	07	0504	0547	0610	S10	W35	6442	01	4.6	66	SF	C	1.6	3	E		33		
0067		07	1200	1213*	1515D	S11	W42	6442	01	4.3	195D	SF						42		FK
	RAMY	07	1200	1213	1515D	S11	W42	6442	01	4.3	195D	SF				E		46		K
	RAMY	07	1200	1417	1515D	S11	W42	6442	01	4.3	195D	SF			3	E		37		F
		07	1512		1513	No Flare Patrol														
0068	HOLL	07	1812	1816	1826	N10	E77	6444	01	13.5	14	SF			3	E		15		
0069	HOLL	07	1844	1846	1855	N09	E80	6444	01	13.8	11	SF			3	E		32		
0070	HOLL	07	1919	1932	1936	S11	W44	6442	01	4.5	17	SF			3	E		12		
0071		07	1944*	1952*	2032	S10	W43	6442	01	4.6	48	SF	C	3.0				31		FK
	HOLL	07	1944	1952	2038	S10	W42	6442	01	4.7	54	SF	C	3.0	3	E		50		F
	HOLL	07	1944	2020	2038	S10	W42	6442	01	4.7	54	SF				E		42		K
	RAMY	07	1950	1953	2012	S10	W44	6442	01	4.5	22	SF			3	E		16		F
	RAMY	07	2020	2021	2039	S09	W44	6442	01	4.5	19	SF			3	E		17		F
0072		07	2041*	2044*	2150	S11	W45	6442	01	4.5	69	SF	C	2.2				26		FK
	HOLL	07	2041	2044	2117	S11	W45	6442	01	4.5	36	SF			3	E		15		
	PALE	07	2044	2103	2225D	S13	W47	6442	01	4.3	101D	SF			3	E		23		F
	PALE	07	2044	2124	2225D	S13	W47	6442	01	4.3	101D	SF				E		50		K
	HOLL	07	2124	2125	2144	S10	W43	6442	01	4.7	20	SF	C	2.2	3	E		26		
	HOLL	07	2124	2133	2144	S10	W43	6442	01	4.7	20	SF				E		16		K
	HOLL	07	2152	2155	2204	S11	W45	6442	01	4.5	12	SF	C	2.3	3	E		40		
	HOLL	07	2210	2212	2219	S10	W44	6442	01	4.6	9	SF	C	2.2	3	E		12		
0073	PALE	07	2216	2219	2231	S25	W68	6435	01	2.6	15	SF			3	E		31		

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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
0074		07	22482	22511	2306	S10	W44	6442	01	4.6	18	SF						21		
	PALE	07	2248	2251	2309D	S11	W45	6442	01	4.6	21D	SF			3	E		22		
	HOLL	07	2250	2252	2306	S10	W44	6442	01	4.6	16	SF			3	E		20		
0075	LEAR	07	2250	2252	2258	S23	W69	6435	01	2.6	8	SF	C	2.9	3	E		21		
0076	LEAR	08	0023	0029	0057	S11	W68	6432	01	2.9	34	SF			3	E		24		
0077	PALE	08	0145	0154	0201	S12	W48	6442	01	4.4	16	SF			3	E		17		
0078		08	0248*	0257*	0320	N12	E72	6444	01	13.5	32	SF						36		F
	LEAR	08	0248	0257	0303	N13	E71	6444	01	13.5	15	SF			3	E		21		F
	PALE	08	0305	0308	0310	N11	E76	6444	01	13.8	5	SF			3	E		11		
	LEAR	08	0305	0327	0333	N13	E70	6444	01	13.4	28	SF			3	E		52		F
	PALE	08	0317	0327	0332	N13	E70	6444	01	13.4	15	SF			3	E		61		
0079		08	0258*	0328*	0339	S11	W48	6442	01	4.5	41	SF						30	0.7	E
	YUNN	08	0258	0335	0350	S10	W48	6442	01	4.5	52	SF				C		47	0.7	E
	WATU	08	0306E		0306	S12	W48	6442	01	4.5	52D					P				
	PALE	08	0326	0328	0332	S12	W48	6442	01	4.5	6	SF			3	E		20		
	WATU	08	0352		0352D	S12	W48	6442	01	4.5	6D					P				
	LEAR	08	0356	0400	0408	S11	W48	6442	01	4.5	12	SF			3	E		23		
0080		08	0409	0420*	0623	S11	W48	6442	01	4.6	134	1N	M	1.8				108		EFK
	LEAR	08	0409	0420	0623	S11	W48	6442	01	4.6	134	1N				E		74		K
	LEAR	08	0409	0432	0623	S11	W48	6442	01	4.6	134	1N	M	1.8	3	E		141		FE
0081		08	0623	0626*	0712	S12	W50	6442	01	4.5	49	SF	M	1.1				43		FK
	LEAR	08	0623	0626	0712	S12	W50	6442	01	4.5	49	SF				E		22		K
	LEAR	08	0623	0658	0712	S12	W50	6442	01	4.5	49	SF	M	1.1	3	E		64		F
0082	LEAR	08	0717	0719	0726	N13	E68	6444	01	13.4	9	SF			3	E		34		
0083	HTPR	08	0840	0843	0847	S13	W52	6442	01	4.4	7	SF				C	0843	90	1.4	
0084		08	0937*	0959	1028	S12	W52	6442	01	4.5	51	SN						50	1.0	EFT
	LEAR	08	0937	0959	1039	S11	W51	6442	01	4.6	62	SF			3	E		40		F
	ONDR	08	0954	0957U	1016	S13	W52	6442	01	4.5	22	SN				P	0957	60	1.0	ETF
0085		08	11181	11231	1143	S13	W50	6442	01	4.7	25	1N	M	1.2				128	2.0	EFT
	ONDR	08	1118	1123	1141	S13	W51	6442	01	4.6	23	1B				P	1123	151	2.5	ETF
	HTPR	08	1119	1124	1145	S13	W52	6442	01	4.5	26	SF				C	1124	100	1.6	
	SVTO	08	1124E	1124U	1159D	S13	W51	6442	01	4.6	35D	1N	M	1.2	2	E		133		
	RAMY	08	1126E		1143	S12	W48	6442	01	4.9	17D	SB			3	E				F
0086	RAMY	08	1202	1204	1211	N11	E72	6444	01	13.9	9	SF			3	E		12		F
0087	KANZ	08	1329	1329	1339	S10	W50	6442	01	4.8	10	SF				V				
0088	HTPR	08	1349	1352	1410	S12	W90	6427	01	1.8	21	1F				C	1352	80		A
0089	HTPR	08	1403	1407	1420	N17	E85	6444A	01	15.0	17	1F				C	1407	60		A
0090		08	15173	1525	1530D	N12	E69	6444	01	13.8	13D	SF						36		D
	HOLL	08	1517	1525	1530D	N11	E68	6444	01	13.7	13D	SF			2	E		33		
	HTPR	08	1520		1526D	N12	E70	6444	01	13.9	6D	SF				C	1525	40		D
		08	1527		1725	No Flare Patrol														
0091	HOLL	08	1556	1606	1617	N12	E62	6444	01	13.3	21	SF			3	E		35		
0092	HOLL	08	1654	1656	1701	S11	W55	6442	01	4.6	7	SF			3	E		11		
0093	PALE	08	1731	1755	1800	S14	W57	6442	01	4.4	29	SF			3	E		11		
0094		08	1832	1848	1851	N12	E69	6444	01	14.0	19	SF						44		FH
	PALE	08	1832	1848	1851	N13	E70	6444	01	14.0	19	SF			3	E		17		
	HOLL	08	1845E	1912U	1914D	N12	E68	6444	01	13.9	29D	SF			1	E		70		FH

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0095	PALE	08	1840	1848	1857	S15	W55	6442	01	4.6	17	SF		3	E		36		
0096		08	19271	19291	1936	N12	E68	6444	01	13.9	9	SN					48		EF
	HOLL	08	1927	1929	1939	N11	E68	6444	01	13.9	12	SN		3	E		61		FE
	PALE	08	1928	1930	1933	N14	E68	6444	01	13.9	5	SF		3	E		35		
0097	HOLL	08	1934	1934	1938	S12	W58	6442	01	4.4	4	SF		3	E		13		F
0098	HOLL	08	2016	2016	2022	S11	W78	6432	01	3.0	6	SF		3	E		26		F
		08	2035		2104	No Flare Patrol													
		08	2125		2135	No Flare Patrol													
0099	HOLL	08	2129	2129	2134	S18	W29	6445	01	6.7	5	SF		3	E		14		F
0100	HOLL	08	2130	2130	2133	N11	E67	6444	01	13.9	3	SF		3	E		13		F
0101	HOLL	08	2144	2148	2152	N12	E66	6444	01	13.9	8	SF		3	E		30		F
0102		08	22091	22123	2218	S16	W58	6442	01	4.5	9	SF					21		F
	PALE	08	2209	2212	2217	S18	W59	6442	01	4.4	8	SF		3	E		28		
	HOLL	08	2210	2215	2220	S13	W58	6442	01	4.5	10	SF		3	E		14		F
		08	2228		2234	No Flare Patrol													
0103	PALE	08	2318	2321	2332	N13	E66	6444	01	13.9	14	SF		3	E		21		
0104	VORO	09	0015	0021	0036U	S09	W57	6442	01	4.7	21U	SF		2	C	0021	27	0.5	DJ
0105	VORO	09	0221	0223	0234	S10	W63	6442	01	4.4	13	SF		2	C	0223	72	1.6	DJ
0106	PALE	09	0223	0223	0229	N13	E64	6444	01	13.9	6	SF		3	E		32		
0107	PALE	09	0240	0241	0251	S14	W61	6442	01	4.5	11	SF		3	E		23		
0108		09	03584	0417*	0623	N05	E35	6446	01	11.8	145	SF					130	2.2	EF
	MITK	09	0358	0417	0615	N06	E37	6446	01	11.9	137	SF			C	0417			E
	LEAR	09	0402	0445	0631	N06	E36	6446	01	11.9	149	SF		3	E		84		F
	URUM	09	0500E	0502	0535D	N02	E33	6446	01	11.7	35D	1N			C		177	2.2	E
0109	URUM	09	0512	0515	0535	S11	W66	6442	01	4.2	23	SF			C		48		E
0110		09	0806	0808	0839	S14	W66	6442	01	4.3	33	1N	C 5.2				132		E
	LEAR	09	0806	0808	0839	S15	W67	6442	01	4.3	33	1N	C 5.2	3	E		216		E
	URUM	09	0818E	0818U	0826D	S14	W66	6442	01	4.3	8D	SN			C		48		E
0111	LEAR	09	0851	0856	0903	S11	W64	6442	01	4.5	12	SF		3	E		35		
0112	KANZ	09	1135E	1135U	1207	N12	E66	6444A	01	14.4	32D	SF			V				
0113	KANZ	09	1135E	1135U	1207	N18	E57	6444	01	13.8	32D	SF			V				
0114		09	1336	13391	1352	S12	W68	6442	01	4.4	16	SF					26		
	RAMY	09	1336	1339	1349	S10	W66	6442	01	4.6	13	SF		3	E		23		
	SVTO	09	1336	1340	1355	S14	W69	6442	01	4.3	19	SF		3	E		28		
		09	2126		2203	No Flare Patrol													
0115		10	00373	00441	0120	N16	E52	6444	01	14.0	43	SF	C 6.2				71	1.7	EFJ
	LEAR	10	0037	0045	0130	N16	E54	6444	01	14.1	53	SF	C 6.2	3	E		43		F
	VORO	10	0040	0044	0110	N17	E51	6444	01	13.9	30	SF		2	C	0044	99	1.7	EJ
0116	LEAR	10	0115	0129	0146	S10	W75	6442	01	4.4	31	SF		3	E		28		
0117		10	03138	03148	0345	N12	E54	6444	01	14.2	32	SF	C 3.1				26		EF
	LEAR	10	0313	0314	0320	N11	E57	6444	01	14.4	7	SF	C 3.1	3	E		19		F
	MITK	10	0314	0316	0412	N10	E54	6444	01	14.2	58	SF			C	0316			E
	LEAR	10	0321	0322	0343	N15	E51	6444	01	14.0	22	SF		3	E		33		F

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0118		10	04443	04473	0458	N11	E62	6444		01	14.9	14	1N	C	6.8				163	4.7	E
	MITK	10	0444	0447	0502	N11	E59	6444		01	14.6	18	1B				C	0447	190	4.1	
	LEAR	10	0447	0447	0454	N11	E60	6444		01	14.7	7	SN	C	6.8	3	E		59		
	URUM	10	0450E	0450	0458	N11	E66	6444		01	15.2	8D	2N				C		241	5.3	E
0119		10	0510	05117	0548	N19	E55	6444		01	14.4	38	1N	M	1.0				148	3.8	EF
	LEAR	10	0510	0511	0536	N19	E59	6444		01	14.7	26	SN	M	1.0	3	E		53		FE
	MITK	10	0510	0514	0531D	N19	E53	6444		01	14.2	21D	1B				C	0514	150	2.9	E
	URUM	10	0510	0518	0600	N20	E53	6444		01	14.3	50	1N				C		241	4.6	E
0120		10	08094	0815	0842	S07	E78	6447		01	16:2	33	1N	C	4.3				63		A
	LEAR	10	0809	0815	0842	S07	E73	6447		01	15.8	33	SF	C	4.3	3	E		23		
	ABST	10	0813	0815	0822D	S08	E80	6447		01	16.3	9D	1N				C	0815	87		A
	HTPR	10	0819E		0820D	S07	E80	6447		01	16.3	1D	1N				C	0820	80		A
0121	LEAR	10	0900	0901	0906	N12	E56	6444		01	14.6	6	SF			3	E		16		
0122	LEAR	10	0932	0934	1010	N12	E57	6444		01	14.7	38	SF	C	5.2	3	E		58		F
0123	KANZ	10	1037	1040	1044	N12	E54	6444		01	14.5	7	SF				V				
		10	1301		1508	No Flare Patrol															
0124		10	1340*	1400*	1428	N16	E53	6444		01	14.6	48	SN	C	4.8				59		EFK
	SVTO	10	1340	1400	1430	N16	E52	6444		01	14.5	50	SN				E		20		K
	SVTO	10	1340	1412	1430	N16	E52	6444		01	14.5	50	1N	C	4.8	4	E		100		F
	RAMY	10	1409	1412	1423	N16	E54	6444		01	14.7	14	SN	C	4.8	4	E		57		FE
		10	1510		1724	No Flare Patrol															
0125		10	1524	1525*	1544	N12	E53	6444		01	14.6	20	SN	C	6.8				36		H
	HOLL	10	1524	1525	1544	N13	E51	6444		01	14.5	20	SN			2	E		39		
	RAMY	10	1534E	1535	1543	N12	E55	6444		01	14.8	9D	SF	C	6.8	4	E		32		H
0126	HOLL	10	1710	1711	1720	S06	E80	6447		01	16.7	10	SF	C	3.4	3	E		21		
		10	1730		1735	No Flare Patrol															
0127	PALE	10	1805E	1805U	1814	N18	E72			01	16.2	9D	SF	C	3.0	2	E		35		
0128	HOLL	10	1817	1817	1820	N12	E53	6444		01	14.7	3	SF			3	E		13		
		10	1820		1850	No Flare Patrol															
		10	1855		1916	No Flare Patrol															
		10	1923		1959	No Flare Patrol															
		10	2142		2151	No Flare Patrol															
		10	2202		2223	No Flare Patrol															
0129		10	2228	22291	2238	S06	E76	6447		01	16.6	10	SF						22		F
	PALE	10	2228	2229	2243D	S06	E77	6447		01	16.7	15D	SF			3	E		23		F
	HOLL	10	2228	2230	2238	S07	E76	6447		01	16.6	10	SF			3	E		22		F
0130	HOLL	10	2253	2254	2319	S02	E72	6447		01	16.3	26	SF			3	E		22		F
0131	LEAR	11	0312	0323	0335	S09	E68	6447		01	16.2	23	SF			3	E		53		
0132	LEAR	11	0313	0318	0329	S20	W59	6445		01	6.6	16	SF			3	E		36		
0133	LEAR	11	0506	0508	0526	S07	E67	6447		01	16.2	20	SF			3	E		32		
0134	LEAR	11	0515	0518	0527	N17	E38	6444		01	14.1	12	SF	C	4.0	3	E		49		F
0135		11	0636*	06484	0703	N20	E46	6444		01	14.8	27	SN						89	1.7	D
	YUNN	11	0635E	0652	0727	N20	E47	6444		01	14.9	52D	1N				P		126	2.1	
	PEKG	11	0636	0648	0651	N19	E45	6444		01	14.7	15	SN				P	0636	84	1.4	D
	ABST	11	0650	0651	0656	N23	E44	6444		01	14.7	6	SN				C	0651	87	1.5	D
	LEAR	11	0650	0652	0657	N19	E46	6444		01	14.8	7	SN			3	E		60		

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0136		11	07021	0707	0724	S10	E70	6447	01	16.5	22	SN					22		F
	YUNN	11	0702	0707	0736	S10	E70	6447	01	16.5	34	SN			C		16		
	LEAR	11	0703	0707	0712	S09	E71	6447	01	16.6	9	SF		3	E		28		F
0137		11	07481	0749	0754	N11	E44	6444	01	14.6	6	SF	C 5.0				26		
	SVTO	11	0748	0749	0756D	N10	E43	6444	01	14.5	8D	SF	C 5.0	1	E		20		
	LEAR	11	0749	0749	0754	N12	E45	6444	01	14.7	5	SF	C 5.0	3	E		31		
0138		11	08511	08556	0928	S10	E82	6452A	01	17.5	37	1N	M 2.2				185	9.4	F
	LEAR	11	0851	0901	0925	S10	E81	6452A	01	17.4	34	1N	M 2.2	4	E		242		F
	ATHN	11	0852E	0852U	0910D	S10	E80	6452A	01	17.4	18D	2B		3	V	0852	223	9.4	
	SVTO	11	0852	0855	0932	S10	E85	6452A	01	17.7	40	SN		1	E		90		F
0139		11	12102	12123	1233	N17	E16	6450	01	12.7	23	SF					22		F
	RAMY	11	1210	1212	1218D	N17	E16	6450	01	12.7	8D	SF		3	E		21		F
	KANZ	11	1211	1215	1227D	N18	E16	6450	01	12.7	16D	SF			V				
	SVTO	11	1212	1213	1233	N16	E15	6450	01	12.6	21	SF		3	E		22		
		11	1236		1237	No Flare Patrol													
0140	SVTO	11	1315	1321	1339	S07	E61	6447	01	16.1	24	SF		3	E		18		
		11	1321		1509	No Flare Patrol													
0141		11	1440	1448*	1516	N13	E31	6444	01	13.9	36	SF					24		F
	SVTO	11	1440	1448	1454	N13	E33	6444	01	14.1	14	SF		3	E		10		
	HOLL	11	1453E	1500	1537	N13	E29	6444	01	13.8	44D	SF		2	E		39		F
		11	1511		1855	No Flare Patrol													
0142	HOLL	11	1521	1526	1546	S04	E61	6447	01	16.2	25	1B	M 4.6	3	E		186		FU
0143	RAMY	11	1721	1721	1729	N12	E40	6444	01	14.7	8	SF		3	E		12		
0144		11	18172	1827	1849	N12	E38	6444	01	14.6	32	SB	M 1.0				96		EFH
	HOLL	11	1817	1827	1906	N12	E36	6444	01	14.5	49	1B	M 1.0	3	E		142		FE
	RAMY	11	1819	1827	1838	N12	E39	6444	01	14.7	19	SB	M 1.0	3	E		84		
	PALE	11	1826E	1828U	1842	N13	E40	6444	01	14.8	16D	SB		3	E		63		FH
0145		11	1924	19262	1936	N10	E28	6444	01	13.9	12	SF					31		
	PALE	11	1924E	1926	1935	N09	E27	6444	01	13.8	11D	SF		3	E		28		
	RAMY	11	1924	1928	1938	N10	E28	6444	01	13.9	14	SF		3	E		34		
0146		11	2007*	2007*	2024	N16	E31	6444	01	14.2	17	SF	C 3.7				38		F
	RAMY	11	2007	2007	2015	N17	E31	6444	01	14.2	8	SF		3	E		22		
	PALE	11	2017E	2024U	2036D	N16	E32	6444	01	14.3	19D	SF	C 3.7	3	E		39		F
	RAMY	11	2018	2022	2034	N15	E30	6444	01	14.1	16	SF	C 3.7	3	E		53		F
0147	RAMY	11	2021	2027	2038	S06	E57	6447	01	16.1	17	SF		3	E		38		
		11	2132		2214	No Flare Patrol													
0148		11	2321	23221	2338	N12	E36	6444	01	14.7	17	SF	C 2.3				37		
	PALE	11	2321	2322	2346D	N13	E37	6444	01	14.8	25D	SF	C 2.3	3	E		32		
	LEAR	11	2321	2323	2338	N12	E36	6444	01	14.7	17	SF	C 2.3	3	E		42		
0149		12	0026	00285	0048	N10	E24	6444	01	13.8	22	SF	C 2.6				38		
	LEAR	12	0026	0028	0048	N11	E24	6444	01	13.8	22	SF		3	E		62		
	PALE	12	0031E	0033	0043D	N10	E25	6444	01	13.9	12D	SF	C 2.6	3	E		14		
0150		12	02141	02181	0224	S08	E58	6447	01	16.4	10	SF	C 2.5				28		FH
	LEAR	12	0214	0219	0224	S09	E58	6447	01	16.4	10	SF	C 2.5	3	E		26		
	PALE	12	0215	0218	0225	S08	E57	6447	01	16.4	10	SF	C 2.5	4	E		29		FH
0151		12	0303	03047	0325	N17	E28	6444	01	14.2	22	SN					74	1.6	F
	PALE	12	0303	0304	0320	N17	E28	6444	01	14.2	17	SF		3	E		22		F
	YUNN	12	0304E	0311	0330	N17	E27	6444	01	14.2	26D	SN			P		126	1.6	

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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
0152		12	03471	03502	0402	S07	E53	6447	01	16.1	15	1N	C 2.6				118	3.4	E
	PEKG	12	0347	0352	0402	S06	E55	6447	01	16.3	15	1N			P	0351	189	3.4	E
	PALE	12	0348	0350	0403D	S08	E51	6447	01	16.0	15D	SF	C 2.6	3	E		46		
0153	LEAR	12	0413	0417	0429	S07	E53	6447	01	16.1	16	SF		3	E		39		
0154	PEKG	12	0435	0445	0451	N13	E00	6451	01	12.2	16	SN			P	0445	105	1.1	D
0155	LEAR	12	0528	0533	0547	N19	E20	6444	01	13.7	19	SF		3	E		95		
0156	LEAR	12	0534	0536	0543	N14	W02	6451	01	12.1	9	SF		3	E		21		
0157		12	07028	07111	0736	S06	E51	6447	01	16.1	34	1N	C 4.6				166	2.9	CEF
	LEAR	12	0702	0712	0801	S06	E51	6447	01	16.1	59	1F	C 4.6	3	E		131		F
	TACH	12	0709E		0733	S05	E50	6447	01	16.0	24D	SN			C	0709	71	1.1	CE
	ATHN	12	0709E	0712	0726	S08	E52	6447	01	16.2	17D	1B		3	V	0712	286	4.6	
	ABST	12	0710	0711	0725	S05	E50	6447	01	16.0	15	1F			C	0711	174	3.0	E
0158		12	0807*	0815*	0844	S06	E51	6447	01	16.1	37	1N	C 7.9				170	3.2	DEFK
	LEAR	12	0807	0816	0843	S06	E51	6447	01	16.1	36	1N			E		93		K
	LEAR	12	0807	0830	0843	S06	E51	6447	01	16.1	36	1N	C 7.9	3	E		154		FE
	ISTA	12	0808		0839	S07	E52	6447	01	16.2	31	1B			V				F
	YUNN	12	0808	0815	0845	S08	E51	6447	01	16.2	37	1N			C		157	2.6	
	BUCA	12	0810E	0829	0845	S04	E51	6447	01	16.1	35D	1N			P	0829	268	4.3	D
	URUM	12	0810E	0830	0855	S07	E51	6447	01	16.2	45D	1B			C		177	2.9	E
	ABST	12	0822	0828	0840	S05	E50	6447	01	16.1	18	1N			C	0828	174	3.0	E
0159	SVTO	12	0957E	1002U	1036	S08	E55	6447	01	16.5	39D	SF		3	E		65		
0160		12	1013	1016	1050	N13	E26	6444	01	14.4	37	1N					119	2.3	U
	SVTO	12	1013	1016	1117	N13	E25	6444	01	14.3	64	SF		3	E		47		U
	ATHN	12	1015E	1016U	1023	N13	E26	6444	01	14.4	8D	1N		3	V	1016	191	2.3	
0161	SVTO	12	1047	1100	1119	S08	E55	6447	01	16.6	32	SF		3	E		34		
0162	SVTO	12	1120	1123	1139D	S08	E55	6447	01	16.6	19D	SF		3	E		43		
0163	RAMY	12	1214	1225	1233	S06	E47	6447	01	16.0	19	SF		3	E		27		
0164		12	1239	12427	1300	S07	E47	6447	01	16.0	21	SF					36		FK
	RAMY	12	1239	1242	1300	S07	E47	6447	01	16.0	21	SF			E		25		K
	RAMY	12	1239	1249	1300	S07	E47	6447	01	16.0	21	SF		3	E		47		F
0165	RAMY	12	1329	1332	1350	N14	E24	6444	01	14.4	21	SF		3	E		17		
0166	RAMY	12	1412	1413	1422	S06	E47	6447	01	16.1	10	SF	C 1.4	3	E		24		
0167	RAMY	12	1426	1438	1520	S06	E46	6447	01	16.0	54	SN	C 3.8	3	E		93		F
		12	1449		1518	No Flare Patrol													
0168		12	16023	16066	1618	S08	E46	6447	01	16.1	16	SF	C 1.5				25		F
	RAMY	12	1602	1612	1618	S08	E45	6447	01	16.0	16	SF	C 1.5	3	E		30		F
	HOLL	12	1605	1606	1622D	S09	E47	6447	01	16.2	17D	SF		1	E		20		F
0169	RAMY	12	1621	1627	1643	S32	W30	6448	01	10.3	22	SF	C 1.6	3	E		14		
0170		12	19061	19122	1950	S09	E46	6447	01	16.2	44	1F	C 2.5				80		F
	PALE	12	1906	1914	1950	S09	E47	6447	01	16.3	44	1F	C 2.5	4	E		113		F
	RAMY	12	1907	1912	1927D	S09	E45	6447	01	16.2	20D	SF	C 2.5	3	E		48		F
		12	1918		2013	No Flare Patrol													
		12	2023		2031	No Flare Patrol													
		12	2037		2217	No Flare Patrol													
0171	PALE	12	2100	2105	2137	S08	E58	6452A	01	17.2	37	1F	C 4.6	4	E		139		F
0172	PALE	12	2207	2213	2227	S08	E43	6447	01	16.1	20	1N	C 9.4	4	E		108		E

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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
0173	LEAR	13	0006	0010	0012	S21	E55	6452	01	17.2	6	SF		3	E		37		
0174		13	00413	00461	0058	S07	E42	6447	01	16.2	17	SF	C 2.0				61	1.0	DFHJT
	PALE	13	0040E	0045U	0102D	S06	E43	6447	01	16.2	22D	SF	C 2.0	3	E		38		F
	LEAR	13	0041	0047	0058	S07	E42	6447	01	16.2	17	SF	C 2.0	3	E		72		F
	VORO	13	0044	0046	0057	S07	E42	6447	01	16.2	13	SF		2	C	0046	72	1.0	DHJT
0175		13	01211	01254	0143	S06	E41	6447	01	16.1	22	SF					87	1.8	EFJKT
	PEKG	13	0121	0125	0135	S06	E41	6447	01	16.1	14	SN			P	0125	147	2.0	E
	LEAR	13	0121	0126	0143	S05	E40	6447	01	16.0	22	SF		3	E		41		F
	VORO	13	0122	0127	0148	S07	E42	6447	01	16.2	26	SF		2	C	0127	108	1.5	EJKT
	PALE	13	0122	0129	0145	S05	E41	6447	01	16.1	23	SF		3	E		53		
0176		13	02105	02172	0231	S06	E43	6447	01	16.3	21	1N	C 2.7				128	2.0	EFJT
	LEAR	13	0210	0217	0238	S07	E49	6447	01	16.8	28	1N		3	E		123		F
	VORO	13	0212	0218	0232	S07	E42	6447	01	16.2	20	SF		2	C	0218	125	1.7	EJT
	PALE	13	0213	0219	0241D	S06	E41	6447	01	16.2	28D	SF	C 2.7	3	E		97		
	PEKG	13	0215	0218	0223	S06	E41	6447	01	16.2	8	1N			P	0218	168	2.3	E
0177	LEAR	13	0332	0335	0348	N11	E08	6444	01	13.7	16	SF	C 1.3	3	E		80		F
0178	LEAR	13	0401	0411	0426	S07	E48	6447	01	16.8	25	SF		3	E		35		
0179		13	05104	05151	0524	N12	E03	6444	01	13.4	14	SN					113	1.8	DF
	LEAR	13	0510	0516	0526	N12	E02	6444	01	13.4	16	SF		3	E		58		F
	PEKG	13	0514	0515	0521	N11	E04	6444	01	13.5	7	SN			P	0515	168	1.8	D
0180		13	0705*	0710*	0730	S06	E38	6447	01	16.1	25	1B	C 2.0				214	3.3	E
	TACH	13	0705	0710	0725	S06	E40	6447	01	16.3	20	1B			C	0710	260	3.5	E
	PEKG	13	0713	0720	0733	S06	E38	6447	01	16.1	20	1B			P	0720	357	4.8	E
	LEAR	13	0713	0720	0735	S07	E39	6447	01	16.2	22	1N	C 2.0	3	E		109		
	ABST	13	0717	0719	0726	S05	E36	6447	01	16.0	9	SN			C	0719	131	1.6	E
0181		13	0720*	0721*	0729	N13	E04	6444	01	13.6	9	SF					75	1.4	DF
	ABST	13	0720	0721	0725	N14	E04	6444	01	13.6	5	SN			C	0721	131	1.4	D
	PEKG	13	0721	0723	0726	N11	E03	6444	01	13.5	5	SF			P	0723	126	1.4	D
	LEAR	13	0721	0724	0727	N12	E00	6444	01	13.3	6	SF		3	E		12		F
	LEAR	13	0733	0735	0739	N14	E09	6444	01	14.0	6	SF		3	E		30		
0182		13	08562	08593	0912	N12	E04	6444	01	13.7	16	SN					90	1.4	D
	LEAR	13	0856	0902	0913	N14	E08	6444	01	14.0	17	SF		3	E		48		
	ABST	13	0858	0859	0912	N11	W01	6444	01	13.3	14	SN			C	0859	131	1.4	D
0183	RAMY	13	1201	1203	1206	S06	E34	6447	01	16.0	5	SF	C 1.6	3	E		31		H
0184	RAMY	13	1224	1225	1233	S07	E33	6447	01	16.0	9	SF		3	E		22		
		13	1231		2337	No Flare Patrol													
0185	RAMY	13	1347	1404	1411	N12	W03	6444	01	13.3	24	SF	B 9.9	3	E		23		
0186	RAMY	13	1643	1643	1648	N12	W04	6444	01	13.4	5	SF		3	E		19		F
0187		13	1731	17341	1743	N14	W02	6444	01	13.6	12	SF	C 1.9				57		FHT
	PALE	13	1731	1734	1745	N14	W01	6444	01	13.6	14	SF	C 1.9	3	E		27		
	RAMY	13	1731	1735	1742	N13	W05	6444	01	13.3	11	SF	C 1.9	3	E		73		F
	HOLL	13	1740E	1740U	1742	N14	E00	6444	01	13.7	2D	SN		1	E		70		FHT
0188	RAMY	13	1923	1925	1927D	N12	W06	6444	01	13.3	4D	SF		3	E		27		F
0189	HOLL	13	2020	2031	2037	N11	W07	6444	01	13.3	17	SF		3	E		25		F
0190		13	20523	21001	2108	N12	W08	6444	01	13.3	16	SN	C 3.4				72		EFH
	PALE	13	2052	2100	2108	N12	W08	6444	01	13.3	16	SF	C 3.4	3	E		70		H
	HOLL	13	2055	2101	2108	N12	W08	6444	01	13.3	13	SN	C 3.4	3	E		74		FE
0191		13	21083	2112	2118	S08	E34	6447	01	16.4	10	SF					20		
	HOLL	13	2108	2112	2120	S08	E33	6447	01	16.3	12	SF		3	E		23		
	PALE	13	2111	2112	2115	S07	E36	6447	01	16.6	4	SF		3	E		16		

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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
0192		13	21225	21272	2133	N12	E00	6444	01	13.9	11	SF					20		F
	HOLL	13	2122	2129	2135	N12	E01	6444	01	14.0	13	SF		3	E		28		F
	PALE	13	2127	2127	2131	N12	E00	6444	01	13.9	4	SF		3	E		13		
0193	HOLL	13	2305	2309	2313	N13	W09	6444	01	13.3	8	SF	C 1.2	3	E		34		F
0194	LEAR	14	0046	0048	0119	N15	E04	6444	01	14.3	33	SF		3	E		23		F
0195		14	0236	02371	0244	N11	W11	6450	01	13.3	8	SF					124	1.7	DHIJ
	LEAR	14	0236	0237	0245	N11	W11	6450	01	13.3	9	SF		3	E		88		
	VORO	14	0236	0238	0244	N11	W11	6450	01	13.3	8	SF		2	C	0238	161	1.7	DHIJ
0196	LEAR	14	0304	0312	0334	S07	E34	6447	01	16.7	30	SF		3	E		48		
0197		14	03091	0311	0316	N10	W10	6444	01	13.4	7	SF					56	0.9	D
	LEAR	14	0309	0311	0315	N11	W10	6444	01	13.4	6	SF		3	E		28		
	PEKG	14	0310	0311	0317	N10	W10	6444	01	13.4	7	SF			P	0311	84	0.9	D
0198		14	0758	08005	0822	S06	E27	6447	01	16.3	24	1N	C 2.0				108	1.2	EFT
	TACH	14	0758	0800	0806	S08	E26	6447	01	16.3	8	SN			C	0800	102	1.2	ET
	LEAR	14	0758	0805	0839	S05	E28	6447	01	16.4	41	1F	C 2.0	3	E		115		F
0199	KHAR	14	0828U		0840	N14	W04	6444	01	14.0	12U	SF			P				E
		14	1202		1943	No Flare Patrol													
0200	HOLL	14	1710	1713	1715	N12	W05	6444	01	14.3	5	SF	C 1.5	2	E		52		F
0201	HOLL	14	1735	1740	1746	S09	E21	6447	01	16.3	11	SF		2	E		14		F
		14	2047		2400	No Flare Patrol													
0202	HOLL	14	2200	2201	2206	N15	W17	6444	01	13.6	6	SF		3	E		19		
0203	HOLL	14	2223	2227	2236	S10	E20	6447	01	16.4	13	SF	C 1.9	3	E		18		
0204	VORO	15	0137	0138	0143	N19	W03	6444	01	14.8	6	SF		2	C	0138	36	0.4	DI
0205		15	01421	01473	0204	N06	W36	6446	01	12.4	22	SF					70	1.2	EI
	LEAR	15	0142	0150	0210	N06	W35	6446	01	12.4	28	SF		3	E		49		
	VORO	15	0143	0147	0159	N07	W37	6446	01	12.3	16	SF		2	C	0147	90	1.2	EI
0206		15	0535	05401	0602	N28	E36	6454	01	18.0	27	SB					80	1.2	DE
	PEKG	15	0535	0540	0553	N29	E37	6454	01	18.1	18	SN			P	0540	63	1.0	D
	URUM	15	0535	0541	0612	N27	E36	6454	01	18.0	37	SB			C		96	1.4	E
0207	PEKG	15	0645	0654	0700D	N29	E37	6454	01	18.2	15D	SN			P	0655	84	1.3	E
0208		15	0723*	0737*	0818	N28	E35	6454	01	18.0	55	SF					43	1.0	EFK
	LEAR	15	0723	0737	0818	N27	E34	6454	01	17.9	55	SF			E		26		K
	LEAR	15	0723	0759	0818	N27	E34	6454	01	17.9	55	SF		3	E		38		F
	URUM	15	0752	0759	0819	N28	E36	6454	01	18.1	27	SN			C		64	1.0	E
	KANZ	15	0805E	0810U	0818	N28	E35	6454	01	18.1	13D	SF			V				
0209		15	08181	08202	0854	S06	E12	6447	01	16.2	36	SN	C 2.6				110	1.3	EF
	LEAR	15	0818	0820	0908	S07	E17	6447	01	16.6	50	SF	C 2.6	3	E		70		FE
	KANZ	15	0818	0822	0859	S05	E11	6447	01	16.2	41	SF			V				
	URUM	15	0819	0820	0835	S04	E10	6447	01	16.1	16	1N			C		209	2.2	E
	ONDR	15	0824E	0824U	0831U	S05	E12	6447	01	16.2	7U	SN			P	0824	84	0.9	E
	YUNN	15	0830E	0831U	0854	S07	E10	6447	01	16.1	24D	SN			P	0831	79	0.8	
0210		15	08493	08522	0859	N06	W46	6446	01	11.9	10	SN					121	2.0	DEG
	LEAR	15	0849	0852	0903	N07	W46	6446	01	11.9	14	1F		3	E		101		
	URUM	15	0850	0854	0900	N05	W47	6446	01	11.8	10	SF			C		129	2.0	D
	KANZ	15	0852	0852	0856	N06	W46	6446	01	11.9	4	SF			V				
	ONDR	15	0852	0854	0857	N07	W46	6446	01	11.9	5	SB			P	0854	134	2.0	GE
0211		15	09377	09501	1000	N26	E32	6454	01	17.9	23	SF					32		
	LEAR	15	0937	0950	1001	N24	E32	6454	01	17.9	24	SF		3	E		32		
	KANZ	15	0944	0951	0959	N28	E33	6454	01	18.0	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	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0212	KANZ	15	1011	1011	1019	N28	E35	6454	01	18.1	8	SF				V				
0213		15	1109	1110	1118	S08	E08	6447	01	16.1	9	SF						47	0.5	E
	ONDR	15	1109E	1109U	1115	S09	E07	6447	01	16.0	6D	SF				P	1109	44	0.5	E
	HTPR	15	1109	1110	1120	S08	E08	6447	01	16.1	11	SF				C	1110	50	0.5	
		15	1236		2130	No Flare Patrol														
0214	RAMY	15	1238	1238	1242	S05	E07	6447	01	16.0	4	SF	C	1.2	3	E		11		
0215	HOLL	15	1422E	1424U	1445	N27	E32	6454	01	18.1	23D	SF	C	1.5	1	E		35		
0216	HOLL	15	1505	1505	1510	N27	E32	6454	01	18.1	5	SF			2	E		17		
0217		15	16541	16541	1701	S06	E10	6447	01	16.4	7	SF	C	1.2				12		F
	HOLL	15	1654	1654	1701	S06	E09	6447	01	16.4	7	SF	C	1.2	3	E		11		F
	RAMY	15	1655	1655	1701	S05	E10	6447	01	16.4	6	SF	C	1.2	4	E		13		F
0218		15	19572	19592	2010	N13	W12	6444	01	14.9	13	SF	C	1.3				16		F
	HOLL	15	1957	1959	2007	N13	W12	6444	01	14.9	10	SF	C	1.3	2	E		18		F
	PALE	15	1959	2001	2012	N13	W13	6444	01	14.8	13	SF	C	1.3	3	E		15		
0219	HOLL	15	2056	2100	2105	S06	E08	6447	01	16.5	9	SF			2	E		20		
		15	2156		2334	No Flare Patrol														
0220	HOLL	15	2205	2211	2224	N13	W15	6444	01	14.8	19	SF	C	2.7	3	E		42		H
0221	HOLL	15	2206	2207	2214	S23	E18	6452	01	17.3	8	SF			3	E		19		
0222		16	0047	00471	0058	N14	W20	6444	01	14.5	11	SF	C	1.4				36	0.6	DI
	PALE	16	0047	0047	0058	N14	W25	6444	01	14.1	11	SF	C	1.4	3	E		19		
	VORO	16	0047	0048	0058	N15	W15	6444	01	14.9	11	SF			1	C	0048	54	0.6	DI
0223	PALE	16	0054	0055	0106	S06	E06	6447	01	16.5	12	SF			3	E		16		
0224	WATU	16	0236	0238	0244	N19	W17	6444	01	14.8	8	SF				C	0238	80	1.0	
		16	0648		0708	No Flare Patrol														
0225	LEAR	16	0705E	0711	0728	N13	W18	6444	01	14.9	23D	SF	C	1.5	3	E		34		
0226	ONDR	16	0830	0833	0840	S06	W03	6447	01	16.1	10	SN				P	0833	70	0.7	E
0227		16	13032	13032	1315	N12	W26	6444	01	14.6	12	SF						70	0.8	
	HTPR	16	1303	1303	1310	N13	W27	6444	01	14.5	7	SF				C	1303	70	0.8	
	KANZ	16	1305	1305	1320	N12	W25	6444	01	14.7	15	SF				V				
		16	1404		1421	No Flare Patrol														
		16	1427		1433	No Flare Patrol														
0228	KANZ	16	1434E	1434U	1434D	N12	W26	6444	01	14.6	15D	SF				C				
		16	1435		2118	No Flare Patrol														
0229		16	14571	14582	1502	S08	W03	6447	01	16.4	5	SF	C	1.5				12		
	HOLL	16	1457	1458	1501	S08	W04	6447	01	16.3	4	SF	C	1.5	1	E		15		
	RAMY	16	1458	1500	1503	S07	W02	6447	01	16.5	5	SF	C	1.5	3	E		10		
0230	HOLL	16	1512	1534	1640	N21	W26	6444	01	14.6	88	SF			3	E		30		
0231		16	1714	17285	1747	N28	E18	6454	01	18.1	33	SF						16		F
	RAMY	16	1714	1733	1748	N28	E19	6454	01	18.2	34	SF			4	E		17		F
	PALE	16	1726E	1728	1746	N28	E17	6454	01	18.0	20D	SF			3	E		16		
0232	PALE	16	2023	2024	2032	N12	W35	6444	01	14.2	9	SF	C	1.9	4	E		48		F
		16	2140		2142	No Flare Patrol														
		16	2208		2338	No Flare Patrol														
		17	0005		0105	No Flare Patrol														

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Day	Dur (Min)	Imp Opt	Xray	See	Obs Type	Time (UT)	Area Measurement Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
0233	LEAR	17	0311	0322	0328	S06	W13	6447	01	16.1	17	SF		3	E		13		F
		17	0706		0719	No Flare Patrol													
0234	KANZ	17	0720E	0720U	0727	N20	W31	6444	01	14.9	7D	SF			C				
0235		17	08441	08462	0850	N12	W37	6444	01	14.6	6	SF	C 1.3				65	1.4	DF
	KANZ	17	0844	0848	0852	N11	W37	6444	01	14.6	8	SF			V				
	BUCA	17	0845E		0850	N13	W36	6444	01	14.6	5D	SF			C	0845	107	1.4	D
	SVTO	17	0845	0846	0849	N11	W39	6444	01	14.4	4	SF	C 1.3	3	E		23		F
0236	HTPR	17	0952	0954	1002	N13	W40	6444	01	14.4	10	SF			C	0954	20	0.3	
0237		17	10104	10122	1020	S06	W18	6447	01	16.1	10	SF					30	0.3	F
	HTPR	17	1010	1012	1020	S05	W18	6447	01	16.1	10	SF			C	1012	30	0.3	
	SVTO	17	1011	1012	1019	S06	W18	6447	01	16.1	8	SF		3	E		30		F
	KANZ	17	1014	1014	1020	S06	W19	6447	01	16.0	6	SF			V				
0238		17	10317	1042	1119	S06	W12	6447	01	16.5	48	SF					150	1.6	
	HTPR	17	1031		1120	S06	W13	6447	01	16.5	49	SF			C	1051	150	1.6	
	KANZ	17	1038	1042	1118	S06	W11	6447	01	16.6	40	SF			V				
0239	HTPR	17	1034	1036	1045	N13	W33	6444	01	14.9	11	SN			C	1036	40	0.5	E
0240		17	10371	10493	1125	S12	W01	6455	01	17.4	48	SF					58	0.7	
	HTPR	17	1037	1052	1125	S11	E00	6455	01	17.4	48	SF			C	1052	70	0.7	
	SVTO	17	1038	1046U	1124	S13	W02	6455	01	17.3	46	SF		3	E		45		
	KANZ	17	1038	1049	1125	S12	W00	6455	01	17.4	47	SF			V				
0241		17	12264	12286	1239	N13	W34	6444	01	14.9	13	SF					38	0.6	D
	HTPR	17	1226	1228	1240	N13	W33	6444	01	15.0	14	SF			C	1228	50	0.7	
	ONDR	17	1228U	1234	1239	N13	W35	6444	01	14.9	11U	SN			P	1234	27	0.4	D
	KANZ	17	1230	1234	1238	N12	W35	6444	01	14.9	8	SF			V				
0242	RAMY	17	1259	1259	1310	S04	W18	6447	01	16.2	11	SF		3	E		12		
0243		17	13001	13013	1308	N12	W40	6444	01	14.5	8	SF	C 3.3				54	0.9	E
	HTPR	17	1300	1302	1310	N13	W40	6444	01	14.5	10	SF			C	1302	90	1.3	
	KANZ	17	1301	1301	1307	N11	W41	6444	01	14.4	6	SF			V				
	RAMY	17	1301	1302	1306	N14	W39	6444	01	14.6	5	SF	C 3.3	3	E		28		
	SVTO	17	1302E	1302U	1309	N11	W41	6444	01	14.4	7D	SF	C 3.3	3	E		66		
	ONDR	17	1302E	1304	1308	N12	W41	6444	01	14.4	6D	SB			P	1304	33	0.5	E
0244		17	13144	13186	1331	S11	W02	6455	01	17.4	17	SF					74	1.4	E
	KANZ	17	1314	1318	1330	S11	W02	6455	01	17.4	16	SF			V				
	RAMY	17	1315	1318	1327	S11	W02	6455	01	17.4	12	SF		3	E		11		
	ONDR	17	1318	1324	1337	S12	W02	6455	01	17.4	19	SN			P	1324	137	1.4	E
0245		17	1413	14151	1440	N13	W33	6444	01	15.1	27	SN	C 2.5				56	1.2	
	HTPR	17	1413	1415	1440	N13	W33	6444	01	15.1	27	SN			C	1415	90	1.2	
	RAMY	17	1415E	1416	1420D	N13	W33	6444	01	15.1	5D	SF	C 2.5	3	E		22		
0246	RAMY	17	1454	1454	1506	S06	W15	6447	01	16.5	12	SF		3	E		22		
0247		17	1457	15006	1557	S12	W02	6455	01	17.5	60	1B	M 6.9				256	4.5	FIKLUWZ
	HTPR	17	1457	1500	1540D	S13	E02	6455	01	17.8	43D	1B			C	1500	440	4.5	ILUW
	RAMY	17	1457	1501	1557	S11	W04	6455	01	17.3	60	1B	M 6.9	3	E		209		ZF
	SVTO	17	1457	1502U	1525D	S13	W04	6455	01	17.3	28D	1N	M 6.9	3	E		225		F
	RAMY	17	1457	1506	1557	S11	W04	6455	01	17.3	60	1B			E		148		K
0248	HTPR	17	1506	1511	1520	N13	W33	6444	01	15.1	14	SF			C	1511	40	0.5	
		17	1541		1838	No Flare Patrol													
0249	RAMY	17	1756	1800	1816	N17	W51	6444	01	13.9	20	SF		3	E		28		
0250	RAMY	17	1849	1854	1857	S12	W07	6455	01	17.2	8	SF		3	E		23		F
		17	1851		2244	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
0251	RAMY	17	1907	1912	1916	N15	W38	6444	01	14.9	9	SF			3	E		36		
0252	PALE	17	2145E	2150U	2202	S14	W10	6455	01	17.1	17D	SF			3	E		19		F
0253	PALE	17	2304	2309U	2315	S05	W26	6447	01	16.0	11	SF	C	2.9	3	E		26		F
0254	PALE	17	2309E	2309U	2316	S15	W11	6455	01	17.1	7D	SF			3	E		13		
		17	2312		2400	No Flare Patrol														
		18	0000		0058	No Flare Patrol														
0255		18	0046*	01508	0248	S06	W24	6447	01	16.2	122	SN	M	2.3				102	1.1	EF
	LEAR	18	0046	0158	0237D	S05	W24	6447	01	16.2	111D	1N	M	2.3	3	E		105		F
	WATU	18	0059	0150	0239	S08	W25	6447	01	16.2	100	SF				P	0150	100	1.1	F
	MITK	18	0107E		0257	S06	W22	6447	01	16.4	110D	SN				C	0107			E
0256	PALE	18	0121E	0135	0223	S07	W24	6447	01	16.2	62D	SN			3	E		95		FU
0257	PALE	18	0251	0252	0301	N16	W50	6444	01	14.3	10	SF			3	E		33		F
0258		18	0414	0405*	0446	S12	W12	6455	01	17.3	32	SN	M	1.1				83	0.8	
	YUNN	18	0350E	0405	0425	S13	W12	6455	01	17.2	35D	SN				P		79	0.8	
	LEAR	18	0414	0416	0508	S12	W11	6455	01	17.3	54	SN	M	1.1	3	E		87		
0259	LEAR	18	0442	0456	0500	N16	W51	6444	01	14.3	18	SF			3	E		18		
0260	LEAR	18	0511	0515	0532	N16	W54	6444	01	14.1	21	SF			3	E		32		
0261	LEAR	18	0516	0529	0538	N16	W72		01	12.7	22	SF			3	E		17		
0262	LEAR	18	0539	0549	0600	N15	W84		01	11.9	21	SF			3	E		35		
0263	LEAR	18	0555	0611	0620	N16	W73		01	12.7	25	SF			3	E		58		
0264	LEAR	18	0619	0706	0719	N12	W61	6444	01	13.7	60	SF			3	E		25		
0265	LEAR	18	0646	0652	0714	S07	W30	6447	01	16.0	28	SF			3	E		36		
0266		18	07514	07553	0812	S28	E41	6456	01	21.5	21	SF						43	1.0	D
	KANZ	18	0751	0755	0810	S27	E41	6456	01	21.5	19	SF				V				
	LEAR	18	0752	0755	0818	S28	E40	6456	01	21.4	26	SF			3	E		40		
	SVTO	18	0752	0758	0811	S27	E42	6456	01	21.6	19	SF			3	E		19		
	ONDR	18	0755	0759U	0807	S29	E41	6456	01	21.5	12	SN				P	0759	70	1.0	D
0267		18	0824	08262	0859	S13	W13	6455	01	17.4	35	SF	C	2.9				59	0.8	F
	SVTO	18	0824	0826	0858	S13	W14	6455	01	17.3	34	SF	C	2.9	3	E		38		F
	HTPR	18	0824	0826	0900	S13	W13	6455	01	17.4	36	SF				C	0826	80	0.8	
	KANZ	18	0824	0828	0858	S13	W13	6455	01	17.4	34	SF				V				
0268		18	0835	08381	0904	N12	W68	6444	01	13.2	29	SF						30		A
	HTPR	18	0835	0838	0915	N13	W70	6444	01	13.1	40	SF				C	0838	30		A
	KANZ	18	0835	0839	0854	N12	W67	6444	01	13.3	19	SF				V				
0269		18	09452	09521	1056	S14	W16	6455	01	17.2	71	SN	C	3.9				118	1.6	EFJ
	SVTO	18	0945	0953	1055	S14	W16	6455	01	17.2	70	SF	C	3.9	3	E		59		F
	KANZ	18	0946	0952	1053	S14	W17	6455	01	17.1	67	SF				V				
	HTPR	18	0946	0953	1100	S13	W15	6455	01	17.3	74	SN				C	0953	120	1.2	
	ONDR	18	0947	0953	1017U	S15	W17	6455	01	17.1	30U	SB				P	0953	174	1.9	EJ
0270	KANZ	18	1053	1057	1101	S27	E40	6456	01	21.6	8	SF				V				
0271	HTPR	18	1111	1112	1130	N13	W47	6444	01	14.9	19	SF				C	1112	30	0.5	
0272		18	12162	12183	1226	N12	W71	6444	01	13.2	10	SF						45	1.8	E
	ONDR	18	1215U	1221	1225U	N12	W72	6444	01	13.1	10U	SN				P	1221	50	1.8	E
	HTPR	18	1216	1218	1225	N13	W70	6444	01	13.2	9	SF				C	1218	40		
	KANZ	18	1218	1218	1226	N12	W70	6444	01	13.2	8	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	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0273		18	12574	13042	1320	N13	W49	6444	01	14.8	23	SN	C 7.7				82	1.4	EFH
	HTPR	18	1257	1304	1319	N13	W48	6444	01	14.9	22	SN			C	1304	100	1.6	
	SVTO	18	1259	1306	1320	N12	W50	6444	01	14.8	21	SN	C 7.7	3	E		84		FH
	RAMY	18	1300	1306	1320	N14	W48	6444	01	14.9	20	SN	C 7.7	4	E		64		FE
	KANZ	18	1301	1304	1319	N12	W48	6444	01	14.9	18	SN			V				
	ONDR	18	1301	1305U	1318U	N12	W49	6444	01	14.8	17U	SB			P	1305	80	1.3	E
0274	KANZ	18	1319	1323	1342	N12	W70	6444	01	13.3	23	SF			V				
0275		18	1406	14091	1426	S06	W29	6447	01	16.4	20	SF	C 3.0				39	0.7	F
	SVTO	18	1406	1409	1420	S07	W31	6447	01	16.3	14	SF	C 3.0	3	E		28		F
	RAMY	18	1406	1409	1428	S05	W29	6447	01	16.4	22	SF	C 3.0	4	E		29		F
	HTPR	18	1406	1410	1430	S06	W28	6447	01	16.5	24	SF			C	1410	60	0.7	
0276	RAMY	18	1530	1548	1559	N15	W88		01	12.0	29	SN	C 5.9	4	E		91		
0277		18	16192	16269	1655	S14	E58	6459	01	23.1	36	SF					59		
	HOLL	18	1619	1626	1700	S15	E59	6459	01	23.1	41	SF		3	E		70		
	RAMY	18	1621	1635	1650	S12	E58	6459	01	23.0	29	SF		3	E		48		
0278		18	20023	20028	2017	S06	W32	6447	01	16.4	15	SF					14		F
	RAMY	18	2002	2002	2019	S06	W32	6447	01	16.4	17	SF		3	E		14		
	HOLL	18	2005	2010	2015	S07	W32	6447	01	16.4	10	SF		3	E		14		F
0279		18	2044*	21042	2112	S12	W20	6455	01	17.3	28	SF					18		
	HOLL	18	2044	2104	2114	S13	W20	6455	01	17.3	30	SF		3	E		24		
	RAMY	18	2105	2106	2110	S12	W19	6455	01	17.4	5	SF		3	E		13		
0280	PALE	18	2140	2143	2204D	N13	W67	6444	01	13.8	24D	SF		3	E		19		F
		18	2146		2344	No Flare Patrol													
0281	HOLL	18	2207	2210	2233	S13	W21	6455	01	17.3	26	SF	C 6.6	3	E		28		F
0282	HOLL	18	2234	2326	2329	S13	W23	6455	01	17.2	55	SF		3	E		15		F
0283	HOLL	18	2241	2244	2250	N13	W75	6444	01	13.3	9	SF		3	E		27		F
0284	HOLL	18	2255	2259	2312	N11	W58	6444	01	14.6	17	SF		3	E		20		F
0285		19	0112	0113	0122	S13	W21	6455	01	17.5	10	SF	C 2.3				16		F
	PALE	19	0112	0113	0121	S13	W21	6455	01	17.5	9	SF	C 2.3	3	E		20		
	LEAR	19	0112	0113	0123	S13	W21	6455	01	17.5	11	SF	C 2.3	3	E		13		F
0286		19	01491	01501	0156	N12	W56	6444	01	14.8	7	SF	C 2.0				36		FH
	LEAR	19	0149	0151	0157	N12	W56	6444	01	14.8	8	SF	C 2.0	3	E		52		F
	PALE	19	0150	0150	0155	N12	W55	6444	01	14.9	5	SF	C 2.0	3	E		19		H
0287		19	0228	0232	0236	N13	W56	6444	01	14.9	8	1N	C 5.7				135		EF
	LEAR	19	0228	0232	0237	N14	W56	6444	01	14.9	9	1N	C 5.7	3	E		135		FE
	WATU	19	0235E		0235	N12	W56	6444	01	14.9	9D				P				
0288	LEAR	19	0703	0706	0713	N11	W59	6444	01	14.8	10	SF		3	E		60		F
0289		19	0920	09222	0954	N27	W19	6454	01	17.9	34	SF	C 2.4				38		F
	LEAR	19	0920	0922	0954	N28	W18	6454	01	18.0	34	SF	C 2.4	3	E		47		F
	SVTO	19	0920	0924	0950	N27	W19	6454	01	17.9	30	SF	C 2.4	3	E		28		
	KANZ	19	0920	0924	0957	N27	W20	6454	01	17.8	37	SF			V				
0290		19	10383	10392	1050	N11	W60	6444	01	14.9	12	SF	C 3.1				59		
	SVTO	19	1038	1039	1050	N10	W61	6444	01	14.8	12	SF	C 3.1	3	E		59		
	KANZ	19	1041	1041	1051	N12	W59	6444	01	15.0	10	SF			V				
0291		19	12592	13011	1314	S15	W30	6455	01	17.3	15	SF					16		F
	SVTO	19	1259	1302	1313	S15	W31	6455	01	17.2	14	SF		3	E		16		F
	KANZ	19	1301	1301	1315	S15	W29	6455	01	17.3	14	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	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0292		19	13123	1319*	1341	S26	E25	6456	01	21.5	29	SF	C	5.4				40		
	SVTO	19	1312	1335	1351	S27	E25	6456	01	21.5	39	SF			3	E		32		
	RAMY	19	1314	1323	1338	S26	E24	6456	01	21.4	24	SN	C	5.4	3	E		47		
	KANZ	19	1315	1319	1334	S26	E25	6456	01	21.5	19	SF				V				
		19	1407		1412	No Flare Patrol														
		19	1421		1433	No Flare Patrol														
0293	SVTO	19	1433	1433	1441	N27	W23	6454	01	17.8	8	SF			3	E		14		
		19	1435		1441	No Flare Patrol														
0294		19	14432	1446	1455	S09	W46	6447	01	16.2	12	SF	C	4.5				34		
	RAMY	19	1443	1446	1455	S08	W46	6447	01	16.2	12	SF	C	4.5	3	E		32		
	SVTO	19	1445	1446	1455	S10	W47	6447	01	16.1	10	SF	C	4.5	3	E		37		
		19	1443		1504	No Flare Patrol														
0295		19	1454	14541	1458	N12	W63	6444	01	14.9	4	SF						39		
	RAMY	19	1454	1454	1459	N13	W63	6444	01	14.9	5	SF			3	E		30		
	SVTO	19	1454	1455	1458	N10	W64	6444	01	14.8	4	SF			3	E		70		
	HOLL	19	1455E	1455U	1458	N12	W61	6444	01	15.0	3D	SF			2	E		16		
		19	1519		2059	No Flare Patrol														
0296	HOLL	19	1559	1608	1636	S06	W47	6447	01	16.1	37	SF	C	2.2	3	E		32		F
0297		19	1716	17181	1732	S27	E23	6456	01	21.5	16	SF						26		F
	RAMY	19	1716	1718	1728	S26	E23	6456	01	21.5	12	SF			3	E		26		
	HOLL	19	1716	1719	1737	S28	E23	6456	01	21.5	21	SF			3	E		26		F
0298		19	19503	19531	2004	S11	W33	6455	01	17.3	14	SF	C	2.9				22		F
	HOLL	19	1950	1954	2003	S11	W33	6455	01	17.3	13	SF	C	2.9	3	E		27		F
	RAMY	19	1953	1953	2006	S11	W33	6455	01	17.3	13	SF	C	2.9	3	E		18		F
		19	2106		2320	No Flare Patrol														
0299	LEAR	20	0107	0123	0134	N23	E26	6458	01	22.0	27	SF			3	E		28		
0300	LEAR	20	0143	0143	0156	N23	E26	6458	01	22.1	13	SF	C	6.5	3	E		29		
		20	0608		0737	No Flare Patrol														
0301		20	0921	09224	0954	S13	W39	6455	01	17.4	33	SN	C	6.3				38		FK
	LEAR	20	0921	0922	0955	S13	W39	6455	01	17.4	34	SB	C	6.3		E		44		K
	KANZ	20	0921	0925	0951	S13	W39	6455	01	17.4	30	SF				V				
	LEAR	20	0921	0926	0955	S13	W39	6455	01	17.4	34	SF	C	6.3	3	E		33		F
0302		20	10525	10561	1123	S27	E13	6456	01	21.5	31	SF						58	0.8	EG
	ONDR	20	1052	1056	1121	S28	E12	6456	01	21.4	29	SN				P	1056	67	0.8	GE
	KANZ	20	1057	1057	1120	S27	E13	6456	01	21.5	23	SF				V				
	SVTO	20	1103E	1103U	1128	S27	E13	6456	01	21.5	25D	SF			3	E		50		
0303		20	13222	13231	1330	S19	E64		01	25.4	8	SF						54		
	RAMY	20	1322	1323	1331	S19	E64		01	25.4	9	SF			3	E		54		
	KANZ	20	1324	1324	1330	S19	E64		01	25.4	6	SF				V				
		20	1402		1519	No Flare Patrol														
		20	1540		1635	No Flare Patrol														
		20	1649		2138	No Flare Patrol														
0304	RAMY	20	1747	1747	1758	S06	W55	6447	01	16.6	11	SF			3	E		10		
0305	RAMY	20	2002	2010	2017	S11	W44	6455	01	17.5	15	SF			3	E		14		
0306	RAMY	20	2016	2016	2020	S27	E09	6456	01	21.5	4	SF			3	E		14		
0307		20	20429	20502	2119	S12	W44	6455	01	17.5	37	SF	C	6.5				51		EF
	RAMY	20	2042	2050	2136	S11	W44	6455	01	17.5	54	SF	C	6.5	3	E		65		FE
	PALE	20	2051	2052	2102	S12	W45	6455	01	17.5	11	SF	C	6.5	3	E		37		F

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		20	2154		2400	No Flare Patrol														
		21	0000		0017	No Flare Patrol														
0308		21	0018	0019	0032	S09	W65	6447	01	16.1	14	SN						94		EHIJ
	VORO	21	0018E		0036	S09	W69	6447	01	15.8	18D	1N			1	C	0019	134		EHIJ
	PALE	21	0018	0019U	0029	S11	W65	6447	01	16.1	11	SN			3	E		75		
	PALE	21	0018	0019	0031	S06	W61	6447	01	16.4	13	SF			3	E		73		
0309		21	0016*	0021*	0054	S14	W47	6455	01	17.4	38	1N	M	6.1				232	4.1	EIJK
	PALE	21	0016	0029	0049	S14	W47	6455	01	17.4	33	1N			3	E		166		
	VORO	21	0018	0021	0047	S16	W48	6455	01	17.4	29	1N			1	C	0021	251	4.1	EIJK
	LEAR	21	0020E	0033	0128D	S12	W47	6455	01	17.5	68D	2N	M	6.1	3	E		490		E
	PALE	21	0054	0057	0106	S14	W46	6455	01	17.6	12	SF			3	E		19		
0310	YUNN	21	0254	0306	0312	S18	E80	6462	01	27.2	18	SN				C		63		
		21	0324		0331	No Flare Patrol														
		21	0352		0446	No Flare Patrol														
0311	YUNN	21	0602E	0602	0614	S10	W52	6455	01	17.3	12D	SN				P		24	0.4	
0312	YUNN	21	0636	0649	0705	S20	E79	6462	01	27.3	29	SN				C		16		
0313		21	0737*	0738*	0804	S10	W66	6447	01	16.3	27	SF						64		
	LEAR	21	0737	0738	0746	S09	W63	6447	01	16.6	9	SF			3	E		46		
	SVTO	21	0737	0738	0811	S11	W65	6447	01	16.4	34	SF			3	E		38		
	SVTO	21	0740	0752	0759	S11	W70	6447	01	16.0	19	SF			3	E		67		
	LEAR	21	0747	0753	0824	S10	W66	6447	01	16.4	37	1F			3	E		107		
	KANZ	21	0751	0751	0801	S10	W65	6447	01	16.4	10	SF				C				
0314		21	07581	08001	0806	S17	E82	6462	01	27.6	8	SF						38		
	KANZ	21	0758	0801	0805	S17	E81	6462	01	27.5	7	SF				C				
	SVTO	21	0759	0800	0807	S17	E82	6462	01	27.6	8	SF			3	E		38		
0315		21	08181	08193	0826	S14	W52	6455	01	17.4	8	SF	C	5.9				11		F
	SVTO	21	0818	0819	0827	S14	W52	6455	01	17.4	9	SF	C	5.9	3	E		11		F
	KANZ	21	0819	0822	0825	S13	W51	6455	01	17.5	6	SF				V				
0316	KANZ	21	0859	0859	0907	S15	E74	6462	01	27.0	8	SF				V				
0317	LEAR	21	0931	0947	1000	S09	W68	6447	01	16.3	29	SF			3	E		49		
0318		21	1056*	1117	1128	S18	E76	6462	01	27.2	32	1N	C	5.4				112		
	SVTO	21	1056	1120U	1145D	S19	E71	6462	01	26.9	49D	1F	C	5.4	3	E		112		
	KANZ	21	1117	1117	1128	S17	E81	6462	01	27.6	11	SN				V				
0319	SVTO	21	1155	1157	1203	S14	E76	6462	01	27.2	8	SF	C	6.5	3	E		18		
0320	SVTO	21	1223	1227	1238	S17	E68	6462	01	26.7	15	SF	C	4.0	3	E		15		H
0321		21	12472	12483	1305	S12	W54	6455	01	17.5	18	SN	C	8.4				44		
	SVTO	21	1247	1249	1307	S12	W54	6455	01	17.5	20	SF	C	8.4	3	E		68		
	KANZ	21	1248	1248	1303	S14	W54	6455	01	17.4	15	SN				V				
	RAMY	21	1249	1251	1305	S11	W54	6455	01	17.5	16	SN	C	8.4	3	E		19		
0322		21	13241	13241	1330	N10	E70	6465	01	26.8	6	SF						17		
	SVTO	21	1324	1324	1331	N11	E70	6465	01	26.8	7	SF			3	E		17		
	KANZ	21	1325	1325	1329	N10	E70	6465	01	26.8	4	SF				V				
0323		21	1345	13511	1402	S16	E74	6462	01	27.2	17	SF	C	2.6				32		
	RAMY	21	1345	1351	1403	S17	E78	6462	01	27.5	18	SF	C	2.6	3	E		32		
	KANZ	21	1345	1352	1400	S15	E69	6462	01	26.8	15	SF				V				
		21	1423		2146	No Flare Patrol														
0324	RAMY	21	1457	1506	1521	S07	W68	6447	01	16.5	24	SF	C	2.6	3	E		23		
0325	RAMY	21	1652	1654	1658	S14	E74	6462	01	27.3	6	SF			3	E		28		F

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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
0326	RAMY	21	1727	1729	1733	S15	E73	6462	01	27.2	6	SF	C	2.2	3	E		10		F
0327	RAMY	21	1757	1801	1810	S15	E72	6462	01	27.2	13	SF			3	E		28		F
0328	RAMY	21	2014	2052	2115	S20	E68	6462	01	27.0	61	SF	C	3.9	3	E		40		F
0329	RAMY	21	2112	2114	2137	S11	W57	6455	01	17.6	25	SN	C	9.3	3	E		68		EF
0330	RAMY	21	2122E	2122	2154	S17	E51		01	25.8	32D	1F			3	E		223		F
		21	2158		2229	No Flare Patrol														
		21	2247		2339	No Flare Patrol														
		21	2347		2400	No Flare Patrol														
		22	0012		0020	No Flare Patrol														
0331		22	01286	0129*	0143	S08	W69	6447	01	16.9	15	SF						31	2.3	DI
	VORO	22	0128	0129	0146	S09	W70	6447	01	16.8	18	1F			1	C	0129	45	2.3	DI
	LEAR	22	0129	0130	0134	S07	W68	6447	01	17.0	5	SF			3	E		22		
	LEAR	22	0134	0139	0150	S07	W68	6447	01	17.0	16	SF			3	E		27		
0332		22	0210	02114	0223	S13	W62	6455	01	17.4	13	1F						102	2.2	DI
	YUNN	22	0210	0211	0222	S13	W61	6455	01	17.5	12	1N				C		157	3.3	
	VORO	22	0210	0211	0224	S13	W64	6455	01	17.3	14	1F			1	C	0213	99	2.3	DI
	WATU	22	0210	0215	0223	S14	W61	6455	01	17.5	13	SF				C	0215	50	1.0	
0333		22	02463	02489	0304	S09	E72	6466	01	27.5	18	1N						66		
	LEAR	22	0246	0248	0305	S10	E72	6466	01	27.5	19	SF			3	E		23		
	YUNN	22	0249	0257	0304	S08	E71	6466	01	27.4	15	1N				C		110		
0334		22	0256	02571	0304	S20	E70	6462	01	27.5	8	1N						92		
	LEAR	22	0256	0257	0303	S19	E70	6462	01	27.5	7	SF			3	E		28		
	YUNN	22	0256	0258	0304	S20	E71	6462	01	27.5	8	1N				C		157		
0335	YUNN	22	0313	0314	0326	S17	E69	6462	01	27.4	13	1N				C		189		
0336		22	0340	0347	0410	S10	E72	6466	01	27.6	30	SN						34		D
	LEAR	22	0340	0347	0416	S10	E72	6466	01	27.6	36	SF			3	E		52		
	URUM	22	0346E	0347	0405	S10	E72	6466	01	27.6	19D	SN				C		16		D
		22	0343		0345	No Flare Patrol														
		22	0520		0527	No Flare Patrol														
0337	YUNN	22	0530	0550	0601D	S14	W64	6455	01	17.4	31D	1N				P		189	4.3	
0338		22	0533	05416	0631	S07	W71	6447	01	16.9	58	SF						78		K
	LEAR	22	0533	0541	0631	S07	W71	6447	01	16.9	58	SF				E		74		K
	LEAR	22	0533	0547	0631	S07	W71	6447	01	16.9	58	SF			2	E		81		
0339	LEAR	22	0545	0633	0700	S08	E72	6466	01	27.6	75	SF			2	E		31		
		22	0602		0705	No Flare Patrol														
0340		22	07258	0734	0748	S07	E70	6466	01	27.5	23	SF						20		
	LEAR	22	0725	0734	0749	S09	E73	6466	01	27.8	24	SF			2	E		25		
	KANZ	22	0732E	0732U	0742	S06	E69	6466	01	27.5	10D	SF				C				
	SVTO	22	0733	0734	0753	S07	E69	6466	01	27.5	20	SF			3	E		14		
0341		22	0735*	0738*	0807	S18	E66	6462	01	27.3	32	SF	C	5.3				16		
	KANZ	22	0735	0738	0742	S15	E65	6462	01	27.2	7	SF				C				
	SVTO	22	0744	0746	0759	S19	E67	6462	01	27.4	15	SF	C	5.3	3	E		16		
	KANZ	22	0749	0752	0800	S20	E70	6462	01	27.7	11	SF				C				
	SVTO	22	0801	0813	0822	S19	E67	6462	01	27.4	21	SF			3	E		16		
	KANZ	22	0829	0829	0832	S18	E59	6462	01	26.8	3	SF				V				
0342		22	07492	0756	0806	S08	W74	6447	01	16.8	17	SF						28		
	KANZ	22	0749	0756	0804D	S10	W75	6447	01	16.7	15D	SF				C				
	LEAR	22	0751	0756	0806	S07	W72	6447	01	16.9	15	SF			2	E		28		

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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
0343		22	0846	0850*	0932	S08	E70	6466		01	27.6	46	SF					42		
	KANZ	22	0846	0850	0916	S07	E69	6466		01	27.5	30	SF			V				
	LEAR	22	0846	0858	0947	S09	E72	6466		01	27.8	61	SF		2	E		64		
	SVTO	22	0846	0901	0932	S07	E70	6466		01	27.6	46	SF		3	E		20		
0344		22	0853	08532	0904	S08	E11	6459		01	23.2	11	SF					14		
	KANZ	22	0853	0853	0905	S08	E11	6459		01	23.2	12	SF			V				
	SVTO	22	0853	0855	0902	S08	E11	6459		01	23.2	9	SF		3	E		14		
0345	SVTO	22	0854	0854	0900	S19	E67	6462		01	27.5	6	SF	C 3.6	3	E		16		
0346	SVTO	22	1015	1019	1032	S09	W79	6447		01	16.5	17	SF		3	E		36		
0347	SVTO	22	1015	1028	1036	S07	E70	6466		01	27.7	21	SF		3	E		10		
0347		22	1016*	1020*	1048	S12	W74	6455		01	16.8	32	SF					25		F
	SVTO	22	1016	1020	1031	S11	W75	6455		01	16.8	15	SF		3	E		30		
	KANZ	22	1016	1042	1111	S11	W77	6455		01	16.6	55	1F			V				
	LEAR	22	1019	1021	1030	S16	W64	6455		01	17.6	11	SF		2	E		30		F
	SVTO	22	1043	1046	1049	S12	W78	6455		01	16.6	6	SF		3	E		20		
	SVTO	22	1045	1047	1057	S11	W75	6455		01	16.8	12	SF		3	E		21		
0348	SVTO	22	1110	1113	1130	S21	W69			01	17.2	20	SF		3	E		24		
0349		22	11101	11131	1134	S16	W66	6455		01	17.4	24	SF	C 8.3				14		F
	SVTO	22	1110	1113	1120	S17	W68	6455		01	17.3	10	SF	C 8.3	3	E		14		F
	KANZ	22	1111	1114	1141	S16	W67	6455		01	17.4	30	SF			V				
	RAMY	22	1115E		1140	S14	W62	6455		01	17.8	25D	SF		2	E				F
0350	RAMY	22	1130	1134	1202	S08	E67	6466		01	27.5	32	SF		3	E		17		
0351		22	1200	12021	1210	S19	E63	6462		01	27.3	10	SF					70		F
	SVTO	22	1200	1202	1211	S18	E63	6462		01	27.3	11	SF		3	E		65		F
	KANZ	22	1200	1203	1210	S20	E65	6462		01	27.5	10	SF			V				
	RAMY	22	1200	1203	1210	S19	E62	6462		01	27.2	10	SF		3	E		76		F
0352		22	12019	12122	1223	S14	W66	6455		01	17.5	22	SF					24		F
	RAMY	22	1201	1212	1224	S13	W66	6455		01	17.5	23	SF		3	E		24		F
	KANZ	22	1210	1214	1222	S14	W67	6455		01	17.4	12	SF			V				
0353	RAMY	22	1210	1212	1216	S06	W80	6447		01	16.5	6	SF		3	E		31		
0354		22	13131	13162	1400	S13	W67	6455		01	17.5	47	1N	M 2.4				106		EF
	RAMY	22	1313	1316	1356	S12	W67	6455		01	17.5	43	1F	M 2.4	3	E		106		FE
	KANZ	22	1314	1318	1403	S14	W67	6455		01	17.5	49	1N			V				
		22	1427		1433	No Flare Patrol														
		22	1435		1441	No Flare Patrol														
		22	1450		1520	No Flare Patrol														
0355		22	1522	15243	1549	S18	E69	6462		01	27.9	27	1N	M 3.2				124		EF
	HTPR	22	1521E	1524	1535D	S18	E72	6462		01	28.1	14D	1N			C	1524	150		
	RAMY	22	1522	1527	1549	S19	E66	6462		01	27.7	27	SN	M 3.2	3	E		99		FE
0356	RAMY	22	1529	1531	1535	N10	E57	6465		01	26.9	6	SF		3	E		15		F
		22	1536		2124	No Flare Patrol														
0357	RAMY	22	1545	1605	1615	S08	E33	6461		01	25.1	30	SF		3	E		16		
0358		22	1703	17085	1732	S08	E32	6461		01	25.1	29	SF					22		F
	HOLL	22	1702E	1708	1736	S09	E32	6461		01	25.1	34D	SF		3	E		23		F
	RAMY	22	1703	1713	1729	S08	E33	6461		01	25.2	26	SF		3	E		22		F
0359	HOLL	22	1724	1732	1745	S10	E66	6466		01	27.7	21	SF		3	E		21		F
0360	HOLL	22	1758E	1800U	1819	S08	E67	6466		01	27.8	21D	SF	C 9.8	2	E		36		F

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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
0361		22	1934*	1955	2054	S14	W72	6455	01	17.4	80	2N	M	2.7				252		FH
	HOLL	22	1934	1955	2112D	S15	W72	6455	01	17.4	98D	2N	M	2.7	3	E		301		HF
	RAMY	22	1946	1955	2054	S13	W71	6455	01	17.5	68	1N	M	2.7	3	E		203		F
		22	2132		2244	No Flare Patrol														
0362	HOLL	22	2214	2214	2218	S09	E62	6466	01	27.6	4	SF			3	E		19		F
0363	HOLL	22	2231	2237	2253	S14	W76	6455	01	17.2	22	SF	C	3.8	3	E		32		
0364	HOLL	22	2237	2237	2252	S09	E61	6466	01	27.5	15	SF			3	E		19		
0365		23	01242	01305	0146	S16	W78	6455	01	17.1	22	1N	C	7.0				140		ADH
	LEAR	23	0124	0130	0148	S19	W74	6455	01	17.4	24	1B	C	7.0	3	E		199		
	VORO	23	0126	0130	0138	S15	W80	6455	01	17.0	12	1F			1	C	0130	81		DH
	YUNN	23	0134E	0135	0151	S13	W80	6455	01	17.0	17D					P				A
0366	LEAR	23	0327	0327	0331	S20	E49	6462	01	26.9	4	SF	C	2.7	3	E		28		
0367	LEAR	23	0332	0334	0338	S15	W75	6455	01	17.5	6	SF			3	E		41		
0368		23	07412	07421	0745	S14	W75	6455	01	17.6	4	SF						28		
	LEAR	23	0741	0742	0744	S13	W76	6455	01	17.6	3	SF			3	E		28		
	KANZ	23	0743	0743	0746	S15	W74	6455	01	17.7	3	SF				C				
0369		23	08123	08165	0834	S11	E62	6466	01	28.0	22	SF	C	7.4				73	1.7	EF
	LEAR	23	0812	0819	0838	S12	E63	6466	01	28.1	26	SF	C	7.4	3	E		85		F
	KANZ	23	0813	0817	0837	S12	E62	6466	01	28.0	24	SF				V				
	SVTO	23	0813	0817	0838	S09	E62	6466	01	28.0	25	SF			3	E		55		F
	HTPR	23	0814E	0821	0840	S12	E62	6466	01	28.0	26D	SF				C	0821	40	1.0	
	URUM	23	0815	0816	0819	S12	E62	6466	01	28.0	4	1N				C		113	2.4	E
0370		23	08312	08361	0841	S14	W78	6455	01	17.5	10	SF	C	6.3				20		
	LEAR	23	0831	0836	0841	S13	W78	6455	01	17.5	10	SF	C	6.3	3	E		20		
	KANZ	23	0833	0837	0841	S14	W78	6455	01	17.5	8	SF				V				
0371		23	09011	09024	0917	S14	W77	6455	01	17.5	16	1F						74		
	SVTO	23	0901	0902	0909	S13	W78	6455	01	17.5	8	SF			3	E		32		
	LEAR	23	0902	0904	0919	S14	W78	6455	01	17.5	17	1F			3	E		115		
	KANZ	23	0902	0906	0924	S14	W75	6455	01	17.7	22	1F				V				
0372	SVTO	23	0936	0937	0940	S18	E45	6462	01	26.8	4	SF			3	E		16		
0373	KANZ	23	1011	1011	1019	S14	W78	6455	01	17.5	8	SF				V				
0374		23	10375	10402	1050	S08	E61	6466	01	28.0	13	SF	C	3.1				36	0.9	
	HTPR	23	1037	1040	1055	S08	E62	6466	01	28.1	18	SF				C	1040	40	0.9	
	SVTO	23	1040E	1041U	1109D	S07	E61	6466	01	28.0	29D	SF	C	3.1	3	E		31		
	KANZ	23	1042	1042	1046	S10	E61	6466	01	28.0	4	SF				V				
0375	HTPR	23	1110	1124	1215	S05	E58	6466	01	27.8	65	SF				C	1124	20	0.4	D
0376	HTPR	23	1234	1234	1241	S18	E45	6462	01	26.9	7	SN				C	1234	20	0.3	E
0377	HTPR	23	1249	1250	1257	S12	E62	6469	01	28.2	8	SF				C	1250	30	0.6	D
0378	SVTO	23	1321	1321	1327	S16	E53	6462	01	27.6	6	SF			3	E		13		
0379		23	14285	1442	1447	S12	E79	6469	01	29.5	19	SF	C	5.0				37		A
	HTPR	23	1428		1446	S13	E80	6469	01	29.6	18	1N				C				A
	SVTO	23	1433	1442	1449	S10	E80	6469	01	29.6	16	SF	C	5.0	3	E		37		
	KANZ	23	1434E	1434U	1445	S12	E77	6469	01	29.4	11D	SF				V				
0380		23	15091	1511	1527	S10	E53	6466	01	27.6	18	1N	C	3.4				80	2.3	EF
	HTPR	23	1509	1511	1530	S08	E50	6466	01	27.4	21	1N				C	1511	150	2.3	E
	RAMY	23	1510	1511	1524	S12	E56	6466	01	27.8	14	SF	C	3.4	3	E		10		F
		23	1541		2137	No Flare Patrol														

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Day	Dur (Min)	Imp	Opt	Xray	See	Obs Type	Time (UT)	Area Measurement Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
0381	HOLL	23	1819E	1819U	1833D	S21	E47	6462	01	27.4	14D	SF	C	2.9	2	E		15		F
0382	HOLL	23	1857	1902	1913	N25	E30	6464	01	26.1	16	SF	C	2.4	3	E		35		F
		23	2219		2254	No Flare Patrol														
0383	HOLL	23	2248	2249	2257	S08	E52	6466	01	27.8	9	SF	C	2.8	4	E		19		
		24	0018		0031	No Flare Patrol														
0384	LEAR	24	0111	0111	0119	S07	E54	6466	01	28.1	8	SF			3	E		13		
0385		24	02261	02303	0244	S13	E42	6462	01	27.3	18	SN						101	1.6	EF
	YUNN	24	0226	0233	0242	S15	E42	6462	01	27.3	16	SN				C		94	1.3	
	PEKG	24	0227	0230	0240	S14	E40	6462	01	27.1	13	SN				P	0230	126	1.8	E
	LEAR	24	0227	0230	0249	S11	E45	6462	01	27.5	22	SF			3	E		83		F
0386		24	0318*	03372	0359	S15	E43	6462	01	27.4	41	SN	M	3.2				88	1.4	DF
	LEAR	24	0318	0337	0403	S13	E43	6462	01	27.4	45	SF			3	E		65		F
	LEAR	24	0329	0337	0403	S19	E42	6462	01	27.3	34	SN	M	3.2	3	E		87		F
	YUNN	24	0330	0339	0349	S14	E45	6462	01	27.5	19	SN				C		110	1.6	
	PEKG	24	0335	0338	0400	S14	E41	6462	01	27.2	25	SN				C	0338	92	1.3	D
0387	LEAR	24	0420	0421	0438	N26	E25	6464	01	26.1	18	SF			3	E		29		
0388		24	07071	0710	0723	S14	E42	6462	01	27.5	16	1N						97	1.4	E
	YUNN	24	0707	0710U	0710D	S14	E42	6462	01	27.5	3D	SN				P	0710	47	0.7	
	PEKG	24	0708	0710	0723	S14	E43	6462	01	27.5	15	1F				C	0710	147	2.1	E
0389		24	08102	0815	0820	S21	E35	6462	01	27.0	10	SN						49	0.7	EFH
	HTPR	24	0810	0815	0818	S22	E34	6462	01	26.9	8	SN				C	0815	70	0.8	EH
	YUNN	24	0811	0815	0815D	S20	E35	6462	01	27.0	4D	SB				P		47	0.6	
	SVTO	24	0812	0815	0822	S20	E37	6462	01	27.2	10	SF			3	E		30		F
0390		24	09301	09323	0945	S19	E00	6468	01	24.4	15	SF						47	0.8	EF
	HTPR	24	0930	0932	0945	S20	W01	6468	01	24.3	15	SN				C	0932	80	0.8	E
	SVTO	24	0931	0933	0937D	S19	E01	6468	01	24.5	6D	SF			3	E		26		F
	LEAR	24	0931	0933	0944	S18	E02	6468	01	24.5	13	SF			3	E		36		F
	KANZ	24	0931	0935	0947	S19	W00	6468	01	24.4	16	SF				V				
0391		24	1010*	1032	1040	S15	E90	6475	01	31.2	30	1N						18		
	HTPR	24	1010		1045	S15	E90	6475	01	31.2	35	2N				C				
	SVTO	24	1030	1032	1034	S15	E90	6475	01	31.2	4	SF			3	E		18		
0392		24	11403	1143	1150	S20	E37	6462	01	27.3	10	SN						80	0.9	H
	HTPR	24	1140	1143	1150	S20	E42	6462	01	27.7	10	SF				C	1143	80	0.9	H
	KANZ	24	1143	1143	1150	S20	E32	6462	01	26.9	7	SN				V				
0393		24	12187	12251	1237	S08	E45	6466	01	27.9	19	SN	C	4.5				56	1.2	EF
	SVTO	24	1218	1227U	1239	S08	E45	6466	01	27.9	21	SN	C	4.5	2	E		58		F
	HTPR	24	1222	1225	1235	S10	E45	6466	01	27.9	13	SB				C	1225	80	1.2	E
	RAMY	24	1224	1226	1240	S09	E46	6466	01	28.0	16	SF	C	4.5	4	E		29		FE
	KANZ	24	1225	1225	1233	S07	E45	6466	01	27.9	8	SF				V				
0394	HTPR	24	1315	1327	1335	S10	E44	6466	01	27.8	20	SF				C	1327	140	1.9	E
0395		24	14462	14483	1459	S21	E31	6462	01	27.0	13	SF	C	3.9				44	0.9	FH
	HTPR	24	1446	1448	1500	S20	E32	6462	01	27.1	14	SN				C	1448	60	0.9	
	KANZ	24	1448	1451	1455D	S21	E31	6462	01	27.0	7D	SF				V				
	HOLL	24	1448E	1451U	1458	S21	E29	6462	01	26.8	10D	SF	C	3.9	2	E		28		FH
0396	HOLL	24	1810	1813	1815	S16	E29	6462	01	26.9	5	SF			3	E		21		
0397	HOLL	24	1845	1853	1903	S07	W60	6470	01	20.3	18	SF			3	E		19		
0398		24	2049	2051	2104	S08	E40	6466	01	27.9	15	SF						20		
	HOLL	24	2043E	2045U	2049D	S08	E41	6466	01	27.9	6D	SF			3	E		14		
	RAMY	24	2049	2051	2104	S09	E40	6466	01	27.9	15	SF			3	E		25		

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP	Mo	Day	Dur (Min)	Imp	Opt	Xray	See	Obs Type	Time (UT)	Area Measurement Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
0399		24	20481	20501	2102	N26	E18	6464	01	26.3		14	SF						41		
	HOLL	24	2048	2051	2103	N27	E18	6464	01	26.3		15	SF			3	E		54		
	RAMY	24	2049	2050	2101	N26	E18	6464	01	26.3		12	SF			3	E		28		
0400	HOLL	24	2050	2107	2154	S07	W62	6470	01	20.2		64	SF			3	E		25		
		24	2146		2323	No Flare Patrol															
0401	HOLL	24	2207	2214	2225	S20	E27	6462	01	27.0		18	SF			3	E		29		F
		24	2331		2400	No Flare Patrol															
		25	0000		0022	No Flare Patrol															
0402	LEAR	25	0017	0027	0042	S09	E38	6466	01	27.9		25	SF			3	E		21		F
0403	YUNN	25	0249	0318	0350D	S13	E83	6475	01	31.4		61D					P				A
0404	YUNN	25	0303	0305	0325	S18	E42	6462	01	28.3		22	SN				C		47	0.7	
0405		25	0355	04016	0418	S20	E23	6462	01	26.9		23	SN						42	0.6	F
	LEAR	25	0355	0404	0417	S21	E23	6462	01	26.9		22	SF			3	E		35		F
	WATU	25	0401E	0401	0401D	S20	E23	6462	01	26.9		22D	SN				P	0401	60	0.7	
	YUNN	25	0407E	0407	0420	S20	E24	6462	01	27.0		13D	SB				P		31	0.4	
0406	YUNN	25	0443	0450	0515	S09	E89	6471	01	31.9		32					C				A
0407		25	0455	04575	0508	S18	E34	6462	01	27.8		13	SN	C	5.1				44	0.6	
	LEAR	25	0455	0457	0506	S18	E28	6462	01	27.3		11	SF	C	5.1	3	E		40		
	YUNN	25	0502E	0502	0510	S19	E39	6462	01	28.2		8D	SN				P		47	0.6	
0408	LEAR	25	0609	0615	0630	S07	W67	6470	01	20.2		21	SF			3	E		17		
0409	LEAR	25	0619	0620	0645	S09	E29	6466	01	27.4		26	SF			3	E		15		
0410		25	0623*	06416	0658	S12	E90	6471	02	1.0		35	1B						122		DH
	PEKG	25	0623	0647	0658	S12	E90	6471	02	1.0		35	1N				P	0647	105		D
	MITK	25	0637	0641	0656D	S13	E90	6471	02	1.1		19D	1B				C	0641	140		H
0411	LEAR	25	0627	0628	0630	N21	W43	6458	01	22.0		3	SF			3	E		13		
0412	LEAR	25	0630	0630	0638	S16	E78	6475	01	31.2		8	SF	X10.0		3	E		33		
0413		25	06551	06594	0712	S21	E21	6462	01	26.9		17	SF						48	1.0	D
	PEKG	25	0655	0659	0715	S21	E21	6462	01	26.9		20	SF				C	0659	84	1.0	D
	LEAR	25	0656	0703	0710	S21	E21	6462	01	26.9		14	SF			3	E		12		
0414	HTPR	25	0727		0755	S17	E90	6471	02	1.1		28	1				C				A
0415		25	07442	07555	0828	S08	E35	6466	01	27.9		44	SF						65	1.0	D
	HTPR	25	0744		0825	S10	E35	6466	01	27.9		41	SF				C	0749	120	1.5	
	KANZ	25	0745	0756	0823	S07	E34	6466	01	27.9		38	SF				V				
	LEAR	25	0746	0755	0858	S07	E34	6466	01	27.9		72	SF			3	E		44		
	URUM	25	0749E	0800	0808	S07	E36	6466	01	28.0		19D	SN				C		32	0.4	D
0416	LEAR	25	0755	0755	0804	S07	W68	6470	01	20.2		9	SF			3	E		19		
0417	HTPR	25	0805		0900	S10	E90	6471	02	1.1		55					C				E
0418	LEAR	25	0815	0823	0830	S09	W67	6470	01	20.3		15	SF			3	E		10		
0419		25	10148	10223	1035	S22	E19	6461C	01	26.9		21	SF						29	0.6	D
	LEAR	25	1014	1024	1034	S21	E18	6461C	01	26.8		20	SF			3	E		26		
	KHAR	25	1020		1035	S22	E20	6461C	01	27.0		15	SF				P				D
	SVTO	25	1020	1025	1036	S21	E20	6461C	01	27.0		16	SF			3	E		12		
	HTPR	25	1021	1022	1035	S25	E17	6461C	01	26.7		14	SB				C	1022	50	0.6	D
	KANZ	25	1022	1022	1037	S21	E20	6461C	01	27.0		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	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0420		25	10261	1027	1030	S15	E49	6469	01	29.1	4	SF					63	1.4	D
	KHAR	25	1023U		1030U	S14	E49	6469	01	29.1	7U	SF			P				
	HTPR	25	1026	1027	1031	S18	E50	6469	01	29.2	5	SN			C	1027	100	1.4	D
	LEAR	25	1027	1027	1030	S14	E49	6469	01	29.1	3	SF		3	E		26		
0421		25	1027*	1028*	1209	S09	E32	6466	01	27.8	102	SN	M 1.4				117	2.0	EF
	LEAR	25	1027	1028	1033	S08	E32	6466	01	27.8	6	SF		3	E		16		F
	KANZ	25	1033	1112	1253D	S06	E33	6466	01	27.9	140D	SN			V				
	HTPR	25	1035	1045	1100	S10	E33	6466	01	27.9	25	SN			C	1045	120	1.5	
	KHAR	25	1036		1045D	S07	E32	6466	01	27.8	9D	SF			P	1040	150	1.8	E
	SVTO	25	1039	1111U	1249	S06	E30	6466	01	27.7	130	SN	M 1.4	3	E		65		
	HTPR	25	1105	1115	1215	S10	E33	6466	01	27.9	70	1B			C	1115	180	2.2	
	RAMY	25	1126E	1226	1253	S08	E31	6466	01	27.8	87D	SN		3	E		89		F
	KANZ	25	1222	1226	1242	S12	E31	6466	01	27.8	20	SF			V				
	HTPR	25	1225	1235	1250	S11	E34	6466	01	28.1	25	1N			C	1235	200	2.5	F
	KANZ	25	1226	1230	1253D	S09	E35	6466	01	28.1	27D	SF			V				
0422	KANZ	25	1141	1141	1155	S21	E59		01	30.0	14	SF			V				
0423		25	13152	1329*	1427	S07	E31	6466	01	27.9	72	2N	M 2.4				364	7.9	FKU
	HTPR	25	1315	1330	1430	S07	E32	6466	01	27.9	75	2B			C	1330	652	7.9	F
	SVTO	25	1315	1336	1423	S06	E31	6466	01	27.9	68	2N		3	E		289		F
	RAMY	25	1317	1329	1426	S08	E30	6466	01	27.8	69	2N	M 2.4	4	E		276		UF
	RAMY	25	1317	1342	1426	S08	E30	6466	01	27.8	69	2N			E		241		K
	KANZ	25	1407E	1420U	1429	S06	E30	6466	01	27.8	22D	2F			V				
0424		25	13301	13323	1342	S20	E36	6462	01	28.3	12	SF					51	1.4	D
	HTPR	25	1330	1335	1345	S22	E36	6462	01	28.3	15	SN			C	1335	110	1.4	D
	RAMY	25	1331	1332	1339	S19	E35	6462	01	28.2	8	SF		4	E		21		
	SVTO	25	1331	1333	1341	S18	E36	6462	01	28.3	10	SF		3	E		23		
0425	SVTO	25	1443	1445	1457	S18	E31	6462	01	28.0	14	SF		3	E		32		F
		25	1558		1948	No Flare Patrol													
0426		25	18246	1842*	2118	S08	E27	6466	01	27.8	174	SF	C 4.6				46		FKT
	HOLL	25	1824	1842	2228	S08	E28	6466	01	27.9	244	SN			E		37		KT
	HOLL	25	1824	1936	2228	S08	E28	6466	01	27.9	244	1N		3	E		105		FT
	PALE	25	1830	1842	1908	S09	E28	6466	01	27.9	38	SF		3	E		25		
	RAMY	25	1844E	2017U	2022	S08	E29	6466	01	27.9	98D	SF		3	E		43		F
	PALE	25	1934E	2102U	2205	S09	E21	6466	01	27.4	151D	SF	C 4.6	3	E		22		
0427	HOLL	25	1824	1900	1916	S17	E16	6462	01	27.0	52	SF		3	E		28		F
0428	RAMY	25	2003	2004	2009	S17	E15	6462	01	27.0	6	SF		3	E		13		
0429		25	20071	2011	2024	S12	E48	6469	01	29.4	17	SF					28		F
	HOLL	25	2007	2011	2031	S11	E48	6469	01	29.4	24	SF		3	E		35		F
	RAMY	25	2008	2011	2017	S12	E47	6469	01	29.4	9	SF		3	E		22		
0430	HOLL	25	2025	2025	2041	S17	E15	6462	01	27.0	16	SF		3	E		16		F
0431	HOLL	25	2048	2050	2101	S17	E15	6462	01	27.0	13	SF		3	E		21		F
		25	2101		2149	No Flare Patrol													
0432	HOLL	25	2229	2241	2250	S17	E15	6462	01	27.1	21	SF		3	E		18		F
0433		25	2305*	2305*	2320	S17	E20	6462	01	27.5	15	SF					26		F
	HOLL	25	2305	2305	2310	S16	E20	6462	01	27.5	5	SF		3	E		22		F
	LEAR	25	2316	2322	2330	S18	E21	6462	01	27.6	14	SF		3	E		30		F
0434	HOLL	25	2306	2310	2324	S08	E26	6466	01	27.9	18	SF		3	E		15		
0435	HOLL	25	2313	2314	2324	N25	E06	6464	01	26.4	11	SF		3	E		14		

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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
0436		25	2335*	2351*	2458	S17	E20	6462	01	27.5	83	SF					78	1.4	EFIK
	LEAR	25	2335	2351	2457	S18	E20	6462	01	27.5	82	SF			E		32		K
	LEAR	25	2335	2433	2457	S18	E20	6462	01	27.5	82	1F		3	E		112		F
	PALE	26	0026	0026	0115	S15	E20	6462	01	27.5	49	SF		3	E		41		
	VORO	26	0027U	0030	0045	S16	E19	6462	01	27.4	18U	SF		2	C	0030	125	1.4	EI
0437		26	0358*	0358*	0419	S16	E24	6462	01	28.0	21	SN					66	1.2	DF
	LEAR	26	0358	0358	0404	S19	E22	6462	01	27.8	6	SF		3	E		18		F
	PEKG	26	0407	0412	0429	S15	E25	6462	01	28.1	22	SN			C	0412	168	1.9	D
	LEAR	26	0410	0413	0423	S15	E25	6462	01	28.1	13	SF		3	E		31		
	URUM	26	0410	0414	0420	S15	E24	6462	01	28.0	10	SN			C		48	0.5	D
0438	LEAR	26	0534	0534	0545	S16	E17	6462	01	27.5	11	SF		3	E		14		
0439		26	0555*	0605*	0628	S15	E24	6462	01	28.1	33	SF					52	0.7	D
	PEKG	26	0555	0605	0627	S15	E25	6462	01	28.1	32	SF			C	0605	63	0.7	D
	LEAR	26	0621	0622	0630	S15	E24	6462	01	28.1	9	SF		3	E		42		
0440	SVTO	26	0720	0721	0724	S15	E22	6462	01	28.0	4	SF		3	E		12		F
0441		26	08015	0806*	0854	S14	E12	6462	01	27.2	53	SN	C 8.3				100		EFK
	LEAR	26	0801	0815	0905	S15	E14	6462	01	27.4	64	1N			E		113		K
	LEAR	26	0801	0845	0905	S15	E14	6462	01	27.4	64	SN	C 8.3	3	E		86		FE
	KANZ	26	0803	0806	0848	S14	E07	6462	01	26.9	45	SF			V				
	KANZ	26	0806	0813	0840	S13	E14	6462	01	27.4	34	SF			V				
0442		26	0813*	0843*	0912	S17	E21	6462	01	27.9	59	SF					128	2.0	EF
	KANZ	26	0813	0844	0905	S15	E23	6462	01	28.1	52	SF			V				
	BUCA	26	0840	0843	0857	S16	E21	6462	01	27.9	17	1N			C	0843	215	2.4	E
	HTPR	26	0840	0846	0900	S17	E22	6462	01	28.0	20	SF			C	0846	150	1.6	
	KANZ	26	0856	0917U	0943	S20	E21	6462	01	28.0	47	SF			V				
	LEAR	26	0906	0906	0913	S18	E16	6462	01	27.6	7	SF		3	E		19		F
0443		26	08582	08591	0910	S11	E74	6471	01	31.9	12	SF					52		
	LEAR	26	0858	0859	0907	S11	E75	6471	02	1.0	9	SF		3	E		52		
	KANZ	26	0900	0900	0913	S11	E73	6471	01	31.9	13	SF			V				
0444	KANZ	26	0905	0905	0913	N13	E31	6472	01	28.7	8	SF			V				
0445	SVTO	26	1002	1031	1047	S15	E16	6462	01	27.6	45	SF	C 3.8	3	E		16		F
0446		26	11193	11234	1144	N09	E08	6465	01	27.1	25	SF					75	1.2	F
	HTPR	26	1119	1123	1145	N08	E08	6465	01	27.1	26	SF			C	1128	120	1.2	
	KANZ	26	1122	1125	1144	N10	E07	6465	01	27.0	22	SF			V				
	RAMY	26	1123E	1127	1143	N08	E08	6465	01	27.1	20D	SF		2	E		30		F
0447		26	11303	11321	1140	S16	E16	6462	01	27.7	10	SF					38		F
	RAMY	26	1130	1132	1144	S16	E16	6462	01	27.7	14	SF		2	E		38		F
	KANZ	26	1133	1133	1136	S16	E17	6462	01	27.8	3	SF			V				
0448		26	11337	11401	1154	S20	E68	6475	01	31.7	21	SF					46		
	KANZ	26	1133	1140	1155	S19	E68	6475	01	31.7	22	SF			V				
	RAMY	26	1140	1141	1152	S21	E69	6475	01	31.8	12	SF		2	E		46		
0449		26	11456	11487	1222	S18	E16	6462	01	27.7	37	SF	C 4.5				72	1.1	EF
	HTPR	26	1145	1150	1205	S22	E19	6462	01	27.9	20	SF			C	1150	100	1.1	E
	RAMY	26	1148	1148	1215	S16	E14	6462	01	27.5	27	SF	C 4.5	3	E		44		F
	KANZ	26	1148	1151	1215	S21	E20	6462	01	28.0	27	SF			V				
	KANZ	26	1151	1155	1252	S13	E11	6462	01	27.3	61	SF			V				
0450	KANZ	26	1256	1259	1306	S20	E19	6462	01	28.0	10	SF			V				
0451	RAMY	26	1337	1342	1355	N26	W04	6464	01	26.2	18	SF		3	E		19		F
0452		26	1405	1409	1430	S16	E09	6462	01	27.3	25	SF					34		F
	RAMY	26	1405	1409	1429	S16	E11	6462	01	27.4	24	SF		3	E		34		F
	KANZ	26	1405	1409	1431	S15	E07	6462	01	27.1	26	SF			V				
		26	1432		1438	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
0453	RAMY	26	1433	1442	1455	N12	E29	6472	01	28.8	22	SF		3	E		22		
		26	1459		2320	No Flare Patrol													
0454		26	1546*	1551*	1601	S12	E71	6471	02	1.0	15	SF					20		F
	RAMY	26	1546	1551	1557	S13	E70	6471	01	31.9	11	SF		3	E		33		
	HOLL	26	1551	1553	1600	S11	E72	6471	02	1.1	9	SF		3	E		13		F
	RAMY	26	1601	1601	1605	S12	E71	6471	02	1.0	4	SF		3	E		14		
0455	RAMY	26	1711	1712	1718	S16	E13	6462	01	27.7	7	SF	C 6.2	3	E		21		F
0456	RAMY	26	1734	1734	1739	S13	E71	6471	02	1.1	5	SF		3	E		19		
0457		26	1843	18497	1921	S09	E16	6466	01	28.0	38	SF	C 4.4				54		F
	PALE	26	1843	1849	1922	S07	E16	6466	01	28.0	39	SF		3	E		66		F
	RAMY	26	1843	1856	1920	S11	E16	6466	01	28.0	37	SF	C 4.4	3	E		41		F
0458		26	18501	18561	1909	S18	E16	6462	01	28.0	19	SF					27		F
	PALE	26	1850	1857	1907	S16	E18	6462	01	28.1	17	SF		3	E		29		F
	RAMY	26	1851	1856	1911	S21	E14	6462	01	27.8	20	SF		3	E		25		F
0459	PALE	26	1923	1924	1932	N11	E27	6472	01	28.8	9	SF	C 6.1	3	E		34		
0460	PALE	26	2053	2053	2057	S16	E16	6462	01	28.1	4	SF		3	E		18		
0461	PALE	26	2114	2115	2138	S11	E69	6471	02	1.1	24	SF	C 7.8	3	E		33		F
0462	LEAR	26	2253	2324	2345	N12	E24	6472	01	28.8	52	SF		3	E		44		
0463		26	2335	2336	2344	S20	E10	6462	01	27.7	9	SF					28		
	PALE	26	2335	2336	2342	S20	E13	6462	01	28.0	7	SF		3	E		21		
	LEAR	26	2335	2336	2346	S19	E07	6462	01	27.5	11	SF		3	E		34		
0464	LEAR	26	2339	2403	2420	S11	E11	6466	01	27.8	41	SF		3	E		36		
0465	LEAR	26	2344	2347	2356	S14	E61	6475	01	31.6	12	SF		3	E		14		
0466	LEAR	27	0003	0009	0014	N11	E24	6472	01	28.8	11	SF		3	E		12		
		27	0004		0013	No Flare Patrol													
0467	LEAR	27	0111	0111	0118	N09	W03	6465	01	26.8	7	SF		3	E		14		
0468		27	0129	01304	0147	S13	E31	6469	01	29.4	18	SF	C 5.2				102	1.2	EFI
	PALE	27	0129	0130	0152D	S13	E32	6469	01	29.5	23D	SF	C 5.2	3	E		73		
	VORO	27	0129	0132	0147	S13	E30	6469	01	29.3	18	SF		2	C	0132	108	1.2	EI
	LEAR	27	0129	0134	0150D	S14	E30	6469	01	29.3	21D	1F	C 5.2	3	E		124		F
0469	VORO	27	0146	0149	0155	N13	E19	6472	01	28.5	9	SF		2	C	0149	81	0.9	D
0470	LEAR	27	0148	0207	0223	N10	W05	6465	01	26.7	35	SF		3	E		21		
0471	LEAR	27	0237	0239	0242	N11	E23	6472	01	28.8	5	SF		3	E		17		
0472		27	0256*	0307*	0355	S08	E12	6466	01	28.0	59	SF					77	1.3	EFK
	LEAR	27	0256	0307	0410	S07	E11	6466	01	27.9	74	SF			E		55		K
	LEAR	27	0256	0330	0410	S07	E11	6466	01	27.9	74	SF		3	E		94		F
	PALE	27	0307	0332	0345	S07	E12	6466	01	28.0	38	SF		3	E		33		
	PEKG	27	0325	0332	0336	S11	E12	6466	01	28.0	11	SF			C	0332	126	1.3	E
0473	LEAR	27	0317	0320	0330	N09	W03	6465	01	26.9	13	SF		3	E		13		
0474		27	03264	03294	0340	N12	E19	6472	01	28.6	14	SF					34	0.5	DF
	LEAR	27	0326	0329	0345	N11	E20	6472	01	28.6	19	SF		3	E		26		F
	PEKG	27	0330	0333	0335	N13	E18	6472	01	28.5	5	SF			C	0333	42	0.5	D
0475	LEAR	27	0335	0335	0341	S14	E29	6469	01	29.3	6	SF		3	E		18		F
0476	LEAR	27	0447	0504	0512	S14	E60	6475	01	31.7	25	SF		3	E		26		

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0477		27	0520	0522	0531	S18	E08	6462	01	27.8	11	SN						66	0.9	D
	PEKG	27	0520	0522	0525	S18	E08	6462	01	27.8	5	SN				C	0522	84	0.9	D
	LEAR	27	0520	0522	0537	S18	E08	6462	01	27.8	17	SF			3	E		47		
0478		27	0526*	05357	0612	S11	E65	6471	02	1.1	46	SN	C	5.5				68	1.0	EF
	LEAR	27	0526	0535	0637	S12	E64	6471	02	1.0	71	SF	C	5.5	3	E		94		F
	PEKG	27	0536	0542	0546	S10	E66	6471	02	1.2	10	SN				P	0542	42	1.0	E
		27	0701		0704	No Flare Patrol														
0479	LEAR	27	0706	0739	0759	S15	E09	6462	01	28.0	53	SF			3	E		32		
0480	LEAR	27	0716	0720	0747	N10	W08	6465	01	26.7	31	SF			3	E		23		
0481		27	08091	0814	0825	S17	E06	6462	01	27.8	16	SN						45		CEFIW
	ISTA	27	0809	0814	0821	S15	E10	6462	01	28.1	12	SB				V				CEIW
	LEAR	27	0810	0814	0829	S19	E02	6462	01	27.5	19	SF			3	E		45		F
0482		27	10042	10051	1016	S12	E62	6471	02	1.1	12	SF	C	4.1				47		
	LEAR	27	1004	1005	1017	S12	E62	6471	02	1.1	13	SF	C	4.1	3	E		47		
	KANZ	27	1006	1006	1016	S11	E62	6471	02	1.1	10	SF				V				
0483	KANZ	27	1050	1050	1054	S12	E53	6475	01	31.4	4	SF				V				
0484		27	10547	1054*	1116	S24	E05	6462	01	27.8	22	SF								
	KANZ	27	1054	1054	1112	S24	E11	6462	01	28.3	18	SF				V				
	KANZ	27	1101	1108	1120	S23	W01	6462	01	27.4	19	SF				V				
0485		27	1138	11429	1231	N09	W08	6465	01	26.9	53	SF						21		FK
	RAMY	27	1138	1142	1231	N09	W08	6465	01	26.9	53	SF				E		17		K
	RAMY	27	1138	1151	1231	N09	W08	6465	01	26.9	53	SF			3	E		25		F
0486	RAMY	27	1201	1205	1213	S12	E61	6471	02	1.1	12	SF			3	E		43		E
0487	RAMY	27	1212	1212	1304	S19	E00	6462	01	27.5	52	SF			3	E		15		F
0488	RAMY	27	1236	1237	1244	S10	E63	6471	02	1.2	8	SF			3	E		15		
0489		27	1306*	1313*	1339	S16	E00	6462	01	27.5	33	SF						30		FK
	RAMY	27	1306	1313	1345	S16	E00	6462	01	27.5	39	SF				E		17		K
	RAMY	27	1306	1322	1345	S16	E00	6462	01	27.5	39	SF			3	E		42		F
	KANZ	27	1323	1323	1327	S16	E01	6462	01	27.6	4	SF				V				
0490	RAMY	27	1326	1333	1348	S13	E23	6469	01	29.3	22	SF			3	E		11		F
0491	RAMY	27	1337	1342	1351	N11	E15	6472	01	28.7	14	SF			3	E		13		
0492	RAMY	27	1342	1345	1353	S13	E60	6471	02	1.1	11	SF			3	E		19		
0493	RAMY	27	1418	1422	1435	S20	E03	6462	01	27.8	17	SF			3	E		12		F
0494		27	1440	14422	1742	S13	E59	6471	02	1.1	182	1B	X	1.9				168		FY
	RAMY	27	1440	1441U	1441D	S14	E59	6471	02	1.1	1D	1B	X	1.9	3	E		159		
	RAMY	27	1440	1442	1742	S14	E59	6471	02	1.1	182	1B	X	1.9	3	E		178		YF
	KANZ	27	1440	1444	1459D	S11	E59	6471	02	1.0	19D	1N				V				
0495	RAMY	27	1449	1535	1611	N12	E13	6472	01	28.6	82	SF			3	E		43		F
		27	1500		2041	No Flare Patrol														
0496		27	1842	1858	1902	S12	E57	6471	02	1.1	20	SF						20		
	HOLL	27	1836E	1853U	1904	S12	E57	6471	02	1.1	28D	SF			2	E		15		
	RAMY	27	1842	1858	1900	S13	E57	6471	02	1.1	18	SF			3	E		25		
0497		27	1916	19161	1923	S12	E12	6469	01	28.7	7	SF						18		
	RAMY	27	1916	1916	1922	S12	E12	6469	01	28.7	6	SF			3	E		11		
	HOLL	27	1916	1917	1924	S11	E12	6469	01	28.7	8	SF			3	E		24		
0498	HOLL	27	2025	2025	2028	N13	E10	6472	01	28.6	3	SF			3	E		19		

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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
		27	2104		2340	No Flare Patrol														
0499	HOLL	27	2242	2252	2308	S15	W06	6462	01	27.5	26	SF			3	E		35		
0500		27	2255	22561	2316	S12	E54	6471	02	1.0	21	SF						52		
	HOLL	27	2250E	2256	2316	S11	E53	6471	01	31.9	26D	SF			3	E		66		
	LEAR	27	2255	2257	2316	S13	E55	6471	02	1.1	21	SF			3	E		38		
0501	LEAR	27	2255	2308	2347	N12	E10	6472	01	28.7	52	SF			3	E		29		
0502	LEAR	27	2256	2309	2315	N10	W16	6465	01	26.7	19	SF			3	E		11		
0503	LEAR	27	2256	2350	2359	N15	W63	6459C	01	23.2	63	SF			3	E		16		
0504		27	2318	23186	2333	S12	E52	6471	01	31.9	15	SF						20		
	LEAR	27	2318	2318	2332	S14	E50	6471	01	31.7	14	SF			3	E		11		
	HOLL	27	2318	2324	2334	S11	E53	6471	01	31.9	16	SF			3	E		29		
0505	HOLL	27	2328	2330	2333	S18	W05	6462	01	27.6	5	SF			3	E		13		
0506	LEAR	27	2351	2352		S10	W03	6466	01	27.8		SF			3	E		38		
0507		28	0031	0033	0042	S12	E50	6471	01	31.8	11	SF						52	1.1	DI
	LEAR	28	0031	0033	0045	S14	E49	6471	01	31.7	14	SF			3	E		31		
	VORO	28	0032U	0033	0039	S11	E52	6471	01	31.9	7U	SF			1	C	0033	72	1.1	DI
0508	LEAR	28	0125	0142	0214	S20	W04	6462	01	27.7	49	SF			3	E		33		
0509		28	01303	0142*	0350	S08	W04	6466	01	27.8	140	1N	M	1.7				312	3.8	EFIJK
	LEAR	28	0130	0142	0358	S09	W04	6466	01	27.8	148	1N	M	1.7	3	E		195		FE
	WATU	28	0132	0153	0314	S08	W04	6466	01	27.8	102	SF				C	0153	140	1.4	
	VORO	28	0133	0148	0300D	S08	W03	6466	01	27.8	87D	2N			1	C	0207	600	6.1	EIJK
	MITK	28	0141E		0417	S08	W03	6466	01	27.8	156D	SB				C	0141			E
0510		28	0214	02269	0306	S18	W07	6462	01	27.6	52	SF						34		K
	LEAR	28	0214	0226	0306	S18	W07	6462	01	27.6	52	SF				E		24		K
	LEAR	28	0214	0235	0306	S18	W07	6462	01	27.6	52	SF			3	E		45		
0511	VORO	28	0226	0228	0243	N27	W26	6464	01	26.1	17	SF			1	C	0228	116	1.6	E
0512	LEAR	28	0238	0242	0247	N09	W16	6465	01	26.9	9	SF			3	E		12		
0513	LEAR	28	0313	0314	0317	N16	E73	6476	02	2.7	4	SF			3	E		24		
0514	LEAR	28	0335	0339	0346	S14	E48	6475	01	31.8	11	SF			3	E		11		
0515	LEAR	28	0403	0404	0407	S10	W05	6466	01	27.8	4	SF			3	E		17		
0516	LEAR	28	0522	0525	0531	S13	E47	6471	01	31.8	9	SF			3	E		28		F
		28	0539		0547	No Flare Patrol														
0517	LEAR	28	0541	0541	0547	S14	E09	6469	01	28.9	6	SF			3	E		13		
0518	LEAR	28	0656	0656	0702	N18	E74	6476	02	2.9	6	SF			3	E		42		
		28	0721		0844	No Flare Patrol														
0519	LEAR	28	0737	0738	0807	S15	E09	6469	01	29.0	30	SF			3	E		55		
0520	LEAR	28	0738	0754	0841	N08	W21	6465	01	26.7	63	SN	C	7.2	3	E		79		
0521	LEAR	28	0755	0814	0819	S11	E20	6474	01	29.8	24	SF			3	E		21		
0522	LEAR	28	0804	0811	0834	N12	E05	6472	01	28.7	30	SF			3	E		23		
0523	LEAR	28	0806	0809	0816	S10	E49	6471	02	1.0	10	SF			3	E		14		
0524	LEAR	28	0859	0859	0902	S20	W06	6462	01	27.9	3	SF			3	E		15		

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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
0525	LEAR	28	0906	0909	0926	N16	E68	6476	02	2.5	20	SF			3	E		39		
0526	LEAR	28	0911	0932	1002	S09	W07	6466	01	27.8	51	SF	C	5.1	3	E		36		
0527		28	09236	0925	0950	S12	E13	6469	01	29.4	27	SF						43		E
	LEAR	28	0923	0925	1004	S11	E12	6469	01	29.3	41	SF			3	E		43		
	KHAR	28	0929		0935	S13	E14	6469	01	29.4	6	SF				V				E
0528	KHAR	28	0957		1045U	S16	W18	6462	01	27.0	48U	SF				V				EH
0529	LEAR	28	1004	1017	1022	S18	W11	6462	01	27.6	18	SF			3	E		15		
		28	1055		1136	No Flare Patrol														
0530	RAMY	28	1140	1149	1152	S13	W03	6466	01	28.2	12	SF			3	E		16		
0531		28	1240*	1249*	1352	S13	E48	6471	02	1.1	72	SF	M	1.1				19		F
	RAMY	28	1240	1249	1347	S13	E48	6471	02	1.1	67	SF	M	1.1	3	E		26		F
	RAMY	28	1352	1353	1356	S13	E48	6471	02	1.2	4	SF			3	E		12		
0532		28	1347	1347	1350	N16	E72	6476	02	3.0	3	SF	C	4.3				12		
	RAMY	28	1347	1347	1350	N15	E71	6476	02	2.9	3	SF	C	4.3	3	E		12		
	KANZ	28	1347	1347	1351	N17	E72	6476	02	3.0	4	SF				C				
0533		28	13572	1400*	1426	S18	E37	6475	01	31.4	29	SF	C	4.7				56		K
	KANZ	28	1357	1400	1407D	S17	E38	6475	01	31.5	10D	SF				V				
	RAMY	28	1359	1402	1426	S18	E37	6475	01	31.4	27	SF	C	4.7	3	E		53		
	RAMY	28	1359	1411	1426	S18	E37	6475	01	31.4	27	SF				E		60		K
0534		28	14001	1409	1434	S12	E09	6469	01	29.3	34	SF						14		
	KANZ	28	1400	1407U	1407D	S11	E09	6469	01	29.3	7D	SF				V				
	RAMY	28	1401	1409	1434	S12	E09	6469	01	29.3	33	SF			3	E		14		
0535		28	1430	1430	1436	S18	W12	6462	01	27.7	6	SF						16		F
	RAMY	28	1430	1430	1436	S18	W12	6462	01	27.7	6	SF			3	E		11		F
	HOLL	28	1432E	1432U	1436D	S18	W13	6462	01	27.6	4D	SF			1	E		20		
0536	RAMY	28	1525	1542	1550	S14	E48	6471	02	1.3	25	SF			3	E		39		
0537		28	16221	1630	1635	S10	W08	6466	01	28.1	13	SF						29		H
	HOLL	28	1622	1630	1635	S10	W08	6466	01	28.1	13	SF			3	E		34		H
	RAMY	28	1623	1630	1635	S11	W07	6466	01	28.1	12	SF			3	E		24		H
0538		28	1630	1630	1638	N16	E70	6476	02	3.0	8	SF	C	4.8				36		
	HOLL	28	1630	1630	1637	N16	E71	6476	02	3.1	7	SF	C	4.8	3	E		34		
	RAMY	28	1630	1630	1638	N15	E68	6476	02	2.8	8	SF	C	4.8	3	E		38		
0539		28	1707*	17459	1758	S12	E08	6469	01	29.3	51	SF	C	7.8				38		
	HOLL	28	1707	1745	1754	S12	E08	6469	01	29.3	47	SF	C	7.8	3	E		60		
	HOLL	28	1754	1754	1801	S13	E09	6469	01	29.4	7	SF			3	E		17		
		28	1711		2045	No Flare Patrol														
0540	HOLL	28	1751	1757	1819	S15	E49	6471	02	1.4	28	1N	M	1.1	3	E		126		F
0541	HOLL	28	1754	1756	1758	S09	W13	6466	01	27.8	4	SF			3	E		20		
0542	HOLL	28	1845	1851	1907	S12	E08	6469	01	29.4	22	SF			3	E		89		F
0543	HOLL	28	1849	1852	1904	S13	E46	6471	02	1.2	15	SF			3	E		24		
0544	HOLL	28	1922E	1930	1939	S12	E08	6469	01	29.4	17D	SF			3	E		79		F
0545	HOLL	28	1950	1955	2040	S15	E48	6471	02	1.5	50	1N	M	1.2	3	E		114		EU
0546	HOLL	28	2046	2047	2053	S12	E07	6469	01	29.4	7	SF			3	E		27		F
0547	HOLL	28	2057	2059U	2112	N03	E80	6479	02	3.8	15	SF	M	1.1	2	E		44		FH

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0548	HOLL	28	2114	2116	2123	S15	E48	6471	02	1.5	9	SF		3	E		14		
0549		28	2140	2141U	2224	S12	E44	6471	02	1.2	44	SF	C 4.0				38		F
	HOLL	28	2140	2141U	2224	S13	E43	6471	02	1.1	44	SF	C 4.0	2	E		57		F
	PALE	28	2143E	2146U	2200D	S12	E46	6471	02	1.4	17D	SF	C 4.0	3	E		18		F
0550	HOLL	28	2149	2151U	2222	N16	E65	6476	02	2.8	33	SF		2	E		43		F
0551	HOLL	28	2200	2202U	2225	S12	E06	6469	01	29.4	25	SF		2	E		37		F
		28	2248		2301	No Flare Patrol													
0552	LEAR	29	0056	0105	0133	S16	W21	6462	01	27.4	37	SF		3	E		37		F
0553		29	01511	01537	0217	S15	E45	6471	02	1.5	26	SF	C 5.9				54	0.9	DEFIJ
	VORO	29	0151	0155	0207	S15	E45	6471	02	1.5	16	SF		2	C	0155	63	0.9	DIJ
	LEAR	29	0152	0153	0213	S15	E44	6471	02	1.4	21	SF	C 5.9	3	E		45		FE
	PALE	29	0200E	0200	0231	S14	E46	6471	02	1.5	31D	SF		3	E		55		F
0554	LEAR	29	0156	0159	0211	N14	E61	6476	02	2.7	15	1F		3	E		110		F
0555	LEAR	29	0316	0317	0325	S13	E41	6471	02	1.2	9	SF		3	E		21		F
0556	LEAR	29	0414	0414	0439	S14	W01	6469	01	29.1	25	SF		3	E		40		F
0557	LEAR	29	0449	0452	0457	S14	W29	6462	01	27.0	8	SF		3	E		52		F
0558	LEAR	29	0509	0518	0551	S13	W01	6469	01	29.1	42	SF		3	E		52		
0559		29	06053	06091	0628	S10	E06	6474	01	29.7	23	SF					44		F
	LEAR	29	0605	0609	0625	S12	E09	6474	01	29.9	20	SF		3	E		42		F
	MITK	29	0607	0609	0640	S10	E04	6474	01	29.5	33	SF			C	0609			
	LEAR	29	0608	0610	0618	S09	E04	6474	01	29.5	10	SF		3	E		46		F
0560	LEAR	29	0651	0651	0729	S16	E42	6471B	02	1.5	38	SN	C 9.9	3	E		62		EF
0561	LEAR	29	0707	0712	0726	N15	E61	6476	02	2.9	19	SF		3	E		42		F
0562	LEAR	29	0714	0716	0735	N08	W35	6465	01	26.7	21	SN		3	E		69		EF
		29	0719		0913	No Flare Patrol													
0563	LEAR	29	0737	0741	0825	S12	E37	6471	02	1.1	48	SF		3	E		24		F
0564		29	0741	07435	0830	S12	E00	6469	01	29.3	49	SF					51		FK
	LEAR	29	0741	0743	0830	S12	E00	6469	01	29.3	49	SF			E		39		K
	LEAR	29	0741	0748	0830	S12	E00	6469	01	29.3	49	SF		3	E		63		F
0565		29	0946*	10132	1054	S12	E36	6471	02	1.1	68	SN	M 1.2				108	1.9	EF
	LEAR	29	0946	1015	1055D	S13	E36	6471	02	1.1	69D	SN	M 1.2	3	E		75		F
	HTPR	29	1008	1013	1050	S12	E35	6471	02	1.0	42	SB			C	1013	140	1.9	E
	KANZ	29	1013	1013	1058	S12	E36	6471	02	1.1	45	SF			V				
0566		29	10231	10252	1030	S14	W08	6469	01	28.8	7	SF					23		F
	KANZ	29	1023	1027	1031	S14	W10	6469	01	28.7	8	SF			V				
	LEAR	29	1024	1025	1029	S13	W05	6469	01	29.0	5	SF		3	E		23		F
0567		29	12151	12163	1232	S12	E33	6471	02	1.0	17	SN					120	1.6	F
	HTPR	29	1215	1219	1230	S13	E33	6471	02	1.0	15	SN			C	1219	120	1.6	F
	KANZ	29	1216	1216	1235	S12	E33	6471	02	1.0	19	SF			V				
0568		29	12293	1235	1258	S18	W04	6469	01	29.2	29	SF					130	1.3	
	HTPR	29	1229	1235	1255	S18	W04	6469	01	29.2	26	SF			C	1235	130	1.3	
	KANZ	29	1232	1235	1301	S18	W04	6469	01	29.2	29	SF			V				
0569		29	13041	13112	1326	S12	E32	6471	01	31.9	22	1N					190	2.3	
	KANZ	29	1304	1311	1322	S12	E32	6471	01	31.9	18	SF			V				
	HTPR	29	1305	1313	1330	S13	E32	6471	01	31.9	25	1N			C	1313	190	2.3	

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp	Opt	Xray	See	Obs Type	Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0570		29	1347	13482	1359	N08	W40	6465	01	26.6	12	SF	C	6.1				55	1.0	D
	RAMY	29	1347	1348	1401	N08	W38	6465	01	26.7	14	SF	C	6.1	3	E		30		
	KANZ	29	1347	1350	1357	N08	W39	6465	01	26.6	10	SF				V				
	HTPR	29	1347	1350	1400	N09	W43	6465	01	26.3	13	SN				C	1358	80	1.0	D
0571		29	14162	14201	1447	N03	E68	6479	02	3.7	31	SF						70		
	KANZ	29	1416	1420	1441	N04	E66	6479	02	3.5	25	SF				V				
	RAMY	29	1416	1420	1451	N02	E68	6479	02	3.7	35	SF			3	E		39		
	HTPR	29	1418	1421	1450	N04	E71	6479	02	3.9	32	SN				C	1421	100		
0572		29	14168	14214	1439	S16	W06	6469	01	29.1	23	SF	C	8.7				37	0.6	
	RAMY	29	1416	1421	1437	S17	W07	6469	01	29.1	21	SF	C	8.7	3	E		14		
	HTPR	29	1422	1425	1440	S15	W05	6469	01	29.2	18	SF				C	1425	60	0.6	
	KANZ	29	1424	1424	1441	S16	W07	6469	01	29.1	17	SF				V				
0573		29	1444*	1452*	1553	S13	E34	6471	02	1.2	69	SF						81	1.8	
	KANZ	29	1444	1452	1456D	S11	E30	6471	01	31.9	12D	SF				V				
	HTPR	29	1447	1455	1545	S13	E35	6471	02	1.2	58	SF				C	1455	150	1.8	
	RAMY	29	1543	1546	1601	S14	E36	6471	02	1.4	18	SF			3	E		12		
0574		29	1558	1610	1632	N20	E59	6476	02	3.2	34	SF	C	6.8				50		F
	RAMY	29	1558	1610	1632	N19	E64	6476	02	3.5	34	SF	C	6.8	3	E		27		F
	HOLL	29	1559E	1604U	1625D	N20	E54	6476	02	2.8	26D	SF			3	E		72		F
0575		29	16021	1605U	1656	S15	W08	6469	01	29.1	54	SF	C	6.6				44		FH
	HOLL	29	1602	1605U	1613	S17	W08	6469	01	29.1	11	SF			3	E		45		F
	RAMY	29	1603	1608U	1739D	S13	W07	6469	01	29.1	96D	SF			3	E		38		
	PALE	29	1723E	1723U	1740	S15	W10	6469	01	29.0	17D	SF	C	6.6	3	E		48		FH
		29	1603		2131	No Flare Patrol														
0576		29	17444	17501	1823	N20	E63	6476	02	3.5	39	SF	C	7.2				28		F
	PALE	29	1744	1750	1826	N21	E63	6476	02	3.6	42	SF	C	7.2	3	E		34		F
	RAMY	29	1748	1751	1820	N19	E63	6476	02	3.5	32	SF	C	7.2	3	E		22		F
0577	RAMY	29	1801	1813	1820	S14	W33	6462	01	27.2	19	SF			3	E		26		F
0578		29	18382	18422	1909	S16	W09	6469	01	29.1	31	SF	C	8.1				73		EF
	PALE	29	1838	1844	1913	S15	W07	6469	01	29.2	35	SF	C	8.1	3	E		73		FE
	RAMY	29	1840	1842	1905	S17	W10	6469	01	29.0	25	SF			3	E		48		F
	HOLL	29	1859E	1859U	1903D	S17	W11	6469	01	28.9	4D	SF			2	E		97		F
0579		29	19152	1918	1936	S07	W22	6466	01	28.1	21	SF						20		F
	RAMY	29	1915	1918	1938	S07	W22	6466	01	28.1	23	SF			3	E		18		F
	PALE	29	1917	1918	1935	S07	W21	6466	01	28.2	18	SF			3	E		23		F
0580	RAMY	29	1932	1937	1941	S13	E32	6471	02	1.2	9	SF			3	E		16		F
0581	PALE	29	2007	2008	2012	N21	E58	6476	02	3.3	5	SF			3	E		29		
0582		29	2056	2057	2116	N16	E54	6476	02	3.0	20	SF						56		
	HOLL	29	2056	2057	2110D	N16	E54	6476	02	3.0	14D	SF			3	E		90		
	RAMY	29	2056	2057	2111	N14	E53	6476	02	2.9	15	SF			3	E		27		
	PALE	29	2056	2057	2121	N18	E55	6476	02	3.1	25	SF			3	E		52		
0583	PALE	29	2106	2108	2115	S17	W06	6469	01	29.4	9	SF			3	E		11		
		29	2151		2223	No Flare Patrol														
0584	PALE	29	2203	2204	2213	S17	W12	6469	01	29.0	10	SF	C	3.9	3	E		29		F
0585	PALE	29	2208	2214	2231	S18	W31	6462	01	27.6	23	SF			3	E		14		
		29	2228		2334	No Flare Patrol														
0586	PALE	29	2229	2232	2257D	S11	W23	6466	01	28.2	28D	SF			3	E		20		
0587	LEAR	29	2245	2245	2347	S13	E32	6471	02	1.4	62	SF			3	E		62		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	Area Measurement Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
0588		30	0020*	01051	0135	S10	E26	6471	02	1.0	75	SF					60	0.7	DEFIJ
	LEAR	30	0020	0105	0135	S11	E26	6471	02	1.0	75	SF		3	E		58		F
	MITK	30	0103	0106	0201	S10	E25	6471	01	31.9	58	SN			C	0106			E
	VORO	30	0105E		0108	S10	E27	6471	02	1.1	3D	SF		2	C	0105	63	0.7	DIJ
0589		30	01034	0107	0125	S15	W34	6462	01	27.5	22	SF	C 6.3				45	0.7	DFIJ
	LEAR	30	0103	0107	0133	S15	W32	6462	01	27.6	30	SF	C 6.3	3	E		59		F
	VORO	30	0106	0107	0124	S14	W36	6462	01	27.3	18	SF		2	C	0107	54	0.7	DIJ
	PALE	30	0107	0107	0119	S15	W34	6462	01	27.5	12	SF	C 6.3	3	E		23		F
0590		30	01405	0146	0158	N18	E53	6476	02	3.1	18	SF					46		F
	LEAR	30	0140	0146	0200	N16	E51	6476	02	2.9	20	SF		3	E		61		F
	PALE	30	0145	0146	0157	N21	E55	6476	02	3.3	12	SF		3	E		32		
0591		30	01574	0202	0210	S09	W26	6466	01	28.1	13	SF					23		F
	LEAR	30	0157	0202	0209	S09	W26	6466	01	28.1	12	SF		3	E		27		F
	PALE	30	0201	0202	0211	S09	W25	6466	01	28.2	10	SF		3	E		19		
0592		30	02541	02551	0301	S16	E47	6477	02	2.7	7	SF					32	0.7	DI
	VORO	30	0254	0255	0300	S15	E47	6477	02	2.7	6	SF		2	C	0255	45	0.7	DI
	LEAR	30	0255	0256	0302	S16	E47	6477	02	2.7	7	SF		3	E		18		
0593	LEAR	30	0343	0354	0410	S13	W13	6469	01	29.2	27	SF		3	E		41		
0594		30	0412	0415	0426	N08	W46	6465	01	26.7	14	1N					123	2.7	
	LEAR	30	0412	0415	0426	N07	W46	6465	01	26.7	14	SF		3	E		73		
	YUNN	30	0414E	0414U	0427	N09	W46	6465	01	26.7	13D	1B			P	0414	173	2.7	
		30	0649		0708	No Flare Patrol													
0595		30	07093	0712	0724	N07	W48	6465	01	26.7	15	SF	C 3.2				51		
	LEAR	30	0709	0712	0731	N08	W47	6465	01	26.8	22	SF	C 3.2	3	E		51		
	KANZ	30	0712	0712	0718	N06	W49	6465	01	26.6	6	SF			C				
0596		30	0738*	08061	0822	S09	W29	6466	01	28.1	44	SF	C 4.9				99		F
	LEAR	30	0738	0806	0826	S10	W29	6466	01	28.1	48	SF	C 4.9	3	E		99		F
	KANZ	30	0804	0807	0819	S08	W29	6466	01	28.2	15	SF			V				
0597		30	08483	0854*	1008	S08	W34	6466	01	27.8	80	1B	X 1.0				294	4.0	EFKTU
	HTPR	30	0848	0856	1000	S08	W34	6466	01	27.8	72	1B			C	0856	360	4.3	E
	LEAR	30	0849	0900	1025	S08	W34	6466	01	27.8	96	2B	X 1.0	3	E		406		F
	LEAR	30	0849	0939	1025	S08	W34	6466	01	27.8	96	1B			E		159		K
	ONDR	30	0850E	0859	0910D	S10	W34	6466	01	27.8	20D	1B			P	0859	328	4.1	EFUT
	KANZ	30	0850	0902	1018	S09	W35	6466	01	27.7	88	2B			V				
	URUM	30	0851	0854	0934	S10	W36	6466	01	27.7	43	1B			C		273	3.5	F
	SVTO	30	0854E	0918	1029D	S07	W34	6466	01	27.8	95D	1N		2	E		238		FE
0598		30	0902	09041	0923	S14	W30	6462	01	28.1	21	SF					44		F
	SVTO	30	0855E	0904	0933	S13	W32	6462	01	27.9	38D	SF		2	E		44		F
	KANZ	30	0902	0905	0913	S15	W28	6462	01	28.2	11	SF			V				
0599		30	09053	09092	0932	S16	W18	6469	01	29.0	27	SF					24		F
	SVTO	30	0903E	0911	0934	S17	W21	6469	01	28.8	31D	SF		3	E		25		F
	KANZ	30	0905	0909	0935	S17	W18	6469	01	29.0	30	SF			V				
	LEAR	30	0908	0909	0927	S13	W16	6469	01	29.2	19	SF		3	E		24		F
0600		30	0929*	0934*	1050	S12	E24	6471	02	1.2	81	SN					77	1.8	EFK
	SVTO	30	0929	0934	1107	S12	E23	6471	02	1.1	98	SF		3	E		29		F
	SVTO	30	0929	1042	1107	S12	E23	6471	02	1.1	98	SF			E		28		K
	LEAR	30	0934	0935	1019	S12	E24	6471	02	1.2	45	SN		3	E		46		FE
	HTPR	30	0934	0939	1015D	S12	E24	6471	02	1.2	41D	SN			C	0939	150	1.7	E
	LEAR	30	0934	0952	1019	S12	E24	6471	02	1.2	45	SB			E		37		K
	KANZ	30	0935	0939	1105	S13	E24	6471	02	1.2	90	SF			V				
	LEAR	30	1029	1043	1053D	S12	E22	6471	02	1.1	24D	SF		1	E		91		F
	HTPR	30	1030	1045	1100	S12	E24	6471	02	1.2	30	SN			C	1045	160	1.8	E
0601	KANZ	30	0959	1003	1007	S16	E34	6471B	02	2.0	8	SF			V				
0602	KANZ	30	1105	1109	1119	S08	E20	6471	02	1.0	14	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	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0603	KANZ	30	1115	1119	1131	S16	W22	6469	01	28.8	16	SF			V				
0604		30	1242	12451	1306	S12	E22	6471	02	1.2	24	SN					100	1.1	E
	HTPR	30	1242	1245	1315	S12	E23	6471	02	1.3	33	SN			C	1245	100	1.1	E
	KANZ	30	1242	1246	1257	S13	E20	6471	02	1.0	15	SF			V				
0605	RAMY	30	1350	1355	1359	S14	E23	6471	02	1.3	9	SF		3	E		16		
0606	RAMY	30	1359	1404	1415	S16	W22	6469	01	28.9	16	SF		3	E		22		F
0607		30	1350*	1429*	1457	S16	W40	6462	01	27.5	67	SN	M 1.2				89	1.6	EFK
	RAMY	30	1350	1429	1509	S15	W40	6462	01	27.5	79	SN			E		75		K
	RAMY	30	1350	1445	1509	S15	W40	6462	01	27.5	79	SN	M 1.2	3	E		97		F
	HOLL	30	1428E	1428U	1501D	S16	W39	6462	01	27.6	33D	SF		2	E		21		F
	HTPR	30	1428	1430	1435	S17	W40	6462	01	27.6	7	SF			C	1430	130	1.7	E
	KANZ	30	1442	1446	1458	S15	W40	6462	01	27.6	16	SF			V				
	HTPR	30	1443	1446	1455	S15	W40	6462	01	27.6	12	SN			C	1446	120	1.5	E
0608		30	14052	1413*	1454	S10	W40	6466	01	27.6	49	SN					24		FK
	KANZ	30	1405	1430	1446	S10	W42	6466	01	27.4	41	SF			V				
	RAMY	30	1407	1413	1458	S10	W39	6466	01	27.6	51	SN			E		23		K
	RAMY	30	1407	1445	1458	S10	W39	6466	01	27.6	51	SN		3	E		24		F
0609		30	14181	14193	1438	S13	E21	6471	02	1.2	20	SN	M 1.0				54	1.3	EF
	HTPR	30	1418	1420	1440	S12	E22	6471	02	1.2	22	SN			C	1420	120	1.3	E
	RAMY	30	1419	1419	1437	S14	E21	6471	02	1.2	18	SN	M 1.0	3	E		32		F
	KANZ	30	1419	1422	1438	S12	E20	6471	02	1.1	19	SF			V				
	HOLL	30	1428E	1428U	1440D	S13	E20	6471	02	1.1	12D	SF		2	E		11		F
0610		30	1506*	1511*	1557	S11	E19	6471	02	1.0	51	SF					66	2.4	EF
	KANZ	30	1506	1506U	1506D	S09	E20	6471	02	1.1	51D	SF			V				
	HTPR	30	1507	1512	1530	S11	E21	6471	02	1.2	23	1N			C	1512	240	2.4	E
	RAMY	30	1508	1511	1532	S11	E18	6471	02	1.0	24	SF		3	E		25		F
	HOLL	30	1510	1512	1544	S10	E18	6471	02	1.0	34	SF		3	E		63		F
	RAMY	30	1533	1534	1540	S11	E18	6471	02	1.0	7	SF		3	E		25		
	HOLL	30	1545	1545	1551	S11	E19	6471	02	1.1	6	SF		3	E		12		F
	HOLL	30	1553	1615	1644	S13	E20	6471	02	1.2	51	SN		3	E		57		F
	RAMY	30	1601	1617	1638	S13	E20	6471	02	1.2	37	SF		3	E		38		F
0611	HOLL	30	1540	1540	1554	S16	W39	6462	01	27.7	14	SF		3	E		12		F
0612		30	1556*	1559*	1614	S16	W23	6469	01	28.9	18	SF					24		F
	RAMY	30	1556	1559	1612	S16	W24	6469	01	28.8	16	SF		3	E		22		
	HOLL	30	1556	1601	1609	S16	W24	6469	01	28.8	13	SF		3	E		37		F
	HOLL	30	1615	1615	1620	S16	W22	6469	01	29.0	5	SF		3	E		12		F
0613		30	1611	1611	1616	S16	W40	6462	01	27.6	5	SF					18		F
	RAMY	30	1611	1611	1615	S18	W40	6462	01	27.6	4	SF		3	E		14		F
	HOLL	30	1611	1611	1618	S14	W41	6462	01	27.6	7	SF		3	E		21		F
0614		30	16382	16422	1652	N15	E42	6476	02	2.9	14	SF					30		F
	HOLL	30	1638	1644	1654	N15	E41	6476	02	2.8	16	SF		3	E		30		F
	RAMY	30	1640	1642	1649	N15	E42	6476	02	2.9	9	SF		3	E		30		
0615	RAMY	30	1700	1702	1721	S15	W42	6462	01	27.5	21	SF	C 7.9	3	E		66		F
0616	HOLL	30	1732	1733	1745	S18	W41	6462	01	27.6	13	SF		3	E		18		F
0617		30	1746*	1752*	1809	S17	W42	6462	01	27.5	23	SF					26		F
	HOLL	30	1746	1752	1804	S16	W43	6462	01	27.5	18	SF		3	E		33		F
	HOLL	30	1810	1811	1814	S18	W41	6462	01	27.6	4	SF		3	E		18		F
0618		30	1756	1757	1806	S15	W24	6469	01	28.9	10	SN	M 1.0				46		EF
	HOLL	30	1756	1757	1804	S16	W25	6469	01	28.8	8	SN	M 1.0	3	E		52		FE
	RAMY	30	1756	1757	1807	S14	W23	6469	01	29.0	11	SF	M 1.0	3	E		40		F
0619		30	1908	1909	1916	S13	E18	6471	02	1.1	8	SF	C 4.6				30		F
	HOLL	30	1908	1909	1915	S13	E17	6471	02	1.1	7	SF	C 4.6	3	E		31		F
	RAMY	30	1908	1909	1918	S13	E18	6471	02	1.1	10	SF	C 4.6	3	E		28		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	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0620		30	19141	19152	1924	S14	W24	6469	01	29.0	10	SF					24		F
	HOLL	30	1914	1917	1922	S16	W25	6469	01	28.9	8	SF		3	E		20		F
	PALE	30	1915	1915	1925	S11	W22	6469	01	29.1	10	SF		3	E		27		
0621		30	19483	19525	2019	S16	W41	6462	01	27.7	31	SN	C 6.4				39		FT
	HOLL	30	1948	1957	2024	S15	W40	6462	01	27.8	36	SF	C 6.4	3	E		28		
	RAMY	30	1951	1952	2014	S16	W42	6462	01	27.6	23	SF	C 6.4	3	E		24		F
	PALE	30	1954E	1954	2032D	S17	W41	6462	01	27.7	38D	SB	C 6.4		E		64		T
0622	HOLL	30	2004	2004	2011	S16	W26	6469	01	28.9	7	SF		3	E		35		
0623	HOLL	30	2021	2028	2041	S16	W24	6469	01	29.0	20	SF		3	E		28		F
0624	HOLL	30	2048	2050	2054	S11	W20	6469	01	29.4	6	SF		3	E		34		
0625	PALE	30	2110	2118	2154	S06	W45	6466	01	27.5	44	SF		3	E		29		
0626		30	21341	21341	2147	S12	W24	6469	01	29.1	13	SF					20		F
	HOLL	30	2134	2134	2149	S11	W24	6469	01	29.1	15	SF		3	E		21		F
	RAMY	30	2135	2135	2145	S12	W24	6469	01	29.1	10	SF		3	E		19		F
		30	2202		2344	No Flare Patrol													
0627		30	2215	22171	2245	S17	W22	6469	01	29.2	30	SN	M 1.0				88		EF
	PALE	30	2215	2217	2241	S18	W21	6469	01	29.3	26	SN		3	E		97		
	HOLL	30	2215	2218	2249	S16	W22	6469	01	29.2	34	SN	M 1.0	3	E		78		FE
0628	HOLL	30	2237	2301	2324	S14	W45	6462	01	27.5	47	SF	C 6.1	3	E		33		F
0629	HOLL	30	2314	2314	2324	S14	W25	6469	01	29.1	10	SF		3	E		18		F
0630		30	2337	2337	2408	S18	W45	6462	01	27.5	31	SF					34		FT
	HOLL	30	2337	2337	2345	S18	W49	6462	01	27.2	8	SF		3	E		18		
	PALE	30	2337	2337	2432	S17	W41	6462	01	27.9	55	SF		3	E		49		FT
0631		30	23507	2351*	2402	S14	W24	6469	01	29.2	12	SF					17		F
	PALE	30	2350	2351	2356	S16	W23	6469	01	29.2	6	SF		3	E		24		F
	PALE	30	2357	2404	2408	S11	W25	6469	01	29.1	11	SF		3	E		10		F
0632	PALE	31	0005	0005	0032	N03	E47	6479	02	3.5	27	SF		3	E		61		FZ
0633	PALE	31	0038	0055	0150	S18	W50	6462	01	27.2	72	SF		3	E		30		
		31	0043		0045	No Flare Patrol													
		31	0058		0201	No Flare Patrol													
0634	PALE	31	0108	0108	0112	S06	W47	6466	01	27.5	4	SF		3	E		20		F
0635	PALE	31	0151	0151U	0207	S06	W47	6466	01	27.5	16	SF		3	E		75		
0636		31	01532	01589	0248	N20	E46	6476	02	3.6	55	1B					241	4.5	EF
	LEAR	31	0153	0159	0303	N21	E48	6476	02	3.7	70	1B		3	E		235		F
	PEKG	31	0155	0158	0223	N20	E48	6476	02	3.7	28	2B			C	0207	505	8.8	E
	PALE	31	0157E		0301D	N17	E38	6476	02	3.0	64D	1F		3	E		197		
	MITK	31	0202E	0205	0318D	N22	E49	6476	02	3.8	76D	1B			C	0205	180	3.2	E
	WATU	31	0207E	0207	0258	N22	E47	6476	02	3.7	51D	SB			P	0207	90	1.6	
0637		31	01571	0200*	0448	S17	W35	6462	01	28.4	171	2B	X 1.3				540	8.9	EFK
	PEKG	31	0157	0207	0304	S17	W36	6462	01	28.3	67	3B			C	0207	988	12.6	E
	LEAR	31	0158	0200	0519	S17	W35	6462	01	28.4	201	1B			E		153		K
	LEAR	31	0158	0222	0519	S17	W35	6462	01	28.4	201	2B	X 1.3	3	E		457		F
	MITK	31	0202E		0532	S18	W35	6462	01	28.4	210D	2B			C	0203	480	6.2	F
	WATU	31	0212E	0212	0212D	S16	W36	6462	01	28.4	210D	2B			P	0212	620	7.8	F
0638		31	0159	0211*	0447	S18	W51	6462	01	27.2	168	1B					210		FK
	PALE	31	0159	0211	0310D	S18	W50	6462	01	27.3	71D	1B		3	E		192		
	LEAR	31	0159	0219	0447	S18	W51	6462	01	27.2	168	1B			E		208		K
	LEAR	31	0159	0232	0447	S18	W51	6462	01	27.2	168	1B		3	E		229		F

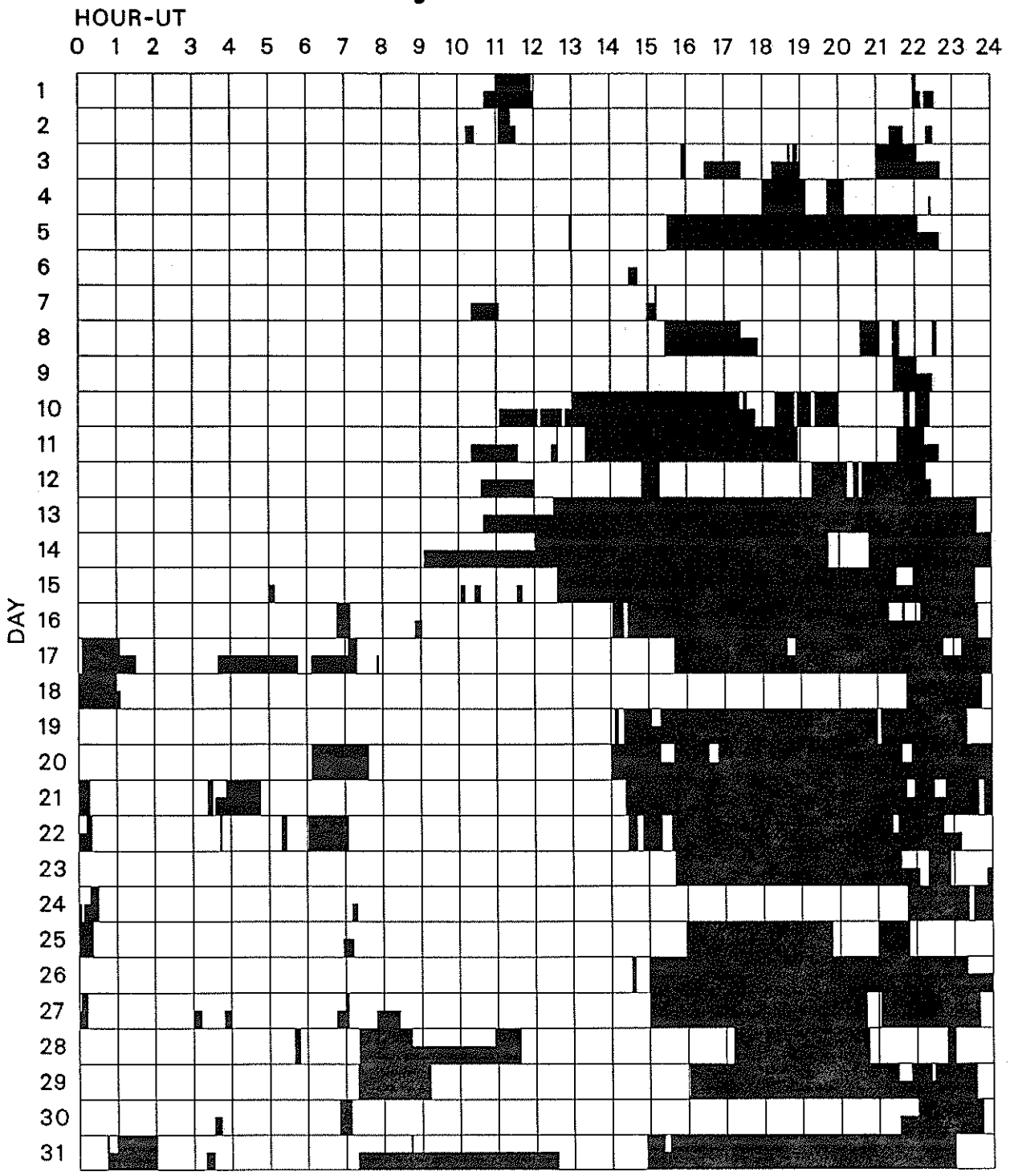
Hα S O L A R F L A R E S

JANUARY 1991

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
0639	PALE	31	0207E		0310D	S11	W27	6469	01	29.0	63D	2N			3	E		312		
0640	ONDR	31	0837E	0837U	0840	S19	W40	6462	01	28.3	3D	SN				P	0837	57	0.8	EIT
		31	0842		0844	No Flare Patrol														
0641		31	0918	0922	0938	S24	W17	6474A	01	30.1	20	SN						117	1.3	EG
	KHAR	31	0918		0940	S25	W17	6474A	01	30.1	22	SF				V				
	ONDR	31	0919E	0922	0937	S23	W17	6474A	01	30.1	18D	SN				P	0922	117	1.3	EG
0642	ONDR	31	1106	1108	1114	S17	W55	6462	01	27.3	8	SN				P	1108	64	1.1	EIT
0643	ONDR	31	1145U	1152	1206U	S15	W36	6469	01	28.8	21U	1B				P	1152	288	3.7	EITU
0644	ONDR	31	1211E	1213	1217	S14	E12	6471A	02	1.4	6D	SN				P	1213	77	0.8	EI
0645	KANZ	31	1235E	1235U	1238	S17	W28	6469	01	29.4	3D	SF				V				
		31	1454		1522	No Flare Patrol														
		31	1531		2259	No Flare Patrol														
0646		31	1559	16066	1627	S15	W34	6469	01	29.1	28	SF	C	5.7				29		K
	HOLL	31	1559	1606	1627	S15	W34	6469	01	29.1	28	SF				E		22		K
	HOLL	31	1559	1612	1627	S15	W34	6469	01	29.1	28	SF	C	5.7	3	E		36		
0647	HOLL	31	1733	1733	1740	S08	W49	6466	01	28.0	7	SF			3	E		19		F
0648		31	1759	1802	1831	S16	E10	6471A	02	1.5	32	SF						52		F
	HOLL	31	1759	1802	1825	S16	E09	6471A	02	1.4	26	SF			3	E		58		F
	PALE	31	1759	1802	1837	S16	E10	6471A	02	1.5	38	SF			3	E		45		
0649	PALE	31	1848	1858	1946	S13	W57	6466	01	27.5	58	SF			3	E		44		
0650	HOLL	31	1852	1854	1903	S15	E08	6471A	02	1.4	11	SF			3	E		18		F
0651		31	1923*	1927*	1940	S15	W38	6469	01	28.9	17	SF						28		F
	PALE	31	1923	1927	1936	S15	W38	6469	01	28.9	13	SF			3	E		20		
	HOLL	31	1936	1938	1943	S15	W37	6469	01	29.0	7	SF			3	E		36		F
0652	HOLL	31	1930	1930	1934	S12	E04	6471	02	1.1	4	SF			3	E		23		F
0653	HOLL	31	1942	1943	1949	N19	E22	6476	02	2.5	7	SF			3	E		27		
0654		31	20171	20226	2107	S16	W39	6469	01	28.9	50	SN	C	8.4				57		FK
	HOLL	31	2017	2022	2107	S16	W40	6469	01	28.8	50	SN				E		31		K
	HOLL	31	2017	2028	2107	S16	W40	6469	01	28.8	50	SN	C	8.4	3	E		81		F
	PALE	31	2018	2028U	2125D	S16	W38	6469	01	29.0	67D	SF	C	8.4	3	E		58		
0655	HOLL	31	2039	2041	2117	S09	W50	6466	01	28.1	38	SF			3	E		20		F
0656	PALE	31	2053E	2053U	2212D	N12	W43	6472	01	28.6	79D	SF			3	E		60		
0657	HOLL	31	2124	2126	2142	S13	E03	6471	02	1.1	18	SF	C	5.5	3	E		18		F
0658	HOLL	31	2157	2158	2204	N19	E22	6476	02	2.6	7	SF			3	E		19		F
0659	HOLL	31	2322	2323	2345	S15	W55	6462	01	27.8	23	SF	C	5.0	3	E		43		F

INTERVALS OF NO FLARE PATROL OBSERVATION
FOR PRECEDING SOLAR FLARE TABLE

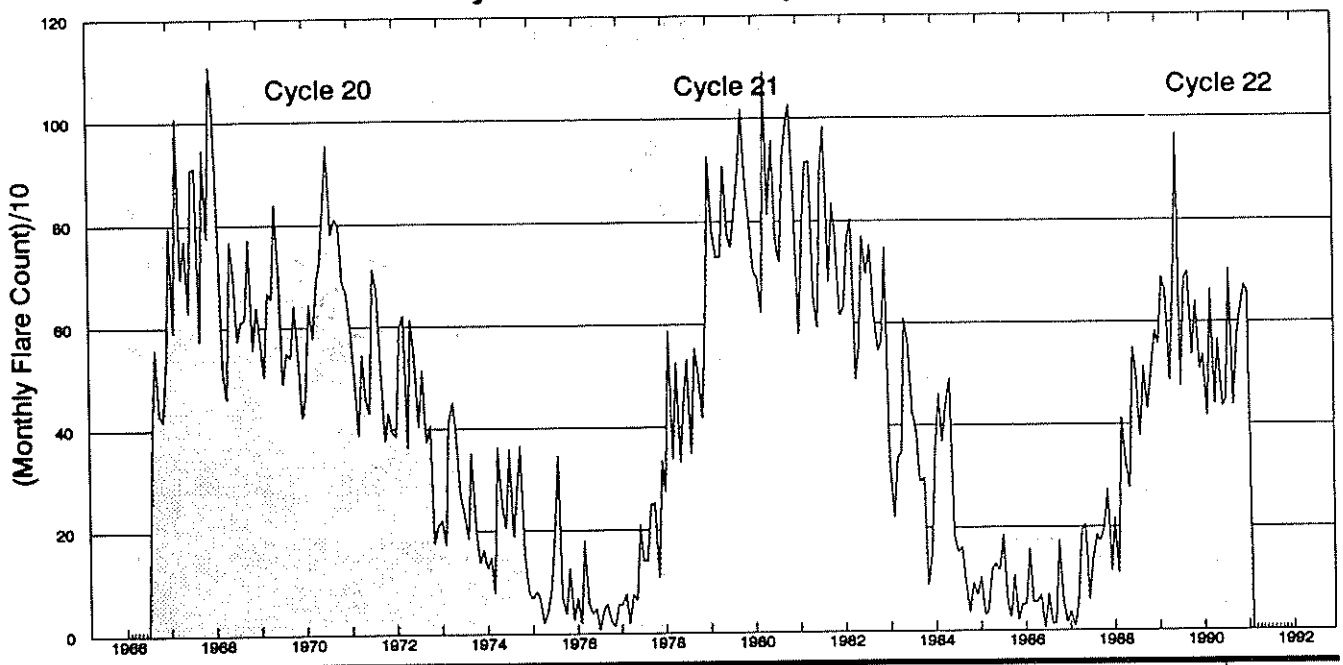
JANUARY 1991



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

Abastumani	Holloman	Learmonth	Peking	Urumqi
Athens	Istanbul	Mitaka	Ramey	Voroshilov
Bucharest	Kanzelhoehe	Ondrejov	San Vito	Watukosek
Haute Provence	Kharkov	Palehua	Tashkent	Yunnan

Monthly Counts of Grouped Solar Flares*



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1966	--	--	--	--	--	--	--	391	558	432	417	543	2341
1967	796	589	1009	694	771	629	907	911	573	946	775	1109	9709
1968	1037	773	519	460	768	697	573	611	616	772	556	640	8022
1969	581	504	669	655	839	694	489	551	540	643	566	422	7153
1970	466	646	578	688	722	836	954	780	811	797	687	667	8632
1971	598	505	387	546	461	430	713	673	518	375	431	394	6031
1972	384	599	621	361	614	541	404	515	371	408	175	210	5203
1973	221	171	410	453	388	270	232	182	353	201	136	163	3180
1974	127	148	79	364	255	204	360	187	270	366	153	81	2594
1975	68	82	69	19	42	85	196	346	68	38	127	25	1165
1976	69	18	180	60	38	48	6	47	57	23	13	55	614
1977	54	77	18	76	64	210	140	140	250	252	107	336	1724
1978	274	588	338	526	330	460	533	346	554	499	418	648	5514
1979	926	781	731	731	907	772	750	821	901	1018	888	786	10012
1980	703	689	621	1092	811	956	763	720	924	988	1027	838	10132
1981	578	782	914	915	658	592	893	982	680	836	773	615	9218
1982	631	766	803	490	553	769	696	753	615	544	564	748	7932
1983	332	220	337	346	609	561	427	389	289	298	88	152	4048
1984	353	461	366	440	492	185	151	161	95	36	92	69	2901
1985	104	29	38	119	129	116	185	53	25	108	19	50	975
1986	51	158	54	56	68	3	71	12	14	174	56	13	730
1987	36	7	52	192	205	61	132	185	172	198	273	114	1627
1988	217	109	413	328	274	551	502	375	513	429	508	584	4803
1989	689	539	658	485	686	971	473	684	699	535	640	507	7566
1990	536	415	664	439	565	433	447	703	436	569	619	672	6498
1991	659												659

*Monthly totals for the last 6 months may change significantly, as more sites submit their reports. The term "grouped" means that observations of the same event by different stations have been lumped together and counted as one.

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

JANUARY 1991

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	204	IZMI	43	NS	0925.0		300.0	20.0			
	127	TORN	43	NS	0937.0	1014.0	50.0	30.0	4.0		V=2
	204	IZMI	42	SER	0748.0	0807.5	65.0	105.0			
	3000	POTS	2	S/F	0923.0	0923.5	2.0	5.0			
	204	IZMI	7	C	1017.0	1017.5	1.0	88.0	44.0		
	3000	POTS	27	RF	1248.0	1322.0	72.0	19.0			
	9500	POTS	27	RF	1248.5	1301.5	71.5	14.0			
	15000	CUBA	20	GRF	1714.0	1755.0	74.0	13.0	6.0		OOL
02	280	CUBA	44	NS	1347.0E		440.0D		22.0		
	235	CUBA	44	NS	1347.0E		440.0D		14.0		
	200	HIRA	46	C	0547.5	0548.8	2.8	67.0			O
	204	IZMI	2	S/F	1025.8	1025.9	1.0	9.0			
03	235	CUBA	44	NS	1314.0E		490.0D		14.0		
	280	CUBA	44	NS	1314.0E		496.0D		21.0		
04	127	TORN	43	NS	1031.0		120.0		3.0		V=1
	280	CUBA	44	NS	1309.0E		349.0D		25.0		
	235	CUBA	44	NS	1309.0E		349.0D		15.0		
	2840	PEKG	5	S	0428.0	0433.5	47.0	45.0			
	200	HIRA	41	F	0618.0	0625.0	55.0	260.0			SR
	200	GORK	4	S/F	0620.7	0625.3	4.9	90.0			
	100	GORK	4	S/F	0623.8	0625.3	1.7	30.0D			
	4995	LEAR	4	S/F	0704.0E	0706.0	3.0D	31.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0704.0E	0704.0	U	20.0			QL=2 ST=2 TYP=3
	9100	GORK	46	C	0704.8	0705.1	3.7	30.0			
	9100	GORK	46	C	0704.8	0706.4		65.0			
	9300	KISV	45	C	0705.5	0707.0		54.0			
	15000	KISV	45	C	0705.5	0707.0		34.0			
	15000	KISV	45	C	0705.5	0706.5	3.0	50.0			
	9300	KISV	45	C	0705.5	0706.5	3.0	60.0			
	15400	LEAR	8	S	0706.0E	0706.0	1.0D	39.0			QL=4 ST=2 TYP=3
	5900	KISV	46	C	0706.2	0707.1		33.0			
	5900	KISV	46	C	0706.2	0707.4		25.0			
	5900	KISV	46	C	0706.2	0706.6	2.8	46.0			
	430	KRAK	41	F	0911.9	0913.0	2.3	9.0	4.0		
	950	GORK	2	S/F	1034.6	1035.8	1.8	4.0			
	650	GORK	2	S/F	1034.9	1035.5	2.0	4.0			
	33	UPIC	4	S/F	1103.3	1103.5	1.1				
	260	ONDR	40	F	1105.0	1254.5	120.0	20.0			
	127	TORN	4	S/F	1202.9	1204.6	3.0	100.0	20.0		
	600	HUMN	2	S/F	1450.0	1450.3	3.0	9.0	3.0		
	6700	CUBA	2	S/F	1809.9	1810.9	2.6	30.0	15.0		PL FAILURE
	9500	CUBA	2	S/F	1810.0	1810.8	2.5	33.0	16.0		
05	280	CUBA	44	NS	1424.0E		381.0D		24.0		
	235	CUBA	44	NS	1424.0E		381.0D		14.0		
	2840	PEKG	45	C	0126.0	0126.8	1.0	13.3			
	5900	KISV	45	C	0557.0	0559.1		5.0			
	5900	KISV	45	C	0557.0	0600.6	4.6	7.0			
	950	GORK	1	S	0905.8	0906.1	0.6	5.0			
	260	ONDR	42	SER	1215.0	1220.1	22.0	21.0			
	260	ONDR	8	S	1247.5	1247.6	0.7	24.0			
06	280	CUBA	44	NS	1307.0E		504.0D		24.0		
	235	CUBA	44	NS	1307.0E		504.0D		13.0		
	200	HIRA	42	SER	0618.7	0619.1	4.8	105.0			O
	204	IZMI	5	S	0914.5	0914.6	0.5	18.0	9.0		
	9500	CUBA	20	GRF	1329.0	1644.0	486.0D	41.0			2134 OFF
	2800	OTTA	20	GRF	1549.0	1630.0	142.0	14.5	7.0		
	6700	CUBA	20	GRF	1606.0	1628.0	66.0	10.0	5.0		
	6700	CUBA	1	S	1747.5	1747.6	1.5	5.0	2.0		
	6700	CUBA	20	GRF	1814.0	2049.0	199.0D	10.0	5.0		2133 OFF
07	127	TORN	43	NS	1150.0		120.0		5.0		V=1
	235	CUBA	44	NS	1305.0E		505.0D		23.0		
	280	CUBA	44	NS	1305.0E		505.0D		36.0		
	245	SGMR	44	NS	1515.0E	1638.0	346.0D	130.0			QL=2 ST=2 TYP=1

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

JANUARY 1991

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	245	PALE	44	NS	1955.0E	2137.0	208.0D	98.0			QL=4 ST=2 TYP=1
	200	HIRA	41	F	0433.7	0436.7	7.2	52.0			O
	500	HIRA	27	RF	0540.0	0623.0	72.5	9.0	5.0		O
	200	HIRA	41	F	0641.9	0643.8	3.7	39.0			O
	245	LEAR	8	S	0647.0E	0647.0	U	60.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0647.0E	0647.0	U	85.0			QL=4 ST=2 TYP=3
	650	GORK	22	GRF	0648.0E	0723.4	102.0D	7.0			
	950	GORK	22	GRF	0648.4E	0723.3	109.4D	5.0			
	2950	GORK	22	GRF	0721.7	0722.8	15.0	9.0			
	9300	KISV	2	S/F	0858.8	0859.7	2.2	8.0			
	9100	GORK	1	S	0859.1	0859.8	2.0	6.0			
	5900	KISV	2	S/F	0859.4	0859.8	1.7	6.0			
	2950	GORK	20	GRF	0949.4	1137.7	108.3	10.0			
	260	ONDR	40	F	1005.0	1049.5	115.0	43.0			
	113	POTS	4	S/F	1111.7	1112.8	1.9	140.0			
	100	GORK	46	C	1111.8	1112.0	1.5	230.0			
	200	GORK	4	S/F	1111.8	1112.0	1.5	20.0			
	100	GORK	46	C	1111.8	1112.8		115.0			
	40	POTS	4	S/F	1112.0	1112.0	1.6	2200.0			
	127	TORN	7	C	1112.0	1113.0	1.4	460.0	100.0		
	245	SGMR	8	S	1334.0E	1334.0	U	65.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1334.0E	1334.0	1.0D	52.0			QL=4 ST=2 TYP=3
	200	HIRA	24	R	2150.0E		400.0D		4.0		O
	200	HIRA	42	SER	2352.8	2405.3	33.7	205.0			O
08	200	GORK	44	NS	0601.0E		345.0D		5.0		
	100	GORK	44	NS	0601.0E		345.0D		5.0		
	204	IZMI	43	NS	0700.0		300.0	10.0			
	127	TORN	43	NS	0700.0		420.0		6.0		V=1
	430	KRAK	44	NS	0806.5E	0941.7	362.5D	44.0	3.0		
	235	CUBA	44	NS	1348.0E		312.0D		16.0		
	280	CUBA	44	NS	1348.0E		312.0D		29.0		
	245	SGMR	44	NS	1503.0E	1526.0	25.0D	140.0			QL=4 ST=2 TYP=1
	245	SGMR	44	NS	1856.0E	1922.0	304.0D	80.0			QL=4 ST=3 TYP=1
	245	PALE	44	NS	1911.0E	2253.0	222.0D	200.0			QL=4 ST=2 TYP=1
	245	SGMR	44	NS	1956.0E	1922.0	66.0D	80.0			QL=4 ST=2 TYP=1
	200	HIRA	43	NS	2230.0	0200.0	545.0D	17.0	8.0		O
	200	HIRA	42	SER	0120.5	0146.8	42.2	185.0			O
	500	HIRA	8	S	0213.8	0214.0	0.6	245.0			O
	2840	PEKG	5	S	0214.0	0219.1	8.0	17.8			
	200	HIRA	42	SER	0233.0	0243.9	85.8	91.0			O
	245	LEAR	8	S	0309.0E	0310.0	1.0D	66.0			QL=2 ST=2 TYP=3
	500	HIRA	27	RF	0337.5	0407.5	40.0	10.0	4.0		O
	2840	PEKG	47	GB	0357.0	0429.7	54.0	712.3			
	500	HIRA	46	C	0419.0	0439.0		113.0			O
	500	HIRA	46	C	0419.0	0429.5	62.5	253.0	34.0		O
	2695	LEAR	49	GB	0420.0E	0429.0	23.0D	640.0			QL=4 ST=2 TYP=6
	4995	LEAR	49	GB	0420.0E	0429.0	31.0D	970.0			QL=4 ST=2 TYP=7
	8800	LEAR	49	GB	0422.0E	0429.0	26.0D	1100.0			QL=4 ST=2 TYP=7
	610	LEAR	49	GB	0422.0E	0429.0	27.0D	680.0			QL=2 ST=2 TYP=7
	1415	LEAR	49	GB	0422.0E	0429.0	21.0D	710.0			QL=4 ST=2 TYP=7
	410	LEAR	4	S/F	0424.0E	0424.0	1176.0D	18.0			QL=2 ST=1 TYP=3
	100	HIRA	27	RF	0426.0	0538.0	178.0	97.0	18.0		
	410	LEAR	4	S/F	0427.0E	0455.0	33.0D	120.0			QL=2 ST=2 TYP=5
	200	HIRA	46	C	0427.7	0429.1	118.8	192.0	51.0		O
	200	HIRA	46	C	0427.7	0438.3		53.0			O
	200	HIRA	46	C	0427.7	0551.4		38.0			MR
	200	HIRA	46	C	0427.7	0509.9		62.0			O
	245	LEAR	4	S/F	0428.0E	0429.0	16.0D	210.0			QL=2 ST=2 TYP=3
	15400	LEAR	49	GB	0428.0E	0429.0	22.0D	750.0			QL=4 ST=2 TYP=6
	245	LEAR	20	GRF	0500.0E	0509.0	28.0D	140.0			QL=2 ST=2 TYP=2
	245	LEAR	4	S/F	0533.0E	0535.0	7.0D	72.0			QL=2 ST=2 TYP=5
	9300	KISV	22	GRF	0647.0	0654.5	35.4	17.0			
	5900	KISV	22	GRF	0650.0	0654.7	34.1	11.0			
	2950	GORK	20	GRF	0653.0	0748.6	187.9	18.0			
	650	GORK	20	GRF	0656.7	0913.8	195.8	7.0			
	950	GORK	20	GRF	0658.5	0719.2	64.5U	2.0			
	204	IZMI	41	F	0742.0	0744.0	3.0	300.0			
	245	LEAR	8	S	0810.0E	0810.0	2.0D	66.0			QL=2 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

JANUARY 1991

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
08	200	GORK	3	S	0810.2	0810.4	1.1	450.0			
	100	GORK	8	S	0810.2	0810.5	2.5	8900.0			
	113	POTS	8	S	0810.3	0810.4	1.3	2500.0			
	204	IZMI	41	F	0810.3	0810.5	1.0	550.0			
	30	POTS	4	S/F	0810.3	0810.5	0.8	800.0U			
	9300	KISV	2	S/F	0916.0	0916.5	2.0	3.0			
	260	ONDR	40	F	1000.0	1155.8	116.0	52.0			
	9300	KISV	22	GRF	1046.2	1057.4	20.1	9.0			
	1470	POTS	4	S/F	1108.8	1109.7	2.4	6.0			
	3000	POTS	2	S/F	1118.6	1119.7	2.4	6.0			
	9300	KISV	2	S/F	1119.0	1120.1	3.7	18.0			
	9300	KISV	23	GRF	1119.0	1125.3	37.0	17.0			
	9500	POTS	4	S/F	1119.0	1119.9	2.4	16.0			
	15000	KISV	2	S/F	1119.2	1120.1	1.5	8.0			
	5900	KISV	23	GRF	1119.2	1124.1	36.8	12.0			
	1470	POTS	4	S/F	1119.2	1120.5	2.1	7.0			
	5900	KISV	2	S/F	1119.3	1120.1	2.2	13.0			
	245	SVTO	49	GB	1120.0E	1120.0	U	1100.0			QL=4 ST=2 TYP=6
	260	ONDR	27	RF	1204.0	1214.3	29.0	16.0			
	1470	POTS	4	S/F	1326.5U	1327.4	1.8D	6.0			
	9500	POTS	20	GRF	1336.0	1348.2	18.2	13.0			
	3000	POTS	22	GRF	1343.5	1345.5	6.5	9.0			
	1470	POTS	4	S/F	1347.8	1348.0	1.5	2.0			
	410	SVTO	8	S	1408.0E	1409.0	2.0D	220.0			QL=2 ST=2 TYP=3
	410	SGMR	8	S	1409.0E	1409.0	1.0D	72.0			QL=4 ST=2 TYP=3
	600	HUMN	2	S/F	1432.0	1432.4	1.5	16.0	4.0		
	9500	CUBA	21	GRF	1555.0E	1647.0	201.0D	16.0			
	9500	CUBA	1	S	1605.9	1606.1	1.6	24.0	12.0		
	2800	OTTA	3	S	1816.2	1818.1	10.9	39.2	8.0		
	2695	PALE	8	S	1817.0E	1817.0	2.0D	55.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	1817.0E	1817.0	1.0D	30.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	1817.0E	1818.0	2.0D	66.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1817.0E	1818.0	2.0D	74.0			QL=4 ST=2 TYP=3
	610	PALE	4	S/F	1819.0E	1824.0	7.0D	32.0			QL=4 ST=3 TYP=3
	610	SGMR	8	S	1819.0E	1819.0	1.0D	27.0			QL=4 ST=2 TYP=3
	245	PALE	4	S/F	1821.0E	1827.0	8.0D	78.0			QL=4 ST=3 TYP=3
	410	SGMR	4	S/F	1821.0E	1824.0	3.0D	74.0			QL=4 ST=2 TYP=3
	610	PALE	4	S/F	1822.0E	1824.0	4.0D	32.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1822.0E	1824.0	2.0D	33.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1822.0E	1822.0	U	59.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1823.0E	1824.0	2.0D	75.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1826.0E	1827.0	2.0D	79.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1844.0E	1844.0	U	33.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1844.0E	1844.0	U	41.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1844.1	1844.3	0.9	29.0	14.0		
	2800	OTTA	3	S	1844.3	1844.7	3.1	17.6	3.0		
	9500	CUBA	2	S/F	1930.0	1930.5	2.5	23.0	11.0		
	2800	OTTA	3	S	1930.0	1930.6	2.5	11.9	2.0		
	410	PALE	8	S	2211.0E	2211.0	1.0D	90.0			QL=4 ST=2 TYP=3
	200	HIRA	41	F	2248.0	2249.5	4.0	185.0			O
	245	LEAR	8	S	2253.0E	2253.0	1.0D	170.0			QL=4 ST=3 TYP=3
09	245	LEAR	43	NS	0219.0	0739.0	341.0	120.0			QL=2 ST=2 TYP=1
	200	GORK	43	NS	0602.0		344.0D		5.0		
	204	IZMI	43	NS	0700.0		300.0	10.0			
	127	TORN	43	NS	0750.0		430.0		5.0		V=1
	430	KRAK	44	NS	0803.5E	1331.0	357.5D	61.0	2.0		
	260	ONDR	44	NS	1000.0E	1313.2	220.0D	99.0			
	234	POTS	43	NS	1020.0	1228.0	251.0D	44.0			
	410	SGMR	44	NS	1253.0E	1325.0	372.0D	130.0			QL=4 ST=2 TYP=1
	245	SVTO	44	NS	1255.0E	1304.0	140.0D	120.0			QL=2 ST=2 TYP=1
	280	CUBA	44	NS	1311.0E		335.0D		61.0		
	235	CUBA	44	NS	1311.0E		335.0D		42.0		
	245	SGMR	44	NS	1356.0E	2000.0	427.0D	270.0			QL=4 ST=2 TYP=1
	245	PALE	44	NS	1730.0E	1814.0	618.0D	320.0			QL=4 ST=2 TYP=1
	100	HIRA	44	NS	2150.0E	2216.0	160.0D	32.0	14.0		
	200	HIRA	44	NS	2150.0E	2307.0	580.0D	95.0	38.0		O
	245	LEAR	44	NS	2206.0E	0508.0	574.0D	360.0			QL=2 ST=2 TYP=1
	245	LEAR	8	S	0032.0E	0033.0	1.0D	61.0			QL=2 ST=2 TYP=3

S O L A R R A D I O E M I S S I O N
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JANUARY 1991

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	245	PALE	8	S	0041.0E	0041.0	1.0D	100.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0042.0E	0042.0	1.0D	90.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0045.0E	0045.0	U	53.0			QL=2 ST=2 TYP=3
	200	HIRA	42	SER	0117.2	0221.5	69.0	260.0			O
	245	LEAR	8	S	0156.0E	0156.0	U	62.0			QL=2 ST=2 TYP=3
	2840	PEKG	1	S	0222.5	0223.0	2.0	7.3			
	245	PALE	8	S	0303.0E	0305.0	2.0D	110.0			QL=4 ST=2 TYP=3
	200	HIRA	42	SER	0456.8	0523.7	49.5	42.0			O
	245	SVTO	8	S	0715.0E	0715.0	U	110.0			QL=2 ST=2 TYP=3
	100	GORK	8	S	0720.2	0720.6	1.2	760.0			
	9300	KISV	2	S/F	0720.2	0720.7	1.8	5.0			
	5900	KISV	2	S/F	0722.2	0723.6	3.1	3.0			
	245	SVTO	8	S	0739.0E	0739.0	1.0D	130.0			QL=2 ST=2 TYP=3
	9300	KISV	22	GRF	0807.4	0808.4	46.7	7.0			
	5900	KISV	22	GRF	0807.7	0808.5	44.3	7.0			
	950	GORK	46	C	0807.8	0809.0		15.0			
	950	GORK	46	C	0807.8	0807.9	1.4	13.0			
	3000	POTS	4	S/F	0905.1	0905.5	1.2	9.0			
	410	LEAR	8	S	1020.0E	1021.0	2.0D	96.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	1029.0E	1030.0	1.0D	140.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	1029.0E	1030.0	1.0D	170.0			QL=2 ST=2 TYP=3
	600	HUMN	2	S/F	1054.8	1055.0	1.2	42.0	10.0		
	204	IZMI	41	F	1120.0	1120.6	0.8	280.0			
	1470	POTS	4	S/F	1128.6	1131.6	4.2	10.0			
	5900	KISV	4	S/F	1128.7	1132.2	9.4	43.0			
	3000	POTS	29	PBI	1128.8U	1132.0	12.7D	77.0			
	3013	IZMI	7	C	1129.0	1132.0	6.0	45.0	24.0		
	9300	KISV	4	S/F	1129.1	1132.2	8.7	30.0			
	9500	POTS	4	S/F	1129.5	1132.2	11.8	32.0			
	2950	GORK	4	S/F	1129.9	1131.9	7.0	74.0			
	2695	SVTO	4	S/F	1130.0E	1132.0	5.0D	80.0			QL=4 ST=2 TYP=3
	9100	GORK	46	C	1130.0U	1134.2		33.0			
	9100	GORK	46	C	1130.0U	1131.8	10.2U	35.0			
	15000	KISV	2	S/F	1130.1	1133.1	7.0	15.0			
	245	SVTO	8	S	1230.0E	1230.0	U	66.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1255.0E	1255.0	U	72.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1304.0E	1304.0	U	100.0			QL=4 ST=2 TYP=3
	9500	CUBA	21	GRF	1311.0E	1712.0	335.0D	35.0			1846 OFF
	245	SGMR	8	S	1312.0E	1312.0	U	85.0			QL=4 ST=2 TYP=3
	245	SGMR	49	GB	1351.0E	1351.0	U	1700.0			QL=4 ST=2 TYP=7
	245	SVTO	49	GB	1351.0E	1351.0	1.0D	1700.0			QL=2 ST=2 TYP=6
	234	POTS	4	S/F	1351.4	1351.4	0.7	3800.0			
	1470	POTS	42	SER	1354.4	1354.7	2.4	8.0			
	9500	POTS	42	SER	1355.0	1356.1	3.6	17.0			
	3000	POTS	42	SER	1355.2	1356.4	2.4	11.0			
	9500	CUBA	2	S/F	1424.4	1424.5	1.6	52.0	26.0		
	500	HIRA	24	R	2150.0E	2326.0	580.0D	35.0	9.0		O
	200	HIRA	41	F	2229.7	2233.6	4.6	410.0			O
	200	HIRA	8	S	2250.8	2250.8	0.8	450.0			O
	200	HIRA	41	F	2318.5	2320.7	7.9	170.0			O
10	200	GORK	44	NS	0619.0E		325.0D		5.0		
	127	TORN	43	NS	0752.0		380.0		7.0		V=1
	280	CUBA	44	NS	1317.0E		463.0D		27.0		
	235	CUBA	44	NS	1317.0E		463.0D		16.0		
	245	PALE	8	S	0127.0E	0128.0	1.0D	350.0			QL=2 ST=3 TYP=3
	610	LEAR	8	S	0136.0E	0136.0	1.0D	470.0			QL=2 ST=2 TYP=3
	410	PALE	8	S	0255.0E	0255.0	U	150.0			QL=4 ST=2 TYP=3
	2840	PEKG	46	C	0509.0	0511.2	8.0	153.0			
	2695	LEAR	4	S/F	0510.0E	0511.0	7.0D	150.0			QL=2 ST=2 TYP=3
	4995	LEAR	4	S/F	0510.0E	0511.0	7.0D	100.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	0511.0E	0512.0	6.0D	150.0			QL=2 ST=2 TYP=3
	1415	LEAR	4	S/F	0511.0E	0512.0	4.0D	36.0			QL=4 ST=2 TYP=3
	15400	LEAR	4	S/F	0511.0E	0512.0	4.0D	140.0			QL=4 ST=2 TYP=3
	2840	PEKG	29	PBI	0517.0		14.0	16.9			
	5900	KISV	2	S/F	0728.8	0729.5	4.0	6.0			
	9300	KISV	2	S/F	0729.2	0729.5	1.1	5.0			
	3000	POTS	4	S/F	0814.6	0815.4	1.6	15.0			
	9500	POTS	4	S/F	0815.0	0815.4	1.0	14.0			

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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
10	430	KRAK	42	SER	0825.0E	0944.9	328.0D	100.0			
	245	LEAR	8	S	0927.0E	0927.0	U	82.0			QL=2 ST=2 TYP=3
	9100	GORK	20	GRF	0929.5	0955.5	75.5	15.0			
	9300	KISV	22	GRF	0930.7	0942.1	55.3	15.0			
	5900	KISV	22	GRF	0930.7	0942.2	53.3	13.0			
	410	LEAR	8	S	0944.0E	0944.0	1.0D	120.0			QL=2 ST=2 TYP=3
	536	ONDR	42	SER	1000.0	1032.7	55.5	35.0			
	260	ONDR	40	F	1000.0	1245.7	210.0	65.0			
	650	GORK	4	S/F	1027.1	1027.6	3.3	22.0			
	950	GORK	1	S	1027.3	1027.7	3.1	3.0			
	9300	KISV	2	S/F	1027.3	1027.7	2.4	5.0			
	5900	KISV	2	S/F	1027.3	1027.8	3.2	5.0			
	3000	POTS	2	S/F	1032.4	1033.0	1.4	6.0			
	9300	KISV	2	S/F	1144.3	1144.9	2.2	5.0			
	234	POTS	42	SER	1245.7	1308.7	30.0	330.0			
	1470	POTS	4	S/F	1306.0	1306.6	0.9	8.0			
	9500	CUBA	21	GRF	1400.0	1414.0	20.0	9.0	4.0		
	610	SGMR	49	GB	1411.0E	1411.0	1.0D	1600.0			QL=4 ST=2 TYP=6
	610	SVTO	49	GB	1411.0E	1411.0	1.0D	1100.0			QL=4 ST=2 TYP=6
	1415	SGMR	8	S	1525.0E	1525.0	U	150.0			QL=4 ST=3 TYP=3
	2800	OTTA	3	S	1525.0	1526.2	3.6	35.6	7.0		
	9500	CUBA	2	S/F	1525.3	1525.9	2.7	34.0	17.0		
	2800	OTTA	3	S	1802.9	1803.9	3.8	19.0	4.0		
	410	PALE	8	S	1804.0E	1804.0	U	140.0			QL=4 ST=3 TYP=3
	410	SGMR	8	S	1804.0E	1804.0	U	210.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1913.0E	1913.0	1.0D	120.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1913.0E	1913.0	1.0D	97.0			QL=4 ST=3 TYP=3
	410	PALE	8	S	2045.0E	2046.0	2.0D	68.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2114.0E	2114.0	1.0D	58.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2252.0E	2253.0	2.0D	59.0			QL=2 ST=2 TYP=3
	200	HIRA	46	C	2252.1	2253.4	2.8	140.0			O
11	127	TORN	43	NS	1200.0		90.0		4.0		V=1
	235	CUBA	44	NS	1340.0E		430.0D		12.0		
	280	CUBA	44	NS	1340.0E		470.0D		24.0		
	500	HIRA	4	S/F	0012.2	0016.3	7.8	11.0			WR
	245	LEAR	8	S	0019.0E	0019.0	U	94.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0037.0E	0037.0	1.0D	76.0			QL=2 ST=2 TYP=3
	9300	KISV	4	S/F	0642.0	0644.3	2.6	29.0			
	2950	GORK	46	C	0646.9	0653.4		90.0			
	2950	GORK	46	C	0646.9	0650.4	13.9	40.0			
	2840	PEKG	45	C	0647.0	0653.0	20.0	138.8			
	9300	KISV	23	GRF	0648.8	0706.3	59.2	15.0			
	2695	LEAR	4	S/F	0649.0E	0653.0	6.0D	120.0			QL=2 ST=2 TYP=3
	1415	LEAR	4	S/F	0649.0E	0653.0	6.0D	51.0			QL=4 ST=2 TYP=3
	4995	LEAR	4	S/F	0649.0E	0653.0	6.0D	62.0			QL=4 ST=2 TYP=3
	9100	GORK	2	S/F	0649.0	0649.1	1.0	25.0			
	5900	KISV	45	C	0649.6	0650.2	2.6	47.0			
	5900	KISV	45	C	0649.6	0650.8		23.0			
	15000	KISV	2	S/F	0649.8	0650.2	1.2	14.0			
	245	SVTO	8	S	0651.0E	0652.0	1.0D	78.0			QL=2 ST=2 TYP=3
	2695	SVTO	4	S/F	0652.0E	0653.0	4.0D	120.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	0652.0E	0653.0	1.0D	45.0			QL=4 ST=2 TYP=3
	9100	GORK	2	S/F	0652.3	0653.0	1.7	20.0			
	950	GORK	1	S	0652.4	0653.5	2.9	10.0			
	650	GORK	1	S	0652.4	0653.5	2.9	5.0			
	15000	KISV	2	S/F	0652.5	0653.1	4.5	10.0			
	5900	KISV	4	S/F	0652.6	0653.3	1.2	51.0			
	9300	KISV	4	S/F	0652.6	0653.4	5.8	25.0			
	5900	KISV	29	PBI	0652.6	0653.8	10.7	9.0			
	1415	SVTO	8	S	0653.0E	0653.0	U	36.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	0719.0	0720.0	1.5	2300.0			
	245	LEAR	8	S	0719.0E	0719.0	1.0D	180.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0719.0E	0719.0	1.0D	170.0			QL=2 ST=2 TYP=3
	200	HIRA	8	S	0719.1	0719.1	0.8	2700.0			O
	5900	KISV	4	S/F	0747.0	0749.3	8.0	23.0			
	2840	PEKG	5	S	0748.0	0749.2	3.0	13.3			
	9100	GORK	2	S/F	0748.1	0749.2	7.0	20.0			
	2950	GORK	2	S/F	0748.5	0749.2	2.0	10.0			

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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
11	5900	KISV	2	S/F	0756.7	0757.4	1.6	5.0			
	5900	KISV	22	GRF	0809.7	0810.3	14.3	4.0			
	5900	KISV	2	S/F	0825.0	0825.6	1.8	5.0			
	9300	KISV	2	S/F	0825.3	0825.5	1.5	6.0			
	9100	GORK	22	GRF	0852.0	0906.6	159.3U	25.0			
	5900	KISV	20	GRF	0852.1	0906.8	42.4	15.0			
	9300	KISV	20	GRF	0852.6	0906.9	44.5	24.0			
	600	HUMN	41	F	0854.0	0856.5	4.0	7.0			
	15000	KISV	20	GRF	0855.6	0906.7	23.2	14.0			
	1470	POTS	4	S/F	1015.4	1015.9	1.2				
	9500	POTS	8	S	1015.7	1015.9	0.6	14.0			
	536	ONDR	8	S	1042.5	1042.6	1.0	30.0			
	127	TORN	8	S	1043.2	1043.5	0.6	80.0	40.0		
	9500	POTS	8	S	1058.7	1058.9	0.7	14.0			
	260	ONDR	40	F	1208.6	1215.1	15.1	111.0			
	600	HUMN	27	RF	1233.0	1253.0	37.0	6.0	2.0		
	245	SVTO	8	S	1239.0E	1239.0	1.0D	140.0			QL=2 ST=2 TYP=3
	610	SVTO	8	S	1239.0E	1239.0	1.0D	330.0			QL=2 ST=2 TYP=3
	410	SVTO	8	S	1239.0E	1239.0	2.0D	390.0			QL=2 ST=2 TYP=3
	234	POTS	41	F	1311.0	1315.5	6.0	100.0			
	113	POTS	42	SER	1312.8	1316.6	10.8	450.0			
	127	TORN	4	S/F	1314.9	1316.2	2.3	860.0	60.0		
	1470	POTS	4	S/F	1315.0	1316.5	2.6	18.0			
	40	POTS	4	S/F	1316.2	1316.6	0.7	1500.0			
	15400	SGMR	8	S	1324.0E	1324.0	1.0D	50.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1324.0E	1324.0	1.0D	150.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1324.0E	1324.0	1.0D	100.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1324.0E	1324.0	1.0D	120.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1324.0E	1324.0	1.0D	100.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1324.0E	1324.0	1.0D	45.0			QL=2 ST=2 TYP=3
	3000	POTS	4	S/F	1324.4	1324.8	1.3	15.0			
	9500	POTS	3	S	1324.5	1324.7	2.1	108.0			
	280	CUBA	7	C	1508.0	1533.0	30.0D	3782.0			
	9500	CUBA	47	GB	1523.3	1526.5	8.8	610.0			
	245	SGMR	49	GB	1524.0E	1524.0	3.0D	1400.0			QL=2 ST=2 TYP=6
	410	SGMR	49	GB	1524.0E	1525.0	5.0D	970.0			QL=4 ST=2 TYP=6
	610	SGMR	49	GB	1524.0E	1526.0	6.0D	1300.0			QL=4 ST=2 TYP=6
	1415	SGMR	49	GB	1524.0E	1525.0	6.0D	680.0			QL=4 ST=2 TYP=6
	2695	SGMR	49	GB	1524.0E	1525.0	6.0D	600.0			QL=4 ST=2 TYP=6
	4995	SGMR	49	GB	1524.0E	1525.0	6.0D	890.0			QL=4 ST=2 TYP=6
	8800	SGMR	49	GB	1524.0E	1525.0	6.0D	1300.0			QL=4 ST=2 TYP=6
	2800	OTTA	47	GB	1524.0	1526.4	22.0	694.0	138.0		
	15400	SGMR	49	GB	1525.0E	1525.0	5.0D	1100.0			QL=2 ST=2 TYP=6
	235	CUBA	7	C	1525.0	1533.0	13.0	739.0			
	600	HUMN	4	S/F	1526.0	1528.0	4.0	270.0			
	9500	CUBA	29	PBI	1532.0		14.3	22.0	11.0		
	9500	CUBA	45	C	1825.2	1826.9	3.8	153.0	28.0		
	2695	PALE	4	S/F	1826.0E	1826.0	5.0D	130.0			QL=4 ST=2 TYP=3
	1415	PALE	4	S/F	1826.0E	1827.0	4.0D	70.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	1826.0E	1826.0	2.0D	140.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	1826.0E	1826.0	2.0D	120.0			QL=4 ST=2 TYP=3
	15400	PALE	4	S/F	1826.0E	1826.0	D	50.0			QL=4 ST=2 TYP=3
	1415	SGMR	4	S/F	1826.0E	1826.0	3.0D	63.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1826.0E	1826.0	2.0D	160.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1826.0E	1826.0	2.0D	110.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1826.0E	1826.0	1.0D	54.0			QL=2 ST=2 TYP=3
	2695	SGMR	4	S/F	1826.0E	1826.0	3.0D	130.0			QL=4 ST=2 TYP=3
	2800	OTTA	3	S	1826.1	1827.0	7.9	144.0	29.0		
	9500	CUBA	1	S	1900.7	1900.9	0.8	18.0	9.0		
	2800	OTTA	3	S	2017.6	2018.1	1.8	10.5	2.0		
	9500	CUBA	45	C	2020.6	2021.7	2.9	100.0	21.0		
	2800	OTTA	3	S	2020.8	2021.8	10.2	68.6	13.0		
	8800	PALE	8	S	2021.0E	2021.0	1.0D	72.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	2021.0E	2021.0	1.0D	63.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	2021.0E	2021.0	1.0D	40.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	2021.0E	2021.0	1.0D	82.0			QL=4 ST=2 TYP=3
	15400	PALE	8	S	2021.0E	2021.0	1.0D	50.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	2021.0E	2021.0	1.0D	66.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	2021.0E	2021.0	1.0D	86.0			QL=4 ST=2 TYP=3

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

JANUARY 1991

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
11	9500	CUBA	30	PBI	2023.5		6.5	8.0	4.0		
	9500	CUBA	1	S	2024.3	2025.0	4.2	19.0	9.0		
12	127	TORN	43	NS	0740.0		420.0		6.0		V=1
	280	CUBA	44	NS	1310.0E		477.0D		24.0		
	235	CUBA	44	NS	1310.0E		477.0D		12.0		
	245	SGMR	44	NS	1550.0E	1550.0	44.0D	71.0			QL=2 ST=2 TYP=1
	500	HIRA	4	S/F	0128.0	0131.2	4.0	12.0			WR
	200	HIRA	42	SER	0129.7	0139.6	15.8	84.0			O
	410	LEAR	8	S	0130.0E	0130.0	U	24.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0130.0E	0130.0	1.0D	86.0			QL=2 ST=2 TYP=3
	200	HIRA	42	SER	0223.6	0224.1	5.9	140.0			O
	500	HIRA	42	SER	0305.5	0306.7	6.5	75.0			MR
	100	HIRA	42	SER	0312.5	0321.7	67.0	240.0			
	410	LEAR	8	S	0413.0E	0414.0	1.0D	24.0			QL=2 ST=2 TYP=3
	200	HIRA	42	SER	0413.2	0523.1	82.5	105.0			O
	100	HIRA	42	SER	0504.0	0522.4	33.0	730.0			
	950	GORK	1	S	0621.1	0621.6	1.0	2.0			
	650	GORK	1	S	0621.1	0621.6	1.0	1.0			
	2840	PEKG	1	S	0638.0	0639.6	3.0	7.6			
	5900	KISV	4	S/F	0638.9	0639.7	2.6	54.0			
	9100	GORK	2	S/F	0639.0	0639.6	0.9	20.0			
	9300	KISV	4	S/F	0639.0	0639.7	1.3	27.0			
	2950	GORK	2	S/F	0639.1	0639.6	2.0	8.0			
	650	GORK	1	S	0639.3	0639.6	1.0	1.0			
	2840	PEKG	3	S	0700.0	0708.1	19.0	28.3			
	245	LEAR	4	S/F	0702.0E	0707.0	7.0D	260.0			QL=2 ST=2 TYP=5
	410	LEAR	8	S	0702.0E	0703.0	2.0D	130.0			QL=2 ST=2 TYP=3
	500	HIRA	42	SER	0702.3	0708.2	16.0	200.0U			ML SUNSET
	410	SVTO	8	S	0703.0E	0703.0	1.0D	180.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0703.0E	0703.0	U	52.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	0703.0	0708.0	10.0	79.0			
	200	HIRA	42	SER	0703.1	0707.9	11.9	1000.0D			
	950	GORK	21	GRF	0703.2	0709.2	6.6	3.0			
	410	LEAR	49	GB	0706.0E	0707.0	3.0D	960.0			QL=4 ST=2 TYP=6
	410	SVTO	49	GB	0706.0E	0707.0	3.0D	830.0			QL=4 ST=3 TYP=6
	9300	KISV	23	GRF	0706.1	0715.1	25.5	11.0			
	2950	GORK	2	S/F	0706.4	0708.1	2.2	12.0			
	5900	KISV	23	GRF	0706.5	0715.1	19.0	11.0			
	1415	LEAR	8	S	0707.0E	0708.0	2.0D	51.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0707.0E	0708.0	2.0D	27.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0707.0E	0708.0	5.0D	20.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0707.0E	0707.0	U	230.0			QL=4 ST=3 TYP=3
	9300	KISV	2	S/F	0707.1	0708.2	2.7	16.0			
	950	GORK	4	S/F	0707.3	0708.2	1.9	10.0			
	650	GORK	5	S	0707.3	0708.3	2.5	8.0			
	5900	KISV	4	S/F	0707.4	0708.1	1.5	22.0			
	9100	GORK	2	S/F	0707.6	0708.1	1.2	15.0			
	610	LEAR	8	S	0708.0E	0708.0	1.0D	16.0			QL=2 ST=2 TYP=3
	410	LEAR	4	S/F	0714.0E	0715.0	5.0D	240.0			QL=2 ST=2 TYP=3
	410	SVTO	4	S/F	0714.0E	0715.0	5.0D	240.0			QL=4 ST=2 TYP=3
	204	IZMI	7	C	0715.0	0717.0	4.0	18.0	9.0		
	245	LEAR	4	S/F	0715.0E	0718.0	4.0D	200.0			QL=2 ST=2 TYP=3
	245	SVTO	4	S/F	0716.0E	0718.0	3.0D	200.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	0739.0	0741.0	2.5	52.0			
	113	POTS	4	S/F	0739.3	0740.8	3.8	450.0			
	5900	KISV	23	GRF	0806.1	0814.1	34.2	16.0			
	9100	GORK	21	GRF	0809.9	0830.0	27.5	10.0			
	2950	GORK	1	S	0810.1	0812.0	2.2	6.0			
	9300	KISV	23	GRF	0810.2	0811.6	29.6	13.0			
	5900	KISV	2	S/F	0810.5	0811.5	1.8	10.0			
	9500	POTS	4	S/F	0818.8	0819.5	2.4	21.0			
	9100	GORK	3	S	0818.9	0819.4	2.1	40.0			
	9300	KISV	4	S/F	0818.9	0819.4	4.2	45.0			
	5900	KISV	4	S/F	0819.0	0819.4	1.6	16.0			
	15000	KISV	2	S/F	0819.1	0819.4	1.7	25.0			
	5900	KISV	2	S/F	0826.6	0827.8	4.0	7.0			
	9300	KISV	2	S/F	0826.7	0827.7	4.3	18.0			
	9500	POTS	29	PBI	0826.8	0828.0	4.6	16.0			

S O L A R R A D I O E M I S S I O N
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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
12	9100	GORK	2	S/F	0827.0	0827.8	2.6	15.0			
	2950	GORK	20	GRF	0915.0	0945.3	111.6	13.0			
	3000	POTS	40	F	0939.5	0945.0	8.5	15.0			
	9100	GORK	20	GRF	0942.0	1003.6	78.0U	8.0			
	15400	LEAR	4	S/F	0953.0E	0957.0	5.0D	50.0			QL=4 ST=2 TYP=5
	950	GORK	1	S	1031.2	1031.4	0.5	2.0			
	650	GORK	1	S	1031.2	1031.4	0.5	3.0			
	260	ONDR	42	SER	1129.3	1129.5	132.2	106.0			
	8800	SVTO	8	S	1205.0E	1205.0	U	190.0			QL=2 ST=2 TYP=3
	8800	SVTO	8	S	1215.0E	1215.0	U	210.0			QL=2 ST=2 TYP=3
	430	KRAK	2	S/F	1220.6	1222.0	1.7	25.0	5.0		
	430	KRAK	2	S/F	1246.5	1246.8	1.2	30.0	7.0		
	430	KRAK	42	SER	1315.3	1315.3	3.3	28.0			
	410	SVTO	4	S/F	1428.0E	1429.0	5.0D	190.0			QL=2 ST=2 TYP=3
	410	SGMR	8	S	1429.0E	1430.0	1.0D	50.0			QL=4 ST=2 TYP=3
	2800	OTTA	4	S/F	1429.1	1429.6	1.1	23.9	5.0		
	245	SGMR	8	S	1533.0E	1533.0	1.0D	66.0			QL=4 ST=2 TYP=3
	2695	PENT	3	S	2209.8	2211.8	10.2	104.1	20.0		
	8800	LEAR	8	S	2210.0E	2211.0	2.0D	66.0			QL=2 ST=2 TYP=3
	4995	LEAR	4	S/F	2210.0E	2211.0	5.0D	130.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	2210.0E	2211.0	2.0D	120.0			QL=2 ST=2 TYP=3
	2695	PALE	8	S	2210.0E	2211.0	2.0D	110.0			QL=4 ST=2 TYP=3
	4995	PALE	4	S/F	2210.0E	2211.0	5.0D	160.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	2211.0E	2211.0	U	43.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	2211.0E	2211.0	3.0D	1100.0			QL=2 ST=2 TYP=6
	410	LEAR	8	S	2211.0E	2211.0	1.0D	210.0			QL=2 ST=2 TYP=3
	1415	PALE	8	S	2211.0E	2211.0	1.0D	27.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2211.0E	2211.0	1.0D	190.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	2211.0E	2211.0	4.0D	75.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	2211.0E	2211.0	3.0D	1400.0			QL=4 ST=2 TYP=6
13	245	LEAR	43	NS	0645.0	0906.0U	195.0D	400.0			QL=2 ST=2 TYP=1
	245	SVTO	44	NS	0646.0E	0906.0	224.0D	480.0			QL=4 ST=2 TYP=1
	204	IZMI	43	NS	0700.0		300.0	40.0			
	127	TORN	43	NS	0752.0		384.0		8.0		V=1
	430	KRAK	44	NS	0807.5E	1405.0		170.0D			
	430	KRAK	44	NS	0807.5E	1135.2	385.0D	92.0	4.0		
	260	ONDR	44	NS	1000.0E	1300.3	220.0D	259.0			
	600	HUMN	43	NS	1105.0	1225.0	240.0D	6.0			
	245	SVTO	44	NS	1207.0E	1219.0	142.0D	350.0			QL=4 ST=2 TYP=1
	245	SGMR	44	NS	1248.0E	2020.0	499.0D	460.0			QL=4 ST=2 TYP=1
	235	CUBA	44	NS	1440.0E		410.0D		21.0		
	280	CUBA	44	NS	1440.0E		410.0D		33.0		
	100	HIRA	44	NS	2150.0E	2606.0	580.0D	34.0	12.0		
	500	HIRA	42	SER	0023.8	0039.2	17.0	96.0			ML
	410	LEAR	8	S	0038.0E	0039.0	2.0D	240.0			QL=2 ST=2 TYP=3
	410	PALE	8	S	0038.0E	0039.0	2.0D	260.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0041.0E	0041.0	U	65.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	0330.0	0333.1	14.0	59.7			
	245	LEAR	4	S/F	0401.0E	0403.0	5.0D	61.0			QL=2 ST=2 TYP=3
	500	HIRA	46	C	0402.0	0403.0	3.0	27.0			WL
	2840	PEKG	5	S	0402.0	0402.6	3.0	31.8			
	100	HIRA	46	C	0402.5	0403.3	2.0	750.0			WL
	200	HIRA	8	S	0402.6	0403.3	0.8	130.0			O
	245	LEAR	4	S/F	0447.0E	0449.0	4.0D	69.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0620.0E	0620.0	2.0D	200.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0625.0E	0626.0	2.0D	76.0			QL=2 ST=2 TYP=3
	200	HIRA	42	SER	0640.9	0645.9	39.6	220.0			SR
	15000	KISV	23	GRF	0708.7	0719.7	25.3	12.0			
	5900	KISV	23	GRF	0711.3	0732.3	48.7	9.0			
	5900	KISV	46	C	0713.5	0721.1		10.0			
	5900	KISV	46	C	0713.5	0714.5		8.0			
	9300	KISV	23	GRF	0713.5	0714.5	24.5	5.0			
	5900	KISV	46	C	0713.5	0718.8	12.2	20.0			
	650	GORK	41	F	0716.8	0723.0		30.0			
	650	GORK	41	F	0716.8	0718.2	6.6	14.0			
	650	GORK	41	F	0716.8	0720.9		20.0			
	2950	GORK	4	S/F	0717.1	0718.6	4.3	66.0			
	950	GORK	41	F	0717.2	0718.7	6.2	25.0			

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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
13	950	GORK	41	F	0717.2	0722.8		15.0			
	1415	SVTO	8	S	0718.0E	0718.0	1.0D	160.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0718.0E	0718.0	1.0D	50.0			QL=4 ST=2 TYP=3
	9300	KISV	45	C	0718.3	0721.1	7.4	17.0			
	127	TORN	47	GB	0719.3	0721.0U	4.2	3700.0D	160.0		
	204	IZMI	5	S	0720.0	0721.0	1.0	200.0	100.0		
	100	HIRA	45	C	0720.1	0721.1	4.0	3000.0			O
	15000	KISV	2	S/F	0720.3	0721.0	3.7	18.0			
	5900	KISV	2	S/F	0828.7	0830.2	9.6	5.0			
	2950	GORK	1	S	0829.5	0830.0	1.1	4.0			
	3013	IZMI	5	S	0837.7	0838.0	0.5	4.0	2.0		
	9300	KISV	2	S/F	0841.0	0842.2	9.7	6.0			
	204	IZMI	5	S	0854.0	0854.3	1.0	350.0			
	5900	KISV	21	GRF	0858.0	0902.1	14.3	6.0			
	9300	KISV	21	GRF	0901.2	0905.4	16.1	12.0			
	113	POTS	4	S/F	0903.8	0904.2	1.2	2100.0			
	40	POTS	8	S	0903.9	0904.2	0.7	15000.0U			
	40	POTS	8	S	0903.9	0904.2	0.7	15000.0U			
	9100	GORK	1	S	0905.0	0905.3	1.0	8.0			
	610	LEAR	8	S	0913.0E	0913.0	1.0D	170.0			QL=2 ST=2 TYP=3
	600	HUMN	8	S	0914.0	0914.1	0.2	42.0	20.0		
	650	GORK	1	S	0952.4	0953.6	4.6	8.0			
	950	GORK	1	S	0952.8	0953.6	4.3	4.0			
	650	GORK	1	S	1100.2	1101.1	1.7	8.0			
	950	GORK	1	S	1100.2	1101.2	1.7	7.0			
	3000	POTS	1	S	1100.5	1101.0	1.2	4.0			
	3000	POTS	1	S	1100.5	1101.0	1.2	4.0			
	1470	POTS	1	S	1100.5	1101.2	1.9	5.0			
	127	TORN	46	C	1132.5	1137.9	6.0	520.0	20.0		
	536	ONDR	41	F	1133.0	1145.1	68.5	37.0			
	113	POTS	42	SER	1133.0	1134.3	13.6	300.0			
	9300	KISV	2	S/F	1133.0	1134.5	5.0	5.0			
	40	POTS	4	S/F	1133.4	1134.5	1.7	750.0			
	204	IZMI	41	F	1133.8	1135.0	1.5	300.0			
	810	KRAK	42	SER	1140.5	1146.2	10.5	22.0			
	245	SVTO	8	S	1141.0E	1142.0	1.0D	370.0			QL=4 ST=2 TYP=3
	9300	KISV	2	S/F	1141.3	1145.6	9.0	7.0			
	808	ONDR	42	SER	1141.7	1151.6	13.0	137.0			
	8800	SVTO	8	S	1142.0E	1142.0	1.0D	88.0			QL=2 ST=2 TYP=3
	410	SVTO	8	S	1144.0E	1144.0	1.0D	55.0			QL=4 ST=2 TYP=3
	5900	KISV	2	S/F	1145.0	1145.7	1.6	3.0			
	245	SVTO	8	S	1151.0E	1151.0	U	110.0			QL=4 ST=2 TYP=3
	127	TORN	48	C	1200.0	1201.0	3.0	750.0D	40.0		
	113	POTS	42	SER	1200.1	1200.7	26.0	650.0			
	40	POTS	42	SER	1200.2	1201.0U	22.9	75000.0D			
	1470	POTS	1	S	1200.2	1200.8	1.4	3.0			
	33	UPIC	45	C	1200.3	1201.0	1.7				
	3000	POTS	1	S	1200.4	1200.7	0.9	7.0			
	127	TORN	48	C	1221.0	1225.0U	5.7	800.0D	110.0		
	245	SGMR	4	S/F	1238.0E	1240.0	4.0D	250.0			QL=2 ST=2 TYP=3
	410	SGMR	8	S	1354.0E	1354.0	U	160.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1354.0E	1354.0	U	100.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1403.0E	1404.0	2.0D	230.0			QL=4 ST=3 TYP=3
	610	SGMR	8	S	1403.0E	1403.0	U	42.0			QL=4 ST=3 TYP=3
	410	SGMR	8	S	1403.0E	1405.0	2.0D	110.0			QL=4 ST=3 TYP=3
	410	SVTO	8	S	1403.0E	1405.0	2.0D	120.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1403.0E	1404.0	1.0D	260.0			QL=2 ST=2 TYP=3
	600	HUMN	2	S/F	1403.0	1403.5	5.0	21.0	7.0		
	810	KRAK	4	S/F	1403.3	1405.2	3.0	8.0			
	127	TORN	7	C	1403.6	1403.7	1.3	7700.0	1900.0		
	1415	SGMR	8	S	1405.0E	1405.0	U	28.0			QL=4 ST=3 TYP=3
	245	SGMR	49	GB	1641.0E	1641.0	U	500.0			QL=2 ST=2 TYP=6
	280	CUBA	48	C	1710.0	1750.9	50.0	728.0			
	235	CUBA	48	C	1710.0	1750.9	50.0	1074.0			
	245	PALE	49	GB	1726.0E	1736.0	10.0D	8700.0			QL=4 ST=3 TYP=6
	2800	OTTA	22	GRF	1728.9	1732.9	10.6	26.7	8.0		
	610	PALE	49	GB	1735.0E	1736.0	1.0D	1800.0			QL=4 ST=2 TYP=6
	245	PALE	49	GB	1735.0E	1736.0	1.0D	8700.0			QL=4 ST=3 TYP=6
	410	PALE	49	GB	1735.0E	1736.0	1.0D	7200.0			QL=4 ST=3 TYP=6

SOLAR RADIO EMISSION
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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
13	610	PALE	4	S/F	1747.0E	1747.0	8.0D	35.0			QL=4 ST=2 TYP=3
	410	PALE	4	S/F	1747.0E	1748.0	13.0D	37.0			QL=4 ST=2 TYP=3
	245	PALE	4	S/F	1747.0E	1803.0	20.0D	290.0			QL=4 ST=2 TYP=5
	245	PALE	8	S	1908.0E	1908.0	U	460.0			QL=4 ST=2 TYP=3
	245	SGMR	49	GB	1908.0E	1908.0	U	520.0			QL=4 ST=3 TYP=6
	245	PALE	8	S	1925.0E	1925.0	U	150.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1932.0E	1932.0	U	59.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1937.0E	1938.0	1.0D	53.0			QL=4 ST=2 TYP=3
	410	PALE	4	S/F	1944.0E	1948.0	4.0D	68.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1950.0E	1950.0	2.0D	51.0			QL=4 ST=2 TYP=3
	200	HIRA	24	R	2150.0E	2600.0	580.0D	7.0	3.0		WL
	100	HIRA	41	F	2306.6	2307.0	2.8	370.0			
	500	HIRA	41	F	2306.7	2307.5	3.4	106.0			WR
	245	LEAR	8	S	2314.0E	2314.0	U	57.0			QL=2 ST=2 TYP=3
	410	LEAR	8	S	2314.0E	2314.0	U	98.0			QL=2 ST=2 TYP=3
	410	PALE	8	S	2314.0E	2314.0	U	70.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2314.0E	2314.0	U	50.0			QL=4 ST=2 TYP=3
14	245	LEAR	44	NS	0508.0E	0520.0	25.0D	120.0			QL=4 ST=2 TYP=1
	100	GORK	44	NS	0607.0E		236.0D		5.0		
	200	GORK	44	NS	0607.0E		236.0D		5.0		
	204	IZMI	43	NS	0700.0		300.0	10.0			
	127	TORN	44	NS	0700.0E		440.0D		14.0		V=1
	430	KRAK	44	NS	0815.5E	1303.0	337.0D	170.0	3.0		
	260	ONDR	44	NS	1120.0E	1254.5	140.0D	87.0			
	245	SVTO	44	NS	1218.0E	1227.0	13.0D	200.0			QL=4 ST=3 TYP=1
	410	SVTO	44	NS	1300.0E	1302.0	4.0D	59.0			QL=4 ST=2 TYP=1
	410	SGMR	44	NS	1302.0E	1302.0	65.0D	95.0			QL=4 ST=2 TYP=1
	280	CUBA	44	NS	1329.0E		481.0D		30.0		
	235	CUBA	44	NS	1329.0E		481.0D		18.0		
	245	SGMR	44	NS	1533.0E	1536.0	100.0D	150.0			QL=4 ST=2 TYP=1
	245	SGMR	44	NS	2040.0E	2047.0	200.0D	73.0			QL=4 ST=2 TYP=1
	245	PALE	44	NS	2127.0E	0343.0	385.0D	120.0			QL=4 ST=2 TYP=1
	200	HIRA	44	NS	2150.0E	0443.0	580.0D	106.0	49.0		SR
	245	LEAR	44	NS	2305.0E	0026.0	636.0D	1200.0			QL=2 ST=2 TYP=1
	610	LEAR	8	S	0013.0E	0013.0	U	69.0			QL=2 ST=2 TYP=3
	500	HIRA	46	C	0039.3	0040.8	14.0	17.0	6.0		WR
	500	HIRA	46	C	0125.3	0127.0	14.5	45.0	7.0		WR
	200	HIRA	41	F	0235.6	0236.3	2.6	2800.0			O
	245	LEAR	49	GB	0236.0E	0236.0	2.0D	2700.0			QL=4 ST=2 TYP=6
	245	PALE	49	GB	0236.0E	0236.0	2.0D	3200.0			QL=4 ST=2 TYP=6
	610	LEAR	8	S	0238.0E	0238.0	1.0D	24.0			QL=4 ST=2 TYP=3
	500	HIRA	22	GRF	0250.0	0309.0	75.0	13.0			WR
	100	HIRA	42	SER	0317.6	0318.2	41.0	1000.0			O
	200	HIRA	42	SER	0317.7	0318.0	5.9	135.0			O
	245	LEAR	8	S	0318.0E	0318.0	U	95.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0318.0E	0318.0	U	80.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0329.0E	0329.0	U	100.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0329.0E	0329.0	U	54.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0343.0E	0345.0	2.0D	130.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0344.0E	0345.0	1.0D	130.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	0355.0E	0358.0	3.0D	200.0			QL=4 ST=2 TYP=5
	500	HIRA	22	GRF	0433.0	0458.0	53.0	14.0			WR
	100	HIRA	42	SER	0433.0	0446.5	15.2	1600.0			
	200	HIRA	42	SER	0437.3	0437.6	46.8	240.0			WR
	410	LEAR	8	S	0457.0E	0457.0	U	25.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0457.0E	0457.0	1.0D	250.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0506.0E	0506.0	U	85.0			QL=4 ST=2 TYP=3
	100	GORK	46	C	0611.0	0616.3		470.0			
	100	GORK	46	C	0611.0	0615.8	6.7	4100.0			
	200	GORK	41	F	0750.8	0752.0	28.7	950.0			
	200	GORK	41	F	0750.8	0813.7		950.0			
	200	GORK	41	F	0750.8	0811.8		680.0			
	245	LEAR	49	GB	0751.0E	0752.0	1.0D	830.0			QL=4 ST=2 TYP=6
	245	SVTO	49	GB	0751.0E	0752.0	1.0D	830.0			QL=4 ST=2 TYP=6
	100	GORK	41	F	0751.0	0752.1	50.9	230.0			
	100	GORK	41	F	0751.0	0839.5		1600.0			
	100	GORK	41	F	0751.0	0830.9		1500.0			
	113	POTS	4	S/F	0751.3	0752.2	2.7	1800.0			

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

JANUARY 1991

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	204	IZMI	5	S	0751.5	0752.0	0.8	26000.0			
	234	POTS	4	S/F	0751.5	0752.1	1.0	2800.0			
	5900	KISV	1	S	0751.5	0751.9	1.0	7.0			
	9300	KISV	1	S	0751.6	0752.0	0.9	7.0			
	245	LEAR	8	S	0811.0E	0813.0	2.0D	320.0			QL=4 ST=2 TYP=3
	234	POTS	42	SER	0811.4	0819.2	21.7	800.0			
	113	POTS	42	SER	0811.4	0813.7	30.8	2400.0			
	204	IZMI	41	F	0811.8	0814.0		4600.0			
	245	SVTO	8	S	0813.0E	0813.0	1.0D	320.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0817.0E	0819.0	2.0D	340.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0818.0E	0819.0	1.0D	350.0			QL=4 ST=2 TYP=3
	5900	KISV	4	S/F	0824.4	0827.0	10.5	18.0			
	9300	KISV	2	S/F	0825.3	0827.0	5.2	11.0			
	2950	GORK	1	S	0825.6	0826.9	3.5	5.0			
	9100	GORK	1	S	0825.9	0826.9	1.8	8.0			
	410	LEAR	4	S/F	0900.0E	0903.0	3.0D	81.0			QL=4 ST=2 TYP=5
	410	SVTO	8	S	0900.0E	0901.0	2.0D	70.0			QL=4 ST=2 TYP=3
	234	POTS	4	S/F	0940.6	0941.2	1.5	125.0			
	245	LEAR	8	S	0941.0E	0941.0	U	140.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0941.0E	0941.0	U	140.0			QL=4 ST=3 TYP=3
	260	ONDR	40	F	1000.0	1003.5	80.0	67.0			
	204	IZMI	7	C	1001.6	1004.0	4.0	44.0	35.0		
	5900	KISV	22	GRF	1002.7	1004.5	13.8	4.0			
	5900	KISV	22	GRF	1106.9	1108.8	28.0	8.0			
	536	ONDR	8	S	1146.7	1147.0	0.5	142.0			
	245	SVTO	8	S	1212.0E	1212.0	U	140.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1223.0E	1224.0	1.0D	270.0			QL=2 ST=2 TYP=3
	410	SVTO	8	S	1304.0E	1304.0	2.0D	330.0			QL=2 ST=3 TYP=3
	245	SGMR	8	S	1424.0E	1424.0	U	230.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1424.0E	1424.0	U	220.0			QL=2 ST=3 TYP=3
	410	SGMR	8	S	1427.0E	1428.0	1.0D	76.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1427.0E	1428.0	1.0D	67.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1656.0E	1656.0	U	500.0			QL=4 ST=2 TYP=3
	9400	HUAN	2	S/F	1658.7	1702.5	7.4	7.6	4.2		
	9400	HUAN	1	S	1728.7	1732.2	12.4	8.5	4.6		
	245	SGMR	8	S	1826.0E	1827.0	1.0D	120.0			QL=4 ST=3 TYP=3
	610	PALE	8	S	1827.0E	1827.0	U	68.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1827.0E	1827.0	U	110.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1827.0E	1827.0	U	66.0			QL=4 ST=3 TYP=3
	9400	HUAN	2	S/F	1834.8	1838.7		16.1			
	9400	HUAN	2	S/F	1834.8	1837.8	8.5	17.0	8.8		
	410	SGMR	8	S	1835.0E	1836.0	1.0D	110.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	1919.0E	1919.0	U	160.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1919.0E	1919.0	U	180.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1951.0E	1951.0	1.0D	230.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1951.0E	1951.0	2.0D	210.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1954.0E	1954.0	U	170.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	1954.0E	1954.0	U	80.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1954.0E	1954.0	U	42.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1954.0E	1954.0	U	90.0			QL=4 ST=3 TYP=3
	245	SGMR	8	S	1954.0E	1954.0	U	170.0			QL=4 ST=3 TYP=3
	610	SGMR	8	S	1954.0E	1954.0	U	110.0			QL=4 ST=3 TYP=3
	9400	HUAN	22	GRF	2000.8	2005.4	14.9	5.9	3.2		
	245	PALE	8	S	2040.0E	2040.0	1.0D	75.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2047.0E	2048.0	2.0D	65.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2049.0E	2049.0	U	42.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2059.0E	2059.0	1.0D	120.0			QL=4 ST=2 TYP=3
	245	PALE	4	S/F	2126.0E	2128.0	4.0D	130.0			QL=4 ST=2 TYP=3
	410	PALE	4	S/F	2135.0E	2138.0	8.0D	49.0			QL=4 ST=2 TYP=5
	610	PALE	8	S	2136.0E	2137.0	1.0D	21.0			QL=4 ST=2 TYP=3
	245	PALE	4	S/F	2155.0E	2156.0	4.0D	48.0			QL=4 ST=3 TYP=3
	610	PALE	49	GB	2158.0E	2158.0	1.0D	690.0			QL=4 ST=3 TYP=6
	410	PALE	49	GB	2158.0E	2158.0	2.0D	1800.0			QL=4 ST=3 TYP=6
	245	PALE	4	S/F	2213.0E	2222.0	9.0D	140.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2243.0E	2243.0	1.0D	86.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2257.0E	2257.0	1.0D	58.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2301.0E	2303.0	2.0D	88.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	2317.0E	2322.0	11.0D	910.0			QL=2 ST=2 TYP=7
	410	LEAR	8	S	2320.0E	2322.0	2.0D	57.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
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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
15	200	GORK	44	NS	0614.0E		343.0D		5.0		
	100	GORK	44	NS	0614.0E		343.0D		5.0		
	204	IZMI	43	NS	0700.0		150.0	60.0			
	245	SVTO	44	NS	0712.0E	0741.0	180.0D	250.0			QL=4 ST=2 TYP=1
	127	TORN	43	NS	0720.0		400.0		17.0		V=1
	430	KRAK	44	NS	0749.5E	1108.8	235.0D	140.0	10.0		
	410	SVTO	44	NS	0811.0E	0811.0	10.0D	56.0			QL=4 ST=2 TYP=1
	260	ONDR	44	NS	1000.0E		220.0D	D			
	235	CUBA	44	NS	1353.0E		434.0D		17.0		
	280	CUBA	44	NS	1353.0E		434.0D		27.0		
	200	HIRA	44	NS	2149.0E	0221.0	580.0D	47.0	14.0		SR
	245	LEAR	43	NS	2332.0	2336.0	297.0	78.0			QL=2 ST=2 TYP=1
	245	LEAR	4	S/F	0044.0E	0047.0	8.0D	200.0			QL=2 ST=2 TYP=5
	610	LEAR	8	S	0051.0E	0051.0	1.0D	150.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0051.5	0051.5	0.6	104.0			ML
	100	HIRA	8	S	0051.5	0051.5	0.5	517.0			
	410	LEAR	8	S	0052.0E	0052.0	U	88.0			QL=4 ST=2 TYP=3
	500	HIRA	42	SER	0109.0	0157.0	87.5	181.0			SL
	410	LEAR	8	S	0127.0E	0128.0	1.0D	81.0			QL=4 ST=2 TYP=3
	100	HIRA	42	SER	0135.6	0136.6	22.4	7100.0			ML
	245	LEAR	8	S	0156.0E	0157.0	1.0D	120.0			QL=2 ST=3 TYP=3
	410	LEAR	8	S	0156.0E	0157.0	1.0D	48.0			QL=4 ST=3 TYP=3
	610	LEAR	8	S	0157.0E	0157.0	U	50.0			QL=4 ST=3 TYP=3
	245	PALE	49	GB	0200.0E	0202.0	2.0D	600.0			QL=4 ST=2 TYP=6
	610	LEAR	8	S	0201.0E	0201.0	U	16.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0201.0E	0202.0	1.0D	620.0			QL=2 ST=2 TYP=6
	245	PALE	8	S	0216.0E	0216.0	1.0D	210.0			QL=4 ST=2 TYP=5
	610	PALE	8	S	0220.0E	0220.0	1.0D	53.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0222.0E	0222.0	U	83.0			QL=4 ST=2 TYP=3
	500	HIRA	23	GRF	0251.0	0300.0	78.0	9.0			WR
	245	PALE	8	S	0347.0E	0347.0	1.0D	180.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0504.0E	0504.0	1.0D	930.0			QL=2 ST=3 TYP=6
	500	HIRA	46	C	0527.5	0545.0	28.0	21.0	7.0		WR
	2840	PEKG	5	S	0534.0	0535.5	3.0	10.3			
	610	LEAR	8	S	0624.0E	0624.0	1.0D	63.0			QL=4 ST=2 TYP=3
	650	GORK	4	S/F	0624.5	0624.6	0.4	32.0			
	950	GORK	2	S/F	0624.6	0624.9	0.6	8.0			
	500	HIRA	46	C	0630.0	0635.0		16.0			WR
	2840	PEKG	1	S	0630.0	0631.4	5.0	3.4			
	500	HIRA	46	C	0630.0	0630.5	30.0	150.0	8.0		MR
	200	GORK	46	C	0630.2	0631.3		1500.0			
	200	GORK	46	C	0630.2	0630.9	1.8	3200.0			
	100	GORK	46	C	0630.4	0631.6		300.0			
	100	GORK	46	C	0630.4	0630.7	1.3	470.0			
	650	GORK	4	S/F	0630.4	0630.9	2.0	90.0			
	950	GORK	4	S/F	0630.5	0631.2	1.8	15.0			
	100	HIRA	42	SER	0707.6	0721.1	15.2	1000.0			
	245	LEAR	4	S/F	0755.0E	0800.0	6.0D	220.0			QL=2 ST=2 TYP=3
	610	LEAR	4	S/F	0756.0E	0801.0	7.0D	14.0			QL=4 ST=2 TYP=3
	410	LEAR	4	S/F	0756.0E	0804.0	9.0D	62.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0804.0E	0805.0	1.0D	110.0			QL=2 ST=2 TYP=3
	113	POTS	4	S/F	0807.2	0809.6	6.5	2500.0			
	127	TORN	7	C	0809.4	0810.0	2.0	8800.0	900.0		
	5900	KISV	22	GRF	0817.1	0821.3	22.2	11.0			
	3013	IZMI	5	S	0817.7	0817.9	0.3	12.0	6.0		
	245	SVTO	8	S	0852.0E	0852.0	U	190.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0948.0E	0949.0	1.0D	93.0			QL=4 ST=3 TYP=3
	245	LEAR	8	S	0957.0E	0957.0	U	100.0.			QL=4 ST=2 TYP=3
	245	LEAR	8	S	1008.0E	1008.0	U	130.0			QL=4 ST=2 TYP=3
	3013	IZMI	5	S	1008.2	1008.5	1.4	6.0	3.0		
	2950	GORK	1	S	1008.7	1009.1	1.4	8.0			
	3000	POTS	3	S	1008.7	1009.1	1.7	9.0			
	9300	KISV	2	S/F	1008.8	1009.2	1.5	7.0			
	5900	KISV	2	S/F	1008.8	1009.3	2.9	11.0			
	245	LEAR	8	S	1012.0E	1012.0	1.0D	110.0			QL=4 ST=2 TYP=3
	2950	GORK	2	S/F	1106.3	1108.2	5.0	7.0			
	410	SVTO	8	S	1107.0E	1108.0	1.0D	65.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1107.0E	1108.0	2.0D	140.0			QL=4 ST=2 TYP=3
	127	TORN	4	S/F	1107.6	1107.9	2.7	310.0	30.0		

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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
15	100	GORK	46	C	1107.7	1108.1	2.6	600.0			
	200	GORK	41	F	1107.7	1108.2	2.1	430.0			
	5900	KISV	2	S/F	1107.7	1108.3	3.5	4.0			
	200	GORK	41	F	1107.7	1109.4		150.0			
	100	GORK	46	C	1107.7	1108.4		355.0			
	204	IZMI	41	F	1108.0	1108.2	3.0	450.0			
	3000	POTS	1	S	1108.0	1108.3	0.6	7.0			
	536	ONDR	4	S/F	1134.1	1134.5	0.6	48.0			
	113	POTS	8	S	1201.0	1201.7	1.7	130.0			
	127	TORN	8	S	1201.4	1201.9	1.0	550.0	270.0		
	245	SGMR	8	S	1555.0E	1556.0	1.0D	83.0			QL=4 ST=2 TYP=3
	9400	HUAN	2	S/F	1612.3	1617.1	11.8	12.8	5.8		
	9500	CUBA	1	S	1616.0	1617.1	2.9	14.0	7.0		
	245	SGMR	8	S	1656.0E	1656.0	U	61.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1954.0E	1954.0	2.0D	69.0			QL=4 ST=2 TYP=3
	9400	HUAN	2	S/F	2206.2	2211.0	10.4	12.3	5.4		
	245	LEAR	8	S	2303.0E	2303.0	2.0D	58.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2311.0E	2311.0	1.0D	56.0			QL=4 ST=2 TYP=3
	500	HIRA	20	GRF	2323.0	2426.0	210.0	15.0	6.0		WR
16	245	LEAR	44	NS	0621.0E	0621.0	5.0D	63.0			QL=4 ST=3 TYP=1
	204	IZMI	43	NS	0700.0		300.0	10.0			
	127	TORN	43	NS	0712.0		410.0		8.0		V=1
	200	GORK	44	NS	0716.0E		266.0D		5.0		
	260	ONDR	44	NS	1000.0E	1116.5	220.0D	71.0			
	280	CUBA	44	NS	1327.0E		458.0D		27.0		
	235	CUBA	44	NS	1327.0E		458.0D		16.0		
	15400	LEAR	8	S	0046.0E	0047.0	1.0D	23.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	0046.0E	0047.0	1.0D	18.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0046.0E	0047.0	1.0D	50.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0046.0E	0047.0	1.0D	19.0			QL=2 ST=2 TYP=3
	410	LEAR	49	GB	0046.0E	0046.0	1.0D	2800.0			QL=4 ST=2 TYP=6
	4995	LEAR	8	S	0046.0E	0047.0	1.0D	46.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	0046.0E	0047.0	1.0D	40.0			QL=4 ST=2 TYP=3
	410	PALE	49	GB	0046.0E	0046.0	1.0D	1400.0			QL=2 ST=2 TYP=6
	8800	PALE	8	S	0046.0E	0047.0	1.0D	29.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0601.0E	0602.0	2.0D	71.0			QL=2 ST=2 TYP=3
	3840	PEKG	1	S	0611.0	0611.7	4.0	7.2			
	410	LEAR	8	S	0613.0E	0613.0	U	64.0			QL=4 ST=2 TYP=3
	200	HIRA	42	SER	0621.1	0624.0	21.1	85.0			ML
	100	HIRA	41	F	0621.1	0621.8	3.3	1000.0D			
	200	HIRA	42	SER	0702.6	0725.9	24.4	120.0U			ML SUNSET
	5900	KISV	45	C	0709.6	0711.2	6.4	17.0			
	5900	KISV	45	C	0709.6	0712.8		12.0			
	410	LEAR	4	S/F	0710.0E	0710.0	3.0D	130.0			QL=4 ST=3 TYP=3
	2950	GORK	2	S/F	0710.0	0711.1	3.7	5.0			
	9100	GORK	2	S/F	0710.0	0711.1	3.6	13.0			
	9300	KISV	22	GRF	0710.0	0711.2	11.8	14.0			
	600	HUMN	2	S/F	0846.0	0846.3	1.0	28.0	7.0		
	5900	KISV	45	C	0850.8	0855.0		7.0			
	5900	KISV	45	C	0850.8	0853.6	7.7	17.0			
	9300	KISV	2	S/F	0850.9	0853.6	7.3	22.0			
	9100	GORK	2	S/F	0852.5	0853.6	1.7	20.0			
	9500	POTS	4	S/F	0853.2	0853.6	0.8	11.0			
	1470	POTS	3	S	0853.2	0853.6	0.8	6.0			
	950	GORK	1	S	0853.4	0853.5	0.7	3.0			
	650	GORK	8	S	0853.4	0853.5	0.3	18.0			
	204	IZMI	5	S	0904.0	0904.2	0.5	450.0	350.0		
	200	GORK	4	S/F	0904.0	0904.3	0.9	360.0			
	100	GORK	8	S	0904.0	0904.4	0.9	3800.0			
	245	LEAR	8	S	0956.0E	0956.0	1.0D	56.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0956.0E	0956.0	1.0D	66.0			QL=2 ST=2 TYP=3
	200	GORK	4	S/F	1015.6	1016.1	1.1	140.0			
	113	POTS	4	S/F	1015.8	1016.1	2.5	2200.0D			
	410	LEAR	8	S	1016.0E	1016.0	U	54.0			QL=4 ST=3 TYP=3
	610	LEAR	8	S	1016.0E	1016.0	U	43.0			QL=4 ST=3 TYP=3
	100	GORK	46	C	1016.0	1016.2	2.3	6600.0			
	204	IZMI	5	S	1016.0	1016.2	0.5	580.0	450.0		
	600	HUMN	2	S/F	1016.0	1016.4	1.0	30.0	8.0		

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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
16	100	GORK	46	C	1016.0	1016.5		2400.0			
	9300	KISV	1	S	1016.1	1016.2	0.6	5.0			
	40	POTS	4	S/F	1016.1	1016.6	1.8	60000.0U			
	33	UPIC	4	S/F	1016.2	1016.4	1.3				
	5900	KISV	1	S	1016.4	1016.5	0.7	4.0			
	245	LEAR	8	S	1042.0E	1042.0	U	81.0			QL=2 ST=2 TYP=3
	113	POTS	4	S/F	1107.5	1108.1	1.4	140.0			
	127	TORN	4	S/F	1107.6	1108.0	1.2	900.0D	450.0		
	40	POTS	4	S/F	1108.0	1108.1	0.6	2100.0			
	536	ONDR	8	S	1242.4	1242.5	0.6	186.0			
	4995	SGMR	8	S	1302.0E	1302.0	U	34.0			QL=4 ST=2 TYP=3
	3000	POTS	42	SER	1302.0	1302.5	4.6	20.0			
	9500	POTS	1	S	1302.0	1302.6	1.0	8.0			
	1470	POTS	42	SER	1302.2	1302.6	7.8	11.0			
	127	TORN	42	SER	1418.6	1425.4	8.2	2500.0	20.0		
	113	POTS	41	F	1423.6	1425.4	3.5	1300.0			
	245	SGMR	8	S	1457.0E	1457.0	U	89.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1457.0E	1457.0	U	100.0			QL=2 ST=2 TYP=3
	410	SVTO	8	S	1457.0E	1457.0	U	94.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1708.0E	1708.0	U	320.0			QL=4 ST=2 TYP=3
	9400	HUAN	1	S	1710.6	1713.6	8.0	4.0	2.2		
	245	SGMR	8	S	1841.0E	1841.0	1.0D	82.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1953.0E	1954.0	1.0D	52.0			QL=4 ST=2 TYP=3
	500	HIRA	4	S/F	2240.8	2241.5	2.9	42.0			ML
	610	LEAR	8	S	2241.0E	2241.0	1.0D	54.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	2241.0E	2241.0	U	29.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2241.0E	2241.0	1.0D	100.0			QL=4 ST=2 TYP=3
	500	HIRA	42	SER	2333.2	2334.5	38.8	35.0			WL
17	200	HIRA	43	NS	0046.0	0200.0	380.0	13.0	6.0		ML
	260	ONDR	44	NS	1000.0E	1100.7	220.0D	D			
	127	TORN	44	NS	1220.0E		120.0D		5.0		V=1,DISTURBED
	280	CUBA	44	NS	1329.0E		481.0D		41.0		
	235	CUBA	44	NS	1329.0E		481.0D		28.0		
	245	SGMR	44	NS	1628.0E	1836.0	284.0D	110.0			QL=2 ST=2 TYP=1
	245	PALE	43	NS	1730.0	1838.0U	624.0D	100.0			QL=4 ST=2 TYP=1
	200	HIRA	44	NS	2147.0E	0053.0	580.0D	190.0	45.0		SL
	245	LEAR	44	NS	2235.0E	2235.0	46.0D	61.0			QL=4 ST=2 TYP=1
	100	HIRA	43	NS	2342.0	0100.0	380.0D	340.0	80.0		
	410	LEAR	8	S	0009.0E	0009.0	U	26.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0009.0E	0009.0	1.0D	53.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0009.0E	0009.0	U	15.0			QL=2 ST=2 TYP=3
	15400	LEAR	8	S	0009.0E	0009.0	U	23.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0009.0E	0010.0	1.0D	15.0			QL=2 ST=2 TYP=3
	4995	LEAR	8	S	0009.0E	0009.0	U	12.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0011.0E	0011.0	U	92.0			QL=4 ST=3 TYP=3
	245	LEAR	8	S	0042.0E	0042.0	U	64.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0042.0E	0042.0	1.0D	50.0			QL=4 ST=2 TYP=3
	500	HIRA	42	SER	0046.5	0102.7	18.0	48.0			ML
	245	LEAR	8	S	0048.0E	0049.0	2.0D	66.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0054.0E	0054.0	1.0D	95.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0054.0E	0055.0	1.0D	62.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	0148.0E	0148.0	1.0D	110.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0214.0E	0214.0	1.0D	97.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0214.0E	0214.0	U	80.0			QL=4 ST=2 TYP=3
	500	HIRA	41	F	0300.8	0301.0	4.4	45.0			WL
	245	LEAR	8	S	0302.0E	0302.0	U	140.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0302.0E	0302.0	U	120.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0303.0E	0303.0	2.0D	160.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	0303.0E	0303.0	1.0D	110.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	0318.0E	0318.0	1.0D	93.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0555.0E	0556.0	2.0D	260.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0555.0	0556.2	4.0	10.1			
	245	LEAR	8	S	0613.0E	0613.0	U	290.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0616.0E	0616.0	U	61.0			QL=4 ST=2 TYP=3
	9100	GORK	1	S	0630.0	0630.9	1.8	13.0			
	9300	KISV	2	S/F	0630.1	0630.9	4.0	18.0			
	5900	KISV	2	S/F	0630.4	0630.8	2.1	5.0			
	15000	KISV	2	S/F	0630.5	0630.9	2.4	14.0			

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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
17	5900	KISV	2	S/F	0651.2	0651.7	1.9	5.0			
	5900	KISV	2	S/F	0716.5	0717.2	1.5	3.0			
	2950	GORK	1	S	0805.8	0806.3	1.2	3.0			
	5900	KISV	2	S/F	0805.9	0806.4	1.8	4.0			
	950	GORK	1	S	0806.0	0806.4	1.0	6.0			
	5900	KISV	2	S/F	0844.4	0845.8	3.3	5.0			
	9300	KISV	2	S/F	0854.1	0855.6	6.0	20.0			
	5900	KISV	2	S/F	0854.2	0855.8	6.3	9.0			
	9500	POTS	4	S/F	0854.8	0855.5	2.8	18.0			
	9100	GORK	2	S/F	0855.1	0855.6	2.8	16.0			
	15000	KISV	2	S/F	0855.4	0855.9	1.5	5.0			
	9300	KISV	22	GRF	0931.3	0935.5	12.7	6.0			
	5900	KISV	2	S/F	0934.5	0935.5	3.7	4.0			
	9300	KISV	2	S/F	0958.2	0959.9	3.8	4.0			
	536	ONDR	41	F	1000.0	1035.1	156.5	63.0			
	9300	KISV	20	GRF	1009.3	1012.2	11.0	11.0			
	9100	GORK	1	S	1009.4	1012.8	8.1	8.0			
	9500	POTS	26	FAL	1010.0	1012.3	7.0	10.0			
	5900	KISV	20	GRF	1010.0	1012.4	11.1	4.0			
	245	LEAR	8	S	1017.0E	1017.0	1.0D	53.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	1033.0E	1034.0	1.0D	61.0			QL=4 ST=2 TYP=3
	5900	KISV	2	S/F	1033.7	1035.0	6.3	6.0			
	610	LEAR	8	S	1034.0E	1034.0	1.0D	66.0			QL=4 ST=2 TYP=3
	600	HUMN	2	S/F	1226.5	1227.5	2.0	16.0	6.0		
	810	KRAK	8	S	1227.0	1227.8	1.3	80.0			
	1470	POTS	4	S/F	1227.3U	1227.7U	2.4U	41.0			
	808	ONDR	8	S	1228.0	1228.2	0.5	44.0			
	3000	POTS	4	S/F	1300.2	1302.4	3.0	12.0			
	1470	POTS	4	S/F	1301.5	1302.2	1.7	8.0			
	9400	HUAN	2	S/F	1411.5	1415.1	10.2	12.6	5.4		
	600	HUMN	41	F	1411.5	1414.5	7.5	46.0			
	1470	POTS	42	SER	1412.8	1415.0	7.2D	17.0			
	9500	POTS	4	S/F	1412.8	1415.0	4.2	13.0			
	9500	CUBA	47	GB	1456.5	1459.0U	7.5	499.0D			
	9400	HUAN	45	C	1456.5	1459.1U	6.5	308.4	118.6		
	2800	OTTA	47	GB	1456.8	1458.6	8.1	512.0	102.0		
	15400	SGMR	4	S/F	1457.0E	1458.0	5.0D	480.0			QL=2 ST=2 TYP=3
	8800	SGMR	4	S/F	1457.0E	1458.0	5.0D	330.0			QL=2 ST=2 TYP=3
	8800	SVTO	4	S/F	1457.0E	1458.0	5.0D	320.0			QL=4 ST=2 TYP=3
	15400	SVTO	4	S/F	1457.0E	1458.0	5.0D	460.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1457.0E	1458.0	6.0D	350.0			QL=4 ST=2 TYP=3
	1415	SVTO	20	GRF	1457.0E	1459.0	7.0D	190.0			QL=4 ST=2 TYP=2
	4995	SVTO	4	S/F	1457.0E	1457.0	6.0D	440.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	1457.0E	1457.0	10.0D	400.0			QL=4 ST=2 TYP=3
	1415	SGMR	4	S/F	1457.0E	1458.0	543.0D	210.0			QL=4 ST=1 TYP=3
	2695	SGMR	4	S/F	1457.0E	1458.0	543.0D	350.0			QL=4 ST=1 TYP=3
	610	SGMR	4	S/F	1458.0E	1501.0	9.0D	190.0			QL=4 ST=2 TYP=3
	610	SVTO	4	S/F	1458.0E	1501.0	6.0D	180.0			QL=4 ST=2 TYP=3
	600	HUMN	45	C	1458.0	1501.5	20.0	50.0	15.0		
	410	SGMR	4	S/F	1501.0E	1506.0	6.0D	150.0			QL=4 ST=2 TYP=5
	245	SGMR	8	S	1502.0E	1502.0	1.0D	110.0			QL=4 ST=2 TYP=3
	410	SVTO	4	S/F	1502.0E	1506.0	5.0D	210.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1502.0E	1502.0	1.0D	150.0			QL=2 ST=2 TYP=3
	9400	HUAN	29	PBI	1503.0	1503.0	64.0	41.2	18.8		
	9500	CUBA	30	PBI	1504.0		190.0	50.0	25.0		
	2800	OTTA	29	PBI	1505.0	1505.0	290.0	14.5	7.0		
	235	CUBA	7	C	1506.0E	1506.0U	12.0D	44.0			
	280	CUBA	7	C	1506.0E	1506.0U	12.0D		68.0		
	245	SGMR	8	S	1511.0E	1511.0	U	300.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	1551.0	1553.2	3.2	20.0	10.0		
	9500	CUBA	2	S/F	1636.5	1636.7	0.7	19.0	9.0		
	9400	HUAN	22	GRF	1757.4	1911.6U	101.6	10.8	5.2		
	9400	HUAN	22	GRF	2001.5	2033.6	79.6	14.3	6.4		
	9400	HUAN	4	S/F	2141.2	2143.6	8.0	25.1	14.1		
	245	LEAR	8	S	2313.0E	2314.0	1.0D	80.0			QL=2 ST=3 TYP=3
18	245	LEAR	44	NS	0056.0E	0150.0	101.0D	340.0			QL=4 ST=2 TYP=1
	245	SVTO	44	NS	0656.0E	0839.0	509.0D	150.0			QL=4 ST=2 TYP=1
	204	IZMI	43	NS	0700.0		300.0	20.0			

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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
18	127	TORN	44	NS	0700.0E		440.0D		50.0		V=2
	234	POTS	44	NS	0713.0E	0818.0U	352.0D	70.0			
	113	POTS	44	NS	0720.0E	0918.0U	435.0D	20.0			
	260	ONDR	44	NS	1000.0E	1335.1	220.0D	55.0			
	200	GORK	44	NS	1011.0E		110.0D		5.0		
	100	GORK	44	NS	1012.0E		109.0D		5.0		
	235	CUBA	44	NS	1354.0E		457.0D		20.0		
	280	CUBA	44	NS	1354.0E		457.0D		30.0		
	245	SGMR	44	NS	1440.0E	1440.0	2.0D	230.0			QL=4 ST=2 TYP=1
	200	HIRA	44	NS	2147.0E	2336.0	600.0D	11.0	4.0		WL
	245	LEAR	8	S	0007.0E	0009.0	2.0D	52.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0011.0E	0011.0	1.0D	130.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0018.0E	0018.0	1.0D	370.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	0026.0E	0027.0	4.0D	130.0			QL=4 ST=2 TYP=3
	4995	LEAR	4	S/F	0031.0E	0033.0	5.0D	55.0			QL=2 ST=2 TYP=3
	410	LEAR	8	S	0032.0E	0034.0	2.0D	55.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	0032.0E	0032.0	1.0D	18.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0032.0E	0033.0	2.0D	31.0			QL=2 ST=2 TYP=3
	500	HIRA	42	SER	0032.4	0033.2	8.3	144.0			WL
	610	LEAR	8	S	0033.0E	0033.0	1.0D	43.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0051.0E	0051.0	U	54.0			QL=4 ST=2 TYP=3
	500	HIRA	21	GRF	0119.0	0155.0	63.0	5.0	2.0		WL
	500	HIRA	42	SER	0134.3	0142.4	11.2	14.0			WL
	100	HIRA	42	SER	0140.3	0142.2	10.6	620.0			
	2840	PEKG	5	S	0404.0	0406.0	8.0	14.7			
	100	HIRA	42	SER	0427.7	0452.8	73.3	530.0			
	245	LEAR	49	GB	0428.0E	0429.0	2.0D	670.0			QL=4 ST=2 TYP=6
	245	LEAR	8	S	0511.0E	0511.0	1.0D	40.0			QL=4 ST=2 TYP=3
	2840	PEKG	1	S	0511.0	0512.1	5.0	4.4			
	410	LEAR	8	S	0512.0E	0512.0	U	51.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0613.0E	0613.0	1.0D	60.0			QL=2 ST=3 TYP=3
	5900	KISV	2	S/F	0712.7	0715.5	5.0	5.0			
	234	POTS	42	SER	0835.6	0837.4	12.1	750.0			
	410	LEAR	8	S	0837.0E	0837.0	U	31.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0837.0E	0837.0	U	320.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0837.0E	0837.0	U	390.0			QL=2 ST=2 TYP=3
	204	IZMI	41	F	0837.5	0837.7	0.4	1000.0			
	113	POTS	42	SER	0837.6	0844.2	9.6	300.0			
	2950	GORK	1	S	0846.5	0847.2	1.7	6.0			
	9300	KISV	2	S/F	0846.5	0847.2	3.5	22.0			
	9500	POTS	4	S/F	0846.6	0847.3	1.8	11.0			
	9100	GORK	2	S/F	0846.7	0847.2	0.7	15.0			
	15000	KISV	2	S/F	0846.8	0847.2	3.7	10.0			
	5900	KISV	4	S/F	0846.8	0847.2	2.7	22.0			
	3013	IZMI	5	S	0846.8	0847.3	2.0	8.0	4.0		
	3000	POTS	4	S/F	0846.8	0847.3	1.0	13.0			
	9300	KISV	2	S/F	0852.1	0854.2	4.9	6.0			
	5900	KISV	2	S/F	0852.2	0854.3	4.8	5.0			
	950	GORK	1	S	0854.2	0854.7	2.4	4.0			
	9300	KISV	2	S/F	0904.6	0905.0	2.5	5.0			
	5900	KISV	2	S/F	0904.6	0905.0	3.5	5.0			
	9300	KISV	21	GRF	0947.0	0953.3	45.8	10.0			
	5900	KISV	21	GRF	0949.3	0952.6	44.0	8.0			
	9300	KISV	2	S/F	1003.2	1004.0	2.7	10.0			
	5900	KISV	2	S/F	1003.4	1004.1	3.6	9.0			
	9100	GORK	1	S	1003.5	1004.1	1.5	10.0			
	9500	POTS	2	S/F	1003.5	1004.1	1.5	10.0			
	3000	POTS	1	S	1003.7	1004.0	1.0	4.0			
	2950	GORK	2	S/F	1003.7	1004.2	6.1	5.0			
	200	GORK	4	S/F	1022.5	1022.8	7.5	80.0			
	100	GORK	4	S/F	1023.6	1024.9	1.7	2400.0			
	113	POTS	4	S/F	1024.2	1024.8	1.0	200.0			
	33	UPIC	2	S/F	1025.0	1025.2	0.5				
	100	GORK	41	F	1128.6	1130.3	16.1	220.0			
	100	GORK	41	F	1128.6	1143.4		110.0			
	200	GORK	41	F	1134.4	1143.0		70.0			
	200	GORK	41	F	1134.4	1134.8	8.8	70.0			
	33	UPIC	4	S/F	1208.6	1208.9	1.4				
	113	POTS	41	F	1215.2	1219.1	4.8	550.0			

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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
18	33	UPIC	48	C	1215.5	1216.2	5.8				
	40	POTS	4	S/F	1215.5	1219.3	6.5	U			
	9500	POTS	2	S/F	1217.7	1218.4	2.3	10.0			
	3000	POTS	1	S	1218.0	1218.3	1.2	7.0			
	9500	POTS	4	S/F	1259.7	1303.5	13.0	38.0			
	600	HUMN	41	F	1300.0	1304.5	8.5	29.0			
	536	ONDR	41	F	1300.0	1304.5	24.4	88.0			
	9400	HUAN	4	S/F	1300.3	1303.6	12.7	39.1	21.6		
	3000	POTS	42	SER	1300.5	1303.4	11.5	21.0			
	1470	POTS	42	SER	1300.5	1304.6	13.0	27.0			
	410	SGMR	49	GB	1302.0E	1303.0	3.0D	1000.0			QL=2 ST=2 TYP=6
	808	ONDR	41	F	1302.7	1304.8	12.2	116.0			
	4995	SGMR	8	S	1303.0E	1303.0	U	25.0			QL=2 ST=2 TYP=3
	410	SVTO	49	GB	1303.0E	1303.0	1.0D	940.0			QL=4 ST=2 TYP=6
	610	SGMR	8	S	1304.0E	1304.0	1.0D	39.0			QL=2 ST=2 TYP=3
	33	UPIC	46	C	1328.0	1328.6	1.5				
	113	POTS	4	S/F	1341.3	1342.1	2.5	400.0			
	40	POTS	4	S/F	1341.3	1342.5	4.0	3800.0			
	9500	CUBA	21	GRF	1357.0E	1759.0	513.0D	28.0			2130 OFF
	3000	POTS	45	C	1402.6	1405.0	11.4	545.0			
	1470	POTS	4	S/F	1402.8	1405.5	11.2	102.0			
	9400	HUAN	4	S/F	1402.9	1405.0	4.9	96.8	35.8		
	610	SGMR	8	S	1403.0E	1404.0	1.0D	120.0			QL=2 ST=2 TYP=3
	8800	SGMR	4	S/F	1403.0E	1404.0	4.0D	100.0			QL=2 ST=2 TYP=3
	2695	SGMR	4	S/F	1403.0E	1404.0	4.0D	270.0			QL=2 ST=2 TYP=3
	4995	SGMR	4	S/F	1403.0E	1405.0	4.0D	220.0			QL=2 ST=2 TYP=3
	1415	SGMR	4	S/F	1403.0E	1405.0	4.0D	96.0			QL=2 ST=2 TYP=3
	1415	SVTO	4	S/F	1403.0E	1405.0	5.0D	93.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	1403.0E	1404.0	1.0D	50.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	1403.0E	1405.0	5.0D	230.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1403.0E	1404.0	7.0D	280.0			QL=4 ST=2 TYP=3
	600	HUMN	45	C	1403.0	1404.0	19.0	46.0	6.0		
	9500	CUBA	45	C	1403.1	1404.9	4.8	93.0			
	9500	POTS	4	S/F	1403.1	1404.9	6.9	80.0			
	15400	SGMR	8	S	1404.0E	1404.0	1.0D	66.0			QL=2 ST=2 TYP=3
	15400	SVTO	8	S	1404.0E	1404.0	1.0D	57.0			QL=2 ST=2 TYP=3
	8800	SVTO	8	S	1404.0E	1404.0	2.0D	83.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1405.0E	1405.0	U	35.0			QL=2 ST=2 TYP=3
	9400	HUAN	29	PBI	1407.8	1407.8	59.4	9.3	3.6		
	127	TORN	46	C	1409.0	1412.8	6.2	2800.0	170.0		
	245	SGMR	8	S	1410.0E	1410.0	1.0D	110.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1410.0E	1410.0	1.0D	130.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1437.0E	1437.0	U	80.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1437.0E	1437.0	U	230.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1437.0E	1437.0	U	210.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1440.0E	1440.0	2.0D	280.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1526.0E	1526.0	U	120.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1645.6	1646.0	1.6	11.0	5.0		
	245	SGMR	8	S	1724.0E	1724.0	U	170.0			QL=4 ST=3 TYP=3
	9500	CUBA	1	S	2046.8	2047.9	2.3	13.0	6.0		
	245	LEAR	4	S/F	2232.0E	2233.0	8.0D	110.0			QL=4 ST=2 TYP=3
19	200	GORK	44	NS	0557.0E		333.0D		5.0		
	204	IZMI	43	NS	0700.0		300.0	10.0			
	235	CUBA	44	NS	1500.0E		390.0D		35.0		
	280	CUBA	44	NS	1500.0E		390.0D		48.0		
	245	PALE	44	NS	1730.0E	1731.0	464.0D	76.0			QL=4 ST=2 TYP=1
	200	HIRA	44	NS	2146.0E	0430.0	600.0D	19.0	9.0		O
	500	HIRA	41	F	0129.0	0129.4	1.1	22.0			O
	2695	LEAR	8	S	0231.0E	0232.0	1.0D	31.0			QL=2 ST=2 TYP=3
	500	HIRA	41	F	0231.0	0232.5	2.6	56.0			O
	610	LEAR	8	S	0232.0E	0232.0	U	24.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	0232.0E	0232.0	U	67.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	0232.0E	0232.0	1.0D	61.0			QL=4 ST=2 TYP=3
	100	HIRA	46	C	0407.3	0407.6	1.5	624.0			
	3013	IZMI	5	S	0702.0	0703.0	2.0	3.0	2.0		
	5900	KISV	21	GRF	0711.8	0713.3	12.0	4.0			
	245	LEAR	8	S	0746.0E	0746.0	1.0D	59.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0746.0E	0746.0	U	62.0			QL=4 ST=2 TYP=3

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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	810	KRAK	8	S	0803.5	0803.8	0.5	80.0			
	650	GORK	21	GRF	0913.0	0918.9	20.9	2.0			
	950	GORK	22	GRF	0913.1	0918.6	20.8	5.0			
	2950	GORK	21	GRF	0915.0	1018.6	99.0U	8.0			
	650	GORK	46	C	0918.9	0920.1	2.5	14.0			
	650	GORK	46	C	0918.9	0921.1		10.0			
	600	HUMN	2	S/F	0919.5	0920.0	1.5	9.0	3.0		
	808	ONDR	41	F	1000.0	1118.5	82.0	28.0			
	260	ONDR	41	F	1000.0	1241.7	220.0	124.0			
	3000	POTS	2	S/F	1005.6	1006.6	2.7	6.0			
	2950	GORK	1	S	1005.7	1006.4	3.0	7.0			
	650	GORK	46	C	1005.8	1006.3		19.0			
	950	GORK	2	S/F	1005.8	1007.3	2.3	17.0			
	650	GORK	46	C	1005.8	1005.9	2.3	12.0			
	536	ONDR	41	F	1023.9	1118.6	125.2	37.0			
	5900	KISV	2	S/F	1058.3	1058.8	1.7	7.0			
	9300	KISV	2	S/F	1058.4	1058.8	2.9	7.0			
	3013	IZMI	5	S	1058.5	1059.0	1.5	7.0	3.0		
	2950	GORK	1	S	1058.5	1058.8	1.9	7.0			
	9100	GORK	1	S	1058.5	1058.8	0.9	6.0			
	2950	GORK	2	S/F	1117.4	1119.3	4.9	12.0			
	1470	POTS	4	S/F	1118.0	1119.4	4.4	6.0			
	650	GORK	4	S/F	1118.2	1118.7	2.3	105.0			
	3000	POTS	4	S/F	1118.4	1119.2	2.9	17.0			
	3013	IZMI	5	S	1118.5	1119.0	4.0	7.0	3.0		
	600	HUMN	2	S/F	1118.5	1119.8	2.0	24.0	10.0		
	950	GORK	45	C	1118.6	1119.5		3.0			
	950	GORK	45	C	1118.6	1118.9	1.4	3.0			
	9100	GORK	1	S	1118.7	1119.7	1.5	5.0			
	3000	POTS	4	S/F	1327.0	1328.6	5.0	35.0			
	9400	HUAN	1	S	1327.2	1328.7	5.8	9.8	4.2		
	600	HUMN	2	S/F	1327.5	1328.5	1.5	50.0	15.0		
	1470	POTS	42	SER	1327.6	1327.8	2.4	19.0			
	610	SGMR	8	S	1328.0E	1328.0	U	160.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	1328.0E	1328.0	U	130.0			QL=4 ST=2 TYP=3
	808	ONDR	8	S	1328.4	1328.5	0.5	269.0			
	9500	POTS	4	S/F	1328.4	1328.8	2.0	13.0			
	810	KRAK	8	S	1328.8	1328.8	0.4	160.0			
	9500	CUBA	21	GRF	1402.0	1810.0	448.0D	21.0			2130 OFF
	245	SGMR	8	S	1435.0E	1436.0	2.0D	170.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1436.0E	1436.0	1.0D	160.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1445.0E	1445.0	U	56.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1523.0E	1523.0	1.0D	54.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1841.8	1843.0	2.7	58.0	29.0		
	4995	PALE	8	S	1842.0E	1843.0	1.0D	110.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	1842.0E	1843.0	1.0D	56.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	1842.0E	1843.0	1.0D	65.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1842.0E	1843.0	2.0D	61.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	1842.0E	1843.0	4.0D	140.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1842.0E	1843.0	5.0D	41.0			QL=4 ST=2 TYP=3
	9400	HUAN	8	S	1842.4	1843.0	1.9	58.5	22.4		
	2800	OTTA	3	S	1842.6	1843.1	3.2	49.7	10.0		
	245	SGMR	8	S	1955.0E	1955.0	1.0D	56.0			QL=2 ST=2 TYP=3
20	245	PALE	44	NS	0231.0E	0235.0	85.0D	70.0			QL=4 ST=2 TYP=1
	200	GORK	44	NS	0554.0E		108.0D		5.0		
	100	GORK	44	NS	0554.0E		100.0D		5.0		
	235	CUBA	44	NS	1311.0E		455.0D		16.0		
	280	CUBA	44	NS	1311.0E		455.0D		37.0		
	245	SGMR	44	NS	2019.0E	2049.0	57.0D	130.0			QL=4 ST=2 TYP=1
	245	PALE	44	NS	2152.0E	2214.0	249.0D	150.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	2312.0	2313.0	218.0	69.0			QL=4 ST=2 TYP=1
	2840	PEKG	45	C	0127.0	0128.6	4.0	8.0			
	2840	PEKG	20	GRF	0150.0	0151.2	13.0	6.5			
	245	LEAR	8	S	0208.0E	0209.0	1.0D	51.0			QL=2 ST=2 TYP=3
	200	HIRA	42	SER	0215.2	0247.5	49.5	135.0			O
	245	LEAR	8	S	0224.0E	0224.0	1.0D	93.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	0224.0E	0224.0	U	73.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0230.0E	0231.0	1.0D	67.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

JANUARY 1991

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
20	200	HIRA	42	SER	0326.4	0332.3	73.0	105.0			0
	100	HIRA	42	SER	0506.0	0604.3	76.0	860.0			0
	5900	KISV	45	C	0700.4	0705.0		5.0			
	5900	KISV	45	C	0700.4	0701.0	10.1	5.0			
	9300	KISV	2	S/F	0700.4	0700.8	7.6	7.0			
	4995	LEAR	4	S/F	0712.0E	0715.0	5.0D	62.0			QL=2 ST=2 TYP=3
	2695	LEAR	4	S/F	0712.0E	0715.0	7.0D	56.0			QL=2 ST=2 TYP=3
	4995	SVTO	4	S/F	0712.0E	0714.0	5.0D	78.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	0712.0E	0715.0	5.0D	58.0			QL=4 ST=2 TYP=3
	3013	IZMI	7	C	0712.0	0715.6	6.5	17.0	8.0		
	2840	PEKG	45	C	0712.0	0715.6	15.0	66.9			
	2950	GORK	4	S/F	0712.1	0715.4	9.1	52.0			
	5900	KISV	46	C	0712.2	0713.0		21.0			
	5900	KISV	46	C	0712.2	0715.2		65.0			
	5900	KISV	30	PBI	0712.2	0718.3	41.7	20.0			
	9100	GORK	4	S/F	0712.2	0714.6	7.0	47.0			
	5900	KISV	46	C	0712.2	0714.7	5.8	68.0			
	650	GORK	20	GRF	0712.3	0715.0	5.3	2.0			
	9300	KISV	45	C	0712.3	0715.2		54.0			
	950	GORK	4	S/F	0712.3	0713.4	5.3	15.0			
	9300	KISV	45	C	0712.3	0714.6	14.7	55.0			
	8800	SVTO	4	S/F	0713.0E	0714.0	3.0D	47.0			QL=4 ST=2 TYP=3
	15000	KISV	2	S/F	0713.8	0715.4	8.7	14.0			
	8800	LEAR	4	S/F	0714.0E	0715.0	3.0D	33.0			QL=2 ST=2 TYP=3
	9100	GORK	21	GRF	0848.2	0925.5	161.8D	17.0			
	5900	KISV	21	GRF	0851.0	0853.0	13.5	6.0			
	1470	POTS	29	PBI	0912.0	0922.8	13.4	19.0			
	9500	POTS	4	S/F	0916.0	0923.0	11.5	94.0			
	3000	POTS	29	PBI	0916.0	0922.5	8.6	15.0			
	9300	KISV	45	C	0917.0	0923.1	10.7	117.0			
	9300	KISV	45	C	0917.0	0921.6		103.0			
	5900	KISV	45	C	0917.2	0923.1	11.8	65.0			
	5900	KISV	45	C	0917.2	0921.8		51.0			
	2950	GORK	22	GRF	0917.4	0922.5	20.6	19.0			
	3013	IZMI	7	C	0919.5	0923.3	5.5	13.0	6.0		
	4995	SVTO	4	S/F	0920.0E	0923.0	4.0D	56.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0920.0E	0923.0	4.0D	83.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0920.0E	0921.0	1.0D	70.0			QL=4 ST=2 TYP=3
	9100	GORK	4	S/F	0920.1	0923.0	5.4	97.0			
	650	GORK	46	C	0920.1	0922.1		50.0			
	650	GORK	46	C	0920.1	0920.7	5.0	6.0			
	15000	KISV	29	PBI	0920.2	0927.1	10.3	8.0			
	15000	KISV	45	C	0920.2	0923.2	6.7	84.0			
	430	KRAK	2	S/F	0920.2	0920.5	4.2	130.0	4.0		
	15000	KISV	45	C	0920.2	0921.8		79.0			
	950	GORK	46	C	0920.3	0922.1		18.0			
	950	GORK	46	C	0920.3	0920.7	4.8	10.0			
	810	KRAK	45	C	0920.4	0922.0	4.0	77.0	3.0		
	15400	SVTO	8	S	0921.0E	0923.0	2.0D	50.0			QL=2 ST=2 TYP=3
	600	HUMN	2	S/F	0921.5	0922.0	2.5	24.0	10.0		
	9300	KISV	29	PBI	0928.1E	0928.1	10.4D	7.0			
	260	ONDR	40	F	1020.0	1241.7	191.8	668.0			
	410	SGMR	8	S	1240.0E	1240.0	U	72.0			QL=2 ST=3 TYP=3
	245	SGMR	49	GB	1240.0E	1240.0	1.0D	1700.0			QL=2 ST=3 TYP=6
	245	SVTO	49	GB	1240.0E	1240.0	1.0D	1700.0			QL=4 ST=2 TYP=6
	410	SVTO	8	S	1240.0E	1240.0	1.0D	62.0			QL=4 ST=2 TYP=3
	234	POTS	4	S/F	1240.2	1240.7	1.4	1600.0			
	430	KRAK	42	SER	1240.5	1240.9	1.5	190.0D			
	536	ONDR	8	S	1240.7	1240.8	0.7	26.0			
	9500	CUBA	20	GRF	1316.0E	1540.0	351.0D	50.0			1907 OFF
	245	SGMR	8	S	1328.0E	1328.0	1.0D	170.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	1328.0E	1328.0	1.0D	180.0			QL=4 ST=2 TYP=3
	234	POTS	41	F	1328.2	1328.7	2.4	100.0			
	113	POTS	4	S/F	1329.2	1330.0	3.2	770.0			
	33	UPIC	4	S/F	1329.7	1330.5	2.1				
	40	POTS	4	S/F	1329.8	1330.5	1.9	3000.0			
	600	HUMN	27	RF	1512.0	1524.0	15.0	12.0	5.0		
	245	SGMR	8	S	1556.0E	1557.0	1.0D	230.0			QL=2 ST=2 TYP=3
	9400	HUAN	22	GRF	1713.5	1728.3	57.2	5.7	1.9		

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

JANUARY 1991

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	9400	HUAN	22	GRF	2002.5	2050.8	65.5	24.6	10.8		
	245	PALE	8	S	2018.0E	2018.0	1.0D	96.0			QL=4 ST=3 TYP=3
	245	SGMR	8	S	2019.0E	2019.0	U	55.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2036.0E	2036.0	U	75.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2036.0E	2036.0	1.0D	120.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2049.0E	2049.0	U	160.0			QL=4 ST=2 TYP=3
	200	HIRA	42	SER	2207.3	2215.1	79.0	185.0			O
	9400	HUAN	2	S/F	2245.5	2248.7	5.6	11.3	5.2		
21	280	CUBA	44	NS	1325.0E		486.0D		25.0		
	235	CUBA	44	NS	1325.0E		486.0D		15.0		
	4995	LEAR	4	S/F	0014.0E	0018.0	8.0D	310.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	0014.0E	0018.0	4.0D	160.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0014.0E	0018.0	6.0D	200.0			QL=4 ST=2 TYP=3
	4995	PALE	4	S/F	0014.0E	0018.0	8.0D	360.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	0014.0E	0018.0	8.0D	240.0			QL=4 ST=2 TYP=3
	610	LEAR	4	S/F	0015.0E	0015.0	7.0D	96.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	0015.0E	0015.0	1.0D	100.0			QL=4 ST=2 TYP=3
	500	HIRA	46	C	0015.8	0018.2	4.7	47.0			O
	410	LEAR	4	S/F	0016.0E	0018.0	6.0D	44.0			QL=4 ST=2 TYP=3
	1415	LEAR	4	S/F	0016.0E	0018.0	4.0D	86.0			QL=4 ST=2 TYP=3
	15400	PALE	4	S/F	0016.0E	0016.0	3.0D	65.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0017.0E	0018.0	1.0D	73.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	0017.0E	0018.0	2.0D	81.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	0017.0E	0018.0	2.0D	190.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0018.0E	0018.0	1.0D	2100.0			QL=4 ST=2 TYP=6
	245	PALE	49	GB	0018.0E	0018.0	1.0D	2100.0			QL=2 ST=2 TYP=6
	200	HIRA	42	SER	0100.0	0117.8	68.0	2900.0			O
	245	LEAR	8	S	0301.0E	0301.0	1.0D	66.0			QL=4 ST=2 TYP=3
	500	HIRA	27	RF	0600.0	0636.5	63.5	27.0	8.0		O
	2840	PEKG	45	C	0625.0	0638.4	25.0	159.3			
	5900	KISV	23	GRF	0626.5	0631.0	39.0	17.0			
	9300	KISV	23	GRF	0626.5	0631.1	33.3	16.0			
	15000	KISV	2	S/F	0626.7	0627.8	3.4	17.0			
	2950	GORK	23	GRF	0626.8	0632.3	23.6	27.0			
	2695	LEAR	4	S/F	0627.0E	0628.0	4.0D	53.0			QL=2 ST=2 TYP=3
	8800	LEAR	8	S	0627.0E	0627.0	1.0D	37.0			QL=2 ST=2 TYP=3
	4995	LEAR	8	S	0627.0E	0627.0	2.0D	46.0			QL=2 ST=2 TYP=3
	5900	KISV	4	S/F	0627.1	0627.6	3.2	37.0			
	9300	KISV	4	S/F	0627.1	0627.9	3.0	41.0			
	2950	GORK	4	S/F	0627.2	0628.2	2.2	34.0			
	9100	GORK	2	S/F	0627.2	0627.9	2.2	38.0			
	950	GORK	20	GRF	0635.0	0638.2	23.6	7.0			
	650	GORK	20	GRF	0635.0	0637.9	23.6	4.0			
	2695	LEAR	4	S/F	0636.0E	0638.0	9.0D	170.0			QL=2 ST=2 TYP=3
	9100	GORK	4	S/F	0636.4	0638.1	9.0	185.0			
	9300	KISV	47	GB	0636.6	0637.1	2.9	346.0			
	5900	KISV	47	GB	0636.6	0637.3	3.0	196.0			
	2950	GORK	4	S/F	0636.7	0638.2	5.1	120.0			
	15000	KISV	4	S/F	0636.9	0638.2	9.4	98.0D			
	8800	LEAR	4	S/F	0637.0E	0638.0	6.0D	150.0			QL=2 ST=2 TYP=3
	4995	LEAR	4	S/F	0637.0E	0638.0	6.0D	200.0			QL=2 ST=2 TYP=3
	15400	LEAR	4	S/F	0637.0E	0637.0	3.0D	250.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	0637.0E	0638.0	2.0D	26.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	0637.0E	0638.0	4.0D	150.0			QL=2 ST=2 TYP=3
	2695	SVTO	4	S/F	0637.0E	0638.0	8.0D	90.0			QL=2 ST=2 TYP=3
	8800	SVTO	8	S	0637.0E	0638.0	2.0D	89.0			QL=2 ST=2 TYP=3
	9300	KISV	45	C	0639.5	0640.1	3.9	32.0			
	9300	KISV	45	C	0639.5	0642.7		24.0			
	5900	KISV	45	C	0640.7	0641.2		16.0			
	5900	KISV	45	C	0640.7	0642.9	6.1	29.0			
	5900	KISV	22	GRF	0803.6	0823.1	25.5	10.0			
	9300	KISV	2	S/F	0915.9	0916.9	5.2	5.0			
	5900	KISV	2	S/F	0917.4	0917.7	1.8	4.0			
	9300	KISV	2	S/F	0952.1	0953.0	9.1	6.0			
	610	LEAR	8	S	1002.0E	1002.0	1.0D	32.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	1002.0E	1002.0	1.0D	300.0			QL=4 ST=2 TYP=3
	600	HUMN	2	S/F	1002.0	1002.4	1.0	23.0	10.0		
	536	ONDR	4	S/F	1002.2	1002.4	1.0	69.0			

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

JANUARY 1991

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	2	S/F	1115.7	1116.1	5.3	3.0			
	9300	KISV	2	S/F	1154.0	1156.3	9.0U	10.0			
	5900	KISV	2	S/F	1154.1	1155.4	9.0U	8.0			
	127	TORN	48	C	1203.2	1204.8	2.2	490.0	80.0		
	33	UPIC	42	SER	1203.5	1301.2	59.2				
	245	SVTO	8	S	1204.0E	1204.0	U	100.0			QL=4 ST=2 TYP=3
	260	ONDR	46	C	1204.1	1204.5	2.0	300.0			
	536	ONDR	41	F	1243.5	1245.6	11.8	32.0			
	9400	HUAN	4	S/F	1243.6	1249.0	12.8	14.8	6.6		
	600	HUMN	41	F	1245.0	1251.5	7.0	26.0			
	1470	POTS	42	SER	1247.2	1248.0	5.4	11.0			
	3000	POTS	42	SER	1247.2	1248.0	5.2	23.0			
	9500	POTS	4	S/F	1247.4	1249.0	5.1	21.0			
	810	KRAK	42	SER	1247.5	1251.5	4.4	9.0			
	9400	HUAN	1	S	1528.2	1530.2	5.7	13.0	4.8		
	9500	CUBA	2	S/F	1528.9	1529.3	3.0	9.0	4.0		
	410	SGMR	8	S	1810.0E	1810.0	U	250.0			QL=4 ST=2 TYP=3
	9400	HUAN	20	GRF	1819.3	1901.5	71.4	18.5	7.4		
	9400	HUAN	23	GRF	2050.4	2131.0	54.0	22.2	10.6		
	9400	HUAN	4	S/F	2111.9	2113.7	3.8	16.6	5.8		
	610	PALE	8	S	2112.0E	2112.0	1.0D	55.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	2113.1	2114.0	1.4	6.0	3.0		
22	200	GORK	44	NS	0557.0E		361.0D		5.0		
	127	TORN	43	NS	1054.0		206.0		9.0		V=1
	280	CUBA	44	NS	1325.0E		492.0D		24.0		
	235	CUBA	44	NS	1325.0E		492.0D		14.0		
	245	LEAR	8	S	0436.0E	0436.0	U	110.0			QL=4 ST=2 TYP=3
	4995	LEAR	4	S/F	0546.0E	0547.0	4.0D	55.0			QL=2 ST=2 TYP=3
	15400	LEAR	4	S/F	0546.0E	0547.0	5.0D	240.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0547.0E	0547.0	2.0D	55.0			QL=2 ST=2 TYP=3
	8800	LEAR	4	S/F	0547.0E	0547.0	3.0D	87.0			QL=2 ST=2 TYP=3
	1415	LEAR	8	S	0547.0E	0547.0	1.0D	38.0			QL=4 ST=2 TYP=3
	2840	PEKG	46	C	0547.0	0547.8	4.0	49.8			
	9300	KISV	2	S/F	0714.2	0715.2	5.0	6.0			
	5900	KISV	2	S/F	0714.5	0715.1	4.3	4.0			
	245	LEAR	8	S	0717.0E	0718.0	1.0D	97.0			QL=4 ST=2 TYP=3
	9300	KISV	23	GRF	0730.0	0732.0	48.0	5.0			
	2950	GORK	1	S	0730.6	0730.8	2.4	6.0			
	5900	KISV	2	S/F	0730.6	0730.9	6.2	4.0			
	5900	KISV	45	C	0739.2	0746.2	13.5	9.0			
	5900	KISV	45	C	0739.2	0739.9		9.0			
	9300	KISV	45	C	0739.3	0746.5	10.7	14.0			
	9300	KISV	45	C	0739.3	0750.8		10.0			
	15000	KISV	45	C	0746.0	0746.5	3.5	9.0			
	15000	KISV	45	C	0746.0	0747.5		8.0			
	9300	KISV	2	S/F	0756.7	0757.7	3.0	5.0			
	3013	IZMI	7	C	0808.0	0809.5	2.5	9.0			
	245	LEAR	49	GB	0827.0E	0829.0	2.0D	2000.0			QL=4 ST=2 TYP=6
	245	SVTO	49	GB	0827.0E	0829.0	2.0D	1900.0			QL=4 ST=2 TYP=6
	200	GORK	41	F	0827.3	0829.0		970.0			
	200	GORK	41	F	0827.3	0827.6	2.3	420.0			
	234	POTS	41	F	0827.3	0828.8	2.4	47000.0			
	204	IZMI	41	F	0827.5	0829.0	2.5	8600.0			
	113	POTS	4	S/F	0828.2	0829.2	1.7	700.0			
	40	POTS	8	S	0828.7	0828.9	1.2	60000.0U			
	100	GORK	8	S	0828.8	0829.0	0.8	2000.0			
	33	UPIC	8	S	0829.0	0829.2	0.5				
	5900	KISV	22	GRF	0839.7	0906.3		9.0			
	5900	KISV	22	GRF	0839.7	0850.5	33.0	10.0			
	9300	KISV	21	GRF	0842.3	0850.2	56.9	8.0			
	9100	GORK	1	S	0845.4	0846.5	2.6	12.0			
	15000	KISV	2	S/F	0855.5	0855.7	1.0	9.0			
	234	POTS	41	F	0941.9	0943.0	1.2	900.0			
	245	LEAR	8	S	0942.0E	0942.0	1.0D	140.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0942.0E	0943.0	1.0D	140.0			QL=4 ST=2 TYP=3
	113	POTS	4	S/F	0942.7	0943.1	1.7	180.0			
	40	POTS	4	S/F	0942.9	0943.1	1.4	3000.0U			
	260	ONDR	40	F	1000.0	1310.0	220.0	71.0			

SOLAR RADIO EMISSION
Outstanding Occurrences

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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	5900	KISV	2	S/F	1002.1	1002.6	1.7	5.0			
	9300	KISV	2	S/F	1002.2	1002.8	3.8	6.0			
	3013	IZMI	7	C	1002.5	1002.7	1.5	4.0	2.0		
	9100	GORK	22	GRF	1003.0	1010.5	87.0D	25.0			
	5900	KISV	25	R	1012.8	1133.5		34.0			
	9300	KISV	25	R	1015.8	1146.3	90.5	33.0			
	2950	GORK	20	GRF	1023.3	1114.8	97.7D	14.0			
	9300	KISV	2	S/F	1108.5	1110.2	5.5	12.0			
	5900	KISV	2	S/F	1108.6	1110.0	7.5	13.0			
	5900	KISV	2	S/F	1116.6	1117.0	2.3	7.0			
	9300	KISV	2	S/F	1116.7	1117.0	3.6	6.0			
	9400	HUAN	4	S/F	1312.1	1316.4		53.1			
	9400	HUAN	4	S/F	1312.1	1314.9	5.7	76.9	32.4		
	4995	SGMR	4	S/F	1314.0E	1314.0	3.0D	47.0			QL=4 ST=2 TYP=3
	15400	SGMR	4	S/F	1314.0E	1314.0	3.0D	63.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1314.0E	1314.0	3.0D	73.0			QL=4 ST=2 TYP=3
	15400	SVTO	4	S/F	1314.0E	1314.0	3.0D	53.0			QL=2 ST=2 TYP=3
	4995	SVTO	4	S/F	1314.0E	1314.0	3.0D	50.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1314.0E	1314.0	3.0D	72.0			QL=4 ST=2 TYP=3
	1470	POTS	20	GRF	1314.3	1316.5	13.7	8.0			
	9500	POTS	42	SER	1314.4	1314.6	3.5	71.0			
	3000	POTS	42	SER	1314.5	1314.9	3.8	24.0			
	9400	HUAN	29	PBI	1317.8	1317.8	76.3	12.8	5.6		
	245	SGMR	8	S	1445.0E	1446.0	1.0D	200.0			QL=4 ST=2 TYP=3
	9400	HUAN	4	S/F	1520.6	1522.6	7.0	71.4	32.8		
	9500	CUBA	46	C	1521.1	1523.6	3.9	74.0			
	2800	OTTA	3	S	1521.2	1523.8	6.7	44.3	9.0		
	2695	SGMR	8	S	1522.0E	1523.0	2.0D	46.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1522.0E	1523.0	2.0D	98.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1522.0E	1523.0	2.0D	63.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1522.0E	1523.0	2.0D	59.0			QL=4 ST=2 TYP=3
	9500	CUBA	29	PBI	1525.0		60.0	17.0	8.0		
	245	SGMR	8	S	1538.0E	1538.0	U	100.0			QL=4 ST=2 TYP=3
	2800	OTTA	20	GRF	1614.0	1700.0	195.0	11.2	5.0		
	9500	CUBA	21	GRF	1650.0	1754.0	287.0D	43.0			2137 OFF
	9400	HUAN	22	GRF	1653.4	1803.5	131.2	25.6	12.8		
	9400	HUAN	4	S/F	1947.8	1950.1	11.7	42.1	23.2		
	2800	OTTA	3	S	1948.8	1950.1	3.7	13.0	3.0		
	9500	CUBA	2	S/F	1949.3	1950.0	2.4	35.0	17.0		
	9400	HUAN	22	GRF	2005.8	2043.5	97.2	20.1	9.8		
23	280	CUBA	44	NS	1315.0E		496.0D		24.0		
	235	CUBA	44	NS	1315.0E		496.0D		14.0		
	245	LEAR	8	S	0238.0E	0238.0	2.0D	180.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0309.0E	0309.0	U	20.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0309.0E	0309.0	U	3700.0			QL=4 ST=2 TYP=6
	245	PALE	49	GB	0309.0E	0309.0	U	3700.0			QL=4 ST=3 TYP=6
	245	LEAR	8	S	0434.0E	0434.0	U	240.0			QL=4 ST=2 TYP=3
	200	HIRA	41	F	0515.0	0519.8	5.0	29.0			O
	100	HIRA	46	C	0524.0	0526.0	2.4	190.0			WL
	245	LEAR	8	S	0527.0E	0527.0	U	61.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0530.0E	0531.0	2.0D	260.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0531.0E	0531.0	1.0D	110.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0535.0E	0535.0	1.0D	70.0			QL=4 ST=2 TYP=3
	5900	KISV	2	S/F	0610.5	0611.8	6.5	8.0			
	9300	KISV	2	S/F	0610.5	0611.8	4.3	6.0			
	5900	KISV	23	GRF	0808.6	0811.0	35.2	11.0			
	9100	GORK	23	GRF	0809.0	0824.5	186.0D	16.0			
	9300	KISV	46	C	0810.4	0815.4		17.0			
	9300	KISV	46	C	0810.4	0817.7		20.0			
	9300	KISV	46	C	0810.4	0814.7	15.9	24.0			
	5900	KISV	46	C	0811.5	0815.6		28.0			
	5900	KISV	46	C	0811.5	0817.6	8.8	36.0			
	5900	KISV	46	C	0811.5	0814.7		30.0			
	9100	GORK	45	C	0814.0	0817.6		16.0			
	9100	GORK	45	C	0814.0	0814.7	7.0	18.0			
	650	GORK	20	GRF	0833.8	1008.3	159.2D	4.0			
	245	LEAR	8	S	0851.0E	0851.0	1.0D	430.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0851.0E	0851.0	1.0D	460.0			QL=4 ST=3 TYP=3

SOLAR RADIO EMISSION
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JANUARY 1991

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	113	POTS	4	S/F	0851.2	0852.3	1.6	100.0			
	204	IZMI	4	S/F	0851.5	0852.0	0.8	180.0			
	40	POTS	4	S/F	0851.7	0851.8	1.1	U			
	33	UPIC	4	S/F	0851.8	0852.1	1.2				
	245	SVTO	4	S/F	0905.0E	0935.0	32.0D	95.0			QL=4 ST=2 TYP=3
	950	GORK	20	GRF	0917.1	1008.3	109.0	5.0			
	40	POTS	42	SER	0931.6	0936.0	5.1	U			
	113	POTS	42	SER	0932.5	0933.1	5.1	140.0			
	204	IZMI	8	S	0934.5	0934.7	0.2	75.0	70.0		
	245	LEAR	8	S	0935.0E	0935.0	2.0D	91.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0935.0E	0935.0	2.0D	95.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0937.0E	0937.0	U	90.0			QL=4 ST=2 TYP=3
	40	POTS	42	SER	0945.0	1036.0	51.6	U			
	113	POTS	42	SER	0945.1	1036.0	51.5	200.0			
	33	UPIC	42	SER	0955.0	1035.8	45.8				
	245	LEAR	49	GB	1016.0E	1016.0	1.0D	960.0			QL=4 ST=2 TYP=6
	245	SVTO	49	GB	1016.0E	1016.0	1.0D	1000.0			QL=4 ST=2 TYP=6
	260	ONDR	45	C	1017.5	1017.5	6.0	415.0			
	5900	KISV	2	S/F	1028.6	1030.6	4.3	5.0			
	9300	KISV	2	S/F	1029.2	1030.7	4.8	27.0			
	9300	KISV	2	S/F	1036.7	1036.9	1.3	6.0			
	245	SVTO	8	S	1039.0E	1039.0	U	190.0			QL=4 ST=2 TYP=3
	9100	GORK	3	S	1039.0	1039.6	1.4	25.0			
	5900	KISV	2	S/F	1039.4	1039.8	1.2	4.0			
	15000	KISV	2	S/F	1039.6	1039.8	0.7	13.0			
	2950	GORK	22	GRF	1040.7	1105.9	343.0D	8.0			
	5900	KISV	2	S/F	1116.0	1116.5	2.8	5.0			
	9300	KISV	2	S/F	1116.2	1116.5	2.2	10.0			
	260	ONDR	45	C	1232.5	1233.0	4.0	77.0			
	245	SGMR	8	S	1233.0E	1233.0	U	60.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1233.0E	1233.0	2.0D	63.0			QL=4 ST=2 TYP=3
	33	UPIC	4	S/F	1233.3	1234.8	1.5				
	9400	HUAN	2	S/F	1246.6	1249.5	5.2	9.7	3.8		
	9500	CUBA	1	S	1352.2	1352.8	1.9	14.0	7.0		
	9400	HUAN	22	GRF	1417.0	1450.9	76.0	7.7	2.6		
	410	SGMR	49	GB	1703.0E	1705.0	2.0D	1100.0			QL=4 ST=2 TYP=6
	9500	CUBA	2	S/F	1816.5	1816.6	5.6	47.0	23.0		
	100	HIRA	46	C	2202.4	2203.1	1.3	780.0			ML
24	280	CUBA	44	NS	1315.0E		495.0D		26.0		
	235	CUBA	44	NS	1315.0E		495.0D		13.0		
	245	LEAR	8	S	0032.0E	0032.0	U	63.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0101.0E	0102.0	1.0D	77.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0114.4	0114.5	0.9	84.0			O
	2840	PEKG	47	GB	0300.0	0403.2	124.0	1756.0			
	2695	LEAR	4	S/F	0319.0E	0321.0	13.0D	180.0			QL=2 ST=2 TYP=3
	4995	LEAR	4	S/F	0319.0E	0321.0	16.0D	280.0			QL=2 ST=2 TYP=5
	8800	LEAR	4	S/F	0319.0E	0321.0	10.0D	150.0			QL=2 ST=2 TYP=3
	15400	LEAR	4	S/F	0320.0E	0321.0	3.0D	68.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	0320.0E	0321.0	9.0D	160.0			QL=4 ST=2 TYP=3
	15400	PALE	4	S/F	0320.0E	0321.0	3.0D	53.0			QL=4 ST=2 TYP=3
	4995	PALE	20	GRF	0320.0E	0320.0	9.0D	290.0			QL=4 ST=2 TYP=2
	1415	PALE	4	S/F	0320.0E	0322.0	9.0D	65.0			QL=4 ST=2 TYP=3
	1415	LEAR	4	S/F	0320.0E	0321.0	12.0D	59.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	0320.0E	0321.0	1240.0D	150.0			QL=4 ST=1 TYP=3
	500	HIRA	46	C	0320.4	0340.0		27.0			O
	500	HIRA	46	C	0320.4	0439.0		63.0			O
	500	HIRA	46	C	0320.4	0408.2	90.0	183.0	35.0		O
	500	HIRA	46	C	0320.4	0331.5		33.0			O
	200	HIRA	48	C	0320.9	0325.0		1400.0			O
	200	HIRA	48	C	0320.9	0323.1	21.1	9100.0	370.0		O
	200	HIRA	48	C	0320.9	0340.9		65.0			O
	610	LEAR	8	S	0321.0E	0321.0	U	58.0			QL=4 ST=2 TYP=3
	410	LEAR	49	GB	0321.0E	0321.0	3.0D	1100.0			QL=4 ST=2 TYP=6
	245	PALE	49	GB	0321.0E	0323.0	4.0D	4700.0			QL=4 ST=2 TYP=6
	610	PALE	8	S	0321.0E	0321.0	U	53.0			QL=4 ST=2 TYP=3
	410	PALE	49	GB	0321.0E	0321.0	3.0D	1500.0			QL=4 ST=2 TYP=6
	245	LEAR	49	GB	0321.0E	0323.0	11.0D	5800.0			QL=4 ST=2 TYP=6
	100	HIRA	48	C	0321.5	0335.0	29.0	1000.0D	153.0D		O

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

JANUARY 1991

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
24	4995	LEAR	49	GB	0335.0E	0403.0	83.0D	2200.0			QL=2 ST=2 TYP=7
	2695	LEAR	49	GB	0335.0E	0403.0	83.0D	1200.0			QL=2 ST=2 TYP=7
	1415	LEAR	49	GB	0335.0E	0404.0	83.0D	1400.0			QL=4 ST=2 TYP=7
	610	LEAR	49	GB	0337.0E	0406.0	81.0D	770.0			QL=4 ST=2 TYP=7
	245	LEAR	4	S/F	0338.0E	0340.0	4.0D	76.0			QL=4 ST=2 TYP=3
	410	LEAR	4	S/F	0338.0E	0339.0	4.0D	20.0			QL=4 ST=2 TYP=3
	15400	LEAR	4	S/F	0338.0E	0340.0	5.0D	64.0			QL=4 ST=2 TYP=3
	8800	LEAR	49	GB	0338.0E	0403.0	80.0D	1200.0			QL=2 ST=2 TYP=7
	8800	PALE	4	S/F	0345.0E	0359.0U	14.0D	700.0			QL=2 ST=2 TYP=3
	1415	PALE	49	GB	0345.0E	0359.0U	14.0D	1500.0			QL=2 ST=2 TYP=7
	2695	PALE	49	GB	0345.0E	0359.0U	14.0D	600.0			QL=2 ST=2 TYP=6
	4995	PALE	49	GB	0346.0E	0359.0U	13.0D	1000.0			QL=2 ST=3 TYP=6
	1415	PALE	49	GB	0346.0E	0359.0U	13.0D	1500.0			QL=2 ST=3 TYP=7
	15400	PALE	49	GB	0347.0E	0359.0U	12.0D	700.0			QL=2 ST=2 TYP=6
	4995	PALE	49	GB	0348.0E	0359.0U	11.0D	1000.0			QL=2 ST=2 TYP=6
	610	PALE	4	S/F	0349.0E	0359.0U	10.0D	27.0			QL=2 ST=3 TYP=3
	245	LEAR	4	S/F	0530.0E	0533.0	6.0D	89.0			QL=2 ST=2 TYP=3
	127	TORN	42	SER	0752.6	0757.6	20.6	2600.0D			
	113	POTS	42	SER	0756.6	0814.5U	20.0U	2400.0D			
	200	GORK	4	S/F	0812.4	0815.1	4.0	200.0			
	127	TORN	47	GB	0813.9	0815.0U	2.5	15000.0D	2200.0		
	5900	KISV	4	S/F	0813.9	0814.6	4.2	42.0			
	4995	LEAR	8	S	0814.0E	0814.0	1.0D	35.0			QL=2 ST=2 TYP=3
	8800	LEAR	8	S	0814.0E	0814.0	1.0D	28.0			QL=2 ST=2 TYP=3
	410	LEAR	8	S	0814.0E	0814.0	U	31.0			QL=4 ST=3 TYP=3
	245	LEAR	8	S	0814.0E	0814.0	1.0D	72.0			QL=4 ST=3 TYP=3
	245	SVTO	8	S	0814.0E	0814.0	U	70.0			QL=4 ST=2 TYP=3
	100	GORK	47	GB	0814.0	0814.2	1.7	13400.0			
	650	GORK	2	S/F	0814.0	0814.3	1.0	7.0			
	3013	IZMI	41	F	0814.0	0814.5	3.5	10.0			
	2950	GORK	1	S	0814.0	0814.6	0.9	7.0			
	950	GORK	2	S/F	0814.0	0814.6	1.0	6.0			
	204	IZMI	41	F	0814.0	0814.7	2.5	800.0			
	40	POTS	4	S/F	0814.0	0814.9	3.5	U			
	9100	GORK	2	S/F	0814.1	0814.5	0.9	33.0			
	9300	KISV	4	S/F	0814.1	0814.6	5.9	38.0			
	9100	GORK	1	S	0832.7	0833.0	0.9	12.0			
	9300	KISV	2	S/F	0832.7	0833.0	1.6	11.0			
	5900	KISV	2	S/F	0832.7	0833.0	2.7	7.0			
	9100	GORK	2	S/F	0839.2	0841.1	3.1	18.0			
	5900	KISV	2	S/F	0839.5	0841.0	5.0	11.0			
	9300	KISV	2	S/F	0839.8	0840.8	5.5	11.0			
	610	LEAR	8	S	0840.0E	0840.0	1.0D	200.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0840.0E	0840.0	1.0D	14.0			QL=2 ST=2 TYP=3
	610	SVTO	8	S	0840.0E	0840.0	1.0D	350.0			QL=4 ST=2 TYP=3
	600	HUMN	8	S	0841.0	0841.5	0.8	42.0	15.0		
	9300	KISV	4	S/F	0902.3	0904.2	4.9	44.0			
	15400	LEAR	8	S	0903.0E	0904.0	2.0D	77.0			QL=4 ST=2 TYP=3
	9500	POTS	4	S/F	0903.4	0904.2	2.4	32.0			
	5900	KISV	2	S/F	0903.6	0904.1	2.8	12.0			
	9100	GORK	3	S	0903.8	0904.1	2.2	35.0			
	8800	LEAR	8	S	0904.0E	0904.0	U	22.0			QL=2 ST=2 TYP=3
	15400	SVTO	8	S	0904.0E	0904.0	U	58.0			QL=4 ST=2 TYP=3
	5900	KISV	2	S/F	0928.4	0928.8	5.9	9.0			
	9100	GORK	23	GRF	0958.1	1103.0	124.9D	18.0			
	2950	GORK	21	GRF	0958.4	1041.2	112.6U	8.0			
	9300	KISV	22	GRF	1020.9	1026.4	14.2	17.0			
	5900	KISV	21	GRF	1022.3	1039.0	29.1	13.0			
	15000	KISV	2	S/F	1025.6	1026.4	2.3	10.0			
	9500	POTS	2	S/F	1025.7	1026.2	1.3	10.0			
	15000	KISV	2	S/F	1031.6	1037.1	9.3	20.0			
	4995	LEAR	4	S/F	1036.0E	1036.0	3.0D	43.0			QL=2 ST=2 TYP=3
	15400	LEAR	4	S/F	1036.0E	1036.0	6.0D	68.0			QL=2 ST=2 TYP=3
	2695	LEAR	4	S/F	1036.0E	1036.0	3.0D	34.0			QL=2 ST=2 TYP=3
	1415	LEAR	8	S	1036.0E	1036.0	U	17.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	1036.0E	1036.0	2.0D	34.0			QL=2 ST=2 TYP=3
	127	TORN	47	GB	1039.7	1042.0U	8.0	2200.0D	200.0		
	5900	KISV	2	S/F	1114.6	1115.0	2.0	9.0			
	9300	KISV	2	S/F	1114.6	1114.9	2.6	9.0			

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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
24	9300	KISV	23	GRF	1126.1	1137.4	25.6	9.0			
	5900	KISV	23	GRF	1126.4	1150.8	30.2	6.0			
	200	GORK	47	GB	1135.4	1143.0	8.3	1300.0			
	5900	KISV	46	C	1139.3	1143.3		13.0			
	5900	KISV	46	C	1139.3	1142.3		18.0			
	5900	KISV	46	C	1139.3	1142.7	8.4	21.0			
	2950	GORK	2	S/F	1139.7	1143.1	4.9	11.0			
	9300	KISV	45	C	1139.9	1143.0	7.8	31.0			
	9300	KISV	45	C	1139.9	1141.4		20.0			
	536	ONDR	4	S/F	1140.0	1143.0	13.2	73.0			
	113	POTS	4	S/F	1140.0	1143.0	12.0	2400.0D			
	9100	GORK	46	C	1140.3	1141.6	4.7	15.0			
	9100	GORK	46	C	1140.3	1142.9		25.0			
	1470	POTS	4	S/F	1140.4	1143.0	14.6	42.0			
	204	IZMI	45	C	1140.5	1143.0	4.0	14000.0			
	3000	POTS	42	SER	1140.5	1143.4	5.5	14.0			
	9500	POTS	42	SER	1140.6	1143.0	4.4	26.0			
	950	GORK	21	GRF	1140.8	1147.3	10.8	6.0			
	650	GORK	21	GRF	1140.8	1147.4	10.2U	6.0			
	600	HUMN	3	S	1141.0	1143.5	14.0	33.0	6.0		
	810	KRAK	4	S/F	1141.0	1142.6	12.0	48.0	7.0		
	1415	SVTO	8	S	1142.0E	1143.0	2.0D	43.0			QL=4 ST=2 TYP=3
	610	SVTO	4	S/F	1142.0E	1143.0	4.0D	50.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1142.0E	1142.0	1.0D	350.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1142.0E	1143.0	1.0D	54.0			QL=4 ST=2 TYP=3
	3013	IZMI	7	C	1142.0	1143.3	2.0	12.0			
	15000	KISV	4	S/F	1142.3	1143.1	1.8	76.0			
	950	GORK	4	S/F	1142.3	1142.9	5.0	70.0			
	650	GORK	4	S/F	1142.4	1143.8	5.0	55.0			
	40	POTS	4	S/F	1142.5	1143.2U	2.5	U			
	100	GORK	47	GB	1142.5	1142.7	1.3	19000.0			
	808	ONDR	4	S/F	1142.5	1142.7	7.2	107.0			
	33	UPIC	4	S/F	1142.6	1143.0	1.4				
	260	ONDR	46	C	1143.0	1143.3	2.4	243.0			
	8800	SVTO	8	S	1224.0E	1224.0	1.0D	27.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1224.0E	1224.0	1.0D	55.0			QL=4 ST=2 TYP=3
	9400	HUAN	22	GRF	1305.3	1317.2	69.5	16.5	7.8		
	9400	HUAN	22	GRF	1446.8	1515.7	91.9	23.9	12.6		
	9400	HUAN	1	S	1810.4	1813.1	8.0	11.0	4.8		
	9400	HUAN	2	S/F	1857.3	1901.6	7.9	10.1	4.6		
	245	SGMR	8	S	1941.0E	1942.0	1.0D	53.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2013.0E	2013.0	1.0D	82.0			QL=4 ST=2 TYP=3
	245	SGMR	4	S/F	2013.0E	2013.0	8.0D	81.0			QL=4 ST=2 TYP=3
	9400	HUAN	23	GRF	2044.0	2125.1	93.4	5.5	2.9		
	9400	HUAN	4	S/F	2154.2	2155.6	5.8	29.4	12.8		
	100	HIRA	42	SER	2203.6		7.9	1000.0D			
	245	PALE	49	GB	2207.0E	2207.0	1.0D	590.0			QL=4 ST=2 TYP=6
	8800	PALE	4	S/F	2207.0E	2210.0	3.0D	43.0			QL=4 ST=2 TYP=3
	200	HIRA	42	SER	2207.4	2209.4	3.3	890.0			O
	4995	PALE	8	S	2208.0E	2210.0	2.0D	42.0			QL=4 ST=2 TYP=3
	2695	PENT	3	S	2209.5	2210.3	2.3	31.4	6.0		
	2695	PALE	8	S	2210.0E	2210.0	U	36.0			QL=4 ST=2 TYP=3
	1415	LEAR	20	GRF	2210.0E	2221.0	22.0D	48.0			QL=4 ST=3 TYP=2
	8800	LEAR	4	S/F	2212.0E	2218.0	20.0D	130.0			QL=2 ST=3 TYP=5
	4995	LEAR	4	S/F	2212.0E	2218.0	20.0D	110.0			QL=2 ST=3 TYP=5
	2695	LEAR	8	S	2213.0E	2213.0U	2.0D	45.0			QL=2 ST=3 TYP=3
	410	LEAR	8	S	2213.0E	2214.0U	2.0D	16.0			QL=4 ST=3 TYP=3
	610	LEAR	8	S	2213.0E	2214.0U	1.0D	15.0			QL=4 ST=3 TYP=3
	9400	HUAN	2	S/F	2232.9	2235.6	11.3	18.4	7.6		
	245	LEAR	4	S/F	2348.0E	2349.0	4.0D	64.0			QL=4 ST=2 TYP=3
25	280	CUBA	44	NS	1321.0E		466.0D		22.0		
	235	CUBA	44	NS	1321.0E		466.0D		12.0		
	245	LEAR	8	S	0059.0E	0059.0	U	100.0			QL=4 ST=2 TYP=3
	500	HIRA	41	F	0304.4	0304.6	1.8	46.0			O
	100	HIRA	42	SER	0354.1	0358.1	7.3	1000.0			
	200	HIRA	8	S	0357.4	0357.7	0.9	130.0			O
	500	HIRA	41	F	0358.4	0359.4	1.2	16.0			O
	500	HIRA	41	F	0454.5	0456.0	3.0	151.0			O

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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
25	610	LEAR	8	S	0455.0E	0457.0	2.0D	190.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0457.0E	0457.0	U	38.0			QL=2 ST=2 TYP=3
	2695	SVTO	49	GB	0602.0E	0716.0	1078.0D	950.0			QL=2 ST=1 TYP=7
	5900	KISV	47	GB	0616.2	0631.2	66.4	6292.0			
	5900	KISV	29	PBI	0616.2	0720.6	330.0	373.0			
	5900	KISV	47	GB	0616.2	0714.8		2227.0			
	9300	KISV	47	GB	0617.5	0631.1	84.6	5670.0			
	9300	KISV	29	PBI	0617.5	0742.1	318.0U	89.0			
	9300	KISV	47	GB	0617.5	0714.7		590.0			
	15000	KISV	47	GB	0620.0	0632.1	69.7	4936.0			
	15000	KISV	29	PBI	0620.0	0729.7	330.0U	79.0			
	9100	GORK	47	GB	0624.0	0631.0	15.8	6380.0			
	8800	LEAR	49	GB	0628.0E	0630.0	71.0D	4200.0			QL=2 ST=3 TYP=7
	4995	LEAR	49	GB	0628.0E	0631.0	85.0D	4400.0			QL=2 ST=3 TYP=7
	15400	LEAR	49	GB	0628.0E	0630.0	85.0D	6600.0			QL=4 ST=3 TYP=7
	8800	SVTO	49	GB	0629.0E	0632.0	18.0D	5400.0			QL=2 ST=2 TYP=7
	1415	LEAR	49	GB	0629.0E	0632.0	78.0D	2900.0			QL=4 ST=3 TYP=7
	2695	LEAR	49	GB	0629.0E	0631.0	84.0D	3500.0			QL=2 ST=3 TYP=7
	2840	PEKG	47	GB	0629.0	0722.0D	86.0D	1129.0			
	2840	PEKG	47	GB	0629.0	0639.0E					
	950	GORK	23	GRF	0629.0	0721.7	80.4U	65.0			
	2950	GORK	47	GB	0629.2	0631.9	60.8	2570.0			
	650	GORK	23	GRF	0629.5	0720.3	84.8	35.0			
	2695	SVTO	49	GB	0630.0E	0632.0	17.0D	2100.0			QL=2 ST=2 TYP=7
	1415	SVTO	49	GB	0630.0E	0632.0	17.0D	960.0			QL=2 ST=2 TYP=7
	4995	SVTO	49	GB	0630.0E	0632.0	22.0D	3500.0			QL=2 ST=2 TYP=7
	950	GORK	47	GB	0630.0	0633.1		1900.0			
	950	GORK	47	GB	0630.0	0632.4	19.7	3540.0			
	650	GORK	47	GB	0630.2	0633.2		1440.0			
	650	GORK	47	GB	0630.2	0633.2	19.6	1280.0			
	200	HIRA	48	C	0630.8	0634.0		1300.0			0
	200	HIRA	29	PBI	0630.8	0656.0	70.0D	38.0	15.0		0 SUNSET
	200	HIRA	48	C	0630.8	0633.3		290.0			0
	200	HIRA	48	C	0630.8	0631.6	90.0	48000.0	510.0		0
	200	GORK	47	GB	0630.9	0633.8	64.6	44500.0			
	100	HIRA	48	C	0631.0		67.0	1000.0D	215.0D		
	245	SVTO	49	GB	0631.0E	0632.0	16.0D	39000.0			QL=2 ST=2 TYP=7
	610	SVTO	49	GB	0631.0E	0633.0	16.0D	1200.0			QL=2 ST=2 TYP=7
	410	SVTO	49	GB	0631.0E	0631.0	14.0D	28000.0			QL=2 ST=2 TYP=7
	410	LEAR	49	GB	0631.0E	0631.0	33.0D	28000.0			QL=4 ST=3 TYP=7
	245	LEAR	49	GB	0631.0E	0632.0	36.0D	57000.0			QL=4 ST=3 TYP=7
	610	LEAR	49	GB	0631.0E	0633.0	55.0D	1600.0			QL=4 ST=3 TYP=7
	500	HIRA	48	C	0631.0	0631.3		12000.0			0
	500	HIRA	48	C	0631.0	0704.6		30.0			0
	500	HIRA	48	C	0631.0	0632.7	37.6	43000.0	790.0		0
	500	HIRA	48	C	0631.0	0652.8		70.0			0
	100	GORK	47	GB	0631.6	0642.3		3100.0			
	100	GORK	47	GB	0631.6	0636.6	63.7	26000.0			
	100	GORK	47	GB	0631.6	0637.8		3200.0			
	127	TORN	45	C	0639.0	0640.7	4.3	240.0D	30.0D		
	9100	GORK	30	PBI	0639.8	0639.8	320.2D	200.0			
	15400	SVTO	49	GB	0640.0E	0642.0	7.0D	230.0			QL=2 ST=2 TYP=7
	3013	IZMI	45	C	0647.0	0715.0	40.0	510.0			
	9100	GORK	46	C	0651.7	0707.0		290.0			
	9100	GORK	46	C	0651.7	0653.2	50.3	240.0			
	9100	GORK	46	C	0651.7	0714.5		550.0			
	245	SVTO	4	S/F	0652.0E	0653.0	6.0D	90.0			QL=2 ST=2 TYP=3
	1415	SVTO	4	S/F	0652.0E	0653.0	6.0D	85.0			QL=2 ST=2 TYP=3
	610	SVTO	8	S	0652.0E	0652.0	2.0D	74.0			QL=2 ST=2 TYP=3
	15400	SVTO	8	S	0652.0E	0653.0	2.0D	120.0			QL=2 ST=2 TYP=3
	4995	SVTO	49	GB	0652.0E	0715.0	54.0D	1000.0			QL=2 ST=2 TYP=7
	2695	SVTO	49	GB	0652.0E	0721.0	54.0D	1200.0			QL=2 ST=2 TYP=7
	8800	SVTO	49	GB	0652.0E	0715.0	54.0D	570.0			QL=2 ST=2 TYP=7
	650	GORK	46	C	0652.0	0656.2		20.0			
	650	GORK	46	C	0652.0	0652.4	5.5	50.0			
	950	GORK	4	S/F	0652.0	0652.7	2.6	70.0			
	950	GORK	4	S/F	0711.4	0715.1	10.3	45.0			
	650	GORK	4	S/F	0711.9	0714.6	8.4	30.0			
	2950	GORK	29	PBI	0730.0	0730.0	121.0	160.0			

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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
25	650	GORK	4	S/F	0742.0	0743.8	3.0	15.0			
	650	GORK	2	S/F	0811.7	0812.0	0.6	3.0			
	650	GORK	4	S/F	0816.4	0818.4	3.9	20.0			
	113	POTS	42	SER	0841.8	0858.0	18.2	150.0			
	1470	POTS	20	GRF	0856.0	0920.0	34.0	13.0			
┌	410	LEAR	8	S	0857.0E	0858.0	1.0D	22.0			QL=4 ST=2 TYP=3
├	610	LEAR	8	S	0858.0E	0858.0	U	210.0			QL=4 ST=2 TYP=3
├	245	LEAR	8	S	0858.0E	0858.0	U	34.0			QL=4 ST=2 TYP=3
├	610	SVTO	8	S	0858.0E	0858.0	U	240.0			QL=4 ST=2 TYP=3
├	33	UPIC	8	S	0858.1	0858.4	0.6				
└	600	HUMN	8	S	0858.3	0858.5	0.5	100.0	30.0		
┌	3000	POTS	20	GRF	0906.4	0916.5	18.6	16.0			
├	650	GORK	20	GRF	0909.5	0911.4	7.7	2.0			
├	9300	KISV	20	GRF	0909.5	0917.6	17.1	15.0			
└	950	GORK	20	GRF	0909.5	0915.9	13.6	4.0			
	5900	KISV	23	GRF	1011.0	1112.7	99.0	28.0			
┌	9300	KISV	23	GRF	1011.3	1014.8	94.3	30.0			
├	15000	KISV	2	S/F	1011.7	1013.0	6.2	11.0			
├	9300	KISV	2	S/F	1011.8	1013.1	7.0	21.0			
├	536	ONDR	4	S/F	1012.2	1012.6	1.0	59.0			
├	5900	KISV	2	S/F	1012.7	1013.1	2.9	9.0			
├	810	KRAK	8	S	1013.0	1013.5	0.7	100.0			
└	808	ONDR	4	S/F	1013.5	1014.0	3.0	180.0			
	113	POTS	42	SER	1014.6	1021.6	9.9	550.0			
┌	2950	GORK	1	S	1015.8	1016.9	2.8	7.0			
├	650	GORK	1	S	1017.2	1017.3	0.9	2.0			
└	950	GORK	2	S/F	1017.2	1017.3	1.1	6.0			
┌	204	IZMI	4	S/F	1020.5	1022.0	2.0	580.0			
├	200	GORK	4	S/F	1020.7	1022.0	2.1	750.0			
├	234	POTS	41	F	1020.7	1021.8	2.1	275.0			
├	2850	CRIM	1	S	1020.8	1022.0	2.1	84.0			
├	950	GORK	4	S/F	1020.8	1022.0	3.2	16.0			
├	127	TORN	47	GB	1020.8	1022.0U	2.6	2200.0D	760.0		
├	245	LEAR	8	S	1021.0E	1022.0	1.0D	74.0			QL=4 ST=2 TYP=3
├	2695	LEAR	8	S	1021.0E	1022.0	1.0D	31.0			QL=2 ST=2 TYP=3
├	2695	SVTO	8	S	1021.0E	1022.0	1.0D	49.0			QL=4 ST=2 TYP=3
├	245	SVTO	8	S	1021.0E	1022.0	1.0D	80.0			QL=4 ST=2 TYP=3
├	260	ONDR	46	C	1021.0	1021.7	1.1	72.0			
├	100	GORK	4	S/F	1021.1	1021.7	1.9	2200.0			
├	810	KRAK	1	S	1021.2	1022.0	1.3	8.0	5.0		
├	30	POTS	4	S/F	1021.2	1021.6	2.6	24000.0U			
├	5900	KISV	2	S/F	1021.3	1022.0	1.8	15.0			
├	2950	GORK	4	S/F	1021.3	1022.0U	1.8	50.0			
├	33	UPIC	46	C	1021.3	1021.9	2.2				
├	9300	KISV	2	S/F	1021.4	1022.0	2.0	14.0			
├	650	GORK	2	S/F	1021.4	1022.1	2.6	8.0			
├	3013	IZMI	5	S	1021.5	1022.0	1.5	25.0	10.0		
└	430	KRAK	8	S	1021.6	1021.9	1.0	31.0			
	15000	KISV	2	S/F	1026.4	1027.1	3.6	14.0			
	9300	KISV	45	C	1036.6	1039.0	14.6	31.0			
	9300	KISV	45	C	1036.6	1043.8		20.0			
	15000	KISV	23	GRF	1036.7	1116.0	58.5	37.0			
	15000	KISV	2	S/F	1038.2	1039.2	2.7	34.0			
┌	950	GORK	1	S	1058.8	1059.5	1.2	2.0			
└	2950	GORK	1	S	1058.9	1059.5	1.7	5.0			
	3000	POTS	2	S/F	1059.4	1100.0	1.8	7.0			
┌	9300	KISV	4	S/F	1108.6	1110.1	4.7	39.0			
├	2950	GORK	1	S	1108.9	1110.1	3.6	5.0			
├	9100	GORK	2	S/F	1109.4	1110.0	2.0	30.0			
├	9500	POTS	4	S/F	1109.5	1110.2	2.9	23.0			
├	15000	KISV	2	S/F	1109.7	1110.1	2.0	17.0			
└	5900	KISV	2	S/F	1109.8	1110.1	2.5	21.0			
┌	100	GORK	4	S/F	1116.9	1117.3	2.1	40.0			
├	200	GORK	46	C	1116.9	1117.3	2.7	30.0			
├	200	GORK	46	C	1116.9	1118.4		30.0			
└	260	ONDR	46	C	1118.0	1118.0	2.1	117.0			
	430	KRAK	8	S	1211.4	1212.0	0.8	110.0			
	9400	HUAN	23	GRF	1218.9E	1340.1	214.3D	48.9	30.2		
┌	9400	HUAN	3	S	1223.8	1225.8	4.3	28.2	12.6		

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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
25	9500	POTS	4	S/F	1225.0	1226.0	2.4	30.0			
	3000	POTS	4	S/F	1225.4	1226.0	1.5	3.0			
	9500	POTS	22	GRF	1310.0	1329.0	60.0	65.0			
	2850	CRIM	3	S	1312.2	1321.0	16.0	45.5	13.0		
	3000	POTS	21	GRF	1313.0	1320.8	42.0	20.0			
	245	SVTO	8	S	1314.0E	1314.0	U	350.0			QL=4 ST=2 TYP=3
	430	KRAK	42	SER	1314.9	1316.3	4.0	190.0D			
	410	SGMR	8	S	1315.0E	1316.0	1.0D	100.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1315.0E	1316.0	1.0D	120.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	1315.0E	1315.0	U	88.0			QL=4 ST=2 TYP=3
	536	ONDR	41	F	1315.0	1321.2	20.0	50.0			
	9400	HUAN	2	S/F	1317.3	1319.0	5.0	30.1	13.4		
	4995	SGMR	20	GRF	1318.0E	1319.0	4.0D	87.0			QL=4 ST=2 TYP=2
	410	SGMR	8	S	1318.0E	1318.0	U	65.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1318.0E	1318.0	U	52.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	1318.0E	1318.0	U	51.0			QL=4 ST=3 TYP=3
	2695	SVTO	4	S/F	1318.0E	1321.0	15.0D	45.0			QL=4 ST=2 TYP=3
	15400	SVTO	4	S/F	1318.0E	1321.0	15.0D	29.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	1318.0E	1318.0	13.0D	89.0			QL=4 ST=2 TYP=3
	8800	SVTO	20	GRF	1318.0E	1329.0	14.0D	62.0			QL=4 ST=2 TYP=2
	3000	POTS	4	S/F	1318.2	1320.7	6.4	26.0			
	2695	SGMR	20	GRF	1320.0E	1321.0	1.0D	60.0			QL=4 ST=2 TYP=2
	1470	POTS	4	S/F	1320.5	1321.0	1.5	6.0			
	9400	HUAN	2	S/F	1326.5	1329.0	10.4	22.6	10.2		
	15400	SGMR	20	GRF	1327.0E	1328.0	2.0D	59.0			QL=4 ST=2 TYP=2
	8800	SGMR	20	GRF	1327.0E	1329.0	5.0D	66.0			QL=4 ST=2 TYP=2
	9500	CUBA	21	GRF	1343.0E	1345.0	466.0D	67.0			2129 OFF
	113	POTS	42	SER	1346.9	1347.0	17.1	400.0			
	40	POTS	42	SER	1347.1	1347.2	14.6	1500.0U			
	9500	CUBA	2	S/F	1442.0	1444.5	3.9	31.0	15.0		
	9400	HUAN	2	S/F	1442.0	1444.6	4.5	24.4	11.4		
	9400	HUAN	22	GRF	1627.3	1641.2	28.0	5.6	2.4		
	9400	HUAN	20	GRF	1701.2	1724.4	55.8	11.3	5.8		
	9400	HUAN	1	S	1801.9	1803.7	7.4	9.4	4.6		
	9400	HUAN	23	GRF	1828.4	1906.6	97.0	16.0	6.9		
	245	SGMR	8	S	1842.0E	1843.0	2.0D	140.0			QL=4 ST=3 TYP=3
	245	PALE	8	S	1843.0E	1843.0	U	100.0			QL=4 ST=2 TYP=3
	9400	HUAN	4	S/F	1857.0	1859.6	4.8	41.4	20.2		
	9500	CUBA	1	S	1859.0	1859.6	1.0D	40.0			1900 OFF
	245	SGMR	8	S	1929.0E	1929.0	U	95.0			QL=4 ST=2 TYP=3
	9400	HUAN	4	S/F	1930.3	1935.7	13.0	37.6	19.4		
	2800	OTTA	3	S	1934.1	1935.1	3.1	44.2	9.0		
	9500	CUBA	2	S/F	1934.1	1935.6	4.7	38.0	19.0		
	245	SGMR	8	S	1952.0E	1952.0	1.0D	290.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	1954.0	1955.0	2.0	44.0	22.0		
	9400	HUAN	1	S	1954.8	1956.6	4.6	9.4	4.4		
	9400	HUAN	2	S/F	2047.6	2052.5	11.7	18.8	7.6		
	9400	HUAN	22	GRF	2104.9	2124.1	52.7	16.9	6.6		
	2695	PENT	20	GRF	2107.0	2113.5	38.0	8.7	4.0		
26	200	HIRA	43	NS	0446.0	0600.0	185.0D	3.0	2.0		0
	200	GORK	43	NS	0600.0		193.0		5.0		
	260	ONDR	43	NS	1150.0	1131.7	110.0D	124.0			
	245	SGMR	44	NS	1235.0E	1430.0	441.0D	93.0			QL=4 ST=2 TYP=1
	280	CUBA	44	NS	1315.0E		485.0D		26.0		
	235	CUBA	44	NS	1315.0E		485.0D		15.0		
	200	HIRA	44	NS	2143.0E	0620.0	610.0D	15.0	7.0		0
	245	LEAR	8	S	0203.0E	0203.0	1.0D	96.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0218.0E	0218.0	1.0D	87.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0218.0E	0218.0	1.0D	70.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0218.0E	0218.0	1.0D	77.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	0218.0E	0218.0	1.0D	90.0			QL=4 ST=2 TYP=3
	200	HIRA	46	C	0218.0	0218.2	1.0	97.0			ML
	100	HIRA	46	C	0218.2	0218.8	1.1	560.0			
	8800	LEAR	8	S	0248.0E	0249.0	1.0D	20.0			QL=2 ST=2 TYP=3
	2695	LEAR	8	S	0248.0E	0248.0	1.0D	66.0			QL=2 ST=2 TYP=3
	1415	LEAR	8	S	0248.0E	0249.0	1.0D	28.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0357.0	0358.3	4.0	15.0			
	2840	PEKG	45	C	0413.0	0418.3	19.0	31.2			

SOLAR RADIO EMISSION
Outstanding Occurrences

JANUARY 1991

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	245	LEAR	4	S/F	0440.0E	0440.0	4.0D	70.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0451.0E	0452.0	1.0D	50.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	0537.0E	0538.0	4.0D	53.0			QL=4 ST=2 TYP=3
	5900	KISV	23	GRF	0612.8	0618.4	20.4	11.0			
┌	5900	KISV	2	S/F	0613.5	0614.0	2.3	11.0			
└	9300	KISV	2	S/F	0613.5	0614.1	2.3	7.0			
┌	9300	KISV	2	S/F	0645.4	0647.9	4.8	7.0			
└	15000	KISV	2	S/F	0646.2	0647.8	3.6	15.0			
	9100	GORK	23	GRF	0703.0	0900.0	282.0D	30.0			
	9300	KISV	2	S/F	0725.0	0726.1	1.5	7.0			
┌	9300	KISV	23	GRF	0728.7	0738.0	29.6	17.0			
└	5900	KISV	23	GRF	0735.6	0738.1	21.9	15.0			
	245	LEAR	8	S	0750.0E	0750.0	U	110.0			QL=4 ST=2 TYP=3
	9300	KISV	2	S/F	0800.4	0801.0	2.5	6.0			
	2950	GORK	21	GRF	0803.0	0846.6	158.9	19.0			
┌	950	GORK	20	GRF	0806.9	0815.0	13.3	3.0			
├	5900	KISV	45	C	0809.8	0818.2		15.0			
├	5900	KISV	45	C	0809.8	0812.5	16.4	17.0			
└	9300	KISV	2	S/F	0811.5	0812.7	1.6	7.0			
	245	LEAR	8	S	0821.0E	0821.0	U	53.0			QL=4 ST=2 TYP=3
┌	15000	KISV	2	S/F	0842.5	0844.0	6.5	47.0			
├	15000	KISV	29	PBI	0842.5	0849.0	41.0	13.0			
├	9300	KISV	4	S/F	0842.6	0844.1	6.0	74.0			
├	5900	KISV	4	S/F	0842.6	0844.1	6.8	92.0			
├	5900	KISV	29	PBI	0842.6	0849.4	60.6	26.0			
├	9300	KISV	30	PBI	0842.6	0848.6	64.4	23.0			
├	9100	GORK	46	C	0842.7	0844.0	14.3	75.0			
├	9100	GORK	46	C	0842.7	0856.7		10.0			
├	610	LEAR	8	S	0843.0E	0843.0	1.0D	130.0			QL=4 ST=2 TYP=3
├	2695	LEAR	8	S	0843.0E	0844.0	1.0D	42.0			QL=2 ST=2 TYP=3
├	8800	LEAR	4	S/F	0843.0E	0844.0	7.0D	60.0			QL=2 ST=2 TYP=3
├	15400	LEAR	4	S/F	0843.0E	0843.0	6.0D	39.0			QL=4 ST=2 TYP=3
├	4995	SVTO	4	S/F	0843.0E	0844.0	6.0D	78.0			QL=4 ST=2 TYP=3
├	8800	SVTO	4	S/F	0843.0E	0844.0	4.0D	63.0			QL=4 ST=2 TYP=3
├	610	SVTO	8	S	0843.0E	0843.0	1.0D	99.0			QL=4 ST=2 TYP=3
├	4995	LEAR	4	S/F	0843.0E	0844.0	10.0D	71.0			QL=2 ST=2 TYP=3
├	1470	POTS	4	S/F	0843.2	0844.0	2.2	8.0			
├	9500	POTS	29	PBI	0843.3	0844.0	6.5	59.0			
├	3000	POTS	4	S/F	0843.4	0844.0	5.1	34.0			
├	2850	CRIM	1	S	0843.5	0844.0	5.0	8.7	3.0		
├	3013	IZMI	7	C	0843.5	0844.0	5.0	32.0			
├	2950	GORK	4	S/F	0843.6	0844.0	2.8	26.0			
├	650	GORK	4	S/F	0843.7	0844.2	1.0	75.0			
├	810	KRAK	8	S	0843.7	0843.9	0.7	140.0			
└	950	GORK	4	S/F	0843.8	0843.9	1.2	55.0			
	204	IZMI	7	C	0850.5	0851.0	1.0	55.0			
┌	9300	KISV	2	S/F	0854.3	0854.6	2.9	10.0			
└	245	LEAR	8	S	0855.0E	0855.0	U	57.0			QL=4 ST=2 TYP=3
	2950	GORK	1	S	0903.6	0905.4	5.4	6.0			
	260	ONDR	40	F	1000.0	1115.2	110.0	78.0			
	430	KRAK	42	SER	1003.7	1004.5	1.6	39.0			
┌	5900	KISV	2	S/F	1029.4	1029.9	4.8	9.0			
└	2950	GORK	1	S	1029.5	1030.1	1.9	5.0			
	430	KRAK	42	SER	1109.3	1111.6	5.0	48.0			
┌	9500	POTS	42	SER	1208.9	1209.4	3.1	24.0			
└	15400	SVTO	8	S	1209.0E	1209.0	U	66.0			QL=2 ST=3 TYP=3
	245	SGMR	8	S	1231.0E	1231.0	U	330.0			QL=4 ST=2 TYP=3
	9400	HUAN	22	GRF	1310.6	1400.5	73.3	8.8	4.1		
	245	SVTO	8	S	1311.0E	1311.0	U	76.0			QL=4 ST=2 TYP=3
	810	KRAK	8	S	1324.3	1324.5	0.3	42.0			
┌	15400	SGMR	8	S	1420.0E	1420.0	1.0D	120.0			QL=4 ST=2 TYP=3
├	15400	SVTO	8	S	1420.0E	1420.0	1.0D	100.0			QL=2 ST=2 TYP=3
└	9500	POTS	4	S/F	1420.1	1420.6	1.1	30.0			
	245	SVTO	8	S	1429.0E	1430.0	1.0D	82.0			QL=4 ST=2 TYP=3
	9400	HUAN	2	S/F	1520.6	1523.0	5.8	17.5	7.6		
	9400	HUAN	21	GRF	1654.1	1724.2	54.8	15.8	6.2		
	9400	HUAN	1	S	1710.5	1713.0	4.8	10.5	4.4		
	9400	HUAN	23	GRF	1810.5	1901.0	92.9	17.5	8.2		
	2800	OTTA	20	GRF	1844.0	1851.2	45.0	16.8	5.0		

SOLAR RADIO EMISSION
Outstanding Occurrences

JANUARY 1991

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	9400	HUAN	4	S/F	1844.5	1847.8	6.4	72.0	35.8		
	8800	SGMR	4	S/F	1846.0E	1848.0	3.0D	50.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1848.0E	1848.0	1.0D	43.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1849.0E	1850.0	2.0D	29.0			QL=4 ST=2 TYP=3
	9400	HUAN	2	S/F	1852.8	1855.8	5.4	21.0	10.2		
	8800	SGMR	8	S	1855.0E	1856.0	2.0D	38.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	1855.0E	1856.0	4.0D	57.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1859.0E	1859.0	1.0D	68.0			QL=4 ST=2 TYP=3
	9400	HUAN	21	GRF	2021.9	2121.5	93.1	31.6	14.8		
	9400	HUAN	3	S	2048.1	2052.0	7.6	28.1	12.6		
	2800	OTTA	3	S	2052.7	2053.2	1.9	21.6	6.0		
	2695	PENT	20	GRF	2101.0	2114.5	49.0	20.7	7.0		
	9400	HUAN	4	S/F	2111.4	2113.3	5.8	72.0	28.9		
	15400	PALE	8	S	2113.0E	2114.0	1.0D	40.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	2113.0E	2114.0	2.0D	61.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	2113.0E	2113.0	1.0D	43.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	2113.0E	2114.0	2.0D	53.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	2114.0E	2114.0	U	52.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	2114.0E	2114.0	U	55.0			QL=4 ST=2 TYP=3
	200	HIRA	42	SER	2204.0	2238.0	69.0	85.0			O
	9400	HUAN	22	GRF	2217.1	2228.2	33.3	19.3	8.6		
	410	LEAR	8	S	2246.0E	2247.0	2.0D	68.0			QL=4 ST=2 TYP=3
27	245	LEAR	44	NS	0116.0E	0125.0	171.0D	310.0			QL=4 ST=2 TYP=1
	200	GORK	44	NS	0600.0E		345.0D		5.0		
	245	SVTO	44	NS	0640.0E	0729.0	125.0D	88.0			QL=2 ST=2 TYP=1
	204	IZMI	43	NS	0700.0		300.0	15.0			
	245	LEAR	44	NS	0721.0E	0729.0	109.0D	82.0			QL=4 ST=2 TYP=1
	127	TORN	43	NS	0858.0		322.0		4.0		V=1
	260	ONDR	43	NS	1000.0	1020.5	205.0D	293.0			
	245	SGMR	44	NS	1225.0E	1235.0	541.0D	360.0			QL=4 ST=2 TYP=1
	235	CUBA	44	NS	1335.0E		475.0D		18.0		
	280	CUBA	44	NS	1335.0E		475.0D		33.0		
	200	HIRA	44	NS	2142.0E	0621.0	610.0D	21.0	9.0		O
	200	HIRA	42	SER	0016.0	0024.4	124.0	145.0			O
	245	LEAR	8	S	0040.0E	0040.0	U	110.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0059.0E	0059.0	U	45.0			QL=2 ST=2 TYP=3
	1415	LEAR	4	S/F	0059.0E	0102.0	6.0D	24.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0103.0E	0103.0	U	72.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0125.0E	0125.0	U	400.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0226.0E	0226.0	1.0D	110.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	0238.0E	0238.0	U	84.0			QL=4 ST=2 TYP=3
	200	HIRA	42	SER	0248.8	0249.5	19.0	90.0			O
	245	LEAR	8	S	0425.0E	0425.0	U	230.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0536.0E	0536.0	1.0D	130.0			QL=4 ST=2 TYP=3
	200	HIRA	42	SER	0546.0	0646.2	76.0	140.0			O
	245	LEAR	4	S/F	0556.0E	0558.0	5.0D	78.0			QL=4 ST=3 TYP=3
	15400	LEAR	8	S	0557.0E	0558.0	1.0D	11.0			QL=4 ST=3 TYP=3
	9100	GORK	1	S	0626.5	0627.0	1.1	20.0			
	9300	KISV	2	S/F	0626.6	0626.9	2.6	20.0			
	15000	KISV	2	S/F	0626.7	0626.9	2.5	9.0			
	5900	KISV	2	S/F	0626.7	0626.9	2.6	26.0			
	245	LEAR	4	S/F	0649.0E	0651.0	3.0D	59.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0704.0E	0704.0	U	220.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0704.0E	0704.0	2.0D	35.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0704.0E	0704.0	U	150.0			QL=4 ST=2 TYP=3
	9100	GORK	23	GRF	0704.7	1100.0	280.3D	20.0			
	9300	KISV	2	S/F	0749.5	0749.8	1.4	8.0			
	2950	GORK	21	GRF	0805.3	0819.2	33.3	8.0			
	5900	KISV	23	GRF	0807.9	0812.2	30.1	16.0			
	9300	KISV	23	GRF	0808.0	0809.0	25.0	13.0			
	8800	LEAR	4	S/F	0812.0E	0813.0	5.0D	120.0			QL=2 ST=2 TYP=3
	3000	POTS	4	S/F	0812.6	0814.0	4.0	29.0			
	3013	IZMI	7	C	0813.0	0814.0	3.5	34.0	17.0		
	8800	LEAR	4	S/F	0813.0E	0813.0	4.0D	120.0			QL=2 ST=3 TYP=3
	15400	LEAR	4	S/F	0813.0E	0813.0	4.0D	51.0			QL=4 ST=3 TYP=3
	4995	LEAR	4	S/F	0813.0E	0813.0	4.0D	120.0			QL=2 ST=3 TYP=3
	4995	SVTO	8	S	0813.0E	0813.0	2.0D	140.0			QL=2 ST=2 TYP=3
	8800	SVTO	8	S	0813.0E	0813.0	2.0D	110.0			QL=2 ST=2 TYP=3

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

JANUARY 1991

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
27	9500	POTS	4	S/F	0813.0	0813.8	3.8	84.0			
	9300	KISV	4	S/F	0813.0	0813.9	3.2	106.0			
	9100	GORK	4	S/F	0813.1	0813.9	2.7	105.0			
	2850	CRIM	1	S	0813.2	0814.0	2.0	28.7	9.0		
	2950	GORK	2	S/F	0813.2	0814.0	2.4	20.0			
	5900	KISV	4	S/F	0813.2	0813.9	3.8	180.0			
	15000	KISV	4	S/F	0813.4	0814.0	4.8	67.0			
	9300	KISV	2	S/F	0839.3	0839.9	4.7	7.0			
	9300	KISV	2	S/F	0914.8	0916.1	3.4	9.0			
	5900	KISV	2	S/F	0915.2	0916.1	4.6	6.0			
	245	LEAR	8	S	0931.0E	0931.0	U	63.0			QL=4 ST=2 TYP=3
	5900	KISV	22	GRF	0945.2	0959.9	22.8	14.0			
	9300	KISV	23	GRF	1001.9	1005.9		16.0			
	9300	KISV	23	GRF	1001.9	1045.9	117.0	30.0			
	2850	CRIM	24	R	1002.0	1002.8		10.8			
	2950	GORK	20	GRF	1002.1	1003.6	18.6	9.0			
	536	ONDR	8	S	1029.0	1029.0	0.2	132.0			
	950	GORK	2	S/F	1029.0	1029.1	0.4	10.0			
	5900	KISV	22	GRF	1042.7	1055.0	46.0	17.0			
	9100	GORK	20	GRF	1042.9	1044.2	17.1	15.0			
	245	SVTO	8	S	1058.0E	1058.0	1.0D	97.0			QL=4 ST=2 TYP=3
	15000	KISV	22	GRF	1102.4	1104.7	19.0	27.0			
	810	KRAK	8	S	1131.0E	1131.0	0.1D	50.0			
	430	KRAK	42	SER	1131.0E	1214.5	51.0D	113.0			
	810	KRAK	2	S/F	1140.9	1141.4	1.8	26.0	8.0		
	9500	POTS	4	S/F	1315.5	1316.8	2.9	13.0			
	113	POTS	4	S/F	1400.6	1401.6	2.6	150.0			
	127	TORN	4	S/F	1400.8	1401.5	1.6	390.0	190.0		
	40	POTS	4	S/F	1400.8	1401.6	1.0	500.0U			
	9400	HUAN	23	GRF	1419.6	1455.0U	209.1	111.4	52.8		
	8800	SGMR	49	GB	1439.0E	1441.0	17.0D	2900.0			QL=4 ST=2 TYP=6
	4995	SGMR	49	GB	1439.0E	1441.0	17.0D	660.0			QL=4 ST=2 TYP=6
	8800	SVTO	49	GB	1439.0E	1441.0	20.0D	2300.0			QL=2 ST=2 TYP=6
	4995	SVTO	49	GB	1439.0E	1441.0	20.0D	690.0			QL=2 ST=2 TYP=6
	9500	CUBA	45	C	1439.0	1440.0U	10.0	471.0D			
	9400	HUAN	45	C	1439.1	1445.4U	14.1	234.3	105.2		
	2695	SGMR	4	S/F	1440.0E	1441.0	5.0D	43.0			QL=4 ST=2 TYP=3
	15400	SVTO	49	GB	1440.0E	1441.0	9.0D	3300.0			QL=2 ST=2 TYP=6
	2695	SVTO	4	S/F	1440.0E	1441.0	5.0D	45.0			QL=4 ST=2 TYP=3
	2800	OTTA	3	S	1440.0	1442.0	11.4	59.5	12.0		
	15400	SGMR	49	GB	1440.0E	1441.0	16.0D	4700.0			QL=4 ST=2 TYP=6
	9500	CUBA	30	PBI	1449.0		401.0D	90.0			2130 OFF
	9500	CUBA	47	GB	1523.5	1558.2	195.5	1113.0			
	2800	OTTA	47	GB	1527.5	1618.7	145.0	4420.0	884.0		
	15400	SGMR	49	GB	1528.0E	1614.0	97.0D	1900.0			QL=4 ST=3 TYP=7
	8800	SGMR	49	GB	1528.0E	1615.0	97.0D	3400.0			QL=4 ST=3 TYP=7
	9400	HUAN	47	GB	1528.6	1605.8U	87.5	1632.3	602.4		
	4995	SGMR	49	GB	1530.0E	1615.0	95.0D	4200.0			QL=4 ST=3 TYP=7
	235	CUBA	48	C	1532.0	1557.0U	45.3	405.0			
	280	CUBA	48	C	1532.0	1557.0U	45.3	444.0			
	410	SGMR	20	GRF	1537.0E	1559.0	68.0D	250.0			QL=4 ST=3 TYP=2
	610	SGMR	20	GRF	1538.0E	1559.0	66.0D	290.0			QL=4 ST=3 TYP=2
	2695	SGMR	49	GB	1538.0E	1618.0	87.0D	2900.0			QL=4 ST=3 TYP=7
	1415	SGMR	49	GB	1538.0E	1621.0	87.0D	1000.0			QL=4 ST=3 TYP=7
	245	SGMR	49	GB	1539.0E	1559.0	34.0D	750.0			QL=4 ST=3 TYP=7
	245	SGMR	49	GB	1808.0E	1808.0	U	2500.0			QL=4 ST=3 TYP=6
	9400	HUAN	22	GRF	1920.1E	1937.2	43.9D	7.6	3.2		
	245	PALE	8	S	2052.0E	2053.0	1.0D	150.0			QL=4 ST=2 TYP=3
	9400	HUAN	23	GRF	2122.5	2132.8	27.2	13.2	5.4		
	9400	HUAN	2	S/F	2139.5	2141.3	4.1	18.9	6.8		
	9400	HUAN	4	S/F	2153.7	2155.8	5.7	47.2	24.6		
	245	PALE	8	S	2156.0E	2156.0	U	58.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2235.0E	2236.0	1.0D	73.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2235.0E	2236.0	1.0D	95.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	2333.0E	2334.0	1.0D	63.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2336.0E	2338.0	2.0D	140.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2338.0E	2338.0	U	140.0			QL=4 ST=2 TYP=3
28	100	GORK	44	NS	0600.0E		204.0D		5.0		

SOLAR RADIO EMISSION
Outstanding Occurrences

JANUARY 1991

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	200	GORK	44	NS	0600.0E		360.0D		5.0		
	245	LEAR	44	NS	0630.0E	0653.0	216.0D	190.0			QL=4 ST=2 TYP=1
	245	SVTO	44	NS	0630.0E	0657.0U	548.0D	140.0			QL=4 ST=2 TYP=1
	204	IZMI	43	NS	0700.0		300.0	25.0			
	234	POTS	44	NS	0700.0E	1103.0	460.0D	45.0			
	127	TORN	44	NS	0700.0E	1346.8	440.0D	1100.0	11.0		V=1
	260	ONDR	44	NS	1000.0E	1058.5	220.0D	221.0			
	235	CUBA	44	NS	1314.0E		478.0D		19.0		
	280	CUBA	44	NS	1314.0E		478.0D		32.0		
	245	PALE	49	GB	0120.0E	0120.0	1.0D	630.0			QL=4 ST=2 TYP=6
	2840	PEKG	46	C	0120.0	0135.7	32.0	243.4			
	2695	LEAR	4	S/F	0127.0E	0135.0	38.0D	220.0			QL=2 ST=2 TYP=5
	1415	LEAR	4	S/F	0127.0E	0129.0	39.0D	16.0			QL=4 ST=2 TYP=3
	500	HIRA	24	R	0127.0	0308.0	390.0D	11.0	7.0		0
	4995	LEAR	20	GRF	0129.0E	0135.0	36.0D	50.0			QL=2 ST=2 TYP=2
	8800	LEAR	4	S/F	0131.0E	0135.0	18.0D	31.0			QL=2 ST=2 TYP=3
	2695	PALE	4	S/F	0131.0E	0135.0	12.0D	180.0			QL=4 ST=2 TYP=3
	4995	PALE	4	S/F	0132.0E	0135.0	11.0D	59.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	0133.0E	0134.0	1.0D	47.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	0133.0E	0133.0	1.0D	26.0			QL=4 ST=2 TYP=3
	610	LEAR	4	S/F	0134.0E	0134.0	32.0D	58.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0138.0E	0139.0	1.0D	15.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0549.0E	0550.0	2.0D	57.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0605.0E	0605.0	1.0D	51.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0613.0E	0613.0	1.0D	43.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0613.0E	0614.0	1.0D	59.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0621.0E	0623.0	2.0D	71.0			QL=4 ST=2 TYP=3
	2840	PEKG	20	GRF	0639.0	0643.2	21.0	7.1			
	9300	KISV	4	S/F	0704.6	0706.1	2.7	52.0			
	9300	KISV	29	PBI	0704.6	0707.3	11.3	12.0			
	9100	GORK	3	S	0704.8	0706.1	4.2	47.0			
	5900	KISV	2	S/F	0704.8	0706.1	5.7	18.0			
	950	GORK	21	GRF	0709.0	0709.8	88.3	7.0			
	204	IZMI	41	F	0738.0	0740.5	3.4	350.0			
	2950	GORK	1	S	0752.2	0752.8	1.2	4.0			
	650	GORK	8	S	0752.5	0752.6	1.3	40.0			
	950	GORK	8	S	0752.6	0752.7	0.2	13.0			
	650	GORK	21	GRF	0807.7E	0912.0	99.1D	5.0			
	9300	KISV	20	GRF	0808.8	0811.2	10.6	10.0			
	5900	KISV	20	GRF	0810.4	0812.1	9.1	5.0			
	9100	GORK	21	GRF	0904.2	0936.0	66.2	7.0			
	9300	KISV	23	GRF	0906.1	0915.9	65.1	11.0			
	204	IZMI	41	F	0955.0	0955.2	2.0	340.0			
	15000	KISV	2	S/F	0957.1	0957.9	4.4	17.0			
	5900	KISV	45	C	1000.3	1003.9	8.0	11.0			
	5900	KISV	45	C	1000.3	1000.9		5.0			
	9300	KISV	2	S/F	1003.1	1003.9	4.6	19.0			
	9100	GORK	2	S/F	1003.2	1003.9	1.7	15.0			
	9500	POTS	4	S/F	1003.4	1004.0	1.4	12.0			
	9300	KISV	2	S/F	1024.3	1027.5	5.7	6.0			
	245	LEAR	4	S/F	1051.0E	1052.0	1393.0D	140.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1052.0E	1052.0	U	130.0			QL=2 ST=2 TYP=3
	430	KRAK	42	SER	1056.5	1056.6	4.0	83.0			
	9300	KISV	22	GRF	1119.8	1125.3	21.3	13.0			
	9500	POTS	2	S/F	1225.7	1226.3	1.5	10.0			
	245	SGMR	8	S	1238.0E	1238.0	U	120.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1238.0E	1238.0	U	110.0			QL=2 ST=2 TYP=3
	9500	POTS	3	S	1251.8	1252.5	1.4	12.0			
	245	SGMR	8	S	1255.0E	1255.0	1.0D	100.0			QL=4 ST=2 TYP=3
	9400	HUAN	22	GRF	1331.1	1410.0	60.3	16.6	7.8		
	410	SGMR	8	S	1346.0E	1346.0	1.0D	280.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1346.0E	1346.0	1.0D	380.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	1346.0E	1346.0	1.0D	420.0			QL=2 ST=2 TYP=3
	410	SVTO	8	S	1346.0E	1346.0	1.0D	240.0			QL=2 ST=2 TYP=3
	430	KRAK	8	S	1346.7	1346.8	0.4	180.0D			
	9500	CUBA	1	S	1346.7	1346.9	1.3	10.0	5.0		
	234	POTS	4	S/F	1346.8	1346.9	0.6	500.0			
	536	ONDR	4	S/F	1349.0	1349.0	1.0	190.0			
	9400	HUAN	2	S/F	1625.4	1630.0	8.0	14.5	6.2		

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

JANUARY 1991

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	245	SGMR	8	S	1630.0E	1630.0	U	520.0			QL=2 ST=3 TYP=3
	410	SGMR	8	S	1630.0E	1630.0	U	62.0			QL=4 ST=2 TYP=3
	9400	HUAN	23	GRF	1706.8	1801.5	110.4	35.2	17.6		
	610	SGMR	49	GB	1733.0E	1734.0	2.0D	580.0			QL=4 ST=2 TYP=6
	9400	HUAN	4	S/F	1733.0	1734.2	4.3	35.2	15.8		
	610	PALE	8	S	1734.0E	1734.0	U	430.0			QL=4 ST=2 TYP=3
	410	PALE	49	GB	1734.0E	1734.0	U	680.0			QL=4 ST=2 TYP=6
	245	PALE	8	S	1734.0E	1734.0	U	80.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1734.0E	1734.0	U	80.0			QL=2 ST=2 TYP=3
	410	SGMR	49	GB	1734.0E	1734.0	U	980.0			QL=4 ST=2 TYP=6
	9500	CUBA	2	S/F	1734.1	1734.3	0.9	22.0	11.0		
	9400	HUAN	45	C	1752.5	1754.4	8.2	239.9	102.6		
	9500	CUBA	45	C	1752.7	1754.3	5.3	167.0	53.0		
	15400	SGMR	8	S	1753.0E	1754.0	2.0D	160.0			QL=2 ST=2 TYP=3
	8800	SGMR	4	S/F	1753.0E	1754.0	3.0D	190.0			QL=2 ST=2 TYP=3
	9400	HUAN	2	S/F	1807.0	1810.0	6.4	18.6	7.8		
	9400	HUAN	2	S/F	1826.3	1829.3	7.1	24.8	10.4		
	9500	CUBA	2	S/F	1828.7	1829.1	2.1	17.0	8.0		
	9400	HUAN	23	GRF	1925.5	2001.5	80.0	22.7	9.6		
	9400	HUAN	3	S	1949.2	1952.4	10.4	205.2	109.8		
	9500	CUBA	45	C	1949.5	1952.1	7.0	263.0	54.0		
	8800	SGMR	4	S/F	1950.0E	1952.0	12.0D	340.0			QL=2 ST=2 TYP=3
	15400	SGMR	8	S	1951.0E	1952.0	2.0D	210.0			QL=2 ST=2 TYP=3
	4995	SGMR	8	S	1951.0E	1952.0	2.0D	130.0			QL=4 ST=2 TYP=3
	9500	CUBA	29	PBI	1956.5		17.0	24.0	12.0		
	9400	HUAN	1	S	2004.2	2005.6	3.5	14.5	6.6		
	9400	HUAN	4	S/F	2056.6	2058.8	7.1	31.0	14.8		
	245	PALE	49	GB	2059.0E	2100.0	3.0D	640.0			QL=4 ST=2 TYP=6
	9400	HUAN	2	S/F	2137.4	2141.9	7.6	22.7	8.6		
	245	LEAR	8	S	2247.0E	2247.0	1.0D	400.0			QL=4 ST=2 TYP=3
29	200	GORK	44	NS	0600.0E		360.0D		5.0		
	234	POTS	43	NS	0928.0	1056.5U	192.0D	60.0			
	204	IZMI	43	NS	0955.0		125.0	100.0			
	260	ONDR	44	NS	1000.0E	1213.2	220.0D	243.0			
	245	SVTO	44	NS	1032.0E	1100.0U	307.0D	260.0			QL=4 ST=2 TYP=1
	127	TORN	43	NS	1133.0		160.0		1.0		V=0
	245	SGMR	44	NS	1223.0E	2049.0	545.0D	590.0			QL=4 ST=2 TYP=1
	280	CUBA	44	NS	1325.0E		443.0D		101.0		
	235	CUBA	44	NS	1325.0E		443.0D		15.0		
	245	PALE	44	NS	2014.0E	2132.0	215.0D	250.0			QL=4 ST=2 TYP=1
	245	SGMR	44	NS	2048.0E	2049.0	192.0D	590.0			QL=4 ST=3 TYP=1
	200	HIRA	44	NS	2142.0E	0028.0	615.0D	32.0	11.0		WL
	245	LEAR	44	NS	2219.0E	0034.0	238.0D	550.0			QL=4 ST=2 TYP=1
	245	PALE	44	NS	2340.0E	0047.0	212.0D	670.0			QL=4 ST=2 TYP=1
	245	LEAR	8	S	0006.0E	0006.0	U	77.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0111.0E	0112.0	1.0D	120.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	0111.0	0111.6	0.9	540.0			O
	245	LEAR	8	S	0243.0E	0243.0	1.0D	220.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0243.0E	0243.0	1.0D	210.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0327.0E	0327.0	1.0D	77.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0340.0E	0340.0	1.0D	120.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0347.0E	0347.0	U	160.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0347.0E	0347.0	U	110.0			QL=4 ST=2 TYP=3
	9300	KISV	22	GRF	0603.5	0609.2	16.2	18.0			
	15000	KISV	22	GRF	0603.8	0612.8	16.0	10.0			
	9300	KISV	30	PBI	0647.8E	0647.8	29.2D	31.0			
	9300	KISV	4	S/F	0649.7	0651.0	8.1	108.0D			
	15400	LEAR	4	S/F	0650.0E	0651.0	4.0D	460.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	0650.0E	0651.0	5.0D	120.0			QL=2 ST=2 TYP=3
	8800	SVTO	4	S/F	0650.0E	0651.0	4.0D	120.0			QL=2 ST=2 TYP=3
	15400	SVTO	8	S	0650.0E	0651.0	2.0D	360.0			QL=2 ST=2 TYP=3
	15000	KISV	30	PBI	0650.3	0657.0	31.3	18.0			
	15000	KISV	4	S/F	0650.3	0650.8U	6.7	152.0D			
	2840	PEKG	45	C	0713.0	0713.5	4.0	21.4			
	2850	CRIM	1	S	0714.2	0715.0	4.0	20.0	7.0		
	9100	GORK	2	S/F	0714.3	0715.4	2.6	23.0			
	2950	GORK	2	S/F	0714.4	0715.0	3.6	17.0			
	15000	KISV	2	S/F	0714.4	0715.3	3.9	15.0			

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

JANUARY 1991

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
29	9300	KISV	2	S/F	0714.4	0715.4	7.4	32.0			
	3013	IZMI	5	S	0714.5	0715.0	2.5	4.0	2.0		
	9300	KISV	22	GRF	0738.5	0809.3	68.5	21.0			
	9100	GORK	21	GRF	0739.0U	1024.0	255.0D	40.0			
	410	SVTO	8	S	0743.0E	0743.0	U	66.0			QL=4 ST=3 TYP=3
	2695	SVTO	8	S	0743.0E	0743.0	U	48.0			QL=4 ST=3 TYP=3
	245	SVTO	8	S	0743.0E	0743.0	U	71.0			QL=4 ST=3 TYP=3
	245	LEAR	8	S	0844.0E	0844.0	U	71.0			QL=4 ST=2 TYP=3
	3000	POTS	4	S/F	0848.4	0849.6	2.1	13.0			
	2950	GORK	1	S	0848.8	0849.8	2.2	10.0			
	2850	CRIM	1	S	0848.8	0849.9	1.5	10.0	3.0		
	204	IZMI	5	S	0849.0	0850.0	3.0	6.0	3.0		
	9300	KISV	2	S/F	0849.2	0849.8	3.8	6.0			
	9300	KISV	21	GRF	0901.0	0912.9	21.0	9.0			
	9300	KISV	23	GRF	0938.1	1024.7	85.6	26.0			
	5900	KISV	23	GRF	0941.5	1023.6	117.0	26.0			
	245	LEAR	8	S	0959.0E	0959.0	U	51.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	1006.0E	1015.0	12.0D	320.0			QL=4 ST=2 TYP=5
	15000	KISV	29	PBI	1006.4	1013.0	22.8	23.0			
	15000	KISV	2	S/F	1006.4	1009.7	6.2	44.0			
	204	IZMI	22	GRF	1007.0	1011.3	25.5	11.0			
	2950	GORK	20	GRF	1007.8	1011.2	24.0	10.0			
	8800	LEAR	4	S/F	1008.0E	1009.0	9.0D	47.0			QL=2 ST=2 TYP=3
	9300	KISV	4	S/F	1008.0	1009.8	12.1	58.0			
	9100	GORK	2	S/F	1008.3	1009.9	12.1	55.0			
	5900	KISV	4	S/F	1008.3	1009.9	10.7	34.0			
	15400	LEAR	8	S	1009.0E	1009.0	2.0D	35.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	1009.0E	1010.0	2.0D	26.0			QL=2 ST=2 TYP=3
	2695	LEAR	8	S	1010.0E	1010.0	U	14.0			QL=2 ST=2 TYP=3
	245	SVTO	4	S/F	1012.0E	1015.0	4.0D	300.0			QL=4 ST=2 TYP=5
	245	LEAR	4	S/F	1021.0E	1024.0	3.0D	220.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	1021.0E	1023.0	4.0D	330.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	1026.0E	1029.0	5.0D	100.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	1032.0E	1038.0	17.0D	220.0			QL=4 ST=2 TYP=5
	9300	KISV	2	S/F	1035.6	1037.5	4.7	18.0			
	5900	KISV	4	S/F	1035.8	1037.7	4.8	26.0			
	9100	GORK	1	S	1036.8	1037.6	1.8	12.0			
	2695	LEAR	8	S	1037.0E	1037.0	U	20.0			QL=2 ST=2 TYP=3
	15000	KISV	2	S/F	1037.0	1037.7	11.0	9.0			
	3013	IZMI	1	S	1037.7	1038.3	2.5	3.0	2.0		
	410	LEAR	8	S	1038.0E	1038.0	U	13.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	1041.0E	1041.0	U	14.0			QL=4 ST=2 TYP=3
	9100	GORK	1	S	1042.0	1042.6	1.7	6.0			
	5900	KISV	2	S/F	1042.1	1042.7	1.6	7.0			
	9100	GORK	1	S	1056.6	1056.7	0.4	10.0			
	15000	KISV	2	S/F	1056.8	1057.3	2.1	10.0			
	9300	KISV	22	GRF	1105.8	1108.7	10.1	6.0			
	9300	KISV	22	GRF	1105.8	1106.8		5.0			
	9500	POTS	4	S/F	1213.6	1214.6	4.7	35.0			
	9400	HUAN	4	S/F	1301.6	1311.5	16.5	38.8	16.4		
	9500	POTS	42	SER	1305.2	1311.3	11.4	5.0			
	9400	HUAN	1	S	1344.3	1348.0	6.3	17.2	6.8		
	3000	POTS	4	S/F	1346.8U	1348.0U	3.2U	20.0			
	1470	POTS	3	S	1347.0	1348.4	2.8	11.0			
	9500	POTS	4	S/F	1347.1	1348.0	1.5	13.0			
	9400	HUAN	23	GRF	1410.6	1452.5	118.8	25.9	12.6		
	9400	HUAN	4	S/F	1417.3	1419.7	5.1	49.6	23.8		
	9500	POTS	4	S/F	1418.5	1419.7	2.7	42.0			
	3000	POTS	4	S/F	1419.2	1419.8	1.8	12.0			
	9400	HUAN	1	S	1500.0	1502.0	7.2	12.9	6.2		
	410	SGMR	8	S	1718.0E	1718.0	2.0D	220.0			QL=4 ST=2 TYP=3
	9400	HUAN	23	GRF	1739.4	1926.3	136.3	10.8	5.1		
	4995	PALE	8	S	1745.0E	1747.0	2.0D	34.0			QL=4 ST=2 TYP=5
	245	PALE	8	S	1745.0E	1745.0	U	55.0			QL=4 ST=2 TYP=3
	410	PALE	4	S/F	1753.0E	1754.0	9.0D	23.0			QL=4 ST=2 TYP=3
	4995	PALE	4	S/F	1753.0E	1753.0	9.0D	28.0			QL=4 ST=2 TYP=3
	245	PALE	4	S/F	1753.0E	1758.0	8.0D	99.0			QL=4 ST=2 TYP=5
	4995	PALE	8	S	1836.0E	1836.0	U	24.0			QL=4 ST=2 TYP=3
	1415	PALE	20	GRF	1836.0E	1849.0	26.0D	31.0			QL=4 ST=2 TYP=2

S O L A R R A D I O E M I S S I O N
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JANUARY 1991

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
29	8800	SGMR	4	S/F	1839.0E	1842.0	5.0D	56.0			QL=4 ST=2 TYP=3
	9500	CUBA	4	S/F	1839.5	1842.1	6.5	30.0	15.0		
	9400	HUAN	4	S/F	1839.8	1842.0	7.6	36.6	17.4		
	2695	PALE	8	S	1841.0E	1842.0	2.0D	52.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	1841.0E	1842.0	1.0D	28.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1841.0E	1842.0	1.0D	61.0			QL=4 ST=2 TYP=3
	2800	OTTA	3	S	1841.3	1842.3	2.9	42.3	9.0		
	245	PALE	8	S	1844.0E	1846.0	2.0D	46.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1847.0E	1847.0	U	21.0			QL=4 ST=2 TYP=3
	9400	HUAN	1	S	1912.6	1914.0	3.6	12.9	5.2		
	245	PALE	8	S	1916.0E	1916.0	2.0D	61.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1934.0E	1934.0	1.0D	86.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1956.0E	1958.0	2.0D	160.0			QL=4 ST=2 TYP=3
	245	PALE	4	S/F	2004.0E	2007.0	3.0D	240.0			QL=4 ST=2 TYP=5
	245	PALE	8	S	2010.0E	2011.0	1.0D	140.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	2038.0E	2049.0	13.0D	510.0			QL=2 ST=2 TYP=7
	410	PALE	49	GB	2056.0E	2056.0	U	680.0			QL=4 ST=3 TYP=6
	9400	HUAN	22	GRF	2058.8	2115.2	41.9	19.4	8.6		
	245	PALE	4	S/F	2059.0E	2106.0	8.0D	440.0			QL=2 ST=2 TYP=5
	200	HIRA	42	SER	2148.0	2244.2	60.0	450.0			O
	9400	HUAN	2	S/F	2203.4	2206.8	13.2	21.6	9.8		
	9400	HUAN	4	S/F	2234.0	2236.8	9.3	120.7	52.4		
	410	LEAR	8	S	2258.0E	2258.0	1.0D	27.0			QL=2 ST=3 TYP=3
	1415	LEAR	8	S	2258.0E	2259.0	2.0D	28.0			QL=2 ST=3 TYP=3
	245	LEAR	8	S	2258.0E	2259.0	1.0D	110.0			QL=2 ST=3 TYP=3
	500	HIRA	24	R	2350.0E	2426.0	490.0D	25.0	9.0		WL
30	245	PALE	44	NS	0323.0E	0325.0	39.0D	440.0			QL=4 ST=2 TYP=1
	245	LEAR	44	NS	0323.0E	0344.0	155.0D	230.0			QL=4 ST=2 TYP=1
	200	GORK	44	NS	0643.0E		158.0D		5.0		
	245	SVTO	44	NS	0648.0E	0652.0	77.0D	82.0			QL=4 ST=2 TYP=1
	204	IZMI	43	NS	0700.0		300.0	50.0			
	200	GORK	44	NS	0921.0E		159.0D		5.0		
	234	POTS	44	NS	0937.5E	1113.0U	310.0D	40.0U			
	245	SVTO	44	NS	0944.0E	1112.0	310.0D	380.0			QL=4 ST=2 TYP=1
	260	ONDR	44	NS	1000.0E	1326.8	220.0D	302.0			
	245	LEAR	44	NS	1012.0E	1012.0	41.0D	170.0			QL=4 ST=2 TYP=1
	127	TORN	43	NS	1216.0		130.0		2.0		V=0
	245	SGMR	44	NS	1223.0E	1637.0	547.0D	350.0			QL=2 ST=2 TYP=1
	280	CUBA	44	NS	1330.0E		480.0D		40.0		
	235	CUBA	44	NS	1330.0E		480.0D		22.0		
	245	PALE	44	NS	1925.0E	2009.0	55.0D	160.0			QL=4 ST=2 TYP=1
	200	HIRA	43	NS	2300.0	0417.0	540.0D	17.0	10.0		WR
	245	PALE	44	NS	2331.0E	0155.0	272.0D	260.0			QL=4 ST=2 TYP=1
	245	PALE	8	S	0000.0E	0007.0	U	190.0			QL=2 ST=1 TYP=5
	8800	PALE	49	GB	0007.0E	0007.0	1.0D	720.0			QL=4 ST=2 TYP=6
	245	LEAR	8	S	0009.0E	0009.0	U	340.0			QL=2 ST=3 TYP=3
	245	PALE	4	S/F	0025.0E	0031.0	6.0D	330.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0033.0E	0034.0	1.0D	500.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0127.0E	0127.0	3.0D	580.0			QL=2 ST=3 TYP=6
	245	PALE	49	GB	0127.0E	0127.0	4.0D	630.0			QL=4 ST=2 TYP=6
	4995	PALE	8	S	0128.0E	0129.0	1.0D	22.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	0247.0E	0250.0	3.0D	89.0			QL=4 ST=2 TYP=3
	500	HIRA	46	C	0252.9	0254.5	3.2	180.0			O
	245	LEAR	8	S	0310.0E	0311.0	2.0D	190.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0325.0E	0325.0	2.0D	380.0			QL=2 ST=3 TYP=3
	2840	PEKG	1	S	0411.0	0413.9	10.0	11.0			
	200	HIRA	46	C	0446.9	0448.0	2.0	145.0			O
	200	HIRA	41	F	0521.8	0537.6	31.0	65.0			O
	9300	KISV	22	GRF	0609.6	0624.1		12.0			
	9300	KISV	22	GRF	0609.6	0611.1	20.4	15.0			
	5900	KISV	22	GRF	0609.7	0611.0	20.0	15.0			
	5900	KISV	22	GRF	0609.7	0624.9		9.0			
	15000	KISV	45	C	0610.4	0611.1	6.6	11.0			
	15000	KISV	45	C	0610.4	0612.4		11.0			
	9300	KISV	1	S	0634.7	0634.9	0.5	7.0			
	9100	GORK	23	GRF	0642.0	0903.0	318.0D	130.0			
	245	LEAR	4	S/F	0656.0E	0659.0	3.0D	80.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0706.0E	0706.0	U	180.0			QL=2 ST=2 TYP=3

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JANUARY 1991

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
30	9300	KISV	2	S/F	0707.2	0708.4	5.4	6.0			
	5900	KISV	2	S/F	0708.7	0710.7	4.7	7.0			
	950	GORK	1	S	0709.6	0709.7	0.4	10.0			
	15000	KISV	2	S/F	0716.7	0717.3	1.8	7.0			
	245	LEAR	8	S	0717.0E	0717.0	1.0D	320.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0717.0E	0717.0	1.0D	350.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0724.0E	0724.0	U	85.0			QL=2 ST=2 TYP=3
	5900	KISV	23	GRF	0733.7	0759.6	51.0	17.0			
	9300	KISV	22	GRF	0739.4	0759.8	44.8	21.0			
	15000	KISV	1	S	0754.7	0754.9	0.4	6.0			
	245	LEAR	8	S	0755.0E	0755.0	U	55.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0800.0E	0800.0	U	95.0			QL=2 ST=2 TYP=3
	9100	GORK	1	S	0802.8	0803.5	1.3	10.0			
	5900	KISV	2	S/F	0802.9	0804.8	5.3	11.0			
	15000	KISV	30	PBI	0818.3	0906.0	83.0	104.0			
	5900	KISV	30	PBI	0826.1	0905.0	79.0	154.0			
	5900	KISV	47	GB	0826.1	0856.8	38.9	1359.0			
	9300	KISV	47	GB	0831.1	0854.6	33.6	2333.0			
	9300	KISV	30	PBI	0831.1	0904.7	70.1	96.0			
	15000	KISV	47	GB	0838.3	0854.5	17.7	3026.0			
	2950	GORK	47	GB	0848.6U	0855.0	14.1D	440.0			
	9100	GORK	4	S/F	0848.8	0851.6	14.2	2200.0			
	3000	POTS	45	C	0849.0	0854.0	14.0	740.0			
	1470	POTS	45	C	0849.0	0855.0	19.3	240.0			
	15400	SVTO	49	GB	0849.0E	0854.0	16.0D	2200.0			QL=2 ST=3 TYP=6
	4995	SVTO	49	GB	0849.0E	0857.0	16.0D	1000.0			QL=4 ST=2 TYP=6
	8800	SVTO	49	GB	0849.0E	0854.0	16.0D	1800.0			QL=4 ST=2 TYP=6
	2695	SVTO	4	S/F	0849.0E	0855.0	16.0D	460.0			QL=4 ST=2 TYP=3
	15400	LEAR	49	GB	0849.0E	0854.0	56.0D	2500.0			QL=4 ST=2 TYP=6
	8800	LEAR	49	GB	0849.0E	0854.0	56.0D	1700.0			QL=2 ST=2 TYP=6
	4995	LEAR	49	GB	0849.0E	0857.0	56.0D	1000.0			QL=2 ST=2 TYP=6
	2695	LEAR	49	GB	0849.0E	0855.0	56.0D	520.0			QL=2 ST=2 TYP=6
	2850	CRIM	46	C	0849.0	0853.5	15.0	248.8	128.0		
	2850	CRIM	46	C	0849.0	0854.6		383.0			
	9500	POTS	45	C	0849.0	0854.6	14.0	1400.0			
	2850	CRIM	46	C	0849.0	0857.8		272.0			
	950	GORK	47	GB	0849.3	0854.9		400.0			
	950	GORK	47	GB	0849.3	0851.9	13.0	95.0			
	650	GORK	46	C	0849.7	0856.0		100.0			
	650	GORK	46	C	0849.7	0853.6	12.6	95.0			
	600	HUMN	4	S/F	0850.0	0856.0	13.0	40.0	24.0		
	1415	LEAR	4	S/F	0850.0E	0855.0	17.0D	310.0			QL=4 ST=2 TYP=3
	810	KRAK	45	C	0850.0	0855.0U	13.5	54.0D			
	3013	IZMI	45	C	0850.0	0857.5	26.0	450.0			
	100	GORK	4	S/F	0850.4	0851.1	1.0	11.0			
	200	GORK	41	F	0850.4	0857.3		12.0			
	200	GORK	41	F	0850.4	0909.6U		16.0			
	200	GORK	41	F	0850.4	0900.8U		15.0			
	200	GORK	41	F	0850.4	0850.9	19.6	16.0			
	1415	SVTO	4	S/F	0851.0E	0855.0	11.0D	260.0			QL=4 ST=2 TYP=3
	610	LEAR	20	GRF	0852.0E	0859.0	10.0D	84.0			QL=4 ST=2 TYP=2
	610	SVTO	4	S/F	0853.0E	0854.0	8.0D	110.0			QL=4 ST=2 TYP=3
	410	LEAR	4	S/F	0853.0E	0904.0	16.0D	81.0			QL=4 ST=2 TYP=5
	33	UPIC	32	ABS	0853.0	0905.0	37.0				QL=2 ST=2 TYP=5
	245	LEAR	4	S/F	0854.0E	0858.0	4.0D	44.0			QL=4 ST=3 TYP=5
	410	SVTO	4	S/F	0854.0E	0904.0	13.0D	82.0			
	430	KRAK	45	C	0854.0	0854.2	14.2	190.0D	28.0		
	430	KRAK	45	C	0854.0	0905.7		100.0			
	245	SVTO	4	S/F	0855.0E	0858.0	3.0D	48.0			QL=2 ST=2 TYP=3
	650	GORK	30	PBI	0902.3	0902.3	177.7D	18.0			
	950	GORK	30	PBI	0902.3	0902.3	177.7D	20.0			
	2950	GORK	30	PBI	0902.7	0902.7	177.3D	40.0			
	245	SVTO	4	S/F	0907.0E	0909.0	4.0D	200.0			QL=2 ST=2 TYP=3
	410	SVTO	8	S	0909.0E	0909.0	1.0D	93.0			QL=4 ST=3 TYP=3
	430	KRAK	8	S	0909.3	0909.5	0.4	190.0D			
	1470	POTS	4	S/F	0909.3	0909.5	1.1	25.0			
	950	GORK	4	S/F	0909.3	0909.6	0.7	18.0			
	3000	POTS	8	S	0909.4	0909.5	0.6	20.0			
	650	GORK	4	S/F	0909.4	0909.6	0.8	24.0			

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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
30	2850	CRIM	1	S	0909.4	0909.7	0.8	19.4	7.0		
	810	KRAK	8	S	0909.5	0909.8	0.7	17.0			
	5900	KISV	4	S/F	0932.7	0935.0	9.0	171.0			
	9100	GORK	3	S	0932.8	0934.8	6.2	90.0			
	9300	KISV	4	S/F	0932.9	0934.7	9.1	107.0			
	8800	SVTO	4	S/F	0933.0E	0934.0	4.0D	85.0			QL=4 ST=2 TYP=3
	9500	POTS	4	S/F	0933.0	0934.8	4.4	86.0			
	15000	KISV	4	S/F	0933.2	0934.7	6.7	90.0			
	3013	IZMI	5	S	0933.7	0935.1	4.0	9.0			
	3000	POTS	4	S/F	0933.8	0935.2	2.6	16.0			
	2950	GORK	2	S/F	0933.9	0935.2	3.6	13.0			
	15400	SVTO	8	S	0934.0E	0934.0	1.0D	49.0			QL=2 ST=3 TYP=3
	4995	SVTO	4	S/F	0934.0E	0935.0	3.0D	70.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	0943.0E	0945.0	12.0D	32.0			QL=2 ST=2 TYP=3
	245	LEAR	4	S/F	0943.0E	0949.0	10.0D	180.0			QL=2 ST=2 TYP=5
	15400	LEAR	4	S/F	0943.0E	0948.0	22.0D	63.0			QL=4 ST=2 TYP=5
	2695	LEAR	20	GRF	0943.0E	0953.0	22.0D	33.0			QL=2 ST=2 TYP=2
	4995	LEAR	4	S/F	0943.0E	0945.0	22.0D	37.0			QL=2 ST=2 TYP=3
	9300	KISV	2	S/F	0957.7	0959.8	8.8	19.0			
	245	LEAR	8	S	1005.0E	1006.0	2.0D	130.0			QL=2 ST=3 TYP=3
	204	IZMI	41	F	1018.0	1018.5	1.0	580.0			
	9300	KISV	2	S/F	1021.7	1025.1	7.8	16.0			
	2850	CRIM	1	S	1034.0	1035.2	2.0	13.6	4.0		
	9100	GORK	3	S	1034.5	1035.8	10.5	55.0			
	15000	KISV	4	S/F	1040.7	1041.2	4.0	73.0			
	200	GORK	47	GB	1042.5	1043.2	4.2	410.0			
	9300	KISV	2	S/F	1050.0	1051.5	8.2	15.0			
	200	GORK	41	F	1103.3E	1103.3		300.0			
	808	ONDR	8	S	1112.0	1112.5	0.5	25.0			
	650	GORK	2	S/F	1112.3	1113.0	1.7	11.0			
	950	GORK	4	S/F	1113.3	1113.4	0.3	25.0			
	950	GORK	2	S/F	1125.0	1126.2	2.5	8.0			
	650	GORK	2	S/F	1125.0	1125.9	2.5	7.0			
	200	GORK	41	F	1155.0	1158.9	11.0	280.0			
	8800	SVTO	4	S/F	1242.0E	1244.0	6.0D	170.0			QL=4 ST=2 TYP=3
	3000	POTS	4	S/F	1242.0E	1242.4	1.5D	32.0			
	15400	SGMR	8	S	1243.0E	1243.0	1.0D	130.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1243.0E	1244.0	3.0D	150.0			QL=4 ST=2 TYP=3
	9500	POTS	4	S/F	1243.0E	1243.8U	7.0D	150.0			
	9400	HUAN	1	S	1326.4	1328.3	4.8	6.5	2.6		
	536	ONDR	41	F	1327.0	1327.6	136.0	77.0			
	9500	POTS	45	C	1417.4	1419.0	8.1	690.0			
	4995	SGMR	8	S	1418.0E	1419.0	2.0D	81.0			QL=4 ST=2 TYP=3
	15400	SGMR	49	GB	1418.0E	1419.0	4.0D	1500.0			QL=4 ST=2 TYP=6
	8800	SGMR	49	GB	1418.0E	1418.0	5.0D	680.0			QL=4 ST=2 TYP=6
	15400	SVTO	49	GB	1418.0E	1418.0	5.0D	1300.0			QL=2 ST=2 TYP=6
	8800	SVTO	49	GB	1418.0E	1418.0	6.0D	660.0			QL=4 ST=2 TYP=6
	4995	SVTO	4	S/F	1418.0E	1419.0	4.0D	89.0			QL=4 ST=2 TYP=3
	2800	OTTA	20	GRF	1503.0	1509.0	34.0	15.6	5.0		
	9400	HUAN	21	GRF	1541.8	1608.5	63.5	27.6	12.8		
	9400	HUAN	4	S/F	1610.4	1616.5	11.9	31.6	16.2		
	9400	HUAN	2	S/F	1803.8	1807.7	11.2	11.8	5.4		
	245	SGMR	8	S	1811.0E	1811.0	U	210.0			QL=2 ST=2 TYP=3
	9400	HUAN	4	S/F	1901.8	1908.1	15.2	45.4	19.6		
	15400	PALE	8	S	1907.0E	1908.0	1.0D	61.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1907.8	1908.1	2.2	22.0	11.0		
	15400	SGMR	8	S	1908.0E	1908.0	U	56.0			QL=2 ST=2 TYP=3
	2800	OTTA	22	GRF	1925.0	1951.0	80.0	18.8	7.0		
	9400	HUAN	22	GRF	1947.6	2023.6	61.7	23.7	10.5		
	9400	HUAN	4	S/F	2127.6	2133.1	10.4	25.7	13.2		
	245	PALE	49	GB	2215.0E	2215.0	2.0D	600.0			QL=4 ST=2 TYP=6
	610	PALE	4	S/F	2215.0E	2217.0	3.0D	150.0			QL=4 ST=2 TYP=3
	4995	PALE	4	S/F	2215.0E	2217.0	8.0D	170.0			QL=4 ST=2 TYP=3
	200	HIRA	46	C	2215.2	2216.7	3.3	1050.0			O
	500	HIRA	46	C	2215.3	2217.0	5.0	52.0			WR
	2695	PENT	3	S	2215.4	2217.3	4.9	108.5	22.0		
	9400	HUAN	4	S/F	2215.8	2217.0	2.9	112.6	46.4		
	2695	PALE	8	S	2216.0E	2217.0	2.0D	120.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	2216.0E	2217.0	1.0D	110.0			QL=4 ST=2 TYP=3

S O L A R R A D I O E M I S S I O N
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JANUARY 1991

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
30	100	HIRA	8	S	2216.9	2217.0	1.1	640.0			
	1415	PALE	8	S	2217.0E	2217.0	1.0D	89.0			QL=4 ST=2 TYP=3
	15400	PALE	8	S	2217.0E	2217.0	U	56.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2311.0E	2311.0	1.0D	62.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	2331.0E	2332.0	1.0D	110.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	2335.0E	2335.0	U	70.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	2341.0E	2341.0	U	78.0			QL=2 ST=2 TYP=3
31	200	GORK	44	NS	0624.0E		336.0D		10.0		
	245	LEAR	43	NS	0625.0	0625.0	268.0	130.0			QL=4 ST=2 TYP=1
	245	SVTO	44	NS	0628.0E	0924.0	553.0D	170.0			QL=2 ST=2 TYP=1
	234	POTS	44	NS	0655.0E	1433.0U	468.0D	50.0U			
	204	IZMI	43	NS	0700.0		300.0	35.0			
	127	TORN	43	NS	0710.0		430.0		14.0		V=1,DISTURBED
	260	ONDR	44	NS	1000.0E	1115.7	178.0D	248.0			
	235	CUBA	44	NS	1336.0E		450.0D		31.0		
	280	CUBA	44	NS	1336.0E		450.0D		46.0		
	245	SGMR	44	NS	1443.0E	1702.0	316.0D	230.0			QL=2 ST=2 TYP=1
	200	HIRA	44	NS	2140.0E	0516.0	620.0D	50.0	29.0		O
	245	PALE	44	NS	2331.0E	0155.0	272.0D	260.0			QL=4 ST=2 TYP=1
	245	LEAR	8	S	0005.0E	0005.0	1.0D	76.0			QL=2 ST=2 TYP=3
	245	LEAR	4	S/F	0057.0E	0102.0	7.0D	240.0			QL=2 ST=2 TYP=5
	200	HIRA	42	SER	0104.9	0105.1	31.0	410.0			ML
	245	LEAR	4	S/F	0106.0E	0107.0	3.0D	62.0			QL=2 ST=2 TYP=3
	245	LEAR	4	S/F	0112.0E	0114.0	3.0D	68.0			QL=2 ST=2 TYP=3
	2840	PEKG	28	PRE	0116.0	0153.0	37.0	32.2			
	245	LEAR	8	S	0141.0E	0141.0	1.0D	70.0			QL=2 ST=2 TYP=3
	245	LEAR	4	S/F	0152.0E	0208.0	103.0D	390.0			QL=2 ST=2 TYP=5
	245	PALE	4	S/F	0153.0E	0208.0	101.0D	430.0			QL=2 ST=2 TYP=5
	2695	LEAR	49	GB	0153.0E	0204.0	147.0D	740.0			QL=2 ST=2 TYP=7
	2840	PEKG	47	GB	0153.0	0204.3	180.0	821.1			
	4995	LEAR	49	GB	0154.0E	0204.0	146.0D	580.0			QL=2 ST=2 TYP=7
	8800	LEAR	4	S/F	0154.0E	0204.0	146.0D	320.0			QL=2 ST=2 TYP=5
	2695	PALE	49	GB	0155.0E	0204.0	128.0D	600.0			QL=4 ST=2 TYP=7
	4995	PALE	49	GB	0155.0E	0204.0	128.0D	660.0			QL=4 ST=2 TYP=7
	15400	LEAR	4	S/F	0155.0E	0204.0	145.0D	200.0			QL=4 ST=2 TYP=3
	1415	LEAR	4	S/F	0155.0E	0204.0	145.0D	280.0			QL=4 ST=2 TYP=5
	200	HIRA	46	C	0155.6	0247.2		80.0			MR
	200	HIRA	46	C	0155.6	0208.9	79.0	240.0	33.0		WL
	1415	PALE	4	S/F	0156.0E	0204.0	127.0D	250.0			QL=4 ST=2 TYP=5
	8800	PALE	4	S/F	0156.0E	0204.0	127.0D	340.0			QL=4 ST=2 TYP=5
	100	HIRA	46	C	0156.1	0227.1		460.0			
	100	HIRA	46	C	0156.1	0208.6	106.0	1000.0D	115.0D		
	500	HIRA	46	C	0156.5	0250.0		327.0			MR
	500	HIRA	46	C	0156.5	0306.0		157.0			MR
	500	HIRA	46	C	0156.5	0204.0	162.0	930.0	41.0		SL
	500	HIRA	46	C	0156.5	0325.5		67.0			MR
	500	HIRA	46	C	0156.5	0224.5		57.0			WR
	410	PALE	4	S/F	0158.0E	0205.0	125.0D	430.0			QL=4 ST=2 TYP=5
	610	PALE	49	GB	0158.0E	0205.0	125.0D	930.0			QL=4 ST=2 TYP=6
	610	LEAR	49	GB	0158.0E	0205.0	142.0D	670.0			QL=4 ST=2 TYP=6
	410	LEAR	49	GB	0158.0E	0205.0	142.0D	530.0			QL=4 ST=2 TYP=7
	15400	PALE	4	S/F	0201.0E	0204.0	122.0D	150.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0435.0E	0435.0	1.0D	63.0			QL=2 ST=2 TYP=3
	2840	PEKG	29	PBI	0453.0		159.0	87.2			
	245	LEAR	4	S/F	0606.0E	0606.0	6.0D	400.0			QL=2 ST=2 TYP=3
	5900	KISV	22	GRF	0606.9	0615.0	17.5	17.0			
	9300	KISV	22	GRF	0612.5	0615.0	15.5	32.0			
	8800	LEAR	8	S	0614.0E	0615.0	1.0D	24.0			QL=2 ST=2 TYP=3
	245	LEAR	4	S/F	0614.0E	0615.0	3.0D	190.0			QL=2 ST=2 TYP=3
	9100	GORK	21	GRF	0742.9	1048.0	263.1D	65.0			
	9300	KISV	23	GRF	0744.0	0755.0	43.9	10.0			
	9100	GORK	2	S/F	0748.4	0748.9	1.7	30.0			
	5900	KISV	23	GRF	0754.0	0807.2	34.0	11.0			
	9100	GORK	2	S/F	0818.0U	0819.9	2.8D	35.0			
	9300	KISV	4	S/F	0818.9	0819.9	5.6	36.0			
	5900	KISV	2	S/F	0819.0	0819.8	4.2	27.0			
	9500	POTS	4	S/F	0819.0	0819.8	1.5	37.0			
	15000	KISV	22	GRF	0819.2	0819.9	19.3	16.0			

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

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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
31	9300	KISV	22	GRF	0831.5	0832.5	13.2	6.0			
	2850	CRIM	1	S	0831.8	0832.4	1.5	10.0	3.0		
	5900	KISV	22	GRF	0831.8	0832.5	19.4	8.0			
	2950	GORK	21	GRF	0832.0	1148.2	207.0	20.0			
	3013	IZMI	5	S	0832.0	0832.5	3.0	7.0	3.0		
	1470	POTS	4	S/F	0837.8	0839.3	4.2	20.0			
	9300	KISV	2	S/F	0905.3	0906.9	3.8	8.0			
	1470	POTS	40	F	0930.8	0932.2	3.0	11.0			
	9300	KISV	2	S/F	0942.7	0943.6	4.5	8.0			
	5900	KISV	2	S/F	0950.1	0956.0	6.5	13.0			
	9300	KISV	21	GRF	1001.5	1005.0	11.5	9.0			
	9300	KISV	22	GRF	1013.8	1015.0	24.3	7.0			
	9300	KISV	22	GRF	1013.8	1036.4		7.0			
	5900	KISV	21	GRF	1022.8	1029.9	28.2	15.0			
	1470	POTS	4	S/F	1102.6	1103.8	1.9	40.0			
	1470	POTS	4	S/F	1105.5	1106.6	1.9	41.0			
	9300	KISV	45	C	1109.6	1114.3		18.0			
	9300	KISV	45	C	1109.6	1112.5	11.2	21.0			
	9300	KISV	2	S/F	1122.2	1122.9	2.1	10.0			
	9300	KISV	2	S/F	1131.1	1131.5	2.1	7.0			
	9300	KISV	45	C	1142.2	1150.1		84.0			
	9300	KISV	45	C	1142.2	1206.2	27.8	95.0			
	5900	KISV	23	GRF	1146.7	1157.2	23.3	30.0			
	9500	POTS	29	PBI	1147.0	1151.0	13.0	57.0			
	9100	GORK	46	C	1147.0	1150.0U	19.0D	65.0			
	3013	IZMI	7	C	1147.0	1150.1	10.0	43.0	21.0		
	3000	POTS	29	PBI	1147.0U	1149.5U	5.0U	53.0			
	15000	KISV	2	S/F	1147.2	1151.3	12.7	32.0			
	5900	KISV	4	S/F	1148.7	1149.9	7.9	41.0			
	808	ONDR	4	S/F	1148.8	1149.0	0.4	62.0			
	950	GORK	4	S/F	1148.9	1149.1	0.4	95.0			
	2950	GORK	2	S/F	1148.9	1150.3	3.9	26.0			
	8800	SVTO	4	S/F	1149.0E	1150.0	9.0D	52.0			QL=2 ST=2 TYP=3
	15400	SVTO	4	S/F	1149.0E	1152.0	8.0D	35.0			QL=2 ST=2 TYP=3
	4995	SVTO	8	S	1149.0E	1150.0	2.0D	94.0			QL=2 ST=2 TYP=3
	2695	SVTO	4	S/F	1149.0E	1150.0	4.0D	46.0			QL=4 ST=2 TYP=3
	9500	POTS	8	S	1205.8	1206.4	1.0	52.0			
	8800	SVTO	8	S	1206.0E	1206.0	U	63.0			QL=2 ST=2 TYP=3
	5900	KISV	2	S/F	1206.0	1206.3	1.5	13.0			
	40	POTS	41	F	1224.2	1228.7	11.4	3800.0U			
	113	POTS	41	F	1226.8	1227.6	9.4	325.0			
	1470	POTS	8	S	1228.5	1228.6	0.7	87.0			
	245	SGMR	8	S	1235.0E	1235.0	U	54.0			QL=2 ST=2 TYP=3
	245	SGMR	4	S/F	1330.0E	1331.0	3.0D	50.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1345.0E	1345.0	U	82.0			QL=2 ST=3 TYP=3
	9400	HUAN	1	S	1509.3	1514.0	6.9	16.2	7.4		
	9400	HUAN	22	GRF	1538.0	1600.2	40.1	3.2	1.4		
	9400	HUAN	23	GRF	1718.3	1802.0	70.7	28.1	13.6		
	9400	HUAN	3	S	1730.1	1733.3	5.4	47.5	22.5		
	9500	CUBA	1	S	1732.8	1733.2	1.2	18.0	9.0		
	9400	HUAN	4	S/F	1756.6	1758.6	4.1	60.5	31.2		
	8800	SGMR	8	S	1758.0E	1758.0	1.0D	48.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1758.0E	1758.0	1.0D	67.0			QL=4 ST=2 TYP=3
	9400	HUAN	2	S/F	1810.8	1812.0	6.4	15.1	5.4		
	410	SGMR	8	S	1816.0E	1816.0	1.0D	61.0			QL=4 ST=2 TYP=3
	9400	HUAN	22	GRF	1843.7	1851.6	30.7	10.8	4.6		
	9400	HUAN	3	S	1928.2	1929.5	4.8	118.8	70.4		
	15400	PALE	8	S	1929.0E	1929.0	1.0D	130.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	1929.0E	1929.0	1.0D	58.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1929.0E	1929.0	1.0D	130.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1929.0E	1929.0	U	46.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1929.1	1929.5	1.9	83.0	41.0		
	9400	HUAN	22	GRF	1957.0	2028.8	61.0	36.7	15.2		
	8800	PALE	4	S/F	2026.0E	2026.0	3.0D	95.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2028.0E	2028.0	1.0D	84.0			QL=4 ST=2 TYP=3
	9400	HUAN	4	S/F	2121.8	2124.2	5.3	82.1	32.6		
	8800	PALE	8	S	2123.0E	2124.0	2.0D	65.0			QL=4 ST=2 TYP=3
	15400	PALE	8	S	2123.0E	2124.0	2.0D	92.0			QL=4 ST=2 TYP=3
	9400	HUAN	2	S/F	2241.7	2244.2	4.9	10.8	4.8		
	8800	PALE	8	S	2316.0E	2316.0	1.0D	160.0			QL=4 ST=3 TYP=3
	8800	PALE	8	S	2322.0E	2323.0	1.0D	160.0			QL=4 ST=2 TYP=3

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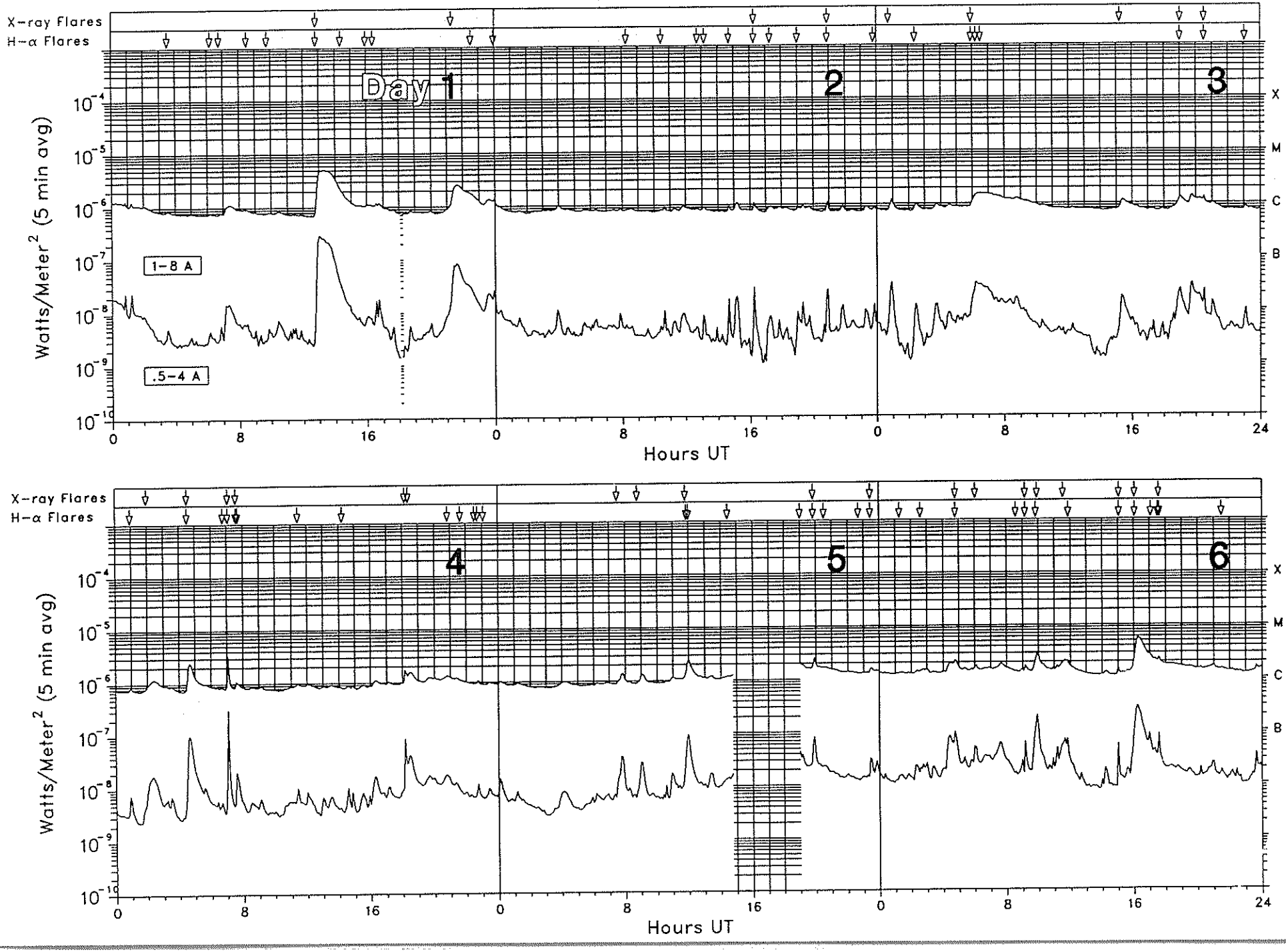

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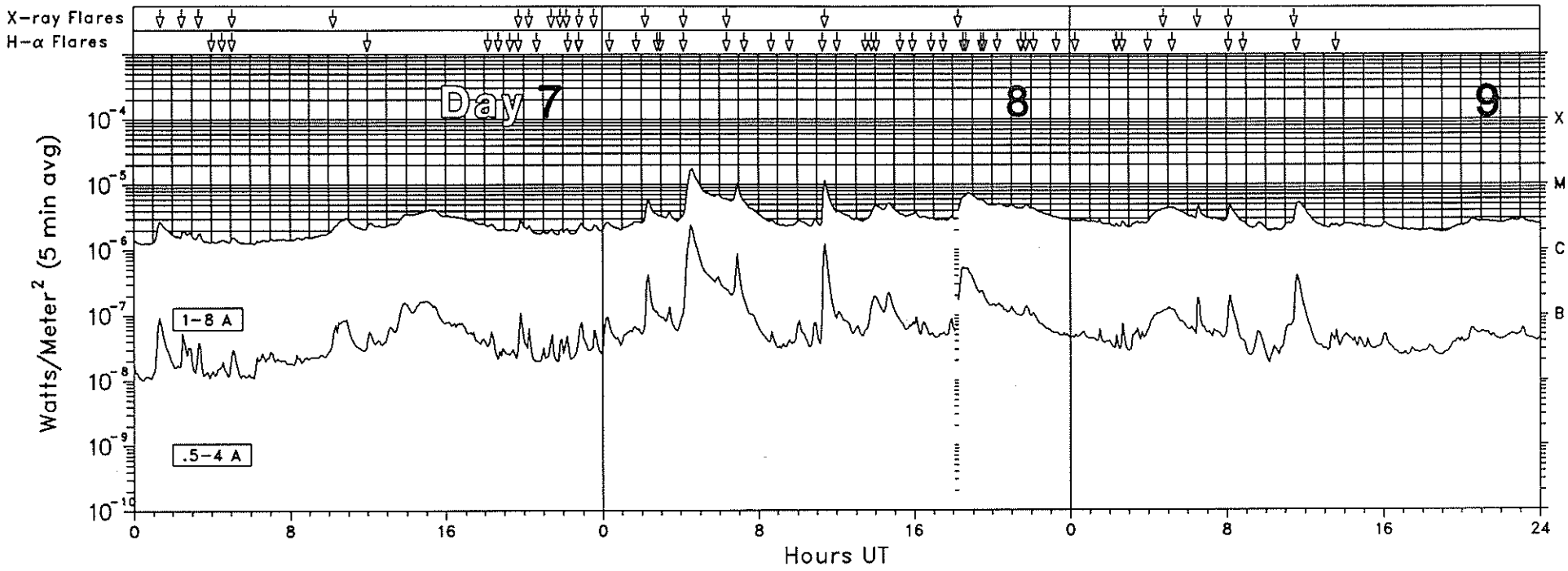
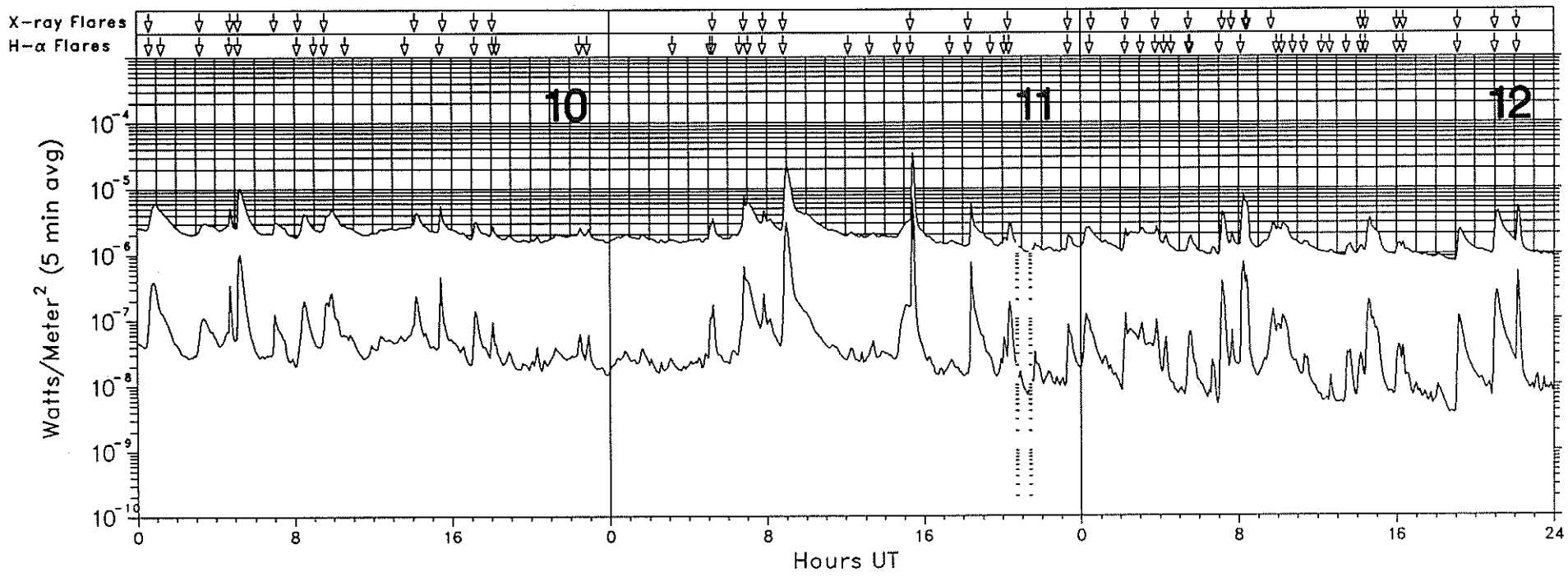
January 1991





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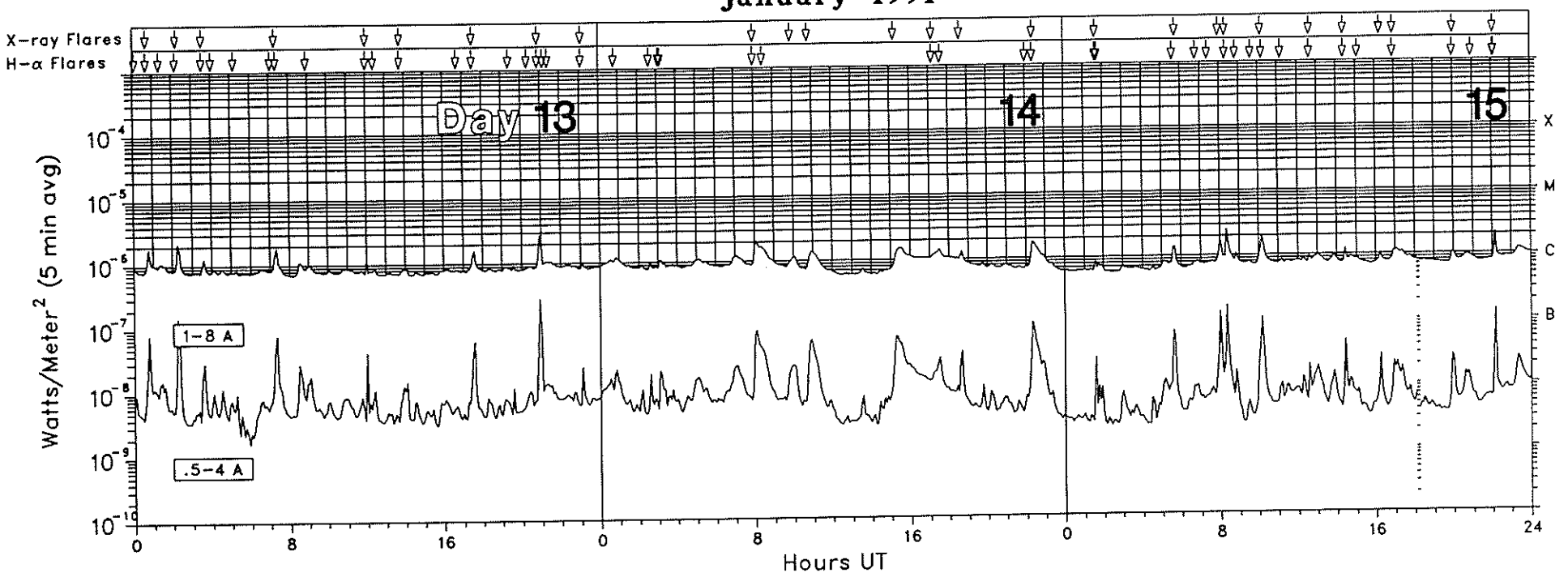
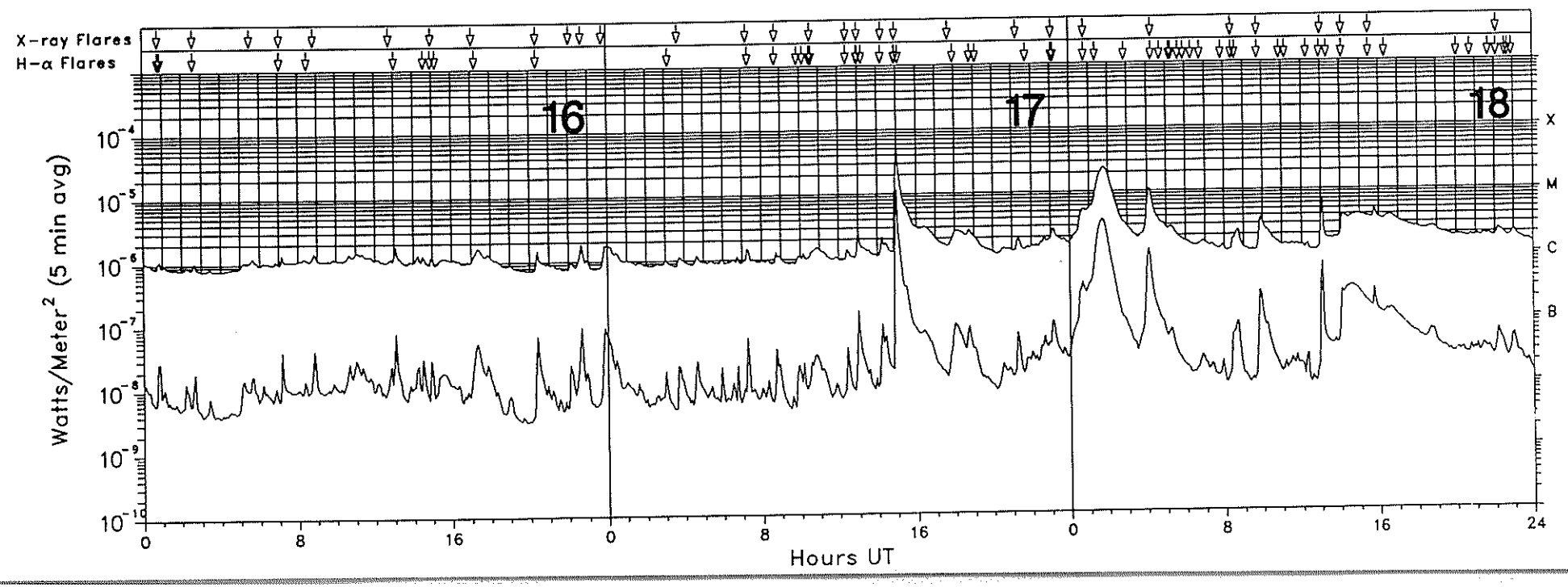
GOES-7 X-RAY DETECTOR

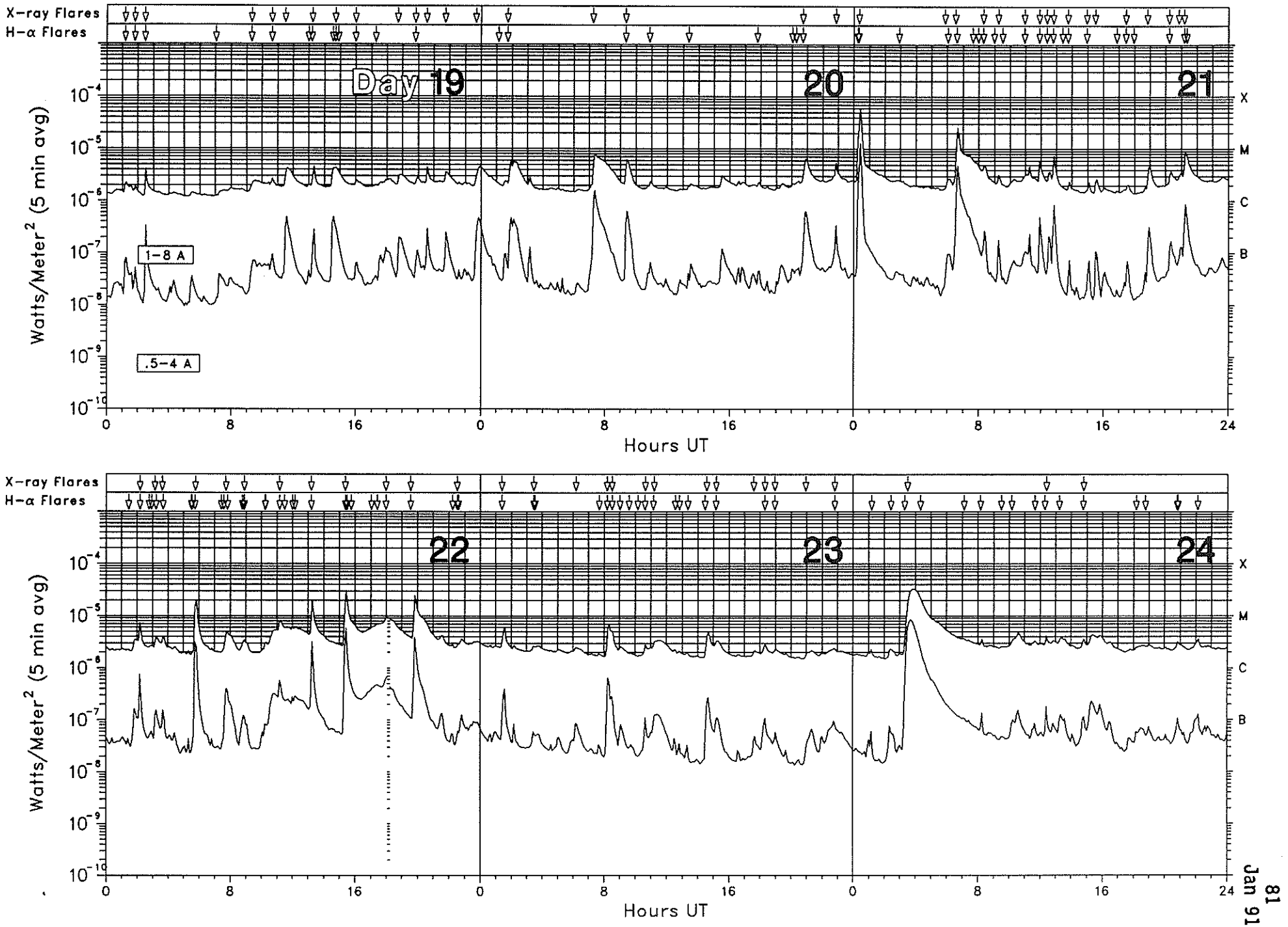
January 1991





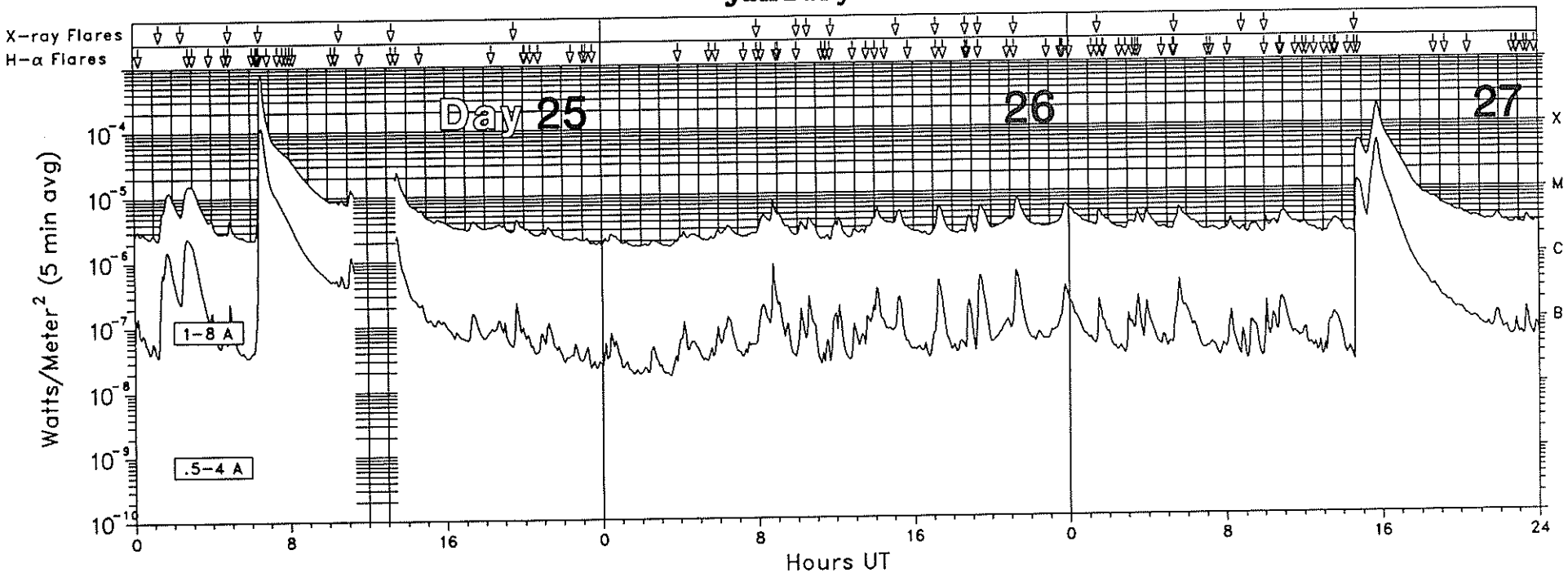
GOES-7 X-RAY DETECTOR

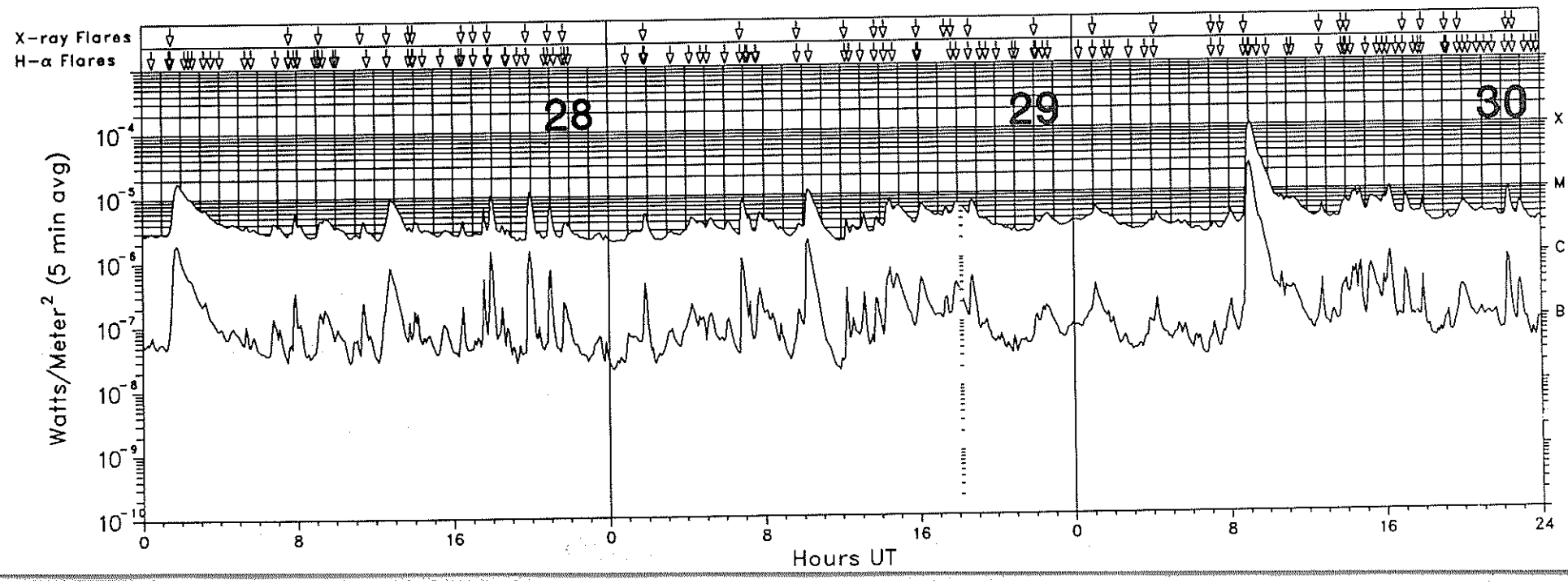
January 1991



GOES-7 X-RAY DETECTOR

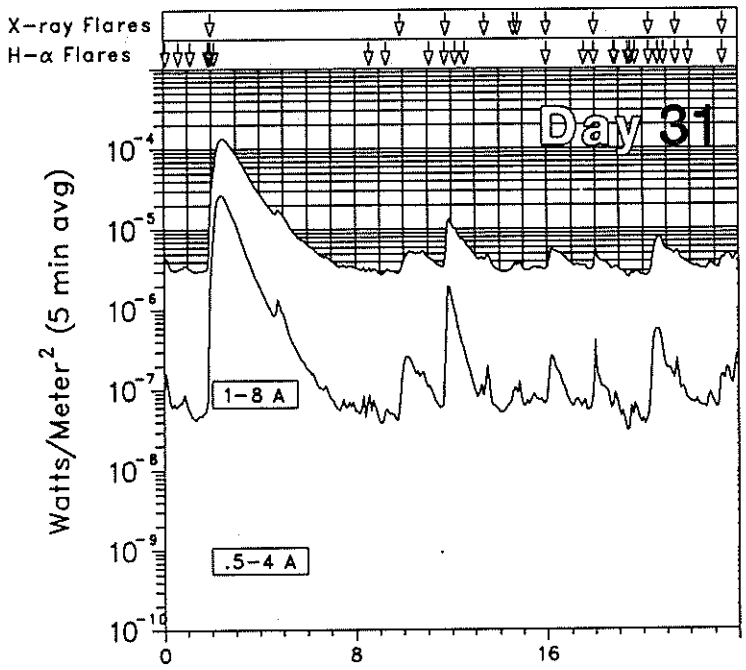
January 1991





GOES-7 X-RAY DETECTOR

January 1991



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

January 1991

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Imp Opt	Xray	NOAA/ USAF Region
01	1249E	1252	1348D	N13	E32	1F	C5.0	6431
01	2118E	2125	2134D	S22	W85	SN	C2.5	6423
02	1615E	1616	1636D	S11	E05	SF	C1.3	6432
02	2053	2056U	2105	S11	E03	SF	C1.3	6432
03	0045E	0055	0131D	S10	W00	SF	C1.3	6432
03	0555E	0611	0734D	S13	W30	SF	C1.6	6427
03	1514	1521	1538				C1.1	
03	1900	2014	2031D	S10	W12	SF	C1.3	6432
03	2030E	2030	2039D	S26	W26	SF	C1.4	6429
04	0158	0221	0253				C1.2	
04	0431E	0440	0526D	N14	W05	1F	C2.4	6431
04	0705E	0707	0720D	S25	W32	SF	C4.1	6429
04	0735E	0740	0801D	N09	W05	SF	C1.2	6431
04	1810	1813	1816				C2.0	
04	1823	1829	1836				C1.6	
05	0730	0751	0758				C1.4	
05	0847	0907	0913				C1.4	
05	1149	1202	1217				C2.5	
05	1951E	1959U	2007	S07	W57	SF	C2.8	6427
05	2325E	2327	2341D	S08	W59	SF	C1.7	6427
06	0447E	0448	0455D	S06	W85	SF	C2.6	6430
06	0602	0605	0608				C2.2	
06	0911	0915	0917				C1.9	
06	0956	0959	1002				C3.6	
06	1134	1144	1146				C2.4	
06	1503E	1504	1508D	S04	W85	SF	C1.8	6430
06	1603	1611	1743D	N34	W26	1F	C5.7	
06	1734	1735	1737				C2.6	
07	0122E	0123	0133D	S06	W49	SF	C2.7	6440
07	0229	0231	0243				C2.0	
07	0321	0324	0327				C2.0	
07	0504E	0547	0610D	S10	W35	SF	C1.6	6442
07	1015	1054	1108				C3.2	
07	1944E	1952	2038D	S10	W42	SF	C3.0	6442
07	2016	2018	2020				C2.9	
07	2124E	2125	2144D	S10	W43	SF	C2.2	6442
07	2152E	2155	2204D	S11	W45	SF	C2.3	6442
07	2210E	2212	2219D	S10	W44	SF	C2.2	6442
07	2250E	2252	2258D	S23	W69	SF	C2.9	6435
07	2334	2336	2346				C2.4	
08	0211	0221	0232				C5.9	
08	0409E	0432	0623D	S11	W48	1N	M1.8	6442
08	0623E	0658	0712D	S12	W50	SF	M1.1	6442
08	1124	1124U	1159	S13	W51	1N	M1.2	6442
08	1815	1848	1927				C7.5	
09	0445E	0447	0523D	N17	E49	1F	C4.5	6444
09	0630	0636	0641				C5.0	
09	0806E	0808	0839D	S15	W67	1N	C5.2	6442
09	1127	1141	1216				C5.3	
10	0037E	0045	0130D	N16	E54	SF	C6.2	6444
10	0313E	0314	0320D	N11	E57	SF	C3.1	6444
10	0447E	0447	0454D	N11	E60	SN	C6.8	6444
10	0510E	0511	0536D	N19	E59	SN	M1.0	6444
10	0700	0704	0719				C3.6	
10	0812E	0815	0822D	S08	E90	1N	C4.3	
10	0932E	0934	1010D	N12	E57	SF	C5.2	6444
10	1409E	1412	1423D	N16	E54	SN	C4.8	6444
10	1534	1535	1543D	N12	E55	SF	C6.8	6444
10	1710E	1711	1720D	S06	E80	SF	C3.4	6447
10	1805	1805U	1814D	N18	E72	SF	C3.0	6447
11	0515E	0518	0527D	N17	E38	SF	C4.0	6444
11	0650E	0651	0656D	N24	E44	SN	C9.5	6444
11	0749E	0749	0754D	N12	E45	SF	C5.0	6444
11	0851E	0901	0925D	S10	E81	1N	M2.2	6447
11	1521E	1526	1546D	S04	E61	1B	M4.6	6447
11	1817E	1827	1906D	N12	E36	1B	M1.0	6444
11	2017	2024U	2036	N16	E32	SF	C3.7	6444
11	2321E	2323	2338D	N12	E36	SF	C2.3	6444
12	0031	0033	0043	N10	E25	SF	C2.6	6444
12	0215E	0218	0225D	S08	E57	SF	C2.5	6447
12	0348E	0350	0403	N08	E51	SF	C2.6	6447
12	0527E	0534	0535D	S02	E56	SF	C2.0	6447
12	0710E	0711	0725D	S05	E50	1F	C4.6	6447
12	0739	0743	0745				C2.4	
12	0822E	0828	0840D	S05	E50	1N	C7.9	6447
12	0827	0830	0832				C9.0	
12	0940	0947	0956				C3.1	
12	1412E	1413	1422D	S06	E47	SF	C1.4	6447
12	1426E	1438	1520D	S06	E46	SN	C3.8	6447
12	1602E	1612	1618D	S08	E45	SF	C1.5	6447
12	1621E	1627	1643D	S32	W30	SF	C1.6	6448
12	1906E	1914	1950D	S09	E47	1F	C2.5	6447
12	2100E	2105	2137D	S08	E58	1F	C4.6	6447
12	2207E	2213	2227D	S08	E43	1N	C9.4	6447
13	0041E	0047	0058D	S07	E42	SF	C2.0	6447
13	0213E	0219	0241	S06	E41	SF	C2.7	6447
13	0332E	0335	0348D	N11	E08	SF	C1.3	6444
13	0717E	0719	0726D	S05	E36	SN	C2.0	6447
13	1201E	1203	1206D	S06	E34	SF	C1.6	6447
13	1347E	1404	1411D	N12	W03	SF	B9.9	6444
13	1731E	1735	1742D	N13	W05	SF	C1.9	6444
13	2052E	2100	2108D	N12	W08	SF	C3.4	6444
13	2305E	2309	2313D	N13	W09	SF	C1.2	6444
14	0758E	0805	0839D	S05	E28	1F	C2.0	6447
14	0955	1007	1008				C1.2	
14	1048	1103	1110				C1.4	
14	1513	1532	1541				C1.6	
14	1710E	1713	1715D	N12	W05	SF	C1.5	6444
14	1837	1841	1844				C1.4	
14	2223E	2227	2236D	S10	E20	SF	C1.9	6447
15	0137		0140	N16	W13	SF	C1.1	6444
15	0543		0545	N29	E36	SF	C1.6	6454
15	0757	0803	0807				C2.2	
15	0818E	0820	0908D	S07	E17	SF	C2.6	6447
15	1008	1013	1018				C2.0	
15	1238E	1238	1242D	S05	E07	SF	C1.2	6447
15	1422	1424U	1445D	N27	E32	SF	C1.5	6454
15	1615	1618	1620				C1.2	
15	1655E	1655	1701D	S05	E10	SF	C1.2	6447
15	1959E	2001	2012D	N13	W13	SF	C1.3	6444
15	2205E	2211	2224D	N13	W15	SF	C2.7	6444
16	0047E	0047	0058D	N14	W25	SF	C1.4	6444
16	0237	0240	0244				C1.2	

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

Preliminary Listing

January 1991

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/ USAF Region
16	0531	0539	0553				C1.3	
16	0705	0711	0728D	N13	W18	SF	C1.5	6444
16	0851	0855	0857				C1.7	
16	1247	1306	1313				C2.3	
16	1458E	1500	1503D	S07	W02	SF	C1.5	6447
16	1706	1722	1730				C1.7	
16	2023E	2024	2032D	N12	W35	SF	C1.9	6444
16	2205	2209	2213				C1.1	
16	2241	2244	2246				C2.4	
16	2345	2352	2416				C1.8	
17	0341	0345	0352				C1.2	
17	0715	0720	0723				C1.9	
17	0845E	0846	0849D	N11	W30	SF	C1.3	6444
17	1034	1051	1106				C1.5	
17	1226	1229	1232				C1.6	
17	1301E	1302	1306D	N14	W39	SF	C3.3	6444
17	1415	1416	1420	N13	W33	SF	C2.5	6444
17	1457E	1502U	1525	S13	W04	1N	M6.9	6455
17	1742	1847	1859				C2.7	
17	2116E	2118	2125D	S07	W20	SN	C2.0	6447
17	2304E	2309U	2315D	S05	W26	SF	C2.9	6447
18	0046E	0158	0237	S05	W24	1N	M2.3	6447
18	0414E	0416	0508D	S12	W11	SN	M1.1	6455
18	0824E	0826	0858D	S13	W14	SF	C2.9	6455
18	0945E	0953	1055D	S14	W16	SF	C3.9	6455
18	1300E	1306	1320D	N14	W48	SN	C7.7	6444
18	1406E	1409	1428D	S05	W29	SF	C3.0	6447
18	1530E	1548	1559D	N15	W88	2N	C5.9	6444
18	2207E	2210	2233D	S13	W21	SF	C6.6	6455
19	0112E	0113	0121D	S13	W21	SF	C2.3	6455
19	0149E	0151	0157D	N12	W56	SF	C2.0	6444
19	0228E	0232	0237D	N14	W56	1N	C5.7	6444
19	0920E	0922	0954D	N28	W18	SF	C2.4	6454
19	1038E	1039	1050D	N10	W61	SF	C3.1	6444
19	1130	1139	1202				C4.2	
19	1314E	1323	1338D	S26	E24	SN	C5.4	6456
19	1443E	1446	1455D	S08	W46	SF	C4.5	6447
19	1559E	1608	1636D	S06	W47	SF	C2.2	6447
19	1842	1857	1916				C3.2	
19	1950E	1954	2003D	S11	W33	SF	C2.9	6455
19	2033	2038	2042				C4.7	
19	2144	2148	2201				C3.7	
19	2341	2359	2423				C4.5	
20	0143E	0143	0156D	N23	E26	SF	C6.5	6458
20	0713	0724	0809				C8.4	
20	0921E	0926	0955D	S13	W39	SF	C6.3	6455
20	2042E	2050	2136D	S11	W44	SF	C6.5	6455
20	2251		2253D	S06	W65	SF	C6.0	6447
21	0020	0033	0128	S12	W47	2N	M6.1	6455
21	0551	0610	0617				C2.9	
21	0632	0643	0802				M2.7	
21	0818E	0819	0827D	S14	W52	SF	C5.9	6455
21	0915	0918	0923				C3.7	
21	1056E	1120U	1145	S19	E71	1F	C5.4	6462
21	1155E	1157	1203D	S14	E76	SF	C6.5	6462
21	1223E	1227	1238D	S17	E68	SF	C4.0	6462
21	1249E	1251	1305D	S11	W54	SN	C8.4	6455
21	1345E	1351	1403D	S17	E78	SF	C2.6	6462
21	1457E	1506	1521D	S07	W68	SF	C2.6	6447
21	1529	1535	1542				C2.8	
21	1727E	1729	1733D	S15	E73	SF	C2.2	6462
21	1851	1900	1910				C4.9	
21	2014E	2052	2115D	S20	E68	SF	C3.9	6462
21	2050	2101	2105				C3.7	
21	2112E	2114	2137D	S11	W57	SN	C9.3	6455
22	0210E	0215	0222D	S13	W67	SF	C8.1	6455
22	0309	0318	0328				C4.1	
22	0337	0345	0348				C4.2	
22	0546	0556	0605D	S13	W67	1N	M3.4	6455
22	0744E	0746	0759D	S19	E67	SF	C5.3	6462
22	0854E	0854	0900D	S19	E67	SF	C3.6	6462
22	1110E	1113	1120D	S17	W68	SF	C8.3	6455
22	1313E	1316	1356D	S12	W67	1F	M2.4	6455
22	1522E	1527	1549D	S19	E66	SN	M3.2	6462
22	1758	1800U	1819D	S08	E67	SF	C9.8	6466
22	1934E	1955	2112	S15	W72	2N	M2.7	6455
22	2231E	2237	2253D	S14	W76	SF	C3.8	6455
23	0124E	0130	0148D	S14	W74	1B	C7.0	6455
23	0327E	0327	0331D	S20	E49	SF	C2.7	6462
23	0611	0613	0616				C2.6	
23	0812E	0819	0838D	S12	E63	SF	C7.4	6466
23	0831E	0836	0841D	S13	W78	SF	C6.3	6455
23	1040	1041U	1109	S07	E61	SF	C3.1	6466
23	1113	1118	1153				C3.1	
23	1433E	1442	1449D	S10	E80	SF	C5.0	6469
23	1510E	1511	1524D	S12	E56	SF	C3.4	6462
23	1736	1743	1759				C2.2	
23	1819	1819U	1833	S21	E47	SF	C2.9	6462
23	1857E	1902	1913D	N25	E30	SF	C2.4	6464
23	2056	2124	2140				C2.2	
23	2248E	2249	2257D	S08	E52	SF	C2.8	6466
24	0329E	0337	0403D	S19	E42	SN	M3.2	6462
24	1224E	1226	1240D	S09	E46	SF	C4.5	6466
24	1448	1451U	1458D	S21	E29	SF	C3.9	6462
25	0120	0150	0209				M1.3	
25	0228	0256	0318				M1.6	
25	0455E	0457	0506D	S18	E28	SF	C5.1	6462
25	0630E	0630	0638D	S16	E78	SF	X10.	6471
25	1039E	1111U	1249D	S06	E30	SN	M1.4	6466
25	1317E	1329	1426D	S08	E30	2N	M2.4	6466
25	1934	2102U	2205D	S09	E21	SF	C4.6	6466
26	0801E	0845	0905D	S15	E14	SN	C8.3	6462
26	1002E	1031	1047D	S15	E16	SF	C3.8	6462
26	1035	1039	1047				C4.6	
26	1148E	1148	1215D	S16	E14	SF	C4.5	6462
26	1510	1513	1526				C5.4	
26	1711E	1712	1718D	S16	E13	SF	C6.2	6462
26	1843E	1856	1920D	S11	E16	SF	C4.4	6466
26	1923E	1924	1932D	N11	E27	SF	C6.1	6472
26	2114E	2115	2138D	S11	E69	SF	C7.8	6471
27	0129E	0130	0152	S13	E32	SF	C5.2	6469
27	0526E	0535	0637D	S12	E64	SF	C5.5	6471
27	0852	0855	0857				C3.6	

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

January 1991

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/ USAF Region
27	1004E	1005	1017D	S12	E62	SF	C4.1	6471
27	1440E	1442	1742D	S14	E59	1B	X1.9	6471
28	0130E	0142	0358D	S09	W04	1N	M1.7	6466
28	0738E	0754	0841D	N08	W21	SN	C7.2	6465
28	0911E	0932	1002D	S09	W07	SF	C5.1	6466
28	1120	1126	1136				C4.5	
28	1240E	1249	1347D	S13	E48	SF	M1.1	6471
28	1347E	1347	1350D	N15	E71	SF	C4.3	6476
28	1359E	1402	1426D	S18	E37	SF	C4.7	6471
28	1630E	1630	1637D	N16	E71	SF	C4.8	6476
28	1707E	1745	1754D	S12	E08	SF	C7.8	6469
28	1751E	1757	1819D	S15	E49	1N	M1.1	6471
28	1950E	1955	2040D	S15	E48	1N	M1.2	6471
28	2057E	2059U	2112D	N03	E80	SF	M1.1	6479
28	2143	2146U	2200	S12	E46	SF	C4.0	6471
29	0152E	0153	0231D	S15	E44	SF	C5.9	6471
29	0651E	0651	0729D	S16	E42	SN	C9.9	6471
29	0946E	1015	1055	S13	E36	SN	M1.2	6471
29	1214	1218	1224				C4.3	
29	1347E	1348	1401D	N08	W38	SF	C6.1	6465
29	1416E	1421	1437D	S17	W07	SF	C8.7	6469
29	1558E	1610	1632D	N19	E64	SF	C6.8	6476
29	1723	1723U	1740D	S15	W10	SF	C6.6	6469
29	1744E	1750	1826D	N21	E63	SF	C7.2	6476
29	1838E	1844	1913D	S15	W07	SF	C8.1	6469
29	2203E	2204	2213D	S17	W12	SF	C3.9	6469
30	0103E	0107	0133D	S15	W32	SF	C6.3	6462
30	0412E	0415	0420D	S17	W31	SN	C4.9	6462
30	0709E	0712	0731D	N08	W47	SF	C3.2	6465
30	0738E	0806	0826D	S10	W29	SF	C4.9	6466
30	0849E	0900	1025D	S08	W34	2B	X1.0	6466
30	1243	1247	1252				C5.9	
30	1350E	1419	1437D	S14	E21	SN	M1.0	6471
30	1407E	1445	1458D	S10	W39	SN	M1.2	6466
30	1700E	1702	1721D	S15	W42	SF	C7.9	6462
30	1756E	1757	1804D	S16	W25	SN	M1.0	6469
30	1908E	1909	1918D	S13	E18	SF	C4.6	6471
30	1948E	1957	2024D	S15	W40	SF	C6.4	6462
30	2217E	2220	2235D	S15	W23	1N	M1.0	6469
30	2237E	2301	2324D	S14	W45	SF	C6.1	6462
31	0158E	0222	0519D	S17	W35	2B	X1.3	6469
31	0953	1016	1111				C5.4	
31	1147	1155	1259				M1.4	
31	1326	1333	1336				C5.1	
31	1437	1440	1444				C3.8	
31	1448	1451	1455				C4.0	
31	1559E	1612	1627D	S15	W34	SF	C5.7	6469
31	1758	1804	1808				C6.4	
31	2017E	2028	2107D	S16	W40	SN	C8.4	6469
31	2124E	2126	2142D	S13	E03	SF	C5.5	6471
31	2322E	2323	2345D	S15	W55	SF	C5.0	6462

Preliminary GOES Satellite Data
Daily Average X-ray Background
Feb 1990 - Jan 1991

Day	1990 Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	1991 Jan
1	B9.5	C1.1	B7.4	B3.1	B3.1	C1.2	C1.3	B8.7	B5.1	B3.8	C1.0	B7.4
2	B7.8	C1.1	B5.2	B4.2	B3.7	C1.4	C1.2	B8.6	B7.9	B3.7	B7.6	B7.6
3	B8.9	C1.0	B7.8	B2.8	B3.6	C1.2	B7.8	B6.6	C1.5	B4.0	B7.6	B7.4
4	B7.8	B9.1	B6.9	B2.7	B3.8	C1.1	B7.1	B7.3	C1.1	B5.2	B8.6	B7.8
5	B7.7	B7.0	B6.1	B4.4	B4.8	C1.1	B6.9	C1.0	B8.6	B6.7	C1.1	B9.5
6	C1.1	B7.5	B5.4	B5.7	B8.5	C1.0	B7.0	B6.0	B6.9	B9.4	C1.3	C1.1
7	B7.5	B7.4	B4.6	B7.7	C1.2	C1.1	B7.0	B6.6	B9.0	C1.1	C1.2	C1.5
8	B6.1	B6.7	B4.6	B9.8	C1.0	C1.1	B9.6	B5.9	B8.9	B9.8	C1.2	C2.3
9	B5.7	B5.4	B4.8	C1.0	B9.1	C1.1	B7.8	B6.5	B9.0	B8.6	C1.5	C2.0
10	B5.2	B5.9	B6.1	C1.4	C1.3	B9.7	B7.9	B6.9	B6.5	B7.6	C1.8	C1.9
11	B4.6	B8.5	C1.0	C1.5	C1.0	B7.9	B7.2	B8.7	B6.9	B9.6	C2.1	C1.3
12	B4.3	B5.8	C1.2	---	C1.1	B6.0	B7.9	B7.5	B6.4	C1.1	C2.1	B9.4
13	B4.0	B7.1	---	C1.5	C1.0	B7.8	B8.2	B7.6	B8.3	C1.0	C1.9	B7.3
14	B4.1	B8.8	C1.6	C1.3	B8.0	B4.6	B6.3	C1.0	B8.6	C1.1	C1.3	B6.2
15	B4.2	C1.0	C1.6	C1.9	B8.5	B4.3	B6.6	B7.9	C1.4	C1.1	C1.0	B6.7
16	B4.0	C1.2	C1.3	C1.4	B6.9	B4.6	B9.4	B7.4	C1.2	C1.2	B9.1	B7.9
17	B5.9	B9.3	C1.2	C1.4	B5.9	B6.2	C1.2	B9.3	C1.0	C1.5	B7.6	B9.2
18	B8.2	C1.3	C1.7	C1.6	B4.9	B9.5	C1.7	B8.5	C1.2	C1.2	C1.3	C1.2
19	C1.2	C1.6	C1.3	C2.4	B4.8	B4.7	C1.6	B9.3	C1.6	C1.0	C1.6	C1.6
20	C1.1	C1.1	C1.6	C1.8	B5.2	B4.7	C1.9	B8.1	C1.4	B7.5	C1.5	C1.6
21	C1.2	C1.3	C1.4	C1.6	B5.0	B5.8	C2.0	B9.0	C1.4	B8.3	C1.3	C1.5
22	C1.0	C1.9	C1.1	C1.4	B4.6	B6.2	C2.0	B7.9	B9.5	*	C1.3	C2.2
23	C1.1	C1.4	C1.1	C1.6	B4.2	B7.2	C2.2	B9.5	B6.7	B8.0	C1.3	C1.6
24	C1.0	C1.4	C1.0	C1.3	B5.8	B7.3	C2.1	B8.9	B5.6	B8.8	C1.7	C1.9
25	B9.8	C1.1	C1.1	C1.5	B6.0	C1.0	C1.5	B6.9	B6.7	C1.0	C1.2	C2.2
26	B9.5	C1.7	C1.3	C1.4	B5.2	B9.5	C1.8	B4.8	B5.0	B9.8	C1.1	C2.0
27	C1.2	C1.6	C1.0	B6.8	B9.4	B7.0	C1.7	B4.0	B6.4	C1.1	B9.2	C2.4
28	C1.6	C1.8	B5.7	B6.4	C1.3	B7.3	C2.2	B4.1	B4.5	C1.4	B7.9	C2.6
29		C1.3	B3.8	B4.7	C1.3	B6.6	C1.5	B4.5	B7.3	C1.4	B8.4	C2.2
30		C1.2	B3.4	B5.5	C1.1	C1.0	C1.5	B4.8	B6.5	C1.1	B8.6	C2.8
31		C1.0		B4.5		B9.4	C1.0		B4.4		B7.8	C2.9

MASS EJECTIONS FROM THE SUN

JANUARY 1991

Site	Mo Day	Observed UT Start	Max	End	Location RA*	R/Ro	Freq or Wavelength	Kind of Event
POTS	Jan 08	1415.3		1416.5			170-120 MHz	II?
PALE	Jan 08	1836.0		1848.0			Meter	II
SGMR	Jan 08	1835.0		1848.0			Meter	II
WEIS	Jan 11	1524.1		1526.2			Meter	II
KHAR	Jan 16	0820 E		0855 D	240	0.04	H-alpha	S
WEIS	Jan 17	1507.9		1514.5			250- 34 MHz	II Harmonic
SGMR	Jan 17	1508.0		1518.0			Meter	II
POTS	Jan 18	1301.0		1311.2			600-400 MHz	IV
SGMR	Jan 18	1342.0		1416,0			Meter	II
POTS	Jan 18	1403.1		1421.6			800- 40 MHz	IV,II Harmonic
WEIS	Jan 18	1412.0		1414.8			70- 34 MHz	II
SVTO	Jan 18	1415.0		1423.0			Meter	II
WEIS	Jan 18	1417.0		1421.8			60- 30 MHz	II
VORO	Jan 21	0018	0020	0026	225	0.9	H-alpha	SP
VORO	Jan 21	0018	0020	0050	308	0.7	H-alpha	SP
VORO	Jan 23	0129	0131	0152	245	0.9	H-alpha	SP
LEAR	Jan 24	0330.0		0421.0			Meter	IV
LEAR	Jan 25	0637.0		0644.0			Meter	II
LEAR	Jan 25	0644.0		0749.0			Meter	IV
SVTO	Jan 25	0652.0		0700.0			Meter	II
SVTO	Jan 25	0700.0		0720.0			Meter	IV
KHAR	Jan 25	0830 E		1045 D	104	1.00-1.08	H-alpha	SP
SGMR	Jan 27	1543.0		1710.0			Meter	IV
WEIS	Jan 27	1543.6		1550.7			150- 42 MHz	II Harmonic
KHAR	Jan 28	0957 E		1005 D	235	0.30	H-alpha	S
LEAR	Jan 31	0207.0		0226.0			Meter	II
PALE	Jan 31	0207.0		0403.0			Meter	IV
LEAR	Jan 31	0226.0		0413.0			Meter	IV

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

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

REPORTING STATIONS
- KHAR = Kharkov
- LEAR = Learmonth
- PALE = Palehua
- POTS = Potsdam
- SGMR = Sagamore Hil
- SVTO = San Vito
- VORO = Voroshilov
- WEIS = Weissenau

ACTIVE PROMINENCES AND FILAMENTS

JANUARY 1991

Day	Event Type	Start (UT)	End (UT)	Lat	CMP CMD	Mo	Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
01	ASR	0538E	1100D	S19	E87	01	7.9			9	9	E	LEAR		
01	SDF	0709E	0754D	N20	E21	01	2.9		09	0	0	E	SVTO	6431	
01	SDF	0709E	0754D	N38	E21	01	3.0		12	0	0	E	SVTO		
01	SDF	0709E	0754D	N38	E21	01	3.0		12	0	0	E	SVTO		
01	ADF	1157E	2114D	S18	W52	12	28.6	2	08	9	9	E	RAMY	6422	
01	ADF	1211E	1552D	S08	W07	01	1.0	1	08	9	9	E	RAMY	6427	
01	ADF	1219E	1407D	N15	E35	01	4.2	2	13	9	9	E	RAMY	6431	Flare Associated
01	ASR	1543E	2245D	S19	E90	01	8.5			6	6	E	HOLL		
01	APR	1549E	2245D	S09	W90	12	26.0	1		7	7	E	HOLL		
01	SSB	1644		309	W25	01	1.0			0	0	E	HOLL		332 W48
01	DSD	1922E	0236D	S11	W71	12	27.6		02	9	9	E	PALE	6424	
01	ADF	1922E	0236D	S15	W64	12	28.1	1	15	9	9	E	PALE	6423	
01	ADF	1922E	0236D	S19	W58	12	28.5	1	07	9	9	E	PALE	6422	
01	ADF	1922E	0236D	S26	W01	01	1.7		06	9	9	E	PALE	6429	
01	ADF	1953E	0236D	N14	E30	01	4.1		10	9	9	E	PALE	6431	
01	ADF	1953E	0236D	S10	E16	01	3.0		02	9	9	E	PALE	6432	
01	ADF	1953E	0236D	S10	E18	01	3.2	1	07	9	9	E	PALE	6432	
01	APR	1958E	0236D	S10	W90	12	26.2			9	8	E	PALE	6424	
01	AFS	2001E	0236D	S09	E16	01	3.0		03	9	9	E	PALE	6432	
01	EPL	2321	0055D	N05	W90	12	26.3			9	9	E	LEAR	6424	
01	EPL	2328E	0114D	N01	W90	12	26.3			9	9	E	PALE	6424	
01	AFS	2330E	1025D	S10	E15	01	3.1		03	9	9	E	LEAR	6432	
01	DSD	2331E	1025D	S09	W04	01	1.7		02	9	9	E	LEAR	6427	
01	AFS	2351E	1025D	S08	W23	12	31.3		02	9	9	E	LEAR	6430	
02	ADF	0020E	0302D	N11	W31	12	30.8	1				C	VORO		
02	AFS	0556E	1025D	N08	E26	01	4.2		03	9	9	E	LEAR	6431	
02	ASR	0722E	1416D	S11	W83	12	27.2			9	9	E	SVTO	6424	
02	ASR	0724E	1025D	S09	W90	12	26.6			9	9	E	LEAR	6424	
02	AFS	0732E	1416D	S10	E09	01	3.0		02	7	8	E	SVTO	6432	
02	SSB	0804		309	W34	01	1.6			0	0	E	SVTO		275 W00
02	ADF	1125E	2143D	N19	E21	01	4.1	1	08	9	9	E	RAMY	6431	
02	ADF	1146E	1404D	S12	E09	01	3.2	2	07	9	9	E	SVTO	6432	
02	ADF	1156E	1312D	S12	E10	01	3.2	2	06	9	9	E	RAMY	6432	
02	AFS	1209E	1642D	S24	E04	01	2.8		02	9	9	E	RAMY	6435	
02	SSB	1217		273	W01	01	8.0			0	0	E	RAMY		330 W57
02	SDF	1416E	0709D	N40	E24	01	4.5		16	0	0	E	SVTO		
02	ADF	1504E	2243D	S19	W69	12	28.5	1	18	9	9	E	HOLL	6422	
02	BSD	1546E	1706D	S11	W87	12	27.2		04	9	9	E	HOLL	6424	
02	SSB	1549		275	W04	01	8.3			0	0	E	HOLL		310 W39 331 W60
02	DSD	1719E	1820D	S18	W78	12	27.9		02	9	9	E	RAMY	6422	
02	DSD	1806E	0151D	N09	E20	01	4.2		02	9	9	E	PALE	6431	
02	ADF	1806E	0151D	N12	E09	01	3.4		04	9	8	E	PALE		
02	DSD	1806E	0151D	S10	E03	01	3.0		02	9	9	E	PALE	6432	
02	ADF	1806E	0151D	S21	W68	12	28.6	1	09	9	9	E	PALE	6422	
02	ADF	1806E	0151D	S23	W14	01	1.7	1	06	9	9	E	PALE	6429	
02	SSB	1901		304	W05	01	2.5			0	0	E	PALE		313 W40
02	DSD	1959E	2007	N19	E02	01	3.0		03	9	9	E	RAMY	6428	
02	DSD	2038E	2113D	S10	E01	01	2.9		02	9	9	E	RAMY	6432	
02	AFS	2317E	1055D	N17	E14	01	4.0		03	9	9	E	LEAR	6431	
02	DSD	2318E	1055D	N08	E14	01	4.0		03	9	9	E	LEAR	6431	
02	AFS	2318E	1055D	S11	E02	01	3.1		02	9	9	E	LEAR	6432	
02	ASR	2319E	1055D	S10	W90	12	27.3			9	9	E	LEAR	6424	
02	DSD	2319E	1055D	S20	E69	01	8.2		04	9	9	E	LEAR	6437	
02	AFS	2320E	1055D	S08	W36	12	31.3		02	9	9	E	LEAR	6430	
02	EPL	2321	0055D	N05	W90	12	27.3			9	9	E	LEAR	6424	
03	ADF	0009E	0300D	N08	W46	12	30.6	1				C	VORO		
03	BSL	0140	0209	S27	W90	12	27.1	1				C	VORO		
03	ADF	0520E	1055D	S12	W04	01	2.9		04	9	9	E	LEAR	6432	
03	ASR	0520E	1055D	S24	W90	12	27.4			9	9	E	LEAR	6422	
03	SDF	0721E	1350D	N07	E04	01	3.6		08	0	0	E	SVTO		
03	DSD	0725E	1358D	N10	E11	01	4.1		05	9	9	E	SVTO	6431	
03	AFS	0726E	1358D	S09	W42	12	31.1		02	9	9	E	SVTO	6430	
03	SSB	0727		269	W07	01	8.5			0	0	E	SVTO		
03	AFS	0728E	1358D	S10	W05	01	2.9		02	9	9	E	SVTO	6432	
03	DSD	0800E	1055D	S08	W41	12	31.2		05	9	9	E	LEAR	6430	
03	ADF	0835E	1358D	S15	E62	01	8.0	1	07	9	9	E	SVTO	6437	
03	APR	1030E	1358D	S19	W90	12	27.7	1		9	9	E	SVTO		
03	APR	1150E	1358D	N32	E88	01	10.4	1		9	9	E	SVTO		

ACTIVE PROMINENCES AND FILAMENTS

JANUARY 1991

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	AFS	1259E	1840D	S09	W10	01	2.8		02	9	9	E	RAMY	6432	
03	DSD	1452E	1508D	N08	E06	01	4.1		03	9	9	E	RAMY	6431	
03	ADF	1504E	2243D	S19	W69	12	29.5	1	18	9	9	E	HOLL	6422	
03	AFS	1530E	2100D	S07	W46	12	31.2		02	9	9	E	HOLL	6430	
03	DSD	1532E	2100D	N07	E05	01	4.0		03	9	9	E	HOLL	6431	
03	AFS	1533E	2100D	S10	W09	01	3.0		04	9	9	E	HOLL	6432	
03	SSB	1535		269	W11	01	8.8			0	0	E	HOLL		309 W51
03	ADF	1835E	1840D	S24	E57	01	8.2	1	06	9	9	E	RAMY	6437	
03	DSD	1839E	1926D	N11	E04	01	4.1		03	9	9	E	RAMY	6431	
03	ADF	2331E	1051D	N07	W01	01	3.9	1	05	9	9	E	LEAR	6431	
04	ADF	0041E	0300D	N12	W60	12	30.6	1				C	VORO		
04	BSL	0124	0138	S13	W90	12	28.4	1				C	VORO		
04	BSL	0222	0240	S20	W90	12	28.3	1				C	VORO		
04	SSB	0716		267	W18	01	9.4			0	0	E	SVTO		211 W00
04	BSD	0748E	0900U	S06	W55	12	31.2					P	BUCA		
04	AFS	0800E	1512D	S11	W18	01	3.0		03	9	9	E	SVTO	6432	
04	ADF	0801E	0801D	S29	W36	01	1.5	2	07	9	9	E	SVTO	6429	Flare Associated
04	AFS	1230E	2101D	S06	W59	12	31.1		02	9	9	E	RAMY	6430	
04	ADF	1234E	2101D	N11	W05	01	4.1	1	09	9	9	E	RAMY	6431	
04	ASR	1244E	1258	N04	W90	12	28.9			9	9	E	RAMY	6433	
04	SSB	1252		254	W08	01	8.6			0	0	E	RAMY		
04	ASR	1411	1530D	S18	W90	12	28.8			9	9	E	RAMY	6422	
04	SDF	1512E	0901D	N06	W03	01	4.4		02	0	0	E	SVTO		
04	SDF	1512E	0901D	S17	W21	01	3.0		04	0	0	E	SVTO		
04	ADF	1635E	2010D	S26	E56	01	9.0	1	17	9	9	E	RAMY	6437	
04	AFS	1641E	2014D	S22	W28	01	2.5		02	9	9	E	RAMY	6435	
04	DSD	1753E	2008D	N09	W10	01	4.0		03	9	9	E	RAMY	6431	
04	DSD	2013E	2025D	S06	W59	12	31.4		03	9	9	E	RAMY	6430	
04	ADF	2020E	0015D	N07	W07	01	4.3	1	08	9	9	E	PALE	6431	
04	AFS	2020E	0015D	N08	W48	01	1.2		02	9	9	E	PALE		
04	AFS	2020E	0015D	S09	W63	12	31.1		03	9	9	E	PALE	6430	
04	SSB	2120		307	W66	01	4.3			0	0	E	PALE		
04	DSD	2120E	0015D	N10	W50	01	1.1		03	9	9	E	PALE		
04	ADF	2120E	0015D	S15	W48	01	1.2		09	9	9	E	PALE	6427	
04	DSD	2150E	0015D	S09	W63	12	31.2		03	9	9	E	PALE	6430	Flare Associated
04	ADF	2235E	1045D	N10	W06	01	4.5	1	03	9	9	E	LEAR	6431	
04	ADF	2238E	1045D	S09	W25	01	3.1	1	04	9	9	E	LEAR	6432	
04	AFS	2316E	1045D	S25	W41	01	1.8		02	7	9	E	LEAR	6429	
04	ADF	2316E	1045D	S26	W41	01	1.8	1	03	9	9	E	LEAR	6429	
04	AFS	2322E	1045D	N09	W51	01	1.1		02	9	9	E	LEAR		
05	AFS	0223E	1054D	N23	W51	01	1.2		04	9	9	E	LEAR	6429	
05	AFS	0315E	1054D	N10	W30	01	2.9		02	9	9	E	LEAR	6432	
05	DSD	0318E	1054D	N07	W67	12	31.1		02	9	9	E	LEAR	6430	
05	DSD	0318E	1054D	N08	W66	12	31.2		02	9	9	E	LEAR	6430	
05	BSD	0821E	0851U	N08	W57	01	1.1					P	BUCA		
05	BSD	0821E	0851U	S08	W70	12	31.1					P	BUCA		
05	SSB	0901		266	W31	01	10.6			0	0	E	SVTO		211 W00
05	SSB	1315		236	W03	01	8.2			0	0	E	RAMY		301 W68
05	BSD	1320	1320D	S09	W78	12	30.8		03	9	9	E	SVTO	6430	Flare Associated
05	SDF	1434E	1129D	N37	E32	01	8.2		07	0	0	E	SVTO		
05	ADF	1905E	0355D	N20	W24	01	3.9		10	9	9	E	PALE		
05	AFS	1905E	0355D	S07	W30	01	3.5		02	9	9	E	PALE		
05	AFS	1905E	0355D	S07	W74	12	31.2		03	9	9	E	PALE	6430	
05	AFS	1905E	0355D	S08	W56	01	1.6		03	9	9	E	PALE	6427	
05	AFS	1905E	0355D	S23	W50	01	1.9		03	9	9	E	PALE	6429	
05	BSD	2012E	0355D	S08	W77	12	31.1		08	9	9	E	PALE	6430	
05	ADF	2315E	1045D	S16	W36	01	3.2	1	14	9	9	E	LEAR	6432	
05	ADF	2316E	1045D	S18	E28	01	8.1	1	04	9	9	E	LEAR	6437	
05	AFS	2317E	1045D	N08	W22	01	4.3		02	9	9	E	LEAR	6431	
05	AFS	2318E	1045D	S07	W60	01	1.5		02	9	9	E	LEAR	6427	
05	AFS	2319E	1045D	S23	W47	01	2.4		03	9	9	E	LEAR	6435	
05	AFS	2320E	1045D	S06	W33	01	3.5		02	9	9	E	LEAR		
05	ADF	2325E	1045D	S24	W57	01	1.6	1	05	9	9	E	LEAR	6429	
06	ASR	0150E	1045D	S06	W90	12	30.4			9	9	E	LEAR	6430	
06	SDF	0355E	1900D	N28	W33	01	3.6		23	0	0	E	PALE		
06	ASR	0550E	1045D	N14	E90	01	13.0			9	9	E	LEAR		
06	SDF	1045E	2214D	N36	W21	01	4.8		21	0	0	E	LEAR		

ACTIVE PROMINENCES AND FILAMENTS

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Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
06	ASR	1129E	2145D	S06	W90	12	30.8			9	9	E	RAMY	6430	
06	DSD	1131E	2145D	S03	W61	01	1.9		03	9	9	E	RAMY	6427	
06	ADF	1132E	2145D	N10	W66	01	1.5	1	08	9	9	E	RAMY	6439	
06	AFS	1134E	2145D	S10	W23	01	4.7		02	9	9	E	RAMY	6442	
06	AFS	1135E	2145D	S05	W37	01	3.7		02	9	9	E	RAMY	6440	
06	SSB	1137		237	W16	01	9.3			0	0	E	RAMY		293 W72
06	ADF	1146E	1517D	S08	W40	01	3.5	1	04	9	9	E	SVTO		
06	SSB	1405		237	W18	01	9.4			0	0	E	SVTO		
06	SDF	1517E	0740D	N44	W39	01	3.4		12	0	0	E	SVTO		
06	ASR	1604E	2145D	N13	E90	01	13.5			9	9	E	RAMY		
06	ADF	1609	2145D	N29	W27	01	4.5	2	05	9	9	E	RAMY		Flare Associated
06	ADF	1625E	1725	N52	W29	01	4.2	2	19	9	9	E	RAMY		Flare Associated
06	SDF	1625E	1725	N52	W29	01	4.2	3	19	0	0	E	RAMY		
06	DSD	1724E	2145D	S21	E20	01	8.2		02	9	9	E	RAMY	6437	
06	AFS	1725E	0400D	S06	W43	01	3.5		02	9	9	E	PALE	6440	
06	ASR	1725E	0400D	S07	W88	12	31.1			9	9	E	PALE	6430	
06	AFS	1725E	0400D	S10	W71	01	1.4		03	9	9	E	PALE	6427	
06	AFS	1725E	0400D	S11	W26	01	4.8		03	9	9	E	PALE	6442	
06	ASR	1725E	0400D	S16	W88	12	31.0			9	9	E	PALE		
06	ASR	1735E	0400D	N12	E90	01	13.5			9	9	E	PALE		
06	AFS	1735E	2145D	S07	W20	01	5.2		03	9	9	E	RAMY	6427	
06	SSB	1818		237	W21	01	9.6			0	0	E	PALE		
06	ASR	1848E	2318D	N12	E90	01	13.6			9	9	E	HOLL		
06	ASR	1850E	2318D	S06	W88	12	31.2			9	9	E	HOLL	6430	
06	AFS	1942E	2318D	S11	W28	01	4.7		02	9	9	E	HOLL	6442	
06	DSD	2045E	2258D	S06	W45	01	3.5		02	9	9	E	HOLL	6440	
06	SDF	2051E	2300D	N13	W41	01	3.8		11	0	0	E	HOLL	6431	
06	SSB	2100		237	W22	01	9.7			0	0	E	HOLL		
06	ASR	2256E	2318D	S17	W90	12	31.1			9	9	E	HOLL		
06	AFS	2258E	2318D	S05	W46	01	3.5		02	9	9	E	HOLL	6440	
06	ASR	2310E	1053D	S17	W90	12	31.1			9	9	E	LEAR		
06	AFS	2315E	1053D	S06	W47	01	3.4		02	9	9	E	LEAR	6440	
06	ASR	2350E	1053D	S11	W32	01	4.6			9	9	E	LEAR	6442	
06	AFS	2355E	1053D	S11	W32	01	4.6		02	9	9	E	LEAR	6442	
07	DSD	0120E	0400D	S26	W69	01	1.7		03	9	9	E	PALE	6429	
07	DSD	0125	0204D	S06	W48	01	3.5		03	9	9	E	PALE	6440	Flare Associated
07	AFS	0305E	0400D	S17	W04	01	6.8		02	9	9	E	PALE		
07	AFS	0305E	0400D	S27	E02	01	7.3		02	8	8	E	PALE		
07	AFS	0340E	1053D	S27	E02	01	7.3		02	9	9	E	LEAR		
07	AFS	0341E	1053D	N15	E89	01	13.9		02	9	9	E	LEAR		
07	ASR	0405E	1053D	N15	E89	01	13.9			9	9	E	LEAR		
07	ASR	0713E	1511D	N13	E90	01	14.1			9	9	E	SVTO		
07	AFS	0722E	1511D	S09	W51	01	3.5		02	9	9	E	SVTO	6440	
07	AFS	0724E	1511D	S14	W57	01	3.0		03	9	9	E	SVTO	6442	
07	DSD	0726E	1405D	S18	W07	01	6.8		02	9	9	E	SVTO		
07	ASR	0738E	1405D	S11	W90	12	31.5			9	9	E	SVTO	6430	
07	SSB	0740		241	W31	01	10.5			0	0	E	SVTO		
07	AFS	0757E	1511D	S18	W06	01	6.9		02	9	9	E	SVTO		
07	AFS	1122E	2146D	S10	W36	01	4.8		02	9	9	E	RAMY	6442	
07	DSD	1122E	2146D	S10	W39	01	4.5		04	9	9	E	RAMY	6442	
07	AFS	1125E	2146D	S05	W49	01	3.8		03	9	9	E	RAMY	6440	
07	AFS	1128E	2146D	S11	W58	01	3.1		02	9	9	E	RAMY	6432	
07	ASR	1132E	2146D	N13	E90	01	14.3			9	9	E	RAMY	6444	
07	SSB	1204		237	W30	01	10.4			0	0	E	RAMY		257 W50 271 W64
07	ADF	1221E	2146D	N24	W37	01	4.6	1	11	9	9	E	RAMY	6443	
07	ADF	1414E	1511D	S09	E32	01	10.0	1	05	9	9	E	SVTO	6438	
07	ASR	1515E	2350D	N13	E84	01	14.0			9	9	E	HOLL		
07	ASR	1516E	2254D	S17	W86	01	1.1			9	9	E	HOLL		
07	AFS	1525E	2212D	N06	E61	01	12.2		01	6	6	E	HOLL		
07	ASR	1527E	2350D	S28	W90	12	31.6			9	9	E	HOLL		
07	AFS	1538E	2212D	N06	W48	01	4.0		01	9	9	E	HOLL	6431	
07	ADF	1542E	2350D	S15	W61	01	3.0	1	04	9	9	E	HOLL	6432	
07	AFS	1551E	2212D	S06	W55	01	3.5		01	8	8	E	HOLL	6440	
07	SSB	1912		201	W00	01	7.9			0	0	E	HOLL		256 W53
07	SDF	2043E	1734D	N12	W44	01	4.5		14	0	0	E	PALE		
07	SSB	2047		238	W25	01	10.8			0	0	E	PALE		246 W40
07	ASR	2127E	0353D	N14	E90	01	14.7			9	9	E	PALE	6444	
07	ASR	2127E	0353D	S11	W90	01	1.1			9	9	E	PALE	6427	
07	DSD	2221E	2251D	S12	W45	01	4.5		04	9	9	E	LEAR	6442	

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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
07	ADF	2239E	1100D	N07	W51	01	4.1	1	03	9	9	E	LEAR	6431	
07	AFS	2253E	0230D	S12	W47	01	4.4		02	9	9	E	LEAR	6442	
07	ADF	2337E	0353D	N11	E50	01	11.7	1	12	9	9	E	PALE		
07	ADF	2337E	0353D	N14	W53	01	4.0		05	9	9	E	PALE	6431	
07	ADF	2337E	0353D	N22	W47	01	4.4	1	12	9	9	E	PALE	6443	
07	ADF	2337E	0353D	S09	E27	01	10.0		05	9	9	E	PALE	6438	
07	AFS	2337E	0353D	S13	W47	01	4.4		06	9	9	E	PALE	6442	
07	ASR	2358E	0206D	S12	W85	01	1.6			9	9	E	LEAR	6427	
08	DSD	0232E	0444D	S11	W50	01	4.3		03	9	9	E	LEAR	6442	
08	AFS	0232E	1100D	S12	W51	01	4.3		03	9	9	E	LEAR	6442	
08	DSD	0440E	1100D	S11	W46	01	4.7		08	9	9	E	LEAR	6442	
08	DSD	0440E	1100D	S12	W49	01	4.5		06	9	9	E	LEAR	6442	
08	DSD	0440E	1100D	S12	W52	01	4.3		05	9	9	E	LEAR	6442	
08	ASR	0725E	1100D	S09	W90	01	1.5			9	9	E	LEAR	6432	
08	ADF	1153E	1222D	S08	W48	01	4.9	2	05	9	9	E	RAMY	6442	
08	DSD	1159E	1217D	S12	W57	01	4.2		06	9	9	E	SVTO	6442	Flare Associated
08	SSB	1216		211	W18	01	9.3			0	0	E	SVTO		
08	SDF	1217E	1128D	S05	W16	01	7.3		07	0	0	E	SVTO		
08	AFS	1448E	2300D	S13	W54	01	4.5		03	9	9	E	HOLL	6442	
08	AFS	1450E	2300D	S18	W26	01	6.6		02	9	9	E	HOLL	6445	
08	ADF	1500E	2300D	N11	W57	01	4.3	1	08	9	9	E	HOLL	6431	
08	CRN	1555E	1755D	N10	E90	01	15.4		11	5	5	E	HOLL	6444	
08	BSD	1555E	1755D	N16	E76	01	14.4		02	9	9	E	HOLL	6444	
08	SSB	1616		201	W10	01	8.7			0	0	E	HOLL		
08	APR	1803E	0348D	S42	E90	01	16.1			8	9	E	PALE		
08	EPL	1822E	1847D	S17	E90	01	15.6			9	9	E	HOLL		
08	EPL	1825E	1933D	S16	E90	01	15.6			9	9	E	PALE		
08	BSD	1904E	2007D	N17	E80	01	14.9		03	9	9	E	HOLL	6444	Flare Associated
08	DSD	1907E	0348D	N07	E47	01	12.3		03	9	9	E	PALE	6446	
08	ADF	1907E	0348D	N11	W59	01	4.3		07	9	9	E	PALE	6431	
08	AFS	1907E	0348D	S13	W57	01	4.5		06	9	9	E	PALE	6442	
08	DSD	1907E	0348D	S20	W27	01	6.7		02	9	9	E	PALE	6445	
08	DSD	1907E	2252D	S15	W55	01	4.6		03	9	9	E	PALE	6442	
08	ASR	1913E	2134D	N19	E88	01	15.5			9	9	E	PALE	6444	
08	ASR	2146E	2203D	N19	E82	01	15.2			9	6	E	PALE	6444	
08	ASR	2244E	0348D	S12	W90	01	2.2			6	9	E	PALE	6432	
08	ASR	2331E	1102D	N20	E90	01	15.9			9	9	E	LEAR	6444	
08	AFS	2340E	1102D	S11	W60	01	4.5		05	9	9	E	LEAR	6442	
08	ASR	2342E	0348D	N19	E88	01	15.7			9	9	E	PALE	6444	
09	ADF	0120	0300D	N21	W22	01	7.4	1				C	VORO		
09	APR	0205	0300D	N44	W90	01	1.6	1				C	VORO		
09	ASR	0343E	1102D	S09	W90	01	2.4			9	9	E	LEAR	6432	
09	AFS	0503E	1102D	N14	W65	01	4.3		04	9	9	E	LEAR	6444	
09	AFS	0515E	1102D	S19	W34	01	6.6		03	9	9	E	LEAR	6445	
09	ASR	0620E	1102D	S07	E90	01	16.0			9	9	E	LEAR		
09	DSD	0821E	1102D	N11	E58	01	13.7		04	9	9	E	LEAR	6444	
09	AFS	1050E	1508D	S13	W65	01	4.5		02	6	6	E	SVTO	6442	
09	ASR	1053E	1508D	S06	E90	01	16.2			9	9	E	SVTO		
09	SDF	1102E	2200D	S37	W51	01	5.3		10	0	0	E	LEAR		
09	SSB	1118		202	W21	01	9.6			0	0	E	SVTO		
09	AFS	1136E	1508D	N16	E62	01	14.2		03	9	9	E	SVTO	6444	
09	AFS	1138E	1508D	S19	W37	01	6.7		02	9	9	E	SVTO	6445	
09	ADF	1214E	1508D	N00	E37	01	12.3	1	11	9	9	E	SVTO	6446	
09	ADF	1323E	2125D	S11	W65	01	4.7	1	04	9	9	E	RAMY	6442	
09	DSD	1356E	1735D	N17	E70	01	14.9		11	9	9	E	RAMY	6444	
09	DSD	1356E	1738D	N13	E54	01	13.6		03	9	9	E	RAMY	6444	
09	AFS	1413E	1748D	S15	W37	01	6.8		03	8	7	E	RAMY	6445	
09	SDF	1508E	0900D	S34	W49	01	5.7		17	0	0	E	SVTO		
09	SDF	1521E	1804D	S25	W70	01	4.2		27	0	0	E	HOLL		
09	AFS	1545E	2353D	S12	W65	01	4.7		03	9	9	E	HOLL	6442	
09	ADF	1556E	2353D	N14	E66	01	14.6	1	13	9	9	E	HOLL	6444	
09	ASR	1726E	0050D	S08	E90	01	16.5			9	9	E	PALE	6447	
09	SDF	1734E	2048D	S26	W29	01	7.5		14	0	0	E	PALE		
09	SSB	1737		201	W23	01	9.8			0	0	E	RAMY		
09	AFS	1756E	0050D	S12	W70	01	4.5		02	9	9	E	PALE	6442	
09	DSD	1758E	0050D	N13	E55	01	13.9		03	9	9	E	PALE	6444	
09	ADF	1810E	0050D	N07	E27	01	11.8	1	07	9	9	E	PALE	6446	
09	SSB	1818		203	W26	01	10.0			0	0	E	PALE		

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Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
09	DSD	1819E	1927D	N16	E65	01	14.7		04	9	9	E	RAMY	6444	
09	ASR	1847	2006D	S08	W90	01	3.0			9	9	E	RAMY	6432	
09	DSD	2313E	1055D	N10	E52	01	13.9		04	9	9	E	LEAR	6444	
09	DSD	2313E	1055D	N14	E56	01	14.2		03	9	9	E	LEAR	6444	
09	AFS	2313E	1055D	N15	E59	01	14.4		04	9	9	E	LEAR	6444	
09	ASR	2314E	1055D	S07	E85	01	16.3			9	9	E	LEAR	6447	
09	AFS	2315E	1055D	S18	W43	01	6.7		02	9	9	E	LEAR	6445	
10	BSL	0045	0300D	S08	E90	01	16.8	1				C	VORO		
10	BSL	0055	0135	S80	E90	01	18.4	1				C	VORO		
10	BSL	0105E	0120	N17	W90	01	3.2	1				C	VORO		
10	APR	0111	0300D	S38	W90	01	2.8	1				C	VORO		
10	APR	0130	0300D	S22	W90	01	3.1	1				C	VORO		
10	BSL	0238	0300D	S06	E90	01	16.8	1				C	VORO		
10	DSD	0245E	1055D	S11	W71	01	4.8		05	9	9	E	LEAR	6442	
10	ADF	0310E	1055D	S10	W02	01	10.0	1	09	9	9	E	LEAR	6438	
10	LPS	0835E	0846D	S08	E90	01	17.1					V	ATHN		
10	APR	1030E	1135D	S53	W90	01	2.7	2		9	9	E	SVTO		
10	APR	1031E	1509D	S25	W90	01	3.5	1		9	9	E	SVTO		
10	ADF	1032E	1509D	N12	E57	01	14.7	2	07	9	9	E	SVTO	6444	
10	SSB	1336		201	W34	01	10.6			0	0	E	RAMY		
10	AFS	1338E	2056D	N11	E52	01	14.5		03	9	9	E	RAMY	6444	
10	AFS	1342E	1439D	S18	W50	01	6.8		02	6	7	E	RAMY	6445	
10	DSD	1345E	1418D	S07	E79	01	16.5		04	9	9	E	RAMY	6447	
10	DSD	1411	1438D	N19	E54	01	14.7		06	9	9	E	RAMY	6444	Flare Associated
10	ADF	1542E	2056D	N07	W73	01	5.2	1	09	9	9	E	RAMY	6431	
10	DSD	1555E	2030D	N13	E54	01	14.7		11	9	9	E	RAMY	6444	Flare Associated
10	DSD	1600E	0005D	N12	E53	01	14.6		06	9	9	E	HOLL	6444	
10	SSB	1604		202	W37	01	10.8			0	0	E	HOLL		255 W90
10	ASR	1607E	0005D	S10	W82	01	4.5			9	9	E	HOLL	6442	
10	ASR	1643E	2032D	S08	W86	01	4.2			9	9	E	RAMY	6442	
10	BSD	1711E	1736D	S07	E77	01	16.5		05	9	9	E	HOLL	6447	Flare Associated
10	APR	1717E	1948D	N03	W90	01	4.0	2		9	9	E	HOLL	6431	
10	ASR	1726E	0050D	S08	E90	01	17.5			9	9	E	PALE	6447	
10	AFS	1756E	0050D	S12	W70	01	5.5		02	9	9	E	PALE	6442	
10	ADF	1810E	0050D	N07	E27	01	12.8	1	07	9	9	E	PALE	6446	
10	SSB	1825		202	W38	01	10.9			0	0	E	PALE		
10	AFS	1825E	0122D	N13	E52	01	14.7		03	9	9	E	PALE	6444	
10	AFS	1825E	0122D	S18	W54	01	6.6		02	9	8	E	PALE	6445	
10	DSD	1825E	2015D	N12	E54	01	14.8		04	9	9	E	PALE	6444	
10	ASR	1825E	2045D	S11	W85	01	4.4			9	9	E	PALE	6442	
10	AFS	1841E	0005D	N12	E49	01	14.5		02	9	9	E	HOLL	6444	
10	ASR	1917E	0005D	S06	E90	01	17.5			9	9	E	HOLL	6447	
10	ASR	2100	0405D	S11	W90	01	4.1			9	9	E	PALE	6442	
10	AFS	2104E	0005D	S20	W55	01	6.7		03	9	9	E	HOLL	6445	
10	APR	2159E	2345D	S24	W88	01	4.1	2		9	9	E	PALE		
10	APR	2207E	0005D	S14	W90	01	4.1	1		9	9	E	HOLL		
10	EPL	2207E	2217	S14	W90	01	4.1			9	9	E	HOLL		
10	DSD	2303E	0005D	N12	E19	01	12.4		03	9	9	E	HOLL		
10	AFS	2317E	1050D	N14	E42	01	14.1		03	9	9	E	LEAR	6444	
10	DSD	2318E	0530D	S08	E72	01	16.4		05	9	9	E	LEAR	6447	
10	DSD	2320E	0530D	N12	E19	01	12.4		03	9	9	E	LEAR		
10	ADF	2320E	0530D	N16	E22	01	12.6		06	9	9	E	LEAR		
10	ASR	2329E	1050D	N04	W79	01	5.1			9	9	E	LEAR	6431	
10	SDF	2337E	1512D	S35	W27	01	8.8		10	0	0	E	HOLL		
11	ASR	0005E	0405D	N06	W86	01	4.6			9	9	E	PALE	6431	
11	DSD	0010E	0405D	S07	E75	01	16.6		04	9	9	E	PALE	6447	
11	ASR	0120E	0302D	S07	E88	01	17.6			9	9	E	PALE	6447	
11	AFS	0244E	1050D	N15	E38	01	14.0		04	9	9	E	LEAR	6444	
11	SDF	0405E	1950D	S25	W41	01	8.0		11	0	0	E	PALE		
11	DSD	0530E	1050D	N18	E45	01	14.6		06	9	9	E	LEAR	6444	
11	ASR	0531E	1050D	S10	W90	01	4.5			9	9	E	LEAR	6442	
11	AFS	0532E	1050D	S18	W62	01	6.5		01	9	9	E	LEAR	6445	
11	AFS	0533E	1050D	N06	E08	01	11.8		02	9	9	E	LEAR	6446	
11	ADF	0840E	1510D	N11	E44	01	14.7	1	10	9	9	E	SVTO	6444	
11	BSD	0852	0906D	S10	E85	01	17.7		10	9	9	E	SVTO	6447	Flare Associated
11	BSD	0855	0922	S11	E79	01	17.3		07	9	9	E	LEAR	6447	Flare Associated
11	SDF	1050E	0036D	S33	W35	01	8.7		11	0	0	E	LEAR		
11	DSD	1337E	2131D	N12	E25	01	13.4		04	9	9	E	RAMY	6444	

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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
11	APR	1342E	2131D	N02	W90	01	4.8	2		9	9	E	RAMY	6431	
11	ASR	1346	2131D	S11	W90	01	4.8			9	9	E	RAMY	6442	
11	SDF	1510E	0955D	N03	E37	01	14.4		03	0	0	E	SVTO		
11	SDF	1510E	0955D	N28	W27	01	9.5		04	0	0	E	SVTO		
11	SDF	1510E	0955D	S06	E13	01	12.6		03	0	0	E	SVTO		
11	SDF	1510E	0955D	S15	W03	01	11.4		02	0	0	E	SVTO		
11	SDF	1510E	0955D	S44	E55	01	16.2		66	0	0	E	SVTO		
11	DSD	1541E	2311D	N12	E23	01	13.4		04	9	9	E	HOLL	6444	
11	ADF	1712E	1850D	N08	E30	01	14.0	2	09	9	9	E	HOLL	6444	
11	AFS	1727E	2131D	S35	W17	01	10.4		02	9	9	E	RAMY		
11	SDF	1729E	1749D	S51	E90	01	19.4		58	0	0	E	HOLL		
11	AFS	1810E	2131D	S07	E64	01	16.5		02	9	9	E	RAMY	6447	
11	DSD	1830E	1930D	N14	E40	01	14.8		05	9	9	E	PALE	6444	Flare Associated
11	ADF	1857E	2311D	S09	E62	01	16.4	1	05	9	9	E	HOLL	6447	
11	DSD	1941E	2131D	S09	E59	01	16.2		03	9	9	E	RAMY	6447	
11	SSB	1945		156	W06	01	16.0			0	0	E	RAMY		201 W51
11	SSB	1950		202	W51	01	12.0			0	0	E	PALE		
12	AFS	0105E	0403D	N06	W02	01	11.9		02	9	9	E	PALE	6446	
12	SSB	0130		158	W10	01	16.4			0	0	E	PALE		
12	AFS	0132E	0403D	S36	W21	01	10.4		02	8	8	E	PALE	6448	
12	DSD	0216	0241D	S09	E59	01	16.5		03	9	9	E	PALE	6447	Flare Associated
12	DSD	0240E	0403D	N11	E17	01	13.4		04	9	9	E	PALE	6444	
12	AFS	0255E	0403D	N14	E00	01	12.1		02	9	9	E	PALE		
12	AFS	0314E	1055D	N13	E00	01	12.1		02	9	9	E	LEAR		
12	DSD	0335E	0403D	N13	W01	01	12.1		03	9	9	E	PALE		
12	SDF	0403E	2020D	S38	E34	01	14.9		31	0	0	E	PALE		
12	SSB	1020		144	W02	01	15.7			0	0	E	SVTO		
12	AFS	1050E	1141D	N14	E23	01	14.2		04	7	9	E	SVTO	6444	
12	ADF	1051E	1141D	S10	E52	01	16.3	1	03	9	9	E	SVTO	6447	Flare Associated
12	DSD	1131E	1410D	S05	E52	01	16.4		03	9	9	E	RAMY	6447	
12	ADF	1131E	2036D	S13	E59	01	16.9	1	09	9	9	E	RAMY	6447	
12	AFS	1136E	1137D	N14	W04	01	12.2		02	9	9	E	RAMY		
12	SSB	1139		143	W01	01	15.7			0	0	E	RAMY		173 W31 205 W63
12	DSD	1549E	0007D						03	9	9	E	HOLL	6444	
12	AFS	1549E	2345D	N19	E28	01	14.8		01	9	9	E	HOLL	6444	
12	AFS	1555E	2353D	S10	E63	01	17.4		02	8	8	E	HOLL	6447	
12	AFS	1556E	2353D	S14	E52	01	16.6		01	6	6	E	HOLL		
12	AFS	1630E	2345D	N14	E19	01	14.1		02	6	6	E	HOLL	6444	
12	SSB	1728		145	W06	01	16.1			0	0	E	HOLL		208 W70
12	SSB	1730		146	W07	01	16.2			0	0	E	PALE		
12	AFS	1730E	0242D	S21	E59	01	17.2		02	9	9	E	PALE		
12	DSD	1730E	1902D	S19	E24	01	14.6		04	9	9	E	PALE	6444	
12	DSD	1735E	1943D	S09	E59	01	17.2		03	9	9	E	PALE	6447	
12	DSD	1735E	2110D	N17	E00	01	12.7		02	9	9	E	PALE	6450	
12	AFS	1742E	0242D	S16	W58	01	8.3		02	9	9	E	PALE	6437	
12	ADF	1750E	0242D	N08	W07	01	12.2		06	9	9	E	PALE	6446	
12	ADF	1816E	2253D	S35	W29	01	10.4	1	04	9	9	E	HOLL	6448	
12	AFS	1816E	2353D	S33	W30	01	10.4		02	9	9	E	HOLL	6448	
12	DSD	1902E	0242D	N11	E09	01	13.5		03	9	9	E	PALE	6444	
12	DSD	1902E	0242D	S15	W61	01	8.2		02	9	9	E	PALE	6437	
12	AFS	1902E	0242D	S31	W34	01	10.1		02	9	9	E	PALE	6448	
12	ADF	1928E	0242D	S07	E49	01	16.5	1	08	9	9	E	PALE	6447	
12	AFS	1940E	0242D	N13	W10	01	12.1		02	9	9	E	PALE		
12	DSD	2035E	0138D	N19	E27	01	14.9		03	9	9	E	PALE	6444	
12	AFS	2247E	1055D	S21	E56	01	17.2		02	9	9	E	LEAR		
12	ADF	2301E	1055D	S10	E49	01	16.6	1	03	9	9	E	LEAR	6447	
13	DSD	0024	0112	S06	E43	01	16.2	1				C	VORO		
13	APR	0058	0301D	S15	E90	01	19.8	2				C	VORO		
13	ADF	0108	0301D	N34	W53	01	8.8	1				C	VORO		
13	DSD	0423E	0704D	N11	E03	01	13.4		03	9	9	E	LEAR	6444	
13	ADF	0428E	1055D	S09	E37	01	16.0	1	02	9	9	E	LEAR	6447	
13	AFS	0429E	1055D	S06	E41	01	16.2		02	9	9	E	LEAR	6447	
13	BSD	0510E	0715D	N11	E02	01	13.4		02	9	9	E	LEAR	6444	
13	DSD	0522E	0705D	S09	E47	01	16.7		02	9	9	E	LEAR	6447	
13	AFS	0522E	1055D	S14	E42	01	16.4		02	9	9	E	LEAR	6447	
13	BSD	0721E	0742D	N13	E01	01	13.4		02	9	9	E	LEAR	6444	Flare Associated
13	AFS	1125E	2036D	S32	W39	01	10.4		02	9	9	E	RAMY	6448	
13	DSD	1127E	1515D	S07	E38	01	16.3		03	9	9	E	RAMY	6447	

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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	ADF	1131E	2036D	N14	E15	01	14.6	1	14	9	9	E	RAMY	6444	
13	SSB	1136		143	W15	01	16.7			0	0	E	RAMY		173 W45 198 W70
13	DSD	1201		S06	E34	01	16.0		09	9	9	E	RAMY	6447	
13	ASR	1555E	0008D	S19	W90	01	6.8			8	8	E	HOLL	6445	
13	DSD	1602E	0008D	N11	W04	01	13.4		04	9	9	E	HOLL	6444	
13	DSD	1605E	0008D	S09	E32	01	16.1		02	9	9	E	HOLL	6447	
13	ADF	1605E	0008D	S10	E37	01	16.4	1	06	9	9	E	HOLL	6447	
13	SSB	1620		144	W18	01	17.0			0	0	E	HOLL		
13	DSD	1830E	0128D	N11	W05	01	13.4		03	9	9	E	PALE	6444	
13	DSD	1830E	0128D	S09	E32	01	16.2		02	9	9	E	PALE	6447	
13	DSD	1830E	0128D	S09	E46	01	17.2		05	9	9	E	PALE	6447	
13	DSD	1830E	0128D	S10	E61	01	18.3		04	9	9	E	PALE		
13	AFS	1830E	0128D	S33	W42	01	10.4		03	9	9	E	PALE	6448	
13	DSD	1830E	2311D	N14	E03	01	14.0		02	9	9	E	PALE	6444	
13	DSD	2105E	2113D	N13	W07	01	13.3		08	9	9	E	HOLL	6444	Flare Associated
13	DSD	2106E	0128D	N13	W07	01	13.3		09	9	9	E	PALE	6444	Flare Associated
13	AFS	2140E	2142D	S32	W45	01	10.3		02	9	9	E	HOLL	6448	
13	ADF	2156E	2158D	N04	W24	01	12.1	1	08	9	9	E	HOLL	6446	
13	AFS	2310E	1054D	N14	W25	01	12.1		02	9	9	E	LEAR	6451	
13	AFS	2311E	1054D	S20	E42	01	17.2		02	9	9	E	LEAR	6452	
14	ADF	0045	0259D	N22	W23	01	12.3	2				C	VORO		
14	APR	0045E	0300D	S15	E90	01	20.8	2				C	VORO		
14	DSD	0048E	1054D	N14	W08	01	13.4		08	9	9	E	LEAR	6444	
14	DSD	0246	0259D	N10	W13	01	13.1	2				C	VORO		
14	AFS	1319E	1541D	S24	E34	01	17.2		02	9	9	E	RAMY	6452	
14	AFS	1328E	1543D	S32	W53	01	10.4		02	9	9	E	RAMY	6448	
14	ADF	1345E	2046D	N01	E24	01	16.4	1	11	9	9	E	RAMY	6447	
14	SSB	1410		118	W05	01	15.9			0	0	E	RAMY		144 W31
14	SDF	1523E	1530D	S01	W31	01	12.3		06	0	0	E	HOLL		
14	SSB	1733		150	W10	01	18.5			0	0	E	PALE		
14	SDF	1733E	1756D	S06	W33	01	12.3		12	0	0	E	PALE		
14	APR	1759E	2157D	S03	W90	01	8.0			9	9	E	PALE	6438	
14	DSD	1814E	2157D	N14	W20	01	13.2		04	9	9	E	PALE	6444	
14	ADF	1824E	2157D	N06	W37	01	12.0	1	03	7	9	E	PALE	6446	
14	DSD	1824E	2157D	S05	E24	01	16.6		03	9	9	E	PALE	6447	
14	DSD	1824E	2157D	S10	E21	01	16.3		02	9	9	E	PALE	6447	
14	ADF	1829E	2157D	S12	E50	01	18.5		05	9	9	E	PALE		
14	DSD	1829E	2157D	S14	E22	01	16.4		03	9	9	E	PALE	6453	
14	DSD	2350E	1048D	N15	W19	01	13.5		04	9	9	E	LEAR	6444	
14	AFS	2351E	1048D	N05	W35	01	12.4		02	9	9	E	LEAR	6446	
14	AFS	2352E	1048D	N08	W41	01	11.9		02	9	9	E	LEAR	6446	
14	AFS	2354E	1048D	N28	E39	01	18.0		02	9	9	E	LEAR		
15	APR	0013E	0301D	N18	W90	01	8.1	1				C	VORO		
15	BSL	0222E	0248	S12	W90	01	8.3	1				C	VORO		
15	DSD	1232E	1600D	N16	W06	01	15.1		02	9	9	E	RAMY	6444	
15	ADF	1232E	1815D	N12	W14	01	14.5	1	07	9	9	E	RAMY	6444	
15	ADF	1239E	2155D	S07	E24	01	17.3	1	07	9	9	E	RAMY	6447	
15	AFS	1241E	2155D	S14	E10	01	16.3		02	9	9	E	RAMY	6453	
15	AFS	1246E	2155D	S21	E23	01	17.3		03	8	8	E	RAMY	6452	
15	DSD	1247E	1601D	S21	E04	01	15.8		03	9	9	E	RAMY		
15	AFS	1247E	2155D	S21	E05	01	15.9		02	9	9	E	RAMY		
15	AFS	1252E	2155D	S13	E27	01	17.6		02	9	9	E	RAMY		
15	ADF	1307E	1716D	S13	E36	01	18.3	2	06	8	9	E	RAMY		
15	AFS	1315E	2155D	N28	E29	01	17.8		03	9	9	E	RAMY		
15	DSD	1517E	2212D	N14	W27	01	13.6		03	9	9	E	HOLL	6444	
15	AFS	1519E	0009D	S22	E02	01	15.8		02	9	9	E	HOLL		
15	SSB	1521		120	W20	01	17.2			0	0	E	HOLL		149 W49
15	DSD	1603E	1750D	N29	E32	01	18.2		02	9	9	E	RAMY		
15	AFS	1736E	0009D	S14	E06	01	16.2		02	8	8	E	HOLL	6453	
15	DSD	1751E	1925D	N29	E27	01	17.9		03	9	9	E	RAMY	6454	
15	ADF	1917E	0322D	N06	W59	01	11.4		09	9	9	E	PALE	6446	
15	DSD	1917E	0322D	N18	W12	01	14.9		03	9	9	E	PALE	6444	
15	ADF	1924E	0322D	N12	W51	01	12.0		04	9	9	E	PALE	6451	
15	DSD	1924E	0322D	S06	E06	01	16.2		03	9	9	E	PALE	6447	
15	DSD	1924E	0322D	S20	E20	01	17.3		03	9	9	E	PALE	6452	
15	AFS	1924E	0322D	S22	E02	01	16.0		03	9	9	E	PALE		
15	DSD	1936E	0009D	S07	E04	01	16.1		02	9	9	E	HOLL	6447	
15	AFS	1937E	0009D	N14	W11	01	15.0		01	9	9	E	HOLL	6444	

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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	AFS	1937E	0009D	N14	W20	01	14.3		01	8	8	E	HOLL	6444	
15	SSB	1951		146	W49	01	19.7			0	0	E	RAMY		
15	BSD	2230E	2310D	N21	E77	01	21.8		05	9	9	E	HOLL		
15	ADF	2233E	0009D	N27	E29	01	18.2	1	09	8	8	E	HOLL	6454	
15	ADF	2312E	0009D	N10	W20	01	14.5	1	07	9	9	E	HOLL	6444	
15	SDF	2340E	1528D	N06	E73	01	21.4		22	0	0	E	HOLL		
16	ADF	0029E	0128D	S37	E54	01	20.4	1				C	VORO		
16	SDF	0322E	1930D	S23	E59	01	20.7		32	0	0	E	PALE		
16	DSD	0740E	1042D	S05	W02	01	16.2		03	9	9	E	LEAR	6447	
16	AFS	0741E	1042D	N28	E23	01	18.1		03	9	9	E	LEAR	6454	
16	ASR	0800E	1042D	N28	W80	01	10.1			9	9	E	LEAR		
16	DSD	0820	0855	S06	W02	01	16.2	1				V	KHAR		
16	DSD	0830E	1042D	S07	W04	01	16.0		05	9	9	E	LEAR	6447	
16	ADF	1153E	2119D	N13	W28	01	14.4	2	06	9	9	E	RAMY	6444	
16	DSD	1153E	2139D	N13	W39	01	13.5		03	9	9	E	RAMY	6444	
16	DSD	1206E	1624D	S05	W04	01	16.2		05	9	9	E	RAMY	6447	
16	ADF	1206E	2139D	S07	W01	01	16.4	2	05	9	9	E	RAMY	6447	
16	AFS	1210E	2139D	S14	W01	01	16.4		02	5	5	E	RAMY	6453	
16	ADF	1452E	2153D	N12	W26	01	14.7	1	08	9	9	E	HOLL	6444	
16	DSD	1452E	2207D	N17	W22	01	14.9		02	9	9	E	HOLL	6444	
16	DSD	1622	1701	N15	W59	01	12.2		03	9	9	E	RAMY	6451	
16	SSB	1705		122	W36	01	18.5			0	0	E	HOLL		160 W74
16	SSB	1706		113	W28	01	17.7			0	0	E	RAMY		
16	SSB	1810		113	W28	01	17.8			0	0	E	PALE		119 W34 158 W73
16	ADF	1815E	0331D	N14	W30	01	14.5		12	9	9	E	PALE	6444	
16	ADF	1815E	0331D	S06	W05	01	16.4		08	9	9	E	PALE	6447	
16	AFS	1815E	0331D	S13	E10	01	17.5		03	9	9	E	PALE	6455	
16	DSD	1815E	2028D	N11	W45	01	13.4		03	9	9	E	PALE	6444	
16	DSD	1815E	2115D	N23	E71	01	22.2		03	9	9	E	PALE		
16	AFS	2020E	0331D	N06	E46	01	20.3		02	9	9	E	PALE		
16	DSD	2025E	0331D	N17	E25	01	18.7		03	9	9	E	PALE	6444	
16	DSD	2105E	0331D	S06	W11	01	16.0		02	9	9	E	PALE	6447	
16	AFS	2115E	0331D	N25	E72	01	22.5		03	9	9	E	PALE		
16	AFS	2115E	0331D	N28	E13	01	17.9		03	9	9	E	PALE	6454	
16	AFS	2154E	2207D	N04	E43	01	20.1		02	7	7	E	HOLL		
17	AFS	0212E	1045D	N17	W34	01	14.5		05	9	9	E	LEAR	6444	
17	AFS	0213E	1045D	S05	W07	01	16.6		03	9	9	E	LEAR	6447	
17	ADF	0213E	1045D	S06	W07	01	16.6		06	9	9	E	LEAR	6447	
17	DSD	0213E	1045D	S06	W13	01	16.1		04	9	9	E	LEAR	6447	
17	AFS	0235E	1045D	S11	E07	01	17.6		04	9	9	E	LEAR	6455	
17	BSD	0805E	0850U	N24	E62	01	22.1					P	BUCA		
17	AFS	0807E	1525D	N15	W40	01	14.3		02	9	9	E	SVTO	6444	
17	AFS	0809E	1525D	S06	W11	01	16.5		03	9	9	E	SVTO	6447	
17	AFS	0842E	1525D	S13	E02	01	17.5		03	7	7	E	SVTO	6455	
17	AFS	1122E	1449D	S07	W01	01	17.4		02	9	9	E	SVTO		
17	ADF	1125E	1525D	S19	E01	01	17.5	1	09	7	7	E	SVTO	6452	
17	DSD	1140E	2121D	N14	W53	01	13.5		06	9	9	E	RAMY	6444	
17	AFS	1145E	2121D	N23	E59	01	22.0		03	9	9	E	RAMY	6458	
17	SSB	1223		115	W40	01	18.7			0	0	E	RAMY		
17	ADF	1235E	2121D	N14	W36	01	14.8	2	12	9	9	E	RAMY	6444	
17	AFS	1236E	1525D	N05	E36	01	20.2		03	7	9	E	SVTO		
17	ADF	1525E	0818D	N14	W25	01	15.7		07	0	0	E	SVTO		
17	DSD	1817E	1841D	S21	W25	01	15.8		03	9	9	E	RAMY	6457	
17	ADF	2014E	0046D	S05	W25	01	16.0		13	9	9	E	PALE	6447	
17	DSD	2014E	0100D	N13	W59	01	13.4		04	9	9	E	PALE	6444	
17	AFS	2014E	0354D	N23	E56	01	22.1		03	9	9	E	PALE	6458	
17	AFS	2014E	0354D	S14	W09	01	17.2		03	9	9	E	PALE	6455	
17	ADF	2014E	2330D	S13	W03	01	17.6		07	9	9	E	PALE	6455	
17	SSB	2020		111	W41	01	18.7			0	0	E	PALE		143 W77
17	DSD	2330E	0100D	S08	W24	01	16.2		04	9	9	E	PALE	6447	
18	DSD	0158E	0354D	N12	W65	01	13.2		03	9	9	E	PALE	6444	
18	AFS	0215E	0930D	N22	E51	01	22.0		05	9	9	E	LEAR	6458	
18	AFS	0245E	0930D	S13	W13	01	17.1		04	7	9	E	LEAR	6455	
18	DSD	0603E	0656D	N12	W67	01	13.2		05	9	9	E	LEAR	6451	
18	SSB	0834		443	W19	01	15.1			0	0	E	SVTO		105 W41
18	ASR	0846E	0852	N11	W68	01	13.2			9	9	E	SVTO	6444	
18	BSL	0852	0924D	N11	W68	01	13.2			9	9	E	SVTO	6444	

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Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
18	AFS	0913E	1533D	S14	W16	01	17.2		04	9	9	E	SVTO	6455	
18	AFS	0915E	1533D	N24	E47	01	22.0		02	9	7	E	SVTO	6458	
18	BSL	0916E	0930D	N12	W90	01	11.6			9	8	E	LEAR	6446	
18	ADF	1138E	1533D	S17	W14	01	17.4	1	05	6	9	E	SVTO	6455	
18	ADF	1234E	1813D	N16	W54	01	14.4	2	05	9	9	E	RAMY	6444	
18	SSB	1241		446	W24	01	15.0			0	0	E	RAMY		
18	ADF	1243E	2145D	N15	W59	01	14.1	2	10	9	9	E	RAMY	6444	
18	DSD	1246E	1311D	N15	W70	01	13.2		05	9	9	E	RAMY	6444	
18	DSD	1317E	1352D	N13	W48	01	14.9		06	9	9	E	SVTO	6444	Flare Associated
18	BSD	1318	1403	N14	W71	01	13.2		13	9	9	E	RAMY	6444	
18	BSD	1327E	1410	N12	W75	01	12.9		20	9	9	E	SVTO	6444	
18	BSL	1359	1416	N11	W90	01	11.8			9	9	E	RAMY	6444	
18	BSD	1530	1611D	N15	W72	01	13.2		09	9	9	E	RAMY	6444	
18	ASR	1531E	1827D	S10	E90	01	25.4			9	9	E	RAMY		
18	APR	1542E	0012D	S18	E90	01	25.5	1		9	9	E	HOLL		
18	BSD	1544E	1924D	N12	W73	01	13.1		17	9	9	E	HOLL	6444	
18	BSL	1549	1645D	N12	W90	01	11.9			9	9	E	RAMY	6444	Flare Associated
18	BSL	1607	1607	N12	W73	01	13.2			9	9	E	HOLL	6444	
18	BSL	1607E	1705D	N12	W73	01	13.2			9	9	E	HOLL	6444	
18	AFS	1620E	0012D	N14	W48	01	15.0		01	9	9	E	HOLL	6444	
18	SSB	1625		451	W31	01	14.7			0	0	E	HOLL		123 W63
18	SDF	1631E	1609D	S20	E09	01	19.4		17	0	0	E	HOLL		
18	AFS	1745E	0319D	N23	E43	01	22.0		03	9	9	E	PALE	6458	
18	AFS	1745E	0319D	S14	W22	01	17.1		03	9	9	E	PALE	6455	
18	DSD	1750E	2037D	S28	E35	01	21.5		02	9	8	E	PALE	6456	
18	DSD	1803E	2044D	S06	W37	01	16.0		03	9	9	E	PALE	6447	
18	DSD	1825E	0012D	S15	W14	01	17.7		02	9	9	E	HOLL	6455	
18	AFS	1825E	0012D	S28	W36	01	15.9		01	9	9	E	HOLL	6456	
18	AFS	1828E	0012D	N19	E40	01	21.8		02	8	8	E	HOLL		
18	AFS	1901E	0319D	S07	W32	01	16.4		02	8	8	E	PALE	6447	
18	ASR	1905E	2310D	S21	E90	01	25.7			9	9	E	PALE		
18	DSD	1910E	2108D	N13	W73	01	13.3		07	9	9	E	PALE	6444	
18	ADF	1929E	0012D	N15	W60	01	14.3	1	08	9	9	E	HOLL	6444	
18	ASR	1930E	2014D	S22	E90	01	25.7			9	9	E	RAMY		
18	SDF	1935E	1747D	S28	E09	01	19.5		25	0	0	E	PALE		
18	ASR	2008E	2105D	S10	E90	01	25.6			9	9	E	PALE		
18	BSD	2014E	2144D	N17	W69	01	13.6		19	9	9	E	HOLL	6444	
18	BSD	2014	2047	N15	W70	01	13.5		29	9	9	E	PALE	6444	
18	AFS	2023E	0319D	S28	E36	01	21.7		02	9	9	E	PALE	6456	
18	ASR	2023E	2043D	N21	W87	01	12.2			9	9	E	RAMY	6444	
18	SSB	2035		108	W50	01	19.5			0	0	E	PALE		446 W28
18	DSD	2040E	0319D	S13	W19	01	17.4		03	9	9	E	PALE	6455	
18	ADF	2041E	0319D	N14	W61	01	14.2		09	9	9	E	PALE	6444	
18	APR	2044E	0056D	S19	E90	01	25.7	1		8	9	E	PALE		
18	DSD	2130E	2242D	N12	W76	01	13.2		06	9	9	E	PALE	6444	
18	BSD	2204E	2321D	N13	W75	01	13.3		14	9	9	E	HOLL	6444	
18	BSD	2242E	2258D	N12	W75	01	13.3		24	9	9	E	PALE	6444	
18	SPY	2249E	2321D	N14	W75	01	13.3			9	9	E	HOLL	6444	Flare Associated
18	SPY	2258E	2317	N12	W75	01	13.3			9	9	E	PALE	6444	
19	BSD	0105E	0135D	N12	W75	01	13.4		05	9	9	E	PALE	6444	
19	BSD	0110E	0112D	N15	W72	01	13.6		21	9	9	E	PALE	6444	
19	ASR	0115E	1051D	N18	W90	01	12.2			9	9	E	LEAR	6444	
19	DSD	0116E	1051D	S08	W41	01	16.0		03	9	9	E	LEAR	6447	
19	AFS	0117E	1051D	S27	E33	01	21.6		03	9	9	E	LEAR	6456	
19	AFS	0118E	1051D	N22	E39	01	22.0		02	9	9	E	LEAR	6458	
19	DSD	0150	0206	N12	W56	01	14.8		02	9	9	E	PALE	6444	Flare Associated
19	BSD	0238E	0300D	N12	W75	01	13.4		18	9	9	E	PALE	6444	
19	SSB	0725		446	W35	01	15.6			0	0	E	SVTO		
19	SSB	0745		445	W34	01	15.7			0	0	E	LEAR		
19	AFS	0815E	1518D	N23	E35	01	22.0		02	8	8	E	SVTO	6458	
19	ADF	0816E	1518D	N12	E71	01	24.7	1	09	9	9	E	SVTO	6444	
19	BSD	0825E	0831	N11	E86	01	25.8		13	9	9	E	SVTO	6444	
19	BSL	0828	0843	N18	W90	01	12.5			9	9	E	LEAR	6444	
19	BSL	0831	0851	N11	W86	01	12.9			9	9	E	SVTO	6444	
19	BSD	1023E	1057	N09	W86	01	13.0		09	9	9	E	SVTO	6444	Flare Associated
19	ASR	1030E	1051D	N09	W90	01	12.7			9	9	E	LEAR	6444	
19	SDF	1051E	2328D	S28	W26	01	17.4		21	0	0	E	LEAR		
19	SDF	1051E	2328D	S30	E34	01	22.1		26	0	0	E	LEAR		
19	BSD	1143E	1240D	N15	W85	01	13.0		06	9	9	E	SVTO	6444	

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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	AFS	1313E	2105D	N24	E32	01	22.0		02	9	9	E	RAMY	6458	
19	DSD	1315E	1508D	S27	E23	01	21.3		04	9	9	E	RAMY	6456	
19	AFS	1315E	2105D	S27	E26	01	21.6		02	9	9	E	RAMY	6456	
19	AFS	1318E	2105D	S12	W31	01	17.2		03	9	9	E	RAMY	6455	
19	ADF	1322E	2105D	N19	W67	01	14.4	1	07	9	9	E	RAMY	6444	
19	BSD	1335E	1352	N13	W88	01	12.9		12	9	9	E	SVTO	6444	
19	ASR	1423E	1532D	N18	W88	01	12.9			9	9	E	RAMY	6444	
19	SSB	1427		435	W27	01	16.9			0	0	E	RAMY		111 W63
19	ADF	1514E	2129D	S11	W40	01	16.6	1	04	9	9	E	HOLL	6447	
19	SDF	1518E	0732D	N03	W46	01	16.2		07	0	0	E	SVTO		
19	SDF	1518E	0732D	S29	W22	01	17.9		19	0	0	E	SVTO		
19	SDF	1518E	0732D	S37	W17	01	18.3		09	0	0	E	SVTO		
19	ADF	1540E	1818D	S29	E26	01	21.7	1	07	9	9	E	HOLL	6456	
19	APR	1546E	1835D	S14	E90	01	26.4	1		9	9	E	HOLL		
19	ASR	1553E	1820D	S23	E90	01	26.6			9	9	E	HOLL		
19	SSB	1616		446	W39	01	15.9			0	0	E	HOLL		
19	SSB	1747		452	W30	01	15.6			0	0	E	PALE		
19	ASR	1811E	0357D	S12	E90	01	26.5			9	9	E	PALE		
19	DSD	1822E	0357D	S07	W46	01	16.3		06	9	9	E	PALE	6447	
19	ADF	1822E	0357D	S14	W47	01	16.2	1	09	9	9	E	PALE	6453	
19	ADF	1822E	0357D	S22	W34	01	17.1		04	9	9	E	PALE	6452	
19	DSD	1826E	0357D	N31	W24	01	17.9		05	9	9	E	PALE	6454	
19	DSD	1826E	0357D	S12	W32	01	17.3		04	9	9	E	PALE	6455	
19	AFS	2345E	1056D	S07	W48	01	16.4		04	9	9	E	LEAR	6447	
20	ASR	0035E	0050	S21	E90	01	26.9			9	9	E	LEAR		
20	ASR	0035E	1056D	S17	E90	01	26.9			9	9	E	LEAR		
20	AFS	0131E	1056D	N27	E68	01	25.4		05	9	9	E	LEAR	6458	
20	DSD	0131E	1056D	S14	W34	01	17.5		03	9	9	E	LEAR	6455	
20	DSD	0145E	1056D	S07	W54	01	16.0		05	9	9	E	LEAR	6447	
20	ASR	0219E	1056D	S26	E90	01	27.1			9	9	E	LEAR		
20	ASR	0353E	1056D	N16	W90	01	13.3			9	9	E	LEAR	6444	
20	AFS	0353E	1056D	S14	W38	01	17.3		03	9	9	E	LEAR	6455	
20	SSB	0729		448	W50	01	16.2			0	0	E	SVTO		
20	ASR	0730E	1515D	S10	E90	01	27.1			9	9	E	SVTO		
20	ASR	0730E	1539D	S24	E90	01	27.3			9	9	E	SVTO		
20	ASR	0752E	1539D	N14	W90	01	13.5			9	9	E	SVTO	6444	
20	AFS	0759E	1539D	S14	W41	01	17.2		02	9	9	E	SVTO	6455	
20	ADF	0808E	1517D	N26	E18	01	21.7	2	07	7	6	E	SVTO	6458	
20	ASR	1126E	2153D	S19	E90	01	27.3			9	9	E	RAMY	6462	
20	SDF	1126E	1504D	N07	W57	01	16.2	1	05	0	0	E	SVTO		
20	AFS	1129E	1433D	N22	E22	01	22.2		03	9	9	E	RAMY	6458	
20	DSD	1131E	1435D	S14	W44	01	17.1		04	9	9	E	RAMY	6455	
20	AFS	1131E	2153D	S13	W41	01	17.4		02	9	9	E	RAMY	6455	
20	DSD	1133E	1436D	S07	W58	01	16.1		03	9	9	E	RAMY	6447	
20	ADF	1133E	2153D	S05	W54	01	16.4	1	05	9	9	E	RAMY	6447	
20	SSB	1139		397	W01	01	13.2			0	0	E	RAMY		441 W45 107 W71
20	ASR	1231E	1501D	N10	E90	01	27.3			9	9	E	RAMY		
20	ADF	1243E	1539D	S06	W59	01	16.1	1	08	9	9	E	SVTO	6447	
20	ADF	1506E	1648D	S02	W51	01	16.8	1	14	9	9	E	HOLL		
20	ADF	1506E	1648D	S06	W59	01	16.2	1	08	9	9	E	HOLL	6447	
20	SDF	1517E	1519D	N26	E18	01	22.0		07	0	0	E	SVTO	6458	
20	ASR	1636E	1648D	N09	E81	01	26.8			9	9	E	HOLL		
20	ASR	1647E	2005D	N10	E85	01	27.1			9	9	E	RAMY		
20	SSB	1746		446	W35	01	17.1			0	0	E	PALE		
20	ASR	1819E	0351D	S15	E90	01	27.6			9	9	E	PALE		
20	DSD	1823E	0351D	S09	W59	01	16.3		10	9	9	E	PALE	6447	
20	ADF	1823E	0351D	S10	E55	01	24.9		04	9	8	E	PALE	6461	
20	ADF	1823E	0351D	S11	E32	01	23.2		08	9	7	E	PALE	6459	
20	ADF	1823E	0351D	S15	W44	01	17.4		04	9	9	E	PALE	6455	
20	BSL	2037	2109	N13	W77	01	15.0			9	9	E	RAMY	6444	
20	ASR	2041E	0351D	N14	W90	01	14.1			9	9	E	PALE	6444	
21	SDF	0007E	0048D	N20	E11	01	21.8		11	0	0	E	LEAR		
21	BSD	0018E	0026	S07	W70	01	15.8	1				C	VORO		
21	BSD	0018E	0050	S14	W46	01	17.5	1				C	VORO		
21	APR	0046	0215	S30	W90	01	13.9	1				C	VORO		
21	ADF	0104	0215D	N03	W68	01	16.0	1				C	VORO		
21	MDP	0607E	0830D	N12	W90	01	14.5			9	9	E	LEAR	6444	
21	SSB	0720		448	W63	01	17.0			0	0	E	SVTO		

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Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
21	DSD	0816E	0944D	N28	E64	01	26.3		06	9	9	E	SVTO		
21	DSD	0912E	0943D	S14	E73	01	26.9		12	9	9	E	SVTO	6462	
21	DSD	1210E	2157D	S17	E69	01	26.7		04	9	9	E	RAMY	6462	
21	AFS	1213E	2157D	N22	E06	01	22.0		02	9	9	E	RAMY	6458	
21	DSD	1214E	1245D	S18	E70	01	26.8		06	9	9	E	SVTO	6462	Flare Associated
21	DSD	1215E	1430D	S13	W57	01	17.2		04	9	9	E	RAMY	6455	
21	AFS	1215E	2157D	S12	W54	01	17.4		02	9	9	E	RAMY	6455	
21	ADF	1219E	2157D	S04	W70	01	16.3	1	06	9	9	E	RAMY	6447	
21	ASR	1220E	2157D	N14	W90	01	14.7			9	9	E	RAMY	6444	
21	SSB	1222		401	W19	01	21.4			0	0	E	RAMY		446 W64
21	DSD	1428E	2157D	S16	E68	01	26.8		05	9	9	E	RAMY	6462	
21	SDF	1518E	0719D	N13	E51	01	25.5		05	0	0	E	SVTO		
21	ADF	1650E	2157D	S11	E74	01	27.3	2	14	9	9	E	RAMY	6462	
21	ASR	1911E	2255D	N08	W89	01	15.1			9	9	E	PALE	6444	
21	DSD	1927E	2346D	S14	E74	01	27.4		09	9	9	E	PALE	6462	
21	ADF	1927E	2346D	S15	E67	01	26.9		04	9	9	E	PALE	6462	
21	DSD	1927E	2346D	S16	E67	01	26.9		03	9	9	E	PALE	6462	
21	DSD	1936E	2346D	S08	W77	01	16.0		04	9	9	E	PALE	6447	
21	DSD	1936E	2346D	S20	W56	01	17.5		08	9	9	E	PALE	6452	
21	DSD	1949E	2346D	N27	E08	01	22.4		03	9	9	E	PALE	6458	
21	DSD	1949E	2346D	S16	W60	01	17.3		05	9	9	E	PALE	6455	
21	DSD	2303E	0925D	S19	E64	01	26.8		02	9	9	E	LEAR	6462	
21	AFS	2303E	1006D	S18	E79	01	28.0		04	9	9	E	LEAR	6462	
21	AFS	2341E	1007D	S10	W60	01	17.5		02	9	9	E	LEAR	6455	
21	ADF	2341E	1051D	S12	W59	01	17.5	1	02	9	9	E	LEAR	6455	
22	ADF	0021E	0258D	N09	E42	01	25.2	1				C	VORO		
22	BSL	0250	0300D	N09	W90	01	15.4	1				C	VORO		
22	ADF	0810E	1244D	S17	W67	01	17.2	1	03	9	9	E	SVTO	6455	
22	ADF	0811E	1244D	S20	E59	01	26.8	1	02	9	9	E	SVTO	6462	
22	ADF	0813E	1244D	S06	W69	01	17.2	1	04	9	9	E	SVTO	6447	
22	AFS	0815E	1244D	S28	W31	01	19.9		02	7	7	E	SVTO		
22	ADF	0817E	1244D	S07	E70	01	27.6	2	03	9	9	E	SVTO	6466	Flare Associated
22	AFS	0820E	1244D	N27	E54	01	26.5		02	8	9	E	SVTO	6464	
22	ADF	0822E	1244D	S21	W68	01	17.1	1	05	9	9	E	SVTO	6452	
22	ASR	0825E	1244D	S08	W90	01	15.6			9	9	E	SVTO	6453	
22	AFS	0827E	1244D	N11	E59	01	26.8		03	9	9	E	SVTO	6465	
22	AFS	0828E	1244D	S27	W12	01	21.4		02	7	7	E	SVTO	6456	
22	AFS	0830E	1244D	N23	W03	01	22.1		02	6	6	E	SVTO	6458	
22	APR	1100E	1244D	S13	W90	01	15.7	1		9	9	E	SVTO	6453	
22	ASR	1120E	1633D	S08	W90	01	15.7			9	9	E	RAMY	6447	
22	ADF	1121E	2131D	S14	W64	01	17.6	1	04	9	9	E	RAMY	6455	
22	SSB	1629		457	W90	01	17.3			0	0	E	RAMY		378 W11
22	AFS	1710E	0011D	N19	W11	01	21.9		02	7	7	E	HOLL	6458	
22	AFS	1710E	0011D	N26	E48	01	26.4		02	8	7	E	HOLL	6464	
22	ASR	1710E	0011D	S07	W90	01	16.0			9	9	E	HOLL	6447	
22	ASR	1710E	0011D	S12	E90	01	29.5			8	8	E	HOLL		
22	DSD	1710E	2203D	N22	W11	01	21.9		04	9	9	E	HOLL	6458	
22	DSD	1710E	2258D	S20	E55	01	26.9		03	9	9	E	HOLL	6462	
22	BSD	1818E	2258D	S17	E68	01	27.9		10	9	9	E	HOLL	6462	
22	DSD	1905E	2000	S14	W74	01	17.2		03	9	9	E	HOLL	6455	
22	ASR	1918E	2020D	S10	E90	01	29.6			9	9	E	RAMY		
22	APR	1920E	0011D	S20	E88	01	29.5	1		8	7	E	HOLL		
22	BSD	2000	2030D	S16	W76	01	17.1		14	9	9	E	HOLL	6455	Flare Associated
22	ASR	2330E	0630D	S11	E90	01	29.7			9	9	E	LEAR	6466	
22	ASR	2331E	0843D	S08	W90	01	16.2			9	9	E	LEAR	6447	
23	BSD	0129	0152	S13	W80	01	17.0	1				C	VORO		
23	APR	0141	0300D	N13	W90	01	16.3	1				C	VORO		
23	APR	0141	0300D	S37	E90	01	30.3	1				C	VORO		
23	AFS	0150E	0206D	N21	W16	01	21.8		03	9	9	E	PALE	6458	
23	BSD	0150E	0206D	S14	W78	01	17.2		13	9	9	E	PALE	6455	
23	AFS	0325E	1052D	N21	W17	01	21.8		02	9	9	E	LEAR	6458	
23	DSD	0542E	1052D	S20	E48	01	26.9		02	9	9	E	LEAR	6462	
23	ADF	0543E	1052D	S21	E55	01	27.4	1	02	9	9	E	LEAR	6462	
23	ADF	0544E	1052D	S24	E62	01	28.0	1	03	9	9	E	LEAR	6462	
23	ASR	0630E	1052D	S10	E90	01	30.0			9	9	E	LEAR		
23	AFS	0844E	1248D	N28	E38	01	26.3		01	9	9	E	SVTO	6464	
23	DSD	0912E	1429D	S16	W80	01	17.3		09	9	9	E	SVTO	6455	
23	DSD	0924E	1246D	S19	E59	01	27.9		05	9	9	E	SVTO	6462	

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Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
23	AFS	1130E	1130D	N27	E39	01	26.5		02	9	9	E	RAMY	6464	
23	AFS	1133E	1713D	N09	E47	01	27.0		02	9	9	E	RAMY	6465	
23	DSD	1242E	1924D	S12	E46	01	27.0		04	9	9	E	RAMY	6462	
23	AFS	1242E	1924D	S17	E54	01	27.6		02	9	9	E	RAMY	6462	
23	ADF	1242E	2205D	S15	E50	01	27.3	1	09	9	9	E	RAMY	6462	
23	DSD	1252E	1614D	N25	E36	01	26.3		03	9	9	E	RAMY	6464	
23	AFS	1252E	1716D	S20	E12	01	24.4		02	9	9	E	RAMY		
23	ADF	1420E	1531D	S14	E53	01	27.6	1	05	9	9	E	SVTO	6462	
23	BSD	1432E	1501D	S11	E79	01	29.5		12	9	9	E	SVTO		
23	ASR	1435E	1536D	S11	E85	01	30.0			9	9	E	RAMY		
23	SDF	1531E	1140D	N10	E09	01	24.3		08	0	0	E	SVTO		
23	SSB	1607		443	W89	01	19.6			0	0	E	RAMY		
23	DSD	1732E	0017D	S17	E56	01	28.0		03	9	9	E	HOLL	6462	
23	ADF	1733E	0017D	S23	E61	01	28.4	1	19	9	9	E	HOLL	6462	
23	ASR	1802	1927D	S14	E90	01	30.5			9	9	E	RAMY		
23	AFS	1836E	0017D	N25	E33	01	26.3		03	9	9	E	HOLL	6464	
23	ADF	1841E	2250D	S20	E54	01	27.9	1	16	9	9	E	HOLL	6462	
23	APR	1853E	2225D	N01	W90	01	17.1	1		9	9	E	HOLL		
23	DSD	1935E	2218D	S08	E46	01	27.3		02	9	9	E	PALE	6466	
23	AFS	1935E	2218D	S09	E48	01	27.4		03	9	9	E	PALE	6466	
23	AFS	1935E	2218D	S11	W07	01	23.3		02	8	8	E	PALE	6459	
23	AFS	1935E	2218D	S16	E42	01	27.0		02	8	8	E	PALE	6462	
23	AFS	1935E	2218D	S20	E43	01	27.1		02	9	9	E	PALE	6462	
23	AFS	2114E	2218D	N27	E31	01	26.3		03	9	9	E	PALE	6464	
23	ADF	2309E	1055D	S20	E44	01	27.3	1	11	9	9	E	LEAR	6462	
24	ASR	0520E	0739D	S15	E90	01	31.0			9	9	E	LEAR		
24	LPS	0739E	1013D	S14	E90	01	31.1			9	9	E	LEAR		
24	LPS	0745E	0914D	S15	E90	01	31.1			9	9	E	SVTO		
24	DSD	0831E	0851D	S09	W53	01	20.4		03	9	9	E	SVTO		
24	ASR	1001E	1239D	S15	E90	01	31.2			9	9	E	SVTO		
24	ASR	1013E	1055D	S15	E90	01	31.2			9	9	E	LEAR		
24	AFS	1020E	1239D	N28	E21	01	26.1		02	9	9	E	SVTO	6464	
24	APR	1032	1033	S29	E90	01	31.5	2		9	9	E	LEAR		
24	EPL	1033	1055D	S29	E90	01	31.5			9	9	E	LEAR		
24	EPL	1035E	1056D	S27	E90	01	31.4			9	9	E	SVTO		
24	APR	1056E	1239D	S27	E90	01	31.5	1		9	9	E	SVTO		
24	AFS	1100E	1239D	S09	W53	01	20.5		02	9	9	E	SVTO		
24	SSB	1140		391	W48	01	16.8			0	0	E	SVTO		
24	ADF	1210E	1239D	S06	E40	01	27.5	1	06	6	9	E	SVTO	6466	
24	SSB	1224		432	W89	01	21.5			0	0	E	RAMY		
24	AFS	1234E	2033D	N25	E24	01	26.4		03	9	8	E	RAMY	6464	
24	ADF	1238E	2145D	S22	E39	01	27.5	1	09	9	9	E	RAMY	6462	
24	ADF	1254E	2034D	N21	W37	01	21.7	1	04	9	9	E	RAMY	6458	
24	AFS	1317E	1628D	S07	W56	01	20.3		02	9	9	E	RAMY		
24	BSL	1353	1418	S13	E90	01	31.4			9	9	E	RAMY		
24	DSD	1448E	1538D	S21	E29	01	26.8		04	9	9	E	HOLL	6462	Flare Associated
24	DSD	1519E	1850D	N23	W34	01	22.0		02	9	9	E	HOLL	6458	
24	SSB	1530		398	W57	01	16.1			0	0	E	HOLL		
24	DSD	1628E	2037D	S07	W61	01	20.1		03	9	9	E	RAMY		
24	ASR	1722E	1918D	S11	W90	01	17.9			9	9	E	RAMY		
24	ASR	1843E	1905D	S21	E90	01	31.7			9	9	E	RAMY		
24	DSD	2104E	2330D	N24	E18	01	26.3		04	9	9	E	PALE	6464	
24	ASR	2104E	2330D	S10	E90	01	31.6			9	9	E	PALE		
24	AFS	2107E	2330D	S09	W60	01	20.4		02	9	9	E	PALE		
24	ADF	2107E	2330D	S10	E40	01	27.9		06	9	9	E	PALE	6462	
24	DSD	2110E	2330D	S23	E63	01	29.7		02	9	9	E	PALE		
24	ADF	2228E	0015D	S15	E40	01	28.0	1	05	9	9	E	HOLL	6466	
24	AFS	2312E	1051D	S17	E29	01	27.2		02	9	9	E	LEAR	6462	
24	DSD	2312E	1051D	S17	E40	01	28.0		05	9	9	E	LEAR	6462	
24	DSD	2313E	1051D	S19	W41	01	21.8		03	9	9	E	LEAR	6458	
24	AFS	2314E	1051D	S08	W63	01	20.2		02	9	9	E	LEAR	6470	
24	AFS	2315E	1051D	S11	E61	01	29.5		02	9	9	E	LEAR		
24	ASR	2316E	0316	S10	E90	01	31.7			9	9	E	LEAR	6471	
25	LPS	0316	0510D	S14	E90	01	31.9			9	9	E	LEAR		
25	LPS	0621E	0632	S16	E90	02	1.1			9	9	E	LEAR		
25	EPL	0632	0715	S16	E90	02	1.1	2		9	9	E	LEAR		Flare Associated
25	LPS	0815E	1533D	S13	E90	02	1.1			9	9	E	SVTO	6471	
25	EPL	0830	1045	S14	E90	02	1.1	2				V	KHAR		

ACTIVE PROMINENCES AND FILAMENTS

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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	0840	0945	N35	W90	01	18.2	1				V	KHAR		
25	ADF	0937E	1533D	S06	E28	01	27.5	1	11	9	9	E	SVTO	6466	
25	ADF	0942	1045	S30	E60	01	30.1	1				V	KHAR		
25	DSD	1033E	1533D	S21	E36	01	28.2		06	9	9	E	SVTO	6462	
25	LPS	1139E	2100D	S16	E90	02	1.3			9	9	E	RAMY		
25	AFS	1223E	1844D	N26	E09	01	26.2		02	9	8	E	RAMY	6464	
25	DSD	1240E	1337	N24	W49	01	21.7		06	9	9	E	RAMY	6458	
25	ADF	1247E	2100D	S19	E23	01	27.3	2	12	9	9	E	RAMY	6462	
25	LPS	1420E	2318D	S16	E90	02	1.4			9	9	E	HOLL	6471	
25	ADF	1424E	1815D	S13	E29	01	27.8	1	06	9	9	E	HOLL	6466	
25	SSB	1427		390	W61	01	17.6			0	0	E	HOLL		
25	AFS	1610E	2336D	N09	E17	01	26.9		02	9	9	E	HOLL	6465	
25	APR	1818E	0338D	N37	W90	01	18.5			9	9	E	PALE		
25	ASR	1818E	0338D	S16	E90	02	1.6			9	9	E	PALE	6471	
25	DSD	1902E	0338D	N22	W47	01	22.2		03	9	9	E	PALE	6458	
25	ADF	1902E	0338D	S05	W28	01	23.7	1	11	7	8	E	PALE	6459	
25	DSD	1902E	0338D	S21	E15	01	26.9		03	9	9	E	PALE	6462	
25	ADF	2018E	2336D	S13	E54	01	29.9	1	17	9	9	E	HOLL	6469	
25	ADF	2019E	2336D	S17	E45	01	29.3	1	07	9	9	E	HOLL	6469	
25	ADF	2109E	2336D	S13	E26	01	27.8	1	05	9	9	E	HOLL	6466	
25	AFS	2225E	0338D	N09	E15	01	27.0		03	9	9	E	PALE	6465	
25	DSD	2225E	0338D	N26	E05	01	26.3		04	9	9	E	PALE	6464	
25	ADF	2225E	0338D	S05	E20	01	27.4		06	9	9	E	PALE	6466	
25	AFS	2230E	0338D	S10	W72	01	20.5		02	9	9	E	PALE	6470	
25	ADF	2230E	0338D	S13	E40	01	28.9	1	08	9	9	E	PALE	6469	
25	APR	2257E	2336D	N36	W90	01	18.7	1		9	9	E	HOLL		
25	AFS	2300E	2336D	N24	E04	01	26.3		04	9	9	E	HOLL	6464	
25	AFS	2305E	2336D	S16	E22	01	27.6		03	9	9	E	HOLL	6462	
25	BSD	2310E	2336D	S14	E81	02	1.1		03	9	9	E	HOLL	6471	
25	DSD	2320E	1032D	N26	E05	01	26.4		04	9	9	E	LEAR	6464	
25	AFS	2321E	1032D	N25	E03	01	26.2		03	9	9	E	LEAR	6464	
25	AFS	2330E	1032D	N09	E14	01	27.0		03	9	9	E	LEAR	6465	
25	ADF	2335E	1032D	S06	E21	01	27.5		05	9	9	E	LEAR	6466	
25	AFS	2340E	1032D	S17	E13	01	27.0		03	9	9	E	LEAR	6462	
26	APR	0037E	0230D	N35	W90	01	18.8	1				C	VORO		
26	ADF	0226E	0259D	N22	E23	01	27.9	2				C	VORO		
26	AFS	0745E	1125D	S18	E08	01	26.9		02	7	9	E	SVTO	6462	
26	AFS	0746E	1125D	S09	E18	01	27.7		03	9	9	E	SVTO	6466	
26	AFS	0747E	1125D	N25	E00	01	26.3		02	9	9	E	SVTO	6464	
26	ADF	0750E	1125D	S18	W20	01	24.8	2	11	7	9	E	SVTO	6468	
26	SSB	0755		255	W00	01	30.4			0	0	E	SVTO		323 W04
26	ASR	0820E	1032D	S05	W87	01	19.8			9	9	E	LEAR	6470	
26	ADF	1133E	1632D	S23	E19	01	27.9	1	05	9	9	E	RAMY	6462	
26	ASR	1208E	1534D	S17	E90	02	2.3			9	9	E	RAMY	6471	
26	ADF	1210E	1723D	S12	E41	01	29.6	1	04	9	9	E	RAMY	6469	
26	AFS	1335E	2118D	N11	E29	01	28.7		03	9	9	E	RAMY	6472	
26	SDF	1429E	1920D	S44	E79	02	2.1		34	0	0	E	HOLL		
26	AFS	1530E	2118D	S20	W31	01	24.3		02	9	9	E	RAMY	6468	
26	AFS	1531E	2118D	S11	E43	01	29.9		02	9	9	E	RAMY		
26	ADF	1554E	0003D	S14	E17	01	27.9	2	07	9	9	E	HOLL	6466	
26	DSD	1615E	2321D	N12	E26	01	28.6		02	9	9	E	HOLL		
26	APR	1615E	2321D	N36	W90	01	19.4	1		9	9	E	HOLL		
26	ADF	1618E	2321D	S17	W25	01	24.8	1	13	9	9	E	HOLL	6468	
26	SDF	1624E	2321D	S43	E89	02	3.0		52	0	0	E	HOLL		
26	ADF	1639E	2036D	S30	E39	01	29.8	2	52	9	9	E	RAMY		
26	ASR	1648E	2118D	S18	E90	02	2.5			9	9	E	RAMY		
26	AFS	1656E	2118D	S07	E13	01	27.7		02	9	9	E	RAMY	6466	
26	AFS	1703E	2118D	N25	W03	01	26.5		02	8	8	E	RAMY	6464	
26	AFS	1704E	2118D	S13	E71	02	1.1		03	9	9	E	RAMY	6471	
26	DSD	1818E	0357D	S06	W44	01	23.5		04	9	9	E	PALE	6459	
26	AFS	1818E	0357D	S08	E14	01	27.8		05	9	9	E	PALE	6466	
26	ADF	1818E	0357D	S22	E11	01	27.6		08	9	9	E	PALE	6462	
26	AFS	1828E	0357D	S09	E71	02	1.1		05	9	9	E	PALE	6471	
26	ADF	1828E	0357D	S21	W37	01	23.9		06	9	9	E	PALE	6468	
26	ADF	1828E	0357D	S21	W48	01	23.1	1	06	9	9	E	PALE	6467	
26	AFS	1831E	0357D	N13	E27	01	28.8		03	9	9	E	PALE		
26	BSL	2306E	2319	S17	E90	02	2.8			9	9	E	LEAR	6471	
26	ASR	2316E	0357D	S10	E90	02	2.7			9	7	E	PALE		
26	AFS	2326E	1052D	S17	E01	01	27.0		03	9	9	E	LEAR	6462	

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Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
26	AFS	2327E	1052D	S08	E14	01	28.0		03	9	9	E	LEAR	6466	
26	ASR	2328E	0456D	S05	E90	02	2.7			9	9	E	LEAR	6471	
26	AFS	2328E	1052D	S10	E71	02	1.3		06	9	9	E	LEAR	6471	
26	DSD	2328E	1052D	S12	E72	02	1.4		04	9	9	E	LEAR	6471	
26	DSD	2329E	1052D	N10	E00	01	27.0		03	9	9	E	LEAR	6465	
26	SSB	2345		324	W13	01	25.2			0	0	E	HOLL		357 W46
27	ADF	0014E	0118	N13	E25	01	28.9	1				C	VORO		
27	ADF	0040	0300D	N27	E13	01	28.0	1				C	VORO		
27	DSD	0212E	1052D	S16	E08	01	27.7		03	9	9	E	LEAR	6462	
27	DSD	0213E	1052D	N23	W08	01	26.5		02	9	9	E	LEAR	6464	
27	AFS	0214E	1052D	N12	E23	01	28.8		03	9	9	E	LEAR	6472	
27	AFS	0215E	1052D	S13	E27	01	29.1		03	9	9	E	LEAR	6469	
27	ADF	0300E	1052D	S17	E13	01	28.1	2	06	9	9	E	LEAR	6462	
27	ASR	0456E	1052D	S12	E86	02	2.7			9	9	E	LEAR		
27	AFS	0545E	1052D	S10	E36	01	29.9		02	9	9	E	LEAR		
27	ADF	1129E	1828D	S15	E07	01	28.0	2	05	9	9	E	RAMY	6462	
27	ADF	1136E	2103D	S10	E62	02	1.1	2	03	9	9	E	RAMY	6471	
27	ASR	1220E	1703D	S12	E90	02	3.3			9	9	E	RAMY		
27	LPS	1450	1819D	S13	E58	02	1.0			9	9	E	RAMY	6471	Flare Associated
27	ADF	1658E	1819D	S17	W57	01	23.4	1	07	9	9	E	RAMY	6467	
27	LPS	1805E	1822D	S13	E60	02	1.3			9	9	E	HOLL		
27	DSD	1852E	2327D	S09	E03	01	28.0		02	9	9	E	HOLL	6466	
27	SSB	2057		322	W23	01	26.2			0	0	E	HOLL		363 W64
27	ADF	2328E	1054D	S17	E02	01	28.1	1	05	9	9	E	LEAR	6462	
27	AFS	2329E	1054D	S09	E00	01	28.0		03	9	9	E	LEAR	6466	
27	DSD	2329E	1054D	S11	E01	01	28.0		02	9	9	E	LEAR	6466	
27	AFS	2330E	1054D	N10	W15	01	26.8		03	9	9	E	LEAR	6465	
27	AFS	2330E	1054D	S11	E25	01	29.9		02	9	9	E	LEAR	6474	
27	AFS	2330E	1054D	S11	E52	01	31.9		04	9	9	E	LEAR	6471	
27	DSD	2331E	1054D	N12	E08	01	28.6		02	9	9	E	LEAR	6472	
27	AFS	2331E	1054D	N13	E07	01	28.5		03	9	9	E	LEAR	6472	
28	APR	0014E	0300D	S27	W90	01	21.0	1				C	VORO		
28	APR	0022E	0300D	S29	E90	02	4.1	1				C	VORO		
28	ADF	0045	0259D	N22	W07	01	27.5	1				C	VORO		
28	BSL	0151	0252	N17	E90	02	3.9	1				C	VORO		
28	BSL	0155	0252D	N10	E90	02	3.8	1				C	VORO		
28	ASR	0235E	1054D	N19	E84	02	3.5			9	9	E	LEAR		
28	DSD	0820E	1054D	S13	E51	02	1.2		02	9	9	E	LEAR	6471	
28	DSD	0957	1005	S16	W16	01	27.2	1				V	KHAR		
28	DSD	1133E	1420D	S12	W02	01	28.3		02	9	9	E	RAMY	6466	
28	AFS	1134E	2146D	S12	E47	02	1.0		03	9	9	E	RAMY	6471	
28	AFS	1153E	2146D	S12	E12	01	29.4		02	9	9	E	RAMY	6469	
28	ASR	1157E	2136D	N19	E82	02	3.7			9	9	E	RAMY		
28	AFS	1159E	2146D	N12	E02	01	28.6		02	9	9	E	RAMY	6472	
28	DSD	1212E	1604D	N26	W27	01	26.4		03	9	9	E	RAMY	6464	
28	AFS	1213E	2146D	N16	W73	01	23.0		02	9	9	E	RAMY		
28	SSB	1219		321	W31	01	26.8			0	0	E	RAMY		
28	ADF	1511E	2147D	N18	W75	01	22.9	1	05	8	8	E	HOLL		
28	ADF	1512E	1818D	N33	E61	02	2.5	1	04	9	9	E	HOLL		
28	ADF	1526E	0020D	S20	W65	01	23.7	1	04	9	9	E	HOLL	6467	
28	DSD	1548E	1826D	S12	E04	01	28.9		03	9	9	E	HOLL	6469	
28	DSD	1630E	1751D	S11	W05	01	28.3		04	9	9	E	HOLL	6466	Flare Associated
28	DSD	1635E	2136D	S10	W06	01	28.2		05	9	9	E	RAMY	6466	Flare Associated
28	SSB	1806		320	W33	01	27.2			0	0	E	HOLL		
28	AFS	1828E	2147D	S40	E01	01	28.8		02	7	7	E	HOLL		
28	ADF	1835E	2147D	S16	E80	02	3.8	1	11	9	9	E	HOLL		
28	AFS	2125E	0345D	S12	E06	01	29.3		03	9	9	E	PALE	6469	
28	AFS	2125E	0345D	S12	E44	02	1.2		03	9	9	E	PALE	6471	
28	DSD	2125E	0345D	S18	W21	01	27.3		02	9	9	E	PALE	6462	
28	AFS	2130E	0345D	N09	W27	01	26.9		03	9	9	E	PALE	6465	
28	AFS	2130E	0345D	N12	W03	01	28.7		03	9	9	E	PALE	6472	
29	ADF	0000E	0301D	N52	E26	01	31.2	1				C	VORO		
29	APR	0110E	0302D	N23	W90	01	22.1	1				C	VORO		
29	ADF	0143E	1055D	S11	E41	02	1.1	1	09	9	9	E	LEAR	6471	
29	AFS	0737E	0946D	S14	E00	01	29.3		03	9	9	E	SVTO	6469	
29	SSB	0738		315	W35	01	28.1			0	0	E	SVTO		
29	SDF	1055E	2220D	S23	E63	02	3.3		27	0	0	E	LEAR		

ACTIVE PROMINENCES AND FILAMENTS

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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	DSD	1333E	2150D	N20	E67	02	3.7		04	9	9	E	RAMY	6476	
29	ADF	1336E	1801D	S10	E32	02	1.0	2	08	9	9	E	RAMY	6471	
29	AFS	1336E	2150D	S12	E34	02	1.1		03	9	9	E	RAMY	6471	
29	AFS	1340E	2150D	S15	W05	01	29.2		03	9	9	E	RAMY	6469	
29	ADF	1344E	2150D	S16	W29	01	27.4	2	08	9	9	E	RAMY	6462	
29	ADF	1347E	1804D	S17	W73	01	24.0	2	11	9	9	E	RAMY	6468	
29	AFS	1532E	2227D	S13	W10	01	28.9		03	9	9	E	HOLL	6469	
29	ADF	1535E	1950D	S17	W27	01	27.6	1	06	9	9	E	HOLL	6462	
29	AFS	1537E	2227D	S11	E33	02	1.1		03	9	9	E	HOLL	6471	
29	DSD	1537E	2227D	S14	E33	02	1.1		04	9	9	E	HOLL	6471	
29	SSB	1540		320	W44	01	28.0			0	0	E	HOLL		363 W87
29	AFS	1725E	0410D	S11	E35	02	1.3		03	9	9	E	PALE	6471	
29	AFS	1725E	0410D	S13	W13	01	28.7		03	9	9	E	PALE	6469	
29	DSD	1725E	0410D	S14	E35	02	1.4		04	9	9	E	PALE	6471	
29	AFS	1734E	0410D	N19	E61	02	3.4		02	9	9	E	PALE	6476	
29	DSD	1734E	0410D	N20	E60	02	3.3		03	9	9	E	PALE	6476	
29	DSD	1735E	0410D	S14	W11	01	28.9		04	9	9	E	PALE	6469	Flare Associated
29	SSB	1905		315	W42	01	28.6			0	0	E	PALE		
29	SDF	1955E	2225D	S30	E57	02	3.3		33	0	0	E	HOLL		
29	ADF	2009E	2227D	S13	W34	01	27.3	1	06	9	9	E	HOLL	6462	
29	SDF	2055E	2200D	S33	E60	02	3.6		31	0	0	E	PALE		
29	ADF	2102E	2227D	N16	E53	02	2.9	2	07	9	9	E	HOLL	6476	Flare Associated
29	EPL	2204E	2219D	S36	E90	02	6.1			9	9	E	PALE		
29	AFS	2210E	0410D	N06	E65	02	3.8		02	9	9	E	PALE	6479	
29	ADF	2255E	0410D	N23	E49	02	2.7		16	9	9	E	PALE	6476	
29	ADF	2255E	0410D	S17	W30	01	27.7		09	9	9	E	PALE	6462	
29	ADF	2303E	1053D	S19	W27	01	27.9	1	15	9	9	E	LEAR	6462	
29	ADF	2304E	1053D	S17	W26	01	28.0	1	08	9	9	E	LEAR	6462	
29	ADF	2305E	1053D	S15	W11	01	29.1	1	05	9	9	E	LEAR	6469	
29	AFS	2310E	1053D	S10	E28	02	1.1		03	9	9	E	LEAR	6471	
29	DSD	2310E	1053D	S11	E23	01	31.7		02	9	9	E	LEAR	6471	
29	AFS	2311E	1053D	N07	W43	01	26.7		02	9	9	E	LEAR	6465	
29	AFS	2312E	1053D	S16	W14	01	28.9		03	9	9	E	LEAR	6469	
30	ADF	0104E	0259D	S57	E35	02	2.1	1				C	VORO		
30	APR	0104E	0300D	N01	W90	01	23.3	1				C	VORO		
30	AFS	0245E	0410D	N12	W19	01	28.7		03	9	9	E	PALE	6472	
30	SDF	0345E	2020D	S35	E80	02	5.5		36	0	0	E	PALE		
30	SSB	0744		317	W50	01	28.9			0	0	E	SVTO		
30	AFS	0836E	1434D	S09	E22	02	1.0		03	9	9	E	SVTO	6471	
30	ADF	0930E	1434D	S07	W36	01	27.7	1	09	8	8	E	SVTO	6466	
30	DSD	0935E	0938D	N22	E58	02	3.8		07	9	9	E	SVTO	6476	
30	ADF	1149E	1150D	S14	E46	02	3.0	1	08	9	9	E	RAMY	6478	
30	DSD	1157E	1915D	N24	E62	02	4.3		05	9	9	E	RAMY	6476	
30	AFS	1157E	1923D	N19	E45	02	2.9		02	9	9	E	RAMY	6476	
30	AFS	1344E	1924D	N12	E20	02	1.1		03	9	9	E	RAMY	6471	
30	ASR	1347E	1919D	S12	W90	01	23.8			9	9	E	RAMY	6468	
30	DSD	1349E	1921D	S11	W35	01	27.9		04	9	9	E	RAMY	6466	
30	ADF	1355E	2201D	S12	W37	01	27.8	1	18	9	9	E	RAMY	6462	
30	SSB	1407		277	W14	02	5.4			0	0	E	RAMY		311 W48 321 W58
30	ADF	1500E	0022D	S21	W35	01	27.9	1	15	9	9	E	HOLL	6462	
30	ADF	1514E	2359D	N22	E41	02	2.8	1	10	9	9	E	HOLL	6476	
30	SSB	1540		276	W14	02	5.4			0	0	E	HOLL		313 W51
30	AFS	1915E	0310D	S19	W38	01	27.9		01	9	9	E	PALE	6462	
30	DSD	1924E	2120D	S13	E13	01	31.8		05	9	9	E	RAMY	6471	
30	ASR	1931E	0310D	S15	W81	01	24.7			9	9	E	PALE	6468	
30	DSD	1950E	0310D	N22	E41	02	3.0		02	9	9	E	PALE	6476	
30	AFS	1951E	0310D	N21	E50	02	3.7		03	9	9	E	PALE	6476	
30	AFS	1959E	0310D	S11	E20	02	1.3		02	9	9	E	PALE	6471	
30	SDF	2007E	1728D	N28	E44	02	3.3		06	0	0	E	PALE	6476	
31	SSB	1305		257	W07	02	4.8			0	0	E	SVTO		
31	AFS	1307E	1440D	N19	E29	02	2.7		02	9	9	E	RAMY	6476	
31	DSD	1310E	1440D	N10	W38	01	28.7		03	8	8	E	RAMY	6472	
31	AFS	1312E	1440D	S13	E08	02	1.1		03	9	9	E	RAMY	6471	
31	SSB	1335		259	W09	02	5.0			0	0	E	RAMY		320 W70
31	ADF	1401E	1440D	S11	W27	01	29.5		19	9	9	E	RAMY	6469	
31	AFS	1401E	1440D	S14	W37	01	28.8		03	9	9	E	RAMY	6469	
31	AFS	1430E	1530D	S16	W37	01	28.8		03	9	9	E	SVTO	6469	
31	ADF	1430E	1530D	S18	W35	01	28.9	1	10	9	9	E	SVTO	6469	

ACTIVE PROMINENCES AND FILAMENTS

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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		1439E	1710D	S11	W39	01	28.7	1	12	9	9	E	HOLL	6469	
31	SSB	1444		260	W10	02	5.1			0	0	E	HOLL		319 W69
31	ASR	1753E	0027D	S09	E90	02	7.5			9	9	E	PALE		
31	AFS	1817E	0027D	N09	W63	01	27.0		04	9	9	E	PALE	6465	
31	ADF	1817E	0027D	S08	W57	01	27.5		09	9	9	E	PALE	6466	
31	DSD	1817E	0027D	S17	W65	01	26.8		05	9	9	E	PALE	6462	
31	MDP	1914E	2143D	S09	E90	02	7.5			9	9	E	HOLL		
31	DSD	1944E	0027D	N10	W42	01	28.7		02	9	9	E	PALE	6472	
31	ADF	1944E	0027D	N19	E35	02	3.5	1	07	9	9	E	PALE	6476	
31	ADF	1944E	0027D	S12	W43	01	28.6		06	9	9	E	PALE	6469	
31	DSD	1944E	0027D	S13	E06	02	1.3		03	9	9	E	PALE	6471	

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.

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excerpted from "A Summary of Major Solar Proton Events" by M.A. Shea and D.F. Smart, published in Solar Physics, 127, pp 297-320, 1990.

Editor's Note: Excerpted from Solar Physics, 127, 1990.
Please refer to the article for more details.

A SUMMARY OF MAJOR SOLAR PROTON EVENTS*

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(Received 5 June, 1989; in revised form 29 January, 1990)

Abstract. Solar proton events have been routinely detected by satellites since the 20th solar cycle; however, before that time only very major proton events were detected at the Earth. Even though the detection thresholds differed between the 19th and more recent cycles, more than 200 solar proton events with a flux of over 10 particles $(cm^2\ s\ ster)^{-1}$ above 10 MeV have been recorded at the Earth in the last three solar cycles. At least 15% of these events had protons with energies greater than 450 MeV detected at the Earth. Other than an increase in solar proton event occurrence with increasing solar cycle, no recognizable pattern could be identified between the occurrence of solar proton events and the solar cycle. The knowledge we have gained from the data acquired over the past 40 years illustrates the difficulty in extrapolating back in time to infer the number and intensity of major solar proton events at the Earth.

1. Introduction

The fact that the Sun can accelerate particles with sufficient energy to penetrate to the Earth's atmosphere has been known for approximately 40 years. These solar particle events have been referred to by a number of descriptive names such as solar cosmic ray events, solar proton events, ground-level events, polar cap absorption events, and solar electron events. Each of these names was associated with a particular detection technique. Cosmic-ray sensors on the Earth, specifically ionization chambers, recorded the first observed energetic solar flare particle outbursts and, hence, the name solar cosmic-ray event was derived. When balloon borne cosmic-ray detectors observed particle events not detected at the Earth's surface, the name solar proton event was introduced to distinguish between those solar proton events detected at ground level (GLE) and those observed only near the top of the atmosphere. Beginning in the 1950's the Earth's polar ionosphere was shown to respond to solar flare protons with energies from about 1 to 50 MeV, and the term polar cap absorption (PCA) events was extended to include solar proton events. Spacecraft measurements, many orders of magnitude more sensitive than Earth-based measurements, allow determination of the composition of solar particle events, and the term solar electron event was introduced after 1965 to distinguish the species of particles present.

To analyze and summarize the solar proton events over the past three solar cycles, it is necessary to understand solar particle propagation in the interplanetary medium. Since the techniques for detecting solar protons at the Earth have changed over this time period it is also necessary to describe each of the techniques and the methods we used to assemble a list of solar proton events that is as homogeneous as possible.

Solar Physics **127**: 297–320, 1990.

TABLE I

Solar proton events for solar cycles 19, 20, and 21

Year	Onset		Maximum		Peak		> 10 MeV		> 10 MeV		> 30 MeV		Comments
	Mo	Day	Mo	Day	db	Ref.	Peak flux	Ref.	Fluence	Ref.	Fluence	Ref.	
1955	1	16	–	–	2	a							
1956	2	23	2	23	13	a			1.8E + 09	b	1.0E + 09	b	GLE
1956	3	10	3	11	3.5	a					1.1E + 08	b	
1956	8	31	9	1	4.9	a			8.0E + 07	c	2.5E + 07	b	GLE
1956	11	13	11	14	5.4	a			4.0E + 08	c*	1.0E + 08	b	
1957	1	20	1	21	4.1	a			1.6E + 09	c*	3.0E + 08	b	
1957	4	3	4	4	3.9	a			2.4E + 08	c*	5.0E + 07	b	
1957	4	6	4	6	3.2	a					3.8E + 07	b	
1957	5	19	–	–	1	a							
1957	6	22	6	24	5.0	a			7.3E + 08	c*	1.5E + 08	b	
1957	7	3	7	3	9.2	a			1.4E + 08	c*	2.0E + 07	b	
1957	7	24	7	25	2	a					7.5E + 06	b	
1957	8	9	8	10	3.1	a					1.5E + 06	b	
1957	8	29	8	29	3.2	a						b	
1957	8	29	8	30	9.0	a			∫ 1.1E + 09	c*	∫ 1.2E + 08	b	
1957	8	31	9	1	4.9	a			3.9E + 08	c*	8.0E + 07	b	
1957	9	2	9	3	7.2	a			2.6E + 08	c*	5.0E + 07	b	Note 1
1957	9	21	9	22	5.1	a						b	
1957	9	26	9	26	2	a					∫ 1.5E + 06	b	
1957	10	20	10	21	7.8	a			1.7E + 08	c*	5.0E + 07	b	
1957	11	5	11	5	2.6	a					9.0E + 06	b	
1958	2	10	2	10	3.2	a					5.0E + 06	b	
1958	3	23	3	25	3.2	a				b	2.5E + 06	b	
1958	3	25	3	26	10	a			∫ 2.0E + 09	b	6.0E + 08	b	
1958	4	10	4	10	4.4	a					5.0E + 06	b	
1958	7	7	7	8	23.7	a			1.8E + 09	b	2.5E + 08	b	
1958	7	29	7	29	1.5	a					8.5E + 06	b	
1958	8	16	8	16	> 15	a			4.0E + 08	b	4.0E + 07	b	
1958	8	21	8	22	3	a			∫	b			
1958	8	22	8	23	10.6	a			∫ 8.0E + 08	b	7.0E + 07	b	
1958	8	26	8	26	> 13	a			1.5E + 09	b	1.1E + 08	b	
1958	9	22	9	23	5.0	a			9.0E + 07	b	6.0E + 06	b	
1959	2	13	2	13	2.6	a			1.2E + 08	c*	2.8E + 07	b	
1959	5	10	5	12	> 17	a			5.5E + 09	b	9.6E + 08	b	
1959	6	13	–	–	1.5	a			4.5E + 08	c*	8.5E + 07	b	
1959	7	10	7	11	20	d			4.5E + 09	b	1.0E + 09	b	
1959	7	14	7	15	23.7	d			7.5E + 09	b	1.3E + 09	b	
1959	7	16	7	17	21.2	d			3.3E + 09	b	9.1E + 08	b	GLE
1959	8	18	–	–	~1	a					1.8E + 06	b	
1960	1	12	–	–	~2	a					4.0E + 05	b	
1960	3	30	3	31	5.5	a					6.0E + 06	b	
1960	4	1	4	1	3	a			1.5E + 07	b	5.0E + 06	b	
1960	4	5	4	5	3.1	a			1.4E + 07	b	1.1E + 06	b	
1960	4	28	4	28	3	a			∫	b	5.0E + 06	b	
1960	4	29	4	30	14	a			∫ 1.3E + 07	b	7.0E + 06	b	
1960	5	4	5	4	5	a			∫	b	6.0E + 06	b	GLE
1960	5	6	5	8	> 15	a			∫ 1.2E + 07	b	4.0E + 06	b	

Table I (continued)

Year	Onset		Maximum		Peak		> 10 MeV		> 10 MeV		> 30 MeV		Comments
	Mo	Day	Mo	Day	db	Ref.	Peak flux	Ref.	Fluence	Ref.	Fluence	Ref.	
1960	5	13	5	13	4.5	a			1.5E + 07	b	4.0E + 06	b	
1960	9	3	9	4	2.7	a			9.0E + 07	b	3.5E + 07	b	GLE
1960	9	26	–	–	~2	a			2.0E + 07	b	2.0E + 06	b	
1960	11	12	11	13	21.2	a			3.2E + 10	b	9.0E + 09	b	GLE, Note 2
1960	11	15	11	15	> 20	a			2.5E + 09	b	7.2E + 08	b	GLE, Note 2
1960	11	21	11	21	5	a			1.4E + 08	b	4.5E + 07	b	GLE, Note 2
1961	7	11	7	12	~1	a			1.7E + 07	b	3.0E + 06	b	
1961	7	12	7	13	17	a			5.0E + 08	b	4.0E + 07	b	
1961	7	18	7	18	11	a			1.0E + 09	b	3.0E + 08	b	GLE
1961	7	20	7	21	5	a			1.5E + 07	b	5.0E + 06	b	GLE
1961	9	7	9	7	1	a			∫	b	∫	b	
1961	9	10	9	11	6.5	a			5.0E + 07	b	3.0E + 06	b	
1961	9	28	9	30	3.3	a			5.0E + 07	b	6.0E + 06	b	
1961	11	10	11	10	1.5	a			3.0E + 07	b			
1962	2	1	2	2	2.8	a							
1963	2	9	2	10	2.4	a							
1963	9	21	9	21	4	a			5.0E + 07	b			
1963	9	26	9	26	4.6	a			2.9E + 08	c*	6.0E + 07	c	
1965	2	5	2	6	1.3	a			1.6E + 07	b	2.5E + 06	b	
1966	3	24	3	24	1.6	a			1.1E + 07	b	8.7E + 05	b	
1966	7	7	7	7	2.1	a			6.4E + 07	b	3.0E + 06	b	GLE
1966	8	28	–	–	4.0	a			∫	b	∫	b	
1966	9	2	9	2	14.0	a			1.0E + 09	b	1.1E + 07	b	
1966	9	14	9	15	1.2	a							
1967	1	28	1	28	7.0	a			∫	b	∫	b	GLE, Note 3
1967	2	2	2	3	2.6	a			1.1E + 09	b	1.6E + 07	b	
1967	3	11	3	12	1.6	a			1.6E + 07	b	2.8E + 06	b	
1967	5	23	5	25	11.0	a	1015	f	∫	b	∫	b	
1967	5	28	5	28	4.1	a	115	f	7.8E + 08	b	5.8E + 07	b	
1967	6	6	6	7	1.8	a	20	e	2.4E + 07	b	1.4E + 07	b	
1967	12	3	12	3	1.8	a	31	f	2.5E + 07	b	1.0E + 07	b	
1968	6	9	6	10	6.5	a	354	f	2.9E + 08	b	1.4E + 07	b	
1968	7	9	7	11	1.1	a	10	e	∫	b	∫	b	
1968	7	12	7	13	3.0	a	54	e	4.7E + 07	b	9.9E + 06	b	
1968	9	28	9	28	1.2	a	10	e	∫	b	∫	b	
1968	9	29	9	29	1.7	a	32	f	∫	b	∫	b	GLE
1968	10	4	10	4	1.6	a	36	f	7.4E + 07	b	2.1E + 07	b	
1968	10	31	10	31	5.5	a	133	f	∫	b	∫	b	
1968	11	1	11	2	4	a	152	f	∫	b	∫	b	
1968	11	4	11	4	1.6	a	20	e	2.1E + 08	b	2.2E + 07	b	
1968	11	18	11	18	12.5	a	849	f	1.0E + 09	b	2.1E + 08	b	GLE
1968	12	3	12	6	4.7	a	152	f	2.3E + 08	b	4.2E + 07	b	
1969	2	25	2	25	2.1	a	88	f	∫	b	∫	b	GLE
1969	2	26	2	26	1.3	a	14	e	∫	b	∫	b	
1969	2	27	2	27	1.3	a	28	f	∫	b	∫	b	
1969	2	28	2	28	1.1	a	10	e	7.6 + 07	b	2.9E + 07	b	
1969	3	30	3	30	1.4	a	26	f	7.8E + 07	b	3.8E + 07	b	GLE
1969	4	11	4	13	> 16	a	1375	f	2.2E + 09	b	2.1E + 08	b	

Table I (continued)

Year	Onset		Maximum		Peak		> 10 MeV		> 10 MeV		> 30 MeV		Comments
	Mo	Day	Mo	Day	db	Ref.	Peak flux	Ref.	Fluence	Ref.	Fluence	Ref.	
1969	5	13	5	15	1.2	a	15	e					
1969	6	7	6	8	1.4	a	25	e					
1969	9	25	9	25	0.7	a	15	e	$\int$	b	$\int$	b	
1969	9	27	9	28	1.7	a	11	e	$\int$ 1.8E+07	b	$\int$ 4.1E+06	b	
1969	11	2	11	2	13	a	1317	f	6.4E+08	b	2.1E+08	b	
1970	1	31	2	1	1.9	g	24	f	2.8E+07	b	9.9E+07	b	
1970	3	6	3	7	1	g	13	e	$\int$	b	$\int$	b	
1970	3	6	3	8	3.8	h	93	f	$\int$ 6.8E+07	b	$\int$ 4.5E+07	b	
1970	3	29	3	29	1.8	h	66	f	9.4E+07		3.9E+07	b	
1970	5	30	5	30	1.3	g	18	e	1.4E+07	b	3.5E+06	b	
1970	6	26	6	26	1.5	g	12	g					
1970	7	24	7	25	4.5	h	206	f	3.6E+07	b	4.0E+06	b	
1970	8	13	8	16	3.0	h	183	f	1.9E+08	b	1.4E+07	b	
1970	11	5	11	6	2.5	g	42	f	6.6E+07	b	8.5E+06	b	
1971	1	24	1	25	14.5	h	1171	f	1.5E+09	b	3.5E+08	b	GLE
1971	4	6	4	6	2.2	g	51	f	3.2E+07	b	6.8E+06	b	
1971	5	16	5	16	1.3	h	12	e	1.4E+07	b	9.9E+06	b	
1971	9	1	9	2	5.2	h	352	f	3.9E+08	b	1.8E+08	b	GLE
1972	1	20	1	20	2	g	21	g					
1972	4	17	4	18	1.4	g	15	e	$\int$	b	$\int$	b	
1972	4	18	4	19	4.1	g	34	g	$\int$ 3.0E+07	b	$\int$ 7.8E+06	b	
1972	5	28	5	30	2.6	h	39	f	7.6E+07	b	1.5E+07	b	
1972	6	8	6	8	1	g	10	g	$\int$	b	$\int$	b	
1972	6	16	6	17	2.2	h	20	e	$\int$ 4.0E+07	b	$\int$ 1.8E+07	b	
1972	7	22	7	22	0.8	h	12	e	5.4E+07	b	2.4E+07	b	
1972	8	2	8	4	2.3/9.4	g	42/1070	g	$\int$	b	$\int$	b	Note 4
1972	8	4	8	4	>22	h	86000	f	$\int$	b	$\int$	b	GLE
1972	8	7	8	9	17	g	3500	f	$\int$ 1.1E+10	b #	$\int$ 5.0E+09	b #	GLE
1972	10	29	10	31	3.1	h	46	i	6.0E+07	b	1.5E+07	b	
1973	4	29	4	30	1.2	g	20	i	1.6E+07	b	1.1E+07	b	GLE
1973	9	7	9	7	1.2	g	13	i	1.9E+07	b	4.4E+06	b	
1974	7	3	7	4	1.6	g	42	i	$\int$	b	$\int$	b	
1974	7	4	7	5	1.3	g	23	i	$\int$	b	$\int$	b	
1974	7	5	7	5	5.2	g	329	i	$\int$	b	$\int$	b	
1974	7	6	7	6	5.3	g	95	i	$\int$ 2.4E+08	b	$\int$ 2.6E+07	b	
1974	9	11	9	12	1.2	j	42	i	$\int$	b	$\int$	b	
1974	9	13	9	15	3.0	j	107	i	$\int$	b	$\int$	b	
1974	9	19	9	20	3.0	j	127	i	$\int$	b	$\int$	b	
1974	9	23	9	25	0.9	g	11	i	$\int$ 3.3E+08	b	$\int$ 4.3E+07	b	
1974	11	5	11	5	1.8	g	40	i	1.3E+07	b	3.5E+06	b	
1975	8	22	8	22	0.6	g	11	g	6.6E+06	b	2.8E+06	b	
1976	4	30	5	1	2.7	g	180	k	1.0E+08	b	3.0E+07	b	GLE
1976	8	22	8	22	0.9	g	14	i	1.0E+07	b	2.5E+06	b	
1977	9	16	9	17	1.5	g	35	i	$\int$	b	$\int$	b	
1977	9	19	9	19	5.5	g	200	k	$\int$	b	$\int$	b	GLE
1977	9	24	9	24	2.4	g	81	i	$\int$ 4.3E+08	b	$\int$ 9.8E+06	b	GLE
1977	11	22	11	22	4.8	g	446	i	2.8E+08	b	6.3E+07	b	GLE
1978	2	13	2	14	11.8	g	1160	i	1.5E+09	b	1.3E+08	b	

Table I (continued)

Year	Onset		Maximum		Peak		> 10 MeV		> 10 MeV		> 30 MeV		Comments
	Mo	Day	Mo	Day	db	Ref.	Peak flux	Ref.	Fluence	Ref.	Fluence	Ref.	
1978	4	11	4	11	3.8	g	65	i	7.0E+07	b	1.8E+07	b	
1978	4	19	4	20	>0.7	g	13	i		b		b	
1978	4	21	4	25	0.9	g	10	i		b		b	
1978	4	28	4	29	--	g	225	i		b		b	
1978	4	29	4	30	4.8	g	307	i		b		b	
1978	4	30	4	30	14.2	g	1486	i	2.4E+09	b	2.9E+08	b	
1978	5	7	5	7	5	g	216	i	1.8E+07	b	2.0E+06	b	GLE, Note 1
1978	5	31	6	2	1.9	g	19	k	1.4E+07	l			
1978	6	22	6	24	1.8	g	36	i	5.3E+07	b	4.5E+06	b	
1978	7	10	7	13	1.6	g	20	k	3.2E+08	b	3.1E+06	b	
1978	9	23	9	24	14.2	g	2200	k	2.9E+09	b	4.4E+08	b	GLE
1978	10	9	10	10			17	i	8.6E+06	b	2.9E+06	b	
1978	11	10	11	11	1.2	g	16	i		b		b	
1978	11	11	11	11			11	i	1.8E+07	b	2.0E+06	b	
1979	2	17	2	17	0.6	g	25	i	1.6E+07	b	4.5E+06	b	
1979	4	3	4	4	2.4	g	21	i		b		b	
1979	4	4	4	5	1.9	g	23	i	2.1E+07	b	1.8E+06	b	
1979	6	6	6	7	7.6	g	549	i	2.1E+08	b	1.5E+07	b	
1979	7	6	7	7	2.4	g	19	i	2.1E+07	b	2.2E+06	b	
1979	8	19	8	20	5.4	g	500	k		b		b	
1979	8	21	8	21	5.0	g	332	i	6.0E+08	b	9.5E+07	b	GLE
1979	9	14	9	18	2.6	g	89	i	3.6E+08	b	1.2E+08	b	
1979	11	16	11	16	2.3	g	65	i	3.2E+07	b	2.7E+06	b	
1980	2	6	2	6	1.0	k	12	k	3.0E+06	b	1.1E+06	b	
1980	7	17	7	18	2.0	k	119	i	1.2E+08	b	1.2E+07	b	
1980	10	15	10	15			10	i	3.0E+07	b	4.0E+06	b	
1981	3	30	3	30			12	i	2.8E+07	b	5.6E+06	b	
1981	4	10	4	10	1.8	k	55	i	8.5E+07	b	1.9E+07	b	GLE
1981	4	24	4	24	3.2	k	224	i		b		b	
1981	4	26	4	27			91	i		b		b	
1981	4	29	4	29			88	i		b		b	
1981	4	30	4	30			82	i		b		b	
1981	5	9	5	10			57	i		b		b	
1981	5	10	5	10			220	i		b		b	GLE
1981	5	16	5	16	3.7	k	201	i	1.0E+09	b	1.4E+08	b	
1981	7	20	7	20	2.5	k	103	i		b		b	
1981	7	25	7	25			18	i	8.1E+07	b	1.2E+07	b	
1981	8	9	8	10			34	i	1.4E+07	b	1.4E+06	b	
1981	10	9	10	11	1.7	k	83	k		b		b	
1981	10	12	10	13	6.3	k	2000	k	2.1E+09	b	4.2E+08	b	GLE
1981	12	10	12	10			107	i	7.7E+07	b	5.8E+06	b	
1982	1	31	1	31			832	i		b		b	
1982	2	1	2	2			343	i	1.1E+09	b	1.8E+08	b	
1982	3	7	3	7			17	i	1.1E+07	b	2.0E+06	b	
1982	6	4	6	6			10	k		b		b	
1982	6	9	6	9			30	k	7.0E+07	b	2.3E+07	b	
1982	7	10	7	12			38	i		b		b	
1982	7	12	7	13	12.5	k	1864	i	8.4E+08	b	9.1E+07	b	

Table I (continued)

Year	Onset		Maximum		Peak		> 10 MeV		> 10 MeV		> 30 MeV		Comments
	Mo	Day	Mo	Day	db	Ref.	Peak flux	Ref.	Fluence	Ref.	Fluence	Ref.	
1982	7	22	7	23	3.0	k	256	i	1.2E+08	b	1.3E+07	b	
1982	9	4	9	6	1.0	k	19	i	1.4E+07	b	1.6E+06	b	
1982	11	22	11	22			40	k	∫	b	∫	b	
1982	11	23	11	24			82	i		b		b	
1982	11	26	11	26	3.0	k	161	i	2.5E+08	b	4.6E+07	b	GLE
1982	12	8	12	8	~10	k	1000	k	5.7E+08	b	1.2E+08	b	GLE
1982	12	17	12	18	3.7	k	130	k	∫	b	∫	b	
1982	12	19	12	20	3.0	k	85	k	1.3E+08	b	3.0E+07	b	
1982	12	25	12	27			20	i	∫	b	∫	b	
1982	12	27	12	27	4.6	k	201	i	2.1E+08	b	2.9E+07	b	
1983	2	3	2	4	3.9	k	132	i	1.0E+08	b	8.3E+06	b	
1983	6	15	6	15			18	k	2.1E+07	b	8.4E+06	b	
1984	2	16	2	16			660	k	∫	b	∫	b	GLE
1984	2	18	2	21			55	k	1.6E+08	b	4.2E+07	b	
1984	3	13	3	13			10	k	∫	b	∫	b	
1984	3	14	3	14			100	k	2.9E+07	b	7.1E+06	b	
1984	4	25	4	26	17.0	k	2500	k	1.3E+09	b	3.6E+08	b	
1984	5	24	5	24			31	k					
1984	5	31	5	31			15	k					
1985	1	22	1	22			14	k	8.7E+06	b	2.9E+06	b	
1985	4	24	4	26			160	k	2.8E+08	b	1.1E+07	b	
1985	7	9	7	9			140	k	2.3E+07	b	6.9E+06	b	
1986	2	6	2	6			100	m	∫	l	∫	l	
1986	2	7	2	7			130	k	1.0E+08	l	1.5E+07	l	
1986	2	14	2	15	2.3	k	130	k	3.1E+08	l	2.2E+07	l	
1986	3	6	3	6			21	k					
1986	5	4	5	4			16	k					

* 10 MeV fluence reported by Reedy (1977) interpolated from higher energy.

∫ Beginning of flux integration with this injection; flux integration includes this injection; end of flux integration after this injection.

Note 1: fluence includes other events too small to meet the peak flux criterion of 10 protons $(cm^2\ s\ ster)^{-1}$ at energies > 10 MeV.

Note 2: there are large differences in the estimates of the fluence in the November 1960 events. The data given by Feyman *et al.* (1989) are significantly larger than those given by Reedy (1977), McDonald (1963) or Webber (1963).

Note 3: two GLE's on 28 January, 1967.

Note 4: riometer absorption and flux before and after SC at Earth.

\# King (1974) treats August 1972 as two activity episodes.

a Shea and Smart (1977).

b Feynman *et al.* (1989).

c Reedy (1977).

d Bailey (1964).

e Unpublished solar particle flux data compilation from Shea and Smart.

f King (1974).

g Akiniyan *et al.* (1982).

h Shea and Smart (1979).

i Armstrong (1988).

j Unpublished riometer data compilation from Shea and Smart.

k *Solar-Geophysical Data*, NOAA, Nat. Geophys. Data. Cntr., Boulder, Colorado.

l Goswami *et al.* (1988).

m *Preliminary Report and Forecasts of Solar-Geophysical Data*, NOAA, SEL, Boulder, Colorado.

WORLD DATA CENTER A
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SOLAR-TERRESTRIAL PHYSICS

The ICSU Panel on WDCs has recommended that it would be appropriate courtesy to acknowledge in publications that data were obtained from the originating station or investigator through the intermediary of the WDCs. The following statement is suggested:

"Data used in this study were provided by WDC-A for Solar-Terrestrial Physics, NOAA E/GC2, 325 Broadway, Boulder Colorado 80303, USA."